

PDR ENGINEERS

pproved Ph 07 4051 5599

FOR CONSTRUCTION

FOR APPROVAL

Description

IDW

IDW

Description

A 31/8/16

1 | 26/3/16

Date

Tel: (07) 4032 3311 Fax: (07) 4032 5633

Email Address - admin@spaconsulting.com.au

A business unit of SPA Consulting Engineers (QLD) Pty Ltd a.c.n. 0108444416

----- 35mm sq

ANNEALED BARE

COPPER EARTH

PO Box 664 North Cairns QLD 4870

## **WORKPLAN NOTES**

- 1. FOR STANDARD UNDERGROUND DUCT SECTIONS REFER TO UNDERGROUND CONSTRUCTION MANUAL DRAWING 5168.
- 2. STANDARD TRENCH ALIGNMENT IS 0.3 TO 1.2 METRES OFF PROPERTY ALIGNMENT SUBJECT TO LOCATION OF OTHER SERVICES. REFER TO UNDERGROUND CONSTRUCTION MANUAL DRAWING 5228.
- 3. STREETLIGHT POLE FOOTINGS SHALL BE LOCATED PERPENDICULAR TO THE KERB AND SQUARE FROM THE FRONT BOUNDARY PEG ENSURING NO CONFLICT WITH FUTURE DRIVEWAYS, UNLESS DETAILED OTHERWISE. WHERE DIMENSIONS ARE SHOWN, THEY TAKE PRECEDENCE OVER GRID COORDINATES.
- 4. ALL CONDUITS SHALL BE CONTINUOUS UNLESS DETAILED OTHERWISE.
- REFER TO UNDERGROUND CONSTRUCTION MANUAL DRAWING 5162 FOR CONDUIT BEND DETAILS AT PILLARS.
- FOR STANDARD UDC CONSTRUCTION PRACTICES REFER TO DRAWINGS 5022, 5085 AND 5124.
- 7. THERE ARE 5x32W CF NOSTALGIA TYPE 1 MINOR ROAD AND 1x150W HPS AEROSCREEN SYLVANIA ROADSTER MAJOR ROAD STREETLIGHTS ON RATE 2.
- 8. STREETLIGHT DESIGN TO AS1158 CATEGORY P4 TO ROAD 02 AND CATEGORY V5 TO BENTLEY DR.
- 9. MINOR STREETLIGHTS THE DEVELOPER SHALL SUPPLY AND INSTALL STREETLIGHT BASES. FOUNDATION DEPTH IS 1200mm FOR MINOR STREETLIGHTS. REFER TO LIGHTING CONSTRUCTION MANUAL DRAWING 1-6-4-1 & 2. FOR ALL FOOTPATHS, CENTRELINE OF STREETLIGHT SHALL BE 0.82m FROM THE INVERT OF KERB AND CHANNEL.
- 10. MAJOR STREETLIGHTS THE DEVELOPER SHALL SUPPLY AND INSTALL STREETLIGHT BASES. FOUNDATION DEPTH IS 2250mm FOR MAJOR STREETLIGHTS. REFER TO LIGHTING CONSTRUCTION MANUAL DRAWING 1-5-6-1 & 2 FOR BPM FOOTINGS. FOR ALL FOOTPATHS, CENTRELINE OF STREETLIGHT SHALL BE 1.2m FROM THE INVERT OF KERB AND CHANNEL.
- 11. THE LIGHTING DESIGN INCLUDES AN ALLOWANCE FOR CONSTRUCTION TOLERANCE OF LIGHT POLES SUCH THAT ANY STREETLIGHT CAN BE POSITIONED UP TO A MAXIMUM OF ±350mm LONGITUDINALLY FROM THE POSITION SHOWN AND UP TO 100mm MAXIMUM FURTHER AWAY FROM KERB EDGE, INCLUDING POLES WITH GRID COORDINATES, AND STILL MAINTAIN COMPLIANCE.
- 12. CONFIRM ALL CONDUIT AND CABLE LENGTHS PRIOR TO INSTALLATION.

CROSS ROAD PILLAR

LINKING PILLAR

——— EQUIPMENT RECOVER

----- EQUIPMENT PLANNED

- 13. WHERE SHOWN, 35mm sq ANNEALED BARE Cu EARTH SHALL BE INSTALLED AT BOTTOM OF TRENCH, IN NATURAL SOIL, BELOW BEDDING SAND, LOCATED A MINIMUM OF 50mm HORIZONTALLY TOWARDS PROPERTY BOUNDARY FROM CONDUITS (HV OR LV) INSTALLED ON PROPERTY BOUNDARY SIDE OF TRENCH. COIL 2m OF CABLE AT SPECIFIED STATIONS IN THE CONDUIT DUCTING SCHEDULE AND ALL REQUIRED JOINTS FOR CONNECTION BY ELECTRICAL CONTRACTOR. THE USE OF THE EARTH ROD CONNECTOR (U-BOLT, IIN. 0719437 ) IS NOT ACCEPTABLE FOR CONDUCTOR / CABLE TO CONDUCTOR / CABLE CONNECTIONS. IN ADDITION PARALLEL GROOVE CLAMPS ARE NOT ACCEPTABLE FOR JOINTING OR CONNECTING EARTHS BELOW GROUND LEVEL. ACCEPTABLE METHODS SHALL BE EITHER A CRIMP LINK OR A 'C' TYPE COMPRESSION CONNECTOR. CRIMP LINKS AND 'C' TYPE COMPRESSION CONNECTORS ARE AVAILABLE FROM ERGON ENERGY STORES IIN. 0157746 AND IIN. 2406222 RESPECTIVELY.
- 14. IN ACCORDANCE WITH ELECTRICAL SAFETY ACT, A SAFETY OBSERVER MUST BE PRESENT AT ALL TIMES WHEN WORKING IN THE VICINITY OF ENERGIZED CABLES. CONTACT ERGON ENERGY ON 131046.
- 15. ELECTRONIC CABLE MARKERS (ECM'S) ARE TO BE SUPPLIED AND INSTALLED AT ENDS OF ALL SPARE CONDUITS INCLUDING (SPARE ROAD CROSSINGS, CONDUIT STUBS, FOR FUTURE STAGES, SPARE CONDUITS FOR FUTURE HV, ETC) AND AT ALL CABLE JOINTS. REFER TO ERGON STANDARD SPECIFICATIONS RSC07, RSC08, & RSM02.
- 16. WHERE PREVIOUSLY AGREED BY ERGON, CONCRETE COVER SHALL BE INSTALLED ABOVE CONDUIT WHERE CONDUIT BURIAL DEPTH IS LESS THAN THAT SPECIFIED IN UNDERGROUND CONSTRUCTION MANUAL DRAWING 5163. FOR FOOTPATHS REFER TO UNDERGROUND CONSTRUCTION MANUAL DRAWING 5016. FOR ROAD CROSSINGS REFER TO UNDERGROUND CONSTRUCTION MANUAL DRAWING 5017.
- 17. ELECTRICAL CONDUITS SHALL BE INSTALLED UNDERNEATH STORMWATER PIPES WHERE CLASHES OCCUR. SEPARATION FROM BOTTOM OF STORMWATER PIPE TO TOP OF ERGON CONDUIT SHALL BE NO LESS THAN 100mm.
- 18. ALL CONTRACTORS MUST CARRY OUT A DIAL BEFORE YOU DIG ENQUIRY BEFORE COMMENCING ANY EXCAVATION.

## FOR CONSTRUCTION

ON COMPLETION, MARK UP THIS PRINT CLEARLY WITH ALL FINAL CHANGES AND RETURN TO PROJECT MANAGER CHANGES: YES/NO

**ELECTRICAL CONTRACTOR** 

SIGNATURE

CIVIL CONTRACTOR

NAME:

SIGNATURE

DATE:

LABELLING REQUIREMENTS

- LABEL DETAILS ARE FOR LABEL MANUFACTURING PURPOSES; ELECTRICAL CONTRACTOR IS TO ENSURE LABELS ARE ATTACHED TO CORRECT CABLE, FUSE OR SWITCH.
- ALL LABELS TO BE ENGRAVED LABELS (WHITE LABEL WITH BLACK ENGRAVED FILLED TEXT. ALL LABELS TO BE MANUFACTURED USING UV STABILISED PVC.
- ALL LV SWITCHES IN PAD MOUNTS & DISTRIBUTION PILLARS ARE TO BE LABELLED WITH THE DETAILS OF THE CABLE SIZE AND DESTINATION (eg. 4c240mm CABLE TO COL1). LABELS TO BE 75mm x 50mm & GLUED ABOVE THE SWITCH
- ALL CABLES IN LINK PILLARS & 3 WAY PILLARS ARE TO BE INTERNALLY LABELLED WITH THE DETAILS OF THE PILLAR & SUBSTATION THAT SUPPLIES THEM i.e. PILLAR ID. SUBSTATION NOS. CIRCUIT NOS. (eg. COL1.SS1234.CIRCUIT 2). LABELS TO BE 100mm x 35mm AND ZIP-TIED TO THE WHITE PHASE CABLE SUPPLYING THE PILLAR.

☐ COMMERCIAL/ INDUSTRIAL PILLAR	Drawing Title	Date	JUNE 2017	
<b>☐</b> DISTRIBUTION CABINET	CHERRYBROOK STAGE 2 & 3	Scale	1:500@A1	
→  *  *  *  *  *  *  *  *  *  *  *  *  *	UDC UG ELECTRICAL RETICULATION	Drawn	MP	
•	SITE PLAN, CONDUIT SCHEMATIC	Approved	JE	
—  I EARTH	AND WORKPLAN NOTES	Sheet	1 OF 2	
POLE	Project Description CHERRYBROOK	ERGON Project Number	SPA Drawing Number	Revision
□ CABLE JOINT	WALKER RD, BENTLEY PARK	1257122	2677-E01	D
any use of this drawing is forbidden without this company's consent.				