

# Welcome!

## Crowchild Trail Upgrades Noise Wall Engagement Session

### During this session you will:

- Review the noise analyses results and considerations for the noise walls being implemented as part of the approved Crowchild Trail short-term plan.
- For noise walls south of the Bow River: Provide feedback on locations, texture, colour, and associated landscaping.

# Crowchild Trail Upgrades

## Noise Attenuation Study Areas



## Short-Term Approved Plan

### What We Heard

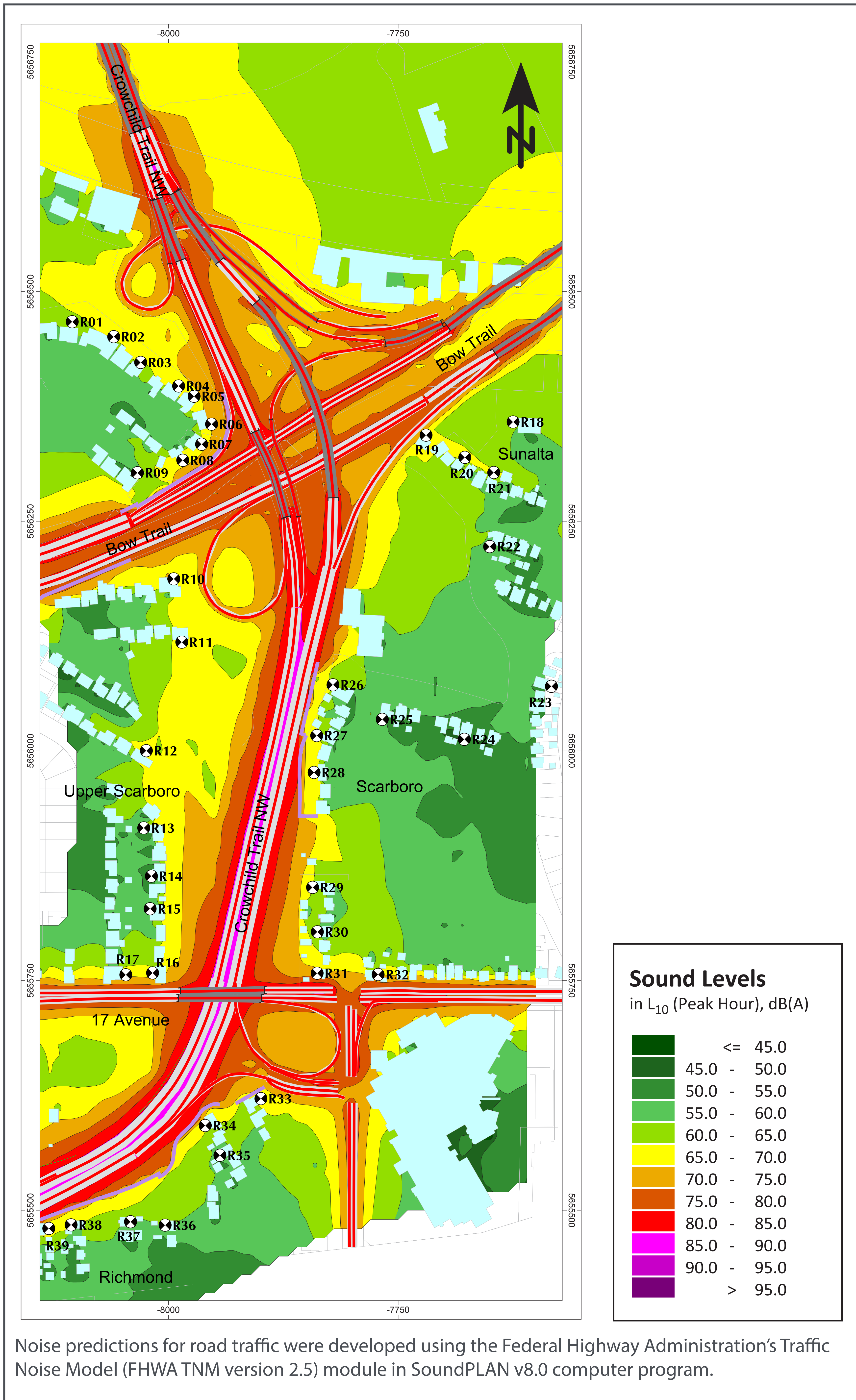
- As part of the Crowchild Trail Study, noise attenuation and enhanced green spaces along Crowchild Trail were two of the eleven goals used to evaluate concepts.
- Throughout the study we heard that noise attenuation and a visual buffer along Crowchild Trail in bordering communities were important considerations for adjacent residents.
- Locations for noise walls and additional landscaping to provide a visual buffer to Crowchild Trail from adjacent residential properties were identified and formed part of the short-term approved plan.
- While there are additional noise attenuation and enhanced landscaping medium-term recommendations that emerged from the Crowchild Trail Study, the focus of this work is the short-term approved plan only.

### Current Project

- Five locations were identified for additional noise attenuation improvements as part of the Crowchild Trail Upgrades Project (short-term approved plan).
- In the analyses of each location, the following noise wall details were considered:
  - location
  - presence of utilities
  - constructability
  - noise wall height
  - noise wall type
  - material type
  - community benefits and impacts
- Following the analyses of these considerations, 1-3 options for each location were developed and are being shared with you to gather your feedback and identify preferred options for each of the noise walls.

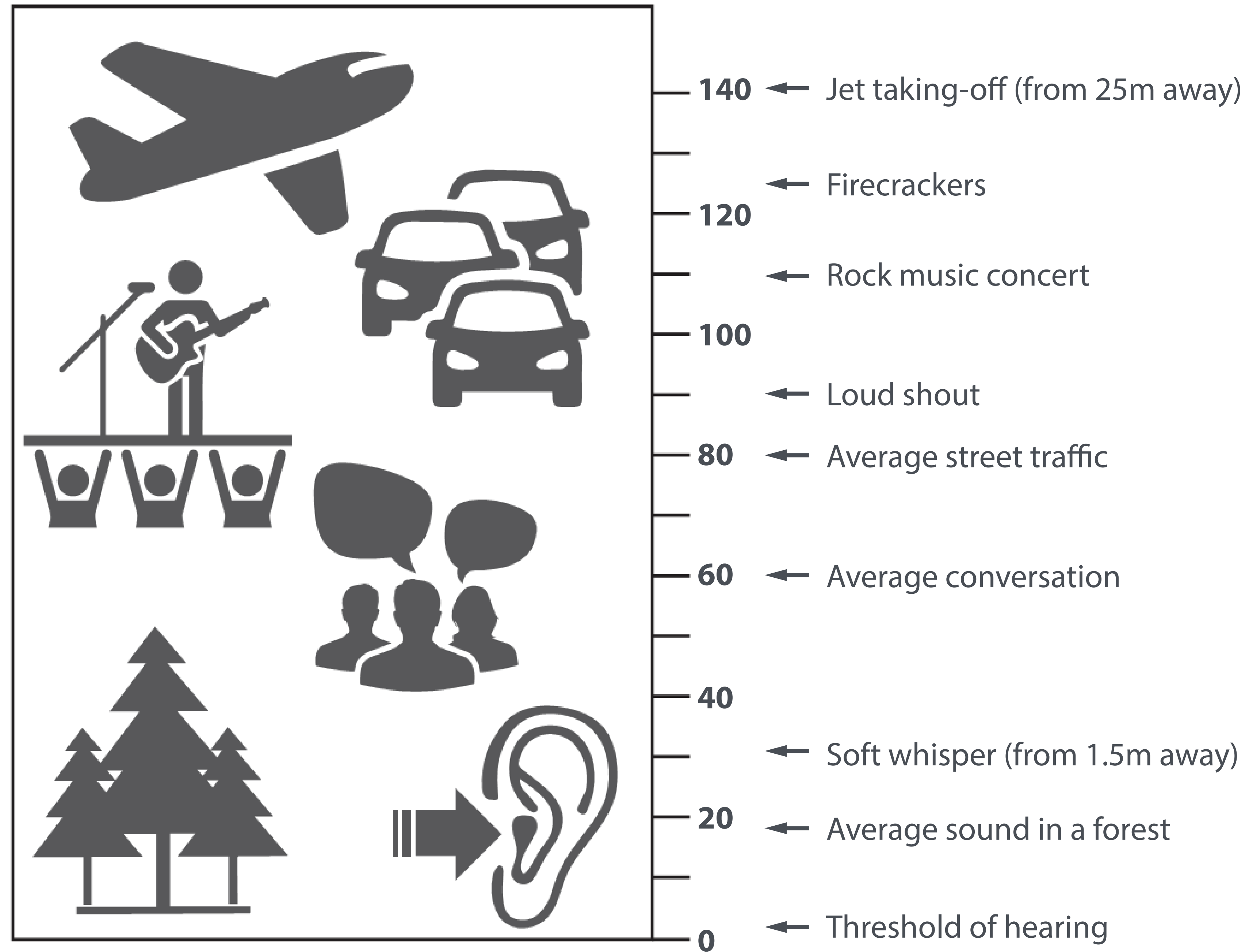


# Noise Contour Map



- The map to the left presents the predicted noise level contours, generated by future traffic volumes, with existing walls only along Crowchild Trail, for the existing first row residential properties adjacent to Crowchild Trail between north of Bow Trail and south of 17 Avenue S.W.
- Based on the traffic volumes, grades of roads, speeds and land topography, predictions are made for the noise levels that will be generated by traffic at given receiver points; then noise contours for predicted noise level  $L_{10}$  (peak hour) are plotted.
  - The  $L_{10}$  value is a measure of the noise level that is exceeded 10% of the time; it is a good measure of frequent noisy occurrences such as steady road traffic.
- Modifying some of the existing walls and adding new noise mitigation will be required to achieve The City's threshold noise level  $L_{10}$  (peak hour) of 65 decibels.

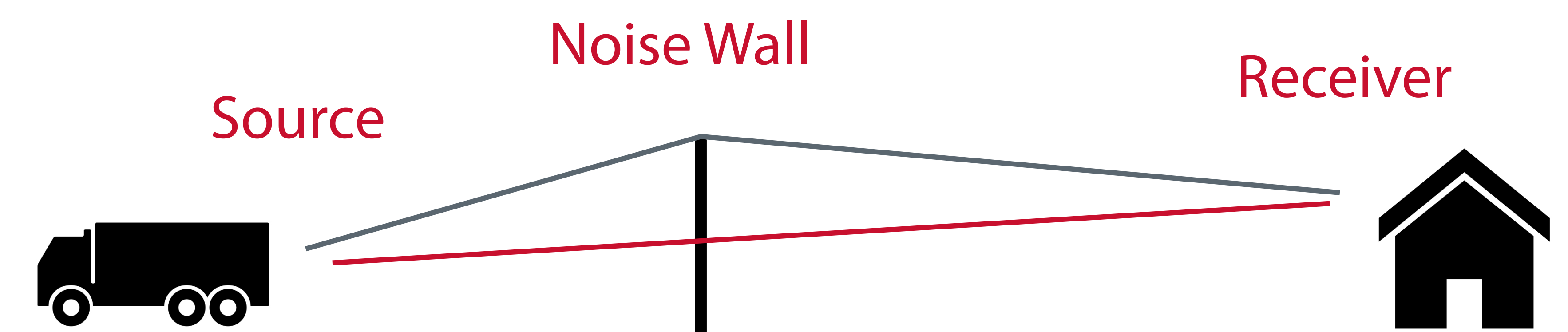
## Noise Levels in Decibels





# Noise Wall Considerations

- The City's Surface Transportation Noise Policy sets out conditions for noise wall construction adjacent to residential properties.
- Crowchild Trail is designated as a truck route with a threshold noise level L10 (peak hour) of 65 decibels, which is equivalent to the sound of a truck 15m away.
- The design of all noise walls, regardless of location, have been set to maintain noise below the target level of 65 decibels L10 peak hour.
- Noise mitigation is most effective when the wall is located closest to the source (e.g roadway )or closest to the receiver (e.g. adjacent residential properties).
  - When tall enough to break the line of sight between a roadway and the receiver, a noise wall will effectively achieve a 5 decibel noise reduction.
  - Due to the slope down from the houses to Crowchild Trail, locating the noise walls closest to Crowchild Trail requires that the walls be taller to provide appropriate noise mitigation.
- If there is landscaping, such as trees, that are taller than the height of the wall, the noise mitigation effectiveness of the wall is decreased. This requires that, in some locations, trees would have to be removed to accommodate construction, but could not be replaced in the same area.
- Absorptive materials were explored to determine if any additional noise mitigation benefits would be provided by using them.
  - Using absorptive materials is expected to provide <1 decibel decrease in noise levels. Typically, a change in noise levels less than 3 decibels will not be noticeable.





# Thank you for attending today's session!

## Next steps

- Provide your input online until April 10 at [Calgary.ca/crowchild](https://calgary.ca/crowchild)
- Following the close of the online noise wall engagement, all feedback (received in-person and online) will be reviewed. Then, based on the collected feedback, the project team will finalize which locations, textures, colours, and landscaping The City will be proceeding with for the noise walls identified south of the Bow River.
- The approved wall locations, textures, colours, and landscaping will be presented at the May 9 information session; at this session you will have a final opportunity to help the project team decide on the finishing touches (i.e. wall accents and associated landscaping) of the noise walls.
- For regular updates on this project, visit [Calgary.ca/crowchild](https://calgary.ca/crowchild) or contact **311**.