



# ELECTRICAL DESIGN GROUP

ELECTRICAL BUILDING SERVICES CONSULTANTS

P.O. Box 15, SHERWOOD Q. 4075

Phone: (07) 3278 4375

Website: www.edg.net.au Email: brisbane@edg.net.au

C3465a - RSPCA - WACOL, CARPARK UPGRADE

C3465a-0001(A).xls

ELECTRICAL SERVICES CONTRACT DOCUMENT SCHEDULE

REVISION A - 25 FEBRUARY 2025

ISSUING INFORMATION				DATE OF ISSUE							
				DAY	25						
				MONTH	02						
				YEAR	25						
REASON FOR ISSUE											
A = APPROVAL C = CONSTRUCTION N = COORDINATION P = PRELIMINARY T = TENDER											

DISTRIBUTION				NUMBER OF COPIES							
WWW.EDG.NET.AU				1E							
BSPN				1E							
P = PRINT T = TRACING D = DISC E = EMAIL F = FAX											

DOCUMENTS				REVISION							
C3465a-E01.dwg	LIGHTING PLAN & NOTES			A							
C3465a-0001.xls	CONTRACT DOCUMENT SCHEDULE			A							



## 1. EXTENT OF WORKS

PROVIDE THE L1 POLES TO MATCH THE POLES IN THE EXISTING ADJACENT CARPARK.

PROVIDE THE L2 POLES TO MATCH THE POLES IN THE EXISTING ADJACENT CARPARK WITH VEHICLE IMPACT PROTECTION BOALLARDS.

UPGRADE THE EXISTING DISTRIBUTION BOARD SCHEDULE.

PROVIDE ALL NECESSARY TRENCHING AND BORING TO FACILITATE THE CABLE INSTALLATION. UNDERTAKE A COMPREHENSIVE INVESTIGATION OF THE EXISTING UNDERGROUND SERVICES AND PROVIDE A COPY OF THE INVESTIGATION RESULTS PRIOR TO COMMENCING EXCAVATION.

IT IS ACCEPTABLE TO OPEN CUT THE TRENCHES THROUGH THE SOFTSCAPE AREAS.  
REINSTATE THE SOFTSCAPE TO MATCH THE FINISH/ CONDITION PRIOR TO THE TRENCHING.  
CABLE ACCESS UNDER THE HARDSCAPE / SEALED AREAS NOT IMPACTED BY THE WORKS MUST BE  
BORED. THE WORKS IS TO INCLUDE THOUGH ARE NOT LIMITED TO THE FOLLOWING:

- SUPPLY AND INSTALLATION OF ALL COMPONENTS FORMING PART OF THE ELECTRICAL SERVICES.
- INSPECTIONS.
- TESTING AND COMMISSIONING.
- TRENCHING, BORING AND REINSTATEMENT.
- PIT AND CONDUITS.
- CIRCUITS AND OUTLETS.
- LIGHT FITTINGS AND POLES.
- ALL MINOR COMPONENTS AND INCIDENTAL WORKS NOT SPECIFICALLY REFERRED TO, HOWEVER NECESSARY TO COMPLETE THE ELECTRICAL SERVICES INSTALLATION SUCH THAT IT IS HANDED OVER COMPLETE, OPERATIONAL AND FIT FOR THE INTENDED USE.

PRIOR TO COMMENCING WORK CONSULT SITE MANAGEMENT FOR ANY HAZARDOUS MATERIAL AND OR ASBESTOS REGISTERS AS WELL AS UNDERTAKE A COMPREHENSIVE INSPECTION OF THE SITE TO IDENTIFY ANY POTENTIAL HAZARDOUS MATERIALS, ASBESTOS AND HEALTH OR SAFETY RISKS. ADVISE THE CONTRACTOR OF ANY POTENTIAL HAZARDOUS MATERIALS, ASBESTOS AND HEALTH OR SAFETY RISKS IF IDENTIFIED AND DO NOT COMMENCE WORK UNTIL AN APPROPRIATE MANAGEMENT PLAN HAS BEEN DEVELOPED AND AGREED TO BY ALL PARTIES.

IDENTIFY ALL EXISTING UNDERGROUND SERVICES WITHIN THE SCOPE OF THE WORKS PRIOR TO UNDERTAKING ANY EXCAVATION. SUPPLY ALL LABOUR, MATERIALS, EQUIPMENT, AND ALL OTHER ITEMS, WHETHER MENTIONED IN DETAIL OR NOT, REQUIRED FOR THE SATISFACTORY COMPLETION OF THE ELECTRICAL SERVICES INSTALLATION, LEAVING IN FULL WORKING ORDER TO THE SATISFACTION OF THE PROJECT MANAGER.

ACCEPT FULL RESPONSIBILITY FOR LIASING, ARRANGING AND CO-ORDINATION OF ALL WORKS THAT HAVE AN EFFECT ON OR WILL BE AFFECTED BY THE ELECTRICAL SERVICES.

## 2. WORKMANSHIP

ENSURE THAT THE ELECTRICAL WORK IS PERFORMED BY THE HOLDER OF A CURRENT ELECTRICAL SUB CONTRACTOR LICENSE AND THE SERVICES COVERED BY THE ACMA IS PERFORMED BY THE HOLDER OF THE APPROPRIATE CURRENT ACMA LICENSE. ENSURE THE INSTALLATION AND ALL COMPONENTS, FIXTURES, FITTINGS, OUTLETS AND CABLES ARE SUPPLIED AND INSTALLED TO A HIGH STANDARD THROUGHOUT, AND INSTALLED IN A NEAT AND TRADESMAN LIKE MANNER, TO THE CURRENT INDUSTRY STANDARDS. ENSURE ALL MATERIALS AND COMPONENTS OF A SIMILAR TYPE ARE OF THE SAME MANUFACTURER AND INSTALLED IN A UNIFORM MANNER.

IT IS THE ELECTRICAL SUB CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE  
INSTALLATION IS FIT FOR PURPOSE AND IS PROVIDED AS A COMPLETE WORKING INSTALLATION  
IT IS THE ELECTRICAL SUB CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL COMPONENTS,  
FITTINGS, FIXTURES, SYSTEMS, PROGRAMMING ETC IRRESPECTIVE OF THE LEVEL DETAILED IN  
THE DOCUMENTS SUCH THAT THE INSTALLATION IS PROVIDED AS A COMPLETE WORKING  
INSTALLATION.

CONCEAL ALL WIRING AND CONDUITS. EXPOSED CABLEING OR CONDUITS ARE GENERALLY NOT ACCEPTABLE. IT IS NOTED THAT CHASING AND REINSTATEMENT WILL BE REQUIRED. ENSURE ALL COMPONENTS, EQUIPMENT AND MATERIALS SUPPLIED ARE NEW, UNUSED, DESIGNED AND SELECTED TO ENSURE SATISFACTORY OPERATION UNDER VARYING ATMOSPHERIC, CLIMATIC, HUMID TROPICAL CONDITIONS WITHOUT DISTORTION AND DETERIORATION. IN ANY PART OF THE SYSTEMS, DESIGN AND CONSTRUCTION, THE CONTRACTOR SHALL SELECT ALL EQUIPMENT TO PROVIDE THE NECESSARY SAFETY TO HUMAN LIFE AND PROPERTY DURING OPERATION AND MAINTENANCE WITH PARTICULAR ATTENTION GIVEN TO ELECTRICAL SAFETY AND SEGREGATION PRECAUTIONS.

CHECK THE FINISHED PAINTWORK AROUND THE AREA OF EACH INSTALLATION AND TOUCH UP ALL DAMAGED PARTS AND FINISHES AFTER THE INSTALLATION OF THE ELECTRICAL SERVICES.

ALL WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE BUILDER'S PROGRAM. ENSURE ALL FINAL LOCATIONS OF OUTLETS AND FITTINGS ARE CO-ORDINATED ONSITE WITH THE ARCHITECT AND ALL OTHER SERVICES, TO THE APPROVAL OF THE PROJECT MANAGER. ALLOW TO CO-ORDINATE THE FINAL LOCATION OF ALL EQUIPMENT, FITTINGS, & OUTLETS, SUCH THAT THEY ARE INSTALLED IN ACCORDANCE WITH THE AS3000 RESTRICTED ZONES, AND ARE NOT COVERED INAPPROPRIATELY.

ENSURE THAT ALL METAL SURFACES ARE SUITABLY PROTECTED AGAINST CORROSION, AND THAT ALL PLASTIC MATERIALS ARE UV STABILISED.

PROVIDE ALL MATERIALS AS NEW, AND OF THE HIGHEST CLASS AVAILABLE FOR THEIR RESPECTIVE TYPES. ENSURE ALL ASPECTS OF THE WORK ARE OF A HIGH STANDARD THROUGHOUT, AND INSTALLED IN A NEAT AND TRADESMAN LIKE MANNER, TO THE CURRENT INDUSTRY STANDARDS.

### 3. STANDARDS

IRRESPECTIVE OF INFORMATION CONTAINED IN THE ELECTRICAL SERVICES DOCUMENTS OR IN INSTRUCTIONS, IT IS THE ELECTRICAL SUB CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL ELECTRICAL SERVICES WORKS ARE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOLLOWING. REFER ANY DISCREPANCIES BETWEEN THE REQUIREMENTS OF THE FOLLOWING AND/OR THE ELECTRICAL SERVICES DOCUMENTS AND INSTRUCTIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO THE PLACING OF ORDERS, FABRICATION OR INSTALLATION OF THE ITEMS/METHODS IN DISCREPANCY.

- ELECTRICITY ACT.
- ELECTRICAL SAFETY ACT.
- ENERGEX REQUIREMENTS.
- AS/NZS3000.
- AS3008.
- WORKPLACE HEALTH AND SAFETY ACT.

#### 4. AUTHORITIES

ENSURE ALL OF THE ELECTRICAL SERVICES COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AUTHORITIES HAVING JURISDICTION OVER THE SITE INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- ACMA.
- LOCAL COUNCIL.
- LOCAL SUPPLY AUTHORITY.
- STATE GOVERNMENT DEPARTMENT OF ENVIRONMENT AND HERITAGE.
- QLD GOVERNMENT, DIVISION OF WORKPLACE, HEALTH AND SAFETY.
- QLD FIRE DEPARTMENT.

## 5. LIGHT POLES

PROVIDE POLES WITH AN AMPER RESISTANT ACCESS PANEL WITHIN THE POLE BASE AND BASE PLATE THAT INCORPORATE A MINIMUM OF FOUR HOLD DOWN BOLTS. PROVIDE POLES AND INSIT CONCRETE FOOTINGS DESIGNED SPECIFICALLY TO SUIT THE LOCAL CONDITIONS AND BE ABLE T WITHSTAND WIND GUSTS OF 150KM/H. THE DESIGN OF THE POLE AND THE FOOTING IS TO BE UNDERTAKEN BY A RESISTED STRUCTURAL ENGINEER. PROVIDE A CERTIFICATE FROM THE STRUCTURAL ENGINEER INDICATING THE POLES AND FOOTINGS MEET THE SPECIFIED DESIGN CRITERIA. PROVIDE DETAILED DRAWINGS OF ALL POLES AND FOOTINGS FOR APPROVAL. PROVIDE A FUSED CONNECTION WITHIN EACH POLE LOCATED BEHIND THE POLE BASE ACCESS PANEL. CONNECT THE POLE TO THE ELECTRICAL EARTH VIA A LUG FIXED TO A STUD WELDED TO THE POLE LOCATED WITHIN THE POLE LOCATED BEHIND THE POLE BASE ACCESS PANEL. TRIM THE EXPOSED ENDS OF THE POLES SUCH THAT THEY DO NOT PROTRUDE MORE THAN 15MM ABOVE THE NUT. GREAT THE TRIMMED HOLD DOWN BOLT AGAINST CORROSION AND ENSURE IT DOES NOT CONTAIN SHARP EDGES THAT REPRESENT A HAZARD. ENSURE THE BASE PLATE IS BETWEEN 5 AND 100MM ABOVE THE FINISHED LANDSCAPE LEVEL. PROVIDE A NEAT SMOOTH FINISHED CONCRETE GROUT FILL UNDER THE BASE PLATE ENSURING ANY SPLATTER IS IMMEDIATELY WASHED OFF THE BASE PLATE AND POLE. EXTEND THE CONDUIT INTO THE POLE 50MM ABOVE THE BASE PLATE.

PROVIDE POLES THAT COMPLY WITH AS/NZS 1170.0 STRUCTURAL DESIGN ACTIONS PART 0:  
GENERAL PRINCIPLES - IMPORTANCE LEVEL 1 WITH A DESIGN WORKING LIFE OF 50 YEARS

DESIGN THE POLES TO WIND LOADING AS PER AS/NZS 1170.0 STRUCTURAL DESIGN ACTIONS  
PART 0: GENERAL PRINCIPLES. THE FRACTION OF CRITICAL DAMPING IS TO BE TAKEN AS 0.0  
(ULTIMATE) AND 0.01 (SERVICEABILITY) FOR POLES WITH MORE THAN TWO—(2) OVERLAPS AND  
0.02 (ULTIMATE) AND 0.005 (SERVICEABILITY) FOR ALL OTHERS. THE NATURAL FREQUENCY OF  
THE POLE IS TO BE CALCULATED CONSIDERING VARYING DIAMETERS AND THICKNESS OVER THE  
HEIGHT OF THE POLE AND USING A 1.1 SAFETY FACTOR FOR THE MASS AT THE TOP OF THE  
POLE. ENSURE POLE DEFLECTION AT SERVICEABILITY WIND SPEEDS HAVE A DEFLECTION LESS  
THAN 6.7%.

ENSURE ALL WELDS ARE BY A CONTINUOUS AUTOMATIC GAS SHIELDED ELECTRIC ARC PROCESS COMPLYING WITH THE RELEVANT PARTS OF AS/NZS 1554 STRUCTURAL STEEL WELDING. ENSURE THE LONGITUDINAL SEAM WELDS ON POLE SECTIONS CONFORMS TO GP STANDARDS WHILE BASEPLATE AND SPOIGT WELDS MUST CONFORM TO SP STANDARDS AS MENTIONED IN AS/NZS 1554. WELD SIZES ARE TO BE VERIFIED BY A QUALIFIED STRUCTURAL ENGINEER AND SPECIFIED IN THE ENGINEERING REPORT AND ON WORKSHOP DRAWINGS.

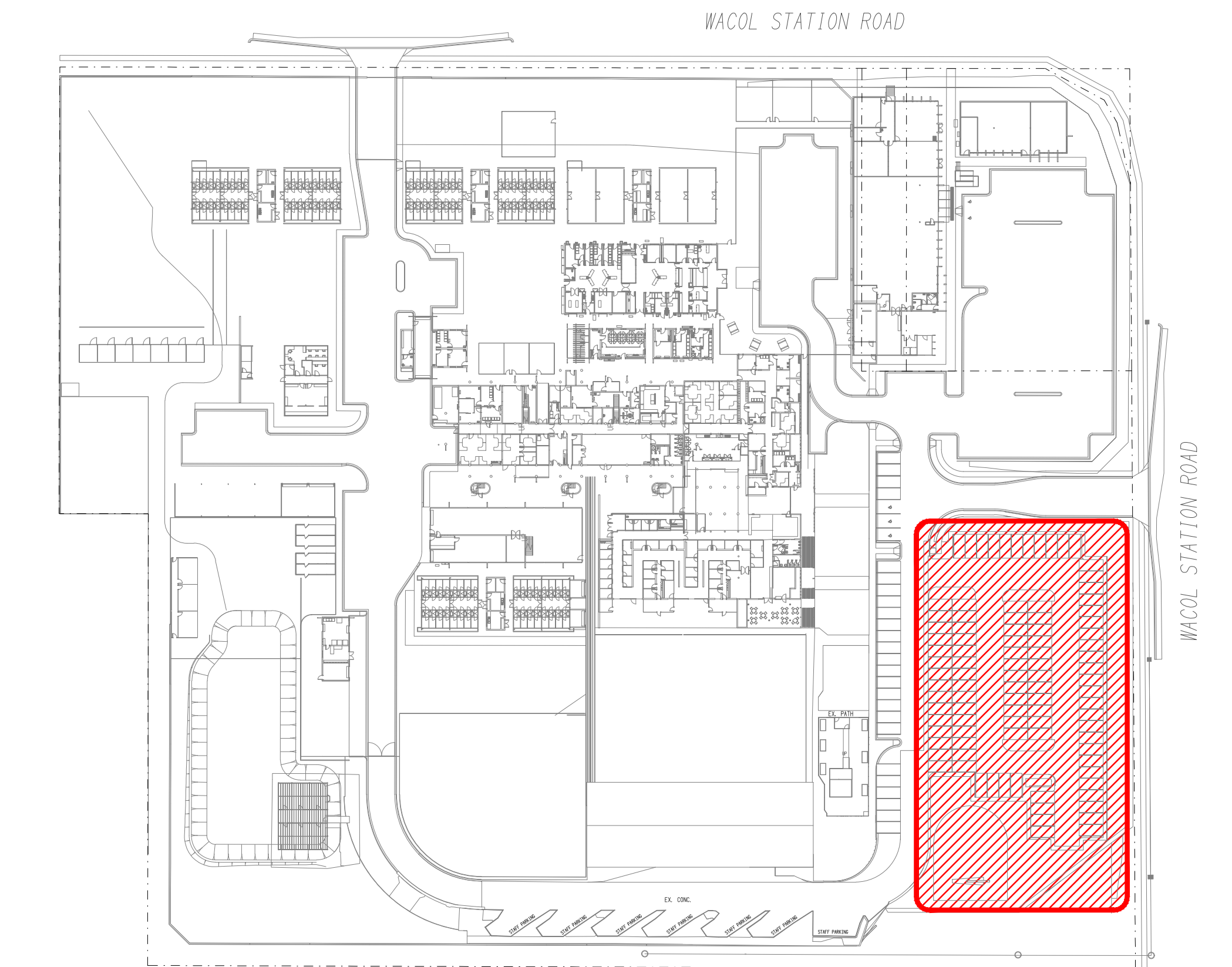
PROVIDE ALL POLES WITH A GALVANIZED FOUNDATION BOLT ASSEMBLY COMPLETE WITH POSITIONING TEMPLATE AND TWO- (2) NUTS AND WASHERS PER BOLT PROVIDED TO SUIT THE POLE BASEPLATE. FOUNDATION BOLTS MUST BE MANUFACTURED FROM DEFORMED REINFORCING BARS WITH A NOMINAL YIELD STRESS OF 500 MPA. PROVIDE BOLTS THREADED IN ACCORDANCE WITH A51275-1985 METRIC SCREW THREADS FOR FASTENERS AND FITTED WITH CLASS 5 NUTS I ACCORDANCE WITH AS/NZS 1112 ISO METRIC HEXAGON NUTS. FOUNDATION BOLTS MUST BE TIED TO A SUITABLE REINFORCING CAGE. THE LENGTH OF EACH FOUNDATION BOLT MUST ALLOW FOR THE LENGTH OF THE THREAD ABOVE GROUND, A MINIMUM OF 100MM COVER AND A DEVELOPMENT LENGTH IN ACCORDANCE WITH AS3600-1994 CONCRETE STRUCTURES, TABLE 13.1.2.2(A). THE UNDERSIDE OF THE BASEPLATE IS TO BE GROUTED.

THE SECTION CAPACITY OF THE POLE IS TO BE ANALYSED OVER A MINIMUM OF 100 INCREMENT  
ACCORDING TO AS4100 STEEL STRUCTURES AND AS/NZS 4600 COLD-FORMED STEEL STRUCTURES  
LUMINARIES ARE TO BE ACCESSED BY EXTERNAL MACHINERY E. G. CHERRY PICKERS. . CLIMBIN  
RUNGS AND MAINTENANCE PLATFORMS ARE NOT REQUIRED.

THE POLE AND ALL STEEL ACCESSORIES ARE TO BE POWDER COATED BLACK HOT DIP GALVANIZE AFTER FABRICATION IN ACCORDANCE WITH AS/NZS 4680 HOT-DIP GALVANIZED (ZINC) COATING ON FABRICATED FERROUS ARTICLES.

THE POLES ARE TO BE SANDED AFTER GALVANIZING AND PREHEATED TO 220°C TO DRIVE OFF ANY TRAPPED GAS UNDER THE GALVANIZED SURFACE. A ZINC RICH PRIME COAT INTERPOLYMERIZING 660 OR EQUIVALENT SHALL BE APPLIED TO WITHIN 60mm AND 80mm WITHIN FOUR HOURS OF PREHEATING AND GREEN CURED TO 200°C FOR 3 MINUTES. PRIME COAT SHALL BE LIGHTLY SANDED BEFORE APPLICATION OF TOP COAT. TOP COAT TOPOCOAT SHALL BE A RIPLE, POLYURETHANE FINISH WITH A GLOSS OF 50-60%. ALL MANUFACTURING TOLERANCES ARE TO BE IN ACCORDANCE WITH AS 1798 LIGHTING POLES AND BRACKET ARMS PREFERRED DIMENSIONS. IN PARTICULAR THE POLES SHALL BE CHECKED FOR COMPLIANCE WITH THE STRAIGHTNESS REQUIREMENTS OF THIS STANDARD: 0.3% OF HEIGHT.

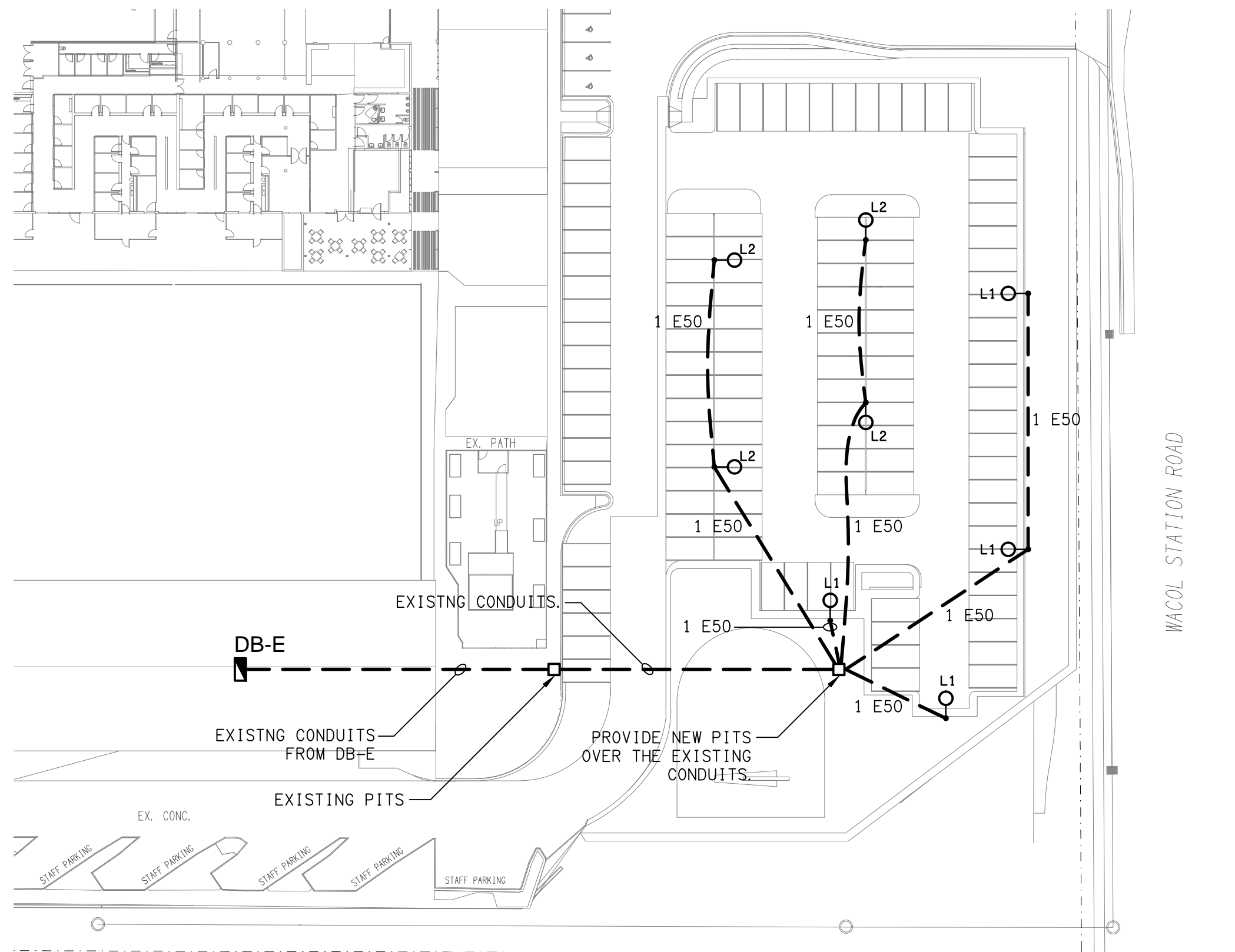
ASSEMBLY AND ERECTION ARE TO BE CARRIED OUT ONLY BY QUALIFIED RIGGING PERSONNEL.  
GROUT THE UNDERSIDE OF ALL POLE BASEPLATES WITHIN SEVEN- (7) DAYS OF INSTALLING THE  
POLE.



# LOCATION PLAN

## PROPOSED CARPARK UPGRADE

SCALE 1:1000



# LIGHTING PLAN

## PROPOSED CARPARK UPGRADE

SCALE 1: 500

A	PRELIMINARY	25/02/2025
REV:	DESCRIPTION:	DATE:

DRAWING:  
**ELECTRICAL SERVICES**  
LIGHTING PLAN & NOTES

SCALE: 1:500 UNO	AT A1	PROJECT NO: <b>C3465a</b>	DRAWING NO: <b>E01</b>	REVISION: <b>A</b>
---------------------	-------	------------------------------	---------------------------	-----------------------

<div>ELECTRICAL DESIGN GROUP BRISBANE PTY LTD ACN 092 710 793</div> <div>THE COPYRIGHT OF THIS DRAWING REMAINS THE PROPERTY OF THE ELECTRICAL DESIGN GROUP.</div> <div>TRADING AS: ELECTRICAL DESIGN GROUP</div> <div>USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE.</div> <div>ALL DIMENSIONS TO BE VERIFIED ONSITE.</div>	<div><div><div><div></div></div><div>ELECTRICAL DESIGN GROUP</div></div><div>ELECTRICAL BUILDING SERVICES CONSULTANTS</div><div>BRISBANE GOLD COAST</div></div> <div>P.O.Box 15, Sherwood Q.4075 Phone: (07) 3278 4375 Email: brisbane@edg.net.au Web: www.edg.net.au</div>	<div>PROJECT: RSPCA WACOL, CARPARK UPGRADE</div> <div>139 WACOL STATION ROAD, WACOL</div>	<div>DRAWING: ELECTRICAL SERVICES LIGHTING PLAN &amp; NOTES</div> <div>SCALE: 1:500 UNO AT A1</div> <div><div>PROJECT NO: C3465a</div><div>DRAWING NO: E01</div><div>REVISION: A</div></div>
---	---	---	--