

ELECTRICAL ABBREVIATIONS

Table of electrical abbreviations including AC, AF, AIC, AT, ATS, AWG, C, CB, CKT, CO, CT, CTL, DC, DEMO, DET, E, EC, EF, EL, EWC, EWH, EXG, F, FVNR, FYR, GIGND, GFI, HH, HD, HOA, HPS, HT, HVAC, IC, IPCO, JUB, KA, KW, KWH, M, MC, MCB, MCC, MLO, MS, MH, MTG, N, NC, NEC, NIC, NO, NTS, OH, OL, OS, OFCI, PC, PNL, PT, PVC, PWR, REC, (R), SF, T, TB, TBD, TC, TDR, TJB, TSP, TTB, TYP, UG, UH, UNO, V, VA, WP, XFMR, X, XFR.

LIGHTING SYMBOLS see luminaire schedule for mounting and fixture type

Table of lighting symbols for various luminaire types: 2'x4' ARCHITECTURAL LUMINAIRE, 2'x4' PARABOLIC LUMINAIRE, 2'x4' LUMINAIRE, 2'x4' LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED, 1'x4' LUMINAIRE, 1'x4' LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED, 2'x2' PARABOLIC LUMINAIRE, 2'x2' LUMINAIRE, 2'x2' LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED, SURFACE CABLE DOWN LUMINAIRE, SURFACE CABLE DOWN LUMINAIRE, SURFACE PENDANT LUMINAIRE, SURFACE UPLIGHT LUMINAIRE, STEP LUMINAIRE, RECESSED WALLWASH LUMINAIRE, RECESSED SLOPED CEILING LUMINAIRE, RECESSED ACCENT LUMINAIRE, RECESSED LUMINAIRE, RECESSED LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED, INDIRECT LUMINAIRE (LENGTH AS INDICATED ON DWGS), GRID CEILING: PROVIDE WITH UL LISTED GRID JUNCTION BOX. EXCESS AIRCRAFT CABLE TO BE COILED AND CONCEALED IN FIXTURE. DO NOT CUT OFF EXCESS AIRCRAFT CABLE. VERIFY FINAL MOUNTING HEIGHT WITH OWNER. SEE DETAIL ON DETAIL SHEET(S), INDIRECT LUMINARIES WITH EMERGENCY POWER SOURCE AS NOTED (LENGTH AS INDICATED ON DWGS), GRID CEILING: PROVIDE WITH UL LISTED GRID JUNCTION BOX. EXCESS AIRCRAFT CABLE TO BE COILED AND CONCEALED IN FIXTURE. DO NOT CUT OFF EXCESS AIRCRAFT CABLE. VERIFY FINAL MOUNTING HEIGHT WITH OWNER. SEE DETAIL ON DETAIL SHEET(S), 4' WALL FIXTURE, 4' WALL FIXTURE WITH EMERGENCY POWER SOURCE AS NOTED, 2' WALL FIXTURE, 2' WALL FIXTURE WITH EMERGENCY POWER SOURCE AS NOTED, 3' WALL FIXTURE, EMERGENCY LUMINAIRE, SURFACE/WALL MOUNTED FLOOD LIGHT, TRACK LUMINAIRE HEAD MOUNTED AS INDICATED, ROUND LUMINAIRE, WALL MOUNTED LUMINAIRE, TIMECLOCK, PHOTOCELL, OCCUPANCY SENSOR. OCCUPANCY SENSOR TO BE INSTALLED NO LESS THAN 8FT FROM ANY HVAC DIFFUSERS, CEILING MOUNTED VACANCY SENSOR. VACANCY SENSOR TO BE INSTALLED NO LESS THAN 6FT FROM ANY HVAC DIFFUSERS. PROVIDE WITH LOW VOLTAGE MOMENTARY WALL SWITCH FOR MANUAL 'ON' CONTROL, POLE LIGHT WITH ONE HEAD ARM MOUNTED, POLE LIGHT WITH TWO HEADS ARM MOUNTED, WALLPACK LUMINAIRE, WALLPACK LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED, LIGHTING CONTRACTOR TO BE NEMA 1 UNLESS OTHERWISE NOTED. SIZE, POLES, AND TYPE AS INDICATED ON DRAWING, CEILING MOUNTED EXIT SIGN, DOUBLE FACE, WALL MOUNTED EXIT SIGN, DOUBLE FACE, CEILING MOUNTED EXIT SIGN, SINGLE FACE, WALL MOUNTED EXIT SIGN, SINGLE FACE, WALL MOUNTED EXIT SIGN/ EMERGENCY LIGHT COMBO UNIT, SINGLE FACE, ARROW INDICATES DIRECTION TO BE SHOWN ON SIGN, MOUNTING TYPE - ALL UNO, LAMP TYPE AND NUMBER TO DIFFERENTIATE LUMINAIRE. E-DESIGNATES FIXTURE WITH EMERGENCY BALLAST, FLUORESCENT FIXTURES WITH AN 'E' DESIGNATION ARE TO BE SUPPLIED WITH 90MINUTE EMERGENCY BATTERY PACK (OR EQUAL) SUITABLE FOR THAT FIXTURES LAMP TYPE AND TO PRODUCE 50% OF THE ORIGINAL LIGHT OUTPUT, METAL HALIDE OR HIGH PRESSURE SODIUM FIXTURES WITH AN 'E' DESIGNATION ARE TO BE SUPPLIED WITH A LOW VOLTAGE LAMP AND CIRCUIT. A BATTERY PACK WHICH IS RATED FOR 50W OUTPUT AND 90 MINUTES IS ALSO TO BE SUPPLIED. THE BATTERY PACK IS TO BE MOUNTED INSIDE THE BUILDING ENVELOPE IN THE CEILING SPACE.

ELECTRICAL DEVICE SYMBOLS see electrical specifications for further information

Table of electrical device symbols: DUAL LEVEL SWITCHING, INSIDE AND OUTSIDE LAMPS OF FIXTURE TO BE SWITCHED SEPARATELY, SINGLE RECEPTACLE. MOUNT AT +18" AFF UNLESS OTHERWISE NOTED, SINGLE RECEPTACLE. MOUNTED IN FLOOR. TYPE OF BOX AS INDICATED, DUPLEX RECEPTACLE. MOUNT AT +18" AFF UNLESS OTHERWISE NOTED, C CEILING MOUNTED, DUPLEX RECEPTACLE, HALF OF RECEPTACLE SHALL BE SWITCHED. MOUNT AT +18" AFF UNLESS NOTED OTHERWISE, FOURPLEX RECEPTACLE. MOUNT AT +18" AFF UNLESS OTHERWISE NOTED, DUPLEX RECEPTACLE. MOUNTED IN FLOOR. TYPE OF BOX AS INDICATED, FOURPLEX RECEPTACLE. MOUNT AT +18" AFF UNLESS OTHERWISE NOTED, FOURPLEX RECEPTACLE. MOUNTED IN FLOOR. TYPE OF BOX AS INDICATED, SWITCH SUBSCRIPT INDICATES TYPE OF SWITCH. MOUNT AT +46" AFF UNLESS NOTED OTHERWISE, D DIMMER, K KEYED, LV LOW VOLTAGE, M MOMENTARY CONTACT, OV OVERRIDE, OCCUPANCY SENSOR. SEE DRAWINGS FOR ADDITIONAL INFORMATION. FOR 2-POLE, LINE VOLTAGE OCCUPANCY SENSOR, FURNISH AND INSTALL DUAL LEVEL SWITCHING. SENSORS MUST BE DUAL TECHNOLOGY AND A MINIMUM OF 1,000 SQUARE FEET OF COVERAGE, VACANCY SENSOR. SEE DRAWINGS FOR ADDITIONAL INFORMATION. FOR SENSORS MUST BE DUAL TECHNOLOGY AND A MINIMUM OF 1,000 SQUARE FEET OF COVERAGE. VACANCY SENSOR TO BE PROVIDED WITH MANUAL 'ON' OPERATION, P PILOT LIGHT, TO THERMAL OVERLOAD (THE NUMBER OF POLES TO MATCH CIRCUIT REQUIREMENTS AND BE SIZED FOR ASSOCIATED MOTOR LOAD), 2 DOUBLE POLE, 3 THREE WAY, 4 FOUR WAY, a SUPERSCRIPIT INDICATES LIGHTS TO BE SWITCHED, MOTOR STARTER/CONTACTOR TO BE NEMA 1 UNLESS NOTED OTHERWISE. SIZE AND TYPE AS INDICATED ON DRAWING, COMBINATION MOTOR STARTER AND DISCONNECT TO BE NEMA 1 UNLESS NOTED OTHERWISE. SIZE AND TYPE AS INDICATED ON DRAWING, FUSED DISCONNECT SWITCH TO BE NEMA 1 UNLESS NOTED OTHERWISE. SIZE AND POLES AS INDICATED, NON-FUSED DISCONNECT SWITCH TO BE NEMA 1 UNLESS NOTED OTHERWISE. SIZE AND POLES AS INDICATED, THERMOSTAT MOUNTED AT +48" AFF UNLESS NOTED OTHERWISE. MECHANICAL UNIT TO BE CONTROLLED AS INDICATED, AQUASTAT, EQUIPMENT CONNECTION POINT. VERIFY TYPE OF CONNECTION WITH EQUIPMENT SUPPLIER. DIVISION 16 TO SUPPLY ALL RACEWAY AND CONDUCTORS UNLESS NOTED OTHERWISE, EQUIPMENT CONNECTION POINT MOUNTED IN FLOOR. TYPE OF BOX AS INDICATED. VERIFY TYPE OF CONNECTION WITH EQUIPMENT SUPPLIER. DIVISION 18 TO SUPPLY ALL RACEWAY AND CONDUCTORS UNLESS NOTED OTHERWISE, GROUND ROD, 5/8" BY 10' MINIMUM, COPPER-CLAD, JUNCTION BOX, WALL MOUNTED PUSHBUTTON. MOUNT AT +46" AFF UNLESS NOTED OTHERWISE, 3 BUTTON DOOR CONTROLLER, 2 BUTTON DOOR CONTROLLER, TRANSFORMER. SIZE AND TYPE AS INDICATED # = TRANSFORMER DESIGNATION, MOTOR WITH THERMAL OVERLOAD, MOTOR, PANELBOARD. SEE ELECTRICAL SCHEDULES FOR TYPE, SIZE AND MOUNTING # = PANELBOARD DESIGNATION, EQUIPMENT CABINET, SURFACE MOUNTED, EQUIPMENT CABINET, FLUSH MOUNTED, WALL MOUNTED CIRCUIT BREAKER. TYPE AND SIZE AS INDICATED, WIREMOLD - POWER AND DATA RACEWAY MOUNT RECEPTACLES AS SHOWN. MOUNTING OF RACEWAY AS INDICATED PLUGMOLD - POWER ONLY, MECHANICAL EQUIPMENT CALL OUT, POWER POLE, TWO COMPARTMENT POWER POLE

FIRE ALARM SYMBOLS see electrical specifications for further information

Table of fire alarm symbols: FIRE ALARM ABBREVIATIONS: A SMOKE ALARM - PHOTO ELECTRIC DETECTOR WITH AUDIBLE SOUNDING DEVICE, P PHOTO-ELECTRIC DETECTOR, H HEAT DETECTOR, ID IN DUCT DETECTOR, D DUCT DETECTOR, I IONIZATION DETECTOR, LG UNIT PROVIDED WITH PROTECTIVE LEXICAN SHIELD GUARD, WG UNIT PROVIDED WITH PROTECTIVE WIRE GUARD, FIRE ALARM SYMBOLS: SMOKE DETECTOR, ALL DEVICES CEILING MOUNTED, ELECTROMAGNETIC DOOR HOLDER, FIRE/SMOKE DAMPER, PULLSTATION, +46" AFF TO CENTER OF DEVICE, FIRE ALARM HORN, +90" AFF TO BOTTOM OF DEVICE UNO, FIRE ALARM HORN, CEILING MOUNTED, FIRE ALARM STROBE, +80" AFF TO BOTTOM OF DEVICE UNO, STROBE INTENSITY INDICATED, FIRE ALARM STROBE, CEILING MOUNTED, STROBE INTENSITY INDICATED, FIRE ALARM HORN/STROBE +80" AFF TO BOTTOM OF DEVICE, UNO, STROBE INTENSITY INDICATED, FIRE ALARM HORN/STROBE CEILING MOUNTED, STROBE INTENSITY INDICATED, FIRE ALARM SPEAKER/STROBE CEILING MOUNTED, STROBE INTENSITY INDICATED, FIRE ALARM SPEAKER/STROBE, STROBE INTENSITY INDICATED, FIRE ALARM SPEAKER CEILING MOUNTED, FIRE ALARM BELL, +80" AFF UNO, FIRE ALARM CHIME, +80" AFF UNO, FIRE ALARM CHIME/STROBE, +80" AFF TO BOTTOM OF DEVICE UNO, STROBE INTENSITY INDICATED, END OF LINE RESISTOR, FLOW SWITCH, TAMPERS SWITCH, PRESSURE SWITCH, FIRE ALARM ANNUNCIATOR, +60" AFF RECESSED IN WALL IN FINISHED AREAS, FIRE ALARM CONTROL PANEL, +60" AFF RECESSED IN WALL IN FINISHED AREAS, POST INDICATOR VALVE, INDICATOR LIGHT, INDICATOR LIGHT WITH TEST SWITCH, FAN SHUT DOWN RELAY, MONITOR MODULE, CONTROL MODULE, RELAY MODULE, FIRE ALARM SYSTEM CIRCUITING REQUIREMENTS: 1. ALL CIRCUITING FOR THE FIRE ALARM SYSTEM INCLUDING NOTIFICATION AND SLC OR ZONE CIRCUITS SHALL BE INSTALLED IN CONDUIT. SEE SPECIFICATION SECTIONS 16120 AND 16721 FOR ADDITIONAL INFORMATION. ALL BLANK JUNCTION BOX COVERS ASSOCIATED WITH THE FIRE ALARM SYSTEM SHALL BE PAINTED RED IN COLOR.

ONE LINE SYMBOLS see electrical specifications for further information

Table of one line symbols: AUTOMATIC TRANSFER SWITCH. SIZE AND POLES AS INDICATED ON DRAWING, CIRCUIT BREAKER. SIZE AND POLES AS INDICATED ON DRAWING, PANELBOARD. NAME, SIZE, TYPE AS INDICATED ON DRAWINGS, PAD MOUNTED TRANSFORMER BY LOCAL UTILITY, METER, GROUND BAR, SECTOR SWITCH, TELEPHONE/DATA OUTLET, +18" AFF UNO. FOUR-SQUARE DEEP TYPE BOX WITH SINGLE OR DOUBLE GANG MUDRING AS REQUIRED PER NUMBER OF DROPS, B - INDICATES 4 SQUARE EXTRA DEEP JUNCTION BOX WITH MUDRING AND BLANK COVER, C - INDICATES MOUNTED IN CEILING TILE, M - INDICATED SOUND SYSTEM MICROPHONE INPUT, W - INDICATES MOUNTED ABOVE ACCESSIBLE CEILING #1#B# - # INDICATES NUMBER OF TELEPHONE/DATA, *CONDUIT TO ABOVE ACCESSIBLE CEILING OR TO TB AS NOTED, (TYPICAL NUMBER OR PORTS AND ASSOCIATED CONDUCTORS) BLANK IMPLIES EMPTY RACEWAY WITH COVERPLATE, FLOOR MOUNTED TELEPHONE/DATA OUTLET CONDUCTORS, INTERCOM, CEILING MOUNTED SPEAKER WITH BACKBOX, WALL MOUNTED SPEAKER, WITH BACKBOX +80" UNO, WALL MOUNTED LOUD SPEAKER, PA - PUBLIC ADDRESS SYSTEM SPEAKER, SS - SOUND SYSTEM SPEAKER, WP - WEATHER PROOF, WG - WIRE GUARD, VOLUME CONTROL. MOUNT AT SWITCH HEIGHT UNO. RATING SHALL MEET OR EXCEED THE WATTAGE BEING CONTROLLED, TELEVISION OUTLET, +18" AFF UNO, CEILING MOUNTED TELEVISION OUTLET, PUBLIC ADDRESS SYSTEM, PUSH TO TALK, PUBLIC ADDRESS SYSTEM, WALL MOUNTED DIGITAL CLOCK WITH SPEAKER COMBO MOUNTED AT 8 1/2" ABOVE ROOM WHITEBOARD, PUBLIC ADDRESS SYSTEM, WALL MOUNTED DIGITAL CLOCK, WIREMOLD - POWER AND DATA RACEWAY MOUNT DATA RECEPTACLES AS SHOWN. MOUNTING OF RACEWAY AS INDICATED.

CIRCUITING SYMBOLS see electrical specifications for further information

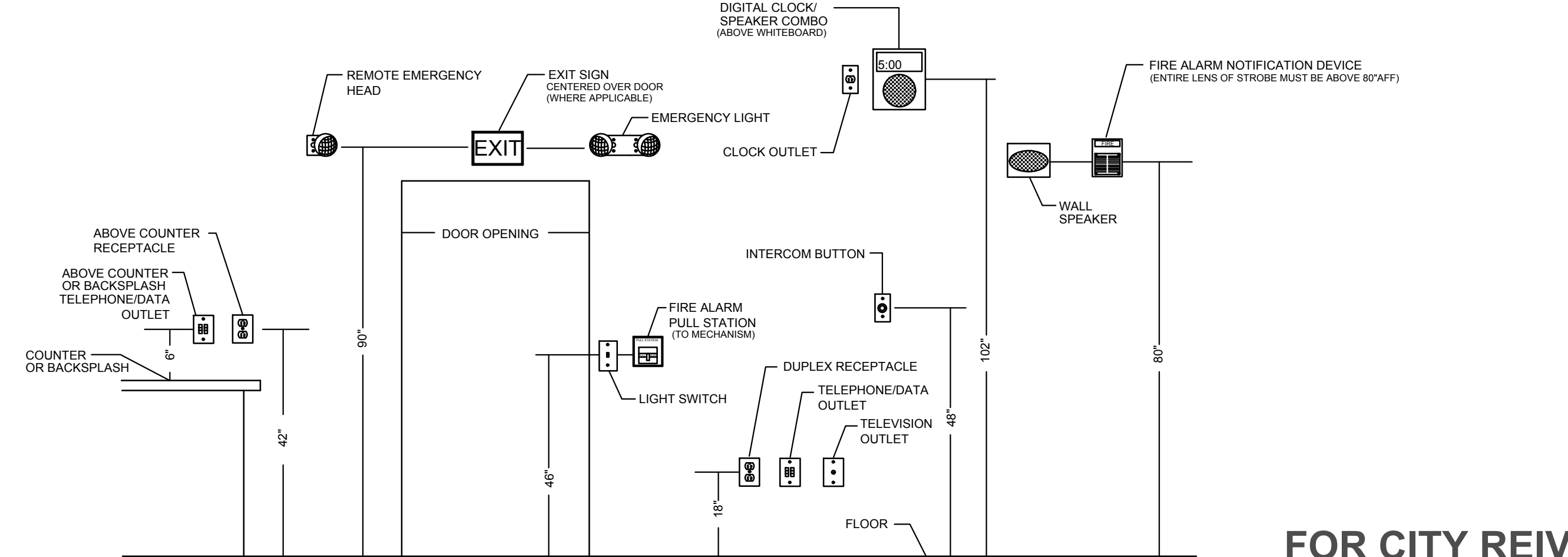
Table of circuiting symbols: NEUTRAL ISOLATED GROUND, CURRENT CARRYING CONDUCTORS, GROUNDING CONDUCTOR, EM EMERGENCY POWER SOURCE, CIRCUIT CONCEALED IN WALL OR CEILING TYPICALLY TO BE 2#12-1#125,3/4" (UNO), QUANTITY AND SIZE OF CONDUCTORS, QUANTITY AND SIZE OF GROUNDING CONDUCTOR, BEGINNING OF CIRCUIT AND NUMBER OF CIRCUIT, CONDUIT UP, CONDUIT DOWN, UNDERGROUND OR CONCEALED CONDUIT, EXISTING CONDUIT, CONDUIT STUBBED, CAPPED, MARKED, AND PROVIDED WITH PULLSTRING, FUTURE CONDUIT.

LINE TYPES

Table of line types: EXISTING, DEMOLITION, UNDERGROUND OR CONCEALED CONDUIT, EXISTING CONDUIT, CONDUIT STUBBED, CAPPED, MARKED, AND PROVIDED WITH PULLSTRING, FUTURE CONDUIT.

ELECTRICAL DRAWING SHEET INDEX

Table of electrical drawing sheet index: E0.0 ELECTRICAL SYMBOLS AND SHEET INDEX, E1.0 ELECTRICAL SITE PLAN, E2.0L FIRST FLOOR LIGHTING PLAN, E2.0P FIRST FLOOR POWER PLAN, E2.0S FIRST FLOOR SPECIAL SYSTEMS PLAN, E2.1L SECOND FLOOR LIGHTING PLAN, E2.1P SECOND FLOOR POWER PLAN, E2.1S SECOND FLOOR SPECIAL SYSTEMS PLAN, E3.0 ONE LINE DIAGRAM AND ELECTRICAL DETAILS, E3.1 ELECTRICAL SCHEDULES, E3.2 ELECTRICAL SCHEDULES, E4.0 ELECTRICAL SPECIFICATIONS, E4.1 ELECTRICAL SPECIFICATIONS, E4.2 ELECTRICAL SPECIFICATIONS, E4.3 ELECTRICAL SPECIFICATIONS.



MOUNTING HEIGHT DETAIL UNLESS NOTED OTHERWISE

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NEW DEVELOPMENT THE 27 ELM A HUNTER RENAISSANCE DEVELOPMENT REDMOND OREGON

REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OREGON, 11/4/2016, REG. 09, 2009, DON W. VAN STONE, EXPIRATION DATE: 6/30/2018

GSIER ISBERT Sheet Title AS NOTED Scale 1602 Project Number NOVEMBER 8, 2016 Date 16154 E00 E30.DWG File Name Revisions E0.0

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ELECTRICAL SYMBOLS AND SHEET INDEX NO SCALE