

23 July 2021

s 9(2)(a)

REF: OIA-8373

Dear s 9(2)
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Request made under the Official Information Act 1982

Thank you for your e-mail of 27 June 2021 requesting information under the Official Information Act 1982 (the Act). Your request has been numbered for ease of reference.

Asphalt roads vs chipseal roads.

1. *What is the cost difference, initial cost and lifetime?*
2. *What is the safety difference?*
3. *I cycle in Christchurch and drive on the motorway. Asphalt is superior to travel on, so why isn't it used more?*
4. *Chipseal leads to spills and punctures on my bicycle so is inherently less safe. What are the death and injury [statistics] due to the wide use?*

1. What is the cost difference, initial cost and lifetime?

Resurfacing costs vary across New Zealand; however, the below rates provide a good approximation for cost.

Single coat chip seals cost between \$4.60 and \$6.60, with an average cost of \$5.70 per m².

Two-coat chip seals cost between \$7.60 and \$8.50, with an average cost of \$8.08 per m².

Thin asphalt (SMA, stone mastic asphalt) seals cost between \$35 and \$48, with an average cost of \$41 per m².

The lifetime of any road seal is dependent on traffic volumes and substrate conditions. Chip seal has an approximate lifespan of 8 years, while SMA has an approximate lifespan of 12 years.

2. What is the safety difference?

Typically, chip seal surfaces are safer for road users, as the texture of the surface provides greater skid resistance. This texture improves surface grip and reduces the length of time it takes to stop when braking in an emergency. The chip seal also improves the waterproofing abilities of the road surface, preserving the foundation and preventing ruts from forming.

3. *I cycle in Christchurch and drive on the motorway. Asphalt is superior to travel on, so why isn't it used more?*

As Waka Kotahi is the road controlling authority for the state highway network, and local councils are the road controlling authorities for local road networks, I am only able to comment on the choice of surfacing material for the state highway network.

When selecting a surface material for state highway pavements, Waka Kotahi considers several factors including road user safety, surface durability, corridor environment, the ease of constructing the surface, and the economic cost.

Typically, chip seal surfaces are used as they are safer for road users, readily constructible and have a lower cost. Where it is appropriate and justifiable, thin asphalt mixes can be used for pavement surfacing. The selection of asphalt mixes is influenced by the need for pavement smoothing and improvement in ride, high traffic volumes and stresses, and the higher cost of asphalt mixes. Consequently, for safety and budgetary reasons, chip seal surfaces are more commonly used.

4. *Chipseal leads to spills and punctures on my bicycle so is inherently less safe. What are the death and injury [statistics] due to the wide use?*

The Crash Analysis System (CAS) used by Waka Kotahi NZ Transport Agency, records whether an accident occurs on a sealed or unsealed road but does not record the type of seal. Therefore, I am refusing this part of your request under section 18(e) of the Act, as the document alleged to contain the information does not exist, or despite reasonable efforts to locate it, cannot be found.

In relation to your comments about spills and punctures for bicycles on chipseal surfaces, Waka Kotahi considers these factors and has published our pavement specifications for cycling routes at the following link:

www.nzta.govt.nz/assets/resources/pavement-specification-guidelines-for-cycleways/Pavement-specification-guidelines-for-cycling-routes.pdf

Under section 28 of the Act, you have the right to ask the Ombudsman to review my decision to partially refuse this request. The contact details for the Ombudsman can be located at www.ombudsman.parliament.nz.

In accordance with Waka Kotahi policy, this response will be published on our external website shortly.

If you would like to discuss this reply with Waka Kotahi, please contact Ministerial Services by e-mail to official.correspondence@nzta.govt.nz.

Yours sincerely



Maurice Marquardt

Acting National Manager, Programme and Standards