



MODULAR MANUFACTURER PROPRIETARY STATEMENT

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PRE-CHECKED SET NAME

24' x 40' THRU 120' x 40'
2:12 PITCHED ROOF

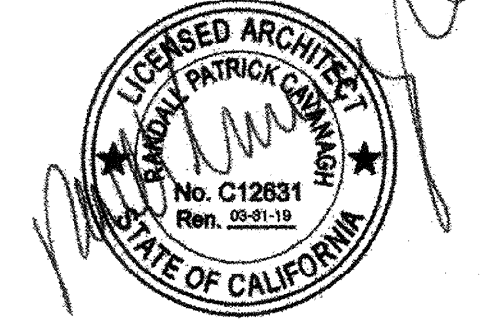
SITE SPECIFIC PROJECT NAME

STOCKPILE
(1) 60x40 BUILDING
(1) 72x40 BUILDING

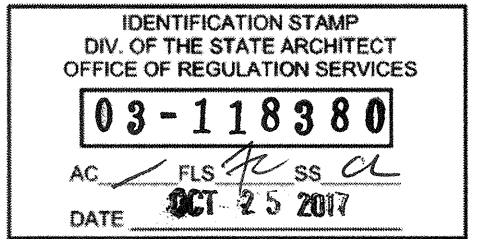
SHEET TITLE

ELECTRICAL NOTES & DETAILS

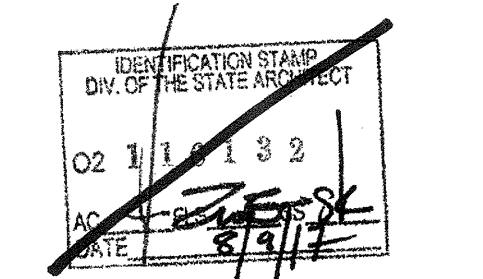
MANUFACTURER PROFESSIONAL OF RECORD ON PC



AGENCY TRACKING NO. 63321-241
FILE NO. 15-6



PROJECT SPECIFIC STATE AGENCY APPROVAL



ORIGINAL PC STATE AGENCY APPROVAL

BASED ON PC# 02-113939
PRE-CHECK (PC) DOCUMENT CODE: 2013 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

| REVISIONS | |
|-----------|--|
| | |
| | |
| | |

DRAWN BY: BA
SCALE: AS NOTED
DATE: 04/27/17
SHEET NUMBER

E1.2

FIRE ALARM SYSTEM

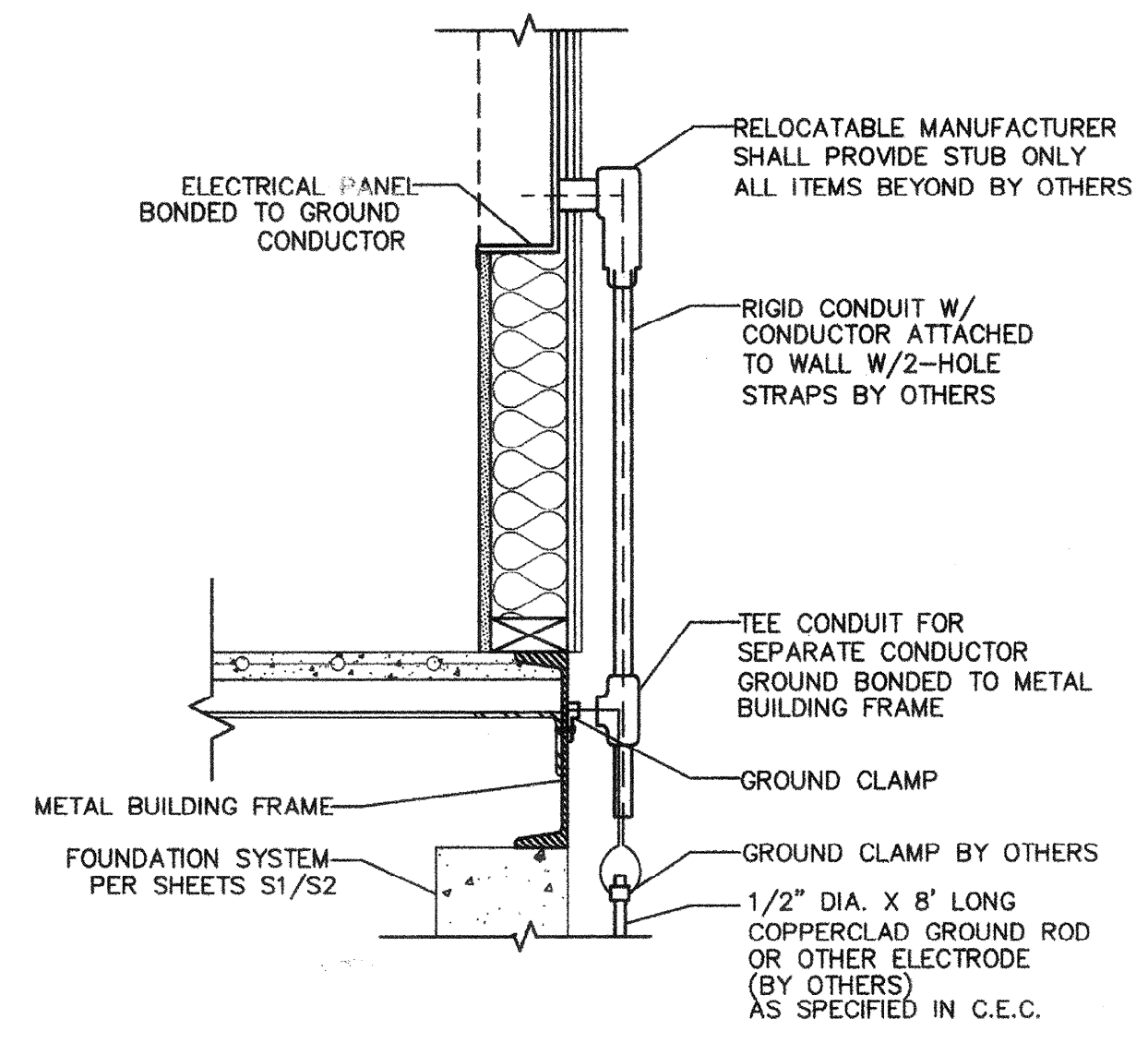
- THE FIRE ALARM SYSTEM SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE AND THE CALIFORNIA BUILDING CODE.
- INSTALLATION OF THE FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS, INCLUDING CALIFORNIA STATE FIRE MARSHAL LISTINGS FOR EACH COMPONENT OF THE SYSTEM, HAVE BEEN APPROVED BY DSA.
- UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING AGENCY.
- JUNCTION BOXES - GALVANIZED SHEET METAL, SQUARE OR RECTANGULAR WITH BLANK COVERS. LOCATE ONE BOX AT REAR OF BUILDING NEAR MAIN ELECTRICAL PANEL @ +18" ABOVE FINISH FLOOR FOR FUTURE CONNECTION.
- COVERS - INSTALL GASKETED, METAL, WATERPROOF, FINISH COVERS AT EXTERIOR LOCATIONS. INSTALL FINISH COVERS AT INTERIOR LOCATIONS.
- THE AUTOMATIC ALARM SYSTEM SHALL BE INSTALLED, TESTED, AND MAINTAINED IN ACCORDANCE WITH THE STATE FIRE MARSHAL'S REGULATIONS (CBC SEC. 907.2.3) AND THE 2013 EDITION OF NFPA 72.
- THE LOCATION OF AUTOMATIC DETECTORS, MANUAL STATIONS AND OTHER FIRE ALARM EQUIPMENT AND DEVICES, AS SHOWN ON PLAN, ARE FOR REFERENCE ONLY AND DO NOT CONSTITUTE SHOP DRAWINGS WHICH ARE REQUIRED FOR REVIEW AND APPROVAL.
- ALARM-INDICATING DEVICES OF A FIRE ALARM SYSTEM INTENDED TO ALERT ALL OCCUPANTS SHALL CAUSE A LEVEL OF AUDIBILITY OF NOT LESS THAN 15 dBA ABOVE THE AVERAGE AMBIENT NOISE LEVELS OR 5dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF 60 SECONDS, WHICHEVER IS GREATER, MEASURED 5' ABOVE THE FLOOR. AMBIENT NOISE LEVELS MEANS THE LEVEL WHICH CAN NORMALLY BE EXPECTED WHEN THE FACILITY, BUILDING, ROOM, OR AREA IS FUNCTIONING UNDER NORMAL OPERATING OR WORKING CONDITIONS (NFPA 72, SEC. 18.4.1).
- THE ALARM SYSTEM SHALL ACTIVATE A MEANS OF WARNING THE HEARING IMPAIRED. FLASHING VISUAL WARNINGS SHALL HAVE A FLASH RATE NOT EXCEEDING TWO FLASHES PER SECOND (2 HZ), NOR BE LESS THAN ONE FLASH EVERY SECOND (1 HZ). STROBE SIGNALING DEVICES FOR THE HEARING IMPAIRED SHALL BE STATE FIRE MARSHAL APPROVED AND LISTED (NFPA 72, SEC. 18.5.3).
- AUTOMATIC FIRE ALARM SYSTEM SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 CHAPTER 26, AS AMENDED BY ARTICLE 91. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UJFX OR UJUS BY UNDERWRITERS' LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER. 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.

GENERAL NOTES

- GROUNDING ELECTRODE CONDUCTOR SIZED PER CEC.
- PROVIDE BONDS TO BLDG. STEEL & PANEL (#8 CU)
- PANEL TO LISTED FOR USE AS SERVICE EQUIPMENT.

FIXTURE NOTES:

- ALL FLUORESCENT LIGHT FIXTURES SHALL HAVE ENERGY SAVING LAMPS AND BALLASTS.
- LUMINARIES/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.
- ELECTRICAL SERVICE DROP AND CONNECTIONS SUPPLIED BY OTHERS.
- MANUFACTURER TO PROVIDE STUB-OUT FROM BACK OF ELECTRICAL PANEL THROUGH THE EXTERIOR WALL OR TO BELOW FLOOR FOR RECEIVING EITHER UNDERGROUND OR OVERHEAD SERVICE & FITTING FOR GROUNDING CABLE.
- ELECTRICAL PANEL BOARD SHALL BE RECESS MOUNTED INSIDE THE BUILDING, SIZED TO ACCOMMODATE ALL CONNECTED LOADS INCLUDING SPACES AS SHOWN. OVERCURRENT PROTECTIVE DEVICES IN THE PANEL BOARDS SHALL HAVE ADEQUATE SHORT CIRCUIT INTERRUPTING CAPACITY. ALL BUSES INCLUDING BUS SHALL BE COPPER OR ALUMINUM.
- 2X4 FLUORESCENT FIXTURES SHALL HAVE A STEEL FRAME, LENS SHALL BE HINGED AND LOCKED IN PLACE BY TWO LOCKING DEVICES. THE LENS DIFFUSERS SHALL BE KHS, INC. #KSH-2, CAROLITE, INC. #C-12 OR PLASKOLITE, INC. #PL21A. MINIMUM LENS THICKNESS SHALL BE 0.125 INCHES.
- FLUORESCENT BALLAST SHALL BE ENERGY SAVER WHILE MAINTAINING FULL LIGHT OUTPUT, CLASS "P" EQUIPPED WITH THERMAL PROTECTORS, GUARANTEED AGAINST FAILURE FOR (2) YEARS AND BE REPLACEABLE FROM INSIDE THE FIXTURE.
- CLOCK - 12" DIAL CLOCK ON CLOCK OUTLET.
 - CLOCK SHALL BE GENERAL ELECTRIC MODEL 2912 129V 60 CYCLE
 - CLOCK OUTLET SHALL BE BRYANT #2828 OR EQUAL WITH SEPARABLE HANGING CLIP & APP'D RECEPT. THE H.V.A.C. UNIT FEEDER CIRCUIT - PANEL CIRCUIT BREAKER, FEEDER WIRE, UNIT DISCONNECT AND FUSES (WHERE USED) - IS TO BE COORDINATED WITH THE NAME PLATE DATA AT THE TIME OF MANUFACTURE. H.V.A.C. UNITS HAVING KVA RATINGS LARGER THAN THAT INDICATED ON THIS PANEL SCHEDULE WILL NOT BE ALLOWED TO BE INSTALLED ON THIS BUILDING.
 - IF 60 DEGREES WIRE IS TO BE USED IN THIS INSTALLATION, CALCULATIONS DEMONSTRATING AMPACITY SHALL BE PROVIDED ON THE DRAWING.



- SIZE OF CONDUCTORS SHALL COMPLY W/CEC.A
- BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL & METAL BUILDING FRAME (CEC). IN ADDITION TO THE DETAIL SHOWN ABOVE, BOND THE ELECTRICAL GROUND TO METAL WATER PIPE EMBEDDED AT LEAST 10' INTO THE SOIL IF AVAILABLE (CEC).
- ELECTRICAL BOND MODULES TOGETHER W/#8 CU @ MODLINE. BY MANUFACTURER. CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS (CEC) AS REQUIRED. GROUNDING DETAIL PER DSA IR E-1. INSPECTOR TO WITNESS GROUNDING TEST.

NOT USED

1 ELECTRICAL PANEL CONNECTION DETAIL - UNDERFLOOR OPTION

SCALE: 1-1/2" = 1'-0"

2

| VOLTS:120/240 SINGLE PHASE | | | | PANEL: "A" | | | | FEED: INTERIOR | | | | |
|----------------------------|------------------------|-----|----------|--------------------|-----------------------------|---|--------------|--------------------|-------|------------|---------------|---|
| MAIN: 125 AMP MAIN BKR. | | | | LOCATION: INTERIOR | | | | MOUNTING: RECESSED | | | | |
| LOAD | WATTS | | BRK. | C | A | B | C | BRK. | WATTS | LOAD | | |
| | A | B | | | | | | | | | P | R |
| RECEPTACLE | 360 | | 20 | 1 | 1 | | 2 | 20 | 540 | RECEPTACLE | | |
| RECEPTACLE | | 540 | 20 | 1 | 3 | | 4 | 20 | 1080 | RECEPTACLE | | |
| INTERIOR LIGHTS | 352 | | 20 | 1 | 5 | | 6 | 2 | 90 | 8640 HVAC | | |
| GFCI | | 360 | 20 | 1 | 7 | | 8 | | | 8640 HVAC | | |
| EXTERIOR LIGHTS | 100 | | | | 9 | | 10 | | | | | |
| | | | | | 11 | | 12 | | | | | |
| | | | | | 13 | | 14 | | | | | |
| | | | | | 15 | | 16 | | | | | |
| | | | | | 17 | | 18 | | | | | |
| | | | | | 19 | | 20 | | | | | |
| | | | | | 21 | | 22 | | | | | |
| | | | | | 23 | | 24 | | | | | |
| PHASE WATTAGE | 812 | 900 | | | | | | | 9180 | 9720 | PHASE WATTAGE | |
| TOTAL WATTS "A" LEG = 9992 | TOTAL WATTS A+B= 20612 | | | | TOTAL WATTS "B" LEG = 10620 | | | | | | | |
| TOTAL WATTS = 20612 | 86 AMPS | | 120/240V | | SINGLE PHASE | | 125 AMP BUS. | | | | | |

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

| VOLTS:120/240 SINGLE PHASE | | | | PANEL: "B" | | | | FEED: INTERIOR | | | | |
|----------------------------|-----------------------|------|----------|--------------------|----------------------------|---|--------------|-------------------|-------|-----------------|---------------|---|
| MAIN: 125 AMP MAIN BKR. | | | | LOCATION: INTERIOR | | | | MOUNTING: SURFACE | | | | |
| LOAD | WATTS | | BRK. | C | A | B | C | BRK. | WATTS | LOAD | | |
| | A | B | | | | | | | | | P | R |
| INTERIOR LIGHTS | 264 | | 20 | 1 | 1 | | 2 | 20 | 200 | EXTERIOR LIGHTS | | |
| GFCI | | 360 | 20 | 1 | 3 | | 4 | 20 | 1500 | HAND DRYERS | | |
| HAND DRYERS | 1500 | | 20 | 1 | 5 | | 6 | 20 | 180 | INTERIOR LIGHTS | | |
| WATER HEATER | | 1500 | 30 | 2 | 7 | | 8 | | | SPACE | | |
| | | 1500 | | | 9 | | 10 | | | | | |
| SPACE | | | | | 11 | | 12 | | | | | |
| | | | | | 13 | | 14 | | | | | |
| | | | | | 15 | | 16 | | | | | |
| | | | | | 17 | | 18 | | | | | |
| | | | | | 19 | | 20 | | | | | |
| | | | | | 21 | | 22 | | | | | |
| | | | | | 23 | | 24 | | | | | |
| PHASE WATTAGE | 3264 | 1860 | | | | | | | 380 | 1500 | PHASE WATTAGE | |
| TOTAL WATTS "A" LEG = 3644 | TOTAL WATTS A+B= 7004 | | | | TOTAL WATTS "B" LEG = 3360 | | | | | | | |
| TOTAL WATTS = 7004 | 30 AMPS | | 120/240V | | SINGLE PHASE | | 125 AMP BUS. | | | | | |

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

NOTE:
FIRE ALARM DEDICATED CIRCUIT SHALL BE IDENTIFIED WITH A RED MARKED DISCONNECT WITH LOCK-ON CAPABILITY (NFPA 72 10.6.5.2)

LOAD PANEL CALCULATIONS

3

GENERAL NOTES