

ELECTRICAL SPECIFICATIONS:

1. EXAMINE SITE AND CONDITIONS
  - 1.1. EXAMINE THE SITE, EXISTING BUILDING AND THE LOCAL CONDITIONS AFFECTING THE WORK. NO ALLOWANCE WILL BE MADE LATER FOR ANY EXPENSES INCURRED THROUGH THE FAILURE TO MAKE THESE EXAMINATIONS OR TO REPORT ANY SUCH DISCREPANCIES IN WRITING TO THE CONSULTANT.
  2. CUTTING AND PATCHING
    - 2.1. ALL CUTTING AND PATCHING REQUIRED BY THE SUBCONTRACTOR SHALL BE PERFORMED BY THE SUBCONTRACTOR. ALL SUCH WORK SHALL BE DONE BY TRADESMEN SKILLED IN AND CERTIFIED FOR THIS PARTICULAR TRADE.
    - 2.2. PROVIDE FIRE BARRIERS AROUND ALL COMPONENTS IN HOLES WHICH PENETRATE FIRE SEPARATIONS. THE FIRE BARRIER MEDIUM PROVIDED SHALL MAKE THE FIRE SEPARATION EQUAL TO OR BETTER THAN THE ONE WHICH WAS CUT AWAY. ALL MATERIALS SHALL BE CSA APPROVED AND UL LISTED.
    - 2.3. PROVIDE ACCESS PANELS AND DOORS REQUIRED FOR THE WORK OF THIS DIVISION.
    - 2.4. WHERE SLABS AND FOUNDATION WALLS ARE TO BE CORE-DRIILLED AND OPENINGS TO BE CUT, ALL LOCATIONS SHALL BE X-RAYED PRIOR TO DRILLING OR SAWCUTTING.
    - 2.5. ALL X-RAYING SHALL BE DONE AFTER 21:00 HOUR AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION. ONLY PERSONNEL QUALIFIED IN THE USE OF THE TYPE OF EQUIPMENT REQUIRED TO X-RAY THE SAWCUTS OR DRILLING SHALL BE PERMITTED TO PERFORM THIS WORK ON THE SITE. NO ALLOWANCE WILL BE MADE LATER FOR EXPENSES INCURRED THROUGH THE FAILURE OF PERFORMING THESE X-RAYS.
    - 2.6. PROVIDE AMPLE NOTICE AND COORDINATE THIS WORK WITH LANDLORD FOR TIME, DURATION AND LOCATIONS REQUIRED AND ADHERE TO THE LANDLORDS REQUIREMENTS. NO SAWCUTS OR DRILLING SHALL PROCEED WITHOUT PRIOR WRITTEN CONSENT OF THE LANDLORD. RETAIN AND PAY FOR THE SERVICES OF BUILDING STRUCTURAL CONSULTANT, FOR REVIEWING AND APPROVING BUILDING STRUCTURE TO BE CUT.
    - 2.7. FOR WORK TO BE CARRIED OUT IN OTHER TENANT'S SPACE, GENERAL CONTRACTOR SHALL INCLUDE COSTS OF SECURITY GUARD SERVICES AS REQUIRED BY THE LANDLORD.
    - 2.8. ALL NOISE RELATED CONSTRUCTION ACTIVITIES SUCH AS DRILLING AND FLOOR CORING SHALL BE RESTRICTED TO AFTER REGULAR WORKING HOURS AND APPROVED BY THE LANDLORD. WORKING HOURS ARE FROM 8:00 AM TO 6:00 PM.
3. CODES, PERMITS, FEES AND INSPECTIONS
  - 3.1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL BY-LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.
  - 3.2. ALL EQUIPMENT SUPPLIED SHALL CONFORM TO THE REGULATIONS OF CSA AND THE ONTARIO HYDRO.
  - 3.3. PROVIDE ALL NECESSARY NOTICES, OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES TO ARRANGE FOR INSPECTION OF ALL WORK, FURNISH FINAL UNCONDITIONAL CERTIFICATE OF APPROVAL UPON COMPLETION OF THE WORK.
  4. GUARANTEE
    - 4.1. THIS SUBCONTRACTOR SHALL GUARANTEE ALL WORK AND APPARATUS INSTALLED UNDER HIS CONTRACT AGAINST ALL DEFECTS OF WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF HIS WORK BY THE OWNER AND SHALL MAKE GOOD ALL DEFECTS DEVELOPING DURING SUCH TIME WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
  5. SHOP DRAWINGS
    - 5.1. SUBMIT SHOP DRAWINGS AS REQUESTED BY THE CONSULTANT. SHOP DRAWINGS SHALL INDICATE CLEARLY THE MATERIALS AND/OR EQUIPMENT ACTUALLY BEING SUPPLIED, ALL DETAILS OF CONSTRUCTION, ACCURATE DIMENSIONS, CAPACITY, OPERATING CHARACTERISTICS AND PERFORMANCE.
  6. IDENTIFICATION AND LABELING
    - 6.1. IN EACH JUNCTION AND OUTLET BOX, PROPERLY IDENTIFY THE BRANCH WIRING WITH CIRCUIT TAGS.
    - 6.2. REVISE EXISTING DIRECTORY OF PANELBOARDS TO THE CONSULTANT'S SATISFACTION, CLEARLY INDICATING ALL BRANCH LOADS ADDED OR REVISED. ALL PANEL DIRECTORIES (REVISED OR NEW) SHALL BE TYPED WRITTEN.
    - 6.3. PROVIDE IDENTIFICATION LAMACOID NAMEPLATES WHICH ARE CLUE ATTACHED FOR THE NEW EQUIPMENT. IDENTIFICATION TO INCLUDE NAME OF THE EQUIPMENT / NAME OF THE SUPPLY SOURCE, RATED LOAD AMP (A) OR HORSEPOWER (HP) – VOLTAGE (V) – NUMBER OF PHASE (Ø) – NUMBER OF WIRE (W)
 

E.G. PANEL C (½")  
 FED FROM PANEL SEP (3/8")  
 100A – 120/208V – 3Ø – 4W (3/8")
    - 6.4. NAMEPLATES TO BE A BLACK BACKGROUND WITH WHITE ENGRAVED LETTERS FOR BUILDING POWER AND RED BACKGROUND WITH WHITE ENGRAVED LETTERS FOR GENERATOR OR UPS POWER. MINIMUM SIZE LETTERS 3/8". SUBMIT WORDINGS OF NAMEPLATES FOR APPROVAL PRIOR TO MANUFACTURE.
    - 6.5. NAMEPLATES TO BE PROVIDED FOR SWITCHBOARDS, DISTRIBUTION PANELS, BRANCH PANELBOARDS, DISCONNECTS, TRANSFORMERS, STARTERS, WIRERAYS, POWER SUPPLIES AND OTHER MAJOR SYSTEMS COMPONENTS.
    - 6.6. FOR EACH NEWLY INSTALLED AND EXISTING RECEPTACLE AND SYSTEM FURNITURE CONNECTIONS IN THE RENOVATED SPACE, PROVIDE CIRCUIT IDENTIFICATION ON THEIR FACEPLATES WITH DYMO-TAPE OR APPROVED EQUIVALENT INDICATING PANEL DESIGNATION AND CIRCUIT NUMBER.
  7. RECORD DRAWINGS
    - 7.1. PROVIDE ONE SET OF HARD COPY OF "ISSUED FOR CONSTRUCTION" ELECTRICAL DRAWINGS AT SITE AT ALL TIME. AS JOB PROGRESSES, MARK UP THE DRAWINGS IN RED TO ACCURATELY INDICATE INSTALLED WORK. UPON COMPLETION OF THIS WORK, HAND THESE OVER TO THE CONSULTANT FOR REVIEW AND APPROVAL. INCORPORATE APPROVED CHANGES ONTO AUTOCAD AS-BUILT DRAWINGS AND SUBMIT THEM TO THE CONSULTANT.
  8. ADDITIONAL WORK AND CHANGES
    - 8.1. NO ADDITIONAL MONEY OVER AND ABOVE THE CONTRACT PRICE. WILL BE PAID FOR EXTRA WORK UNLESS A WRITTEN ORDER, APPROVED BY THE OWNER. ELECTRICAL CONTRACTOR SHALL SUBMIT A QUOTATION WITH A COMPLETE BREAKDOWN OF MATERIALS, LABOUR AND MARKUPS, WHEN SUBMITTING LUMP SUM PRICES FOR EXTRAS AND CREDITS.
  9. MATERIALS AND STANDARDS
    - 9.1. MATERIALS AND METHODS OF INSTALLATION NOT SPECIFIED
10. ALTERNATIVES AND SUBSTITUTIONS
  - 10.1. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN APPROVAL.
  - 10.2. ANY ALTERNATIVE SUGGESTED SHALL BE ACCOMPANIED BY ALL DATA REQUIRED TO EVALUATE THE ALTERNATIVE. ALTERNATIVES SHALL BE ACCEPTED ONLY AT THE DIRECTION OF THE CONSULTANT.
  - 10.3. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE AND EXTRA COST OR LIABILITY OF ALL SUBSTITUTIONS AND ALTERNATIVES.
  11. PROTECTION
    - 11.1. PROTECT ALL EQUIPMENT FROM WEATHER AND CONSTRUCTION DEBRIS UNTIL SUBSTANTIAL COMPLETION IS ACKNOWLEDGED AND BUILDING IS TURNED OVER TO OWNER.
  12. PREMIUM TIME
    - 12.1. ALL WORK WHICH SHALL REQUIRE SHUTDOWN OF ELECTRICAL SERVICES AND LIFE SAFETY SYSTEM, AND NOISE-RELATED CONSTRUCTION ACTIVITIES SHALL BE PERFORMED ON PREMIUM TIME. INCLUDE IN THE TENDER PRICE FOR SUCH WORK.
  13. BASE BUILDING REQUIREMENTS
    - 13.1. ALL CONSTRUCTION WORK IN THE BUILDING MUST BE CARRIED OUT IN STRICT ACCORDANCE WITH LANDLORDS RULES AND REGULATIONS OF THE LEASEHOLD IMPROVEMENT MANUAL AND BE CARRIED THROUGH PROPERTY MANAGEMENT. OBTAIN A COPY OF SUCH RULES AND REGULATIONS FROM PROPERTY MANAGEMENT PRIOR TO TENDER CLOSE.
    - 13.2. WHEN NECESSARY TO RUN ELECTRICAL CORDS IN COMMON AREAS, CORDS TO BE STRUNG OVERHEAD IN CEILING.
    - 13.3. DELIVERIES TO BE ARRANGED THROUGH BUILDING SUPERINTENDENT OF ANY WORK SCHEDULED AFTER NORMAL BUSINESS HOURS OR ON THE WEEKEND SO HE MAY NOTIFY SECURITY TO ALLOW CONTRACTORS ENTRANCE TO THE BUILDING.
    - 13.4. ALL ELECTRICAL WORK TO BE UNDERTAKEN BY QUALIFIED TRADESMEN WHO ARE TO SUPPLY THEIR TICKET NUMBER TO THE BUILDING SUPERINTENDENT PRIOR TO COMMENCING WORK. UNDER NO CIRCUMSTANCES SHALL AN APPRENTICE BE PERMITTED TO WORK IN THE BUILDING UNLESS DIRECTLY SUPERVISED BY A QUALIFIED TRADESMAN ON SITE.
    - 13.5. THE SUBCONTRACTOR SHALL BE IN GOOD STANDING WITH THE WORKMEN'S COMPENSATION BOARD AND CARRY INSURANCE AS SPECIFIED BY THE ONTARIO CONTRACTORS ASSOCIATION.
  14. WIRING METHODS
    - 14.1. POWER AND LIGHTING DISTRIBUTION SYSTEMS:
      - 14.1.1. UNLESS OTHERWISE INDICATED, WIRES IN EMT CONDUITS WITH WATERTIGHT COUPLINGS FOR FEEDERS AND BRANCH WIRING. A90 CABLE SHALL ONLY BE USED IN DRYWALL CEILING, WITHIN DRYWALL PARTITIONS AND FOR FIXTURE DROPS FROM LIGHTING JUNCTION BOXES. MAXIMUM AC-90 CABLE LENGTH USED SHALL NOT EXCEED 15'.
      - 14.1.2. WIRING BETWEEN NEW POWER JUNCTION BOXES IN THE CEILING AND INCLUDING ALL HOME RUN TO BRANCH PANEL – STRICTLY WIRES IN EMT CONDUITS.
      - 14.1.3. WIRING BETWEEN NEW LIGHTING JUNCTION BOXES IN CEILING AND INCLUDING HOME RUN TO BRANCH PANEL – WIRES IN EMT CONDUITS.
    - 14.2. USE LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT COMPLETE WITH SEPARATE GROUND WIRE FOR CONNECTION TO MOTORS, SECONDARY TRANSFORMERS, ETC.
    - 14.3. TELEPHONE AND DATA SYSTEMS: FISH WIRE IN EMT CONDUITS AND SURFACE METAL RACEWAYS. MINIMUM SIZE CONDUIT SHALL BE 3/4". CABLE TRAY SYSTEM AS INDICATED.
    - 14.4. ALL WIRING IN FINISHED AREAS SHALL BE INSTALLED CONCEALED. NO EXPOSED WIRING IN FINISHED AREAS SHALL BE PERMITTED.
  15. REMOVAL
    - 15.1. REMOVE ALL REDUNDANT WIRING INCLUDING VOICE, DATA AND POWER WIRING LEFT BY THE PREVIOUS TENANT IN CEILING SPACE. REMOVE VOICE AND DATA JACKS, BOXES AND PLATES WHERE CABLES ARE REMOVED. GENERAL CONTRACTOR TO PATCH, PRIME AND PAINT SUCH HOLES IN DRYWALL.
    - 15.2. REMOVE ALL EXISTING WIRING DEVICES, WIRING AND CONDUITS IN WALLS OR CEILING WHICH ARE TO BE REMOVED.
    - 15.3. ALL SYSTEMS AND COMPONENTS WHICH ARE AFFECTED BY THE RENOVATION SHALL REMAIN OPERATIONAL SUBSEQUENT TO PROJECT COMPLETION.
    - 15.4. RELAMP, REFURBISH, REPAIR, REPLACE AS NECESSARY ALL DEFECTIVE PARTS OF ALL EXISTING LUMINAIRES DESIGNATED TO REMAIN AND BE REUSED.
  16. WIRE AND CABLE
    - 16.1. UNLESS OTHERWISE NOTED ON DRAWINGS, CONDUCTORS SHALL BE OF COPPER, RATED MINIMUM #12, 600 VOLTS, 90 DEG. C. USE STRANDED CONDUCTORS FOR WIRE SIZES #12 AWG OR LARGER.
    - 16.2. WIRING SHALL BE CONTINUOUS WITHIN RACEWAYS AND SPLICES SHALL BE PERMITTED ONLY AT OUTLETS AND JUNCTION BOXES.
  17. WIRING DEVICES
    - 17.1. SPECIFICATION GRADE, WHITE COLOR, DECORA STYLE FOR RECEPTACLES AND COVERPLATES.
    - 17.2. LIGHT SWITCH:
 

SINGLE POLE SPECIFICATION GRADE ROCKER SWITCH, 20A, 347V, P & S 2621347-W.

SINGLE POLE, SPECIFICATION GRADE, ROCKER SWITCH, 20A, 120V, P & S 2621-W.

RECEPTACLE:

DUPLEX, 15A, 125VAC, SPECIFICATION GRADE, P & S DECORA STYLE 26252-W.



























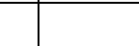
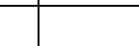
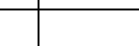
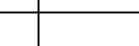








DUPLEX, 15/20A, 125VAC, SPECIFICATION GRADE, P & S DECORA STYLE 26352-W. NEMA 5-20RA.
    - 17.3. VERIFY MOUNTING HEIGHT AND LOCATIONS OF ALL WIRING DEVICES WITH INTERIOR DESIGNER PRIOR TO ROUGH-IN.
    - 17.4. WHERE LIGHTING SWITCHES, DIMMERS AND FAN SWITCH ARE SHOWN GROUPED TOGETHER, THEY SHALL BE INSTALLED IN SAME COMMON GANG COVERPLATE AND BOX WHERE POSSIBLE WITHOUT BREAKING OFF HEAT SINKS. PROVIDE NECESSARY BARRIER IN OUTLET BOX TO SEPARATE 120V
18. BASE BUILDING LIGHTING
  - 18.1. ALL NEW AND RELOCATED LIGHTING FIXTURES IN RENOVATED AREA SHALL BE SUPPORTED BY APPROVED CHAINS WHICH SHALL ALLOW THE FIXTURES TO BE SUPPORTED INDEPENDENT OF THE CEILING SYSTEM. SEE "LIGHT FIXTURE SUPPORT DETAIL".
19. MANUAL MOTOR STARTERS
  - 19.1. AS INDICATED, PROVIDE SINGLE PHASE MANUAL MOTOR STARTERS OF APPROPRIATE SIZE AND TYPE, INCLUDING:
    - 19.1.1. QUICK MAKE AND BREAK SWITCHING MECHANISM.
    - 19.1.2. OVERLOAD HEATER WITH MANUAL RESET AND TRIP INDICATION SIZED TO MATCH THE NAMEPLATE FULL LOAD CURRENT OF THE MOTOR.
    - 19.1.3. INTEGRAL NEON PILOT LIGHT.
    - 19.1.4. IN FINISHED AREAS, STARTERS SHALL BE FLUSH MOUNTED WITH STAINLESS STEEL COVERS.
  20. CLOSED OUT DOCUMENTS
    - 20.1. AT THE END OF THE PROJECT, SUBMIT 3 COPIES OF CLOSED OUT DOCUMENTS CONTAINING NEW EQUIPMENT SHOP DRAWINGS REVIEWED BY THE CONSULTANT, HYDRO INSPECTION CERTIFICATE, WARRANTY CERTIFICATE, FIRE ALARM VERIFICATION CERTIFICATE WITH DETAILED TECHNICIANS TEST REPORT, AS-BUILT DRAWINGS, PERMIT CLOSURE NOTICE.

SHALL AT LEAST EQUAL TO OR MATCH WITH BASE BUILDING.

FROM 347V.

**LEGEND**

**NOTES:** EQUIPMENT SHOWN DOTTED [---] ARE EXISTING TO BE REMOVED. EQUIPMENT SHOWN [----] ARE EXISTING TO REMAIN. EQUIPMENT SHOWN SOLID [—] ARE NEW OR RELOCATED.

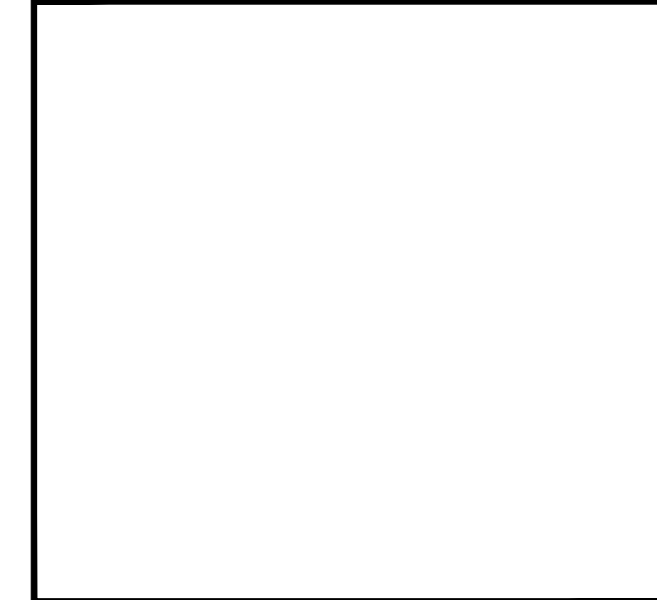
-  NEW OR RELOCATED FLUORESCENT OR LED LUMINAIRE REFER TO LUMINAIRE SCHEDULE. (N/L DENOTES NIGHT LIGHT.)
-  EXISTING FLUORESCENT OR LED LUMINAIRE
-  EXISTING TO BE REMOVED FLUORESCENT OR LED LUMINAIRE
-  EMERGENCY LIGHTING REMOTE HEAD(S).
-  EMERGENCY LIGHTING BATTERY UNIT C/W HEAD(S).
-  INCANDESCENT, PL OR LED LUMINAIRE.
-  EXIT LIGHTS.
-  SELF-POWER EXIT LIGHTS.
-  SINGLE POLE, SINGLE THROW SWITCH. (F DENOTES FAN, S DENOTES 3-WAY, M DENOTES MASTER)
-  DIMMER
-  CEILING MOUNTED OCCUPANCY SENSOR WATTSTOPPER DT-300 OR EQUAL. (CONFIRM WIRING WITH MANUFACTURER'S PRINTED BROCHURE).
-  UNIVERSAL VOLTAGE POWER PACK. WATTSTOPPER B2-150 UNLESS OTHERWISE NOTED.
-  120V CONNECTION TO EQUIPMENT.
-  208V 1ø CONNECTION TO EQUIPMENT.
-  DISCONNECT SWITCH.
-  15A-125V 2P-3W GROUNDED DUPLEX GENERAL PURPOSE RECEPTACLE, WALL MOUNTED.
-  15A-125V 2P-3W GROUNDED DUPLEX RECEPTACLE, WALL MOUNTED.
-  20A-125V 2P-3W (5-20RA) GROUNDED DUPLEX RECEPTACLE, WALL MOUNTED.
-  30A-250V 2P-3W (5-20RA) GROUNDED QUADRAPLEX RECEPTACLE, WALL MOUNTED.
-  30A-125/250V 3P-4W (14-30RA) GROUNDED SIMPLEX RECEPTACLE, WALL MOUNTED.
-  15A-125V 2P-3W GROUNDED DUPLEX RECEPTACLE IN OUTLET BOX MOUNTED ON CEILING SLAB.
-  WALL MOUNTED COMBINATION DATA/VOICE OUTLET C/W FISH WIRE & WHITE FACEPLATE. UNLESS OTHERWISE NOTED, PROVIDE 1"Ø FROM OUTLET TO ACCESSIBLE CEILING SPACE.
-  WALL MOUNTED TELEPHONE OUTLET C/W FISH WIRE & WHITE FACEPLATE. UNLESS OTHERWISE NOTED, PROVIDE 1"Ø FROM OUTLET TO ACCESSIBLE CEILING SPACE.
-  SECURITY JUNCTION BOX.
-  CARD READER.
-  DENOTES MAGNETIC DOOR CONTACT.
-  DENOTES ELECTRIC STRIKE.
-  DENOTES REQUEST FOR EXIT SENSOR.
-  WALL MOUNTED DOUBLE GANG MUD RING. UNLESS OTHERWISE NOTED, PROVIDE 2"Ø FROM MUD RINGS TO ACCESSIBLE CEILING SPACE.
-  DENOTES HEAT DETECTOR.
-  CH DENOTES MOUTNED 6" ABOVE COUNTER TOP OR SPLASHBACK.
-  IG DENOTES ISOLATED GROUND.
-  GFI DENOTES GROUND FAULT INTERRUPTOR.
-  +42" DENOTES TO BE INSTALLED 42" ABOVE FINISHED FLOOR.
-  BO DENOTES BLANKED OFF
-  4A-1-a DENOTES ELECTRICAL EQUIPMENT CONNECTED TO PANEL 4A, CIRCUIT #1 SWITCHED BY LINE VOLTAGE SWITCH g.
-  DENOTES NOTE 2.
-  DENOTES MECHANICAL EQUIPMENT EF-1.

**LUMINAIRE SCHEDULE**

TYPE	MANUFACTURER	CATALOGUE NO.	LAMPS	VOLT	REMARKS
W4	LITHONIA	CPX-2X4-AL07-80CRI SW7-SWL-120	LED 34.4W 3500°K 4000 LUMENS	120V	NEW RECESSED DRYWALL CEILING MOUNTED 2'x4' LED FLAT PANEL / 0-10V DIMMING / WET LOCATION LISTED
L4	LITHONIA	EPANL-2X4-4000LM 80CRI-35K-MIN10 ZT-MVOLT-U	LED 40W 3500°K 4000 LUMENS	120V	NEW RECESSED T-BAR CEILING MOUNTED 2'x4' LED FLAT PANEL / 0-10V DIMMING
RL	LITHONIA	EPANL-2X4-4000LM 80CRI-35K-MIN10 ZT-MVOLT-U	LED 40W 3500°K 4000 LUMENS	120V	RELOCATED EXT'G 2'x4' LED FLAT PANEL / 0-10V DIMMING / 120° BEAM ANGLE
X3	BEGHELLI	SL-RM-6-36-U-OLR W-2SR-LED-120	2-4W PAR18 LED	120V AC 6VDC	PROVIDE MOUNTING AS SHOWN / WHITE FINISH / PICTOGRAM STEEL SELF-POWERED COMBINATION UNIT / 36W BATTERY UNIVERSAL AC VOLTAGE
EM1	BEGHELLI	SR-1-6	1-5W MR16 LED	12VDC	CEILING MOUNTED SINGLE MICRO HEAD / ADJUST MICRO HEADS AS DIRECTED / WHITE FINISH

**Tanco Engineering Limited**  
 Consulting Engineers  
 80 Nashdene Road, Suite 213  
 Scarborough, Ontario  
 M1V 5E4 (416) 321-3022

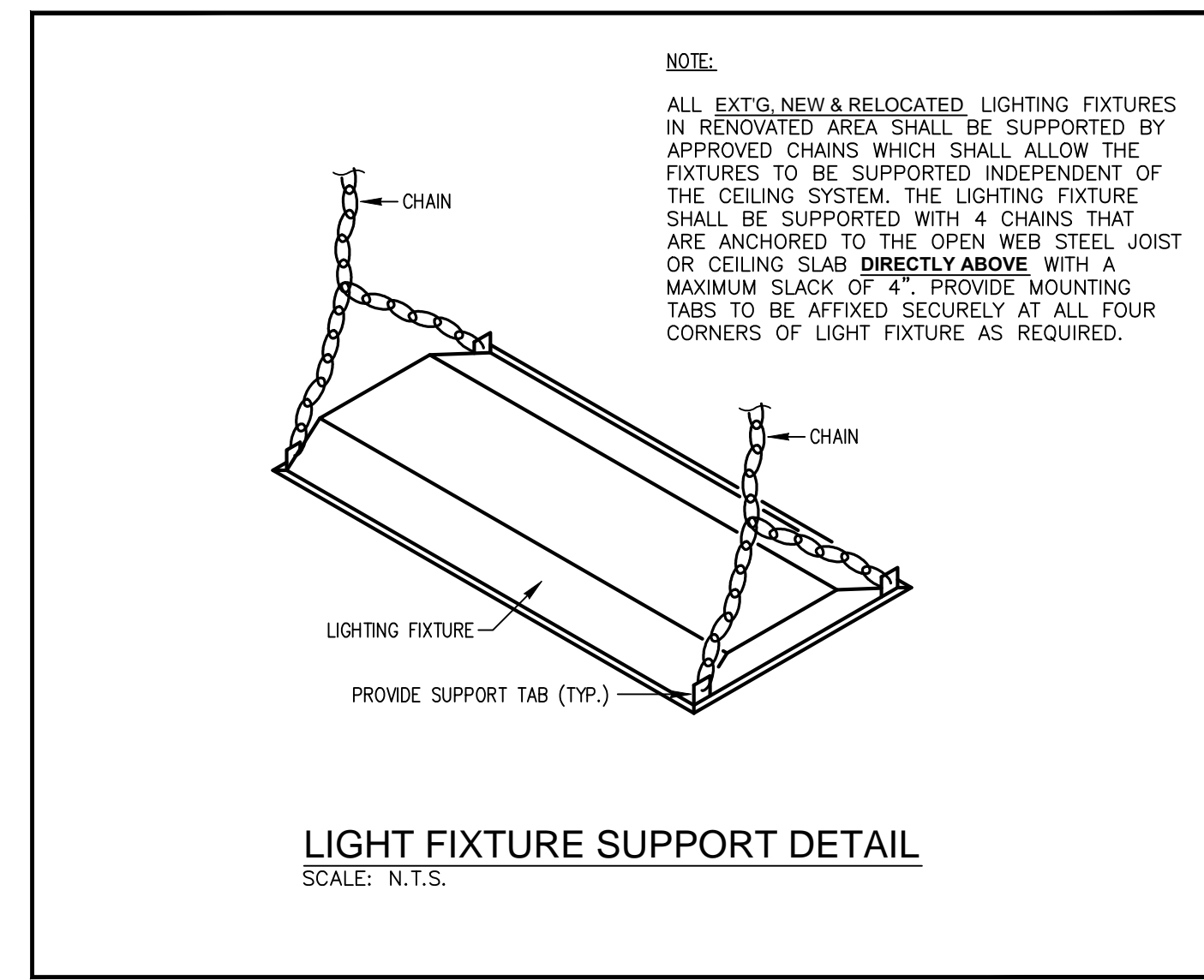
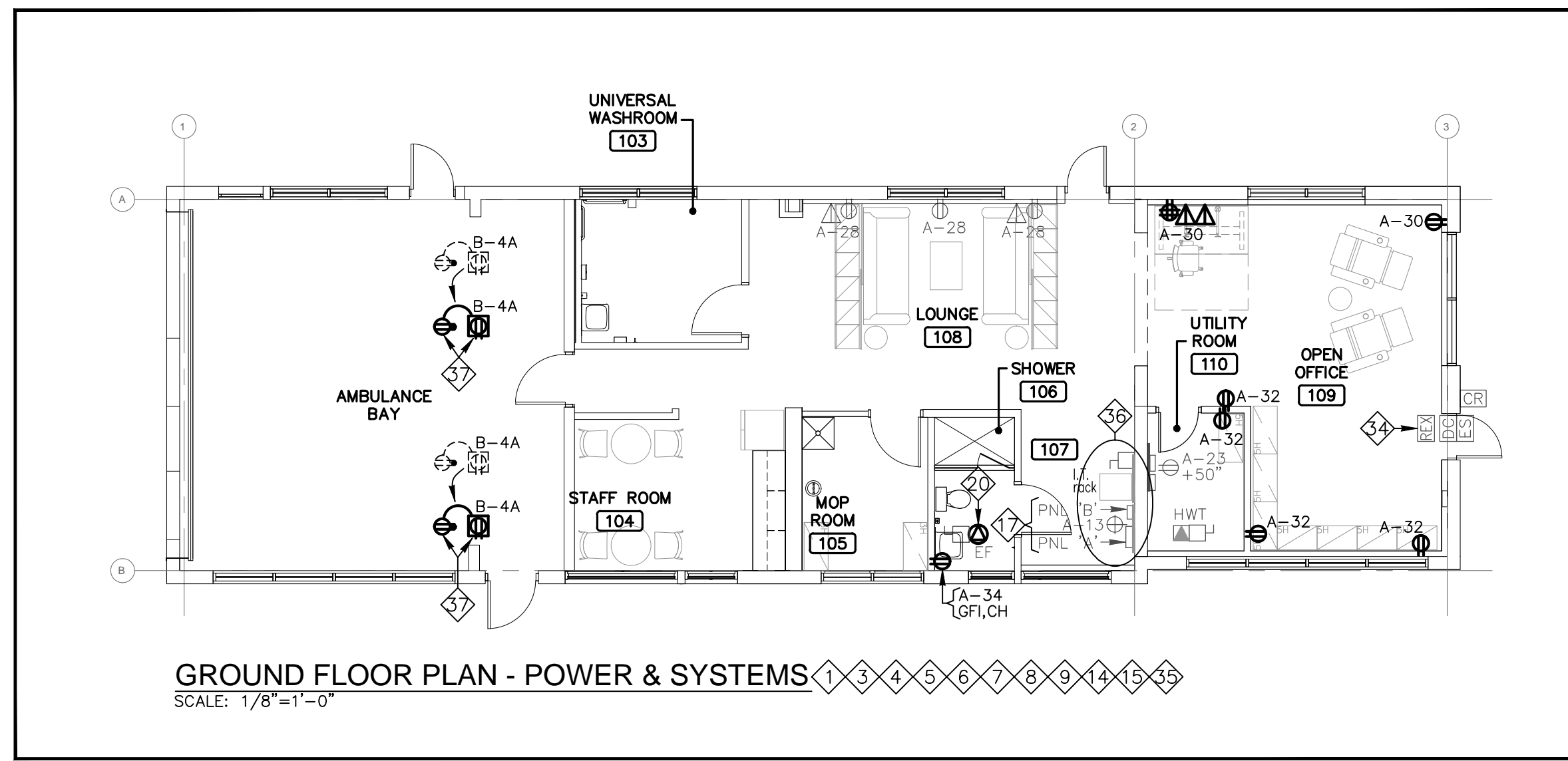
No.	Date	Issued or Revised
	Dec 4, 2024	Issued for Tender
	Nov 29, 2024	Issued for Permit



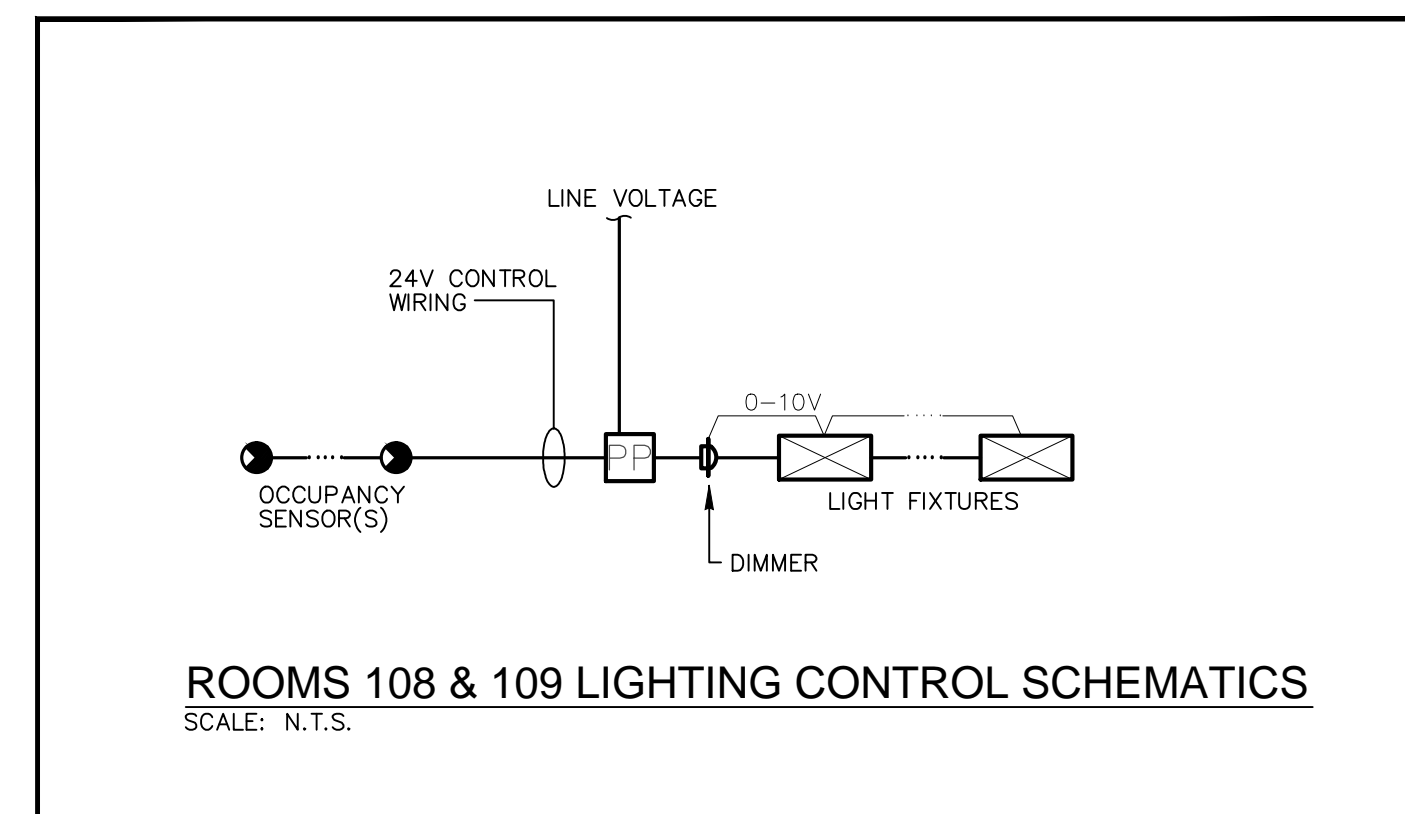
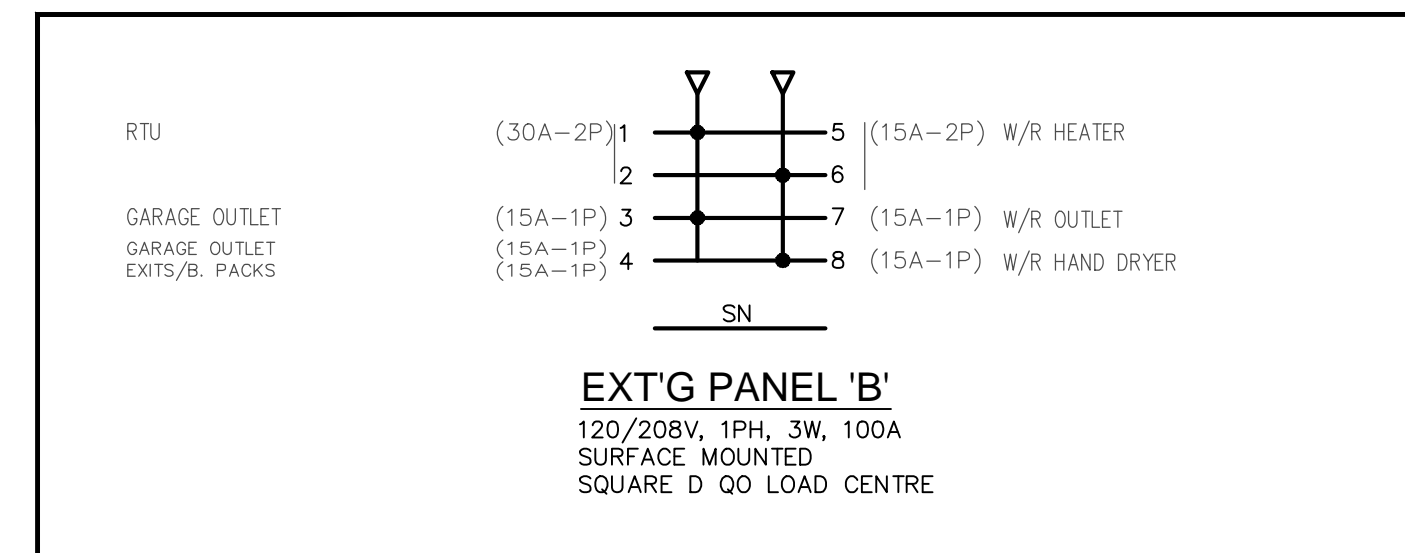
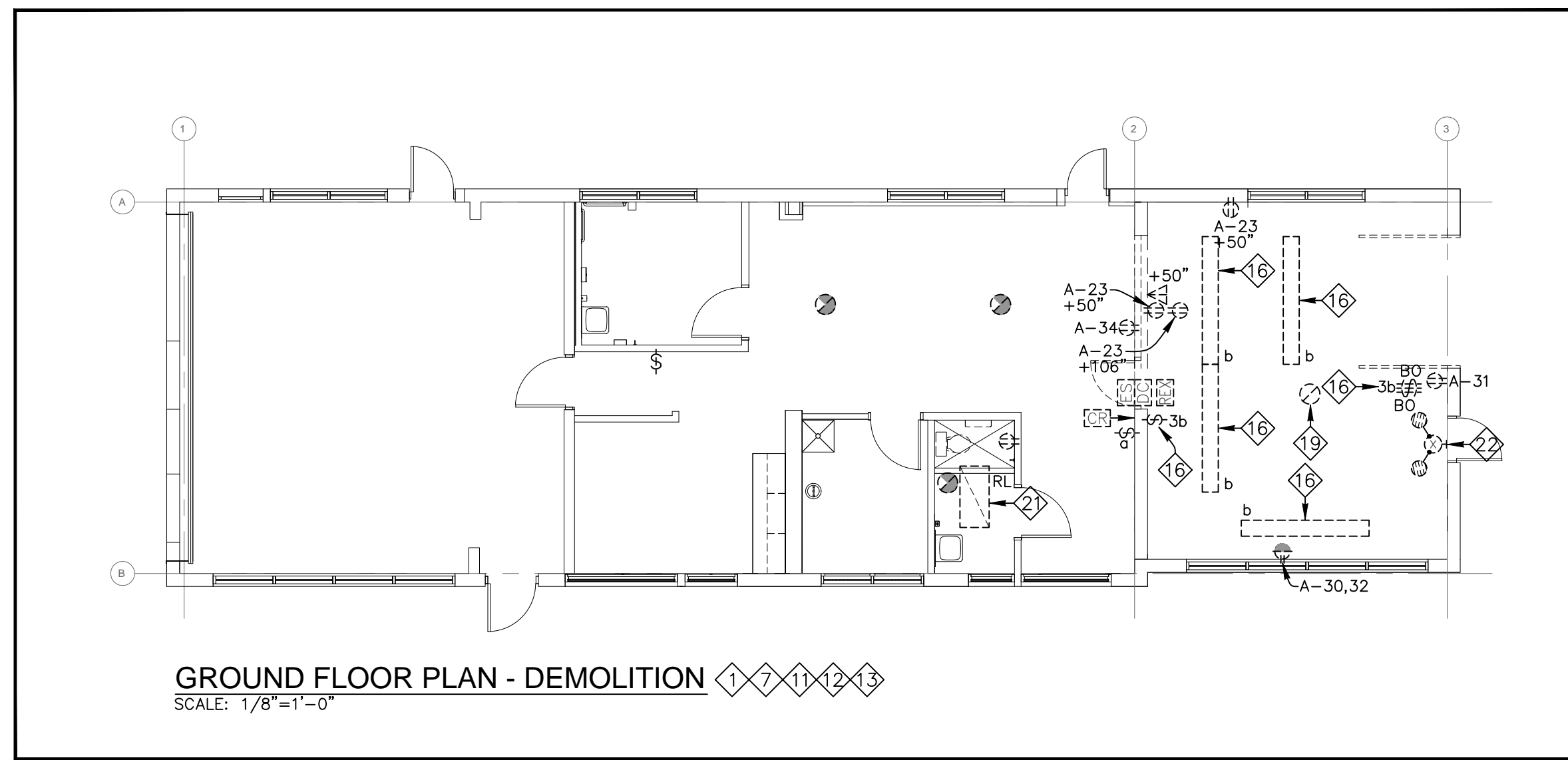
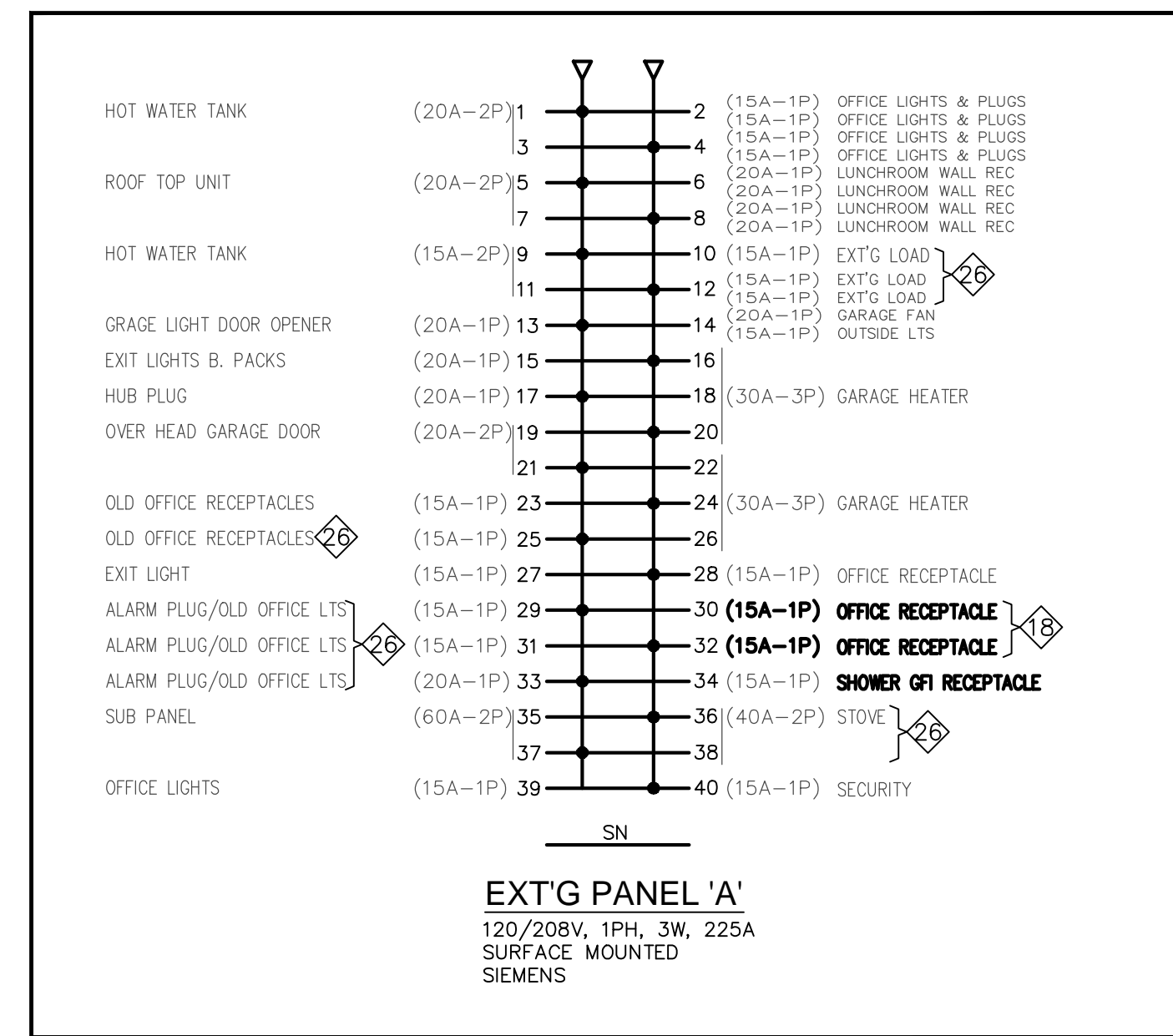
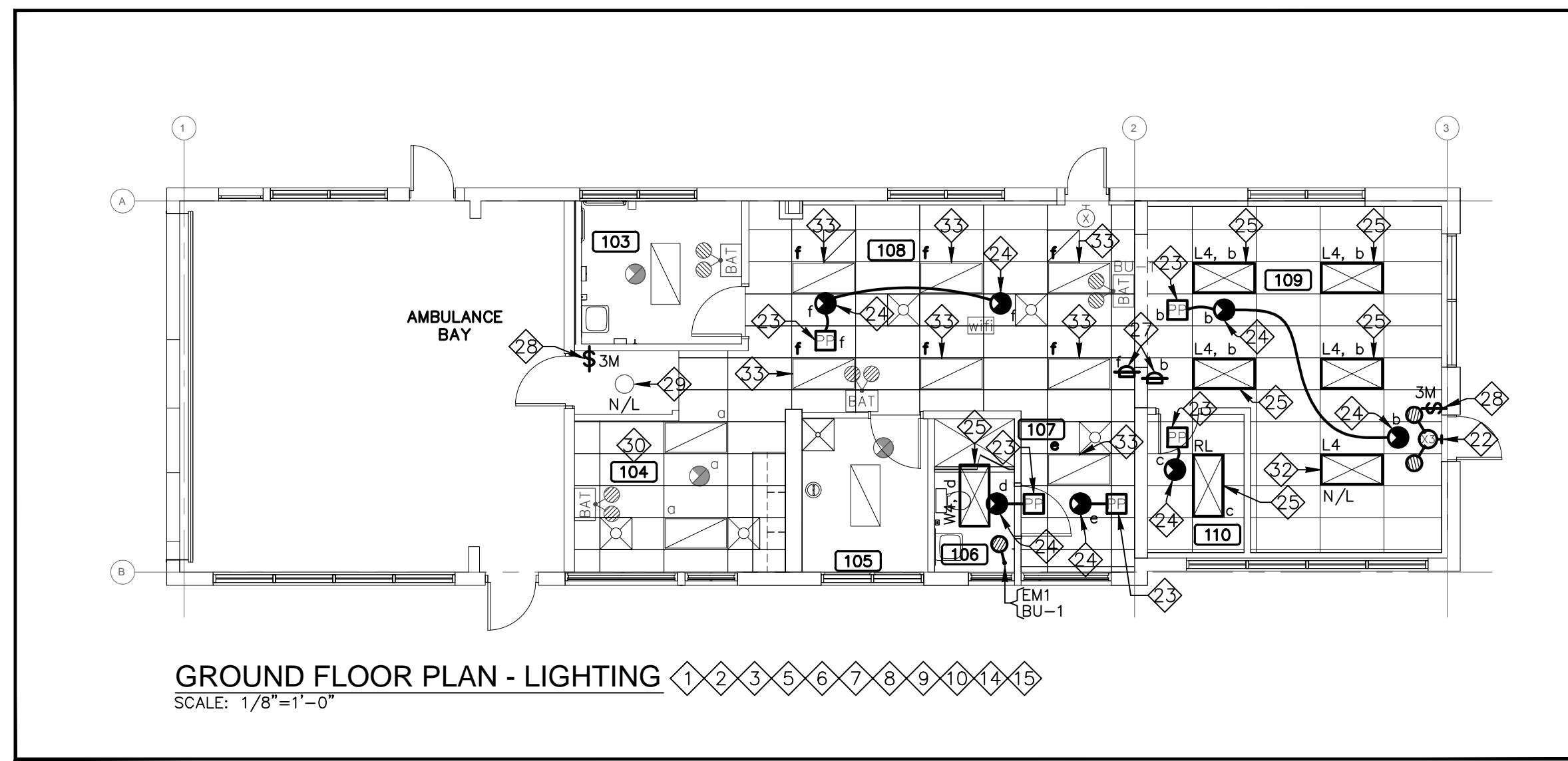
PROJECT:  
**CITY OF TORONTO**  
 330 BERING AVENUE  
 ETOBICOKE, ON

DRAWING TITLE  
**LEGEND, SPECIFICATIONS & SCHEDULES**

SCALE AS NOTED	DATE OCT. 2022
DRAWN BY AZ	PROJECT NO. 2422
DRAWING NO. <b>E-1</b>	



- ### NOTES
- 1. ALL CONSTRUCTION WORK IN THE BUILDING MUST BE CARRIED OUT IN STRICT ACCORDANCE WITH OWNER'S RULES & REGULATIONS AND BE CLEARED THROUGH PROPERTY MANAGEMENT.
  - 2. ALL NEW EXT'G & RELOCATED LIGHTING FIXTURES IN RENOVATED AREAS SHALL BE SUPPORTED BY APPROVED CHAINS WHICH SHALL ALLOW THE FIXTURES TO BE SUPPORTED INDEPENDENT OF THE CEILING SYSTEM. REFER TO "LIGHT FIXTURE SUPPORT DETAIL" ON DWG E-2.
  - 3. THIS CONTRACTOR SHALL ENSURE THAT ALL EXT'G RECEPTACLES & LIGHTING FIXTURES DESIGNATED TO REMAIN SHALL BE OPERATIONAL UPON PROJECT COMPLETION. WHERE THEY ARE INTERRUPTED BY DEMOLITION, RESTORE & PROVIDE NEW WIRING AS REQUIRED.
  - 4. EACH EXT'G & NEW RECEPTACLE IN RENOVATED SPACE SHALL BEAR IDENTIFICATION DYMO TAPE OF ITS CIRCUIT(S) CONNECTED ON ITS FACEPLATE.
  - 5. ALL NEW CONDUIT INSTALLATION TO BE INSTALLED TIGHT TO ROOF DECK IN CEILING SPACE, ABOVE MECHANICAL DUCTS.
  - 6. ANY EXT'G BX WIRING, CONDUITS & BOXES IN THE CEILING WHICH ARE NOT PRESENTLY FASTENED PROPERLY SHALL BE SECURELY FASTENED. PROVIDE COVERPLATES FOR CEILING BOXES WITH MISSING COVERPLATES.
  - 7. IT IS THE RESPONSIBILITY OF ELECTRICAL CONTRACTOR TO REINSTATE ANY ELECTRICAL SERVICES (BOTH LINE & LOW VOLTAGE WIRING) INCLUDING BUT NOT LIMITED TO MECHANICAL SYSTEM, MISCELLANEOUS POWER SYSTEM WHICH MUST REMAIN & BE OPERATIVE, BUT ARE AFFECTED & INTERRUPTED BY DEMOLITION SUCH AS REMOVAL OF PARTITIONS, DROPPED CEILING, ETC.
  - 8. VERIFY LOCATIONS & MOUNTING HEIGHTS OF ALL NEW WIRING DEVICES WITH THE INTERIOR DESIGNER PRIOR TO ROUGH-IN.
  - 9. **WHERE BUILDING IS CLASSIFIED AS BARRIER-FREE, CONTROL DEVICES SUCH AS SWITCHES, DIMMERS, THERMOSTAT, ETC. SHALL BE INSTALLED AT HEIGHT TO MEET O.B.C. 3.8.1.5.**
  - 10. LIGHTING FIXTURES WITHOUT TYPE DESIGNATION ARE 120V, 2'x4' LED FIXTURE, RECESSED IN T-BAR CEILING, 40W, 3500K.
  - 11. UNLESS OTHERWISE NOTED, EXT'G LIGHTING FIXTURES & RECEPTACLES SHOWN TO BE REMOVED SHALL HAVE THEIR WIRING REMOVED AS FAR BACK TO THE EXT'G PANEL OR TO NEXT ACTIVE CONNECTIONS AS POSSIBLE. UNUSED CIRCUIT BREAKERS IN PANEL TO BE IDENTIFIED AS "SPARE".
  - 12. WHERE EXT'G LIGHT SWITCH, RECEPTACLE & DATA/VOICE CONNECTIONS ARE SHOWN TO BE REMOVED FROM EXT'G WALLS TO REMAIN, G.C. TO PATCH, PRIME & PAINT. HOLES SHALL NOT BE LIMITED TO THE ONES SHOWN ON THIS FLOOR PLAN. CONFIRM FINISH WITH INTERIOR DESIGNER.
  - 13. REMOVE ALL EXT'G WIRING & CONDUITS IN WALLS DESIGNATED TO BE REMOVED.
  - 14. UNLESS OTHERWISE INDICATED, WIRES SHALL BE IN EMT CONDUITS WITH WATERTIGHT COUPLINGS FOR FEEDERS & BRANCH WIRING. AC90 CABLE SHALL ONLY BE USED IN DRYWALL CEILING, WITHIN DRYWALL PARTITIONS AND FOR FIXTURE DROPS FROM LIGHTING JUNCTION BOXES. MAXIMUM AC-90 CABLE LENGTH USED SHALL NOT EXCEED 15' WIRING BETWEEN NEW LIGHTING/POWER JUNCTION BOXES IN THE CEILING & INCLUDING ALL HOME RUN TO BRANCH PANEL SHALL BE STRICTLY IN EMT CONDUITS. NO EXPOSED AC-90 WIRING SHALL BE PERMITTED.
  - 15. RE-SUPPORT ANY IMPROPERLY SUPPORTED EXT'G CONDUITS WHICH ARE TO REMAIN.
  - 16. REMOVE EXT'G INDUSTRIAL FLUORESCENT LIGHTING FIXTURE & THE ASSOCIATED 3-WAY LIGHT SWITCHES.
  - 17. SEE PANEL SCHEDULE DETAIL. PROVIDE TYPED WRITTEN DIRECTORY SHOWING REVISED LOADS UPON COMPLETION OF THE JOB.
  - 18. BREAKER SIZE SHOWN BOLD ARE NEW TO BE PROVIDED BY THIS CONTRACTOR (TYP.).
  - 19. REMOVE EXT'G REDUNDANT HEAT DETECTOR. NOTE THAT THERE IS NO EXT'G FIRE ALARM PANEL.
  - 20. EXT'G EXHAUST FAN TO BE REUSED. PROVIDE A NEW RELAY/CONTACTOR TO INTERLOCK EXHAUST FAN WITH SHOWER 106 CEILING OCCUPANCY SENSOR. CONNECT RELAY WITH ITS COIL IN SERIES WITH W/R LIGHTING CIRCUIT. RELAY CONTACT TO BE CONNECTED IN SERIES WITH EXHAUST FAN EXT'G 120V CIRCUIT. CONTRACTOR TO VERIFY EXT'G LIGHTING CIRCUIT & EXHAUST FAN CIRCUIT AT SITE.
  - 21. REMOVE, RELOCATE & REINSTALL EXT'G 2'x4' LED PANEL TO NEW LOCATION AS TYPE 'RL' LIGHT FIXTURE SHOWN ON LIGHTING LAYOUT.
  - 22. REMOVE EXT'G DEFECTIVE SELF-POWERED EXIT SIGN & INSTALL NEW EXIT SIGN ON NEW FURRED OUT WALL. PROVIDE EXTENSION JUNCTION BOXES AS REQUIRED. CONNECT EXIT SIGN TO ITS EXT'G CIRCUIT. CONTRACTOR TO VERIFY EXT'G CIRCUIT AT SITE.
  - 23. PROVIDE NEW WATTSTOPPER UNIVERSAL VOLTAGE POWER PACK BZ-150 IN PLENUM SPACE TO BE CONTROLLED BY THE CEILING OCCUPANCY SENSOR (SEE NOTE #24). PROVIDE CLASS 2 WIRING BETWEEN POWER PACKS & CEILING OCCUPANCY SENSOR IN ACCORDANCE WITH MANUFACTURER'S WIRING SCHEMATIC.
  - 24. THIS CONTRACTOR TO PROVIDE ALL NECESSARY LABOUR & MATERIALS TO ENABLE ALL THE LIGHTING FIXTURE(S) WITH THE SAME DESIGNATION AS THE CEILING SENSOR(S) IN THIS AREA TO BE CONTROLLED BY THE NEW OCCUPANCY CEILING SENSOR(S) (TYP.). RERWIRE ALL EXT'G LIGHT FIXTURES AS REQUIRED. SET TIME DELAY AT 30 MIN.
  - 25. CONNECT LIGHT FIXTURE TO THE EXT'G LIGHTING CIRCUIT IN THE OPEN OFFICE AREA 108. CONTRACTOR TO VERIFY THE EXT'G LIGHTING CIRCUIT IN THE OFFICE AREA 108 AT SITE PRIOR TO ROUGH-IN.
  - 26. CONTRACTOR TO VERIFY THE EXT'G BRANCH LOAD & PROVIDE THE BREAKER WITH APPROPRIATE LOAD DESCRIPTION. IF THE BRANCH WIRING IS UNUSED OR ABANDONED IDENTIFY THE BREAKER AS 'SPARE' IN PANEL SCHEDULE.
  - 27. EACH NEW DIMMER SHALL BE WATTSTOPPER 0-10V DIMMER, 120V, WHITE FINISH, RH4FL3PTC. SEE DIAGRAM "ROOMS 108 & 109 LIGHTING CONTROL SCHEMATICS" ON THIS DWG FOR DETAILS.
  - 28. PROVIDE 3-WAY LIGHT SWITCHES TO CONTROL ALL THE LIGHTING FIXTURES IN OPEN AREAS 104, 107, 108 & 109, OVERRIDING ALL LOCAL SWITCHES, DIMMERS, & OCCUPANCY SENSORS.
  - 29. RERWIRE EXT'G POTLIGHT TO BE OPERATED AS NIGHT LIGHT FIXTURE (ALWAYS 'ON'). THIS FIXTURE SHALL NOT TO BE CONTROLLED BY MASTER SWITCHES '3M'.
  - 30. IN STAFF ROOM 104, THE EXT'G 2'x4' LIGHTING FIXTURES ARE CONTROLLED BY LOCAL CEILING OCCUPANCY SENSOR 'g', BUT TO BE OVERRIDDEN BY 3-WAY SWITCHES '3M'.
  - 31. NIGHT LIGHT FIXTURE SHALL NOT TO BE CONTROLLED BY MASTER SWITCHES '3M'.
  - 32. MODIFY EXT'G LIGHTING FIXTURE TO BE CONTROLLED BY DESIGNATED CEILING OCCUPANCY SENSOR AS SHOWN.
  - 33. REMOVE & REINSTALL EXT'G REQUEST-TO-EXIT SENSOR ONTO NEW FURRED OUT WALL. PROVIDE EXTENSION JUNCTION BOXES & CONDUIT AS REQUIRED.
  - 34. ALLOW FOR PROVISION & INSTALLATION OF EIGHT ACUDOR 6"x6" UF-5000 FLUSH MOUNTED ACCESS DOORS FOR ACCESS TO ANY EXT'G JUNCTION BOXES BEHIND THE NEW FURRED OUT WALLS.
  - 35. ALLOW FOR REPLACING EXT'G PAINTED PLYWOOD BACKBOARDS IF REQUIRED BY BUILDING INSPECTOR. ALLOW FOR REMOVE & REINSTALL EXT'G POWER PANELS, I.T. RACK, PUNCH BLOCK, CABLES, CONDUITS, SECURITY DEVICES, ETC. ON THE NEW PLYWOOD BACKBOARDS. THIS WORK SHALL BE INDICATED AS **SEPARATE PRICE #E1**.
  - 36. RELOCATE EXT'G SURFACE CEILING MOUNTED RECEPTACLE & THE ASSOCIATED CORD REEL +/- 4" TOWARDS THE EAST. EXTEND & REROUTE RECEPTACLE POWER WIRING TO NEW LOCATION. PROVIDE ALL NECESSARY CONDUITS & JUNCTION BOX AS REQUIRED. CONFIRM WITH CLIENT AT SITE FOR EXACT LOCATION PRIOR TO RELOCATION.



**Tanco Engineering Limited**  
Consulting Engineers  
80 Nashdene Road, Suite 213  
Scarborough, Ontario  
M1V 5E4 (416) 321-3022

No.	Date	Issued or Revised
	Dec 4, 2024	Issued for Tender
	Nov 29, 2024	Issued for Permit

STAMP  
**C. W. M. CHONG**  
PROFESSIONAL ENGINEER  
NOV 29/24  
PROVINCE OF ONTARIO  
NORTH

PROJECT:  
**CITY OF TORONTO**  
330 BERING AVENUE  
ETOBICOKE, ON

DRAWING TITLE  
**GROUND FLOOR PLANS - ELECTRICAL**

SCALE: AS NOTED	DATE: OCT, 2022
DRAWN BY: AZ	PROJECT NO: 2422
DRAWING NO: E-2	