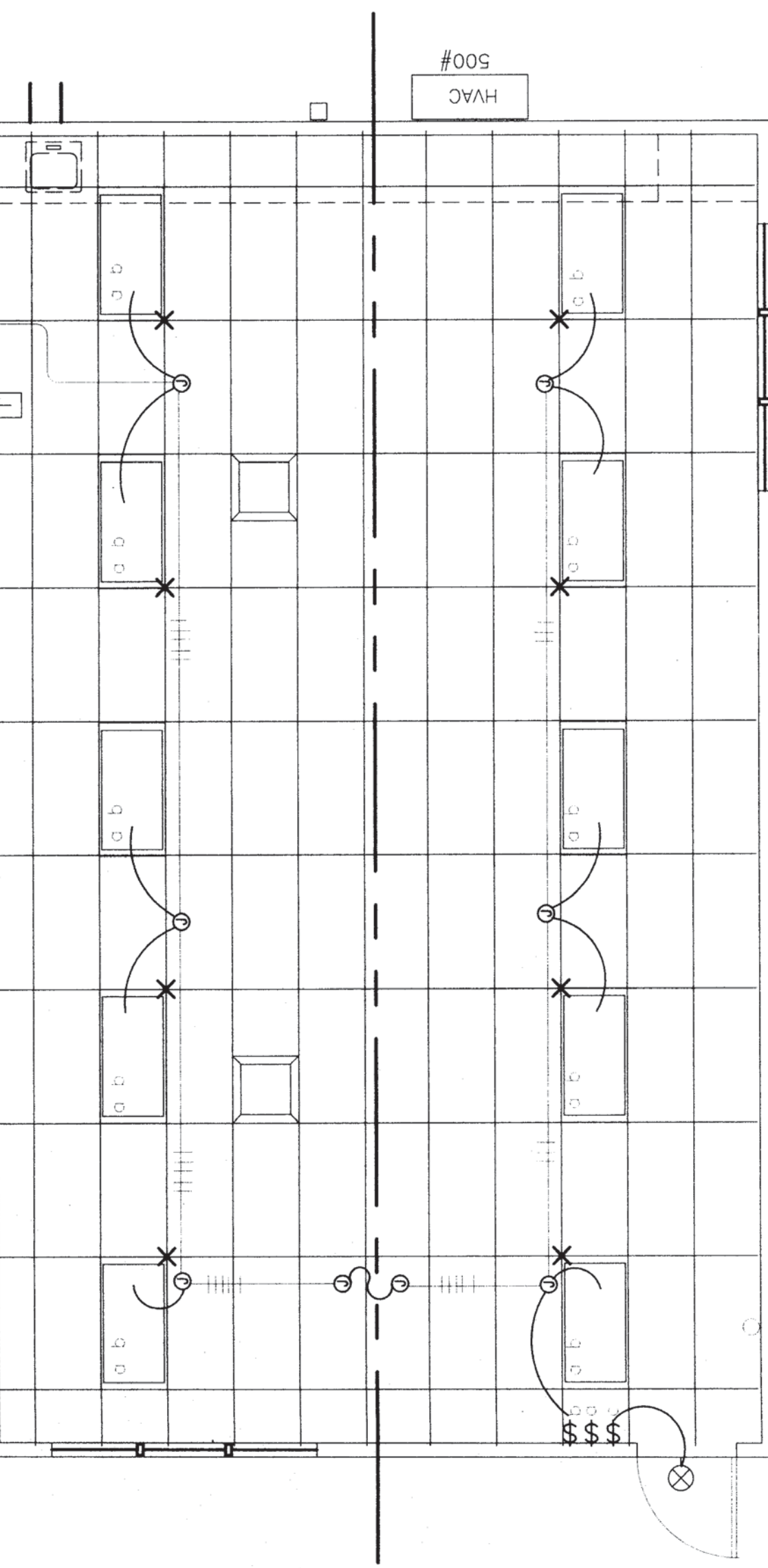


STANDARD ELECTRICAL SYMBOLS

- FLUORESCENT LIGHTING FIXTURE - SURFACE MOUNTED.
- FLUORESCENT LIGHTING FIXTURE - RECESSED.
- FLUORESCENT LIGHTING FIXTURE - WALL MOUNTED (EXTERIOR)
- FLUORESCENT LIGHTING FIXTURE - WALL MOUNTED (INTERIOR)
- DUPLEX WALL CONVENIENCE OUTLETS +18".
- SINGLE POLE LIGHT SWITCHES +48". HUBBELL PREMIUM, BRYANT HEAVY DUTY, OR LEVITON SPECIFICATIONS GRADE.
- ELECTRICAL CROSSOVER J-BOXES ABOVE T-BAR CEILING #1-4"x1", #22 4"x2" WALL CLOCK OUTLET WITH POWER OUTLET +84".
- SWITCH SUBSCRIPTS - α=DEVICE CONTROLLED.
- 15 AMP DUPLEX RECEPTACLE +18".
- JUNCTION BOX - SIZE AND TYPE AS REQUIRED.
- PANELBOARD - SEE SCHEDULE.
- TERMINAL CABINET - SIZE AND TYPE AS NOTED.
- CONDUIT CONCEALED IN CEILING OR WALL.
- CONDUIT CONCEALED BELOW FLOOR OR GRADE.
- HOMERUN TO RESPECTIVE PANEL TO TERMINAL.
- INDICATES #14 (GREEN) GROUND WIRE. OTHER SIZES AS INDICATED.
- BRANCH CIRCUIT WITHOUT FURTHER DESIGNATION IS A #14 WIRE CIRCUIT. FOR MORE THAN 2#14 WIRES AS FOLLOWS: ---3#14, ---4#14 ETC. FOR OTHER SIZES AS FOLLOWS: ---5#10, ---6#10, ---7#10, ---8#10, ---9#10, ---10#10, ---11#10, ---12#10.
- NOTE
- ⊙ FIXTURE IDENTIFICATION - LETTER INDICATES TYPE.
- N.I.E.S.
- MT
- [W.E.F.]
- 50 AMP 250 VOLT RANGE RECEPTACLE.
- FIRE ALARM STATION - OUTLET ONLY, 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +48" CENTERLINE
- FIRE ALARM HORN - OUTLET ONLY - 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +90" MIN. AND NOT LESS THAN 6" BELOW FINISHED CEILING.
- FIRE ALARM VISUAL ALARM - OUTLET ONLY - 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER BOTTOM +80". A.F.F. BUT NO GREATER THAN +96". IF CEILING MOUNTED PER NFPA72 TABLE 6-4.4.1(b).
- SPEAKER - OUTLET ONLY - 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +84".
- INTERCOM TELEPHONE - OUTLET ONLY - 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +48"
- FIRE ALARM MINI HORN - OUTLET ONLY - 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +90" MIN. AND NOT LESS THAN 6" BELOW FINISHED CEILING.



1 LIGHT FIXTURE PLAN
E1
1/4" = 1'-0"

ELECTRICAL: ALL ELECTRICAL WIRING SHALL BE IN CONDUIT. NO ROMEX WIRE SHALL BE ALLOWED.

A - FIRE EXTINGUISHER - INSTALL 30" FROM END WALL AT +48" FROM FLOOR.

B - J-BOX ONLY (INTERCOM) - 2" CONDUIT STUBBED ABOVE CEILING. INSTALL 30" FROM DOOR AT +48" FROM FLOOR.

C - FIRE ALARM PULL STATION - INSTALL 42" FROM DOOR AT +48" FROM FLOOR.

D - MINI HORN - INSTALL AT +80" FROM FLOOR.

E - EXTERIOR FIRE HORN - INSTALL AT +90" FROM FLOOR.

F - DUPLEX OUTLET AT 18" BELOW CEILING.

H - J-BOX (INTERCOM) - 24" ABOVE FLOOR.

G - J-BOX ONLY (CABLE TV) - 18" BELOW CEILING

I - STANDARD DUPLEX OUTLET LOCATION. PROVIDE CIRCUITS IN ELECTRICAL PANEL AS INDICATED ON PLAN.

J - J-BOX ONLY (INTERCOM) INSTALL 4-11/16" BOX, 2-GANG RING W/ 1" CONDUIT STUBBED ABOVE CEILING.

K - J-BOX ONLY (DATA) INSTALL 4-11/16" BOX, 2-GANG RING W/ 1" CONDUIT STUBBED ABOVE CEILING.

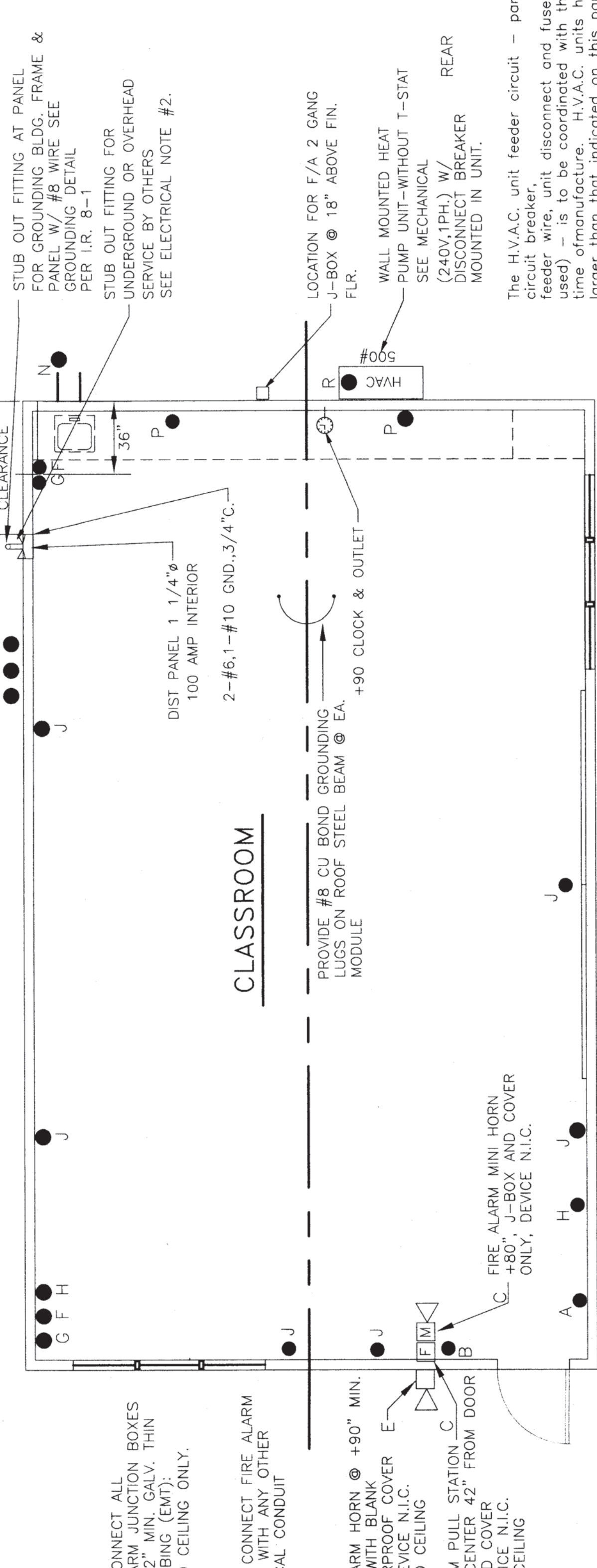
L - J-BOX ONLY (FIRE ALARM) INSTALL 4-11/16" BOX, 2-GANG RING W/ 1" CONDUIT STUBBED ABOVE CEILING.

M - J-BOX ONLY (DATA) INSTALL 4-11/16" BOX, 2-GANG RING W/ 1" CONDUIT STUBBED ABOVE CEILING.

N - INSTALL CAST IRON DRAIN N ASSEMBLY AT SINK LEVEL AND BELOW AND P.C.V. VENT PIPE WITHIN WALL. DRYLIGHT VENT THRU ROOF AND DRAIN THRU WALL JUST ABOVE BOTTOM PLATE.

O - G.F.I. RECEPTACLE. MOUNT AT INDICATED. +42" TO CENTER OF OUTLET FROM FLOOR.

P - INSTALL STANDARD HVAC UNIT WITHOUT T-STAT. BCSO WILL PROVIDE.



2 ELECTRICAL PLAN
E1
1/4" = 1'-0"

F.A.: CONNECT ALL FIRE ALARM JUNCTION BOXES WITH 1/2" MIN. GALV. THIN WALL TUBING (EMT) STUB TO CEILING ONLY.

DO NOT CONNECT FIRE ALARM CONDUIT WITH ANY OTHER ELECTRICAL CONDUIT

FIRE ALARM HORN @ +90" MIN. J-BOX WITH BLANK WEATHERPROOF COVER ONLY DEVICE N.I.C. STUB TO CEILING

FIRE ALARM PULL STATION @ +48" TO CENTER 42" FROM DOOR J-BOX AND COVER ONLY, DEVICE N.I.C. STUB TO CEILING

PROVIDE #8 CU BOND GROUNDING LUGS ON ROOF STEEL BEAM @ EA. MODULE +90 CLOCK & OUTLET

RELOCATABLE MANUF. ONLY ALL ITEMS BEYOND BY OTHERS

RIGID CONDUIT W/ CONDUCTOR ATTACHED TO WALL OR STRAPS BY OTHERS

TEE CONDUIT FOR SEPARATE CONDUCTOR GROUND BONDED TO METAL BUILDING FRAME

1/2" DIA. X 8' LONG COPPER #10 GROUND ROD AS SPECIFIED IN C.E.C.

GROUND CLAMP BY OTHERS

GROUND ROD BOX BY OTHERS

Size of conductors shall comply w/CEC Table Bond separate conductors from ground rod to electrical panel & metal building frame. Electrical ground to metal water pipe embedded @ least 10' into the soil if available. Electrical bond modules together w/#8 CU @ midline. By manufacturer. Check resistance to ground. If resistance is greater than 25 ohms, bonding conductors shall be as required. Grounding detail per R.M. 3. INSPECTOR TO WITNESS GROUNDING TEST.

FIRE ALARM boxes - Galvanized sheet metal, square or rectangular with blank covers. Locate one box at rear of building near main electrical panel at +18" above finish floor for future connection. Finish floor finish covers at exterior locations. Install finish covers at interior locations.

If testing results determine fire alarm audibility does not meet 15db over ambient noise levels, additional fire alarm signaling devices may be required by the enforcing agency

24 X 40
RELOCATABLE
CLASSROOMS

American Modular Systems
333 EAST CARNEGIE CT. MANTECA, CALIFORNIA 95337
PHONE (209) 825-1921 FAX. (209) 825-1016

CUSTOMER:
BAKERSFIELD CITY SCHOOL DISTRICT

ELECTRICAL PLAN & NOTES

DATE: 07-06-01
SCALE: NONE
DRAWN BY: M.H.
CHECKED BY:
SERIAL NO.

REVISIONS

NO	DATE	DESCRIPTION	NO	DATE	DESCRIPTION
1			1		

PROJECT No.
SHEET No. **E 1**

FIRE ALARM SYSTEM

- THE FIRE ALARM SYSTEM SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE, ARTICLE 780 & C.A. FIRE CODE ART. 10.
- INSTALLATION OF THE FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS, INCLUDING CALIFORNIA STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAVE BEEN PROVIDED BY THE DIVISION OF THE STATE ARCHITECT.
- UPON RECEIPT OF THE STATE ARCHITECT'S FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING AGENCY.

GENERAL NOTES

- GROUNDING ELECTRODE CONDUCTOR SIZED PER CEC 250-94 & 95.
- ALLOW FOR 12" MOVEMENT IN ANY DIRECTION IF PAD FOUNDATION IS USED.
- PROVIDE BONDS TO BLDG. STEEL & PANEL (#8 CU)
- PANEL TO LISTED FOR USE AS SERVICE EQUIPMENT.

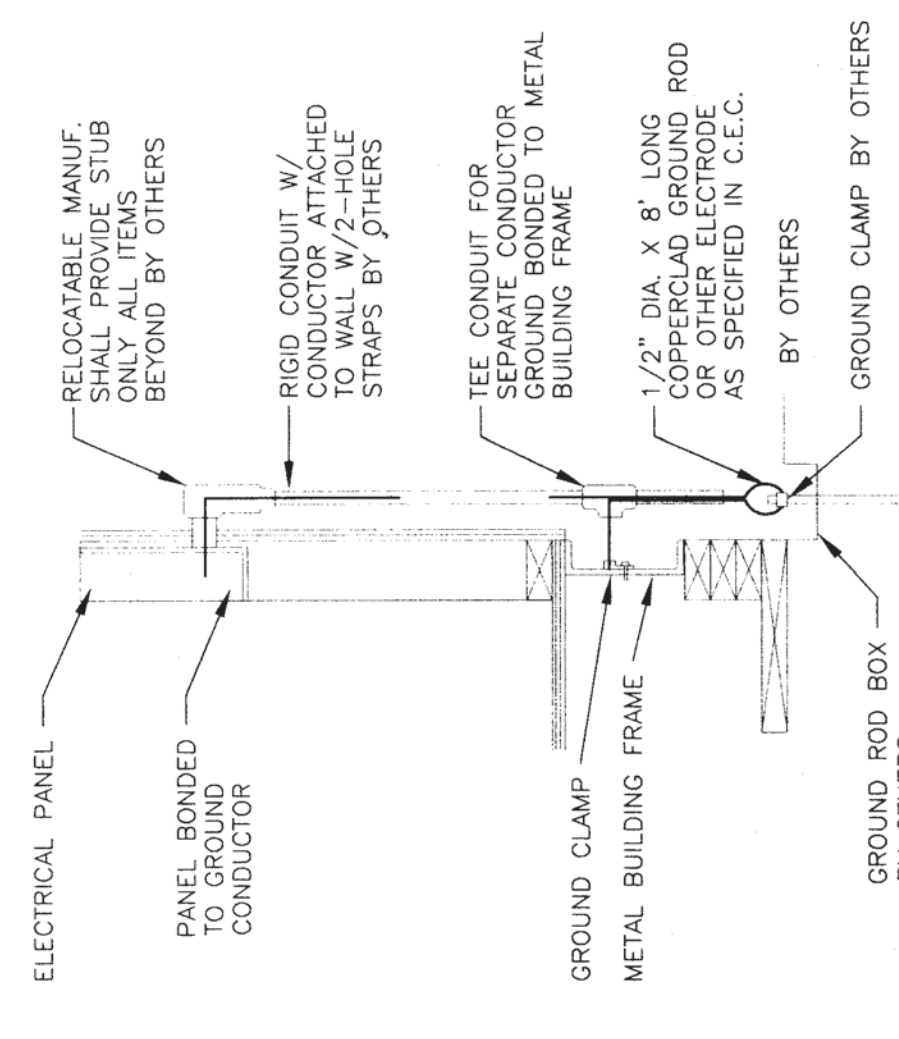
- FIXTURE NOTES:
- FLUORESCENT LIGHT FIXTURES SHALL HAVE ENERGY SAVING LAMPS AND BALLASTS.
 - LUMINAIR/BALLASTS SHALL BE CERTIFIED PER CALIFORNIA BUILDING CODE TITLE 24.
 - FLUORESCENT LIGHT FIXTURE TYPE "A" SHALL BE CONTROLLED TO PROVIDE TWO LEVELS OF LIGHTING. SWITCH (SA) SHALL CONTROL THE TWO OUTER LAMPS AND SWITCH (SB) SHALL CONTROL THE TWO INNER LAMPS.

PROVIDE WIRE HANGERS AND E.O. CLIPS AS REQUIRED BY CALIFORNIA SEISMIC REGULATIONS CBC 2501.4.5 & IR. M-3

SUPPORT DETAIL

SYMBOL	DESCRIPTION	WATTS	MANUFACTURER
⊗	2'x4" FLUORESCENT DROP IN FIXTURE, ACRYLIC PRISMATIC. ENERGY SAVING BALLAST. (4)35 WATT TUBES, WT. 27 LBS.	156 W	CRESCENT 241F440DLA
⊙	FLUORESCENT SURFACE MOUNTED EXTERIOR LIGHT WITH IMPACT RESISTANT ENCLOSURE. .125 THICK CLEAR PRISMATIC ONE PIECE LENS W/ NEOPRENE GASKET & "POSGRIP" STAINLESS STEEL SCREWS.	(2) 7W 27000 K	KENALL 3714 OR LITHONIA 202 2/7PL LP
○	INCANDESCENT WALL MOUNTED	150W	PROGRESS P3011x30"

SEE TYPICAL CLASSROOM LAYOUT FOR LOCATIONS OF ALL DEVICES. FIXTURE MOUNTING SHALL COMPLY WITH CALIFORNIA SEISMIC REGULATIONS.



RELOCATABLE MANUF. ONLY ALL ITEMS BEYOND BY OTHERS

RIGID CONDUIT W/ CONDUCTOR ATTACHED TO WALL OR STRAPS BY OTHERS

TEE CONDUIT FOR SEPARATE CONDUCTOR GROUND BONDED TO METAL BUILDING FRAME

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A BUILDING GROUND DETAIL
E1
1/4" = 1'-0"

VOLTS: 120/240 SINGLE PHASE PANEL: A

FEED: EXTERIOR LB

MAIN:	100 AMP MAIN BKR.	LOCATION:	INTERIOR MOUNTING:	FLUSH			
LOAD	BRK. A	B	C	BRK. WATTS			
LIGHTS, FLUORESCENT	15	11	1	2	2160	4476	A/C HVAC UNIT
LIGHTS, FLUORESCENT	960	15	11	1	2	2160	4476
EXTERIOR LIGHT & CLOCK	100	15	11	1	1	1	1
DUPLEX RECEPT.	720	15	11	1	1	1	1
SPACE							
PHASE WATTAGE	1880	1680	171	1	1	1	1
TOTAL WATTS "A" LEG: 6556	TOTAL WATTS "A+B": 2743	TOTAL WATTS "B" LEG: 6156	TOTAL WATTS: 15455	65	AMPS: 120/240V SINGLE PHASE	100AMP BUS.	

FEEDERS: TO BE RUN BY THE DISTRICT EITHER UNDERGROUND OR OVERHEAD. SEE SITE ELEC. PLAN.

3 ELECTRICAL DISTRIBUTION PLAN
E1
1/4" = 1'-0"

NOTE: OUT LOCATIONS FOR ELECTRICAL PANEL, FIRE ALARM AND DATA BOXES. EXACT LOCATIONS MAY VARY +/- SEVERAL FEET. PLEASE CONTACT AMERICAN MODULAR SYSTEMS FOR EXACT LOCATIONS.

FILE NO. 195413
AC, X, FLS, SS, ZAK

BASED ON PC# 02-101837