

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
PROVIDE	LIGHTING
A	LIGHTING FIXTURE TYPE, SEE LIGHTING FIXTURE SCHEDULE ON SHEET EL102.
O	LED LIGHTING FIXTURE. (-) INDICATES BRACKET, WALL MOUNTED FIXTURE(S).
	LIGHTING FIXTURE (-) INDICATES BRACKET, WALL MOUNTED FIXTURE(S).
	EMERGENCY LIGHTING FIXTURE WITH INTEGRAL 90-MINUTE EMERGENCY BATTERY PACK (-) INDICATES BRACKET, WALL MOUNTED FIXTURE(S). "N" INDICATES 24-HOUR NIGHT LIGHT TO BE POWERED AHEAD OF ANY CONTROL MEANS.
	EXIT LIGHTING FIXTURE WITH INTEGRAL 90-MINUTE EMERGENCY BATTERY PACK. ARROW, WHEN USED, INDICATES DIRECTION. (-) INDICATES BRACKET, WALL MOUNTED FIXTURE(S). FILLED IN QUADRANT(S) OF SYMBOL INDICATES NUMBER AND ORIENTATION OF ILLUMINATED FACES (SEE LEGEND NOTE 4).
S	SINGLE CHANNEL, LOW VOLTAGE ON/OFF CONTROL SWITCH, COLOR CHOSEN BY ARCHITECT. BASIS OF DESIGN IS NLIGHT NPODM SERIES. MOUNTED AT 48" AFF, UON.
D	SINGLE CHANNEL, LOW VOLTAGE ON/OFF/RAISE LOWER DIMMER, COLOR CHOSEN BY ARCHITECT. BASIS OF DESIGN IS NLIGHT NPODM DX SERIES. MOUNTED AT 48" AFF, UON.
D4	FOUR CHANNEL, LOW VOLTAGE ON/OFF/RAISE LOWER DIMMER, COLOR CHOSEN BY ARCHITECT. BASIS OF DESIGN IS NLIGHT NPODM 4P DX SERIES. MOUNTED AT 48" AFF, UON.
So	WALL SWITCH, LOW VOLTAGE ON/OFF/DUAL-TECH OCCUPANCY SENSOR, COLOR CHOSEN BY ARCHITECT. BASIS OF DESIGN IS NLIGHT NWSX PDT LV SERIES. MOUNTED AT 48" AFF, UON.
Sm	MOTOR RATED SWITCH WITH OVERLOADS, SIZE AS REQUIRED PER EQUIPMENT MANUFACTURERS RECOMMENDATIONS.
	OCCUPANCY SENSOR CONTROLLER, CEILING MOUNTED DUAL-TECH TYPE, UON. BASIS OF DESIGN IS NLIGHT NCMPTD SERIES.
z1	LIGHT FIXTURE LIGHTING DIMMED ZONE. NUMBER INDICATES WHICH DIMMED ZONE.
	TOUCH SCREEN DIGITAL TIME CLOCK AND GRAPHICAL CONTROLLER. BASIS OF DESIGN IS NLIGHT NDTG SERIES.

POWER DEVICES

	DUPLEX CONVENIENCE RECEPTACLE. 20 A, 125 VAC, MOUNT +18" AFF UON. "WP" INDICATES WEATHERPROOF OUTLET. "TV" INDICATES OUTLET FOR TELEVISION POWER. PROVIDE FSR-PWB-250 COMBINATION POWER AND DATA BOX FOR ALL TV LOCATIONS. MOUNTING HEIGHT TO BE COORDINATED WITH ARCHITECTURAL ELEVATIONS.
	QUADRUPLEX CONVENIENCE RECEPTACLE MOUNTED IN TWO-GANG OUTLET BOX - EACH RATED 20A, 125 VOLTS WITH SINGLE COVER PLATE, MOUNT 18" AFF, UON.
	RECEPTACLE AS NOTED ABOVE COUNTER AND COUNTER MOUNTED AT 48" AFF OR 6" ABOVE BACKSPASH OR COUNTER TOP WHERE COUNTER IS INDICATED.
	GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE AS NOTED ABOVE COUNTER AND COUNTER MOUNTED AT 48" AFF OR 6" ABOVE BACKSPASH OR COUNTER TOP WHERE COUNTER IS INDICATED.
	SPECIAL PURPOSE RECEPTACLE. 30A/2P. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PROVIDED.

SYMBOL	DESCRIPTION
PROVIDE	TELEPHONE AND DATA SYSTEMS
	DATA/VOICE OUTLET AT 18" A.F.F. UON. WITH 1" CONDUIT AND PULL STRING ROUTED TO ABOVE ACCESSIBLE CEILING IN IT ROOM 110. COORDINATE EXACT STUB-OUT LOCATION WITH OWNER. "TV" INDICATES DATA CONNECTION FOR TV AND IS IN SHARED FSR BOX WITH TV POWER RECEPTACLE. ROUTE 1" CONDUIT AND PULL STRING ROUTED TO ABOVE ACCESSIBLE CEILING IN IT ROOM 110. SEE DUPLEX CONVENIENCE RECEPTACLE SYMBOL UNDER POWER DEVICES ON THIS SHEET FOR MORE INFORMATION.
	TELEPHONE TERMINAL BACKBOARD
	WIRELESS ACCESS POINT LOCATION. PROVIDE 4" BOX WITH 1" CONDUIT AND PULL STRING ROUTED TO ABOVE ACCESSIBLE CEILING IN IT ROOM 110. COORDINATE EXACT STUB-OUT LOCATION WITH OWNER. EXTERIOR LOCATIONS SHALL BE WEATHERPROOF. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH OWNER/ARCHITECT.
	CCTV CAMERA LOCATION. PROVIDE 4" BOX WITH 1" CONDUIT AND PULL STRING ROUTED TO ABOVE ACCESSIBLE CEILING IN IT ROOM 110. COORDINATE EXACT STUB-OUT LOCATION WITH OWNER. EXTERIOR LOCATIONS SHALL BE WEATHERPROOF. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH OWNER/ARCHITECT.
	ACCESS CONTROL CARD READER. SEE ACCESS CONTROL DETAIL ON SHEET EP903 FOR ELECTRICAL REQUIREMENTS.

EQUIPMENT CONNECTIONS

	EQUIPMENT CONNECTION AS NOTED ON DRAWINGS OR MECHANICAL EQUIPMENT CONNECTION SCHEDULE.
	JUNCTION BOX
	GROUND BAR, SEE DETAIL 3 ON SHEET EP903
	DISCONNECT SWITCH. PROVIDE NEMA 1 ENCLOSURE FOR INDOOR INSTALLATION. PROVIDE NEMA 3R ENCLOSURE FOR OUTDOOR INSTALLATION.

DISTRIBUTION

	PANELBOARD - 208Y/120V
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WIRE, CONDUIT AND RACEWAY

	CIRCUIT TO ELECTRICAL PANEL DESIGNATION AS INDICATED
	INDICATES A CONDUIT RUN CONCEALED IN CEILING, WALL, FLOOR, OR ABOVE SUSPENDED CEILING UON.
GENERAL	
	NOTE REFERENCE - TYPICALLY LOCATED ON SAME SHEET WHERE SYMBOL IS USED.
	ROOM NUMBER.
PHOTOVOLTAIC (PV) DEVICES	
	PHOTOVOLTAIC MODULE
	THREE PHASE INVERTER WITH INTEGRATED ARC FAULT PROTECTION AND RAPID SHUT DOWN, AND INTEGRATED DC SAFETY DISCONNECT
	SOLAR PV PASS-THROUGH BOX. BOX DESIGNED TO GROUP PV CABLES FROM EACH ARRAY AND TRANSITION FROM SOLAR PV CABLE TO TRADITIONAL BUILDING WIRE. NEMA 4X ENCLOSURE.

ELECTRICAL ABBREVIATIONS

A	AMPERE	MCB	MAIN CIRCUIT BREAKER
A/C	AIR CONDITIONING	MLO	MAIN LUG ONLY
AF	AMPERE FRAME	M.R.S.	MOTOR RATED SWITCH
AFF	ABOVE FINISHED FLOOR	MSB	MAIN SWITCHBOARD
AFG	ABOVE FINISHED GRADE	MT	MOUNT
AHU	AIR HANDLING UNIT	MTD	MOUNTED
AT	AMPERE TRIP	MTG HT	MOUNTING HEIGHT
ATC	AUTOMATIC TEMPERATURE CONTROL	N/C	NORMALLY CLOSED
AWG	AMERICAN WIRE GAUGE	NEC	NATIONAL ELECTRICAL CODE
BG	BELOW GRADE	NF	NON-FUSED
BLDG	BUILDING	N/O	NORMALLY OPEN
BRKR	BREAKER	NESC	NATIONAL ELECTRICAL SAFETY CODE
C	CONDUIT	NEU	NEUTRAL
CB	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CCT	CIRCUIT	P	POLE
DISC SW	DISCONNECT SWITCH	PH	PHASE
DT	DRY TYPE	PNL	PANEL
DWG	DRAWING	PV	PHOTOVOLTAIC
EC	EMPTY CONDUIT	PVC	POLY VINYL CHLORIDE
EF	EXHAUST FAN	QTY	QUANTITY
EMT	ELECTRICAL METALLIC TUBING	RECEPT	RECEPTACLE
EQUIP	EQUIPMENT	RFI	RADIO FREQUENCY INTERFERENCE
ETR	EXISTING TO REMAIN	REQ'D	REQUIRED
EWC	ELECTRIC WATER COOLER	REQ'D	REQUIRED
EWI	ELECTRIC WATER HEATER	SC	SPLIT CIRCUIT (SEE LEGEND NOTE 2)
EXIST	EXISTING	SF	SUPPLY FAN
FC	FOOTCANDLE	SIN	SOLID NEUTRAL
FCU	FAN COIL UNIT	SPD	SURGE PROTECTIVE DEVICE
FLA	FULL LOAD AMPS	SW	SWITCH
GFI	GROUND FAULT INTERRUPTER	TEL	TELEPHONE
GND	GROUND	TGB	TELECOMMUNICATIONS GROUND BUS
GRS	GALVANIZED RIGID STEEL	TMBG	TELECOMMUNICATIONS MAIN GROUND BUS
HP	HORSEPOWER	TTB	TELEPHONE TERMINAL BOARD
KAIC	THOUSAND AMP INTERRUPTING CAPACITY, RMS SYMMETRICAL	TV	TELEVISION
KCMIL	THOUSAND CIRCULAR MILS	UH	UNIT HEATER
KWH	KILOWATT HOUR	UG	UNDERGROUND
KVA	KILOVOLT AMPERE	UON	UNLESS OTHERWISE NOTED UNDERGROUND POWER
LAN	LOCAL AREA NETWORK	UP	VOLTS
LTG	LIGHTING	VAC	VOLTS ALTERNATING CURRENT
		VDC	VOLTS DIRECT CURRENT
		W	WIRE
		WH	WATER HEATER
		WP	INDICATES WEATHERPROOF EQUIPMENT
		XFMR	TRANSFORMER

LEGEND NOTES

- WIRE AND CONDUIT FOR MOTOR AND EQUIPMENT LOADS SHALL BE CONTINUOUS IN SIZE AND COUNT FROM SOURCE TO FINAL CONNECTION. SIZE AND COUNT SHALL BE AS INDICATED ON THE PANEL SCHEDULE CIRCUIT INFORMATION UNLESS OTHERWISE NOTED.
- WHERE BRANCH CIRCUIT HOMERUNS ARE LABELED "SPLIT CIRCUIT" (SC), THE BRANCH CIRCUIT NUMBER INDICATED HAS BEEN USED ON MORE THAN ONE HOMERUN INDICATOR. INSTALL ONLY ONE CONDUCTOR PER CIRCUIT BREAKER POLE WITHIN THE PANELBOARD ENCLOSURE. SPLICES NECESSARY TO COMPLY WITH THIS REQUIREMENT SHALL BE MADE IN A SEPARATE SPLICE BOX OUTSIDE THE PANELBOARD ENCLOSURE.
- WHERE A NEW-TO-EXISTING CONNECTION IS INDICATED, PROVIDE MATERIALS AND LABOR REQUIRED TO MAKE THE CONNECTION.
- BRANCH CIRCUIT WIRING TO EXIT LIGHT FIXTURES AND TO THE BATTERY INVERTERS WITHIN FIXTURES WITH INTEGRAL BATTERY UNITS SHALL BE UNSWITCHED, CONNECTED AHEAD OF ANY CONTROL SWITCHES.
- A (P) IN THE FUSE RATING OR TRIP RATING POSITION FOR THIS SYMBOL INDICATES PROVIDE FUSE OR BREAKER TRIP RATING IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION.

GENERAL NOTES

- WIRING SHALL BE IN CONDUIT, MINIMUM SIZE ONE-HALF (1/2) INCH WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC.
- WIRE AND CABLE SHALL BE #12 AWG MINIMUM.
- MC CABLE SHALL BE ALLOWED FOR NON-EXPOSED INTERIOR LOCATIONS (AS ALLOWED BY SECTION 330 OF THE NEC) WITH EMT HOMERUNS TO ELECTRICAL PANELS. NO MC CABLES WILL BE ALLOWED IN EXPOSED AREAS.
- OPENINGS CREATED IN A FIRE OR SMOKE RATED WALL OR FLOOR BY PROVISION OF ANY ELECTRICAL DEVICE OR CONDUIT, SHALL BE SEALED AFTER THE WORK IS COMPLETED WITH A UL APPROVED FIRE/SMOKE SEALANT APPROPRIATE TO RE-ESTABLISH THE PREVIOUS RATING OF THE WALL OR FLOOR. SEE ARCHITECTURAL PLANS FOR FIRE RATED WALLS/FLOORS AND THEIR RATING.
- COORDINATE EXACT LOCATION OF CEILING MOUNTED LIGHTING FIXTURES AND DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLANS.

PHOTOVOLTAIC (PV) SYSTEM GENERAL NOTES

- THE SCOPE OF WORK DESCRIBED IN THESE DRAWINGS SHALL INCLUDE THE DESIGN AND INSTALLATION OF A 110.7KW GRID-CONNECTED PV SYSTEM. CONTRACTOR SHALL INCLUDE THE FURNISHING OF ALL MATERIALS, EQUIPMENT, APPURTENANCES, ACCESSORIES, ELECTRICALS, LABOR, TRANSPORTATION, TOOLS, SUPERVISION, ETC. REQUIRED AND/OR NECESSARY TO COMPLETELY INSTALL AND LEAVE IN SAFE AND PROPER OPERATION CONDITION. ALL ITEMS NOT SPECIFICALLY MENTIONED HEREIN, WHICH ARE OBVIOUSLY NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION, SHALL BE PROVIDED. SCOPE INCLUDES BUT IS NOT LIMITED TO:
- 270 PV MODULES OF 4100-WATT PER MODULE.
 - A NON-PENETRATING SOLAR MODULES MOUNTING BRACKETS AND CLAMPS FOR STANDING SEAM METAL ROOF.
 - TERMINAL AND SOLAR PASS-THROUGH BOXES.
 - QUICK CONNECT ELECTRICAL CONNECTORS.
 - DC AND AC WIRING AND DISCONNECTS.
 - DC TO AC INVERTERS.
 - METERING EQUIPMENT.
 - SYSTEM DESIGN SIGNED BY PROFESSIONAL ENGINEER.
 - SERVICE CONNECTION FROM THE PV SYSTEM TO MAIN SERVICE DISTRIBUTION PANEL.
 - SYSTEM COMMISSIONING TO MEET ALL UTILITY AND STATE REBATE PROGRAMS.
 - DUKE ENERGY UTILITY INTERCONNECTION APPLICATIONS FILED IN TIMELY MANNER, AND ALL FEES SHALL BE INCLUDED IN THE CONTRACTOR PROPOSED PRICE.
 - UTILITY REBATE APPLICATIONS SHALL BE FILED ON BEHALF OF THE OWNER.
 - SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND GUIDELINES.
 - COMPLY WITH SPECIFICATION SECTION 283100-PHOTOVOLTAIC COLLECTORS.

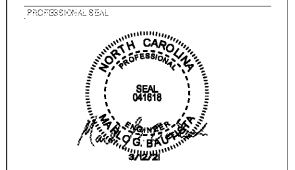
INDEX OF DRAWINGS

SHEET NUMBER	SHEET NAME
E-001	ELECTRICAL LEGEND
EL101	FIRST FLOOR - LIGHTING
EL102	POOL AREA LIGHTING PLAN
EP101	FIRST FLOOR - POWER & SPECIAL SYSTEMS
EP102	ROOF PLAN - POWER
EP103	POOL AREA - POWER & GROUNDING
EP501	ELECTRICAL DETAILS
EP502	ELECTRICAL DETAILS
EP503	ELECTRICAL DETAILS
EP801	SCHEDULES & POWER RISER DIAGRAM
ES101	ELECTRICAL SITE PLAN

City of Asheville Parks & Recreation
DR. WESLEY GRANT SR. CENTER EXPANSION

285 LINCOLN ST. STREET
 ASHEVILLE, NC 28801

CLARK NEXSEN
 201 COLLEGE STREET, SUITE 300
 ASHEVILLE, NORTH CAROLINA 28801
 828.232.9888
 CLARK NEXSEN LICENSE NUMBER: C-14128



03.12.2021
 CONSTRUCTION DOCUMENTS

ELECTRICAL LEGEND

E-001

DATE: 03/12/2021
 DRAWN BY: BIRCHBY
 CHECKED BY: BIRCHBY
 PROJECT: CN 7904-A

Order Plans @ WWW.WWWLINE.COM

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