

Thornton Central Village DA-02 (Stage 2)

Lots 3004-3005, Penrith, NSW

Services Availability Report for DA



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Revision	Date	Description	Author	Reviewer
A	09/09/21	Issued for Information	NB/MB	MM
B	21/10/21	Issued for Information	NB/MB	MM
C	28/01/22	Issued for Development Application	NB/MB	MM



1. Introduction

1.1 Aim of Report

This report investigates the Authorities services available to service stage 2 (DA-02) of the proposed new the mixed use Retail, Commercial and Residential development on the new site located at North Penrith bounded by Lord Sheffield Circuit and Dunshea Street.

1.2 Objective

The objective of this report is to outline the utility connections required for the first Development Application for the development.

1.3 Limitations

The design approach is based upon preliminary estimates of hydraulic and electrical loads as defined in the architectural drawings and project briefings.

1.4 Sources of Information

This report is based upon the following information:

- + Dial Before You dig Information package;
 - Endeavour Energy (electricity)
 - Jemena (gas)
 - NBNCo (telecommunications)
 - Optus (telecommunications)
 - Telstra (telecommunications)
 - Sydney Water (water & sewer)
 - Penrith City Council
- + Crone Architects Architectural plans dated 31st August 2021

2. Infrastructure Services

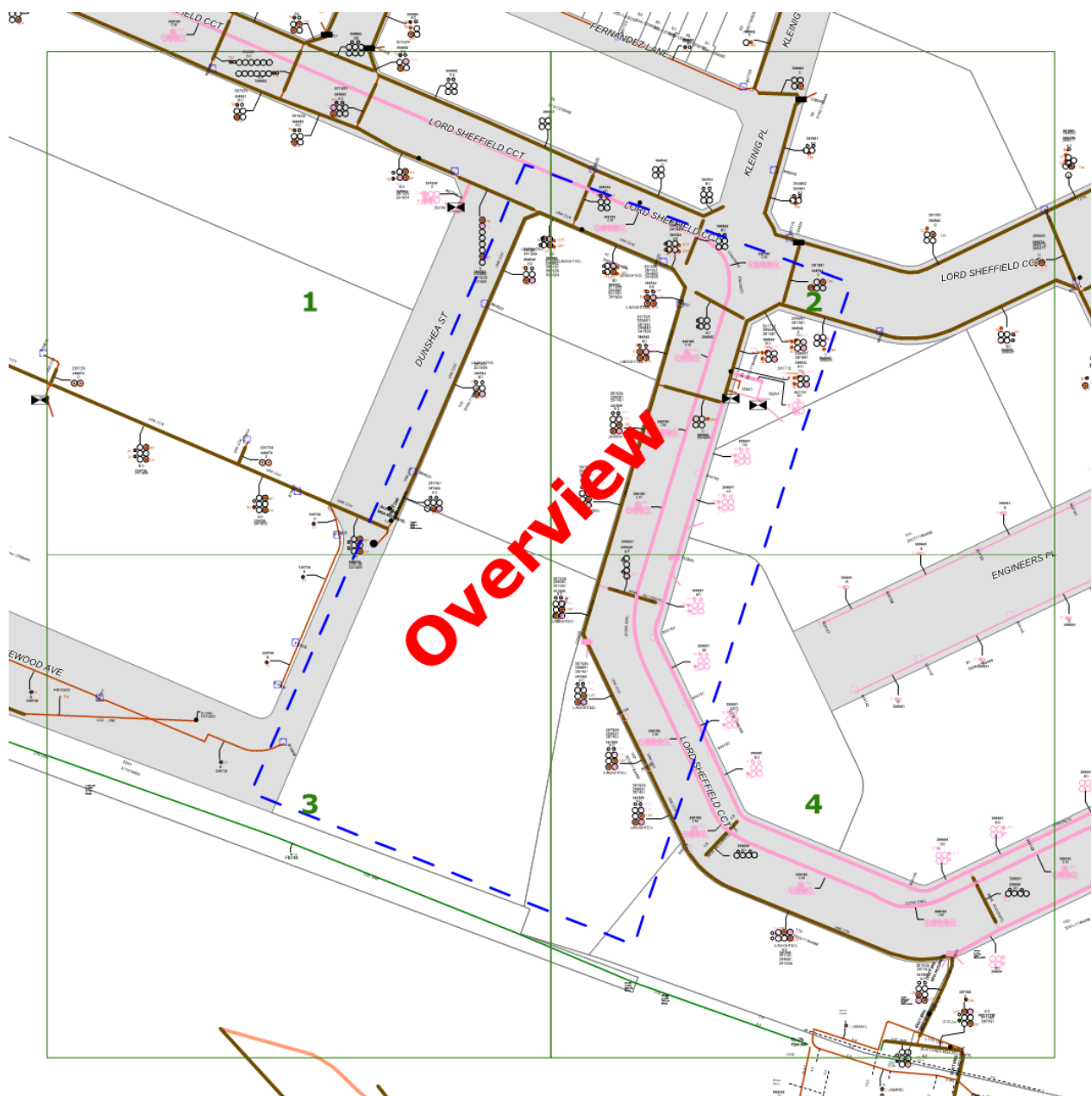
2.1 Electrical Services

The electrical infrastructure connections required for the Thornton development will include the following:

- + Electricity
- + Telecommunications

2.1.1. Substation Infrastructure

Existing substations are located on the fringe of the developments site on Lord Sheffield Circuit and Dunshea Street. The capacity of these substations will not be adequate for the proposed development.



Ausgrid Network Infrastructure Diagram

A preliminary electrical maximum demand based on the DA drawings has established an electrical load requirement of:

Stage 1

- + Residential 2016A/ph (1397kVA)
- + Retail/ Supermarket/ Commercial 1568A/ph (1086kVA)

Stage 2

- + Residential 1381A/ph (957kVA)
- + Retail / Commercial 286A/ph (198kVA)

Based on the above electrical demand for the development two (2) single transformer indoor substations are proposed for stage 1 and one (1) single transformer indoor substation is proposed for stage 2 in accordance with Endeavour Energy Requirements.

Multiple substations and therefore multiple transformers may be required. Substation will be either kiosk or surface chamber type in accordance with Endeavour Energy requirements.

2.1.2. Telecommunications

NBNCo has infrastructure to the north of the site. Existing NBN infrastructure will need to be extended to the site boundary.

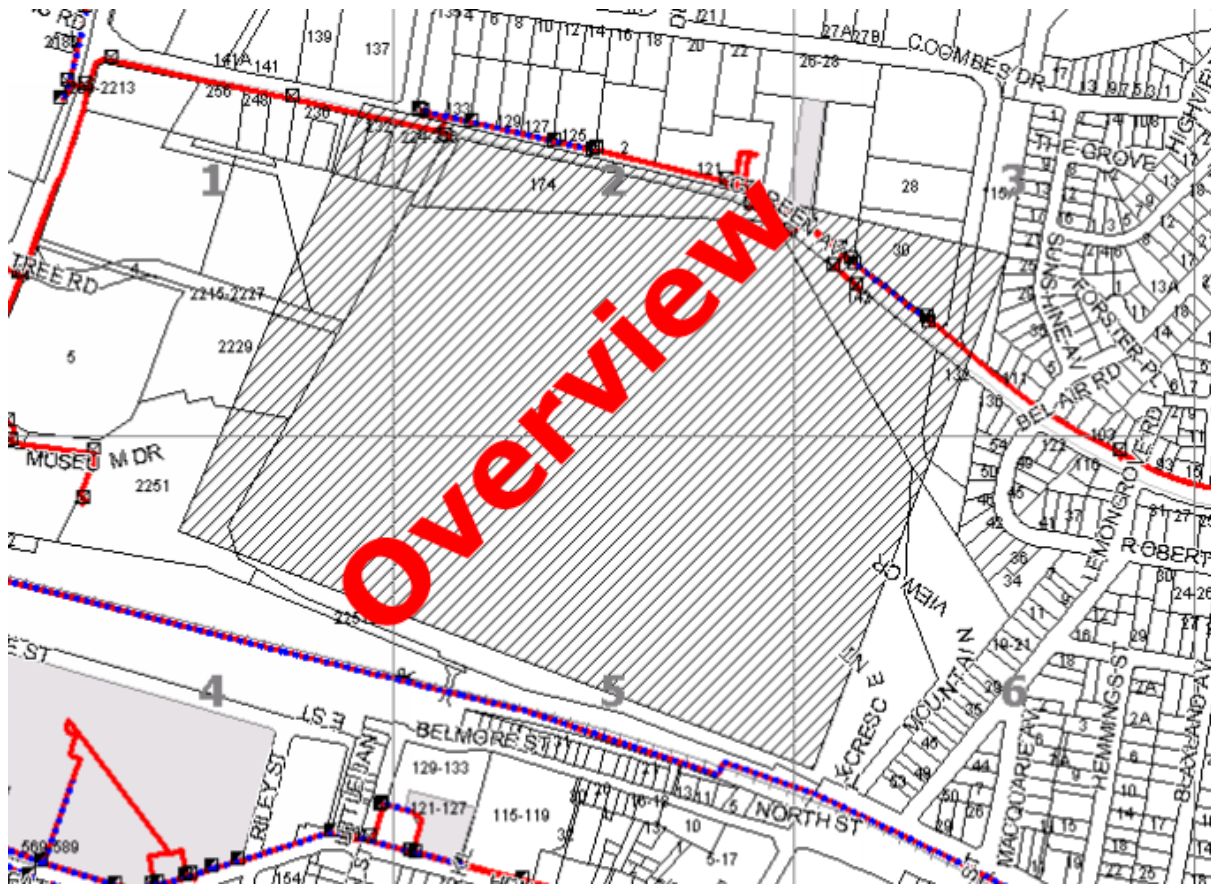


NBNCo Network Infrastructure Diagram

New NBN cable pathways will need to be established to the MDF/Building Distributor Rooms associated with each building.

NBN compliant cable pathways will be established within each building in accordance with NBNCo standard requirements.

Optus have existing infrastructure to the north of the site in Coreen Ave.



Optus Network Infrastructure Diagram

2.2 Hydraulic Services

The hydraulic infrastructure connections required for the Thornton development will include the following:

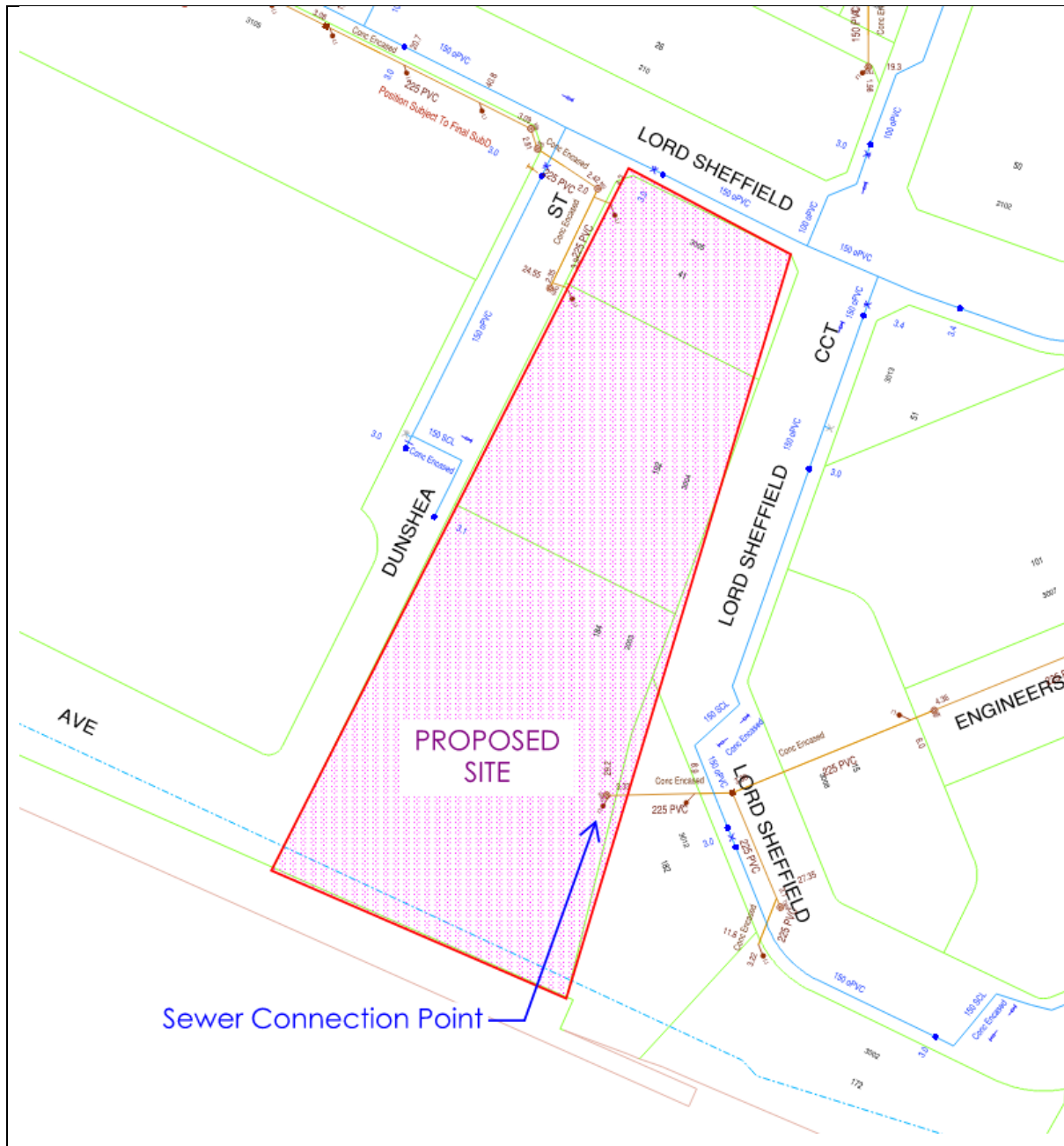
- + Sewer Drainage (Sydney water)
- + Potable Cold Water (Sydney water)
- + Stormwater Drainage (Council) Refer to civil Stormwater.
- + Gas (Jemena)
- + Fire Hydrant (Sydney water)
- + Fire Sprinkler (Sydney water)

2.2.1. Sewer Drainage

The lot is currently served by a 225mm dia Sydney Water sewer capped off . The sewer connection point is located at the south-eastern side of the site. The location of the sewer connection identified in the diagram below.

Based on the current development proposal the sewer provision serving the lot will be investigated by the Sydney Water Co-ordinator

A Section 73 application for the requirements will be submitted to Sydney Water by the Sydney Water Co-ordinator.



Sydney Water Authority Sewer Mains Diagram

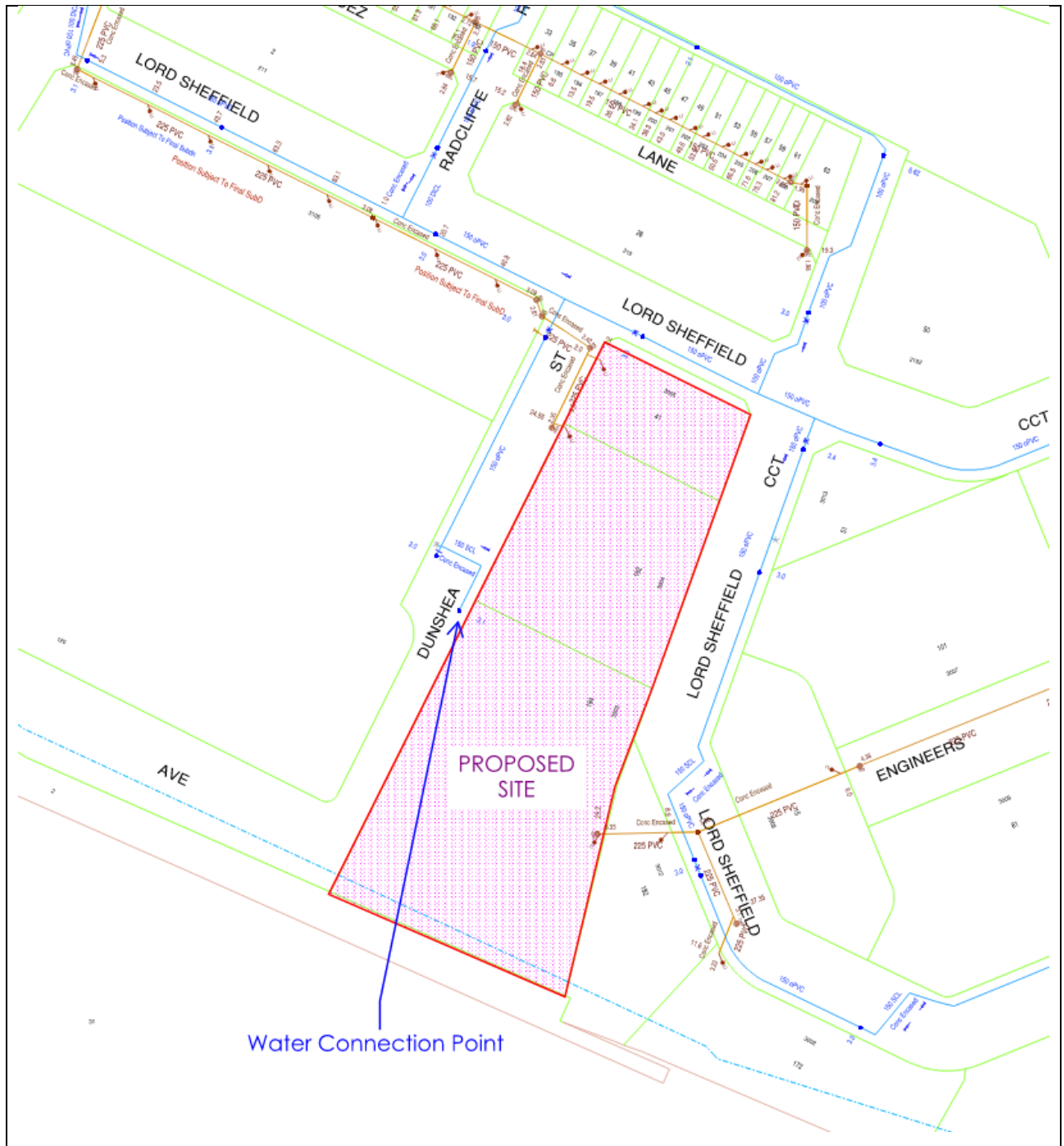
2.2.2.Domestic Water

The site has frontage to the following existing Sydney Water authority water mains:

- + 150mm uPVC main in Dunshea Street
- + 150mm uPVC main in Lord Sheffield Circuit

A Section 73 application for the requirements will be submitted to Sydney Water by the Sydney Water Co-ordinator.

The existing water main in Dunshea will be extended so the main is adjacent to the meter and boosters



Sydney Water – Authority Water Mains Diagram

2.2.3. Natural Gas Service

A medium pressure 210kPa natural gas network, that reticulates to more than 50% of the site boundaries. The size of the mains range from 50mm diameter down to 32mm diameter pipe mains.

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