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File: Z:\Projects\4802 South Charlotte Hyundai Redesign\4802E1 ELECTRICAL LEGEND NOTES AND SCHEDULES.dwg
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GENERAL ELECTRICAL NOTES

- 61. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL AND STATE CODES.
- 62. ALL MATERIAL, EQUIPMENT AND APPLIANCES SHALL BE NEW AND SHALL CONFORM TO THE STANDARDS OF THE UNDERWRITERS LABORATORIES, INC. AND THE NATIONAL MANUFACTURERS ASSOCIATION.
- 63. ALL ELECTRICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR.
- 64. ELECTRICAL CONTRACT DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE THE GENERAL ARRANGEMENT OF ELECTRICAL EQUIPMENT. DO NOT SCALE ELECTRICAL PLANS. OBTAIN ALL DIMENSIONS FROM THE ARCHITECT'S DIMENSIONED DRAWINGS AND FIELD MEASUREMENTS. THE CONTRACTOR SHALL REVIEW ARCHITECTURAL PLANS FOR DOOR SWINGS AND BUILT-IN EQUIPMENT, CONDITIONS INDICATED ON THESE PLANS SHALL GOVERN FOR THIS WORK.
- 65. VERIFY ALL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE PRIOR TO STARTING ANY WORK SUCH AS VOLTAGE, PHASES, FAULT CURRENT, ETC., AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH LOCAL POWER COMPANY PRIOR TO PROJECT START. NOTIFY ENGINEER OF ANY DIFFERENCES FROM WHAT IS SHOWN ON PLANS.
- 66. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR EFFECTIVE FROM THE DATE OF SUBSTANTIAL COMPLETION.
- 67. A COMPLETE GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC, AND AS SHOWN ON THE DRAWINGS.
- 68. ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. DO NOT CUT ANY MATERIAL THAT WILL WEAKEN THE STRUCTURE WITHOUT WRITTEN PERMISSION OF THE ARCHITECT. PATCHING SHALL BE ACCOMPLISHED TO MATCH ADJACENT SURFACES IN EVERY RESPECT. ENGAGE ORIGINAL INSTALLER FOR CUTTING/PATCHING OF ROOFS.
- 69. PROVIDE A TYPED DIRECTORY IN ALL PANELBOARDS CLEARLY DESCRIBING THE LOCATION AND TYPE OF LOAD SERVED FOR ALL CIRCUITS.
- 70. THE ELECTRICAL CONTRACTOR SHALL REQUEST A SELECTIVE BREAKER COORDINATION STUDY FROM THE ELECTRICAL GEAR MANUFACTURER PER NEC 700 REQUIREMENTS.
- 71. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL PANELBOARDS AND DISCONNECT SWITCHES, WHITE LETTERS ON BLACK BACKGROUND. NAMEPLATE SHALL CONTAIN EQUIPMENT DESIGNATION, VOLTAGE, FEEDER SOURCE, AIC RATING, DATE INSTALLED.
- 72. PROVIDE FLASH HAZARD LABELS FOR ALL PANELBOARDS IN ACCORDANCE WITH NEC REQUIREMENTS.
- 73. ALL TERMINALS/LEADS SHALL BE 60 DEGREE/75 DEGREE WAGED.
- 74. FUSES 0-600 AMPS SHALL BE UL CLASS RK-1 LOW PEAK DUAL ELEMENT TIME DELAY WITH 20000 AMPERE INTERRUPTING RATING AS MANUFACTURED BY BUSHMAN UNLESS NOTED OTHERWISE.
- 75. ALL WATER HEATERS SHALL HAVE DISCONNECT SIZES PER 422.10(B).
- 76. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT REGARDLESS OF WHO SUPPLIES THE EQUIPMENT. THIS INCLUDES ALL HVAC, PLUMBING AND OWNER FURNISHED EQUIPMENT CONNECTIONS OF 120V OR HIGHER.
- 77. RACEWAYS SHALL BE INSTALLED CONCEALED IN NEW WALL CONSTRUCTION ABOVE CEILING, BELOW FLOOR, AND IN OTHER CAVITIES TO THE GREATEST EXTENT POSSIBLE. WHERE EXPOSED RACEWAYS MUST BE USED, LAYOUT RACEWAYS TO MINIMIZE THE NUMBER OF VERTICAL RUNS.
- 78. ALL EXPOSED RACEWAY SHALL BE RUN PARALLEL OR PERPENDICULAR TO THE BUILDING SURFACES AND SHALL BE PAINTED AS DIRECTED BY THE ARCHITECT. NO EXPOSED CONDUIT SHALL BE ALLOWED IN FINISHED SPACES EXCEPT AS PERMITTED BY OWNER OR ARCHITECT. EXPOSED RACEWAY IN FINISHED SPACES SHALL BE VENEERED TYPE.
- 79. BEFORE COMMENCING WITH ANY WORK-IN, COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT OF ALL WALL MOUNTED DEVICES WITH THE ARCHITECT. INTERIOR ELEVATIONS, CABBINET SHOP DRAWINGS AND EXISTING CONDITIONS. IF ANY DISCREPANCIES ARE DISCOVERED, NOTIFY THE ARCHITECT FOR FURTHER DIRECTION. MINOR ADJUSTMENTS IN DEVICE LOCATION, I.E. 5/8" IN ANY DIRECTION SHALL BE DONE AT NO ADDITIONAL COST TO THE CONTRACTOR.
- 80. ALL WIRING SHALL BE INSTALLED IN IMC, RMC, EMT OR TYPES AC AND MC FLEXIBLE CABLES. IMC CONDUIT PVC SHALL ONLY BE USED UNDERGROUND AND OUTDOORS, WHERE NOT SUBJECT TO PHYSICAL DAMAGE. MINIMUM SIZE CONDUIT SHALL BE 3/4" AC AND MC FLEXIBLE CABLES SHALL BE USED BY CODE. INDOOR SHANKY CIRCUIT WIRING MAY BE TYPE NM, NMC, OR NMS FOR DWELLING UNITS OR OTHER BUILDINGS PERMITTED TO BE OF TYPES IMC, IMC, IMC, OR V CONSTRUCTION. DWELLING UNIT SERVICE FEEDERS MAY BE TYPE BE OR USE CABLES IN AREAS PERMITTED BY CODE. AMPACITY FOR BE AND USE CABLES SHOWN ON THE SOR FEEDER SCHEDULE INCLUDES IN THESE DRAWINGS IS BASED ON THE 80 C AMPACITY OF TABLE 310.15(B) FOR INSTALLATION IN INSULATION. SHOULD SER CABLE NOT BE IN CONTACT WITH INSULATION CONTACT ENGINEER FOR REVISED FEEDER SIZES IN INSULATION SHALL BE AS DEFINED IN ARTICLE 310.15(B) AND AS DETERMINED BY THE LOCAL AHS. ALL SER FEEDERS LOCATED WITHIN TYPE I AND/OR II BUILDING AREAS NONCONCRETE CONSTRUCTION SHALL BE RUN IN EMT CONDUIT PER NEC. ONCE THE CONDUIT PENETRATES THE TRANSITION SLAB AND ENTER INTO THE TYPE III, IV OR V CONSTRUCTION THE SER CABLE MAY BE RUN FREELY AS ALLOWED PER NEC. ALL OTHER WIRING IN DWELLING UNITS EXCEEDING 50 AMPERES SHALL BE INSTALLED IN EMT INDOORS OR PVC OUTDOORS, WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
- 81. ALL FLEX SHALL BE LIQUID TIGHT FLEXIBLE METAL.
- 82. PROVIDE A PULL WIRE OR FISH TAPE IN ALL EMPTY CONDUITS. PROVIDE A BLANK COVER PLATE OVER ALL UNUSED BOXES INCLUDING DATA/COMM BOXES.
- 83. WHERE A SINGLE HOMERUN IS SHOWN THE CIRCUIT SHALL BE INSTALLED IN A DEDICATED CONDUIT, DO NOT COMBINE WITH OTHER CIRCUITS. WHERE A CIRCUIT HOMERUN IS NOT SHOWN THE CONTRACTOR SHALL COMBINE CIRCUITS AS FOLLOWS AND IN ACCORDANCE WITH THE NEC:
 - 1. A MAXIMUM OF THREE 20A, 1 POLE BRANCH CIRCUITS MAY BE COMBINED IN COMMON HOMERUN SHARING A COMMON NEUTRAL OR WITH SEPARATE NEUTRALS, FOR A TOTAL OF SIX CURRENT CARRYING CONDUCTORS. ALL BRANCH CIRCUITS LARGER THAN 20A SHALL BE SEPARATELY HOMERUN TO PANEL.
 - 2. EACH MULTIWIRE BRANCH CIRCUIT SHARING A COMMON NEUTRAL SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES.
- 84. CONDUCTORS SHALL BE COPPER, RATED AT NOT LESS THAN 600 VOLTS. MINIMUM SIZE SHALL BE NO. 18 AWG UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WIRE #8 AND LARGER SHALL BE STRANDED. #10 THRU #10 AND CONDUCTORS SHALL BE SOLID. ALL INSULATION TYPES SHALL BE THINWALL. FEEDER CIRCUIT CONDUCTORS MAY BE COPPER OR ALUMINUM.
- 85. 10A/10V BRANCH CIRCUITS EXCEEDING 10' IN LENGTH FROM PANEL TO FARTHEST DEVICE SHALL USE NO. 10 CONDUCTORS AND 3/4" C.
- 86. FOR EVERY WIRING DEVICE MARK THE BRANCH CIRCUIT TO WHICH IT IS CONNECTED ON THE BACK OF EACH DEVICE PLATE, USING AN INDELEIBLE MARKER PEN.
- 87. COORDINATE ALL DEVICE AND DEVICE PLATE COLORS WITH OWNER/ARCHITECT. DEVICES AND DEVICE PLATES LOCATED IN CABINETS SHALL BE A DARK COLOR TO MATCH CABINETRY FINISH.
- 88. EXACT LOCATION OF ALL FLOOR-MOUNTED OUTLETS SHALL BE COORDINATED WITH THE OWNER/ARCHITECT BEFORE ROUGH-IN.
- 89. TWO OR MORE ADJACENT POWER OR COMMUNICATION DEVICES SHALL BE BANGED WITH A COMMON FACEPLATE - IF THEY CANNOT BE BANGED THEY SHALL BE INSTALLED WITH A MINIMUM DISTANCE BETWEEN UNITS.
- 90. WALL RECEPTACLES SHOWN BACK TO BACK MAY BE OFFSET BUT SHALL BE INSTALLED DIRECTLY ADJACENT TO ONE ANOTHER.
- 91. LIGHT SWITCHES SHALL BE NO MORE THAN 6" FROM EDGE OF DOOR FRAME.
- 92. WHERE PENETRATIONS ARE MADE THROUGH A REQUIRED FIRE-RESISTIVE WALL, FLOOR, OR PARTITION FOR THE PURPOSE OF RUNNING RACEWAY CARRYING ELECTRICAL, TELEVISION OR LOCAL COMMUNICATION OR SIGNALING CIRCUITS, THE OPENING AROUND THE RACEWAY SHALL BE FIRE STOPPED PER THE STATE BUILDING CODE. COORDINATION WITH THE GENERAL CONTRACTOR SHALL BE MAINTAINED TO ENSURE THAT THIS FIRE STOPPING IS ACCOMPLISHED. USE APPROVED ASSEMBLIES SUCH AS THE FOLLOWING:
 - CONDUIT PENETRATIONS OF 1.5 x 4 HOUR GYP BOARD WALLS - UL#W1001
 - CONDUIT PENETRATIONS OF 1.5 x 4 HOUR CONCRETE OR BLOCK WALLS - UL#CA1000
 - CONDUIT PENETRATIONS OF 1.5 x 4 HOUR CONCRETE FLOORS - UL#CA1001
 - CONDUIT PENETRATIONS OF 1 HOUR GYPSOUM CEILING ASSEMBLY - L528
 - MULT. CONDUIT PENETRATIONS OF 1.5 x 4 HOUR CONCRETE OR BLOCK WALL OR FLOOR - CA1042
- 93. IN REQUIRED FIRE RATED WALLS AND PARTITIONS, OPENINGS FOR INSTALLATION OF BOXES THAT ARE GREATER THAN 16 SQUARE INCHES SHALL BE PROTECTED AS NOTED BY UL. COORDINATE CLOSELY WITH THE GENERAL CONTRACTOR TO ENSURE THAT THE INTEGRITY OF THE UL RATING IS MAINTAINED.
- 94. OUTLET BOXES FOR DEVICES MOUNTED ON OPPOSITE SIDES OF FIRE RATED PARTITIONS SHALL NOT BE MOUNTED IN THE SAME WALL CAVITY. SEPARATE WALL PENETRATIONS BY MOUNTING ON OPPOSITE SIDES OF WALL STUDS OR OTHER VERTICAL STRUCTURAL MEMBER IN THE WALL.
- 95. PRIOR TO ORDERING ANY EQUIPMENT THE ELECTRICAL CONTRACTOR SHALL PROVIDE SHOP DRAWING SUBMITTALS TO THE ARCHITECT AND ELECTRICAL ENGINEER FOR THE LIGHTING FIXTURES, ELECTRICAL GEAR, FIRE ALARM SYSTEM AND OTHER SIMILAR SYSTEMS. SHOP DRAWING SUBMITTALS SHALL BE PROVIDED REGARDLESS IF THE EQUIPMENT BEING SUPPLIED IS THE SAME AS SHOWN SPECIFIED ON THE PLANS.
- 96. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING RESTRAINTS TO RESIST THE PARTIAL FIRE EFFECTS IN THE ELECTRICAL SYSTEM. THE REQUIREMENTS FOR THOSE RESTRAINTS ARE FOUND IN THE IBC. THE FOLLOWING ARE THE REQUIREMENTS THAT SHALL COMPLY WITH IBC 1623.7:
 - CONDUIT PENETRATIONS OF 1.5 x 4 HOUR GYP BOARD WALLS - UL#W1001
 - CONDUIT PENETRATIONS OF 1.5 x 4 HOUR CONCRETE OR BLOCK WALLS - UL#CA1000
 - CONDUIT PENETRATIONS OF 1.5 x 4 HOUR CONCRETE FLOORS - UL#CA1001
 - CONDUIT PENETRATIONS OF 1 HOUR GYPSOUM CEILING ASSEMBLY - L528
 - MULT. CONDUIT PENETRATIONS OF 1.5 x 4 HOUR CONCRETE OR BLOCK WALL OR FLOOR - CA1042
- 97. IF DURING THE COURSE OF WORK THE ELECTRICAL CONTRACTOR DISCOVERS A PROBLEM WITH THE PERFORMANCE OF THE INSTALLATION RELATIVE TO THE PLANS AND SPECIFICATIONS OR NEC OR OTHER CODES, THE ELECTRICAL CONTRACTOR SHALL IMMEDIATELY BRING THE PROBLEM TO THE ATTENTION OF THE ARCHITECT AND THE GENERAL CONTRACTOR PRIOR TO THE EXECUTION OF THE WORK.
- 98. SEE PANEL SCHEDULES FOR BRANCH CIRCUIT CONDUCTOR SIZES. THE EC SHALL SIZE THE EQUIPMENT GROUNDING CONDUCTORS PER NEC TABLE 250.122. THE EC SHALL SIZE THE CONDUIT IF REQUIRED PER NEC ANNEX C. THE QUANTITY OF CONDUITS IS BASED ON THE 100% COLUMN AND FOLLOWING THE PROCESS BELOW, PARALLEL SET QUANTITIES ARE MULTIPLIED BY THE NUMBER OF:
 - 1 - PHASE (BE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
 - 1 - NEUTRAL - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
 - 1 - GROUND - PER NEC TABLE 250.122
 - CONDUIT SIZES PER NEC ANNEX C (IF REQUIRED)
- 100V/277V - 1 POLE
 - 1 - PHASE (BE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
 - 1 - NEUTRAL - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
 - 1 - GROUND - PER NEC TABLE 250.122
 - CONDUIT SIZES PER NEC ANNEX C (IF REQUIRED)
- 100V/240V/480V - 3 POLE
 - 3 - PHASE (BE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
 - 1 - NEUTRAL (EC VERIFY IF REQUIRED FOR INSTALLED EQUIPMENT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
 - 1 - GROUND - PER NEC TABLE 250.122
 - CONDUIT SIZES PER NEC ANNEX C (IF REQUIRED)
- 100V/240V/480V - 3 POLE
 - 3 - PHASE (BE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
 - 1 - NEUTRAL (EC VERIFY IF REQUIRED FOR INSTALLED EQUIPMENT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
 - 1 - GROUND - PER NEC TABLE 250.122
 - CONDUIT SIZES PER NEC ANNEX C (IF REQUIRED)

ELECTRICAL SYMBOL LEGEND

- ARCS INDICATE CIRCUITING OF COMPONENTS. PARALLEL LINES INDICATE BREAK IN CONTROL OF CIRCUIT, IN OTHER WORDS, CONTINUATION OF HOT CONDUCTOR, BUT NOT NEUTRAL. ARROWHEADS INDICATE HOMERUNS BACK TO ELECTRICAL PANEL. NUMBER OF ARROWHEADS INDICATES NUMBER OF CIRCUITS.
- ELECTRICAL CONNECTION TO EQUIPMENT:
 - JUNCTION BOX CEILING OR FLOOR MOUNTED.
 - INDICATES DATA CABLES IN J-BOX
 - INDICATES TELEPHONE CABLES IN J-BOX
 - INDICATES ISOLATED GROUND CIRCUITS IN J-BOX
 - SINGLE POLE SWITCH, 20A, 120/277V, 48" A.F.F. TO CENTER.
 - MULTI-LEVEL SWITCHING: SWITCH INDOOR AND OUTDOOR LAMPS SEPARATELY. SUBSCRIPTED "3" INDICATES THREE-WAY SWITCHING.
 - 3-WAY SWITCH, 20A, 120/277V, 48" A.F.F. TO CENTER.
 - MOTOR RATED SWITCH, 20A, 120/277V.
 - WALL MOUNTED OCCUPANCY SENSOR, 48" A.F.F. TO TOP. DUAL TECHNOLOGY ULTRASONIC AND INFRARED. MUST CUT LIGHTS OFF WITHIN 30 MINUTES OF VACANCY.
 - OVERRIDE SWITCH, 20A, 120/277V.
 - SINGLE POLE OVERRIDE TIMECLOCK CONTACTOR, 20A, 120/277V.
 - DUPLEX RECEPTACLE, 20A, 120 VOLT, 48" A.F.F. TO CENTER, UO.N.
 - "S" INDICATES GROUND FAULT PROTECTION
 - "W" INDICATES WEATHERPROOF
 - "P" INDICATES SAFETY TYPE
 - COUNTERTOP (C) RECEPTACLE, 20A, 120/277V, 6" ABOVE COUNTER.
 - DOUBLE DUPLEX RECEPTACLE, 20A, 120 VOLT, MOUNTED 18" A.F.F. TO CENTER UO.N.
 - 208V OR 240V SPECIALTY RECEPTACLE. REFER TO PANEL SCHEDULE FOR AMP RATING.
 - DUPLEX RECEPTACLE, 20A, 120 VOLT, MOUNTED 6" ABOVE COUNTER OR AT HEIGHT INDICATED.
 - USB CHARGER WITH DUPLEX TEMPOR-RESISTANT RECEPTACLE, 120 VOLT, 48" A.F.F. TO CENTER, UO.N.
 - DUPLEX RECEPTACLE, 20 AMP, 120 VOLT, CEILING MOUNTED.
 - DUPLEX RECEPTACLE, 20 AMP, 120 VOLT, FLOOR MOUNT WITH COVERPLATE. MATCH COVERPLATE TO FLOOR TILE 1:1 & 1-2 SATIN NICKEL 1-4 BRONZE.
 - FLOOR JUNCTION BOX
 - FLOOR DATA BOX
 - CABLE TELEVISION OUTLET.
 - DOORBELL BUTTON
 - DOORBELL INDICATOR
 - KEY PAD
 - TELEPHONE/DATA OUTLET, 48" A.F.F. TO CENTER, W/ 3/4" CONDUIT STUBBED OUT ABOVE ACCESSIBLE CEILING. "W" INDICATES WALL MOUNTED AT 4'-0"
 - TELEPHONE/DATA OUTLET, MOUNTED 6" TO CENTER ABOVE COUNTER, OR AT HEIGHT INDICATED BY ADJACENT NUMBER. W/ 3/4" CONDUIT STUBBED OUT ABOVE ACCESSIBLE CEILING.
 - DATA OUTLET, 48" A.F.F. TO CENTER "W" INDICATES WALL MOUNTED AT 4'-0". PROVIDE CAT 5 STYLE CABLE FROM EACH DATA BOX BACK TO A CENTRAL POINT, COORDINATE EXACT TERMINATION POINT WITH OWNER.
 - DATA OUTLET, MOUNTED 6" TO CENTER ABOVE COUNTER, OR AT HEIGHT INDICATED BY ADJACENT NUMBER. W/ 3/4" CONDUIT STUBBED OUT ABOVE ACCESSIBLE CEILING.
 - TELEPHONE BOARD, 48"X12" UNLESS NOTED OTHERWISE. PAINTED WITH FLAME RETARDANT PAINT. EXTEND 6" GROUND WIRE FROM BOARD TO SERVICE GROUND.
 - HEAVY DUTY FUSIBLE-NON-FUSIBLE DISCONNECT SWITCH, NUMBERS INDICATE FRAME/POLARS/FUSING PROVIDE NEMA 1 ENCLOSURE INSIDE. PROVIDE NEMA 3R ENCLOSURE FOR ALL SWITCHES LOCATED OUTSIDE. "F" INDICATES FUSED PER NAMEPLATE, "N" INDICATES NON FUSED.
 - EXHAUST FAN PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. WIRED BY ELECTRICAL CONTRACTOR.
 - PANEL BOARD, RECESSED OR SURFACE MOUNTED, REFER TO PANEL BOARD SCHEDULES FOR ADDITIONAL DETAILS. DASHED LINES INDICATE LIMITS OF REQUIRED CLEARANCES.
 - 2' x 4' FLUORESCENT LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR DETAILS. SHADING INDICATES FIXTURE IS AN UNSWITCHED NIGHTLIGHT.
 - 2' x 4' LOWVOLT FLUORESCENT LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR DETAILS. SHADING INDICATES FIXTURE IS AN UNSWITCHED NIGHTLIGHT.
 - FLUORESCENT STRIP LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR DETAILS. SHADING INDICATES FIXTURE IS AN UNSWITCHED NIGHTLIGHT.
 - CEILING MOUNTED LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR DETAILS. SHADING INDICATES FIXTURE IS AN UNSWITCHED NIGHTLIGHT.
 - EXIT LIGHT, WALL AND CEILING MOUNTED RESPECTIVELY, SHADING INDICATES FACE PROVIDE EMERGENCY BATTERY PACK RATED FOR 90 MINUTES OF OPERATION.
 - COMBINATION EXIT AND EMERGENCY LIGHT, WALL MOUNTED, SHADING INDICATES FACE PROVIDE EMERGENCY BATTERY PACK RATED FOR 90 MINUTES OF OPERATION.
 - EMERGENCY LIGHTS, SURFACE AND CEILING MOUNTED. REFER TO FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
 - FIRE ALARM CONTROL PANEL, FLUSH MOUNTED.
 - FIRE ALARM ANNUNCIATOR PANEL.
 - FIRE ALARM SYSTEM SPRINKLER TAMPER SWITCH.
 - FIRE ALARM SYSTEM SPRINKLER FLOW SWITCH.
 - COMBINATION AUDIAL/VISUAL FIRE ALARM SYSTEM INDICATING DEVICE. ADJACENT NUMBER INDICATES CANDELLA RATING OTHER THAN DEFAULT RATING OF 5 CANDELLAS. MOUNT DEVICE AT 84" A.F.F.
 - VISUAL ONLY FIRE ALARM SYSTEM INDICATING DEVICE. ADJACENT NUMBER INDICATES CANDELLA RATING OTHER THAN DEFAULT RATING OF 5 CANDELLAS. MOUNT DEVICE AT 84" A.F.F.
 - FIRE ALARM SYSTEM MANUAL RESET/STOP OF DEVICE, 48" A.F.F.
 - DUAL CHAMBER IONIZATION OR PHOTOELECTRIC TYPE SMOKE DETECTOR CONNECTED TO FIRE ALARM PANEL. UNIT SHALL HAVE 60% LIFE OF REQUIRED BY CODE. MOUNT AT 12'-0" MIN. LAMP, TEST SWITCH AND LIGHTING.
 - ELEVATOR RECALL.
 - CEILING MOUNTED CONTACT BOX
- A - AMPERE
C - CIRCUIT
T - TERMINAL
APF - ABOVE FINISHED FLOOR
AFB - ABOVE FINISHED GRADE
AJ - ABOVE JUNCTION
A - AIR HANDLING
C - CONTACT
C - CONTACT
E - ELECTRIC
EWC - ELECTRIC WATER COOLER
FP - FLOOR PLATE
HP - HAT PUMP
N - NON-FUSED
NTS - NOT TO SCALE
- S - GROUND
GFI - GROUND FAULT INTERRUPTER
IS - ISOLATED GROUND
STU - ROOF TOP UNIT
TX - TRANSFORMER
UN - UNLESS OTHERWISE NOTED
WH - WATER HEATER
WP - WEATHERPROOF

ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE (MAIN BUILDING)

NEW SPACE ONLY
PRESCRIPTIVE PERFORMANCE CHECK METERING NOT REQUIRED

LIGHTING SCHEDULE:
LAMP TYPE REQUIRED IN FIXTURE: SEE FIXTURE SCHEDULE
NUMBER OF LAMPS IN FIXTURE: SEE FIXTURE SCHEDULE
BALLAST TYPE USED IN THE FIXTURE: SEE FIXTURE SCHEDULE
TOTAL WATTAGE PER FIXTURE: SEE FIXTURE SCHEDULE
TOTAL WATTAGE PER FLOOR: SEE FIXTURE SCHEDULE
TOTAL INTERIOR WATTAGE SPEC'D VS. ALLOWED: 33500 vs. 35000
MINIMUM EFFICACY OF EXTERIOR LIGHTS IS 60 LUMENS/WATT

EQUIPMENT SCHEDULES WITH NON HVAC MOTORS:
MOTOR HORSEPOWER: -
NUMBER OF PHASES: -
MINIMUM EFFICIENCY: -
MOTOR TYPE: -
OF POLES: -

ADDITIONAL PERSCRPTIVE COMPLIANCE REQUIREMENTS
 506.2.1 MORE EFFICIENT MECHANICAL EQUIPMENT
 506.2.2 REDUCED LIGHTING POWER DENSITY
 506.2.3 ENERGY RECOVERY VENTILATION SYSTEMS
 506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
 506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
 506.2.6 AUTOMATIC DAYLIGHTING CONTROL SYSTEM

DESIGNER STATEMENT:
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE 2018 NORTH CAROLINA ENERGY CODE.

LIGHTING FIXTURE SCHEDULE

SYMBOL OR TAG LETTER	MANUF.	CATALOG NUMBER	LAMP DATA	NO.	WATTS	MOUNTING	DESCRIPTION
A	CREE	CP750-A-PO-F	LED 82W LED	82	82	PENDANT	PENDANT LED LIGHT UL LISTED AND SUITABLE FOR DAMP LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
A1	CREE	SCVP LED 15L 9C UNV DIM 80 WHI	LED 84W LED	84	122	PENDANT	PENDANT LED LIGHT UL LISTED AND SUITABLE FOR DAMP LOCATIONS. E.C. TO COORDINATE COLOR TEMPERATURES. REFER TO FIXTURE SCHEDULE NOTES.
A2	VISION 3 LIGHTING	196C-BL-6H-STD-87D-LED-87D-326	LED 10W LED	30	RECESSED		INDOOR LED LIGHT SUITABLE FOR WET LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
B	CREE	LAD6 41 LED 40 78 TRER 8" HAZ C/37	LED 40W LED	45	CEILING		6" LED DOWNLIGHT, UL LISTED SUITABLE FOR DAMP LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
B1	PAQ	PAQ-PO-6-10W-DIM-50K	LED 60W LED	66	10' A.F.F.		8" UTILITY LED LIGHT UL AND CUL LISTED SUITABLE FOR WET AND DAMP LOCATIONS E.C. TO COORDINATE COLOR TEMPERATURES AND MOUNTING BRACKET REQUIREMENT. REFER TO FIXTURE SCHEDULE NOTES.
B2	CORONET	R10-2FT-1TR-3000K-277-T	LED 22W LED	22	CEILING		23X2 LED LIGHT UL LISTED AND SUITABLE FOR DAMP LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
B3	LSI	XM4-FT-LED-08-50-8" HAZ	LED 76W LED	76	WALL		WALL MOUNTED DECORATIVE LIGHT FIXTURE FOR WET LOCATION. OWNER TO DECIDE THE SPECS. REFER TO FIXTURE SCHEDULE NOTES.
B4	CREE	W64-6SL-57K-10V-FD-6SL	LED 45W LED	45	WALL		4" LINEAR LED LIGHT, E.C. TO COORDINATE WITH ARCHITECTURAL FINISH FOR MOUNTING. REFER TO FIXTURE SCHEDULE NOTES.
C	CONTECH LIGHTING	RMC300K17	LED 20W LED	30	RECESSED		6" LED LIGHT CEILING LISTED AND ENERGY STAR CERTIFIED. REFER TO FIXTURE SCHEDULE NOTES.
D	CONTECH LIGHTING	RMC90K37	LED 45W LED	45	RECESSED		6" LED LIGHT CEILING LISTED AND ENERGY STAR CERTIFIED. REFER TO FIXTURE SCHEDULE NOTES.
E	LSI	X10-LED-18-50-0V-IP-FL40	LED 22W LED	22	INGROUND		INGROUND LIGHT FIXTURE FOR THE FLAG POLE ILLUMINATION. REFER TO FIXTURE SCHEDULE NOTES.
E1	SPECTRUM LIGHTING	SRM010T02EMHMD2POCKON	LED 17W LED	11	CEILING		2" ROUND DOWNLIGHT. REFER TO THE DAMP LOCATION OWNER TO DECIDE THE SPECS. REFER TO FIXTURE SCHEDULE NOTES.
F	LSI	124W T8 BIAK UNV PAK36 124FR GLS U2	LED 24W LED	24	PENDANT		24" LED PENDANT LIGHT UL LISTED. REFER TO FIXTURE SCHEDULE NOTES.
G	CREE	CR22-5L	LED 50W LED	56	CEILING		23X2 LED LIGHT UL LISTED AND SUITABLE FOR DAMP LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
H4	CREE	L54-40L-36K	LED 44W LED	44	CEILING		6" LED LIGHT FIXTURE, UL LISTED AND SUITABLE FOR DAMP LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
H8	CREE	L80-80L-40K	LED 80W LED	80	CEILING		6" LED LIGHT UL LISTED AND SUITABLE FOR DAMP LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
I	CREE	CR24-40L-ACX-10V-FD	LED 40W LED	40	CEILING		24" LED LIGHT UL LISTED AND SUITABLE FOR DAMP LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
K	CREE	ZR4C-50K-BLANK	LED 20W LED	20	CEILING		24" LED LIGHT UL LISTED AND SUITABLE FOR DAMP LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
P	LSI	124W T8 BIAK UNV PAK36 124FR GLS U2	LED 24W LED	24	PENDANT		6" LED DECORATIVE LIGHT CEILING LISTED AND ENERGY STAR CERTIFIED. REFER TO FIXTURE SCHEDULE NOTES.
S	CONTECH LIGHTING	RMC327K17	LED 20W LED	30	RECESSED		6" LED LIGHT CEILING LISTED AND ENERGY STAR CERTIFIED. REFER TO FIXTURE SCHEDULE NOTES.
T	REORGANI	REORGANI	LED 25W LED	25	RECESSED		RECESSED LED LIGHTS. REFER TO FIXTURE SCHEDULE NOTES.
U	PHILIPS	LF	LED 71	71	SURFACE		EXTERIOR WALL SCHEME, COORDINATE EXACT FINISH WITH ARCHITECT REFER TO FIXTURE SCHEDULE NOTES. PROVIDE W/ PHOTOCELL FROM MFG.
WB4	CREE	W64-6SL-57K-10V-FD-6SL	LED 45W LED	45	WALL		4" LED LIGHT UL LISTED AND SUITABLE FOR DAMP LOCATIONS. REFER TO FIXTURE SCHEDULE NOTES.
W	CHLORIDE	516-115-W-10-T	2 12W HALOGEN	26	WALL		EMERGENCY WALL PACK WITH SMART CHARGE DIAGNOSTICS AND SELF TEST DIAGNOSTICS. REFER TO FIXTURE SCHEDULE NOTES.
X	ALARM	12V-DCR REMOTE HEAD 1/8" Ø	1 LED	1	UNIVERSAL		THERMOPLASTIC EXIT, SINGLE FACE REFER TO FIXTURE SCHEDULE NOTES. REMOTE HEAD OPTION IS AVAILABLE FOR THIS FIXTURE. REFER TO PLANS FOR LOCATIONS.
Y	ALARM	SPLED-NC-XX-XX	x LED	5	UNIVERSAL		50RE LIT LED EXIT, SINGLE FACE. COORDINATE CHEVRON DIRECTIONS WITH PLANS. REFER TO FIXTURE SCHEDULE NOTES.

ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE (CARWASH)

NEW SPACE ONLY
PRESCRIPTIVE PERFORMANCE CHECK METERING NOT REQUIRED

LIGHTING SCHEDULE:
LAMP TYPE REQUIRED IN FIXTURE: SEE FIXTURE SCHEDULE
NUMBER OF LAMPS IN FIXTURE: SEE FIXTURE SCHEDULE
BALLAST TYPE USED IN THE FIXTURE: SEE FIXTURE SCHEDULE
TOTAL WATTAGE PER FIXTURE: SEE FIXTURE SCHEDULE
TOTAL WATTAGE PER FLOOR: SEE FIXTURE SCHEDULE
TOTAL INTERIOR WATTAGE SPEC'D VS. ALLOWED: 100 vs. 1500
MINIMUM EFFICACY OF EXTERIOR LIGHTS IS 60 LUMENS/WATT

EQUIPMENT SCHEDULES WITH NON HVAC MOTORS:
MOTOR HORSEPOWER: -
NUMBER OF PHASES: -
MINIMUM EFFICIENCY: -
MOTOR TYPE: -
OF POLES: -

ADDITIONAL PERSCRPTIVE COMPLIANCE REQUIREMENTS
 506.2.1 MORE EFFICIENT MECHANICAL EQUIPMENT
 506.2.2 REDUCED LIGHTING POWER DENSITY
 506.2.3 ENERGY RECOVERY VENTILATION SYSTEMS
 506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
 506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
 506.2.6 AUTOMATIC DAYLIGHTING CONTROL SYSTEM

DESIGNER STATEMENT:
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE 2018 NORTH CAROLINA ENERGY CODE.

ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE (WAREHOUSE)

NEW SPACE ONLY
PRESCRIPTIVE PERFORMANCE CHECK METERING NOT REQUIRED

LIGHTING SCHEDULE:
LAMP TYPE REQUIRED IN FIXTURE: SEE FIXTURE SCHEDULE
NUMBER OF LAMPS IN FIXTURE: SEE FIXTURE SCHEDULE
BALLAST TYPE USED IN THE FIXTURE: SEE FIXTURE SCHEDULE
TOTAL WATTAGE PER FIXTURE: SEE FIXTURE SCHEDULE
TOTAL WATTAGE PER FLOOR: SEE FIXTURE SCHEDULE
TOTAL INTERIOR WATTAGE SPEC'D VS. ALLOWED: N/A vs. N/A
MINIMUM EFFICACY OF EXTERIOR LIGHTS IS 60 LUMENS/WATT

EQUIPMENT SCHEDULES WITH NON HVAC MOTORS:
MOTOR HORSEPOWER: -
NUMBER OF PHASES: -
MINIMUM EFFICIENCY: -
MOTOR TYPE: -
OF POLES: -

ADDITIONAL PERSCRPTIVE COMPLIANCE REQUIREMENTS
 506.2.1 MORE EFFICIENT MECHANICAL EQUIPMENT
 506.2.2 REDUCED LIGHTING POWER DENSITY
 506.2.3 ENERGY RECOVERY VENTILATION SYSTEMS
 506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
 506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
 506.2.6 AUTOMATIC DAYLIGHTING CONTROL SYSTEM

DESIGNER STATEMENT:
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE 2018 NORTH CAROLINA ENERGY CODE.

ELECTRICAL DRAWING INDEX

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- E3 PARTIAL FIRST FLOOR POWER PLAN - SERVICE AND MEZZANINE ELECTRICAL PLANS
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3/10/2020



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Revisions

Number	Date	Description
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Project No: 4802.00

Drawing Title: ELECTRICAL LEGEND, NOTES & SCHEDULES

SET ISSUE DATE
MAR 4, 2020

Sheet: EI