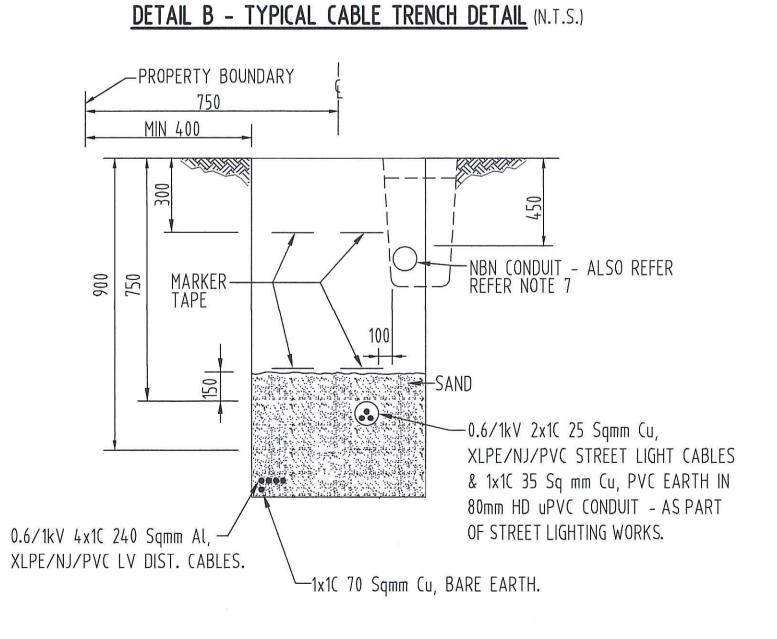


ROPERTY BOUNDARY MIN 400 NBN CONDUIT - ALSO MARKER -TAPE REFER NOTE 7 -0.6/1kV 2x1C 25 Sqmm Cu, XLPE/NJ/PVC STREET LIGHT CABLES & 1x1C 35 Sq mm Cu, PVC EARTH IN 80mm HD uPVC CONDUIT - AS PART OF STREET LIGHTING WORKS. 0.6/1kV 4x1C 240 Sgmm Al XLPE/NJ/PVC LV DIST. CABLES. 1x1C 70 Sqmm Cu, BARE EARTH.

WARNING



ANTICIPATED CONSTRUCTION COMMENCEMENT DATE NOVEMBER 2023



POWER AND WATER INSTRUCTIONS TO DEVELOPER

The Contractor shall only carry out work in accordance with

-CONTRACTOR SHALL ARRANGE FOR POWER AND WATER TO LOCATE EXISTING HV CABLE (BETWEEN EXISTING RMU-2 HV SW12445 AND EXISTING RMU-3 HV SW12446) CONTRACTOR SHALL THEN EXCAVATE & EXPOSE EXISTING CONDUITS. CONTRACTOR SHALL LEAVE SUFFICIENT LENGTH NEW HV CABLE (FROM NEW SUB 3396, HV SW21888) COILED IN NEW SAND PIT SP2. POWER AND WATER TO CUT EXISTING HV CABLE (BETWEEN RMU-2 HV SW12445 AND RMU-3 HV SW12446 IN NEW CJSP), PULL BACK ONE END (FROM EXISTING RMU-3 HV SW12446) TO NEW SAND PIT SP3. THEN PULL BACK THROUGH NEW 1x150mm HD uPVC CONDUIT AT NEW ROAD CROSSING (BETWEEN NEW SP2/SP3 TO NEW SAND PIT SP2) THEN THROUGH NEW 3x100mm HD uPVC CONDUITS BETWEEN NEW SP2/SUB 3396). THEN PULL INTO NEW SUB 3396 HV SECTION & CONNECT/TERMINATE TO NEW HV SW21887. EXTEND NEW HV CABLE (FROM NEW SUB 3396 HV SW21888) LEFT COILED IN NEW SAND PIT SP2 TO NEW CJSP IN EXISTING 1x150mm HD uPVC CONDUIT VACATED ONCE EXISTING HV CABLE REMOVED & JOINT TO EXISTING HV CABLE (FROM EXISTING RMU-2 HV SW12445). CONTRACTOR SHALL THEN BACKFILL/COMPACT TRENCH.

The Developer shall ensure that any Contractor employed to

he approved drawings and the "Design and Construction o

UNDERGROUND SERVICES ARE LOCATED (PRIOR TO TRENCH EXCAVATION WITHIN EXISTING ROAD RESERVE). 6 - HV CABLING SHALL BE RUN BELOW (DEEPER THAN STANDARD ELECTRICAL TRENCH DEPTH/COVER) SEWER/DRAINAGE WITH A MINIMUM OF 300mm CLEARANCE AT CROSSOVER LOCATIONS. COORDINATE ON SITE WITH CIVIL CONTRACTOR. 7 - MINIMUM 300mm HORIZONTAL SEPARATION REQUIRED BETWEEN EDGE OF NBN CONDUIT/S & DIRECT BURIED LV CABLING. WHERE 300mm SEPARATION NOT PROVIDED, LV CABLING SHALL BE INSTALLED IN 100mm HD uPVC CONDUIT. ALSO REFER DETAILS B & C. LEGEND

2 - CONTRACTOR SHALL LOCATE EXISTING EARTH CABLING IN LOCATIONS SHOWN, JOINT NEW 1x1C 70 Sq mm Cu, BARE EARTH CABLING & EXTEND TO AND CONNECT TO NEW SUB 3396.

NOTES

NEW PACKAGE SUBSTATION (RATING AS SHOWN). 'E' INDICATES EXISTING. EXISTING HV CABLE - 6.35/11kV 3x1C 400 Sq mm Al (WATER BLOCKED).

DETRIMENTALLY AFFECTED BY RUN OFF STORMWATER.

1 - REFER DWG No. B23-7113 FOR DETAILS OF ITEMS LISTED IN LEGEND.

3 - CONTRACTOR SHALL LEAVE SUFFICIENT LENGTH NEW HV CABLING (FROM NEW SUB 3396 HV SW21888)

RMU-2 HV SW21445 TO NEW HV CABLE (FROM NEW SUB 3996 HV SW21888) AND THEN PULL BACK OTHER

CONDUIT AT NEW ROAD CROSSING BETWEEN NEW SP2/SP3. THEN VIA NEW 3x100mm HD uPVC CONDUITS

4 - NEW SUB 3396 FOUNDATION SHALL BE INSTALLED AT AN APPROPRIATE LEVEL THAT IT WILL NOT BE

5 - PRIOR TO COMMENCING WORK ON SITE. CONTRACTOR SHALL OBTAIN RELEVANT PERMITS (AND PAY

ANY ASSOCIATED COSTS) & LIAISE WITH ALL RELEVANT AUTHORITIES TO ENSURE ALL EXISTING

COILED WITHIN NEW SAND PIT SP2 & ARRANGE FOR POWER AND WATER TO CUT EXISTING HV CABLE

END TO NEW SAND PIT SP3 AND PULL INTO NEW SUB 3396 HV SECTION VIA NEW 1x150mm HD uPVC

BETWEEN NEW SP2/NEW SUB 3396 & CONNECT/TERMINATE NEW HV CABLING TO HV SW21887.

(BETWEEN EXISTING RMU-2 HV SW12445 AND RMU-3 HV SW12446 IN CJSP) AND JOINT ONE END (FROM

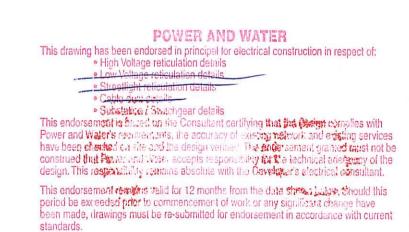
XLPE/WBT/S(N/HDPE/NJ/PVC IN EXISTING 150mm HD uPVC CONDUIT & EXISTING 1x1C 70 Sq mm Cu, BARE EARTH DIRECT BURIED.

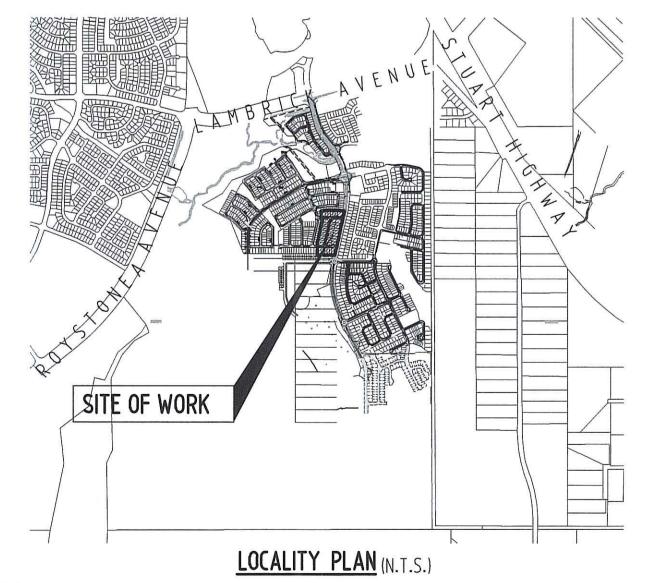
RELOCATED EXISTING HV CABLE - 6.35/11kV 3x1C 400 Sq mm Al (WATER BLOCKED), XLPE/WBT/SCN/HDPE/NJ/PVC IN NEW 150mm HD uPVC CONDUIT & NEW 1x1C 70 Sq mm Cu, BARE EARTH DIRECT BURIED BETWEEN NEW SP2/SP3 & IN NEW 3x100mm HD uPVC CONDUITS BETWEEN NEW SP1/SP2.

NEW HV CABLE - 6.35/11kV 3x1C 400 Sq mm AL (WATER BLOCKED). XLPE/WBT/SCN/HDPE/NJ/PVC IN NEW 3x100mm HD uPVC CONDUITS & NEW 1x1C 70 Sq mm Cu, BARE EARTH DIRECT BURIED BETWEEN NEW SP1/SP2 & IN EXISTING 1x150mm HD uPVC CONDUIT VACATED ONCE EXISTING HV CABLE REMOVED BETWEEN NEW SP2/CJSP & EXISTING 1x1C 70 Sq mm Cu, BARE EARTH DIRECT BURIED.



NEW HV CABLE JOINTS - BY POWER AND WATER.





DETAIL C - TYPICAL CABLE TRENCH WITH NBN PIT (N.T.S.)

DEVELOPER: TERRITORY LIFE GPO Box 1779 DARWIN NT 0801

EMAIL: clement.williams@territorylife.com.au

CONTACT: CLEMENT WILLIAMS

AGA CONSULTING ENGINEERS PTY LTD ELECTRICAL & MECHANICAL ACN 070 242 296 GP0 B0X 3097 TELEPHONE: 08 89416582 DARWIN NT 0801

FACSIMILE: 08 89421400 NO

EMAIL: alekg@agaeng.com.a

K.T. K.T. K.T. RE-ISSUED FOR POWER AND WATER APPROVAL RE-ISSUED FOR POWER AND WATER APPROVAL ISSUED FOR POWER AND WATER APPROVAL DESCRIPTION

AMENDMENTS

A.G. B23-7114 B23-7113 B23-7112 A.G. B23-7111 A.G. B23-7110 SINGLE LINE DIAGRAM & LEGEND NOTES, SCHEDULES & HV SCHEMATICS MASTER SERVICES PLAN CONDUIT/DUCT LAYOUT 25-9-23 15-9-23 29-6-23 DRN DATE APPD DRG NO

PRELIMINARY/PROPOSED TENDERING PURPOSES ONLY APP. FOR CONSTRUCTION AS INSTALLED CANCELLED/SUPERSEDED ASSOCIATED DRAWINGS AGA406-18A

DRAWING STATUS

APPD DATE

PowerWater NORTHERN TERRITORY

POWER SERVICES - PALMERSTON DISTRIBUTION A.GANGUR SUBDIVISION OF LOT 12087 **K.TAVENER** ZUCCOLI SUBDIVISION — STAGE 2 : STAGE 2K CKD A.GANGUR APPD HV ELECTRICAL RETICULATION SCALE AS SHOWN

ISSUED 25-9-23 ALL DIM. IN mm DRAFTING STANDARD TO A.S.1100

DRAWING B23-7109

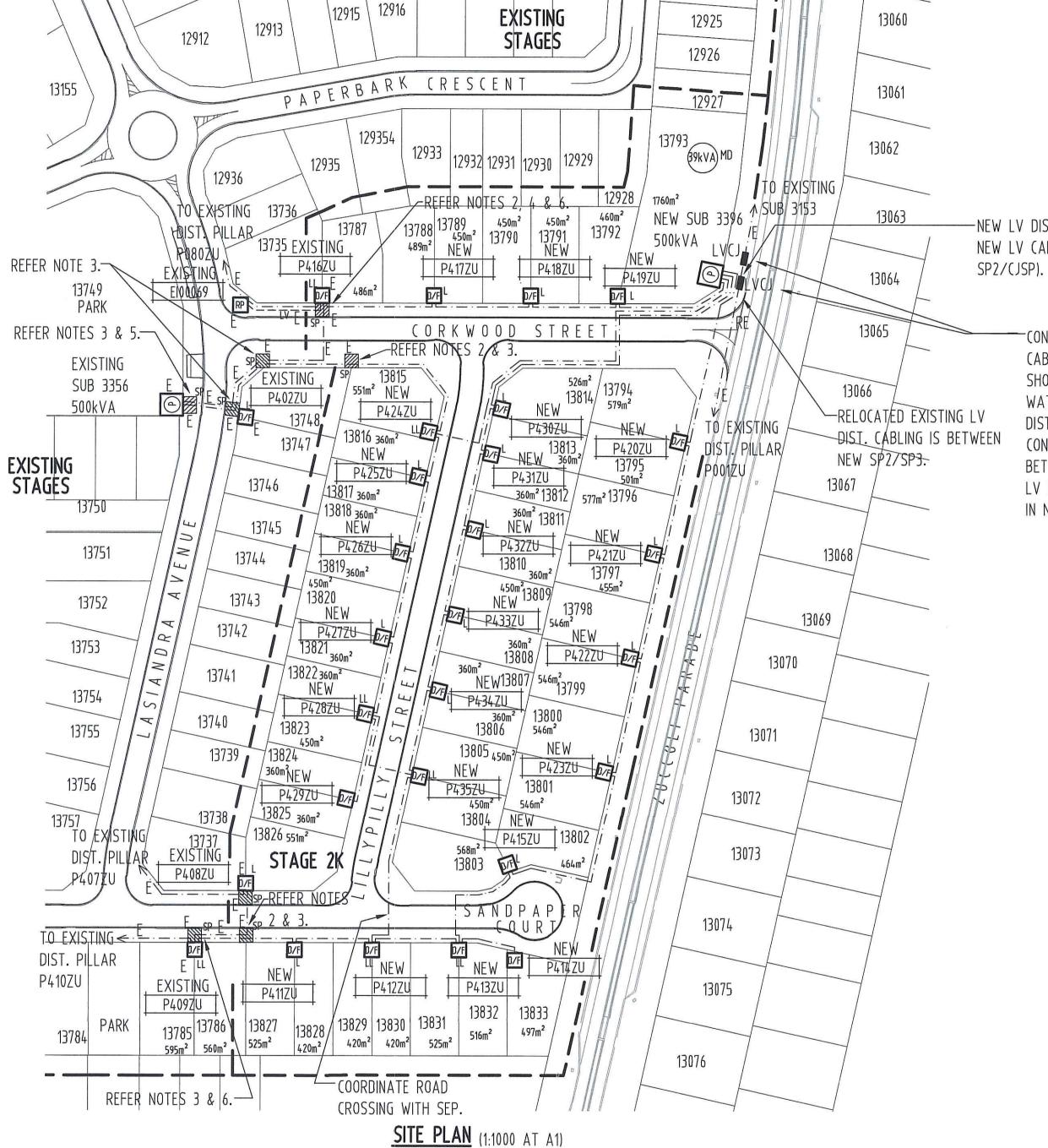
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AMDT



WARNING

BEWARE OF EXISTING UNDERGROUND SERVICES. CONTRACTOR SHALL CONFIRM LOCATIONS OF SERVICES PRIOR TO EXCAVATION. COORDINATE WITH ALL RELEVANT AUTHORITIES.



LEGEND

- NEW PACKAGE SUBSTATION (RATING AS SHOWN). 'F' INDICATES EXISTING.
- NEW DISTRIBUTION DOUBLE LINK PILLAR FUSED TYPE. 'E' INDICATES EXISTING.
- NEW DISTRIBUTION LINK PILLAR FUSED TYPE. 'E' INDICATES EXISTING.
- NEW DISTRIBUTION PILLAR FUSED TYPE. 'E' INDICATES EXISTING.
- EXISTING ROAD OWNER PILLAR.
- NEW LV DISTRIBUTION CABLE 0.6/1kV 4 x 1C 240 Sq mm Al, XLPE/NJ/PVC -DIRECT BURIED (OR WITHIN CONDUIT AT ROAD CROSSING) & 1 x 1C 70 Sq mm Cu, BARE EARTH - DIRECT BURIED. ALSO REFER NOTE 8. 'E' INDICATES EXISTING/'RE' INDICATED RELOCATED IN NEW 100mm HD UPVC
- EXISTING LV SERVICE CABLE (SUPPLY TO ROAD OWNER DIST. PILLAR).
- NEW LV CABLE JOINTS BY POWER AND WATER.

-NEW LV DIST. CABLING BETWEEN 2 NEW LV CABLE JOINTS (IN NEW

> CONTRACTOR SHALL ARRANGE FOR POWER AND WATER TO LOCATE EXISTING LV DIST. CABLING (BETWEEN EXISTING SUB 3153/EXISTING DIST. PILLAR P001ZU) IN LOCATIONS SHOWN/CONTRACTOR SHALL EXCAVATE & EXPOSE EXISTING CONDUITS. POWER AND WATER TO CUT EXISTING LV DIST. CABLING IN NEW CJSP, PULL BACK END FROM EXISTING DIST. PILLAR P001ZU TO NEW SP3. THEN PULL BACK THROUGH NEW 1x100mm HD uPVC CONDUIT AT NEW ROAD CROSSING TO NEW SP2, SUPPLY/INSTALL NEW LV DIST. CABLING BETWEEN NEW SP2/CJSP IN EXISTING 1x100mm HD uPVC CONDUIT VACATED ONCE EXISTING LV DIST. CABLING REMOVED & JOINT NEW LV DIST. CABLING TO EXISTING IN NEW CJSP & IN NEW SP2.

POWER AND WATER INSTRUCTIONS TO DEVELOPER

The Developer shall ensure that any Contractor employed to Power and Water for the particular work.

The Contractor shall only carry out work in accordance with the approved drawings and the "Design and Construction of Network Assets" requirements.

POWER AND WATER This drawing has been endorsed in principal for electrical construction in respect of:

 Substation / Switchgear details This endorsement is based on the Consultant certifying that the design complies with Power and Water's requirements, the accuracy of existing network and existing services have been checked on site and the design verified. The saids sement grained saust not be construed that Prover and Weie, accepts responsibility for the technical adequate of the design. This responsibility remains absolute with the Developer's electrical consultant. This endorsement remains valid for 12 months from the data shows balow. Should this period be exceeded prior to commencement of work or any significant change have been made, drawings must be re-submitted for endorsement in accordance with current

APPD DATE

<u>NOTES</u>

- 1 REFER DWG No. B23-7113 FOR DETAILS OF ITEMS LISTED IN LEGEND.
- 2 CONTRACTOR SHALL LOCATE EXISTING EARTH CABLING IN LOCATIONS SHOWN, JOINT NEW 1x1C 70 Sq mm Cu, BARE EARTH CABLING & EXTEND TO AND CONNECT TO NEW DIST. PILLARS P411ZU/P417ZU/P424ZU.
- 3 CONTRACTOR SHALL LOCATE EXISTING SAND PITS AT LOCATIONS SHOWN & INSTALL NEW LV DIST. CABLING WITHIN EXISTING SPARE 1x100mm HD uPVC CONDUIT & THEN DIRECT BURIED TO NEW DIST. PILLARS P411ZU/P424ZU.
- 4 CONTRACTOR SHALL LOCATE EXISTING SAND PIT AT LOCATION SHOWN & INSTALL NEW LV DIST. CABLING DIRECT BURIED TO NEW DIST, PILLAR P4177U.
- 5 CONTRACTOR SHALL LEAVE SUFFICIENT LENGTHS NEW LV DIST. CABLING (FROM NEW DIST. PILLAR P424ZU) COILED WITHIN EXISTING SAND PIT IN FRONT OF EXISTING SUB 3356 & ARRANGE FOR POWER AND WATER TO PULL NEW LV DIST. CABLING THROUGH EXISTING SPARE 100mm SWEEP BEND INTO EXISTING SUB 3356 LV SECTION & CONNECT/TERMINATE.
- 6 CONTRACTOR SHALL LEAVE SUFFICIENT LENGTHS NEW LV DIST. CABLING (FROM NEW DIST. PILLARS P411ZU/P417ZU) COILED WITHIN EXISTING SAND PIT IN FRONT OF EXISTING DIST. PILLARS P409ZU/P416ZU & ARRANGE FOR POWER AND WATER TO PULL NEW LV DIST. CABLING THROUGH EXISTING SPARE 1x100mm SWEEP BEND INTO EXISTING DIST. PILLARS P409ZU/P416ZU & CONNECT/TERMINATE.
- 7 LV CABLING SHALL BE RUN BELOW (DEEPER THAN STANDARD ELECTRICAL TRENCH DEPTH/COVER) SEWER/DRAINAGE WITH A MINIMUM OF 300mm CLEARANCE AT CROSSOVER LOCATIONS. COORDINATE ON SITE WITH CIVIL CONTRACTOR.
- 8 MINIMUM 300mm HORIZONTAL SEPARATION REQUIRED BETWEEN EDGE OF NBN CONDUIT/S & DIRECT BURIED LV CABLING. WHERE 300mm SEPARATION NOT PROVIDED, LV CABLING SHALL BE INSTALLED IN 100mm HD uPVC CONDUIT. ALSO REFER DWG No. B23-7109, DETAILS B & C.

PILLAR SCHEDULE							
PILLAR	630A STRIPPLE FUSE UNIT	160A STRIPPLE FUSE UNIT	No. OF SLOTS				
P411ZU	2	1	3				
P412ZU	3	1_	5				
P413ZU	3	1	5				
P414ZU	1	1	3				
P415ZU	2	1	3				
P417ZU	2	1	3				
P418ZU	2	1	3				
P419ZU	2	2	3				
P420ZU	2	1	3				
P421ZU	2	1	3				
P422ZU	2	1	3				
P423ZU	2	1	3				
P424ZU	3	1	5				
P425ZU	2	1	3				
P426ZU	2	1	3				
P427ZU	2	1	3				
P428ZU	3	1	5				
P429ZU	1	1	3				
P430ZU	2	1	3				
P431ZU	2	1	3				
P432ZU	2	1	3				
P433ZU	2	1	3				
P434ZU	2	1	3				
P435ZU	3	1	5				

DRAFTING STANDARD TO A.S.1100

DEVELOPER: TERRITORY LIFE GP0 Box 1779 DARWIN NT 0801

PHONE: 0417 160700 FACSIMILE: EMAIL: clement.williams@territorylife.com.au CONTACT: CLEMENT WILLIAMS

AGA CONSULTING ENGINEERS PTY LTD ELECTRICAL & MECHANICAL ACN 070 242 296 GP0 B0X 3097

DARWIN NT 0801

TELEPHONE: 08 89416582

FACSIMILE: 08 89421400

EMAIL: alekg@agaeng.com.au

NO

RE-ISSUED FOR POWER AND WATER APPROVAL RE-ISSUED FOR POWER AND WATER APPROVAL LAYOUT, LEGEND, NOTES & SCHEDULES AMENDED ISSUED FOR POWER AND WATER APPROVAL ISSUED FOR POWER AND WATER REVIEW DESCRIPTION

AMENDMENTS

K.T. K.T.

A.G. B23-7114 A.G. B23-7113 A.G. B23-7112 A.G. B23-7111 25-9-23 15-9-23 29-6-23 2-6-23 A.G. B23-7109 9-5-23 DRN DATE APPD DRG NO

HV ELECTRICAL RETICULATION

SINGLE LINE DIAGRAM & LEGEND NOTES, SCHEDULES & HV SCHEMATICS MASTER SERVICES PLAN CONDUIT/DUCT LAYOUT

ASSOCIATED DRAWINGS

P | PRELIMINARY/PROPOSED TENDERING PURPOSES ONLY AC APP. FOR CONSTRUCTION Al AS INSTALLED CANCELLED/SUPERSEDED AGA406-18A

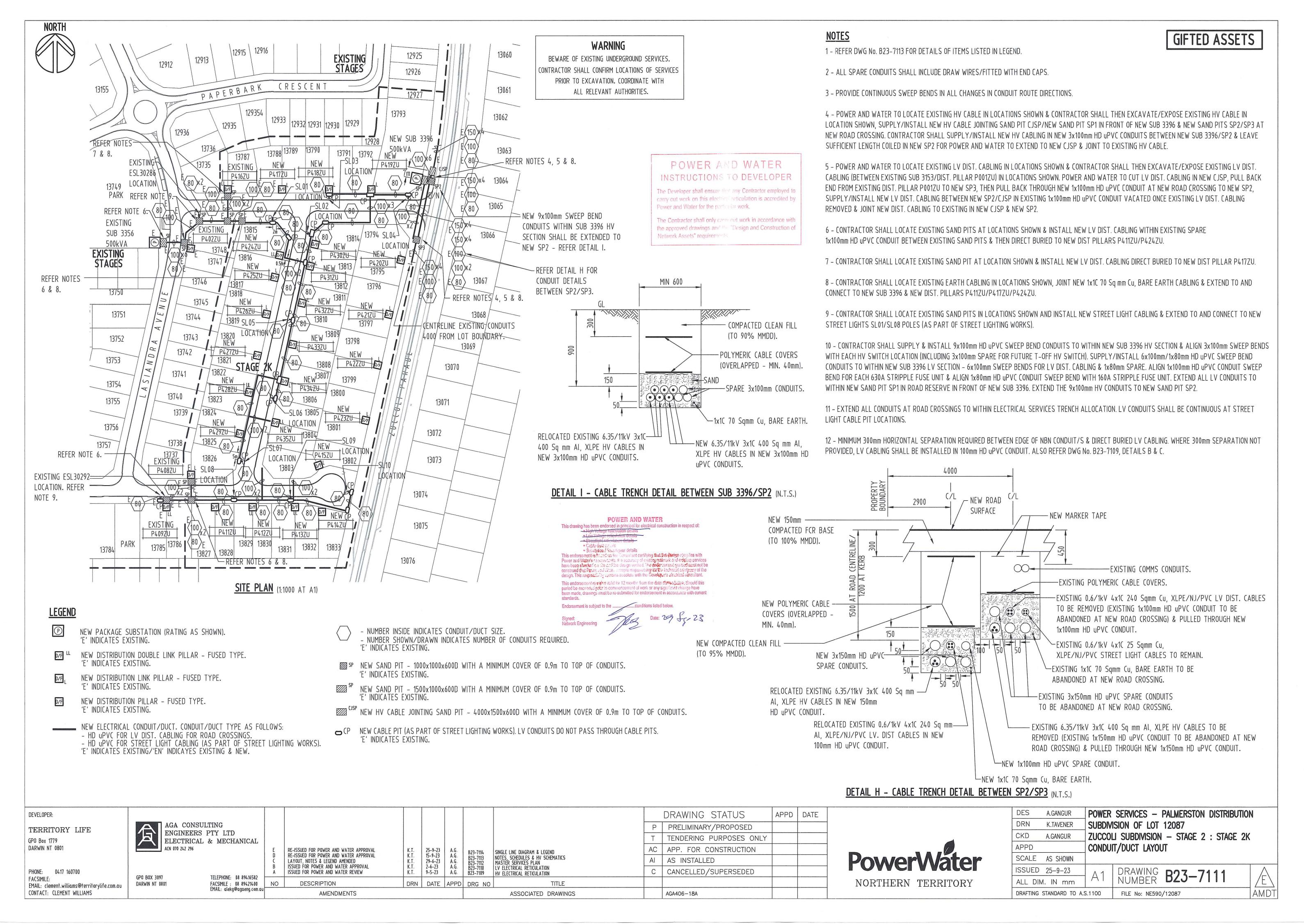
DRAWING STATUS

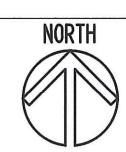


DES	A.GANGUR	POWER	SERVICES -	PALMERSTON	DISTRIBUTION	N
DRN	K.TAVENER	SUBDIV	ISION OF LOT	12087		
CKD	A.GANGUR	ZUCCO	LI SUBDIVISION	- STAGE 2	: STAGE 2K	i i
APPD		LV ELE	CTRICAL RETIC	ULATION		
SCALE	AS SHOWN					
ISSUED	25-9-23	Λ 1	DRAWING NUMBER	D27 7	110	
ALL DIN	1. IN mm] /	NUMBER	DZJ-/	110	

FILE No: NE590/12087

AMDT





WARNING

3155

13749

PARK

EXISTING

SUB 3356

500kVA

13751

13752

13753

13754

13755

13756

EXISTING

BEWARE OF EXISTING UNDERGROUND SERVICES. CONTRACTOR SHALL CONFIRM LOCATIONS OF SERVICES PRIOR TO EXCAVATION. COORDINATE WITH ALL RELEVANT AUTHORITIES.

12909\ 12908 .

12913

12936

GIFTED ASSETS

12906 | 12905 | 12904

12915 \ 12916

PAPERBARK CRESCENT

129354

S 13815 NEW 551m² W

13747

13823

13826 551m² D

13827 525m² 13828 420m²

13743

13740

P408ZU

NEW

P426ZU (S) D/F 13819_{360m}² (D) (W)

CRESCEN

12903

12917 | 12918 | 12919 | 12920

12933 | 12932 | 12931 | 12930 | 12929 |

13803 pal 13802 D

SITE PLAN (1:1000 AT A1)

 P412ZU
 P413ZU

 13829
 13830
 13831
 13832

13811 NEW P421ZU

CORKWOOD STREET

SD WD SD WS DEFE NEW

12937

12923

12924

12925

12926

12927

13793 (9KVA) MD

13060

13061

13062

13063

13064

13065

13069

13070

13072

13073

13074

13075

13066

NOTES

1 - REFER DWG No. B23-7113 FOR DETAILS OF ITEMS LISTED IN LEGEND (EXCLUDING WATER/SEWER/DRAINAGE CONNECTION).

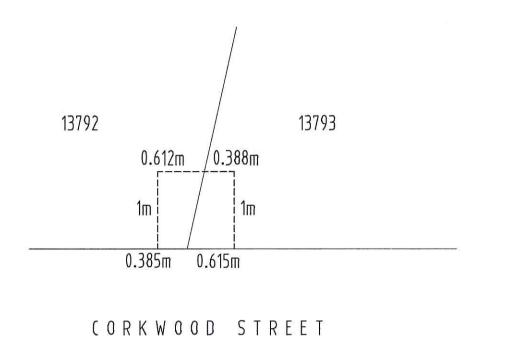
POWER AND WATER INSTRUCTIONS TO DEVELOPER

The Developer shall ensure that any Contractor employed to carry out work on this electrical reticulation is accredited by Power and Water for the particular work.

The Contractor shall only care out work in accordance with the approved drawings and Rec Design and Construction of Network Assets" requirements

LEGEND

- NEW PACKAGE SUBSTATION (RATING AS SHOWN). 'E' INDICATES EXISTING.
- NEW DISTRIBUTION DOUBLE LINK PILLAR FUSED TYPE. 'E' INDICATES EXISTING.
- NEW DISTRIBUTION LINK PILLAR FUSED TYPE. 'E' INDICATES EXISTING.
- EXISTING DISTRIBUTION PILLAR FUSED TYPE. 'E' INDICATES EXISTING.
- NEW WATER CONNECTION. 'E' INDICATES EXISTING.
- NEW SEWER CONNECTION. 'E' INDICATES EXISTING.
- NEW DRAINAGE CONNECTION.



DETAIL F - ELEC EASEMENT PILLAR P419ZU IN LOTS 13792/13793 (1:5 AT A1)

POWER AND WATER This drawing has been endorsed in principal for electrical construction in respect of:

This endorsement is based on the Consultant certifying that the Consultant certification certification consultant certification certifica Power and Water's requirements, the accuracy of existing matriors and existing services

have been charged on site and the design vention. The and comment granted rates not be design. This responsibility termins absolute with the Developer's electrical consultant.

 High Voltage reticulation details Low Voltage reticulation details

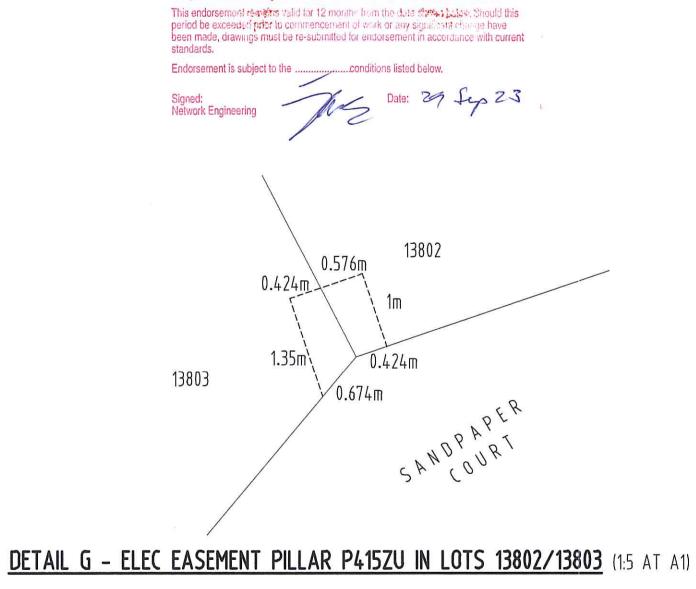
Streetlight reliculation details

Substation / Switchgear details

LOT ELEC PILLAR LOT BOUNDARY-VERGE 1000 700

LOT CONNECTIONS - ELEC PILLAR IN 2 LOTS (N.T.S.)

DETAIL D - TYPICAL OFFSETS FOR ELEC/NBN/SEWER/DRAINAGE/WATER



LOT LOT PILLAR LOT BOUNDARY VERGE

DETAIL E - TYPICAL OFFSETS FOR ELEC/NBN/SEWER/DRAINAGE/WATER LOT CONNECTIONS - ELEC PILLAR IN 1 LOT (N.T.S.)

DEVELOPER: TERRITORY LIFE GP0 Box 1779 **DARWIN NT 0801**

PHONE: 0417 160700 FACSIMILE: EMAIL: clement.williams@territorylife.com.au CONTACT: CLEMENT WILLIAMS

ENGINEERS PTY LTD ELECTRICAL & MECHANICAL ACN 070 242 296 GP0 B0X 3097 TELEPHONE: 08 89416582 FACSIMILE: 08 89421400 DARWIN NT 0801

B23-7114 B23-7113 B23-7111 B23-7110 B23-7109 15-9-23 29-6-23 2-6-23 9-5-23 RE-ISSUED FOR POWER AND WATER APPROVAL LAYOUT & LEGEND AMENDED A.G. A.G. A.G. A.G. ISSUED FOR POWER AND WATER APPROVAL ISSUED FOR POWER AND WATER REVIEW DRN DATE APPD DRG NO NO DESCRIPTION EMAIL: alekg@agaeng.com.a **AMENDMENTS**

DRAWING STATUS APPD DATE PRELIMINARY/PROPOSED TENDERING PURPOSES ONLY APP. FOR CONSTRUCTION SINGLE LINE DIAGRAM & LEGEND
NOTES, SCHEDULES & HV SCHEMATICS
CONDUIT/DUCT LAYOUT
LV ELECTRICAL RETICULATION AS INSTALLED CANCELLED/SUPERSEDED HV ELECTRICAL RETICULATION TITLE AGA406-18A ASSOCIATED DRAWINGS

PowerWater NORTHERN TERRITORY

	DES DRN CKD APPD SCALE	A.GANGUR K.TAVENER A.GANGUR AS SHOWN	SUBDIV ZUCCOI	ISION OF LOT	- STAGE 2 : STA	
	ISSUED ALL DIM	15-9-23 1. IN mm	A1	DRAWING NUMBER	B23-7112	
DRAFTING STANDARD TO A.S.1100		FILE No: NE590,	/12087	AMDT		

GIFTED ASSETS

NOTES - WORKS BY DEVELOPERS CONTRACTOR

- 1 ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH CURRENT POWER AND WATER CONSTRUCTION METHODS, REQUIREMENTS & STANDARDS AS DETAILED IN POWER AND WATER DESIGN AND CONSTRUCTION GUIDELINES, UNDERGROUND MANUAL & ACCESS TO APPARATUS RULES.
- 2 ALL PURCHASED MATERIALS/EQUIPMENT TO CONSTRUCT ELECTRICAL RETICULATION SHALL BE IN ACCORDANCE WITH POWER AND WATER'S RELEVANT STANDARDS/TECHNICAL REQUIREMENTS AND FROM A POWER AND WATER AUTHORISED MANUFACTURER, SPECIFICALLY FOR HIGH VOLTAGE AND LOW VOLTAGE DISTRIBUTION NETWORKS, ANY NON-STANDARD MATERIALS/EQUIPMENT USED WITHOUT OBTAINING PRIOR APPROVAL IN WRITING FROM POWER NETWORKS, ASSET MANAGEMENT QUALITY GROUP CAN BE REJECTED AND REPLACED BY THE APPROVED STANDARD ITEM BEFORE POWER AND WATER ACCEPTS THE HANDOVER OF ELECTRICAL ASSETS AND ISSUING POWER CLEARANCE FOR THE CONSTRUCTION/DEVELOPMENT. IF UNSURE, CONTACT POWER AND WATER POWER NETWORK ASSET MANAGEMENT QUALITY GROUP ON standardsengineers@powerwater.com.au.
- 3 IN COMPLIANCE TO SAFETY REQUIREMENTS REGARDING ACCESS TO APPARATUS RULES, ALL OPENINGS OR TRENCHES IN FRONT OF APPLICABLE POWER ASSETS WHICH ARE CURRENTLY IN SERVICE MUST BE BACKFILLED OR HAVE SUBSTANTIAL COVER (SUITABLE STEEL PLATE OR 19mm FORM PLY SECURED TO A 150mm x 100mm TIMBER CROSS MEMBERS) OVER THE OPENINGS WHEN WORKS HAVE COMPLETED FOR THE DAY IN ORDER TO ALLOW POWER AND WATER'S PERSONNEL SAFE ACCESS TO THE APPARATUS & TO PERFORM ANY SWITCHING IF REQUIRED. IN ADDITION TO CURRENT STANDARD FENCING ARRANGEMENT.
- 4 CONTRACTOR SHALL CONTACT & SUBMIT AN UNDERGROUND INSTALLATION PROGRAMME TO POWER AND WATER DEMAND AND DEVELOPMENT SERVICES (DDS) VIA E-MAIL (connection.pwc@powerwater.com.au) THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS. THE UNDERGROUND INSTALLATION PROGRAMME SHALL BE AGREED BY DDS 7 DAYS PRIOR TO WORK COMMENCING.

ANTICIPATED CONSTRUCTION COMMENCEMENT NOVEMBER 2023.

- 5 SUBSTATION SHALL BE SUPPLIED BY CONTRACTOR AND SHALL BE MK3 (500kVA, 11kV/433V) TYPE IN ACCORDANCE WITH POWER AND WATER STANDARD DWG's S02-01-07-18 1. S02-01-07-018_2, S02-01-07-18_3 & S02-01-07-18_4. SUBSTATION SHALL BE INSTALLED BY CONTRACTOR IN ACCORDANCE WITH POWER AND WATER STANDARD DWG's S02-02-05-10, 502-02-06-33, 502-02-06-37 1, 502-02-06-37 2, 502-02-06-37 3, 502-02-06-37_4, S02-02-06-40 & S02-02-06-41. "ARMCO" SAFETY BARRIERS ARE NOT REQUIRED. CONTRACTOR SHALL DELIVER/PICK UP TO/FROM POWER AND WATER BEN HAMMOND WORKSHOP & ARRANGE FOR POWER AND WATER TO TEST NEW SUBSTATION/HV SWITCHGEAR & SUPPLY/INSTALL NEW SIM CARD FOR TARRIF METER FOR NEW SUBSTATION. CONTACT IS "TEST & PROTECTION" TELEPHONE No. 8985 7186. SUBSTAION SHALL BE POWDER COATED TO AS 3715 COLOR -'HERITAGE GREEN'.
- 6 FUSED DISTRIBUTION PILLARS SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR AND LABELLED IN ACCORDANCE WITH POWER AND WATER REQUIREMENTS, LABELS SHALL BE PROVIDED BY CONTRACTOR. PILLARS SHALL BE TYPE IN ACCORDANCE WITH POWER AND WATER STANDARD DWG S02-02-03-08 & INSTALLATION IN ACCORDANCE WITH POWER AND WATER STD DWG's S02-02-03-12 & S02-02-03-13.
- 7 SERVICE ALLOCATIONS SHALL BE AS PER DWG No. B23-7109 DETAIL A AND SHALL BE INSTALLED IN ACCORDANCE WITH POWER AND WATER STANDARD DWG's S02-02-06-02 AND S02-02-06-03 (TRENCH DETAILS). ALSO REFER DWG No. B23-7109, DETAILS B & C AND DWG No. B23-7111, DETAIL H.
- 8 ELECTRICITY EASEMENTS SHALL BE IN ACCORDANCE WITH POWER AND WATER STANDARD DWG's S02-02-06-17.
- SUBSTATION : 4mx3.5m
- FUSED PILLARS: 1mx1m WHERE PILLAR FULLY IN 1 LOT OR 0.5mx1m WHERE HALF PILLAR IN 1 LOT (IE ON COMMON BOUNDARY) FOR 3 & 5 SLOT FUSED PILLAR.

WHERE FRONT/SIDE OF PILLARS ELECTRICTY EASEMENTS DO NOT ALIGN WITH FRONT OF SIDE LOT BOUNDARIES, ELECTRICITY EASEMENTS SHALL EXTEND TO FRONT OR SIDE LOT BOUNDARY. DEVELOPER SHALL SURVEY & REGISTER ELECTRICITY EASEMENTS REQUIRED IN FAVOUR OF POWER AND WATER (AT NO COST TO POWER AND WATER).

- 9 LV CABLES SUPPLIED AND INSTALLED BY CONTRACTOR SHALL BE TYPE IN ACCORDANCE WITH POWER AND WATER STANDARD DWG's S02-01-01-19 AND S02-01-01-20. HV CABLES SUPPLIED & INSTALLED BY CONTRACTOR SHALL BE TYPE IN ACCORDANCE WITH POWER AND WATER STANDARD DWG S02-01-01-25.
- 10 SERVICE CABLES FROM DIST. PILLARS TO WITHIN EACH LOT IS TO BE PROVIDED BY LOT OWNER.

11 - CONTRACTOR SHALL LIAISE WITH NBN CONTRACTOR TO ENABLE CONDUITS AND COMMUNICATIONS PITS TO BE INSTALLED BY NBN CONTRACTOR AT THE APPROPRIATE CONSTRUCTION STAGE (INCLUDING CONDUITS AT ROAD CROSSINGS). THE CONTRACTOR SHALL BACKFILL/COMPACT TRENCHES, UPON INSTALLATION OF ELECTRICAL SERVICES CABLING, TO A LEVEL IN ACCORDANCE WITH STANDARD POWER AND WATER DWG's S02-02-06-02 TO ENABLE NBN CONTRACTOR TO INSTALL COMMUNICATIONS CONDUITS AND PITS. THE CONTRACTOR SHALL THEN COMPLETE BACKFILL/COMPACTION OF TRENCHES.

12 - CONTRACTOR SHALL INSTALL ALL NUMBER PLATES (LABELS) REQUIRED BY POWER AND WATER IE SUBSTATION & PILLARS. NOTE - SUBSTATION NUMBER PLATES & HV SWITCHES NUMBER PLATES WILL BE PROVIDED BY POWER AND WATER TO CONTRACTOR. CONTRACTOR SHALL LABEL ALL CABLE DESTINATIONS IN ACCORDANCE WITH POWER AND WATER STANDARD DRAWING S02-01-08-25.

13 - ALL WORKS REQUIRED ON EXISTING ENERGISED RETICULATION SHALL ONLY BE CARRIED OUT BY POWER AND WATER PERSONNEL. DEVELOPER/CONTRACTOR SHALL LIAISE WITH POWER AND WATER TO COORDINATE CONNECTION OF THE WORK INTO EXISTING UNDERGROUND RETICULATION. ALL COSTS

14 - DEVELOPER SHALL ENSURE THAT ONLY POWER AND WATER ACREDITED ELECTRICAL CONTRACTOR IS EMPLOYED TO CARRY OUT WORK ON THIS ELECTRICAL SYSTEM (CONTACT MANAGER NETWORK ENGINEERING - 8924 5191).

15 – DEVELOPER SHALL LIAISE WITH POWER AND WATER TO OBTAIN "HANDOVER OF WORK BY DEVELOPER". CONTRACTOR SHALL SUBMIT TO POWER AND WATER ON COMPLETION OF WORK, SIGNED COPY OF "CONTRACTOR'S CERTIFICATE OF COMPLETION & HANDOVER - POWER NETWORK ASSETS" & SIGNED COPY OF "ELECTRICAL CERTIFICATE OF COMPLIANCE".

16 – CABLE ROUTE LENGTHS NOMINATED ON SINGLE LINE DIAGRAM ARE FOR POWER AND WATER

17 – COORDINATE WITH CIVIL SERVICES FOR LOCATION OF WATER, SEWERAGE AND DRAINAGE SERVICES.

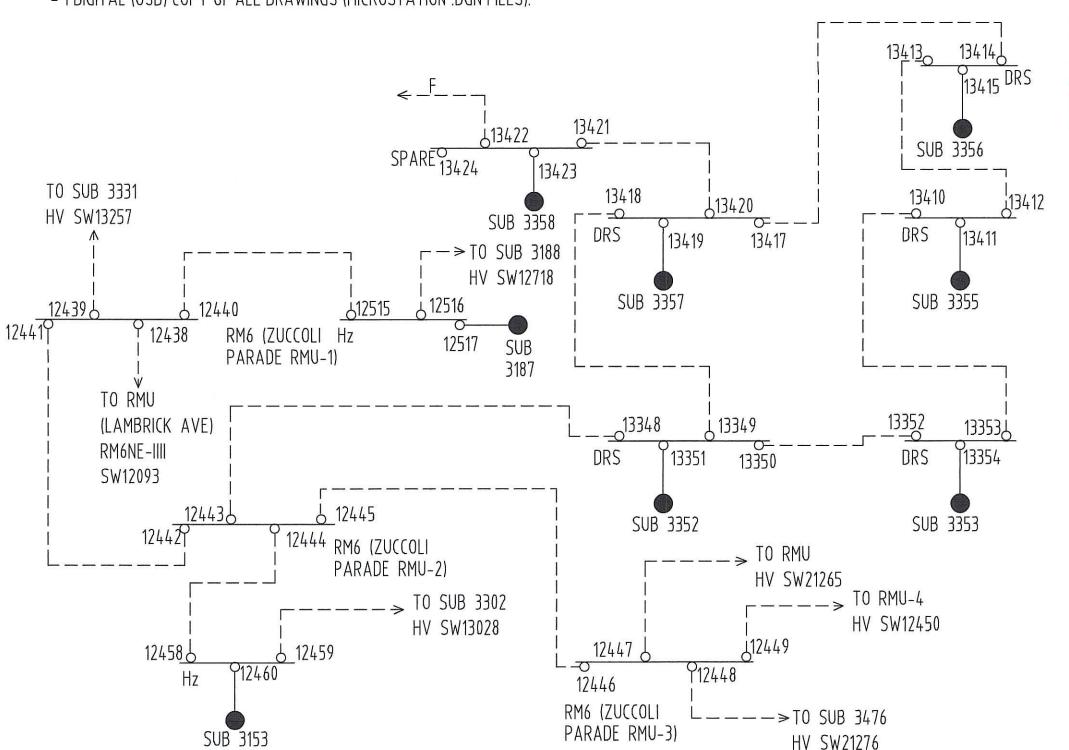
18 - CONTRACTOR SHALL PROVIDE "AS CONSTRUCTED" DRAWINGS IN ACCORDANCE WITH POWER AND WATER'S "POWER NETWORKS DESIGN AND CONSTRUCTION GUIDELINES", INCLUDING A COPY OF THE FINAL SURVEY PLAN. THE "AS CONSTRUCTED" DRAWINGS SHALL INCLUDE:

- 1 x A3 PAPER PRINT INDICATING "AS INSTALLED" (OF ALL DRAWINGS). - 1 DIGITAL (USB) COPY OF ALL DRAWINGS (MICROSTATION .DGN FILES).

ASSOCIATED SHALL BE PAID BY DEVELOPER.

INFORMATION ONLY & SHALL NOT BE USED FOR TENDERING PURPOSES.

- 1 x A1 PAPER PRINT INDICATING "AS INSTALLED" (OF ALL DRAWINGS).



EXISTING HV SCHEMATIC DIAGRAM (11AR07 MITCHELL CREEK) (N.T.S.)

NOTES - WORKS BY POWER AND WATER (AT DEVELOPERS COST)

1 - CONTRACTOR SHALL ARRANGE FOR POWER AND WATER TO CARRY OUT THE FOLLOWING WORKS:

- CUT EXISTING HV CABLE (BETWEEN EXISTING RMU-2 HV SW12445 AND RMU-3 HV SW12446 - EXPOSED BY CONTRACTOR) IN NEW CJSP, PULL BACK ONE END (FROM EXISTING RMU-3 HV SW12446) TO NEW SP3 AND THEN PULL INTO NEW SUB 3396 HV SECTION (VIA NEW 1x150mm HD uPVC CONDUIT AT ROAD CROSSING BETWEEN NEW SP2/SP3 AND NEW 3x100mm HD uPVC CONDUITS BETWEEN NEW SP2 AND NEW SUB 3396) & CONNECT/TERMINATE TO HV SW21887, JOINT OTHER END (FROM EXISTING RMU-2 HV SW12445) TO NEW HV CABLE (FROM NEW SUB 3396) HV SW21888) LEFT COILED IN NEW SAND PIT SP2 BY CONTRACTOR, POWER AND WATER TO EXTEND TO NEW CJSP VIA EXISTING VACATED 1x150mm HD uPVC CONDUIT.

- CUT EXISTING LV DIST. CABLING (BETWEEN EXISTING SUB 3153 AND EXISTING DIST. PILLAR P001ZU - EXPOSED BY CONTRACTOR) IN NEW CJSP. PULL BACK END FROM EXISTING DIST. PILLAR P001ZU TO NEW SP3, THEN PULL BACK THROUGH NEW 1x100mm HD uPVC CONDUIT AT ROAD CROSSING BETWEEN NEW SP2/SP3 TO NEW SP2, SUPPLY/INSTALL NEW LV DIST. CABLING IN EXISTING VACATED 1x100mm HD uPVC CONDUIT BETWEEN NEW CJSP/SP2 & JOINT TO NEW LV DIST. CABLING TO EXISTING IN NEW CJSP & NEW SP2.

- PULL THROUGH NEW LV DIST. CABLING (FROM NEW DIST. PILLAR P424ZU) LEFT COILED IN EXISTING SAND PIT IN FRONT OF EXISTING SUB 3356 & CONNECT/TERMINATE TO EXISTING SUB 3356 SPARE LV STRIPPLE FUSE UNIT.

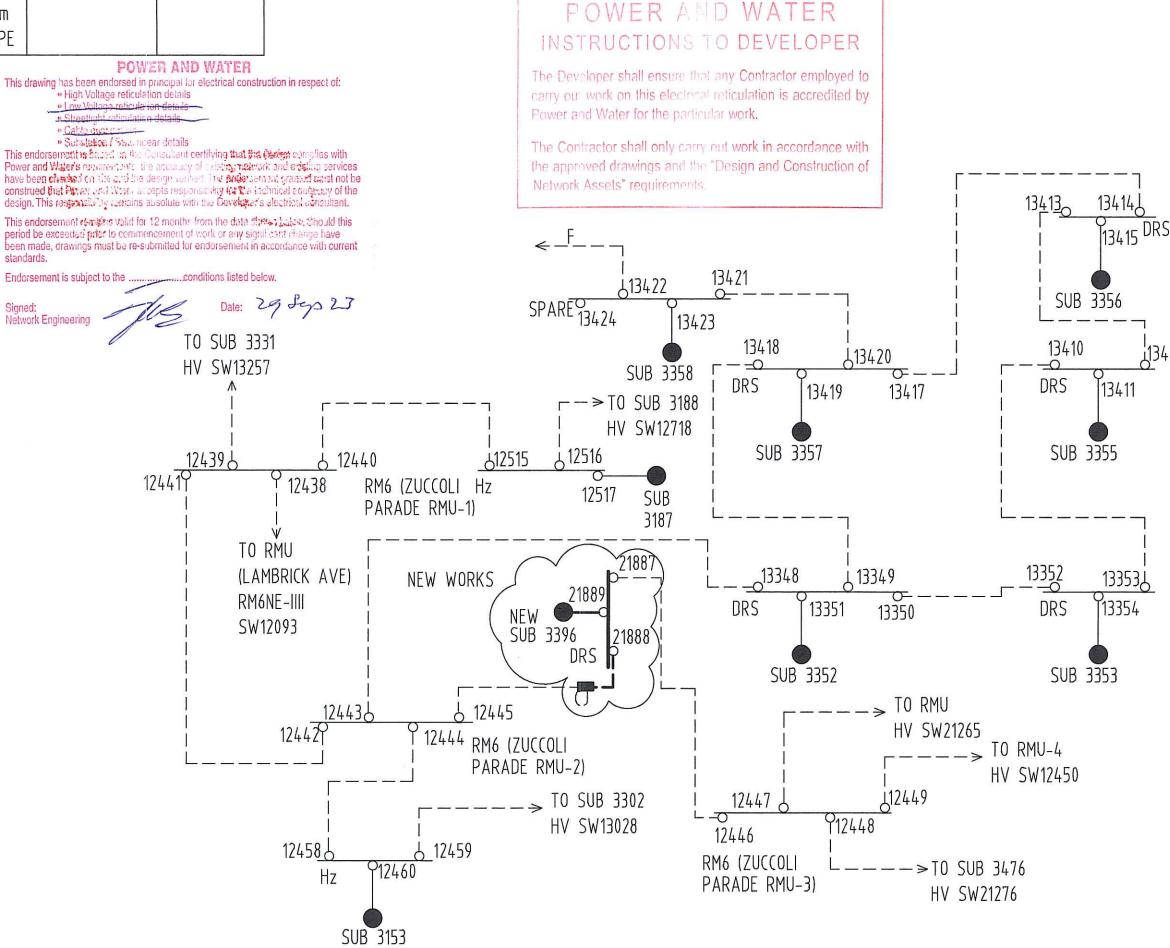
- PULL THROUGH NEW LV DIST. CABLING (FROM NEW DIST. PILLAR P417ZU) LEFT COILED IN EXISTING SAND PIT IN FRONT OF EXISTING DIST. PILLAR P416ZU & CONNECT/TERMINATE TO EXISTING DIST. PILLAR P416ZU.

- PULL THROUGH NEW LV DIST. CABLING (FROM NEW DIST. PILLAR P411ZU) LEFT COILED IN FRONT OF EXISTING DIST. PILLAR P409ZU & CONNECT/TERMINATE TO EXISTING DIST. PILLAR P409ZU.

- CARRY OUT EARTH TESTS.
- COMPLETE FINAL CONNECTION, TESTING & COMMISSIONING OF NEW SUB 3396, DISTRIBUTION PILLARS & ASSOCIATED CABLING/WORKS.
- 2 DEVELOPER SHALL PAY ALL ASSOCIATED COSTS FOR POWER AND WATER TO CARRY OUT ABOVE WORKS. POWER AND WATER'S FINAL CONNECTION QUOTE FOR PAYMENT SHALL ONLY BE PROVIDED TO THE DEVELOPER OR THE DEVELOPER'S SUCCESSFUL FLECTRICAL CONTRACTOR WITH A WRITTEN ADVICE BY THE DEVELOPER.

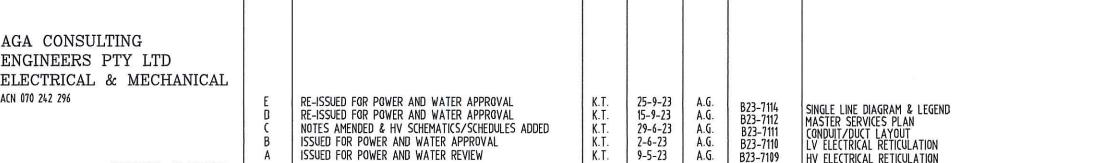
LV A	SSET SCHEDUL			
DESCRIPTION	LOCATION ID	STOCK CODE	DESCRIPTION	
DISTRIBUTION PILLAR (3-SLOTS)	REFER TO PILLAR SCHEDULE	292326	SUB 3396 MK3 500kVA	
DISTRIBUTION PILLAR (5-SLOTS)	REFER TO PILLAR SCHEDULE	292334	3-WAY 11kV 1C 400 Sq mm AL/XLPE CABLE	
LV DISTRIBUTION CABLE SINGLE CORE 0.6/1kV 240 Sq mm		401015	AD ALI E CADEL	
Al, XLPE/PVC/MDPE				

	Control of the Contro	AND THE RESERVE OF THE PARTY OF				
HV ASSET SCHEDULE						
DESCRIPTION	LOCATION	STOCK CODE	SERIAL NUMBER	TEST NUMBER		
SUB 3396 MK3 500kVA 3-WAY	ZUCCOLI PARADE ZUCCOLI	503369	ТВА	TBA		
11kV 1C 400 Sq mm AL/XLPE CABLE	ZUCCOLI PARADE	286039	N/A	N/A		



DRAFTING STANDARD TO A.S.1100

NEW HV SCHEMATIC DIAGRAM (11AR07 MITCHELL CREEK) (N.T.S.)



	•					
DES	A.GANGUR	POWER	SERVICES -	PALMERSTON DIS	STRIBUTION	N
DRN	K.TAVENER	SUBDIV	ISION OF LOT	12087		
CKD	A.GANGUR	ZUCCO	LI SUBDIVISION	- STAGE 2 : S	STAGE 2K	Ř K
APPD		NOTES,	SCHEDULES &	& HV SCHEMATIC	S	
SCALE	N.T.S.	7-				
ISSUED	25-9-23	Λ 1	DRAWING	B23-711	7	/
ALL DIM	1 IN mm		NUMBER	DZJ-/II	J	/F

FILE No: NE590/12087

AMD⁻

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TERRITORY LIFE

DEVELOPER:

GPO Box 1779

DARWIN NT 0801

GPG BGX 3097 DARWIN NT 0801

ACN 070 242 296

AGA CONSULTING

TELEPHONE: 08 89416582

FACSIMILE: 08 89421400 EMAIL: alekg@agaeng.com.a

NO

DESCRIPTION

AMENDMENTS

DRN DATE APPD DRG NO

ASSOCIATED DRAWINGS

TITLE

AGA406-18A

APPD DATE

DRAWING STATUS

AS INSTALLED

PRELIMINARY/PROPOSED

APP. FOR CONSTRUCTION

CANCELLED/SUPERSEDED

TENDERING PURPOSES ONLY

NORTHERN TERRITORY

