

RECEPTACLE LEGEND	
SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE
	GFI RECEPTACLE
O/C	OVER COUNTER
U/C	UNDER COUNTER
T	20 AMP T-SLOT RECEPTACLE

ELECTRICAL LINE TYPE LEGEND	
SYMBOL	DESCRIPTION
	DEMOLITION
	EXISTING
	NEW
	CIRCUIT WIRE

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE																		
LABEL	DESCRIPTION	LOCATION	VOLT	PH	HP	WATTS	MCA	ISO. SW.	P	POWER WIRING	CTRL. BY ELEC	SOURCE PNL	DISC AMP	FUSE	BRK	P	REMARKS	
AC-01	AIR CONDITIONER	-	120	1	-	-	-	20	1	2#12 CU + GND IN 3/4"	-	HP-01	-	-	-	15	1	-
B-03	BOILER	-	120	1	-	-	10.4	20	1	-	-	-	-	-	-	15	1	-
CU-101	CONDENSING UNIT	-	208	3	-	-	84.4	100	3	-	-	-	-	-	-	-	-	-
HP-01	HEAT PUMP	-	208	1	-	-	11	30	3	3#10CU + BND IN 3/4"	-	LP-A	-	-	-	30	2	-
P-01/P-02	PUMP	-	208	3	1/2	-	-	12.8	30	1	-	-	-	-	-	-	-	-
P-03/P-04	PUMP	-	208	3	1/2	-	-	-	-	-	-	-	-	-	-	-	-	-

ABBREVIATIONS:

CONT	- CONTACTOR, SIZE AS INDICATED	OS	- OCCUPANCY SENSOR
COMB	- COMBINATION DISCONNECT & STARTER	RAT	- REVERSE ACTING THERMOSTAT
FVNR	- FULL VOLTAGE NON REVERSING STARTER	R	- RELAY
HOA	- HAND OFF AUTO SWITCH C/W ON PILOT LIGHT	RPB	- REMOTE PUSH BUTTON OFF
MAN	- MANUAL MOTOR SWITCH C/W PILOT LIGHT	SW	- LIGHT SWITCH
		TC	- 7 DAY PROGRAMMABLE TIMECLOCK
		TS	- TIMER SWITCH
		WP	- WEATHER PROOF

NOTES:

- INSTALL ALL WIRING IN CONDUIT WITH SHORT LENGTH LIQUID TIGHT FLEX TO MOTOR OR VIBRATING EQUIPMENT.
- WIRE THROUGH TC OR RAT SUPPLIED BY MECHANICAL TRADE.

ELECTRICAL TAG/NAME LEGEND	
SYMBOL	DESCRIPTION
WP	WEATHERPROOF
EX	EXISTING TO REMAIN
REM	REMOVE EXISTING
REL	RELOCATE EXISTING
ERL	EXISTING RELOCATED

EQUIPMENT AND CONNECTION LEGEND	
SYMBOL	DESCRIPTION
	ELECTRICAL PANEL
	DISCONNECT
	CONNECTION TO MOTOR OR MOTORIZED PIECE OF EQUIPMENT
PDO	POWER DOOR OPERATOR
	COMBINATION STARTER / CONTACTOR
	MANUAL MOTOR SWITCH
	DIRECT CONNECTION
	ELECTRICAL THERMOSTAT
	PDO PUSH PLATE

LIGHTING LEGEND	
SYMBOL	DESCRIPTION
	WALL MOUNT LINEAR LIGHT FIXTURE
	RECTANGULAR LIGHT FIXTURE
	CEILING OR PENDANT LIGHT FIXTURE
	DIMMER SWITCH NIGHTAID: iPODLA DX WH G2

ACCESS CONTROL LEGEND	
SYMBOL	DESCRIPTION
	CARD READER
	ELECTRIC STRIKE
	DOOR CONTACT

LIGHTING FIXTURE SCHEDULE				
FIXTURE TAG	DESCRIPTION AND MODEL SERIES	INPUT	LIGHT SOURCE	MOUNTING
AA	2X4 BACK LIT LED FIXTURE C/W SMOOTH ACRYLIC LENS, SELECTABLE LUMEN OUTPUT 2500/3200/4000 80 CRI, SELECTABLE COLOUR TEMPERATURE, 0-10V DIMMING, SURFACE MOUNT KIT LITHONIA: CPX 2X4 AL07 80CRI SWW7 ASWM MVOLT NLTAIR2	120V 35W	LED 4000L 4000K 80CRI	SURFACE
BB	4" WALL MOUNTED LED DIRECT/INDIRECT FIXTURE C/W 3000 LUMEN OUTPUT 80CRI 4000K CURVED LINEAR FACETED REFRACTOR LENS, PIR OCCUPANCY SENSOR, WHITE FINISH. LITHONIA: WL4 30L MVOLT EZ1 LP840 NLTAIR2 NES7	120V 28W	LED 3000L 4000K 80CRI	WALL
CC	11" DIAMETER SURFACE MOUNTED LED FIXTURE C/W 1400 LUMEN OUTPUT, WHITE FINISH WHITE PAINTED FLANGE SMOOTH DIFFUSE LENS 80CRI 4000K. LITHONIA: FMLRDL 11 148 40	120V 20W	LED 1400L 4000K 80CRI	SURFACE

NOTES:

- PROVIDE ALL NECESSARY MOUNTING HARDWARE FOR A COMPLETE INSTALLATION.
- COORDINATE WITH ARCHITECTURAL CEILING PLAN TO CONFIRM CEILING MATERIAL AND MOUNTING TYPE.
- FIXTURES TO BE SET TO 4000K AND MEDIUM LUMEN OUTPUT SELECTION

- GENERAL NOTES: (APPLICABLE TO ALL DRAWINGS)
- PROTECT ALL INTERIOR AND EXTERIOR FINISHES, CEILINGS, WALLS, FLOORS, ETC FROM DAMAGE DUE TO THE WORK OF THIS DIVISION.
 - INFORMATION RELATED TO EXISTING CONDITIONS IS TAKEN FROM ORIGINAL AS-BUILT DRAWINGS AND LIMITED VISUAL SITE REVIEW. CONFIRM ALL EXACT DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES WITH THE CONSULTANT.
 - REPAIR ANY DAMAGE CAUSED BY THE ELECTRICAL TRADE TO EXISTING BUILDINGS OR EQUIPMENT, ETC., TO THE CONSULTANT'S SATISFACTION UPON COMPLETION OF THE WORK. CLEAN ALL EQUIPMENT AND REMOVE FROM THE SITE ALL ELECTRICAL DEBRIS.
 - PROVIDE LEGIBLE SIGNS AND BARRIERS ON OR AROUND ALL LIVE PANELS AND EQUIPMENT DURING CONSTRUCTION TO PREVENT INJURY OR SHOCK. DISCONNECT AND/OR ISOLATE ALL ELECTRICAL EQUIPMENT EFFECTED BY WORK OF THIS DIVISION. PROVIDE AND COORDINATE DANGER TAGS WITH OWNER FOR ALL EQUIPMENT THAT WILL REMAIN ENERGIZED DURING CONSTRUCTION.
 - SCHEDULE AND PHASE DEMOLITION AND NEW WORK TO REDUCE INTERFERENCE AND DOWNTIME OF EXISTING SYSTEMS. NOTIFY OWNER'S REPRESENTATIVE OF ALL DOWNTIME PRIOR TO PROCEEDING WITH WORK. MAINTAIN SERVICES TO ALL AREAS NOT UNDER CONSTRUCTION. MODIFY OR EXTEND WIRING AND CONDUIT AS REQUIRED.
 - DO NOT SCALE DRAWINGS. OBTAIN ALL DIMENSIONS FROM EXISTING ARCHITECTURAL PLANS, SITE INSPECTIONS, AND MANUFACTURER'S SHOP DRAWINGS.
 - PRIOR TO INSTALLATION OF DEVICES WITHIN WALLS, VERIFY THAT NO INTERFERENCES EXIST. CONFIRM ON SITE WITH OWNER AND DESIGNER FOR EXACT DEVICE LOCATIONS AND ELEVATIONS.
 - CONTRACTORS SHALL VISIT THE SITE TO DETERMINE THE FULL EXTENT OF THE WORK BEFORE SUBMITTING PRICING. MAKE ALL ALLOWANCES FOR SITE CONDITIONS.
 - IN THE EVENT OF A DISCREPANCY BETWEEN THE SPECIFICATIONS AND A NOTE ON THE DRAWINGS, THE DRAWING NOTES SHALL SUPERSEDE THE SPECIFICATIONS.
 - EXISTING WIRING AND CONDUIT MAY BE REUSED WHERE IN VERY GOOD CONDITION - SUBJECT TO CODE COMPLIANCE AND MEGGER TEST.
- GENERAL DEMOLITION NOTES: (APPLICABLE TO ALL DRAWINGS)
- ALL FIXTURES AND DEVICES ARE EXISTING TO REMAIN UNLESS IDENTIFIED OTHERWISE ON THE DRAWINGS. GENERAL NOTES OR SPECIFICATIONS.
 - REMOVE ALL UNUSED, ABANDONED OR REDUNDANT WIRING AND CONDUIT BACK TO SOURCE.
 - RELOCATE EXISTING FIXTURE/DEVICE AS SHOWN ON DRAWINGS. EXTEND CONDUIT AND WIRING AS REQUIRED. TRACE EXISTING CIRCUITS PRIOR TO DEMOLITION. CONSULT WITH OWNER'S REPRESENTATIVE FOR ANY INTERRUPTIONS THIS MAY CAUSE DURING REMOVAL AND REINSTALLATION.
 - COORDINATE WITH FACILITY MAINTENANCE DEPARTMENT FOR DISPOSAL OF REMOVED DEVICES. DISPOSE OF ALL UNWANTED DEVICES AS REQUIRED AS PER FACILITY STANDARDS.
 - ELECTRICAL EQUIPMENT BEING REMOVED AND NOT BEING REUSED WILL REMAIN THE PROPERTY OF THE OWNER. EQUIPMENT THE OWNER DOES NOT WANT WILL BE DISPOSED OF BY THE CONTRACTOR. CONTRACTOR TO ENSURE ALL CONSTRUCTION WASTE, GARBAGE AND DEBRIS IS REMOVED FROM SITE AND PROPERLY DISPOSED.
 - TRACE OUT ALL EXISTING CIRCUITS WITHIN THE AREA OF WORK AND LABEL PRIOR TO ANY DEMOLITION. MAINTAIN SERVICES TO AREAS NOT UNDER CONSTRUCTION.
 - DEMOLITION DRAWINGS BASED ON LIMITED SITE INVESTIGATION AND EXISTING CONDITIONS. NOT ALL EXISTING DEVICES ARE SHOWN. LOCATIONS ARE APPROXIMATE. CONFIRM ON SITE WITH EXISTING CONDITIONS ALL DEVICE LOCATIONS AND TYPES. BRING ANY DISCREPANCIES BETWEEN THIS DRAWING AND ACTUAL SITE CONDITIONS TO THE ATTENTION OF THE CONSULTANT. INCLUDE REMOVAL AND REPLACEMENT IN PRICE SUBMITTED.
 - REMOVE ALL EXISTING DEVICES SHOWN ON THIS DRAWING UNLESS INDICATED OTHERWISE.
 - ALL EXISTING DEVICES AND EQUIPMENT IN HATCHED AREAS ARE TO REMAIN.
 - CONTRACTOR TO ENSURE CONTINUOUS POWER SUPPLY TO EXISTING PYLON SIGN DURING CONSTRUCTION.

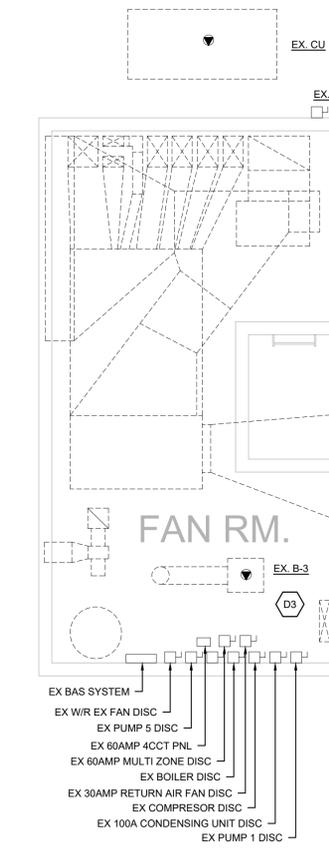
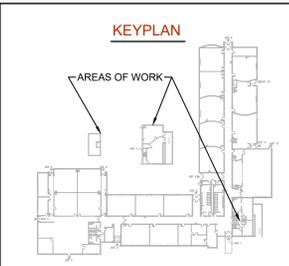
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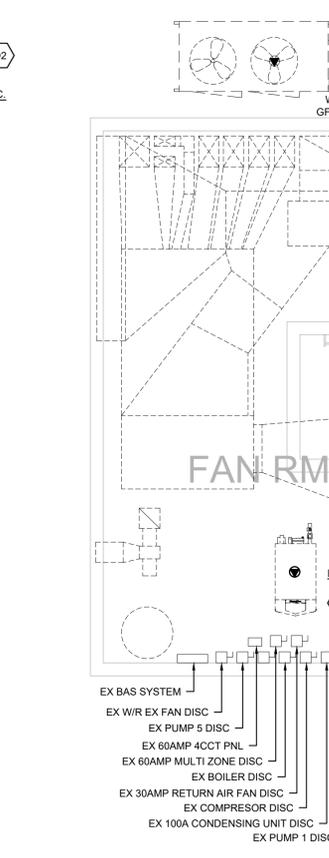
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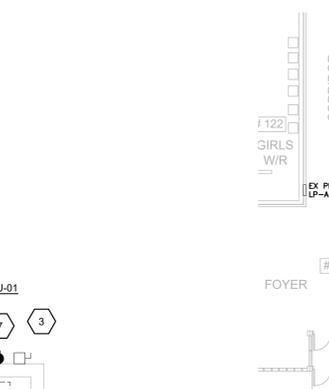
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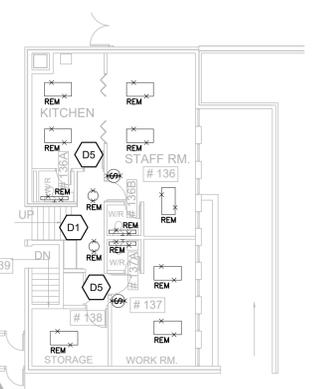
PENTHOUSE PLAN - POWER DEMOLITION
SCALE: 1:150



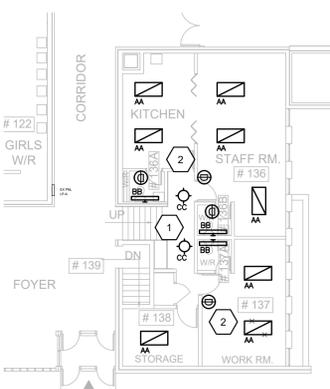
PENTHOUSE PLAN PROPOSED POWER LAYOUT
SCALE: 1:150



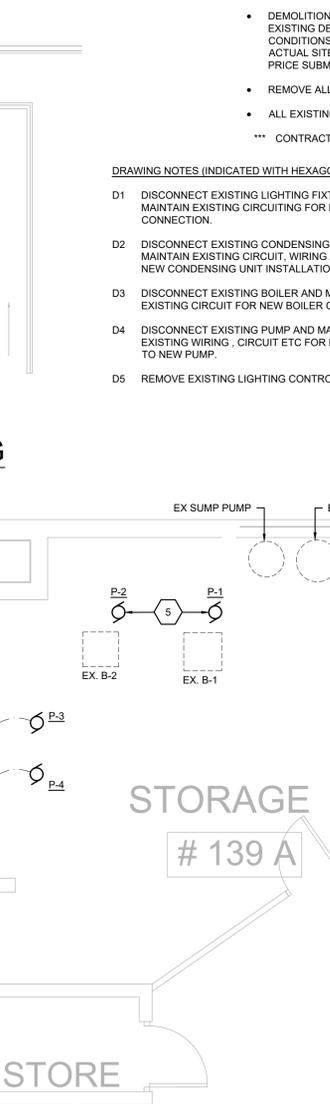
FLOOR PLAN - LIGHTING DEMOLITION
SCALE: 1:150



FLOOR PLAN - PROPOSED LIGHTING
SCALE: 1:150



FLOOR PLAN - PROPOSED LIGHTING
SCALE: 1:150



PART FLOOR PLAN - BASEMENT PROPOSED POWER LAYOUT
SCALE: 1:150

- DRAWING NOTES (INDICATED WITH HEXAGONS):**
- DISCONNECT EXISTING LIGHTING FIXTURES AND CONTROLS. MAINTAIN EXISTING CIRCUITING FOR NEW FIXTURE CONNECTION.
 - DISCONNECT EXISTING CONDENSING UNIT AND MAKE SAFE. MAINTAIN EXISTING CIRCUIT. WIRING AND DISCONNECT FOR NEW CONDENSING UNIT INSTALLATION.
 - DISCONNECT EXISTING BOILER AND MAKE SAFE. MAINTAIN EXISTING CIRCUIT FOR NEW BOILER CONNECTION.
 - DISCONNECT EXISTING PUMP AND MAKE SAFE. MAINTAIN EXISTING WIRING, CIRCUIT ETC FOR FUTURE RECONNECTION TO NEW PUMP.
 - REMOVE EXISTING LIGHTING CONTROL DEVICE.

- DRAWING NOTES (INDICATED WITH HEXAGONS):**
- INSTALL NEW LED FIXTURES. CONNECT TO EXISTING CIRCUIT AND CONTROLS.
 - PROVIDE NEW OCCUPANCY DIMMER SWITCH AS INDICATED.
 - RECONNECT NEW CONDENSING UNIT CU-01 USING EXISTING WIRING DISCONNECTS ETC. MODIFY OR EXTEND EXISTING WIRING TO SUIT NEW INSTALLATION. PROVIDE NEW 100AMP 3P 208V RATED WP DISCONNECT AT UNIT IF EXISTING IS NOT PRESENT.
 - CONNECT NEW BOILER TO EXISTING BOILER CIRCUIT. MODIFY OR EXTEND EXISTING WIRING AS REQUIRED TO SUIT NEW INSTALLATION.
 - RECONNECT NEW PUMP TO EXISTING WIRING. MODIFY OR EXTEND EXISTING WIRING TO SUIT NEW INSTALLATION.
 - NEW VFD PROVIDED BY MECHANICAL INSTALLED BY ELECTRICAL. EXTEND EXISTING WIRING FROM NEW VFD TO RESPECTIVE PUMP P3/P4. CONFIRM EXISTING WIRING CAPACITY FOR NEW LOAD. REPORT DISCREPANCIES TO THE CONSULTANT PRIOR TO INSTALLATION.
 - PROVIDE 1 NEW 20A 1P BREAKER IN EX 4CCT PANEL LOCATED IN PENTHOUSE, TO SERVE NEW GFCI RECEPTACLE IN WEATHERPROOF LOCKABLE WHILE-IN-USE ENCLOSURE.

REVISIONS

NO.	ISSUED FOR	DATE
00	50% CLIENT REVIEW	26.01.28
01	90% CLIENT REVIEW	26.02.11
02	TENDER	26.03.03

NORTH

PROFESSIONAL ENGINEER
A. D. DIRKS
100502627
PROVINCE OF ONTARIO

DESIGN	ADM	DRAWN	ADM
CHECKED	AD	REVIEWED	AD

PROJECT
ST. PETER CES

ADDRESS
92 AVENUE ROAD,
CAMBRIDGE, ON

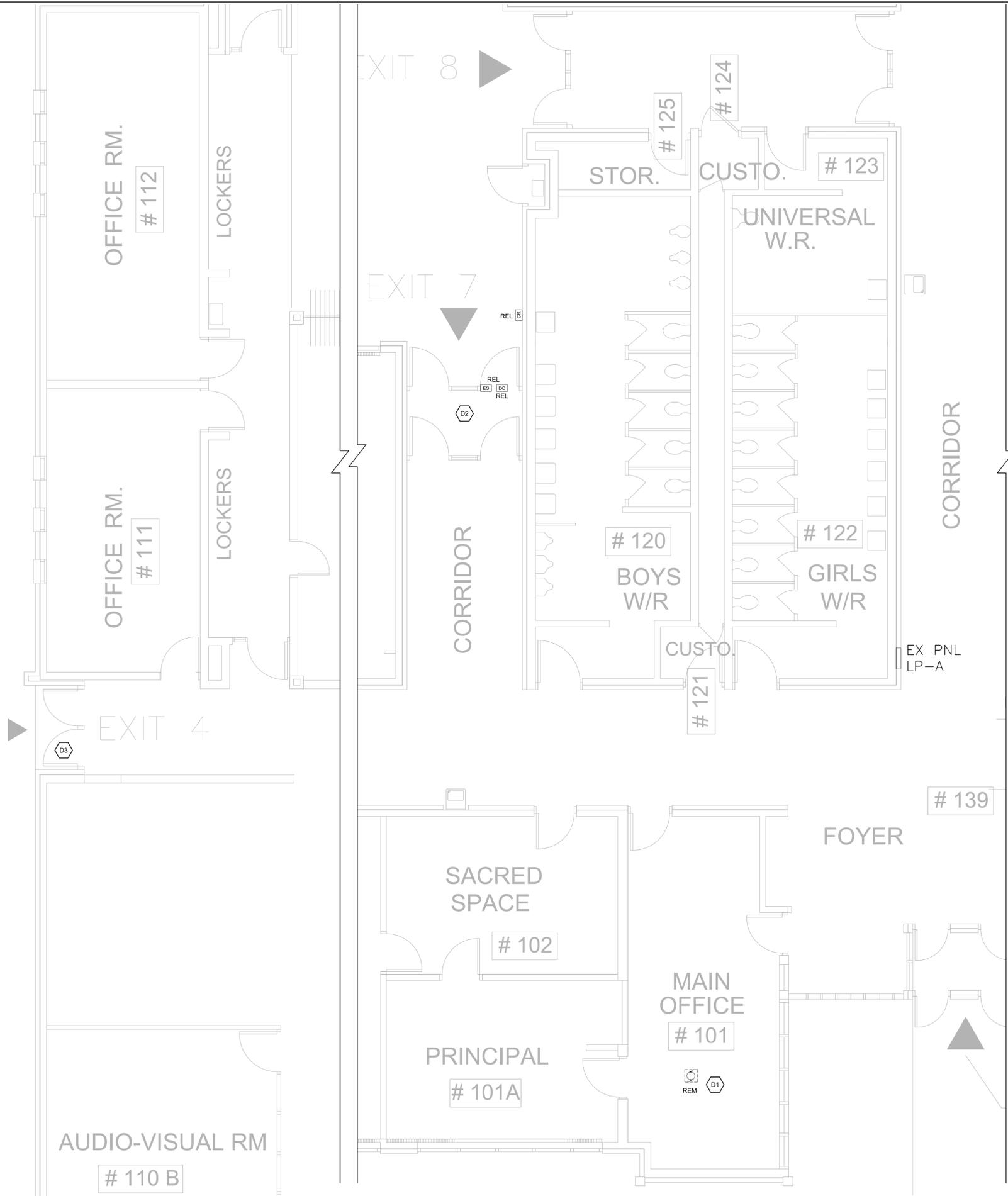
PROJECT NO.
CE-6381

DRAWING TITLE
LIGHTING DEMO, PROPOSED
NEW, POWER DEMO &
PROPOSED NEW LAYOUTS &
LEGENDS & SCHEDULES

DRAWING NUMBER
E1 OF 4

DEMOLITION NOTES (INDICATED WITH HEXAGONS):

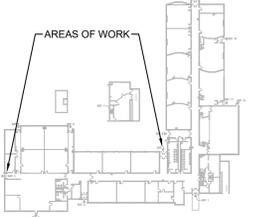
- D1 REMOVE EXISTING IN-LINE FAN, WIRING ETC. AND MAKE SAFE.
- D2 REMOVE EXISTING FOB READER LOCATED AT EXIT 7. PULL CIRCUIT WIRING BACK INTO ACCESSIBLE CEILING SPACE AND MAKE SAFE.
- D3 DISCONNECT EXISTING DOOR CONTROLS AND CARD ACCESS READER. MAINTAIN DEVICES AND WIRING FOR REINSTALLATION AFTER DOOR PAINTING.



PART FLOOR PLAN - OFFICE ELECTRICAL DEMOLITION LAYOUT

SCALE: 1:150

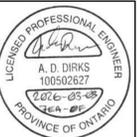
KEYPLAN



REVISIONS

NO.	ISSUED FOR	DATE
00	50% CLIENT REVIEW	26.01.28
01	90% CLIENT REVIEW	26.02.11
02	TENDER	26.03.03

NORTH



DESIGN	ADM	DRAWN	ADM
CHECKED	AD	REVIEWED	AD

PROJECT

ST. PETER CES

ADDRESS

92 AVENUE ROAD,
CAMBRIDGE, ON

PROJECT NO.

CE-6381

DRAWING TITLE

PART GROUND FLOOR POWER
DEMOLITION LAYOUT

DRAWING NUMBER

E2 OF 4

KEYPLAN



REVISIONS

NO.	ISSUED FOR	DATE
00	50% CLIENT REVIEW	26.01.28
01	90% CLIENT REVIEW	26.02.11
02	TENDER	26.03.03

NORTH



DESIGN	ADM	DRAWN	ADM
CHECKED	AD	REVIEWED	AD

PROJECT

ST. PETER CES

ADDRESS

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CAMBRIDGE, ON

PROJECT NO.

CE-6381

DRAWING TITLE

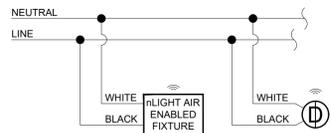
PART GROUND FLOOR POWER
AND SECURITY LAYOUT, NOTES
AND DETAILS

DRAWING NUMBER

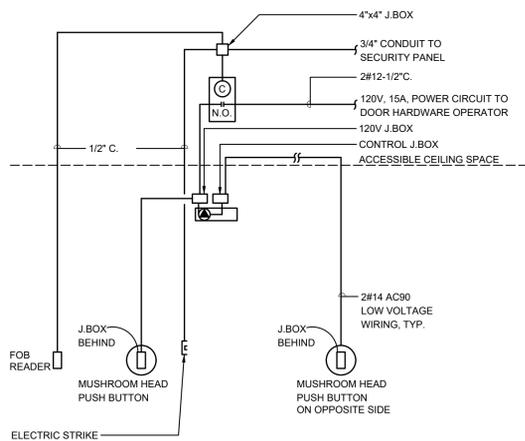
E3 OF 4

DRAWING NOTES (INDICATED WITH HEXAGONS):

- 1 PROVIDE POWER FOR AC-01 FROM HP-01, REFER TO WIRING FOR MECHANICAL EQUIPMENT SCHEDULE FOR MORE DETAILS.
- 2 PROVIDE A NEW 30A 208V 1PH WP DISCONNECT TO SERVE NEW ROOF TOP HEAT PUMP.
- 3 PROVIDE NEW DEDICATED 20A DUPLEX RECEPTACLE IN WEATHER PROOF LOCKABLE WHILE-IN-USE ENCLOSURE. PROVIDE NEW 20AMP 1P BREAKER IN EXISTING PANEL LP-A
- 4 REINSTALL EXISTING POWER DOOR OPERATOR AND CONTROLS AT NEW LOCATION AS INDICATED. REINSTALL EXISTING FOB READER TAKEN FROM EXIT 7. CONFIRM EXACT LOCATION ON SITE. MODIFY EXISTING POWER DOOR OPERATOR CIRCUIT TO SUIT NEW LAYOUT.
- 5 PROVIDE NEW POWER DOOR OPERATOR AND CONTROLS. EXTEND EXISTING POWER DOOR OPERATOR CIRCUIT TO SUIT NEW LAYOUT.
- 6 PROVIDE 1 NEW 15AMP 1P BREAKER IN EXISTING PANEL LP-A TO SERVE NEW ELECTRONIC FAUCETS.
- 7 PROVIDE 1 NEW 15AMP 1P BREAKER IN EXISTING PANEL LP-A TO SERVE NEW ELECTRONIC FAUCETS.
- 8 PROVIDE TYPED AND UPDATED PANEL DIRECTORIES INSIDE PANEL COVER OF ALL EFFECTED PANELS.
- 9 PROVIDE 1 NEW POWER DOOR OPERATOR C/W PUSHBUTTON CONTROLS. PROVIDE 1 NEW 15AMP 1p BREAKER IN EXISTING PANEL LP-A TO SERVE NEW DOOR OPERATOR.



nLIGHT AIR WIRING SCHEMATIC
SCALE: NTS

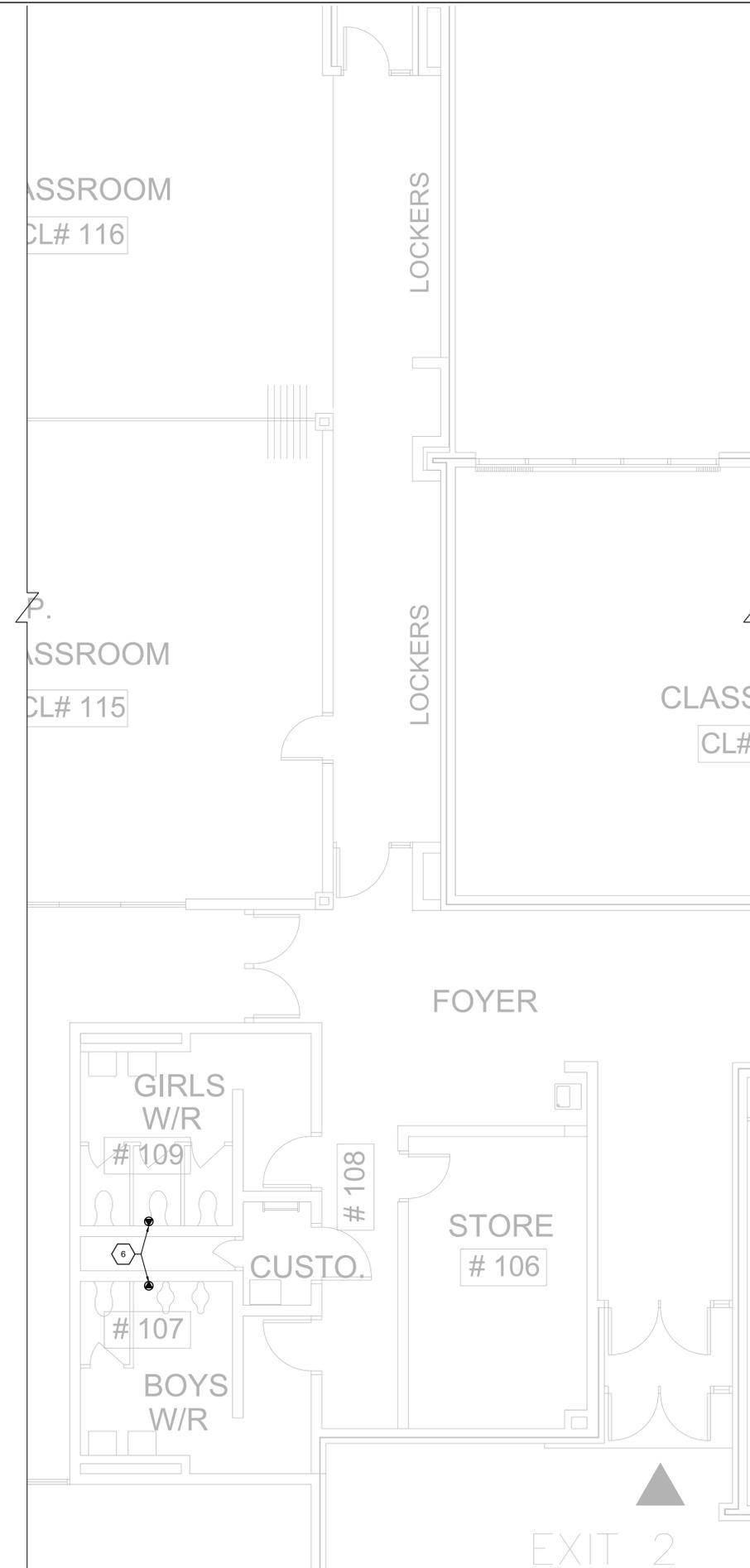


BARRIER FREE DOOR OPERATOR SECURITY DETAIL

1. PUSH BUTTON, MUSHROOM HEAD, AND OPERATOR BY HARDWARE INSTALLER. INSTALLATION BY HARDWARE INSTALLER.
2. CO-ORDINATE WITH HARDWARE SUPPLIER FOR TYPE OF JUNCTION BOX TO BE INSTALLED BEHIND MUSHROOM PUSH BUTTON.
3. POWER SUPPLY, CONTROL WIRING AND TERMINATIONS BY DIV.16.

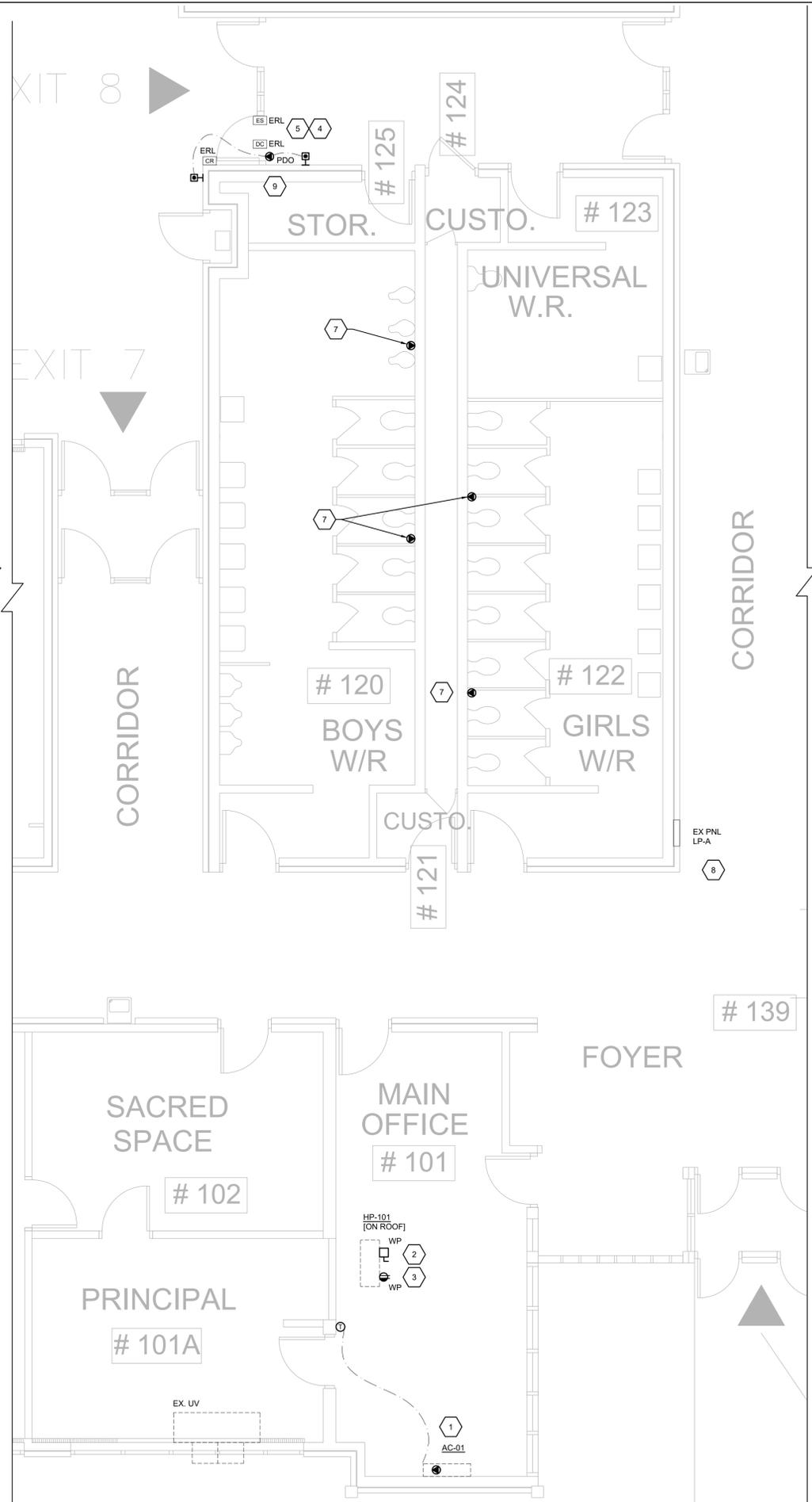
BARRIER FREE SECURITY DOOR SEQUENCE OF OPERATIONS:

1. UPON SUCCESSFUL FOB READ:
 - a) ELECTRIC STRIKE IS RELEASED
 - b) N.O. CONTACT IS CLOSED AND BARRIER FREE OPERATOR IS ACTIVATED.



PART FLOOR PLAN - OFFICE ELECTRICAL PROPOSED LAYOUT

SCALE: 1:150



PART FLOOR PLAN - OFFICE ELECTRICAL PROPOSED LAYOUT

SCALE: 1:150

ELECTRICAL GENERAL REQUIREMENTS

GENERAL CONDITIONS:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO ELECTRICAL SAFETY CODE, THE LOCAL ELECTRICAL SAFETY AUTHORITY INSPECTION OFFICE, THE ONTARIO BUILDING CODE, THE ONTARIO FIRE CODE AND ANY OTHER LOCAL REGULATIONS HAVING JURISDICTION OVER THE WORK OF THIS TRADE.
2. BEFORE TENDERING, EXAMINE THE SITE AND ALL DRAWINGS AND SPECIFICATIONS OF ALL TRADES AND BE FAMILIAR WITH THE WORK OF THIS TRADE. NO EXTRAS WILL BE ALLOWED FOR THE FAILURE TO DO SO.
3. ALL ELECTRICAL WORK SHALL COMPLY WITH CSA ELECTRICAL BULLETINS APPLICABLE AT TENDER CLOSE. WHERE SPECIFIC BULLETINS ARE NOT NAMED THEY ARE STILL CONSIDERED AN INTEGRAL PART OF THIS SPECIFICATION.
4. PROVIDE ALL GROUNDING AND BONDING TO GROUND REQUIRED, REGARDLESS IF NOT SHOWN ON THE DRAWINGS. GROUNDING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE.
5. PROVIDE ALL NEW MATERIALS HAVING CSA, CUL, WARNOCK HERSEY OR OTHER APPROVAL AGENCY LABEL AND LISTING. ALL WORKMANSHIP BY THIS TRADE SHALL BE FIRST CLASS, CONFORMING TO INDUSTRY STANDARD PRACTICES FOR SAFETY, ACCESSIBILITY, DURABILITY AND NEATNESS FOR ACCEPTANCE BY THE OWNERS' REPRESENTATIVES.
6. ARRANGE AND PAY FOR ALL PERMITS AND INSPECTION FEES REQUIRED FOR THE WORK OF THIS TRADE. SUBMIT TO THE LOCAL ELECTRICAL INSPECTION DEPARTMENT AND/OR ELECTRICAL SUPPLY AUTHORITY ANY AND ALL DRAWINGS REQUIRED FOR PERMITS, FEES, APPROVALS, EXAMINATIONS AND SERVICES.
7. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR THE WORK OF THIS TRADE. ALL CUTTING AND PATCHING SHALL BE PERFORMED BY QUALIFIED TRADES PERSONS. INCLUDE ALL COSTS FOR CUTTING AND PATCHING RELATED TO THE WORK OF THIS TRADE IN THE TENDER PRICE.
8. PROVIDE ALL SLEEVES, INSERTS AND HANGERS REQUIRED FOR THE ELECTRICAL WORK. TREAT ALL SLEEVES OR HOLES PIERCING ACOUSTICAL SEPARATIONS FOR INSTALLATIONS OF THE DIVISION TO MAINTAIN ACOUSTICAL RATINGS. ALL GAPS SHALL BE PACKED WITH ACOUSTICAL INSULATION AND SEALED AT BOTH ENDS WITH ACOUSTICAL CAULKING. PATCH ALL OPENINGS AROUND INSTALLATIONS OF THIS DIVISION PIERCING FIRE OR SMOKE SEPARATIONS WITH AN APPROVED WATERTIGHT SMOKE AND FIRE STOP SEALANT.
9. PROVIDE ACCESS PANELS AS FOLLOWS: SHEET STEEL CONSTRUCTION WITH FACTORY APPLIED PRIME COAT OF PAINT. POSITIVE LATCHING SYSTEM. MINIMUM 18 GAUGE STEEL. PROVIDE HINGED DOORS FOR ALL ACCESS PANELS WITH A SIZE OF 450MM X 450MM (18" X 18") OR LARGER. WHERE THE ACCESS DOOR IS LOCATED IN A FIRE RATED ASSEMBLY OR A FIRE SEPARATION HAVING A FIRE RESISTANCE RATING, PROVIDE ACCESS DOORS WHICH ARE ULC LISTED FOR THE REQUIRED FIRE RESISTANCE RATING ALLOWED BY THE ONTARIO BUILDING CODE.
10. TOUCH-UP ALL SHOP PAINTED EQUIPMENT DAMAGED IN TRANSIT OR DURING INSTALLATION TO MATCH ORIGINAL SHOP FINISH.
11. AVOID ACCUMULATION OF DEBRIS AS THE WORK PROGRESSES. ON COMPLETION OF THE CONSTRUCTION AND PRIOR TO THE FINAL INSPECTION AND ACCEPTANCE BY THE OWNER, CLEAN UP AND REMOVE FROM THE SITE ALL SCRAP MATERIALS RESULTING FROM THE WORK OF THIS TRADE.
12. CO-ORDINATE THE WORK OF THIS TRADE WITH ALL OTHER TRADES ON THE JOB SO THAT THE WORK MAY PROGRESS WITHOUT ANY DELAY. SCHEDULE AND PHASE DEMOLITION AND NEW WORK TO REDUCE INTERFERENCE AND DOWNTIME OF EXISTING SYSTEMS. NOTIFY OWNERS REPRESENTATIVE OF ALL DOWNTIME PRIOR TO PROCEEDING WITH WORK.
13. IN AREAS WHERE SPACE IS LIMITED AND MULTIPLE TRADES ARE INSTALLING SERVICES, COORDINATE INSTALLATION OF SERVICES. PREPARE INTERFERENCE DRAWINGS PRIOR TO CONSTRUCTION TO ENSURE INSTALLATION OF ALL SERVICES IS COORDINATED.
14. PRIOR TO THE FINAL INSPECTION, CLEAN ALL ELECTRICAL EQUIPMENT. CLEAN ALL CONSTRUCTION DUST AND DIRT FROM INSTALLED EQUIPMENT AT THE END OF THE JOB. REPAIR ANY DAMAGE CAUSED BY THE ELECTRICAL TRADE TO EXISTING BUILDINGS OR EQUIPMENT, ETC TO THE CONSULTANTS SATISFACTION.
15. UPON COMPLETION OF THE WORK, PROVIDE THE FINAL UNCONDITIONAL CERTIFICATE OF ACCEPTANCE FROM THE LOCAL ELECTRICAL SAFETY AUTHORITY INSPECTION OFFICE.
16. PROVIDE A ONE YEAR GUARANTEE ON ALL MATERIALS, AND LABOUR FROM THE DATE OF ACCEPTANCE BY THE OWNER. COMPLETE ALL WARRANTY REGISTRATION DOCUMENTATION ON BEHALF OF THE BUILDING OWNER. SUBMIT COPIES OF COMPLETED DOCUMENTATION IN OPERATIONS AND MAINTENANCE MANUALS.
17. ON MULTI-PHASE FEEDERS AND PANELS, ADJUST THE PHASE LOADING SO AS NOT TO EXCEED A PHASE IMBALANCE OF 10%. LINE TO LINE, UNDER NORMAL OPERATING CONDITIONS OF THE FEEDER OR PANEL.
18. SUBMIT SHOP DRAWINGS IN ELECTRONIC PDF FORMAT FOR THE FOLLOWING EQUIPMENT: BREAKERS, FIRE ALARM DEVICES, EXIT AND EMERGENCY LIGHTING UNITS, ETC. THE SHOP DRAWINGS SHALL BEAR THE NAME OF THE MANUFACTURER, THE MANUFACTURER'S CATALOGUE NUMBER, AND THE CONSULTANT'S DESIGNATION, ALONG WITH ALL PERTINENT INFORMATION PERTAINING TO THAT SPECIFIC PIECE OF EQUIPMENT.
19. ALL ELECTRICAL EQUIPMENT SHALL BE MOUNTED PLUMBED TRUE.
20. DEVICE BOXES SHOWN BACK TO BACK SHALL BE OFFSET A MINIMUM OF 305MM (12") TO REDUCE SOUND TRANSMISSION BETWEEN ROOMS.
21. AS-BUILT DRAWINGS:
 - 21.1. MAINTAIN AN ACCURATE RECORD OF DEVIATIONS AND CHANGES FROM CONTRACT DRAWINGS WITH RED LINE MARKINGS. TRANSFER AS-BUILT MARK-UPS TO DIGITAL DRAWING FORMAT. THIS PROCESS SHOULD BE COMPLETED BEFORE THE FINAL INSPECTION BY THE CONSULTANT. SUBMIT TO THE CONSULTANT WITH THE O&M MANUALS AT COMPLETION OF THE PROJECT.
 - 21.2. FORMAT FILES TO MATCH EXACTLY THE LAYERING SYSTEM AND SYMBOLOLOGY OF THE CONSULTANT. BIND ALL EXTERNAL REFERENCES.
 - 21.3. THE AS-BUILT DRAWINGS SHALL HAVE A VALUE OF \$5,000 UNLESS THE ELECTRICAL CONTRACT VALUE IS LESS THAN \$100,000 WHICH SHALL HAVE A \$3,000 VALUE. ONCE AS-BUILT DRAWINGS HAVE BEEN COMPLETED, SUBMITTED AND REVIEWED, PAYMENT WILL BE RELEASED. THIS VALUE IS NOT INCLUDED IN THE AMOUNT REQUIRED BY THE CONSTRUCTION LIEN ACT.
 - 21.4. THIS PROJECT UTILIZED THE FOLLOWING DIGITAL FORMAT(S): AUTOCAD/PDF.
22. OPERATION AND MAINTENANCE INSTRUCTION MANUALS:
 - 22.1. PROVIDE PDF COPIES OF COMPLETE OPERATION AND MAINTENANCE INSTRUCTIONS FOR EQUIPMENT FURNISHED UNDER THIS CONTRACT. MANUAL TO BE ORGANIZED WITH BOOKMARKS IN A FORMAT TO MATCH THE SPECIFICATION SECTIONS. ONCE MANUAL IS REVIEWED AND ACCEPTED, PROVIDE PDF VERSION ON ELECTRONIC MEDIA (USB DEVICE OR AS REQUIRED BY OWNER). PROVIDE (THREE/ONE) HARD COPY VERSION(S) IN THREE RING BINDERS, COMPLETE WITH INDEX PAGES, INDEXING TABS AND COVER IDENTIFICATION AT FRONT AND SIDE.
 - 22.2. MANUALS SHALL INCLUDE THE FOLLOWING INFORMATION:
 - 22.2.1. CONTACT INFORMATION OF CONSULTANTS AND CONTRACTORS.
 - 22.2.2. COMPLETE SET OF FINAL PROJECT SHOP DRAWINGS.
 - 22.2.3. ESA LETTER OF COMPLIANCE.
 - 22.2.4. CERTIFICATE OF SUBSTANTIAL COMPLETION.
 - 22.2.5. FIRE ALARM VERIFICATION REPORT.
 - 22.2.6. MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - 22.2.7. MANUFACTURER'S MAINTENANCE INSTRUCTIONS.
 - 22.2.8. MANUFACTURER'S WARRANTIES AND GUARANTEES, AND
 - 22.2.9. COPIES OF ALL TEST DATA AND VERIFICATION CERTIFICATES.

23. WHERE THE WORD PROVIDE IS USED IN THESE SPECIFICATIONS OR ON THE DRAWINGS, IT HAS THE MEANING "PROVIDE AND INSTALL COMPLETE WITH ALL ASSOCIATED MOUNTING HARDWARE AND CONNECTIONS".
 24. CHANGES IN THE WORK
 - 24.1. CHANGES TO THE CONTRACT REQUIRING ADDITIONS TO OR DELETIONS FROM THE WORK OF THIS DIVISION SHALL BE CARRIED OUT UPON WRITTEN REQUEST OF THE CONSULTANT. EXTRAS TO THE CONTRACT OR CREDITS SHALL BE SUBMITTED WITH A COMPLETE COST BREAKDOWN AS FOLLOWS:
 - ITEMIZED MATERIAL LIST WITH QUANTITIES AND UNIT COSTS
 - ITEMIZED LABOUR COST BREAKDOWN
 - COPY OF QUOTATIONS FROM ALL SUPPLIERS FOR ALL EQUIPMENT
 - COPY OF QUOTATIONS FROM ALL SUBCONTRACTORS INCLUDING ALL OF THE REQUIREMENTS OF THIS SECTION
 - TOTAL MATERIAL COST
 - TOTAL HOURS
 - HOURLY RATE (REFER TO SUPPLEMENTARY CONDITIONS AND GENERAL CONTRACT)
 - TOTAL OVERHEAD AND PROFIT (REFER TO SUPPLEMENTARY CONDITIONS AND GENERAL CONTRACT)
 26. ELECTRICAL PROJECT COMPLIANCE
 - 26.1. PROVIDE THE FOLLOWING DOCUMENTS TO THE CONSULTANT TO ISSUE THE LETTER OF GENERAL REVIEW:
 - 26.1.1. ESA INSPECTION REPORT
 - 26.1.2. FIRE ALARM SYSTEM VERIFICATION REPORT
 - 26.1.3. A SIGNED VERIFICATION LETTER FROM THE ELECTRICAL CONTRACTOR CONFIRMING THE FOLLOWING:
 - LIGHTING AND LIGHTING CONTROLS OPERATIONAL
 - SMOKE ALARM AND CO DETECTORS HAVE BEEN VERIFIED OPERATIONAL.
- CONDUCTORS & RACEWAYS:**
- USE RW90 COPPER CONDUCTORS CSA APPROVED FOR THE APPLICATION. CONDUCTORS IN UNDERGROUND RACEWAYS TO BE RW90. SIZE THE CONDUCTORS SO THAT THE MAXIMUM BRANCH CIRCUIT VOLTAGE DROP DOES NOT EXCEED 3%. MINIMUM CONDUCTOR SIZE IS #12 AWG UNLESS OTHERWISE INDICATED.
27. DESIGN IS BASED ON COPPER CONDUCTORS. ALUMINUM CONDUCTORS ARE NOT PERMITTED ON THIS PROJECT.
 28. ALL CONDUCTORS ARE TO BE INSTALLED IN RACEWAYS AS DESCRIBED BELOW:
 - 28.1. PVC CONDUIT: IN CONCRETE SLAB, UNDERGROUND BURIED, BELOW SLAB ON GRADE OR EXTERIOR EXPOSED SURFACE RACEWAYS.
 - 28.2. EMT RACEWAYS: INTERIOR SURFACE RACEWAYS, BRANCH CIRCUIT WIRING FROM PANELS, CONCEALED IN ACCESSIBLE CEILINGS AND INTERIOR WALLS OR IN INTERIOR CONCRETE BLOCK CONSTRUCTION.
 - 28.3. ARMOURD CABLE (BX): FOR FINAL DROPS TO FIXTURES IN CEILING SPACES. (LENGTH NOT TO EXCEED 3M IN THIS APPLICATION) AND FOR EXISTING BLOCK WALLS.
 - 28.4. SURFACE METAL RACEWAYS (SMR): FOR EXISTING CONSTRUCTION WHERE EXISTING WALLS AND FINISHES ARE TO REMAIN OR NEW SERVICES CANNOT BE FISHED IN EXISTING WALL.
 - 28.5. OBTAIN PERMISSION FROM THE CONSULTANT PRIOR TO INSTALLATION. COLOUR AND SIZE OF RACEWAYS TO BE CONFIRMED WITH CONSULTANT FOR THE SPECIFIC APPLICATION.
 29. MINIMUM RACEWAY SIZE FOR EXTERIOR U/G BURIED APPLICATION IS 3/4" (19MM). MINIMUM BURIED DEPTH IS 36" (900MM) BELOW FINISHED GRADE.
 30. ALL CONDUIT AND WIRING IS TO BE CONCEALED IN ALL FINISHED AREAS.
- DEVICES:**
- SWITCHES:**
- 30.1. SPEC GRADE, RATED 20 AMP, 125 VAC, SINGLE POLE, SINGLE THROW. (3-WAY OR 4-WAY AS NOTED ON DRAWINGS.)
 - 30.2. SPEC GRADE, RATED 15 AMP, 347 VAC, SINGLE POLE, SINGLE THROW. (3-WAY OR 4-WAY AS NOTED ON DRAWINGS.)
 - 30.3. SPEC GRADE, RATED 20 AMP, 347 VAC, SINGLE POLE, SINGLE THROW. (3-WAY OR 4-WAY AS NOTED ON DRAWINGS.)
 - 30.4. MANUFACTURERS: HARVEY HUBBEL, LEVITON, LEGRAND, LUTRON.
- RECEPTACLES:**
- 31.1. SPEC GRADE, DUPLEX, RATED 20 AMP, 125 VAC, T-SLOT EEMAC 5-20R CONFIGURATION, U-GROUND.
 - 31.2. GROUND FAULT INTERRUPTING, CLASS A DUPLEX, RATED 20 AMP, 125 VAC, T-SLOT EEMAC 5-20R FIG. TRIP RATED FOR 4-8 MA LEAKAGE CURRENT. C/W PUSH TO TEST AND RESET BUTTONS.
 - 31.3. EXTERIOR GROUND FAULT INTERRUPTING, CLASS A DUPLEX, RATED 15 AMP, 125 VAC, EEMAC 5-15R FIG. TRIP RATED FOR 4-8 MA LEAKAGE CURRENT. C/W PUSH TO TEST AND RESET BUTTONS, NEMA 3R WEATHERPROOF C/W WHILE IN USE COVER PLATE. HUBBELL RW57300 OR APPROVED EQUAL.
- COVER PLATES:**
- 32.1. BRUSHED STAINLESS STEEL IN ALL FINISHED AREAS.
 - 32.2. GALVANIZED STEEL COVERPLATES, FOR SURFACE MOUNTED DEVICES IN UNFINISHED AREAS.
 - 32.3. COVERPLATES TO BE OF THE SAME MANUFACTURER AS THE DEVICES. PROVIDE A TYPED LABEL ON EACH DEVICE PLATE INDICATING THE PANEL BOARD NAME AND CIRCUIT NUMBER THE DEVICE IS FED FROM.
 - 32.4. FOR OUTDOOR APPLICATIONS, PROVIDE WEATHER PROOF WHILE IN USE COVER PLATES. COVERPLATE TO BE CLEAR LEXAN WITH SEALED-IN-PLACE GASKET.
- COLOUR OF DEVICES: WHITE
33. STARTERS: FULL VOLTAGE, MAGNETIC STARTERS WITH COIL VOLTAGE AS REQUIRED BY THE PIECE OF EQUIPMENT BEING CONTROLLED. STARTERS TO BE COMPLETE WITH OVERLOAD RELAYS PROPERLY SIZED FOR THE MOTOR FULL LOAD AMPERES. PROVIDE CONTROL TRANSFORMERS WHERE REQUIRED FOR PROPER SEQUENCE OF OPERATION. ON PIECES OF EQUIPMENT WITH AUTOMATIC CONTROLS PROVIDE A HAND-OFF-AUTO SWITCH, PILOT LIGHT AND LOCAL DISCONNECT SWITCH. PROVIDE ALL N/O AND N/C CONTACTS FOR CONTROL AS INDICATED.
 - 33.1. MANUFACTURERS: ALLEN BRADLEY, SQUARE D, FURNAS, KLOCKNER-MOELLER
- HEAVY DUTY EQUIPMENT ISOLATING DISCONNECTS: SIZE DISCONNECTING DEVICES FOR THE CURRENT CARRYING CAPACITIES OF THE EQUIPMENT TO BE ISOLATED. PROVIDE NUMBER OF ISOLATING POLES AS REQUIRED BY EQUIPMENT TO BE ISOLATED. TYPE OF ENCLOSURE AS INDICATED BELOW.
- 33.1. DUST FREE OR STANDARD - EEMAC TYPE 1.
 - 33.2. OUTDOOR OR DAMP LOCATION - EEMAC TYPE 3R.
 - 33.3. FOR DIRECT EXPOSURE TO WATER UNDER PRESSURE- EEMAC TYPE 4.
 - 33.4. FOR HIGH DUST CONCENTRATION OF NON-IGNITABLE DUST- EEMAC

- TYPE 12.
- 33.5. MANUFACTURERS: CUTLER HAMMER - EATON, SCHNEIDER CANADA, SIEMENS
34. ALL DEVICES OF THE SAME TYPE, SIZE AND RATING ARE TO BE OF THE SAME MANUFACTURER THROUGHOUT THE PROJECT.
- LOCAL DIMMING:**
- 18.1. DIMMERS: 20A, RATED 120VAC, SINGLE POLE, 0-10V 0 - 100% DIMMING, VOLTAGE COMPENSATED WITH RADIO AND T.V. FREQUENCY SUPPRESSION FILTERS. DIMMERS TO BE nLIGHT AIR OR EQUAL. COLOUR TO MATCH OTHER DEVICES USED ON THE PROJECT.
- MANUFACTURERS: nLIGHT OR APPROVED EQUALS
- WIRING FOR OTHER TRADES:**
1. PROVIDE POWER WIRING FOR ELECTRICALLY OPERATED EQUIPMENT OF OTHER TRADES AS NOTED ON THE DRAWINGS OR DEFINED IN THIS SPECIFICATION. PROVIDE ALL STARTERS AND DISCONNECT SWITCHES FOR A COMPLETE AND OPERATING SYSTEM.
 2. PROVIDE POWER AND WIRING TO THE ELECTRICALLY OPERATED EQUIPMENT AS DETAILED IN WIRING FOR MECHANICAL EQUIPMENT SCHEDULE. THIS LIST DOES NOT DETAIL THE SCOPE OF WORK FOR EACH PIECE OF EQUIPMENT. CO-ORDINATE WITH MECHANICAL CONTRACTOR FOR THE EXACT POWER REQUIREMENTS OF THE EQUIPMENT TO BE SUPPLIED TO THE PROJECT. DO NOT PROCEED WITH THE INSTALLATION OF ANY OF THE ELECTRICAL ROUGH-IN UNTIL THE POWER SUPPLY REQUIREMENTS AND THE POINTS OF CONNECTION HAVE BEEN ESTABLISHED FROM THE SHOP DRAWINGS FOR THE EQUIPMENT OF MECHANICAL CONTRACTOR.
 3. PROVIDE POWER WIRING TO ALL CONTROL DEVICES SUPPLIED BY MECHANICAL CONTRACTOR AND OPERATING AT 100 VAC OR GREATER.
 4. PROVIDE CONTROL WIRING FOR ALL CONTROL DEVICES WITH OPERATING VOLTAGES OF THE CONTROLS GREATER THAN 100VAC.
 5. PROVIDE RACEWAYS/CONDUITS FOR ALL CONTROL WIRING AS IDENTIFIED ON THE DRAWINGS FOR USE BY MECHANICAL CONTRACTOR. PROVIDE OUTLET BOXES AS DIRECTED BY MECHANICAL CONTRACTOR FOR ALL TERMINAL POINTS IN THE CONTROL SYSTEM. CO-ORDINATE WITH MECHANICAL CONTRACTOR.
- RENOVATIONS ON EXISTING BUILDING:**
1. RENOVATIONS SHALL BE MADE ON THE EXISTING BUILDING AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. REMOVE ALL EXISTING LUMINARIES, OUTLET BOXES, SWITCHES, RECEPTACLES, ETC. AS INDICATED ON DRAWINGS. ALL EQUIPMENT REMOVED AND NOT REUSED SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS SPECIFICALLY NOTED OTHERWISE. ALL EQUIPMENT INSTALLED IN RENOVATED AREAS SHALL BE NEW. ELECTRICAL TRADE WILL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR ELECTRICAL INSTALLATION. ALL CONDUIT SHALL BE INSTALLED CONCEALED IN FINISHED AREAS UNLESS SPECIFICALLY NOTED OTHERWISE.
 2. NEW CONDUCTORS SHALL BE INSTALLED TO THE NEAREST OUTLET AS REQUIRED FOR EQUIPMENT THAT IS RELOCATED. INSTALLATION OF JUNCTION BOXES FOR SPLICING PURPOSES SHALL NOT BE PERMITTED UNLESS SPECIFICALLY CALLED FOR.
 3. PROVIDE ALL CONDUCTORS REQUIRED TO RECONNECT EXISTING CIRCUITS WHERE REQUIRED THAT MAY BE DISRUPTED DUE TO RENOVATIONS ON THE EXISTING FLOOR/ROOF.
 4. PROVIDE NEW BREAKERS WHERE REQUIRED IN EXISTING PANELS TO PICK-UP ADDITIONAL CIRCUITS INDICATED ON THE DRAWINGS.
 5. ALL EXISTING LUMINARIES THAT ARE RELOCATED SHALL BE REMOVED, CHECKED, SERVICED, CLEANED, AND RE-LAMPED PRIOR TO RE-INSTALLATION. ALL UNITS NOT REUSED SHALL BE TURNED OVER TO THE OWNER, COMPLETE WITH LAMPS.
 6. COORDINATE WITH MECHANICAL DRAWINGS AND SAFELY DISCONNECT AND REMOVE ALL MOTOR/MECHANICAL EQUIPMENT BEING DEMOLISHED. REMOVE UNUSED WIRING/CONNECTION BACK TO SOURCE PANEL. EXTEND WIRING/CONNECTION OF ALL MOTOR/MECHANICAL EQUIPMENT BEING RELOCATED. PROVIDE PROPER JUNCTION BOX AT EACH POINT OF EXTENSION.
- FIRESTOPPING AND SMOKE SEAL:**
1. PROVIDE A ULC LISTED FIRESTOP SYSTEM TO SEAL AROUND ALL PIPING, TUBING, DUCTS, CONDUITS, ELECTRICAL WIRES AND CABLES, AND OTHER SIMILAR ELECTRICAL SERVICES WHICH PENETRATE PART OF A BUILDING ASSEMBLY REQUIRED TO HAVE A FIRE RESISTANCE RATING OR A FIRE SEPARATION. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING ASSEMBLY AND FIRE SEPARATION TYPES AND LOCATIONS.
 2. FOR ALL PENETRATIONS THROUGH HORIZONTAL FIRE SEPARATIONS, REQUIRED TO HAVE A FIRE RESISTANCE RATING, USE FIRESTOP SYSTEMS WITH A FT RATING NOT LESS THAN THE FIRE RESISTANCE RATING FOR THE FIRE SEPARATION. THIS INCLUDES THE SEALING OF ANY SLEEVES PROVIDED FOR FUTURE USES. IN ALL OTHER LOCATIONS, USE FIRESTOP SYSTEMS WITH A F RATING NOT LESS THAN THE FIRE PROTECTION RATING REQUIRED FOR CLOSURES IN THE BUILDING ASSEMBLY. REQUIRED TO HAVE A FIRE RESISTANCE RATING, OR IN THE FIRE SEPARATION.
 3. BEFORE STARTING ANY WORK ON SITE, SUBMIT DETAILED SHOP DRAWINGS TO BOTH THE CONSULTANT AND THE LOCAL BUILDINGS INSPECTION AUTHORITY FOR THEIR REVIEW AND COMMENTS. INCLUDE:
 - 3.1. MANUFACTURER'S TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH SPECIFIC TYPE AND LOCATION OF PENETRATION.
 - 3.2. CERTIFICATION THAT PROPOSED FIRESTOPPING MATERIALS AND ASSEMBLIES COMPLY WITH CAN4-115-M.
 - 3.3. ULC LISTINGS WITH COPIES OF ULC DATA SHEETS FOR EACH SPECIFIC TYPE AND LOCATION OF PENETRATION.
 - 3.4. MAKE PENETRATION TYPES AND LOCATIONS ON SET OF WHITE PRINTS. AT COMPLETION OF PROJECT, TRANSFER THIS INFORMATION TO "AS-BUILT" DRAWINGS.

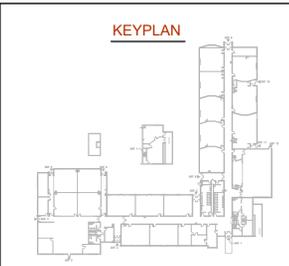
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REVISIONS

NO.	ISSUED FOR	DATE
00	50% CLIENT REVIEW	26.01.28
01	90% CLIENT REVIEW	26.02.11
02	TENDER	26.03.03

DESIGN	ADM	DRAWN	ADM
CHECKED	AD	REVIEWED	AD

NORTH

PROJECT

ST. PETER CES

ADDRESS

**92 AVENUE ROAD,
CAMBRIDGE, ON**

PROJECT NO.

CE-6381

DRAWING TITLE

ELECTRICAL SPECIFICATIONS

DRAWING NUMBER

E4 OF 4