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Nahas Constructions

Wolli Creek
Proposed Retail
Development

Infrastructure Report

September 2009

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TABLE OF AMENDMENTS

Amendment No.	Section Affected	Description of Amendment

**Amendments shown as red in report body*

1 INTRODUCTION

This report by Hughes Trueman is a summary of the infrastructure works required for the construction of a supermarket and liquor store at the corner of the Princes Highway and Brodie Spark Drive, Wollie Creek.

This review identifies the existing infrastructure, risks and other issues associated with servicing the proposed development.

The primary development constraints and issues that are relevant to the project include:

- Protection of existing trunk services in the vicinity of the site during construction new infrastructure and temporary connections to service occupied dwellings;
- Demolition of existing services on site without affecting neighbouring properties service provision; and
- Identifying suitable access to adequate infrastructure to serve the proposed development.

2 EXISTING SITE DESCRIPTION

The subject site is situated within the municipality of Rockdale and is bound by Arncliffe St to the north, Brodie Spark Drive to the east, Princes Highway to the south and commercial areas to the west. The existing site is occupied by a number of light industrial buildings and open pavement areas.

The site falls generally from east to west and has from south to north in the direction of Arncliffe Street. Due to its low lying nature, the site is affected by flooding. A separate flooding report has been prepared that addresses flooding issues.

A number of large trunk services exist around the perimeter of the site including sewer, water, electricity and gas mains. These are identified in more detail throughout the following report.

3 PROPOSED SITE DESCRIPTION

The proposal includes the demolition of some of the existing buildings on site and the retention of others. The retained structures will be amended and extended to suit the proposed use of a supermarket and liquor store. The new buildings floor levels will be situated at RL.3.05 Australian Height Datum (AHD) whilst the loading dock will be RL.4.00. The remainder of site will consist of 'at grade' parking on new bitumen pavements. The proposed levels on site either match, or are slightly higher than those in the existing scenario.

Access to the site for customers will be from both the Princes Highway (left in only) and Arncliffe Street (entry & exit). Deliveries will be made via a loading dock that enters the site from Brodie Sparks Drive and exits on to Arncliffe Street.

4 SERVICES

Due to the fact that the loads on most of the services were higher in the existing scenario than they will be after the planned construction, the site is reasonably well served in terms of service provision. There are, however, a number of large service mains around the perimeter of the site that will need to be considered during construction to ensure that site access and protection of these services is maintained.

4.1 WATER

The main water service in the vicinity of the site is a 500mm diameter trunk main that runs along the southern boundary of the site along the Princes Highway. This main appears to be located beneath the road pavement and will not be affected as part of the renewal works. The water main is significant as it supplies water to the surrounding suburbs.

There is also a 150mm water main running beneath the northern footpath of the Princes Highway, 375mm and 200mm mains at Brodie Spark Drive and a 300mm main along the northern footpath of Arncliffe Street. The most likely water supply point will be the 150mm main at the Princes Highway. It is anticipated that this service will be sufficient to serve the proposal. Further, we do not expect that any demolition of any of the water services on site will affect any neighbouring properties. A feasibility application has been lodged with Sydney Water to confirm our desktop assessment.

4.2 RECYCLED WATER

There are no existing recycled water pipes in the vicinity of the site and there are no plans for recycled water as part of this proposal.

4.3 SEWER

The main sewer line within the development is a 225mm pipe located in the western boundary of the site. This line drains to an existing sewer pump station (SP0099) in the adjacent land to the west. The pump station conveys flows to the west, along Arncliffe Street via a 300mm cast iron rising main.

It is anticipated that this service will be sufficient to serve the proposal. Further, we do not expect that any demolition of any of the sewer services on site will affect any neighbouring properties. A feasibility application has been lodged with Sydney Water to confirm our desktop assessment.

4.4 ELECTRICAL

The existing electrical supply network servicing the site is an under-ground and above-ground reticulation network that runs along the southern footpath of Arncliffe Street and the western footpath of Brodie Spark Drive. It is expected that the proposed site connection could be from either of these two locations. We do not expect that demolition of any of the electrical services on site will affect any neighbouring properties.

4.5 TELECOMMUNICATIONS

The existing telecommunications network consists of a below ground reticulated service that runs on a similar alignment to the electrical service. There is currently no exchange or major through route on site. We do not expect that demolition of any of the telecommunication services on site will affect any neighbouring properties.

4.6 GAS

The existing gas supply network in the vicinity of the site consists of a 250mm main (1050 kPa) that runs beneath the road pavement in Arncliffe Street. This service also runs along the western side of Brodie Spark Drive, where it briefly enters the site before running across the Princes Highway to the south.

Further consultation with Jemena will be required throughout the detailed design of the carpark to determine suitable pavement levels and construction methods in the vicinity of the main within the site.

There is also a 50mm (210 kPa) line running along the northern footpath of Arncliffe Street that will not be affected by the proposal. The site currently has a 50mm (210 kPa) connection from the main in Brodie Spark Drive that may be demolished if required. We do not expect that this demolition will affect any neighbouring properties.

APPENDIX A – SERVICES PLANS

