

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	DASHED SYMBOL INDICATES EXISTING FIXTURE, OUTLET, DEVICE OR EQUIPMENT TO BE REMOVED.
	FINE-LINED SYMBOL INDICATES EXISTING FIXTURE, OUTLET, DEVICE OR EQUIPMENT TO REMAIN.
	CROSS MARK ON ANY SWITCH SYMBOL INDICATES EXISTING SWITCH OUTLET.
	EXISTING CONDUIT TO REMAIN.
	EXISTING CONDUIT TO BE REMOVED IF IN AN ACCESSIBLE AREA OR TO BE ABANDONED IF IN AN INACCESSIBLE AREA.
	INDICATES FIXTURE TYPE. SEE FIXTURE SCHEDULE FOR LAMP, WATTAGE, AND MOUNTING INFORMATION. TYPICAL FOR ROOM INDICATED, UNLESS OTHERWISE NOTED.
	INDICATES CONTROLLING SWITCH LEG.
	DENOTES BRANCH CIRCUIT NUMBER SUPPLYING FIXTURE.
	WHEN USED, DENOTES PANELBOARD SUPPLYING FIXTURE.
	PENDANT MOUNTED LIGHTING FIXTURE.
	RECESSED MOUNTED LIGHTING FIXTURE CONNECTED FOR EMERGENCY LIGHTING OPERATION.
	SURFACE MOUNTED LIGHTING FIXTURE CONNECTED FOR EMERGENCY LIGHTING OPERATION.
	SURFACE MOUNTED LIGHTING FIXTURE.
	STRIP LIGHTING FIXTURE.
	ROUND LIGHTING FIXTURE. LAMP AND MOUNTING PER FIXTURE TYPE.
	WALL MOUNTED LIGHTING FIXTURE. MOUNTING HEIGHT AS INDICATED.
	RECESSED STEP LIGHTING FIXTURE.
	SPOT OR FLOOD LIGHTING FIXTURE.
	SPORTS OR AREA LIGHTING FIXTURES, POLE MOUNTED. SEE DETAIL.
	CEILING MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL ARROW(S) AS INDICATED.
	WALL MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL ARROW(S) AS INDICATED. MOUNT AT +96" AFF OR AS INDICATED.
	SURFACE MOUNTED BATTERY POWERED EMERGENCY LIGHTING FIXTURE. MOUNTING HEIGHT AS INDICATED.
	SINGLE HEAD, POLE MOUNTED PARKING LOT OR AREA LIGHTING FIXTURE.
	DOUBLE HEAD, POLE MOUNTED PARKING LOT OR AREA LIGHTING FIXTURE.
	SINGLE POLE, SINGLE THROW TOGGLE SWITCH, MOUNTED AT +45" AFF AT CENTER OF BOX U.O.N. SUBSCRIPT INDICATES CONTROLLING SWITCH LEG.
	DOUBLE POLE, SINGLE THROW TOGGLE SWITCH, MOUNTED AT +45" AFF TO CENTER OF BOX U.O.N.
	THREE WAY TOGGLE SWITCH, MOUNTED AT +45" AFF TO CENTER OF BOX U.O.N.
	FOUR WAY TOGGLE SWITCH, MOUNTED AT +45" AFF TO CENTER OF BOX U.O.N.
	TOGGLE SWITCH WITH PILOT LIGHT, MOUNTED AT +45" AFF TO CENTER OF BOX U.O.N.
	WALL SWITCH, SINGLE POLE, WEATHERPROOF, MOUNTED AT +45" AFF TO CENTER OF BOX U.O.N.
	MOMENTARY CONTACT SWITCH, MOUNTED AT +45" AFF TO CENTER OF BOX U.O.N.
	MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD PROTECTION. MOUNTED ADJACENT TO MOTOR U.O.N.
	KEY OPERATED SWITCH, MOUNTED AT +45" AFF TO CENTER OF BOX U.O.N.
	RELAY – POLES AS REQUIRED.
	SCENE SWITCH, WALL MOUNTED AT +45" AFF U.O.N.
	DAYLIGHT SENSOR (SINGLE OR MULTI-ZONE). SYMBOL INDICATES A DAYLIGHT SENSOR OR SENSORS ARE REQUIRED IN THE RESPECTIVE DAYLIT/SKYLIT ZONE(S). EXACT TYPE(S), QUANTITY AND PHYSICAL PLACEMENT WITHIN THE RESPECTIVE ZONE SHALL BE DETERMINED BY THE EQUIPMENT VENDOR AT TIME OF BID. COORDINATION WITH THE COMMISSIONING TEAM DURING CONSTRUCTION IS REQUIRED. DAYLIGHT SETTINGS SHALL BE FINALLY ADJUSTED AFTER FURNITURE, FINAL FINISHES, AND ALL LIGHTING EQUIPMENT ARE INSTALLED AND MADE OPERATIONAL. SENSORS SHALL NOT BE PLACED IN DIRECT SUNLIGHT NOR IN DIRECT ILLUMINATION FROM LIGHT FIXTURES. DEVICE SETTINGS SHALL REDUCE ILLUMINATION LIGHTING POWER BY A MINIMUM OF 65% WHEN DAYLIGHT ILLUMINANCE IS 150% OF DESIGN ILLUMINANCE.
	INDICATES AN OCCUPANCY SENSOR FEATURE IS REQUIRED IN THIS SPACE/ROOM/AREA. EXACT TYPE(S), QUANTITY AND PHYSICAL PLACEMENT WITHIN THE SPACE/ROOM/AREA SHALL BE DETERMINED BY THE EQUIPMENT VENDOR AT TIME OF BID. COORDINATION WITH THE COMMISSIONING TEAM DURING CONSTRUCTION IS REQUIRED. OCCUPANCY SETTINGS SHALL BE FINALLY ADJUSTED AFTER FURNITURE, FINAL FINISHES, AND ALL LIGHTING EQUIPMENT ARE INSTALLED AND MADE OPERATIONAL.
	DIMMER SWITCH, MOUNTED AT +45" AFF TO CENTER OF BOX U.O.N.
	COMBINATION OCCUPANCY SENSOR/WALL SWITCH, WALL MOUNTED AT +45" AFF TO CENTER OF BOX U.O.N. SUBSCRIPT WHEN SHOWN INDICATES BI-LEVEL SWITCHING FUNCTIONS.
	DUPLEX RECEPTACLE, MOUNTED AT +18" AFF TO CENTER OF BOX U.O.N.
	DUPLEX RECEPTACLE, GFCI TYPE, MOUNTED AT +18" AFF TO CENTER OF BOX U.O.N.
	DOUBLE DUPLEX RECEPTACLE, MOUNTED AT +18" AFF TO CENTER OF BOX U.O.N.
	DOUBLE DUPLEX RECEPTACLE (GFCI TYPE, MOUNTED AT +18" AFF TO CENTER OF BOX U.O.N.
	SPECIAL PURPOSE RECEPTACLE AS NOTED.
	ACCESS CONTROL WITH INTEGRAL KEYPAD – ELECTRIFIED MORTISE OR CYLINDRICAL LOCK SET

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	POWER DISTRIBUTION SWITCHBOARD. (SWBD)
	FLUSH MOUNTED PANELBOARD.
	SURFACE MOUNTED PANELBOARD.
	SURFACE MOUNTED CABINET, AS NOTED.
	FLUSH MOUNTED CABINET, AS NOTED.
	NON-FUSED DISCONNECT SWITCH. SIZE AS NOTED. (NFDS)
	FUSED DISCONNECT SWITCH. SIZE AS NOTED. (FDS)
	MAGNETIC MOTOR STARTER. SIZE AS NOTED.
	COMBINATION MAGNETIC MOTOR STARTER AND FUSED DISCONNECT SWITCH.
	JUNCTION BOX. SIZED PER CEC, U.O.N.
	TRANSFORMER, SIZE AND MOUNTING AS NOTED. (XFMR)
	MOTOR CONNECTION.
	MECHANICAL EQUIPMENT REFERENCE.
	DAMPER MOTOR CONNECTION (WITH TOGGLE DISCONNECT SWITCH, AS SHOWN)
	PHOTOCELL, MOUNTED FACING NORTH.
	TIME CONTROLLED SWITCH.
	PULLBOX WITH SCREW COVER, SIZE AS REQUIRED.
	COPPER CLAD GROUND ROD, U.O.N.
	COPPER CLAD GROUND ROD IN A YARD BOX.
	GRADE MOUNTED PULLBOX OR HANDHOLE. SEE
	CONDUIT CONCEALED IN WALL OR CEILING SPACE.
	CONDUIT CONCEALED UNDER FLOOR SLAB OR UNDERGROUND. SEE
	CONDUIT INSTALLED EXPOSED.
	CONDUIT TURNED UP.
	CONDUIT TURNED DOWN.
	CONDUIT STUB-OUT TERMINATION.
	CONDUIT STUBBED UP AND CAPPED IN CEILING SPACE.
	FLEXIBLE METAL CONDUIT. INSTALL REQUIRED BRANCH CIRCUIT CONDUCTORS AND EQUIPMENT GROUND CONDUCTOR.
	ELECTRICAL NOTE REFERENCE (TYPICAL)
	INDICATES DETAIL '1' ON SHEET E-6 (TYPICAL)
BRANCH CIRCUIT DESIGNATIONS:	
	3/4" CONDUIT WITH 2#12 CONDUCTORS PLUS 1#12 EQUIPMENT GROUNDING CONDUCTOR.
	3/4" CONDUIT WITH 3#12 CONDUCTORS PLUS 1#12 EQUIPMENT GROUNDING CONDUCTOR.
	3/4" CONDUIT WITH 4#12 CONDUCTORS PLUS 1#12 EQUIPMENT GROUNDING CONDUCTOR.
	3/4" CONDUIT WITH 5#12 CONDUCTORS PLUS 1#12 EQUIPMENT GROUNDING CONDUCTOR.
	3/4" CONDUIT WITH 6#12 CONDUCTORS PLUS 1#12 EQUIPMENT GROUNDING CONDUCTOR.
	3/4" CONDUIT WITH 7#12 CONDUCTORS PLUS 1#12 EQUIPMENT GROUNDING CONDUCTOR.
	1" CONDUIT WITH 8#12 CONDUCTORS PLUS 1#12 EQUIPMENT GROUNDING CONDUCTOR.
	A NUMBER ADJACENT TO THE HASH MARK IN ANY CONDUIT RUN INDICATES THE CONDUCTOR SIZE TO BE USED IN LIEU OF #12 AWG. CONDUIT AND EQUIPMENT GROUNDING CONDUCTOR SHALL BE SIZED PER CEC, U.O.N.
	HOMERUN TO INDICATED PANELBOARD ('A'). NUMBERS (1,3) INDICATE BRANCH CIRCUIT NUMBERS.
	INDICATES 3/4" CONDUIT WITH (3) 8 AWG CONDUCTORS + (1) 10 AWG EQUIPMENT GROUND.
	INDICATES 3/4" CONDUIT WITH (3) 10 AWG PHASE CONDUCTORS PLUS (3) 10 AWG INDIVIDUAL NEUTRAL CONDUCTORS + (1) 10 AWG EQUIPMENT GROUND.
	INDICATES TWO (2) 3" CONDUITS WITH THREE (3) 500 kcmil CONDUCTORS PLUS ONE (1) 1/0 AWG EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT.
	WHEN HOMERUN IS NOT SHOWN, BRANCH CIRCUIT NUMBER(S) (AND PANELBOARD) ARE DESIGNATED BY NUMBERS ADJACENT TO OUTLET:
	DENOTES BRANCH CIRCUIT(S) SUPPLYING OUTLET.
	WHEN USED, DENOTES PANELBOARD SUPPLYING OUTLET.
	DENOTES BRANCH CIRCUIT WIRE SIZE WHEN OTHER THAN 12 AWG.
BRANCH CIRCUIT WIRING NOTE: MULTIWIRE BRANCH CIRCUITS SHALL ORIGINATE FROM MULTIPLE-POLE CIRCUIT BREAKERS AS REQUIRED BY CEC (NEC) 210.4(B). BRANCH CIRCUITS THAT ORIGINATE FROM SINGLE-POLE CIRCUIT BREAKERS SHALL NOT BE INSTALLED AS PART OF A MULTIWIRE CIRCUIT. EACH SINGLE-POLE BREAKER CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR. REFER TO THE PANEL SCHEDULES FOR CIRCUIT BREAKER REQUIREMENTS.	

ASSISTIVE LISTENING SYSTEM NOTES

- REFER TO ARCHITECTURAL INFORMATION FOR ASSISTIVE LISTENING SYSTEM INFORMATION

SINGLE LINE DIAGRAM LEGEND	
SYMBOL	DESCRIPTION
	CURRENT TRANSFORMER, RATIO AS INDICATED.
	KILOWATT HOUR DEMAND METER.
	DISCONNECT SWITCH.
	LOW VOLTAGE CIRCUIT BREAKER.
	FUSE, SIZE AND TYPE AS NOTED.
	CIRCUIT BREAKER WITH GROUND FAULT PROTECTION.
	POWER TRANSFORMER.
	GROUND CONNECTION.
	SWITCH SIZE
	NO. OF POLES
	FUSE SIZE
	TRIP SETTING
	FRAME SIZE
	NO. OF POLES

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
TECHNOLOGY SYSTEMS	
	SPEAKER/CLOCK
	DATA OUTLET, WALL MOUNTED AT +18" TO CENTER OF BOX U.O.N.
	VOICE OUTLET, WALL MOUNTED AT +18" TO CENTER OF BOX U.O.N.
	VOICE/DATA OUTLET, WALL MOUNTED AT +18" TO CENTER OF BOX U.O.N.
	SIGNAL SYSTEM BACKBOARD, 4"W x 8"H x 3/4" FIRE RESISTANT PLYWOOD, UNLESS OTHERWISE NOTED (TBB).
	DOOR ALARM SWITCH, AS NOTED.
	SECURITY ALARM SENSOR.
	KEYPAD CONTROLLER FOR INTRUSION DETECTION SYSTEM.
	SECURITY CAMERA AND OUTLET.
	MICROPHONE OUTLET, MOUNTED AT +18" TO CENTER OF BOX U.O.N.
	MICROPHONE OUTLET, MOUNTED IN FLUSH FLOOR BOX.
	SPEAKER MOUNTED IN CEILING.
	SPEAKER MOUNTED ON WALL AT HEIGHT INDICATED.
	SPEAKER JACK RECEPTACLE.

CONDUIT SIZING SCHEDULE			
CONDUIT SIZE	AREA	40% FILL x 75%	ALLOWABLE FILL
3/4" DIAMETER CONDUIT	.53 S.I.	.53 S.I.	.159 S.I.
1" DIAMETER CONDUIT	.86 S.I.	.86 S.I.	.258 S.I.
1 1/4" DIAMETER CONDUIT	1.50 S.I.	1.50 S.I.	.450 S.I.
1 1/2" DIAMETER CONDUIT	2.04 S.I.	2.04 S.I.	.612 S.I.
2" DIAMETER CONDUIT	3.36 S.I.	3.36 S.I.	1.01 S.I.
2 1/2" DIAMETER CONDUIT	5.86 S.I.	5.86 S.I.	1.76 S.I.
3" DIAMETER CONDUIT	8.85 S.I.	8.85 S.I.	2.66 S.I.
3 1/2" DIAMETER CONDUIT	11.5 S.I.	11.5 S.I.	3.45 S.I.
4" DIAMETER CONDUIT	14.75 S.I.	14.75 S.I.	4.43 S.I.

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE BLEACHER, MUSCO LIGHTING & SCOREBOARD DRAWINGS/PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS (APPLICATION NO. A# 03-120551 FILE NO. 19-HS1)

☒ THE DRAWINGS LISTED IN THE INDEX ON THIS COVER PAGE
☐ THIS DRAWING, PAGE OF SPECIFICATIONS/CALCULATIONS

HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR:

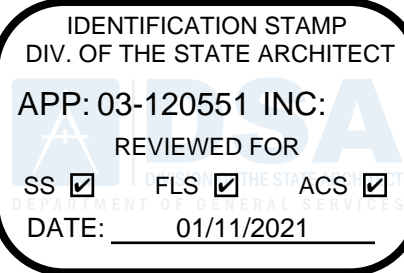
- DESIGN INTENT AND APPEARS TO MEET THE APPROPRIATE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
- COORDINATION WITH MY PLANS AND SPECIFICATIONS AND IS ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THIS PROJECT

THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341, AND 4-344" OF TITLE 24, PART 1 (TITLE 24, PART 1, SECTION 4-317(b))

I FIND THAT:	<input checked="" type="checkbox"/> ALL DRAWINGS OR SHEETS LISTED ON THE COVER OR INDEX SHEET
	<input type="checkbox"/> THIS DRAWING OR PAGE
<input checked="" type="checkbox"/> I/S/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN, AND	<input checked="" type="checkbox"/> I/S/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN, AND
<input checked="" type="checkbox"/> HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.	<input checked="" type="checkbox"/> HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.
SIGNATURE _____ DATE 8/17/2020 ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE HELENA L. JUBANY PRINT NAME C-22214 LICENSE NUMBER	SIGNATURE _____ DATE 12/21/2020 ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE ANTONIO ROQUE PRINT NAME E14542 LICENSE NUMBER
05/31/2021 EXPIRATION DATE	6/30/2022 EXPIRATION DATE

ABBREVIATIONS	
ABBREV.	DESCRIPTION
A, AMP	AMPERE
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERES INTERRUPTING CAPACITY
AF	AMPS FRAME RATING
C	CONDUIT
CATV	CABLE TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CEC	CALIFORNIA ELECTRICAL CODE (TITLE 24, PART 3).
CIR	CIRCUIT
CL	CURRENT LIMITING
COMM	COMMUNICATIONS, OR COMMERCIAL
C.O.	CONDUIT ONLY
CU	COPPER
DWG	DRAWING
EA.	EACH
EG	EQUIPMENT GROUND, OR EQUIPMENT GROUNDING CONDUCTOR.
ELEC	ELECTRICAL
EMERG.	EMERGENCY
EQUIP.	EQUIPMENT
EX	EXISTING
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
GFCI	GROUND-FAULT CIRCUIT INTERRUPTER
GFI	GROUND-FAULT INTERRUPTER
GND	GROUND
IDF	INTERMEDIATE DISTRIBUTION FRAME
IR	INTERRUPTING RATING
Isc	AVAILABLE SHORT CIRCUIT CURRENT (SYMMETRICAL AMPS)
KAIC	1000 AMPS INTERRUPTING CAPACITY (KAIC)
KW	KILOWATT (kW)
KWH	KILOWATTHOUR (kWh)
LAN	LOCAL AREA NETWORK
LTG	LIGHTING
LV	LOW VOLTAGE
MAX.	MAXIMUM

ABBREVIATIONS	
ABBREV.	DESCRIPTION
MCC	MOTOR CONTROL CENTER
MDF	MAIN DISTRIBUTION FRAME
MIN.	MINIMUM
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
PH	PHASE
PNL	PANELBOARD
POC	POINT OF CONNECTION
PIV	POST INDICATOR VALVE
PR	PAIR
PVC	POLYVINYLCHLORIDE
RECP.T	RECEPTACLE
REQ'D.	REQUIRED
SFD	SMOKE FIRE DAMPER
SH	SHIELDED
S/N	SOLID NEUTRAL
SWBD	SWITCHBOARD
SSBJ	SUPPLY SIDE BONDING JUMPER
TBB	TELEPHONE BACKBOARD
TD	TIME DELAY
TEL	TELEPHONE/VOICE
TEMP	TEMPERATURE
TP	TWISTED PAIR
TYP	TYPICAL
UFER	CONCRETE ENCASED GROUNDING ELECTRODE
U.G.	UNDERGROUND
U.O.N.	UNLESS OTHERWISE NOTED
V	VOLT
W	WATT, OR WIRE
WP	WEATHERPROOF
XFMR	TRANSFORMER
+48"	MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER OF DEVICE U.O.N.
ø	PHASE



REVISIONS



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DSA # 03-120551

NAC
ARCHITECTURE

NAC NO. 161-19015
DATE 08-26-2020

DSA BACKCHECK
SUBMISSION

ELECTRICAL
SYMBOL LIST

E0.01