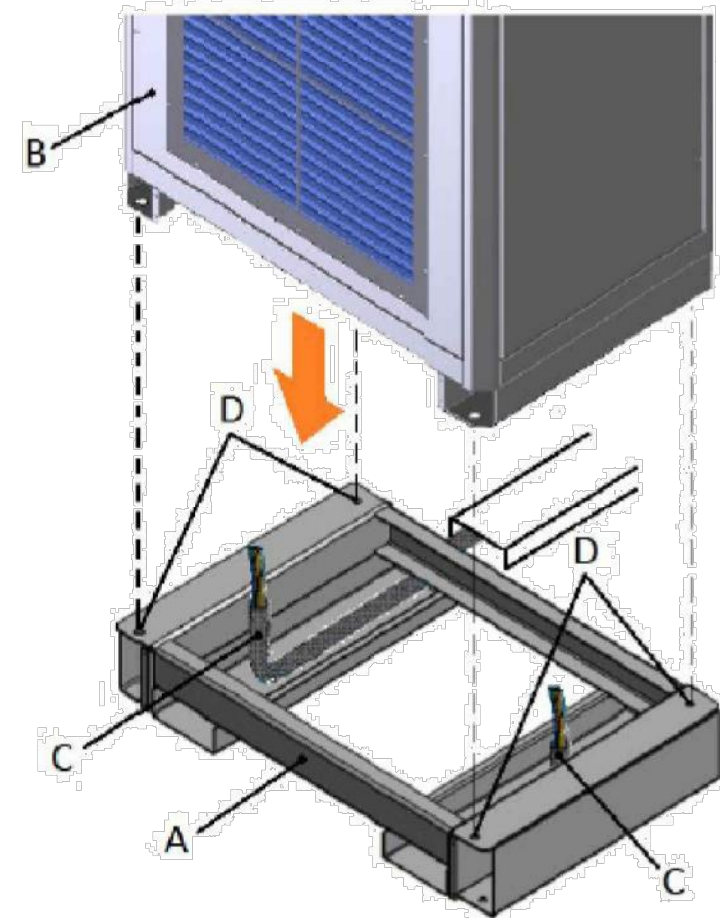


# ELECTRICAL SERVICE LOAD SUMMARY

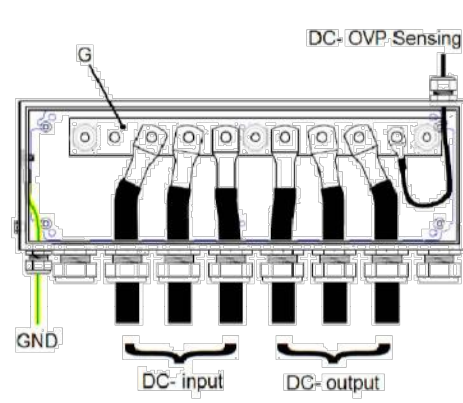
LOAD	KW CONNECTED	DEMAND FACTOR	KW DEMAND	NOTES
INTERIOR LIGHTING	1.4	100%	1.4	
EXTERIOR LIGHTING	0.0	100%	0.0	
CONVENIENCE RECEPTACLES	3.3	NEC	3.3	
MISC. BUILDING EQUIPMENT	6.4	50%	3.2	
MISC. MECHANICAL EQUIPMENT	2.1	100%	2.1	
AIR CONDITIONING EQUIPMENT	55	100%	55	
(3) THREE BUS CHARGERS	1350	100%	1350	
<b>TOTALS</b>	<b>1421</b>	<b>-</b>	<b>1423.0</b>	<b>-</b>
SERVICE VOLTAGE: 480Y/277-3PH-4W		DEMAND AMPERES: 1712.5		



PART A - FOUNDATION  
PART B - POWER CABINET  
PART C - CABLES  
PART D - TAPPED HOLES

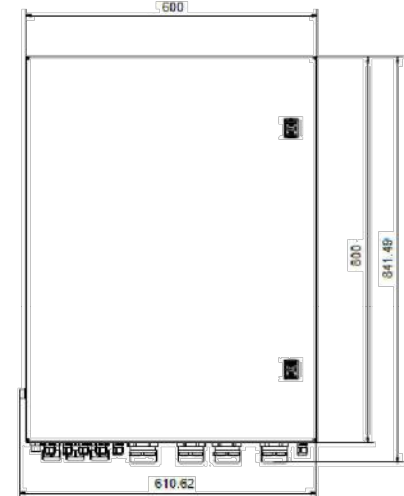
## METAL FRAME FOUNDATION

INSTALLATION SHALL COMPLY WITH ABB INSTALLATION SPEC SECTION 5.5



JUNCTION BOX  
INSTALLATION SHALL COMPLY WITH ABB INSTALLATION SPEC SECTION 5.16.4

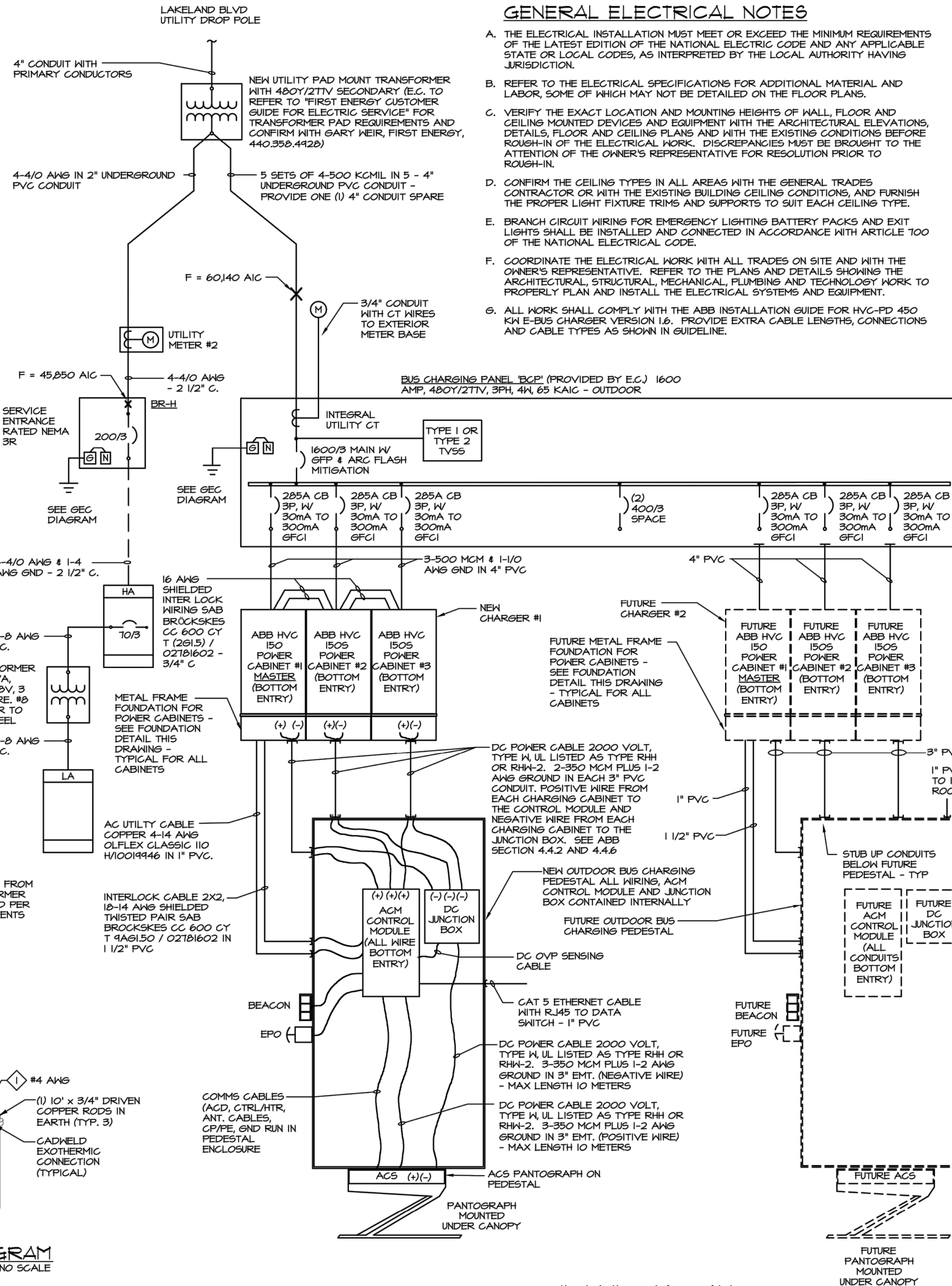
## ACM CONTROL MODULE



(DIMS IN MM)

# GENERAL ELECTRICAL NOTES

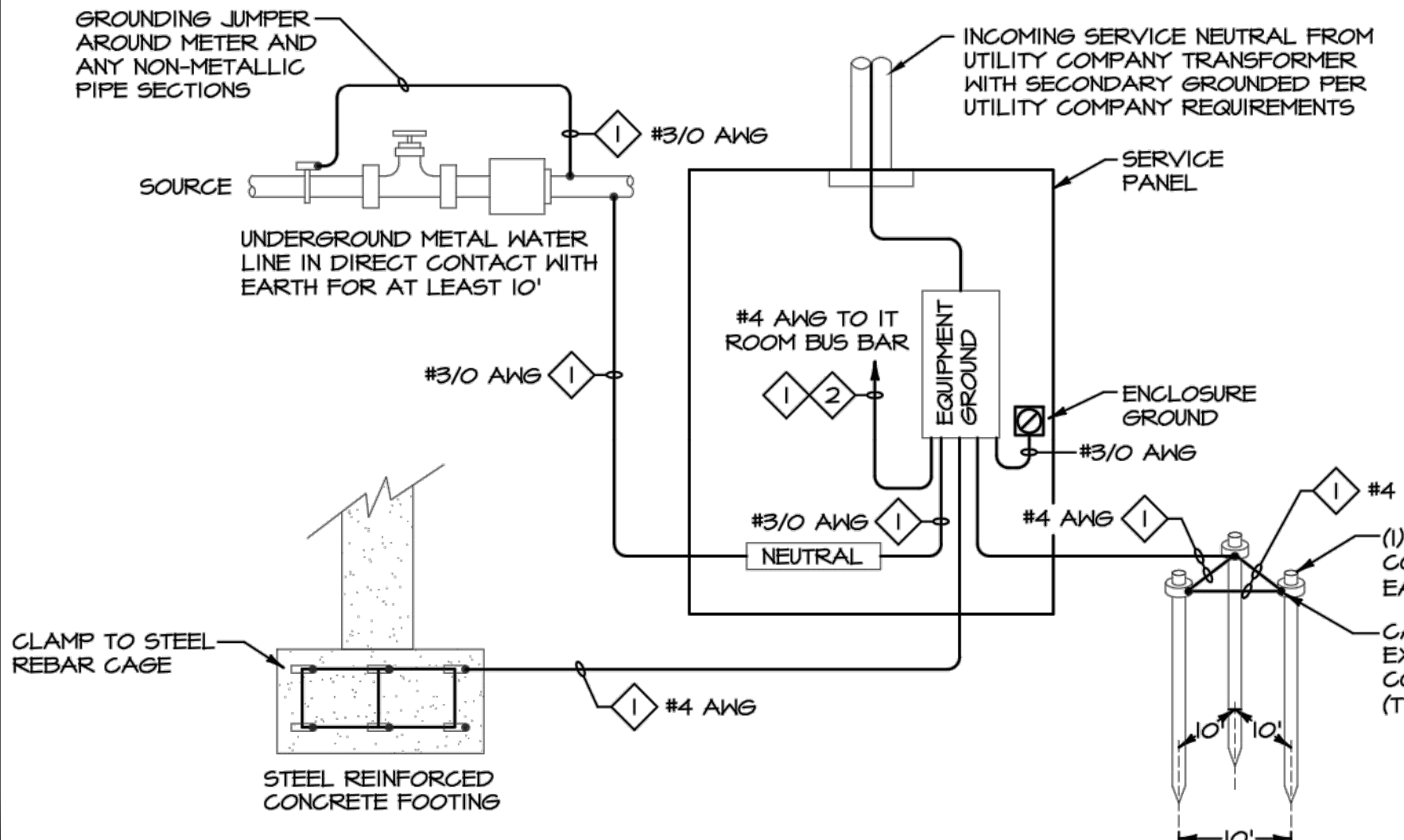
- THE ELECTRICAL INSTALLATION MUST MEET OR EXCEED THE MINIMUM REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE AND ANY APPLICABLE STATE OR LOCAL CODES, AS INTERPRETED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- REFER TO THE ELECTRICAL SPECIFICATIONS FOR ADDITIONAL MATERIAL AND LABOR, SOME OF WHICH MAY NOT BE DETAILED ON THE FLOOR PLANS.
- VERIFY THE EXACT LOCATION AND MOUNTING HEIGHTS OF WALL, FLOOR AND CEILING MOUNTED DEVICES AND EQUIPMENT WITH THE ARCHITECTURAL ELEVATIONS, DETAILS, FLOOR AND CEILING PLANS AND WITH THE EXISTING CONDITIONS BEFORE ROUGH-IN OF THE ELECTRICAL WORK. DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO ROUGH-IN.
- CONFIRM THE CEILING TYPES IN ALL AREAS WITH THE GENERAL TRADES CONTRACTOR OR WITH THE EXISTING BUILDING CEILING CONDITIONS, AND FURNISH THE PROPER LIGHT FIXTURE TRIMS AND SUPPORTS TO SUIT EACH CEILING TYPE.
- BRANCH CIRCUIT WIRING FOR EMERGENCY LIGHTING BATTERY PACKS AND EXIT LIGHTS SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH ARTICLE 700 OF THE NATIONAL ELECTRICAL CODE.
- COORDINATE THE ELECTRICAL WORK WITH ALL TRADES ON SITE AND WITH THE OWNER'S REPRESENTATIVE. REFER TO THE PLANS AND DETAILS SHOWING THE ARCHITECTURAL, MECHANICAL, PLUMBING AND TECHNOLOGY WORK TO PROPERLY PLAN AND INSTALL THE ELECTRICAL SYSTEMS AND EQUIPMENT.
- ALL WORK SHALL COMPLY WITH THE ABB INSTALLATION GUIDE FOR HVC-PD 450 KW E-BUS CHARGER VERSION 1.6. PROVIDE EXTRA CABLE LENGTHS, CONNECTIONS AND CABLE TYPES AS SHOWN IN GUIDELINE.



ONE LINE DIAGRAM  
NO SCALE

# ELECTRICAL SYMBOLS

- BRANCH CIRCUIT HOMERUN TO PANEL "A", CIRCUIT #3 AND #5. PROVIDE THE PROPER QUANTITY OF 12 AWG CONDUCTORS FOR THE CIRCUIT(S) INDICATED. A SEPARATE GROUNDING CONDUCTOR IS REQUIRED FOR ALL BRANCH CIRCUITS.
- SINGLE POLE SWITCH - MOUNTING AT 48" A.F.F.
- LOW VOLTAGE BUILDING OVERRIDE SWITCH - SEE PLANS FOR ADDITIONAL DETAILS
- PHOTOCELL - MOUNTING AS NOTED ON PLAN
- OCCUPANCY SENSOR SWITCH WITH OVERRIDE SWITCH - WALL MOUNTED AT 48" A.F.F. OR AS NOTED
- LIGHT FIXTURE TYPE 'A'
- LIGHT FIXTURE TYPE 'B'
- LIGHT FIXTURE, WALL MOUNTED TYPE 'C'
- LIGHT FIXTURE ON EMERGENCY BRANCH CIRCUIT
- EXIT SIGN - WALL MOUNTED ABOVE DOOR OR AT 7'-6" A.F.F. UNLESS OTHERWISE NOTED
- DUPLEX RECEPTACLE - MOUNTING AT 18" A.F.F.
- TWO DUPLEX RECEPTACLES MOUNTED IN A 2-GANG BOX AT 18" A.F.F. UNLESS OTHERWISE NOTED
- DUPLEX RECEPTACLE - INDICATES MOUNTING AT 36" A.F.F.
- DUPLEX RECEPTACLE - GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE
- DUPLEX RECEPTACLE - MOUNTED AT 84" A.F.F. FOR TELEVISION - U.O.N.
- GFCI TYPE DUPLEX RECEPTACLE IN WEATHERPROOF ENCLOSURE
- USB RECEPTACLE WITH (4) FOUR USB OUTLETS ONLY - TO BE HUBBELL #USB4 OR EQUAL BY LEVITON
- JUNCTION BOX - MOUNTING HEIGHT AND SIZE AS REQUIRED
- PANELBOARD - 0 TO 150 VOLTS TO GROUND
- PANELBOARD - 151 TO 600 VOLTS TO GROUND
- DISTRIBUTION PANEL - 151 TO 600 VOLTS TO GROUND
- TRANSFORMER
- UNFUSED DISCONNECT SWITCH - "60/3" INDICATES 60 AMPERE SWITCH RATING AND POLES
- FUSED DISCONNECT SWITCH - "60/3" INDICATES 60 AMPERE SWITCH RATING AND POLES / "50" INDICATES 50 AMPERE FUSE
- DATA OUTLET - MOUNTING AT 18" A.F.F. PROVIDE (1) CAT6 CABLE IN 3/4" CONDUIT BACK TO SERVER ROOM.
- FIRE ALARM DUCT SMOKE DETECTOR
- SPRINKLER SYSTEM TAMPER SWITCH/FLOW SWITCH
- FIRE ALARM HORN WITH VISUAL STROBE LIGHT AND WEATHERPROOF HOUSING - MOUNTED AT 80" A.F.F.
- FIRE ALARM SMOKE DETECTOR, CEILING MOUNTED
- FIRE ALARM CONTROL PANEL
- MUSHROOM HEAD PUSHBUTTON OPERATOR - MOUNTING AT 48" A.F.F.
- ACCESS CONTROL SYSTEM FOB READER - SEE TYPICAL SECURE DOOR DETAIL FOR SECURE DOOR REQUIREMENTS
- DIGITAL FIXED HD COLOR CAMERA. TYPE OF CAMERA TO BE COMPATIBLE WITH LAKETRAN SECURITY SYSTEM.
- DIGITAL 360 DEGREE HD COLOR CAMERA. TYPE OF CAMERA TO BE COMPATIBLE WITH LAKETRAN SECURITY SYSTEM.
- WIRELESS ACCESS POINT PROVIDED BY LAKETRAN - PROVIDE (2) TWO CAT6 CABLES WITH 15' SERVICE LOOPS FROM SERVER ROOM TO LOCATION INDICATED.
- PLAN NOTE TAG, REFER TO PLANS FOR DESCRIPTION
- INDICATES POWER CONNECTION TO AIR HANDLER #3-REFER TO EQUIPMENT CONNECTION SCHEDULES FOR REQUIREMENTS
- ABOVE FINISHED FLOOR
- WEATHERPROOF
- UNLESS OTHERWISE NOTED
- ONE-LINE DIAGRAM REPRESENTATION OF A MOLDED CASE CIRCUIT BREAKER - "60/3" INDICATES 60 AMPERE CIRCUIT BREAKER RATING AND POLES
- ONE-LINE DIAGRAM REPRESENTATION OF A TRANSFORMER, SIZE AS NOTED
- ONE-LINE DIAGRAM REPRESENTATION OF A METER



## SERVICE GROUNDING ELECTRODE (GEC) DIAGRAM

NO SCALE

- 1 THE GROUNDING ELECTRODE CONDUCTORS SHALL BE SIZED PER TABLE 250-66 OF THE NEC. RUN CONCEALED IN AREAS OF FINISHED CONSTRUCTION, EXPOSED IN UN-FINISHED AREAS.
- 2 GROUND CONDUCTORS TO OTHER POINTS AND EQUIPMENT, AS REQUIRED BY NEC ARTICLE 250.

LAKETRAN WICKLIFFE PARK-RIDE LOT  
29610 LAKELAND BLVD., WICKLIFFE, OH 44092

ELECTRICAL ONE LINE, SYMBOLS, NOTES AND DIAGRAMS

PROJECT NO.	190065
DISCIPLINE	ELECTRICAL
SHEET NAME	E-1
SHEET	OF
39	49

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