

PUTNEY HILL

VICTORIA ROAD, RYDE, NSW

Electrical Infrastructure Report - Stage 2



Prepared for:
Frasers Putney Pty. Ltd
December 2013

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- DOCUMENT CONTROL SHEET -

Issue No.	Amendment	Prepared By & Date	Checked By and Date	Approved By and Date
A	Draft			
	Final	KN 19/12/13	JS 19/12/13	
	Signatures			
	File location	J:\9807 - Putney Hill Stage 2\Project Documents, EoQ & Programs\9807 H.docx		

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1 INTRODUCTION

1.1 Objectives

The purpose of the report is to investigate the existing electrical services infrastructure constructed for Stage 1 and define the parameters and overall concept for the Electrical Services Infrastructure for Stage 2 of the proposed development.

The report provides preliminary recommendations for the provision of Electrical Services infrastructure to the site.

The report covers the following services infrastructure:

- Power Supply
- Telecommunications

1.2 Existing Services Location Disclaimer

The report is based on drawings received from the client, service providers and utilities searches. All authorities have a disclaimer on the accuracy of their drawings. Also, due to the nature of the services, replacement or new cabling may be carried out by the Authorities at any time.

During the course of the design work, extensive co-ordination will be required between the in-ground water and sewer services, gas, communications, electrical, and other service providers.

1.3 Project Background

Fraser's Putney is located on the former Ryde Rehabilitation Centre Sydney, on Victoria Road Ryde which comprises a site area of approximately 17.8 ha. The site has been in operation as a rehabilitation centre since 1899. RRCS have relocated into new premises on a 2 ha facility on the site near Morrison Road.

To date RRCS has undertaken extensive planning and consultation to conceptually plan the site into a residential community with mixed use of medical and community facilities. Concept Plan approval was obtained from the Minister for Planning on 23 March 2006 and the Part 3A approval on the 16 December 2008.

Fraser's Putney Pty. Ltd propose to develop the remainder of the RRCS site which comprises 15.8 ha of proposed residential development consisting of approximately 791 dwellings. The development of 15.8ha will be known as Putney Hill and will include residential buildings and infrastructure works for associated future residential occupancy. Stage 1 of the development is under construction.

1.4 The Site

Royal Rehabilitation Centre Sydney (RRCS) occupied a 17.8 ha site bounded by Morrison Road, Princes Street, Victoria Road and Charles Street Ryde.

Stage 1 of the development is under construction.

The Stage 2 site falls from a highpoint at the junction of Morrison Road and Princes Street in the western corner in a north easterly direction to the middle of the site and the constructed park and basin as part of Stage 1 works.

1.5 The Development

The proposed Stage 2 development comprises residual land of approx. 5.4 Ha being developed into a residential subdivision for up to 344 dwellings including roads, parkland and infrastructure services.

The residential component will comprise the following:

- Apartment buildings
- Townhouse developments:

It is envisaged the development will be constructed in several sub stages within Stage 2. The Residential development for Stage 2 includes 40 Houses and 304 apartments. The Stage 1 residential development includes 447 dwellings. The central detention basin and water quality treatment pond have already been delivered.

2 POWER SUPPLY

2.1 Existing High Voltage Services

There are currently 2 substations located within Stage 1.

There is a further substation located on Morrison Rd, opposite Boulton 51. This substation feeds the hospital site as well as providing street feeders which service the local area.

2.2 Estimated Maximum Demand

Based on calculations according to AS3000 "The Wiring Rules", the estimated maximum demand of the Stage 2 development will be approximately 2500kVA.

Outdoor kiosk-type substations or similar will need to be established and located throughout the residential component of the development in order to service the estimated load.

2.3 HV Reticulation and Substations

A level 3 electrical designer will be required to further investigate the current HV supply feeder capacity.

2.4 Low Voltage Distribution

Low voltage cables will be reticulated from the substations to the various apartment building/townhouse complex main switch rooms or via turrets to the freestanding houses, in underground conduits.

3 VOICE AND DATA COMMUNICATIONS

3.1 Existing Communications Infrastructure

Existing communications services have been provide for in Stage 1 of the development and are located at the intersection of Road No2 and No 5.

3.2 Provisions For Communications Infrastructure

Standard NBN Co. pits and conduits will be provided throughout the proposed roadways within the Stage 2 Development.

3.3 Developer's Commitments

The developer will provide conduits, pits and trenching within the site.

4 CONCLUSION

Electrical and Communications services are capable of being suitably provided to the Stage 2 Development via services constructed as part of the Stage 1 development