

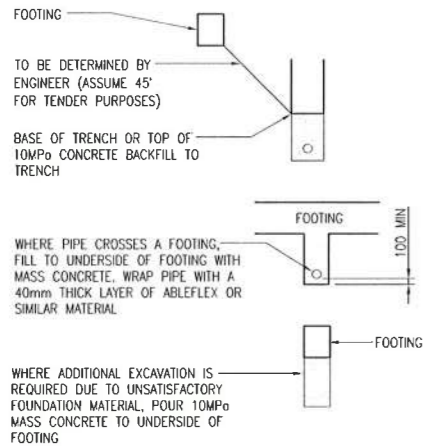
CONSTRUCTION ISSUE

**GENERAL**

- G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH SPECIFICATIONS, OTHER CONSULTANT'S DRAWINGS AND WITH WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
- G2. ALL DISCREPANCIES SHALL BE REFERRED TO HABITATION AND BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
- G3. ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.
- G4. ALL WORKMANSHIP, TESTING, MATERIALS AND SUPERVISION ARE TO BE IN ACCORDANCE WITH THESE SPECIFICATIONS, THE OCCUPATIONAL HEALTH AND SAFETY ACT 2000 ENFORCED BY THE WORKCOVER AUTHORITY AND CURRENT RELEVANT AUSTRALIAN STANDARDS.
- G5. PROPRIETARY ITEMS SPECIFIED SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS. DO NOT VARY SPECIFIED PROPRIETARY PRODUCTS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
- G6. THESE DRAWINGS AND ISSUED WRITTEN INSTRUCTIONS DURING THE COURSE OF THE CONTRACT DEPICT THE COMPLETE STRUCTURE. THEY DO NOT DESCRIBE A WORK METHOD, THE ARRANGEMENT, DESIGN AND INSTALLATION OF TEMPORARY WORKS REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.
- G7. THE DETERMINATION OF A SAFE WORK METHOD REMAINS THE RESPONSIBILITY OF THE CONTRACTOR. ANY ELEMENT OF THE PROJECT THAT POSES AN UNACCEPTABLE SAFETY RISK TO CONSTRUCT SHALL BE REFERRED TO THE ENGINEER.
- G8. NOTES ON ANY DRAWING APPLY TO ALL DRAWINGS IN THE SET U.N.O.
- G9. THE BUILDER SHALL PROVIDE CERTIFICATION OF ANY DESIGN AND CONSTRUCT COMPONENT BY A CHARTERED (NPER) ENGINEER.
- G10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL SERVICES IN THE VICINITY OF THE WORKS. ANY SERVICES SHOWN ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL SERVICES PRIOR TO COMMENCING AND SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE CAUSED TO SERVICES, AS WELL AS ANY LOSS INCURRED AS A RESULT OF THE DAMAGE TO ANY SERVICE.
- G11. DESIGN CRITERIA:
  - \* IMPORTANCE LEVEL = 1.
  - \* ULTIMATE WIND ACTIONS:
    - REGION = A1.
    - ANNUAL PROBABILITY OF EXCEEDENCE = 1/200.
    - REGIONAL WIND SPEED  $V_r$  = 43m/s.
    - TERRAIN CATEGORY = 2.
    - TERRAIN MULTIPLIER  $M_z$  cat = 1.10.
    - SHIELDING MULTIPLIER  $M_s$  = 1.0.
    - TOPOGRAPHIC MULTIPLIER  $M_t$  = 1.0.
    - SITE WIND SPEED = 47.30m/s.

**FOUNDATIONS**

- F1. TWO GEOTECHNICAL REPORTS HAVE BEEN CARRIED OUT, REFER TO REPORT No. 21/13463/AW076 AND No. 246811Bpr1.
- F2. WATER HAS BEEN ENCOUNTERED AT 0.5M TO 1.0M DEPTHS. TENDERS TO ALLOW FOR FOR LINERS TO PIERS OR DEWATERING WHERE POSSIBLE.
- F3. OBTAIN ENGINEER'S WRITTEN APPROVAL OF FOUNDING MATERIAL BEFORE PLACING CONCRETE OR THE CONTRACTOR IS TO ENGAGE A QUALIFIED (NPER) GEOTECHNICAL ENGINEER TO APPROVE THE FOUNDATION MATERIAL. SUBMIT CERTIFICATE IN WRITING TO THE CONSULTING ENGINEER PRIOR TO CONCRETING FOUNDATIONS.
- F4. ENSURE STABILITY OF ADJACENT BUILDINGS IS MAINTAINED DURING ALL STAGES OF CONSTRUCTION.
- F5. DO NOT ALLOW EXCAVATED MATERIAL TO STOCKPILE STAND WITHIN 1500mm OF FOOTING TRENCHES OR PITS. NO EARTH OR DETRITUS IS TO FALL INTO THE FOOTING TRENCHES BEFORE OR DURING CONCRETE PLACEMENT.
- F6. THE UNDERSIDE OF FOUNDATIONS SHALL CONFORM TO THE FOLLOWING REGARDLESS OF NOMINATED LEVELS:



**PERFORMANCE PILE NOTES**

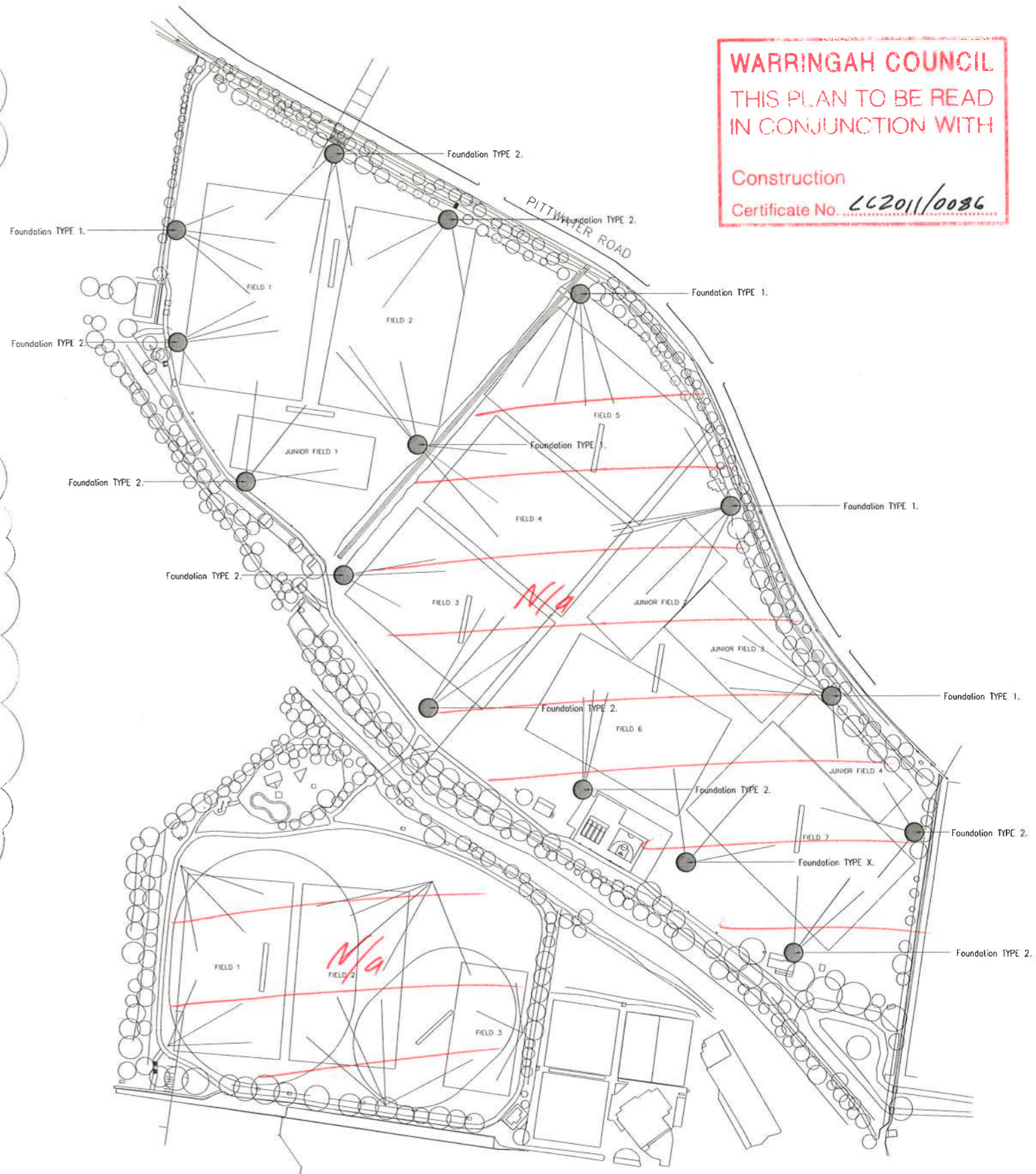
- EXTENT:**  
 PP1. THE PERFORMANCE PILE PACKAGE COMPRISES THE DESIGN, SUPPLY, INSTALLATION AND COMPLETION OF PILING. IT DOES NOT INCLUDE PILE CAPS.  
 PP2. THE DETERMINATION OF THE PILE DEPTHS IS THE RESPONSIBILITY OF THE PILING TENDERER. DUE CONSIDERATION MUST BE GIVEN TO THE GEOTECHNICAL REPORT AND THE NATURE OF THE PROPOSED PILING SYSTEM.
- LIFE:**  
 PP3. PILES TO BE DESIGNED FOR A MINIMUM DESIGN LIFE OF 50 YEARS BASED ON THE EXPOSURE CONDITIONS THAT EXIST ON THIS SITE. GENERAL DESIGN REQUIREMENTS SHALL INCLUDE:  
 - ULTIMATE STRENGTH.  
 - SERVICEABILITY.  
 - DURABILITY.
- VARIATIONS:**  
 PP4. NO VARIATIONS FOR ADDITIONAL PILING DEPTHS WILL BE CONSIDERED UNLESS IT CAN BE PROVEN THAT THE SUBSURFACE CONDITIONS ENCOUNTERED DIFFER MARKEDLY FROM THE GEOTECHNICAL BOREHOLES.  
 PP5. A GEOTECHNICAL INVESTIGATION HAS/HAS NOT BEEN UNDERTAKEN ON THE SITE, REFER TO FOUNDATION NOTES F1 FOR REFERENCES. THIS REPORT IS PROVIDED TO ASSIST IN DESIGN OF THE PILES, IT WILL BE ASSUMED THAT ALL TENDERS HAVE READ THIS REPORT AND DRAWN THEIR OWN CONCLUSIONS AS TO SUB-SURFACE CONDITIONS.
- STANDARDS:**  
 PP6. ALL PILES INCLUDING MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH AS2159-1995 PILING-DESIGN AND INSTALLATION.
- TOLERANCES:**  
 PP7.  
 - LEVEL OF CUT-OFF: - 25mm.  
 - CENTRE OF SHAFT AT CUT-OFF: +/-50mm FROM THE DESIGN CUT-OFF LEVEL.
- APPROVALS:**  
 PP8. ALL PROPOSED PILING METHODS WILL BE SUBJECT TO THE ENGINEER'S APPROVAL. SUBMIT THE FOLLOWING FOR APPROVAL:  
 - DESIGN CALCULATIONS PREPARED BY A CHARTERED (NPER) ENGINEER.  
 - RECENT LOAD TESTS FOR SIMILAR PILES IN SIMILAR SOILS.  
 - STATEMENTS IN SUPPORT OF DURABILITY.  
 - INSTALLATION METHODOLOGY.  
 - TEST SCHEDULE AND METHODOLOGY.  
 - STATEMENTS IN SUPPORT OF DURABILITY.  
 THIS SHALL NOT RELIEVE THE PILING CONTRACTOR FROM ANY OBLIGATIONS, AND THE PILING CONTRACTOR SHALL REMAIN COMPLETELY LIABLE FOR THE PILE WORKS.
- SETTLEMENTS:**  
 PP9. PILES TO BE DESIGNED TO LIMIT SETTLEMENTS OVER THE LIFE OF THE STRUCTURE TO:  
 - TOTAL SETTLEMENT OF ANY PILE <20mm UNDER FULL IN-SERVICE WORKING LOADS.  
 - DIFFERENTIAL SETTLEMENT BETWEEN ANY TWO ADJACENT PILES <20mm.
- PP10. REFER TO DRAWINGS FOR PILE LOADS.

- PILE TESTING AND CERTIFICATION:**  
 PP11. PROVIDE ONE STATIC LOAD TEST IN ACCORDANCE WITH AS2159. NORTHROP ENGINEERS ARE TO NOMINATE PILE FOR TESTING.
- CERTIFICATION:**  
 PP12. DESIGN - PILING CONTRACTOR TO PROVIDE A STRUCTURAL CERTIFICATE FOR THE PILES FROM A CHARTERED (NPER) ENGINEER ON PILING CONTRACTORS LETTERHEAD CERTIFYING THE STRUCTURAL ADEQUACY OF THE PILES.  
 PP13. INSTALLATION - PILING CONTRACTOR TO PROVIDE AN INSTALLATION CERTIFICATE FOR THE PILES CERTIFYING THAT THE PILES HAVE BEEN INSTALLED TO THE DESIGN REQUIREMENTS (SPECIFIED TORQUE, LENGTH ETC.). MAIN CONTRACTOR TO MONITOR INSTALLATION OF PILES (RECORD DEPTHS AND ACHIEVED TORQUE ETC.) AS PART OF THEIR QUALITY CONTROL.  
 ALL OTHER PILES TESTING:
- TESTING:**  
 PP14. PROVIDE TWO DYNAMIC LOAD TESTS IN ACCORDANCE WITH AS2159. CORDULA CONSULTING ARE TO NOMINATE PILES FOR TESTING.
- CERTIFICATION:**  
 PP15. PROVIDE INTEGRITY PILE TESTS TO 20% OF ALL PILES (CONCRETE PILES ONLY) IN ACCORDANCE WITH AS2159.  
 PP16. ALLOW FOR ONE SUCCESSFUL LATERAL LOAD TEST IN ACCORDANCE WITH AS 2159.
- CERTIFICATION:**  
 PP17. PROVIDE STRUCTURAL AND GEOTECHNICAL CERTIFICATION FROM A CHARTERED (NPER) ENGINEER ON THE PILING CONTRACTORS LETTERHEAD CERTIFYING THE PILES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE APPROPRIATE STANDARDS AND CAN SUPPORT THE DESIGN LOADS WITHIN THE SPECIFIED TOLERANCES.

**CONCRETE**

- C1. CARRY OUT ALL CONCRETE WORK IN ACCORDANCE WITH AS3600 AND NATSPEC CONCRETE STANDARDS.
- C2. CONCRETE PROPERTIES:
 

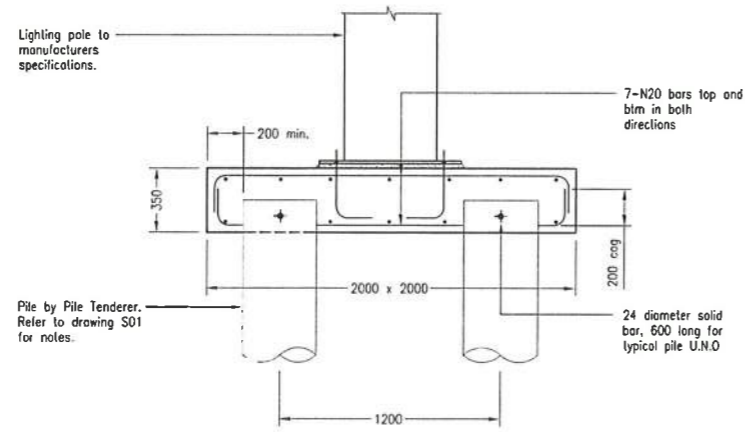
| ELEMENT     | STRENGTH GRADE |
|-------------|----------------|
| - PILE CAPS | S32MPa         |
- C3. SLUMP = 75mm.
- C4. CONSOLIDATE BY VIBRATION.
- C5. CONSTRUCTION JOINTS NOT SHOWN REQUIRE WRITTEN APPROVAL FROM THE ENGINEER.
- C6. ALL REINFORCEMENT LAPS AS PER SECTION 13, AS3600.
- C7. HOLD DOWN BOLTS SHALL BE HOT DIPPED GALVANISED.
- C8. U.N.O. CLEAR CONCRETE COVERS SHALL BE 75mm.
- C9. REINFORCEMENT SYMBOLS:
  - S = STRUCTURAL GRADE DEFORMED BAR TO AS1302 (250MPa).
  - R = STRUCTURAL GRADE ROUND BAR (250MPa).
  - N = HOT ROLLED DEFORMED BAR TO AS/NZS 4671 (500MPa).
  - SL = LOW DUCTILITY SQUARE MESH (500 MPa).
  - RL = LOW DUCTILITY RECTANGULAR MESH (500 MPa).
  - L = LOW DUCTILITY TRENCH MESH (500 MPa).
- C10. THE NUMBER FOLLOWING THE SYMBOL IS THE NOMINAL BAR DIAMETER IN MILLIMETRES CLASS L REINFORCEMENT SHALL NOT BE USED U.N.O.



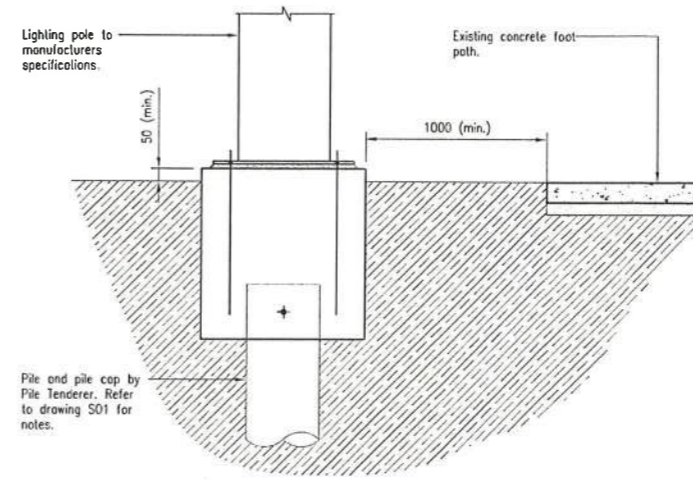
**WARRINGAH COUNCIL**  
 THIS PLAN TO BE READ  
 IN CONJUNCTION WITH  
 Construction  
 Certificate No. **CC2011/0086**

| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Issue</th> <th>Amendment</th> <th>Date</th> <th>Drawn</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Preliminary Issue</td> <td>08.10.09</td> <td>G.M.</td> </tr> <tr> <td>A</td> <td>Construction Issue</td> <td>07.12.09</td> <td>G.M.</td> </tr> <tr> <td>B</td> <td>Revised</td> <td>18.08.10</td> <td>G.M.</td> </tr> <tr> <td>C</td> <td>REVISED WITH NEW GEOTECH REPORT</td> <td>21.03.11</td> <td>G.M.</td> </tr> </tbody> </table> | Issue                           | Amendment | Date  | Drawn | 1 | Preliminary Issue | 08.10.09 | G.M. | A | Construction Issue | 07.12.09 | G.M. | B | Revised | 18.08.10 | G.M. | C | REVISED WITH NEW GEOTECH REPORT | 21.03.11 | G.M. | <p>ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE MAKING SHOP DRAWINGS OR COMMENCING ANY WORK. THE DESIGN, SUPERVISION AND ENGINEER'S CONTAINED IN THIS DOCUMENT ARE THE PROPERTY OF CORDULA CONSULTING PTY LTD. PHOTOGRAPHIC OR REPRODUCTION OF THIS DOCUMENT AND PASSING ON TO OTHERS WITHOUT THE EXPRESS PERMISSION OF CORDULA CONSULTING PTY LTD IS AN INFRINGEMENT OF COPYRIGHT AND CONSIDERED A BREACH OF THE COMMONWEALTH ACT OF 1969 (SECTION 11)</p> | <p>ARCHITECTURE / LANDSCAPE ARCHITECTURE<br/> <b>HABITATION</b><br/>         Suite 10, 151 Myrtle Ave, Zetland NSW 2017<br/>         Ph: (02) 9336 9200 Fax: (02) 9336 9201</p> <p>ELECTRICAL ENGINEER<br/>         Buckley Lysenko Consulting Engineers<br/>         Suite 301, Dudley St, Dulwich NSW 2157<br/>         Ph: (02) 9716 8700 Fax: (02) 9716 8711</p> <p>GEOTECHNICAL ENGINEER<br/>         GHD LongMac<br/>         57 Hume St, Ashmore NSW 2168<br/>         Ph: (02) 9862 4260 Fax: (02) 9862 4210</p> | <p><b>Cordula</b><br/>         Consulting</p> <p>Cordula Consulting Pty Ltd<br/>         ABN B2 122 762 092<br/>         PO Box 140 Miranda<br/>         NSW Australia 1490<br/>         P: (61 2) 8005 0441<br/>         E: admin@cordula.com.au<br/>         W: www.cordula.com.au</p> | <p>Project<br/> <b>NOLAN RESERVE<br/>         DEE WHY, NSW</b></p> | <p>Drawing Title<br/> <b>LIGHTING POLES<br/>         PLAN VIEW AND<br/>         CONSTRUCTION NOTES</b></p> | <p>Job Number<br/> <b>09426</b></p> <p>Drawing Number<br/> <b>S01</b></p> <p>North</p> |
|--|---------------------------------|-----------|-------|-------|---|-------------------|----------|------|---|--------------------|----------|------|---|---------|----------|------|---|---------------------------------|----------|------|---|--|--|--|--|--|
| Issue  | Amendment                       | Date      | Drawn |       |   |                   |          |      |   |                    |          |      |   |         |          |      |   |                                 |          |      |   |  |  |  |  |  |
| 1  | Preliminary Issue               | 08.10.09  | G.M.  |       |   |                   |          |      |   |                    |          |      |   |         |          |      |   |                                 |          |      |   |  |  |  |  |  |
| A  | Construction Issue              | 07.12.09  | G.M.  |       |   |                   |          |      |   |                    |          |      |   |         |          |      |   |                                 |          |      |   |  |  |  |  |  |
| B  | Revised                         | 18.08.10  | G.M.  |       |   |                   |          |      |   |                    |          |      |   |         |          |      |   |                                 |          |      |   |  |  |  |  |  |
| C  | REVISED WITH NEW GEOTECH REPORT | 21.03.11  | G.M.  |       |   |                   |          |      |   |                    |          |      |   |         |          |      |   |                                 |          |      |   |  |  |  |  |  |

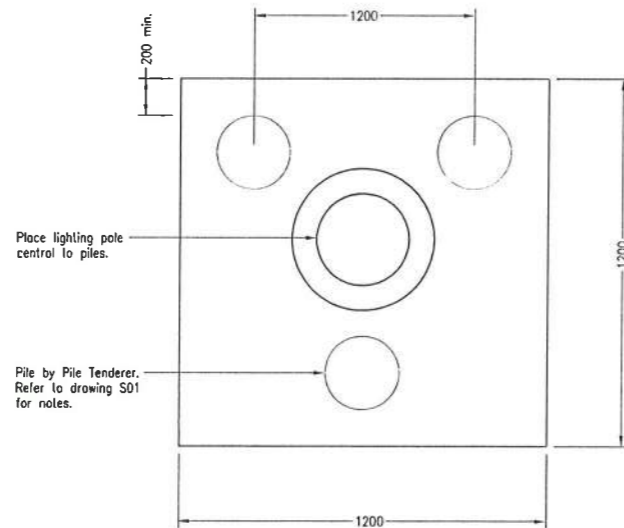
CONSTRUCTION ISSUE



TYPICAL PILE CAP ELEVATION  
3 PILE CONFIGURATION



BUILDING ADJACENT TO FOOT PATHS



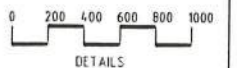
TYPICAL PILE CAP PLAN  
3 PILE CONFIGURATION

**WARRINGAH COUNCIL**  
THIS PLAN TO BE READ  
IN CONJUNCTION WITH  
Construction  
Certificate No. CC2011/0086

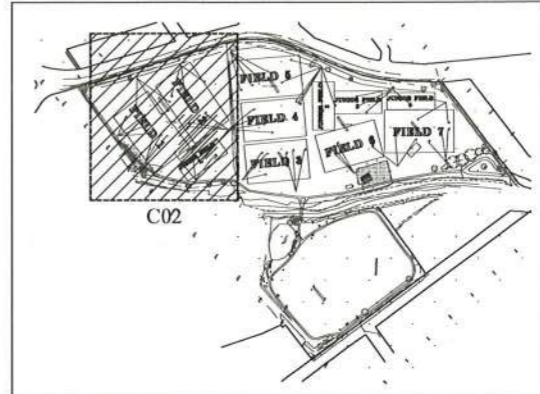
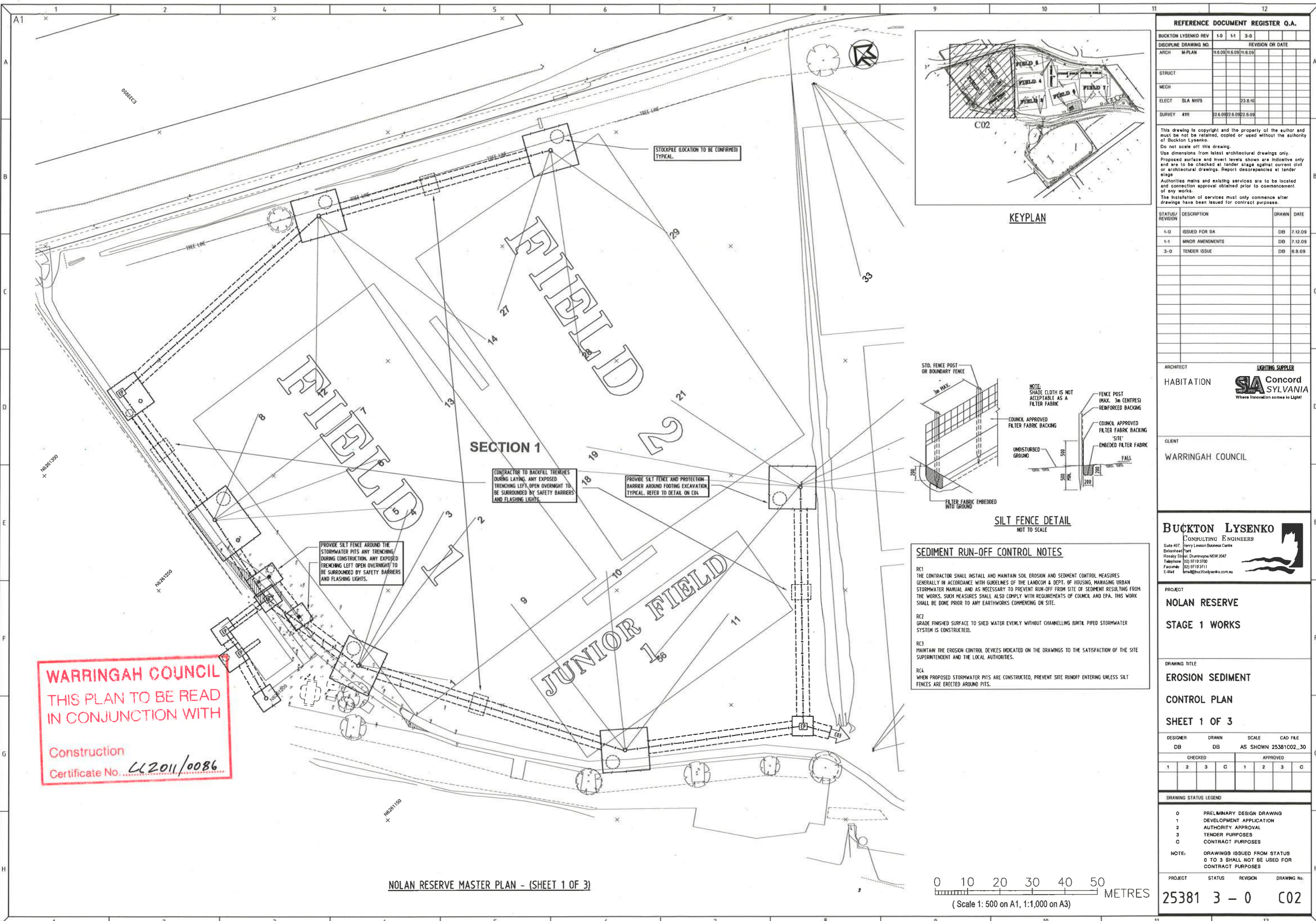
TABLE 1 – PILE DESIGN LOADS

| SINGLE PILE SUPPORT          |             |        |        |             |      |       |                |        |        |
|------------------------------|-------------|--------|--------|-------------|------|-------|----------------|--------|--------|
| MARK                         | AXIAL FORCE |        |        | SHEAR FORCE |      |       | BENDING MOMENT |        |        |
|                              | DEAD        | WIND   | TOTAL  | DEAD        | WIND | TOTAL | DEAD           | WIND   | TOTAL  |
| TYPE 1                       | 33kN        | -      | 33kN   | -           | 15kN | 15kN  | -              | 158kNm | 158kNm |
| TYPE 2                       | 41kN        | -      | 41kN   | -           | 19kN | 19kN  | -              | 244kNm | 244kNm |
| TYPE 3                       | 42kN        | -      | 42kN   | -           | 21kN | 21kN  | -              | 278kNm | 278kNm |
| 3 PILE SUPPORT – DOWN FORCES |             |        |        |             |      |       |                |        |        |
| MARK                         | AXIAL FORCE |        |        | SHEAR FORCE |      |       | BENDING MOMENT |        |        |
|                              | DEAD        | WIND   | TOTAL  | DEAD        | WIND | TOTAL | DEAD           | WIND   | TOTAL  |
| TYPE 1                       | 18kN        | 132kN  | 149kN  | -           | 8kN  | 8kN   | -              | -      | -      |
| TYPE 2                       | 21kN        | 203kN  | 224kN  | -           | 10kN | 10kN  | -              | -      | -      |
| TYPE 3                       | 22kN        | 231kN  | 253kN  | -           | 10kN | 10kN  | -              | -      | -      |
| 3 PILE SUPPORT – UPLIFT      |             |        |        |             |      |       |                |        |        |
| MARK                         | AXIAL FORCE |        |        | SHEAR FORCE |      |       | BENDING MOMENT |        |        |
|                              | DEAD        | WIND   | TOTAL  | DEAD        | WIND | TOTAL | DEAD           | WIND   | TOTAL  |
| TYPE 1                       | 18kN        | -132kN | -114kN | -           | 8kN  | 8kN   | -              | -      | -      |
| TYPE 2                       | 21kN        | -203kN | -182kN | -           | 10kN | 10kN  | -              | -      | -      |
| TYPE 3                       | 22kN        | -231kN | -210kN | -           | 10kN | 10kN  | -              | -      | -      |

- NOTES:
- For Pile Performance notes refer to drawing S01.
  - Confirm lighting configuration with electrical engineer prior to setting out foundation types.
  - Ensure not to undermine foundations of adjacent buildings.
  - All loads are "working loads"
  - Total = 1.0(DEAD) + 1.0(WIND)
  - For single pier support, loads in table are at base of light pole.
  - For 3 pier support, loads in table are at top of pier.



|       |           |      |       |   |   |   |  |  |  |
|-------|-----------|------|-------|---|---|---|--|--|--|
| Issue | Amendment | Date | Drawn | ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE MAKING SHOP DRAWINGS FOR CONSTRUCTION AND WORK THE SEALS, INFORMATION AND DOCUMENT ARE THE PROPERTY OF CORDULA CONSULTING PTY LTD. PHOTOGRAPHY OR REPRODUCING THIS DOCUMENT AND PASSING IT ON TO OTHERS WITHOUT THE EXPRESS PERMISSION OF CORDULA CONSULTING PTY LTD IS AN INFRINGEMENT OF COPYRIGHT AND IS A BREACH OF CORDULA CONSULTING'S RIGHTS UNDER THE COPYRIGHT ACT OF 1968 (SECTION 10) | ARCHITECTURE / LANDSCAPE ARCHITECTURE<br><b>HABITATION</b><br>Bala C.J.D 12 Jordan Ave, 2160 NSW 2011<br>Ph: (02) 9386 1000 Fax: (02) 9386 5214 | Cordula Consulting Pty Ltd<br>ABN 82 122 762 092<br>PO Box 140 Miranda<br>NSW Australia 1480<br>P: (61 2) 8005 0441<br>E: adm@cordula.com.au<br>W: www.cordula.com.au | Project<br><b>NOLAN RESERVE<br/>DEE WHY, NSW</b> | Drawing Title<br><b>FOUNDATION DETAILS</b> | Job Number<br><b>09426</b><br>Drawing Number<br><b>S02</b><br>Rev.<br><b>c</b> |
|-------|-----------|------|-------|---|---|---|--|--|--|



KEYPLAN

| REFERENCE DOCUMENT REGISTER Q.A. |                  |          |          |          |
|----------------------------------|------------------|----------|----------|----------|
| BUCKTON LYSENKO REV              | 1-0              | 1-1      | 3-0      |          |
| DISCIPLINE DRAWING NO.           | REVISION OR DATE |          |          |          |
| ARCH                             | M-PLAN           | 18.09.11 | 18.09.11 | 18.09.11 |
| STRUCT                           |                  |          |          |          |
| MECH                             |                  |          |          |          |
| ELECT                            | SLA NHTS         |          | 23.8.10  |          |
| SURVEY                           | 4111             | 22.6.09  | 22.6.09  | 22.6.09  |

This drawing is copyright and the property of the author and must be not be retained, copied or used without the authority of Buckton Lysenko.  
 Do not scale off this drawing.  
 Use dimensions from latest architectural drawings only.  
 Proposed surface and invert levels shown are indicative only and are to be checked at tender stage against current civil or architectural drawings. Report discrepancies at tender stage.  
 Authorities mains and existing services are to be located and connection approval obtained prior to commencement of any works.  
 The installation of services must only commence after drawings have been issued for contract purposes.

| STATUS/REVISION | DESCRIPTION      | DRAWN | DATE    |
|-----------------|------------------|-------|---------|
| 1-0             | ISSUED FOR DA    | DB    | 7.12.09 |
| 1-1             | MINOR AMENDMENTS | DB    | 7.12.09 |
| 3-0             | TENDER ISSUE     | DB    | 6.9.09  |

ARCHITECT  
 HABITATION



CLIENT  
 WARRINGAH COUNCIL

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PROJECT  
**NOLAN RESERVE**  
**STAGE 1 WORKS**

DRAWING TITLE  
**EROSION SEDIMENT CONTROL PLAN**  
**SHEET 1 OF 3**

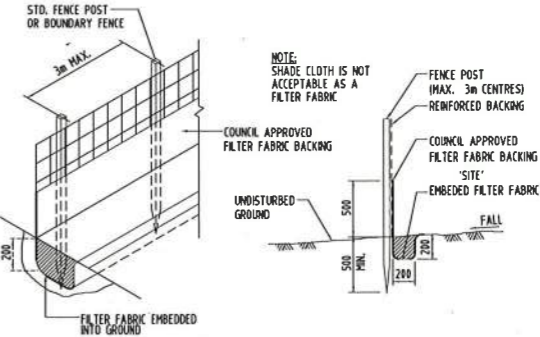
| DESIGNER | DRAWN | SCALE    | CAD FILE    |
|----------|-------|----------|-------------|
| DB       | DB    | AS SHOWN | 25381C02_30 |

| CHECKED |   |   |   | APPROVED |   |   |   |
|---------|---|---|---|----------|---|---|---|
| 1       | 2 | 3 | C | 1        | 2 | 3 | C |
|         |   |   |   |          |   |   |   |

| DRAWING STATUS LEGEND |                            |
|-----------------------|----------------------------|
| 0                     | PRELIMINARY DESIGN DRAWING |
| 1                     | DEVELOPMENT APPLICATION    |
| 2                     | AUTHORITY APPROVAL         |
| 3                     | TENDER PURPOSES            |
| C                     | CONTRACT PURPOSES          |

NOTE: DRAWINGS ISSUED FROM STATUS 0 TO 3 SHALL NOT BE USED FOR CONTRACT PURPOSES

| PROJECT | STATUS | REVISION | DRAWING No. |
|---------|--------|----------|-------------|
| 25381   | 3      | 0        | C02         |



SILT FENCE DETAIL  
 NOT TO SCALE

**SEDIMENT RUN-OFF CONTROL NOTES**

RC1 THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES GENERALLY IN ACCORDANCE WITH GUIDELINES OF THE LANDCOM & DEPT. OF HOUSING, MANAGING URBAN STORMWATER MANUAL AND AS NECESSARY TO PREVENT RUN-OFF FROM SITE OF SEDIMENT RESULTING FROM THE WORKS. SUCH MEASURES SHALL ALSO COMPLY WITH REQUIREMENTS OF COUNCIL AND EPA. THIS WORK SHALL BE DONE PRIOR TO ANY EARTHWORKS COMMENCING ON SITE.

RC2 GRADE FINISHED SURFACE TO SHED WATER EVENLY WITHOUT CHANNELLING UNTIL PIPED STORMWATER SYSTEM IS CONSTRUCTED.

RC3 MAINTAIN THE EROSION CONTROL DEVICES INDICATED ON THE DRAWINGS TO THE SATISFACTION OF THE SITE SUPERINTENDENT AND THE LOCAL AUTHORITIES.

RC4 WHEN PROPOSED STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SILT FENCES ARE ERECTED AROUND PITS.

**SECTION 1**

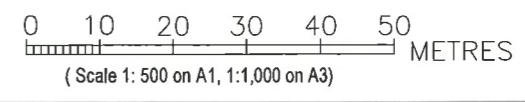
CONTRACTOR TO BACKFILL TRENCHES DURING LAYING. ANY EXPOSED TRENCHING LEFT OPEN OVERNIGHT TO BE SURROUNDED BY SAFETY BARRIERS AND FLASHING LIGHTS.

PROVIDE SILT FENCE AND PROTECTION BARRIER AROUND FOOTING EXCAVATION TYPICAL. REFER TO DETAIL ON C04

PROVIDE SILT FENCE AROUND THE STORMWATER PITS ANY TRENCHING DURING CONSTRUCTION. ANY EXPOSED TRENCHING LEFT OPEN OVERNIGHT TO BE SURROUNDED BY SAFETY BARRIERS AND FLASHING LIGHTS.

**WARRINGAH COUNCIL**  
 THIS PLAN TO BE READ  
 IN CONJUNCTION WITH  
 Construction  
 Certificate No. CC2011/0086

NOLAN RESERVE MASTER PLAN - (SHEET 1 OF 3)



GENERAL NOTES

G1 ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS, NSW CODE OF PRACTICE AND THE TO THE RELEVANT SERVICE CODES.
G2 LIAISE WITH COUNCIL AND CONFIRM ADEQUACY OF SCHEDULED ITEMS BY BUCKTON LYSENKO CONSULTANTS.
G3 CONTRACTUAL RELATIONSHIPS: RESPONSIBILITIES AND DUTIES OF THE PRINCIPAL CONTRACTOR AND CONTRACT ADMINISTRATOR ARE NOT ALTERED BY REQUIREMENTS IN REFERENCED DOCUMENTS.
G4 INTERPRETATION: UNLESS THE CONTEXT OTHERWISE REQUIRES, THE FOLLOWING DEFINITIONS APPLY:
SUPPLY: "SUPPLY", "FURNISH" AND SIMILAR EXPRESSIONS MEAN "SUPPLY ONLY".
PROVIDE: "PROVIDE" AND SIMILAR EXPRESSIONS MEAN "SUPPLY AND INSTALL".
APPROVED: "APPROVED", "REVIEWED", "DIRECTED", "REJECTED", "ENDORSED" AND SIMILAR EXPRESSIONS MEAN "APPROVED (REVIEWED, DIRECTED, REJECTED, ENDORSED) IN WRITING BY THE CONTRACT ADMINISTRATOR".
CONTRACT DOCUMENTS
G5 DIAGRAMMATIC LAYOUTS: LAYOUTS OF SERVICES LINES AND EQUIPMENT SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC ONLY, EXCEPT WHERE FIGURED DIMENSIONS ARE PROVIDED OR CALCULABLE. BEFORE COMMENCING WORK, OBTAIN MEASUREMENTS AND OTHER NECESSARY INFORMATION. ANY DISCREPANCIES TO BE REPORTED TO COUNCIL. ALL DISTANCES SHOWN IN MM UNLESS NOTED OTHERWISE.
G6 LEVELS: ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE PRIOR TO COMMENCING ANY WORK. SPOT LEVELS TAKE PRECEDENCE OVER CONTOUR LINES AND GROUND PROFILE LINES.
EXISTING SURFACE, CONTOURS AND LEVELS, STRUCTURES, BENCH MARKS AND BOUNDARIES COMPILED FROM DRAWINGS SUPPLIED BY THE SURVEYOR.
INSPECTION
G7 MINIMUM NOTICE FOR INSPECTIONS TO BE MADE: 4 HOURS FOR ON-SITE INSPECTORS, OTHERWISE 2 WORKING DAYS.
CURRENT EDITIONS
G8 USE REFERENCED DOCUMENTS WHICH ARE EDITIONS, WITH AMENDMENTS, CURRENT 3 MONTHS BEFORE THE CLOSING DATE FOR TENDERS, EXCEPT WHERE OTHER EDITIONS OR AMENDMENTS ARE REQUIRED BY COUNCIL AUTHORITIES.
G9 THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON THE DRAWING HAVE BEEN PLOTTED FROM DIAGRAMS PROVIDED BY SERVICE AUTHORITIES. THIS INFORMATION HAS BEEN PREPARED SOLELY FOR THE AUTHORITIES OWN USE AND MAY NOT NECESSARILY BE UPDATED OR ACCURATE.
THE POSITION OF SERVICES AS RECORDED BY THE AUTHORITY AT THE TIME OF INSTALLATION MAY NOT REFLECT CHANGES IN THE PHYSICAL ENVIRONMENT SUBSEQUENT TO INSTALLATION.
BUCKTON LYSENKO DOES NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THE DRAWING SHOWS MORE THAN THE PRESENCE OR ABSENCE OF SERVICES, AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.
IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN FROM COUNCIL A CURRENT COPY OF UNDERGROUND SERVICES SEARCH FOR THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY WORK AND NOTIFY ANY CONTACT WITH THE DRAWINGS IMMEDIATELY. CLEARANCE SHALL BE OBTAINED FROM THE RELEVANT REGULATORY AUTHORITY. CONTRACTOR TO KEEP COPY OF UNDERGROUND SERVICES SEARCH ON SITE AT ALL TIMES.
G10 VISIT THE SITE BEFORE SUBMITTING THE FINAL TENDER PRICE TO ASSESS 'ON SITE' CONDITIONS. FAILURE TO DO SO WILL FORFEIT ANY CLAIM FOR NOT BEING AWARE OF CONDITIONS AFFECTING THE TENDER.
G11 ALLOW TO COMPLY WITH THE PROGRAM OF THE MAIN CONTRACT.
G12 THE CONTRACTOR SHALL PREPARE WORK-AS-EXECUTED DRAWINGS FOLLOWING THE COMPLETION OF ALL WORKS. A SET OF REPRODUCIBLE TRANSPARENTS OF RELEVANT DRAWINGS MAY BE PURCHASED BY THE CONTRACTOR FROM BUCKTON LYSENKO TO FACILITATE THIS WORK.

GENERAL WORKMANSHIP

GW1 ALL WORK SHALL BE DONE BY OR UNDER THE DIRECT SUPERVISION OF APPROPRIATE LICENSED PERSONNEL.
GW2 WHERE NEW WORK ADJUTS EXISTING THE SUBCONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
GW3 ALL MANUFACTURED COMPONENTS SHALL BE INSTALLED TO THE MANUFACTURER'S REQUIREMENTS.
GW4 THE CONTRACTOR SHALL SUPPLY AND INSTALL MATERIALS, LABOUR AND APPARATUS AND PAY ALL COSTS NECESSARY TO PROVIDE COMPLETE AND FUNCTIONAL SYSTEMS. ON COMPLETION THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE RELEVANT AUTHORITIES FOR THE EXECUTED WORKS AND FURTHER WARRANT THE SAME FOR TWELVE MONTHS COMMENCING FROM THE DATE OF PRACTICAL COMPLETION.

MAINTENANCE

M1 GENERAL: DURING THE MAINTENANCE PERIOD, CARRY OUT PERIODIC INSPECTIONS AND MAINTENANCE WORK AS RECOMMENDED BY MANUFACTURERS OF SUPPLIED EQUIPMENT, AND PROMPTLY RECTIFY FAILTS.
M2 EMERGENCIES: ATTEND EMERGENCY CALLS PROMPTLY.
M3 CERTIFICATES: INCLUDE TEST AND APPROVAL CERTIFICATES TO COUNCIL.
M4 CERTIFICATION: ON SATISFACTORY COMPLETION OF THE INSTALLATION, SUBMIT CERTIFICATES STATING THAT EACH INSTALLATION IS OPERATING CORRECTLY.

WORK BY OTHER TRADES

BO1 REFER TO DRAWINGS WHERE INDICATED "LIMIT OF CONTRACT". THIS ENSURES THAT THE ELECTRICAL SCOPE OF WORKS ONLY PERTAINS TO THE REQUIRED WORKS. ANY WORKS OUTSIDE OR BEYOND ARE WORKS CARRIED OUT BY OTHER CONTRACTORS.

TESTING

GENERAL
T1 NOTICE: GIVE SUFFICIENT NOTICE SO THOSE DESIGNATED TESTS MAY BE WITNESSED.
T2 MINIMUM NOTICE FOR TESTS TO BE WITNESSED
- 5 WORKING DAYS FOR SITE TESTS; AND
- 10 WORKING DAYS FOR LOCAL PRE-DELIVERY TESTS.
COMPLETION TESTS
T3 GENERAL: CARRY OUT ACCEPTANCE TESTS AND FINAL TESTS. SUPPLY ALL PLANT AND MATERIAL TO CARRY OUT SUKH TEST AND RE-TESTING IF REQUIRED.
T4 FUNCTIONAL CHECKS: CARRY OUT FUNCTIONAL AND OPERATIONAL CHECKS ON ENERGIZED EQUIPMENT AND CIRCUITS AND MAKE ADJUSTMENTS FOR THE CORRECT OPERATION OF SAFETY DEVICES.

SERVICE TRENCHING

ST1 ON COMPLETION OF ELECTRICAL CONDUIT INSTALLATION, ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL CONDITION INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS, GRASSED AREAS AND ROAD PAVEMENTS.
ST2 TRENCHES THROUGH EXISTING ROAD AND CONCRETE AREAS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50MM IN BITUMINOUS PAVING ON EACH SIDE OF THE TRENCH TO PROVIDE A STRAIGHT EVEN JOINT. REINSTATE WITH ADDITIONAL REINFORCEMENT AND DOWELLING AS REQUIRED BY COUNCIL. LIFT AND STORE ANY UNIT PAVING FOR LATER REINSTATEMENT.
ST3 CARE SHALL BE TAKEN WHEN EXCAVATION NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION SHALL BE TAKEN OVER EXISTING TELECOM OR ELECTRICAL OR STORMWATER SERVICES. EXCAVATE BY HAND IN THESE AREAS. CONTRACTOR TO CONTACT "DIAL BEFORE YOU DIG" PRIOR TO EXCAVATION WORKS.
ST4 ALLOW FOR ALL TUNNELING, TIMBER SHORING AND SHUTTERING AS NECESSARY INCLUDING THE REMOVAL OF THE SAME UPON COMPLETION AS REQUIRED.
ST5 EXCAVATION: EXCAVATE FOR UNDERGROUND SERVICES TO REQUIRED LINES, LEVELS AND GRADES. GENERALLY, MAKE THE TRENCHES STRAIGHT BETWEEN ELECTRICAL PITS TO THE SERVICE POINTS.
ST6 SPOIL: IF EXCAVATED MATERIAL CANNOT BE USED FOR FILLING OR BACK FILLING, REMOVE IT FROM THE SITE.
ST7 TRENCH WIDTHS: KEEP TRENCH WIDTHS TO THE MINIMUM CONSISTENT WITH THE LAYING AND BEDDING OF THE ELECTRICAL SERVICE. REFER TO TRENCH DETAILS & AUTHORITIES STANDARDS FOR MINIMUM TRENCH WIDTHS. STANDARD TRENCH WIDTHS ARE THE DIMENSIONS OF UNSUPPORTED TRENCHES. SUPPORT OF EXCAVATIONS TO THE REQUIREMENTS OF THE CONSTRUCTION SAFETY REGULATIONS 1950 UNDER THE CONSTRUCTION SAFETY ACT 1912 (AS AMENDED), APPLY.
ST8 TRENCH DEPTHS: AS REQUIRED BY THE RELEVANT SERVICE AND ITS BEDDING METHOD. ELECTRICAL CONDUITS ADJACENT TO FOOTINGS AND/OR BUILDING STRUCTURE SHALL BE CHECKED BY THE STRUCTURAL ENGINEER PRIOR TO COMMENCING EXCAVATION, AS REQUIRED.
ST9 NOTICE: IF EXCAVATION IS NECESSARY BELOW THE LEVEL OF ADJACENT FOOTINGS, GIVE NOTICE, AND PROVIDE NECESSARY SUPPORT FOR THE FOOTINGS.
ST10 OBSTRUCTIONS: CLEAR TRENCHES OF SHARP PROJECTIONS, CUT BACK ROOTS ENCOUNTERED IN TRENCHES TO AT LEAST 600MM CLEAR OF SERVICES. REMOVE OTHER OBSTRUCTIONS INCLUDING STUMPS AND BouldERS WHICH MAY INTERFERE WITH SERVICES OR BEDDING.
ST11 DE-WATERING: KEEP TRENCHES FREE OF WATER, PLACE BEDDING MATERIAL, SERVICES AND BACK FILLING ON FIRM GROUND FREE OF SURFACE WATER.
ST12 EXCESS EXCAVATION IF TRENCH EXCAVATION EXCEEDS THE CORRECT DEPTH, REINSTATE TO THE CORRECT DEPTH AND BEARING VALUE USING COMPACTED BEDDING MATERIAL (REFER ST10) OR GRADE M20 CONCRETE.
ST13 BACKFILLING: WHERE SPOIL FROM THE TRENCH EXCAVATION IS REQUIRED FOR TRENCH FILLING, TOPSOIL SHALL BE KEPT SEPARATE FROM OTHER MATERIAL SO IT CAN BE USED IN RESTORATION. EXCAVATION MATERIAL NOT REQUIRED FOR TRENCH FILLING SHALL BE REMOVED FOR DISPOSAL.
WHEN A LENGTH OF TRENCH HAS BEEN EXCAVATED, THE DEVELOPER SHALL PROCEED WITHOUT DELAY TO PLACE BEDDING MATERIAL, LAY AND JOINT THE ELECTRICAL CONDUIT, INSPECT AND TEST AS NECESSARY AND BACKFILL THE TRENCH AS DESCRIBED HEREIN.
PLACEMENT AND COMPACTION OF THE ELECTRICAL CONDUIT EMBEDMENT AND THE TRENCH FILL MATERIAL IS PARTICULARLY IMPORTANT, WHERE IT FORMS PART OF A LOAD SUPPORTING SYSTEM, E.G. UNDER ROADS. BACKFILLING WITH BouldERS, LARGE ROCKS, LOGS, STUMPS, TREE LOPPINGS, BouldERS REFUSE, BROKEN CONCRETE, AND OTHER UNSUITABLE MATERIAL IS EXPRESSLY FORBIDDEN.
ALL DE-WATERING SYSTEMS SHALL BE OPERATED DURING TRENCH FILLING SO THAT NO FILL MATERIAL IS PLACED UNDERWATER.
ST14 BACKFILL MATERIAL
A. FOR NORMAL TRENCH CONDITIONS: WHERE THE TRENCH IS NOT SUBJECT TO TRAFFIC LOADING, THE TRENCH SHALL BE REFILLED WITH THE MATERIAL NORMALLY REMOVED FROM THE EXCAVATION OR IMPORTED AND CONTAINING NOT MORE THAN 20 PER CENT OF STONES WITH A SIZE BETWEEN 75MM AND 150MM AND NONE LARGER OR LESS THAN 750MM. IN TOPSOIL AREAS COMPLETE THE BACKFILLING WITH TOPSOIL FOR AT LEAST THE TOP 50MM.
B. FOR TRAFFIC AREAS: BACKFILL MATERIAL SHALL BE:
1. HIGH GRADE COMPACTION SAND OR
2. FINE CRUSHED ROCK - "ROADBASE" OR
3. 75MM CRUSHED SANDSTONE OR
4. AS DIRECTED BY THE RESPONSIBLE AUTHORITY.
THE APPROVAL TO USE 75MM CRUSHED SANDSTONE OR GRANULAR FILL AS IMPORTED BACKFILL MATERIAL ON ROAD CROSSINGS MUST BE OBTAINED IN WRITING FROM THE AUTHORITY WHICH HAS RESPONSIBILITY FOR THE MAINTENANCE OF THE ROADWAY.
THE BACKFILL MAY BE STARTED AFTER THE ELECTRICAL CONDUIT EMBEDMENT MATERIAL HAS BEEN PLACED AND COMPACTED, AND AFTER ANY CONCRETE OR SURROUND HAS ACHIEVED AN INITIAL CRUSHING STRENGTH. BACKFILL MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING 300 MM THICK, EACH LAYER BEING THOROUGHLY COMPACTED AS INDICATED IN CLAUSE 4.8, BEFORE FURTHER FILL IS ADDED. THE COMPACTING EQUIPMENT SHOULD BE SUCH AS TO ENSURE THAT THE ELECTRICAL CONDUIT ARE NOT OVERLOADED DURING THE TRENCH FILLING OR COMPACTING PROCESS.
ST15 COMPACTION
A. DEGREE OF COMPACTION FOR NORMAL TRENCH CONDITIONS WHERE THE TRENCH IS NOT SUBJECT TO TRAFFIC LOADING, THE FILL MATERIAL SHALL BE COMPACTION TO THE DEGREE INDICATED BELOW.
1. ELECTRICAL CONDUIT EMBEDMENT (OVERLAY AND BEDDING)
(A) FOR GRANULAR FILL MATERIAL (NON-COHESIVE SOILS) I.E. COARSE AGGREGATE FILL, HIGH GRADE COMPACTION SAND, THE DENSITY INDEX (DI) SHALL BE NOT LESS THAN:
- SEVENTY (70) PER CENT FOR UPVC AND HDPEV CONDUIT.
2. BACKFILL
(A) FOR GRANULAR FILL MATERIAL, THE DENSITY INDEX (DI) SHALL NOT BE LESS THAN SEVENTY (70) PER CENT.
(B) FOR NON-GRANULAR FILL MATERIAL (COHESIVE SOILS), THE DRY DENSITY RATIO (DD) SHALL NOT BE LESS THAN NINETY-FIVE (95) PER CENT.

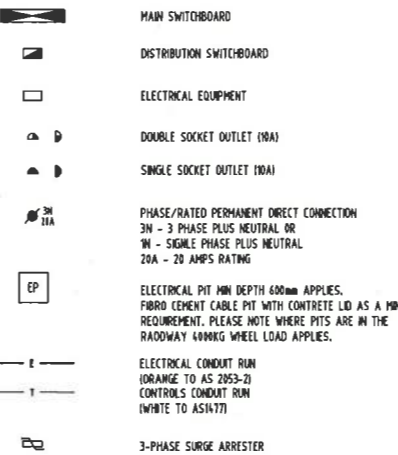
ELECTRICAL NOTES

E1 THE ELECTRICAL INSTALLATION SHALL BE COMPLETE IN ALL RESPECTS COMPLYING FULLY WITH AS3000:2007, ENERGY AUSTRALIA SERVICE RULES, NSW SERVICE AND INSTALLATION RULES TO THE SATISFACTION OF THE ENGINEER.
E2 TENDER DRAWINGS SHALL BE TREATED AS PRELIMINARY ONLY, WITH THE FINAL LOCATIONS BEING DETERMINED ON SITE.
E3 PROVIDE SAMPLES OF POWER OUTLETS, FLOOD LIGHTS, & FLOOD LIGHT CONTROL GEAR TO COUNCIL TO OBTAIN APPROVALS PRIOR TO PLACING ORDERS.
E4 SUBMIT SHOP DRAWINGS FOR MAIN SWITCHBOARD & DISTRIBUTION BOARDS FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION OF PANEL AND A COMPLETE SET OF "AS INSTALLED" DRAWINGS PRIOR TO ISSUING OF PRACTICAL COMPLETION. ALSO PROVIDE TWO SETS OF MAINTENANCE MANUALS TO BE ISSUED PRIOR TO PRACTICAL COMPLETION.
E5 LABEL ALL FLOOD LIGHTS WITH THE FOLLOWING DESIGNATION
- FITTING NO. - SOURCE DB. - CIRCUIT NO.
E6 ALL EXPOSED WIRING TO BE FIXED IN ACCORDANCE WITH AS3000 REQUIREMENTS, AND WHERE APPLICABLE IN CONDUITS.
E7 THE ELECTRICAL SUBCONTRACTOR SHALL ENSURE THAT ALL CONDUCTORS INSTALLED ARE SIZED IN STRICT ACCORDANCE WITH THE RESPECTIVE VOLTAGE DROP RULES & EARTH-LOOP IMPEDANCE REQUIREMENTS. THE MAXIMUM VOLTAGE DROP ALLOWED FROM THE POINT OF ATTACHMENT TO THE OUTPUT TERMINALS OF THE DISTRIBUTION BOARDS SHALL NOT EXCEED 3.0% OF THE SUPPLY VOLTAGE. SUBMANS FROM MAINSWITCHBOARD TO THE RESPECTIVE DISTRIBUTION BOARDS SHALL NOT EXCEED 3.5% OF THE SUPPLY VOLTAGE. CONSUMER MAINS TO THE MAINSWITCHBOARD SHALL NOT EXCEED 5% OF THE SUPPLY VOLTAGE.
E8 LABEL ALL POWER OUTLETS WITH THE FOLLOWING DESIGNATION
- OUTLET NO. - SOURCE DB. - CIRCUIT NO.

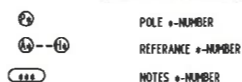
ELECTRICAL SERVICES REQUIRED STANDARDS SPECIFICATION

THE ELECTRICAL INSTALLATION
TO AS 3000, THE ELECTRICAL SYSTEMS TO AS3000.1 AND SAA HB 301. THE WIRING SYSTEM TO AS 3013.
THE SWITCHBOARD CONSTRUCTION AND COMPONENTS
TO AS 3439.1 & AS 3439.3;
SWITCH-ISOLATOR AND COMBINATION FUSE SWITCH UNITS TO AS 6094.7.1 AS 3947.3;
MOLDDED CASE BREAKERS TO AS 6094.7.1, AS 28 & AS 6094.7.2;
MINUTRE CIRCUIT BREAKERS TO AS 6098.1 OR AS3111;
THE FAULT CAPACITY => 10KA TO AS 6094.7.2 AND AS 6094.7.1;
FAULT CAPACITY <10 KA, CURRENT TRIPPING <10KA: MINUTRE OVERCURRENT CIRCUIT BREAKERS TO AS 6098.1; RESIDUAL CURRENT DEVICES TO AS 6109.1, MAX TRIPPING CURRENT: 30mA;
FUSES WITH ENCLOSED FUSE LINKS TO AS 6026.1, AS 6026.2 & AS6029.2.1; CONTACTORS TO AS 6094.7.1.1, MM RATING 16A.
LIGHTING CONSTRUCTION AND COMPONENTS
EXTERIOR LIGHTING STANDARD TO AS 1158 PARTS 0.1,1.3 AND 3.1 & AS 1158 PARTS 2 & 4;
FLOOD LIGHTS TO AS 6059.2.5;
LUMINAIRES GENERAL REQUIREMENTS AND TEST TO AS 6059.1;
LUMINAIRES WITH BUILT IN TRANSFORMERS FOR FLAMENT LAMPS TO AS 6059.2.4;
CABLE SUPPORT AND DUCT SYSTEMS:
CONDUITS TO AS2963 PARTS 1,2,3,4,5,6,7,8;
NON-METALIC CONDUITS AND FITTINGS TO AS 2053 PARTS 2,3,4,5 OR 4;
CABLE TRAY/LADDER SUPPORT SYSTEMS TO NEMA VE-1;
CABLE PITS: PROPRIETARY CABLE PITS, PITS < 1200 X 1200mm PROVIDE PROPRIETARY CONCRETE OR POLYMER MOUNTED PITS, IN SITU CONSTRUCTION PITS > 1200 X 1200mm, PIT COVERS TO COMPLY WITH AS 3996, PROVIDE DRAINAGE FROM BOTTOM OF CABLE PITS;
COLUMNS: PUBLIC LIGHTING POLES TO AS 1799, CONCRETE STRUCTURES TO AS 3600, STEEL STRUCTURES TO AS 4100;
STRUCTURAL DESIGN OF COLUMNS TO AS 4474; AND
CABLES IN TRENCHES - INSTALLATION: SAND BED AND SURROUND PROVIDE CLEAN SHARP SAND > 150mm AROUND CABLES AND CONDUITS INSTALLED UNDERGROUND, SEALING DUCTS AND CONDUIT WITH WEATHERPROOF SEALS
LOW VOLTAGE POWER SYSTEM
LOW VOLTAGE POWER SYSTEMS TO SAA HB 301;
METERING TO AUTHORITY REQUIREMENTS: SERVICE & INSTALLATION RULES NSW;
FAULT PROTECTION TO AS 3000 CLAUSE 2.4;
ELECTRICAL EQUIPMENT TO AS 3100;
FIRE AND MECHANICAL PERFORMANCE CLASSIFICATION TO AS 3013;
SELECTION OF CABLES TO AS 3008.1.1;
DISTRIBUTION CABLES TO AS 4961;
TESTING TO AS 3017;
POWER CABLES: POLYMER INSULATED CABLES TO AS 5000.1, PVC & XLPE TO AS 3008.1.2;
GENERAL PURPOSE SOCKET OUTLETS TO AS 3112, PLUGS 230/240V TO AS 3112, INSULATION COUPLERS TO AS 6153;
ISOLATING SWITCHES TO AS 3133, EMERGENCY STOP SWITCHES TO AS 6094.7.3-5;
3-PHASE OUTLETS: CONSTRUCTION: SURFACE MOUNTED TYPE OF HIGH-IMPACT RESISTANT PLASTIC, WITH FLAP LID ON OUTLET WITH A MM RATING 20A, 400V~c;
EARTHING TO AS 3000 CLAUSE 5.6 & AS 1082
LIGHTING CONSTRUCTION AND COMPONENTS
FLOOD LIGHTS TO AS 6059.2.5;
LUMINAIRES GENERAL REQUIREMENTS AND TEST TO AS 6059.1;
LUMINAIRES CONTROL GEAR FOR METAL HALIDE TO AS 6059.2.4;
RECESSED LUMINAIRES TO AS 6059.2.4;
CONTROL OF OBTRUSIVE EFFECTS TO OUTDOOR LIGHTING TO AS4282; AND
MAXIMUM GLARE RATING TO AS2560.2.3

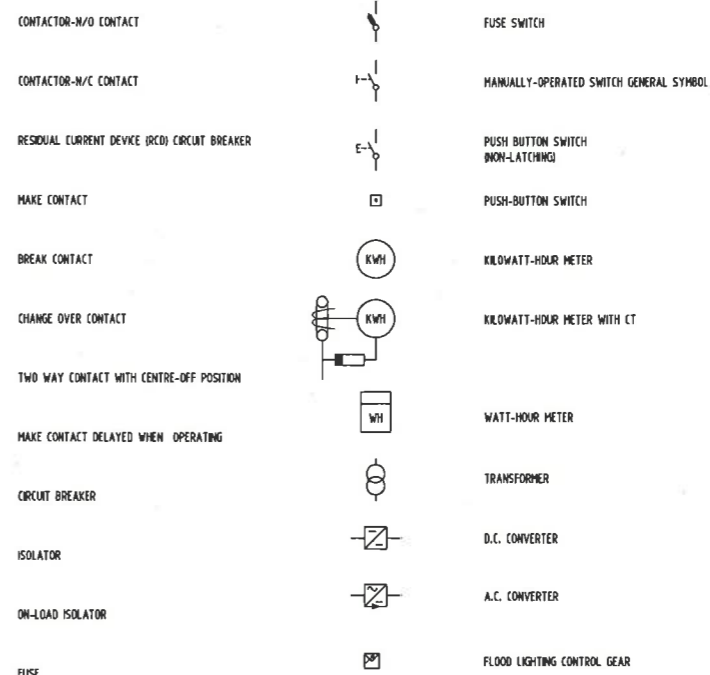
POWER



ABBREVIATIONS



SWITCHES



NOLAN RESERVE LIGHTING

FLOOD LIGHT TYPE A
TYPE: SYLVANA BRITELINE ELITE
CAT NO. SLA BLS ELITE 2000W TB CWA 45V
POLE TYPE: TBA BY SYLVANA.
POLE CAT NO: TBA BY SYLVANA
LAMP TYPE: BRITELINE T8
LAMP CAT NO. M2000/T8/DE
MOUNTING HEIGHT: 25AFTL
CONTROL GEAR: TBA BY SYLVANA
CONTROL GEAR CAT NO: TBA BY SYLVANA
POLE RAG BOLT TYPE: TBA BY SYLVANA.
POLE RAG BOLT CAT NO: TBA BY SYLVANA.
FLOOD LIGHT TYPE B
TYPE: SYLVANA BRITELINE ELITE
CAT NO. SLA BLP ELITE 2000W TB CWA 45V
POLE TYPE: TBA BY SYLVANA.
POLE CAT NO: TBA BY SYLVANA
LAMP TYPE: BRITELINE T8
LAMP CAT NO. M2000/T8/DE
MOUNTING HEIGHT: 25AFTL
CONTROL GEAR: TBA BY SYLVANA
CONTROL GEAR CAT NO: TBA BY SYLVANA
POLE RAG BOLT TYPE: TBA BY SYLVANA.
POLE RAG BOLT CAT NO: TBA BY SYLVANA.
FLOOD LIGHT TYPE C
TYPE: SYLVANA BRITELINE ELITE
CAT NO. SLA BLS ELITE 2000W TB CWA 45V
C/W GS TOP AND LHS
POLE TYPE: TBA BY SYLVANA.
POLE CAT NO: TBA BY SYLVANA
LAMP TYPE: BRITELINE T8
LAMP CAT NO. M2000/T8/DE
MOUNTING HEIGHT: 25AFTL
CONTROL GEAR: TBA BY SYLVANA
CONTROL GEAR CAT NO: TBA BY SYLVANA
POLE RAG BOLT TYPE: TBA BY SYLVANA.
POLE RAG BOLT CAT NO: TBA BY SYLVANA.
FLOOD LIGHT TYPE D
TYPE: SYLVANA BRITELINE ELITE
CAT NO. SLA BLS ELITE 2000W TB CWA 45V
C/W GS TOP & RHS
POLE TYPE: TBA BY SYLVANA.
POLE CAT NO: TBA BY SYLVANA
LAMP TYPE: BRITELINE T8
LAMP CAT NO. M2000/T8/DE
MOUNTING HEIGHT: 25AFTL
CONTROL GEAR: TBA BY SYLVANA
CONTROL GEAR CAT NO: TBA BY SYLVANA
POLE RAG BOLT TYPE: TBA BY SYLVANA.
POLE RAG BOLT CAT NO: TBA BY SYLVANA.

WARRINGAH COUNCIL
THIS PLAN TO BE READ
IN CONJUNCTION WITH
Construction
Certificate No. 22011/0086

REFERENCE DOCUMENT REGISTER Q.A.

Table with columns: DISCIPLINE DRAWING NO., REVISION OR DATE, and rows for ARCH, STRUCT, MECH, ELECT, SURVEY.

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Use dimensions from latest architectural drawings only.
Proposed surface and invert levels shown are indicative only and are to be checked at tender stage against current civil or architectural drawings. Report discrepancies at tender stage.
Authorities mains and existing services are to be located and connection approval obtained prior to commencement of any work.
The installation of services must only commence after drawings have been issued for contract purposes.

Table with columns: STATUS/REVISION, DESCRIPTION, DRAWN, DATE. Includes entries for ISSUED FOR CONSTRUCTION CERTIFICATE, TENDER ISSUE, TENDER ADDENDUM, and TENDER ADDENDUM 2.

ARCHITECT
HABITATION

CLIENT
WARRINGAH COUNCIL

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Roxley Street, Drummoyne NSW 2047
Telephone: (02) 9719 2700
Facsimile: (02) 9719 2711
E-Mail: email@bucktonlysenko.com.au

PROJECT
NOLANS RESERVE
STAGE 1 & 2 WORKS

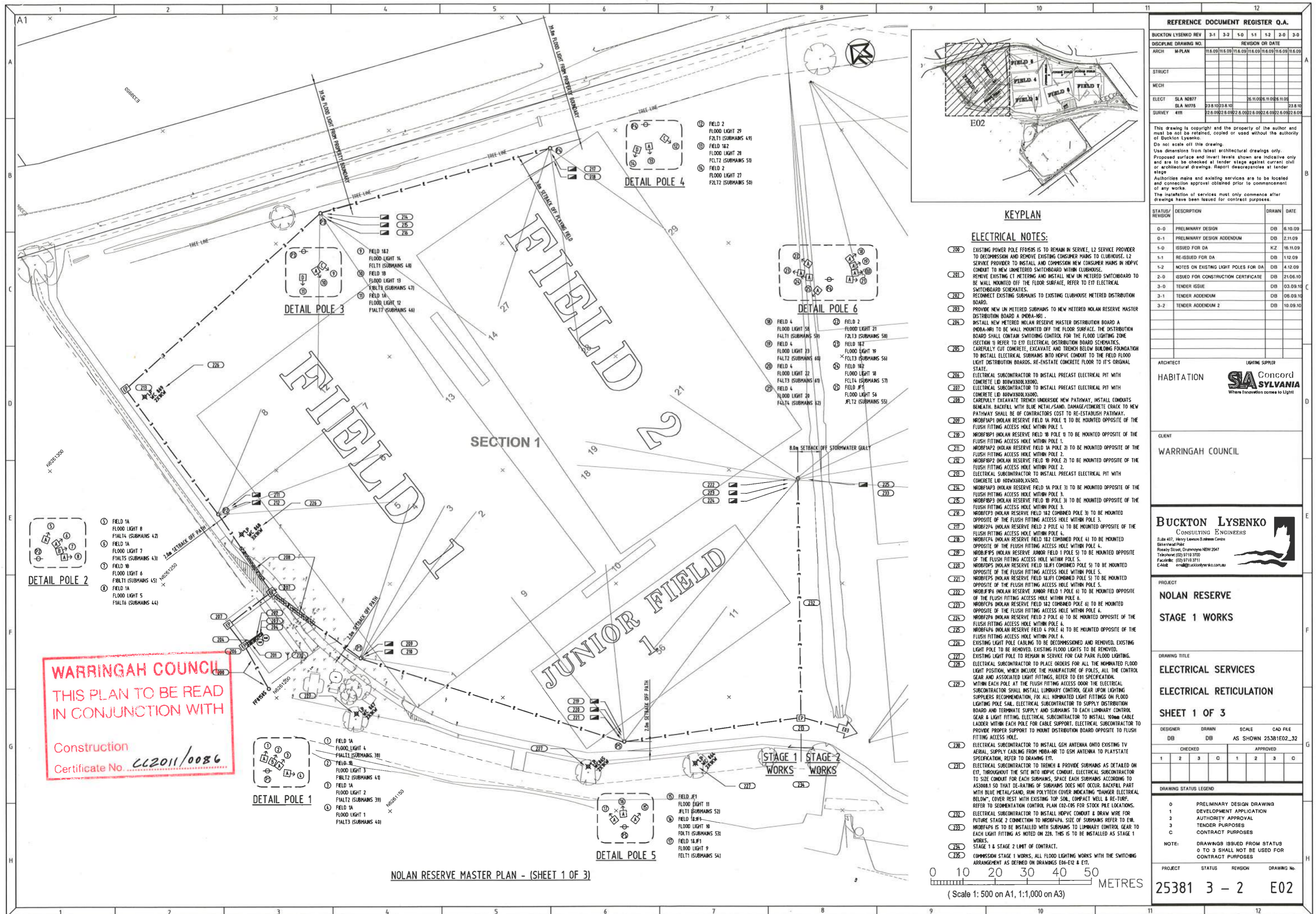
DRAWING TITLE
ELECTRICAL SERVICES
SPECIFICATION & NOTES &
ELECTRICAL LEGEND

Table with columns: DESIGNER, DRAWN, SCALE, CAD FILE, CHECKED, APPROVED, and rows for 1, 2, 3, C.

DRAWING STATUS LEGEND

0 PRELIMINARY DESIGN DRAWING
1 DEVELOPMENT APPLICATION
2 AUTHORITY APPROVAL
3 TENDER PURPOSES
C CONTRACT PURPOSES
NOTE: DRAWINGS ISSUED FROM STATUS 0 TO 3 SHALL NOT BE USED FOR CONTRACT PURPOSES

Table with columns: PROJECT, STATUS, REVISION, DRAWING No. and values: 25381, 3 - 2, E01.



| REFERENCE DOCUMENT REGISTER Q.A. |           |         |         |         |         |         |
|----------------------------------|-----------|---------|---------|---------|---------|---------|
| BUCKTON LYSENKO REV              | 3-1       | 3-2     | 1-0     | 1-1     | 1-2     | 2-0     |
| DISCIPLINE DRAWING NO.           |           |         |         |         |         |         |
| ARCH                             | M-PLAN    | 11.6.09 | 11.6.09 | 11.6.09 | 11.6.09 | 11.6.09 |
| STRUCT                           |           |         |         |         |         |         |
| MECH                             |           |         |         |         |         |         |
| ELECT                            | SLA N0877 |         |         |         |         |         |
|                                  | BLA N0775 | 23.8.10 | 23.8.10 |         |         |         |
| SURVEY                           | 4111      | 22.6.09 | 22.6.09 | 22.6.09 | 22.6.09 | 22.6.09 |

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| STATUS/REVISION | DESCRIPTION                          | DRAWN | DATE     |
|-----------------|--------------------------------------|-------|----------|
| 0-0             | PRELIMINARY DESIGN                   | DB    | 6.10.09  |
| 0-1             | PRELIMINARY DESIGN ADDENDUM          | DB    | 2.11.09  |
| 1-0             | ISSUED FOR DA                        | KZ    | 16.11.09 |
| 1-1             | RE-ISSUED FOR DA                     | DB    | 1.12.09  |
| 1-2             | NOTES ON EXISTING LIGHT POLES FOR DA | DB    | 4.12.09  |
| 2-0             | ISSUED FOR CONSTRUCTION CERTIFICATE  | DB    | 21.06.10 |
| 3-0             | TENDER ISSUE                         | DB    | 03.09.10 |
| 3-1             | TENDER ADDENDUM                      | DB    | 08.09.10 |
| 3-2             | TENDER ADDENDUM 2                    | DB    | 10.09.10 |

ARCHITECT: **HABITATION**  
LIGHTING SUPPLIER: **SA Concord**  
**SA Concord**  
Where Innovation comes to Light

CLIENT: **WARRINGAH COUNCIL**

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PROJECT: **NOLAN RESERVE**  
**STAGE 1 WORKS**

DRAWING TITLE: **ELECTRICAL SERVICES**  
**ELECTRICAL RETICULATION**

SHEET 1 OF 3

| DESIGNER | DRAWN | SCALE    | CAD FILE    |
|----------|-------|----------|-------------|
| DB       | DB    | AS SHOWN | 25381E02_32 |

| CHECKED |   |   |   | APPROVED |   |   |   |
|---------|---|---|---|----------|---|---|---|
| 1       | 2 | 3 | C | 1        | 2 | 3 | C |
|         |   |   |   |          |   |   |   |

| DRAWING STATUS LEGEND |                            |  |  |
|-----------------------|----------------------------|--|--|
| 0                     | PRELIMINARY DESIGN DRAWING |  |  |
| 1                     | DEVELOPMENT DRAWING        |  |  |
| 2                     | AUTHORITY APPROVAL         |  |  |
| 3                     | TENDER PURPOSES            |  |  |
| C                     | CONTRACT PURPOSES          |  |  |

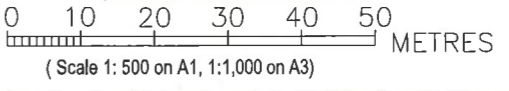
NOTE: DRAWINGS ISSUED FROM STATUS 0 TO 3 SHALL NOT BE USED FOR CONTRACT PURPOSES

| PROJECT | STATUS | REVISION | DRAWING NO. |
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| 25381   | 3 - 2  | E02      |             |

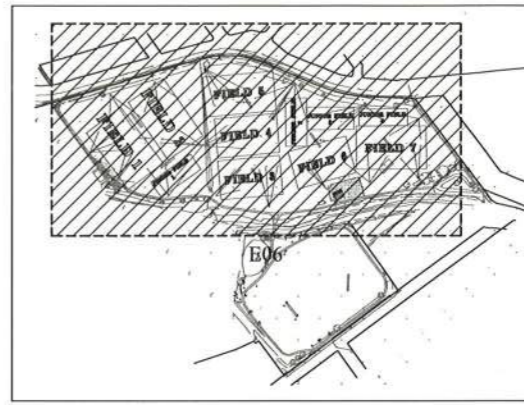
- ELECTRICAL NOTES:**
- 200 EXISTING POWER POLE FF0595 IS TO REMAIN IN SERVICE, L2 SERVICE PROVIDER TO DECOMMISSION AND REMOVE EXISTING CONSUMER MAINS TO CLUBHOUSE. L2 SERVICE PROVIDER TO INSTALL AND COMMISSION NEW CONSUMER MAINS IN HOVPC CONDUIT TO NEW UNMETERED SWITCHBOARD WITHIN CLUBHOUSE.
  - 201 REMOVE EXISTING CT METERING AND INSTALL NEW UN METERED SWITCHBOARD TO BE WALL MOUNTED OFF THE FLOOR SURFACE, REFER TO E17 ELECTRICAL SWITCHBOARD SCHEMATICS.
  - 202 RECONNECT EXISTING SUBMANS TO EXISTING CLUBHOUSE METERED DISTRIBUTION BOARD.
  - 203 PROVIDE NEW UN METERED SUBMANS TO NEW METERED NOLAN RESERVE MASTER DISTRIBUTION BOARD A (MOBA-NR1).
  - 204 INSTALL NEW METERED NOLAN RESERVE MASTER DISTRIBUTION BOARD A (MOBA-NR1) TO BE WALL MOUNTED OFF THE FLOOR SURFACE. THE DISTRIBUTION BOARD SHALL CONTAIN SWITCHING CONTROL FOR THE FLOOD LIGHTING ZONE (SECTION 1) REFER TO E17 ELECTRICAL DISTRIBUTION BOARD SCHEMATICS.
  - 205 CAREFULLY CUT CONCRETE, EXCAVATE AND TRENCH BELOW BUILDING FOUNDATION TO INSTALL ELECTRICAL SUBMANS INTO HOVPC CONDUIT TO THE FIELD FLOOD LIGHT DISTRIBUTION BOARDS. RE-ESTABLISH CONCRETE FLOOR TO ITS ORIGINAL STATE.
  - 206 ELECTRICAL SUBCONTRACTOR TO INSTALL PRECAST ELECTRICAL PIT WITH CONCRETE LID 800Wx800Lx800D.
  - 207 ELECTRICAL SUBCONTRACTOR TO INSTALL PRECAST ELECTRICAL PIT WITH CONCRETE LID 800Wx800Lx800D.
  - 208 CAREFULLY EXCAVATE TRENCH UNDERSIDE NEW PATHWAY. INSTALL CONDUITS BENEATH BACKFILL WITH BLUE METAL/SAND. DAMAGE/CONCRETE CRACK TO NEW PATHWAY SHALL BE OF CONTRACTORS COST TO RE-ESTABLISH PATHWAY.
  - 209 NROBFA1 (NOLAN RESERVE FIELD 1A POLE 1) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 1.
  - 210 NROBFB1 (NOLAN RESERVE FIELD 1B POLE 1) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 1.
  - 211 NROBFA2 (NOLAN RESERVE FIELD 1A POLE 2) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 2.
  - 212 NROBFB2 (NOLAN RESERVE FIELD 1B POLE 2) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 2.
  - 213 ELECTRICAL SUBCONTRACTOR TO INSTALL PRECAST ELECTRICAL PIT WITH CONCRETE LID 800Wx800Lx800D.
  - 214 NROBFA3 (NOLAN RESERVE FIELD 1A POLE 3) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 3.
  - 215 NROBFB3 (NOLAN RESERVE FIELD 1B POLE 3) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 3.
  - 216 NROBFC3 (NOLAN RESERVE FIELD 1C POLE 3) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 3.
  - 217 NROBFA4 (NOLAN RESERVE FIELD 1A POLE 4) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 4.
  - 218 NROBFB4 (NOLAN RESERVE FIELD 1B POLE 4) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 4.
  - 219 NROBFA5 (NOLAN RESERVE JUNIOR FIELD 1 POLE 5) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 5.
  - 220 NROBFB5 (NOLAN RESERVE JUNIOR FIELD 1 POLE 5) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 5.
  - 221 NROBFA6 (NOLAN RESERVE FIELD 1A POLE 6) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 6.
  - 222 NROBFB6 (NOLAN RESERVE FIELD 1B POLE 6) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 6.
  - 223 NROBFA7 (NOLAN RESERVE FIELD 1A POLE 7) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 7.
  - 224 NROBFB7 (NOLAN RESERVE FIELD 1B POLE 7) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 7.
  - 225 NROBFA8 (NOLAN RESERVE FIELD 1A POLE 8) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 8.
  - 226 NROBFB8 (NOLAN RESERVE FIELD 1B POLE 8) TO BE MOUNTED OPPOSITE OF THE FLUSH FITTING ACCESS HOLE WITHIN POLE 8.
  - 227 EXISTING LIGHT POLE (CABLE) TO BE DECOMMISSIONED AND REMOVED. EXISTING LIGHT POLE TO BE REMOVED. EXISTING FLOOD LIGHTS TO BE REMOVED.
  - 228 EXISTING LIGHT POLE TO REMAIN IN SERVICE FOR CAR PARK FLOOD LIGHTING.
  - 229 ELECTRICAL SUBCONTRACTOR TO PLACE ORDERS FOR ALL THE NOMINATED FLOOD LIGHT POSITION, WHICH INCLUDE THE MANUFACTURE OF POLES, ALL THE CONTROL GEAR AND ASSOCIATED LIGHT FITTINGS, REFER TO E01 SPECIFICATION.
  - 230 WITHIN EACH POLE AT THE FLUSH FITTING ACCESS DOOR THE ELECTRICAL SUBCONTRACTOR SHALL INSTALL LUMINAIRY CONTROL GEAR UPON LIGHTING SUPPLIERS RECOMMENDATION. FOR ALL NOMINATED LIGHT FITTINGS ON FLOOD LIGHTING POLE SAIL. ELECTRICAL SUBCONTRACTOR TO SUPPLY DISTRIBUTION BOARD AND TERMINATE SUPPLY AND SUBMANS TO EACH LUMINAIRY CONTROL GEAR & LIGHT FITTING. ELECTRICAL SUBCONTRACTOR TO INSTALL 90mm CABLE LADDER WITHIN EACH POLE FOR CABLE SUPPORT. ELECTRICAL SUBCONTRACTOR TO PROVIDE PROPER SUPPORT TO MOUNT DISTRIBUTION BOARD OPPOSITE TO FLUSH FITTING ACCESS HOLE.
  - 231 ELECTRICAL SUBCONTRACTOR TO INSTALL GSM ANTENNA ONTO EXISTING TV AERIAL. SUPPLY CABLEING FROM MOBA-NR TO GSM ANTENNA TO PLAYSTATE SPECIFICATION, REFER TO DRAWING E17.
  - 232 ELECTRICAL SUBCONTRACTOR TO TRENCH & PROVIDE SUBMANS AS DETAILED ON E17, THROUGHOUT THE SITE INTO HOVPC CONDUIT. ELECTRICAL SUBCONTRACTOR TO SIZE CONDUIT FOR EACH SUBMANS, SPACE EACH SUBMANS ACCORDING TO AS3000.1 SO THAT DE-RATING OF SUBMANS DOES NOT OCCUR. BACKFILL PART WITH BLUE METAL/SAND, RUN POLYTECH COVER INDICATING "DANGER ELECTRICAL BELOW". COVER REST WITH EXISTING TOP SOIL. COMPACT WELL & RE-TURF. REFER TO SEEDMENTATION CONTROL PLAN C02-C05 FOR STOCK PILE LOCATIONS.
  - 233 ELECTRICAL SUBCONTRACTOR TO INSTALL HOVPC CONDUIT & DRAW WIRE FOR FUTURE STAGE 2 CONNECTION TO NROBFA6. SIZE OF SUBMANS REFER TO E17.
  - 234 NROBFA9 IS TO BE INSTALLED WITH SUBMANS TO LUMINAIRY CONTROL GEAR TO EACH LIGHT FITTING AS NOTED ON 228. THIS IS TO BE INSTALLED AS STAGE 1 WORKS.
  - 235 STAGE 1 & STAGE 2 LIMIT OF CONTRACT.
  - 236 COMMISSION STAGE 1 WORKS, ALL FLOOD LIGHTING WORKS WITH THE SWITCHING ARRANGEMENT AS DEFINED ON DRAWINGS E06-E12 & E17.

**WARRINGAH COUNCIL**  
THIS PLAN TO BE READ  
IN CONJUNCTION WITH  
Construction  
Certificate No. **CC2011/0086**

NOLAN RESERVE MASTER PLAN - (SHEET 1 OF 3)



**WARRINGAH COUNCIL**  
 THIS PLAN TO BE READ  
 IN CONJUNCTION WITH  
 Construction  
 Certificate No. *CC2011/0086*



| REFERENCE DOCUMENT REGISTER Q.A. |          |                  |  |
|----------------------------------|----------|------------------|--|
| BUCKTON LYSENKO REV              | 3-0      |                  |  |
| DISCIPLINE DRAWING NO.           |          | REVISION OR DATE |  |
| ARCH                             | M-PLAN   | 18.09            |  |
| STRUCT                           |          |                  |  |
| MECH                             |          |                  |  |
| ELECT                            | SLA N175 | 23.8.10          |  |
| SURVEY                           | 4111     | 22.09            |  |

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 Authorities mains and existing services are to be located and confirmation approval obtained prior to commencement of any works.  
 The installation of services must only commence after drawings have been issued for contract purposes.

| STATUS/REVISION | DESCRIPTION  | DRAWN | DATE     |
|-----------------|--------------|-------|----------|
| 3-0             | TENDER ISSUE | DB    | 10.09.10 |

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PROJECT  
**NOLAN RESERVE**  
**STAGE 1 & 2 WORKS**

DRAWING TITLE  
**ELECTRICAL SERVICES**  
**SWITCHING ARRANGEMENT**  
**SECTION 1 - 4 'ON'**  
**SHEET 1 OF 7**

| DESIGNER | DRAWN | SCALE    | CAD FILE    |
|----------|-------|----------|-------------|
| DB       | DB    | AS SHOWN | 25381E06_30 |

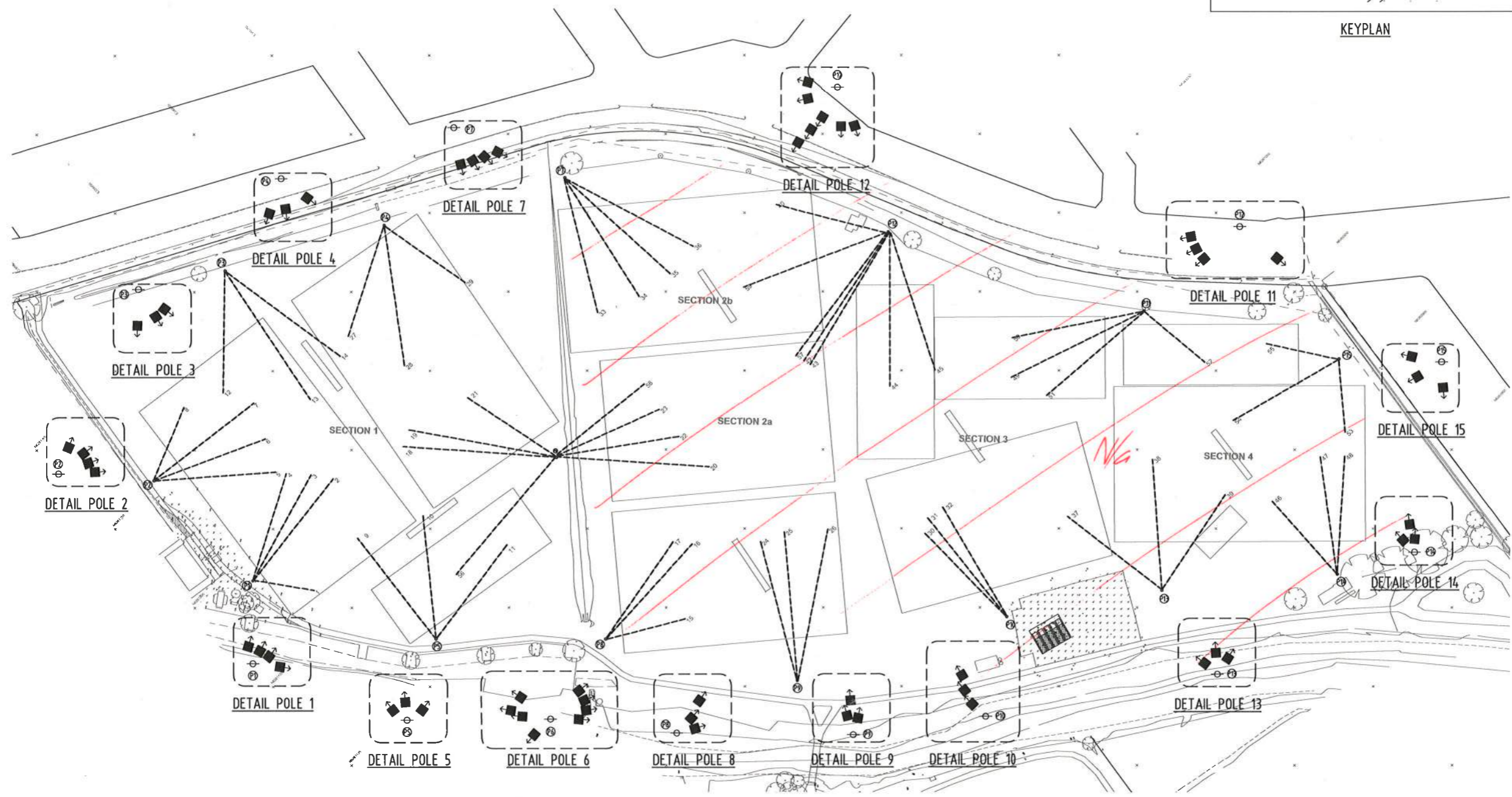
| CHECKED |   |   |   | APPROVED |   |   |   |
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| 1       | 2 | 3 | C | 1        | 2 | 3 | C |
|         |   |   |   |          |   |   |   |

DRAWING STATUS LEGEND

|   |                            |
|---|----------------------------|
| 0 | PRELIMINARY DESIGN DRAWING |
| 1 | DEVELOPMENT APPLICATION    |
| 2 | AUTHORITY APPROVAL         |
| 3 | TENDER PURPOSES            |
| C | CONTRACT PURPOSES          |

NOTE: DRAWINGS ISSUED FROM STATUS 0 TO 3 SHALL NOT BE USED FOR CONTRACT PURPOSES

| PROJECT | STATUS | REVISION | DRAWING No. |
|---------|--------|----------|-------------|
| 25381   | 3 - 0  |          | E06         |



**ELECTRICAL NOTES:**  
 1. THIS DRAWING DEFINES THE SWITCHING ARRANGEMENT FOR ALL FIELDS FLOOD LIGHTING SWITCHED ON.  
 2. REFER TO DRAWINGS E13 - E5 FOR THE REQUIRED LUX LEVELS FOR WHEN ALL FIELDS FLOOD LIGHTING SWITCHED ON.  
 4. REFER TO E17 & E18 SWITCHING ARRANGEMENT FOR STAGE 1 & 2 WORKS, WHICH APPLIES TO THIS DRAWING

**ALL SECTIONS**  
 SCALE 1:1000

**LEGEND**

■ → FLOOD LIGHT "ON"  
 □ → FLOOD LIGHT "OFF"

