

ELECTRICAL SPECIFICATIONS

GENERAL CONDITIONS
A. OBTAIN AND PAY FOR PERMITS REQUIRED BY ELECTRICAL SAFETY AUTHORITY AND LOCAL INSPECTION AUTHORITIES FOR THIS WORK.

SCOPE OF WORK
A. COMPLY WITH ALL CONDITIONS OF TENDER DOCUMENTS ISSUED FOR THIS PROJECT.

CONTRACTOR SHALL BE CHARGED A CONSULTANTS FEE. SEE SPECIFICATIONS FOR DETAILS.

ON COMPLETION OF PROJECT AND BEFORE FINAL PAYMENT, SUBMIT TWO (2) AUTOCAD PDF'S AND HARD COPY OF AS-BUILT DRAWINGS WITH ALL CHANGES AND BURIED SERVICES EXACT LOCATIONS NOTED THEREON.

CONTRACTOR SHALL BE CHARGED A CONSULTANTS FEE. GUARANTEE ALL MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER/CONSULTANT.

PROVIDE LAMACOD LABELS (3-PLY) WHITE LETTERED ON BLACK BACKGROUND- 1/4" HIGH LETTERING ON ALL ELECTRICAL EQUIPMENT SUPPLIED, MOUNTED AND/OR CONNECTED BY THIS CONTRACT.

THOROUGHLY CLEAN ALL ELECTRICAL EQUIPMENT DURING CONSTRUCTION AND ON COMPLETION OF CONTRACT.

CONFER WITH ALL TRADES AND ARRANGE EQUIPMENT IN PROPER RELATION WITH OTHERS AND WITH BUILDING CONSTRUCTION AND ARCHITECTURAL FINISHES.

REFER TO ARCHITECTURAL SPECIFICATIONS AND DRAWINGS WHICH ARE PART OF THIS WORK.

OWNER RESERVES RIGHT TO TRIAL AND/OR TEMPORARY USAGE PRIOR TO ACCEPTING INSTALLATION.

PROVIDE ALL MATERIALS, EQUIPMENT, ACCESSORIES, CONSUMABLES, LABOR, SUPERVISION, TOOL SERVICES, ETC. AS REQUIRED FOR COMPLETE AND FULLY FUNCTIONAL SYSTEMS AS DESCRIBED IN THE CONTRACT DOCUMENTS.

PRIOR TO TENDERING, EXAMINE ALL DRAWINGS AND SPECIFICATIONS AND REPORT ALL ANY CONFLICTS, DISCREPANCIES TO THE CONSULTANT FOR CLARIFICATION AND/OR CORRECTION.

COORDINATE AND SCHEDULE WORK WITH OWNER AND OTHER TRADES TO MINIMIZE CONFLICTS, DELAYS, AND DISRUPTION OF EXISTING SERVICES AND OPERATIONS.

DEFINITIONS: FOLLOWING ARE DEFINITIONS OF WORDS FOUND IN THIS SPECIFICATION AND ON ASSOCIATED DRAWINGS.

"CONCEALED" - HIDDEN FROM NORMAL SIGHT IN FURRED - SPACES, SHAFTS, CEILING SPACES, WALLS, UNDERFLOOR, AND PARTITIONS.

"EXPOSED" - ALL ELECTRICAL WORK VISIBLE TO BUILDING OCCUPANTS.

"PROVIDE" - (AND ALL TENSES OF "PROVIDE") SUPPLY AND INSTALL, WIRE AND CONNECT COMPLETE.

"INSTALL" - (AND ALL TENSES OF "INSTALL")-INSTALL, WIRE AND CONNECT COMPLETE, PRODUCTS AND SERVICES SPECIFIED.

ELECTRICAL SPECIFICATIONS (CONTD)

AWG TO FEED FIRST OUTLET.
E. ALL WIRING AND CABLES TO BE COLOUR CODED FOR PHASE AND NEUTRAL IDENTIFICATION AND IN ACCORDANCE WITH OESC.

F. SUPPLY, INSTALL, WIRE AND CONNECT ALL EQUIPMENT SHOWN, SPECIFIED OR MENTIONED.
G. WIRE AND CONNECT MOTORS, SUPPLIED BY OTHERS, AS INDICATED.

H. CONTRACTOR TO CONFIRM CABLE AND CORD LENGTHS.
I. EMT SHALL BE USED FOR WIRING AND CONCEALED WHEREVER POSSIBLE.

J. ALL CONDUCTORS: COPPER WITH THW OR 3-90 INSULATION, MINIMUM #12AWG, UNLESS OTHERWISE NOTED.
K. WIRING SHALL BE CONCEALED IN WALLS OR ABOVE CEILING UNLESS OTHERWISE APPROVED.

JUNCTION BOXES & PULL BOXES
A. JUNCTION AND PULL BOXES: STEEL METAL ENCLOSURE, WELDED CORNERS AND FORMED HINGED COVER SUITABLE FOR LOCKING IN CLOSED POSITION.

B. COVERS WITH 1" (25MM) MINIMUM EXTENSION ALL AROUND, FOR FLUSH-MOUNTED PULL AND JUNCTION BOXES.
C. FIXTURE BOXES: ELECTRO-GALVANIZED STEEL 100MM (4") OCTAGON COMPLETE WITH 10MM (3/8") FIXTURE STUD WHERE NECESSARY.

D. WHERE OUTLET BOXES ARE INSTALLED IN EXTERIOR WALLS AND/OR INSULATED CEILING HAVING ASSOCIATED VAPOUR BARRIERS ON THE WARM SIDE OF THE INSULATION AND WHERE OUTLET BOXES PERFORATE THE VAPOUR BARRIER, PROVIDE ELECTRICAL BOX VAPOUR BARRIERS BEHIND AND AROUND OUTLET BOXES.

E. SWITCHES AND RECEPTACLE BOXES SHALL BE 1104 TYPE FOR RECESSED MOUNTING.
F. BOXES FOR OUTDOOR USE: GALVANIZED CAST FERALLOY COMPLETE WITH NEOPRENE GASKET.

G. BOXES FOR INDOOR USE: CODE GAUGE ELECTRO-GALVANIZED STEEL FOR CONCEAL MOUNTING AND GALVANIZED CAST FERALLOY OR CAST BRUSHED ALUMINUM FOR EXPOSED USE, UNLESS OTHERWISE NOTED.

RACEWAYS
A. WIRING SHALL BE CONCEALED IN WALLS OR ABOVE CEILING UNLESS OTHERWISE APPROVED.

B. EMT SHALL BE USED FOR WIRING AND CONCEALED WHEREVER POSSIBLE. EMT COUPLINGS AND CONNECTORS SHALL BE STEEL SETSCREW CONCRETE TIGHT OR STEEL COMPRESSION RAIN TIGHT.

C. ELECTRICAL METALLIC TUBING (EMT): GALVANIZED ELECTRICAL METALLIC TUBING TO CSA C22.2 NO. 83, COMPLETE WITH AN INTERIOR COATING, FACTORY MADE BENDS, WHERE SITE BENDING IS NOT POSSIBLE, AND JOINTS AND TERMINATIONS MADE WITH STEEL COUPLERS AND SET SCREW TYPE CONNECTORS WITH INSULATED THROATS, CONCRETE TIGHT WHERE REQUIRED.

D. RIGID NON-METALLIC (PVC) CONDUIT: RIGID PVC CONDUIT TO CSA C22.2, RT-4 RATED RIGID PVC (UNPLASTICISED) CONDUIT, COMPLETE WITH HEAT GUN BENDS IN CONDUIT TO 2"(50MM) DIAMETER, SOLVENT WELD JOINTS, FACTORY MADE EXPANSION JOINTS WHERE REQUIRED, AND TERMINATIONS MADE WITH PROPER AND SUITABLE CONNECTORS AND ADAPTERS.

E. FLEXIBLE STEEL OR ALUMINUM CONDUIT AND LIQUID-TIGHT FLEXIBLE METAL CONDUIT.
F. FISHCORD: POLYPROPYLENE.

G. RUN CONDUITS PARALLEL OR PERPENDICULAR TO BUILDING LINES. DO NOT PASS CONDUITS THROUGH STRUCTURAL MEMBERS EXCEPT AS INDICATED, RUN CONDUITS IN FLANGED PORTION OF STRUCTURAL STEEL.

PANELBOARDS AND BREAKERS (EXISTING)
A. USE EXISTING PANELBOARD(S) TO CONNECT NEW CIRCUITS. PROVIDE NEW BREAKERS AS REQUIRED. COORDINATE WITH OWNER.

B. BREAKERS: BOLT-ON MOULDED CASE CIRCUIT BREAKERS; THERMAL MAGNETIC UNLESS OTHERWISE INDICATED, QUICK-MAKE, QUICK-BREAK TYPE, FOR MANUAL AND AUTOMATIC OPERATIONS WITH TEMPERATURE COMPENSATION FOR 40 DEG C.

C. MAIN BREAKERS: MINIMUM 22,000A RMS SYMMETRICAL INTERRUPTING @ 240VAC, UNLESS OTHERWISE NOTED. WHEN BREAKER IS TRIPPED AUTOMATICALLY, HANDLE TO ASSUME POSITION BETWEEN ON AND OFF. MINIMUM INTERRUPTING RATING SHALL NOT BE LESS THAN SWITCHBOARD OR PANEL RATING WHEREIN BREAKERS ARE INSTALLED.

FIXTURE SCHEDULE

NOTES:
1. CONTRACTOR AND FIXTURE SUPPLIER ARE RESPONSIBLE TO PROVIDE ALL MOUNTING HARDWARE TO SUITE EXISTING POLES.

2. LIGHT EMITTING DIODES (LED) WITH CURRENT TECHNOLOGY, MINIMUM COLOUR TEMPERATURE OF 3000K, A MINIMUM CRI OF 80, A RATED LIFE OF 50,000 TO 70,000 HOURS BASED ON 70% LUMEN DEPRECIATION LEVEL AND HEAT SINKS TO REMOVE HEAT FROM THE BOTTOM OF THE SEMICONDUCTORS.

3. MANUFACTURER TO NOTE ON SHOP DRAWINGS THAT DRIVERS, AND CONTROLS ARE ALL COMPATIBLE WITH EXISTING CIRCUITING.

4. CONTRACTOR TO CONFIRM VOLTAGES ON SITE PRIOR TO RELEASE.

5. ALL FIXTURES SHALL BE COMPATIBLE WITH OUTDOOR RATED EMBEDDED SMART SENSOR FOR WIRELESS LIGHTING CONTROL FOR BOTH MOTION AND DAYLIGHT BASED CONTROL OF 0-10VDC DIMMABLE OUTDOOR AREA, UNLESS OTHERWISE NOTED. INCLUDE WITH EACH FIXTURE EMBEDDED SMART SENSOR UNLESS OTHERWISE NOTED (NIGHT RSDGR 348 IN NA 02 OR APPROVED EQUIVALENT).

Table with 4 columns: TYPE, DESCRIPTION, LAMPS, MTG HT. Includes items A.1 LED AREA LUMINAIRE, A.2 LED AREA LUMINAIRE, B 4" DIA. LED CYLINDER, C LED LANDSCAPE SPOT LIGHT, D LED AREA LUMINAIRE, E LED BOLLARD.

ELECTRICAL DRAWING LIST

Table with 2 columns: E000 ELECTRICAL DRAWING LIST, LEGEND, NOTES, SCHEDULES AND KEY PLAN; E100 ELECTRICAL DEMOLITION SITE PLAN LIGHTING; E101 ELECTRICAL NEW SITE PLAN LIGHTING

LEGEND

Table with 3 columns: SYMBOL, DESCRIPTION, MTG HT. Includes symbols for POLE MOUNTED LIGHT FIXTURE, WALL MOUNTED LIGHT FIXTURE, BOLLARD LIGHT, POT LIGHT, FLOOD LIGHT, POLE MOUNTED FLOOD LIGHT, STONE PILLAR LANDSCAPE LIGHTING, LIGHTING CONTACTOR, PHOTO SENSOR, TIME CLOCK.

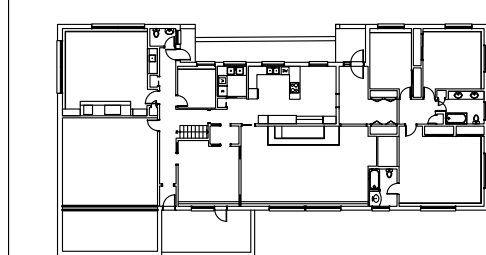
GENERAL NOTES

- 1. DO NOT SCALE DRAWINGS FOR INSTALLATION PURPOSES. OBTAIN ALL DIMENSIONS FROM ARCHITECTURAL PLANS, MANUFACTURER'S SHOP DRAWINGS, AND ON SITE INSPECTIONS.
2. PRIOR TO INSTALLATION OF BOXES AND LIGHTING FIXTURES IN WALLS OR SOFFITS, VERIFY THAT NO INTERFERENCES EXIST.
3. CIVIL AND ELECTRICAL TRADES SHALL WORK IN CONJUNCTION WITH ONE ANOTHER SO AS TO AVOID INTERFERENCES BETWEEN INSTALLATIONS.

DEMOLITION NOTES

- 1. ELECTRICAL SYSTEMS SHOWN ON DEMOLITION PLANS ARE BASED ON INFORMATION OBTAINED FROM ORIGINAL CONSTRUCTION CONTRACT/TENDER DOCUMENTS. THESE DRAWINGS ARE NOT BASED ON "AS-BUILT RECORDS" OR ON EXHAUSTIVE FIELD MEASUREMENT AND ARE PROVIDED TO ASSIST THE CONTRACTOR IN DETERMINING THE EXTENT OF WORK REQUIRED.
2. ELECTRICAL DRAWINGS DO NOT IDENTIFY EVERY ELECTRICAL EQUIPMENT SUCH AS LIGHTING, RECEPTACLES, SWITCHES, SYSTEMS DEVICES ETC. IN EXISTING AREAS OF DEMOLITION AND WHERE RENOVATIONS WILL TAKE PLACE.

KEY PLAN: LEVEL X



CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS.

REVISIONS

Table with 3 columns: NO., DESCRIPTION, DATE. Shows two revisions: 1 ISSUED FOR 90% REVIEW (2022/05/18) and 2 ISSUED FOR SITE PLAN APPROVAL (2022/05/30).



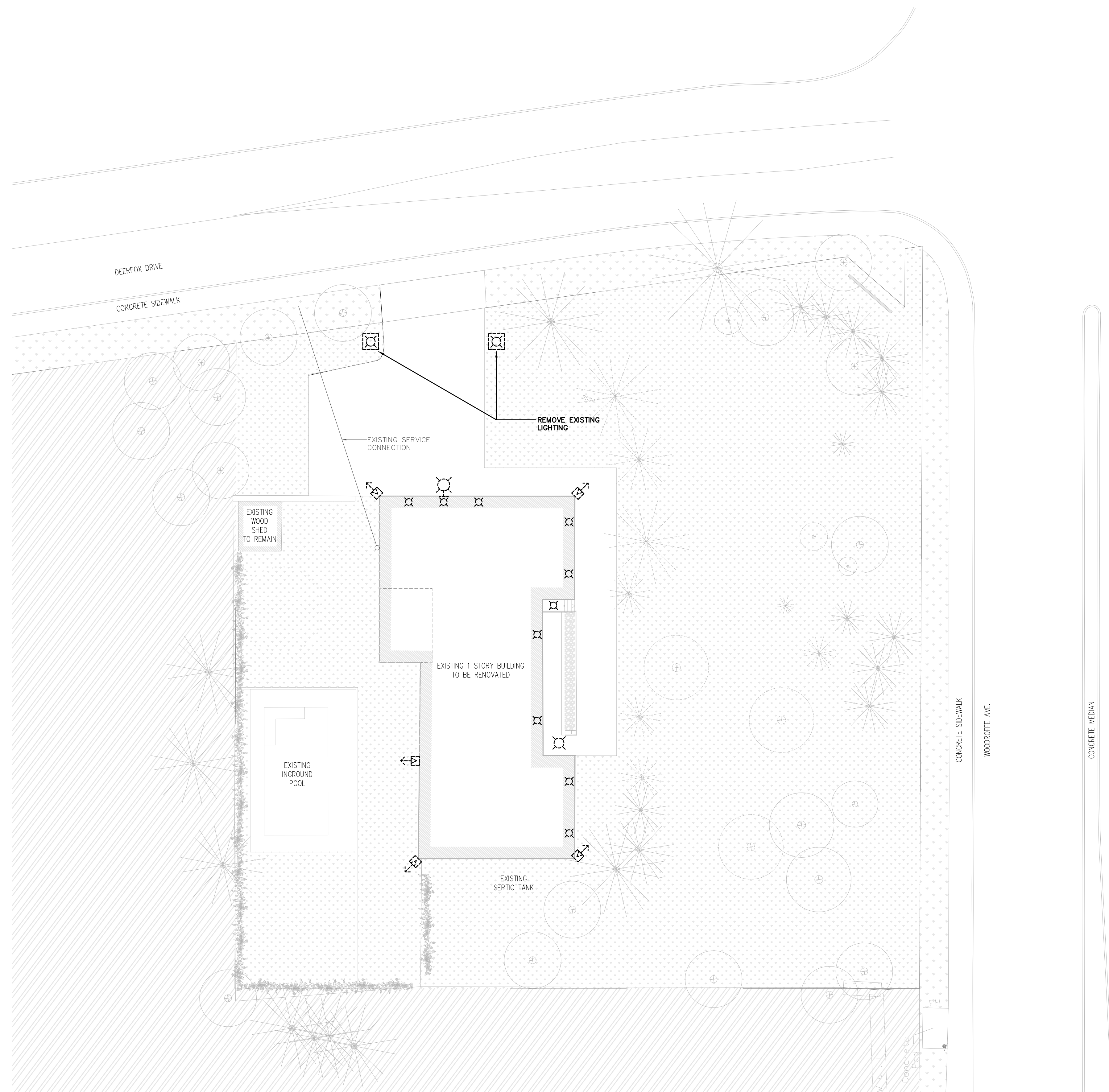
PROJECT NORTH
DRAWN CM/TP
CHECKED SB
DATE PRINTED

3150 WOODROFFE DR.
EX-HALO SPA

ADDRESS: 3150 WOODROFFE DRIVE, OTTAWA, ONTARIO.
DRAWING TITLE

ELECTRICAL DRAWING LIST
LEGEND NOTES AND
SCHEDULES

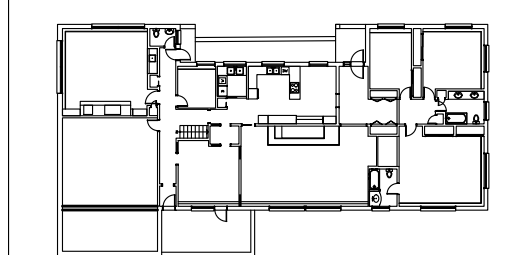
SCALE AS SHOWN
DRAWING NO.: E000
PROJECT NO.: 003-22



**DEMOLITION NOTES**

1. DISCONNECT AND REMOVE EXISTING LIGHTING AS INDICATED ON DRAWING.

KEY PLAN: LEVEL X

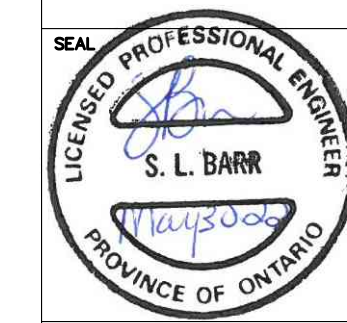


TRUE NORTH

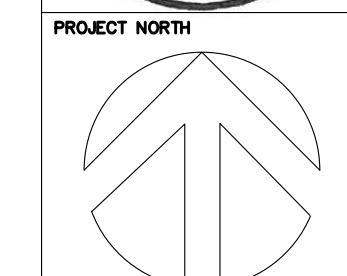
CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES OR DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.  
DO NOT SCALE DRAWINGS.

**REVISIONS**

NO.	DESCRIPTION	DATE
1	ISSUED FOR 90% REVIEW	2022/05/19
2	ISSUED FOR SITE PLAN APPROVAL	2022/05/30



NOT TO BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.



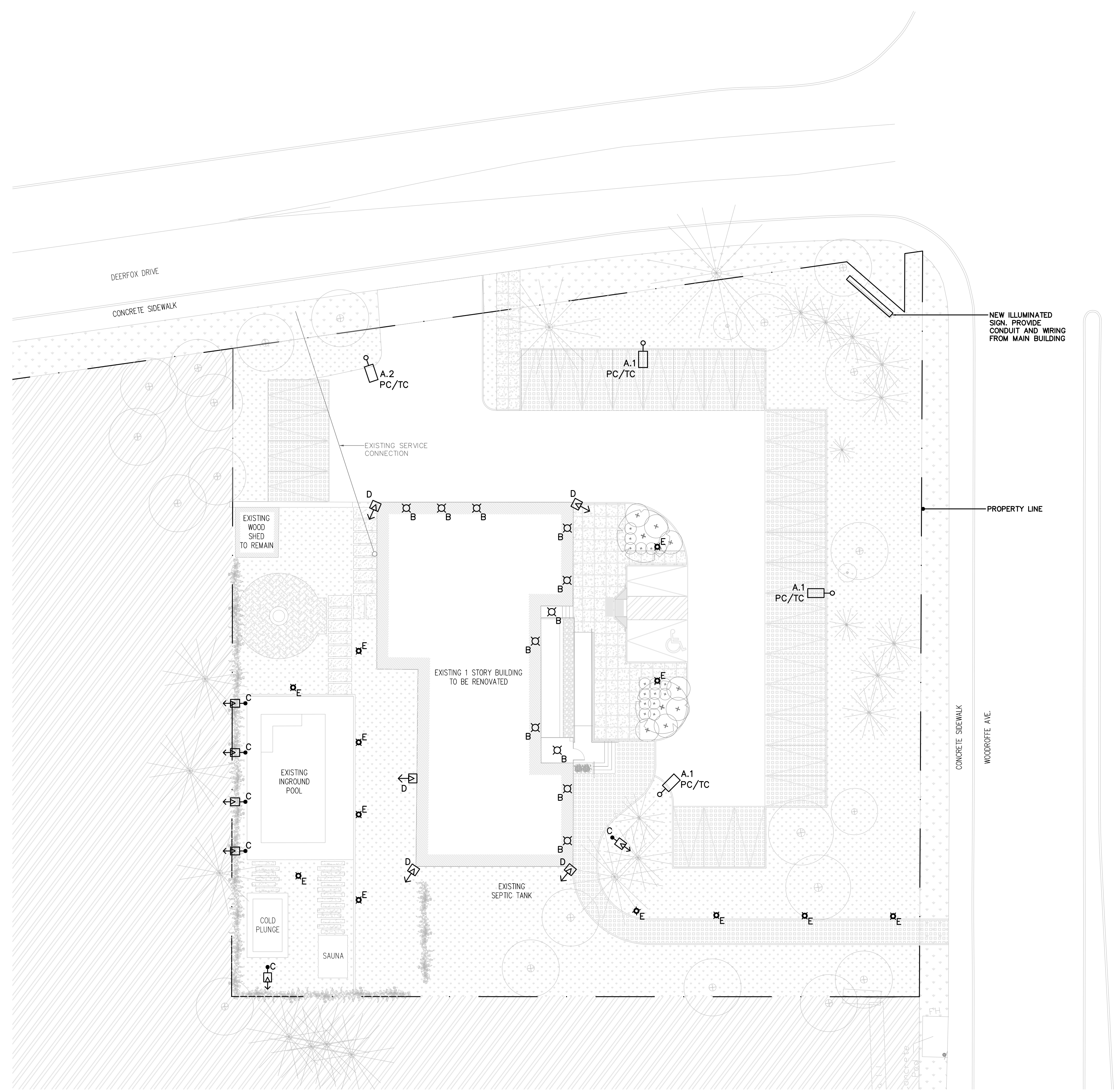
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DRAWING TITLE  
**ELECTRICAL DEMOLITION SITE  
PLAN LIGHTING**

1 DEMOLITION LIGHTING SITE PLAN  
E100 / 1:200

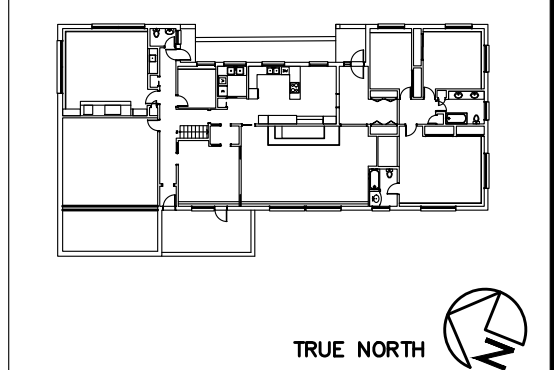


**NEW NOTES**

1. PROVIDE NEW SITE LIGHTING AS SHOWN IN BOLD. CONNECT TO EXISTING PANEL. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS, FINISHES AND MOUNTING HEIGHTS.
2. CONNECT NEW ILLUMINATED SIGN. PROVIDE CONDUIT, WIRING AND NEW BREAKER AS REQUIRED IN THE EXISTING PANEL TO MAKE THE NEW CONNECTION.

1 NEW LIGHTING SITE PLAN  
E101 1:200

KEY PLAN: LEVEL X



CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES OR DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.  
DO NOT SCALE DRAWINGS.

REVISIONS		
NO.	DESCRIPTION	DATE
1	ISSUED FOR 90% REVIEW	2022/05/18
2	ISSUED FOR SITE PLAN APPROVAL	2022/05/30



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DRAWING TITLE

ELECTRICAL NEW SITE PLAN  
LIGHTING