



Shelmerdines
Consulting Engineers

14 June 2022
DT: 7434

Aqualand St Leonard Development 3 Pty Ltd
Level 37, Australia Square
264 George Street
SYDNEY NSW 2000

Attention: Ms Diana De Borja

Dear Diana

**12-20 BERRY ROAD & 11-19 HOLDSWORTH AVENUE, ST LEONARDS SOUTH
PROPOSED RESIDENTIAL DEVELOPMENT
ELECTRICAL SERVICES**

Shelmerdines Consulting Engineers have carried out a maximum demand assessment of the proposed residential development. We have estimated that the load for the development will be 997kVA or 1,385Amps per phase, which also includes an allowance for electric vehicle charging.

An application for connection has been submitted to Ausgrid on the 24th March 2022 and the response from Ausgrid has established that the development will require a 1,000kVA transformer in the form of a mini-chamber substation. The mini chamber substation has subsequently been designed into the development by the Architects and included into the DA drawings. Additionally the application for connection has noted the need to underground the existing aerial poles and wires along both street frontages, Berry Road and Holdsworth Avenue.

A Proposed Design Scope has been prepared by Shelmerdines and submitted to Ausgrid on the 1st June 2022. This sketch design shows the high voltage cables being trenched underground and connecting into the Ausgrid HV Network in Marshall Avenue. The extent of proposed undergrounding of the poles and wires is also indicated on the Proposed Design Scope. A copy of the PDS is attached to this letter.

We trust the above is satisfactory. Should you require any additional information, please contact the undersigned.

Yours faithfully
SHELMERDINES

David Taylor

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Engineering Pty Ltd
ABN 40 003 331 879

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ALL WORK TO BE UNDERTAKEN IN ACCORDANCE WITH AUSGRID'S NETWORK STANDARDS

PROPOSED DESIGN SCOPE SKETCH

GENERAL NOTES:

- CLAIMS FOR VARIATIONS TO THE COST OF NON-CONTESTABLE WORKS, INCLUDING ROCK EXCAVATION, WILL NOT BE ACCEPTED UNLESS VERIFIED ON SITE BY AUSGRID WHILE THE WORKS ARE IN PROGRESS.
- THE ASP1 IS RESPONSIBLE FOR UNDERTAKING SATISFACTORY CONSULTATION WITH ALL LOCAL CUSTOMERS WHO MAY POTENTIALLY BE AFFECTED BY THE CONSTRUCTION WORKS INCLUDING ALL ALTERATIONS TO SERVICE MAINS.
- THE ASP1 MUST MINIMISE THE IMPACT OF THE WORKS ON THE ELECTRICITY SUPPLY TO CUSTOMERS AND INTERRUPTIONS TO SUPPLY MUST BE AVOIDED WHEREVER POSSIBLE. AT LEAST FOUR (4) CLEAR BUSINESS DAYS NOTICE MUST BE PROVIDED TO ALL AFFECTED CUSTOMERS PRIOR TO ANY PLANNED INTERRUPTIONS TO THE ELECTRICITY SUPPLY. NOTICE MUST BE IN WRITING IN ACCORDANCE WITH CLAUSE 90 OF THE NATIONAL ENERGY RETAIL RULES.
- SPECIFIC PRIOR APPROVAL MUST BE SOUGHT FROM AUSGRID FOR ANY PLANNED ELECTRICITY SUPPLY INTERRUPTIONS WHERE THE PLANNED INTERRUPTION WILL EXCEED ONE (1) HOUR IN DURATION OR THE DURATION WILL BE LESS THAN ONE HOUR, BUT A SUITABLE TIME FOR THE INTERRUPTION CANNOT BE MUTUALLY AGREED TO WITH THE AFFECTED CUSTOMER(S).
- LV MAINS TO HAVE 500mm OF COVER, WITHIN THE FOOTWAY, WITH HV MAINS TO HAVE 600mm COVER. ALL MAINS WITHIN THE ROADWAY TO HAVE 750mm COVER.
- THE ASP1 IS REQUIRED TO COMPLY WITH THE CORRECT PROCEDURE(S) FOR WORKING WITH AND/OR NEAR ASBESTOS MATERIAL. (REFER TO AUSGRID NUS 211 - WORKING WITH ASBESTOS PRODUCTS).
- FOR JOINTING & IDENTIFICATION PURPOSES, ALL CABLE ENDS SHALL BE LABELLED AT THE TERMINATIONS AND IN JOINT BAYS DURING CABLE INSTALLATION. THE CABLES MUST BE LABELLED AS PER THE CERTIFIED DESIGN.
- ALL ENQUIRES OR ISSUES RAISED REGARDING THE DESIGN & CONSTRUCTION OF THIS PROJECT TO BE DIRECTED TO SHELME RDINES CONSULTING ENGINEERS ON 9436 3021.
- THE ASP MUST MAKE A SAFETY AND ENVIRONMENTAL ASSESSMENT OF THE SUBSTATION SITE AND THE EQUIPMENT TO BE RECOVERED, PRIOR TO COMMENCING WORK. THIS WILL INCLUDE SAFE WORK PROCEDURES FOR WORKING WITH ASBESTOS, AS APPLICABLE. THE ASP1 MUST ALSO CHECK FOR THE PRESENCE OF PCB CONTAMINATED OIL BY ARRANGING FOR AUSGRID TO CARRY OUT PCB TESTING OF ALL OIL FILLED EQUIPMENT, PRIOR TO HANDLING AND TRANSPORTING THIS EQUIPMENT. THIS WILL INVOLVE THE ASP1 TAKING AN OIL SAMPLE FROM THE EQUIPMENT AND DELIVERING IT TO AUSGRID FOR TESTING, PLEASE REFER TO THE PROCEDURE DETAILED AUSGRID DOCUMENT 'RETURN OF FREE ISSUE EQUIPMENT'. AUSGRID WILL TEST FOR PCB AND ALSO THE GENERAL CONDITION OF THE OIL AND FUND THE ACTUAL OIL TEST. THE OIL TEST RESULTS MUST ACCOMPANY THE RETURNED EQUIPMENT.
- THE ASP MUST TAKE THE APPROPRIATE SAFETY AND ENVIRONMENTAL PRECAUTIONS AND ARRANGE FOR THE APPROPRIATE LICENSES AND AUTHORISATION IN HANDLING AND TRANSPORTING HAZARDOUS EQUIPMENT, TO ENSURE COMPLIANCE WITH RELEVANT LEGISLATION AND AUSGRID'S NUS 174 ENVIRONMENTAL PROCEDURES.
- THIS INFORMATION INCLUDES DATA FROM THE NSW DIGITAL CADASTRAL DATABASE BY LAND AND PROPERTY INFORMATION © 2016, USED UNDER CREATIVE COMMONS VERSION 4.0.

WARNING

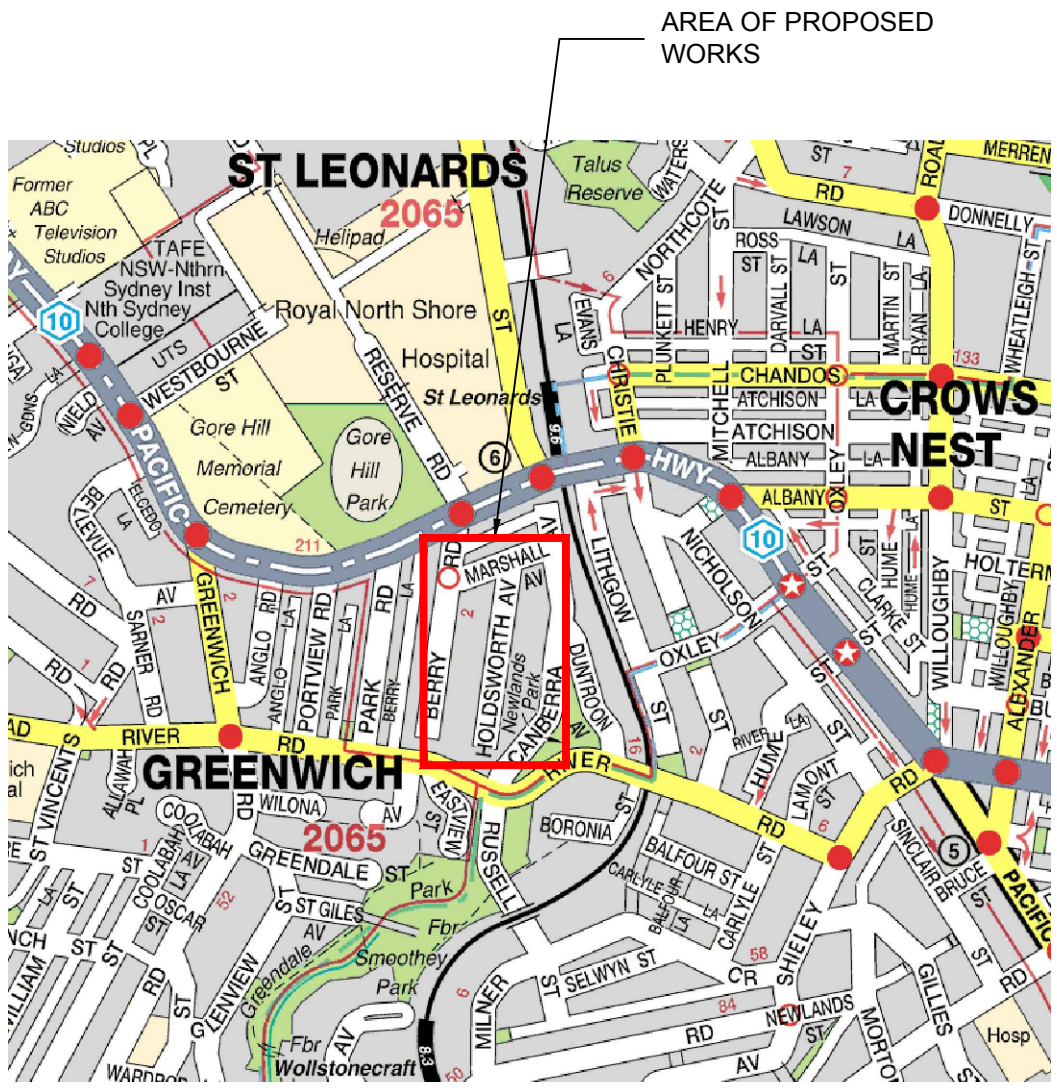
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ASP LEVEL 2 WORK

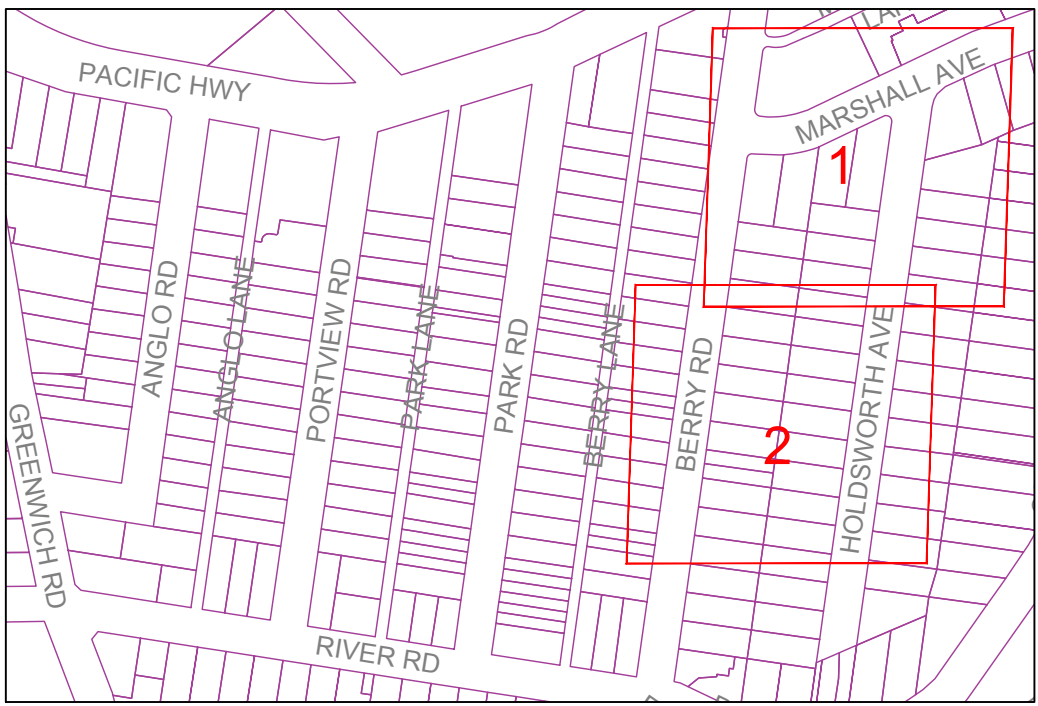
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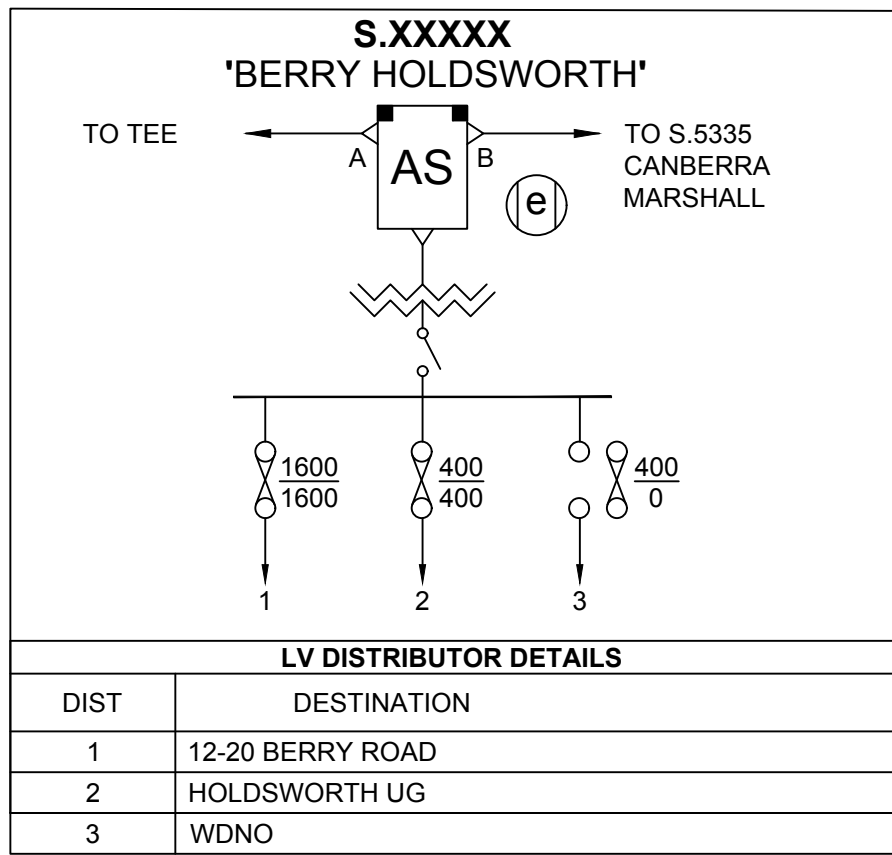
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LOCALITY PLAN
UBD REF: 215N7
N.T.S



KEY PLAN



SUBSTATION SCHEMATIC DIAGRAM

KIOSK SUBSTATION DETAILS	
SUBSTATION NAME:	BERRY HOLDSWORTH
SUBSTATION NUMBER:	S.xxxxx
ADDRESS:	12-20 BERRY ROAD
SUBSTATION TYPE:	STANDARD SURFACE CHAMBER LAYOUT 1
SIZE (kVA):	1000 kVA
VECTOR GROUP:	Dyn1
TAP SETTING:	No.6 10670/433V
HV SWITCHGEAR:	ABB SAFELINK
HV FUSE DETAILS:	100 AMP SIBA 30.020.93.100
LOAD CYCLE:	LOAD CYCLE D: MIXED PREDOMINATELY DOMESTIC
LOW VOLTAGE BOARD:	1600/400/400
TRANSF. LV LINK RATING:	1600 AMP
CCT1 LV FUSE SIZE (Amps):	1600 AMP 160mm CENTRES ALSTOM
CCT2 LV FUSE SIZE (Amps):	400 AMP 92mm CENTRES BELL MEM/ 'J'
CCT3 LV FUSE SIZE (Amps):	WDNO
CONFIGURE AS:	Dyn11: NO
EARTHING REQUIREMENTS:	AS PER NS116
EASEMENT PLAN DETAIL:	AS PER THIS DESIGN

CHAMBER SUBSTATION REFERENCE DRAWINGS	
25121	DETAILS OF EARTH ROD INSTALLATION
43140	STANDARD SUBSTATION DESIGN DETAILS OF LOUVRE DOORS
48008	CONSTRUCTION DETAILS - MISCELLANEOUS
162655	INDOOR DISTRIBUTION TRANSFORMER MOUNTING DETAIL OF CURRENT TRANSFORMERS AND EARTH BAR (FOR REFERENCE ONLY)
191085	CUSTOMER CHAMBER SUBSTATIONS HV PIT CONSTRUCTION AND HV SWITCHGEAR SUPPORT STEELWORK

EQUIPMENT SCHEDULE	
STOCKCODE	ITEM
179642	ABB SAFELINK RMI HV SWITCHGEAR (CUSTOMER FUNDED)
181835	SAIF CHAMBER LV BOARD (400/400/1600) (CUSTOMER FUNDED)
180358	1000kVA OIL FILLED TRANSFORMER (CUSTOMER FUNDED)

ASSOCIATED DRAWINGS

CERTIFICATION NUMBER

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A1

1 of 3

CHECK FOR OTHER SERVICES BEFORE BORING OR EXCAVATING - PHONE DIAL-BEFORE-YOU-DIG ON TELEPHONE 1100 OR AT WWW.1100.COM.AU

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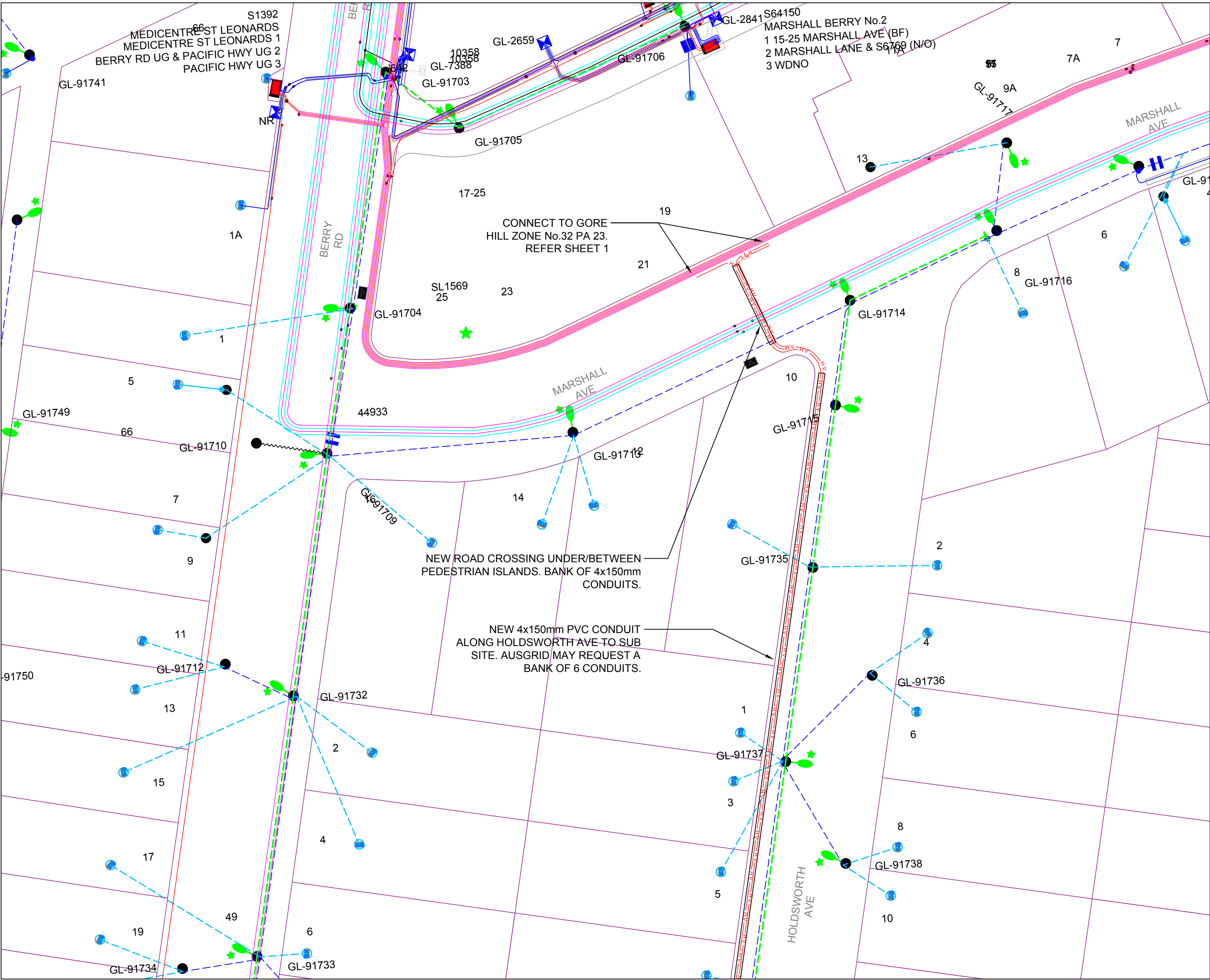
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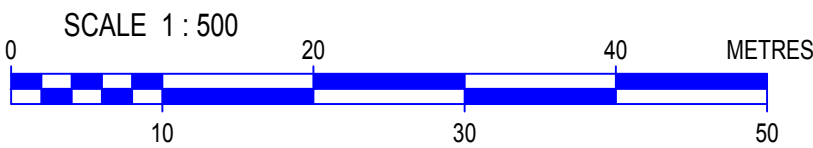
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SITE PLAN 1



CAD DRAWING
DO NOT SCALE
AMENDMENTS

ASSOCIATED DRAWINGS

LEVEL 3 ACCREDITED SERVICE PROVIDER

Shelmerdines
Consulting Engineers

ABN: 40 003 331 879 Telephone: (02) 9436 3021
55 Hume Street Email: mail@shelmerdines.com.au
Crows Nest NSW 2065 Web: www.shelmerdines.com.au

DESIGNED BY
AUTH NO.
SUBMIT DATE
LGA
MAP REF.
AUSGRID REF.
PRJTRAK NO.

SUBMITTED / /

UBD or STREET DIR. REF.
AUSGRID MAP REF.

UG & EST. STD CHAMBER
S.xxxxx 'BERRY HOLDSWORTH'
AT 12-20 BERRY RD &
11-19 HOLDSWORTH AVE
ST LEONARDS

AUSGRID PROJECT No.

SIZE **A1** SHEETS **2 of 3** AMD **0**

CERTIFICATION NUMBER

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