

Memo

То	11 Fleet Limited	Date	2 March 2022
Attn.	Geoff Cawson	Pages	5
From	Jekabs Lapins	Ref.	P22-006-M01-RevA
Re. //	11 -13 Fleet Street – Site serviceability assessment		

1.1 Purpose

AR & Associates Limited (ARAL) have been engaged by 11 Fleet Limited to assess the proposed development of the above site with the respect to 3 Waters (stormwater, water and wastewater) serviceability requirements as well as access and utilities.

1.2 Proposed development overview

The site is described as **Lot 1 DP 389386 & LOT 2 389386** with combined site area of 671m². In accordance to Auckland Unitary Plan maps the site is in central Auckland and is zoned as H13 Business – Mix Use Zone. There is an existing dwelling at the street frontage of the site with the rest of the property being undeveloped. It is proposed to clear the site and build a new multi-story residential apartment building with carparking on ground floor level.



Figure 1: Development Overview (Bulk & Location plan by PB&A)



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1.3 Stormwater

1.3.1 Stormwater Network

There is an existing 375mm dia. gravity stormwater line on Fleet Street with a downstream manhole depth (GIS ID: 2000183521) of 2.37m which allows the site to be serviced via gravity outfall. The downstream network capacity requires an assessment as part of Resource Consent application.

1.3.2 Water Sensitive Design

In accordance with AUP map overlay the site in not located within SMAF zone. However, the site discharges into an existing network which ultimately discharges downstream to Western Springs reserve. As such Water Sensitive Design requirements (WSD) to minimise stormwater runoff volumes, temperatures and peak flow rates and to improve the quality of stormwater runoff entering the receiving environment will be applicable.

As the site surface area is only 671m² the retention volume will not have much practical use. It is proposed to provide a be-spoke solution for on-site detention and retention. Retention volume will be estimated based on site irrigation and non-potable use requirements and detention will provide 10% AEP peak flow attenuation.

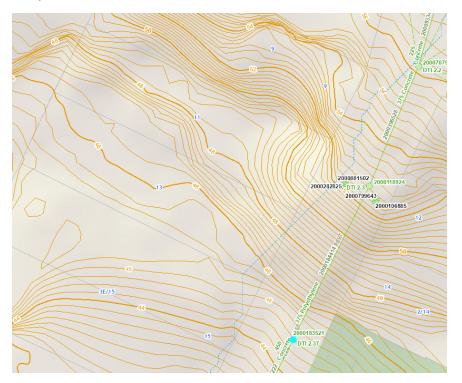


Figure 2: Stormwater Overview

1.3.3 Overland Flow Paths

According to Auckland Council GeoMaps the site frontage is traversed by a minor Overland Flow path with a Catchment area of $2000 - 4000 \text{m}^2$ (Catchment area of 3578m^2 is assigned). It is to note that GeoMaps identify the site is located within flood prone area however it is clear of flood plains. The proposed development is not going to alter the flow path exit and entry points.



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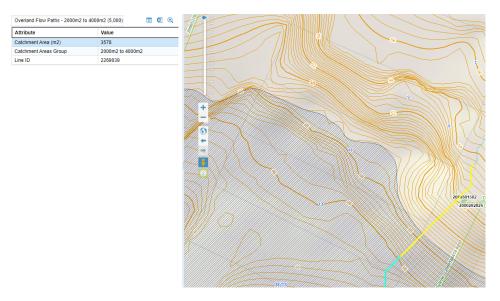


Figure 3 : Overland Flow Paths

1.4 Wastewater

1.4.1 Wastewater Network

There is an existing 150mm dia. gravity wastewater line on Fleet Street with a downstream manhole depth (GIS ID: 532822) of 2.53m which allows the site to be serviced via gravity outfall. The downstream network capacity requires an assessment as part of Resource Consent application. Note that the wastewater line of interest discharges to existing wastewater transmission line at the turning area down the road.

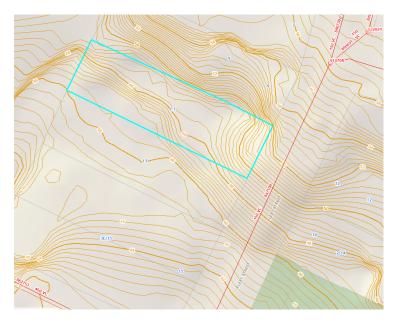


Figure 4 : Wastewater



1.5 Water Supply

There is an existing 150mm dia. water main on Fleet Street with the nearest Hydrant (GIS ID: 1097747) opposite to 3E/15 Fleet Street. According to The New Zealand Fire Service Firefighting code of practice, SNZ PAS 4509:2008, is classified to FW2 water supply classification and it is our understanding that the proposed building will be sprinklered.

Hydrant flow testing will be undertaken during resource consent stage.

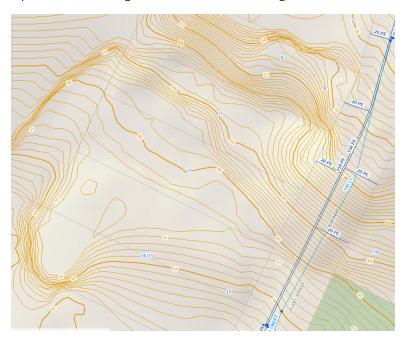


Figure 5 : Water Supply

1.6 Roads

Fleet Street is a dual dead-end street with a pedestrian link between two segments. The break in the street is right across the frontage of development site. See **Figure 6 & 7** below.



Figure 6 : Street View from bottom





Figure 7 : Street View from top

The site access will be established from both ends off Fleet Street. The existing access to the lower portion of the site will be retained for vehicular access and upgraded to be fit for purpose. A new pedestrian access point from the existing stairs to the site will be established.

The lower access point upgrade as well as pedestrian link access to the building will trigger the existing pedestrian link rework across the frontage of development. Further consultation with Auckland Transport will be required to determine the scope of works.

The proposed development will provide 17 on-site carparks.

1.7 Utilities

There is existing Power, Gas & Telecom within Fleet Street Road reserve. The Utility service providers will be notified during resource consent stage to further determine the site serviceability requirements.

1.8 Conclusion

The initial appraisal has been carried out for the proposed development outlined in this report and, based on our knowledge of Auckland Council's requirements we conclude the development site is serviceable from 3 Water, utilities and access requirements.



Associate Civil Engineer

AR & Associates Ltd

