ELECTRICAL SYMBOLS AND ABBREVIATIONS

NOTES:
1. SYMBOLS INDICATED HERE AND NOT USED IN THE CONTRACT DOCUMENTS DO NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS MAY BE INDICATED IN THE CONTRACT DOCUMENTS.
2. EXISTING TO REMAIN IS SHOWN WITH DASHED LIGHT LINES.
3. NEW WORK IS SHOWN WITH SOLID HEAVY LINES.
4. ALL DEVICE MOUNTING HEIGHTS ARE DEVICE CENTERLINE UNLESS NOTED OTHERWISE.

LIGHTING

TYPE — CIRCUIT/SWITCH

TYPE	DESCRIPTION	TYPE	DESCRIPTION
A	LINE VOLTAGE INCANDESCCENT/HALOGEN	G	ELECTRODELESS INDUCTION FLUORESCENT
B	LOW VOLTAGE INCANDESCENT/HALOGEN	H	STANDARD HID
C	COMPACT FLUORESCENT	L	LIGHT PIPE/GUIDE/TUBE, FIBER OPTICS
D	DOUBLE ENDED/PIN, SINGLE ENDED COMPACT HID	N	NEON/COLD CATHODE
		S	SPECIAL PURPOSE
F	STANDARD LINEAR FLUORESCENT	T	TRACK
		X	EXIT LIGHT

SUFFIX	DESCRIPTION
E	BATTERY PACK/INVERTER

- SURFACE MOUNTED LINEAR FLUORESCENT MOUNTING LOCATION: CEILING
- SURFACE MOUNTED LINEAR FLUORESCENT MOUNTING LOCATION: WALL
- PENDANT/SUSPENDED LINEAR FLUORESCENT
- PENDANT/SUSPENDED FLUORESCENT
- RECESSED GRID MOUNTED FLUORESCENT MOUNTING LOCATION: CEILING
- RECESSED FLANGE MOUNTED FLUORESCENT MOUNTING LOCATION: CEILING
- SURFACE MOUNTED FLUORESCENT MOUNTING LOCATION: CEILING
- SURFACE MOUNTED EMERGENCY LINEAR FLUORESCENT MOUNTING LOCATION: CEILING
- SURFACE MOUNTED EMERGENCY LINEAR FLUORESCENT MOUNTING LOCATION: WALL
- PENDANT/SUSPENDED EMERGENCY LINEAR FLUORESCENT
- PENDANT/SUSPENDED EMERGENCY FLUORESCENT
- RECESSED GRID MOUNTED EMERGENCY FLUORESCENT. MOUNTING LOCATION: CEILING
- RECESSED FLANGE MOUNTED EMERGENCY FLUORESCENT. MOUNTING LOCATION: CEILING
- SURFACE MOUNTED EMERGENCY FLUORESCENT. MOUNTING LOCATION: CEILING
- SURFACE MOUNTED CRITICAL LINEAR FLUORESCENT MOUNTING LOCATION: CEILING
- SURFACE MOUNTED CRITICAL LINEAR FLUORESCENT MOUNTING LOCATION: WALL
- PENDANT/SUSPENDED CRITICAL LINEAR FLUORESCENT
- PENDANT/SUSPENDED CRITICAL FLUORESCENT
- RECESSED GRID MOUNTED CRITICAL FLUORESCENT. MOUNTING LOCATION: CEILING
- RECESSED FLANGE MOUNTED CRITICAL FLUORESCENT. MOUNTING LOCATION: CEILING
- SURFACE MOUNTED CRITICAL FLUORESCENT. MOUNTING LOCATION: CEILING
- SINGLE HEAD EMERGENCY FIXTURE WITH BATTERY PACK
- DOUBLE HEAD EMERGENCY FIXTURE WITH BATTERY PACK
- PILOT LIGHT MOUNTING LOCATION: AS NOTED
- TRACK MOUNTING LOCATION: AS NOTED
- RECESSED MOUNTED INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: CEILING
- SURFACE MOUNTED INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: CEILING
- RECESSED MOUNTED INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: WALL
- SURFACE MOUNTED INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: WALL
- PENDANT/SUSPENDED INCANDESCENT/COMPACT FLUORESCENT/HID
- RECESSED MOUNTED EMERGENCY INCADESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: CEILING
- SURFACE MOUNTED EMERGENCY INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: CEILING
- RECESSED MOUNTED EMERGENCY INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: WALL
- SURFACE MOUNTED EMERGENCY INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: WALL
- PENDANT/SUSPENDED EMERGENCY INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: CEILING
- RECESSED MOUNTED CRITICAL INCADESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: CEILING
- SURFACE MOUNTED CRITICAL INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: CEILING
- RECESSED MOUNTED CRITICAL INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: WALL
- SURFACE MOUNTED CRITICAL INCANDESCENT/COMPACT FLUORESCENT/HID MOUNTING LOCATION: WALL
- PENDANT/SUSPENDED CRITICAL INCANDESCENT/COMPACT FLUORESCENT/HID
- DIRECTIONAL INDICATOR ADDED TO FIXTURE SYMBOL TO DESIGNATE AIMING DIRECTION
- EXIT DIRECTIONAL ARROW
- SINGLE FACE EXIT FIXTURE MOUNTING LOCATION: CEILING
- DOUBLE FACE EXIT FIXTURE MOUNTING LOCATION: CEILING
- SINGLE FACE EXIT FIXTURE MOUNTING LOCATION: WALL
- DOUBLE FACE EXIT FIXTURE MOUNTING LOCATION: WALL

SWITCHES

- LIGHTING CONTACTOR MOUNTING LOCATION: WALL MOUNTING HEIGHT: AS NOTED
- DIMMER MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- $TS TIME SWITCH MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- PHOTO CELL MOUNTING LOCATION: WALL MOUNTING HEIGHT: AS NOTED
- AL AMBIENT LIGHT SENSOR MOUNTING LOCATION: WALL MOUNTING HEIGHT: AS NOTED
- AL AMBIENT LIGHT SENSOR MOUNTING LOCATION: CEILING
- PIR OCCUPANCY SENSOR FOR LIGHTING CONTROL PIR = PASSIVE INFRARED 2P = 2 POLE, DUAL RELAY U = ULTRASONIC DT = DUAL TECHNOLOGY PIRA = PIR WITH AMBIENT LIGHT SENSOR MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- PIR OCCUPANCY SENSOR FOR LIGHTING CONTROL MOUNTING LOCATION: CEILING
- $a SINGLE POLE SWITCH MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6" a = SWITCH DESIGNATION
- TIME CLOCK MOUNTING LOCATION: WALL MOUNTING HEIGHT: AS NOTED A = SURFACE MOUNT B = RECESS MOUNT
- $4 FOUR WAY SWITCH MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- $K KEY SWITCH MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- $MC MOMENTARY CONTACT SWITCH MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- $D DOOR SWITCH MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- $P SWITCH WITH PILOT LIGHT MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- $LV-M LOW VOLTAGE "M"-MASTER SWITCH MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- $DM REMOTE CONTROL FOR MOTORIZED DAMPER MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- FLOOR SWITCH MOUNTING LOCATION: FLOOR
- $2 TWO POLE SWITCH MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- $3 THREE WAY SWITCH MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"

EQUIPMENT AND WIRING

- TRANSFORMER
- TRANSFORMER - ONE LINE DIAGRAM
- GROUND CONNECTION
- NON FUSED DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- BREAKER DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- DISCONNECT SWITCH
- MAGNETIC MOTOR STARTER
- COMBINATION MOTOR STARTER
- $M MANUAL STARTER W/OVERLOAD PROTECTION
- SURFACE JUNCTION BOX
- SURFACE JUNCTION BOX - WALL
- FLUSH JUNCTION BOX - CEILING
- FLUSH JUNCTION BOX - WALL
- FLUSH JUNCTION BOX - FLOOR
- HAIR OR HAND DRYER OUTLET
- MOTOR
- STANDBY POWER MOTOR
- ELECTRIC HEATER
- RELAY - TYPE AS NOTED
- TR TIMING RELAY
- PANELBOARD - NORMAL SURFACE MOUNTED
- PANELBOARD - NORMAL SURFACE MOUNTED
- PANELBOARD - EMERGENCY/LIFE SAFETY SURFACE MOUNTED
- PANELBOARD - EMERGENCY/LIFE SAFETY FLUSH MOUNTED
- PANELBOARD - CRITICAL SURFACE MOUNTED
- PANELBOARD - CRITICAL FLUSH MOUNTED
- LOW VOLTAGE LIGHTING CONTROL PANEL - SURFACE MOUNTED
- LOW VOLTAGE LIGHTING CONTROL PANEL - FLUSH MOUNTED
- DISTRIBUTION PANELBOARD
- MCC MOTOR CONTROL CENTER
- CABLE TAP BOX
- BUSWAY PLUG-IN UNIT
- CURRENT TRANSFORMER
- POTENTIAL TRANSFORMER
- REVERSE POWER RELAY
- GEN REMOTE GENERATOR ANNUNCIATOR
- PUSH BUTTON
- K KIRK KEY INTERLOCK
- EGS ENGINE GENERATOR SET
- TELEPHONE TERMINAL CABINET
- PANEL DIVISION ARROW
- LINE VOLTAGE THERMOSTAT
- BUZZER
- GROUND CONNECTION - PLUG-IN
- PM PHYSIOLOGICAL MONITOR OUTLET
- REMOTE GROUND INDICATOR
- RGP ROOM REFERENCE GROUND POINT
- AIR TERMINAL
- VS VOLTMETER & SELECTOR SWITCH
- AS AMMETER, SELECTOR SWITCH, & CT'S
- GFR GROUND FAULT RELAY
- M REVENUE METER, kWh/D
- M METER WITH CURRENT TRANSFORMER
- MOLDED CASE CIRCUIT BREAKER
- LOW VOLTAGE DRAW-OUT AIR CIRCUIT BREAKER
- SWITCH - ONE LINE DIAGRAM
- FUSE
- GROUNDED "Y" SYSTEM
- SM RAISED FLOOR SERVICE MODULE P = POWER, D = DATA, T = TEL
- AUTOMATIC TRANSFER SWITCH
- PANEL DIVISION LINE
- DRAWING MATCH LINE
- CONDUIT CONCEALED IN FLOOR

RECEPTACLES

- SWITCH/RECEPTACLE MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- DUPLEX RECEPTACLE MOUNTING LOCATION: WALL MOUNTING HEIGHT: 1'-6"
- EMERGENCY DUPLEX RECEPTACLE MOUNTING LOCATION: WALL MOUNTING HEIGHT: 1'-6"
- SINGLE RECEPTACLE MOUNTING LOCATION: WALL MOUNTING HEIGHT: 1'-6"
- DOUBLE DUPLEX/QUADRAPLEX RECEPTACLE MOUNTING LOCATION: WALL MOUNTING HEIGHT: 1'-6"
- EMERGENCY DOUBLE DUPLEX/ QUADRAPLEX RECEPTACLE MOUNTING LOCATION: WALL MOUNTING HEIGHT: 1'-6"
- DUPLEX RECEPTACLE - ABOVE CASEWORK OR 2" ABOVE COUNTERTOP BACKSPLASH MOUNTING LOCATION: WALL MOUNTING HEIGHT: FIELD VERIFY
- LOCKING RECEPTACLE MOUNTING LOCATION: WALL MOUNTING HEIGHT: 1'-6"
- DOUBLE DUPLEX/QUADRAPLEX RECEPTACLE - ABOVE CASEWORK OR 2" ABOVE COUNTERTOP BACKSPLASH MOUNTING LOCATION: WALL MOUNTING HEIGHT: FIELD VERIFY
- EMERGENCY DOUBLE DUPLEX/QUADRAPLEX RECEPTACLE - ABOVE CASEWORK OR 2" ABOVE COUNTERTOP BACKSPLASH MOUNTING LOCATION: WALL MOUNTING HEIGHT: FIELD VERIFY
- a DUPLEX RECEPTACLE, UPPER HALF SWITCHED, LOWER HALF HOT MOUNTING LOCATION: WALL MOUNTING HEIGHT: 1'-6"
- DUPLEX RECEPTACLE LOCATED IN SURFACE MOUNTED RACEWAY
- POWER OUTLET IN SURFACE MOUNTED RACEWAY VOLTAGE AND AMPERAGE AS INDICATED
- J 6 SIX COMPARTMENT FLOOR BOX MOUNTED IN GRADE RECEPTACLES AS NOTED

B	L5-30R
C	L6-15R
D	L6-20R
E	L6-30R
F	6-15R
G	6-20R
H	6-30R
J	5-20R / 6-20R
K	L21-30R

- J 4 FOUR COMPARTMENT FLOOR BOX MOUNTED IN GRADE WITH (2) DUPLEX RECEPTACLES UNLESS NOTED

F	6-15R
G	6-20R
H	6-30R
J	5-20R / 6-20R
K	L21-30R

- J 3AV THREE COMPARTMENT FLOOR BOX MOUNTED IN GRADE AS NOTED ON PLANS
- J 2 TWO COMPARTMENT FLOOR BOX MOUNTED IN GRADE WITH (2) FURNITURE WHIPS UNLESS NOTED

B	L5-30R
C	L6-15R
D	L6-20R
E	L6-30R
F	6-15R
G	6-20R
H	6-30R
J	5-20R / 6-20R
K	L21-30R

- J 2AV THREE COMPARTMENT FLUSH MOUNTED ON WALL
- EMERGENCY DUPLEX RECEPTACLE LOCATED IN SURFACE MOUNTED RACEWAY
- EMERGENCY POWER OUTLET IN SURFACE MOUNTED RACEWAY VOLTAGE AND AMPERAGE AS INDICATED

NOTATION (BLANK)	NEMA TYPE
B	L5-30R
C	L6-15R
D	L6-20R
E	L5-30R
F	6-15R
G	6-20R
H	6-30R
J	5-20R / 6-20R

- OUTLETS INSTALLED IN SURFACE MOUNTED RACEWAY
- A MULTI-OUTLET ASSEMBLY A = 6" OUTLET SPACING B = 9" OUTLET SPACING C = 12" OUTLET SPACING D = 18" OUTLET SPACING E = 30" OUTLET SPACING
- DUPLEX RECEPTACLE - CEILING MOUNTED MOUNTING LOCATION: CEILING
- DUPLEX RECEPTACLE - FLOOR MOUNTED MOUNTING LOCATION: FLOOR
- FIXED DIRECT CONNECTION MOUNTING LOCATION: AS NOTED ON PLANS

NOTATION (BLANK)	NEMA TYPE
B	L5-30R
C	L6-15R
D	L6-20R
E	L6-30R
F	6-15R
G	6-20R
H	6-30R
J	5-20R / 6-20R
K	L21-30R

- FIXED DIRECT CONNECTION - WALL MOUNTING LOCATION: WALL MOUNTING HEIGHT: 1'-6"
- POWER OUTLET MOUNTING LOCATION: WALL MOUNTING HEIGHT: 1'-6"

NOTATION (BLANK)	NEMA TYPE
B	L5-30R
C	L6-15R
D	L6-20R
E	L6-30R
F	6-15R
G	6-20R
H	6-30R
J	5-20R / 6-20R
K	L21-30R

- POWER OUTLET, EMERGENCY CIRCUIT MOUNTING HEIGHT: 1'-6" MOUNTING LOCATION: WALL

NOTATION (BLANK)	NEMA TYPE
B	L5-30R
C	L6-15R
D	L6-20R
E	L6-30R
F	6-15R
G	6-20R
H	6-30R
J	5-20R / 6-20R
K	L21-30R

FIRE

- F FIRE ALARM PULL STATION MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
- F FIRE ALARM STROBE WITH ADJACENT MASS NOTIFICIATION STROBE MOUNTING LOCATION: WALL MOUNTING HEIGHT: SEE NOTE 1 & 2
- F S FIRE ALARM SMOKE DETECTOR MOUNTING LOCATION: CEILING
- F SD FIRE ALARM DUCT SMOKE DETECTOR MOUNTING LOCATION: DUCT
- F FIRE ALARM COMBINATION SPEAKER/STROBE WITH ADJACENT MASS NOTIFICIATION STROBE MOUNTING LOCATION: WALL MOUNTING HEIGHT: SEE NOTE 1 & 2
- CLG F FIRE ALARM COMBINATION SPEAKER/STROBE WITH ADJACENT MASS NOTIFICATION STROBE MOUNTING LOCATION: CEILING SEE NOTE 2
- CLG F FIRE ALARM COMBINATION SPEAKER MOUNTING LOCATION: CEILING
- F CM FIRE ALARM CONTROL MODULE MOUNTING LOCATION: CEILING
- F RM FIRE ALARM MONITOR MODULE MOUNTING LOCATION: CEILING
- F PS FIRE ALARM PRESSURE SWITCH MOUNTING LOCATION: FIELD VERIFY
- F H FIRE ALARM HEAT DETECTOR MOUNTING LOCATION: CEILING
- F D FIRE ALARM DOOR HOLDER MOUNTING LOCATION: WALL MOUNTING HEIGHT: FIELD VERIFY
- F WF FIRE ALARM WATERFLOW SWITCH MOUNTING LOCATION: SPRINKLER PIPE MOUNTING HEIGHT: FIELD VERIFY
- F TS FIRE ALARM TAMPER SWITCH MOUNTING LOCATION: SPRINKLER PIPE MOUNTING HEIGHT: FIELD VERIFY
- FACP FIRE ALARM CONTROL PANEL MOUNTING LOCATION: WALL MOUNTING HEIGHT: TOP AT 72" AFF
- FAAP FIRE ALARM ANNUNCIATOR PANEL MOUNTING LOCATION: WALL MOUNTING HEIGHT: TOP AT 60" AFF
- FAC FIRE ALARM AMPLIFIER CABINET MOUNTING LOCATION: WALL MOUNTING HEIGHT: TOP AT 72" AFF
- FNACP FIRE ALARM NOTIFICATION APPLIANCE CONTROL PANEL MOUNTING LOCATION: WALL MOUNTING HEIGHT: TOP AT 72" AFF
- F RIS REMOTE INDICATOR TEST SWITCH FOR AHU'S MOUNTING LOCATION: WALL MOUNTING HEIGHT: TOP AT 60" AFF

NOTES:
1. 80" AFF TO BOTTOM OF FACEPLATE OR 6" FROM TOP OF FACEPLATE TO CEILING, WHICH EVER IS LOWER.
2. CANDELA RATING AS DEPICTED ON DRAWINGS.

SECURITY

- CR K SECURITY CARD READER MOUNTING LOCATION: WALL OR COLUMN REFER TO DETAILS SHEET: 4 & 5 / E8.0.4 MOUNTING ELEVATIONS: 3'-6"
- CP K SECURITY SYSTEM CONTROL PANEL MOUNTING LOCATION: WALL MOUNTING HEIGHT: AS NOTED

ELECTRICAL ABBREVIATIONS

A	AMPERES	KV	KILOVOLT
AC	ABOVE CEILING/ALTERNATING CURRENT	KVA	KILOVOLT-AMPERES
ADO	AUTOMATIC DOOR OPENER	KW	KILOWATTS
AF	AMPERE FRAME	KWH	KILOWATT HOURS
AFF	ABOVE FINISHED FLOOR	LAN	LOCAL AREA NETWORK
AIC	AMP INTERRUPTING CAPACITY	LGT	LIGHT
ALT	ALTERNATE	LTCP	LOCAL TEMPERATURE CONTROL PANEL
ARCH	ARCHITECTURAL	LTG	LIGHTING
ASC	ABOVE SUSPENDED CEILING	LTS	LIGHTS
AT	AMPERE TRIP	LV	LOW VOLTAGE
ATS	AUTOMATIC TRANSFER SWITCH	MATV	MASTER ANTENNA TELEVISION
AUTO	AUTOMATIC	MC	MECHANICAL CONTRACTOR
BATS	BYPASS AUTOMATIC TRANSFER SWITCH	MCB	MAIN CIRCUIT BREAKER
BC	BARE COPPER	MCC	MOTOR CONTROL CENTER
BFC	BELOW FINISH CEILING	MCP	MOTOR CIRCUIT PROTECTOR
BFL	BELOW FLOOR LEVEL	MDP	MAIN DISTRIBUTION PANEL
BLDG	BUILDING	MER	MECHANICAL EQUIPMENT ROOM
BPIP	BOILER PLANT INSTRUMENTATION PANEL	MLCP	MAIN LIGHTING CONTROL PANEL
BRKR	BREAKER	MLO	MAIN LUGS ONLY
C	CONDUIT	MH	MANHOLE
CB	CIRCUIT BREAKER	MPTB	MUSIC & PAGE TERMINAL BOX
CCTV	CLOSED CIRCUIT TELEVISION	MTD	MOUNTED
CCT	CIRCUIT	MTG	MOUNTING
CCT BKR	CIRCUIT BREAKER	MTG HGT	MOUNTING HEIGHT
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	MTR	MOTOR/METER
		NA	NOT APPLICABLE
CLG	CEILING	NC	NEW CONNECTION/NORMALLY CLOSED
CO	CONDUIT ONLY	NESC	NATIONAL ELECTRICAL SAFETY CODE
CONTR	CONTRACTOR	NFD	NON-FUSED DISCONNECT
CORR	CORRIDOR	NFSS	NON-FUSED SAFETY SWITCH
CR	CONTROL RELAY	NIC	NOT IN CONTRACT
CT	CURRENT TRANSFORMER	NO	NORMALLY OPEN
DB	DIRECT BURIAL	NTS	NOT TO SCALE
DC	DIRECT CURRENT	OC	ON CENTER
DED	DEDICATED	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
DET	DETAIL		
DIA	DIAMETER	OFOI	OWNER FURNISHED OWNER INSTALLED
DISC	DISCONNECT	P	POLE
DN	DOWN	PA	PUBLIC ADDRESS
DP	DISTRIBUTION PANEL	PB	PULL BOX/PUSHBUTTON
DS	DISCONNECT SWITCH	PBPU	PREFABRICATED BEDSIDE PATIENT POWER UNIT
EC	EMPTY CONDUIT/ELECTRICAL CONTRACTOR	PC	PLUMBING CONTRACTOR/PHOTOCELL
ECL	EMERGENCY CRITICAL LIGHTING	PDU	POWER DISTRIBUTION UNIT
ECP	EMERGENCY CRITICAL POWER	PF	POWER FACTOR
EDB	ELECTRIC DUCT BANK	PH	PHASE
EG	EQUIPMENT GROUND	PLBG	PLUMBING
EGS	ENGINE GENERATOR SET	PNL	PANEL
EJ	EXPANSION JOINT	POD	POWER OPERATED DAMPER
ELEC	ELECTRIC/ELECTRICAL	PT	POTENTIAL TRANSFORMER
ELL	EMERGENCY LIFE SAFETY LIGHTING	PTRV	POWER TYPE ROOF VENTILATOR
ELP	EMERGENCY LIFE SAFETY POWER	PWR	POWER
EMER	EMERGENCY	RECS	RECESSED
EMI	ELECTROMAGNETIC INTERFERENCE	RECEP	RECEPTACLE
EMT	ELECTRICAL METALLIC TUBING	REL	RELOCATE
EQUIP	EQUIPMENT	REQD	REQUIRED
ESM	ELECTRIC STRIP MOLD	RGIP	REMOTE GROUND INDICATOR PANEL
ETR	EXISTING TO REMAIN	ROW	RIGHT OF WAY
EWC	ELECTRIC WATER COOLER	RUS	RURAL UTILITIES SERVICE
F/FC	FLUSH WITH FINISHED CEILING	RVAT	REDUCED VOLTAGE AUTO TRANSFORMER
F/FF	FLUSH WITH FINISHED FLOOR	SBJ	SYSTEM BONDING JUMPER
F/FW	FLUSH WITH FINISHED WALL	SHT	SHEET
FA	FIRE ALARM	SIG	SIGNAL
FACP	FIRE ALARM CONTROL PANEL	SIM	SIMILAR
FCU	FAN COIL UNIT	SPD	SURGE PROTECTIVE DEVICE
FDR	FEEDER	SPEC	SPECIFICATION
FDS	FUSED DISCONNECT SWITCH	SS	SAFETY SWITCH
FI	FILM ILLUMINATOR	STA	STATION
FIXT	FIXTURE	STR	STARTER
FL	AT FLOOR LINE	SW	SWITCH
FLA	FULL LOAD AMPERES	SWBD	SWITCHBOARD
FLEX	FLEXIBLE	SWGR	SWITCHGEAR
FLR	FLOOR	TEL	TELEPHONE
FLUOR	FLUORESCENT	TFA	TO FLOOR ABOVE
FS	FLOW SWITCH	TFB	TO FLOOR BELOW
FSS	FUSED SAFETY SWITCH	TS	TAMPER SWITCH/TIME SWITCH
FSCP	FLAME SAFEGUARD CONTROL PANEL	TV	TELEVISION
FVNR	FULL VOLTAGE NON-REVERSING	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
GC	GENERAL CONTRACTOR	TVTC	TELEVISION TERMINAL CABINET
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GFP	GROUND FAULT PROTECTION	UC	UNDER COUNTER
GND	GROUND	UG	UNDERGROUND
GEN	GENERATOR	UH	UNIT HEATER
GFI	GROUND FAULT INTERRUPTER	UNO	UNLESS NOTED OTHERWISE
GRC	GALVANIZED RIGID CONDUIT	UPS	UNINTERRUPTED POWER SUPPLY
GTB	GROUND TERMINAL BOX	USDA	U.S. DEPARTMENT OF AGRICULTURE
HH	HANDHOLE	V	VOLTAGE
HOA	HAND OFF AUTOMATIC	VFD	VARIABLE FREQUENCY DRIVE
HP	HORSE POWER	VP	VAPOR PROOF
HT	HEIGHT/HEAT TRACE	W	WIRE
HV	HIGH VOLTAGE	W/	WITH
IMC	INTERMEDIATE METAL CONDUIT	WP	WEATHERPROOF
INCAND	INCANDESCENT	WS	WALL SURFACE
JB	JUNCTION BOX	WT	WATER TIGHT
KO	KNOCK-OUT	X	EXISTING
		XFMR	TRANSFORMER
		XP	EXPLOSION PROOF

SITE SYMBOLS

- TYPE — CIRCUIT / SWITCH
- BOLLARD OR GROUND MOUNTED FIXTURE
- EXTERIOR WALL MOUNTED FIXTURE
- POLE FIXTURE, ONE HEAD
- E — UG — E = ELECTRIC POWER T = TELEPHONE UG = UNDERGROUND OH = OVERHEAD D = DATA
- POLE FIXTURE, TWO HEAD
- POLE FIXTURE, FOUR HEAD
- MH MH = MANHOLE HH = HANDHOLE

SHEET SYMBOLS

- LINE CONTINUE BREAK
- # DETAILS AND SECTIONS DESIGNATION
- NEW WORK CONNECTION TO EXISTING WORK DESIGNATION
- # X0.0 DETAIL REFERENCE TOP DESIGNATES DETAIL NUMBER BOTTOM DESIGNATES ON WHICH SHEET DETAIL APPEARS
- # NOTE DESIGNATION
- # X0.0 SECTION REFERENCE TOP DESIGNATES SECTION NUMBER BOTTOM DESIGNATES ON WHICH SHEET SECTION APPEARS
- ELEVATION DESIGNATION
- EQ # EQUIPMENT DESIGNATION TOP DESIGNATES EQUIPMENT ABBREVIATION BOTTOM DESIGNATES EQUIPMENT NUMBER
- REFER X0.0 PLAN CONTINUATION DESIGNATION
- # REVISION NUMBER DESIGNATION
- # ROOM NUMBER DESIGNATION

SMITHGROUP
architecture engineering interiors planning
SMITHGROUP, INC
35 EAST WACKER
SUITE 2200
CHICAGO, IL 60601
T 312.641.0770
F 312.641.6728
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35 EAST WACKER DRIVE
SUITE 2200
CHICAGO, ILLINOIS 60601
312.641.0510 T
312.641.0668 F
www.jjr-us.com

AEI Affiliated Engineers
Affiliated Engineers, Inc.
5802 Research Park Boulevard
Madison, Wisconsin 53719
Tel 608.238.2616 Fax 608.238.2614

Thornton Tomasetti
Thornton Tomasetti, Inc.
330 N. Wabash Avenue, Suite 1500
Chicago IL 60611-7622
T 312.596.2000 F 312.596.2001

TERRA ENGINEERING LTD.
225 West Ohio Street, 4th Floor
Chicago, Illinois 60654
T:(312)467-0123 F:(312) 467-0220

SEALS AND SIGNATURES

RONALD W. PARSLEY 062-048521 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

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Argonne NATIONAL LABORATORY

FMS
Facilities Management Services

PROJECT TITLE: ADVANCED PROTEIN CRYSTALLIZATION FACILITY, ARGONNE NATIONAL LABORATORY

PROJECT NO: 08541-00

DRAWING TITLE: ELECTRICAL SYMBOLS AND ABBREVIATIONS

DESIGNED DLW	A/E CADD FILE E0.0.0	FACILITY NO(S)
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	BIND ORDER	

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