

## 2 Managing the effects of traffic noise

We understand that traffic noise can impact people's lives. That's why we're taking steps to manage these effects thoughtfully, ensuring the wellbeing of our communities. Understanding and mitigating noise is a priority for all our projects.

Acoustic specialists predict and measure noise to guide our design team. We've identified noise mitigation measures that will be put in place during construction.

### What we are doing to lessen noise impacts

- Low-noise asphalt:
  - Low-noise asphalt will be used for the entire length between Taradale Road through to south of the Tutaekuri River Bridge.
  - Low-noise asphalt has a porous structure that helps to absorb sound and improve drainage during rain, making it quieter than traditional road surfaces like chipseal.
  - Car tyres are usually the main source of traffic noise on highways due to the speed they are travelling.
  - Low-noise asphalt can reduce noise levels by more than 7 decibels compared to coarse chipseal currently used on the expressway.
  - Low-noise asphalt is also more effective than noise walls as it reduces the sound at the source. Noise walls predominantly benefit properties close to them. Homes further away benefit less as sound can travel around barriers.

- Audible rumble-strips will not be used near houses.
- Careful design of bridge joints to prevent noise from vehicles passing over uneven surfaces.

### Trees, vegetation and landscaping

Trees do not significantly reduce road-traffic noise unless planted very densely and deeply. As a general rule – if air can pass through, so can sound.

When visual barriers like trees are removed, people perceive more noise because they can see the traffic and the masking noise from rustling leaves is gone. Visual screening by trees can help reduce the perception of noise. We will look for opportunities for landscaping to visually screen road traffic.

