From:	Paterson, Lee
To:	Elisabeth Boyle
Subject:	RE: LUC-2023-36 - Official peer review for geotech report for 12 Annie Street, Osborne
Date:	Friday, 20 December 2024 01:15:45 p.m.
Attachments:	image001.png image002.png

Hello Elisabeth

We are happy that professional advice has been engaged
Our advice is that the proposed works on his property will be acceptable provided the guidance of the Geotechnical Specialist is followed

The proposal does not address the previous issues raised regarding work done beyond the property boundary.

Ngā mihi

Lee Paterson
Principal Geotechnical Engineer
Chief Drone Pilot (CAA 102)

Email: lee.paterson@stantec.com
Direct: +64 3 4743973
Mobile: +64 27 5039515

From: Elisabeth Boyle <Elisabeth.Boyle@dcc.govt.nz>
Sent: Friday, November 29, 2024 5:07 PM
To: Paterson, Lee <Lee.Paterson@stantec.com>
Subject: RE: LUC-2023-36 - Redefined scope, updated site plan, and geotech report for 12 Annie Street, Osborne

Hi Lee,

The applicant has now confirmed that he will not be doing any retaining structure. He will only batter as shown on the site plan. He has not provided a cross section of the proposed batter.

Do you have enough to provide your comments? I will also ask our landscape architect to comment as well.

Whether the applicant puts a fence up at the boundary or not, it is clear from the geotech report that the battering will make the access road much narrower. The report does not state how wide the road will be at the conclusion of the works. In any case, it sounds like the work would have an impact on the people that are using the road.

Kind regards,

Elisabeth

Elisabeth Boyle
PLANNER
CITY PLANNING

Elisabeth.Boyle@dcc.govt.nz
Dunedin City Council, 50 The Octagon, Dunedin
PO Box 5045, Dunedin 9054
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www.dunedin.govt.nz

From: Paterson, Lee <Lee.Paterson@stantec.com>
Sent: Wednesday, 27 November 2024 11:49 a.m.
To: Elisabeth Boyle <Elisabeth.Boyle@dcc.govt.nz>
Subject: RE: LUC-2023-36 - Redefined scope, updated site plan, and geotech report for 12 Annie Street, Osborne

Hello Elisabeth
Thoughts:

1. I don't necessarily need to see the actual design for the wall… only to be sure that appropriately qualified persons are underwriting the design.

2. The drawings seem to exclude work outside the property that was done on DCC road reserve. Not sure how this can be the case

Geosolve's Discussions and recommendations explicitly recommends re-grading the fill slopes to similar batters as I required previously.

3. Geosolve's report recognizes that re-battering the fill slopes may well reduce the trafficable width of the road access, and that if the existing road width is to be kept, then retaining works will also be required to support the road surcharge, instead of the existing over-steep fill.

All this said, the revised site plan is going to do little to allay the local residents concerns over the steepness of the access, given the friction resistance of the constructed surface,or the stability of the existing edges of fill that have been placed.
Not a fun situation

Ngā mihi

Lee Paterson
Principal Geotechnical Engineer
Chief Drone Pilot (CAA 102)

Email: lee.paterson@stantec.com
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From: Elisabeth Boyle <Elisabeth.Boyle@dcc.govt.nz>
Sent: Wednesday, November 27, 2024 10:20 AM
To: Paterson, Lee <Lee.Paterson@stantec.com>
Subject: LUC-2023-36 - Redefined scope, updated site plan, and geotech report for 12 Annie Street, Osborne

Hi Lee,

LUC-2023-36 - Redefined scope, updated site plan, and geotech report for 12 Annie Street

You will remember this site in Osborne, where an RFI was issued for (amongst other things) geotech investigation.

After the RFI was issued last year, DCC Transport worked towards the prospect of purchasing the land that contains the access way and remediating the access way. However, after many months of work obtaining a land estimate and quotes from roading contractors, the negotiations ground to a halt: Transport's proposal is not going ahead.

This meant that the resource consent application, which was still on hold for RFI, had to be progressed. We did a new site visit in August this year, accompanied by Building Services. The applicant has also confirmed that he is redefining the scope of his application to 12 Annie Street only (i.e., NOT including the road reserve), and that he intends to erect a fence along the north-eastern road boundary (thereby preventing any of the residents of down-slope adjacent sites to use the road to access their sites). We are seeking legal advice in respect of this redefined scope.

I am still waiting for the retaining wall design, which I will send through to you once it has been received. In the meantime, I'm sending you the new site plan and the long-awaited geotech report (both received on Friday 22 November 2024). I will ask for the proposed fence and planting to be inserted into the site plan.

I presume you will need to see the retaining design before you can provide comments.
I've attached summaries of the recent site visit and phone conversation – you may not need this though. Let me know if you need further info. My DDI is 474-3469.

Kind regards,

Elisabeth

Elisabeth Boyle
PLANNER
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Caution: This email originated from outside of Stantec. Please take extra precaution.

Elisabeth Boyle

From: Lee Paterson
Sent: Thursday, 9 February 2023 04:28 p.m.
To: Peter Woods; Elisabeth Boyle
Subject: Bradley Road, Osbourne

Peter / Elisabeth

Further to today's site visit.
My spherical panorama photos are viewable here:
https://photos.app.goo.gl/F7QVtDbuxhMoXfkL6

in addition to my comments below, I have the following reinforced opinions

- The road is steep and loose in places, and clearly going to be a hazard to traverse on foot or on many vehicles, due to a combination of gradient and surfacing material.

- The entire outside shoulder of the road edge, between the concrete driveway to #17 Bradley, down to the Hairpin opposite #13 Bradley is failing.
  The local residents made it clear that there have been near-misses of this shoulder giving way under vehicle loading. This is a safety concern
  It is very likely that this material comprises fill immediately on soil, with no stripping, benching or subsoils involved in this construction.
  This needs to be ripped and remade in accordance with good practice, and where the edge fill slope is steeper than 2h:1v, this will require specific engineering design, including possibly retaining works.

- The steep cutting in old fill, between the recent cut track, and the new cut track, is showing signs of failure
  This is clearly a potential hazard for those accessing the upper track. Especially if road users are undertaking a point-turn on top of this bank.
  If access is to continue above this cutting, then a retaining wall will be required.
  This cutting is tall enough, and supporting sufficient slope and surcharge loading, that a retaining wall here must have engineering design and building consent.

- The stormwater has been concentrated into a single discharge location.
  This has eroded significantly in the time since the previous visit
  The local landowners have attempted to place stones and rubble in this channel to reduce the rate of erosion.
  The culvert and discharge arrangement needs to be completely revisited to mitigate the erosion risk that has been created and avoid discharge of sediment off site.

Much of this aligns with my previous comments in the email below.
If you need anything further from me, or have any questions, please ask

Regards / Ngā mihi

Lee Paterson
BSc (Civil Engineering w Geology)
Senior Geotechnical Engineer
Advance-Certified Drone Pilot

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Christchurch 8141

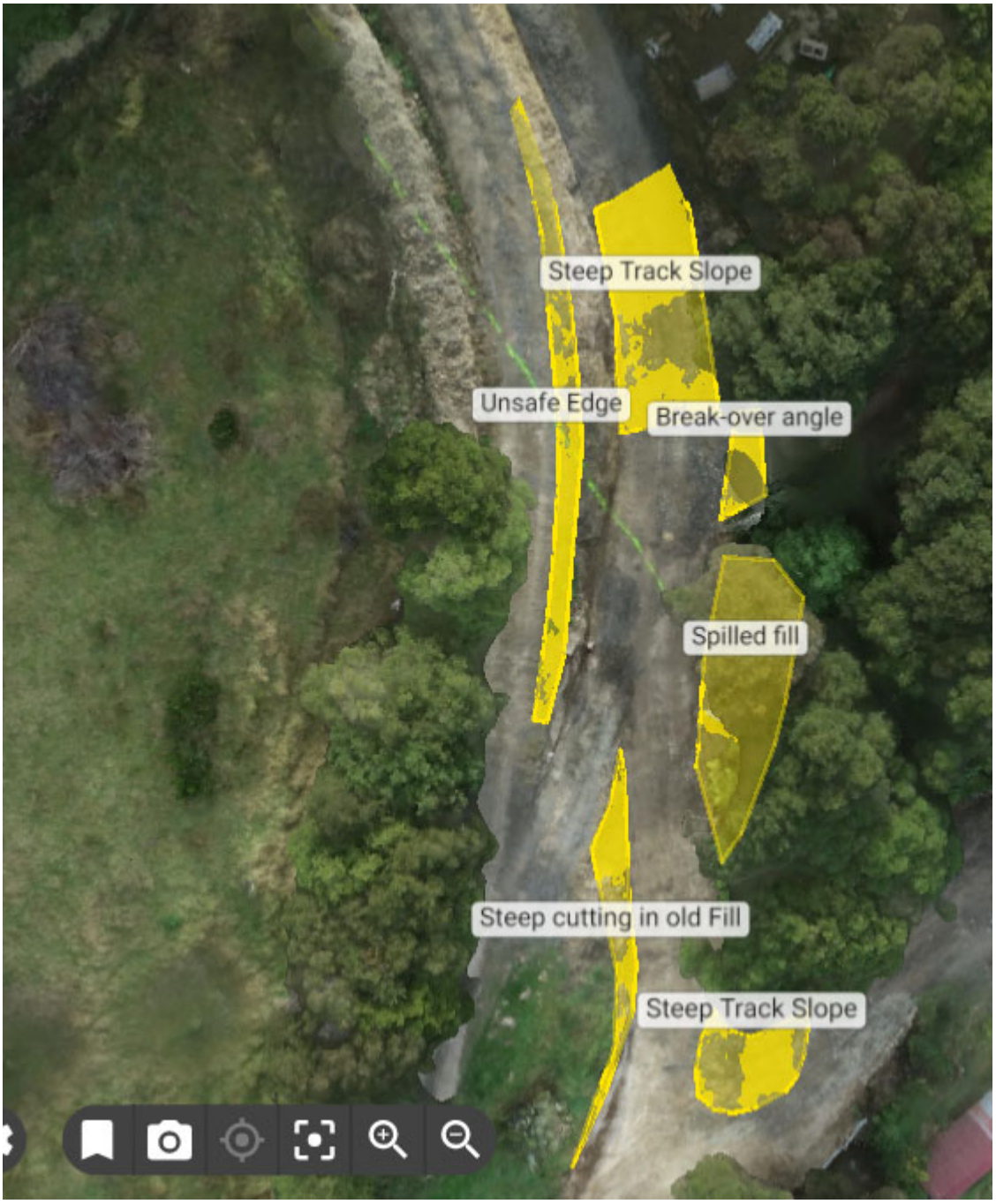
From: Paterson, Lee
Sent: Wednesday, 8 June, 2022 10:31 AM
To: Peter Woods <Peter.Woods@dcc.govt.nz>
Cc: MWH Hazards Team <MWHHazardsTeam@stantec.com>
Subject: RE: Emailing: IMG_4184.jpg, IMG_4178.jpg, IMG_4179.jpg, IMG_4180.jpg, IMG_4181.jpg, IMG_4182.jpg, IMG_4183.jpg

Hello Peter
We visited the site yesterday afternoon and met the landowner, Paul Napier, on site.
With his permission we flew the drone and I ran the topo model last night

Please feel free to pass on this link to transportation as well.. they may find it useful
https://cloud.pix4d.com/site/164383/dataset/1177545/model?shareToken=8d011c6d-224b-4f5f-a13c-38645d750376
The flat and 3D views can be accessed from the link

- **Open in Google Chrome (NOT MICROSOFT)**
- Select 2D Map or 3D Model at the bottom left
- Controls
  - Left mouse to drag
  - Right mouse to spin
  - Scroll to zoom
- In 3D mode
  - Select 3D textured mesh, or Point cloud from the left menu to see the 2 view modes
  - Cloud mode is “true” points from the modelling process
  - Mesh mode is an interpolated textured surface and is less accurate
- In 2D mode
  - The annotations tool is useful to place marks you want to keep track of on the plan.
  - If you click the text DSM – then you can drag the sliders or type in values for the limits of the coloured elevation data on the right hand area.

Some thoughts from site



- Although there are many small cut slopes adjacent to roads in Osbourne locally, that are standing up very well at 1:1 or steeper, there appears to be an old filled area that has been cut into by the new lower track.
    - My expectation is that this will not support itself, as it is already bulging.
    - This slope should be cut back to 1.5h:1V, or it should be retained.
    - If it is to be retained, then it is effectively a 1.5m+ wall supporting a sloped fill… and will need to be signed off by an appropriately qualified engineer

- Much of the fill is soft on the access track.
    - Mr Napier insists that this work is not finished and will be covered with crushed concrete and asphalt millings
    - I can appreciate that in the interim, access for vehicles on this track would be potentially difficult

- Some un-engineered side cast fill has been placed on a steep slope above the paper road to #13
    - This material has tumbled and come to rest against a mesh fence
    - Fill should not be placed on slopes steeper than 2h:1v without engineering
    - Mr Napier insists that he intends to complete a rock buttress at the bottom of this slope, and a placed stone facing on the slope to mitigate erosion
    - This should be assessed by a professional

- The residual track upslope now has an unsafe edge, with a potential drop of over a m high supported by a steep cut slope.
    - This should not be driven on, and should ideally be removed
    - It is not clear if this is to be retained for access to Mr Napier's property.
    - If this is the case, it should be assessed for stability and / or engineering retaining put in place.

- My measurements from the drone model estimate that approximately 100 m^3 of material has been cut
    - This may actually be a permitted volume on his land – I would need to check
    - Notwithstanding this, approximately 30 m^3 has been cut on paper road

- There are a number of roading construction issues.
    - The gradient on the initial descent is now significantly steeper than the previous track, at a local grade of 3.5H:1V.
    - A neighbour's concrete driveway to #17 has been cut, leaving a significant breakover angle to drive for access
    - The corner access to #13 is very steep and will be un-trafficable to every-day vehicles.
    - The fill is soft, and needs time and engineering to firm up.
    - Stormwater drainage has not been diverted

Advice
It is difficult to be overly concerned about the scale of the works from a natural hazards perspective.
Mr Napier feels that this is a community good, but appears to have undertaken no recorded consultation with his neighbours, and feels aggrieved at being reported for undertaking this work.
Notwithstanding this, the City is also a party in this, being the owner of the paper road on which much of the work has been undertaken.

I think that most of the concerns over the work will actually be drivability / gradient and interruption / disruption during construction, which is yet to be completed.
Much of the work could be underwritten relatively simply be a professional, and indeed that professional might provide detailing of further earthworks to avoid construction of retaining structures.
However, in it's current geometry, side cast fill would have to be pulled back, and some of the excavated faces supported, as they support driveway accesses above (if this is to be retained)

I hope this helps. Please let me know if you have any questions

Regards / Ngā mihi

Lee Paterson
BSc (Civil Engineering w Geology)
Senior Geotechnical Engineer
Advance-Certified Drone Pilot

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From: Peter Woods <Peter.Woods@dcc.govt.nz>
Sent: Tuesday, 7 June, 2022 9:59 AM
To: Paterson, Lee <Lee.Paterson@stantec.com>

Subject: RE: Emailing: IMG_4184.jpg, IMG_4178.jpg, IMG_4179.jpg, IMG_4180.jpg, IMG_4181.jpg, IMG_4182.jpg, IMG_4183.jpg

Yes COM-2022-66

From: Lee Paterson <Lee.Paterson@stantec.com>
Sent: Tuesday, 7 June 2022 9:52 a.m.
To: Peter Woods <Peter.Woods@dcc.govt.nz>
Subject: RE: Emailing: IMG_4184.jpg, IMG_4178.jpg, IMG_4179.jpg, IMG_4180.jpg, IMG_4181.jpg, IMG_4182.jpg, IMG_4183.jpg

Got a COM number yet?

From: Peter Woods <Peter.Woods@dcc.govt.nz>
Sent: Thursday, 2 June, 2022 2:11 PM
To: Paterson, Lee <Lee.Paterson@stantec.com>
Subject: Emailing: IMG_4184.jpg, IMG_4178.jpg, IMG_4179.jpg, IMG_4180.jpg, IMG_4181.jpg, IMG_4182.jpg, IMG_4183.jpg

Hi Lee,

Can you look at these earthworks please. They are at the end of Bradley Road, Osborne. A local has taken it upon themselves to do some DIY road making. They will be applying for a consent.

If you could check it out with some recommendations, I would be grateful/ I'll get a COM number to you ASAP.

Regards

Peter Woods
HSNO/RMA Compliance
DCC