SHEET INDEX

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LIGHTING FIXTURE SCHEDULE

TYPE	SYMBOL	MARK	LAMP TYPE	LAMP NO.	LAMP WATT	FIXTURE VA	VOLT	MOUNTING	MANUFACTURE & MODEL
A	A	POLE LTG	MH	1	250	295	208	13' POLE ON 2' BASE	USA-APG-S19-VR-ASY-250PSMH @ 15' MTG
A	B	POLE LTG	MH	1	250	295	208	13' POLE ON 2' BASE	USA-APG-S19-VR-VSQ-250PSMH @ 15' MTG
C		WALL SCONCE	CF13	2	13	34	120	WALL	SELECTED BY ARCH.
D		2X4 RECESS	F32	2	32	58	120	CEILING	LITHONIA SP SERIES
DE		2X4 RECESS	F32	2	32	58	120	CEILING	SELECTED BY ARCH. W/ 90 MIN BATTERY PACK
E		RECESS DOWN	CF26	1	26	30	120	CEILING	LITHONIA AF SERIES
F		WALL PACK	MH	1	150	210	120	WALL	LITHONIA TWP SERIES
G		LIGHT POST	MH	2	150	420	208	10' POLE	SELECTED BY ARCH.
X		EXIT SIGN	LED	5	2	2.5	120	CEILING	LITHONIA SIGNATURE SERIES

SYMBOL LIST
(NOT ALL SYMBOLS MAY BE USED)

GENERAL:

- DUPLEX CONVENIENCE OUTLET 20 AMP MINIMUM, 120 VOLT, +18" A.F.F. U.O.N..
- SEPARATE CIRCUIT (20 OR 30 AMP CIRCUIT VERIFY)
- WALL MOUNTED SPECIAL OUTLET
- DUPLEX CEILING OUTLET 20 AMP MINIMUM, 120 VOLT
- GFI DUPLEX RECEPTACLE 20AMP, 120 VOLT, +42" A.F.F., U.ON.. (GROUND FAULT INTERRUPTED)
- PLUGMOLD.
- JUNCTION BOX.
- JUNCTION BOX WALL MOUNTED.
- JUNCTION BOX MOUNTED ON CONDUIT STUB U.O.N..
- BY–PASS TIMER 0–6 HOUR – MARKTIME #9007 (MOUNT ADJACENT TO THERMOSTAT).
- MOTOR CONNECTION.
- "1" MAGNETIC MOTOR STARTER. NEMA SIZE AS INDICATED.
- "1" 30A COMBINATION MAGNETIC MOTOR STARTER AND DISCONNECT SWITCH, SIZE AS INDICATED.
- DISCONNECT SWITCH, 30 AMP, 3 POLE, NON–FUSED U.O.N..
- 60A 50A DISCONNECT SWITCH, 60 AMP, 3 POLE WITH 50 AMP FUSES.
- TERMINAL CABINET AS NOTED.
- SURFACE MOUNTED LIGHTING AND RECEPTACLE PANELBOARD.
- FLUSH MOUNTED LIGHTING AND RECEPTACLE PANELBOARD.
- SWITCHBOARD OR POWER PANELBOARD.
- PUSH–BUTTON, U.O.N..
- CONNECTION TO EQUIPMENT.
- T TRANSFORMER.
- 3 XXX REFERENCE NOTE.
- CONDUIT CONCEALED IN CEILING OR WALL.
- CONDUIT CONCEALED BELOW FLOOR SLAB OR UNDERGROUND.
- EXPOSED CONDUIT.
- CONDUIT TURNING UP. CONDUIT TURNING DOWN.
- 1/2"C. – 2#12&1#12 GND.
- 1/2"C. – 3#12&1#12 GND.
- 1/2"C. – 4#12&1#12 GND.
- #6 CONDUCTORS OTHER THAN #12 AWG AS INDICATED (3#6 AWG) SIZE CONDUIT PER APPLICABLE CODES.
- 2LA–1&3&5 HOMERUN TO PANEL "2LA" CIRCUITS 1,3,5 (3 POLE CIRCUIT BREAKER).
- 2LA–2,4,6 HOMERUN TO PANEL "2LA" CIRCUITS 2,4,6 WITH COMMON NEUTRAL.
- CONDUIT STUB WITH CAP. (WITH POLY–PROPYLENE PULL WIRE).
- CONDUIT SEAL.
- IG INDICATES GROUND ISOLATED WIRING
- TELEPHONE BACKBOARD

SIGNAL SYSTEM:

- WALL MOUNTED TEL OUTLET W/ 3/4" DIA. CONDUIT. STUBBED TO CLG. PLENUM FROM WALL J–BOX.
- WALL MOUNTED ANALOG TEL OUTLET W/ 3/4" DIA. CONDUIT. STUBBED TO CLG. PLENUM FROM WALL J–BOX.
- WALL MOUNTED TEL/DATA OUTLET W/ 3/4" DIA. CONDUIT. STUBBED TO CLG. PLENUM FROM WALL J–BOX.

SINGLE LINE DIAGRAM:

- 150AT CIRCUIT BREAKER, MOLDED CASE, 3 POLE, 150 AMP TRIP.
- 70AF 100AS 3P SWITCH AND FUSE, 3 POLE, 100 AMP WITH (3) 70 AMP FUSES.
- TRANSFORMER WITH SECONDARY GROUND.
- GROUND TO COLD WATER PIPE.
- V – VOLT METER
- A – AMMETER
- W – WATTMETER
- M UTILITY COMPANY METERING AND TEST BLOCKS AS REQUIRED BY THE SERVING AGENCY

LIGHTING:

- CLG. 6a / WALL 6a LIGHTING FIXTURE, "6" DENOTES CIRCUIT NUMBER, "a" DENOTES CONTROLLING SWITCH.
- FLUORESCENT LIGHTING FIXTURE.
- FLUORESCENT STRIP LIGHTING FIXTURE.
- SINGLE FACE EXIT LIGHT WITH DIRECTIONAL ARROWS IF INDICATED.
- DOUBLE FACE EXIT LIGHT FIXTURE WITH DIRECTIONAL ARROWS IF INDICATED.
- LIGHT ON EMERGENCY CIRCUIT.
- F1 FIXTURE TYPE "A". TYPICAL IN ROOM OR AREA U.O.N. (BALLAST LOSS INCLUDED, IF ANY). SEE FIXTURE SCHEDULE.
- S^3_a SINGLE POLE TOGGLE SWITCH, +1220mm A.F.F., U.O.N.. SUBSCRIPTS INDICATE THE FOLLOWING:
  - a – OUTLETS CONTROLLED.
  - 2 – TWO POLE.
  - 3 – THREE WAY.
  - 4 – FOUR WAY.
  - M – MANUAL MOTOR STARTER.
- D DIMMING SWITCH
- WALL MOUNTED OCCUPANCY SENSOR.
- CEILING MOUNTED OCCUPANCY SENSOR.
- PP POWER PACK.

ANNOTATIONS:

- A PANEL CALLOUT, "A" INDICATES PANELBOARD OR EQUIPMENT DESIGNATION.
- AC 2 MECHANICAL EQUIPMENT CALLOUT, "AC" INDICATES UNIT TYPE AND "2" INDICATES UNIT NUMBER. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
- 3 E–1 DETAIL CALLOUT, "3" INDICATES DETAIL NUMBER "E–1" INDICATES SHEET NUMBER. PLAN NOTE REFERENCE, REFER TO NOTES ON SHEET, OR AS DIRECTED.
- 4 REVISION REFERENCE.
- (X) INDICATES EXISTING EQUIPMENT.

GENERAL NOTES

1. ELECTRICAL CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS, LOCATION OF ELECTRICAL PANELS AND LENGTHS OF HOMERUNS BEFORE BIDDING THE JOB. IF THERE ARE DISCREPANCIES, CONTRACTOR SHALL ADVISE THE ARCHITECT OR AND ENGINEER BEFORE THE BID FOR CLARIFICATION.
2. ALL ELECTRICAL MATERIALS SHALL BE NEW AND U/L LISTED.
3. ALL MATERIALS AND WORKMANSHIPS SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, CALIFORNIA CODE, AND AUTHORITIES HAVING JURISDICTION.
4. FOR EXACT LOCATIONS AND HEIGHT OF RECEPTACLES, BOX OUTLETS, LIGHTING FIXTURES, SWITCHES, SEE ARCHITECTURAL DRAWINGS.
5. ALL WALL JUNCTION BOXES SHALL BE MOUNTED FLUSH WITH FINISHED FACE OF WALL. PROVIDE EXTENSIONS BOXES AT WALLS WITH APPLIED ACOUSTIC PANELS. ALL WALL JUNCTION BOXES SHALL BE INSTALLED WITH MOUNTING HOLES AT TOP AND BOTTOM, UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR SHALL PROVIDE 1/8" NYLON PULL CORDS IN ALL EMPTY CONDUITS.
7. CONDUCTORS SHALL BE COPPER, ASTM STANDARD SOLID NO. 10 AND SMALLER, STRANDED NO. 8 AND LARGER.
8. PROVIDE FINISH TRIM ON ALL WIRING DEVICES AND ELECTRICAL BOXES, FINISH REQUIREMENTS SHALL BE DETERMINED BY ARCHITECT.
9. ALL CONDUCTORS SHALL BE COPPER TYPE THWN INSULATION AT 75°C. U.O.N. ALL EQUIPMENT AND THE WIRING TERMINALS SHALL BE SUITABLE FOR 75°C WIRING TERMINATIONS.
10. THE CONTRACTOR SHALL EXTEND WIRING FROM ALL JUNCTION BOXES, RECEPTACLES, SWITCHES, ETC. AND MAKE FINAL CONNECTION AS REQUIRED TO ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTION.
11. SUBMIT SHOP DRAWINGS AND PRODUCT DATA PRIOR TO INSTALLATION FOR PANEL BOARDS, WIRING DEVICES, LIGHTING FIXTURES, LIGHTING CONTROL, MODULAR WIRING COMPONENTS.
12. FLUORESCENT LAMP BALLASTS AND LUMINARIES WITH FLUORESCENT LAMP BALLASTS SHALL BE CERTIFIED BY THE MANUFACTURER TO COMPLY WITH TITLE 24 "APPLIANCE STANDARDS FOR FLUORESCENT BALLASTS".
13. ALL J–BOXES SHALL BE SIZED PER NEC TABLE 370–16(a).
14. A DUPLEX RECEPTACLE INSTALLED ON AN INDIVIDUAL 20A. CIRCUIT BREAKER SHALL HAVE 20A RATING.
15. PROVIDE MINIMUM 6" SEPARATION FOR BACK TO BACK OUTLET BOXES.
16. ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE FASTENED TO STRUCTURE SO AS TO RESIST MOVEMENT DUE TO SEISMIC FORCES.
17. TEL/DATA HOMERUN FROM FURNITURE FEEDS SHALL BE 1 1/2" CONDUIT MINIMUM.
18. MINIMUM WIRE SIZE FOR HOMERUNS OVER 100' SHALL BE #10 COPPER.
19. CONTRACTOR SHALL REMOVE ALL UNUSED ELECTRICAL OUTLETS, SWITCHES, CONDUITS AND WIRES FROM THE PREMISES.
20. CONTRACTOR SHALL DO ALL CUTTING AND PATCHING OF THE EXISTING CONSTRUCTION WORK WHICH MAY BE REQUIRED FOR THE PROPER INSTALLATION OF THE ELECTRICAL WORK. ALL PATCHING SHALL BE THE SAME MATERIALS, WORKMANSHIP, AND FINISH AND SHALL ACCURATELY MATCH ALL SURROUNDING WORK. AFTER COMPLETION OF WORK UNDER THIS SECTION, CLEANUP RESULTANT DEBRIS FROM THE WORK AND REMOVE FROM THE SITE.
21. CONTRACTOR SHALL PROVIDE THE REQUIRED NUMBER OF WIRES PER CIRCUIT WIRING SCHEDULE.
22. ALL CONDUCTORS/WIRING SHALL BE COPPER.
23. NOTES THE FOLLOWING:
    a. ALL WORK TO COMPLY WITH THE 2010 CEC (2008 NEC)
    b. LIGHT FIXTURE IN CONTACT WITH INSULATION TO BE UL LISTED FOR THERMAL BARRIER OR PROVIDE 3" MINIMUM CLEARANCE.

FIRE ALARM SYST. GENERAL NOTES

1. PROVIDE THE EQUIPMENT AND DEVICES INDICATED ON THE DRAWINGS AND VARIOUS OTHER MISCELLANEOUS COMPONENTS AS REQUIRED FOR A BUILDING FIRE ALARM SYSTEM.
2. PROVIDE A SYSTEM WIRING DIAGRAM INCLUDING RISER DIAGRAMS AND FLOOR PLANS INDICATING ALL CONDUIT WIRE SIZES AND QUANTITIES BETWEEN ALL DEVICES AND SUBMIT TO THE FIRE MARSHAL FOR HIS APPROVAL.
3. PROVIDE ALL CONDUITS, WIRES AND CABLES AS REQUIRED BY THE FIRE ALARM MANUFACTURE. INSTALL AND CONNECT ALL SYSTEM COMPONENTS IN ACCORDANCE WITH MANUFACTURE'S SPECIFICATION.
4. WIRING AND TERMINATION INSTALLATION SHALL BE PERFORMED BY A FIRE ALARM CONTRACTOR HAVING AT LEAST 5 YEARS EXPERIENCE INSTALLING FIRE ALARM SYSTEMS. CONDUITS MAY BE INSTALLED UNDER HIS DIRECTION.
5. THE CONTRACTOR SHALL PROVIDE ALL OF THE APPLICATION ENGINEERING, DOCUMENTATION AND TESTING REQUIRED AND OBTAIN LOCAL AND CALIFORNIA STATE FIRE MARSHAL'S APPROVAL AND SYSTEM ACCEPTANCE. PROVIDE AN INDEPENDENT REGISTERED ENGINEER'S STAMP WHEN THE SHOP DRAWINGS REQUIRE AN ENGINEER'S STAMP BY THE APPROVING AGENCIES.
6. PROVIDE ALARM DECIBEL CALCULATIONS, VOLTAGE DROP AND BACK–UP POWER SUPPLY CAPACITY CALCULATIONS REQUIRED BY THE APPROVING AGENCIES.
7. SUBMIT CATALOG CUTS, TECHNICAL DATA, CONDUCTOR TYPE AND DESCRIPTIVE LITERATURE ON ALL HARDWARE COMPONENTS TO BE FURNISHED INCLUDING CALIFORNIA STATE FIRE MARSHAL (CSFM) LISTING.
8. SUBMIT SHOP DRAWINGS SHOWING EQUIPMENT LOCATIONS, WIRING AND PIPING SCHEMATICS DETAILS, PANEL CONFIGURATIONS, SIZES AND A POINT–TO–POINT SCHEMATIC OF ALL CIRCUITS. INCLUDE ADDITIONAL DEVICES AS REQUIRED BY SYSTEM CALCULATION AND COMPLIANCE.
9. SUBMIT CALIBRATIONS AND TESTS PRIOR TO FINAL ACCEPTANCE.
10. PRIOR TO INSTALLATION, SUBMIT FIRE ALARM DRAWINGS TO THE AUTHORITY HAVING JURISDICTION FOR APPROVAL. PROVIDE AS A MINIMUM: SFM LISTING NUMBER FOR ALL COMPONENTS; SINGLE LINE DIAGRAM SHOWING PRIMARY POWER/EMERGENCY POWER RISER DIAGRAM; DETAILS OF TROUBLE SUPERVISION AND POWER LIMITED/NON–POWER LIMITED CIRCUITRY FLOOR PLANS SHOWING LOCATION OF ALL COMPONENTS; METHOD OF ALARM TRANSMISSION TO LOCAL FIRE DEPARTMENT.
11. FIRE ALARM CONTRACTOR SHALL HAVE NICET CERTIFIED PERSONELL.

ABBREVIATIONS

A	AMPERE.
A/C	AIR CONDITIONING.
AFF	ABOVE FINISHED FLOOR.
BKBD	BACKBOARD.
C	CONDUIT.
C/B	CIRCUIT BREAKER.
CKT	CIRCUIT.
CO	CONDUIT ONLY.
DE	DUAL ELEMENT FUSES.
DISC	DISCONNECT.
DISTR	DISTRIBUTION.
DWG	DRAWING.
EG	EQUIPMENT GRID
EA	EACH.
ELEC	ELECTRICAL.
EMT	ELECTRICAL METALLIC.
EQUIP	EQUIPMENT.
EXIST	EXISTING.
F	FUSE.
FA	FIRE ALARM.
FLUOR	FLUORESCENT.
GFI	GROUND FAULT INTERRUPTER.
GND	GROUND.
HOA	HAND–OFF–AUTOMATIC.
HP	HORSEPOWER.
IC	INTERCOM.
J	JUNCTION.
LCL	LONG CONTINUOUS LOAD.
LTG	LIGHTING.
MAX	MAXIMUM.
MIN	MINIMUM.
MTG	MOUNTING.
NF	NON–FUSED.
NIC	NOT IN CONTRACT.
NL	NIGHT LIGHT.
NTS	NOT TO SCALE.
P	POLE.
PA	PUBLIC ADDRESS.
PB	PULL BOX.
PNL	PANEL.
PWR	POWER.
PDU	POWER DISTRIBUTION UNIT
REQ'D	REQUIRED.
SHT	SHEET.
SPST	SINGLE POLE, SINGLE THROW.
SURF	SURFACE.
SW	SWITCH.
TC	TIME CLOCK.
TERM	TERMINAL.
TV	TELEVISION.
TYP	TYPICAL.
XFMR	TRANSFORMER.
UG	UNDERGROUND.
UON	UNLESS OTHERWISE NOTED.
V	VOLT.
V.L.	VERIFY LOCATION
W/	WITH.
WP	WEATHERPROOF.
4/S	JUNCTION BOX 4" SQUARE.
5/S	JUNCTION BOX 4–11/16".

REVISIONS

DATE	
PLAN CHECK REV. 10–11–12	1

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