INFRASTRUCTURE DELIVERY, MANAGEMENT AND STAGING PLAN

135 Badgerys Creek Road, Bradfield

POWERED BY

Date 29/08/2025 - Revision 01

Introduction

This Infrastructure Delivery, Management and Staging Plan has been prepared on behalf of the Bradfield Corporation Pty Ltd (the Applicant) by Neuron. It is submitted to the Department of Planning, Housing and Infrastructure (DPHI) in support of a State Significant Development Application (SSDA) on land at 135 Badgerys Creek Road, Bradfield (the site).

This document has been prepared to address Issue 21 in the Planning Secretary's Environmental Assessment Requirements. In particular, the following dot points:

- Assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.
- Identify any infrastructure upgrades required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.
- Provide an infrastructure delivery staging plan. Including a description of how infrastructure would be co-ordinated, funded and delivered to facilitate the development.

The intent of this report is to assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site. In addition this report will identify any infrastructure upgrades required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. In particular, it investigates the power, communications, sewer, water and gas connection implications based on the design inputs as advised by the client.

Site Description

The site is located at 135 Badgerys Creek Road, Bradfield and is approximately 2.02ha in area. It is legally described as Lot 7 DP 243457 and is located approximately 250m to the future Bradfield Metro Station and 4km to the Western Sydney Airport. An aerial image of the site is provided in Figure 1.
The site shares a western frontage with Badgerys Creek Road. The eastern boundary of the site adjoins the State government-led Bradfield City Centre which is set to be a vibrant 24/7 global city, driving advancements in industry and will support 10,000 more homes and 20,000 new jobs in Western Sydney.
As defined by the Aerotropolis Precinct Plan, the site is located within the Aerotropolis Core Precinct which is envisioned as an attractive place for workers, residents and visitors. The Aerotropolis Core Precinct will leverage the positive economic impact of the adjacent Western Sydney Airport and Bradfield City Centre. It will attract business hubs, research and development, professional services and creative industries in addition to providing residential development within walking distance of the Bradfield Metro station and proximity to blue and green infrastructure.

SITE OVERVIEW

Proposed Development

The proposed development will seek consent for the redevelopment of the site, comprising:

- Enabling works including vegetation removal and earthworks;
- The construction of three buildings, comprising:
  - Residential use, including approximately 400 apartment units;
  - Hotel use, including approximately 450 hotel rooms;
  - Commercial use, including supermarket, food and drink and other commercial uses;
  - Medical centre use;
  - Childcare centre use;
- Construction of two basement structures, including approximately 800 carparking spaces;
- Public domain upgrades, including:
  - Construction of an internal road;
  - A public plaza;
- Rehabilitation and augmentation of the existing riparian corridor;
- Landscaping embellishments on the ground level and within the built form; and
- Services augmentation as required.

Refer to the Environmental Impact Statement for a detailed summary of the proposed development.

Source: Nearmap / edited by Ethos Urban

In accordance with section 4.39 of the Environmental Planning & Assessment Act 1979 (EP&A Act), Secretary's Environmental Assessment Requirements (SEARs) for SSD 77458970 were issued on 30 January 2025. This report has been prepared to respond to the relevant issued Secretary's Environmental Assessment Requirements (SEARS), as set out in the table below.

Table 1 – SEARs Requirements

Item	Description of Requirement	Response & Report Reference

21	Infrastructure Requirements and Utilities
	• In consultation with relevant service providers:
	  ○ Assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.
	  ○ Identify any infrastructure required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.
	  ○ Provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.
		• The development will have minimal impact on the existing utility infrastructure surrounding the site
		• Existing communications & water infrastructure adjacent to the site is expected to be sufficient to serve the site. New Electrical & Sewer infrastructure is anticipated to be required.
		• The building design has been developed to work around it's staging, and anticipated infrastructure upgrades by Endeavour Energy & Sydney Water

Authority	Early Involvement
Endeavour	The client engaged AA Power Engineering who is an Endeavour Level 3 Accredited Service Provider. They have access to the Endeavour network and have completed a study to define the electrical utility connection requirements for the project. A feasibility study with Endeavour Energy has already been completed, and has given feedback for the servicing strategy for the site.The next phase of the project will include a formal application process to Endeavour to confirm the final building load and connection strategy.
Communication Provider	We have investigated the existing communications assets within the surrounding area of the project and identified the service connection availability to be further developed in the next phase of the project. This include NBN & Telstra. They have provided drawings for review and consideration in the concept design phase of the project.
Jemena	We have investigated the existing gas infrastructure in the area and have identified there is no existing gas infrastructure.
Sydney Water	Notification of the project has been sent to Sydney Water via a feasibility application to investigate the existing sewer and water infrastructure to assess the demands of the proposed development the impact on the existing services and general feedback for the servicing strategy for the site.The next phase of the project will include a formal application process to Sydney Water to confirm the final building load and connection strategy.

UTILITY REPORT

EXEC SUMMARY

SITE OVERVIEW

BUILDING CONNECTIONS

- POWER
- COMMS
- GAS
- WATER
- SEWER

REPORT INPUTS

SITE OVERVIEW

Titling: Three lots based on the development staging

Note in this scenario the titling boundaries of the car park will need further discussion and analysis.

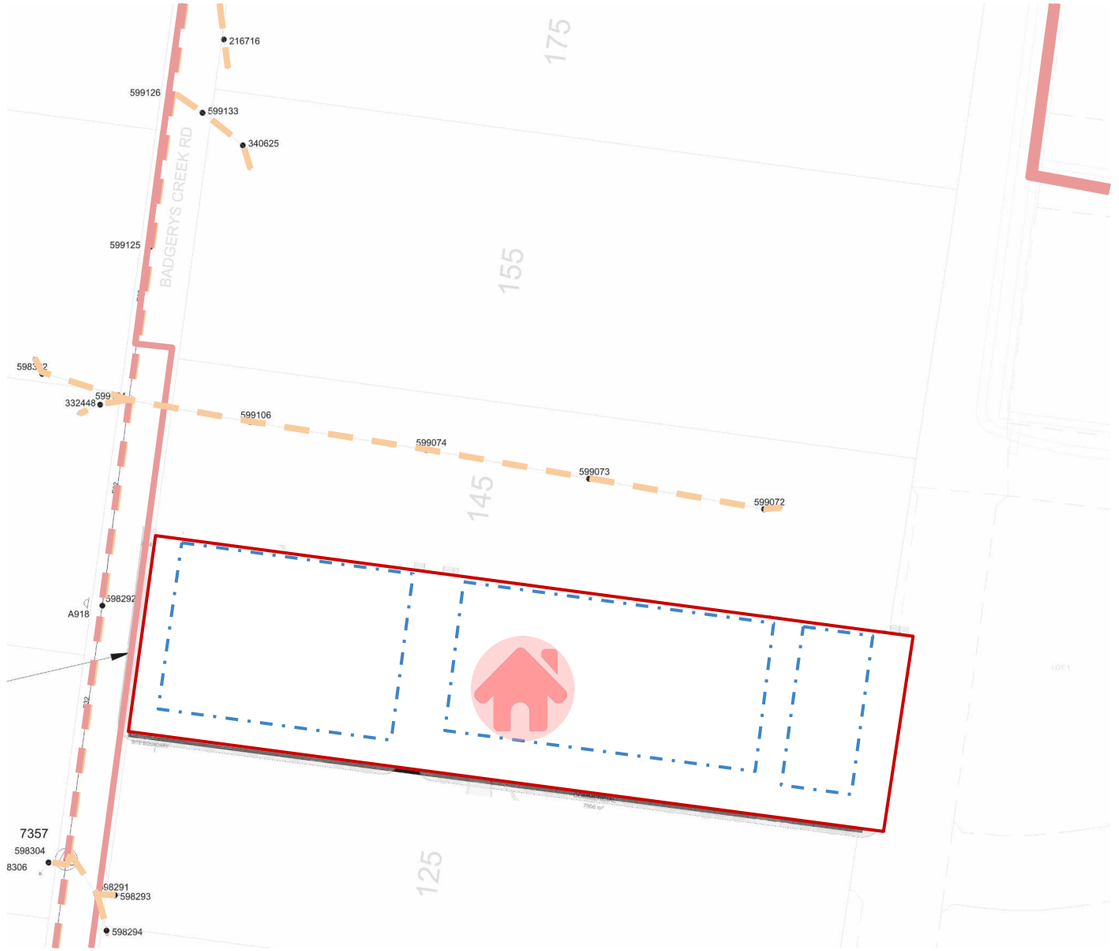
ELECTRICAL INFRASTRUCTURE

EXISTING POWER INFRASTRUCTURE

The Endeavour network maps indicate that the nearest High Voltage is adjacent to the site along Badgerys Creek Road Frontage.

There is no power currently supplied to the development site.

It is envisioned that Stage 1 connect to the existing High Voltage Infrastructure on Central Loop West. It is likely stage 2 & 3 will require a connection to a new 22kV HV Feeder, brought from the nearest zone substation.



Power Infrastructure Map

- Below Ground High Voltage Power
- Overhead High Voltage Power
- Below Ground Low Voltage Power
- Overhead Low Voltage Power
- Existing Substation
- Development Location

ELECTRICAL INFRASTRUCTURE

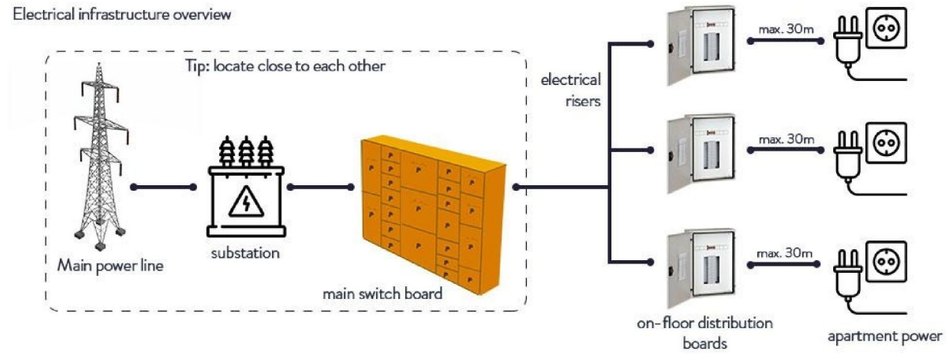
PROPOSED ELECTRICAL SERVICES

AS3000 has been found to be typically conservative in nature when compared to actual site metered loads. Based on this, we have compared the data of various measured load on electric sites and the data suggests the maximum demand could be diversified as shown above.

	AS3000 (A)	Diversified (kVA)	Required Substation Details
Stage 1	2,647	1,679	2 x 1,500 kVa Chamber
Stage 2	5,998	3,938	3 x 1,500 kVa Chamber
Stage 3	1,903	1,253	1 x 1,500 kVa Chamber

As part of the next phase of works, an ASP Level 03 will be engaged to begin the detailed design of this substation including consultation with Endeavour.

Electrical infrastructure overview



Chamber substation plan

Ventilation louvres on the front of a chamber substation

Chamber substation section

Inside a chamber substation

UTILITY REPORT

EXEC SUMMARY

SITE OVERVIEW

BUILDING CONNECTIONS

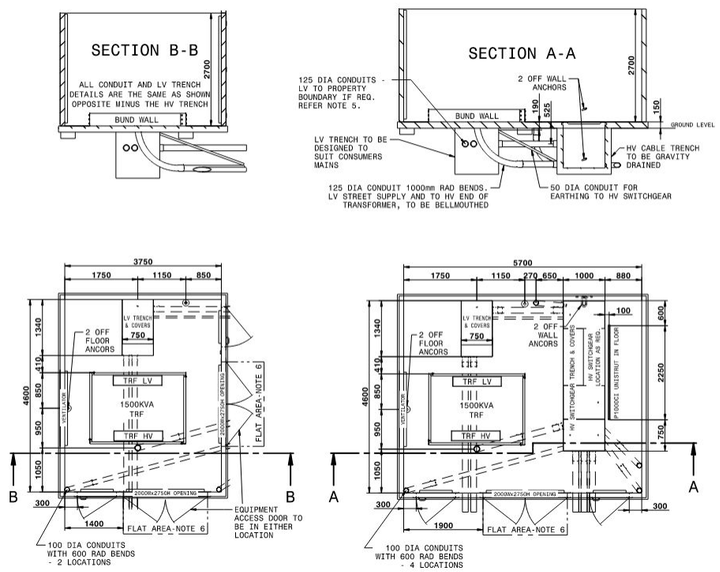
- POWER
- COMMS
- GAS
- WATER
- SEWER

REPORT INPUTS

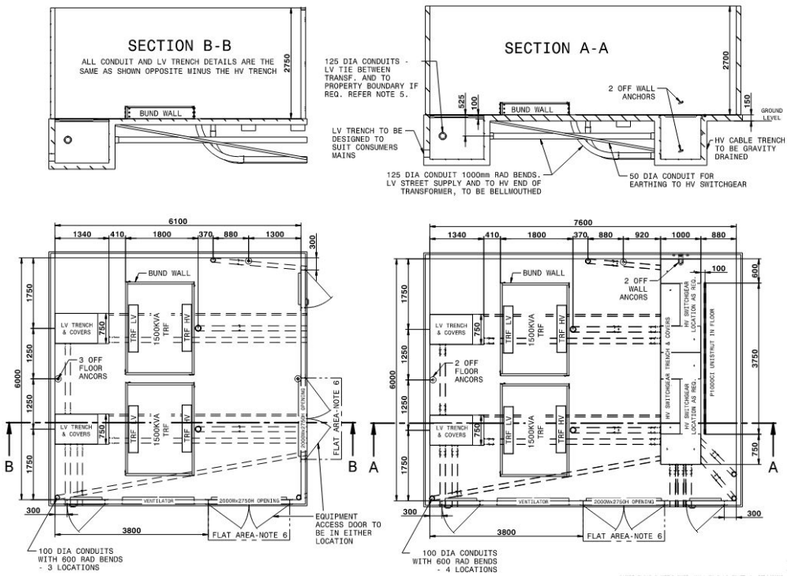
POWERED BY neuron

ELECTRICAL INFRASTRUCTURE

Single transformer Chamber



Dual transformer Chamber



Three transformer Chamber

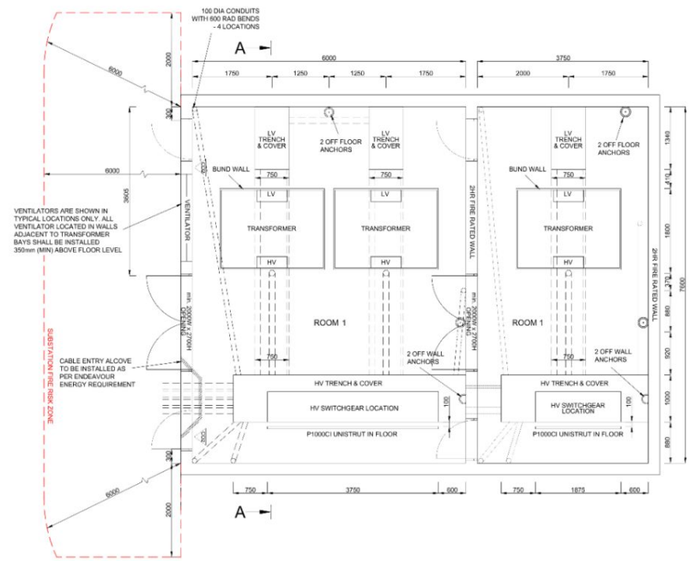
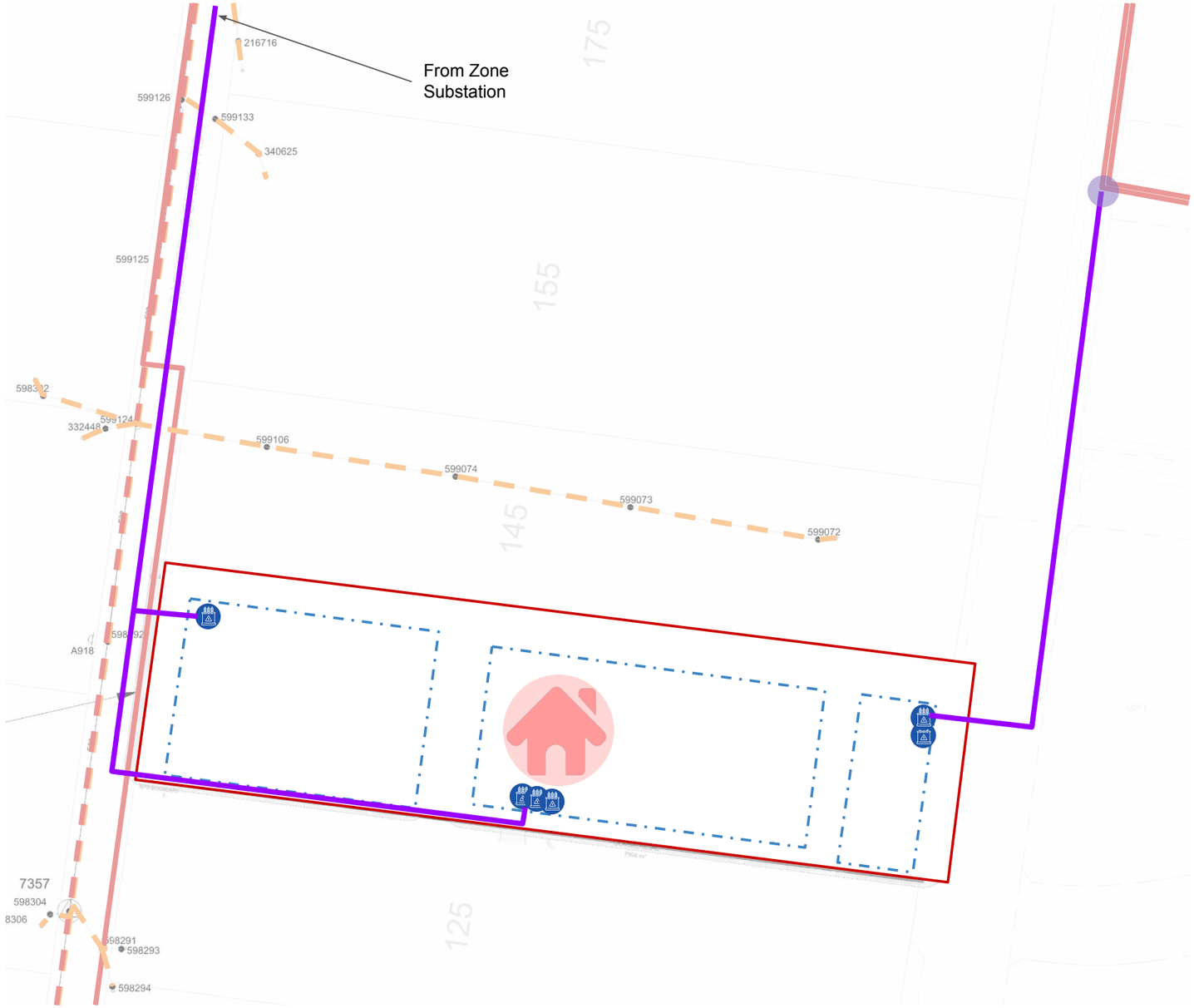


Figure 1 - Standard Endeavour Energy 3tx Sub

ELECTRICAL INFRASTRUCTURE

PROPOSED POWER INFRASTRUCTURE



Power Infrastructure Map

- Below Ground High Voltage Power
- Overhead High Voltage Power
- Below Ground Low Voltage Power
- Overhead Low Voltage Power
- Proposed Substations
- Development Location
- Proposed Power Connection Strategy 1

COMMUNICATIONS INFRASTRUCTURE

Mobile base stations
There are no carrier mobile base stations located on this site.

Mobile Base Station Map

Existing Mobile Base Station

Development Location

COMMUNICATIONS INFRASTRUCTURE

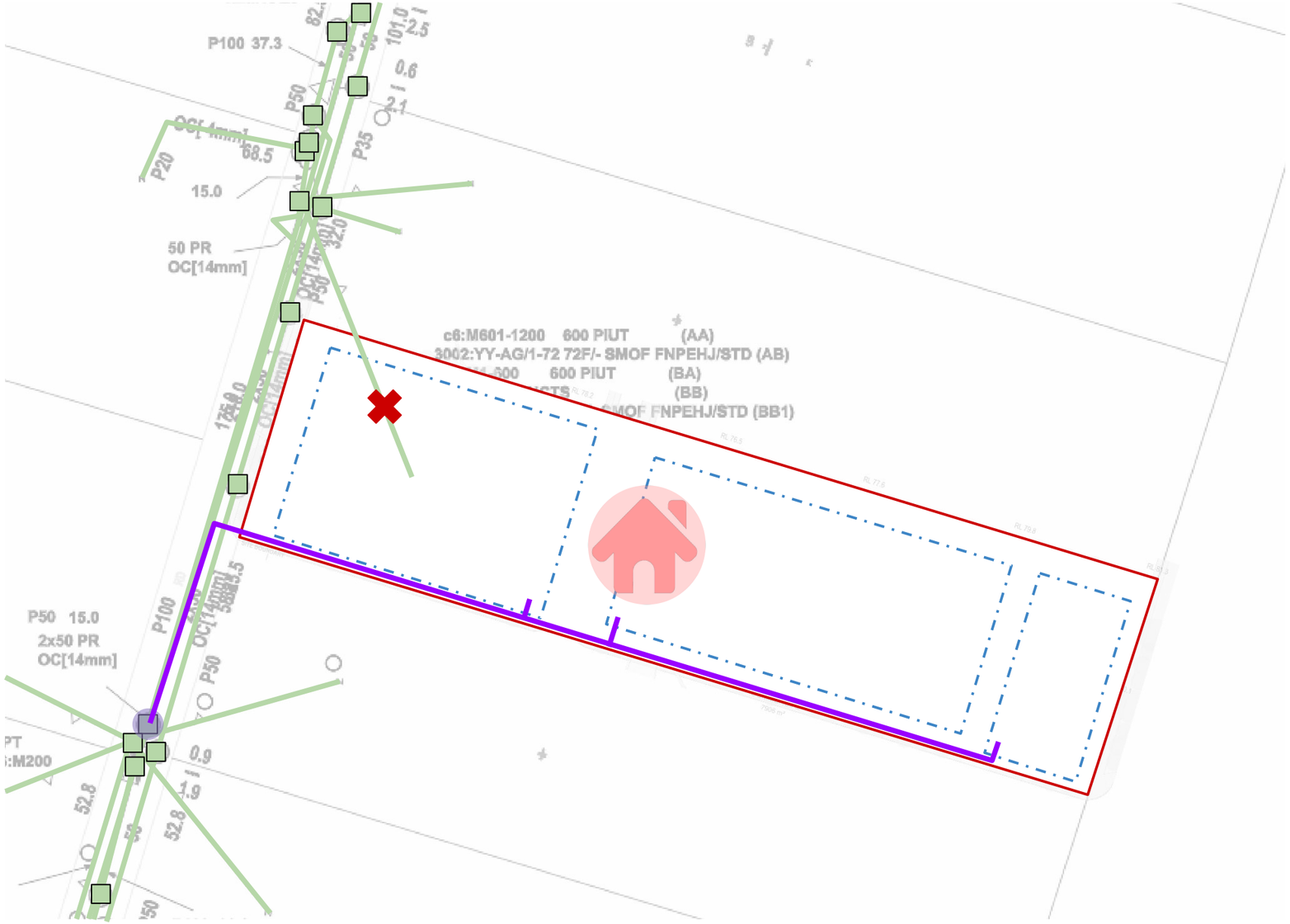
NBN

The existing NBN carrier service infrastructure is illustrated below. As shown, there is a connection opportunity available for this site. The existing NBN infrastructure running into the site will need to be removed prior to excavation. Consultation with NBN will be undertaken during the next stage of the project to coordinate the required works.

COMMUNICATIONS INFRASTRUCTURE

Telstra

The existing Telstra carrier service infrastructure is illustrated below. As shown, there is a connection opportunity available for this site. The existing Telstra infrastructure running into the site will need to be removed prior to excavation. Consultation with Telstra will be undertaken during the next stage of the project to coordinate the required works.



UTILITY REPORT

EXEC SUMMARY

SITE OVERVIEW

BUILDING CONNECTIONS

- POWER
- COMMS
- GAS
- WATER
- SEWER

REPORT INPUTS

GAS INFRASTRUCTURE

There does not appear to be gas services available in proximity to the site. Storage areas to locate localised gas storage tanks have been allowed for in the design.

Image source: https://www.hse.gov.uk/gas/lpg/storagetank.htm

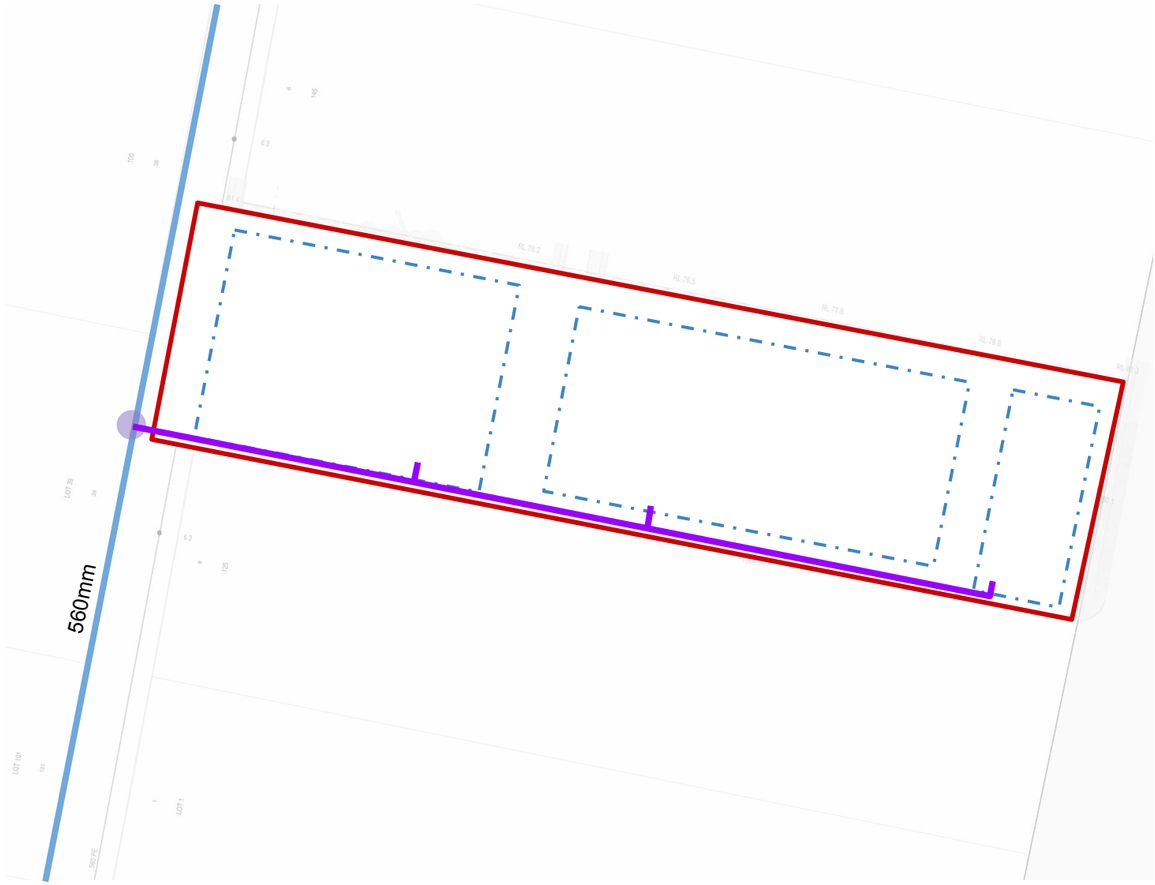
WATER INFRASTRUCTURE

The proposed connection point and existing water mains are illustrated in the adjacent image. The site has an existing 560mm water mains running along Badgerys Creek Road.

Each development lot will require its own water connection. The required size of the connection will be dependent on the size of the development. Based on the preliminary calculations see the below table for the required water connection sizes.

	Required Water Connection size		
	Stage 1	Stage 2	Stage 3
Base Scheme	200mm	200mm	200mm

A Water Services Coordinator will be engaged during the next stage of the project to begin consultation with Sydney Water and ascertain their preferred connection strategy.



UTILITY REPORT

EXEC SUMMARY

SITE OVERVIEW

BUILDING CONNECTIONS

- POWER
- COMMS
- GAS
- WATER
- SEWER

REPORT INPUTS

SEWER INFRASTRUCTURE

There is currently no Sydney Water Wastewater assets in the area. We understand Sydney Water is in the process of extending the WasteWater network. Sewer holding tanks have been allowed for as part of the design as an interim solution.

A Water Services Coordinator will be engaged during the next stage of the project to begin consultation with Sydney Water and ascertain their preferred connection strategy.