





LITHONIA LIGHTING
D SERIES SIZE 2
LED LUMINAIRE WITH
EXTERNAL GLARE SHIELD
DIMENSIONS 16.76" W X
40.59" L

22' TALL
VALMONT SHAKESPEAR
WHITE ROUND TAPERED
FIBERGLASS POLE

**LIGHT POLE RENDERING
FOR
BOY'S AND GIRLS CLUB
2309 DELEWARE ST
HUNTINGTON BEACH, CA
92648**

D-Series Size 2

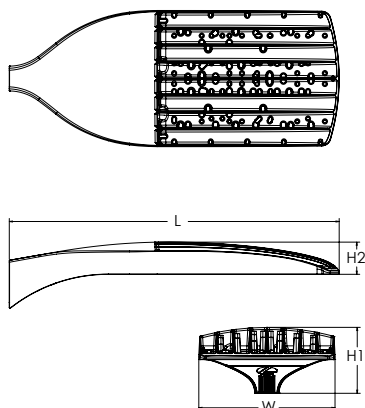
LED Area Luminaire



d⁺series

Specifications

EPA:	1.06 ft ² (0.10 m ²)
Length:	40.59" (103.1 cm)
Width:	16.76" (42.6 cm)
Height H1:	8.11" (20.6 cm)
Height H2:	3.96" (10.1 cm)
Weight:	46 lbs (20.9 kg)



Design Select options indicated by this color background.



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.

*See ordering tree for details

Ordering Information

EXAMPLE: DSX2 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX2 LED							
Series	LEDs	Color temperature ²	Color Rendering Index ²	Distribution		Voltage	Mounting
DSX2 LED	Forward optics	(this section 70CRI only)		AFR Automotive front row	T5M Type V medium	MVOLT (120V-277V) ⁴	Shipped included
	P1 P5	30K 3000K	70CRI		T5LG Type V low glare	HVOLT (347V-480V) ^{5,6}	SPA Square pole mounting (#8 drilling)
	P2 P6	40K 4000K	70CRI	T1S Type I short	T5W Type V wide	XVOLT (277V - 480V) ^{7,8}	RPA Round pole mounting (#8 drilling)
	P3 P7	50K 5000K	70CRI	T2M Type II medium	BLC3 Type III backlight control ³	120 ^{16, 26}	SPA5 Square pole mounting #5 drilling ⁹
	P4 P8			T3M Type III medium		208 ^{16, 26}	RPA5 Round pole mounting #5 drilling ⁹
	Rotated optics	27K 2700K	80CRI	T3LG Type III low glare ³	BLC4 Type IV backlight control ³	240 ^{16, 26}	SPA8N Square narrow pole mounting #8 drilling
	P10 ¹ P13 ¹	30K 3000K	80CRI	T4M Type IV medium		277 ^{16, 26}	
	P11 ¹ P14 ¹	35K 3500K	80CRI	T4LG Type IV low glare ³	LCCO Left corner cutoff ³	347 ^{16, 26}	WBA Wall bracket ¹⁰
	P12 ¹	40K 4000K	80CRI	TFTM Forward throw medium	RCCO Right corner cutoff ³	480 ^{16, 26}	MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)
		50K 5000K	80CRI				

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Ordering Information

Accessories

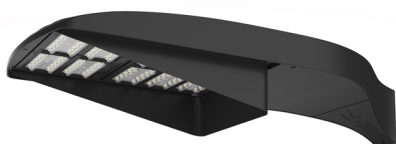
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ²⁵
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ²⁵
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ²⁵
DSHORT SBK	Shorting cap ²⁵
DSX2HS P#	House-side shield (enter package number 1-13 in place of #)
DSXRPA (FINISH)	Round pole adapter (#8 drilling, specify finish)
DSXSPAS (FINISH)	Square pole adapter #5 drilling (specify finish)
DSXRPAS (FINISH)	Round pole adapter #5 drilling (specify finish)
DSX2EGSR (FINISH)	External glare shield (specify finish)
DSX2B5DB (FINISH)	Bird spike deterrent bracket (specify finish)

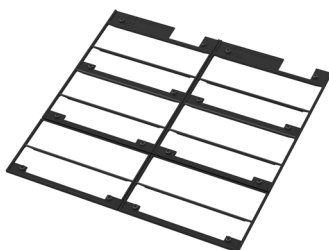
NOTES

- Rotated optics available with packages P10, P11, P12, P13 and P14. Must be combined with option L90 or R90.
- 30K, 40K, and 50K available in 70CRI and 80CRI. 27K and 35K only available with 80CRI. Contact Technical Support for other possible combinations.
- T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
- HVOLT not available with package P10 when combined with option NLTAIR2 PIRHN or option PIR.
- HVOLT operates with any voltage between 277V and 480V (50/60 Hz).
- XVOLT not available in package P10. XVOLT not available in packages P1, P2, P8, P10, P11, P12 and P14 when combined with option NLTAIR2 PIRHN or option PIR. XVOLT not available with fusing (SF or DF).
- SPAS and RPAS for use with #5 drilling only (Not for use with #8 drilling).
- WBA cannot be combined with Type 5 distributions plus photocell (PER).
- NLTAIR2 and PIRHN must be ordered together. For more information on nLight AIR2 visit this [link](#).
- NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50, DMG and DS. NLTAIR2 PIRHN not available with P10 using HVOLT.
- PIR not available with NLTAIR2 PIRHN, PER, PER5, PER7, FAO BL30, BL50, DMG and DS. PIR not available with P10 using HVOLT.
- PER/PER5/PER7 not available with NLTAIR2 PIRHN, PIR, BL30, BL50, FAO, DMG and DS. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
- FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PER5, PER7, BL30, BL50, DMG and DS.
- BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, FAO, DMG and DS. BL30 or BL50 must specify 120 or 277V.
- DMG not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DS.
- DS not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DMG.
- DS requires (2) separately switched circuits. DS provides 50/50 fixture operation via (2) different sets of leads on P1, P2, P3, P4, P5 (2 drivers). Note: Provides 60/40 operation using (2) different sets of leads on P6, P7, P8, P9, P10, P11, P12, P13, P14 (3 drivers).
- Reference Motion Sensor Default Settings table on page 4 to see functionality.
- Reference Controls Options table on page 4.
- HS not available with T3LG, T4LG, BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- CCE option not available with option BS and EGSR. Contact Technical Support for availability.
- Option HA not available with performance packages P5, P6, P7, P8, P13 and P14.
- Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
- Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).
- Option 3G for use with (MA) mast arm mount only when 3G vibration is required.

Shield Accessories



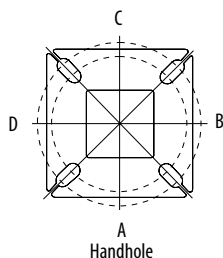
External Glare Shield (EGSR)



House Side Shield (HS)

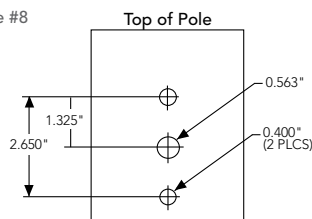
Drilling

HANDHOLE ORIENTATION



Handhole

Template #8



Tenon Mounting Slipfitter

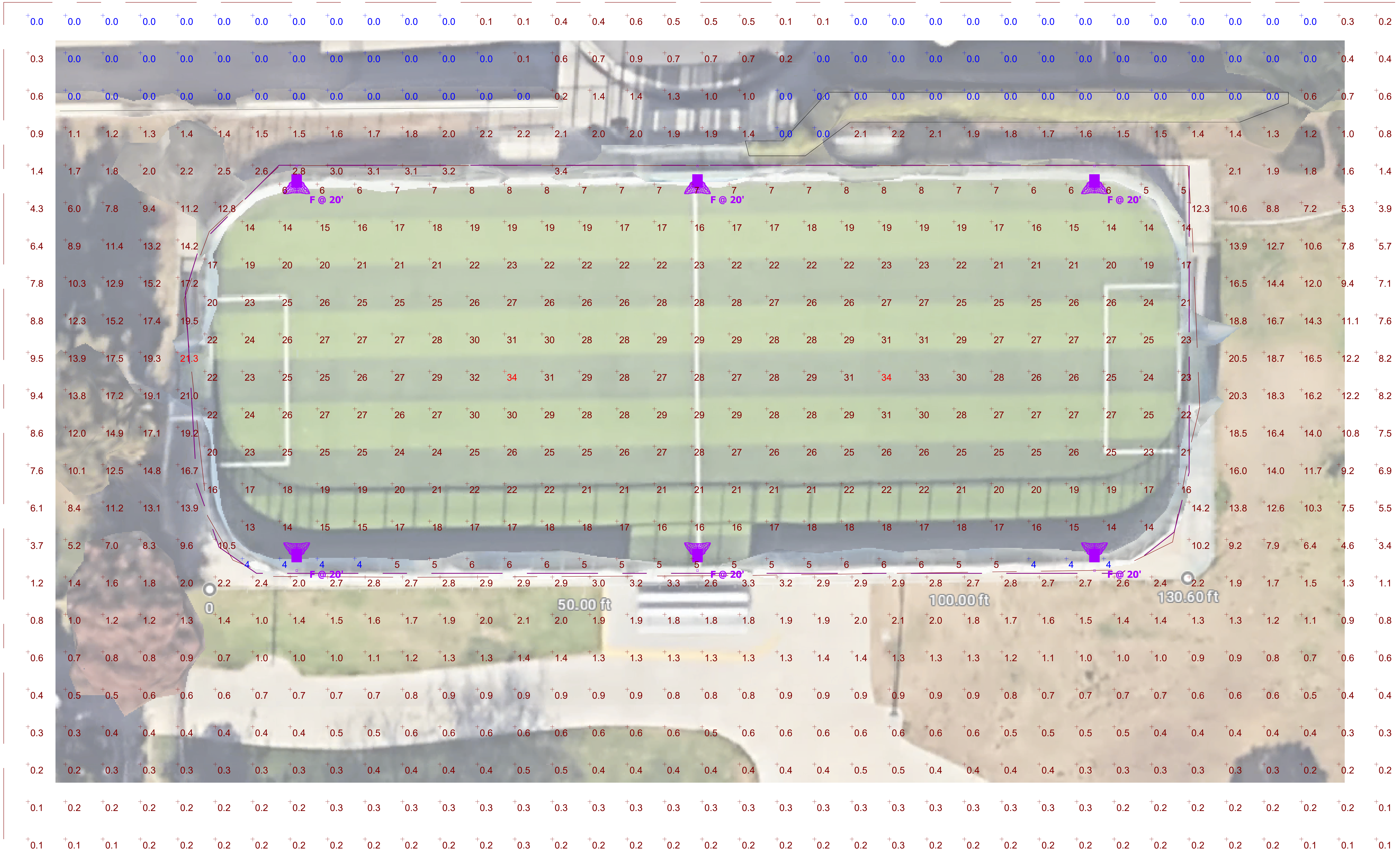
Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
Minimum Acceptable Outside Pole Dimension							
SPA	#8	3.5"	3.5"	3.5"	3.5"		3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPAS	#5	3"	3"	3"	3"		3"
RPAS	#5	3"	3"	3"	3"	3"	3"
SPA8N	#8	3"	3"	3"	3"		3"

DSX2 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX2 with SPA	1.06	2.12	1.84	2.32	---	2.33
DSX2 with SPAS, SPA8N	1.07	2.14	1.90	2.43	---	2.44
DSX2 with RPA, RPAS	1.07	2.14	1.90	2.43	2.31	2.44
DSX2 with MA	1.20	2.40	2.12	3.00	2.92	3.00



Plan View

Scale - 1" = 5ft

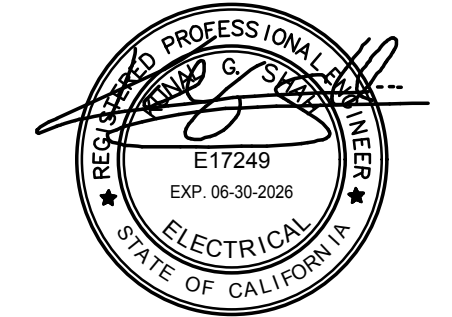
Schedule									
Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Number Lamps	Lumens per Lamp	LLF	Wattage
	F	6	Lithonia Lighting	DSX2 LED P8 40K 80CRI BLC3	D-Series Size 2 Area Luminaire P8 Performance Package 4000K CCT 80 CRI Type 3 Extreme Backlight Control	1	37584	0.9	462.45

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	20 fc	34 fc	4 fc	8.5:1	5.0:1
Calc Zone #2	+	2.9 fc	21.3 fc	0.0 fc	N/A	N/A

GENERAL NOTES		DEMOLITION GENERAL NOTES		SYMBOLS LIST		SYMBOLS LIST																																																																																																																																																																																			
1. ALL ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID AND START OF CONSTRUCTION TO DETERMINE THE EXISTING CONDITION OF THE ELECTRICAL SYSTEMS AND DEVICES. CONTRACTOR WILL BE RESPONSIBLE FOR REVIEWING ANY DOCUMENTATION WHICH REFLECT THE EXISTING CONDITIONS. COORDINATE ALL OUTLET/DEVICE LOCATION, CONNECTION TYPE, AND TERMINATION REQUIREMENTS WITH OTHER DISCIPLINES, ARCHITECTURAL PLANS AND EQUIPMENT INSTALLERS/MANUFACTURERS PRIOR TO ROUGH-IN. CONTRACTOR SHALL INCLUDE IN THEIR BID PRODUCTS WHICH MATCH OWNER'S BUILDING STANDARDS. 2. ALL WORK SHALL COMPLY WITH ALL PERTINENT NATIONAL, STATE, LOCAL ADOPTED CODES AND REQUIREMENTS. 3. ANY CONTRACTOR MODIFICATIONS TO CIRCUITING, CONDUCTOR SIZING, OVERCURRENT PROTECTION, OR ANY ELECTRICAL DESIGN SHALL TRANSFER RESPONSIBILITY FROM ENGINEER TO THE CONTRACTOR FOR CODE COMPLIANCE AND EQUIPMENT/DEVICE COORDINATION. CONTRACTOR SHALL PERFORM SHORT CIRCUIT AND ARC FLASH (IF APPLICABLE BY CODE) COORDINATION FOR ANY MODIFICATIONS TO OVERCURRENT PROTECTION DESIGN. 4. ALL EQUIPMENT, MATERIALS, AND INSTALLATION METHODS AS OUTLINED IN THE SPECIFICATIONS SHALL APPLY TO THIS PROJECT. 5. ELECTRICAL GENERAL RENOVATION NOTES SHALL APPLY TO ALL OTHER ELECTRICAL SHEETS UNLESS INDICATED OTHERWISE. 6. STANDARD DETAILS ILLUSTRATED ON THE DRAWINGS SHALL BE APPLIED IN ALL CASES WHERE THE FEATURE OCCURS IN THE SYSTEM DESIGN. 7. PROVIDE ALL NEW CONDUIT UNLESS NOTED OTHERWISE. MINIMUM CONDUIT SIZE SHALL BE 3/4" UNLESS INDICATED OTHERWISE. ALL CONDUIT SHALL BE UL LISTED AND SUITABLE FOR THE ENVIRONMENT WHICH IT'S TO BE INSTALLED IN (NEC 300.8) 8. ALL INDOOR CONDUIT SHALL BE ELECTRICAL METAL TUBING (EMT). FLEXIBLE METAL CONDUIT SHALL BE ALLOWED FOR INSTALLATIONS SUBJECT TO VIBRATION AND LIGHTING FIXTURES. FLEXIBLE METAL CONDUIT RUNS SHALL BE LESS THAN 6FT. CONDUIT/CIRCUITS INSTALLED IN WALLS SHALL ONLY RUN VERTICALLY WITHIN THE WALLS OR CONCEALED PLACES. HORIZONTAL RUNS ARE PROHIBITED. PROVIDE SUPPORTS AS SPECIFIED UNDER NEC 358. 9. ALL OUTDOOR CONDUIT SHALL BE RIGID GALVANIZED STEEL. ALUMINUM RIGID METAL CONDUIT SHALL BE ALLOWED IF IT COMPLES WITH NEC 344. ANY CONDUIT EXPOSED TO THE WEATHER SHALL BE UL LISTED AS SUNLIGHT RESISTANT. ALL CONDUIT COUPLING AND CONNECTORS EXPOSED TO THE OUTSIDE SHALL BE WEATHERPROOF AND RAIN/TIGHT/WATERTIGHT. 10. ALL UNDERGROUND UTILITY SERVICE CONDUITS SHALL BE PVC SCHEDULE 80 AND INSTALLED IN ENCASED CONCRETE, UTILIZE CONDUIT SPACERS. GROUND STUB OUTS, INCLUDING THE LAST 90 DEGREE BEND, SHALL BE PVC-COATED RIGID STEEL. BURIAL DEPTHS SHALL MEET OR EXCEED NEC 300.5 COVER REQUIREMENTS. 11. PROVIDE ALL NEW CONDUCTORS UNLESS NOTED OTHERWISE. ALL CONDUCTORS SHALL BE COPPER THHN/THWN-2 90°C. UTILIZE STRANDED COPPER FOR WIRE SIZE #10 AND LARGER. SOLID COPPER FOR CONDUCTOR SIZES SMALLER THAN #10. CONDUCTOR TERMINATIONS SHALL MATCH OR EXCEED THE RATING OF THE CONDUCTORS. NO SPLICES SHALL BE ALLOWED. 12. THE MINIMUM WIRE SIZE FOR ALL NEW CONDUCTORS SHALL BE #12 AWG COPPER. ALL 120V CIRCUIT CONDUCTORS EXCEEDING 50 FEET IN LENGTH SHALL BE A MINIMUM OF #10 WIRE SIZE. 13. ALL WIRING AND CABLING SHALL BE INSTALLED IN CONDUIT UNLESS NOTED OTHERWISE. 14. CONDUCTORS RUN UNDERGROUND SHALL BE THWN-2 OR XHHW-2, 90°C. RATED. 15. RAISE, OFFSET, LOWER, AND EXTEND CONDUCTORS AND CONDUIT AS NEEDED. 16. JUNCTION BOXES, CONDUIT, AND ABOVE CEILING ELECTRICAL DEVICES MUST BE INDEPENDENTLY MOUNTED FROM THE STRUCTURE AND PER NEC. PERMANENTLY MARK ON THE JUNCTION BOX COVER PLATE THE ASSOCIATED CIRCUIT NUMBER AND VOLTAGE. 17. OUTLET BOXES FOR WALL MOUNTED RECEPTACLES, LIGHT SWITCHES, AND DEVICES SHALL NOT BE PERMITTED TO BE SOLELY SUPPORTED BY ONE WALL STUD OR DRYWALL PARTITION. OUTLET BOXES SHALL BE SUPPORTED BY TWO WALL STUDS. 18. PROVIDE NEW THERMAL MAGNETIC CIRCUIT BREAKERS FOR ALL EQUIPMENT AND DEVICES UNLESS INDICATED OTHERWISE. THE NEW CIRCUIT BREAKER SHALL MATCH THE PANELBOARD'S MANUFACTURER, BREAKER TYPE (THERMAL MAGNETIC OR GREATER), A.I.C. RATING, AND SHALL BE FULLY RATED (NO SERIES RATING ALLOWED). PROVIDE HACR TYPE CIRCUIT BREAKERS FOR ALL HEATING, AIR CONDITIONING, AND REFRIGERATION EQUIPMENT. UPDATE THE PANELBOARD DIRECTORY AS REQUIRED. 19. PROVIDE LABELS WITH CIRCUIT NUMBER ON ALL ELECTRICAL DEVICES (RECEPTACLES, SWITCHES, ETC.) 20. ALL PENETRATIONS (CIRCUITS, CONDUITS, ETC.) THROUGH FIRE RATED ASSEMBLIES SHALL BE PROTECTED. CONTRACTOR IS TO ENSURE FIRE RATING IS MAINTAINED. PROVIDE APPROPRIATE FIRE RATED SLEEVES AND CAULKING AS NEEDED. 21. IN THE EVENT ANY DISCREPANCIES OCCUR BETWEEN ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND OTHER DRAWINGS OR SPECIFICATIONS, CONTRACTOR IS TO INCORPORATE IN THE BID PRICE THE MOST STRINGENT OPTION. CONTRACTOR SHALL PROVIDE ALL NECESSARY ADDITIONAL ELECTRICAL COMPONENTS IF EQUIPMENT PURCHASED DIFFERS FROM WHAT IS SPECIFIED IN THE CONTRACT DOCUMENTS. 22. CONTRACTOR SHALL HIRE LIGHTING TESTING CONSULTANT TO PERFORM THE TESTING FOR LIGHTING AND LIGHTING CONTROLS AFTER THE INSTALLATION.		1. ELECTRICAL GENERAL DEMOLITION NOTES SHALL APPLY TO ALL OTHER ELECTRICAL SHEETS THAT INCLUDE DEMOLITION WORK. 2. REFER TO THE MECHANICAL/PLUMBING PLANS FOR EXACT EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION REGARDING WHICH EQUIPMENT IS TO BE DEMOLISHED. 3. ALL EXISTING PANELBOARDS AND TRANSFORMERS ARE TO REMAIN UNLESS NOTED OTHERWISE. 4. TO BEGIN THE DEMOLITION INDICATES THAT THE CONTRACTOR ACCEPTS THE EXISTING CONDITIONS. 5. CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING ELECTRICAL EQUIPMENT OR DEVICES WHICH REMAIN ACTIVE. CONTRACTOR SHALL EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS AS SPECIFIED. 6. VERIFY AND/OR DETERMINE EXISTING CIRCUITING ARRANGEMENTS FOR EQUIPMENT TO BE REMOVED BEFORE DE-ENERGIZING ANY CIRCUITS. CONTRACTOR SHALL CIRCUIT TRACE TO DETERMINE PANEL AND CIRCUIT CONNECTIONS FOR ALL EXISTING EQUIPMENT AND/OR CIRCUITS THAT ARE TO BE REMOVED IN PREPARATION FOR THE RENOVATION. 7. REMOVE ALL EXISTING DEVICES/EQUIPMENT THAT ARE NOT TO BE UTILIZED AFTER THE PROJECT IS COMPLETED. REMOVE ALL CONDUIT AND WIRING BACK TO THE SOURCE AND/OR PANEL UNLESS INDICATED OTHERWISE. MAINTAIN OPERATIONAL ALL EXISTING TO REMAIN DEVICES/EQUIPMENT. REGARDLESS IF ANY UPSTREAM DEVICES/EQUIPMENT ARE TO BE DEMOLISHED (EXTEND EXISTING CIRCUITS AS NEEDED). ALL MATERIALS AND EQUIPMENT NOT TO BE REUSED (UNLESS OWNER ELECTS TO RETAIN) IN THE PROJECT BECOMES THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. 8. REFER TO ARCHITECTURAL PLANS FOR AREAS WHERE CEILING IS BEING DEMOLISHED. DEMOLISH LIGHTING FIXTURES AND ELECTRICAL CEILING MOUNTED DEVICES UNLESS INDICATED OTHERWISE. 9. PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. CONTRACTOR SHALL REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION. IF WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, CONTRACTOR SHALL USE PERSONNEL QUALIFIED FOR SUCH OPERATIONS. 10. PROPERLY DISPOSE OF ANY HARMFUL COMPONENTS AND SUBSTANCES (BATTERY PACKS). 11. PLAN ANY NECESSARY POWER OUTAGES. CONTRACTOR SHALL PREPARE A WRITTEN PROCEDURE TO BE FOLLOWED DURING THE OUTAGE TO COMPLETE THE PLANNED WORK. CONTRACTOR SHALL PROVIDE DETAILS TO THE OWNER OF WHERE POWER DISRUPTION WILL OCCUR, AND SHALL COORDINATE WITH THE OWNER TO DETERMINE WHEN THE POWER DISRUPTION IS ACCEPTABLE. 12. CONTRACTOR SHALL NOTE ANY EXISTING FIRE RATING/PREVENTION METHODS EMPLOYED AT EACH AREA OF THE SCOPE OF WORK. THE CONTRACTOR SHALL MAINTAIN FIRE RATING AT EACH LOCATION AFFECTED BY THE WORK PERFORMED IN THIS RENOVATION. FINAL INSTALLATION APPROVAL SHALL BE BY THE AHJ AND OWNER. 13. CLEAN AND REPAIR EXISTING MATERIALS AND EQUIPMENT WHICH REMAIN OR ARE TO BE REUSED. IF ANY MATERIAL, EQUIPMENT, AND/OR FINISHES WITHIN THE SCOPE OF WORK IS DAMAGED, THEN RESTORE IT INTO WORKING CONDITION THAT IS ACCEPTABLE BY THE AHJ AND OWNER. IF NECESSARY, THE CONTRACTOR SHALL EMPLOY CRAFTS THAT WERE ORIGINALLY USED TO PERFORM THE EXISTING WORK. 14. UPON COMPLETION OF RENOVATION, CONTRACTOR SHALL PROVIDE CONTINUITY OF ANY CIRCUITS THAT ARE TO REMAIN THAT WERE INTERRUPTED DUE TO THE DEMOLITION. PROVIDE 'AS-BUILT' DRAWINGS AND ACCURATELY DENOTE EACH CIRCUIT PART OF THE SCOPE OF WORK. UPDATE ALL PANELBOARD/SWITCHBOARD DIRECTORIES AS REQUIRED.		FLOORS. CONDUIT RUN EXPOSED. CONDUIT RUN UNDERGROUND. SAW CUT FLOOR FOR TRENCHING. BACKFILL TO MATCH EXISTING FLOOR CONDITIONS AS REQUIRED. CONDUIT STUBBED OUT AND CAPPED. PULL LINE IN PLACE. B-1 0 B-1.3 0 B-1.3.5 0 ISOLATED GROUND WIRE. RUN IN ADDITION TO REGULAR GROUND WIRE. SURFACE MOUNTED BRANCH CIRCUIT PANELBOARD. RECESSED BRANCH CIRCUIT PANELBOARD. P1 PANEL DESIGNATION. JUNCTION BOX IN ACCESSIBLE CEILING SPACE OR FLUSH IN WALL WITH BLANK COVER PLATE TO MATCH DEVICE PLATES. JUNCTION BOX FLUSH FLOOR MOUNTED. JUNCTION BOX WEATHER PROOF FLOOR MOUNTED (EXTERIOR). JUNCTION BOX PEDESTAL TYPE FLOOR MOUNTED. JUNCTION BOX STEM MOUNTED. 100AS 100AS 60AF FUSED DISCONNECT SWITCH. "AS" INDICATES SWITCH AMPERE RATING. FUSED DISCONNECT SWITCH. "AS" INDICATES SWITCH AMPERE RATING. "AF" INDICATES FUSE AMPERE RATING. PANELBOARD XXX FEEDER SCHEDULE. X DEMO KEY NOTE X REMODEL KEY NOTE 1a OUTDOOR LIGHTING FIXTURE ON LIGHTING POLE. SUB SCRIPT INDICATED CIRCUIT AND CONTROL ZONE. 0-10V LIGHTING DIMMER SWITCH. SINGLE OR MULTI ZONE S LOW VOLTAGE SWITCH. SINGLE OR MULTI ZONE S LOW VOLTAGE WALL MOUNT OCCUPANCY SENSOR SWITCH WITH 0-10V DIMMING COMPLETE WITH MANUFACTURER RECOMMENDED POWER PACKS PS LOW VOLTAGE CEILING MOUNT OCCUPANCY SENSOR SWITCH COMPLETE WITH MANUFACTURER RECOMMENDED POWER PACKS																																																																																																																																																																																					
APPLICABLE CODES		SCOPE OF WORK		ABBREVIATIONS																																																																																																																																																																																					
- 2025 CALIFORNIA BUILDING CODE (CBC) - 2025 CALIFORNIA ELECTRICAL CODE (CEC) - 2025 CALIFORNIA ENERGY CODE - 2025 CALIFORNIA FIRE CODE (CFC) - 2025 CALIFORNIA EXISTING BUILDING CODE (CEBC) - 2025 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN) - 2025 CALIFORNIA PLUMBING CODE - 2025 CALIFORNIA MECHANICAL CODE		SCOPE OF WORK INCLUDES BUT IS NOT LIMITED TO: INSTALLING NEW OUTDOOR LIGHTING FIXTURES ON POLE AND MOUNTING BASE AT THE PERIMETER OF EXISTING SOCCER FIELD, PROVIDING CONTROLS IN COMPLIANCE WITH ENERGY CODE AND OWNER REQUIREMENTS. ROUTING POWER CIRCUITS FROM EXISTING MAIN ELECTRICAL ROOM AND EXISTING ELECTRICAL DISTRIBUTION EQUIPMENT TO LIGHTING CONTROL PANEL AND FIXTURES AT SOCCER FIELD.		<table><tr><td>AFF</td><td>AMPERE FINISHED FLOOR</td><td>MDF</td><td>MAIN DISTRIBUTION FRAME</td></tr><tr><td>AFU</td><td>AMPERE FUSE RATING</td><td>MAX</td><td>MAXIMUM</td></tr><tr><td>AIC</td><td>AMPS INTERRUPTING CAPACITY RATING (RMS SYMMETRICAL)</td><td>MCB</td><td>MAIN CIRCUIT BREAKER</td></tr><tr><td>AMP, A</td><td>AMPERES</td><td>MCC</td><td>MOTOR CONTROL CENTER</td></tr><tr><td>AS</td><td>AMPERE SWITCH RATING</td><td>MCM</td><td>THOUSAND CIRCULAR MILS</td></tr><tr><td>AT</td><td>AMPERE TRIP RATING OF BREAKER</td><td>MH</td><td>MANHOLE</td></tr><tr><td>AWG</td><td>AMERICAN WIRE GAUGE</td><td>MS</td><td>MANUAL MOTOR STARTER</td></tr><tr><td>BKR</td><td>BREAKER</td><td>MTD</td><td>MOUNTED</td></tr><tr><td>C</td><td>CONDUIT</td><td>NEC</td><td>NATIONAL ELECTRICAL CODE</td></tr><tr><td>CAB</td><td>CABINET</td><td>NO</td><td>NUMBER</td></tr><tr><td>CAT.</td><td>CATEGORY</td><td>NTS</td><td>NOT TO SCALE</td></tr><tr><td>CCTV</td><td>CLOSE CIRCUIT TELEVISION</td><td>PNL</td><td>PANEL</td></tr><tr><td>C.O.</td><td>CONDUIT ONLY</td><td>PWR</td><td>POWER</td></tr><tr><td>CR</td><td>CONTROL RELAY (MAGNETICALLY HELD UNLESS NOTED OTHERWISE)</td><td>PB</td><td>PULLBOX</td></tr><tr><td>CU</td><td>COPPER</td><td>R</td><td>RELOCATE</td></tr><tr><td>D</td><td>DEMOLISH/REMOVE</td><td>RE</td><td>RELOCATED EXISTING</td></tr><tr><td>DISTR</td><td>DISTRIBUTION</td><td>RECPTS</td><td>RECEPTACLES</td></tr><tr><td>DWG</td><td>DRAWING</td><td>REQD</td><td>REQUIRE</td></tr><tr><td>ELEV</td><td>ELEVATION</td><td>SCH</td><td>SCHEDULE</td></tr><tr><td>EMERG</td><td>EMERGENCY</td><td>SEC</td><td>SECONDS, SECONDARY</td></tr><tr><td>EQPT</td><td>EQUIPMENT</td><td>SEQ</td><td>SEQUENCE</td></tr><tr><td>EXH</td><td>EXHAUST</td><td>SHT</td><td>SHEET</td></tr><tr><td>E, EX</td><td>EXISTING TO REMAIN</td><td>SM</td><td>SINGLE MODE</td></tr><tr><td>FAA</td><td>FIRE ALARM ANNUNCIATOR</td><td>SPECS</td><td>SPECIFICATIONS</td></tr><tr><td>FDR</td><td>FEEDER</td><td>STA</td><td>STATION</td></tr><tr><td>FF</td><td>FINISHED FLOOR</td><td>SYS</td><td>SYSTEM</td></tr><tr><td>FG</td><td>FINISHED GRADE</td><td>TBD</td><td>TO BE DETERMINED</td></tr><tr><td>FS</td><td>FLOW SWITCH</td><td>TR</td><td>TIME DELAY RELAY</td></tr><tr><td>FLEX</td><td>FLEXIBLE</td><td>TS</td><td>TAMPER SWITCH</td></tr><tr><td>FLUOR</td><td>FLUORESCENT</td><td>TTB</td><td>TELEPHONE TERM.</td></tr><tr><td>F.O.</td><td>FIBER OPTIC</td><td></td><td>BKBD</td></tr><tr><td>FUT</td><td>FUTURE</td><td>TYP</td><td>TYPICAL</td></tr><tr><td>GND</td><td>GROUND</td><td>UNO</td><td>UNLESS NOTED OTHERWISE</td></tr><tr><td>HTR</td><td>HEATER</td><td>UGPS</td><td>UNDERGROUND PULL SECTION</td></tr><tr><td>HZ</td><td>HERTZ</td><td>V</td><td>VOLTMETER</td></tr><tr><td>IDF</td><td>INTERMEDIATE DISTRIBUTION FRAME</td><td>VFD</td><td>VARIABLE FREQUENCY DRIVE</td></tr><tr><td>J.B.</td><td>JUNCTION BOX</td><td>W</td><td>WATTS</td></tr><tr><td>K</td><td>THOUSAND (KILO)</td><td>WHM</td><td>WATT HOUR METER</td></tr><tr><td>KV</td><td>KILOVOLTS</td><td>WP</td><td>WEATHERPROOF</td></tr><tr><td>KW</td><td>KILOWATTS</td><td>XFMR</td><td>TRANSFORMER</td></tr><tr><td>KWH</td><td>KILOWATT HOURS</td><td></td><td></td></tr><tr><td>KVA</td><td>KILOVOLT AMPERES</td><td></td><td></td></tr><tr><td>LS</td><td>LIMIT SWITCH</td><td></td><td></td></tr><tr><td>LT, LTS</td><td>LIGHT, LIGHTS</td><td></td><td></td></tr><tr><td>LTG</td><td>LIGHTING</td><td></td><td></td></tr></table>		AFF	AMPERE FINISHED FLOOR	MDF	MAIN DISTRIBUTION FRAME	AFU	AMPERE FUSE RATING	MAX	MAXIMUM	AIC	AMPS INTERRUPTING CAPACITY RATING (RMS SYMMETRICAL)	MCB	MAIN CIRCUIT BREAKER	AMP, A	AMPERES	MCC	MOTOR CONTROL CENTER	AS	AMPERE SWITCH RATING	MCM	THOUSAND CIRCULAR MILS	AT	AMPERE TRIP RATING OF BREAKER	MH	MANHOLE	AWG	AMERICAN WIRE GAUGE	MS	MANUAL MOTOR STARTER	BKR	BREAKER	MTD	MOUNTED	C	CONDUIT	NEC	NATIONAL ELECTRICAL CODE	CAB	CABINET	NO	NUMBER	CAT.	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REVIEWED BY	
PBS	
Name:	GA
Date:	04/30/2026

WACM BOYS AND GIRLS
CLUB OF HUNTINGTON VALLEY
2309 DELAWARE ST.
HUNTINGTON BEACH, CA 92648

ISSUED / REVISIONS:		
No.	Description	Date
1	ISSUE FOR PERMIT	05/01/26

Sheet Title:

GENEREAL NOTES,
SYMBOLS, SHEET INDEX,
AND SCOPE OF WORK

Job No.	2226-018-00
Date:	05/01/2026
Scale:	-
Drawn By:	A.G.
Checked By:	J.B.

Sheet No:

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P:_PROJECTS\p-2026\22\2226-018-00 WACM Boys and Girls Club of Huntington Beach\10_BIM-CAD\CAD\Sheets\EO.01.dwg 5/4/2026 3:30 PM Charles Cruz

LIGHTING FIXTURE SCHEDULE										
TYPE/TAG	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	MOUNTING	DIMMING TYPE	LUMEN	COLOR/CCT/CRI	WATTAGE	VOLTS	NOTES
P1	FIXTURE: LITHONIA RSX4 LED SERIES WITH EXTERNAL GLARE SHIELD. POLE: LITHONIA RTF SERIES ROUND TAPERED FIBERGLASS, 22'-0" O.A.H. FACTORY DRILLED FOR DIRECT FIXTURE INSTALLATION, WITH TOP CAP, MATCH FIXTURE FINISH.	LITHONIA LIGHTING	FIXTUE: RSX4LED- P4- 40K- R4- MVOLT- RPA- EGS- DBLXD POLE: RTF-22'- 6'- 7X- DM19AS- DBLXD	POLE / BASE	0-10V	40,000	3000K / 70	431	120	STANDARD FINISHES FOR POLE AND FIXTURE TO BE CONFIRMED BY OWNER. EMBED ANCHOR BOLTS IN CONCRETE BASE, O.A.H OF POLE ON CONCRETE BASE IS 25".

- 1.0 ALL LIGHTING FIXTURES SHALL BE FURNISHED COMPLETE WITH ALL LAMPS AND WITH ALL REQUIRED MOUNTING HARDWARE AND ACCESSORIES.
2.0 LAMPS FOR THIS PROJECT HAVE BEEN SELECTED SPECIFICALLY FOR COLOR TEMPERATURES, BEAM ANGLES, COLOR RENDITIONING INDICES, AND COATINGS. SUBSTITUTIONS OF ANY OF THE ABOVE- MENTIONED PROPERTIES ARE NOT PERMITTED.
3.0 LIGHT FIXTURES IN CONTACT WITH INSULATION SHALL BE U.L. LISTED FOR THERMAL BARRIER OR PROVIDED WITH 3" MINIMUM CLEARANCE.
8.0 APPROVED EQUAL MEANS: LIGHTNG FIXTURE PROPOSED BY CONTRACTOR AND APPROVED BY THE OWNER/ENGINEER FOR INCORPORATION IN OR USE IN THE WORK OF THIS PROJECT AS EQUIVALENT IN ESSENTIAL ATTRIBUTES TO THE LIGHTING FIXTURES SPECIFIED IN THE CONTRACT DOCUMENTS.
4.0 LIGHTING FIXTURES SHALL BE PROVIDED WITH DISCONNECTING MEANS PER ARTICLE 410.74(G) OF THE NEC.
5.0 FOCUSING AND AIMING IS REQUIRED FOR ALL ADJUSTABLE LIGHT FIXTURES. CONTRACTOR TO PROVIDE ALLOWANCE FOR AFTER HOURS MANPOWER, SCAFFOLDING, AND TOOLS TO ADJUST, AIM OR INSTALL FIXTURES AND ACCESSORIES PER THE ARCHITECTS, ENGINEERS AND LIGHTING DESIGNERS DIRECTION. FOCUSING CAN ONLY OCCUR AFTER THE CONTRACTOR HAS VERIFIED INSTALLATION AND CONFIRMED OPERATION OF ALL FIXITRES AND CONTROL SYSTEMS. INSTALLATION OF SPECIFIC ARCHITECTURAL ORNAMENT OR ART INTENDED TO BE ILLUMINATED MUST BE IN PLACE PRIOR TO THE FOCUS. THE "INITIAL" AIMING ANGLES MUST BE APPROVED BY THE CLIENT AND ADDITIONAL RE-AIMING MAY BE REQUIRED. THE CONTRACTOR IS TO PROVIDE MAN-HOUR ALLOWANCE FOR RE-AIMING AND INSTALLATION OF ADDITIONAL ACCESSORIES AS DETERMINED BY THE DESIGN TEAM.
7.0 ALL 0-10V DRIVERS SHALL BE NEMA 410 LISTED.
8.0 CONTRACTOR SHALL PROVIDE ALL MOUNTING CLIPS, CONNECTOR CABLES, LEADER CABLES, REMOTE 0-10V MODULES AND ALL OTHER NECESSARY ACCESSORIES FOR A COMPLETE AND FUNCTIONING SYSTEM.
9.0 CONTRACTOR TO FURNISH AND INSTALL ALL REQUIRED COMPONENTS TO ENSURE FULLY FUNCTIONING SYSTEM / COMPATIBLE WITH LIGHTING CONTROL SYSTEM.
10.0 CONTRACTOR TO VERIFY EXACT MOUNTING METHODS & PROVIDE REQUIRED ACCESSORIES FOR COMPLETE OPERABLE INSTALLATION

Catalog Number:Date:Project:

OVERVIEW

The nDTC is a low voltage powered capacitive touch screen digital time clock that delivers smart and simple scheduling, dimming, switching, occupancy and photosensing for small to medium projects that require minimal footprints and flexibility of configuring. Available as a single gang wall-mount or pre-assembled to an ARP panel, the device communicates with an nLight Wired network and supports up to 127 digital devices in an nLight control zone.

FEATURES

- Create and control up to 32 schedules (Normal & Holiday)
- Astronomical Timeclock feature enables +/- Sunset or Sunrise settings and programmable Latitude/Longitude
- Controls up to 127 nLight devices
- Password protected configuration
- Optional password protected lock out
- Proximity screen sensor for auto "wake-up"
- Slim and compact form factor
- 3.5" full-color responsive capacitive touch screen
- Mounts to a single gang switch box (Standalone version)


nLight nDTC
Touch Screen
Digital Time Clock



Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.aaclybrands.com/support/warranty/terms-and-conditions
Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

ORDERING INFORMATION

Switch	Power Supply Type	Color
nDTC	[blank] Includes PS150 PS347 Includes PS150-347 NPWS No Power Supply	WH White BK Black

Additional Accessories: Order as separate catalog number.

Series	Description
ARP DTC BRKT	Hardware to field install nDTC into nLight relay panel (ARP)

Aacly Brands | One Lithonia Way, Conyers, GA 30012 Phone: 800.535.7463 www.aaclybrands.com/nlight
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nDTC
1 of 4

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www.pbsengineers.com Job no. 2226-018-00

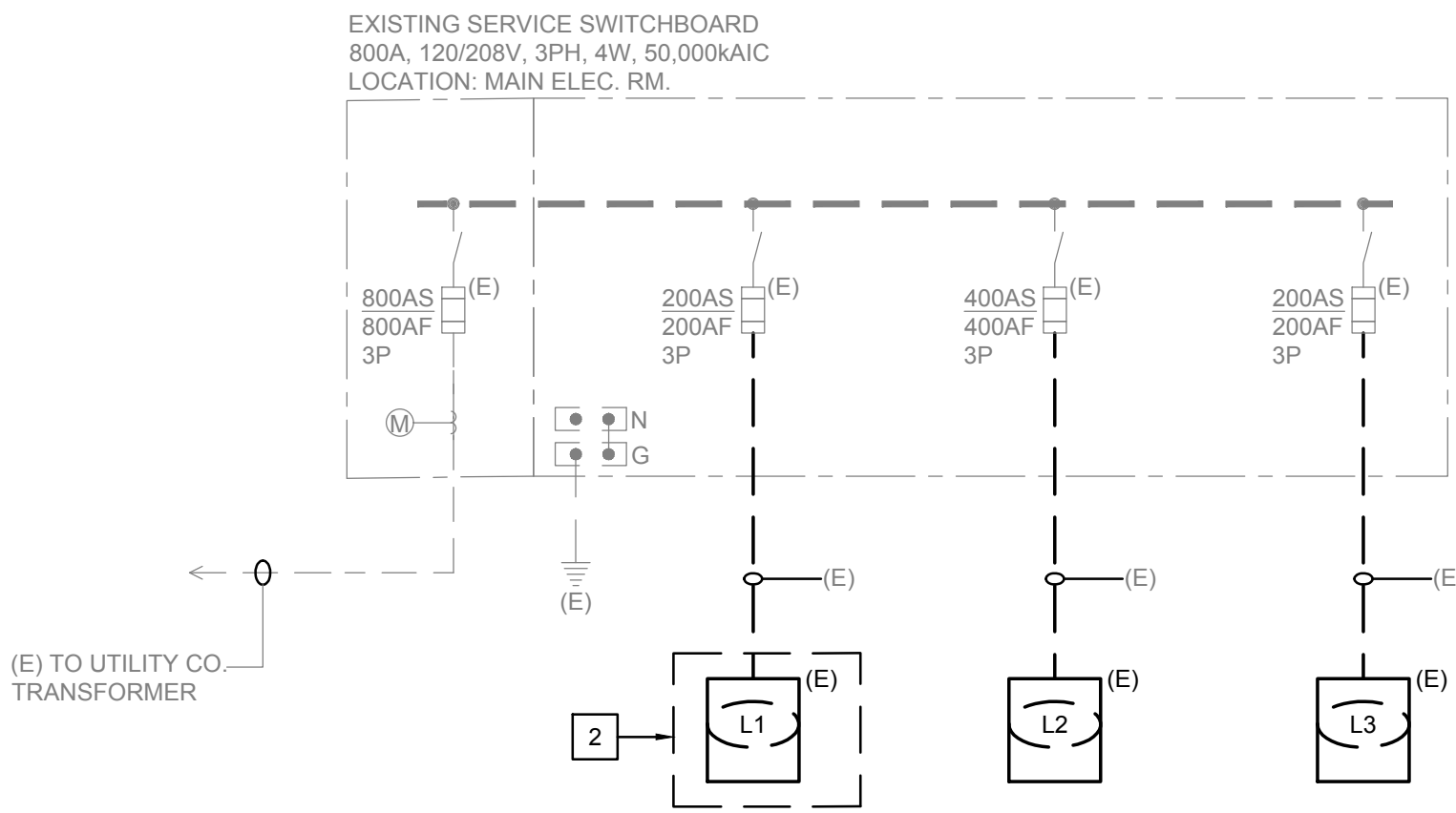
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LIGHTING SCHEDULES, NOTES, AND CONTROLS	
Job No:	2226-018-00
Date:	05/01/2026
Scale:	-
Drawn By:	A.G.
Checked By:	J.B.
Sheet No:	
E0.01	

ESTIMATED EXISTING MAIN SWITCHBOARD LOAD SUMMARY			
800A, 120/208V, 3PH, 4W			
LOAD TYPE	LOAD (VA)	DEMAND	DEMAND LOAD (VA)
EXISTING LOADS			
(EXISTING) LIGHTING [NOTE 1]	29,300	125%	36,625
(EXISTING) EQUIPMENT [NOTE 1]	98,800	125%	121,000
(EXISTING) EQUIPMENT [NOTE 1]	35,900	100%	35,900
NEW LOADS			
SOCCER FIELD LIGHTING POLES (6)	2,586	125%	3,233
TOTAL (VA)			196,758
TOTAL (AMPS) @ 208V/3PH			546.8
NOTES:			
1) INFORMATION IS BASED ON RECORD DRAWINGS PROVIDED.			



EXISTING SINGLE LINE DIAGRAM

EXISTING PANELBOARD 'L'																					
MAIN: 208/120VOLT, 3- PH, 4- WIRE & GND BUS-1 SEC.: SINGLE LUGS						ENCL:-NEMA 1						MAIN BREAKER: MLO BUS: 225 AMP				MOUNTING: FLUSH EXISTING					
LOAD VA		LOAD DESCRIPTION				PHASE	OUTLETS			C/B / P	% C/B T	PHASE	OUTLETS			C/B / P	% C/B T	LOAD DESCRIPTION		LOAD VA	
L	R	M	R	L	M	R	L	M	R	L	M	R	L	M	R	L	M	R	L	M	R
800	[X]	X				0	201	1		A	201	0	1	[X]	(EXISTING) KITCH/EQUIP. RM/RST	RM160	2				
600	[X]	X				0	201	3		B	4	201	0	1	[X]	(EXISTING) MTG RM 119	720				
720	[X]	X				0	201	5		C	6	201	0	1	[X]	(EXISTING) MTG RM 119	720				
600	[X]	X				0	201	7		A	8	201	0	1	[X]	(EXISTING) PANTRY/REST RM/RSTOR	510				
400	[X]	X				0	201	9		B	10	201	0	1	[X]	(EXISTING) MTG RM 109	1010				
450	[X]	X				0	201	11		C	12	201	0	1	[X]	(EXISTING) MTG RM 109	1010				
300	[X]	X				0	201	13		A	14	201	0	1	[X]	(EXISTING) JAN CLST. PHOTO LAB	1100				
250	[X]	X				0	201	15		B	16	201	0	1	[X]	(EXISTING) MTG RM 114	600				
880	[X]	X				0	201	17		C	18	201	0	1	[X]	(EXISTING) MTG RM 114	600				
1160	[X]	X				0	201	19		A	20	201	0	1	[X]	(EXISTING) MTG RM 123 / RR	650				
1400	[X]	X				0	201	21		B	22	201	0	1	[X]	(EXISTING) WAITING LOBBY 108	870				
1380	[X]	X				0	201	23		C	24	201	0	1	[X]	(EXISTING) WAITING LOBBY 108	870				
1380	[X]	X				0	201	25		A	26	201	0	1	[X]	(EXISTING) MTG RM 102	870				
1380	[X]	X				0	201	27		B	28	201	0	1	[X]	(EXISTING) OFFICES	1010				
1380	[X]	X				0	201	29		C	30	201	0	1	[X]	(EXISTING) OFFICES / RESTRM.	520				
1380	[X]	X				0	201	31		A	32	201	0	1	[X]	(EXISTING) PARKING LOT	1200				
600	[X]	X				0	201	33		B	34	201	0	1	[X]	(EXISTING) PLANTER	600				
200	[X]	X				0	201	35		C	36	202	0	1	[X]	(EXISTING) WATER HEATER	750				
1293	[X]	X				0	201	37		A	38	0	-	-	-	-	-	-	-	-	-
1293	[X]	X				0	201	39		B	40	0	-	-	-	-	-	-	-	-	-
0	[X]	X				0	201	41		C	42	0	-	-	-	-	-	-	-	-	-
PHASE		A		B		C		PANEL TOTAL		PANEL LOCATION: ELEC ROOM #12											
PHASE TOTAL CONNECTED VA:		13153		10733		9480		33.4 KVA		FED BY :-											
CONTINUOUS LOAD @125%: (31666)		15504		13416		10663		39.6 KVA		NOTES:											
KITCHEN EQUIP. @.65%		(0)		0		0		0.0 KVA		(1) EXISTING BREAKER TO REMAIN.											
LARGEST MOTOR @125%: (0)		0		0		0		0.0 KVA		(2) NEW BREAKER, NEW LOAD.											
HVAC @ 100%: (0)		0		0		0		0.0 KVA													
GEN RECEIPT DEMAND (1700)		750		0		950		1.7 KVA		100.0% (NET GEN. REC. DEMAND FACTOR)											
REMAINING @100%: (0)		0		0		0		0.0 KVA		ISOLATED GROUND: NO											
PANEL TOTAL W/ DEMAND: (12654)		13416		11613				41.3 KVA		NEUTRAL BUS: 100%:											
FULL LOAD AMPS:		6235		112		97		114.6 AMPS													

GENERAL NOTES

1. VERIFY POWER SUPPLY LOCATIONS AND CONFORM TO THE REQUIREMENTS OF THE LANDLORD AND POWER COMPANY. POWER COMPANY SHALL BE CONTACTED PRIOR TO BEGINNING CONSTRUCTION TO ARRANGE AND VERIFY FOR THE INSTALLATION OF THE POWER COMPANY METER.
2. GROUND ALL EQUIPMENT AND SERVICES IN ACCORDANCE WITH ARTICLE 250 AND 517 OF THE NATIONAL ELECTRICAL CODE. LOCAL APPLICABLE CODES, AND AS INDICATED ON DRAWINGS. ALL CONDUIT SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR. THE GROUNDING CONDUCTOR SHALL BE BONDED TO THE METAL FRAMES OF ALL FIXED ELECTRICAL EQUIPMENT.
3. MAKE THE NECESSARY INSPECTIONS OF EXISTING SITE, POWER SUPPLY LOCATION, ROUTING, AND POWER CO. SERVICE AS REQUIRED FOR THIS WORK AND MAKE ALLOWANCE FOR EXISTING CONDITIONS BEFORE SUBMITTING BID.
4. CUT AND PATCH THE CONSTRUCTION WORK AS REQUIRED FOR PROPER INSTALLATION OF THE ELECTRICAL WORK. ALL PATCHING SHALL MATCH THE SURROUNDING FINISH. BEFORE THE REINSTATEMENT OF THE ARCHITECT. ALL CONDUIT SHALL BE INSTALLED CONCEALED UNLESS SPECIFICALLY APPROVED BY THE ARCHITECT. COORDINATE SUE CUTTING WITH LANDLORD'S REPRESENTATIVE.
5. PROVIDE ENGRAVED LAMINATED PHENOLIC BLACK-ON-WHITE (UNLESS NOTED OTHERWISE) NAMEPLATES SECURED TO EQUIPMENT WITH ADHESIVE AND SURMOUNTS FOR PANELBOARDS, RELAY CABINETS, TRANSFORMERS, DISTRIBUTION BOARDS, AND MAIN SWITCHBOARD - IDENTIFYING EQUIPMENT DESIGNATION (CORRESPONDING WITH DESIGNATION USED ON DRAWINGS) AND EQUIPMENT TYPE. LETTERING SHALL BE IN WHITE. PROVIDE LABELS FOR CIRCUIT BREAKERS, FUSIBLE SWITCHES AND STARTERS IN SWITCHBOARDS AND DISTRIBUTION BOARDS FOR EACH DEVICE IDENTIFYING EQUIPMENT CONTROLLED. LETTERING SHALL BE 1/8" HIGH.
6. ALL DEVICES SHALL HAVE AN INTERRUPTING CAPACITY NOT LESS THAN THE SHORT CIRCUIT AVAILABLE FAULT CURRENT, OR AS INDICATED ON THE DRAWINGS WHICHEVER IS GREATER.
7. ALL CIRCUIT BREAKERS (MAIN SWITCHBOARD, DISTRIBUTION PANELS, PANELBOARDS) SHALL BE FULLY RATED FOR AIC AS NOTED ON SINGLE LINE DIAGRAM AND PANEL SCHEDULES, UNLESS OTHERWISE NOTED.
8. AVAILABLE SPACE FOR SWITCHBOARDS IS LIMITED. SWITCHBOARDS MUST FIT IN ALLOCATED SPACE.
9. GROUND FAULT PROTECTION DEVICES, WHERE REQUIRED ON SERVICE DISCONNECTS, SHALL BE SET AND TESTED PER ELECTRICAL CODE 230-95.
10. WHEN TWO OR MORE CONDUCTORS LAND ON A SINGLE LUG, THE EQUIPMENT SHALL BE LISTED FOR THAT USE.
11. ALL NEW SWITCHBOARDS CONTAINING CIRCUIT BREAKERS RATED 1200A OR HIGHER SHALL BE EQUIPPED WITH ARC ENERGY REDUCTION (REL) MEANS AS REQUIRED BY IEEE 288.
12. AT THE CONCLUSION OF THIS PROJECT, THE ELECTRICAL CONTRACTOR SHALL PROVIDED AN UPDATED TYPED/WRITTEN DIRECTORY INSIDE EACH PANELBOARD PROPERLY IDENTIFYING EACH CIRCUIT USED AND THE SPECIFIC LOAD SERVED AND UNUSED ONES TAGGED AS SPARE.
13. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM, REGARDLESS OF CIRCUITING INDICATED.
14. VERIFY EXISTING CIRCUIT BREAKERS IN FIELD.
15. EXISTING LOADS ARE ESTIMATED.
16. REVISI PANEL SCHEDULES AS NECESSARY TO MATCH EXISTING LOADS.
17. WHERE NEW CIRCUIT BREAKERS ARE INSTALLED, THEY SHALL MATCH THE EXISTING CIRCUIT BREAKERS AIC RATING. VERIFY IN FIELD.

KEY NOTES

1. ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
2. PANEL BOARD INVOLVED IN SCOPE OF WORK. NEW CIRCUIT BREAKERS SHALL MATCH EXISTING EQUIPMENT MANUFACTURE, TYPE, RATINGS.



REVIEWED BY

PBS

Name: _____

Date: 04/30/2026

**WACM BOYS AND GIRLS
CLUB OF HUNTINGTON VALLEY**

**2309 DELAWARE ST.
HUNTINGTON BEACH, CA 92648**

ISSUED / REVISIONS:

[illegible]

Sheet Title:

EXISTING SINGLE LINE DIAGRAM AND PANEL SCHEDULES

Job No. 2226-018-00

Date: 05/01/2026

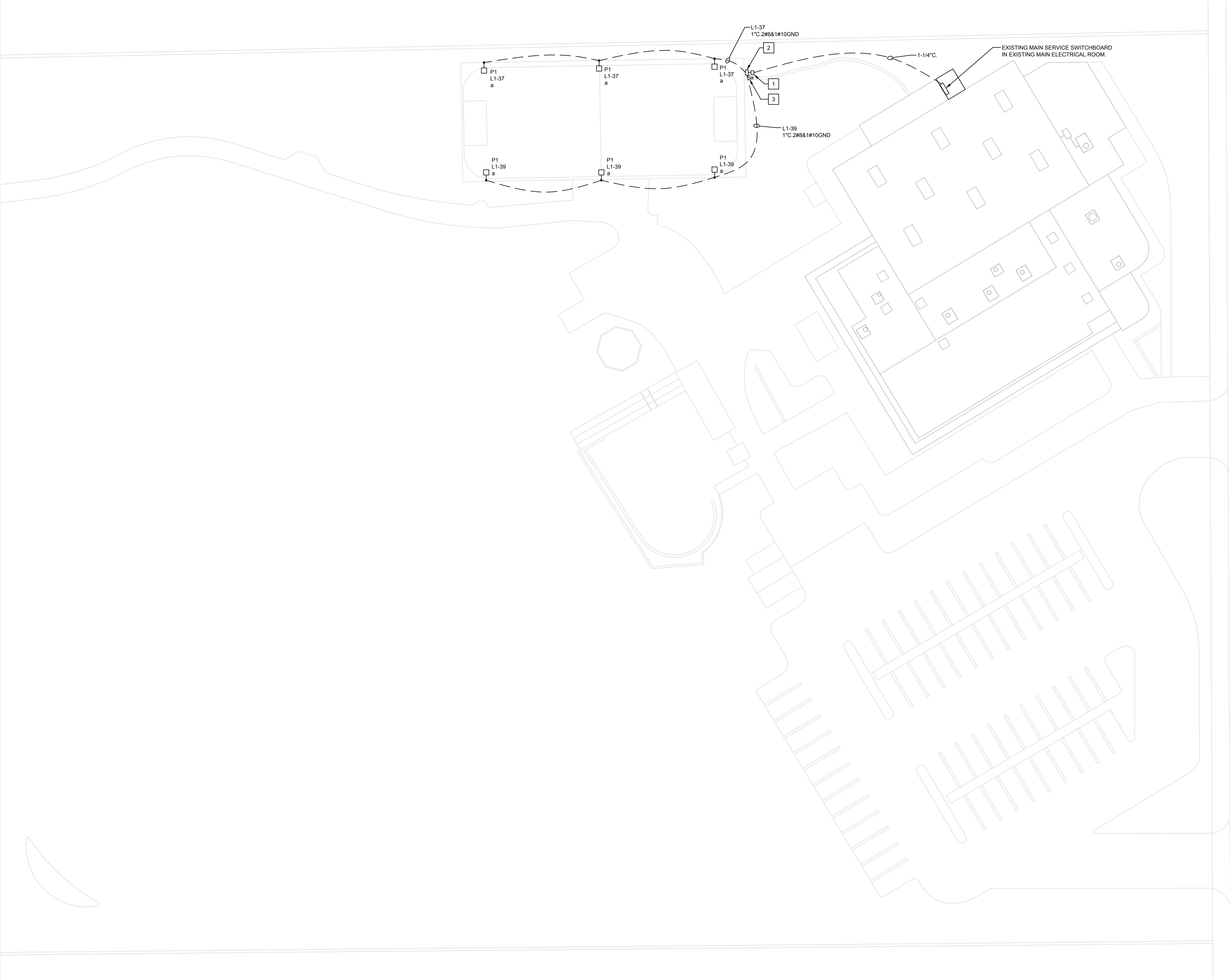
Scale: _____

Drawn By: A.G.

Sheet No:

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OVERALL SITE LIGHTING PLAN

SCALE:
1" = 20'-0"

1

GENERAL NOTES

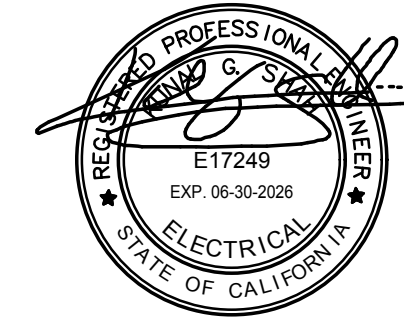
1. ALL LIGHTING CIRCUITS SHALL BE VIA LIGHTING CONTROL PANEL (LCP).
2. ALL ELECTRICAL, LIGHTING CONTROL EQUIPMENT LOCATED OUTDOORS SHALL BE PROVIDE IN NEMA RATED ENCLOSURE SUITABLE FOR EXTERIOR LOCATION IN MARINE ENVIRONMENT.
3. ALL BRANCH CIRCUITS SHALL BE SIZED FOR MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD PER TITLE 24.
4. PROVIDE NEMA 3R BOX/HANDHOLE WITH WEATHERPROOF SIZE AS REQUIRED FOR LIGHTING FIXTURE CONNECTIONS.

KEY NOTES

1. PROVIDE 8" BY 8" UNDERGROUND PULL-BOX, UL LISTED FOR APPLICATION. PROVIDE ADDITIONAL BOXES AS REQUIRED FOR CONNECTIONS/TRANSITIONS FROM UNDERGROUND TO ABOVE GROUND.
2. PROVIDE LIGHTING CONTROLS IN A NEMA 3R STAINLESS ENCLOSURE. PROVIDE DIGITAL CONTROLLER WITH ASTRONOMICAL TIME CLOCK, SCHEDULE TIME CLOCK, MANUAL SHUTOFF, AND 2-HOUR MANUAL OVERRIDE SWITCH FEATURES.
3. PROVIDE WEATHER RESISTANT MANUAL OVERRIDE SWITCH IN WEATHER PROOF ENCLOSURE. COORDINATE LOCATION WITH OWNER.



3187 Airway Ave., Suite C
Costa Mesa, CA 92626
T: 626.650.0350 F: 626.650.0352
www.pbsengineers.com Job no. 2226-018-00



REVIEWED BY

PBS

Name: GA

Date: 04/30/2026

WACM BOYS AND GIRLS
CLUB OF HUNTINGTON VALLEY
2309 DELAWARE ST.
HUNTINGTON BEACH, CA 92648

ISSUED / REVISIONS:

No.	Description	Date
1	ISSUE FOR PERMIT	05/01/26

Sheet Title:

OVERALL SITE LIGHTING
PLAN

Job No. 2226-018-00

Date: 05/01/2026

Scale: -

Drawn By: A.G.

Checked By: J.B.

Sheet No:

E1.00

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

Outdoor Lighting

NRCC-LTO-E

CERTIFICATE OF COMPLIANCE

Project Name: Boys and Girls Club of Huntington Beach

Report Page: (Page 1 of 7)

Date Prepared: 4/30/2026

Project Address: 2309 DELAWARE ST

Report Page: 4/30/2026

A. GENERAL INFORMATION

01 Project Location (city) HUNTINGTON BEACH

02 Climate Zone 6

04 Total Illuminated Hardscape Area (ft²) 5828

03 Outdoor Lighting Zone per Title 24 Part 1 §10.114 or as designated by Authority Having Jurisdiction (AHJ):

05 Occupancy Types within Project

07 must be >= 08

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ELECTRICAL SPECIFICATIONS

PART 1 GENERAL

1.01 SCOPE OF WORK

A WORK COVERED BY THIS SECTION CONSISTS OF FURNISHING ALL LABOR, EQUIPMENT, SUPPLIES, AND MATERIALS, UNLESS OTHERWISE SPECIFIED, AND IN PERFORMING ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF A COMPLETE AND OPERABLE ELECTRICAL SYSTEM AS REQUIRED BY THESE SPECIFICATIONS AND AS INDICATED ON THE DRAWINGS.

B THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS AND SPECIFICATIONS IN A MANNER TO BE FULLY COGNIZANT OF ALL WORK REQUIRED UNDER THIS SECTION.

C THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS UNLESS OTHERWISE ARRANGED AND SCHEDULE ALL REQUIRED INSPECTIONS FOR THE EXECUTION OF THE WORK UNDER THIS CONTRACT.

1.02 GENERAL REQUIREMENTS

A WORK DONE UNDER THIS SECTION SHALL COMPLY WITH THE LATEST EDITION OF THE CALIFORNIA ELECTRICAL CODE, NEC (NATIONAL ELECTRICAL CODE NEC), THE STATE OF CALIFORNIA TITLE 24, THE STATE BUILDING STANDARDS, (OSHA) OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, AND TO ANY APPLICABLE LOCAL JURISDICTIONAL REQUIREMENTS. IN CASE OF CONFLICT BETWEEN REQUIREMENT, THE MOST RESTRICTIVE SHALL APPLY.

1.03 ELECTRICAL CONTRACTOR'S RESPONSIBILITY

A IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF DRAWINGS AND SPECIFICATIONS. CONTRACTOR SHALL CHECK THE DRAWINGS OF THE OTHER TRADES AND SHALL CAREFULLY READ THE ENTIRE SPECIFICATIONS AND DETERMINE HIS RESPONSIBILITIES.

B BEFORE SUBMITTING THE BID, THE ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE.

C WHEREVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT, DEVICES, CIRCUIT BREAKERS, ETC., ARISES ON THE DRAWING AND/OR SPECIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITION NOTED ON DRAWINGS AND/OR IN SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ENGINEER.

1.04 WORK NOT INCLUDED

A CERTAIN LABOR, MATERIALS, OR EQUIPMENT MAY BE FURNISHED UNDER OTHER CONTRACTS BY THE OWNER. WHEN SUCH IS THE CASE, THE EXTENT, SOURCE, AND DESCRIPTION OF THESE ITEMS WILL BE INDICATED ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS. UNLESS OTHERWISE NOTED, ALL LABOR, MATERIALS AND EQUIPMENT FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL WORK SHALL BE PROVIDED UNDER THIS SECTION OF THESE SPECIFICATIONS.

1.05 SPECIAL REQUIREMENTS

A THE DRAWINGS INDICATE GENERAL ARRANGEMENT OF CIRCUITS, OUTLETS, LOCATIONS, DISCONNECTS, PANELBOARDS, CONDUIT ROUTING, AND OTHER WORK. INFORMATION SHOWN ON THE DRAWINGS IS ESSENTIALLY DIAGRAMMATIC; HOWEVER, RE-CIRCUITING OR RE-LOCATING ELECTRICAL EQUIPMENT WILL NOT BE PERMITTED WITHOUT SPECIFIC WRITTEN APPROVAL OF THE ENGINEER.

1.06 SUBMITTALS

A AFTER AWARD OF THE CONTRACT AND BEFORE ANY MATERIALS ARE DELIVERED TO THE JOB SITE, A COMPLETE LIST OF ALL MATERIALS PROPOSED TO BE FURNISHED AND INSTALLED UNDER THIS SECTION MUST BE PROVIDED.

B SUBMIT TO THE ENGINEER FOR APPROVAL ONE PRINT AND ONE REPRODUCIBLE OF ALL LIGHTING FIXTURES AND PANEL BOARDS. SHOP DRAWINGS SHALL INCLUDE MANUFACTURER'S PRINTED INFORMATION FOR EACH OF THESE ITEMS IDENTIFIED ON THE DRAWINGS. THE INFORMATION SHALL INCLUDE, AS MINIMUM, OVERALL DIMENSIONS, WEIGHT, PHASE, VOLTAGE RATINGS, WIRING DIAGRAMS, AND NAMEPLATE DATA AS APPLICABLE.

1.07 STANDARDS AND MATERIALS

A ALL MATERIALS SHALL CONFORM WITH THE CURRENT APPLICABLE INDUSTRY STANDARDS, NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION), ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE), IPECA (INSULATED POWER CABLE ENGINEERS ASSOCIATION), IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS), NATIONAL ELECTRICAL SAFETY CODE.

B UNLESS OTHERWISE INDICATED, ALL MATERIALS SHALL BE UNDERWRITERS LABORATORIES LISTED AND LABELED, OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.

C WORKMANSHIP AND NEAT APPEARANCE SHALL BE AS IMPORTANT AS THE ELECTRICAL MECHANICAL EFFICIENCY. DEFECTIVE AND DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL APPROVAL AND ACCEPTANCE. THE DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT THAN CODES, STATUTES, OR ORDINANCES IN EFFECT. APPLICABLE CODES, STANDARDS, ORDINANCES, AND STATUTES TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH THE DRAWINGS OR SPECIFICATIONS.

PART 2 PRODUCTS

2.01 EQUIPMENT AND MATERIALS

A ALL MATERIALS FURNISHED AND INSTALLED UNDER THIS CONTRACT SHALL BE NEW, FREE FROM DEFECTS, AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE OF THE WORK. SHOULD ANY TROUBLE DEVELOP DURING THEIR PERIOD DUE TO DEFECTIVE MATERIALS OR FAULTY WORKMANSHIP, THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS AND LABOR TO CORRECT THE TROUBLE WITHOUT ANY COST TO THE OWNER. ANY DEFECTIVE MATERIAL OR INFERIOR WORKMANSHIP NOTED AT THE TIME OF INSTALLATION SHALL BE CORRECTED IMMEDIATELY TO THE SATISFACTION OF THE OWNER.

B ALL MAJOR EQUIPMENT COMPONENTS SHALL HAVE THE MANUFACTURER'S NAME, ADDRESS, MODEL NUMBER, AND SERIAL NUMBER PERMANENTLY ATTACHED IN A CONSPICUOUS MANNER.

2.02 CONDUIT AND CONDUCTORS

A ALL INDOOR POWER CONDUCTORS SHALL BE EMT(ELECTRICAL METAL TUBING) UNLESS NOTED OTHERWISE.

B ALL EXTERIOR UNDERGROUND CONDUITS (CO) SHALL BE PVC SCHEDULE 40. CONDUIT RISERS THROUGH SLAB SHALL BE "GRG".

2.03 FITTINGS

A CONNECTOR, COUPLING, LOCKNUT, BUSHINGS AND CAPS USED WITH RIGID CONDUIT SHALL BE STEEL, THREADED AND GALVANIZED. BUSHINGS SHALL BE INSULATED.

B FLEXIBLE STEEL CONDUIT CONNECTORS SHALL BE TWIST-IN-TYPE WITH INSULATED THROAT. THE FINISH SHALL BE ZINC OR CADMIUM PLATING.

2.04 JUNCTION AND PULL BOXES

A FOR INTERIOR DRY LOCATIONS, BOXES SHALL BE GALVANIZED ONE-PIECE DRAWN STEEL, KNOCKOUT TYPE WITH REMOVABLE, MACHINE SCREW SECURED COVERS.

B ALL BOXES SHALL BE SIZED FOR THE NUMBER AND SIZES OF CONDUCTORS AND CONDUITS ENTERING THE BOX AND EQUIPPED WITH PLASTER RINGS WHERE REQUIRED.

2.05 OUTLET BOXES

A FOR FIXTURES, BOXES SHALL BE GALVANIZED, ONE-PIECE DRAWN STEEL, KNOCKOUT TYPE EQUIPPED WITH 3/8" FIXTURE STUDS AND PLASTER RINGS WHERE REQUIRED.

B FOR CONVENIENCE OUTLETS, WALL SWITCHES, OR OTHER DEVICES, OUTLET BOXES SHALL BE GALVANIZED ONE-PIECE DRAWN STEEL, KNOCKOUT TYPE 4"x4"x2-1/8" MINIMUM.

2.06 SWITCHES

A ALL DEVICES SHALL CONFIRM TO THE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA) STANDARDS AND SHALL BE UNDERWRITERS' LABORATORIES, INC. (UL) LISTED AND LABELED AND SHALL BE "SPECIFICATIONS GRADE," MEETING THE REQUIREMENTS OF THE FEDERAL SPECIFICATIONS WS-896-E, FOR SWITCHES.

B WALL SWITCHES SHALL BE SPECIFICATION GRADE, FULLY ENCLOSED, QUIET-TYPE TUMBLER SWITCH RATED 20 AMPERES, 120/277-VOLTS, BAKELITE OR COMPOSITION, BACK AND SIDE WIRED, BUMPER PAD, FULL RATING FOR THE INDUCTIVE OR NON-INDUCTIVE LOADS AND INCANDESCENT OR FLUORESCENT LIGHTING LOADS.

C SINGLE POLE SWITCHES: 20 AC, SMART SWITCH.

D THREE-WAY QUIET SWITCHES: 20 AC SMART SWITH WITH LED.

E FLUORESCENT DIMMER SWITCH SHALL BE 120 (OR 277) VOLTS AS REQUIRED FOR THE CIRCUIT WIRING RATING SHALL BE BASED UPON THE QUANTITY OF LAMPS CONTROLLED. INCANDESCENT DIMMERS SHALL BE THIN PROFILE AND UP TO 1500 WATTS RATING. WATT STOPPER SERIES MIRO.

F WALL BOX DIMMERS SHALL BE SLIDE TYPE WITH BUILT IN SWITCH WITH INTERFACE FILTER. DIMMER SHALL BE SOLID-STATE ELECTRONIC TYPE.

G SMART SWITCHES SHALL BE 0-10V DIMMER SWITCH, WATT STOPPER MIRO ARCHITECTURAL SERIES.

2.07 RECEPTACLES

A ALL DEVICES SHALL CONFIRM TO THE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA) STANDARDS AND SHALL BE UNDERWRITERS' LABORATORIES, INC. (UL) LISTED AND LABELED AND SHALL BE "SPECIFICATIONS GRADE," MEETING THE REQUIREMENTS OF THE FEDERAL SPECIFICATIONS FOR RECEPTACLE OUTLETS.

B SINGLE AND DUPLEX RECEPTACLES SHALL BE SPECIFICATION GRADE, CONVENIENCE RECEPTACLES SHALL BE U-GROUND TYPE, 125 VOLTS, RATED 20 AMPERES, SIDE AND BACK WIRED WITH BINDING SCREWS ONLY WITH DOUBLE WIPE CONTACTS AND SPRING STEEL BACK UP CLIPS, MIRO ARCHITECTURAL RECEPTACLES. SEE ITEM C, BELOW FOR FOR RECEPTACLE COLOR.

C RECEPTACLES ON EMERGENCY CIRCUITS SHALL BE RED, ISOLATED GROUND CIRCUITS SHALL BE ORANGE OR IVORY FOR ALL OTHER CIRCUITS.

D SPECIAL RECEPTACLES SHALL BE AS INDICATED ON PLANS BY NEMA CONFIGURATION.

E THE GROUND CONTACT SHALL BE ONE PIECE AND INTERNALLY CONNECTED TO THE FRAME WITH GROUND TERMINAL FOR EXTERNAL GROUND.

F GROUND FAULT RECEPTACLES SHALL BE 20 AMPERES, 125 VOLTS DUPLEX, THREE WIRE GROUND WITH PILOT LIGHT AND TEST AND RESET BUTTONS. SUITABLE FOR FEED THROUGH WIRING, COLOR TO BE SELECTED, HUBBELL #5926ZF SERIES, OR PASS & SEYMOUR 2091 SIL SERIES.

G ISOLATED GROUND RECEPTACLE SHALL BE ORANGE, HUBBELL IG5362, OR PASS & SEYMOUR OR ARROW HART AND SHALL CONFIRM TO UL STANDARDS #4988 AND NEC/NFPA REQUIREMENTS, ANSI #C73.

H EACH RECEPTACLE OUTLET INSTALLED WITHIN 72" OF SINK OR WET OR DAMP LOCATION ON ROOF, OUTDOOR BELOW GRADE (PT), JANITORS, CLOSETS, AND BATHROOMS, SHALL HAVE AND AUTOMATIC 5 MA., INDIVIDUAL GROUND FAULT (GFI) PROTECTION.

I FLOOR OUTLETS, WHERE FLOOR OUTLETS ARE SHOWN, BOXES SHALL BE CAST IRON BY WALKERDUCT #800, AND #800I SERIES, STEEL CITY, HUBBELL #B-2500 SERIES OR EQUAL, WHERE 120 VOLTS ARE USED STANDARD NEMA RECEPTACLES, SUITABLE FOR SERVICE SHALL BE USED.

J ALL RECEPTACLES OUTLETS SHALL BE OF THE SAME MANUFACTURE.

2.08 DEVICE PLATES

A PROVIDE PLATE FOR ALL SWITCHES, RECEPTACLES, JUNCTION BOXES, TELEPHONE, DATA AND OTHER OUTLETS.

B STAINLESS STEEL PLATE SHALL BE AMERICAN IRON AND STEEL INSTITUTE (AISI) TYPE 302, WITH BEVELED EDGES, 0.040" THICK WITH A SATIN SMOOTH FINISH. SMOOTHIE, HUBBELL #5707I SERIES.

C PLASTIC COVER PLATES SHALL HIGH IMPACT THERMOPLASTIC, HIGH STRENGTH, SCRATCH- RESISTANT, SMOOTH AND SELF-EXTINGUISHING, HUBBELL "PI" SERIES OR PASS & SEYMOUR RP SERIES.

D WHERE OUTLETS ARE TO BE WEATHERPROOF, PROVIDE AN AISI TYPE 302 STAINLESS WITH DOUBLE HINGED COVER PASS & SEYMOUR #WDP-8.

E PROVIDE PLASTIC COVER PLATES UNLESS NOTED OTHERWISE.

2.09 EXTERIOR LIGHTING FIXTURES

A ALL LIGHTING FIXTURES INSTALLED IN EXTERIOR LOCATIONS SHALL BE SUITED FOR THAT LOCATION AND SHALL BEARER THE UL LABEL CONFIRMING ITS APPLICATION.

B ALL EXTERIOR LIGHTING FIXTURES SHALL BE SEALED AND GASKETED.

C LIGHTING FIXTURES THAT ARE ADJUSTABLE SHALL BE AIMED AT THE TARGET IN THE FIELD AND FINAL SETTING SHALL BE MADE AFTER DARK BY THE CONTRACTOR IN CONJUNCTION WITH THE OWNERS REPRESENTATIVE.

D CONDUIT AND OUTLET BOXES INSTALLED EXTERIOR LOCATIONS SHALL BE SEALED TO PREVENT INTRUSION OF GROUND WATER INTO THE ELECTRICAL SYSTEM.

2.10 CIRCUIT AND MOTOR DISCONNECTS

A DISCONNECT (SAFETY) SWITCHES SHALL BE FUSED, HEAVY DUTY TYPE SWITCHES MEETING NEMA SPECIFICATIONS (EXCEPT ROOFTOP UNITS (RTU) DISCONNECTS WHICH SHALL BE NON-FUSED TYPE). SWITCHES SHALL BE PROVIDED WITH REJECTION TYPE FUSE BLOCKS. PROVIDE SWITCHES WITH THE NUMBER OF POLES, THE VOLTAGE, CURRENT AND HORSEPOWER RATINGS AS REQUIRED. PROVIDE EXTERNALLY OPERABLE QUICK-MAKE, QUICK-BREAK TYPE MECHANISM WITH COVER INTERLOCK AND PADLOCKABLE IN EITHER THE OPEN OR CLOSED POSITION.

B PROVIDE NAMEPLATE INDICATING EQUIPMENT SERVED. ALL GENERAL SNAP SWITCHES OPERATING MOTOR LOADS SHALL BE HORSEPOWER RATED OR BE RATED AT LEAST 125% OF THE FULL LOAD CURRENT.

2.11 ELECTRICAL CONNECTIONS

A UNLESS OTHERWISE NOTED, ALL WIRING FOR MOTORS, STARTERS, CONTROLS, AND EQUIPMENT SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. WHERE MOTORS FOR MECHANICAL EQUIPMENT ARE FURNISHED BY OTHER DIVISIONS, WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, EXCEPT WHERE WIRED INTEGRALLY WITH THE EQUIPMENT.

B CONNECTION AND CONTROL DIAGRAMS FOR ALL MECHANICAL AND CONTROL EQUIPMENT SHALL BE FURNISHED UNDER OTHER DIVISIONS, AND BE APPROVED BY THE OWNER FOR CONNECTION BY THE ELECTRICAL CONTRACTOR.

2.12 SUPPORTING DEVICES

A ALL EQUIPMENT CONDUITS SHALL BE SUPPORTED, ANCHORED AND BRACED IN ACCORDANCE WITH THE MOST STRINGENT CODES AND REQUIREMENTS. COMPLY WITH CHAPTER 23 OF THE LATEST CBC (CALIFORNIA BUILDING CODE).

PART 3 EXECUTION

3.01 WORKMANSHIP AND COMPLETION OF INSTALLATION

A WORKMANSHIP AND NEAT APPEARANCE SHALL BE AS IMPORTANT AS THE ELECTRICAL AND MECHANICAL EFFICIENCY. DEFECTIVE AND DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL INTERPRETATIONS INCLUDED. ANY DEFICIENCY PERTAINING TO EITHER WORKMANSHIP OR MATERIALS FOUND BY THE INSPECTOR SHALL BE CORRECTED WITHOUT ADDITIONAL COST TO THE OWNER.

B THE CONTRACTOR SHALL MAINTAIN ON JOB SITE A SET OF THE WORKING DRAWINGS WHICH SHALL BE UPDATED DAILY IN DETAIL FOR WORK ACCOMPLISHED. UPON COMPLETION OF THE WORK, A SET OF REPRODUCIBLE CONTRACT DRAWINGS SHALL BE OBTAINED FROM THE GENERAL CONTRACTOR AND ALL CHANGES AS NOTED ON THE RECORD SET OF PRINTS SHALL BE INCORPORATED THEREON WITH RED INK IN A NEAT, LEGIBLE, UNDERSTANDABLE AND PROFESSIONAL MANNER.

C ALL EQUIPMENT AND MATERIAL CONNECTED WITH THIS PROJECT SHALL BE INSTALLED COMPLETE, THOROUGHLY CLEANED, AND ALL RESIDUE REMOVED FROM INSIDE SURFACES. EXTERIOR SURFACES OF ALL MATERIAL AND EQUIPMENT SHALL BE CLEANED AND DELIVERED IN A PERFECT, UNBLEMISHED CONDITION.

D UPON COMPLETION OF THE INSTALLATION AND AS A CONDITION OF ITS ACCEPTANCE FURNISH ONE COPY OF THE FINAL INSPECTION CERTIFICATE TO THE OWNER.

3.02 PREPARATION COORDINATION

A THE CONTRACTOR SHALL COORDINATE THIS WORK WITH ALL OTHER CONTRACTORS FURNISHING LABOR, MATERIALS AND WORK, SO THAT THE WORK AS WHOLE SHALL BE EXECUTED AND COMPLETED WITHOUT CONFLICT OR DELAY.

3.03 INSTALLATION

A MAINTAIN WORKING CLEARANCE AROUND ELECTRICAL EQUIPMENT, IN ACCORDANCE WITH CODE REQUIREMENTS AS A MINIMUM.

B WHERE LIGHTING FIXTURES AND OTHER ELECTRICAL ITEMS ARE SHOWN IN CONFLICT WITH LOCATIONS OF STRUCTURAL MEMBERS AND MECHANICAL OR OTHER EQUIPMENT, FURNISH AND INSTALL ALL REQUIRED SUPPORTS AND WIRING TO CLEAR THE ENCRoACHMENT.

C VERIFY LOCATION OF EACH OUTLET FOR POWER, SIGNAL, TELEPHONE/DATA, AND EACH LIGHTING FIXTURE WITH ARCHITECT PRIOR TO ROUGH-IN. INCLUDE IN BID COST OF RELOCATING EACH ITEM WITHIN TEN-FEET RADIUS OF ITS INDICATED LOCATION.

D ALL CONDUIT TO BE RUN CONCEALED UNLESS OTHERWISE NOTED. ALL CONDUITS SHALL BE ROUTED OVERHEAD IN CEILING SPACES. NO CONDUITS SHALL BE PERMITTED IN CONCRETE SLAB, MASONRY WALLS UNLESS SPECIFICALLY SO INDICATED. CONDUIT SHALL BE RUN SO AS NOT TO INTERFERE WITH OTHER PIPING FIXTURES OR EQUIPMENT.

E WHERE ALLOWED, EXPOSED CONDUIT RUNS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALLS, STRUCTURAL MEMBERS, OR INTERSECTION OF VERTICAL PLANES AND CEILINGS.

F ALL ELECTRICAL CONDUITS AND OTHER ELECTRICAL RACEWAYS PASSING THROUGH FIRE RATED CEILINGS, SLABS, WALLS AND PARTITIONS SHALL BE SEALED TO PREVENT THE SPREAD OF FIRE, SMOKE, AND GASSES. USE A UL LISTED AND APPROVED FIRE-STOP MATERIAL EQUAL TO RATING OF A WALL OR A FLOOR SLAB PENETRATED. INSTALLATION OF FIRE-STOP MATERIAL SHALL BE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

G TELEPHONE WIRES SHALL BE PLENUM RATED CABLE FOR MOUNTING IN CEILING SPACES WITHOUT CONDUIT UNLESS OTHERWISE NOTED.

3.04 GROUNDING

A ALL EQUIPMENT SHALL BE PROPERLY GROUNDED AS INDICATED ON DRAWINGS AND AS REQUIRED BY THE LATEST EDITION OF APPLICABLE CODES.

3.05 IDENTIFICATION

A THE FOLLOWING ITEMS SHALL BE EQUIPPED WITH NAMEPLATES:

1 ALL DISCONNECT AND SAFETY SWITCHES, MAIN DISTRIBUTION PANEL FEEDER OVERCURRENT DEVICES AND SPARES, CIRCUIT EQUIPMENT IN SEPARATE ENCLOSURES.

2 SPECIAL ELECTRICAL SYSTEMS SHALL BE PROPERLY IDENTIFIED AT JUNCTION AND PULL BOXES.

3 IN GENERAL, EQUIPMENT SHALL BE IDENTIFIED AS DESIGNATED ON THE ELECTRICAL DRAWINGS. NAMEPLATES FOR PANELBOARDS SHALL INCLUDE THE PANEL DESIGNATION, VOLTAGE AND PHASE OF THE SUPPLY.

4 NAMEPLATE MATERIALS SHALL CONSIST OF 3-PLY, 1/16" LAMINATED PLASTIC WITH WHITE CORE FOR LETTERING AND BLACK BACKGROUND. LETTERING SHALL BE 1/4" HIGH.

3.06 TESTING AND INSPECTIONS

A THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE ALL REQUIRED INSPECTIONS FOR THE EXECUTION OF THE WORK UNDER THIS CONTRACT.

PART 4 DEMOLITION

4.01 EXAMINATION

A VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE AS SHOWN ON DRAWING FOR ELECTRICAL SYSTEMS TO BE DEROUTED BEFORE DEMOLITION.

B VERIFY THAT ABANDONED WIRING AND EQUIPMENT SERVES ONLY ABANDONED FACILITIES.

C DEMOLITION DRAWINGS ARE BASED ON CASUAL OBSERVATION AND EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.

D BEGINNING OF DEMOLITION MEANS THAT THE INSTALLER ACCEPTS EXISTING CONDITIONS.

4.02 PREPARATION

A DISCONNECT ELECTRICAL SYSTEMS FOR AREAS SCHEDULED TO BE DEMOLISHED.

B DE-ENERGIZE EXISTING ELECTRICAL SERVICE ONLY TO MAKE SWITCH OVER AND CONNECTIONS. OBTAIN PERMISSION AT LEAST 48 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION.

C DISABLE FIRE ALARM SYSTEM ONLY TO MAKE SWITCH OVER AND CONNECTIONS. NOTIFY OWNER AT LEAST 48 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION. CONTRACTOR TO COORDINATE THE INSTALLATION OF THE NEW OWNER FURNISHED FIRE ALARM SYSTEM WITH THE OWNER ON SITE REPRESENTATIVE.

4.03 DISPOSAL AND CLEANUP

A REMOVE ABANDONED RECEPTACLES, SWITCHES, BACKBOARDS, PULL BOXES, FIRE ALARM SYSTEM DEVICES, HALON SYSTEM AND ANNUNCIATOR PANELS ETC. BACK TO THE SOURCE.

B EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS AS SPECIFIED.

4.04 DEMOLITION

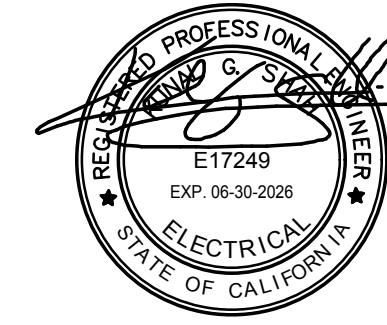
A REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED.

B PERFORM CUTTING AND PATCHING REQUIRED FOR DEMOLITION BY CUTTING-OFF CONDUIT TO BE REMOVED. PLUG AND SEAL THE REMAINING PORTION OF CONDUIT.



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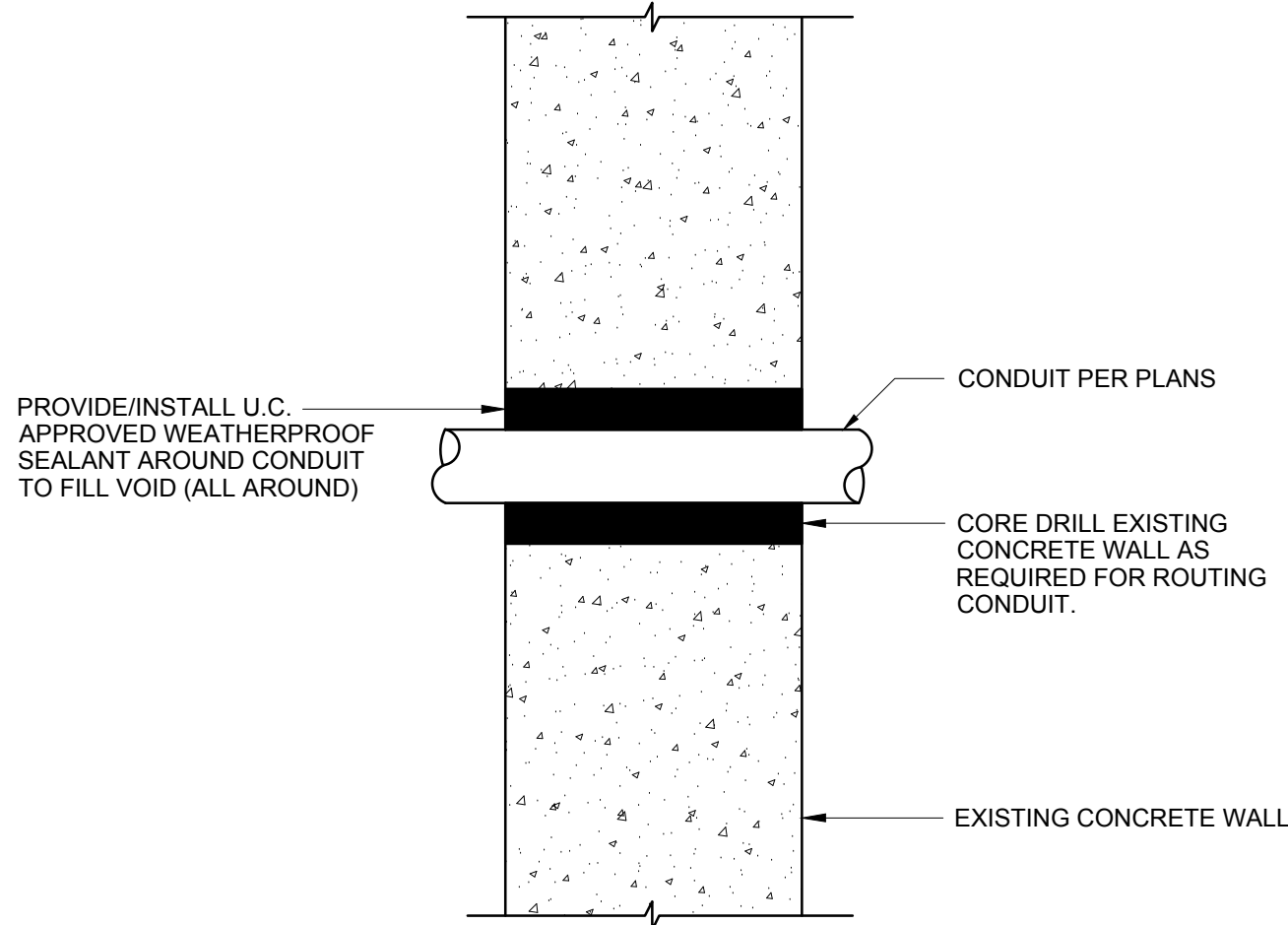
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HUNTINGTON BEACH, CA 92648

ISSUED / REVISIONS:		
No.	Description	Date
1	ISSUE FOR PERMIT	05/01/26

Sheet Title:	
ELECTRICAL SHEET SPECIFICATIONS	
Job No.	2226-018-00
Date:	05/01/2026
Scale:	-
Drawn By:	A.G.
Checked By:	J.B.
Sheet No:	
E5.00	

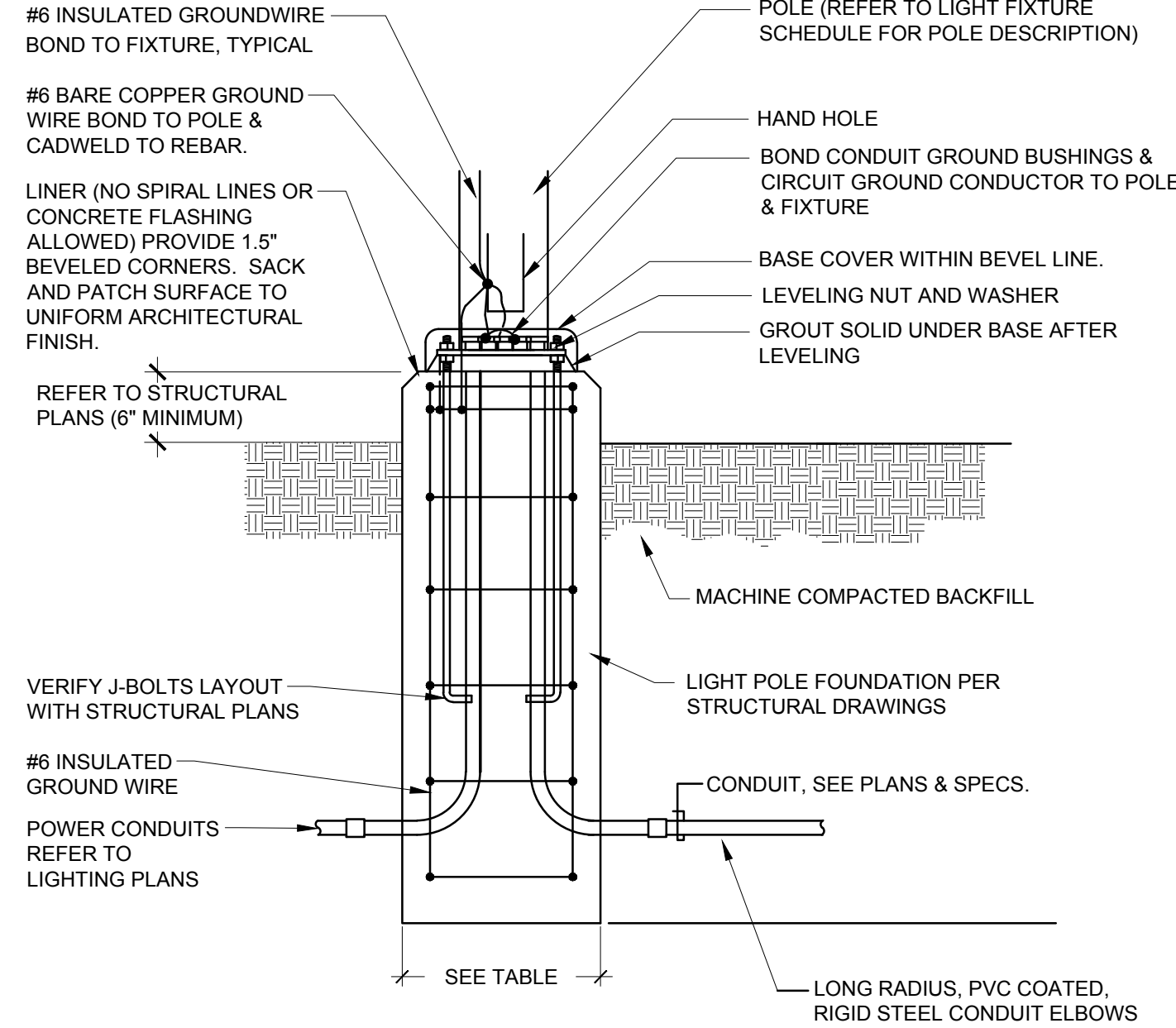
P:_PROJECTS\p-2026\22\2226-018-00 WACM Boys and Girls Club of Huntington Beach\10_BIM-CAD\CAD\Sheets\E5.01.dwg 5/4/2026 3:30 PM Charles Cruz



CONDUIT PENETRATION AT EXTERIOR WALL

NOT TO SCALE

3



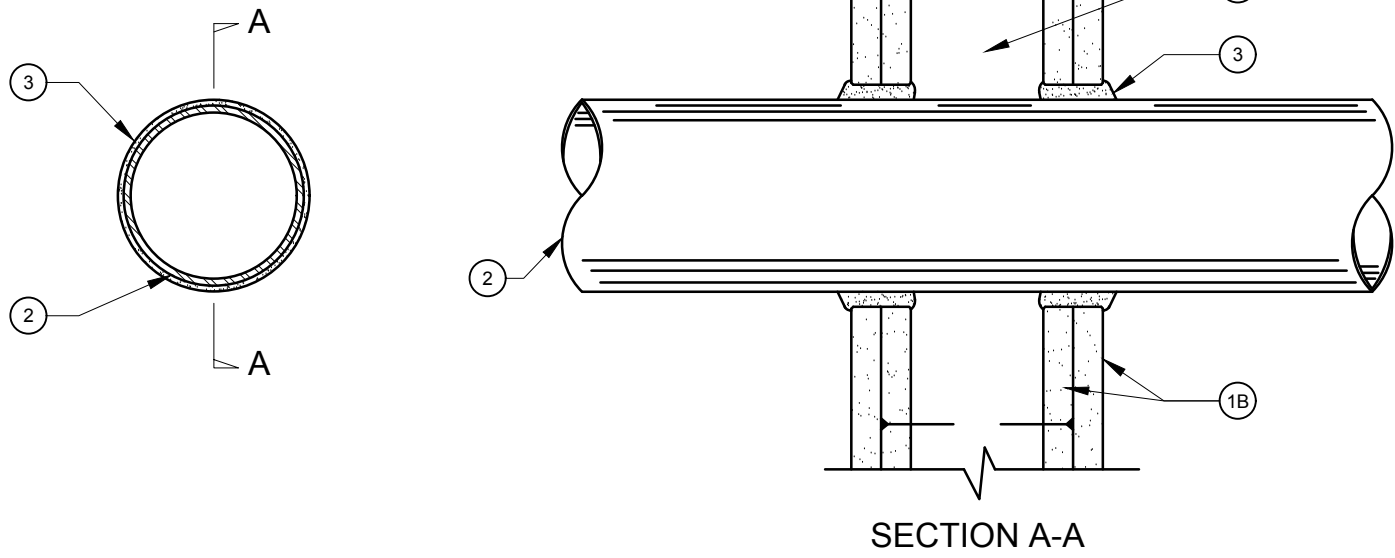
NOTE:
THIS DETAIL REPRESENTS DESIGN INTENT ONLY - STRUCTURAL COMPONENTS MAY VARY BASED ON ACTUAL ENGINEERED DESIGN. SUBMIT DETAILED SHOP DRAWINGS AS DESIGNED AND SEALED BY STRUCTURAL ENGINEER, REGISTERED IN STATE OF PROJECT. INCLUDE PROJECT DRAWING SHOWING DATA FOR ALL ANCHORS, REBAR, CONCRETE, SPACING, ETC. ENGINEER TO CONFIRM SOIL CONDITIONS OF PROJECT SITE PRIOR TO DESIGN.

LIGHT POLE BASE (RAISED)

NOT TO SCALE

2

SYSTEM NO. W-L-1001
(FORMERLY SYSTEM NO. 147)
F RATINGS- 1,2,3 AND 4 HR (SEE ITEMS 2 AND 3)
T RATINGS- 0,1,2,3 AND 4 HR (SEE ITEM 3)
L RATINGS AT AMBIENT- LESS THAN 1 CFM/sq ft L RATING
AT 400 F- LESS THAN 1 CFM/sq ft



- WALL ASSEMBLY- THE 1,2,3 OR 4 HOUR FIRE RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
A. STUDS- WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 H FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF MON 2 BY 4 IN. LIMBER SPACED 16 INCHES OC WITH NOM 2 BY 4 INCH LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN. 3-3/5 INCH WIDE BY 1-3/8 INCH DEEP CHANNELS SPACED MAX 24 INCH OC.
B. GYPSUM BOARD*- NOM 1/2 OR 5/8 INCH THICK, 4 FEET WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 13-1/2 IN.
- PIPE OR CONDUIT- NOM 12 INCHES DIAMETER (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM 12 IN DIAM. (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. DIAM. (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE, NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT, NOM 4 IN DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING, NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING OR NOM 1 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPE IS USED, MAX F RATING OF FIRESTOP SYSTEM (ITEM 3) IS 2 H. STEEL PIPES OR CONDUITS LARGER THAN NOM 4 IN DIAM MAY ONLY BE USED IN WALLS CONSTRUCTED USING STEEL CHANNEL STUDS. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
- FILL VOID OR CAVITY MATERIAL*- CAULK- CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN 1/4 IN DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING ON THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

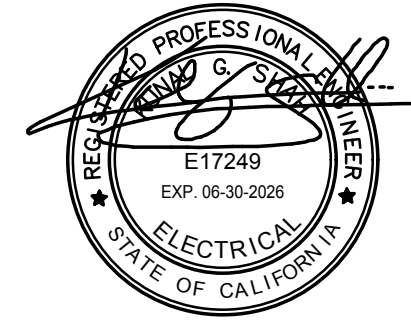
MAX PIPE OR CONDUIT DIAM. IN.	ANNULAR SPACE IN.	RATING HR	RATING HR
1	0 TO 3/16	1 OR 2	0+, 1 OR 2
1	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1-1/2	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0
12	3/16 TO 3/8	1 OR 2	0

WHEN COPPER PIPE IS USED, T RATING IS 0H.
3M COMPANY- CP 25WB+
* BEARING THE UL CLASSIFICATION MARK

CONDUIT PENETRATION FIRESTOPPER

NOT TO SCALE

1



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PBS

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Date: 04/30/2026

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2309 DELAWARE ST.
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ISSUED / REVISIONS:

No.	Description	Date
1	ISSUE FOR PERMIT	05/01/26

Sheet Title:

ELECTRICAL DETAILS

Job No. 2226-018-00

Date: 05/01/2026

Scale: -

Drawn By: A.G.

Checked By: J.B.

Sheet No:

E5.01