

SOUTH WEST ROCKS LIVING PTY LTD

ADDRESS: SUBDIVISION OF LOT 3, DP 801467

286-310 GREGORY STREET, SOUTH WEST ROCKS NSW 2431



DRAWING INDEX	
DWG NO.	TITLE
E01	PROPOSED ESSENTIAL ENERGY ELECTRICAL RETICULATION
E02	PROPOSED ESSENTIAL ENERGY ELECTRICAL RETICULATION
E03	ESSENTIAL ENERGY SUB DETAIL AND TRENCH SECTIONS
E04	SINGLE SECTION AS/NZS AS300 INTERNAL RETICULATION
E05	SINGLE SECTION NBN INTERNAL RETICULATION

ELECTRICAL RETICULATION PLAN

LEGEND

- EXISTING SUBSTATION - POLE MOUNTED
- EXISTING POLE TRANSMISSION, HV
- NEW POLE TRANSMISSION, HV
- EXISTING POLE TRANSMISSION, LV
- NEW POLE HV, LV
- EXISTING POLE HV
- EXISTING POLE LV
- EXISTING STREETLIGHT
- NEW STREETLIGHT
- EXISTING PRIVATE POLE
- EXISTING GROUND STAY
- LV SPREADER
- EXISTING HV OVERHEAD
- EXISTING HV UNDERGROUND
- NEW 11kV OVERHEAD
- NEW 11kV UNDERGROUND
- NEW 33kV UNDERGROUND
- 33kV OVERHEAD
- EXISTING LV OVERHEAD
- EXISTING LV UNDERGROUND
- NEW LV OVERHEAD
- NEW LV UNDERGROUND
- CONDUIT
- NEW STREETLIGHT CABLE IN 50mm CONDUIT
- EASEMENT
- DELETED / RELOCATED ASSETS
- HV GAS SWITCH
- HV AIR BREAK SWITCH
- LV OPEN BONDS
- LV LINKS (OPEN)
- LV LINKS (CLOSED)
- HV LINKS (CLOSED)
- EXISTING SUBSTATION - PAD MOUNTED
- NEW SUBSTATION - PAD MOUNTED
- EXISTING LV PIT
- NEW LV PIT
- EXISTING LV PILLAR
- NEW LV PILLAR
- EXISTING LV LINK PILLAR
- NEW LV LINK PILLAR
- MEN POINT
- LOCATION
- OTHER SERVICES - GENERAL COMMS LINE
- OTHER SERVICES - WATER
- OTHER SERVICES - STORM WATER
- OTHER SERVICES - SEWER

DANGER!
LIVE OVERHEAD MAINS
EXERCISE
EXTREME CAUTION

DANGER!
LIVE UNDERGROUND MAINS
EXERCISE
EXTREME CAUTION

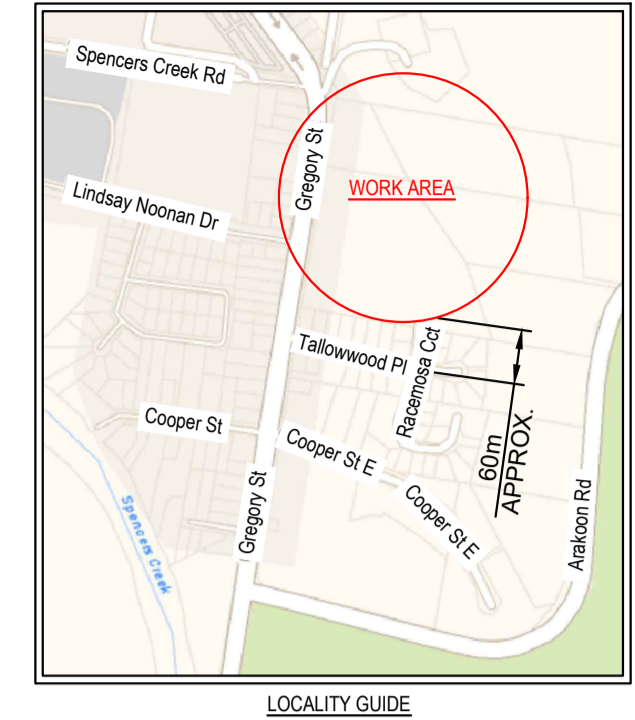
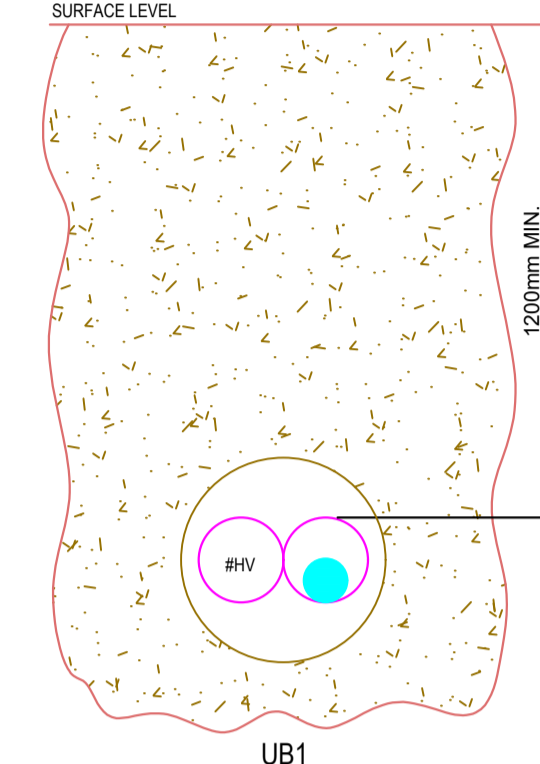
DANGER!
LIVE OVERHEAD MAINS
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EXTREME CAUTION

DANGER!
LIVE UNDERGROUND MAINS
EXERCISE
EXTREME CAUTION

DANGER!
LIVE OVERHEAD MAINS
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TYPICAL TRENCH SECTIONS
TRENCHING NOTES
ALL TRENCHING TO BE IN ACCORDANCE WITH CEOM7201 - TRENCHING AND PITS
THESE SECTIONS / NOTES ARE PROVIDED AS A GUIDE ONLY. THE SCHEDULES DETAIL THE CABLE & CONDUITS TO BE LAID. DETAILS OF DEPTHS, OFFSETS, SPACINGS, BACKFILL MATERIAL SHALL BE DETERMINED BY REFERENCING OF CURRENT ESSENTIAL ENERGY STANDARDS ONLINE.

TRENCH LEGEND
NEW HV CABLE
NEW 140mm BORE PIPE
NEW SPARE HV CONDUIT



ESSENTIAL ENERGY FUNDING
DEVELOPER IS TO PAY ALL COSTS ASSOCIATED WITH THIS DEVELOPMENT
ESSENTIAL ENERGY FUNDED ITEMS - NIL

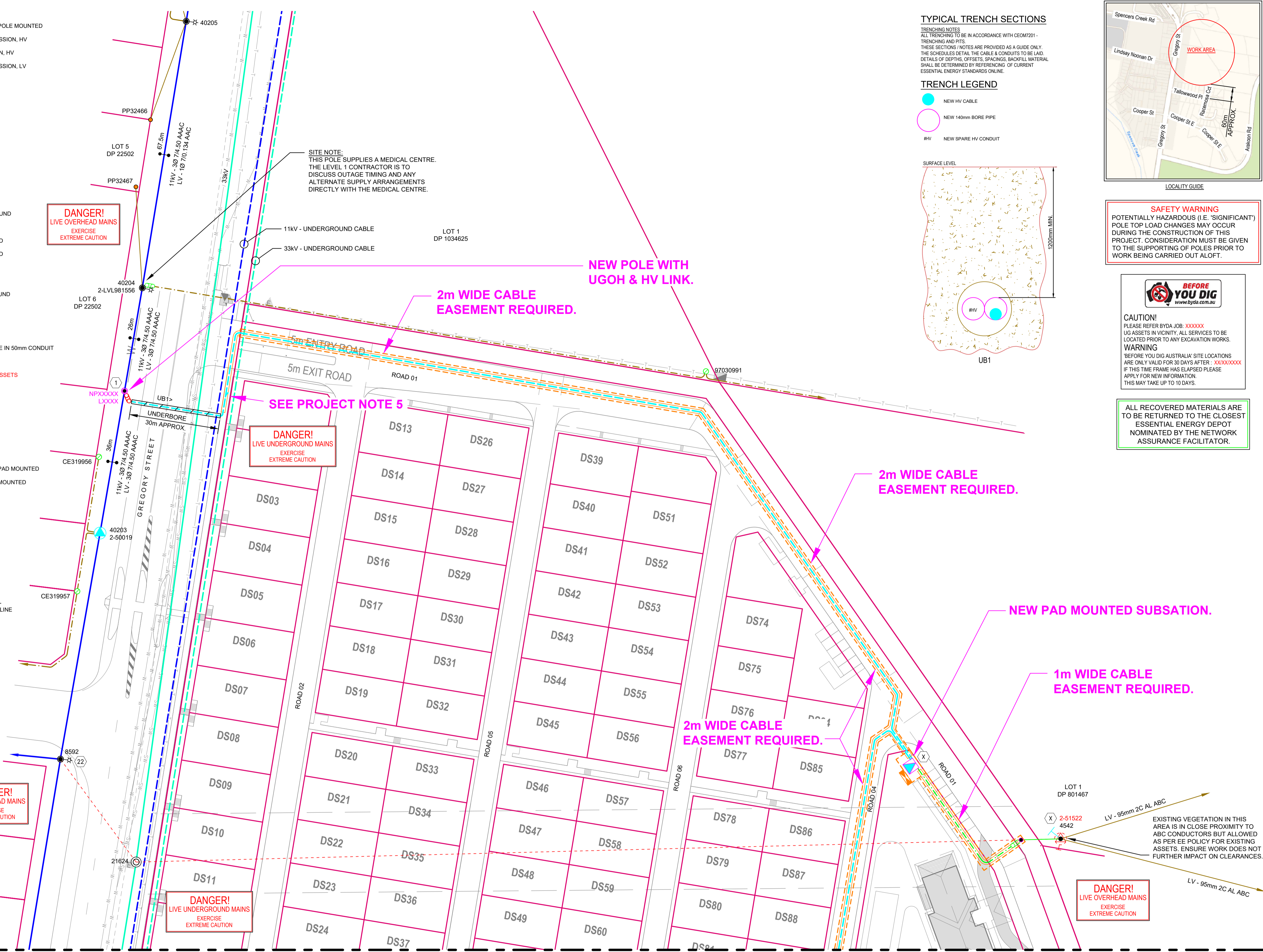
- PROJECT NOTES**
- CABLE TAGS ARE TO BE FITTED TO ALL NEW CABLES AS PER CEOP8042 CLAUSE 2.7
 - DEVELOPER TO PEG PROPERTY BOUNDARIES.
 - DEVELOPER TO CARRY OUT ALL CIVIL WORKS UNDER THE SUPERVISION OF THE CONSTRUCTING ASP1 - INCLUDING EXCAVATION, SUPPLY AND INSTALLATION OF BEDDING SAND, REINSTATEMENT AND SEDIMENT CONTROL MEASURES.
 - PRIOR TO ATTACHING THE EXISTING HV CONDUCTORS TO NEW POLE NP462997 UNTIE THE PINS ON POLE 40204 TO ALLOW TENSION IN THE SECTION TO RE-BALANCE AND THEN RETIE ALL PINS.
 - DANGER:** THERE ARE LIVE UNDERGROUND 11kV & 33kV CABLES ON THE EASTERN SIDE OF GREGORY STREET IN THE VICINITY OF THE PROPOSED WORK. BOTH CABLE SHOULD BE EXPOSED BY POTHOLES PRIOR TO ANY MECHANICAL EXCAVATION IN THE AREA.

- GENERAL NOTES:**
- THE INTENDED PURPOSE OF THIS PLAN IS THAT OF A CONSTRUCTION DRAWING DEPICTING ELECTRICAL RETICULATION REQUIREMENTS. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE.
 - DIMENSIONS, DISTANCES, AREAS & LOT NUMBERS SHOWN ON PLAN ARE APPROXIMATE ONLY & MAY VARY.
 - THIS PLAN HAS BEEN PREPARED BY MORLEIGH ELECTRICAL CONSULTING (MEC) AS A GUIDE TO CONSTRUCTION & FOR CERTIFICATION BY ESSENTIAL ENERGY. IT IS THE RESPONSIBILITY OF THE LEVEL 1 CONTRACTOR TO BE FAMILIAR WITH THE DOCUMENTS CEOM7097, CEOM7098, CEOP2010 (CURRENT VERSIONS ON LINE) AND ENSURE ALL WORK CARRIED OUT IS COMPLIANT. SITE ISSUES, CONSTRUCTION ISSUES OR VEGETATION ISSUES NOT IDENTIFIED DURING THE DESIGN PROCESS SHOULD BE DISCUSSED WITH MEC BEFORE PROCEEDING FURTHER. PLEASE CONTACT leigh@morleigh.com.au
 - A DIAL BEFORE YOU DIG SEARCH HAS BEEN CARRIED OUT BY MEC FOR THIS PROJECT AND SHOWS THE INDICATIVE LOCATION OF SOME EXISTING SERVICES. IT IS THE RESPONSIBILITY OF THE LEVEL 1 CONTRACTOR TO UNDERTAKE A NEW DBYD SEARCH & PHYSICALLY CONFIRM THE EXACT LOCATION AND NUMBER OF SERVICES IN THE PROJECT AREA.
 - ALL PERSONNEL WORKING ON OR NEAR ESSENTIAL ENERGY ASSETS MUST BE CORRECTLY ACCREDITED AND AUTHORIZED.
 - L1 CONTRACTOR IS REQUIRED TO:-
 - CONFIRM LATEST PLAN REVISION PRIOR TO CONSTRUCTION.
 - CONFIRM PIT & PILLAR LOCATIONS ACCORDING TO THIS PLAN PRIOR TO CONSTRUCTION.
 - CONFIRM OTHER SERVICES LOCATIONS PRIOR TO EXCAVATION.
 - FIX ASSET NUMBERS TO PILLARS & PITS.
 - CONFIRM CABLE AND CONDUIT LENGTHS PRIOR TO ORDERING.
 - CO-ORDINATE WITH DEVELOPER TO ENSURE THAT SEDIMENT CONTROL & EROSION PREVENTION MEASURES ARE UNDERTAKEN.
 - ALL CONSTRUCTION & MATERIALS TO COMPLY WITH ESSENTIAL ENERGY STANDARDS.
 - ALL CONDUIT SIZES TO BE STRICTLY ADHERED TO AND INSTALLED ACCORDING TO ESSENTIAL ENERGY STANDARDS. LEVEL 1 ASP TO BE RESPONSIBLE FOR INSTALLATION OF ALL CONDUITS INCLUDING ROAD CROSSINGS BY DEVELOPER.
 - THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS BEARING THE ESSENTIAL ENERGY CERTIFIED ENDORSEMENT.
 - THE REVIEW OF ENVIRONMENTAL FACTORS CEOP1070.02 IS TO BE READ IN CONJUNCTION WITH THIS DESIGN PLAN. THE DESIGNER MUST BE NOTIFIED IF ANY CONDITIONS ARE ENCOUNTERED DURING CONSTRUCTION THAT MAY AFFECT THE DESCRIPTIONS IN THE REVIEW OF ENVIRONMENTAL FACTORS.
 - THE DESIGN SAFETY REPORT IS TO BE REFERENCED BY THE LEVEL 1 ASP AS IT FORMS PART OF THE CERTIFICATION PACKAGE.
 - THE SECTION 45 RESPONSE FROM THE LOCAL COUNCIL IS TO BE REFERENCED BY THE LEVEL 1 ASP. ATTENTION SHOULD BE DRAWN TO ANY SITE SPECIFIC REQUIREMENTS NOT ALREADY NOTED ON THIS PLAN.

SAFETY WARNING
POTENTIALLY HAZARDOUS (I.E. 'SIGNIFICANT') POLE TOP LOAD CHANGES MAY OCCUR DURING THE CONSTRUCTION OF THIS PROJECT. CONSIDERATION MUST BE GIVEN TO THE SUPPORTING OF POLES PRIOR TO WORK BEING CARRIED OUT ALOFT.

CAUTION!
PLEASE REFER BYDA JOB: XXXXXX
UG ASSETS IN VICINITY. ALL SERVICES TO BE LOCATED PRIOR TO ANY EXCAVATION WORKS.
WARNING
'BEFORE YOU DIG AUSTRALIA' SITE LOCATIONS ARE ONLY VALID FOR 30 DAYS AFTER: XXXXXXXX
IF THIS TIME FRAME HAS ELAPSED PLEASE APPLY FOR NEW INFORMATION. THIS MAY TAKE UP TO 10 DAYS.

ALL RECOVERED MATERIALS ARE TO BE RETURNED TO THE CLOSEST ESSENTIAL ENERGY DEPOT NOMINATED BY THE NETWORK ASSURANCE FACILITATOR.



FOR CONTINUATION REFER SHEET E02

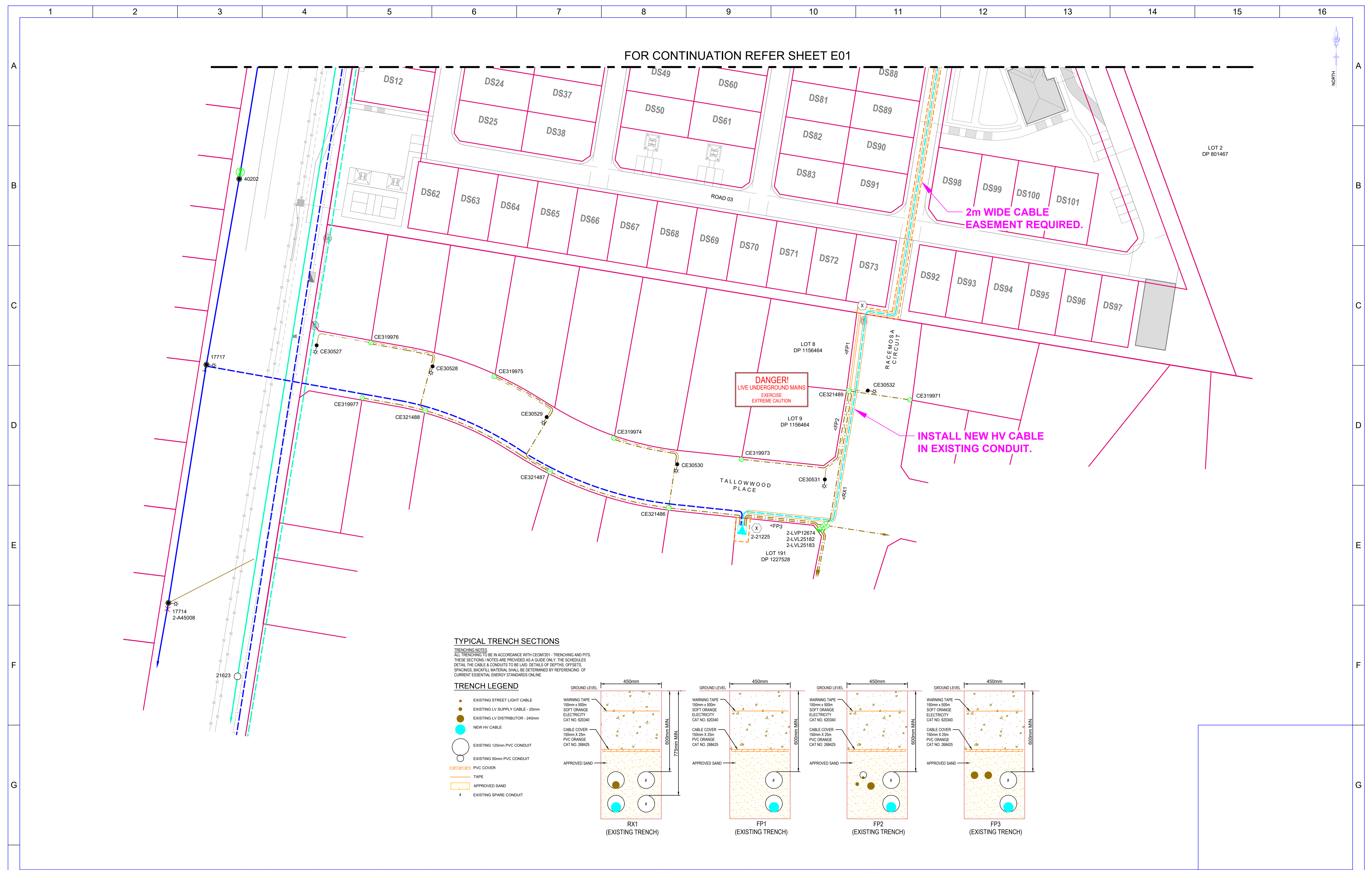
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B	CONCEPT ISSUE - REVISED BASE PLAN	LM	04/02/25	DESIGNED:	LM 05/12/24
A	CONCEPT ISSUE	LM	05/12/24	DRAWN:	DH 05/12/24
				CHECKED:	DTL 05/12/24

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ELECTRICAL CONSULTING
DESIGNERS ACCREDITATION No: 3957
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SCALE 1:500
Sheet size A1

PROJECT
NEW SUPPLY - SOUTH WEST ROCKS LIVING PTY LTD
SUBDIVISION OF LOT 3, DP 801467
286-310 GREGORY STREET,
SOUTH WEST ROCKS NSW 2431
ESSENTIAL ENERGY ELECTRICAL RETICULATION

EE Project No.	-
DRAWING No.	REV. B
CASE No.	Sheet No. E01
	No. of Sheets E05

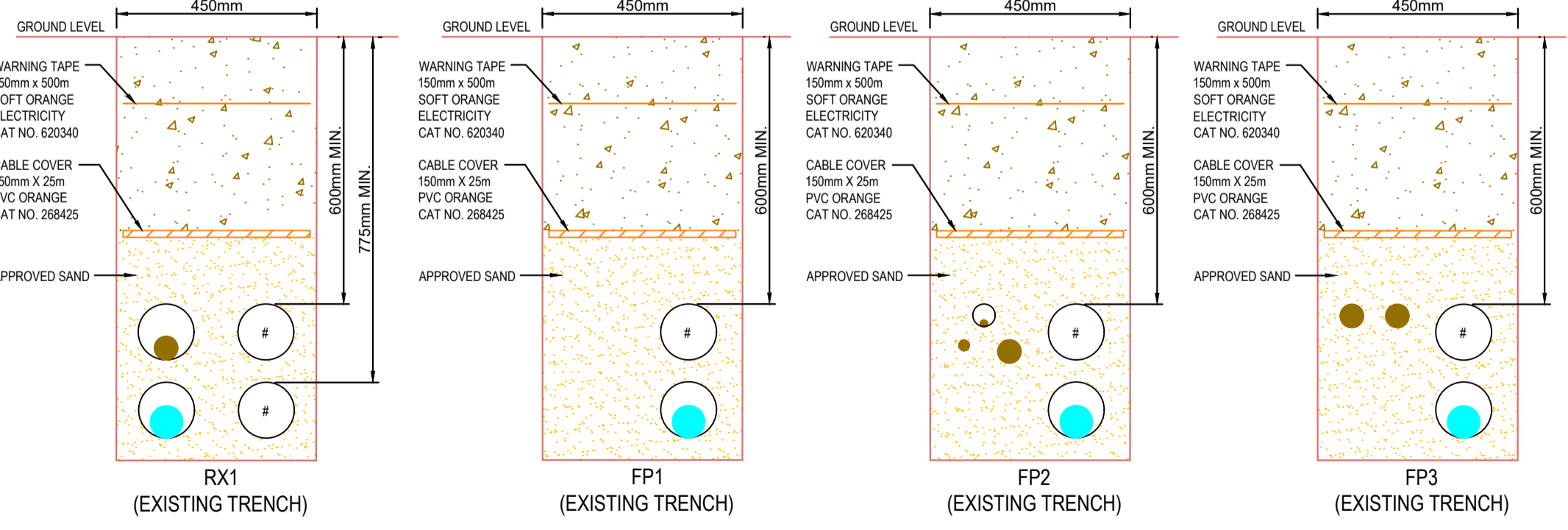


TYPICAL TRENCH SECTIONS

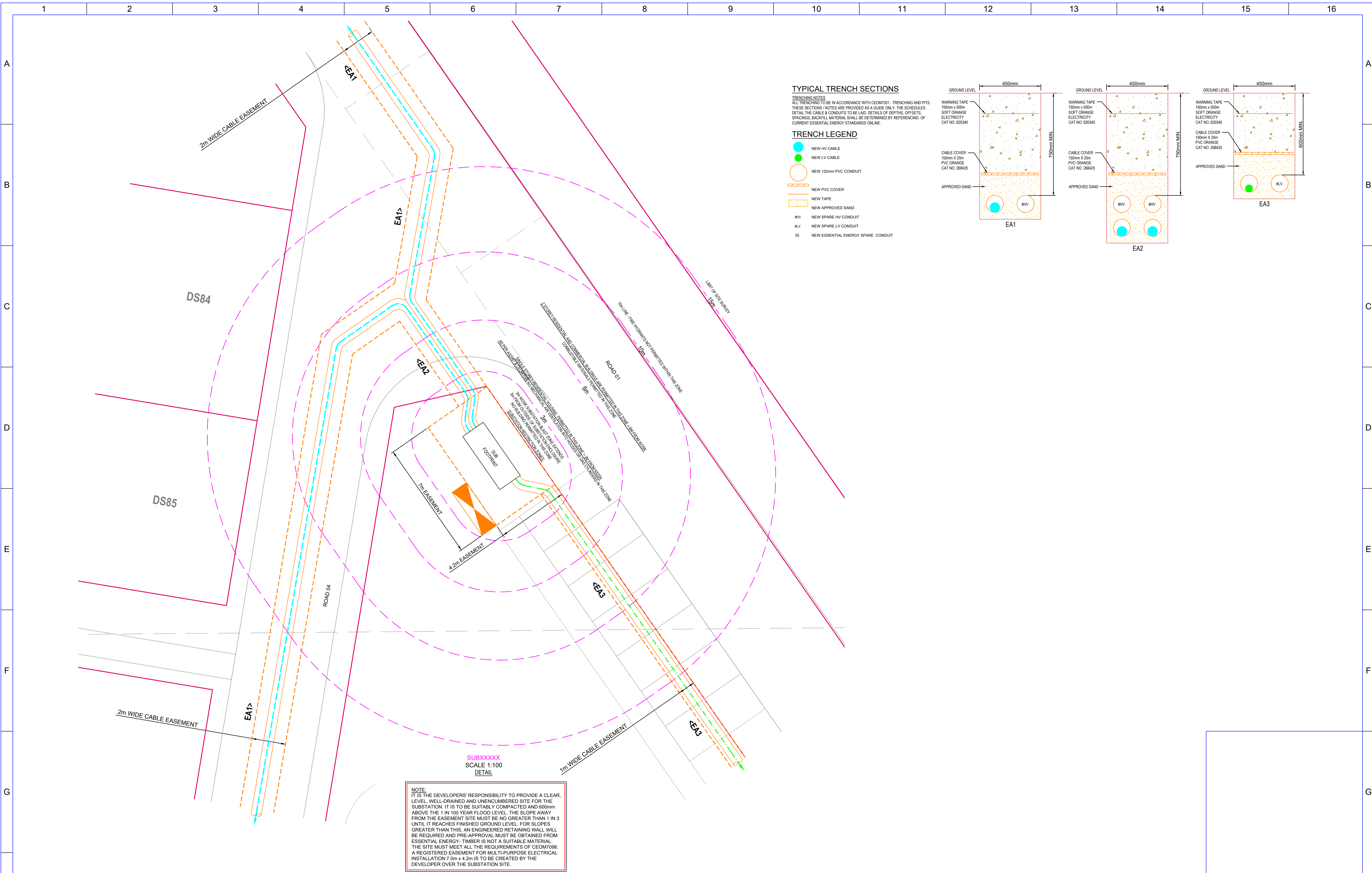
TRENCHING NOTES
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 SPACINGS. BACKFILL MATERIAL SHALL BE DETERMINED BY REFERENCING OF
 CURRENT ESSENTIAL ENERGY STANDARDS ONLINE.

TRENCH LEGEND

- EXISTING STREET LIGHT CABLE
- EXISTING LV SUPPLY CABLE - 25mm
- EXISTING LV DISTRIBUTOR - 240mm
- NEW HV CABLE
- EXISTING 125mm PVC CONDUIT
- EXISTING 50mm PVC CONDUIT
- PVC COVER
- TAPE
- APPROVED SAND
- # EXISTING SPARE CONDUIT



				NAME	DATE	 morleigh.com.au	SCALE	Sheet size	PROJECT NEW SUPPLY - SOUTH WEST ROCKS LIVING PTY LTD SUBDIVISION OF LOT 3, DP 801467 286-310 GREGORY STREET, SOUTH WEST ROCKS NSW 2431 ESSENTIAL ENERGY ELECTRICAL RETICULATION	EE Project No.			
SURVEYED:				LM	05/12/24		1:500	A1		-	DRAWING No.		REV.
DESIGNED:				LM	05/12/24		DESIGNERS ACCREDITATION No:			-	-		B
DRAWN:				DH	05/12/24		3957			-	CASE No.	Sheet No.	No. of Sheets
No.	AMENDMENT			BY	DATE	CHECKED:	DTL	05/12/24	-	E02	E05		



NOTE:
 IT IS THE DEVELOPERS' RESPONSIBILITY TO PROVIDE A CLEAR, LEVEL, WELL-DRAINED AND UNENCUMBERED SITE FOR THE SUBSTATION. IT IS TO BE SUITABLY COMPACTED AND 600mm ABOVE THE 1 IN 100 YEAR FLOOD LEVEL. THE SLOPE AWAY FROM THE EASEMENT SITE MUST BE NO GREATER THAN 1 IN 3 UNTIL IT REACHES FINISHED GROUND LEVEL. FOR SLOPES GREATER THAN THIS, AN ENGINEERED RETAINING WALL WILL BE REQUIRED AND PRE-APPROVAL MUST BE OBTAINED FROM ESSENTIAL ENERGY. TIMBER IS NOT A SUITABLE MATERIAL. THE SITE MUST MEET ALL THE REQUIREMENTS OF CEOM7098. A REGISTERED EASEMENT FOR MULTI-PURPOSE ELECTRICAL INSTALLATION 7.0m x 4.2m IS TO BE CREATED BY THE DEVELOPER OVER THE SUBSTATION SITE.

				NAME	DATE	 DESIGNERS ACCREDITATION No: 3957 morleigh.com.au	SCALE NTS Sheet size A1	PROJECT NEW SUPPLY - SOUTH WEST ROCKS LIVING PTY LTD SUBDIVISION OF LOT 3, DP 801467 286-310 GREGORY STREET, SOUTH WEST ROCKS NSW 2431 ESSENTIAL ENERGY SUB DETAIL AND TRENCH SECTION	EE Project No.			
				SURVEYED:					-		DRAWING No.	
				DESIGNED:	LM 05/12/24				-		REV. B	
				DRAWN:	DH 05/12/24				-		CASE No.	
				CHECKED:	DTL 05/12/24	-		Sheet No.	No. of Sheets			
				BY	LM 05/12/24	-		E03	E05			
				DATE		-						

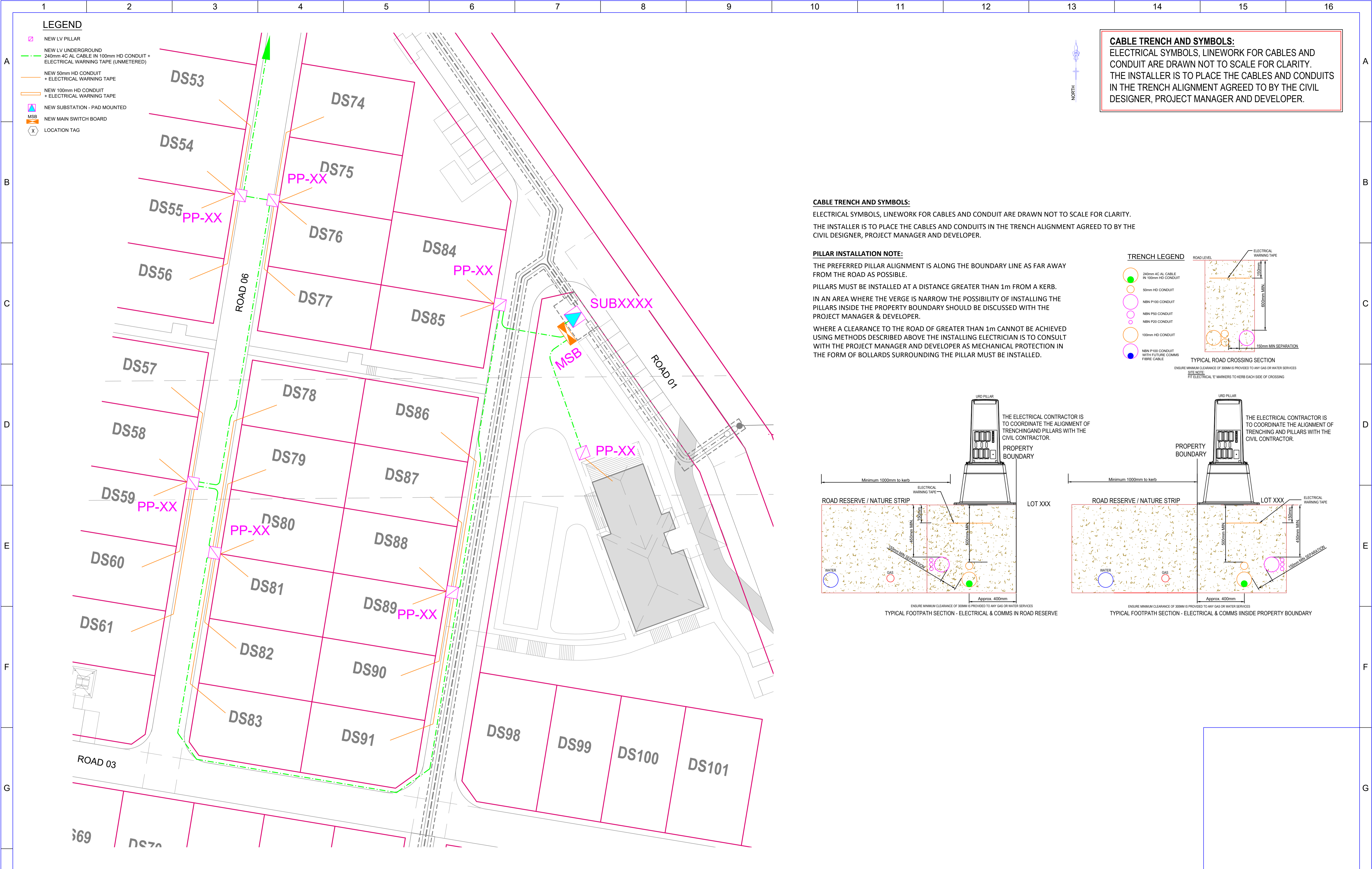
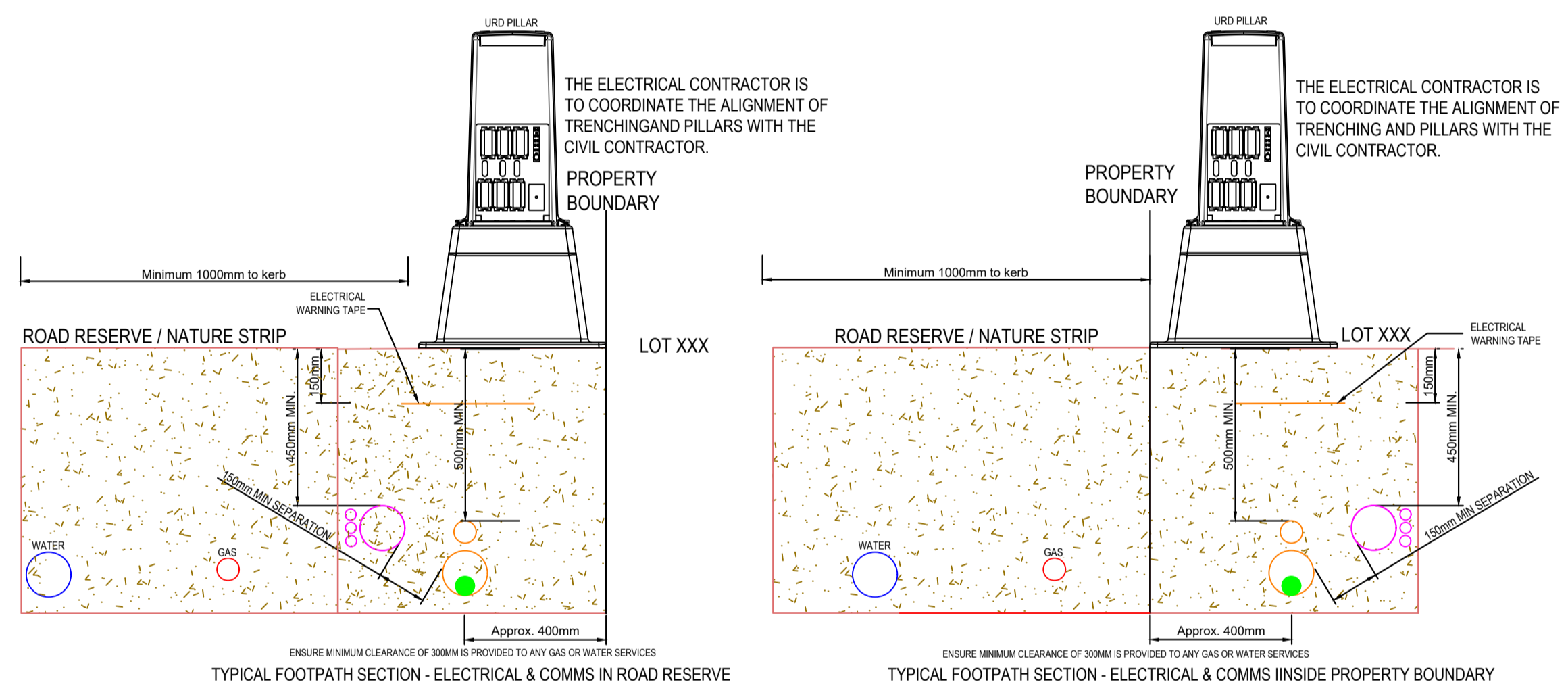
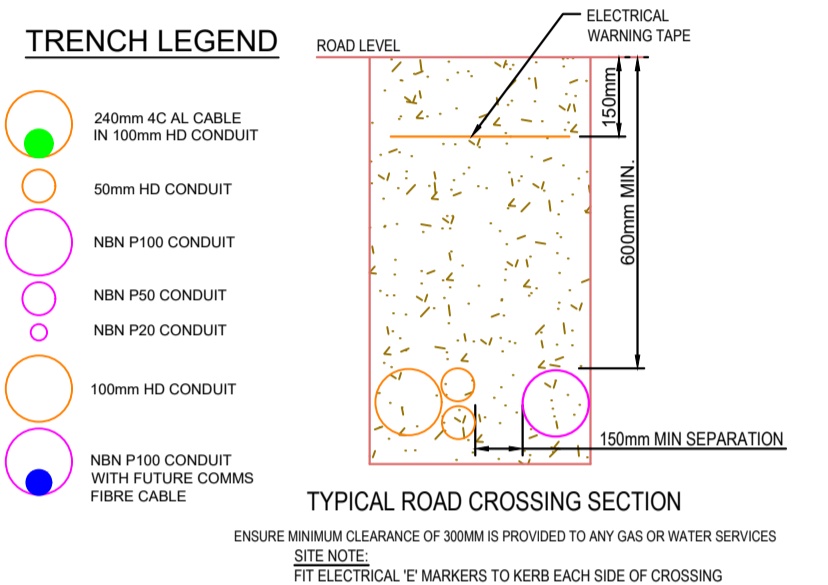
LEGEND

-  NEW LV PILLAR
-  NEW LV UNDERGROUND
240mm 4C AL CABLE IN 100mm HD CONDUIT +
ELECTRICAL WARNING TAPE (UNMETERED)
-  NEW 50mm HD CONDUIT
+ ELECTRICAL WARNING TAPE
-  NEW 100mm HD CONDUIT
+ ELECTRICAL WARNING TAPE
-  NEW SUBSTATION - PAD MOUNTED
-  NEW MAIN SWITCH BOARD
-  LOCATION TAG

CABLE TRENCH AND SYMBOLS:
ELECTRICAL SYMBOLS, LINEWORK FOR CABLES AND CONDUIT ARE DRAWN NOT TO SCALE FOR CLARITY. THE INSTALLER IS TO PLACE THE CABLES AND CONDUITS IN THE TRENCH ALIGNMENT AGREED TO BY THE CIVIL DESIGNER, PROJECT MANAGER AND DEVELOPER.

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ELECTRICAL SYMBOLS, LINEWORK FOR CABLES AND CONDUIT ARE DRAWN NOT TO SCALE FOR CLARITY. THE INSTALLER IS TO PLACE THE CABLES AND CONDUITS IN THE TRENCH ALIGNMENT AGREED TO BY THE CIVIL DESIGNER, PROJECT MANAGER AND DEVELOPER.

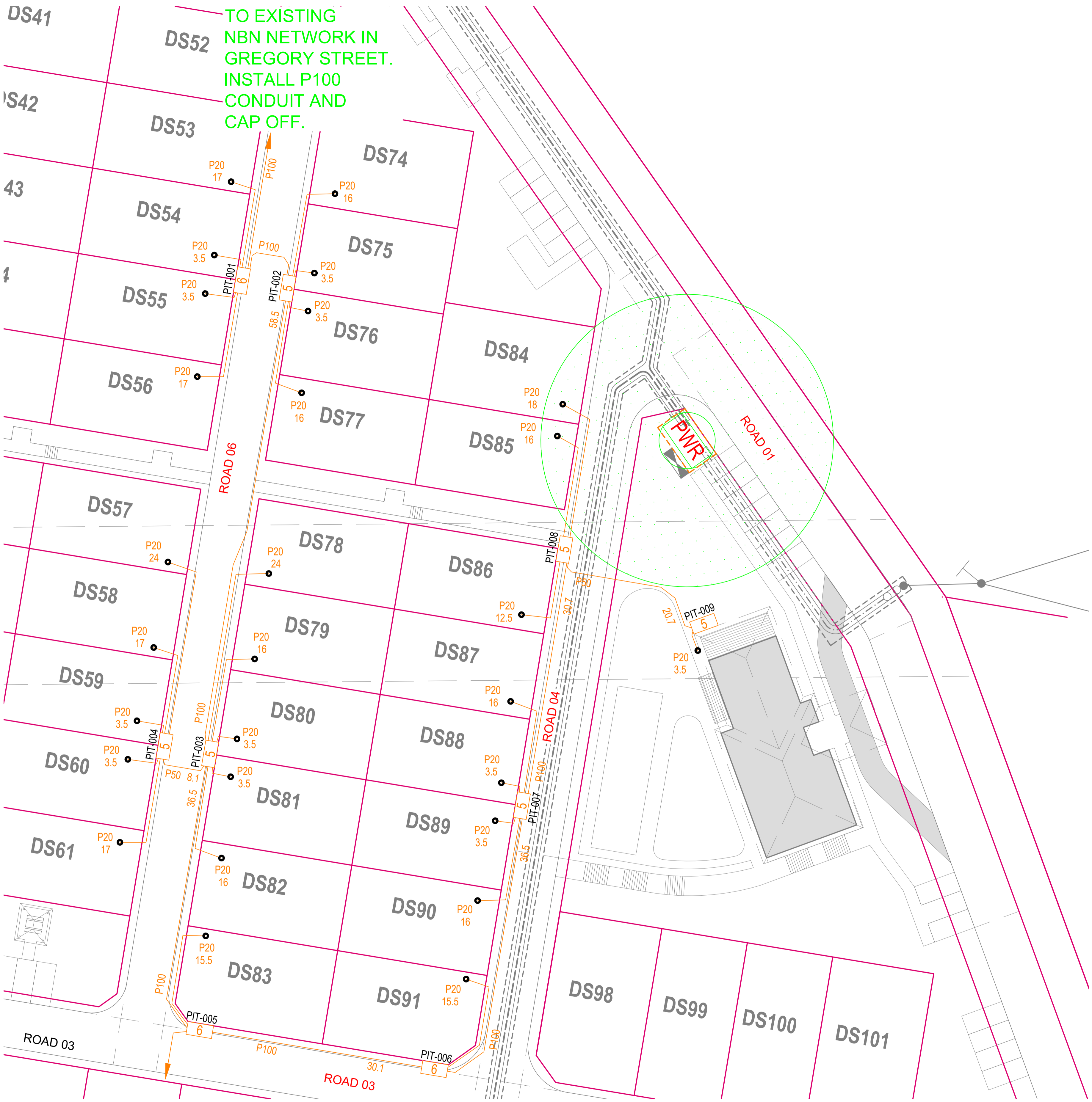
PILLAR INSTALLATION NOTE:
THE PREFERRED PILLAR ALIGNMENT IS ALONG THE BOUNDARY LINE AS FAR AWAY FROM THE ROAD AS POSSIBLE.
PILLARS MUST BE INSTALLED AT A DISTANCE GREATER THAN 1m FROM A KERB.
IN AN AREA WHERE THE VERGE IS NARROW THE POSSIBILITY OF INSTALLING THE PILLARS INSIDE THE PROPERTY BOUNDARY SHOULD BE DISCUSSED WITH THE PROJECT MANAGER & DEVELOPER.
WHERE A CLEARANCE TO THE ROAD OF GREATER THAN 1m CANNOT BE ACHIEVED USING METHODS DESCRIBED ABOVE THE INSTALLING ELECTRICIAN IS TO CONSULT WITH THE PROJECT MANAGER AND DEVELOPER AS MECHANICAL PROTECTION IN THE FORM OF BOLLARDS SURROUNDING THE PILLAR MUST BE INSTALLED.



No.	AMENDMENT	BY	DATE	CHECKED:	NAME	DATE
B	CONCEPT ISSUE - REVISED BASE PLAN	LM	04/02/25	DESIGNED:	LM	08/10/24
A	CONCEPT ISSUE	LM	08/10/24	DRAWN:	DH	08/10/24
				CHECKED:	LM	08/10/24

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PROJECT	SOUTH WEST ROCKS LIVING PTY LTD			EE Project No.	-
INDICATIVE LAYOUT				DRAWING No.	-
AS/NZS 3000 INTERNAL ELECTRICAL RETICULATION PLAN				CASE No.	-
				Sheet No.	E04
				No. of Sheets	E05
				REV.	B



TO EXISTING NBN NETWORK IN GREGORY STREET. INSTALL P100 CONDUIT AND CAP OFF.

SDU Development Information	
Development Name:	-
Developer Company:	-
Development Address:	-
Authorised Rep:	LEIGH MORLEY
Phone:	0407697757
E-Mail:	leigh@morleigh.com.au
nbn Reference Number:	-
Stage Number:	-
Design Revision:	1

BILL OF MATERIAL				
NO OF LOTS: -				
PITS		DUCTS		
SIZE	QTY	SIZE	QTY	MTRS
2	0	P100	0	0
5	0	P50	0	0
6	0	P20	0	0
8	0			
9	0			
TOTAL NUMBER OF PITS:		0		
TOTAL NUMBER OF MANHOLES:		0		
TOTAL NUMBER OF CONDUITS:		0		
TOTAL LENGTH OF CONDUITS:		0		

- Transformer / Kiosk / Pad Mount Sub-station / Pole Mount Transformer
- Service Drop Access Pit (650mmX280mmX565mm)
- Network Boundary/Local Network Pit (Single Lid) (700mmX450mmX650mm)
- Distribution/Local Network Connection Pit (Dual Lid) (1360mmX555mmX650mm)
- Distribution/Local Network Connection Pit (1360mmX555mmX860mm)



REV	DATE	DRAFTER	DESCRIPTION	APPROVED
2	04/02/25	DH	PRELIMINARY ISSUE FOR NBN REVIEW - NOT FOR CONSTRUCTION	LM
1	05/12/24	DH	PRELIMINARY ISSUE FOR NBN REVIEW - NOT FOR CONSTRUCTION	LM

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

SIGNATURE	DATE
<input type="checkbox"/> DD	_____
<input type="checkbox"/> WD	_____
<input type="checkbox"/> AB	_____

QUALITY RECORD:

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KEY PLAN

DRAWING TITLE:
SOUTH WEST ROCKS LIVING PTY LTD
INDICATIVE LAYOUT
NBN INTERNAL ELECTRICAL RETICULATION PLAN

ENABLE#: 448566

STATE: NSW REGION: _____

FSA: _____ SAM: _____ ADA: _____

PROJECT No: -

CADREF No: _____

SCALE: NTS SHEET No. E05 OF E05 REV. 2

GUIDELINES FOR DEVELOPMENTS NEAR ESSENTIAL ENERGY INFRASTRUCTURE

Safety Clearance Zones for overhead powerlines located in a road reserve

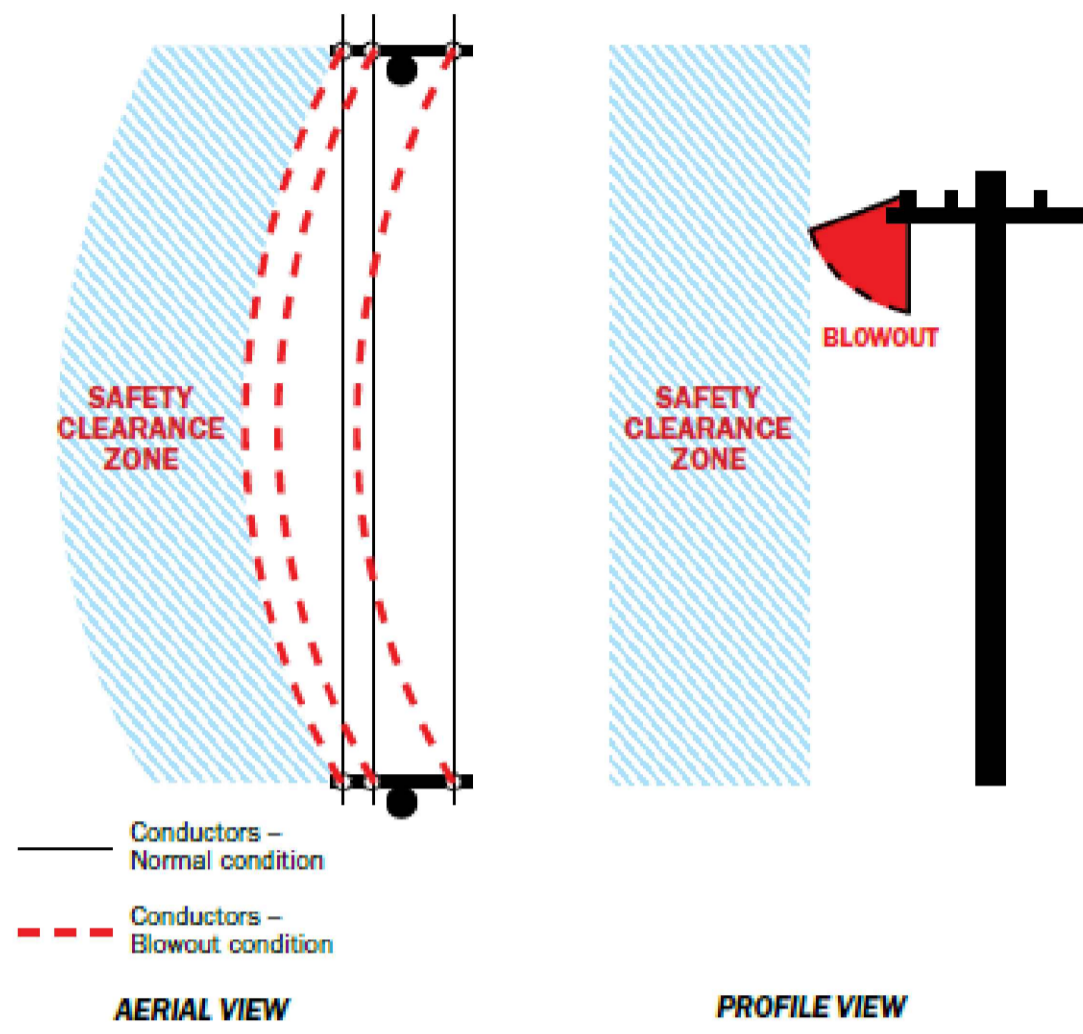


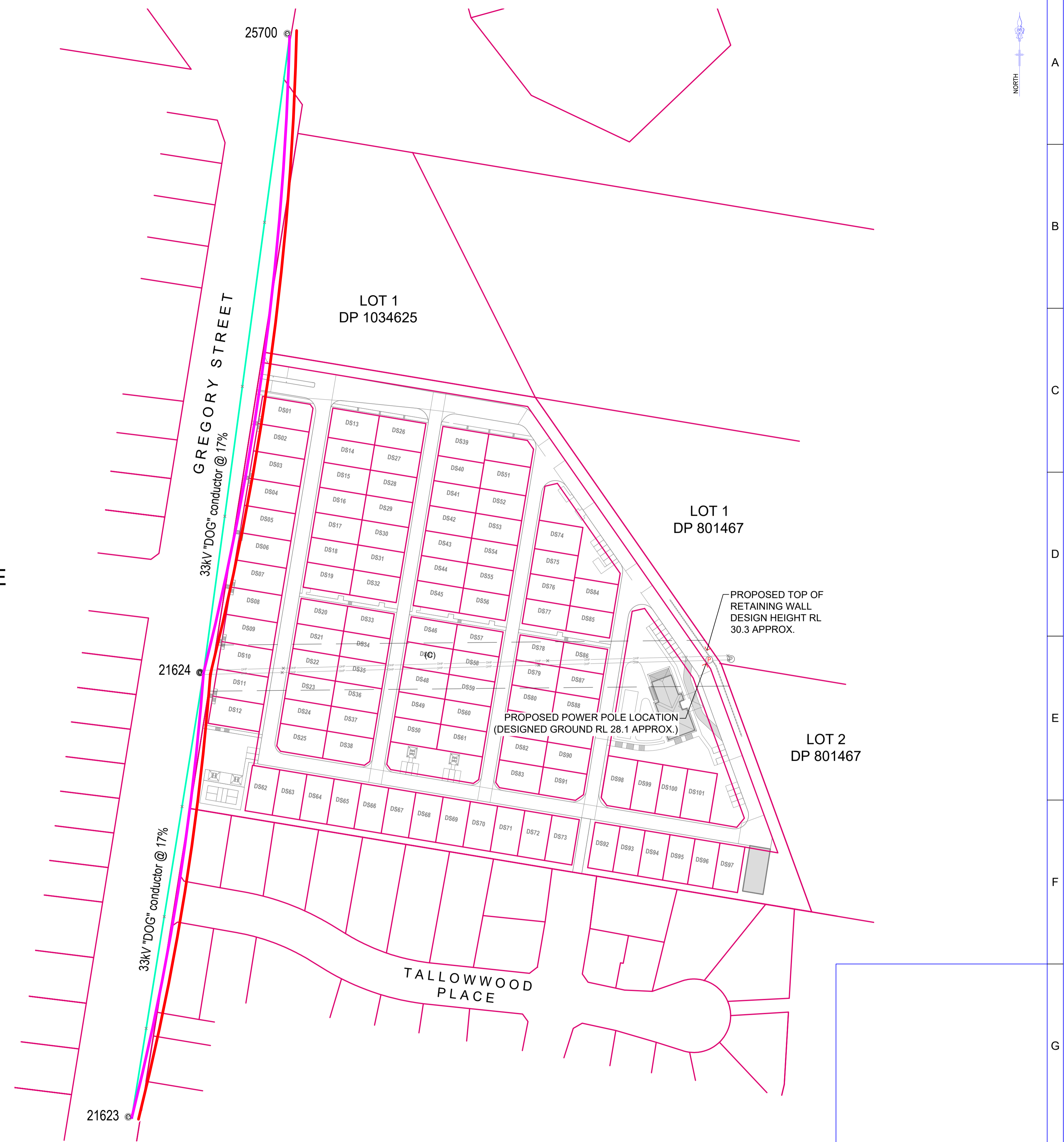
Table 5

Safety Clearances	
Voltage	Clearances (horizontal)
Insulated ≤ 1000 V	1.0m
Bare Conductor ≤ 1000 V	1.5m
Insulated > 1000 V	1.5m
Bare or covered 1000 V $< U \leq 33$ kV	2.1m
Bare 33 kV $< U \leq 132$ kV	3.0m

RESULTS FROM MODELLING IN EE APPROVED NEARA SOFTWARE

POLE & CONDUCTOR LOCATIONS VERIFIED BY KING & CAMPBELL SURVEYORS

- SURVEYED CONDUCTOR LOCATION —————
- BLOWOUT CURVE —————
- BLOWOUT CURVE + 3m SAFETY MARGIN —————



				NAME	DATE	 morleigh.com.au	SCALE	Sheet size	PROJECT BLOWOUT SOUTH WEST ROCKS LIVING PTY LTD SUBDIVISION OF LOT 3, DP 801467 286-310 GREGORY STREET, SOUTH WEST ROCKS NSW 2431	EE Project No.			
				SURVEYED:			1:1000	A1		-	DRAWING No.		
				DESIGNED:	LM		DESIGNERS ACCREDITATION No:			-	REV.		
				DRAWN:	DH		3957			-	B		
No.	AMENDMENT	BY	DATE	CHECKED:	DTL				CASE No.	Sheet No.	No. of Sheets		
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06/03/25

Morleigh have conducted a blowout analysis of the 33kV OH powerline along the frontage of 286-310 Gregory St South West Rocks. The analysis was based on surveyors' data and the positioning of the line and lots are accurate.

The analysis was carried out using information provided by Essential Energy and using Essential Energy approved software NEARA.

To avoid encroachment issues with Essential Energy in the future any building construction should not encroach beyond the red blowout curve that includes a 3m safety margin on our plan dated 04/02/25.

Yours Faithfully



Leigh Morley

MBA AMIEAust

Electrical Licence No. 7996S

Level 3 Accredited Service Provider No.3957

NBN Enabler No.448566