Development Engineering

Internal Memo

Application description

Application numbers:	BUN60424934
To:	Michèle Schitko
From:	Isaac Kong
Site address:	253 Mill Road, Bombay
Date	26/02/2024

Please find below my assessment and recommended conditions for the above application based on a site visit, the information in the application and on file at Council.

Engineering Assessment

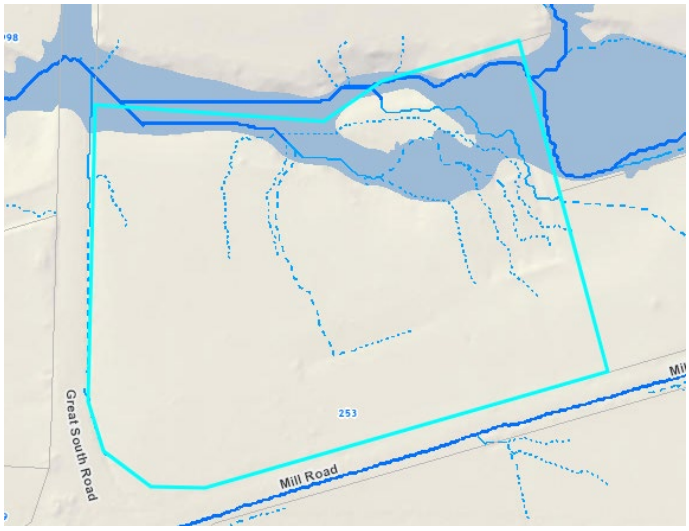
1. Earthworks (E12)

There will be with 222,52m3 cut and 184m3 fill within 2176m2 area which is considered as RDA. All earthworks will be managed as per council's standards confirming to GD05.
Council geotechnical engineer reviewed the application, and considered that the provided geotechnical reports to be generally suitable for the purposes of Resource Consent.
Please find details attached here.

BUN60424934 - geotech memo - 30 N

2. OLFP and flooding

Refer to AC Geomaps, there are multiple minor OLFP starting from the site. And a major OLFP passing through the northern along northeastern and northern boundary. The northern/north-eastern retaining walls are proposed to be built along the curvature of the flood plain and out of the wetland. No impedance or blockage of passage of flood waters is expected.



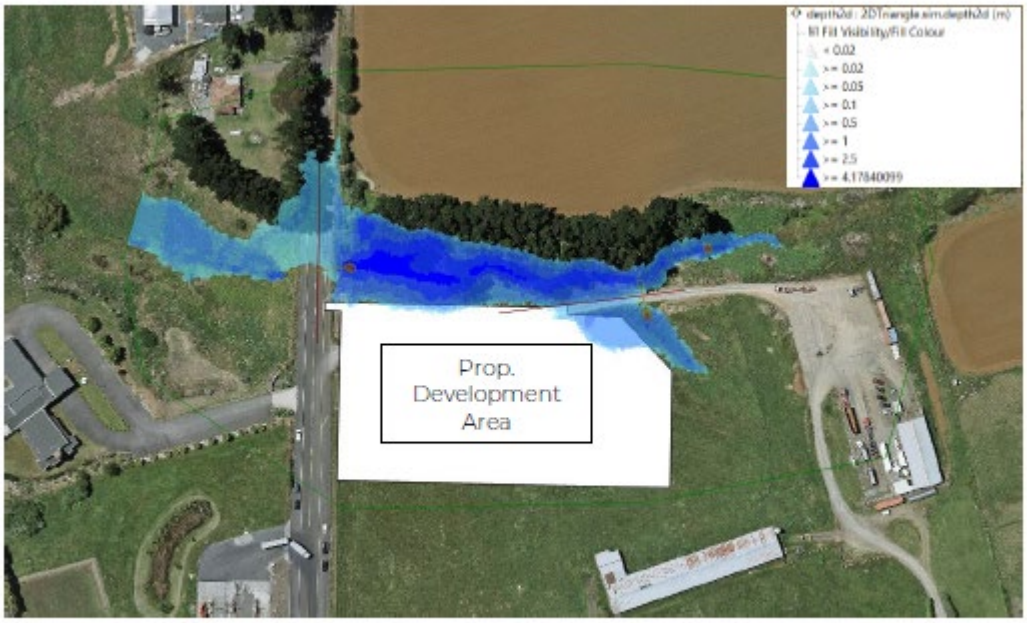


Figure 6: Maximum Flood Depth for Post Development 100yr MPD

Flood assessment including calculation and modelling was undertaken by WSP. Refer to the calculation, the increase in flood level at 100-year event is 25.8mm. considering there is farmland and bushes around. The adverse effect is less than minor.
Council Healthy Waters specialist is also reviewing the application. Please refer HW assessment for more details about flooding.

Land use conditions

Advanced notification that earthworks will be beginning on site

1. The Council must be notified at least five (5) working days prior to earthwork activities commencing on the subject site.

Erosion and sediment control

2. All earthworks must be managed to minimise any discharge of debris, soil, silt, sediment or sediment-laden water is discharged beyond the subject site to either land, stormwater drainage systems, watercourses or receiving waters. In the event that a discharge occurs, works must cease immediately, and the discharge must be mitigated and/or rectified to the satisfaction of Council.

3. Prior to the commencement of earthworks activity, all required erosion and sediment control measures on the subject site must be constructed and carried out in accordance with the approved Erosion and Sediment Control Plan.

Geotechnical

4. Prior to the installation of the proposed stormwater discharge outlets, the consent holder must provide a statement from a qualified geotechnical engineering professional confirming suitability of its location and design such that the geotechnical risk is not exacerbated as a result of its installation and use. This statement must be provided to the satisfaction of the Council.

5. All earthworks must be managed to ensure that they do not lead to any uncontrolled instability or collapse affecting either the site or adversely affecting any neighbouring properties. In the event that such collapse or instability does occur, it must immediately be rectified.

6. Earthworks and construction of retaining walls must be supervised by a suitably qualified geotechnical engineering professional (who is familiar with the geotechnical reports by WSP “Waka Kotahi NZ Transport Agency, 5-C4353.54 – Weigh Right Bombay, Geotechnical Interpretive & Design Report” referenced 5C4353-WRP-04-RP-G-1000 and dated 5 October 2023, and “Waka Kotahi NZ Transport Agency, 5-C4353.54 – Weigh Right Programme - Bombay, Geotechnical Site Investigations Factual Report” referenced 5C4353-WRP-04-RP-G-1001 and dated 9 February 2023. In supervising the works, the suitably qualified geotechnical engineering professional must ensure that they are constructed and otherwise completed in accordance with the engineering plans and geotechnical recommendations, relevant engineering codes of practice and detailed plans forming part of the application. The supervising engineer’s contact details must be provided in writing to the Council at least two weeks prior to earthworks commencing on site.

7. Certification from a suitably qualified Chartered Geotechnical Engineer or Chartered Engineering Geologist must be provided to the Council, within ten (10) working days following completion. Written certification must be in the form of a geotechnical completion report, or any other form acceptable to the Council.

8. The consent holder must engage an engineer to advise the Council of timeframes for unsupported cuts adjacent to boundaries at least one week prior to excavations on boundaries being undertaken.

Ensure stability of the site/neighbouring sites.

9. All earthworks must be managed to ensure that they do not lead to any uncontrolled instability or collapse either affecting the site or adversely affecting any neighbouring properties. In the event that such collapse or instability does occur, it must immediately be rectified.

Regulatory Engineer

Name : *Isaac Kong*

Date : *26/02/2024*