

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
LINETYPES	
	NEW WORK
	WORK TO BE DEMOLISHED, OR REMOVED
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN
	FUTURE WORK (NOT IN SCOPE)
	EXTENTS OF FIRE ALARM ZONE, WET LOCATION, OR OTHER AREA AS NOTED ON PLANS
ABBREVIATIONS	
E	EXISTING TO REMAIN
R	EXISTING TO BE DEMOLISHED/REMOVED
ER	EXISTING IN RELOCATED POSITION
RR	REMOVE AND RELOCATE
C	CEILING MOUNTED CONNECTION
W	WALL MOUNTED CONNECTION
F	FLOOR MOUNTED CONNECTION
⋈	CENTRE LINE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
O/C	OVER COUNTER
U/C	UNDER CABINET
U/F	UNDER RAISED FLOOR
CCT	CIRCUIT
CTE	CONNECT TO EXISTING
AFCI	ARC FAULT CIRCUIT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
IG	ISOLATED GROUND
TL	TWIST LOCK
TR	TAMPER RESISTANT
WG	WIRE GUARD
WP	WEATHER PROOF
XP	EXPLOSION PROOF
R/I	ROUGH-IN ONLY
NIC	NOT IN CONTRACT
SIM.	SIMILAR TO
TYP.	TYPICAL
ABBREVIATIONS - CODES AND STANDARDS	
OBC	ONTARIO BUILDING CODE
OESC	ONTARIO ELECTRICAL SAFETY CODE
OFC	ONTARIO FIRE CODE
ABBREVIATIONS - CEILING TYPES	
ACT	ACOUSTIC CEILING TILE (T-BAR)
EXP	EXPOSED CEILING
OWSJ	OPEN WEB STEEL JOISTS
PCC	PAINTED OR POPCORN CEILING ON EXPOSED CONCRETE
WD	WOOD CEILING
ANNOTATIONS	
CL	CLOSET
WR	WASHROOM
PLUMBING	
PTP	ELECTRONIC TRAP PRIMER
PSC	PLUMBING SENSOR CONTROL (TOUCHLESS FAUCETS) HVAC
	THERMOSTAT OR TEMPERATURE SENSOR
	TIMER CONTROL
BBH	ELECTRIC BASEBOARD HEATER (BBH)
FFH	FORCED FLOW HEATER
ERV	ENERGY RECOVERY VENTILATOR
HRU	HEAT RECOVERY UNIT
MUA	MAKE-UP AIR UNIT
CONDUIT AND BOXES	
	CONDUIT WITH END BUSHING
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT CONTINUES
	JUNCTION BOX
	PULL BOX
	HAND HOLE
CONNECTIONS TO EQUIPMENT	
DW	DISHWASHER
FR	FRIDGE
MW	MICROWAVE
HD	HAND DRYER. ALLOW UP TO 208V-1PH-20A
	1-PHASE DIRECT CONNECTION OUTLET AS NOTED.
	3-PHASE DIRECT CONNECTION OUTLET AS NOTED.
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	SYSTEM FURNITURE WALL FEED FOR POWER AND TELECOMMUNICATIONS UNLESS NOTED OTHERWISE. 'C' ADJACENT TO SYMBOL DENOTES CEILING FEED, 'F' ADJACENT TO SYMBOL DENOTES FLOOR FEED.
W	ADJACENT TO 3-PHASE DIRECT CONNECTION, DENOTES WALL SYSTEM FURNITURE FEED FOR POWER AND COMMUNICATIONS.
	CONNECTION TO SINGLE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
	THREE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
LIGHTING CONTROLS REFER TO SPECIFICATIONS AND RESPECTIVE SCHEDULES FOR EXACT REQUIREMENTS	
	SWITCH OR OTHER USER INTERFACE DEVICE AS DESCRIBED ON LIGHTING CONTROLS SCHEDULE.
	3-WAY SWITCH
DIM	ADJACENT TO SWITCH, DENOTES DIMMING SWITCH.
K	ADJACENT TO SWITCH, DENOTES KEY SWITCH.
T	ADJACENT TO SWITCH, DENOTES COUNTDOWN TIMER SWITCH
AT	ADJACENT TO SWITCH, DENOTES ASTRONOMICAL TIMER SWITCH
DS	ADJACENT TO SWITCH, DENOTES DOOR SWITCH
PIR	PASSIVE INFRARED SENSOR
DT	DUAL TECHNOLOGY SENSOR
UT	ULTRASONIC SENSOR
OS	SENSOR (TYPE UNKNOWN)
M	ADJACENT TO SWITCH, DENOTES MASTER CONTROL FOR ALL LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED.
	WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC', LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT, OR AS NOTED.
RP	RELAY PANEL
PP	POWER PACK
SC	SCENE CONTROLLER.
	PHOTOCELL SENSOR.
	PHOTOCELL SENSOR. 'PC' DENOTES CLOSED LOOP PHOTOCELL CONTROL, 'PO' DENOTES OPEN LOOP PHOTOCELL CONTROL.
	CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY', 'OS' DENOTES UNKNOWN TECHNOLOGY.
	WALL MOUNTED OCCUPANCY SENSOR.
DISTRIBUTION EQUIPMENT	
	TRANSFORMER, PLAN VIEW
	SURFACE MOUNTED LIGHTING AND RECEPTACLE PANELBOARD
	RECESSED RECEPTACLE AND LIGHTING PANELBOARD
	DISTRIBUTION PANELBOARD
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	CONTACTOR
	LOOSE STARTER. COORDINATE STARTING CHARACTERISTIC WITH EQUIPMENT REQUIREMENTS.
	COMBINATION STARTER.
VFD	ADJACENT TO STARTER, DENOTES VARIABLE FREQUENCY DRIVE
POWER RECEPTACLES AND BOXES	
	120V U-GROUND DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND 20A DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND 20A DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES WALL SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES FLOOR SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
	MANUALLY CONTROLLED SPLIT RECEPTACLE
	120V U-GROUND QUAD RECEPTACLE.
	INDICATES RECEPTACLE COMPLETE WITH ONE TYPE A AND ONE TYPE C USB CHARGING PORTS.
	14-30R RECEPTACLE FOR LAUNDRY DRYER, OR OTHER RECEPTACLE AS NOTED
	14-50R RECEPTACLE FOR ELECTRONIC RANGE, OR OTHER RECEPTACLE AS NOTED. PROVIDE 40A/2P BREAKER TO SUIT..
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	FLOOR RECEPTACLE OR RECEPTACLE IN FLOOR BOX (POWER ONLY)
	SERVICE POLE. PROVIDE POWER TO JUNCTION BOX IN CEILING SPACE ABOVE. DEVICES ON POLE AS NOTED ON PLANS.
FB1	ADJACENT TO FLOOR RECEPTACLE, DENOTES FLOOR BOX TYPE
*	ADJACENT TO DEVICE, DENOTES DEVICE CONNECTED TO EMERGENCY POWER
LIGHTING FIXTURES SYMBOLS IN ACCORDANCE WITH IES DG-300 AND IES HB-10-11 WHERE NOT DETAILED OTHERWISE HERE. REFER TO LIGHTING FIXTURE SCHEDULE FOR FURTHER DETAILS AND EXACT FIXTURE REQUIREMENTS.	
	LINEAR LUMINAIRE, SURFACE MOUNTED TO CEILING
	LINEAR LUMINAIRE, RECESSED IN CEILING
	LINEAR LUMINAIRE, SUSPENDED; PENDANT, CHAIN, STEM, OR AIRCRAFT CABLE HUNG TO SUIT APPLICATION, OR AS NOTED IN SCHEDULE. "X", WHEN USED DENOTES POWER FEED LOCATION.
	LINEAR LUMINAIRE, WALL MOUNTED
	AS ABOVE, CONNECTED TO EMERGENCY OR NIGHT LIGHTING CIRCUIT AS INDICATED.
	ROUND OR SQUARE DOWNLIGHT, RECESSED
	RECESSED DOWNLIGHTS, CONNECTED TO EMERGENCY OR NIGHT LIGHT CIRCUIT
	ROUND SUSPENDED LUMINAIRE
	WALL SCONCE OR OTHER WALL MOUNTED LUMINAIRES.
EM	CONNECTED TO EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
CE	CONNECTED TO EMERGENCY CIRCUIT. PROVIDE CUL 924 LISTED SHUNT TRIP RELAY OR EQUAL TO PERMIT CONTROL OF LUMINAIRE WITH ZONING BASED ON LOCAL LIGHTING CONTROLS.
NL	LUMINAIRE CONNECTED TO NON-EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
A, B, Z1, Z2, ETC.	DENOTES ZONING/CIRCUITING ASSIGNMENTS FOR LUMINAIRES AND CONTROLS IN THE SAME SPACE.
EMERGENCY LIGHTING REFER TO EMERGENCY LIGHTING FIXTURE SCHEDULE FOR EXACT FIXTURE REQUIREMENTS.	
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
SL	DENOTES 'SELF-LUMINOUS' EXIT SIGN
PL	PHOTOLUMINOUS EXIT SIGN
	EMERGENCY LIGHTING BATTERY UNIT, WITH AND WITHOUT HEADS.
	ONE AND TWO HEAD WALL MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	ONE AND TWO HEAD CEILING MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	RECESSED EMERGENCY REMOTE HEAD.
EM	DENOTES 'EMERGENCY'
CCT	CORRELATED COLOUR TEMPERATURE
CRI	COLOUR RENDERING INDEX
EXTERIOR LIGHTING	
	ARM MOUNTED LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	POST TOP LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	LIGHTING BOLLARD. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	GROUND MOUNTED FLOOD LIGHT
TELECOMMUNICATIONS	
	SYSTEM FURNITURE FEED.
W	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES WALL SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
F	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES FLOOR SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
C	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES CEILING SYSTEM FURNITURE FEED FOR COMMUNICATIONS (SERVICE POLE OR DROP CORD AS NOTED).
	CABLE TRAY (LADDER TYPE)
	CABLE TRAY (BASKET TYPE)
	WALL MOUNTED DATA (D) OR VOICE (V) OUTLET. PROVIDE 1V AND 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED VOICE (TELEPHONE) OUTLET. PROVIDE 1V UNLESS NOTED OTHERWISE.
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ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	WALL MOUNTED DATA OUTLET. PROVIDE 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED TELEVISION OUTLET.
	VOICE, DATA, OR TV OUTLET AS DESCRIBED ABOVE, MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
B	ADJACENT TO COMMUNICATIONS OUTLET, INDICATES BLANK-OFF PLATE.
	HDMI OUTLET.
	AUDIO VIDEO GANG, AS NOTED.
	WIRELESS ACCESS POINT (WIFI)
	AUDIO VISUAL SYSTEM SPEAKER, CEILING MOUNTED.
	AUDIO VISUAL SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, CEILING MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM HANDSET
	PUBLIC ADDRESS SYSTEM ADMIN CONTROL CONSOLE
	PUBLIC ADDRESS SPEAKER VOLUME CONTROL SWITCH
	INTERCOM
	INSULATION DISPLACEMENT CONNECTION
	CLOCK
	GPS CLOCK SYSTEM MASTER TRANSMITTER
	GPS CLOCK SYSTEM GPS RECEIVER
	GPS CLOCK SYSTEM SATELLITE TRANSMITTER (RECEIVER)
	GPS CLOCK SYSTEM RECEIVER SWITCH
ACCESS CONTROL AND DOOR HARDWARE	
	CARD READER
	DOOR ALARM SOUNDER
	DOOR CONTACT
	OVERHEAD DOOR CONTACT
	ELECTRIC LATCH RETRACTION
	ELECTRIC STRIKE
	ELECTRIC POWER TRANSFER CABLE
	POWER TRANSFER HINGE
	KEY SWITCH
	ELECTROMAGNETIC LOCK
	MOTORIZED LATCH RETRACTION. PROVIDE 120 V.
	REQUEST TO EXIT SENSOR
	MUSHROOM HEAD PUSH BUTTON FOR 'REQUEST TO EXIT' MAGLOCK RELEASE, OR OTHER PUSH BUTTON, AS INDICATED.
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
	TOUCHLESS 'WAVE SWITCH' FOR DOOR OPERATOR CONTROL
	DOOR BELL C/W SOUNDER AND STROBE
	DOOR BELL (SOUNDER ONLY)
INTRUSION DETECTION	
	GLASS BREAK (GB)
	MOTION DETECTOR (MD)
	KEYPAD (KP)
	VIDEO SURVEILLANCE
	CCTV CAMERA
C/P	CCTV CAMERA, CEILING OR POLE MOUNTED
	CCTV CAMERA, WALL MOUNTED
	PAN-TILT-ZOOM
DURESS SYSTEM	
	DURESS BUTTON (MOUNTED ON UNDERSIDE OF TABLETOP)
	WALL MOUNTED DURESS BUTTON WITH POLYCARBONATE ANTI-TAMPER COVER
	DURESS SYSTEM STROBE LIGHT
FIRE DETECTION AND ALARM - GENERAL	
CACF	CENTRAL ALARM AND CONTROL FACILITY
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FAAG	FIRE ALARM ACTIVE ANNUNCIATOR C/W GRAPHIC
FAPG	FIRE ALARM PASSIVE GRAPHIC
DGP	DATA GATHERING PANEL
FAZ	FIRE ALARM ZONE
FSZ	FIRE ALARM SUPERVISORY ZONE
FDSPPC	FIRE DETECTION, SUPPRESSION, AND PRE-ACTION CONTROL PANEL
FDSPPC	FIRE DETECTION AND SUPPRESSION CONTROL PANEL
	FIRE ALARM PANEL (FACP, FAAP, FAMP) AS DENOTED ON PLANS
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ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
FIRE DETECTION - INITIATION DEVICES	
	MANUAL PULL STATION (MPS)
LX	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W POLYCARBONATE (LEXAN) COVER.
WG	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W WIRE GUARD COVER.
A	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES MANUAL PULL STATION C/W AUXILIARY CONTACT.
	PHOTOELECTRIC SMOKE DETECTOR
	SAME AS ABOVE, WALL MOUNTED
SA	WHEN ADJACENT TO PHOTOELECTRIC SMOKE DETECTOR, INDICATES RESIDENTIAL SMOKE ALARM
	RESIDENTIAL SMOKE ALARM. 120 VOLT, COMPLETE WITH STROBE. FOR AREAS AS INDICATED ON PLANS BY 'CO'. PROVIDE INTEGRAL CARBON MONOXIDE DETECTION.
	SAME AS ABOVE, WALL MOUNTED
	DUCT MOUNTED SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
VESDA	VERY EARLY SMOKE DETECTING APPARATUS
BSDT	BEAM SMOKE DETECTOR TRANSMITTER
BSDR	BEAM SMOKE DETECTOR RECEIVER (OR REFLECTOR)
ASD	ASPIRATING SMOKE DETECTOR
	END OF LINE (EOL) DEVICE ON ZONE INITIATION OR SIGNAL CIRCUITS
	HEAT DETECTOR - FIXED TEMPERATURE
	SAME AS ABOVE, WALL MOUNTED
HT	ADJACENT TO HEAT DETECTOR, DENOTES 'HIGH TEMPERATURE'
	HEAT DETECTOR - 94 DEGREES C (200 DEGREES F) FIXED TEMPERATURE
	HEAT DETECTOR - 58 DEGREES C (135 DEGREES F) FIXED TEMPERATURE AND RATE OF RISE
LINEAR HEAT DETECTION CABLE	
	FLOW SWITCH
FIRE DETECTION AND ALARM - SUPERVISORY DEVICES	
	LOW TANK LEVEL
	LOSS OF POWER
	LOW TEMPERATURE
	PRESSURE SWITCH
	SUPERVISED VALVE
	SUPERVISED VALVE
FIRE DETECTION AND ALARM - SIGNALLING DEVICES	
	FIRE ALARM BELL, WALL MOUNTED.
C	ADJACENT TO BELL OR HORN, DENOTES CEILING MOUNTED.
	FIRE ALARM HORN
M	ADJACENT TO FIRE ALARM HORN, DENOTES 'MINI' HORN
	FIRE ALARM HORN/STROBE, WALL MOUNTED.
	FIRE ALARM EVACUATION SPEAKER, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, COMPLETE WITH STROBE LIGHT, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, WALL MOUNTED
	FIRE ALARM EVACUATION SPEAKER COMPLETE WITH STROBE LIGHT, WALL MOUNTED
	SILENCE SWITCH
	FIRE ALARM WALL MOUNTED STROBE LIGHT
FIRE DETECTION AND ALARM - VOICE COMMUNICATION DEVICES	
	EMERGENCY TELEPHONE FOR FIREFIGHTER'S USE
FIRE DETECTION AND ALARM - OTHER DEVICES	
	END OF LINE DEVICE
	WIRE GUARD
	"DO NOT ENTER" SIGN
	KEY SWITCH FOR FIREFIGHTER CONTROL OF ELEVATOR RECALL, OR AS NOTED
	ISOLATOR MODULE
	OUTPUT RELAY, FUNCTION AS INDICATED
	CONTROL MODULE
	MONITOR MODULE
	MAGNETIC DOOR HOLDER AND RELEASING DEVICE ("HOLD OPEN")
	FIRE SUPPRESSION RELEASING STATION
	FIRE SUPPRESSION ABORT STATION
SINGLE LINE DIAGRAM	
	AIR CIRCUIT BREAKER
	MOLDED CASE CIRCUIT BREAKER
	DISCONNECT (UNFUSED)
	FUSE
	METERING CABINET
	TRANSFORMER
	BUS DUCT
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ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	GENERATOR
	AUTOMATIC TRANSFER SWITCH
	AUTOMATIC TRANSFER SWITCH COMPLETE WITH SINGLE SIDED BYPASS ISOLATION
	AUTOMATIC TRANSFER SWITCH COMPLETE WITH SINGLE SIDED BYPASS ISOLATION
ATS	AUTOMATIC TRANSFER SWITCH
C	CONTACTOR
DP	DISTRIBUTION PANELBOARD
LP	LIGHTING PANELBOARD
MCB	MOBILE CONNECTION BOX
MCC	MOTOR CONTROL CENTRE
MTS	MANUAL TRANSFER SWITCH
RP	RECEPTACLE PANELBOARD
SPD	SURGE PROTECTIVE DEVICE
STS	STATIC TRANSFER SWITCH
SWBD	SWITCHBOARD
TX	TRANSFORMER
UPS	UNINTERRUPTIBLE POWER SUPPLY
DETAIL REFERENCES	
	SHEET KEYNOTE
	REVISION NUMBER
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ELECTRICAL DRAWING LIST	
DRAWING #	DRAWING NAME
E-001	ELECTRICAL LEGEND & DRAWING LIST
E-100	ELECTRICAL SITE PLAN
E-200	LIGHTING NEW WORK - GROUND FLOOR
E-300	POWER AND SYSTEMS NEW WORK - GROUND FLOOR
E-301	POWER AND SYSTEMS NEW WORK - ROOF PLAN
E-700	ELECTRICAL SINGLE LINE DIAGRAM
E-701	FIRE ALARM RISER
E-800	ELECTRICAL DETAILS
E-801	ELECTRICAL DETAILS
E-802	ELECTRICAL DETAILS
E-803	ELECTRICAL DETAILS
E-804	ELECTRICAL DETAILS
E-805	ELECTRICAL DETAILS
E-806	ELECTRICAL DETAILS - TRAINING FACILITY
E-900	ELECTRICAL SCHEDULES
E-901	ELECTRICAL SCHEDULES
GENERAL NOTE:	
SYMBOLS WITHIN HATCHED AREA ARE ROUGH-IN ONLY. COORDINATE EXACT INSTALLATION LOCATION WITH OWNER. DEVICES TO BE INSTALLED BY OWNER. UNLESS NOTED OTHERWISE, ALL CONDUITS ARE MINIMUM 1 INCH, AND BROUGHT TO THE IT ROOM.	

# PARKIN

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W	ADJACENT TO 3-PHASE DIRECT CONNECTION DENOTES WALL SYSTEM FURNITURE FEED FOR POWER AND COMMUNICATIONS.
	CONNECTION TO SINGLE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
	THREE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
LIGHTING CONTROLS REFER TO SPECIFICATIONS AND RESPECTIVE SCHEDULES FOR EXACT REQUIREMENTS	
	SWITCH OR OTHER USER INTERFACE DEVICE AS DESCRIBED ON LIGHTING CONTROLS SCHEDULE.
3W	3-WAY SWITCH
DIM	ADJACENT TO SWITCH, DENOTES DIMMING SWITCH.
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	WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES PASSIVE INFRARED, DT DENOTES DUAL PASSIVE INFRARED/ULTRASONIC, "LINE" VOLTAGE TO SUIT CONTROLLED CIRCUIT, OR AS NOTED.
RP	RELAY PANEL
PP	POWER PACK
SC	SCENE CONTROLLER.
	PHOTOCELL SENSOR.
	PHOTOCELL SENSOR. "PC" DENOTES CLOSED LOOP PHOTOCELL CONTROL. "PO" DENOTES OPEN LOOP PHOTOCELL CONTROL.
	CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES PASSIVE INFRARED, UT DENOTES ULTRASONIC (OR MICROPHONIC), DT DENOTES DUAL TECHNOLOGY. "OS" DENOTES UNKNOWN TECHNOLOGY.
	WALL MOUNTED OCCUPANCY SENSOR.
DISTRIBUTION EQUIPMENT	
	TRANSFORMER, PLAN VIEW
	SURFACE MOUNTED LIGHTING AND RECEPTACLE PANELBOARD
	RECESSED RECEPTACLE AND LIGHTING PANELBOARD
	DISTRIBUTION PANELBOARD
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	CONTACTOR
	LOOSE STARTER. COORDINATE STARTING CHARACTERISTIC WITH EQUIPMENT REQUIREMENTS.
	COMBINATION STARTER.
VFD	ADJACENT TO STARTER, DENOTES VARIABLE FREQUENCY DRIVE
POWER RECEPTACLES AND BOXES	
	120V U-GROUND DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND 20A DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90-1-2013, 8.4.2).
	120V U-GROUND 20A DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90-1-2013, 8.4.2).
	120V U-GROUND DUPLEX RECEPTACLE - HALF OF RECEPTACLE AUTOMATICALLY CONTROLLED (ASHRAE 90-1-2013, 8.4.2).
	MANUALLY CONTROLLED SPLIT RECEPTACLE
	120V U-GROUND QUAD RECEPTACLE
	INDICATES RECEPTACLE COMPLETE WITH ONE TYPE A AND ONE TYPE C USB CHARGING PORTS.
	14-30 RECEPTACLE FOR LAUNDRY DRYER, OR OTHER RECEPTACLE AS NOTED
	14-50 RECEPTACLE FOR ELECTRONIC RANGE, OR OTHER RECEPTACLE AS NOTED. PROVIDE 40A/2P BREAKER TO SUIT..
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	WALL MOUNTED DATA OUTLET. PROVIDE 10 UNLESS NOTED OTHERWISE.
	WALL MOUNTED TELEVISION OUTLET.
	VOICE, DATA, OR TV OUTLET AS DESCRIBED ABOVE. MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	ADJACENT TO COMMUNICATIONS OUTLET, INDICATES BLANK-OFF PLATE.
	HDMI OUTLET.
	AUDIO VIDEO GANG, AS NOTED.
	WIRELESS ACCESS POINT (WIFI).
	AUDIO VISUAL SYSTEM SPEAKER, CEILING MOUNTED.
	AUDIO VISUAL SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, CEILING MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM HORN SPEAKER.
	PUBLIC ADDRESS SYSTEM HANDSET.
	PUBLIC ADDRESS SYSTEM ADMIN CONTROL CONSOLE.
	PUBLIC ADDRESS SPEAKER VOLUME CONTROL SWITCH.
	INTERCOM.
	INSULATION DISPLACEMENT CONNECTION.
	CLOCK.
	GPS CLOCK SYSTEM MASTER TRANSMITTER.
	GPS CLOCK SYSTEM GPS RECEIVER.
	GPS CLOCK SYSTEM SATELLITE TRANSMITTER (RECEIVER).
	GPS CLOCK SYSTEM RECEIVER SWITCH.
	ACCESS CONTROL AND DOOR HARDWARE.
	CARD READER.
	DOOR ALARM SOUNDER.
	DOOR CONTACT.
	OVERHEAD DOOR CONTACT.
	ELECTRIC LATCH RETRACTION.
	ELECTRIC STRIKE.
	ELECTRIC POWER TRANSFER CABLE.
	POWER TRANSFER HINGE.
	KEY SWITCH.
	ELECTROMAGNETIC LOCK.
	MOTORIZED LATCH RETRACTION. PROVIDE 120 V.
	REQUEST TO EXIT SENSOR.
	MUSHROOM HEAD PUSH BUTTON FOR REQUEST TO EXIT MAGLOCK RELEASE, OR OTHER PUSH BUTTON AS INDICATED.
	BARRIER FREE DOOR OPERATOR PUSH BUTTON.
	BARRIER FREE DOOR OPERATOR PUSH BUTTON.
	TOUCHLESS "WAVE SWITCH" FOR DOOR OPERATOR CONTROL.
	DOOR BELL C/W SOUNDER AND STROBE.
	DOOR BELL (SOUNDER ONLY).
	INTRUSION DETECTION.
	GLASS BREAK (GB).
	MOTION DETECTOR (MD).
	KEYPAD (KP).
	VIDEO SURVEILLANCE.
	CCTV CAMERA.
	CCTV CAMERA, CEILING OR POLE MOUNTED.
	CCTV CAMERA, WALL MOUNTED.
	PAN-TILT-ZOOM.
DURESS SYSTEM	
	DURESS BUTTON (MOUNTED ON UNDERSIDE OF TABLETOP).
	WALL MOUNTED DURESS BUTTON WITH POLYCARBONATE ANTI-TAMPER COVER.
	DURESS SYSTEM STRIKE LIGHT.
	FIRE DETECTION AND ALARM - GENERAL.
	CENTRAL ALARM AND CONTROL FACILITY.
	FIRE ALARM CONTROL PANEL.
	FIRE ALARM ANNUNCIATOR PANEL.
	FIRE ALARM ACTIVE ANNUNCIATOR C/W GRAPHIC.
	FIRE ALARM PASSIVE GRAPHIC.
	DATA GATHERING PANEL.
	FIRE ALARM ZONE.
	FIRE ALARM SUPERVISORY ZONE.
	FIRE DETECTION, SUPPRESSION, AND PRE-ACTION CONTROL PANEL.
	FIRE DETECTION AND SUPPRESSION CONTROL PANEL.
	FIRE ALARM PANEL (FACP, FAAP, FAMP) AS DENOTED ON PLANS.

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.
































ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	GENERATOR
	AUTOMATIC TRANSFER SWITCH
	AUTOMATIC TRANSFER SWITCH COMPLETE WITH SINGLE SIDED BYPASS ISOLATION
	AUTOMATIC TRANSFER SWITCH COMPLETE WITH BOTH SIDED BYPASS ISOLATION
ATS	AUTOMATIC TRANSFER SWITCH
C	CONTACTOR
DP	DISTRIBUTION PANELBOARD
LP	LIGHTING PANELBOARD
MCB	MOBILE CONNECTION BOX
MCC	MOTOR CONTROL CENTRE
MTS	MANUAL TRANSFER SWITCH
RP	RECEPTACLE PANELBOARD
SPD	SURGE PROTECTIVE DEVICE
STS	STATIC TRANSFER SWITCH
SWBD	SWITCHBOARD
TX	TRANSFORMER
UPS	UNINTERRUPTIBLE POWER SUPPLY
DETAIL REFERENCES	
	SHEET KEYNOTE
	REVISION NUMBER
<p>THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.</p> <p>THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.</p>	
ELECTRICAL DRAWING LIST	
DRAWING #	DRAWING NAME
E-001	ELECTRICAL LEGEND & DRAWING LIST
E-100	ELECTRICAL SITE PLAN
E-200	LIGHTING NEW WORK - GROUND FLOOR
E-300	POWER AND SYSTEMS NEW WORK - GROUND FLOOR
E-301	POWER AND SYSTEMS NEW WORK - ROOF PLAN
E-700	ELECTRICAL SINGLE LINE DIAGRAM
E-701	FIRE ALARM RISER
E-800	ELECTRICAL DETAILS
E-801	ELECTRICAL DETAILS
E-802	ELECTRICAL DETAILS
E-803	ELECTRICAL DETAILS
E-804	ELECTRICAL DETAILS
E-805	ELECTRICAL DETAILS
E-806	ELECTRICAL DETAILS - TRAINING FACILITY
E-900	ELECTRICAL SCHEDULES
E-901	ELECTRICAL SCHEDULES

Sheet  
Title: ELECTRICAL LEGEND &  
DRAWING LIST

















































Drawing  
No. E-001


























ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
LINE TYPES	
	NEW WORK
	WORK TO BE DEMOLISHED, OR REMOVED
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN
	FUTURE WORK (NOT IN SCOPE)
	EXTENTS OF FIRE ALARM ZONE, WET LOCATION, OR OTHER AREA AS NOTED ON PLANS
ABBREVIATIONS	
E	EXISTING TO REMAIN
R	EXISTING TO BE DEMOLISHED/REMOVED
ER	EXISTING IN RELOCATED POSITION
RR	REMOVE AND RELOCATE
C	CEILING MOUNTED CONNECTION
W	WALL MOUNTED CONNECTION
F	FLOOR MOUNTED CONNECTION
ℓ	CENTRE LINE
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
O/C	OVER COUNTER
U/C	UNDER CABINET
U/F	UNDER RAISED FLOOR
CCT	CIRCUIT
CTE	CONNECT TO EXISTING
AFCI	ARC FAULT CIRCUIT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
IG	ISOLATED GROUND
TL	TWIST LOCK
TR	TAMPER RESISTANT
WG	WIRE GUARD
WP	WEATHER PROOF
XP	EXPLOSION PROOF
R/I	ROUGH-IN ONLY
NIC	NOT IN CONTRACT
SIM.	SIMILAR TO
TYP.	TYPICAL
ABBREVIATIONS - CODES AND STANDARDS	
OBC	ONTARIO BUILDING CODE
OESC	ONTARIO ELECTRICAL SAFETY CODE
OFC	ONTARIO FIRE CODE
ABBREVIATIONS - CEILING TYPES	
ACT	ACOUSTIC CEILING TILE (T-BAR)
EXP	EXPOSED CEILING
OWSJ	OPEN WEB STEEL JOISTS
PCC	PAINTED OR POPCORN CEILING ON EXPOSED CONCRETE
WD	WOOD CEILING
ANNOTATIONS	
CL	CLOSET
WR	WASHROOM
PLUMBING	
PTP	ELECTRONIC TRAP PRIMER
PSC	PLUMBING SENSOR CONTROL (TOUCHLESS FAUCETS)
HVAC	
	THERMOSTAT OR TEMPERATURE SENSOR
	TIMER CONTROL
BBH	ELECTRIC BASEBOARD HEATER (BBH)
FFH	FORCED FLOW HEATER
ERV	ENERGY RECOVERY VENTILATOR
HRU	HEAT RECOVERY UNIT
MUA	MAKE-UP AIR UNIT
CONDUIT AND BOXES	
	CONDUIT WITH END BUSHING
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT CONTINUES
	JUNCTION BOX
	PULL BOX
	HAND HOLE
CONNECTIONS TO EQUIPMENT	
DW	DISHWASHER
FR	FRIDGE
MW	MICROWAVE
HD	HAND DRYER. ALLOW UP TO 208V-1PH-20A
	1-PHASE DIRECT CONNECTION OUTLET AS NOTED.
	3-PHASE DIRECT CONNECTION OUTLET AS NOTED.
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	







ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	SYSTEM FURNITURE WALL FEED FOR POWER AND TELECOMMUNICATIONS UNLESS NOTED OTHERWISE. 'C' ADJACENT TO SYMBOL DENOTES CEILING FEED, 'F' ADJACENT TO SYMBOL DENOTES FLOOR FEED.
W	ADJACENT TO 3-PHASE DIRECT CONNECTION, DENOTES WALL SYSTEM FURNITURE FEED FOR POWER AND COMMUNICATIONS.
	CONNECTION TO SINGLE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
	THREE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
LIGHTING CONTROLS	
REFER TO SPECIFICATIONS AND RESPECTIVE SCHEDULES FOR EXACT REQUIREMENTS	
	SWITCH OR OTHER USER INTERFACE DEVICE AS DESCRIBED ON LIGHTING CONTROLS SCHEDULE.
	3-WAY SWITCH
DIM	ADJACENT TO SWITCH, DENOTES DIMMING SWITCH.
K	ADJACENT TO SWITCH, DENOTES KEY SWITCH.
T	ADJACENT TO SWITCH, DENOTES COUNTDOWN TIMER SWITCH.
AT	ADJACENT TO SWITCH, DENOTES ASTRONOMICAL TIMER SWITCH
DS	ADJACENT TO SWITCH, DENOTES DOOR SWITCH
PIR	PASSIVE INFRARED SENSOR
DT	DUAL TECHNOLOGY SENSOR
UT	ULTRASONIC SENSOR
OS	SENSOR (TYPE UNKNOWN)
M	ADJACENT TO SWITCH, DENOTES MASTER CONTROL FOR ALL LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED
	'WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC', LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT, OR AS NOTED.
RP	RELAY PANEL
PP	POWER PACK
SC	SCENE CONTROLLER.
	PHOTOCELL SENSOR.
	PHOTOCELL SENSOR, 'PC' DENOTES CLOSED LOOP PHOTOCELL CONTROL. 'PO' DENOTES OPEN LOOP PHOTOCELL CONTROL.
	CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY'. 'OS' DENOTES UNKNOWN TECHNOLOGY.
	WALL MOUNTED OCCUPANCY SENSOR.
DISTRIBUTION EQUIPMENT	
	TRANSFORMER, PLAN VIEW
	SURFACE MOUNTED LIGHTING AND RECEPTACLE PANELBOARD
	RECESSED RECEPTACLE AND LIGHTING PANELBOARD
	DISTRIBUTION PANELBOARD
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	CONTACTOR
	LOOSE STARTER. COORDINATE STARTING CHARACTERISTIC WITH EQUIPMENT REQUIREMENTS.
	COMBINATION STARTER.
VFD	ADJACENT TO STARTER, DENOTES VARIABLE FREQUENCY DRIVE
POWER RECEPTABLES AND BOXES	
	120V U-GROUND DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND 20A DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND 20A DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND DUPLEX RECEPTACLE - HALF OF RECEPTACLE AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	MANUALLY CONTROLLED SPLIT RECEPTACLE
	120V U-GROUND QUAD RECEPTACLE.
	INDICATES RECEPTACLE COMPLETE WITH ONE TYPE A AND ONE TYPE C USB CHARGING PORTS.
	14-30R RECEPTACLE FOR LAUNDRY DRYER, OR OTHER RECEPTACLE AS NOTED
	14-50R RECEPTACLE FOR ELECTRONIC RANGE, OR OTHER RECEPTACLE AS NOTED. PROVIDE 40A/2P BREAKER TO SUIT.
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	FLOOR RECEPTACLE OR RECEPTACLE IN FLOOR BOX (POWER ONLY)
	SERVICE POLE. PROVIDE POWER TO JUNCTION BOX IN CEILING SPACE ABOVE. DEVICES ON POLE AS NOTED ON PLANS
FB1	ADJACENT TO FLOOR RECEPTACLE, DENOTES FLOOR BOX TYPE
*	ADJACENT TO DEVICE, DENOTES DEVICE CONNECTED TO EMERGENCY POWER
LIGHTING FIXTURES	
SYMBOLS IN ACCORDANCE WITH IES DG-3-00 AND IES HB-10-11 WHERE NOT DETAILED OTHERWISE HERE. REFER TO LIGHTING FIXTURE SCHEDULE FOR FURTHER DETAILS AND EXACT FIXTURE REQUIREMENTS.	
	LINEAR LUMINAIRE, SURFACE MOUNTED TO CEILING
	LINEAR LUMINAIRE, RECESSED IN CEILING
	LINEAR LUMINAIRE, SUSPENDED; PENDANT, CHAIN, STEM, OR AIRCRAFT CABLE HUNG TO SUIT APPLICATION, OR AS NOTED IN SCHEDULE. "X", WHEN USED DENOTES POWER FEED LOCATION.
	LINEAR LUMINAIRE, WALL MOUNTED
	AS ABOVE, CONNECTED TO EMERGENCY OR NIGHT LIGHTING CIRCUIT AS INDICATED.
	ROUND OR SQUARE DOWNLIGHT, RECESSED
	RECESSED DOWNLIGHTS, CONNECTED TO EMERGENCY OR NIGHT LIGHT CIRCUIT
	ROUND SUSPENDED LUMINAIRE
	WALL SCONCE OR OTHER WALL MOUNTED LUMINAIRES.
EM	CONNECTED TO EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
CE	CONNECTED TO EMERGENCY CIRCUIT. PROVIDE CUL 324 LISTED SHUNT TRIP RELAY OR EQUAL, TO PERMIT CONTROL OF LUMINAIRE WITH ZONING BASED ON LOCAL LIGHTING CONTROLS.
NL	LUMINAIRE CONNECTED TO NON-EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
A, B, Z1, Z2, ETC.	DENOTES ZONING/CIRCUITING ASSIGNMENTS FOR LUMINAIRES AND CONTROLS IN THE SAME SPACE.
EMERGENCY LIGHTING	
REFER TO EMERGENCY LIGHTING FIXTURE SCHEDULE FOR EXACT FIXTURE REQUIREMENTS.	
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
SL	DENOTES "SELF-LUMINOUS" EXIT SIGN
PL	PHOTOLUMINOUS EXIT SIGN
	EMERGENCY LIGHTING BATTERY UNIT, WITH AND WITHOUT HEADS.
	ONE AND TWO HEAD WALL MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	ONE AND TWO HEAD CEILING MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	RECESSED EMERGENCY REMOTE HEAD.
EM	DENOTES "EMERGENCY"
CCT	CORRELATED COLOUR TEMPERATURE
CRI	COLOUR RENDERING INDEX
EXTERIOR LIGHTING	
	ARM MOUNTED LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	POST TOP LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	FOOTING BOLLARD. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	GROUND MOUNTED FLOOD LIGHT
TELECOMMUNICATIONS	
	SYSTEM FURNITURE FEED.
W	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES FLOOR SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
F	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES FLOOR SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
C	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES CEILING SYSTEM FURNITURE FEED FOR COMMUNICATIONS (SERVICE POLE OR DROPCORD AS NOTED).
	CABLE TRAY (LADDER TYPE)
	CABLE TRAY (BASKET TYPE)
	WALL MOUNTED DATA (D) OR VOICE (V) OUTLET. PROVIDE 1V AND 1N UNLESS NOTED OTHERWISE.
	WALL MOUNTED VOICE (TELEPHONE) OUTLET. PROVIDE 1V UNLESS NOTED OTHERWISE.
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE. FOR THIS PROJECT, REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	WALL MOUNTED DATA OUTLET. PROVIDE 1D UNLESS NOTED OTHERWISE
	WALL MOUNTED TELEVISION OUTLET
	VOICE, DATA, OR TV OUTLET AS DESCRIBED ABOVE, MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
B	ADJACENT TO COMMUNICATIONS OUTLET. INDICATES BLANK-OFF PLATE
	HOMI OUTLET
	AUDIO VIDEO GANG, AS NOTED.
	WIRELESS ACCESS POINT (WIFI)
	AUDIO VISUAL SYSTEM SPEAKER, CEILING MOUNTED.
	AUDIO VISUAL SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, CEILING MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, WALL MOUNTED HORN SPEAKER.
	PUBLIC ADDRESS SYSTEM HANDSET
	PUBLIC ADDRESS SYSTEM ADMIN CONTROL CONSOLE
	PUBLIC ADDRESS SPEAKER VOLUME CONTROL SWITCH.
	INTERCOM
	INSULATION DISPLACEMENT CONNECTION
	CLOCK
	GPS CLOCK SYSTEM MASTER TRANSMITTER
	GPS CLOCK SYSTEM GPS RECEIVER
	GPS CLOCK SYSTEM SATELLITE TRANSMITTER (RECEIVER)
	GPS CLOCK SYSTEM RECEIVER SWITCH
	ACCESS CONTROL AND DOOR HARDWARE
	CARD READER
	DOOR ALARM SOUNDER
	DOOR CONTACT
	OVERHEAD DOOR CONTACT
	ELECTRIC LATCH RETRACTION
	ELECTRIC STRIKE
	ELECTRIC POWER TRANSFER CABLE
	POWER TRANSFER HINGE
	KEY SWITCH
	ELECTROMAGNETIC LOCK
	MOTORIZED LATCH RETRACTION. PROVIDE 120 V.
	REQUEST TO EXIT SENSOR
	MUSHROOM HEAD PUSH BUTTON FOR REQUEST TO EXIT MAGLOCK RELEASE, OR OTHER PUSH BUTTON AS INDICATED
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
	TOUCHLESS "WAVE SWITCH" FOR DOOR OPERATOR CONTROL
	DOOR BELL C/W SOUNDER AND STROBE
	DOOR BELL (SOUNDER ONLY)
	INTRUSION DETECTION
	GLASS BREAK (GB)
	MOTION DETECTOR (MD)
	KEYPAD (KP)
	VIDEO SURVEILLANCE
	CCTV CAMERA
	CCTV CAMERA, CEILINGS OR POLE MOUNTED
	CCTV CAMERA, WALL MOUNTED
	PAN/TILT/ZOOM
DURESS SYSTEM	
	DURESS BUTTON (MOUNTED ON UNDERSIDE OF TABLETOP)
	WALL MOUNTED DURESS BUTTON WITH POLYCARBONATE ANTI-TAMPER COVER
	DURESS SYSTEM STROBE LIGHT
CACF	FIRE DETECTION AND ALARM - GENERAL
FACP	CENTRAL ALARM AND CONTROL FACILITY
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FAAG	FIRE ALARM ACTIVE ANNUNCIATOR C/W GRAPHIC
FAPG	FIRE ALARM PASSIVE GRAPHIC
DGP	DATA GATHERING PANEL
FAZ	FIRE ALARM ZONE
FSZ	FIRE ALARM SUPERVISORY ZONE
FDSPCP	FIRE DETECTION, SUPPRESSION, AND PRE-ACTION CONTROL PANEL
FDSCP	FIRE DETECTION AND SUPPRESSION CONTROL PANEL
	FIRE ALARM PANEL (FACP, FAAP, FAMP) AS DENOTED ON PLANS

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
FIRE DETECTION - INITIATION DEVICES	
	MANUAL PULL STATION (MPS)
LX	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W POLYCARBONATE (LEXAN) COVER.
WG	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W WIRE GUARD COVER.
A	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES MANUAL PULL STATION C/W AUXILIARY CONTACT.
	PHOTOELECTRIC SMOKE DETECTOR
SA	SAME AS ABOVE, WALL MOUNTED
	WHEN ADJACENT TO PHOTOELECTRIC SMOKE DETECTOR, INDICATES RESIDENTIAL SMOKE ALARM
	RESIDENTIAL SMOKE ALARM. 120 VOLT, COMPLETE WITH STROBE. FOR AREAS AS INDICATED ON PLANS BY 'CO', PROVIDE INTEGRAL CARBON MONOXIDE DETECTION.
	SAME AS ABOVE, WALL MOUNTED
	DUCT MOUNTED SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
VESDA	VERY EARLY SMOKE DETECTING APPARATUS
BSDT	BEAM SMOKE DETECTOR TRANSMITTER
BSDR	BEAM SMOKE DETECTOR RECEIVER (OR REFLECTOR)
ASD	ASPIRATING SMOKE DETECTOR
	END OF LINE (EOL) DEVICE ON ZONE INITIATION OR SIGNAL CIRCUITS
	HEAT DETECTOR - FIXED TEMPERATURE
	SAME AS ABOVE, WALL MOUNTED
HT	ADJACENT TO HEAT DETECTOR, DENOTES "HIGH TEMPERATURE"
	HEAT DETECTOR - 94 DEGREES C (200 DEGREES F) FIXED TEMPERATURE
	HEAT DETECTOR - 58 DEGREES C (135 DEGREES F) FIXED TEMPERATURE AND RATE OF RISE
	LINEAR HEAT DETECTION CABLE
	FLOW SWITCH
FIRE DETECTION AND ALARM - SUPERVISORY DEVICES	
	LOW TANK LEVEL
	LOSS OF POWER
	LOW TEMPERATURE
	PRESSURE SWITCH
	SUPERVISED VALVE
	SUPERVISED VALVE
FIRE DETECTION AND ALARM - SIGNALLING DEVICES	
	FIRE ALARM BELL, WALL MOUNTED.
C	ADJACENT TO BELL OR HORN, DENOTES CEILING MOUNTED.
	FIRE ALARM HORN
M	ADJACENT TO FIRE ALARM HORN, DENOTES 'MINI' HORN
	FIRE ALARM HORN/STROBE, WALL MOUNTED.
	FIRE ALARM EVACUATION SPEAKER, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, COMPLETE WITH STROBE LIGHT, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, WALL MOUNTED
	FIRE ALARM EVACUATION SPEAKER COMPLETE WITH STROBE LIGHT, WALL MOUNTED
	SILENCE SWITCH
	FIRE ALARM WALL MOUNTED STROBE LIGHT
FIRE DETECTION AND ALARM - VOICE COMMUNICATION DEVICES	
	EMERGENCY TELEPHONE FOR FIREFIGHTER'S USE
FIRE DETECTION AND ALARM - OTHER DEVICES	
	END OF LINE DEVICE
	WIRE GUARD
	"DO NOT ENTER" SIGN
	KEY SWITCH FOR FIREFIGHTER CONTROL OF ELEVATOR RECALL, OR AS NOTED
	ISOLATOR MODULE
	OUTPUT RELAY, FUNCTION AS INDICATED
	CONTROL MODULE
	MONITOR MODULE
	MAGNETIC DOOR HOLDER AND RELEASING DEVICE ("HOLD OPEN")
	FIRE SUPPRESSION RELEASING STATION
	FIRE SUPPRESSION ABORT STATION
SINGLE LINE DIAGRAM	
	AIR CIRCUIT BREAKER
	MOLDED CASE CIRCUIT BREAKER
	DISCONNECT (UNFUSED)
	FUSE
	METERING CABINET
	TRANSFORMER
	BUS DUCT
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	GENERATOR
	AUTOMATIC TRANSFER SWITCH
	AUTOMATIC TRANSFER SWITCH COMPLETE WITH SINGLE SIDED BYPASS ISOLATION
	AUTOMATIC TRANSFER SWITCH COMPLETE WITH SINGLE SIDED BYPASS ISOLATION
ATS	AUTOMATIC TRANSFER SWITCH
C	CONTACTOR
DP	DISTRIBUTION PANELBOARD
LP	LIGHTING PANELBOARD
MCB	MOBILE CONNECTION BOX
MCC	MOTOR CONTROL CENTRE
MTS	MANUAL TRANSFER SWITCH
RP	RECEPTACLE PANELBOARD
SPD	SURGE PROTECTIVE DEVICE
STS	STATIC TRANSFER SWITCH
SWBD	SWITCHBOARD
TX	TRANSFORMER
UPS	UNINTERRUPTIBLE POWER SUPPLY
DETAIL REFERENCES	
	SHEET KEYNOTE
	REVISION NUMBER
<p>THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.</p> <p>THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.</p>	

GENERAL NOTE:

SYMBOLS WITHIN HATCHED AREA ARE ROUGH-IN ONLY. COORDINATE EXACT INSTALLATION LOCATION WITH OWNER. DEVICES TO BE INSTALLED BY OWNER.

# PARKIN

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# YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

ELECTRICAL DRAWING LIST	
DRAWING #	DRAWING NAME
E-001	ELECTRICAL LEGEND & DRAWING LIST
E-100	ELECTRICAL SITE PLAN
E-200	LIGHTING NEW WORK - GROUND FLOOR
E-300	POWER AND SYSTEMS NEW WORK - GROUND FLOOR
E-301	POWER AND SYSTEMS NEW WORK - ROOF PLAN
E-700	ELECTRICAL SINGLE LINE DIAGRAM
E-701	FIRE ALARM RISER
E-800	ELECTRICAL DETAILS
E-801	ELECTRICAL DETAILS
E-802	ELECTRICAL DETAILS
E-803	ELECTRICAL DETAILS
E-804	ELECTRICAL DETAILS
E-805	ELECTRICAL DETAILS
E-900	ELECTRICAL SCHEDULES
E-901	ELECTRICAL SCHEDULES

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

Sheet  
Title:

## ELECTRICAL LEGEND & DRAWING LIST

Drawing  
No. **E-001**



ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
LINETYPES	
	NEW WORK
	WORK TO BE DEMOLISHED, OR REMOVED
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN
	FUTURE WORK (NOT IN SCOPE)
	EXTENTS OF FIRE ALARM ZONE, WET LOCATION, OR OTHER AREA AS NOTED ON PLANS
ABBREVIATIONS	
E	EXISTING TO REMAIN
R	EXISTING TO BE DEMOLISHED/REMOVED
ER	EXISTING IN RELOCATED POSITION
RR	REMOVE AND RELOCATE
C	CEILING MOUNTED CONNECTION
W	WALL MOUNTED CONNECTION
F	FLOOR MOUNTED CONNECTION
CL	CENTRE LINE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
O/C	OVER COUNTER
U/C	UNDER CABINET
U/F	UNDER RAISED FLOOR
CCT	CIRCUIT
CTE	CONNECT TO EXISTING
AFCI	ARC FAULT CIRCUIT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
IG	ISOLATED GROUND
TL	TWIST LOCK
TR	TAMPER RESISTANT
WG	WIRE GUARD
WP	WEATHER PROOF
XP	EXPLOSION PROOF
R/I	ROUGH-IN ONLY
NIC	NOT IN CONTRACT
SIM.	SIMILAR TO
TYP.	TYPICAL
ABBREVIATIONS - CODES AND STANDARDS	
OBC	ONTARIO BUILDING CODE
OESC	ONTARIO ELECTRICAL SAFETY CODE
OFC	ONTARIO FIRE CODE
ABBREVIATIONS - CEILING TYPES	
ACT	ACOUSTIC CEILING TILE (T-BAR)
EXP	EXPOSED CEILING
OWSJ	OPEN WEB STEEL JOISTS
PCC	PAINTED OR POPCORN CEILING ON EXPOSED CONCRETE
WD	WOOD CEILING
ANNOTATIONS	
CL	CLOSET
WR	WASHROOM
PLUMBING	
PTP	ELECTRONIC TRAP PRIMER
PSC	PLUMBING SENSOR CONTROL (TOUCHLESS FAUCETS) HVAC
	THERMOSTAT OR TEMPERATURE SENSOR
	TIMER CONTROL
BBH	ELECTRIC BASEBOARD HEATER (BBH)
FFH	FORCED FLOW HEATER
ERV	ENERGY RECOVERY VENTILATOR
HRU	HEAT RECOVERY UNIT
MUA	MAKE-UP AIR UNIT
CONDUIT AND BOXES	
	CONDUIT WITH END BUSHING
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT CONTINUES
	JUNCTION BOX
	PULL BOX
	HAND HOLE
CONNECTIONS TO EQUIPMENT	
DW	DISHWASHER
FR	FRIDGE
MW	MICROWAVE
HD	HAND DRYER. ALLOW UP TO 208V-1PH-20A
	1-PHASE DIRECT CONNECTION OUTLET AS NOTED.
	3-PHASE DIRECT CONNECTION OUTLET AS NOTED.
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	SYSTEM FURNITURE WALL FEED FOR POWER AND TELECOMMUNICATIONS UNLESS NOTED OTHERWISE. 'C' ADJACENT TO SYMBOL DENOTES CEILING FEED, 'F' ADJACENT TO SYMBOL DENOTES FLOOR FEED.
W	ADJACENT TO 3-PHASE DIRECT CONNECTION, DENOTES WALL SYSTEM FURNITURE FEED FOR POWER AND COMMUNICATIONS.
	CONNECTION TO SINGLE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
	THREE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
LIGHTING CONTROLS REFER TO SPECIFICATIONS AND RESPECTIVE SCHEDULES FOR EXACT REQUIREMENTS	
	SWITCH OR OTHER USER INTERFACE DEVICE AS DESCRIBED ON LIGHTING CONTROLS SCHEDULE.
	3-WAY SWITCH
DIM	ADJACENT TO SWITCH, DENOTES DIMMING SWITCH.
K	ADJACENT TO SWITCH, DENOTES KEY SWITCH.
T	ADJACENT TO SWITCH, DENOTES COUNTDOWN TIMER SWITCH
AT	ADJACENT TO SWITCH, DENOTES ASTRONOMICAL TIMER SWITCH
DS	ADJACENT TO SWITCH, DENOTES DOOR SWITCH
PIR	PASSIVE INFRARED SENSOR
DT	DUAL TECHNOLOGY SENSOR
UT	ULTRASONIC SENSOR
OS	SENSOR (TYPE UNKNOWN)
M	ADJACENT TO SWITCH, DENOTES MASTER CONTROL FOR ALL LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED.
	WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC', LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT, OR AS NOTED.
RP	RELAY PANEL
PP	POWER PACK
SC	SCENE CONTROLLER.
	PHOTOCELL SENSOR.
	PHOTOCELL SENSOR. 'PC' DENOTES CLOSED LOOP PHOTOCELL CONTROL, 'PO' DENOTES OPEN LOOP PHOTOCELL CONTROL.
	CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY', 'OS' DENOTES UNKNOWN TECHNOLOGY.
	WALL MOUNTED OCCUPANCY SENSOR.
DISTRIBUTION EQUIPMENT	
	TRANSFORMER, PLAN VIEW
	SURFACE MOUNTED LIGHTING AND RECEPTACLE PANELBOARD
	RECESSED RECEPTACLE AND LIGHTING PANELBOARD
	DISTRIBUTION PANELBOARD
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	CONTACTOR
	LOOSE STARTER. COORDINATE STARTING CHARACTERISTIC WITH EQUIPMENT REQUIREMENTS.
	COMBINATION STARTER.
VFD	ADJACENT TO STARTER, DENOTES VARIABLE FREQUENCY DRIVE
POWER RECEPTACLES AND BOXES	
	120V U-GROUND DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND 20A DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND 20A DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND DUPLEX RECEPTACLE - HALF OF RECEPTACLE AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	MANUALLY CONTROLLED SPLIT RECEPTACLE
	120V U-GROUND QUAD RECEPTACLE.
	INDICATES RECEPTACLE COMPLETE WITH ONE TYPE A AND ONE TYPE C USB CHARGING PORTS.
	14-30R RECEPTACLE FOR LAUNDRY DRYER, OR OTHER RECEPTACLE AS NOTED
	14-50R RECEPTACLE FOR ELECTRONIC RANGE, OR OTHER RECEPTACLE AS NOTED. PROVIDE 40A/2P BREAKER TO SUIT..
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

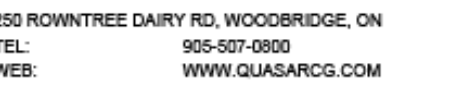
ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	FLOOR RECEPTACLE OR RECEPTACLE IN FLOOR BOX (POWER ONLY)
	SERVICE POLE. PROVIDE POWER TO JUNCTION BOX IN CEILING SPACE ABOVE. DEVICES ON POLE AS NOTED ON PLANS.
FB1	ADJACENT TO FLOOR RECEPTACLE, DENOTES FLOOR BOX TYPE
*	ADJACENT TO DEVICE, DENOTES DEVICE CONNECTED TO EMERGENCY POWER
LIGHTING FIXTURES SYMBOLS IN ACCORDANCE WITH IES DG-3-00 AND IES HB-10-11 WHERE NOT DETAILED OTHERWISE HERE. REFER TO LIGHTING FIXTURE SCHEDULE FOR FURTHER DETAILS AND EXACT FIXTURE REQUIREMENTS.	
	LINEAR LUMINAIRE, SURFACE MOUNTED TO CEILING
	LINEAR LUMINAIRE, RECESSED IN CEILING
	LINEAR LUMINAIRE, SUSPENDED; PENDANT, CHAIN, STEM, OR AIRCRAFT CABLE HUNG TO SUIT APPLICATION, OR AS NOTED IN SCHEDULE. 'X', WHEN USED DENOTES POWER FEED LOCATION.
	LINEAR LUMINAIRE, WALL MOUNTED
	AS ABOVE, CONNECTED TO EMERGENCY OR NIGHT LIGHTING CIRCUIT AS INDICATED.
	ROUND OR SQUARE DOWNLIGHT, RECESSED
	RECESSED DOWNLIGHTS, CONNECTED TO EMERGENCY OR NIGHT LIGHT CIRCUIT
	ROUND SUSPENDED LUMINAIRE
	WALL SCONCE OR OTHER WALL MOUNTED LUMINAIRES.
EM	CONNECTED TO EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
CE	CONNECTED TO EMERGENCY CIRCUIT. PROVIDE CUL 924 LISTED SHUNT TRIP RELAY OR EQUAL TO PERMIT CONTROL OF LUMINAIRE WITH ZONING BASED ON LOCAL LIGHTING CONTROLS.
NL	LUMINAIRE CONNECTED TO NON-EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
A, B, Z1, Z2, ETC.	DENOTES ZONING/CIRCUITING ASSIGNMENTS FOR LUMINAIRES AND CONTROLS IN THE SAME SPACE.
EMERGENCY LIGHTING REFER TO EMERGENCY LIGHTING SCHEDULE FOR EXACT FIXTURE REQUIREMENTS.	
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
SL	DENOTES 'SELF-LUMINOUS' EXIT SIGN
PL	PHOTOLUMINOUS EXIT SIGN
	EMERGENCY LIGHTING BATTERY UNIT, WITH AND WITHOUT HEADS.
	ONE AND TWO HEAD WALL MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	ONE AND TWO HEAD CEILING MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	RECESSED EMERGENCY REMOTE HEAD.
EM	DENOTES 'EMERGENCY'
CCT	CORRELATED COLOUR TEMPERATURE
CRI	COLOUR RENDERING INDEX
EXTERIOR LIGHTING	
	ARM MOUNTED LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	POST TOP LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	LIGHTING BOLLARD. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	GROUND MOUNTED FLOOD LIGHT
TELECOMMUNICATIONS	
	SYSTEM FURNITURE FEED.
W	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES WALL SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
F	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES FLOOR SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
C	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES CEILING SYSTEM FURNITURE FEED FOR COMMUNICATIONS (SERVICE POLE OR DROP CORD AS NOTED).
	CABLE TRAY (LADDER TYPE)
	CABLE TRAY (BASKET TYPE)
	WALL MOUNTED DATA (D) OR VOICE (V) OUTLET. PROVIDE 1V AND 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED VOICE (TELEPHONE) OUTLET. PROVIDE 1V UNLESS NOTED OTHERWISE.
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	WALL MOUNTED DATA OUTLET. PROVIDE 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED TELEVISION OUTLET.
	VOICE, DATA, OR TV OUTLET AS DESCRIBED ABOVE, MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
B	ADJACENT TO COMMUNICATIONS OUTLET, INDICATES BLANK-OFF PLATE.
	HDMI OUTLET.
	AUDIO VIDEO GANG, AS NOTED.
	WIRELESS ACCESS POINT (WIFI)
	AUDIO VISUAL SYSTEM SPEAKER, CEILING MOUNTED.
	AUDIO VISUAL SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, CEILING MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM HANDSET
	PUBLIC ADDRESS SYSTEM ADMIN CONTROL CONSOLE SWITCH
	INTERCOM
IDC	INSULATION DISPLACEMENT CONNECTION
	CLOCK
	GPS CLOCK SYSTEM MASTER TRANSMITTER
	GPS CLOCK SYSTEM GPS RECEIVER
	GPS CLOCK SYSTEM SATELLITE TRANSMITTER (RECEIVER)
	GPS CLOCK SYSTEM RECEIVER SWITCH
ACCESS CONTROL AND DOOR HARDWARE	
	CARD READER
	DOOR ALARM SOUNDER
	DOOR CONTACT
	OVERHEAD DOOR CONTACT
	ELECTRIC LATCH RETRACTION
	ELECTRIC STRIKE
	ELECTRIC POWER TRANSFER CABLE
	POWER TRANSFER HINGE
	KEY SWITCH
	ELECTROMAGNETIC LOCK
	MOTORIZED LATCH RETRACTION, PROVIDE 120 V.
	REQUEST TO EXIT SENSOR
	MUSHROOM HEAD PUSH BUTTON FOR 'REQUEST TO EXIT' MAGLOCK RELEASE, OR OTHER PUSH BUTTON AS INDICATED
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
	TOUCHLESS "WAVE SWITCH" FOR DOOR OPERATOR CONTROL
	DOOR BELL C/W SOUNDER AND STROBE
	DOOR BELL (SOUNDER ONLY)
INTRUSION DETECTION	
	GLASS BREAK (GB)
	MOTION DETECTOR (MD)
	KEYPAD (KP)
VIDEO SURVEILLANCE	
	CCTV CAMERA
	CCTV CAMERA, CEILING OR POLE MOUNTED
	CCTV CAMERA, WALL MOUNTED
	PAN-TILT-ZOOM
DURESS SYSTEM	
	DURESS BUTTON (MOUNTED ON UNDERSIDE OF TABLETOP)
	WALL MOUNTED DURESS BUTTON WITH POLYCARBONATE ANTI-TAMPER COVER
	DURESS SYSTEM STROBE LIGHT
FIRE DETECTION AND ALARM - GENERAL	
CACF	CENTRAL ALARM AND CONTROL FACILITY
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FAAG	FIRE ALARM ACTIVE ANNUNCIATOR C/W GRAPHIC
FAPG	FIRE ALARM PASSIVE GRAPHIC
DGP	DATA GATHERING PANEL
FAZ	FIRE ALARM ZONE
FSZ	FIRE ALARM SUPERVISORY ZONE
FDSPOP	FIRE DETECTION, SUPPRESSION, AND PRE-ACTION CONTROL PANEL
FDSPOP	FIRE DETECTION AND SUPPRESSION CONTROL PANEL
	FIRE ALARM PANEL (FACP, FAAP, FAMP) AS DENOTED ON PLANS
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
FIRE DETECTION - INITIATION DEVICES	
	MANUAL PULL STATION (MPS)
LX	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W POLYCARBONATE (LEXAN) COVER.
WG	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W WIRE GUARD COVER.
A	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES MANUAL PULL STATION C/W AUXILIARY CONTACT.
	PHOTOELECTRIC SMOKE DETECTOR
	SAME AS ABOVE, WALL MOUNTED
SA	WHEN ADJACENT TO PHOTOELECTRIC SMOKE DETECTOR, INDICATES RESIDENTIAL SMOKE ALARM
	RESIDENTIAL SMOKE ALARM. 120 VOLT, COMPLETE WITH STROBE. FOR AREAS AS INDICATED ON PLANS BY 'CO', PROVIDE INTEGRAL CARBON MONOXIDE DETECTION.
	SAME AS ABOVE, WALL MOUNTED
	DUCT MOUNTED SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
VESDA	VERY EARLY SMOKE DETECTING APPARATUS
BSDT	BEAM SMOKE DETECTOR TRANSMITTER
BSDR	BEAM SMOKE DETECTOR RECEIVER (OR REFLECTOR)
ASD	ASPIRATING SMOKE DETECTOR
	END OF LINE (EOL) DEVICE ON ZONE INITIATION OR SIGNAL CIRCUITS
	HEAT DETECTOR - FIXED TEMPERATURE
	SAME AS ABOVE, WALL MOUNTED
HT	ADJACENT TO HEAT DETECTOR, DENOTES "HIGH TEMPERATURE"
	HEAT DETECTOR - 34 DEGREES C (200 DEGREES F) FIXED TEMPERATURE
	HEAT DETECTOR - 58 DEGREES C (135 DEGREES F) FIXED TEMPERATURE AND RATE OF RISE
	LINEAR HEAT DETECTION CABLE
	FLOW SWITCH
FIRE DETECTION AND ALARM - SUPERVISORY DEVICES	
	LOW TANK LEVEL
	LOSS OF POWER
	LOW TEMPERATURE
	PRESSURE SWITCH
	SUPERVISED VALVE
	SUPERVISED VALVE
FIRE DETECTION AND ALARM - SIGNALLING DEVICES	
	FIRE ALARM BELL, WALL MOUNTED.
C	ADJACENT TO BELL OR HORN, DENOTES CEILING MOUNTED
	FIRE ALARM HORN
M	ADJACENT TO FIRE ALARM HORN, DENOTES 'MINI' HORN
	FIRE ALARM HORN/STROBE, WALL MOUNTED.
	FIRE ALARM EVACUATION SPEAKER, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, COMPLETE WITH STROBE LIGHT, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, WALL MOUNTED
	FIRE ALARM EVACUATION SPEAKER COMPLETE WITH STROBE LIGHT, WALL MOUNTED
	SILENCE SWITCH
	FIRE ALARM WALL MOUNTED STROBE LIGHT
FIRE DETECTION AND ALARM - VOICE COMMUNICATION DEVICES	
	EMERGENCY TELEPHONE FOR FIREFIGHTER'S USE
FIRE DETECTION AND ALARM - OTHER DEVICES	
	END OF LINE DEVICE
	WIRE GUARD
	"DO NOT ENTER" SIGN
	KEY SWITCH FOR FIREFIGHTER CONTROL OF ELEVATOR RECALL, OR AS NOTED
	ISOLATOR MODULE
	OUTPUT RELAY, FUNCTION AS INDICATED
	CONTROL MODULE
	MONITOR MODULE
	MAGNETIC DOOR HOLDER AND RELEASING DEVICE ("HOLD OPEN")
	FIRE SUPPRESSION RELEASING STATION
	FIRE SUPPRESSION ABORT STATION
SINGLE LINE DIAGRAM	
	AIR CIRCUIT BREAKER
	MOLDED CASE CIRCUIT BREAKER
	DISCONNECT (UNFUSED)
	FUSE
	METERING CABINET
	TRANSFORMER
	BUS DUCT
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND
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350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

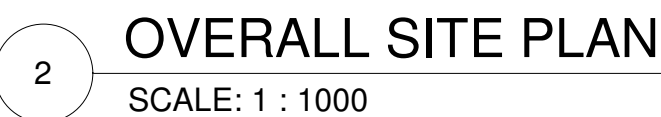
10	ISSUED FOR ADDENDUM 15	2024-12-04
9	ISSUED FOR ADDENDUM 14	2024-11-27
8	ISSUED FOR ADDENDUM 10	2024-10-15
7	ISSUED FOR ADDENDUM 8	2024-10-07
6	ISSUED FOR ADDENDUM 6	2024-09-30
5	ISSUED FOR ADDENDUM 3	2024-09-23
4	ISSUED FOR ADDENDUM 1	2024-09-16
3	ISSUED FOR TENDER	2024-09-09
2	ISSUED FOR SITE PLAN APPROVAL	2024-08-16
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

All measurements are to be checked and verified on site by the contractor before proceeding with work

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Drawing  
No.  
**E-100**

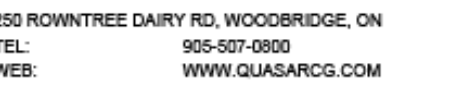
1 OVERALL SITE PLAN (1:1000 SCALE) HAS BEEN DRAWN ON  
EXISTING SITE PLANS FROM OTHER PROJECTS. NOTES  
WRITTEN FOR THIS PROJECT ARE PREFIXED BY THE TERM  
"HANGAR". OTHER NOTES ARE INFORMATION ONLY.



1.	WHERE DIMENSIONS ARE PROVIDED IN METRIC AND IN IMPERIAL UNITS, METRIC DIMENSIONS GOVERN.
2.	EMERGENCY POWER FOR LIGHTING AND FIRE ALARM: MINIMUM 30 MINUTES (2012 CBC 3.2.7.4.1)(1)(b)(i)) 30 MIN FOR ANY OTHER BUILDING.
3.	FIRE ALARM INSTALLATION IN ACCORDANCE WITH CANULC-S524-14.
4.	VERIFY FIRE ALARM SYSTEM IN ACCORDANCE WITH CANULC-S537-13.
5.	COMMISSION INTERCONNECTED LIFE SAFETY SYSTEMS IN ACCORDANCE WITH CANULC-S1001-11.
6.	PROVIDE SEISMIC RESTRAINTS IN ACCORDANCE WITH SECTION 26 05 48 THIS IS A POST-DISASTER BUILDING. SEISMIC RESTRAINTS ARE REQUIRED PER 2012 CBC 4.1.8.18.(1) AND ARE NOT EXEMPT PER 2012 CBC 4.1.8.18.(2).
7.	REFER TO AVIATION DRAWINGS FOR DETAILS OF AVIATION RELATED EQUIPMENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR.







350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

[illegible]

## Issues

Do not scale drawings

Sheet  
Title: ELECTRICAL SITE PLAN

Drawing  
No.  
**E-100**

1 OVERALL SITE PLAN (1:1000 SCALE) HAS BEEN DRAWN ON  
EXISTING SITE PLANS FROM OTHER PROJECTS. NOTES  
WRITTEN FOR THIS PROJECT ARE PREFIXED BY THE TERM  
"HANGAR". OTHER NOTES ARE INFORMATION ONLY.

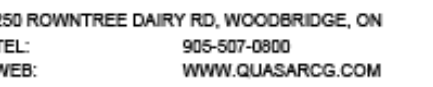


GENERAL NOTES

- |    |  |
|----|--|
| 1. | WHERE DIMENSIONS ARE PROVIDED IN METRIC AND IN IMPERIAL UNITS, METRIC DIMENSIONS GOVERN.   |
| 2. | MINIMUM POWER FOR LIGHTING AND FIRE ALARM: MINIMUM 30 WATT/0.52012 CIRC 3.2.7.4 (1)(b)(ii) 70 NM FOR ANY OTHER BUILDING).  |
| 3. | FIRE ALARM INSTALLATION IN ACCORDANCE WITH CANULC-SS524-14.  |
| 4. | VERIFY FIRE ALARM SYSTEM IN ACCORDANCE WITH CANULC-SS37-13.  |
| 5. | COMMISSION INTERCONNECTED LIFE SAFETY SYSTEMS IN ACCORDANCE WITH CANULC-SS100-11.  |
| 6. | PROVIDE SEISMIC RESTRAINTS IN ACCORDANCE WITH SECTION 26 05 48 THIS IS A POST-DRAWER BUILDING. SEISMIC RESTRAINTS ARE REQUIRED PER 2012 CBC 4.18.1.8.(1) AND ARE NOT EXEMPT PER 2012 CBC 4.18.1.8.(2). |
| 7. | REFER TO AVIATION DRAWINGS FOR DETAILS OF AVIATION RELATED EQUIPMENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR.  |







350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

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## Issues

Do not scale drawings

Sheet  
Title: ELECTRICAL SITE PLAN  
CONCESSION 4

Drawing  
No.  
**E-100**

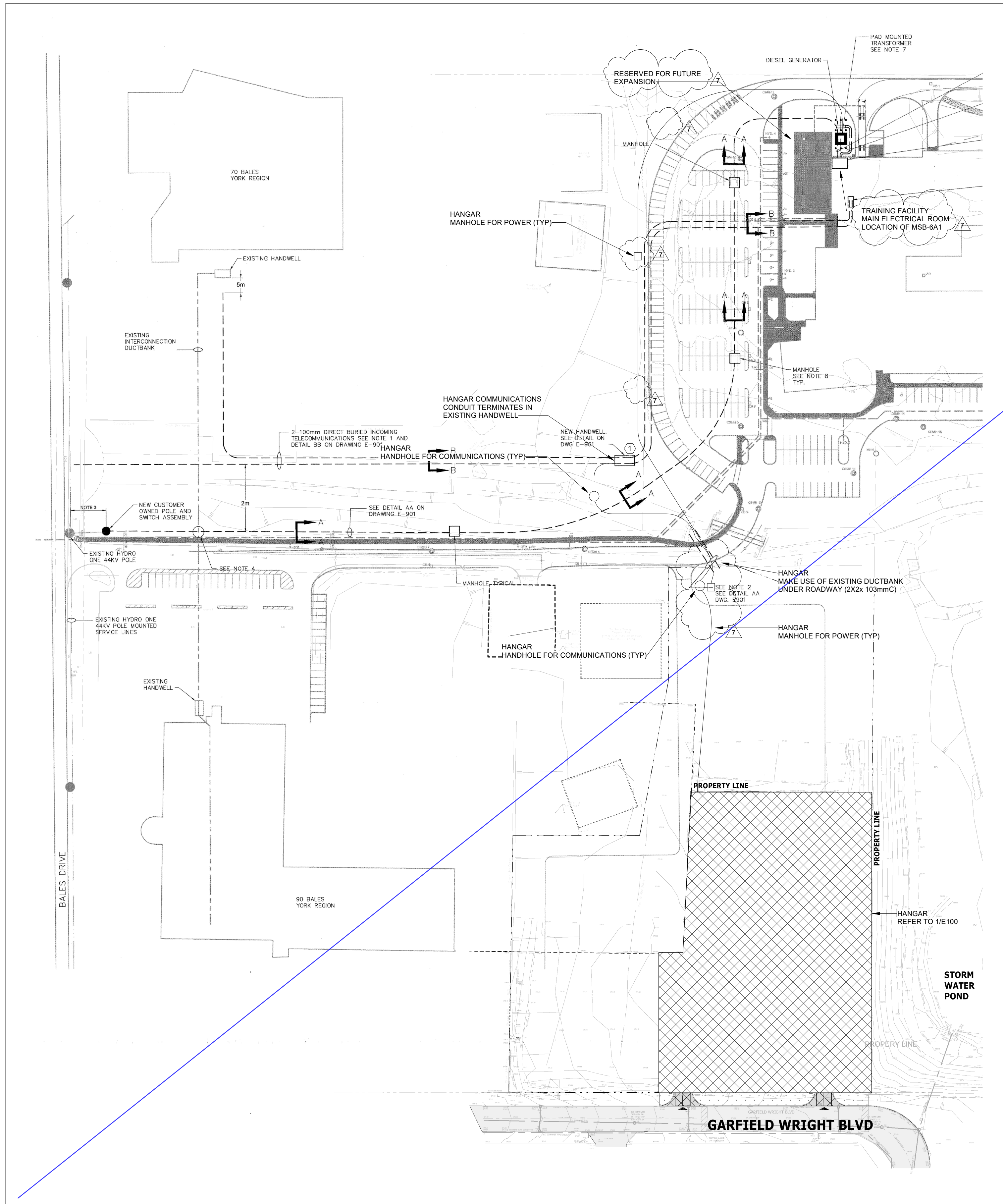
1.	WHERE DIMENSIONS ARE PROVIDED IN METRIC AND IN IMPERIAL UNITS, METRIC DIMENSIONS GOVERN.
2.	EMERGENCY POWER FOR LIGHTING AND FIRE ALARM: MINIMUM 30 MINUTES (2012 CBC 3.2.7.4.1)(b)(iv) "30 MIN FOR ANY OTHER BUILDING")
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4.	VERIFY FIRE ALARM SYSTEM IN ACCORDANCE WITH CANULC-S537-13.
5.	COMMISSION INTERCONNECTED LIFE SAFETY SYSTEMS IN ACCORDANCE WITH CANULC-S1001-11.
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8.	AVIATION OBSTRUCTION LIGHTS: FED FROM PANEL DP-02-42.
9.	FATO LIGHTS ARE FED FROM HELIPORT LIGHTING CONTROLLER. PROVIDE 5/C-12AWG-BND.
10.	COORDINATE FINAL LOCATION OF EQUIPMENT WITH ARCHITECT PRIOR TO INSTALLATION.
11.	REFER TO AVIATION DRAWINGS FOR DETAILS OF AVIATION RELATED EQUIPMENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR.

1. TERMINATE NEW COMMUNICATIONS DUCT IN EXISTING COMMUNICATIONS HANDWELL. ENSURE NEW DUCT IS INSTALLED ON OPPOSITE FACES OF HANDWELL TO ALLOW FOR A STRAIGHT PULL (BY OWNER).
2. OVERALL SITE PLAN (1:1000 SCALE) HAS BEEN DRAWN ON EXISTING SITE PLANS FROM OTHER PROJECTS. NOTES WRITTEN FOR THIS PROJECT ARE PREFIXED BY THE TERM "HANGAR". OTHER NOTES ARE INFORMATION ONLY.





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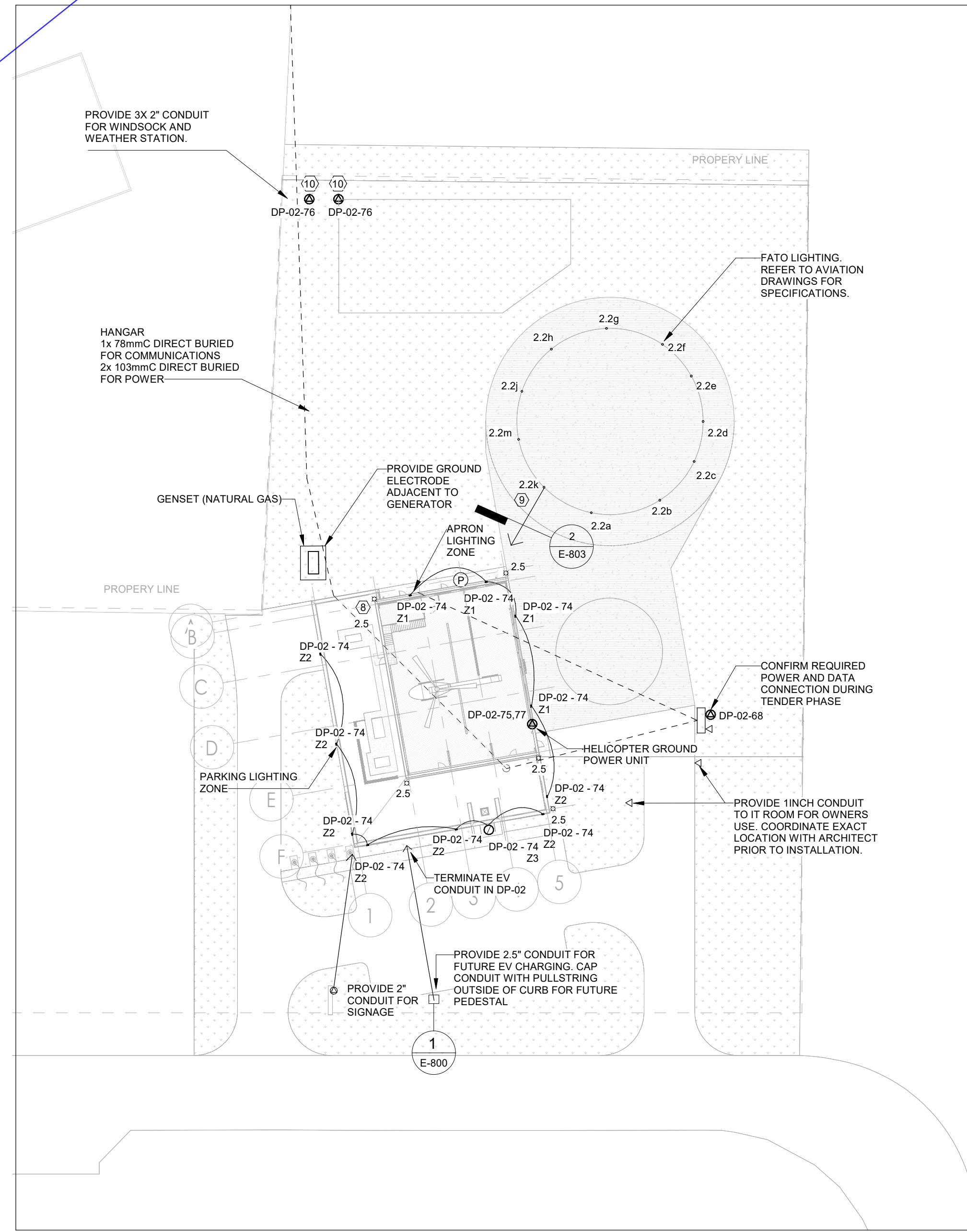
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## GENERAL NOTES

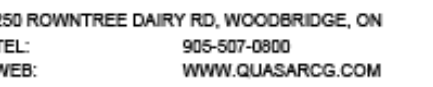
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## KEYNOTE LEGEND

- TERMINATE NEW COMMUNICATIONS DUCT IN EXISTING COMMUNICATIONS HANDWELL. ENSURE NEW DUCT IS INSTALLED ON OPPOSITE FACES OF HANDWELL TO ALLOW FOR A STRAIGHT PULL (BY OWNER).
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350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

[illegible]

## Issues

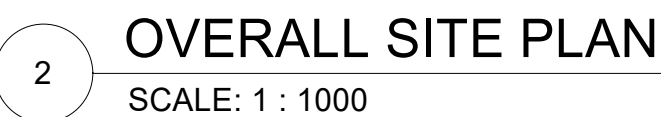
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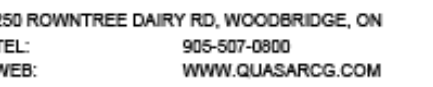
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No. **E-100**

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350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

[illegible]

## Issues

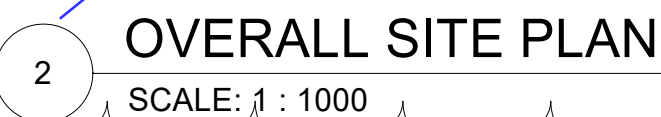
Do not scale drawings

Sheet  
Title: ELECTRICAL SITE PLAN

Drawing  
No. **E-100**

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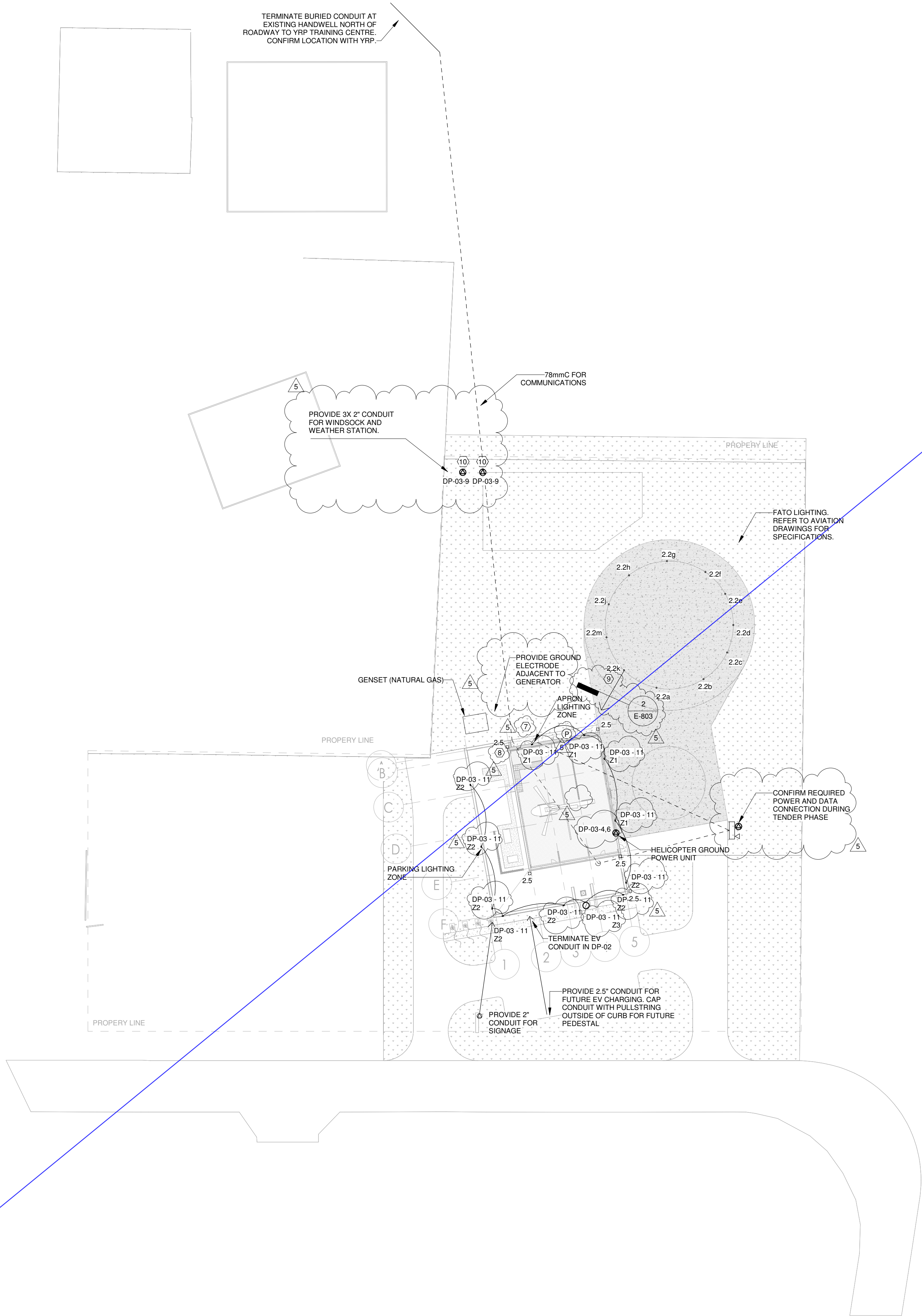
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1 SITE PLAN  
SCALE: 1 : 500



GENERAL NOTES	
1.	WHERE DIMENSIONS ARE PROVIDED IN METRIC AND IN IMPERIAL UNITS, METRIC DIMENSIONS GOVERN.
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4.	VERIFY FIRE ALARM SYSTEM IN ACCORDANCE WITH CANULC-S537-13.
5.	COMMISSION INTERCONNECTED LIFE SAFETY SYSTEMS IN ACCORDANCE WITH CANULC-S1001-11.
6.	PROVIDE SEISMIC RESTRAINTS IN ACCORDANCE WITH SECTION 26 05 40. THIS IS A POST-DISASTER BUILDING. SEISMIC RESTRAINTS ARE REQUIRED PER 2012 OBC 4.1.8.16.(1) AND ARE NOT EXEMPT PER 2012 OBC 4.1.8.18.(2).
8.	AVIATION OBSTRUCTION LIGHTS. FED FROM PANEL DP-02-42.
9.	FATO LIGHTS ARE FED FROM HELIPORT LIGHTING CONTROLLER. PROVIDE 5/C-12AWG+BNL.
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PARKIN

Parkin Architects Limited  
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000



YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
5	ISSUED FOR ADDENDUM 3	2024-09-23
4	ISSUED FOR ADDENDUM 1	2024-09-16
3	ISSUED FOR TENDER	2024-09-09
2	ISSUED FOR SITE PLAN APPROVAL	2024-08-16
1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

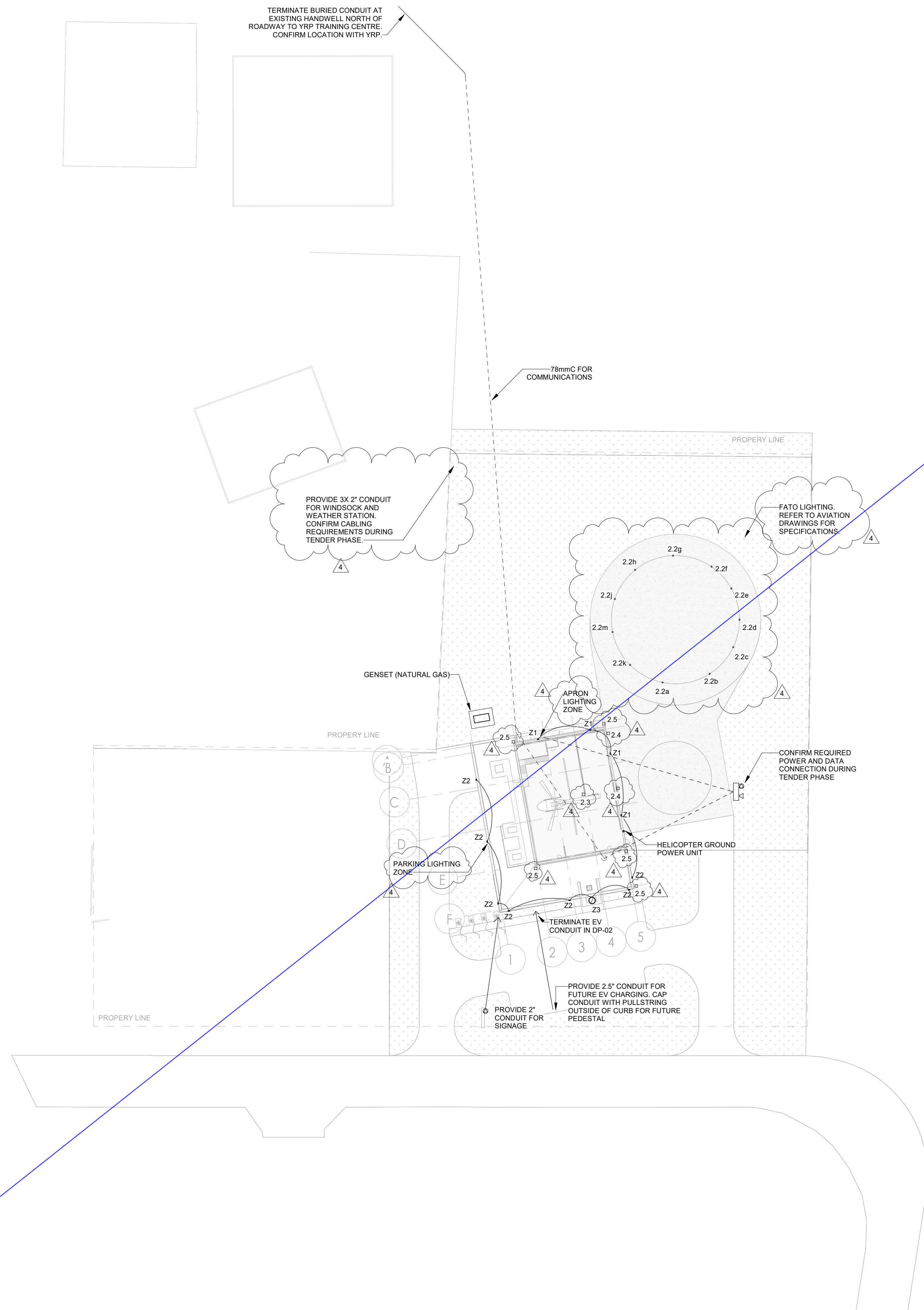
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Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
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ELECTRICAL SITE PLAN

Drawing  
No:  
E-100



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2 HANGAR  
SCALE:N.T.S

PARKIN

Parkin Architects Limited  
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000



## YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
4	ISSUED FOR ADDENDUM 1	2024-09-16
3	ISSUED FOR TENDER	2024-09-09
2	ISSUED FOR SITE PLAN APPROVAL	2024-08-16
1	ISSUED FOR BUILDING PERMIT	2024-07-31

### Issues

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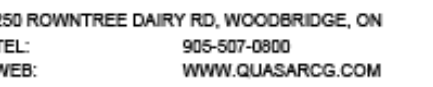
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Original Issue Date: 2024-07-31  
Project No: TT-24-005  
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ELECTRICAL SITE PLAN

Drawing  
No.  
E-100





350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

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2 HANGAR  
SCALE:N.T.S

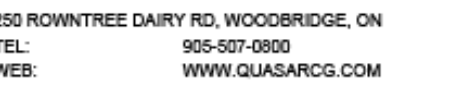
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Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Drawing  
No.  
E-100





350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

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## Issues

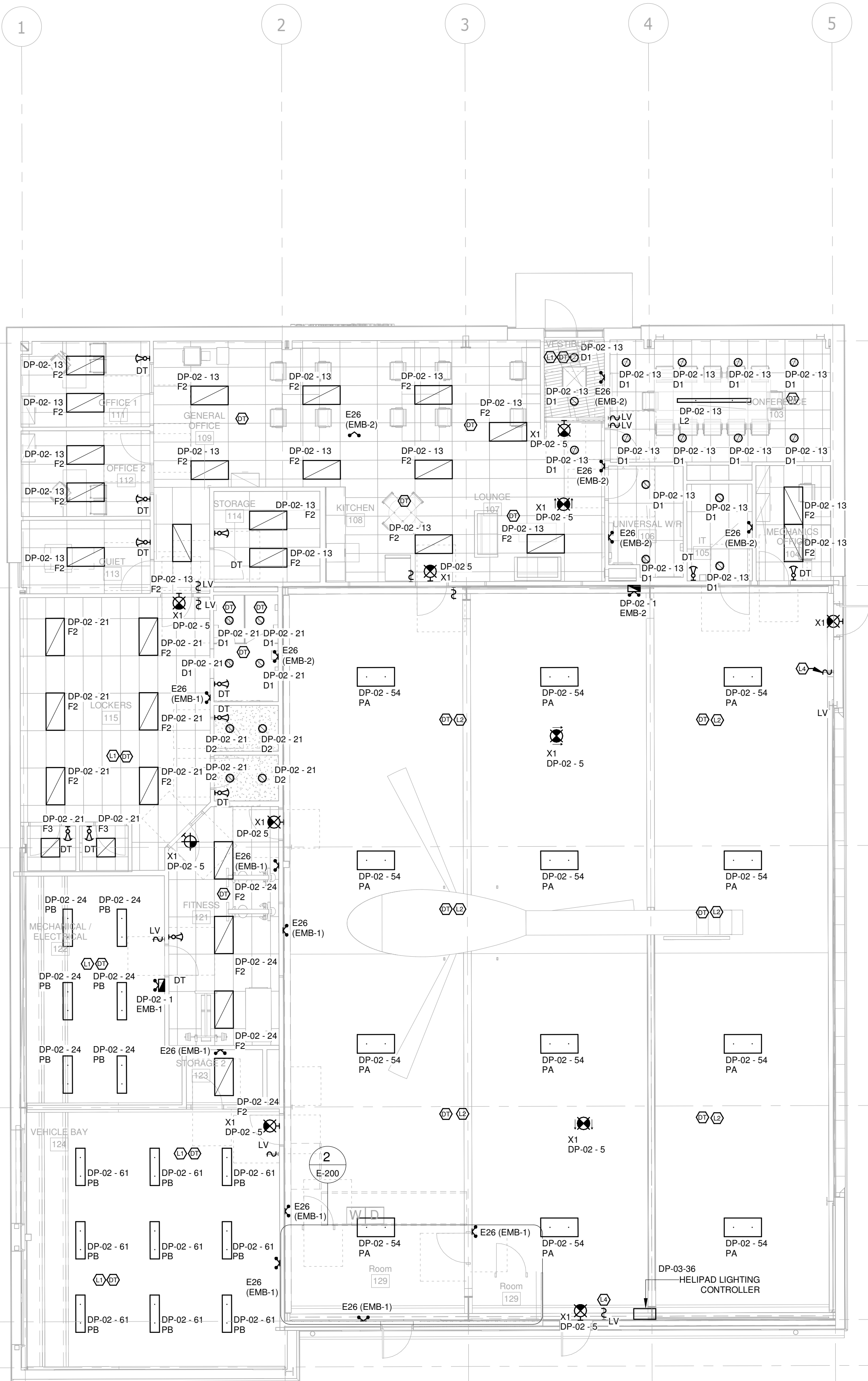
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GROUND FLOOR

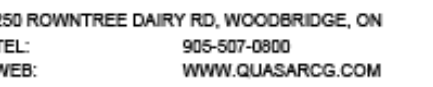
Drawing  
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GENERAL NOTES:

1. REFER TO POWER AND SIGNALS DRAWINGS FOR SWITCHED RECEPTACLES.







350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

[illegible]

8	ISSUED FOR ADDENDUM 14	2024-11-27
7	ISSUED FOR ADDENDUM 10	2024-10-15
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

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Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Drawing  
No. **E-200**

KEYNOTE LEGEND	
Key Value	Keynote Text
L1	COMBINATION OF ULTRASONIC (US) AND PASSIVE INFRARED (PIR) TECHNOLOGIES.
L2	WIRELESS HIGH MOUNT SENSOR FOR OCCUPANCY SENSING AND DAYLIGHT HARVESTING. MATCH HEIGHT OF PA LUMINAIRES IN HANGAR.
L4	DIGITAL SWITCH. APRON LIGHTING OVERRIDE CONTROL.

1. REFER TO POWER AND SIGNALS DRAWINGS FOR SWITCHED RECEPTACLES.

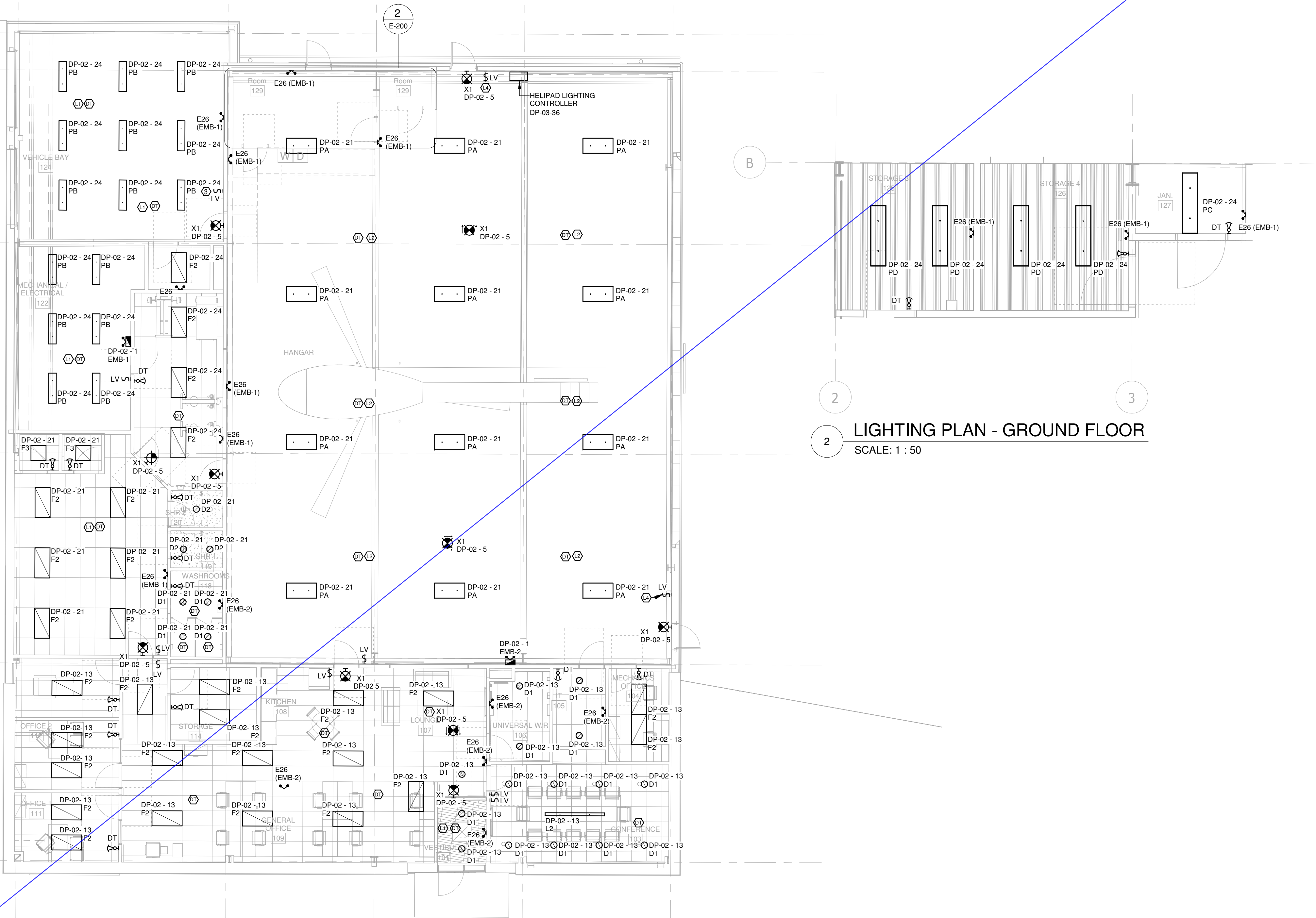
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KEYNOTE LEGEND	
Key Value	Keynote Text
L1	COMBINATION OF ULTRASONIC (US) AND PASSIVE INFRARED (PIR) TECHNOLOGIES.
L2	WIRELESS HIGH MOUNT SENSOR FOR OCCUPANCY SENSING AND DAYLIGHT HARVESTING. MATCH HEIGHT OF PA LUMINAIRES IN HANGAR.
L4	DIGITAL SWITCH. APRON LIGHTING OVERRIDE CONTROL.

- GENERAL NOTES:
- REFER TO POWER AND SIGNALS DRAWINGS FOR SWITCHED RECEPTACLES.



LIGHTING PLAN - GROUND FLOOR  
SCALE: 1 : 50

PARKIN

Parkin Architects Limited  
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000



YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
7	ISSUED FOR ADDENDUM 10	2024-10-15
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
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1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

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Do not scale drawings

Drawn by: ZK  
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LIGHTING NEW WORK -  
GROUND FLOOR

Drawing  
No.  
E-200



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## Issues

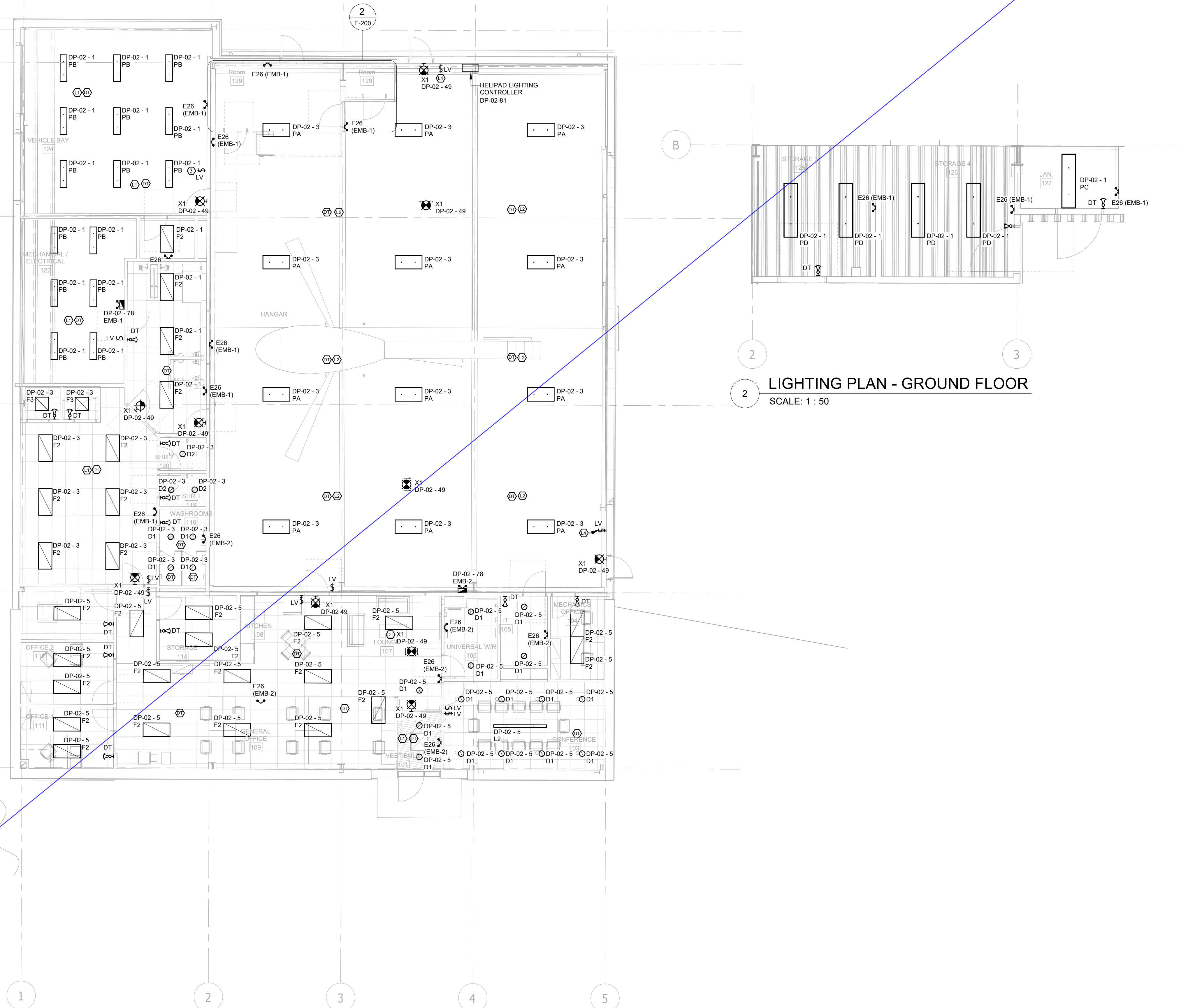
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Do not scale drawings

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Project No: TT-24-005  
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**LIGHTING NEW WORK -  
GROUND FLOOR**

Drawing  
No.  
**E-200**





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## Issues

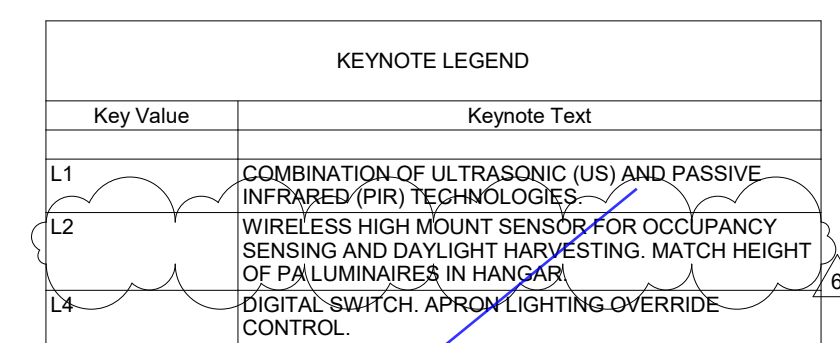
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**LIGHTING NEW WORK -  
GROUND FLOOR**

Drawing  
No. **E-200**



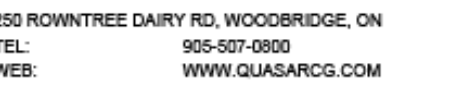
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## LIGHTING PLAN - GROUND FLOOR

SCALE: 1 : 50





350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

[illegible]

5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

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Drawing  
No. **E-200**



## LIGHTING PLAN - GROUND FLOOR

SCALE: 1 : 50



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## Issues

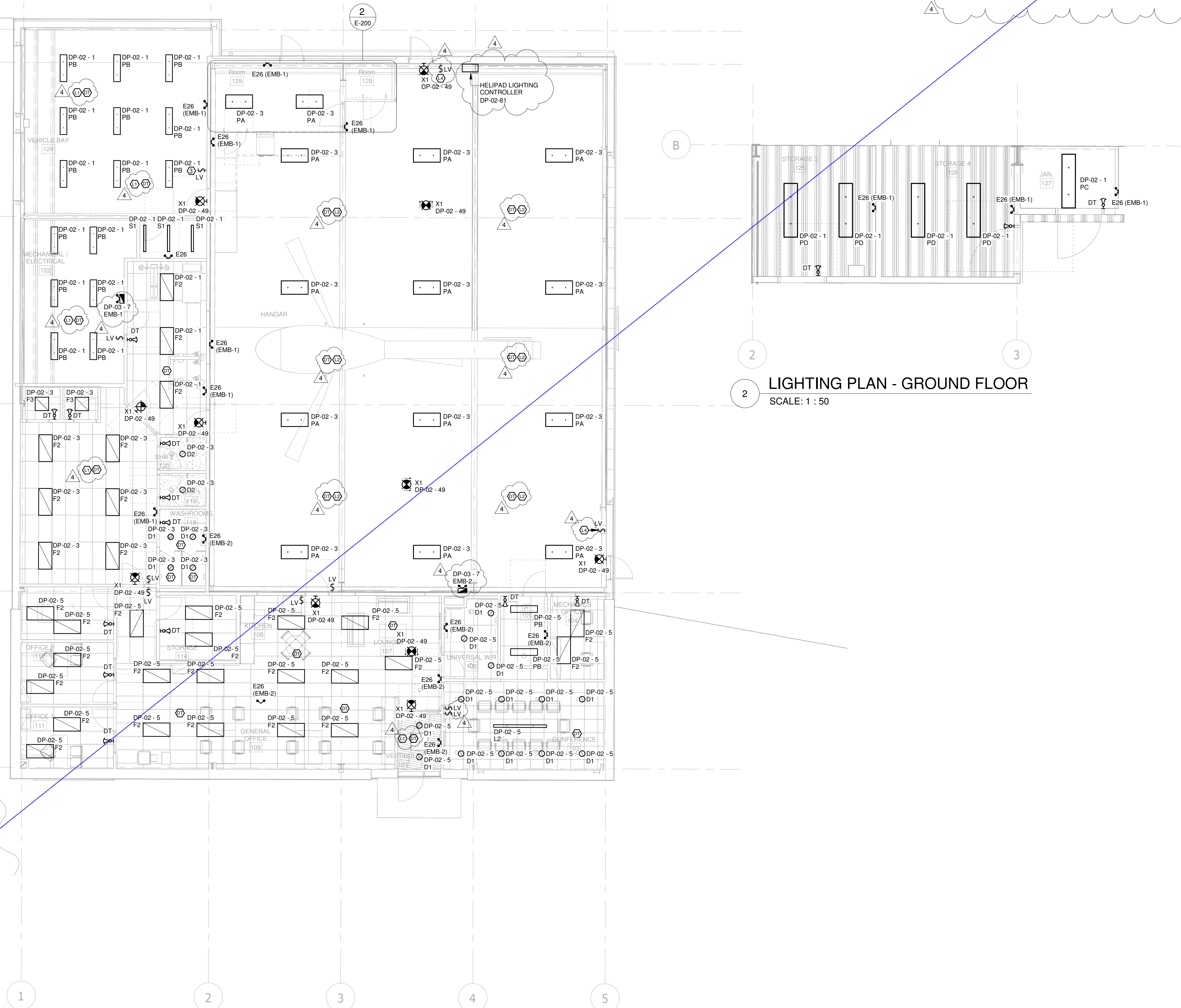
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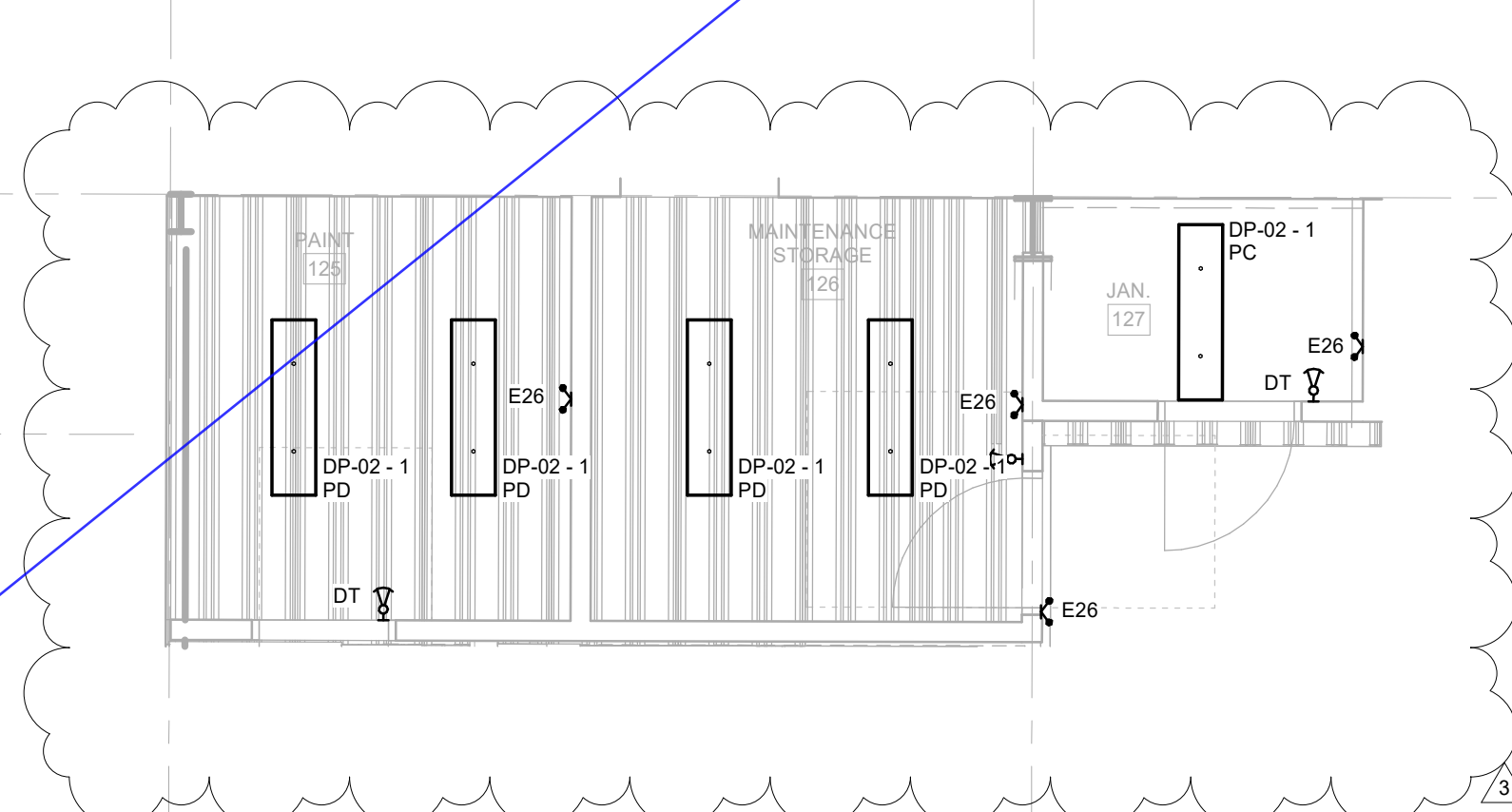


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NOTES:

1. USPIR: COMBINATION OF ULTRASONIC (US) AND PASSIVE INFRARED (PIR) TECHNOLOGIES.
2. H2: WIRELESS HIGH MOUNT SENSOR FOR OCCUPANCY SENSING AND DAYLIGHT HARVESTING.
3. LV SWITCH: LOW VOLTAGE SWITCH OCCUPANCY SENSOR AND DAYLIGHTING CONTROL.
4. NX: DIGITAL SWITCH



LIGHTING PLAN - GROUND FLOOR

SCALE: 1 : 50

PARKIN

Parkin Architects Limited  
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000



250 ROWNTREE DAIRY RD, WOODBRIDGE, ON  
TEL: 905-507-0800  
WEB: WWW.QUASARGROUP.COM

YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

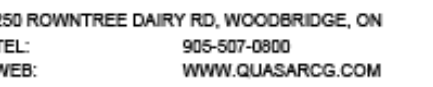
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Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

LIGHTING NEW WORK -  
GROUND FLOOR

Drawing  
No.  
E-200





350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

[illegible]

All measurements are to be checked and verified on site by the contractor before proceeding with work

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: 1 : 100

Drawing  
No. **E-200**

1. USPIR: COMBINATION OF ULTRASONIC (US) AND PASSIVE INFRARED (PIR) TECHNOLOGIES.
2. H2: WIRELESS HIGH MOUNT SENSOR FOR OCCUPANCY SENSING AND DAYLIGHT HARVESTING.
3. LV SWITCH: LOW VOLTAGE SWITCH OCCUPANCY SENSOR AND DAYLIGHTING CONTROL.
4. NX: DIGITAL SWITCH







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TEL: 905-507-0800  
WEB: WWW.QUASARGROUP.COM

YORK REGIONAL POLICE  
HELICOPTER HANGAR

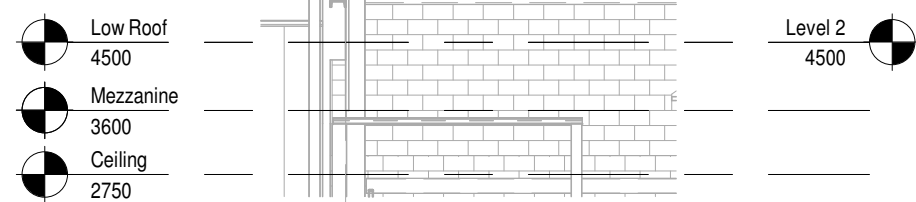
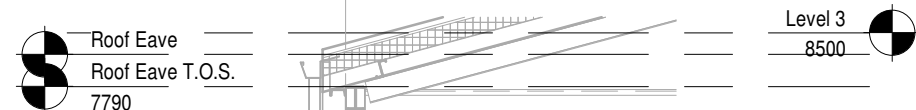
350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

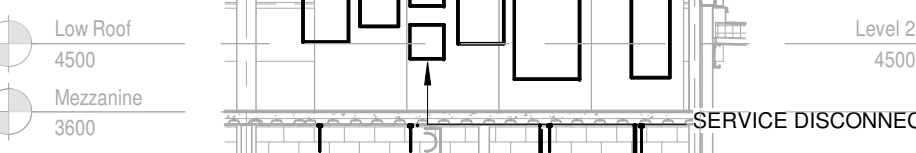
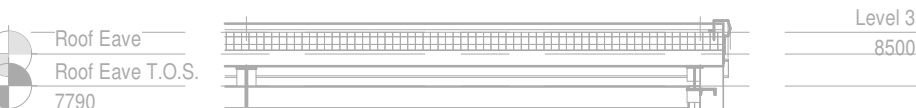
KEYNOTE LEGEND	
Key Value	Keynote Text
P1	CONDUIT TERMINATION FOR ANTENNA SYSTEM TO ROOF LEVEL. CONFIRM EXACT LOCATION ARCHITECT.
P2	P2 ANY EQUIPMENT INSTALLED UP TO 450mm AFF SHALL BE HAZARDOUS RATED ZONE 2 PER OESC 20-402 (2)
P3	P3 MOUNT BOTTOM OF RECEPTACLES MINIMUM 500mm AFF
P4	RADIO: MOUNT 1100AFF. CONFIRM LOCATION WITH ARCHITECT PRIOR TO INSTALLATION
P5	INSTALL TV POWER AND DATA 18INCH BELOW CEILING. VERIFY EXACT MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLATION.
P6	SCRAMBLEPAD
P7	INTRUSION DETECTION SYSTEM KEYPAD

GENERAL NOTES:

1. CONCEAL ALL CONDUIT EXCEPT IN MECHANICAL ROOMS AND ELECTRICAL ROOMS. OR UNLESS OTHERWISE INDICATED IN THIS SPECIFICATION, OR NOTED ON THE DRAWINGS, SURFACE CONDUIT WORK IS NOT PERMITTED UNLESS SPECIFICALLY NOTED.



Section 3  
SCALE: 1: 100



Section 5  
SCALE: 1: 100

9	ISSUED FOR ADDENDUM 15	2024-12-04
8	ISSUED FOR ADDENDUM 14	2024-11-27
7	ISSUED FOR ADDENDUM 10	2024-10-15
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

Issues

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Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

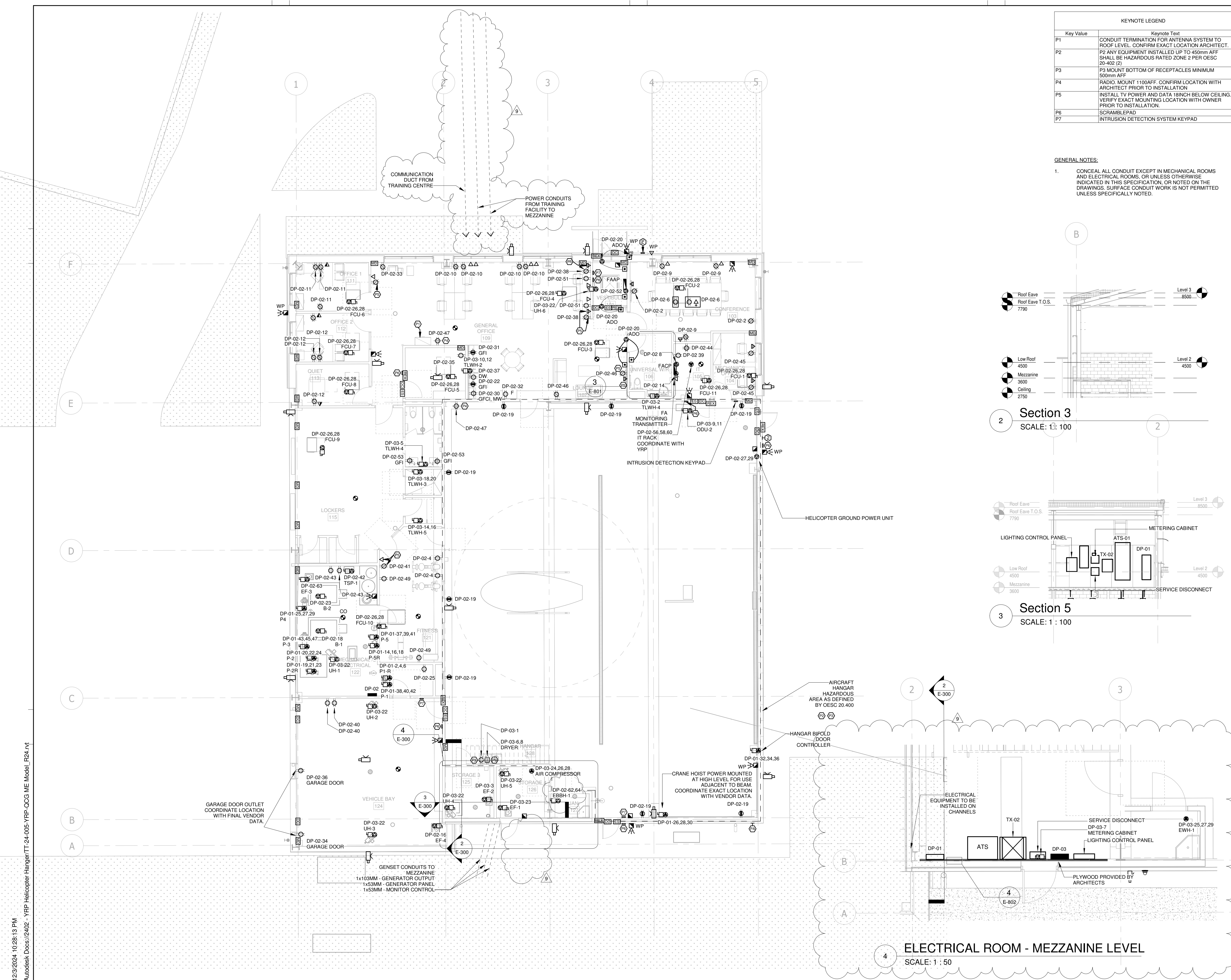
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Title:

POWER AND SYSTEMS  
NEW WORK - GROUND  
FLOOR

Drawing

No.  
E-300



ELECTRICAL ROOM - MEZZANINE LEVEL  
SCALE: 1: 50





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TEL: 905-507-0800  
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YORK REGIONAL POLICE  
HELICOPTER HANGAR

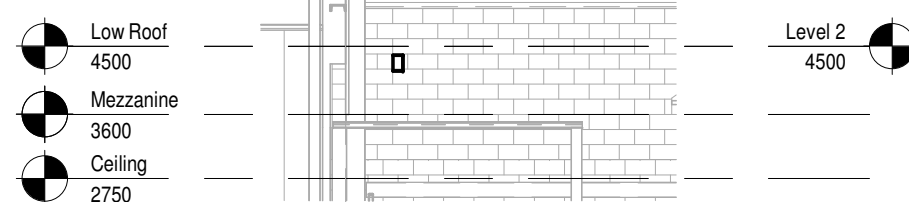
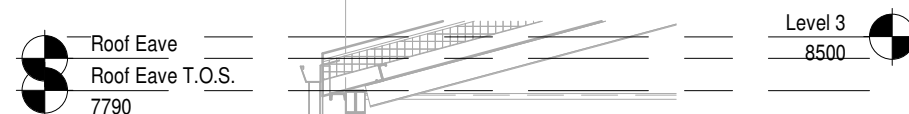
350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

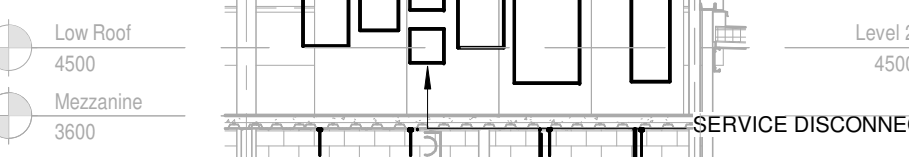
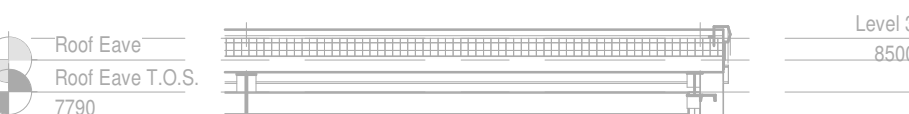
KEYNOTE LEGEND	
Key Value	Keynote Text
P1	CONDUIT TERMINATION FOR ANTENNA SYSTEM TO ROOF LEVEL. CONFIRM EXACT LOCATION ARCHITECT.
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P5	INSTALL TV POWER AND DATA 18INCH BELOW CEILING. VERIFY EXACT MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLATION.
P6	SCRAMBLEPAD
P7	INTRUSION DETECTION SYSTEM KEYPAD

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Section 3  
SCALE: 1 : 100



Section 5  
SCALE: 1 : 100

NO.	ISSUED	DATE
8	ISSUED FOR ADDENDUM 14	2024-11-27
7	ISSUED FOR ADDENDUM 10	2024-10-15
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

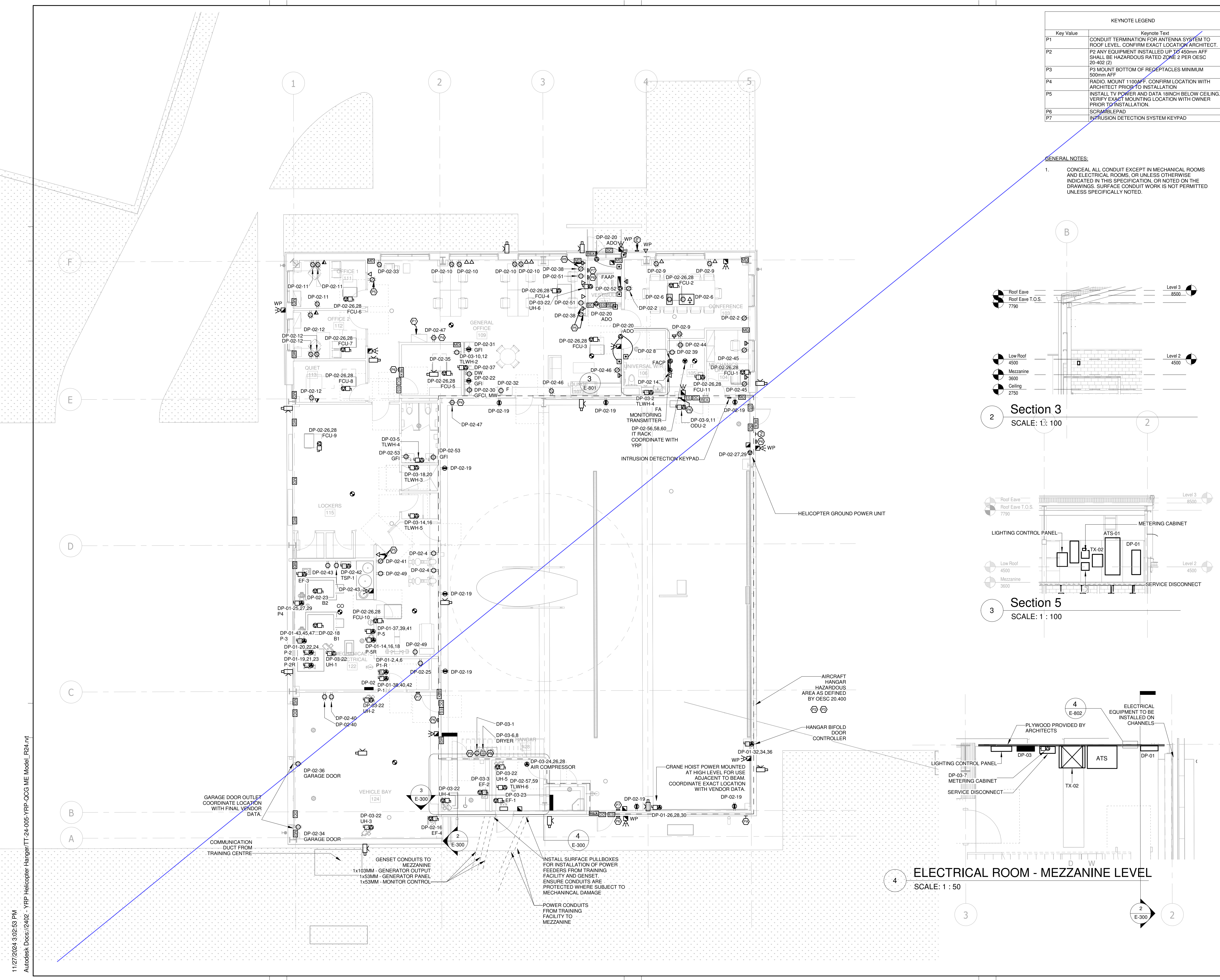
Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

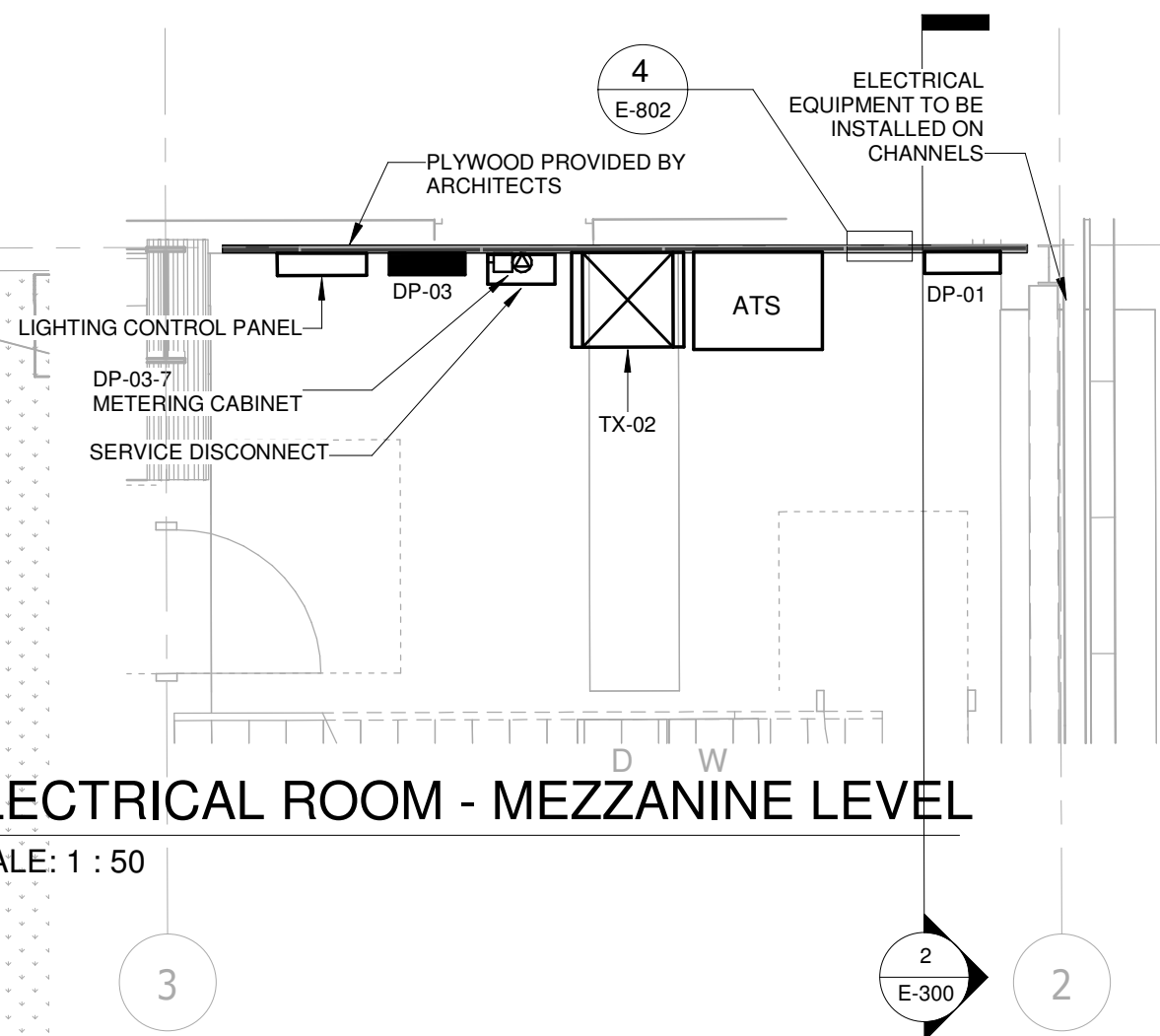
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Title:

POWER AND SYSTEMS  
NEW WORK - GROUND  
FLOOR

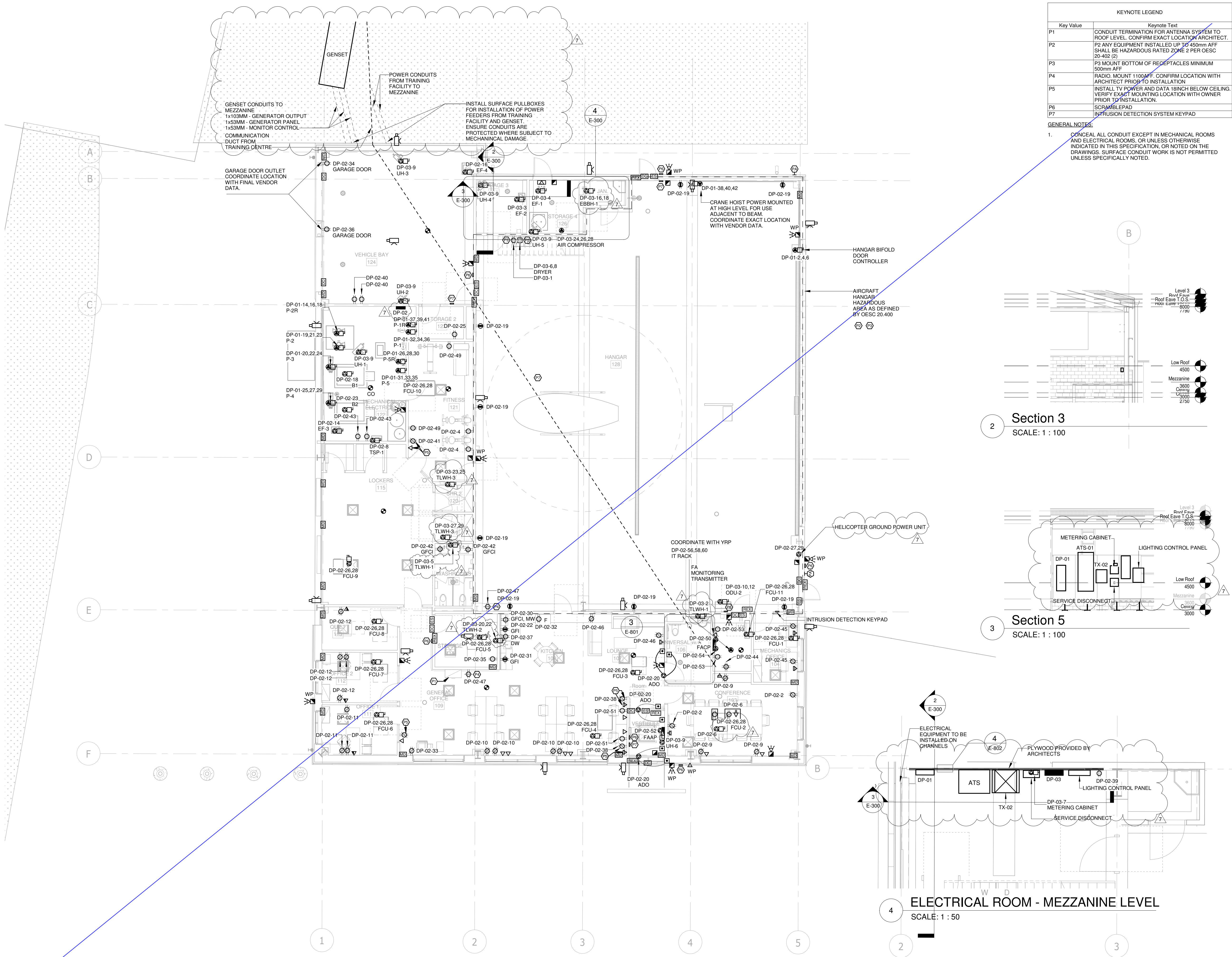
Drawing  
No: E-300



ELECTRICAL ROOM - MEZZANINE LEVEL  
SCALE: 1 : 50

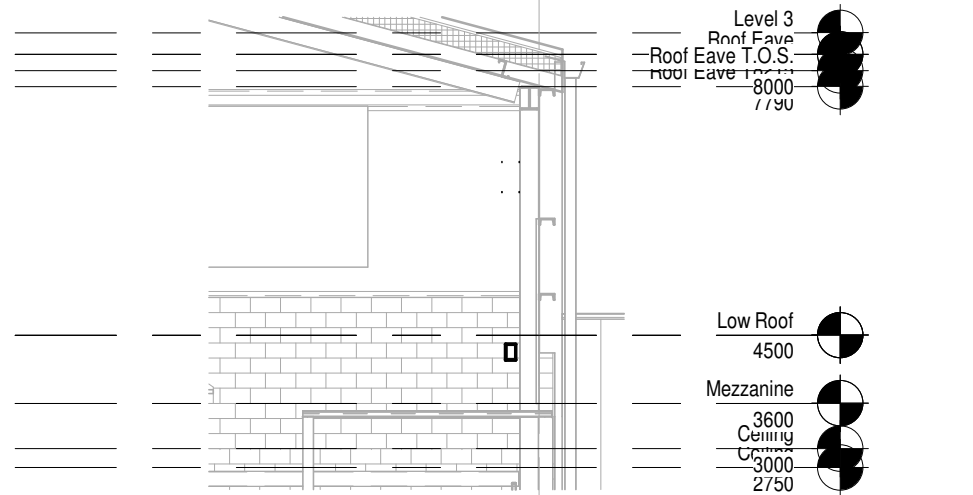




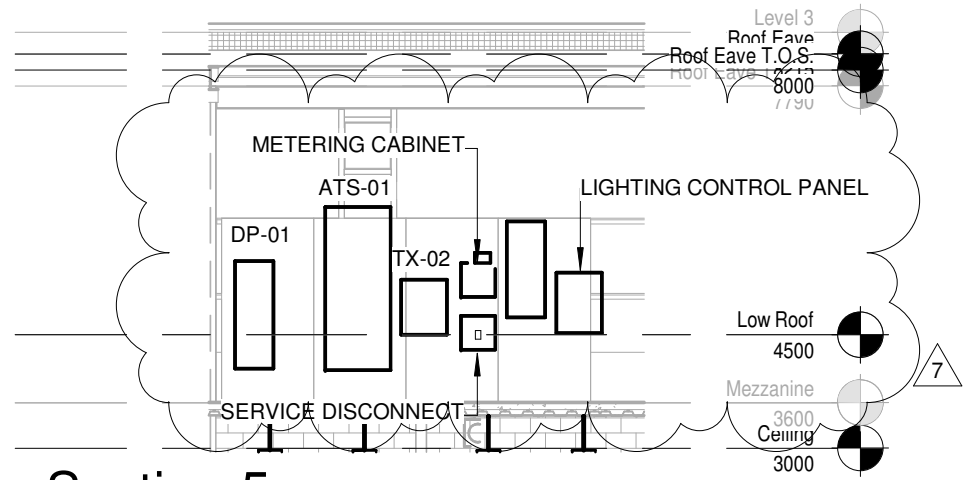


KEYNOTE LEGEND	
Key Value	Keynote Text
P1	CONDUIT TERMINATION FOR ANTENNA SYSTEM TO ROOF LEVEL. CONFIRM EXACT LOCATION ARCHITECT.
P2	P2 ANY EQUIPMENT INSTALLED UP TO 450mm AFF SHALL BE HAZARDOUS RATED ZONE 2 PER OESC 20-402 (2)
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P5	INSTALL TV POWER AND DATA 18INCH BELOW CEILING. VERIFY EXACT MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLATION.
P6	SCRAMBLEPAD
P7	INTRUSION DETECTION SYSTEM KEYPAD

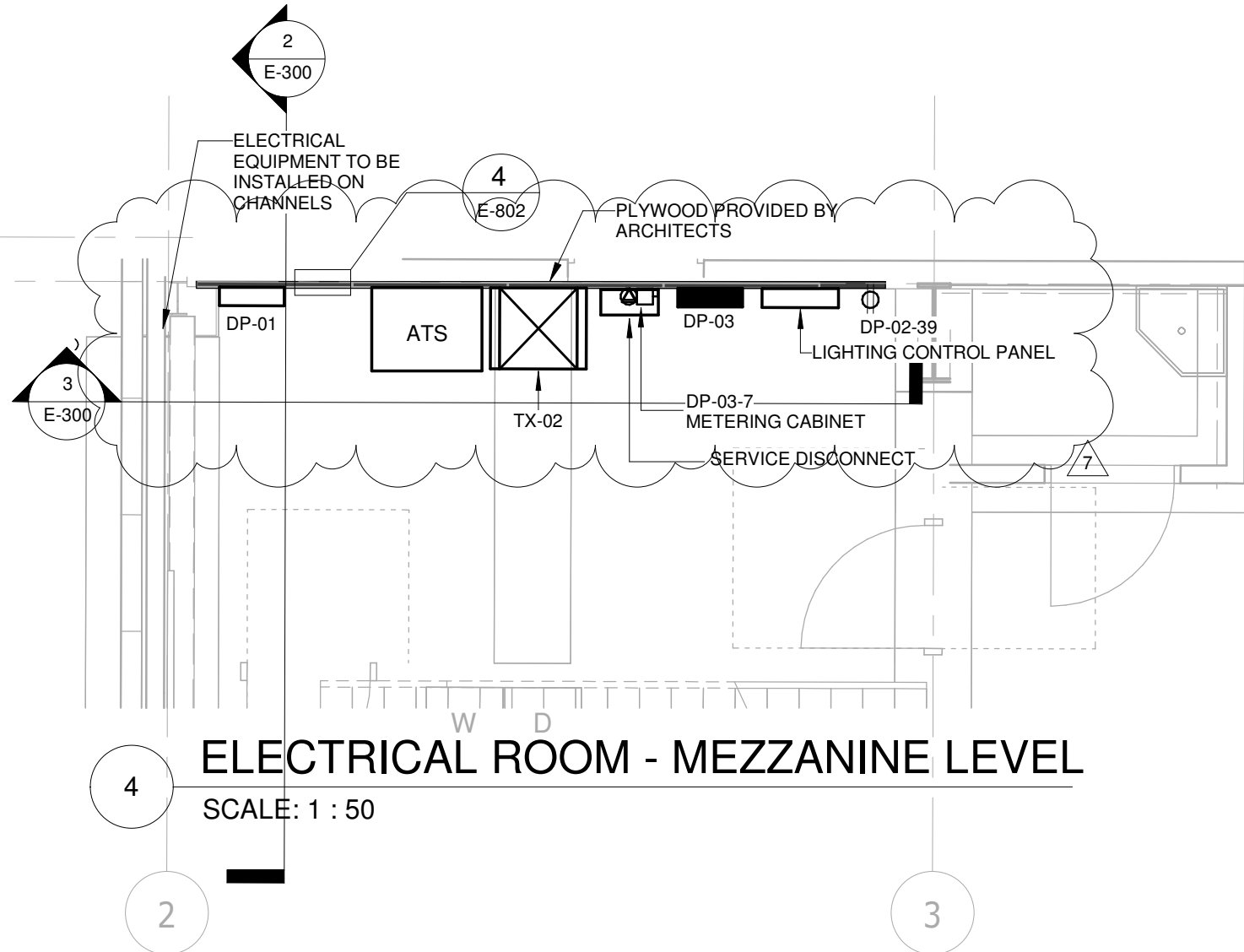
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Section 3  
SCALE: 1 : 100



Section 5  
SCALE: 1 : 100



ELECTRICAL ROOM - MEZZANINE LEVEL  
SCALE: 1 : 50

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WEB: WWW.QUASARGROUP.COM

## YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
7	ISSUED FOR ADDENDUM 10	2024-10-15
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31

### Issues

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Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:  
**POWER AND SYSTEMS  
NEW WORK - GROUND  
FLOOR**

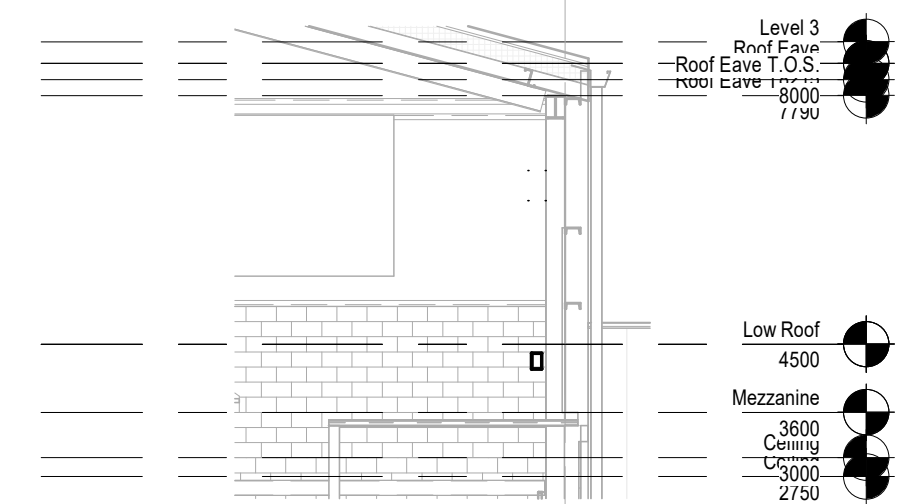
Drawing  
No.  
**E-300**



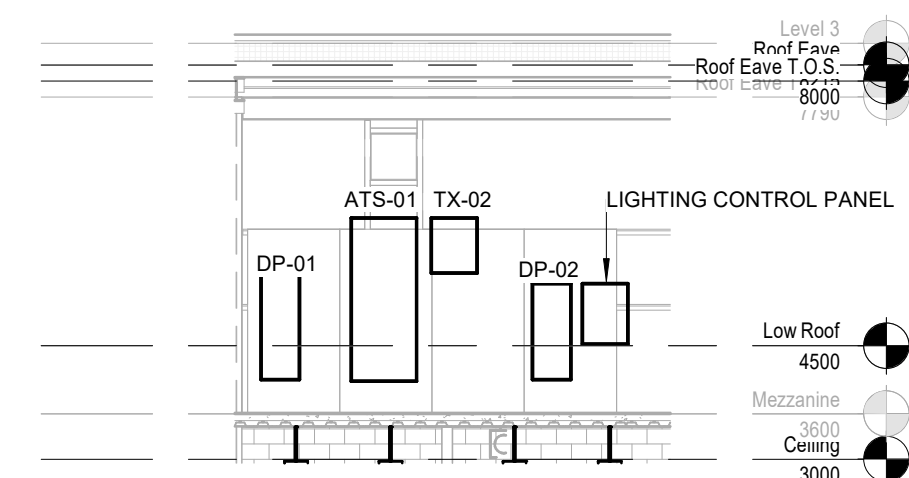
YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



2 Section 3  
SCALE: 1 : 100



3 Section 5  
SCALE: 1 : 100

6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

## Issues

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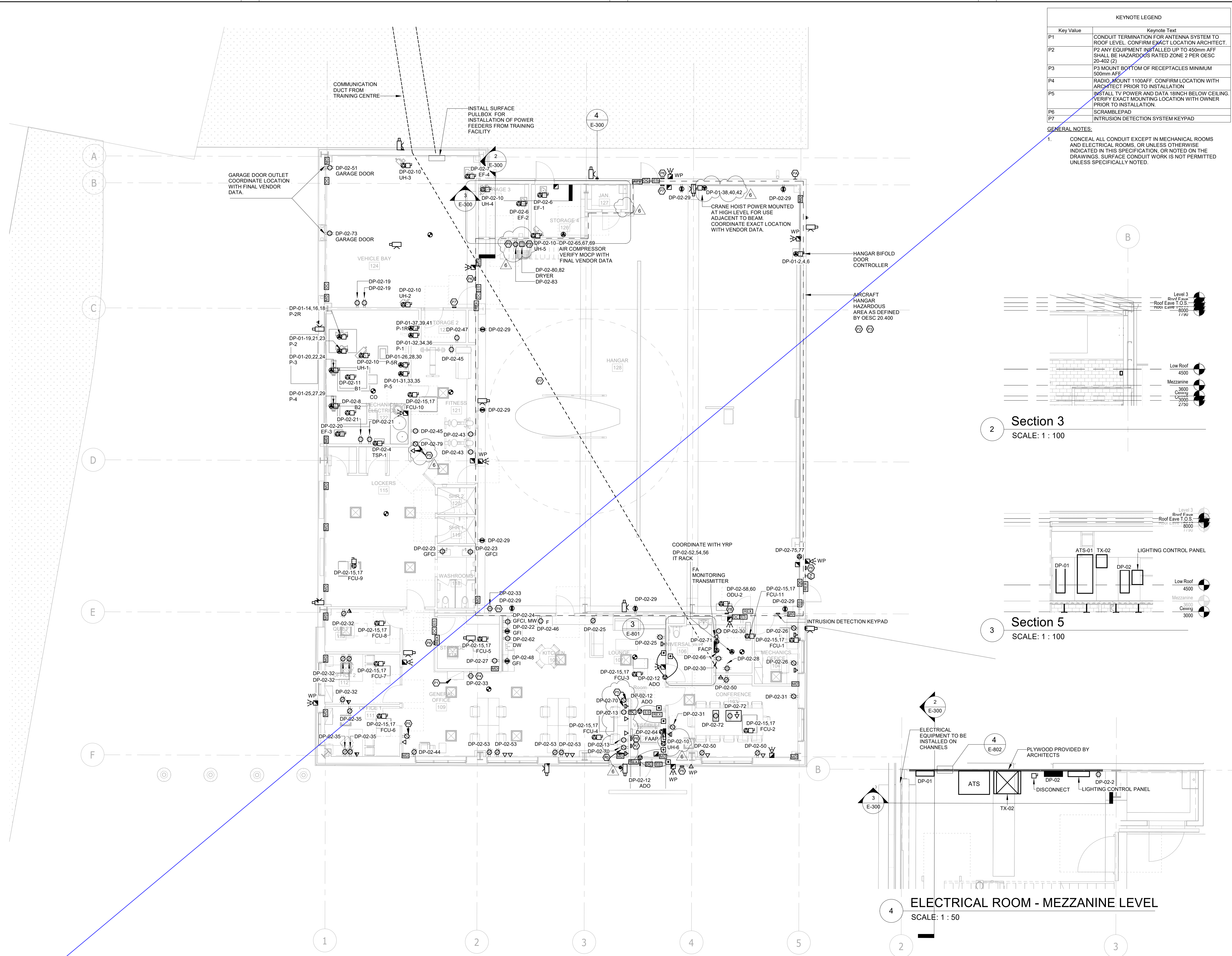
Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

POWER AND SYSTEMS  
NEW WORK - GROUND  
FLOOR

Drawing  
No.  
**E-300**

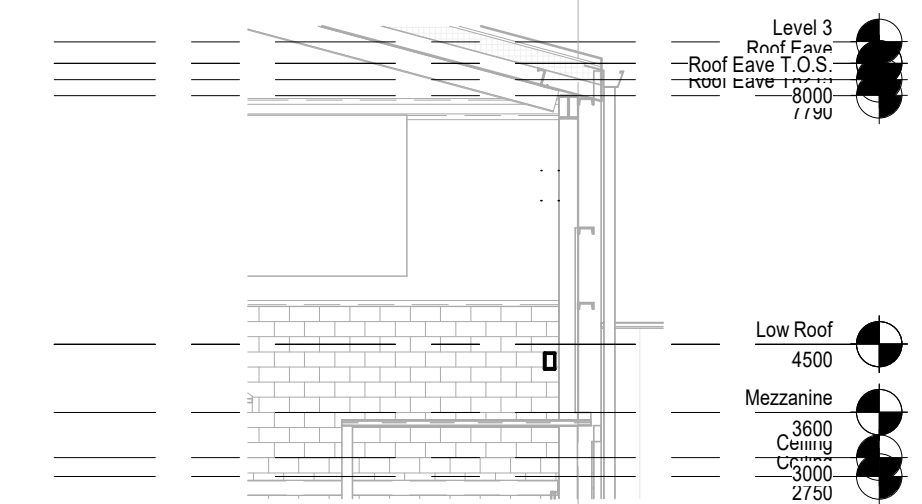




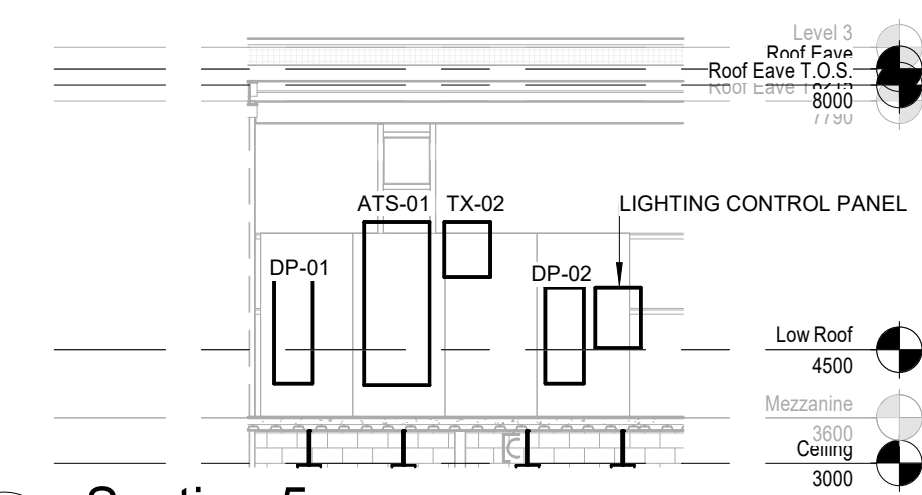
YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



2 Section 3  
SCALE: 1 : 100



3 Section 5  
SCALE: 1 : 100

6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

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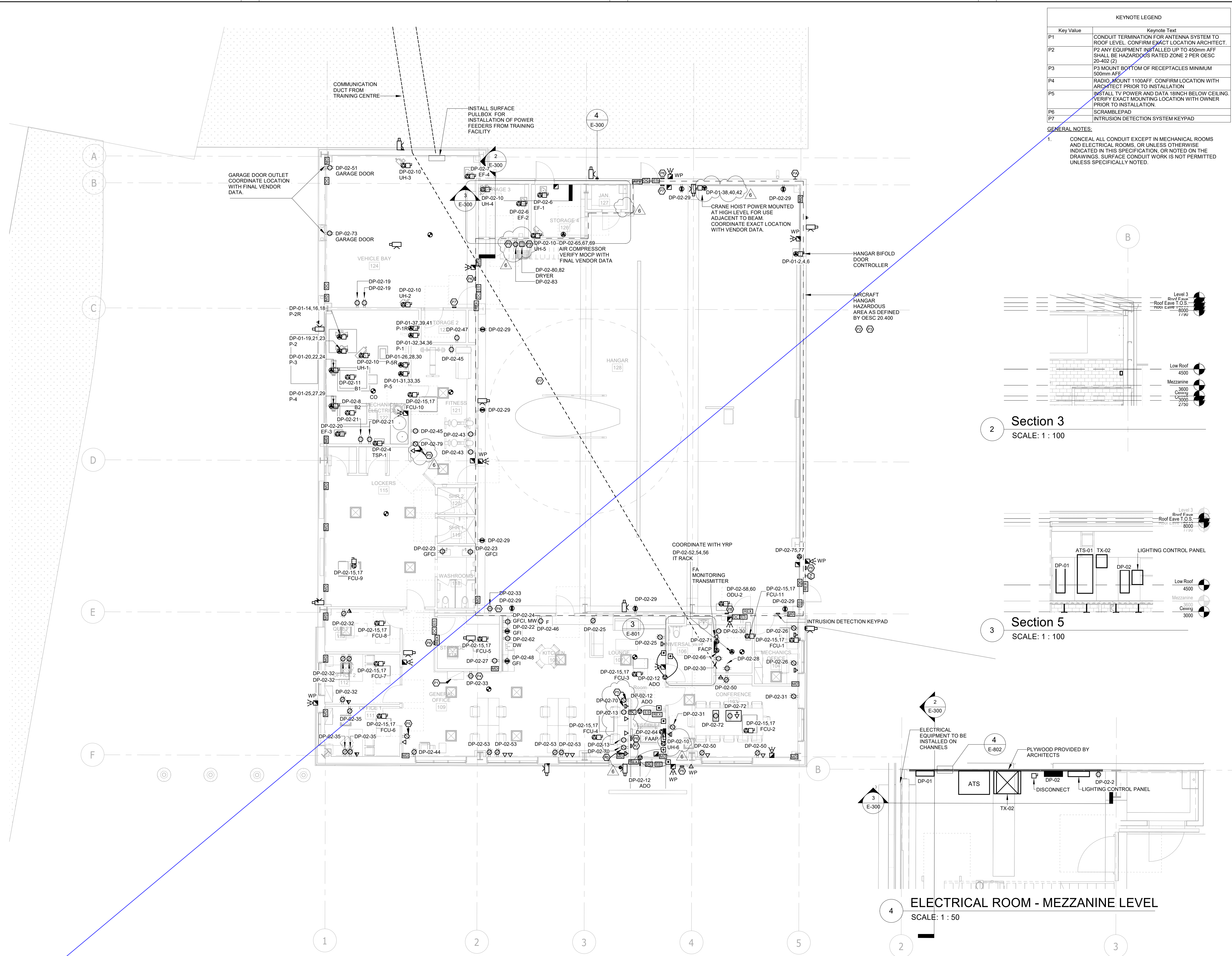
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Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

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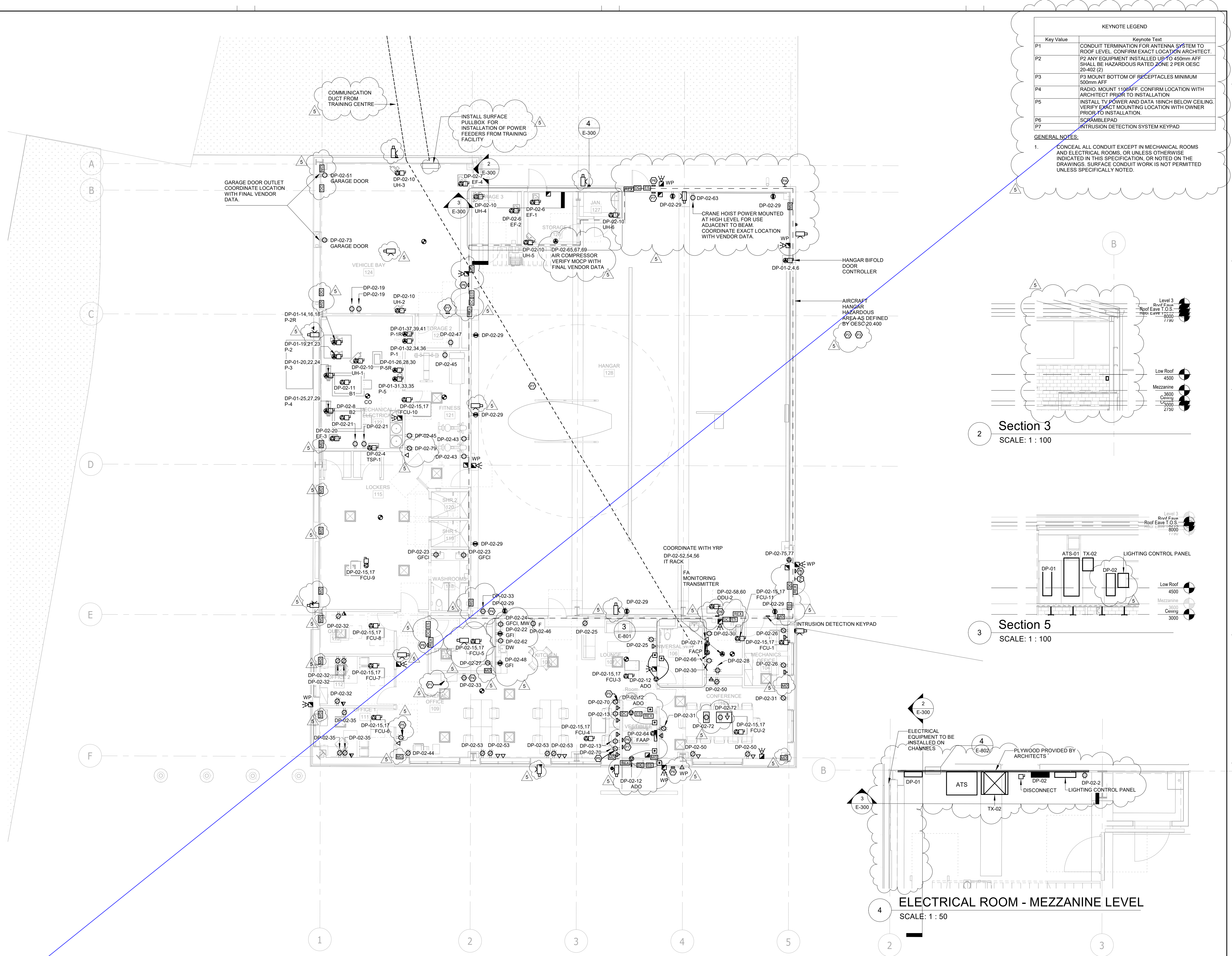
# POWER AND SYSTEMS

## NEW WORK - GROUND FLOOR

Drawing  
No.  
**E-300**





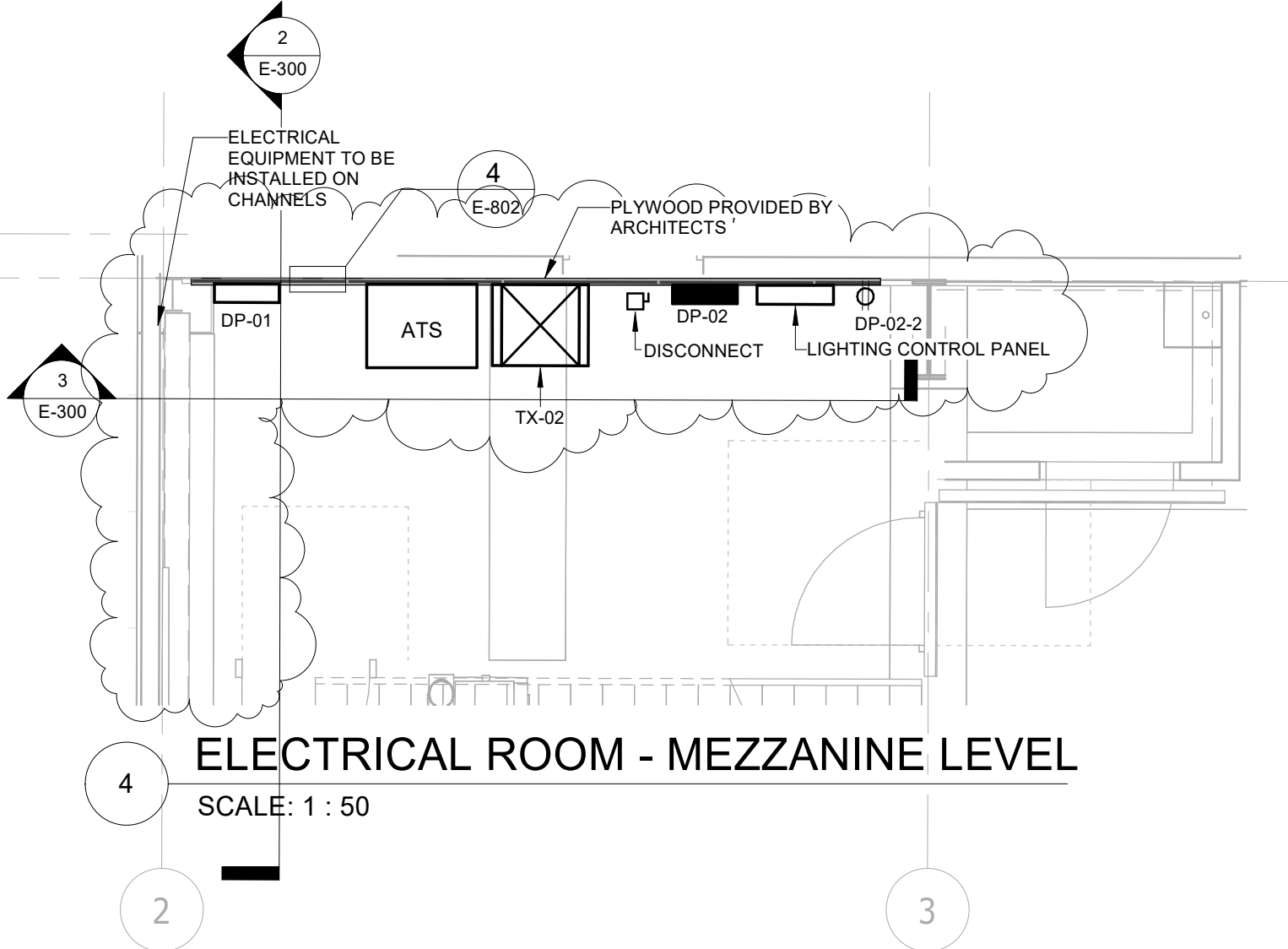
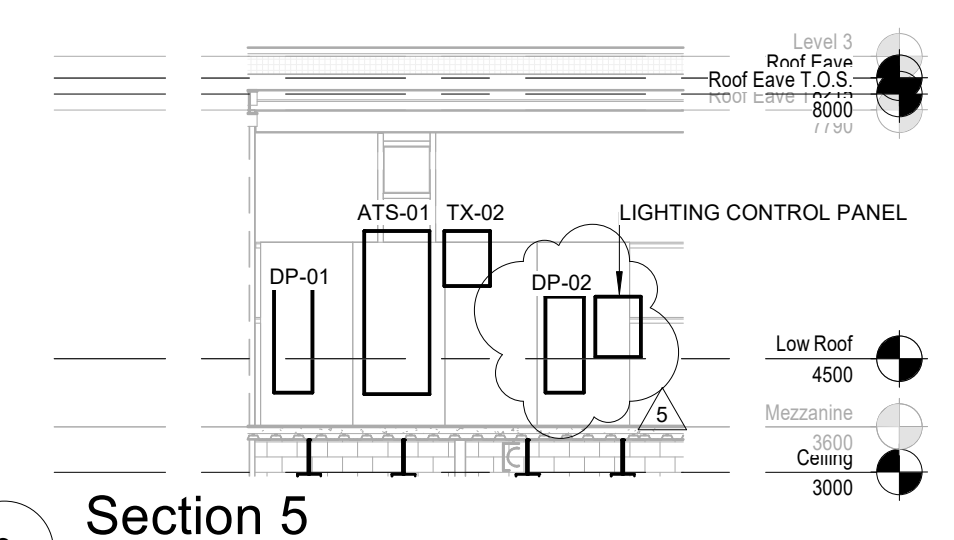
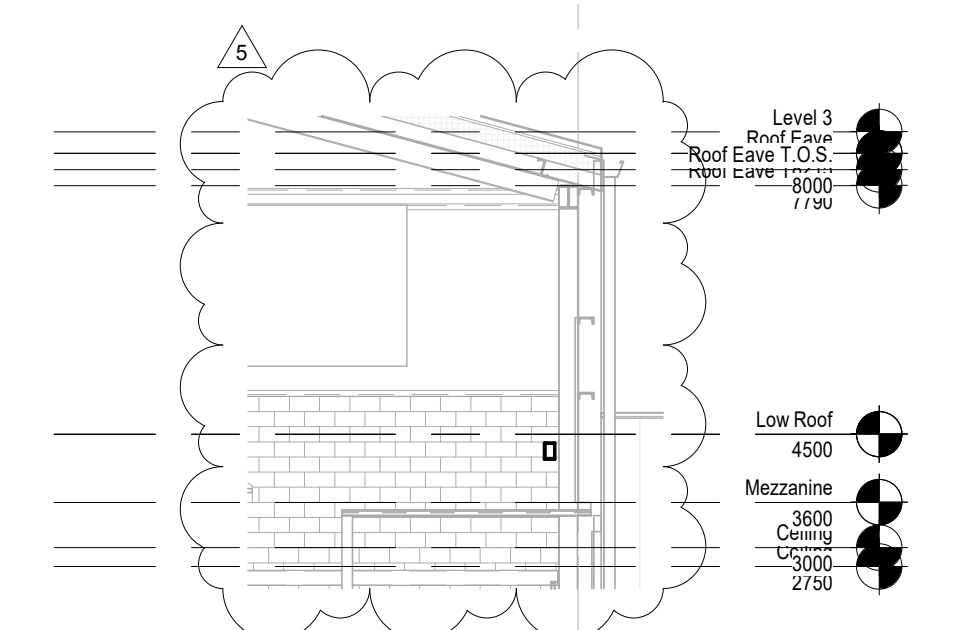


**KEYNOTE LEGEND**

Key Value	Keynote Text
P1	CONDUIT TERMINATION FOR ANTENNA SYSTEM TO ROOF LEVEL. CONFIRM EXACT LOCATION WITH ARCHITECT.
P2	P2 ANY EQUIPMENT INSTALLED UP TO 450mm AFF SHALL BE HAZARDOUS RATED ZONE 2 PER OESC 20-402 (2)
P3	P3 MOUNT BOTTOM OF RECEPTACLES MINIMUM 500mm AFF
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1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000

**QUASAR**  
CONSULTING GROUP  
250 ROWNTREE DAIRY RD, WOODBRIDGE, ON  
TEL: 905-507-0800  
WEB: WWW.QUASARGROUP.COM

## YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31

**Issues**

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Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:  
**POWER AND SYSTEMS  
NEW WORK - GROUND  
FLOOR**

Drawing  
No:  
**E-300**





250 ROWNTREE DAIRY RD, WOODBRIDGE, ON  
TEL: 905-507-0800  
WEB: WWW.QUASARGROUP.COM

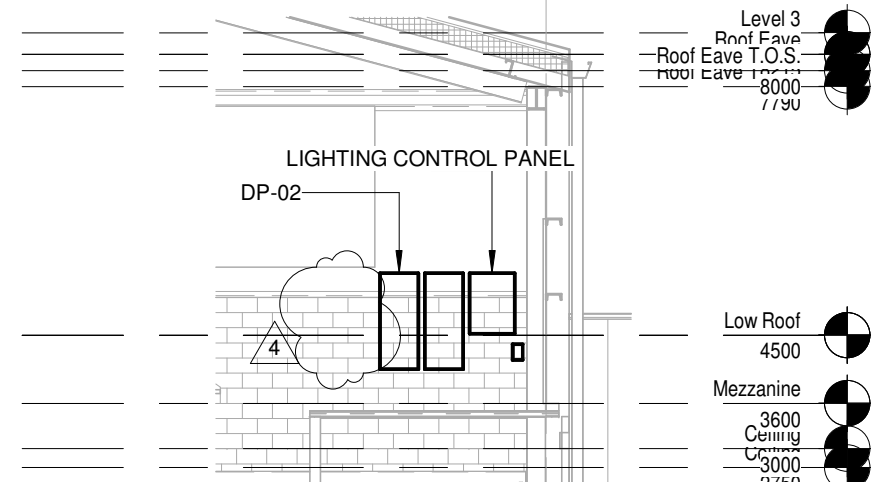
YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

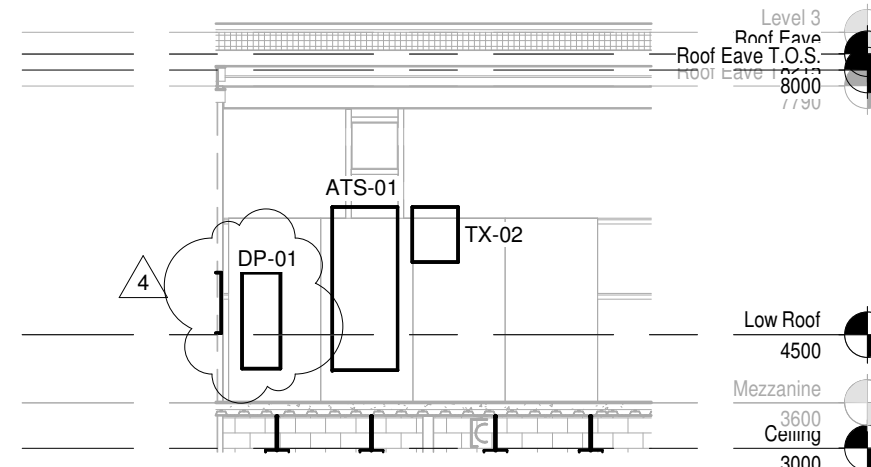
Key  
Plan

GENERAL NOTES:

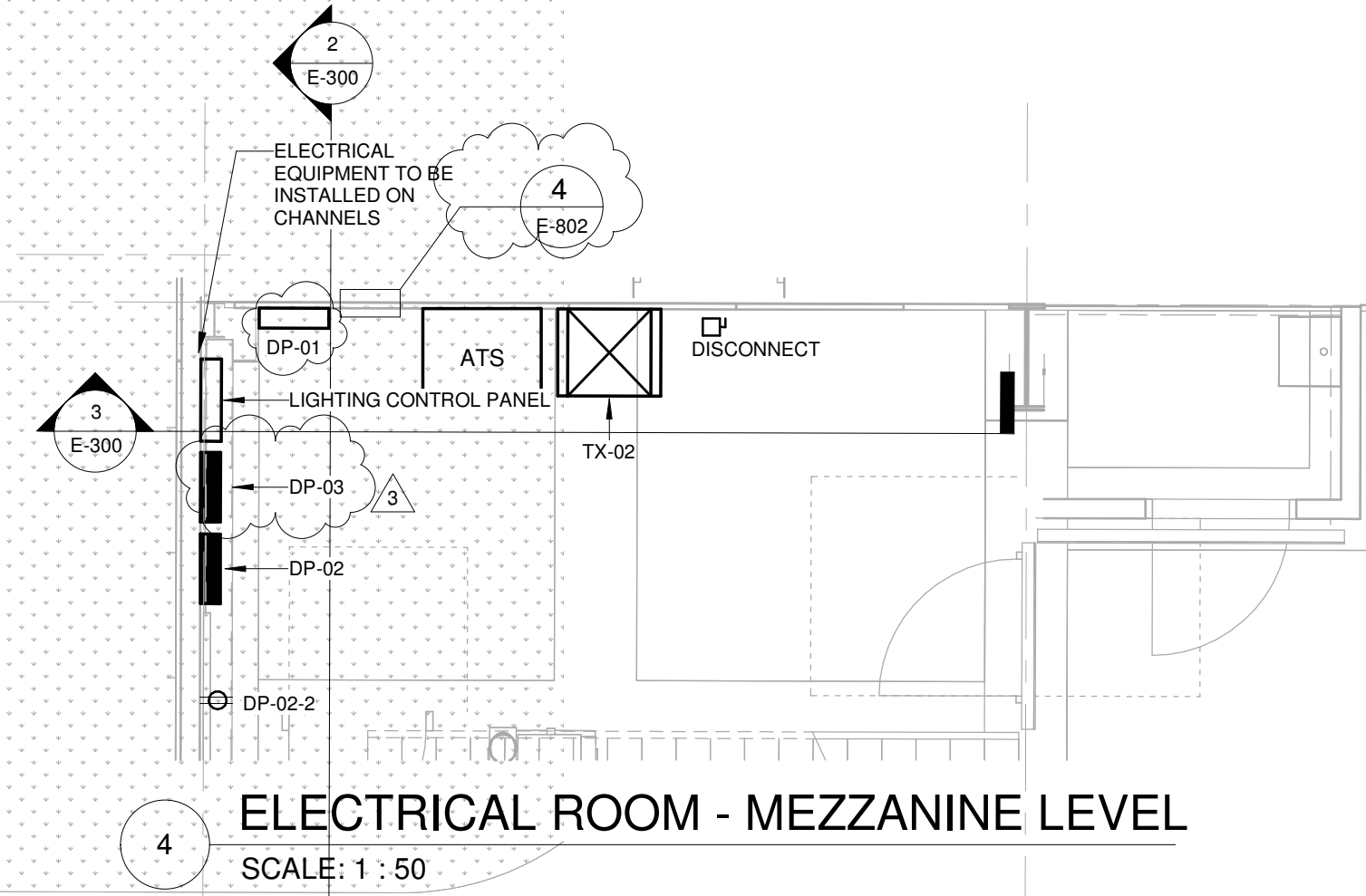
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2 Section 3  
SCALE: 1 : 100



3 Section 5  
SCALE: 1 : 100



ELECTRICAL ROOM - MEZZANINE LEVEL  
SCALE: 1 : 50

Issues

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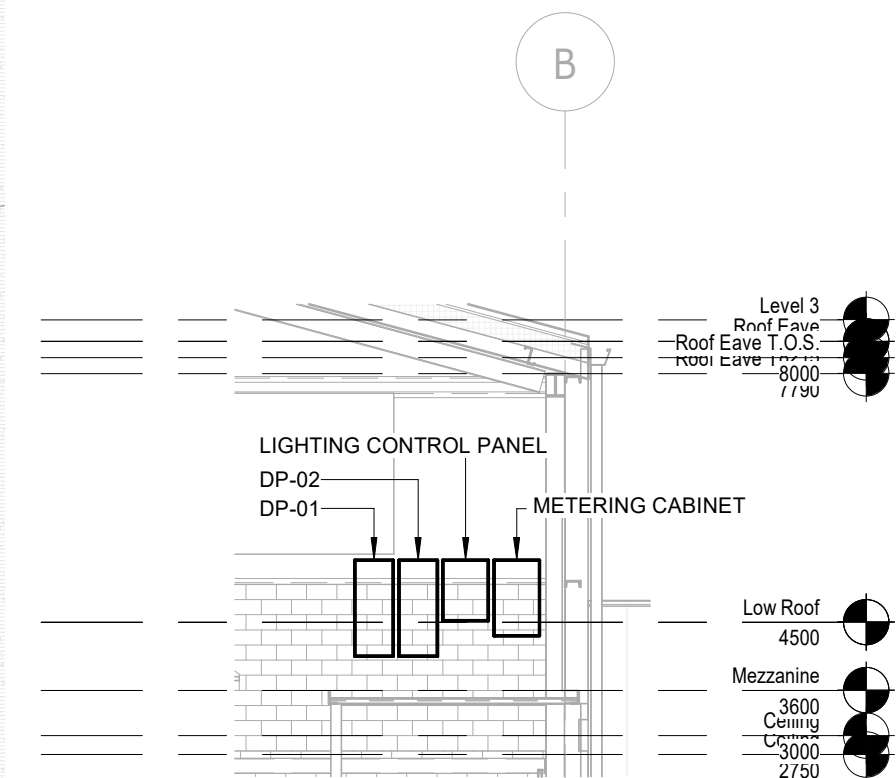
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Original Issue Date: 2024-07-31  
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Sheet  
Title:

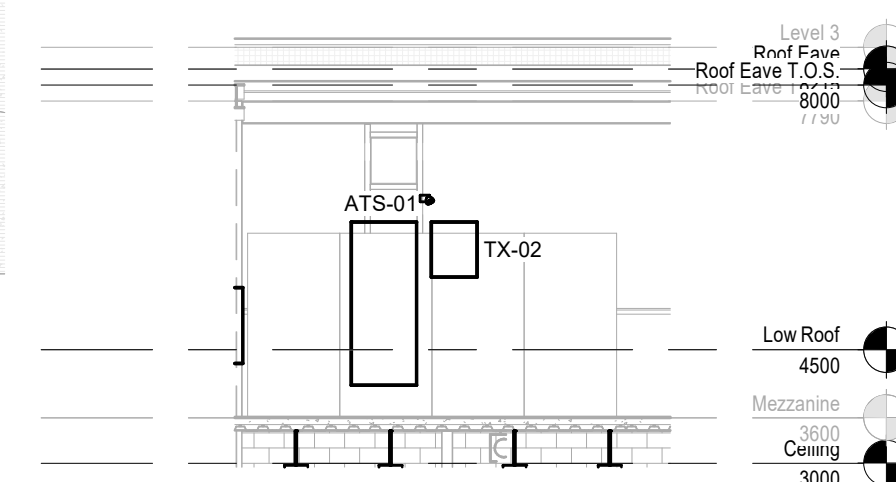
POWER AND SYSTEMS  
NEW WORK - GROUND  
FLOOR

Drawing  
No: E-300





2 Section 3  
SCALE: 1 : 100



3 Section 5  
SCALE: 1 : 100

[illegible]

## Issues

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Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

# POWER AND SYSTEMS NEW WORK - GROUND FLOOR

Drawing  
No.  
**E-300**



350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

[illegible]

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Scale: As indicated

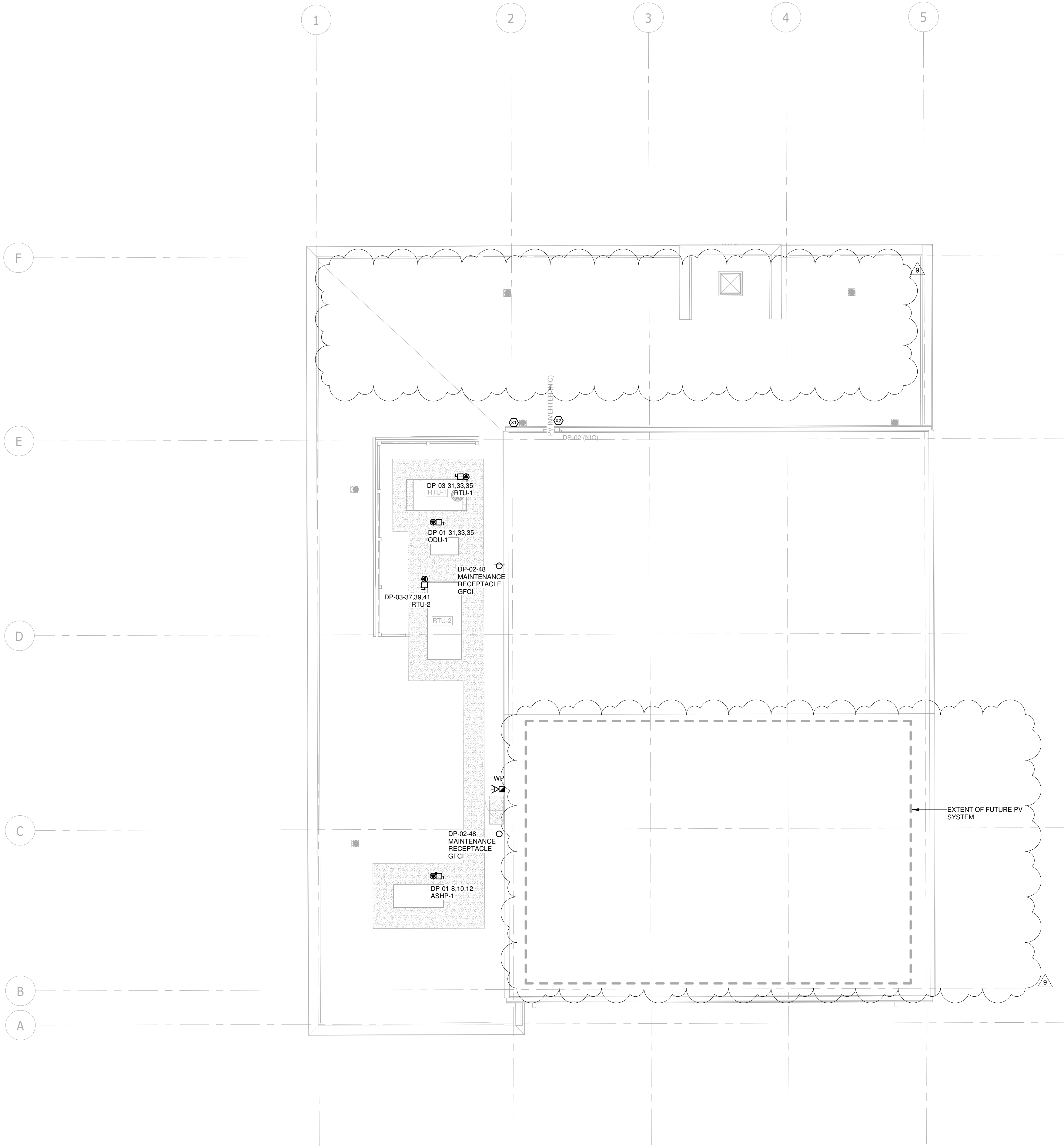
# POWER AND SYSTEMS NEW WORK - GROUND FLOOR

Drawing  
No.  
**E-300**





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KEYNOTE LEGEND	
Key Value	Keynote Text
X1	INSTALL 1 INCH CONDUIT FOR ANTENNA SYSTEM (CONFIRM CONDUIT SIZE AND LOCATION WITH OWNER PRIOR TO INSTALLATION)
X2	INSTALL CONDUIT FOR FUTURE PV SYSTEM.

GENERAL NOTE:  
ALL ROOF MOUNTED EQUIPMENT TO BE FED DIRECTLY FROM BELOW.  
NO CONDUIT TO BE RUN ALONG ROOF WHERE CAN BE AVOIDED.  
CONFIRM WITH ARCHITECT ALL CONDUIT INSTALLATIONS WHICH WILL BE EXPOSED PRIOR TO INSTALLATION.

PARKIN

Parkin Architects Limited  
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000



YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
9	ISSUED FOR ADDENDUM 15	2024-12-04
8	ISSUED FOR ADDENDUM 14	2024-11-27
7	ISSUED FOR ADDENDUM 10	2024-10-15
6	ISSUED FOR ADDENDUM 8	2024-10-07
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1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

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Do not scale drawings

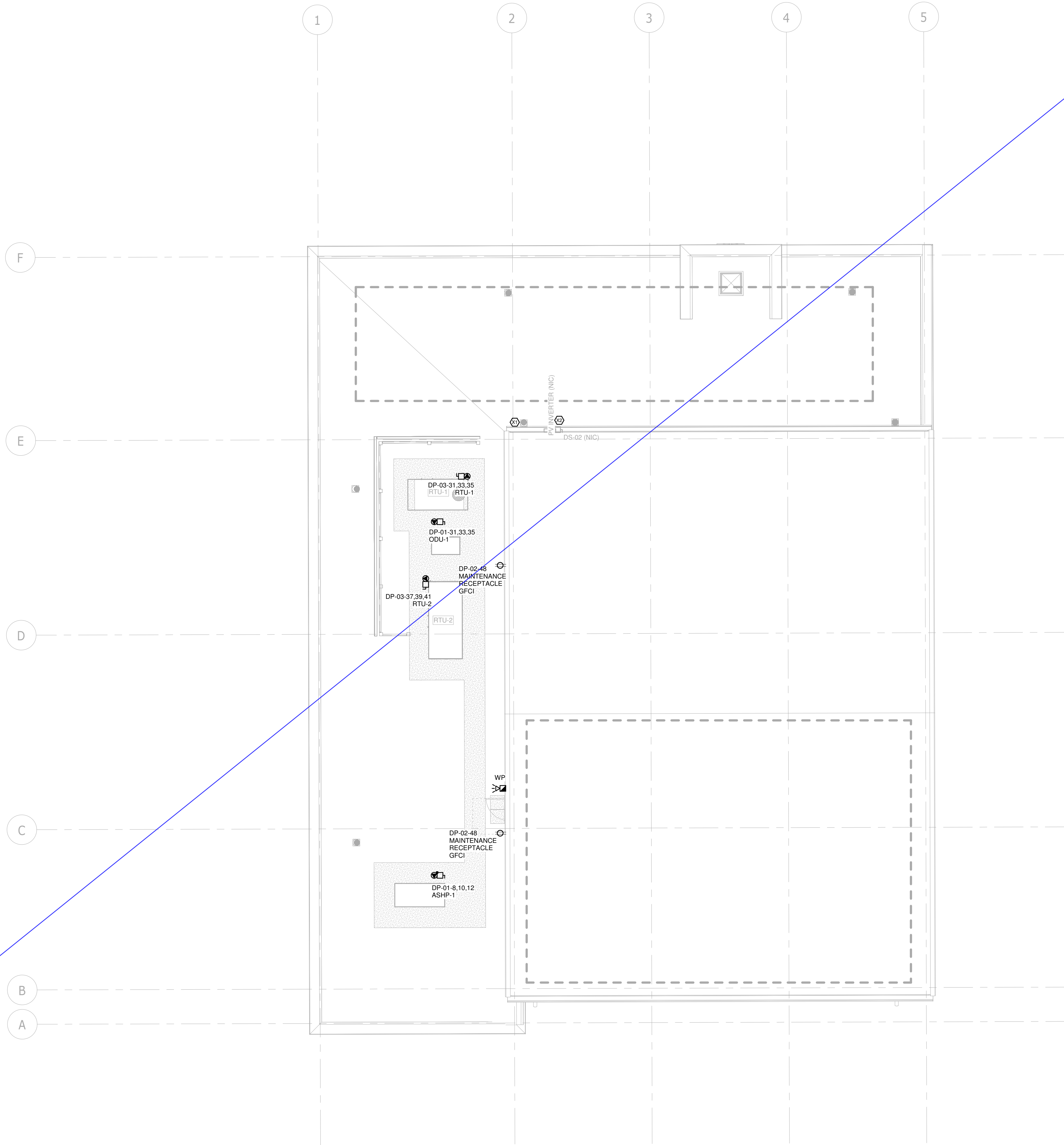
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Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: 1 : 100

Sheet  
Title:  
POWER AND SYSTEMS  
NEW WORK - ROOF  
PLAN

Drawing  
No:  
E-301



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Autodesk Docs://2402 - YRP Helicopter Hanger/TT-24-005-YRP-QCG ME Model\_P24.rvt



KEYNOTE LEGEND	
Key Value	Keynote Text
X1	INSTALL 1 INCH CONDUIT FOR ANTENNA SYSTEM (CONFIRM CONDUIT SIZE AND LOCATION WITH OWNER PRIOR TO INSTALLATION)
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YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
8	ISSUED FOR ADDENDUM 14	2024-11-27
7	ISSUED FOR ADDENDUM 10	2024-10-15
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

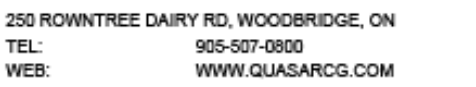
Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: 1 : 100

Sheet  
Title:  
POWER AND SYSTEMS  
NEW WORK - ROOF  
PLAN

Drawing  
No:  
E-301





350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

### Key Plan

[illegible]

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Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: 1 : 100

Drawing  
No.  
**E-301**

KEYNOTE LEGEND	
Key Value	Keynote Text
X1	INSTALL 1INCH CONDUIT FOR ANTENNA SYSTEM (CONFIRM CONDUIT SIZE AND LOCATION WITH OWNER PRIOR TO INSTALLATION)
X2	INSTALL CONDUIT FOR FUTURE PV SYSTEM.

GENERAL NOTE:

ALL ROOF MOUNTED EQUIPMENT TO BE FED DIRECTLY FROM BELOW.  
NO CONDUIT TO BE RUN ALONG ROOF WHERE CAN BE AVOIDED.  
CONFIRM WITH ARCHITECT ALL CONDUIT INSTALLATIONS WHICH WILL  
BE EXPOSED PRIOR TO INSTALLATION.





350 GARFIELD WRIGHT  
BOULEVARD  
WN OF EAST GWILLIMBURY

## Key Plan

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

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Drawn by: ZK  
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POWER AND SYSTEMS  
NEW WORK - ROOF  
PLAN

Drawing  
No.  
**E-301**

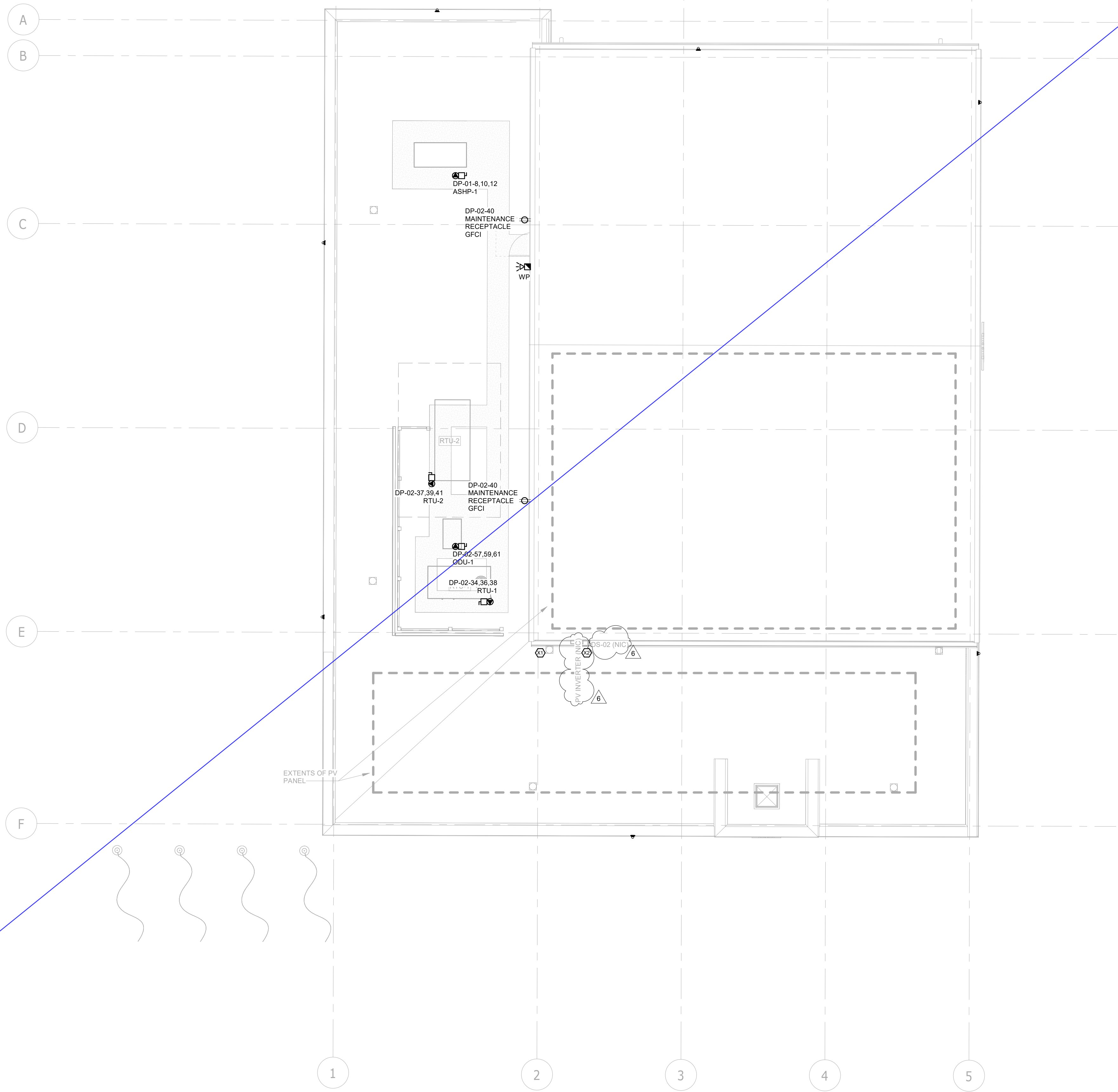
KEYNOTE LEGEND	
Key Value	Keynote Text
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X2	INSTALL CONDUIT FOR FUTURE PV SYSTEM.

GENERAL NOTE:

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CONFIRM WITH ARCHITECT ALL CONDUIT INSTALLATIONS WHICH WILL  
BE EXPOSED PRIOR TO INSTALLATION.



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KEYNOTE LEGEND	
Key Value	Keynote Text
X1	INSTALL 1/2 INCH CONDUIT FOR ANTENNA SYSTEM (CONFIRM CONDUIT SIZE AND LOCATION WITH OWNER PRIOR TO INSTALLATION)
X2	INSTALL CONDUIT FOR FUTURE PV SYSTEM.

GENERAL NOTE:  
ALL ROOF MOUNTED EQUIPMENT TO BE FED DIRECTLY FROM BELOW.  
NO CONDUIT TO BE RUN ALONG ROOF WHERE CAN BE AVOIDED.  
CONFIRM WITH ARCHITECT ALL CONDUIT INSTALLATIONS WHICH WILL BE EXPOSED PRIOR TO INSTALLATION.

# PARKIN

Parkin Architects Limited  
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000

250 ROWNTREE DAIRY RD, WOODBRIDGE, ON  
TEL: 905-507-0800  
WEB: WWW.QUASARG.COM

YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

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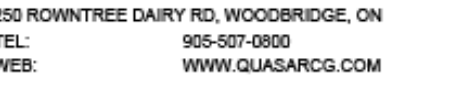
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POWER AND SYSTEMS  
NEW WORK - ROOF  
PLAN

Drawing  
No:  
E-301





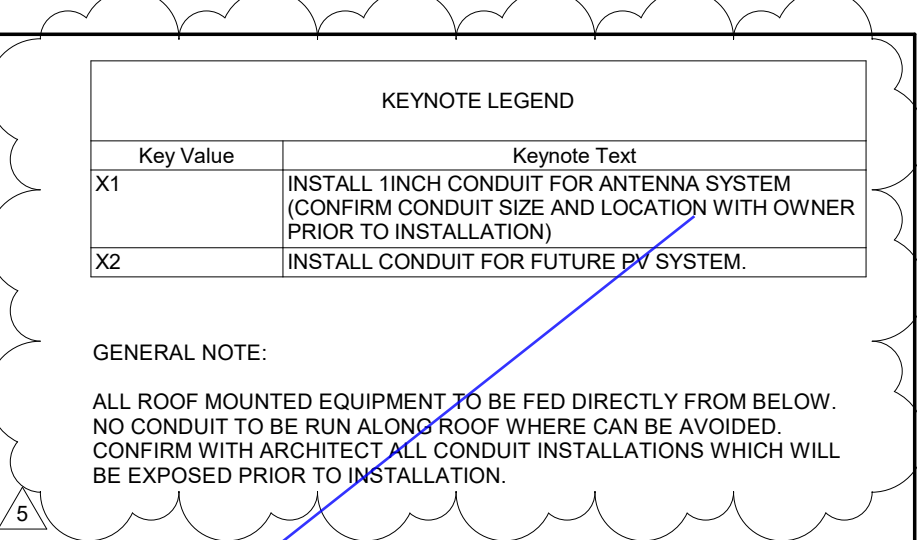
350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

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All measurements are to be checked and verified on site by the contractor before proceeding with work

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Drawing  
No. **E-301**







50 ROWNTREE DAIRY RD, WOODBRIDGE, ON  
TEL: 905-507-0800  
WEB: WWW.QUASARCG.COM

YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

## Issues

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Project No: TT-24-005  
Scale: 1 : 100

Sheet  
Title:

# POWER AND SYSTEMS NEW WORK - ROOF PLAN

Drawing  
No.  
E-301





350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

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## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

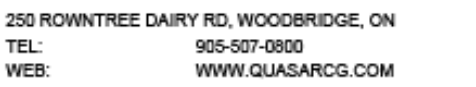
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Title:

POWER AND SYSTEMS  
NEW WORK - ROOF  
PLAN

Drawing  
No.  
**E-301**





350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

[illegible]

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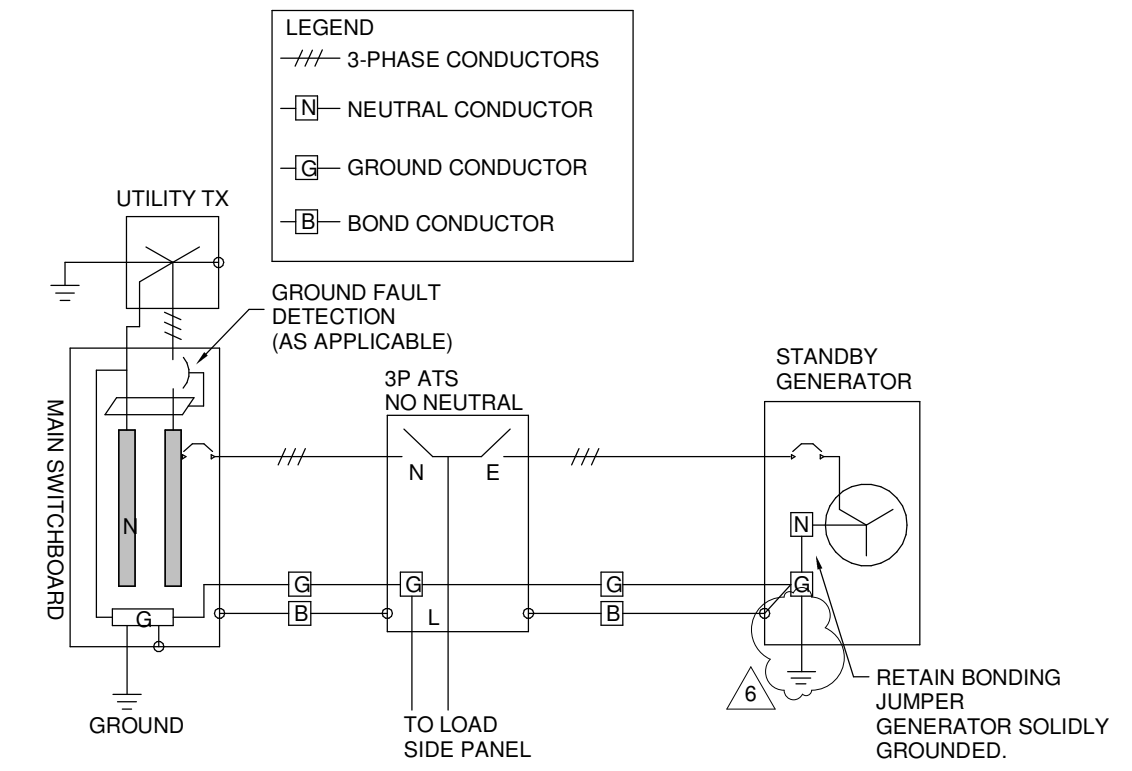
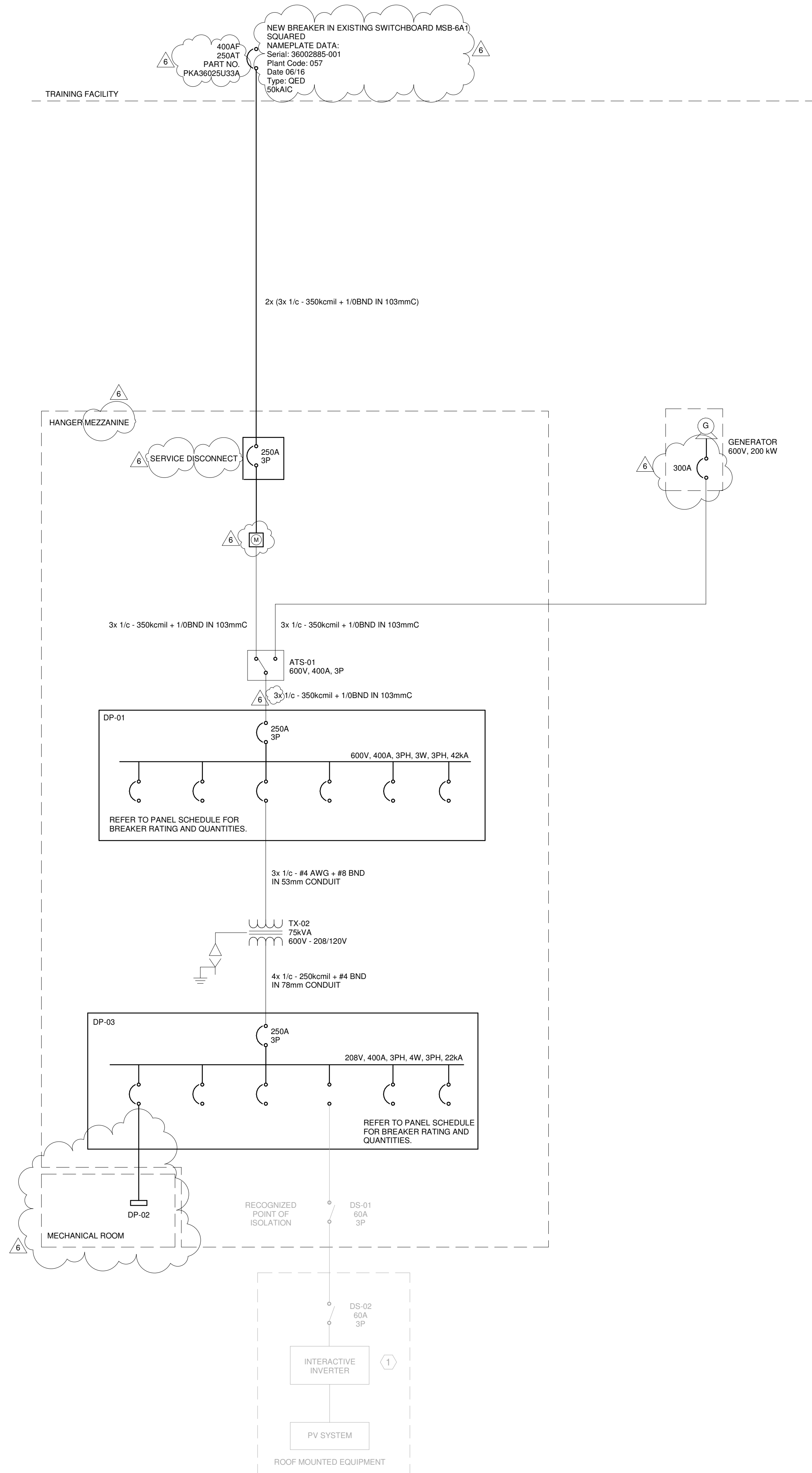
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Original Issue Date: 2024-07-31  
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Drawing  
No.  
**E-301**





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NOTES:  
1. BOND CONDUCTOR TO BE SIZED IN ACCORDANCE WITH OESC TABLE 16.

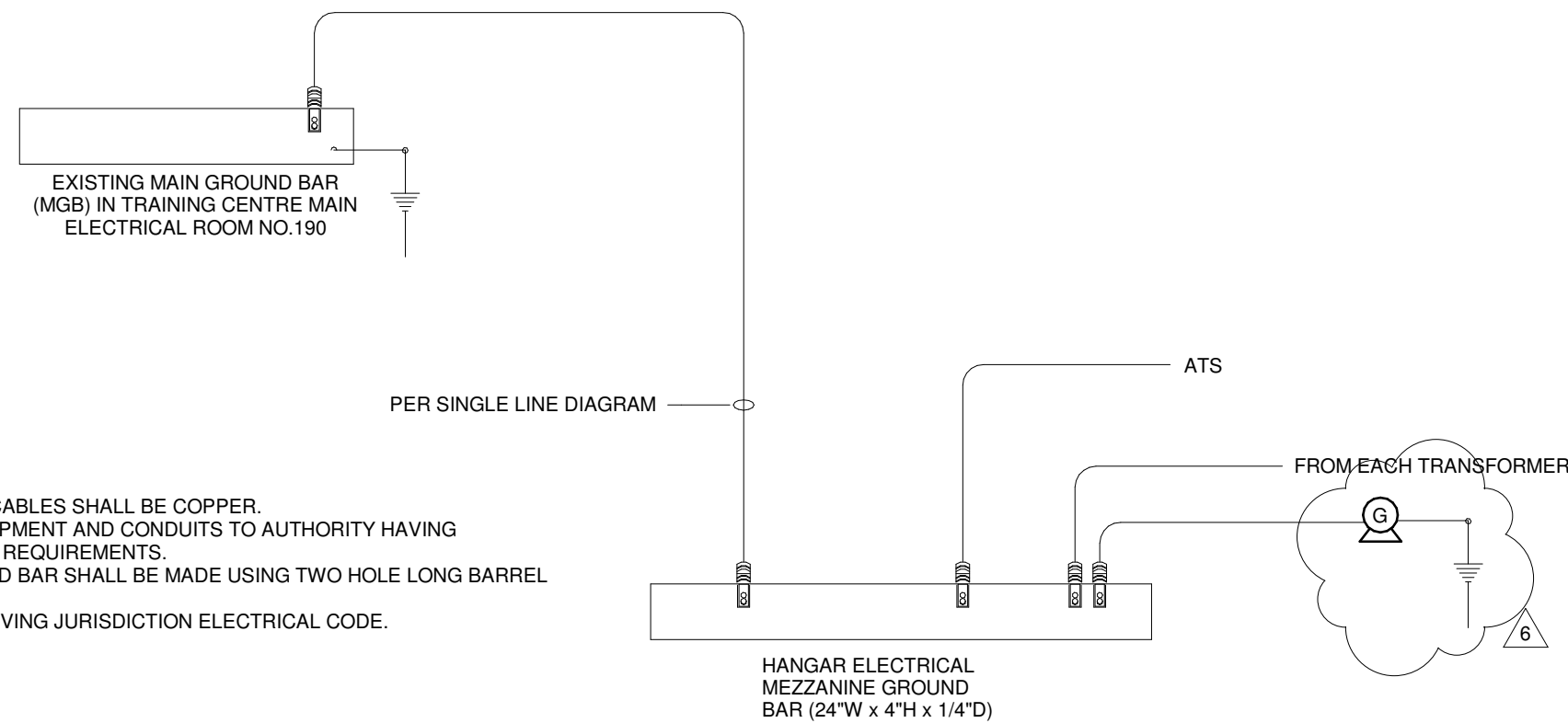
#### TRANSFER SWITCH GROUNDING SCHEMATIC

SCALE: 1 : 50

CABLE SCHEDULE	
LOAD TAG	CONDUCTOR SIZE
ODU-1	3x 1/c - #4
DO	3x 1/c - #8
P-3	3x 1/c - #12
P-5	3x 1/c - #1
ASHP-1	3x 1/c - #1
P-2	3x 1/c - #10
P-1	3x 1/c - #8
P-2R	3x 1/c - #8
P-1R	3x 1/c - #10
P-4	3x 1/c - #12
P-5R	3x 1/c - #12

NOTES:  
1. 600V CABLE SIZES WHERE NOT SHOWN ON SINGLE LINE DIAGRAM.  
2. CABLE REQUIREMENTS TO BE CONFIRMED WITH EQUIPMENT REQUIREMENTS.

- LEGEND:  
MGB - MAIN GROUND BAR  
GROUNDING RISER NOTES:
- REFER TO SECTION 26 05 26.
  - ALL GROUND BARS AND GROUND CABLES SHALL BE COPPER.
  - PROVIDE ALL GROUNDING TO EQUIPMENT AND CONDUITS TO AUTHORITY HAVING JURISDICTION'S ELECTRICAL CODE REQUIREMENTS.
  - ALL CONNECTIONS TO THE GROUND BAR SHALL BE MADE USING TWO HOLE LONG BARREL COMPRESSION LUGS.
  - WIRE SIZES AS PER AUTHORITY HAVING JURISDICTION ELECTRICAL CODE.



#### Grounding Riser

SCALE:N.T.S.

# PARKIN

Parkin Architects Limited  
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000



## YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
6	ISSUED FOR ADDENDUM 10	2024-10-15
5	ISSUED FOR ADDENDUM 8	2024-10-07
4	ISSUED FOR ADDENDUM 6	2024-09-30
3	ISSUED FOR ADDENDUM 3	2024-09-23
2	ISSUED FOR SITE PLAN APPROVAL	2024-08-16
1	ISSUED FOR BUILDING PERMIT	2024-07-31

#### Issues

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Do not scale drawings

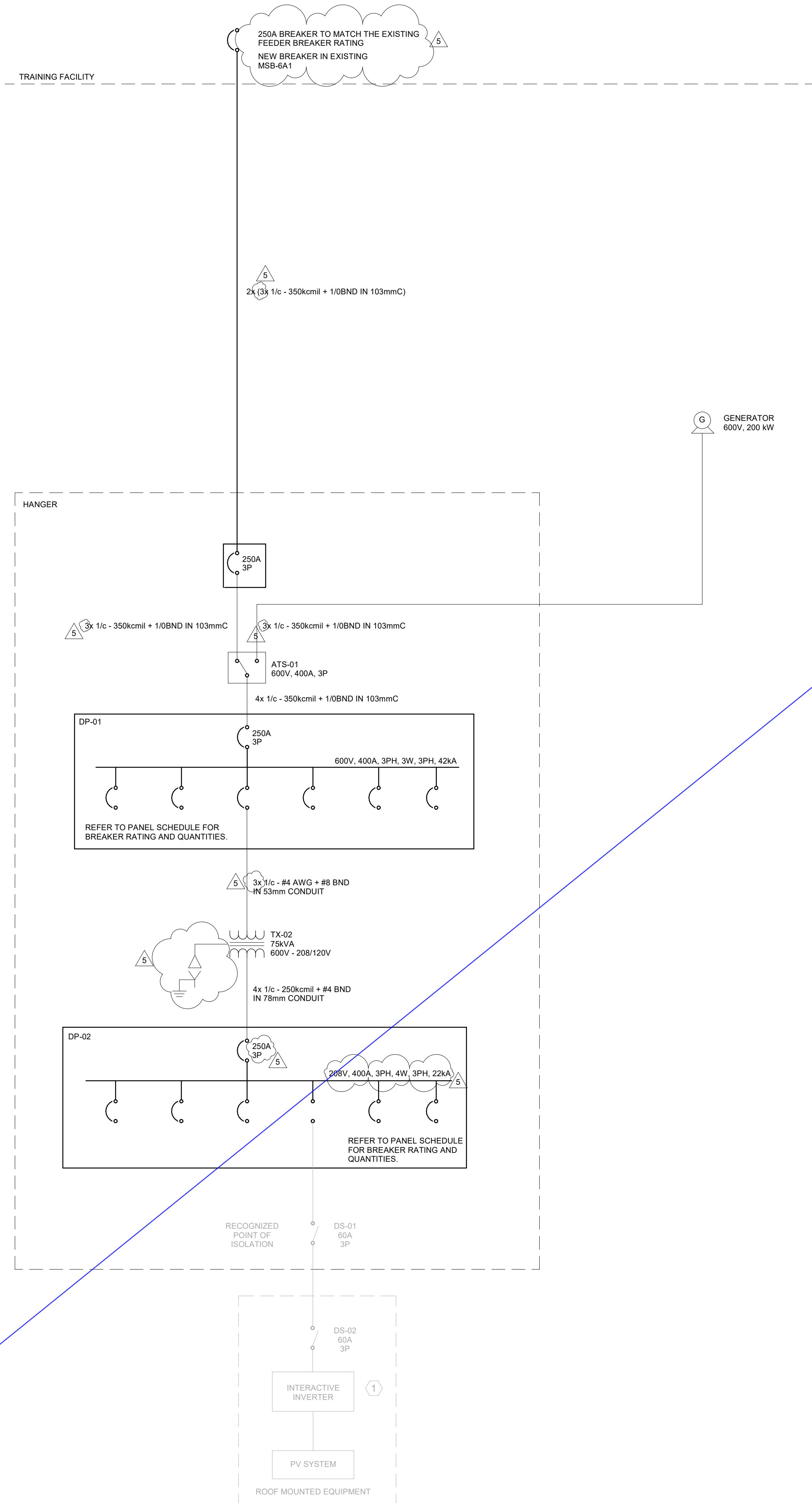
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Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

## ELECTRICAL SINGLE LINE DIAGRAM

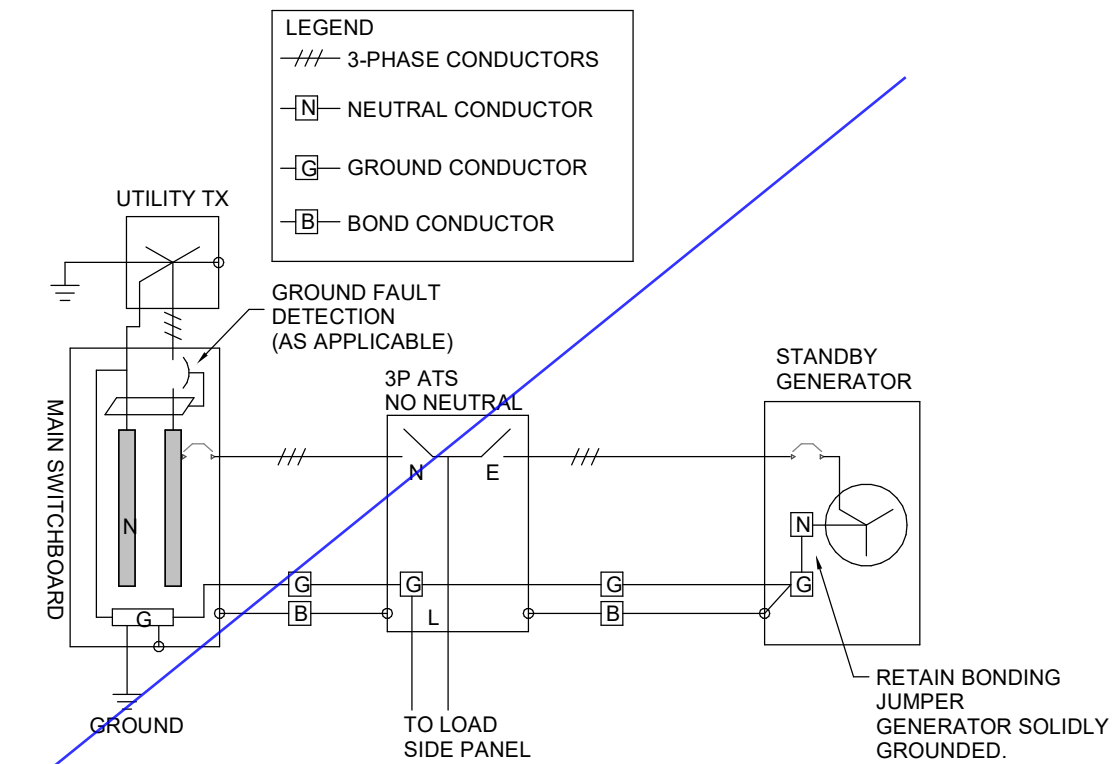
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No.  
E-700



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GENERATOR  
600V, 200 kW



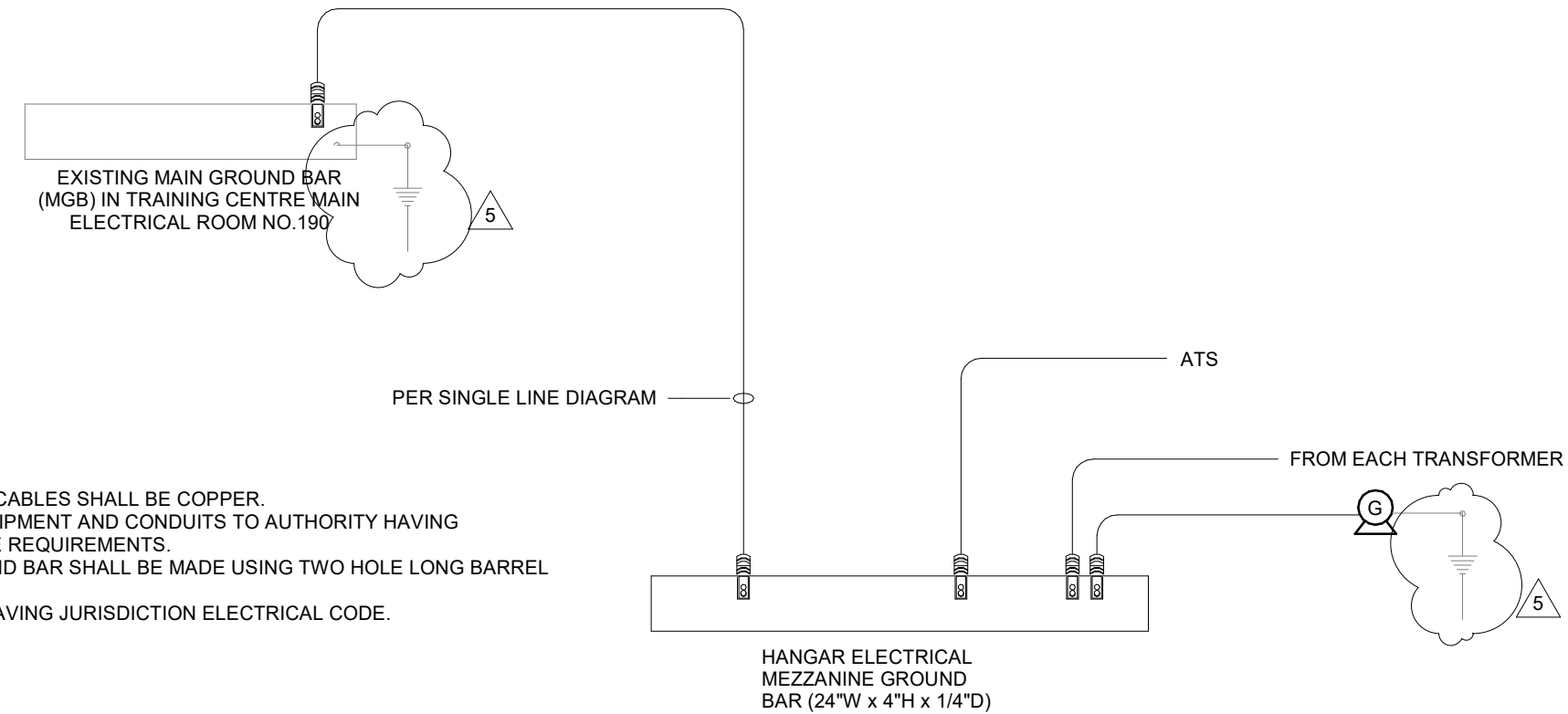
NOTES:  
1. BOND CONDUCTOR TO BE SIZED IN ACCORDANCE WITH OESC TABLE 16.

4 TRASNFER SWITCH GROUNDING SCHEMATIC  
SCALE: 1 : 50

CABLE SCHEDULE	
LOAD TAG	CONDUCTOR SIZE
ODU-1	TBD
DO	3x 1/c - #8
P-3	3x 1/c - #8
P-5	3x 1/c - #12
ASHP-1	3x 1/c - #1
P-2	3x 1/c - #8
P-1	3x 1/c - #10
P-2R	3x 1/c - #8
P-1R	3x 1/c - #10
P-4	3x 1/c - #12
P-5R	3x 1/c - #12

NOTES:  
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2 Grounding Riser  
SCALE:N.T.S.

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YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
Plan

NO.	ISSUED	DATE
5	ISSUED FOR ADDENDUM 8	2024-10-07
4	ISSUED FOR ADDENDUM 6	2024-09-30
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1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

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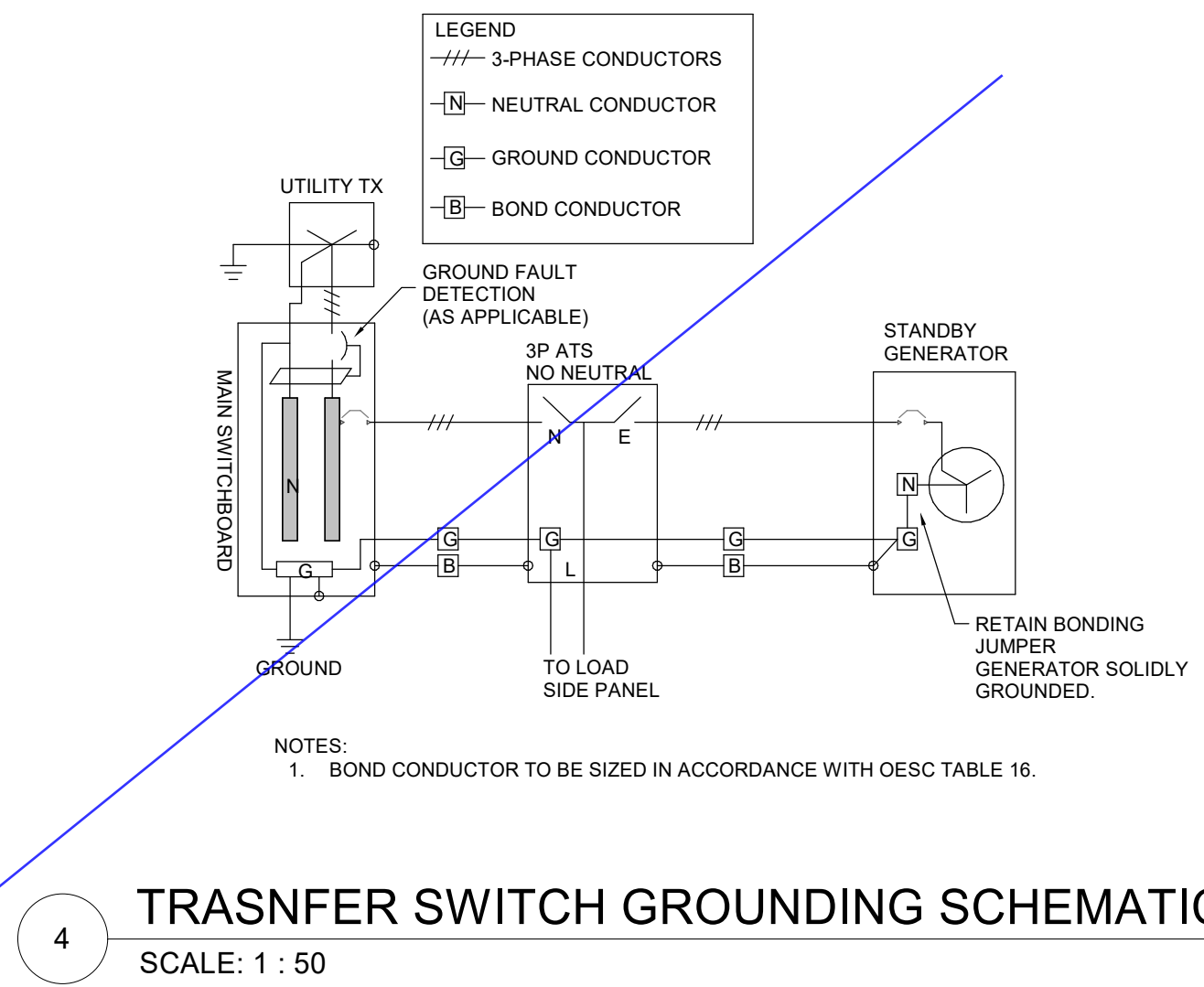
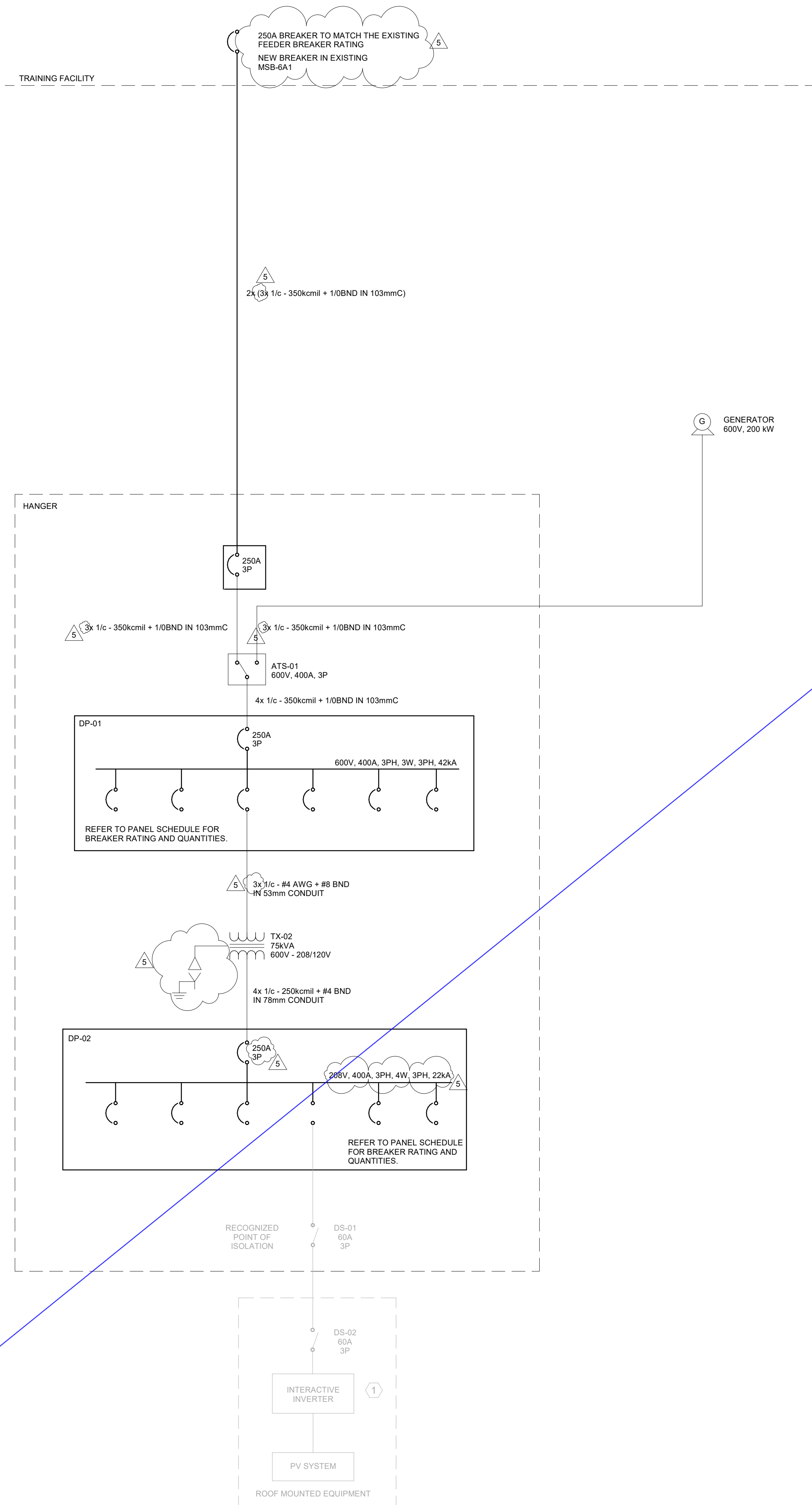
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Project No: TT-24-005

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Title:  
ELECTRICAL SINGLE  
LINE DIAGRAM

Drawing  
No:  
E-700

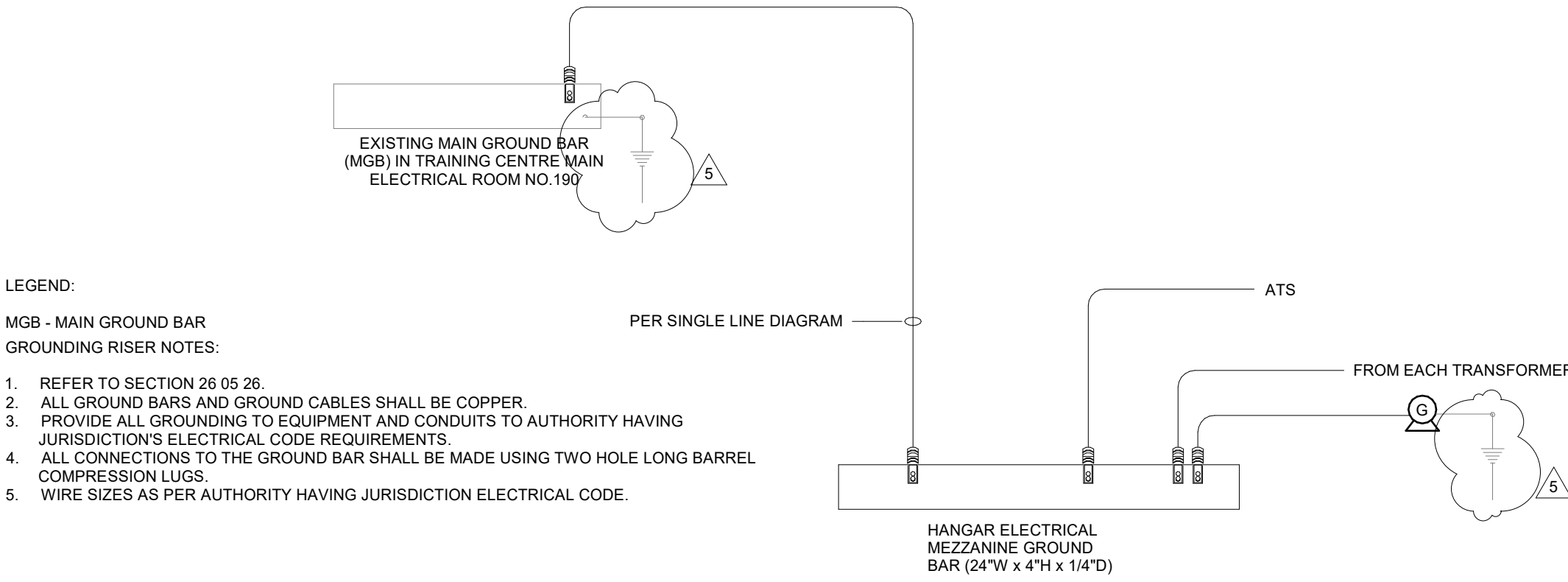


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CABLE SCHEDULE	
LOAD TAG	CONDUCTOR SIZE
ODU-1	TBD
DO	3x 1/c - #8
P-3	3x 1/c - #8
P-5	3x 1/c - #12
ASHP-1	3x 1/c - #1
P-2	3x 1/c - #8
P-1	3x 1/c - #10
P-2R	3x 1/c - #8
P-1R	3x 1/c - #10
P-4	3x 1/c - #12
P-5R	3x 1/c - #12

- NOTES:
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2 Grounding Riser  
SCALE:N.T.S.

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YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
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Issues

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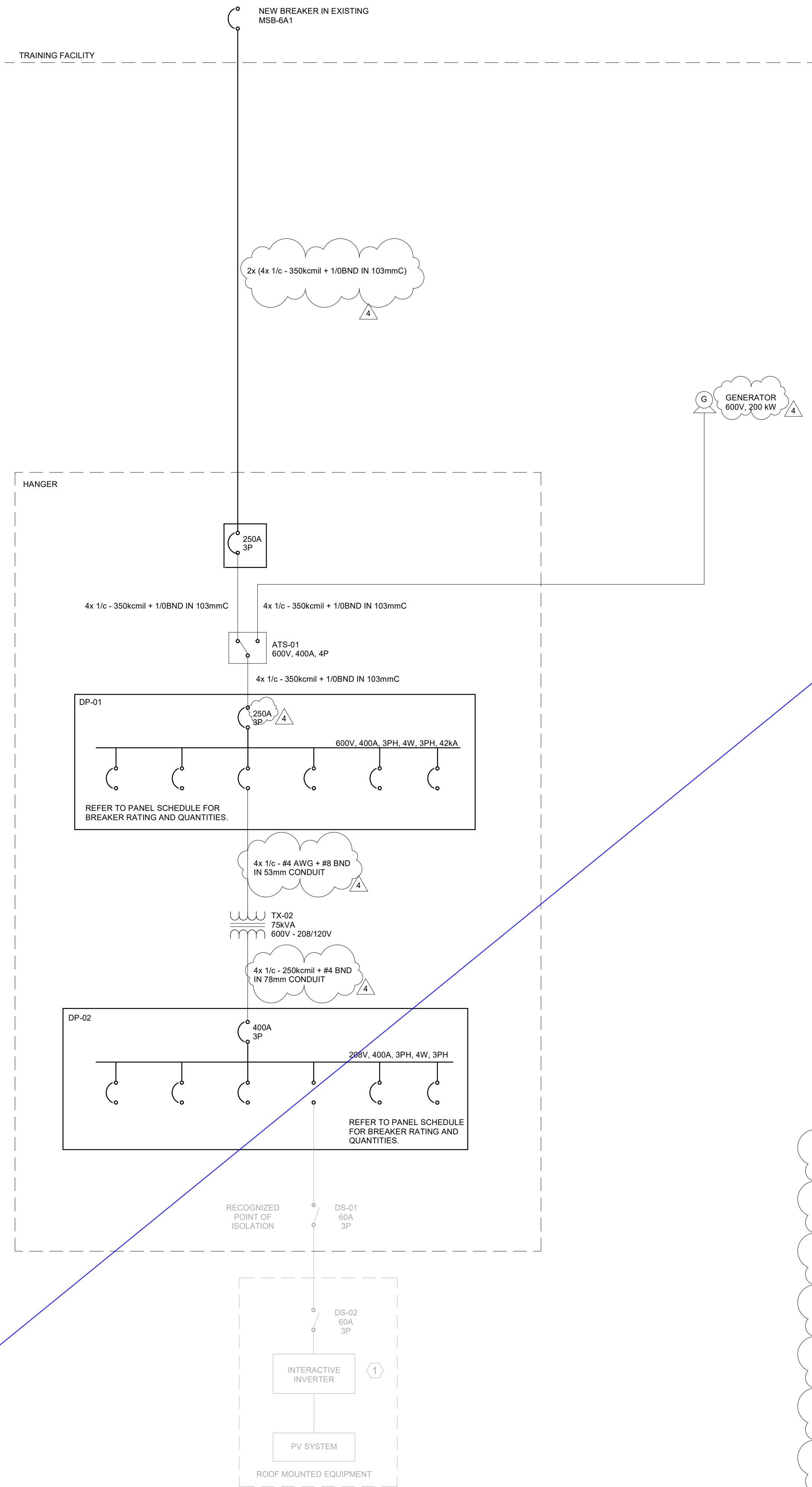
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Original Issue Date: 2024-07-31  
Project No: TT-24-005

Sheet  
Title:  
ELECTRICAL SINGLE  
LINE DIAGRAM

Drawing  
No:  
E-700



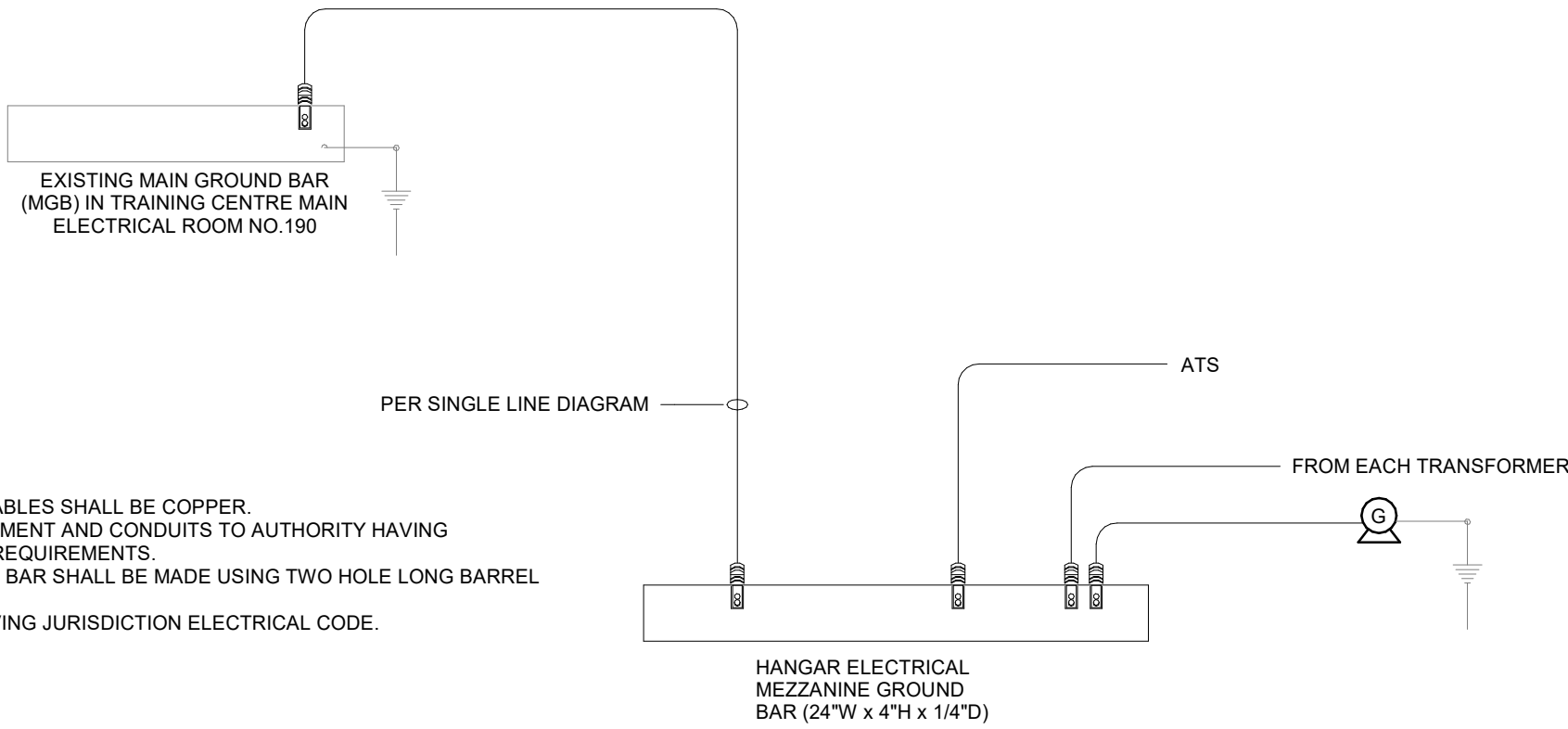
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CABLE SCHEDULE	
LOAD TAG	CONDUCTOR SIZE
ODU-1	TBD
DO	4x 1/c - #8
P-3	3x 1/c - #8
P-5	3x 1/c - #12
ASHP-1	4x 1/c - #1
P-2	3x 1/c - #8
P-1	3x 1/c - #10
P-2R	3x 1/c - #8
P-1R	3x 1/c - #10
P-4	3x 1/c - #12
P-5R	3x 1/c - #12

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  - WIRE SIZES AS PER AUTHORITY HAVING JURISDICTION ELECTRICAL CODE.



2  
Grounding Riser  
SCALE:N.T.S.

PARKIN

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YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

Key  
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4	ISSUED FOR ADDENDUM 6	2024-09-30
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ELECTRICAL SINGLE  
LINE DIAGRAM

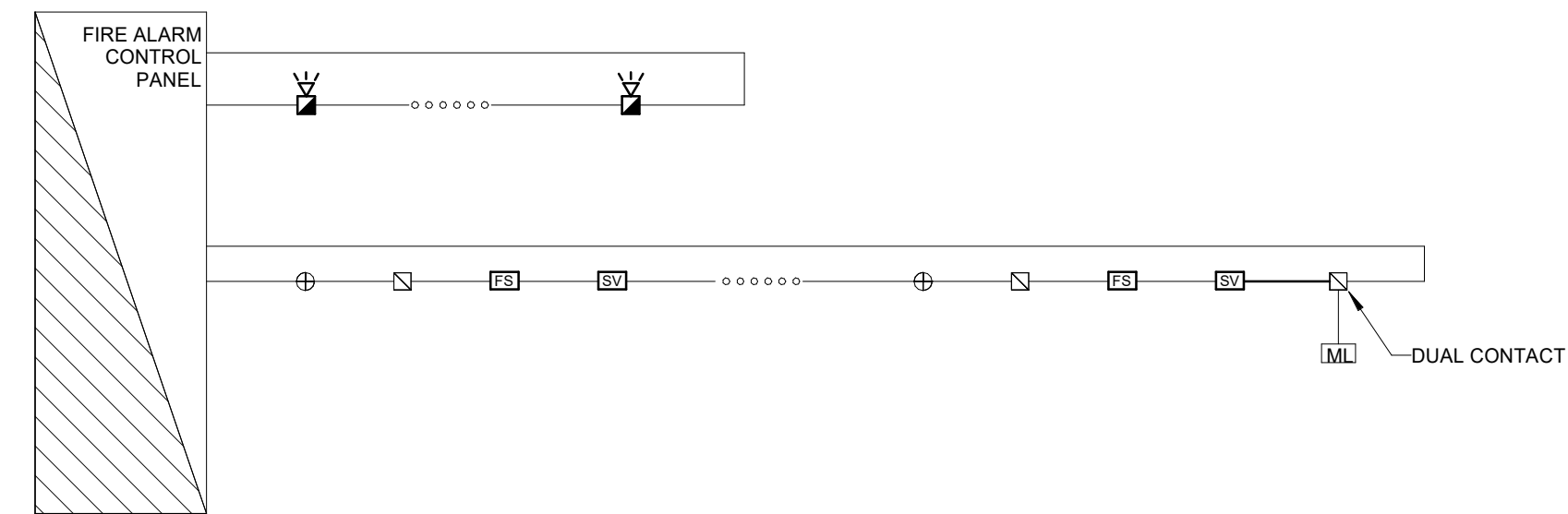
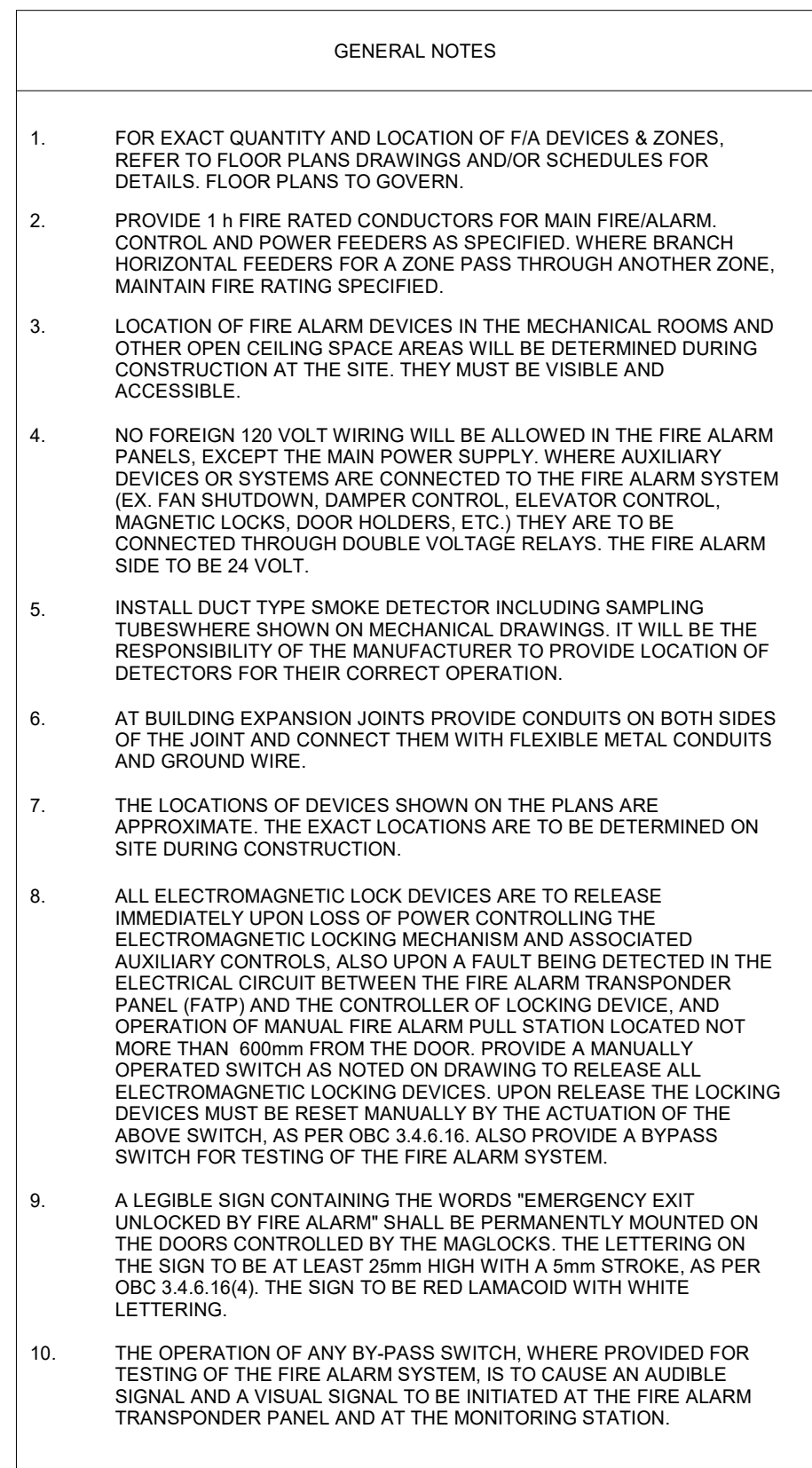
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No:  
E-700



# YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



FIRE ALARM RISER

SCALE:N.T.S.

[illegible]

## Issues

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Project No: TT-24-005

Sheet  
Title:

FIRE ALARM RISER

Drawing  
No.  
**E-701**

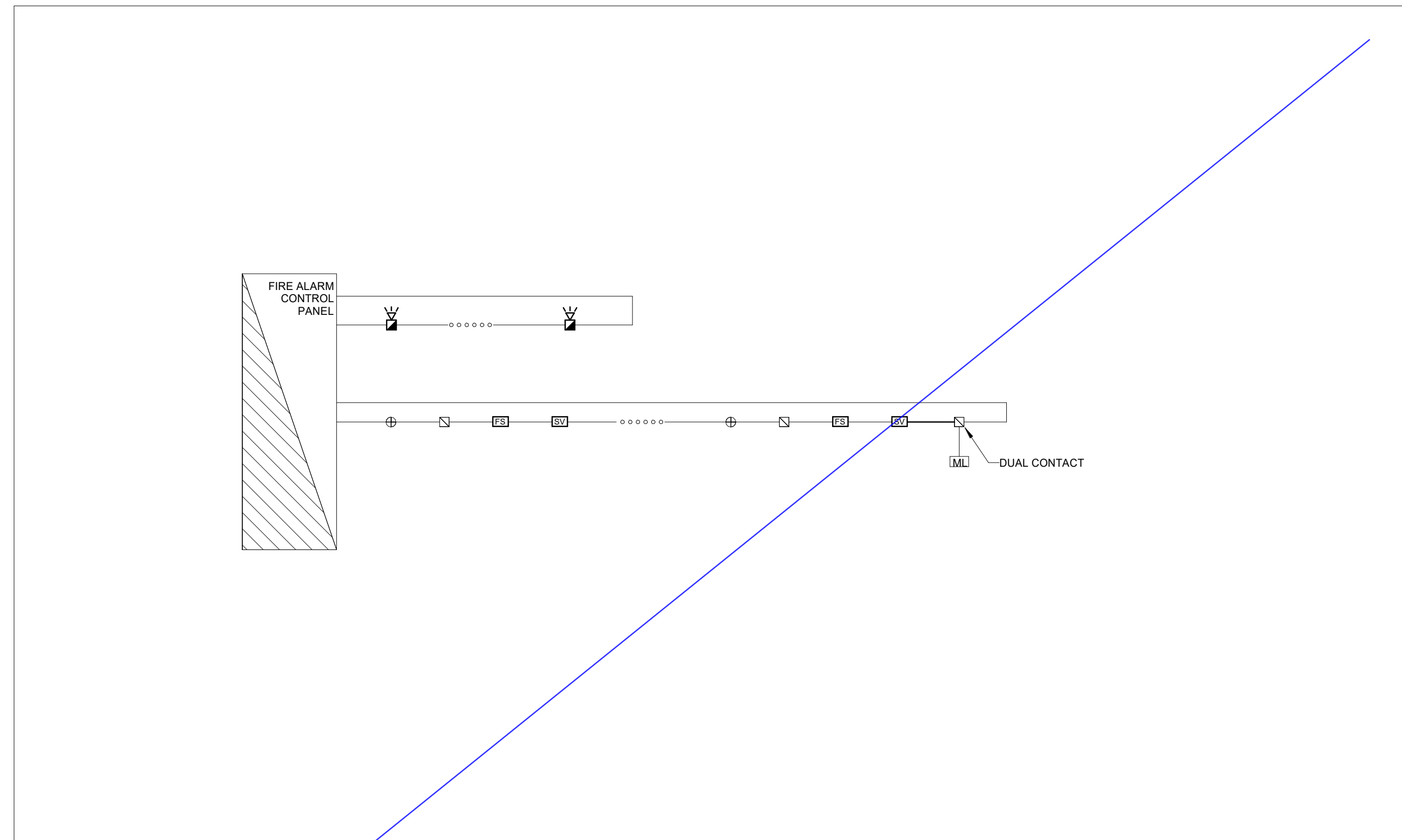


# YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

- GENERAL NOTES
1. FOR EXACT QUANTITY AND LOCATION OF FIA DEVICES & ZONES, REFER TO FLOOR PLANS DRAWINGS AND/OR SCHEDULES FOR DETAILS. FLOOR PLANS TO GOVERN.
2. PROVIDE 1" FIRE RATED CONDUCTORS FOR MAIN FIRE/ALARM CONTROL AND POWER FEEDERS SPECIFIED. WHERE BRANCH HORIZONTAL FEEDERS FOR A ZONE PASS THROUGH ANOTHER ZONE, MAINTAIN FIRE RATING SPECIFIED.
3. LOCATION OF FIRE ALARM DEVICES IN THE MECHANICAL ROOMS AND OTHER OPEN CEILING SPACE AREAS WILL BE DETERMINED DURING CONSTRUCTION AT THE SITE. THEY MUST BE VISIBLE AND ACCESSIBLE.
4. NO FOREIGN 120 VOLT WIRING WILL BE ALLOWED IN THE FIRE ALARM PANELS, EXCEPT THE MAIN POWER SUPPLY. WHERE AUXILIARY DEVICES OR SYSTEMS ARE CONNECTED TO THE FIRE ALARM SYSTEM (EX. FAN SHUTDOWN, DAMPER CONTROL, ELEVATOR CONTROL, MAGNETIC LOCKS, DOOR HOLDERS, ETC.) THEY ARE TO BE CONNECTED THROUGH DOUBLE VOLTAGE RELAYS. THE FIRE ALARM SIDE TO BE 24 VOLT.
5. INSTALL DUCT TYPE SMOKE DETECTOR INCLUDING SAMPING TUBES/WHEN SHOWN ON MECHANICAL DRAWINGS. IT WILL BE THE RESPONSIBILITY OF THE MANUFACTURER TO PROVIDE LOCATION OF DETECTORS FOR THEIR CORRECT OPERATION.
6. AT BUILDING EXPANSION JOINTS PROVIDE CONDUITS ON BOTH SIDES OF THE JOINT AND CONNECT THEM WITH FLEXIBLE METAL CONDUITS AND GROUND WIRE.
7. THE LOCATIONS OF DEVICES SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS ARE TO BE DETERMINED ON SITE DURING CONSTRUCTION.
8. ALL ELECTROMAGNETIC LOCK DEVICES ARE TO RELEASE IMMEDIATELY UPON LOSS OF POWER CONTROLLING THE ELECTROMAGNETIC LOCKING MECHANISM AND ASSOCIATED AUXILIARY CONTROLS, ALSO UPON A FAULT BEING DETECTED IN THE ELECTRICAL CIRCUIT BETWEEN THE FIRE ALARM TRANSDUCER PANEL (FATP) AND THE CONTROLLER OF LOCKING DEVICE, AND OPERATION OF MANUAL FIRE ALARM PULL STATION LOCATED NOT MORE THAN 600mm from the DOOR. PROVIDE A MANUALLY OPERATED SWITCH AS NOTED ON DRAWINGS TO RELEASE ALL ELECTROMAGNETIC LOCKING DEVICES. UPON RELEASE THE LOCKING DEVICES MUST BE RESET MANUALLY BY THE ACTION OF THE ABOVE SWITCH, AS PER OBC 3.4.6.16. ALSO PROVIDE A BYPASS SWITCH FOR TESTING OF THE FIRE ALARM SYSTEM.
9. A LEGIBLE SIGN CONTAINING THE WORDS "EMERGENCY EXIT UNLOCKED BY FIRE ALARM SYSTEM" IS TO CAUSE AN AUDIBLE SIGNAL AND THE DOORS CONTROLLED BY THE MAGLOCKS. THE LETTERING ON THE SIGN TO BE AT LEAST 25mm HIGH WITH A 5mm Stroke, AS PER OBC 3.4.6.16(4). THE SIGN TO BE RED LAMINOCED WITH WHITE LETTERING.
10. THE OPERATION OF ANY BY-PASS SWITCH, WHERE PROVIDED FOR TESTING OF THE FIRE ALARM SYSTEM, IS TO CAUSE AN AUDIBLE SIGNAL AND A VISUAL SIGNAL TO BE INITIATED AT THE FIRE ALARM TRANSDUCER PANEL AND AT THE MONITORING STATION.



1 FIRE ALARM RISER  
SCALE: N.T.S.

[illegible]

## Issues

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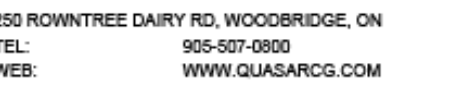
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Title:

FIRE ALARM RISER

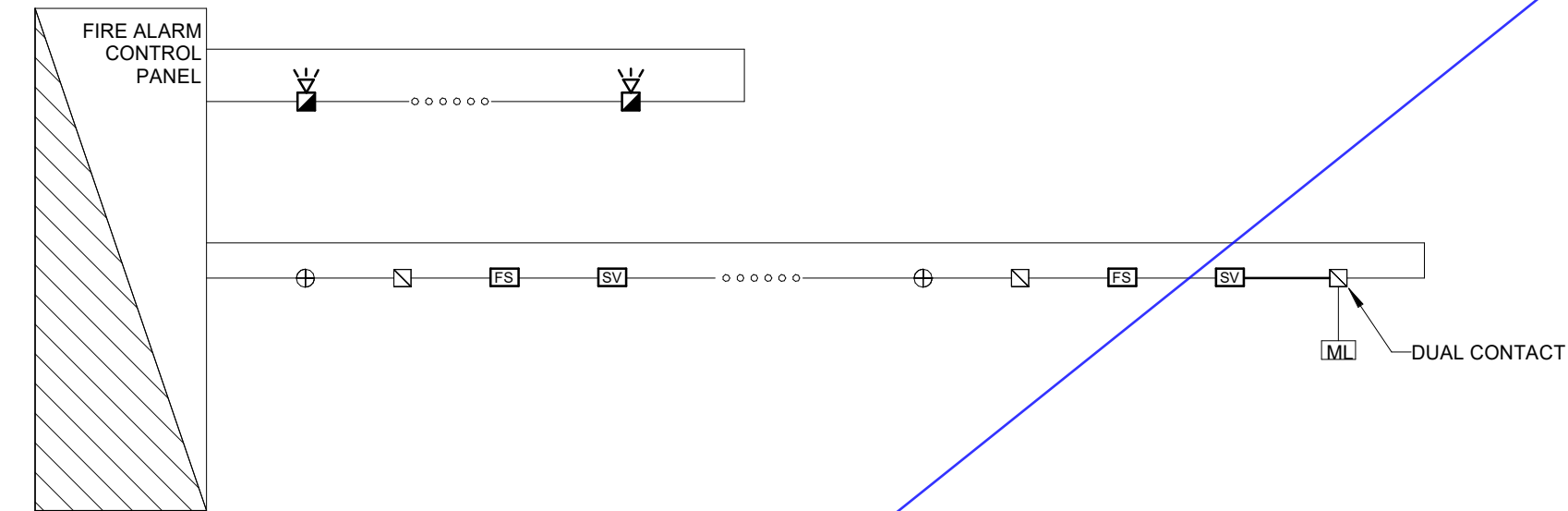
Drawing  
No.  
E-701





350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

1 FIRE ALARM RISER  
SCALE:N.T.S.

[illegible]

All measurements are to be checked and verified on site by the contractor before proceeding with work

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

Drawing  
No.  
E-701

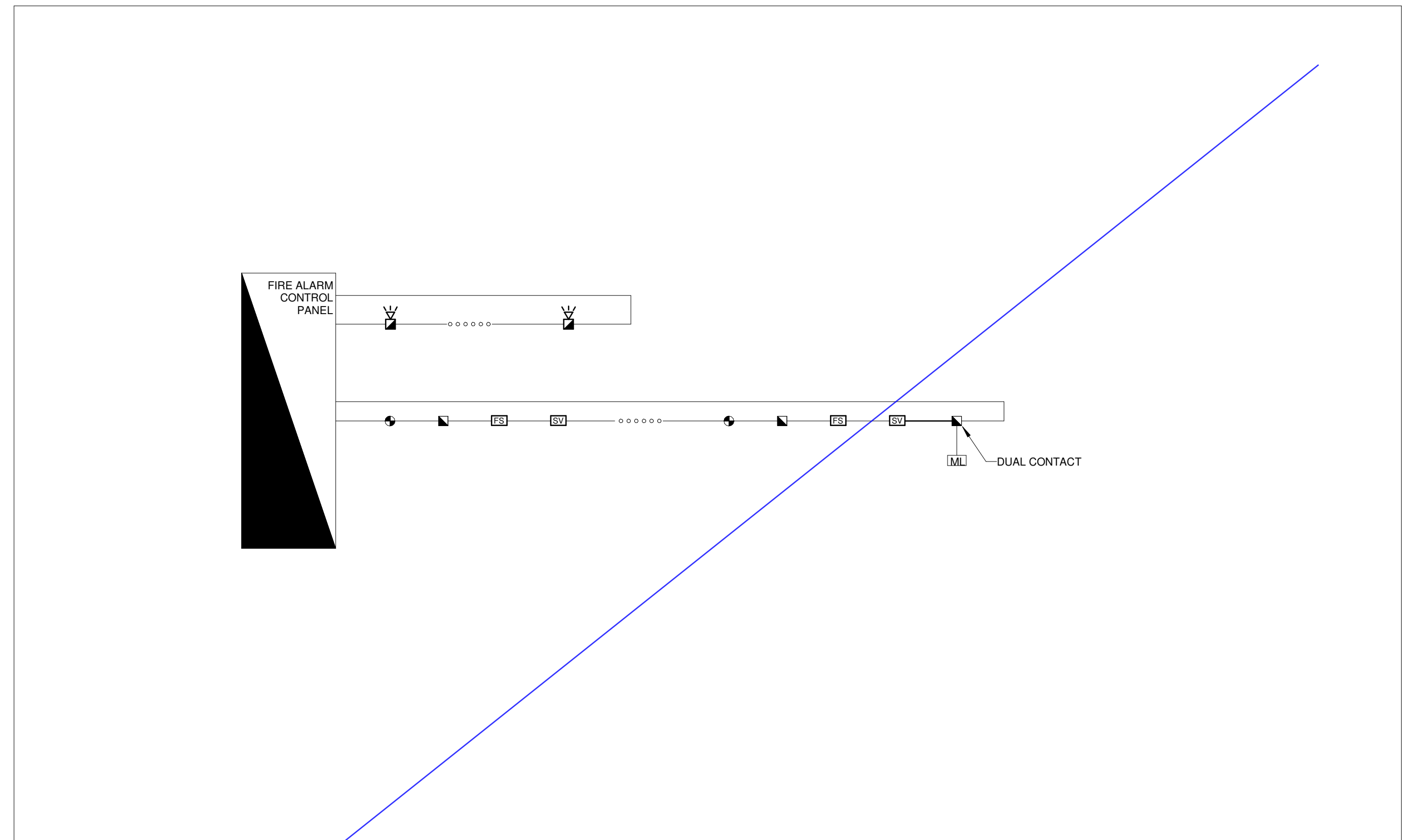


YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

- GENERAL NOTES**
1. FOR EXACT QUANTITY AND LOCATION OF F/A DEVICES & ZONES, REFER TO FLOOR PLANS DRAWINGS AND/OR SCHEDULES FOR DETAILS. FLOOR PLANS TO GOVERN.
  2. PROVIDE 1 IN FIRE RATED CONDUCTORS FOR MAIN FIRE/ALARM CONTROL AND POWER TO BE SPICQUED WHERE BRANCH HORIZONTAL FEEDERS FOR A ZONE PASS THROUGH ANOTHER ZONE, MAINTAIN FIRE RATING SPECIFIED.
  3. LOCATION OF FIRE ALARM DEVICES IN THE MECHANICAL ROOMS AND OTHER OPEN CEILING SPACE AREAS WILL BE DETERMINED DURING CONSTRUCTION AT THE SITE. THEY MUST BE VISIBLE AND ACCESSIBLE.
  4. NO FOREIGN 120 VOLT WIRING WILL BE ALLOWED IN THE FIRE ALARM PANELS, EXCEPT THE MAIN POWER FEED ONLY. WHERE AUXILIARY DEVICES OR SYSTEMS ARE CONNECTED TO THE FIRE ALARM SYSTEM (EX. FAN SHUTDOWN, DAMPER CONTROL, ELEVATOR CONTROL, MAGNETIC LOCKS, DOOR HOLDER, ETC.), THERE SHALL BE NO DIRECTLY CONNECTED THROUGH DOUBLE VOLTAGE RELAYS, THE FIRE ALARM SIDE TO BE 24 VOLT.
  5. INSTALL DUST TYPE SMOKE DETECTOR INCLUDING SAMPLING TUBES/WHEN SHOWN ON MECHANICAL DRAWINGS. IT WILL BE THE RESPONSIBILITY OF THE MANUFACTURER TO PROVIDE LOCATION OF DETECTORS FOR THEIR CORRECT OPERATION.
  6. AT BUILDING EXPANSION JOINTS PROVIDE CONDUITS ON BOTH SIDES OF THE JOINT AND CONNECT THEM WITH FLEXIBLE METAL CONDUITS AND GROUND WIRE.
  7. THE LOCATIONS OF DEVICES SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS ARE TO BE DETERMINED ON SITE DURING CONSTRUCTION.
  8. ALL ELECTROMAGNETIC LOCK DEVICES ARE TO BE RELEASE IMMEDIATELY UPON LOSS OF POWER CONTROLLING THE ELECTROMAGNETIC LOCKING MECHANISM AND ASSOCIATED AUXILIARY CONTROLS, ALSO UPON A FAULT BEING DETECTED IN THE ELECTRICAL CIRCUIT BETWEEN THE FIRE ALARM TRANSDUCER PANEL (FATP) AND THE CONTROLLER OF LOCKING DEVICE, AND OPERATION OF MANUAL FIRE ALARM PULL STATION LOCATED NOT MORE than 600mm from the DOOR. PROVIDE A MANUALLY OPERATED SWITCH AS NOTED ON DRAWINGS TO RELEASE ALL ELECTROMAGNETIC LOCKING DEVICES. UPON RELEASE THE LOCKING DEVICES MUST BE RESET MANUALLY BY THE ACTUATION OF THE ABOVE SWITCH, OR CIRC 3.4.6.16. ALSO PROVIDE A BYPASS SWITCH FOR TESTING OF THE FIRE ALARM SYSTEM.
  9. A LEGIBLE SIGN CONTAINING THE WORDS "EMERGENCY EXIT UNLOCKED BY FIRE ALARM" SHALL BE PERMANENTLY MOUNTED ON THE DOORS CONTROLLED BY THE MAGLOCKS. THE LETTERING ON THE SIGN TO BE AT LEAST 25mm HIGH WITH A 5mm Stroke, AS PER CBC 3.4.6.16(a). THE SIGN TO BE RED LAMACOID WITH WHITE LETTERING.
  10. THE OPERATION OF ANY BY-PASS SWITCH, WHERE PROVIDED FOR TESTING OF THE FIRE ALARM SYSTEM, IS TO CAUSE AN AUDIBLE SIGNAL AND A VISUAL SIGNAL TO BE INITIATED AT THE FIRE ALARM TRANSDUCER PANEL AND AT THE MONITORING STATION.



1 FIRE ALARM RISER  
SCALE:N.T.S.

[illegible]

## Issues

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Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

Sheet  
Title: FIRE ALARM RISER

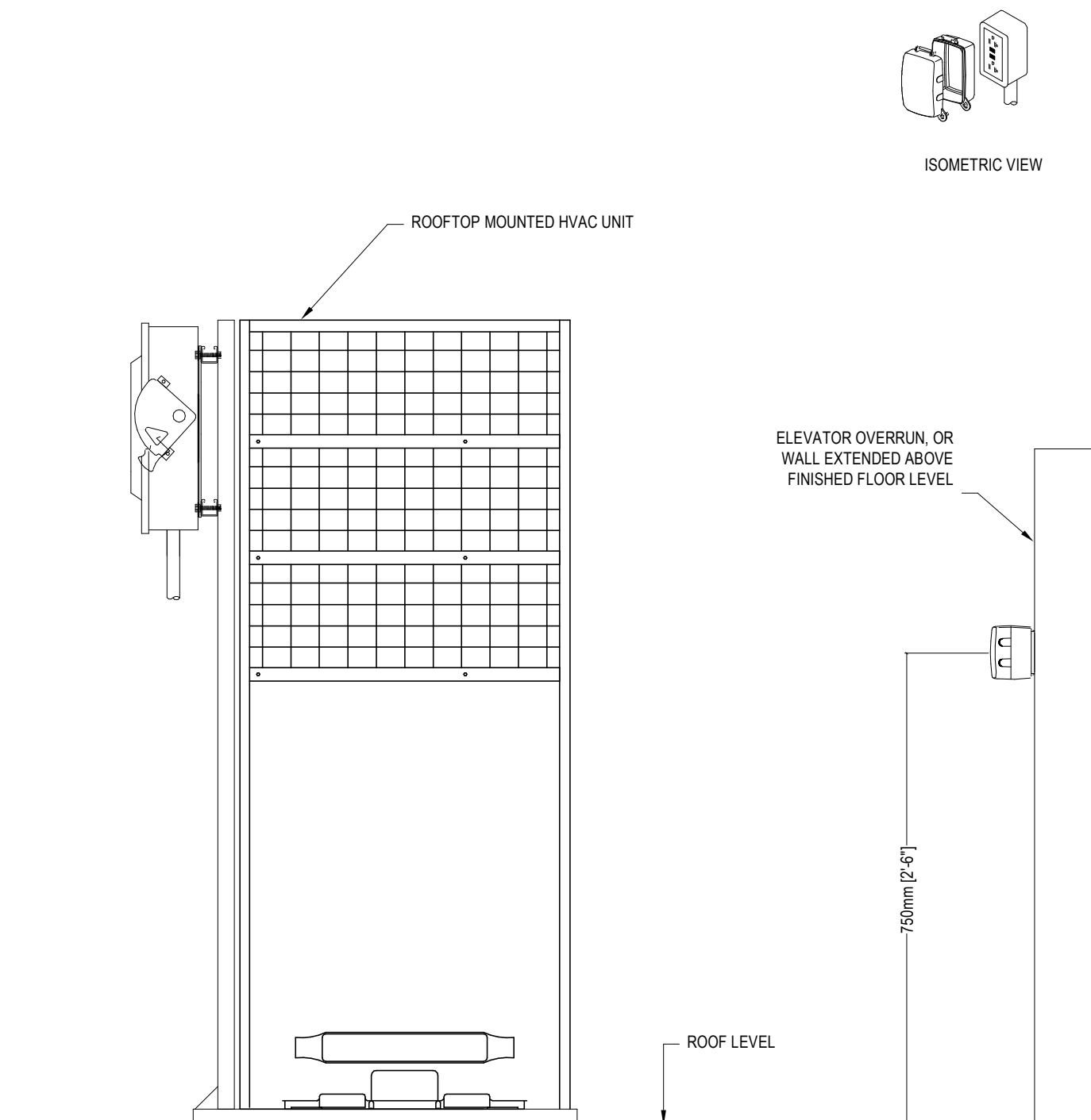
Drawing  
No. E-701



YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

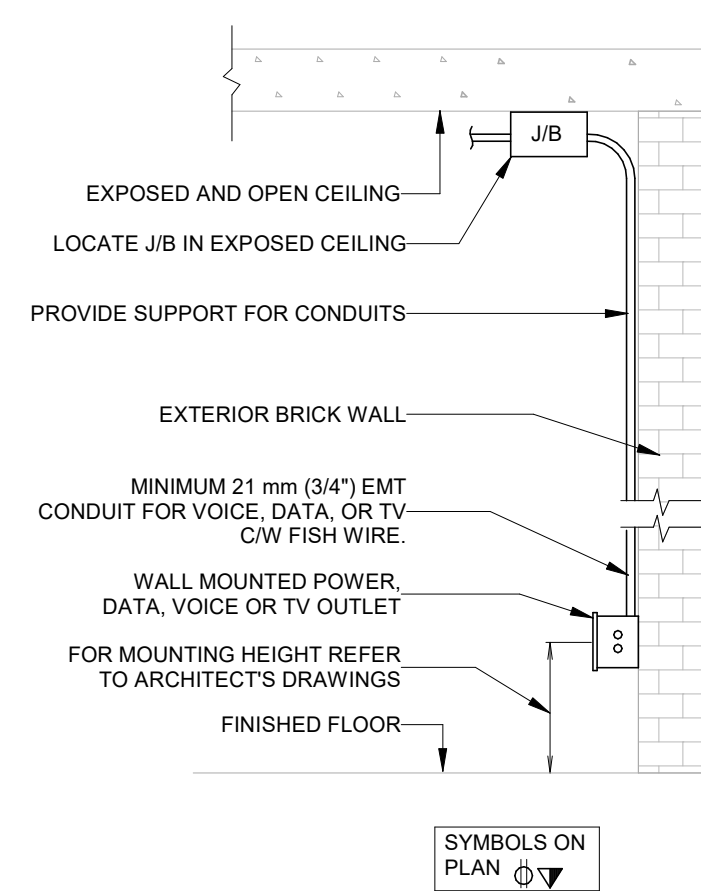


- NOTES:**
1. PROVIDE WP GF 1/2-20R @ 750 mm (30") ABOVE FINISHED ROOF LEVEL C/W WET LOCATION COVER PLATE, TYPICAL. LOCATE WITHIN 7500 mm (25 FT) OF NEW HVAC EQUIPMENT, AND AT LEAST 1800 mm (6 FEET) AWAY FROM ROOF LINE. COVER PLATE TO BE MARKED "EXTRA DUTY". REFER TO 2012 OESC RULES 2-316, 26-708, AND 26-710, AND OESC BULLETIN 26-27.7, OR LATEST EDITION.
  2. LABEL RECEPTACLE WITH PHENOLIC (LAMACOID) NAMEPLATE WITH PANELBOARD ID, CIRCUIT NUMBER, AND PANELBOARD LOCATION.

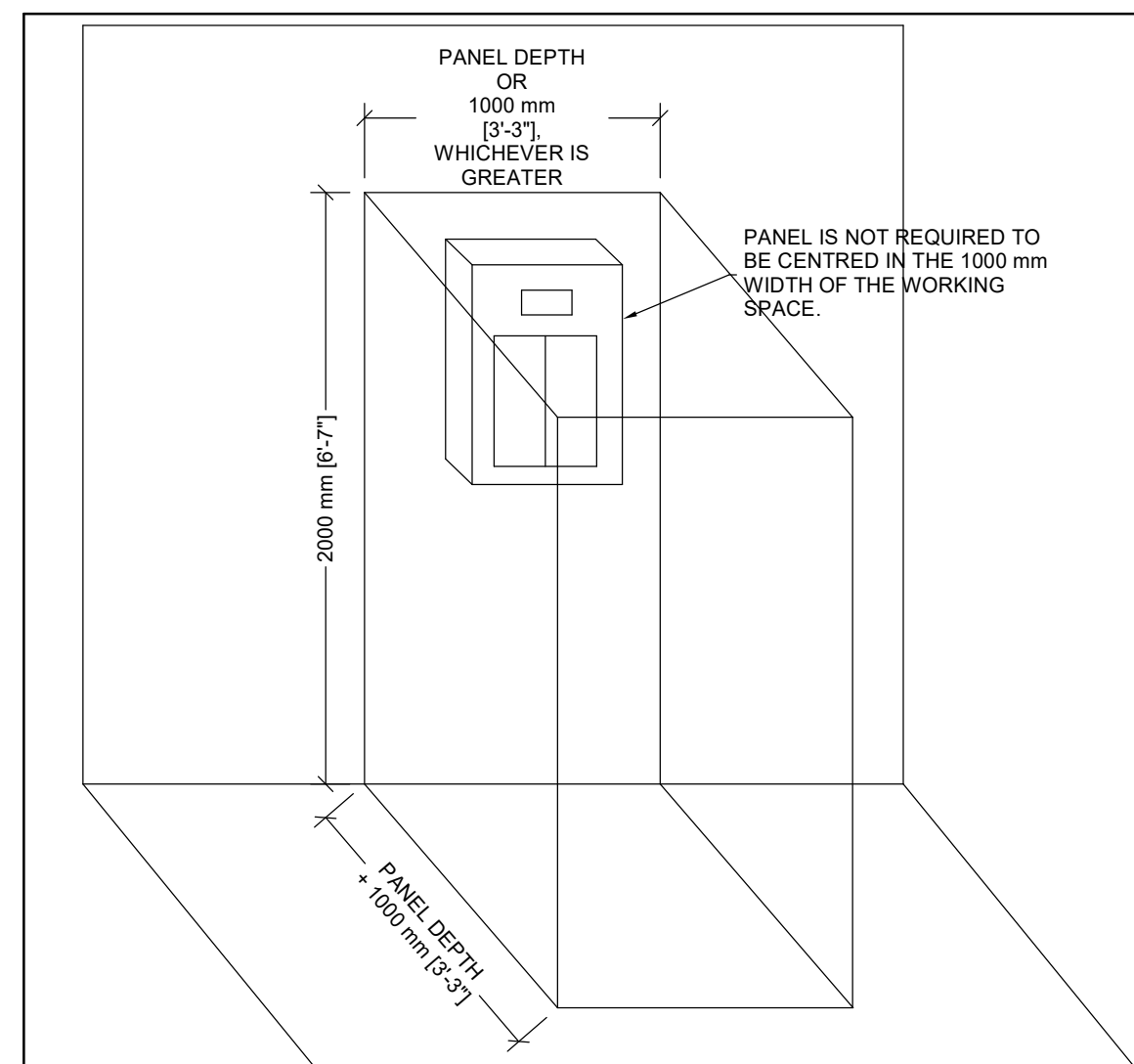
CODE REFERENCES (REFER TO 2021 OESC RULES 2-316, 26-708, AND 26-710, AND OESC BULLETIN 26-27-\*), OR LATEST CODE EDITION:

1. HYAC EQUIPMENT MAINTENANCE RECEPTACLE  
INSTALLED ON ROOF (2021 OESC RULE 2.316).
2. GFCI PROTECTED (2021 OESC 26-710(a)).
3. DEDICATED FOR "HYAC MAINTENANCE" (2021 OESC 26-710(b)).
4. CSA CONFIGURATION 5-20R (2021 OESC 26-710(c)).
5. LOCATED WITHIN 7500 mm OF THE ROOFTOP EQUIPMENT  
(2021 OESC 26-710(d)).
6. NOT LESS THAN 750 mm (30") ABOVE THE FINISHED ROOF  
LEVEL (2021 OESC 26-710(e)).
7. PROTECT FROM MECHANICAL DAMAGE (2021 OESC  
26-710(f)).
8. LOCATE MINIMUM 1800 mm (6 FEET) AWAY FROM ROOF  
LINE. REFER TO FALL ARREST LEGISLATION.
9. WET LOCATION COVER PLATE TO BE "WHILE IN USE  
TYPE," MARKED "EXTRA DUTY" (2021 OESC 26-708(2)).
10. SECURE COVER PLATE TO OUTLET BOX BY FOUR  
SCREWS OR EQUIVALENT MEANS (2021 OESC 26-708(4)).

3 MAINTENANCE RECEPTACLE ROOF MOUNTED HVAC EQUIPMENT  
SCALE:N.T.S.

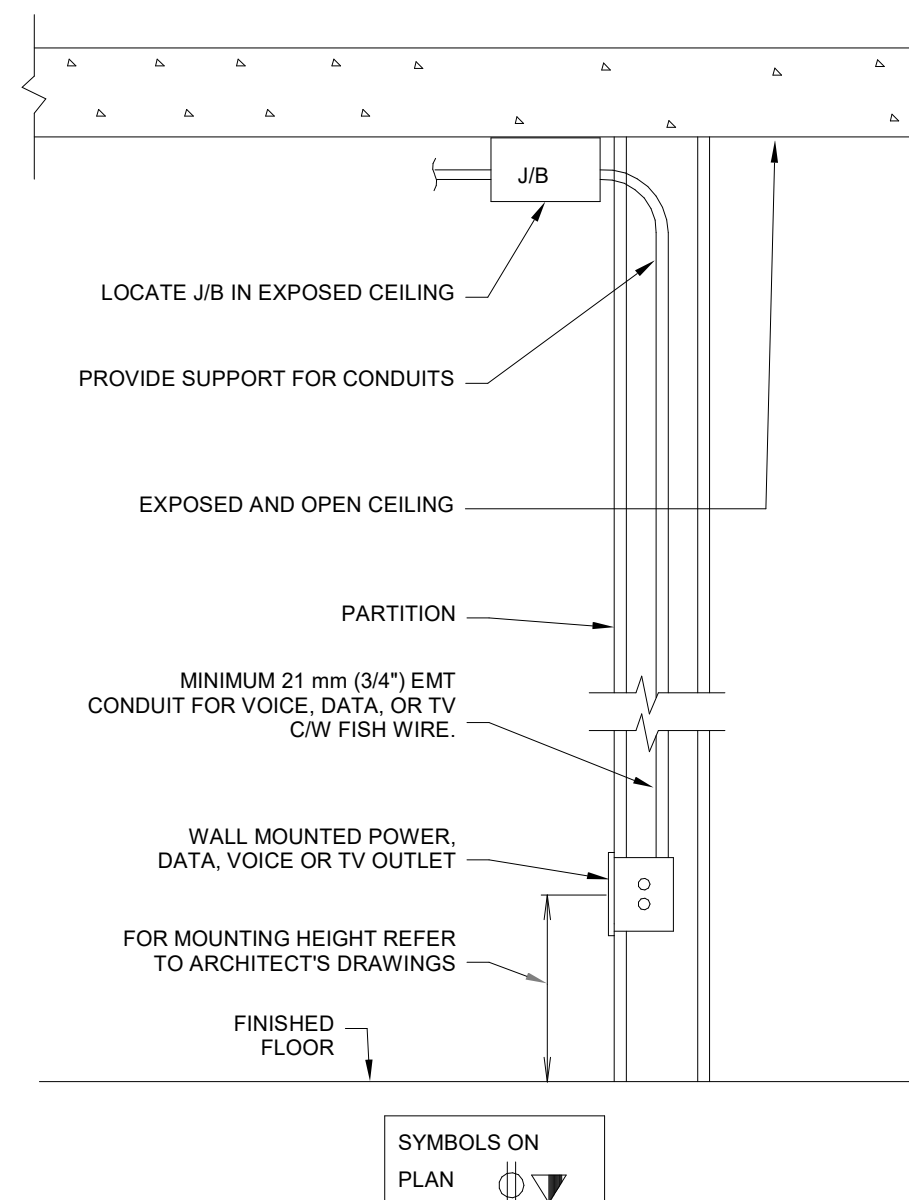


6 WALL MOUNTED OUTLET BOX (SURFACE)  
SCALE:N.T.S.

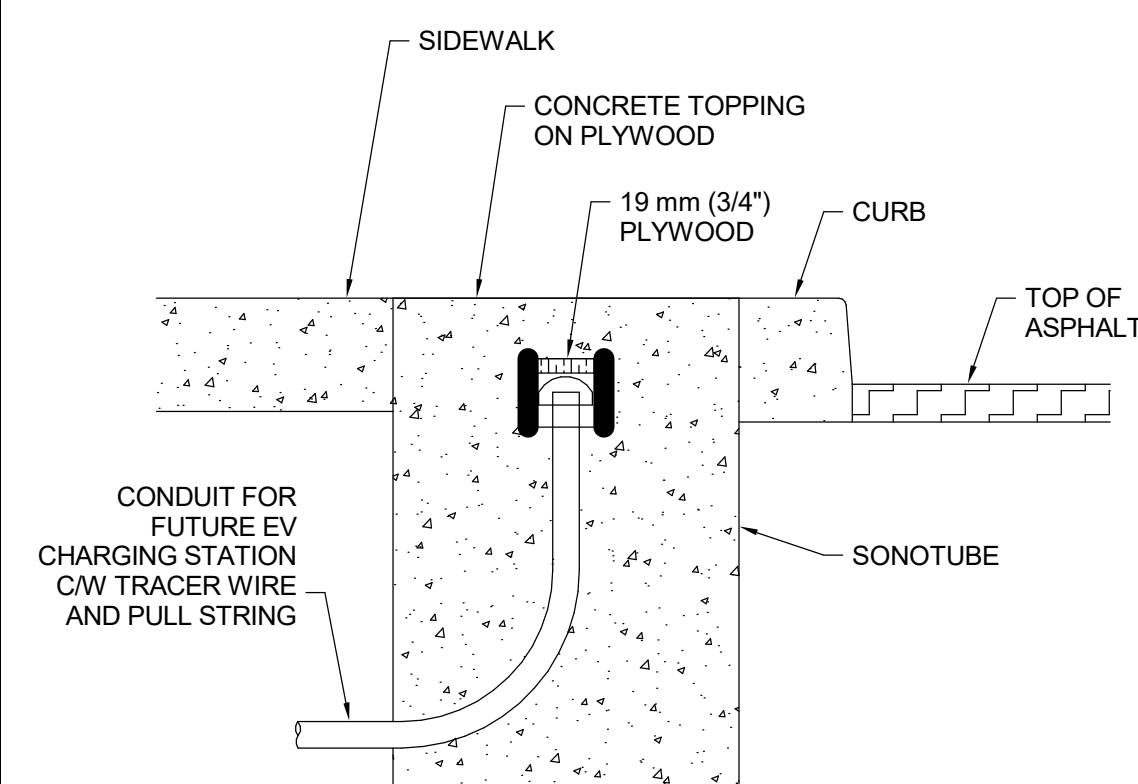


- REFERENCES:
1. 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), RULE 2-308(1) (OR LATEST EDITION)
  2. OESC BULLETIN 2-9-\*(LATEST VERSION)

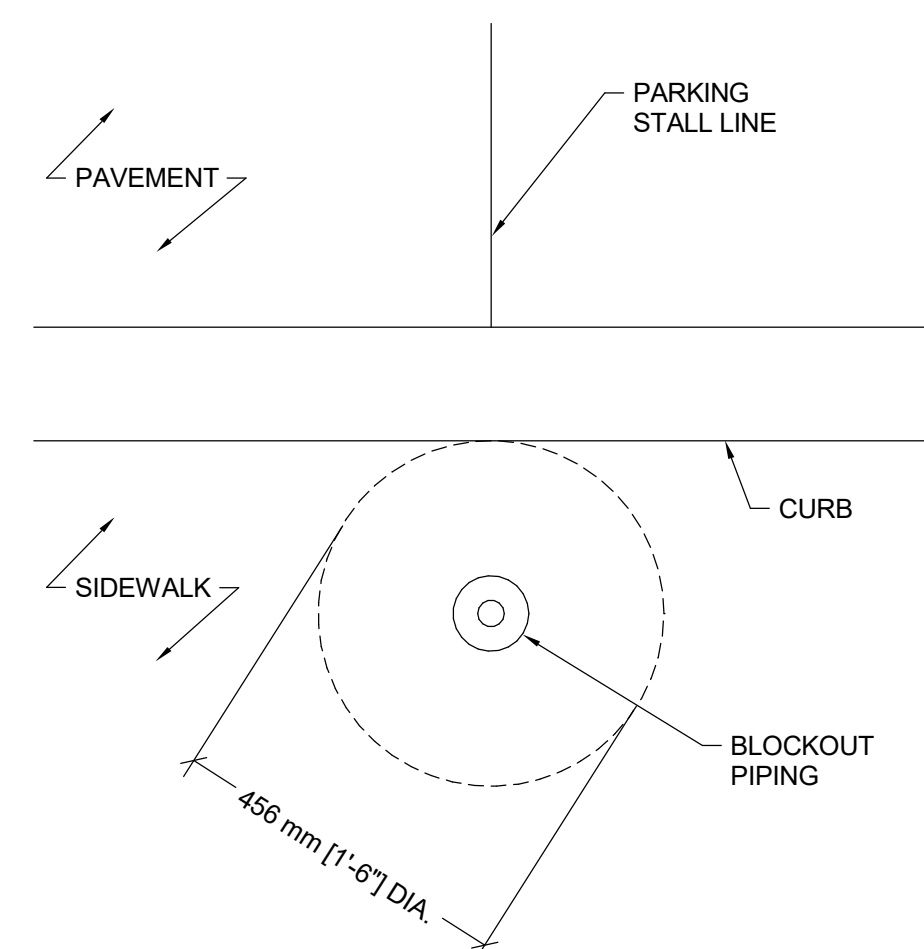
5 CLEAR SPACE AROUND PANELBOARDS  
SCALE:N.T.S.



4 Wall Mounted Outlet Box Wall Recessed  
SCALE:N.T.S.

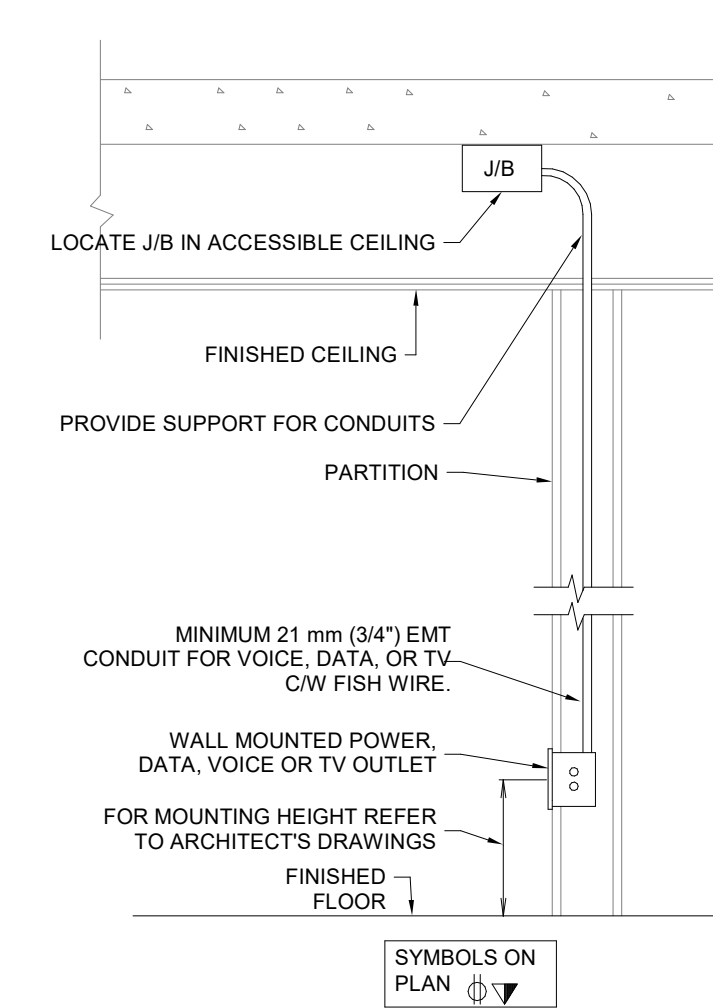


SECTION VIEW

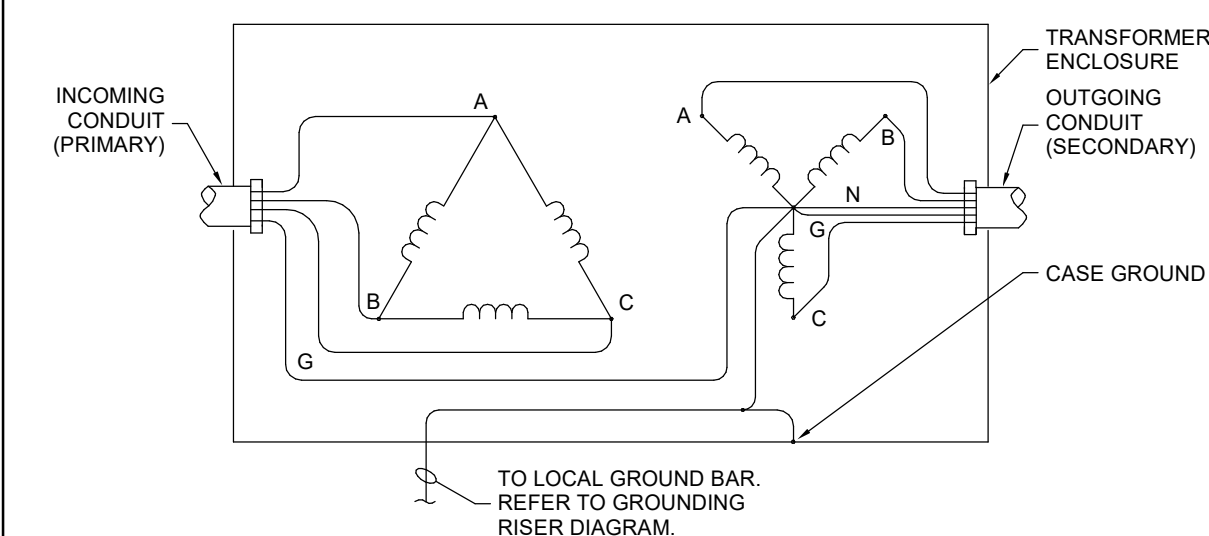


### PLAN VIEW

1 Future EV Charging Station Pedestal Rough-In  
SCALE: 1 : 10

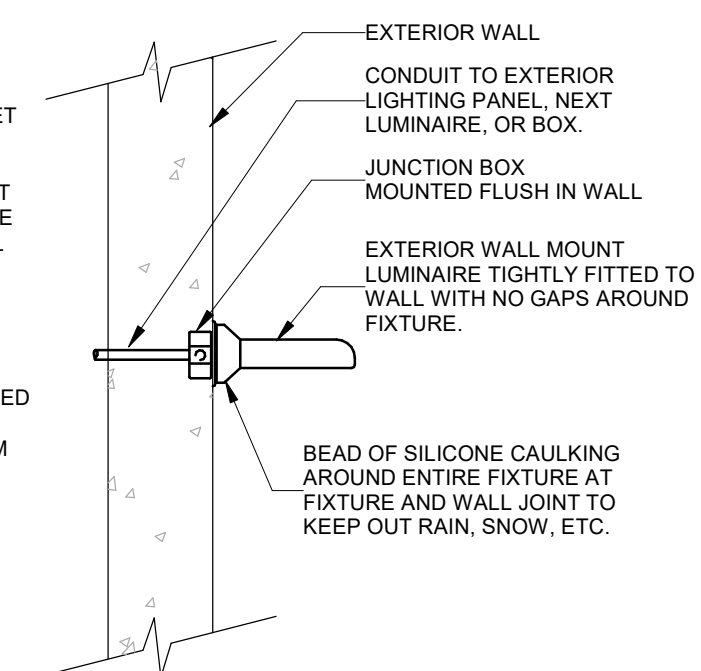


2 Wall Mounted Outlet Box Wall Recessed Ceiling  
SCALE:N.T.S.



8 TRANSFORMER GROUNDING  
SCALE: 1 : 50

- NOTES:**
1. A WEATHERPROOF GASKET SHALL BE INSTALLED BETWEEN THE WALL AND THE FIXTURE. IF A GASKET IS NOT SUPPLIED WITH THE FIXTURE, THE ELECTRICAL CONTRACTOR SHALL SUPPLY ONE AND CUT TO APPROPRIATE SIZE.
  2. THE BEAD OF SILICONE CAULKING SHALL BE PLACED AROUND THE FIXTURE TO PREVENT MOISTURE FROM GETTING BETWEEN THE FIXTURE AND THE WALL.



7 Sealing of Wall Mounted Exterior Luminaires  
SCALE: N.T.S.

4	ISSUED FOR ADDENDUM 6	2024-09-30
3	ISSUED FOR ADDENDUM 3	2024-08-23
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

Sheet  
Title: ELECTRICAL DETAILS

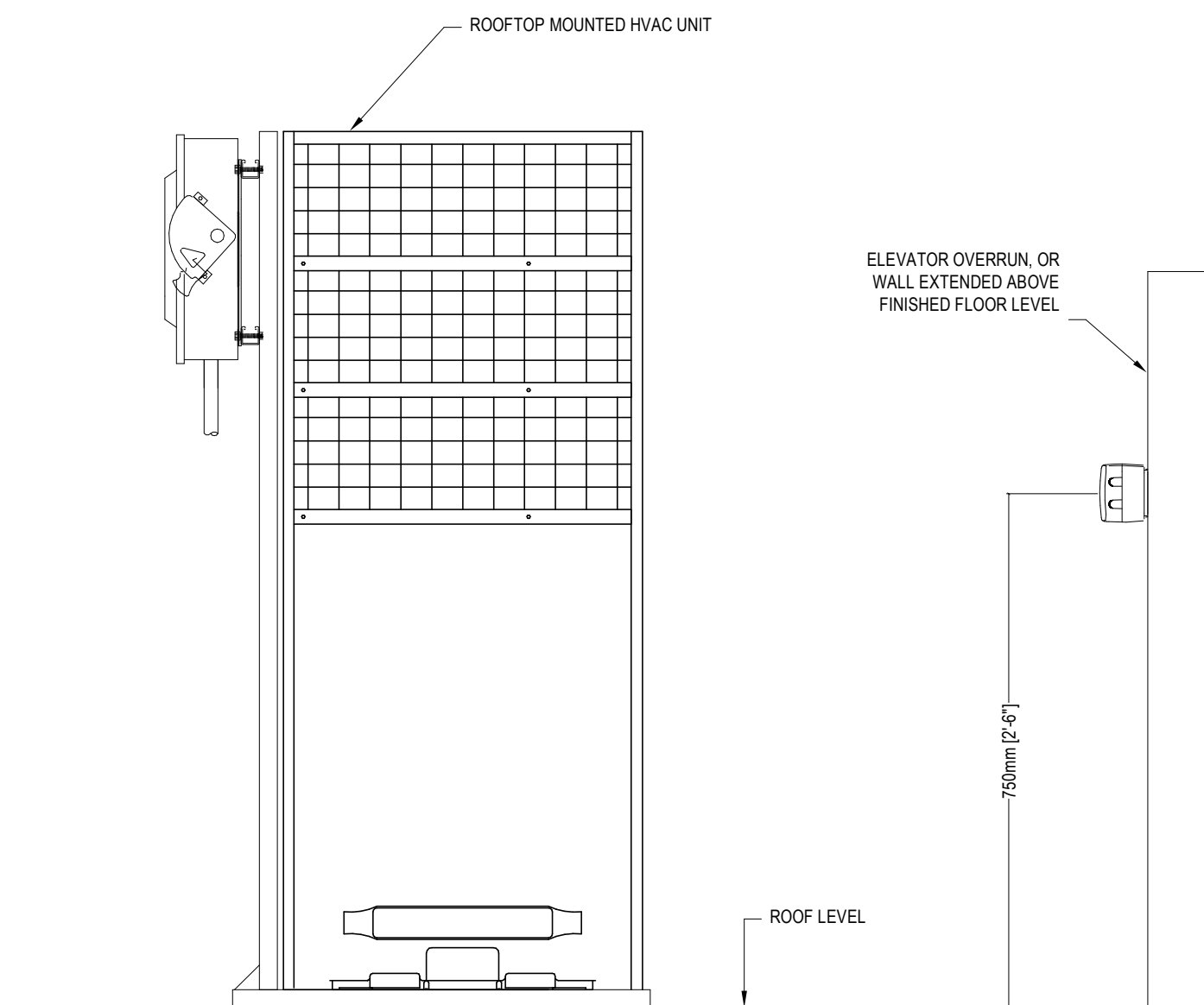
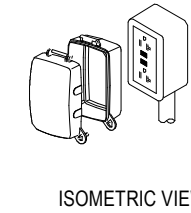
Drawing  
No. **E-800**



# YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

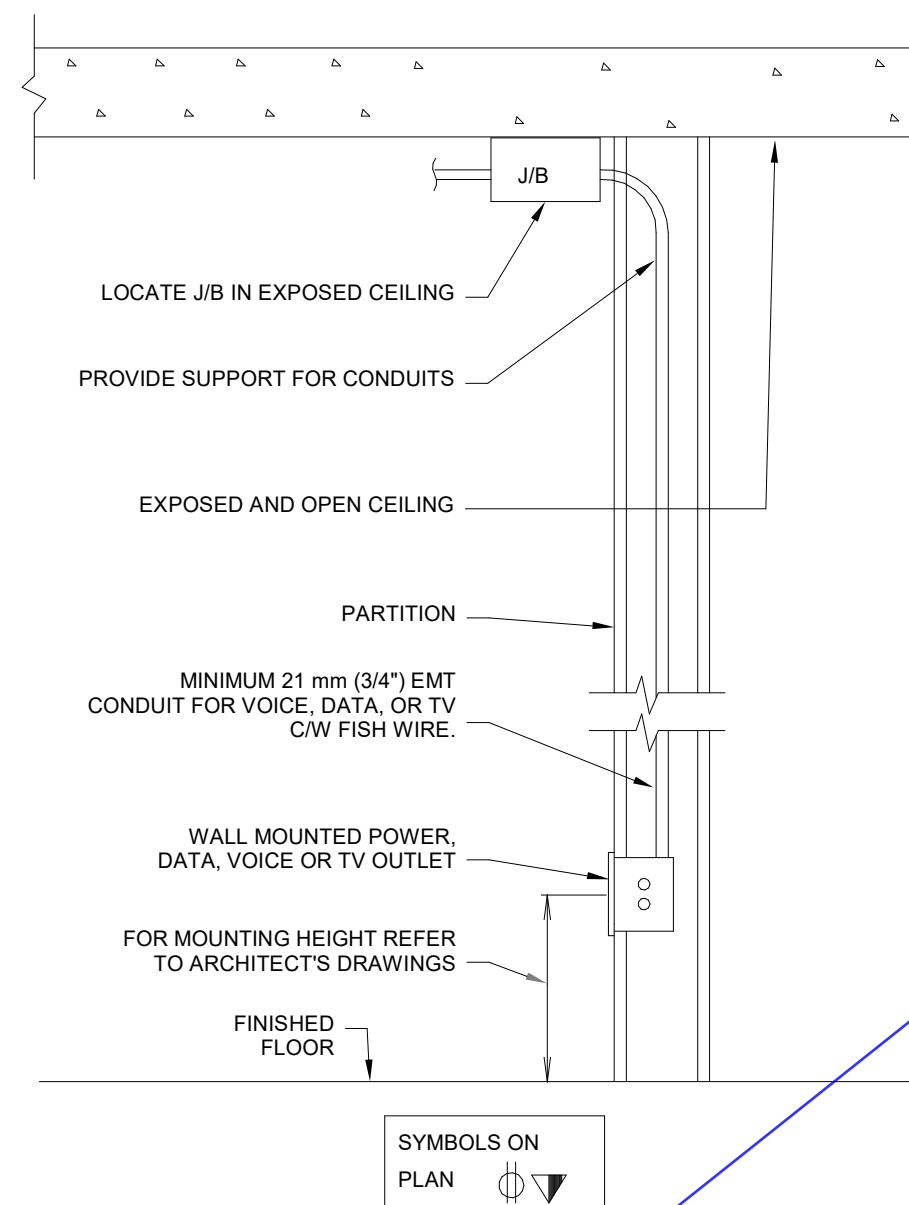


- NOTES:
1. PROVIDE WP GFI 5-20R (30") ABOVE FINISHED ROOF LEVEL, C/W WET LOCATION COVER PLATE, TYPICAL. LOCATE WITHIN 7500 MM (25 FT) OF NEW HVAC EQUIPMENT, AND AT LEAST 1800 mm (6 FEET) AWAY FROM ROOF LINE. COVER PLATE TO BE MARKED "EXTRA DUTY". REFER TO 2021 OESC RULES 2-316, 26-708, 26-710, AND OESC BULLETIN 26-27.\* OR LATEST EDITION.
  2. LABEL RECEPTACLE WITH PHENOLIC (LAMACOID) NAMEPLATE WITH PANELBOARD ID, CIRCUIT NUMBER, AND PANELBOARD LOCATION.

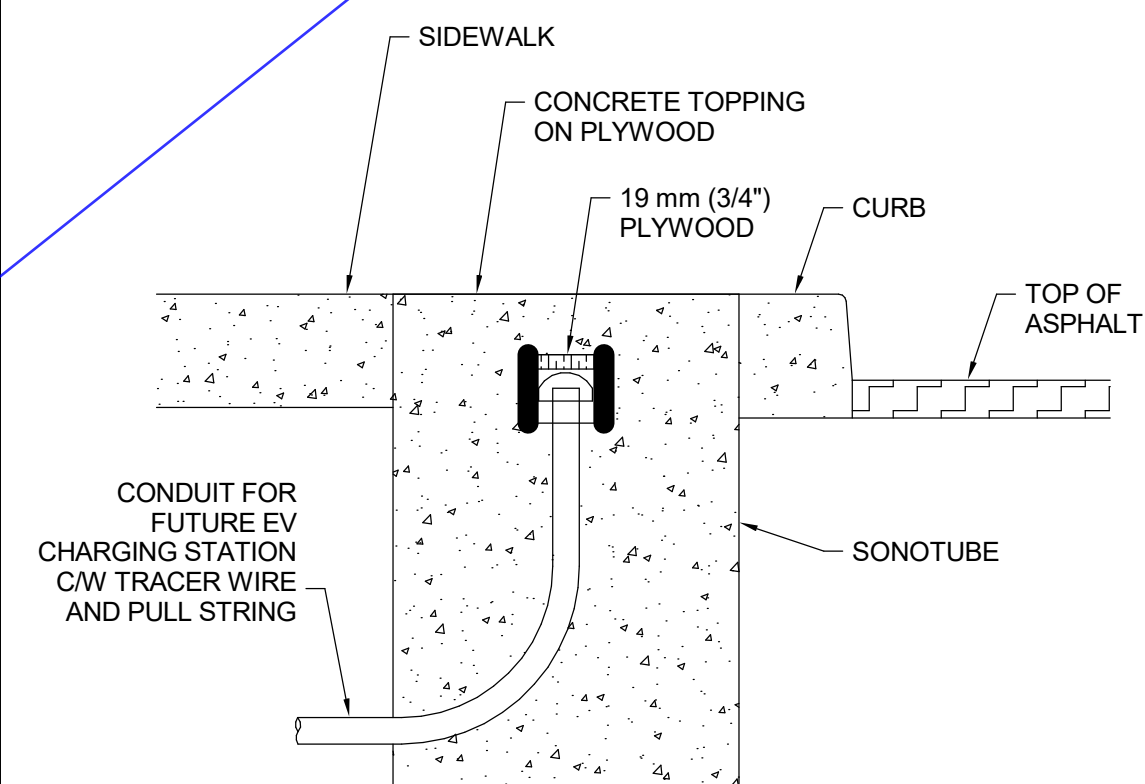
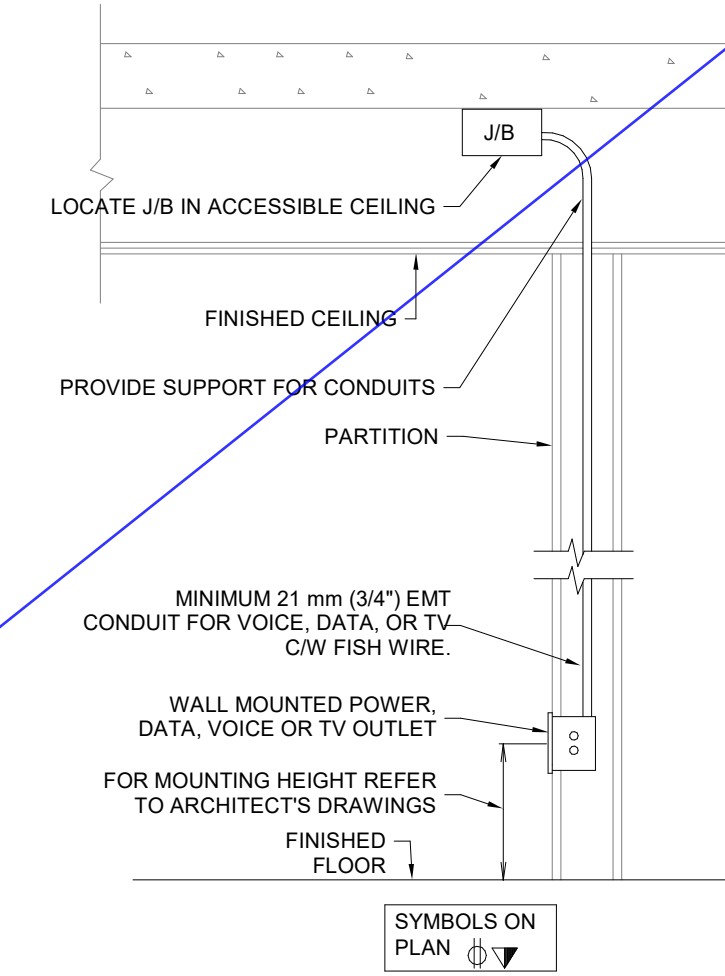
CODE REFERENCES (REFER TO 2021 OESC RULES 2-316, 26-708 AND 26-710, AND OESC BULLETIN 26-27-\*), OR LATEST CODE EDITION:

1. HVAC EQUIPMENT MAINTENANCE RECEPTACLE  
INSTALLED ON ROOF (2021 OESC RULE 2.316).
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3. DEDICATED FOR "HVAC MAINTENANCE" (2021 OESC 26-710(b)).
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6. NOT LESS THAN 750 mm (30") ABOVE THE FINISHED ROOF  
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7. PROTECT FROM MECHANICAL DAMAGE (2021 OESC 26-710(f)).
8. LOCATE MINIMUM 1800 mm (6 FEET) AWAY FROM ROOF  
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SCREWS OR EQUIVALENT MEANS (2021 OESC 26-708(4)).

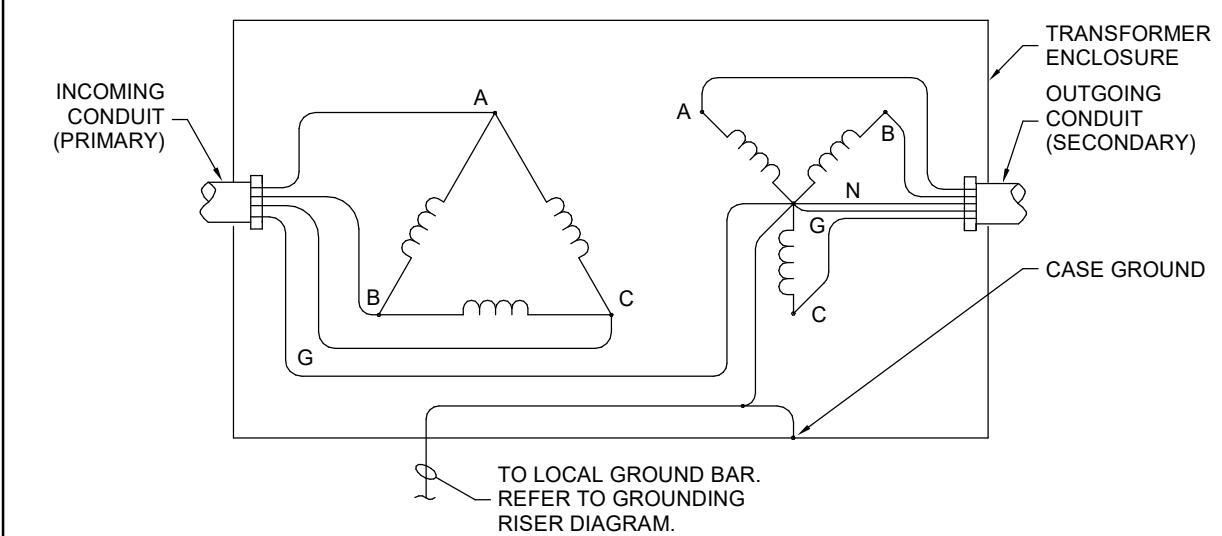
Wall Mounted Outlet Box Wall Recessed  
SCALE:N.T.S.



2 Wall Mounted Outlet Box Wall Recessed Ceiling  
SCALE:N.T.S.

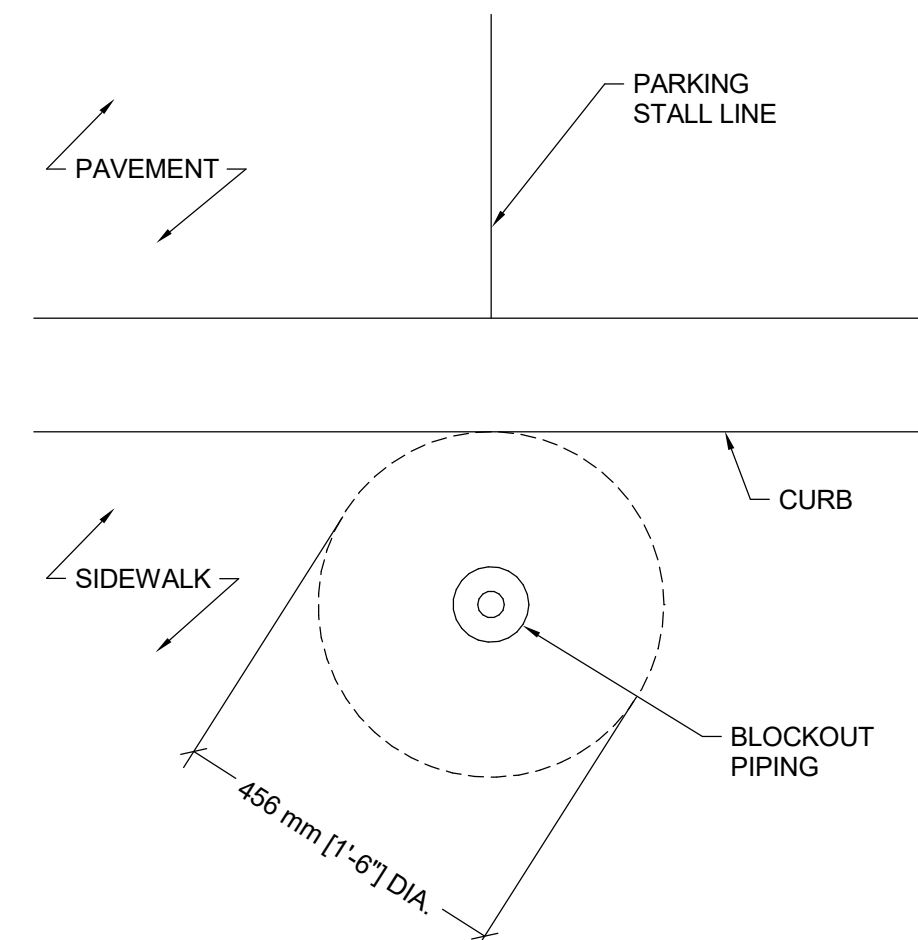


### SECTION VIEW

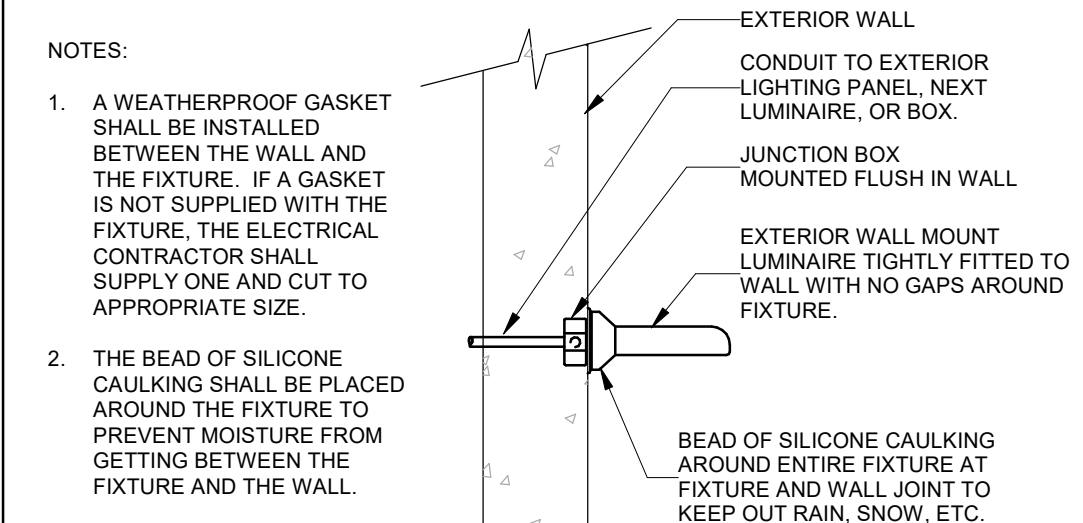


## TRANSFORMER GROUNDING

SCALE: 1 : 50



### PLAN VIEW



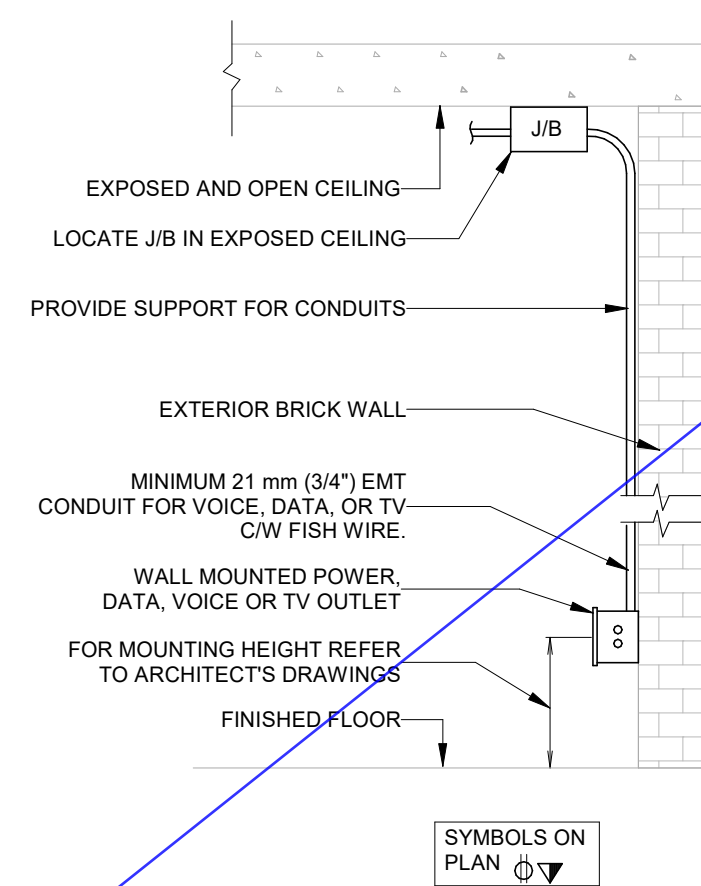
- NOTES:**
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  2. THE BEAD OF SILICONE CAULKING SHALL BE PLACED AROUND THE FIXTURE TO PREVENT MOISTURE FROM GETTING BETWEEN THE FIXTURE AND THE WALL.

## Sealing of Wall Mounted Exterior Luminaires

SCALE:N.T.S.

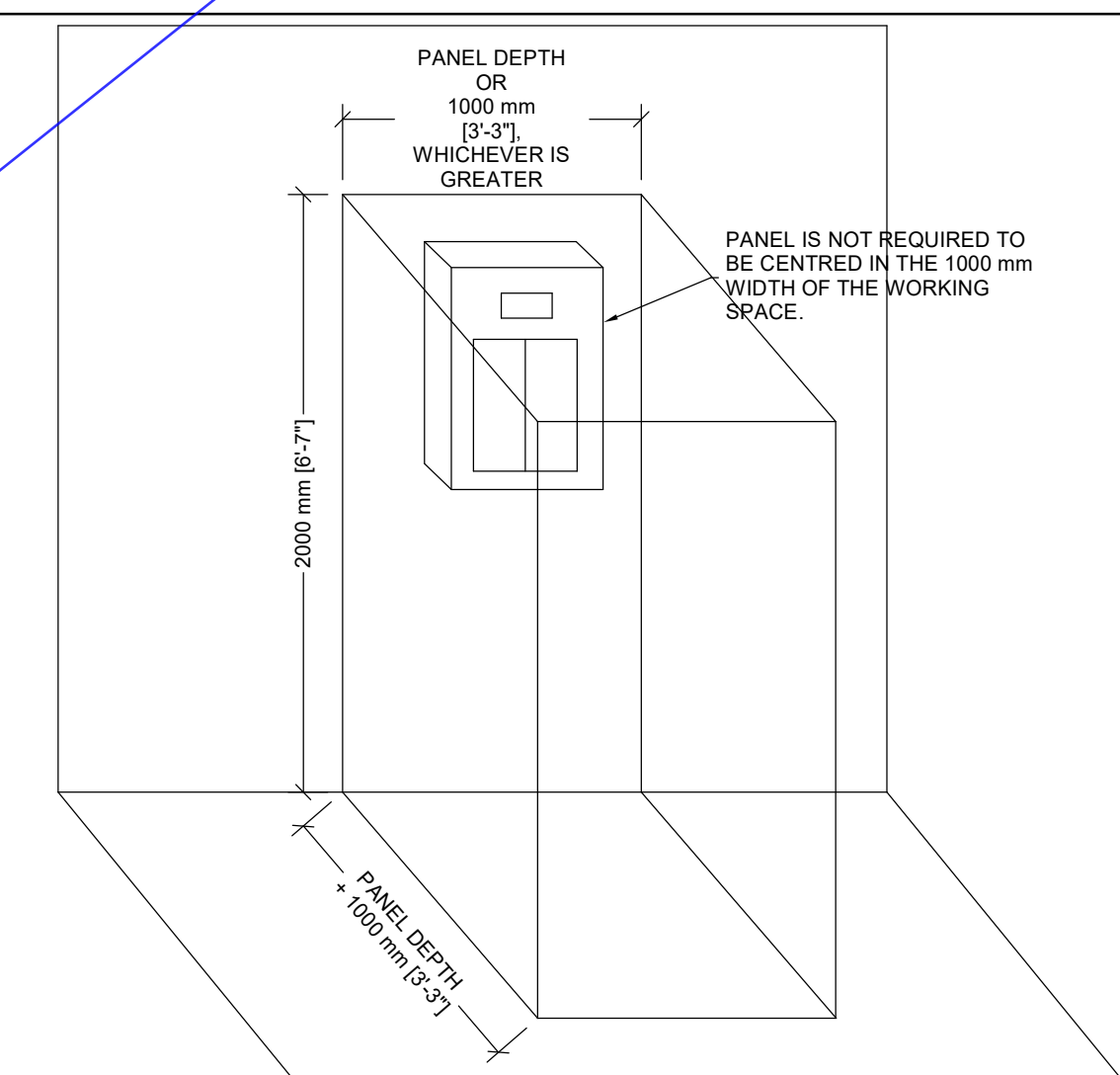
## MAINTENANCE RECEPTACLE ROOF MOUNTED HVAC EQUIPMENT

SCALE:N.T.S.



## WALL MOUNTED OUTLET BOX (SURFACE)

SCALE:N.T.S.



- REFERENCES:
1. 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), RULE 2-308(1) (OR LATEST EDITION)
  2. OESC BULLETIN 2-9-\*(LATEST VERSION)

## CLEAR SPACE AROUND PANELBOARDS

SCALE:N.T.S.

Future EV Charging Station Pedestal Rough-In

SCALE: 1 : 10

## Issues

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Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

Sheet  
Title:

## ELECTRICAL DETAILS

Drawing  
No. **E-800**



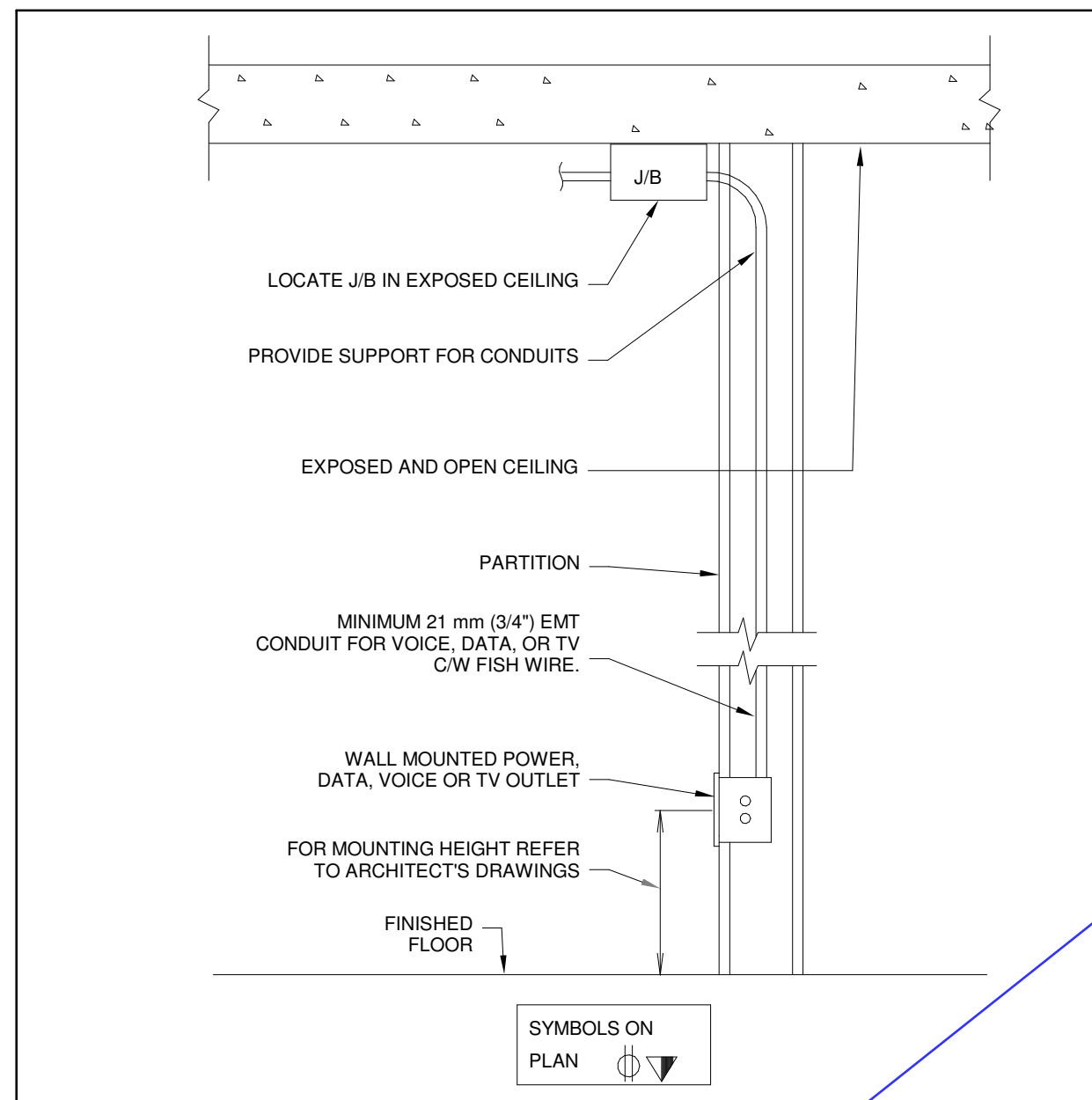




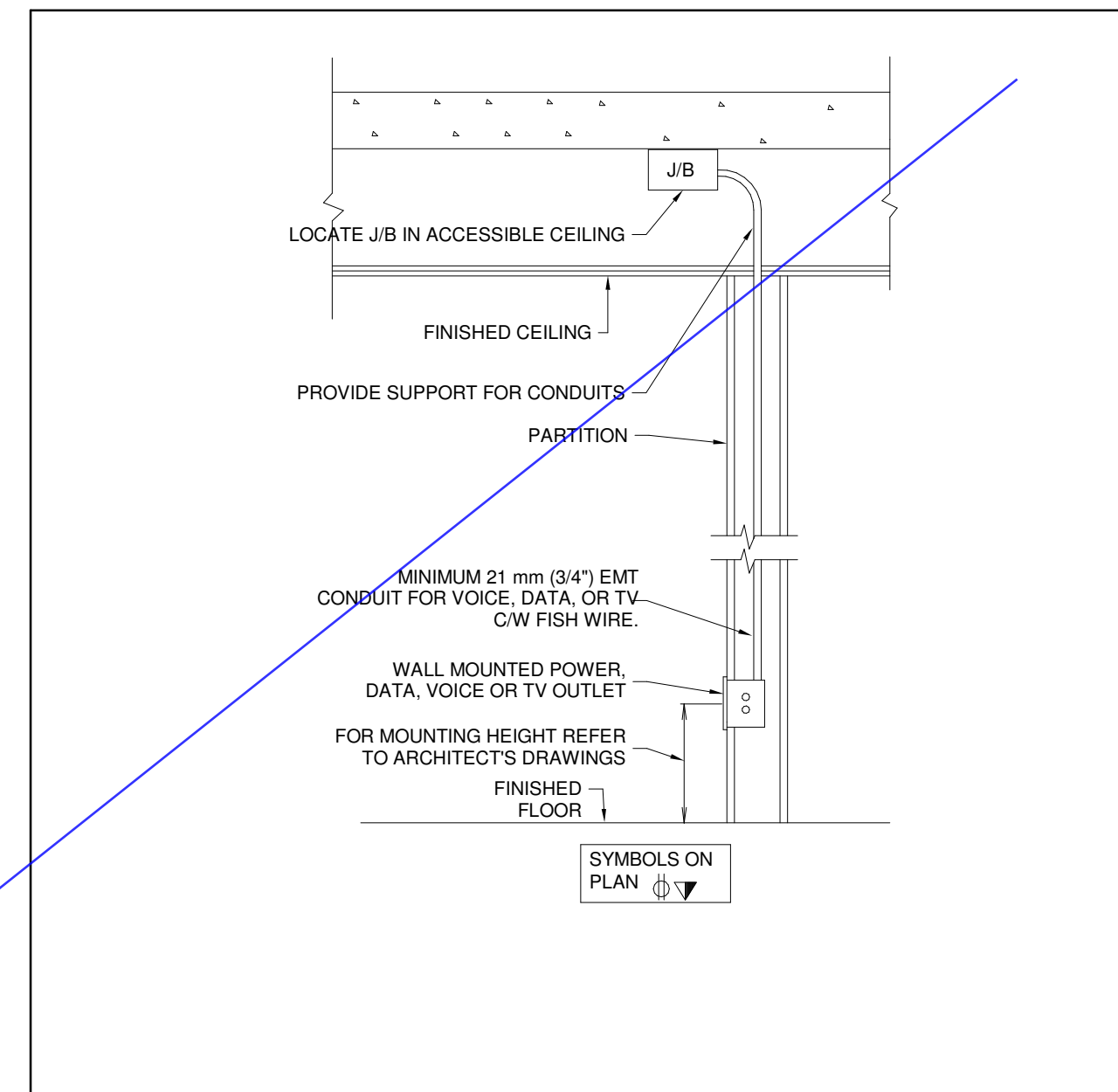
YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

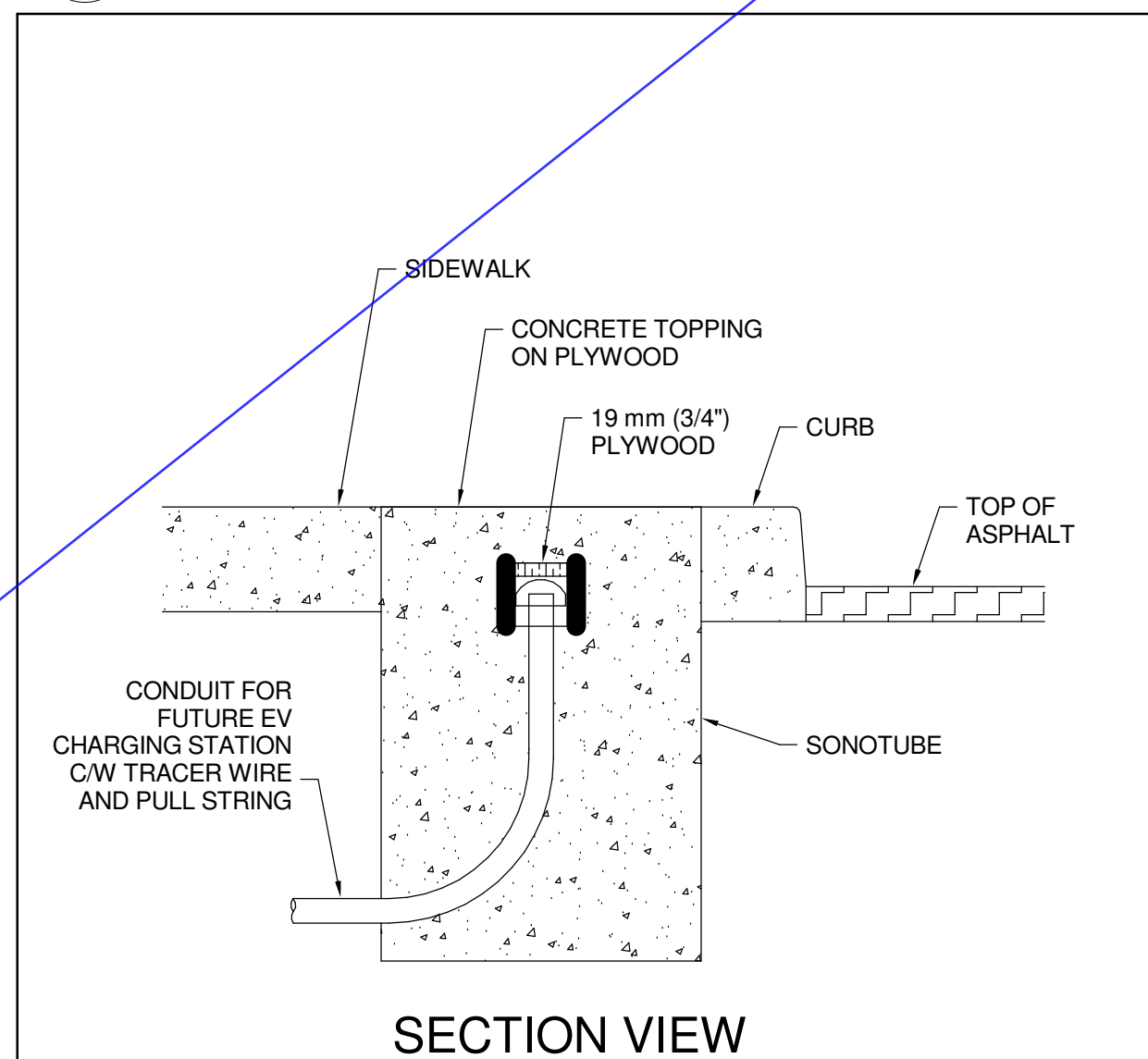
## Key Plan



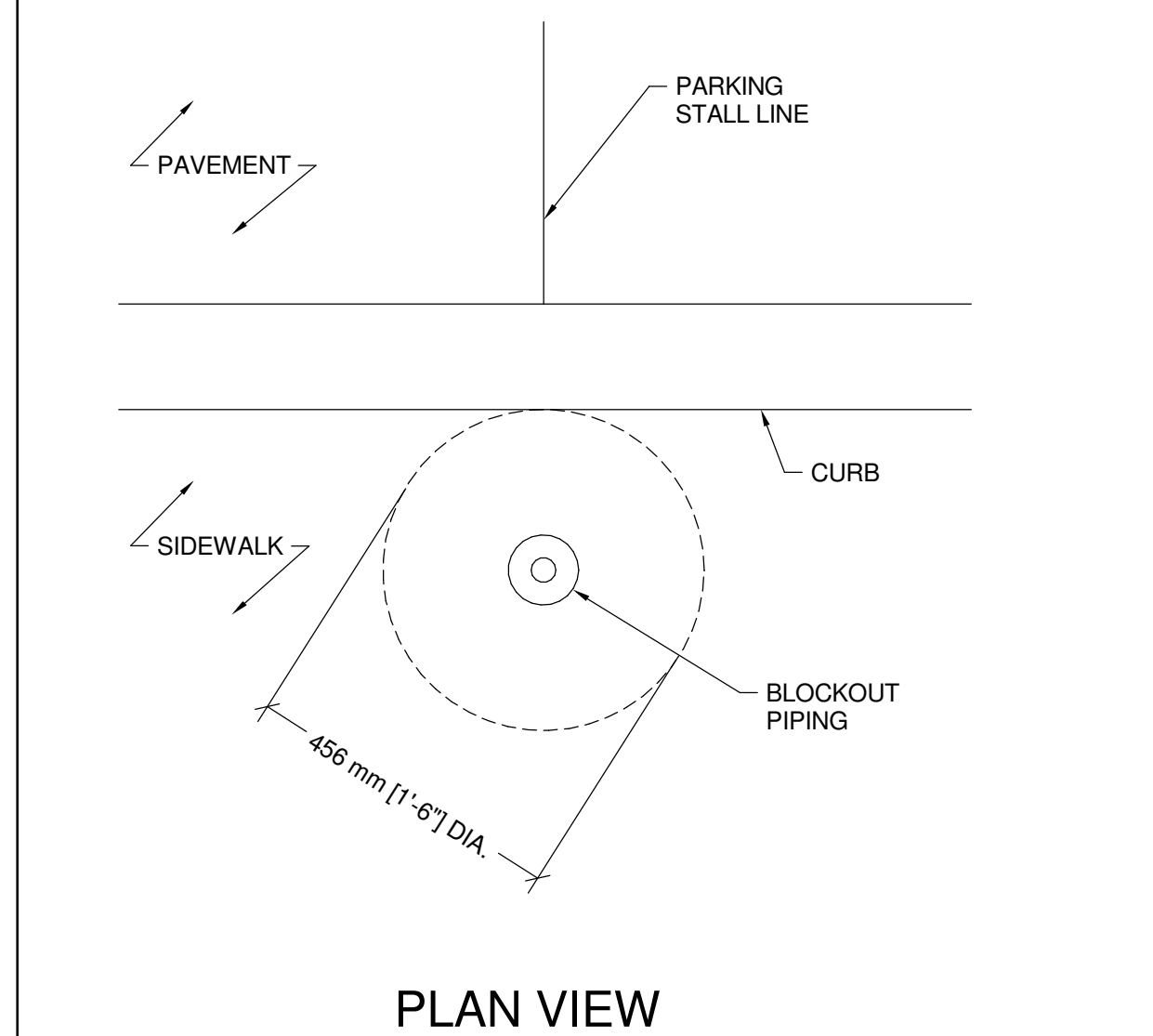
4 Wall Mounted Outlet Box Wall Recessed  
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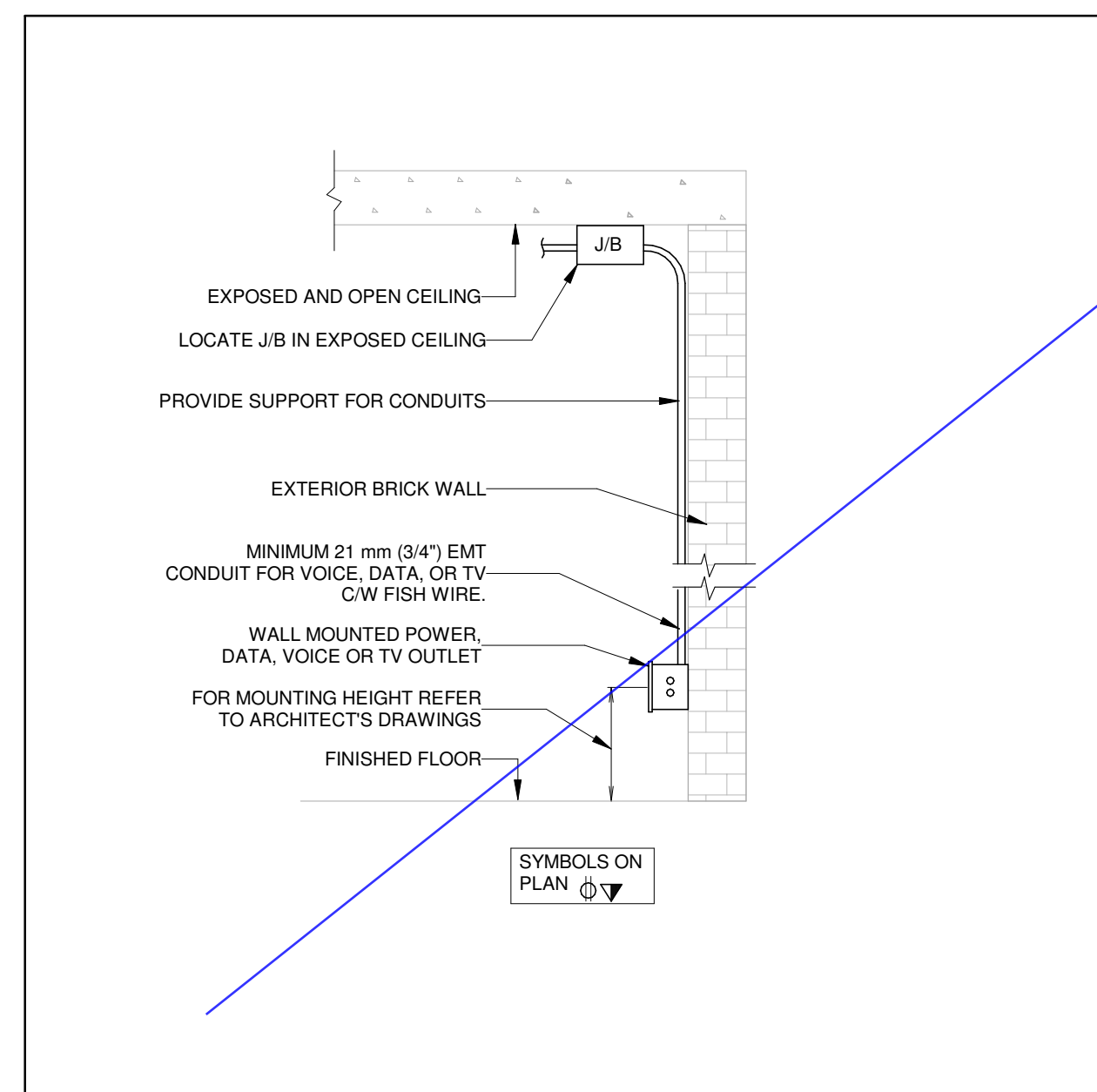
2 Wall Mounted Outlet Box Wall Recessed Ceiling  
SCALE:N.T.S.



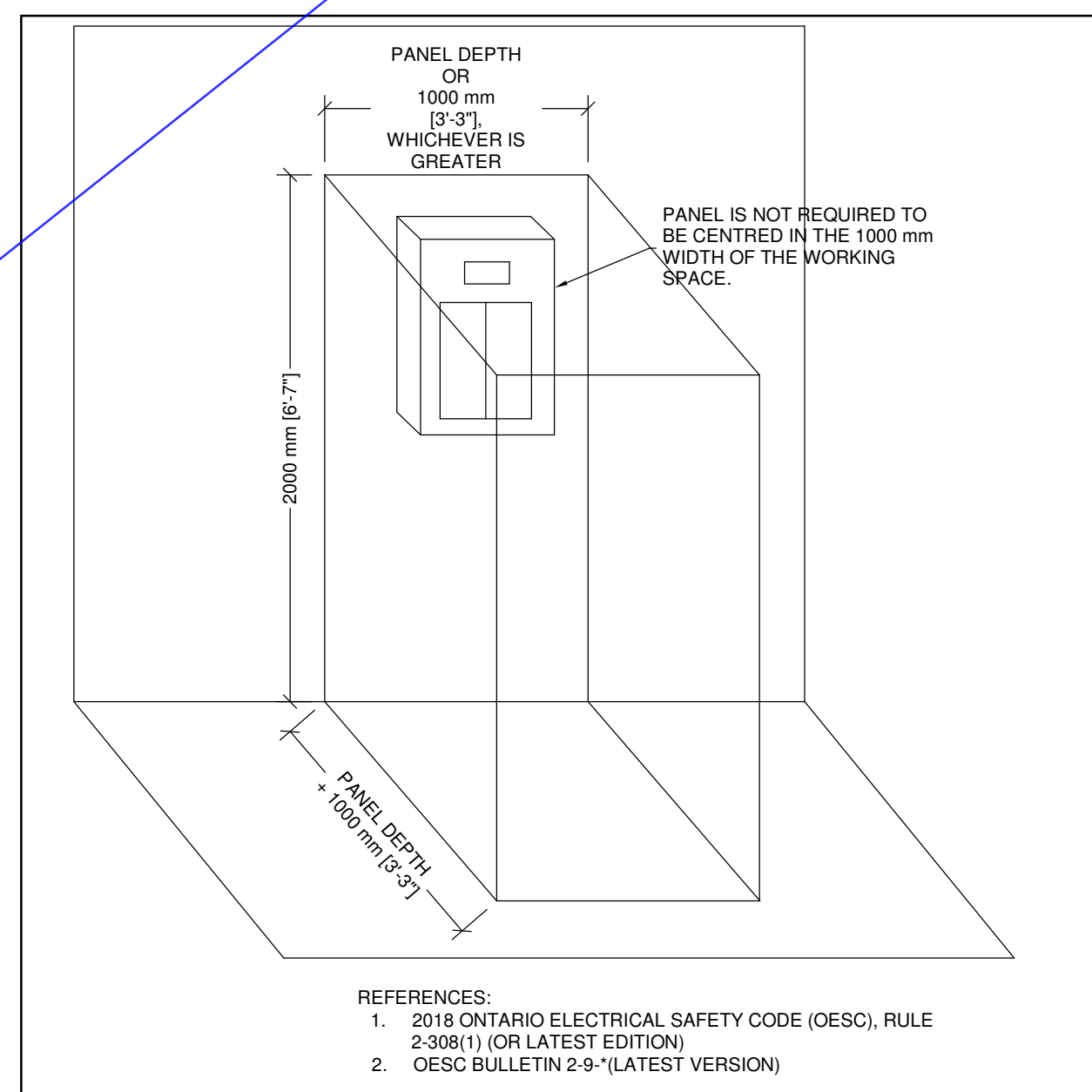
### SECTION VIEW



### PLAN VIEW



6 WALL MOUNTED OUTLET BOX (SURFACE)  
SCALE:N.T.S.



5 CLEAR SPACE AROUND PANELBOARDS  
SCALE:N.T.S.

1 Future EV Charging Station Pedestal Rough-In  
SCALE: 1 : 10

[illegible]

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Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

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Title: ELECTRICAL DETAILS

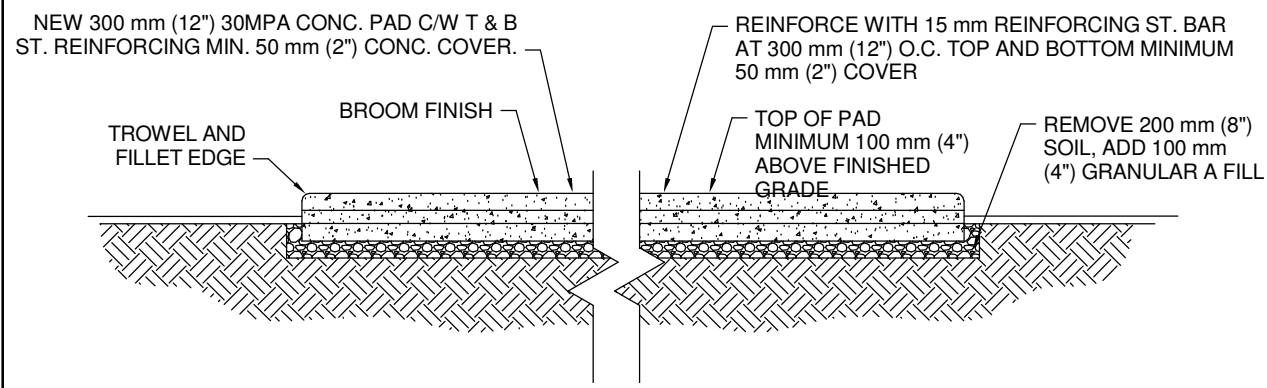
Drawing  
No. **E-800**



YORK REGIONAL POLICE  
HELICOPTER HANGAR

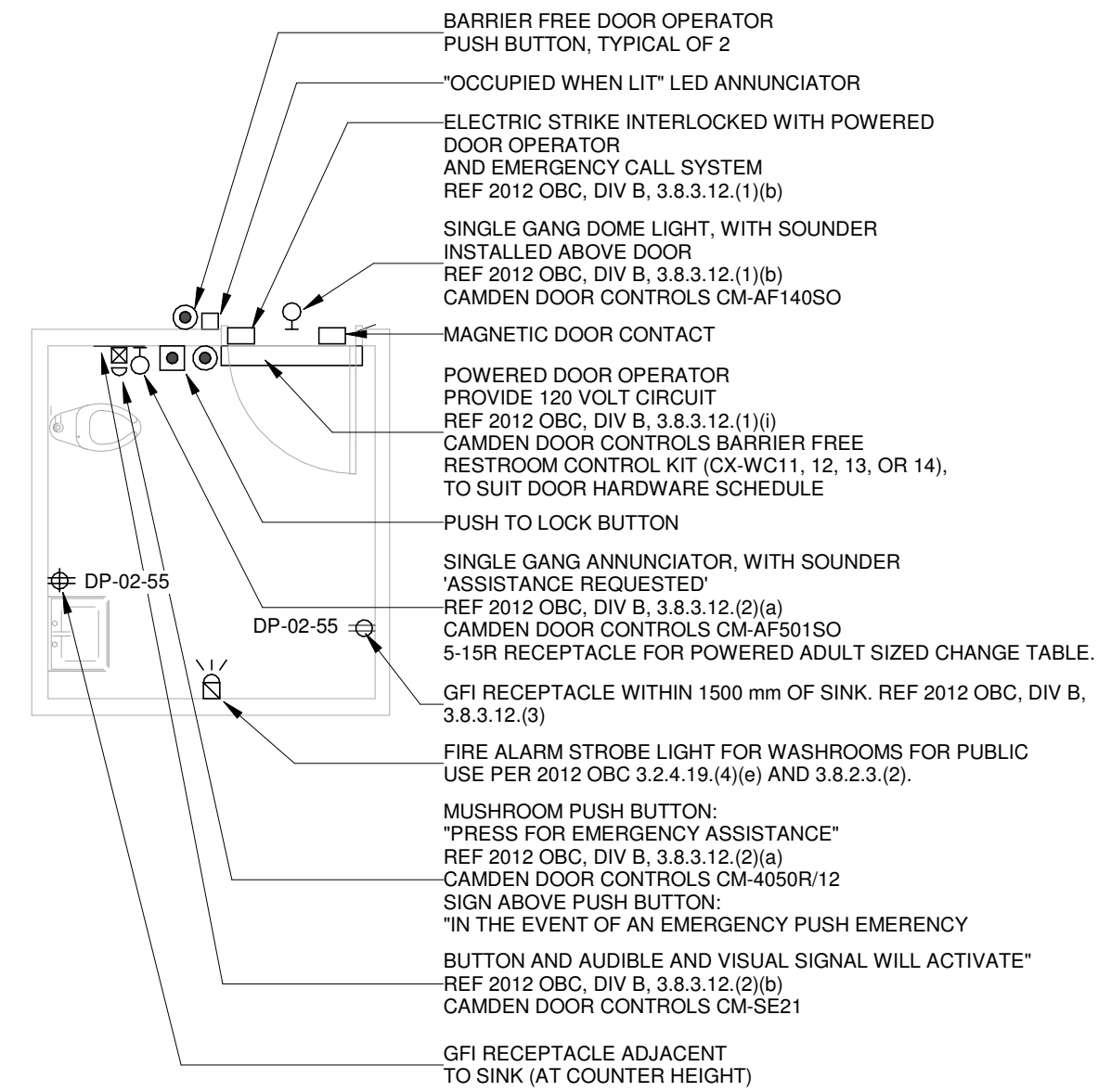
350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

### Key Plan



### Cast-In-Place Concrete Generator Pad

SCALE: 1 : 50



UNIVERSAL RESTROOM "EMERGENCY ASSISTANCE" SIGNAL ACTIVATION, ANNUNCIATION AND SUPPORTING SIGNAGE SHALL BE CAMDEN DOOR CONTROLS MODEL CX/WEC10/CX-WEC-11 UNIVERSAL RESTROOM CONTROL KIT.

KIT SHALL INCLUDE:

1. CM-4050F12 SINGLE GAN MUSHROOM PUSH BUTTON, 1/4" THICK BRUSHED ALUMINUM FACELATE AND RED BUTTON, MAINTAINED PUSH/PULL OPERATION WITH "PRESS FOR EMERGENCY ASSISTANCE" PERMANENTLY LASER ETCHED ON THE TOP FACELATE.
2. CM-AF50S0 SINGLE GAN LED ANNUNCIATOR WITH SOUNDER, RATED 85 db AT 100 mm. WEATHER AND VANDAL RESISTANT CONSTRUCTION, BRUSHED STAINLESS STEEL FACELATE, WITH REVERSIBLE MESSAGE TEXT, THAT IS NOT LEGIBLE UNLESS THE ANNUNCIATOR IS ENERGIZED.
3. CM-AF140S0 SINGLE GAN DOME LIGHT WITH PIEZO SOUNDOR, RATED 93 db AT 1 METRE, BRUSHED STAINLESS STEEL FACELATE AND 24 IN INCANDESCENT BULB. DIMENSION TO FACE OF 140 MM, HEIGHT TO TOP OF 176 MM (11 1/2"), BALL BY 381 MM (15 1/2") FIVE, FIRE RATED EXPANDED PVC WHITE, WITH 25 mm BLACK LETTERING TEXT SHALL BE: "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY CALL" TO AUDIBLE SIGNAL.
4. INTERCONNECTED WITH DOOR HARDWARE, INCLUDING DOOR OPERATOR, PUSH TO LOCK BUTTON, ELECTRIC STRIKE, DOOR CONTACT.

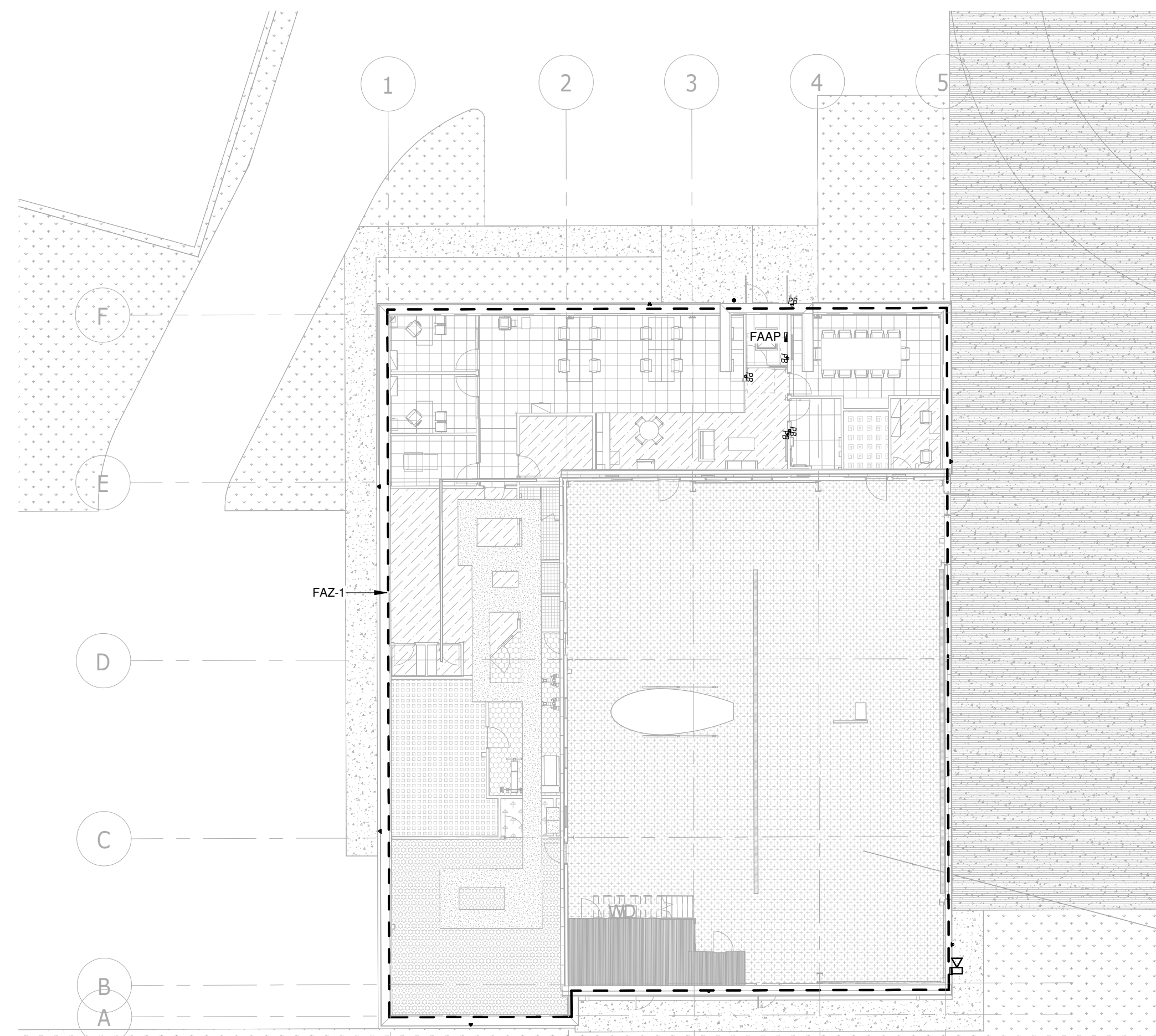
NOTES:

1. CONFIRM EXACT HARDWARE AND ROUGH-IN REQUIREMENTS WITH EMERGENCY CALL SYSTEM VENDOR.
2. CONFIRM EXACT EQUIPMENT LOCATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.

28 26 23 - UNIVERSAL WASHROOM DOOR OPERATOR AND  
EMERGENCY CALL SYSTEM

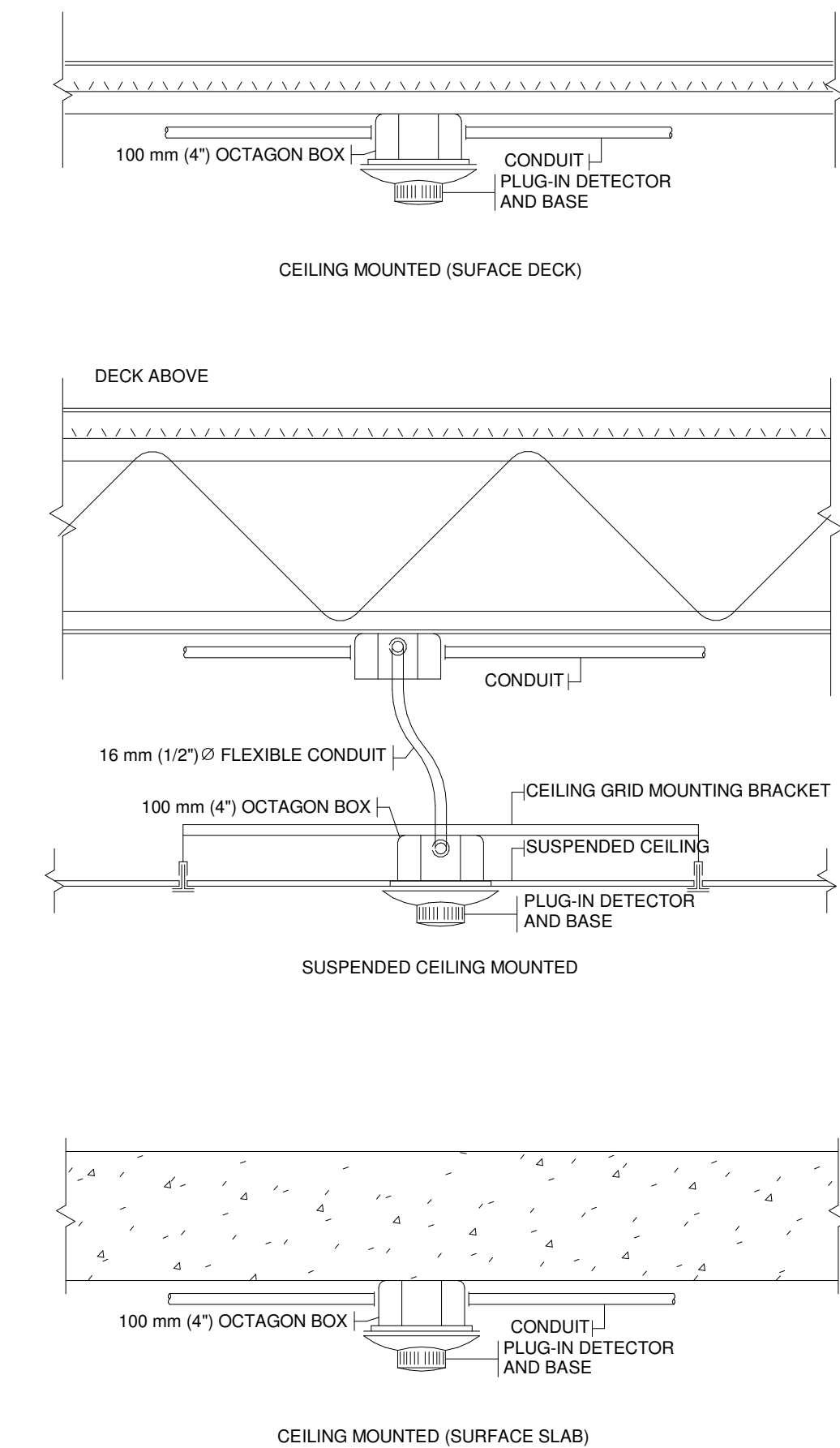
# Universal Washroom Door Operator and Emergency Call System

SCALE:N.T.S.



## FIRE ALARM ZONES

SCALE:N.T.S.



## Typical Smoke Detector Installations

SCALE:N.T.S.

[illegible]

## Issues

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Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

## ELECTRICAL DETAILS

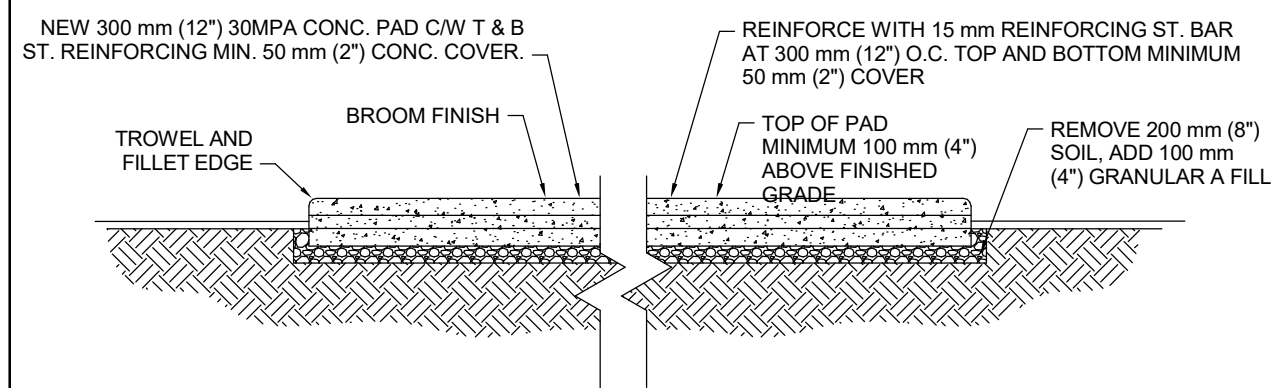
Drawing  
No.  
**E-801**



# YORK REGIONAL POLICE HELICOPTER HANGAR

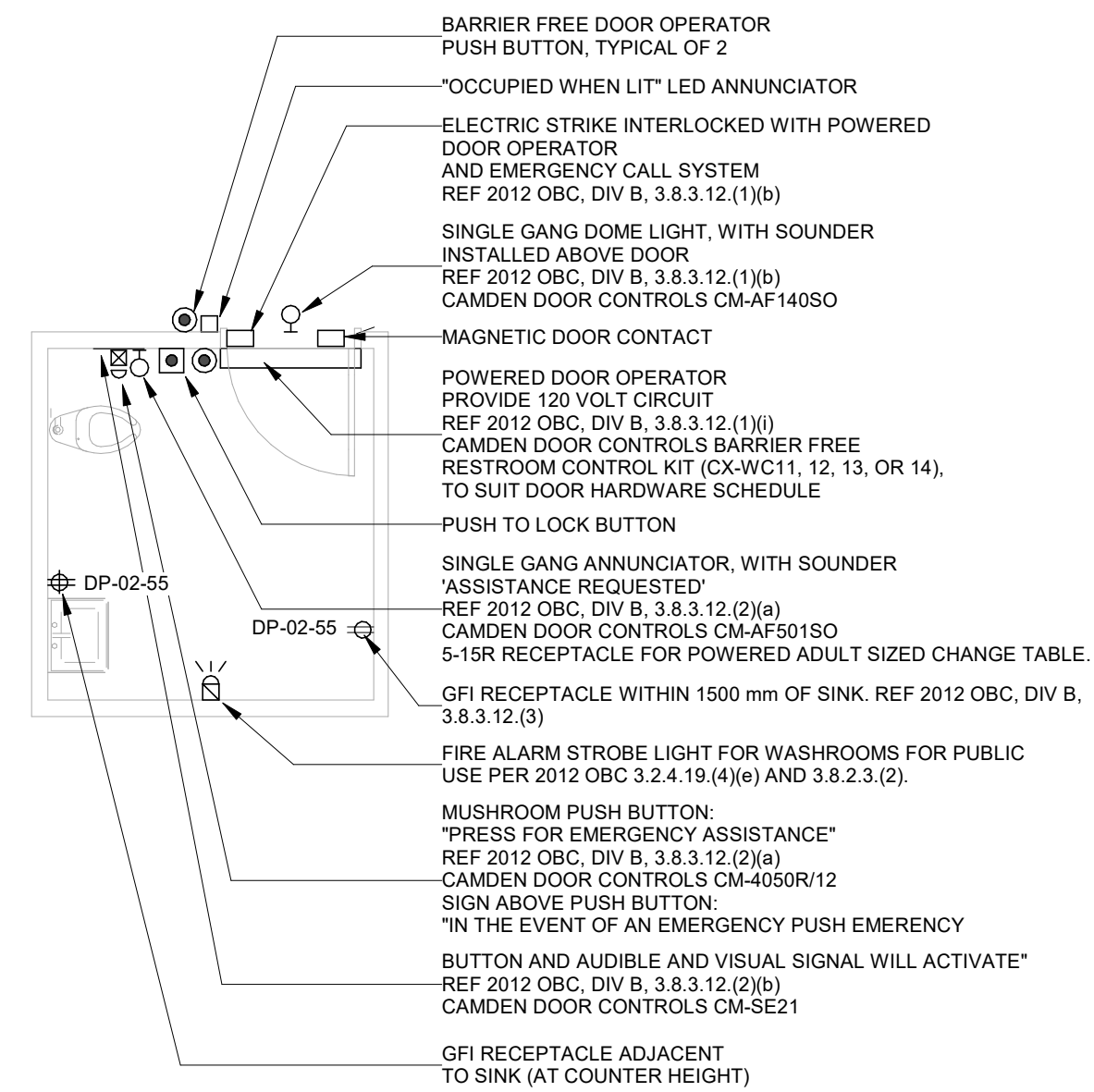
350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



## Cast-In-Place Concrete Generator Pad

SCALE: 1 : 50



UNIVERSAL RESTROOM "EMERGENCY ASSISTANCE" SIGNAL ACTIVATION, ANNUNCIATION AND SUPPORTING SIGNAGE SHALL BE CAMDEN DOOR CONTROLS MODEL CX/WEC10/CX-WEC-11 UNIVERSAL RESTROOM CONTROL KIT.

KIT SHALL INCLUDE:

1. CM-4050R12 SINGLE GAN GUSHROOM PUSH BUTTON, 1/4" THICK BRUSHED ALUMINUM FACELATE AND RED BUTTON, MAINTAINED PUSH/PULL OPERATION WITH "PRESS FOR EMERGENCY ASSISTANCE" PERMANENTLY LASER ETCHED ON THE FACELATE.
2. CM-AF5050 SINGLE GAN LED ANNUNCIATOR WITH SOUNDER, RATED 85 db AT 100 mm, WEATHER AND VANDAL RESISTANT CONSTRUCTION, BRUSHED STAINLESS STEEL FACELATE, WITH "ASSISTANCE REQUIRED" MESSAGE TEXT, THAT IS NOT ILLUMINATED, LESS THE MESSAGE TEXT.
3. CM-AF1450 SINGLE GAN DOME LIGHT WITH PIEZO SOUNDER, RATED 93 db AT 1 METRE, BRUSHED STAINLESS STEEL FACELATE AND 24 V INCANDESCENT BULB, 100 WATT, 120 VOLT, 15" (381 mm) DIA, 15" (381 mm) BY 381 mm (15" BY 15"), FIRE RATED EXPANDED PVC WHITE, WITH 25 mm BLACK TEXTURE, TEXT SHALL BE: "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE".
4. INTERCONNECTED TO THE EMERGENCY PUSH BUTTON DOOR OPERATOR, PUSH TO LOCK BUTTON, ELECTRIC STRIKE, DOOR CONTACT.

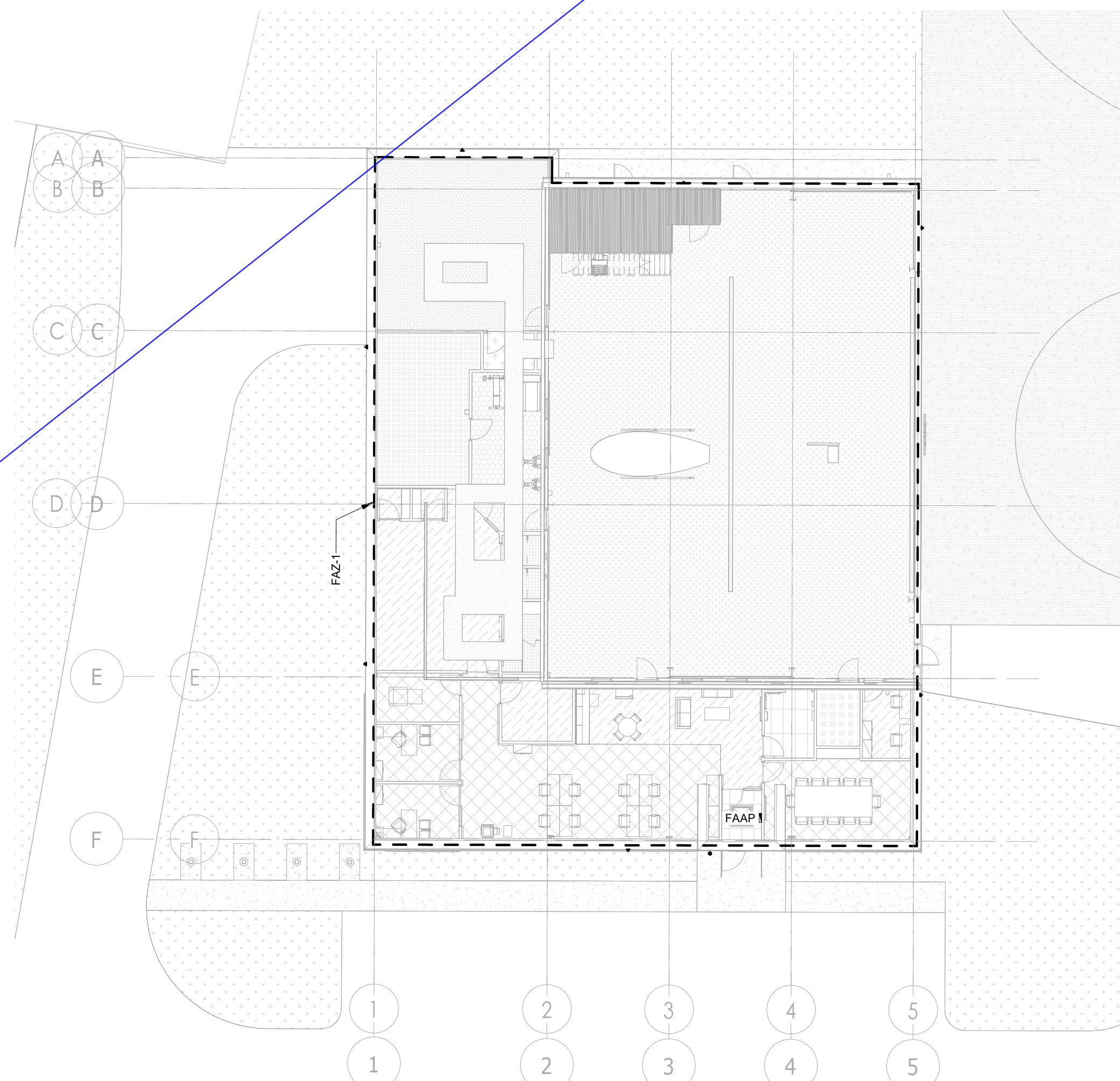
NOTES:

1. CONFIRM EXACT HARDWARE AND ROUGH-IN REQUIREMENTS WITH EMERGENCY CALL SYSTEM VENDOR.
2. CONFIRM EXACT EQUIPMENT LOCATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH IN.

28 26 23 - UNIVERSAL WASHROOM DOOR OPERATOR AND  
EMERGENCY CALL SYSTEM

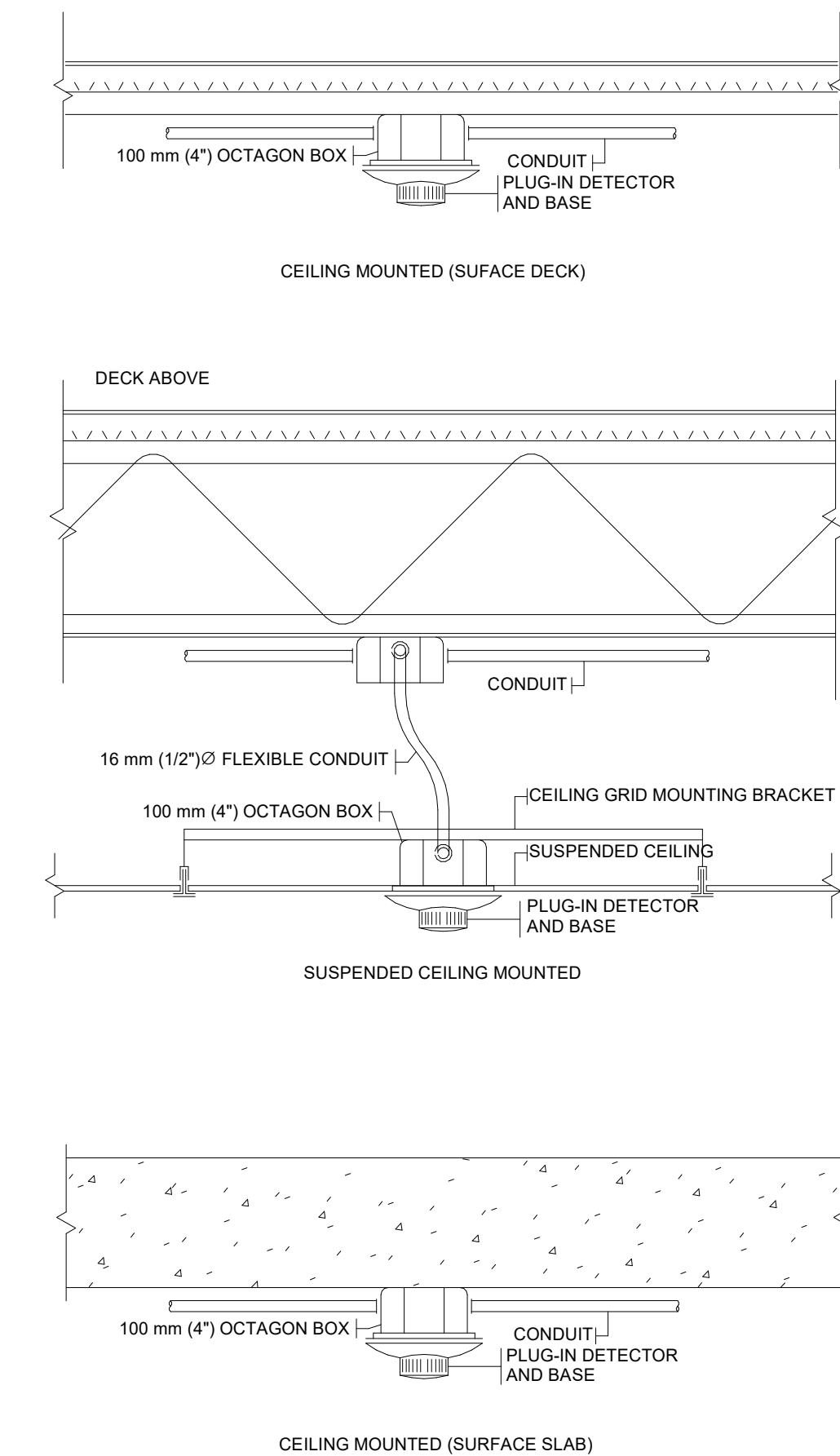
# Universal Washroom Door Operator and Emergency Call System

SCALE:N.T.S.



## FIRE ALARM ZONES

SCALE:N.T.S.



## Typical Smoke Detector Installations

SCALE:N.T.S.

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

## ELECTRICAL DETAILS

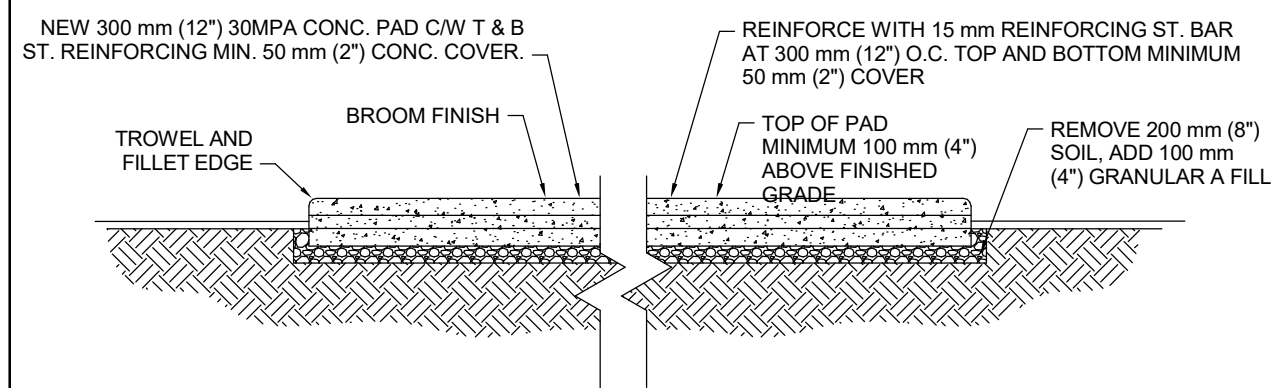
Drawing  
No.  
E-801



# YORK REGIONAL POLICE HELICOPTER HANGAR

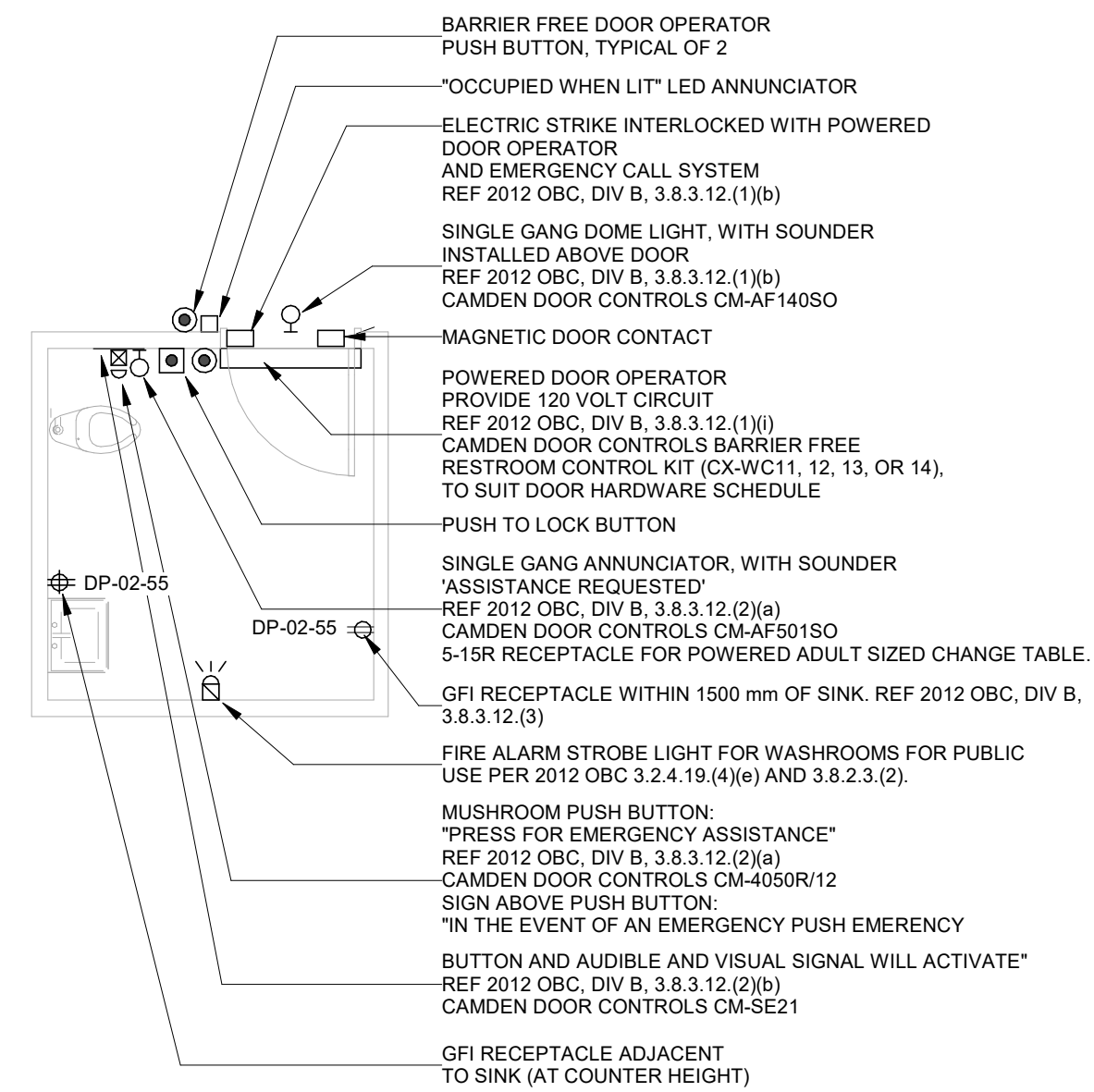
350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



## Cast-In-Place Concrete Generator Pad

SCALE: 1 : 50



UNIVERSAL RESTROOM "EMERGENCY ASSISTANCE" SIGNAL ACTIVATION, ANNUNCIATION AND SUPPORTING SIGNAGE SHALL BE CAMDEN DOOR CONTROLS MODEL CX/WEC10/CX-WEC-11 UNIVERSAL RESTROOM CONTROL KIT.

KIT SHALL INCLUDE:

1. CM-4050R12 SINGLE GAN GUSHMROOM PUSH BUTTON, 1/4" THICK BRUSHED ALUMINUM FACELATE AND RED BUTTON, MAINTAINED PUSH/PULL OPERATION WITH "PRESS FOR EMERGENCY ASSISTANCE" PERMANENTLY LASER ETCHED ON THE FACELATE.
2. CM-AF5050 SINGLE GAN LED ANNUNCIATOR WITH SOUNDER, RATED 85 db AT 100 mm, WEATHER AND VANDAL RESISTANT CONSTRUCTION, BRUSHED STAINLESS STEEL FACELATE, WITH "ASSISTANCE REQUIRED" MESSAGE TEXT, THAT IS NOT REVERSIBLE, LESS THE MESSAGE TEXT.
3. CM-AF14050 SINGLE GAN DOME LIGHT WITH PIEZO SOUNDER, RATED 93 db AT 1 METRE, BRUSHED STAINLESS STEEL FACELATE AND 24 V INCANDESCENT BULB, 150 WATT, 120 V, 60 HZ, 3000 HOURS, 1000000 CYCLES, 381 mm BY 381 mm (15" BY 15"), FIRE RATED EXPANDED PVC WHITE, WITH 25 mm BLACK TEXTURE, TEXT SHALL BE: "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE".
4. INTERCONNECTED TO THE EMERGENCY PUSH/DOOR OPERATOR, PUSH TO LOCK BUTTON, ELECTRIC STRIKE, DOOR CONTACT.

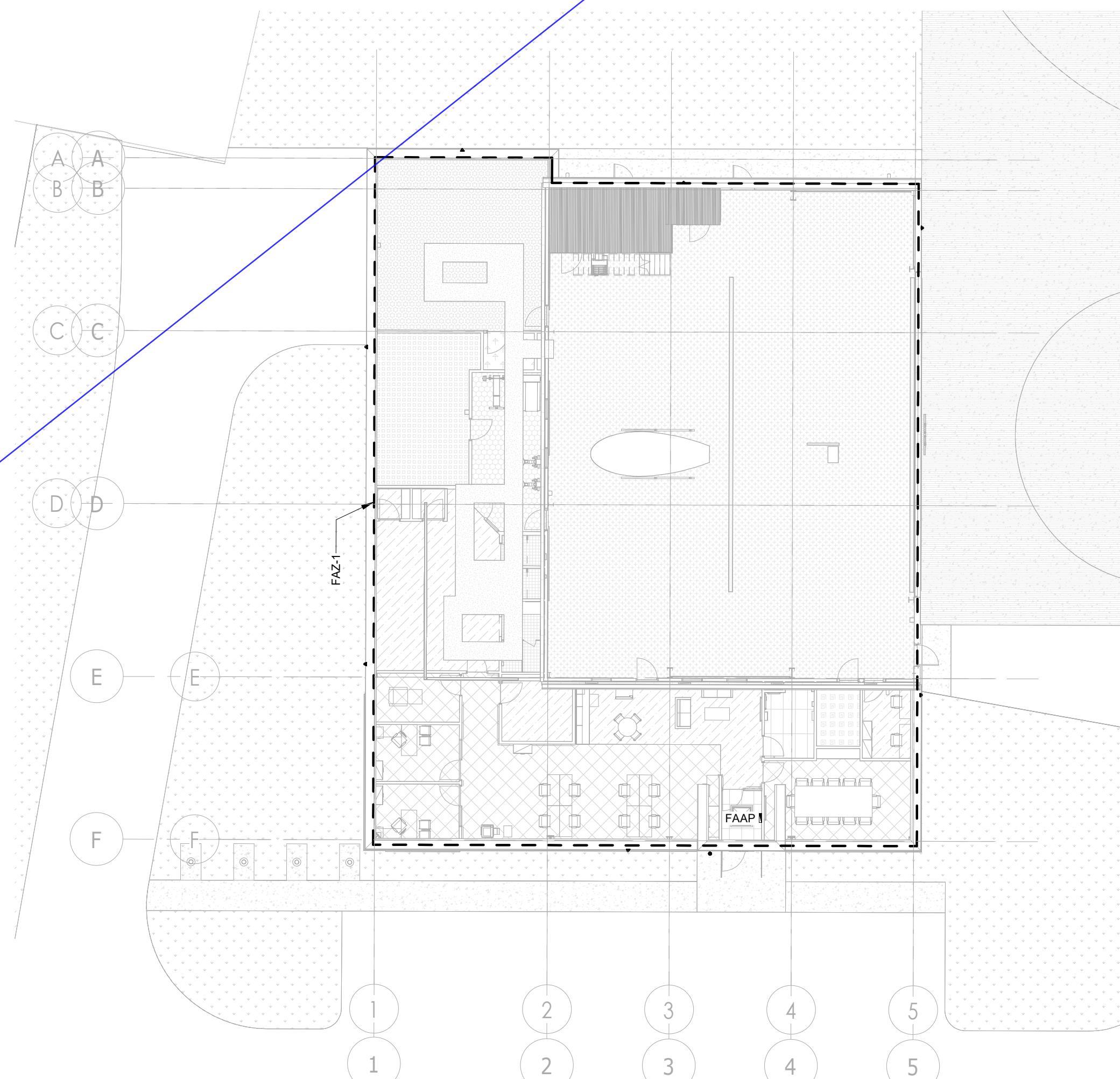
NOTES:

1. CONFIRM EXACT HARDWARE AND ROUGH-IN REQUIREMENTS WITH EMERGENCY CALL SYSTEM VENDOR.
2. CONFIRM EXACT EQUIPMENT LOCATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH IN.

28 26 23 - UNIVERSAL WASHROOM DOOR OPERATOR AND  
EMERGENCY CALL SYSTEM

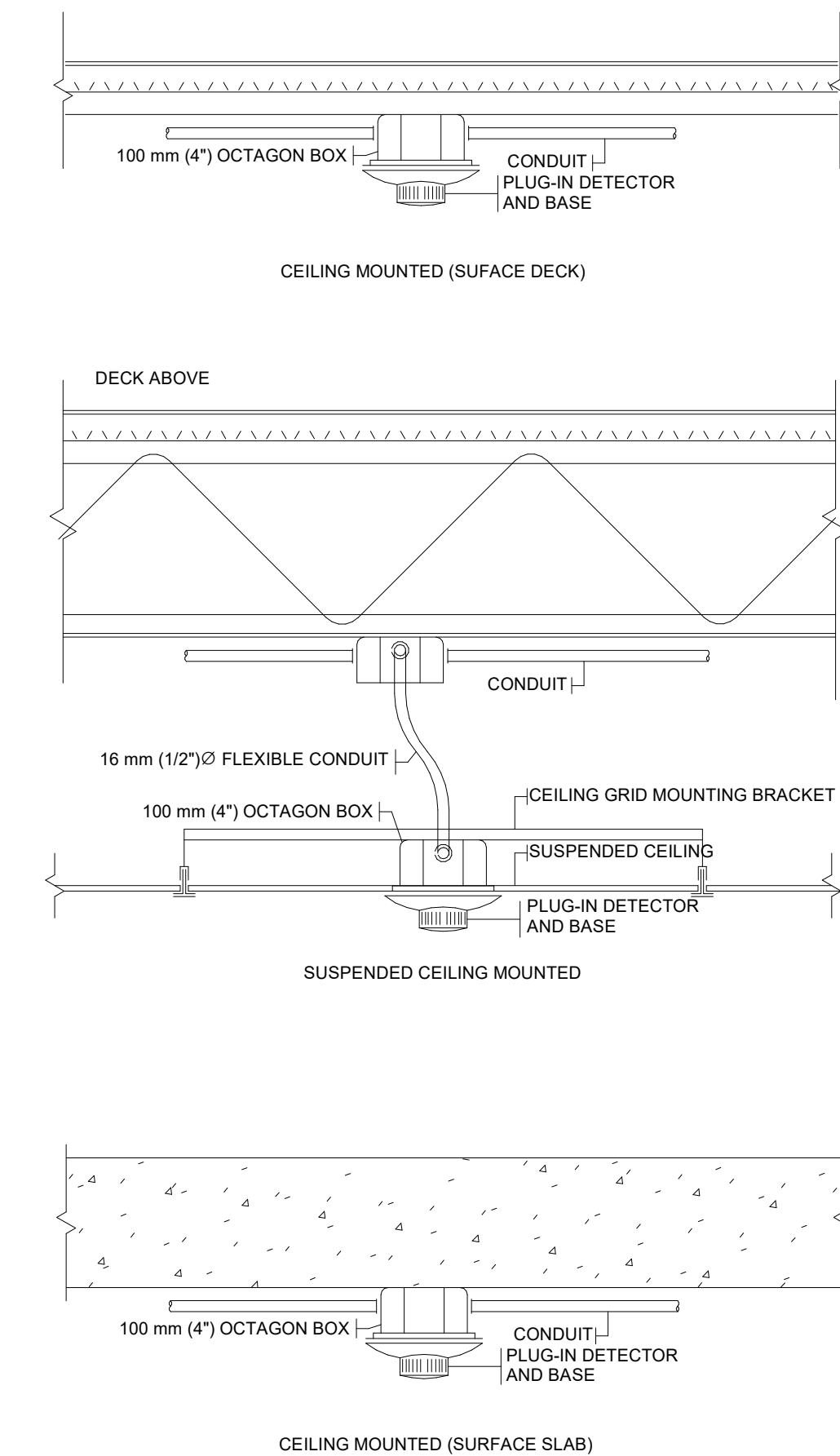
# Universal Washroom Door Operator and Emergency Call System

SCALE:N.T.S.



## FIRE ALARM ZONES

SCALE:N.T.S.



## Typical Smoke Detector Installations

SCALE:N.T.S.

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

## ELECTRICAL DETAILS

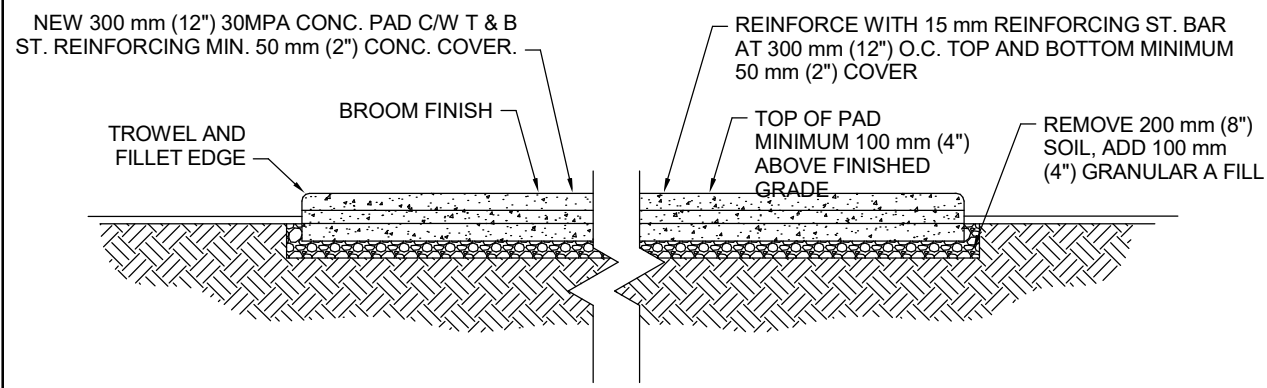
Drawing  
No.  
**E-801**



YORK REGIONAL POLICE  
HELICOPTER HANGAR

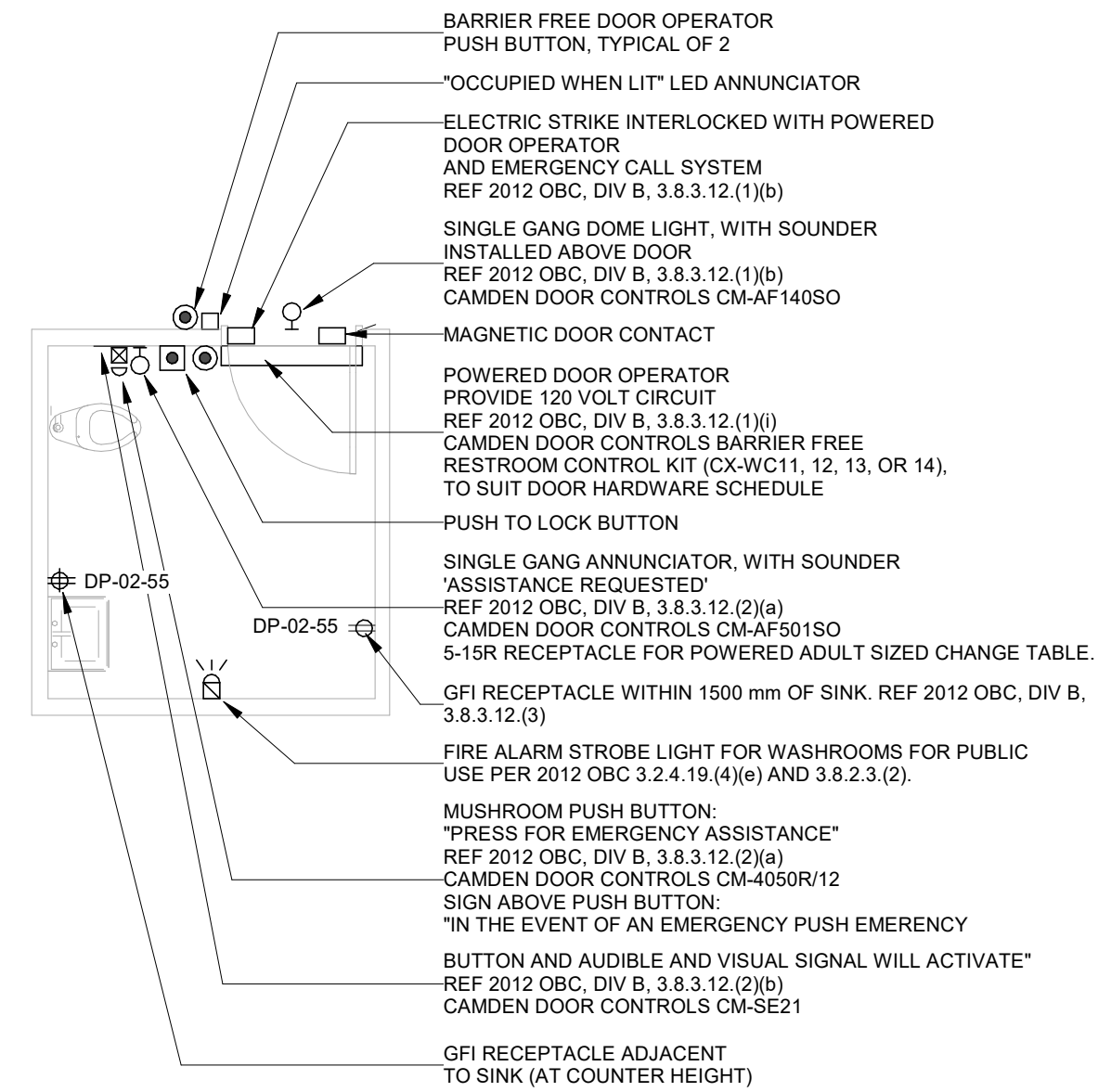
350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



## Cast-In-Place Concrete Generator Pad

SCALE: 1 : 50



UNIVERSAL RESTROOM "EMERGENCY ASSISTANCE" SIGNAL ACTIVATION, ANNUNCIATION AND SUPPORTING SIGNAGE SHALL BE CAMDEN DOOR CONTROLS MODEL CX/WEC10/CX-WEC-11 UNIVERSAL RESTROOM CONTROL KIT.

KIT SHALL INCLUDE:

1. CM-4050R12 SINGLE GAN GUSHMROOM PUSH BUTTON, 1/4" THICK BRUSHED ALUMINUM FACELATE AND RED BUTTON, MAINTAINED PUSH/PULL OPERATION WITH "PRESS FOR EMERGENCY ASSISTANCE" PERMANENTLY LASER ETCHED ON THE FACELATE.
2. CM-AF5050 SINGLE GAN LED ANNUNCIATOR WITH SOUNDER, RATED 85 db AT 100 mm, WEATHER AND VANDAL RESISTANT CONSTRUCTION, BRUSHED STAINLESS STEEL FACELATE, WITH "ASSISTANCE REQUIRED" MESSAGE TEXT, THAT IS NOT REVERSIBLE, LESS THE MESSAGE TEXT.
3. CM-AF14050 SINGLE GAN DOME LIGHT WITH PIEZO SOUNDER, RATED 93 db AT 1 METRE, BRUSHED STAINLESS STEEL FACELATE AND 24 V INCANDESCENT BULB, 100 WATT, 120 VOLT, 15" (381 mm) DIA, 15" (381 mm) BY 381 mm (15" BY 15"), FIRE RATED EXPANDED PVC WHITE, WITH 25 mm BLACK TEXTURE, TEXT SHALL BE: "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE".
4. INTERCONNECTED TO THE EMERGENCY PUSH BUTTON DOOR OPERATOR, PUSH TO LOCK BUTTON, ELECTRIC STRIKE, DOOR CONTACT.

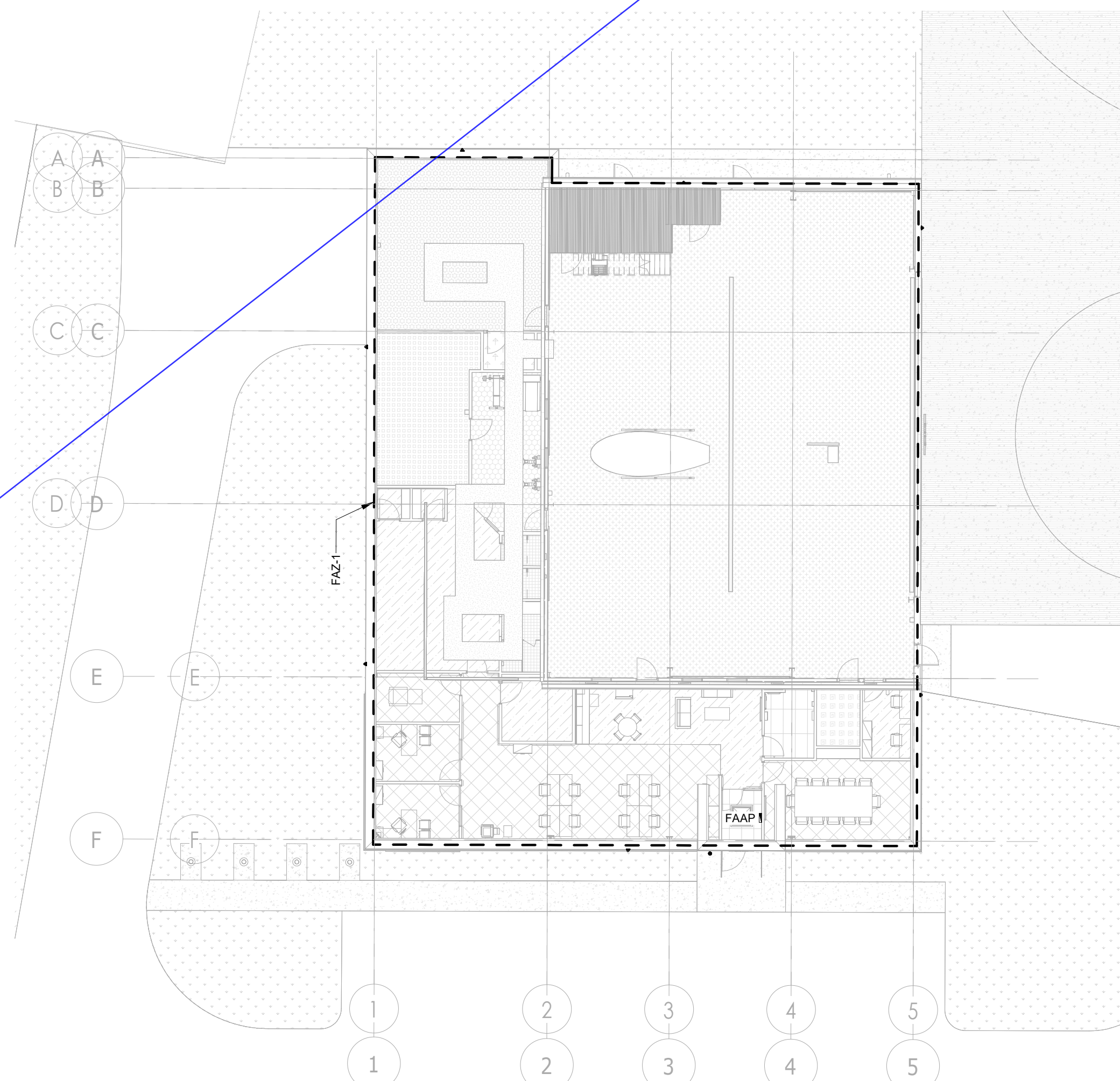
NOTES:

1. CONFIRM EXACT HARDWARE AND ROUGH-IN REQUIREMENTS WITH EMERGENCY CALL SYSTEM VENDOR.
2. CONFIRM EXACT EQUIPMENT LOCATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.

28 26 23 - UNIVERSAL WASHROOM DOOR OPERATOR AND  
EMERGENCY CALL SYSTEM

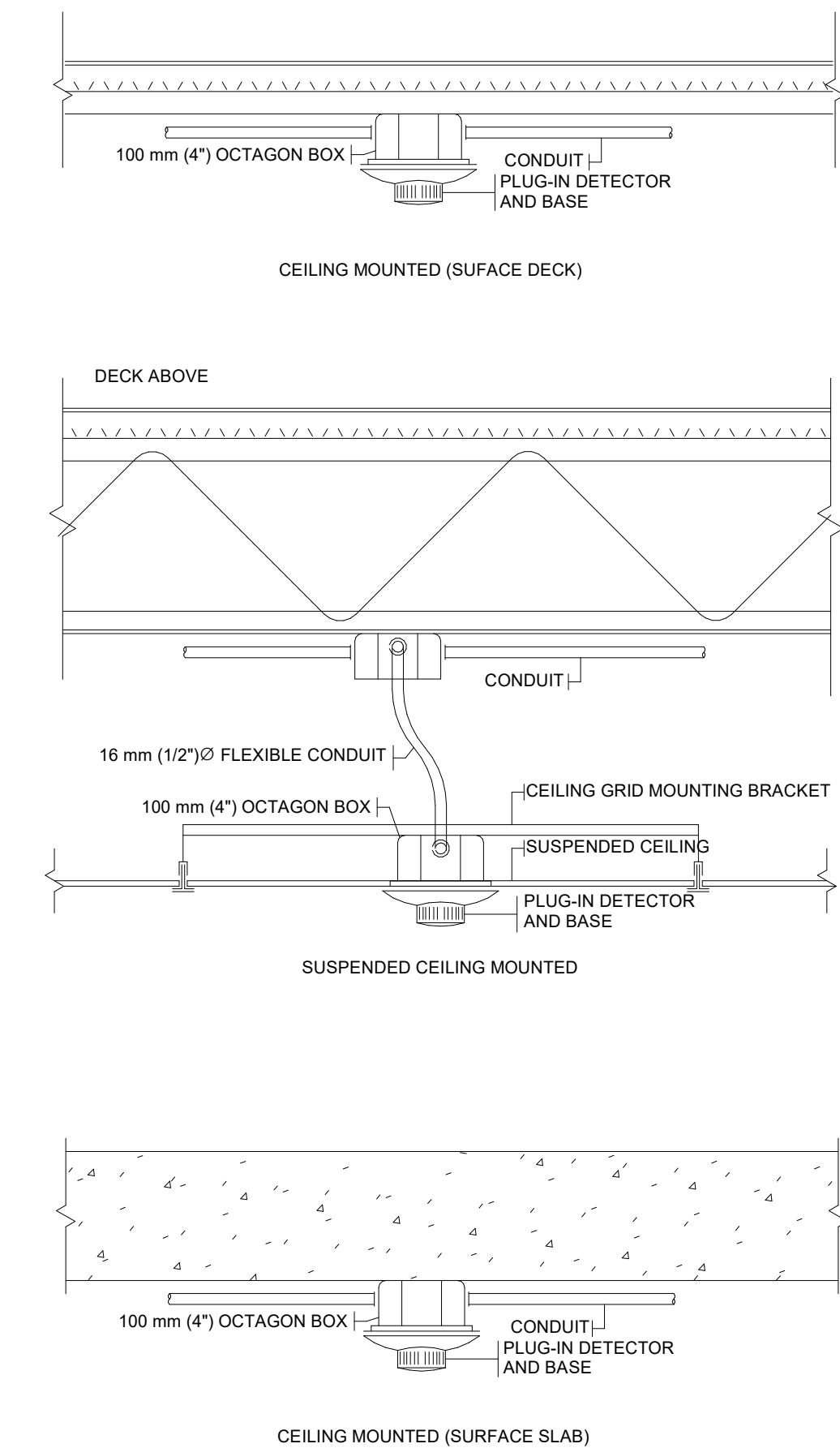
# Universal Washroom Door Operator and Emergency Call System

SCALE:N.T.S.



## FIRE ALARM ZONES

SCALE:N.T.S.



## Typical Smoke Detector Installations

SCALE:N.T.S.

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

## ELECTRICAL DETAILS

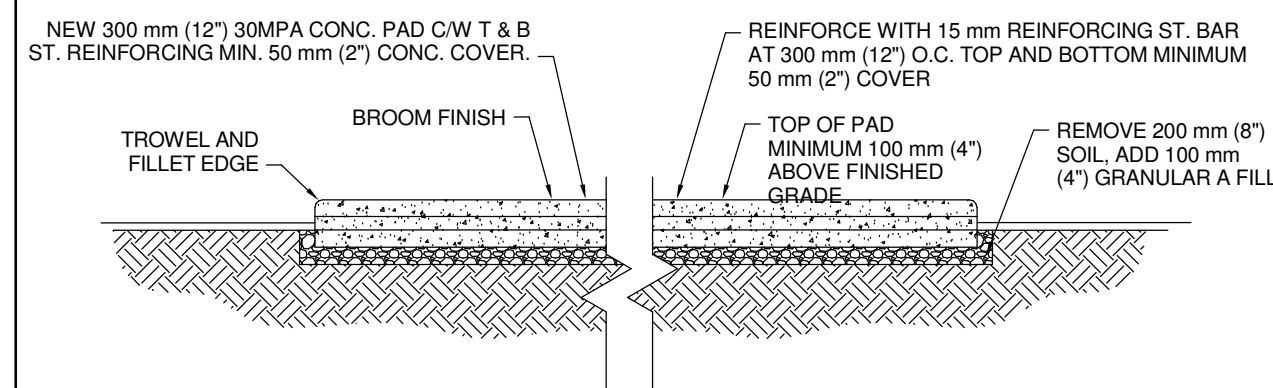
Drawing  
No.  
**E-801**



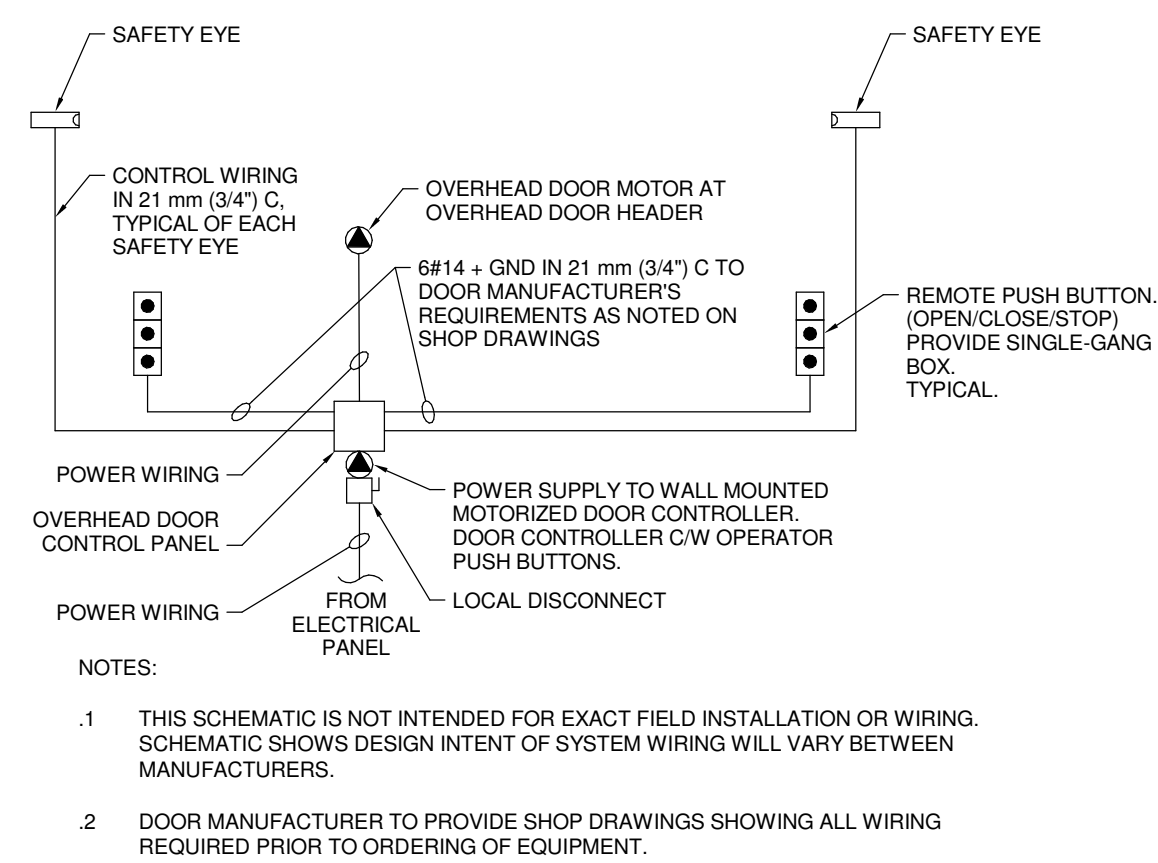
YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

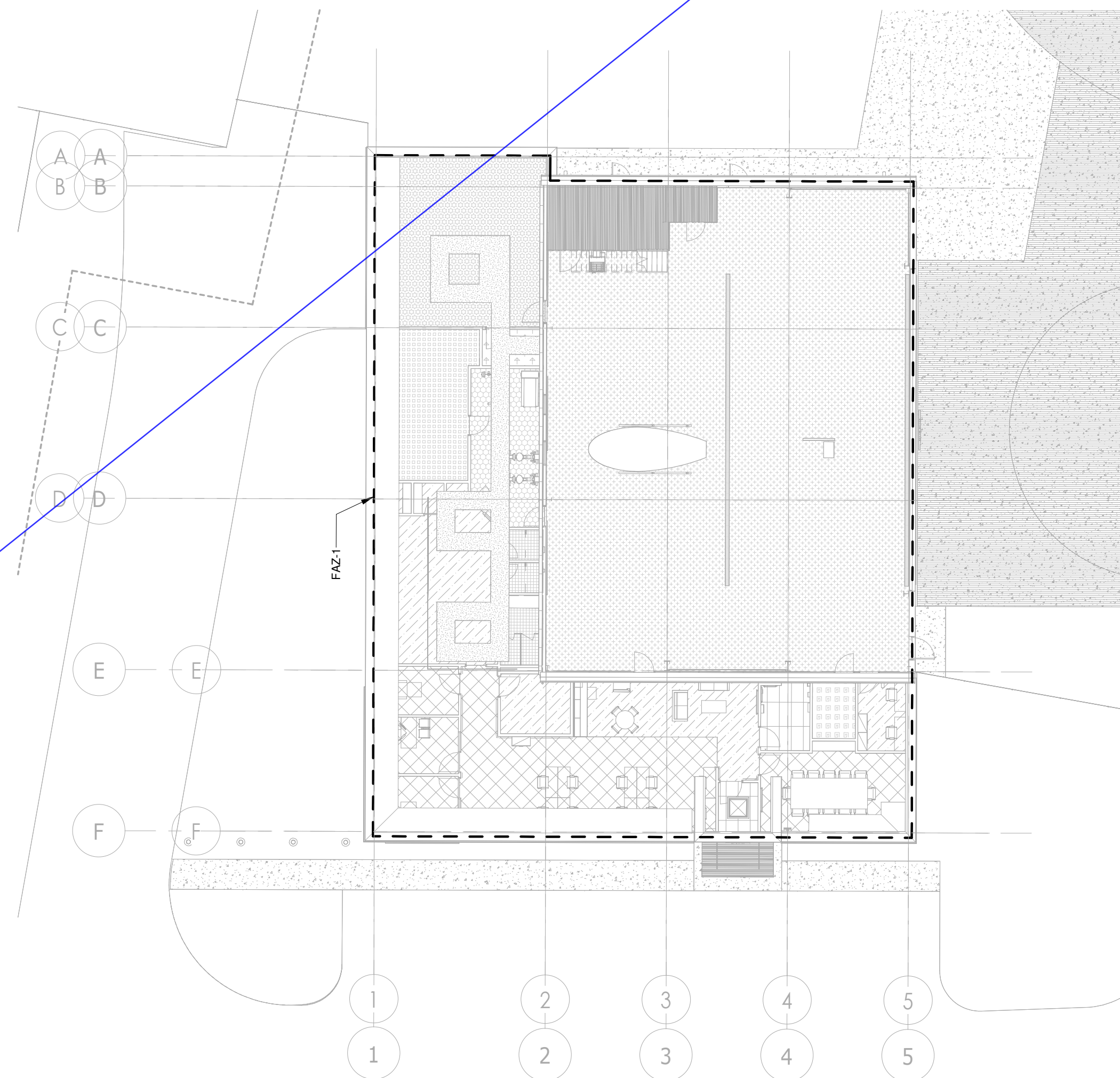
## Key Plan



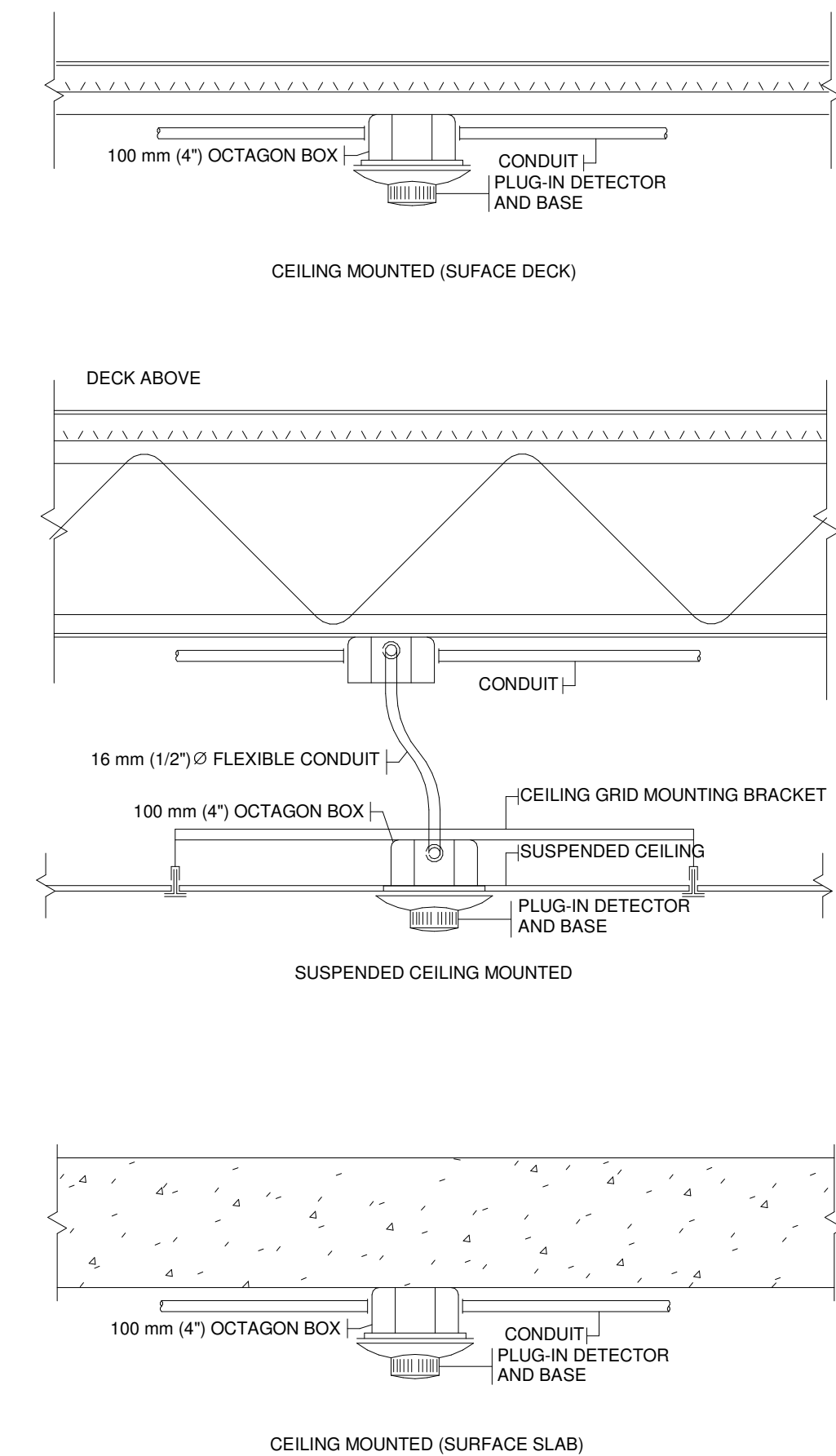
4 Cast-In-Place Concrete Generator Pad  
SCALE: 1 : 50



## 5 Wiring Diagram for Overhead Doors



2 FIRE ALARM ZONES  
SCALE: N.T.S.



1 Typical Smoke Detector Installations  
SCALE:N.T.S.

[illegible]

## Issues

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Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title: ELECTRICAL DETAILS

Drawing  
No. **E-801**



YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

MAXIMUM BRANCH WIRING DISTANCE FOR 120 V SYSTEM AT 2% VOLTAGE DROP										
WIRE SIZE	BREAKER SIZE (AMPERES)	15	20	30	40	50	60	70	80	100
	MAX. LOAD AT 80% (AMPERES)	12	16	24	32	40	48	56	68	80
NO.12	-----	16.8	12.2	-----	-----	-----	-----	-----	-----	-----
NO.10	-----	25.9	19.0	12.9	-----	-----	-----	-----	-----	-----
NO.8	-----	39.6	30.4	20.5	15.2	-----	-----	-----	-----	-----
NO. 6	-----	62.4	47.2	32.0	23.6	19.0	16.0	-----	-----	-----
NO. 4	-----	99.0	73.1	50.2	38.1	30.4	24.3	21.3	19.0	-----
NO. 2	-----	-----	114.3	77.2	57.9	47.2	38.8	33.5	28.9	22.8
NO. 1	-----	-----	-----	96.0	73.1	57.9	47.2	42.6	36.5	27.4
NO. 1/0	-----	-----	-----	-----	85.3	68.5	56.3	48.7	41.9	33.5
NO. 2/0	-----	-----	-----	-----	102.8	80.7	67.0	57.9	50.2	40.3
NO. 3/0	-----	-----	-----	-----	-----	95.2	79.2	68.5	59.4	47.2
NO. 4/0	-----	-----	-----	-----	-----	-----	92.9	79.2	70.1	56.3
250 MCM	-----	-----	-----	-----	-----	-----	102.8	86.8	76.2	60.9
300 MCM	-----	-----	-----	-----	-----	-----	-----	100.5	88.3	70.1

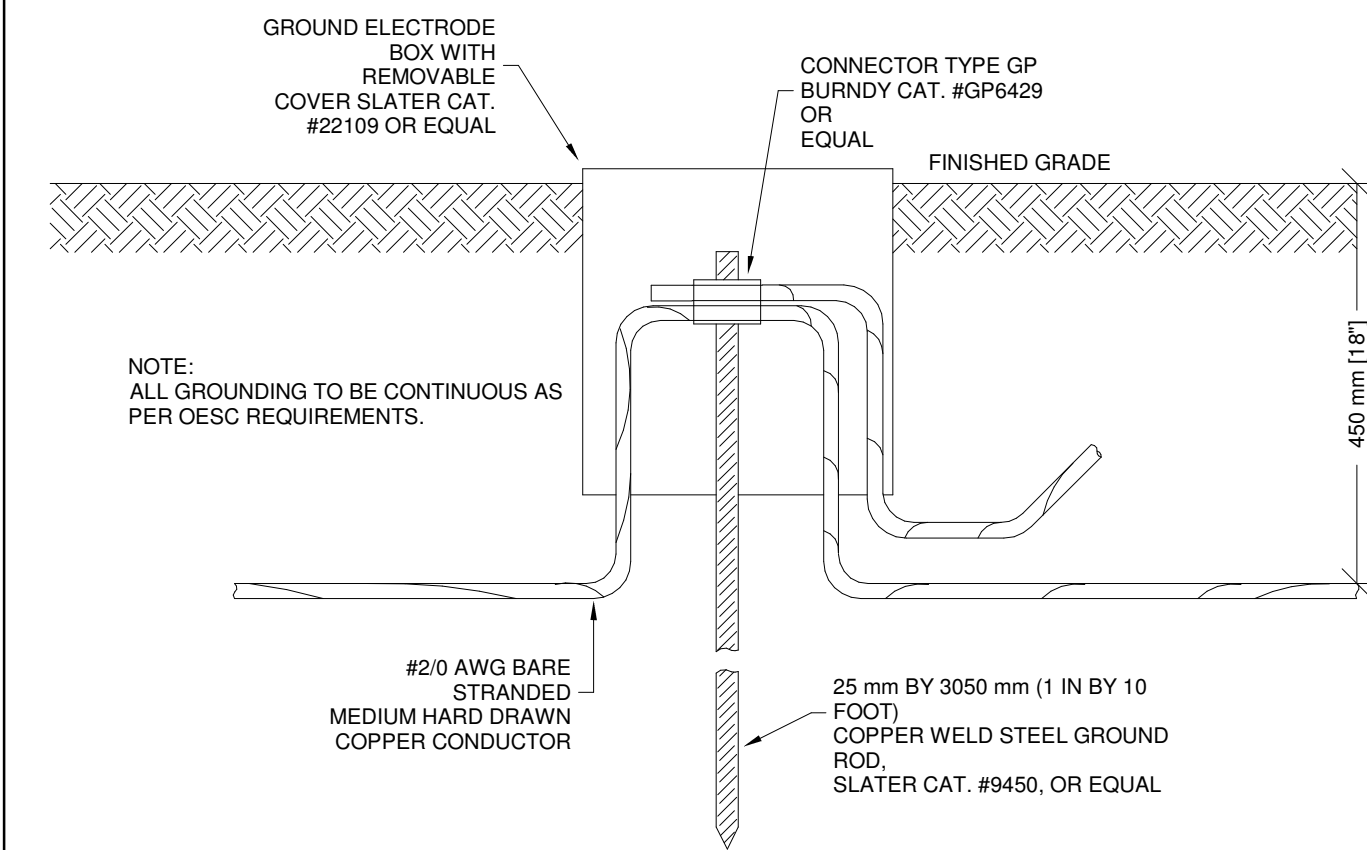
NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE

1 Max Branch Wiring Distance for 120 V System at 2% Voltage Drop  
SCALE:N.T.S.

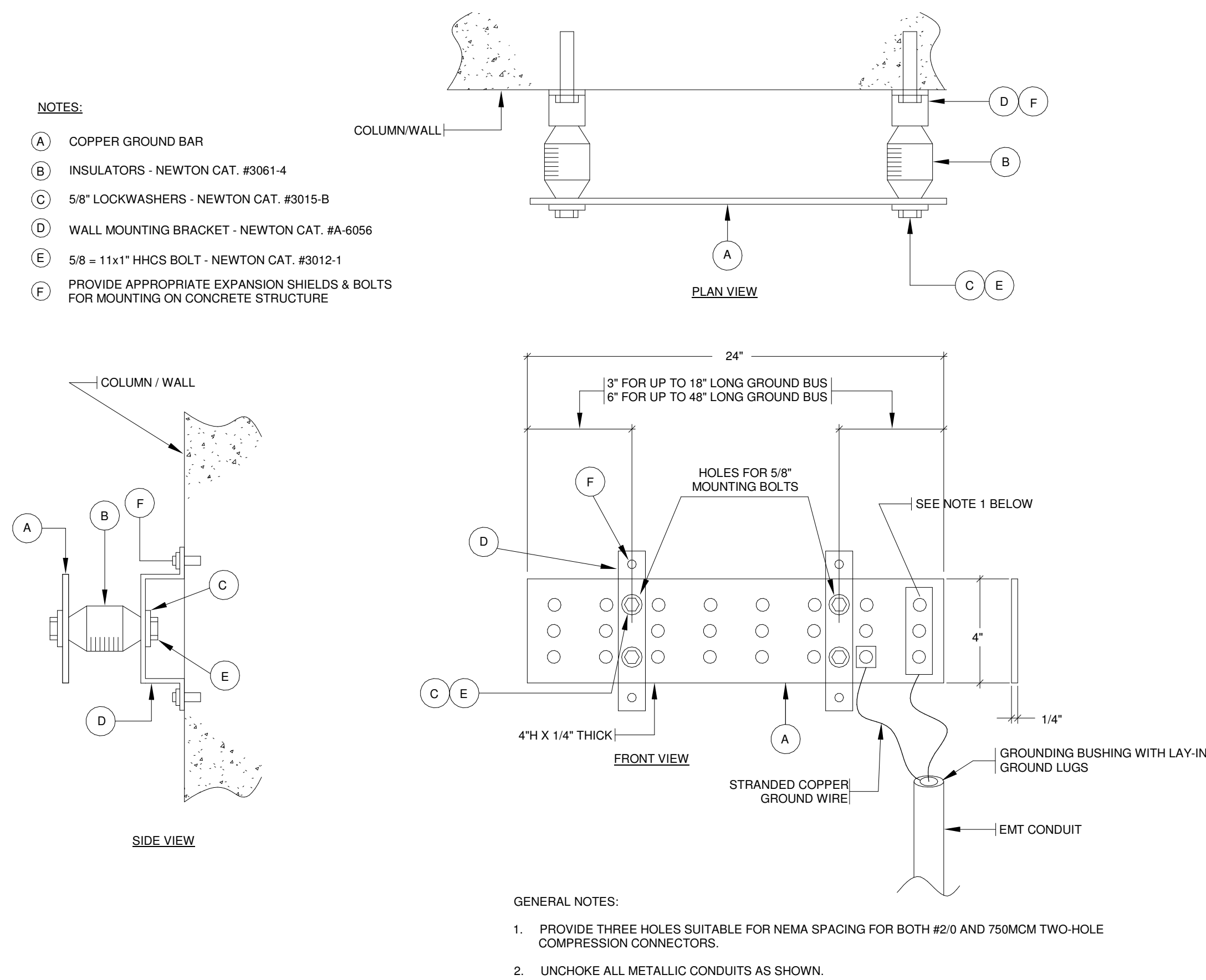
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NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE.

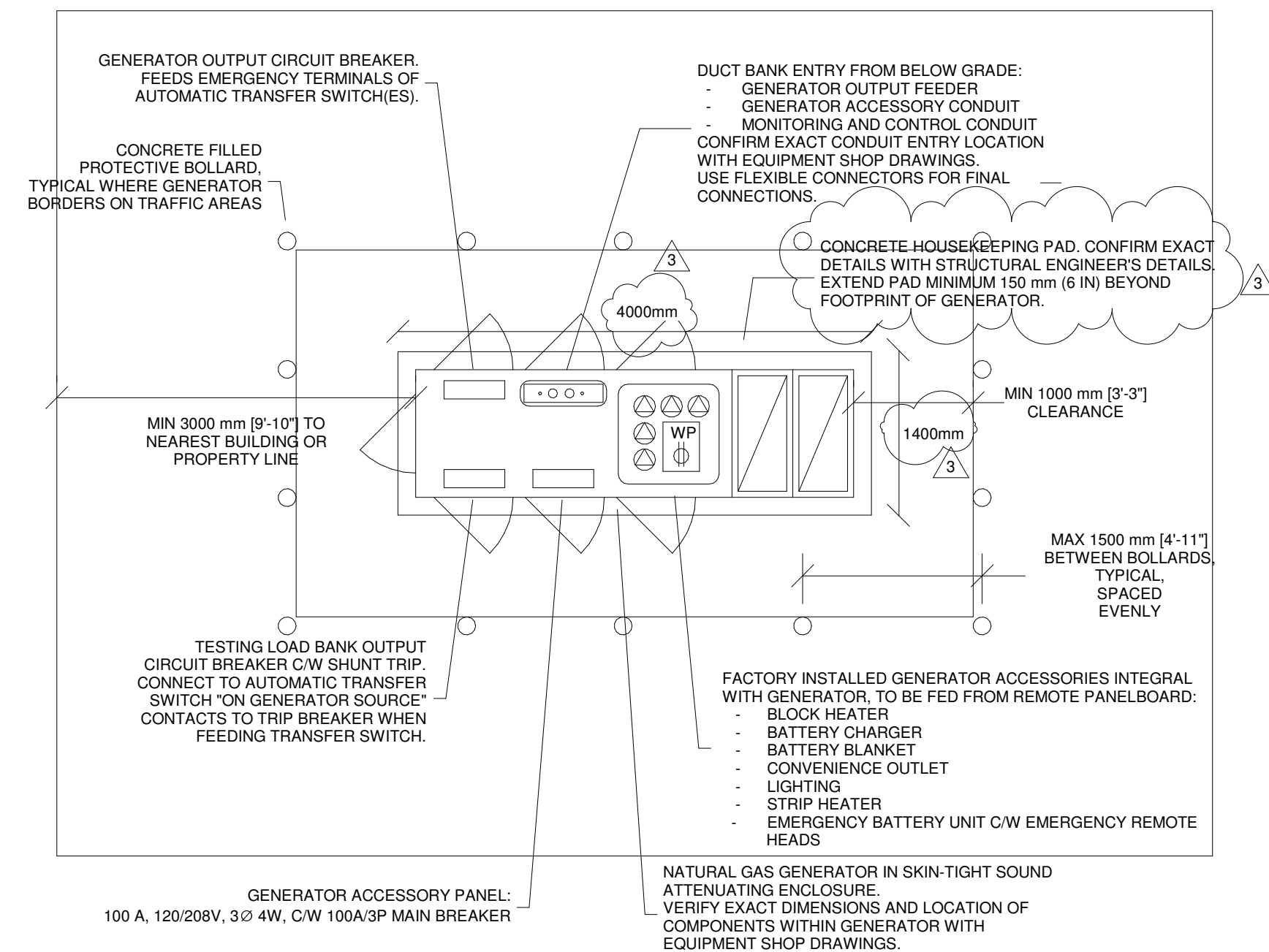
2 Max Branch Wiring Distance for 120 V System at 3% Voltage Drop  
SCALE:N.T.S.



3 Ground Rod  
SCALE:N.T.S.



4 Grounding Bar Detail  
SCALE:N.T.S.



5 Skintight Gas Generator Plan  
SCALE:N.T.S.

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: N.T.S.

Sheet  
Title: ELECTRICAL DETAILS

Drawing  
No.  
**E-802**



# YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

[illegible]

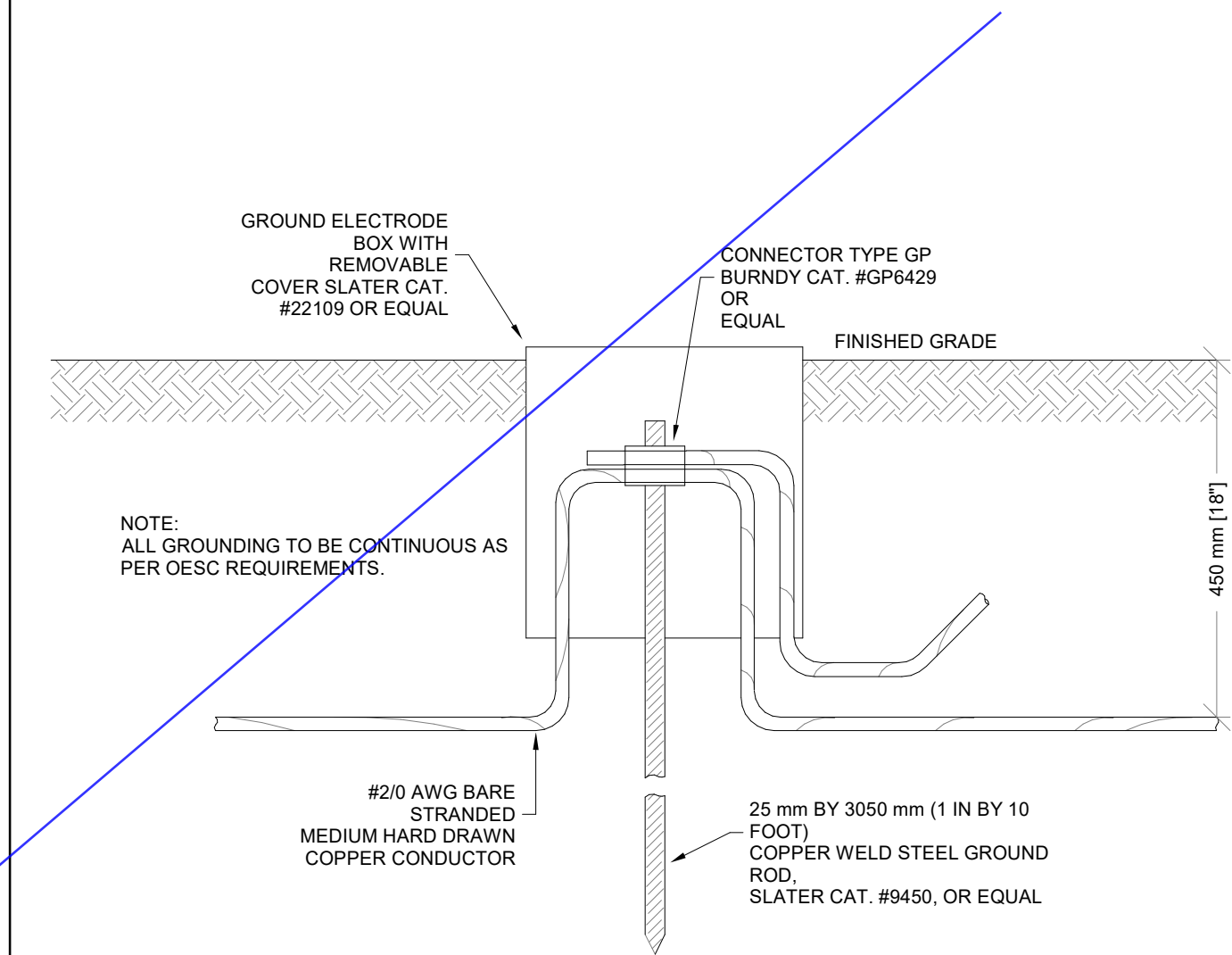
NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE

1 Max Branch Wiring Distance for 120 V System at 2% Voltage Drop  
SCALE:N.T.S.

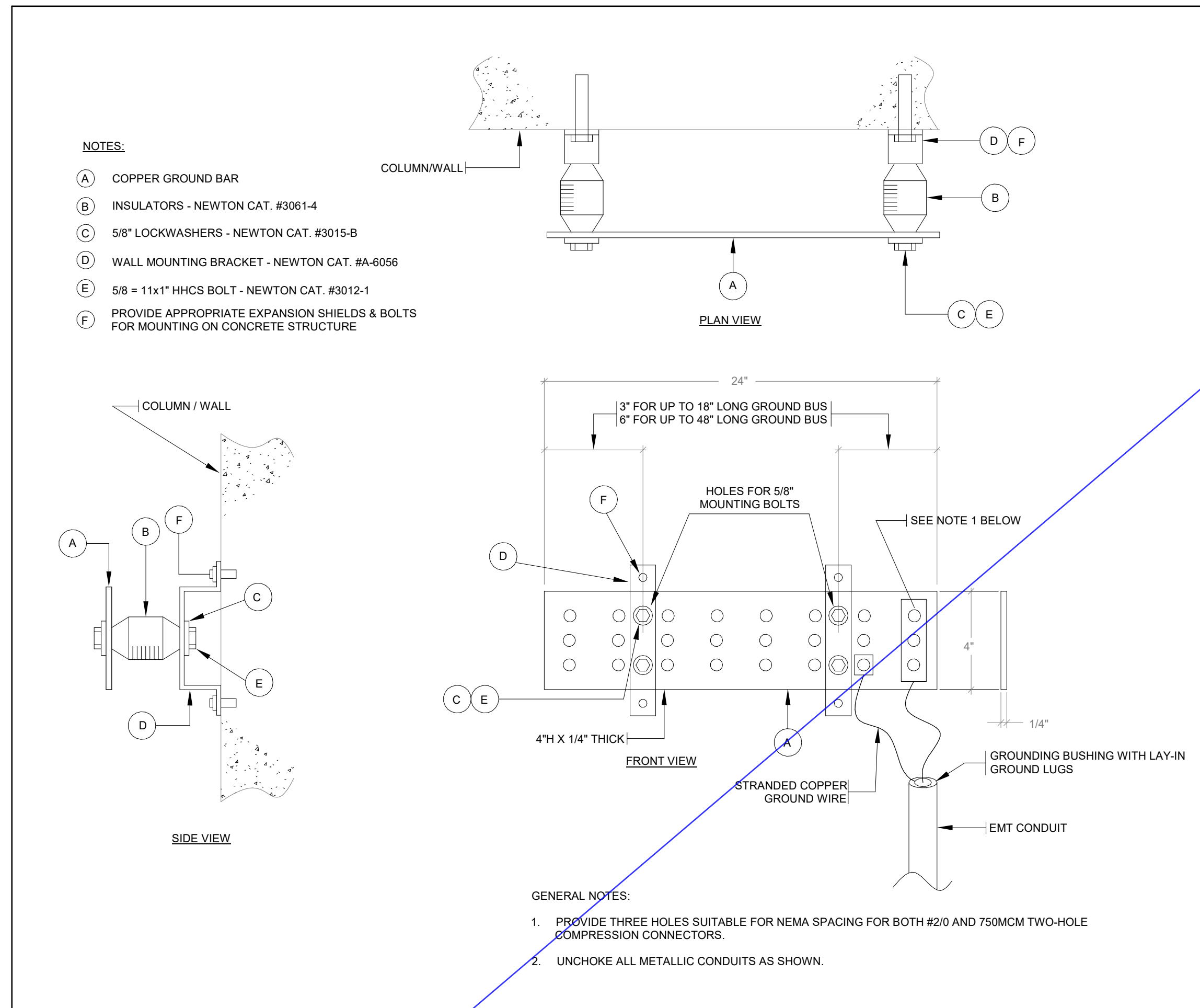
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NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE.

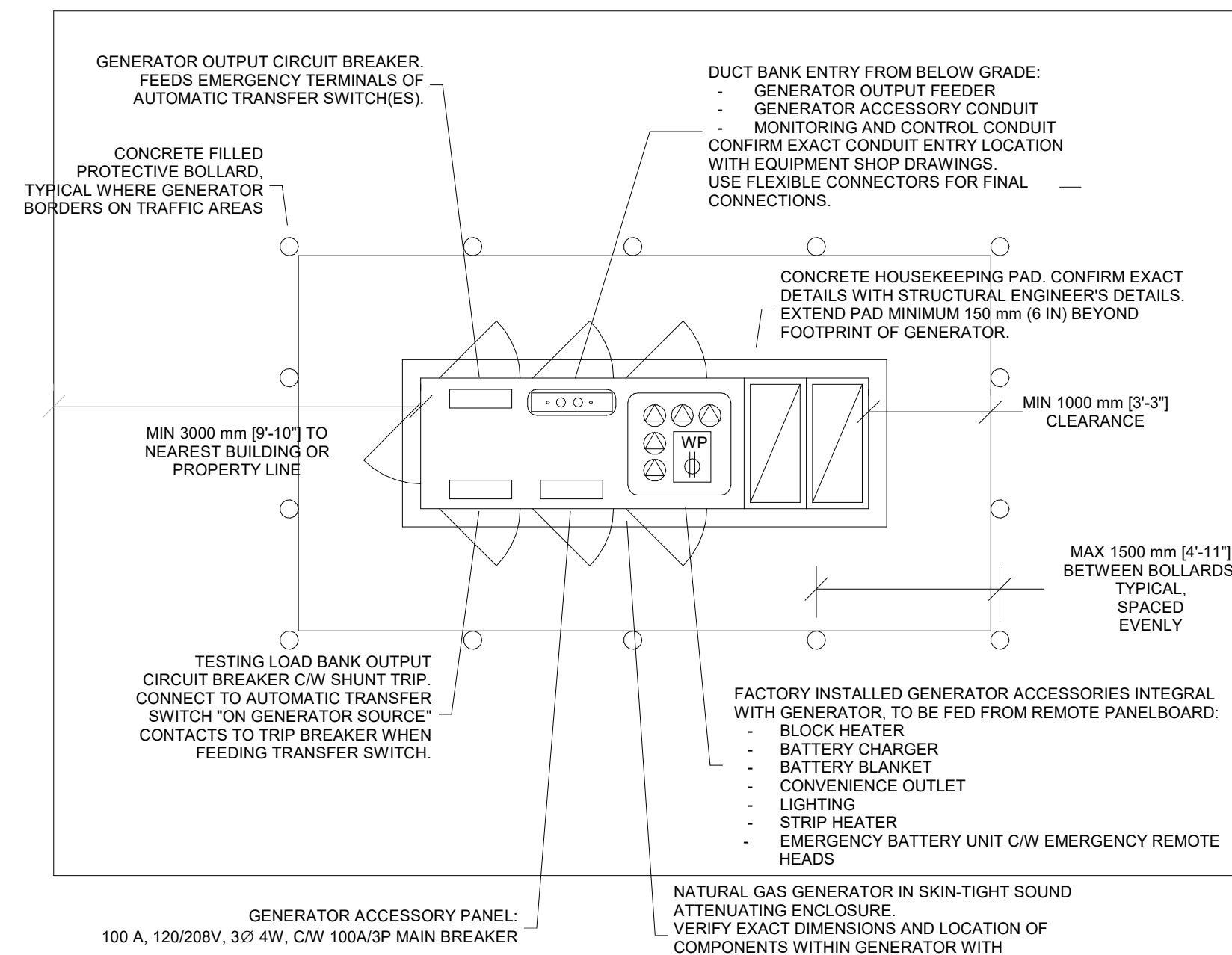
2 Max Branch Wiring Distance for 120 V System at 3% Voltage Drop  
SCALE:N.T.S.



3 Ground Rod  
SCALE:N.T.S.



4 Grounding Bar Detail  
SCALE:N.T.S.



5 Skintight Gas Generator Plan  
SCALE:N.T.S.

[illegible]

## Issues

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Do not scale drawings

Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: N.T.S.

Sheet  
Title:

## ELECTRICAL DETAILS

Drawing  
No.  
**E-802**



2024-10-07 7:06:03 PM  
Autodesk Docs://2402 - YRP Helicopter Hanger/TT-24-005-YRP-QCG ME Model\_R24.rvt



YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

### Key Plan

[illegible]

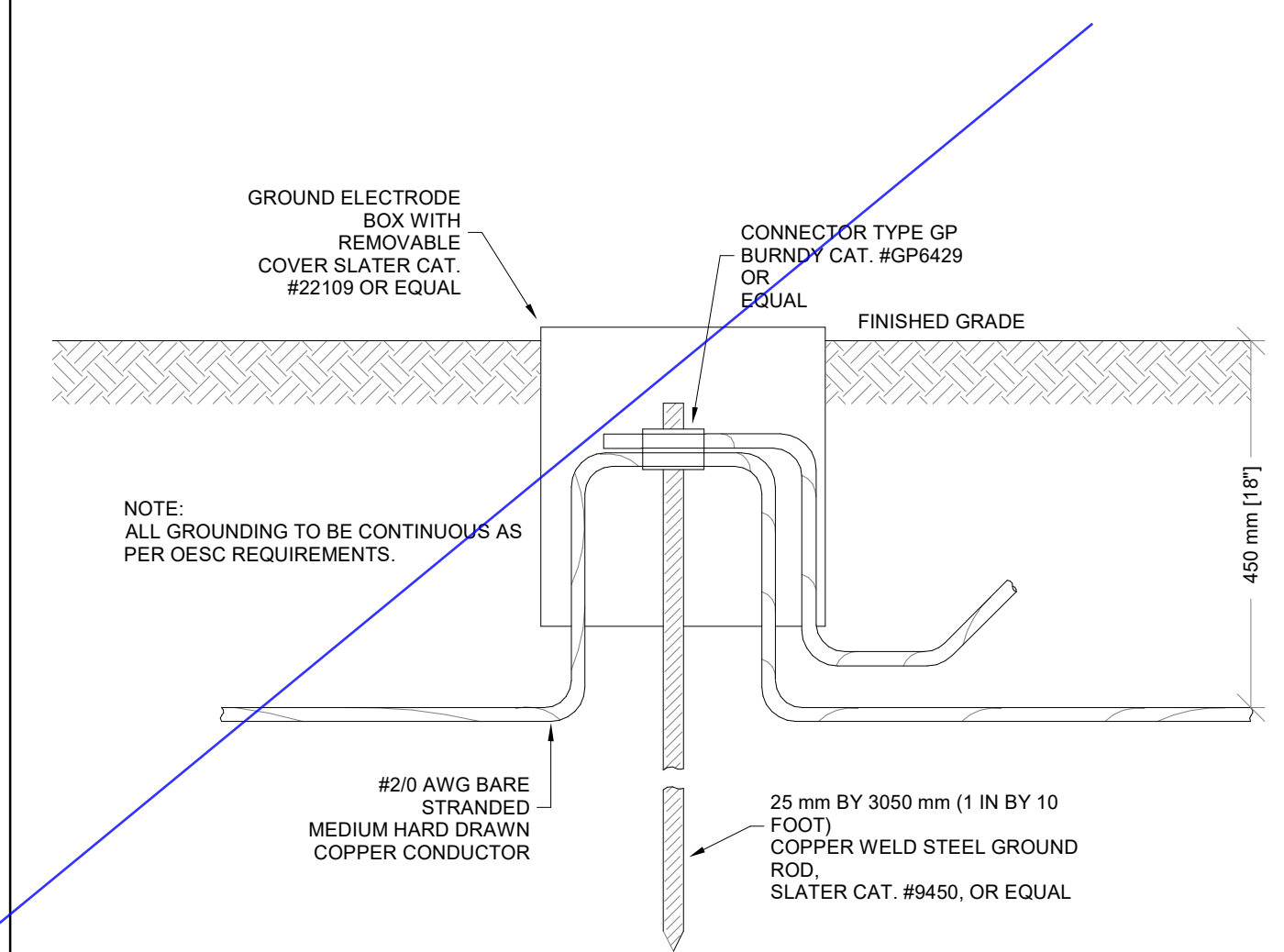
NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE

1 Max Branch Wiring Distance for 120 V System at 2% Voltage Drop  
SCALE:N.T.S.

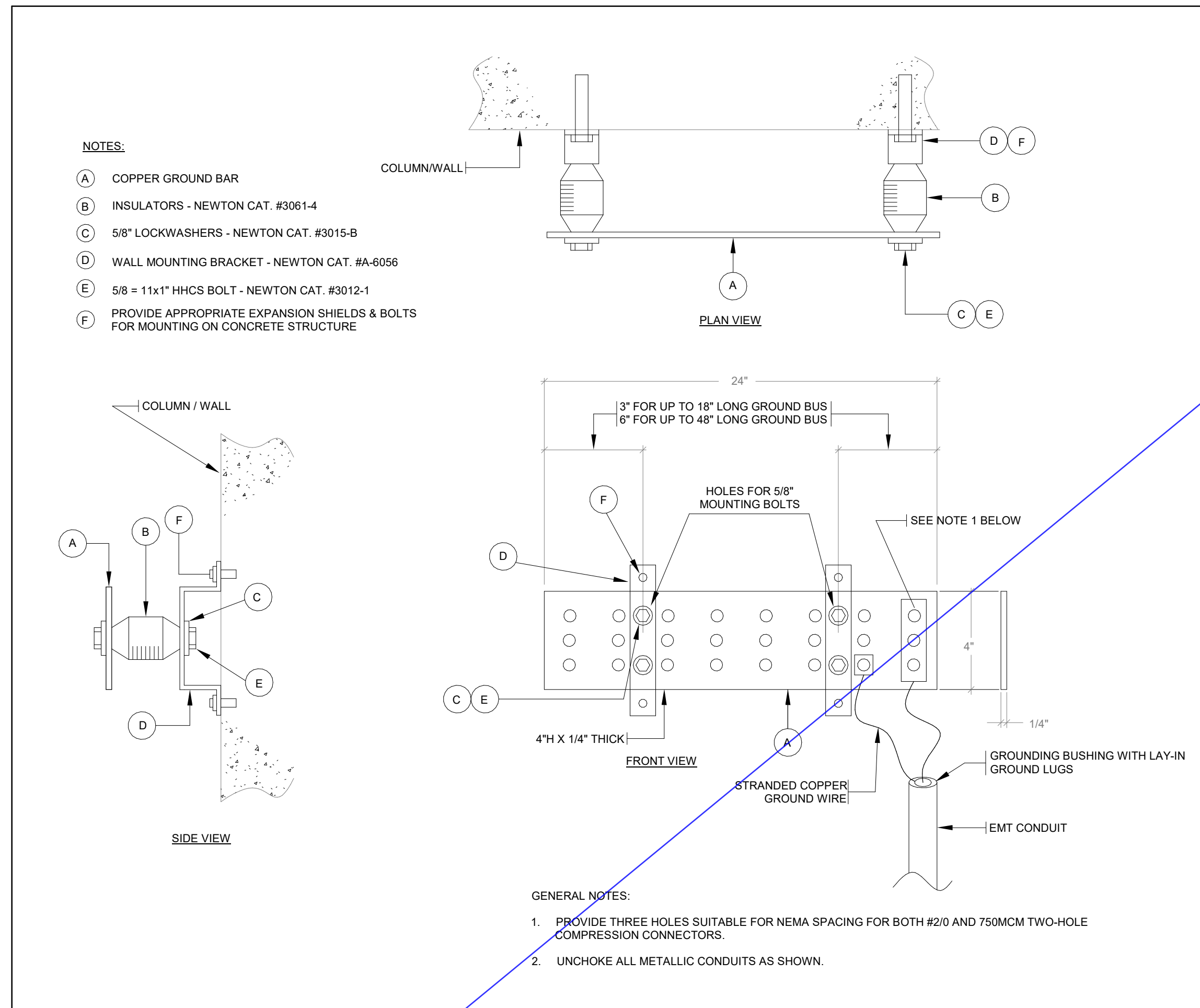
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NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE.

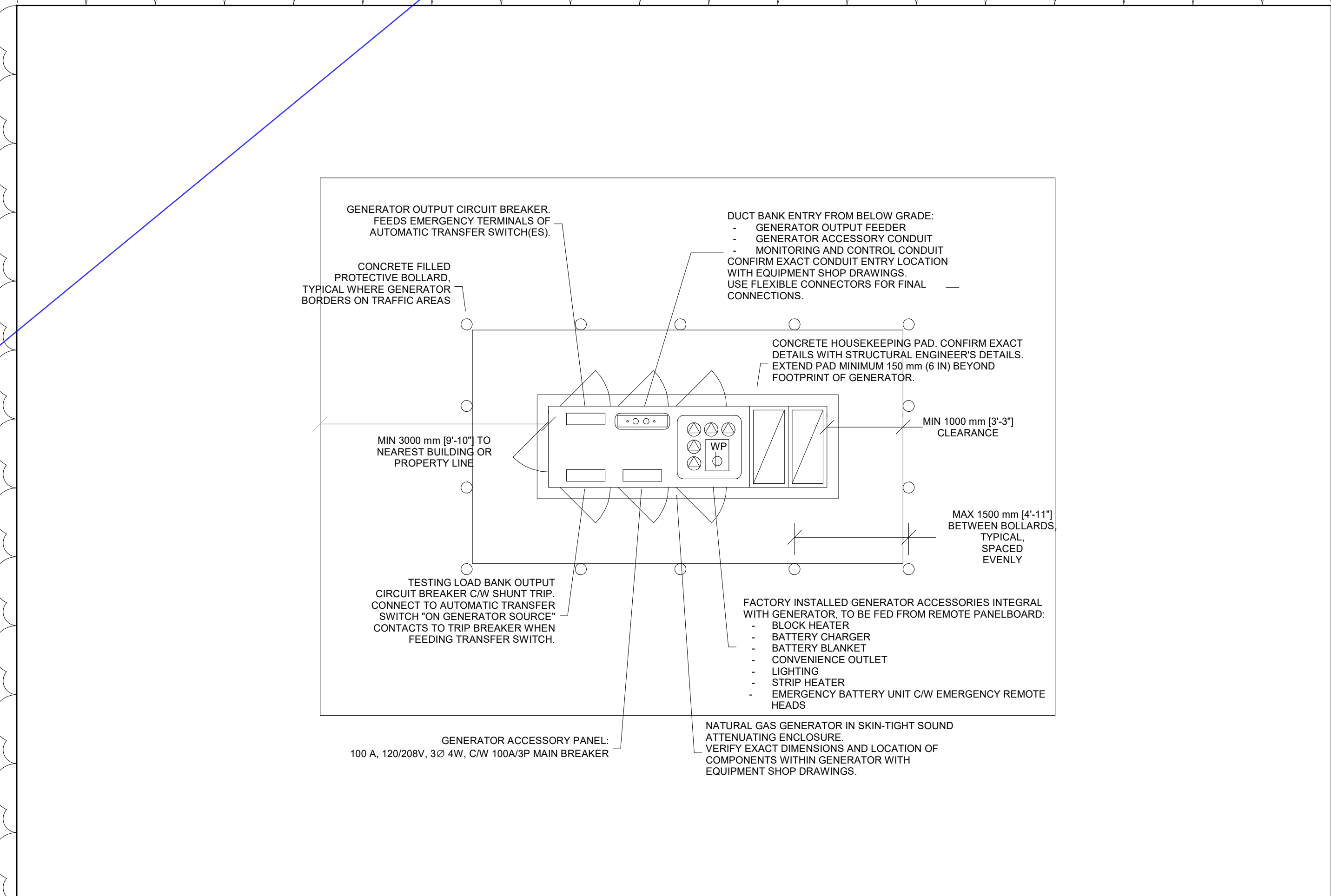
2 Max Branch Wiring Distance for 120 V System at 3% Voltage Drop  
SCALE:N.T.S.



3 Ground Rod  
SCALE:N.T.S.



4 Grounding Bar Detail  
SCALE:N.T.S.



5 Skintight Gas Generator Plan  
SCALE:N.T.S.

[illegible]

## Issues

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Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: N.T.S.

Sheet  
Title: ELECTRICAL DETAILS

Drawing  
No.  
**E-802**



250 ROWNTREE DAIRY RD, WOODBRIDGE, ON  
TEL: 905-507-0800  
WEB: WWW.QUASARGROUP.COMYORK REGIONAL POLICE  
HELICOPTER HANGAR350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURYKey  
Plan

## MAXIMUM BRANCH WIRING DISTANCE FOR 120 V SYSTEM AT 2% VOLTAGE DROP

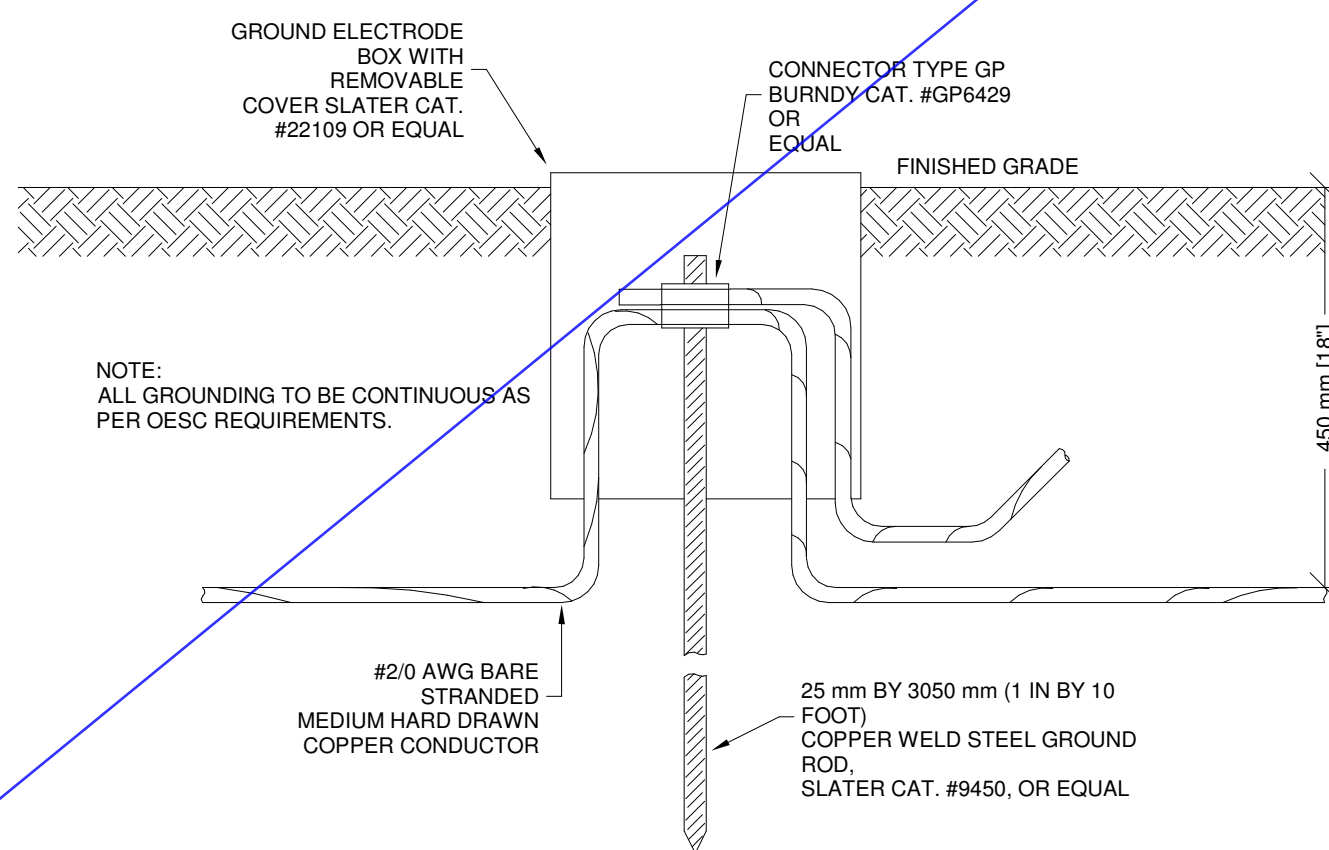
WIRE SIZE	BREAKER SIZE (AMPERES)	15	20	30	40	50	60	70	80	100
	MAX. LOAD AT 80% (AMPERES)	12	16	24	32	40	48	56	68	80
NO.12	----	16.8	12.2	-----	-----	-----	-----	-----	-----	-----
NO.10	----	25.9	19.0	12.9	-----	-----	-----	-----	-----	-----
NO.8	----	39.6	30.4	20.5	15.2	-----	-----	-----	-----	-----
NO.6	----	62.4	47.2	32.0	23.6	19.0	16.0	-----	-----	-----
NO.4	----	99.0	73.1	50.2	38.1	30.4	24.3	21.3	19.0	-----
NO.2	----	-----	114.3	77.2	57.9	47.2	38.8	33.5	28.9	22.8
NO.1	----	-----	-----	96.0	73.1	57.9	47.2	42.6	36.5	27.4
NO.1/0	----	-----	-----	-----	85.3	68.5	56.3	48.7	41.9	33.5
NO.2/0	----	-----	-----	-----	102.8	80.7	67.0	57.9	50.2	40.3
NO.3/0	----	-----	-----	-----	-----	95.2	79.2	68.5	59.4	47.2
NO.4/0	----	-----	-----	-----	-----	-----	92.9	79.2	70.1	56.3
250 MCM	----	-----	-----	-----	-----	-----	102.8	86.8	76.2	60.9
300 MCM	----	-----	-----	-----	-----	-----	-----	100.5	88.3	70.1

NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE.

## MAXIMUM BRANCH WIRING DISTANCE FOR 120 V SYSTEM AT 3% VOLTAGE DROP

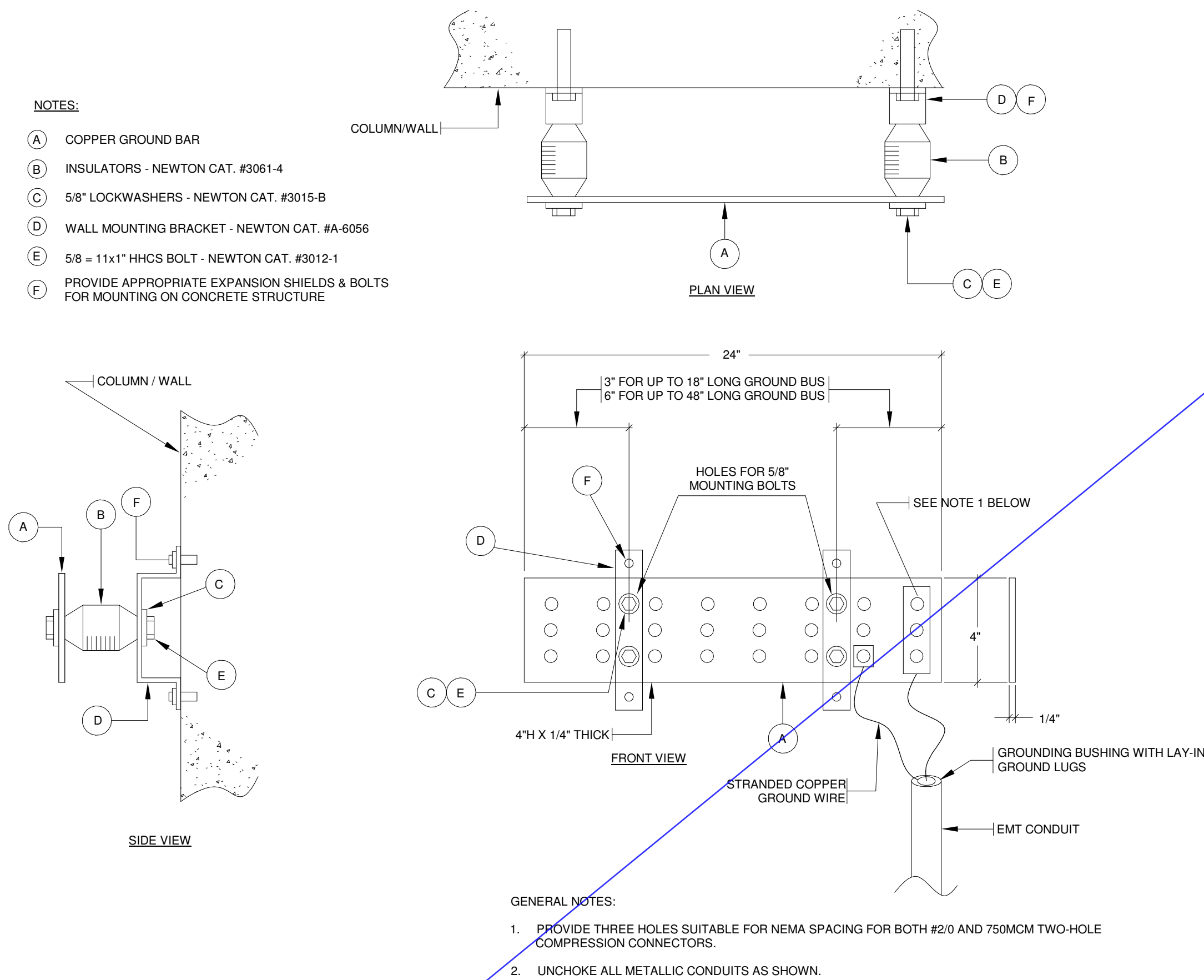
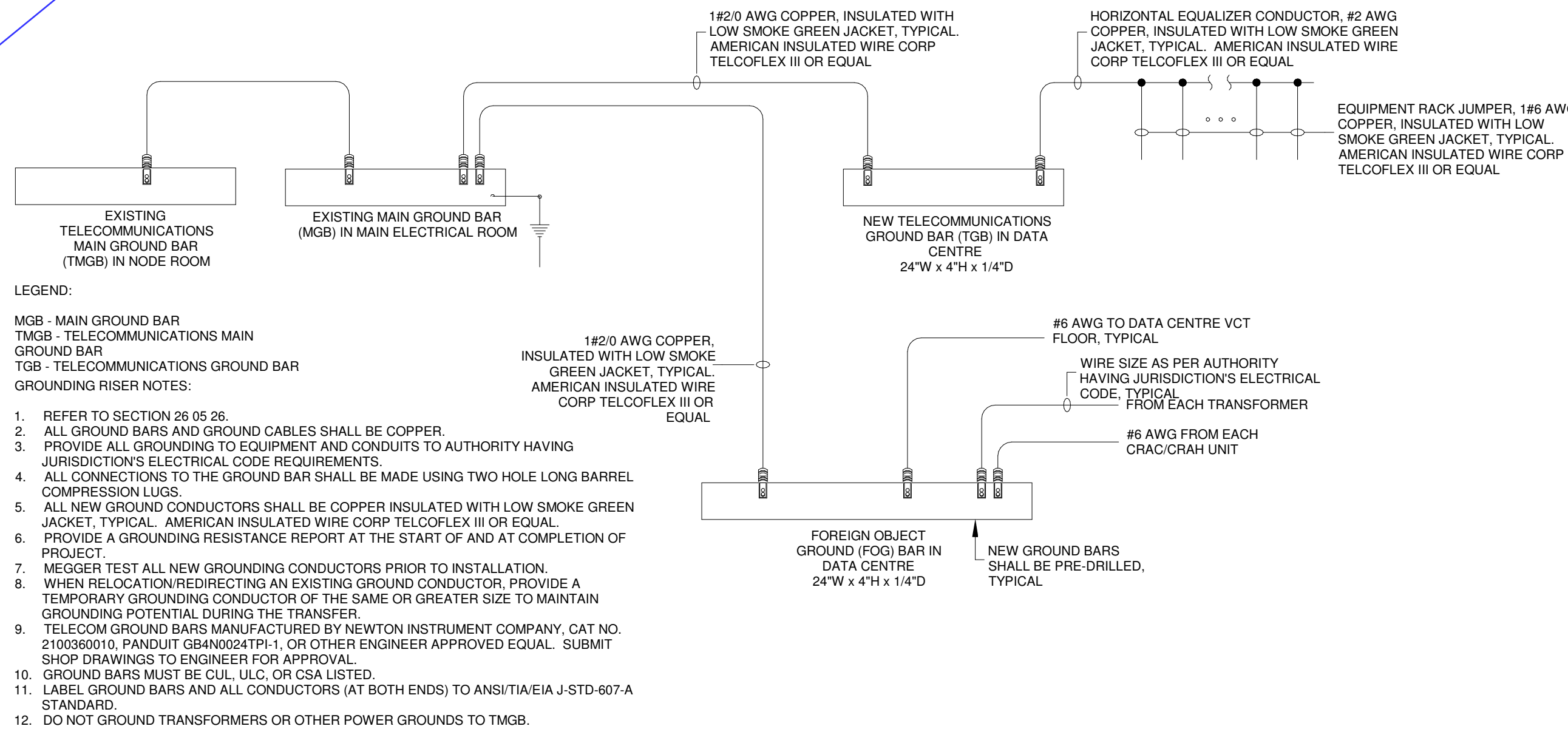
WIRE SIZE	BREAKER SIZE (AMPERES)	15	20	30	40	50	60	70	80	100
	MAX. LOAD AT 80% (AMPERES)	12	16	24	32	40	48	56	68	80
NO.12	----	24.4	18.3	-----	-----	-----	-----	-----	-----	-----
NO.10	----	38.1	29.0	19.1	-----	-----	-----	-----	-----	-----
NO.8	----	59.4	44.2	30.5	22.9	-----	-----	-----	-----	-----
NO.6	----	91.4	70.1	47.2	35.1	28.2	23.6	-----	-----	-----
NO.4	----	-----	109.7	73.2	54.9	42.7	38.1	32.0	27.4	-----
NO.2	----	-----	-----	114.3	85.3	68.6	57.9	50.3	41.1	35.0
NO.1	----	-----	-----	-----	103.6	85.3	73.2	61.0	54.9	43.4
NO.1/0	----	-----	-----	-----	128.0	102.9	85.3	73.2	64.0	48.8
NO.2/0	----	-----	-----	-----	-----	121.9	100.6	86.9	74.7	60.9
NO.3/0	----	-----	-----	-----	-----	-----	118.1	102.1	88.4	70.1
NO.4/0	----	-----	-----	-----	-----	-----	-----	120.4	102.9	83.8
250 MCM	----	-----	-----	-----	-----	-----	-----	-----	114.3	91.4
300 MCM	----	-----	-----	-----	-----	-----	-----	-----	-----	103.6

NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE.

1 Max Branch Wiring Distance for 120 V System at 2% Voltage Drop  
SCALE:N.T.S.2 Max Branch Wiring Distance for 120 V System at 3% Voltage Drop  
SCALE:N.T.S.3 Ground Rod  
SCALE:N.T.S.

## NOTES:

- (A) COPPER GROUND BAR  
(B) INSULATORS - NEWTON CAT. #3061-4  
(C) 5/8" LOCKWASHERS - NEWTON CAT. #3015-B  
(D) WALL MOUNTING BRACKET - NEWTON CAT. #A-6056  
(E) 5/8" = 11x1" HHCS BOLT - NEWTON CAT. #3012-1  
(F) PROVIDE APPROPRIATE EXPANSION SHIELDS & BOLTS FOR MOUNTING ON CONCRETE STRUCTURE

4 Grounding Bar Detail  
SCALE:N.T.S.5 Grounding Riser  
SCALE:N.T.S.

NO.	ISSUED FOR TENDER	ISSUED	2024-09-09
1	ISSUED FOR TENDER	ISSUED	DATE

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

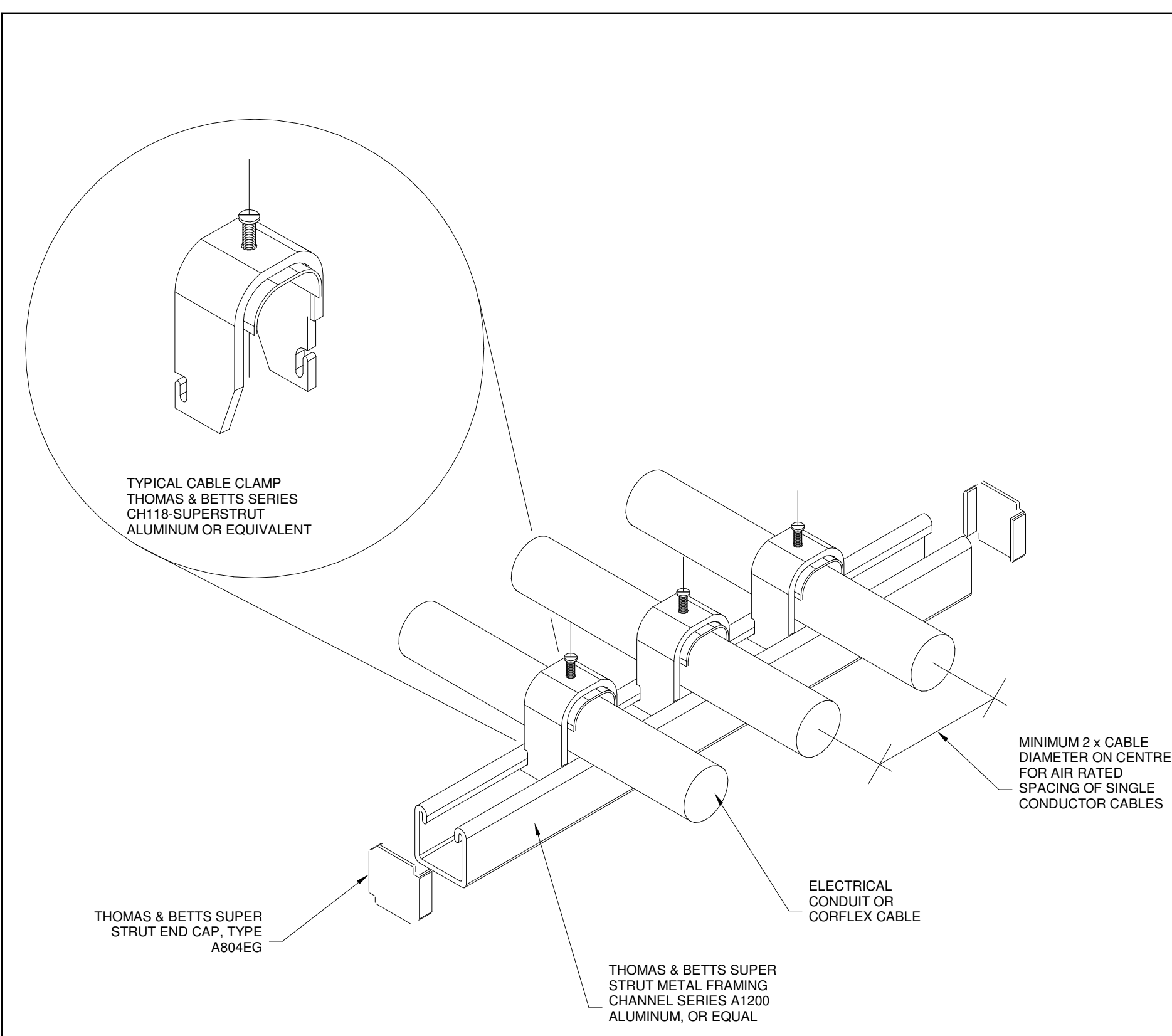
Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: N.T.S.Sheet  
Title:  
ELECTRICAL DETAILSDrawing  
No.  
E-802



YORK REGIONAL POLICE  
HELICOPTER HANGAR

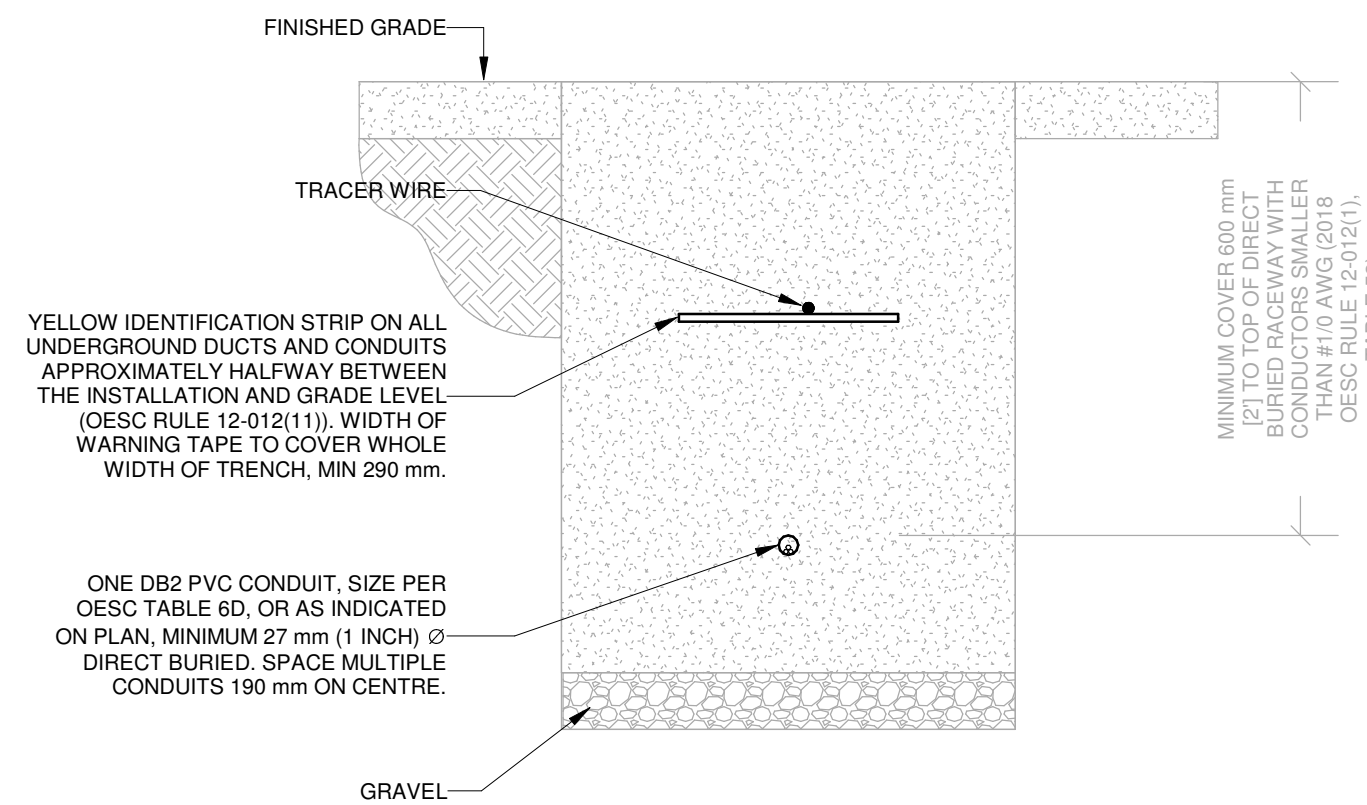
350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



## Strut Channel Suspension for Conduit and Cable

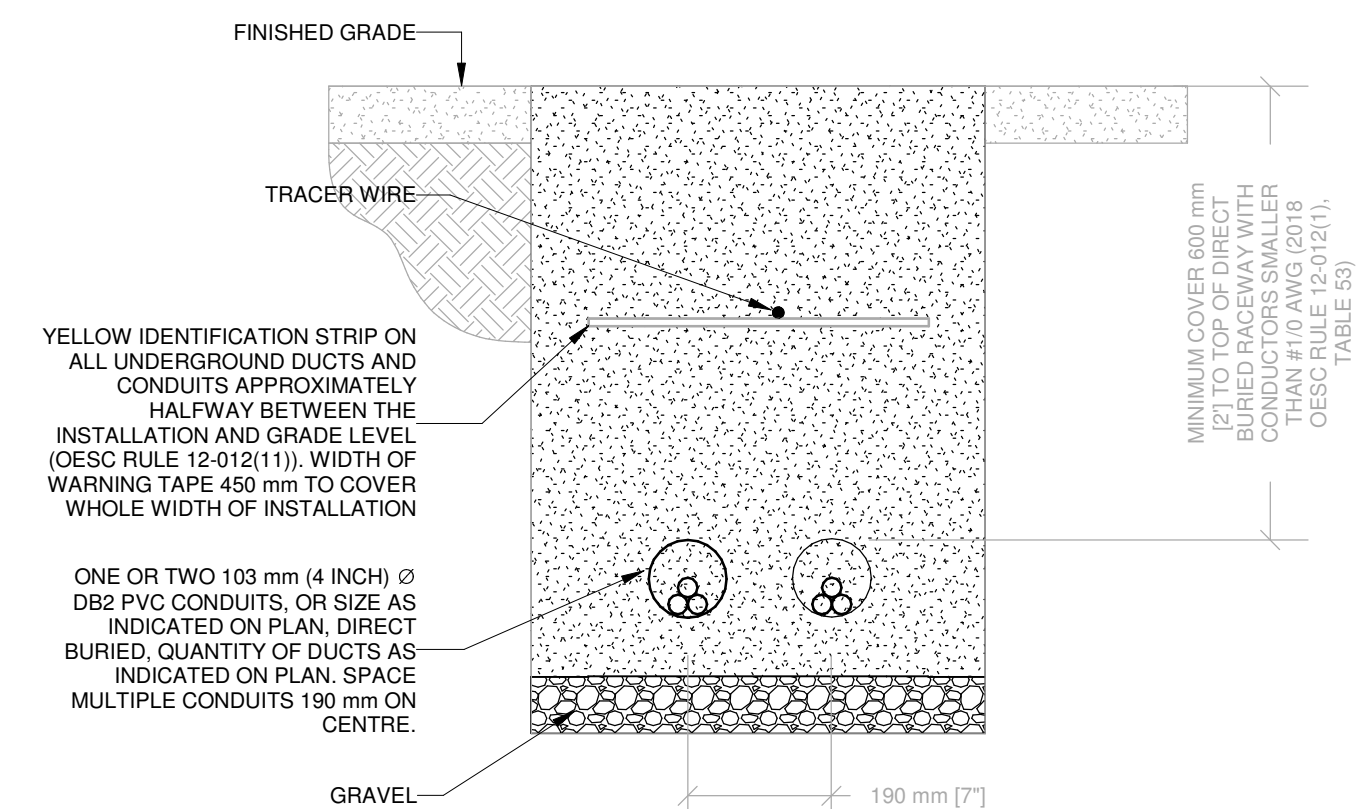
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### DIRECT BURIED RACEWAY SECTION, 750 V OR LESS

NOTES:

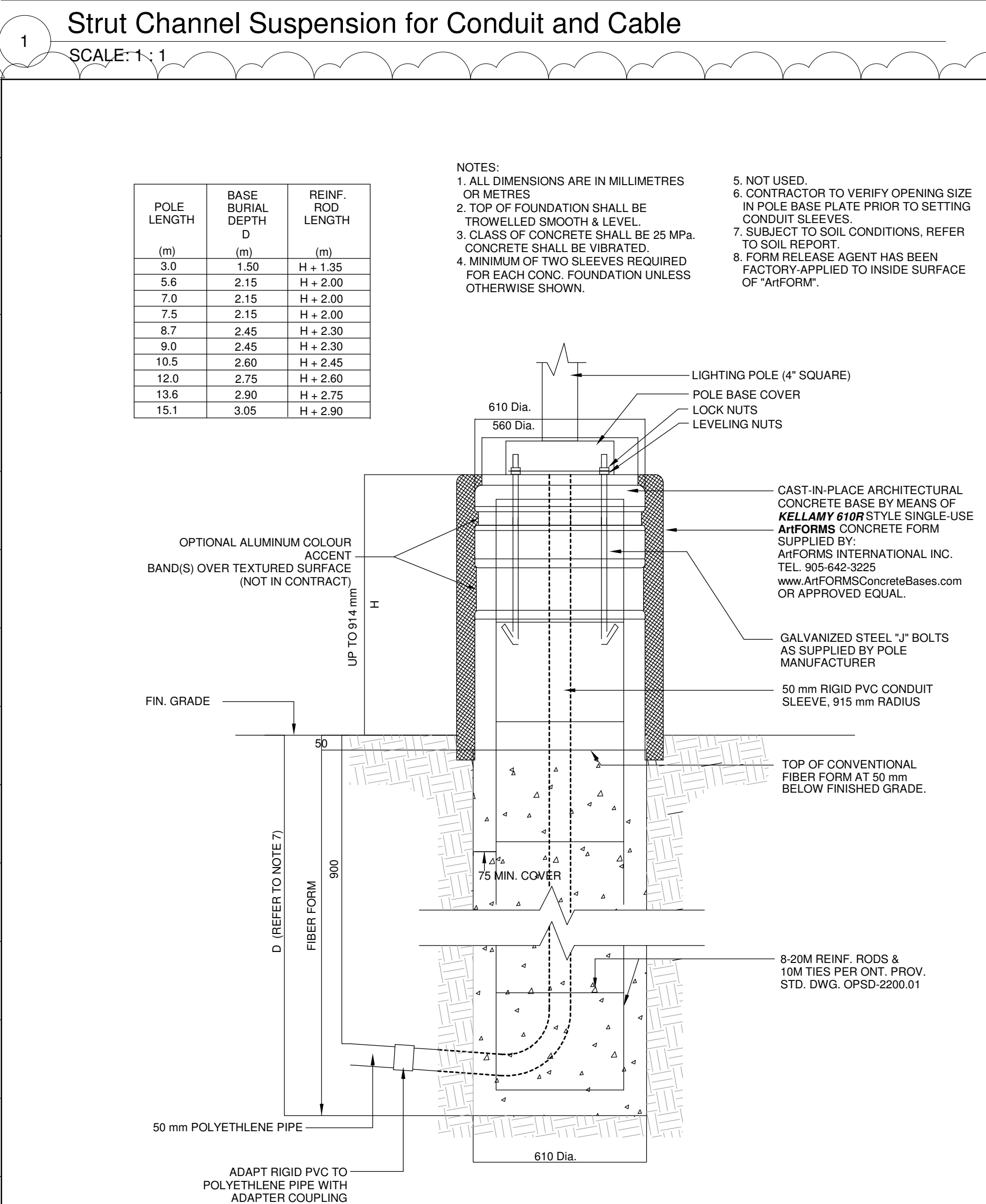
1. METRIC DIMENSIONS GOVERN.
2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #1/0 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.



### DIRECT BURIED RACEWAY SECTION, 750 V OR LESS

NOTES:

1. METRIC DIMENSIONS GOVERN.
2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #10 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.



## Lighting Standard High Architectural Base

SCALE:N.T.S.

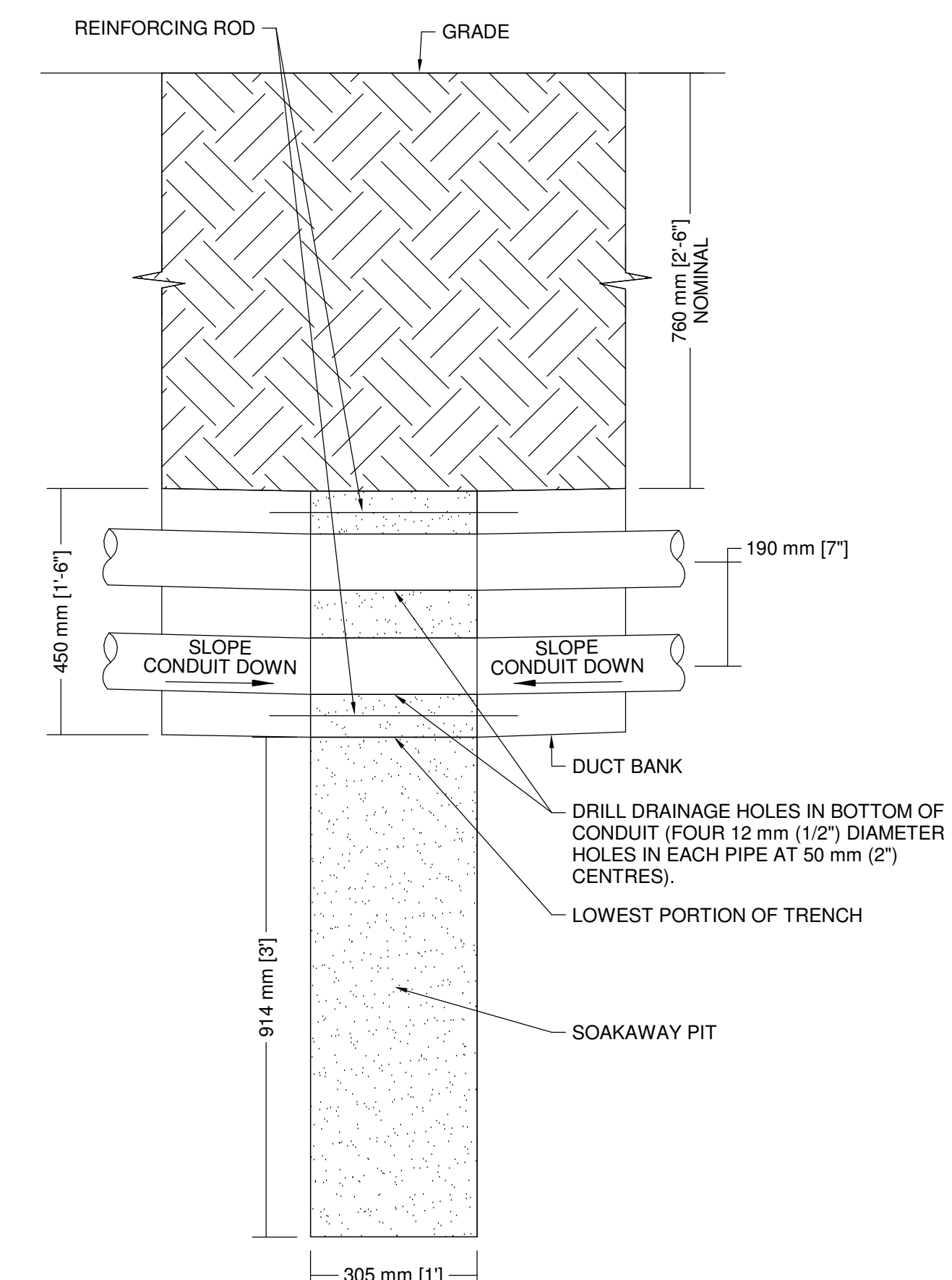
### Direct Buried Branch Circuit Ducts

SCALE:N.T.S.

ELECTRICAL ENERGY EFFICIENCY NOTES FOR PERMIT (ONTARIO BUILDING CODE SB-10)			
ITEM	DESCRIPTION	CODE REFERENCE	SPECIFICATION REFERENCE
1A.	FEEDER CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD.	QBC SB-10 2017, ASHRAE 90.1-2013, 8.4.1.	26 05 19
1B.	BRANCH CIRCUIT CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD.	QBC SB-10 2017, ASHRAE 90.1-2013, 8.4.1.	26 05 19
3.	50% RECEPTACLE CONTROLS IN CONFORMANCE ROOMS, COPY ROOMS, BREAK ROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS.	QBC SB-10 2017, ASHRAE 90.1-2013, 8.4.2.	26 09 23
3.	MEASUREMENT DEVICES ROUGHED IN TO MONITOR THE ELECTRICAL ENERGY USE FOR EACH OF THE FOLLOWING UNLESS EXEMPT: A. TOTAL ELECTRICAL ENERGY; B. HVAC; C. INTERIOR LIGHTING; D. EXTERIOR LIGHTING; E. RECEPTACLE CIRCUITS.	QBC SB-10 2017, ASHRAE 90.1-2013, 8.4.3.	26 27 13
4.	NEW LOW-VOLTAGE TRANSFORMERS TO MEET THE NOMINAL EFFICIENCIES SHOWN IN ASHRAE 90.1-2013, TABLE 8.4.4. UNLESS EXEMPT	QBC SB-10 2017, ASHRAE 90.1-2013, 8.4.4.	26 22 13
5.	PROVIDE LIGHTING CONTROL FUNCTIONS FOR EACH SPACE IN THE BUILDING PER PER ASHRAE 90.1-2013 TABLE 9.6.1. ASHRAE 90.1 EXEMPTIONS: - NORMALLY OFF EMERGENCY LIGHTING - DUE TO SAFETY OR OTHER ORDINANCE	QBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.1.	26 09 23
5A.	SPACES PROVIDED WITH READILY ACCESSIBLE LOCAL CONTROLS.	QBC SB-10 2017, ASHRAE 90.1-2017, 9.4.1.1A.	26 09 23
5B.	MAXIMUM OCCUPANCY SENSOR TIMEOUT 20 MINUTES.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.1G, ASHRAE 90.1-2013, 9.4.1.1H.	26 09 23
6.1	PARKING GARAGE LIGHTING TO BE PROVIDED WITH AUTOMATIC CONTROLS PER ASHRAE 90.1-2017 SECTION 9.4.1.2.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	
6.2	PARKING GARAGE LIGHTING TO AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 30% BASED ON OCCUPANCY	QBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	
6.3	PARKING GARAGE DAYLIGHT TRANSITION ZONE TO BE ON A SEPARATE SCHEDULE.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	
6.4	PARKING GARAGE LUMINAIRES TO BE PROVIDED WITH DAYLIGHT HARVESTING, IF NET OPENING TO WALL RATIO IS GREATER THAN 40% UNLESS EXEMPT.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	
7.	PROVIDE ADDITIONAL CONTROLS FOR SPECIAL APPLICATIONS LISTED ASHRAE 90.1 SECTION 9.4.1.3.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.3	26 09 23
8.	INTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90.1-2013 9.2.2.3 AS MODIFIED BY SB-10.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.2.2.3	26 51 00
9.1	PROVIDE A PHOTOSENSOR FOR AUTOMATIC SHUTOFF OF EXTERIOR LIGHTS WHEN AVAILABLE DAYLIGHT IS SUFFICIENT.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.1.4.4	26 09 23
9.2	PROVIDE A SHUTOFF FOR LANDSCAPE AND FACADE LIGHTING BETWEEN THE HOURS OF MIDNIGHT AND 6:00 A.M.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.1.4.4	26 09 26
9.3	PROVIDE CONTROL TO REDUCE ILLUMINATED SIGNAGE POWER BY AT LEAST 30% BETWEEN MIDNIGHT AND 6:00 A.M.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 26
10.	EXTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90.1-2013 9.4.2. AS MODIFIED BY SB-10.	QBC SB-10 2017, ASHRAE 90.1-2013, 9.4.2.	26 53 00
11.	LIGHTING CONTROLS MANUFACTURER'S REPRESENTATIVE TO PROVIDE FUNCTIONAL TESTING AND REPORT IN ACCORDANCE WITH ASHRAE 9.2-2013.	QBC SB-10, ASHRAE 90.1-2010, 9.4.4.	26 09 23

Electrical SB-10 Notes

SCALE: 1 : 1



### Duct Bank Soakaway Pit

SCALE: 1 : 10

4	ISSUED FOR ADDENDUM 15	2024-12-04
3	ISSUED FOR ADDENDUM 8	2024-10-07
2	ISSUED FOR ADDENDUM 3	2024-09-23
1	ISSUED FOR TENDER	2024-09-09
NO.	ISSUED	DATE

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

## ELECTRICAL DETAILS

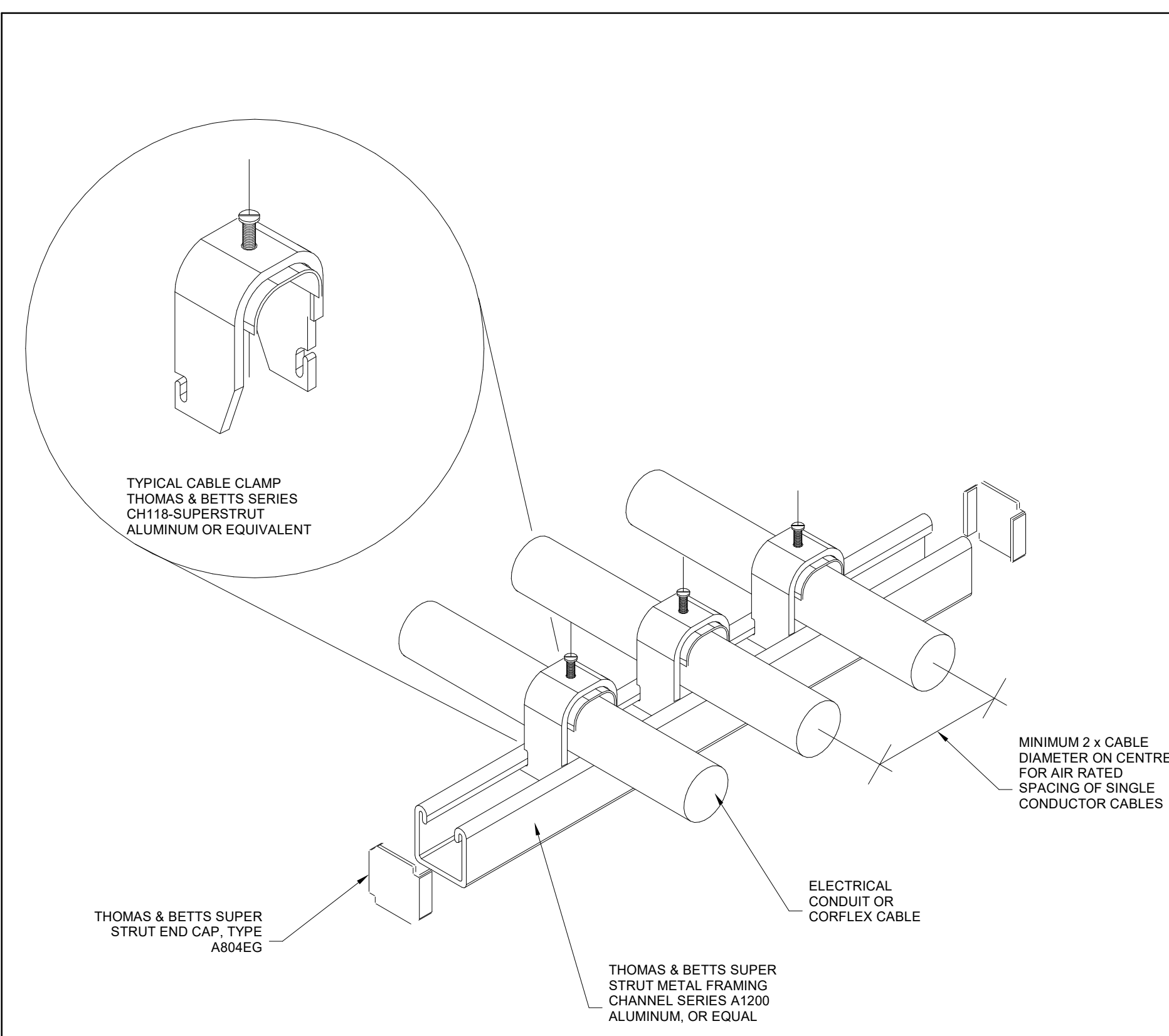
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No. **E-803**



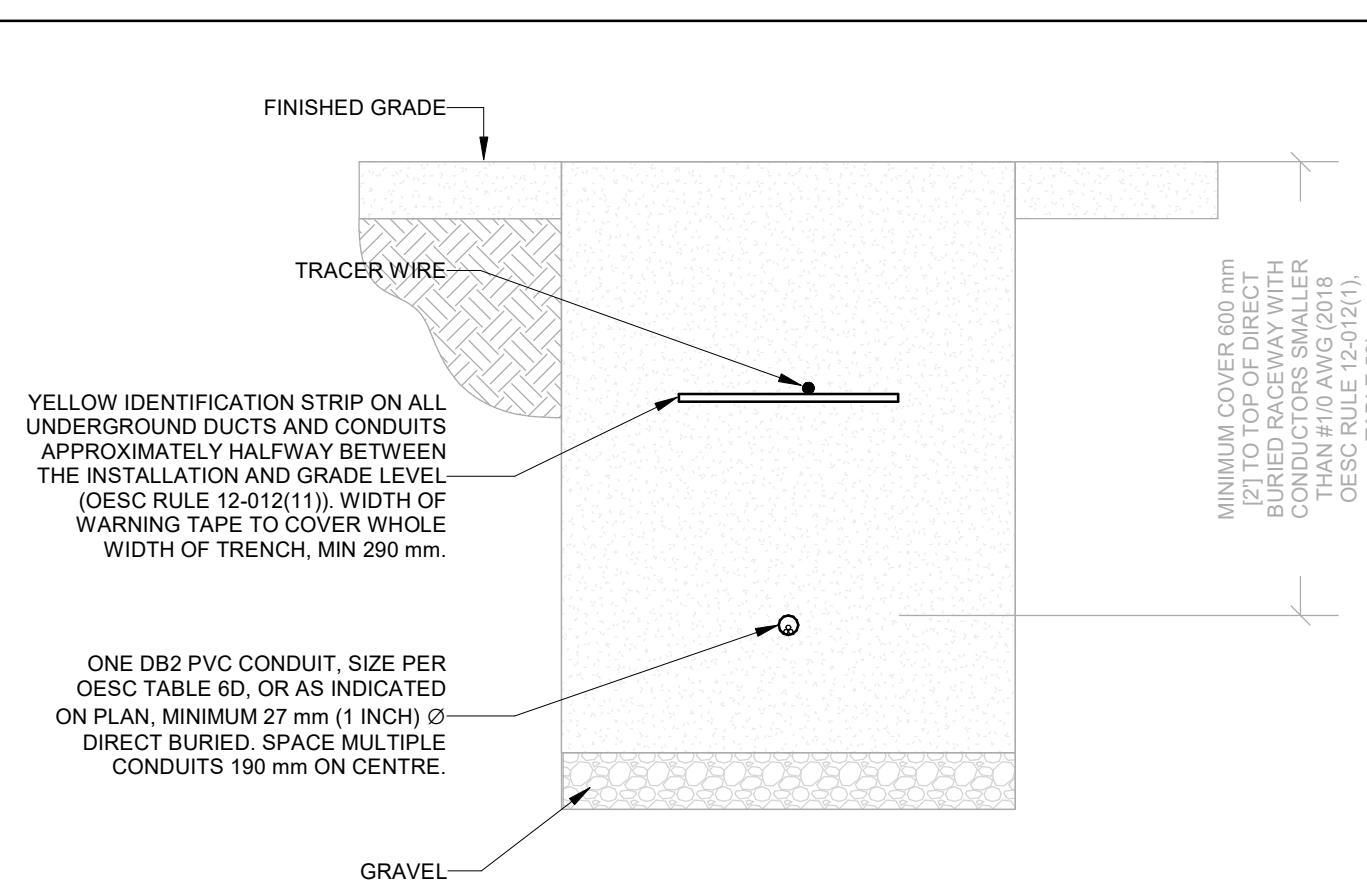
YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

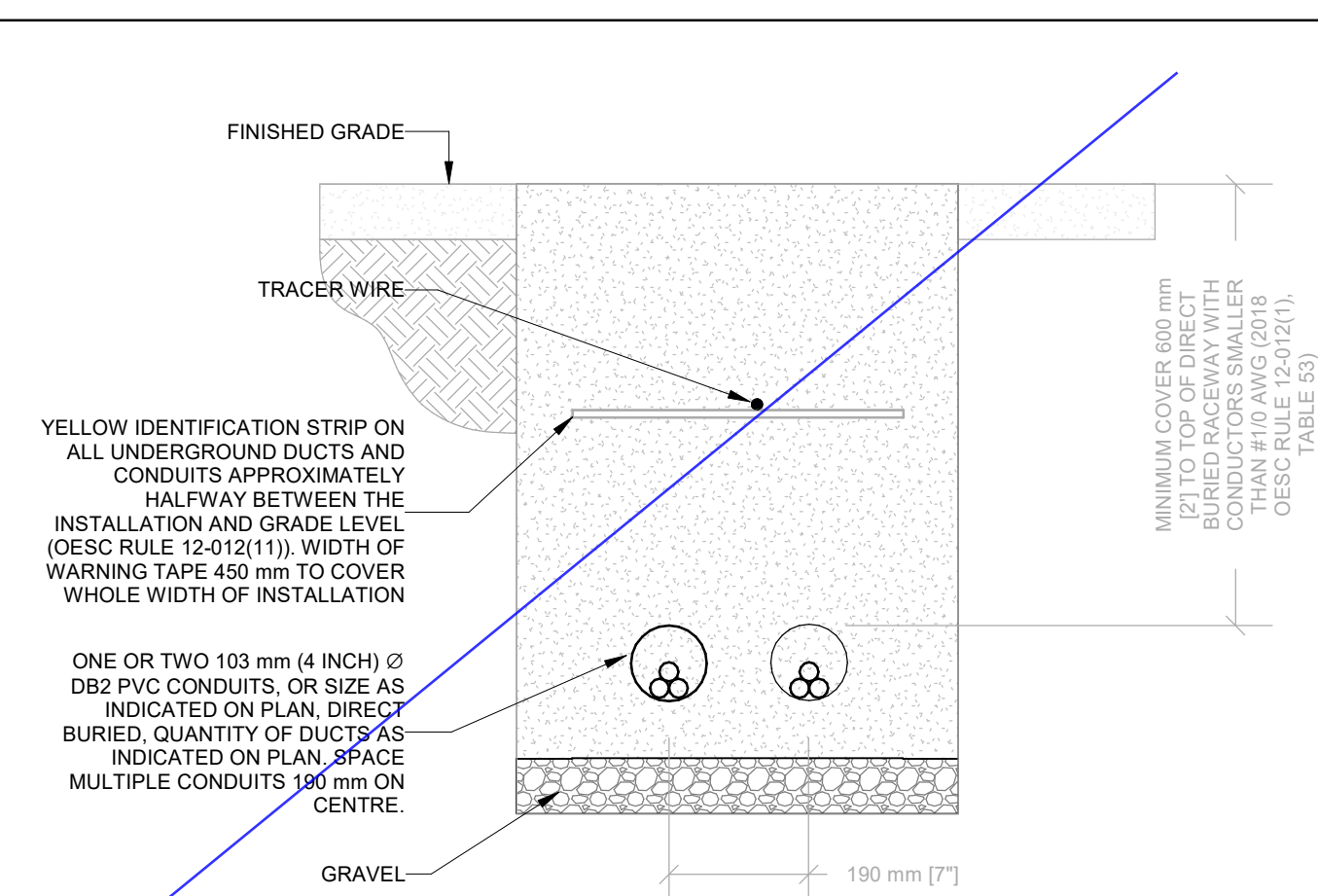


1 Strut Channel Suspension for Conduit and Cable  
SCALE: 1 : 1



### DIRECT BURIED RACEWAY SECTION, 750 V OR LESS

- ## NOTES:
1. METRIC DIMENSIONS GOVERN.
  2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
  3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
  4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #1/0 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.



~~DIRECT BURIED RACEWAY SECTION, 750 V OR LESS~~

- NOTES:
1. METRIC DIMENSIONS GOVERN.
  2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
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  4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #10 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.

### Direct Buried Ducts

SCALE:N.T.S.

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

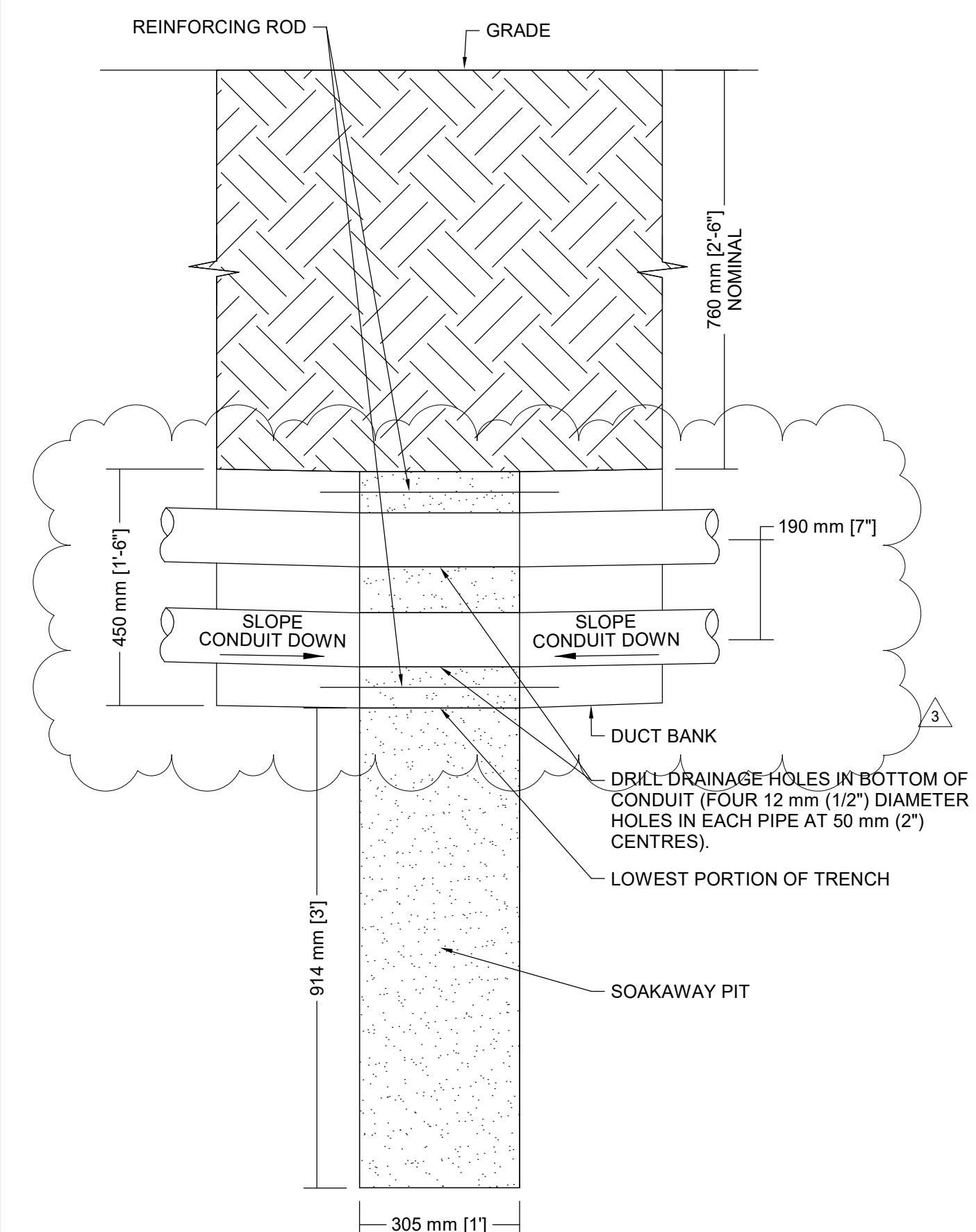
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Title: ELECTRICAL DETAILS

Drawing  
No. **E-803**

ELECTRICAL ENERGY EFFICIENCY NOTES FOR PERMIT (ONTARIO BUILDING CODE SB-10)			
ITEM	DESCRIPTION	CODE REFERENCE	SPECIFICATION REFERENCE
1A.	FEDDER CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD.	OBC SB-10 2017, ASHRAE 90-1-2013, 8.4.1.	26 05 19
1B.	BRANCH CIRCUIT CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD.	OBC SB-10 2017, ASHRAE 90-1-2013, 8.4.1.	26 05 19
2.	50% RECEPTACLE CONTROLS IN CONFERENCE ROOMS, COPY ROOMS, BREAK ROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS.	OBC SB-10 2017, ASHRAE 90-1-2013, 8.4.2.	26 09 23
3.	MEASUREMENT DEVICES ROUGHED IN TO MONITOR THE ELECTRICAL ENERGY USE FOR EACH OF THE FOLLOWING UNLESS EXEMPT: A. TOTAL ELECTRICAL ENERGY; B. HVAC; C. INTERIOR LIGHTING; D. EXTERIOR LIGHTING. E. RECEPTACLE CIRCUITS.	OBC SB-10 2017, ASHRAE 90-1-2013, 8.4.3.	26 27 13
4.	NEW LOW-VOLTAGE TRANSFORMERS TO MEET THE NOMINAL EFFICIENCIES SHOWN IN ASHRAE 90-1-2013, TABLE 8.4.4. UNLESS EXEMPT	OBC SB-10 2017, ASHRAE 90-1-2013, 8.4.4.	26 22 13
5.	PROVIDE LIGHTING CONTROL FUNCTIONS FOR EACH SPACE IN THE BUILDING PER PER ASHRAE 90-1-2013 TABLE 9.5.1. ASHRAE 90-1 EXEMPTIONS: -NORMALLY OFF EMERGENCY LIGHTING -DWELLING UNITS -LIFE SAFETY OR OTHER ORDINANCE	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.1.	26 09 23
5.1.	SPACES PROVIDED WITH READILY ACCESSIBLE LOCAL CONTROLS.	OBC SB-10 2017, ASHRAE 90-1-2017, 9.4.1.1A.	26 09 23
5.2.	MAXIMUM OCCUPANCY SENSOR TIMEOUT 20 MINUTES	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.1.G. ASHRAE 90-1-2013, 9.4.1.1.H.	26 09 23
6.1	PARKING GARAGE LIGHTING TO BE PROVIDED WITH AUTOMATIC CONTROLS PER ASHRAE 90-1-2017 SECTION 9.4.1.2.	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.2	
6.2	PARKING GARAGE LIGHTING TO AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 30% BASED ON OCCUPANCY	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.2	
6.3	PARKING GARAGE DAYLIGHT TRANSITION ZONE TO BE ON A SEPARATE SCHEDULE.	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.2	
6.4	PARKING GARAGE LUMINAIRES TO BE PROVIDED WITH DAYLIGHT HARVESTING, IF NET OPENING-TO-WALL RATIO IS GREATER THAN 40% UNLESS EXEMPT.	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.2	
7.	PROVIDE ADDITIONAL CONTROLS FOR SPECIAL APPLICATIONS LISTED ASHRAE 90.1 SECTION 9.4.1.3.	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.3	26 09 23
8.	INTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90-1-2013 9.2.2.3 AS MODIFIED BY SB-10.	OBC SB-10 2017, ASHRAE 90-1-2013, 9.2.2.3	26 51 00
9.1	PROVIDE A PHOTOSENSOR FOR AUTOMATIC SHUTOFF OF EXTERIOR LIGHTS WHEN AVAILABLE DAYLIGHT IS SUFFICIENT.	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.4	26 09 23
9.2	PROVIDE A SHUTOFF FOR LANDSCAPE AND FACADE LIGHTING BETWEEN THE HOURS OF MIDNIGHT AND 6:00 A.M.	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.4	26 09 26
9.3	PROVIDE CONTROL TO REDUCE ILLUMINATED SIGNAGE POWER BY AT LEAST 30% BETWEEN MIDNIGHT AND 6:00 A.M.	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.1.4	26 09 26
10.	EXTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90-1-2013 9.4.2. AS MODIFIED BY SB-10.	OBC SB-10 2017, ASHRAE 90-1-2013, 9.4.2.	26 53 00
11.	LIGHTING CONTROLS MANUFACTURER'S REPRESENTATIVE TO PROVIDE FUNCTIONAL TESTING AND REPORT IN ACCORDANCE WITH ASHRAE 90-1-2013.	OBC SB-10, ASHRAE 90-1-2010, 9.4.4.	26 09 23

# Electrical SB-10 Notes

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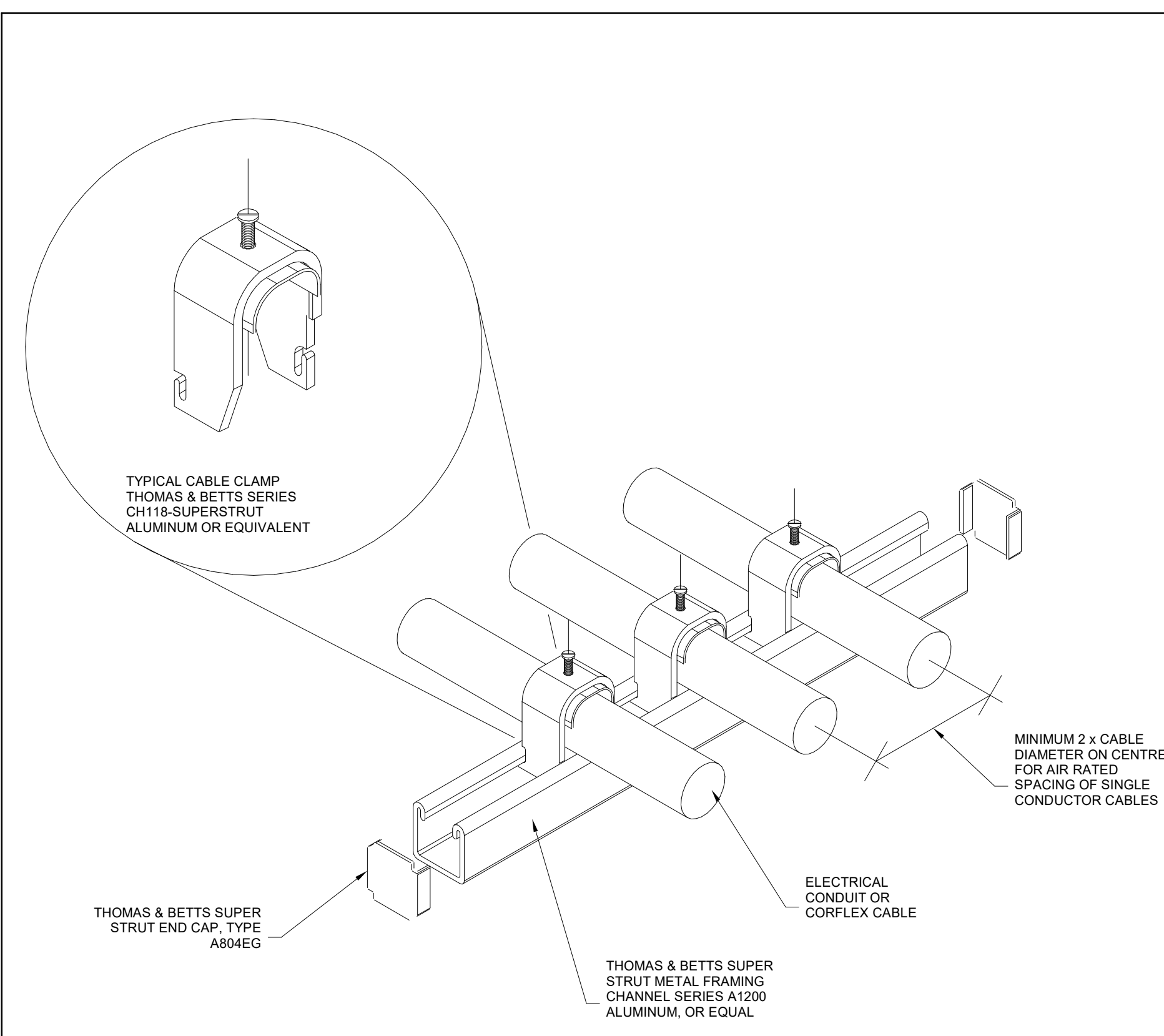
6 Duct Bank Soakaway Pit  
SCALE: 1 : 10



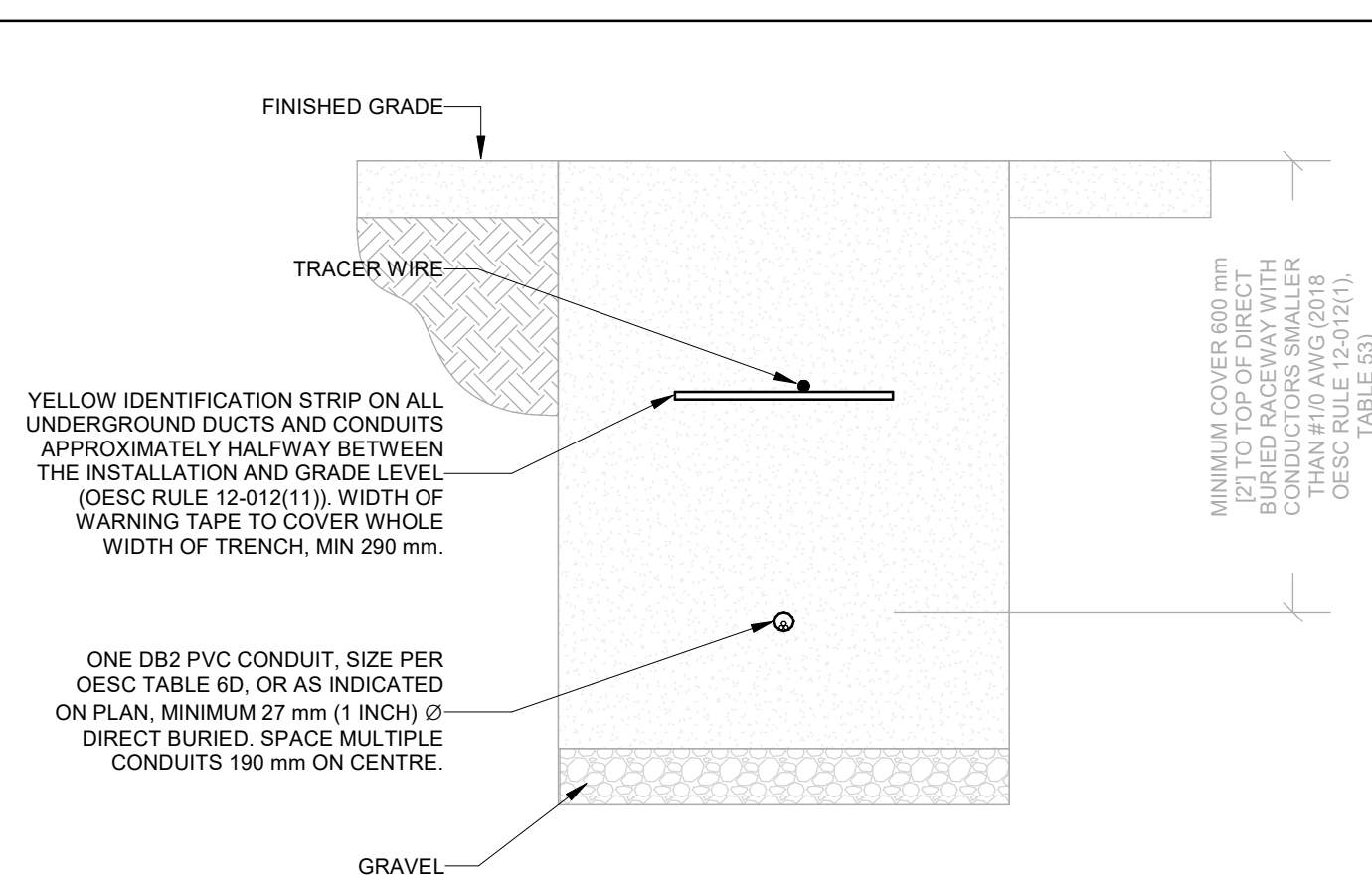
YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

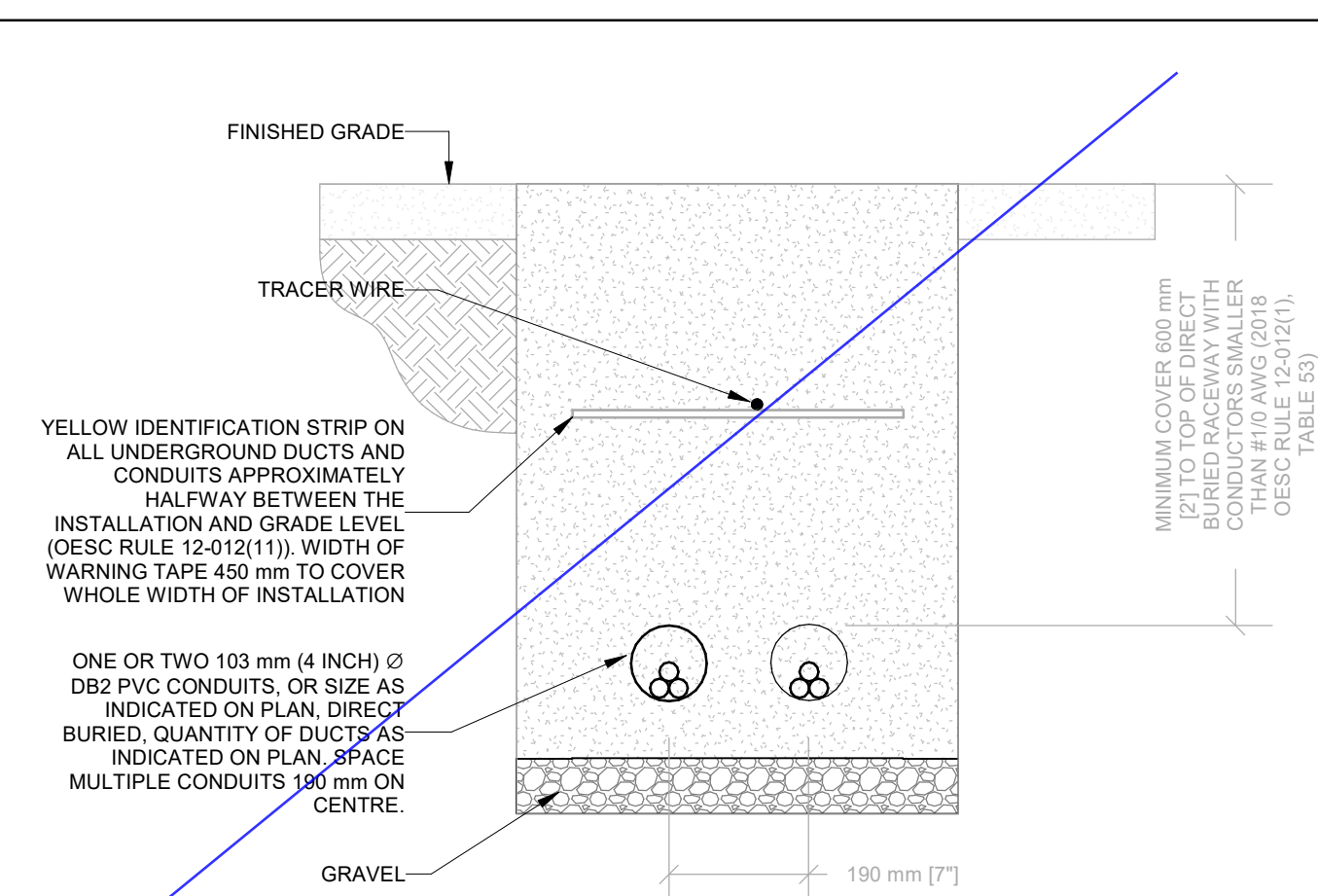


1 Strut Channel Suspension for Conduit and Cable  
SCALE: 1 : 1



### DIRECT BURIED RACEWAY SECTION, 750 V OR LESS

- ## NOTES:
1. METRIC DIMENSIONS GOVERN.
  2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
  3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
  4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #1/0 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.



### ~~DIRECT BURIED RACEWAY SECTION, 750 V OR LESS~~

- NOTES:
1. METRIC DIMENSIONS GOVERN.
  2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
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  4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #10 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.

### Direct Buried Ducts

SCALE:N.T.S.

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## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

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Project No: TT-24-005  
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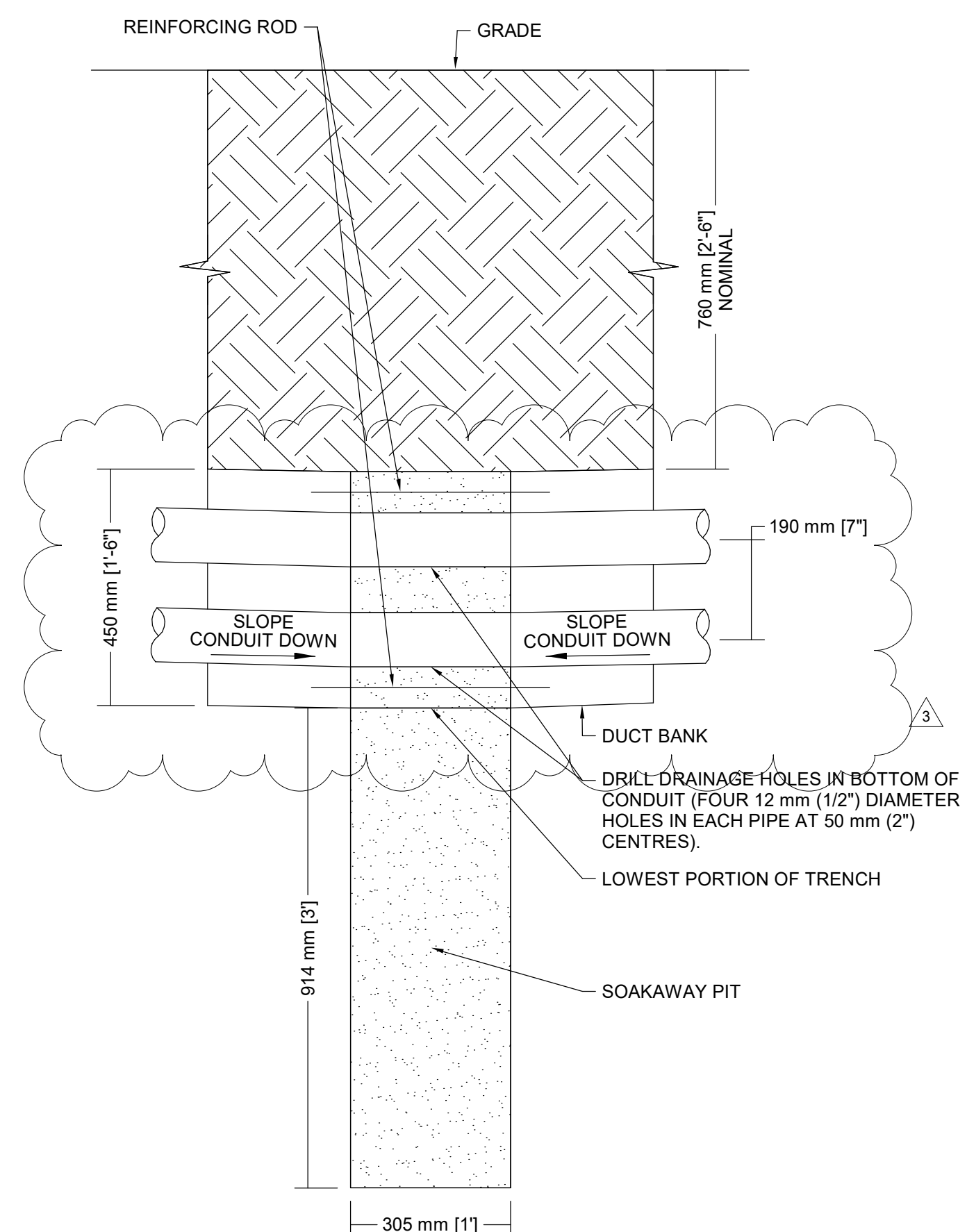
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Drawing  
No. **E-803**

ELECTRICAL ENERGY EFFICIENCY NOTES FOR PERMIT (ONTARIO BUILDING CODE SB-10)			
ITEM	DESCRIPTION	CODE REFERENCE	SPECIFICATION REFERENCE
1A.	FEEDER CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD.	0BC SB-10 2017, ASHRAE 90.1-2013, 8.4.1.	26 05 19
1B.	BRANCH CIRCUIT CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD.	0BC SB-10 2017, ASHRAE 90.1-2013, 8.4.1.	26 05 19
2.	50% RECEPTACLE CONTROLS IN CONFERENCE ROOMS, COPY ROOMS, BREAK ROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS.	0BC SB-10 2017, ASHRAE 90.1-2013, 8.4.2.	26 09 23
3.	MEASUREMENT DEVICES ROUGHED IN TO MONITOR THE ELECTRICAL ENERGY USE FOR EACH OF THE FOLLOWING UNLESS EXEMPT: A. TOTAL ELECTRICAL ENERGY, B. HVAC, C. INTERIOR LIGHTING, D. EXTERIOR LIGHTING, E. RECEPTACLE CIRCUITS.	0BC SB-10 2017, ASHRAE 90.1-2013, 8.4.3.	26 27 13
4.	NEW LOW-VOLTAGE TRANSFORMERS TO MEET THE NOMINAL EFFICIENCIES SHOWN IN ASHRAE 90.1-2013, TABLE 8.4.4. UNLESS EXEMPT	0BC SB-10 2017, ASHRAE 90.1-2013, 8.4.4.	26 22 13
5.	PROVIDE LIGHTING CONTROL FUNCTIONS FOR EACH SPACE IN THE BUILDING PER PER ASHRAE 90.1-2013 TABLE 9.6.1. ASHRAE 90.1 EXEMPTIONS: -NORMALLY OFF EMERGENCY LIGHTING -DWELLING UNITS -LIFE SAFETY OR OTHER ORDINANCE	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.1.	26 09 23
5.1.	SPACES PROVIDED WITH READILY ACCESSIBLE LOCAL CONTROLS.	0BC SB-10 2017, ASHRAE 90.1-2017, 9.4.1.1A.	26 09 23
5.2.	MAXIMUM OCCUPANCY SENSOR TIMEOUT 20 MINUTES	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.1G. ASHRAE 90.1-2013, 9.4.1.1H.	26 09 23
6.1	PARKING GARAGE LIGHTING TO BE PROVIDED WITH AUTOMATIC CONTROLS PER ASHRAE 90.1-2017 SECTION 9.4.1.2.	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	
6.2	PARKING GARAGE LIGHTING TO AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 30% BASED ON OCCUPANCY	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	
6.3	PARKING GARAGE DAYLIGHT TRANSITION ZONE TO BE ON A SEPARATE SCHEDULE.	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	
6.4	PARKING GARAGE LUMINAIRES TO BE PROVIDED WITH DAYLIGHT HARVESTING, IF NET OPENING-TO-WALL RATIO IS GREATER THAN 4% UNLESS EXEMPT.	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	
7.	PROVIDE ADDITIONAL CONTROLS FOR SPECIAL APPLICATIONS LISTED ASHRAE 90.1 SECTION 9.4.1.3.	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.3.	26 09 23
8.	INTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90.1-2013 9.2.2.3 AS MODIFIED BY SB-10.	0BC SB-10 2017, ASHRAE 90.1-2013, 9.2.2.3	26 51 00
9.1	PROVIDE A PHOTOSENSOR FOR AUTOMATIC SHUTOFF OF EXTERIOR LIGHTS WHEN AVAILABLE DAYLIGHT IS SUFFICIENT.	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 23
9.2	PROVIDE A SHUTOFF FOR LANDSCAPE AND FACADE LIGHTING BETWEEN THE HOURS OF MIDNIGHT AND 6:00 A.M.	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 26
9.3	PROVIDE CONTROL TO REDUCE ILLUMINATED SIGNAGE POWER BY AT LEAST 30% BETWEEN MIDNIGHT AND 6:00 A.M.	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 26
10.	EXTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90.1-2013 9.4.2. AS MODIFIED BY SB-10.	0BC SB-10 2017, ASHRAE 90.1-2013, 9.4.2.	26 53 00
11.	LIGHTING CONTROLS MANUFACTURER'S REPRESENTATIVE TO PROVIDE FUNCTIONAL TESTING AND REPORT IN ACCORDANCE WITH ASHRAE 90.1-2013.	0BC SB-10, ASHRAE 90.1-2010, 9.4.4.	26 09 23

# Electrical SB-10 Notes

SCALE: 1 : 1



## Duct Bank Soakaway Pit

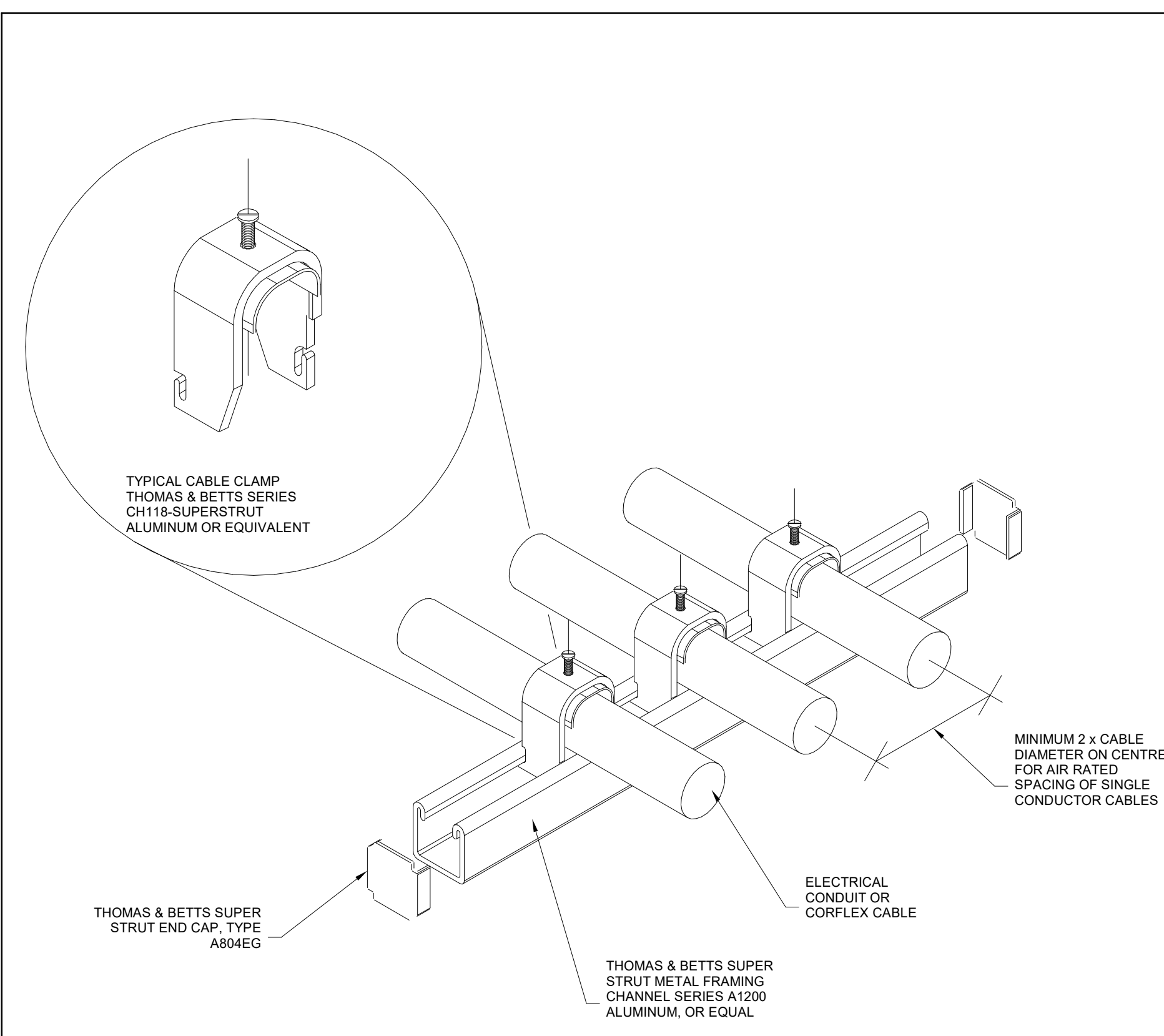
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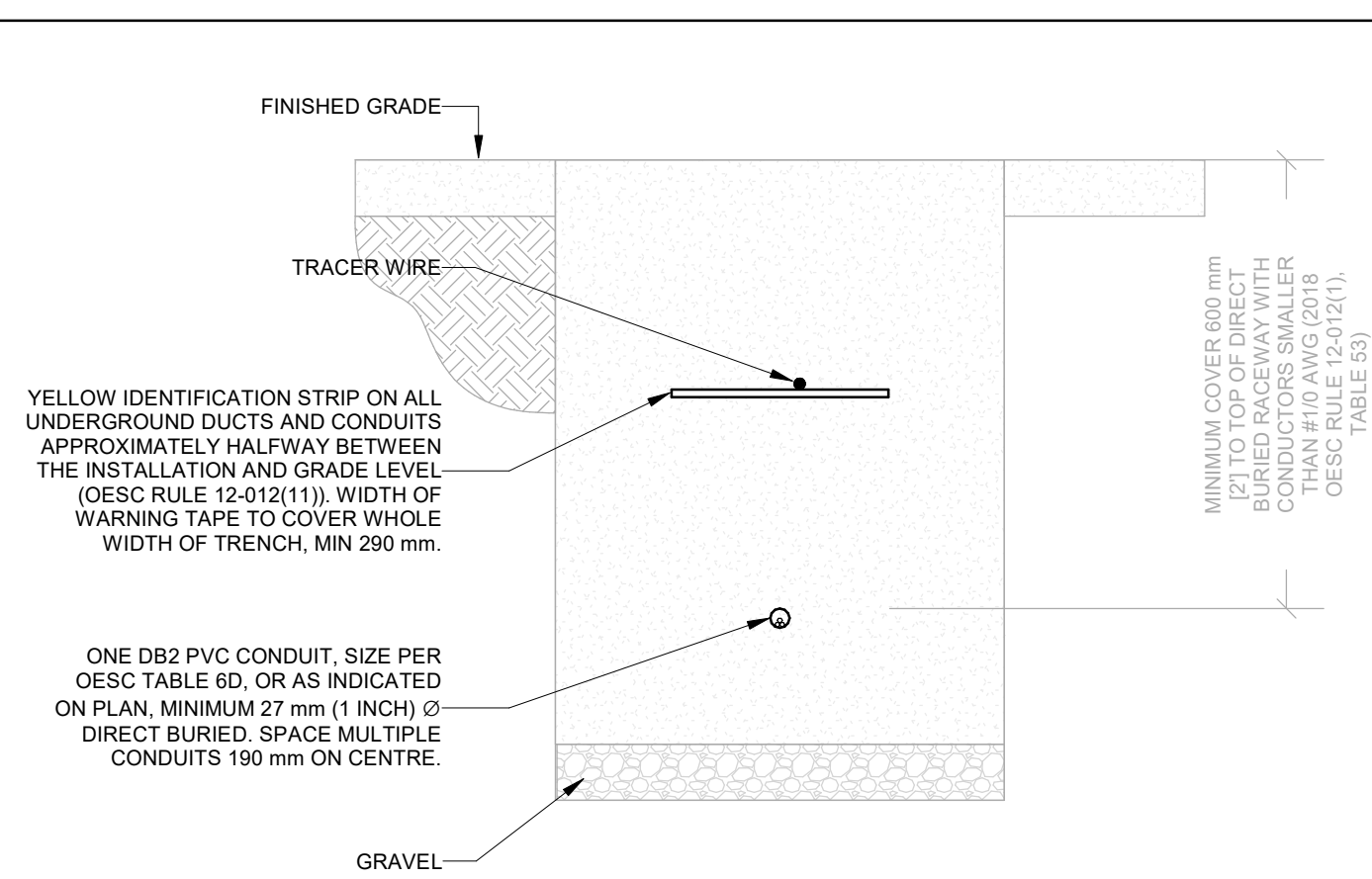
# YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

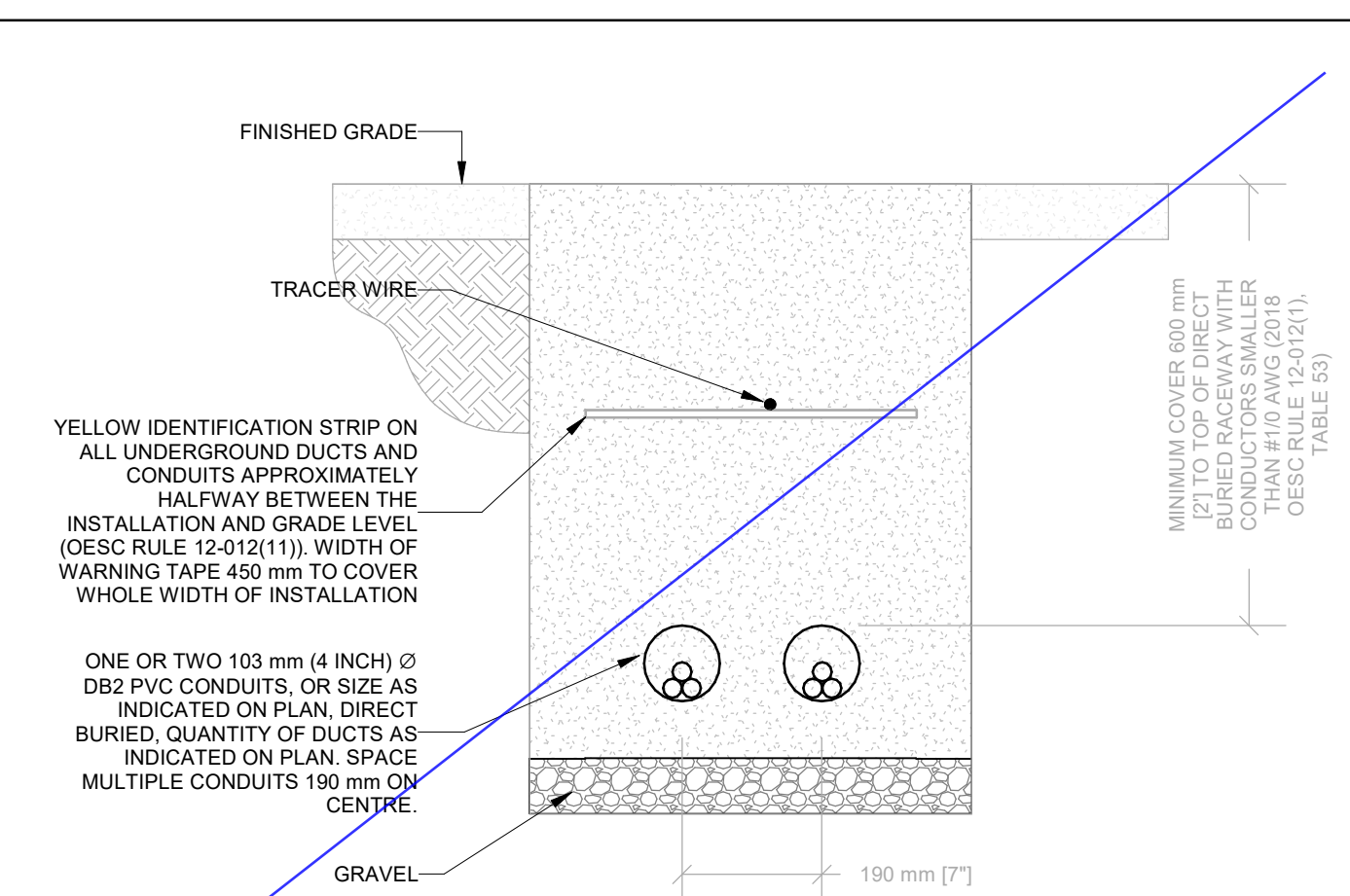


1 Strut Channel Suspension for Conduit and Cable  
SCALE: 1 : 1



### DIRECT BURIED RACEWAY SECTION, 750 V OR LESS

- ## NOTES:
1. METRIC DIMENSIONS GOVERN.
  2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
  3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
  4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #10 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.



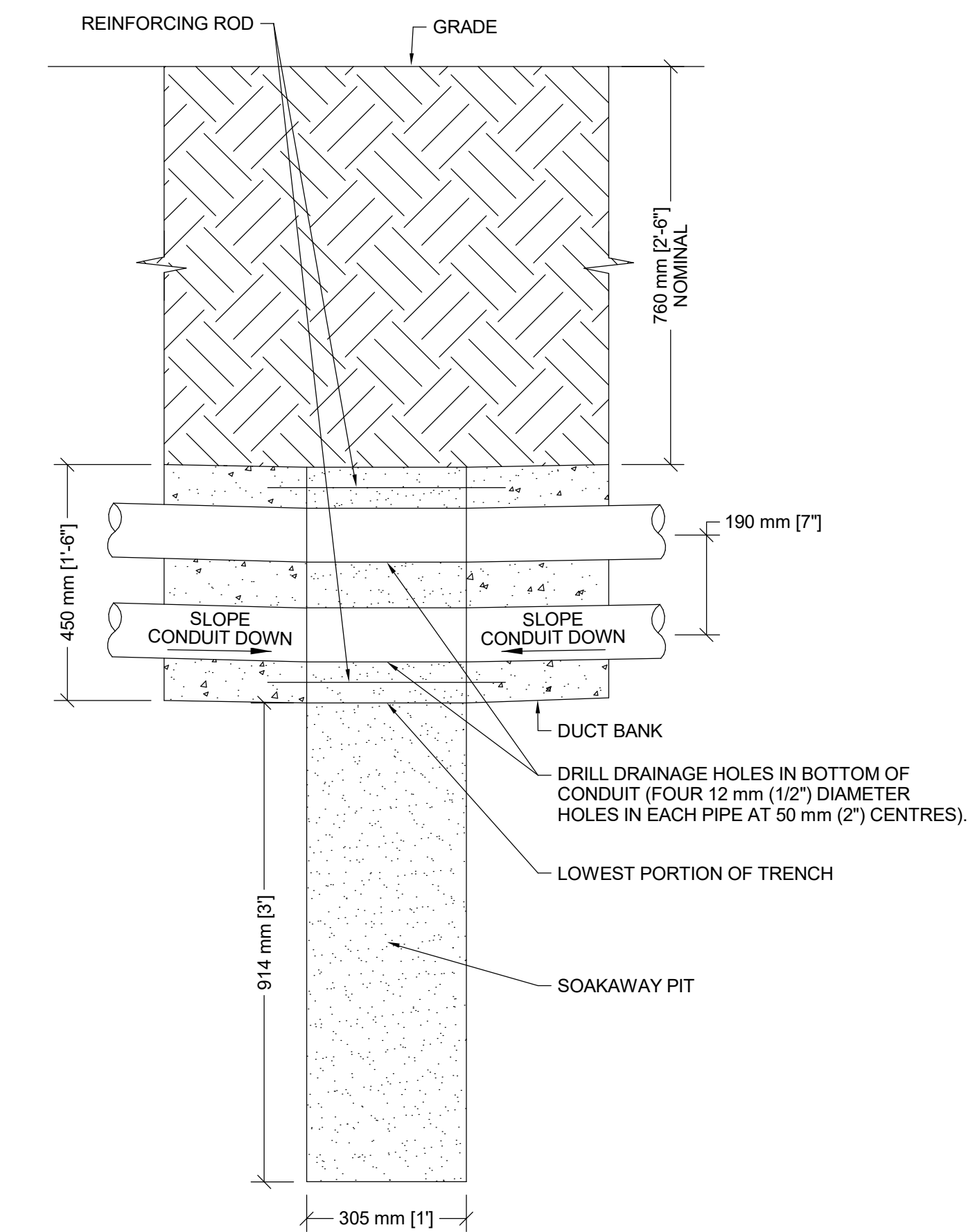
~~DIRECT BURIED 2-DUCT RACEWAY SECTION, 750 V OR LESS~~

- NOTES:**
1. METRIC DIMENSIONS GOVERN.
  2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
  3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
  4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #1/0 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.

2018 OESC 1Wx1H x 1in Direct Buried Branch Circuit Ducts  
SCALE:N.T.S.

ELECTRICAL ENERGY EFFICIENCY NOTES FOR PERMIT (ONTARIO BUILDING CODE SB-10)			
ITEM	DESCRIPTION	CODE REFERENCE	SPECIFICATION REFERENCE
1A.	FEDER CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD.	0BC SB-10-10.17, ASHRAE 90-1-2013, 8.4.1.	26 05 19
1B.	BRANCH CIRCUIT CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD.	0BC SB-10-10.17, ASHRAE 90-1-2013, 8.4.1.	26 05 19
2.	50% RECEPTACLE CONTROLS IN CONFERENCE ROOMS, COPY ROOMS, BREAK ROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS.	0BC SB-10-10.17, ASHRAE 90-1-2013, 8.4.2.	26 09 23
3.	MEASUREMENT DEVICES ROUGHED IN TO MONITOR THE ELECTRICAL ENERGY USE FOR EACH OF THE FOLLOWING UNLESS EXEMPT: A. TOTAL ELECTRICAL ENERGY; B. HVAC; C. INTERIOR LIGHTING; D. EXTERIOR LIGHTING; E. RECEPTACLE CIRCUITS.	0BC SB-10-10.17, ASHRAE 90-1-2013, 8.4.3.	26 27 13
4.	NEW LOW-VOLTAGE TRANSFORMERS TO MEET THE NOMINAL EFFICIENCIES SHOWN IN ASHRAE 90-1-2013, TABLE 8.4.4. UNLESS EXEMPT	0BC SB-10-10.17, ASHRAE 90-1-2013, 8.4.4.	26 22 13
5.	PROVIDE LIGHTING CONTROL FUNCTIONS FOR EACH SPACE IN THE BUILDING PER PER ASHRAE 90-1-2013 TABLE 9.6.1. ASHRAE 90.1 EXEMPTIONS: -NORMALLY OFF EMERGENCY LIGHTING -DWELLING UNITS -LIFE SAFETY OR OTHER ORDINANCE	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.1.	26 09 23
5.1.	SPACES PROVIDED WITH READILY ACCESSIBLE LOCAL CONTROLS.	0BC SB-10-10.17, ASHRAE 90-1-2017, 9.4.1.1A.	26 09 23
5.2.	MAXIMUM OCCUPANCY SENSOR TIMEOUT 20 MINUTES	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.1G. ASHRAE 90-1-2013, 9.4.1.1H.	26 09 23
6.1	PARKING GARAGE LIGHTING TO BE PROVIDED WITH AUTOMATIC CONTROLS PER ASHRAE 90-1-2017 SECTION 9.4.1.2.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.2	26 09 23
6.2	PARKING GARAGE LIGHTING TO AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 30% BASED ON OCCUPANCY.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.2	26 09 23
6.3	PARKING GARAGE DAYLIGHT TRANSITION ZONE TO BE ON A SEPARATE SCHEDULE.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.2	26 09 23
6.4	PARKING GARAGE LUMINAIRES TO BE PROVIDED WITH DAYLIGHT HARVESTING, IF NET OPENING-TO WALL RATIO IS GREATER THAN 0.40 UNLESS EXEMPT.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.2	26 09 23
7.	PROVIDE ADDITIONAL CONTROLS FOR SPECIAL APPLICATIONS LISTED ASHRAE 90.1 SECTION 9.4.1.3.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.3	26 09 23
8.	INTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90-1-2013 9.2.2.3 AS MODIFIED BY SB-10.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.2.2.3	26 51 00
9.1	PROVIDE A PHOTOSENSOR FOR AUTOMATIC SHUTOFF OF EXTERIOR LIGHTS WHEN AVAILABLE DAYLIGHT IS SUFFICIENT.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.4	26 09 23
9.2	PROVIDE A SHUTOFF FOR LANDSCAPE AND FACADE LIGHTING BETWEEN THE HOURS OF MIDNIGHT AND 6:00 A.M.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.4	26 09 26
9.3	PROVIDE CONTROL TO REDUCE ILLUMINATED SIGNAGE LIGHTING BY AT LEAST 30% BETWEEN MIDNIGHT AND 6:00 A.M.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.1.4	26 09 26
10.	EXTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90-1-2013 9.4.2. AS MODIFIED BY SB-10.	0BC SB-10-10.17, ASHRAE 90-1-2013, 9.4.2.	26 53 00
11.	LIGHTING CONTROLS MANUFACTURER'S REPRESENTATIVE TO PROVIDE FUNCTIONAL TESTING AND REPORT IN ACCORDANCE WITH ASHRAE 90-1-2013.	0BC SB-10, ASHRAE 90-1-2010, 9.4.4.	26 09 23

5 Electrical SB-10 Notes  
SCALE: 1 : 1



6 Duct Bank Soakaway Pit  
SCALE: 1 : 10

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

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Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title: ELECTRICAL DETAILS

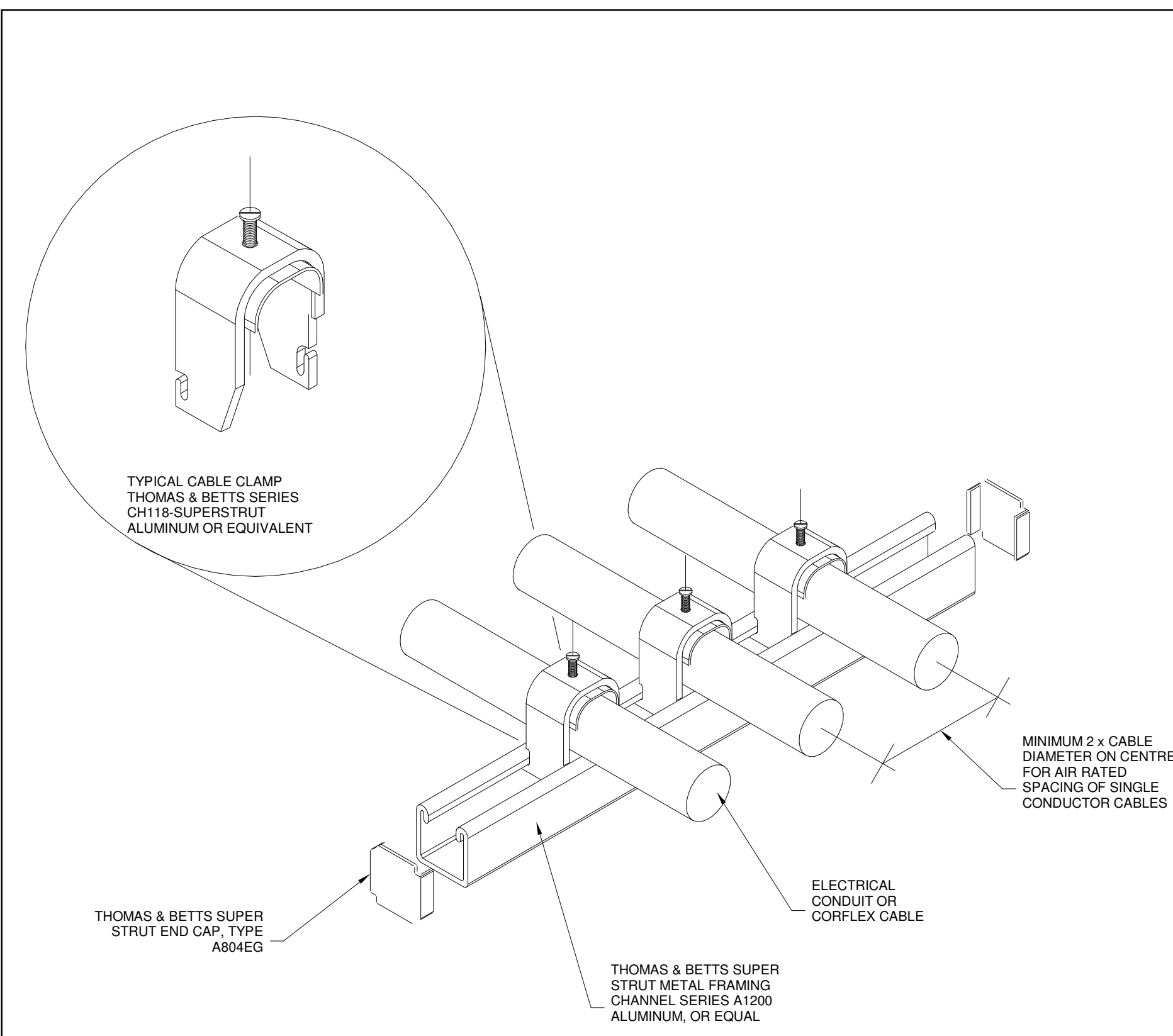
Drawing  
No. **E-803**



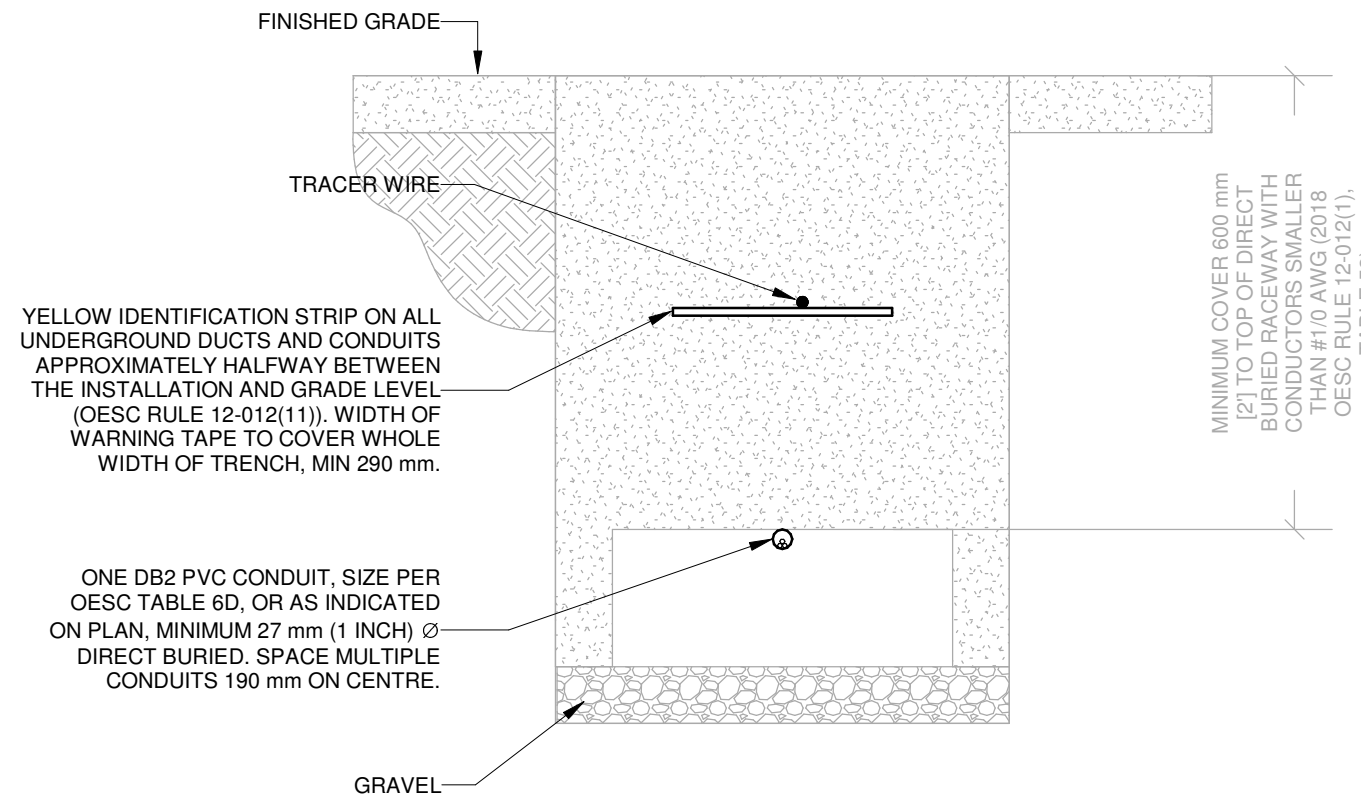
YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



1 26 05 29.00-01.IP - Strut Channel Suspension for Conduit and Cables  
SCALE: 1 : 1

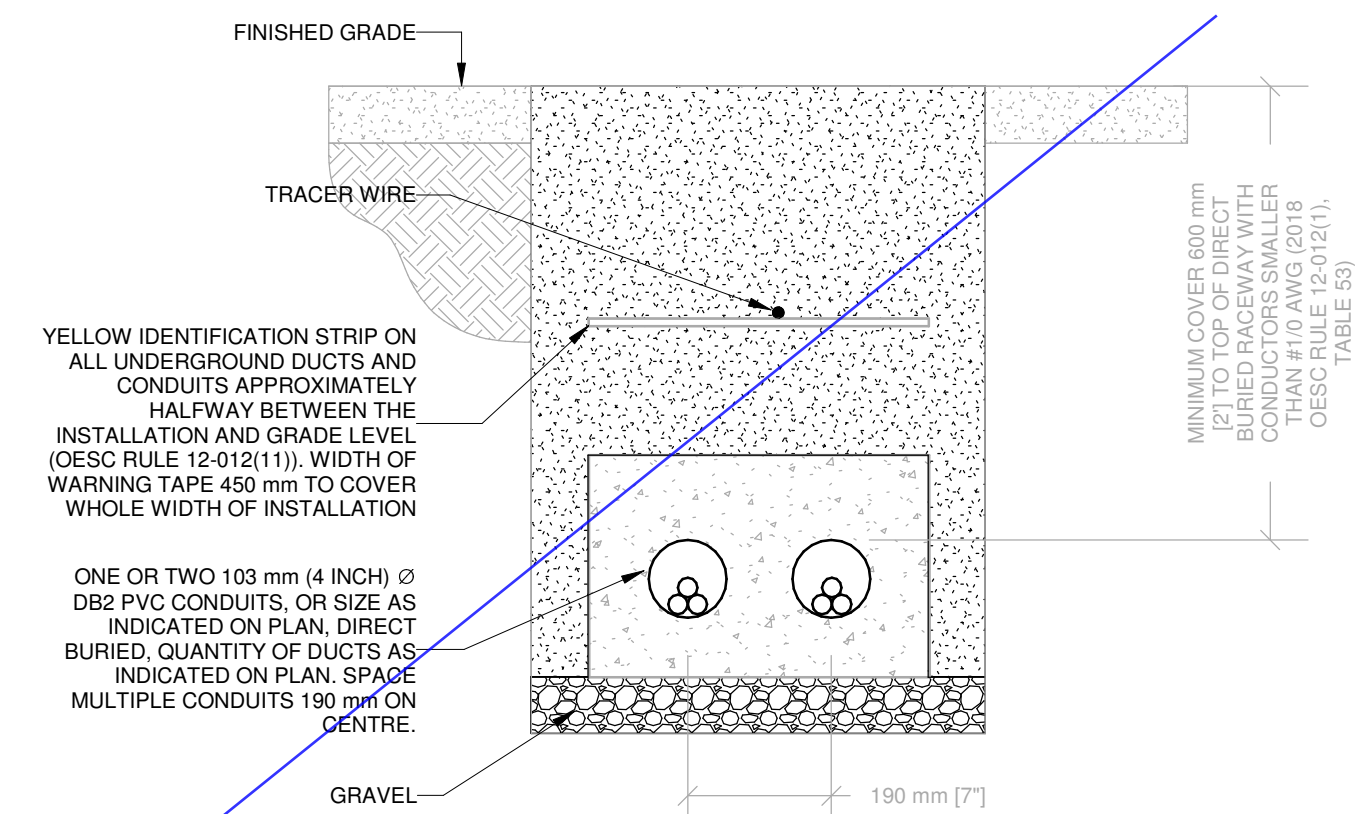


### DIRECT BURIED RACEWAY SECTION, 750 V OR LESS

NOTES:

1. METRIC DIMENSIONS GOVERN.
2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #1/0 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.

2 2018 OESC 1Wx1H x 1in Direct Buried Branch Circuit Ducts  
SCALE:N.T.S.

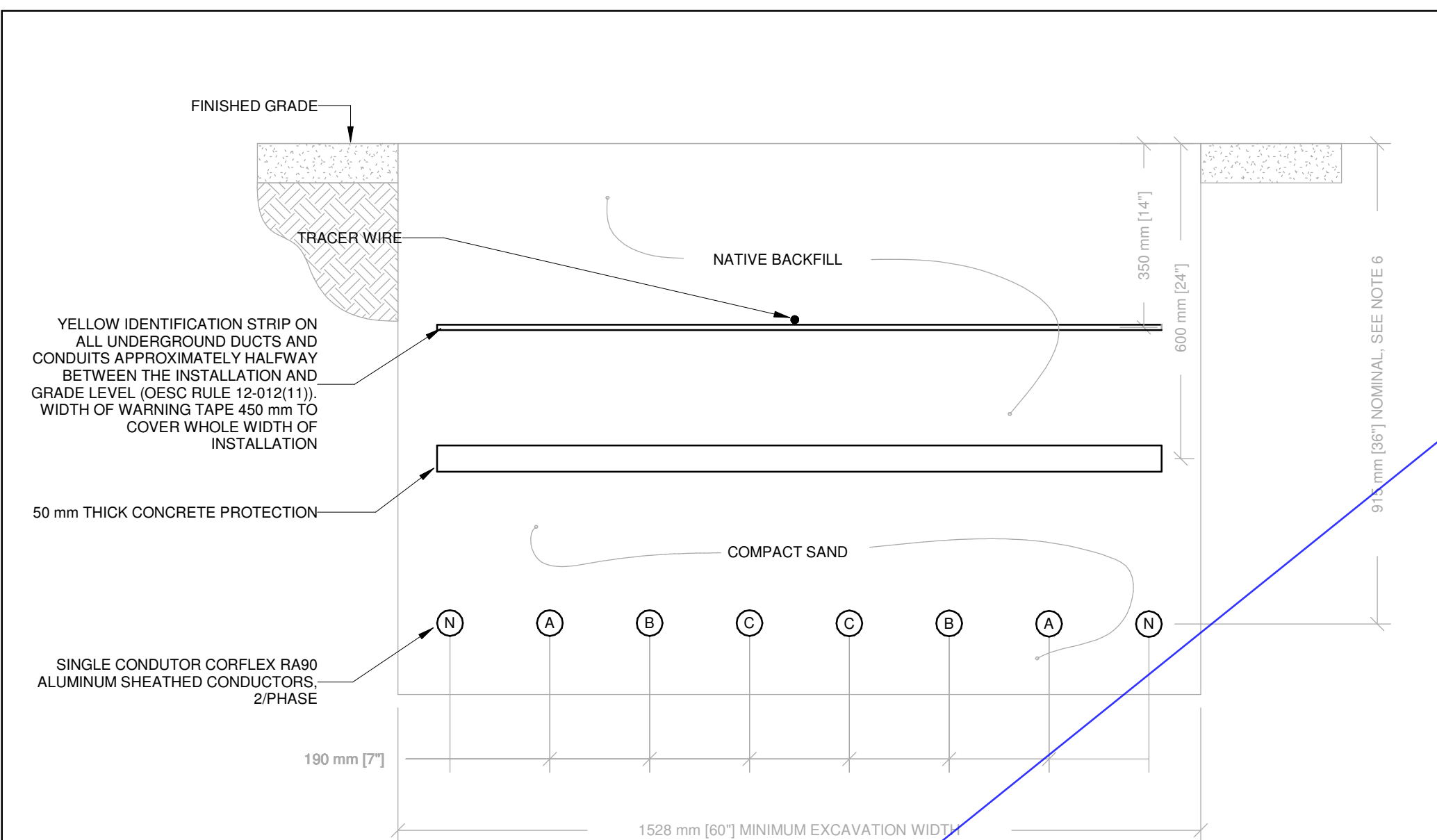


DIRECT BURIED 2-DUCT RACEWAY SECTION, 750 V OR LESS

NOTES:

1. METRIC DIMENSIONS GOVERN.
2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #10 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.

3 2018 OESC 1Wx1H x 4in Direct Buried Branch Circuit Ducts  
SCALE:N.T.S.



DIRECT BURIED (BELOW 750 VOLT) FEEDER SECTION

NOTES:

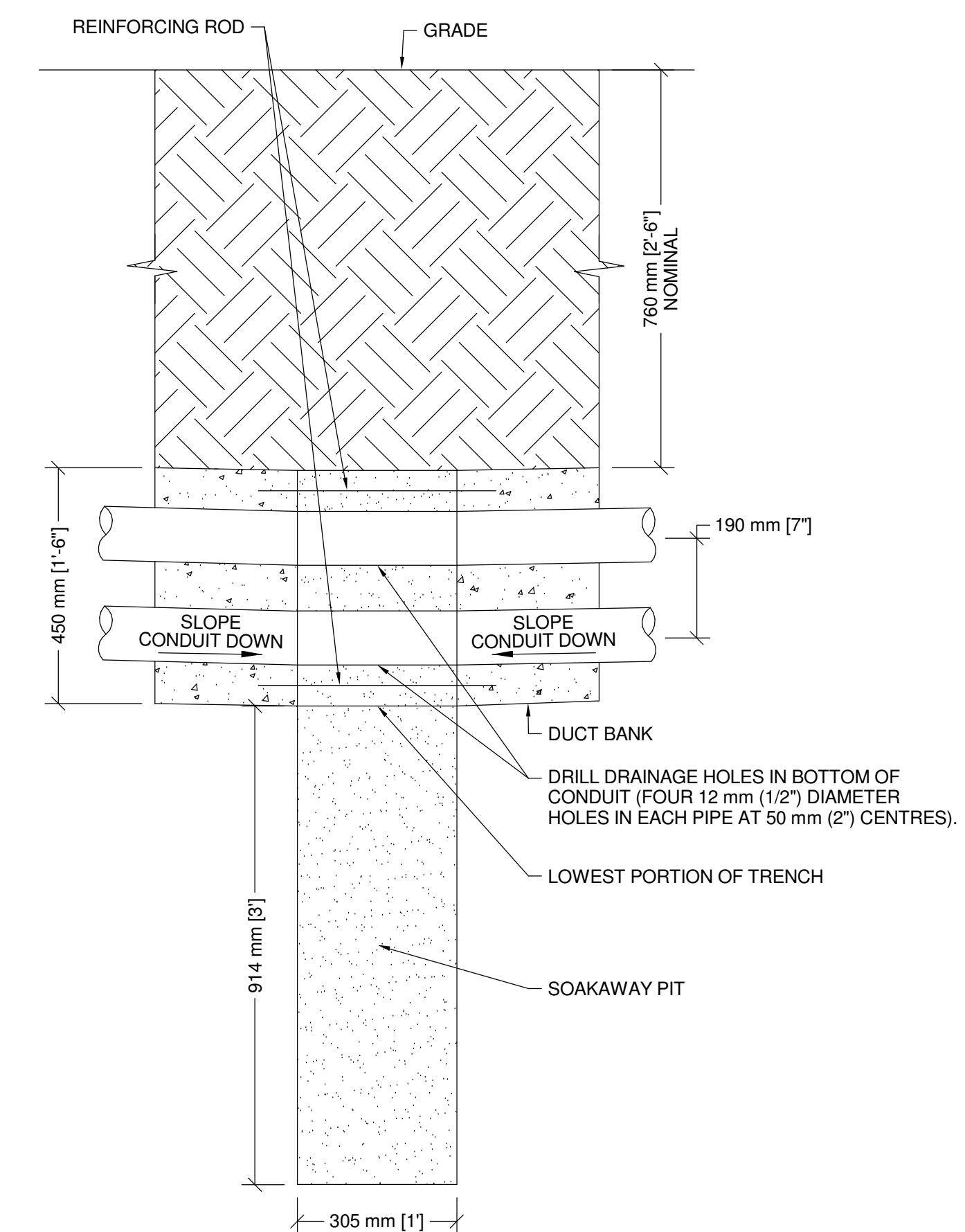
1. DIRECT BURIED FEEDER TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), DIAGRAM D6, DETAIL 2, OR LATEST EDITION, WHERE ANY CONTRADICTION EXISTS BETWEEN THIS DETAIL AND THE OESC, THE OESC DIMENSIONS GOVERN.
2. THIS DETAIL MODIFIES THE OESC DETAIL BY INCLUSION OF NEUTRAL CONDUCTORS.
3. FEEDER TO BE INSPECTED PRIOR TO BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION AND RECEIVE ALL NECESSARY APPROVALS.
4. AMPACITY OF 4-WIRE + GROUND FEEDER BASED ON 2015 OESC TABLES LISTED BELOW, LOWER OF TWO VALUES, 800A FEEDER REQUIRED, PLUS VOLTAGE DROP ALLOWANCE:
  - 4.1. TABLE DBA, "2/PHASE DETAIL 2", SIZE 300 MCM: 2 x 464 AMPS = 928 AMPS.
  - 4.2. TABLE 1, SIZE 300 MCM: 2 x 445 AMPS = 890 AMPS.
5. ALTERNATE DIRECT BURIED CONDUCTOR CONFIGURATIONS MAY ONLY BE CONSIDERED BY THE CONSULTANT IF THE SAME FEEDER METHODOLOGY ABOVE IS CONSIDERED, OR AN AMPACITY CALCULATION IS PROVIDED IN ACCORDANCE WITH IEEE 835.
6. GREATER DEPTH THAN THE NOTED DIMENSION WILL RESULT IN A DECREASE IN THE FEEDER AMPACITY. REDUCTION IN THE DEPTH REQUIRES COORDINATION WITH OESC TABLE 53.

4 26 05 43.02-01.IP - 2015 OESC 2 Per Phase Direct Buried Feeder  
SCALE:N.T.S.

## ELECTRICAL ENERGY EFFICIENCY NOTES FOR PERMIT (ONTARIO BUILDING CODE SB-10)

ITEM	DESCRIPTION	CODE REFERENCE	SPECIFICATION REFERENCE
1A.	FEEDER CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 2% AT DESIGN	OSBC SB-10 2017, ASHRAE 90.1-2013,	26 05 19
1B.	BRANCH CIRCUIT CONDUCTORS TO BE SIZED FOR	OSBC SB-10 2017, ASHRAE 90.1-2013,	26 05 19
2.	MAXIMUM VOLTAGE DROP OF 3% AT DESIGN FOR RECEPTION AREAS IN CONFERENCE ROOMS, COPY ROOMS, BREAK ROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS	OSBC SB-10 2017, ASHRAE 90.1-2013, 8.4.2	26 09 23
3.	MONITORING DEVICES ROUGHED IN TO MONITOR THE ELECTRICAL ENERGY USE FOR EACH OF THE FOLLOWING UNLESS EXCEPT: A. TOTAL ELECTRICAL ENERGY; B. HVAC; C. INTERIOR LIGHTING; D. EXTERIOR LIGHTING. E. RECEPTION AREAS	OSBC SB-10 2017, ASHRAE 90.1-2013, 8.4.3.	26 27 13
4.	RECEPTION AREAS TRANSFORMERS TO MEET THE NOMINAL EFFICIENCIES SHOWN IN ASHRAE	OSBC SB-10 2017, ASHRAE 90.1-2013, 8.4.1.1.	26 22 13
5.	RECEPTION AREAS LIGHTING CONTROL FUNCTIONS FOR EACH SPACE IN THE BUILDINGS PERFER ASHRAE 90.1-2013 TABLE 9.6.1. ASHRAE 90.1 EXEMPTIONS: -NORMALLY OFF EMERGENCY LIGHTING -DWELLING UNITS -LIFE SAFETY OR OTHER ORDINANCE	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.1.	26 09 23
5.1.	SPACES PROVIDED WITH READILY ACCESSIBLE	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.1G.	26 09 23
5.2.	MAXIMUM OCCUPANCY SENSOR TIMEOUT 20 MINUTES.	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.1G.	26 09 23
6.1	PARKING GARAGE LIGHTING TO BE PROVIDED WITH AUTOMATIC CONTROLS PER ASHRAE	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2.	26 09 23
6.2	PARKING GARAGE LIGHTING TO AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 30%	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	26 09 23
6.3	PARKING GARAGE DAYLIGHT TRANSITION ZONE	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	26 09 23
6.4	PARKING GARAGE DAYLIGHT TRANSITION ZONE TO WALL RATIO IS GREATER THAN 40% UNLESS	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.2	26 09 23
7.	PROVIDE ADDITIONAL CONTROLS FOR SPECIAL APPLICATIONS LISTED ASHRAE 90.1 SECTION	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.3	26 09 23
8.	INTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90.1-2013 9.2.2.3 AS MODIFIED BY	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.4	26 51 00
9.1	PROVIDE A PHOTOSENSOR FOR AUTOMATIC SHUTOFF OF EXTERIOR LIGHTS WHEN AVAILABLE	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 23
9.2	PROVIDE A SUNDIAL FOR LANDSCAPE AND FACADE LIGHTING BETWEEN THE HOURS OF	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 26
9.3	PROVIDE CONTROL TO REDUCE ILLUMINATED SIGNAGE POWER BY AT LEAST 30%	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 26
10.	INTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90.1-2013 9.2.2.3 AS MODIFIED BY	OSBC SB-10 2017, ASHRAE 90.1-2013, 9.4.1.4	26 53 00
11.	RECEPTION AREAS LIGHTING CONTROLS MANUFACTURER'S REPRESENTATIVE TO PROVIDE FUNCTIONAL TESTING AND REPORT IN ACCORDANCE WITH ASHRAE 90.1-2013	OSBC SB-10 2017, ASHRAE 90.1-2010, 9.4.4.	26 09 23

5 26 00 00.00-03.SI - Electrical SB-10 Notes  
SCALE: 1 : 1



6 26 05 43.00-02.SI - Duct Bank Soakaway Pit  
SCALE: 1 : 10

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## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

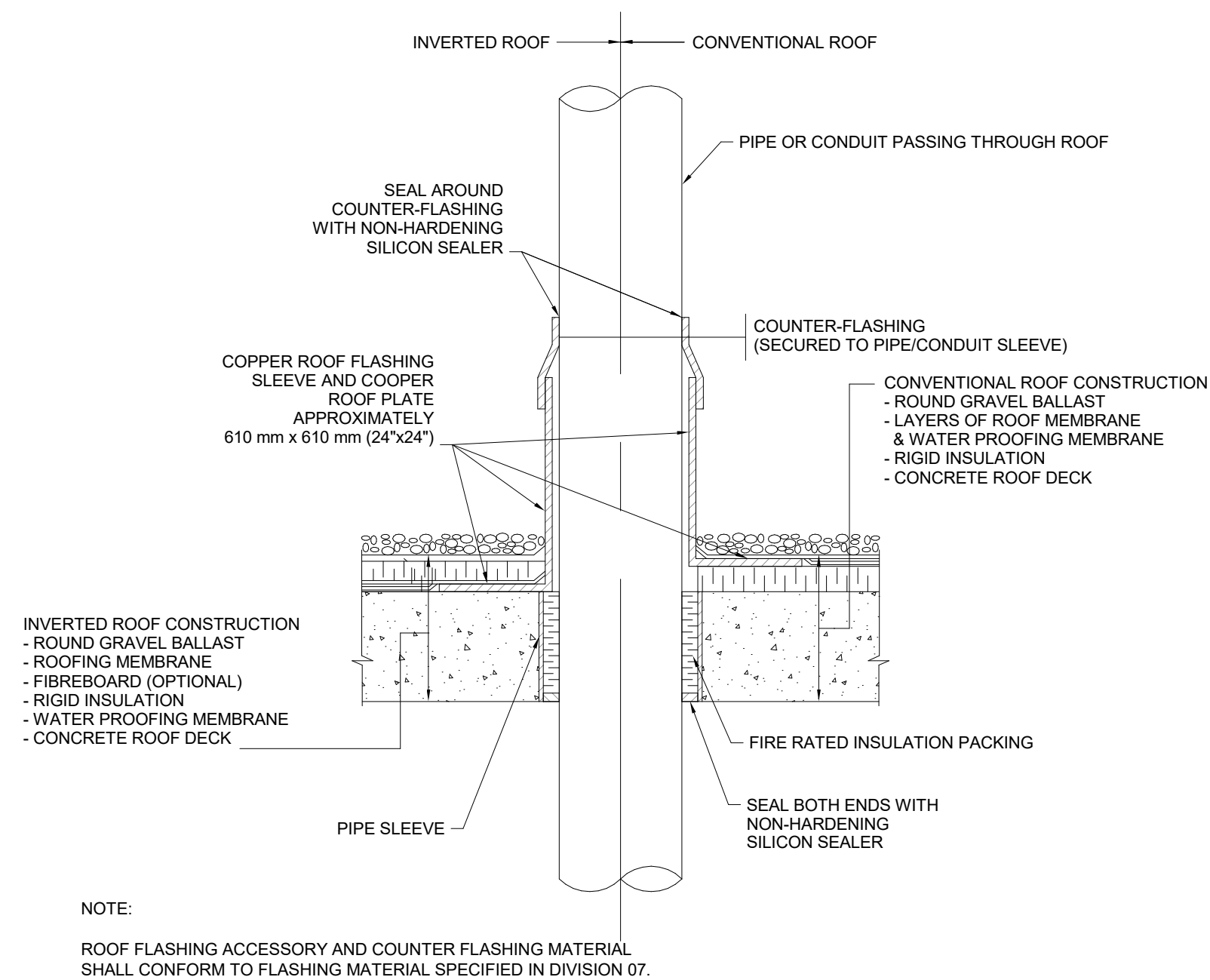
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Project No: TT-24-005  
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## ELECTRICAL DETAILS

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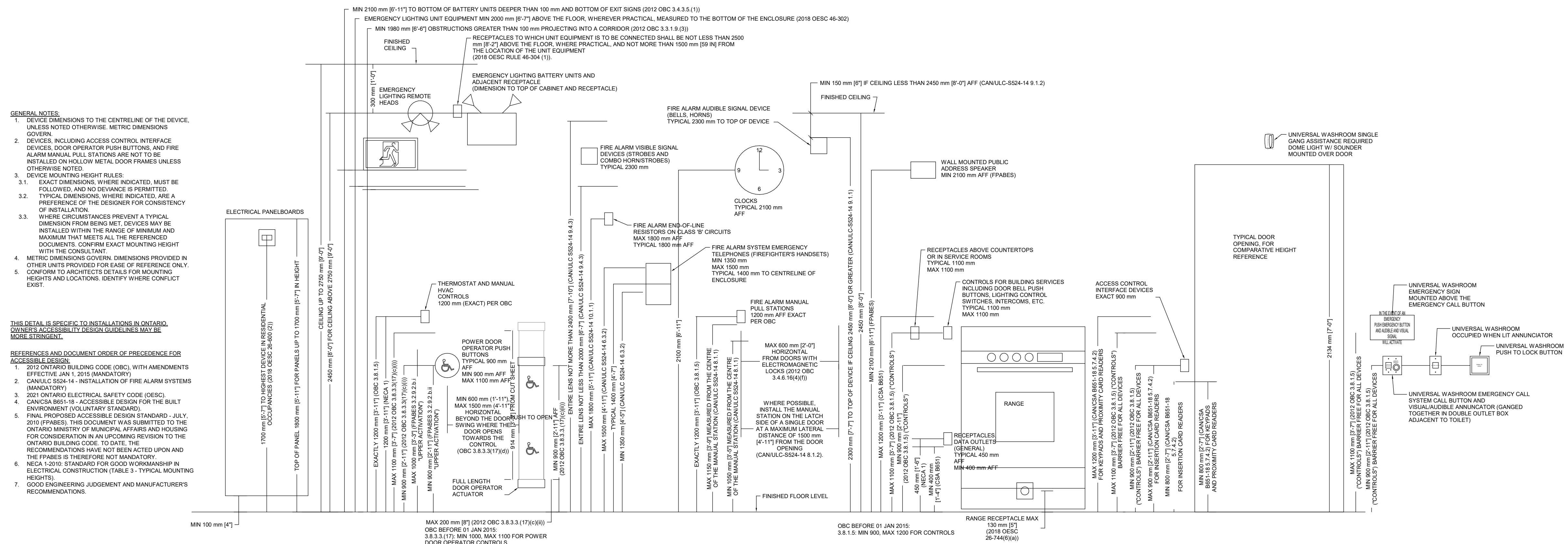




### SLEEVE AND FLASHING OF CONDUITS THROUGH ROOF

## CONDUIT ROOF PENETRATION FLASHING

SCALE:1 : 300



## Typical Device Mounting Heights

SCALE: 1:15

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## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

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Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

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Title:

## ELECTRICAL DETAILS

Drawing  
No.  
**E-804**



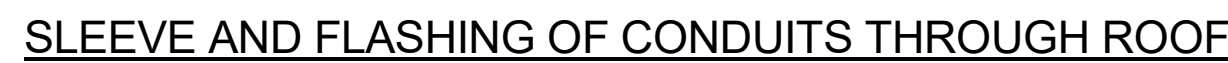
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BOULEVARD  
TOWN OF EAST GWILLIMBURY

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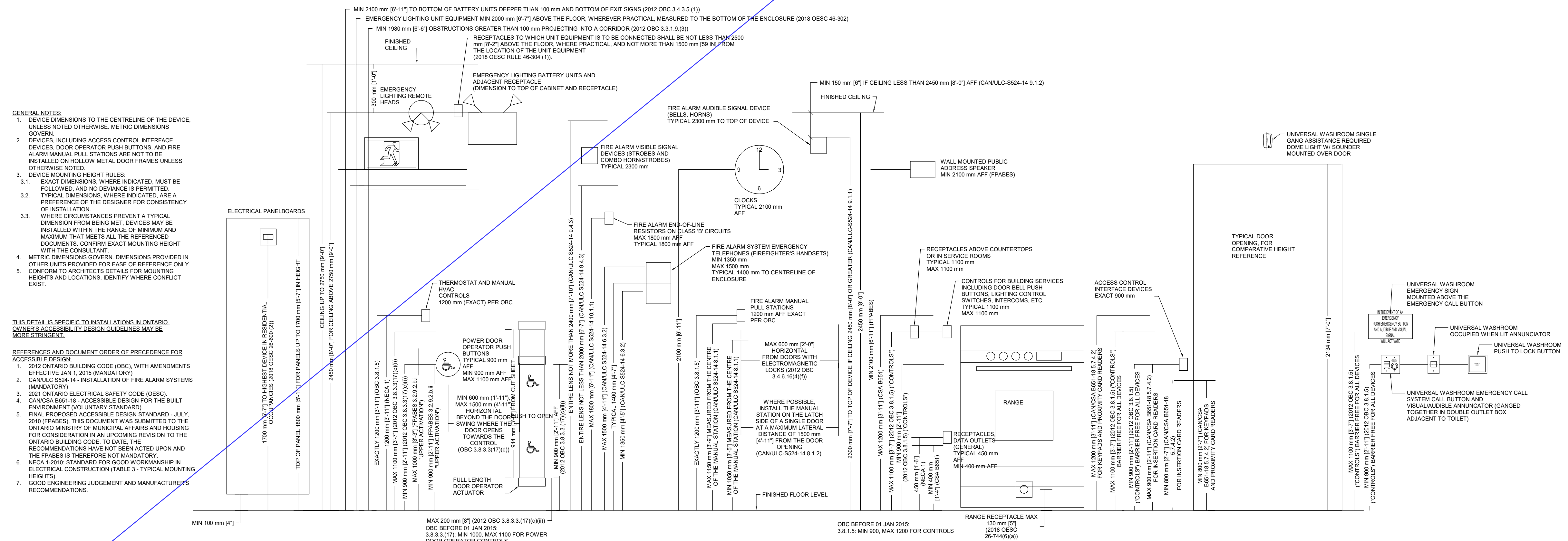
All measurements are to be checked and verified on site by the contractor before proceeding with work

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Drawing  
No.  
**E-804**



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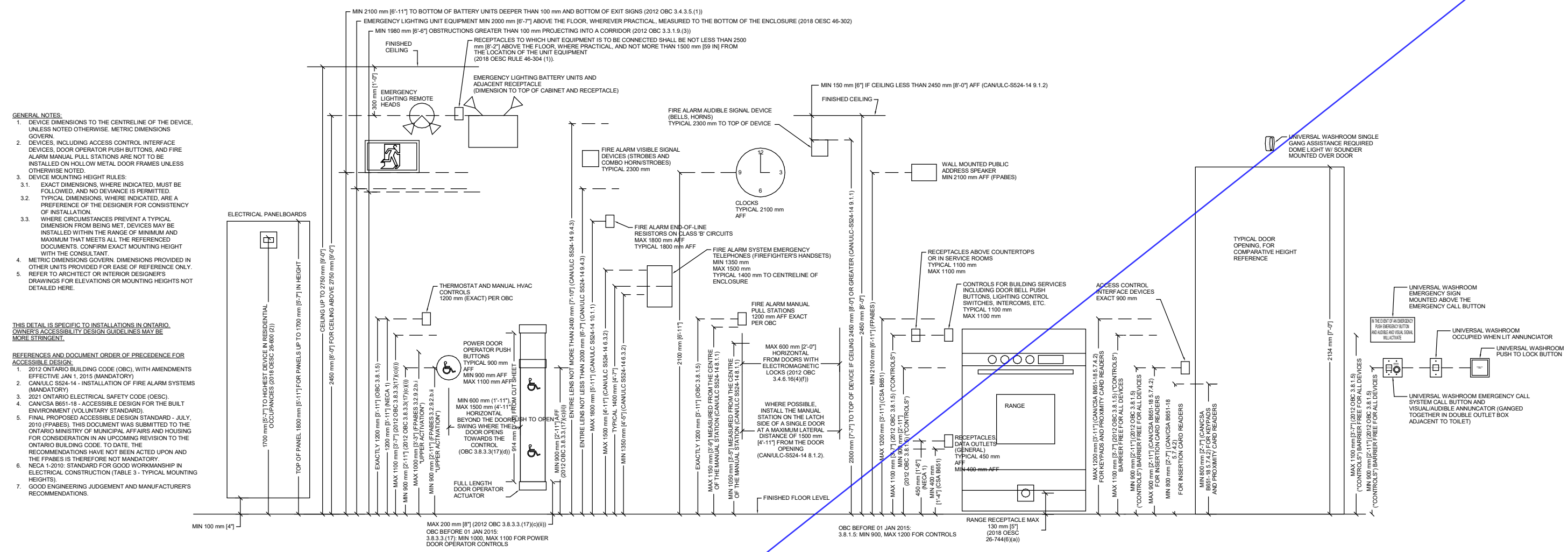
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YORK REGIONAL POLICE  
HELICOPTER HANGAR

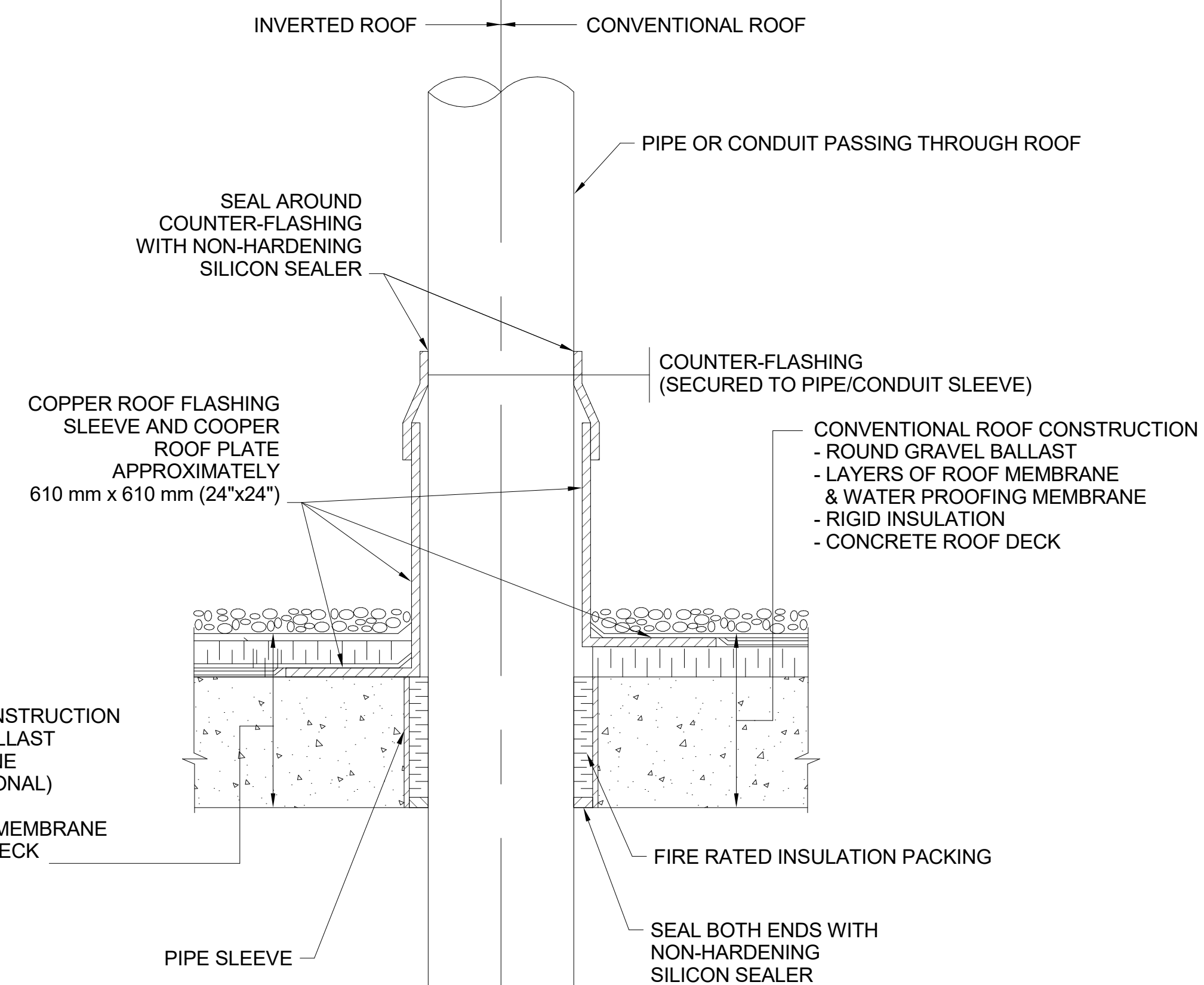
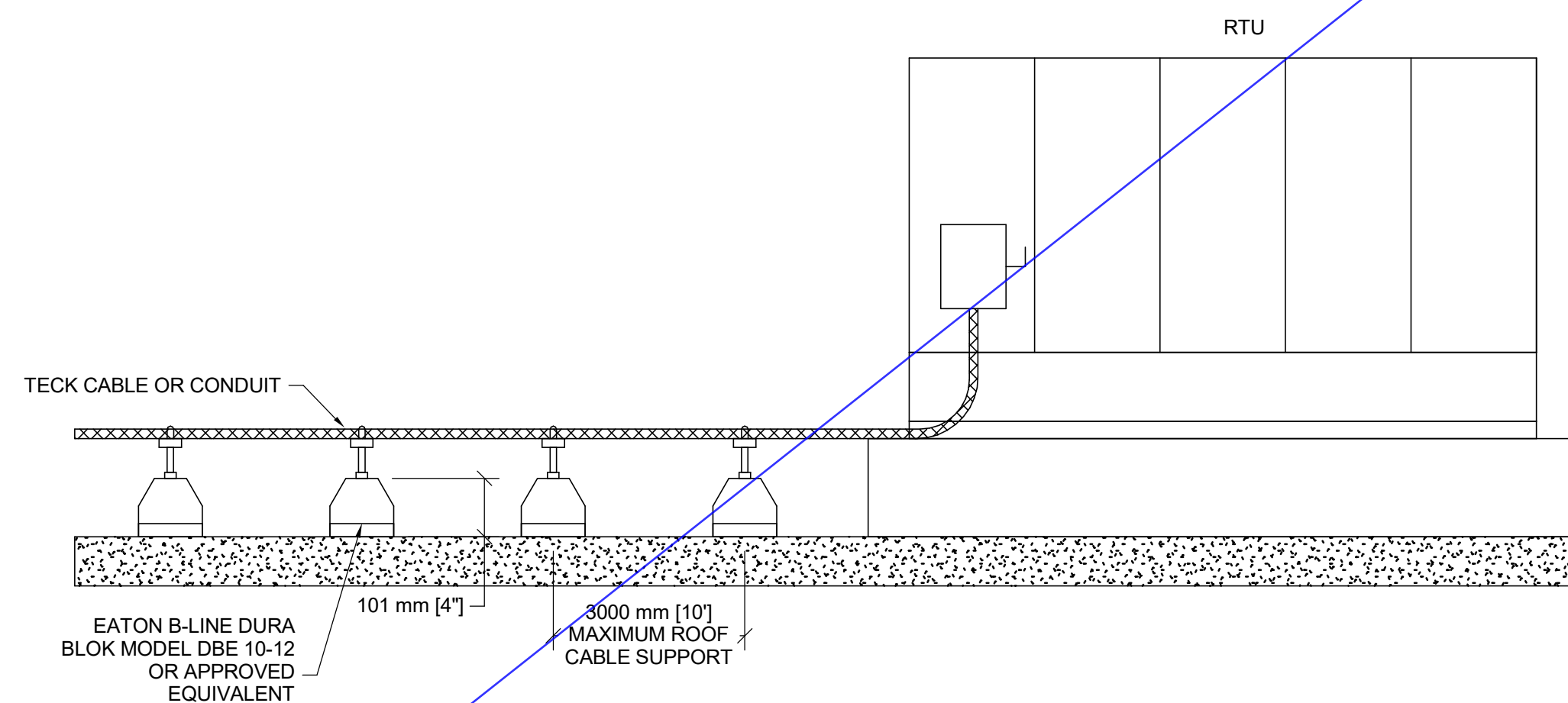
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BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



## Typical Device Mounting Heights

SCALE:N.T.S



NOTE:

ROOF FLASHING ACCESSORY AND COUNTER FLASHING MATERIAL SHALL CONFORM TO FLASHING MATERIAL SPECIFIED IN DIVISION 07.

## SLEEVE AND FLASHING OF CONDUITS THROUGH ROOF

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

## ELECTRICAL DETAILS

Drawing  
No.  
**E-804**



YORK REGIONAL POLICE  
HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

## ELECTRICAL DETAILS

Drawing  
No.  
**E-804**

## GENERAL NOTES

- |    |   |
|----|---|
| 1. | WHERE DIMENSIONS ARE PROVIDED IN METRIC AND IN IMPERIAL UNITS, METRIC DIMENSIONS GOVERN.  |
| 2. | EMERGENCY POWER FOR LIGHTING AND FIRE ALARM: MINIMUM 2 HOURS (2012 OBC 3.2.7.4.1)(B)(1) "2 H FOR A BUILDING WITHIN THE SCOPE OF SUBSECTION 3.2.6.") |
| 3. | FIRE ALARM INSTALLATION IN ACCORDANCE WITH CANULC-S524-14   |
| 4. | VERIFY FIRE ALARM SYSTEM IN ACCORDANCE WITH CANULC-S537-13.   |
| 5. | COMMISSION INTERCONNECTED LIFE SAFETY SYSTEMS IN ACCORDANCE WITH CANULC-S1001-11.   |

## GENERAL NOTES

- |    |  |
|----|--|
| 1. | WHERE DIMENSIONS ARE PROVIDED IN METRIC AND IN IMPERIAL UNITS, METRIC DIMENSIONS GOVERN.   |
| 2. | EMERGENCY POWER FOR LIGHTING AND FIRE ALARM: MINIMUM 60 MINUTES [2012 CODE 3.2.7.4.(1)(B)] "1 H FOR A BUILDING WITHIN THE SCOPE OF ARTICLE 3.2.2.4(A), AND 2012 CODE 3.2.7.8.(3)(B)] "1 H FOR A BUILDING WITHIN THE SCOPE OF ARTICLE 3.2.2.4(A). |
| 3. | FIRE ALARM INSTALLATION IN ACCORDANCE WITH CANULC-S524-14.   |
| 4. | VERIFY FIRE ALARM SYSTEM IN ACCORDANCE WITH CANULC-S537-13.  |
| 5. | COMMISSION INTERCONNECTED LIFE SAFETY SYSTEMS IN ACCORDANCE WITH CANULC-S1001-11.  |

## GENERAL NOTES

- |    |   |
|----|---|
| 1. | WHERE DIMENSIONS ARE PROVIDED IN METRIC AND IN IMPERIAL UNITS, METRIC DIMENSIONS GOVERN.                                      |
| 2. | EMERGENCY POWER FOR LIGHTING AND FIRE ALARM: MINIMUM 30 MINUTES (2012 OBC 3.2.7.4.(1))b)(iv) "30 MIN FOR ANY OTHER BUILDING") |
| 3. | FIRE ALARM INSTALLATION IN ACCORDANCE WITH CANULC-S524-14   |
| 4. | VERIFY FIRE ALARM SYSTEM IN ACCORDANCE WITH CANULC-S537-13.   |
| 5. | COMMISSION INTERCONNECTED LIFE SAFETY SYSTEMS IN ACCORDANCE WITH CANULC-S1001-11.   |

## GENERAL NOTES

- |    |   |
|----|---|
| 1. | WHERE DIMENSIONS ARE PROVIDED IN METRIC AND IN IMPERIAL UNITS, METRIC DIMENSIONS GOVERN.  |
| 2. | EMERGENCY LIGHTING: MINIMUM 2 HOURS, CSA C282-19 GENERATOR PROVIDED.  |
| 3. | FIRE ALARM INSTALLATION IN ACCORDANCE WITH CANULC-S524-14.  |
| 4. | VERIFY FIRE ALARM SYSTEM IN ACCORDANCE WITH CANULC-S537-13.   |
| 5. | COMMISSION INTERCONNECTED LIFE SAFETY SYSTEMS IN ACCORDANCE WITH CANULC-S1001-11.   |
| 6. | BUILDING IS NOT CONSIDERED A HIGH BUILDING AS DEFINED IN CBC 3.2.6.1.   |
| 7. | Seismic (Sd) IS CONFIRMED BY THE STRUCTURAL ENGINEER TO BE LESS THAN 0.5. REFER TO STRUCTURAL DRAWINGS. SEISMIC RESTRAINTS FOR ELECTRICAL SYSTEMS ARE NOT REQUIRED. |

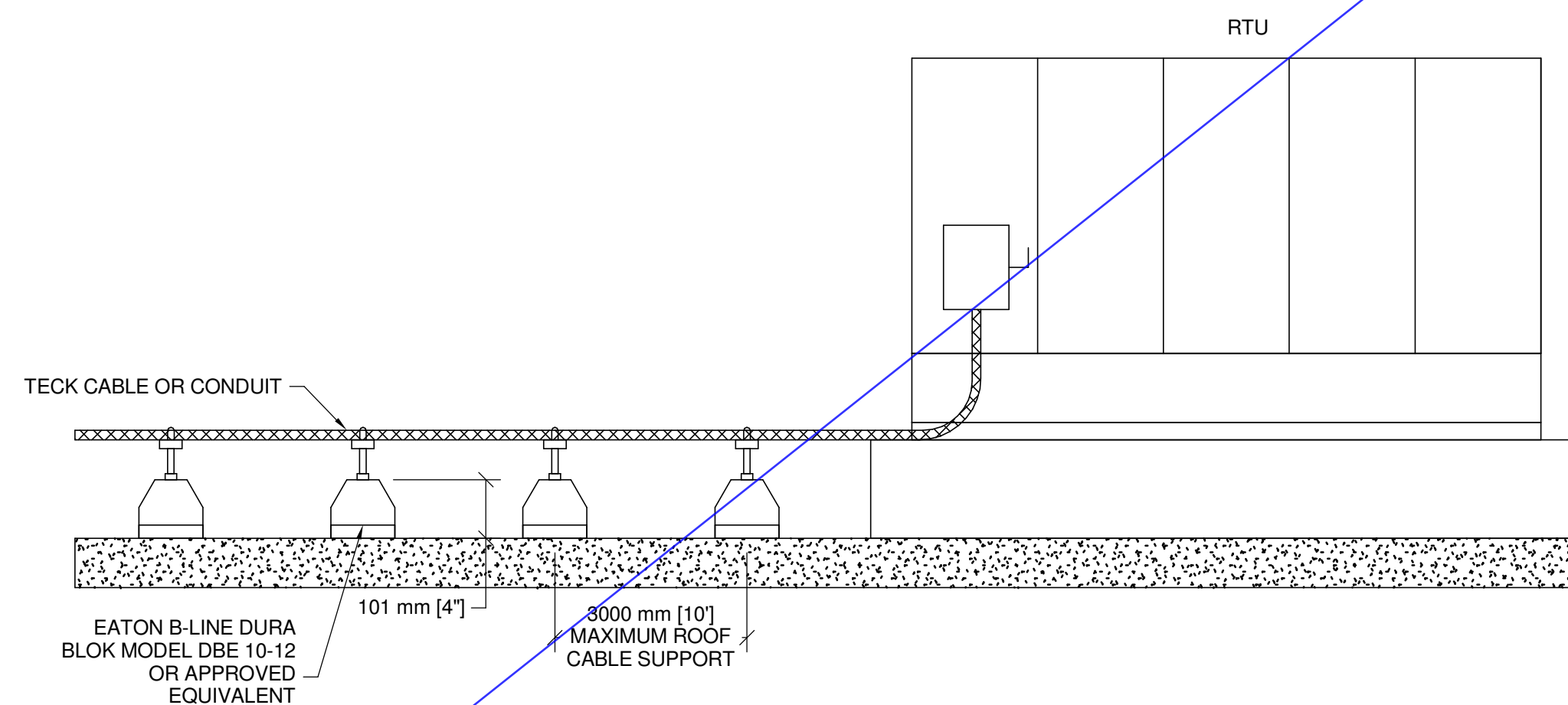
## GENERAL NOTES

- |    |   |
|----|---|
| 1. | WHERE DIMENSIONS ARE PROVIDED IN METRIC AND IN IMPERIAL UNITS, METRIC DIMENSIONS GOVERN.  |
| 2. | EMERGENCY POWER FOR LIGHTING AND FIRE ALARM: MINIMUM 30 MINUTES (2012 CBC 3.2.7.4. (1)(b)(iv) "30 MIN FOR ANY OTHER BUILDING")  |
| 3. | FIRE ALARM INSTALLATION IN ACCORDANCE WITH CANULC-S524-14   |
| 4. | VERIFY FIRE ALARM SYSTEM IN ACCORDANCE WITH CANULC-S537-13  |
| 5. | COMMISSION INTERCONNECTED LIFE SAFETY SYSTEMS IN ACCORDANCE WITH CANULC-S1001-11  |
| 6. | PROVIDE SEISMIC RESTRAINTS IN ACCORDANCE WITH SECTION 26 05 48. THIS IS A POST-DISASTER BUILDING. SEISMIC RESTRAINTS ARE REQUIRED PER 2012 CBC 4.1.8.18.(1) AND ARE NOT EXEMPT PER 2012 CBC 4.1.8.18.(2). |

2

26 00 00.00-04.SI - Electrical Cover Page General Notes

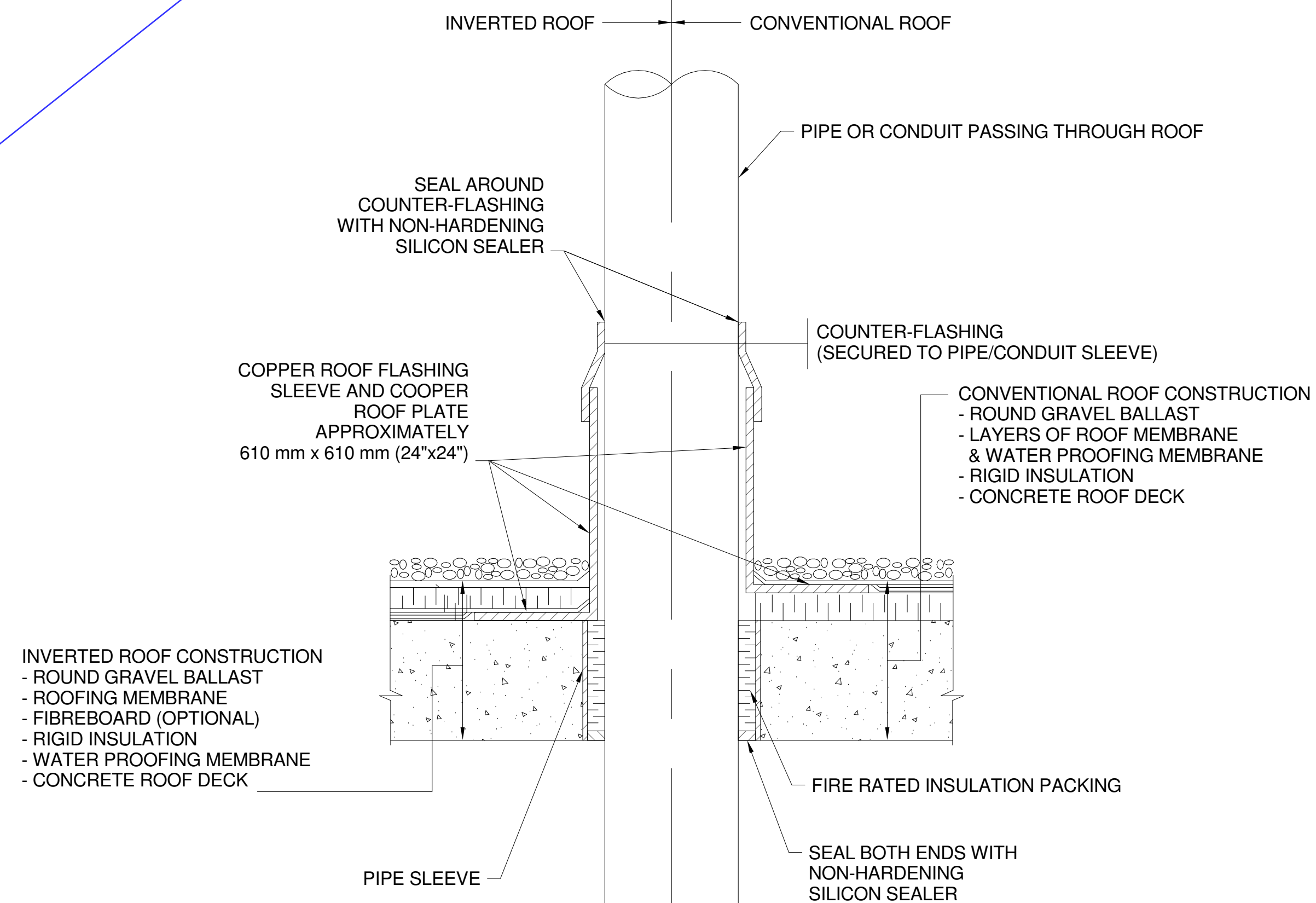
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4

26 05 29.00-04.SI - Roof Mounted Conduit or Cable Supports

SCALE: 1 : 10



NOTE:

ROOF FLASHING ACCESSORY AND COUNTER FLASHING MATERIAL SHALL CONFORM TO FLASHING MATERIAL SPECIFIED IN DIVISION 07.

## SLEEVE AND FLASHING OF CONDUITS THROUGH ROOF

6

26 05 44.00-06.IP - Conduit Roof Penetration Flashing

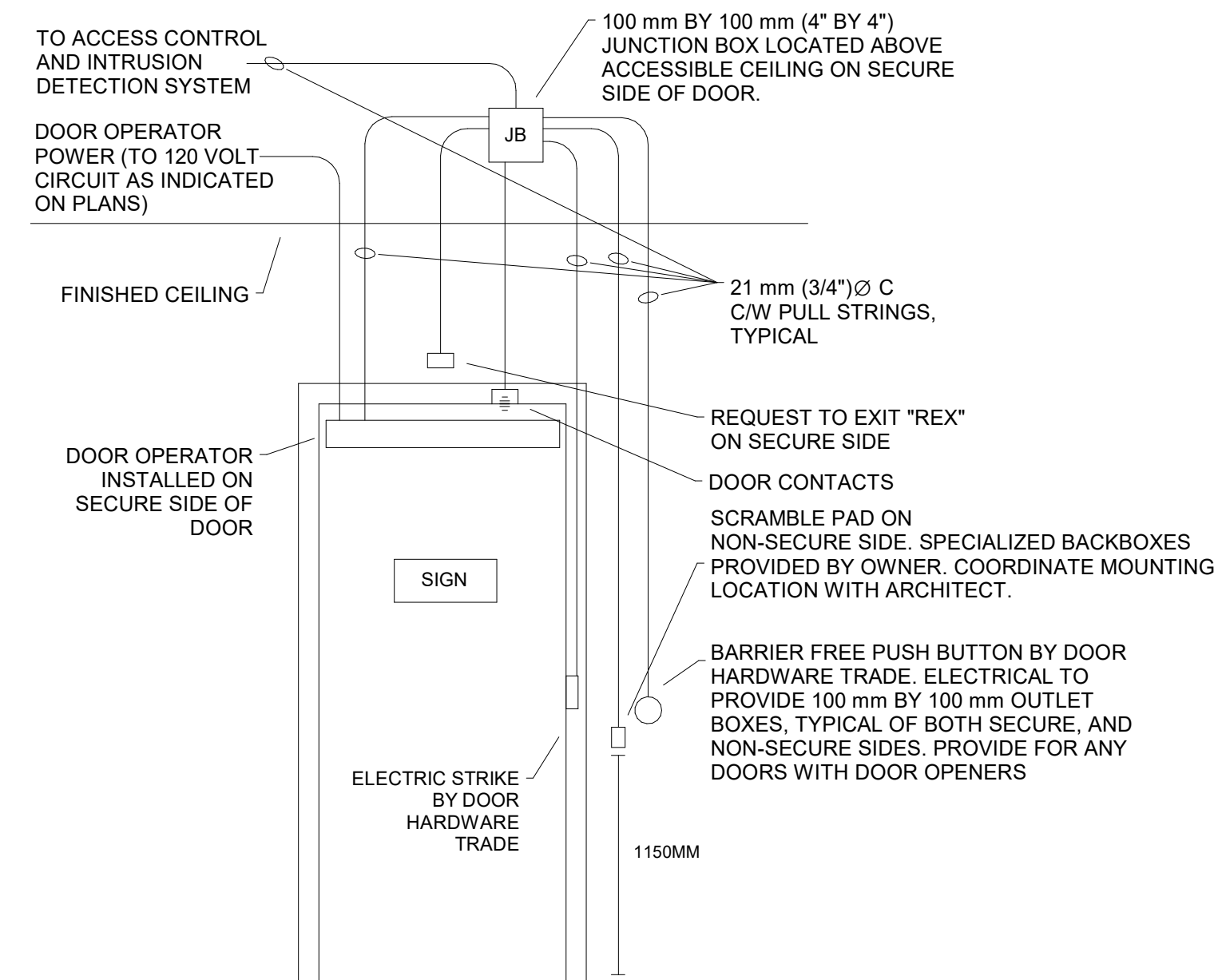
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YORK REGIONAL POLICE  
HELICOPTER HANGAR

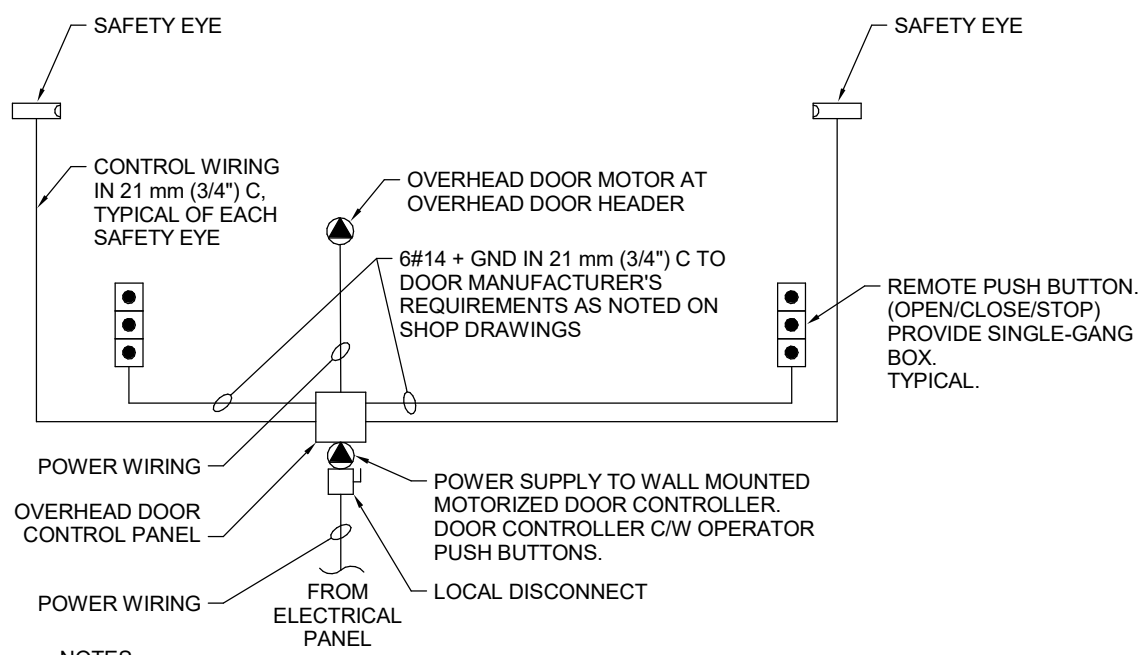
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BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



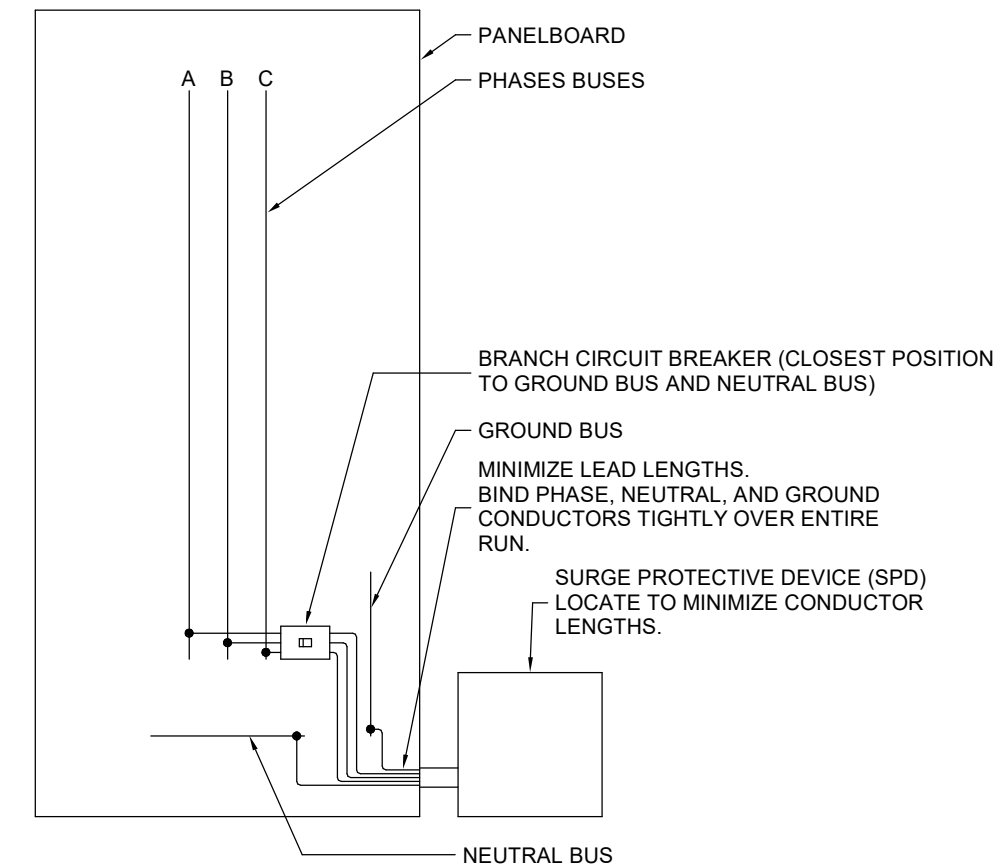
NOTES:

1. REFER TO DETAIL "MOUNTING HEIGHTS FOR ACCESSIBLE DESIGN" FOR EXACT MOUNTING HEIGHTS OF DEVICES AND APPLICABLE CODE REFERENCES.
2. REFER TO DOOR HARDWARE SCHEDULE FOR EXACT SCHEDULE OF DEVICES AT DOOR. COORDINATE EXACT ROUGH-IN DETAILS WITH DOOR HARDWARE TRADE.
3. INTERLOCK OPERATION OF DOOR OPERATOR WITH SCRAMBLE PAD ON THE NON-SECURE SIDE.



NOTES:

1. THIS SCHEMATIC IS NOT INTENDED FOR EXACT FIELD INSTALLATION OR WIRING. SCHEMATIC SHOWS DESIGN INTENT OF SYSTEM WIRING WILL VARY BETWEEN MANUFACTURERS.
2. DOOR MANUFACTURER TO PROVIDE SHOP DRAWINGS SHOWING ALL WIRING REQUIRED PRIOR TO ORDERING OF EQUIPMENT.



## Wiring Diagram for Overhead Doors

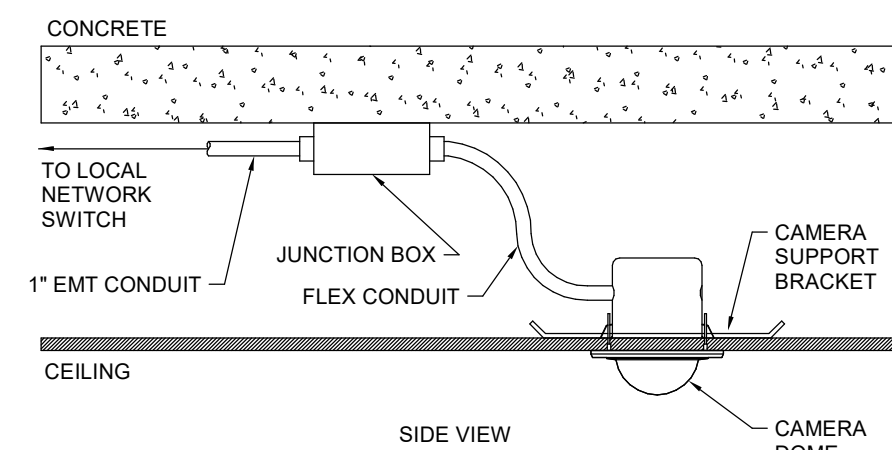
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## EXTERNALLY MOUNTED SURGE PROTECTION

SCALE: 1 : 50

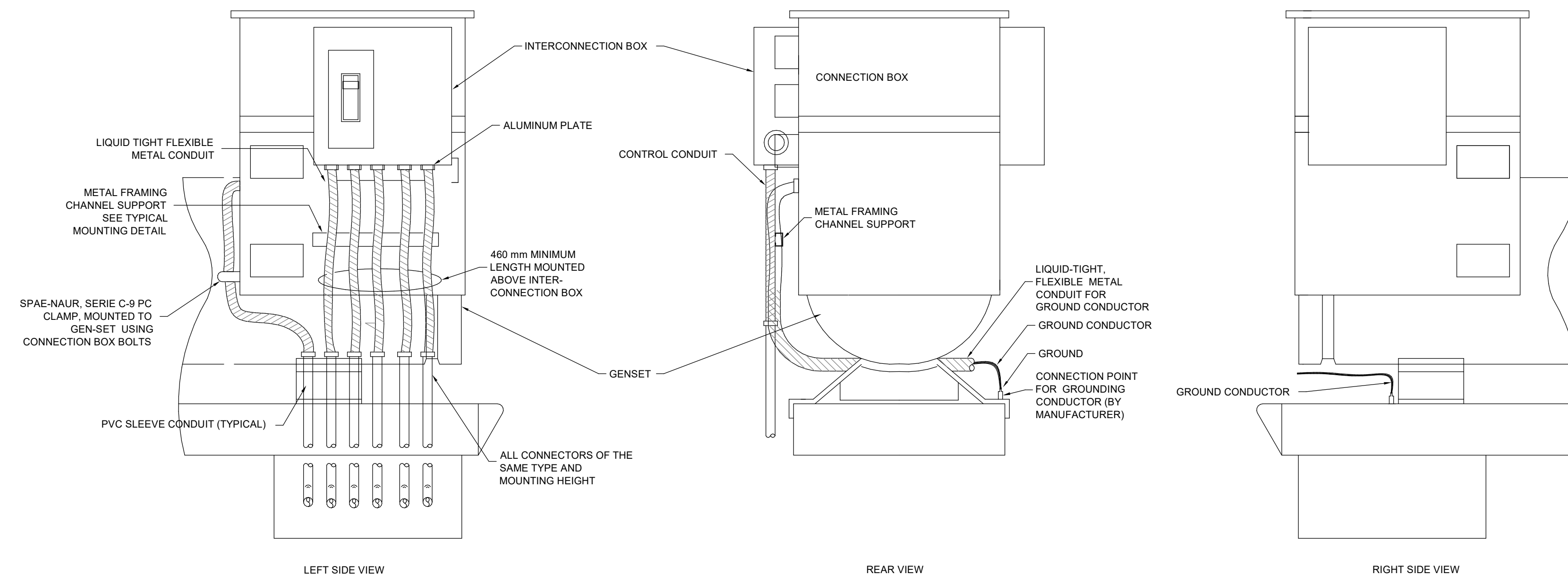
## Access Control Rough-In

SCALE: 1 : 1



## CEILING MOUNTED CAMERA

SCALE: 1 : 50



## ENGINE GENERATOR BOTTOM FEED

SCALE: N.T.S.

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title:

## ELECTRICAL DETAILS

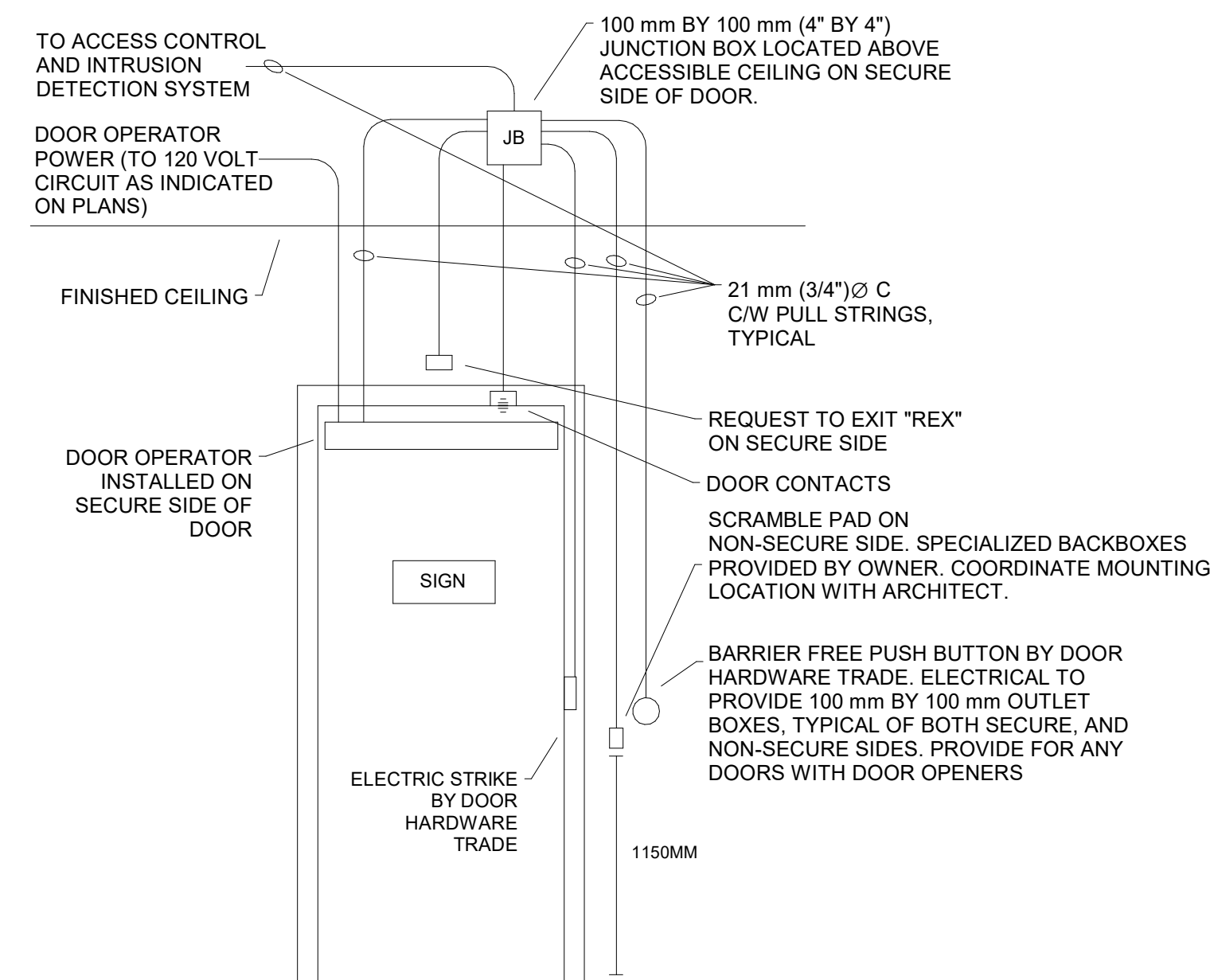
Drawing  
No. **E-805**



YORK REGIONAL POLICE  
HELICOPTER HANGAR

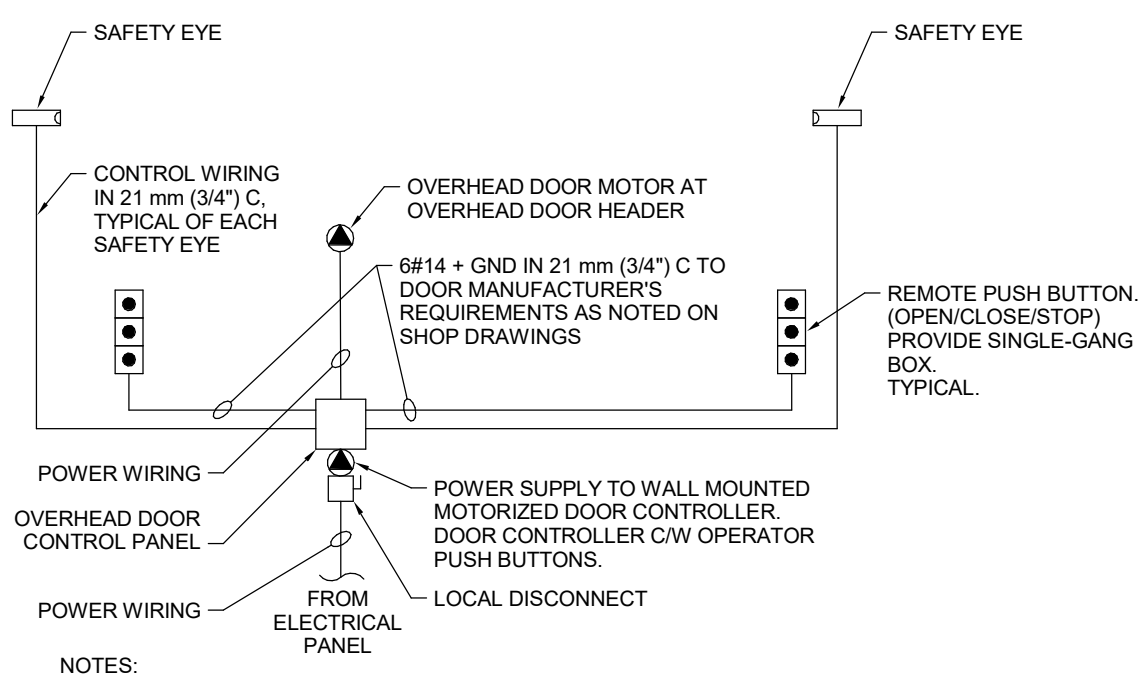
350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan



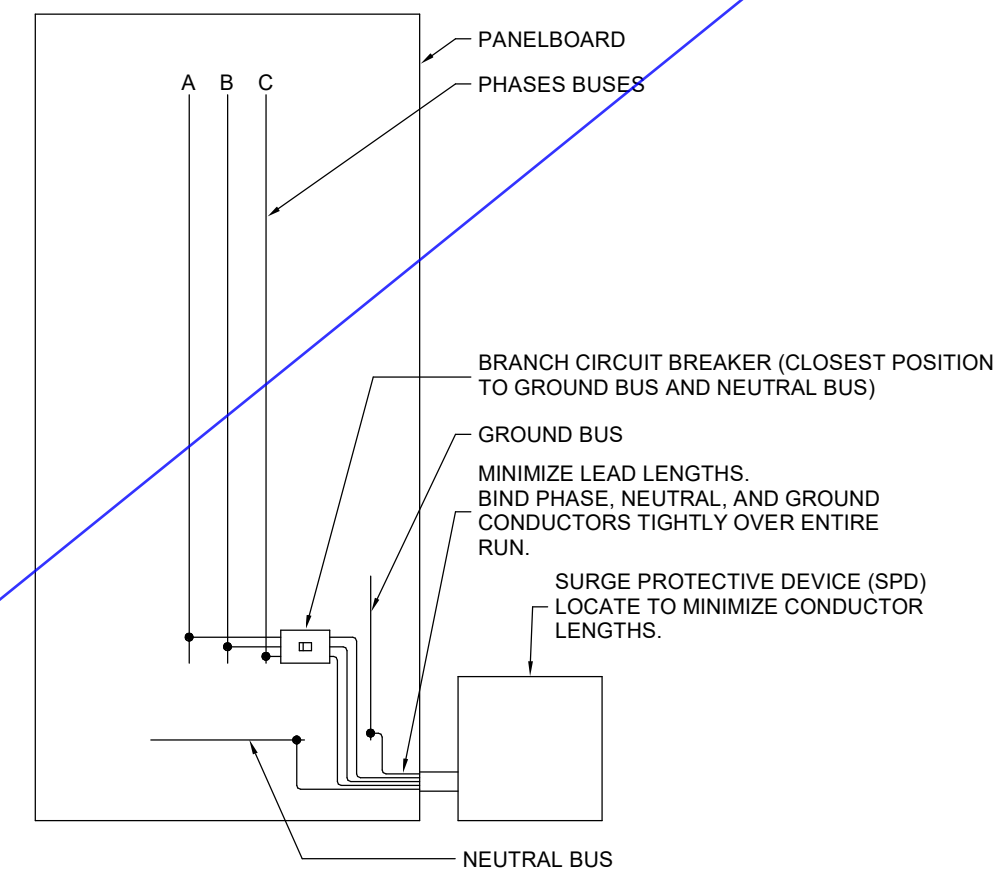
NOTES:

1. REFER TO DETAIL "MOUNTING HEIGHTS FOR ACCESSIBLE DESIGN" FOR EXACT MOUNTING HEIGHTS OF DEVICES AND APPLICABLE CODE REFERENCES.
2. REFER TO DOOR HARDWARE SCHEDULE FOR EXACT SCHEDULE OF DEVICES AT DOOR. COORDINATE EXACT ROUGH-IN DETAILS WITH DOOR HARDWARE TRADE.
3. INTERLOCK OPERATION OF DOOR OPERATOR WITH SCRAMBLE PAD ON THE NON-SECURE SIDE.



## NOTES

1. THIS SCHEMATIC IS NOT INTENDED FOR EXACT FIELD INSTALLATION OR WIRING. SCHEMATIC SHOWS DESIGN INTENT OF SYSTEM WIRING WILL VARY BETWEEN MANUFACTURERS.
2. DOOR MANUFACTURER TO PROVIDE SHOP DRAWINGS SHOWING ALL WIRING REQUIRED PRIOR TO ORDERING OF EQUIPMENT.



## Wiring Diagram for Overhead Doors

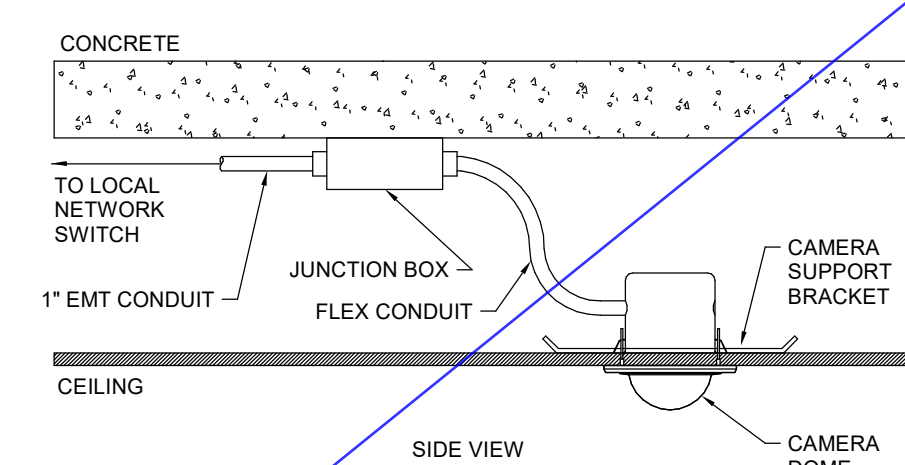
SCALE: 1 : 50

## EXTERNALLY MOUNTED SURGE PROTECTION

SCALE: 1 : 50

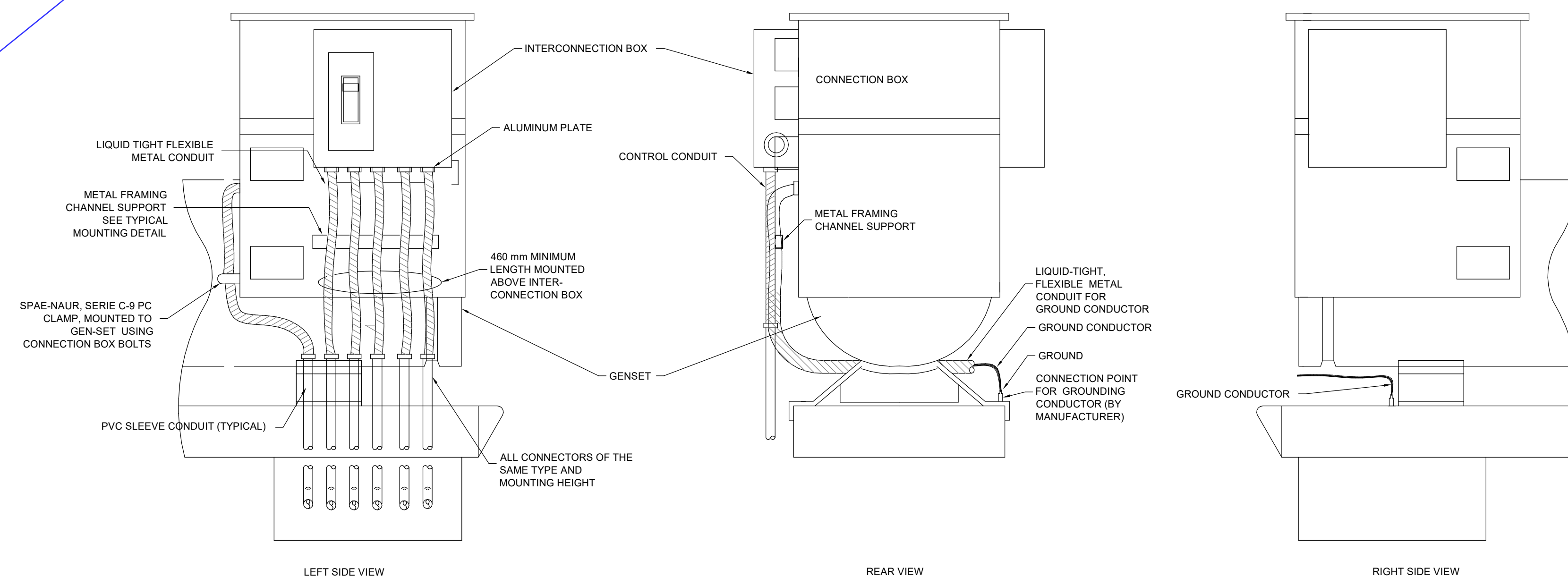
## Access Control Rough-In

SCALE: 1 : 1



## CEILING MOUNTED CAMERA

SCALE: 1 : 50



## ENGINE GENERATOR BOTTOM FEED

SCALE:N.T.S.

## Issues

3	ISSUED FOR ADDENDUM 8	2024-10-07
2	ISSUED FOR ADDENDUM 6	2024-09-30
1	ISSUED FOR ADDENDUM 3	2024-09-23
NO.	ISSUED	DATE

All measurements are to be checked and verified on site by the contractor before proceeding with work

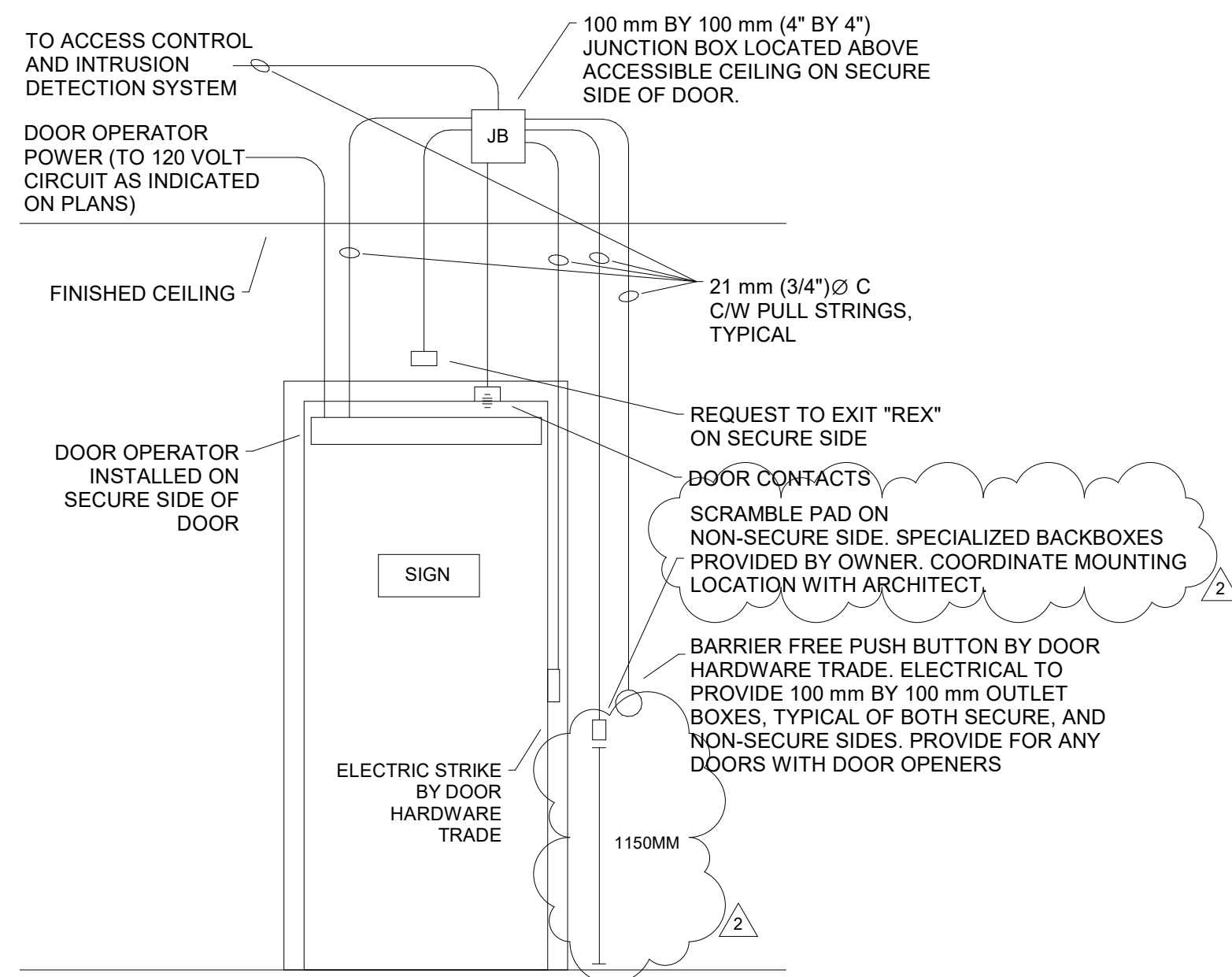
Do not scale drawings

Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicated

Sheet  
Title: ELECTRICAL DETAILS

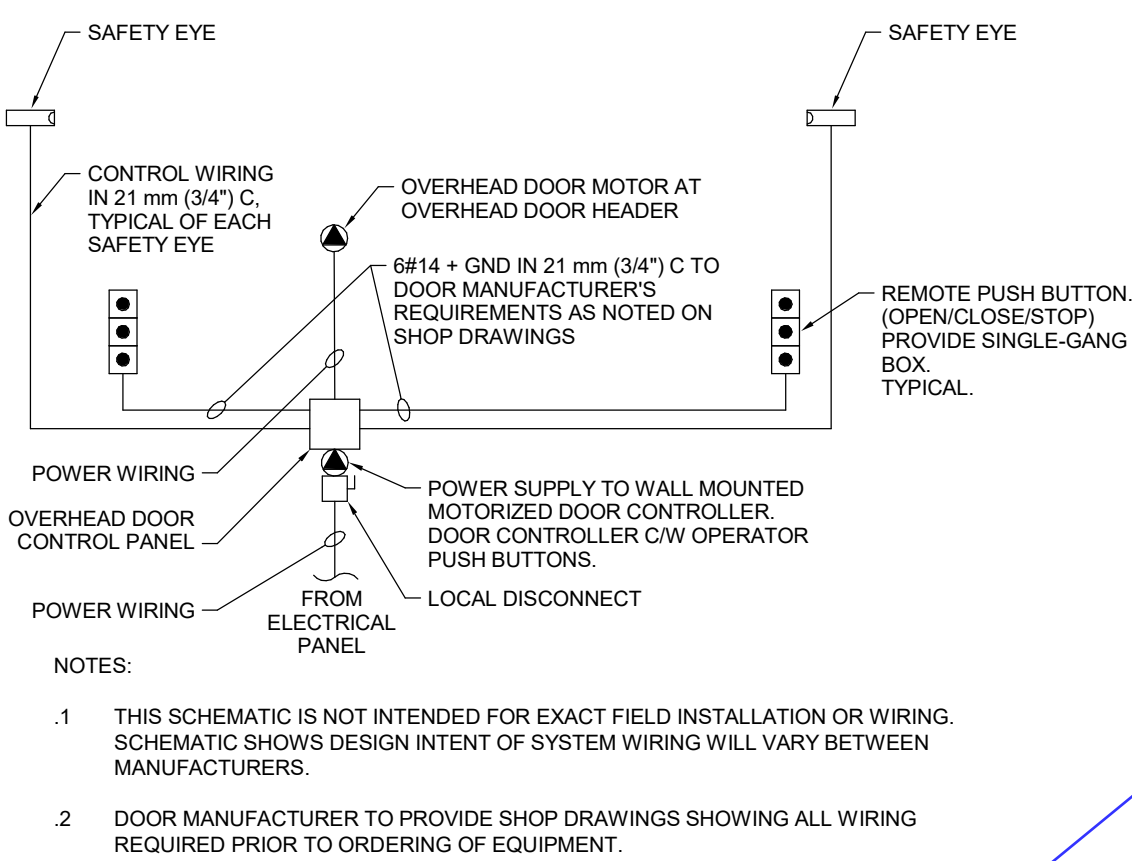
Drawing  
No. **E-805**



250 ROWNTREE DAIRY RD, WOODBRIDGE, ON  
TEL: 905-507-0800  
WEB: WWW.QUASARG.COMYORK REGIONAL POLICE  
HELICOPTER HANGAR350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURYKey  
Plan

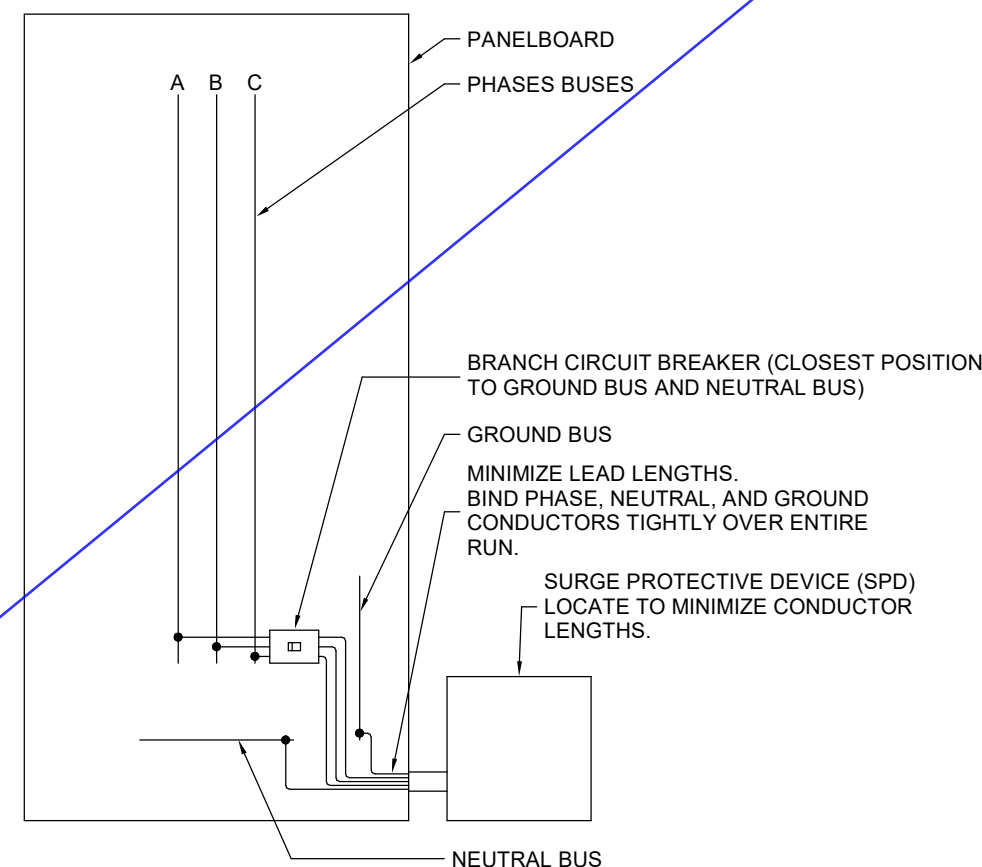
## NOTES:

1. REFER TO DETAIL "MOUNTING HEIGHTS FOR ACCESSIBLE DESIGN" FOR EXACT MOUNTING HEIGHTS OF DEVICES AND APPLICABLE CODE REFERENCES.
2. REFER TO DOOR HARDWARE SCHEDULE FOR EXACT SCHEDULE OF DEVICES AT DOOR. COORDINATE EXACT ROUGH-IN DETAILS WITH DOOR HARDWARE TRADE.
3. INTERLOCK OPERATION OF DOOR OPERATOR WITH SCRAMBLE PAD ON THE NON-SECURE SIDE.



## Wiring Diagram for Overhead Doors

SCALE: 1 : 50

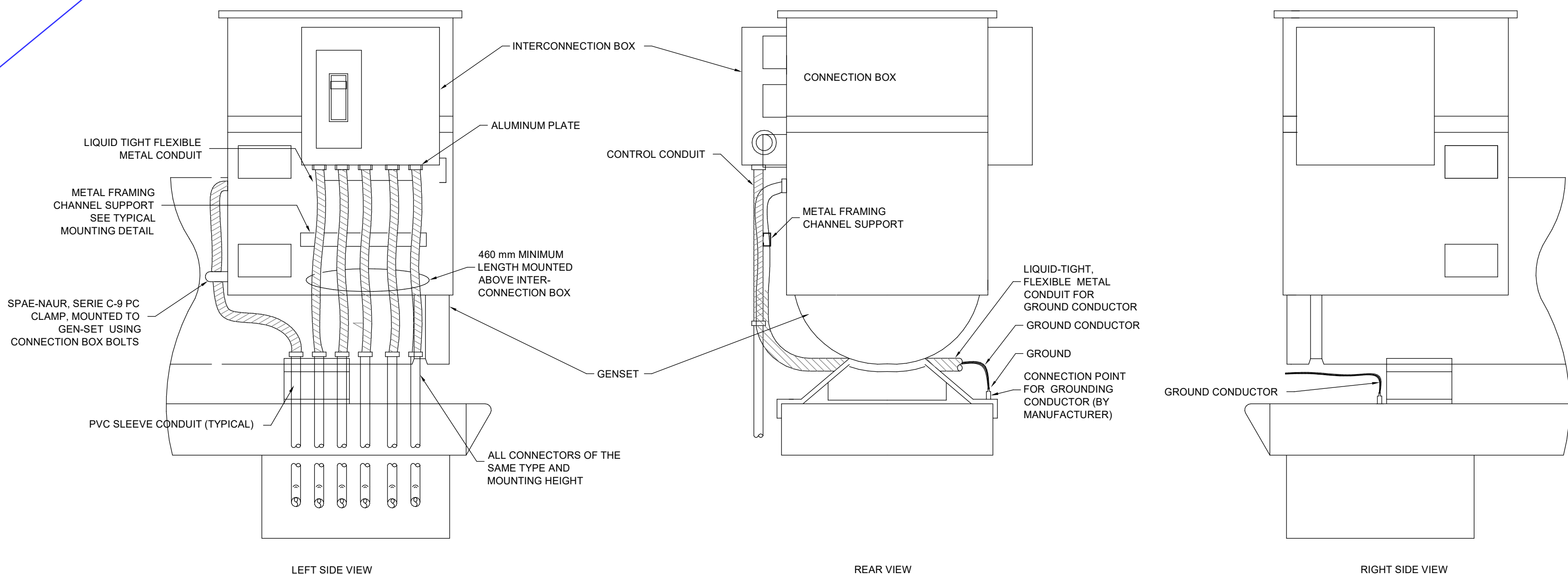


## EXTERNALLY MOUNTED SURGE PROTECTION

SCALE: 1 : 50

## Access Control Rough-In

SCALE: 1 : 1



## ENGINE GENERATOR BOTTOM FEED

SCALE: N.T.S.

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

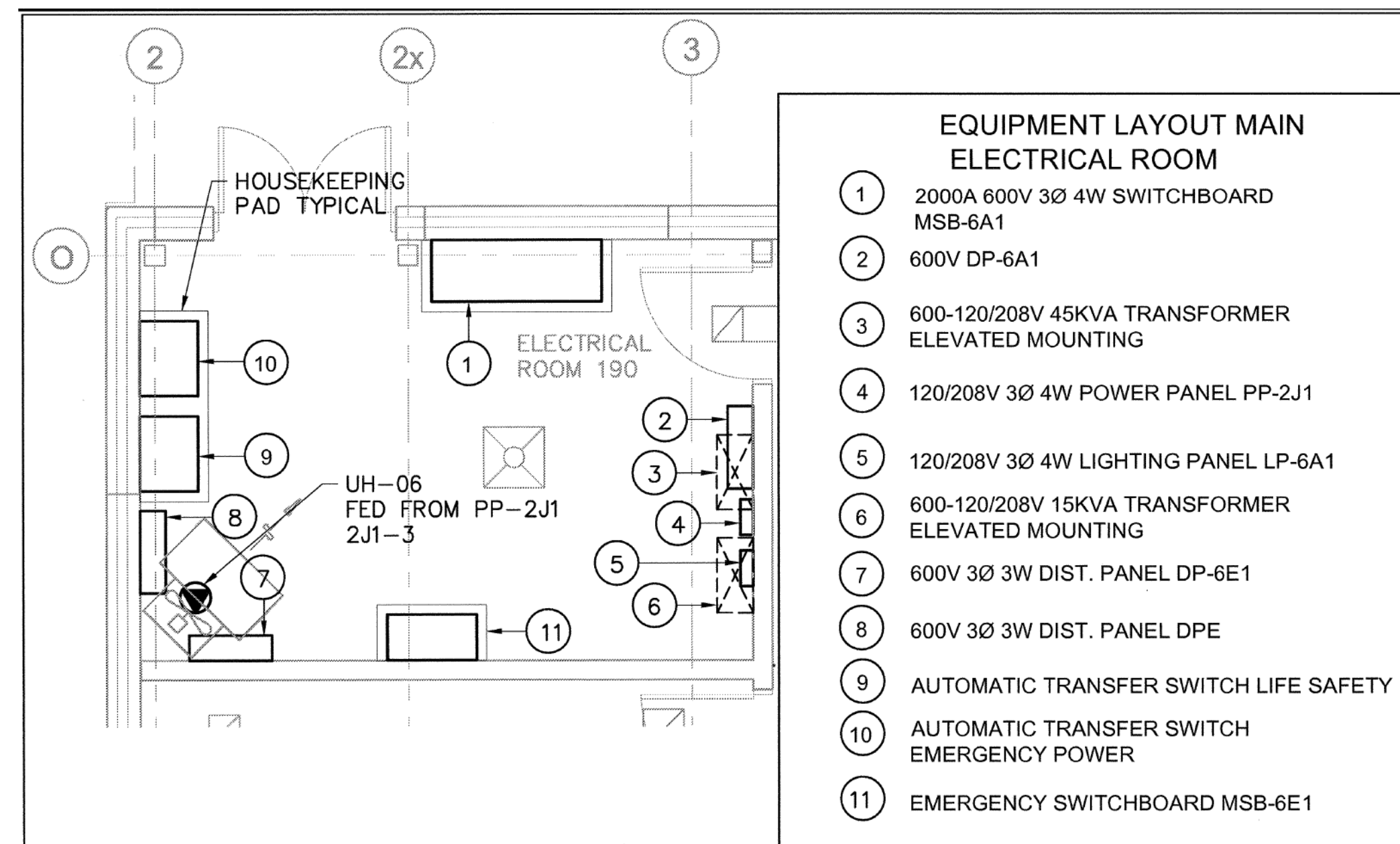
Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: As indicatedSheet  
Title:

ELECTRICAL DETAILS

Drawing  
No:

E-805



[illegible]

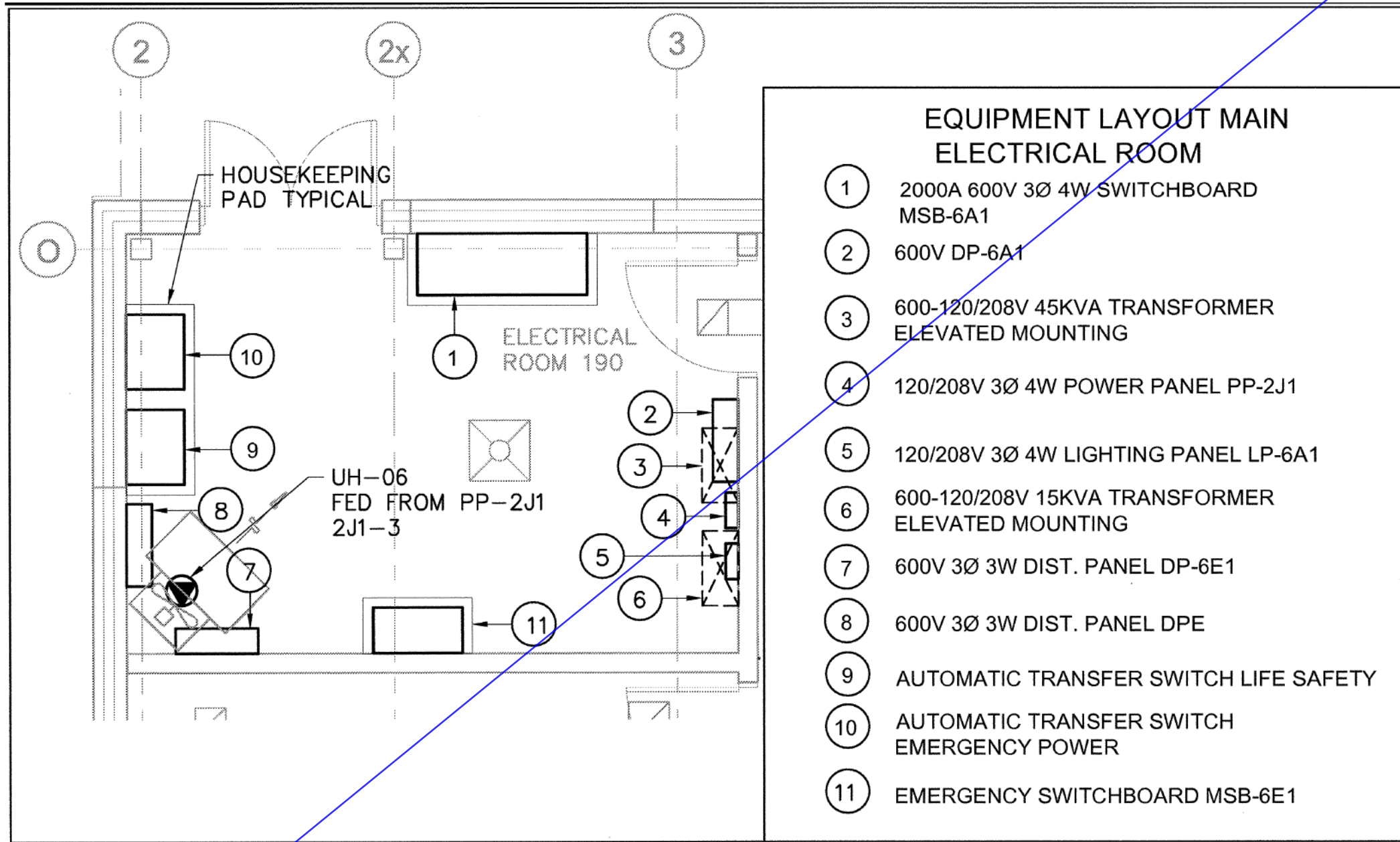




2 MAIN ELECTRICAL ROOM - EXTERIOR VIEW1  
SCALE:N.T.S.



1 MAIN ELECTRICAL ROOM - MSB-6A1  
SCALE:N.T.S.



3 MAIN ELECTRICAL ROOM LAYOUT  
SCALE:N.T.S.

NO.	ISSUED FOR ADDENDUM 8	ISSUED	2024-10-07
1	ISSUED FOR ADDENDUM 8	ISSUED	DATE

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

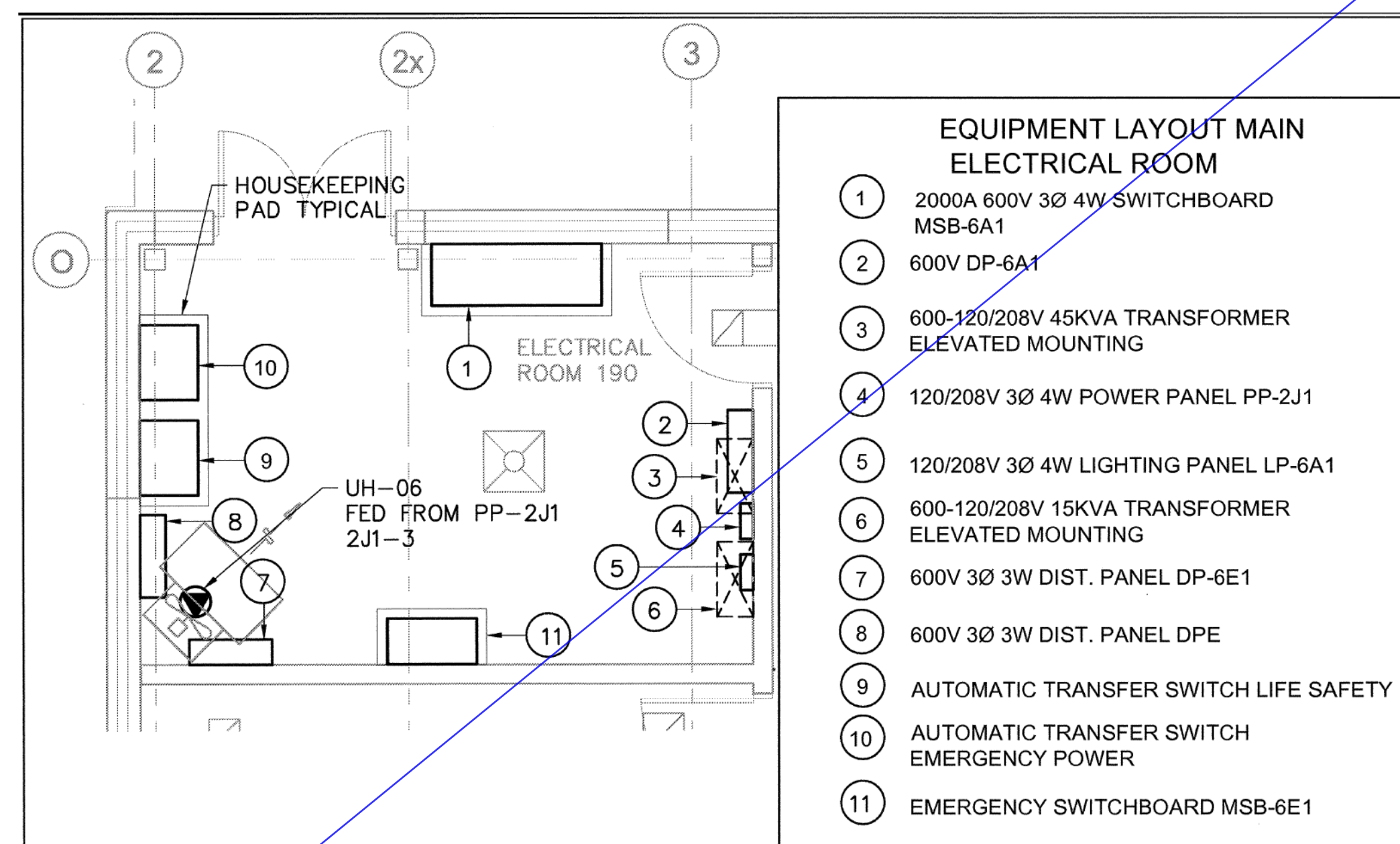
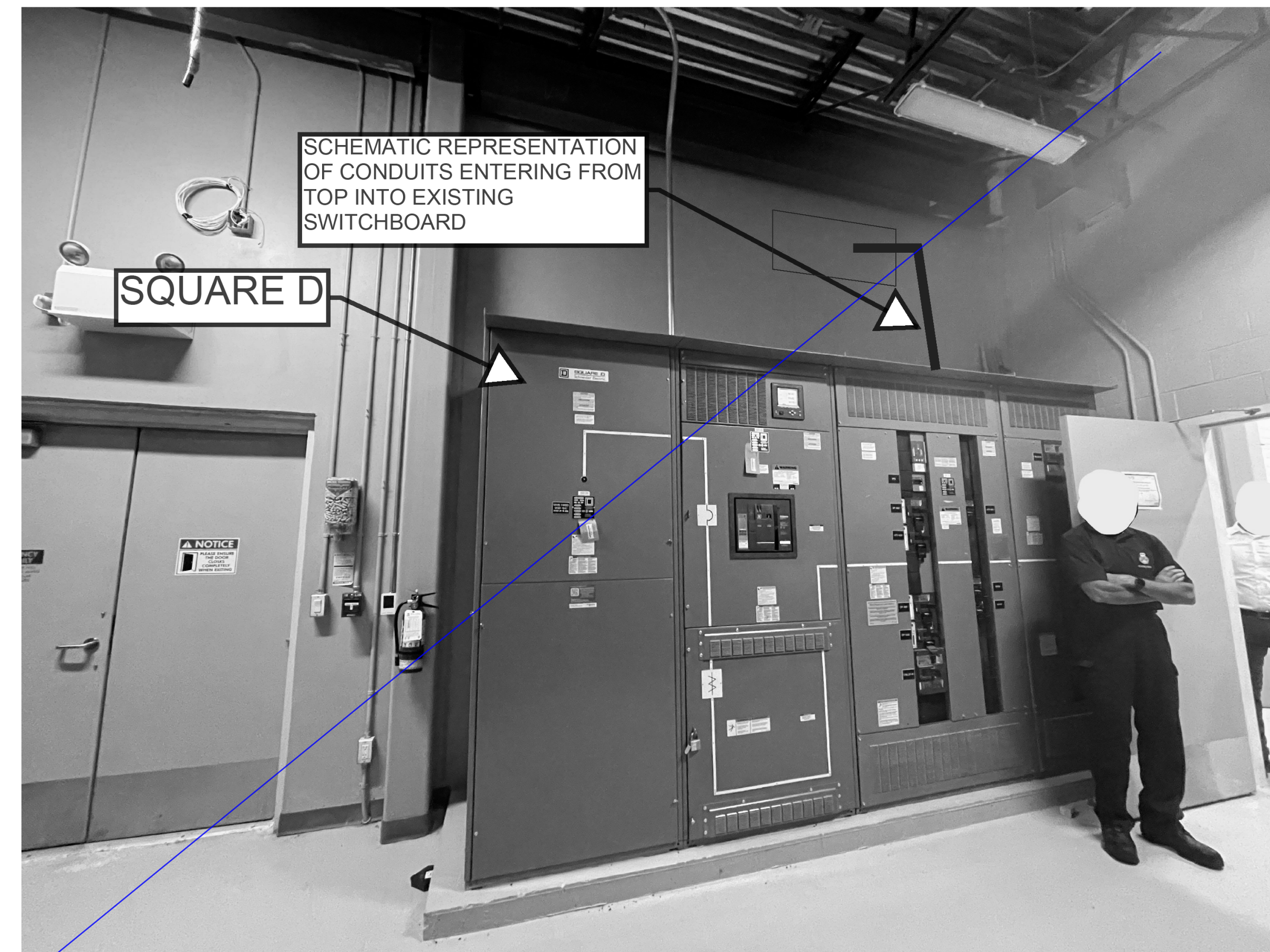
Do not scale drawings

Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale: N.T.S.

Sheet  
Title:  
**ELECTRICAL DETAILS -  
TRAINING FACILITY**

Drawing  
No:  
**E-806**



[illegible]











# YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

Sheet  
Title:

## ELECTRICAL SCHEDULES

Drawing  
No.  
**E-900**

LIGHT FIXTURE SCHEDULE											1	Count
	TYPE	MANUFACTURER	DESCRIPTION	MOUNTING	VOLTAGE	WATTS	LUMENS	DIMMABLE	CCT	MOUNTING HEIGHT		
D1	LFR-4RD-M-15L35KW-D-DM1_LFR-4RD-T-CL-S	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	12 W	1404	0-10V	3500K	3m	19	
D2	LFR-4RD-M-20L35K8-DM1_LFR-4RD-T-SH-WT	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	15 W	1238	0-10V	3500K	3m	3	
F2	SDL-3-1ACF-24G-40-35K-MV	PEERLESS-ELECTRIC	2' x 4' LED luminaire for recessed installation in an exposed flat	RECESSED	120 V	32 W	3968	0-10V	3500K	3m	29	
F3	SDL-3-1ACF-22G-40-35K-MV	PEERLESS-ELECTRIC	2' x 2' LED luminaire for recessed installation in an exposed flat	RECESSED	120 V	37 W	4070	0-10V	3500K	3m	2	
FL1	NOT USED				120 V	22 W	Modify name as required			3m	1	
L2	LXDL4-6U4-80-40-35K-FA-W	PEERLESS-ELECTRIC	LED luminaire for suspended (with aircraft cables)	SUSPEND	120 V	64 W	3225		3500K	2.4m	1	
PA	AP4-HB-4-200-35K-A6	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SURFACE	120 V	165 W	20000	0-10V	3500K	7.7m	12	
PC	AP4-HB-4-150-35K-A6	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SURFACE	120 V	119 W	15000	0-10V	3500K	1.2m	15	
PB	AP2W-4-42-35K-A2	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SUSPENDED	120 V	35 W	4200	0-10V	3500K	3m	1	
PD	HEM4-39ML-0FA-EU	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SUSPENDED	120 V	46 W	5425	0-10V	3500K	3m	4	
Z1	VPW3-160L-95-3K7-4	BEACON VIPER WALL	Exterior Wall-mounted Low profile LED luminaire	WALL	120 V	95 W	12595	0-10V	3000K	4m	5	
Z2	VPW3-160L-95-3K7-4	BEACON VIPER WALL	Exterior Wall-mounted Low profile LED luminaire	WALL	120 V	95 W	12595	0-10V	3000K	4.1m	4	
Z3	LFR-4RD-M-10L30K8W-DM1_LFR-4RD-T-CL-S	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	8 W	903	0-10V	3000K	2.75m	1	
Grand total: 100												

EMERGENCY LIGHTING WIRING MAX VOLTAGE DROP																
LOAD (WATTS)  WIRE SIZE		LENGTH OF WIRE RUN (FEET)														
		13	18	25	30	35	50	60	75	100	150	200	250	300	400	
6  VOLT	12  8	61	30	21	18	15	11	9	8	6	4	-	-	-	-	
		65	47	32	28	24	17	14	11	9	6	-	-	-	-	
		110	75	54	45	39	27	22	18	14	9	7	-	-	-	
12  VOLT	12  8	165	110	85	71	61	42	35	29	21	14	8	-	-	-	
		260	190	136	112	97	68	52	45	34	23	17	14	11	-	
		415	300	215	180	154	108	90	72	54	36	27	21	18	-	
24  VOLT	12  8	660	440	340	284	244	168	140	116	84	56	40	32	26	21	
		1040	760	544	448	388	272	208	180	136	92	68	52	44	34	
		1668	1200	860	720	616	432	360	288	216	144	108	84	72	54	

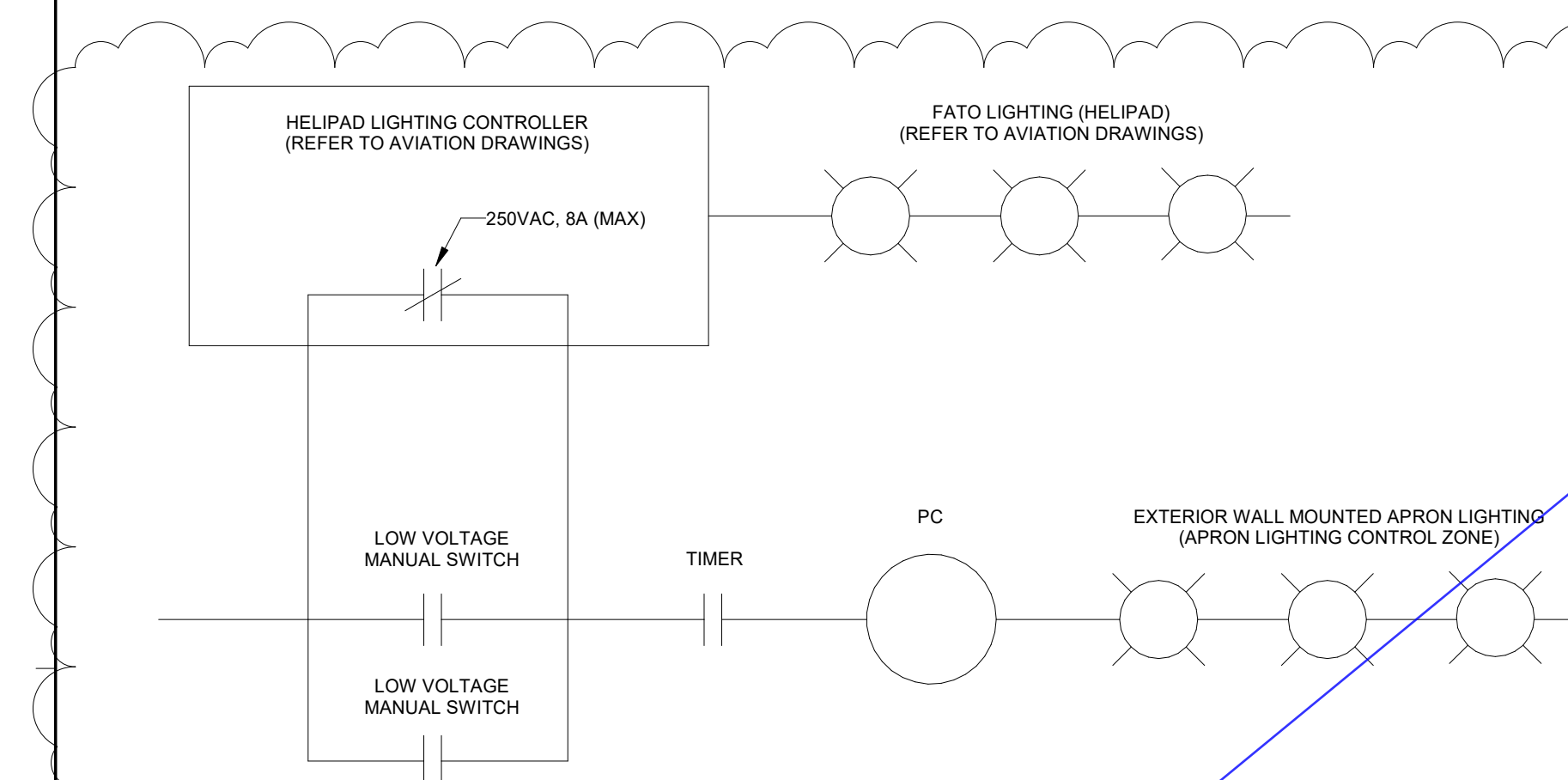
EMERGENCY LIGHTING DEVICE SCHEDULE			
Type	Description	Manufacturer	VOLTAGE
E26	WATER-PROOF COMPACT REMOTE UNIT WITH DOUBLE HEAD LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE, FACTORY WHITE FINISH	STANPRO "M SERIES"; CAT# M1-1VV6 LA WH OR APPROVED EQUAL (BEGHELLI, EMERGH-LITE, LUXNET, AMLITE).	120 V
EMB-1	LIGHTING BATTERY UNIT C/W AUTO TEST, TWO REMOTE HEADS	12V EMERGENCY LIGHTING BATTERY UNIT C/W AUTO TEST, FACTORY WHITE FINISH, UNIVERSAL 120/347V/AC INPUT, AND SIX-ZONE DELTA VOLTAGE SENSING RELAY OPTION TWO LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE -LUMACELL RG12S-(360)-2 -LD10-AT-VSR STANPRO SLC SERIES -EMERGLITE ESL SERIES	120 V
EMB-2	LIGHTING BATTERY UNIT C/W AUTO TEST, TWO REMOTE HEADS	SAME AS EMB-1	120 V
X1	SELF-POWERED SUMMER EDGE-LIT LED ILLUMINATED PICTOGRAM EXIT SIGN - SINGLE FACE C/W WHITE FINISH RECESSED HOUSING AND AUTOMATIC TEST SELF-DIAGNOSTIC	STANPRO "RMTE SERIES"; CAT# RMTE-1-UM-WH-BIAT OR APPROVED EQUAL (BEGHELLI, EMERGH-LITE, LUXNET, AMLITE).	120 V
Grand total: 27			

ROOM NAME	ROOM NUMBER	CONTROLS PHILOSOPHY		LOCAL CONTROL (ASHRAE 90.1-2013 9.4.1.1a)		OCCUPANCY SENSOR				TIME SCHEDULE		DAYLIGHT SENSOR		OTHER		REMARKS									
		CONTROLS INTEGRATED INTO LUMINAIRES	STANDALONE CONTROL DEVICES	NETWORKED LIGHTING CONTROLS	MANUAL (ON/OFF) a, b ZONED SWITCHING	MANUAL (ON/OFF) a, b ZONED SWITCHING	MANUAL DIMMING CONTROL	KEY SWITCH (KS)	SCENE CONTROL (SC) OR GRAPHIC TOUCHSCREEN	VACANCY MODE (MANUAL ON) (ASHRAE 90.1-2013 9.4.1.1b)	OCCUPANCY MODE (AUTO ON) (FULL)	OCCUPANCY MODE (AUTO ON) (PARTIAL)	AUTOMATIC PARTIAL OFF SENSOR TIME OUT (MINUTES) (ASHRAE 90.1-2013 9.4.1.1g)	AUTOMATIC PARTIAL OFF LUMINAIRE DIMMING LEVEL	FULL OFF SENSOR TIME OUT PERIOD (MINUTES) (ASHRAE 90.1-2013 9.4.1.1h)		SCHEDULE ON TIME	SCHEDULE OFF TIME	SCHEDULE OVERRIDE SWITCH	SWITCHING (ON/OFF)	DIMMING	TARGET LIGHTING LEVELS (Avg. fc)	EXTERIOR LOCATION	PLUG LOAD CONTROL	CONTROLLED EMERGENCY
VESTIBULE	101	X			X				X				20												
CONFERENCE ROOM	103	X			X				X				20										X		
OFFICE 4	104	X			X				X				20									X			
IT ROOM	105	X			X				X				20												
UNIVERSAL WASHROOM	106	X		X	X				X				20												
LOUNGE	107	X		X	X				X				20									X			
KITCHEN	108	X		X	X				X				20												
GENERAL OFFICE	109	X		X	X				X				20									X			
OFFICE 1	111	X		X	X				X				20									X			
OFFICE 2	112	X		X	X				X				20									X			
OFFICE 3	113	X		X	X				X				20									X			
STORAGE	114	X		X	X				X				20												
LOCKERS	115	X		X	X				X				20												
EXTERIOR - PARKING LIGHTING ZONE	116	X			X									X				X				X			
EXTERIOR - APRON LIGHTING ZONE	117	X			X									X				X				X			
WASHROOMS	118		X		X				X				20												
SHR1	119		X		X				X				20												
SHR2	120		X		X				X				20												
MECHANICAL/ELECTRICAL	122		X		X				X				20												
STORAGE 2	123		X		X				X				20												
VEHICLE BAY	124		X		X				X				20												
STORAGE 3	125		X		X				X				20												
STORAGE 4	126		X		X				X				20												
JANITOR ROOM	127		X		X				X				20												
HANGAR	128		X		X					50%			20						X	30					

APRON LIGHTING CONTROL ZONE FUNCTIONAL REQUIREMENTS:

1. TURN ON/OFF BASED ON PHOTOCELL
2. HELIPOUT OVERRIDE OFF:
  - A. OFF WHEN HELIPOUT LIGHTING CONTROLLER (HLC) AUXILIARY DRY-CONTACT (MAX RATING 240VAC, 8A) CLOSES (CORRESPONDS TO FATO LIGHTING TURNING ON, BY HLC)
  - B. AFTER HLC DEFINED TIME LIMIT, DRY-CONTACT WILL OPEN. APRON LIGHTING TO RESUME NORMAL FUNCTION CONTROLLED BY PHOTOCELL
3. MANUAL OVERRIDE ON:
  - A. APRON LIGHTING CAN BE MANUALLY TURNED ON TO OVERRIDE THE HLC CONTACT AND RESUME OPERATION BASED ON PHOTOCELL

KEYNOTE LEGEND	
Keynote Value	Keynote Text
1.	FLOOR PLANS TAKE PRECEDENCE. COUNT IS PROVIDED FOR INFORMATION ONLY AND DOES NOT DICTATE THE DESIGN REQUIREMENTS.
2.	TO BE DEFINED BY OWNER DURING CONSTRUCTION.



- NOTE:
1. THE HLC AND FATO LIGHTS OPERATE INDEPENDENTLY OF THE APRON LIGHTING CONTROL.
  2. THE LV MANUAL SWITCHES CAN WILL PROVIDE A MOMENTARY (20 MINUTE INITIAL SETTING, AND OWNER ADJUSTABLE BETWEEN 1MIN AND 60MIN) TO BYPASS OF THE HLC CONTACT.

# HELIPAD LIGHTING CONTROLLER - INTERFACE TO APRON LIGHTING CONTROL ZONE

SCALE:N.T.S.



# YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

Sheet  
Title:

## ELECTRICAL SCHEDULES

Drawing  
No.  
**E-900**

LIGHT FIXTURE SCHEDULE											1
	TYPE	MANUFACTURER	DESCRIPTION	MOUNTING	VOLTAGE	WATTS	LUMENS	DIMMABLE	CCT	MOUNTING HEIGHT	Count
D1	LFR-4RD-M-15L35KW-DM1_LFR-4RD-T-CL-S	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	12 W	1404	0-10V	3500K	3m	19
D2	LFR-4RD-M-20L35K8-DM1_LFR-4RD-T-SH-WT	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	15 W	1238	0-10V	3500K	3m	3
F2	SDL-3-1ACF-24G-40-35K-MV	PEERLESS-ELECTRIC	2' x 4' LED luminaire for recessed installation in an exposed flat	RECESSED	120 V	32 W	3968	0-10V	3500K	3m	29
F3	SDL-3-1ACF-22G-40-35K-MV	PEERLESS-ELECTRIC	2' x 2' LED luminaire for recessed installation in an exposed flat	RECESSED	120 V	37 W	4070	0-10V	3500K	3m	2
FL1	NOT USED				120 V	22 W	Modify name as required			3m	1
L2	LXDL4-6U4-80-40-35K-FA-W	PEERLESS-ELECTRIC	LED luminaire for suspended (with aircraft cables)	SUSPEND	120 V	64 W	3225		3500K	2.4m	1
PA	AP4-HB-4-200-35K-A6	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SURFACE	120 V	165 W	20000	0-10V	3500K	7.7m	12
PC	AP4-HB-4-150-35K-A6	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SURFACE	120 V	119 W	15000	0-10V	3500K	1.2m	15
PB	AP2W-4-42-35K-A2	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SUSPENDED	120 V	35 W	4200	0-10V	3500K	3m	1
PD	HEM4-39ML-0FA-EU	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SUSPENDED	120 V	46 W	5425	0-10V	3500K	3m	4
Z1	VPW3-160L-95-3K7-4	BEACON VIPER WALL	Exterior Wall-mounted Low profile LED luminaire	WALL	120 V	95 W	12595	0-10V	3000K	4m	5
Z2	VPW3-160L-95-3K7-4	BEACON VIPER WALL	Exterior Wall-mounted Low profile LED luminaire	WALL	120 V	95 W	12595	0-10V	3000K	4.1m	4
Z3	LFR-4RD-M-10L30K8XW-DM1_LFR-4RD-T-CL-S	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	8 W	903	0-10V	3000K	2.75m	1

Grand total: 100

EMERGENCY LIGHTING WIRING MAX VOLTAGE DROP																
LOAD (WATTS)  WIRE SIZE		LENGTH OF WIRE RUN (FEET)														
		13	18	25	30	35	50	60	75	100	150	200	250	300	400	
6  VOLT	12  8	61	30	21	18	15	11	9	8	6	4	-	-	-	-	
		65	47	32	28	24	17	14	11	9	6	-	-	-	-	
		110	75	54	45	39	27	22	18	14	9	7	-	-	-	
12  VOLT	12  8	165	110	85	71	61	42	35	29	21	14	8	-	-	-	
		260	190	136	112	97	68	52	45	34	23	17	14	11	-	
		415	300	215	180	154	108	90	72	54	36	27	21	18	-	
24  VOLT	12  8	660	440	340	284	244	168	140	116	84	56	40	32	26	21	
		1040	760	544	448	388	272	208	180	136	92	68	52	44	34	
		1668	1200	860	720	616	432	360	288	216	144	108	84	72	54	

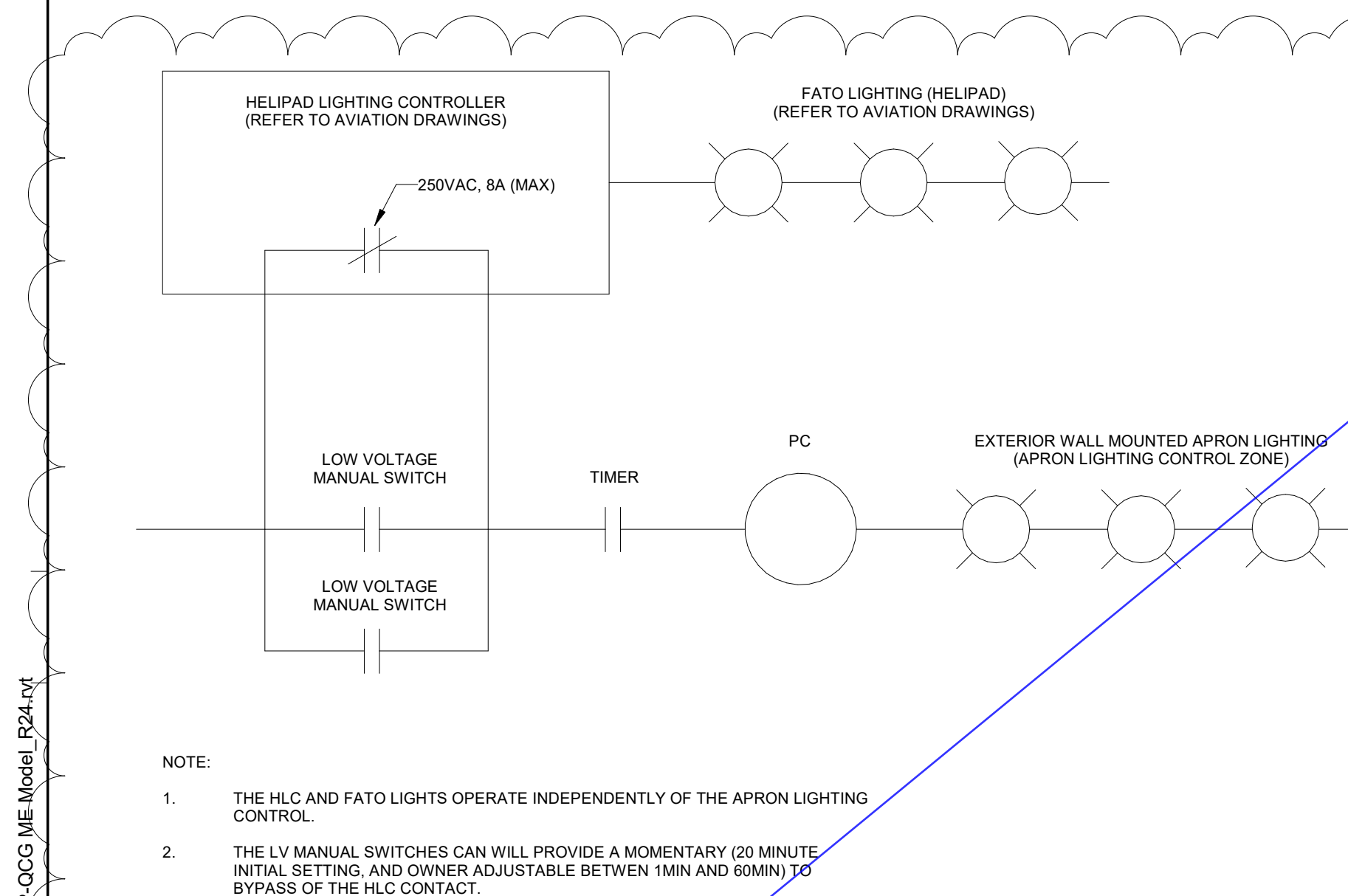
EMERGENCY LIGHTING DEVICE SCHEDULE			
Type	Description	Manufacturer	VOLTAGE
E26	WATER-PROOF COMPACT REMOTE UNIT WITH DOUBLE HEAD LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE, FACTORY WHITE FINISH	STANPRO "M SERIES"; CAT# M1-1VV6 LA WH OR APPROVED EQUAL (BEGHELLI, EMERGH-LITE, LUXNET, AMLITE).	120 V
EMB-1	LIGHTING BATTERY UNIT C/W AUTO TEST, TWO REMOTE HEADS	12V EMERGENCY LIGHTING BATTERY UNIT C/W AUTO TEST, FACTORY WHITE FINISH, UNIVERSAL 120/347V/AC INPUT, AND SIX-ZONE DELTA VOLTAGE SENSING RELAY OPTION TWO LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE -LUMACELL RG12S-(360)-2 -LD10-AT-VSR STANPRO SLC SERIES -EMERGLITE ESL SERIES	120 V
EMB-2	LIGHTING BATTERY UNIT C/W AUTO TEST, TWO REMOTE HEADS	SAME AS EMB-1	120 V
X1	SELF-POWERED SUMMER EDGE-LIT LED ILLUMINATED PICTOGRAM EXIT SIGN - SINGLE FACE C/W WHITE FINISH RECESSED HOUSING AND AUTOMATIC TEST SELF-DIAGNOSTIC	STANPRO "RMTE SERIES"; CAT# RMTE-1-UM-WH-BIAT OR APPROVED EQUAL (BEGHELLI, EMERGH-LITE, LUXNET, AMLITE).	120 V
Grand total: 27			

ROOM NAME	ROOM NUMBER	CONTROLS PHILOSOPHY		LOCAL CONTROL (ASHRAE 90.1-2013 9.4.1.1a)		OCCUPANCY SENSOR				TIME SCHEDULE		DAYLIGHT SENSOR		OTHER		REMARKS									
		CONTROLS INTEGRATED INTO LUMINAIRES	STANDALONE CONTROL DEVICES	NETWORKED LIGHTING CONTROLS	MANUAL (ON/OFF) ONE ZONE ONLY FOR SPACE	MANUAL (ON/OFF) a, b ZONED SWITCHING	MANUAL DIMMING CONTROL	KEY SWITCH (KS)	SCENE CONTROL (SC) OR GRAPHIC TOUCHSCREEN	VACANCY MODE (MANUAL ON) (ASHRAE 90.1-2013 9.4.1.1b)	OCCUPANCY MODE (AUTO ON) (FULL)	OCCUPANCY MODE (AUTO ON) (PARTIAL)	AUTOMATIC PARTIAL OFF SENSOR TIME OUT (MINUTES) (ASHRAE 90.1-2013 9.4.1.1g)	AUTOMATIC PARTIAL OFF LUMINAIRE DIMMING LEVEL	FULL OFF SENSOR TIME OUT PERIOD (MINUTES) (ASHRAE 90.1-2013 9.4.1.1h)		SCHEDULE ON TIME	SCHEDULE OFF TIME	SCHEDULE OVERRIDE SWITCH	SWITCHING (ON/OFF)	DIMMING	TARGET LIGHTING LEVELS (Avg. fc)	EXTERIOR LOCATION	PLUG LOAD CONTROL	CONTROLLED EMERGENCY
VESTIBULE	101	X			X				X					20											
CONFERENCE ROOM	103	X			X				X					20									X		
OFFICE 4	104	X			X				X					20									X		
IT ROOM	105	X			X				X					20											
UNIVERSAL WASHROOM	106	X			X				X					20											
LOUNGE	107	X			X				X					20								X			
KITCHEN	108	X			X				X					20											
GENERAL OFFICE	109	X			X				X					20								X			
OFFICE 1	111	X			X				X					20								X			
OFFICE 2	112	X			X				X					20								X			
OFFICE 3	113	X			X				X					20								X			
STORAGE	114	X			X				X					20									X		
LOCKERS	115	X			X				X					20											
EXTERIOR - PARKING LIGHTING ZONE	116	X			X										X				X			X			
EXTERIOR - APRON LIGHTING ZONE	117	X			X										X				X			X			
WASHROOMS	118	X			X				X					20											
SHR1	119	X			X				X					20											
SHR2	120	X			X				X					20											
MECHANICAL/ELECTRICAL	122	X			X				X					20											
STORAGE 2	123	X			X				X					20											
VEHICLE BAY	124	X			X				X					20											
STORAGE 3	125	X			X				X					20											
STORAGE 4	126	X			X				X					20											
JANITOR ROOM	127	X			X				X					20											
HANGAR	128	X			X					50%				20					X	30					

APRON LIGHTING CONTROL ZONE FUNCTIONAL REQUIREMENTS:

1. TURN ON/OFF BASED ON PHOTOCELL
2. HELIPOORT OVERRIDE OFF:
  - A. OFF WHEN HELIPOORT LIGHTING CONTROLLER (HLC) AUXILIARY DRY-CONTACT (MAX RATING 240VAC, 8A) CLOSES (CORRESPONDS TO FATO LIGHTING TURNING ON, BY HLC)
  - B. AFTER HLC DEFINED TIME LIMIT, DRY-CONTACT WILL OPEN. APRON LIGHTING TO RESUME NORMAL FUNCTION CONTROLLED BY PHOTOCELL
3. MANUAL OVERRIDE ON:
  - A. APRON LIGHTING CAN BE MANUALLY TURNED ON TO OVERRIDE THE HLC CONTACT AND RESUME OPERATION BASED ON PHOTOCELL

KEYNOTE LEGEND	
Keynote Value	Keynote Text
1.	FLOOR PLANS TAKE PRECEDENCE. COUNT IS PROVIDED FOR INFORMATION ONLY AND DOES NOT DICTATE THE DESIGN REQUIREMENTS.
2.	TO BE DEFINED BY OWNER DURING CONSTRUCTION.



# HELIPAD LIGHTING CONTROLLER - INTERFACE TO APRON LIGHTING CONTROL ZONE



EMERGENCY LIGHTING WIRING MAX VOLTAGE DROP																
LOAD (WATTS)  WIRE SIZE		LENGTH OF WIRE RUN (FEET)														
		13	18	25	30	35	50	60	75	100	150	200	250	300	400	
6  VOLT	12	41	30	21	18	15	11	9	8	6	4	-	-	-	-	
	10	65	47	32	28	24	17	14	11	9	6	-	-	-	-	
	8	110	75	54	45	39	27	22	18	14	9	7	-	-	-	
12  VOLT	12	165	110	85	71	61	42	35	29	21	10	8	-	-	-	
	10	260	190	136	112	97	68	52	45	34	13	17	14	11	-	
	8	415	300	215	180	154	108	90	72	54	36	27	21	18	-	
24  VOLT	12	660	440	340	284	244	168	140	116	84	56	40	32	26	21	
	10	1040	760	544	448	388	272	208	180	136	92	68	52	44	34	
	8	1668	1200	860	720	616	432	360	288	216	144	108	84	72	54	

EMERGENCY LIGHTING DEVICE SCHEDULE				
Type	Description	Manufacturer	VOLTAGE	
E26	WATER-PROOF COMPACT REMOTE UNIT WITH DOUBLE HEAD LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE, FACTORY WHITE FINISH	STANPRO "M" SERIES"; CAT# M1-WV6 LA WH OR APPROVED EQUAL (BEGHELLI, EMERGI-LITE, LUXNET, AIMLITE).	120 V	
EMB-1	LIGHTING BATTERY UNIT C/W AUTO TEST, TWO REMOTE HEADS	12V EMERGENCY LIGHTING BATTERY UNIT C/W AUTO TEST, FACTORY WHITE FINISH, UNIVERSAL 120/347VAC INPUT, AND SIX-ZONE DELTA VOLTAGE SENSING RELAY OPTION. TWO LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE -LUMACELL RG12S-(360)-2 -LD10-AT-VSR STANPRO SLC SERIES -EMERGLITE ESL SERIES	120 V	
EMB-2	LIGHTING BATTERY UNIT C/W AUTO TEST, TWO REMOTE HEADS	SAME AS EMB-1	120 V	
X1	SELF-POWERED SLIM EDGE-LIT LED ILLUMINATED PICTOGRAM EXIT SIGN - SINGLE FACE C/W WHITE FINISH RECESSED HOUSING AND AUTOMATIC TEST SELF-DIAGNOSTIC	STANPRO "RMTE SERIES"; CAT# RMTE-1-UM-WH-BIAT OR APPROVED EQUAL (BEGHELLI, EMERGI-LITE, LUXNET, AIMLITE).	120 V	
Grand total: 27				

ROOM NAME	ROOM NUMBER	CONTROLS PHILOSOPHY		LOCAL CONTROL (ASHRAE 90.1-2013 9.4.1.1.a)		OCCUPANCY SENSOR				TIME SCHEDULE		DAYLIGHT SENSOR		OTHER		REMARKS								
		CONTROLS INTEGRATED INTO LUMINAIRES	STANDALONE CONTROL DEVICES	NETWORKED LIGHTING CONTROLS	MANUAL (ON/OFF) ONE ZONE ONLY FOR SPACE	MANUAL (ON/OFF) a, b ZONED SWITCHING	MANUAL DIMMING CONTROL	KEY SWITCH (KS)	SCENE CONTROL (SC) OR GRAPHIC TOUCHSCREEN	VACANCY MODE (MANUAL ON) (ASHRAE 90.1-2013 9.4.1.1b)	OCCUPANCY MODE (AUTO ON) (FULL)	OCCUPANCY MODE (AUTO ON) (PARTIAL)	AUTOMATIC PARTIAL OFF SENSOR TIME OUT (MINUTES) (ASHRAE 90.1-2013 9.4.1.1g)	AUTOMATIC PARTIAL OFF LUMINAIRE DIMMING LEVEL	FULL OFF SENSOR TIME OUT PERIOD (MINUTES) (ASHRAE 90.1-2013 9.4.1.1h)		SCHEDULE ON TIME	SCHEDULE OFF TIME	SCHEDULE OVERRIDE SWITCH	SWITCHING (ON/OFF)	DIMMING	TARGET LIGHTING LEVELS (Avg. fc)	EXTERIOR LOCATION	PLUG LOAD CONTROL
VESTIBULE	101		X		X					X														
CONFERENCE ROOM	103		X		X					X													X	
OFFICE 4	104		X		X					X													X	
IT ROOM	105		X		X					X														
UNIVERSAL WASHROOM	106		X		X					X														
LOUNGE	107		X		X					X												X		
KITCHEN	108		X		X					X														
GENERAL OFFICE	109		X		X					X													X	
OFFICE 1	111		X		X					X												X		
OFFICE 2	112		X		X					X												X		
OFFICE 3	113		X		X					X												X		
STORAGE	114		X		X					X													X	
LOCKERS	115		X		X					X														
EXTERIOR - PARKING LIGHTING ZONE	116		X		X										X				X			X		
EXTERIOR - APRON LIGHTING ZONE	117		X		X										X				X			X		
WASHROOMS	118			X		X				X														
SHR1	119			X		X				X														
SHR2	120			X		X				X														
MECHANICAL/ELECTRICAL	122			X		X				X														
STORAGE 2	123			X		X				X														
VEHICLE BAY	124			X		X				X														
STORAGE 3	125			X		X				X														
STORAGE 4	126			X		X				X														
JANITOR ROOM	127			X		X				X														
HANGAR	128			X		X					50%		20						X	30				

5. APRON LIGHTING CONTROL ZONE FUNCTIONAL REQUIREMENTS:
1. TURN ON/OFF BASED ON PHOTOCELL
  2. HIGHLIGHT OVERRIDE OFF.
    - A. OFF WHEN HELIPORT LIGHTING CONTROLLER (HLC) AUXILIARY DRY-CONTACT (MAX RATING 240VAC, 8A) CLOSES (CORRESPONDS TO FATO LIGHTING TURNING ON BY HLC)
    - B. AFTER HLC DEFINED TIME LIMIT, DRY-CONTACT WILL OPEN. APRON LIGHTING TO RESUME NORMAL FUNCTION CONTROLLED BY PHOTOCELL
  3. MANUAL OVERRIDE ON
    - A. APRON LIGHTING CAN BE MANUALLY TURNED ON TO OVERRIDE THE HLC CONTACT AND RESUME OPERATION BASED ON PHOTOCELL

KEYNOTE LEGEND	
Keynote Value	Keynote Text
1.	FLOOR PLANS TAKE PRECEDENCE. COUNT IS PROVIDED FOR INFORMATION ONLY AND DOES NOT DICTATE THE DESIGN REQUIREMENTS.
2.	TO BE DEFINED BY OWNER DURING CONSTRUCTION.



EMERGENCY LIGHTING DEVICE SCHEDULE									
Type	Description			Manufacturer			VOLTAGE	Count	
Down							120 V	1	
DUAL TECHNOLOGY								6	
E1	SELF-POWERED SLIM EDGE-LIT LED ILLUMINATED PICTOGRAM EXIT SIGN - SINGLE FACE C/W WHITE FINISH RECESSED HOUSING AND AUTOMATIC TEST SELF-DIAGNOSTIC			STANPRO "RMTE SERIES"; CAT# RMTE-1-UM-WH-IB/AT OR APPROVED EQUAL (BEGHELLI, EMERGLITE, LUXNET, AIMLITE).			120 V	8	
E26	WATER-PROOF COMPACT REMOTE UNIT WITH DOUBLE HEAD LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE, FACTORY WHITE FINISH			STANPRO "M SERIES"; CAT# M1-1VV6 LA WH OR APPROVED EQUAL (BEGHELLI, EMERGI-LITE, LUXNET, AIMLITE).			120 V	16	
EMB-1	LIGHTING BATTERY UNIT C/W AUTO TEST. TWO REMOTE HEADS			12V EMERGENCY LIGHTING BATTERY UNIT C/W AUTO TEST, FACTORY WHITE FINISH, UNIVERSAL 120/247VAC INPUT, AND SIX-ZONE DELTA VOLTAGE SENSING RELAY OPTION. TWO LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE -LUMACELL RG12S-(360)-2 -LD10-AT-VSR STANPRO SLC SERIES -EMERGLITE ESL SERIES			120 V	1	
EMB-2	LIGHTING BATTERY UNIT C/W AUTO TEST. TWO REMOTE HEADS			12V EMERGENCY LIGHTING BATTERY UNIT C/W			120 V	1	
Left							120 V	2	
PASSIVE INFRARED								8	
STANDARD								15	
STANDARD								11	
Two Remote Head	ONE AND TWO HEAD WALL MOUNTED EMERGENCY LIGHTING REMOTE UNITS.						120 V	2	
LIGHT FIXTURE SCHEDULE									
Grand total: 71									
TYPE	MANUFACTURER	DESCRIPTION			MOUNTING	VOLTAGE	WATTS	Count	DIMMABLE

D1	LFR-4RD-M-15L35K8WD-DM1_LFR-4RD-T-CL-S	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	12 W	6	0-10V
D2	LFR-4RD-M-20L35K8-DM1_LFR-4RD-T-SH-WT	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	12 W	17	0-10V
F2	SDL-3-1ACF-24G-40-35K-MV	PEERLESS-ELECTRIC	2' x 4' LED luminaire for recessed installation in an exposed flat	RECESSED	120 V	15 W	2	0-10V
F3	SDL-3-1ACF-22G-40-35K-MV	PEERLESS-ELECTRIC	2' x 2' LED luminaire for recessed installation in an exposed flat	RECESSED	120 V	40 W	31	0-10V
FL1	TSFL-LED-01L-W-30		LED Flood Light		120 V	30 W	2	0-10V
L2					120 V	22 W	4	
PA	AP4-HB-4-200-35K-AC	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SUSPEND	120 V	64 W	1	
PB	<varies>	<varies>	<varies>	SURFACE	120 V	159 W	12	0-10V
PC	AP2W-4-42-35K-A2	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets		120 V			
PD	HEM4-35ML-DFA-ED-U	PEERLESS-ELECTRIC	LED luminaire for surface or suspended installation with field adjustable aircraft cables or v-links for mounting chain	SURFACE	120 V	38 W	3	0-10V
PD	HEM4-35ML-DFA-ED-U	COLUMBIA LIGHTING	Hazardous Enclosed and Gasketed Fiberglass linear fixture	SURFACE	120 V	46 W	2	0-10V
S1	NSL-4-60-35K-RA-WH-120	PEERLESS-ELECTRIC	LED luminaire for surface or suspended installation with field adjustable aircraft cables or v-links for mounting chain	SURFACE	120 V	59 W	3	0-10V
Z1	LPW16-3	Stonco	LED luminaire for surface or suspended installation with field adjustable aircraft cables or v-links for mounting chain					
Z1	LPW16-3	Stonco	Exterior Wall-mounted Low profile LED luminaireN	WALL	120 V	91 W	5	0-10V
Z2	LPW16-3	Stonco	Exterior Wall-mounted Low profile LED luminaire	WALL	120 V	91 W	7	0-10V
Z3	LFR-4RD-M-10L30K8XW-DM1_LFR-4RD-T-CL-S	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	8 W	1	0-10V

Grand total: 113

Parkin Architects Limited  
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000



# YORK REGIONAL POLICE HELICOPTER HANGAR

350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

## Key Plan

[illegible]

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK  
Checked by: AO  
Original Issue Date: 2024-07-31  
Project No: TT-24-005

Sheet  
Title:

## ELECTRICAL SCHEDULES

Drawing  
No. **E-900**



12/3/2024 10:28:35 PM  
Autodesk Docs://2402 - YRP Helicopter Hangar/TT-24-005-YRP-QCG ME Model\_P24.rvt

Branch Panel: DP-01															
Location: Room 129					Volts: 600V					A.I.C. Rating: 42 kA					
Supply From:					Phases: 3					Mains Type:					
Mounting: SURFACE					Wires: 3					Mains Rating: 400 A					
Enclosure: NEMA 3R										MCB Rating: 100 A					
Notes:															
CKT	Circuit Description	QTY	Trip	Poles	A		B		C		Poles	Trip	QTY	Circuit Description	CKT
1	SURGE PROTECTION DEVICE	--	60 A	3	0 VA	400 VA	0 VA	400 VA			3	15 A	1	P1-R	2
3															4
5															
7	RESERVED SPACE FOR FUTURE PV INVERTER SYSTEM	--	0 A	3	0 VA	24333...	0 VA	24333...			3	125 A	1	AIR SOURCE HEAT PUMP	8
9							0 VA	24333...	0 VA	24333...					10
11									0 VA	24333...					
13	RESERVED SPACE FOR FUTURE EV CHARGING	--	0 A	3	0 VA	400 VA	0 VA	400 VA			3	15 A	1	P-5R	14
15															16
17									0 VA	400 VA					
19	P-2R	1	25 A	3	400 VA	400 VA	400 VA	400 VA			3	25 A	1	P-2	20
21															22
23															
25	P-4	1	15 A	3	400 VA	167 VA	400 VA	167 VA			3	20 A	1	CRANE HOIST POWER	26
27															28
29															
31	ODU-1	1	30 A	3	7433 VA	400 VA	7433 VA	400 VA			3	30 A	1	HANGAR BIFOLD DOOR CONTROLLER	32
33															34
35															
37	P-5	1	15 A	3	400 VA	400 VA	400 VA	400 VA			3	15 A	1	P-1	38
39															40
41															42
43	P-3	1	15 A	3	400 VA		400 VA								44
45															46
47											400 VA				
49															50
51															52
53															54
55															56
57															58
59															60
Total Load:					35533 VA		35533 VA		35533 VA						
Total Amps:					103 A		103 A		103 A						
Legend:															
Load Classification			Connected Load			Demand Factor			Estimated Demand			Panel Totals			
Other			106600 VA			100.00%			106600 VA						
												Total Conn. Load: 106600 VA			
												Total Est. Demand: 106600 VA			
												Total Conn.: 103 A			
												Total Est. Demand: 103 A			
Notes:															

Branch Panel: DP-03															
Location: Room 129					Volts: 120/208 Wye					A.I.C. Rating: 22 kA					
Supply From:					Phases: 3					Mains Type:					
Mounting: Surface					Wires: 4					Mains Rating: 400 A					
Enclosure: NEMA 3R										MCB Rating: 250 A					
Notes:															
CKT	Circuit Description	QTY	Trip	Poles	A	B	C	A	B	C	Poles	Trip	QTY	Circuit Description	CKT
1	R: WASHER	1	15 A	1	180 VA			400 VA			1	30 A	1	TLWH-1	2
3	EF-2	1	15 A	1		700 VA									4
5	TLWH-4	1	30 A	1			400 VA			2496 VA					6
7	METERING CABINET	1	15 A	1	500 VA			2496 VA			2	30 A	1	R: DRYER	8
9	ODU-2	1	20 A	2		200 VA		200 VA		200 VA	2	50 A	1	TLWH-2	10
11							200 VA			200 VA					12
13	FUEL TANK	1	15 A	2	250 VA			200 VA			2	50 A	1	TLWH-5	14
15						250 VA			200 VA						16
17							12083 VA			200 VA					18
19	DP-02	1	225 A	3	9676 VA			200 VA			2	60 A	1	TLWH-3	20
21						12191 VA			1296 VA		1	15 A	6	UH-1 TO UH-6	22
23	EF-1	1	15 A	1	233 VA			700 VA			3	25 A	1	AIR COMPRESSOR	24
25								233 VA							26
27	OTHER	1	20 A	3		233 VA			233 VA						28
29							233 VA			167 VA					30
31					167 VA			167 VA			3	20 A	1	GENERATOR ENCLOSURE PANEL	32
33	RTU-1	1	50 A	3		167 VA			167 VA						34
35							167 VA				1	15 A	--	HELIPAD LIGHTING CONTROLLER	36
37					167 VA										38
39	RTU-2	1	40 A	3		167 VA									40
41							167 VA								42
Total Load:					14869 VA		16000 VA		17246 VA						
Total Amps:					124 A		135 A		145 A						
Legend:															
Load Classification				Connected Load			Demand Factor			Estimated Demand			Panel Totals		
Other				25208 VA			100.00%			25208 VA			Total Conn. Load: 48107 VA		
Spare				500 VA			100.00%			500 VA			Total Est. Demand: 48230 VA		
EMERGENCY BATTERY PACK				100 VA			100.00%			100 VA			Total Conn.: 134 A		
Lighting - Dwelling Unit				2044 VA			100.00%			2044 VA			Total Est. Demand: 134 A		
Receptacle				15792 VA			100.00%			15792 VA					
Notes:															

Branch Panel: DP-02															
Location: MECHANICAL / ELECTRICAL...						Volts: 120/208 Wye						A.I.C. Rating: 22 kA			
Supply From: DP-03						Phases: 3						Mains Type:			
Mounting: SURFACE						Wires: 4						Mains Rating: 225 A			
Enclosure: NEMA 3R												MCB Rating: 225 A			
Notes:															
CKT	Circuit Description	QTY	Trip	Pole s	A		B		C		Pole s	Trip	QTY	Circuit Description	CKT
1	EMERGENCY BATTERY PACK	2	15 A	1	100 VA	360 VA					1	15 A	2	R: CONFERENCE ROOM	2
3	PARKING & SIGNAGE LIGHTING	14	15 A	1			256 VA	360 VA			1	15 A	2	R: FITNESS	4
5	EXIT SIGNS	10	20 A	1					275 VA	430 VA	1	20 A	2	R: CONFERENCE ROOM FLOOR...	6
7	AVIATION LIGHTING	1	15 A	1	500 VA	500 VA					1	15 A	1	FACP	8
9	R: CONFERENCE ROOM	3	15 A	1			540 VA	720 VA			1	15 A	4	R: GENERAL OFFICE	10
11	R: OFFICE 1	3	15 A	1					540 VA	720 VA	1	15 A	4	R: OFFICE 2	12
13	LIGHTING	35	15 A	1	846 VA	500 VA					1	20 A	1	FACP	14
15								1200...			1	25 A	1	EF-4	16
17	WINDSOCK AND...	2	15 A	1					1000...	1176...	1	15 A	1	B-1	18
19	R: HANGAR	8	20 A	1	1440...	1500...					1	15 A	3	AUTOMATIC DOOR OPERATORS...	20
21	LIGHTING	16	15 A	1			374 VA	180 VA			1	20 A	1	RECEPTACLE	22
23	B-2	1	15 A	1					1176...	1061...	1	15 A	15	LIGHTING	24
25	R: RPAS	1	20 A	1	180 VA	1500...									26
27							500 VA	1500...			2	15 A	11	FCU-1 TO FCU-11	28
29	GROUND POWER UNIT	2	20 A	2					500 VA	180 VA	1	20 A	1	R: MICROWAVE	30
31	R: KITCHEN COUNTER	1	20 A	1	180 VA	180 VA					1	15 A	1	R: FRIDGE	32
33	R: PRINTER	1	15 A	1			180 VA	180 VA			1	15 A	1	R: GARAGE DOOR	34
35	R: QUARTERMASTER	1	15 A	1					180 VA	180 VA	1	15 A	1	R: GARAGE DOOR	36
37	R: DISHWASHER	1	15 A	1	180 VA	360 VA					1	15 A	2	R: TV SECURITY DISPLAY	38
39	R: IT ROOM	1	15 A	1			180 VA	360 VA			1	15 A	2	R: VEHICLE BAY	40
41	R: FITNESS TV	1	20 A	1					180 VA	1200...	1	15 A	1	TSP-1	42
43	R: MECHANICAL ROOM	2	15 A	1	360 VA	360 VA					1	15 A	1	R: IT ROOM	44
45	R: MECHANICS OFFICE	2	15 A	1			360 VA	360 VA			1	15 A	2	R: LOUNGE AND TV	46
47	R: RADIO	2	15 A	1					360 VA	360 VA	1	20 A	2	R: MAINTENANCE	48
49	R: FITNESS	2	15 A	1	360 VA	490 VA					1	20 A	14	LIGHTING - EXTERIOR	50
51	R: GENERAL OFFICE	2	15 A	1			360 VA	500 VA			1	15 A	1	FAAP	52
53	R: WASHROOM	2	15 A	1					360 VA	1980...	1	20 A	12	LIGHTING - DWELLING UNIT	54
55	R: UNIVERSAL WASHROOM/	--	15 A	1	500 VA	167 VA									56
57							167 VA				3	30 A	1	IT RACK	58
59										167 VA					60
61	LIGHTING	9	15 A	1	1071...	200 VA									62
63	EF-3	1	15 A	1			1200...	200 VA			2	15 A	1	EBBH-1	64
65									250 VA						66
67	GATE POWER	1	20 A	2	250 VA										68
69															70
71															72
73															74
75															76
77															78
79															80
81															82
83															84
					Total...	12083 VA	9676 VA		12191 VA						
					Total...	104 A	81 A		105 A						
Legend:															
Load Classification					Connected Load		Demand Factor		Estimated Demand		Panel Totals				
Other					16212 VA		100.00%		16212 VA						
Spare					500 VA		100.00%		500 VA		Total Conn. Load: 33941 VA				
EMERGENCY BATTERY PACK					100 VA		100.00%		100 VA		Total Est. Demand: 34064 VA				
Lighting - Dwelling Unit					2044 VA		100.00%		2044 VA		Total Conn.: 94 A				
Receptacle					10620 VA		100.00%		10620 VA		Total Est. Demand: 95 A				
Notes:															



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Branch Panel: DP-01																
Location: Room 129					Volts: 347/600V					A.I.C. Rating: 42 kA						
Supply From:					Phases: 3					Mains Type:						
Mounting: SURFACE					Wires: 4					Mains Rating: 400 A						
Enclosure: NEMA 3R										MCB Rating: 100 A						
Notes:																
CKT	Circuit Description	QTY	Trip	Poles	A		B		C		Poles	Trip	QTY	Circuit Description	CKT	
1					0 VA	400 VA									2	
3	SURGE PROTECTION DEVICE	--	60 A	3			0 VA	400 VA			3	15 A	1	P1-R	4	
5									0 VA	400 VA					6	
7					0 VA	24333...									8	
9	RESERVED SPACE FOR FUTURE PV INVERTER SYSTEM	--	0 A	3			0 VA	24333...		0 VA	24333...	3	125 A	1	AIR SOURCE HEAT PUMP	10
11															12	
13					0 VA	400 VA									14	
15	RESERVED SPACE FOR FUTURE EV CHARGING	--	0 A	3			0 VA	400 VA				3	15 A	1	P-5R	16
17									0 VA	400 VA					18	
19					400 VA	400 VA									20	
21	P-2R	1	25 A	3			400 VA	400 VA			3	25 A	1	P-2	22	
23									400 VA	400 VA					24	
25					400 VA	167 VA									26	
27	P-4	1	15 A	3			400 VA	167 VA			3	20 A	1	CRANE HOIST POWER	28	
29									400 VA	167 VA					30	
31					7433 VA	400 VA					3	30 A	1	HANGAR BIFOLD DOOR CONTROLLER	32	
33	ODU-1	1	30 A	3			7433 VA	400 VA							34	
35									7433 VA	400 VA					36	
37					400 VA	400 VA									38	
39	P-5	1	15 A	3			400 VA	400 VA			3	15 A	1	P-1	40	
41									400 VA	400 VA					42	
43					400 VA										44	
45	p-3	1	15 A	3			400 VA								46	
47									400 VA						48	
49															50	
51															52	
53															54	
55															56	
57															58	
59															60	
Total Load:					35533 VA		35533 VA		35533 VA							
Total Amps:					102 A		102 A		102 A							
Legend:																
Load Classification		Connected Load		Demand Factor		Estimated Demand		Panel Totals								
Other		106600 VA		100.00%		106600 VA										
								Total Conn. Load: 106600 VA								
								Total Est. Demand: 106600 VA								
								Total Conn.: 103 A								
								Total Est. Demand: 103 A								
Notes:																

Branch Panel: DP-03																
Location: Room 129					Volts: 120/208 Wye					A.I.C. Rating: 22 kA						
Supply From:					Phases: 3					Mains Type:						
Mounting: Surface					Wires: 4					Mains Rating: 400 A						
Enclosure: NEMA 3R										MCB Rating: 250 A						
Notes:																
CKT	Circuit Description	QTY	Trip	Poles	A	B	C	A	B	C	Poles	Trip	QTY	Circuit Description	CKT	
1	R: WASHER	1	15 A	1	180 VA			400 VA			1	30 A	1	TLWH-1	2	
3	EF-2	1	15 A	1		700 VA			200 VA		1	15 A	1	EF-2	4	
5	TLWH-4	1	30 A	1			400 VA			2496 VA	2	30 A	1	R: DRYER	6	
7	METERING CABINET	1	15 A	1	500 VA			2496 VA							8	
9	ODU-2	1	20 A	2		200 VA			200 VA		2	50 A	1	TLWH-2	10	
11							200 VA			200 VA					12	
13	FUEL TANK	1	15 A	2	250 VA			200 VA			2	50 A	1	TLWH-5	14	
15						250 VA			200 VA						16	
17							10457 VA			200 VA	2	60 A	1	TLWH-3	18	
19	DP-02	1	225 A	3	11179 VA			200 VA			1	20 A	6	UH-1 TO UH-6	20	
21						11564 VA			6200 VA						22	
23	EF-1	1	20 A	1			700 VA			233 VA	3	25 A	1	AIR COMPRESSOR	24	
25								233 VA							26	
27									233 VA						28	
29										167 VA					30	
31					167 VA			167 VA			3	20 A	1	GENERATOR ENCLOSURE PANEL	32	
33	RTU-1	1	50 A	3		167 VA			167 VA						34	
35							167 VA				1	15 A	--	HELIPAD LIGHTING CONTROLLER	36	
37					167 VA										38	
39	RTU-2	1	40 A	3		167 VA									40	
41							167 VA								42	
Total Load:					16133 VA		20247 VA		15387 VA							
Total Amps:					135 A		170 A		128 A							
Legend:																
Load Classification					Connected Load		Demand Factor		Estimated Demand		Panel Totals					
Other					29060 VA		100.00%		29060 VA							
Spare					500 VA		100.00%		500 VA		Total Conn. Load: 51759 VA					
EMERGENCY BATTERY PACK					100 VA		100.00%		100 VA		Total Est. Demand: 51855 VA					
Lighting - Dwelling Unit					2044 VA		100.00%		2044 VA		Total Conn.: 144 A					
Receptacle					15792 VA		100.00%		15792 VA		Total Est. Demand: 144 A					
Notes:																

Branch Panel: DP-02															
Location: MECHANICAL / ELECTRICAL...					Volts: 120/208 Wye					A.I.C. Rating: 22 kA					
Supply From: DP-03					Phases: 3					Mains Type:					
Mounting: SURFACE					Wires: 4					Mains Rating: 225 A					
Enclosure: NEMA 3R										MCB Rating: 225 A					
Notes:															
CKT	Circuit Description	QTY	Trip	Pole s	A		B		C		Pole s	Trip	QTY	Circuit Description	CKT
1	EMERGENCY BATTERY PACK	2	15 A	1	100 VA	360 VA					1	15 A	2	R: CONFERENCE ROOM	2
3	PARKING & SIGNAGE LIGHTING	9	15 A	1			160 VA	360 VA			1	15 A	2	R: FITNESS	4
5	EXIT SIGNS	10	20 A	1					275 VA	430 VA	1	20 A	2	R: CONFERENCE ROOM FLOOR...	6
7	AVIATION LIGHTING	1	15 A	1	500 VA	500 VA					1	15 A	1	FACP	8
9	R: CONFERENCE ROOM	3	15 A	1			540 VA	720 VA			1	15 A	4	R: GENERAL OFFICE	10
11	R: OFFICE 1	3	15 A	1					540 VA	720 VA	1	15 A	4	R: OFFICE 2	12
13	LIGHTING	35	15 A	1	846 VA	500 VA					1	20 A	1	FACP	14
15	EF-3	1	15 A	1			900 VA	1200...			1	25 A	1	EF-4	16
17	WINDSOCK AND...	2	15 A	1					1000...	1300...	1	15 A	1	B1	18
19	R: HANGAR	8	20 A	1	1440...	1500...					1	15 A	3	AUTOMATIC DOOR OPERATORS...	20
21	LIGHTING	28	15 A	1			2338...	180 VA			1	20 A	1	RECEPTACLE	22
23	B2	1	15 A	1					1300...	2132...	1	15 A	24	LIGHTING	24
25	R: RPAS	1	20 A	1	180 VA	1500...									26
27							500 VA	1500...			2	15 A	11	FCU-1 TO FCU-11	28
29	GROUND POWER UNIT	2	20 A	2					500 VA	180 VA	1	20 A	1	RECEPTACLE	30
31	R: KITCHEN COUNTER	1	20 A	1	180 VA	180 VA					1	15 A	1	R: FRIDGE	32
33	R: PRINTER	1	15 A	1			180 VA	180 VA			1	15 A	1	R: GARAGE DOOR	34
35	R: QUARTERMASTER	1	15 A	1					180 VA	180 VA	1	15 A	1	R: GARAGE DOOR	36
37	R: DISHWASHER	1	15 A	1	180 VA	360 VA					1	15 A	2	R: TV SECURITY DISPLAY	38
39	R: IT ROOM	1	15 A	1			180 VA	360 VA			1	15 A	2	R: VEHICLE BAY	40
41	R: FITNESS TV	1	20 A	1					180 VA	1200...	1	15 A	1	TSP-1	42
43	R: MECHANICAL ROOM	2	15 A	1	360 VA	360 VA					1	15 A	1	R: IT ROOM	44
45	R: MECHANICS OFFICE	2	15 A	1			360 VA	360 VA			1	15 A	2	R: LOUNGE AND TV	46
47	R: RADIO	2	15 A	1					360 VA	360 VA	1	20 A	2	R: MAINTENANCE	48
49	R: FITNESS	2	15 A	1	360 VA	385 VA					1	20 A	11	LIGHTING - EXTERIOR	50
51	R: GENERAL OFFICE	2	15 A	1			360 VA	500 VA			1	15 A	1	FAAP	52
53	R: WASHROOM	2	15 A	1					360 VA						54
55	R: UNIVERSAL WASHROOM	--	15 A	1	500 VA	167 VA									56
57							200 VA	167 VA			3	30 A	1	IT RACK	58
59	TLWH-6	1	40 A	2					200 VA	167 VA					60
61															62
63															64
65															66
67															68
69															70
71															72
73															74
75															76
77															78
79															80
81															82
83															84
					Total...	10457 VA	11179 VA		11564 VA						
					Total...	87 A	94 A		97 A						
Legend:															
Load Classification					Connected Load		Demand Factor		Estimated Demand		Panel Totals				
Other					15660 VA		100.00%		15660 VA						
Spare					500 VA		100.00%		500 VA		Total Conn. Load: 33189 VA				
EMERGENCY BATTERY PACK					100 VA		100.00%		100 VA		Total Est. Demand: 33285 VA				
Lighting - Dwelling Unit					2044 VA		100.00%		2044 VA		Total Conn.: 92 A				
Receptacle					10620 VA		100.00%		10620 VA		Total Est. Demand: 92 A				
Notes:															



Branch Panel: DP-01															
Location: Room 129 Supply From: Mounting: SURFACE Enclosure: NEMA 3R						Volts: 347/600V Phases: 3 Wires: 4						A.I.C. Rating: 42 kA Mains Type: Mains Rating: 400 A MCB Rating: 100 A			
Notes:															
CKT	Circuit Description	QTY	Trip	Poles	A		B		C		Poles	Trip	QTY	Circuit Description	CKT
1	SURGE PROTECTION DEVICE	--	60 A	3	0 VA	7967 VA	0 VA	7967 VA			3	30 A	1	HANGAR BIFOLD DOOR CONTROLLER	2
3									0 VA	7967 VA					4
5									0 VA	7967 VA					6
7	RESERVED SPACE FOR FUTURE PV INVERTER SYSTEM	--	0 A	3	0 VA	24333...	0 VA	24333...			3	125 A	1	AIR SOURCE HEAT PUMP	8
9									0 VA	24333...					10
11									0 VA	24333...					12
13	RESERVED SPACE FOR FUTURE EV CHARGING	--	0 A	3	0 VA	433 VA	0 VA	433 VA			3	25 A	1	P2-R	14
15									0 VA	433 VA					16
17									0 VA	433 VA					18
19	P2	1	25 A	3	433 VA	433 VA	433 VA	433 VA	433 VA	433 VA	3	10 A	1	P3	20
21															22
23															24
25	P-4	1	10 A	3	433 VA	433 VA	433 VA	433 VA	433 VA	433 VA	3	10 A	1	P-5R	26
27															28
29															30
31	P-5	1	10 A	3	433 VA	433 VA	433 VA	433 VA	433 VA	433 VA	3	10 A	1	P-1	32
33															34
35															36
37	P-1R	1	10 A	3	433 VA	167 VA	433 VA	167 VA	433 VA	167 VA	3	20 A	1	CRANE HOIST POWER	38
39															40
41															42
43	ODU-1	1	30 A	3	7433 VA		7433 VA		7433 VA						44
45															46
47															48
49															

Branch Panel: DP-03																			
Location: Room 129 Supply From: Mounting: Surface Enclosure: NEMA 3R								Volts: 120/208 Wye Phases: 3 Wires: 4				A.I.C. Rating: 22 kA Mains Type: Mains Rating: 400 A MCB Rating: 250 A							
Notes:																			
CKT	Circuit Description	QTY	Trip	Poles	A	B	C	A	B	C	Poles	Trip	QTY	Circuit Description	CKT				
1	R: WASHER	1	15 A	1	180 VA			216 VA			1	30 A	1	TLWH-1	2				
3	EF-2	1	15 A	1		700 VA			900 VA		1	15 A	2	EF-2	4				
5	TLWH-1	1	30 A	1			216 VA			2496 VA	2	30 A	1	R: DRYER	6				
7	METERING CABINET	1	15 A	1	500 VA			2496 VA							8				
9	UH-1 TO UH-6	6	15 A	1		1296 VA			100 VA		2	20 A	1	ODU-2	10				
11										100 VA					12				
13	FUEL TANK	1	15 A	2	250 VA						2	15 A	1	EBBH-1	14				
15						250 VA			350 VA						16				
17							11472 VA			350 VA					18				
19	DP-02	1	225 A	3	11021 VA			108 VA			2	50 A	1	TLWH-2	20				
21						11034 VA			108 VA						22				
23	TLWH-3	1	20 A	2			108 VA	167 VA		167 VA	3	25 A	1	AIR COMPRESSOR	24				
25					108 VA										26				
27	TLWH-3	1	60 A	2		108 VA		108 VA		167 VA	3	20 A	1	GENERATOR ENCLOSURE PANEL	28				
29							108 VA			167 VA					30				
31					167 VA			167 VA			1	15 A	--	HELIPAD LIGHTING CONTROLLER	32				
33	RTU-1	1	50 A	3		167 VA			167 VA						34				
35							167 VA			0 VA					36				
37					167 VA										38				
39	RTU-2	1	40 A	3		167 VA									40				
41							167 VA								42				
Total Load:					15541 VA		15512 VA			15517 VA									
Total Amps:					130 A		129 A			129 A									
Legend:																			
Load Classification					Connected Load		Demand Factor		Estimated Demand		Panel Totals								
Other					23836 VA		100.00%		23836 VA										
Spare					500 VA		100.00%		500 VA										

Branch Panel: DP-02														
Location: MECHANICAL / ELECTRICAL...					Volts: 120/208 Wye					A.I.C. Rating: 22 KA				
Supply From: DP-03					Phases: 3					Mains Type:				
Mounting: SURFACE					Wires: 4					Mains Rating: 225 A				
Enclosure: NEMA 3R										MCB Rating: 225 A				
Notes:														
CKT	Circuit Description	QTY	Trip	Pole s	A	B	C	Pole s	Trip	QTY	Circuit Description	CKT		
1	EMERGENCY BATTERY PACK	2	15 A	1	100 VA 360 VA			1	15 A	2	R: CONFERENCE ROOM	2		
3	PARKING & SIGNAGE LIGHTING	12	15 A	1		218 VA 360 VA		1	15 A	2	R: FITNESS	4		
5	EXIT SIGNS	11	20 A	1			285 VA 430 VA	1	20 A	2	R: CONFERENCE ROOM FLOOR...	6		
7	AVIATION LIGHTING	1	15 A	1	500 VA 700 VA			1	15 A	1	TSP-1	8		
9	R: CONFERENCE ROOM	3	15 A	1		540 VA 720 VA		1	15 A	4	R: GENERAL OFFICE	10		
11	R: OFFICE 1	3	15 A	1			540 VA 720 VA	1	15 A	4	R: OFFICE 2	12		
13	LIGHTING	35	15 A	1	846 VA 1200...			1	15 A	1	EF-3	14		
15	EF-3	1	15 A	1		900 VA 1200...		1	25 A	1	EF-4	16		
17	WINDSOCK AND...	2	15 A	1			1000... 1300...	1	15 A	1	B1	18		
19	R: HANGAR	8	20 A	1	1440... 1500...			1	15 A	3	AUTOMATIC DOOR OPERATORS...	20		
21	LIGHTING	27	15 A	1		2323... 180 VA		1	20 A	1	RECEPTACLE	22		
23	B2	1	15 A	1			1300... 2132...	1	15 A	24	LIGHTING	24		
25	R: RPAS	1	20 A	1	180 VA 1500...			2	15 A	11	FCU-1 TO FCU-11	26		
27	GROUND POWER UNIT	2	20 A	2		500 VA 1500...						28		
29							500 VA 180 VA	1	20 A	1	RECEPTACLE	30		
31	R: KITCHEN COUNTER	1	20 A	1	180 VA 180 VA			1	15 A	1	R: FRIDGE	32		
33	R: PRINTER	1	15 A	1		180 VA 180 VA		1	15 A	1	R: GARAGE DOOR	34		
35	R: QUARTERMASTER	1	15 A	1			180 VA 180 VA	1	15 A	1	R: GARAGE DOOR	36		
37	R: DISHWASHER	1	15 A	1	180 VA 360 VA			1	15 A	2	R: TV SECURITY DISPLAY	38		
39	R: ELECTRICAL ROOM	1	15 A	1		180 VA 360 VA		1	15 A	2	R: VEHICLE BAY	40		
41	R: FITNESS TV	1	20 A	1			180 VA 360 VA	1	15 A	2	R: WASHROOM	42		
43	R: MECHANICAL ROOM	2	15 A	1	360 VA 360 VA			1	15 A	1	R: IT ROOM	44		
45	R: MECHANICS OFFICE	2	15 A	1		360 VA 360 VA		1	15 A	2	R: LOUNGE AND TV	46		
47	R: RADIO	2	15 A	1			360 VA 360 VA	1	20 A	2	R: MAINTENANCE	48		
49	R: FITNESS	2	15 A	1	360 VA 500 VA			1	15 A	1	FA MONITORING TRANSMITTER	50		
51	R: GENERAL OFFICE	2	15 A	1		360 VA 500 VA		1	15 A	1	FAAP	52		
53	R: IT ROOM	2	15 A	1			360 VA 500 VA	1	15 A	1	FACP	54		
55	R: UNIVERSAL WASHROOM	--	15 A	1	500 VA 167 VA			3	30 A	1	IT RACK	56		
57						167 VA						58		
59							167 VA					60		
61												62		
63												64		
65														

Notes:

Drawing  
No. **E-901**



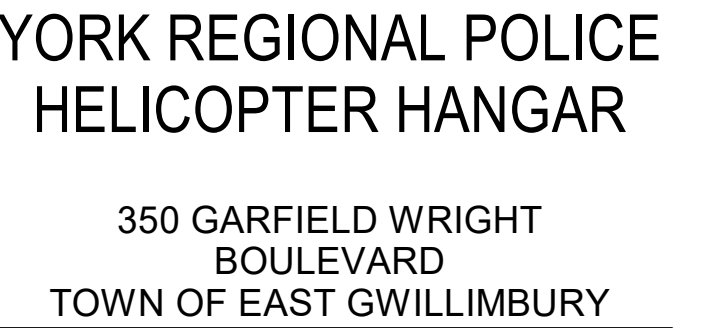
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Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Other	35300 VA	100.00%	35300 VA	
				<b>Total Conn. Load:</b> 35300 VA
				<b>Total Est. Demand:</b> 35300 VA
				<b>Total Conn.:</b> 34 A
				<b>Total Est. Demand:</b> 34 A

Branch Panel: DP-02																			
Location: Room 129					Volts: 120/208 Wye					A.I.C. Rating:									
Supply From:					Phases: 3					Mains Type:									
Mounting: SURFACE					Wires: 4					Mains Rating: 400 A									
Enclosure: NEMA 3R										MCB Rating: 400 A									
Notes:																			
CKT	Circuit Description	QTY	Trip	Pole s	A		B		C		Pole s	Trip	QTY	Circuit Description	CKT				
1	LIGHTING	24	15 A	1	2132...	180 VA					1	15 A	1	R: ELECTRICAL ROOM	2				
3	LIGHTING	27	15 A	1			2323...	700 VA			1	15 A	1	TSP-1	4				
5	LIGHTING	35	15 A	1					846 VA	1600...	1	15 A	3	EF-1, EF-2	6				
7	EF-4	1	15 A	1	1200...	1300...					1	20 A	1	B2	8				
9	EF-3	1	15 A	1			900 VA	1296...			1	15 A	6	UH-1 TO UH-6	10				
11	B1	1	20 A	1					1300...	1500...	1	15 A	3	AUTOMATIC DOOR OPERATORS...	12				
13	R: GENERAL OFFICE	2	15 A	1	360 VA	0 VA									14				
15	FCU-1 TO FCU-11	11	15 A	2			1500...	0 VA			3	100 A	--	GENERATOR ENCLOSURE PANEL	16				
17	R: VEHICLE BAY	2	15 A	1	360 VA	1200...			1500...	0 VA					18				
19	R: MECHANICAL ROOM	2	15 A	1			360 VA	180 VA			1	20 A	1	EF-4	20				
21	R: WASHROOM	2	15 A	1					360 VA	180 VA	1	20 A	1	RECEPTACLE	22				
23	R: LOUNGE AND TV	2	15 A	1	360 VA	360 VA					1	15 A	2	RECEPTACLE	24				
25	R: QUARTERMASTER	1	15 A	1			180 VA	360 VA			1	15 A	1	R: MECHANICS OFFICE	26				
27	R: HANGAR	8	20 A	1					1440...	360 VA	1	15 A	1	R: IT ROOM	28				
29	R: CONFERENCE ROOM	2	15 A	1	360 VA	720 VA					1	15 A	2	R: IT ROOM	30				
31	R: RADIO	2	15 A	1			360 VA	167 VA			1	15 A	4	R: OFFICE 2	32				
33	R: OFFICE 1	3	15 A	1					540 VA	167 VA	3	50 A	1	RTU-1	34				
35															36				
37					167 VA	167 VA									38				
39	RTU-2	1	40 A	3			167 VA	360 VA			1	20 A	2	R: MAINTENANCE	40				
41									167 VA	500 VA	1	15 A	1	AVIATION LIGHTING	42				
43	R: FITNESS	2	15 A	1	360 VA	180 VA					1	15 A	1	R: PRINTER	44				
45	R: FITNESS	2	15 A	1			360 VA	180 VA			1	15 A	1	R: FRIDGE	46				
47	R: RPAS	1	20 A	1					180 VA	180 VA	1	20 A	1	R: KITCHEN COUNTER	48				
49	EXIT SIGNS	11	20 A	1	285 VA	540 VA					1	15 A	3	R: CONFERENCE ROOM	50				
51	R: GARAGE DOOR</																		

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Other	21556 VA	100.00%	21556 VA	
Spare	500 VA	100.00%	500 VA	<b>Total Conn. Load:</b> 44283 VA
EMERGENCY BATTERY PACK	100 VA	100.00%	100 VA	<b>Total Est. Demand:</b> 44283 VA
Lighting - Dwelling Unit	2044 VA	100.00%	2044 VA	<b>Total Conn.:</b> 123 A
Receptacle	16152 VA	100.00%	16152 VA	<b>Total Est. Demand:</b> 123 A

Parkin Architects Limited  
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000

[illegible]

4	ISSUED FOR ADDENDUM 8	2024-10-07
3	ISSUED FOR ADDENDUM 6	2024-09-30
2	ISSUED FOR ADDENDUM 3	2024-09-23
1	ISSUED FOR TENDER	2024-09-09
NO.	ISSUED	DATE

## Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: Author  
Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale:

Sheet  
Title:

## ELECTRICAL SCHEDULES

Drawing  
No. **E-901**



**Location:** Room 129  
**Supply From:**  
**Mounting:** SURFACE  
**Enclosure:** NEMA 3R

**Volts:** 347/600V  
**Phases:** 3  
**Wires:** 4

**A.I.C. Rating:** 42 kA  
**Mains Type:**  
**Mains Rating:** 400 A  
**MCB Rating:** 100 A

[illegible]

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Other	35300 VA	100.00%	35300 VA	
				<b>Total Conn. Load:</b> 35300 VA
				<b>Total Est. Demand:</b> 35300 VA
				<b>Total Conn.:</b> 34 A
				<b>Total Est. Demand:</b> 34 A

**Notes:**

**Location:** Room 129  
**Supply From:**  
**Mounting:** SURFACE  
**Enclosure:** NEMA 3R

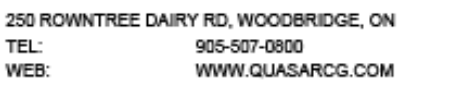
**Volts:** 120/208 Wye  
**Phases:** 3  
**Wires:** 4

A.I.C. Rating:  
Mains Type:  
Mains Rating: 400 A  
MCB Rating: 400 A

CKT	Circuit Description	QTY	Trip	Pole s	A	B	C	Pole s	Trip	QTY	Circuit Description	CKT
1	LIGHTING	24	15 A	1	2132... 180 VA			1	15 A	1	R: ELECTRICAL ROOM	2
3	LIGHTING	27	15 A	1		2323... 700 VA		1	15 A	1	TSP-1	4
5	LIGHTING	35	15 A	1			846 VA 1600...	1	15 A	3	EF-1, EF-2	6
7	EF-4	1	15 A	1	1200... 1300...			1	20 A	1	B2	8
9	EF-3	1	15 A	1		900 VA 1296...		1	15 A	6	UH-1 TO UH-6	10
11	B1	1	20 A	1			1300... 1500...	1	15 A	3	AUTOMATIC DOOR OPERATORS...	14
13	R: GENERAL OFFICE	2	15 A	1	360 VA 0 VA							16
15	FCU-1 TO FCU-11	11	15 A	2		1500... 0 VA		3	100 A	--	GENERATOR ENCLOSURE PANEL	18
17							1500... 0 VA					19
19	R: VEHICLE BAY	2	15 A	1	360 VA 1200...			1	15 A	1	EF-4	20
21	R: MECHANICAL ROOM	2	15 A	1		360 VA 180 VA		1	20 A	1	RECEPTACLE	22
23	R: WASHROOM	2	15 A	1			360 VA 180 VA	1	20 A	1	RECEPTACLE	24
25	R: LOUNGE AND TV	2	15 A	1	360 VA 360 VA			1	15 A	2	R: MECHANICS OFFICE	26
27	R: QUARTERMASTER	1	15 A	1		180 VA 360 VA		1	15 A	1	R: IT ROOM	28
29	R: HANGAR	8	20 A	1			1440... 360 VA	1	15 A	2	R: IT ROOM	30
31	R: CONFERENCE ROOM	2	15 A	1	360 VA 720 VA			1	15 A	4	R: OFFICE 2	32
33	R: RADIO	2	15 A	1		360 VA 167 VA						34
35	R: OFFICE 1	3	15 A	1			540 VA 167 VA	3	50 A	1	RTU-1	36
37					167 VA 167 VA							38
39	RTU-2	1	40 A	3		167 VA 360 VA		1	20 A	2	R: MAINTENANCE	40
41							167 VA 500 VA	1	15 A	1	AVIATION LIGHTING	42
43	R: FITNESS	2	15 A	1	360 VA 180 VA			1	15 A	1	R: PRINTER	44
45	R: FITNESS	2	15 A	1		360 VA 180 VA		1	15 A	1	R: FRIDGE	46
47	R: RPAS	1	20 A	1			180 VA 180 VA	1	20 A	1	R: KITCHEN COUNTER	48
49	EXIT SIGNS	11	20 A	1	285 VA 540 VA			1	15 A	3	R: CONFERENCE ROOM	50
51	R: GARAGE DOOR	1	15 A	1		180 VA 167 VA						52
53	R: GENERAL OFFICE	4	15 A	1			720 VA 167 VA	3	30 A	1	IT RACK	54
55	R: UNIVERSAL WASHROOM	--	15 A	1	500 VA 167 VA							56
57						167 VA 100 VA		2	20 A	1	ODU-2	58
59	ODU-1	1	50 A	3			167 VA 100 VA					60
61					167 VA 180 VA			1	15 A	1	R: DISHWASHER	62
63						500 VA		1	15 A	1	FAAP	64
65							167 VA 500 VA	1	15 A	1	FACP	66
67	AIR COMPRESSOR	1	25 A	3	167 VA 500 VA			1	15 A	1	FUEL TANK	68
69						167 VA 360 VA		1	15 A	2	R: TV SECURITY DISPLAY	70
71	FA MONITORING TRANSMITTER	1	15 A	1			500 VA 430 VA	1	20 A	2	R: CONFERENCE ROOM FLOOR...	72
73	R: GARAGE DOOR	1	15 A	1	180 VA 218 VA			1	15 A	12	PARKING & SIGNAGE LIGHTING	74
75						500 VA 1000...		1	15 A	2	WINDSOCK AND...	76
77	GROUND POWER UNIT	2	20 A	2			500 VA 100 VA	1	15 A	2	EMERGENCY BATTERY PACK	78
79	R: FITNESS-TV	1	20 A	1	180 VA 2496...							80
81	HELIPAD LIGHTING CONTROLLER		15 A	1		0 VA 2496...		2	30 A	1	R: DRYER	82
83	R: WASHER	1	15 A	1			180 VA					84
Total...												

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	21556 VA	100.00%	21556 VA		
Spare	500 VA	100.00%	500 VA	<b>Total Conn. Load:</b>	44283 VA
EMERGENCY BATTERY PACK	100 VA	100.00%	100 VA	<b>Total Est. Demand:</b>	44283 VA
Lighting - Dwelling Unit	2044 VA	100.00%	2044 VA	<b>Total Conn.:</b>	123 A
Receptacle	16152 VA	100.00%	16152 VA	<b>Total Est. Demand:</b>	123 A

Notes:



350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

[illegible]

4	ISSUED FOR ADDENDUM 8	2024-10-07
3	ISSUED FOR ADDENDUM 6	2024-09-30
2	ISSUED FOR ADDENDUM 3	2024-09-23
1	ISSUED FOR TENDER	2024-09-09
NO.	ISSUED	DATE

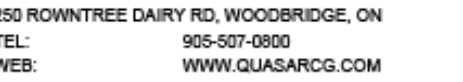
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Checked by: Checker  
Original Issue Date: 2024-07-31  
Project No: TT-24-005  
Scale:

## ELECTRICAL SCHEDULES

Drawing  
No.  
**E-901**





350 GARFIELD WRIGHT  
BOULEVARD  
TOWN OF EAST GWILLIMBURY

[illegible]

All measurements are to be checked and verified on site by the contractor before proceeding with work

Drawn by: Author  
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## ELECTRICAL SCHEDULES

Drawing  
No. **E-901**

## Notes: