

## ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE
1P	1 POLE (2P,3P,4P, ETC.)
2/C	2 CONDUCTOR (3/C, 4/C, ETC.)
2W	2-WIRE (3W, 4W, ETC.)
3PH	THREE-PHASE
<b>A</b>	
AC	ALTERNATING CURRENT
A/C	AIR CONDITIONING
ACT	ACTUATOR
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
A AMP	AMPERE
AODA	ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT
ASM	AMBIENT SENSING MICROPHONE
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
<b>B</b>	
BAC	BUILDING AUTOMATION CONTROL
BAT	BATTERY
BKR	BREAKER
<b>C</b>	
C	CONDUIT
CB	CIRCUIT BREAKER
cd	CANDELA
CL	CEILING
CU	COPPER
<b>D</b>	
DC	DIRECT CURRENT
DM	DIESEL GENERATOR
DN	DIGITAL METERING
DN	DOWN
DO	DOOR OPENERS
DS	DOOR SWITCH
<b>E</b>	
E	EXISTING DEVICE/EQUIPMENT TO REMAIN
E/R	EXISTING DEVICE/EQUIPMENT TO BE RELOCATED OR REPLACED (AS NOTED)
EC	EMPTY CONDUIT
EF	EXHAUST FAN
ELEC	ELECTRICAL
ELEV	ELEVATION
EXP	EXPLOSION PROOF
<b>F</b>	
FA	FIRE ALARM
FC	FAN CONTROL
FCP	FAN CONTROL PANEL
FU	FUSE
<b>G</b>	
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
<b>H</b>	
HH	HAND HOLE
HT	HEIGHT
HTR	HEATER
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HZ	HERTZ
<b>I</b>	
INST	INSTANTANEOUS
<b>J</b>	
JB	JUNCTION BOX
<b>K</b>	
kA	KILO AMPERE
kAIC	KILO AMPERE INTERRUPTING CAPACITY
kcmil	THOUSAND CIRCULAR MILS
kV	KILO VOLTS
kVA	KILOVOLT-AMPERES
kVAR	KILOVOLT-AMPERES REACTIVE
<b>L</b>	
LP	LIGHTING PANEL
<b>M</b>	
MTG	MOUNTING
MTD	MOUNTED
<b>N</b>	
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN OR NUMBER
NTS	NOT TO SCALE
<b>O</b>	
OBC	ONTARIO BUILDING CODE
OESC	ONTARIO ELECTRICAL SAFETY CODE
OL	OVERLOAD
<b>P</b>	
P	POLE
PH	PHASE
PL	PLUG LOAD
PR	PAIR
PVC	POLYVINYL CHLORIDE
<b>Q</b>	
QTY	QUANTITY
<b>R</b>	
R	EXISTING DEVICES/EQUIPMENT TO BE REMOVED
REC	RECEPTACLE
<b>S</b>	
SB	SOLAR LIGHT BOLLARD
SN	SOLID NEUTRAL
SW	SWITCH
<b>T</b>	
TL	TWIST LOCK
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TW	TWISTED
TYP	TYPICAL
<b>U</b>	
UG	UNDERGROUND
ULC	UNDERWRITERS LABORATORIES OF CANADA
<b>V</b>	
V	VOLTS
<b>W</b>	
W	WIRE
WG	WIRE GUARD
WP	WEATHER PROOF
<b>X</b>	
XFMR	TRANSFORMER

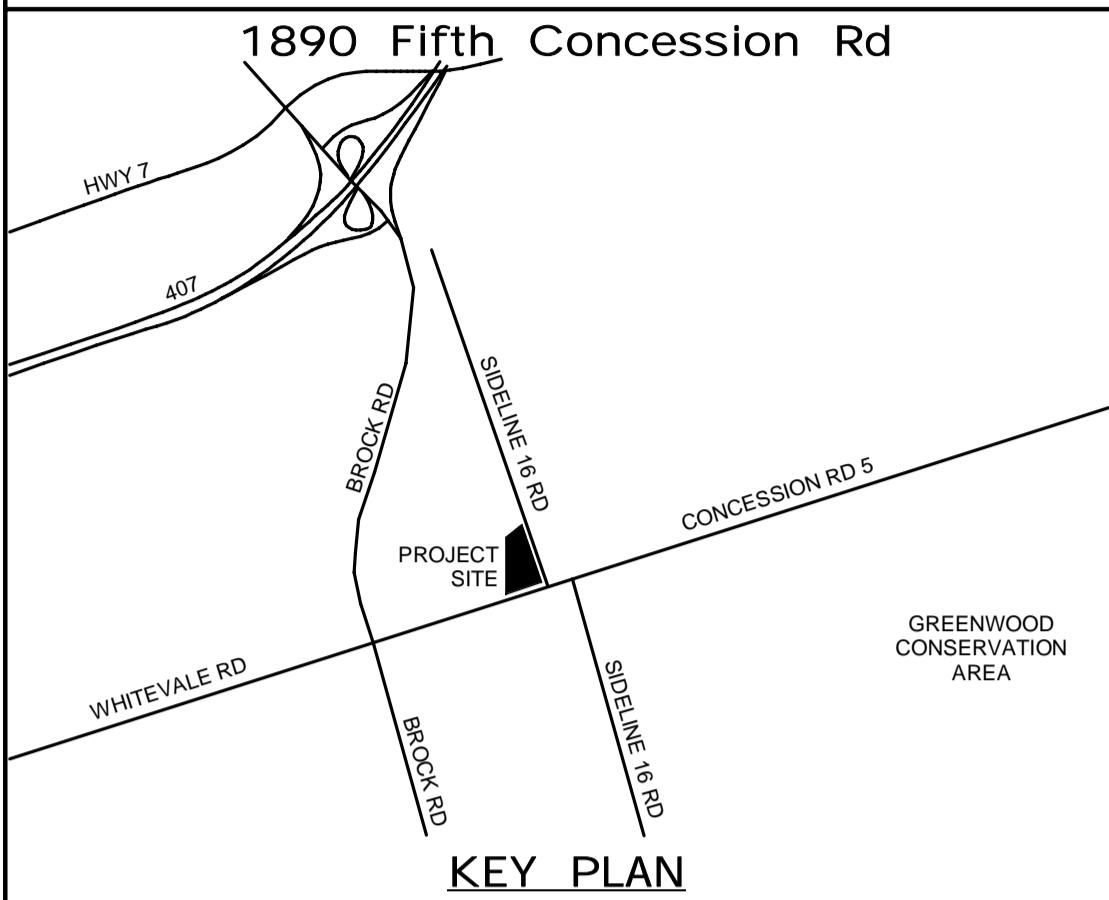
## LIGHTING

	CEILING MOUNTED LED FIXTURE. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
	CEILING MOUNTED LED FIXTURE. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
	BARE FLUORESCENT STRIP. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
	WALL MOUNTED LED FIXTURE. 'A' DENOTES TYPE. REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
	WALL MOUNTED LIGHT FIXTURE. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
	CEILING MOUNTED LIGHT FIXTURE. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
	WALL PACK OUTDOOR LIGHTING FIXTURE. 'WP' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
	FIXTURE CONNECTED TO EMERGENCY LIGHTING CIRCUIT
	POLE MOUNTED LIGHT FIXTURE STANDARD TYPE, SINGLE, DOUBLE, THREE AND FOUR HEADS. 'A' DENOTES TYPE, REFER TO SCHEDULE
	PHOTOCELL - CEILING, WALL MOUNTED
	120V, 15AMP SINGLE POLE TOGGLE SWITCH. XX INDICATES THE FOLLOWING: 3 = 3 WAY SWITCH 4 = 4 WAY SWITCH F = FAN SWITCH K = KEY SWITCH L = LOW VOLTAGE SWITCH M = MASTER SWITCH P = PROJECTION SCREEN SWITCH T = TIMER SWITCH DIM = DIMMER MB = MOTORIZED BLINDS SWITCH OR = OVERRIDE 20 = 20 AMP EF = EXHAUST FAN SWITCH WITH RED PILOT LIGHT OS = OCCUPANCY SENSOR WITH DIMMING OSD = OCCUPANCY SENSOR WITH DIMMING WVP = WEATHER PROOF
	SWITCH - TWO, THREE & FOUR GANG
	LIGHTING CONTACTOR
	WALL MOUNTED EMERGENCY LIGHTING C/W SINGLE REMOTE HEAD CONNECTED TO EMERGENCY BATTERY UNIT AS INDICATED.
	WALL MOUNTED EMERGENCY LIGHTING C/W DOUBLE REMOTE HEADS CONNECTED TO EMERGENCY BATTERY UNIT AS INDICATED.
	EMERGENCY BATTERY UNIT C/W HEADS AS INDICATED
	EMERGENCY BATTERY UNIT C/W HEADS AS INDICATED & RECEPTACLE
	EMERGENCY BATTERY UNIT C/W HEADS AS INDICATED & RECEPTACLE & EXIT SIGN
	RECESSED CEILING MOUNTED EMERGENCY LUMINAIRES SINGLE REMOTE HEAD.
	EXIT SIGN, SINGLE FACE, WALL MOUNTED
	EXIT SIGN, SINGLE FACE, CEILING MOUNTED, C/W DIRECTIONAL ARROWS
	EXIT SIGN, DUAL FACE, WALL MOUNTED, C/W DIRECTIONAL ARROWS
	EXIT SIGN, DUAL FACE, CEILING MOUNTED, C/W DIRECTIONAL ARROWS
	CEILING MOUNTED EXIT LIGHT SIGN, WITH EMERGENCY HEADS, ARROWS DENOTE DIRECTION
<b>DIGITAL LIGHTING CONTROL</b>	
	DIGITAL MANUAL SWITCH
	DIGITAL MANUAL DIMMING SWITCH
	DIGITAL MANUAL SCENE SWITCH
	WALL MOUNTED SWITCH AND OCCUPANCY SENSOR
	WALL MOUNTED DIGITAL SWITCH AND OCCUPANCY SENSOR
	WALL MOUNTED DIGITAL DIMMING SWITCH AND OCCUPANCY SENSOR
	C INDICATES - CLOSED LOOP SINGLE ZONE DIGITAL PHOTOSENSOR O INDICATES - OPEN LOOP SINGLE ZONE DIGITAL PHOTOSENSOR
	DIGITAL LIGHT MANAGEMENT PLUG LOAD CONTROLLER, 2 = TWO RELAY CIRCUITS
	DIGITAL LIGHTING ROOM CONTROLLER RC3 = 3 RELAY CIRCUITS RC2 = 2 RELAY CIRCUITS RC1 = 1 RELAY CIRCUITS D = DIMMING CAPABILITY
	WALL, CEILING MOUNTED OCCUPANCY SENSOR. X INDICATES: D = DUAL TECHNOLOGY DIGITAL OCCUPANCY SENSOR IR = INFRARED SENSOR US = ULTRASONIC
	DIGITAL LIGHT MANAGEMENT ZONE CONTROLLER PANEL
<b>LIGHTNING PROTECTION &amp; GROUNDING</b>	
	20mm X 3000mm GROUND ELECTRODE
	GROUND ROD IN TEST WELL
	GROUND ROD W/C INSPECTION WELL
	GROUNDING CONDUCTOR, SIZE AS INDICATED
	GROUNDING CONNECTION (TYPE AS SHOWN OR NOTED)


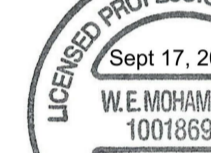
## LIGHTNING PROTECTION & GROUNDING

	GROUND BONDING POINT TO STEEL STRUCTURE, REBAR, PIPE, ETC.
	GROUND BAR
	NEUTRAL GROUNDING RESISTOR
	DOWNLEAD CONDUCTOR
	LIGHTNING TERMINAL
	PANELS, RECESSED OR SURFACE MOUNTED. 'A' DENOTES PANEL NAME.
	120V-1P CONNECTION TO EQUIPMENT AS NOTED C/W DISCONNECT SWITCH
	DIRECT CONNECTION TO EQUIPMENT
	THREE PHASE DIRECT CONNECTION TO EQUIPMENT
	DISCONNECT SWITCH
	COMBINATION MAGNETIC LOOSE STARTER
	FUSED DISCONNECT
	COMBINATION MAGNETIC STARTER
	MANUAL STARTER
	LOOSE MOTOR STARTER
	1-PHASE MOTOR CONNECTION
	3-PHASE MOTOR CONNECTION
	ELECTRIC DOOR OPERATOR PUSHBUTTON
	JUNCTION BOX
	ARROW INDICATES CONDUIT & WIRING "HOME RUN". REFER TO SINGLE LINE OR SCHEMATIC
	PULL BOX
	20A, 120V, DUPLEX RECEPTACLE (CSA 5-15R) OR AS NOTED. XX INDICATES THE FOLLOWING: A ABOVE COUNTER TOP AC HVAC CONTROL CONNECTION ABOVE CEILING DW DISHWASHER M MICROWAVE MB MOTORIZED BLIND (HEIGHT TO BE CONFIRMED WITH THE BLINDS CONTRACTOR) P PRINTER REF REFRIGERATOR S STOVE TV TELEVISION - MOUNT AT 1500mm (5') AFF V VENDING XP EXPLOSION PROOF
	15A, 120V, GROUND FAULT INTERRUPTING DUPLEX RECEPTACLE (CSA 5-15R) OR AS NOTED. XX INDICATES THE FOLLOWING WP WEATHER PROOF EEMAC TYPE 4 ENCLOSURE 20 CSA 5-20R
	20A, 120V, DUPLEX RECEPTACLE (CSA 5-20R)
	240V RECEPTACLE
	15A, 120V, DUPLEX RECEPTACLE, SPLIT CIRCUIT (CSA 5-15R) OR AS NOTED
	15A, 120V, QUAD RECEPTACLE (2X CSA 5-15R) OR AS NOTED
	WALL MOUNTED SINGLE RECEPTACLE. AMPS, VOLTS AND CSA CONFIGURATION AS NOTED
	CEILING MOUNTED DUPLEX RECEPTACLE
	FLOOR MOUNTED QUAD RECEPTACLE
	FLOOR MOUNTED DUPLEX RECEPTACLE
	FLOOR MOUNTED DUPLEX RECEPTACLE
	WALL FEED FOR POWER AND COMMUNICATIONS TO SYSTEM FURNITURE
	RACEWAY COMPUTER RECEPTACLE
	RECEPTACLE IN 3 COMPARTMENTS RACEWAYS
	BASEBOARD OR FAN-FORCED WALL HEATER
	THERMOSTAT
	DIGITAL CLOCK
	HYDRO POLE
	MANHOLE
	MAINTENANCE HOLE
	HYDRO UTILITY METER
	UNDERGROUND CONDUIT
	CEILING SUSPENDED RETRACTABLE DROP-CORD RECEPTACLE
	EMERGENCY POWER OFF PUSHBUTTON (EPO)

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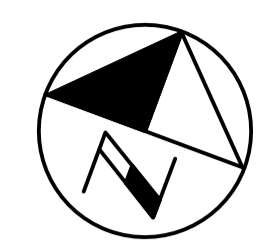
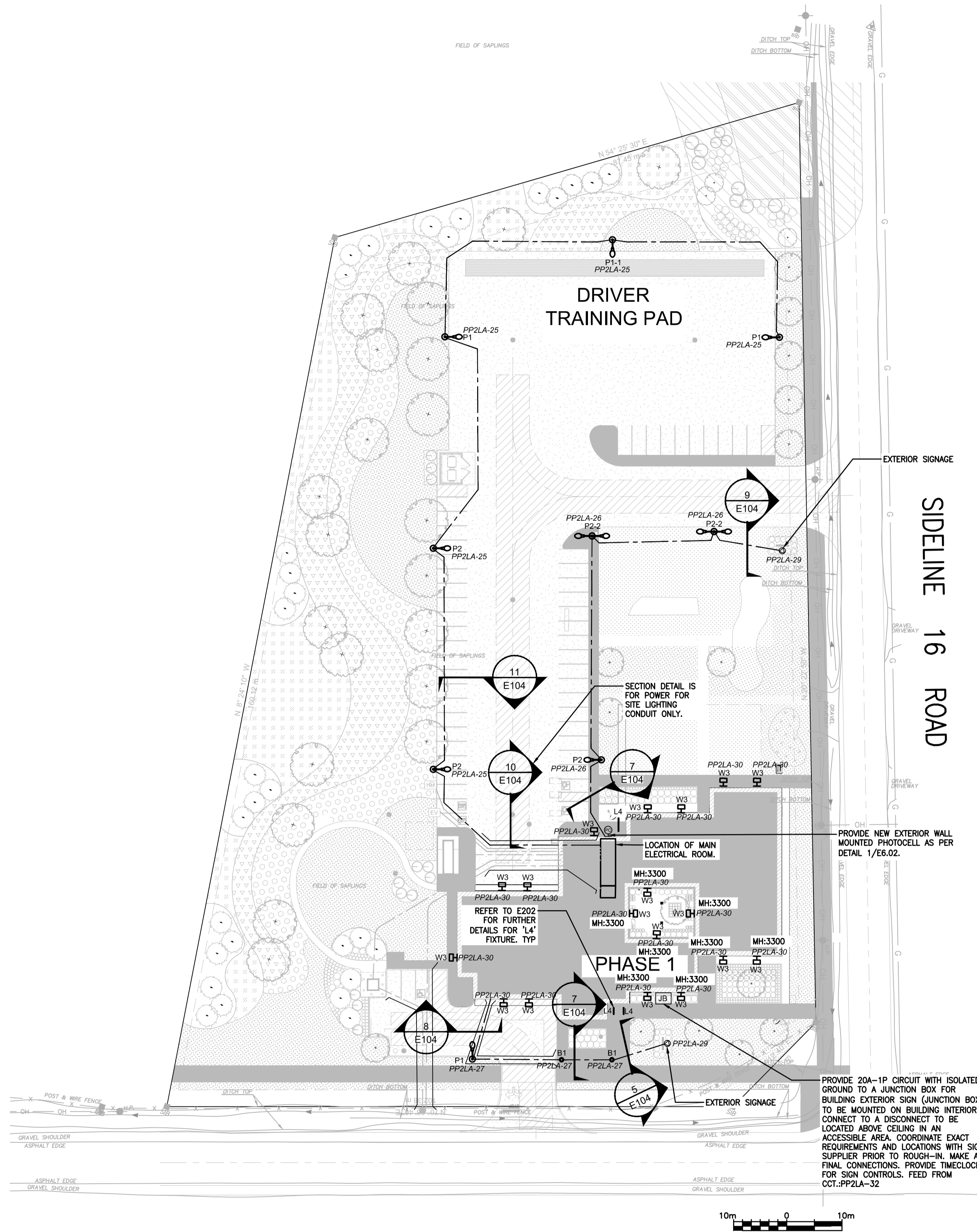
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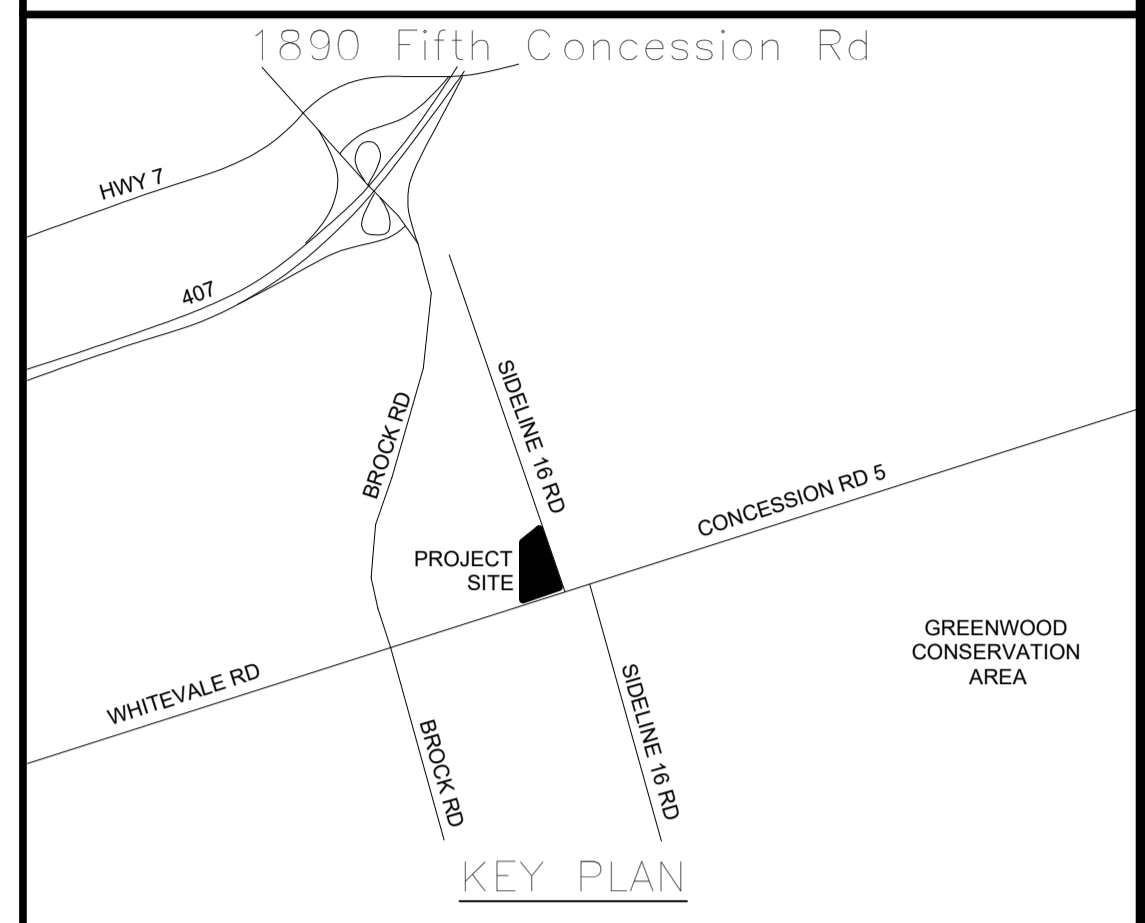
NEW SEATON PARAMEDIC STATION  
AND TRAINING FACILITY IN PICKERING  
ELECTRICAL LEGEND AND GENERAL  
NOTES 1 OF 2

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 001	SHEET NO.





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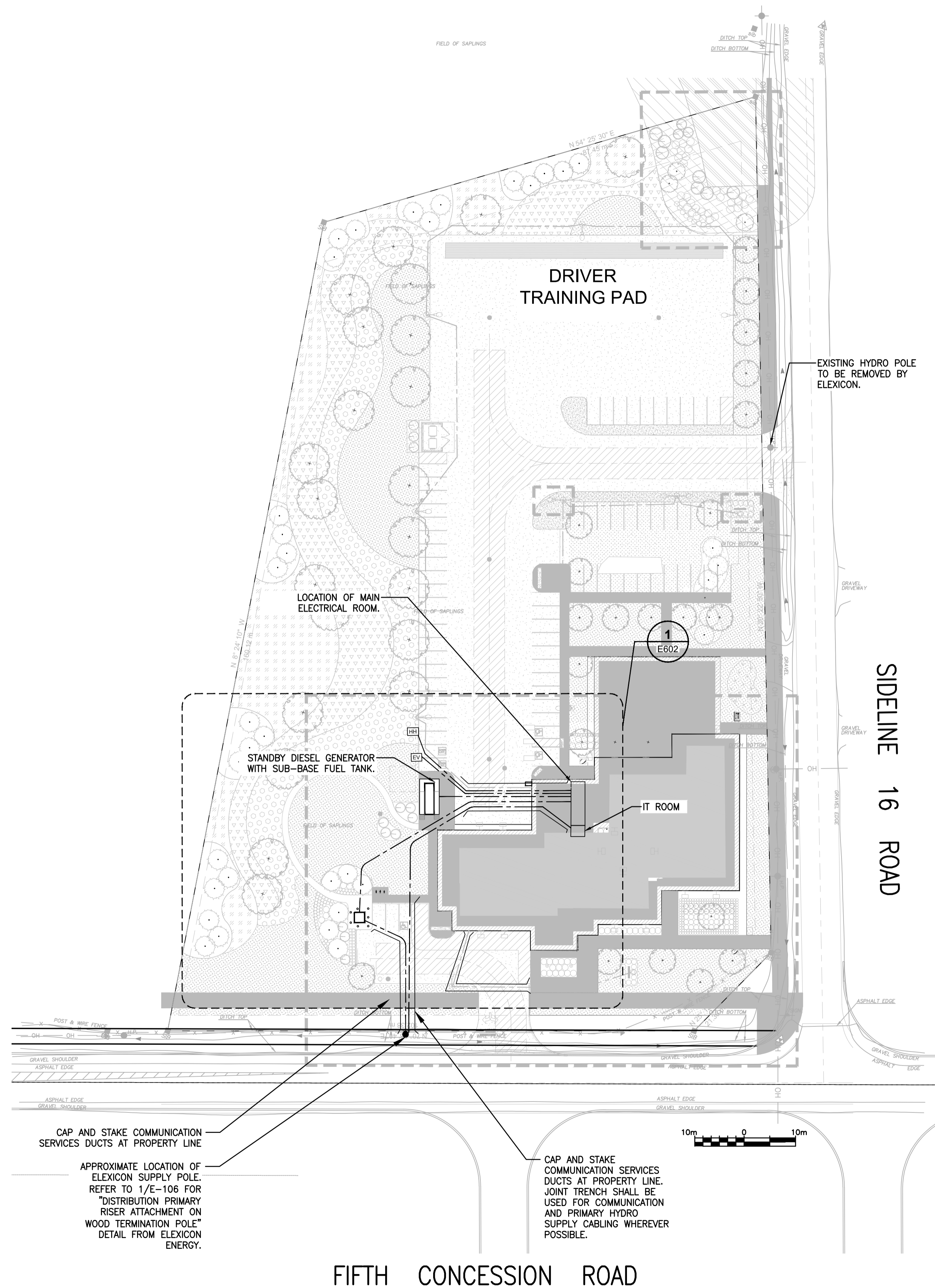
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NEW SEATON PARAMEDIC STATION  
AND TRAINING FACILITY IN PICKERING  
SITE LIGHTING PLAN

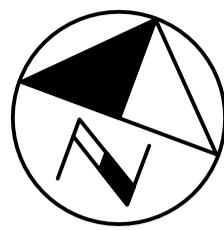
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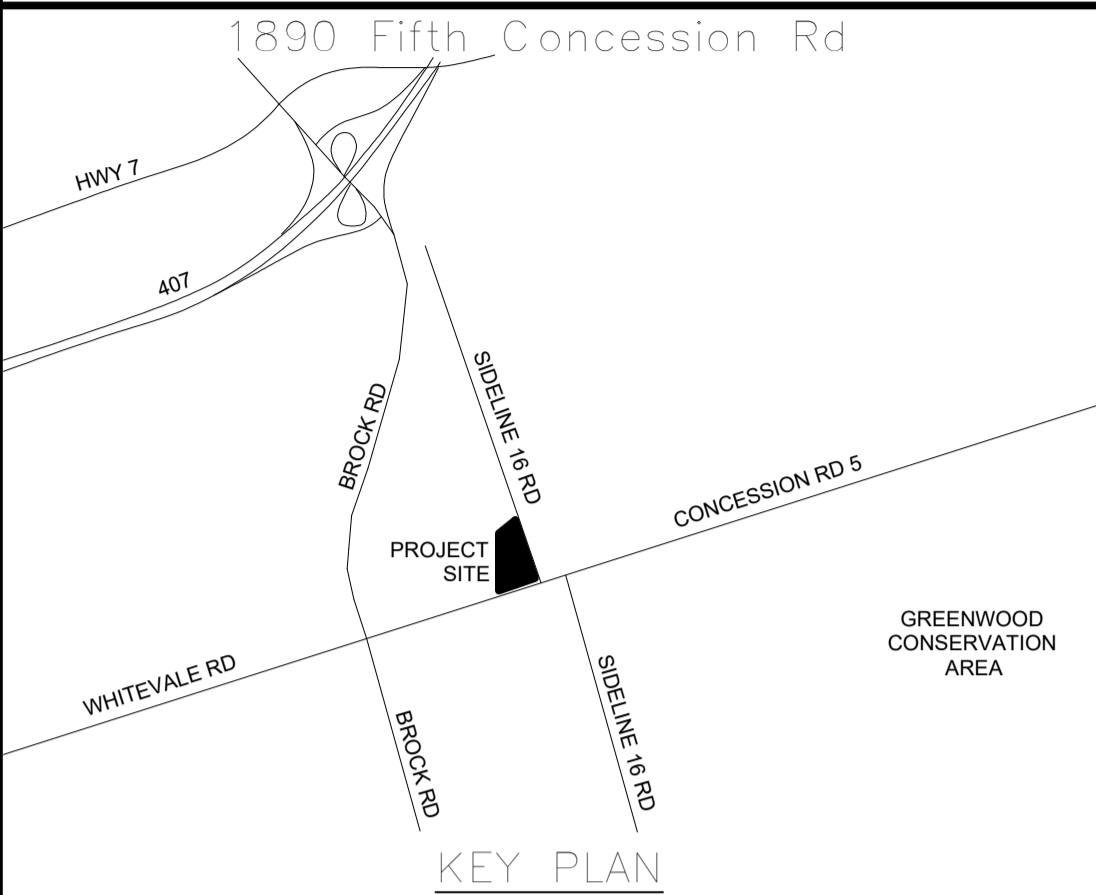
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- GENERAL NOTES:
1. REFER TO DRAWING M001 FOR LOCATION OF ELECTRIC SNOW MELT AREAS. SYSTEM SHALL BE SUPPLIED BY SECTION 23 AND INSTALLED BY SECTION 26.



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Sept 17, 2021  
W.E. MOHAMMED ALI  
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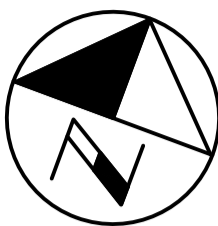
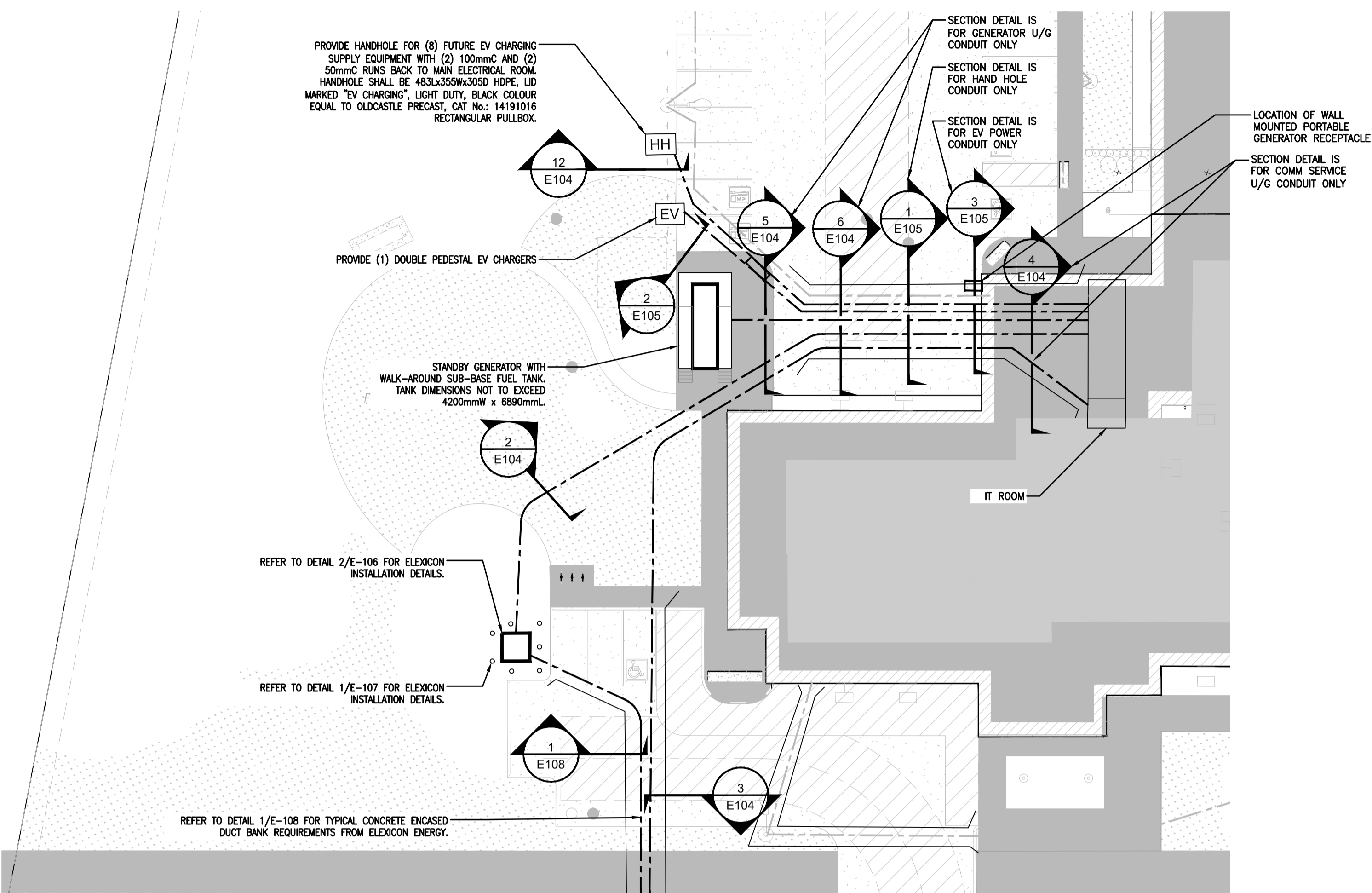
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NEW SEATON PARAMEDIC STATION  
AND TRAINING FACILITY IN PICKERING  
SITE POWER PLAN

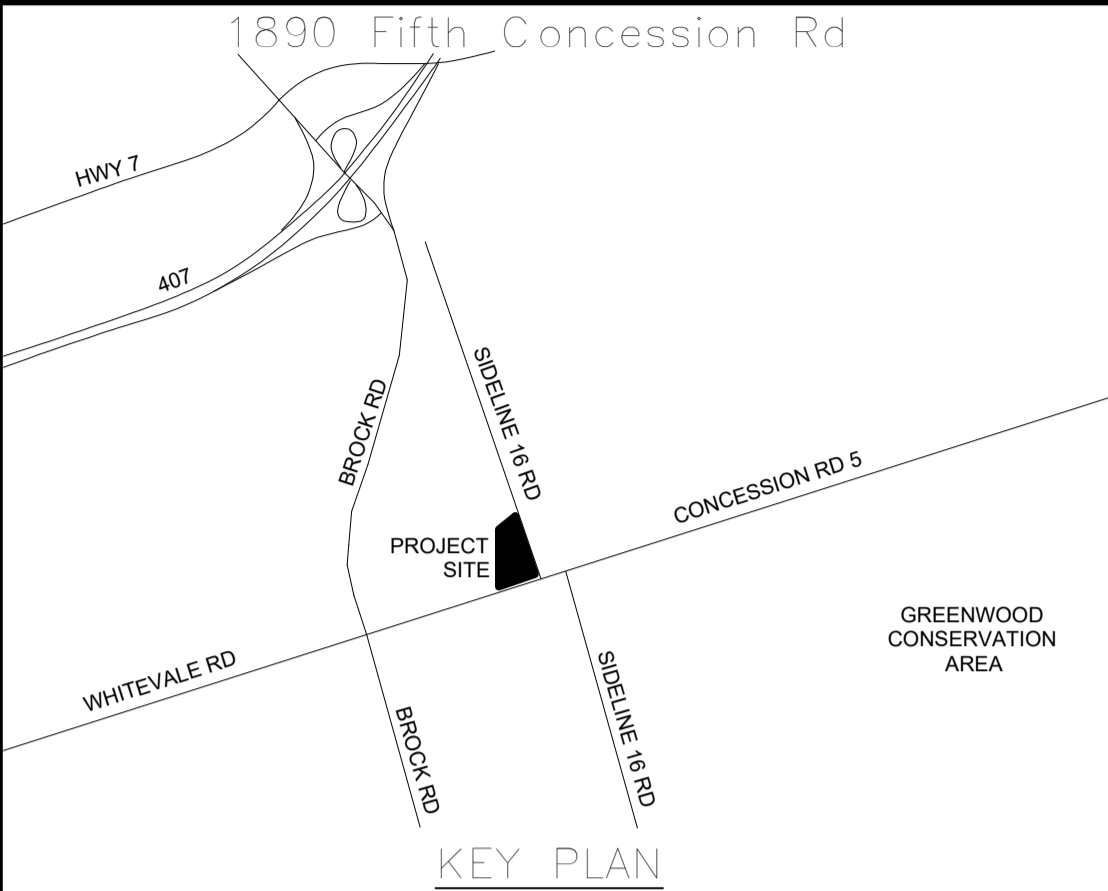
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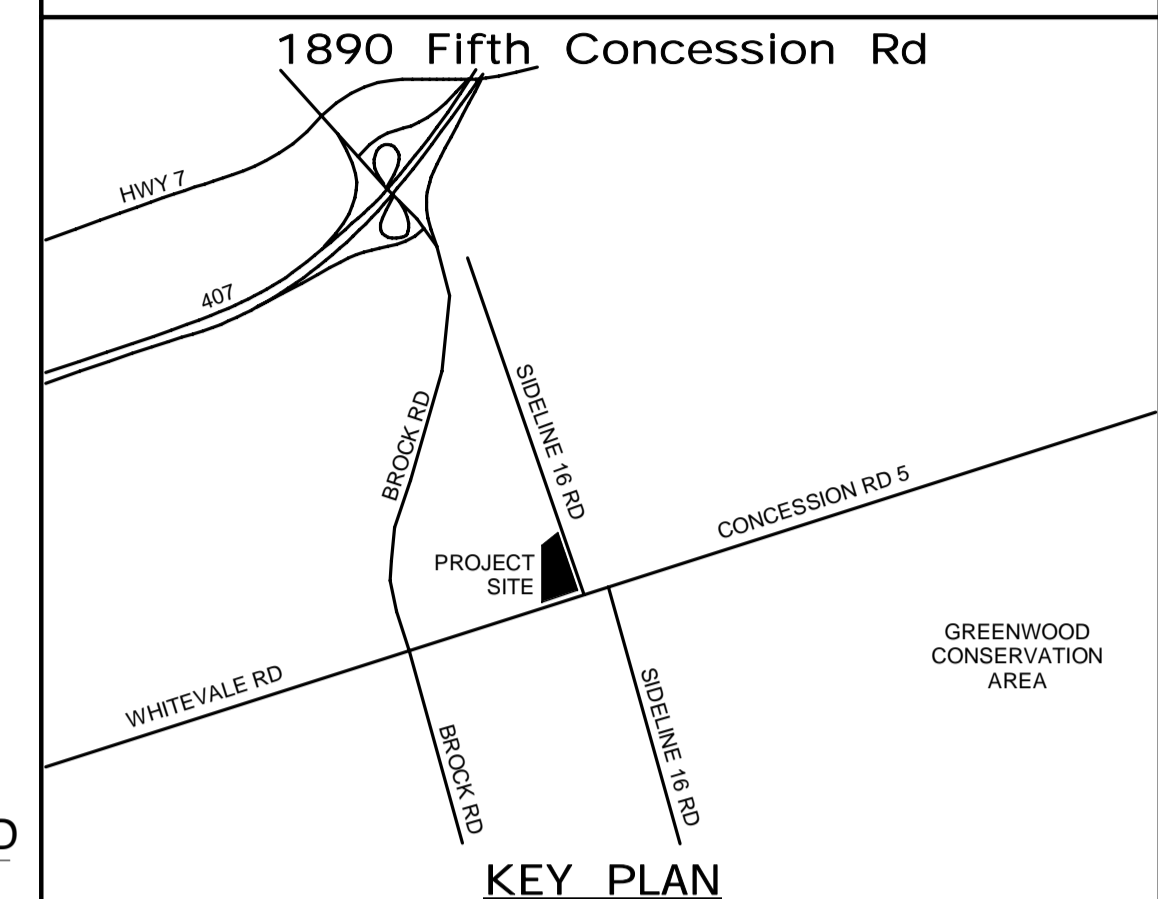
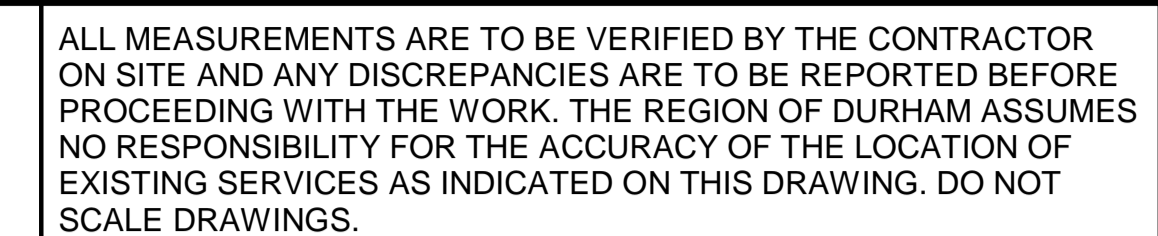
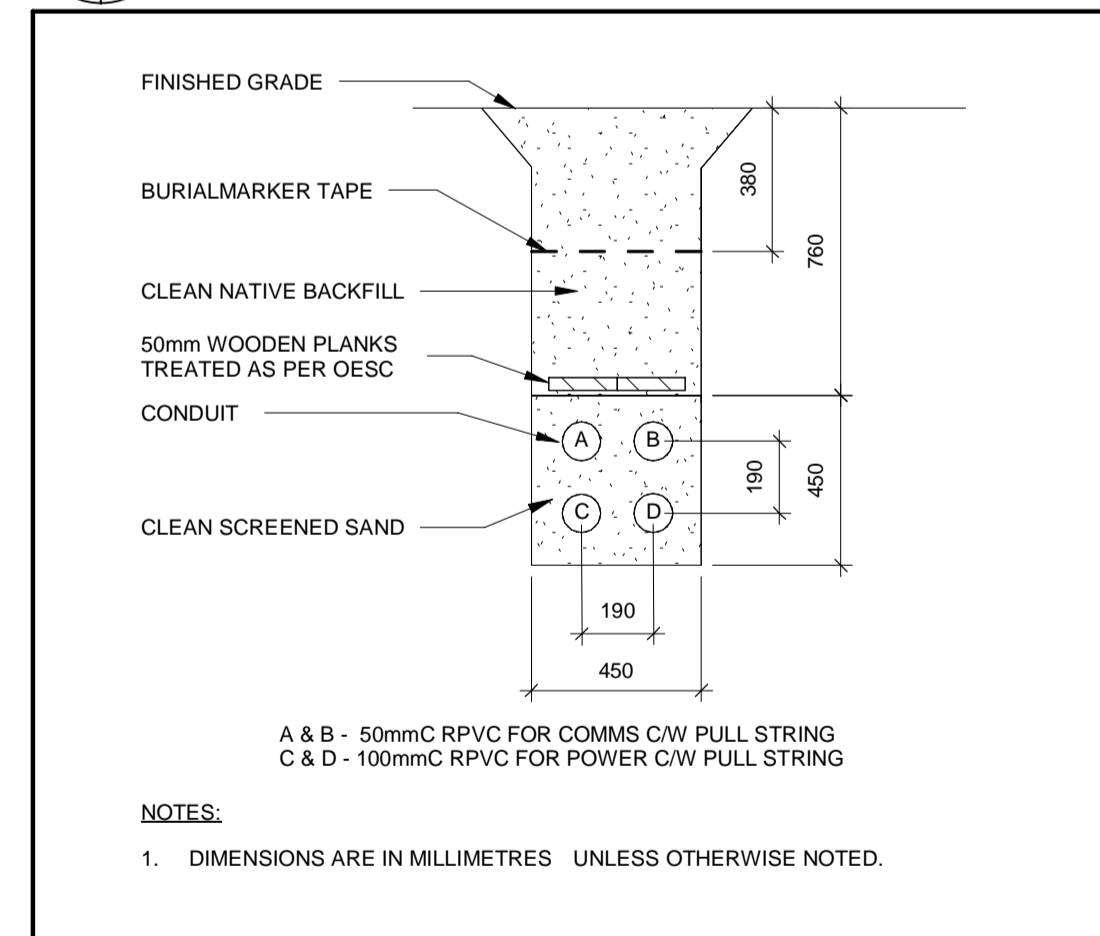
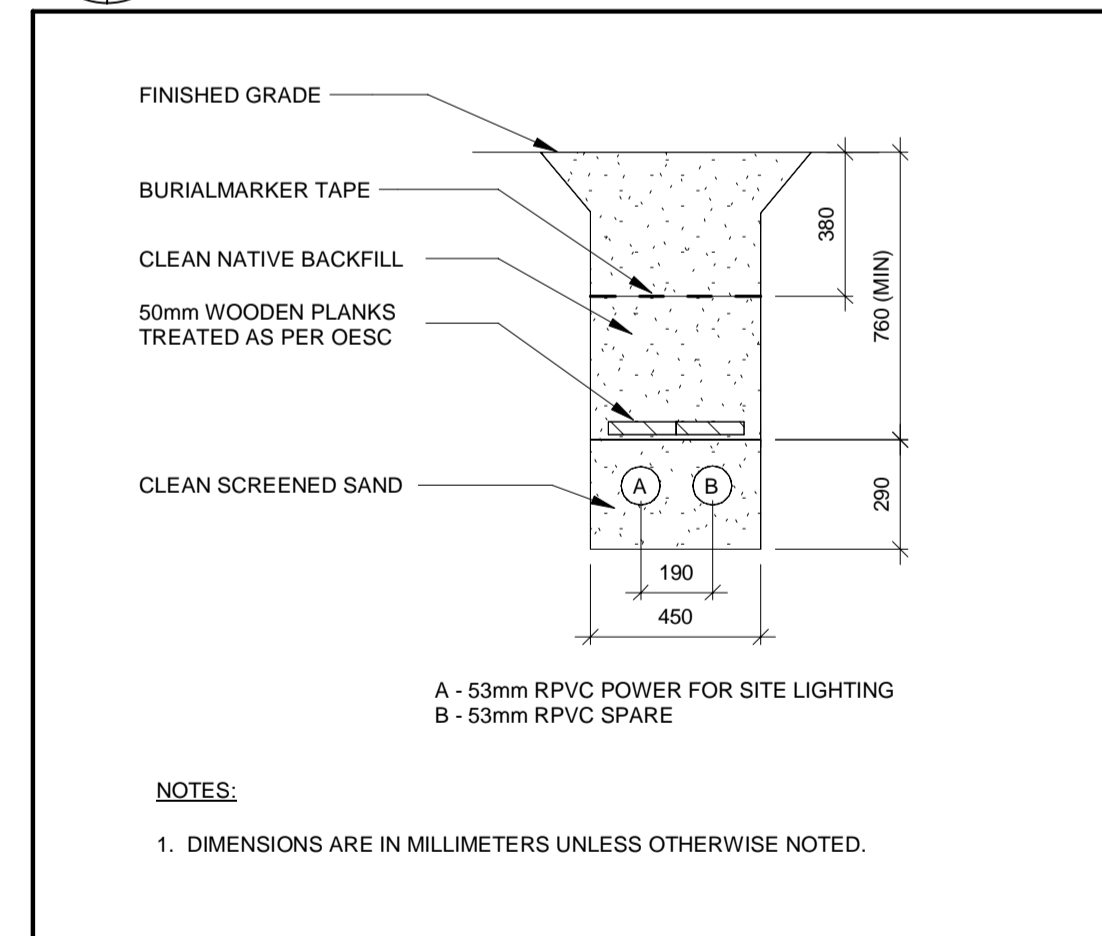
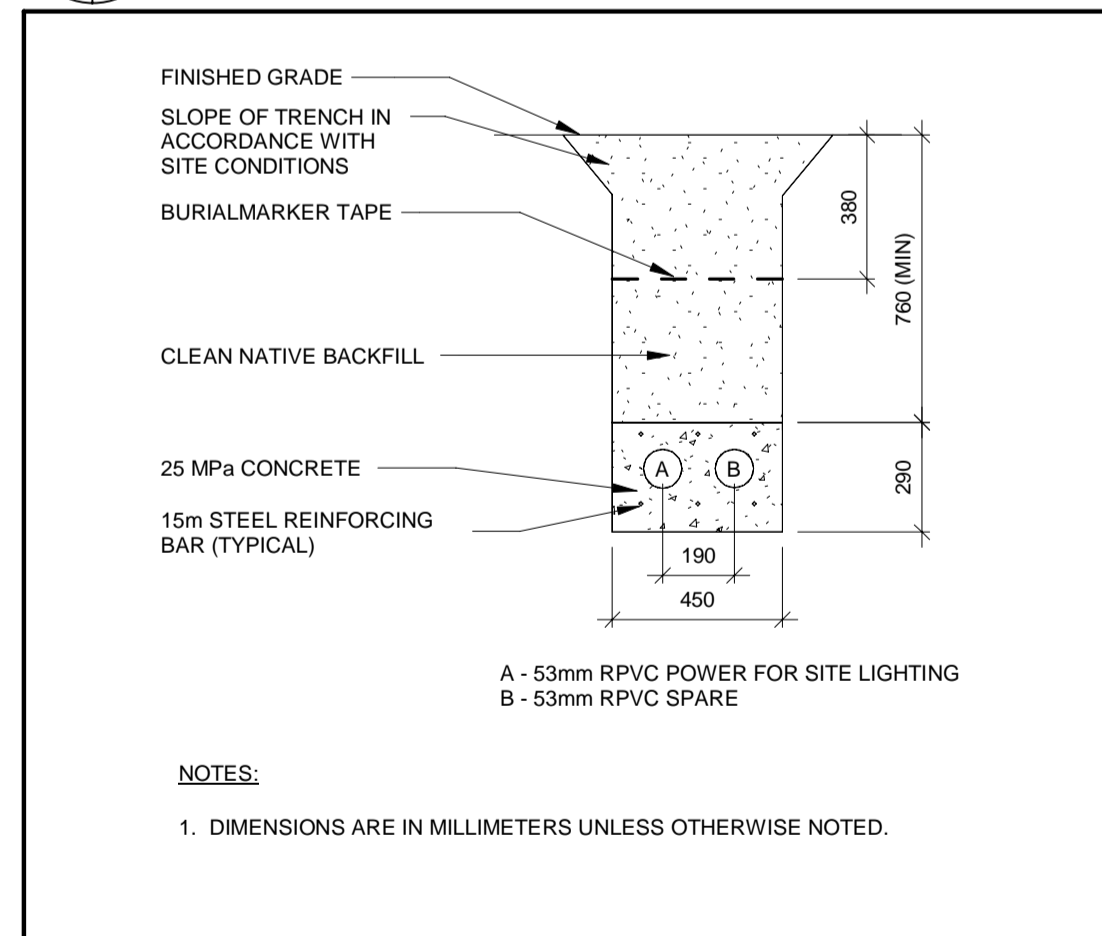
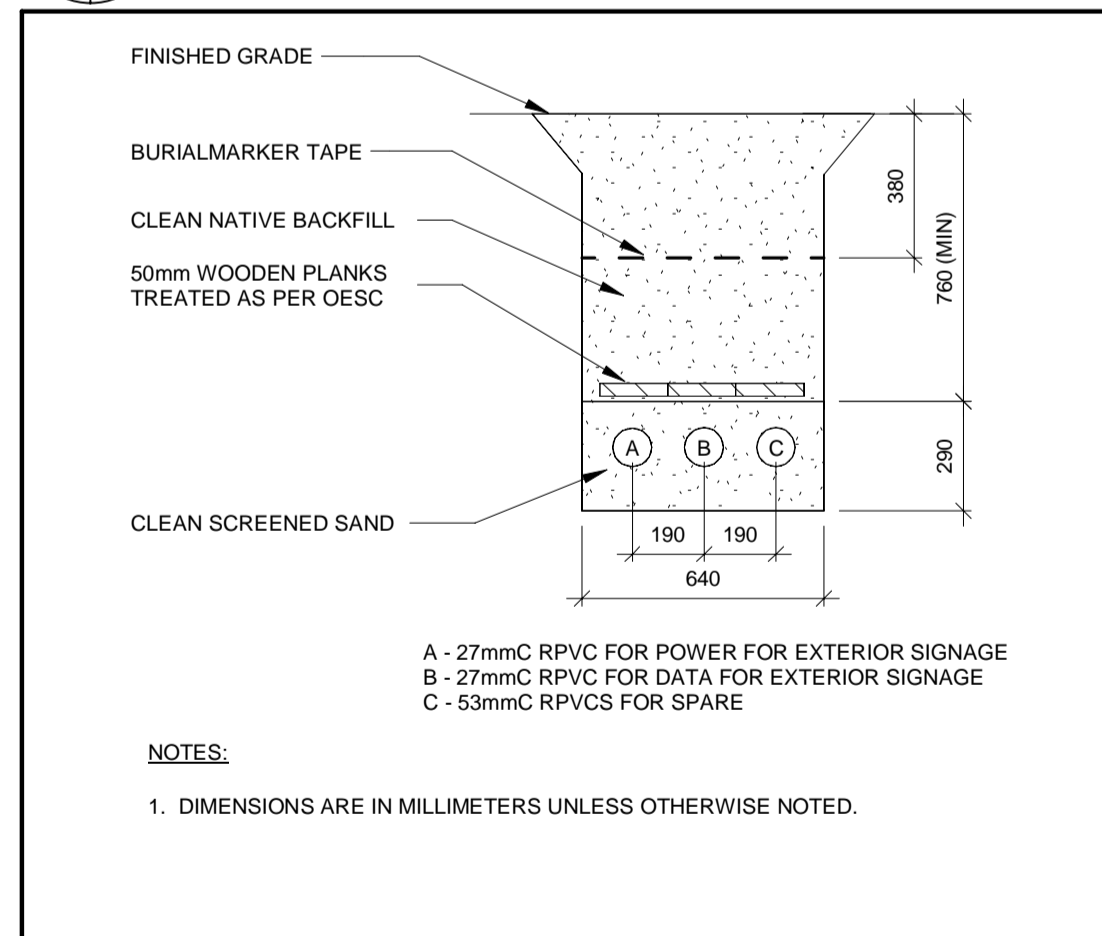
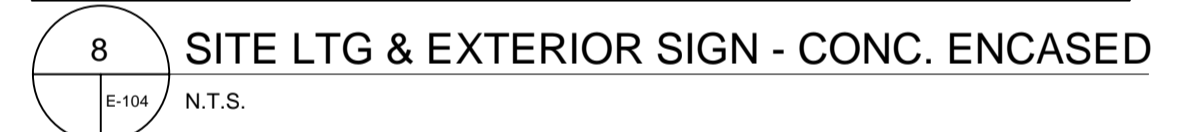
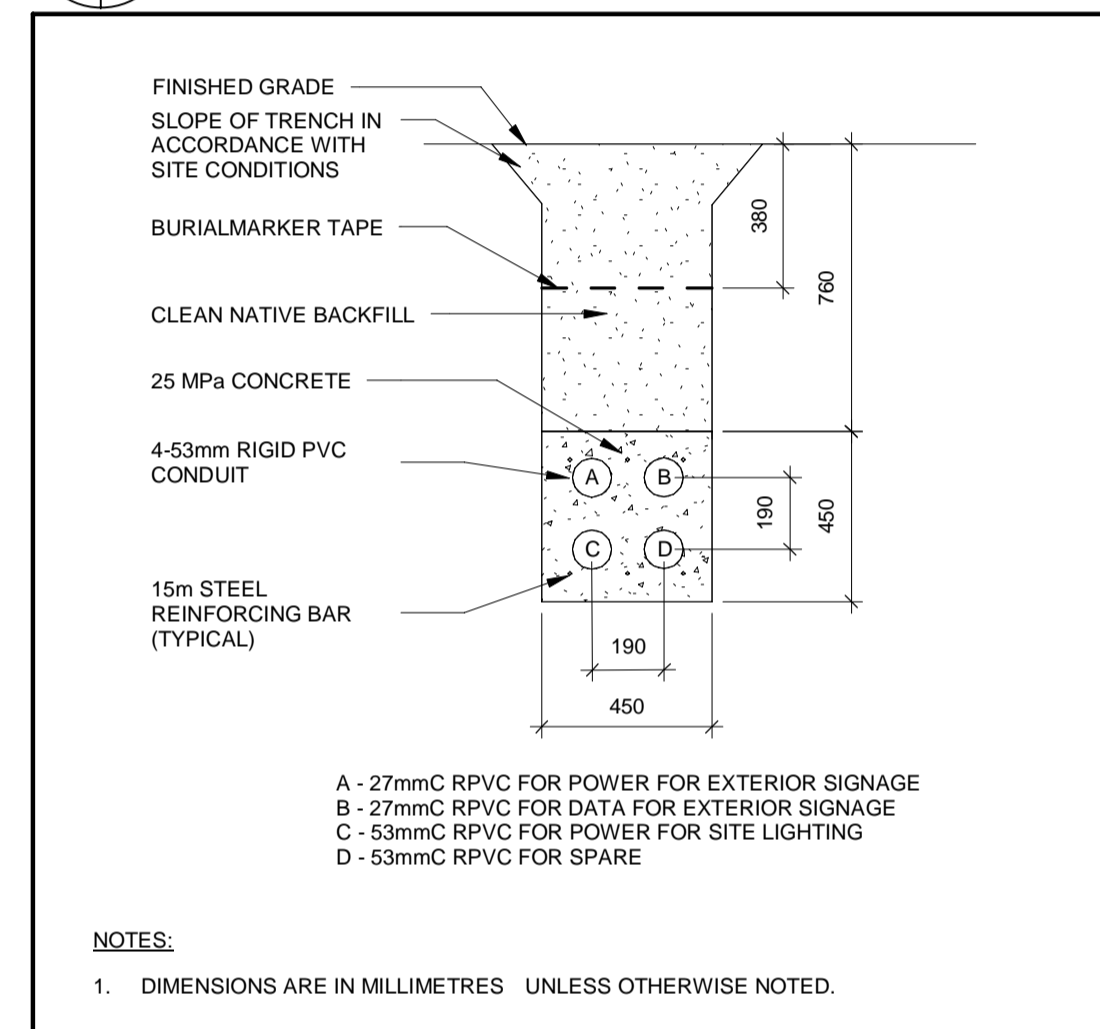
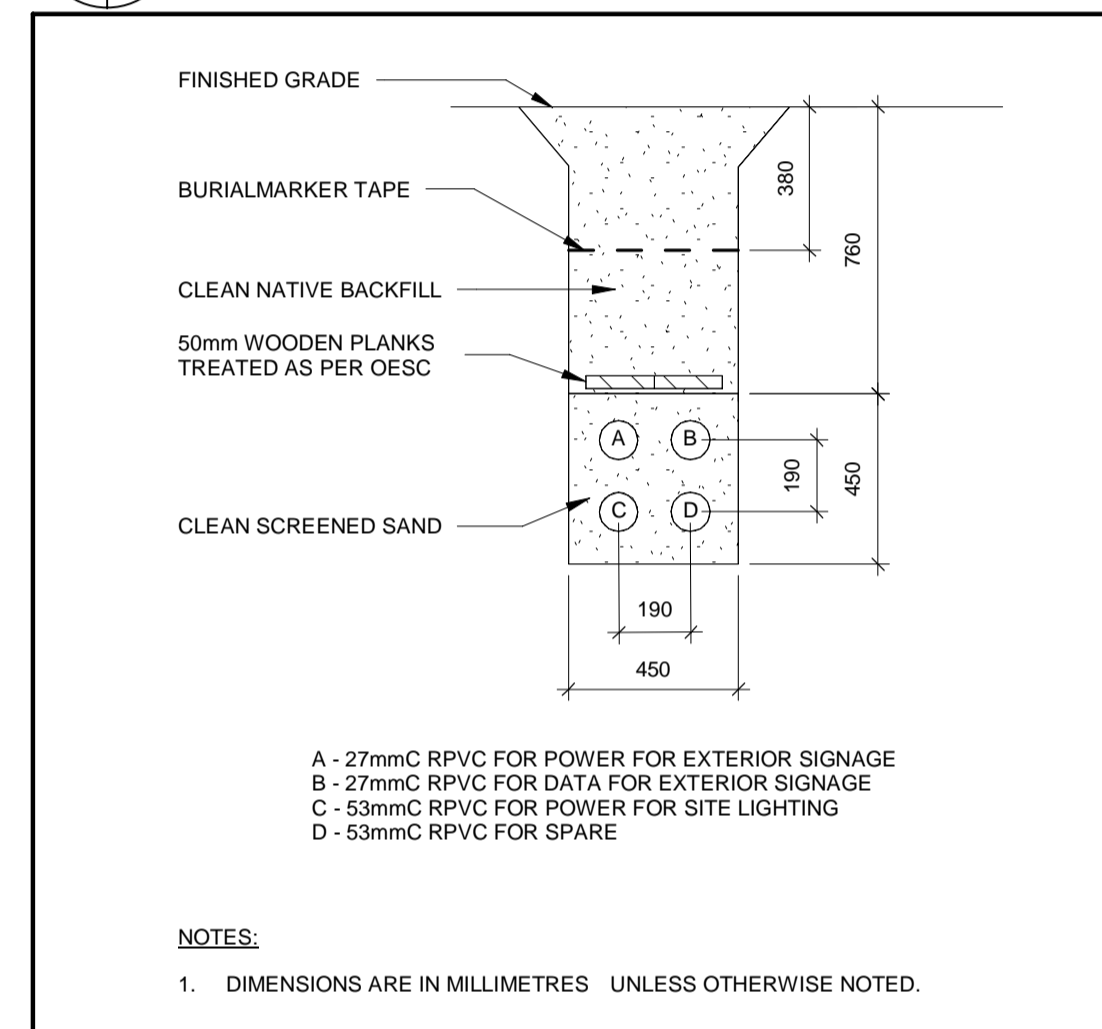
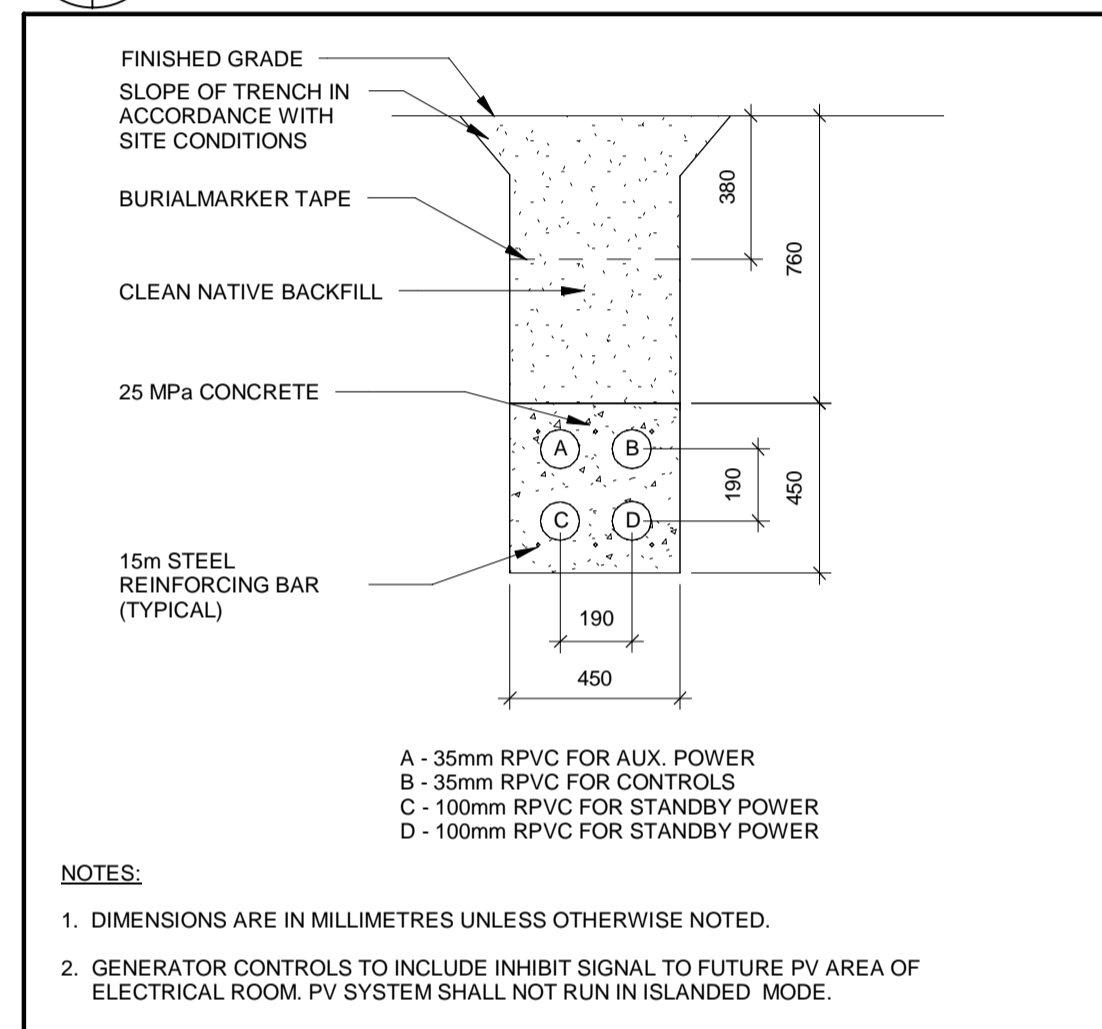
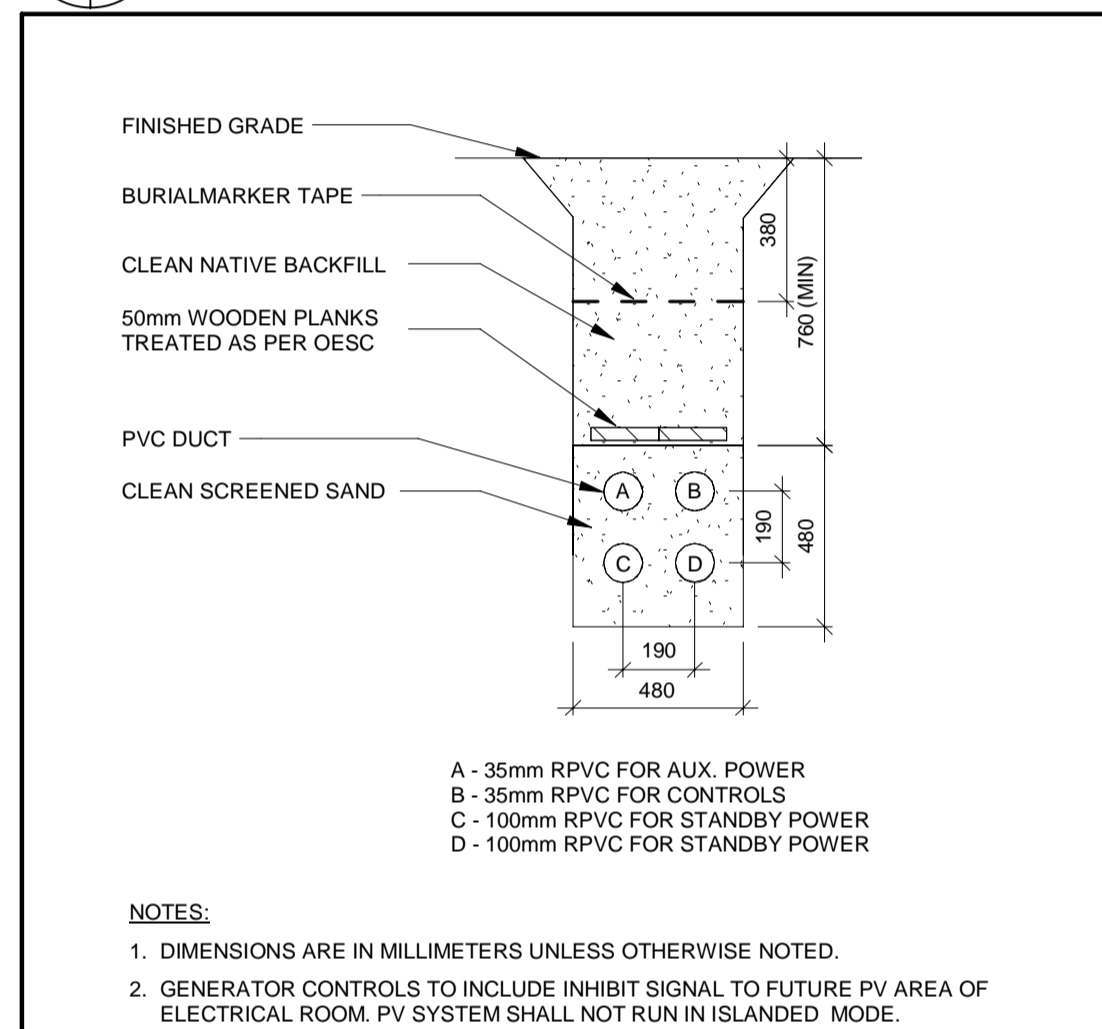
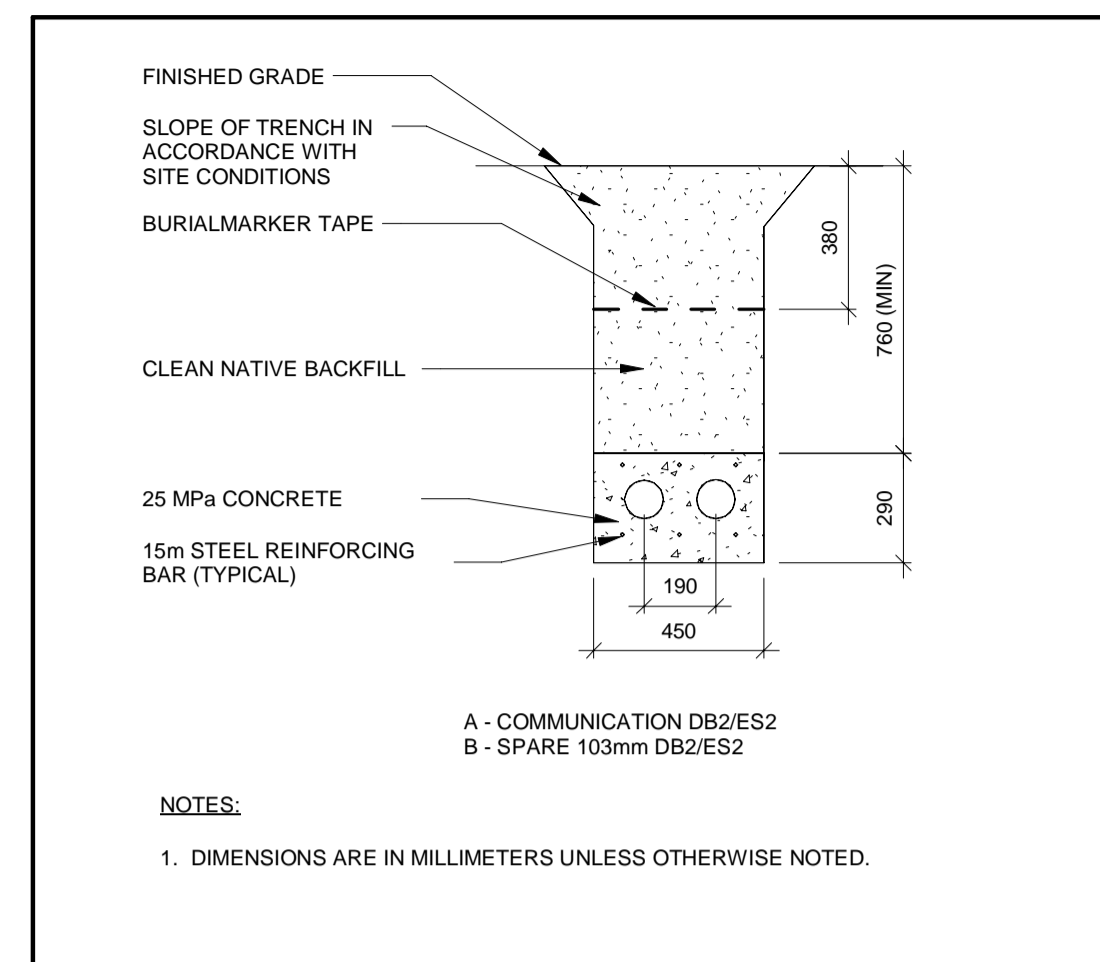
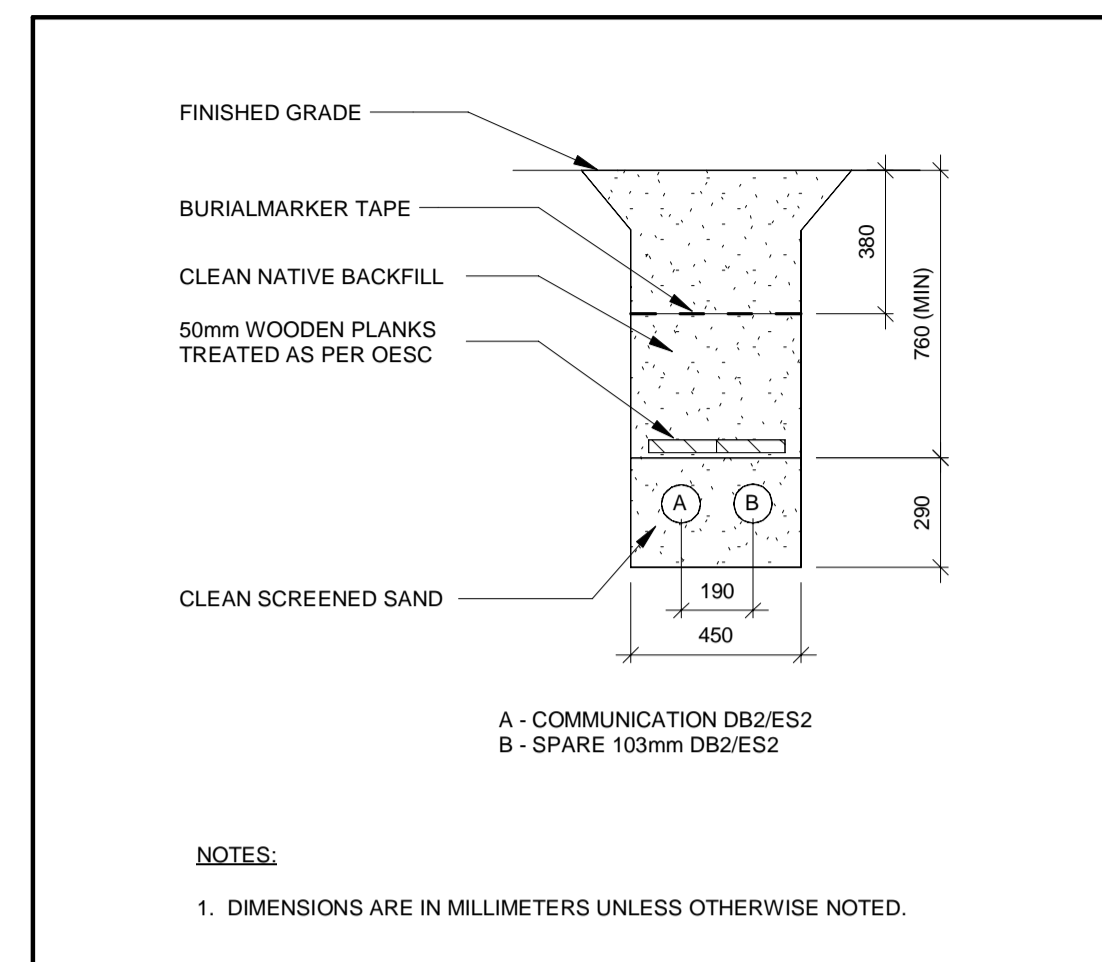
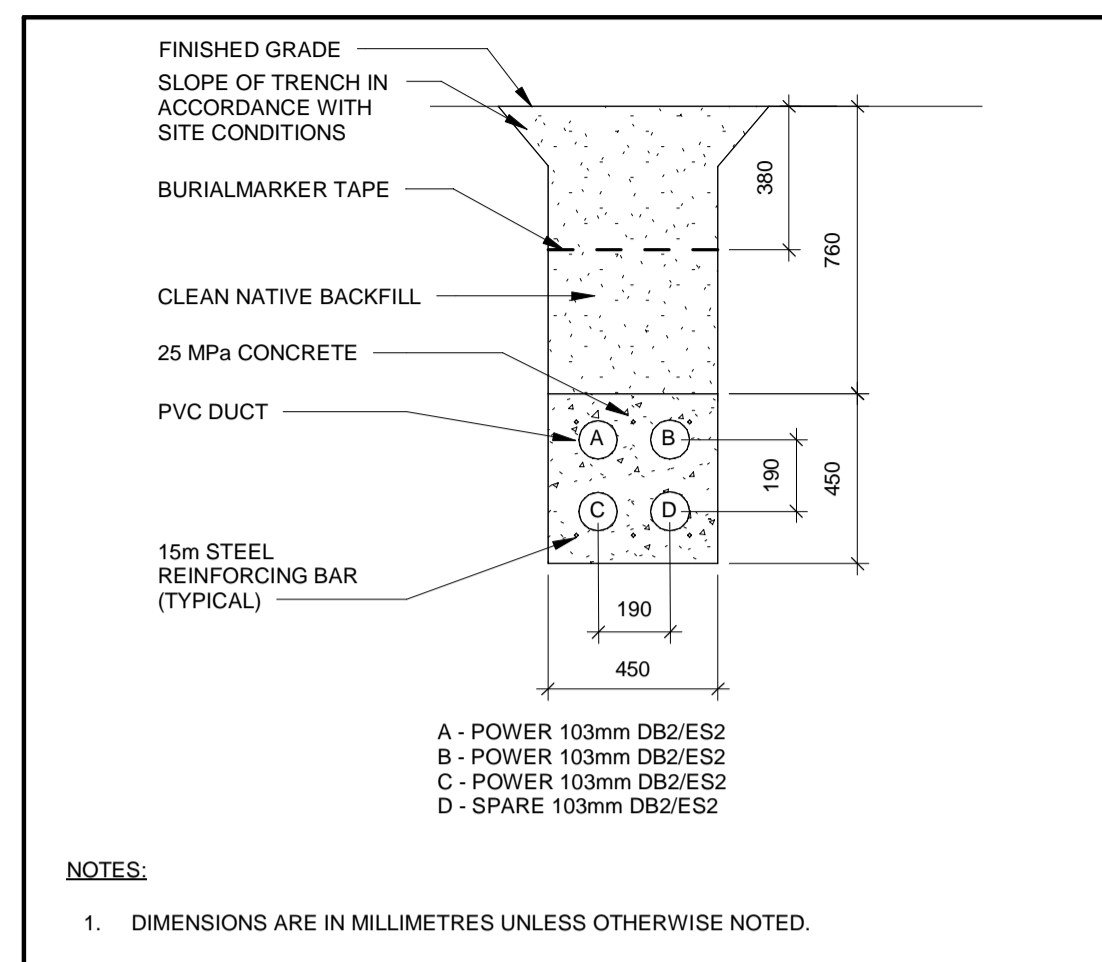
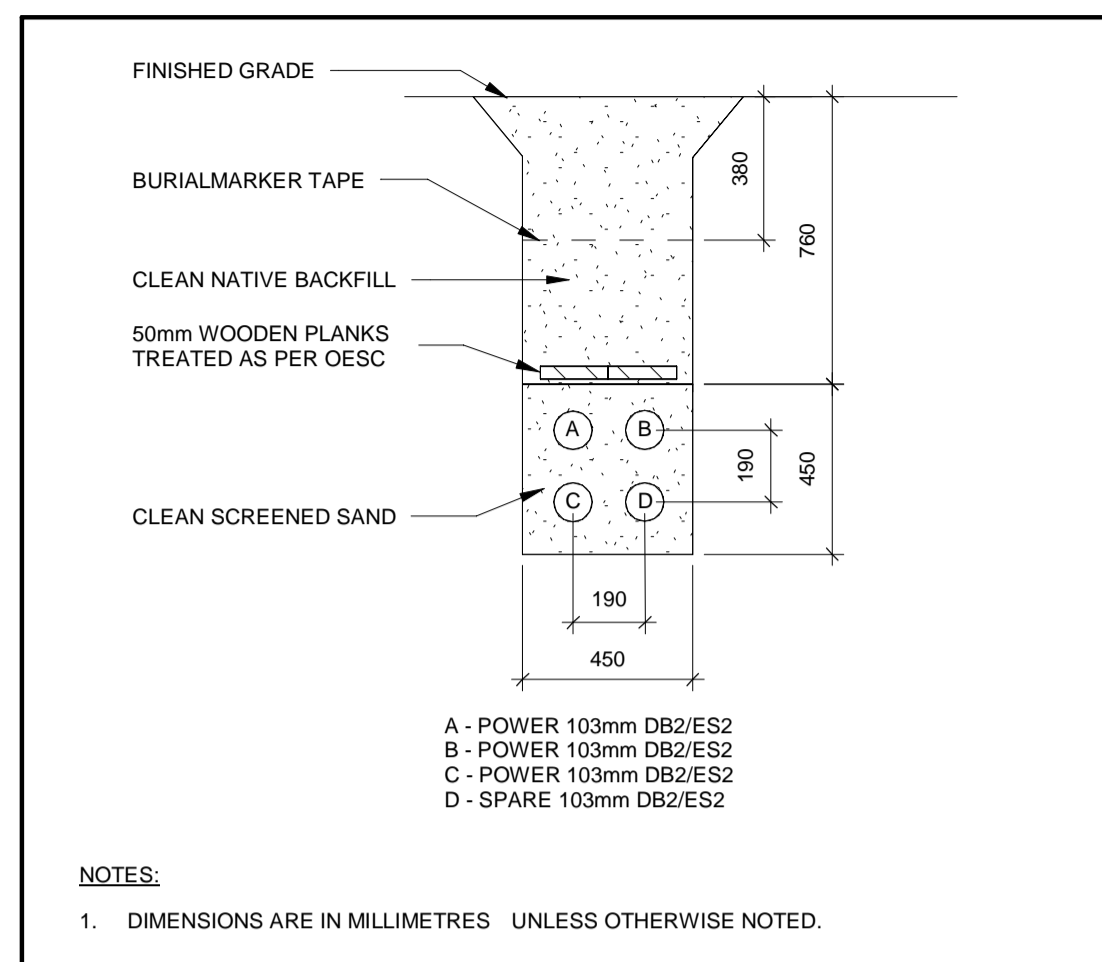
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NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING  
ENLARGE SITE POWER PLAN

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO.
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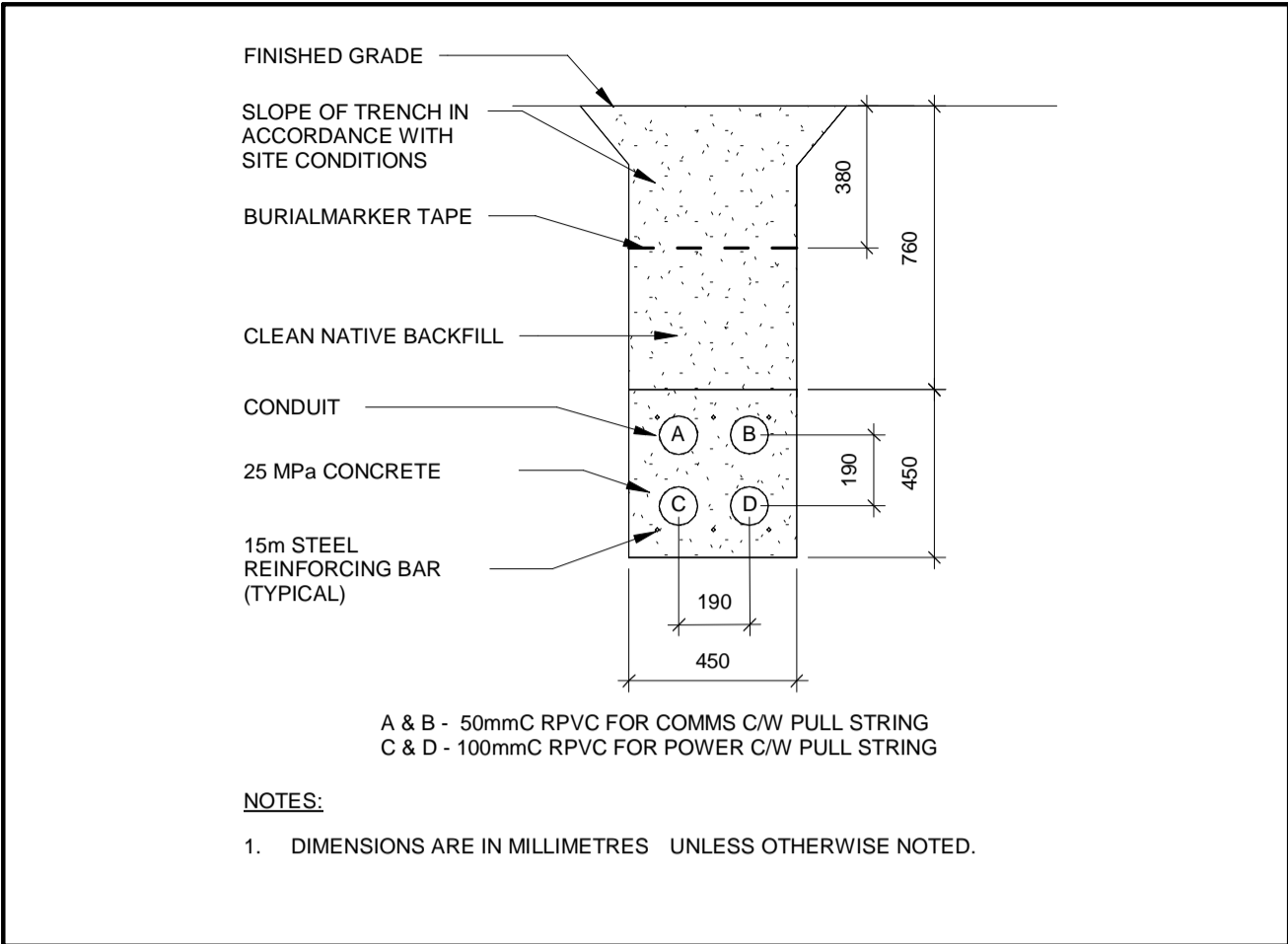
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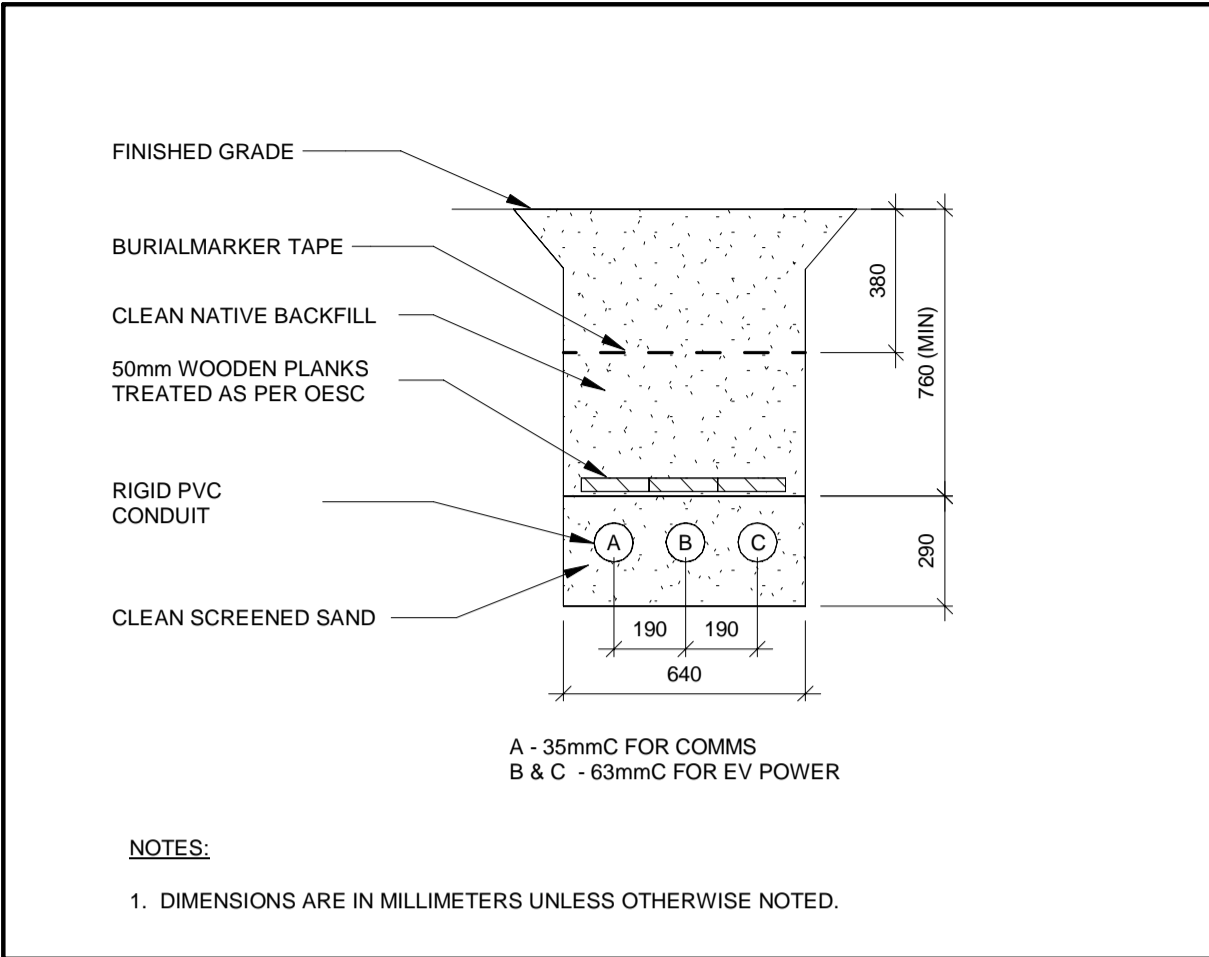
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# NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL SITE DETAILS

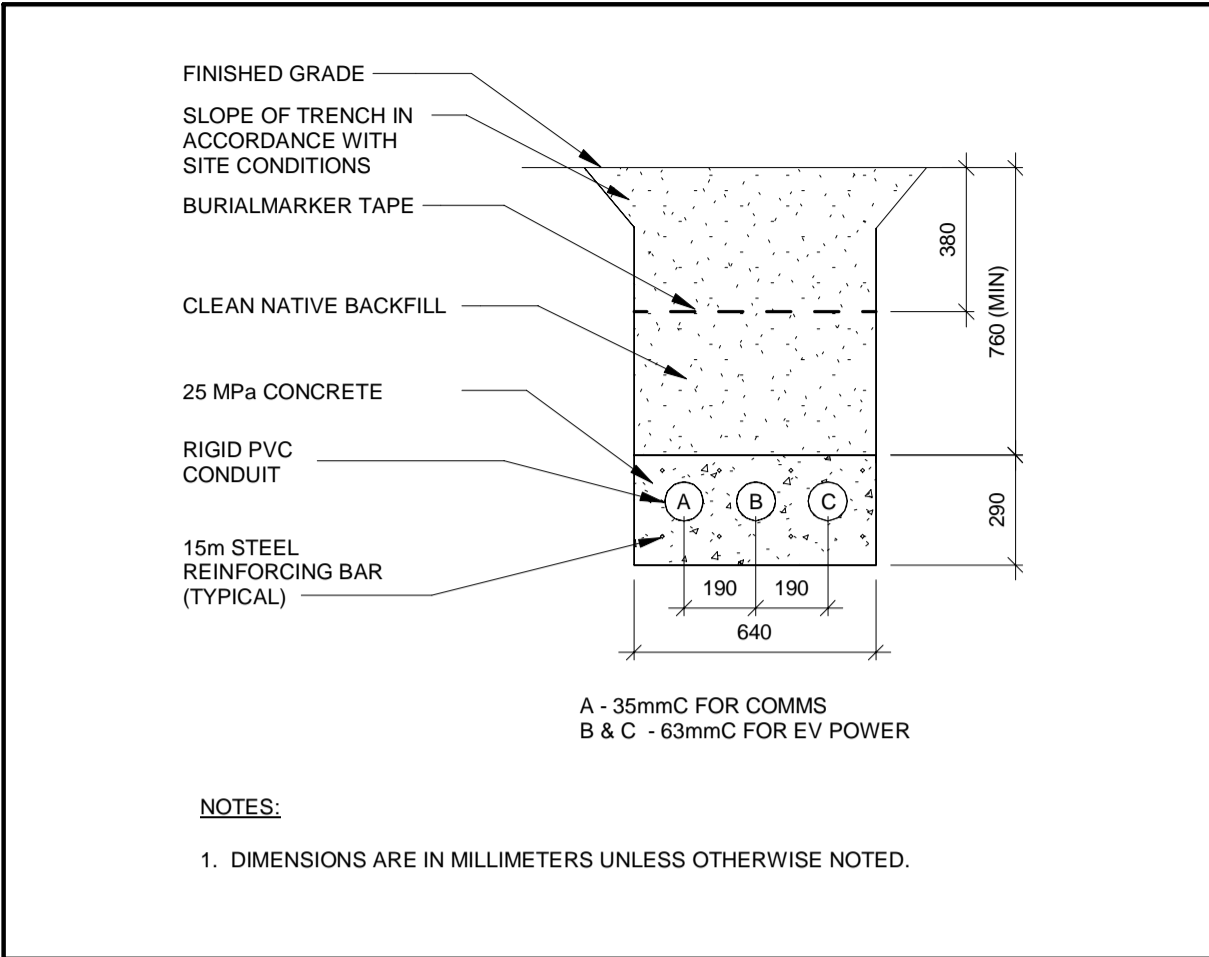
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CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 104	SHEET NO.



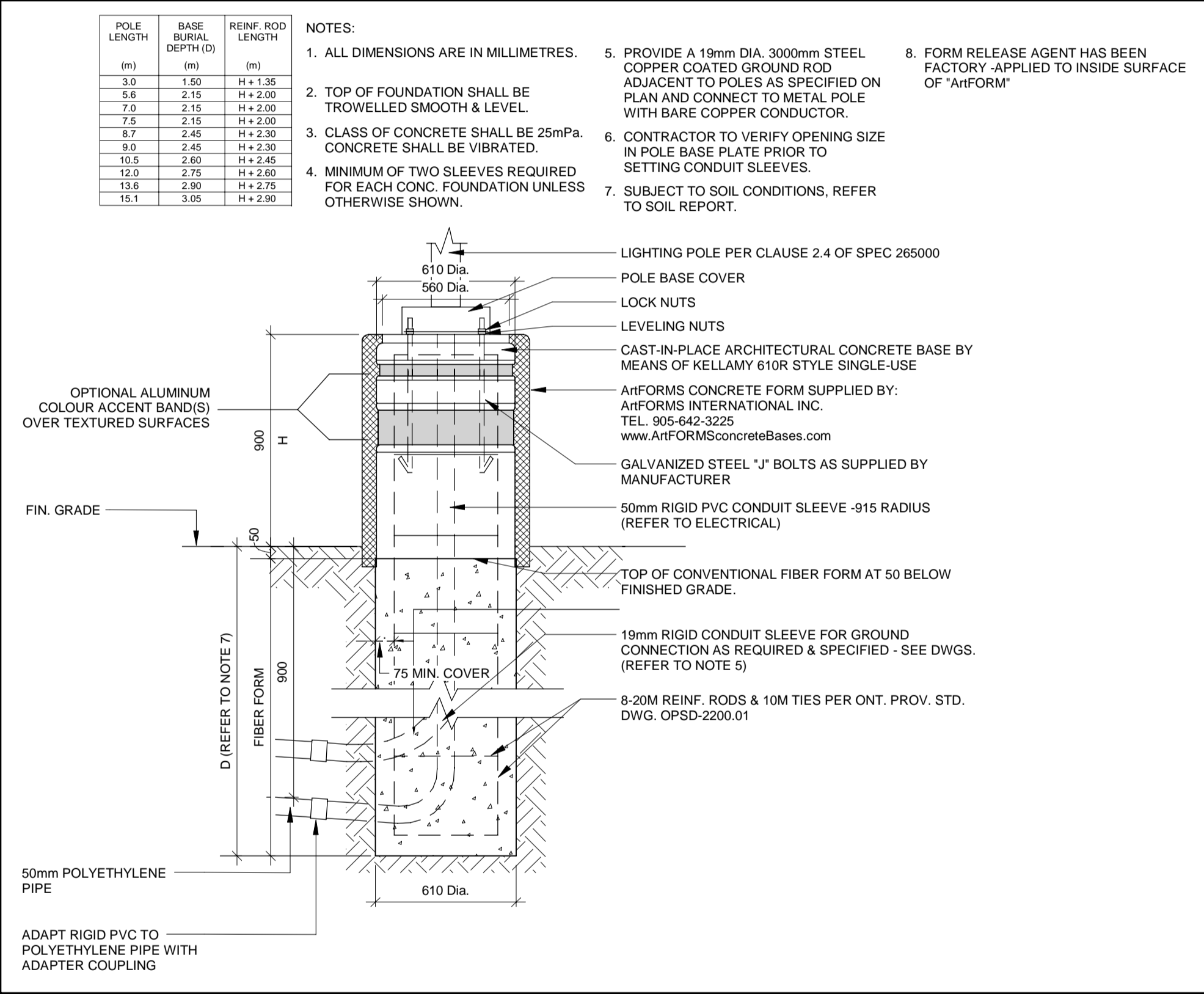
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E-105 N.T.S.



2 EV - DIRECT BURIED  
E-105 N.T.S.

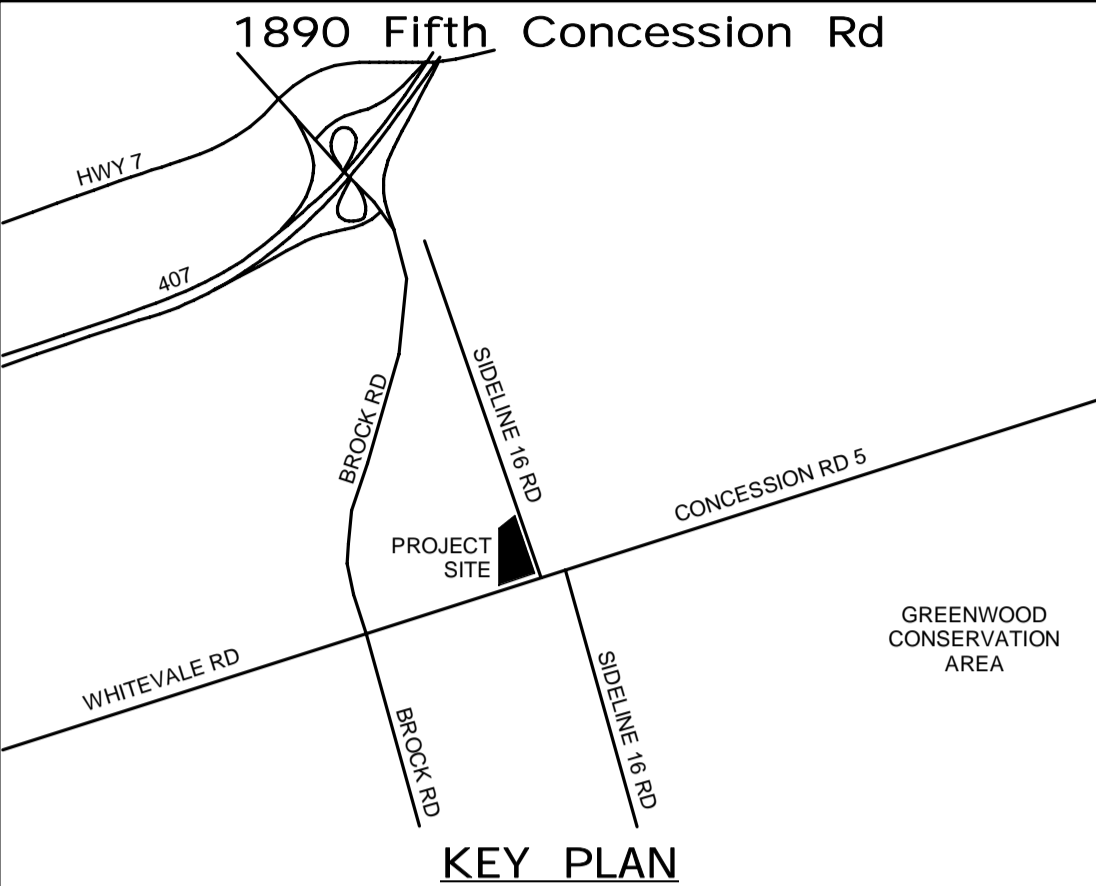


3 EV - CONCRETE ENCASED  
E-105 N.T.S.



4 POLE BASE DETAIL  
E-105 N.T.S.

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NO.	DATE	NAME	REVISIONS

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DESIGN BY: GR	SCALE: N.T.S.
DRAWN BY: HD	DATE: 06/01/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

CONTRACT REVISIONS			
NO	DATE	NAME	REVISIONS
1	09/22/21	ISSUED FOR TENDER	

THE REGIONAL MUNICIPALITY  
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WORKS DEPARTMENT  
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

## NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL SITE DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 105	SHEET NO.

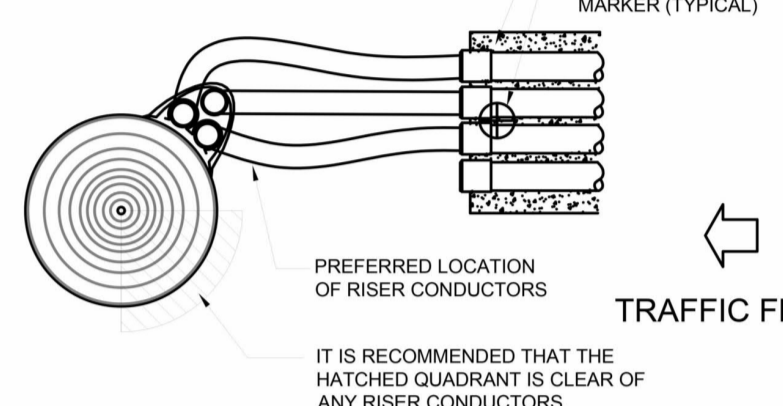
37U-100  
R0 (DEC. 19, 2019)



DIRECT BURIED DISTANCE	
CABLE TYPE	DIM 'X' (mm)
500 to 1000 MCM	3000
1/0	1500

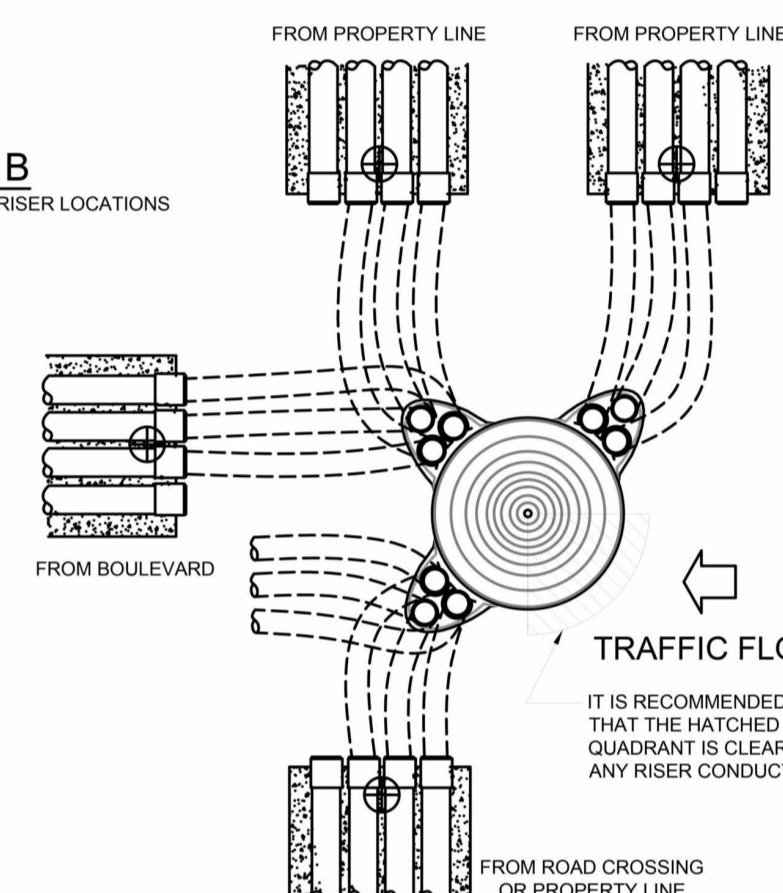
### DETAIL A

PREFERRED RISER LOCATION



### DETAIL B

### ALTERNATIVE RISER LOCATIONS



**Certificate of Approval**  
This Construction Standard meets the safety requirements of  
**Section 4 of Regulation 22/04**


Faisal Habibullah                      February 19, 2020  
Name    Date

Faisal Habibullah, P. Eng.  
Signature & Professional Designation

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**DISTRIBUTION**  
**PRIMARY RISER ATTACHMENT ON**  
**WOOD TERMINATION POLE**  
**(COMPOSITE CABLE GUARD)**

DATE:	DEC. 19, 2019	DWN.	J. Young, C.E.T.
SCALE:	N.T.S.	CHKD.	Standards Committee
REF.		APPD.	F. Habibullah, P.Eng
DWG. NO.		37U-100	

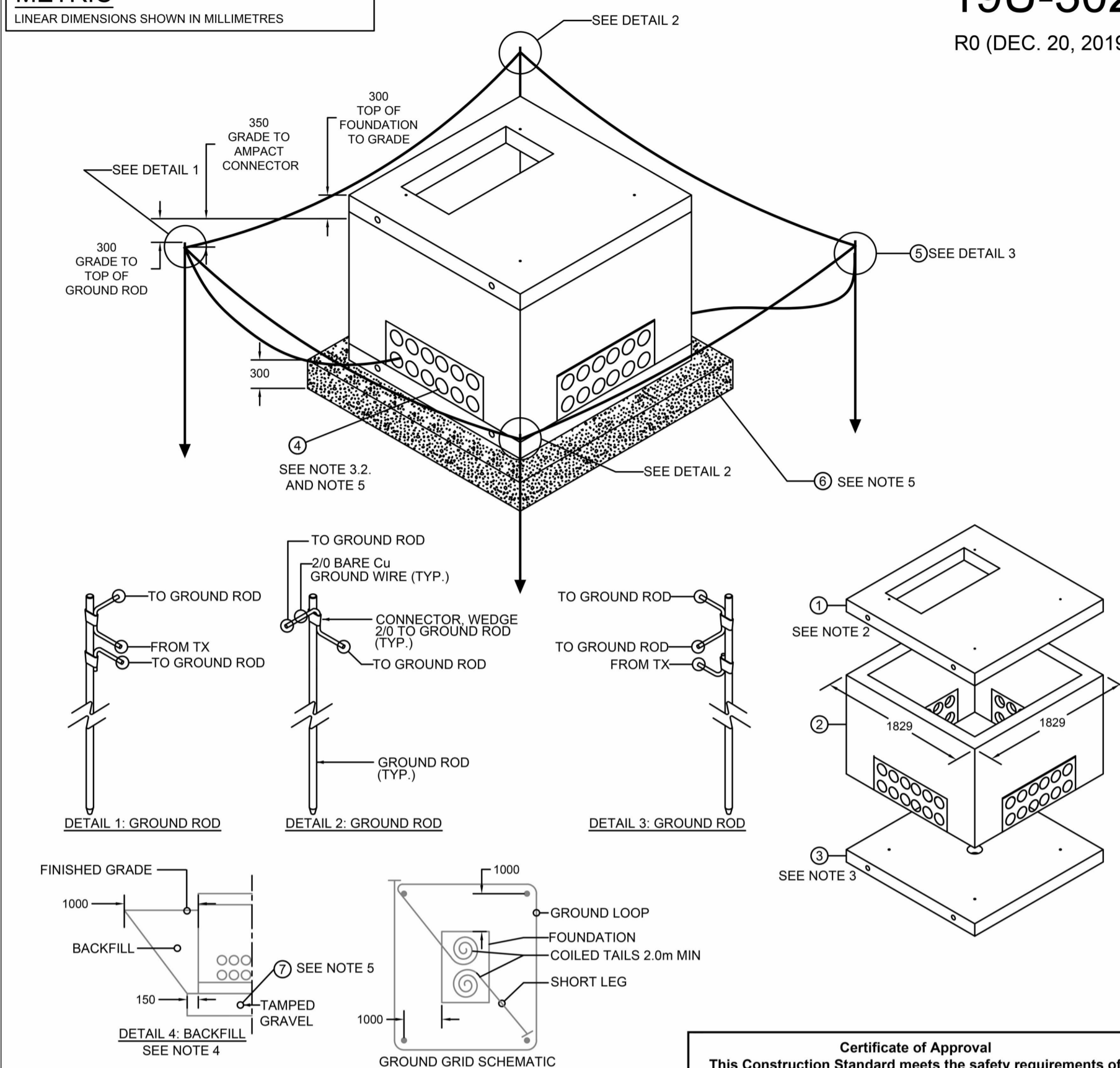




1 DISTRIBUTION PRIMARY RISER ATTACHMENT ON WOOD TERMINATION POLE

N.T.S.

19U-302  
R0 (DEC. 20, 2019)



NOTES:

1. REFER TO THE FOLLOWING STANDARDS FOR REFERENCE:  
SECTION 19U-301 - TRANSFORMER STANDARD  
SECTION 37U-700 SERIES - BOLLARD STANDARD (IF APPLICABLE)
2. THERE SHALL BE ~75mm (3") BETWEEN THE FINISHED GRADE AND TOP OF THE FOUNDATION.
3. THE CONCRETE ID FOUNDATION SHALL BE SUBJECT TO ELEXICON APPROVAL  
INSTALLATION IS SUBJECT TO ELEXICON INSPECTION.
4. THE CONCRETE ID SHALL BE ORIENTED AS PER THE APPROVED DESIGN DRAWING.
5. SPACE AROUND CONDUCTOR IN DUCT OPENINGS SHALL BE SEALED WITH FOAM (AFTER  
GROUND WIRE IS INSTALLED).
6. PLASTIC SEALS OVER UNRODDED SHAFTS REMAIN INTACT.
7. BACKFILL (CLEAN EARTH, SAND, OR PEA GRAVEL) SHALL BE PLACED IN 100mm (4") THOROUGHLY  
COMPACTED LAYERS (TO 95% STANDARD PROCTOR) AROUND FOUNDATION. BACKFILL SHALL BE  
INSTALLED AT A 1m (40") OFFSET FROM FOUNDATION AT GRADE, TAPERING TO ~150mm (6")  
FROM THE BOTTOM CORNER OF PLASTIC SEAL DETAIL.
8. A ~300mm (12") LAYER OF TAMPED (150mm 3/4" CLEAR GRAVEL) GRAVEL SHALL BE PLACED  
UNDER CONCRETE BASE, EXTENDING ~150mm (6") FROM ALL SIDES OF CONCRETE BASE FOR  
DRAINAGE AND STABILITY.
9. GROUND LOOP SHALL ENTER AND EXIT THE FOUNDATION THROUGH THE KNOCK OUTS OF CABLE  
ENTRY.
10. SURFACE AREA AROUND TOP OF FOUNDATION TO BE RESTORED TO ORIGINAL SITE CONDITIONS.

**Certificate of Approval**  
This Construction Standard meets the safety requirements of  
Section 4 of Regulation 22/04


Faisal Habibullah    December 20, 2019  
Name    Date

Faisal Habibullah, P. Eng.  
Signature & Professional Designation

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## THREE PHASE TRANSFORMER FOUNDATION & GROUND GRID INSTALLATION (UP TO 1500KVA ONLY)

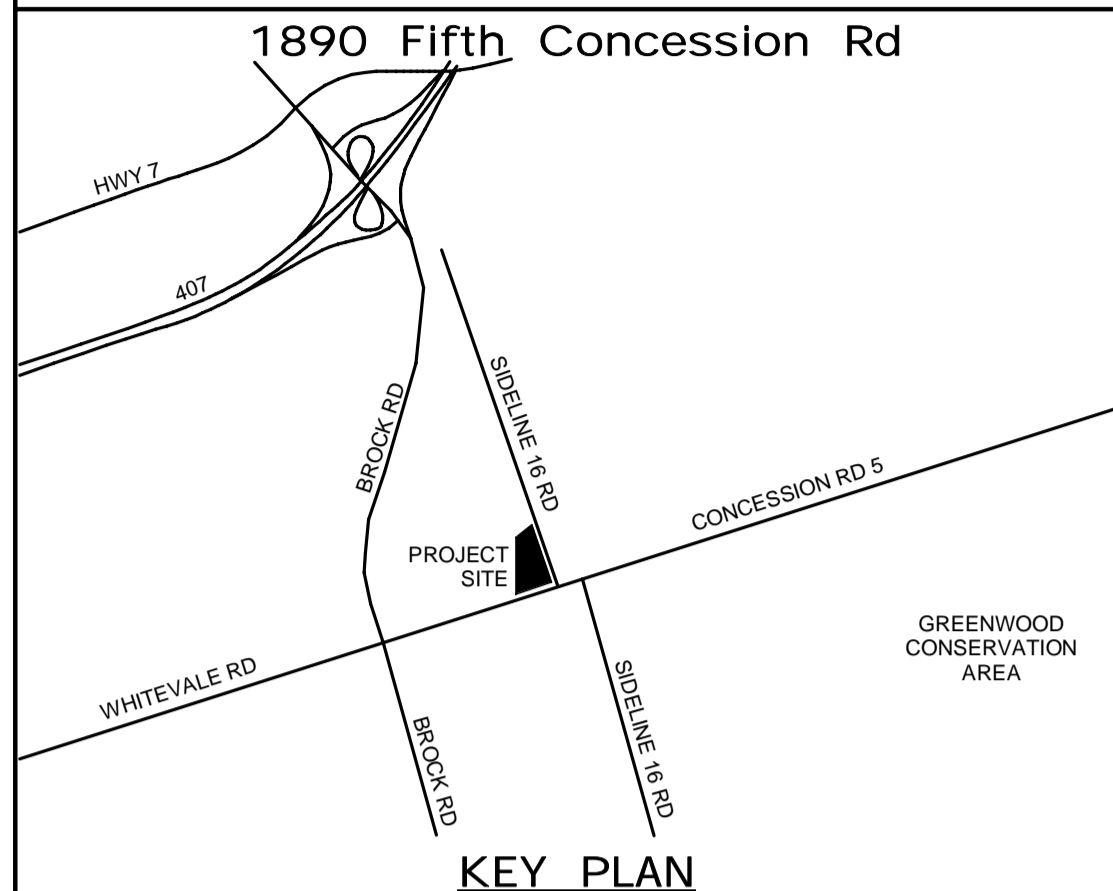
DATE:	DEC. 20, 2019	DWN.	J. Young, C.E.T.
SCALE:	N.T.S.	CHKD.	Standards Committee
REF.		APPD.	F. Habibullah, P.Eng
DWG. NO.		19U-302	



### THREE PHASE TRANSFORMER FOUNDATION & GROUND GRID INSTALLATION

N.T.S.

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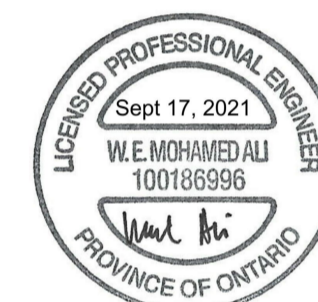
CONSULTANT REVISIONS				
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DESIGN BY: GR	SCALE: N.T.S.
DRAWN BY: HD	DATE: 05/27/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

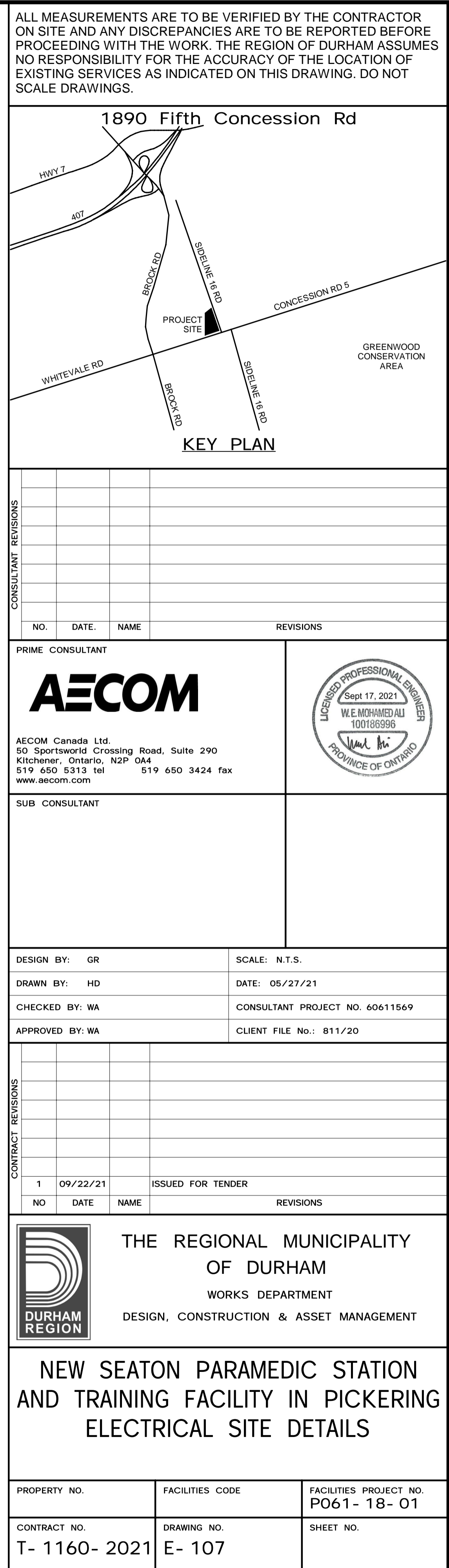
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THE REGIONAL MUNICIPALITY  
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WORKS DEPARTMENT  
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

# NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL SITE DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 106	SHEET NO.



LINEAR DIMENSIONS SHOWN IN MILLIMETRES

R0 (JAN. 6, 2020)

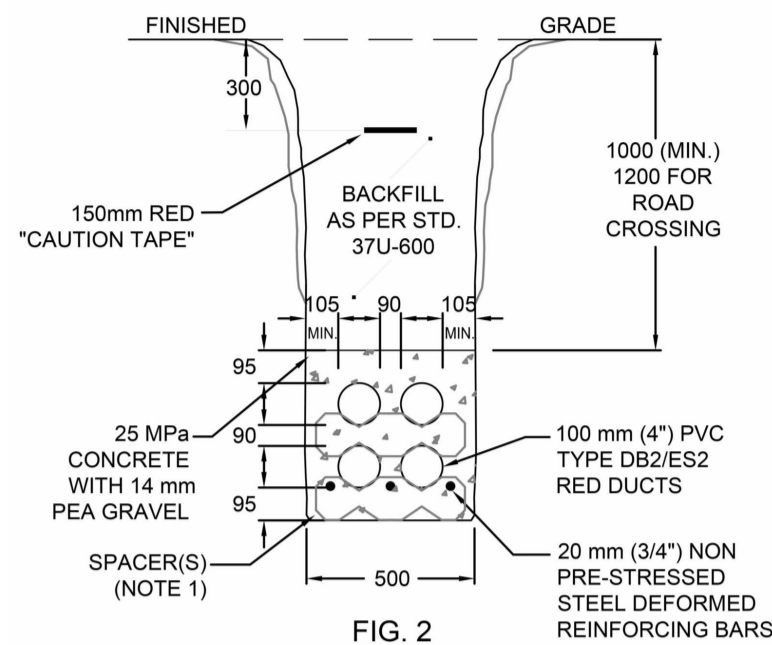


FIG. 2

NOTES:

1. REFER TO STANDARD 37-600 FOR CONCRETE ENCASED DUCT BANK REQUIREMENTS.
2. THE TRENCH SHALL BE EXCAVATED TO SUFFICIENT DEPTH AND WIDTH TO ACCOMMODATE THE REQUIRED NUMBER OF DUCTS AND SHOULD PROVIDE A MINIMUM COVER AS SPECIFIED ON STANDARD 37U-600. SECURE AND PREVENT DUCTS FROM MOVING DURING CONCRETE POURING BY BRACING AND SHORING. NO METALLIC BANDS OR DUCTS. THE TRENCH BOTTOM AND BACKFILL SHALL BE FREE OF STONES, HARD EARTH AND DEBRIS.
3. ALL TRENCHES MUST BE PROPERLY COMPACTED IN ORDER TO PREVENT FUTURE SETTLEMENT IN ACCORDANCE WITH NORMAL CONSTRUCTION PRACTICES.
4. DUCT BANK SHALL RUN AT A SPECIFIED DISTANCE AS PER STANDARD 37U-100 FROM DESIGNATED HYDRO POLE SUPPLY POINT.
5. DUCT BANK SHALL HAVE AN EVEN SLOPE, TOWARD STREET, OF NOT LESS THAN 75mm in 30m FOR DRAINAGE.
6. ALTERNATIVE CONFIGURATION OF DUCTS NOT SHOWN ON THIS STANDARD SHALL BE SPECIFIED BY ELEXICON ENERGY AND IS SUBJECT TO ENGINEERING APPROVAL.
7. WHEN THE DUCT INSTALLATION IS COMPLETE, THE DUCTS ARE TO BE LEFT CLEAN, WATERPROOF AND FREE FROM OBSTRUCTIONS WITH THE ENDS PLUGGED WITH STANDARD PLASTIC DUCT PLUGS TO PREVENT THE INGRESS OF MOISTURE AND DIRT.
8. DUCTS SHALL BE SET TO CLEARANCE WITH A 30mm (3 1/2") DIAMETER MANDELIN, IN THE PRESENCE OF A ELEXICON INSPECTOR. THIS MANDELIN WILL BE SUPPLIED BY ELEXICON ENERGY UPON REQUEST. A 10mm polypropylene pulling rope is to be INSTALLED ON EACH DUCT. THE DUCTS ARE THEN TO BE SEALED UNTIL THEIR USE IS REQUIRED.

**Certificate of Approval**  
This Construction Standard meets the safe  
Section 4 of Regulation 22.


Faisal Habibullah                      February 19, 2020  
Name    Date

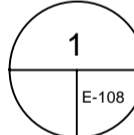
Faisal Habibullah, P. Eng.  
Signature & Professional Designation

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TYPICAL ARRANGEMENT FOR DUCTS  
ENCASED IN CONCRETE  
FOR 4, 5 & 6 DUCTS

DATE:	JAN. 6, 2020	DWN.	J. Young, C.E.T.
SCALE:	N.T.S.	CHKD.	Standards Committee
REF.		APPD.	F. Habibullah, P.Eng
DWG. NO.		37U-602	

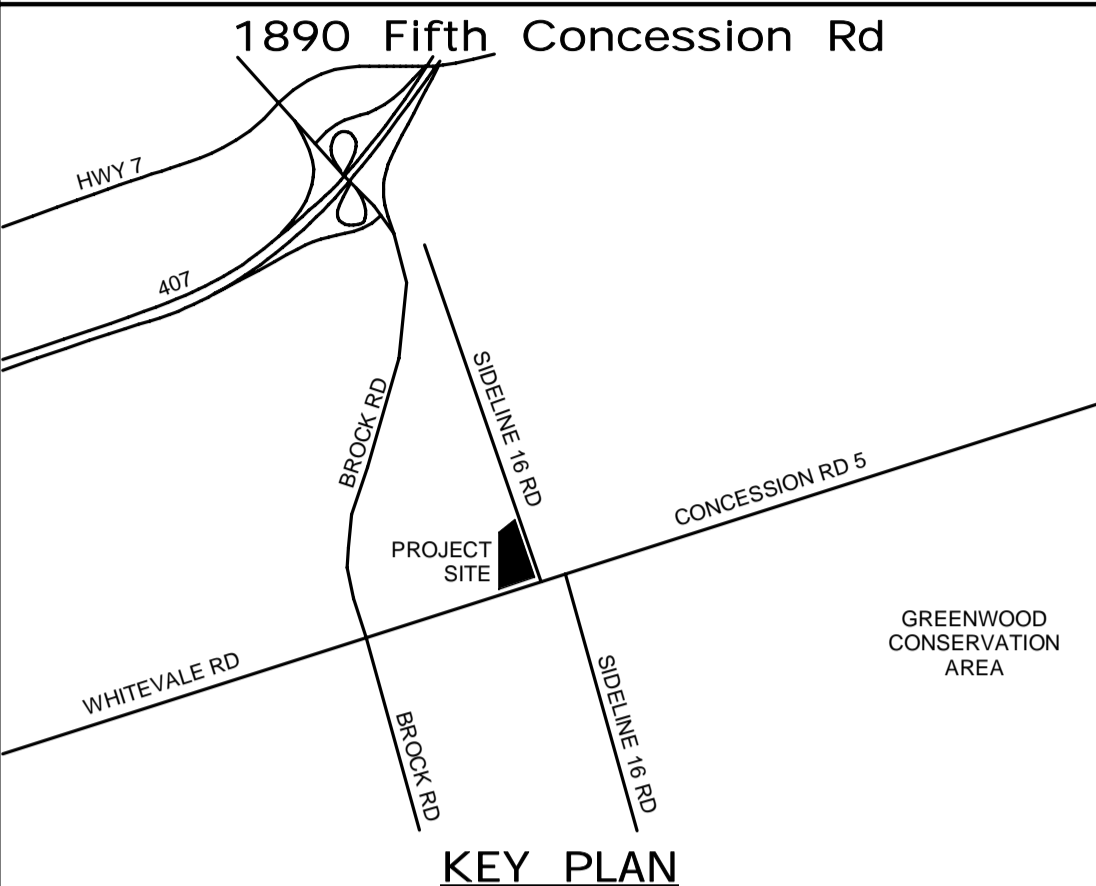




## UTILITY PRIMARY CONCRETE ENCASED DUCT BANK

N.T.S.

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	NO.	DATE.	NAME	REVISIONS

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CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

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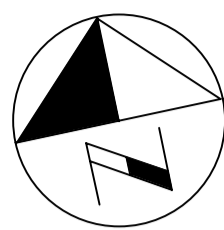


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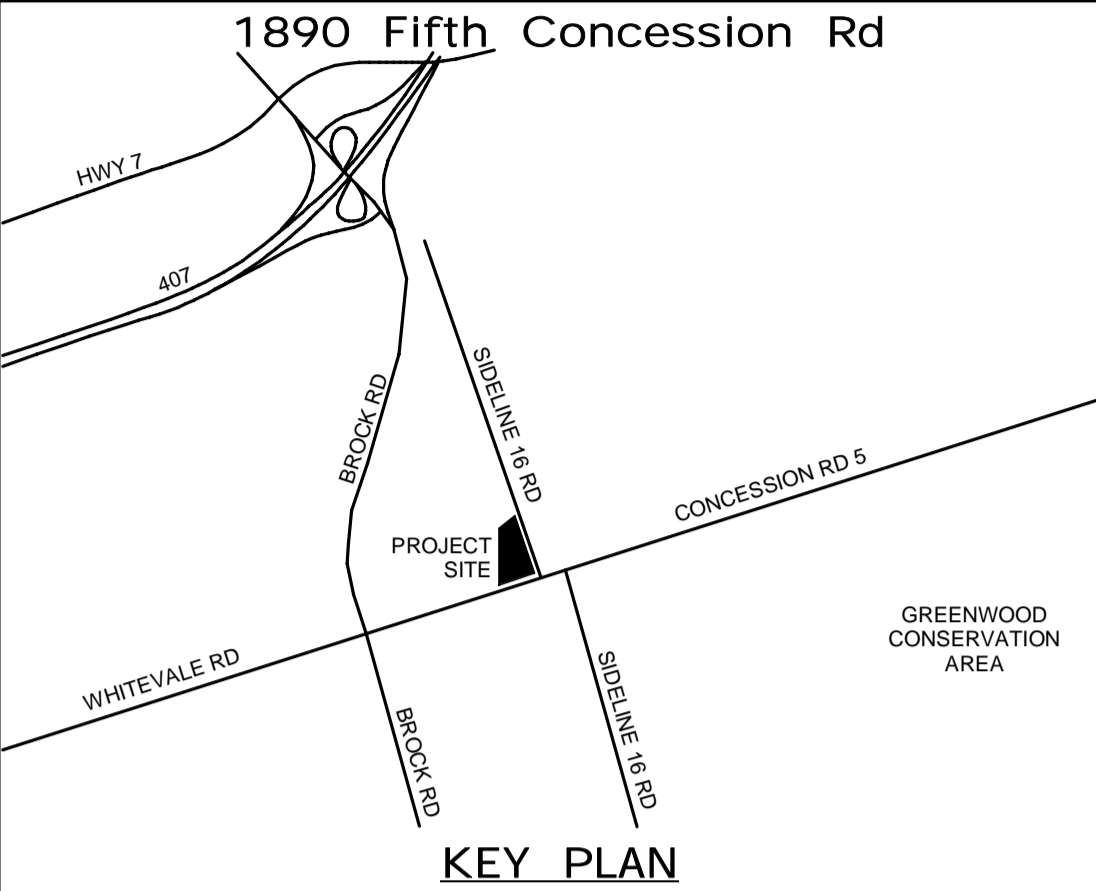
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# NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL SITE DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 108	SHEET NO.



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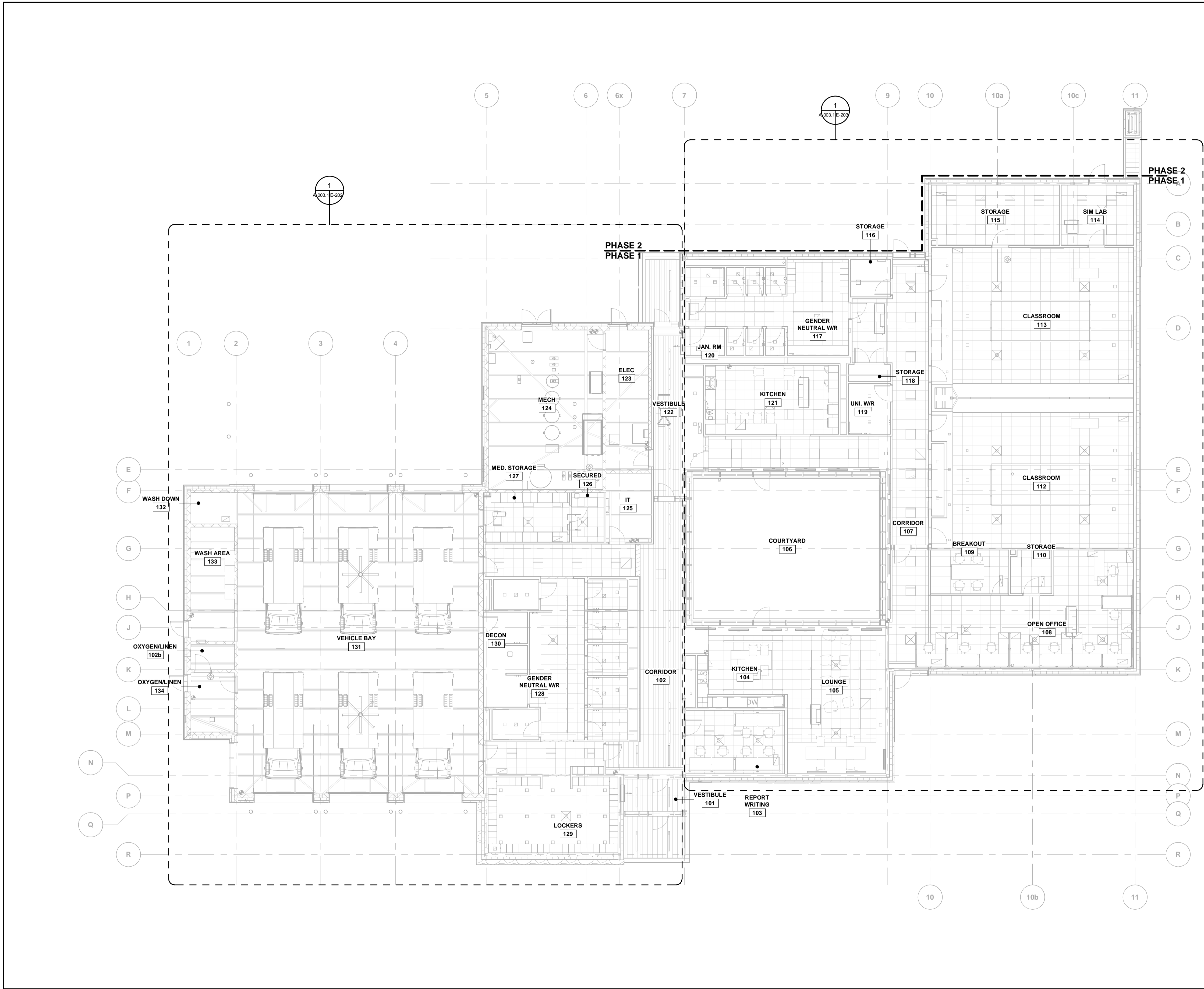
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CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

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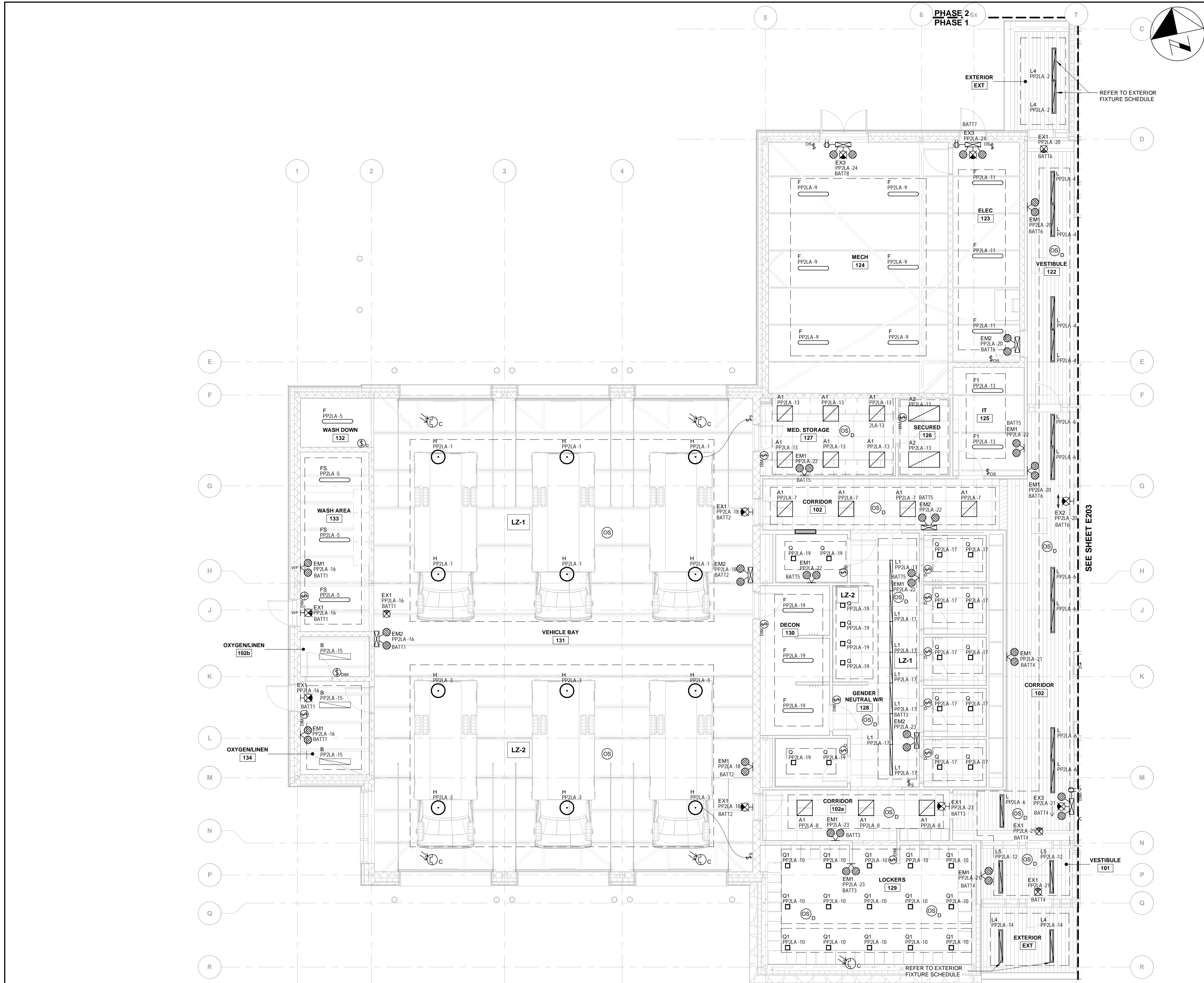
NEW SEATON PARAMEDIC STATION  
AND TRAINING FACILITY IN PICKERING  
OVERALL LIGHTING PLAN

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 201	SHEET NO.

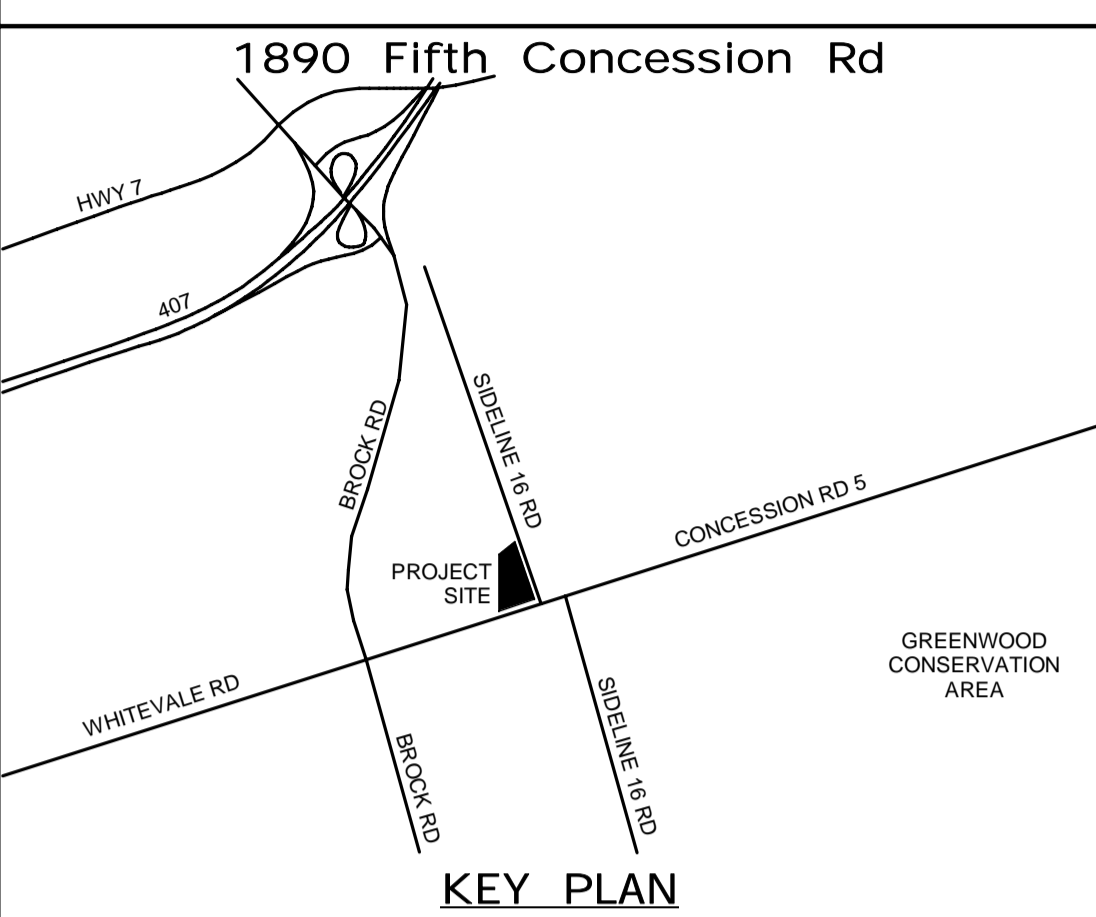


1 OVERALL LIGHTING PLAN - GROUND FLOOR  
A-003.1 E-201 1 : 125

BIM 300/JBP-AMER (CAN) 60611569-Station RDP5-A.rvt



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Sept 17, 2021  
W.E. MOHAMMED ALI  
100186996  
PROVINCE OF ONTARIO

SUB CONSULTANT

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DRAWN BY: HD	DATE: 03/25/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

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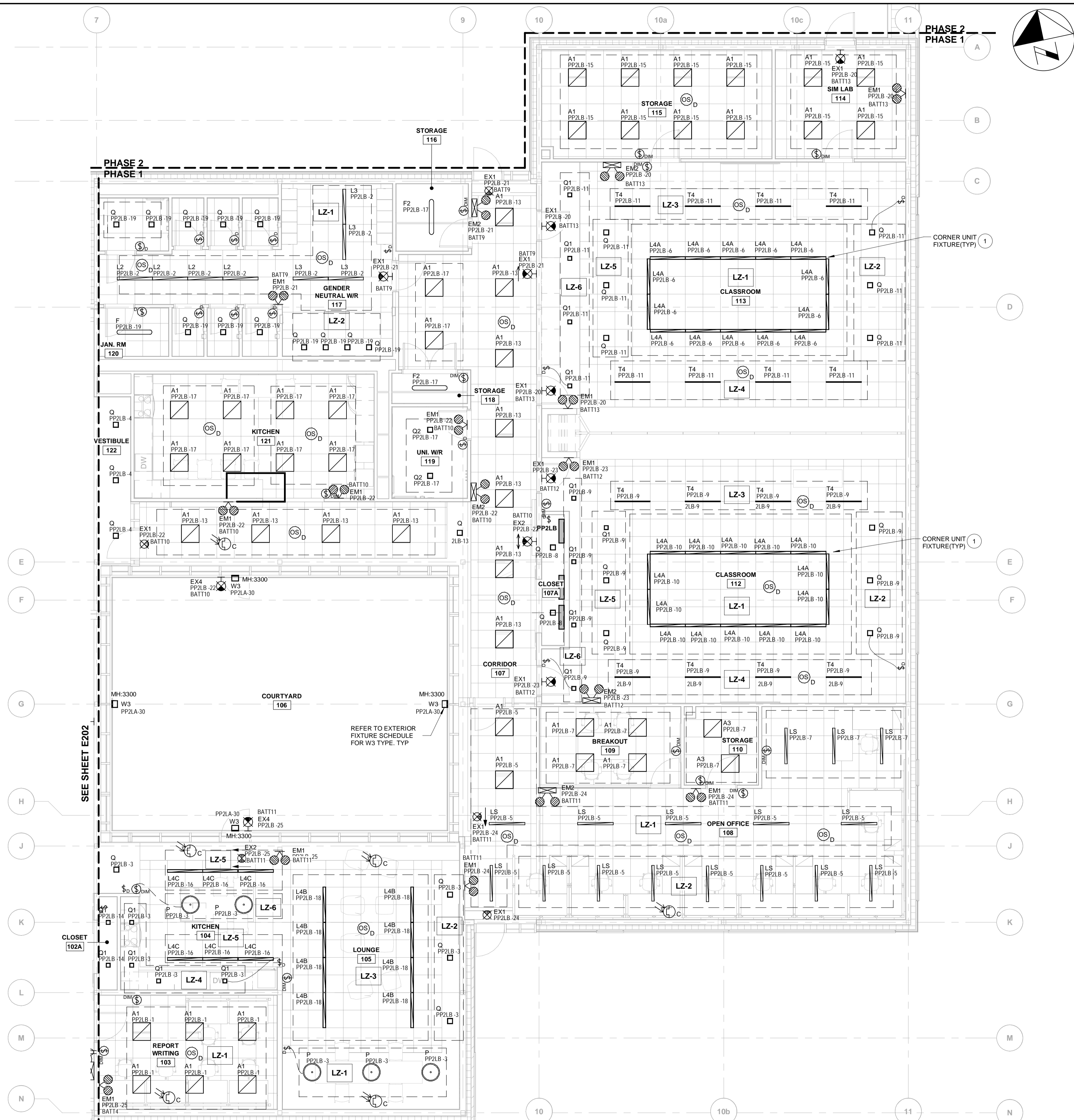
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION  
AND TRAINING FACILITY IN PICKERING  
ENLARGED PARTIAL LIGHTING PLAN  
SHEET 1 OF 2

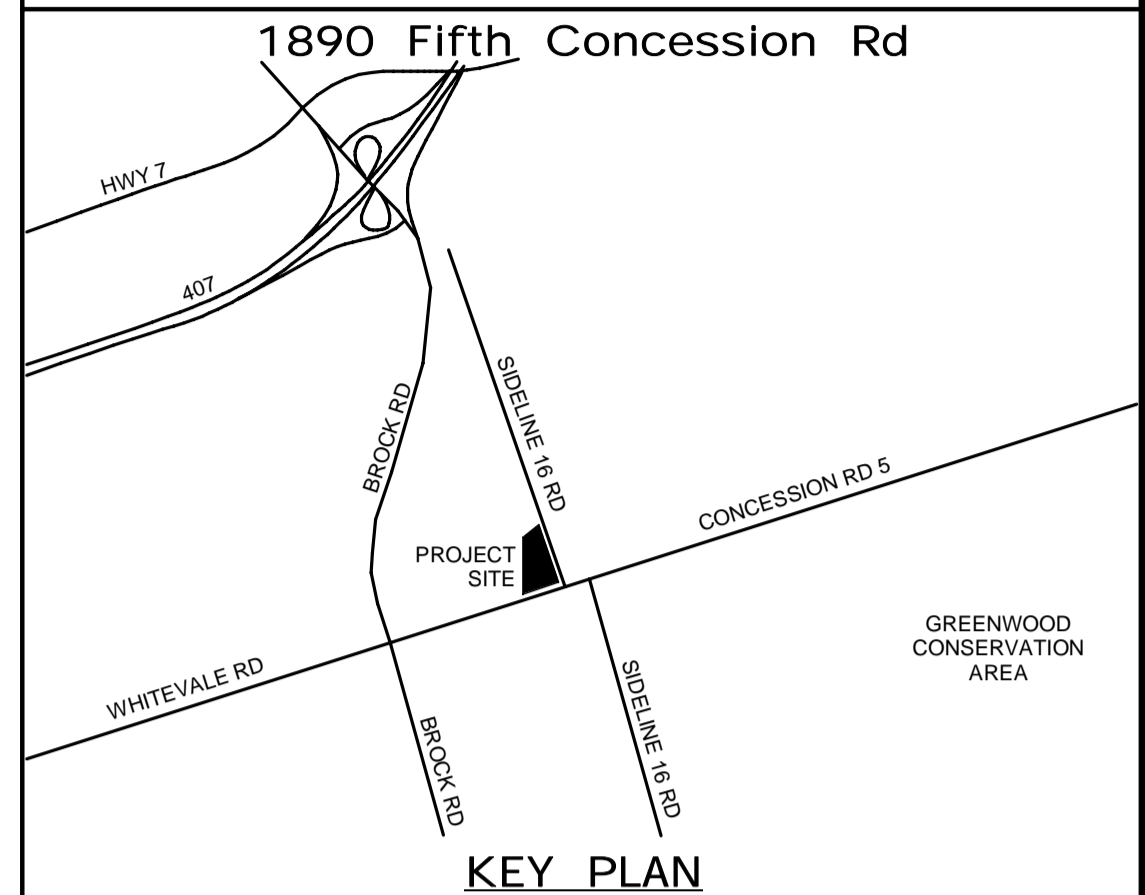
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CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 202	SHEET NO.

BIM 300/JBP-AMER (CAN) 60611569-Station RDP5-A.rvt



<b><u>LIGHTING PLAN KEYNOTE</u></b>	
<b>NUMBER</b>	<b>KEYNOTE</b>
1	PROVIDE CORNER TRANSITION FIXTURES TO MAINTAIN CONTINUOUS RUN. LIGHT OUTPUT TO MATCH STRAIGHT SECTIONS OF CONNECTING RUN.



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APPROVED BY: WA	CLIENT FILE No.: 811/20

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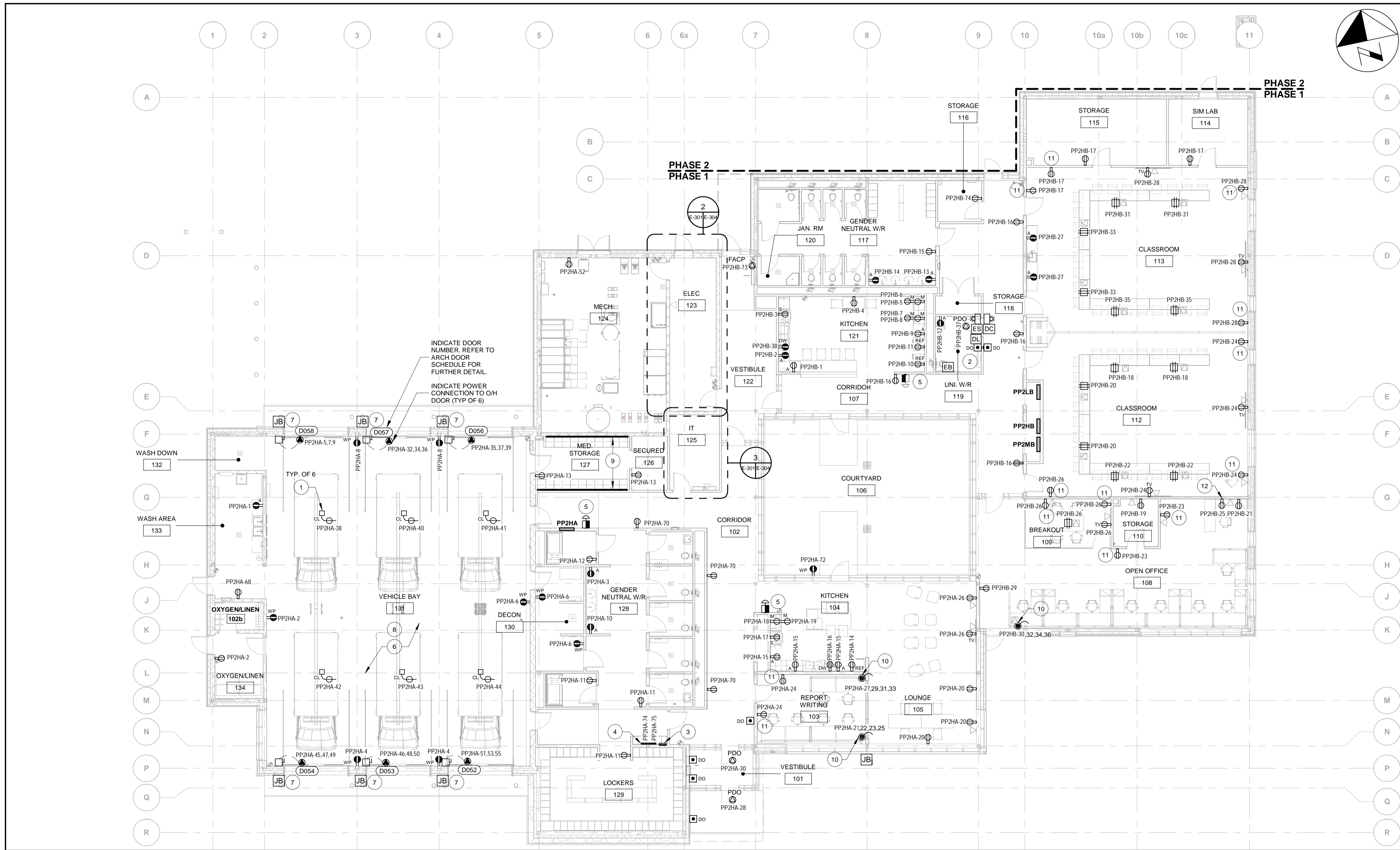
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DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION  
AND TRAINING FACILITY IN PICKERING  
ENLARGED PARTIAL LIGHTING PLAN  
SHEET 2 OF 2

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 203	SHEET NO.

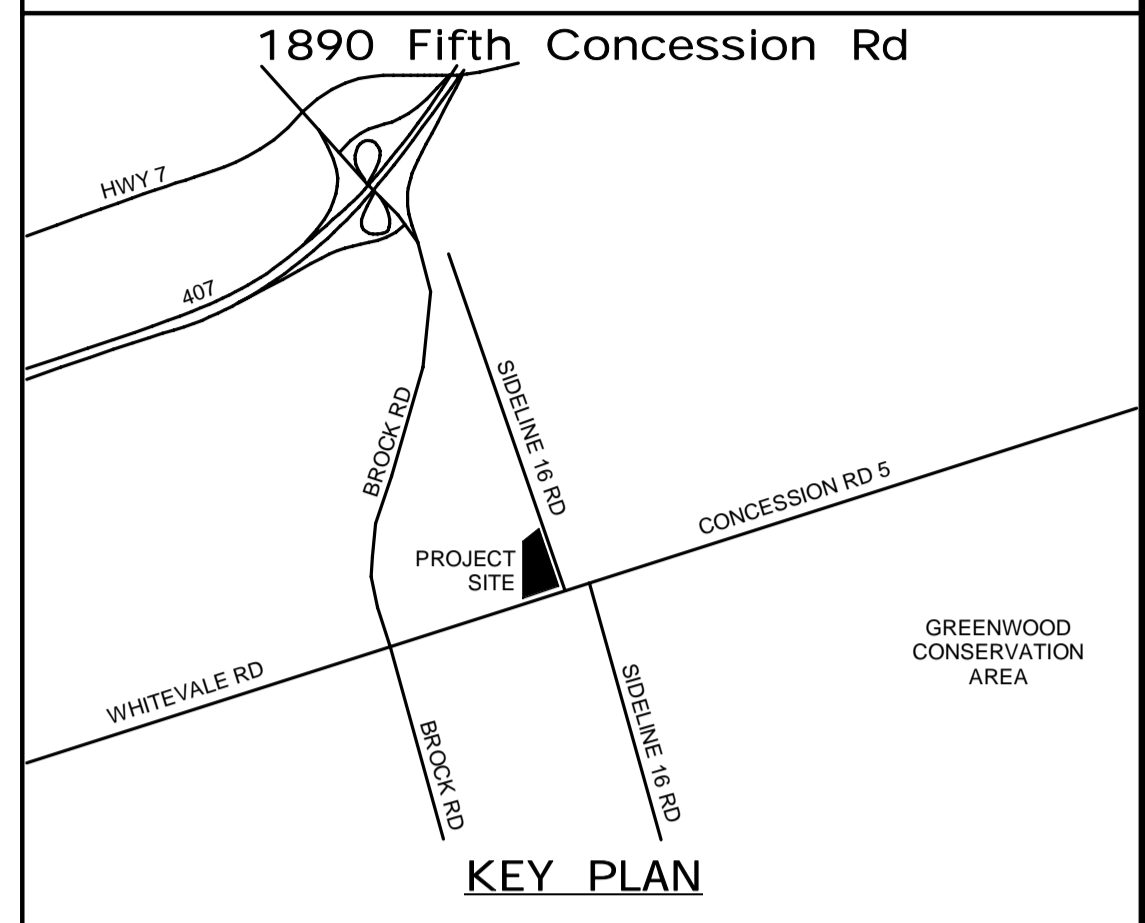


1 POWER PLAN - MAIN FLOOR  
A-003.1 E-301 1 : 125

POWER PLAN KEYNOTES	
NUMBER	KEYNOTE
1	SPECIAL DROP RECEPTACLE ARRANGEMENT SPECIFIC TO EMERGENCY SERVICE AMBULANCES. REFER TO 7/E603 FOR DETAIL.
2	REFER TO 1/E603 FOR UNIVERSAL WASHROOM DETAIL.
3	6-GANG OUTLET BOX C/W PUSH-BUTTONS AND PROVIDE 21mm CONDUIT FOR OVERHEAD DOOR OPERATORS. REFER TO 1/E604 FOR DETAIL.
4	2 RACEWAY WITH PLUG IN OUTLETS EQUAL TO LEGRAND RACEWAY 4000 SERIES.
5	EPO TO SHUTDOWN ALL POWER CONNECTIONS AND RECEPTACLES IN THE KITCHEN. REFER TO DETAIL 4 ON DRAWING E604.
6	SPECIAL DROP RECEPTACLE ARRANGEMENT SPECIFIC TO EMERGENCY SERVICE AMBULANCES. REFER TO 7/E302 FOR DETAIL.
7	PROVIDE JUNCTION BOX C/W 21mm CONDUIT TO THE DOOR OPERATOR FOR THE PHOTOCELL. EXACT LOCATION TO BE COORDIANATED ON SITE.
8	ALL DEVICES AND CONDUITS WITHIN VEHICLE BAY SHALL BE WEATHERPROOF TO ALLOW FOR WASHDOWN.

POWER PLAN KEYNOTES	
NUMBER	KEYNOTE
9	WALL MOUNTED WIREMOLD RACEWAY EQUAL TO LEGRAND RACEWAY SERIES 4000 (ABOVE COUNTER, TYP.)
10	SYSTEM FURNITURE SHALL BE WIRED IN 8T CONFIGURATION. REFER TO DETAIL 3 ON DRAWING E602 FOR DETAILS.
11	RECEPTACLE SHALL BE AUTOMATICALLY CONTROLLED BY LIGHTING CONTROL DEVICE. REFER TO LIGHTING CONTROLS MATRIX FOR MORE DETAILS.
12	RECEPTACLE SHALL BE MOUNTED 1450mm FROM WALL. COORDINATE WITH SYSTEM FURNITURE SUPPLIER.

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SUB CONSULTANT

DESIGN BY: GR	SCALE: 1 : 125
DRAWN BY: HD	DATE: 11/07/20
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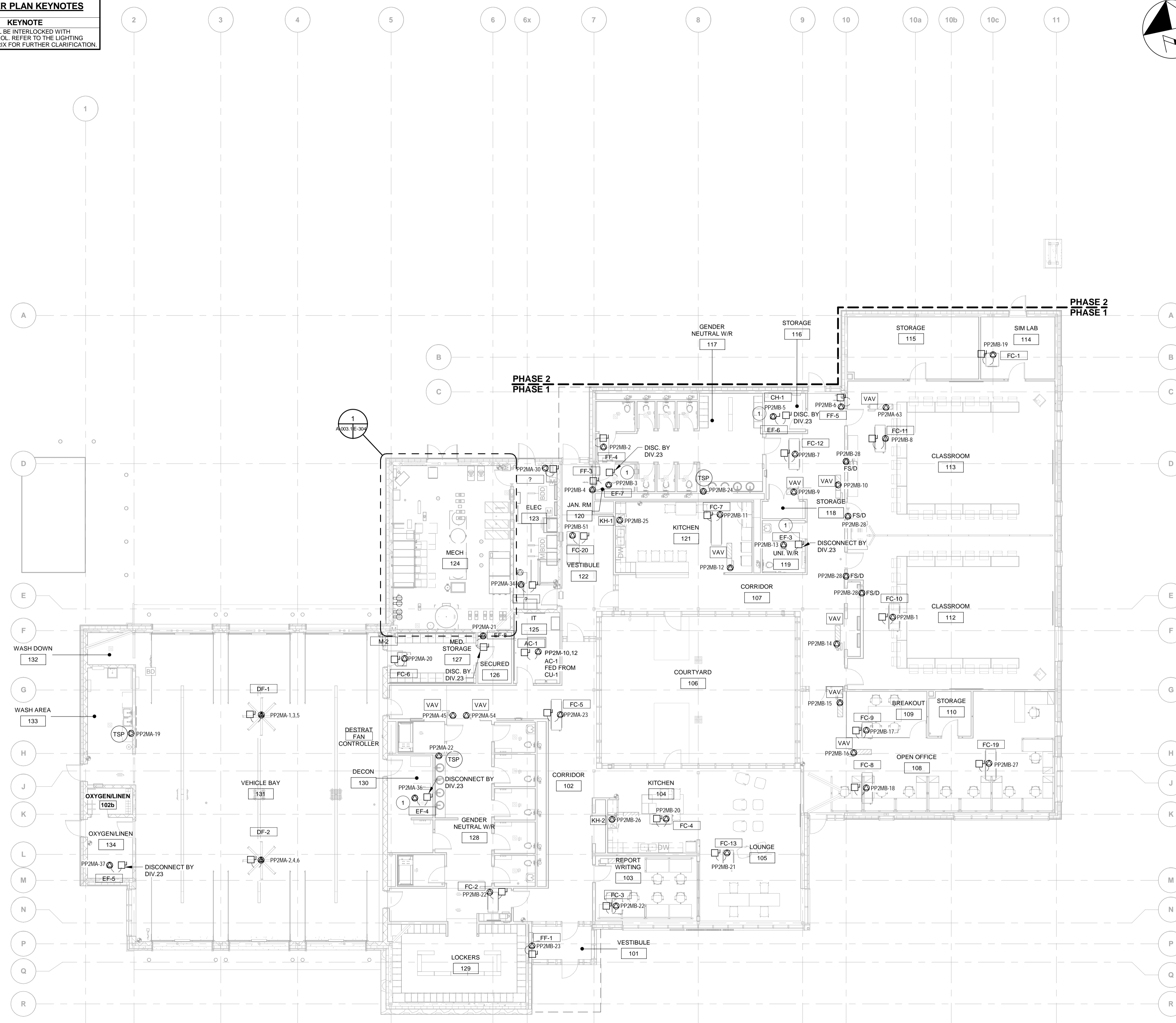
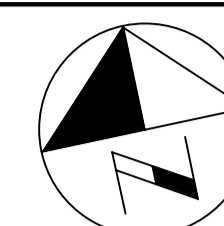
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## NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING POWER PLAN

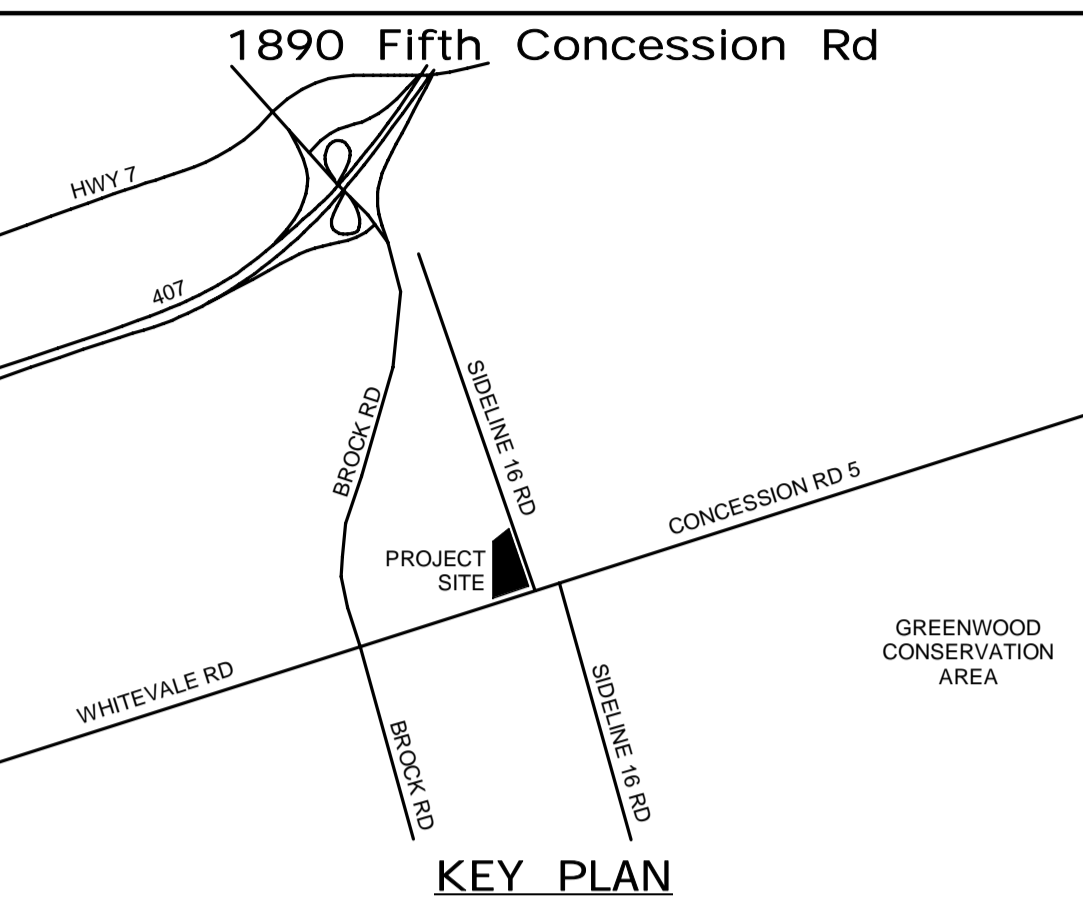
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 301	SHEET NO.

BIM 300/JBP-AMER (CAN) 60611569-SEATON RDFS-A.rvt

MECHANICAL POWER PLAN KEYNOTES	
NUMBER	KEYNOTE
1	THIS LOAD SHALL BE INTERLOCKED WITH LIGHTING CONTROL. REFER TO THE LIGHTING CONTROLS MATRIX FOR FURTHER CLARIFICATION.



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



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Sept 17, 2021  
W.E. MOHAMMED ALI  
100186996  
PROVINCE OF ONTARIO

SUB CONSULTANT

DESIGN BY: GR	SCALE: 1 : 125
DRAWN BY: HD	DATE: 11/07/20
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OF DURHAM

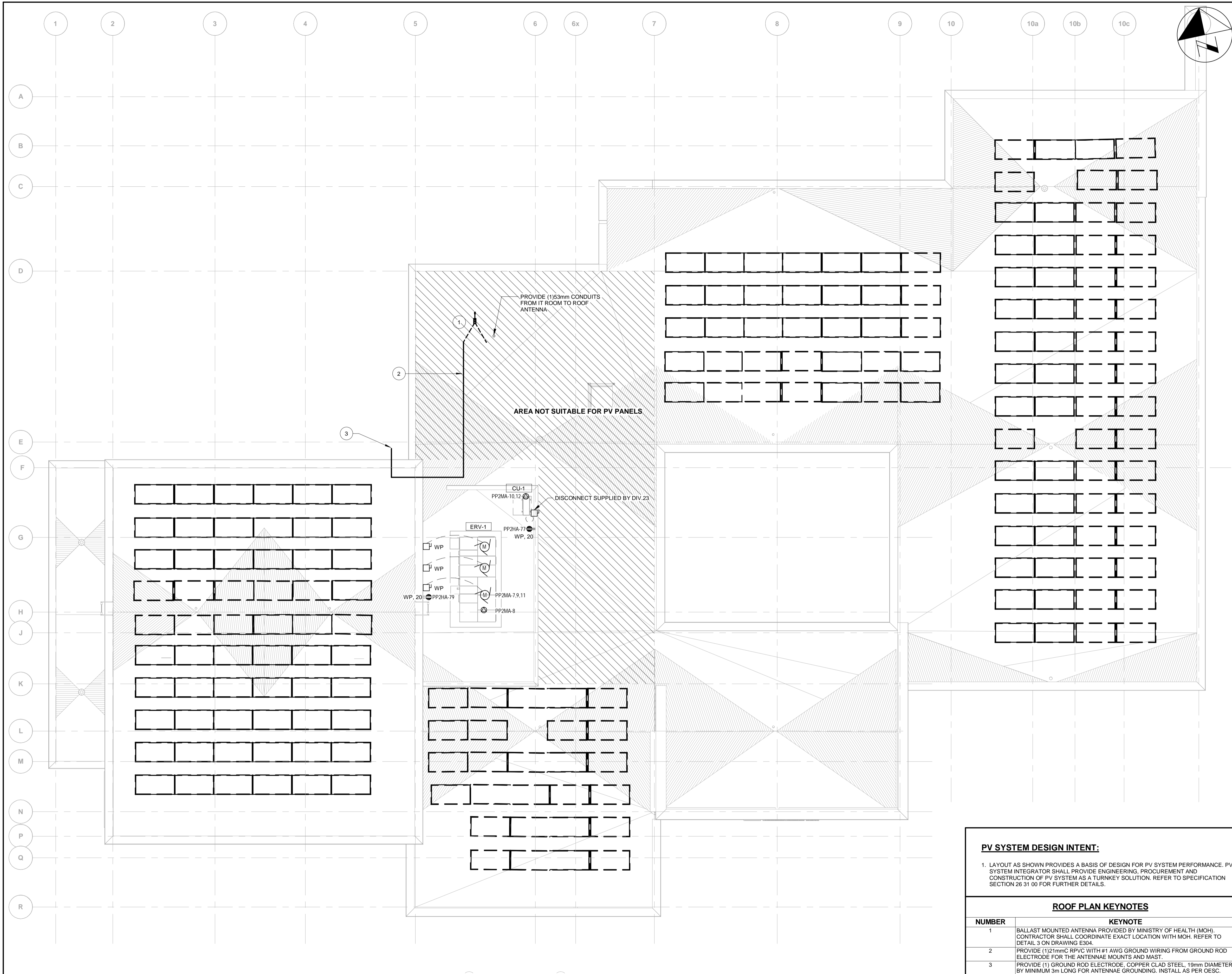
WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

## NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING MECHANICAL POWER PLAN

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 302	SHEET NO.

BIM 300/JBP-AMER (CAN) 60611569-Station RDP5-A.rvt



1 ROOF POWER PLAN  
A-401 E-303 1:100

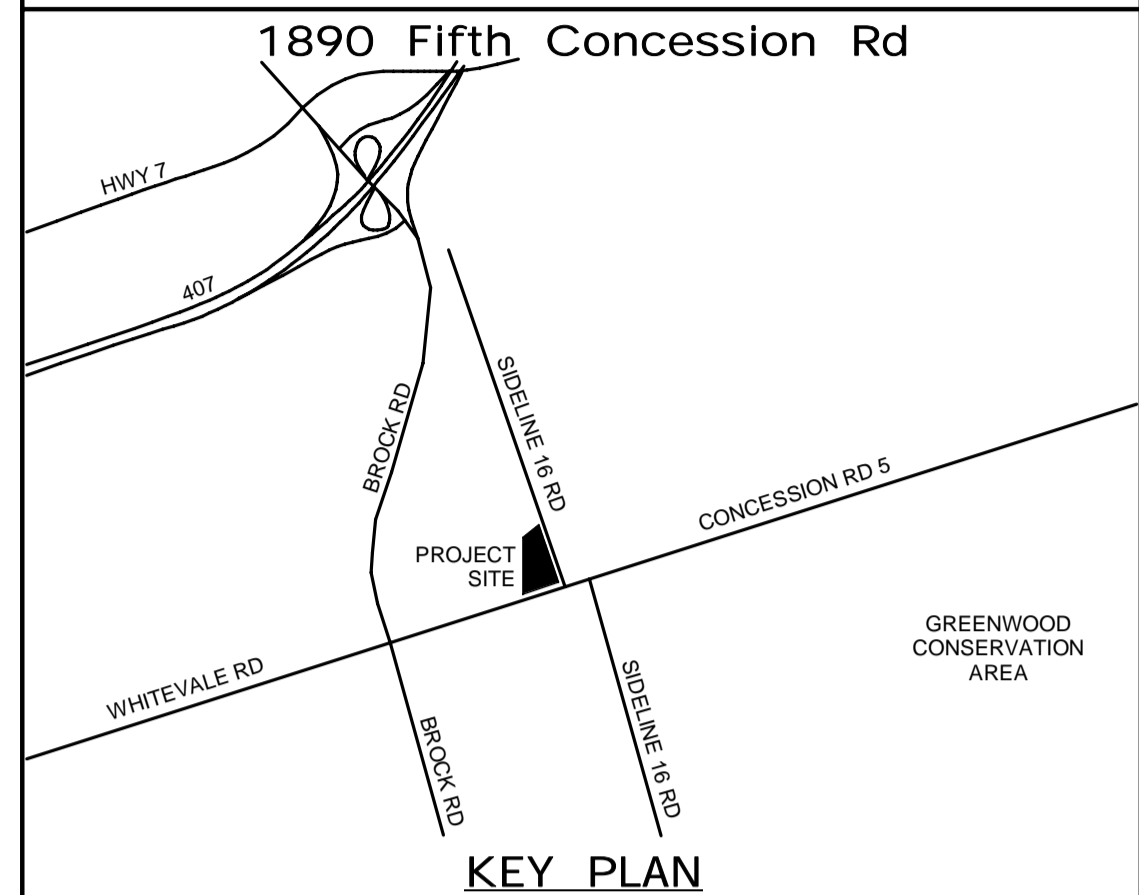
**PV SYSTEM DESIGN INTENT:**

1. LAYOUT AS SHOWN PROVIDES A BASIS OF DESIGN FOR PV SYSTEM PERFORMANCE. PV SYSTEM INTEGRATOR SHALL PROVIDE ENGINEERING, PROCUREMENT AND CONSTRUCTION OF PV SYSTEM AS A TURNKEY SOLUTION. REFER TO SPECIFICATION SECTION 26 31 00 FOR FURTHER DETAILS.

**ROOF PLAN KEYNOTES**

NUMBER	KEYNOTE
1	BALLAST MOUNTED ANTENNA PROVIDED BY MINISTRY OF HEALTH (MOH). CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH MOH. REFER TO DETAIL 3 ON DRAWING E304.
2	PROVIDE (1) 21mm CPVC WITH #1 AWG GROUND WIRING FROM GROUND ROD ELECTRODE FOR THE ANTENNAE MOUNTS AND MAST.
3	PROVIDE (1) GROUND ROD ELECTRODE, COPPER CLAD STEEL, 19mm DIAMETER BY MINIMUM 3m LONG FOR ANTENNAE GROUNDING. INSTALL AS PER OESC.

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



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Sept 17, 2021  
W.E. MOHAMMED ALI  
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SUB CONSULTANT

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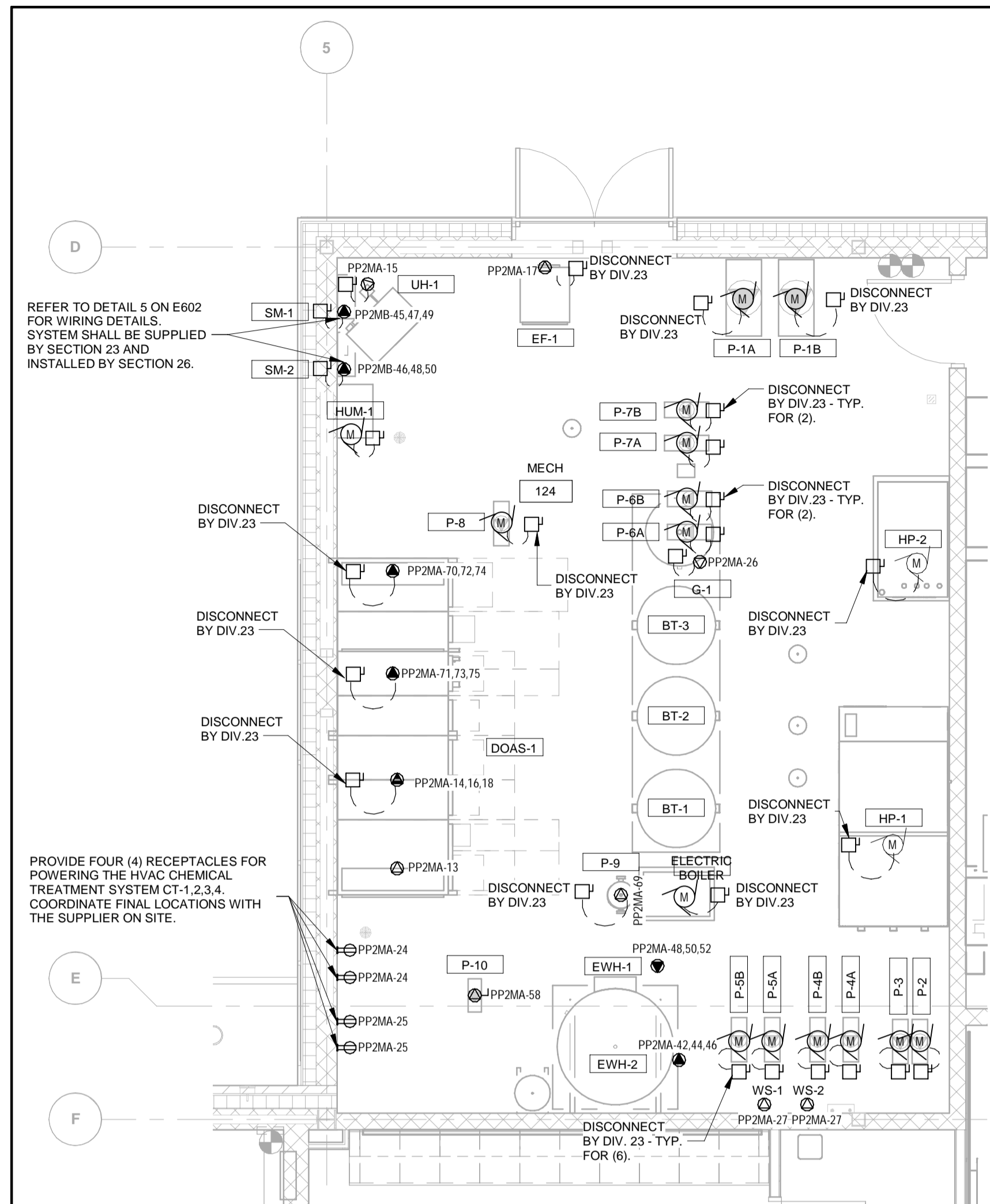
CONTRACT REVISIONS			
1	09/22/21	ISSUED FOR TENDER	
NO	DATE	NAME	REVISIONS

THE REGIONAL MUNICIPALITY  
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**NEW SEATON PARAMEDIC STATION  
AND TRAINING FACILITY IN PICKERING  
ROOF POWER PLAN**

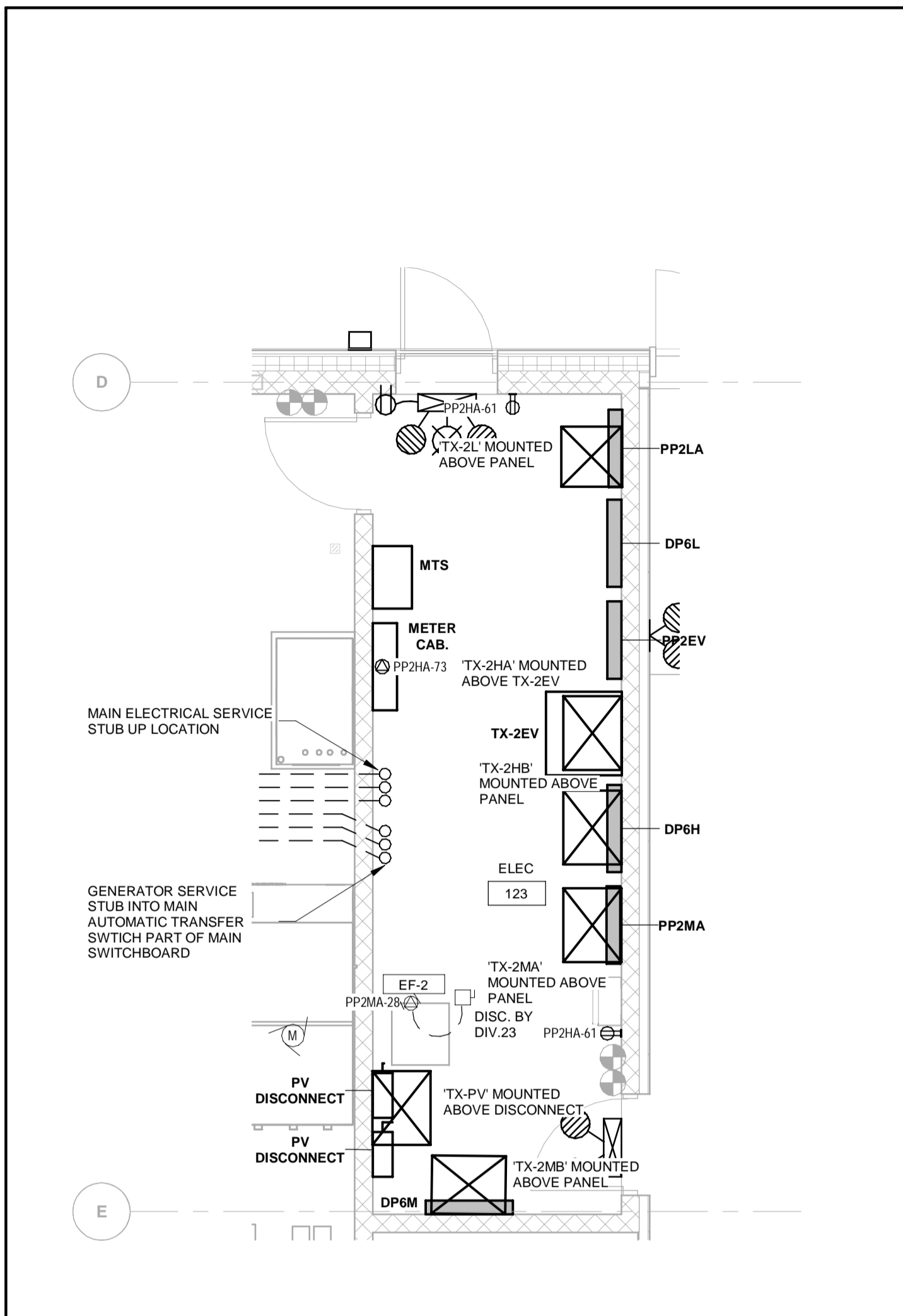
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 303	SHEET NO.

BIM 300/JP-AMER (CAN) 60611569-SEATON RDFS-A.rvt



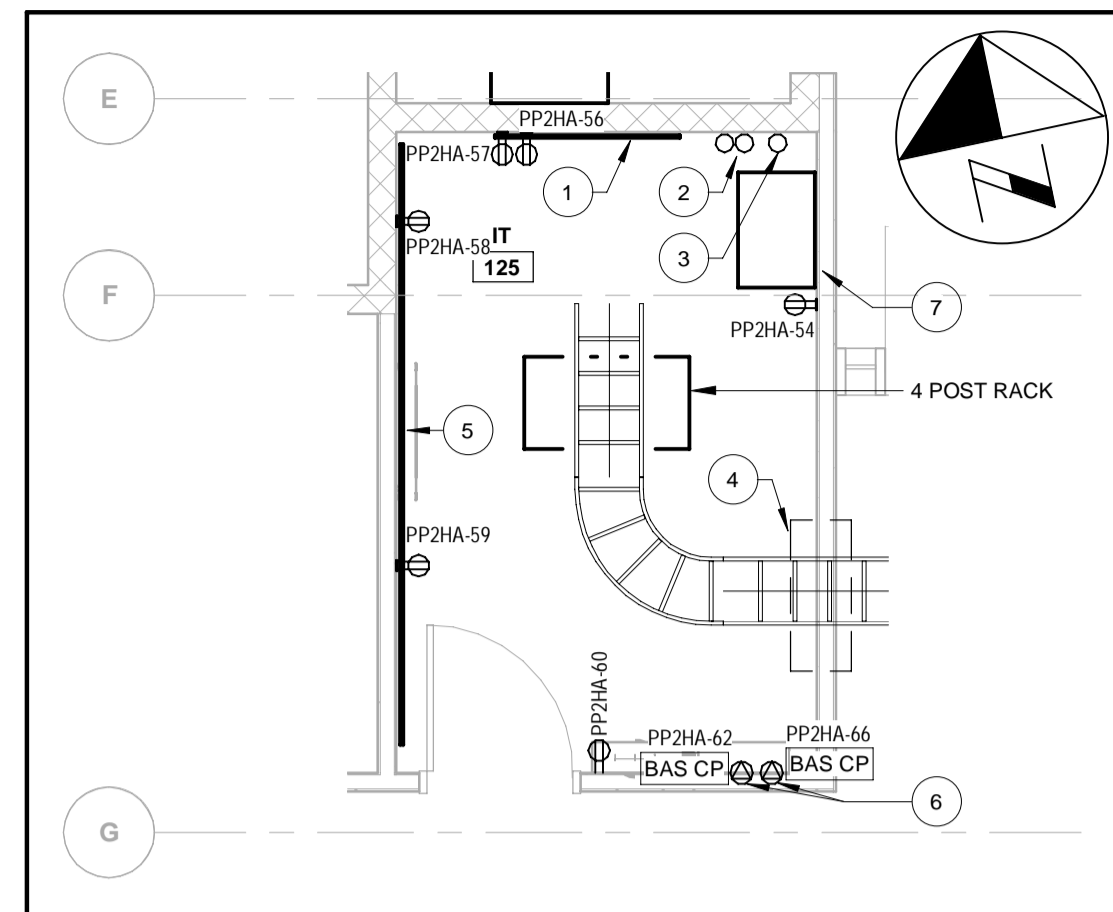
1 ENLARGED MECHANICAL ROOM

E-303 E-304 1 : 50



2 ENLARGED ELECTRICAL ROOM

E-301 E-304 1 : 50



3 ENLARGED IT ROOM

E-301 E-304 1 : 50

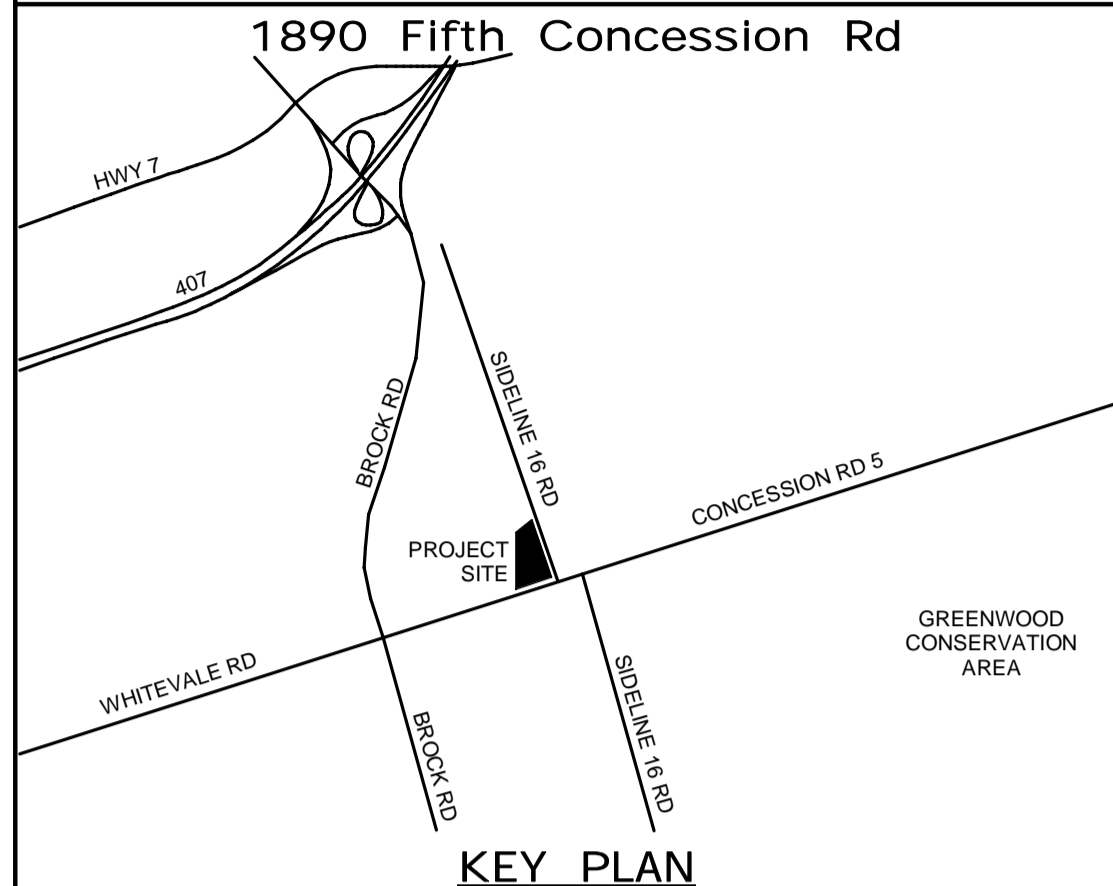
IT ROOM KEYNOTES

NUMBER	KEYNOTE
1	1220mm X 2440mm X 19mm FIRE RATED PLYWOOD BACKBOARD FOR BUILDING COMM. SERVICES. PROVIDE #6 BOND BACK TO BUILDING GROUND.
2	INCOMING COMM. CONDUIT STUB-UP LOCATION
3	(1) 53mm CONDUIT TO ROOF ANTENNA.
4	PROVIDE EZ-PATH SERIES 44+ FIRE RATED PATHWAY FROM IT ROOM TO CORRIDOR SPACE.
5	PROVIDE 2440mm X 19mm FIRE RATED PLYWOOD BACKBOARD ALONG LENGTH OF WALL FOR SECURITY, CARD ACCESS, AND TELEPHONE HEAD END EQUIPMENT.
6	PROVIDE DEDICATED CIRCUIT FOR MECHANICAL BAS PANEL.
7	MINISTRY OF HEALTH PAGING CABINET PROVIDED BY OTHERS.

ENLARGED MECHANICAL ROOM GENERAL NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TERMINATIONS AND CONNECTIONS FROM VFD TO MOTORS, WHEREVER APPLICABLE.

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PROVINCE OF ONTARIO  
Sept 17, 2021

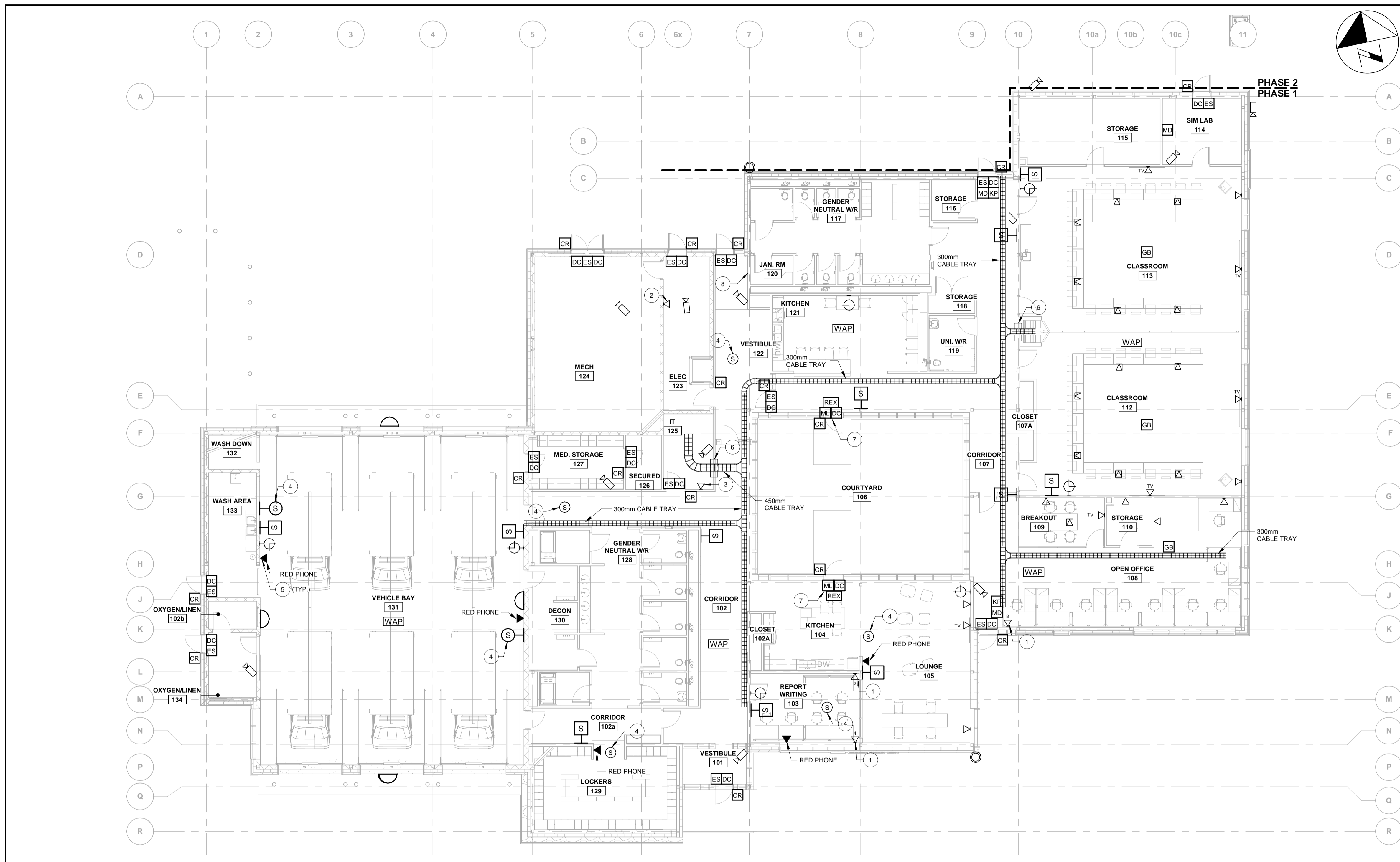
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APPROVED BY: WA	CLIENT FILE No.: 811/20

CONTRACT REVISIONS	NO.	DATE	NAME	REVISIONS

**THE REGIONAL MUNICIPALITY OF DURHAM**  
WORKS DEPARTMENT  
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING  
ENLARGED PLANS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 304	SHEET NO.

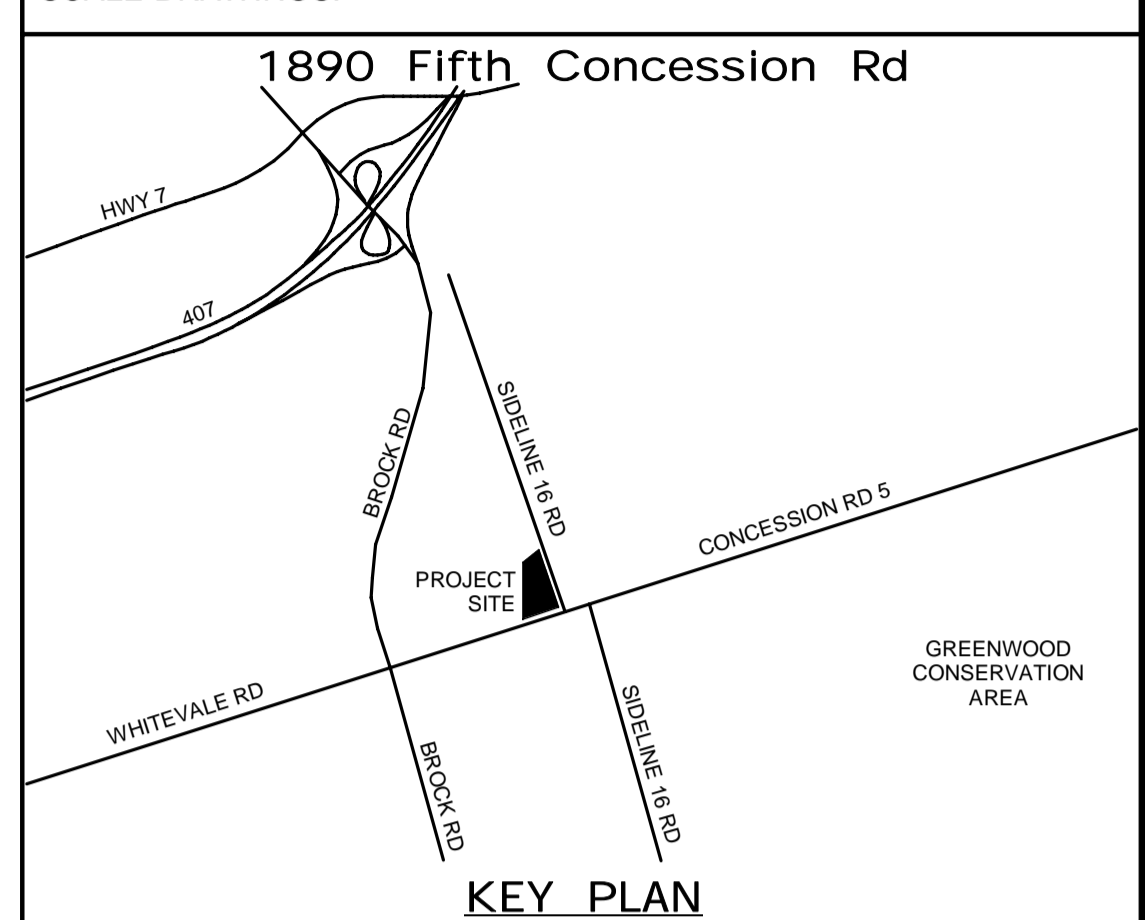


1 SECURITY AND COMMUNICATIONS - MAIN FLOOR  
A-003.1 E-401 1 : 125

SECURITY AND SYSTEMS KEYNOTES	
NUMBER	KEYNOTE
1	PROVIDE (1) DATA DROP PER SYSTEM FURNITURE.
2	PROVIDE (1) DATA DROP FOR HYDRO METERING CABINET.
3	PROVIDE (1) DATA DROP FOR BAS PANEL.
4	CONTRACTOR SHALL INSTALL MINISTRY OF HEALTH (MOH) SPEAKERS DEDICATED TO THE AMBULANCE BASE PAGING SYSTEM. COORDINATE LOCATION WITH MOH PRIOR TO ROUGH-IN.
5	REFER TO DETAIL 2 ON E603 FOR DETAILS.
6	PROVIDE EZ-PATH SERIES 44+ FIRE RATED PATHWAY.
7	MAGNETIC DOOR LOCK. LOCKS ARE TO BE RELEASED UPON A FIRE CONDITION OR IF LOCAL PULL STATIONS ARE ACTIVATED. REFER TO DETAIL 4 ON DRAWING E602.
8	MAGLOCK RELEASE SWITCH TO BE LOCATED NEXT TO FIRE ALARM CONTROL PANEL.

SECURITY AND SYSTEMS PLAN GENERAL NOTES:	
1.	REFER TO SPECIFICATION SECTION 27 51 23 INTERCOM AND PUBLIC ADDRESS SYSTEM FOR DETAILS ON SCOPE OF WORK.
2.	REFER TO SPECIFICATION SECTION 27 53 13 CLOCK SYSTEM FOR DETAILS ON SCOPE OF WORK.
3.	REFER TO SPECIFICATION SECTION 28 10 00 CARD ACCESS AND INTRUSION DETECTION FOR DETAILS ON SCOPE OF WORK.
4.	REFER TO SPECIFICATION SECTION 28 23 00 CCTV EQUIPMENT FOR DETAILS ON SCOPE OF WORK.

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



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APPROVED BY: WA	CLIENT FILE No.: 811/20

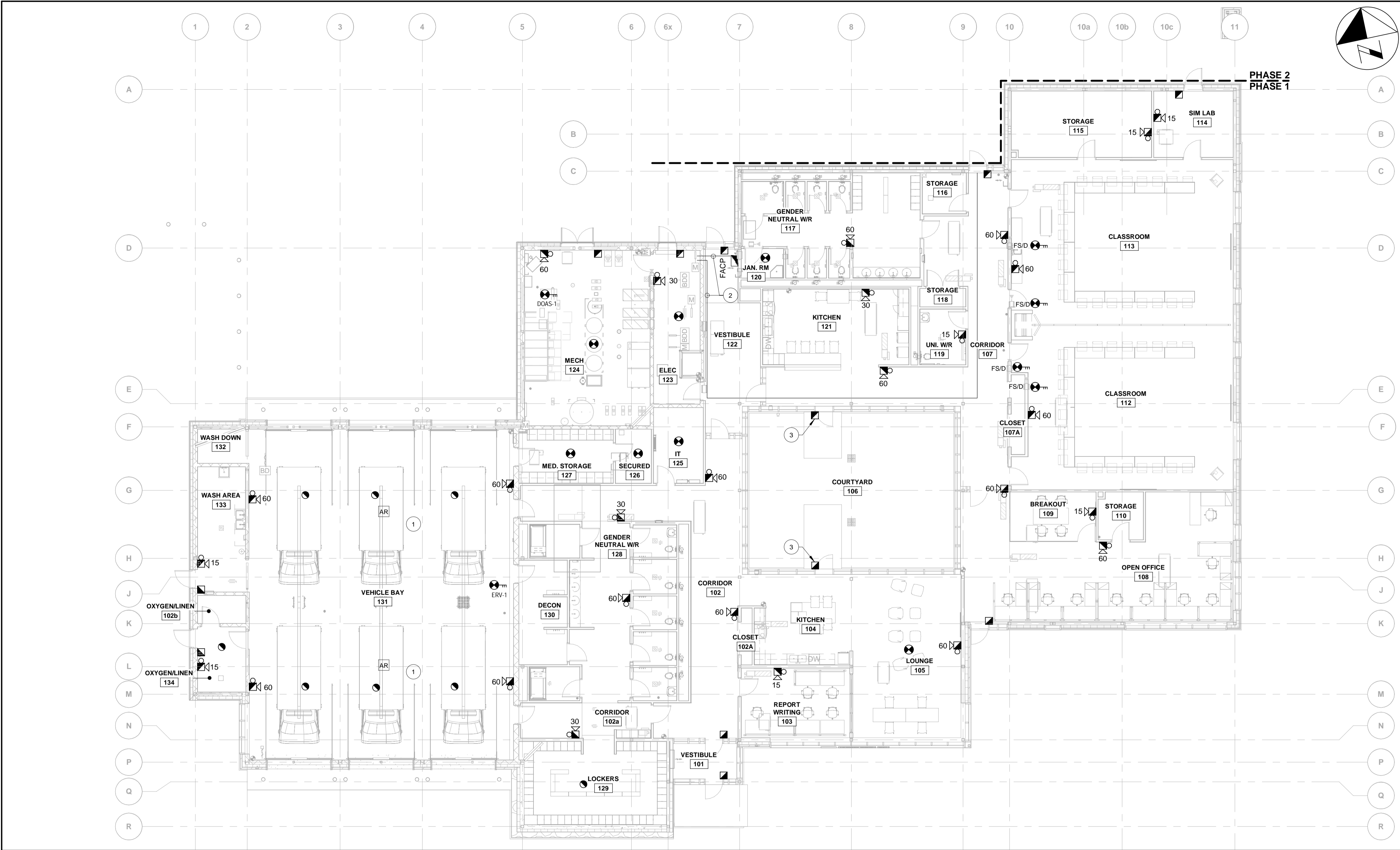
CONTRACT REVISIONS			
NO	DATE	NAME	REVISIONS
1	09/22/21	ISSUED FOR TENDER	

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## NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING SECURITY AND SYSTEMS PLAN

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 401	SHEET NO.

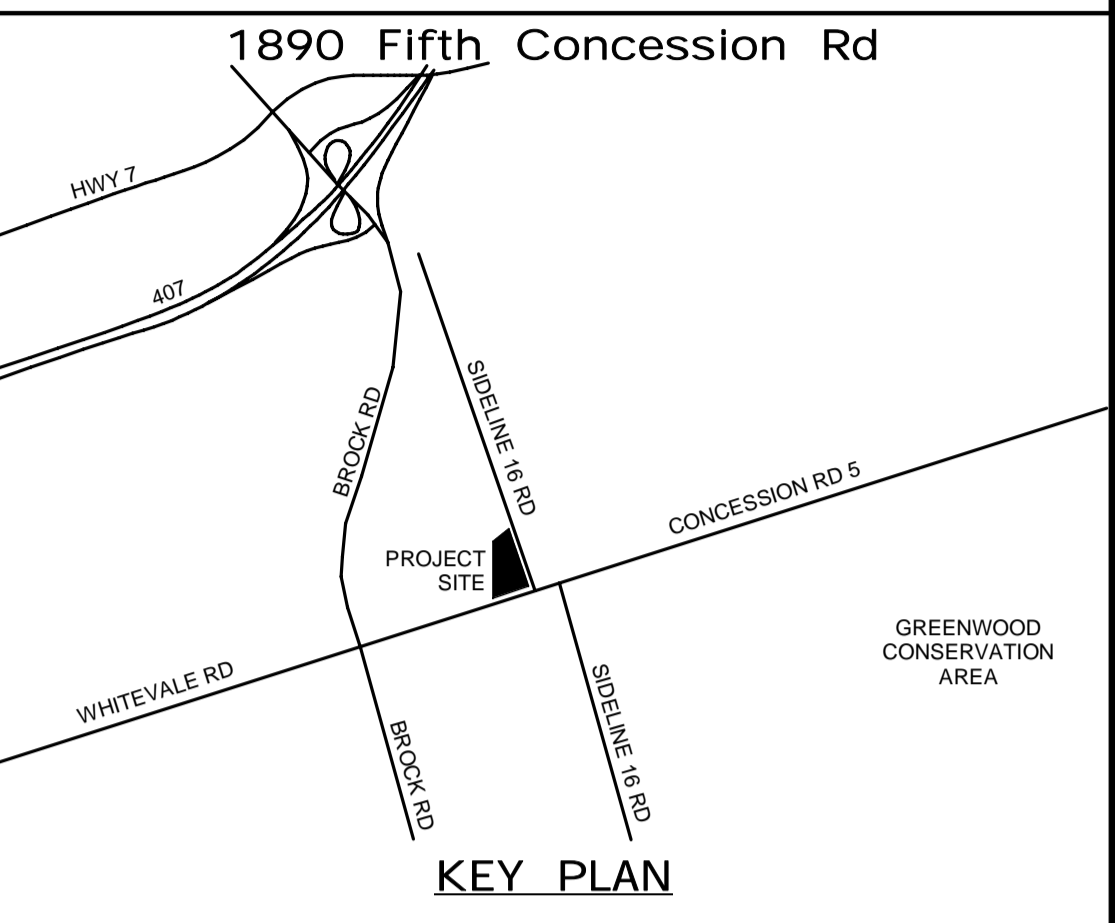
BIM 300/JP-AMER (CAN) 60611569-SEATON RDP5-A.rvt



1 FIRE ALARM PLAN - MAIN FLOOR  
A-003.1 E-501 1 : 125

FIRE ALARM PLAN KEYNOTES	
NUMBER	KEYNOTE
1	PROVIDE FIRE ALARM ADDRESSABLE RELAY MODULES AT FAN TO SHUT IT DOWN IN CASE OF ALARM INITIATION. REFER TO OPERATIONAL MATRIX FOR DETAILS. TYPICAL FOR DESTRATIFICATION FANS.
2	PROVIDE (2) SPARE 53mm EMT CONDUIT FROM FACP TO ELECTRICAL ROOM C/W PULL STRING FOR FUTURE MODIFICATIONS TO PANEL. PROVIDE (2) SPARE 53mm EMT CONDUIT FROM ELECTRICAL ROOM TO PHASE 2 AREA C/W PULL STRING FOR PHASE 2 DEVICES.
3	MANUAL PULL STATION SHALL BE WEATHERPROOF AND COMPLETE WITH AUXILIARY CONTACTS FOR WIRING TO LOCAL ELECTROMAGNETIC LOCK. REFER TO 4/E602 FOR DETAIL.

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LICENSED PROFESSIONAL ENGINEER

Sept 17, 2021

W.E. MOHAMMED ALI


100186996

PROVINCE OF ONTARIO

SUB CONSULTANT

DESIGN BY: GR	SCALE: 1 : 125
DRAWN BY: HD	DATE: 03/30/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

CONTRACT REVISIONS			
NO	DATE	NAME	REVISIONS
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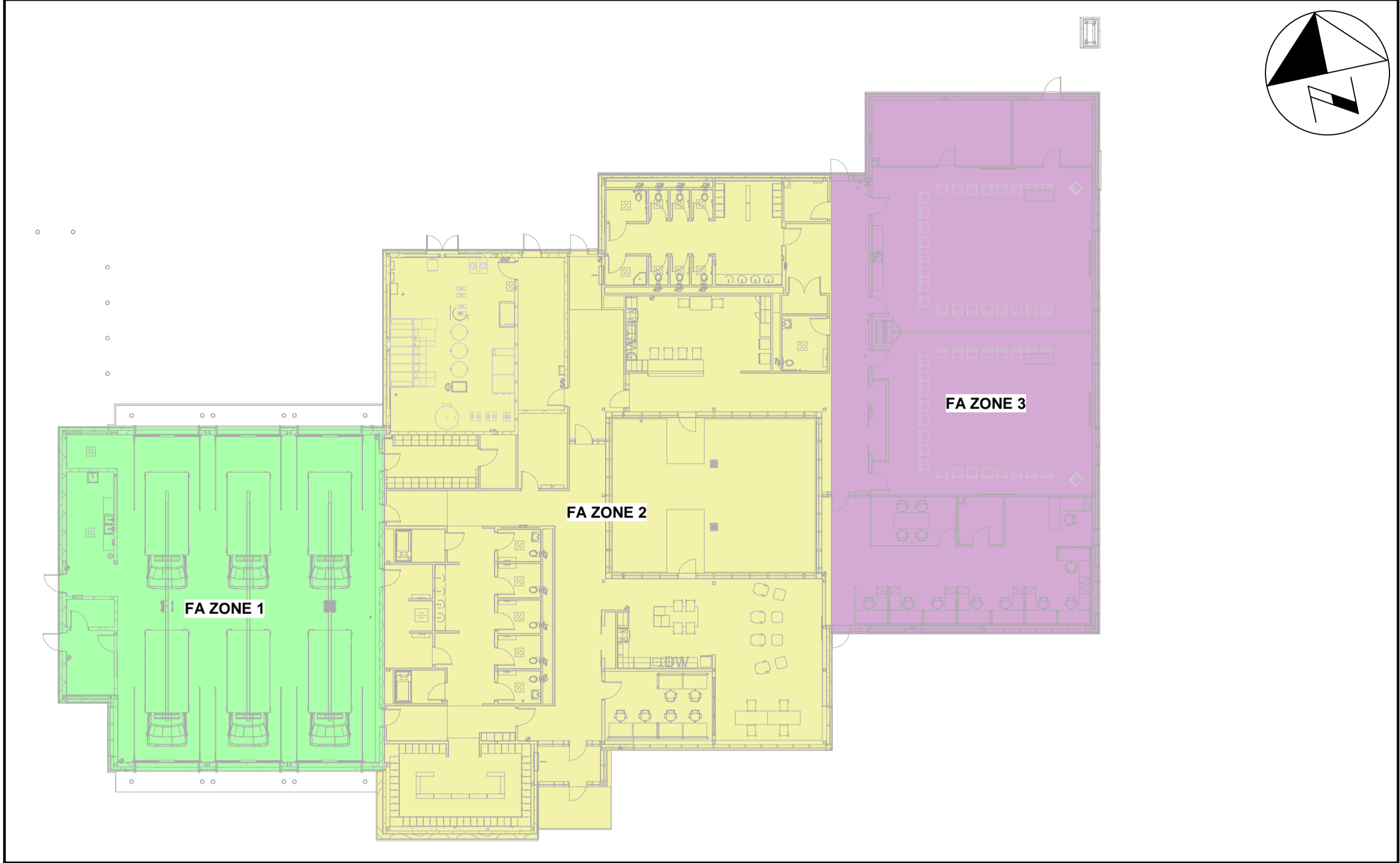
**THE REGIONAL MUNICIPALITY OF DURHAM**  
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DESIGN, CONSTRUCTION & ASSET MANAGEMENT

**NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING**  
**FIRE ALARM PLAN**

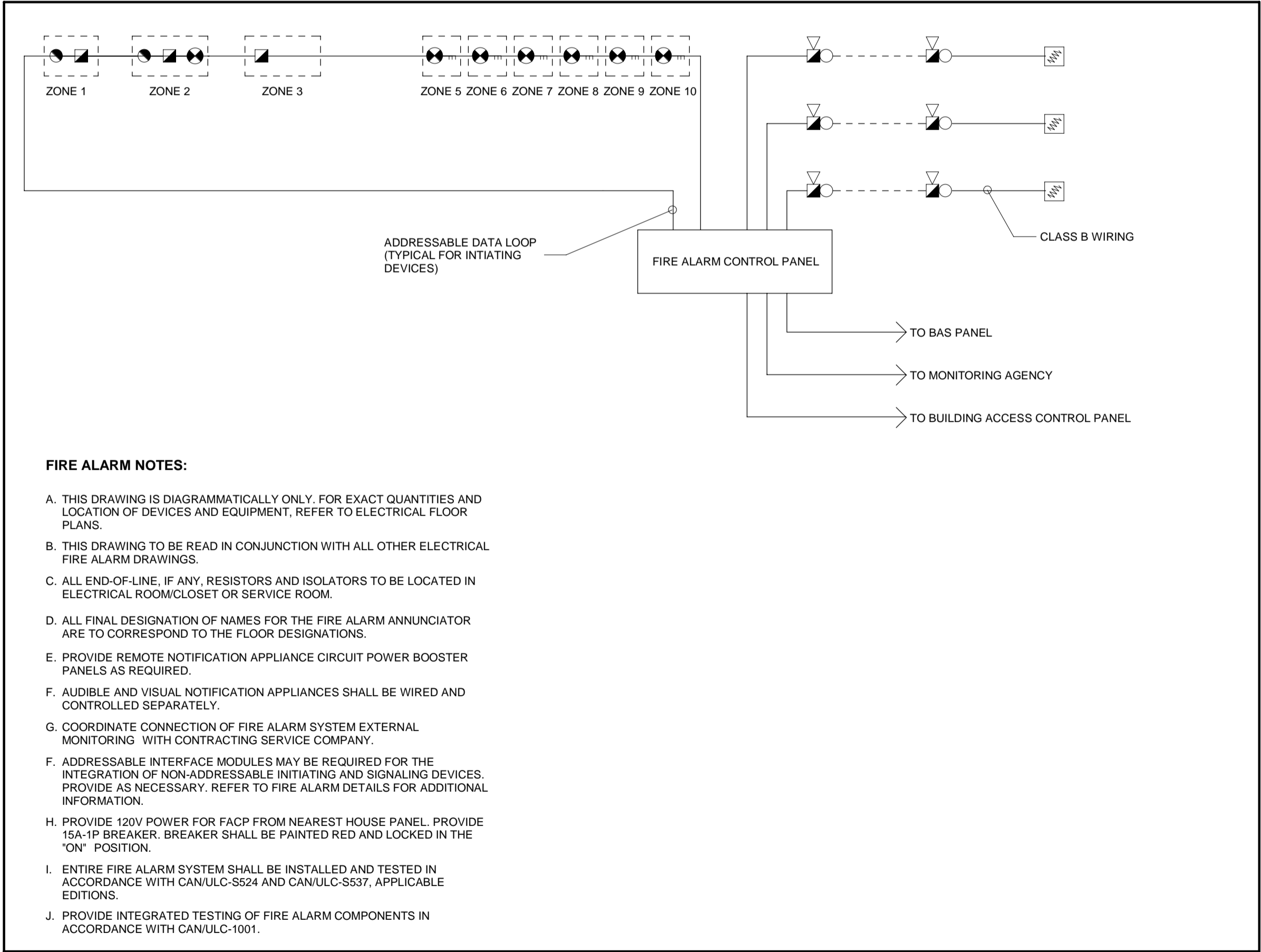
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 501	SHEET NO.

BIM 300/JBP-AMER (CAN) 60611569-Station RDP5-A.rvt

FIRE ALARM ZONE SCHEDULE					
ZONE	DESCRIPTION	ALARM	SUPERVISORY	CONTROL	NOTES
1	VEHICLE AREA	x			
2	ADMIN AREA	x			
3	CLASSROOMS	x			
4	RESERVED FOR PHASE 2	x			
5	ERV-1 DUCT SMOKE	x	x		DETECTOR IS HARDWIRED TO HVAC UNIT TO SHUTDOWN UPON ALARM FROM ASSOCIATED DUCT SMOKE DETECTOR.
6	DOAS-1 DUCT SMOKE	x	x		
7	FS/D DUCT SMOKE	x	x		DETECTOR IS HARDWIRED TO FIRE/SMOKE DAMPER ACTUATOR TO CLOSE UPON ALARM FROM ASSOCIATED DUCT SMOKE DETECTOR.
8	FS/D DUCT SMOKE	x	x		
9	FS/D DUCT SMOKE	x	x		
10	FS/D DUCT SMOKE	x	x		
S1	STANDBY GENERATOR - GENERAL FAULT		x		
C1	ALARM SIGNAL TO MONITORING AGENCY			x	
C2	ALARM SIGNAL TO BUILDING AUTOMATION SYSTEM			x	
C3	ALARM SIGNAL TO BUILDING ACCESS CONTROL SYSTEM			x	
C4	ERV-1 SHUTDOWN			x	
C5	DOAS-1 SHUTDOWN			x	
C6	DESTRATIFICATION FAN SHUTDOWN			x	

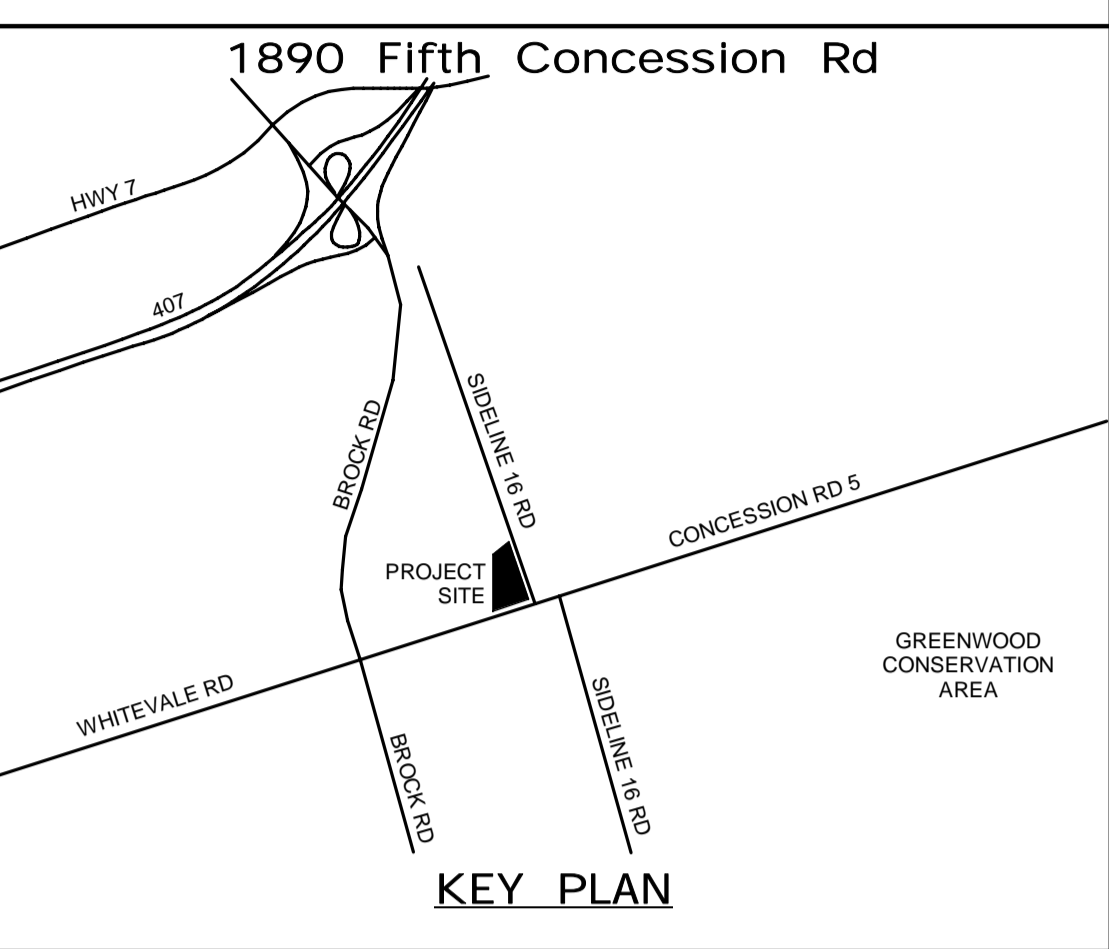


1 FIRE ALARM ZONING PLAN - MAIN FLOOR  
1 : 250



2 FIRE ALARM RISER DIAGRAM  
N.T.S.

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PROVINCE OF ONTARIO

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THE REGIONAL MUNICIPALITY OF DURHAM  
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DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING FIRE ALARM ZONE PLAN, RISER DIAGRAM AND DETAILS		
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 502	SHEET NO.

1. ALL BONDING AND GROUNDING METHODS SHALL BE AS PER THE ONTARIO ELECTRICAL SAFETY CODE.
2. REFER TO PANEL SCHEDULES FOR COMPLETE LOAD LIST.

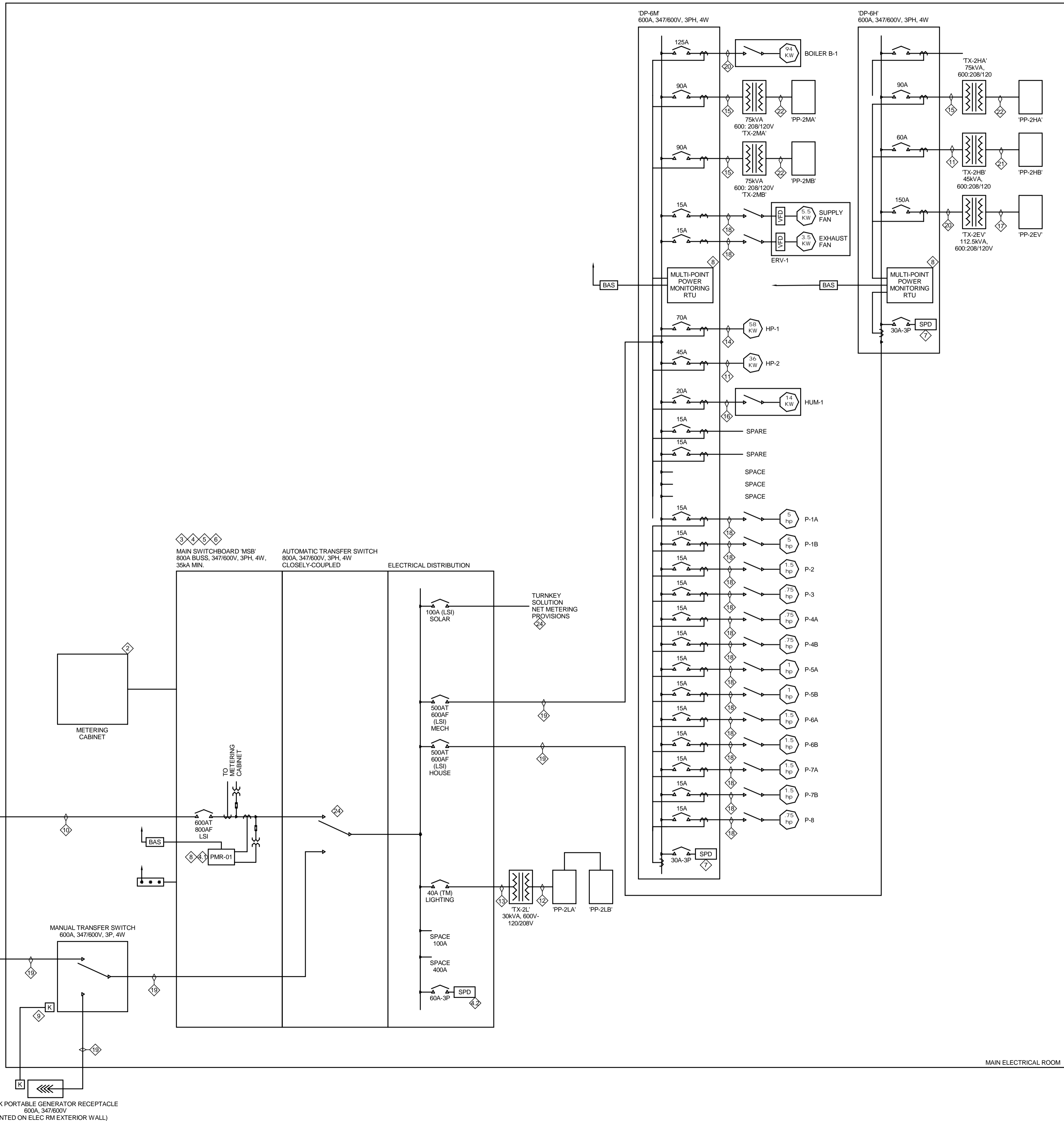
**CONSTRUCTION KEYNOTES:**

1. PROVIDE NEW SECONDARY SERVICE FROM TRANSFORMER TO SWITCHBOARD LOCATION.
2. PROVIDE NEW 915W x 915H x 30SD METERING CABINET PER ELEXICON'S REQUIREMENTS. PROVIDE POWER (FED FROM HOUSE PANEL) AND DATA CONNECTIONS. PROVIDE 41mmC CONDUIT FROM METERING COMPARTMENT LOCATION TO METERING CABINET.
3. PROVIDE A 800A, 347/600V, 3PH, 4W, 35KA MIN. SERVICE-ENTRANCE RATED SWITCHBOARD. MAIN BREAKER SHALL BE ELECTRONIC TRIP, 80% RATED.
4. CUSTOM PROVISIONS:
  - 4.1. PROVIDE CUSTOMER METERING c/w DISPLAY EQUAL TO SCHNEIDER ELECTRIC PM8000.
  - 4.2. PROVIDE SURGE PROTECTION DEVICE (SPD), 240KA SURGE CURRENT RATING c/w SURGE COUNTER AND ALARM DRY CONTACTS.
5. MAXIMUM ALLOWABLE DIMENSIONS FOR SWITCHBOARD 4000W x 915D x 2324H.
6. COORDINATE METERING REQUIREMENTS WITH ELEXICON ENERGY.
7. PROVIDE 120kA SPD INTEGRATED IN PANEL.
8. PROVIDE CUSTOMER-OWNED MULTI-POINT METERING TIED BACK TO BUILDING AUTOMATION SYSTEM IN COMPLIANCE WITH LEED REQUIREMENTS. METERING COMPONENTS SHALL BE INTEGRATED INTO PANELBOARDS AND SWITCHBOARDS. STANDALONE COMPONENTRY NOT PERMITTED.
9. KIRK KEY INTERLOCKS PORTABLE GENERATOR RECEPTACLE WITH THE MANUAL TRANSFER SWITCH. THE PORTABLE GENERATOR RECEPTACLE WILL BE ACCESSIBLE ONCE THE MANUAL TRANSFER SWITCH IS SET TO PORTABLE GENERATOR MODE.
10. 3 RUNS OF 4#300 Kcmil + BOND IN 103mmC.
11. 3#6 AWG + BOND IN 27mmC.
12. 4#1 AWG IN 53mmC.
13. 3#8 AWG + BOND IN 27mmC.
14. 3#4 AWG + BOND IN 41mmC.
15. 3#3 AWG + BOND IN 35mmC.
16. 3#10 AWG + BOND IN 27mmC.
17. 2 RUNS OF 4#40 AWG + BOND IN 63mmC.
18. 3#12 AWG + BOND IN 21mmC.
19. 2 RUNS OF 4 #350 Kcmil + BOND IN (2) 103mmC.
20. 3#1/0 AWG + BOND IN 53mmC.
21. 4#2/0 AWG + BOND IN 63mmC.
22. 2 RUNS OF 4#1/0 AWG + BOND IN 53mmC
23. GENERATOR FRAME TO BE BONDED TO SERVICE GROUND. NEUTRAL TO BE FLOATING, NOT BONDED TO GENERATOR FRAME (IN ACCORDANCE WITH ESA BULLETIN 10-10-8).
24. SOLAR PV CONTROLS SHALL RECEIVE A PERMISSIVE SIGNAL FROM AUTOMATIC TRANSFER SWITCH TO CONNECT TO ELECTRICAL SYSTEM ONLY WHEN UTILITY POWER IS CONNECTED. COORDINATE CONTROLS WITH SOLAR PV PROVIDER.

- SUPPLY AND INSTALL TRANSFORMER.
- SUPPLY AND INSTALL PRIMARY SERVICE WIRING.
- PROVIDE TERMINATIONS BOTH PRIMARY AND SECONDARY AT THE PADMOUNT TRANSFORMER.

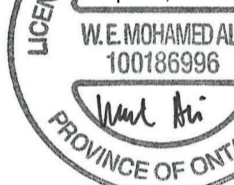
ELECTRICAL CONTRACTOR SHALL:

- SUPPLY AND INSTALL PRIMARY SERVICE CONCRETE ENCASED DUCTBANK.
- SUPPLY AND INSTALL SECONDARY SERVICE CONCRETE ENCASED DUCTBANK AND ASSOCIATED WIRING.
- PROVIDE TRANSFORMER FOUNDATIONS AS PER ELEXICON'S STANDARDS.
- PROVIDE TRANSFORMER GROUNDING AS PER ELEXICON'S STANDARDS.



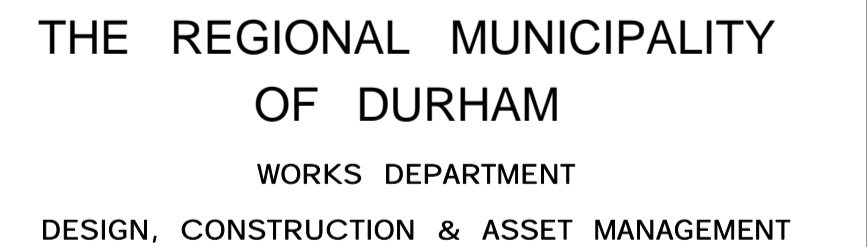
**KEY PLAN**

CONSULTANT REVISIONS				
NO.	DATE.	NAME	REVISIONS	

<h1 style="text-align: center;">AECOM</h1> <p>AECOM Canada Ltd.  50 Sportsworld Crossing Road, Suite 290  Kitchener, Ontario, N2P 0A4  519 650 5313 tel                      519 650 3424 fax  <a href="http://www.aecom.com">www.aecom.com</a></p>	
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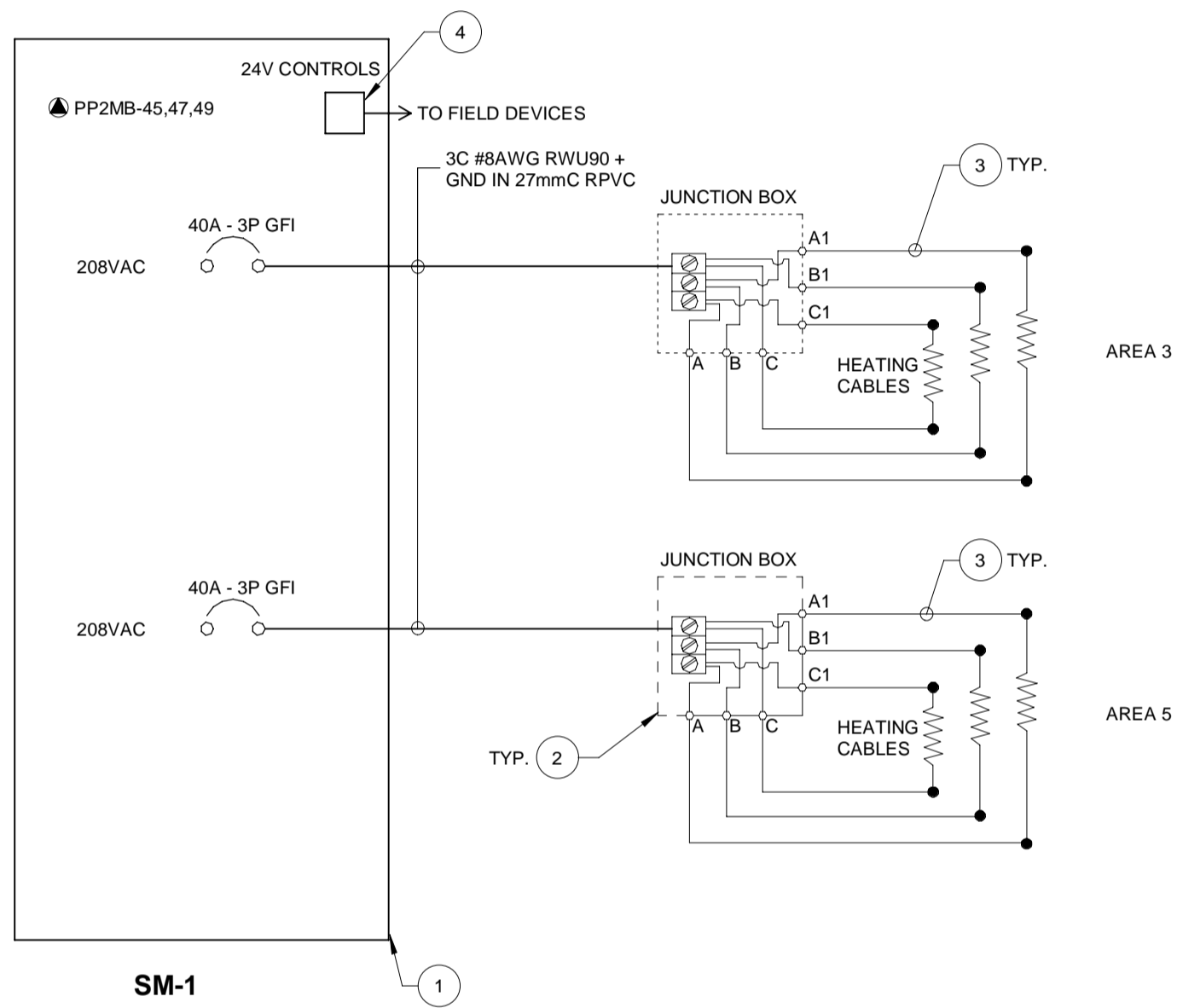
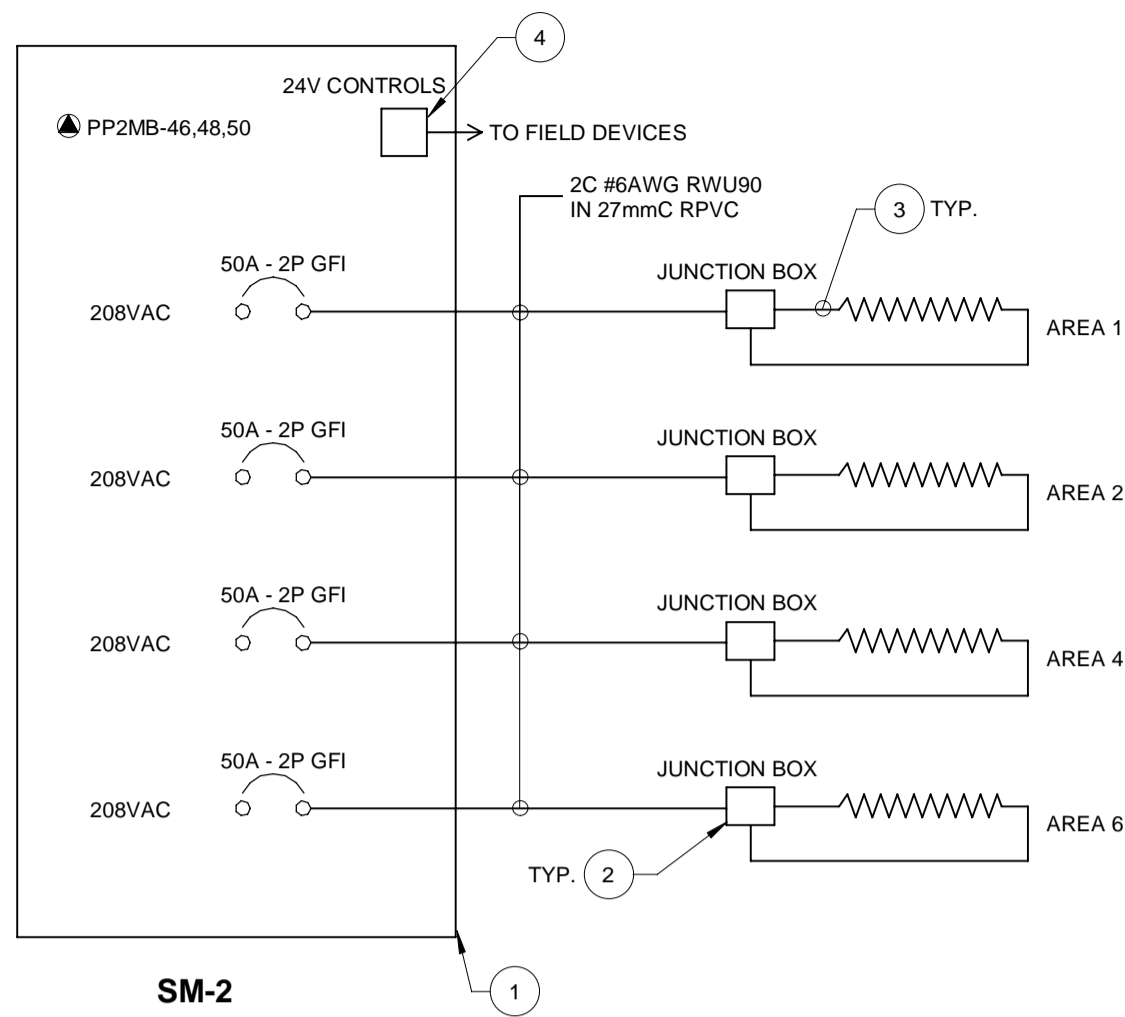
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CONTRACT REVISIONS			
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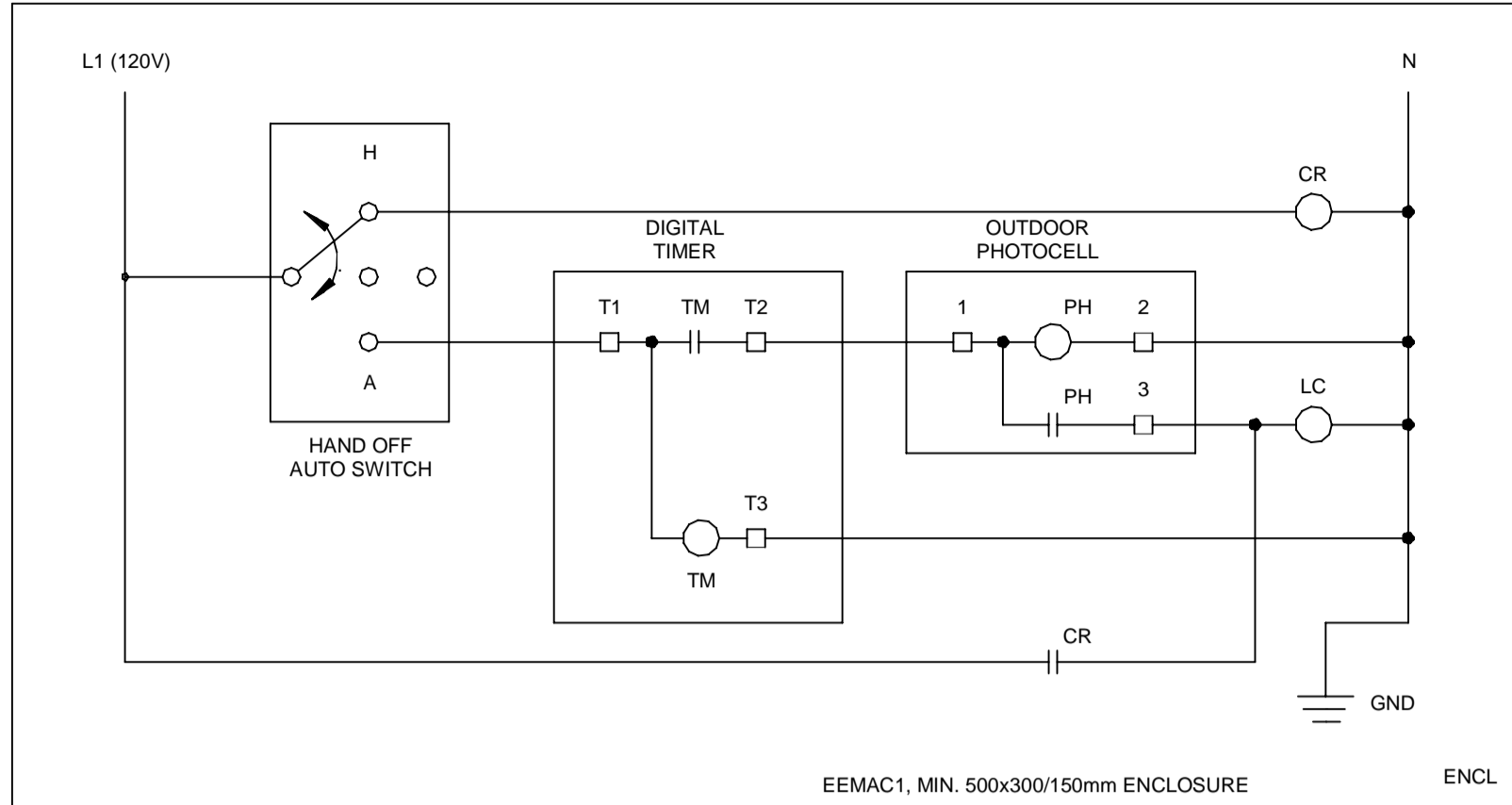
## NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING SINGLE LINE DIAGRAM

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 601	SHEET NO.

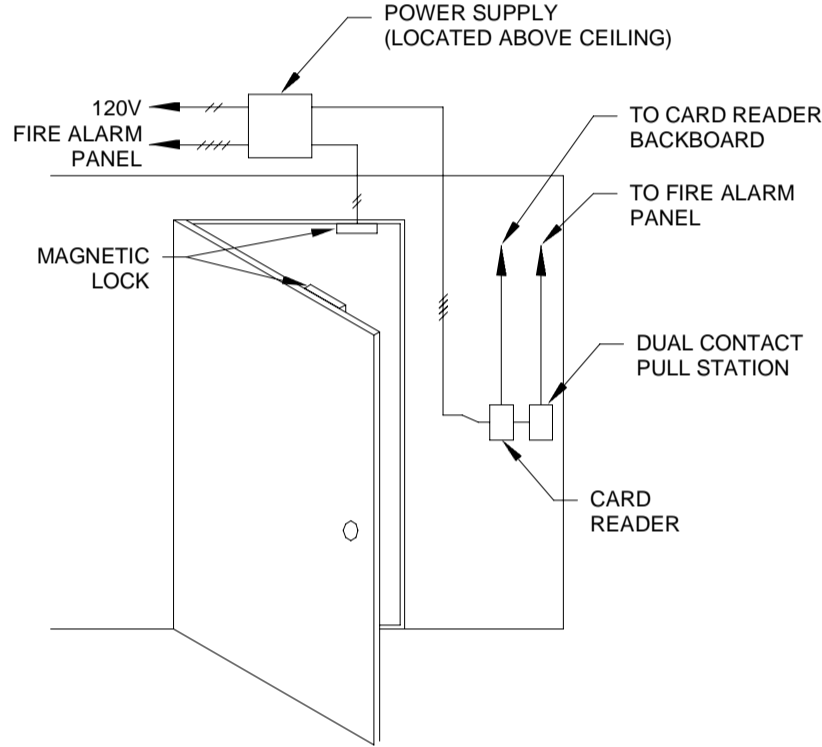


- GENERAL NOTES:**
- REFER TO DRAWING M-001 FOR LOCATION OF SNOW MELT AREAS AND PANELS.
  - COORDINATE WITH SECTION 23 83 13 FOR THIS WORK. SECTION 26 SHALL INSTALL THIS COMPLETE SYSTEM.
- DRAWING NOTES:**
- SUPPLIED BY DIVISION 23 AND INSTALLED BY DIVISION 26.
  - INSTALL WEATHERPROOF JUNCTION BOX 1m ABOVE FINISHED GRADE. PROVIDE MECHANICAL PROTECTION OF HEATING CABLES FROM JUNCTION BOX TO SLAB WITH 41mmC RPVC PER HEATING CABLE.
  - INSTALL HEATING CABLES SUPPLIED BY DIVISION 23 AS PER MANUFACTURER INSTRUCTIONS. COORDINATE WORK WITH STRUCTURAL.
  - COORDINATE INSTALLATION OF ARIAL SNOW SENSORS AND SLAB TEMPERATURE SENSORS. INSTALL DEVICES AS PER SITE CONDITIONS AND MANUFACTURER INSTALLATION INSTRUCTIONS. PROVIDE ALL WIRING, CONDUIT, AND JUNCTION BOXES ASSOCIATED WITH THIS WORK.

## 5 ELECTRIC SNOW MELT WIRING DETAILS

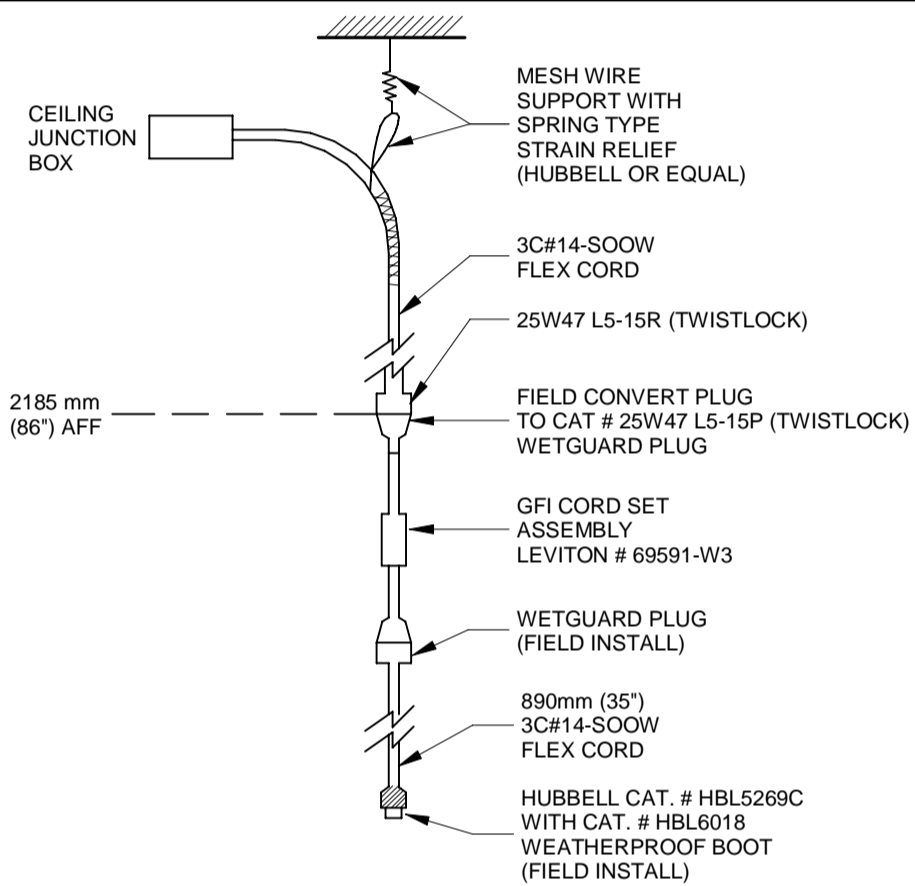


## 1 OUTDOOR LIGHTING CONTROLS



- NOTES:**
- MAGNETIC DOOR LOCKS ARE PROVIDED BY SECURITY CONTRACTOR & WIRED BY ELECTRICAL CONTRACTOR.
  - SIZE ALL CONDUCTORS PER MANUFACTURER'S INSTRUCTIONS.
  - MAGNETIC DOOR LOCKS ARE TO RELEASE UNDER A FIRE CONDITION OR IF LOCAL PULL STATIONS ARE ACTIVATED.
  - CONTRACTOR TO PROVIDE ELECTROMAGNETIC LOCKS COMPLETE WITH REQUEST TO EXIT.

## 4 ELECTROMEGETIC LOCK DETAIL



- MATERIAL LIST**
- |         |                          |
|---------|--------------------------|
| LEVITON | CAT.# 69591-W3 QTY.1     |
|         | CAT.# 25W47 L5-15P QTY.1 |
|         | CAT.# 25W47 L5-15R QTY.1 |
| HUBBELL | CAT.# HBL6018 QTY.1      |
|         | CAT.# HBL5269C QTY.1     |
- FLEX CORD: 3C#14-SOOW AS REQUIRED.  
STRAIN RELIEF: HUBBELL OR EQUAL.

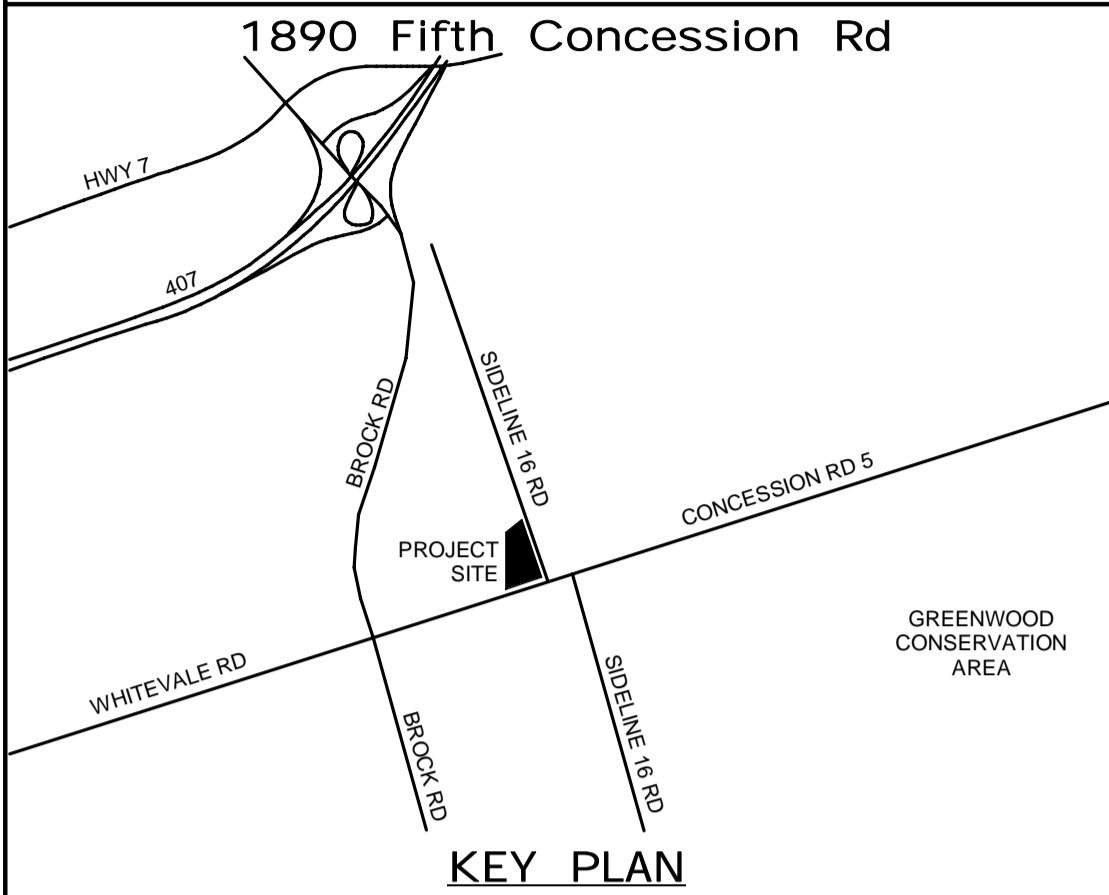
NOTE: CONTRACTOR TO PROVIDE ALL MATERIALS AND LABOR AS REQUIRED FOR FIELD CONVERSION AND ASSEMBLY. DETAILED ASSEMBLY INSTRUCTIONS WILL BE PROVIDED.

## 2 EMS VEHICLE PLUG

8-WIRE ISOLATED (8T) (3+1)	NO. REGULAR CIRCUITS	NO. ISOLATED CIRCUITS
NEUTRAL (WHITE)	3	1
CIRCUIT 1 (BLACK)		
CIRCUIT 2 (RED)		
CIRCUIT 2 (BLUE)		
GROUND (GREEN)		
ISOLATED CIRCUIT 5 (ORANGE)		
ISOLATED NEUTRAL (WHITE/ORANGE)		
ISOLATED GROUND (GREEN/ORANGE)		

## 3 SYSTEM FURNITURE WIRING

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO.	DATE.	NAME	REVISIONS

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LICENSED PROFESSIONAL ENGINEER  
Sept 17, 2021  
W.E. MOHAMMED ALI  
100186996  
PROVINCE OF ONTARIO

DESIGN BY: GR	SCALE: N.T.S.
DRAWN BY: HD	DATE: 11/07/20
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

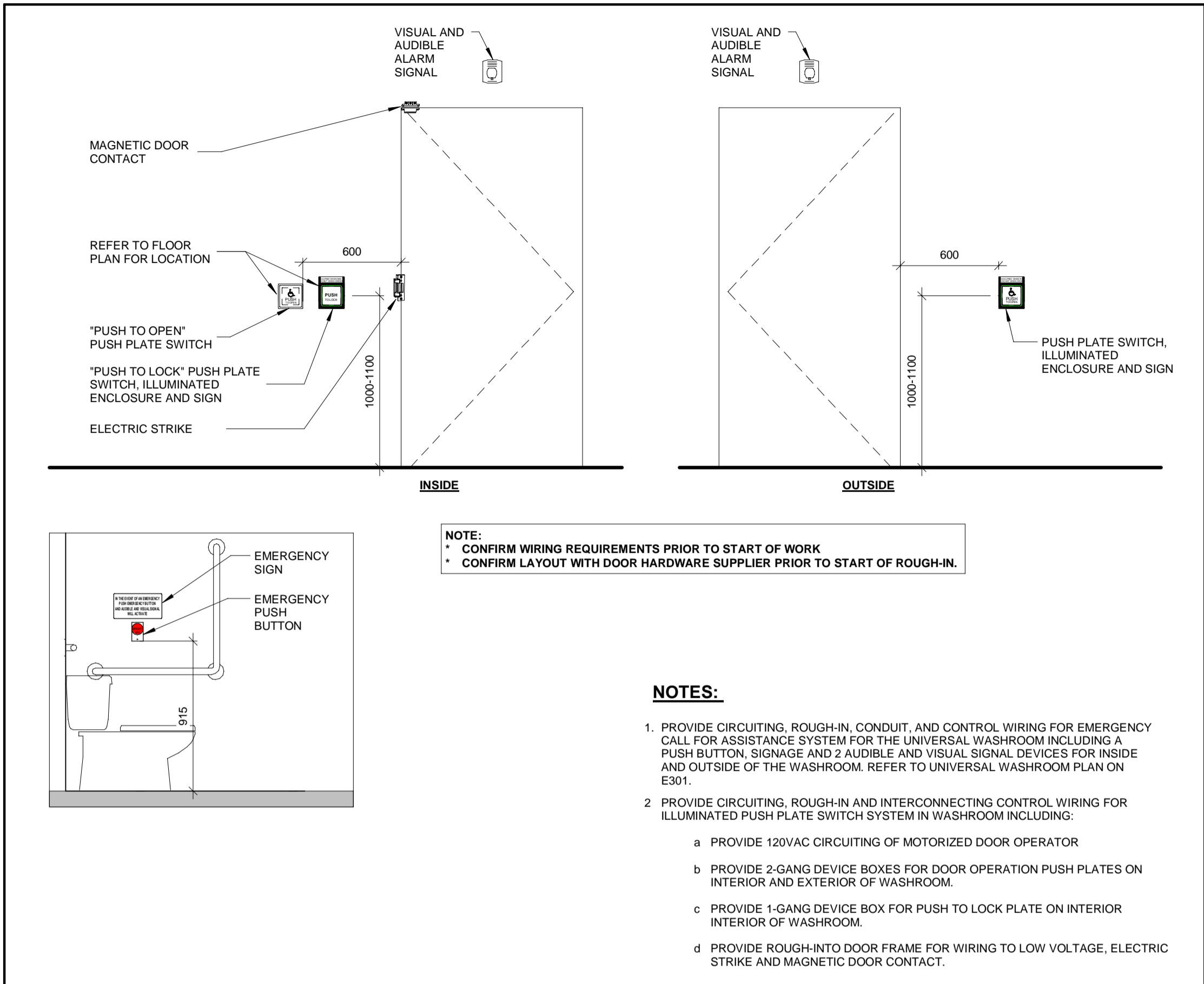
NO	DATE	NAME	REVISIONS
1	09/22/21	ISSUED FOR TENDER	

## THE REGIONAL MUNICIPALITY OF DURHAM

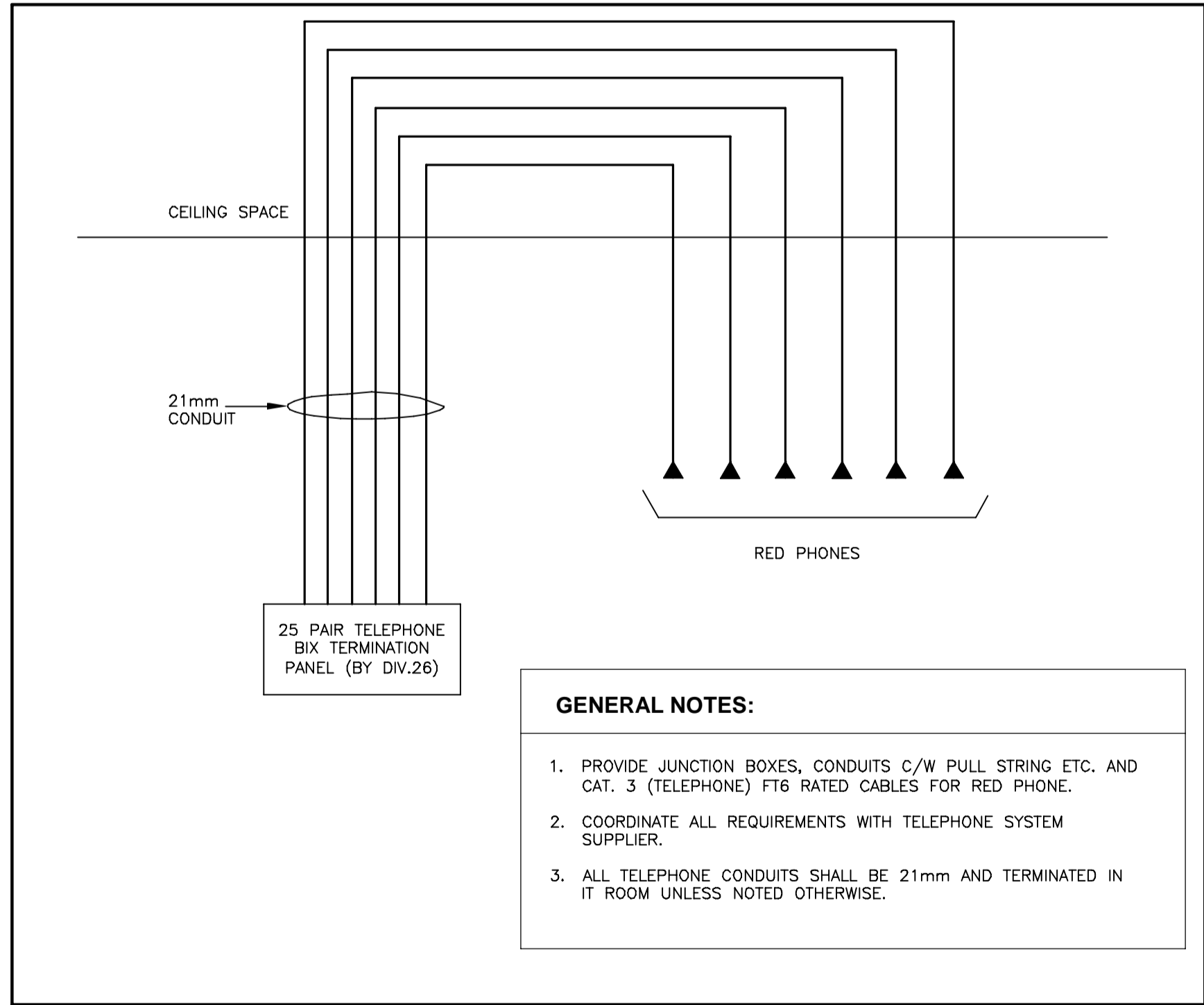
WORKS DEPARTMENT  
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

## NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL DETAILS

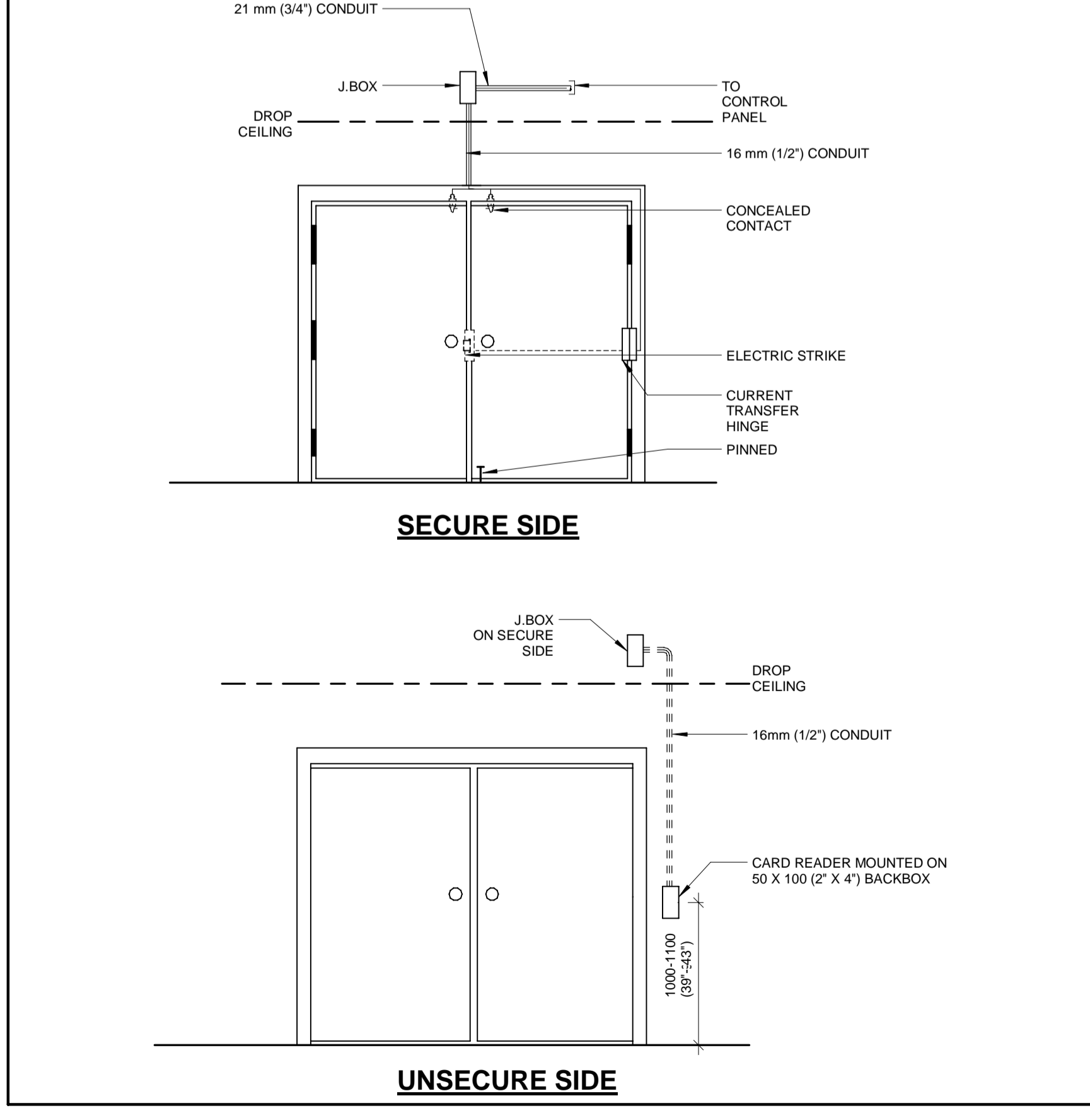
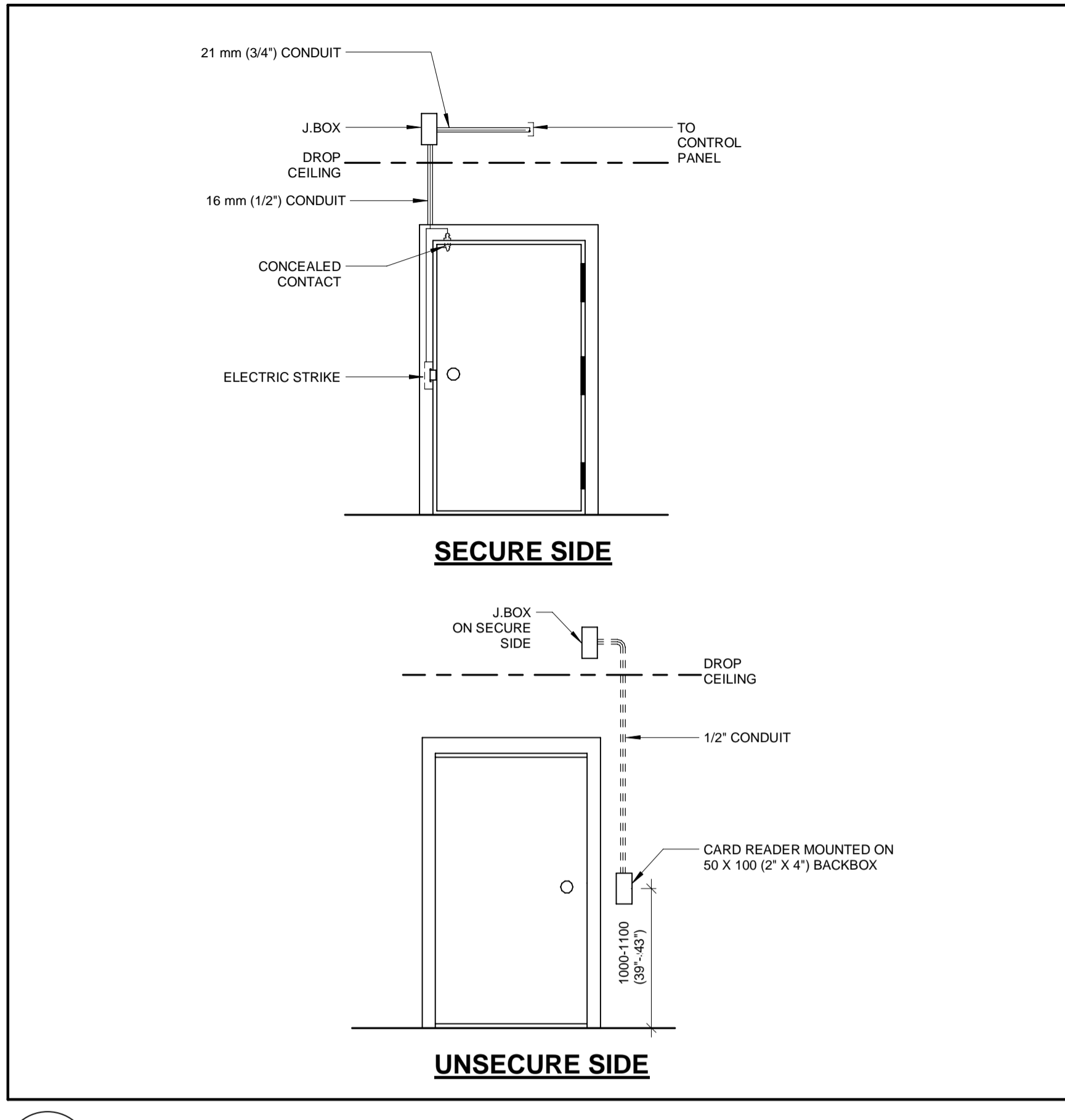
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 602	SHEET NO.



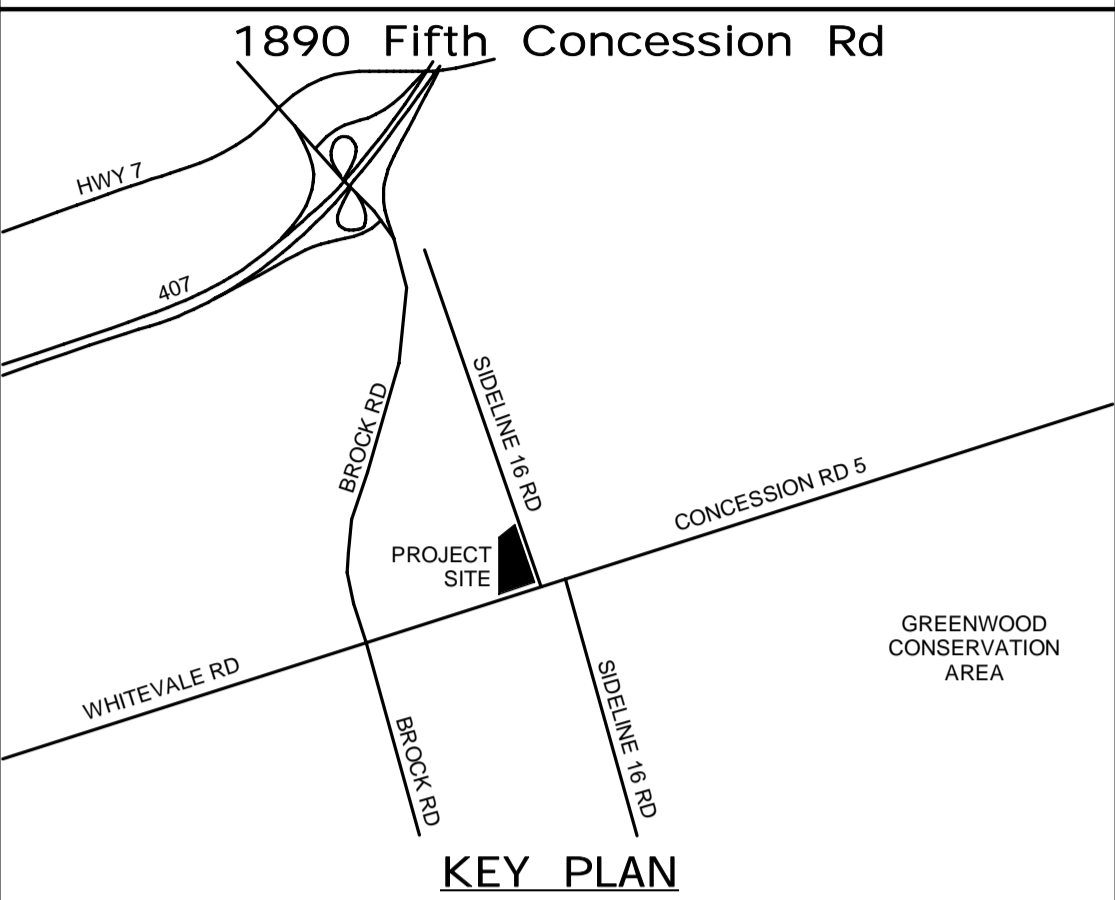
1 UNIVERSAL WASHROOM DETAIL  
E-603 1 : 25



2 EMERGENCY SYSTEM RISER DIAGRAM  
E-603 N.T.S.



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CONSULTANT REVISIONS			
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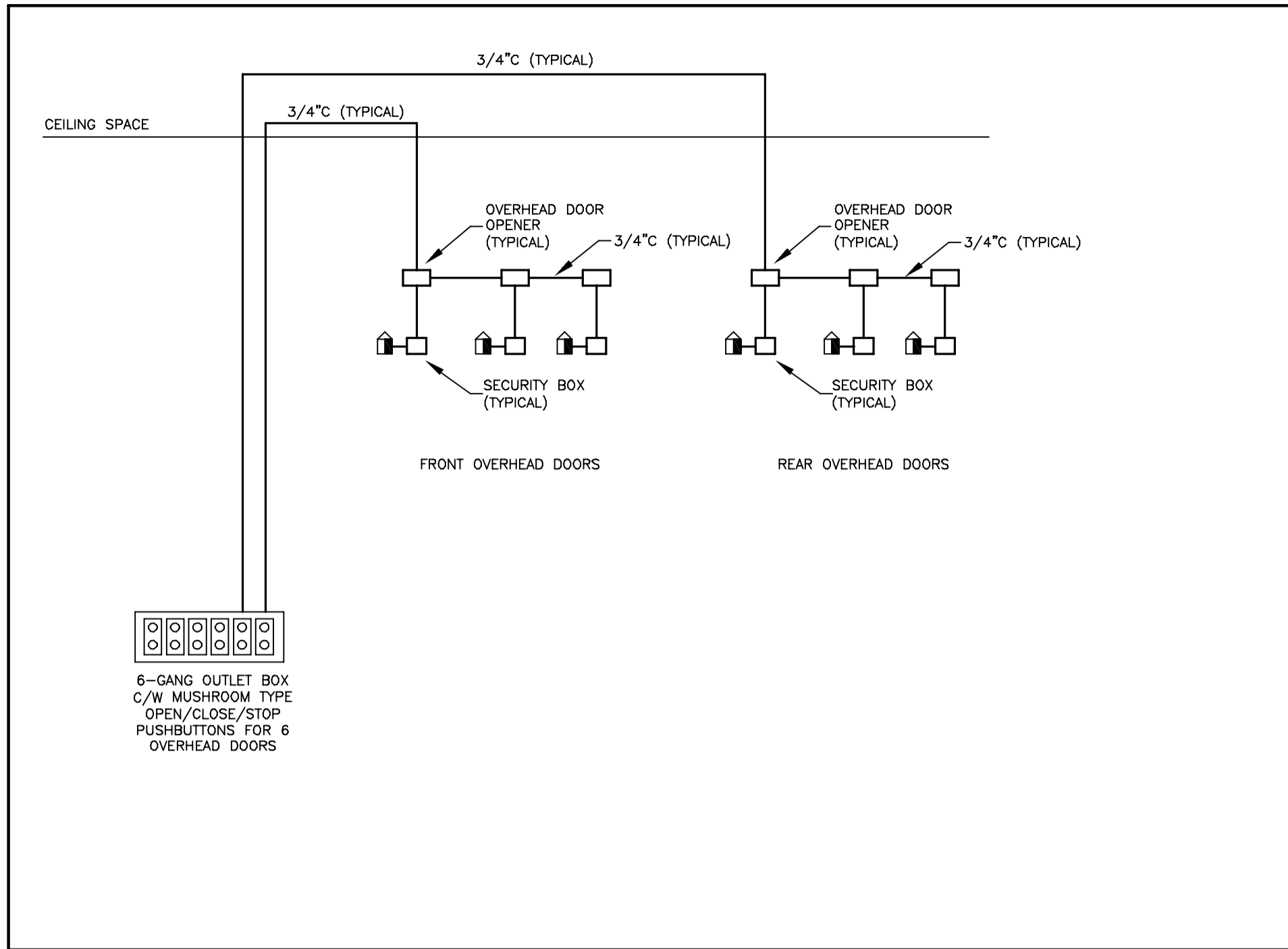
DESIGN BY: GR	SCALE: As Indicated
DRAWN BY: HD	DATE: 12/19/20
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

CONTRACT REVISIONS			
NO	DATE	NAME	REVISIONS
1	09/22/21	ISSUED FOR TENDER	

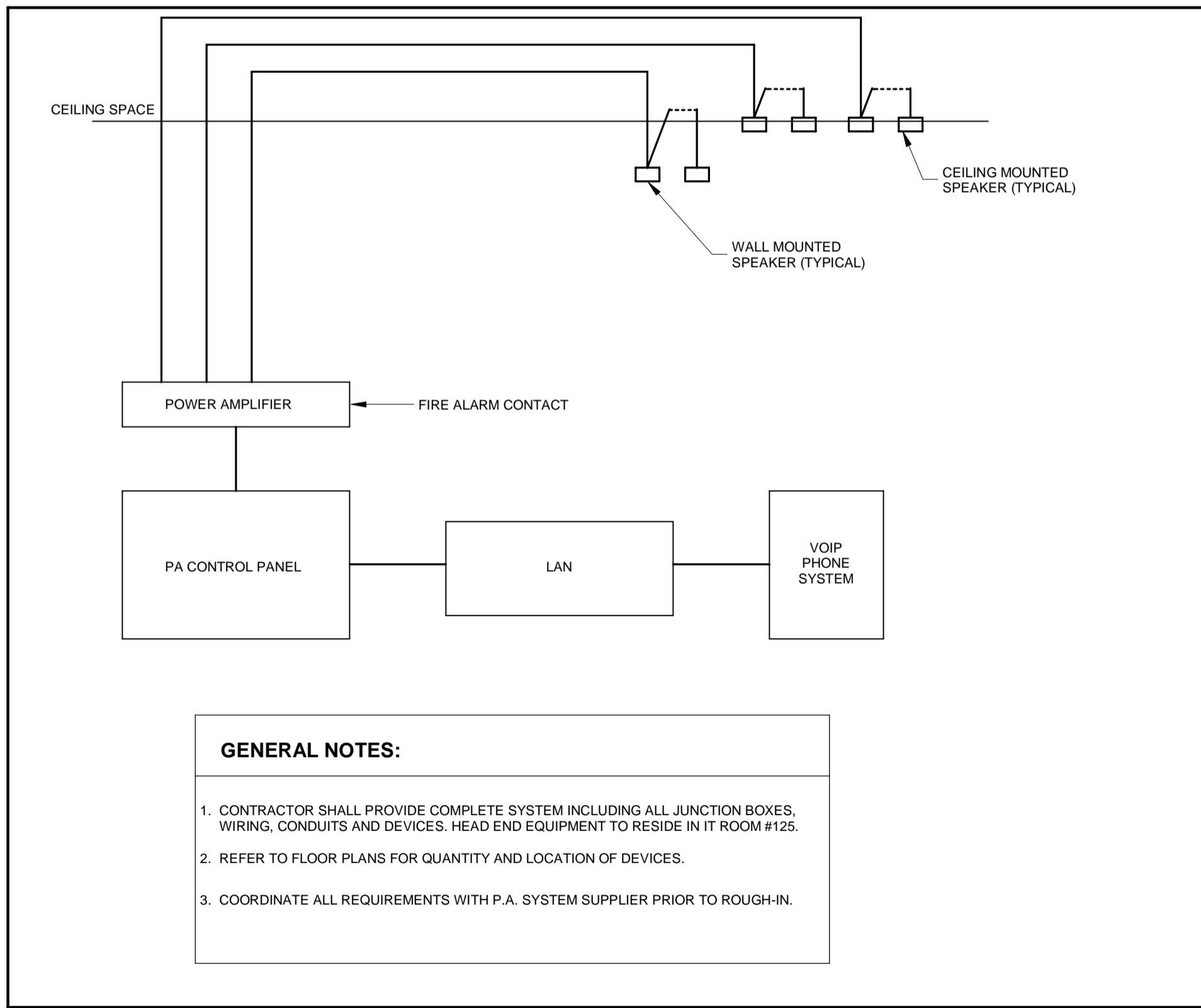
**THE REGIONAL MUNICIPALITY OF DURHAM**  
WORKS DEPARTMENT  
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

## NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 603	SHEET NO.



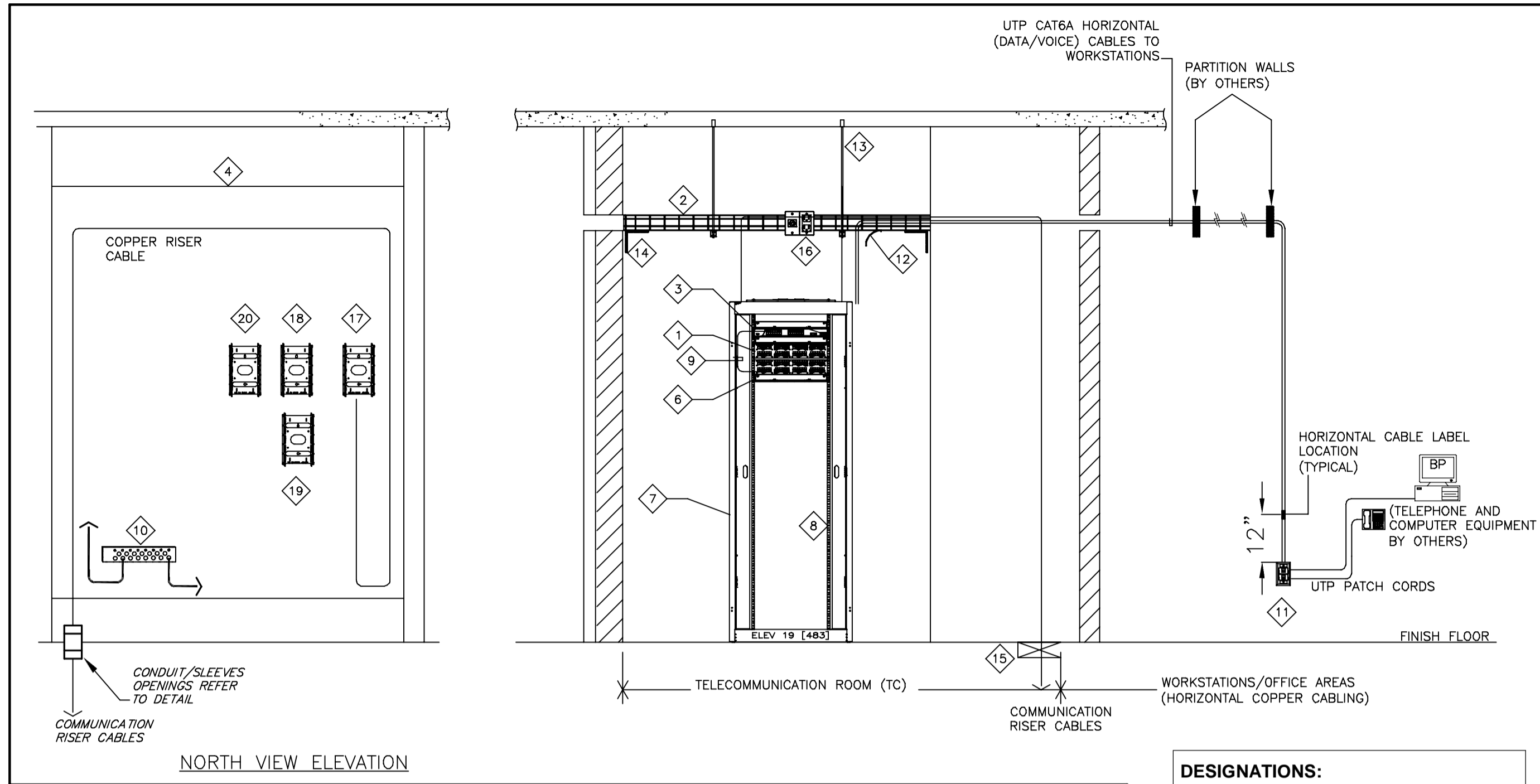
1 OVERHEAD DOORS CONTROL DIAGRAM  
E-604 N.T.S.



3 P.A. SYSTEM RISER DIAGRAM  
E-604 N.T.S.

**GENERAL NOTES:**

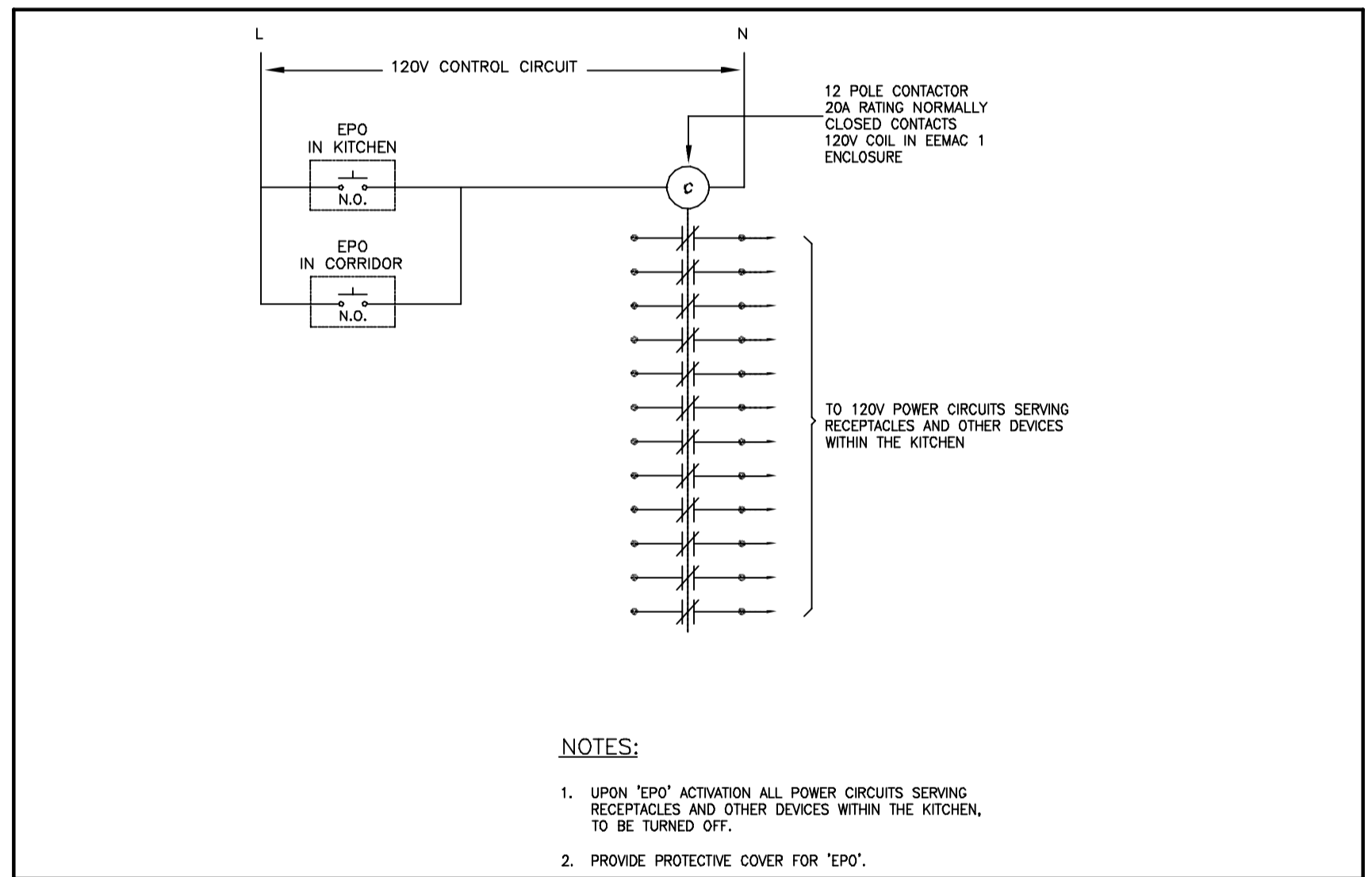
- CONTRACTOR SHALL PROVIDE COMPLETE SYSTEM INCLUDING ALL JUNCTION BOXES, WIRING, CONDUITS AND DEVICES. HEAD END EQUIPMENT TO RESIDE IN IT ROOM #125.
- REFER TO FLOOR PLANS FOR QUANTITY AND LOCATION OF DEVICES.
- COORDINATE ALL REQUIREMENTS WITH P.A. SYSTEM SUPPLIER PRIOR TO ROUGH-IN.



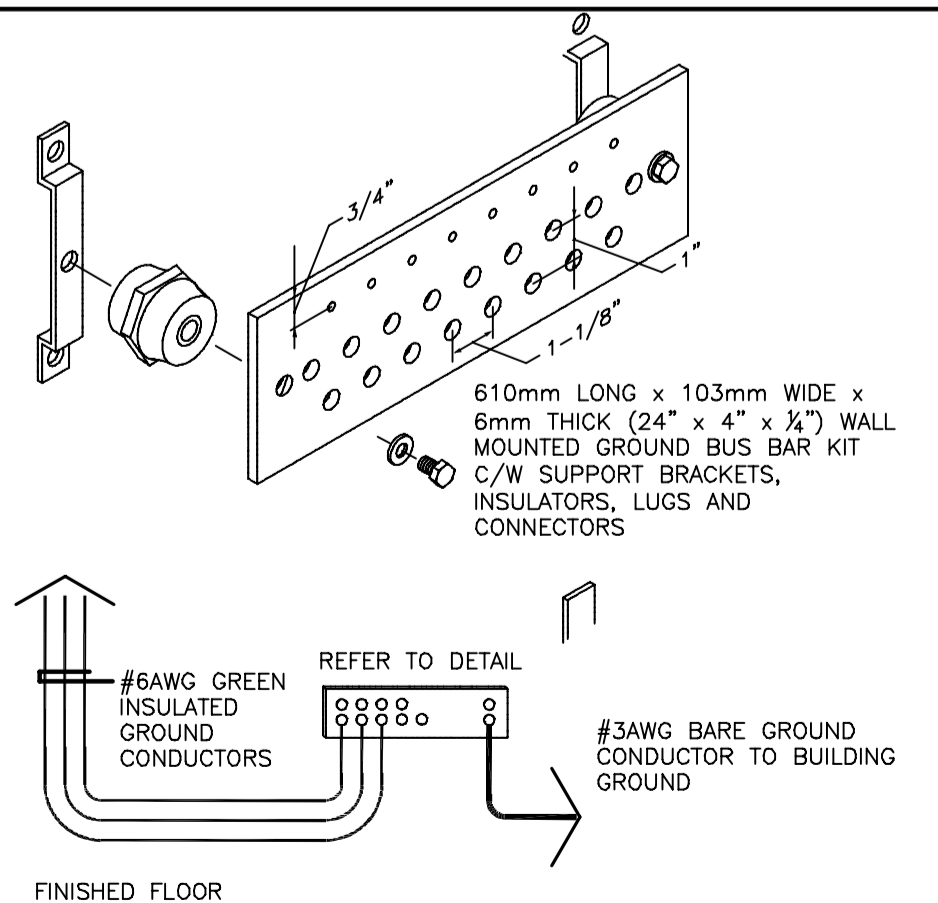
2 CONCEPTUAL TELECOMMUNICATION SCHEMATIC RISER DIAGRAM DETAIL  
E-604 N.T.S.

**DESIGNATIONS:**

- 48-PORT, UTP, CAT6A MODULAR PATCH PANELS COMPLETE WITH INDIVIDUAL RJ45 JACKS.
- BASKET TYPE CABLE TRAY SYSTEM MOUNTED ABOVE CEILING SPACE
- NETWORK SWITCH (BY OTHERS)
- 8" x 4" x 3/4" THICK WALL MOUNTED FIRE RATED PLYWOOD BACKBOARDS
- NOT IN USE
- HORIZONTAL CABLE MANAGER (TYPICAL FOR 2)
- 19" 4- POST FLOOR MOUNTED EQUIPMENT CABINET
- VERTICAL CABLE MANAGER (BOLTED AT EACH SIDE OF RACK)
- UTP CAT6 CROSS-CONNECT (RJ45) PATCH CABLES
- WALL MOUNTED GROUND BUS BAR COMPLETE WITH GROUNDING CONDUCTORS
- WALL MOUNTED WORKSTATION INFORMATION OUTLET (WIO)
- CABLE DROP-OUTS
- ALL THREADED ROD COMPLETE WITH UNISTRUT CHANNELS, WASHERS, NUTS AND ALL REQUIRED HARDWARE TO SUPPORT CABLE TRAY SYSTEM
- WALL MOUNTED BRACKET TO SECURE AND SUPPORT HORIZONTAL CABLE TRAY SYSTEMS
- FIRE RATE WALL/FLOOR SLOT OPENING WITH INTUMESCENT (PIILLOW) MATERIALS THAT AUTOMATICALLY EXPAND WHEN EXPOSED TO FIRE OR HIGH TEMPERATURES
- CABLE TRAY SIDE MOUNTED SINGLE AND DUPLEX RECEPTACLES.
- WALL MOUNTED DEMARCATION SERVICES BIX BLOCKS.
- BIX BLOCKS FOR ANALOG TELEPHONE SERVICE
- BIX BLOCKS FOR REGULAR TELEPHONE SERVICE
- CCTV SYSTEM TERMINATIONS



4 TYPICAL DIAGRAM FOR EMERGENCY POWER SHUT-OFF IN THE KITCHEN  
E-604 N.T.S.



**GENERAL NOTES:**

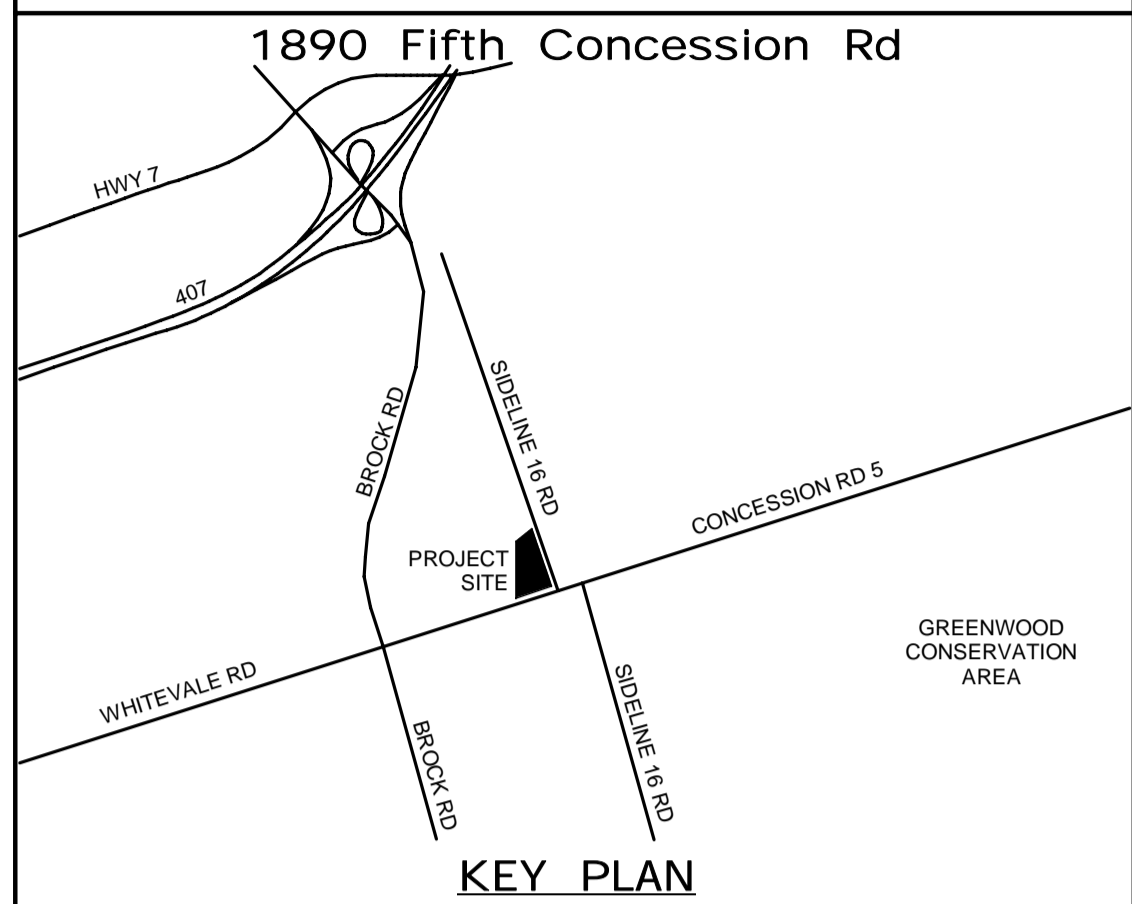
- GROUND AND BOND INCOMING COPPER TELEPHONE CABLES, RACKS, CONDUITS AND CABLE TRAY WITH #6AWG GREEN INSULATED CONDUCTORS.
- LOCATE BUS BAR NEAR ASSOCIATED EQUIPMENT.
- BUS BAR SHALL BE DIRECT BONDED TO THE NEAREST APPROVED BUILDING GROUND.
- BUS BAR SHALL BE FACTORY PRE-DRILLED WITH HOLES FOR USE WITH STANDARD SIZE LUGS AND BE AVAILABLE IN VARIABLE LENGTHS. BUS BAR SHALL BE COMPLETE WITH RAISED SUPPORTS AND BE ULC/CSA LISTED.

5 TYPICAL TELECOMMUNICATIONS GROUNDING BUS BAR  
E-604 N.T.S.

**DETAIL #1 NOTES:**

- EQUIPMENT CABINET, CABLE TRAY AND CONDUITS SHALL BE BONDED AND GROUNDED AS PER ELECTRICAL BUILDING CODE AND WITH MINIMUM #6AWG TO WALL MOUNTED GROUND BUS BAR.
- PROVIDE COPPER PATCH CORDS FOR COMPUTER (LAN) NETWORK.

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DESIGN BY: GR SCALE: N.T.S.  
DRAWN BY: HD DATE: 03/30/21  
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APPROVED BY: WA CLIENT FILE No.: 811/20

NO.	DATE.	NAME	REVISIONS

**DURHAM REGION**

THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

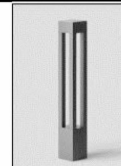





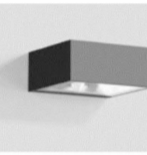
**NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL DETAILS**

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 604	SHEET NO.

LIGHTING CONTROLS MATRIX									
SPACE TYPE	ROOM NAMES	MANUAL SWITCH	DIMMING	OCCUPANCY SENSING	PLUG LOAD CONTROL	SCHEDULE TIMER	DAYLIGHT HARVESTING	NOTES	
ENTRIES & CORRIDORS	101 VESTIBULE, 102 CORRIDOR, 102a CORRIDOR, 122 VESTIBULE, 107 CORRIDOR		x	x		x		SCHEDULED DAY TIME FULL ON, SCHEDULED NIGHT TIME DIMMING TO 30%, AUTO FULL ON WITH OCCUPANCY SENSING OVERNIGHT.	
SERVICE ROOMS SPACES	124 MECH, 123 ELEC, 125 IT	x		x				PROVIDE LINE VOLTAGE CONTROLS. PROVIDE VACANCY SENSING TO AUTO OFF AFTER 30 MINUTES.	
SUPPORT SPACES	127 MED. STORAGE, 126 SECURED, 134 OXYGENLINEN, 132 WASH DOWN, 133 WASH AREA, 102b OXYGENLINEN, 115 STORAGE, 114 SIM LAB, 116 STORAGE, 120 JAN RM, STORAGE 118, STORAGE 110	x	x	x	x			AUTO ON AND OFF WITH OCCUPANCY SENSOR. SET AUTO OFF AFTER 15 MIN. PLUG LOAD CONTROL IS TO TIE IN TO ASSOCIATED EXHAUST FAN.	
KITCHEN	KITCHEN 121, KITCHEN 104, 102A CLOSET	x	x	x			x	NO MORE THAN 50% OF THE LIGHTING SHALL BE TURNED ON AUTOMATICALLY. AUTO OFF AFTER 15 MINUTES. LOCAL CONTROL FOR PENDANT AND RECESSED POT LIGHTS.	
BREAK ROOM	105 LOUNGE	x	x	x			x	AUTO OFF AFTER 15 MIN. LOCAL CONTROL FOR PENDANTS AND RECESSED POT LIGHTS	
LOCKER	129 LOCKER	x	x	x			x	SET AUTO ON AND OFF. SET AUTO OFF AFTER 30 MINS.	
WASHROOM	128 GENDER NEUTRAL, 117 GENDER NEUTRAL, 119 UNIV W/R, 130 DECON. SHOWER	x	x	x	x			AUTO DIM TO 50% AFTER 150 SECONDS AND FULL OFF AFTER 5 MIN. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTABLES WITHIN 30 MINUTES. PROVIDE VACANCY SENSING TO AUTO OFF AFTER 30 MINUTES IN WASHROOM STALLS. PLUG LOAD CONTROL IS TO TIE IN TO ASSOCIATED EXHAUST FAN.	
REPORT WRITING	103 REPORT WRITING	x	x	x	x		x	AUTO OFF AFTER 15 MIN. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTABLES WITHIN 30 MINUTES.	
BREAKOUT	109 BREAKOUT	x	x	x	x			AUTO OFF AFTER 15 MIN. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTABLES WITHIN 30 MINUTES.	
CLASSROOM	112 CLASSROOM, 113 CLASSROOM	x	x	x	x			AUTO OFF AFTER 15 MIN. LOCAL CONTROL FOR PENDANTS AND RECESSED POT LIGHTS. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTABLES WITHIN 30 MINUTES.	
OPEN OFFICE	108 OPEN OFFICE	x	x	x	x		x	AUTO OFF AFTER 15 MIN. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTABLES WITHIN 30 MINUTES.	
VEHICLE BAY	131 VEHICLE BAY	x		x			x	NO MORE THAN 50% OF THE LIGHTING SHALL BE TURNED ON AUTOMATICALLY. AUTO OFF AFTER 15 MINUTES.	
<b>NOTES:</b> 1. LIGHTING CONTROL DEVICES SHOWN ON NEW LIGHTING PLANS ARE DIAGRAMMATIC. COORDINATE EXACT QUANTITIES AND LOCATION OF DEVICES AND EQUIPMENT WITH THE LIGHTING CONTROL SUPPLIER. 2. PROVIDE ROOM CONTROLLERS WITH APPLICABLE FEATURES TO MEET LIGHTING CONTROLS MATRIX REQUIREMENTS AND SPECIFICATIONS SECTION 26 09 24 - LIGHTING CONTROL DEVICES. 3. PROVIDE ONE (1) LIGHTING ZONE PER ROOM UNLESS INDICATED OTHERWISE ON THE LIGHTING PLANS. 4. PROVIDE EACH OCCUPANCY SENSING ROOM CONTROL SYSTEM WITH AN INTERFACE DEVICE THAT INCLUDES A PAIR DRY CONTACTS FOR BAS INTEGRATION. ONE (1) PER LIGHTING ZONE. 5. PROVIDE LINE VOLTAGE CONTROLS IN THE SERVICE ROOMS. REST OF THE BUILDING INTERIOR SHALL BE DIGITAL LIGHTING CONTROLS.									

\_\_\_\_\_

# NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL SCHEDULES

SITE LIGHTING FIXTURE SCHEDULE									
TYPE	IMAGE	MANUFACTURER / MODEL	DESCRIPTION	INPUT WATTS	VOLT	LAMP	MOUNTING	CAT.#	NOTES
B1		BEGA	1363 LUMEN	23 W	120	LED	BOLLARD	BEGA 84_063_K3 BOLLARD	6000mm AFG (POLE+BASE)
P1		COOPER / GLEON OR APPROVED EQUAL	18848 LUMEN	225 W	120	LED	MOUNTED @ 6000mm (19'9")	GLEON-AF-04-LED-E1-SL4-7030-HSS	
P1-1		COOPER / GLEON OR APPROVED EQUAL	5475 LUMEN	59 W	120	LED	MOUNTED @ 6000mm (19'9")	GLEON SA1C-730-U-SL4-HSS	
P2		COOPER / GLEON OR APPROVED EQUAL	19839 LUMEN	225 W	120	LED	MOUNTED @ 6000mm (19'9")	GLEON-AF-04-LED-E1-SL3-7030-HSS	6000mm AFG (POLE+BASE)
P2-2		COOPER / GLEON OR APPROVED EQUAL	19839 LUMEN	225 W	120	LED	MOUNTED BACK-TO-BACK @ 6000mm (19'9")	2-GLEON-AF-04-LED-E1-SL3-7030-HSS	BACK-TO-BACK CONFIGURATION
L4		COOPER/ NEORAY	1167	11.6	120	LED	SUSPENDED @ 3000 mm (9'10")	S122DR-S290D840-F0-UDF-F-W	SUSPENDED FLUSH WITH CEILING
W3		BEGA WALL LUMINAIRE	2187 LUMEN	21 W	120	LED	WALL MOUNTED @ 3300mm (10'9")	BEGA 22_383_K3	

Panel ID: PP2HA

Location: CORRIDOR 102

Supply From: TX-2HA

Mounting: RECESSED

Enclosure: TYPE 1

Volts: 120/208 Wye

Phases: 3

Wires: 4

Lugs: MLO

A.I.C. Rating: 10kAIC

Mains Rating: 400 A

MCB Rating: N/A

Description	Wire	BRK .LC K.	Breaker	Poles	CC T	A	B	C	CC T	Poles	Breaker	BRK .LC K.	Wire	Description
WASH AREA RECEP			15 A	1	1	180 VA 380 VA			2	1	15 A			BAY AREA RECEP
WASHROOM RECEP			15 A	1	3		180 VA 360 VA		4	1	15 A			BAY AREA RECEP
OVERHEAD DOOR			15 A	3	5			200 VA 540 VA	6	1	15 A			BAY/STORAGE AREA RECEP
--	--		--	--	7	200 VA 360 VA			8	1	15 A			BAY AREA RECEP
--	--		--	--	9		200 VA 180 VA		10	1	15 A			WASHROOM RECEP
WASHROOM RECEP			15 A	1	11			600 VA 200 VA	12	1	15 A			WASHROOM RECEP
BAY STORAGE RECEP			15 A	1	13	400 VA 400 VA			14	1	15 A			FRIDGE
KITCHEN RECEP			15 A	1	15		600 VA 1200...		16	1	15 A			DISHWASHER
STOVE			15 A	1	17			200 VA 1100...	18	1	15 A			KITCHEN RECEP
MICROWAVE			15 A	1	19	1100... 600 VA			20	1	15 A			LOUNGE AREA RECEP
REPORT RM FURN. RECEP			15 A	1	21		200 VA 200 VA		22	1	15 A			REPORT RM FURN. RECEP
REPORT RM FURN. RECEP			15 A	1	23			200 VA 400 VA	24	1	15 A			REPORT RM RECEP
REPORT RM FURN. RECEP			15 A	1	25	200 VA 400 VA			26	1	15 A			LOUNGE AREA RECEP
REPORT RM FURN. RECEP			15 A	1	27		200 VA 300 VA		28	1	15 A			PDO EXT
REPORT RM FURN. RECEP			15 A	1	29			200 VA 300 VA	30	1	15 A			PDO VESTIBULE RM 101
REPORT RM FURN. RECEP			15 A	1	31	200 VA 200 VA			32	3	15 A			OVERHEAD DOOR
REPORT RM FURN. RECEP			15 A	1	33		200 VA 200 VA		34	--	--	--	--	--
OVERHEAD DOOR			15 A	3	35			200 VA 200 VA	36	--	--	--	--	--
--	--		--	--	37	200 VA 1440...			38	1	15 A			VEHICLE BAY POWER DROP
--	--		--	--	39		200 VA 1440...		40	1	15 A			VEHICLE BAY POWER DROP
VEHICLE BAY POWER DROP			15 A	1	41			1440... 1440...	42	1	15 A			VEHICLE BAY POWER DROP
VEHICLE BAY POWER DROP			15 A	1	43	1440... 1440...			44	1	15 A			VEHICLE BAY POWER DROP
OVERHEAD DOOR			15 A	3	45		200 VA 200 VA		46	3	15 A			OVERHEAD DOOR
--	--		--	--	47			200 VA 200 VA	48	--	--	--	--	--
--	--		--	--	49	200 VA 200 VA			50	--	--	--	--	--
OVERHEAD DOOR			15 A	3	51		200 VA 200 VA		52	1	15 A			MECH RM RECEP
--	--		--	--	53			200 VA 200 VA	54	1	15 A			MOH RECEP
--	--		--	--	55	200 VA 200 VA			56	1	15 A			IT RM RECEP
IT RM RECEP			15 A	1	57		200 VA 200 VA		58	1	15 A			IT RM RECEP
IT RM RECEP			15 A	1	59			200 VA 200 VA	60	1	15 A			IT RM RECEP
ELEC RM RECEP			15 A	1	61	400 VA 800 VA			62	1	15 A			BAS PANEL
SPARE			20 A	1	63		0 VA 0 VA		64	1	20 A			SPARE
SPARE			20 A	1	65			0 VA 800 VA	66	1	15 A			BAS PANEL
SPARE			15 A	1	67	0 VA 200 VA			68	1	15 A			RECEPT
SPARE			15 A	1	69		0 VA 600 VA		70	1	15 A			RECEPT
SPARE			15 A	1	71			0 VA 180 VA	72	1	15 A			COURTYARD RECEP
HYDRO METERING CAB			15 A	1	73	1000... 1400...			74	1	15 A			WIREWAY
WIREWAY			15 A	1	75		1400... 8000...		76	2	100 A		2#3AWG+GND	GENERATOR AUX POWER
ROOFTOP RECEPTACLE			20 A	1	77			180 VA 8000...	78	--	--	--	--	--
ROOFTOP RECEPTACLE			20 A	1	79	180 VA			80	--	--	--	--	--
					81				82	--	--	--	--	--
					83				84	--	--	--	--	--
Total Load:						13920 VA	16860 VA	17580 VA						
Total Amps:						116 A	144 A	150 A						
Total Connected Load:														48360 VA
Estimated Demand Load:														48360 VA
Total Connected Current														134 A

## Panel ID: PP2LA

Location: ELEC 123  
Supply From: TX-2L  
Mounting: SURFACE  
Enclosure: TYPE 1

Volts: 120/208 Vye  
Phases: 3  
Wires: 4  
Lugs: MCB

A.I.C. Rating: 10k  
Mains Rating: 100 A  
MCB Rating: 100A

Description	Wire	BRK LC K.	Breaker r	Poles	CC T	A		B		C		CC T	Poles	Breaker r	BRK LC K.	Wire	Description
LIGHTING RM 131			15 A	1	1	405 VA	82 VA					2	1	15 A			LIGHTING EXTERIOR EXT
LIGHTING RM 131			15 A	1	3			405 VA	164 VA			4	1	15 A			LIGHTING VESTIBULE 122
LIGHTING RM 132, 133			15 A	1	5					204 VA	287 VA	6	1	15 A			LIGHTING CORRIDOR 102
LIGHTING RM 102			15 A	1	7	97 VA	73 VA					8	1	15 A			LIGHTING CORRIDOR 102a
LIGHTING RM 124			15 A	1	9			307 VA	150 VA			10	1	15 A			LIGHTING RM 129
LIGHTING RM 123			15 A	1	11					153 VA	82 VA	12	1	15 A			LIGHTING VESTIBULE 101
LIGHTING RM 127, 126, 125			15 A	1	13	320 VA	82 VA					14	1	15 A			LIGHTING EXTERIOR EXT
LIGHTING EM 102B, 134			15 A	1	15			158 VA	12 VA			16	1	15 A	ON		EMERG/EXIT RM - 133, 135
LIGHTING RM 128			15 A	1	17					374 VA	7 VA	18	1	15 A	ON		EMERG/EXIT VEHICLE BAY
LIGHTING RM 128, 130			15 A	1	19	305 VA	11 VA					20	1	15 A	ON		EMERG/EXIT RM - 123,124, 125
EMERG/EXIT RM - 102, 122		ON	15 A	1	21			17 VA	10 VA			22	1	15 A	ON		EMERG/EXIT RM - 127, 128
EMERG/EXIT RM - 101, 102a,...		ON	15 A	1	23					8 VA	16 VA	24	1	15 A	ON		EMERG/EXIT RM 123,124
SITE LIGHTING	2#6AWG+GND		15 A	1	25	960 VA	675 VA					26	1	15 A		2#10AWG+GND	SITE LIGHTING
SITE LIGHTING			15 A	1	27			275 VA	250 VA			28	1	15 A			EXTERIOR SIGNAGE
EXTERIOR SIGNAGE	2#10AWG+GND		15 A	1	29					250 VA	400 VA	30	1	15 A			EXTERIOR WALL MT LTG
SPARE			15 A	1	31	0 VA	400 VA					32	1	20 A			EXTERIOR SIGNAGE
SPARE			15 A	1	33			0 VA	1837...			34	3	100 A	4#3+GND IN...		PP2LB
SPARE			15 A	1	35					0 VA	2808...	36	--	--	--		--
SPARE			20 A	1	37	0 VA	2396...					38	--	--	--		--
SPARE			20 A	1	39			0 VA				40					
SPARE			20 A	1	41					0 VA		42					
<b>Total Load:</b>						5799 VA		3558 VA		4583 VA							
<b>Total Amps:</b>						50 A		30 A		40 A							

**Total Connected Load:**  
**Estimated Demand Load:**  
**Total Connected Current**

13937 VA  
13937 VA  
39 A

Panel ID: PP2EV

Location: ELEC 123

Supply From: TX-2EV

Mounting: SURFACE

Enclosure: TYPE1

Volts: 120/208 Wye

Phases: 3

Wires: 4

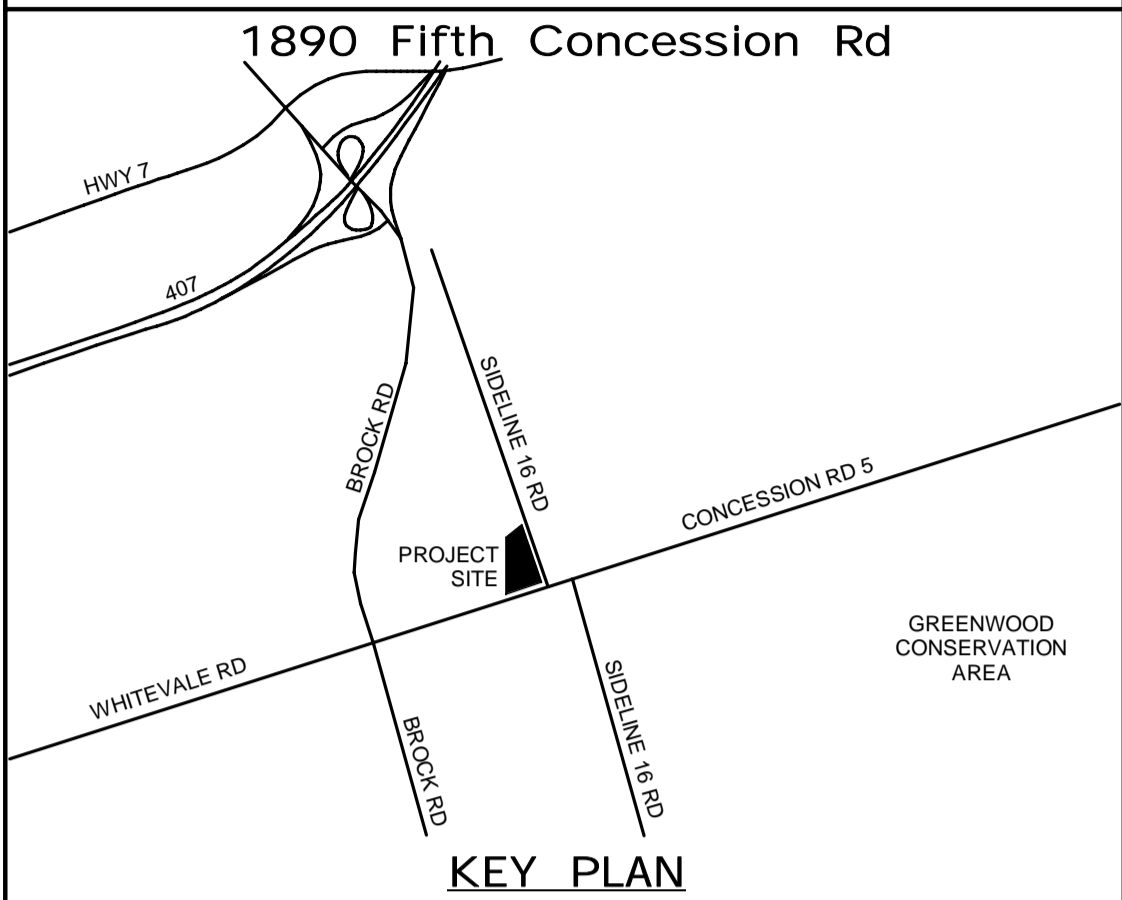
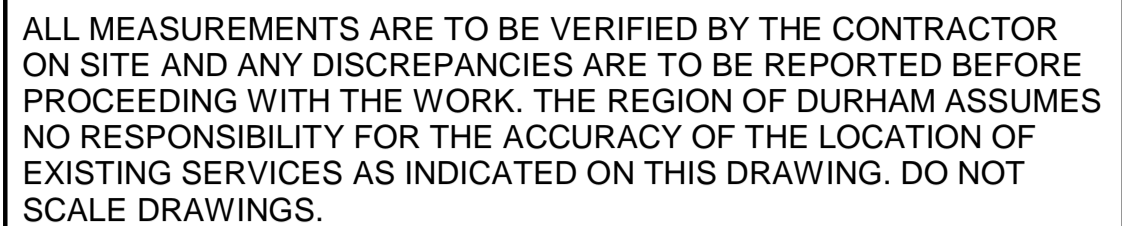
Lugs: MCB

A.I.C. Rating: 10kAIC

Mains Rating: 400 A

MCB Rating: 400A

Description	Wire	BRK LC K.	Breaker	Poles	CC T	A		B		C		CC T	Poles	Breaker	BRK LC K.	Wire	Description
EV CHARGER	2#8 AWG IN...		40 A	2	1	3500...	3500...					2	2	40 A		2#8 AWG IN...	EV CHARGER
--	--		--	--	3			3500...	3500...			4	--	--		--	--
SPARE	--		40 A	2	5					0 VA	0 VA	6	2	40 A		--	SPARE
--	--		--	--	7	0 VA	0 VA					8	--	--		--	--
SPARE	--		40 A	2	9			0 VA	0 VA			10	2	40 A		--	SPARE
--	--		--	--	11					0 VA	0 VA	12	--	--		--	--
SPARE	--		40 A	2	13	0 VA	0 VA					14	2	40 A		--	SPARE
--	--		--	--	15			0 VA	0 VA			16	--	--		--	--
SPARE	--		40 A	2	17					0 VA	0 VA	18	2	40 A		--	SPARE
--	--		--	--	19	0 VA	0 VA					20	--	--		--	--
					21							22					
					23							24					
					25							26					
					27							28					
					29							30					
					31							32					
					33							34					
					35							36					
					37							38					
					39							40					
					41							42					
Total Load:						7000 VA		7000 VA		0 VA							
Total Amps:						67 A		67 A		0 A							
Total Connected Load: 14000 VA																	
Estimated Demand Load: 14000 VA																	
Total Connected Current: 39 A																	




CONSULTANT REVISIONS				
NO.	DATE.	NAME	REVISIONS	

<p>PRIME CONSULTANT</p> <div data-bbox="2430 919 2641 966"> </div> <p>AECOM Canada Ltd.  50 Sportsworld Crossing Road, Suite 290  Kitchener, Ontario, N2P 0A4  519 650 5313 tel      519 650 3424 fax  <a href="http://www.aecom.com">www.aecom.com</a></p>	<div data-bbox="2772 905 2911 1039"> </div>
<p>SUB CONSULTANT</p>	

DESIGN BY: GR	SCALE:
DRAWN BY: HD	DATE: 04/12/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

CONTRACT REVISIONS			
	1	09/22/21	ISSUED FOR TENDER
	NO	DATE	NAME
		REVISIONS	



THE REGIONAL MUNICIPALITY  
OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

## NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL SCHEDULES

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 702	SHEET NO.

Panel ID: PP2LB

Location: CLOSET 107A  
Supply From: PP2LA  
Mounting: SURFACE  
Enclosure: TYPE 1

Volts: 120/208 Wye  
Phases: 3  
Wires: 4  
Lugs: MLO

A.I.C. Rating: 10kAIC  
Mains Rating: 100 A  
MCB Rating: N/A

Description	Wire	BRK .LC K.	Breake r	Poles	CC T	A	B	C	CC T	Poles	Breake r	BRK .LC K.	Wire	Description
LIGHTING RM 103			15 A	1	1	145 VA 210 VA			2	1	15 A			LIGHTING RM 117
LIGHTING RM 104, 105			15 A	1	3		352 VA 60 VA		4	1	15 A			LIGHTING RM 122
LIGHTING RM 108			15 A	1	5			312 VA 574 VA	6	1	15 A			LIGHTING RM 113
LIGHTING RM 109, 110, 111			15 A	1	7	190 VA 40 VA			8	1	15 A			LIGHTING CLOSET 107A
LIGHTING RM 112			15 A	1	9		396 VA 574 VA		10	1	15 A			LIGHTING RM, 112
LIGHTING RM 113			15 A	1	11			406 VA	12					
LIGHTING RM 107			15 A	1	13	266 VA 20 VA			14	1	15 A			LIGHTING CLOSET 102A
LIGHTING RM 115, 114			15 A	1	15		290 VA 246 VA		16	1	15 A			LIGHTING RM 104
LIGHTING RM 116, 107, 121,...			15 A	1	17			315 VA 328 VA	18	1	15 A			LIGHTING RM 105
LIGHTING RM 117, 120			15 A	1	19	287 VA 12 VA			20	1	15 A	ON		EMERG/EXIT RM - 114, 113
EMERG/EXIT RM - 117, 119,....		ON	15 A	1	21		9 VA 15 VA		22	1	15 A	ON		EMERG/EXIT CORRIDOR 107
EMERG/EXIT RM - 112		ON	15 A	1	23			7 VA 10 VA	24	1	15 A	ON		EMERG/EXIT OPEN OFFICE....
EMERG/EXIT RM - 103, 104		ON	15 A	1	25	9 VA 508 VA			26	1	15 A			PH 2 - LIGHTING RM 203
PH 2 - LIGHTING RM 205, 206			15 A	1	27		145 VA 244 VA		28	1	15 A			PH 2 - LIGHTING RM, 201, 207
PH 2 - LIGHTING RM 204			15 A	1	29			284 VA 162 VA	30	1	15 A			PH 2 - LIGHTING
PH 2 - LIGHTING RM 204			15 A	1	31	164 VA 6 VA			32	1	15 A	ON		PH 2 - EMERG/EXIT RM 202,....
PH 2 - EMERG/EXIT 201		ON	15 A	1	33		4 VA 484 VA		34	1	15 A			PH 2 - LIGHTING RM 202
SPARE			20 A	1	35			0 VA 2 VA	36	1	15 A	ON		PH 2 - EMERG RM 204
SPARE			20 A	1	37	0 VA 0 VA			38	1	20 A			SPARE
SPARE			15 A	1	39		0 VA 0 VA		40	1	15 A			SPARE
SPARE			15 A	1	41			0 VA	42					
Total Load:						1837 VA	2809 VA	2396 VA						
Total Amps:						15 A	24 A	21 A						
Total Connected Load:														7041 VA
Estimated Demand Load:														7041 VA
Total Connected Current														20 A

Panel ID: PP2MA

Location: ELEC 123  
Supply From: TX-2MA  
Mounting: SURFACE  
Enclosure: TYPE 1

Volts: 120/208 Wye  
Phases: 3  
Wires: 4  
Lugs: MLO

A.I.C. Rating: 10kAIC  
Mains Rating: 400 A  
MCB Rating: N/A

Description	Wire	BRK .LC K.	Breake r	Poles	CC T	A	B	C	CC T	Poles	Breake r	BRK .LC K.	Wire	Description
DF-1			15 A	3	1	693 VA 693 VA			2	3	15 A			DF-2
--	--		--	--	3		693 VA 693 VA		4	--	--		--	--
--	--		--	--	5			693 VA 693 VA	6	--	--		--	--
ERV-1 ENERGY RECOVERY...			15 A	3	7	287 VA 0 VA			8	1	15 A			ERV-1 Lighting
--	--		--	--	9		287 VA 2000...		10	2	30 A		2#10 IN 27mmC	CU-1
--	--		--	--	11			287 VA 2000...	12	--	--		--	--
DOAS-1 LIGHTING			15 A	1	13	100 VA 0 VA			14	3	15 A			DOAS-1 ENERGY RECOVERY...
UH-1			15 A	1	15		200 VA 0 VA		16	--	--		--	--
EF-1			15 A	1	17			300 VA 0 VA	18	--	--		--	--
TSP			15 A	1	19	100 VA 250 VA			20	1	15 A			FC-6
EF-8			15 A	1	21		55 VA 100 VA		22	1	15 A			TSP
FC-5			15 A	1	23			980 VA 600 VA	24	1	15 A			CT - 3 AND 2
CT - 3 AND 4			15 A	1	25	600 VA 300 VA			26	1	15 A			G-1
WS-1 AND WS-2			15 A	1	27		600 VA 0 VA		28	1	20 A			EF-2
					29			220 VA	30	1	15 A			FF-2
					31				32					
					33		0 VA		34	1	15 A			SPARE
					35			80 VA	36	1	15 A			EF-4
EF-5			15 A	1	37	55 VA			38					
					39				40					
IT Servers			20 A	2	41			0 VA 6000...	42	3	60 A		3#4 IN 35mmC	EWB-2
--	--		--	--	43	0 VA 6000...			44	--	--		--	--
VAV		X	15 A	1	45		200 VA 6000...		46	--	--		--	--
					47			6000...	48	3	60 A		3#4 IN 35mmC	EWB-1
					49		6000...		50	--	--		--	--
					51			6000...	52	--	--		--	--
					53			200 VA	54	1	15 A			HVAC
					55				56					
					57		100 VA		58	1	15 A			DOMESTIC HOT WATER PUMP
					59				60					
					61				62					
VAV		X	15 A	1	63		200 VA		64					
					65				66					
					67				68					
P-9			15 A	1	69		300 VA 1333...		70	3	15 A			DOAS-1 SUPPLY FAN
DOAS-1 EXHAUST FAN			15 A	3	71			667 VA 1333...	72	--	--		--	--
--	--		--	--	73	667 VA 1333...			74	--	--		--	--
--	--		--	--	75		667 VA 0 VA		76	1	20 A			SPARE
SPARE			20 A	1	77			0 VA 0 VA	78	1	20 A			SPARE
SPARE			15 A	1	79	0 VA			80					
SPARE			15 A	1	81		0 VA		82					
SPARE			15 A	1	83			0 VA	84					
Total Load:						17078 VA	19428 VA	20053 VA						
Total Amps:						142 A	165 A	170 A						
Total Connected Load:														56560 VA
Estimated Demand Load:														55692 VA
Total Connected Current														157 A

Panel ID: PP2HB

Location: CLOSET 107A  
Supply From: TX2-HB  
Mounting: SURFACE  
Enclosure: TYPE 1

Volts: 120/208 Wye  
Phases: 3  
Wires: 4  
Lugs: MLO

A.I.C. Rating: 10kAIC  
Mains Rating: 225 A  
MCB Rating: N/A

Description	Wire	BRK LC K.	Breake r	Poles	CC T	A	B	C	CC T	Poles	Breake r	BRK LC K.	Wire	Description
KITCHEN RECEP			15 A	1	1	200 VA 180 VA			2	1	15 A			KITCHEN RECEP
STOVE			15 A	1	3		1400... 200 VA		4	1	15 A			KITCHEN RECEP
MICROWAVE			15 A	1	5			1100... 1100...	6	1	15 A			MICROWAVE
MICROWAVE			15 A	1	7	1100... 1100...			8	1	15 A			MICROWAVE
KITCHEN RECEP			15 A	1	9		200 VA 400 VA		10	1	15 A			KITCHEN RECEP
KITCHEN RECEP			15 A	1	11			400 VA 180 VA	12	1	15 A			WASHROOM RECEP
WASHROOM RECEP			15 A	1	13	180 VA 180 VA			14	1	15 A			WASHROOM RECEP
WASHROOM RECEP			15 A	1	15		200 VA 800 VA		16	1	15 A			CORRIDOR RECEP
STORAGE RECEP			15 A	1	17			800 VA 200 VA	18	1	15 A			CLASSROOM FLOOR RECEP
PRINTER			15 A	1	19	200 VA 200 VA			20	1	15 A			CLASSROOM FLOOR RECEP
PRINTER			15 A	1	21		200 VA 200 VA		22	1	15 A			CLASSROOM FLOOR RECEP
OPEN OFFICE RECEP			15 A	1	23			400 VA 800 VA	24	1	15 A			CLASSROOM TV RECEP
OPEN OFFICE DESK RECEP			15 A	1	25	200 VA 900 VA			26	1	20 A			BREAKOUT RECEP
CLASSROOM RECEP			15 A	1	27		360 VA 800 VA		28	1	15 A			CLASSROOM TV RECEP
OPEN OFFICE RECEP			15 A	1	29			200 VA 200 VA	30	1	15 A			OPEN OFFICE FURN.
CLASSROOM FLOOR RECEP			15 A	1	31	200 VA 200 VA			32	1	15 A			OPEN OFFICE FURN.
CLASSROOM FLOOR RECEP			15 A	1	33		200 VA 200 VA		34	1	15 A			OPEN OFFICE FURN.
CLASSROOM FLOOR RECEP			15 A	1	35			200 VA 200 VA	36	1	15 A			OPEN OFFICE FURN.
PDO UNI. W/R			15 A	1	37	300 VA 1200...			38	1	15 A			DISHWASHER
SPARE			20 A	1	39		0 VA 0 VA		40	1	20 A			SPARE
EMERG OP. CENT. RECEP			15 A	1	41			200 VA 200 VA	42	1	15 A			EMERG OP. CENT. FURN.
EMERG OP. CENT. FURN.			15 A	1	43	200 VA 200 VA			44	1	15 A			EMERG OP. CENT. FURN.
EMERG OP. CENT. TV RECEP			15 A	1	45		400 VA 400 VA		46	1	15 A			EMERG OP. CENT. TV RECEP
EMERG OP. CENT. FURN.			15 A	1	47			300 VA 200 VA	48	1	15 A			EMERG OP. CENT. FURN.
EMERG OP. CENT. FURN.			15 A	1	49	200 VA 200 VA			50	1	15 A			EMERG OP. CENT. FURN.
EMERG OP. CENT. TV RECEP			15 A	1	51		400 VA 600 VA		52	1	15 A			EMERG OP. CENT. TV RECEP
BREAKOUT FURN.			15 A	1	53			100 VA 800 VA	54	1	15 A			BREAKOUT RECEP
OFFICE RECEP			15 A	1	55	800 VA 400 VA			56	1	15 A			OPEN OFFICE RECEP
OPEN OFFICE FURN.			15 A	1	57		200 VA 200 VA		58	1	15 A			OPEN OFFICE FURN.
OPEN OFFICE FURN.			15 A	1	59			200 VA 200 VA	60	1	15 A			OPEN OFFICE FURN.
OPEN OFFICE FURN.			15 A	1	61	200 VA 200 VA			62	1	15 A			OPEN OFFICE FURN.
OPEN OFFICE FURN.			15 A	1	63		200 VA 200 VA		64	1	15 A			OPEN OFFICE FURN.
OPEN OFFICE FURN.			15 A	1	65			200 VA 0 VA	66	1	20 A			SPARE
OPEN OFFICE FURN.			15 A	1	67	200 VA 0 VA			68	1	15 A			SPARE
OPEN OFFICE FURN.			15 A	1	69		200 VA 0 VA		70	1	15 A			SPARE
OPEN OFFICE FURN.			15 A	1	71			200 VA 0 VA	72	1	15 A			SPARE
FACP		ON	15 A	1	73	1200... 200 VA			74	1	15 A			RECEPT
						75								
						76								
						77								
						78								
						79								
						80								
						81								
						82								
						83								
						84								

# Panel ID: PP2MB

Location: CLOSET 107A  
Supply From: TX-2MB  
Mounting: SURFACE  
Enclosure: TYPE 1

Volts: 120/208 Wye  
Phases: 3  
Wires: 4  
Lugs: MLO

A.I.C. Rating: 10kAIC  
Mains Rating: 400 A  
MCB Rating: N/A

Description	Wire	BRK LC K.	Breaker	Poles	CC T	A	B	C	CC T	Poles	Breaker	BRK LC K.	Wire	Description	
FC-10			15 A	1	1	670 VA 220 VA			2	1	15 A			FF-4	
EF-7			15 A	1	3		55 VA 220 VA		4	1	15 A			FF-3	
EF-6			15 A	1	5			55 VA 220 VA	6	1	15 A			FF-5	
FC-12			15 A	1	7	980 VA 670 VA			8	1	15 A			FC-11	
VAV		X	15 A	1	9		200 VA 200 VA		10	1	15 A	X		VAV	
FC-7			15 A	1	11			980 VA 200 VA	12	1	15 A	X		VAV	
EF-3			15 A	1	13	0 VA 200 VA			14	1	15 A			HVAC	
VAV		X	15 A	1	15		200 VA 200 VA		16	1	15 A			HVAC	
FC-9			15 A	1	17			330 VA 980 VA	18	1	15 A			FC-8	
FC-1			15 A	1	19	300 VA 980 VA			20	1	15 A			FC-4	
FC-13			15 A	1	21		700 VA 870 VA		22	1	15 A			FC-2 & FC-3	
FF-1			15 A	1	23			220 VA 100 VA	24	1	15 A			TSP	
KH-1			15 A	1	25	300 VA 300 VA			26	1	15 A			KH-2	
FC-19			15 A	1	27		300 VA 1200...		28	1	15 A			FS/D	
SPARE			20 A	1	29			0 VA 220 VA	30	1	15 A			FF-6	
SPARE			20 A	1	31	0 VA 1100...			32	1	15 A			FC-17	
SPARE			20 A	1	33		0 VA 200 VA		34	1	15 A	X		VAV	
SPARE			15 A	1	35			0 VA 200 VA	36	1	15 A	X		VAV	
SPARE			15 A	1	37	0 VA 980 VA			38	1	15 A			FC-16	
SPARE			15 A	1	39		0 VA 980 VA		40	1	15 A			FC-15	
VAV		X	15 A	1	41			200 VA 200 VA	42	1	15 A	X		VAV	
FC-18			15 A	1	43	980 VA 980 VA			44	1	15 A			FC-14	
SM-1	3#1 IN 41mmC		110 A	3	45		1100... 9000...		46	3	100 A		3#2 IN 41mmC	SM-2	
--	--		--	--	47			1100... 9000...	48	--	--	--	--	--	
--	--		--	--	49	1100... 9000...			50	--	--	--	--	--	
FC-20			15 A	1	51		960 VA		52						
					53				54						
					55				56						
					57				58						
					59				60						
					61				62						
					63				64						
					65				66						
					67				68						
					69				70						
					71				72						
Total Load:						28660 VA	26285 VA	23905 VA	Total Connected Load:						78850 VA
Total Amps:						242 A	222 A	199 A	Estimated Demand Load:						75080 VA

1890 Fifth Concession Rd

HWY 7

407

BROCK RD

SIDELINE 16 RD

CONCESSION RD 5

WHITEVALE RD

PROJECT SITE

GREENWOOD CONSERVATION AREA

KEY PLAN

CONSULTANT REVISIONS				
NO.	DATE.	NAME	REVISIONS	

PRIME CONSULTANT

**AECOM**

AECOM Canada Ltd.  
50 Sportsworld Crossing Road, Suite 290  
Kitchener, Ontario, N2P 0A4  
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SUB CONSULTANT

DESIGN BY: GR

DRAWN BY: HD

CHECKED BY: WA

APPROVED BY: WA

**SCALE:**

DATE: 06/09/21

CONSULTANT PROJECT NO. 60611569

CLIENT FILE No.: 811/20

CONTRACT REVISIONS			
	1	09/22/21	ISSUED FOR TENDER
	NO	DATE	NAME REVISIONS



THE REGIONAL MUNICIPALITY  
OF DURHAM

WORKS DEPARTMENT  
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

# NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL PHASE 1 & 2 SCHEDULES

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 704	SHEET NO.

3M 360//BP-AMER (CAN) 60611569-Seaton RDPS/60611569-Seaton RDPS-A.rvt