

ELECTRICAL SPECIFICATION:

SCOPE:

1. PROVIDE ALL LABOUR, MATERIAL, EQUIPMENT AND SERVICES NECESSARY (INCLUDING ALL SUCH REASONABLY IMPLIED OR INCIDENTAL), TO COMPLETE THE ELECTRICAL INSTALLATION AS INDICATED ON THE ELECTRICAL DRAWINGS. THE COMPLETE SYSTEM IS TO BE APPROVED, INSTALLED AND OPERATIONAL TO THE SATISFACTION OF THE RESPONSIBLE PROFESSIONAL ENGINEER.
2. THE WORK IS TO INCLUDE (BUT NOT NECESSARILY BE LIMITED TO) THE FOLLOWING:
- 2.a. PROVIDE A POWER DISTRIBUTION SYSTEM AS INDICATED ON THE DRAWINGS.
- 2.b. PROVIDE SITE LIGHTING AND ASSOCIATED CONTROLS.
- 2.c. PROVIDE CAR RECEPTACLES AND ELECTRIC VEHICLE CHARGING STATIONS.
- 2.d. PROVIDE EQUIPMENT AND MATERIALS AS SPECIFIED.
- 2.e. PROVIDE ALL REQUIRED GROUNDING AND BONDING.

STANDARDS AND REGULATIONS:

3. THE ENTIRE ELECTRICAL INSTALLATION IS TO BE IN ACCORDANCE WITH ALL CURRENT CODES, RULES AND REGULATIONS, INCLUDING (BUT NOT LIMITED TO) THE CURRENT EDITIONS OF THE CANADIAN ELECTRICAL CODE AND NATIONAL BUILDING CODE, WITH ALL APPLICABLE PROVINCIAL AND MUNICIPAL AMENDMENTS.

4. INSTALL ALL EQUIPMENT AND DEVICES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

SUBMISSIONS:

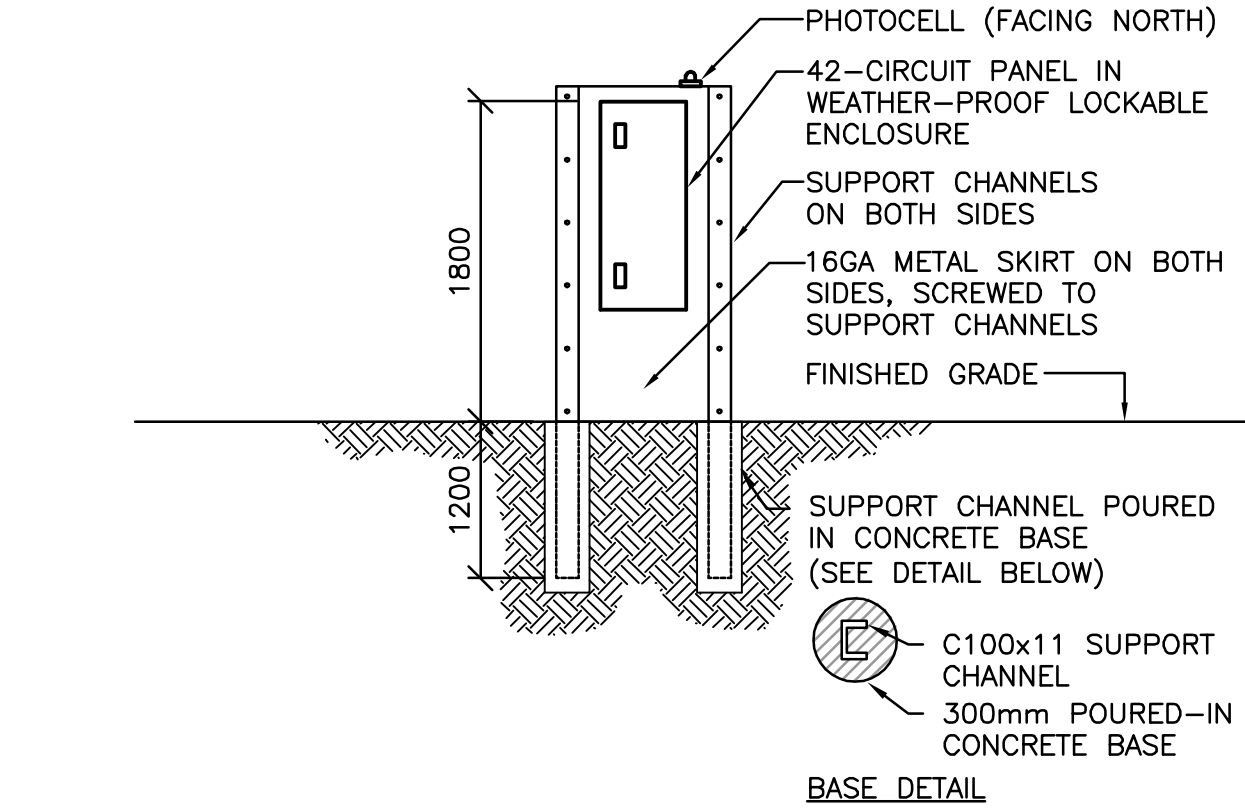
5. ALL REQUIRED PERMITS AND THEIR APPLICATIONS ARE TO BE PROVIDED TO THE PROPER AUTHORITIES. PAY ALL ASSOCIATED FEES.
6. REQUESTS FOR EQUALS ARE TO BE SUBMITTED TO THE RESPONSIBLE PROFESSIONAL ENGINEER NO LATER THAN FIVE (5) WORKING DAYS PRIOR TO SUBMISSION OF TENDER.
7. SHOP DRAWINGS ARE TO BE SUBMITTED TO THE RESPONSIBLE PROFESSIONAL ENGINEER PRIOR TO ORDERING EQUIPMENT, AND NO EQUIPMENT IS TO BE ORDERED WITHOUT THE ENGINEER'S REVIEW.
8. A CERTIFICATE OF APPROVAL FROM THE AUTHORITY HAVING JURISDICTION FOR THE COMPLETE ELECTRICAL INSTALLATION IS TO BE SUBMITTED TO THE RESPONSIBLE PROFESSIONAL ENGINEER AFTER ALL WORK IS COMPLETE, BUT BEFORE FINAL PAYMENT HAS BEEN MADE.
9. ONE(1) HARD COPY SET OF CORRECTED "AS-BUILT" DRAWINGS IS TO BE SUBMITTED TO THE OWNER AT CLOSE OF PROJECT.
10. A GUARANTEE THAT ALL NEWLY INSTALLED OR MODIFIED ELECTRICAL IS TO OPERATE SATISFACTORILY FOR A PERIOD OF TWELVE(12) MONTHS AFTER FINAL ACCEPTANCE OF ALL BUILDING WORK.

RESPONSIBILITY:

11. THE ELECTRICAL CONTRACTOR IS TO VISIT SITE TO CONFIRM THAT ALL ELECTRICAL WORK INDICATED CAN BE COMPLETED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
12. THE ELECTRICAL CONTRACTOR IS TO REVIEW ALL DRAWINGS AND SPECIFICATIONS (INCLUDING RELATED ELECTRICAL AND CIVIL) TO CONFIRM THAT THE WORK REPRESENTED THEREIN CAN BE COMPLETED. ANY DEFECT, DISCREPANCY, OMISSION OR INTERFERENCE THAT IS DISCOVERED TO AFFECT THE SATISFACTORY COMPLETION OF THE WORK OR ITS WARRANTY IS TO BE REPORTED IMMEDIATELY TO THE RESPONSIBLE PROFESSIONAL ENGINEER.
13. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR ANY DAMAGE DONE BY PERFORMING THIS WORK IMPROPERLY.
14. THE ELECTRICAL CONTRACTOR IS TO RELOCATE OUTLETS AT NO ADDITIONAL COST IF REQUESTED PRIOR TO ROUGH-IN.
15. THE ELECTRICAL CONTRACTOR IS TO TEST ALL SUPPLIED, INSTALLED, CONNECTED, OR MODIFIED ELECTRICAL IN THE PRESENCE OF THE OWNER UPON COMPLETION OF WORK, PRIOR TO FINAL PAYMENT.
16. THE ELECTRICAL CONTRACTOR IS TO PROVIDE ANY TRENCHING AND BACKFILLING REQUIRED TO EXTEND SERVICES TO THE SITE AND CONNECT EQUIPMENT AS SHOWN ON THE DRAWINGS.

MATERIALS AND EQUIPMENT:

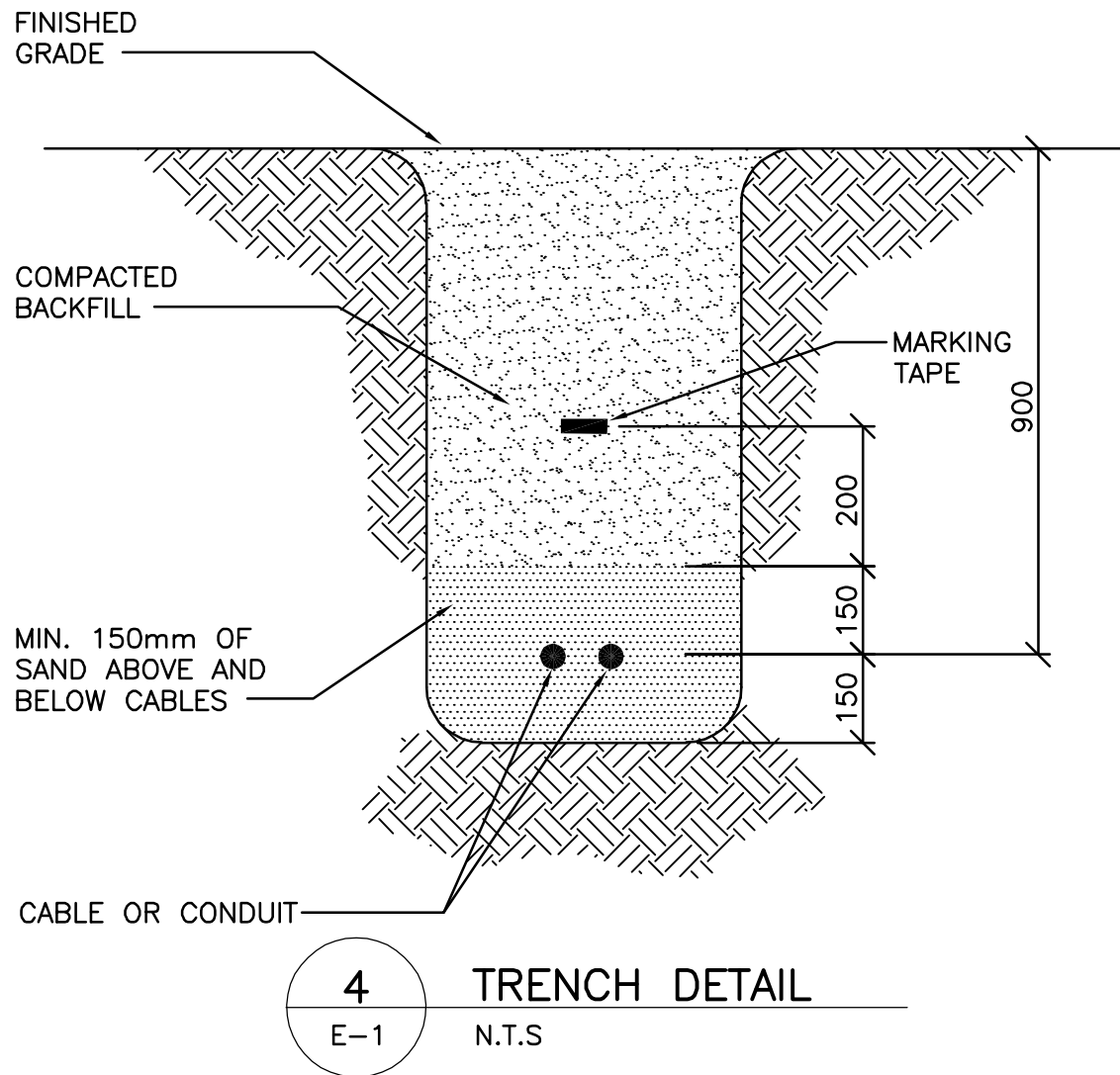
17. PROVIDE IDENTIFICATION OF ALL PROVIDED ELECTRICAL EQUIPMENT, INCLUDING PANELBOARDS, DISCONNECT SWITCHES, SPLITTERS, ETC.. IDENTIFICATION IS TO BE PROVIDED BY MEANS OF ENGRAVED LAMACOID LABELS FASTENED SECURELY TO THE EQUIPMENT.
18. PANELBOARDS ARE TO BE CUSTOM-MADE AND FACTORY ASSEMBLED TO SUIT THE SIZE, TYPE AND ARRANGEMENT INDICATED. CIRCUIT BREAKERS ARE TO BE BOLT-IN, MOULDED CASE, AND THERMAL AND MAGNETIC TRIP TYPE. TRIP VALUES ARE TO BE AS INDICATED. EACH TWO- OR THREE-POLE BREAKER SHALL HAVE A SINGLE TRIP UNIT. PROVIDE A TYPEWRITTEN DIRECTORY C/W A CLEAR PLASTIC SHIELD, AFFIXED TO THE INSIDE OF THE PANEL DOOR.
19. UNDERGROUND CONDUITS ARE TO BE PVC. EXPOSED CONDUITS ABOVE GROUND ARE TO BE RGS. MINIMUM CONDUIT SIZE: 21mm.
20. WIRING IS TO BE IN CONDUIT OR TECK CABLE OR AS SHOWN OTHERWISE.
21. WIRE AND CABLE ARE TO BE STANDARD AWG COPPER WITH X-LINK POLYETHYLENE INSULATION RATED TO 600V AND 90°C, UNLESS OTHERWISE INDICATED OR PROHIBITED. ALUMINUM CONDUCTORS WILL NOT BE ACCEPTED. MINIMUM WIRE SIZE: #12 AWG.
22. DUPLEX RECEPTACLES ARE TO BE AS MANUFACTURED BY IPLC, COMPLETE WITH WEATHERPROOF-WHILE-IN-USE COVER OR ANGLED DOWN AS REQUIRED BY AUTHORITY HAVING JURISDICTION FOR EXTERIOR CAR RECEPTACLE INSTALLATIONS. IPLC RECEPTACLES TO BE PROGRAMMED FOR 80% OUTPUT AT AMBIENT TEMPERATURE BELOW -5°C. COORDINATE PROGRAMMING REQUIREMENTS AND OPTIONS WITH OWNER.
23. ELECTRIC VEHICLE CHARGING STATIONS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.



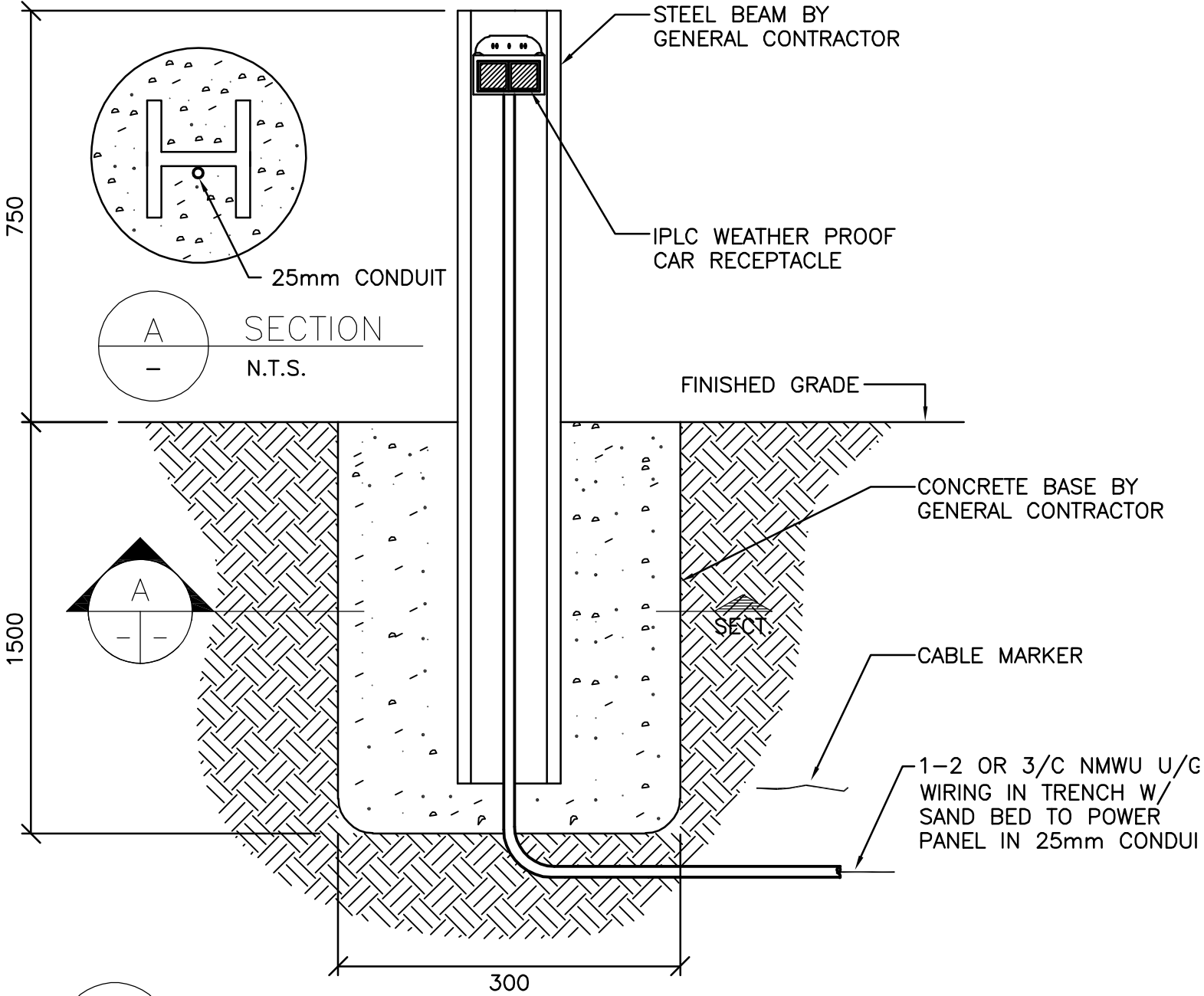
1 PARKING LOT DISTRIBUTION - MOUNTING DETAIL  
E-1 N.T.S.

NOTES:

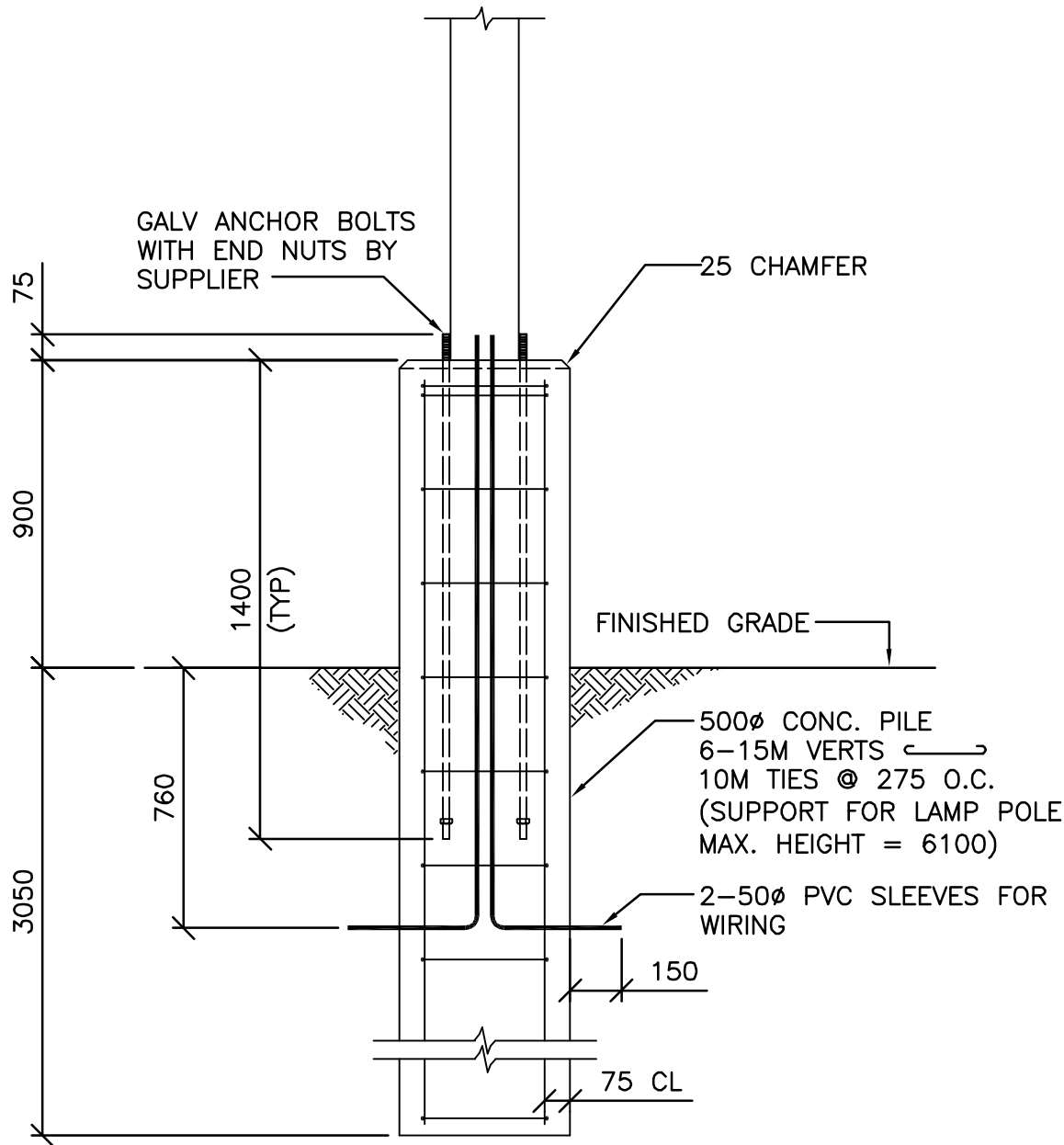
1. PROVIDE LOCKS FOR ALL DISTRIBUTION EQUIPMENT. ALL LOCKS TO BE KEYED ALIKE.



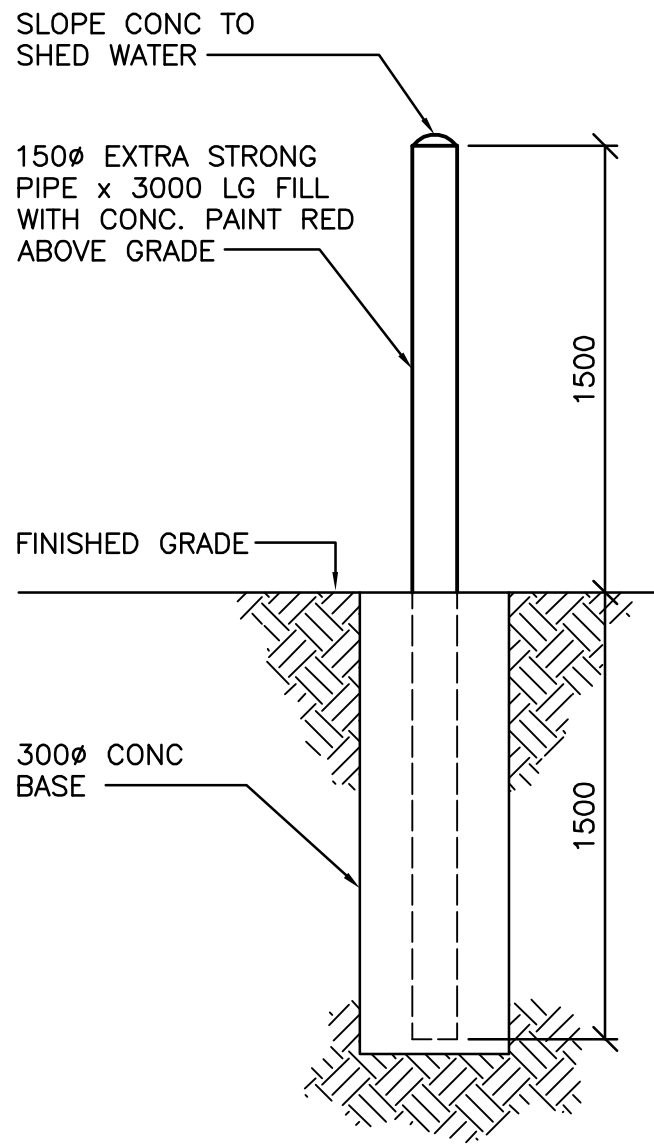
4 TRENCH DETAIL  
E-1 N.T.S.



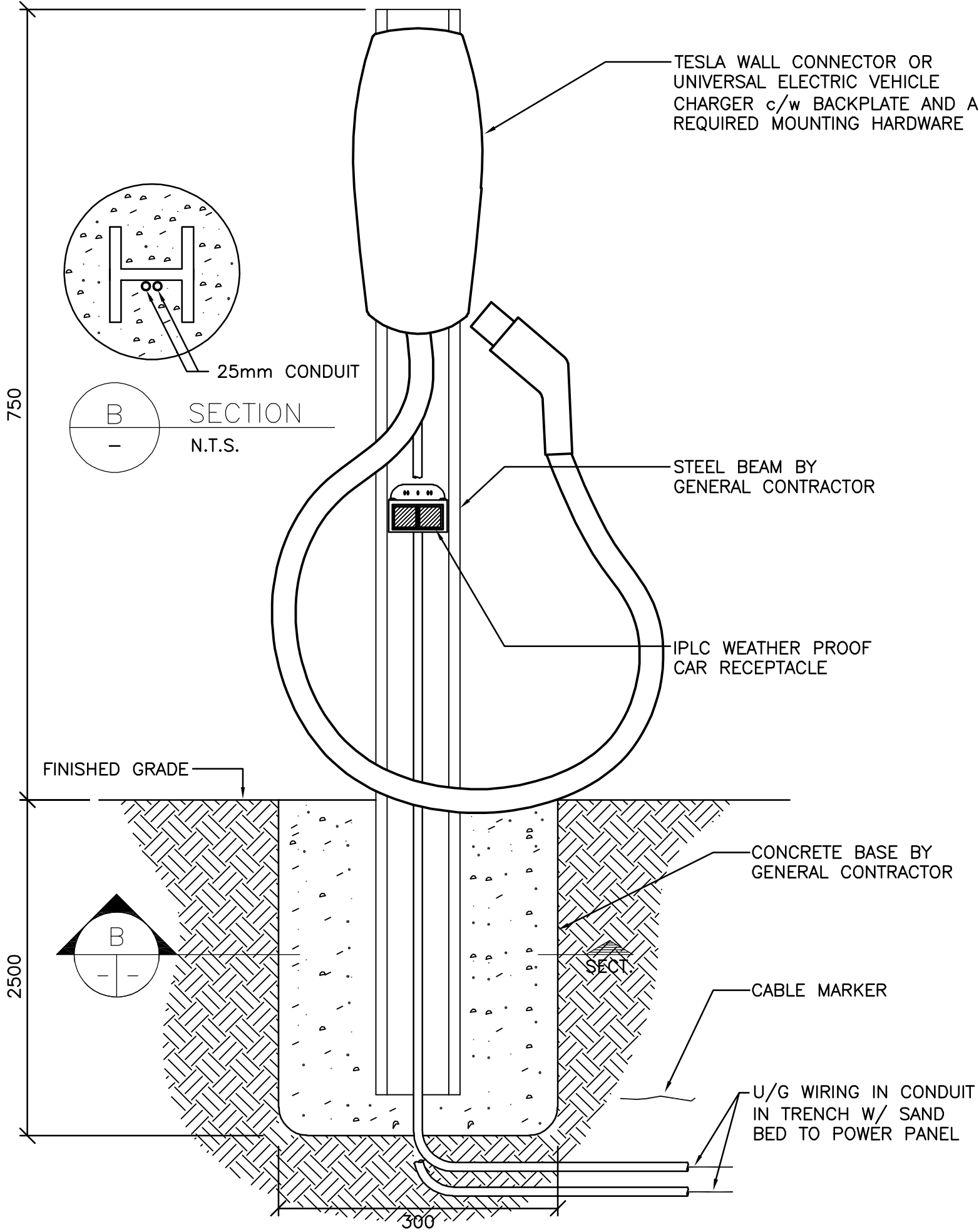
5 IPLC RECEPTACLE I-BEAM MOUNTING DETAIL  
E-1 N.T.S.



2 TYPICAL EXTERIOR LIGHT STANDARD DETAIL  
E-1 N.T.S.



3 TYPICAL BOLLARD DETAIL  
E-1 N.T.S.



6 VEHICLE CHARGER/IPLC RECEPTACLE I-BEAM MOUNTING DETAIL  
E-1 N.T.S.

03	2018.02.16	ISSUED FOR TENDER	HPCC	LK
02	2018.01.22	90% REVIEW	HPCC	LK
01	2017.12.11	65% REVIEW	HPCC	LK
No.	Date	Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision

A	Detail number	A Numéro de détail
B	Sheet number	B Numéro de la feuille
Linear dimensions in millimetres		Dimensions linéaires en millimètres

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
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<b>Parks Canada</b> Strategic Asset Management, Western and Northern Region	<b>Parcs Canada</b> Gestion Stratégique des Biens, Région de l'Ouest et du Nord
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Canada

<b>ENGINEERS GEOSCIENTISTS</b> MANITOBA Certificate of Authorization Stantec Consulting Ltd. No. 1301	<b>PROFESSIONAL ENGINEER</b> 18.02.16 L.KORENBAUM Member 10389
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Project title/Titre du projet  
**RIDING MOUNTAIN NATIONAL PARK  
WASAGAMING MAIN PARKING LOT  
RE-DEVELOPMENT  
WASAGAMING, MANITOBA**

Drawing title/Titre du dessin  
**ELECTRICAL  
SPECIFICATION & DETAILS**

Surveyed by/Arpenté par LK	Drawn by/Dessiné par HPCC	Date 2017-12-11
Designed by/Concept par LK	Reviewed by/Revisé par LK	Scale/Echelle
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Project No./N° du projet ---		Sheet No./N° de la feuille E2 of 2
Drawing Set No./N° de série du dessin		