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INTERIOR UPTT
USPS SPOUT SPRINGS NC CAX
XXXXXXXXXX
XXXXXXXXXX

UNITED STATES
POSTAL SERVICE

P3.1 Plumbing Schedules + Details
Scale: As Indicated Date: 5/17/2018
Project: SPOUT SPRINGS INTERIOR UPTT
USPS File Number: XXXXX
USPS Project Number: 027932

PLUMBING LEGEND		
SYMBOL	ABBREVIATION	DESCRIPTION
—	CW	COLD WATER
—	HW (110°F)	HOT WATER
—	HW (140°F)	HOT WATER
—	HWR (110°F)	HOT WATER RETURN
—	HWR (140°F)	HOT WATER RETURN
—	W	WASTE
—	GW	GREASE LADEN WASTE LINE
—	V	VENT
—	RL	ROOF LEADER
—	SD	STORM DRAIN
—	G	GAS
—	VTR	VENT THRU ROOF
—		GLOBE VALVE
—		BALL VALVE
—		CHECK VALVE
—		UNION
—		PRESSURE REDUCING VALVE
—	FPH	FROST PROOF HYDRANT
—	HB	HOSE BIBB
—		SHOCK ABSORBER
—	RD	ROOF DRAIN
—	FCO	FLOOR CLEANOUT
—	FCO/YCO	FLOOR OR YARD CLEANOUT
—	FS/FD	FLOOR SINK OR SQUARE FL DRAIN
—	SFD	SHOWER FLOOR DRAIN
—		VACUUM BREAKER
—		AQUASTAT
—	HD	HUB DRAIN
—	F	FIRE PROTECTION
—		CONNECT TO EXISTING

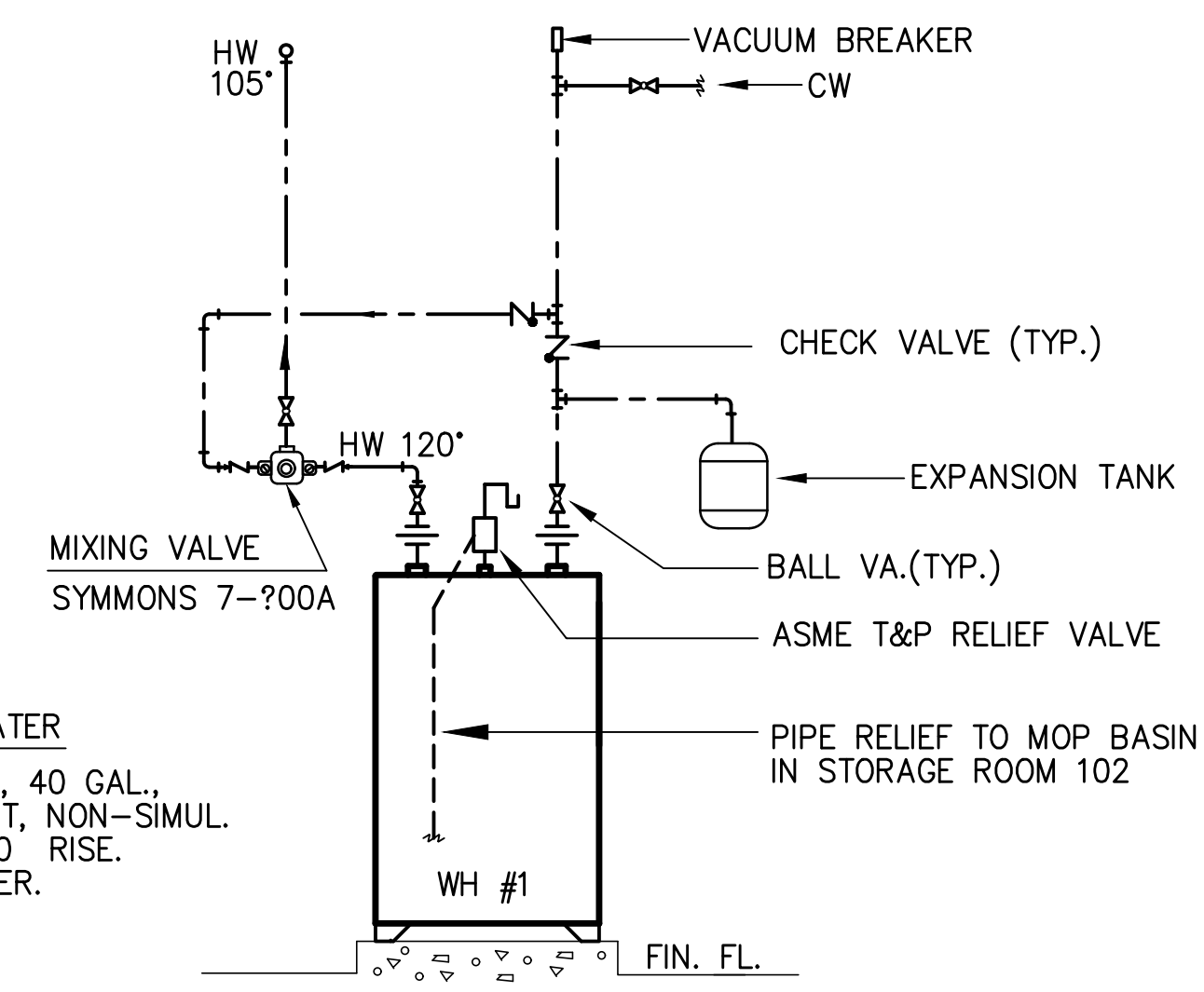
PLUMBING SPECIALTIES SCHEDULE			
SYM	DESCRIPTION	MODEL NUMBER	REMARKS
FD	FLOOR DRAIN	ZURN ZN-415-S	1,7
FCO	FLOOR CLEANOUT	ZURN ZN-1400-T WITH NIKALOY TOP, CARPET MARKERS AS REQUIRED, SEE ARCHITECTURAL FINISH SCHEDULE FOR CARPETED AREAS.	1
YCO	YARD CLEANOUT	ZURN Z-1406-HD WITH CAST IRON TOP ZURN Z-1474-HD WITH CAST IRON TOP (TRAFFIC AREAS)	1
WCO	WALL CLEANOUT	ZURN Z-1446 W/STAINLESS STEEL COVER	1, 8
	SHOCK ABSORBER	SIoux CHIEF, A=652-A, B=653-B, C=654-C, D=655-D	6
TP	TRAP PRIMER	PRECISION PRODUCTS MODEL PR-500 W/SS-X & DU-X.	1,7
TP	TRAP PRIMER	ZURN Z-1022 @ TRAP TO Z-1023 @ FLOOR DRAIN.	1,7

- EQUALS BY JOSAM, JAY R. SMITH, ZURN, MIFAB, WATTS.
- EQUALS BY JOSAM, JAY R. SMITH.
- PROVIDE INTEGRAL CHECK STOPS AT ALL WALL FAUCETS.
- EQUALS BY OATEY, SIOUX CHIEF.
- PROVIDE WITH NB FRAMING GRATE
- EQUALS BY JOSAM, JAY R. SMITH, WATTS - ASSE 1010 APPROVED.
- PROVIDE AT QUICK-CLOSING FIXTURES PER IPC 604.9.
- AT EACH FLOOR DRAIN & FLOOR SINK, PROVIDE WITH TRAP PRIMER CONNECTION (SUFFIX -P) AND INCLUDE PRIMER OPTION "TP" NOTED ABOVE.
- PROVIDE WCO AT BASE OF EACH WASTE STACK PER IPC 708.3.4.

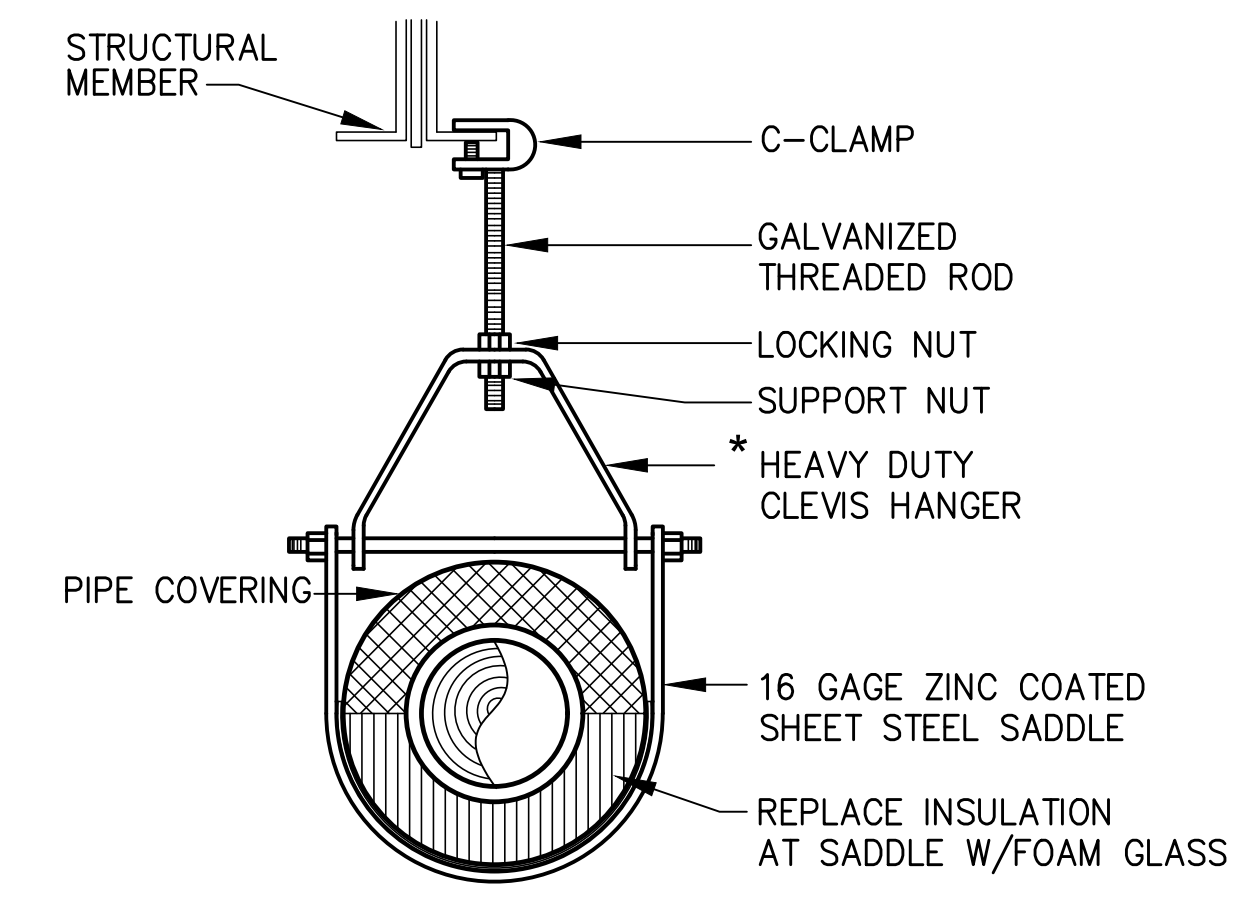
PLUMBING FIXTURE SCHEDULE							
SYM	DESCRIPTION	CW	HW	W	V	MODEL NUMBER	REMARKS
P-1	WATER CLOSET	1 1/4"	-	3"	2"	KOHLER "WELLCOME" K-4350; BENEKE 527SS SEAT; SLOAN ROYAL 115-1.6-YK FLUSH VALVE	1,4,5,6
P-2	WATER CLOSET (HDCP.)	1 1/4"	-	3"	2"	KOHLER "HIGHCLIFF" K-4368; BENEKE 527SS SEAT; SLOAN ROYAL 111 FLUSH VALVE	1,4,5,6,7, 8
P-3	URINAL	3/4"	-	2"	2"	KOHLER "DEXTER" K-5016-ET W/SLOAN ROYAL 186-1 FLUSH VALVE	1,3,4,6
P-4	LAVATORY (WALL/GRID)	1/2"	1/2"	2"	2"	KOHLER "HUDSON" K-2861; DELTA 501LF-HGMHDF FAUCET; K-7607 SUPPLY; K-8998 TRAP, K-7129-A DRAIN.	1,2,3,9, 15,17
P-5	SINGLE OMP. SINK (ADA)	1/2"	1/2"	2"	2"	ELKAY LRAD-2219-65 W/LK-335 STRAINER; CHICAGO 201-AGNBAE2805-5-317ABCP FAUCET; KOHLER K-7607 SUPPLY, K-9000 TRAP	1,2,10,15, 16
P-6	WATER COOLER (HI/LO)	1/2"	-	2"	2"	OASIS MODEL PBACSL, PROVIDE ACCESSORY APRON ON UPPER UNIT. PROVIDE STOP & TRAP. COLOR SELECTED BY ARCHITECT.	1,13,18
P-7	MOP BASIN	1/2"	1/2"	3"	2"	FIAT MSB-2424 W/ 830-AA FAUCET, 832-AA HOSE BRACKET, 888-CC MOP HANGER & SEALANT AS REQUIRED. INCLUDE SS WALL GUARDS.	1,14,19

- SEE ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL FIXTURES.
- PROVIDE TRUEBRO MODEL 102 INSULATION KIT, PLUMBEREX MODEL PRO-2000 OR MCGUIRE PWV8902 PREWRAPPED CAST P-TRAP ASSEMBLY KIT ON ALL HANDICAP ACCESSIBLE LAVATORIES AND/OR SINKS.
- PROVIDE CARRIERS FOR ALL WALL MOUNTED FIXTURES. FOR LAVATORIES: SINGLE HANGER FOR BLOCK WALLS; FOR GYPBOARD WALL, PROVIDE FLOOR-MOUNT ARM CARRIERS (CONCEALED OR EXPOSED PER MFR'S REQUIREMENTS).
- EQUAL CHINA FIXTURE BY AMERICAN STANDARD, ZURN & SLOAN.
- EQUAL TOILET SEAT BY BEMIS, OLSONITE & BENEKE.
- EQUAL FLUSH VALVES BY ZURN & TOTO.
- TOP OF FLUSH VALVE SHALL BE LOCATED MINIMUM 3" BELOW BOTTOM OF GRAB BAR. P.C. TO CUT OUTLET TUBE AS REQUIRED.
- FLUSH VALVE MECHANISM SHALL BE LOCATED OPPOSITE OF HAND RAIL AS PER ADA REQUIREMENT.
- EQUAL FAUCETS BY SYMMONS, CHICAGO FAUCETS, DELTA, MOEN & AMERICAN STANDARD.
- EQUAL STAINLESS STEEL SINK BY FRANKE & JUST.
- EQUAL SHOWER STALL BY AMERICAN STANDARD, CRANE, AQUATIC, MAAX, AQUA GLASS & AQUARIUS.
- EQUAL SHOWER TRIM BY LEONARD & SPEAKMAN (PROVIDE SHOWER PAN AS REQ'D PER CODE SECTION 417.4 & 417.5; SEE ARCH DWGS/SPECS FOR DETAILS).
- EQUAL WATER COOLER/DRINKING FOUNTAIN BY HALSEY TAYLOR, SUNROC, HAWS & ELKAY.
- EQUAL MOP BASIN BY SWANSTONE, E.L.MUSTEE.
- WHEN ASTERISK "*" PREFIX IS USED, PROVIDE TRAP PRIMER AND PIPE 1/2" LINE BELOW SLAB TO FLOOR DRAIN.
- EQUAL FAUCETS BY CHICAGO FAUCETS, T&S, ELKAY, ZURN & AMERICAN STANDARD.
- SINGLE SINK = RIGID SPOUT; DOUBLE SINK = RESTRICTED SPOUT.
- EQUAL CAST IRON LAVATORIES BY GECO & ZURN.
- ACCESSORY APRON MAY BE OMITTED IF WATER COOLER IS RECESSED.
- PROVIDE INTEGRAL CHECK STOPS AT ALL WALL FAUCETS.
- EQUAL SPECIALTY FIXTURE BY OATEY, SIOUX CHIEF.

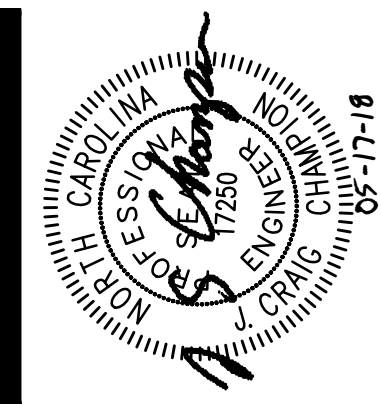
PLUMBING LOAD SUMMARY	
WATER FU	44.75
WATER GPM	48.0
WASTE FU	23
HW GPH (110°F)	45



2 WATER HEATER DETAIL
P3.1 NTS NOTE: PIPING ARRANGEMENT SHALL BE PER MFR'S RECOMMENDATIONS



1 PIPE HANGER DETAIL
P3.1 NTS * CONTRACTOR OPTION: MICHIGAN HANGER #403



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P4.1 Plumbing Specifications
Scale: As Indicated Date: 5/17/2018
Project: SPOUT SPRINGS INTERIOR UPTT
USPS File Number: XXXXX
USPS Project Number: 027932

SPECIFICATIONS

- (1) Scope
- (a) This specification covers work done by the Plumbing Contractor. It is the contractor's responsibility to determine which portion is applicable to his trade.
- (b) The Contractor shall coordinate the work and equipment of this Division with the work and equipment specified elsewhere in order to assure a complete and satisfactory installation. Work such as flashing, wiring, etc., which is required by the work of this Section shall be performed in accordance with the requirements of the applicable Section of the specifications.
- (c) It is the intention of these specifications and drawings to call for finished work, tested and ready for operation. Whenever the word "provide" is used, it shall mean "furnish and install complete and ready for use."
- (d) Minor details not usually shown or specified, but necessary for the proper installation and operation, shall be included in the work, the same as if herein specified or shown.
- (e) This Contractor is referred to the General Conditions Of The Contract For Construction. This document shall form a part of this specification and shall be binding on this Contractor by reference.
- (f) Some items of equipment are specified in the singular; however, the Contractor shall provide and install the number of items of equipment as indicated on the drawings, and as required for complete systems.

- (2) Contractor's Qualifications
- (a) It is assumed that the Contractor has had sufficient general knowledge and experience to anticipate the needs of a construction of this nature. The Contractor shall furnish all items required to complete the construction in accordance with reasonable interpretation of the intent of the drawings and specifications. Any minor items required by code, law or regulations shall be provided whether or not specified or not specifically shown where it is a part of a major item of equipment, or of the control system specified or shown on the plans.

- (3) Duties of Contractor
- (a) Contractor shall furnish and install all materials called for in these specifications and accompanying drawings, and must furnish the apparatus complete in every respect. Anything called for in the specifications and not shown on the drawings or shown on the drawings and not called for in the specifications, must be furnished by the Contractor.

- (b) Contractor is responsible for familiarizing himself with the details of the construction of the building. Work under these specifications installed improperly or which requires changing due to improper readings or interpretation of building plans shall be corrected and changed as directed by the Architect without additional cost to the Owner.

- (c) The Contractor shall follow drawings in laying out work, check drawings of other trades to verify spaces in which work will be installed and maintain maximum headroom and space conditions at all points. Where headroom or space conditions appear inadequate, Architect shall be notified before proceeding with installation.

- (d) The plans are diagrammatic and are not intended to show each and every fitting or a complete detail of all the work to be done, but are for the purpose of illustrating the type of system, showing duct sizes, etc., and special conditions considered necessary for the experienced mechanic to take off his materials and lay out his work. This Contractor shall be responsible for taking such measurements as may be necessary at the job and adapting his work to local conditions.

- (e) Contractor shall determine the schedule of work as determined by the General Contractor and must schedule his work to maintain the building construction schedule so as not to interfere with or hold up any other Contractors.

- (4) Codes, Rules, Permits and Fees
- (a) The Contractor shall give all necessary notices, obtain all permits and pay all sales taxes, fees and other costs, including utility connections or extensions, in connection with his work; file all necessary plans, prepare all documents and obtain all necessary approvals of all authorities having jurisdiction, obtain all required certificates of inspection for his work and deliver same to the Architect before request for acceptance and final payment of the work.

- (b) The Contractor shall include in his work, without extra cost to the Owner, any labor, materials, service, apparatus, drawings, in order to comply with all applicable laws, ordinances, rules and regulations whether or not shown on drawings and/or specified.

- (c) All materials furnished and all work installed shall comply with the National Fire Codes of the National Fire Protection Association, and with the requirements of all governmental departments having jurisdiction.

- (d) All work shall be done in accordance with the North Carolina State Building Code, and requirements of governmental agencies having jurisdiction.

- (5) Guarantee
- (a) The Contractor shall guarantee the complete mechanical system against defect due to faulty materials, faulty workmanship or failure due to negligence of the Contractor. This guarantee will exclude normal wear and tear, maintenance lubrication, replacement of expendable components, or abuse. The guarantee period shall begin on the date of the final acceptance and shall continue for a period of 12 months during which time the Contractor shall make good such defective workmanship and materials and any damage resulting therefrom, within a reasonable time of notice given by the Owner. Refrigeration compressor shall have a five year warranty.

- (6) Record Drawings
- (a) The Contractor shall furnish record drawings indicating any and all changes in locations of ductwork or equipment from that shown on the Contract Drawings. The drawings shall consist of clean, legible prints of the Contract Drawings, available from the Architect on which the Contractor shall mark all notes, dimensions, sizes and information required. The prints shall be kept for this purpose only. Before final inspection the Contractor shall submit the Record Drawings to the Architect.

- (7) Safety Requirements
- (a) Comply with all O.S.H.A. requirements.

- (8) Materials and Workmanship
- (a) All materials and apparatus required for the work, except as specified otherwise, shall be new, of first-class quality, and shall be furnished, delivered, erected, connected and finished in every detail, and shall be so selected and arranged as to fit properly into the building space. Where no specific kind or quality of material is given, a first-class standard article as approved by the Architect shall be furnished.
- (b) All work must be done by first-class and experienced mechanics properly supervised and it is understood that the Architect has the right to stop any work that is not being properly done and has the right to demand that any workman deemed incompetent by the Architect be removed from the job and a competent workman substituted therefor.

- (9) Equipment Deviations
- (a) The Contractor must use the equipment specified in the plans and specifications or equal equipment as supplied by those manufacturers specifically named as equal.

- (10) Shop Drawings
- (a) The Contractor shall submit for approval four (4) sets of detailed shop drawings of all equipment and all material required to complete the project, and no materials or equipment may be delivered to the job site or installed until the Contractor has in his possession the approved shop drawings for the particular material or equipment. The shop drawings shall be complete as described herein. The Contractor shall furnish the number of copies required by the General and Special Conditions of the Contract, but in no case less than six (6) copies. Shop drawings shall bear approval of Contractor.

- (b) Approval rendered on shop drawings shall not be considered as a guarantee of quantities, measurements, or building conditions. Where drawings are approved, said approval does not in anyway relieve the Contractor from his responsibilities or necessity of furnishing material or performing work as required by the Contract Drawings and specifications.

- (11) Observation
- (a) The project will be observed periodically as construction progresses. The contractor will be responsible for notifying the Architect at least 72 hours in advance when any work to be covered up is ready for inspection. No work will be covered up until after observation has been completed on such items as piping and insulation, etc.

- (12) Accessibility
- (a) Contractor shall be responsible for the adequate clearance in hung ceilings for the proper installation of his work. He shall cooperate with the General Contractor and all other Contractors whose work is in the same space, and shall advise the General Contractor of his requirements. Such spaces and clearances shall, however, be kept to the minimum size required.

- (b) The Contractor shall locate all equipment which must be serviced, operated or maintained in fully accessible positions. If required for better accessibility, furnish access doors for this purpose. Minor deviations from drawings may be allowed for better accessibility and any change shall be submitted for approval.

- (13) Protection
- (a) The Contractor shall protect all work and material from damage, and shall be liable for all damage during construction.

- (14) Concealed Pipe.
- (a) In general, all pipe in finished spaces shall be run concealed in floors, walls, partitions and above ceilings under the insulation unless specifically noted otherwise.

- (15) Foundations, Supports, Piers, Attachments.
- (a) All equipment, unless otherwise shown, shall be securely attached to the building structure in an approved manner by this contractor. Attachments shall be of a strong and durable nature and any attachments that are, in the opinion of the architect/engineer not strong enough shall be replaced as directed.

- (16) Test.
- (a) All piping shall be tested before covering is applied or work concealed, and all leaks corrected by removal of defective material and/or making up new joints. Equipment shall be protected from test pressure by capping lines or with valves during test. Caulking of piping will not be permitted and where evident of caulking is noted, the joints shall be removed from the piping system regardless of whether or not it is leaking.

- (b) Test on all pipe work shall be subject to observation by the Architect/Engineer. He shall be given 72 hours notice when a section of pipe is to be tested and the test shall not be removed, weather permitting, until permission is given by the architect.

- (c) Test all water piping at 125 psi.
- (d) Test all waste and vent piping with a 10 foot head.

- (17) Piping.
- (a) Soil, waste, vent and drain piping shall be cast iron soil pipe. All pipe shall be service weight ASTM A-74-69 bell and spigot, bearing the label of the Cast Iron Soil Pipe Institute and shall be listed by NSF International. The casings shall be gray iron of good quality made by Cupola, Air Furnace, or Electric Furnace process. The resultant pipe shall be compact, close grained metal, soft enough to permit cutting and drilling. Pipe shall have been hydrostatically tested at not less than 50 pounds per square inch gauge. Factory coated by heating to 300°F and dripping in a bath of coal tar pitch and oil.
- (b) Water piping shall be hard drawn copper tubing ASTM B 88 type "L" above grade, type "K" below grade. Fittings for copper tubing shall be ANSI B16.18 or B16.22 solder joint fittings. Ends of pipe shall be reamed, pipe and fittings cleaned. Use only 95-5 (95% tin and 5% antimony) solder with non-corrosive flux on 1-1/4" and smaller and on 1-1/2" and larger use silver solder (minimum 12% silver), with a melting point greater than 1000°F. Submit solder for approval.

- (18) Ball Valves.
- Ball valves shall be bronze, two piece construction rated for 125 SWP/400 WOG. Valves shall have conventional port with Teflon seats. Stem shall be silicone bronze. Sizes 1/4" - 2". All ball valves installed in insulated piping shall have extended tee handles.

MANUFACTURER	THREADED 125#	SOLDER 125#
NIBCO	T580	S580
APOLLO	70-100	70-200
STOCKHAM	S214-BR-T-T	S214-BR-T-S

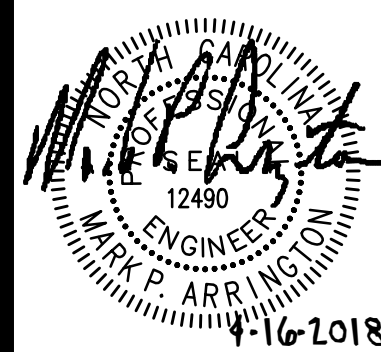
- (19) Hangers.
- (a) All piping shall be supported on not less than 10" centers and within 30" of each change of direction except that piping 1 1/4" size and smaller shall be supported on 8" centers.

- (b) Pipe hangers shall be supported by means of iron hanger rods from the building construction or from structural steel members, and in an approved manner. Where required, piping shall be hung from angle iron clips or suitable brackets attached to sides of masonry construction.

- (20) Pipe Insulation.
- (a) All water piping shall be insulated with heavy density fiberglass with an all-service jacket composed of an outer layer of vinyl, fiberglass scrim cloth, aluminum foil, and kraft paper, in that order, from outside to inside of pipe covering. Insulation thickness shall be 1" for all piping.

- (21) Cleaning.

- (a) Clean and disinfect potable water piping as follows:
- Purge all piping before using.
 - Use purging and disinfecting procedures prescribed by authorities having jurisdiction; if methods are not prescribed, use procedures in either AWWA C651 or AWWA C652 or follow procedures described below:
 - Flush with clean, potable water until dirty water does not appear at outlets.
 - Fill and isolate system according to either of the following:
 - Fill system with water / chlorine solution with at least 50 ppm of chlorine. Isolate with valves and allow to stand 24 hours.
 - Fill system with water / chlorine solution with at least 200 ppm of chlorine. Isolate with valves and allow to stand 3 hours.
 - Flush system with clean, potable water until no chlorine is in water coming from system after the standing time.
 - Submit water samples in sterile bottles to authorities having jurisdiction. Repeat procedures if biological examination shows contamination.
- (b) Prepare and submit reports of purging and disinfecting activities
- (c) Clean interior of domestic water piping system. Remove dirt and debris as work progresses.



SYMBOL SCHEDULE	
GENERAL SYMBOLS	
SYMBOL	DESCRIPTION
---	CONDUIT RUN CONCEALED ABOVE CEILING OR IN WALLS.
----	CONDUIT RUN CONCEALED IN OR BELOW FLOORS OR UNDERGROUND.
---	CONDUIT RUN EXPOSED.
↗	CONDUIT TURNING UP
↘	CONDUIT TURNING DOWN
□	SQUARE ON CONDUIT SYMBOL INDICATES THAT CIRCUIT CONTINUES BUT NOT SWITCHED.
→	HOMERUN TO PANEL AND CIRCUIT(S) DESIGNATED. ARROW(S) INDICATE QUANTITY OF CIRCUITS.
⊙	JUNCTION BOX PER N.E.C.
⊕	SPECIAL NOTE, NUMERALS IDENTIFY, SEE SCHEDULE.
⊖	SPECIAL CONNECTION TO A SPECIFIC ITEM OF EQUIPMENT. SEE CONNECTION SCHEDULE.
⊗	MOTOR CONNECTION. RATING AS NOTED.
WIRING DEVICES	
SYMBOL	DESCRIPTION
⊕	DUPLEX RECEPTACLE, 125V, 3-WIRE GROUNDING TYPE.
⊕ EWC	DUPLEX RECEPTACLE, 125V, GROUND FAULT CIRCUIT INTERRUPTING, 3-WIRE GROUNDING TYPE. LOCATE WITHIN OR BEHIND AN ELECTRIC WATER COOLER. COORDINATE WITH PLUMBER FOR EXACT LOCATION.
⊕ GFI	DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUPTING.
⊕ GFCI	DUPLEX GFCI RECEPTACLE. PROVIDE WITH OPERABLE, IN-USE WEATHERPROOF COVER.
⊕ SW	DUPLEX RECEPTACLE, SWITCHED.
⊕	TWO DUPLEX RECEPTACLES, 125V, 3-WIRE GROUNDING TYPE, IN A TWO-GANG BOX WITH TWO-GANG FACEPLATE.
⊕	SPECIAL PURPOSE RECEPTACLE, WITH SPECIAL NEMA CONFIGURATION AS NOTED.
⊕	HEAVY-WALL METAL CONDUIT STUB-UP FROM FLOOR, AT HEIGHT INDICATED, WITH CAST FS-TYPE BOX AND WIRING DEVICE AS INDICATED.
⊕	WALL OUTLET FOR TELECOMMUNICATIONS. SEE SPECIFICATIONS AND/OR DRAWINGS FOR CONDUIT AND CABLING REQUIREMENTS.
⊕	DOT ABOVE OUTLETS INDICATES THAT THE DEVICE IS TO BE INSTALLED ABOVE CASEWORK OR OTHER OBSTACLE. COORDINATE.
S	LIGHT SWITCH, SINGLE-POLE.
S3	LIGHT SWITCH, 3-WAY.
SWP	LIGHT SWITCH, WEATHERPROOF.
ST	PROGRAMMABLE LIGHT SWITCH, WALL MOUNTED.
SS	WHERE TWO SWITCHES ARE SHOWN CONTROLLING A SINGLE OR COMMON GROUP OF FLUORESCENT LIGHTING FIXTURES, EACH WITH 3 OR MORE LAMPS, THE SWITCH CLOSEST TO THE DOOR SHALL CONTROL THE INNER LAMP(S) IN EACH FIXTURE, AND THE OTHER SWITCH SHALL CONTROL THE OUTER LAMP(S) IN EACH FIXTURE. WHERE INDICATED, MASTER-SLAVE BALLAST WIRING SHALL BE UTILIZED TO ACHIEVE THIS CONTROL.
⊕	EQUIPMENT CONTROL STATION. MOUNT 48" ABOVE FINISHED FLOOR.
⊕	DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILING MOUNTED. PROVIDE WITH 10 FEET WHIP TO ALLOW FIELD ADJUSTMENT OF LOCATION. COORDINATE EXACT LOCATION WITH MANUFACTURER'S RECOMMENDATION.
LIGHTING	
SYMBOL	DESCRIPTION
□	FLUORESCENT LIGHTING FIXTURE, DRAWN TO SCALE.
□	FLUORESCENT LIGHTING FIXTURE, CONNECTED TO AN EMERGENCY CIRCUIT (SWITCHED)
□	FLUORESCENT LIGHTING FIXTURE, UTILIZED AS A NIGHT-LIGHT. CONNECT TO THE UNSWITCHED LEG OF THE CIRCUIT.
□	FLUORESCENT LIGHTING FIXTURE, CONNECTED TO AN EMERGENCY CIRCUIT, CONNECT TO THE UNSWITCHED LEG OF THE CIRCUIT.
□	BARE FLUORESCENT STRIP FIXTURE.
□	BARE FLUORESCENT STRIP FIXTURE CONNECTED TO AN EMERGENCY CIRCUIT. CONNECT TO THE UNSWITCHED LEG OF THE CIRCUIT.
○	COMPACT FLUORESCENT LIGHTING FIXTURE, CEILING MOUNTED.
●	COMPACT FLUORESCENT LIGHTING FIXTURE, CONNECTED TO AN EMERGENCY CIRCUIT OR EMERGENCY BALLAST.
⊗	COMPACT FLUORESCENT LIGHTING FIXTURE. UTILIZED AS A NIGHT-LIGHT. CONNECT TO THE UNSWITCHED LEG OF THE CIRCUIT.
⊗	COMPACT FLUORESCENT LIGHTING FIXTURE. CONNECTED TO AN EMERGENCY CIRCUIT OR EMERGENCY BALLAST. CONNECT TO THE UNSWITCHED LEG OF THE CIRCUIT.
○	COMPACT FLUORESCENT LIGHTING FIXTURE, WALL MOUNTED.
●	COMPACT FLUORESCENT CONNECTED TO AN EMERGENCY CIRCUIT OR EMERGENCY BALLAST.
○	EXIT SIGN, CEILING MOUNTED. SHADING INDICATES FACE ORIENTATION. CONNECT TO THE UNSWITCHED LEG OF THE CIRCUIT.
○	EXIT SIGN, WALL MOUNTED. SHADING INDICATES FACE ORIENTATION. CONNECT TO THE UNSWITCHED LEG OF THE CIRCUIT.
⊕	EMERGENCY BATTERY PACK FIXTURE, CEILING MOUNTED. CONNECT TO UNSWITCHED LEG OF THE CIRCUIT.
⊕	EMERGENCY BATTERY PACK FIXTURE, WALL MOUNTED. CONNECT TO UNSWITCHED LEG OF THE CIRCUIT.
⊕	PHOTOCELL CONTROL DEVICE. MOUNT ON ROOF FACING NORTH.
DISTRIBUTION	
SYMBOL	DESCRIPTION
▬	ELECTRICAL PANELBOARD, FLUSH MOUNTED.
▬	ELECTRICAL PANELBOARD, SURFACE MOUNTED.
▬	CONTROL CABINET, FLUSH OR SURFACE MOUNTED.
⊕	DISCONNECT SWITCH, NON-FUSIBLE.
⊕	DISCONNECT SWITCH, FUSIBLE.
⊕	DISCONNECT SWITCH PROVIDED WITH EQUIPMENT.
→	GROUND CONNECTION.

ABBREVIATIONS

A	AMPERES	KW	KILOWATTS
ACC	ARMORED CLAD CABLE	LPMC	LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT
AFF	ABOVE FINISHED FLOOR	LVC	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT
AFG	ABOVE FINISHED GRADE	LVC	LOW VOLTAGE CONTROL CABINET
ANN	FIRE ALARM ANNUNCIATOR CABINET	MCC	MAIN CIRCUIT BREAKER
C	CONDUIT	MCC	METAL CLAD CABLE
CB	CIRCUIT BREAKER	MLO	MAIN LUGS ONLY
CKT	CIRCUIT	MTO	MOUNTED
CLG	CEILING	NMC	NON-METALLIC CLAD CABLE
DN	DOWN	PNL	PULLBOX
DW	DISHWASHER	PS	PANELBOARD
EC	EMPTY CONDUIT	PRS	PROGRAM RAPID START
EMT	ELECTRICAL METALLIC TUBING	PS	PROGRAM START
ENT	ELECTRICAL NON-METALLIC TUBING	PWR	POWER
EWC	ELECTRIC WATER COOLER	REC	RECEPTACLE
FACP	FIRE ALARM CONTROL PANEL	RMC	RIGID METAL CONDUIT
FMC	FLEXIBLE METAL CONDUIT	RS	RAPID START
G	GROUND	SC	FIRE ALARM PULL STATION
GFI	GROUND FAULT INTERRUPTER	SW	SWITCH
HOA	HAND OFF AUTOMATIC	SWBD	SWITCHBOARD
HP	HORSEPOWER	TTB	TELEPHONE TERMINAL BOARD
HPF	HIGH POWER FACTOR	TEL	TELEPHONE
HX	HIGH REACTANCE	TV	TELEVISION
HD	HAND DRYER	TYP	TYPICAL
IS	ISOLATED GROUND	V	VOLTS
IMC	INTERMEDIATE METAL CONDUIT	VP	VAPOR PROOF
IS	INSTANT START	W	WALL MOUNTED
JB	JUNCTION BOX	WG	WIRE GUARD
KVA	KILOVOLT-AMPERES	WP	WEATHER PROOF
FPN	FUSE PER NAMEPLATE	XFMR	TRANSFORMER

MOUNTING HEIGHTS

(DISTANCE FROM FINISHED FLOOR TO CENTER OF DEVICE UNLESS OTHERWISE NOTED)

RECEPTACLE	18" AFF. (UNLESS OTHERWISE NOTED)
GENERAL	46" AFF. (UNLESS OTHERWISE NOTED)
ABOVE COUNTER TOP	
LIGHT SWITCH	46" AFF. (UNLESS OTHERWISE NOTED)
TELECOMMUNICATIONS	
GENERAL	18" AFF. (UNLESS OTHERWISE NOTED)
ABOVE COUNTER TOP	46" AFF. (UNLESS OTHERWISE NOTED)
WALL	46" AFF. (UNLESS OTHERWISE NOTED)
TELEVISION	18" AFF. (UNLESS OTHERWISE NOTED)
FIRE ALARM	
PULL STATION	46" AFF.
AUDIBLE/STROBE COMBINATION OR STROBE DEVICE ONLY	THE BOTTOM OF THE APPLIANCE SHALL BE: 80" ABOVE THE FINISHED FLOOR.

ELECTRICAL SYSTEM AND EQUIPMENT (2012 NC ENERGY CODE)

Method of Compliance:
Energy Code: Prescriptive Performance
ASHRAE 90.1: Prescriptive Performance

Lighting schedule
Lamp type required in fixture: REFER TO LIGHTING FIXTURE SCHEDULE
number of lamps in fixture: REFER TO LIGHTING FIXTURE SCHEDULE
ballast type used in the fixture: REFER TO LIGHTING FIXTURE SCHEDULE
number of ballasts in fixture: REFER TO LIGHTING FIXTURE SCHEDULE
total interior wattage per fixture: REFER TO LIGHTING FIXTURE SCHEDULE
total interior wattage specified vs allowed: 3255W SPECIFIED / 4513W ALLOWED
lowest source efficacy for all exterior lamps: 83.9 LUMENS/WATT

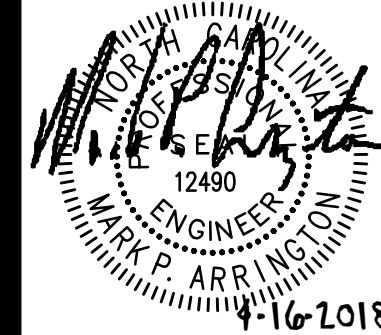
Additional Prescriptive Compliance

506.2.1 More Efficient Mechanical Equipment
 506.2.2 Reduced Lighting Power Density
 506.2.3 Energy Recovery Ventilation Systems
 506.2.4 Higher Efficiency Service Water Heating
 506.2.5 On-Site Supply of Renewable Energy
 506.2.6 Automatic Daylighting Control Systems

DESIGNER STATEMENT:
To the best of my knowledge and belief, the design of this building complies with the electrical system and equipment requirements of the North Carolina State Building Code, NC 2012 Energy Code.

SIGNED: Mark P. Arrington
NAME: MARK P. ARRINGTON
TITLE: ELECTRICAL ENGINEER

LIGHTING FIXTURE SCHEDULE														
TYPE	DESCRIPTION	VOLT.	LAMPS					DRIVER/BALLASTS		WATTS	MOUNTING	MANUF. CATALOG NO.		
			QTY	TYPE	BULB	BASE	TEMP	CRI	LUMENS				QTY	TYPE
A1	2'x4' FLUORESCENT TROFFER, GRID TYPE FOR LAY-IN CEILING, 0.125" ACRYLIC PRISMATIC DIFFUSER, FLAT STEEL DOOR FRAME, WHITE FINISH.	120	2	F32	T8	G13	3500 K	75	2850	1	ELECTRONIC HPF, IS PARALLEL	70	CEILING, RECESSED	LITHONIA #2SP86 H.E. WILLIAMS 50GS24 SERIES, METALUX 20CB SERIES.
A2	2'x4' FLUORESCENT TROFFER, FLANGE TYPE FOR GYPSUMBOARD CEILING, 0.125" ACRYLIC PRISMATIC DIFFUSER, FLAT STEEL DOOR FRAME, WHITE FINISH.	120	2	F32	T8	G13	3500 K	75	2850	1	ELECTRONIC HPF, IS PARALLEL	70	CEILING, RECESSED	LITHONIA #2SP8F H.E. WILLIAMS 50GS24 SERIES, METALUX 2FCB SERIES.
A3	2'x4' FLUORESCENT TROFFER, GRID TYPE FOR LAY-IN CEILING, 0.125" ACRYLIC PRISMATIC DIFFUSER, FLAT STEEL DOOR FRAME, WHITE FINISH, TANDEM WIRED FIXTURE. REFER TO MASTER/SATELLITE CONFIGURATION DETAIL.	120	3	F32	T8	G13	3500 K	75	2850	1	ELECTRONIC HPF, RS SERIES	105	CEILING, RECESSED	LITHONIA #2SP8G H.E. WILLIAMS 50GS24 SERIES, METALUX 20CB SERIES.
BS	4' LONG BARE FLUORESCENT STRIP FIXTURE, STEEL HOUSING WITH WHITE ENAMEL FINISH AND ENDPLATES, PROVIDE WITH PROTECTIVE TUBE GUARDS.	120	2	F32	T8	G13	3500 K	75	2850	1	ELECTRONIC HPF, IS PARALLEL	70	SUSPENDED 10'-0" AFF OR SURFACE MOUNT IF CEILING IS PROVIDED OR UNLESS OTHERWISE NOTED	LITHONIA #C METALUX #65 H. E. WILLIAMS #76 SERIES
V1	4 FT. LONG ENCLOSED AND GASKETED INDUSTRIAL FLUORESCENT LUMINAIRE, UL LISTED FOR DAMP LOCATION, DEEP HIGH IMPACT ACRYLIC DIFFUSER.	120	2	F32	T8	G13	3500 K	75	2850	1	ELECTRONIC HPF, IS PARALLEL	58	CEILING, SURFACE	LITHONIA DMS-ARDP KENNALL #ES848/232 SERIES NULITE DM SERIES
WLE	DECORATIVE EXTERIOR WALL MOUNTED LED FIXTURE, HALF ROUND SHAPE DIE-CAST ALUMINUM HOUSING, ACRYLIC LENS, TWO LIGHT ENGINES (10 LED'S EACH), ELECTRONIC DRIVERS, WIDE DISTRIBUTION (SR2), UL LISTED FOR WET LOCATION, FINISH AS SELECTED BY ARCHITECT. PROVIDE WITH EMERGENCY BATTERY PACK FOR 90 MINUTE ILLUMINATION.	120	-	LED	-	-	4000 K	70	3944	-	-	47	WALL SURFACE MTC HT AS DIRECTED BY ARCHITECT (MINIMUM 10'-0" (MAXIMUM 16'-0")	LITHONIA #W8R LED SERIES OR APPROVED EQUAL
LE	LED EMERGENCY LIGHTING UNIT, WITH SELF-CONTAINED NI-CAD BATTERY RESERVE, WHITE THERMOPLASTIC HOUSING, FOR WALL OR CEILING MOUNTING, CONNECT FIXTURE AHEAD OF ALL LOCAL AREA SWITCHING, FIXTURE SHALL NOT BE SWITCHED.	120	2	LED	LED	-	-	-	-	-	-	3	CEILING, SURFACE CEILING EXCEPT 8 FT. AFF. MAX.	LITHONIA #ELM2-LED-SD SERIES SEGRELLI #MLPLED-HO SERIES DUAL-LITE #L220 SERIES LIGHTALARMS #LCA-2LEDR SERIES
ES	EXIT SIGN, WHITE METAL HOUSING, UNIVERSAL MOUNTING, RED STENCIL FACE, QUANTITY OF FACES INDICATED BY SHADING ON SYMBOL, DIRECTIONAL ARROWS AS INDICATED, WITH SELF-CONTAINED BATTERY RESERVE, CONNECT FIXTURE AHEAD OF ALL LOCAL AREA SWITCHING, FIXTURE SHALL NOT BE SWITCHED.	120	-	LED	DIFFUSE	-	-	-	-	-	-	5	WALL OR CEILING AS INDICATED BY SYMBOL	LITHONIA #LOM-S-W-3R-120/277-ELH-SD SURE-LITES #LPX7 LIGHTALARMS



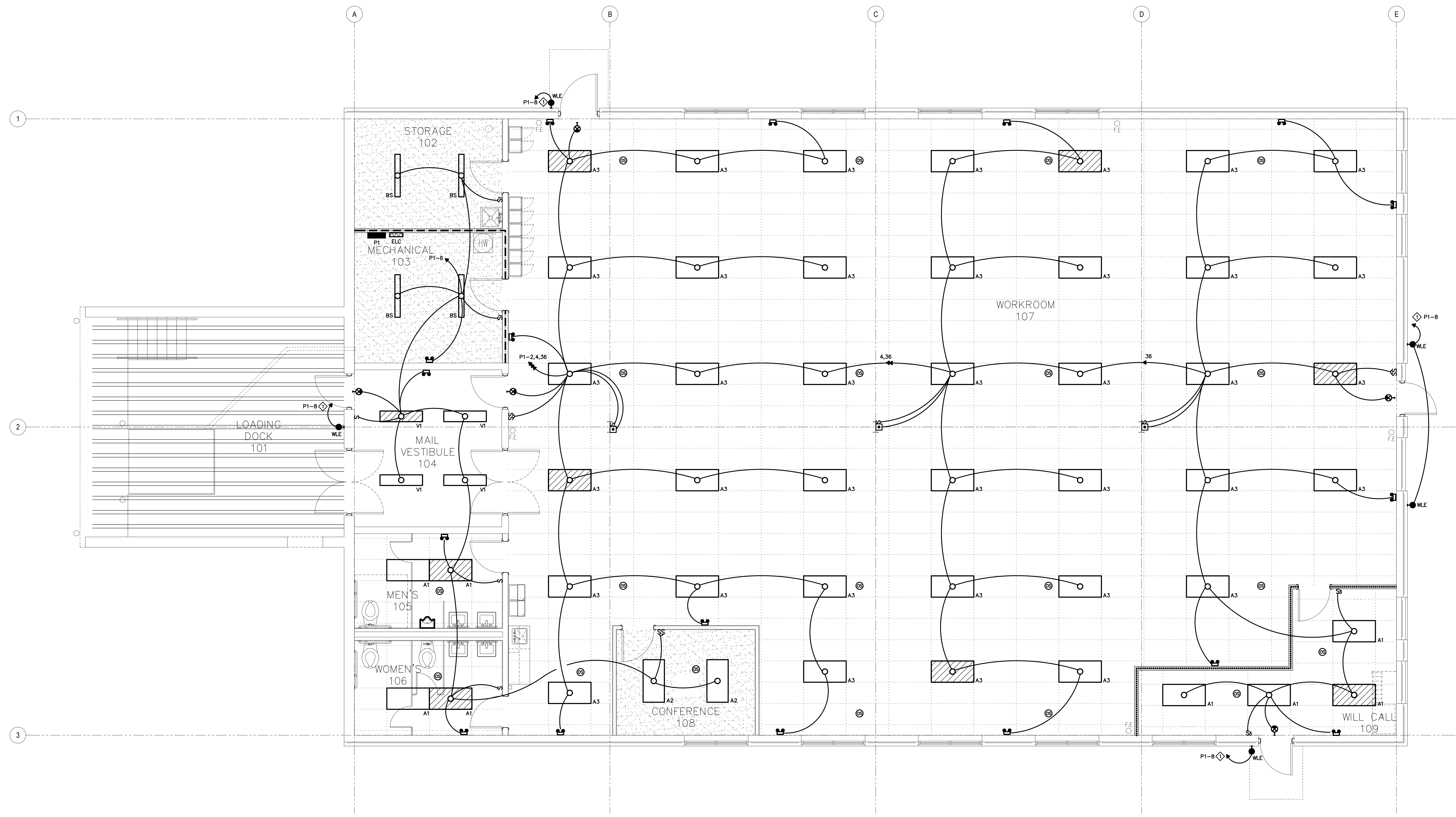
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INTERIOR UPFIT
USPS SPOUT SPRINGS NC CAX
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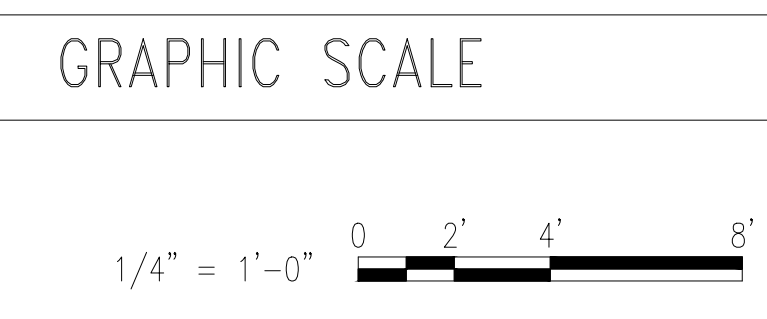
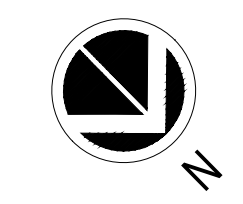


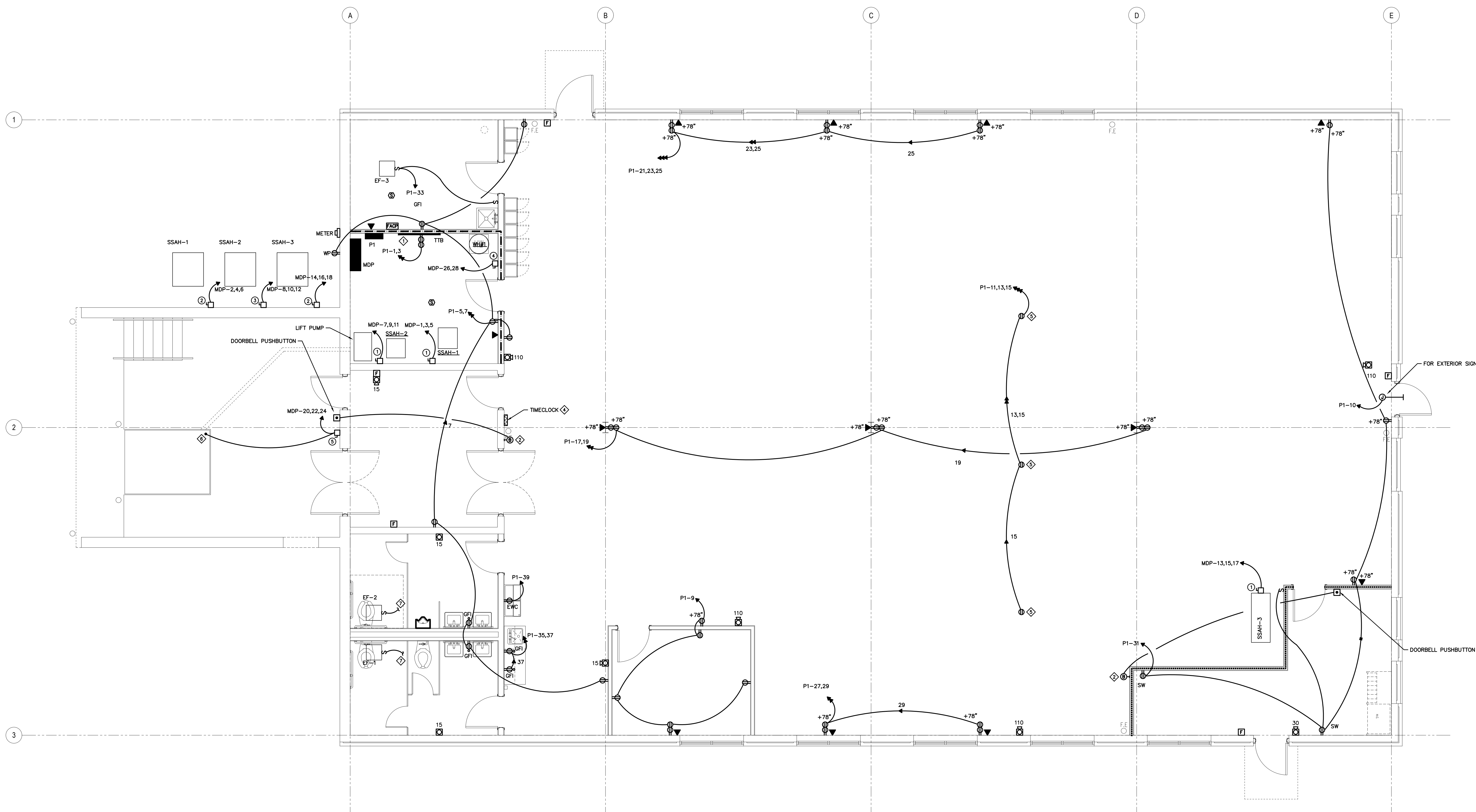
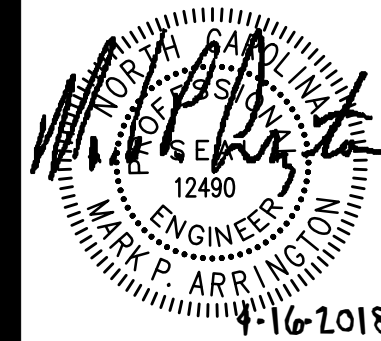
E1.1 Electrical Lighting Plan
Scale: As Indicated Date: 5/17/2018
Project: SPOUT SPRINGS INTERIOR UPFIT
USPS File Number: XXXXXX
USPS Project Number: 037932



1 ELECTRICAL LIGHTING PLAN
E1.1 SCALE: 1/4" = 1'-0"

NOTES:
◇ ROUTE VIA EXTERIOR LIGHTING CONTROL CABINET "ELC". REFER TO DETAIL FOR ADDITIONAL INFORMATION.





EQUIPMENT CONNECTION SCHEDULE

SYM.	EQUIPMENT	LOAD	VOLT/ PHASE	DISCONNECT				CONDUCTORS	RACEWAY		NOTES
				TYPE	RATING	POLES	TRIP/FUSE		ENCL.	TYPE	
①	SSAH-1, SSAH-2, SSAH-3	10.8KW + 4.2FLA	208/3	NFDS	60	3	---	1	3#8, 1#10G	FMC 3/4"	
②	SSHP-1, SSHP-3	11.6RLA + 74FLA	208/3	NFDS	30	3	---	3R	3#10, 1#10G	LPMC 1/2"	
③	SSHP-2	14RLA + 93FLA	208/3	NFDS	30	3	---	3R	3#10, 1#10G	LPMC 1/2"	
④	WH#1	(2)2.5KW (NON. SIM)	208/1	NFDS	30	2	---	1	2#12, 1#12G	FMC 1/2"	
⑤	SCISSOR LIFT	~17A	208/3	NFDS	30	3	---	3R	3#10, 1#10G	LPMC 1/2"	

LEGEND		DISCONNECT ENCLOSURE TYPES		RACEWAY TYPES		STARTER TYPES	
ETCB = ELECTRONIC-TRIP CIRCUIT BREAKER	FDS = FUSIBLE DISCONNECT SWITCH	1 = NEMA 1 ENCLOSURE	3R = NEMA 3R ENCLOSURE	EMT = ELECTRIC METALLIC TUBING	FMC = FLEXIBLE METAL CONDUIT	CFWR = COMBINATION FULL VOLTAGE, NONREVERSING	
MCP = MOTOR CIRCUIT PROTECTOR	NFDS = NON-FUSIBLE DISCONNECT SWITCH	4 = NEMA 4 ENCLOSURE	4X = NEMA 4X ENCLOSURE	IMC = INTERMEDIATE METAL CONDUIT	LPMC = LIQUID-TIGHT FLEXIBLE METAL CONDUIT		
ST/DS = COMBINATION STARTER/DISCONNECT SWITCH	TMCB = THERMAL-MAGNETIC CIRCUIT BREAKER	FPN = FUSE PER NAMEPLATE		PVC = NON-METALLIC PVC CONDUIT	RMC = RIGID METAL CONDUIT		
TOG = HP RATED TOGGLE SWITCH							

NOTES
ALL ELECTRICAL CHARACTERISTICS SCHEDULED ABOVE ARE BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. ELECTRICAL CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT WITH EQUIPMENT SUPPLIER(S) PRIOR TO ROUGHING, AND SHALL VERIFY EXACT LOCATION AND EXACT TYPE OF CONNECTION. ALL EQUIPMENT SHALL BE PROPERLY AND SECURELY GROUNDED. ANY SIGNIFICANT CHANGES IN LOCATION, ELECTRICAL REQUIREMENTS, OR TYPE OF CONNECTION REQUIRED FOR ANY EQUIPMENT SCHEDULED ABOVE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING PRIOR TO PROCEEDING.
CONDUCTORS AND RACEWAY SPECIFIED IN THE ABOVE SCHEDULE ARE FOR FINAL CONNECTION TO UNIT AND SHALL BE EXTENDED FROM THE DISCONNECT SHOWN ON THE FLOOR PLANS TO THE EQUIPMENT TERMINATION BOX.
CONDUIT AND BOXES REQUIRED FOR EQUIPMENT CONNECTIONS SHALL BE INSTALLED IN SUCH A WAY AS TO NOT COVER UP EQUIPMENT NAMEPLATES, SERVICE AREAS, AIR FLOW AREAS, ETC.

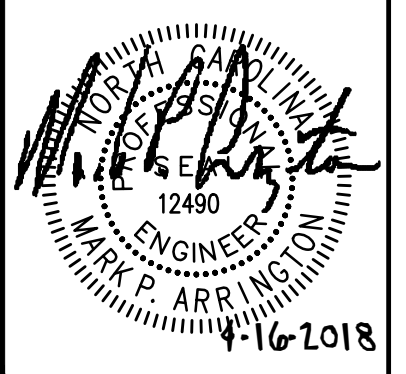
1 FLOOR PLAN - POWER

E2.1 SCALE: 1/8" = 1'-0"

- NOTES:**
- ◇ PROVIDE 3/4" THICK FIRE RATED PLYWOOD BACKBOARD FOR TELECOMMUNICATIONS EQUIPMENT. ALLOW SPACE ON BACKBOARD FOR MAIN CROSS-CONNECT, TELEPHONE COMPANY ELECTRICAL PROTECTION AND DEMARCATION EQUIPMENT AND USPS TELEPHONE EQUIPMENT. USPS TELEPHONE SYSTEM REQUIRES 42"x42" CLEAR SPACE ON BACKBOARD. FOR MAIN CROSS-CONNECT COORDINATE SERVICE ENTRANCE WITH USPS & LOCAL TELEPHONE COMPANY PRIOR TO INSTALLATION. REFER TO MAIN CROSS-CONNECT DETAIL FOR ADDITIONAL INFORMATION. PROVIDE MINIMUM 12" CLEARANCE TO ELECTRICAL POWER DISTRIBUTION COMPONENTS (PANELBOARDS AND SWITCHES). PROVIDE MINIMUM 48" CLEARANCE TO MOTORS.
 - ◇ PROVIDE DOOR BELL SYSTEMS AT WILL CALL & MAIL VESTIBULE. PROVIDE JUNCTION BOX AT EACH AND CONNECT POWER FROM NEAREST RECEPTACLE CIRCUIT. SET BELL AT MAIL VESTIBULE DOOR TO SINGLE-CHIME. SET BELL AT WILL CALL DOOR TO DOUBLE-CHIME.
 - ◇ PROVIDE CIRCUITING FOR EXTERIOR SIGNAGE. PROVIDE JUNCTION BOX TIGHT TO STRUCTURE. PROVIDE (1) 3/4"C TO BUILDING EXTERIOR AND (1) 3/4"C TO PHOTOCELL. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
 - ◇ APPROXIMATE LOCATION FOR TIME CLOCK. CONNECT TO NEAREST RECEPTACLE CIRCUIT. MAKE ALL FINAL CONNECTIONS.
 - ◇ PROVIDE RECEPTACLE FOR TWIST-LOCK DROP CORDS. DROP CORDS HAVE STRAIN RELIEF. CIRCUIT AS SPECIFIED. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
 - ◇ PROVIDE NON-FUSED DISCONNECT SWITCH FOR CONNECTION TO EXTERIOR SCISSOR LIFT. CIRCUIT AS SHOWN. PROVIDE CONNECTION FROM DISCONNECT TO LIFT CONTROLLER IN LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC). EC SHALL COORDINATE WITH EQUIPMENT SUPPLIER TO ENSURE PROPER OPERATION AT 208V, 3 PHASE. INFORMATION ONLY: THE LIFT REMOTE CONTROL SWITCH WILL BE KEPT IN VESTIBULE AND WILL BE PLUGGED INTO THE LIFT TO RAISE/LOWER AS REQUIRED AND RETURNED TO VESTIBULE.
 - ◇ CONNECT TO LIGHTING CIRCUIT IN THIS AREA WITH 2#12, 1#12G, 1/2"C. FAN SHALL RUN WHEN LIGHTS ARE ON.

H. M. CAGLE DRIVE

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INTERIOR UPFIT
USPS SPOUT SPRINGS NC CAX
XXXXXXXXXX
XXXXXXXXXX



E3.1 Electrical Site Plan
Scale: As Indicated Date: 5/17/2018
Project: SPOUT SPRINGS INTERIOR UPFIT
USPS File Number: XXXXXX
USPS Project Number: 027932

P1-12

INTERNALLY ILLUMINATED MONUMENT SIGN,
COORDINATE EXACT LOCATION WITH USPS
AND SIGN INSTALLER

PROPOSED
6,000 SQFT
POSTAL FACILITY

(2)4"Ø FOR TELECOMMUNICATIONS SERVICE

SERVICE PANEL MDP

UNDERGROUND SERVICE LINE

UTILITY PNT

1 ELECTRICAL SITE PLAN
E3.1 SCALE: 1/8" = 1'-0"

NOTES:
◇ ROUTE VIA EXTERIOR LIGHTING CONTROL CABINET "ELC". REFER TO DETAIL FOR ADDITIONAL INFORMATION.

