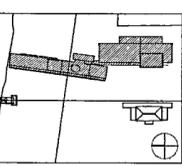




100% Construction Documents	09/27/02
50% Progress Printing	08/30/02
100% Design Development	03/01/02
Issue	Date



Job No. POLSHEK & PARTNERS ARCH 9908
CROMWELL AE 99-114

Scale
Date SEPTEMBER 27 2002

Title
**ELECTRICAL
SYMBOL LIST &
ABBREVIATIONS**

Sheet No.

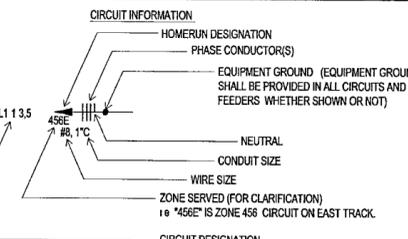
E001



ELECTRICAL LEGEND

SINGLE LINE	
	CIRCUIT BREAKER TRIP RATING AS INDICATED 3 POLE OR AS INDICATED
	DISCONNECT SWITCH OR LOAD INTERRUPTER SWITCH, CURRENT RATING AS INDICATED, 3 POLE OR AS INDICATED
	SWITCH WITH GROUND FAULT INTERRUPTER
	FUSE, CURRENT RATING AND TYPE WHEN INDICATED
	TRANSFORMER, DESCRIPTION AS NOTED OR PER SCHEDULE
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
	PHASE SELECTOR SWITCH
	AMMETER
	VOLT METER
	WATT HOUR METER

MISCELLANEOUS	
	JUNCTION BOX WALL MOUNT AS INDICATED FINAL CONNECTION TO BE MADE BY ELECTRICAL CONTRACTOR
	CLOCK OUTLET WALL MOUNTED 7'-6" A F F
	MOTOR
	10' BARE #6 COILED & EXOTHERMICALLY WELDED TO COLUMN
	CABLE TELEVISION OUTLET BOX MOUNTED 18" A F F WITH CONDUIT STUBBED ABOVE CEILING PROVIDE PULL CORD
	CONDUIT RUN EXPOSED
	CONDUIT RUN CONCEALED
	FLEXIBLE CONDUIT



- CIRCUIT DESIGNATION INDICATES PANELBOARD AND CIRCUIT(S) TO WHICH HOMERUN IS CONNECTED
- WIRE SIZE SHALL BE NO 12, UNLESS INDICATED OTHERWISE
- CONDUIT SIZE SHALL BE MINIMUM ALLOWED BY SPECIFICATIONS FOR NO 12 SIZE WIRE, 3/4" FOR NO 10, UNLESS INDICATED OTHERWISE
- CIRCUIT INFORMATION PROVIDED AT THE HOMERUN SYMBOL SHALL APPLY THE ENTIRE LENGTH OF THE CIRCUIT (FROM PANELBOARD TO LAST LOAD)
- WHEN NO PHASE CONDUCTOR OR NEUTRAL IS INDICATED AT THE HOMERUN SYMBOL, PROVIDE ONE PHASE CONDUCTOR AND ONE NEUTRAL, BOTH NO 12
- SWITCHING CONDUCTORS CONDUCTORS FOR THE NIGHT LIGHT CIRCUITS (UNSWITCHED), ETC ARE NOT SHOWN BUT SHALL BE PROVIDED AS NECESSARY
- WIRE SIZE INDICATED ON THESE DOCUMENTS AS INDICATED BY "NO 10" OR "12" HAS THE SAME MEANING AS "AWG" (N.E.C. NOMENCLATURE) (I.E. "NO 12" OR "12" MEANS "12AWG" IN N.E.C. NOMENCLATURE.)

EQUIPMENT DESCRIPTIONS	
E	EMERGENCY PANEL (NO LETTER INDICATES NORMAL POWER PANEL)
H	480 / 277V PANEL
L	208 / 120V PANEL
IG	208 / 120V ISOLATED GROUND PANEL
S	8MS CONTINUOUS SWITCH PANEL
D	8MS CONTINUOUS DIMMER PANEL

RECEPTACLES (MOUNTED 18" AFF UNLESS INDICATED OTHERWISE)	
	DUPLEX RECEPTACLE OUTLET (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R)
	DUPLEX RECEPTACLE OUTLET (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R) MOUNTED ABOVE COUNTERTOP
	SINGLE RECEPTACLE OUTLET (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R)
	FLOOR RECEPTACLE OUTLET (20A, 125V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 5-20R)
	SINGLE RECEPTACLE OUTLET (50A, 250V, 3 POLE, 3 WIRE, NEMA 10-50R)
	SINGLE RECEPTACLE OUTLET (20A, 250V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 6-20R)
	SINGLE RECEPTACLE OUTLET (30A, 250V, 2 POLE, 3 WIRE, GROUNDING TYPE, NEMA 6-30R)
	SINGLE RECEPTACLE OUTLET (30A, 250V, 3 POLE, 4 WIRE, TWIST-LOCK, GROUNDING TYPE, NEMA L15-30R)
	SINGLE SPECIAL-PURPOSE RECEPTACLE OUTLET, CONTRACTOR COORDINATE WITH TYPE OF EQUIPMENT
	SINGLE RECEPTACLE FOR ELECTRIC RANGE (50A, 125/250V 3 POLE 4 WIRE GROUNDING TYPE NEMA 14-50R)
	SINGLE RECEPTACLE OUTLET (30A, 250V, 2 POLE, 3 WIRE GROUNDING TYPE NEMA 6-30R)
	DUPLEX RECEPTACLE FOR MOUNTED IN CEILING (20A, 125V 2 POLE, 3 WIRE GROUNDING TYPE NEMA 5-20R) TWO (2)
	DUPLEX RECEPTACLES MOUNTED IN DOUBLE GANG BACKBOX (20A, 125V, 2 POLE, 3 WIRE GROUNDING TYPE NEMA 5-20R) TWO (2)
	DUPLEX RECEPTACLES FLOOR MOUNTED IN DOUBLE GANG BACKBOX (20A, 125V, 2 POLE 3 WIRE GROUNDING TYPE NEMA 5-20R)

SWITCHES (MOUNTED AT 48", UNLESS INDICATED OTHERWISE)	
	SWITCH, SINGLE POLE, 20A, LOWER CASE LETTER INDICATES DEVICES CONTROLLED
	SWITCH, DOUBLE POLE, 20A
	SWITCH, 3-WAY, 20A
	SWITCH, 4-WAY 20A
	SWITCH, KEY OPERATED SINGLE POLE
	SWITCH, WITH PILOT LIGHT, SINGLE POLE
	MANUAL MOTOR STARTING SWITCH, WITH THERMAL OVERLOAD ELEMENT AND PROVISIONS FOR LOCKING OPEN
	SWITCH, DIMMING (ON FLUORESCENT FIXTURES, COORDINATE WITH BALLAST MANUFACTURER)
	SWITCH, MULLION
	2 TO 7 BUTTON ILLUMINATED CONFIGURABLE WALLSTATION, CLASS 2 COORDINATE CONFIGURATION WITH ARCHITECT (LUTRON "SEE TOUCH 50" SERIES)
	SWITCH OCCUPANCY SENSOR, ULTRASONIC
	SWITCH, OCCUPANCY SENSOR PASSIVE INFRARED
	OCCUPANCY SENSOR, PASSIVE INFRARED, CEILING MOUNTED
	OCCUPANCY SENSOR, PASSIVE INFRARED, WALL MOUNTED
	OCCUPANCY SENSOR, ULTRASONIC, CEILING MOUNTED
	OCCUPANCY SENSOR, ULTRASONIC, WALL MOUNTED
	MULTIPLE DEVICES LOCATED SIDE BY SIDE (OR ABOVE AND BELOW IF DIFFERENT ELEVATIONS ARE SHOWN) AT THE LOCATION INDICATED

CABLE TELEVISION SYSTEM	
	4"x2 1/2" FLUSH WALL MOUNTED JUNCTION BOX MOUNT AT 7'-6" AFF PROVIDE 3/4" EMPTY CONDUIT WITH PULL LINE TO NEAREST ACCESSIBLE CEILING RECEPTACLE AT 7'-6" AFF LOCATE ADJACENT TO JUNCTION BOX. CIRCUIT NUMBER AS INDICATED ON THE PLANS

- GENERAL SYMBOLS NOTES
- ALL SYMBOLS MAY NOT BE USED
 - MOUNTING HEIGHTS ARE ABOVE FINISHED FLOOR OR GRADE TO THE CENTER LINE OF THE OUTLET, DEVICE, ETC UNLESS INDICATED OTHERWISE
 - LARGE AMPACITY CIRCUIT DESIGNATION EXAMPLE "4 SETS OF 3/500 #250N #100 4C" MEANS IN EACH OF FOUR 4" CONDUITS INSTALL THREE 500 KCM CONDUCTORS ONE 250 KCM NEUTRAL AND ONE #10 GROUND

LIGHTING FIXTURES & CIRCUITING INDICATIONS FOR BRANCH CIRCUITING	
	SIMILAR LOWER CASE LETTER ADJACENT TO FIXTURE DEVICE OR SWITCH INDICATES COMMON CONTROL WITHIN THE ROOM IN WHICH THEY ARE LOCATED
	FIXTURES WITHIN THE SPACE CONTAINING THE HEXAGON ARE TO BE THE TYPE INDICATED BY LETTERS IN HEXAGON
	LIGHTING FIXTURES SIZE AND SHAPE REPRESENTATIVE OF ACTUAL FIXTURE
	DIRECTIONAL LIGHT FIXTURE
	EXIT LIGHTS SHADED SURFACE INDICATES LOCATION OF LETTERING ARROW SHOWS DIRECTIONAL SIGN
	LIGHT FIXTURE DESIGNATION SUPERSUBSCRIPT = QUANTITY, SUBSCRIPT = ZONE

FIRE ALARM - DEVICES WITH VISUAL STROBES SHALL BE MOUNTED 80" AFF TO BOTTOM OF DEVICE OR 6" BELOW THE CEILING TO TOP OF DEVICE, WHICH EVER IS LESS	
	FIRE ALARM MANUAL PULL STATION, 48" AFF
	FIRE ALARM BELL WITH VISUAL STROBE
	FIRE ALARM HORN WITH VISUAL STROBE
	FIRE ALARM CHIME WITH VISUAL STROBE
	FIRE ALARM VISUAL STROBE
	FIRE ALARM SMOKE DETECTOR, PHOTOELECTRIC TYPE CEILING MOUNTED UNLESS INDICATED OTHERWISE SUBSCRIPTS "A" ABOVE CEILING, "U" UNDER RAISED FLOOR
	FIRE ALARM SMOKE DETECTOR, LOCATED IN THE SUPPLY AIR DUCT
	FIRE ALARM SMOKE DETECTOR, LOCATED IN THE RETURN AIR DUCT
	FIRE ALARM HEAT DETECTOR, RATE OF RISE TYPE, CEILING MOUNTED UNLESS INDICATED OTHERWISE SUBSCRIPT "F" DENOTES FIXED TEMPERATURE TYPE
	FIRE ALARM FLOW SWITCH IN SPRINKLER PIPING SYSTEM (FURNISHED UNDER THE FIRE SUPPRESSION SECTION OF THE SPECIFICATIONS)
	FIRE ALARM VALVE TAMPER SWITCH (FURNISHED UNDER THE FIRE SUPPRESSION SECTION OF THE SPECIFICATIONS)
	FIRE ALARM PRESSURE SWITCH IN SPRINKLER RISER (FURNISHED UNDER THE FIRE SUPPRESSION SECTION OF THE SPECIFICATIONS)
	FIRE ALARM DOOR HOLD OPEN MECHANISM (FURNISHED UNDER DOOR HARDWARE SECTION OF THE SPECIFICATIONS)
	FIRE ALARM CEILING SPEAKER
	FIRE ALARM CEILING SPEAKER W/ VISUAL STROBE
	FIRE ALARM ULTRA HIGH SENSITIVITY SMOKE DETECTION SYSTEM
	FIRE ALARM ADDRESSABLE HEAT DETECTOR, I-HIGH TEMPERATURE (195°F) TO INITIATE ELEVATOR SHUNT TRIP FUNCTION L-LOW TEMPERATURE (135°F) TO INITIATE ELEVATOR RECALL
	FIRE ALARM RELAY CONTROL MODULE
	FIRE ALARM CONTROL RELAY
	FIRE EXTINGUISHER

ABBREVIATIONS	
A	AMPERES
AC	ABOVE COUNTER
AFB	ABOVE FINISHED FLOOR
AFSM	ACCESS FLOOR SYSTEM MODULE
AL	ALUMINUM
AM	AMMETER
ASYM	ASYMMETRICAL
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
B	BASEBOARDS
C	CONDUIT
CAT	CATALOG
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CL	CENTER LINE
CLG	CEILING
CT	CURRENT TRANSFORMER
CU	COPPER
DWG	DRAWING
EC	EMPTY CONDUIT
ECH	ELECTRICAL CABINET HEATER
ECX	ELECTRICAL CLOSET EXHAUST
EHC	ELECTRICAL HEATING COIL
EM	EMERGENCY
EUH	ELECTRICAL UNIT HEATER
EW	ELECTRIC WATER COOLER
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FPB	FAN POWERED VARIABLE AIR VOLUME BOX
G	GROUND
GF	GROUND FAULT INTERRUPTER
GX	GENERAL EXHAUST
HC	HUNG CEILING
HN	HALF NEUTRAL
HDA	HAND-OFF AUTOMATIC
HP	HORSEPOWER
HV	HIGH VOLTAGE
HZ	HERTZ
IG	ISOLATED GROUND
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
KX	KITCHEN EXHAUST
LS	LIFE SAFETY
LV	LOW VOLTAGE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MCC/CONTROL ROOM/GENERATOR ROOM
MER	
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
N	NEUTRAL
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
Ø	PHASE
OL	OVERLOAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULLBOX
PNL	PANEL
PT	POTENTIAL TRANSFORMER
RM	ROOM
RT	RAINTIGHT
SWBD	SWITCHBOARD
SX	SMOKE EXHAUST
T/F	TRANSFORMER
TEL	TELECOMMUNICATIONS
TS	TAMPER SWITCH
TTB	TELECOMMUNICATIONS TERMINAL BOARD
TTC	TELECOMMUNICATIONS TERMINAL CABINET
TV	TELEVISION
TX	TOILET EXHAUST
TYP	TYPICAL
UH	UNIT HEATER
UNON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VAV	VARIABLE AIR VOLUME BOX
VFD	VARIABLE FREQUENCY DRIVE
VM	VOLTMETER
VP	VAPOR PROOF
W	WATTS
WF	WATERFLOW
WP	WEATHERPROOF
WT	WATERTIGHT
XP	EXPLOSION PROOF