

ELECTRICAL NOTES

1. CONTRACTOR SHALL PERFORM A BURN TEST. LIGHT FIXTURES MUST BURN CONTINUOUSLY PER MANUFACTURER RECOMMENDATION, MINIMUM 48 HOURS. TEST MUST BE REPEATED FOR EARLY BURNOUTS.
2. PROVIDE A LABEL ON EACH ELECTRICAL EQUIPMENTS AND DEVICES DENOTING PANEL AND CIRCUIT NUMBER.
3. NO CHANGES TO THIS DESIGN SHALL BE MADE WITHOUT THE PRIOR WRITTEN APPROVAL OF DESIGN ENGINEER.
4. COORDINATE ALL WORK WITH OTHER TRADES, PRIOR TO EXCAVATION AND INSTALLATION OF UNDERGROUND SYSTEM.
5. ALL WIRES SHALL BE COPPER WITH "THWN-2" INSULATION, 600V RATING, 90" FOR UNDERGROUND, UNDER FLOOR, OR WET LOCATION. USE "THHN", 600V, 90" RATING FOR DRY LOCATIONS. UL LISTED
6. ALL INSTALLATIONS OF ALL ELECTRICAL WORK SHALL BE COMPLETE AND IN OPERATING CONDITIONS, AND SHALL COMPLY WITH LATEST ELECTRICAL CODE BASED 2014 NEC/2016 CALIFORNIA ELECTRICAL CODE, AND LOCAL AUTHORITIES HAVING JURISDICTION.
7. EQUIPMENT GROUNDING SHALL BE INSTALLED IN EACH CONDUIT AND SHALL COMPLY WITH THE ELECTRICAL CODE.
8. ELECTRICAL EQUIPMENT AND DEVICES INSTALLED OUTDOORS SHALL BE ENCLOSED IN WEATHERPROOF, NEMA 3R ENCLOSURES.
9. ELECTRICAL EQUIPMENT SHORT CIRCUIT BRACING RATING SHALL BE GREATER OR EQUAL TO MAXIMUM LET THRU CURRENT
10. CIRCUIT BREAKERS SHALL BE "SWD" TYPE. SOME C/B SHALL BE WITH PROVISION OF LOCKING CAPABILITY AT OFF POSITION, WHERE REQUIRED PER CODE.
11. ALL ELECTRICAL EQUIPMENT AND MATERIAL SHALL BE NEWLY FURNISHED BY CONTRACTOR, AND SHALL BE U.L. LISTED OR APPROVED BY LA COUNTY THIRD PARTY TESTING FACILITY.
12. CONDUIT RUNS SHOULD SUIT FIELD CONDITIONS.
13. ALL MATERIAL SHALL BE NEW AND WARRANTED FOR ONE YEAR AFTER ACCEPTANCE OF PROJECT BY OWNER.
14. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING THE WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO BEST SUIT THE JOB DIMENSIONS OR CONDITIONS, AND SHALL BE INCLUDED AS PART OF THIS WORK. INSTALLATIONS OF EQUIPMENT PER MANUFACTURER RECOMMENDATION
15. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE BEFORE STARTING ANY WORK AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE
16. ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE. ANY DISCREPANCIES IN DRAWINGS WITH JOB CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCING WORK.
17. USE RIGID METALLIC CONDUIT WHEN SUBJECT TO MECHANICAL DAMAGES. USE PVC SCHEDULE 40 FOR UNDERGROUND INSTALLATION, AND SCHEDULE 80 PVC FOR UNDERGROUND BENDS. USE ELECTRICAL METALLIC TUBING INCLUSIVE IN ALL DRY LOCATIONS, OR MC CABLE PER CODE. USE FLEXIBLE CONDUIT FOR SHORT MOTOR RUNS OR CONNECTION OF LIGHT FIXTURES WITH MAXIMUM OF 6 FEET.
18. EXIT SIGN WITH LETTERS HAVING A PRINCIPAL STROKE OF NOT LESS THAN 3/4" WIDE AND A MINIMUM OF 6" HIGH, SHALL BE LOCATED AT DOORS MARKED "EXIT" ON PLANS. EXIT SIGNS SHALL BE INTERNALLY ILLUMINATED AT ALL TIME, WITH BUILT-IN BATTERY PACK OF MINIMUM 90 MINUTES POWER DURATION IN CASE OF POWER FAILURE. INSTALL IN ACCORDANCE WITH CODES. EXIT SIGNS SHALL BE UL LISTED.
19. UPON COMPLETION OF THE WORK, CONDUCT AN OPERATING TEST. DEMONSTRATE THAT ALL EQUIPMENTS ARE OPERATING IN A SATISFACTORY MANNER IN ACCORDANCE WITH THE DRAWINGS, AND IN PRESENCE OF THE OWNER.
20. EMERGENCY LIGHTING SYSTEM SHALL PROVIDE INTIAL AVERAGE VALUE OF MINIMUM 1 FOOT CANDLE, AND A MINIMUM 0.1 FOOTCANDLES AT ALL EMERGENCY EGRESS PATH FLOOR INCLUDING STAIRS, CORRIDORS,...AND OTHER LOCATIONS REQUIRED BY THE CODES. AT END OF 90 MINUTES EMERGENCY LIGHTING OPERATION, AVERAGE FOOT CANDLE SHALL NOT BE LESS THAN 0.6 FOOT CANDLE OR LESS THAN MINIMUM 0.06 FOOT CANDLE AT EGRESS PATH FLOOR LEVEL.
21. ALL ELECTRICAL WORK AND MATERIALS SHALL BE GUARANTEED BY THIS CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF WORK BY THE OWNER.

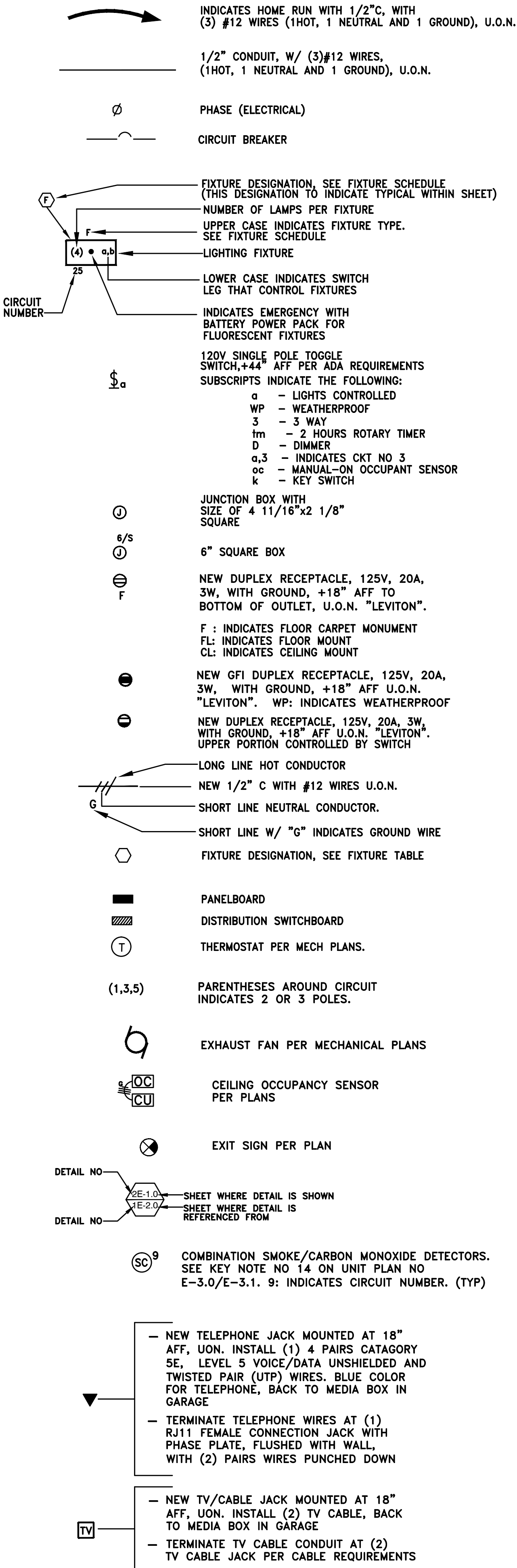
ABBREVIATIONS

A	-	AMPERE	MB	-	MAIN BREAKER
AFF	-	ABOVE FINISHED FLOOR	M.L.O.	-	MAIN LUGS ONLY
A.I.C.	-	AMPS INTERRUPTING CURRENT	NEMA	-	NATIONAL ELECTRICAL
ANSI	-	AMERICAN NATIONAL STANDARDS INSTITUTE			
CL	-	CENTERLINE	N/L	-	NIGHT LIGHT
C	-	CONDUIT	N.T.S.	-	NOT TO SCALE
C/B	-	CIRCUIT BREAKER	PA	-	PUBLIC ADDRESS
CKT	-	CIRCUIT	PB	-	PULL BOX
CT	-	COUNTER TOP	PG&E	-	PACIFIC GAS AND ELECTRIC
DSB	-	DISTRIBUTION SWITCH BOARD	PVC	-	POLYVINYL CHLORIDE
E	-	ELECTRICAL	RGS	-	RIGID GALVANIZED STEEL
E.M.T.	-	ELECTRIC METALLIC TUBING	SW	-	SWITCH
EUSERC	-	ELECTRIC UTILITY SERVICE EQUIPMENTS	SWD	-	SWITCHING DUTY
			T	-	TELEPHONE
EX	-	EXISTING	TYP	-	TYPICAL
FA	-	FIRE ALARM	U.L.	-	UNDERWRITERS LABORATORIES
FACP	-	FIRE ALARM CONTROL PANEL	U.O.N.	-	UNLESS OTHERWISE NOTED
FIXT.	-	FIXTURE	W/	-	WITH
FLUO.	-	FLUORESCENT	U/F	-	UNDER FLOOR
GND	-	GROUND	U/G	-	UNDERGROUND
G.F.I.	-	GROUND FAULT INTERRUPTER	W.P.	-	WEATHERPROOF
JB	-	JUNCTION BOX	XFMR	-	TRANSFORMER

ELECTRICAL SHEET INDEX

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ELECTRICAL SYMBOLS:



LIGHT FIXTURE SCHEDULE

SYMBOL	TYPE	DESCRIPTION	NO. OF LAMPS	WATTS/ FIXTURE	VOLT	MOUNTING
AE	LED	ADA WALL MOUNT, "BROWNLEE" CAT# 1390-AB-B12LED-WA-30K-BB1-TBC, WITH 12W LED BAR, 8"Wx13"Hx4"D, UL LISTED FOR DAMP LOCATION, INTEGRAL BATTERY BACK UP, AND FIXTURE REMAIN 4"D ADA, 3000K, ANTIQUE BRONZE WITH TOP AND BOTTOM COVER, 1422 LUMENS	1	12	120	WALL
B	LED	ARCHITECTURE SCONCE WITH LENS "LITHONIA" CAT#WST-LED-P2-30K-SR3-MVOLT-PIR -DDBXD W/ (1) 25W LED LAMP, 0-10VDC DIMMABLE LED DRIVER, BUILT-IN MOTION SENSOR THAT SETS NO MOTION TO 3VDC (37% LIGHT), AND 100% FULL MOTION, UL LISTED FOR WET LOCATION, DARK BRONZE, FORWARD THROW, 8.6"Hx17"Wx10.3"D, 20 lbs. 3237 LUMENS	1	25	120	BLDG WALL
BE	LED	SAME TYPE LIKE "B" EXCEPT "LITHONIA" CAT#WST-LED-P2-30K-SR3-MVOLT-PIR -DDBXD-E7WC W/ BUILT-IN EMERGENCY LED DRIVER, TW	1	25	120	BLDG WALL
C	LED	32"Lx18"Wx4.4"D SURFACE OVAL FIXTURE WITH INTEGRAL LED LAMPS. BRUSHED NICKEL "PROGRESS LIGHTING" CAT NO P7251-0930K9, UL LISTED FOR DAMP LOCATION, 3000K, 90 CRI, 2649 LUMENS, T24 APPROVED, AND IS INCLUDED IN T24 DATA BASE	1	39	120	SURFACE
D	LED	10"x4"x4"D LED VOLUMETRIC "LITHONIA" CAT#STL4-40L-EZ1-LP835, WITH PRISMATIC LENS, 3500K, 3834 LUMENS, AND 0-10VDC DIMMING, UL LISTED FOR DAMP LOCATIONS, LPW 109	1	35	120	SURFACE
DE	LED	10"x4"x4"D LED VOLUMETRIC "LITHONIA" CAT#STL4-40L-EZ1-LP835, WITH PRISMATIC LENS, 3500K, 3834 LUMENS, AND 0-10VDC DIMMING, UL LISTED FOR DAMP LOCATIONS, LPW 109, AND BUILT-IN EMERGENCY DRIVER OF 1400 LUMENS	1	35	120	SURFACE
E	LED	DIE-CAST ALUMINUM EXIT SIGN, LED TYPE, UNIVERSAL MOUNTING, WITH EMERGENCY CIRCUIT, "LITHONIA" CAT# LESW10R2G120/277ELN, SINGLE OR DOUBLE FACE, WITH MIN. 90 MINUTES BATTERY PACK, SEE ARCHITECTURE FOR EXACT FACE TYPE	2	5	120	UNIVERSAL/ SEE ARCH FOR ARROW DIRECTIONS
F	LED	6" RECESSED LED SAPPHIRE SERIES DOWNLIGHT, "NORA LIGHTING" CAT NCH63020LE1 WITH LED REFLECTOR CAT NO NC-631-L20-35-W-WSF, 3500K AND SPECULAR CLEAR REFLECTOR TRIM MODEL NO. 0-10VDC DIMMING, 1685 LUMENS, UL LISTED FOR DAMP LOCATION	1	25	120	RECESSED/ GYPSUM BOARD
FE	LED	SAME AS "F", EXCEPT WITH EMERGENCY LED DRIVER "NORA LIGHTING" CAT NO NCH63020LE1EM, 565 LUMEN EMERGENCY LED DRIVER	1	25	120	RECESSED/ GYPSUM BOARD
G	LED	28.5" WIDE VANITY FIXTURE WITH INTEGRAL LED LAMPS. BRUSHED NICKEL "KICHLER LIGHTING" CAT NO 11149NILED, UL LISTED FOR DAMP LOCATION, 3000K, 90 CRI, 1440 LUMENS, T24 APPROVED, AND IS INCLUDED IN T24 DATA BASE	1	20	120	WALL
H	LED	6" SURFACE LED DOWNLIGHT, MOUNTED IN 4" JUNCTION BOX, 7.79" ROUND BY 0.8" DEEP, "HALO" CAT SLD612-80-30-WH-UNV-JB WITH WHITE TRIM MODEL NO SLD6TRMWH, TITLE 24 CERTIFIED, 80 CRI, 3000K, AND 0-10VD DIMMING, 1215 LUMENS, UL LISTED FOR DAMP LOCATION	1	14.8	120	CEILING
I	LED	POLE MOUNTED FIXTURE, "LITHONIA" D SERIES SIZE 0 CAT# DSXOLED-20C-530-30K-T5W-MVOLT-DDBXD, DARK BRONZE, TYPE V WIDE, UL LISTED FOR WET LOCATION, 3000°K, 4344 LUMENS. FIXTURE IS FULLY CUT -OFF WITH NO UPLIGHT	1	35	120	POLE MOUNT

*: ALL LED FIXTURES WITHIN UNITS SHALL BE TITLE 24 APPROVED AND IS LISTED IN THE T24 DATA BASE. SHOP DRAWINGS SUBMITTALS SHALL INCLUDE A COPY OF THE FIXTURE TITLE 24 DATA BASE INFORMATION

APPLICABLE CEC 2016 LOW/HIGH RISE RESIDENTIAL TITLE 24 LIGHTING REQUIREMENTS

- ALL LUMINAIRES SHALL QUALIFY AS HIGH EFFICACY LUMINAIRES

- ALL RECESSED LED/FLUORESCENT FIXTURES INTO INSULATED CEILINGS:
 - SHALL BE RATED FOR INSULATION CONTACT (IC RATED).
 - THE HOUSING OF LUMINAIRE SHALL BE CERTIFIED AS AIRTIGHT CONSTRUCTION, WHERE LEAKAGE THROUGH LUMINAIRE WILL NOT EXCEED 2.0 CUBIC FEET PER MINUTE WHEN EXPOSED TO 7.5 PASCALS PRESSURE DIFFERENCE WHEN TESTED WITH ASTM E283 STANDARDS
- LUMINAIRE SHALL HAVE SEALED GASKET OR CAULKING BETWEEN THE HOUSING AND CEILING, TO PREVENT AIRFLOW INTO CEILING
- ALL FLUORESCENTS OF 13W LAMP AND HIGHER SHALL HAVE ELECTRONIC BALLASTS
 - ALL FIXTURES NORMAL AND EMERGENCY BALLASTS SHALL BE FACTORY INSTALLED. NO FIELD BALLAST INSTALLATION ALLOWED
 - ALL FIXTURES SHALL BE SUPPLIED WITH APPROPRIATE LAMPS

FLUO:—FLUORESCENT LED:

E-1.0	LIGHT FIXTURE SCHEDULE
E-1.0	SCALE: NONE

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AME NO. : 18012

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DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05/07/18

PROJECT NAME:

DESERT HAVEN
RE-DEVELOPMENT

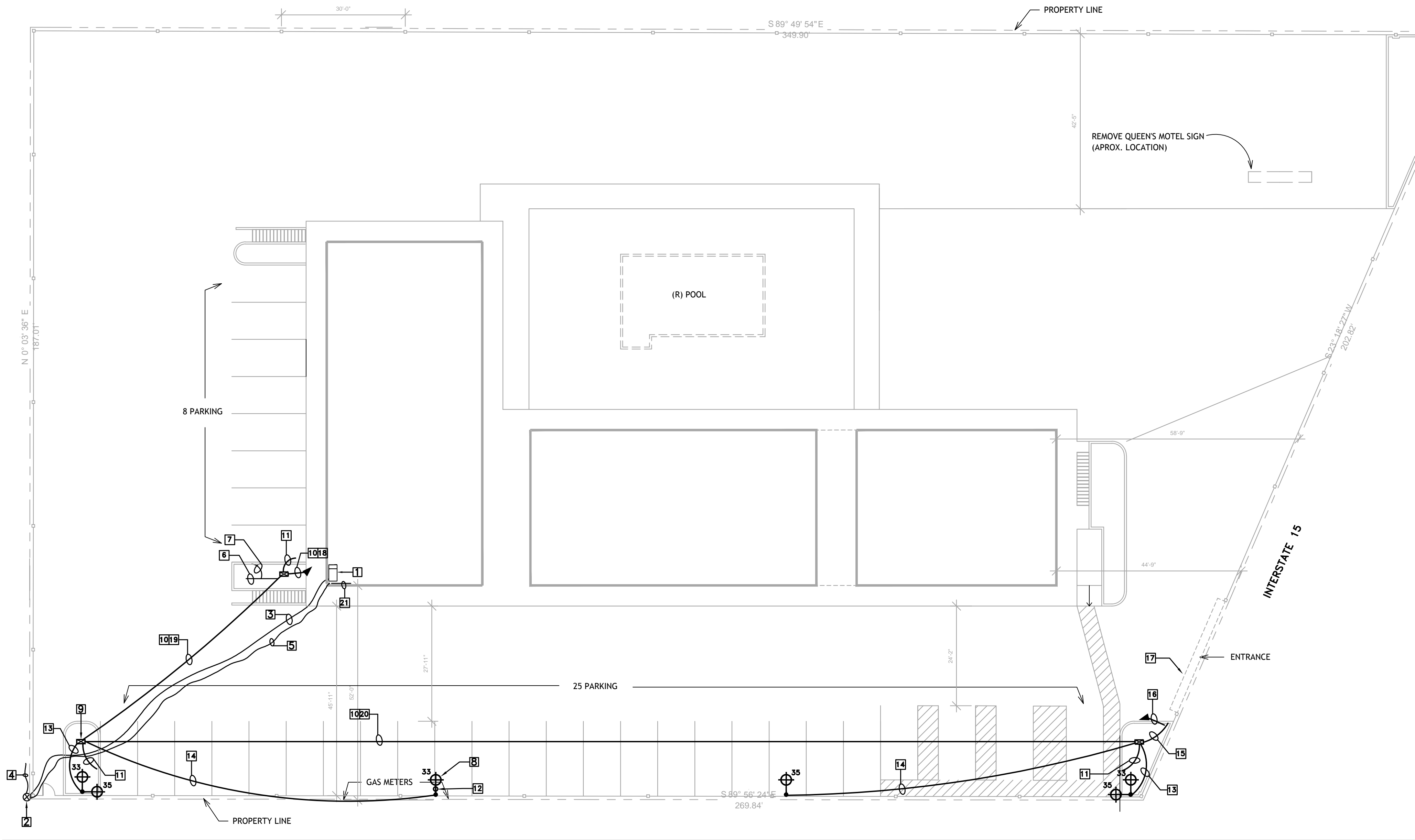
PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

GENERAL NOTES,
LEGEND AND
FIXTURE
SCHEDULE

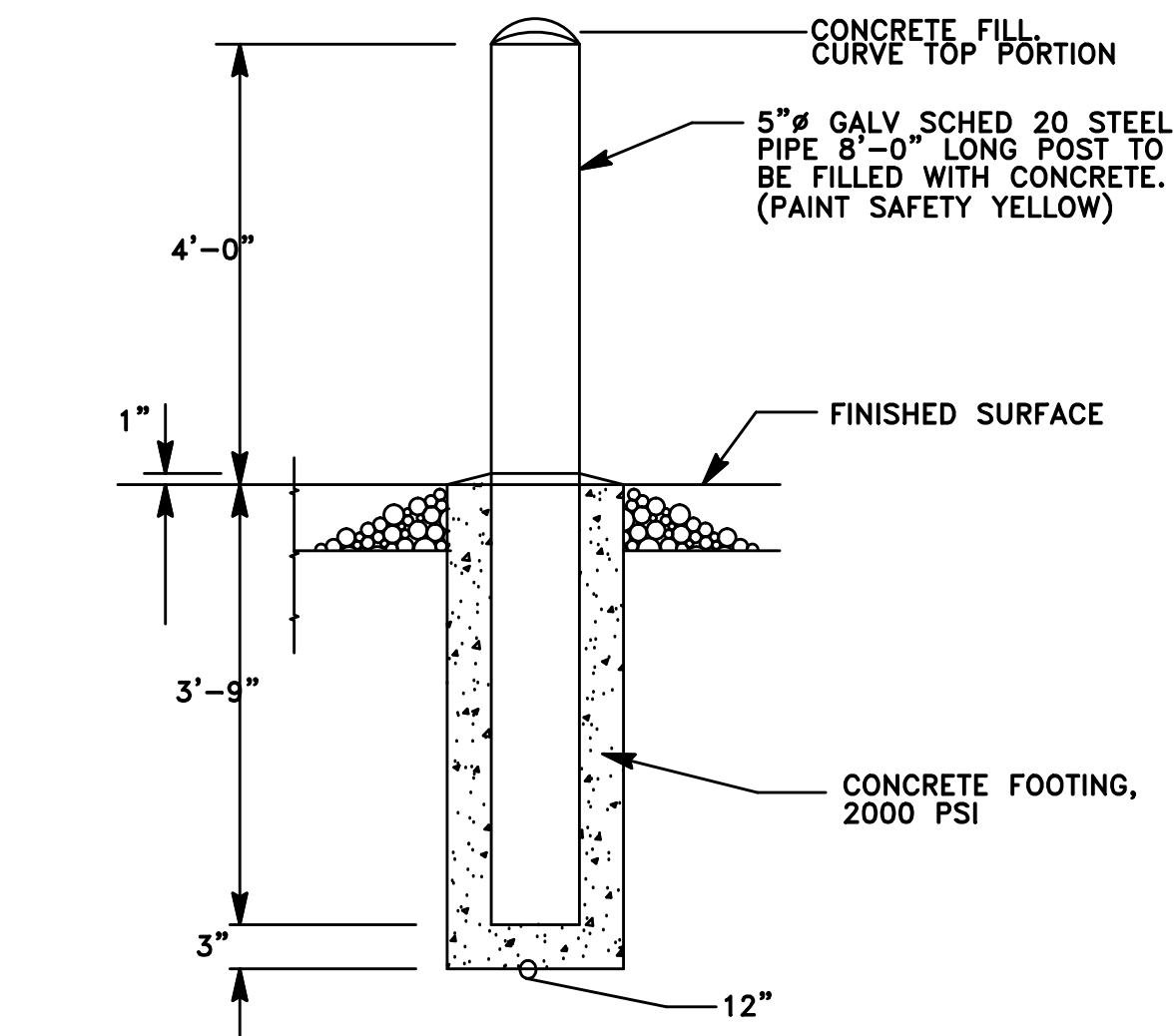
E-1.0



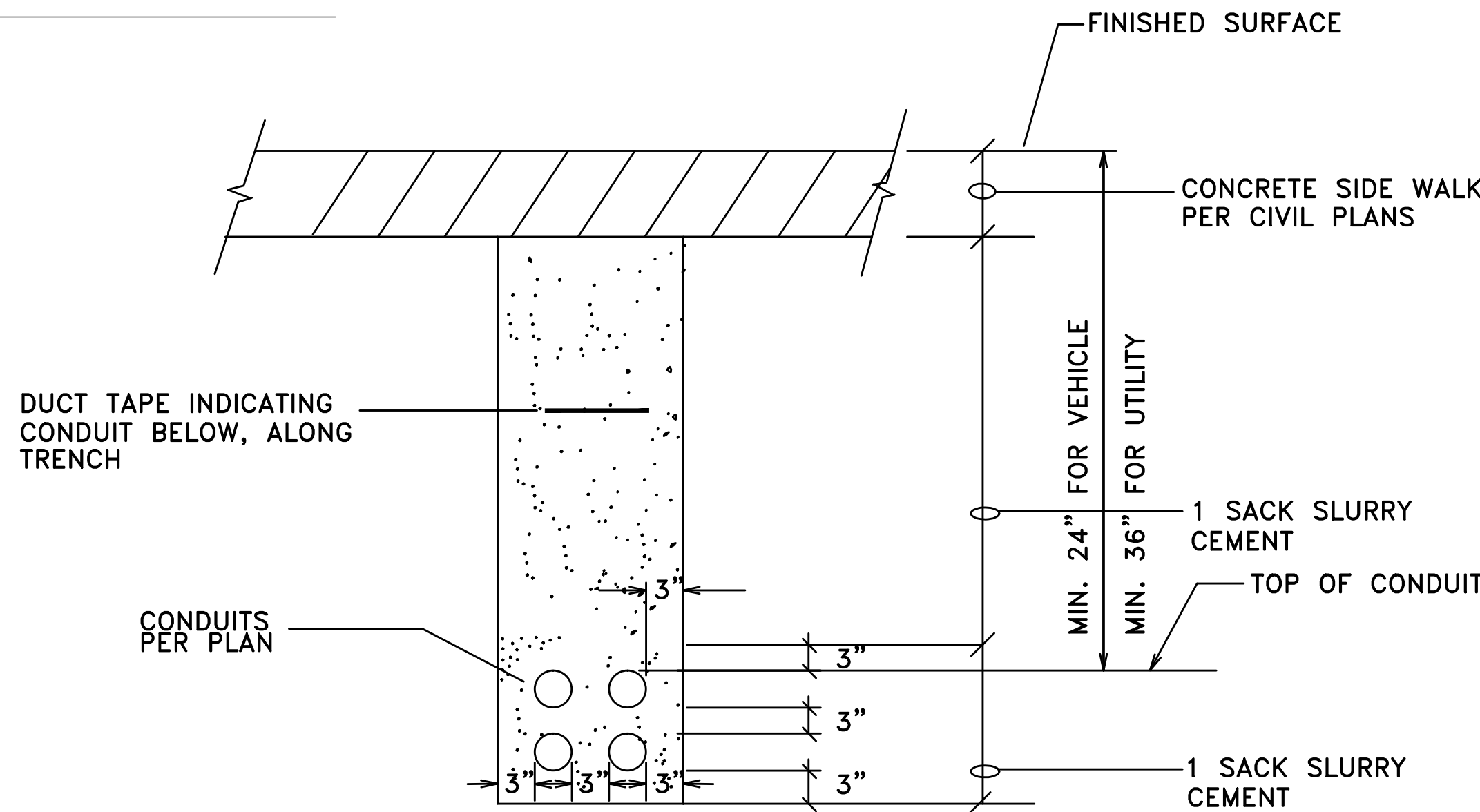
KEY NOTES DET. 1E-1.1:

- ALL CONDUITS SHOWN ON THIS SHEET ARE UNDERGROUND, AND SCHEDULE 40 PVC
- ALL WORK SHOWN ON THIS SHEET SHALL BE DONE BY CONTRACTOR U.O.N.
- ALL UNDERGROUND CONDUITS INSTALLATION SUBJECT TO VEHICULAR TRAFFIC SHALL BE INSTALLED PER DET. 2E-1.1. REST TO BE INSTALLED AT 6" BELOW FINISHED SURFACE AND TRENCH COVER TO MATCH CIVIL
- SEE GEN. NOTES NO 13 ON DWG E-1 FOR CONDUIT ONLY. CAP 3" AFF
- 1 REMOVE EXISTING ELECTRICAL SERVICE AND INSTALL NEW ELECTRICAL SERVICE PER DWG E-6.0 AND DET. 6E-4.0
- 2 EXISTING SCE POWER POLES TO REMAIN
- 3 NEW SCE OVERHEAD LINES TO NEW UPGRADED SERVICE
- 4 EX. SCE OVERHEAD LINES TO REMAIN. (TYP)
- 5 EX. TELEPHONE AND CABLE OVERHEAD LINES TO REMAIN. (TYP)
- 6 EX. MAIN WATER LINE. VERIFY IN FIELD PRIOR TO START CONSTRUCTION
- 7 NEW 1"C-NEW 1#3/0 GND TO WITHIN 5' OF MAIN WATER LINE BUILDING ENTRY PER CODE TO NEW BUILDING ELECTRODE SYSTEM SHOWN ON E-6.0
- 8 12' LIGHT POLE WITH LIGHT FIXTURE TYPE I (E-1.0) PER DET. 2E-4.0. (TYP)
- 9 PARKWAY PULL BOXES PER DET. 2E-1.1 (TYP)
- 10 U/G 1"C - 3#10, LIGHT POLES, CKT A-33,35 VIA MAIN LIGHT CONTROL (6E-4.1) 2#10, GATE MOTOR, CKT A-(39,41) 2#10, GATE KEY ENTRY, CKT A-37 1#10 GND
- 11 1"C.O. TO INDICATED PANEL FOR FUTURE EV CHARGER. STUB UP AND CAP
- 12 GUARD POSTS LAYOUT PER DET. 3E-1.1. (TYP)
- 13 1/2"C WITH 3#10 LIGHT POLE CKT PER PLAN
- 14 1/2"C WITH 2#10 LIGHT POLE CKT PER PLAN
- 15 1/2"C WITH 2#10 GATE MOTOR CKT PER PLAN
- 16 1/2"C.O. (TEL)
- 17 30' SLIDING MOTORIZED GATE
- 18 (3) 1"C.O. TO FUTURE EV STALLS
- 19 (2) 1"C.O. TO FUTURE EV STALLS
- 20 (1) 1"C.O. TO FUTURE EV STALLS
- 21 EX. TELEPHONE AND CABLE WIRES WITHIN BUILDING TO SECOND FLOOR TEL COM ROOM TO REMAIN. (TYP)

1E-1.1 ELECTRICAL SITE PLAN
E-1.1 SCALE: 3/32" = 1'-0"



3E-1.1 GUARD POST
1E-1.1 SCALE: NONE



- NOTE:
- 1. EXCAVATION SAFETY REQUIREMENTS FOR SHORING, SHALL BE PER CAL-OSHA
 - 2. FOR ALL CONDUITS SIZES AND TOTAL NUMBER, SEE PLANS.
 - 3. CONTRACTOR MAY VARY LAYOUT OF CONDUITS IF APPROVED BY UTILITY COMPANY

2E-1.1 UNDERGROUND CONDUIT INSTALLATION (TYPICAL)
1E-1.1 SCALE: NONE

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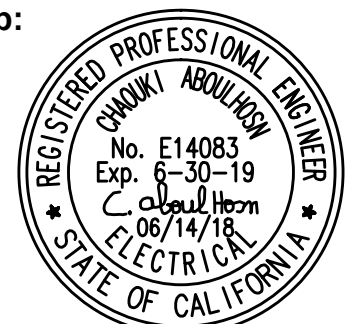
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DESERT HAVEN
RE-DEVELOPMENT

PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

ELECTRICAL SITE PLAN

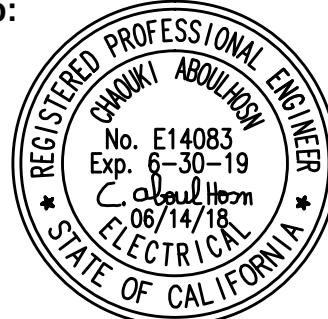
E-1.1



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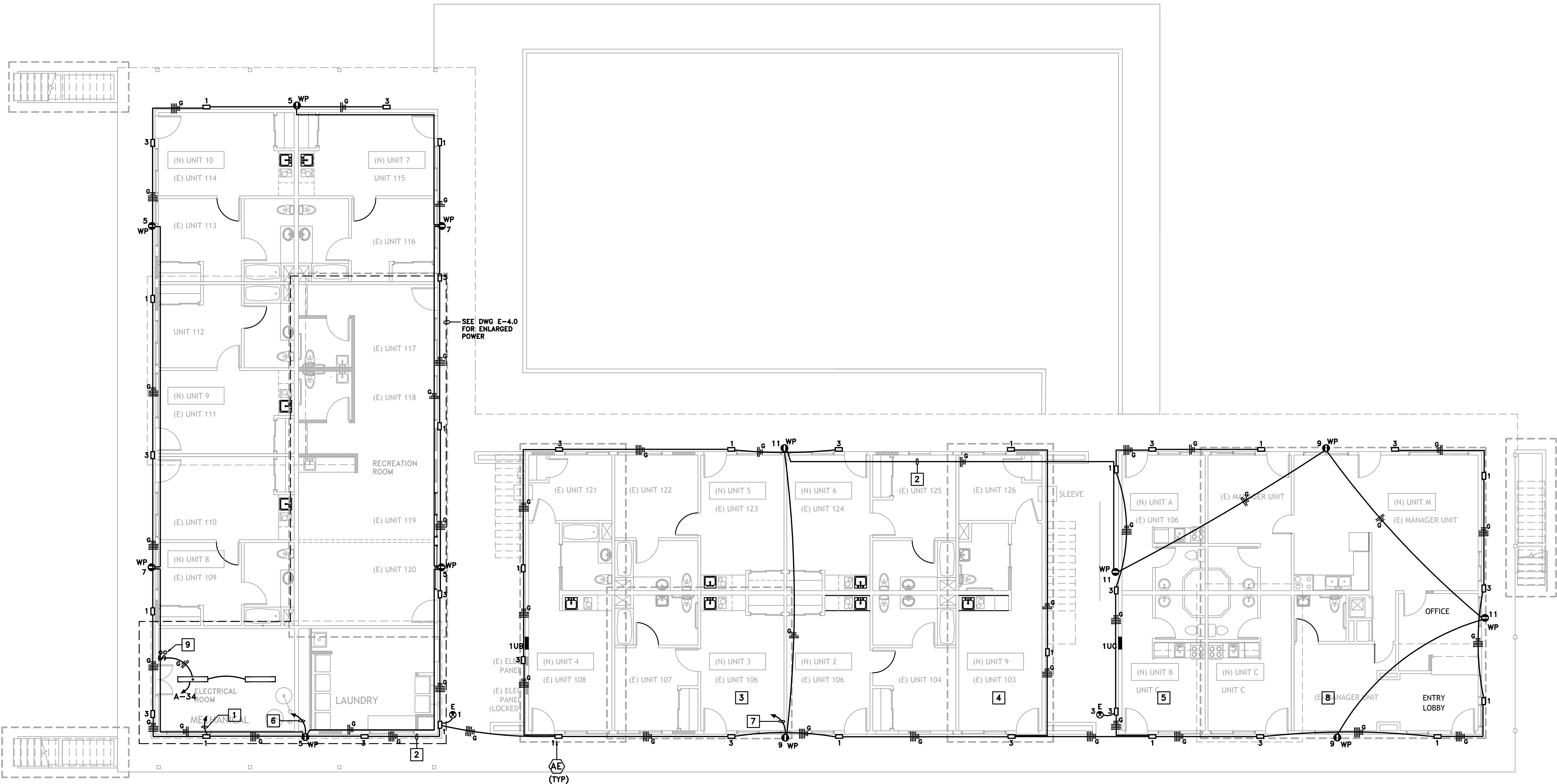
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SHEET TITLE:

BUILDING FIRST FLOOR
EXTERIOR LIGHTING PLAN

E-2.0



FIRST FLOOR BUILDING
EXTERIOR LIGHTING PLAN
SCALE: 1/8" = 1'-0"
NORTH

KEY NOTES:

- 3/4"C WITH 5#10 AND 1#10 GND, CKTS NO A-1,3 VIA MAIN LIGHT CONTROL (E-4.0). WIRES INCLUDE TWO UNSWITCHED HOT WIRES FOR EMEREGNCY LED DRIVERS
- 3/4"C WITH NO 10 WIRES TO AVOID EXCESSIVE VOLTAGE DROP. (TYP)
- SEE DWG E-3.0 FOR SIDE BY SIDE ACCESSIBLE UNIT ELECTRICAL PLAN
- SEE DWG E-3.0 FOR IN LINE ACCESSIBLE UNIT ELECTRICAL PLAN
- SEE DWG E-3.0 FOR EFFICIENT UNIT ELECTRICAL PLAN
- 3/4"C WITH 3#10 AND 1#10 GND, CKTS NO A-5,7 TO OUTLETS
- 3/4"C WITH 3#10 AND 1#10 GND, CKTS NO A-9,11 TO OUTLETS
- SEE DWG E-3.2 FOR UNIT MANAGER ELECTRICAL PLAN
- SINGLE SWITCH VACANCY SENSOR, MANUAL ON/AUTO OFF, "LUTRON" CAT NO MS-VPS2 RATED FOR 240W, AND 15-20' LINE OF SIGHT COVERAGE. (TYP)

ALL CONDUITS AND WIRES SHALL
BE CONCEALED. (TYP)

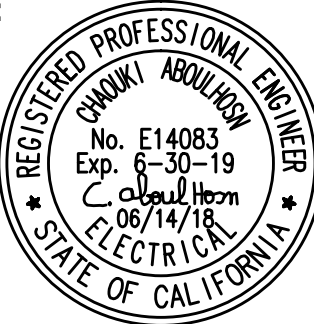
CONTRACTOR SHALL BE RESPONSIBLE TO FIELD CHECK
ALL EXISTING CONDITIONS, AND INCLUDE IN THEIR BID
ALL WORK THAT NEED TO BE REMOVED TO ALLOW
INSTALLATION SHOWN ON THIS PROJECT. ALL MATERIALS
SHALL BE NEW



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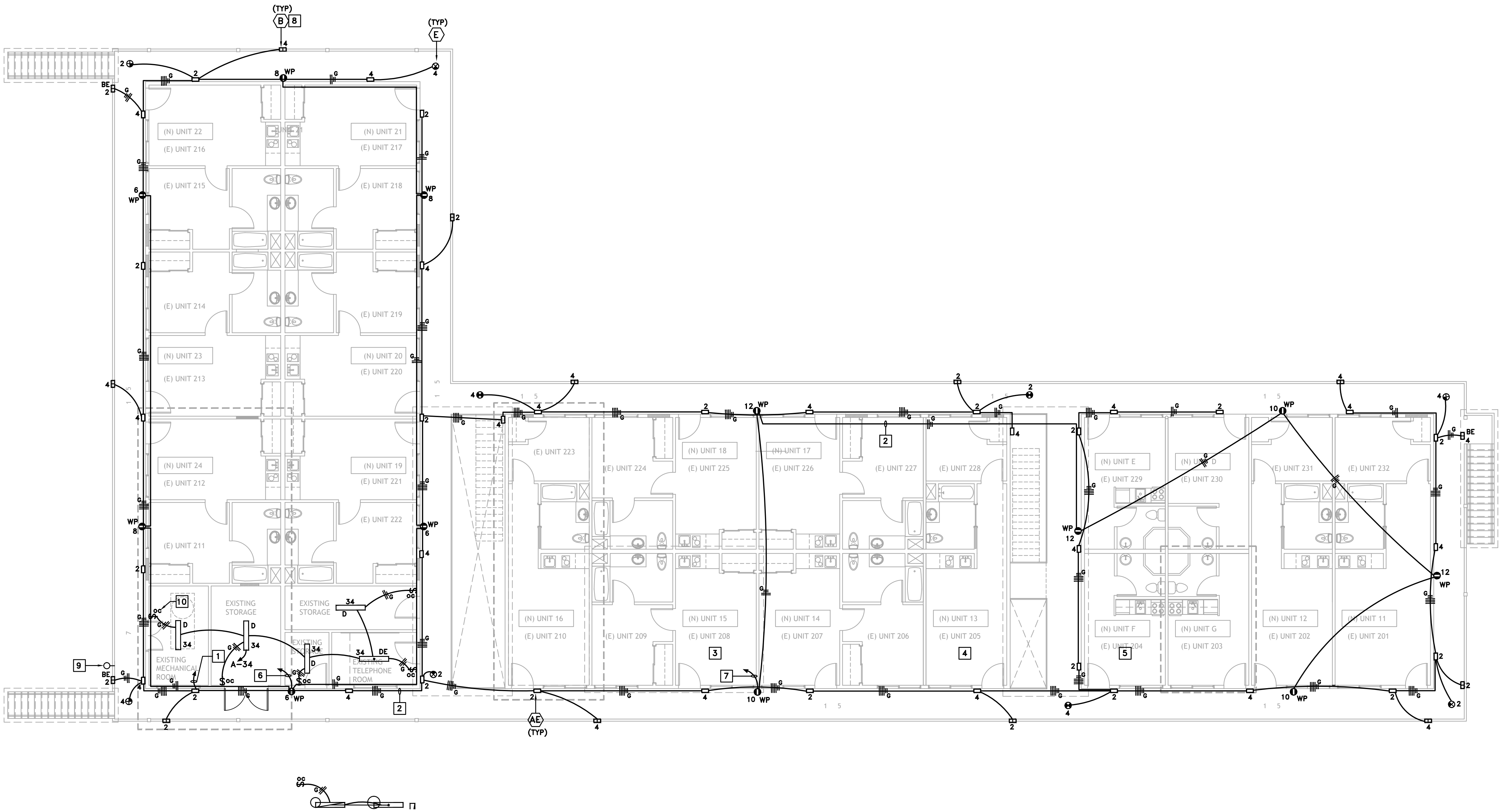
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SHEET TITLE:

BUILDING SECOND FLOOR
EXTERIOR LIGHTING PLAN

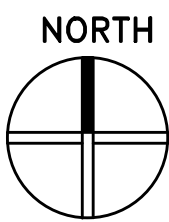
E-2.1



SECOND FLOOR BUILDING
EXTERIOR LIGHTING PLAN

1E-2.1
E-2.1

SCALE: 1/8" = 1'-0"

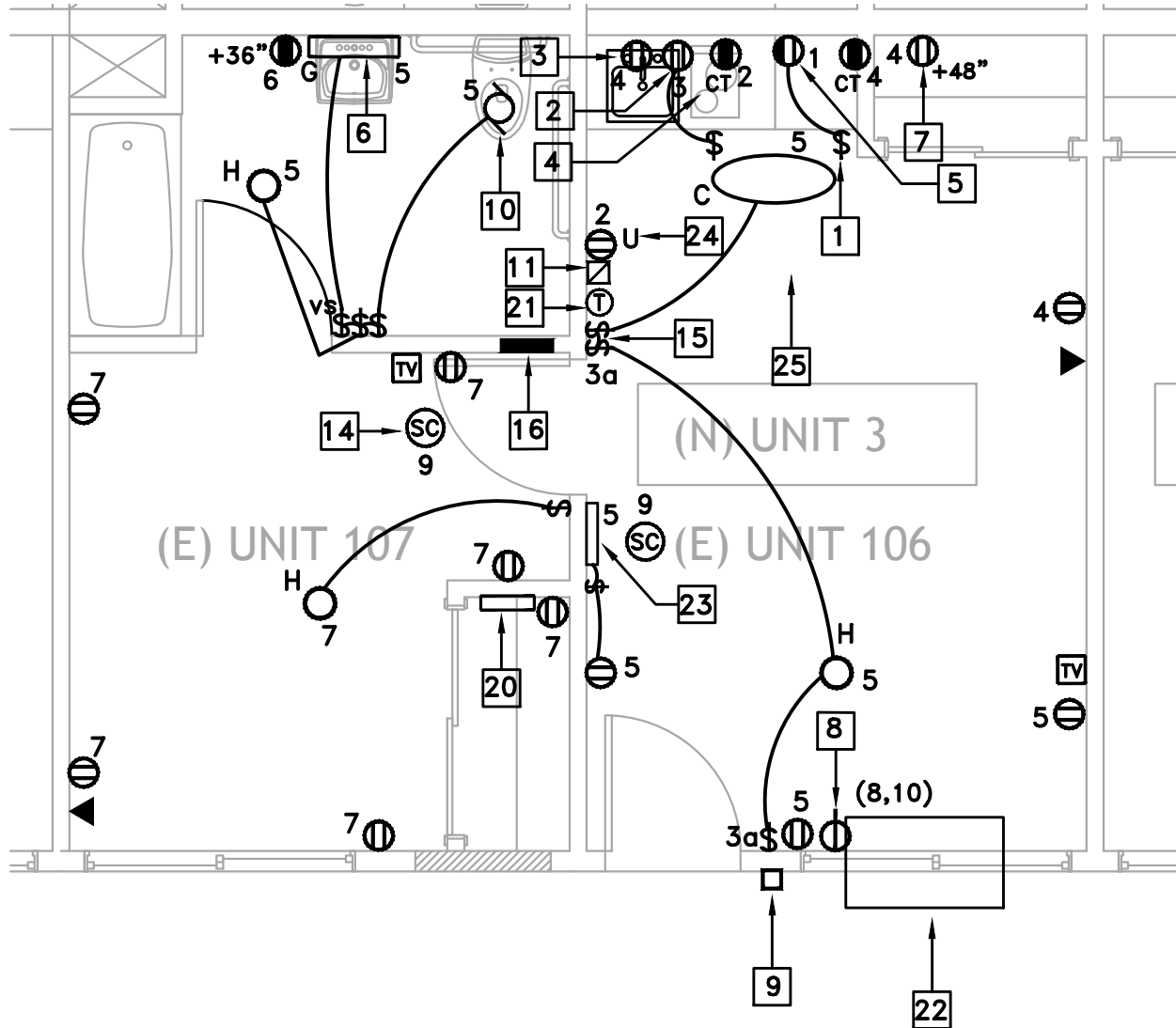


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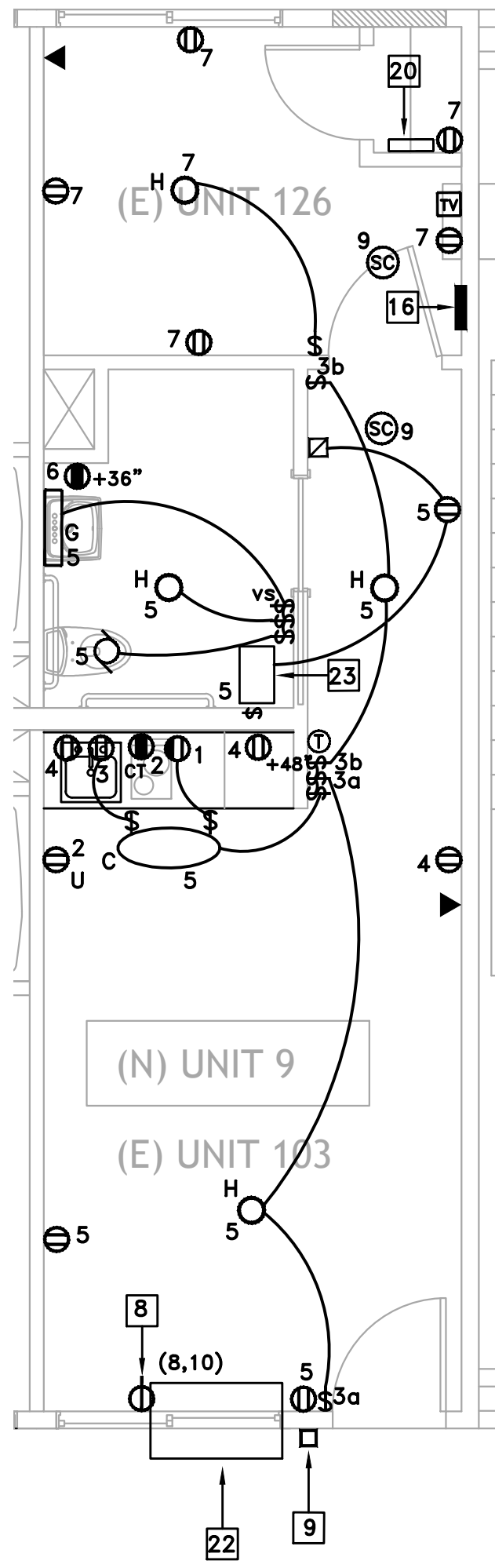
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KEY NOTES:

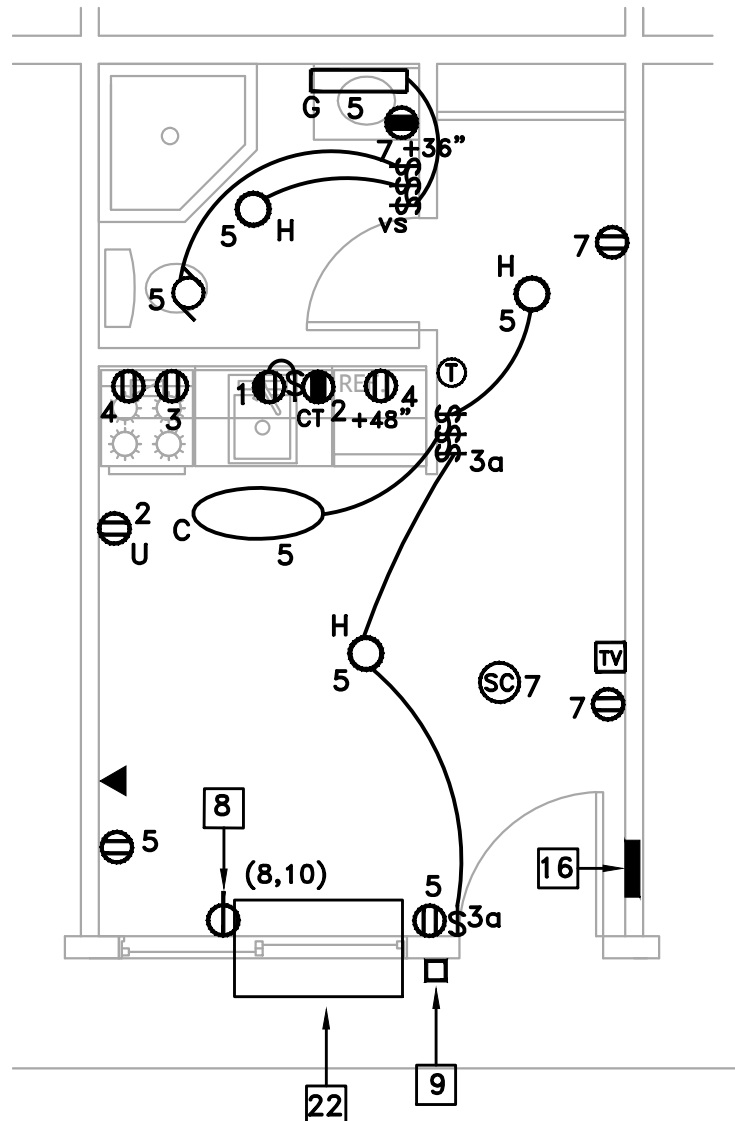
- 3/4"C WITH 5#10 AND 1#10 GND, CKTS NO A-2,4 VIA MAIN LIGHT CONTROL (E-4.0). WIRES INCLUDE TWO UNSWITCHED HOT WIRES FOR EMERGENCY LED DRIVERS
- 3/4"C WITH NO 10 WIRES TO AVOID EXCESSIVE VOLTAGE DROP. (TYP)
- SEE DWG E-3.1 FOR SIDE BY SIDE UNIT ELECTRICAL PLAN
- SEE DWG E-3.1 FOR IN LINE UNIT ELECTRICAL PLAN
- SEE DWG E-3.1 FOR EFFICIENT UNIT ELECTRICAL PLAN
- 3/4"C WITH 3#10 AND 1#10 GND, CKTS NO A-6,8 TO OUTLETS
- 3/4"C WITH 3#10 AND 1#10 GND, CKTS NO A-10,12 TO OUTLETS
- INSTALL FIXTURE TYPE B AT 20' ABOVE FINISHED FLOOR ON SECOND EAVE OF BUILDING, AND SUPPORT AS NEEDED. (TYP)
- INSTALL 120V PHOTOCELL AT 20' AFF, AND ABOVE FIXTURE WITH 1/2"C-2#12 AND 1#12 GND BACK TO MAIN LIGHT CONTROL (E-4.0).
- SINGLE SWITCH VACANCY SENSOR, MANUAL ON/AUTO OFF, "LUTRON" CAT NO MS-VPS2 RATED FOR 240W, AND 15-20' LINE OF SIGHT COVERAGE. (TYP)



1E-3.0 FIRST FLOOR SIDE-BY-SIDE ACCESSIBLE UNIT ELECTRICAL PLAN
E-3.0 SCALE: 1/4" = 1'-0"



2E-3.0 FIRST FLOOR IN LINE ACCESSIBLE UNIT ELECTRICAL PLAN
E-3.0 SCALE: 1/4" = 1'-0"



3E-3.0 FIRST FLOOR EFFICIENCY UNIT ELECTRICAL PLAN
E-3.0 SCALE: 1/4" = 1'-0"

APPLICABLE TO SIDE BY SIDE AND IN LINE ACCESSIBLE UNITS

Accessible Unit load calculation			
General	Unit	Watts/unit	Total watts
Unit sf	442	3	1326
small appliance circuits	2	1500	3000
Sub-total			4326
Demand factor per NEC code section 220.82			
First 3000 VA at 100%			3000
Remainder load at 35%	1326	x 0.35	464
sub-total			3464
Appliance load	Unit	Watts/unit	Total watts
garbage disposal	1	900	900
Miscellaneous fans	1	400	400
sub-total			1300
plus 100% AC load			
A/C	1	2752	2752
sub-total			2752
Total unit wattage			7516
Total Amps			36

ALL 125V, 15 AND 20A RECEPTACLES IN DWELLING UNITS SHALL BE TAMPER RESISTANT PER CEC ARTICLE 406-11

ALL SWITCHES CONTROLLING LED LIGHT FIXTURES, SHALL BE DIMMER TYPE, EXCEPT WHEN VACANCY SENSOR IS SPECIFIED OR LESS THAN 70sf CLOSET

VOLTS 120/240V		17 UNIT PANEL		MOUNT RECESSED	
PHASE 1				MAIN M.L.O.	
WIRES 3		14.25" WIDE CABINET		BUS RATING 125A	
		24 CIRCUITS, 10,000 AIC RATING			
REMARKS	LOAD WATTS	#A	#B	SEE NOTE 2	LOAD WATTS
** GARBAGE DISPOSAL	900			15	1500
** BUILT-IN FAN	300			15	1500
** GENERAL POWER/LIGHTING	847			15	180
** GENERAL POWER/LIGHTING	848			15	1376
** ELECTRIC SMOKE DETECTOR	200			15	1376
SPACE					
SPACE					
SPACE					
SPACE					
SPACE					
SPACE					
SPACE					
SPACE					
1 POLE NOTE:		1. ALL CIRCUIT BREAKER SHALL BE CAPABLE OF		SEE UNIT LOAD CALCULATIONS	
2 POLE		2. ALL C/B RATINGS ARE 20A. UNLESS NOTED OTHERWISE		ON THIS SHEET	
		*: ALL MECHANICAL EQUIPMENTS SHALL BE TYPE HACR BREAKERS			

**: REQUIRES AFCI BREAKERS PROTECTION PER KEY 12

KEY NOTES FOR ALL UNITS

- FOR ADA UNITS, SEE ARCH. PLANS, THE HOOD EXHAUST FAN ABOVE ELECTRIC OVEN, SHALL BE CONTROLLED BY A DEDICATED SWITCH INSTALLED NEAR RANGE, AND AT HEIGHT AND LOCATION PER ADA
- OUTLET FOR KITCHEN EXHAUST FAN. INSTALL WITHIN A CABINET ABOVE GAS COOKTOP
- OUTLET FOR GAS OVEN INSTALLED ABOUT 12" AFF PER MANUFACTURER
- GFI OUTLETS FOR COUNTER TOP. "CT" INDICATES COUNTER TOP. INSTALL ABOUT +8" ABOVE COUNTER HORIZONTALLY. SEE ARCHITECTURE
- OUTLET FOR GARBAGE DISPOSAL AND CONTROLLED BY SWITCH
- LED BATHROOM VANITY FIXTURES, ALIGN FIXTURE TO CENTER LINE OF VANITY. (TYP)
- OUTLET FOR REFRIGERATOR
- WALL MOUNT OUTLET, 240V, 15A/2P WITH GROUND TO MATCH PTEK POWER CORD, NEMA 6-15R, 250V RATED. (TYP)
- PUSH BUTTON FOR DOOR CHIMES LOWER LEVEL
- EXHAUST FAN TIED TO LIGHT FIXTURE, AND CONNECTED PER MECHANICAL DRAWINGS
- DOOR CHIMES WITH TRANSFORMER. INSTALL ALL NEEDED WIRES BETWEEN EXTERIOR PUSH BUTTON AND CHIMES. CONNECT CHIMES' TRANSFORMER TO NEARBY OUTLET.
- INSTALL LISTED ARCH-Fault CIRCUIT INTERRUPTERS FOR ALL CIRCUITS AS REQUIRED PER CEC CODE 210.12, FOR OUTLETS SUCH AS RECEPTACLES, LIGHTS, SMOKE DETECTORS, ETC.. IN DWELLING UNITS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOM, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY, KITCHEN OR SIMILAR ROOMS.
- INSTALL WIRES TO PERFORM 3 WAY SWITCHES CONTROL. (TYP.)
- HARD WIRED 120V ELECTRICALLY CONNECTED COMBINATION SMOKE DETECTOR AND CARBON MONOXIDE ALARM. ELECTRICALLY CONNECT ALL SMOKE/CO COMBO TOGETHER WITHIN SAME UNIT, PER CODE. (TYP). TYPE OF SMOKE/CO ALARM IS KIDDE MODEL NO KN-COPE-1, PART NO 21007624 WITH BATTERY BACK UP PER CODE. (TYP) SEE NOTE 2 ON UNITS' NOTES FOR APPLICABLE ADA REQUIREMENTS. IF ONE COMBO SMOKE DETECTOR/CO ACTIVATES, ALL DETECTORS WITHIN UNIT ACTIVATES INSTALL SMOKE/COMBO MINIMUM 3' AWAY FROM AC DIFFUSER, MINIMUM 3' FROM EDGE OF FAN BLADE, AND MINIMUM 3' FROM OPENING OR DOOR OF BATHROOM WITH SHOWER OR BATHTUP WHERE APPLICABLE. DEVICE SHALL BE AUDIBLE AND VOICE ACTIVATED THAT CLEARLY DISTINGUISH SMOKE FROM CARBON MONOXIDE.
- ALL SWITCHES SHALL BE INSTALLED IN SAME GANG BOX AS REQUIRED
- PANELBOARD FOR CORRESPONDING UNIT FRONT, FLUSH MOUNT.
- NAME PLATE OF PANEL SHALL BE THE SAME AS OF THE UNIT NUMBER. SEE ARCHITECTURE PLANS FOR UNIT NUMBER
- PUSH BUTTON FOR DOOR CHIMES UPPER LEVEL
- ELECTRICAL OUTLET BOXES IN OPPOSITE FACES OF SEPERATION WALLS SHALL BE SEPARATED HORIZONTALLY BY 24" AND NOTE THAT BACK AND SIDES OF BOXES SHALL BE SEALED WITH 1/8" RESILIENT SEALANT AND BACKED BY A MINIMUM OF 2" THICK MINERAL FIBER INSULATION
- MEDIA BOX, 14"Wx24"L DIGITAL NETWORKING SOLUTIONS (DNS), WHICH HOUSES TELEPHONE/ CATV SYSTEM.
 - TERMINATE THE UNIT INCOMING TELEPHONE WIRING FROM MAIN BUILDING UTILITY ROOM, INTO DNS TELEPHONE PORT. ALL UNITS TELEPHONE WIRING SHALL BE RUN FROM TELEPHONE JACK DIRECTLY TO DNS IN PARALLEL INSTALLATION. NO LOOPING IS ALLOWED. TERMINATE VILLA UNIT CAT 5e (WHITE) IN APPROPRIATE PORTS AND PUNCHED DOWN.
 - TERMINATE THE UNIT INCOMING RG6 CABLE WIRING FROM MAIN BUILDING UTILITY ROOM, INTO DNS CABLE PORT OF MINIMUM 4 WAY SPLITTER, THEN FEED EACH VILLA UNIT CABLE TV.
- THERMOSTAT PER MECHANICAL PLANS
- PTEK WITH 2.4KW HEATER ELEMENT, 240V, 15A CORD, FLA OF 2752W
- TAF PER MECHANICAL PLANS, 120V, WITH 120V SWITCH AS A DISCONNECTING MEANS
- U: INDICATES OUTLET WITH USB CONNECTIONS. (TYP)

CONTRACTOR SHALL BE RESPONSIBLE TO FIELD CHECK ALL EXISTING CONDITIONS, AND INCLUDE IN THEIR BID ALL WORK THAT NEED TO BE REMOVED TO ALLOW INSTALLATION SHOWN ON THIS PROJECT. ALL MATERIALS SHALL BE NEW

FOR ONLY WITHIN UNITS, AND FOR ALL CIRCUIT BREAKERS RATED 15A, CONTRACTOR MAY USE NO 14 GAGE WIRES, AND USE OUTLETS RATED FOR 15A

THE SPECIFIED PANELBOARD WITH 125A BUSSING AND 24 CIRCUITS ARE "SQUARE D" TYPE LOAD CENTER WITH LUGS RATED WIRE SIZE OF #4-2/0

SEE ARCHITECTURE PLANS FOR QUANTITY OF THIS UNIT TYPE PER THIS DESIGN SHEET.

CONTRACTOR SHALL USE ROMEX FOR UNITS' INTERNAL WIRING PER CODE

ALL WIRES SHALL INCLUDE GROUND WIRE PER CODE

ALL "SQUARE D" PANELBOARDS' LUGS ARE RATED FOR 75' WIRES

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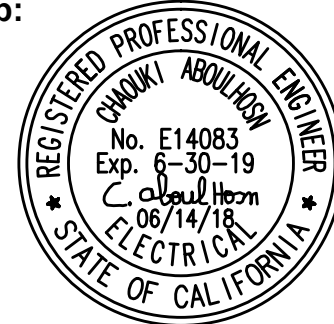
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Stamp:



DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05/07/18

PROJECT NAME:

DESERT HAVEN
RE-DEVELOPMENT

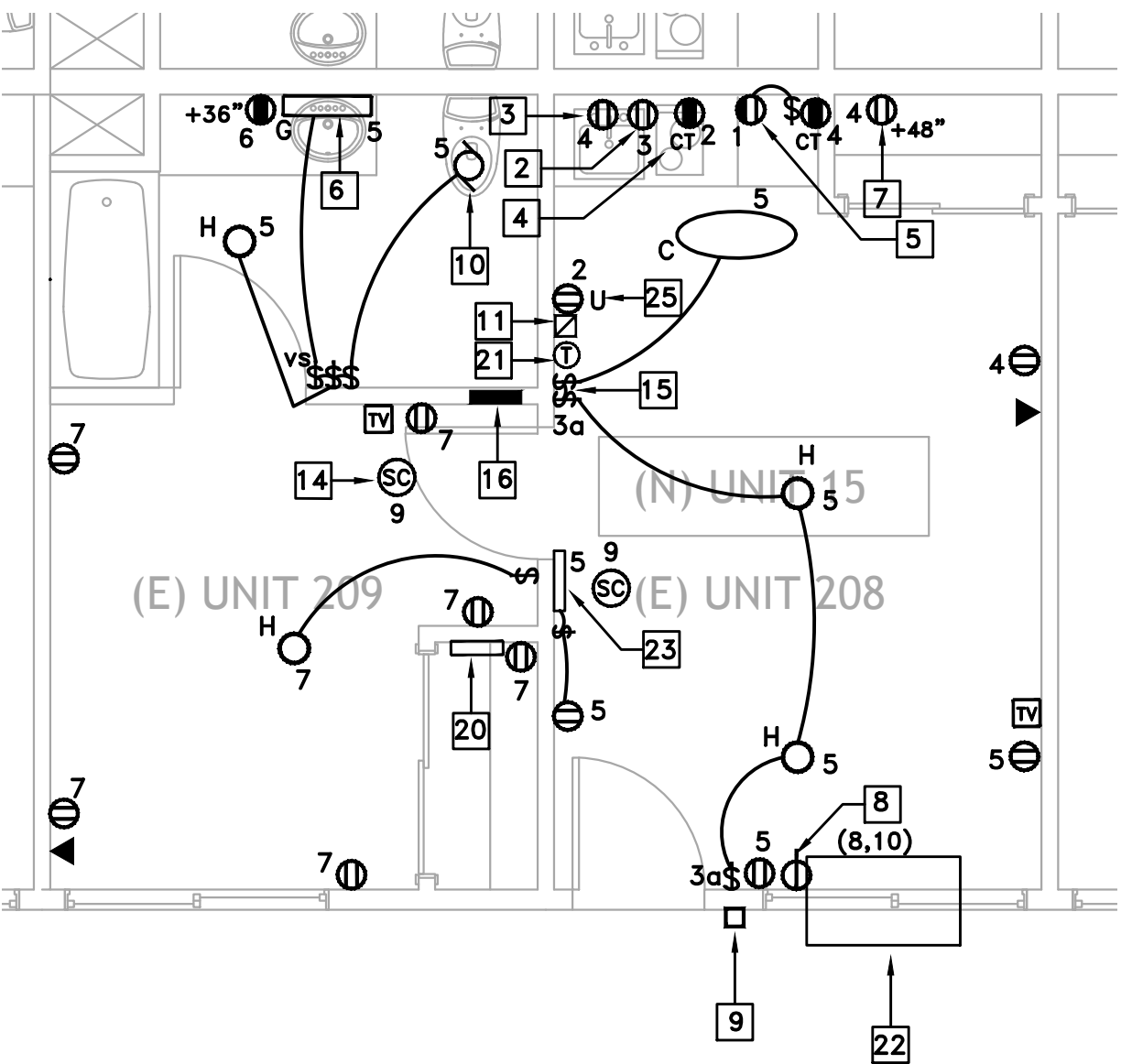
PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

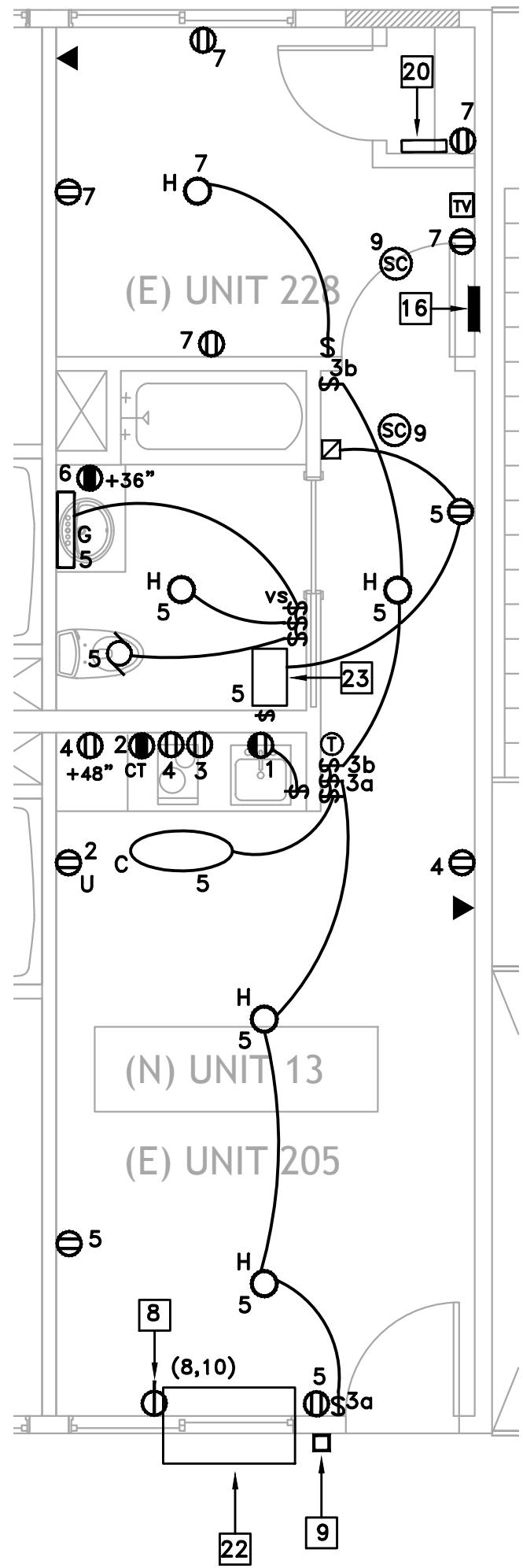
SHEET TITLE:

ELECTRICAL UNITS
FIRST FLOOR PLAN

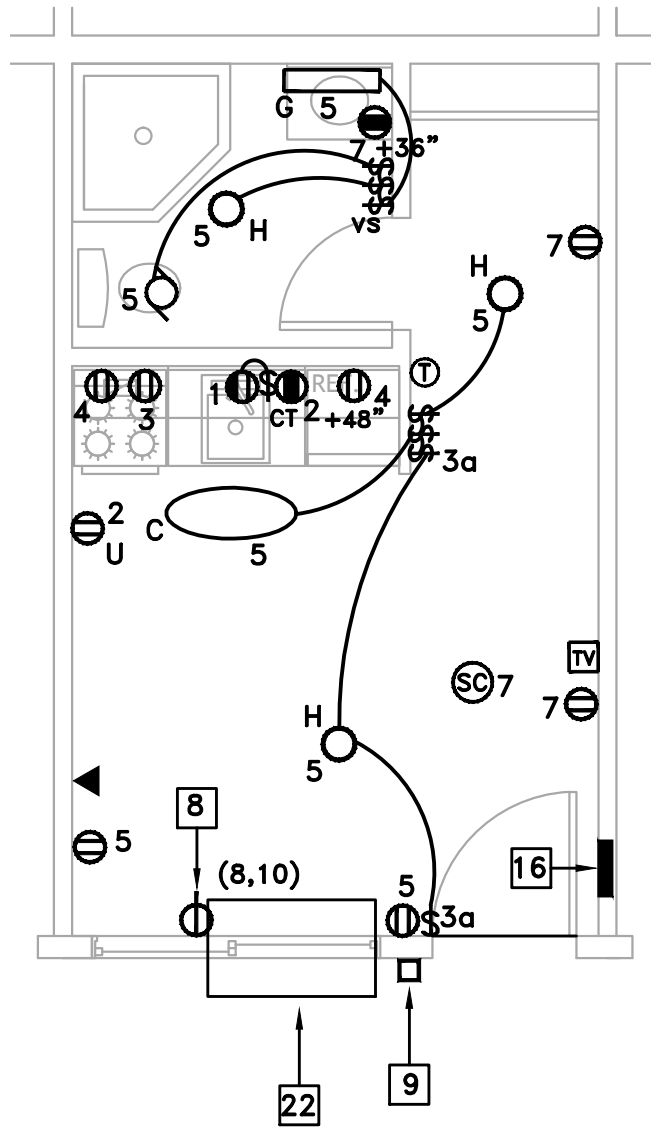
E-3.0



1E-3.1 SECOND FLOOR SIDE-BY-SIDE NON ACCESSIBLE UNIT ELECTRICAL PLAN
E-3.1 SCALE: 1/4" = 1'-0"



2E-3.1 SECOND FLOOR IN LINE NON ACCESSIBLE UNIT ELECTRICAL PLAN
E-3.1 SCALE: 1/4" = 1'-0"



3E-3.1 SECOND FLOOR EFFICIENCY UNIT ELECTRICAL PLAN
E-3.1 SCALE: 1/4" = 1'-0"

APPLICABLE TO SIDE BY SIDE AND IN LINE ACCESSIBLE UNITS			
Accessible Unit load calculation			
General	Unit	Watts/unit	Total watts
Unit sf	442	3	1326
small appliance circuits	2	1500	3000
Sub-total			4326
Demand factor per NEC code section 220.82			
First 3000 VA at 100%			3000
Remainder load at 35%	1326	x 0.35	464
sub-total			3464
Appliance load	Unit	Watts/unit	Total watts
garbage disposal	1	900	900
Miscellaneous fans	1	400	400
sub-total			1300
plus 100% AC load			
A/C	1	2752	2752
sub-total			2752
Total unit wattage			7516
Total Amps			36

ALL 125V, 15 AND 20A RECEPTACLES IN DWELLING UNITS SHALL BE TAMPER RESISTANT PER CEC ARTICLE 406-11

ALL SWITCHES CONTROLLING LED LIGHT FIXTURES, SHALL BE DIMMER TYPE, EXCEPT WHEN VACANCY SENSOR IS SPECIFIED OR LESS THAN 70sf CLOSET

VOLTS 120/240V		17 UNIT PANEL		MOUNT RECESSED	
PHASE 1		14.25" WIDE CABINET		MAIN M.L.O.	
WIRES 3		24 CIRCUITS, 10,000 AIC RATING		BUS RATING 125A	
REMARKS	LOAD WATTS #A #B	15 20 25 30 35 40 45 50 60 70 75 80 90 100 110 120 130 140 150 160 170 180 190 200	15 20 25 30 35 40 45 50 60 70 75 80 90 100 110 120 130 140 150 160 170 180 190 200	LOAD WATTS #A #B	REMARKS
** GARBAGE DISPOSAL	900			1500	KITCHEN CIRCUIT
** BUILT-IN FAN	300			1500	KITCHEN CIRCUIT
** GENERAL POWER/LIGHTING	847			180	BATHROOM OUTLET
** GENERAL POWER/LIGHTING	848			1376	1 TON PTEK
** ELECTRIC SMOKE DETECTOR	200			1376	
SPACE					SPACE
SPACE					SPACE
SPACE					SPACE
SPACE					SPACE
SPACE					SPACE
SPACE					SPACE
SPACE					SPACE
NOTE: 1. ALL CIRCUIT BREAKER SHALL BE CAPABLE OF BEING LOCKED IN OPEN POSITION. 2. ALL C/B RATINGS ARE 20A. UNLESS NOTED OTHERWISE. *: ALL MECHANICAL EQUIPMENTS SHALL BE TYPE HACR BREAKERS					
SEE UNIT LOAD CALCULATIONS ON THIS SHEET					

**: REQUIRES AFCI BREAKERS PROTECTION PER KEY 12

KEY NOTES FOR ALL UNITS

- FOR ADA UNITS, SEE ARCH. PLANS, THE HOOD EXHAUST FAN ABOVE ELECTRIC OVEN, SHALL BE CONTROLLED BY A DEDICATED SWITCH INSTALLED NEAR RANGE, AND AT HEIGHT AND LOCATION PER ADA
- OUTLET FOR KITCHEN EXHAUST FAN. INSTALL WITHIN A CABINET ABOVE GAS COOKTOP
- OUTLET FOR GAS OVEN INSTALLED ABOUT 12" AFF PER MANUFACTURER
- GFI OUTLETS FOR COUNTER TOP. "CT" INDICATES COUNTER TOP. INSTALL ABOUT +8" ABOVE COUNTER HORIZONTALLY. SEE ARCHITECTURE
- OUTLET FOR GARBAGE DISPOSAL AND CONTROLLED BY SWITCH
- LED BATHROOM VANITY FIXTURES, ALIGN FIXTURE TO CENTER LINE OF VANITY. (TYP)
- OUTLET FOR REFRIGERATOR
- WALL MOUNT OUTLET, 240V, 15A/2P WITH GROUND TO MATCH PTEK POWER CORD, NEMA 6-15R, 250V RATED. (TYP)
- PUSH BUTTON FOR DOOR CHIMES LOWER LEVEL
- EXHAUST FAN TIED TO LIGHT FIXTURE, AND CONNECTED PER MECHANICAL DRAWINGS
- DOOR CHIMES WITH TRANSFORMER. INSTALL ALL NEEDED WIRES BETWEEN EXTERIOR PUSH BUTTON AND CHIMES. CONNECT CHIMES' TRANSFORMER TO NEARBY OUTLET.
- INSTALL LISTED ARCH-Fault CIRCUIT INTERRUPTERS FOR ALL CIRCUITS AS REQUIRED PER CEC CODE 210.12, FOR OUTLETS SUCH AS RECEPTACLES, LIGHTS, SMOKE DETECTORS, ETC.. IN DWELLING UNITS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOM, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY, KITCHEN OR SIMILAR ROOMS.
- INSTALL WIRES TO PERFORM 3 WAY SWITCHES CONTROL. (TYP.)
- HARD WIRED 120V ELECTRICALLY CONNECTED COMBINATION SMOKE DETECTOR AND CARBON MONOXIDE ALARM. ELECTRICALLY CONNECT ALL SMOKE/CO COMBO TOGETHER WITHIN SAME UNIT, PER CODE. (TYP). TYPE OF SMOKE/CO ALARM IS KIDDE MODEL NO KN-COPE-1, PART NO 21007624 WITH BATTERY BACK UP PER CODE. (TYP) SEE NOTE 2 ON UNITS' NOTES FOR APPLICABLE ADA REQUIREMENTS. IF ONE COMBO SMOKE DETECTOR/CO ACTIVATES, ALL DETECTORS WITHIN UNIT ACTIVATES INSTALL SMOKE/COMBO MINIMUM 3' AWAY FROM AC DIFFUSER, MINIMUM 3' FROM EDGE OF FAN BLADE, AND MINIMUM 3' FROM OPENING OR DOOR OF BATHROOM WITH SHOWER OR BATHTUP WHERE APPLICABLE. DEVICE SHALL BE AUDIBLE AND VOICE ACTIVATED THAT CLEARLY DISTINGUISH SMOKE FROM CARBON MONOXIDE.
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- PUSH BUTTON FOR DOOR CHIMES UPPER LEVEL
- ELECTRICAL OUTLET BOXES IN OPPOSITE FACES OF SEPERATION WALLS SHALL BE SEPARATED HORIZONTALLY BY 24" AND NOTE THAT BACK AND SIDES OF BOXES SHALL BE SEALED WITH 1/8" RESILIENT SEALANT AND BACKED BY A MINIMUM OF 2" THICK MINERAL FIBER INSULATION
- MEDIA BOX, 14"Wx24"L DIGITAL NETWORKING SOLUTIONS (DNS), WHICH HOUSES TELEPHONE/ CATV SYSTEM.
 - TERMINATE THE UNIT INCOMING TELEPHONE WIRING FROM MAIN BUILDING UTILITY ROOM, INTO DNS TELEPHONE PORT. ALL UNITS TELEPHONE WIRING SHALL BE RUN FROM TELEPHONE JACK DIRECTLY TO DNS IN PARALLEL INSTALLATION. NO LOOPING IS ALLOWED. TERMINATE VILLA UNIT CAT 5e (WHITE) IN APPROPRIATE PORTS AND PUNCHED DOWN.
 - TERMINATE THE UNIT INCOMING RG6 CABLE WIRING FROM MAIN BUILDING UTILITY ROOM, INTO DNS CABLE PORT OF MINIMUM 4 WAY SPLITTER, THEN FEED EACH VILLA UNIT CABLE TV.
- INSTALL 3 WAY WIRING BETWEEN FIRST AND SECOND FLOOR
- PTK WITH 2.4KW HEATER ELEMENT, 240V, 15A CORD, FLA OF 2752W
- TAF PER MECHANICAL PLANS, 120V, WITH 120V SWITCH AS A DISCONNECTING MEANS
- THERMOSTAT PER MECHANICAL PLANS
- U: INDICATES OUTLET WITH USB CONNECTIONS. (TYP)

CONTRACTOR SHALL BE RESPONSIBLE TO FIELD CHECK ALL EXISTING CONDITIONS, AND INCLUDE IN THEIR BID ALL WORK THAT NEED TO BE REMOVED TO ALLOW INSTALLATION SHOWN ON THIS PROJECT. ALL MATERIALS SHALL BE NEW

THE SPECIFIED PANELBOARD WITH 125A BUSSING AND 24 CIRCUITS ARE "SQUARE D" TYPE LOAD CENTER WITH LUGS RATED WIRE SIZE OF #4-2/0

FOR ONLY WITHIN UNITS, AND FOR ALL CIRCUIT BREAKERS RATED 15A, CONTRACTOR MAY USE NO 14 GAGE WIRES, AND USE OUTLETS RATED FOR 15A

SEE ARCHITECTURE PLANS FOR QUANTITY OF THIS UNIT TYPE PER THIS DESIGN SHEET.

ALL WIRES SHALL INCLUDE GROUND WIRE PER CODE

CONTRACTOR SHALL USE ROMEX FOR UNITS' INTERNAL WIRING PER CODE

ALL "SQUARE D" PANELBOARDS' LUGS ARE RATED FOR 75' WIRES

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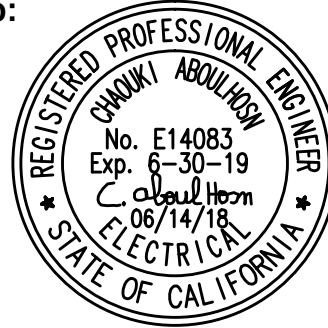
CHARLES PICK, ARCHITECT

Consultants:



AME NO. : 18012

Stamp:



DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05/07/18

PROJECT NAME:

DESERT HAVEN
RE-DEVELOPMENT

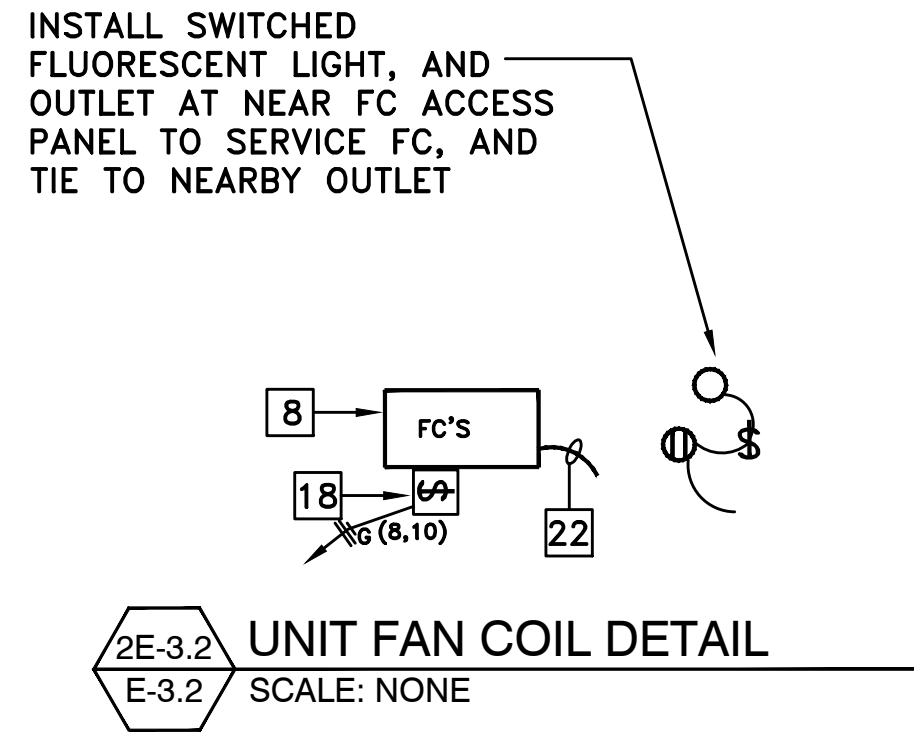
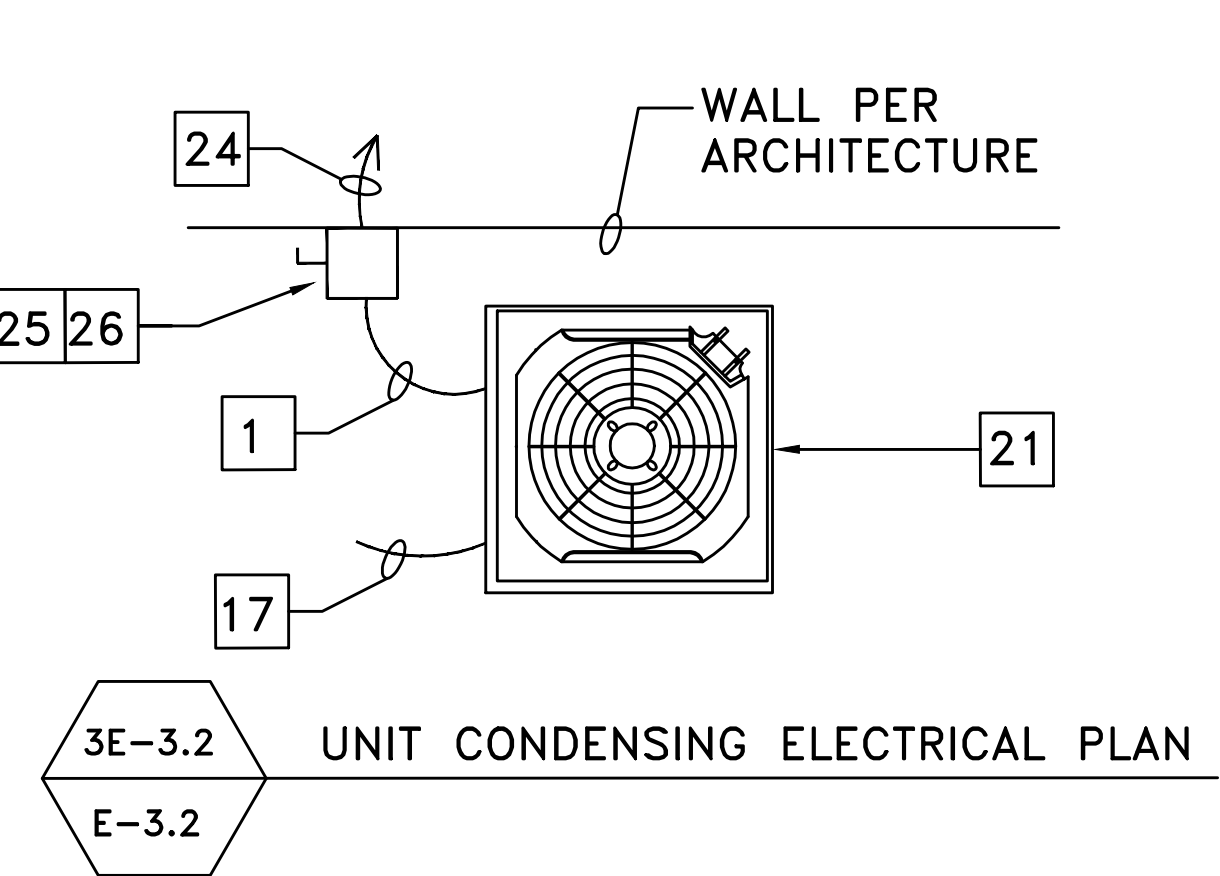
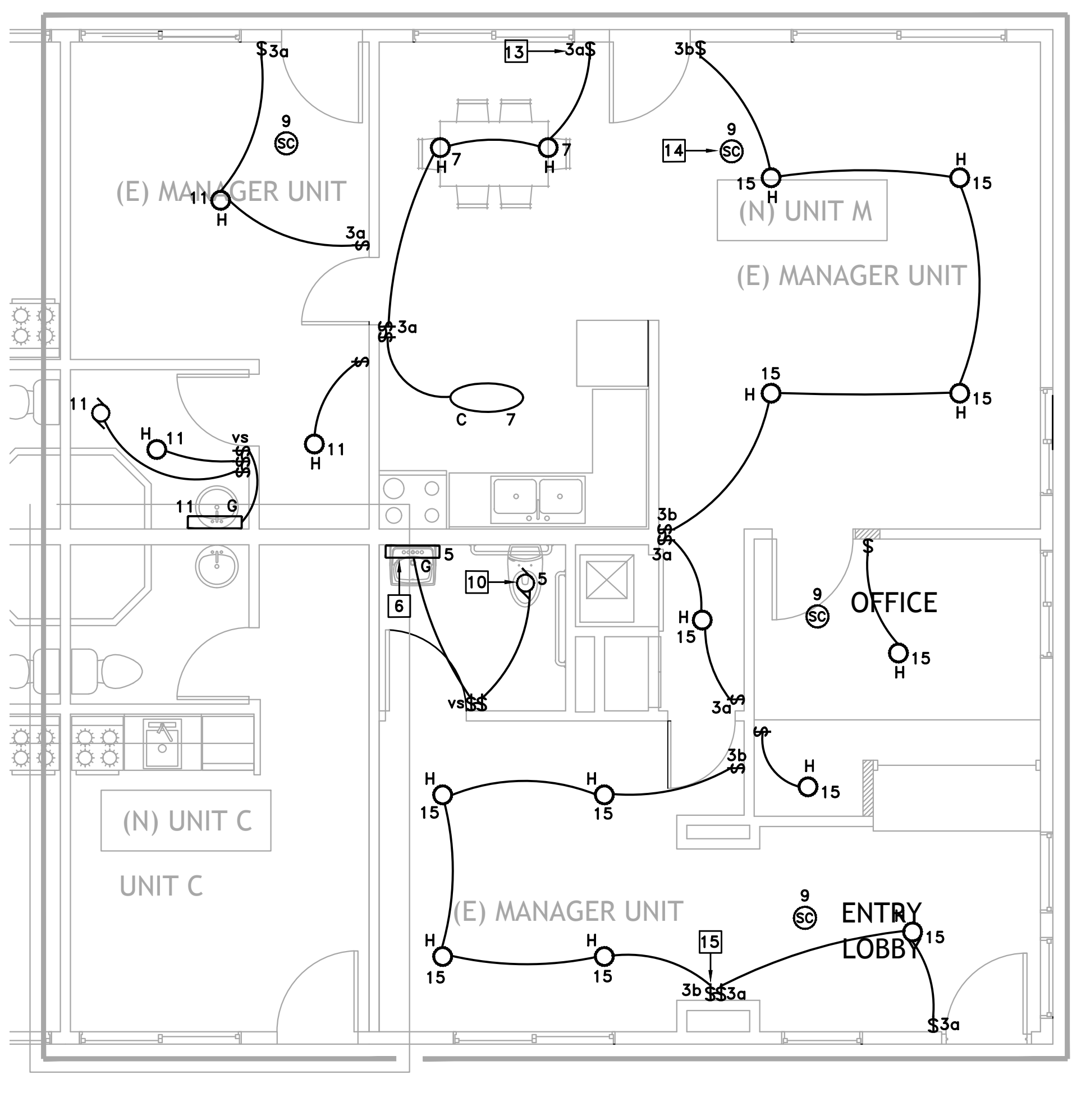
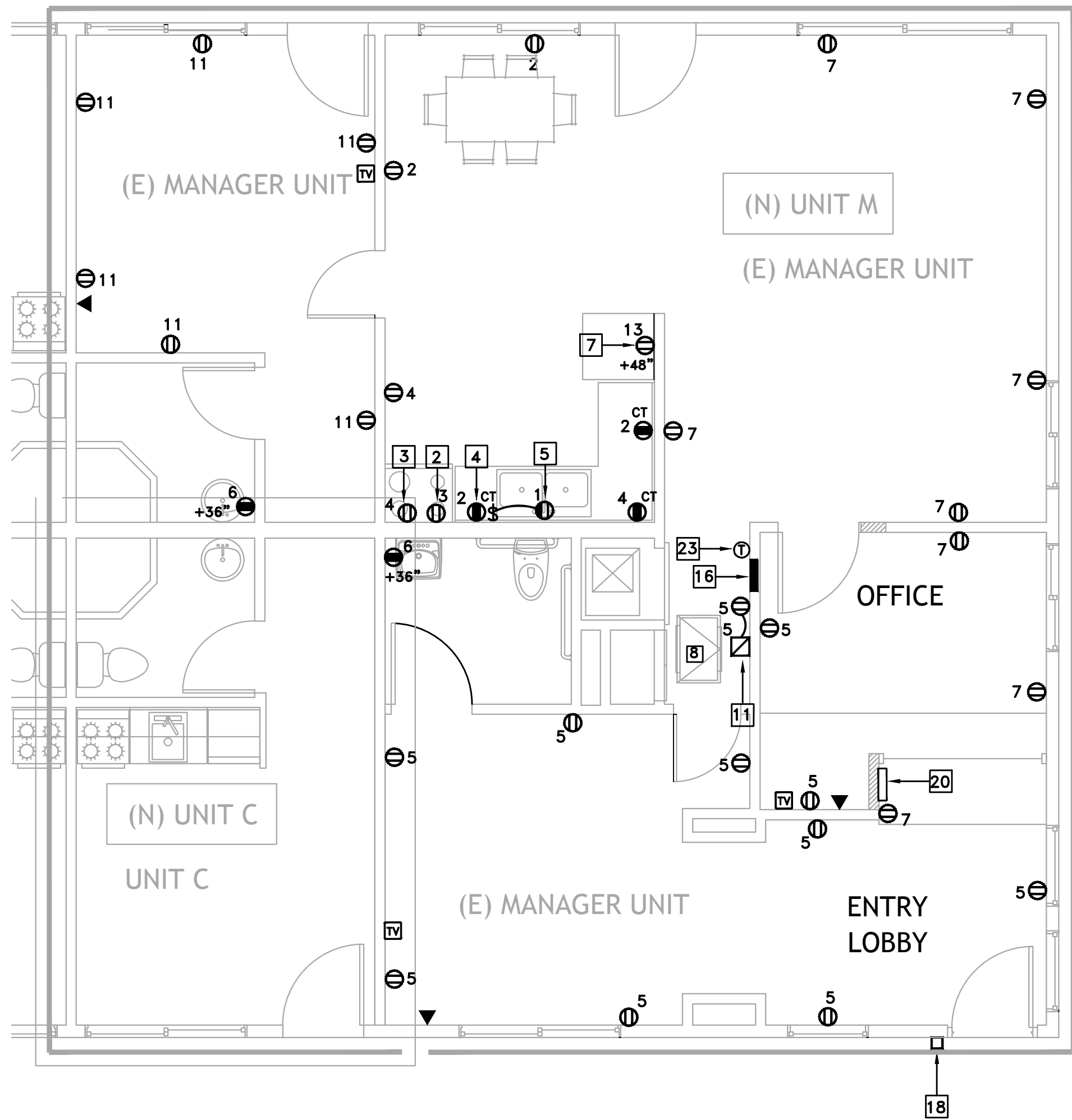
PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

ELECTRICAL UNITS
SECOND FLOOR PLAN

E-3.1



VOLTS 120/208V		17 UNIT MANAGER PANEL		MOUNT RECESSED					
PHASE 1		14.25" WIDE CABINET		MAIN M.L.O.					
WIRES 3		24 CIRCUITS, 10,000 AIC RATING		BUS RATING 125A					
REMARKS		LOAD WATTS				LOAD WATTS		REMARKS	
		#A #B		LTO REC LTO REC		#A #B			
GARBAGE DISPOSAL		900		15 20		1500		KITCHEN CIRCUIT	
BUILT-IN FAN		300		15 20		1500		KITCHEN CIRCUIT	
GENERAL POWER/LIGHTING		847		15 20		180		BATHROOM OUTLET	
GENERAL POWER/LIGHTING		848		15 20		1824		FAN COIL WITH 3 KW HEATER	
ELECTRIC SMOKE DETECTOR		200		15 20		1824			
GENERAL POWER/LIGHTING		848		15 25		1584		2 TON FLOOR CU	
REFRIGERATOR		900		15 25		1584			
GENERAL POWER/LIGHTING		848		15 25				SPACE	
SPACE								SPACE	
SPACE								SPACE	
SPACE								SPACE	
SPACE								SPACE	
SPACE								SPACE	
NOTE: 1. ALL CIRCUIT BREAKER SHALL BE CAPABLE OF BEING LOCKED IN OPEN POSITION. 2. ALL C/B RATINGS ARE 20A, UNLESS NOTED OTHERWISE *: ALL MECHANICAL EQUIPMENTS SHALL BE TYPE HACR BREAKERS									
SEE UNIT LOAD CALCULATIONS ON THIS SHEET									
**: REQUIRES AFCI BREAKERS PROTECTION PER KEY 12									

Unit manager load calculation			
General	Unit	Watts/unit	Total watts
Unit sf	692	3	2076
small appliance circuits	2	1500	3000
Sub-total			5076
Demand factor per NEC code section 220.82			
First 3000 VA at 100%			3000
Remainder load at 35%	2076 x 0.35		727
sub-total			3727
Appliance load	Unit	Watts/unit	Total watts
garbage disposal	1	900	900
Miscellaneous fans	1	400	400
sub-total			1300
plus 100% AC load			
A/C	1	3168	3168
Fan coil	1	3648	3648
sub-total			6816
Total unit wattage			11843
Total Amps			57

- KEY NOTES FOR ALL UNITS
- WP SEALTITE FLEX 3/4"C WITH 2#8 AND 1#10 GND, TO A/C ELECTRICAL CONNECTIONS
 - OUTLET FOR KITCHEN EXHAUST FAN. INSTALL WITHIN A CABINET ABOVE GAS COOKTOP
 - OUTLET FOR GAS OVEN INSTALLED ABOUT 12" AFF PER MANUFACTURER
 - GFI OUTLETS FOR COUNTER TOP. "CT" INDICATES COUNTER TOP. INSTALL ABOUT +8" ABOVE COUNTER HORIZONTALLY. SEE ARCHITECTURE
 - OUTLET FOR GARBAGE DISPOSAL AND CONTROLLED BY SWITCH
 - LED BATHROOM VANITY FIXTURES, ALIGN FIXTURE TO CENTER LINE OF VANITY. (TYP)
 - OUTLET FOR REFRIGERATOR
 - FAN COIL UNIT IN ATTIC PER MECHANICAL DRAWINGS, AND DET. 2E-3.1
 - PUSH BUTTON FOR DOOR CHIMES LOWER LEVEL
 - EXHAUST FAN TIED TO LIGHT FIXTURE, AND CONNECTED PER MECHANICAL DRAWINGS
 - DOOR CHIMES WITH TRANSFORMER. INSTALL ALL NEEDED WIRES BETWEEN EXTERIOR PUSH BUTTON AND CHIMES. CONNECT CHIMES' TRANSFORMER TO NEARBY OUTLET.
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 - ALL SWITCHES SHALL BE INSTALLED IN SAME GANG BOX AS REQUIRED
 - PANELBOARD FOR CORRESPONDING UNIT FRONT, FLUSH MOUNT.
 - NAME PLATE OF PANEL SHALL BE THE SAME AS OF THE UNIT NUMBER. SEE ARCHITECTURE PLANS FOR UNIT NUMBER
 - 240V, 1HP RATED MOTOR SWITCH, INSTALL CLOSE TO DOOR TO SERVE AS A DISCONNECTING MEANS FOR FC. SWITCH TO BE LOCKABLE
 - ELECTRICAL OUTLET BOXES IN OPPOSITE FACES OF SEPERATION WALLS SHALL BE SEPARATED HORIZONTALLY BY 24" AND NOTE THAT BACK AND SIDES OF BOXES SHALL BE SEALED WITH 1/8" RESILIENT SEALANT AND BACKED BY A MINIMUM OF 2" THICK MINERAL FIBER INSULATION
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 - TERMINATE THE UNIT INCOMING TELEPHONE WIRING FROM MAIN BUILDING UTILITY ROOM, INTO DNS TELEPHONE PORT. ALL UNITS TELEPHONE WIRING SHALL BE RUN FROM TELEPHONE JACK DIRECTLY TO DNS IN PARALLEL INSTALLATION. NO LOOPING IS ALLOWED. TERMINATE VILLA UNIT CAT 5e (WHITE) IN APPROPRIATE PORTS AND PUNCHED DOWN.
 - TERMINATE THE UNIT INCOMING RG6 CABLE WIRING FROM MAIN BUILDING UTILITY ROOM, INTO DNS CABLE PORT OF MINIMUM 4 WAY SPLITTER, THEN FEED EACH VILLA UNIT CABLE TV.
 - OUTDOOR GROUND FLOOR A/C CONDENSING UNIT FOR EACH UNIT. INSTALL PER DET. 3E-3.2
 - 1/2"C WITH A/C CONTROL WIRES BETWEEN FC UNITS AND COMPRESSORS' UNIT
 - THERMOSTAT PER MECHANICAL PLANS
 - 3/4"C WITH 2#8 AND 1#10 GND, CKTS NO (12,14). (TYP)
 - DISCONNECTS ARE WALL MOUNT AT THE NEARBY WALL. DESIGNED NON FUSE SO CLEARANCES CODE REQUIREMENTS ARE NOT APPLICABLE.
 - NEMA 3R OUTDOOR, 60A NON FUSED DISCONNECT SWITCH, 240V, 2P RATED FOR 10,000 AIC.

ALL 125V, 15 AND 20A RECEPTACLES IN DWELLING UNITS SHALL BE TAMPER RESISTANT PER CEC ARTICLE 406-11

ALL SWITCHES CONTROLLING LED LIGHT FIXTURES, SHALL BE DIMMER TYPE, EXCEPT WHEN VACANCY SENSOR IS SPECIFIED OR LESS THAN 70sf CLOSET

FOR ONLY WITHIN UNITS, AND FOR ALL CIRCUIT BREAKERS RATED 15A, CONTRACTOR MAY USE NO 14 GAGE WIRES, AND USE OUTLETS RATED FOR 15A

THE SPECIFIED PANELBOARD WITH 125A BUSSING AND 24 CIRCUITS ARE "SQUARE D" TYPE LOAD CENTER WITH LUGS RATED WIRE SIZE OF #4-2/0

SEE ARCHITECTURE PLANS FOR QUANTITY OF THIS UNIT TYPE PER THIS DESIGN SHEET.

CONTRACTOR SHALL USE ROMEX FOR UNITS' INTERNAL WIRING PER CODE

ALL WIRES SHALL INCLUDE GROUND WIRE PER CODE

ALL "SQUARE D" PANELBOARDS' LUGS ARE RATED FOR 75' WIRES

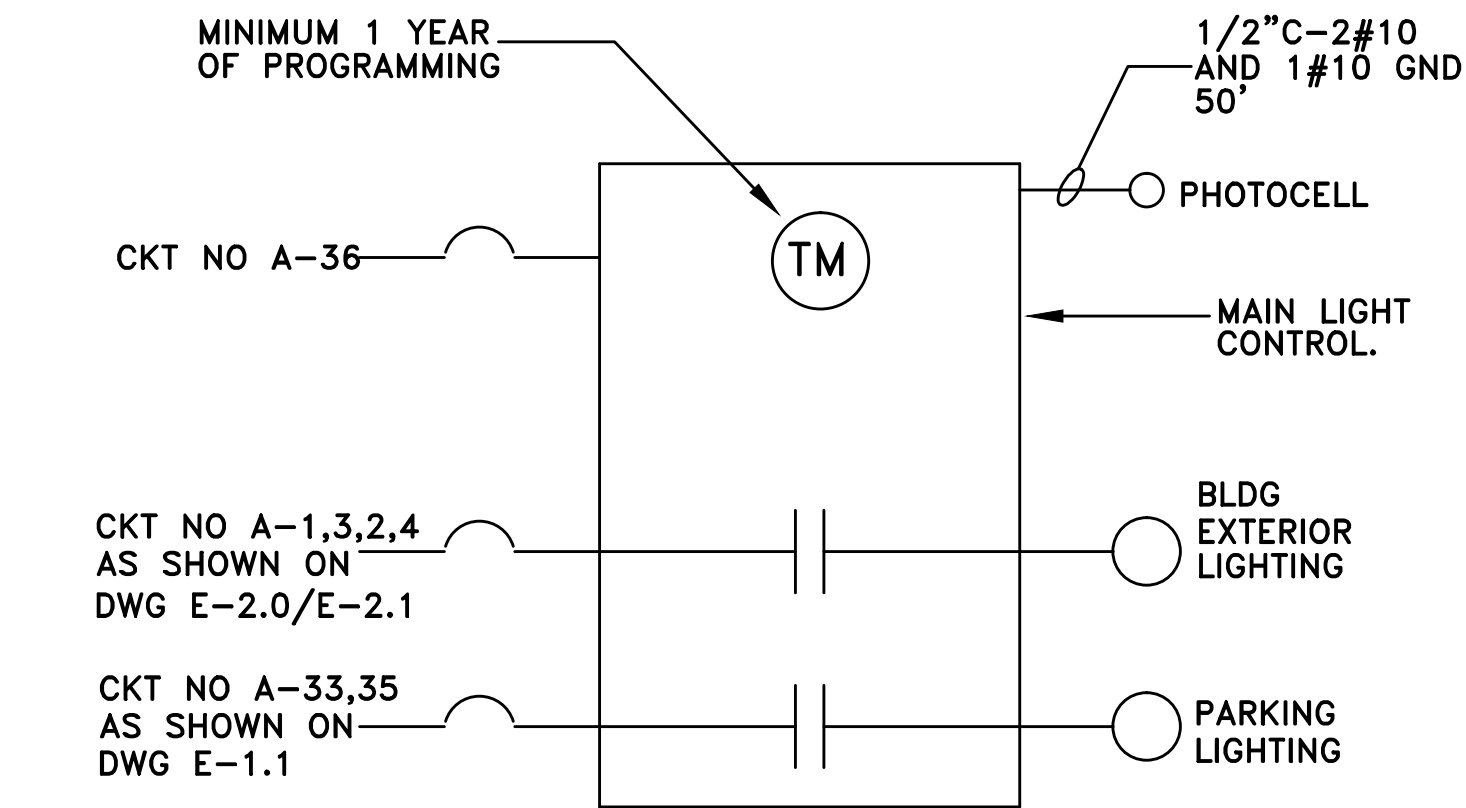
DRAWING REVISION LOG	
SUBMITTAL	12/12/17
PC SUBMITTAL	05/07/18

PROJECT NAME:
DESERT HAVEN
RE-DEVELOPMENT

PROJECT LOCATION:
16959 STODDARD RD.
VICTORVILLE, CA 92395

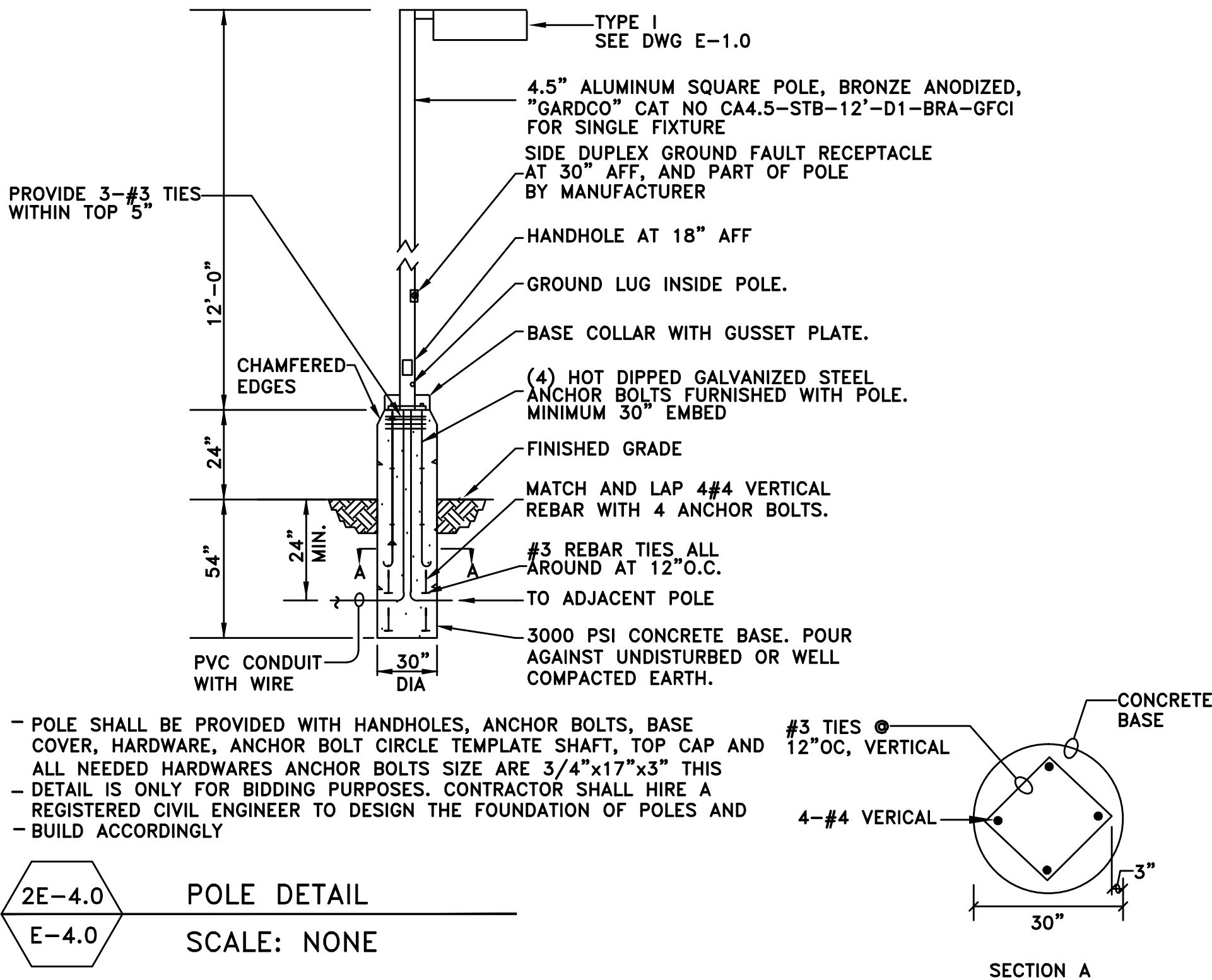
SHEET TITLE:

ELECTRICAL
MANAGER UNIT
PLAN



- MAIN LIGHTING CONTROL PANEL, 8 RELAYS, RATED 120/240V, 20A, "COOPER LIGHTING" LITEKEEPER CAT# "LK8-120-NO (8) RELAYS. THIS CONTAINS (1) CIRCUITRY BOARD OF 4 RELAYS, 9.5"Hx14"Wx3.25"D.
- THE EXACT TIMING OF TURNING ON LIGHTS SHALL BE PER OWNER.
- TEST THE SYSTEM FOR SUCCESSFUL OPERATION AND PROVIDE TRAINING TO OWNER.
- INSTALL PHOTOCELL TO SUIT FIELD CONDITIONS AND PER OWNER REQUIREMENTS
- MAIN LIGHTING CONTROL SHALL COMPLY WITH 2016 TITLE 24 MANDATORY REQUIREMENT AND IS PROGRAMMED AUTOMATICALLY TO TURN OFF DURING DAYLIGHT HOURS, AND HAVE BUILT-IN CAPABILITIES FOR SUNRISE AND SUNSET TIMING.

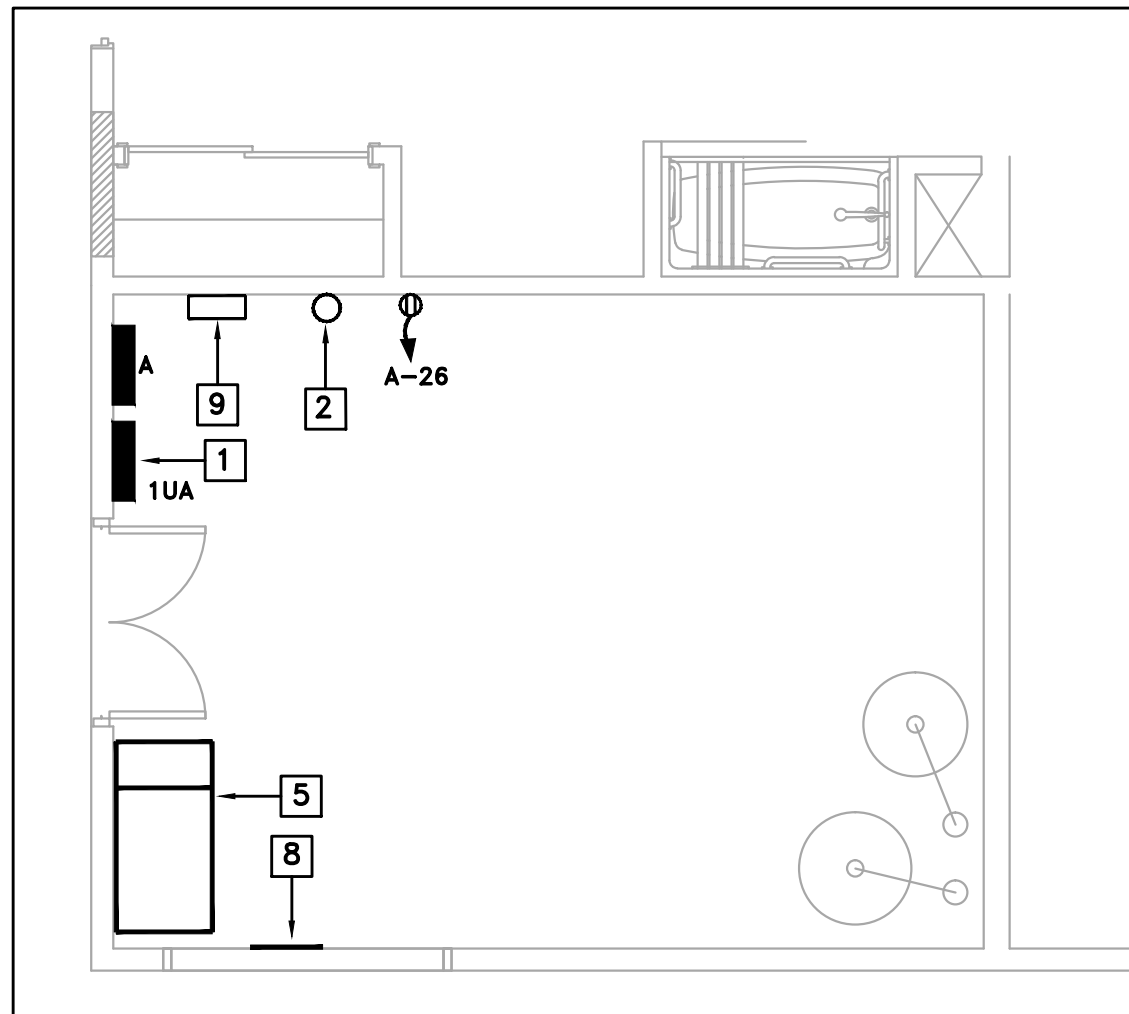
1E-4.0 MAIN EXTERIOR LIGHTING CONTROL PANEL
E-4.0 SCALE: NONE



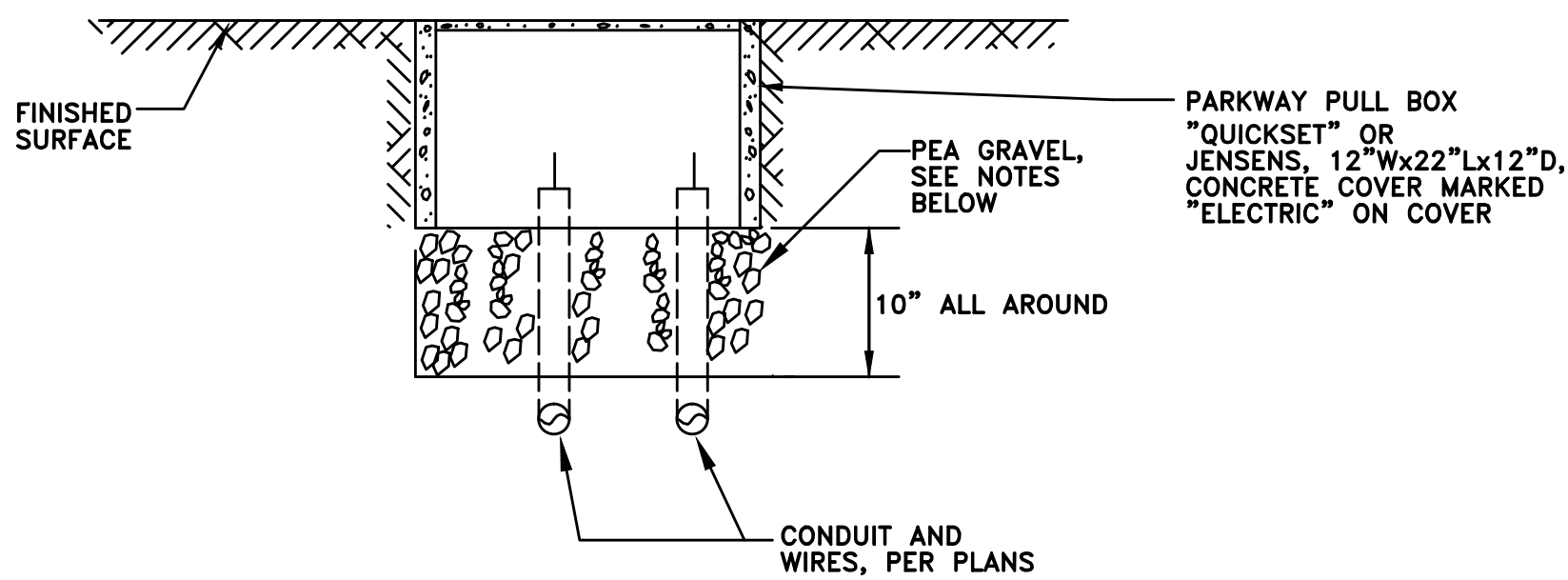
2E-4.0 POLE DETAIL
E-4.0 SCALE: NONE

KEY NOTES DET. 4E-4.0/5E-4.0:

- 1 PANEL FRONT, SURFACE. SEE DWG E-6.0 FOR ADDITIONAL INFORMATION. (TYP)
- 2 SOLAR CONDUITS FROM ROOF PER ARCHITECTURE PLANS
- 3 3/4"C WITH 1#6 GND TO BLDG GROUND BUS. TERMINATE AT 2" GROUND BAR FOR TELEPHONE COMPANY USE.
- 4 18"Wx14"Hx10"D MAIN CABLE BOX, PROVIDED BY AT&T AND INSTALLED BY CONTACTOR. COORDINATE ALL WORK
- 5 MAIN SCE UTILITY SERVICE AND U/G PULL SECTION FRONT. SEE DET. 6E-4.0 FOR ELEVATION
- 6 MAIN TELEPHONE TERMINATION FOR THE BUILDING, MAIN POINT OF ENTRY (MPO), BY AT&T. COORDINATE ALL WORK
- 7 FIRE RATED MAIN PLYWOOD BACKBOARD, 3'Wx8'Hx3/4"D, INSTALL AS NEEDED
- 8 SEE DET. 2E-6.0 FOR TYPICAL BUILDING SERVICE GROUNDING ELECTRODE. INSTALL BELOW METERS. 18" GROUND BUS
- 9 MAIN LIGHT CONTROL PER DET. 1E-4.0
- 10 EXTEND CABLE AND TELEPHONE INTO NEW EQUIPMENT

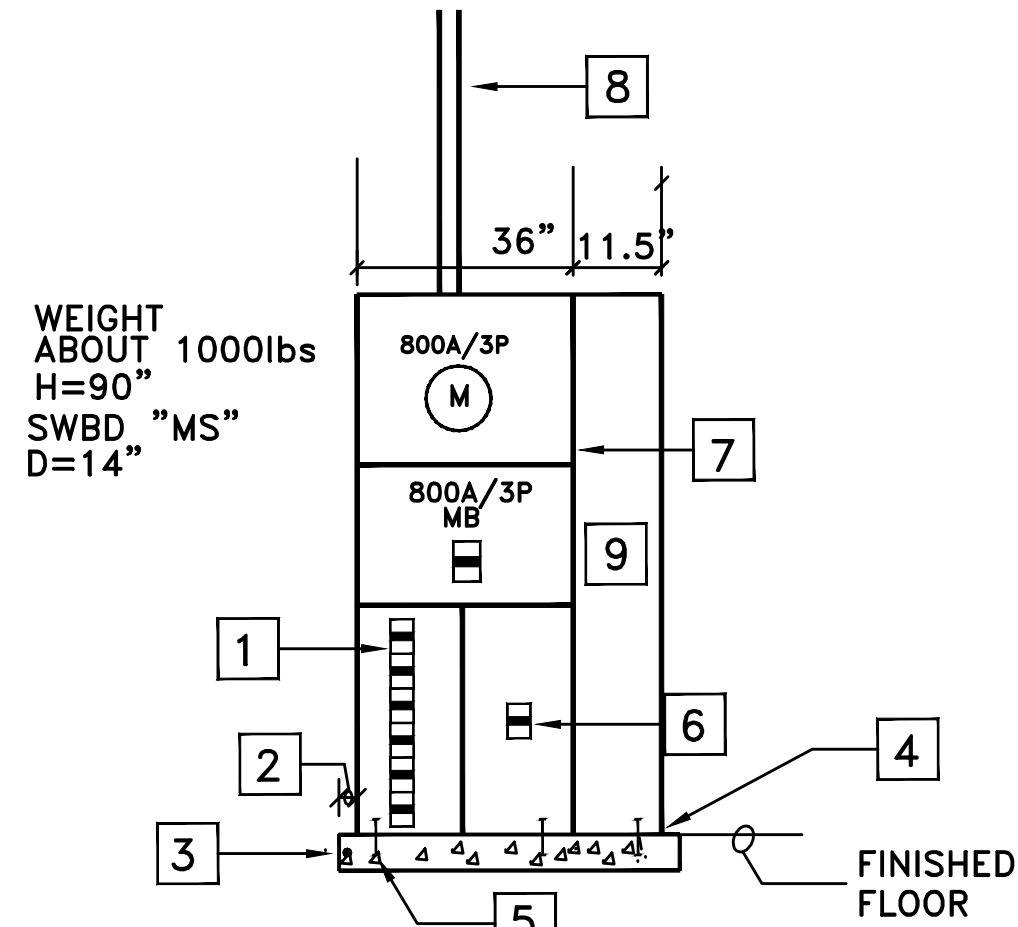


4E-4.0 MAIN ELECTRICAL ROOM
E-4.0 SCALE: 1/4" = 1'-0"



- 10" DEEP AND 6" ALL AROUND OF PEA GRAVEL SHALL BE AS A SUMP UNDER EACH PULL BOX.
- INSTALL AT 1/2" ABOVE FINISHED SURFACE TO PREVENT RAIN WATER TO INSIDE

3E-4.0 PARKING PULL BOX - DETAIL
E-4.0 SCALE: NONE

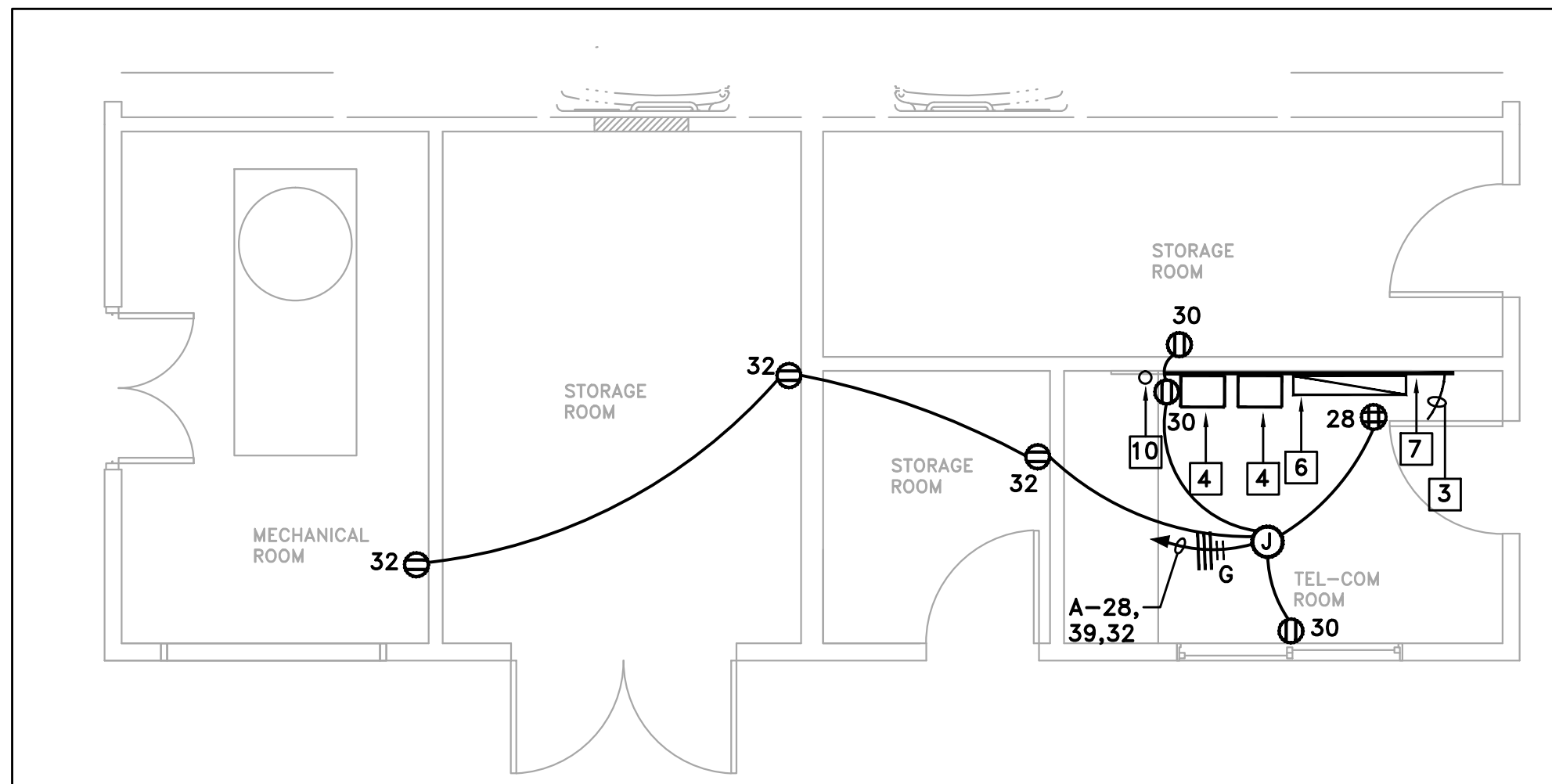


- THE WHOLE MAIN ELECTRICAL SERVICE IS DESIGNED AROUND "SQUARE D" PRODUCTS BASED ON INDOOR TYPE SPEED-D

KEY NOTES DET. 6E-4.0:

- 1 I-LINE SWITCHBOARD SECTION WITH UNIT MOUNTING SPACE OF 27" FOR FEEDER BREAKERS. USE TYPE KC BREAKERS RATED FOR 65,000 AIC AT 240V. KC BREAKERS PROVIDE UL LISTED SERIES RATING OF 65,000 AIC WITH TYPE QOB BREAKERS OF 10,000 AIC
- 2 3" ALL AROUND EQUIPMENTS
- 3 9" DEEP CONCRETE, 3000 PSI, FLUSHED WITH FLOOR. INSTALL #4 REBARS IN THE MIDDLE AT 12" OFF CENTER VERTICALLY AND HORIZONTALLY. INSTALL SWITCHBOARD ON CONCRETE AS NEEDED
- 4 BOLT DOWN EQUIPMENTS TO CONCRETE FOUNDATION
- 5 MINIMUM 5/8" DIAMETER EXPANSION ANCHOR BOLTS PER MANUFACTURER, MINIMUM 6 LOCATIONS
- 6 SPACE FOR (2) "K" TYPE BREAKER
- 7 INDOOR "SQUARE D" SPEED-D SWITCHBOARD.
- 8 OVERHEAD CONDUIT TO ABOUT 3' ABOVE ROOF PER ONE LINE DIAGRAM E-5.0/E-5.1. INSTALL 2" WEATHERPRROF WEATHERHEAD CAP AND ORIENT PER SCE REQUIREMENTS
- 9 INDOOR LOAD WIREWAY

6E-4.0 MAIN SWITCHBOARD "MS/SCE" - ELEVATION
E-4.0 SCALE: NONE



5E-4.0 MAIN TELCOM/BOILER ROOM
E-4.0 SCALE: 1/4" = 1'-0"

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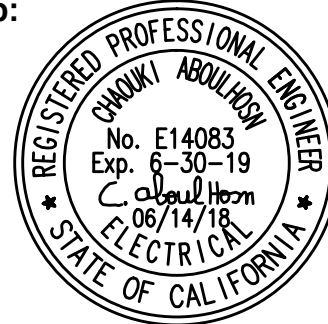
CHARLES PICK, ARCHITECT

Consultants:



AME NO. : 18012

Stamp:



DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05/07/18

PROJECT NAME:

DESERT HAVEN
RE-DEVELOPMENT

PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

ELECTRICAL DETAILS

LOCATION: SECOND FLOOR STORAGE				MOUNTING: ON THE WALL			PANEL SCHEDULE - "1UA"					CONDITION			BUS: 200A			MAIN: L.O.	
CHECK IF UPGRADED <input type="checkbox"/>				TYPE: SURFACE			VOLTAGE: 120/208V-3Φ-4W					NEW <input checked="" type="checkbox"/> EXISTING <input type="checkbox"/>			SERIES RATED CIRC. BKRS.				
DESCRIPTION	W A T T S (VxA)			NO. OF OUTLETS			BKR.		CIR. NO.		BKR.		NO. OF OUTLETS			W A T T S (VxA)			DESCRIPTION
	ΦA	ΦB	ΦC	LTG	REC	MISC	AMP	P	#	#	P	AMP	MISC	REC	LTG	ΦA	ΦB	ΦC	
UNIT NO 201	3758						50	2	1	2	2	50				3758			UNIT NO 208
UNIT NO 201		3758					50	2	3	4	2	50					3758		UNIT NO 208
UNIT NO 202			3758				50	2	5	6	2	50						3758	UNIT NO 209
UNIT NO 202	3758						50	2	7	8	2	50				3758			UNIT NO 209
UNIT NO 203		3758					50	2	9	10	2	50					3758		UNIT NO 210
UNIT NO 203			3758				50	2	11	12	2	50						3758	UNIT NO 210
UNIT NO 204	3758						50	2	13	14	2	50				3758			UNIT NO 211
UNIT NO 204		3758					50	2	15	16	2	50					3758		UNIT NO 211
UNIT NO 205			3758				50	2	17	18	2	50						3758	UNIT NO 212
UNIT NO 205	3758								19	20	2	50				3758			UNIT NO 212
SPACE									21	22									SPACE
SPACE									23	24									SPACE
SPACE									25	26									SPACE
SPACE									27	28									SPACE
SPACE									29	30									SPACE
SPACE									31	32									SPACE
SPACE									33	34									SPACE
SPACE									35	36									SPACE
SPACE									37	38									SPACE
SPACE									39	40									SPACE
SPACE									41	42									SPACE
	15032	11274	11274													15032	11274	11274	CONNECTED WATTS
SUBTOTAL PHASE A =				30064 WATTS															
SUBTOTAL PHASE B =				22548 WATTS															
SUBTOTAL PHASE C =				22548 WATTS															
LC LOAD x 25% =				0 WATTS															
TOTAL CONNECTED WATTS =																			
MAXIMUM WATTS =				SEE DWG E-6.0 FOR (10) UNITS LOAD CALCULATIONS															
FEEDER AMPS =				120/208V-3Φ-4W															

LOCATION: SECOND FLOOR STORAGE				MOUNTING: ON THE WALL				PANEL SCHEDULE - "1UB"						CONDITION				BUS: 200A			MAIN: L.O.			
CHECK IF UPGRADED <input type="checkbox"/>				TYPE: SURFACE				VOLTAGE: 120/208V-3Φ-4W						NEW <input checked="" type="checkbox"/> EXISTING <input type="checkbox"/>				SERIES RATED CIRC. BKRS.						
DESCRIPTION	W A T T S (VxA)			NO. OF OUTLETS			BKR.		CIR. NO.		BKR.		NO. OF OUTLETS			W A T T S (VxA)			DESCRIPTION					
	ΦA	ΦB	ΦC	LTG	REC	MISC	AMP	P	#	#	P	AMP	MISC	REC	LTG	ΦA	ΦB	ΦC						
UNIT NO 201	3758						50	2	1	2	2	50				3758			UNIT NO 208					
UNIT NO 201		3758					50	2	3	4	2	50					3758		UNIT NO 208					
UNIT NO 202			3758				50	2	5	6	2	50						3758	UNIT NO 209					
UNIT NO 202	3758						50	2	7	8	2	50				3758			UNIT NO 209					
UNIT NO 203		3758					50	2	9	10	2	50					3758		UNIT NO 210					
UNIT NO 203			3758				50	2	11	12	2	50						3758	UNIT NO 210					
UNIT NO 204	3758						50	2	13	14	2	50				3758			UNIT NO 211					
UNIT NO 204		3758					50	2	15	16	2	50					3758		UNIT NO 211					
UNIT NO 205			3758				50	2	17	18	2	50						3758	UNIT NO 212					
UNIT NO 205	3758						50	2	19	20	2	50				3758			UNIT NO 212					
UNIT NO 206		3758					50	2	21	22	2	50					3758		UNIT NO 213					
UNIT NO 206			3758				50	2	23	24	2	50						3758	UNIT NO 213					
SPACE									25	26									SPACE					
SPACE									27	28									SPACE					
SPACE									29	30									SPACE					
SPACE									31	32									SPACE					
SPACE									33	34									SPACE					
SPACE									35	36									SPACE					
SPACE									37	38									SPACE					
SPACE									39	40									SPACE					
SPACE									41	42									SPACE					
	15032	15032	15032													15032	15032	15032	CONNECTED WATTS					
SUBTOTAL PHASE A =				30064 WATTS																				
SUBTOTAL PHASE B =				30064 WATTS																				
SUBTOTAL PHASE C =				30064 WATTS																				
LC LOAD x 25% =				0 WATTS																				
TOTAL CONNECTED WATTS =																								
MAXIMUM WATTS =				SEE DWG E-6.0 FOR (12) UNITS LOAD CALCULATIONS																				
FEEDER AMPS =				120/208V-3Φ-4W																				

LOCATION: SECOND FLOOR STORAGE				MOUNTING: ON THE WALL				PANEL SCHEDULE - "1UC"						CONDITION				BUS: 200A			MAIN: L.O.	
CHECK IF UPGRADED <input type="checkbox"/>				TYPE: SURFACE				VOLTAGE: 120/208V-3Φ-4W						NEW <input checked="" type="checkbox"/> EXISTING <input type="checkbox"/>				SERIES RATED CIRC. BKRS.				
DESCRIPTION	W A T T S (VxA)			NO. OF OUTLETS			BKR.		CIR. NO.		BKR.		NO. OF OUTLETS			W A T T S (VxA)			DESCRIPTION			
	ΦA	ΦB	ΦC	LTG	REC	MISC	AMP	P	#	#	P	AMP	MISC	REC	LTG	ΦA	ΦB	ΦC				
UNIT NO 201	3758						50	2	1	2	2	50				3758			UNIT NO 208			
UNIT NO 201			3758					50	2	3	4	2	50					3758		UNIT NO 208		
UNIT NO 202			3758				50	2	5	6	2	50						3758	UNIT NO 209			
UNIT NO 202	3758						50	2	7	8	2	50				3758			UNIT NO 209			
UNIT NO 203		3758					50	2	9	10	2	50					3758		UNIT NO 210			
UNIT NO 203			3758				50	2	11	12	2	50						3758	UNIT NO 210			
UNIT NO 204	3758						50	2	13	14	2	50				3758			UNIT NO 211			
UNIT NO 204		3758					50	2	15	16	2	50					3758		UNIT NO 211			
UNIT NO 205			3758				50	2	17	18	2	50						3758	UNIT NO 212			
UNIT NO 205	3758						50	2	19	20	2	50				3758			UNIT NO 212			
UNIT NO 206		3758					50	2	21	22	2	50					3758		UNIT NO 213			
UNIT NO 206			3758				50	2	23	24	2	50						3758	UNIT NO 213			
UNIT NO 207	3758						50	2	25	26									SPACE			
UNIT NO 207		3758					50	2	27	28									SPACE			
SPACE									29	30									SPACE			
SPACE									31	32									SPACE			
SPACE									33	34									SPACE			
SPACE									35	36									SPACE			
SPACE									37	38									SPACE			
SPACE									39	40									SPACE			
SPACE									41	42									SPACE			
	18790	18790	15032													15032	15032	15032	CONNECTED WATTS			
SUBTOTAL PHASE A =				33822 WATTS																		
SUBTOTAL PHASE B =				33822 WATTS																		
SUBTOTAL PHASE C =				30064 WATTS																		
LC LOAD x 25% =				0 WATTS																		
TOTAL CONNECTED WATTS =																						
MAXIMUM WATTS =				SEE DWG E-2.1 FOR (13) UNITS LOAD CALCULATIONS																		
FEEDER AMPS =				120/208V-3Φ-4W																		

LOCATION: FIRST FLOOR UTILITY ROOM				MOUNTING: ON THE WALL			PANEL SCHEDULE - "A"						CONDITION			BUS: 200A			MAIN: L.O.		
CHECK IF UPGRADED <input type="checkbox"/>				TYPE: SURFACE			VOLTAGE: 120/208V-3Ø-4W						NEW <input checked="" type="checkbox"/>		EXISTING <input type="checkbox"/>		SERIES RATED CIRC. BKRS.				
DESCRIPTION	W A T T S (VxI)			NO. OF OUTLETS			BKR		CIR. NO.		BKR		NO. OF OUTLETS			W A T T S (VxI)			DESCRIPTION		
	ΦA	ΦB	ΦC	LTG	REC	MISC	AMP	P	#	#	P	AMP	MISC	REC	LTG	ΦA	ΦB	ΦC			
BLDG EXT LIGHT -1ST	285			19			20	1	1	2	1	20			26	460			BLDG EXT LIGHT -2ND		
BLDG EXT LIGHT -1ST		285		19			20	1	3	4	1	20			26	460			BLDG EXT LIGHT -2ND		
BLDG EXT OUTLET-1ST			720		4		20	1	5	6	1	20		4				720	BLDG EXT OUTLET-2ND		
BLDG EXT OUTLET-1ST	720				4		20	1	7	8	1	20		4		720			BLDG EXT OUTLET-2ND		
BLDG EXT OUTLET-1ST		720			4		20	1	9	10	1	20		4			720		BLDG EXT OUTLET-2ND		
BLDG EXT OUTLET-1ST			720	4			20	1	11	12	1	20		4				720	BLDG EXT OUTLET-2ND		
GARBAGE DISPOSAL	900				1		20	1	13	14	1	20		1	8	260			RECREATION LTS		
KITCHEN		900			1		20	1	15	16	1	20			8		260		RECREATION LTS		
KITCHEN			900	1			20	1	17	18	2	20						1376	1 TON PTEK REC		
FRIGERATOR	900				1		20	1	19	20	2	20				1376			1 TON PTEK REC		
RECREATION		720			4		20	1	21	22	2	20					1376		1 TON PTEK REC		
RECREATION			720		4		20	1	23	24	2	20						1376	1 TON PTEK REC		
RECREATION	720				4		20	1	25	26	1	20		1		500			1ST FLOOR UTILITY		
RECREATION SD		100			2		20	1	27	28	1	20		2			600		2ND FLOOR TEL-COM		
RECREATION			720		4		20	1	29	30	1	20		3				900	2ND FLOOR TEL-COM		
RECREATION	900				2		20	1	31	32	1	20		3		540			STORAGE		
PARKING LOTS		75		3			20	1	33	34	1	20			9			315	UTILITY LTS		
PARKING LOTS			75	3			20	1	35	36	1	20							SPARE		
GATE KEY ENTRY	500				1		20	1	37	38									SPACE		
GATE MOTOR		960			1		20	2	39	40									SPACE		
GATE MOTOR			960		1		20	2	41	42									SPACE		
	4925	3760	4815													3856	3416	5407	CONNECTED WATTS		
SUBTOTAL PHASE A =				8781 WATTS																	
SUBTOTAL PHASE B =				7176 WATTS																	
SUBTOTAL PHASE C =				10222 WATTS																	
LC LOAD x 25% =				1228 WATTS																	
TOTAL CONNECTED WATTS =				26179																	
MAXIMUM WATTS =				27407																	
FEEDER AMPS =				76 120/208V-3Ø-4W																	

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CHARLES PICK, ARCHITECT

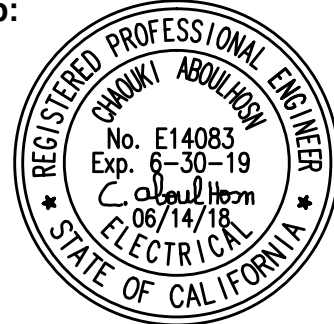
Consultants:



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AME NO. : 18012

Stamp:



DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05/07/18

PROJECT NAME:

DESERT HAVEN RE-DEVELOPMENT

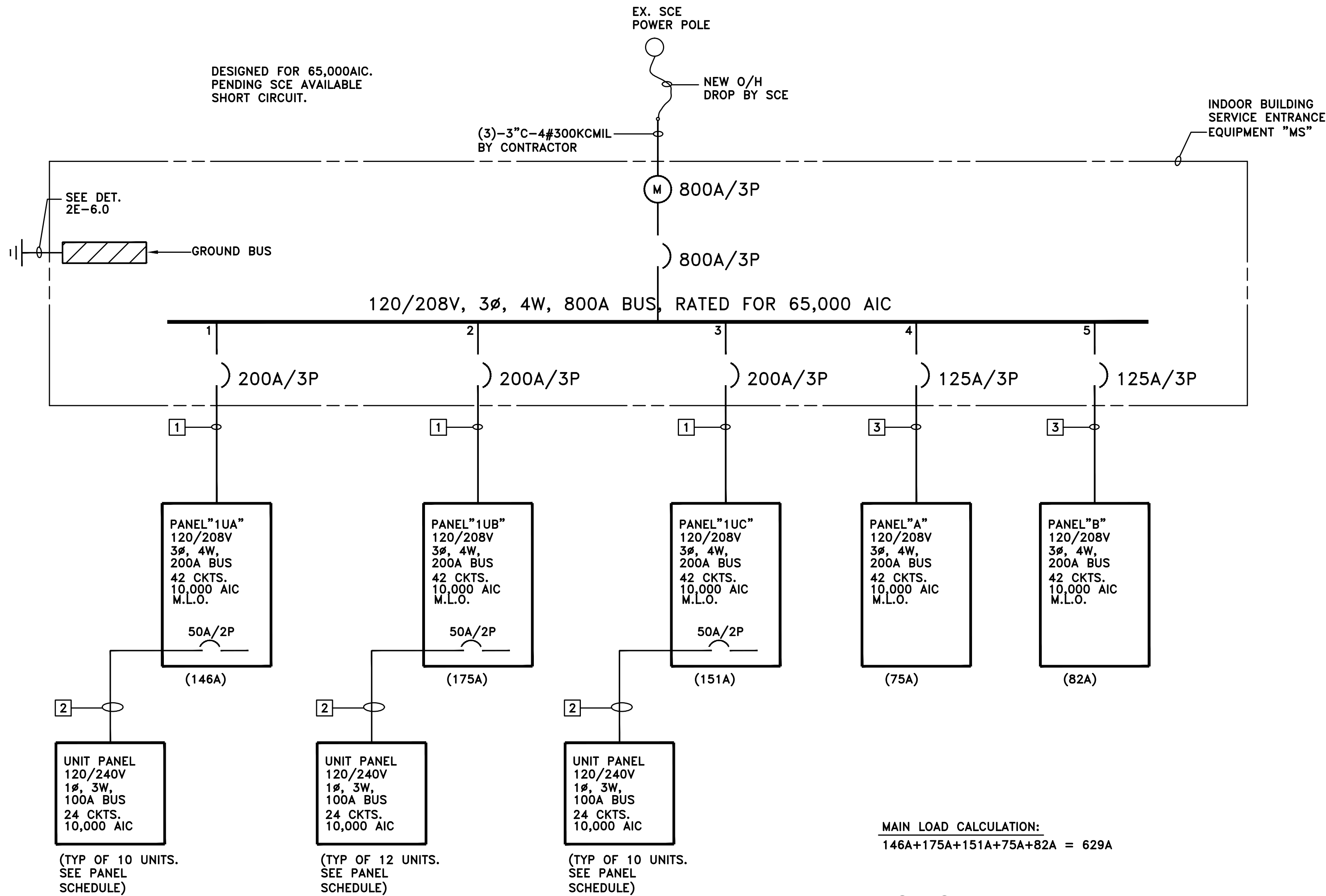
PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

PANEL SCHEDULE

E-5.0



MAIN BREAKER AND BRANCH
BREAKERS SHALL BE UL LISTED
SERIES RATING FOR 42,000 AIC

NO FUSES IN ANY OF
EQUIPMENTS ARE ALLOWED

FEEDER BREAKER TYPE "JG" PROVIDES UL LISTED
SERIES RATING OF 65,000A WITH HOUSE AND UNIT
PANELBOARD BRANCH BREAKER TYPE "QO,QOB"
PROVIDE A CAUTIONARY LABEL TO THE SERIES
RATED DEVICE COVER STATING "CAUTION"-SERIES
COMBINATION SYSTEM RATED 65,000 AMPERS
IDENTIFIED REPLACEMENT COMPONENTS REQUIRED"

UNIT PANEL COPPER FEEDER SCHEDULE

DISTANCE	CONDUIT AND WIRES	WORST %VD. (35A)
0'-120'	SER-3#8 & 1#8 GND	2.8%
121'-190'	SER-3#6 & 1#8 GND	2.8%

- THE EXACT ROUTING OF PANEL FEEDER SHALL BE DETERMINED BY CONTRACTOR IN THE FIELD.
- CONTRACTOR SHALL THEN DETERMINE THE PANEL FEEDER DISTANCE AND INSTALL ACCORDING TO ABOVE FEEDER SCHEDULE TO AVOID EXCESSIVE VOLTAGE DROP

KEY NOTES:

- 2"C-COPPER 4#3/0 & 1#6 GND
- SEE UNIT FEEDER SCHEDULE ON THIS SHEET. (TYP)
- 1 1/2"C-COPPER 4#1 & 1#6 GND

MAIN LOAD CALCULATION:
146A+175A+151A+75A+82A = 629A

NOTES:

- ALL PRODUCTS ARE DESIGNED BASED ON "SQUARE D"
- MAIN BREAKERS OF "MS" SHALL BE THERMAL- MAGNETIC TYPE MH, RATED FOR 65,000 AIC AT 240V. BRANCH BREAKERS FOR "MS", ALL CKTS SHALL BE TYPE "JG" RATED FOR 65,000 AIC AT 240V.
- ALL HOUSE AND UNIT PANELBOARDS SHALL BE TYPE "NQOD" WITH BREAKERS TYPE "QO,QOB" RATED AT 10,000 AIC. DOWNSTREAM PANELBOARDS "NQOD" PROVIDES UL LISTED SERIES RATING OF 65,000 AIC WITH FEEDER TYPE "JG"
- DISTANCES OF CONDUIT SHOWN ARE APPROXIMATE AND ONLY FOR BUILDING AND SAFETY PLAN CHECK PURPOSES. CONTRACTOR SHALL DETERMINE LENGTH OF CONDUIT AND WIRES PER PLAN.

1E-6.0 ONE LINE DIAGRAM
E-6.0 SCALE: NONE

TYPICAL FOR PANEL "1UA"

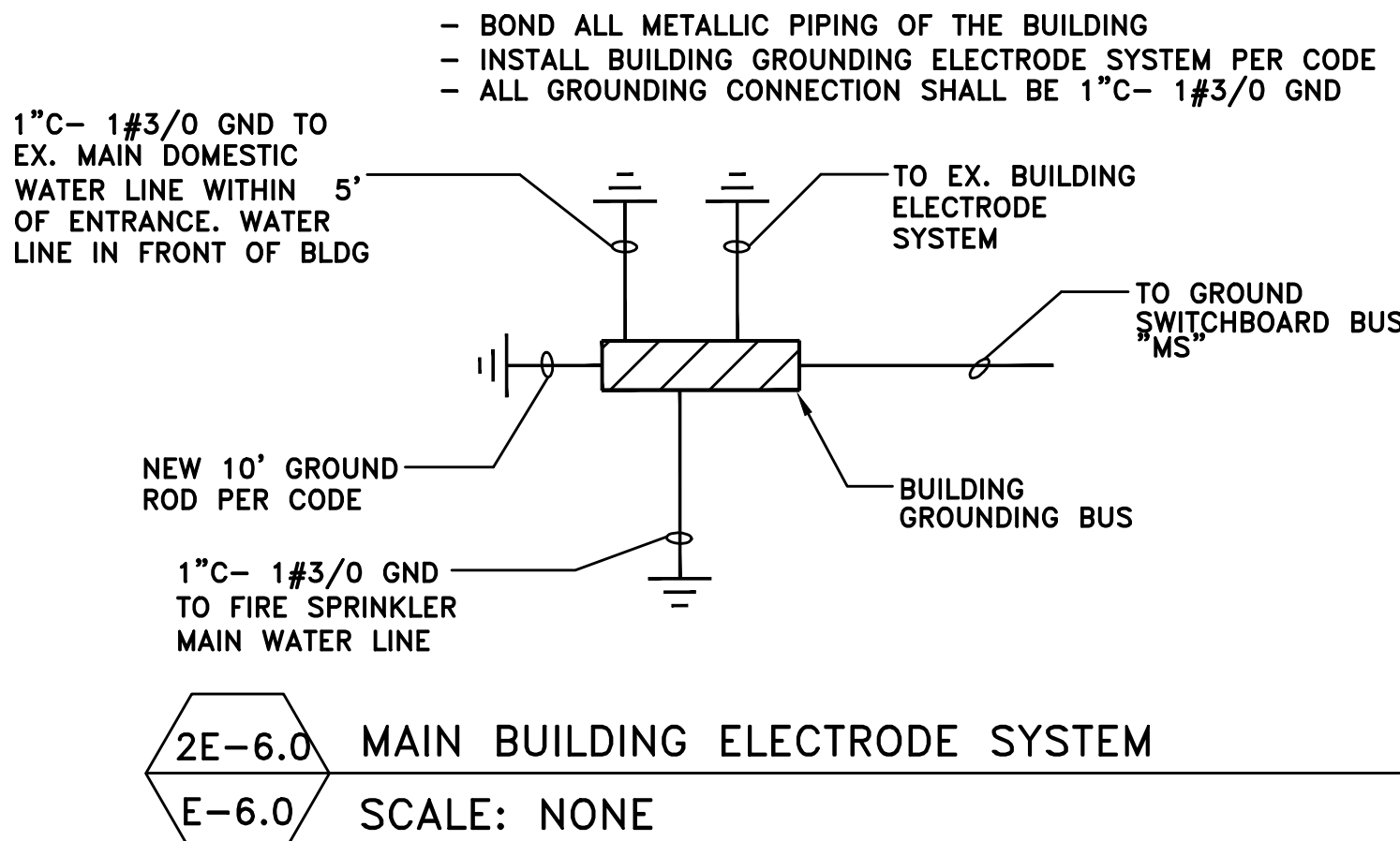
(10) Unit load calculation				
General	Unit	Watts/unit	Total watts	
Unit sf	4310	3	12930	
small appliance circuits	20	1500	30000	
Sub-total			42930	
Demand factor per NEC code section 220.82				
First 3000 VA at 100%			3000	
Remainder load at 35%	39930	x 0.35	13976	
sub-total			16976	
Appliance load	Unit	Watts/unit	Total watts	
garbage disposal	10	900	9000	
Miscellaneous fans	10	200	2000	
sub-total			11000	
Demand factor of 75% for appliances 220.53			8250	
plus 100% AC load				
A/C	10	2752	27520	
sub-total			27520	
Total unit wattage			52746	
Total Amps			146	

TYPICAL FOR PANEL "1UB"

(12) Unit load calculation				
General	Unit	Watts/unit	Total watts	
Unit sf	5280	3	15840	
small appliance circuits	24	1500	36000	
Sub-total			51840	
Demand factor per NEC code section 220.82				
First 3000 VA at 100%			3000	
Remainder load at 35%	48840	x 0.35	17094	
sub-total			20094	
Appliance load	Unit	Watts/unit	Total watts	
garbage disposal	12	900	10800	
Miscellaneous fans	12	200	2400	
sub-total			13200	
Demand factor of 75% for appliances 220.53			9900	
plus 100% AC load				
A/C	12	2752	33024	
sub-total			33024	
Total unit wattage			63018	
Total Amps			175	

TYPICAL FOR PANEL "1UC"

(10) Unit including manager load calculation				
General	Unit	Watts/unit	Total watts	
Unit sf	3123	3	9369	
small appliance circuits	20	1500	30000	
Sub-total			39369	
Demand factor per NEC code section 220.82				
First 3000 VA at 100%			3000	
Remainder load at 35%	36369	x 0.35	12729	
sub-total			15729	
Appliance load	Unit	Watts/unit	Total watts	
garbage disposal	10	900	9000	
Miscellaneous fans	10	200	2000	
sub-total			11000	
Demand factor of 75% for appliances 220.53			8250	
plus 100% AC load				
A/C	9	2752	24768	
A/C manager	1	2746	2746	
FC manager	1	2752	2752	
sub-total			30266	
Total unit wattage			54245	
Total Amps			151	



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CHARLES PICK, ARCHITECT

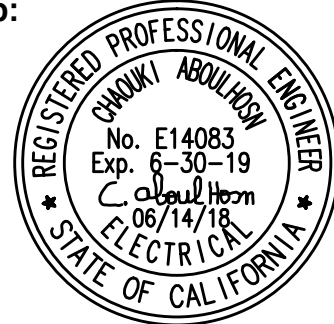
Consultants:



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AME NO. : 18012

Stamp:



DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05/07/18

PROJECT NAME:

DESERT HAVEN
RE-DEVELOPMENT

PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

ONE LINE DIAGRAM

E-5.0

A. General Information

Project Address: 16959 STODDARD ROAD, VICTORVILLE, CA 92395

Total Illuminated Hardscape Area: 16,079 SF

Phase of Construction: ☐ New Construction ☐ Addition

☒ Alteration

Outdoor Lighting Zone (LZ) ☐ LZ-1 ☐ LZ-2

☒ LZ-3 ☐ LZ-4

I have confirmed with the AHJ which LZ applies to this site. For default lighting zone designations, see Title 24 Part 6, §10-114

B. Lighting Compliance Documents (check box for each document included)
For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Nonresidential Manual published by the California Energy Commission.

<input checked="" type="checkbox"/>	NRCC-LTO-01-E	Certificate of Compliance
<input checked="" type="checkbox"/>	NRCC-LTO-02-E	Outdoor Lighting Controls Certificate of Compliance
<input checked="" type="checkbox"/>	NRCC-LTO-03-E	Outdoor Lighting Power Allowance Certificate of Compliance
<input type="checkbox"/>	NRCC-LTO-04-E	Outdoor Lighting Existing Conditions Certificate of Compliance

C. Summary of Allowed Outdoor Lighting Power		Watts
01	Sum Total ALLOWED Outdoor Lighting Wattage from NRCC-LTO-03-E, page 1	1891
	Alterations with NO increase of connected lighting load may instead use the allowed wattage from NRCC-LTO-04, page 2.	
Complies ONLY if Installed (Box 02) ≤ Allowed (Box 01)		
02	Sum Total INSTALLED Outdoor Lighting Wattage from NRCC-LTO-01-E, page 3.	1040

D. Declaration of Required Installation Certificates
Declare by checking all Installation Certificates that will be submitted. (Retain copies and verify compliance documents are completed and signed.)

<input checked="" type="checkbox"/> NRCL-LTO-01-E - Must be submitted for all buildings	<input type="checkbox"/> Field Inspector
<input checked="" type="checkbox"/> NRCL-LTO-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/> Field Inspector

E. Declaration of Required Certificates of Acceptance
Declare by checking all of the Certificates of Acceptance that will be submitted. (Retain copies and verify compliance documents are completed and signed.)

☒ NRCA-LTO-02-A - Must be submitted for outdoor lighting controls.

☐ Field Inspector

F. Schedule of Luminaires Exempt from the Outdoor Lighting Power Requirements in §140.7	
01	02
Name or Symbol	Description of exempt luminaire in accordance with the exemptions

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: CHAOUKI ABOULHOSN

Documentation Author Signature: C. AboulHosn

Company: AME GROUP

Signature Date: 05/29/2018

Address: 2062 BUSINESS CENTER DRIVE, SUITE 250

CEA Certification Identification (if applicable):

City/State/Zip: IRVINE, CA 92612

Phone: (949) 555-0170

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.

2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).

3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.

4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: CHAOUKI ABOULHOSN	Responsible Designer Signature: C. AboulHosn
Company : AME GROUP	Date Signed: 05/29/2018
Address: 2062 BUSINESS CENTER DRIVE, SUITE 250	License: PE E-14083
City/State/Zip: IRVINE, CA 92612	Phone: (949) 555-0170

I. Outdoor Lighting Schedule and Field Inspection Energy Checklist										
Luminaire Schedule		Installed Watts				Location	Cutoff	Field Inspector		
01	02	03	04		05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Watts per Luminaire	How wattage was determined		Number of Luminaires	Total Installed Watts in this area (03 x 05)	Primary Function area in which these luminaires are installed (Outdoor Lighting Zone)	BUG Rating	Pass	Fail
			CEC Default from NA8	According to §130.0(c)						
AE	WALL MOUNT LED	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	40	480	PARK AREA HARDSCAPE	UH: UL: FVH: BVH: FH: BH:	<input type="radio"/>	<input type="radio"/>
B/BE	BLDG EAVE MOUNTED LED	25	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14	350		UH: UL: FVH: BVH: FH: BH:	<input type="radio"/>	<input checked="" type="radio"/>
I	POLE MOUNTED LED	35	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	210		UH: UL: FVH: BVH: FH: BH:	<input type="radio"/>	<input type="radio"/>
INSTALLED WATTS PAGE TOTAL:						1040	Enter sum total of all pages (Sum Total INSTALLED Outdoor lighting wattage) into NRCC-LTO-01-E; Page 1		1040	

A. Mandatory Outdoor Lighting Control Declaration Statements

Check all that apply:

☒ Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with §110.9(a).

☐ Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with §130.4(b).

☒ All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with §130.0(d).

☐ Part-Night Outdoor Lighting Controls, as defined in Section 100.1(b), shall meet the requirements in Section 110.9(b)5.

☐ All outdoor incandescent luminaires rated over 100 watts, determined in accordance with Section 130.0(c), shall be controlled by a motion sensor.

☐ All outdoor luminaires rated for use with lamps greater than 150 lamp watts, determined in accordance with Section 130.0(c), shall comply with Uplight and Glare requirements in accordance with Section 130.2(b)

☒ All installed outdoor lighting shall be controlled by a photocontrol or outdoor astronomical time-switch control, or other control capable of automatically switching OFF in accordance with Section 130.2(c)1.

☒ All installed outdoor lighting shall be circuited and independently controlled from other electrical loads by an automatic scheduling control in accordance with Section 130.2(c)2.

☒ All installed outdoor lighting, where the bottom of the luminaire is mounted 24 feet or less above the ground, shall be controlled with automatic lighting controls in accordance with Section 130.2(c)3.

☐ For Outdoor Sales Frontage, an automatic lighting control shall be installed in accordance with Section 130.2(c)4.

☐ For Building Facade, Ornamental Hardscape and Outdoor Dining Lighting, an automatic lighting control shall be installed in accordance with Section 130.2(c)5

☒ Before an occupancy permit is granted for the newly constructed building or for the addition, or for any altered outdoor lighting controls, shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with §130.4.(a). Outdoor lighting controls shall comply with the applicable requirements of Section 130.2(c) and Reference Nonresidential Appendix NA7.8.

2130 FOURTH ST
SAN RAFAEL, CA 94901
PHONE (415) 457-6035
FAX (415) 457-6036

P.O.BOX 150539
SAN RAFAEL, CA 94915

CHARLES PICK, ARCHITECT

Consultants:

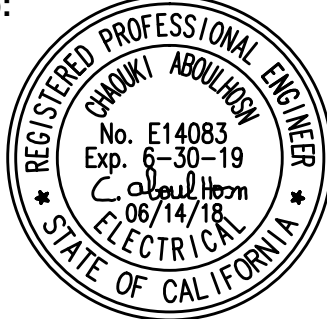


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SHEET TITLE:

TITLE 24 OUTDOOR

E-7.0

[illegible]

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name:	CHAOUKI ABOULHOSN
Documentation Author Signature:	<i>C. Aboul Hosn</i>
Company:	AME GROUP
Signature Date:	05/29/2018
Address:	2062 BUSINESS CENTER DRIVE, SUITE 250
CEA Certification identification (if applicable):	
City/State/Zip:	IRVINE, CA 92612
Phone:	(949) 553-0170


RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
1. The information provided on this Certificate of Compliance is true and correct.	
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).	
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.	
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.	
Responsible Designer Name:	CHAOUKI ABOULHOSN
Responsible Designer Signature:	<i>C. Aboul Hosn</i>
Company:	AME GROUP
Date Signed:	05/29/2018
Address:	2062 BUSINESS CENTER DRIVE, SUITE 250
License:	PE E-14083
City/State/Zip:	IRVINE, CA 92612
Phone:	(949) 553-0170

A. OUTDOOR LIGHTING POWER ALLOWANCE SUMMARY				
1. General Hardscape Lighting Power Allowance (Site Total from Section B of NRCC-LTO-03-E)				1. 1891.16
2. Additional Specific "use it or lose it" Lighting Power Allowances listed in each of these cells shall be identical to total allowed watts determined in Section C-1 to C-4 of NRCC-LTO-03-E.				
PER APPLICATION from Section C-1	PER UNIT LENGTH (SALES FRONTAGE) from Section C-2	PER HARDSCAPE AREA (ORNAMENTAL LIGHTING) from Section C-3	PER SPECIFIC AREA from Section C-4.	
0	0	0	0	2. 0
3. Sum Total ALLOWED Outdoor Lighting Wattage (add rows 1 and 2)				3. 1891.16

January 2016

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete. Documentation Author Name: CHAUQUI ABOULHOSN		Documentation Author Signature: <i>C. Aboul Hosn</i>	
Company: AME GROUP		Signature Date: 05/29/2018	
Address: 2062 BUSINESS CENTER DRIVE, SUITE 250		CEA Certification Identification (if applicable):	
City/State/Zip: IRVINE, CA 92612		Phone: (949) 553-0170	
RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California: <ol style="list-style-type: none"> The information provided on this Certificate of Compliance is true and correct. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. 			
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Company: AME GROUP		Date Signed: 05/29/2018	
Address: 2062 BUSINESS CENTER DRIVE, SUITE 250		License: PE E-14083	
City/State/Zip: IRVINE, CA 92612		Phone: (949) 553-0170	

Stamp:



REGISTERED PROFESSIONAL ENGINEER
CHOUKI ABOUHOUN
No. E14083
Exp. 6-30-19
C. Abouhoun
06/14/18
ELECTRICAL
STATE OF CALIFORNIA

E-7.1