EXTERIOR ELECTRICAL LEGEND

EXISTING NEW

- O 40'-4 / •2 40'-4 — POLE, NO., LENGTH, AND CLASS AS INDICATED
- 6M / 6M 12 MT — DOWN GUY AND ANCHOR. STRENGTH IN LBS. INDICATED (ANCHOR STRENGTH IS BASED ON HOLDING POWER IN CLASS 7 SOIL) "MT" INDICATES TWIN EYE ANCHOR ROD
- II — POLE MOUNTED ROADWAY OR AREA LIGHTING INSTALL-ATION, WATTS AS INDICATED, ROMAN NUMERAL INDICATES IES TYPE DISTRIBUTION
- POLE MOUNTED FLOODLIGHTING INSTALLATION. ARROWS INDICATE NO. OF LUMINAIRES AND APPROX. HORIZ. AIMING
- 4-•6 ACSR OHS / 2•6 OHS WP — OVERHEAD POWERLINE-SECONDARY OR SERVICE DROP NO., SIZE AND TYPE OF CONDUCTOR AND LINE VOLTAGE AS INDICATED.
- 3•1 13.8KV OHP / OHP 3•1 — OVERHEAD POWERLINE-PRIMARY DISTRIBUTION. NO., SIZE, AND TYPE OF CONDUCTORS AND LINE VOLTAGE AS INDICATED
- OHC / OHC — OVERHEAD COMMUNICATIONS LINE
- SL 1•6 / AFL 1-•6 CWC — SERIES STREET LIGHT AND AIRFIELD LIGHTING CIRCUIT RESPECTIVELY. NO., SIZE AND TYPE OF WIRE AS INDICATED.
- 4•8, type USE DBP / DBS / DBC — DBP / DBS / DBC — DIRECT BURIED LINE. THE LETTER "P" DESIGNATES PRIMARY POWER (#8 MIN. IF SINGLE-CONDUCTOR CABLES ARE USED). "S" SECONDARY POWER (LOW VOLTAGE), "C" A COMMUNICATIONS TYPE LINE. NUMBER, SIZE, AND TYPE OF CABLE AS INDICATED
- 4P / 4P/2C / 2C — 4P 3-•3, 15 KV 1-•3 600V •3 SPARE / 2C — UNDERGROUND DUCT LINE, CONCRETE ENCASED (SEE SPECS). NUMERAL INDICATES QUANTITY OF DUCTS (4" MIN. IF NOT IDENTIFIED). LETTER "P" INDICATES ELECTRICAL POWER LINE, "C" A COMMUNICATIONS TYPE LINE). NO., SIZE AND VOLTAGE OF CABLE AS INDICATED OR PER CROSS SECTION DETAIL
- UG / * UG — UNDERGROUND DISTRIBUTION-MISC. CONFIGURATIONS. NO. AND SIZE OF CONDUCTORS AND RACEWAY AS DESCRIBED (*) OR DETAILED
- PB•4 / HH•2 MH•4 A — PULLBOX, HANDHOLE OR MANHOLE. NO., AND TYPE AS INDICATED
- EV / EV — UNDERGROUND ELECTRICAL EQUIPMENT VAULT (POWER OR CONTROLS)
- EP / EP — ELECTRICAL EQUIPMENT IN PAD MOUNTED CABINET OR EQUIPMENT ASSEMBLY
- △ / 10 ▲ — INDIVIDUAL TRANSFORMER FOR OVERHEAD OR FENCED APPLICATONS. ANSI VOLTAGE CONFIGURATION AS INDICATED. SINGLE NUMERAL IF PRESENT DESIGNATES KVA RATING
- 75 — CONCRETE PAD MOUNTED TRANSFORMER INSTALLATION ANSI (C84.1) VOLTAGE CONFIGURATION AS INDICATED.
- PE / PE — PHOTOELECTRIC CONTROL RELAY
- R / R — AERIAL AUTOMATIC RECLOSER.
- SS / SS — AERIAL AUTO SECTIONALIZER
- •4 G — GROUNDING SYSTEM. ELECTRODE AND CONDUCTOR (COUNTERPOISE) (BARE COPPER) SIZE AS INDICATED
- 2" C — LIMITS OF CONDUIT CASING OR SLEEVE
- CAPPED CONDUIT
- 1600A FB FB — FEEDER TYPE BUS DUCT (FB) OR METAL-ENCLOSED BUS ASSEMBLIES (HIGH OR MEDIUM VOLTAGE). (CU BUS IF NOT IDENTIFIED). AMPACITY AS INDICATED
- SEPARABLE CONNECTOR IN PRIMARY DISTRIBUTION LINE (ELBOW TERMINATOR AND BUSHING COMBINATION)-LOADBREAK AND NON-LOADBREAK STYLES RESPECTIVELY
- KWH — KILOWATT-HOUR METER (WH IS WATT-HOUR METER)
- 1200:5 (3) — CURRENT TRANSFORMER (CT). SECOND NUMERAL OF TRANSFORMATION RATIO IDENTIFIES NOMINAL CURRENT OF METERING/ACCESSORY CIRCUIT. NUMERAL IN PARENTHESIS INDICATES QUANTITY OF CT'S
- (3) 480/120 — VOLTAGE (POTENTIAL) TRANSFORMER (VT/PT). DRAWOUT AND NON-DRAWOUT. QUANTITY AND VOLTAGE RATING AS INDICATED
- POWER & DISTRIBUTION TRANSFORMER, RATED kVA, VOLTAGE, CONNECTIONS, COOLING CLASS AND TYPE AS INDICATED.
- △ — TRANSFORMER DELTA CONNECTION DESIGNATION WHEN USED BY A TRANSFORMER SYMBOL.
- TRANSFORMER GROUNDED-WYE CONNECTION DESIGNATION WHEN USED BY A TRANSFORMER SYMBOL.
- AS A VS V — AMMETER AND VOLTMETER WITH PHASE SELECTOR SWITCH
- GFI #2 400 AT / 0.3 s — GROUND FAULT INTERRUPTING EQUIPMENT (SEE SPECS) WITH TRIP SETTING AT DESIGNATED TIME DELAY INTERLOCKING CONTROL AS INDICATED
- 52 / 27B3 / 50N 51N — SENSOR, DEVICE OR APPARATUS (ELECTRICAL OR ELECTROMECHANICAL); NUMERAL IDENTIFIES TYPE OR FUNCTION PER ANSI/IEEE C37.2

ELECTRICAL POWER DIAGRAM LEGEND

- LVP 400A — DRAWOUT TYPE CIRCUIT BREAKER ASSEMBLY ("LVP" INDICATES LOW VOLTAGE POWER CB, "IC" INDICATES INSULATED CASE, "MC" INDICATES MOLDED CASE CB TYPE). SIZE AS INDICATED.
- DRAWOUT FUSE ASSEMBLY
- 3P 20 A — MOLDED CASE CIRCUIT BREAKER, FIXED TRIP. THREE POLE UNLESS DESIGNATED '1P' OR '2P'.
- IC 1600AF/1200AT — STATIONARY CIRCUIT BREAKER OF A GIVEN FRAME SIZE WITH ADJUSTABLE TRIP SETTINGS. "IC" INDICATES INSULATED CASE, "MC" INDICATES MOLDED CASE.
- FUSED CUTOUT OR FUSED SWITCH ASSEMBLY. VOLTAGE RATING AND SIZE AS INDICATED
- 50A — FUSE-POWER AND CONTROL APPLICATIONS RESPECTIVELY, SIZE AS INDICATED
- 9KV — SURGE ARRESTER - VOLTAGE RATING AND CLASS AS INDICATED
- 5 — POWER FACTOR CORRECTION CAPACITOR - NUMBER DENOTES KVAR RATING
- SS — GROUND CONNECTION - TO COPPER-CLAD STEEL ROD TYPE ELECTRODE, TO NEAREST STRUCTURAL STEEL (#6 MIN. CONDUCTOR IF NOT SHOWN)
- CONTROL INTERFACE OR OPERATING RELATIONSHIP BETWEEN 2 OR MORE DEVICES (KEY INTERLOCK BETWEEN BREAKERS, RELAY/CONTACTOR, ETC.)
- 1000 — BUS NUMBER FOR ANALYSIS AND REFERENCE ONLY

INTERIOR ELECTRICAL LEGEND

- ○ O — EXISTING AND NEW, RESPECTIVELY
- O A — INCANDESCENT OR H.I.D. LUMINAIRE LESS THEN 2' X 2' IN SIZE - LETTER IDENTIFIES CORRESPONDING SWITCH (NOTE 5)
- •7' — WALL FIXTURE - MOUNTING HEIGHT INDICATED (TO FIXTURE C) L (NOTE 5)
- FLUORESCENT OR HID LUMINAIRE 2' x 2' OR LARGER IN SIZE (THE OUTLET SYMBOL WILL NORMALLY BE OMITTED IN CONTINUOUS ROW CONFIGURATIONS) (NOTE 5)
- CEILING EXIT LIGHT. ARROWS IDENTIFY DIRECTION OF EGRESS (NOTE 5)
- WALL EXIT LIGHT - MOUNTING HEIGHT INDICATED (TO ℄). ARROWS IDENTIFY DIRECTION OF EGRESS (NOTE 5)
- LIGHTING CONTACTOR - NO. OF POLES, CURRENT AND VOLTAGE RATINGS AS INDICATED
- EPS — EMERGENCY POWER SYSTEM FOR EGRESS LIGHTING - BATTERY INVERTER SET (OR FORWARD TRANSFER UPS), RATINGS AND PHYSICAL SIZE AS INDICATED
- BATTERY OPERATED EMERGENCY LIGHT SET, NO. OF LUMINAIRE HEADS AS INDICATED
- E / OR / E — FEEDER, DEVICE OR FIXTURE, AND FLUORESCENT TYPE FIXTURE, RESP. SUPPLIED FROM AN EMERGENCY CIRCUIT. THE SHADED PORTION OF THE FLUORESCENT SYMBOL INDICATES 2 LAMPS OF A 3 OR 4 LAMP FIXTURE ARE SUPPLIED FROM EMERGENCY POWER. A 1-LAMP OR 2-LAMP FIXTURE WILL BE SHOWN SHADED OR UNSHADED WITH THE 'E' ANNOTATION
- J J — JUNCTION BOX, 4" SQUARE UNLESS NOTED OTHERWISE. CEILING AND WALL MOUNT TYPES INDICATED.
- D — DIMMING CONTROL FOR LIGHTING
- S_{TO} — MANUAL STARTER WITH THERMAL OVERLOADS (MOTOR RATED SWITCH)
- S — SINGLE POLE SWITCH
- S_2 — DOUBLE POLE SINGLE THROW SWITCH
- S_3 — THREE WAY SWITCH
- S_4 — FOUR WAY SWITCH
- S_P — SINGLE POLE SWITCH WITH PILOT LIGHT
- S_T — TIMER OPERATED SWITCH
- S_K — KEY OPERATED SWITCH
- S_{MC} — MOMENTARY CONTACT SWITCH

(Switches: 4'-0" UP LETTERS A, B, C, ETC. WHERE USED, IDENTIFY SWITCHED FIXTURES)

- 20A — 2P,3W GROUNDING TYPE RECEPTACLE - 125V, CONVENTIONAL DUPLEX & SIMPLEX "SW" INDICATES SPLIT WIRED, CO= CLOCKOUTLET, FO= FAN OUTLET, IG= ISOLATED GROUND TYPE OUTLETS, NEMA 5-XX SERIES. DEFAULT SIZE IS 15A. SEE NOTE 8.
- X" — RECEPTACLE STRIP ASSEMBLY - DUPLEX NEMA 5-15 RECEPTACLES SPACED AT INTERVAL INDICATED (SEE FLOOR PLANS) IN SURFACE MOUNTED RACEWAY. WALL MOUNTED AT 4 FT. AFF, CONSECUTIVE PHASE CONNECTIONS (IN 3Ø APPLICATIONS) UNLESS NOTED OTHERWISE
- 3/4HP — ELECTRIC WATER COOLER (DRINKING WATER DISPENSER) SIZE AS NOTED
- SM / SM / R — INDIVIDUAL FLOOR OUTLET ASSEMBLY.'SM' DENOTES SURFACE MOUNTED TYPE (ABOVE FLOOR SERVICE FITTING), 'R' DENOTES RECESSED (FLUSH MOUNTED) TYPE. SEE SPECS
- RELOCATIBLE SERVICE POST ASSEMBLY - LENGTH AS REQUIRED TO EXTEND ABOVE SUSPENDED CEILING. SEE NOTE 8.
- TELEPHONE OUTLET, SINGLE AND DUPLEX JACK CONFIGURATIONS (8 PIN JACKS). SEE SPECS. SYMBOL SYMBOL WITHOUT LEG(S) REQUIRES DUPLEX JACKS. A SQUARE AROUND THE DEVICE INDICATE IT IS FLOOR MOUNTED. HL=HOTLINE TELEPHONE, P= PUBLIC TELEPHONE, SEE NOTE 8.
- 12" X 4" CT — CABLE TRAY FOR COMMUNICATIONS AND DATA PROCESSING, DIMENSIONS AS INDICATED (W X D)
- TTB-2 TTC•4 36X24X6 — TELEPHONE TERMINAL BOARD (PLYWOOD BACKBOARD); TELEPHONE TERMINAL CABINET, SIZE AS INDICATED
- UF P 3" / UF C 7" / UFD UFD — MULTIOUTLET CONFIGURATION IN UNDERFLOOR DUCT SYSTEM (SEE SPECS.). OPEN CIRCLE DENOTES BLANK INSERT LOCATION, SOLID DENOTES A DEVICE INSTALLATION; 'P' INDICATES A POWER DUCT WITH DUPLEX RECEPTACLES (NEMA 5-15), 'C' DENOTES COMMUNICATIONS DUCT W/BUSHED FITTING; FIGURES IDENTIFY NOMINAL WIDTH; UFD IDENTIFIES A SECTION OF FEEDER DUCT (NO INSERTS).
- EF-3 M 2HP — MOTOR - USE AND SIZE AS INDICATED
- •3/2S — MOTOR CONTROLLER - MAGNETIC OR AS INDICATED, UPPER NUMERAL DESIGNATES NEMA SIZE; LOWER LETTER, IF USED, INDICATES: 'R' - REVERSING TYPE, '2S' - TWO SPEED TYPE, 'FV'- FULL VOLTAGE TYPE (DEFAULT IF NOT INDICATED), 'RV' - REDUCED VOLTAGE TYPE, 'AT' - AUTO TRANSFORMER TYPE, 'PW" - PART WINDING TYPE.
- COMBINATION STARTER W/EXTERNALLY OPERATED DISCONNECT
- DISCONNECT SWITCH, SIZE AND TYPE AS INDICATED (OR 3P, 240V, 30A MIN)
- PUSHBUTTON CONTROL STATION - 1, 2, OR 3 BUTTONS "EPO" = EMERGENCY POWER OFF.
- S_{HOA} 2P SS — SELECTOR SWITCH (SEPARATE FROM STARTER)- 2 POSITION OR 3 POSITION AS INDICATED. IF NOT SPECIFIED ELSEWHERE, LEGEND PLATE DESIGNATIONS WILL BE 'ON-OFF' AND 'MAN-OFF-AUTO' (OR 'H.O.A.)
- T — THERMOSTAT - SEE MECH. SPECS, 5'-0" UP
- MCC-2 — MOTOR CONTROL CENTER, FREE STANDING W/NO. OF 20" WIDE (MIN) VERTICAL SECTIONS INDICATED. SEE DIAGRAM AND/OR SCHEDULE FOR SIZES, RATINGS, AND LOADS
- LP2 B — LIGHTING AND APPLIANCE TYPE PANELBOARD - FLUSH MOUNTED AND SURFACE MOUNTED TYPES, SEE CORRESPONDING PANEL SCHEDULE. OPEN SYMBOL INDICATES EXISTING
- DISTRIBUTION TYPE PANEL
- MSB MSG — MAIN SWITCH BOARD OR MAIN SWITCH GEAR (ABBREVIATED OR SPELLED OUT), SEE FLOOR PLANS AND DIAGRAMS FOR DIMENSIONS, CLEARANCES, AND ELECTRICAL RATINGS
- PB 400A 30A 30/25 — BUS DUCT ASSEMBLY WITH PLUG-IN POWER BOX CAPABILITY AT 2' INTERVALS, CURRENT RATING AS INDICATED. OPEN CIRCLE REPRESENTS A POSITION WITH BLANK COVER ONLY, SOLID CIRCLE A PLUG IN BOX WITH BREAKER OR SWITCH (SEE SPECS), RECEPT. SYMBOL IDENTIFIES A BOX WITH RECEPTACLE ATTACHED (FIGURES INDICATE RATING OF RECEPT AND OVERCURRENT DEVICE.
- LP-2,4,6 — BRANCH CIRCUIT AND FEEDER WIRING. LONG, SHORT, SINGLE DOT AND DOUBLE DOT HASH MARKS REPRESENT PHASE CONDUCTOR, NEUTRAL, EQUIPMENT GROUND, AND ISOLATED EQUIPMENT GROUND RESPECTIVELY (AS APPLICABLE). ARROWS AND LETTER/NUMERALS IDENTIFY HOME-RUN CIRCUITS. IF HASH MARKS ARE OMITTED BETWEEN HOME-RUNS, TRANSITION SEGMENTS, AND END-OF-LINE DEVICES, REQUIRED QUANITY IS UNDERSTOOD TO APPLY TO ALL UNMARKED INTERVENING SEGMENTS. A CIRCUIT WITHOUT ANY DESIGNATION INDICATES THE CIRCUIT IS TWO-WIRE AND EQUIPMENT GROUND (MIN #12 IN ½" C).
- CO — CONDUIT ONLY - NO CONDUCTORS, PULL WIRE IF OVER 50'
- UF — COMM OR POWER FEEDER INSTALLED UNDER FLOOR SLAB IN COATED R.S. CONDUIT UNLESS INDICATED OTHERWISE
- LIGHT LINE - EXISTING, OR BY OTHER TRADES
- HEAVY LINE - NEW ELECTRICAL WORK
- FUTURE WORK OR ELECTRICAL ITEM REPEATED FOR CLARITY (TO LIGHTING SHEET FROM POWER OR COMM DWG., ACROSS MATCH LINES, ETC.)
- X / XR — EXISTING EQUIPMENT; EXISTING EQUIPMENT AS RELOCATED (NEW LOCATION)
- G — GENERATOR OR GENERATOR CONNECTION.
- FCP / FCP — FIRE ALARM CONTROL PANEL, (SEE SPECS)
- FAA / FAA — FIRE ALARM ANNUNCIATION PROVISIONS, W/OR W/O GRAPHIC REPRESENTATION, SEE SPECS
- FST / FST — FIRE ALARM SIGNAL TRANSMITTING (WITH ANTENNA FOR FM RADIO TYPE), SEE SPECS
- F — MANUAL FIRE ALARM STATION - 4'-0" A.F.F.
- H CO F — ABORT STATION. "F"= FIRE; "H"=HALON; "CO"=CARBON DIOXIDE
- F F F F M — FIRE ALARM WARNING DEVICE - BELL, CHIME, HORN AND MINIHORN, 7'-6" A.F.F.
- F — FIRE ALARM WARNING DEVICE, VISIBLE ONLY - FLASHING LIGHT, CEILING MOUNTED AND WALL MOUNTED (7'-6" A.F.F.) RESPECTIVELY
- F M F F F — F.A. WARNING DEVICE, COMBINED AUDIBLE AND VISIBLE - FLASHING LIGHT WITH A MINIHORN, HORN, BELL, OR CHIME - 7'-6" A.F.F.
- CR — HEAT DETECTOR - UNDIFFERENTIATED SYMBOL INDICATES FIXED TEMPERATURE OR COMBINATION F.T. AND RATE OF RISE TYPE, SEE SPECS; 'CR' INDICATES COMPENSATED RATE ("RATE ANTICIPATION") TYPE WITH TUBULAR SENSING ELEMENT REQUIRED
- I D P — SMOKE DETECTOR. THE LETTER 'I' OR 'P', IF PRESENT, STIPULATES IONIZATION OR PHOTOELECTRIC TYPE. 'D' STIPULATES A DUCT TYPE SMOKE DETECTOR. WHERE DUCT DETECTORS ARE SHOWN IN PAIRS, LOCATIONS ARE IN SUPPLY AND RETURN DUCTS. A SINGLE DETECTOR WOULD BE INSTALLED IN THE SUPPLY DUCT IF THE LOCATION IS NOT OTHERWISE INDICATED.
- SV TS FS — FIRE ALARM CONTACTS AT SOLENOID (OSY) VALVE, TAMPER SWITCH, ALARM CHECK VALVES, WATER FLOW INDICATOR AND FLOW SWITCH, SEE MECH. SPECS
- 24-INCH LIGHTNING AIR TERMINAL.
- 60-INCH LIGHTNING AIR TERMINAL.
- LIGHTNING PROTECTION MAIN CONDUCTOR

NOTES:

1. WHERE MORE THAN ONE SYMBOL FORMAT IS SHOWN, THE PREFERRED FORM IS SHOWN FIRST.
2. SUPPLEMENTAL ELECTRICAL LEGENDS MAY APPEAR IN THIS SET OF DRAWINGS TO ESTABLISH SYMBOLS FOR ITEMS NOT COVERED BY THIS SHEET OR TO INDICATE SPECIFIC CONDITIONS IN LIEU OF SYMBOLS SHOWN ON THIS SHEET.
3. NOT USED
4. EXISTING ITEMS ARE DESIGNATED BY A THIN LINE OR AN OPEN SYMBOL; NEW ITEMS WITH A THICK LINE OR CLOSED (FILLED-IN) SYMBOL.
5. ELECTRIC LIGHT FIXTURES ARE IDENTIFIED BY EITHER OR BOTH OF THE FOLLOWING METHODS:
   (A) 234B1 INDICATES FIXTURE TYPE, PER FIXTURE SCHEDULE, FOR ENTIRE ROOM OR AREA WHEN ADJACENT TO THE ROOM NAME OR NUMBER DESIGNATION OR FOR SINGLE FIXTURE WHEN ADJACENT TO THE FIXTURE SYMBOL.
   (B) (K) CAPITAL LETTER OR FIXTURE DESIGNATION INSIDE OR ADJACENT TO SYMBOL INDICATES FIXTURE TYPE FOR EACH FIXTURE PER FIXTURE SCHEDULE.
6. SIZES OF WIRE AND CABLE ARE BASED ON COPPER CONDUCTORS UNLESS INDICATED OTHERWISE.
7. LETTERS SUCH AS "WP", "EP" ADJACENT TO ANY SYMBOL INDICATE SPECIAL CONSTRUCTION IS REQUIRED. SEE ABBREVIATIONS SHEET FOR DEFINITIONS.
8. ALL RECEPTACLE AND COMMUNICATION OUTLETS SHALL BE MOUNTED 15 - INCHES A.F.F. AS MEASURED TO THE BOTTOM OF THE OUTLET BOX, UNLESS INDICATED OTHERWISE.

$$ - THINK VALUE ENGINEERING - $$

REVISIONS

SYMBOL	DESCRIPTIONS	DATE	APPROVED

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COMPUTER AIDED DESIGN & DRAFTING

AIR FORCE STANDARDS
PRESSURIZED HYDRANT FUELING SYSTEM
TYPE III

ELECTRICAL LEGEND SYMBOLS

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