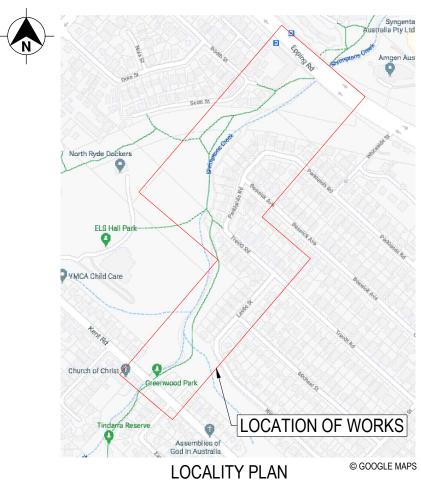
## CHECK FOR OTHER SERVICES BEFORE BORING OR EXCAVATING

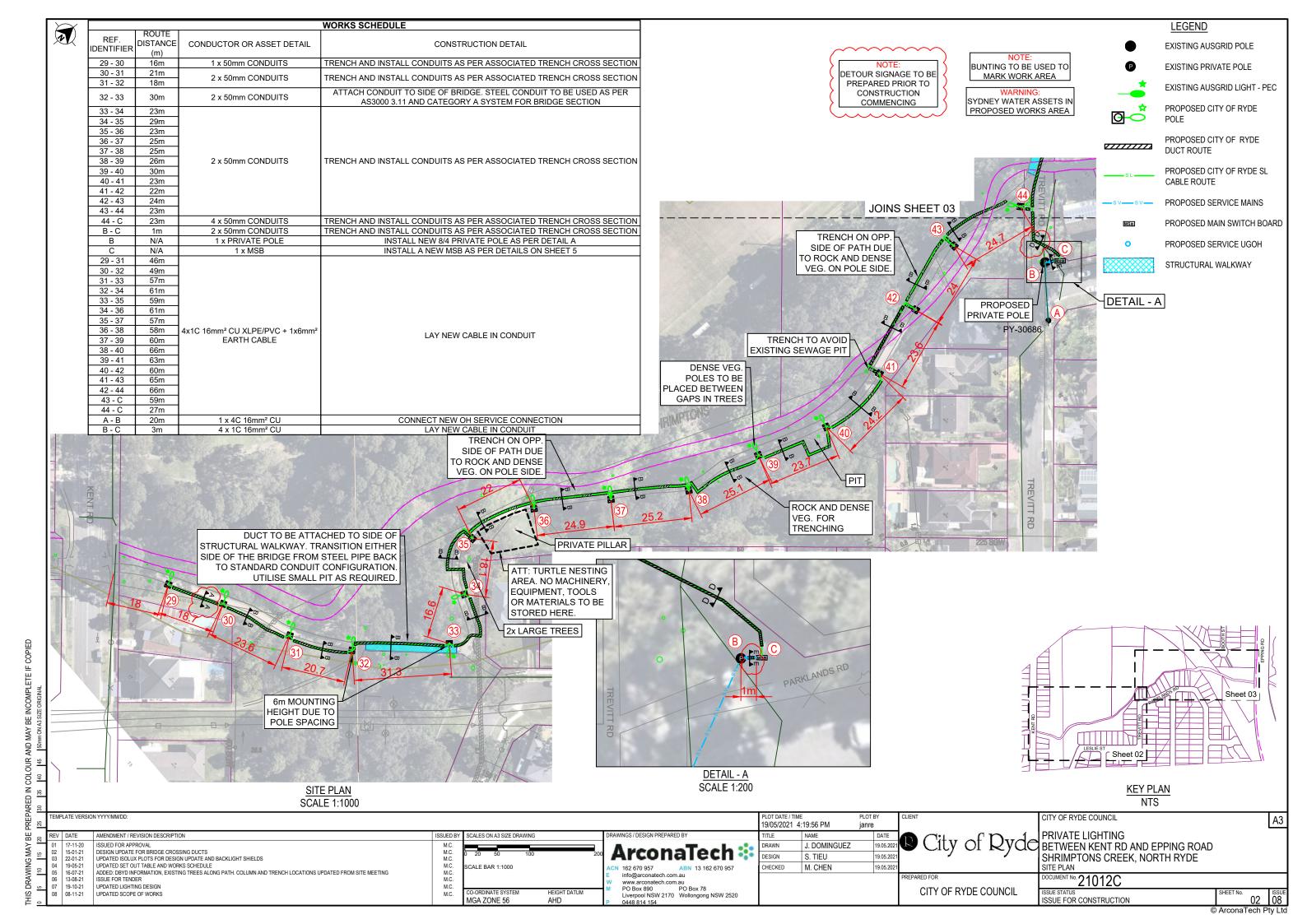


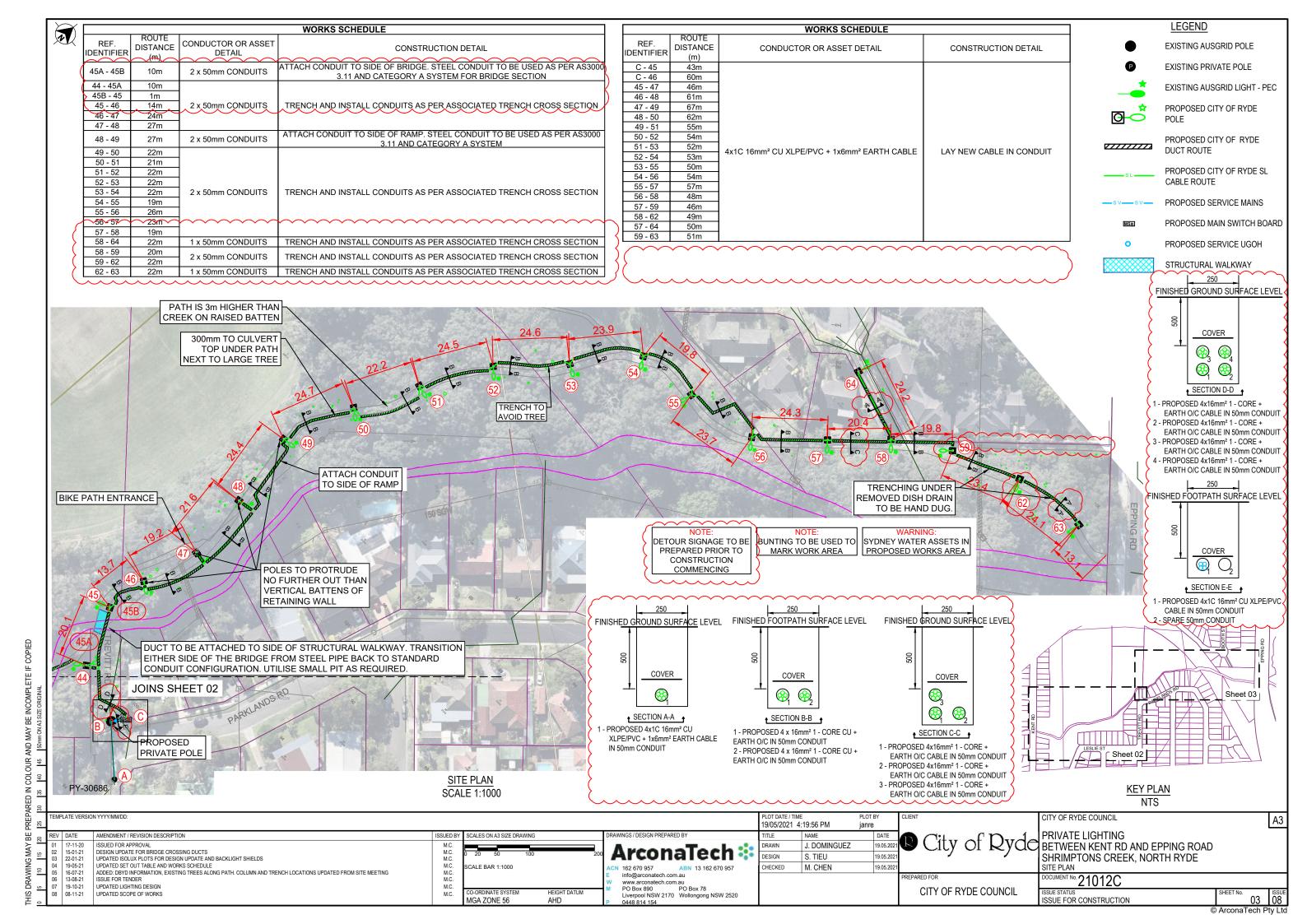
# PUBLIC LIGHTING DESIGN SHRIMPTONS CREEK BETWEEN KENT ROAD AND EPPING ROAD DETAILED LIGHTING DESIGN

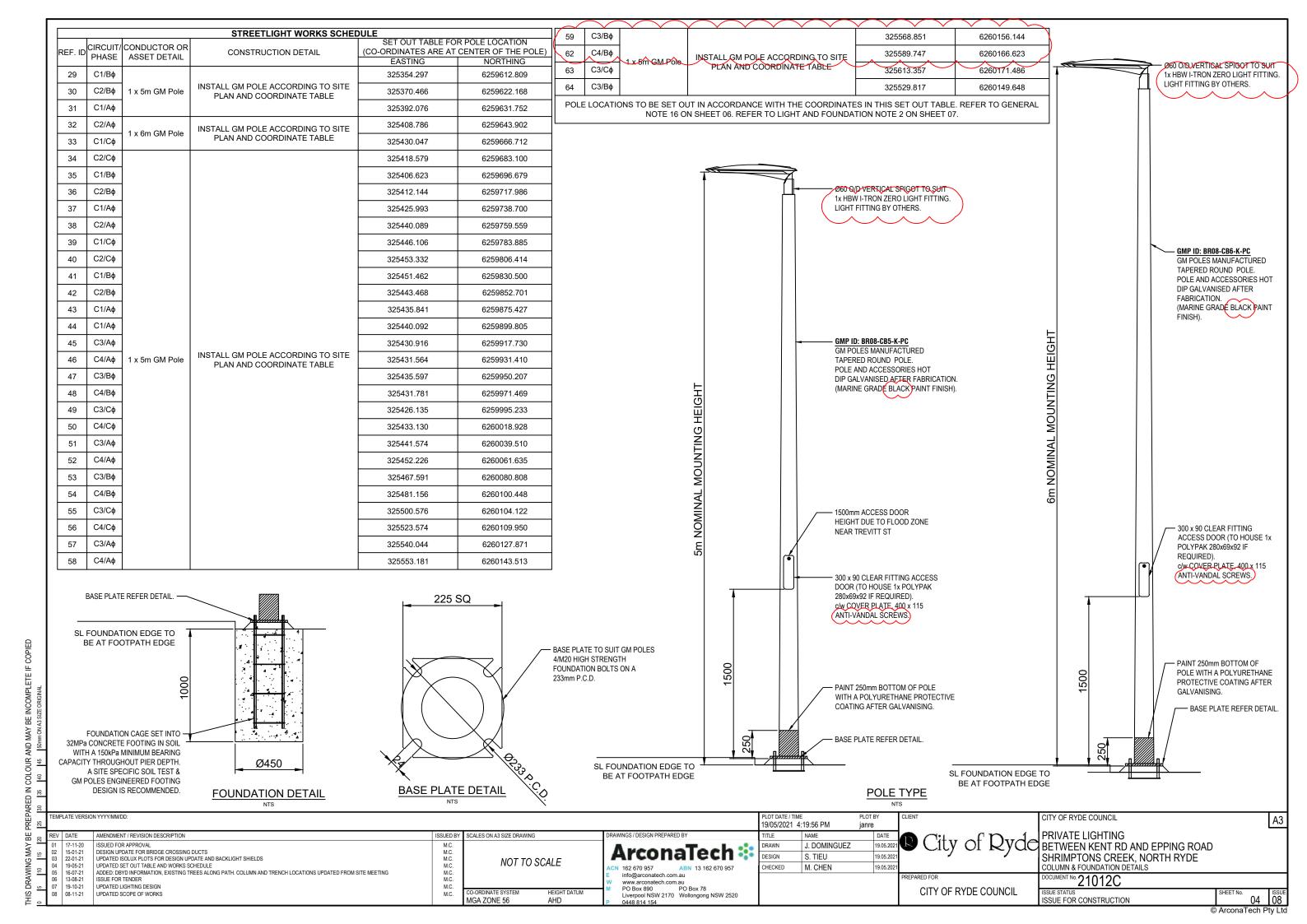


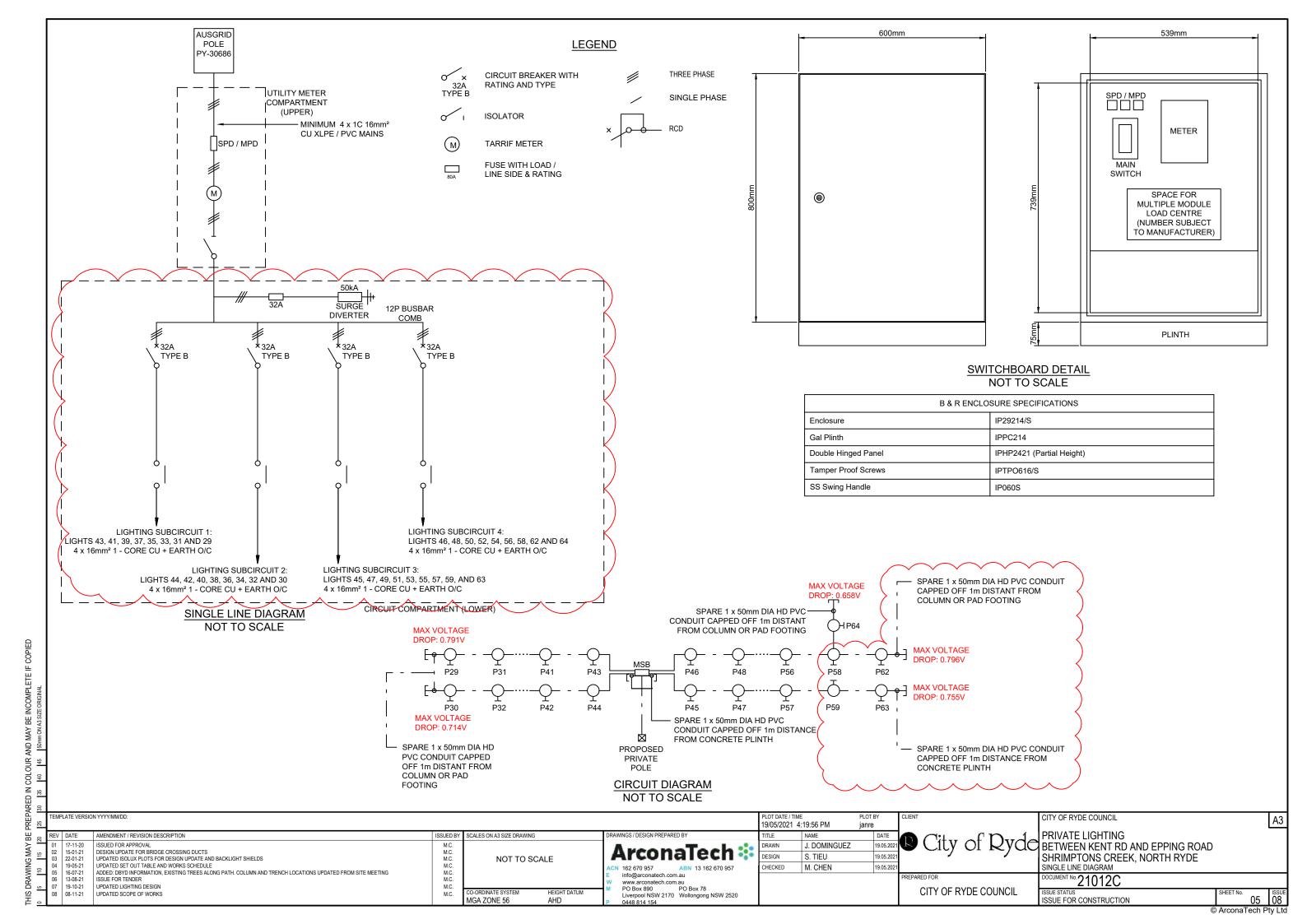
SHEET INDEX									
SHEET NUMBER	DESCRIPTION	REV							
1	COVER SHEET	08							
2	SITE PLAN 01	08							
3	SITE PLAN 02	08							
4	COLUMN & FOUNDATION DETAILS	08							
5	SINGLE LINE DIAGRAM	08							
6	GENERAL NOTES	08							
7	GENERAL NOTES	08							
8	LIGHTING CERTIFICATION - LUX DIAGRAM 01	08							
9	LIGHTING CERTIFICATION - LUX DIAGRAM 02	08							
10	LIGHTING CERTIFICATION - SOFTWARE OUT PUT	08							
11	LIGHTING CERTIFICATION - SOFTWARE OUT PUT	08							
12	LIGHTING CERTIFICATION - SOFTWARE OUT PUT	08							

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<u>۱</u> ۲	06   13-08-21	ADDED DOES THE OWNER THAT THE STATE OF THE S	M.C. M.C. M.C.	CO-ORDINATE SYSTEM HEIGHT DATUM MGA ZONE 56 AHD	E info@arconatech.com.au  W www.arconatech.com.au  M PO Box 890 PO Box 78     Liverpool NSW 2170 Wollongong NSW 2520  P 0448 814 154			PREF	CITY OF RYDE COUNCIL	DOCUMENT No. 21012C ISSUE STATUS ISSUE FOR CONSTRUCTION	SHEET No. RE'	EV. <b>)8</b>









#### **GENERAL NOTES**

- THE ELECTRICAL CONTRACTOR IS TO VISIT SITE PRIOR TO PRICING TO SATISFY THEMSELVES OF THE SCOPE OF WORKS.
- PLANS HAVE BEEN PREPARED BASED ON SITE INVESTIGATION. DETAILED SURVEY HAS NOT BEEN UNDERTAKEN.
- UPON COMPLETION OF THE WORKS. THE CONTRACTOR IS TO SUPPLY COUNCIL WITH A COPY OF THE WORKS 3 AS EXECUTED (WAE) DRAWINGS. IN PROGRESS WAE DRAWINGS MAY ALSO BE REQUESTED FROM TIME TO TIME BY RYDE COUNCIL FOR CO-ORDINATION PURPOSES
- ALL REMOVED & REDUNDANT MATERIALS TO BE APPROPRIATELY DISPOSED OF BY THE CONTRACTOR.
- WHILE NO RECORDS EXIST TO THE CONTRARY, THE CONTRACTOR SHALL ENSURE APPROPRIATE WORKPLACE SAFETY MEASURES ARE UTILISED IN REGARDS TO WORKING WITH ASBESTOS AND/OR ASBESTOS CONTAINING MATERIALS.
- ALL WORK IS TO BE COMPLETED IN A PROFESSIONAL AND TRADESMAN LIKE QUALITY.
- ELECTRICAL AUTHORITY IS AUSGRID.
- ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT REVISIONS OF THE BCA/NCC, AS/NZS 3000. AS/ACIF S009. NSW SERVICE AND INSTALLATION RULES. AUSTRALIAN STANDARDS.
- THE CONTRACTOR SHALL UNDERTAKE A "DIAL BEFORE YOU DIG" SEARCH FOR EXISTING IN-GROUND SERVICES NO MORE THAN 20 BUSINESS DAYS PRIOR TO EXCAVATION ON SITE. ANY DAMAGE TO EXISTING IN-GROUND SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY
- THE EXISTING SERVICES SHOWN IN THE DRAWING PACKAGE HAVE BEEN DOCUMENTED FROM THE SUPPLIED DATA BY THE COUNCIL. ARCONATECH DOES NOT GUARANTEE OR TAKE RESPONSIBILITY OF THE ACCURACY OF THIS INFORMATION
- DESIGNER IS TO BE CONTACTED REGARDING ISSUES RAISED WITH THIS DESIGN.
- THE DESIGN CANNOT BE USED FOR CONSTRUCTION PURPOSES UNTIL THE LOCATION OF ALL EXISTING 12. SERVICES IS VERIFIED
- THE INFORMATION PROVIDED IN THIS DESIGN MUST BE CHECKED ON SITE AND THE MOST CURRENT 13. INFORMATION ON THE CONFIGURATION OF ALL SERVICES, INCLUDING AUSGRID'S NETWORK, MUST BE TELEPHONE ON 1100 OR www.1100.com.au
- THE CONTRACTOR TO DISCUSS WITH COUNCIL'S MAINTENANCE CONTRACTOR BEFORE INSTALLATION.
- FROM THE LPI. EXACT CO-ORDINATES TO BE CONFIRMED WITH THE CIVIL DRAWINGS AND SITE SURVEY. CADASTRAL SURVEYS MAY BE REQUIRED TO CONFIRM EXACT ASSET LOCATIONS.
- INCLUDED SERVICE PLANS ARE QL-D. INFORMATION IS THE MOST BASIC LEVEL OF UTILITY LOCATIONS USING

### TRENCHING & CABLING

13-08-21

08-11-21

- ELECTRICAL CONTRACTOR SHALL SAW CUT & EXCAVATE THE EXISTING SURFACE TO INSTALL NEW POLE LUMINAIRES. REINSTATE TRENCH WITH APPROPRIATE BACK FILL & COMPACTION, INCLUDING FINISHING OF TRENCH WITH COLD MIX ASPHALT OR TO MATCH WITH EXISTING FINISH. ALLOW FOR SLIGHT OVER FILL TO AVOID SAGGING, ALLOW FOR THESE WORKS TO BE UNDERTAKEN TO AVOID DISRUPTION DURING NORMAL
- STREET LIGHT MAINS TO HAVE 500mm COVER IN FOOTWAY, 750mm IN ROADWAY.
- ALL CONDUITS MUST COMPLY WITH RELEVANT SECTIONS OF AS/NZS 2053 AND COUNCIL REQUIREMENT.

- IF ANY EXCAVATION OR U/G WORKS ARE TO BE DONE ALL SURFACES MUST RESTORED TO ORIGINAL STATE UPON COMPLETION OF THE PROJECT.
- LOCATION OF CONDUITS ON FOOTPATH IS AS PER COUNCIL REQUIREMENT.
- CONTRACTOR TO LOCATE COMMS CONDUITS AS PER AUSTRALIAN STANDARD AND CITY OF RYDE COUNCIL'S
- 10 ANY TRENCHING WITHIN 3m OF TREES WILL NEED SITE LIAISON WITH COUNCIL'S TREE MANAGEMENT
- 11 TRENCHING ROUTE AND COLUMN LOCATIONS HAS BEEN DETERMINED WITH MULTIPLE SITE WALKS WITH
- 12. CONTRACTOR TO CONTACT RYDE COUNCIL REGARDING ATTACHMENT METHODOLOGY TO EXISTING
- 13

# STREET NAME (13mm)

ASSET LABEL (13mm)

COUNCIL LOGO (10mm) **AND CONTACT &** NUMBER (5mm)

**SHRIMPTON CREEK XXXX-001** OCity of Ryde PROPERTY OF CITY OF RYDE

**ENQUIRIES: 9952 8222** 

RAWN

ESIGN

CHECKED

STREET NAME (13mm) ASSET LABEL (13mm)

I IGHTING POLE TAG SPECIFICATION

MANUFACTURER (GENERALLY ANODISED ALUMINIUM).

THE "CITY OF RYDE LOGO" IS TO BE 10mm TALL.

LONG. IT CAN BE PRINTED IN TWO LINES.

SYSTEMS DEPARTMENT

STREET LIGHTS

THE LOGO AND TEXT ARE NOT TO BE STICKER LETTERING.

THE ASSET INDEX IS COMPILED VIA THE FOLLOWING RULES:

THE PLATE SHALL BE CURVED TO SUITE THE CURVATURE OF THE POLE.

60mm (HEIGHT).

2.

9.

DEPARTMENT

THE SIZE OF THE PLATE SHALL BE 200mm (LENGTH MEASURED ALONG THE CURVATURE OF THE POLE) x

THE PLATE IS TO HAVE A SILVER (ALUMINIUM) BACKGROUND WITH BLACK TEXT AND LOGO PRINT.

THE MATERIAL OF THE PLATE AND RIVETS SHALL COMPLY WITH THE REQUIREMENTS OF THE POLE

THE STREET NAME SHALL BE PRINTED WITHOUT ANY ABBREVIATIONS. IF THE STREET NAME IS TOO

THE TEXT SIZE FOR THE STREET NAME AND FOR "POLE/ASSET NUMBER" IS TO BE 13mm TALL. THE

TEXT SIZE FOR "PROPERTY OF CITY OF RYDE AND ENQUIRIES: 9952 8222" IS TO BE 5mm.

ASSET INDEX (STREET INDEX - 000) IS MADE UP BY COMBINING THE FOLLOWING TWO:

1. STREET INDEX - IS A FOUR-DIGIT NUMBER GIVEN TO EACH STREET BY COUNCIL'S ASSET

2. 000 - A THREE-DIGIT SEQUENTIAL NUMBER PROVIDED BY COUNCIL'S ASSET SYSTEMS

COUNCIL LOGO (10mm) AND CONTACT NUMBER (5mm)

PUBLIC LIGHTING SWITCHBOARD TAG SPECIFICATION

- THE SIZE OF THE PLATE SHALL BE 200mm (LENGTH) X 60mm (HEIGHT).
- THE TEXT SIZE FOR THE STREET NAME AND FOR "PUBLIC LIGHTING SWITCHBOARD" IS TO BE 13mm TALL AND THE TEXT SIZE FOR "PROPERTY OF CITY OF RYDE, ENQUIRIES: 9952 822" IS TO BE 5mm. THE "CITY OF RYDE LOGO" IS TO BE 10mm TALL.
- THE PLATE IS TO HAVE A SILVER (STAINLESS STEEL) BACKGROUND WITH BLACK TEXT AND LOGO PRINT.

THE FOLLOWING SHALL BE PROVIDED TO COUNCIL PRIOR TO THE HANDOVER OF THE STREET LIGHTING

WORKS, INCLUDING ANY DEFICIENCIES AND RECTIFICATIONS THAT WERE UNDERTAKEN;

NOTE: A FINAL INSPECTION FOR THE PURPOSE OF THE HANDOVER TO COUNCIL SHALL BE CONDUCTED IN

CERTIFICATION FROM A CHARTERED STRUCTURAL ENGINEER (REGISTERED ON THE NER OF ENGINEERS,

COUNCIL-APPROVED DRAWINGS AND CITY OF RYDE'S STANDARDS AND SPECIFICATIONS. THE CERTIFICATE

SHALL CONTAIN PHOTOGRAPHS OF THE WORKS IN PROGRESS AND A COMMENTARY OF THE INSPECTED

METER INFORMATION (NMI FROM AUSGRID) AND RELEVANT DETAILS FOR THE TRANSFER OF THE ENERGY

CONJUNCTION WITH COUNCIL'S ENGINEER, FOLLOWING THE COMPLETION OF THE WORKS. ADDITIONAL INSPECTIONS,

IF REQUIRED, ARE SUBJECT TO ADDITIONAL FEES PAYABLE IN ACCORDANCE WITH COUNCIL'S CURRENT SCHEDULE

AUSTRALIA) CONFIRMING THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH

INSTALLATION AND TRANSFER OF ENERGY ACCOUNT FROM THE DEVELOPER TO COUNCIL:

ASSET TAGS ON POLES AND METER BOX AS PER COUNCIL REQUIREMENTS;

THE LOGO AND TEXT ARE NOT TO BE STICKER LETTERING.

ASSET HANDOVER

WORKS AS EXECUTED DRAWINGS;

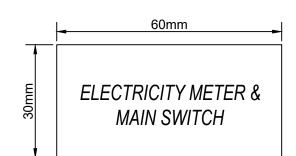
MANUFACTURER'S WARRANTIES AND CERTIFICATES;

ACCOUNT TO COUNCIL NEEDS TO BE COMPLETED ON CCEW.

A SET OF ACCESS KEYS:

OF FFES AND CHARGES

- THE MATERIAL OF THE PLATE AND THE ADHESIVE BACKING SHALL COMPLY WITH THE REQUIREMENTS OF THE DISTRIBUTION BOARD (GENERALLY STAINLESS STEEL).
- THE STREET NAME SHALL BE PRINTED WITHOUT ANY ABBREVIATIONS. IF THE STREET NAME IS TOO LONG IT CAN BE PRINTED IN TWO LINES.
- "PUBLIC LIGHTING SWITCHBOARD" IS TO BE PRINTED IN THE CENTRE OF THE TAG.
- THE TAG BELOW WITH DIMENSIONS 60mm (LENGTH) X 30mm (HEIGHT) WITH "ELECTRICITY METER & MAIN SWITCH" IS TO BE PLACED ON THE DOOR WITH THE METER WITHIN (THERE MAY BE TWO SEPARATE DOORS ONE FOR THE METER AND THE OTHER FOR THE DISTRIBUTION BOARD).



## VERIFIED IMMEDIATELY BEFORE CONSTRUCTION COMMENCED BY CONTACTING DIAL-BEFORE-YOU-DIG BY FOR DETAILS PLEASE REFER TO CITY OF RYDE DESIGN GUIDE, COUNCIL-OWNED STREET LIGHTING.

- ALL CO-ORDINATES PROVIDED ON THIS DESIGN ARE BASED ON AUSGRID'S GIS WHICH IS BASED ON DATA
- ONLY INFORMATION BASED ON EXISTING DIAL-BEFORE-YOU DIG PLANS.

- WORKING DAYS/HOURS.
- CONTRACTOR TO LIAISE WITH COUNCIL AND AUTHORITIES ON THE UNDERGROUNDING PLACEMENT OF ELECTRICAL CONDUIT.
- ALL THE CABLE LAYING TO BE RECORDED IN COMPLIANCE WITH AS/NZS 3000.
- RADIUS OF BEND OF CABLE TO COMPLY WITH CABLE MANUFACTURE AND COUNCIL REQUIREMENTS.
- REQUIREMENT
- OFFICERS BEFORE ANY WORKS COMMENCES.
- COUNCIL, ARBORIST, AND IN CONJUNCTION OF COMMUNITY CONSULTATIONS.
- STRUCTURAL WALKWAYS. WHERE EXISTING FOOTPATH TRENCHING IS REQUIRED, FOOTPATH TO BE RE-MADE TO RYDE COUNCIL
- STANDARD CONCRETE FOOTPATH (CIV.5.1) 200mm

# TREVITT ROAD **Public Lighting Switchboard** P City of Ryde

PROPERTY OF CITY OF RYDE **ENQUIRIES: 9952 8222** 

CALES ON A3 SIZE DRAWING AMENDMENT / REVISION DESCRIPTION ISSUED BY ISSUED FOR APPROVAL M.C. M.C. M.C. M.C. M.C. DESIGN LIPDATE FOR BRIDGE CROSSING DUCTS. UPDATED ISOLUX PLOTS FOR DESIGN UPDATE AND BACKLIGHT SHIELDS
UPDATED SET OUT TABLE AND WORKS SCHEDULE ADDED: DBYD INFORMATION, EXISTING TREES ALONG PATH. COLUMN AND TRENCH LOCATIONS UPDATED FROM SITE MEETING ISSUE FOR TENDER LIPDATED LIGHTING DESIGN UPDATED SCOPE OF WORKS O-ORDINATE SYSTEM

ArconaTech 👯 NOT TO SCALE N 162 670 957 nfo@arconatech.com.au
www.arconatech.com.au
PO Box 78 HEIGHT DATUM oool NSW 2170 Wollongong NSW 2520

PLOT BY 19/05/2021 4:19:56 PM janre J DOMINGUEZ 19.05.202 S. TIEU 19.05.202 M. CHEN 19.05.202 CITY OF RYDE COUNCIL

PRIVATE LIGHTING Dity of Rydd Between Kent RD and Epping Road SHRIMPTONS CREEK, NORTH RYDE GENERAL NOTES

OCUMENT No. 21012C

SSUE FOR CONSTRUCTION

А3

### LIGHTING DESIGN

- ALL LUMINAIRES TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS AND
- LIGHTING EQUIPMENT, LOCATION AND TYPES MAY NOT BE SUBSTITUTED WITHOUT PRIOR CONSENT AND APPROVAL OF THE DESIGNER. REFER IMAGE OF PROPOSED LUMINAIRE BELOW
- COLOUR/FINISH OF ALL LIGHT FITTINGS, TRIMS, LENSES AND ACCESSORIES TO BE APPROVED BY THE COUNCIL. CONTRACTOR SHALL PROVIDE SAMPLES OF LIGHT FITTINGS PRIOR TO PROCUREMENT.
- NEW POLE LUMINAIRES ARE TO BE LOCATED TO AVOID CLASHES WITH EXISTING TREES. CONFIRM LOCATION WITH LIGHTING DESIGNER PRIOR TO INSTALLATION. WHERE TREE BRANCHES ARE REQUIRED TO BE TRIMMED, THE AUTHORIZED PERSON IS TO BE ADVISED PRIOR TO ANY WORKS.



## **LOCKING**

ALL STREET LIGHT SWITCHBOARDS SHALL BE LOCKED WITH A UNIQUE ABLOY KEY PADLOCK, AS DETAILED BELOW:

> Integrity ABLOY Key for all Street Lighting Switchboards

Master Key number associated with Registration Card 26060520 AUVG

INTEGRITY LOCKSMITHS AND SECURITY Utilities Security Key System

> Phone: 1300 664 582 1300 366 488

> Fax: 1300 664 682

#### **SWITCHBOARD**

#### CUBICLE:

- 1. 2.0mm FOLDED AND WELDED STAINLESS STEEL SHEET CONSTRUCTION. SWITCHBOARD CABINET IS TO BE BASE MOUNTED VIA HOT DIPPED GALVANISED CHANNEL IRON PLINTH.
- ESCUTCHEON SECURED TO CABINET WITH DOME NUTS.
- 3. DOORS ARE SWUNG ON CHROME PLATED PINTLE HINGES AND FIXED WITH SWING HANDLES.
- 4. 3mm ALUMINUM GLAND PLATES FITTED TO BASE OF SWITCHBOARD.

#### FINISH:

1. SHEETMETAL TO BE DEGREASED WITH SOLVENT, PHOSPHORIC ACID WASHED, AND CLEANED WITH 180 GRIT PAPER. ELECTROSTATIC POLYESTER POWDER TO BE APPLIED AS FOLLOWS;

CABINET EXTERIOR - ORBITAL FINISH CABINET INTERIOR - GLOSS WHITE ESCUTCHEONS - GLOSS WHITE PLINTH - 75mm HOT DIPPED GALVANISED

1. LABELS ARE TO BE MACHINE ENGRAVED FROM 'GRAVOPLY' LAMINATE AND FIXED TO THE SWITCHBOARD METALWORK USING M3 SCREWS.

#### BUSBARS:

- 1. NEUTRAL AND EARTH BARS TO BE LOCATED IN A POSITION WHERE THEY WILL NOT BE OBSTRUCTED BY SUBMAIN CABLES.
- 2. NEUTRAL BAR TO BE FULL RATING OF ACTIVES.
- NEUTRAL AND EARTH TERMINATIONS TO BE NUMBERED TO CORRESPOND WITH RESPECTIVE SUBCIRCUIT NUMBERS THAT APPEAR ON LABELS.

#### SPECIFICATIONS:

- SWITCHBOARD MANUFACTURED TO AS 61439.2
- 2. FORM 2B SEPARATION TO AS 61439.2.
- IP66 CONSTRUCTION TO AS 60529.
- 4. FAULT LEVEL 10kA FOR 1 SEC COMMERCIAL & INDUSTRIAL AREAS REQUIRE 25kA AS PER NSW SIR.
- 5. 415 VOLT, 50Hz M.E.N. LINK SYSTEM.
- MAINS CABLES BOTTOM ENTRY VIA 3mm ALUMINUM GLAND PLATE.
- 7. SUBMAINS CABLES BOTTOM EXIT VIA 3mm ALUMINUM GLAND PLATE.

#### **SUBCIRCUITS**

1. 3-PHASE CB OR LINKED 1-PHASE CBS MUST BE UTILISED. THE USE OF UNLINKED 1-PH CBS IS NOT PERMITTED BY

#### **FOUNDATION & COLUMN**

- STRAIGHT PILE IS STANDARD. CANTILEVERED IF SITE CONSTRAINTS REQUIRE IT SUBMIT PROOF THIS FOOTING IS REQUIRED. THIS FOOTING MUST BE PREPARED BY A QUALIFIED STRUCTURAL ENGINEER REFERRED ON THE NER OF AUSTRALIA AND PROVIDED TO COUNCIL FOR REVIEW AND APPROVAL PRIOR TO THE INSTALLATION.
- CENTER OF ALL LIGHTS TO SIT 225mm BEHIND THE FOOTPATH UNLESS OTHERWISE STATED.
  - ALL POLES TO BE BLACK WITH MARINE GRADE PAINT FINISH.

08-11-21

AMENDMENT / REVISION DESCRIPTION ISSUED FOR APPROVAL

DESIGN LIPDATE FOR BRIDGE CROSSING DUCTS DESIGN UPDATE FOR BRIDGE CROSSING DUCI'S UPPOATE AND BACKLIGHT SHIELDS

UPDATED ISOLUX PLOTS FOR DESIGN UPDATE AND BACKLIGHT SHIELDS

UPDATED SET OUT TABLE AND WORKS SCHEDULE

ADDED: DBYD INFORMATION, EXISTING TREES ALONG PATH. COLUMN AND TRENCH LOCATIONS UPDATED FROM SITE MEETING 16-07-21 13-08-21 ISSUE FOR TENDER UPDATED LIGHTING DESIGN UPDATED SCOPE OF WORKS 19-10-21

CALES ON A3 SIZE DRAWING ISSUED BY M.C. M.C. M.C. M.C. M.C. M.C. M.C.

NOT TO SCALE O-ORDINATE SYSTEM HEIGHT DATUM MGA ZONE 56

ArconaTech : N 162 670 957 Info@artomatech.com.au
PO Box 890 PO Box 78
Liverpool NSW 2170 Wollongong NSW 2520

RAWN ESIGN CHECKED

19/05/2021 4:19:56 PM

J. DOMINGUEZ

S. TIEU

M. CHEN

19.05.202 19.05.202 19.05.202

PLOT BY

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CITY OF RYDE COUNCIL

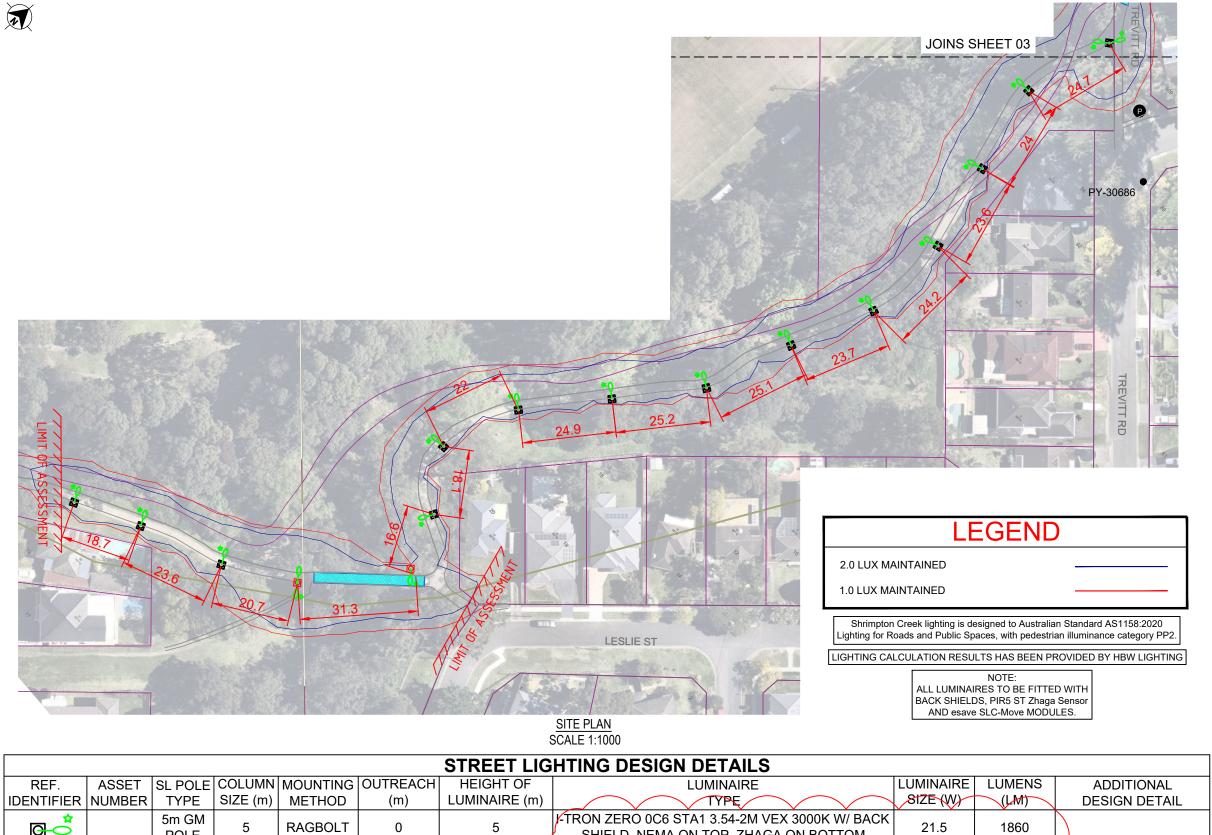
PRIVATE LIGHTING
BETWEEN KENT RD AND EPPING ROAD SHRIMPTONS CREEK, NORTH RYDE GENERAL NOTES

OCUMENT No. 21012C

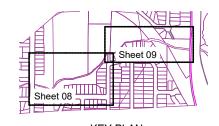
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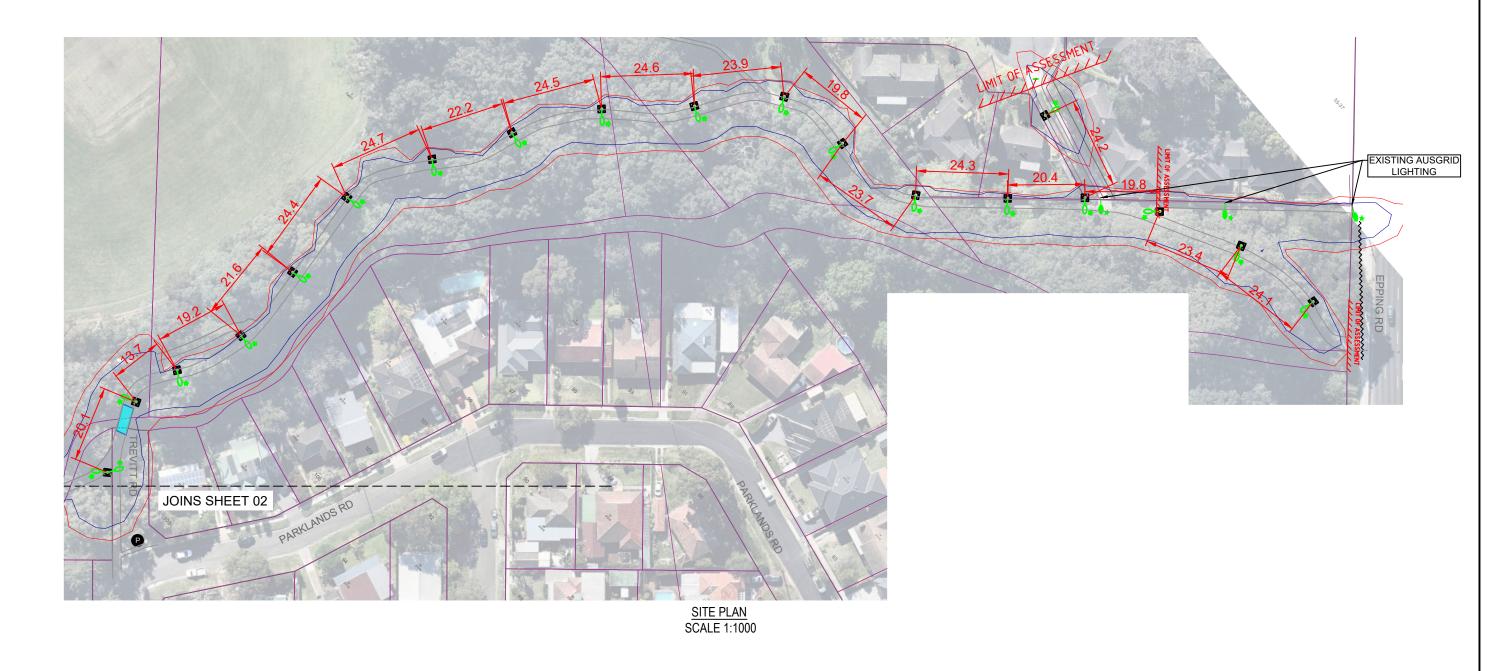
IDENTIFIER NUMBER POLE SHIELD, NEMA ON TOP, ZHAGA ON BOTTOM I-TRON ZERO 0C6 STA1 3.54-2M VEX 3000K W/ BACK 5m GM **RAGBOLT** 0 5 21.5 1860 DOUBLE OUTREACH SHIELD, NEMA ON TOP, ZHAGA ON BOTTOM POLE -TRON ZERO 0C6 STA1 3.54-2M VEX 3000K W/ BACK 6m GM **RAGBOLT** 0 6 21.5 1860 SHIELD, NEMA ON TOP, ZHAGA ON BOTTOM POLE I-TRON ZERO 0C6 STA1 3.54-2M VEX 3000K W/ BACK 6m GM

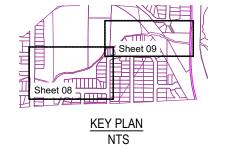


KEY PLAN NTS

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VING MAY BE	01 02 03 04	DATE         AMENDMENT / REVISION DESCRIPTION         ISSUED BY           17-11-20         ISSUED FOR APPROVAL         M.C.           15-91-21         DESIGN UPDATE FOR RRIDGE CROSSING DUCTS         M.C.           22-01-21         UPDATED ISOLUX PLOTS FOR DESIGN UPDATE AND BACKLIGHT SHIELDS         M.C.           19-95-21         UPDATED ISOL TOUT TABLE AND WORKS SCHEDULE         M.C.           16-07-21         ADDED: DBY DIN FORMATION. EXISTING TREES ALONG PATH. COLUMN AND TRENCH LOCATIONS UPDATED FROM SITE MEETING         M.C.	SCALES ON A3 SIZE DRAWING  0 20 50 100 200  SCALE BAR 1:1000	Arconalech ::	DRAWN DESIGN	J. DOMINGUEZ S. TIEU M. CHEN	DATE 19.05.2021 19.05.2021 19.05.2021	Uty of Ryae	PRIVATE LIGHTING BETWEEN KENT RD AND EPPING ROAD SHRIMPTONS CREEK, NORTH RYDE LIGHTING CERTIFICATION - LUX DIAGRAM 02
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10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50mmONA3 SIZEORIGINAL
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## P Category Lighting - AS/NZS 1158.3.1:2005 \*\*\*\*\*\*\*\*\*\*\*\* HBW Lighting I-table Filename: C:\Users\steve\Desktop\I-TRON Zero 0C6 STA1 3.54-2 M VEX AEP.cie Job Name: Shrimptons Creek Luminaire Description: I-TRON Zero 0C6 STA1 1860 lms Initial Lamp Flux: 1860 lms Maintenance Factor: 0.8 Stores Code: Upcast Angle: 0 degrees Arrangement: Staggered Offset Distance: 0 m Upward Waste Light Ratio: .0 % Light Source: LED - Light Emitting Diode Luminaire Classification: Not specified Lighting Category: User Defined Illuminance Criteria: Average Illuminance (Eav) >= 7.00 lx Minimum Illuminance (Eph) >= 1.00 lx(Maintained values) Illuminance Uniformity (Up) <= 5 Vertical Illuminance (Epv) >= 0.30 lx (Epv calculated on plane 1.5m above ground and contribution from luminaire in adjacent span used in calculations) Calculation Grid: Dependant on Path width (refer Figure 3.8 of AS/NZS 1158.2) Maximum Spacing for different Mounting Height Path Widths ----------2.5 +----+ 5.0 | 26.0 | +----+ Value/s in above table are all in metres. The table contains maximum spacings which, for the specified luminaire and lamp combination, provide compliance with the User Defined light technical parameters (LTPs) nominated above. Refer next page for list of LTP's at compliant maximum spacings. Refer following page/s for illuminance values at grid points.

```
Light Technical Parameters at Maximum Spacing
           *************
    Mounting Path
                   Maximum Eav
                                   Eph
                                                 Emax
    Height Width
                                      (Emax/Eav)
                   Spacing
                    (m)
                                                        (1x)
    (m)
            (m)
                          (1x)
                                   (1x)
                                                 (1x)
    5.0
            2.5
                   26.0
                           7.59
                                   4.32
                                                 20.74
                                                        0.3
         Horizontal Illuminance Values over Calculation Grid
         ******************
    Mounting Height = 5.0m Path Width = 2.5m Spacing = 26.0m
    <---- Grid across path ---->
  (Luminaire 1)
   13.44 13.86
    6.95 7.56
    5.24 5.07
    5.14 4.96
    4.42 4.48
    4.32 4.38
    4.38 4.32
    4.48 4.42
    4.96 5.14
    5.07 5.24
    7.56 6.95
   13.86 13.44
   20.74 16.85
  (Luminaire 2)
          Vertical Illuminance Values over Calculation Grid
          **************
  (Luminaire 1)
   11.16 12.38
   11.49 10.74
   14.93 12.93
   12.08 12.36
    9.94 10.91
    7.41 7.83
    5.05 5.09
    3.29 3.17
    2.04 1.89
    1.27 1.12
     .84 .73
          .47
     .55
     .35 .30
 (Luminaire 2)
NOTE:
       Values in above table are in Lux (rounded to 2 decimal places).
          Line of grid points across path, at Luminaire 1, not
          included in determining compliance (refer Figure 3.8
          AS/NZS 1158.2.
```

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TEMPLATE	VERSION YYYY/MM/DD:	PLOT DATE / TIM 19/05/2021 4		LOT BY anre		CITY OF RYDE COUNCIL		А3			
REV DAT	E AMENDMENT / REVISION DESCRIPTION	ISSUED BY	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE		PRIVATE LIGHTING		
01 17-1 02 15-0 03 22-0 04 19-0 05 16-0	1-21 DESIGN UPDATE FOR BRIDGE CROSSING DUCTS 1-21 UPDATED ISOLUX PLOTS FOR DESIGN UPDATE AND BACKLIGHT SHIELDS 1-22 UPDATED SET OUT TABLE AND WORKS SCHEDULE	M.C. M.C. M.C. M.C.	NOT TO SCALE	ArconaTech : 1		J. DOMINGUEZ S. TIEU M. CHEN	19.05.2021 19.05.2021 19.05.2021	w City of Ryae	SHRIMPTONS CREEK, NORTH RYDE LIGHTING CERTIFICATION - SOFTWARE OUT PUT		
06 13-0 07 19-1 08 08-1	8-21 ISSUE FOR TENDER 0-21 UPDATED LIGHTING DESIGN	M.C. M.C. M.C.	CO-ORDINATE SYSTEM HEIGHT DATUM MGA ZONE 56 AHD	E info@arconatech.com.au www.arconatech.com.au M PO Box 890 PO Box 78 Liverpool NSW 2170 Wollongong NSW 2520 P 0448 814 154				PREPARED FOR CITY OF RYDE COUNCIL	DOCUMENT No. 21012C ISSUE STATUS ISSUE FOR CONSTRUCTION	SHEET No.	ISSUE 08

```
AWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED 10 115 120 125 130 135 140 145 150mmon A3 SIZE ORIGINAL
```

```
************
                               HBW Lighting
       I-table Filename: C:\Users\steve\Desktop\I-TRON Zero 0C6 STA1 3.54-2
                        M VEX AEP.cie
               Job Name: Shrimptons Creek
   Luminaire Description: I-TRON Zero 0C6 STA1 1860 lms
      Initial Lamp Flux: 1860 lms
     Maintenance Factor: 0.8
            Stores Code:
           Upcast Angle: 0 degrees
            Arrangement: Single Side
        Offset Distance: 0 m
Upward Waste Light Ratio: .0 %
           Light Source: LED - Light Emitting Diode
Luminaire Classification: Not specified
      Lighting Category: User Defined
    Illuminance Criteria:
                           Average Illuminance (Eav) >= 7.00 lx
                           Minimum Illuminance (Eph) >= 1.00 lx
    (Maintained values)
                         Illuminance Uniformity (Up) <= 5</pre>
                          Vertical Illuminance (Epv) >= 0.30 lx
                            (Epv calculated on plane 1.5m above ground
                             and contribution from luminaire in adjacent
                             span used in calculations)
       Calculation Grid: Dependant on Path width (refer Figure 3.8
                                                  of AS/NZS 1158.2)
                        Maximum Spacing for different
 Mounting
Height
                                Path Widths
-----
         2.5
     +----+
  5.0 | 25.9 |
     +----+
  Value/s in above table are all in metres.
  The table contains maximum spacings which, for the specified luminaire
  and lamp combination, provide compliance with the User Defined
  light technical parameters (LTPs) nominated above.
  Refer next page for list of LTP's at compliant maximum spacings.
  Refer following page/s for illuminance values at grid points.
------PlePcat
```

P Category Lighting - AS/NZS 1158.3.1:2005

```
Light Technical Parameters at Maximum Spacing
           *************
    Mounting Path
                   Maximum Eav
                                   Eph
                                                  Emax
    Height Width
                                      (Emax/Eav)
                   Spacing
   (m)
            (m)
                    (m)
                           (1x)
                                   (1x)
                                                 (1x)
                                                        (1x)
            2.5
                   25.9
                           7.59
                                   4.21
                                                 20.73
   5.0
                                                        0.3
         Horizontal Illuminance Values over Calculation Grid
         ******************
   Mounting Height = 5.0m Path Width = 2.5m
                                            Spacing = 25.9m
   -----Grid
               <---- Grid across path ---->
 (Luminaire 1)
   13.47 13.85
    6.99 7.54
    5.26 5.05
    5.15 4.96
    4.38 4.53
    4.21 4.50
    4.21 4.50
    4.38 4.53
    5.15 4.96
    5.26 5.05
    6.99 7.54
   13.47 13.85
   16.86 20.73
 (Luminaire 2)
          Vertical Illuminance Values over Calculation Grid
          ****************
 (Luminaire 1)
   11.20 12.34
   11.51 10.71
   14.96 12.91
   12.10 12.34
    9.96 10.91
    7.43 7.84
    5.06 5.10
    3.31 3.17
    2.05 1.89
    1.28 1.12
     .85
         .73
     .55
          .47
     .35 .30
 (Luminaire 2)
NOTE:
      Values in above table are in Lux (rounded to 2 decimal places).
          Line of grid points across path, at Luminaire 1, not
          included in determining compliance (refer Figure 3.8
          AS/NZS 1158.2.
```

							PLOT DATE / TIM 19/05/2021 4		PLOT BY janre	CLIENT	CITY OF RYDE COUNCIL	A3								
REV	DATE	AMENDMENT / REVISION DESCRIPTION	ISSUED BY	SCALES ON A3 SIZE DRAWING	G	DRAWINGS / DESIGN PREPARED BY		TITLE	NAME	DATE	1 City - C D	PRIVATE LIGHTING								
	17-11-20	ISSUED FOR APPROVAL	M.C.			A	l- • •	DRAWN	J. DOMINGUEZ	19.05.2021	<b>U</b> City of Ryc	BETWEEN KENT RD AND EPPING ROAD								
02	15-01-21 22-01-21	DESIGN UPDATE FOR BRIDGE CROSSING DUCTS  UPDATED ISOLUX PLOTS FOR DESIGN UPDATE AND BACKLIGHT SHIELDS	M.C.	ArconaTecl		ecn 👬	DESIGN	S. TIEU	19.05.2021		SHRIMPTONS CREEK, NORTH RYDE									
	19-05-21	UPDATED SET OUT TABLE AND WORKS SCHEDULE	M.C.	NOT TO SCALE	NOT TO SCALE	NOT TO SCALE	NOT TO SCALE	NOT TO SCALE	NOT TO SCALE	NOT TO SCALE	NOT TO SCALE	NOT TO SCALE			CHECKED	M. CHEN	19.05.2021	1	LIGHTING CERTIFICATION - SOFTWARE OUT PUT	
	16-07-21 13-08-21	ADDED: DBYD INFORMATION, EXISTING TREES ALONG PATH. COLUMN AND TRENCH LOCATIONS UPDATED FROM SITE MEETING ISSUE FOR TENDER	M.C.								1			E info@arconatech.com.au			1		PREPARED FOR	
	19-10-21	UPDATED LIGHTING DESIGN	M.C.			W www.arconatech.com.au M PO Box 890 PO Bo	ov 78				OUTV OF DVDE OOUNOU	DOCUMENT No. 21012C								
08	08-11-21	UPDATED SCOPE OF WORKS	M.C.	CO-ORDINATE SYSTEM	HEIGHT DATUM	Liverpool NSW 2170 Wollor					CITY OF RYDE COUNCIL		SHEET No. ISSUE							
				MGA ZONE 56	AHD	P 0448 814 154						ISSUE FOR CONSTRUCTION	11 08							
												(C	ArconaTech Pty Ltd							

```
P Category Lighting - AS/NZS 1158.3.1:2005
                  *************
                                HBW Lighting
       I-table Filename: C:\Users\steve\Desktop\I-TRON Zero 0C6 STA1 3.54-2
                         M VEX AEP.cie
               Job Name: Shrimptons Creek
   Luminaire Description: I-TRON Zero 0C6 STA1 1860 lms
       Initial Lamp Flux: 2700 lms
      Maintenance Factor: 0.8
            Stores Code:
           Upcast Angle: 0 degrees
            Arrangement: Staggered
         Offset Distance: 0 m
Upward Waste Light Ratio: .0 %
           Light Source: LED - Light Emitting Diode
Luminaire Classification: Not specified
       Lighting Category: User Defined
    Illuminance Criteria:
                            Average Illuminance (Eav) >= 7.00 lx
    (Maintained values)
                            Minimum Illuminance (Eph) >= 1.00 lx
                          Illuminance Uniformity (Up) <= 5
                           Vertical Illuminance (Epv) >= 0.30 lx
                             (Epv calculated on plane 1.5m above ground
                              and contribution from luminaire in adjacent
                              span used in calculations)
        Calculation Grid: Dependant on Path width (refer Figure 3.8
                                                    of AS/NZS 1158.2)
                         Maximum Spacing for different
 Mounting
Height
                                 Path Widths
         2.5
      +----+
  6.0 | 32.6 |
      +----+
  Value/s in above table are all in metres.
  The table contains maximum spacings which, for the specified luminaire
  and lamp combination, provide compliance with the User Defined
  light technical parameters (LTPs) nominated above.
  Refer next page for list of LTP's at compliant maximum spacings.
  Refer following page/s for illuminance values at grid points.
            Light Technical Parameters at Maximum Spacing
            ****************
     Mounting Path
                      Maximum Eav
                                         Eph
                                                Up
                                                         Emax
                                                                  Eν
     Height Width
                      Spacing
                                            (Emax/Eav)
                      (m)
                                        (1x)
                                                         (1x)
             (m)
                               (1x)
                                                                (1x)
    6.0
                      32.6
                               7.39
                                        4.05
                                                 3
                                                        21.12
                                                                 0.3
```

```
Horizontal Illuminance Values over Calculation Grid
         ***************
   Mounting Height = 6.0m
                          Path Width = 2.5m
                                             Spacing = 32.6m
   ______
                   <---- Grid across path ---->
 (Luminaire 1)
   15.13 15.33
    9.40 9.90
    5.53 5.98
    5.04 4.98
    4.79 4.86
    4.22 4.36
    4.05 4.19
    4.08 4.14
    4.14 4.08
    4.19 4.05
    4.36 4.22
    4.86 4.79
    4.98 5.04
    5.98 5.53
    9.90 9.40
   15.33 15.13
   21.12 18.07
 (Luminaire 2)
         Vertical Illuminance Values over Calculation Grid
         *****************
 (Luminaire 1)
    9.75 10.19
    9.51 10.11
   11.07 10.14
   12.28 11.45
   10.63 11.08
    9.82 10.62
    8.55 9.05
    6.80 6.96
    5.17 5.12
    3.73 3.56
    2.67 2.47
    1.84 1.68
    1.26 1.13
     .90
          .80
     .65
          .58
     .47
          .42
     .34
          .30
 (Luminaire 2)
       Values in above table are in Lux (rounded to 2 decimal places).
       Line of grid points across path, at Luminaire 1, not included in
determining compliance (refer Figure 3.8 AS/NZS 1158.2.
------PlePcat
                                             CITY OF RYDE COUNCIL
                                                                          А3
           19/05/2021 4:19:56 PM
                NAME
           TTLE
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ARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED 30 35 40 45 50mm on A3 SIZE ORIGINAL

AMENDMENT / REVISION DESCRIPTION CALES ON A3 SIZE DRAWING ISSUED BY ISSUED FOR APPROVAL M.C. M.C. M.C. M.C. M.C. M.C. DESIGN LIPDATE FOR BRIDGE CROSSING DUCTS UPDATED ISOLUX PLOTS FOR DESIGN UPDATE AND BACKLIGHT SHIELDS
UPDATED SET OUT TABLE AND WORKS SCHEDULE NOT TO SCALE ADDED: DBYD INFORMATION, EXISTING TREES ALONG PATH. COLUMN AND TRENCH LOCATIONS UPDATED FROM SITE MEETING 16-07-21 13-08-21 UPDATED LIGHTING DESIGN UPDATED SCOPE OF WORKS HEIGHT DATUM

ArconaTech 🤃 N 162 670 957 nfo@arconatech.com.au
www.arconatech.com.au
PO Box 78 O Box 890 PO Box 75 Liverpool NSW 2170 Wollongong NSW 2520

CITY OF RYDE COUNCIL

J. DOMINGUEZ

S. TIEU

M. CHEN

RAWN

DESIGN

CHECKED

19.05.202

19.05.202

19.05.202

City of Rydo PRIVATE LIGHTING BETWEEN KENT RD AND EPPING ROAD SHRIMPTONS CREEK, NORTH RYDE LIGHTING CERTIFICATION - SOFTWARE OUT PUT

OCUMENT No. 21012C

SSUE FOR CONSTRUCTION