

ELECTRICAL SPECIFICATIONS

- 1601 GENERAL
- A. INSTALLATION SHALL COMPLY WITH THE LATEST EDITION OF THE NORTH CAROLINA STATE BUILDING CODE, VOLUME 1 AND VOLUME 2, NATIONAL ELECTRIC CODE, LOCAL BUILDING CODES AND ORDINANCES AND OTHER NATIONAL CODES AND ORDINANCES. IN THE CASE OF CONFLICT BETWEEN THE CODE AND THE DRAWINGS AND SPECIFICATIONS OR BETWEEN THE VARIOUS CODES, THEN THE MOST RESTRICTIVE SHALL TAKE PRECEDENCE. PROVIDE AND PAY ALL LICENSES, FEES, PERMITS, POWER COMPANY CONNECTION CHARGES, IF ANY, INSURANCE, ETC., REQUIRED FOR EXECUTION OF THIS WORK.
- B. ELECTRICAL CONTRACTOR SHALL PROVIDE THE MATERIALS, PERFORM THE WORK AND TEST AND PAY ALL FEES NECESSARY TO MAKE THE ELECTRICAL SYSTEM OPERABLE AND READY FOR USE BY THE OWNER.
- C. GUARANTEE: EQUAL MATERIALS AND INSTALLATION SHALL BE GUARANTEED TO BE FREE OF DEFECTS FOR A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OF WORK OR IN ACCORDANCE WITH THE MANUFACTURER'S STANDARD GUARANTEE, IF LONGER.
- D. IT IS UNDERSTOOD AND AGREED THAT THESE PLANS AND SPECIFICATIONS SHALL BE FULFILLED IN THEIR TRUE SPIRIT AND INTENT SO THAT ANY MINOR MATERIALS OR DEVICES ESSENTIAL TO PROPER AND CONVENIENT OPERATION, REQUIRED OR IMPLIED, SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR WITHOUT EXTRA CHARGE, EVEN THOUGH NOT SPECIFICALLY CALLED OUT.
- E. INSTALLATION SHALL COMPLY WITH OSHA STANDARDS.
- F. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN CLEAN UP AND REMOVAL OF SCRAP FROM THE JOB SITE. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN A CLEAN AND SAFE WORK AREA. THE ENGINEER IS NOT RESPONSIBLE FOR JOB SITE SAFETY.
- G. IN CASE OF CONFLICT BETWEEN THE PLANS AND SPECIFICATIONS OR CONFLICT BETWEEN INFORMATION PRESENTED ON THE PLANS OR IN THE SPECIFICATIONS, THEN THE MOST RESTRICTIVE SHALL TAKE PRECEDENCE.
- H. DIVISION 1 SHALL BECOME A PART OF THESE SPECIFICATIONS BY REFERENCE.
- I. ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED, SUPPORTED, AND RESTRAINED IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE REQUIREMENTS FOR SEISMIC DESIGN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RETAIN A PROFESSIONAL ENGINEER COMPETENT IN THIS FIELD FOR THIS DESIGN. FOR ONE POSSIBLE SOURCE FOR THIS SERVICE CONTACT SEISMIC CONTROL AND ISOLATIONS, INC. PHONE: 910 799-5204. ALL REQUIRED INSPECTIONS FOR THESE DESIGNS SHALL BE PERFORMED BY APPROVED INSPECTORS AND AGENCIES PROVIDED BY OWNER AND OWNER'S AGENT.

- 1602 SCOPE
- WORK SHALL INCLUDE BUT IS NOT LIMITED TO:
- A. PROVIDE 120/208V-3-W SERVICE TO THE BUILDING.
- B. PROVIDE AND INSTALL FIXTURES AS SHOWN ON THE PLANS.
- C. PROVIDE AND INSTALL WIRING DEVICES, PANELS, AND CONDUIT.
- D. PROVIDE AND INSTALL TELEPHONE PANEL, CONDUIT TO TELEPHONE COMPANY POINT OF DELIVERY, TELEPHONE BOXES.
- E. PROVIDE CONNECTIONS TO MECHANICAL, AND PLUMBING EQUIPMENT.
- F. PROVIDE REQUIRED DEMOLITION.

- 1603 MATERIALS
- A. CONDUCTORS
1. ALL WIRE SHALL BE COPPER. WIRE #8 AND LARGER SHALL BE STRANDED.
2. USE WIRE WITH THHN/THWN INSULATION FOR ALL WIRE.
3. POWER CONDUCTORS SHALL BE #12 AWG MINIMUM. PILOT AND CONTROL CIRCUITS MAY BE #14 AWG.
- B. CONDUIT
1. UNDERGROUND CONDUIT SHALL BE PVC. CHANGE TO RIGID GALVANIZED BELOW CONCRETE FLOOR AND STUB UP THROUGH FLOOR WITH RIGID GALVANIZED.
2. ARMOR CABLE SHALL BE ALLOWED IN CONCEALED AREAS.
3. OTHER ABOVE GRADE CONDUIT SHALL BE EMT WITH STEEL COMPRESSION FITTINGS. IF EXPOSED TO MECHANICAL DAMAGE CONDUIT SHALL BE RIGID GALVANIZED.
4. CONNECTIONS TO EQUIPMENT AND FIXTURES SHALL BE MADE WITH SEAL TIGHT FLEX CONDUIT FOR EXTERIOR CONNECTIONS AND GREENFIELD FOR INTERIOR CONNECTION.
- C. WIRING DEVICES SHALL BE ONE MAKE, UNDERWRITERS APPROVED, MANUFACTURED BY PASS & SEYMOUR, HUBBELL OR EQUAL. DEVICE COVERS SHALL BE WEATHERPROOF FOR EXTERIOR COVERS. WIRING DEVICES SHALL BE STANDARD GRADE. COLOR SHALL BE DETERMINED BY THE ARCHITECT.
- D. DISTRIBUTION EQUIPMENT SHALL BE THE LATEST PRODUCTS. MANUFACTURER SHALL BE G.E., SQUARE D, WESTINGHOUSE, OR ITE. INTERIOR EQUIPMENT SHALL BE NEMA 1 AND EXTERIOR EQUIPMENT SHALL BE NEMA 3R MINIMUM.
- E. COORDINATE WITH POWER COMPANY TO OBTAIN BREAKER KATC RATINGS. DRAWINGS SHALL INDICATE MINIMUM RATING. ALL BREAKERS SHALL BE BOLT ON TYPE. MAIN PANEL SHALL BE SERVICE ENTRY RATED AND LABELED. BREAKERS SHALL BE SERIES AND CURRENT LIMITING RATED.
- F. PROVIDE MOTOR RATED SWITCHES FOR SWITCHES SERVING MOTORS AS REQUIRED.
- G. FUSES SHALL BE CURRENT LIMITING TIME DELAY FUSES "CLASS RK5".
- H. ALL EQUIPMENT AND FIXTURES SHALL BE UL APPROVED.
- I. PROVIDE LAMPS FOR ALL FIXTURES. LAMPS SHALL BE G.E., OR SYLVANIA.

- 1604 EXECUTION
- A. UNLESS OTHERWISE NOTED, SET ALL RECEPTACLES SET ALL RECEPTACLES AT 18" AFF TO CENTER OF OUTLET BOX, AND SET ALL SWITCHES AT 48" AFF TO TOP OF OUTLET BOX. ALL OTHER HEIGHTS ARE TO CENTER OF BOX UNLESS NOTED OTHERWISE.
- B. HOLES SHALL BE DRILLED OR CUT. DO NOT BREAK HOLES.
- C. THE ELECTRICAL CONTRACTOR SHALL DO ALL CUTTING, PATCHING AND PAINTING NECESSARY TO INSTALL ALL EQUIPMENT AS REQUIRED UNDER THIS CONTRACT, AND SHALL ESTABLISH ALL FINISHES WHEN CUTTING AND PATCHING OCCUR TO THEIR ORIGINAL CONDITION. QUALIFIED WORKERS SHALL DO ALL CUTTING AND PATCHING WORK (I.E. DRY WALL CUTTING AND PATCHING SHALL BE DONE BY QUALIFIED DRY WALL CRAFTSMEN).
- D. PATCHING SHALL BE DONE BY THE ELECTRICAL CONTRACTOR. ALL PATCHING SHALL BE DONE BY A CRAFTSMAN SKILLED IN THE WORK BEING PERFORMED.
- E. WIRE SHALL BE COLOR CODED AS FOLLOWS:

PHASE A	120/208
PHASE B	BLACK
PHASE C	RED
NEUTRAL	BLUE
GROUND	WHITE
	GREEN

- F. CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EQUIPMENT AND POWER REQUIREMENTS FOR ALL EQUIPMENT BEFORE RUNNING SERVICE.
- G. CONDUIT AND WIRING IN FINISHED AREAS SHALL BE CONCEALED. ANY EXPOSED CONDUIT SHALL BE RUN IN A NEAT FASHION AND SHALL BE RUN PERPENDICULAR AND PARALLEL TO THE BUILDING LINES.
- H. TELEPHONE AND COMPUTER OUTLETS SHALL BE DUPLEX RECEPTACLE BOXES WITH 3/4" EMT STUBBED INTO THE CEILING WITH PULL STRINGS INSTALLED.
- I. CONTRACTOR SHALL PRESERVE ALL FIRE RATED WALLS AND CEILINGS. VERIFY RATING WAS OFF THE ARCHITECTURAL PLAN. THIS SHALL INCLUDE USING CAULKING THAT IS UL APPROVED FOR THE APPLICATIONS, OFFSETTING BOXES AS REQUIRED AND PROVIDING RATED CAPS OR COVERS FOR LIGHTS, AS REQUIRED.

- 1605 DIRECTORY CARDS, NAME PLATES & EQUIPMENT LABELS
- A. PROVIDE A TYPED DIRECTORY CARD IN EACH PANELBOARD INDICATING ELECTRICAL DEVICES OR EQUIPMENT SERVED BY EACH CIRCUIT BREAKER. FURNISH BLANK COVERPLATE.
- B. PROVIDE NAMEPLATES FOR PANELS AND DISCONNECTS. NAMEPLATES SHALL BE LAMINATED PLASTIC. EACH NAMEPLATE SHALL IDENTIFY THE PANEL AND THE VOLTAGE. NAMEPLATES SHALL BE MELAMINE PLASTIC, 0.125 INCH THICK, BLACK WITH WHITE CENTER CORE. SURFACE SHALL BE MATTE FINISH. CORNERS SHALL BE SQUARE. ACCURATELY ALIGN LETTERING AND ENGRAVE INTO CORE. MINIMUM SIZE OF NAMEPLATES SHALL BE 1X2.5 INCHES. LETTERING SHALL BE A MINIMUM OF 0.25 INCHES HIGH, NORMAL BLOCK STYLE.

- 1606 TEST & ADJUSTMENTS
- A. TEST AND ADJUST THE ELECTRICAL SYSTEM AND RELATED WORK PROVIDED UNDER THIS DIVISION OF THE SPECIFICATIONS.
- B. TEST ALL CIRCUITS WITH A "MEGGER" TEST TO DETERMINE THAT THE SYSTEM IS FREE OF SHORT CIRCUITS AND THAT PHASE CONDUCTORS ARE NOT GROUNDED. CHECK ALL ELECTRICAL EQUIPMENT FOR PROPER OPERATIONS.

- 1607 GROUNDING
- A. THE SERVICE EQUIPMENT, CONDUIT SYSTEM SUPPORT CABINETS, EQUIPMENT AND NEUTRAL CONDUCTOR SHALL BE GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE. GROUNDING CONDUCTORS SHALL BE SO ROUTED AS TO PERMIT, AS FAR AS PRACTICAL, THE SHORTEST AND MOST DIRECT PATH TO THE GROUND ELECTRODE SYSTEM. ALL GROUND CONNECTIONS SHALL HAVE A CLEAN CONTACT SURFACE.
- B. RUN A SEPARATE EQUIPMENT GROUND IN ALL FEEDS.

- 1608 SUBSTITUTION
- A. ALL MATERIALS SHALL BE NEW UNLESS OTHERWISE SHOWN OR SPECIFIED AND SHALL BE OF THE VERY BEST QUALITY AS SPECIFIED.
- B. REQUESTS TO SUBSTITUTE OTHER MATERIALS OR PRODUCTS FOR THOSE SPECIFIED SHALL BE SENT IN WRITING TO THE OWNER. REQUESTS SHALL BE ACCOMPANIED BY ENGINEERING DATA, SPECIFICATION SHEETS, ETC. AS NECESSARY TO FULLY IDENTIFY AND APPRAISE THE PRODUCTS.
- C. APPROVAL OF EQUIPMENT WILL NOT RELIEVE THE CONTRACTOR OF NONCOMPLIANCE WITH THE SPECIFICATIONS EVEN IF SUCH APPROVAL IS MADE IN WRITING, UNLESS THE ENGINEER IS CALLED TO THE NONCONFORMING FEATURES BY LETTER ACCOMPANYING THE SUBMITTAL DATA.

- 1609 VISIT TO SITE
- ALL BIDDERS ON THIS WORK SHALL VISIT THE SITE AND THOROUGHLY FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS BEFORE SUBMITTING THEIR BIDS. NO ALLOWANCE WILL BE MADE FOR LACK OF KNOWLEDGE OF EXISTING CONDITION.

- 1610 SHOP DRAWINGS
- AS SOON AS POSSIBLE (AND NOT MORE THAN 30 DAYS) AFTER THE CONTRACT IS SIGNED, THE CONTRACTOR SHALL SUBMIT FIVE (5) COPIES OF THE SHOP DRAWINGS COVERING LIGHTING FIXTURES, PANELS, CIRCUIT, BREAKERS, AND WIRING DEVICES, AND ANY SPECIAL EQUIPMENT WHICH HE INTENDS TO USE. SHOP DRAWINGS SHALL BE SUBMITTED TO THE OWNER FOR HIS APPROVAL.

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
○	CEILING OUTLET WITH LED FIXTURE
○	WALL OUTLET WITH INCANDESCENT, FLUORESCENT OR LED FIXTURE
○	CEILING OUTLET WITH INCANDESCENT, FLUORESCENT OR LED FIXTURE
S	SWITCH, SINGLE POLE, 120VAC, MOUNTED AT 48" AFF TO TOP OF OUTLET BOX
S ₂	TWO POLE SWITCH, 250VAC, MOUNTED AT 48" AFF TO TOP OF OUTLET BOX
Sos	OCCUPANCY SENSOR WITH ON/OFF SWITCH, MOUNTED AT 48" AFF TO CENTER OF OUTLET BOX, LUTRON OR EQUAL
Smp	SWITCH, SINGLE POLE, 120VAC, IN WEATHER PROOF ENCLOSURE, MOUNTED AT 48" AFF TO TOP OF OUTLET BOX
S ₃	SWITCH, THREE WAY, 120VAC, MOUNTED AT 48" AFF TO TOP OF OUTLET BOX
Dos	DIMMER WITH OCCUPANCY SENSOR AND ON/OFF SWITCH, MOUNTED AT 48" AFF TO CENTER OF OUTLET BOX, LUTRON OR EQUAL
⊙	OCCUPANCY SENSOR, LOW VOLTAGE, CEILING MOUNT, LUTRON OR EQUAL
⊕	DUPLEX CONVENIENCE RECEPTACLE, 120VAC, MOUNTED AT 18" AFF TO CENTER OF OUTLET BOX
⊕	QUAD CONVENIENCE RECEPTACLE, 120VAC, MOUNTED AT 16" AFF UNO TV CONNECTION. VERIFY REQUIREMENTS W/ OWNER
☎	TELEPHONE OUTLET, MOUNTED AT 18" AFF TO CENTER OF OUTLET BOX
☎	DATA/PHONE OUTLET MOUNTED AT 18" AFF TO CENTER OF OUTLET BOX
⊙	JUNCTION BOX
—	ELECTRICAL PANEL, SURFACE
—	ELECTRICAL PANEL, FLUSH
⊕	DISCONNECT SWITCH, FUSIBLE
⊕	FAN BY MECHANICAL CONTRACTOR
—	TELEPHONE PANEL, 4x8x3/4 PLYWOOD WITH #6 INSUL. GROUND IN 3/4" CONDUIT TO ELEC. SYSTEM GROUND

ELECTRICAL ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
GF1	GROUND FAULT INTERRUPTER
GFIA	GROUND FAULT INTERRUPTER WITH AUDIBLE ALARM
3R	WEATHERPROOF ENCLOSURE
UNO	UNLESS NOTED OTHERWISE
RGS	RIGID GALVANIZED STEEL
WP	WEATHERPROOF
AHU	AIR HANDLING UNIT
HP	HEAT PUMP
TBD	TO BE DETERMINED

- NOTES:
1. FOR 20A - 14 - 120 VOLT SERVICE WIRE SIZE SHALL BE AS FOLLOWS:
- | DIST TO 1st CONNECTION | WIRE SIZE |
|------------------------|-----------|
| 60' TO LESS | #12 |
| 60' TO 100' | #10 |
| OVER 100' | #8 |

SYMBOL	DESCRIPTION	LAMP						MFG.	MODEL	MOUNTING	REMARKS
		NO	WATT	TYPE	COLOR TEMP	LUMENS	VOLT				
A	4' LINEAR LED	-	45	LED	3500K	5500	120	PHILIPS DAY-BRITE	FSS455L835-UNV-DIM	CEILING SURFACE	MOUNT ON OVER WALL OVER DOOR IN MECHANICAL ROOMS.
B	2' LINEAR LED	-	26	LED	3500K	3000	120	PHILIPS DAY-BRITE	FSS230L835-UNV-DIM	-	-
C/ C-EM	SURFACE MOUNT DOWNLIGHT	-	23	LED	3500K	2200	120	SIGNIFY LIGHTOLIER	S10R835K22W	CEILING SURFACE	SEE NOTE 3 FOR 'C-EM' FIXTURES.
D	BATHROOM VANITY	3	10	A19 LED	3500K	-	120	TBD	TBD	OVER MIRROR	PROVIDE \$100/EA ALLOWANCE.
E-EM	STAIRWELL LINEAR LED	-	36	LED	3500K	4534	120	LMAX LIGHTING	COSLED43L35K46-9FAR-EM1-30	WALL AND CEILING	PROVIDE BATTERY BACKUP, OCC. SENSOR & AUTOMATIC DIM. SEE NOTES 4 & 5.
F	ELEVATOR PIT VAPOR TIGHT	-	38	LED	4000K	4300	120	PHILIPS DAY-BRITE	DWAE43L840-4-UNV	WALL OR CEILING	VERIFY LOCATION W/ ELEVATOR SUPPLIER.
G-EM	EXTERIOR EMERGENCY EGRESS DOOR	-	17	LED	4000K	1530	120	ISOLITE	OWL-EM-BZ	OVER DOOR	VERIFY FINISH. PROVIDE BATTERY BACKUP.
⊕	EXIT	-	-	LED	-	-	120	ISOLITE	RL-EM-R-WH-UN-SD	WALL OR CEILING	PROVIDE BATTERY BACKUP.
⊕	EXIT/EMERGENCY COMBINATION	2	1	LED	-	-	120	ISOLITE	RLC-LED-R-U-WH-SD	WALL OVER DOOR	PROVIDE BATTERY BACKUP.
⊕	EMERGENCY	2	3	LED	-	-	120	ISOLITE	BUG-3-WH-SD	WALL @ 7'-6" AFF	PROVIDE BATTERY BACKUP.

LIGHTING FIXTURE NOTES:

- CONTRACTOR SHALL PROVIDE ALL LAMPS.
- ALL BALLAST FOR FLUORESCENT FIXTURES SHALL BE ELECTRONIC UNLESS NOTED OTHERWISE.
- FIXTURE SHALL BE WIRED TO OPERATE AS A PHOTOCELL/CLOCK CONTROLLED LIGHT UNDER NORMAL POWER AND AN EMERGENCY LIGHT IN THE EVENT OF A POWER LOSS. PROVIDE REMOTE BATTERY IF INTEGRAL BATTERY NOT AVAILABLE, BODINE OR EQUAL.
- MOUNT FIXTURE AT +7' -6" AFF WHEN WALL MOUNTED. FIXTURE DIMS TO 30% WHEN SPACE IS UNOCCUPIED.
- VERIFY FIXTURE SELECTION WITH OWNER. ANY SUBSTITUTIONS SHALL HAVE 90 MINUTE BATTERY BACKUP OR CONTRACTOR SHALL PROVIDE WALL MOUNTED EMERGENCY FIXTURE AT TOP AND BOTTOM OF STAIRS AND AT EACH LANDING.

SYMBOL	DESCRIPTION	HP	KW	AMP	VOLT	PHASE	BKR	FEEDER		CONNECTION	REMARKS
								COND	WIRE		
ELEV.	ELEVATOR	-	-	123	208	3	175/3	2"	3-2/0, 1#6G	FUSED DISC NEMA 1	VERIFY CONNECTION W/ SUPPLIER.
DU-1,2/ DAHU-1,2	DUCTLESS SPLIT SYSTEM	-	-	9	208	1	15/2	1/2"	2#12, 1#12G	FUSED DISC NEMA 3R	SEE NOTE 2.
EH-1,2	ELECTRIC WALL MOUNTED HEATER	-	4.0	19	208	1	30/2	1/2"	2#10, 1#10G	DIRECT	-

NOTES:

- CONTRACTOR SHALL VERIFY ALL CONNECTIONS BEFORE RUNNING SERVICE OR ORDERING EQUIPMENT.
- PROVIDE ALL REQUIRED CONDUIT WITH PULL STRING BETWEEN DHP/DC AND DAHU. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS. VERIFY BREAKER SIZE WITH SUPPLIER. PROVIDE ALL CODE REQUIRED DISCONNECTS AT UNITS.

ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE

PREScriptive PERFORMANCE ENERGY COST BUDGET

PROVIDE A STANDARD RISER DIAGRAM WHICH INDICATES DESIGNATED POINTS FOR CHECK METERING. - SEE PLANS
PROVIDE A STANDARD PANEL SCHEDULE DESCRIPTION WHICH IDENTIFIES DIFFERENT ENDUSE LOADS. - SEE PLANS

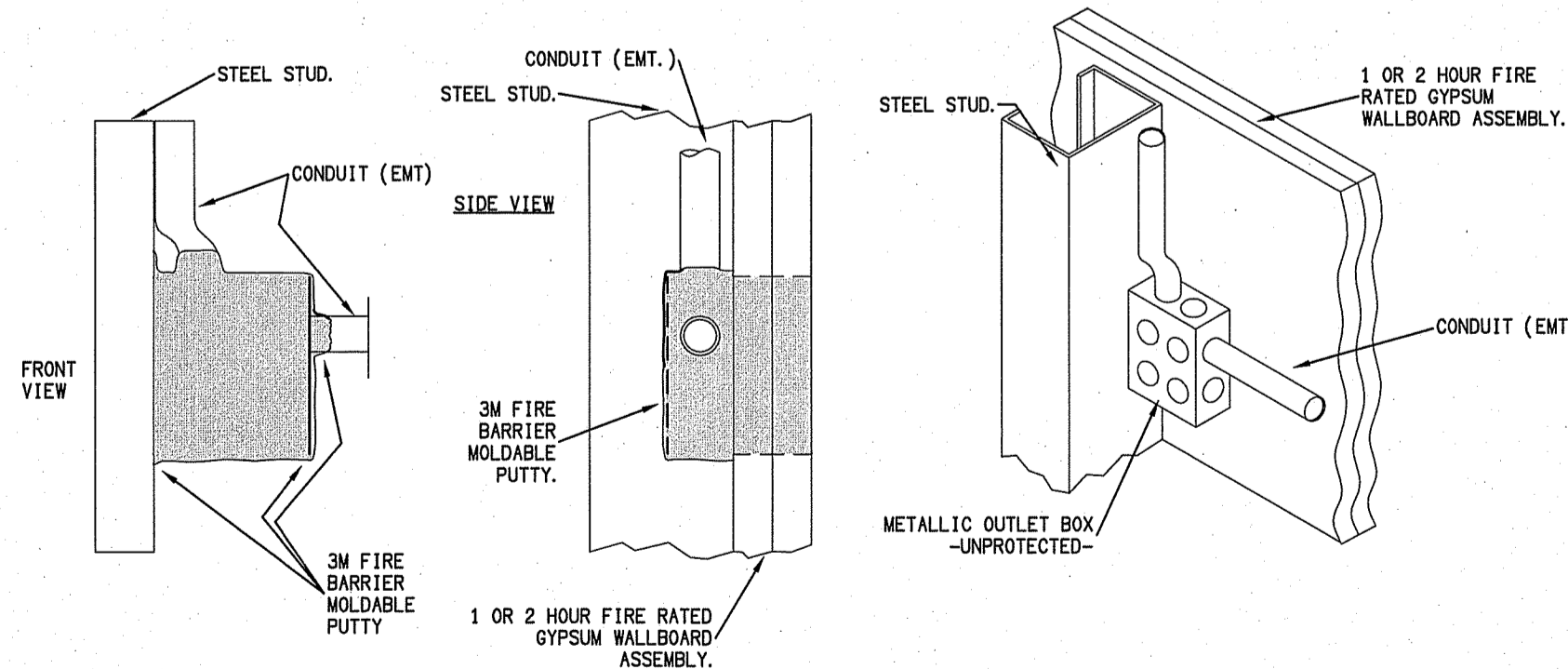
LIGHTING SCHEDULE
LAMP TYPE REQUIRED IN FIXTURE }
NUMBER OF LAMPS IN FIXTURE } SEE PLANS
BALLAST TYPE USED IN THE FIXTURE }
NUMBER OF BALLASTS IN FIXTURE }
TOTAL WATTAGE PER FIXTURE }
TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED } SPECIFIED=2,495 WATTS, ALLOWED=17,043 WATTS *
TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED } SPECIFIED WATTAGE IS LESS THAN BASE SITE ALLOWANCE

EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)
MOTOR HORSEPOWER }
NUMBER OF PHASES } N/A
MINIMUM EFFICIENCY }
MOTOR TYPE }
OF POLES }

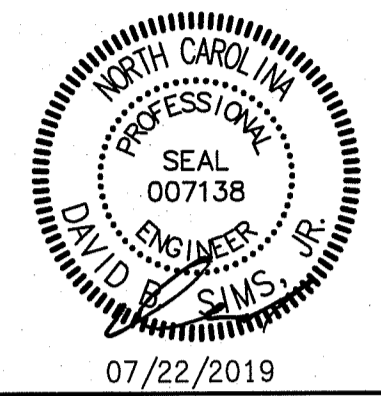
DESIGNER STATEMENT
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE THERMAL ENVELOPE REQUIREMENTS OF THE LATEST NORTH CAROLINA STATE ENERGY CODE.

SIGNED: DAVID SIMS JR.
NAME: DAVID SIMS JR., PE
TITLE: ENGINEER

*COMPLIES WITH C406.1 AND C406.3 OF THE NC ENERGY CODE 2018.



A PUTTY PACK DETAIL FOR E001 OR 2/HR FIRE WALL NTS



Renovations to:
226 North Front St.
Wilmington, North Carolina 28401

**PANEL SCHEDULES
& RISER DIAGRAM**

JOB NUMBER
DRAWN BY
CHECKED BY
DATE
07/09/2019
REVISIONS

SHEET NUMBER

E-002

PANEL NO.:	MDP	PROJECT:	GENERIC
USAGE:	LIGHTING AND APPLIANCE	CLIENT:	GENERIC
LOCATION:	STOR. CLOSET	LOCATION:	EXTERIOR
PHASES:	3	PHASES:	3
L-L VOLTS:	208V	L-L VOLTS:	208V
L-C VOLTS:	120V	L-C VOLTS:	120V
BUS AMPS:	1200A	BUS AMPS:	400A
MAIN CB AMPS:	MLO	MAIN CB AMPS:	MLO
AIC RATING:	43,239 MINIMUM	AIC RATING:	15,702 MINIMUM

LOAD AMPS.	DESCRIPTION	NOTES	BREAKER POLE	AMP.	CT. #	CT. #	BREAKER POLE	NOTES	DESCRIPTION	LOAD AMPS.
0.0	SPACE		1	1	A	2	400	3	PANEL H	199.4
0.0	SPACE		1	3	B	4				204.1
0.0	SPACE		1	5	C	6				201.3
0.0	SPACE		1	7	A	8	20	1	SPARE	0.0
0.0	SPACE		1	9	B	10	20	1	SPARE	0.0
0.0	SPACE		1	11	C	12	20	1	SPARE	0.0
0.0	SPACE		1	13	A	14	20	1	SPARE	0.0
0.0	SPACE		1	15	B	16	20	1	SPARE	0.0
0.0	SPACE		1	17	C	18	20	1	SPARE	0.0
0.0	SPACE		1	19	A	20	20	1	SPARE	0.0
0.0	SPACE		1	21	B	22	20	1	SPARE	0.0
0.0	SPACE		1	23	C	24	20	1	SPARE	0.0
0.0	SPACE		1	25	A	26	20	1	SPARE	0.0
0.0	SPACE		1	27	B	28	20	1	SPARE	0.0
0.0	SPACE		1	29	C	30	20	1	SPARE	0.0
0.0	SPACE		1	31	A	32	20	1	SPARE	0.0
0.0	SPACE		1	33	B	34	20	1	SPARE	0.0
0.0	SPACE		1	35	C	36	20	1	SPARE	0.0
0.0	SPACE		1	37	A	38	20	1	SPARE	0.0
0.0	SPACE		1	39	B	40	20	1	SPARE	0.0
0.0	SPACE		1	41	C	42	20	1	SPARE	0.0

LOAD SUMMARY	CON. KVA	%	DEM. KVA
RECEPTACLES	6	code	6
EQUIPMENT	50.31	100%	50.31
LIGHTS (INT.)	4.32	100%	4.32
LIGHTS (EXT.)	0.24	100%	0.24
HVAC	11.76	100%	11.76
KITCHEN	0	65%	0
TOTAL KVA	73		73
TOTAL AMPS	202		202

PANEL NOTES:
 1 - PROVIDE GROUND BUS
 2 - PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
 3 - LG - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
 4 - GFI - INDICATES C.B. IS GFI TYPE (30 mA FOR EQUIPMENT, 5 mA FOR PERSONNEL)
 5 - ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE
 6 - IG - INDICATES CIRCUIT SHALL INCLUDE ADDITIONAL ISOLATED GROUND CONDUCTOR

PANEL NO.:	H	PROJECT:	GENERIC
USAGE:	LIGHTING AND APPLIANCE	CLIENT:	GENERIC
LOCATION:	EXTERIOR	LOCATION:	EXTERIOR
PHASES:	3	PHASES:	3
L-L VOLTS:	208V	L-L VOLTS:	208V
L-C VOLTS:	120V	L-C VOLTS:	120V
BUS AMPS:	400A	BUS AMPS:	400A
MAIN CB AMPS:	MLO	MAIN CB AMPS:	MLO
AIC RATING:	15,702 MINIMUM	AIC RATING:	15,702 MINIMUM

LOAD AMPS.	DESCRIPTION	NOTES	BREAKER POLE	AMP.	CT. #	CT. #	BREAKER POLE	NOTES	DESCRIPTION	LOAD AMPS.		
12.0	LTS/FANS - 1ST FL		1	20	1	A	2	175	3	ST	ELEVATOR	123.0
2.0	LTS - EXTERIOR		1	20	9	B	4					123.0
4.0	LTS - BOTH STAIRWELLS		1	20	5	C	6					123.0
7.0	LTS/FANS - 2ND FL		1	20	7	A	8	20	1		RECT - ELEV. SUMP PUMP	6.0
7.0	LTS/FANS - 3RD FL		1	20	9	B	10	20	1		RECT - ELEV. PIT	2.0
2.0	LTS - ELEV SHAFT		1	20	11	C	12	20	1		ELEV CAB LIGHTS	4.0
2.0	RECT - DATA		1	20	13	A	14	20	1		SPARE	0.0
2.0	RECT - PHONE		1	20	15	B	16	30	2		ELEC. HEATER (EH-1)	19.2
6.0	RECT - EWC 1ST FL		1	20	17	C	18					19.2
6.0	RECT - EWC 2ND FL		1	20	19	A	20	30	2		ELEC. HEATER (EH-2)	19.2
6.0	RECT - EWC 3RD FL		1	20	21	B	22					19.2
3.0	RECT - RR ADA 1ST		1	20	23	C	24	15	2		MINI SPLIT SYS (DU-1/DAHU-1)	9.0
3.0	RECT - RR ADA 1ST		1	20	25	A	26					9.0
6.0	RECT - RR/HALL 2ND		1	20	27	B	28	15	2		MINI SPLIT SYS (DU-2/DAHU-2)	9.0
6.0	RECT - RR/HALL 3RD		1	20	29	C	30					9.0
14.0	HWT 1ST FLOOR		1	20	31	A	32	20	1		SPARE	0.0
14.0	HWT 2ND FLOOR		1	20	33	B	34	20	1		SPARE	0.0
14.0	HWT 3RD FLOOR		1	20	35	C	36	20	1		SPARE	0.0
2.0	FAUP		1	20	37	A	38	20	1		SPARE	0.0
2.0	RECT - SPRINKLER		1	20	39	B	40	20	1		SPARE	0.0
6.0	RECT - ROOF TOP		1	20	41	C	42	20	1		SPARE	0.0

LOAD SUMMARY	CON. KVA	%	DEM. KVA
RECEPTACLES	6	code	6
EQUIPMENT	50.31	100%	50.31
LIGHTS (INT.)	4.32	100%	4.32
LIGHTS (EXT.)	0.24	100%	0.24
HVAC	11.76	100%	11.76
KITCHEN	0	65%	0
TOTAL KVA	73		73
TOTAL AMPS	202		202

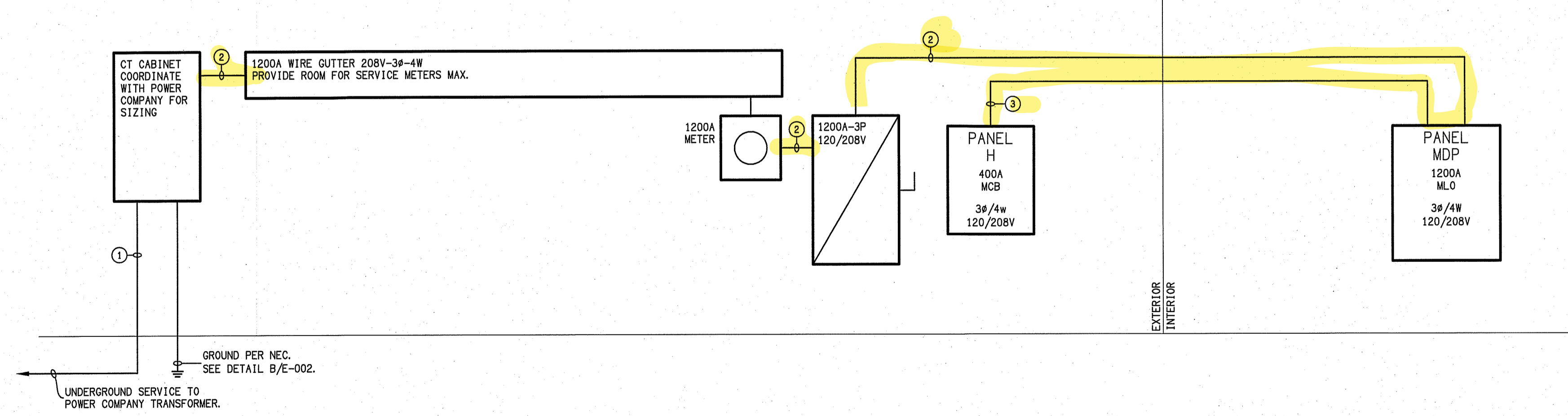
PANEL NOTES:
 1 - PROVIDE GROUND BUS
 2 - PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
 3 - LG - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
 4 - GFI - INDICATES C.B. IS GFI TYPE (30 mA FOR EQUIPMENT, 5 mA FOR PERSONNEL)
 5 - ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE
 6 - IG - INDICATES CIRCUIT SHALL INCLUDE ADDITIONAL ISOLATED GROUND CONDUCTOR

- RISER NOTES:**
- CONTRACTOR SHALL PROVIDE CONCRETE PAD, PLUS ALL LABOR, MATERIALS AND PAY ALL POWER COMPANY CONNECTION FEES TO PROVIDE A COMPLETE AND OPERATING SYSTEM FOR THE OWNER.
 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE A PLAQUE STATING THE FAULT CURRENT AT THE MAIN SERVICE DISCONNECT. THE CONTRACTOR SHALL PROVIDE VERIFICATION FROM THE POWER COMPANY BEFORE PLAQUE IS PLACED.
 - MAIN SERVICE DISCONNECT(S) SHALL BE SERIES RATED TO ALLOW SECONDARY BREAKERS TO BE AS FOLLOWS:
 300A - 400A 22,000AIC
 225A & SMALLER 10,000AIC
 - CONNECT ALL AVAILABLE GROUNDING MEANS PER NEC 250.50.

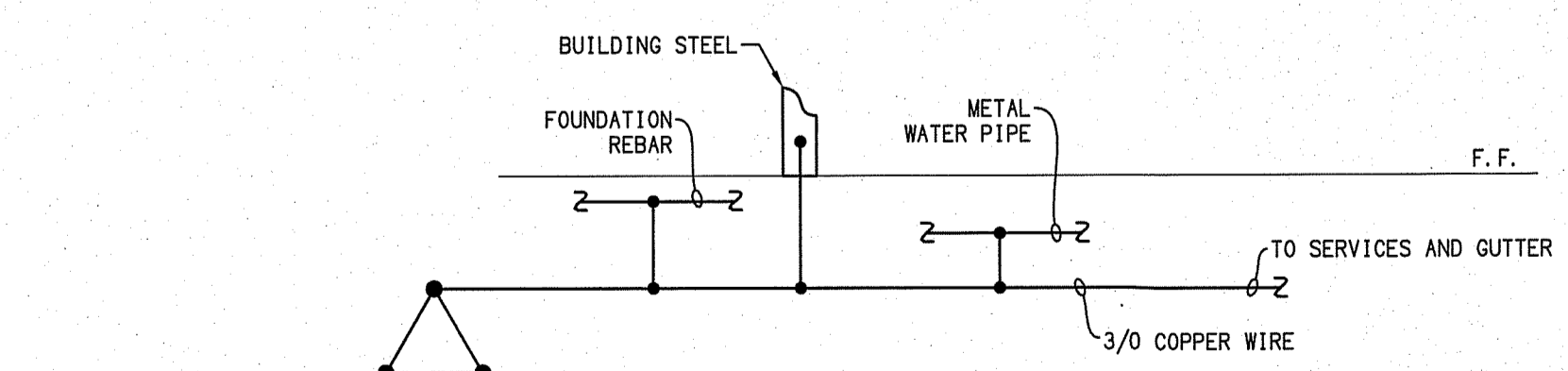
WIRE SIZE LEGEND

- ① 4-SETS 4-350 IN 3°C
- ② 4-SETS 4-350, 1#10 IN 3°C
- ③ 4-500, 1#36 IN 3½°C

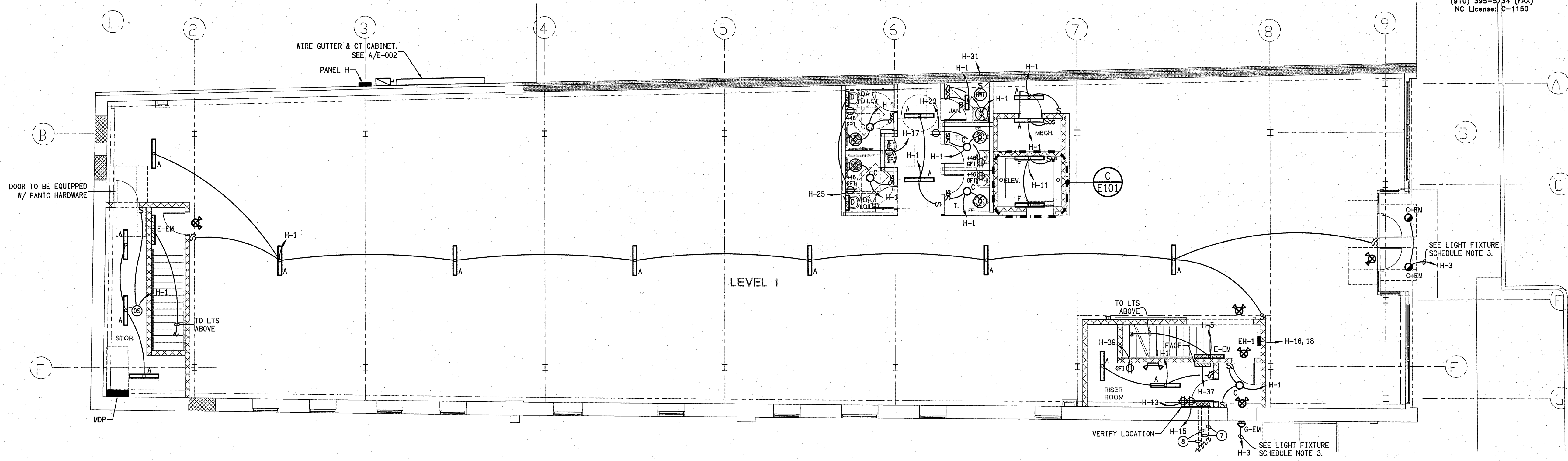
EXISTING SERVICE TO BE REMOVED AND REPLACED. ALL ITEMS SHOWN ARE NEW.



A POWER RISER
E002 SCALE: NTS

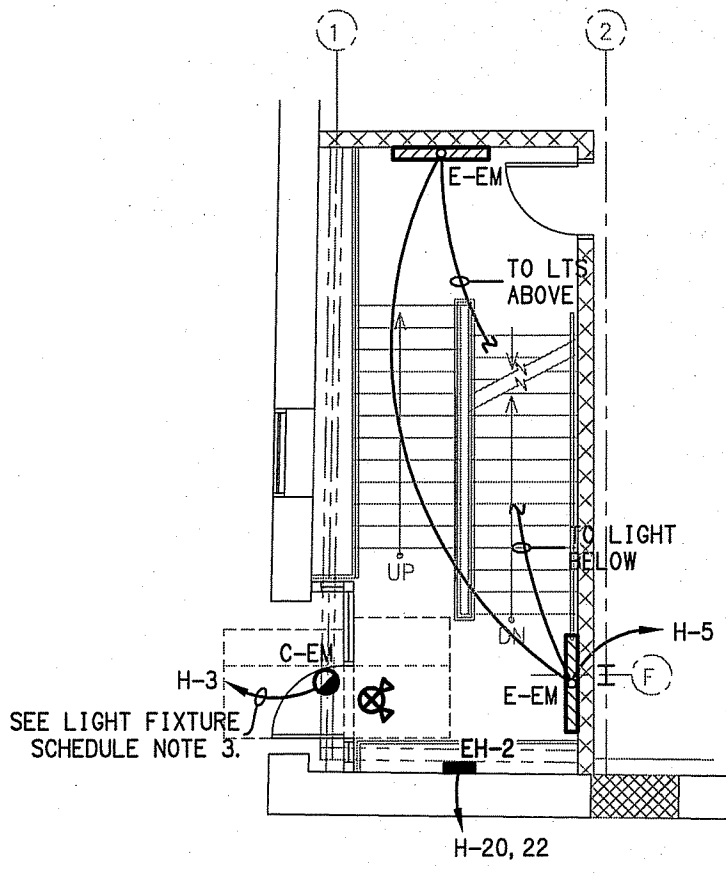


B GROUNDING DETAIL
E002 SCALE: NTS

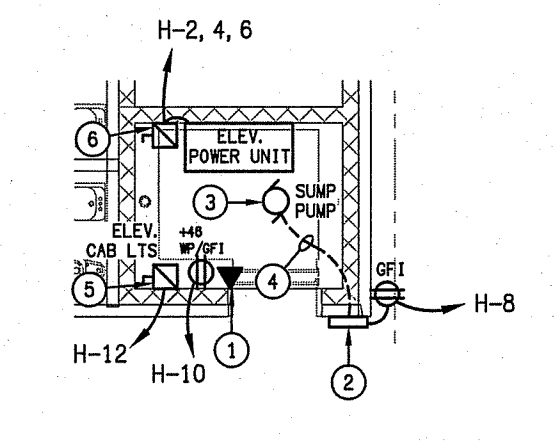


A LIGHTING & POWER 1ST FLOOR
E101 SCALE: 1/8" = 1'-0"

EMERGENCY/EXIT LIGHTING NOTE:
ALL INTERIOR EMERGENCY AND EXIT LIGHTS TO BE FED FROM LIGHTING CIRCUIT IN SAME AREA THE FIXTURE RESIDES AND WIRED AHEAD OF ANY LOCAL SWITCHES TO PROVIDE AN ALWAYS HOT FEED. USE UN-SWITCHED NIGHT LIGHT CIRCUIT IF AVAILABLE.



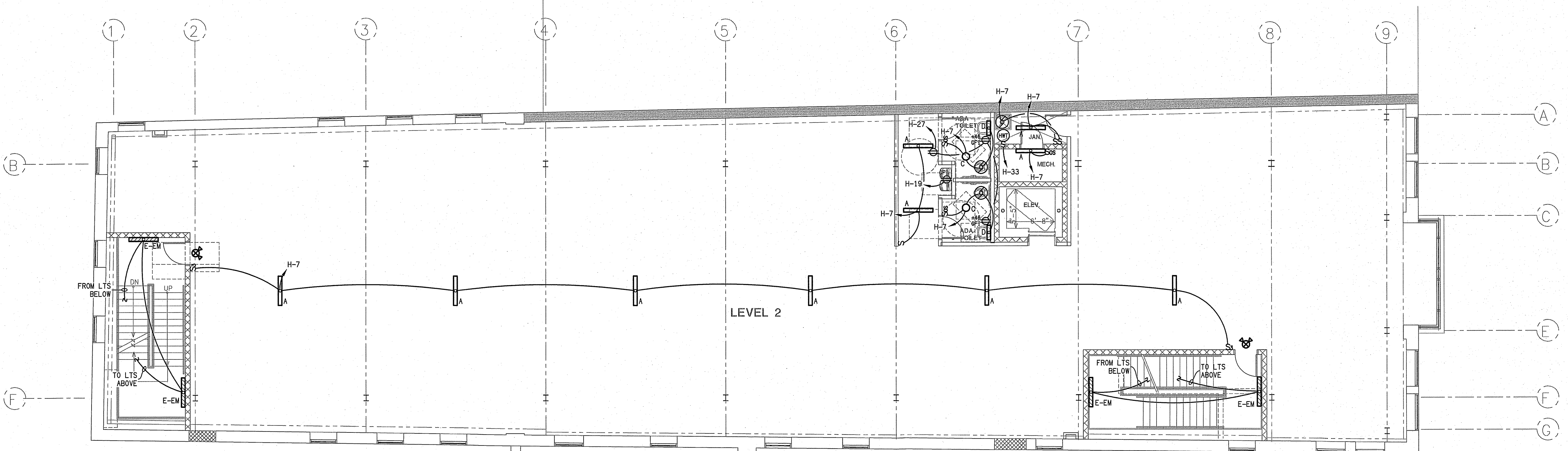
B LIGHTING PLAN @ ALLEY LANDING
E101 SCALE: 1/8" = 1'-0"



C POWER PLAN @ ELEV. PIT
E101 SCALE: 1/8" = 1'-0"

KEY NOTES

- ① TELEPHONE SERVICE. VERIFY LOCATION AND CONNECTION TO CONTROLLER ON SECOND LEVEL WITH ELEVATOR VENDOR.
- ② SUMP PUMP CONTROL PANEL. LOCATE IN ELEVATOR EQUIPMENT IF APPROVED BY ELEVATOR INSPECTOR.
- ③ SUMP PUMP. SUMP PUMP PACKAGE TO BE PROVIDED BY THE PLUMBING CONTRACTOR. ELECTRICAL CONTRACTOR TO CONNECT.
- ④ WIRE TO BE PROVIDED WITH SUMP PUMP PACKAGE. COORDINATE WITH PLUMBING CONTRACTOR.
- ⑤ 120V POWER FOR ELEVATOR CAB LIGHTS. VERIFY LOCATION OF DISCONNECT AND CONNECTION TO CONTROLLER ON SECOND LEVEL WITH ELEVATOR VENDOR. COORDINATE WITH VENDOR FOR ADDITIONAL REQUIREMENTS.
- ⑥ 208V-3Ø POWER FOR ELEVATOR POWER UNIT. VERIFY LOCATION OF DISCONNECT AND CONNECTION TO CONTROLLER ON SECOND LEVEL WITH ELEVATOR VENDOR. COORDINATE WITH VENDOR FOR ADDITIONAL REQUIREMENTS.
- ⑦ TWO 4" C WITH PULL STRING TO PHONE COMPANY POINT OF DELIVERY. VERIFY LOCATION AND ROUTING.
- ⑧ TWO 4" C WITH PULL STRING TO CATV POINT OF DELIVERY. VERIFY LOCATION AND ROUTING.



D LIGHTING & POWER 2ND FLOOR
E101 SCALE: 1/8" = 1'-0"

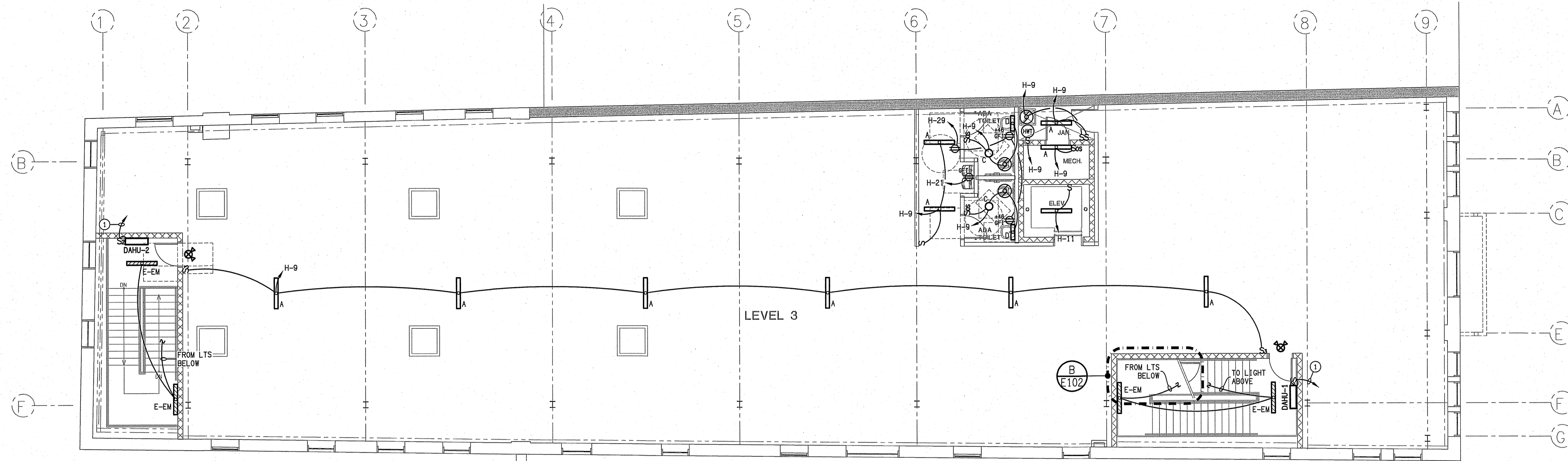
Renovations to:
226 North Front St.
Wilmington, North Carolina 28401

FIRST & SECOND FLOOR LIGHTING & POWER PLANS

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SHEET NUMBER

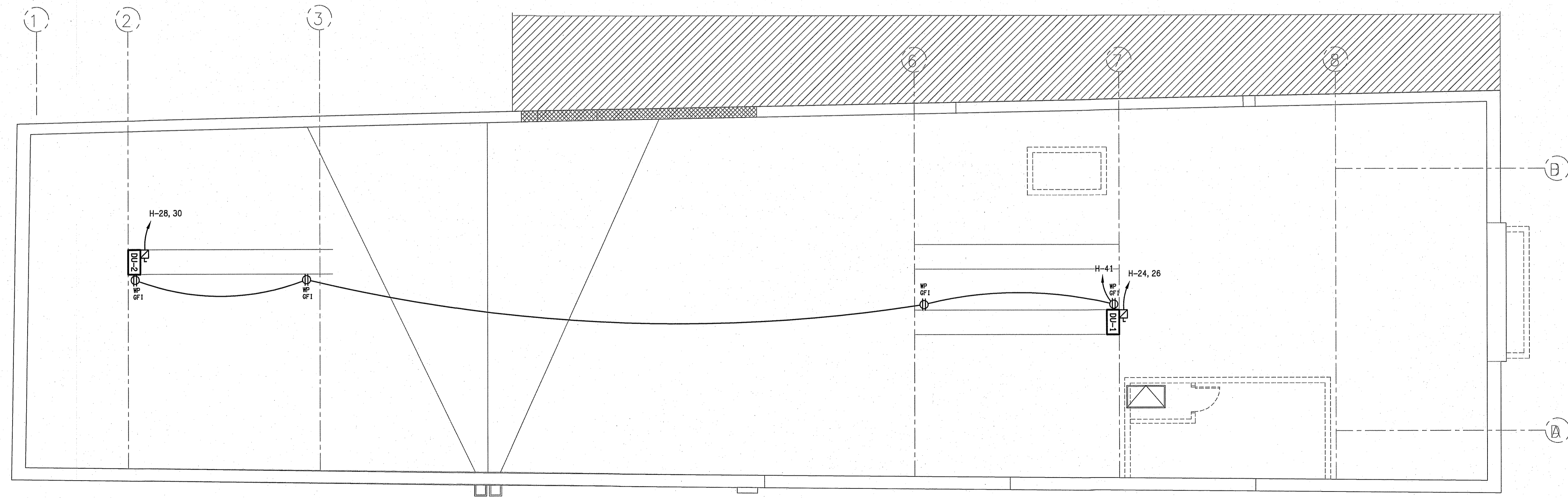
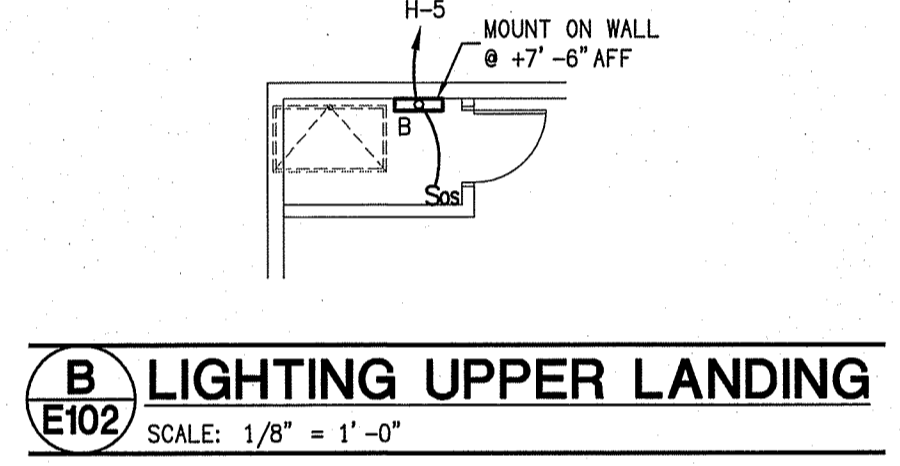
E-101



KEY NOTES
① INDOOR UNIT RECEIVES POWER FROM OUTDOOR UNIT. SEE CONNECTION SCHEDULE NOTE 2.

A LIGHTING & POWER 3RD FLOOR
E102 SCALE: 1/8" = 1'-0"

EMERGENCY/EXIT LIGHTING NOTE:
ALL INTERIOR EMERGENCY AND EXIT LIGHTS TO BE FED FROM LIGHTING CIRCUIT IN SAME AREA THE FIXTURE RESIDES AND WIRED AHEAD OF ANY LOCAL SWITCHES TO PROVIDE AN ALWAYS HOT FEED. USE UN-SWITCHED NIGHT LIGHT CIRCUIT IF AVAILABLE.



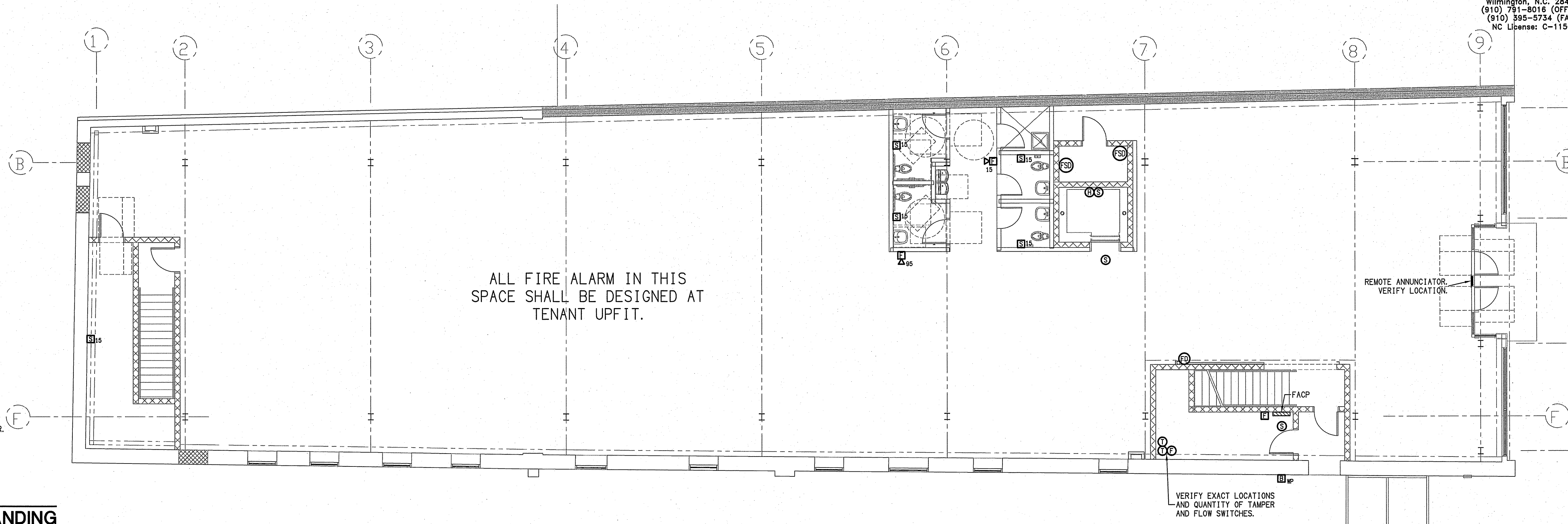
C ROOF POWER PLAN
E102 SCALE: 1/8" = 1'-0"

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Wilmington, North Carolina 28401

THIRD FLOOR &
ROOF LIGHTING &
POWER PLANS

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E-102

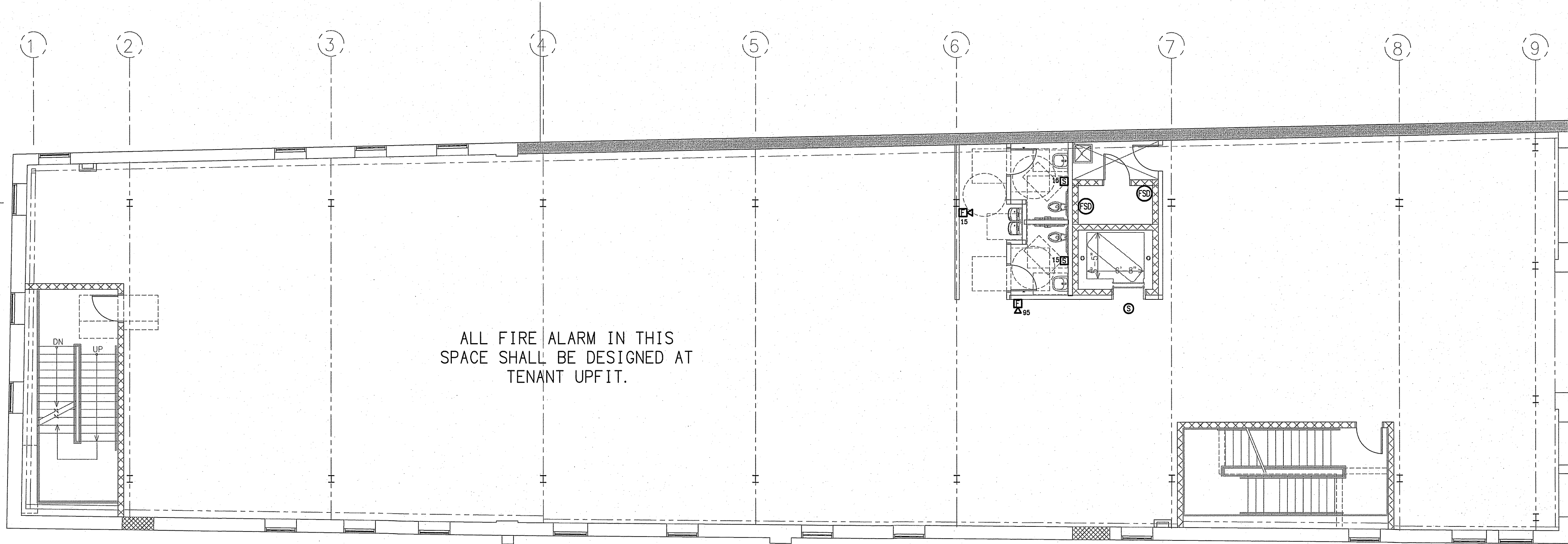


B FIRE ALARM PLAN @ ALLEY LANDING
FA101 SCALE: 1/8" = 1'-0"

A LIGHTING & POWER 1ST FLOOR
FA101 SCALE: 1/8" = 1'-0"

FIRE ALARM SPECIFICATIONS

- 1611 FIRE ALARM SYSTEM
- A. GENERAL
1. THE FIRE ALARM SYSTEM SHALL INCLUDE EMPTY RACEWAY SYSTEMS WITH PULLWIRE, ETC., OR USE OF UL FIRE RATED CABLE TO MEET THE NATIONAL ELECTRICAL CODE, THE STATE CODES AND THE LOCAL BUILDING CODES AND NFPA 72 AND ADA REQUIREMENTS.
 2. SYSTEM SHALL BE ADDRESSABLE.
 3. PROVIDE A COMPLETE NEW FIRE ALARM SYSTEM AS SHOWN ON THE PLANS.
- B. FIRE ALARM SYSTEM
1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT, WIRING, OUTLETS AND EQUIPMENT AS SHOWN ON THE DRAWINGS AND/OR HEREIN SPECIFIED. ALL SYSTEM COMPONENTS SPECIFIED HEREIN, AS WELL AS THEIR INSTALLATION, SHALL COMPLY WITH APPLICABLE STANDARD OF THE NATIONAL ELECTRICAL CODE, NATIONAL FIRE PROTECTION ASSOCIATION-72, N.C. STATE BUILDING CODE, LOCAL CODES, AND THE JURISDICTION HAVING AUTHORITY. ALL EQUIPMENT SHALL BE UNDERWRITERS' LABORATORIES LISTED FOR FIRE ALARM SYSTEM USE AND SHALL BE UL LISTED COMPATIBLE.
 2. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE INSTALLED AND CONNECTED UNDER THE DIRECTION AND SUPERVISION OF A MANUFACTURER'S REPRESENTATIVE UPON COMPLETION OF INSTALLATION. THE MANUFACTURER'S REPRESENTATIVE SHALL PERFORM ALL OPERATIONAL TESTS AND ADJUSTMENTS AND CERTIFY IN WRITING THAT THE SYSTEM IS PROPERLY INSTALLED AND FUNCTIONS AS SPECIFIED (SEE ALSO TESTING BELOW).
 3. ALL WIRING SHALL BE IN A COMPLETELY SEPARATE CONDUIT SYSTEM OR UL LISTED FIRE RATED CABLE AND COLOR CODED TO ALLOW EASE OF IDENTIFICATION OF THE DIFFERENT CIRCUITRY REQUIRED FOR THE SYSTEM.
 4. THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE SHALL PROVIDE SUPERVISION OF SYSTEM, AND SUBMIT A WRITTEN REPORT TO THE CONTRACTOR ATTESTING TO THE PROPER OPERATION OF THE COMPLETED SYSTEM.
 5. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING WARRANTY FOR THE FIRE ALARM SYSTEM: ALL EQUIPMENT SHALL BE WARRANTED BY THE MANUFACTURER FOR A PERIOD OF ONE YEAR FOLLOWING ACCEPTANCE. THE WARRANTY SHALL INCLUDE PARTS, LABOR, AND FIELD SERVICE.
 6. EQUIPMENT SHALL CONSIST OF THE FOLLOWING:
 - A) HEAT DETECTOR SHALL BE RATE OF TEMPERATURE RISE TYPE DETECTOR. HIGH TEMPERATURE UNITS SHALL BE USED IN AREA WITH GAS/OIL HEATER OR BOILERS.
 - B) WIRINGS:
 - 1) CONDUIT - ALL EXPOSED WIRING SHALL BE RUN IN 3/4" EMT CONDUIT AS A MINIMUM. USE STEEL COMPRESSION FITTINGS, PAINT ALL JUNCTION BOXES RED.
 - 2) WIRING - ALL WIRE SHALL BE COPPER. MINIMUM SIGNAL WIRE SHALL BE 18 GA. MINIMUM ALARM WIRE SHALL BE 14 GA. WIRE SHALL BE THIN/THIN RUN IN CONDUIT.
 - 3) ALL DATA COMMUNICATION CABLES EXTENDING FROM ONE BUILDING TO ANOTHER SHALL BE PROTECTED WITH LIGHTING SURGE PROTECTORS.
 - 4) UL APPROVED FIRE ALARM CABLE SHALL BE ALLOWED IN CONCEALED AREAS.
 7. AMERICAN DISABILITY ACT
 - A) INSTALLATION SHALL COMPLY WITH ALL ADA REQUIREMENTS. WHENEVER POSSIBLE ALL STROBE HORNS AND STROBES SHALL BE SET AT 84" AFF.
 8. TESTS
 - A) UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR AND THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE TOGETHER SHALL TEST EVERY ALARM INITIATING DEVICE FOR PROPER RESPONSE AND ZONE INDICATION, EVERY ALARM SIGNALING APPLIANCE FOR EFFECTIVENESS, AND ALL AUXILIARY FUNCTIONS SUCH AS CONTROL OF HVAC SYSTEMS, AND EXHAUST FANS.
 - B) THE OWNER AND THE ARCHITECT WILL BE GIVEN AT LEAST 7 DAYS PRIOR NOTICE AND BE GIVEN THE OPPORTUNITY TO WITNESS THESE TESTS.
 - C) AN ITEMIZED TEST REPORT SHALL THEN BE SUBMITTED TO THE ARCHITECT AND THE OWNER, DETAILING AND CERTIFYING ALL RESULTS, INCLUDING THE MEASURE SENSITIVITY OF EACH SMOKE DETECTOR. THE DATA FOR EACH SMOKE DETECTOR SHALL INCLUDE THE MANUFACTURER'S SERIAL NUMBER (IF ANY) PLUS SPECIFIC DEVICE NUMBER.
 9. SYSTEM DOCUMENTATION, TRAINING AND MAINTENANCE
 - A) THE CONTRACTOR SHALL PROVIDE THE ARCHITECT WITH THREE COPIES OF THE FOLLOWING, TO BE FORWARDED TO THE OWNER.
 - 1) AS-BUILT WIRING AND CONDUIT LAYOUT DIAGRAMS, COLOR CODE AND/OR LABEL NUMBERS, AND SHOWING CONNECTIONS IN THE SYSTEM.
 - 2) SCHEMATIC WIRING DIAGRAMS OF ALL CONTROL PANELS, MODULES, ANNUNCIATORS, COMMUNICATIONS PANELS, ETC.
 - 3) TECHNICAL LITERATURE ON ALL MAJOR PARTS OF THE SYSTEM, INCLUDING DETECTOR HEADS, MANUAL STATIONS, SIGNALING DEVICES, ALARM PANELS, AND POWER SUPPLIES.
 - B) THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE SHALL INSTRUCT THE OWNER'S DESIGNATED EMPLOYEES IN PROPER OPERATION OF THE SYSTEM AND IN ALL REQUIRED PERIODIC MAINTENANCE. THIS INSTRUCTION SHALL INCLUDE TWO COPIES OF A WRITTEN, BOUND SUMMARY FOR FUTURE REFERENCE.
 - C) BASIC OPERATING INSTRUCTIONS SHALL BE FRAMED AND MOUNTED AT THE FAC PANEL.
 - D) SYSTEMS SHALL FULLY COMPLY WITH ALL REQUIREMENTS OF "REQUIREMENTS FOR FIRE DETECTION AND ALARM SYSTEMS", LATEST EDITION, AS PUBLISHED BY THE NORTH CAROLINA DEPARTMENT OF REVENUE.



C LIGHTING & POWER 2ND FLOOR
FA101 SCALE: 1/8" = 1'-0"

Renovations to:
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FIRST & SECOND
FLOOR FIRE
ALARM PLANS

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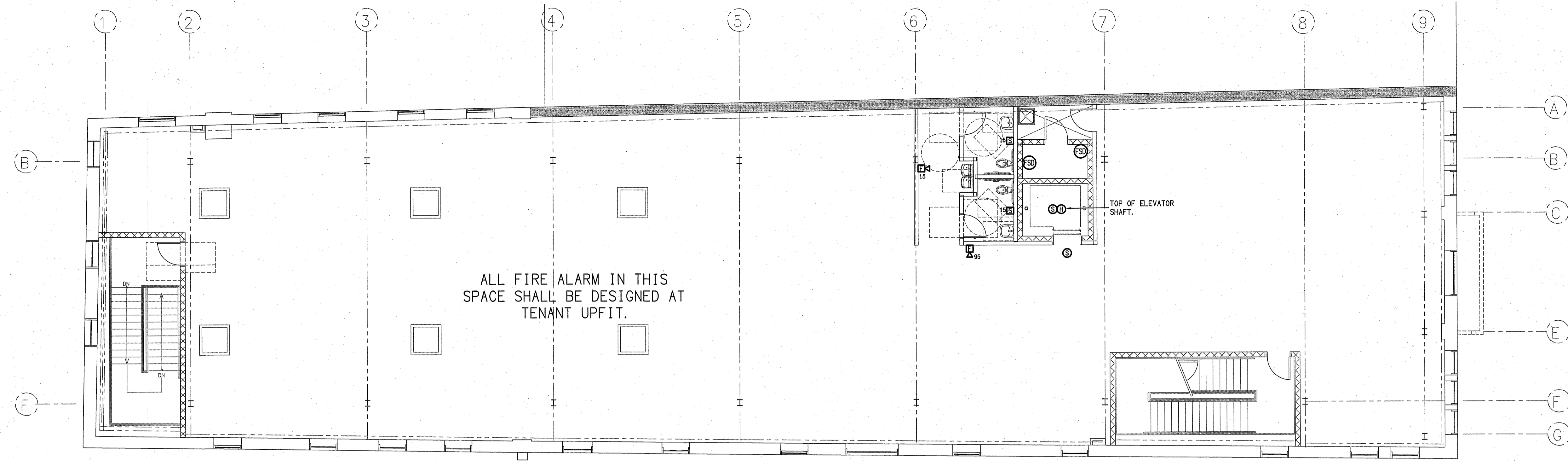
DATE

07/09/2019

REVISIONS

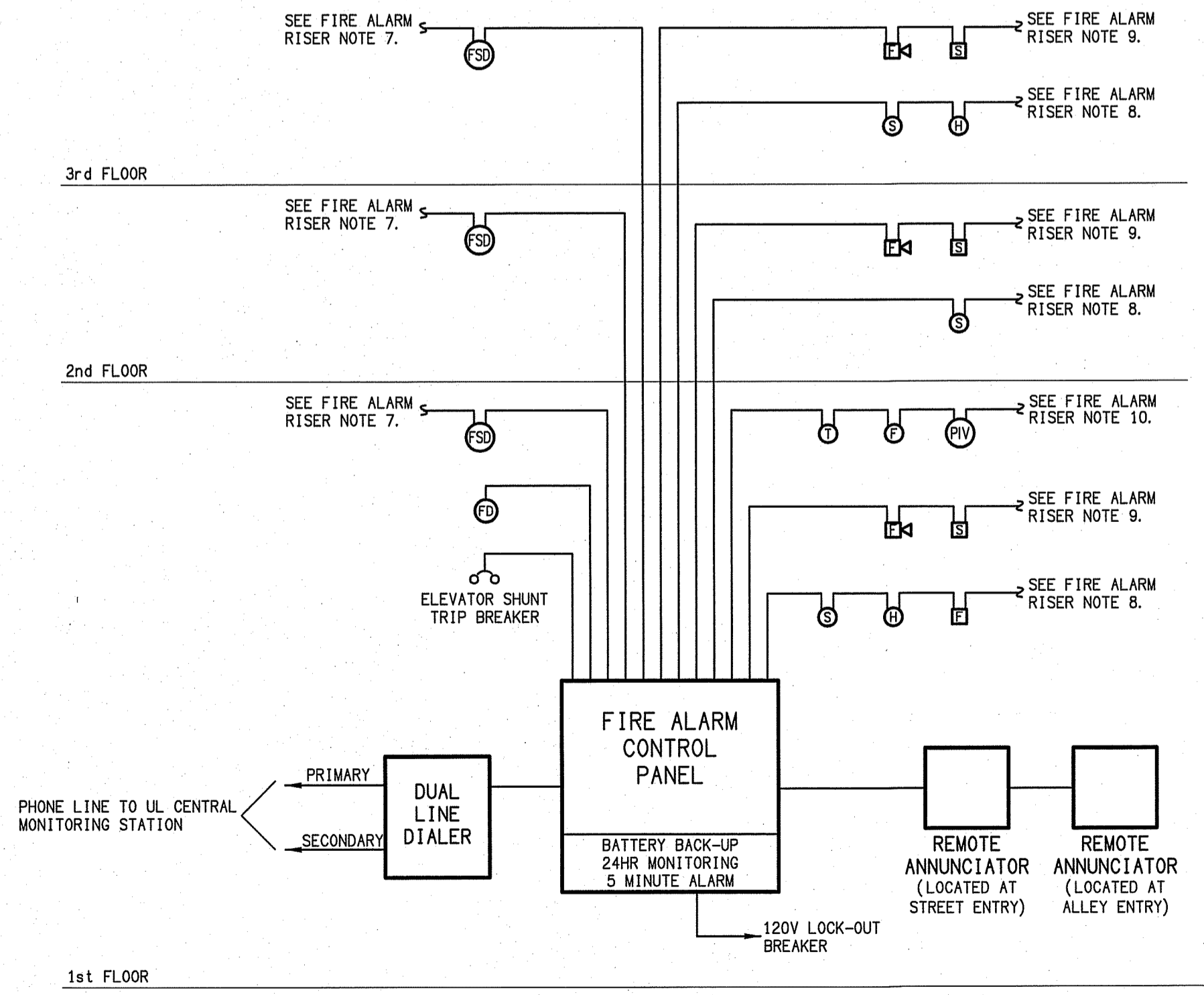
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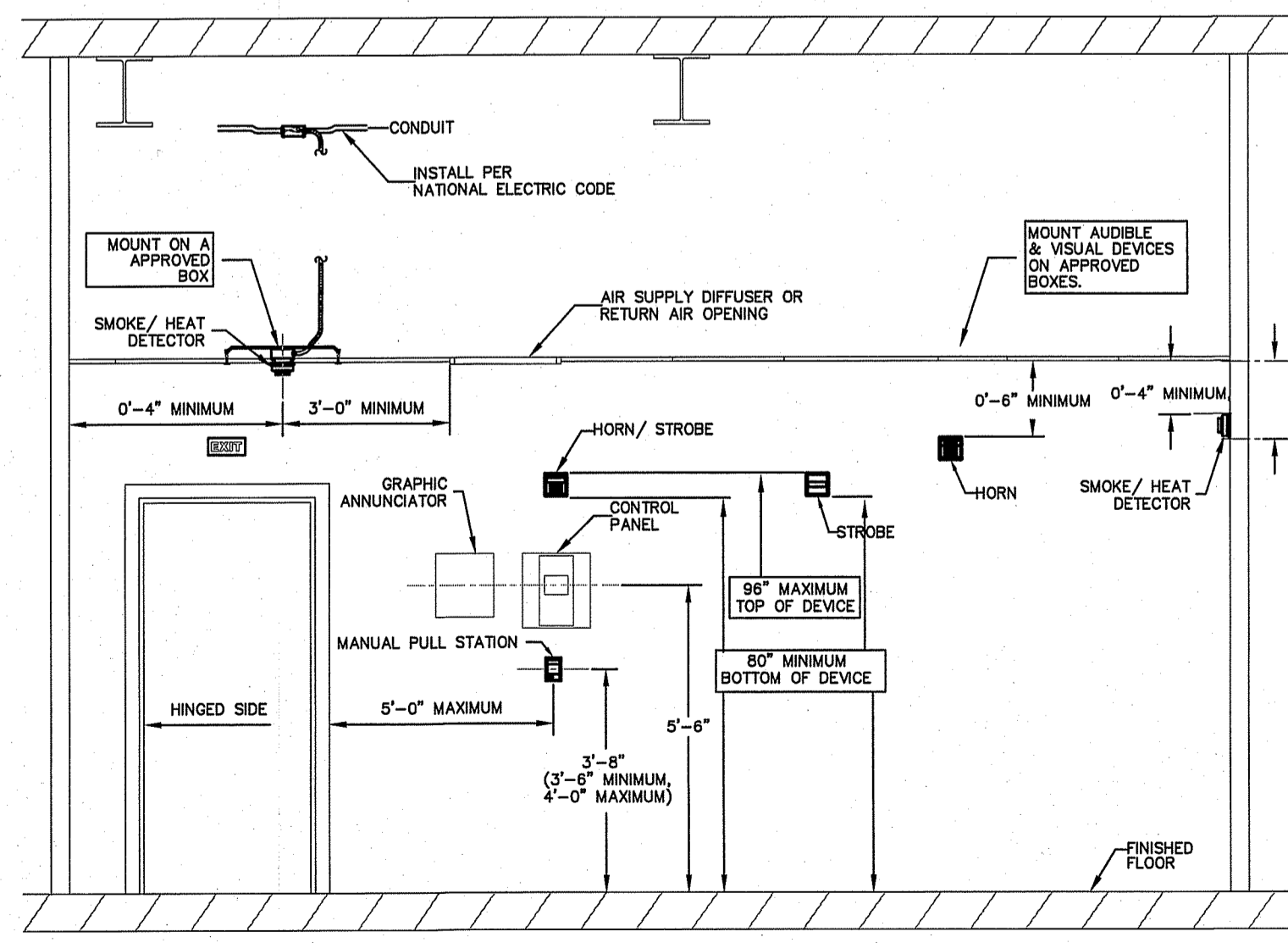


A LIGHTING & POWER 3RD FLOOR
SCALE: 1/8" = 1'-0"

FIRE ALARM LEGEND	
SYMBOL	DESCRIPTION
⊙	SMOKE DETECTOR, SEE DETAIL C/FA-102 FOR MOUNTING
⊠ ^{XX}	STROBE/HORN, XX CANDELA, SEE DETAIL C/FA-102 FOR MOUNTING
⊠ ^{XX}	STROBE ONLY, XX CANDELA, SEE DETAIL C/FA-102 FOR MOUNTING
⊠	PULL STATION, SEE DETAIL C/FA-102 FOR MOUNTING
⊕	HEAT DETECTOR, RATE OF RISE INDICATED IN DEGREES, SEE C/FA-102 FOR MOUNTING
⊖	TAMPER SWITCH BY OTHERS, CONNECTED BY FIRE ALARM CONTRACTOR
⊗	FLOW SWITCH BY OTHERS, CONNECTED BY FIRE ALARM CONTRACTOR
⊠	FIRE DOOR
⊠	FIRE SMOKE DAMPER
⊠	POST INDICATOR VALVE BY OTHERS, CONNECTED BY FIRE ALARM CONTRACTOR
⊠	WEATHER PROOF BELL
⊠	FACP FIRE ALARM CONTROL PANEL FOR SPRINKLER MONITORING ALARM SYSTEM
⊠	WP WEATHER PROOF
⊠	REMOTE ANNUNCIATOR



- FIRE ALARM RISER NOTES:**
- FIRE ALARM SYSTEM SHALL BE 24V DC, POWER LIMITED, FULLY SUPERVISED, WITH 24 HOUR STANDBY BATTERY. PANEL TO BE SURFACE MOUNTED. SYSTEM SHALL HAVE MINIMUM 25% SPARE CAPACITY. SYSTEM SHALL BE ADDRESSABLE.
 - FIRE ALARM DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH NFPA 72 AND 'ADA'.
 - ALL FIRE ALARM WIRING SHALL BE IN CONDUIT. FIRE CABLE ALLOWED IN CONCEALED AREAS.
 - DEVICE QUANTITIES SHALL BE AS INDICATED ON THE PLANS. VERIFY QUANTITY AND EXACT LOCATION OF SPRINKLER SYSTEM TAMPER AND FLOW SWITCHES WITH SPRINKLER CONTRACTOR.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE A FIRE ALARM LAYOUT PLAN AT THE FACP AND THE ANNUNCIATOR PANEL.
 - ELECTRICAL CONTRACTOR TO PROVIDE AUTHORITY HAVING JURISDICTION WITH FIRE ALARM SYSTEM INSTALLATION PLANS FOR FINAL APPROVAL, PRIOR TO INSTALLATION.
 - CONNECT ALL FIRE SMOKE DAMPERS.
 - CONNECT ALL SMOKE DETECTORS, HEAT DETECTORS, CO DETECTORS AND PULL STATIONS.
 - CONNECT ALL STROBES AND STROBE HORNS. MAXIMUM OF TEN DEVICES ON A CIRCUIT. PROVIDE ADDITIONAL CIRCUITS AS REQUIRED.
 - CONNECT ALL SPRINKLER SYSTEM DEVICES. COORDINATE WITH SPRINKLER CONTRACTOR.
 - NOT USED.
 - NOT USED.
 - NOT USED.
 - VOLTAGE DROP CALCULATIONS AND BATTERY CALCULATIONS WILL BE PROVIDED BY THE CONTRACTOR.
 - ALL WIRE SHALL BE COPPER.
 - ALL WIRE SHALL BE CAPPED AND RUN IN CONDUIT. U.L. APPROVED FIRE ALARM CABLE MARKED FPL PER NEC 760.28 SHALL BE ALLOWED IN CONCEALED NON-PLENUM AREAS ONLY WHEN NOT EXPOSED TO MECHANICAL DAMAGE.
 - ALL ALARM CIRCUITS SHALL BE 14 AWG MINIMUM. ALL SIGNAL CIRCUITS SHALL BE 18 AWG MINIMUM. ALL OTHER WIRE SHALL BE SIZED PER MANUFACTURE INSTRUCTIONS.
 - PHONE DIALER SHALL BE CONNECTED TO A CENTRAL MONITORING STATION. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NEEDED FOR THIS CONNECTION AND SHALL PAY ALL FEES REQUIRED FOR THIS CONNECTION. PHONE DIALER SHALL BE A DUAL LINE DIALER PROVIDED BY THE CONTRACTOR.
 - ALL COMPONENTS SHALL REFLECT U.L. LISTING AND LABELING FOR FIRE SERVICE USE AND SHALL BE COMPATIBLE.
 - UPON ACTIVATION OF THE FIRE ALARM SYSTEM BY A MANUAL STATION, SMOKE DETECTOR, DUCT DETECTOR, ANSUL SYSTEM, FLOW OR PRESSURE SWITCHES THE FOLLOWING TAKES PLACE:
 - ENERGIZE ALL ALARM SIGNALING DEVICES.
 - SOUND ALL AUDIBLE ALARMS AND FLASH VISUAL SIGNAL THROUGHOUT THE BUILDING.
 - ALERT THE LOCAL FIRE DEPARTMENT OR PROPRIETARY SYSTEM.
 - CAUSE ALARM TO BE DISPLAYED ON THE ANNUNCIATOR AND ON THE CONTROL PANEL.
 - CLOSE ALL DOORS WHICH ARE HELD OPEN BY AUTOMATIC RELEASE DEVICES THROUGHOUT THE FACILITY OR BY ZONE.
 - ALL AHU'S AND RTU'S SHALL SHUT DOWN UPON FIRE ALARM ACTIVATION. SEE MECHANICAL PLANS FOR EXACT LOCATION OF UNITS.
 - PROVIDE A COMPLETE ZONE NAME LIST SUCH THAT IT CAN BE DETERMINED IF THE SMOKE COMPARTMENT NAME IS USED IN EACH ZONE NAME AND THE ZONE NAMES HAVE BEEN COORDINATED WITH THE SMOKE COMPARTMENTS.
 - PROVIDE TELEPHONE DIALER TROUBLE ALARM
 - LOSS OF TELEPHONE LINE
 - LOSS OF DIALER
 - LOSS OF UNIT POWER SUPPLY.
 - ALL STROBES AND STROBE/CHIMES SHALL BE ADJUSTABLE FOR LIGHT LEVEL AND AUDIO.



C TYPICAL MOUNTING HEIGHT DETAIL
SCALE: NTS

B FIRE ALARM RISER
SCALE: NTS

Renovations to:
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Wilmington, North Carolina 28401

**THIRD FLOOR FIRE
ALARM PLAN,
DETAIL & RISER**

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