ELECTRICAL SPECIFICATIONS

PART 1: GENERAL

A. PROVIDE ALL WORK AND MATERIALS FOR THE INSTALLATION OF COMPLETE WIRING SYSTEMS AS SPECIFIED HEREIN AND INDICATED ON THE DRAWINGS.

B. ALL ELECTRICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR.

C. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR EFFECTIVE THE DAY THE PROJECT IS ACCEPTED BY THE OWNER.

D. THE ELECTRICAL CONTRACTOR SHALL HAVE A MINIMUM OF 5 YEARS COMMERCIAL EXPERIENCE TO BE QUALIFIED TO PERFORM THE WORK HERE-IN. ANY CONTRACTOR THAT DOES NOT HAVE THE EXPERIENCE REQUIRED MAY BE REMOVED FROM THE PROJECT AT ANYTIME.

E. WORK SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE, OSHA, STATE BUILDING CODE AND ALL OTHER APPLICABLE LOCAL REQUIREMENTS. ALL WORK SHALL COMPLY WITH THE LATEST ADDITION OF NECA STANDARDS OF INSTALLATION.

F. ALL MATERIALS, DEVICES, AND APPLIANCES SHALL BE NEW, EXCEPT WHERE OTHERWISE NOTED, AND SHALL BE LISTED BY AN APPROVED TESTING AGENCY. FACTORY ASSEMBLED EQUIPMENT SHALL BE LISTED AND LABELED AS AN ASSEMBLY, ANY EQUIPMENT NOT LISTED SHALL HAVE PRIOR APPROVAL FROM THE LOCAL AUTHORITY HAVING JURISDICTION. ALL MATERIALS SHALL COMPLY WITH APPLICABLE ANSI, IEEE AND NEMA STANDARDS.

G. PROVIDE ALL CUTTING, PATCHING, CHANNELING AND CHASING FOR INSTALLATION OF WORK AND REPAIR ANY DAMAGE OF EXISTING OR NEW INSTALLATIONS AT THE CONTRACTORS EXPENSE.

H. SHOP DRAWINGS AND CATALOG DATA SHALL BE SUBMITTED FOR APPROVAL PRIOR TO BEGINNING WORK. SUBMIT FOUR COPIES OF SHOP DRAWINGS FOR LIGHTING FIXTURES, LAMPS, BALLASTS AND PANELBOARDS. SUBMIT FOUR COPIED OF CATALOG DATA FOR DISCONNECT SWITCHES AND WIRING DEVICES.

I. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR PANELBOARDS, WIRING TROUGHS, AND FUSED SWITCHES, WHITE LETTERS ON BLACK FOR 120/208 VOLT SYSTEMS. LABEL ALL BREAKERS INSIDE THE PANEL NEXT TO THE BREAKER USING THE NUMBER SCHEME INDICATED ON THE DRAWINGS.

J. AN ELECTRICAL INSPECTION CERTIFICATE SHALL BE ISSUED BY THE LOCAL INSPECTION AUTHORITIES BEFORE APPROVAL FOR FINAL PAYMENT.

K. THE CONDUIT AND NEUTRAL SYSTEM SHALL BE GROUNDED AT THE MAIN SERVICE EQUIPMENT. GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED PER N.E.C. ARTICLE 250 AND AS INDICATED ON THE DRAWINGS.

L. WIRING SHALL BE TESTED FOR CONTINUITY AND GROUNDS BEFORE BEING ENERGIZED. FAULTY WIRING SHALL BE REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER.

M. 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 CONTRACTOR SHALL IMMEDIATELY BRING THE PROBLEM TO THE ATTENTION OF THE ARCHITECT OR ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK.

N. THE ELECTRICAL CONTRACTOR SHALL CONNECT ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS, UNLESS OTHERWISE NOTED, EXCEPT FOR CONTROL WIRING FOR EQUIPMENT NOT PROVIDED BY THE ELECTRICAL CONTRACTOR. CONTROL WIRING FOR SUCH EQUIPMENT SHALL BE PROVIDED BY THE RESPECTIVE DISCIPLINE.

O. COORDINATE LOCATION AND REQUIREMENTS FOR ELECTRICAL SERVICE WITH THE POWER COMPANY. WHERE MORE THAN ONE SERVICE IS SUPPLIED TO A BUILDING, PROVIDE IDENTIFICATION AT EACH SERVICE PER NEC 230-2(B) AND AS INDICATED ON THE DRAWINGS.

P. COORDINATE LOCATION AND REQUIREMENTS FOR TELEPHONE SERVICE WITH THE TELEPHONE COMPANY AND AS INDICATED ON THE DRAWINGS.

Q. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PROVIDING TEMPORARY POWER.

PART 2: RACEWAY

A. CONDUIT SHALL BE ZINC-COATED EMT INDOORS. EMT FITTINGS SHALL BE STEEL SCREW. MINIMUM SIZE SHALL BE ½"C, UNLESS OTHERWISE NOTED. USE SCHEDULE 40 PVC OUTDOORS ABOVE 8'-0" OR BELOW GRADE. USE IMC WHERE REQUIRED BY CODE OR EXPOSED BELOW 8'-0".

B. SUPPORT ALL CONDUITS WITH STRAPS AND CLAMPS. RUN ALL CONDUIT PARALLEL OR PERPENDICULAR TO BUILDING WALLS.

C. JUNCTION AND PULL BOXES SHALL BE CODE GAUGE GALVANIZED SHEET METAL.

D. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE USED FOR EQUIPMENT CONNECTIONS, BUT NOT AS A WIRING METHOD OTHERWISE.

E. MC AND NM CABLE MAY BE USED AS A WIRING METHOD WHERE ALLOWED BY CODE.

F. RACEWAY PENETRATIONS THROUGH FLOOR SLABS AND FIRE-RATED WALLS SHALL BE FILLED WITH IMPERVIOUS, NON-SHRINK GROUT SUFFICIENTLY TIGHT TO PREVENT THE TRANSFER OF SMOKE, WATER, AND DUST. ROOF PENETRATIONS SHALL BE WITHIN THE EQUIPMENT CURB WHERE POSSIBLE.

G. CONDUIT INSTALLED UNDERGROUND OR IN CONCRETE SHALL HAVE JOINTS MADE WATER-TIGHT BY USE OF POLYTETRA-FLUOROETHYLENE TAPE. AAPPROVED SEALS SHALL BE PROVIDED IN HAZARDOUS LOCATIONS AS REQUIRED BY THE N.E.C.

PART 3: CONDUCTORS

A. ALL CONDUCTORS SHALL BE SINGLE CONDUCTOR COPPER. THHN/THWN, SOLID FOR SIZES #14 THROUGH #10. THHN/THWN STRANDED FOR SIZES #8 AND LARGER.

B. BRANCH CIRCUITS SHALL NOT BE SMALLER THAN #12 AWG. CONTROL WIRING MAY BE #14 AWG.

C. CONDUCTORS SHALL BE COLOR CODED BLACK/RED/BLUE FOR 120/208 VOLT SYSTEMS FOR A, B, AND C PHASES, RESPECTIVELY.

D. WIRING TO LIGHTING FIXTURES SHALL BE AS REQUIRED BY UL LABEL.

E. ALL BRANCH CIRCUIT CONDUITS OR CABLE ASSEMBLIES SHALL CONTAIN AN INSULATED GREEN GROUNDING CONDUCTOR SIZED PER NEC 250-122.

F. ALL CONDUCTORS INSTALLED IN VERTICAL RACEWAYS SHALL BE SUPPORTED AT INTERVALS AS REQUIRED PER NEC ARTICLE 300-19.

G. ALL EQUIPMENT AND DEVICE TERMINATIONS SHALL BE UL LISTED FOR USE WITH 75°C INSULATED CONDUCTORS AT THEIR 75°C AMPACITY.

H. PROVIDE A SEPARATE NEUTRAL FOR EACH PHASE CONDUCTOR IN ALL BRANCH CIRCUITS.

PART 4: WIRING DEVICES

A. WIRING DEVICES SHALL BE ALMOND WITH MATCHING PLASTIC COVER PLATES, SPECIFICATION GRADE AS INDICATED BELOW, EQUAL TO THE COOPER (EATON) QUALITY INDICATED. (EQUAL BY WATTSTOPPER AND LEVITON)

TOGGLE SWITCHES SHALL BE AS FOLLOWS:

SINGLE POLE 20 AMP	COOPER 1221
DOUBLE POLE 20 AMP	COOPER 1222
THREE WAY 20 AMP	COOPER 1223
FOUR WAY 20 AMP	COOPER 1224

WALL MOUNTED SENSORS SHALL BE AS FOLLOWS:

VACANCY SINGLE SWITCH	COOPER VNW-P-1001-MV
OCCUPANCY SINGLE SWITCH	COOPER ONW-P-1001-MV
VACANCY DUAL SWITCH	COOPER VNW-P-1001-DMV
OCCUPANCY DUAL SWITCH	COOPER ONW-P-1001-DMV
VACANCY DIMMER	COOPER VSW-D-010
OCCUPANCY DIMMER	COOPER OSW-D-010
VACANCY PRESET	COOPER VSW-P-010
OCCUPANCY PRESET	COOPER OSW-P-010

CEILING MOUNTED SENSORS SHALL BE AS FOLLOWS:

VACANCY SINGLE SWITCH	COOPER VAC-DT
OCCUPANCY SINGLE SWITCH	COOPER OAC-DT
POWER PACKS	COOPER SP20-RD4

DUPLEX RECEPTACLES SHALL HAVE A NYLON FACE AND SHALL BE AS FOLLOWS:

15 AMP DUPLEX	COOPER 5252
20 AMP DUPLEX	COOPER 5362
15 AMP DUPLEX-GFCI	COOPER GF5262
20 AMP DUPLEX-GFCI	COOPER GF5362
15 AMP DUPLEX-IG	COOPER IG5252
20 AMP DUPLEX-IG	COOPER IG5362

B. DUPLEX RECEPTACLES ON DEDICATED CIRCUIT SHALL BE 20 AMP. OTHER DUPLEX RECEPTACLES MAY BE 15 AMP, UNLESS OTHERWISE NOTED.

C. OUTLET BOXES SHALL NOT BE MOUNTED BACK-TO-BACK.

D. A MAXIMUM OF 10 RECEPTACLES SHALL BE ON EACH BRANCH CIRCUIT.

E. WEATHERPROOF COVERS SHALL HAVE A LID SO THAT PLUGS MAY BE INSTALLED WITHOUT COMPROMISING THE WP FUNCTION, EQUAL TO INTERMATIC GUARDIAN ONE #WP1020C.

F. ALL OUTLETS (INCLUDING TELEPHONE, CABLE TV AND DATA) SHALL HAVE COVER PLATES, BLANK IF NOT USED.

PART 5: DISCONNECT SWITCHES

A. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY TYPE IN NEMA 1 ENCLOSURES (UNLESS OTHERWISE INDICATED), FUSED OR NON-FUSED AS INDICATED. FUSED SWITCHES SHALL HAVE REJECTION-TYPE FUSE CLIPS. SWITCHES SHALL BE SQUARE D, OR EQUAL. FUSES SHALL BE CLASS R-5, TIME DELAY. A SET OF 3 SPARE FUSES OF EACH SIZE AND TYPE SHALL BE FURNISHED TO THE OWNER.

PART 6: PANELBOARDS

A. PANELBOARDS SHALL BE DEAD-FRONT SAFETY TYPE. ALL CIRCUIT BREAKERS SHALL BE MOLDED-CASE, BOLT-ON, AUTOMATIC THERMAL MAGNETIC TYPE, CALIBRATED FOR 40°C, OR AMBIENT COMPENSATION. CABINET SHALL BE 20 INCHES WIDE MINIMUM, WITH NOT LESS THAT 4-INCH WIRING GUTTERS AT TOP, SIDES, AND BOTTOM, SQUARE D "NF", "NQOD", OR EQUAL. BUS SHALL BE ALUMINUM WITH RATINGS AS INDICATED ON DRAWINGS. LUGS SHALL BE SIZED TO ACCOMMODATE CONDUCTORS INDICATED ON THE POWER RISER DIAGRAM.

B. PROVIDE HANDLE LOCK-ON DEVICES ON ALL CIRCUIT BREAKERS CONNECTED TO EMERGENCY, EXIT, AND NIGHT LIGHTING, FIRE ALARM, TELEPHONE AND SECURITY SYSTEMS.

C. CIRCUIT BREAKERS USED FOR SWITCHING OF LIGHTING OR SIGN CIRCUITS SHALL BE SWITCHING DUTY RATED AND SHALL BE MARKED "SWD".

PART 7: LIGHT FIXTURES

A. CATALOG NUMBERS GIVEN DENOTE MINIMUM QUALITY AND PERFORMANCE REQUIRED. EQUAL EQUIPMENT BY OTHER MANUFACTURERS IS ACCEPTABLE AS INDICATED ON THE LIGHT FIXTURE SCHEDULE.

B. LAY-IN FIXTURES SHALL BE SUSPENDED FROM STRUCTURE WITH 2 WIRES AT OPPOSITE CORNERS. DO NOT SUPPORT FROM CEILING GRID.

C. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF LIGHT FIXTURES.

D. ALL RECESSED LIGHTING FIXTURES SHALL BE THERMALLY PROTECTED.

PART 8: TELEPHONE/DATA SYSTEM

A. FURNISH AND INSTALL A COMPLETE TELEPHONE/DATA CONDUIT SYSTEM AS INDICATED ON THE DRAWINGS. ALL OUTLET BOXES FOR TELEPHONE AND/OR DATA JACKS SHALL BE DOUBLE GANG WITH A SINGLE-GANG OPENING.

B. PULL AND LEAVE IN EACH CONDUIT ONE PULL CORD FOR PULLING IN CABLE. ALL WIRING, OUTLETS AND EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY THE OWNERS TELE/DATA SUPPLIER.

C. TELEPHONE SERVICE CONDUITS SHALL BE PROVIDED TO THE PROPERTY LINE OR AS INDICATED ON THE DRAWINGS.

D. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A #6 AWG GREEN COPPER WIRE IN A 3/4" CONDUIT FROM THE NEAREST COLD WATER METAL MAIN TO A LUG AT THE TELEPHONE/DATA BACKBOARD.

PART 9: LIGHTING CONTROLS

A. SEE WRING DEVICES FOR WALL MOUNTED CONTROLLERS.

B. ALL SENSORS SHALL BE DUAL TECHNOLOGY ULTRASONIC AND PASSIVE INFRARED. EACH SHALL UTILIZE MULTIPLE SEGMENTED LENS WITH INTERNAL GROOVES. DEVICES SHALL HAVE POWER FAILURE MEMORY, BE COMPLIANT WITH NEMA WD7 2011 AND HAVE TIME DELAYS FROM 10 TO 30 MINUTES.

C. CEILING MOUNTED SENSORS SHALL BE SUPPLIED WITH POWER PACKS AS REQUIRED.

D. FURNISH AND INSTALL AN ELECTRONIC TIME CONTROLLER WHERE INDICATED. CONTROLLER SHALL BE CAPABLE OF SWITCHING 40 AMPERES PER POLE CONTINUOUSLY AT 120 VOLTS AND SHALL BE SPST (DPST, 3PST, DPTDT, SPDT, AS REQUIRED).

E. LIGHTING CONTACTORS SHALL SWITCH A LOAD AT 120 VOLTS, 60 HZ AND SHALL HAVE THE NUMBER OF POLES INDICATED ON THE DRAWINGS. THE CONTACTOR SHALL BE CONTINUOUSLY RATED 20 AMPERES PER POLE FOR ALL TYPES OF BALLAST AND TUNGSTEN LIGHTING AND RESISTANCE LOADS.

F. ALL LIGHTING CONTACTORS SHALL BE ELECTRICALLY HELD AND HAVE A NEMA 1 ENCLOSURE UNLESS OTHERWISE NOTED.

PART 10: FIRE ALARM SYSTEM

A. SYSTEM SHALL BE A CENTRALIZED, ANALOG, ADDRESSABLE, FULLY ELECTRONICALLY SUPERVISED (INCLUDING AUXILIARY SYSTEMS INTERCONNECT WIRING) SYSTEM LISTED BY UL IN COMPLIANCE WITH ALL APPLICABLE NFPA 72 AND OTHER STANDARDS AS WELL AS THE AMERICAN'S WITH DISABILITIES ACT (ADA). ALL FINAL CONNECTIONS, TESTING AND ADJUSTMENTS SHALL BE PERFORMED BY OR UNDER DIRECT SUPERVISION OF AN AUTHORIZED FACTORY REPRESENTATIVE. SYSTEM SHALL BE SIMPLEX, NOTIFIER, EDWARDS OR EQUAL, AS ACCEPTED BY THE ENGINEER. SYSTEM SHALL HAVE A 24HR MINIMUM BATTERY BACKUP. OR NEW DEVICES SHALL BE CONNECTED TO THE EXISTING FIRE ALARM SYSTEM IN COMPLIANCE WITH ALL APPLICABLE NFPA 72 AND OTHER STANDARDS AS WELL AS THE AMERICAN'S WITH DISABILITIES ACT (ADA). ALL FINAL CONNECTIONS, TESTING AND ADJUSTMENTS SHALL BE PERFORMED BY OR UNDER DIRECT SUPERVISION OF AN AUTHORIZED FACTORY REPRESENTATIVE. NEW DEVICES SHALL BE COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM. THE CONTRACTOR SHALL FIELD VERIFY EXACT SYSTEM MANUFACTURER AND TYPE. THE FIRE ALARM SUPPLIER SHALL VERIFY THE EXISTING SYSTEM CAN ACCOMMODATE THE NEW DEVICES PRIOR TO BID. WHEN THE EXISTING SYSTEM CAN NOT HANDLE THE DEVICES, THE FIRE ALARM SUPPLIER SHALL INCLUDE IN THEIR PRICE THE ADDITION OF NOTIFICATION APPLIANCE CIRCUITS (NAC) POWER EXTENDERS AS REQUIRED. SUPPLIER SHALL INCLUDE THE UPDATING OF EXISTING STROBES IN THE RENOVATED AREA SO THAT ALL STROBES, NEW AND EXISTING, ARE SYNCHRONIZED.

B. INITIATING DEVICE ACTIVATION SHALL CAUSE OPERATION OF THE PROPER ZONE ALARM CIRCUIT IN THE CONTROL PANEL, AND OPERATE ALL AUDIBLE INDICATING ALARMS. ALL AIR HANDLING UNITS SHALL BE STOPPED UPON ANY ALARM INPUT. EACH AIR HANDLER UNIT SHALL BE PROVIDED WITH A SYSTEM CONTROLLED RELAY TO EFFECT SHUTDOWN. ALL ALARM DEVICES AND LAMPS SHALL CONTINUE TO OPERATE UNTIL THE INITIATING DEVICE IS RESET. SUBSEQUENT ALARMS SHALL RESOUND THE SYSTEM. AN AUDIBLE AND VISUAL SIGNAL SHALL INDICATE SYSTEM TROUBLE. THE CONTROL PANEL SHALL PROVIDE FOR ACTIVATING A UL LISTED CENTRAL STATION SIGNAL.

C. MANUAL STATIONS SHALL BE NON-CODED, WITH PULL LEVER AND GLASS ROD, SEMI-FLUSH MOUNTED. COMBINATION LIGHT AND HORN SIGNALS SHALL BE FLUSH MOUNTED. WIRING SHALL BE IN CONDUIT AS PREVIOUSLY SPECIFIED, #14 AWG MINIMUM, THHN, THE USE OF PLENUM RATED CABLE IS NOT ALLOWED. ALL JUNCTION BOXES USED FOR THE FIRE ALARM SYSTEM SHALL BE PAINTED RED.

D. SPRINKLER SYSTEM TAMPER SWITCHES SHALL BE CONNECTED INTO A COMMON ZONE WHICH SHALL DISTINGUISH BETWEEN A CIRCUIT FAULT AND A CLOSED VALVE. A CLOSED VALVE SHALL BE INDICATED AS AN ALARM CONDITION, BUT WILL NOT ACTIVATE THE AUDIBLE-VISUAL DEVICES OR CAUSE A SIGNAL TO BE TRANSMITTED TO THE CENTRAL STATION.

E. WHERE REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION, THE FIRE ALARM SUPPLIER SHALL A SEPARATE SET OF PLANS FOR A SEPARATE FIRE ALARM PERMIT. THE ENGINEER IS NOT RESPONSIBLE FOR PRODUCING THESE DRAWINGS OR FOR SUBMITTING FOR THIS PERMIT, IT IS THE SOLE RESPONSIBILITY OF THE FIRE ALARM SUPPLIER.

F. ALL STROBES LOCATED WITHIN THE SAME AREA SHALL BE SYNCHRONIZED.

PART 11: FIRE STOPPING

A. ALL PENETRATIONS OF NON-RATED PENETRATIONS SHALL BE SEALED WITH RATED MATERIALS MEETING ASTM E-814.

B. PROVIDE FIRE STOPPING DEVICE(S) OR SYSTEM(S) WHICH HAVE BEEN TESTED AND LISTED AS COMPLYING WITH ASTM E-814. INSTALL THE DEVICE(S) OR SYSTEM(S) IN ACCORDANCE WITH THE CONDITIONS OF THEIR LISTING. PROVIDE THE APPROPRIATE DEVICE(S) OR SYSTEM(S) WITH AN "F" RATING EQUAL TO THE RATING OF THE ASSEMBLY BEING PENETRATED.

C. DEVICE(S) AND/OR SYSTEM(S) SHALL BE BY HILTI, 3M OR EQUIVALENT.

D. WHERE OPENINGS FOR INSTALLATION OF ELECTRICAL BOXES EXCEEDS 16 SQUARE INCHES IN RATED WALLS OR PARTITIONS, THE OPENING SHALL BE PROTECTED AS REQUIRED BY THE APPROPRIATE WALL LISTING TYPE.

PART 12: RENOVATION OF EXISTING

A. EACH BIDDER SHALL VISIT THE PROJECT SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS. FAILURE TO VISIT THE SITE SHALL NOT EXCUSE THE CONTRACTOR FROM PERFORMING THE REQUIRED WORK NOR SHALL IT BE AN ACCEPTABLE REASON FOR REQUESTING ADDITIONS TO THE CONTRACT.

B. EXISTING PORTIONS OF THE FACILITY SHALL REMAIN IN OPERATION DURING THIS RENOVATION AND/OR ADDITION. THE CONTRACTOR SHALL CAUSE AS LITTLE DISRUPTION AS POSSIBLE TO MAINTAIN THE COMFORT AND SAFETY OF THE BUILDING OCCUPANTS. ALL POWER OUTAGES SHALL BE CLOSELY COORDINATED WITH THE OWNER'S REPRESENTATIVE.

C. PROJECT INVOLVES WORK ON EXISTING ELECTRICAL PANELS AND FEEDERS REQUIRED IN OPERATING THE FACILITY. TEMPORARY POWER ARRANGEMENTS SHALL BE MADE TO SERVE THOSE AREAS AFFECTED BY THIS PROJECT.

SYMBOL SCHEDULE

Symbol	Description
	CONDUIT AND/OR WIRING SYSTEM CONCEALED IN CONSTRUCTION IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS. NUMBER OF TICKS INDICATED NUMBER OF CONDUCTORS, HOT AND NEUTRAL. NO TICKS INDICATES TWO CONDUCTORS (GROUND WIRES NOT SHOWN)
	CONDUIT AND/OR WIRING SYSTEM CONCEALED BELOW FLOOR OR FLOOR SLAB.
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
	CONDUIT STUB. TERMINATE WITH BUSHING OR CAP IF UNDERGROUND.
	BREAK IN CONDUIT, SEE PLAN FOR CONTINUATION.
	NON-RIGID RACEWAY SYSTEM
	BRANCH CIRCUIT HOMERUN TO PANEL.
J J	JUNCTION BOX SIZED PER NEC.
S	SINGLE POLE SWITCH, 20 AMP, 120/277 VOLT, COOPER 1221, OR EQUAL.
S_2	DOUBLE POLE SWITCH, 20 AMP, 120/277 VOLT, COOPER 1222, OR EQUAL.
S_3	THREE WAY SWITCH, 20 AMP, 120/277 VOLT, COOPER 1223, OR EQUAL.
S_4	FOUR WAY SWITCH, 20 AMP, 120/277 VOLT, COOPER 1224, OR EQUAL.
S_D	DIMMER SWITCH, 1200W, 120V. LUTRON NT-SERIES, UNLESS OTHERWISE NOTED. PROVIDE DOUBLE GANG J-BOX FOR DIMMERS 1600W AND ABOVE.
S_M	FRACTIONAL HORSEPOWER MANUAL MOTOR STARTER WITH O.L.'S
S_{OC}	SENSOR SWITCH OR EQUAL. WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY MANUAL ON-AUTO OFF-30MIN. TIMEOUT.
S_{DOC}	SENSOR SWITCH OR EQUAL. WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY CAPABLE OF 0-10V DIMMING. MANUAL ON-AUTO OFF-30MIN. TIMEOUT.
C	SENSOR SWITCH OR EQUAL. CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY MANUAL VIA WALL SWITCH AUTO OFF-30MIN. TIMEOUT. 2000 SQFT COVERAGE. PROVIDE POWER PACKS AND LOW VOLTAGE CONNECTIONS AS REQUIRED.
	DUPLEX RECEPTACLE, 15 AMP, 120 VOLT (USE 20 AMP FOR SINGLE RECEPTACLE ON A CIRCUIT.) MOUNT 18" A.F.F., U.O.N., COOPER 5252 OR EQUAL.
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER BACKSPLASH, OR AT 48" A.F.F. U.O.N., COOPER 5252 OR EQUAL.
	DOUBLE DUPLEX RECEPTACLE MOUNT AT 18" A.F.F. TWO NEMA 5-15R DUPLEX RECEPTACLES IN A COMMON BOX AND COVER PLATE.
GFCI	GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. NEMA 5-20R DUPLEX. ALL RECEPTACLES INSTALLED OUTSIDE, WITHIN 6' OF A SINK OR IN A KITCHEN SHALL BE GFCI.
EWC	GROUND FAULT NEMA 5-20R DUPLEX RECEPTACLE FOR ELECTRIC WATER COOLER COORDINATE LOCATION WITH PLUMBING CONTRACTOR.
USB	DOUBLE DUPLEX RECEPTACLE MOUNT AT 18" A.F.F., U.O.N. COOPER TR7745 OR EQUAL.
WP	WEATHERPROOF RECEPTACLE. NEMA 5-15R DUPLEX. COVER SHALL BE COOPER #1991 WHERE MOUNTED HORIZONTAL AND #4966 WHERE MOUNTED VERTICAL.
	DUPLEX RECEPTACLE MOUNTED IN "F" FOR FLOOR AND "C" FOR CEILING. FLOOR BOX SHALL BE CAST ALUMINUM WITH BRASS COVER.
22	WALL MOUNTED CONNECTION TO KITCHEN EQUIPMENT, NUMBER INDICATES TYPE, SEE KITCHEN EQUIPMENT SCHEDULE.
22	CONNECTION TO KITCHEN EQUIPMENT FROM FLOOR OR CEILING, NUMBER INDICATES TYPE, SEE KITCHEN EQUIPMENT SCHEDULE.
M	FRACTIONAL HORSEPOWER MOTOR CONNECTION.
3	MOTOR CONNECTION, NUMBER INDICATES HORSEPOWER.
	CONNECTION FOR WATER HEATER, VOLTAGE, PHASE AND SIZE AS INDICATED.
	CONNECTION FOR WALL HEATER, VOLTAGE, PHASE AND SIZE AS INDICATED.
TV	TELEVISION OUTLET, DOUBLE GANG BOX WITH SINGLE GANG OPENING, MOUNT AT 18" A.F.F. WITH 3/4" E.C. TO ABOVE ACCESSIBLE CEILING. CABLE PROVIDED BY OTHERS.
	TELE/DATA OUTLET, DOUBLE GANG BOX WITH SINGLE GANG OPENING, MOUNT AT 18" A.F.F. WITH 3/4" E.C. TO ABOVE ACCESSIBLE CEILING. CABLE PROVIDED BY OTHERS.
	TELE/DATA OUTLET, DOUBLE GANG BOX WITH SINGLE GANG OPENING, MOUNT ABOVE COUNTER BACKSPLASH OR AT HEIGHT NOTED, ALL OTHER THE SAME AS ABOVE.
	TELE/DATA OUTLET MOUNTED IN "F" FOR FLOOR AND "C" FOR CEILING. FLOOR BOX SHALL BE CAST ALUMINUM WITH BRASS COVER.
	ACRYLIC LENSED LIGHTING FIXTURE. LETTER IS FIXTURE TYPE, SEE LIGHT FIXTURE SCHEDULE. SUSPEND TWO OPPOSITE CORNERS WITH #10 AWG WIRE TO STRUCTURE AND ATTACH THE REMAINING TWO CORNERS TO THOSE WIRES. GRID ALONE SHALL NOT SUPPORT FIXTURE.
	DIRECT INDIRECT LIGHTING FIXTURE. LETTER IS FIXTURE TYPE, SEE LIGHT FIXTURE SCHEDULE. SUSPEND TWO OPPOSITE CORNERS WITH #10 AWG WIRE TO STRUCTURE AND ATTACH THE REMAINING TWO CORNERS TO THOSE WIRES. GRID ALONE SHALL NOT SUPPORT FIXTURE.
	STRIP FLUORESCENT LIGHT FIXTURE. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE. INDEPENDENTLY SUPPORT FIXTURE TO STRUCTURE UNLESS MOUNTED ON STRUCTURAL CEILING.
	ROUND RECESSED OR SURFACE MOUNTED LIGHT FIXTURE. LETTER INDICATES FIXTURE TYPE, SEE LIGHT FIXTURE SCHEDULE. INDEPENDENTLY SUPPORT FIXTURE TO STRUCTURE UNLESS SURFACE MOUNTED TO A STRUCTURAL CEILING.
	WALL MOUNTED ROUND LIGHT FIXTURE. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE.
	WALL MOUNTED LINEAR LIGHT FIXTURE. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE.
	ROUND, RECESSED OR SURFACE MOUNTED WALL WASH FIXTURE. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE. INDEPENDENTLY SUPPORT FIXTURE TO STRUCTURE UNLESS SURFACE MOUNTED TO A STRUCTURAL CEILING.
	DIRECTIONAL LIGHT FIXTURE, ARROW INDICATES DIRECTION OF AIMING. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE. FIXTURE USUALLY MOUNTED ON TRACK, BUT IF NOT INDEPENENTLY SUPPORT TO STRUCTURE.
	LIGHTING TRACK WITH NUMBER OF FIXTURES AS INDICATED. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE.
	FIXTURE WITH INTEGRAL 1100 LUMEN BATTERY INVERTER AND/OR ON EMERGENCY LIGHTING CIRCUIT. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE FOR TYPE AND FOR BATTERY REQUIREMENT. SUPPORT FIXTURES IN SAME MANNER AS LISTED ABOVE.
	FIXTURE WITH INTEGRAL 600 LUMEN BATTERY INVERTER AND/OR ON EMERGENCY LIGHTING CIRCUIT. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE FOR TYPE AND FOR BATTERY REQUIREMENT. SUPPORT FIXTURES IN SAME MANNER AS LISTED ABOVE.
	WALL MOUNTED EMERGENCY LIGHTING BATTERY PACK FIXTURE, SEE LIGHT FIXTURE SCHEDULE.
	CEILING OR WALL MOUNTED EXIT SIGN RESPECTIVELY. SOLID SPACES INDICATE FACES. PROVIDE ARROWS AS INDICATED ON PLANS. SEE LIGHT FIXTURE SCHEDULE.
	WALL MOUNTED COMBINATION EMERGENCY BATTERY PACK AND EXIT SIGN. SEE LIGHT FIXTURE SCHEDULE.
	BOLLARD SITE LIGHT. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE.
	GROUND MOUNTED FLOOD LIGHT, SEE DETAIL FOR MOUNTING. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE.
IC	FLUSH MOUNTED WALL INTERCOM SWITCH.
VC	FLUSH MOUNTED WALL VOLUME CONTROL.
	PUSHBUTTON.
CR	CARD READER.
	NONFUSED DISCONNECT SWITCH, SIZE AS INDCIATED ON DRAWINGS, NEMA 1 ENCLOSURE U.O.N.
	FUSED DISCONNECT SWITCH, SIZE AS INDICATED ON DRAWINGS, FUSE PER NAMEPLATE DATA OR AS INDICATED, NEMA 1 ENCLOSURE U.O.N.
	LIGHTING AND/OR POWER PANEL BOARD, SURFACE MOUNTED WITH REQUIRED CODE CLEARANCE. SEE PANEL SCHEDULE FOR AMPERAGE.
	LIGHTING AND/OR POWER PANEL BOARD, RECESSED MOUNTED WITH REQUIRED CODE CLEARANCE. SEE PANEL SCHEDULE FOR AMPERAGE.
	DISTRIBUTION PANEL BOARD, SURFACE MOUNTED WITH REQUIRED CODE CLEARANCE. SEE PANEL SCHEDULE FOR AMPERAGE.
	DISTRIBUTION PANEL BOARD, RECESSED MOUNTED WITH REQUIRED CODE CLEARANCE. SEE PANEL SCHEDULE FOR AMPERAGE.
	PLYWOOD TELEPHONE OR DATA BACKBOARD. SIZE AS INDICATED ON THE RESPECTIVE RISER DIAGRAM.
ΔY	DRY TYPE TRANSFORMER. SEE POWER RISER DIAGRAM FOR SIZE. TRANSFORMER SHALL BE FLOOR MOUNTED UNLESS OTHERWISE NOTED.
	WALL MOUNTED UTILITY METER.

ENERGY CODE NOTATION:

WITHIN 30 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE, RECORD DRAWINGS OF THE ACTUAL INSTALLATION SHALL BE PROVIDED TO THE BUILDING OWNER, INCLUDING: 1. A SINGLE-LINE DIAGRAM OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM AND 2. FLOOR PLANS INDICATING LOCATION AND AREA SERVED FOR ALL DISTRIBUTION. (REF: FBC-EC C405.5.4.1 – 7TH EDITION).

AN OPERATING MANUAL AND MAINTENANCE MANUAL BE PROVIDED TO THE BUILDING OWNER. THE MANUALS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING: 3. SUBMITTAL DATA STATING EQUIPMENT RATING AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. 4. OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED. 5. NAMES AND ADDRESSES OF AT LEAST ONE QUALIFIED SERVICE AGENCY. (REF: FBC-EC 405.5.4.2 – 7TH EDITION).

FINAL INSPECTION NOTATION:

PRIOR TO PASSING FINAL INSPECTION, THE REGISTERED DESIGN PROFESSIONAL SHALL PROVIDE EVIDENCE THAT THE LIGHTING CONTROL SYSTEMS HAVE BEEN TESTED TO ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURERS INSTRUCTIONS. FUNCTIONAL TESTING SHALL BE IN ACCORDANCE WITH SECTIONS C408.3.1.1 AND C408.3.1.3 FOR THE APPLICABLE CONTROL TYPE. (REF: FBC-EC C408.3.1 – 7TH EDITION).

ABBREVIATIONS

A	AMPERE
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CONDUIT
CKT	CIRCUIT
EWC	ELECTRIC WATER COOLER
FLA	FULL LOAD AMPS
FPN	FUSE PER NAMEPLATE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
G	GROUND
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
IG	ISOLATED GROUND
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KCMIL	THOUSAND CIRCULAR MILS
KW	KILOWATT
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MTS	MANUAL TRANSFER SWITCH
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NL	NIGHT LIGHT
NO	NORMALLY OPEN
#	NUMBER
NTS	NOT TO SCALE
P	POLE
ø	PHASE
PNL	PANELBOARD
SCWT	SCREW COVER WIRE TROUGH
SPD	SURGE PROTECTION DEVICE
SW	SWITCH
TELE/DATA	TELEPHONE/DATA
TYP	TYPICAL
UG	UNDERGROUND
V	VOLT
UON	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF
XFMR	TRANSFORMER
3R	NEMA 3R ENCLOSURE

NOTES:
1. SEE DEVICE MOUNTING ELEVATION FOR MOUNTING HEIGHTS.
2. SEE SPECIFICATIONS FOR DEVICE COLOR AND COVER PLATE STYLE.

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NORTH CAROLINA PROFESSIONAL SEAL 20607 ENGINEER E. DEAN BELK
09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

issue date:

ISSUE	NAME	DATE
	CONSTRUCTION	09/11/2026

revisions:

Revision	Date	Description
1	04/16/2026	Hilton Comments
2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM

checked by: EDB

project no: 25-104

ELECTRICAL SPECIFICATIONS AND SYMBOLS

E001

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS	FIXTURE WATTAGE	VOLTAGE	DESCRIPTION
R-1	MKS LIGHTING OR EQUAL	MKS/NDL/6NT/32W/E/35K	LED 1,980 LUMENS 3500K	32W	120V	6" APERATURE RECESSED LED DOWNLIGHT.
R-2	MKS LIGHTING OR EQUAL	MKS/NDL/2H/D/32W/E/35K	LED 3500K	32W	120V	RECESSED NARROW EDGE LED MULTILIGHT. ADJUST HEADS PER OWNER DIRECTION.
R-3	MKS LIGHTING OR EQUAL	MKS/ADL/WW/6/32W/D/E/35K	LED 1,980 LUMENS 3500K	32W	120V	6" APERATURE RECESSED LED WALL WASH DOWNLIGHT.
R-4	MKS LIGHTING OR EQUAL	MKS/NDL/6NT/32W/E/35K MKS/DLT/6R/BL	LED 1,980 LUMENS 3500K	32W	120V	6" APERATURE LENSED RECESSED LED DOWNLIGHT.
R-5	INTER-LUX OR EQUAL	ORMA R SS-E96098-W-60-5	LED 3000K	10W	120V	RECESSED LED DOWNLIGHT.
F-1	RENOVA LIGHTING OR EQUAL	22-N-L030-UNV-DM-C30-AF	LED 3,000 LUMENS 3000K	23.39W	120V	RECESSED 2X2 LED TROFFER.
F-2	RENOVA LIGHTING OR EQUAL	24-N-L040-UNV-DM-C35-AF	LED 4,000 LUMENS 3500K	29.24W	120V	RECESSED 2X4 LED TROFFER.
F-3	RENOVA LIGHTING OR EQUAL	SVN-14-N-L040-UNV-DM-C30-AF-GW	LED 4,000 LUMENS 3000K	29.24W	120V	SURFACE MOUNTED 1X4 LED FIXTURE.
W-1	TRINITY LIGHTING OWNER FURNISHED FOR REFERENCE ONLY	CUSTOM FIXTURE	LED	10W	120V	WALL MOUNTED DECORATIVE LED FIXTURE. PROVIDED BY THE OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. COORDINATE EXACT REQUIREMENTS PRIOR TO ROUGH-IN.
W-2	RENOVA LIGHTING OR EQUAL	ECS-SWA4-N-L036-UNV-SD-C50 FSS05-AF-TW	LED 3000K	30W	120V	WALL MOUNTED LED FIXTURE WITH INTEGRAL OCCUPANCY SENSOR AND EMERGENCY DRIVER. 90 MINUTE MINIMUM BATTERY.
OA6	GOTHAM LIGHTING	EVO 30/30 6ARBLANK LSS MVOLT EZ10	LED	20W	120V	6" APERATURE RECESSED LED DOWNLIGHT.
OA4	GOTHAM LIGHTING	EVO 30/30 4ARBLANK LSS MVOLT EZ10	LED	20W	120V	4" APERATURE RECESSED LED DOWNLIGHT.
OA	COOPER LIGHTING	3002A-RD 25LED2700-NFL-DIF-UNV -BK	LED 3000K	25W	120V	IN GRADE ADJUSTABLE LED FLOOD FIXTURE. WET LOCATION LISTED. BLACK FINISH.
OB	ACCLAIM OR EQUAL	FLEXPE3 W/ FLKEXL TRACK	LED	5.5W/FT	120V	LED STRIP FIXTURE.
OC	COOPER LIGHTING OR EQUAL	9004 W2 RW LED 3090 S S BZ L2 UNV RSM	LED 3000K	20W	120V	WALL MOUNT LED CYLINDER.
OD	INTER-LUX LIGHTING OR EQUAL	ORMA R SS-E96098-W-60-5	LED 3000K	20W	120V	RECESSED LED DOWNLIGHT WITH EXTENDED STAINLESS STEEL MOUNTING SCREWS.
PA-201	TRINITY LIGHTING OWNER FURNISHED FOR REFERENCE ONLY	CUSTOM FIXTURE	LED	85W	120V	PENDANT MOUNTED LED FIXTURE. PROVIDED BY THE OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. COORDINATE EXACT REQUIREMENTS PRIOR TO ROUGH-IN.
PA-203	TRINITY LIGHTING OWNER FURNISHED FOR REFERENCE ONLY	CUSTOM FIXTURE	LED	17W	120V	PENDANT MOUNTED LED FIXTURE. PROVIDED BY THE OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. COORDINATE EXACT REQUIREMENTS PRIOR TO ROUGH-IN.
PA-206	TRINITY LIGHTING OWNER FURNISHED FOR REFERENCE ONLY	CUSTOM FIXTURE	LED	25W	120V	PENDANT MOUNTED LED FIXTURE. PROVIDED BY THE OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. COORDINATE EXACT REQUIREMENTS PRIOR TO ROUGH-IN.
PA-206	TRINITY LIGHTING OWNER FURNISHED FOR REFERENCE ONLY	CUSTOM FIXTURE	LED	25W	120V	PENDANT MOUNTED LED FIXTURE. PROVIDED BY THE OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. COORDINATE EXACT REQUIREMENTS PRIOR TO ROUGH-IN.
U-1	EATON LIGHTING OR EQUAL	HU10-36-D-9-30 HU101	LED	10W	120V	LED UNDER CABINET FIXTURE.
⊗	CARPENTER LIGHTING OR EQUAL	DXT SERIES	LED	3.2W	120V	THIN CAST ALUMINUM LED EXIT SIGN. RED LETTERS. 90MIN MINIMUM OPERATION. NICAD BATTERY. WHITE HOUSING. RED LETTERS & ARROWS.
	CARPENTER LIGHTING OR EQUAL	CCKXE SERIES	LED	4.6W	120V	THIN CAST ALUMINUM LED EXIT SIGN/EMERGENCY LIGHT COMBO. RED LETTERS. 90MIN MINIMUM OPERATION. NICAD BATTERY. WHITE HOUSING. RED LETTERS. DUAL HEADS ONLY.
	CARPENTER LIGHTING OR EQUAL	CEW-18-Y-W	LED	18W	120V	WALL MOUNTED SELF CONTAINED EMERGENCY LIGHT POLYCARBONATE HOUSING WITH SELF-CONTAINED POWER PACK FOR 90MIN. OPERATION. WHITE HOUSING. DUAL HEADS ONLY.
	CARPENTER LIGHTING OR EQUAL	AWEL2-B-E-CW	LED	18.47W	120V	EXTERIOR EMERGENCY LIGHT WITH BATTERY BACKUP. AND UL WET LABEL, BLACK FINISH.

FIXTURE NOTES:

1. FIXTURES SPECIFIED PER FRANCHISE LIGHTING FIXTURE SPECIFICATIONS. SUBSTITUTIONS MUST BE APPROVED BY HILTON AND THE OWNER PRIOR TO SUBMITTING AN ALTERNATE FIXTURE PACKAGE. SUBSTITUTIONS MUST BE EQUAL IN CONSTRUCTION, FINISH, ENERGY USAGE AND PHOTOMETRY. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER, WITH CUT SHEETS AND PHOTOMETRY. THE ENGINEER MUST RECEIVE THESE WITH TIME ALLOWED TO REVIEW AND ISSUE A WRITTEN APPROVAL BACK TO THE SUBMITTING PARTY TEN(10) DAYS PRIOR TO BID. SUBSTITUTE FIXTURES SHALL BE LISTED SEPARATELY AND UNIT PRICED AT TIME OF BID, SO THAT THE ENGINEER AND OWNER CAN MAKE AN INFORMED DECISION. NO SUBSTITUTIONS WILL BE CONSIDERED AFTER THE 10 DAY PRIOR BID PROCESS ENDED.
2. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT FIXTURE LOCATIONS.
3. SUSPEND TWO OPPOSITE CORNERS WITH WIRE TO STRUCTURE. DO NOT ALLOW GRID ALONE TO SUPPORT FIXTURE.
4. WHERE FIXTURE IS INDICATED AS EMERGENCY PROVIDE AN 1100 LUMEN INVERTER BATTERY PACK AND CONNECT AS INDICATED ON DETAIL THIS SHEET.
5. FIXTURE FLANGES AND TRIMS SHALL MATCH CEILING TYPES.
6. THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE. DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES. NO SUBSTITUTIONS WILL BE ALLOWED DUE TO LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID. ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

SURGE PROTECTION DEVICE SPECIFICATION

A. SPD SHALL COMPLY WITH THE FOLLOWING STANDARDS:
   1. UNDERWRITERS LABORATORIES, INC. STANDARD NO. 1449, SECOND EDITION.
   2. IEEE STANDARD C62.11-1987;C62.33-1982;C62.41-1991; AND C62.45-1987.
   3. NATIONAL ELECTRICAL CODE ARTICLE 240-21 (EQUIPMENT COMPLYING WITH TAP CONDUCTOR RULES) AND ARTICLE 110-9 (INTERRUPTING CAPACITY).
   4. NEMA LS-1,1992.

B. SPECIFICATIONS FOR THE LIFE OF THE UNIT SHALL BE INCLUDED IN TERMS OF THE NUMBER OF "HITS" EACH UNIT CAN WITHSTAND IN THE LINE-TO-NEUTRAL MODE AT SPECIFIC SURGE CURRENT LEVELS BEFORE UNIT FAILURE UTILIZING THE CATEGORY C2 8X20 MICROSECOND CURRENT WAVEFORM TEST.

C. JOULE RATINGS SHALL BE INCLUDED ON THE SUBMITTALS.

D. SUBMIT TEST RESULTS (GRAPHS) FOR THE APPROPRIATE NEMA LS1 TESTS FOR ALL MODELS SUBMITTED SHOWING ACTUAL LET THROUGH VOLTAGES (USING 6" LEAD LENGTH AS MEASURED FROM THE POINT WHERE THE CONNECTION CONDUCTORS EXIT THE SPD ENCLOSURE).
   1. LEAD LENGTH MUST BE SPECIFIED AS WELL AS ALL APPLICABLE TEST PARAMETERS NECESSARY TO PERFORM A COMPLETE EVALUATION OF TEST RESULTS.
   2. H1 & H2 UNITS SHALL BE STATIC TESTED.
   3. L1 & L2 UNITS SHALL BE DYNAMIC TESTED @ 90 DEGREE PHASE ANGLE.

E. UNITS SHALL CONSIST OF PARALLEL CONNECTIONS ONLY. SERIES ELEMENTS ARE NOT ACCEPTABLE.

F. THE TRANSIENT SUPPRESSION DEVICE MUST BE UL LISTED UNDER THE UL 1449, JULY 1987 REVISION, AS A COMPLETE ENTITY. LISTED UL LET THROUGH VOLTAGE RATING MUST BE CLEARLY STATED.

G. UNIT SHALL EMPLOY METAL OXIDE VARISTORS AS THE PRIMARY SUPPRESSION TECHNOLOGY.

H. SYSTEM VOLTAGES:
   1. 208Y/120V, 3ø, 4 WIRE

I. THE FOLLOWING MODELS ARE ACCEPTABLE (OR APPROVED EQUAL):
   1. TYPE L1(120/208V, 3ø,4 WIRE SERVICE PANEL DEVICE) (400KA PER PHASE 200kA MIN. PER MODE.)
      a. CURRENT TECHNOLOGY #TG 200 120/208 3GY L1
      b. PSP #H2C400-MHWID
      c. CUTLER HAMMER #CPS-S3-208Y-SD-RSX-CX
      d. LIEBERT #LM 200-120Y-ANSE
   2. TYPE L2(120/208V, 3ø,4 WIRE BRANCH PANEL DEVICE) (160KA PER PHASE, 80kA MIN. PER MODE.)
      a. CURRENT TECHNOLOGY #TG 100 120/208 3GY
      b. PSP #H2C200-04-N
      c. CUTLER HAMMER #CPS-BX-208Y-SD-RSX-CX
      d. LIEBERT #LM 100-120Y-ANSE

J. ADDITIONAL FEATURES
   1. UNLIMITED KVA OR AMPERE RATING OF PROTECTED LOAD.
   2. LED INDICATORS SHALL BE UTILIZED TO INDICATE FAILURE OF PROTECTION MODULES.
   3. ALL UNITS SHALL BE ENCLOSED IN A WALL MOUNTABLE HEAVY DUTY ENCLOSURE EQUIVALENT TO A NEMA 12 RATING.
   4. 5 YEAR UNCONDITIONAL WARRANTY.

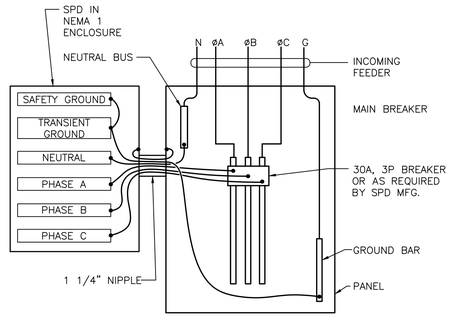
K. UNITS SHALL BE INSTALLED OF THE SAME VOLTAGE RATING AS THE INTENDED PROTECTED EQUIPMENT.

L. INSTALL UNITS WITH SHORTEST POSSIBLE LEAD LENGTH (MAXIMUM OF 18" FOR TYPE H1 AND H2 UNITS, MAXIMUM OF 6" FOR TYPE L1 AND L2 UNITS). WHERE CONDUIT IS NECESSARY TO INSTALL LEAD CONNECTION CONDUCTORS, LEADS SHALL BE INSTALLED IN RIGID NON-METALLIC CONDUIT AND SHALL NOT CONTAIN UNNECESSARY BENDS OR LOOPS.

M. INSTALL ALL H1 AND L1 UNITS ON OR IMMEDIATELY ADJACENT TO THE DISTRIBUTION SECTION OF THE SERVICE GEAR ENCLOSURES WHERE THE CONNECTION LEAD LENGTH CAN BE KEPT AS SHORT AS POSSIBLE BUT ALSO SO THAT THE INSTALLATION WILL NOT INTERFERE WITH REMOVAL OF SERVICE GEAR PANELS. PROVIDE A DEDICATED 30A,3-POLE CIRCUIT BREAKER IN SERVICE GEAR FOR CONNECTION TO EACH UNIT.

N. INSTALL ALL H2 AND L2 UNITS IMMEDIATELY ADJACENT TO THE PANEL ENCLOSURES.

O. SPD SHALL HAVE A SHORT CIRCUIT RATING EXCEEDING THE FAULT CURRENT AVAILABLE AT THE SERVICE ENTRANCE POINT.



NOTES:
1. ALL WIRING SHALL BE #8 AWG.
2. AVOID SHARP BENDS IN WIRES. ALL WIRE LENGTHS SHALL NOT EXCEED 18" (WHERE POSSIBLE).
3. SEE SPD SPECIFICATION FOR EXACT TYPE (H1, H2, L1, L2) FOR LOCATION AS INDICATED ON THE POWER RISER DIAGRAM.

1 / E002 SPD CONNECTION DETAIL
NO SCALE

HVAC AND PLUMBING EQUIPMENT SCHEDULE

DEVICE	VOLTAGE	PHASE	KW	FLA	HP	MCA	MOCP	DISCONNECT
HP-1	208V	1	.	.	.	32.0	50	60/F50-2P-3R
HP-2	208V	1	.	.	.	15.0	25	30/F25-2P-3R
HP-3	208V	1	.	.	.	24.0	40	60/F40-2P-3R
HP-4	208V	1	.	.	.	18.0	30	30/F30-2P-3R
HP-5	208V	1	.	.	.	15.0	25	30/F25-2P-3R
HP-6	208V	1	.	.	.	15.0	25	30/F25-2P-3R
HP-7	208V	1	.	.	.	32.0	50	60/F50-2P-3R
HP-8	208V	1	.	.	.	24.0	40	60/F40-2P-3R
HP-9	208V	1	.	.	.	18.0	30	30/F30-2P-3R
HP-10	208V	1	.	.	.	15.0	25	30/F25-2P-3R
SSI-1,2	208V	1	.	.	.	1.0	15	2-POLE SWITCH
SSO-1,2	208V	1	.	.	.	13.0	25	30/F25-2P-3R
WH-1	120V	1	.	.	.	.	.	MANUAL MOTOR STARTER
ESP	120V	1	.	.	4/10	.	.	MANUAL MOTOR STARTER
BP-1	208V	1	.	.	2(3)	.	.	60/FPN-2P
RCP	120V	1	0.115	.	.	.	.	MANUAL MOTOR STARTER
EWH-1	208V	1	2.0	.	.	.	.	INTEGRAL
EWH-2	120V	1	1.0	.	.	.	.	INTEGRAL
DOAS-1	208V	3	.	.	.	167.0	175	200/F175-3P-3R
DOAS-2	208V	3	.	.	.	124.0	150	200/F150-3P-3R

DEVICE	VOLTAGE	PHASE	KW	FLA	HP	MCA	MOCP	DISCONNECT
AH-1	208V	1	.	.	.	58.0	60	60/F60-2P
AH-2	208V	1	.	.	.	44.0	45	60/F45-2P
AH-3	208V	1	.	.	.	55.0	60	60/F60-2P
AH-4	208V	1	.	.	.	45.0	45	60/F45-2P
AH-5	208V	1	.	.	.	44.0	45	60/F45-2P
AH-6	208V	1	.	.	.	29.0	30	30/F30-2P
AH-7	208V	1	.	.	.	58.0	60	60/F60-2P
AH-8	208V	1	.	.	.	55.0	60	60/F60-2P
AH-9	208V	1	.	.	.	45.0	45	60/F45-2P
AH-10	208V	1	.	.	.	29.0	30	30/F30-2P
EF-1	120V	1	0.045	.	.	.	.	MANUAL MOTOR STARTER
EF-2	120V	1	0.172	.	.	.	.	MANUAL MOTOR STARTER
EF-3	120V	1	0.150	.	.	.	.	MANUAL MOTOR STARTER
EF-4	120V	1	0.150	.	.	.	.	MANUAL MOTOR STARTER
EF-5	120V	1	0.083	.	.	.	.	MANUAL MOTOR STARTER
EF-6	120V	1	0.172	.	.	.	.	MANUAL MOTOR STARTER
EF-7	120V	1	0.172	.	.	.	.	MANUAL MOTOR STARTER
EF-8	120V	1	0.150	.	.	.	.	MANUAL MOTOR STARTER
EF-9	120V	1	.	.	1/4	.	.	MANUAL MOTOR STARTER
EF-10	120V	1	.	.	1/4	.	.	MANUAL MOTOR STARTER
EF-11	120V	1	0.172	.	.	.	.	MANUAL MOTOR STARTER
PTAC-A,B	208V	1	.	.	.	19.5	20	RECEPTACLE (COORD. NEMA CONFIG.)

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09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

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LELAND, NC 28451

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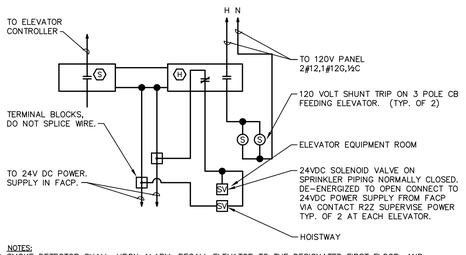
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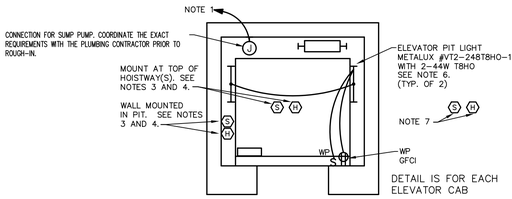
ELECTRICAL SCHEDULES AND DETAILS

E002



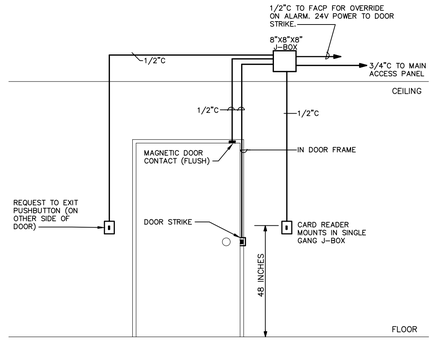
NOTES:
1. SMOKE DETECTOR SHALL, UPON ALARM, RECALL ELEVATOR TO THE DESIGNATED FIRST FLOOR, AND LOCK OUT ELEVATOR VIA ELEVATOR EQUIPMENT. HEAT DETECTOR SHALL BE FIXED TYPE WITH 135° SETTING AND WHEN IN ALARM AND ACTIVATES 120V SHUNT-TRIP TO ELEVATOR FEEDER BREAKER WITHIN PANEL. ALL DISCONNECTS SERVING ELEVATOR MOTOR CONTROLLER AND ELEVATOR CAB LIGHTS SHALL BE NEMA 3R CONSTRUCTION WITH EMBOSSED CONDUIT HUBS.
2. HEAT DETECTOR WITHIN ELEVATOR EQUIPMENT ROOM SHALL BE CONNECTED TO A DEDICATED FIRE ALARM ZONE SERVING THIS ROOM ONLY. THE SMOKE DETECTOR SHALL BE CONNECTED TO A SEPARATE DEDICATED FIRE ALARM ZONE.

13 ELEVATOR FIRE ALARM SHUTDOWN CONTROL SCHEMATIC
E003 NO SCALE

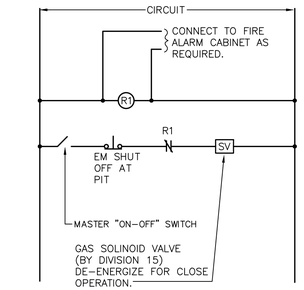


NOTES:
1. CONNECT TO 120V CIRCUIT. SEE PLANS FOR EXACT CIRCUIT DESIGNATION.
2. COORDINATE EXACT LOCATION OF ALL DEVICES WITH THE ELEVATOR SHOP DRAWINGS.
3. MOUNT SMOKE AND HEAT DETECTORS WITHIN 2'-0" OF SPRINKLER HEADS. SMOKE DETECTORS SHALL, UPON ALARM, RECALL ELEVATOR TO THE APPROPRIATE LEVEL, AND LOCK OUT ELEVATOR VIA ELEVATOR EQUIPMENT. HEAT DETECTORS SHALL CONTROL MAIN ELEVATOR POWER. SEE ELEVATOR FIRE ALARM SHUTDOWN CONTROL SCHEMATIC. HEAT DETECTORS SHALL HAVE A LOWER RESPONSE TIME INDEX (135°F) COMPARED TO THE SPRINKLER HEADS IN THE HOISTWAY.
4. WHERE HOISTWAY IS NOT SPRINKLERED, DO NOT PROVIDE SMOKE OR HEAT DETECTORS IN THE HOISTWAY.
5. LOCATE PIT LIGHT SWITCH AND CONVENIENCE RECEPTACLE ADJACENT TO ACCESS DOOR.
6. LIGHTS SHALL NOT BE CONNECTED TO THE LOAD SIDE TERMINALS OF THE CONVENIENCE RECEPTACLE.
7. MOUNT CENTERED IN ELEVATOR MACHINE ROOM.
8. MOUNT IN ELEVATOR LOBBY AT EACH LEVEL WITHIN 15'-0" OF DOOR.
9. THE SMOKE DETECTOR(S) LOCATED IN THE DESIGNATED ELEVATOR RECALL LOBBY(S) SHALL ACTUATE THE FIRST ELEVATOR CONTROL CIRCUIT. THE SMOKE DETECTORS IN THE REMAINING ELEVATOR LOBBIES SHALL ACTUATE THE SECOND ELEVATOR CONTROL CIRCUIT. THE SMOKE DETECTORS IN THE HOISTWAY(S) AND ELEVATOR MACHINE ROOM(S) SHALL ACTUATE THE THIRD ELEVATOR CONTROL CIRCUIT, AND WHERE A MACHINE ROOM IS LOCATED AT THE DESIGNATED LEVEL, THAT ELEVATOR MACHINE ROOM SMOKE DETECTOR SHALL ALSO ACTUATE THE FIRST ELEVATOR CONTROL CIRCUIT.

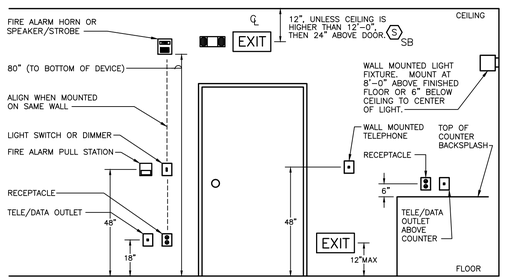
12 ELEVATOR HOISTWAY DETAIL
E003 NO SCALE



11 DOOR ACCESS CONTROL ELEVATION
E003 NO SCALE

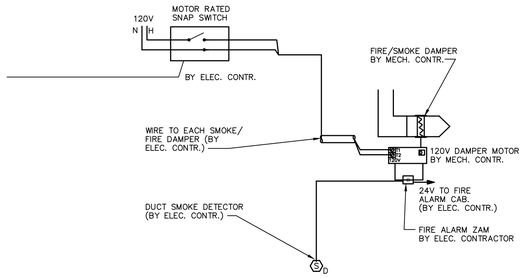


14 FIRE PIT CONTROL + WIRING DETAIL
E003 NO SCALE



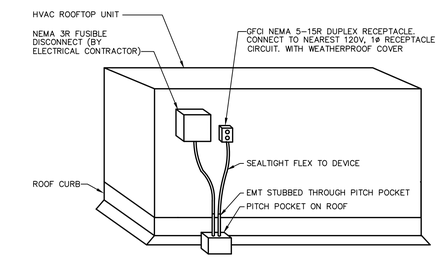
NOTES:
1. ALL DIMENSIONS ARE TO CENTER LINE OF DEVICE, UNLESS OTHERWISE NOTED.

10 DEVICE MOUNTING ELEVATION
E003 NO SCALE



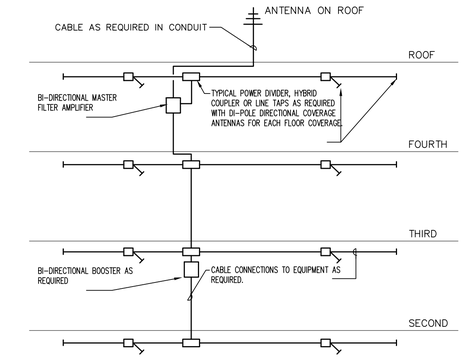
NOTES:
1. ALL FIRE/SMOKE DAMPERS SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR. ALL FIRE ALARM WIRING INSTALLED BY ELECTRICAL CONTRACTOR. 120V WIRING TO DAMPER PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.

9 SMOKE/FIRE DAMPER WIRING DETAIL
E003 NO SCALE



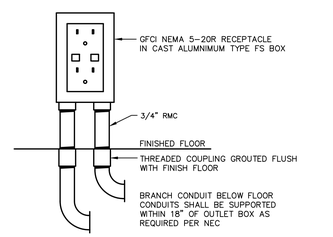
NOTE: TYPICAL FOR ALL ROOF MOUNTED HVAC EQUIPMENT.

8 ROOFTOP RECEPTACLE DETAIL
E003 NO SCALE

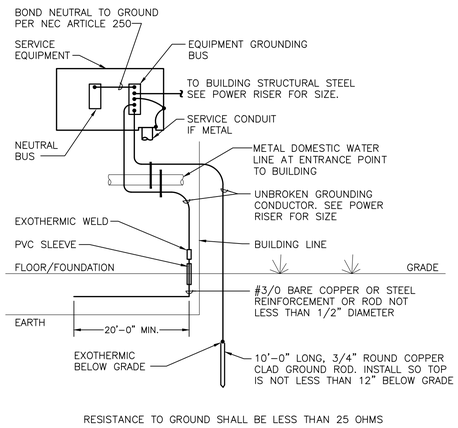


BI-DIRECTIONAL AMPLIFIER (BDA) SYSTEM REQUIREMENTS:
1. CONTRACTOR SHALL OBTAIN A BID FROM QUALIFIED COMPANY FOR THE INSTALLATION OF A SYSTEM AS REQUIRED BY THE TOWN. SEE ARTICLE V COMMERCIAL BUSINESS EMERGENCY SYSTEMS AMPLIFICATION REQUIREMENTS, SECTIONS 22-83, 22-85 THROUGH 22-88.
2. SYSTEM IS USED TO AMPLIFY THE EMERGENCY SYSTEM RADIO FREQUENCY AND IS REQUIRED IN BUILDINGS 50,000S.F. AND LARGER.
3. SOME HIGHLIGHTS ARE IT MUST HAVE 24HR BATTERY BACKUP, BE 24MHZ, BE GROUNDED TO ACHIEVE 5 OHMS OR LESS, ETC.
4. ONE MANUFACTURER OF EQUIVALENT MATERIAL IS EMR CORP, SEE EMRCORP.COM. THERE ARE NUMEROUS THAT CAN DO THE WORK AND RECOMMEND INSTALLERS IN THE AREA.
5. BDA EQUIPMENT SHALL BE INSTALLED IN THE FOLLOWING 2-HOUR RATED ROOMS.
   1ST FLOOR ELECTRICAL ROOM - #030
   2ND THRU 5TH FLOOR ELECTRICAL ROOMS - #295,#395,#495,#595
6. COAXIAL CABLING SHALL BE PLENUM RATED 2-HOUR FIRE RATED CABLING.
7. SYSTEM SHALL COMPLY WITH NFPA 1, SECTION 11.10.

7 BI-DIRECTIONAL AMPLIFIER SYSTEM DIAGRAM
E003 NO SCALE

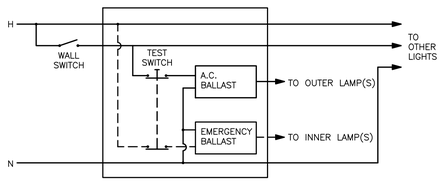


6 STUBBED UP RECEPTACLE DETAIL
E003 NO SCALE

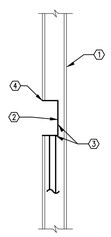


RESISTANCE TO GROUND SHALL BE LESS THAN 25 OHMS

5 SERVICE GROUNDING DETAIL
E003 NO SCALE



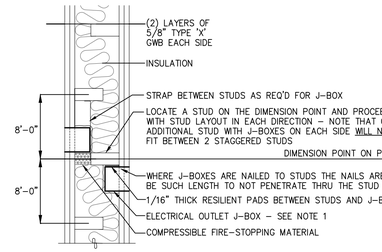
4 SWITCHED EMERGENCY LIGHTING WIRING
E003 NO SCALE



1. 1 OR 2 HOUR WALL ASSEMBLY EQUIVALENT TO UL300 OR UL400 SERIES.
2. ELECTRICAL OUTLET BOX, NOT MORE THAN 100 SQUARE INCHES PER 100 SQUARE FEET WALL AREA.
3. MOLDABLE PUTTY PADS ARE TO BE INSTALLED TO COMPLETELY COVER THE EXTERIOR SURFACES OF THE BOX WITHIN THE STUD CAVITY WITH A BALL OF THE PUTTY MATERIAL USED TO PLUG THE END OF EACH ELECTRICAL METALLIC TUBE OR CONDUIT AT ITS CONNECTION TO THE BOX.
   PUTTY PAD EQUIVALENT TO 3M #MPP-4S. 1/8" THICK PADS REQUIRED FOR 1 HOUR WALLS 1/4" THICK PADS REQUIRED FOR 2 HOUR WALLS A MAXIMUM 1/8" GAP BETWEEN BOX AND WALLBOARD.
4. WALLBOARD.

NOTE: THIS DETAIL APPLIES TO 1 AND 2 HOUR WALL ASSEMBLIES WITH 4"x4" FLUSH ELECTRICAL BOXES ON OPPOSITE SIDE OF WALLS THAT HAVE LESS THAN 24" SEPARATION BETWEEN THEM. BOXES NOT PERMITTED BACK-TO-BACK.

2 PENETRATION DETAIL
E003 NO SCALE



NOTES:
1. ELECTRICAL OUTLET BOXES AND SIMILAR BOXES FOR T.V., PHONE, ETC. IN PARTY WALLS MUST BE STEEL AND NOT OVER 16" SQUARE. SUCH BOXES ARE TO BE SEALED WITH 3M MPP-4S FIRE BARRIER PUDDY PAD OR EQUAL. STACK MULTIPLE BOXES VERTICALLY WHEN ON SAME SIDE OF WALL.
2. CONTRACTOR TO VERIFY ACCEPTABILITY OF THIS DETAIL WITH LOCAL JURISDICTION'S BUILDING INSPECTOR.
3. PROVIDE A MINIMUM OF 6" BETWEEN DEVICES AT WALLS BETWEEN GUEST ROOMS. BACK TO BACK DEVICES ARE NOT PERMITTED.

1 OUTLET J-BOX OFFSET DETAIL
E003 NO SCALE

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09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

issue date:

ISSUE	NAME	DATE
	CONSTRUCTION	09/11/2026

revisions:

Revision	Date	Description
1	04/15/2026	Hilton Comments
2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM
checked by: EDB
project no: 25-104

ELECTRICAL DETAILS

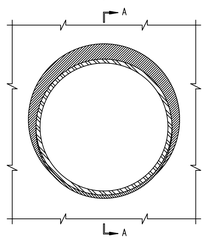
E003

U.L. SYSTEM NO. WL1054

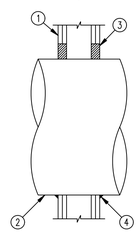
METAL PIPE THROUGH GYPSUM WALL ASSEMBLY

F RATING = 1-HR. OR 2-HR.
T RATING = 0-HR.
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = LESS THAN 4 CFM/SQ. FT.

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 30" DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 6" DIAMETER COPPER PIPE.
   C. MAXIMUM 6" DIAMETER STEEL CONDUIT.
   D. MAXIMUM 4" DIAMETER STEEL EMT.
3. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT :
   A. MINIMUM 5/8" DEPTH OF SEALANT FOR A 1-HR. FIRE-RATING.
   B. MINIMUM 1-1/4" DEPTH OF SEALANT FOR A 2-HR. FIRE-RATING.
4. MINIMUM 1/2" BEAD HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 32-1/4".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2-1/4".

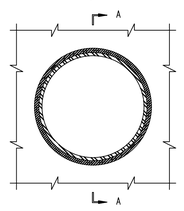
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

U.L. SYSTEM NO. WL1085

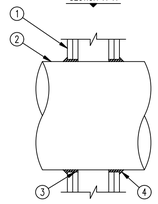
EMT THROUGH 1-HR. OR 2-HR. GYPSUM WALL ASSEMBLY

F RATING = 1-HR. AND 2-HR.
T RATING = 0-HR.
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = 4 CFM/SQ. FT.

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 12" DIAMETER STEEL PIPE (SCHEDULE 20 OR HEAVIER).
   B. MAXIMUM 12" DIAMETER CAST IRON PIPE.
   C. MAXIMUM 6" DIAMETER COPPER PIPE.
   D. MAXIMUM 6" DIAMETER EMT.
   E. MAXIMUM 6" DIAMETER STEEL CONDUIT.
3. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT FORCED INTO ANNULAR SPACE TO MAXIMUM EXTENT.
4. MINIMUM 1/2" BEAD HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT PIPE/GYPSUM WALLBOARD INTERFACE.

NOTE : ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/4".

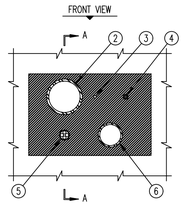
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

U.L. SYSTEM NO. WL8004

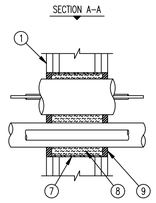
MULTIPLE METAL PIPE AND CABLE THROUGH 2-HR. GYPSUM WALL

F RATING = 2-HR.
T RATING = 1/4-HR.
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = 4 CFM/SQ. FT.

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (2-HR. FIRE-RATING).
2. MAXIMUM 3" DIAMETER ELECTRICAL METALLIC TUBING (EMT).
3. MAXIMUM 25 PAIR NO. 24 AWG (OR SMALLER) TELEPHONE CABLES.
4. MAXIMUM 3/C NO. 10 AWG NM (WITH GROUND) POWER CABLE WITH PVC INSULATION.
5. MAXIMUM 300 KCMIL (OR SMALLER) POWER CABLE WITH PVC INSULATION & NYLON JACKET.
6. MAXIMUM 2" DIAMETER STEEL PIPE, COPPER PIPE, EMT, OR STEEL CONDUIT.
7. NO. 8 STEEL WIRE MESH, 4-3/4" LONG (OR STANDARD METAL DRYWALL TRACK SCREWED SECURELY IN PLACE) CENTERED IN OPENING.
8. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
9. MIN. 1/2" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT.

NOTES : 1. MAXIMUM AREA OF OPENING = 96 SQUARE INCHES WITH A MAX. DIM. OF 12".
2. DISTANCE BETWEEN ITEMS = MINIMUM 1-3/4", MAXIMUM 7".
3. DISTANCE FROM EDGE OF OPENING = MINIMUM 1/2", MAXIMUM 7". (EXCEPTION: 300 KCMIL POWER CABLE MUST BE MINIMUM 1-1/2" FROM EDGE OF OPENING.

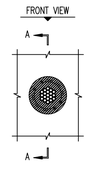
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

U.L. SYSTEM NO. WL3065

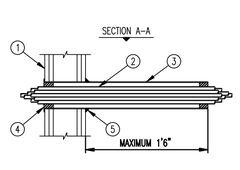
CABLE BUNDLE THROUGH 1-HR. OR 2-HR. FIRE-RATED GYPSUM WALL

F RATING = 1-HR. OR 2-HR.
T RATING = 0-HR.
L RATING AT AMBIENT = 5 CFM/SQ. FT.
L RATING AT 400°F = 2 CFM/SQ. FT.

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).
2. CABLE BUNDLE TO CONSIST OF ANY OF THE FOLLOWING :
   A. 7/C NO. 12 AWG CAGLES.
   B. 12 PAIR 24 AWG PHONE CABLES.
   C. 25 PAIR 24 AWG PHONE CABLES.
   D. RG 59 COAXIAL CABLES.
   E. 2/C (+GND) NO. 14 AWG METAL-CLAD CABLES.
   F. 2/C NO. 8 AWG METAL-CLAD CABLES.
   G. MAXIMUM 1/2" DIAMETER FIBER-OPTIC CABLES.
3. OPTIONAL : MAX. 4" NOM. DIA. STEEL PIPE SLEEVE (SCH. 40 OR THINNER)(SEE NOTE NO. 4).
4. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT :
   A. MINIMUM 5/8" DEPTH OF SEALANT FOR A 1-HR. FIRE-RATING.
   B. MINIMUM 1-1/4" DEPTH OF SEALANT FOR A 2-HR. FIRE-RATING.
5. SEE NOTE NO. 4 BELOW.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 4-1/2".
2. CABLES TO FILL MAXIMUM 33% OF AREA OF OPENING.
3. ANNULAR SPACE = MINIMUM 1/4", MAXIMUM 3/4".
4. STEEL SLEEVE MAY BE FLUSH WITH WALL SURFACE OR EXTEND UP TO 18" BEYOND WALL SURFACE IN ANY COMBINATION. WHEN SLEEVE IS FLUSH WITH WALL, APPLY HILTI FS-ONE FIRESTOP SEALANT ONTO WALL SURFACE. WHEN SLEEVE IS EX-TENDED BEYOND ONE OR BOTH SIDES OF WALL, APPLY 1/2" CROWN HILTI FS-ONE FIRESTOP SEALANT TO WALL/SLEEVE INTERFACE.

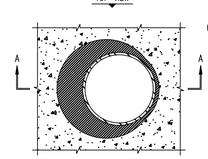
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

U.L. SYSTEM NO. CAJ1149

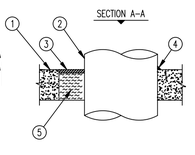
METAL PIPE THROUGH CONCRETE FLOOR, WALL, OR BLOCK WALL

F RATING = 2-HR.
T RATING = 0-HR.

TOP VIEW



SECTION A-A



1. CONCRETE FLOOR OR WALL ASSEMBLY :
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).
   B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 4-1/2" THICK).
   C. ANY U.L. CLASSIFIED CONCRETE BLOCK WALL.
2. THROUGH PENETRANTS TO INCLUDE ANY OF THE FOLLOWING :
   A. MAXIMUM 10" NOMINAL DIAMETER STEEL PIPE.
   B. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
   C. MAXIMUM 4" NOMINAL DIAMETER EMT.
   D. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
3. MIN. 1/2" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT.
4. MIN. 1/2" BEAD HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT.
5. MINIMUM 4" THICK MINERAL WOOL (MIN. 4 PCF DENSITY) (SEE NOTE NO. 4).

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 12".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2".
3. WALLS REQUIRE 1/2" DEPTH OF SEALANT FLUSH WITH BOTH SIDES.
4. IF MAXIMUM PIPE SIZE IS 4" NOM. DIA., A MINIMUM 3" THICKNESS OF MINERAL WOOL MAY BE USED.

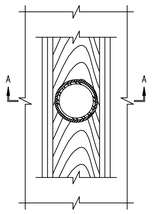
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

U.L. SYSTEM NO. FC1009

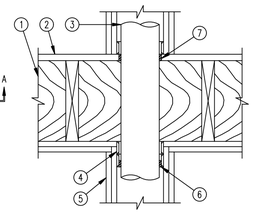
METAL PIPE/CONDUIT THROUGH 1-HR. OR 2-HR. WOOD FLOOR ASSEMBLY

F RATING = 1-HR. OR 2-HR.
T RATING = 1-HR. OR 2-HR.
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = 4 CFM/SQ. FT.

TOP VIEW



SECTION A-A



1. WOOD FLOOR ASSEMBLY : DESIGN NO. L500 SERIES IN THE U.L. FIRE RESISTANCE DIRECTORY.
2. LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD, OR FLOOR TOP MIXTURE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 40 OR HEAVIER).
   B. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
   C. MAX. 4" NOM. DIA. NOM. OR STANDARD COPPER WATER TUBE (TYPE L OR HEAVIER).
   D. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
   E. MAXIMUM 4" NOMINAL DIAMETER EMT.
4. TOP PLATE.
5. GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).
6. PROVIDE A GENEROUS BEAD OF HILTI FS 601 ELASTOMERIC FIRESTOP SEALANT OR HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT THE TOP PLATE.
7. MIN. 3/4" DEPTH HILTI FS 601 ELASTOMERIC FIRESTOP SEALANT OR FS-ONE FIRESTOP SEALANT.

NOTE : ANNULAR SPACE = MINIMUM 1/8", MAXIMUM 3/4".

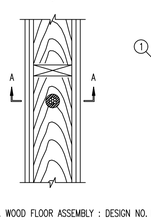
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

U.L. SYSTEM NO. FC3012

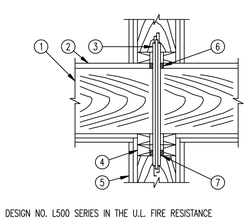
CABLE/CABLE BUNDLE THROUGH 1-HR. OR 2-HR. WOOD FLOOR ASSEMBLY

F RATING = 1-HR. OR 2-HR.
T RATING = 1-HR. OR 2-HR.
L RATING AT AMBIENT = 5 CFM/SQ. FT.
L RATING AT 400°F = 2 CFM/SQ. FT.

TOP VIEW



SECTION A-A



1. WOOD FLOOR ASSEMBLY : DESIGN NO. L500 SERIES IN THE U.L. FIRE RESISTANCE DIRECTORY.
2. LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OR LUMBER, PLYWOOD, OR FLOOR TOPPING MIXTURE.
3. MAXIMUM 2" DIAMETER CABLE BUNDLE MAY CONSIST OF ANY OF THE FOLLOWING :
   A. RG 59 COAXIAL CABLE.
   B. MAXIMUM 8/C NO. 22 AWG TELEPHONE CABLE.
   C. MAXIMUM 3/C NO. 10 AWG CABLE (ROMEX).
   D. MAXIMUM 3/C (+GRND) 2/0 AWG SER CABLE (ALUMINUM OR COPPER).
   E. MAXIMUM 2/C NO. 12 AWG CABLE.
4. TOP PLATE.
5. GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).
6. MINIMUM 3/4" DEPTH HILTI FS-ONE FIRESTOP SEALANT.
7. PROVIDE A GENEROUS BEAD OF HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRE-STOP SEALANT AT THE TOP PLATE.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 2-1/2".
2. ANNULAR SPACE BETWEEN CABLE BUNDLE AND OPENING = MIN. 0", MAX. 1/2".
3. CABLES TO FILL A MAXIMUM OF 45% OF CROSS-SECTIONAL AREA OF OPENING.

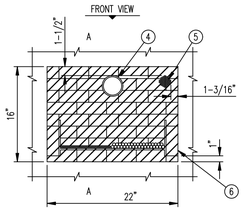
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

U.L. SYSTEM NO. WL8013

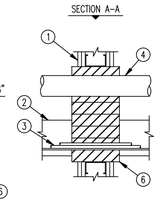
MULTIPLE PENETRATIONS THROUGH 1-HR. OR 2-HR. GYPSUM WALL

F RATING = 1-HR. OR 2-HR.
T RATING = 0-HR.
L RATING AT AMBIENT = 5 CFM/SQ. FT.
L RATING AT 400°F = 2 CFM/SQ. FT.

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).
2. STEEL OR ALUMINUM CABLE TRAY (MAXIMUM SIZE : 18" x 6").
3. ANY OF THE FOLLOWING TYPES OF CABLE MAY BE USED WITH MAX. 30% FILL ON CABLE TRAY :
   A. 500 KCMIL SINGLE CONDUCTOR POWER CABLE.
   B. 7/C NO. 12 AWG COPPER CONDUCTOR CABLE.
   C. 300 PAIR NO. 24 AWG TELEPHONE CABLE.
4. MAXIMUM 3" DIAMETER PVC PLASTIC PIPE (SCHEDULE 40)(CLOSED OR VENTED PIPING SYSTEM).
5. CABLE BUNDLE (MAX. 2" DIA.) TO CONSIST OF ANY OF THE FOLLOWING:
   A. FIBER-OPTIC CABLE.
   B. RG 59 COAXIAL CABLE.
   C. 25 PAIR NO. 24 AWG TELEPHONE CABLE.
   D. 7/C NO. 12 AWG COPPER CONDUCTOR.
6. HILTI FS 657 FIRESTOP BLOCKS (2" x 5" x 8" DEEP, REF: FRONT VIEW).

NOTES : 1. NOT SHOWN: PENETRATING ITEMS MAY ALSO INCLUDE A MAX. 4" DIA. STEEL OR COPPER PIPE, EMT, OR STEEL CONDUIT WITH A MAX. 1-1/2" GLASS-FIBER PIPE INSULATION OR NON-INSULATED MAX. 4" STEEL PIPE, EMT, OR CONDUIT.
2. ANNULAR SPACE = MINIMUM 1".
3. INSTALL HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT IN ANY VOID THAT MAY EXIST (AROUND PENETRATING ITEMS, OR BETWEEN BLOCKS).

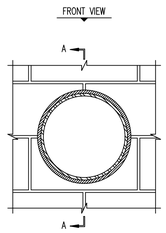
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

U.L. SYSTEM NO. WJ1042

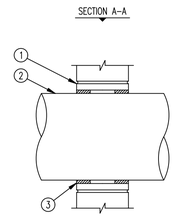
METALLIC PIPE THROUGH 4-HR. CONCRETE OR CONCRETE BLOCK WALL

F RATING = 4-HR.
T RATING = 0-HR.

FRONT VIEW



SECTION A-A



1. CONCRETE WALL ASSEMBLY (4-HR. FIRE-RATING) :
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL.
   B. ANY U.L. CLASSIFIED CONCRETE BLOCK WALL ASSEMBLY.
2. PENETRATING ITEM TO BE ANY ONE OF THE FOLLOWING :
   A. MAXIMUM 12" DIAMETER STEEL PIPE.
   B. MAXIMUM 6" DIAMETER COPPER PIPE.
   C. MAXIMUM 6" DIAMETER STEEL CONDUIT.
   D. MAXIMUM 4" DIAMETER EMT.
3. MIN. 2" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 13-3/4".
2. ANNULAR SPACE = MINIMUM 3/8", MAXIMUM 1/2".

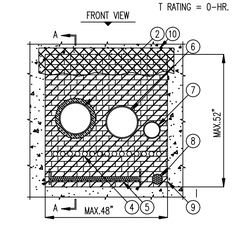
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

U.L. SYSTEM NO. WJ8007

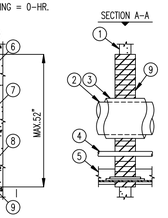
MULTIPLE PENETRATING ITEMS THROUGH CONCRETE FLOOR OR WALL

F RATING = 4-HR.
T RATING = 0-HR.

FRONT VIEW



SECTION A-A



1. CONCRETE FLOOR OR WALL ASSEMBLY (MINIMUM 4-1/2" THICK).
2. MAXIMUM 12" DIAMETER STEEL PIPE OR MAXIMUM 6" DIAMETER COPPER PIPE.
3. MAXIMUM 1-1/2" THICK GLASS-FIBER PIPE INSULATION.
4. 1-1/2" DIAMETER STEEL CONDUIT (MAXIMUM QUANTITY = 15).
5. STEEL OR ALUMINUM CABLE TRAY (MAXIMUM SIZE : 36" x 6") WITH ANY OF THE FOLLOWING TYPES OF CABLE MAY BE USED WITH MAXIMUM 30% FILL OF CABLE TRAY :
   A. MAXIMUM 500 KCMIL SINGLE CONDUCTOR POWER CABLE.
   B. MAXIMUM 7/C NO. 12 AWG COPPER CONDUCTOR CABLE.
   C. MAXIMUM 300 PAIR NO. 24 AWG TELEPHONE CABLES.
6. MAXIMUM 30" DIAMETER STEEL PIPE (12" DIAMETER PIPE SHOWN).
7. 6" DIAMETER STEEL PIPE.
8. MAXIMUM 4" DIAMETER CABLE BUNDLE TO INCLUDE ANY OF THE FOLLOWING :
   A. FIBER-OPTIC CABLE (MAX. 1/2" DIA).
   B. ROMEX (2/C NO. 10 +GROUND).
   C. 25 PAIR NO. 24 AWG TELEPHONE CABLES.
   D. 7/C NO. 12 AWG CABLES.
   E. RG 62A COAXIAL CABLES.
   F. METAL CLAD CABLE (MAX. 3/4" DIA.).
9. HILTI FS 657 INTUMESCENT FIRESTOP BLOCK (2" TALL x 5" WIDE x 8" DEEP, REF: FRONT VIEW).
10. SEE NOTE NO. 4 BELOW.

NOTES : 1. ANNULAR SPACING FOR CABLE TRAY = MINIMUM 1-1/2".
2. ANNULAR SPACING FOR PIPE AND CABLE PENETRATIONS = MINIMUM 1".
3. INSTALL HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT IN ANY VOID THAT MAY EXIST (AROUND CABLE TRAY, CABLES, OR PIPE PENETRATIONS).
4. IF THE ANNULAR SPACE IS GREATER THAN 1", PROVIDE A STEEL WIRE MESH (NOMINAL 2" SQUARES, NO. 16 SWG). INSTALL ON EACH SIDE OF WALL ASSEMBLY.
5. MAXIMUM AREA OF OPENING = 2496 SQUARE INCHES.

SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
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NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER F. DEAN BELK
09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

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ISSUE	NAME	DATE
	CONSTRUCTION	09/11/2026

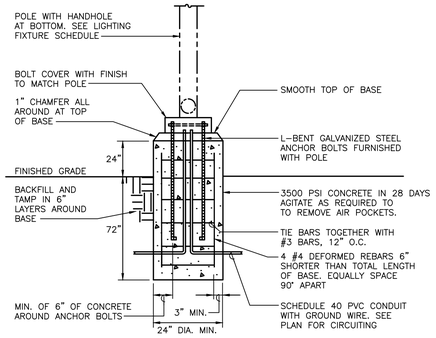
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Revision	Date	Description
1	04/15/2026	Hilton Comments
2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM
checked by: EDB
project no: 25-104

ELECTRICAL FIRE PENETRATION DETAILS

E004

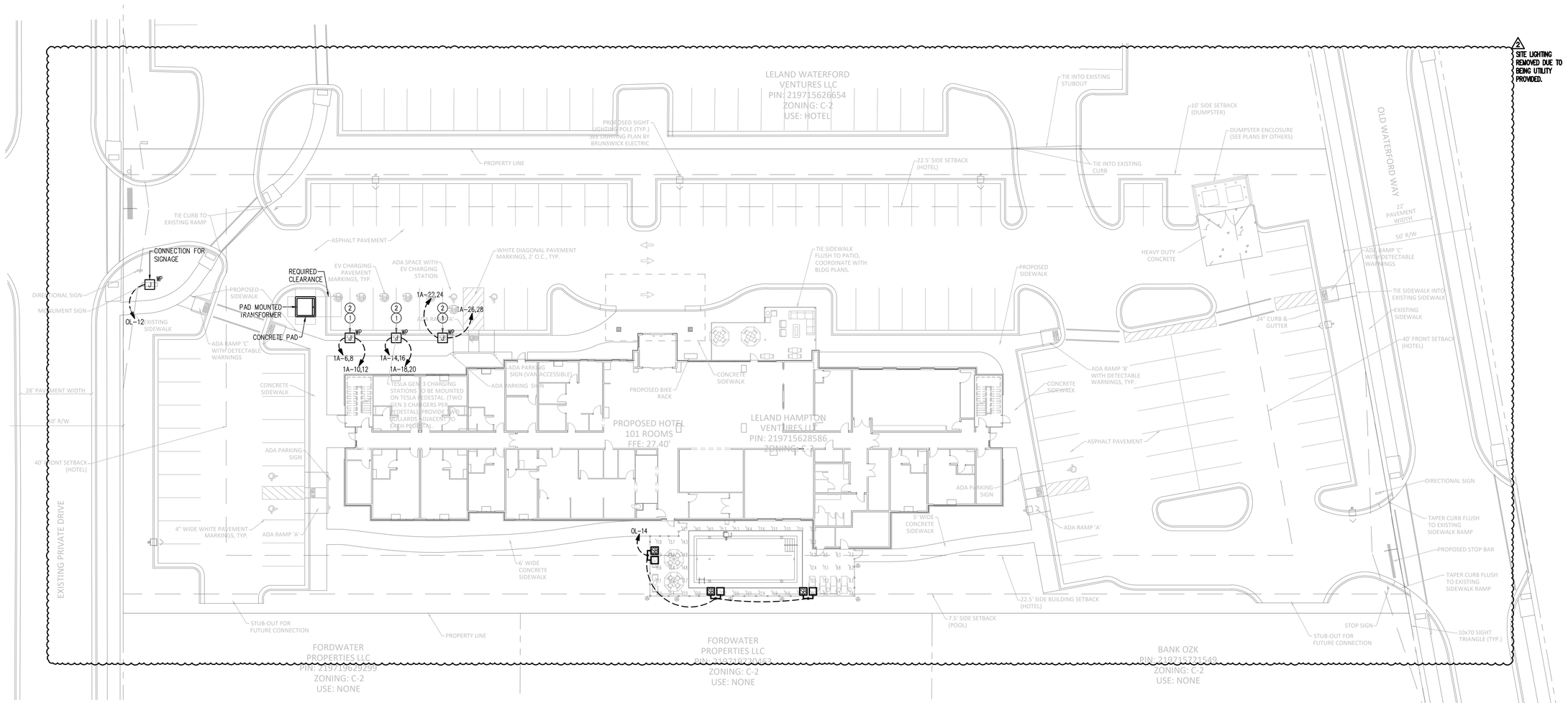


2 / E100 **POLE BASE DETAIL**

NOT TO SCALE

SITE LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS	FIXTURE WATTAGE	VOLTAGE	DESCRIPTION
SA	COOPER LIGHTING	PRV PA2B 730 U T3 SA BZ HSS	LED 3,000K	151W	120/277V	LED POLE LIGHT, TYPE III DISTRIBUTION WITH HOUSE SIDE SHIELD, FLAT GLASS LENS, WET LOCATION LABEL, ARM MOUNT. FULL CUT-OFF. MOUNT ON 30'-0" POLE.
SB	COOPER LIGHTING	TWO(2) PRV PA2B 730 U T4 SA BZ HSS	LED 3,000K	302W	120/277V	LED POLE LIGHT, TWO(2) TYPE IV DISTRIBUTION WITH HOUSE SIDE SHIELD, FLAT GLASS LENS, WET LOCATION LABEL, ARM MOUNT. FULL CUT-OFF. MOUNT ON 25'-0" POLE.
SC	COOPER LIGHTING	TWO(2) PRV PA2B 730 U T5 SA BZ	LED 3,000K	302W	120/277V	LED POLE LIGHT, TWO(2) TYPE V DISTRIBUTION, FLAT GLASS LENS, WET LOCATION LABEL, ARM MOUNT. FULL CUT-OFF. MOUNT ON 30'-0" POLE.
SD	COOPER LIGHTING	PRV PA2B 730 U T4 SA BZ HSS	LED 3,000K	151W	120/277V	LED POLE LIGHT, TYPE IV DISTRIBUTION WITH HOUSE SIDE SHIELD, FLAT GLASS LENS, WET LOCATION LABEL, ARM MOUNT. FULL CUT-OFF. MOUNT ON 30'-0" POLE.



2 **SITE LIGHTING REMOVED DUE TO BEING UTILITY PROVIDED.**

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING	Illuminance	Fc	3.05	5.0	1.1	2.77	4.55
POOL DECK	Illuminance	Fc	11.98	15.3	7.3	1.64	2.10
PROPERTY LINE	Illuminance	Fc	0.87	5.4	0.1	8.70	54.00

1 / E100 **SITE PLAN - ELECTRICAL**

SCALE: 1" = 20'

KEYED NOTES: (4)

1. CONNECTION FOR DUAL E.V. CAR CHARGING STATION. TWO(2) 60A, 208V,1ø CONNECTIONS. COORDINATE THE EXACT LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN. IF AN INTEGRAL DISCONNECT IS NOT PRESENT ON THE CHARGER THE E.C. SHALL PROVIDE A 60/F60-2P-3R HEAVY DUTY SAFETY SWITCH.
2. E.C. SHALL PROVIDE A WEATHERPROOF JUNCTION BOX WITH ONE(1) 2" E.C. WITH PULLSTRINGS TO THE PANEL SERVING THE E.V. CHARGERS FOR ADDITIONAL FUTURE E.V. CHARGERS.

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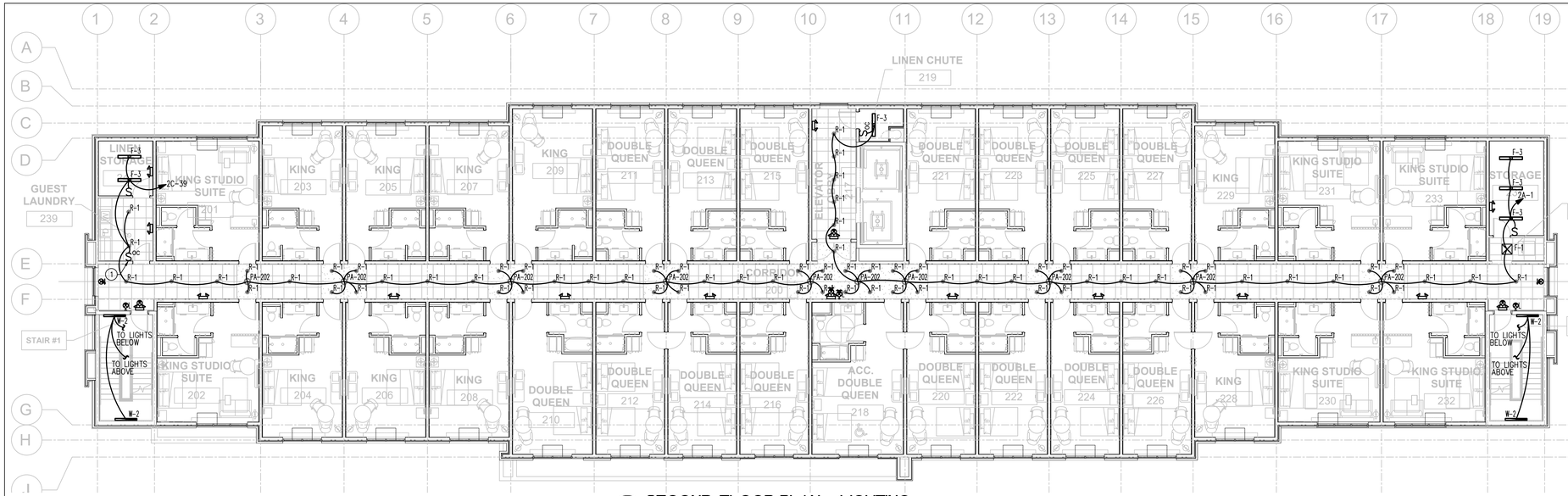
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2	07/14/2026	Site Lighting Coord.
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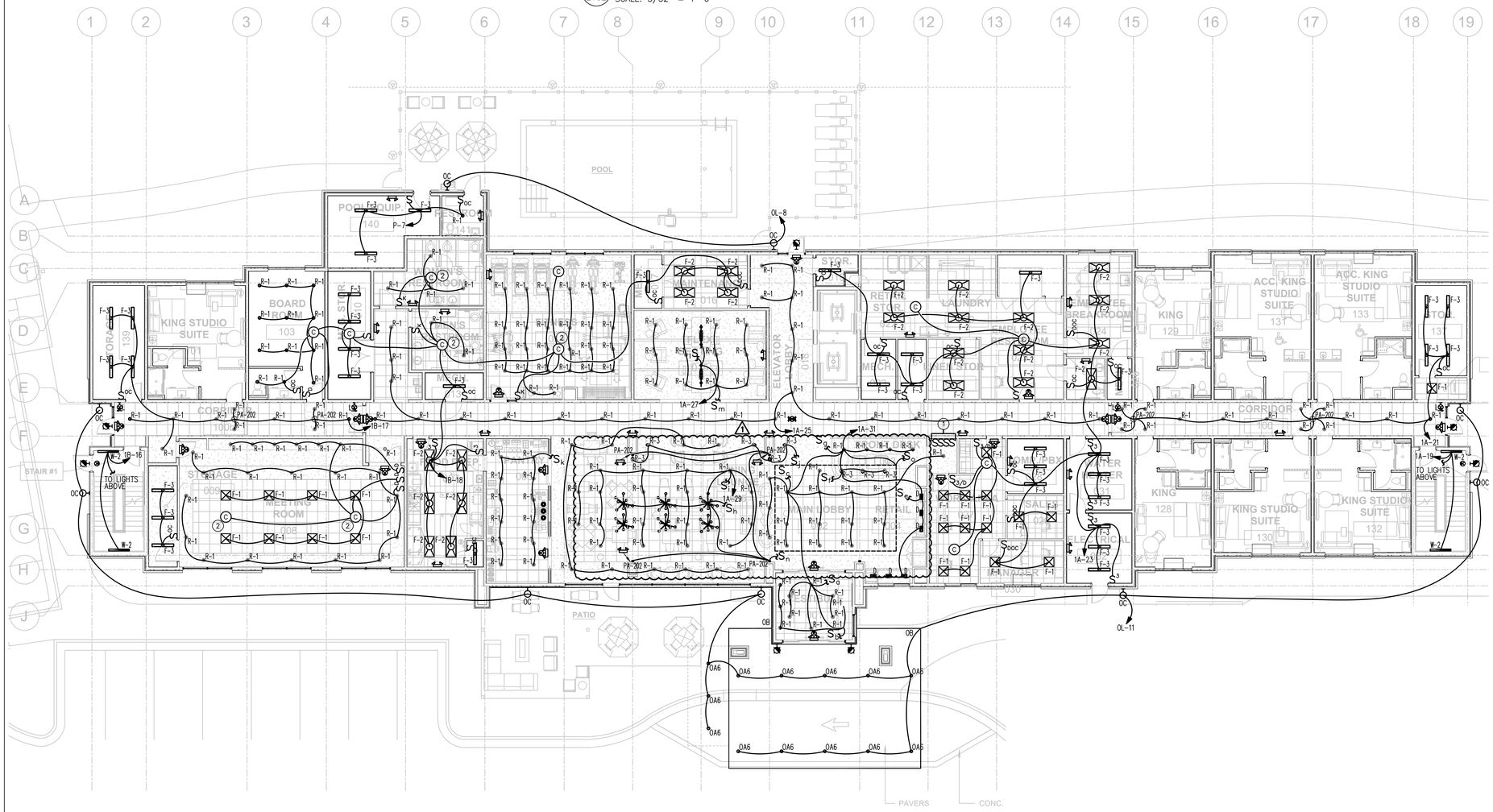
drawn by: MSM
checked by: EDB
project no: 25-104

ELECTRICAL SITE PLAN

E100



2 / E102 SECOND FLOOR PLAN - LIGHTING
SCALE: 3/32" = 1'-0"



1 / E101 FIRST FLOOR PLAN - LIGHTING
SCALE: 3/32" = 1'-0"

KEYED NOTES: (#)
1. SWITCH BANK LOCATION. SEE SWITCH BANK DETAIL THIS SHEET.
2. OCCUPANCY SENSOR IN THIS ROOM SHALL ONLY REDUCE LIGHTING TO 50% OUTPUT FOR GUEST SAFETY.

GENERAL NOTES:
1. CONNECT EMERGENCY LIGHTS AND EXIT SIGNS TO THE LOCAL LIGHTING CIRCUIT AHEAD OF ALL CONTROLS.
2. EXIT SIGNS NOTED AS "L" SHALL BE MOUNTED 12" MAX A.F.F., SEE DEVICE MOUNTING DETAIL #1/E003.

S_a VESTIBULE	S_b VESTIBULE	S_c LOBBY	S_d LOBBY
S_e RETAIL	S_f FRONT DESK	S_g FRONT DESK	S_h DINING LOUNGE
S_i DINING LOUNGE	S_j DINING LOUNGE	S_k PANTRY	S_l FLEX SEATING
S_m FLEX SEATING	S_n SCONCES	S_o COVE	

2 / E-101 LOBBY SWITCH BANK DETAIL
NO SCALE

NOTES:
1. PROVIDE DIMMER SWITCHES PER FIXTURE REQUIREMENTS.

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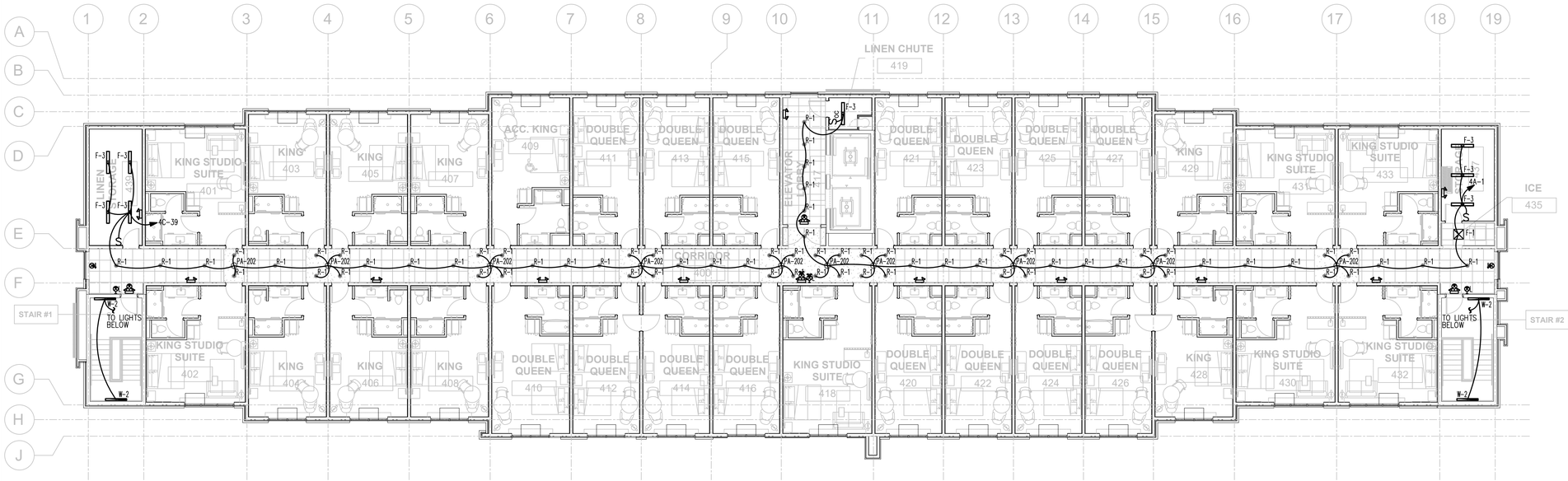
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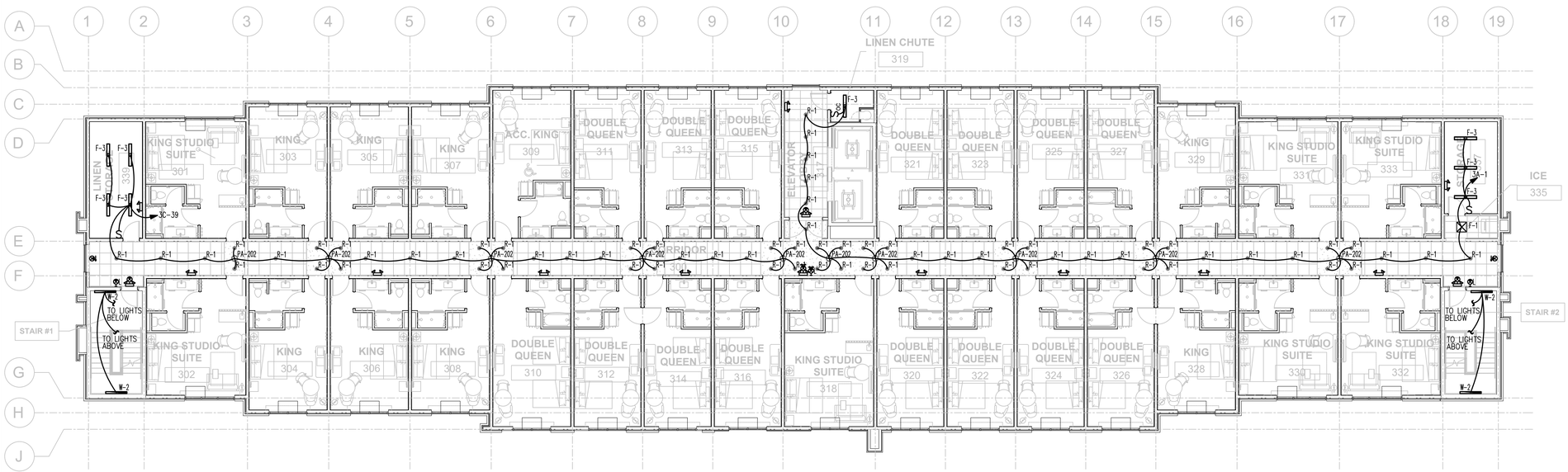
FIRST AND SECOND FLOOR LIGHTING PLANS

E101



2 E102 **FOURTH FLOOR PLAN - LIGHTING**

SCALE: 3/32" = 1'-0"



1 E102 **THIRD FLOOR PLAN - LIGHTING**

SCALE: 3/32" = 1'-0"

KEYED NOTES: (#)
1. OCCUPANCY SENSOR IN THIS ROOM SHALL ONLY REDUCE LIGHTING TO 50% OUTPUT FOR GUEST SAFETY.

GENERAL NOTES:
1. CONNECT EMERGENCY LIGHTS AND EXIT SIGNS TO THE LOCAL LIGHTING CIRCUIT AHEAD OF ALL CONTROLS.
2. EXIT SIGNS NOTED AS "L" SHALL BE MOUNTED 12" MAX A.F.F., SEE DEVICE MOUNTING DETAIL #1/E003.

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09-11-26

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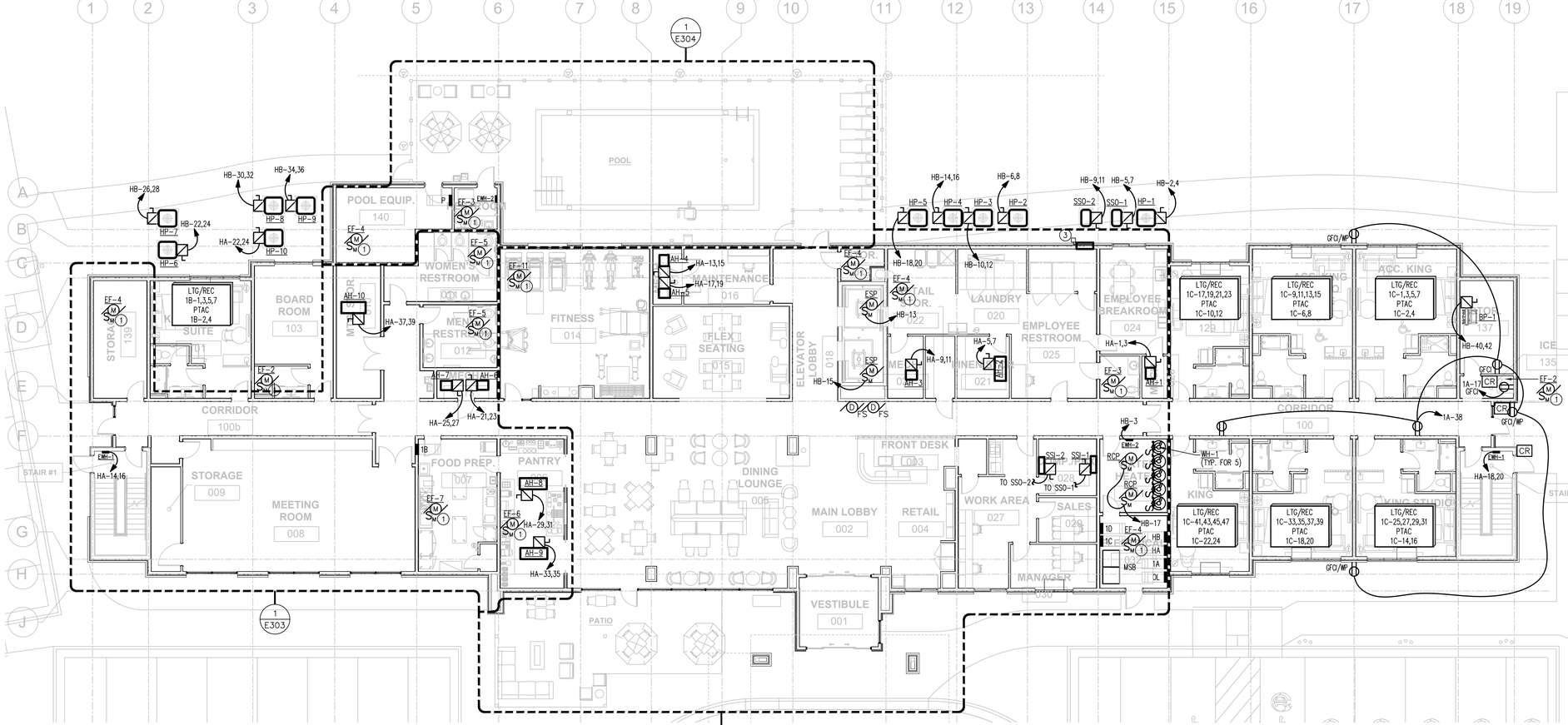
drawn by: MSM
checked by: EDB
project no: 25-104

THIRD AND FOURTH FLOOR LIGHTING PLANS

E102



2 E201 **SECOND FLOOR PLAN - POWER**
SCALE: 3/32" = 1'-0"



1 E201 **FIRST FLOOR PLAN - POWER**
SCALE: 3/32" = 1'-0"

KEYED NOTES:
1. CONNECT EXHAUST FAN TO THE LOCAL LIGHTING CIRCUIT. COORDINATE THE FAN CONTROLS WITH THE MECHANICAL DRAWINGS PRIOR TO ROUGH-IN.
2. CONNECT FIRE SMOKE DAMPERS ON SECOND FLOOR TO CIRCUIT 1A-15.
3. CONNECT FIRE SMOKE DAMPERS ON SECOND FLOOR TO CIRCUIT 2A-15.

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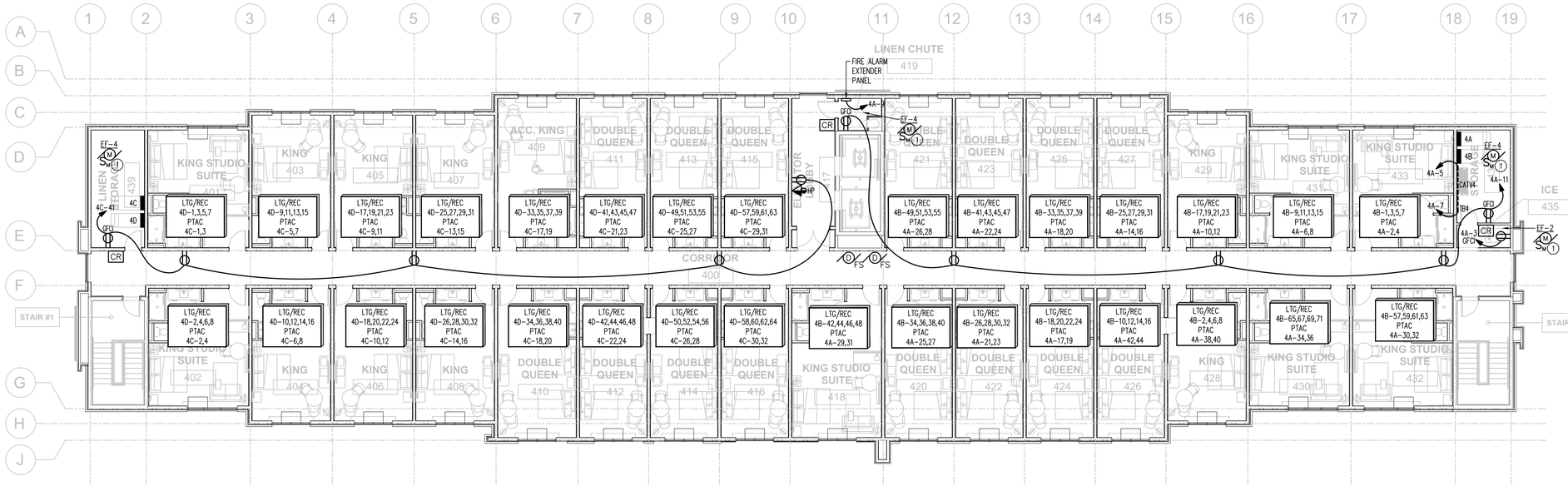
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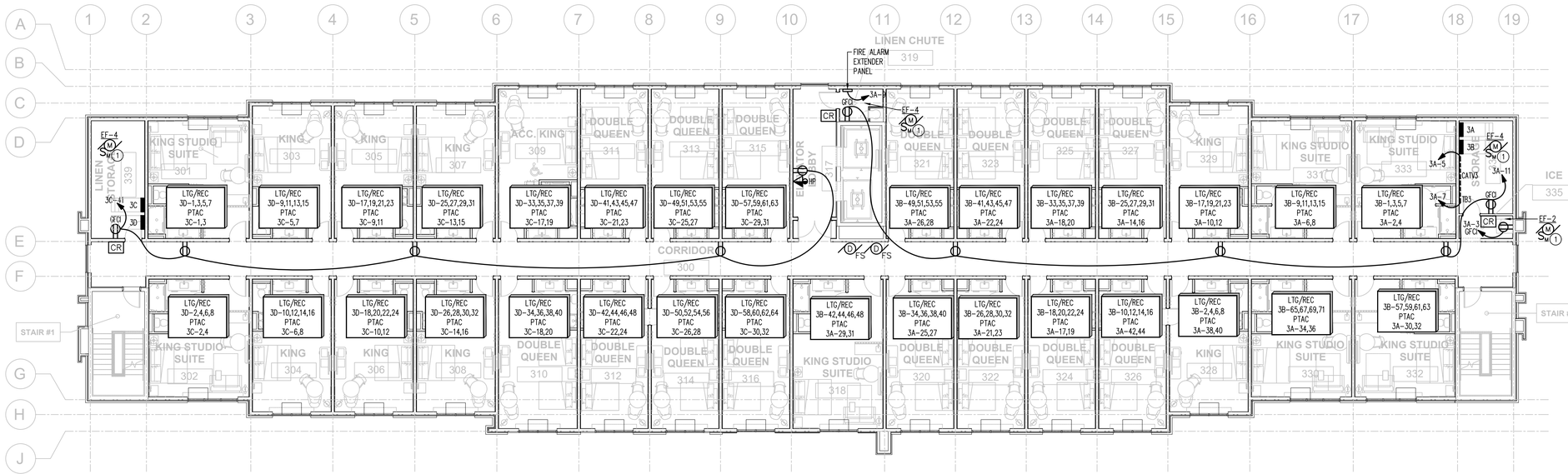
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checked by: EDB
project no: 25-104

FIRST AND SECOND FLOOR POWER PLANS

E201



2 E202 **FOURTH FLOOR PLAN - POWER**
SCALE: 3/32" = 1'-0"



1 E202 **THIRD FLOOR PLAN - POWER**
SCALE: 3/32" = 1'-0"

KEYED NOTES: (#)
1. CONNECT EXHAUST FAN TO THE LOCAL LIGHTING CIRCUIT. COORDINATE THE FAN CONTROLS WITH THE MECHANICAL DRAWINGS PRIOR TO ROUGH-IN.
2. CONNECT FIRE SMOKE DAMPERS TO CIRCUIT 3A-15.
3. CONNECT FIRE SMOKE DAMPERS TO CIRCUIT 4A-15.

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ALLIED #25165

NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER F. DEAN BELK
09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

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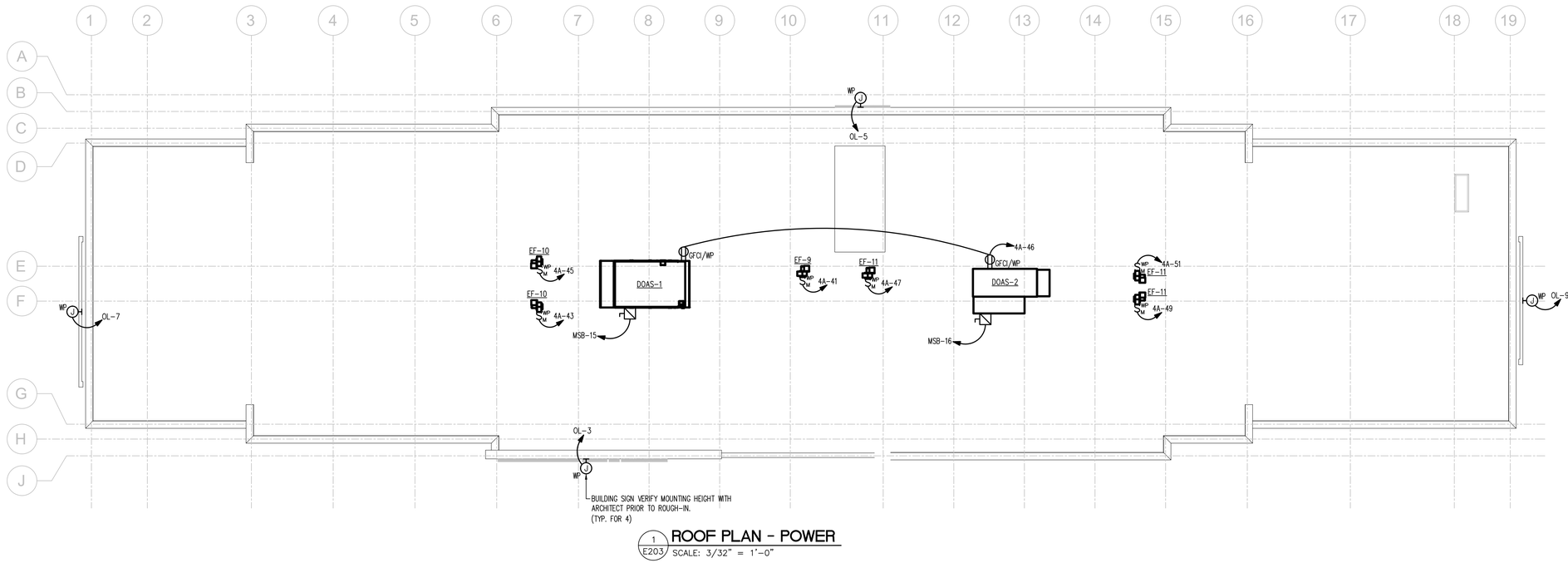
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1	04/16/2026	Hilton Comments
2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM
checked by: EDB
project no: 25-104

THIRD AND FOURTH FLOOR POWER PLANS

E202

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1 / E203 ROOF PLAN - POWER

SCALE: 3/32" = 1'-0"

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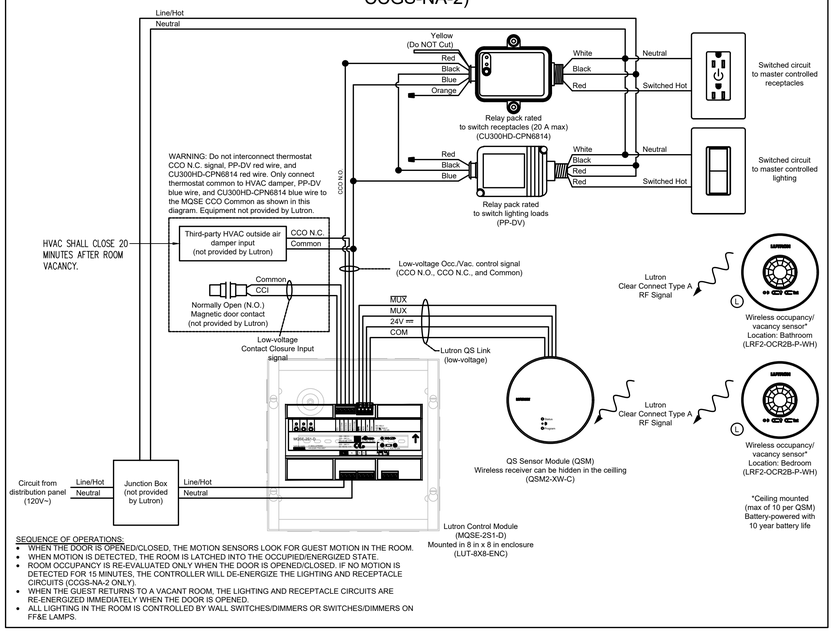
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ROOF POWER PLAN

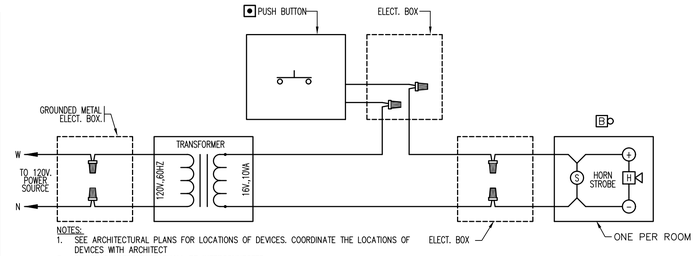
E203

GUEST ROOM (LUTRON CCGS-NA-2)



SEQUENCE OF OPERATIONS:

- WHEN THE DOOR IS OPENED/CLOSED, THE MOTION SENSORS LOOK FOR GUEST MOTION IN THE ROOM.
- WHEN MOTION IS DETECTED, THE ROOM IS LATCHED INTO THE OCCUPIED/ENERGIZED STATE.
- ROOM OCCUPANCY IS RE-EVALUATED ONLY WHEN THE DOOR IS OPENED/CLOSED. IF NO MOTION IS DETECTED FOR 15 MINUTES, THE CONTROLLER WILL DE-ENERGIZE THE LIGHTING AND RECEPTACLE CIRCUITS (CCGS-NA-2 ONLY).
- WHEN THE GUEST RETURNS TO A VACANT ROOM, THE LIGHTING AND RECEPTACLE CIRCUITS ARE RE-ENERGIZED IMMEDIATELY WHEN THE DOOR IS OPENED.
- ALL LIGHTING IN THE ROOM IS CONTROLLED BY WALL SWITCHES/DIMMERS OR SWITCHES/DIMMERS ON FF&E LAMPS.



NOTES:
1. SEE ARCHITECTURAL PLANS FOR LOCATIONS OF DEVICES. COORDINATE THE LOCATIONS OF DEVICES WITH ARCHITECT
2. SMOKE/CO DETECTORS SHALL BE INTERCONNECTED.
3. PROVIDE A PHENOLIC LABEL FOR DOORBELL DISCONNECT SWITCH.

7 / E301 WIRING DIAGRAM OF VISUAL/AUDIBLE NOTIFICATION DEVICES FOR HEARING IMPAIRED AND ACCESSIBLE UNITS (10VA)

NTS

GUESTROOM GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH ARCHITECT AND OWNER FOR EXACT LOCATIONS AND MOUNTING HEIGHTS FOR ALL DEVICES PRIOR TO ELECTRICAL ROUGH-IN.
2. SEE 1/8 SCALE PLANS FOR CIRCUIT NUMBERS. CONTRACTOR SHALL REFER TO PANEL SCHEDULES AND RISER DIAGRAM.
3. AT WALLS BETWEEN ADJACENT ROOMS, ELECTRICAL OUTLET LOCATIONS, INCLUDING TV AND TELEPHONE OUTLETS, SHALL BE OFFSET 6" MIN. HORIZONTALLY FOR INSTALLATION. ELECTRICAL CORDS SHOULD BE HIDDEN FROM VIEW. BACK TO BACK OUTLETS ARE NOT ALLOWED.
4. LIGHT SWITCH AND GFCI OUTLETS CAN BE MOUNTED IN A COMMON BOX WITH COVER PLATE. COORDINATE CLEARANCE WITH MIRROR.
5. HEIGHT OF ALL SWITCHES, OUTLETS, ETC., TO MEET ACCESSIBILITY STANDARDS FOR MAXIMUM AND MINIMUM REACH RANGE. FEDERAL AND LOCAL CODES APPLY AND THE MOST STRINGENT STANDARD PREVAILS. SWITCHES ON LAMPS MUST BE TOGGLE TYPE.
6. CEILING MOUNTED LIGHT FIXTURE AND EXHAUST FAN AT ALL GUESTROOM BATHROOMS TO BE SWITCHED SEPARATELY. CONTRACTOR SHALL COORDINATE WITH MECHANICAL FOR EXACT LOCATIONS AND REQUIREMENTS PRIOR TO ELECTRICAL ROUGH-IN.
7. HEARING IMPAIRED ROOMS SHALL BE EQUIPPED WITH ACCESSIBLE DEVICES SUCH AS, BUT NOT LIMITED TO THE FOLLOWING: FIRE ALARM STROBES, SMOKE DETECTOR STROBES AND DOOR BUZZER STROBES, TELEPHONES WITH VOLUME CONTROLS COMPATIBLE WITH THE PHONE SYSTEM. ALSO PROVIDE DOORBELL ON/OFF SWITCH WITH SIGNAGE AS REQUIRED.
8. ALL GUESTROOMS SHALL HAVE 75DBA MINIMUM AT PILLOW.
9. ALL CONTROLS FOR USE BY GUESTS MUST BE MOUNTED AT BETWEEN 15" AFF AND 48" AFF AND PROVIDE A 30" X 48" FLOOR AREA IN COMPLIANCE WITH ACCESSIBILITIES STANDARDS. OPERABLE CONTROLS LOCATED OVER AN OBSTRUCTION DEEPER THAN 10" MUST BE MOUNTED NO HIGHER THAN 46" AFF. ACCESSIBLE CONTROLS MUST NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.
10. IN ACCESSIBLE ROOMS, AT LEAST ONE OUTLET AND DATA CONNECTION FOR USE BY GUESTS MUST BE MOUNTED BETWEEN 15" AND 48" AFF AND PROVIDE A CLEAR FLOOR AREA IN COMPLIANCE WITH ACCESSIBLE STANDARDS.
11. OBJECTS MOUNTED WITHIN THE CIRCULATION PATH IN ACCESSIBLE ROOMS BETWEEN 27" AND 80" AFF SHALL NOT PROTRUDE FURTHER THAN 4" FROM WALL.
12. ALL GUESTROOM LOW VOLTAGE WIRING MUST BE INSTALLED IN CONDUIT FROM ROOMS TO THE ACCESSIBLE CEILING IN CORRIDOR. THIS INCLUDES CATV, HSIA, AND TELEPHONE WIRING.
13. MOUNT ALL MICROWAVE RECEPTACLES ABOVE COUNTER. ALL REFRIGERATOR RECEPTACLES SHALL BE MOUNTED UNDER COUNTER. COORDINATE WITH OWNER FOR EXACT MOUNTING HEIGHT PRIOR TO ELECTRICAL ROUGH-IN.
14. AT ALL HEARING IMPAIRED ROOMS:
    A. PROVIDE AUDIBLE/VISUAL DOORBELL/ANNUNCIATOR EQUIVALENT TO EDWARDS MODEL 7005-G5 WITH EDWARDS MODEL 620 PUSHBUTTON.
    B. AUDIBLE/VISUAL DOORBELL IN BATHROOM.

HEARING IMPAIRED ROOM NOTE:
1. SEE DETAIL ON THIS SHEET FOR HEARING IMPAIRED DOORBELL.
2. SEE ARCHITECTURAL PLANS FOR THE LOCATION OF ALL HEARING IMPAIRED ROOMS.

KEYED NOTES: (#)
1. PROVIDE SINGLE GANG DOORBELL DISABLE SWITCH WITH LABELED FACEPLATE.
2. TRANSFORMER AND JUNCTION BOX FOR DOORBELL SIGNALS.
3. GUEST ROOM MASTER LIGHTING SWITCH PER ECC SHALL PROVIDE MASTER CONTROLS TO ALL PERMANENTLY INSTALLED LIGHTINGPROVIDE FOR HEARING IMPAIRED ROOMS ONLY.
4. SEE ARCHITECTURAL PLAN FOR HEARING IMPAIRED ROOM LOCATIONS.
5. CONNECTION FOR ROLLER SHADES. COORDINATE THE EXACT LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN.
6. PROVIDE A SWITCH WITH AN INTEGRAL NIGHT LIGHT.
7. PTAC CONNECTION SHALL BE CONCEALED.
8. SWITCH/CONTROLS FOR ROLLER SHADES. COORDINATE THE EXACT LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN.
9. SEE OVERALL FLOOR ELECTRICAL PLANS SHEETS E-201 THRU E-203 FOR GUEST ROOMS CIRCUITING.
10. VTAC CONNECTION. SEE MECHANICAL FOR ROOMS WITH VTAC OR PTAC.

NOTES:
1. LOCATION OF OUTLETS FOR TV AND DESK AREA MUST BE FIELD VERIFIED BY OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
2. ALL GUEST ROOM LIGHT SWITCHES SHALL BE WIRED WITH NEUTRAL WIRES.

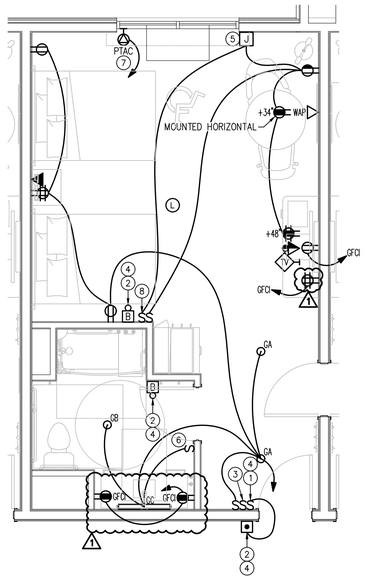
ALL 120 VOLT, 15 AND 20 AMP RECEPTACLES IN DWELLING UNITS SHALL BE TAMPER RESISTANT PER NEC 406.13.

ELECTRICAL OUTLET HEIGHTS (U.N.O.)
TYPICAL WALL OUTLET - 12" A.F.F.
TYPICAL ACCESSIBLE WALL OUTLET - 18" A.F.F.
BATHROOM VANITY OUTLET - 48" A.F.F.
ACCESSIBLE KITCHEN OUTLET - 46" A.F.F. MAX.
ACCESSIBLE BATHROOM VANITY OUTLET - 44" A.F.F. MAX.

CIRCUITING NOTES: (#) SEE PANEL SCHEDULES FOR ADDITIONAL INFORMATION

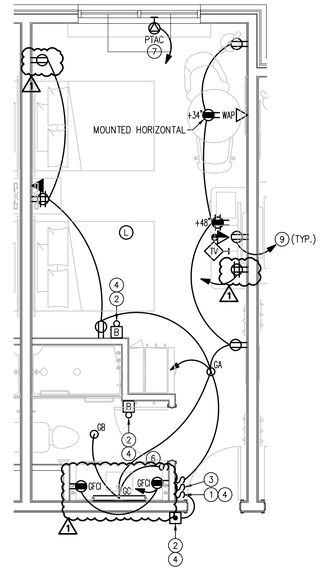
THE E.C. SHALL LABEL ALL GUEST ROOM BREAKERS WITH THE ROOM NUMBER THE BREAKER SERVES.

A. REFRIGERATOR (GFCI BREAKER)
B. RECEPTACLES OVER COUNTER
C. MICROWAVE (GFCI)
D. DISHWASHER (GFCI)
E. DISPOSER (GFCI)
F. GENERAL RECEPTACLES
G. GENERAL RECEPTACLES
H. BATHROOM RECEPTACLE
I. LIGHTING
J. PTAC



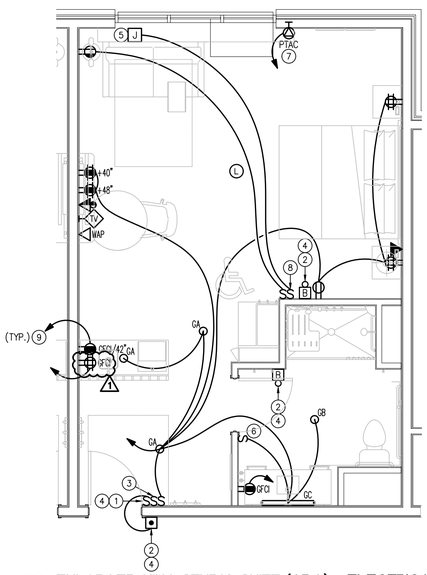
6 / E301 ENLARGED DOUBLE QUEEN (ADA) - ELECTRICAL

SCALE: 1/4" = 1'-0"



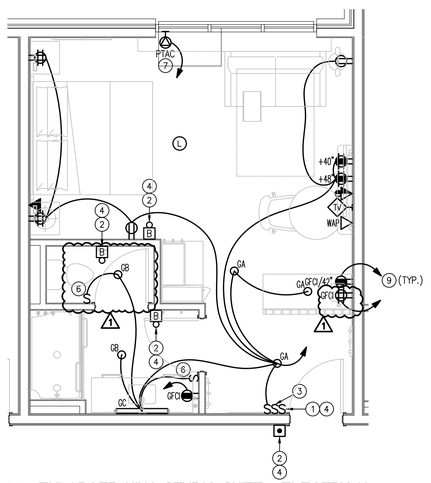
5 / E301 ENLARGED DOUBLE QUEEN - ELECTRICAL

SCALE: 1/4" = 1'-0"



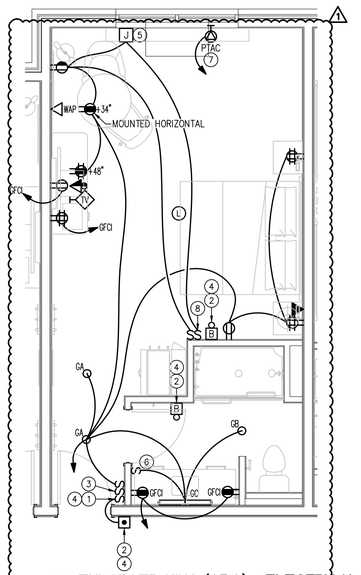
4 / E301 ENLARGED KING STUDIO SUITE (ADA) - ELECTRICAL

SCALE: 1/4" = 1'-0"



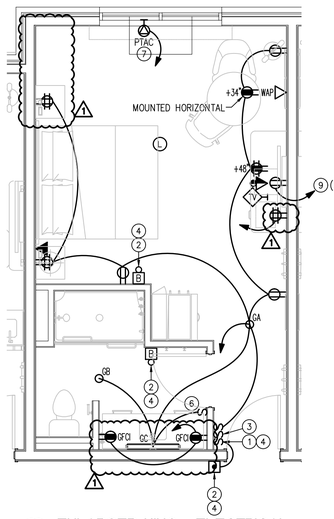
3 / E301 ENLARGED KING STUDIO SUITE - ELECTRICAL

SCALE: 1/4" = 1'-0"



2 / E301 ENLARGED KING (ADA) - ELECTRICAL

SCALE: 1/4" = 1'-0"



1 / E301 ENLARGED KING - ELECTRICAL

SCALE: 1/4" = 1'-0"

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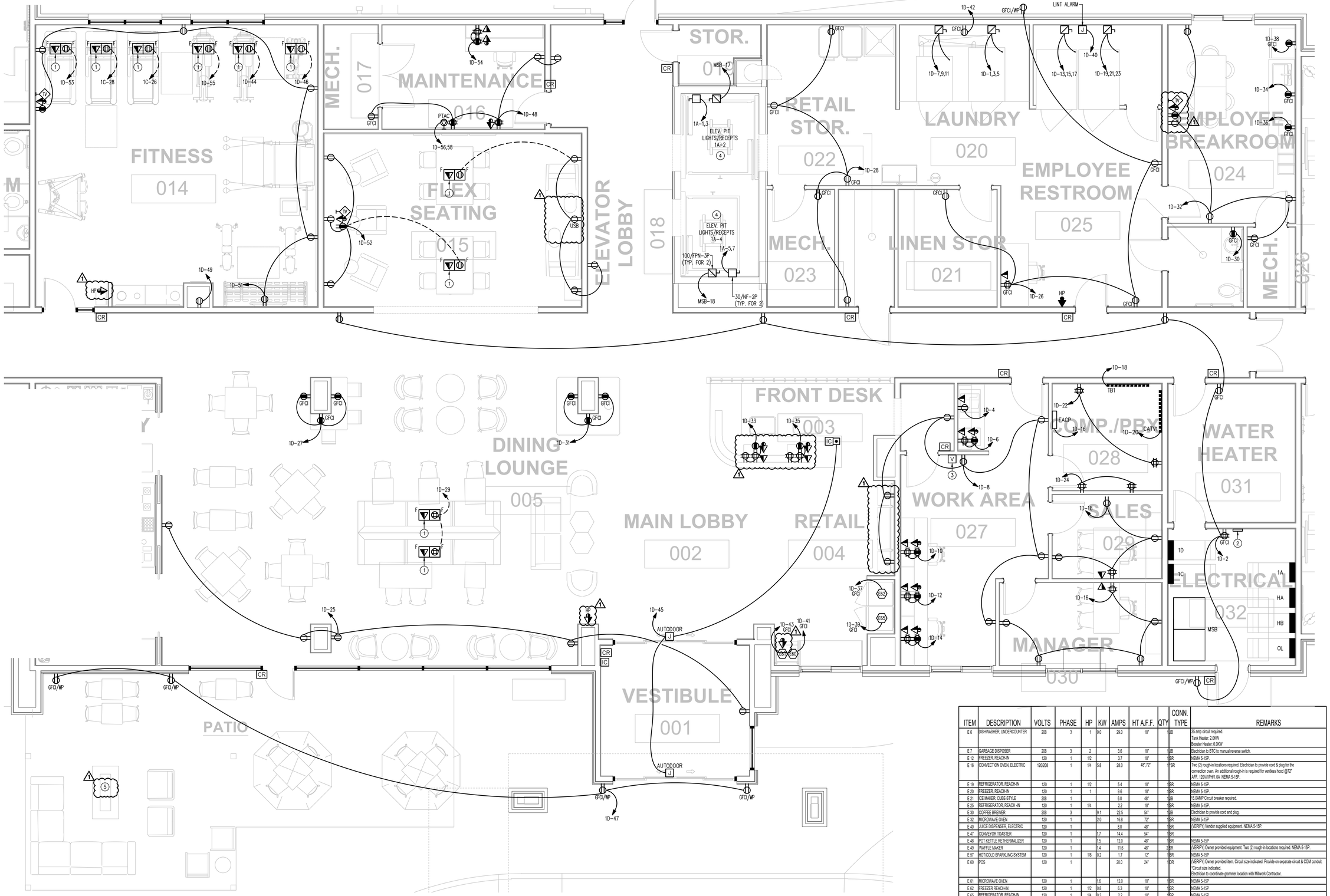
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drawn by: MSM
checked by: EDB
project no: 25-104

ENLARGED GUEST ROOM ELECTRICAL PLANS

E301



POWER KEYED NOTES: (#)

1. PROVIDE A 1" E.C. WITH PULLSTRINGS FROM EACH FLOOR BOX TO THE NEAREST WALL, RUN UP THROUGH THE WALL TO 6" ABOVE THE ACCESSIBLE CEILING FOR LOW VOLTAGE CABLING BY OTHERS.
2. CONNECTION FOR BI-DIRECTIONAL AMPLIFIER (BDA). 120V,1ø, 0.7 FLA.
3. SOUND SYSTEM VOLUME CONTROL. PROVIDE A JUNCTION BOX WITH ¾" CONDUIT TO 6" ABOVE THE ACCESSIBLE CEILING. COORDINATE EXACT LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN.
4. COORDINATE EXACT LOCATIONS AND REQUIREMENTS OF ELEVATOR EQUIPMENT PRIOR TO ROUGH-IN.
5. SEE DETAIL 14/E003 FOR FIRE PIT EMERGENCY SHUT OFF.

1 / E302 PARTIAL FIRST FLOOR ENLARGED PLAN - POWER
SCALE: 1/4" = 1'-0"

ITEM	DESCRIPTION	VOLTS	PHASE	HP	KW	AMPS	HT A.F.F.	QTY	CONN. TYPE	REMARKS
E 6	DISHWASHER, UNDERCOUNTER	208	3	1	9.0	29.0	18"		1JB	35 amp circuit required. Tank Heater: 2.0KW Booster Heater: 6.0KW
E 7	GARBAGE DISPOSER	208	3	2		3.6	18"		1JB	Electrician to BTC to manual reverse switch.
E 12	FREEZER, REACH-IN	120	1	1/2		3.7	18"		1SR	NEMA 5-15P.
E 16	CONVECTION OVEN, ELECTRIC	120/208	1	1/4	5.8	28.0	48",72"		1SR	Two (2) rough-in locations required. Electrician to provide cord & plug for the convection oven. An additional rough-in is required for ventless hood @72" AFF. 120V/1PH/1.0A NEMA 5-15P.
E 19	REFRIGERATOR, REACH-IN	120	1	1/2		5.4	18"		1SR	NEMA 5-15P.
E 20	FREEZER, REACH-IN	120	1	1		9.6	18"		1SR	NEMA 5-15P.
E 21	ICE MAKER, CUBE-STYLE	208	1			6.0	48"		1JB	15 AMP Circuit breaker required.
E 25	REFRIGERATOR, REACH-IN	120	1	1/4		2.2	18"		1SR	NEMA 5-15P.
E 30	COFFEE BREWER	208	3		9.1	22.5	54"		1JB	Electrician to provide cord and plug.
E 32	MICROWAVE OVEN	120	1		2.0	16.8	72"		1SR	NEMA 5-15P
E 40	JUICE DISPENSER, ELECTRIC	120	1			8.0	48"		1SR	(VERIFY) Vendor supplied equipment. NEMA 5-15P.
E 47	CONVEYOR TOASTER	120	1		1.7	14.4	54"		1SR	
E 48	POT KETTLE RETHERMALIZER	120	1		1.5	12.0	48"		1SR	NEMA 5-15P
E 49	WAFFLE MAKER	120	1		1.4	11.6	48"		2SR	(VERIFY) Owner provided equipment. Two (2) rough-in locations required. NEMA 5-15P.
E 57	HOT/COLD SPARKLING SYSTEM	120	1	1/8	0.2	1.7	12"		1SR	NEMA 5-15P
E 60	POS	120	1			20.0	24"		1DR	(VERIFY) Owner provided item. Circuit size indicated. Provide on separate circuit & COM conduit. *Circuit size indicated. Electrician to coordinate grommet location with Millwork Contractor.
E 61	MICROWAVE OVEN	120	1		1.6	12.0	18"		1SR	NEMA 5-15P
E 62	FREEZER REACH-IN	120	1	1/2	0.8	6.3	18"		1SR	NEMA 5-15P
E 65	REFRIGERATOR, REACH-IN	120	1	1/4	0.3	2.2	18"		1SR	NEMA 5-15P

NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL DISCONNECT SWITCHES, RECEPTACLE, ETC. TO MECHANICAL/PLUMBING AND KITCHEN EQUIPMENT AS REQUIRED. THE ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE ALL CORDS, PLUGS, CABLES, ETC. ON EQUIPMENT REQUIRING SUCH ITEMS.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FINAL CONNECTIONS TO ALL MECHANICAL/PLUMBING AND KITCHEN EQUIPMENT AS REQUIRED.
3. ALL DISCONNECT SWITCHES, FUSE SIZES, PLUG CONFIGURATIONS, BREAKER SIZES, ETC., SHALL BE COORDINATED WITH SHOP DRAWINGS PRIOR TO INSTALLING. ANY EQUIPMENT INSTALLED INCORRECTLY BECAUSE OF LACK OF COORDINATION WILL BE REMOVED AND INSTALLED CORRECTLY AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
4. ELEC. CONTRACTOR SHALL PULL A GROUND AND A NEUTRAL WITH ALL CIRCUITS, WHETHER SO DESIGNATED OR NOT.
5. ALL 15 AND 20 AMP RECEPTACLES IN KITCHEN SHALL BE GFI.

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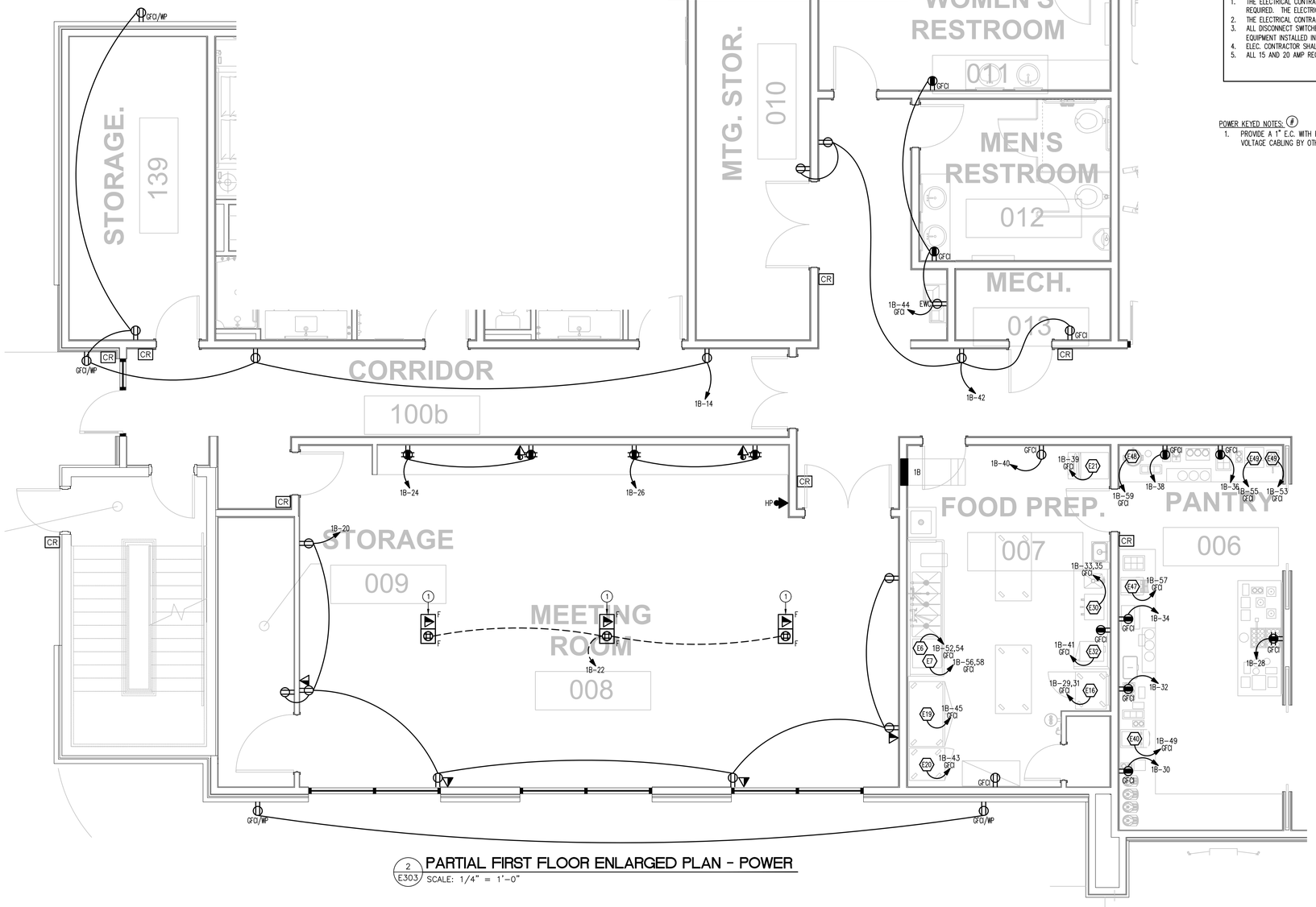
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ENLARGED PARTIAL FIRST FLOOR COMMON AREA POWER PLAN

E302



2 E303 PARTIAL FIRST FLOOR ENLARGED PLAN - POWER
SCALE: 1/4" = 1'-0"

ITEM	DESCRIPTION	VOLTS	PHASE	HP	KW	AMPS	HT A.F.F.	QTY	CONN. TYPE	REMARKS
E 6	DISHWASHER, UNDERCOUNTER	208	3	1	9.0	29.0	18"	1	LB	35 amp circuit required. Tank Heater: 2.0KW Booster Heater: 6.0KW
E 7	GARBAGE DISPOSER	208	3	2		3.6	18"	1	LB	Electrician to BTC to manual reverse switch.
E 12	FREEZER, REACH-IN	120	1	1/2		3.7	18"	1	SR	NEMA 5-15P.
E 16	CONVECTION OVEN, ELECTRIC	120/208	1	1/4	5.8	28.0	48",72"	1	SR	Two (2) rough-in locations required. Electrician to provide cord & plug for the convection oven. An additional rough-in is required for ventless hood @72" AFF. 120V/1PH/1.0A NEMA 5-15P.
E 19	REFRIGERATOR, REACH-IN	120	1	1/2		5.4	18"	1	SR	NEMA 5-15P.
E 20	FREEZER, REACH-IN	120	1	1		9.6	18"	1	SR	NEMA 5-15P.
E 21	ICE MAKER, CUBE-STYLE	208	1			6.0	48"	1	LB	15.0AMP Circuit breaker required.
E 25	REFRIGERATOR, REACH-IN	120	1	1/4		2.2	18"	1	SR	NEMA 5-15P.
E 30	COFFEE BREWER	208	3		8.1	22.5	54"	1	LB	Electrician to provide cord and plug.
E 32	MICROWAVE OVEN	120	1		2.0	16.8	72"	1	SR	NEMA 5-15P.
E 40	JUICE DISPENSER, ELECTRIC	120	1			8.0	48"	1	SR	(VERIFY) Vendor supplied equipment. NEMA 5-15P.
E 47	CONVEYOR TOASTER	120	1			1.7	14.4	1	SR	
E 48	POT KETTLE RETHERMALIZER	120	1			1.5	12.0	1	SR	NEMA 5-15P
E 49	WAFFLE MAKER	120	1			1.4	11.6	1	SR	(VERIFY) Owner provided equipment. Two (2) rough-in locations required. NEMA 5-15P.
E 57	HOT/COLD SPARKLING SYSTEM	120	1	1/8		0.2	1.7	1	SR	NEMA 5-15P
E 60	POS	120	1				20.0	1	DR	(VERIFY) Owner provided item. Circuit size indicated. Provide on separate circuit & COM conduit. *Circuit size indicated. Electrician to coordinate grommet location with Millwork Contractor.
E 61	MICROWAVE OVEN	120	1			1.6	12.0	1	SR	NEMA 5-15P
E 62	FREEZER REACH-IN	120	1	1/2		9.6	6.3	18"	1	SR	NEMA 5-15P
E 65	REFRIGERATOR, REACH-IN	120	1	1/4		0.3	2.2	18"	1	SR	NEMA 5-15P

NOTES:
1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL DISCONNECT SWITCHES, RECEPTACLE, ETC. TO MECHANICAL/PLUMBING AND KITCHEN EQUIPMENT AS REQUIRED. THE ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE ALL CORDS, PLUGS, CABLES, ETC. ON EQUIPMENT REQUIRING SUCH ITEMS.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FINAL CONNECTIONS TO ALL MECHANICAL/PLUMBING AND KITCHEN EQUIPMENT AS REQUIRED.
3. ALL DISCONNECT SWITCHES, FUSE SIZES, PLUG CONFIGURATIONS, BREAKER SIZES, ETC., SHALL BE COORDINATED WITH SHOP DRAWINGS PRIOR TO INSTALLING. ANY EQUIPMENT INSTALLED INCORRECTLY BECAUSE OF LACK OF COORDINATION WILL BE REMOVED AND INSTALLED CORRECTLY AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
4. ELEC. CONTRACTOR SHALL PULL A GROUND AND A NEUTRAL WITH ALL CIRCUITS, WHETHER SO DESIGNATED OR NOT.
5. ALL 15 AND 20 AMP RECEPTACLES IN KITCHEN SHALL BE GFI.

POWER KEYED NOTES: (F)
1. PROVIDE A 1" E.C. WITH PULLSTRINGS FROM EACH FLOOR BOX TO THE NEAREST WALL, RUN UP THROUGH THE WALL TO 6" ABOVE THE ACCESSIBLE CEILING FOR LOW VOLTAGE CABLING BY OTHERS.

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NORTH CAROLINA PROFESSIONAL SEAL 20607 ENGINEER F. DEAN BELK
09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

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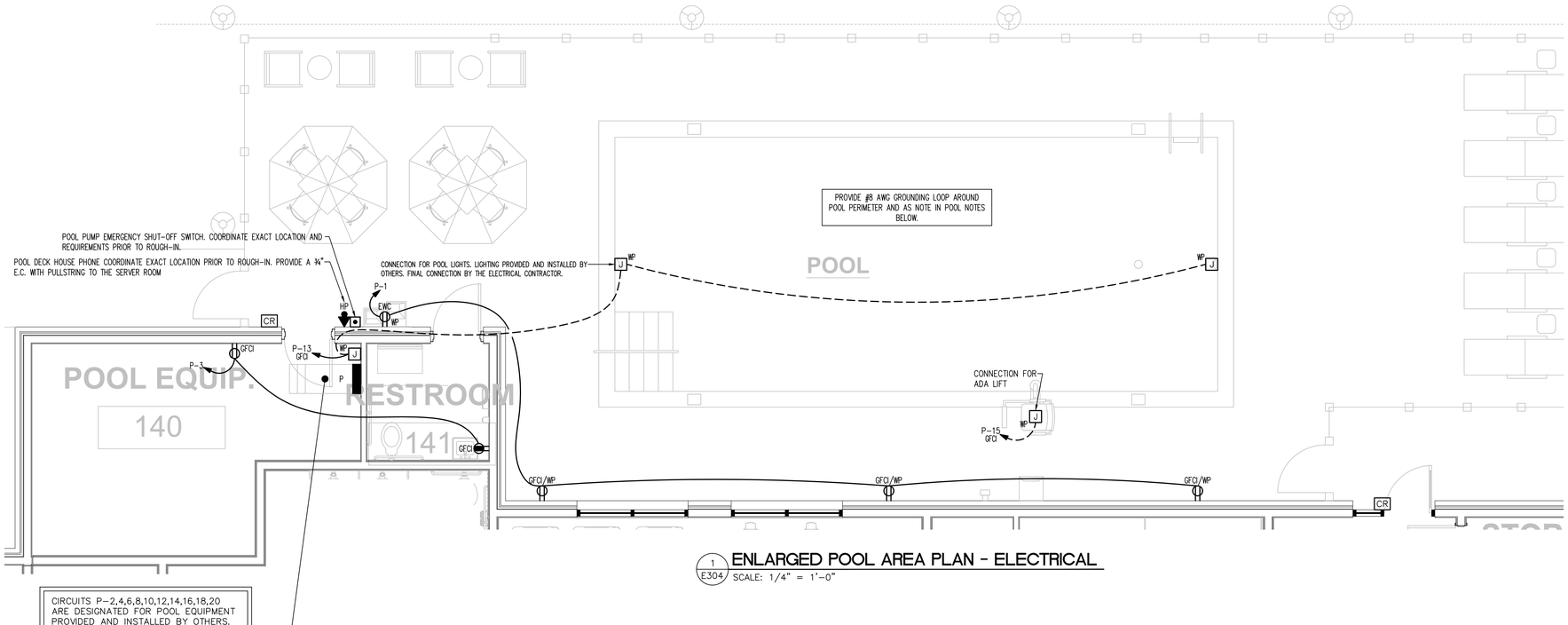
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2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM
checked by: EDB
project no: 25-104

ENLARGED PARTIAL FIRST FLOOR COMMON AREA POWER PLAN

E303



1 / E304 ENLARGED POOL AREA PLAN - ELECTRICAL
SCALE: 1/4" = 1'-0"

POOL NOTES:

1. ALL ELECTRICAL EQUIPMENT IN POOL AREA SHALL BE BONDED TOGETHER WITH #8 CU. GND. PER N.E.C. #680-26.
2. ALL RECEPTACLES IN POOL AREA WITHIN 10' OF POOL AND IN POOL EQUIPMENT ROOM SHALL BE WEATHERPROOF G.F.C.I. TYPE.
3. ELECTRICAL INSTALLATION IS TO BE IN COMPLIANCE WITH ARTICLE 680 OF THE N.E.C.
4. THE FOLLOWING ITEMS ARE REQUIRED TO BE BONDED WITH INSULATED #8 COPPER WIRE, OR AS OTHERWISE REQUIRED BY THE N.E.C. OR EQUIPMENT MANUFACTURERS:
   A. ALL METALLIC PARTS OF THE POOL STRUCTURE, INCLUDING REINFORCING STEEL, IN ALL CONCRETE SLABS.
   B. UNDERWATER LIGHT FIXTURES, INCLUDING FORMING SHELLS, MOUNTING BRACKETS AND JUNCTION BOXES AS REQUIRED.
   C. HANDRAILS.
   D. LADDERS.
   E. PUMP MOTORS, FOR ALL POOLS AND THE SLIDE.
   F. WINDOW FRAMES & DOOR FRAMES, WHERE NOTED.
   G. LIGHT FIXTURES ABOVE THE POOL OR SPA AND WITHIN 5 FEET HORIZONTALLY OF THE POOL OR SPA WALLS.
   H. ALL METAL PARTS ASSOCIATED WITH THE SLIDE AND THE SPRAY AREA.
   I. ANY OTHER METALLIC PARTS REQUIRED BY THE N.E.C.
5. THE FOLLOWING ITEMS ARE REQUIRED TO BE GROUNDED WITH INSULATED #12 COPPER WIRE MINIMUM, OR AS OTHERWISE REQUIRED BY THE N.E.C. OR EQUIPMENT MANUFACTURERS:
   A. UNDERWATER LIGHTING FIXTURES.
   B. ALL ELECTRIC EQUIPMENT WITHIN 5'-0" OF THE POOL OR SPA.
   C. ALL ELECTRIC EQUIPMENT ASSOCIATED WITH THE CIRCULATION SYSTEM OF THE POOL OR SPA.
   D. JUNCTION BOXES.
   E. TRANSFORMER ENCLOSURES.
   F. PANELBOARDS SUPPLYING POWER TO ANY EQUIPMENT ASSOCIATED WITH THE POOL OR SPA.
   G. GROUND FAULT INTERRUPT CIRCUITS.
6. GROUNDING FOR POOL AND SPA LIGHTS AND FOR PUMP MOTORS IS TO BE IN CONDUIT.
7. ALL UNDERWATER LIGHT FIXTURES MUST BE SUBMERGED BEFORE BEING OPERATED.
8. UNDERWATER LIGHT FIXTURES MUST BE REMOVABLE FROM THE WATER FOR RELAMPING OR NORMAL MAINTENANCE WITHOUT REQUIRING DRAINAGE OF THE POOL.
9. NICHE LIGHT FIXTURES SHALL BE SUPPLIED WITH CORDS WHICH ARE 50 FEET LONG, EXCEPT AS NOTED. CONDUIT RUNS FROM EACH NICHE TO THE APPROPRIATE CONNECTION POINT (DECK BOX, SUBMERSIBLE JUNCTION BOX, ETC.) MUST BE AS DIRECT AS POSSIBLE AND A TOTAL LENGTH SHORTER THAN THE CORD WHEN PROPERLY INSTALLED. TO PROPERLY INSTALL FIXTURE AND CORD, LEAVE ENOUGH CORD IN THE NICHE SO THAT WHEN SERVICING IS REQUIRED THE FIXTURE CAN BE LIFTED ABOVE WATER LEVEL WITHOUT DRAINING THE POOL (WRAP EXTRA CORD LENGTH AROUND THE FIXTURE WHEN PLACING IN NICHE).
10. WHEN RESEALING A FIXTURE (SUCH AS AFTER RELAMPING, ETC.) CARE MUST BE TAKEN TO TIGHTEN THE SCREWS OR BOLTS IN SUCH A FASHION AS TO CREATE EQUAL PRESSURE ON THE GASKET ALL THE WAY AROUND THE FIXTURE.
11. ALL THREADED CONNECTIONS MUST BE MADE WITH NATIONAL TAPERED PIPE THREADS (N.P.T.) AND APPROVED THREAD SEALANT.
12. AN APPROVED POTTING COMPOUND (LOW MELTING PARAFFIN OR RTV SILASTIC) MUST BE USED TO FILL THE ENTRY OF THE JUNCTION BOX TO PREVENT MOISTURE MIGRATION INTO THE CONDUIT. AFTER POTTING THE JUNCTION BOX, ATTACH THE COVER PLATE SO THAT IT IS WATERTIGHT.
13. ALL METALLIC PIPING SYSTEMS ASSOCIATED WITH THE POOL MUST BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR OF THE BRANCH CIRCUIT SUPPLYING THE POOL.
14. UNDERWATER TYPE SO AND ST CORD CANNOT BE SPLICED EXCEPT IN AN APPROVED UNDERWATER JUNCTION BOX OR UL LISTED UNDERWATER SPLICE KIT.
15. MAXIMUM EXPOSED CORD LENGTH IS 10 FEET. ANY LENGTH BEYOND 10 FEET MUST BE PROTECTED BY CONDUIT.
16. THE CONDUIT SYSTEM MUST BE WATERTIGHT FROM THE PANEL TO THE POOL.
17. ALL CONDUITS EXPOSED TO MOISTURE (BELOW GROUND, IN THE POOL, ETC.) MUST BE OF A NON-CORROSIBLE MATERIAL.

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NORTH CAROLINA PROFESSIONAL SEAL 20007 ENGINEER F. DEAN BELK
09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

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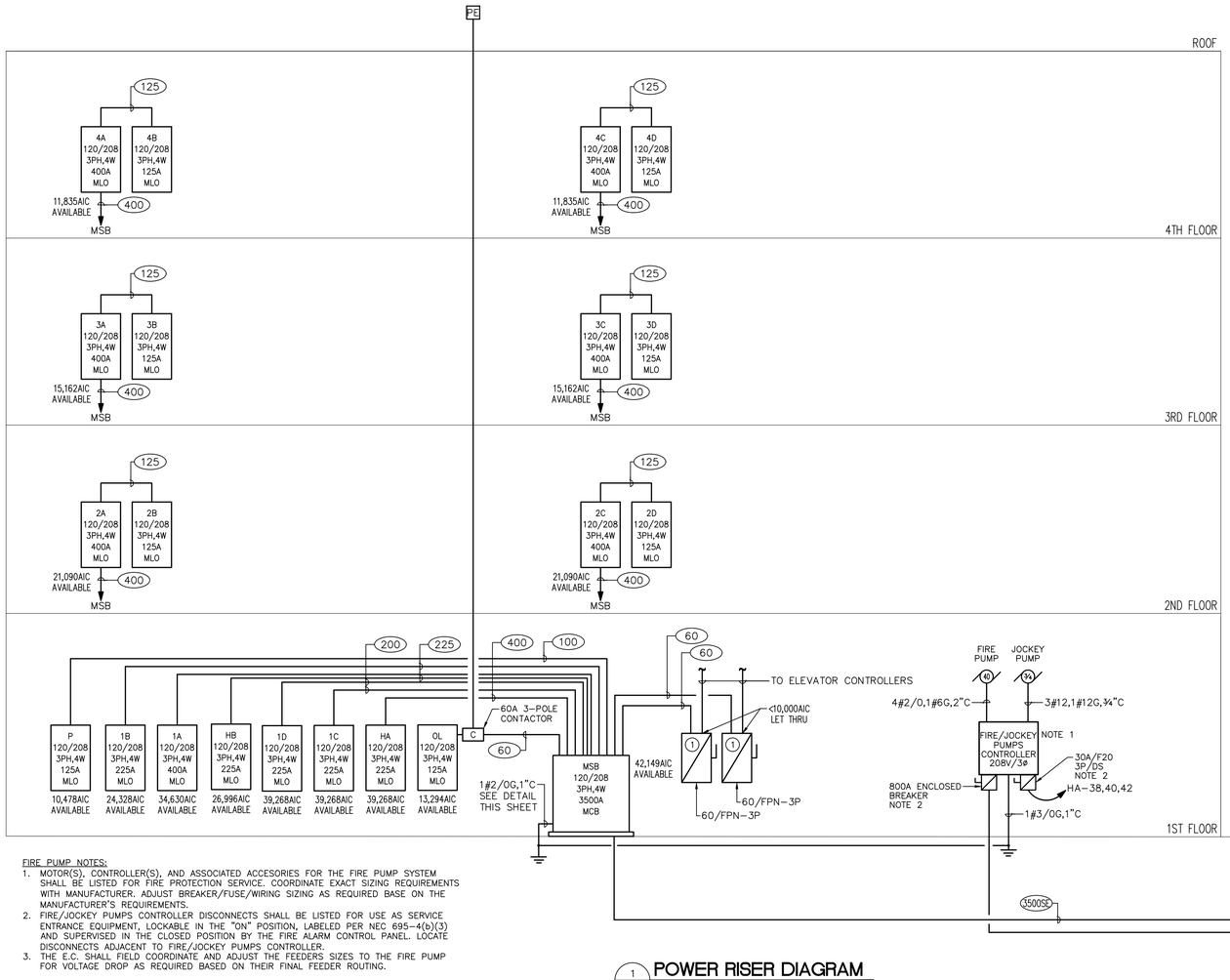
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ENLARGED POOL AREA ELECTRICAL PLAN

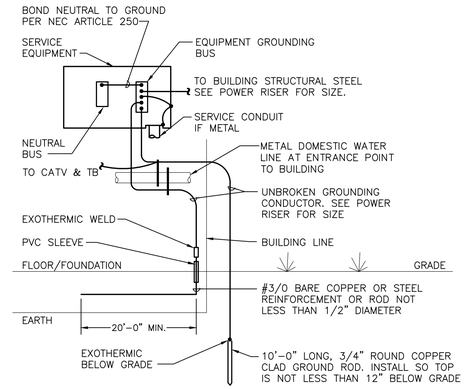
E304

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FIRE PUMP NOTES:
1. MOTOR(S), CONTROLLER(S), AND ASSOCIATED ACCESORIES FOR THE FIRE PUMP SYSTEM SHALL BE LISTED FOR FIRE PROTECTION SERVICE. COORDINATE EXACT SIZING REQUIREMENTS WITH MANUFACTURER. ADJUST BREAKER/FUSE/WIRING SIZING AS REQUIRED BASE ON THE MANUFACTURER'S REQUIREMENTS.
2. FIRE/JOCKEY PUMPS CONTROLLER DISCONNECTS SHALL BE LISTED FOR USE AS SERVICE ENTRANCE EQUIPMENT, LOCKABLE IN THE "ON" POSITION, LABELED PER NEC 695-4(b)(3) AND SUPERVISED IN THE CLOSED POSITION BY THE FIRE ALARM CONTROL PANEL. LOCATE DISCONNECTS ADJACENT TO FIRE/JOCKEY PUMPS CONTROLLER.
3. THE E.C. SHALL FIELD COORDINATE AND ADJUST THE FEEDERS SIZES TO THE FIRE PUMP FOR VOLTAGE DROP AS REQUIRED BASED ON THEIR FINAL FEEDER ROUTING.

1 E401 **POWER RISER DIAGRAM**
SCALE: NOT TO SCALE



2 E4.1 **SERVICE GROUNDING DETAIL**
NO SCALE

CU FEEDER SCHEDULE / AL FEEDERS

STD. FUSE OR C/B TRIP SIZE	# OF SETS	BUILDING WIRE QUANTITY & SIZE. TYPE THHN – DRY TYPE THWN – WET	MINIMUM CONDUIT SIZE	# OF SETS	BUILDING WIRE QUANTITY & SIZE. TYPE THHN – DRY TYPE THWN – WET	MINIMUM CONDUIT SIZE
30	1	4 #10, #10 G	1/2"	N/A	N/A	N/A
35	1	4 #8, #10 G	3/4"	N/A	N/A	N/A
40	1	4 #8, #10 G	3/4"	N/A	N/A	N/A
45	1	4 #6, #10 G	1"	N/A	N/A	N/A
50	1	4 #6, #10 G	1"	N/A	N/A	N/A
60A	1	3 #6, #10 G	1"	N/A	#2, #2, #2 W/ #4 G SER	N/A
60	1	4 #6, #10 G	1"	N/A	N/A	N/A
70	1	4 #4, #8 G	1 1/4"	N/A	N/A	N/A
80	1	4 #3, #8 G	1 1/4"	N/A	N/A	N/A
90	1	4 #2, #8 G	1 1/4"	N/A	N/A	N/A
100A				1	1/0, 1/0, 1/0 W/ #2 G SER	N/A
100				1	4 #1, #6 G	2"
110				1	4 #1/0, #4 G	2"
125				1	4 #2/0, #4 G	2"
125A				1	3/0, 3/0, 3/0 W/ #1/0 G SER	N/A
150				1	4 #3/0, #4 G	2 1/2"
175				1	4 #4/0, #4 G	2 1/2"
200				1	4 -250KCMIL, #4 G	3"
225				1	4 -300KCMIL, #2 G	3"
250				1	4 – 350KCMIL, #2 G	3"
300				1	4 – 500KCMIL, #2 G	3 1/2"
350				1	4 – 750KCMIL, #1 G	5"
400				2	4 – 250KCMIL, #1 G	3"
450				2	4 – 300KCMIL, #1/0 G	3"
500				2	4 – 350KCMIL, #1/0 G	3"
600				2	4 – 500KCMIL, #2/0 G	3 1/2"
3500SC				10	4 – 700KCMIL	4"

NOTES:
1. ALL FEEDER SIZES LISTED MAY NOT BE USED IN PROJECT RISER DIAGRAM.
2. ELECTRICAL CONTRACTOR TO VERIFY CONDUIT SIZE REQUIRED IF WIRE TYPES OTHER THAN THOSE LISTED ABOVE ARE USED.
3. REFER TO LATEST EDITION OF NEC FOR CONDUIT TYPES REQUIRED PER THEIR LOCATION. IF CONDUIT OTHER THAN "EMT" IS REQUIRED USE SIZE PER MAXIMUM FILL TABLES.
4. FEEDER SIZES SHOWN IN PROJECT RISER WITH A DELTA SYMBOL ' D ' ARE 3ø, 3 WIRE FEEDERS, A NEUTRAL WIRE IS NOT REQUIRED.
5. FEEDER SIZES SHOWN IN PROJECT RISER WITH A DELTA SYMBOL ' F ' ARE 1ø, 3 WIRE FEEDERS.

KEYED NOTES: (#)
1. PROVIDE WITH CURRENT LIMITING TIME DELAY RK1 FUSES OR EQUAL.

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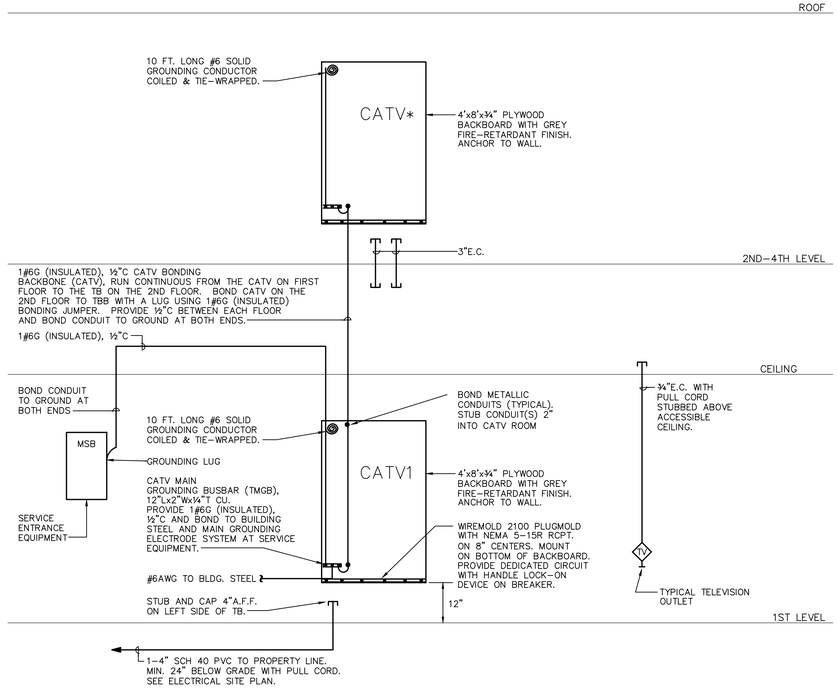
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1	04/16/2026	Hilton Comments
2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM
checked by: EDB
project no: 25-104

POWER RISER DIAGRAM

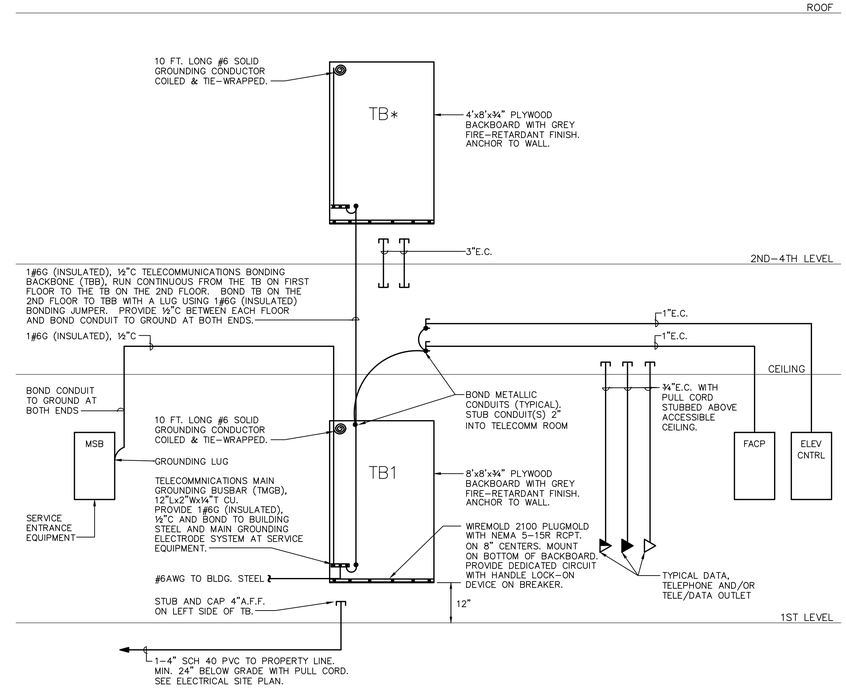
E401



CATV RISER DIAGRAM NOTES:
1. FLOOR PLANS INDICATE THE EXACT QUANTITY AND LOCATION OF ALL TELEVISION OUTLETS.
2. ALL TELEVISION WIRING AND EQUIPMENT SHALL BE PROVIDED BY THE OWNER'S CATV SUPPLIER.

2/E402 CATV RISER DIAGRAM

SCALE: NOT TO SCALE



TELE/DATA RISER DIAGRAM NOTES:
1. FLOOR PLANS INDICATE THE EXACT QUANTITY AND LOCATION OF ALL TELEPHONE AND/OR DATA OUTLETS.
2. ALL TELEPHONE AND/OR DATA WIRING AND EQUIPMENT SHALL BE PROVIDED BY THE OWNER'S TELE/DATA SUPPLIER.

1/E402 TELEPHONE RISER DIAGRAM

SCALE: NOT TO SCALE

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TELE/DATA AND CATV RISER DIAGRAM

E402

PANEL: 1B

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 225 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 225
BY: MSM JOB # 25165 CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	1	2	2	20	12	PTAC	1.7			M		0.8	1.7				
R		0.8		REC-GUEST REF. (G)	12	20*	1	3	4						1.7		M		0.8	1.7				
R			0.2	REC-GUEST BATH	12	20*	1	5	6	2	20		SPARE						0.2					
R	1.2			LTG/REC-GUEST	12	20*	1	7	8										1.2					
				SPARE		20	1	9	10	2	20		SPARE											
				SPARE		20	1	11	12															
				SPARE		20	1	13	14	1	20	12	RECEPTS	1.0			R		1.0					
				SPARE		20	1	15	16	1	20	12	LIGHTS-STAIR (L)		0.5		L	0.5						
L			0.3	LIGHTS	12	20	1	17	18	1	20	12	LIGHTS			1.4	L	1.7						
				SPARE		20	1	19	20	1	20	12	REC-MEETING	1.4			R		1.4					
				SPARE		20	1	21	22	1	20	12	REC-MEETING		1.2		R		1.2					
				SPARE		20	1	23	24	1	20	12	REC-MEETING			0.8	R		0.8					
R	1.0			RECEPTS	12	20	1	25	26	1	20	12	REC-MEETING	0.8			R		1.8					
				SPARE		20	1	27	28	1	20	12	REC-FOOD PREP		0.4		R		0.4					
K			2.9	CONVECTION OVEN (G)	8	40	2	29	30	1	20	12	REC-FOOD PREP			0.2	R		0.2			2.9		
K	2.9							31	32	1	20	12	REC-FOOD PREP	0.2			R		0.2			2.9		
K		2.7		COFFE BREWER (G)	10	30	2	33	34	1	20	12	REC-FOOD PREP		0.2		R		0.2			2.7		
K			2.7					35	36	1	20	12	REC-FOOD PREP			0.2	R		0.2			2.7		
				SPARE		20	1	37	38	1	20	12	REC-FOOD PREP	0.2			R		0.2					
K		1.5		ICE MAKER (G)	13	20	1	39	40	1	20	12	REC-FOOD PREP		0.6		R		0.6			1.5		
K			1.8	MICROWAVE (G)	14	20	1	41	42	1	20	12	RECEPTS			0.8	R		0.8			1.8		
K	1.0			FREEZER (G)	15	20	1	43	44	1	20	12	RECEPTS (G)	0.8			R		0.8			1.0		
K		1.0		REF. (G)	16	20	1	45	46	1	20		SPARE									1.0		
R			0.4	REC-BREAKFAST	17	20	1	47	48	1	20		SPARE						0.4					
K	1.5			JUICE (G)	18	20	1	49	50	1	20		SPARE									1.5		
R		0.4		REC-BREAKFAST	19	20	1	51	52	2	40	8	DISHWASHER (G)		4.5		K		0.4			4.5		
K			1.8	WAFFLE MAKER (G)	20	20	1	53	54							4.5	K					6.3		
K	1.8			WAFFLE MAKER (G)	21	20	1	55	56	2	40	8	DISPOSER (G)	0.4			K					2.2		
K		1.8		TOASTER (G)	22	20	1	57	58						0.4		K					2.2		
K			1.5	POT KETTLE (G)	23	20	1	59	60	1	20		SPARE									1.5		
	10.2	8.2	11.6	SUBTOTALS										6.5	9.5	7.9								
													TOTALS 0.0	16.7	17.7	19.5		2.2	13.6	3.4		34.8		

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	2.2	1.25	2.8
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	3.6	0.50	1.8
MOTORS	3.4	1.00	3.4
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	34.8	0.65	22.6
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	54.0		40.5

CALCULATIONS: 40.5 / 0.36 112.6 A X 1.25 = 140.8 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: 1A

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 42,000
SURFACE MOUNTED, 400 AMP MAIN BREAKER NEUTRAL SIZE AMPS 400
BY: MSM JOB # 25165 CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
O	1.0			ELEV. LTG	12	20	2	1	2	1	20	12	LTG/REC-ELEV. SHAFT	1.0			L	1.0					1.0	
O		1.0		ELEV. CONTROLS				3	4	1	20	12	LTG/REC-ELEV. SHAFT		1.0		L	1.0					1.0	
O			1.0	ELEV. LTG	12	20	2	5	6	2	60	6	E.V. CHARGER			5.0	O						6.0	
O	1.0			ELEV. CONTROLS				7	8					5.0			O						6.0	
M		1.0		ESP (G)	12	20	1	9	10	2	60	6	E.V. CHARGER		5.0		O			1.0			5.0	
M			1.0	ESP (G)	12	20	1	11	12							5.0	O			1.0			5.0	
O	1.0			BDA SYSTEM	12	20	1	13	14	2	60	6	E.V. CHARGER	5.0			O						6.0	
O		1.0		FIRE SMOKE DAMP.	12	20	1	15	16						5.0		O						6.0	
R			1.5	REC-ICE MAKER (G)	12	20	1	17	18	2	60	6	E.V. CHARGER			5.0	O		1.5				5.0	
L	0.5			LIGHTS-STAIR (L)	12	20	1	19	20					5.0			O	0.5					5.0	
L		0.3		LIGHTS	12	20	1	21	22	2	60	6	E.V. CHARGER		5.0		O	0.3					5.0	
L			1.1	LIGHTS	12	20	1	23	24							5.0	O	1.1					5.0	
L	0.7			LIGHTS	12	20	1	25	26	2	60	6	E.V. CHARGER	5.0			O	0.7					5.0	
L		0.6		LIGHTS	12	20	1	27	28						5.0		O	0.6					5.0	
L			1.1	LIGHTS	12	20	1	29	30	2	60	6	E.V. CHARGER			5.0	O	1.1					5.0	
L	1.1			LIGHTS	12	20	1	31	32					5.0			O	1.1					5.0	
				SPARE		20	1	33	34	2	60	6	E.V. CHARGER		5.0		O						5.0	
				SPARE		20	1	35	36							5.0	O						5.0	
				SPARE		20	1	37	38	1	20	12	RECEPTS	1.0			R		1.0					
				SPARE		20	1	39	40	1	20		SPARE											
				SPARE		20	1	41	42	1	20		SPARE											
	5.3	3.9	5.7	SUBTOTALS										27.2	26.2	30.2								
													TOTALS 0.0	32.5	30.1	35.9		7.4	2.5	2.0			86.6	

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	7.4	1.25	9.3
RECEPTACLES	2.5	1.00	2.5
RECEPTACLES	0.0	0.50	0.0
MOTORS	2.0	1.00	2.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	86.6	1.00	86.6
SPARE	0.0	1.00	0.0
TOTAL	98.5		100.4

CALCULATIONS: 100.4 / 0.36 278.9 A X 1.25 = 348.6 A

NOTES:
1 * - INIDCATES HANLDE LOCKING DEVICE
2 (SH) INDICATES TO PROVIDE A SHUNT TRIP BREAKER.

SWITCHBOARD: MSB

120/208 VOLTS, 3 Ø 4 WIRE, TYPE: QED SWITCHBOARD AIC: 65,000
FLOOR MOUNTED, PANEL SIZE 3500 AMP MAIN BREAKER WITH GFCI 3500 AMPS
BY: MSM JOB #: 25165 CHECKED: EDB DATE: 9/15/2026

CIRCUIT NO.	CIRCUIT BREAKER FRAME	TRIP	POLE	LOAD SERVED	PHASE KVA A	PHASE KVA B	PHASE KVA C	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
1	65k	60	3	SPD										
2	65k	60	3	PANEL "OL"	3.6	2.7	3.2	9.5						
3	65k	400	3	PANEL "HA"	37.3	36.1	30.9			95.3	4.0		5.0	
4	65k	400	3	PANEL "1A"	32.5	30.1	35.9	7.4	2.5	2.0			86.6	
5	65k	225	3	PANEL "1B"	16.7	17.7	19.5	2.2	13.6	3.4		34.8		
6	65k	200	3	PANEL "1C"	13.0	13.6	11.8		18.0	20.4				
7	65k	200	3	PANEL "1D"	18.2	17.4	13.8		30.9	3.4			15.1	
8	65k	100	3	PANEL "P"	8.8	8.8	7.4	1.1	1.2	8.7	3.0		11.0	
9	65k	400	3	PANEL "2A"	36.3	34.8	35.0	0.6	47.9	53.4			4.2	
10	65k	400	3	PANEL "2C"	36.8	36.6	32.0	0.5	49.0	54.4			1.5	
11	65k	400	3	PANEL "3A"	36.3	33.6	34.2	0.6	48.3	51.0			4.2	
12	65k	400	3	PANEL "3C"	36.8	35.1	31.8	0.5	48.8	54.4				
13	65k	400	3	PANEL "4A"	36.3	34.8	35.0	0.6	47.9	53.4			4.2	
14	65k	400	3	PANEL "4C"	36.8	35.1	31.8	0.5	48.8	54.4				
15	65k	175	3	DOAS-1	15.0	15.0	15.0			44.9				
16	65k	150	3	DOAS-2	11.9	11.9	11.9			35.7				
17	65k	225	3	PANEL "HB"	16.4	21.0	18.7			54.1	2.0			
18	65k	60	3	ELEVATOR (SH)	6.0	6.0	6.0			18.0				
19	65k	60	3	ELEVATOR (SH)	6.0	6.0	6.0			18.0				
				SUBTOTALS										
* - INDICATES SHUNT TRIP BREAKER				0.0 TOTALS		0.0		23.5	356.9	624.9	9.0	34.8	131.8	

LOAD	KVA CONN.	D.F.	KVA NET
LIGHTING	23.5	1.25	29.4
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	346.9	0.50	173.5
MOTORS	607.5	1.00	607.5
LARGEST MOTOR	17.4	1.75	30.5
HEAT	9.0	1.00	9.0
KITCHEN	34.8	0.65	22.6
OTHER	131.8	1.00	131.8
SPARE	0.0	1.00	0.0
TOTAL	1180.9		1014.2

CALCULATIONS: 1014.2 / 0.36 2817.2 A

NOTES:
1 U.L. LISTED FOR SERVICE ENTRANCE.
2 PROVIDE AN INTEGRAL 200kA SURGE PROTECTION DEVICE.
3 (SH) INDICATES TO PROVIDE A SHUNT TRIP BREAKER.
4 PROVIDE AN INTEGRAL ENERGY REDUCTION MAINTENACE SETTING SWITCH WITH ALL INTERNAL CONNECTIONS TO THE MAIN AND BRANCH BREAKERS FOR ARC ENERGY REDUCTION
5 PROVIDE SWITCBOARD WITH 100% RATED MAIN BREAKER.

PANEL: HA

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 42,000
SURFACE MOUNTED, 400 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 400
BY: MSM JOB # 25165 CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
M	5.6			AH-1	6	60	2	1	2	1	20	12	WH-1	1.0			O			5.6			1.0	
M		5.6						3	4	1	20	12	WH-1		1.0		O			5.6			1.0	
M			4.2	AH-2	8	45	2	5	6	1	20	12	WH-1			1.0	O			4.2			1.0	
M	4.2							7	8	1	20	12	WH-1	1.0			O			4.2			1.0	
M		5.3		AH-3	6	60	2	9	10	1	20	12	WH-1		1.0		O			5.3			1.0	
M			5.3					11	12	1	20	12	RCP			0.1	M			5.4				
M	4.3			AH-4	8	45	2	13	14	2	20	12	EWH-1	1.0			H			4.3	1.0			
M		4.3						15	16						1.0		H			4.3	1.0			
M			4.2	AH-5	8	45	2	17	18	2	20	12	EWH-1			1.0	H			4.2	1.0			
M	4.2							19	20					1.0			H			4.2	1.0			
M		2.8		AH-6	10	30	2	21	22	2	25	10	HP-10		1.4		M			4.2				
M			2.8					23	24							1.4	M			4.2				
M	5.6			AH-7	6	60	2	25	26	1	20		SPARE							5.6				
M		5.6						27	28	1	20		SPARE							5.6				
M			5.6	AH-8	6	60	2	29	30	1	20		SPARE							5.6				
M	5.6							31	32	1	20		SPARE							5.6				
M		4.3		AH-9	8	45	2	33	34	1	20		SPARE							4.3				
M			4.3					35	36	1	20		SPARE							4.3				
M	2.8			AH-10	10	30	2	37	38	3	20	12	JOCKEY PUMP	1.0			M			3.8				
M		2.8						39	40						1.0		M			3.8				
				SPARE		20	1	41	42							1.0	M			1.0				
	32.3	30.6	26.4	SUBTOTALS										5.0	5.4	4.5								
													TOTALS 0.0	37.3	36.1	30.9				95.3	4.0		5.0	

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	0.0	1.00	0.0
RECEPTACLES	0.0	0.50	0.0
MOTORS	95.3	1.00	95.3
LARGEST MOTOR	0.0	1.75	0.0
HEAT	4.0	1.00	4.0
KITCHEN	0.0	0.65	0.0
OTHER	5.0	1.00	5.0
SPARE	0.0	1.00	0.0
TOTAL	104.3		104.3

CALCULATIONS: 104.3 / 0.36 289.6 A X 1.25 = 362.0 A

NOTES:
1 * - INIDCATES HANLDE LOCKING DEVICE

PANEL: 1D

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 225 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 225
BY: MSM JOB # 25165 CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
O	1.0			WASHER (G)	12	20	3	1	2	1	20	12	RECEPTS	1.2			R		1.2				1.0	
O		1.0						3	4	1	20	12	REC-COPIER		1.2		R		1.2				1.0	
O			1.0					5	6	1	20	12	REC-WORK AREA			0.8	R		0.8				1.0	
O	1.0			WASHER (G)	12	20	3	7	8	1	20	12	REC-WORK AREA	1.0			R		1.0				1.0	
O		1.0						9	10	1	20	12	REC-WORK AREA		0.8		R		0.8				1.0	
O			1.0					11	12	1	20	12	REC-WORK AREA			0.8	R		0.8				1.0	
O	1.0			DRYER (G)	12	20	3	13	14	1	20	12	REC-WORK AREA	0.8			R		0.8				1.0	
O		1.0						15	16	1	20	12	FACP (L)		1.6		O						2.6	
O			1.0					17	18	1	20	12	REC-TELE/DATA			1.2	R		1.2				1.0	
O	1.0			DRYER (G)	12	20	3	19	20	1	20	12	REC-TELE/DATA	1.2			R		1.2				1.0	
O		1.0						21	22	1	20	12	REC-TELE/DATA		0.4		R		0.4				1.0	
O			1.0					23	24	1	20	12	REC-TELE/DATA			0.4	R		0.4				1.0	
R	1.0			REC-DINING/LOUNGE	12	20	1	25	26	1	20	12	REC-LAUNDRY	1.0			R		2.0					
R		0.6		REC-DINING/LOUNGE	12	20	1	27	28	1	20	12	REC-LAUNDRY		1.0		R		1.6					
R			0.8	REC-DINING/LOUNGE	12	20	1	29	30	1	20	12	REC-BATHROOM			0.2	R		1.0					
R	0.6			REC-DINING/LOUNGE	12	20	1	31	32	1	20	12	REC-BREAK	0.8			R		1.4					
R		0.8		REC-FRONT DESK	12	20	1	33	34	1	20	12	REC-BREAK		0.2		R		1.0					
R			0.8	REC-FRONT DESK	12	20	1	35	36	1	20	12	REC-BREAK			0.2	R		1.0					
R	1.0			REC-RETAIL (G)	12	20	1	37	38	1	20	12	REC-REF. (G)	1.0			R		2.0					
R		1.0		REC-RETAIL (G)	12	20	1	39	40	1	20	12	LINT ALARM		0.5		O		1.0				0.5	
R			1.0	REC-RETAIL (G)	12	20	1	41	42	1	20	12	REC-WASHERS			0.2	R		1.2					
R	1.0			REC-RETAIL (G)	12	20	1	43	44	1	20	12	REC-FITNESS	0.2			R		1.2					
O		1.0		AUTODOORS	12	20	1	45	46	1	20	12	REC-FITNESS		0.2		R		0.2				1.0	
R			0.8	REC-EXTERIOR	12	20	1	47	48	1	20	12	REC-MAINT.			1.6	R		2.4					
R	0.3			REC-EWC (G)	12	20	1	49	50	1	20	12	REC-FLEX	1.2			R		1.5					
R		1.2		REC-FITNESS	12	20	1	51	52	1	20	12	REC-FLEX		1.2		R		2.4					
R			0.2	REC-FITNESS	12	20	1	53	54	1	20	12	REC-MAINT.			0.8	R		1.0					
R	0.2			REC-FITNESS	12	20	1	55	56	2	20	12	PTAC	1.7			M		0.2	1.7				
				SPARE		20	1	57	58						1.7		M			1.7				
				SPARE		20	1	59	60	1	20		SPARE											
	8.1	8.6	7.6	SUBTOTALS										10.1	8.8	6.2								
													TOTALS 0.0	18.2	17.4	13.8			30.9	3.4			15.1	

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	20.9	0.50	10.5
MOTORS	3.4	1.00	3.4
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	15.1	1.00	15.1
SPARE	0.0	1.00	0.0
TOTAL	49.4		39.0

CALCULATIONS: 39.0 / 0.36 108.2 A X 1.25 = 135.2 A

NOTES:
1 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
2 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: 1C

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 225 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 225
BY: MSM JOB # 25165 CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	1	2	2	20	12	PTAC	1.7			M		0.8	1.7				
R		0.8		REC-GUEST REF. (G)	12	20*	1	3	4						1.7		M		0.8	1.7				
R			0.2	REC-GUEST BATH	12	20*	1	5	6	2	20	12	PTAC			1.7	M		0.2	1.7				
R	1.2			LTG/REC-GUEST	12	20*	1	7	8					1.7			M		1.2	1.7				
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	9	10	2	20	12	PTAC		1.7		M		0.8	1.7				
R			0.8	REC-GUEST REF. (G)	12	20*	1	11	12							1.7	M		0.8	1.7				
R	0.2			REC-GUEST BATH	12	20*	1	13	14	2	20	12	PTAC	1.7			M		0.2	1.7				
R		1.2		LTG/REC-GUEST	12	20*	1	15	16						1.7		M		1.2	1.7				
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	17	18	2	20	12	PTAC			1.7	M		0.8	1.7				
R	0.8			REC-GUEST REF. (G)	12	20*	1	19	20					1.7			M		0.8	1.7				
R		0.2		REC-GUEST BATH	12	20*	1	21	22	2	20	12	PTAC		1.7		M		0.2	1.7				
R			1.2	LTG/REC-GUEST	12	20*	1	23	24							1.7	M		1.2	1.7				
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	25	26	1	20	12	REC-FITNESS	0.2			R		1.0					
R		0.8		REC-GUEST REF. (G)	12	20*	1	27	28	1	20	12	REC-FITNESS		0.2		R		1.0					
R			0.2	REC-GUEST BATH	12	20*	1	29	30	1	20		SPARE						0.2					
R	1.2			LTG/REC-GUEST	12	20*	1	31	32	1	20		SPARE						1.2					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	33	34	1	20		SPARE						0.8					
R			0.8	REC-GUEST REF. (G)	12	20*	1	35	36	1	20		SPARE						0.8					
R	0.2			REC-GUEST BATH	12	20*	1	37	38	1	20		SPARE						0.2					
R		1.2		LTG/REC-GUEST	12	20*	1	39	40	1	20		SPARE						1.2					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	41	42	1	20		SPARE						0.8					
R	0.8			REC-GUEST REF. (G)	12	20*	1	43	44	1	20		SPARE						0.8					
R		0.8		REC-GUEST BATH	12	20*	1	45	46	1	20		SPARE						0.8					
R			0.2	LTG/REC-GUEST	12	20*	1	47	48	1	20		SPARE						0.2					
				SPARE		20	1	49	50	1	20		SPARE											
				SPARE		20	1	51	52	1	20		SPARE											
				SPARE		20	1	53	54	1	20		SPARE											
				SPARE		20	1	55	56	1	20		SPARE											
				SPARE		20	1	57	58	1	20		SPARE											
				SPARE		20	1	59	60	1	20		SPARE											
	6.0	6.6	5.0	SUBTOTALS										7.0	7.0	6.8								
													TOTALS 0.0	13.0	13.6	11.8			18.0	20.4				

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	8.0	0.50	4.0
MOTORS	20.4	1.00	20.4
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	38.4		34.4

CALCULATIONS: 34.4 / 0.36 95.6 A X 1.25 = 119.4 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

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09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

issue date:

ISSUE	NAME	DATE
	CONSTRUCTION	09/11/2026

revisions:

Revision	Date	Description
1	04/16/2026	Hilton Comments
2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM
checked by: EDB
project no: 25-104

PANEL SCHEDULES

E501

PANEL: 2C

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000 — BY: MSM — JOB # 25165
SURFACE MOUNTED, 400 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 400 — CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
M	1.7			PTAC	12	20	2	1	2	2	20	12	PTAC	1.7			M			3.4				
M		1.7						3	4						1.7		M			3.4				
M			1.7	PTAC	12	20	2	5	6	2	20	12	PTAC			1.7	M			3.4				
M	1.7							7	8					1.7			M			3.4				
M		1.7		PTAC	12	20	2	9	10	2	20	12	PTAC		1.7		M			3.4				
M			1.7					11	12							1.7	M			3.4				
M	1.7			PTAC	12	20	2	13	14	2	20	12	PTAC	1.7			M			3.4				
M		1.7						15	16						1.7		M			3.4				
M			1.7	PTAC	12	20	2	17	18	2	20	12	PTAC			1.7	M			3.4				
M	1.7							19	20					1.7			M			3.4				
M		1.7		PTAC	12	20	2	21	22	2	20	12	PTAC		1.7		M			3.4				
M			1.7					23	24							1.7	M			3.4				
M	1.7			PTAC	12	20	2	25	26	2	20	12	PTAC	1.7			M			3.4				
M		1.7						27	28						1.7		M			3.4				
M			1.7	PTAC	12	20	2	29	30	2	20	12	PTAC			1.7	M			3.4				
M	1.7							31	32					1.7			M			3.4				
O		1.5		REC-WASHER (G)	12	20	1	33	34	1	20		SPARE										1.5	
R			0.2	REC-GUEST LAUNDRY	12	20	1	35	36	1	20		SPARE						0.2					
				SPARE		20	1	37	38	3	125	1	PANEL "2D"	16.4										
L		0.5		LIGHTS	12	20	1	39	40						17.6			0.5						
R			0.8	RECEPTS	12	20	1	41	42							14.0			0.8					
	10.2	10.5	9.5	SUBTOTALS										26.6	26.1	22.5								
														PANEL "2D"					48.0					
				TOTALS									0.0	36.8	36.6	32.0		0.5	49.0	54.4			1.5	

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.5	1.25	0.6
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	39.0	0.50	19.5
MOTORS	54.4	1.00	54.4
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	1.5	1.00	1.5
SPARE	0.0	1.00	0.0
TOTAL	105.4		86.0

CALCULATIONS: 86.0 / 0.36 239.0 A X 1.25 = 298.7 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: 2D

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000 — BY: MSM — JOB # 25165
SURFACE MOUNTED, 125 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 125 — CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	1	2	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	3	4	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	5	6	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	7	8	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	9	10	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	11	12	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	13	14	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	15	16	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	17	18	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	19	20	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	21	22	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	23	24	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	25	26	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	27	28	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	29	30	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	31	32	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	33	34	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	35	36	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	37	38	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	39	40	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	41	42	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	43	44	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	45	46	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	47	48	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	49	50	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	51	52	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	53	54	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	55	56	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	57	58	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	59	60	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	61	62	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	63	64	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
				SPARE		20	1	65	66	1	20		SPARE											
				SPARE		20	1	67	68	1	20		SPARE											
				SPARE		20	1	69	70	1	20		SPARE											
				SPARE		20	1	71	72	1	20		SPARE											
				SPARE		20	1	73	74	1	20		SPARE											
				SPARE		20	1	75	76	1	20		SPARE											
				SPARE		20	1	77	78	1	20		SPARE											
				SPARE		20	1	79	80	1	20		SPARE											
				SPARE		20	1	81	82	1	20		SPARE											
				SPARE		20	1	83	84	1	20		SPARE											
	8.2	8.8	7.0	SUBTOTALS										8.2	8.8	7.0								
				TOTALS									0.0	16.4	17.6	14.0			48.0					

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	38.0	0.50	19.0
MOTORS	0.0	1.00	0.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	48.0		29.0

CALCULATIONS: 29.0 / 0.36 80.6 A X 1.25 = 100.7 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: 2A

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000 — BY: MSM — JOB # 25165
SURFACE MOUNTED, 400 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 400 — CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
L	0.6			LIGHTS	12	20	1	1	2	2	20	12	PTAC	1.7			M	0.6		1.7				
R		1.5		REC-ICE MACHINE (G)	12	20	1	3	4						1.7		M		1.5	1.7				
O			1.2	REC-TELE/DATA	12	20	1	5	6	2	20	12	PTAC			1.7	M			1.7			1.2	
O	1.2			REC-TELE/DATA	12	20	1	7	8					1.7			M			1.7			1.2	
O		1.0		FIRE ALARM EXT. (L)	12	20	1	9	10	2	20	12	PTAC		1.7		M			1.7			1.0	
R			1.0	RECEPTS	12	20	1	11	12							1.7	M		1.0	1.7				
				SPARE		20	1	13	14	2	20	12	PTAC	1.7			M			1.7				
O		0.8		FIRE SMOKE DAMP.	12	20	1	15	16						1.7		M			1.7			0.8	
M			1.7	PTAC	12	20	2	17	18	2	20	12	PTAC			1.7	M			3.4				
M	1.7							19	20					1.7			M			3.4				
M		1.7		PTAC	12	20	2	21	22	2	20	12	PTAC		1.7		M			3.4				
M			1.7					23	24							1.7	M			3.4				
M	1.7			PTAC	12	20	2	25	26	2	20	12	PTAC	1.7			M			3.4				
M		1.7						27	28						1.7		M			3.4				
M			1.7	PTAC	12	20	2	29	30	2	20	12	PTAC			1.7	M			3.4				
M	1.7							31	32					1.7			M			3.4				
				SPARE		20	1	33	34	2	20	12	PTAC		1.7		M			1.7				
				SPARE		20	1	35	36							1.7	M			1.7				
				SPARE		20	1	37	38	2	20	12	PTAC	1.7			M			1.7				
				SPARE		20	1	39	40						1.7		M			1.7				
				SPARE		20	1	41	42	2	20	12	PTAC			1.7	M			1.7				
				SPARE		20	1	43	44					1.7			M			1.7				
				SPARE		20	1	45	46	1	20		SPARE											
				SPARE		20	1	47	48	1	20		SPARE											
				SPARE		20	1	49	50	1	20		SPARE											
				SPARE		20	1	51	52	1	20		SPARE											
				SPARE		20	1	53	54	1	20		SPARE											
				SPARE		20	1	55	56	3	125	1	PANEL "2B"	15.0										
				SPARE		20	1	57	58						15.0									
				SPARE		20	1	59	60							15.0								
	6.9	6.7	7.3	SUBTOTALS										28.6	26.9	26.9								
														PANEL "2B"					45.0					
				TOTALS									0.0	35.5	33.6	34.2		0.6	47.5	51.0			4.2	

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.6	1.25	0.8
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	37.5	0.50	18.8
MOTORS	51.0	1.00	51.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	4.2	1.00	4.2
SPARE	0.0	1.00	0.0
TOTAL	103.3		84.7

CALCULATIONS: 84.7 / 0.36 235.3 A X 1.25 = 294.1 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: 2B

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000 — BY: MSM — JOB # 25165
SURFACE MOUNTED, 125 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 125 — CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	1	2	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	3	4	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	5	6	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	7	8	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	9	10	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	11	12	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	13	14	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	15	16	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	17	18	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	19	20	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	21	22	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	23	24	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	25	26	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	27	28	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	29	30	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	31	32	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	33	34	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	35	36	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	37	38	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	39	40	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	41	42	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	43	44	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	45	46	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	47	48	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	49	50	1	20		SPARE						0.8					
R		0.8		REC-GUEST REF. (G)	12	20*	1	51	52	1	20		SPARE						0.8					
R			0.2	REC-GUEST BATH	12	20*	1	53	54	1	20		SPARE						0.2					
R	1.2			LTG/REC-GUEST	12	20*	1	55	56	1	20		SPARE						1.2					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	57	58	1	20		SPARE						0.8					
R			0.8	REC-GUEST REF. (G)	12	20*	1	59	60	1	20		SPARE						0.8					
R	0.2			REC-GUEST BATH	12	20*	1	61	62	1	20		SPARE						0.2					
R		1.2		LTG/REC-GUEST	12	20*	1	63	64	1	20		SPARE						1.2					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	65	66	1	20		SPARE						0.8					
R	0.8			REC-GUEST REF. (G)	12	20*	1	67	68	1	20		SPARE						0.8					
R		0.2		REC-GUEST BATH	12	20*	1	69	70	1	20		SPARE						0.2					
R			1.2	LTG/REC-GUEST	12	20*	1	71	72	1	20		SPARE						1.2					
				SPARE		20	1	73	74	1	20		SPARE											
				SPARE		20	1	75	76	1	20		SPARE											
				SPARE		20	1	77	78	1	20		SPARE											
				SPARE		20	1	79	80	1	20		SPARE											
				SPARE		20	1	81	82	1	20		SPARE											
				SPARE		20	1	83	84	1	20		SPARE											
	9.0	9.0	9.0	SUBTOTALS										6.0	6.0	6.0								
				TOTALS									0.0	15.0	15.0	15.0			45.0					

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	35.0	0.50	17.5
MOTORS	0.0	1.00	0.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	45.0		27.5

CALCULATIONS: 27.5 / 0.36 76.4 A X 1.25 = 95.5 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: HB

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 22,000 — BY: MSM — JOB # 25165
SURFACE MOUNTED, 225 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 225 — CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
H	1.0			EWH-2	12	20	1	1	2	2	50	8	HP-1	3.1			M			3.1	1.0			
H		1.0		EWH-2	12	20	1	3	4						3.1		M			3.1	1.0			
M			1.3	SSI-1/SSO-1	10	25	2	5	6	2	25	10	HP-2			1.4	M			2.8				
M	1.3							7	8					1.4			M			2.8				
M		1.3		SSI-2/SSI-2	10	25	2	9	10	2	40	8	HP-3		2.3		M			3.6				
M			1.3					11	12							2.3	M			3.6				
M	1.0			ESP	12	20	1	13	14	2	30	10	HP-4	1.7			M			2.7				
M		1.0		ESP	12	20	1	15	16						1.7		M			2.7				
M			1.0	RCP	12	20	1	17	18	2	25	10	HP-5			1.4	M			2.4				
				SPARE		20	1	19	20					1.4			M			1.4				
				SPARE		20	1	21	22	2	25	10	HP-6		1.4		M			1.4				
				SPARE		20	1	23	24							1.4	M			1.4				
				SPARE		20	1	25	26	2	50	8	HP-7	3.1			M			3.1				
				SPARE		20	1	27	28						3.1		M			3.1				
				SPARE		20	1	29	30	2	40	8	HP-8			2.3	M			2.3				
				SPARE		20	1	31	32					2.3			M			2.3				
				SPARE		20	1	33	34	2	30	10	HP-9		1.7		M			1.7				
				SPARE		20	1	35	36							1.7	M			1.7				
				SPARE		20	1	37	38	1	20		SPARE											
				SPARE		20	1	39	40	2	60	6	BP-1		4.3		M			4.3				
				SPARE		20	1	41	42							4.3	M			4.3				
	3.3	3.3	3.7	SUBTOTALS										13.1	17.7	15.0								
				TOTALS									0.0	16.4	21.0	18.7				54.1	2.0			

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	0.0	1.00	0.0
RECEPTACLES	0.0	0.50	0.0
MOTORS	54.1	1.00	54.1
LARGEST MOTOR	0.0	1.75	0.0
HEAT	2.0	1.00	2.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	56.1		56.1

CALCULATIONS: 56.1 / 0.36 155.8 A X 1.25 = 194.7 A

NOTES:
1 * - INIDCATES HANLDE LOCKING DEVICE

PANEL: OL

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 22,000 — BY: MSM — JOB # 25165
SURFACE MOUNTED, 125 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 125 — CHECKED BY: EDB DATE: 9/15/2026

Revision 2

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
L	0.6			LIGHTS-ROOF	10	20	1	1	2	1	20	10	LIGHTS-BUILDING	0.3			L	1.1						
L		1.2		SIGNAGE-ROOF	10	20	1	3	4	1	20		SPARE					1.2						
L			1.2	SIGNAGE-ROOF	10	20	1	5	6	1	20		SPARE					1.2						
L	1.2			SIGNAGE-ROOF	10	20	1	7	8	1	20	10	LIGHTS-POOL (G)	0.4			L	1.6						
L		1.2		SIGNAGE-ROOF	10	20	1	9	10	1	20	10	LIGHTS-BUILDING		0.3		L	1.5						
L			0.8	LIGHTS-BUILDING	10	20	1	11	12	1	20	10	SIGNAGE-SITE			1.2	L	2.0						
				SPARE		20	1	13	14	1	20	10	LIGHTS-POOL (G)	0.9			L	0.9						
				SPARE		20	1	15	16	1	20		SPARE											
				SPARE		20	1	17	18	1	20		SPARE											
				SPARE		20	1	19	20	1	20		SPARE											
				SPACE ONLY			1	21	22	1			SPACE ONLY											
				SPACE ONLY			1	23	24	1			SPACE ONLY											
				SPACE ONLY			1	25	26	1			SPACE ONLY											
				SPACE ONLY			1	27	28	1			SPACE ONLY											
				SPACE ONLY			1	29	30	1			SPACE ONLY											
				SPACE ONLY			1	31	32	1			SPACE ONLY											
				SPACE ONLY			1	33	34	1			SPACE ONLY											
				SPACE ONLY			1	35	36	1			SPACE ONLY											
				SPACE ONLY			1	37	38	1			SPACE ONLY											
				SPACE ONLY			1	39	40	1			SPACE ONLY											
				SPACE ONLY			1	41	42	1			SPACE ONLY											
	1.8	2.4	2.0	SUBTOTALS										1.8	0.3	1.2								
				TOTALS									0.0	3.6	2.7	3.2		9.5						

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	9.5	1.25	11.9
RECEPTACLES	0.0	1.00	0.0
RECEPTACLES	0.0	0.50	0.0
MOTORS	0.0	1.00	0.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	9.5		11.9

CALCULATIONS: 11.9 / 0.36 33.0 A X 1.25 = 41.3 A

NOTES:
1 (G) - INDICATES TO PROVIDE A GFCI BREAKER.

PANEL: P

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 22,000 — BY: MSM — JOB # 25165
SURFACE MOUNTED, 125 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 125 — CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
R	0.8			REC-EXTERIOR	12	20	1	1	2	1	20	12	FUTURE POOL EQUIP.	1.0			O		0.8				1.0	
R		0.4		RECEPTS	12	20	1	3	4	1	20	12	FUTURE POOL EQUIP.		1.0		O		0.4				1.0	
				SPARE	12	20	1	5	6	1	20	12	FUTURE POOL EQUIP.			1.0	O						1.0	
L	0.1			LIGHTS	12	20	1	7	8	1	20	12	FUTURE POOL EQUIP.	1.0			O	0.1					1.0	
				SPARE	12	20	1	9	10	1	20	12	FUTURE POOL EQUIP.		1.0		O						1.0	
				SPARE	12	20	1	11	12	1	20	12	FUTURE POOL EQUIP.			1.0	O						1.0	
L	1.0			POOL LIGHTS (1)(G)	12	20	1	13	14	1	20	12	FUTURE POOL EQUIP.	1.0			O	1.0					1.0	
O		1.0		POOL LIFT (1)(G)	12	20	1	15	16	1	20	12	FUTURE POOL EQUIP.		1.0		O						2.0	
				SPARE		20	1	17	18	1	20	12	FUTURE POOL EQUIP.			1.0	O						1.0	
				SPARE		20	1	19	20	1	20	12	FUTURE POOL EQUIP.	1.0			O						1.0	
				SPARE		20	1	21	22	1	20		SPARE											
				SPARE		20	1	23	24	1	20		SPARE											
				SPARE		20	1	25	26	1	20		SPARE											
				SPARE		20	1	27	28	1	20		SPARE											
				SPARE		20	1	29	30	1	20		SPARE											
				SPARE		20	1	31	32	1	20		SPARE											
				SPARE		20	1	33	34	1	20		SPARE											
				SPARE		20	1	35	36	1	20		SPARE											
				SPARE		20	1	37	38	3	30	10	FUTURE POOL PUMP (SH)	2.9			M			2.9				
H		1.5		WH-2	12	20	2	39	40						2.9		M			2.9	1.5			
H			1.5					41	42							2.9	M			2.9	1.5			
	1.9	2.9	1.5	SUBTOTALS										6.9	5.9	5.9								
				TOTALS										8.8	8.8	7.4		1.1	1.2	8.7	3.0		11.0	

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	1.1	1.25	1.4
RECEPTACLES	1.2	1.00	1.2
RECEPTACLES	0.0	0.50	0.0
MOTORS	8.7	1.00	8.7
LARGEST MOTOR	0.0	1.75	0.0
HEAT	3.0	1.00	3.0
KITCHEN	0.0	0.65	0.0
OTHER	11.0	1.00	11.0
SPARE	0.0	1.00	0.0
TOTAL	25.0		25.3

CALCULATIONS: 25.3 / 0.36 70.2 A X 1.25 = 87.8 A

NOTES:
1 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
2 (SH) - INDICATES TO PROVIDE A SHUNT TRIP BREAKER.
3 PANEL SHALL BE PROVIDED WITH A NEMA-4X, CORROSIVE RESISTANT ENCLOSURE.

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09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

issue date:

ISSUE	NAME	DATE
	CONSTRUCTION	09/11/2026

revisions:

Revision	Date	Description
1	04/16/2026	Hilton Comments
2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM
checked by: EDB
project no: 25-104

PANEL SCHEDULES

E502

PANEL: **3C**
120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 400 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 400
BY: MSM JOB # 25165 CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
M	1.7			PTAC	12	20	2	1	2	2	20	12	PTAC	1.7			M			3.4				
M		1.7						3	4						1.7		M			3.4				
M			1.7	PTAC	12	20	2	5	6	2	20	12	PTAC			1.7	M			3.4				
M	1.7							7	8					1.7			M			3.4				
M		1.7		PTAC	12	20	2	9	10	2	20	12	PTAC		1.7		M			3.4				
M			1.7					11	12							1.7	M			3.4				
M	1.7			PTAC	12	20	2	13	14	2	20	12	PTAC	1.7			M			3.4				
M		1.7						15	16						1.7		M			3.4				
M			1.7	PTAC	12	20	2	17	18	2	20	12	PTAC			1.7	M			3.4				
M	1.7							19	20					1.7			M			3.4				
M		1.7		PTAC	12	20	2	21	22	2	20	12	PTAC		1.7		M			3.4				
M			1.7					23	24							1.7	M			3.4				
M	1.7			PTAC	12	20	2	25	26	2	20	12	PTAC	1.7			M			3.4				
M		1.7						27	28						1.7		M			3.4				
M			1.7	PTAC	12	20	2	29	30	2	20	12	PTAC			1.7	M			3.4				
M	1.7							31	32					1.7			M			3.4				
				SPARE		20	1	33	34	2	30		SPARE											
				SPARE		20	1	35	36															
				SPARE		20	1	37	38	3	125	1	PANEL "3D"	16.4										
L		0.5		LIGHTS	12	20	1	39	40						17.6			0.5						
R			0.8	RECEPTS	12	20	1	41	42							14.0			0.8					
	10.2	9.0	9.3					SUBTOTALS						26.6	26.1	22.5								
														PANEL "3D"					48.0					
										TOTALS			0.0	36.8	35.1	31.8		0.5	48.8	54.4				

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.5	1.25	0.6
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	38.8	0.50	19.4
MOTORS	54.4	1.00	54.4
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	103.7		84.4

CALCULATIONS: 84.4 / 0.36 234.5 A X 1.25 = 293.1 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: **3B**
120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 125 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 125
BY: MSM JOB # 25165 CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	1	2	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	3	4	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	5	6	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	7	8	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	9	10	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	11	12	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	13	14	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	15	16	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	17	18	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	19	20	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	21	22	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	23	24	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	25	26	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	27	28	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	29	30	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	31	32	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	33	34	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	35	36	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	37	38	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	39	40	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	41	42	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	43	44	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	45	46	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	47	48	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	49	50	1	20		SPARE						0.8					
R		0.8		REC-GUEST REF. (G)	12	20*	1	51	52	1	20		SPARE						0.8					
R			0.2	REC-GUEST BATH	12	20*	1	53	54	1	20		SPARE						0.2					
R	1.2			LTG/REC-GUEST	12	20*	1	55	56	1	20		SPARE						1.2					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	57	58	1	20		SPARE						0.8					
R			0.8	REC-GUEST REF. (G)	12	20*	1	59	60	1	20		SPARE						0.8					
R	0.2			REC-GUEST BATH	12	20*	1	61	62	1	20		SPARE						0.2					
R		1.2		LTG/REC-GUEST	12	20*	1	63	64	1	20		SPARE						1.2					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	65	66	1	20		SPARE						0.8					
R	0.8			REC-GUEST REF. (G)	12	20*	1	67	68	1	20		SPARE						0.8					
R		0.2		REC-GUEST BATH	12	20*	1	69	70	1	20		SPARE						0.2					
R			1.2	LTG/REC-GUEST	12	20*	1	71	72	1	20		SPARE						1.2					
				SPARE		20	1	73	74	1	20		SPARE											
				SPARE		20	1	75	76	1	20		SPARE											
				SPARE		20	1	77	78	1	20		SPARE											
				SPARE		20	1	79	80	1	20		SPARE											
				SPARE		20	1	81	82	1	20		SPARE											
				SPARE		20	1	83	84	1	20		SPARE											
	9.0	9.0	9.0					SUBTOTALS						6.0	6.0	6.0								
										TOTALS			0.0	15.0	15.0	15.0			45.0					

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	35.0	0.50	17.5
MOTORS	0.0	1.00	0.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	45.0		27.5

CALCULATIONS: 27.5 / 0.36 76.4 A X 1.25 = 95.5 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: **3A**
120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 400 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 400
BY: MSM JOB # 25165 CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
L	0.6			LIGHTS	12	20	1	1	2	2	20	12	PTAC	1.7			M	0.6		1.7				
R		1.5		REC-ICE MACHINE (G)	12	20	1	3	4						1.7		M		1.5	1.7				
O			1.2	REC-TELE/DATA	12	20	1	5	6	2	20	12	PTAC			1.7	M			1.7			1.2	
O	1.2			REC-TELE/DATA	12	20	1	7	8					1.7			M			1.7			1.2	
O		1.0		FIRE ALARM EXT. (L)	12	20	1	9	10	2	20	12	PTAC		1.7		M			1.7			1.0	
R			1.0	RECEPTS	12	20	1	11	12							1.7	M		1.0	1.7				
R	0.8			RECEPTS	12	20	1	13	14	2	20	12	PTAC	1.7			M		0.8	1.7				
O		0.8		FIRE SMOKE DAMP.	12	20	1	15	16						1.7		M			1.7			0.8	
M			1.7	PTAC	12	20	2	17	18	2	20	12	PTAC			1.7	M			3.4				
M	1.7							19	20					1.7			M			3.4				
M		1.7		PTAC	12	20	2	21	22	2	20	12	PTAC		1.7		M			3.4				
M			1.7					23	24							1.7	M			3.4				
M	1.7			PTAC	12	20	2	25	26	2	20	12	PTAC	1.7			M			3.4				
M		1.7						27	28						1.7		M			3.4				
M			1.7	PTAC	12	20	2	29	30	2	20	12	PTAC			1.7	M			3.4				
M	1.7							31	32					1.7			M			3.4				
				SPARE		20	1	33	34	2	20	12	PTAC		1.7		M			1.7				
				SPARE		20	1	35	36							1.7	M			1.7				
				SPARE		20	1	37	38	2	20	12	PTAC	1.7			M			1.7				
				SPARE		20	1	39	40						1.7		M			1.7				
				SPARE		20	1	41	42	2	20	12	PTAC			1.7	M			1.7				
				SPARE		20	1	43	44					1.7			M			1.7				
				SPARE		20	1	45	46	1	20		SPARE											
				SPARE		20	1	47	48	1	20		SPARE											
				SPARE		20	1	49	50	1	20		SPARE											
				SPARE		20	1	51	52	1	20		SPARE											
				SPARE		20	1	53	54	1	20		SPARE											
				SPARE		20	1	55	56	3	125	1	PANEL "3B"	15.0										
				SPARE		20	1	57	58						15.0									
				SPARE		20	1	59	60							15.0								
	7.7	6.7	7.3					SUBTOTALS						28.6	26.9	26.9								
														PANEL "3B"					45.0					
										TOTALS			0.0	36.3	33.6	34.2		0.6	48.3	51.0			4.2	

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.6	1.25	0.8
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	38.3	0.50	19.2
MOTORS	51.0	1.00	51.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	4.2	1.00	4.2
SPARE	0.0	1.00	0.0
TOTAL	104.1		85.1

CALCULATIONS: 85.1 / 0.36 236.4 A X 1.25 = 295.5 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: **3D**
120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 125 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 125
BY: MSM JOB # 25165 CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	1	2	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	3	4	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	5	6	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	7	8	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	9	10	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	11	12	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	13	14	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	15	16	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	17	18	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	19	20	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	21	22	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	23	24	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	25	26	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	27	28	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	29	30	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	31	32	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	33	34	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	35	36	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	37	38	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	39	40	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	41	42	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	43	44	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	45	46	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	47	48	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	49	50	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	51	52	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	53	54	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	55	56	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	57	58	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	59	60	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	61	62	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	63	64	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
				SPARE		20	1	65	66	1	20		SPARE											
				SPARE		20	1	67	68	1	20		SPARE											
				SPARE		20	1	69	70	1	20		SPARE											
				SPARE		20	1	71	72	1	20		SPARE											
				SPARE		20	1	73	74	1	20		SPARE											
				SPARE		20	1	75	76	1	20		SPARE											
				SPARE		20	1	77	78	1	20		SPARE											
				SPARE		20	1	79	80	1	20		SPARE											
				SPARE		20	1	81	82	1	20		SPARE											
				SPARE		20	1	83	84	1	20		SPARE											
	8.2	8.8	7.0					SUBTOTALS						8.2	8.8	7.0								
										TOTALS			0.0	16.4	17.6	14.0			48.0					

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	38.0	0.50	19.0
MOTORS	0.0	1.00	0.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	48.0		29.0

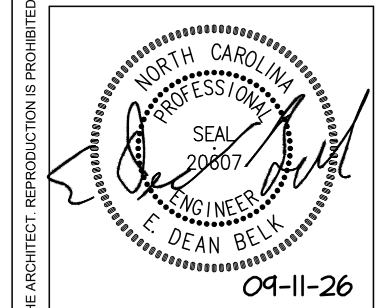
CALCULATIONS: 29.0 / 0.36 80.6 A X 1.25 = 100.7 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

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FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

issue date:

ISSUE	NAME	DATE
	CONSTRUCTION	09/11/2026

revisions:

Revision	Date	Description
1	04/16/2026	Hilton Comments
2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM
checked by: EDB
project no: 25-104

PANEL SCHEDULES

E503

PANEL: 4C

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 400 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 400

BY: MSM
JOB # 25165
CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
M	1.7			PTAC	12	20	2	1	2	2	20	12	PTAC	1.7			M			3.4				
M		1.7						3	4						1.7		M			3.4				
M			1.7	PTAC	12	20	2	5	6	2	20	12	PTAC			1.7	M			3.4				
M	1.7							7	8					1.7			M			3.4				
M		1.7		PTAC	12	20	2	9	10	2	20	12	PTAC		1.7		M			3.4				
M			1.7					11	12							1.7	M			3.4				
M	1.7			PTAC	12	20	2	13	14	2	20	12	PTAC	1.7			M			3.4				
M		1.7						15	16						1.7		M			3.4				
M			1.7	PTAC	12	20	2	17	18	2	20	12	PTAC			1.7	M			3.4				
M	1.7							19	20					1.7			M			3.4				
M		1.7		PTAC	12	20	2	21	22	2	20	12	PTAC		1.7		M			3.4				
M			1.7					23	24							1.7	M			3.4				
M	1.7			PTAC	12	20	2	25	26	2	20	12	PTAC	1.7			M			3.4				
M		1.7						27	28						1.7		M			3.4				
M			1.7	PTAC	12	20	2	29	30	2	20	12	PTAC			1.7	M			3.4				
M	1.7							31	32					1.7			M			3.4				
				SPARE		20	1	33	34	1	20		SPARE											
				SPARE		20	1	35	36	1	20		SPARE											
				SPARE		20	1	37	38	3	125	1	PANEL "4D"	16.4										
L		0.5		LIGHTS	12	20	1	39	40						17.6			0.5						
R			0.8	RECEPTS	12	20	1	41	42							14.0			0.8					
	10.2	9.0	9.3	SUBTOTALS										26.6	26.1	22.5								
													PANEL "4D"						48.0					
												TOTALS	0.0	36.8	35.1	31.8		0.5	48.8	54.4				

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.5	1.25	0.6
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	38.8	0.50	19.4
MOTORS	54.4	1.00	54.4
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	103.7		84.4

CALCULATIONS: 84.4 / 0.36 234.5 A X 1.25 = 293.1 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: 4B

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 125 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 125

BY: MSM
JOB # 25165
CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	1	2	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	3	4	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	5	6	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	7	8	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	9	10	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	11	12	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	13	14	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	15	16	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	17	18	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	19	20	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	21	22	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	23	24	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	25	26	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	27	28	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	29	30	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	31	32	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	33	34	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	35	36	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	37	38	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	39	40	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	41	42	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	43	44	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	45	46	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	47	48	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	49	50	1	20		SPARE						0.8					
R		0.8		REC-GUEST REF. (G)	12	20*	1	51	52	1	20		SPARE						0.8					
R			0.2	REC-GUEST BATH	12	20*	1	53	54	1	20		SPARE						0.2					
R	1.2			LTG/REC-GUEST	12	20*	1	55	56	1	20		SPARE						1.2					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	57	58	1	20		SPARE						0.8					
R			0.8	REC-GUEST REF. (G)	12	20*	1	59	60	1	20		SPARE						0.8					
R	0.2			REC-GUEST BATH	12	20*	1	61	62	1	20		SPARE						0.2					
R		1.2		LTG/REC-GUEST	12	20*	1	63	64	1	20		SPARE						1.2					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	65	66	1	20		SPARE						0.8					
R	0.8			REC-GUEST REF. (G)	12	20*	1	67	68	1	20		SPARE						0.8					
R		0.2		REC-GUEST BATH	12	20*	1	69	70	1	20		SPARE						0.2					
R			1.2	LTG/REC-GUEST	12	20*	1	71	72	1	20		SPARE						1.2					
				SPARE		20	1	73	74	1	20		SPARE											
				SPARE		20	1	75	76	1	20		SPARE											
				SPARE		20	1	77	78	1	20		SPARE											
				SPARE		20	1	79	80	1	20		SPARE											
				SPARE		20	1	81	82	1	20		SPARE											
				SPARE		20	1	83	84	1	20		SPARE											
	9.0	9.0	9.0	SUBTOTALS										6.0	6.0	6.0								
												TOTALS	0.0	15.0	15.0	15.0			45.0					

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	35.0	0.50	17.5
MOTORS	0.0	1.00	0.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	45.0		27.5

CALCULATIONS: 27.5 / 0.36 76.4 A X 1.25 = 95.5 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: 4A

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 400 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 400

BY: MSM
JOB # 25165
CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
L	0.6			LIGHTS	12	20	1	1	2	2	20	12	PTAC	1.7			M	0.6		1.7				
R		1.5		REC-ICE MACHINE (G)	12	20	1	3	4						1.7		M		1.5	1.7				
O			1.2	REC-TELE/DATA	12	20	1	5	6	2	20	12	PTAC			1.7	M			1.7			1.2	
O	1.2			REC-TELE/DATA	12	20	1	7	8					1.7			M			1.7			1.2	
O		1.0		FIRE ALARM EXT. (L)	12	20	1	9	10	2	20	12	PTAC		1.7		M			1.7			1.0	
R			1.0	RECEPTS	12	20	1	11	12							1.7	M		1.0	1.7				
				SPARE		20	1	13	14	2	20	12	PTAC	1.7			M			1.7				
O		0.8		FIRE SMOKE DAMP.	12	20	1	15	16						1.7		M			1.7			0.8	
M			1.7	PTAC	12	20	2	17	18	2	20	12	PTAC			1.7	M			3.4				
M	1.7							19	20					1.7			M			3.4				
M		1.7		PTAC	12	20	2	21	22	2	20	12	PTAC		1.7		M			3.4				
M			1.7					23	24							1.7	M			3.4				
M	1.7			PTAC	12	20	2	25	26	2	20	12	PTAC	1.7			M			3.4				
M		1.7						27	28						1.7		M			3.4				
M			1.7	PTAC	12	20	2	29	30	2	20	12	PTAC			1.7	M			3.4				
M	1.7							31	32					1.7			M			3.4				
				SPARE		20	1	33	34	2	20	12	PTAC		1.7		M			1.7				
				SPARE		20	1	35	36							1.7	M			1.7				
				SPARE		20	1	37	38	2	20	12	PTAC	1.7			M			1.7				
				SPARE		20	1	39	40						1.7		M			1.7				
M			0.4	EF-9	12	20	1	41	42	2	20	12	PTAC			1.7	M			2.1				
M	0.4			EF-10	12	20	1	43	44					1.7			M			2.1				
M		0.4		EF-10	12	20	1	45	46	1	20	12	REC-ROOF		0.4		R		0.4	0.4				
M			0.4	EF-11	12	20	1	47	48	1	20		SPARE							0.4				
M	0.4			EF-11	12	20	1	49	50	1	20		SPARE							0.4				
M		0.4		EF-11	12	20	1	51	52	1	20		SPARE							0.4				
				SPARE		20	1	53	54	1	20		SPARE											
				SPARE		20	1	55	56	3	125	1	PANEL "4B"	15.0										
				SPARE		20	1	57	58						15.0									
				SPARE		20	1	59	60							15.0								
	7.7	7.5	8.1	SUBTOTALS										28.6	27.3	26.9								
													PANEL "4B"						45.0					
												TOTALS	0.0	36.3	34.8	35.0		0.6	47.9	53.4			4.2	

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.6	1.25	0.8
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	37.9	0.50	19.0
MOTORS	53.4	1.00	53.4
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	4.2	1.00	4.2
SPARE	0.0	1.00	0.0
TOTAL	106.1		87.3

CALCULATIONS: 87.3 / 0.36 242.5 A X 1.25 = 303.1 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
4 (L) - INDICATES TO PROVIDE A BREAKER WITH A HANDLE LOCKING DEVICE.

PANEL: 4D

120/208 VOLTS 3 Ø 4 WIRE, TYPE: NQOD AIC: 35,000
SURFACE MOUNTED, 125 AMP MAIN LUGS ONLY NEUTRAL SIZE AMPS 125

BY: MSM
JOB # 25165
CHECKED BY: EDB DATE: 9/15/2026

LOAD	KVA A	KVA B	KVA C	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	POLES	CIRCUIT NO.	CIRCUIT NO.	POLES	TRIP AMPS	WIRE SIZE	REMARKS OR EQUIPMENT SERVED	KVA A	KVA B	KVA C	LOAD	LIGHTS	RECEPTS	MOTORS	HEAT	KITCHEN	OTHER	SPARE
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	1	2	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	3	4	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	5	6	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	7	8	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	9	10	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	11	12	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	13	14	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	15	16	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	17	18	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	19	20	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	21	22	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	23	24	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	25	26	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	27	28	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	29	30	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	31	32	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	33	34	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	35	36	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	37	38	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	39	40	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
R			0.8	REC-GUEST MICRO. (G)	12	20*	1	41	42	1	20*	12	REC-GUEST MICRO. (G)			0.8	R		1.6					
R	0.8			REC-GUEST REF. (G)	12	20*	1	43	44	1	20*	12	REC-GUEST REF. (G)	0.8			R		1.6					
R		0.2		REC-GUEST BATH	12	20*	1	45	46	1	20*	12	REC-GUEST BATH		0.2		R		0.4					
R			1.2	LTG/REC-GUEST	12	20*	1	47	48	1	20*	12	LTG/REC-GUEST			1.2	R		2.4					
R	0.8			REC-GUEST MICRO. (G)	12	20*	1	49	50	1	20*	12	REC-GUEST MICRO. (G)	0.8			R		1.6					
R		0.8		REC-GUEST REF. (G)	12	20*	1	51	52	1	20*	12	REC-GUEST REF. (G)		0.8		R		1.6					
R			0.2	REC-GUEST BATH	12	20*	1	53	54	1	20*	12	REC-GUEST BATH			0.2	R		0.4					
R	1.2			LTG/REC-GUEST	12	20*	1	55	56	1	20*	12	LTG/REC-GUEST	1.2			R		2.4					
R		0.8		REC-GUEST MICRO. (G)	12	20*	1	57	58	1	20*	12	REC-GUEST MICRO. (G)		0.8		R		1.6					
R			0.8	REC-GUEST REF. (G)	12	20*	1	59	60	1	20*	12	REC-GUEST REF. (G)			0.8	R		1.6					
R	0.2			REC-GUEST BATH	12	20*	1	61	62	1	20*	12	REC-GUEST BATH	0.2			R		0.4					
R		1.2		LTG/REC-GUEST	12	20*	1	63	64	1	20*	12	LTG/REC-GUEST		1.2		R		2.4					
				SPARE		20	1	65	66	1	20		SPARE											
				SPARE		20	1	67	68	1	20		SPARE											
				SPARE		20	1	69	70	1	20		SPARE											
				SPARE		20	1	71	72	1	20		SPARE											
				SPARE		20	1	73	74	1	20		SPARE											
				SPARE		20	1	75	76	1	20		SPARE											
				SPARE		20	1	77	78	1	20		SPARE											
				SPARE		20	1	79	80	1	20		SPARE											
				SPARE		20	1	81	82	1	20		SPARE											
				SPARE		20	1	83	84	1	20		SPARE											
	8.2	8.8	7.0	SUBTOTALS										8.2	8.8	7.0								
												TOTALS	0.0	16.4	17.6	14.0			48.0					

LOAD	KVA CONNECTED	D.F.	KVA NET
LIGHTING	0.0	1.25	0.0
RECEPTACLES	10.0	1.00	10.0
RECEPTACLES	38.0	0.50	19.0
MOTORS	0.0	1.00	0.0
LARGEST MOTOR	0.0	1.75	0.0
HEAT	0.0	1.00	0.0
KITCHEN	0.0	0.65	0.0
OTHER	0.0	1.00	0.0
SPARE	0.0	1.00	0.0
TOTAL	48.0		29.0

CALCULATIONS: 29.0 / 0.36 80.6 A X 1.25 = 100.7 A

NOTES:
1 FOR EACH CIRCUIT SERVING A GUEST ROOM LABEL EACH WITH THE ROOM NUMBER PER NEC 404.4A
2 * - INDICATES TO PROVIDE AN ARC FAULT BREAKER.
3 (G) - INDICATES TO PROVIDE A GFCI BREAKER.
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09-11-26

FOR CONSTRUCTION

HAMPTON INN & SUITES by HILTON

OLD WATERFORD WAY
LELAND, NC 28451

issue date:

ISSUE	NAME	DATE
	CONSTRUCTION	09/11/2026

revisions:

Revision	Date	Description
1	04/16/2026	Hilton Comments
2	07/14/2026	Site Lighting Coord.
3	09/11/2026	Coordination

drawn by: MSM
checked by: EDB
project no: 25-104

PANEL SCHEDULES

E504