Attachment A16

Infrastructure Report

Infrastructure Report

230655 PARK ROYAL

Client:
UOL

Revision:
C

Date:
24/03/2025

REPORT INFORMATION

Project	Park Royal
Title	Infrastructure Report
Client	UOL
Revision	C
Revision Date	24/03/20255
Prepared By	LCI Consultants Sydney Office Level 5, 73 Miller Street North Sydney, NSW 2060
ABN / ACN	92 124 107 973 / 124 107 973
Author	MMc, VD, OR

REVISION SCHEDULE

Revision	Date	Issue Name	Author	Authorised
A	10.12.2024	FOR DA SUBMISSION	LCI	VD
B	13.12.2024	DA SUBMISSION	LCI	VD
C	24.03.2025	DA SUBMISSION	LCI	VD

CONTENTS

1 Introduction

1.1 Purpose

This infrastructure report has been prepared on behalf of Lehr Consultants International (Australia) Pty Ltd (LCI) in support of a planning proposal for 150 Day street, Park Royal Hotel.

1.2 The Site

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (**the site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of RL 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m^2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).

- Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.

- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

The subject site is depicted in below.

Aerial Map of Subject Site

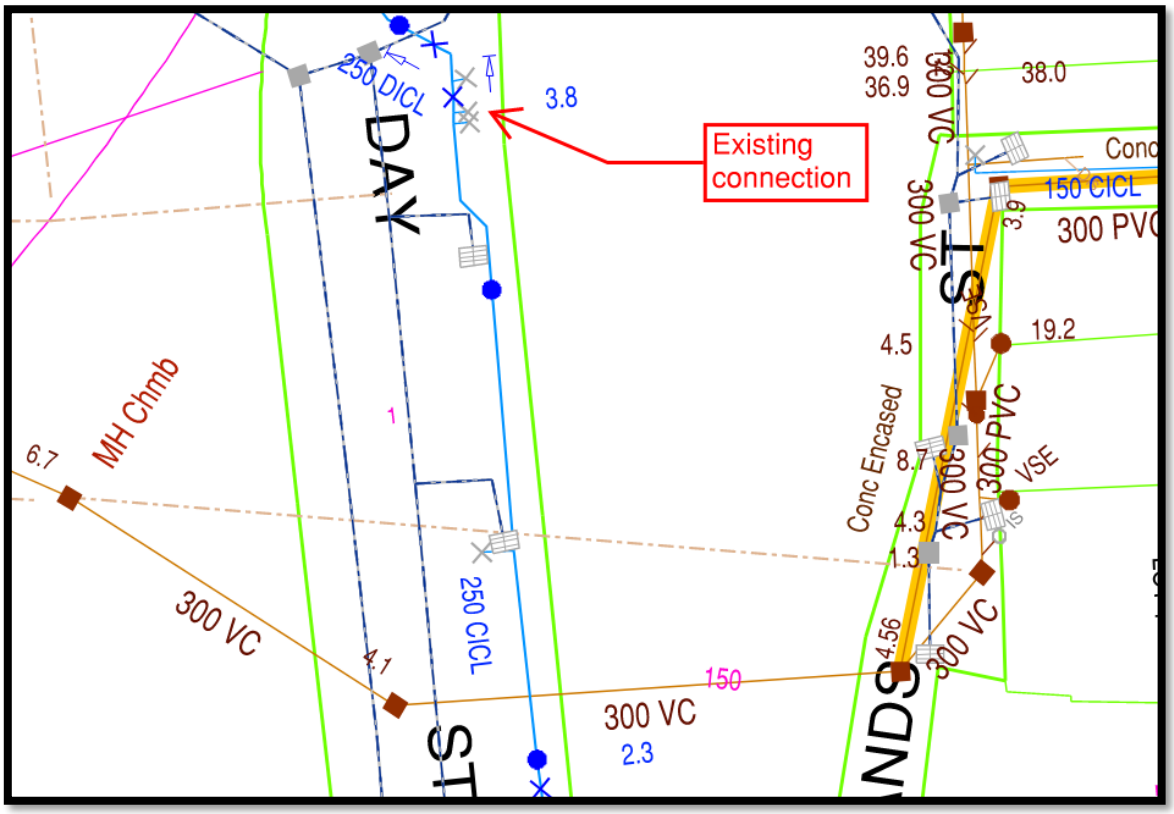
2 Water Supply

2.1 Potable Cold Water

The site 150 Day Street, Sydney is serviced for potable and fire water from an existing 250mm water main located in Day Street owned and operated by Sydney Water Corporation.

Preliminary calculations indicate that the flow rates required for the future development water services are 7L/s for potable water and 40L/s for fire services. The development has designed in a “day tank” for the potable water service to allow for water mains outages, breaks and isolations. This tank will allow for reduced flow rates. The fire service design has allowed for a combined fire water tank. This is a DTS (deemed to satisfy) solution for a combined fire hydrant and fire sprinkler system.

A pressure and flow statement has not yet been obtained from Sydney Water however annual testing from encombent fire service contractors indicates that 500kpa is available through the main at 20L/s.



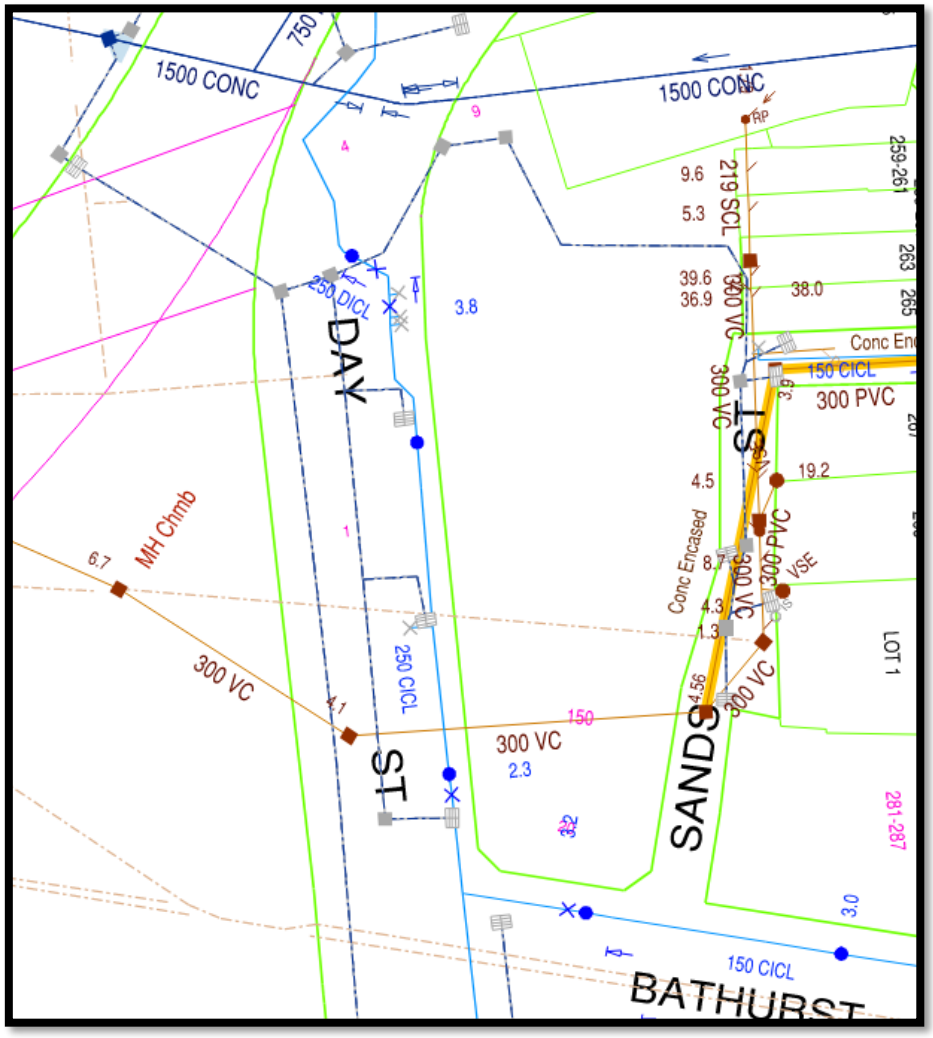
Existing Water and Fire Connections

Proposed designs are feasible and can be supplied from the existing water mains. Further development and pricing in detailed design, however no upgrades are expected to the existing water main.

3 Sewer Service

The site is serviced for sewer by an existing Gravity Sewer Main on the eastern side of the site in Sands Street, the existing sanitary drainage from site reticulates to this main. The sewer main is owned and operated by Sydney Water Corporation.

The existing sewer main reticulates from Druitt street and Druitt Lane down Sussex through Sands Street, under the existing building (within an existing easement) across Day street and down towards Tumbalong Park. Upstream of 150 Day street, the sewer main captures the lots between Druitt and Bathurst street and up to Kent street.



Sydney Water Corporation Sewer Main

Preliminary calculations of the proposed 150 Day street development indicate 3,400 Fixture units. 3,400 fixture units equals a DN225 sewer connection in accordance with AS3500.2 Sanitary Plumbing and Drainage. The existing sewer connection to the Sands Street main is DN225. See snapshot (highlight yellow) below from AS3500.2 Sanitary Plumbing and Drainage. The existing sewer main at DN300 is sized differently than property services, allowing for greater diversity of use. However when we look at the lots serviced by the existing sewer main we can see the building capacities are around four times that of 150 Day street. Using AS500.2 as a guide we can see that

if the same calculation was carried out over the upstream buildings the sewer main has the capacity to cater for the proposed development (See highlight below in pink). Further confirmation will be confirmed by Sydney Water Corporation during the Development Aplication phase of the design.

MAXIMUM FIXTURE UNIT LOADING FOR VENTED DRAINS

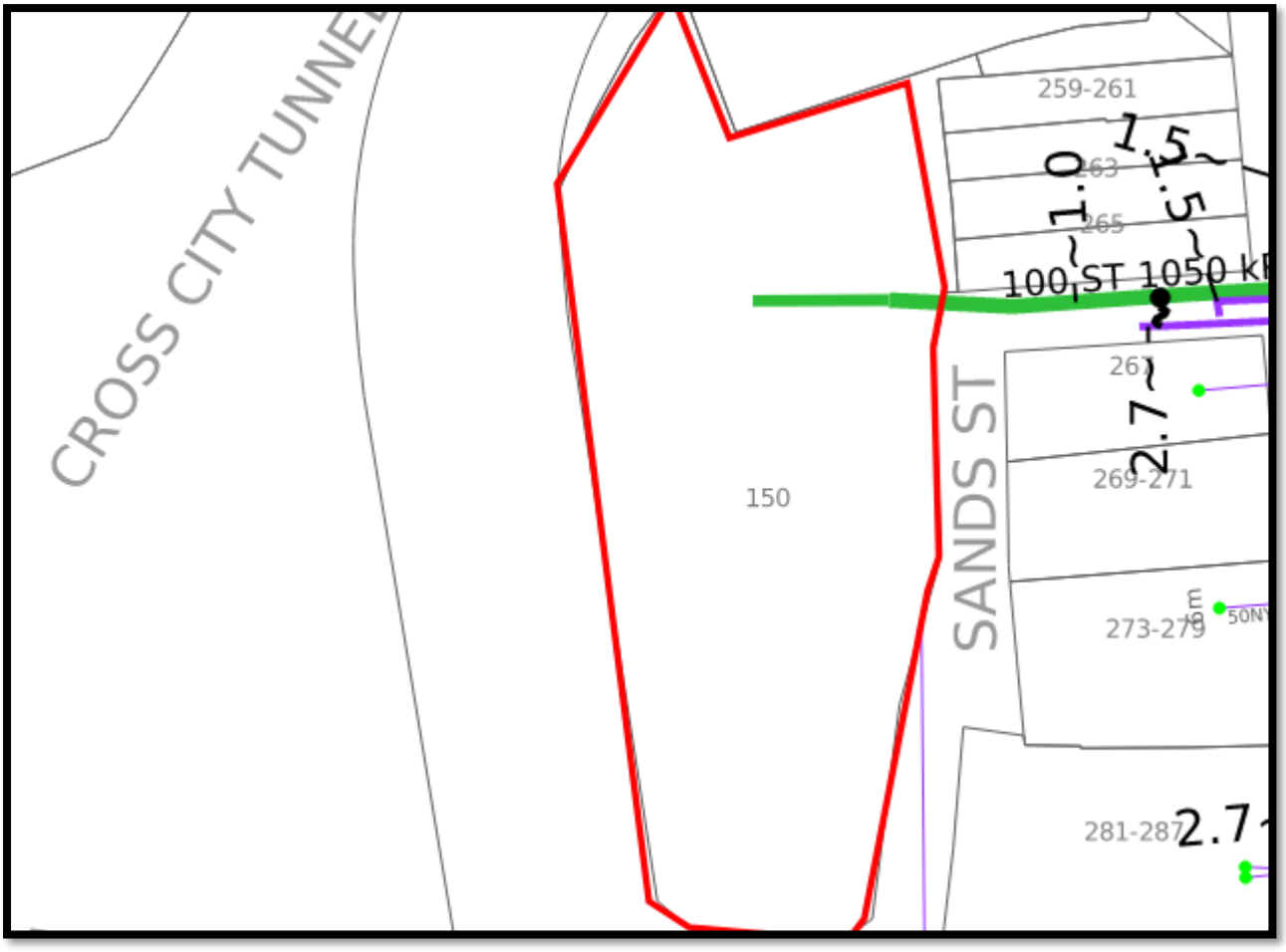
Grade, %	Nominal size of drain, DN						
	65 (Note 1)	80	100	125	150	225	300
5.00	60	215	515	1 450	2 920	11 900	26 900
3.35	36	140	345	1 040	2 200	9 490	21 800
2.50	25	100	255	815	1 790	8 060	18 700
2.00	×	76	205	665	1 510	7 090	16 600
1.65	×	61	165	560	1 310	6 370	15 000
1.45	×	(50)	(140)	485	1 160	5 810	13 900
1.25	×	(42)	(120)	425	1 040	5 360	12 900
1.10	×	×	×	(380)	935	4 970	12 100
1.00	×	×	×	(340)	855	4 500	11 400
0.85	×	×	×	×	(725)	3 850	10 300
0.65	×	×	×	×	(595)	3 250	9 090
0.50	×	×	×	×	×	×	7 720
0.40	×	×	×	×	×	×	6 780

AS3500.2 Sanitary Plumbing and Drainage sizing table

No upgrade to the sewer infrastructure is required for the proposed development.

4 Gas Service

The existing site is serviced for natural gas from a DN200 1,050kpa main located in Sands Street. The existing building uses natural gas for heated water generation , space heating and commercial cooking. The proposed base building development and hotel operators will not be using natural gas for heated water generation, space heating or cooking with kitchens.



Jemena City South Gas Mains Map

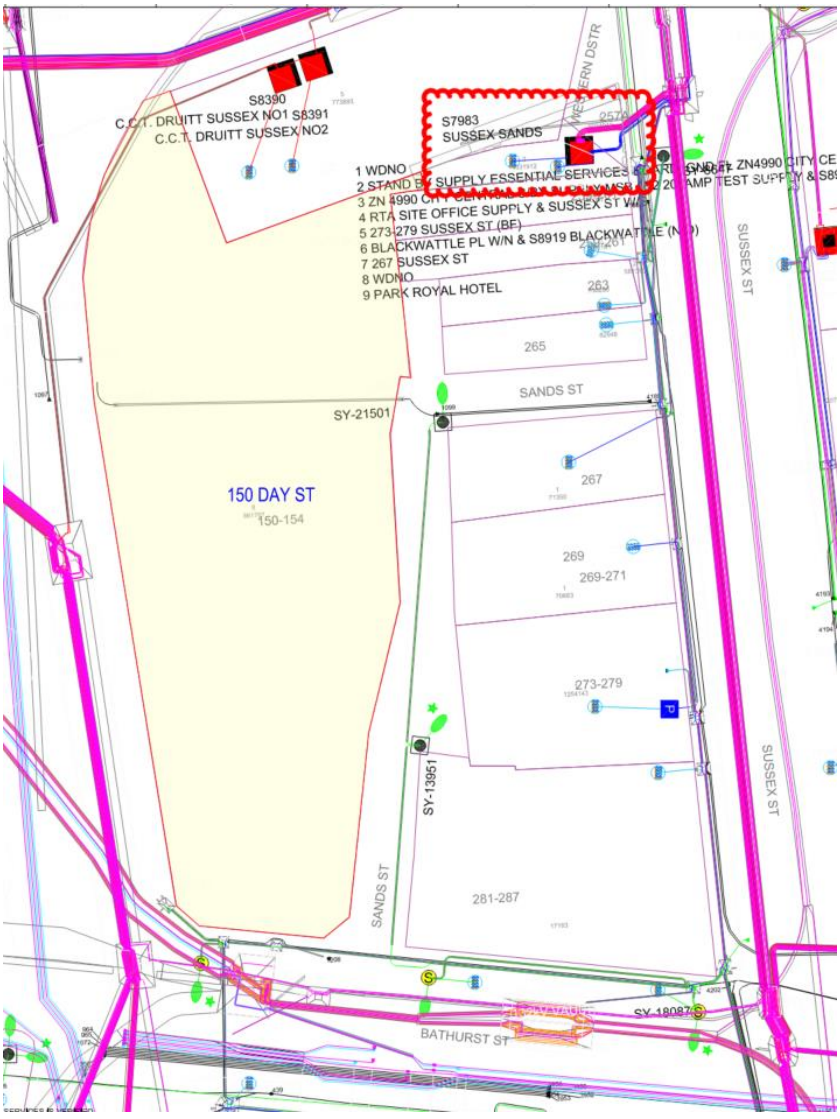
5 Electrical

5.1 Existing

The proposed development site is within the authority of the Ausgrid network, with existing Ausgrid electrical assets adjacent to the site boundary.

There are currently two (2) existing Ausgrid chamber substations to the north and one (1) chamber substation north east of the development. The existing development is currently fed from LV direct distributor No.9 from substation SUSSEX SANDS S.7983.

Refer to the below figure for the locations of the Ausgrid assets and substation SUSSEX SANDS S.7983 (clouded red).

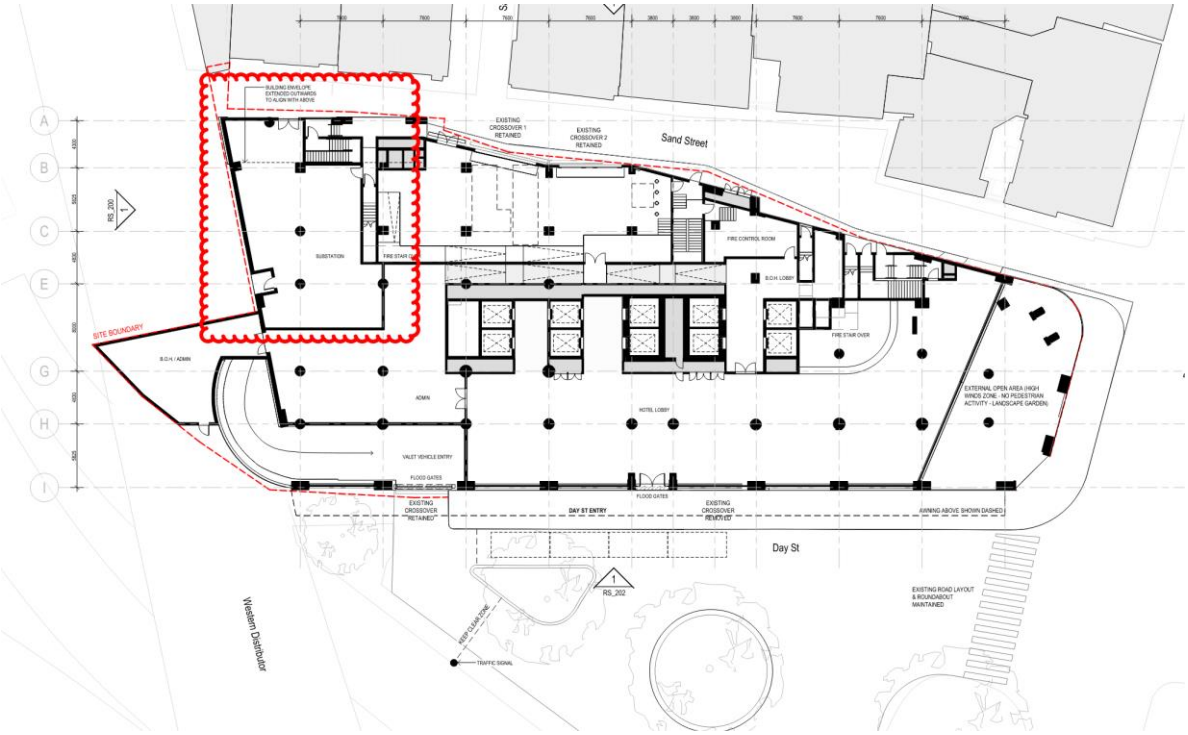


Location of Ausgrid Assets.

5.2 Proposed

Preliminary max demand calculations forecasts the site consumption to be in the order of 3.3 MW. It is assumed all existing surrounding substations do not have the electrical capacity for the development.

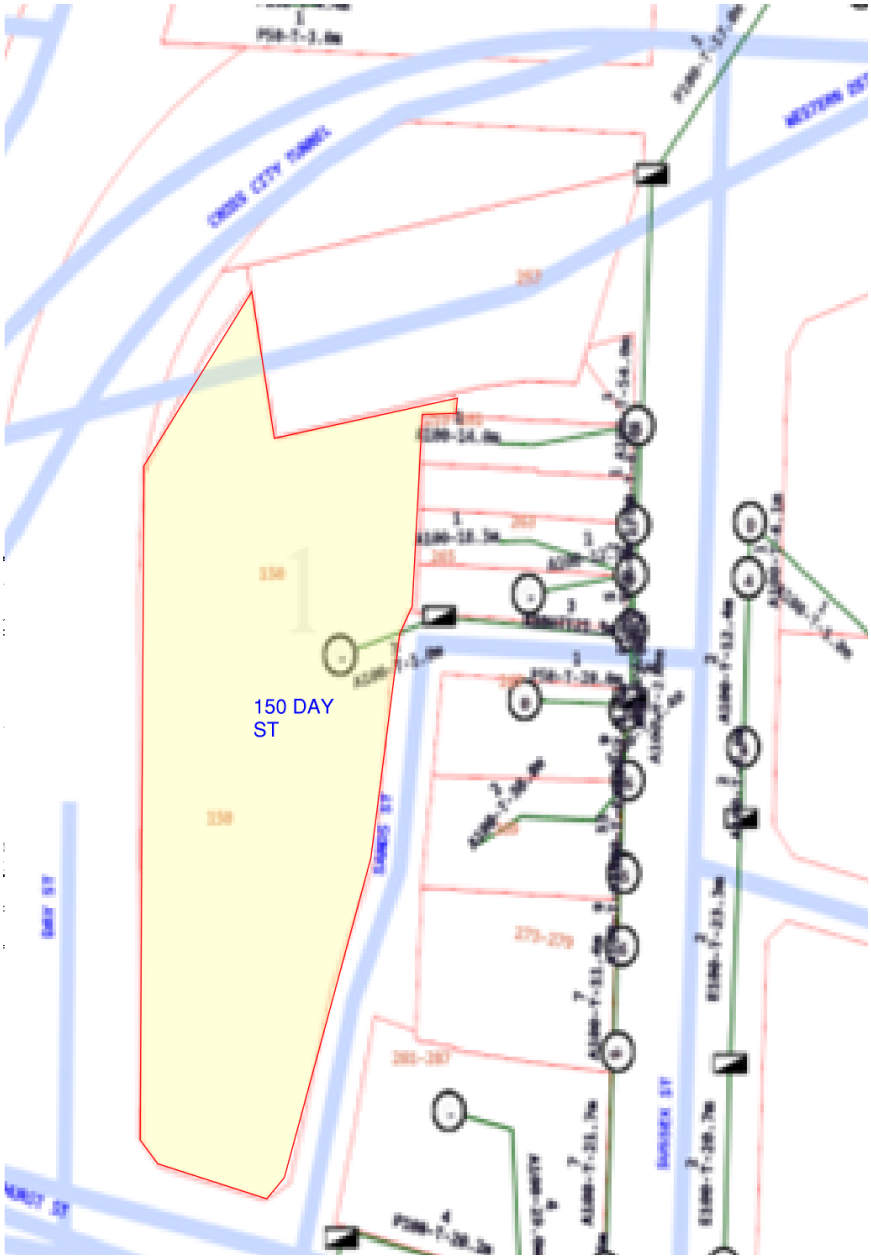
It is proposed that the development will be supplied via a dedicated Ausgrid triplex substation arrangement located on ground level, north east of the site. Incoming cables will be entering the development from Sands Street



Location of Proposed Ausgrid Triplex Substation

6 Information and Communication Technology

The development currently has a NBN connection from Sands Street, with an unknown quantity of fibre connections from other telco providers as well terminating into an MDF room. It is proposed that this MDF room will be retained and connection is maintained including any existing NBN equipment on site be relocated to the new Telcommunication Room in Basement 1 of the development.



NBN Existing Connection (BYDA Map)

Lehr Consultants International (Australia) Pty Ltd (ABN 92 124 107 973) is the evolution of a firm which began in 1969. Challenging the standard approach to Building Services engineering, LCI offers traditional and innovative consulting services worldwide, as well as access to cutting edge technological thought, applications and proprietary systems.

We are proudly 100% owned and operated in Australia by our staff.

VISIT US
www.lciconsultants.com.au

MELBOURNE
Level 2/616 St Kilda Rd
Melbourne, VIC 3004
P (03) 9230 5600

SYDNEY
Level 5/73 Miller St
North Sydney, NSW 2060
P: (02) 9157 0570

BRISBANE
Level 1/293 Queen St
Brisbane City, QLD 4000
P (07) 3831 3300

PERTH
L9 108 St Georges Terrace,
Perth WA 6000
P: (08) 9242 5857

CANBERRA
Level 2/1 Farrell Place
Canberra, ACT 2601
P: (02) 9157 0570

ADELAIDE
Level 4, 91 King William St
Adelaide, SA, 5000
P: (08) 7078 8896