

Comparing the specimen and construction design

When developing the construction design for the project the effects of any changes were assessed and changes made to the mitigation where required. The table below outlines the changes and the effects of these.

	EFFECT	CHANGE	COMMENTS
Slight change to:	Visual effects/views	Length of noise bund increased from 800m to 1,490m long	The bund needed to be longer due to the change in the vertical alignment between Watkins Road and Thornton Road.
	Noise	Construction design modelling shows the noise levels at all properties were within the criteria specified in the designation conditions. At some locations noise levels reduced from the specimen design and at other locations it increased.	The change in vertical alignment altered the noise levels at some of the properties adjacent to the expressway.
	Vertical alignment	The vertical alignment between Watkins Road and Thornton Road was altered up to 5.2 m (near Soma Place/Burr Street) above the specimen design.	The change in vertical alignment was to minimise impact on ground water table level.
No change to:	Height of noise bund	Earth bund height remained at 2m	The height of the bund is designed to reduce noise to a reasonable level.
	Swayne Road to Watkins Road noise mitigation	Noise mitigation was not required over this length.	The Noise standard NZS 6806 only applies to buildings that existed in August 2011. Any buildings constructed after that date have to incorporate noise mitigation into the building design and/or be built further away from the Expressway alignment.