

# MINO-517 road surface query

10 November 2022

Providing the Minister's Office with information about road surface and materials.

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## Waka Kotahi NZ Transport Agency:

- Over the past 10 to 20 years, there have been no official changes requirement to road thickness and materials being used on the state highway network.
- Asphaltic concrete types of surface are used on a growing portion of urban and peri-urban roads and interregional road freight routes because of their durability.
- The Asphaltic concrete types are thicker than chipseals. Asphaltic concrete is typically 25-40mm compared to chipseals, which may only be 10mm thick.
- In rural areas, new surfaces are laid on top of the prior surface, which is different with towns, where some of the thickness of old surface is removed before the new surface is laid so that it matches the height of adjacent drainage channels without any bump that might be unsafe for any vehicle or impede pedestrians, particularly the mobility impaired when crossing the road.
- When road pavements must be replaced in urban areas, and where the traffic loads from busses or freight are significant and will grow, e.g. on bus routes or approaches to ports or rail heads, it may be that the only practical type of pavement is a structural pavement. This is because this can be built quickly with less traffic disruption and provide sufficient extra strength while allowing the road surface to match the adjacent stormwater channels without bumps. Whereas in rural areas it may be reasonable to raise the road surface when rebuilding a pavement using thicker pavement layers to provide strength for increased traffic load.
- When selecting the type of road surface and pavement type for any site, we are taking into considerations the following:
  - how strong they must be to carry the traffic load in the future
  - the requirements of the site and topography
  - the future requirements for maintenance and resurfacing over the life of a pavement,
  - the impact the construction
  - subsequent maintenance and renewal works have on neighbouring properties and traffic; and
  - the long term costs of construction, maintenance and renewal.
- In summary, road surfaces and pavements are becoming thicker and stronger because they are quieter, smoother, carry greater load and are quicker.