1405-E-11-E5

SINGLE LINE DIAGRAM SYMBOLS

CONDUCTOR
CROSSING OF CONDUCTORS NOT CONNECTED
CROSSING OF CONDUCTORS - CONNECTED
TRANSFORMER - RATING AS NOTED
AIR CIRCUIT BREAKER, 3 POLE + MOLDED CASE UNLESS OTHERWISE NOTED. CURRENT TRIP VALUE SHOWN. "2P" INDICATES 2 POLE
MOTOR, 480V-3 PHASE UNLESS INDICATED OTHERWISE. NUMBER INDICATES HORSEPOWER.
COMBINATION MAGNETIC MOTOR STARTER WITH MOLDED CASE CIRCUIT BREAKER. "R" INDICATES REVERSING. NUMBER INDICATES SIZE OF STARTER
MAGNETIC MOTOR STARTER. "R" INDICATES REVERSING. "2S" INDICATES 2 SPEED
NON-FUSED DISCONNECT SWITCH: RATING AS NOTED. "F" INDICATES FUSED.
LIGHTNING ARRESTER
VOLTMETER SWITCH, 3 PHASE TRANSFER
AMMETER SWITCH, 3 PHASE TRANSFER
VOLTMETER
AMMETER
WATTHOUR METER
CURRENT TRANSFORMER
POTENTIAL TRANSFORMER
CONSTANT CURRENT TRANSFORMER - SIZE AS NOTED
CONTACTOR - "2P" INDICATES TWO POLE

AREA & SITE PLAN SYMBOLS

OVERHEAD POLE LINE
UNDERGROUND CONDUIT OR CONDUIT BANK
NEW POLE (WOOD)
EXISTING POLE (WOOD)
C.C.T., SERIES - STREET LIGHTING (RATING NOTED)
SERIES FENCE LIGHT FORM 104 (RATING & TYPE NOTED ON PLAN
PARKING AREA LIGHT FORM 101D (RATING & TYPE NOTED ON PLAN)

LIGHTING & POWER PLAN SYMBOLS

LIGHTING FIXTURE IDENTIFICATION SYMBOL. LETTER INDICATES TYPE OF FIXTURE. (SEE FIXTURE SCHEDULE) NUMBER IN LOWER HALF OF HEXAGON INDICATES FIXTURE WATTAGE (INCLUDING BALLAST WHERE REQUIRED) NUMBER HEXAGON INDICATES NUMBER OF FIXTURES REQUIRED IN ROOM AREA. NUMBER BELOW HEXAGON INDICATES MTG. HEIGHT ABOVE FLOOR
FLUORESCENT LIGHTING FIXTURE
LIGHT OUTLET, CEILING MOUNTED. NUMBER INDICATES CIRCUIT NUMBER. LETTER INDICATES SWITCH CONTROL. (TYPICAL FOR ALL BRANCH CIRCUITS ON LIGHTING PANELBOARD) "E" INDICATES FIXTURE IS ON EMERGENCY CIRCUIT.
LIGHTING OUTLET IN WALL. NUMBER INDICATES MOUNTING HEIGHT ABOVE FLOOR
EMERGENCY LIGHTING UNIT, SELF CHARGING BATTERY TYPE, PORTABLE WITH TWO 25 WATT - 6 VOLT SEALED BEAM LAMPS. EQUAL TO EXIDE LIGHT GUARD, MODEL "A" COMPLETE WITH MTG. BRACKET, EXIDE #57631 OR EQUAL. MTD. ABOVE DOOR AT 8'-0"
FLOODLIGHT
OUTLET, DUPLEX RECEPTACLE, 2 WIRE - 3 POLE 15 AMP - 120 VOLT (MOUNTING HEIGHT EQUALS 12" UNLESS OTHERWISE INDICATED) EQUAL TO HUBBELL CATALOG # 5252
OUTLET, SINGLE RECEPTACLE, 3 WIRE - 20 AMP - 120 VOLT, TWISTLOCK TYPE. EQUAL TO HUBBELL CATALOG # 7310 B.G. MTG HT. 12"
OUTLET, SINGLE WELDING RECEPTACLE - 60 AMP - 440 VOLT - 3φ - 4 WIRE. EQUAL TO CROUSE HINDS CATALOG NO AR-642 MTG. HT. 3'-0"
AN 3102A-20-15P RECEPTACLE AND AN 3106B-20-16S PLUG WITH AN 3057-12 CLAMP
JUNCTION BOX - SIZE AS REQUIRED WITH SUITABLE COVER
DISCONNECT SWITCH ("F" INDICATES FUSED)
MOTOR, 1/2 H.P. & LARGER - SIZE INDICATED ON SINGLE LINE DIAGRAM.
MOTOR, UNDER 1/2 H.P. - SIZE AS INDICATED.
SWITCH, SINGLE POLE, SINGLE THROW, 20 AMP - 125 VOLT, T - RATED - LETTER INDICATES OUTLETS CONTROLLED (MOUNTING HEIGHT EQUALS 4'-6")
SWITCH, THREE WAY - 20 AMP - 125 VOLT - T-RATED. LETTER INDICATES OUTLETS CONTROLLED. (MOUNTING HEIGHT EQUALS 4'-6")
SWITCH, MANUAL STARTING FOR SINGLE PHASE FRACTIONAL HORSEPOWER MOTORS. SINGLE POLE - 125 VOLT WITH THERMAL OVERLOAD DEVICE, RATED AT 110 % OF MOTOR NAME-PLATE RATING. EQUAL TO ALLEN-BRADLEY BULLETIN 600, CATALOG # 600TAX4. [illegible]
PUSHBUTTON STATION "PB". FOR FUNCTION OF EACH PB SEE CONTROL WIRING DIAGRAMS. L.O.S. = LOCK-OUT-STOP
NON ELECTRICALLY ACTUATED CIRCUIT CONTROLLING DEVICE. TYPE AS FOLLOWS:
PS = PRESSURE SWITCH
FS = FLOAT SWITCH
LS = LIMIT SWITCH
DS = DOOR SWITCH
SELECTOR SWITCH, 3 POSITION, HAND-OFF-AUTOMATIC
MAGNETIC STARTER
BRANCH CIRCUIT LIGHTING PANELBOARD, SURFACE MOUNTED
POWER DISTRIBUTION PANEL, SURFACE MOUNTED
CONDUIT RUN - EXPOSED
CONDUIT RUN CONCEALED IN SLAB, UNDER FLOOR OR UNDERGROUND.
CONDUIT RUN CONCEALED IN WALL OR CEILING
CONDUIT CHANGE IN ELEVATION, EITHER UP OR DOWN.
CONDUIT RUN TURNED DOWN
CONDUIT RUN TURNED UP
GROUND WIRE - B.C. INDICATES BARE COPPER. SIZE AS INDICATED ON PLAN
RECEPTACLE, SINGLE - 440 V. 30 AMP. 3φ 3 WIRE - EQUAL TO HUBBELL CAT. NO. 20403 - MTG HT. 18"
RECEPTACLE, SINGLE - 220 V. 20 AMP. 1φ 3 WIRE - EQUAL TO HUBBELL CAT. NO. 6810-R - MTG HT. 18"

LIGHTING & POWER PLAN SYMBOLS-CONT.

CROSS HATCHING ON CONDUIT RUN INDICATES NUMBER OF #12 A.W.G. WIRES IN CONDUIT. CONDUITS MARKED WITH CROSS HATCHING SHALL BE SIZED AS FOLLOWS: 2 OR 3 #12'S - 1/2"C; 4 OR 5 #12'S - 3/4"C; 6, 7 OR 8 #12'S - 1"C; 9 #12'S - 1 1/4"C. UNMARKED CONDUIT RUN ARE 2 #12'S IN A 1/2" CONDUIT. MINIMUM SIZE OF ALL CONCEALED CONDUIT SHALL BE 3/4".
SOLENOID VALVE, ELECTRIC
SOLENOID AIR VALVE, ELECTRIC
3 TYPE W FIXTURES, FORM 100 WITH GUARD AND COLORED GLOBE (R - RED, AMBER & GREEN WITH 50 W BULB. FOR OUTDOOR LOCATION - 100 W BULB. "W.P." = WEATHERPROOF
MANUALLY OPERATED VALVE
ALARM BELL

COMMUNICATIONS & FIRE ALARM PLAN SYMBOLS

TELEPHONE TERMINAL CABINET OR TERMINAL BOARD - SEE PLAN
TELEPHONE OUTLET - MOUNTING HEIGHT 12" ABOVE FLOOR UNLESS INDICATED OTHERWISE.
LOUDSPEAKER OUTLET - MOUNTING HEIGHT 8'-6" ABOVE FLOOR UNLESS INDICATED OTHERWISE
HORN - TYPE & MOUNTING HEIGHT AS NOTED ON DRAWINGS.
MANUAL FIRE ALARM BOX

CONTROL WIRING DIAGRAM SYMBOLS

PUSHBUTTON STATION, START-STOP, MOMENTARY CONTACT
SELECTOR SWITCH, 3 POSITION, HAND-OFF-AUTOMATIC
LOCK-OUT-STOP PUSHBUTTON
FUSE
CONTACT, NORMALLY CLOSED
CONTACT, NORMALLY OPEN
MOTOR OVERLOAD CONTACTS
PILOT LIGHT: R = RED: G = GREEN: A = AMBER
DAMPER MOTOR
HORN
CIRCUIT BREAKER, SINGLE POLE, MOLDED CASE
CONTROL TRANSFORMER - VOLTAGE AS NOTED
CONNECTION MADE
NO CONNECTION MADE
GROUND CONNECTION
SWITCH, THERMAL RATED
MAGNETIC STARTER OPERATING COIL. NUMBER INDICATES CONTROL CIRCUIT
RELAY OPERATING COIL: NUMBER INDICATES CONTROL CIRCUIT
TIME DELAY RELAY. NUMBER INDICATES CONTROL CIRCUIT
FRACTIONAL HORSEPOWER MOTOR
SOLENOID VALVE
SOLENOID AIR VALVE
ALARM BELL
PUSH TO TEST SWITCH WITH PILOT LIGHT

LIGHTING FIXTURE SCHEDULE

A / 172 — FLUORESCENT FIXTURE WITH 10% UPWARD COMPONENT. TWO 96" SLIMLINE LAMPS, 430 MA BALLAST. EQUAL TO SUNBEAM X302-96 SL. PENDANT MOUNTED

A-1 / 110 — FLUORESCENT FIXTURE WITH 10% UPWARD COMPONENT. TWO 48" SLIMLINE LAMPS, 430 MA BALLAST. EQUAL TO SUNBEAM X302-48 SL. PENDANT MOUNTED

A-2 / 272 — FLUORESCENT FIXTURE WITH 10% UPWARD COMPONENT. THREE 96" SLIMLINE LAMPS, 430 MA BALLAST. EQUAL TO SUNBEAM X303-96 SL PENDANT MOUNTED.

A-3 / 168 — FLUORESCENT FIXTURE WITH 10% UPWARD COMPONENT. THREE 48" SLIMLINE LAMPS, 430 MA BALLAST. EQUAL TO SUNBEAM X303-48 SL. PENDANT MOUNTED

B / 480 — FLUORESCENT FIXTURE WITH 2-96" G.E. Co. PG-17 OR EQUAL POWER GROOVE LAMPS & BALLAST. SIMILAR TO SMOOT HOLMAN "D" LUMINAIRE. PENDANT MOUNTED

C / 300 — INCANDESCENT BOX BOWL FIXTURE WITH TWO 150 WATT BULBS. CEILING MOUNTED. EQUAL TO SMOOT HOLMAN CATALOG #LH-1114

D / 150 — INCANDESCENT FIXTURE WITH 150 WATT BULB. PORCELAIN SOCKET WITH OUTLET BOX COVER. EQUAL TO MILLER CO. TYPE OR-1"

E / 200 — INCANDESCENT BRACKET TYPE OUTDOOR LIGHTING FIXTURE WITH 200 WATT BULB EQUAL TO HOLOPHANE CO. CATALOG #420

F / 500 — FLOODLIGHT LIGHTING FIXTURE WITH 500 WATT BULB WALL OR POLE MOUNTED. EQUAL TO CROUSE-HINDS TYPE "MDB-14"

G / 300 — RLM INCANDESCENT LIGHTING FIXTURE WITH 300 WATT BULB. EQUAL TO BENJAMIN #5644

H / 300 — RLM INCANDESCENT VAPORPROOF LIGHTING FIXTURE WITH 300 WATT BULB. EQUAL TO BENJAMIN #6603

K / 300 — VAPORPROOF LIGHTING FIXTURE WITH 300 WATT BULB. PENDANT MOUNTING. EQUAL TO HOLOPHANE, No. 92423

L / 1600 — MERCURY VAPOR TUBE, 1600 W. G.E. TYPE H1500-A23 OR EQUAL WITH SOCKET WITH NICKEL PARTS G.E. TYPE 95X954 OR EQ. AND WITH TRANSFORMER, G.E. 9T64Y1090 OR EQ.

M / 150 — INCANDESCENT LIGHTING FIXTURE PENDANT MOUNTING. EQUAL TO HOLOPHANE S-2172

N / 440 — FLUORESCENT MERCURY LAMP, EQUAL TO G.E. Co. TYPE H400-RC1 OR EQUAL WITH STEBERLITE OR EQUAL HOLDER AND PLUG.

F-1 / 1000 — FLOODLIGHT LIGHTING FIXTURE WITH 1000 WATT BULB WALL OR POLE MOUNTED. EQUAL TO CROUSE-HINDS TYPE "MDB-16"

ABBREVIATIONS

W.P. - WEATHER PROOF
B.C. - BARE COPPER WIRE
L.S. - LIMIT SWITCH
T.S. - TERMINAL ST.
T. - TERMINAL
CA. - CABLE
G. - GUTTER
P. - PLUG
R. - RECEPTACLE
S.J.B. - SEALABLE JUNCTION BOX
C. - CONDUIT
P.B. - PUSH BUTTON
H.P. - HIGH PRESSURE
L.P. - LOW PRESSURE
O.P.S. - OIL PRESSURE SWITCH
H.D. - HEAT DETECTOR
H.L.A. - HIGH LEVEL ALARM
C.O. - CONDUIT ONLY

GENERAL NOTES:

1. ALL REFERENCES TO SPECIFIC MANUFACTURER'S ITEMS ARE TO ESTABLISH TYPE OF EQUIPMENT ONLY AND EQUIPMENT BY OTHER MANUFACTURERS MAY BE USED WHEN APPROVED EQUAL AND SUITABLE FOR THE PURPOSE.

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SYMBOL LIST & LIGHTING FIXTURE SCHEDULE
ELECTRICAL

THE RALPH M. PARSONS COMPANY
LOS ANGELES

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