IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of an application to Kapiti Coast District Council for non-complying resource consent for a proposed 53 lot subdivision¹ (including earthworks and infrastructure) at Otaihanga, Kapiti Coast.

STATEMENT OF EVIDENCE OF NICHOLAS HILTON TAYLOR ON BEHALF OF THE APPLICANT

1. INTRODUCTION

Qualifications

- 1.1 My full name is Nicholas Hilton Taylor. I hold a Bachelor of Surveying with Distinction from the University of Otago and am a Registered Professional Surveyor and Licensed Cadastral Surveyor.
- 1.2 I am a Member of Consulting Surveyors New Zealand, and I am a member Survey and Spatial New Zealand/Tātai Whenua (S+SNZ) and currently Chair of the S+SNZ Wellington Branch.

Experience

1.3 I am a Director of Cuttriss Consultants Ltd (Cuttriss), a multi-disciplined consultancy specialising in land development and infrastructure works. I have over 10 years' professional experience in subdivision and civil engineering projects and have been nominated as developer's representative and suitably qualified person in respect to civil engineering works throughout this period. I have been a Director since 2020.

 $^{^{1}}$ The original application was for a 56-lot subdivision – 49 residential lots and 7 lots infrastructure

Background

- 1.4 In 2018 Cuttriss were engaged by the Mansell family to undertake a topographical survey of the site and prepare a subdivision layout for the development. Mark Edgar, a former Director of Cuttriss, completed the initial design before retiring in March 2020. Since then, I have been involved in the design of the subdivision layout, the civil engineering infrastructure assessment, civil engineering design including earthworks, land negotiations with neighbours including facilitating a subdivision of the underlying land and surrender of underlying easements, and advice on property title matters. Specifically, this has involved:
 - (a) Assistance with development concept design, preparing proposed lot boundaries, roading layout, earthworks and servicing design;
 - (b) Site topographical survey in July 2019 and various site inspections and walkovers;
 - Supervision of percolation testing to confirm the site is suited to on-site stormwater disposal;
 - (d) Consultation with the Kāpiti Coast District Council (KCDC) Roading, Parks, Stormwater, Water and Wastewater teams, Greater Wellington Regional Council (GWRC), Owners of 115, 140, 177 & 181 Otaihanga Road, The Property Group (TPG) & WSP (both acting for Waka Kotahi);
 - (e) Authored my Engineering Infrastructure Report, as to the effects of the application;
 - (f) Facilitating land swap agreement and resource consent to consolidate land to which this application relates;
 - (g) Participated in the following external meetings:
 - (i) 12 October 2020 Meeting with KCDC Infrastructure and Roading teams regarding servicing and roading;
 - (ii) 10 February 2021 Meeting with WSP & TPG regarding Waka Kotahi/NZTA acquisition and disposal;

- (iii) 24 February 2021 Meeting with KCDC Infrastructure and Roading teams regarding Tieko Street, development layout and infrastructure;
- (iv) 03 March 2021 Formal pre-application meeting with KCDC;
- (v) 03 March 2021 Formal pre-application meeting with GWRC;
- (vi) 21 May 2021 Meeting with KCDC Senior Leadership team regarding development agreement;
- (vii) 24 June 2021 Site meeting with KCDC Roading team regarding Tieko Street upgrades;
- (viii) 01 October 2021 Meeting with Wilson & Deborah Lattey regarding land swap and approvals;
- (ix) 09 November 2021 Meeting with KCDC Roading team to discuss Tieko Street works, shared path, construction traffic and recreation reserve; and
- (x) 15 November 2021 Meeting with KCDC
 Infrastructure and Stormwater teams to discuss servicing, stormwater and development agreement.
- (h) Assisted the Applicant to obtain resource consent from GWRC, including preparation of Preliminary Erosion and Sediment Control plans, and review of consent conditions;
- Assisted the Applicant to respond to Further Information Requests by KCDC including providing advice relating to the shared path location and grade, earthworks design, construction costs and effects, property title matters including consent notices, and provided revised scheme plans; and
- Assisted the Applicant to prepare draft consent conditions, offered without prejudice to KCDC.
- 1.5 I confirm that I have read the briefs of Dave Compton-Moen, Craig Martell, Nick Goldwater, Cameron Wylie, Chris Hansen, Chris

Greenshields and Harriet Fraser to which I will cross-refer as necessary. However, my evidence will focus on my area of expertise, subdivision layout and civil engineering design including earthworks and roading.

2. CODE OF CONDUCT

2.1 Although not necessary in respect of council hearings, I can confirm I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence and I agree to comply with it while giving oral evidence before the hearing committee. Except where I state that I am relying on the evidence of another person, this written evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

3. EXECUTIVE SUMMARY

- 3.1 My evidence demonstrates that the existing water, wastewater, telecommunications and electricity networks have the capacity to service the proposed subdivision, and that the proposed water supply and wastewater disposal solutions meet the requirements of KCDC's Subdivision and Development Principles and Requirements 2012 (SDPR).
- 3.2 My evidence demonstrates that the proposed road design is appropriate and meets the requirements of the SDPR.
- 3.3 I have considered construction effects, including erosion and sediment runoff, and am of the opinion that these can be managed appropriately through conditions of consent to ensure the effects of the development are no more than minor.
- 3.4 I have considered the amendments made to the subdivision layout following requests for further information, as well as the concerns raised by submitters, and can confirm that I am still of the opinion that there are no constraints with the existing infrastructure networks that would preclude the issue of resource consent for this proposal, and with the proposed conditions the effects on infrastructure are no more than minor.

4. SCOPE AND STRUCTURE OF EVIDENCE

- 4.1 I have structured my evidence as follows:
 - (a) Project description;
 - (b) Summary of my report and key conclusions as to effects;
 - (c) Response to KCDC's Requests for Further Information (and revised proposal);
 - (d) Response to matters raised by submitters;
 - (e) Response to Officers' Report 42A report;
 - (f) Suggested Conditions; and
 - (g) Conclusion.

5. PROJECT DESCRIPTION

- 5.1 The proposal involves the subdivision (including earthworks and provision of infrastructure) of a 18ha² (western) portion of the Mansell Farm that has been severed by the Kapiti Expressway. The proposed Otaihanga Estates subdivision will create a total of 53 lots:
 - (a) 22 rural lifestyle lots in the northern area of the site;
 - (b) 24 residential lots adjacent to Otaihanga Road in the southern area of the site;
 - (c) 2 lots for two internal roads to be vested in KCDC or be dedicated as road;
 - (d) 2 lots for road widening along Otaihanga Road to be vested in KCDC or be dedicated as road;
 - (e) 1 lot to be vested in KCDC as a shared path linking the two internal roads;
 - (f) 1 lot to be vested in KCDC as recreation reserve with access via an existing accessway from Otaihanga Road; and

² The original application was for 17ha, but additional land has been included as a result of Waka Kotahi offering back land no longer required for the Expressway

 (g) 1 lot to be vested in KCDC as local purpose reserve (stormwater) providing for drainage and water storage (constructed wetland) adjacent to Otaihanga Road.



5.2 See below for an overview from the notified plans:

5.3 Other elements of the proposal include:

(a) The retention and protection of 4 natural inland wetlands that are to be fenced to create a 10m buffer, and margins to be

improved; notational building areas identified within the lots that include the natural inland wetlands;

- (b) The retention of mature kānuka trees and pest plant management and underplanting within the groves;
- Landscape and amenity planting to soften any change in the rural-residential character and visual effects of the proposal, particularly from Otaihanga Road;
- (d) The relocation of lizards (grass skinks) to a dedicated 1ha lizard habitat area around the northern most natural inland wetland;
- (e) The retention as much as possible of dominant dunes on the site, and the identification of 'no-build' areas, and building setback requirements, to protect these dunes;
- In cooperation with iwi, ways (including interpretative signage relating to the Dray Track) for the identify of Te Ātiawa ki
 Whakarongotai to be reflected through the development;
- (g) A pressure sewage system and wastewater system to be connected to the nearby KCDC's reticulation system servicing Otaihanga;
- (h) The creation of a constructed wetland to store stormwater and planting to filter out potential contaminants before it is released to the KCDC stormwater system;
- Stormwater from northern access road to be disposed of via swales and through under-drain bio-filtration devices prior to discharge to land;
- An overflow pipe in the Otaihanga Road reserve adjacent to the Waka Kotahi site immediately east of the southern area of the site to allow ponding on the Waka Kotahi caused by a 100-year flood event to discharge to the roadside drain;
- (k) Provision of a new intersection with a right turn bay on
 Otaihanga Road providing access to residential lots in the southern part of the site;

- Provision of walking, cycling and bridleway links to the existing Kapiti WCB;
- (m) Provision of a community park;
- (n) Animal and plant pest control;
- (o) Controls on fencing;
- (p) Controls on roofing materials for buildings in Lots 1 22; and
- (q) Lots 23 46 subject to specific yard setback requirements (of 4.5m from the road boundary, 3m rear yard, and 3m for one side and 1.5m for all other sides).
- 5.4 Although not part of the proposal requiring resource consent, a number of upgrade improvements of Tieko Street have been offered by the Applicant, as described in my evidence to follow.
- 5.5 Further details of the proposed subdivision and development are included in the Planning Evidence of Chris Hansen.

6. SUMMARY OF ENGINEERING INFRASTRUCTURE REPORT

- 6.1 My Engineering Infrastructure Report provides an assessment of the proposal against KCDC's SDPR and the GWRC Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (ESCG).
- 6.2 My Engineering Infrastructure Report also describes the evolution of the design throughout the initial stages of the project, specifically in relation to earthworks (refer Section 5.2 of my Engineering Infrastructure Report).
- 6.3 My Engineering Infrastructure Report concludes that the proposed subdivision can be adequately serviced and will meet the requirements of the SDPR.

7. KEY FINDINGS

7.1 With appropriate controls in place, the earthworks can be managed to ensure the environmental effects relating to discharge of sediment, dust and other construction effects will be no more than minor.

- (a) As described in Section 5.2 of my Engineering Infrastructure Report, the earthworks design changed significantly over the duration of the project, due in part to the National Policy Statement for Freshwater Management 2020 and Resource Management (National Environmental Standards for Freshwater) Regulations 2020, which came into effect during the preliminary stages of the project. The proposed design is more sympathetic to the existing landform than the initial concept, noting that the total cut volume was reduced by more than 50% when compared to the original concept.
- (b) The earthworks have been designed to achieve a cut/fill balance, which means no fill material will be imported to site and cut material will not be disposed of offsite. This will keep construction traffic movements to a minimum. Construction traffic effects have been discussed in Section 4.4 of the Transportation Assessment by Harriet Fraser, and Sections 3, 6, 7, 8, 9, 10, 11 and 12 of her evidence. These effects are further discussed in Section 7 below.
- (c) A compaction factor of 30% has been used to achieve the earthworks balance, meaning that the in-situ volume will reduce once the excavated material has been spread and compacted.
- (d) The proposed earthworks design has been based on parameters set by RDCL in Section 5.4 of their "Geotechnical Investigation" report submitted with the application and uses a maximum batter slope of 1V:2H.
- (e) A Preliminary Erosion and Sediment Control Plan (ESCP) was prepared for my Engineering Infrastructure Report detailing the measures and controls to be implemented to manage the effects of earthworks throughout the project duration.
- (f) This ESCP was subsequently submitted to GWRC, supporting an application for consent to undertake earthworks exceeding 3,000m² (reference WGN210352 [37804]), and the discharge of sediment-laden runoff to land/water (reference WGN210352 [37614]). The GWRC applications were reviewed on behalf of

GWRC by Gregor McLean, an erosion and sediment control specialist from Southern Skies Environmental Limited.

- (g) It is noted that the GWRC Officers report concludes that "the environmental effects relating to discharge of sediment on aquatic habitats and water quality can be appropriately managed through the recommended consent conditions, which include those recommended by Mr Mclean (sic), such that they can be considered to be no more than minor".³
- (h) I have assessed the proposed earthworks against the requirements of the SDPR and, as detailed in Section 5.4 of my Engineering Infrastructure Report finding that the proposed earthworks are compliant.
- 7.2 The existing wastewater network has sufficient capacity to meet the additional demand of the proposed development.
 - (a) As described in Section 6.1 of my Engineering Infrastructure Report, modelling completed by KCDC demonstrated that there is sufficient capacity in the wastewater network to accommodate the flows from the proposed development. In addition, the proposed low pressure sewer solution has in-built attenuation capacity which can be controlled, if necessary, to discharge during off-peak flows.
 - (b) I have undertaken extensive consultation with KCDC over the use of the pressure sewer system for this development, as it is not commonplace on the Kāpiti Coast. We are yet to receive detailed feedback on the proposed solution; however, the use of a pressure sewer solution has subsequently been approved as an acceptable solution by Sean Mallon, Group Manager Infrastructure Services for KCDC. This was confirmed via email on the 23rd November 2021.
 - (c) The pressure main will run from the southern end of the site, along the alignment of the shared path and Tieko Street extension, connecting to the existing manhole at the end of

³ GWRC Decision Report Section 5.2.

Tieko Street. This pressure main and lateral connections will vest in KCDC.

- (d) Each lot will be serviced with a boundary kit positioned within the road reserve, which will also vest in KCDC.
- (e) KCDC have confirmed it is their preference for the pipework internal to the lots including pumps and storage chambers, will be privately owned. This infrastructure will be installed following the issue of a building consent for the future dwellings. It is anticipated that a consent notice will be issued and registered on the records of title for the new lots to ensure that the systems installed are compatible with the network design, and that they comply with KCDC's requirements.
- (f) I have assessed the proposed wastewater disposal solution against the requirements of the SDPR and, as detailed in Section 6.4 of my Engineering Infrastructure Report, find that the proposed solution is compliant.
- 7.3 The existing water network has sufficient capacity to meet the additional demand of the proposed development.
 - (a) As described in Section 7.3 of my Engineering Infrastructure Report, Stantec modelling confirmed that the water network will meet the current level of service requirements and continue to meet these requirements through to the 2047 scenario without the need for network upgrades.
 - (b) Lots 1-19 will be serviced via an extension of the existing 150mmØ Tieko Street main. Service for the remaining lots will be via a looped 100mmØ connection off the existing 100mmØ main in Otaihanga Road. Each lot will be provided with a 20mmØ lateral connection to the new mains.
 - (c) I have assessed the proposed water supply solution against the requirements of the SDPR and, as detailed in Section 7.4 of my Engineering Infrastructure Report, find that the proposed solution is compliant.

- 7.4 Section 8 of my Engineering Infrastructure Report briefly discusses stormwater management. The proposed solutions have been detailed in the Awa Environmental Limited's (Awa) report "Otaihanga Road Subdivision (including bulk earthworks and infrastructure) – Flood Hazard Assessment of Effects" (Awa report), as well as the subsequent "Constructed Wetland Concept Design Memo" dated 13th September 2021.
 - (a) 7 percolation tests were completed to confirm the site is suited to on-site stormwater disposal.
 - (b) It is noted that GWRC consent has been obtained for discharge of operational water to land where it may enter water including to land within 100m of a natural wetland (reference WGN210352 [37803]. Section 5.4 of the GWRC Officers report concludes that "the effects from the ongoing discharge of operational stormwater from the development will be no more than minor provided the design measures outlined in the Awa Environmental report are implemented."
- 7.5 Section 9 of my Engineering Infrastructure Report relates to Transportation, and concludes that the proposal complies with the SDPR, noting that Harriet Fraser has prepared a detailed Transportation Assessment which assesses compliance against the provisions of the KCDC Proposed District Plan⁴, as well as NZS4404:2010.
 - (a) The initial concept had a spine road through the centre of the site, terminating in a cul-de-sac at the northern end. This was subsequently revised to avoid significant earthworks near the natural inland wetland in the centre of the site and retain remnant dune topography.
 - (b) The current roading layout provides for enhanced connectivity for pedestrians and cyclists through the site via the shared path, providing a link from the end of Tieko Street, through to Otaihanga Road.

⁴ At the time of preparing the Engineering Infrastructure Report the provisions of the Proposed District Plan 2018 (PDP) applied; the provisions of the PDP are still relevant as the resource consent application was lodged prior to the PDP becoming operative

- (c) The shared path also allows for interpretation of the local history and cultural significance of the site, with a portion of the northern end of the path crossing over the path of a dray track (refer Figure 6 of Kevin Jones' *"Revised archaeological assessment of Otaihanga Estates, Waikanae, proposed subdivision by Richard Mansell"* (dated 22 February 2021).
- I have assessed the proposed road, footpath and driveway design against the requirements of the SDPR and, as detailed in Section 9.3 of my Engineering Infrastructure Report, find that the proposed solution is compliant.
- 7.6 I have also consulted with an approved electricity network supplier Scanpower who have confirmed that while upgrades will be necessary, as is often the case for developments of this scale, each of the proposed lots can be serviced with an electricity connection.
- 7.7 Chorus have also confirmed that each of the proposed lots can be serviced with telecommunications connection.

8. **RESPONSE TO REQUESTS FOR FURTHER INFORMATION**

- 8.1 Since the application was lodged, the following information has been submitted to KCDC, including several amendments:
 - (a) The Applicant has applied to reduce the yard setbacks to 4.5m front yard setback, 3m read yard, 3m for one side yard and 1.5m for all other side yards;
 - (b) Clarification was given in relation to interests on the underlying records of title;
 - (c) Resource Consent, and subsequent 223/224(c) certifications were obtained to facilitate a subdivision to rationalise the site boundaries and ownership (reference RM210172);
 - (d) Sketch plan 22208 SK3 Rev B was provided to demonstrate how sight lines at the Tieko Street/Otaihanga Road intersection could be improved, and possible safety improvements;

- (e) Sketch plan 22208 SK5 Rev A was provided to demonstrate sight lines and intersection detail for the new intersection with Otaihanga Road, as well as the vertical alignment and cross sections through the proposed solution;
- (f) Clarification was provided on the surface treatment and gradient for the shared path and assessment against CPTED design principles;
- (g) Confirmation provided that a Construction Traffic Management Plan will be prepared prior to commencement of works;
- (h) The width of the shared path was confirmed as 2.5m, and separated from the access for Lots 20-22, with the legal boundary layout amended accordingly (22208 SCH1 Rev M Sheets 8-9);
- Passing bays were confirmed to meet the spacing and width requirements of NZS4404:2010;
- Cut/fill information was tabulated to demonstrate the scope of earthworks within proposed Lots 5-12, 20-22 and 37-46;
- (k) Suggested conditions of consent were provided to KCDC;
- Sketch plan 22208 SK4 was provided showing the proposed layout in relation to Lot 105 (Recreation Reserve);
- Sketch plan 22208 SK11 was provided showing the detailed realignment of the shared path to reduce the grade and address safety concerns from KCDC Roading team;
- (n) Sketch plan 22208 SK8 was provided demonstrating that the proposed right of way servicing Lots 20-22 has adequate provision for turning;
- (o) As an initial response to the landscape peer review:
 - (i) Two lots within the southern area were removed;
 - (ii) Pinch points were added to the roading layout; and

- (iii) A landscape area was included in the cul-de-sac head and additional planting areas added particularly to the southern area as described in Mr Compton-Moen's evidence.
- (p) An amended scheme plan set 22208 SCH1 Rev P was provided to incorporate the information shown on plans 22208 SK3, 22208 SK4, 22208 SK5, 22208 SK8 and 22208 SK11, with additional amendments to the earthworks, including cross sections and geotechnical engineering notes, and the removal of two lots and roading detail as noted in (o) above;
- (q) Sketch plan 22208 SK13 was provided to demonstrate how the landform along Otaihanga Road can be shaped to retain some of the dune character, with a further lot removed; and
- (r) An amended scheme plan set 22208 SCH1 Rev Q was prepared with amendments to the legal sheets (8 and 9) following the removal of the lot noted in (q) above, and the revised earthworks to accommodate the dune shaping. This layout is shown below:



- 8.2 The revised proposal has three less lots than initially proposed. This will reduce the demand on infrastructure; therefore, the development can still be adequately serviced and will comply with the requirements of the SDPR.
- 8.3 I do not consider it necessary to revisit the modelling completed for my Engineering Infrastructure Report as the units of demand have decreased, resulting in a decrease in demand and slightly reduced effects than described in my initial assessment.

Resource Consent RM210172

8.4 The underlying titles currently include land owned by several other parties. This is a result of historic access via a right of way which has since been severed by the Kāpiti expressway. This created isolated parcels severed from the bulk of the lot. These thin strips of land within the site are no longer used by the current land owners and are surplus to their requirements. An agreement was reached for the subdivision of this land to rationalise the boundaries, and sale of this land to the Applicant, refer to the approved scheme plan (RM210172) below:



8.5 Resource Consent RM210172 has been given effect, and the 223 and 224(c) certificates signed, however the records of title have not yet issued. I have submitted the Land Transfer plan for LINZ approval (refer

LT 570061); however, the solicitor is still waiting on one of the parties to sign legal documentation. This has been delayed as that party has been overseas and has subsequently also been ill.

8.6 I expect this to be resolved in the coming weeks and records of title issued before the Applicant can give effect to the consent for the Otaihanga Estates application, should it be approved. It will be necessary to have obtained the rationalised title prior to implementation of the subdivision.

Intersection with Otaihanga Road

8.7 The information submitted for the new intersection detail (22208 SK5 Rev A) demonstrates that the proposed intersection with Otaihanga Road can comply with requirements of Waka Kotahi/NZTA's Manual of Traffic Signs and Marking (MOTSAM).

Shared path

- 8.8 The shared path detail has been reviewed by both Harriet Fraser and DCM Urban Design for compliance with CEPTED, as well as NZS4404:2010 and Austroads. The amended design will increase the scope of the earthworks necessary to achieve a 5% grade.
- 8.9 The Applicant is proposing to seal a 30m long section of the path, adjacent to the Lot 20 entrance. This has been carefully considered in consultation with Harriet Fraser as there is a 90-degree bend at this location, which is at the bottom of a 4.2% grade. The track has also been widened around the bend.
- 8.10 The revisions required to amend the grade will result in increased earthworks at the northern end of the shared path.
- 8.11 It is not possible to meet the Austroads standards relating to grades, whilst preserving the possible dray track identified in Kevin Jones' Archaeological Assessment (dated 14 November 2019) and the topography of the hillside. As mentioned above the Applicant substantially redesigned the project to reduce the amount of earthworks associated with creating a spine road down the middle of the site in order to reduce the adverse environmental effects of the proposal.

- 8.12 The proposed shared path originally mirrors the function of the original dray track as described in Ra Higgot's Dray Report (29th January 2022), connecting the northern part of the development to the southern part.
- 8.13 I have interpreted aerial imagery referenced in Kevin Jones' report and have overlayed the possible dray track, along with another likely secondary track, onto the revised shared path layout in Figure 1:



8.14 The Applicant is proposing to retain the dune formation that extends between Lot 200 and Lot 105 and then extend this dune formation further along the southern boundary of Lots 42-44. Following the landscape peer review, consideration was given to retaining the existing dune formation within Lot 43. As shown in Figure 2 below, the main ridge of the dune (identified by the brown arrow) runs SW-NE, noting also that south of this dune is a low-lying area.



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- 8.15 When considering the retention of the natural low-lying topography, consultation was undertaken with KCDC's stormwater team regarding possible extension of the constructed wetland within Lot 200. The retention of stormwater within Lot 200 was an important aspect in the final proposed design so that private landowners would not have to manage the constructed wetland (already approved by GWRC, reference WGN210352). Rita O'Brien confirmed that KCDC did not want to increase the size of Lot 200. It was therefore decided to retain the constructed wetland design.
- 8.16 The dune extension will be 2-3m high along the southern boundary of Lots 42-44. This will utilise material unsuitable for the construction of building pads or roads and be shaped to match the existing contour of the existing dune within Lot 45. Once it is constructed this area will become a no build area, and much of it will be planted. As referenced in Section 7.16 of the evidence from Dave Compton-Moen, the proposed design means there is "now a substantial buffer of native vegetation and landform between future houses and Otaihanga Road".
- 8.17 The revised earthworks volumes and footprint are the same as the quantities initially proposed and as such, I am of the opinion that there are no additional effects generated by the proposed changes.
- 8.18 Provided the control measures outlined in the Preliminary Erosion and Sediment Control Plan are implemented, the effects will remain no more than minor.

9. RESPONSE TO SUBMITTERS

- 9.1 Submissions on this proposal have raised the following concerns relevant to:
 - (a) Subdivision layout including the shared path;
 - (b) Infrastructure;
 - (c) Earthworks including sediment/runoff control; and
 - (d) Record of Title matters.

- 9.2 **Gerard and Elizabeth Earl** (Submission Number 1) have raised concern about the use of the shared path by motorised vehicles.
 - (a) The plans lodged with the application show the shared path to utilise the same corridor as the right of way for Lots 20-22. This has subsequently been revised, and the shared path is now separate from the right of way. This reduces possible conflict between vehicles and more vulnerable users (cyclists, pedestrians etc). The proposal includes the installation of bollards at either end of the shared path to prevent vehicles from using the shared path.
 - (b) The Earl's support the metal surfacing proposed by the applicant for the majority of the shared path.
- 9.3 **Gareth Turner** (Submission Number 3) has raised concern about the existing condition of the road and drainage systems within Tieko Street.
 - (a) The existing Tieko Street carriageway is narrow and has a "pinch point" that is approximately 4m wide. This is not wide enough accommodate two cars passing within the carriageway which has led to damage to the edges of the seal, as vehicles pass via tracking over the grass berm. Formalising the one-way nature of the pinch point through signs and road marking and adding vehicle barriers to prevent the carriageway edges being further damaged will improve the life expectancy of the carriageway. Evidence from Harriet Fraser addresses the safety aspects of the proposed solution.
 - (b) It is commonplace for land development projects to include pinch points in the design of new roads, as is proposed for the southern road within the proposed development (serving Lots 20-46). This provides for traffic calming and landscaping opportunities. The proposed works to formalise the narrow section of Tieko Street are therefore a consistent design detail, as widening the street to form a two-way carriageway for the entire length would require clearance of existing vegetation and would promote higher speeds.
 - (c) Other than the pinch point noted above, the remaining length ofTieko Street is to be widened as necessary to ensure a

minimum carriageway width of 5.5m (as per NZS 4404:2010), noting that most of the existing carriageway already meets this requirement.

- (d) It is proposed to provide a separate footpath along the northern side of Tieko Street, as currently pedestrians must share the carriageway. Evidence from Harriet Fraser addresses the safety aspects of the proposed solution.
- (e) Mr Turner's submission states that there is no streetlighting. There is one streetlight adjacent to the driveway of #34 Tieko Street. I agree that the existing street lighting is insufficient and as part of the proposed works package submitted to KCDC, three further streetlights are proposed. This will improve safety for vehicles, as the streetlights will flag the Otaihanga Road intersection, as well as the pinch point. Safety for more vulnerable road users will also be improved.
- (f) Other than the kerb and channel at the Otaihanga Road intersection, the existing stormwater runoff from the carriageway is not captured via kerb and channel and does not appear to be captured and disposed of via KCDC Infrastructure. There are however several pipes within the road corridor which appear to convey water from the northern side of the road to the southern side, discharging to land.
- (g) The increase to the sealed surface as a result of the widening is 3% of the total area. The additional runoff generated will therefore be minor. Percolation test results from within the Otaihanga Estates site (refer to Section 2.1.1 of Awa's report) suggest that the soil properties are favourable for on-site disposal, should KCDC wish to improve the existing drainage in Tieko Street. Further testing and detailed design will need to be completed to confirm the most appropriate solution.
- 9.4 **Paula Keene and John Rice** (Submission Number 4) have raised sediment runoff/control and access as issues in their submission, which supports the application in full.
 - Sediment runoff and control will be managed through an Erosion and Sediment Control Plan, a preliminary version of

- (b) Careful consideration was given to the protection of the natural inland wetlands in the design of the development.
- (c) GWRC granted consent to undertake earthworks of more than 3,000m², noting that the processing officer concluded "the environmental effects relating to discharge of sediment on aquatic habitats and water quality can be appropriately managed through the recommended consent conditions, which include those recommended by Mr Mclean (sic), such that they can be considered to be no more than minor".
- (d) Mrs Keene and Mr Rice enjoy the benefit of a right of way over the Otaihanga Estates site and as such their rights of access are protected. A consent condition requiring a Construction Traffic Management Plan (CTMP) is anticipated, and it is my recommendation that a provision requiring access through the site for Mrs Keen and Mr Rice, along with other property owners that benefit from the rights of way, is included as one of the requirements of this plan. The CTMP will need to be certified by KCDC's Access and Transport Manager prior to the commencement of works.
- 9.5 **Sheryn McMurray** (Submission Number 5) has raised concerns about the construction effects, namely dust, noise and fumes, as well as concerns about drainage systems and roading.
 - (a) A consent condition requiring a Construction Management Plan
 (CMP) is anticipated, which will typically include requirements in relation to the management of construction noise and dust. The CMP will need to be certified by KCDC's Development Engineer prior to the commencement of works.
 - (b) It is anticipated that the construction methodologies utilised by a contractor will comply with the permitted activity standards of GWRC's Proposed Natural Resources Plan.
 - As noted above, modelling completed by KCDC demonstrated that there is sufficient capacity in the wastewater network, and

I am satisfied that the existing KCDC wastewater (drainage) network can accommodate the proposed development.

- 9.6 **Brent James and Leanne Morris** (Submission Number 6) have raised concerns regarding services and infrastructure and have commented on their wastewater disposal solution.
 - (a) As discussed in Sections 6.2 and 6.3 above, as well as Sections
 6.1 and 7.3 of my Engineering Infrastructure Report, there is sufficient capacity in both the water and wastewater networks to accommodate this development.
 - (b) The pumped wastewater solution proposed for this development is likely to be similar to the pumped system installed for Mr James and Mrs Morris' property. It is anticipated that consent notices will be registered on the titles of the lots to alert potential purchasers of the requirements of the system, so that they can make an informed decision before purchasing.
- 9.7 New Zealand Custodial Trustees Limited and Pendennis Custodial Trustees Limited (The Trustees) (Submission Number 7) have raised concerns about the proposed earthworks and landform modification, Tieko Street upgrades and easements.
 - (a) Following correspondence with the submitters, a cross section plan was supplied to the submitters showing the intended building platform within Lots 18 and 19, relative to the existing dwelling at 44 Tieko Street (refer Cuttriss plan 22208 SK12). This cross section demonstrates that the land within Lots 18 and 19 will be lowered by up to 5.5m to form a level building platform at RL 15.00m above mean sea level (AMSL).
 - (b) Remote measurements were taken to confirm an approximate level of the building pad within 44 Tieko Street. This has been determined at 15.70m AMSL. As such, the proposed building pads are lower than both the existing ground level, and the existing building pad within 44 Tieko Street.
 - (c) Measurements were also taken to confirm the height of vegetation along the boundary, vegetation that the applicant does not intend to remove. This vegetation reaches heights of

approximately 33.5m AMSL, noting that vegetation closer to the existing dwelling (within 44 Tieko Street) reaches heights of approximately 23.1m AMSL.

- (d) The Applicant has made a commitment to Custodial Trustee to retain the exotic shelterbelt planting where possible. Earthworks required to form the Tieko Street extension may require the removal of the stand of mature pine trees within proposed Lot 19, adjacent to the proposed road. This will need to be confirmed during detailed design and construction. Organic material (tree roots) cannot be left beneath the road surface, as this can cause the degradation of pavement in the future if roots grow or decompose creating slumping. In addition, large overhanging branches from mature trees may pose a safety risk to the public once the road is formed. New shelter belt planting in appropriate species would be undertaken if the pine trees are to be removed.
- (e) Matters relating to the upgrade and future use of Tieko Street are discussed in Section 8.3 above, also noting that on street parking is not required by NZS 4404:2010. Evidence from Harriet Fraser addresses the safety aspects of the proposed solution.
- (f) The submitters have questioned the impact of the development on their access and other rights over an existing easement area, registered over the application site. As an underlying lot forming part of the Otaihanga Estates site, Section 4 SO 469849 is subject to rights of way and rights to water supply, sewage drainage and telephone over part marked C on SO 469849 specified in Easement Certificate B377870.3. I can confirm that these rights will remain as the proposal does not impact on the use of the facilities protected by the easement, nor alter the access arrangement.
- 9.8 **Trevor and Sally Sutton** (Submission Number 8) have raised concerns about construction traffic and the proposed footpath along the northern side of Tieko Street.

- (a) As noted in Section 6.1 above, the earthworks have been designed to achieve a cut/fill balance, which will minimise truck movements as the heavy earthwork equipment will not need to come and go from site once established on site. In addition, the proposed profile of the Tieko Street extension does not include kerb and channel, so concrete truck movements via Tieko Street will be minimised. The proposed wastewater solution will not require manholes to be haunched, again reducing concrete truck movements.
- (b) The truck movements via Tieko Street, required to import aggregate and other material for the construction of the Tieko Street extension, have been provisionally calculated as 375 truck movements. This is based on a conservative provisional pavement depth of 350mm over the length of the Tieko Street extension, a 200mm total depth for the footpath, a compaction factor of 1.2m and an assumption that each truck will carry 8m³.
- (c) While earthworks and construction for the whole project are to occur over 3- 6 months, the import of roading material is likely to be over a 6–8-week period, however it is noted that this will be dependent on a number of factors, such as weather, material, equipment and labour availability, and methodology.
- (d) It is noted that other construction vehicles will be required to enter and exit the site. These will include delivery of materials such as water and wastewater pipes, telecommunications and electricity cables, water manifolds, streetlights, and construction equipment. The number and duration of movements will depend on the detailed design, construction methodology, and availability of these materials.
- (e) Regarding the impacts of construction traffic, a consent condition requiring a Construction Traffic Management Plan (CTMP) is anticipated, which will typically include requirements in relation to management of construction traffic. It is my recommendation that this plan includes provision for designated entry/exit points. The CTMP will need to be certified by KCDC's Access and Transport Manager prior to the commencement of works.

- (f) I have considered the Suttons' submission that the proposed footpath should be constructed on the eastern side of Tieko Street. I would consider Tieko Street to run east-west and therefore that the current proposal shows the footpath on the northern side of the street, and that the Suttons' submission is that the footpath should be on the southern side. I am still of the opinion that the footpath should be on the northern side, for the following reasons:
 - (i) The northern side of Tieko Street is zoned "Residential", and the southern side of Tieko Street is zoned "Rural Lifestyle Zone". Residential zoning allows for higher population densities than in the Rural Lifestyle Zone, meaning that there are more footpath users living on the northern side of Tieko Street than the southern side. If the footpath is constructed on the southern side of the street, more pedestrians will be forced to cross the live carriageway which presents an increased safety risk.
 - (ii) The existing topography on the southern side of the street undulates significantly and it would require a substantial degree of landform modification to construct a footpath on the southern side of Tieko Street. The proposed footpath on the northern side of the street will minimise disturbance to the existing landform. I confirm that I undertook scoping works to determine whether this was achievable as part of discussions with Council.
 - (iii) Preliminary analysis suggests that a natural inland wetland exists within the site adjacent to the pinch point. Constructing a footpath on the southern side of the street will likely require earthworks within 10m of the wetland, which would be a non-complying activity and therefore difficult to consent. Ultimately the option advanced was preferable.
- 9.9 **Kyle Tonks and Rhiannon Neumayr** (Submission Number 10) have raised concerns about infrastructure.

- (a) As discussed in Sections 6.2 and 6.3 above, as well as Sections
 6.1 and 7.3 of my Infrastructure Report, there is sufficient capacity in both the water and wastewater networks to accommodate this development.
- 9.10 **Jimmy Tilsley** (Submission Number 11) has raised concerns about the condition of Tieko Street.
 - (a) As noted in response to Gareth Turner's submission (8.3 above), the existing condition of Tieko Street is already a problem. This is discussed in more detail in Harriet Frasers evidence. The applicant has developed a package of works to improve the safety of Tieko Street, as part of a developer agreement with Council. Re-surfacing Tieko Street for the existing length of Tieko Street is Council's responsibility and needs to be built into KCDC's annual resurfacing program. Mr. Tilsley's concerns seem to relate to the condition of an existing KCDC asset, and how this has been managed and do not relate to the proposed subdivision but do highlight current issues.
 - (b) The supporting document attached to the submission is discussed in Section 8.11 below as this was prepared by Travis and Andrea Palmer.
- 9.11 **Travis and Andrea Palmer** (Submission Number 12) have raised concerns with the condition of Tieko Street and construction traffic.
 - (a) As noted in response to Gareth Turner's submission (8.3 above), the applicant has developed a package of works to improve the safety of Tieko Street intended as part of a developer agreement with Council. Re-surfacing Tieko Street would need to be built into KCDC's annual resurfacing program. The Palmers' concerns seem to relate to the condition of an existing KCDC asset, and do not relate to the proposed subdivision.
 - (b) The Palmers commented on Tieko Street's non-compliance with Austroads standards and NZS4404:2010. Harriet Fraser has assessed this and provided an assessment that the proposed upgrade works will improve the safety of Tieko Street

and demonstrates how the proposed solution complies with the relevant standards.

- (c) The Palmers raise concern in relation to turning at the end of Tieko Street. The proposed subdivision includes provision for a fully formed cul-de-sac head to accommodate turning at the end of the street.
- (d) The Palmers submission supports the construction of a path along Tieko Street.
- (e) The Palmers' submission also requests that streetlighting is provided. I agree that the existing streetlighting is insufficient and should have been addressed by KCDC. As part of the proposed works package intended to form part of a developer agreement with KCDC, three further streetlights are proposed. This will improve safety for vehicles, as the streetlights will flag the Otaihanga Road intersection, as well as the pinch point. Safety for more vulnerable road users (pedestrians, cyclists etc.) will also be improved. This will benefit all users.
- (f) Regarding the impacts of construction traffic, a consent condition requiring a Construction Traffic Management Plan (CTMP) is anticipated, which will typically include requirements in relation to management of construction traffic and it is my recommendation that a provision requiring any damage from construction vehicles to existing driveways be remedied, noting that a condition report needs to be carried out in advance of works proceeding as part of this plan given the existing poor condition of much to Tieko Street. The CTMP will need to be certified by KCDC's Access and Transport Manager prior to the commencement of works.
- 9.12 **Brian and Stephanie Middleton** (Submission Number 12) have raised concerns regarding construction traffic.
 - (a) As noted in Section 6.1 above, the earthworks have been designed to achieve a cut/fill balance, which will minimise truck movements as the heavy earthwork equipment will not need to come and go from site once established. In addition, the proposed profile of the Tieko Street extension does not include

kerb and channel, so concrete truck movements via Tieko Street will be minimised. The proposed wastewater solution will not require manholes to be haunched, again reducing concrete truck movements.

- (b) The truck movements via Tieko Street, required to import roading material for the construction of the Tieko Street extension, have been provisionally calculated as 375 truck movements. This is based on a conservative provisional pavement depth of 350mm over the length of the Tieko Street extension, a 200mm total depth for the footpath, a compaction factor of 1.2m and an assumption that each truck will carry 8m³.
- (c) Regarding the impacts of construction traffic, a consent condition requiring a Construction Traffic Management Plan (CTMP) is anticipated, which will typically include requirements in relation to management of construction traffic. It is my recommendation that this plan includes provision for designated entry/exit points. The CTMP will need to be certified by KCDC's Access and Transport Manager prior to the commencement of works.

10. RESPONSE TO OFFICERS REPORT

- 10.1 The Officer's Report has raised a number of issues that are within my area of expertise. I have carefully considered the points raised by the Officers and they are discussed in detail below.
- 10.2 Item 18 states that the resource consent has been sought to surrender easements. I note that the surrender of easements does not require a resource consent and that whilst the Applicant intends to surrender some of the underlying easements, this does not form part of the application. I also note that Council has issued a certificate under S243 of the Resource Management Act 1991 in relation to the surrender of underlying easements (refer RM210172).
- 10.3 Item 19 states that the "subdivision will have a minimum average lot size of 0.34ha which is less than the District Plan restricted discretionary standard for a 1ha average". It is noted that the average lot size of Lots

1-46 is 0.34ha, however the average lot size across the subdivision is 0.39ha.

- 10.4 Item 113 of The Officer's report states (page 21): "With respect to the proposed condition R4, the planting is on third party land and Council has limited jurisdiction to insist that planning is trimmed back, usually only on safety grounds. Given the condition would require involvement by a third party, it is not considered to be acceptable".
 - (a) I disagree with the Officer's statement that the planting is on third party land.
 - (b) Sheet 19 of the scheme plan 22208 SCH Rev Q shows that to achieve a 60m sight line to the north, only vegetation within the legal road reserve needs to be trimmed. It is noted that the sight line to the north is more than 60m shown on sheet 19 of the scheme plan (22208 SCH1) and, provided the vegetation is managed, is approximately 128m.
 - (c) The applicant proposed the following condition: "The consent holder will facilitate, in collaboration with KCDC's Roading Engineer, the trimming/removal of planting along Otaihanga Road at the Tieko Street intersection to meet Austroads sight line standards, prior to the completion of the subdivision and development."
 - (d) I believe the suggested condition is appropriate.
- 10.5 Item 117 of the Office's report (page 22) states the following: "The mitigation shown on the Cuttriss Consultants Limited plans detailed in paragraph 114 above_are considered critical by Council's Transport Safety Lead to mitigating the effects of the increased traffic using Tieko Street resulting from the proposal to an acceptable level while ensuring the ongoing safe and efficient operation of Tieko Street and the Tieko Street/Otaihanga Road intersection as outlined in the Statement of Evidence at Appendix C.
 - I have met with KCDC on several occasions to discuss the Tieko Street upgrade package, including a site visit with Neil Trotter and Glen O'Connor on the 24^{th of} June 2021.

- (b) Tieko Street does not currently have a footpath, despite the northern side of the road being residentially zoned.
- I disagree with the assessment that the proposed subdivision triggers the upgrade works for the following reasons:
 - (i) Table 3.2 of NZS4404:2010 sets minimum design standards for roads servicing different localities. These localities are catagorised using the number of domestic units (du) served by the road. In suburban areas, the categories are defined using 1 to 3 and 1 to 6 du, 1 to 20 du, 1 to 200 du, and up to 800 du. Separate parking provision is made when the road services more than 100 du.
 - (ii) Tieko Street currently services 31 du, and I am aware that resource consent has been obtained for further development at the end of Tieko Street to create 4 further lots. As such, Tieko Street currently falls within the "Primary access to housing" land use category, as it services more than 20 du, but less than 200. Shared parking in the movement lane is also anticipated as Tieko Street services less than 100 du.
 - (iii) The remaining land within Tieko Street has zoning and access limitations and is low lying and therefore is not well suited to further development.
 - (iv) The proposed subdivision will increase use of Tieko Street by 19 du once implemented. The accumulated number of du will therefore be 50.
 - An increase to 50 du will not trigger a different set of standards under NZS 4404:2010.
 - (vi) It is noted that although the western end of Tieko Street services lots in the Residential zone, the proposed extension to Tieko Street is in the Rural Lifestyle zone. The standards in Table 3.2 of NZS4404:2010 anticipates that for rural roads, pedestrians and cyclists will be expected to use the

shoulder and berm, and a dedicated cycle lane or footpath is not typically required.

- (vii) Given future development opportunities are limited, it is unlikely that the number of du served by Tieko Street will double. Thus, even when future demand is considered, Tieko Street is very likely to remain in the "Primary access to housing" land use category, with no requirement for on-street parking to be provided.
- (d) KCDC have been asked by residents to construct a footpath along Tieko Street for some time now. This was confirmed by Neil Trotter in a meeting on the 24th of February 2021 and is further evidenced by the submission by Travis and Andrea Palmer (submission Number 12), who provided correspondence pre-dating notification of the application.
- 10.6 Item 129 of the Officer's report suggests a requirement to define the flood hazard area on the Land Transfer plan as building and earthworks exclusion areas. Whilst I agree that the flood hazard needs to be managed, I disagree with the Officer's view that this is best managed by defining these areas on the Land Transfer plan as building and earthworks exclusion areas.
 - (a) The extent of a flood hazard can change over time as models are improved, flow patterns altered by infrastructure works (e.g., Kāpiti expressway) and network upgrades are undertaken.
 - (b) Any areas defined based on flood hazard information at a particular point in time can therefore become outdated and become overly restrictive, or not restrictive enough.
 - (c) The effects of earthworks within a ponding zone are managed by rules in the District Plan.
 - In the past KCDC have preferred to manage building in flood areas by issuing a condition (and subsequent consent notices) requiring building floor levels to be above the relevant Q100 flood hazard level at the time of the building consent

application. This has been the case even when a flood free building platform is provided.

- 10.7 Item 191 of the Officer's report (page 30) states "The current designed proposed, and the use of part of the shared path as access to proposed Lot 22, are considered to have more than minor safety effects for cyclists by Council's Roading team."
 - (a) I disagree with this assessment and a significant amount of consultation has been undertaken with the KCDC Roading team on this matter, noting that the Roading team have not responded to several written requests for comment on the proposed solution. The current proposal was put forward by the Applicant following extensive discussions with the Roading Team as a solution that Officers had indicated that they agreed in principle to in February 2022.
 - (b) The initial shared path design followed the landform as much as possible to minimise earthworks in the vicinity of the natural inland wetland, and the possible dray track identified by Kevin Jones in his Archaeological Assessment. This resulted in grades of up to 12.5%.
 - (c) Following consultation with the KCDC Roading team through the Section 92 process, the shared path was realigned to reduce the grades. Subsequent plans were submitted with the Section 92 response (refer 22208 SK11 Rev A) with a revised design to achieve a maximum grade of 5%.
 - (d) Whilst this revised design increases the scale of the earthworks, in my opinion it strikes a good balance between minimising grades as well as landform alterations. Due to the reasonably steep dune topography, any further grade reductions would result in significant batter slopes.
 - To improve sight lines, the boundary between Lot 104 and Lot
 20 has been realigned, with Lot 104 significantly wider at this corner.
 - (f) It is proposed to seal the south-eastern corner of the shared path, as this is a 90-degree corner at the bottom of a slope, with

a downhill grade of 4.2%. This is an important safety consideration for cyclists as the sealed surface will provide better turning properties and reduce maintenance requirements.

- (g) Surfacing for the remaining length of the path was carefully considered. It is noted that the paths along Otaihanga Road, and nearby Ratanui Road are not sealed, and so sealing the path would be out of character for the area, being Rural Lifestyle Zone.
- (h) The Kāpiti Coast has a significant number of "gravel" cycle paths, as evidenced by the "Kāpiti Coast Cycling Map", below:



- In Section 9.23 his evidence, Mr Trotter states "the gradients exceed 3% on the shared path and therefore it is not suitable for a compacted gravel surface".
- (j) It is noted that contours taken from KCDC's online maps show a number of unsealed cycle paths on the Kāptit Coast

significantly exceed 3%. Examples include Rutherford Drive (11%), Otaki River (10%), and the shared path running parallel to the North Island Main Trunk railway line (7%), noting that Mr Trotter references this path as part of the current transport environment in Section 3.9 of his evidence.

- (k) The submission from Gerard and Elizabeth Earl (Submission Number 1) supports the proposed metal surfacing.
- (I) Reflectors on the bollards will also improve safety for cyclists at the corner. Lighting the length of the path was considered; however, the shared path is located with the rural-residential area of the site and lighting would be out of character with the existing environment.
- (m) As above, I worked with Harrier Fraser through the design process. Harriet provided the following advice in relation to lighting: "Lighting of paths away from roads should be considered where paths heavily used in the hours of darkness. We are not expecting heavy use and would not be expecting or encouraging use when dark."
- (n) Lighting the shared path would promote use after hours, which is undesirable.
- (o) In my opinion, the design of the shared path as shown on sheets 16 and 17 of the Cuttriss scheme plan 22208 SCH1 Rev Q strikes a good balance between minimising landform modification and function of the path, and, as per point 7.20 of the evidence provided by Harriet Fraser, has been appropriately designed for the context of the site and anticipated low usage.
- (p) Whilst I believe it has been demonstrated that the proposed shared path is appropriate, in Section 9 of his evidence Mr Trotter refers to various design guide considerations relating to cycle paths. To address these concerns, the Applicant would consider installing barriers and signs to prevent cyclists from using the path, noting that this is not the preferred outcome. This will still achieve the primary function of the path which is to

provide a pedestrian connection between the two parts of the subdivision.

11. CONDITIONS

- 11.1 The total reserve contribution specified within Condition 26 has been calculated based on 41 additional lots. Following the issue of titles for the underlying subdivision (LT 570061), the site will be comprised of 7 existing titles, namely Records of Title WN52A/676, WN52A/677, WN52A/678, 842068, 1000376, 1034670 and 1001877. The total reserve contribution should therefore be calculated based on 39 additional lots, as the subdivision creates 46 lots, less the 7 existing titles. This correction should also apply to the Development Contributions calculated in the advice notes. Notwithstanding this correction, I note that the Applicant is negotiating credits as part of a private developer agreement, and the condition and advice note adjusted accordingly.
- 11.2 The total figure for Engineering Fees listed in proposed Condition 27 is calculated incorrectly and should be \$16,032, noting that the engineering fees are calculated per lot typically relate to lots capable of being built on (46 lots).
- 11.3 Condition 62 requires: "Prior to an application being lodged for section 224(c) certification, the improvements to Tieko Street shall be constructed as shown on the Final Approved Plans detailed in Condition 1 and in accordance with the final design details to be submitted to and certified in writing by the Access and Transport Manager prior to the commencement of works."
 - (a) In her evidence, Harriet Fraser states when considering the above draft condition: "As detailed throughout my evidence, I consider that the Tieko Street works are not needed in response to an effect of the development, they are needed to address existing safety and maintenance deficiencies and need to be undertaken by Council. I also note that the works will be subject to an LGA process with associated uncertainty regarding timing and design outcome. As such, I recommend that this Condition is deleted."

- (a) As discussed in my evidence above, it is intended that the Tieko
 Street works package is included as part of a private developer agreement and falls outside of the consent process.
- (b) I agree with Harriet's statement and recommend that this condition is deleted
- 11.4 Condition 63 requires: "The access roads and shared path connecting the two access roads serving the development to be vested to Council as road shall be constructed in accordance with Final Approved Plans detailed in Condition 1 and in accordance with the final design details to be submitted to and certified in writing to the Access and Transport Manager prior to the commencement of works."
 - (a) This condition contradicts the requirements of Condition 7 which requires Lot 104 (the shared path) to "be vested in Council as Local Purpose Reserve (shared path)".
 - (b) In my opinion the reference to road vesting should be removed and replaced with reference to lot numbers for the road and shared path.
 - (c) To appropriately manage the effects related to the shared path, I believe the condition should require "construction of the shared path shall be in accordance with the detail shown on sheets 16 and 17 of the scheme plan 22208 SCH1 Rev Q", noting that this detail has been supported by the evidence supplied by Harriet Fraser and the CEPTED Assessment completed by DCM Urban Design Limited (dated 17 February 2022).
- 11.5 Condition 67 requires: "street lighting columns and Luminaire shall be provided to service the development roads, **Tieko Street** *improvements, the shared path connecting the two development roads*".
 - I agree that street lighting should be provided for the new roads and Tieko Street improvements, however, disagree with the requirement to provide street lighting for the shared path.

- (b) The CEPTED completed by DCM Urban Design Limited considers the need for lighting. This concludes "Although no lighting is proposed, I consider this an appropriate design response for this environment and the nature of the SUP." Chris Greenhough's urban design and CEPTED evidence further confirms that this lighting of the shared path is inappropriate.
- (c) The evidence provided by Harriet Fraser does not support lighting the shared path.
- (d) As discussed in my evidence above, it is intended that the street lighting along Tieko Street is included in a separate works package as part of a private developer agreement and falls outside of the consent process. As such, I do not believe the condition above should include reference to lighting along Tieko Street.
- In my opinion the requirement to provide street lighting columns for Tieko Street and the shared path (bold text in 10.3 above) should be removed.
- 11.6 I agree with the remaining conditions.

12. CONCLUSION

- 12.1 I have considered the effects on infrastructure, having taken into account the amendments made following requests for further information, as well as the concerns raised by submitters, and am of the opinion that there are no infrastructure constraints that would preclude the issue of resource consent for this proposal and that the infrastructure effects are no more than minor.
- 12.2 I have considered construction effects, including erosion and sediment runoff, and am of the opinion that these can be managed appropriately through conditions of consent to ensure the effects of the development are no more than minor
- 12.3 I have considered the standards defined in Table 3.2 of NZS4404:2010 and am of the opinion that, based on these standards, the proposal does not trigger the upgrade of Tieko Street. The Applicant developed a works

package in conjunction with Council in the context of a private developer agreement, and these works fall outside of the consent process.

12.4 I recommend that consent is granted, subject to appropriate conditions advanced by the Applicant.

1m/h

Nicholas Hilton Taylor 20 July 2020.