

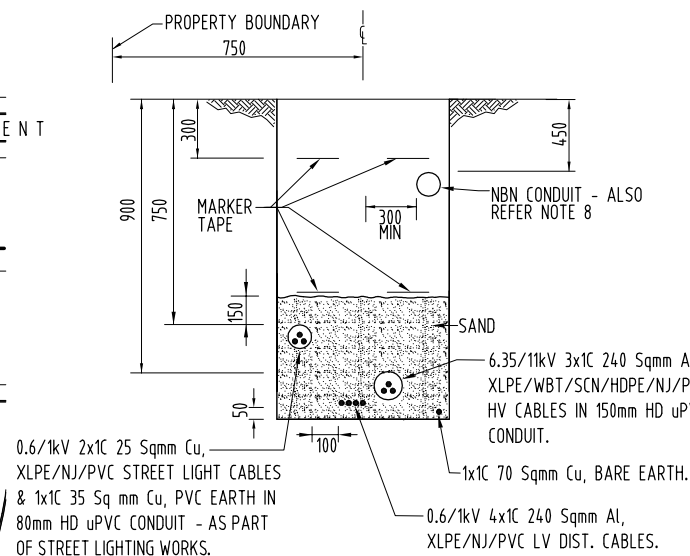
ANTICIPATED CONSTRUCTION  
COMMENCEMENT DATE  
MARCH 2021



Diagram illustrating the layout of a street lighting pole and trench. The diagram shows the following dimensions and components:

- Property Boundary:** The leftmost vertical line.
- Trench Width:** 0.7m (Power/Street Lighting Distribution/NNN - Shared Trench).
- Sewer Width:** 1.0m.
- Water Width:** 0.6m.
- Distance from Property Boundary to Trench:** 0.75m.
- Distance from Trench to Kerb Line:** 1.6m.
- Distance from Property Boundary to Kerb Line:** 2.4m.
- Street Lighting Pole (as part of Street Lighting Works):** A vertical line with a width of 0.6m.
- Distance from Pole to Kerb Line:** 0.8m.
- Kerb Line:** The rightmost vertical line.
- Drainage:** Indicated by a dashed line below the trench.

**DETAIL A - ALLOCATION FOR SERVICES** N.T.S.  
NOTE: DIMENSIONS IN METRES



PROPERTY BOUNDARY

750

900

750

300

150

50

100

300 MIN

450

MARKER TAPE

NBN CONDUIT - ALSO REFER NOTE 8

600x500x40mm REINFORCED CONCRETE SLAB

CABLE COVER/S. CONCRETE SLABS SHALL EXTEND MINIMUM 1.5m BOTH SIDES OF NBN PIT - PROVIDE NUMBER OF CONCRETE SLABS TO SUIT

SAND

6.35/11kV 3x1C 240 Sqmm AL, XLPE/WBT/SCN/HDPE/NJ/PVC HV CABLES IN 150mm HD uPVC CONDUIT.

1x1C 70 Sqmm Cu, BARE EARTH.

0.6/1kV 4x1C 240 Sqmm AL, XLPE/NJ/PVC LV DIST. CABLES.

2x1C 25 Sqmm Cu, NJ/PVC STREET LIGHT CABLES & 1x1C 35 Sq mm Cu, BARE EARTH IN 80mm HD uPVC CONDUIT - AS PART OF STREET LIGHTING WORKS.

Legend:

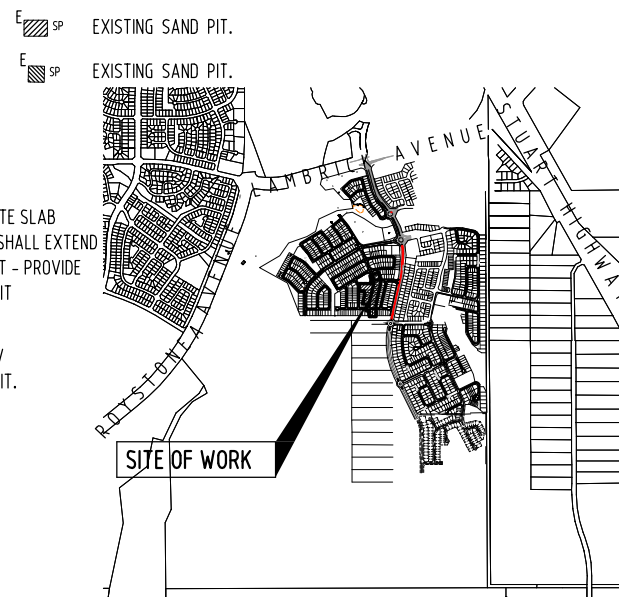
- E SP
- E SP

## NOTES


- 1 - REFER DWG NO. B20-15007 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 SUB 3356.
- 3 - CONTRACTOR SHALL LOCATE EXISTING SAND PITS AT LOCATIONS SHOWN & INSTALL NEW HV CABLING WITHIN EXISTING SPARE 1x150mm HD uPVC CONDUIT & THEN IN NEW 1x150mm HD uPVC CONDUIT TO NEW SUB 3356.
- 4 - CONTRACTOR SHALL LEAVE SUFFICIENT LENGTH NEW HV CABLING (FROM NEW SUB 3356) COILED WITHIN EXISTING SAND PIT IN FRONT OF EXISTING SUB 3355 & EXISTING SUB 3357 & ARRANGE FOR POWER AND WATER TO PULL NEW HV CABLING INTO EXISTING SUB 3355 HV SECTION & CONNECT/TERMINATE NEW HV CABLING TO SPARE HV SWITCH 134.12 & INTO EXISTING SUB 3357 HV SECTION & CONNECT/TERMINATE NEW HV CABLING TO SPARE HV SW134.17.
- 5 - NEW SUB 3356 FOUNDATION SHALL BE INSTALLED AT AN APPROPRIATE LEVEL THAT IT WILL NOT BE DETRIMENTALLY AFFECTED BY RUN OFF STORMWATER.
- 6 - 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 UNDERGROUND SERVICES ARE LOCATED (PRIOR TO TRENCH EXCAVATION WITHIN EXISTING ROAD RESERVE).
- 7 - 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.
- 8 - MINIMUM 300mm HORIZONTAL SEPARATION REQUIRED BETWEEN EDGE OF NBN CONDUIT/S & LV CABLING. TRENCH WIDTH MAYBE EXTENDED BY 200mm TOWARDS PROPERTY BOUNDARY TO ENSURE 300mm HORIZONTAL SEPARATION PROVIDED. WHERE 300mm SEPARATION NOT PROVIDED, LV CABLE SHALL BE INSTALLED IN 100mm HD uPVC CONDUIT. ALSO REFER DETAILS B & C.


### LEGEND

- NEW PACKAGE SUBSTATION (RATING AS SHOWN).  
'E' INDICATES EXISTING.
- E — EXISTING HV CABLE - 6.35/11kV 3 x 1C 400 Sq mm Al (WATER BLOCKED),  
XLPE/WBT/SCN/HDPE/NJ/PVC IN 150mm HD uPVC CONDUIT  
& 1 x 1C 70 Sq mm Cu, BARE EARTH DIRECT BURIED.
- NEW HV CABLE - 6.35/11kV 3 x 1C 240 Sq mm Al (WATER BLOCKED),  
XLPE/WBT/SCN/HDPE/NJ/PVC IN 150mm HD uPVC CONDUIT  
& 1 x 1C 70 Sq mm Cu, BARE EARTH DIRECT BURIED.
- E — EXISTING HV CABLE - 6.35/11kV 3 x 1C 240 Sq mm Al (WATER BLOCKED),  
XLPE/WBT/SCN/HDPE/NJ/PVC IN 150mm HD uPVC CONDUIT  
& 1 x 1C 70 Sq mm Cu, BARE EARTH DIRECT BURIED.



LOCALITY PLAN (N.T.S.)

DEVELOPER:  TERRITORY LIFE  GPO Box 1779 DARWIN NT 0801		0	CONTRACT DRAWING	K.T.	9-10-20	A.G.	B20-15008 B20-15007 B20-15006 B20-15005 B20-15004	SINGLE LINE DIAGRAM & LEGEND NOTES, ASSET SCHEDULES & HV SCHEMATICS MASTER SERVICES PLAN CONDUIT/DUCT LAYOUT LV ELECTRICAL RETICULATION	DRAWING STATUS		APPD	DATE
									P	PRELIMINARY/PROPOSED		
									T	TENDERING PURPOSES ONLY		
									AC	APP. FOR CONSTRUCTION		
									AI	AS INSTALLED		
C	CANCELLED/SUPERSEDED											
									TITLE			
AMENDMENTS									ASSOCIATED DRAWINGS		AGA406-20A	
PHONE: 0417 160700 FACSIMILE: EMAIL: clement.williams@territorylife.com.au CONTACT: CLEMENT WILLIAMS	GPO BOX 3097 DARWIN NT 0801  TELEPHONE: 08 89416582 FACSIMILE : 08 89421400 EMAIL: alekg@agoeng.com.au											



NORTHERN TERRITORY

DES	A.GANGUR	POWER SERVICES – PALMERSTON DISTRIBUTION	
DRN	K.TAVENER	SUBDIVISION OF LOT 12087	
CKD	A.GANGUR	ZUCCOLI SUBDIVISION – STAGE 2 : STAGE 211	
APPD		HV ELECTRICAL RETICULATION	
SCALE	AS SHOWN		
ISSUED	9-10-20	A1	DRAWING NUMBER <b>B20-15003</b>
ALL DIM. IN mm			
DRAFTING STANDARD TO A.S.1100		FILE No: NE590/12087	
		AMDT	






SITE PLAN (1:1000 AT A1)

NOTES

- 1 - REFER DWG No. B20-15007 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. PILLAR P416ZU.
- 3 - CONTRACTOR SHALL LOCATE EXISTING SAND PITS AT LOCATIONS SHOWN & INSTALL NEW DIST. CABLING WITHIN EXISTING SPARE 1x100mm HD uPVC CONDUIT & THEN DIRECT BURIED TO NEW DIST. PILLAR P416ZU.
- 4 - CONTRACTOR SHALL LEAVE SUFFICIENT LENGTHS NEW LV DIST. CABLING (FROM NEW DIST. PILLAR P416ZU) COILED WITHIN EXISTING SAND PIT IN FRONT OF EXISTING DIST. PILLAR P080ZU & ARRANGE FOR POWER AND WATER TO PULL NEW LV DIST. CABLING THROUGH EXISTING SPARE 1x100mm SWEEP BEND INTO EXISTING DIST. PILLAR P080ZU & CONNECT/TERMINATE.
- 5 - 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.
- 6 - MINIMUM 300mm HORIZONTAL SEPARATION REQUIRED BETWEEN EDGE OF NBN CONDUIT/S & LV CABLING. TRENCH WIDTH MAYBE EXTENDED BY 200mm TOWARDS PROPERTY BOUNDARY TO ENSURE 300mm HORIZONTAL SEPARATION PROVIDED. WHERE 300mm SEPARATION NOT PROVIDED, LV CABLING SHALL BE INSTALLED IN 100mm HD uPVC CONDUIT. ALSO REFER DWG No. B20-15003, DETAILS B & C.

LEGEND

- NEW PACKAGE SUBSTATION (RATING AS SHOWN). 'E' INDICATES EXISTING.
- NEW DISTRIBUTION DOUBLE LINK PILLAR - FUSED TYPE. 'E' INDICATES EXISTING/'F' INDICATES FUTURE.
- NEW DISTRIBUTION LINK PILLAR - FUSED TYPE. 'E' INDICATES EXISTING/'F' INDICATES FUTURE.
- NEW DISTRIBUTION PILLAR - FUSED TYPE. 'F' INDICATES FUTURE.
- NEW ROAD OWNER DIST. PILLAR (AS PART OF STREET LIGHTING WORKS).
- EXISTING LV DISTRIBUTION CABLE - 0.6/1kV 4 x 1C 240 Sq mm Al, XLPE/NJ/PVC - DIRECT BURIED (OR WITHIN CONDUIT AT ROAD CROSSING) & 1x1C 70 Sq mm Cu, BARE EARTH - DIRECT BURIED.
- 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) & 1x1C 70 Sq mm Cu, BARE EARTH - DIRECT BURIED. ALSO REFER NOTE 6.
- FUTURE LV DISTRIBUTION CABLE - 0.6/1kV 4 x 1C 240 Sq mm Al, XLPE/NJ/PVC - DIRECT BURIED (OR WITHIN CONDUIT AT ROAD CROSSING) & 1x1C 70 Sq mm Cu, BARE EARTH - DIRECT BURIED.
- EXISTING LV SERVICE CABLE - 0.6/1kV 2 x 1C 25 Sq mm Cu, XLPE/NJ/PVC - DIRECT BURIED (OR WITHIN CONDUIT AT ROAD CROSSING).
- NEW 3 PHASE LV SERVICE CABLE (SUPPLY TO ROAD OWNER DIST. PILLAR) - 0.6/1kV 4x1C 25 Sq mm Cu, XLPE/NJ/PVC ENCLOSED IN 80mm HD uPVC CONDUIT.
- FUTURE 3 PHASE CONSUMER MAINS - BY LOT OWNER.

DEVELOPER:				AGA CONSULTING ENGINEERS PTY LTD ELECTRICAL & MECHANICAL ACN 070 242 296																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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### WARNING

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

### GIFTED ASSETS




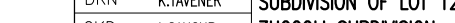


SITE PLAN (1:1000 AT A1)

### NOTES

- 1 - REFER DWG No. B20-15007 FOR DETAILS OF ITEMS LISTED IN LEGEND.
- 2 - ALL SPARE CONDUITS SHALL INCLUDE DRAW WIRES/FITTED WITH END CAPS.
- 3 - PROVIDE CONTINUOUS SWEEP BENDS IN ALL CHANGES IN CONDUIT ROUTE DIRECTIONS.
- 4 - CONTRACTOR SHALL LOCATE EXISTING SAND PITS AT LOCATIONS SHOWN & INSTALL NEW HV CABLING WITHIN EXISTING SPARE 1x150mm HD uPVC CONDUIT BETWEEN EXISTING SAND PITS & THEN IN NEW 1x150mm HD uPVC CONDUIT TO NEW SUB 3356.
- 5 - CONTRACTOR SHALL LOCATE EXISTING SAND PITS AT LOCATIONS SHOWN & INSTALL NEW LV DIST. CABLING WITHIN EXISTING SPARE 1x100mm HD uPVC CONDUIT BETWEEN EXISTING SAND PITS & THEN DIRECT BURIED TO NEW DIST. PILLAR P416ZU.
- 6 - 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 3356, NEW DIST. PILLAR P416ZU & SAND PIT SHOWN.
- 7 - CONTRACTOR SHALL SUPPLY & INSTALL 1x1C 70 Sq mm Cu, BARE EARTH TO SAND PIT SHOWN & LEAVE 3m COILED IN SAND PIT FOR FUTURE STAGE CONNECTION.
- 8 - CONTRACTOR SHALL SUPPLY & INSTALL 9x100mm HD uPVC SWEEP BEND CONDUITS TO WITHIN NEW SUB 3356 HV SECTION & ALIGN 3x100mm SWEEP BENDS WITH EACH HV SWITCH & ALIGN 3x100mm SWEEP BENDS WITH POSSIBLE FUTURE 3rd T-OFF HV SWITCH. SUPPLY/INSTALL 6x100mm/1x80mm HD uPVC SWEEP BEND CONDUITS TO WITHIN NEW SUB 3356 LV SECTION - 4x100mm SWEEP BENDS FOR LV DIST. CABLING, 1x100mm SWEEP BEND FOR FUTURE LV DIST. CABLING, 1x100mm SWEEP BEND SPARE & 1x80mm SWEEP BEND FOR LV SERVICE CABLING TO ROAD OWNER DIST. PILLAR RODP2. ALIGN 1x100mm HD uPVC CONDUIT SWEEP BEND FOR EACH 630A STRIPPLE FUSE UNIT & ALIGN 1x80mm HD uPVC CONDUIT SWEEP BEND WITH 160A STRIPPLE FUSE UNIT. EXTEND ALL CONDUITS TO WITHIN NEW SAND PIT IN ROAD RESERVE IN FRONT OF NEW SUB 3356.
- 9 - CONTRACTOR SHALL SUPPLY & INSTALL 1x100mm HD uPVC SWEEP BEND CONDUIT TO WITHIN NEW DIST. PILLAR P390ZU AND EXTEND TO WITHIN NEW SAND PIT IN ROAD RESERVE IN FRONT OF NEW DIST. PILLAR P390ZU - FOR FUTURE STAGE LV DIST. CABLING.
- 10 - CONTRACTOR SHALL SUPPLY & INSTALL 1x100mm HD uPVC SWEEP BEND CONDUIT TO WITHIN NEW DIST. PILLAR P409ZU AND EXTEND TO WITHIN NEW SAND PIT IN ROAD RESERVE IN FRONT OF NEW DIST. PILLAR P409ZU - FOR FUTURE STAGE LV DIST. CABLING.
- 11 - CONTRACTOR SHALL SUPPLY & INSTALL 1x100mm HD uPVC SWEEP BEND CONDUIT TO WITHIN NEW DIST. PILLAR P416ZU AND EXTEND TO WITHIN NEW SAND PIT IN ROAD RESERVE IN FRONT OF NEW DIST. PILLAR P416ZU - FOR FUTURE STAGE LV DIST. CABLING.
- 12 - CONTRACTOR SHALL SUPPLY & INSTALL 1x100mm HD uPVC SWEEP BEND CONDUIT TO WITHIN NEW DIST. PILLAR P410ZU AND EXTEND TO WITHIN NEW SAND PIT IN ROAD RESERVE IN FRONT OF NEW DIST. PILLAR P410ZU - FOR FUTURE STAGE LV DIST. CABLING.
- 13 - CONTRACTOR SHALL SUPPLY & INSTALL SPARE 1x80mm HD uPVC CONDUIT FROM NEW STREET LIGHT SL02 CABLE PIT TO NEW SAND PITS SHOWN FOR FUTURE STAGE STREET LIGHTING (AS PART OF STREET LIGHTING WORKS).
- 14 - EXTEND ALL CONDUITS AT ROAD CROSSINGS TO WITHIN ELECTRICAL SERVICES TRENCH ALLOCATION.
- 15 - MINIMUM 300mm HORIZONTAL SEPARATION REQUIRED BETWEEN EDGE OF NBN CONDUIT/S & LV CABLING. TRENCH WIDTH MAYBE EXTENDED BY 200mm TOWARDS PROPERTY BOUNDARY TO ENSURE 300mm HORIZONTAL SEPARATION PROVIDED. WHERE 300mm SEPARATION NOT PROVIDED, LV CABLING SHALL BE INSTALLED IN 100mm HD uPVC CONDUIT. ALSO REFER DWG No. B20-15003, DETAILS B & C.

### LEGEND

- NEW PACKAGE SUBSTATION (RATING AS SHOWN).  
'E' INDICATES EXISTING.
- NEW DISTRIBUTION DOUBLE LINK PILLAR - FUSED TYPE.  
'E' INDICATES EXISTING/'F' INDICATES FUTURE.
- NEW DISTRIBUTION LINK PILLAR - FUSED TYPE.  
'E' INDICATES EXISTING/'F' INDICATES FUTURE.
- NEW DISTRIBUTION PILLAR - FUSED TYPE.  
'F' INDICATES FUTURE.
- NEW ROAD OWNER DIST. PILLAR (AS PART OF STREET LIGHTING WORKS).
- NEW ELECTRICAL CONDUIT/DUCT. CONDUIT/DUCT TYPE AS FOLLOWS:  
- HD uPVC FOR ALL HV CABLING.  
- HD uPVC FOR LV DIST. CABLING FOR ROAD CROSSINGS.  
- HD uPVC FOR STREET LIGHT CABLING (AS PART OF STREET LIGHTING WORKS).  
'E' INDICATES EXISTING.
- NUMBER INSIDE INDICATES CONDUIT/DUCT SIZE.  
- NUMBER SHOWN/DRAWN INDICATES NUMBER OF CONDUITS REQUIRED.  
'E' INDICATES EXISTING.
- NEW SAND PIT - 1000x1000x600D WITH A MINIMUM COVER OF 0.9m TO TOP OF CONDUITS.  
'E' INDICATES EXISTING.
- NEW SAND PIT - 1500x1000x600D WITH A MINIMUM COVER OF 0.9m TO TOP OF CONDUITS.  
'E' INDICATES EXISTING.
- NEW CABLE PIT (AS PART OF STREET LIGHTING WORKS). LV CONDUITS DO NOT PASS THROUGH CABLE PITS.

DEVELOPER:				AGA CONSULTING ENGINEERS PTY LTD ELECTRICAL & MECHANICAL ACN 070 242 296										DRAWING STATUS		APPD	DATE	 NORTHERN TERRITORY		DES A.GANGUR		POWER SERVICES – PALMERSTON DISTRIBUTION SUBDIVISION OF LOT 12087 ZUCCOLI SUBDIVISION – STAGE 2 : STAGE 211 CONDUIT/DUCT LAYOUT					
TERRITORY LIFE GPO Box 1779 DARWIN NT 0801  PHONE: 0417 160700 FACSIMILE: EMAIL: clement.williams@territorylife.com.au CONTACT: CLEMENT WILLIAMS				GPO BOX 3097 DARWIN NT 0801  TELEPHONE: 08 89416582 FACSIMILE: 08 89421400 EMAIL: alekg@ageng.com.au		0		CONTRACT DRAWING		K.T.		9-10-20		A.G.		B20-15008 B20-15007 B20-15006 B20-15004 B20-15003  SINGLE LINE DIAGRAM & LEGEND NOTES, ASSET SCHEDULES & HV SCHEMATICS MASTER SERVICES PLAN LV ELECTRICAL RETICULATION HV ELECTRICAL RETICULATION				P				PRELIMINARY/PROPOSED			
																				T				TENDERING PURPOSES ONLY			
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																				AI				AS INSTALLED			
																				C				CANCELLED/SUPERSEDED			
																				ISSUED 9-10-20		A1		DRAWING NUMBER B20-15005		 AMDT	
																				ALL DIM. IN mm							
																				DRAFTING STANDARD TO A.S.1100							





### WARNING

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

### GIFTED ASSETS



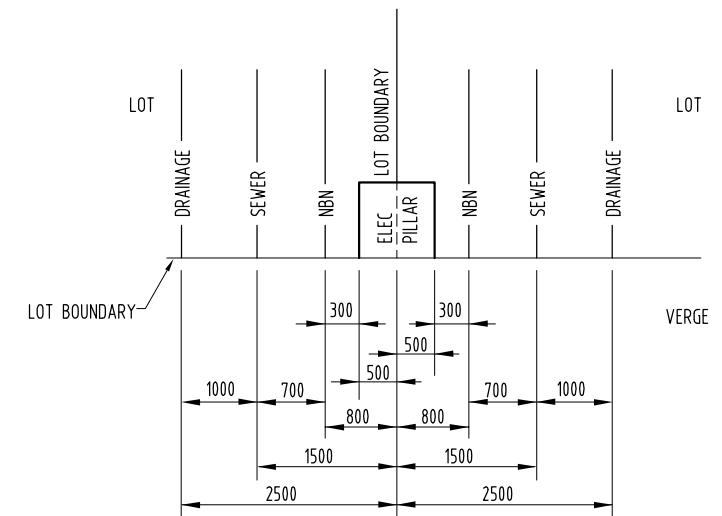
**SITE PLAN** (1:1000 AT A1)

### NOTES

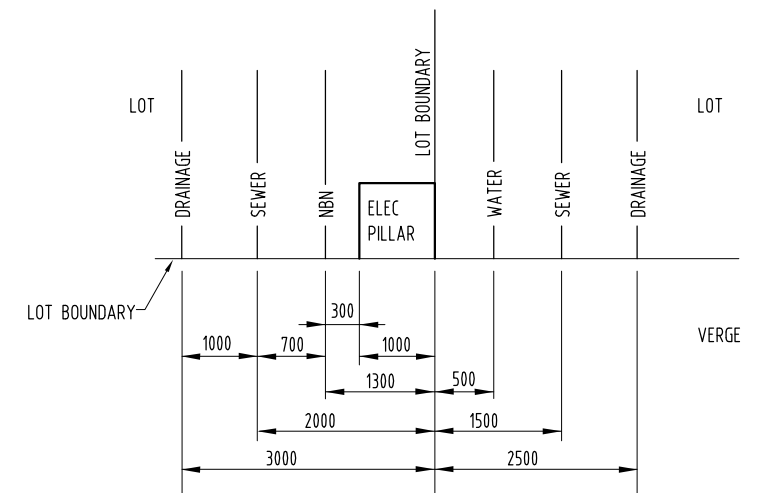
1 - REFER DWG No. B20-15007 FOR DETAILS OF  
ITEMS LISTED IN LEGEND (EXCLUDING  
WATER/SEWER/DRAINAGE CONNECTION).

### LEGEND

- NEW PACKAGE SUBSTATION (RATING AS SHOWN).  
'E' INDICATES EXISTING.
- NEW DISTRIBUTION DOUBLE LINK PILLAR - FUSED TYPE.  
'E' INDICATES EXISTING/'F' INDICATES FUTURE.
- NEW DISTRIBUTION LINK PILLAR - FUSED TYPE.  
'E' INDICATES EXISTING/'F' INDICATES FUTURE.
- NEW DISTRIBUTION PILLAR - FUSED TYPE.  
'F' INDICATES FUTURE.
- NEW ROAD OWNER DIST. PILLAR (AS PART OF STREET LIGHTING WORKS).
- EXISTING LV SERVICE CABLE/CONNECTION.
- FUTURE 3 PHASE CONSUMER MAINS - BY LOT OWNER.
- NEW WATER CONNECTION.  
'E' INDICATES EXISTING.
- NEW SEWER CONNECTION.  
'E' INDICATES EXISTING.
- NEW DRAINAGE CONNECTION.  
'E' INDICATES EXISTING.



**DETAIL D - TYPICAL OFFSETS FOR ELEC/NBN/SEWER/DRAINAGE/WATER  
LOT CONNECTIONS - ELEC PILLAR IN 2 LOTS (N.T.S.)**



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

DEVELOPER: <b>TERRITORY LIFE</b> GPO Box 1779 DARWIN NT 0801  PHONE: 0417 160700 FACSIMILE: EMAIL: clement.williams@territorylife.com.au CONTACT: CLEMENT WILLIAMS		<b>AGA CONSULTING ENGINEERS PTY LTD ELECTRICAL &amp; MECHANICAL</b> ACN 070 242 296  GPO BOX 3097 DARWIN NT 0801  TELEPHONE: 08 89416582 FACSIMILE: 08 89421400 EMAIL: alekg@gaeng.com.au	0 CONTRACT DRAWING NO DESCRIPTION AMENDMENTS		K.T.	9-10-20	A.G.	DRG NO	TITLE	ASSOCIATED DRAWINGS	DRAWING STATUS P PRELIMINARY/PROPOSED T TENDERING PURPOSES ONLY AC APP. FOR CONSTRUCTION AI AS INSTALLED C CANCELLED/SUPERSEDED AGA406-20A	APPD	DATE	<b>PowerWater</b> NORTHERN TERRITORY		DES A.GANGUR DRN K.TAVENER CKD A.GANGUR APPD SCALE 1:1000 AT A1 ISSUED 9-10-20 ALL DIM. IN mm DRAFTING STANDARD TO A.S.1100	<b>POWER SERVICES - PALMERSTON DISTRIBUTION SUBDIVISION OF LOT 12087 ZUCCOLI SUBDIVISION - STAGE 2 : STAGE 21 MASTER SERVICES PLAN</b>		A1 DRAWING NUMBER <b>B20-15006</b>	FILE No: NE590/12087	
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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](mailto: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 PROGRAM” TO POWER AND WATER's PROGRAM DELIVERY VIA E-MAIL ([programdelivery.pwc@powerwater.com.au](mailto:programdelivery.pwc@powerwater.com.au)) THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS. THE UNDERGROUND INSTALLATION IS SUBJECT TO APPROVAL BY PROGRAM DELIVERY 7 DAYS PRIOR TO WORK COMMENCING.

5 - SUBSTATION SHALL BE SUPPLIED BY CONTRACTOR AND SHALL BE MK3 (11kV/433V) TYPE IN ACCORDANCE WITH POWER AND WATER STANDARD DWG's S02-01-07-18\_1, S02-01-07-18\_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, S02-02-06-33, S02-02-06-37\_1, S02-02-06-37\_2, S02-02-06-37\_3, S02-02-06-37\_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 AND ARRANGE FOR POWER AND WATER TO TEST NEW SUBSTATION/HV SWITCHGEAR & SUPPLY/INSTALL NEW SIM CARD FOR TARIFF METER FOR NEW SUBSTATION. CONTACT IS KATHY WILMOT, TELEPHONE No. 8985 7186. SUBSTATION 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. B20-15003, 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. B20-15003, DETAILS B & C.

8 - ELECTRICITY EASEMENTS SHALL BE IN ACCORDANCE WITH POWER AND WATER STANDARD DWG's S02-02-06-17.  
- SUBSTATIONS : 4mx3.5m,  
- FUSED PILLARS: 1mx1m WHERE PILLAR FULLY IN 1 LOT OR 0.5mx1m WHERE HALF PILLAR IN 2 LOTS (IE ON COMMON BOUNDARY) FOR 3 & 5 SLOT FUSED PILLAR.  
WHERE FRONT/SIDE OF SUBSTATION/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 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 SUBSTATIONS & 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 ASSOCIATED SHALL BE PAID BY DEVELOPER.

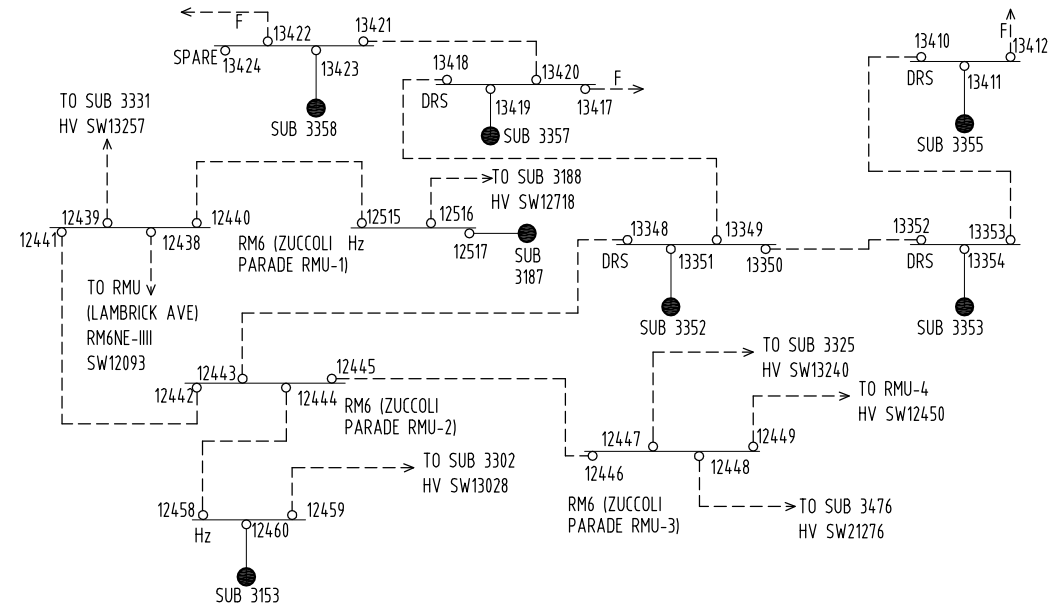
14 - DEVELOPER SHALL ENSURE THAT ONLY POWER AND WATER ACREDITED ELECTRICAL CONTRACTOR IS EMPLOYED TO CARRY OUT WORK ON THIS ELECTRICAL SYSTEM (CONTACT MANAGER NETWORK ENGINEERING - 8924 5191).

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".

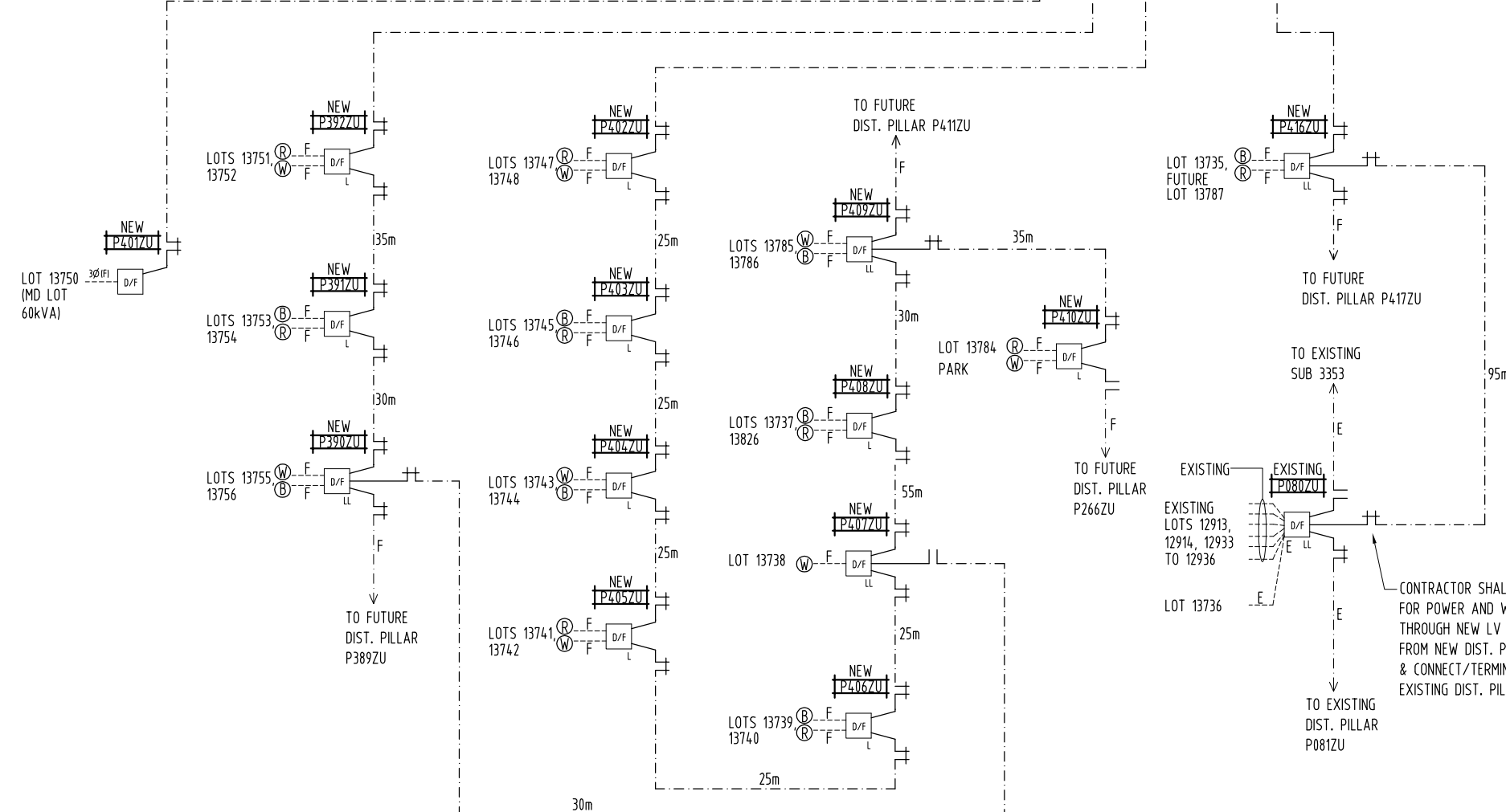
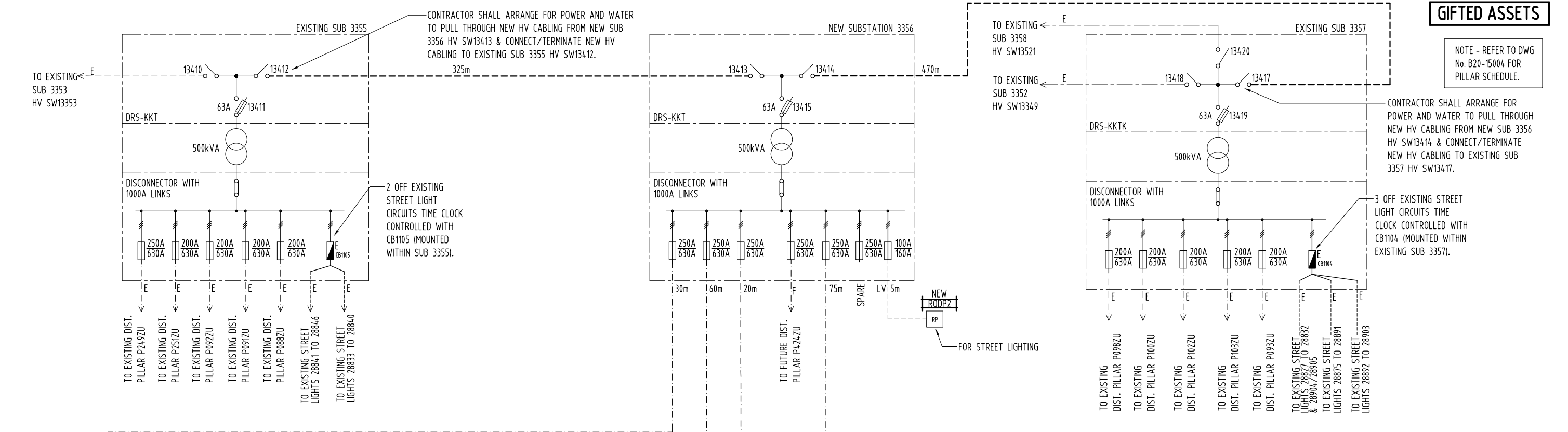
16 - CABLE ROUTE LENGTHS NOMINATED ON SINGLE LINE DIAGRAM ARE FOR POWER AND WATER INFORMATION ONLY & SHALL NOT BE USED FOR TENDERING PURPOSES.

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 A1 PAPER PRINT INDICATING "AS INSTALLED" (OF ALL DRAWINGS).  
- 1 x A3 PAPER PRINT INDICATING "AS INSTALLED" (OF ALL DRAWINGS).  
- 1 DIGITAL (CD OR USB) COPY OF ALL DRAWINGS (MICROSTATION .DGN FILES).







SINGLE LINE DIAGRAM (N.T.S.)

DEVELOPER: <b>TERRITORY LIFE</b> GPO Box 1779 DARWIN NT 0801  PHONE: 0417 160700 FACSIMILE: EMAIL: clement.williams@territorylife.com.au CONTACT: CLEMENT WILLIAMS										 <div>AGA CONSULTING ENGINEERS PTY LTD ELECTRICAL &amp; MECHANICAL ACN 070 242 296</div> GPO BOX 3097 DARWIN NT 0801  TELEPHONE: 08 8943582 FACSIMILE: 08 8942140 EMAIL: alekg@gaeng.com.au										0 CONTRACT DRAWING NO DESCRIPTION AMENDMENTS										K.T. 9-10-20 A.G. B20-15007 B20-15006 B20-15005 B20-15004 B20-15003 NOTES, ASSET SCHEDULES & HV SCHEMATICS MASTER SERVICES PLAN CONDUIT/DUCT LAYOUT LV ELECTRICAL RETICULATION HV ELECTRICAL RETICULATION										DRAWING STATUS P PRELIMINARY/PROPOSED T TENDERING PURPOSES ONLY AC APP. FOR CONSTRUCTION AI AS INSTALLED C CANCELLED/SUPERSEDED										APPD DATE										 <div>PowerWater</div> <div>NORTHERN TERRITORY</div>										DES A.GANGUR DRN K.TAVENER CKD A.GANGUR APPD SCALE N.T.S. ISSUED 9-10-20 ALL DIM. IN mm										POWER SERVICES – PALMERSTON DISTRIBUTION SUBDIVISION OF LOT 12087 ZUCCOLI SUBDIVISION – STAGE 2 : STAGE 211 SINGLE LINE DIAGRAM & LEGEND										A1 DRAWING NUMBER <b>B20-15008</b> 									
																																																																						DRAFTING STANDARD TO A.S.1100										FILE No: NE590/12087																			