

**Before Kaipara District Council**

**In the Matter** of the Resource Management Act 1991 (**RMA**)

**And**

**In the Matter** of an application for Private Plan Change 82  
(**PPC82**) by **MOONLIGHT HEIGHTS LIMITED** to  
rezone 39.2 ha of land at Awakino Road,  
Dargaville from Rural Zone to Residential Zone

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**Evidence of Nathaniel Jull on behalf of Moonlight Heights Limited in Support of  
Right of Reply**

**(Civil Engineering – Three Waters)**

**Dated 15 September 2023**

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## **Awakino Road Upgrade Rules – Costing**

1. My name is Nathaniel Jull. I have qualifications and experience as set out in my Evidence in Chief (EiC) dated 21 July 2023. As per my EiC, I confirm that I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023 and I agree to comply with it.
2. The Applicant has prepared revised precinct provisions (**Reply Provisions**) following the hearing on 9 and 10 August. The Reply Provisions include amendments with respect to transport matters. I have provided input into those transport related amendments, taking account of:
  - a. Those matters addressed during the hearing;
  - b. The proposed shared pathways option 1 plan circulated by Counsel for Kaipara District Council;
  - c. Further consideration of the environment surrounding the subject site and discussion with Mr Kelly.
3. This statement also takes account of the transport related comments in the post hearing memorandum dated 11 September 2023 from the reporting planner, to the extent that these are relevant to the matters I have considered in consultation with Mr Kelly. I note there are no direct civil engineering matters identified in that memorandum which remain in contention.
4. The rationale behind the transport related changes to the Reply Provisions have been addressed by Mr Kelly and Ms McGrath.
5. Mr Kelly's evidence in support of the right of reply summarises the remaining area of disagreement. Mr Kelly records his understanding that Council officers seek a footpath extending from the northernmost point of the precinct to the southernmost access point onto Awakino Road, at which point a shared path would then extend to Kauri Court. He also notes that potentially Council may be seeking urbanisation of Awakino Road where a

shared path is installed, thereby extending beyond 10 m south of Paratai Place to Kauri Court.

6. The Awakino Road Upgrade Rules impose significant costs on the development of the Awakino Precinct to meet subdivision criteria and mitigate potential effects. To inform the Applicant's position on these provisions, I completed a high-level cost estimate of potential work packages triggered by these rules. The high-level cost estimate is included as a table in **Attachment A**.
7. My assessment in Attachment A:
  - a. Calculates the approximate costs of works on a 'package' basis, reflecting the potential for staging works;
  - b. Identifies as a separate item the approximate cost of a shared path extending from the southernmost access point onto Awakino Road to Kauri Court;
  - c. Includes the approximate cost of urbanisation of Awakino Road from 10 m south of Paratai Place to Kauri Court as part of the cost of the shared path.
8. I estimate that the approximate cost to upgrade Awakino Road to meet the proposed rules' performance criteria (as proposed by the Applicant in the Reply Provisions) is in the order of \$1.68 million.
9. In addition to the cost above, I estimate the cost of a SUP and urbanisation of Awakino Road from 10m South of Paratai Place to Kauri Court to be in the order of \$1.17 million. This would result in a total of approximately \$2.85 million in upgrades to Awakino Road.
10. The cost estimates were developed by creating a scaled drawing model of Awakino Road and devising a concept design aligned with the proposed provisions. Various work items were quantified (e.g., length of kerb, area of footpath, traffic management, etc.), and rates derived from similar projects in Northland and Auckland were applied to estimate costs.

11. In addition to the Awakino Road Upgrades, I completed a similar exercise to estimate the order of cost for the following Local Water and Wastewater Network Upgrades, which are potentially required to enable full build-out of the Awakino Precinct:
  - a. Awakino Road Water Main Upgrade estimated at \$340,000.
  - b. New Wastewater Alignment to WWTP estimated at \$1.05 million.
12. All the works identified above will provide wider benefits to areas outside the precinct.
13. As outlined above, there are substantial costs associated with upgrading infrastructure outside the Awakino Precinct, in addition to internal subdivision works and Development Contributions.
14. Therefore, in my opinion, the inclusion of a provision requiring a shared path extending from the southernmost access point onto Awakino Road to Kauri Court should only be considered if it is deemed necessary to mitigate effects generated by the development.

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**Nathaniel Jull**

Dated 15 / 09 / 2023

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**Attachment A**

**Awakino Road Upgrades Order of Cost Estimate**

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**Attachment A – Awakino Road Upgrades Order of Cost Estimate**

<b>Potential Work Package</b>	<b>High-Level Cost Estimate (excluding GST)</b>	<b>Assumptions</b>
<p><u>Northern Loop Rd Connection</u></p> <p>Form first (Northern) ‘primary loop road’ connection intersection with Awakino Road including urbanisation to 25m south of intersection and connect pedestrian facilities (from subdivision to western footpath) with a supporting standard crossing.</p>	\$270k	Road layout as per precinct plan. Subdivision results in no more than 150 Lots in Precinct. Northwestern area of Precinct developed first.
<p><u>Urbanisation North to ‘northern access road’ Connection</u></p> <p>Urbanise Awakino Road between where the ‘northern access road’ and (Northern) ‘primary loop road’ intersect (including eastern footpath).</p>	\$250k	Road layout as per precinct plan. Subdivision results in no more than 150 Lots in Precinct. Northwestern area of Precinct developed first. Work package above complete.
<p><u>Urbanisation South to Paritai Place</u></p> <p>Urbanise Awakino Road between the (Northern) ‘primary loop road’ intersection and 10m south of Paritai Place (including eastern footpath).</p>	\$940k	Road layout as per precinct plan. Subdivision results in more than 150 Lots in Precinct. Eastern area of Precinct developed second. Work packages above complete.
<p><u>Southern Loop Rd Connection</u></p> <p>Form second (Southern) ‘primary loop road’ connection intersection with Awakino Road including primary standard pedestrian crossing.</p>	\$220k	Road layout as per precinct plan. Subdivision results in more than 150 Lots in Precinct. Southern area of Precinct is developed last. Work packages above complete.
<p><u>Shared User Path to Kauri Ct</u></p> <p>Urbanisation of Awakino Road from 10 m south of Paratai Place to Kauri Court and construction of a shared user path on the eastern side of Awakino Road from the (Southern) ‘primary loop road’ intersection to Kauri Ct including a primary crossing adjacent to Kauri Court.</p>	\$1.17M	Built last assuming all work packages above complete.
<b>Total:</b>	<b>\$2.85M</b>	

## Attachment A – Awakino Road Upgrades Order of Cost Estimate

### Key Assumptions/Points

- Assumes work packages are completed as part of a larger civil contract for subdivision. I.e., if work packages were completed as separate contracts P&G would be circa 15% additional.
- Does not allow to re-seal Awakino Rd carriageway.
- Does not allow to underground power, i.e., assumes design works around existing power poles.
- Does not allow for water quality or volume control stormwater management. (Assumed not required as SUP is low contaminant yielding and urbanisation does not introduce additional imperviousness other than SUP/footpath. Plus, Awakino Rd is technically outside the precinct so not subject to stormwater management provisions).
- Estimates includes a 6% design/consulting allowance.