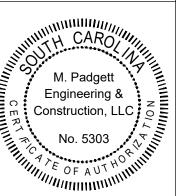
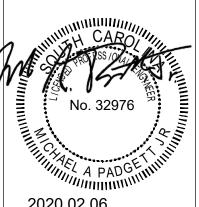
# Renovations to Edisto Beach Fire Department 2413 Murray St Edisto Island, SC 29438

SHEET INDEX		PROJECT CON	TACTS	CODE ANALYSIS
COVER SHEET CS COVER SHEET  LIFE SAFETY LS1.1 LIFE SAFETY/CODE ANALYSIS LS1.2 UL DETAILS  ARCHITECTURAL A1.1 GENERAL ARCHITECTURAL NOTES A2.1 OVERALL FLOOR PLANS A2.2 FLOOR PLAN-DEMO A2.3 ENLARGED FLOOR PLAN	MECHANICAL M1.1 MECHANICAL GENERAL NOTES M1.2 MECHANICAL SYMBOLS M1.3 MECHANICAL SCHEDULES M2.1 HVAC PLAN M3.1 MECHANICAL DETAILS  ELECTRICAL E1.1 ELECTRICAL NOTES E1.2 ELECTRICAL SYMBOLS E2.1 POWER PLAN	OWNER	TOWN OF EDISTO BEACH Attn: Denny Connley, Fire Chief 2414 Murray Street Edisto Beach, SC 29438 843-869-2505 OFFICE 843-869-3855 FAX  M. PADGETT ENGINEERING	INFORMATION LISTED BELOW AND HEREIN IS WHERE APPLICABLE FO THIS PROJECT. SOME ITEMS MAY NOT BE RELEVENT.  1. APPLICABLE BUILDING CODES AND REGULATIONS: 1.1. IBC 2018 w/ SC MODIFICATIONS 1.2. IFC 2018 w/ SC MODIFICATIONS 1.3. IEBC 2018 w/ SC MODIFICATIONS 1.4. IPMC 2018 w/ SC MODIFICATIONS 1.5. IMC 2018 w/ SC MODIFICATIONS 1.6. IPC 2018 w/ SC MODIFICATIONS 1.7. IFGC 2018 w/ SC MODIFICATIONS
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ABBREVIATIONS				
ACT ACOUSTICAL TILE  AFF ABOVE FINISHED FLOOR  AL ALUMINUM  ANOD ANODIZED  BO BOTTOM OF  CO CENTER OF  CONT CONTINUOUS  ELEV ELEVATION  EXST EXISTING  EXT EXTERIOR  GA GAUGE  GC GENERAL CONTRACTOR  GYP BD GYPSUM BOARD  INSUL INSULATED  MAX MAXIMUM  MIN MINIMUM  NTS NOT TO SCALE  OC ON CENTER  OH OPPOSITE HAND  SIM SIMILAR  SPEC SPECIFICATIONS  TO TOP OF  TYP TYPICAL  UNO UNLESS NOTED OTHERWISE  VIF VERIFY IN FIELD  WD WOOD				



M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





Date/Revisions: 2020.02.06

2020.02.06 Construction Documents

Project:

Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

COVER SHEET

Scale: NTS
Drawn: TMH

Check: MP

Proj#: J1870

CS

	LEGEND
	FIRE EXTINGUISHER/ FIRE EXTINGUISHER CABINET VERIFY SIZE AND TYPE W/FIRE MARSHALL
0	EXISTING FIRE EXTINGUISHER
	EXITS
**********	EXIT ACCESS TRAVEL DISTANCE
•	POINT OF DECISION— COMMON PATH OF TRAVEL
$\bigotimes$	EXIT LIGHT

#### CODE SUMMARY - FIRE AREA 1

Item	Per Code	Required/Proposed	Determination/Provided
Occupancy Group	В	В	В
Occupant Load	-	19 MAX - 1858/100 GROSS	19 People
Construction Type	II - B	II - B	II - B
Height Limitation	55'-0"/3 Stories	35'-0"/3 Stories	35'-0"/1 Story
Area Limitation	23,000 SF	1858 SF	1,858 SF
Fire Resistance Rating	-	2-HR	2-HR
Exit Access Travel Distance	75' Max	<75' Max	< 75'
Number of Exits	-	3	3
Egress Path Width	-	5" Required	105" (Provided)
Fire Alarm System	-	-	-
Fire Sprinkler System	-	-	<u>-</u>
Exit Lighting	At Exits	At Exits	At Exits
Emergency Lighting	1 Candlewatt/SF	At Exits, Typical, > 1 CW/SF	At Exits, Typical, > 1 CW/SF
Fire Extinguishers	Per NFPA 10	3	4 (provided)
Electrical	Exterior Shut Off	Exterior Shut Off	Exterior Shut Off

CODE SUMMARY — FIRE AREA 2 ( NOT INCLUDED IN SCOPE OF PROJECT)
CODE SUMMARY — FIRE AREA 3 ( NOT INCLUDED IN SCOPE OF PROJECT)
CODE SUMMARY — FIRE AREA 4 ( NOT INCLUDED IN SCOPE OF PROJECT)

INFORMATION LISTED BELOW AND HEREIN IS WHERE APPLICABLE FOR THIS PROJECT. SOME ITEMS MAY NOT BE RELEVENT.

1. APPLICABLE BUILDING CODES AND REGULATIONS:

1.1. IBC 2018 w/ SC MODIFICATIONS

1.2. IFC 2018 w/ SC MODIFICATIONS

1.2. IFC 2018 w/ SC MODIFICATIONS
1.3. IEBC 2018 w/ SC MODIFICATIONS
1.4. IPMC 2018 w/ SC MODIFICATIONS

1.5. IMC 2018 w/ SC MODIFICATIONS1.6. IPC 2018 w/ SC MODIFICATIONS

1.7. IFGC 2018 w/ SC MODIFICATIONS
1.8. NEC 2014 (NEPA 70), w/ SC MODIFICATION

1.8. NEC 2014 (NFPA 70) w/ SC MODIFICATIONS 1.9. ICC/ANSI A117.1-2017

1.10. SEE INTERNATIONAL CODE COUNCIL FOR MORE INFORMATION: http://www.iccsafe.org/ 1.11. SEE NATIONAL FIRE PROTECTION ASSOCIATION FOR MORE

INFORMATION: http://www.nfpa.org/
1.12.OTHER RELEVENT & CURRENT ADOPTED CODES

1.12. OTHER RELEVENT & CURRENT A 1.13.1. AS REQUIRED

1.14. ZONING & ORDINANCES: 1.14.1. TOWN OF EDISTO BEACH, SC

M. Padgett
Engineering &
Construction, LLC
No. 5303

P

E&C

M. Padgett Engineering

& Construction, LLC

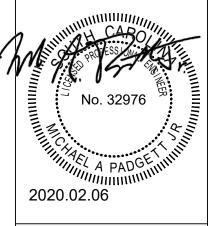
PO Box 6996,

Florence, SC 29502

tel: 843-908-4569 fax: 866-384-7749

mp.eng.con@gmail.com

www.mpadgettengineering.com



Date/Revisions:
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Project:

Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

LIFE SAFETY PLAN/ CODE ANALYSIS

Scale: NTS

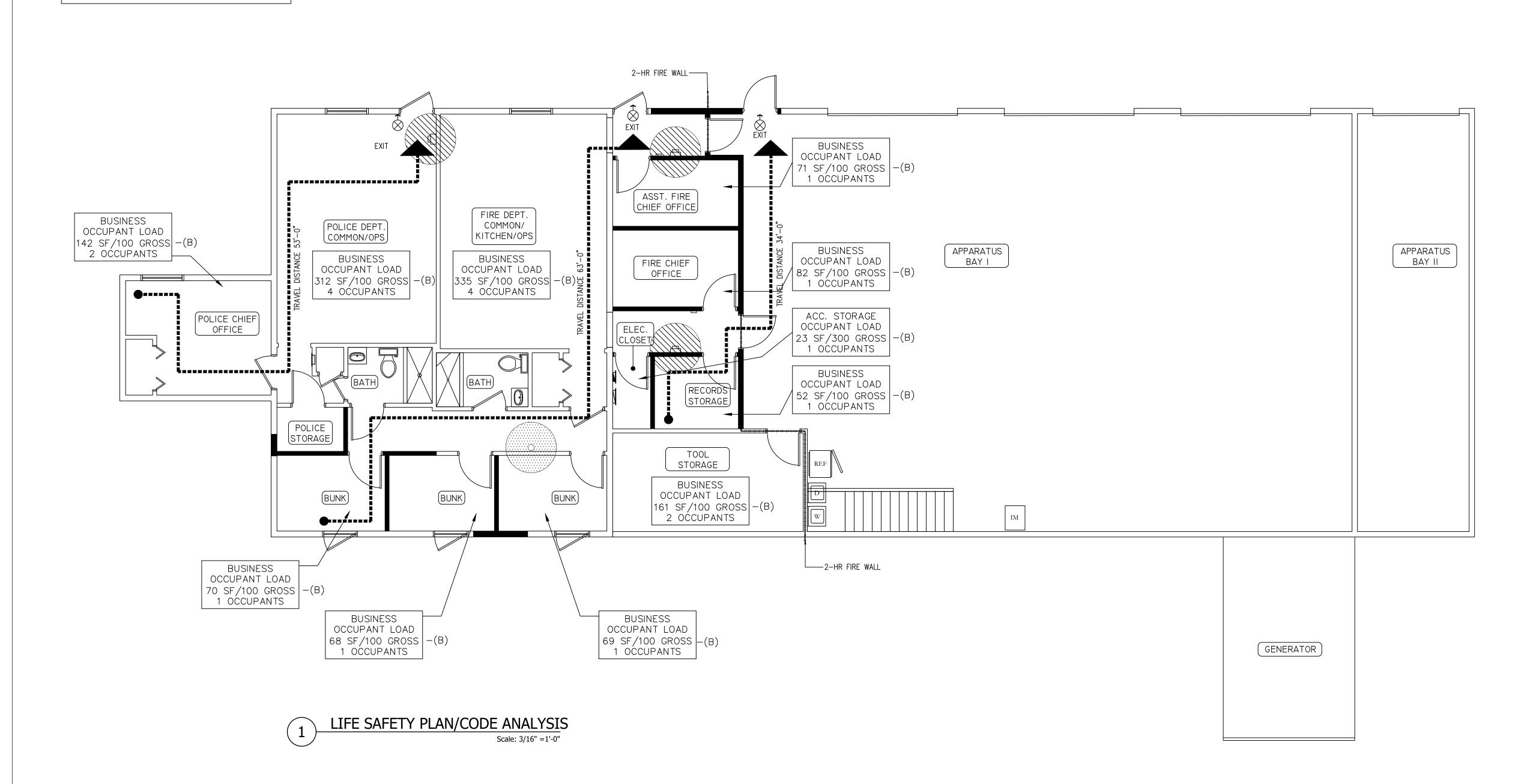
Drawn: TMH

Check: MP

Proj#: J1870

LS1

AREA 4

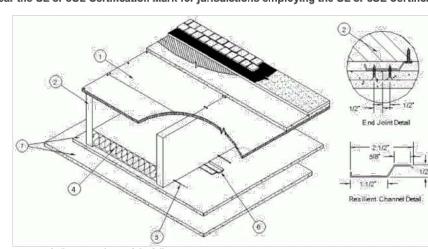


#### Design No. L541 May 24, 2019

#### Unrestrained Assembly Rating — 2 Hr. Finish Rating — 74 Min.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide <u>BXUV</u> or <u>BXUV7</u>

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Flooring Systems — The flooring system shall consist of one of the following:

#### System No. 3

Subflooring — Min 15/32 in. thick plywood wood structural panels, min grade "C-D". Face grain of plywood to be perpendicular to joists with end joints located over wood joists and staggered min 32 in. between adjacent lengths. Plywood secured to wood joists with 6d common nails spaced 6 in. OC at the ends and 10 in. OC in the field.

Damping Compound - (Optional) — Applied to top surface of subfloor with a 1/4 in. square notched trowel for sound control.

Finish Flooring - Floor Topping Mixture\* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi, Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Types LRK, HSLRK, CSD

USG MEXICO S A DE C V — Types LRK, HSLRK, CSD

Floor Mat Materials\* - (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor

UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials\* - (Optional) — Nom 1/4 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under Floor Topping Mixture. GRASSWORX L L C — Type SC50

Alternate Floor Mat Material\* — (Optional) - Floor mat material nominal 3/8 in. thick loose laid over the subfloor. Floor topping shall be a min 1-1/2 in. thick.

2. Wood Joists — Min 2 by 10, spaced 16 in. OC and effectively fireblocked in accordance with local codes.

3. Cross Bridging - (Not Shown) — Min 1 by 3 in. or min 2 by 10 solid blocking. 4. Batts and Blankets\* — Nom 3 in. thick batts, supplied in 48 in. lengths, cut to nom 14-3/4 in. widths and installed 1 in. from bottom surface of wood joists.

PLITEQ INC — Type Genie Clip

THERMAFIBER INC — Type SAFB, SAFB FF

ROCKWOOL — Type SAFEnSOUND

5. Insulation Clips — Nom 0.087 in. diam steel wire supplied in 15-7/16 in. lengths, friction fitted between wood joists. Four clips are used per 48 in. length of batt, installed 4 and 17-5/8 in. from each end of the batt.

6. Resilient Channels — Resilient channels, 2-1/2 in. wide by 1/2 in. deep, formed from No. 25 MSG galv steel and shaped as shown, spaced 16 in. OC perpendicular to joists. Channels overlapped 4 in. at splices and secured to each joist with one 1-7/8 in. long Type S bugle head steel screws. Additional resilient channels positioned so as to coincide with end joints of gypsum board (Item 7). Additional channels shall extend min 3 in, beyond each side of board.

6A. Steel Framing Members\* — (Optional, Not Shown) — As an alternate to Item 6 — Furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 ga galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to trusses. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Additional resilient channels

positioned so as to coincide with end joints of gypsum board (Item 7). Additional channels shall extend min 3 in. beyond each side of board. b. Steel Framing Members\* — Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 32 in. OC and secured to the bottom chord to alternating joist with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item a. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.

68. Alternate Steel Framing Members\* — (Optional, Not Shown) — As an alternate to Items 6 and 6A, furring channels and Steel Framing Members as described below. a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to joists. Channels secured to joists as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap.

b. Steel Framing Members\* — Used to attach furring channels (Item a) to the wood joists (Item 2). Clips spaced a max of 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to alternating joists with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clips for use with 2-23/32 in. wide furring channels. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the wallboard butt joints, as described in Item 7. PAC INTERNATIONAL L L C — Types RSIC-1 or RSIC-1 (2.75)

#### 6C. Steel Framing Members\* — (Optional, Not Shown) — As an alternate to Item 6.

a. Furring Channels — Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to the joists. Channels secured to Cold Rolled Channels at every intersection with a 3/4 in. TEK screw through each furring channel leg. Ends of adjoining channels overlapped 12 in. and fastened together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap, or with two 3/4 in. TEK screws in each leg of the overlap section. Two furring channels positioned 3 in. OC, 1-1/2 in. on each side of gypsum board (Item 7) end joints, each extending a min of 6 in. beyond both side edges of the board.

b. Cold Rolled Channels — 1-1/2 in., by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to joists, friction-fitted into the channel caddy on the Steel Framing Members (Item 6Cc) and secured with two 3/4 in. TEK screws. Adjoining lengths of cold rolled channels lapped min. 12 in. and secured along bottom legs with four 3/4 in. TEK screws and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. Steel Framing Members\* — Spaced 48 in. OC. max along joist, and secured to the joist on alternating joists with two, #10 x 1-1/2 in. screws through mounting holes on the hanger bracket. PAC INTERNATIONAL L L C — Type RSIC-SI-CRC EZ Clip

#### 6D. Steel Framing Members\* — (Optional, Not Shown) — As an alternate to Item 6.

a. Furring Channels — Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to joists and friction fit into Steel Framing Members (Item 6Db). Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap or with two TEK screws along each leg of the 6 in. overlap. Two furring channels positioned 6 in. OC, 3 in. on each side of gypsum board (Item 7) end joints. Butt joint channels held in place by strong back channels placed upside down, on top of, and running perpendicular to primary furring channels, extending 6 in. longer than length of gypsum side joint. Strong back channels spaced maximum 48 in. OC. Strong back channels secured to every intersection of primary furring channels with four 7/16 in. pan head screws, two along each of the legs at intersections. Butt joint channels run perpendicular to strong back channels and shall be minimum 6 in. longer than length of joint, secured to strong back channels with 7/16 in. pan head screws, two along each of the legs at intersection with strong back channels.

b. Steel Framing Members\* — Used to attach furring channels (Item 6Da) to joists. Clips spaced 48 in. OC and secured along joist webs at each furring channel intersection with min. 3/4 in. long self-drilling #10 x 1-1/2 in. screws through each of the provided hole locations. Furring channels are friction fitted into clips. PAC INTERNATIONAL L C — Type RSIC-S1-1 Ultra

7. Gypsum Board\* — Nom 5/8 in. thick, 4 ft wide gypsum board. Base layer installed with long dimension perpendicular to resilient/furring channels and side joints centered between wood joists. Butted end joints in adjacent rows staggered min 32 in. Base layer secured to resilient/furring channels with 1 in. long Type S bugle head steel screws spaced 16 in. OC in the field. End joints of base layer similarly fastened to additional pieces of resilient/furring channel positioned at end joint locations with 1 in. long Type S bugle head steel screws spaced 8 in. OC. Face layer installed with long dimension perpendicular to resilient/furring channels. Face layer secured to resilient/furring channels with 1-5/8 in. long Type S bugle head steel screws spaced 8 in. OC in the field. Butted end joints secured to base layer with 1-1/2 in. long Type G bugle head steel screws spaced 8 in. OC. Face layer side joints offset min 24 in. from base layer side joints. Face layer end joints offset min 16 in, from end joints of base layer. When Steel Framing Members (Item 5A or 6B) are used, the butt joints in the gypsum board shall be supported by two furring channels. The two furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the joist with one RSIC-1, RSIC-1 (2.75) or Genie clip at each end of the

When Steel Framing Members (Item 6C) and used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Adjacent butt joints staggered minimum 48 in. OC.

When Steel Framing Members (Item 6D) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Butt joints staggered minimum 24 in. OC.

AMERICAN GYPSUM CO -- Type AG-C

CERTAINTEED GYPSUM INC — Type C

CGC INC — Types C, IP-X2

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Types LGFC-C, LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C.

NATIONAL GYPSUM CO — Types FSK-C, FSW-C, FSW-G

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C.

UNITED STATES GYPSUM CO — Types C, IP-X2

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2

8. Finishing System - (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board.

9. Acoustical Sealant - (Optional) — A bead of acoustical sealant applied to the top surface of the wood joists for sound-control sealing.

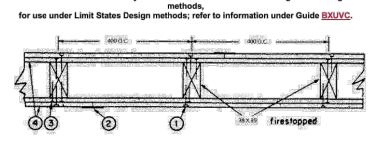
\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

## UL ASSEMBLY - L541

Design No. U301 February 12, 2019

Assembly Rating - 2 h

#### Load Restricted — Assembly evaluated in accordance with Working Stress Design



#### Bearing Wall - Combustible Construction (Finish Rating - 66 minutes)

1. Nailheads - Exposed or covered with joint finisher. Joints — Exposed or covered with tape and joint finisher. 3. Nails — 51 mm, cement-coated flathead. 4. Gypsum Board — (CKNXC). 15.9 mm thick applied in two layers. Base layer placed vertically with joints butted over studs and nailed to studs 150 mm OC. Face layer applied horizontally with joint finisher cement and nailed 300 mm OC.

temporarily to base layer until cement sets. All joints in face layers staggered with

CGC INC — Types SCX, SGX, AR, WRX, IP-X1, IP-AR, SHX, C, IP-X2, WRC,

 $\bf UNITED\ STATES\ GYPSUM\ CO\ --$  Types SCX, SGX, AR, WRX, IP-X1, IP-AR, SHX, C, IP-X2, WRC, ULX

**GEORGIA-PACIFIC GYPSUM L L C** — Types 9, X, DGG, DS, GuardGF-2, C, TR-AR, GF-6, DAP

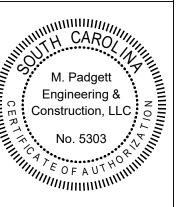
NATIONAL GYPSUM CO — Types FSW, FSW-30

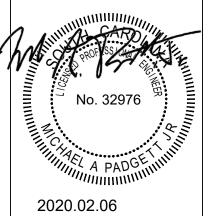
UL ASSEMBLY - 301

NTS



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Date/Revisions:

2020.02.06 Construction Documents

Project:

Beach Edisto Renovations to E Fire Department 2413 Murray St. Edisto Island, SC 2943

LIFE SAFETY PLAN/ UL ASSEMBLY

Scale: NTS

Drawn: TMH

Check: MP

CONTRACTOR

\*NOTE: THESE ARE GENERAL DEMOLITION NOTES. ALL NOTES MAY NOT BE UTILIZED.

- 1. GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS AND DETERMINE THE EXTENT OF WORK PRIOR TO ANY AND ALL CONSTRUCTION. NOTIFY OWNER OF ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL
- 2. COMPLY WITH ALL LOCAL, STATE, AND FEDERAL CODES, LAWS AND REGULATIONS. 3. REQUIRED PERMITS AND FEES FOR INSPECTIONS ARE TO BE BY THE GENERAL
- 4. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS, CONSTRUCTION METHODS AND CRAFTSMANSHIP. ALL NEW WORK IS TO BE PLUMB, LEVEL, AND SQUARE. 5. VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE PROJECT MANAGER OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS. 6. THE CONTRACTOR IS RESPONSIBLE TO BRING DISCREPANCIES OR CONFLICTS BETWEEN DRAWINGS AND SPECFIICATIONS TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER BEFORE BID OPENING FOR RESOLUTION. DO NOT ASSUME CORRECTNESS OF ONE DOCUMENT OR THE OTHER.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK WITH OTHER TRADES AND THE OWNER'S SELF-PERFORMED WORK WHEREVER AND WHENEVER THEY OVERLAP.
- 8. COORDINATE CONSTRUCTION ACTIVITIES WITH OWNER'S SCHEDULE.
- 9. DO NOT SCALE DRAWINGS. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF NEW FINISH OR FACE OF EXISTING WALL.
- 10. ALL EXISTING CONDITIONS TO REMAIN SHALL BE PROTECTED DURING DEMOLITION AND CONSTRUCTION OPERATIONS. PROTECT ADJACENT AREAS FROM DUST AND DEBRIS. MINIMIZE DAMAGE TO EXISTING LANDSCAPING AND PAVING. DAMAGED LANDSCAPING AND PAVING MUST BE REPLACED IN KIND. MAINTAIN A CLEAN, SAFE WORK ENVIRONMENT AT ALL TIMES.
- 11. PROVIDE PEDESTRIAN PROTECTION AROUND THE CONSTRUCTION AREAS. PROVIDE FLAGGERS AND ADDITIONAL PEDESTRIAN PROTECTION AS REQUIRED WHEN MOVING EQUIPMENT OR VEHICLES ON THE PEDESTRIAN SPINE. COORDINATE THESE EFFORTS WITH PROJECT MANAGER.
- 12. EXISTING UTILITIES AND IRRIGATION LINES ARE TO REMAIN UNLESS OTHERWISE NOTED. PATCH AND REPAIR OR REPLACE EXISTING PAVING, FINISHES, ETC. WHERE AFFECTED BY NEW CONSTRUCTION.
- 13. GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE INSPECTION SERVICES 14. CONTRACTOR STORAGE AREA: A SMALL STORAGE AREA FOR TOOLS AND MATERIALS NEAR THE PROJECT SITE WILL BE PROVIDED. COORDINATE STORAGE AREA WITH PROJECT MANAGER.
- 15. TRASH AND RECYCLING: CONTRACTOR TO PROVIDE DUMPSTER AND RECYCLING PICKUP FOR PROJECT. COORDINATE DUMPSTER LOCATION WITH PROJECT MANAGER. 16. TEMPORARY TOILET FACILITIES: CONTRACTOR TO PROVIDE PORTABLE TOILET(S) FOR CONTRACTOR USE DURING THE PROJECT. COORDINATE TOILET LOCATION WITH PROJECT MANAGER.

#### DEMOLITION PLAN GENERAL NOTES

\*NOTE: THESE ARE GENERAL DEMOLITION NOTES. ALL NOTES MAY NOT BE UTILIZED.

1. ALL DEMOLITION IS TO COMPLY WITH THE BUILDING RULES / REGULATIONS FOR DUST CONTROL CONSTRUCTION. PROTECT HVAC DISTRIBUTION AND ANY OTHER

REQUIREMENTS. 2. CONTRACTOR SHALL INVENTORY AND MARK DAMAGED CONDITIONS AND PROTECT EXISTING TO REMAIN CONDITIONS BEFORE PROJECT COMMENCEMENT. DOCUMENT EXISTING DAMAGE WITH OWNER AND ARCHITECT.

3. PRIOR TO COMMENCING ANY DEMOLITION WORK, VERIFY THAT A WALL IS NOT A BEARING WALL, AND THAT NO INTERRUPTION WITH ANY SERVICE, I.E. ELECTRICAL OR MECHANICAL SHALL BE EXPERIENCED BY THE OWNER. NOTIFY ARCHITECT IMMEDIATELY IF WALLS OR OTHER ITEMS TO BE REMOVED MAY AFFECT THE STRUCTURAL INTEGRITY OF THE BUILDING.

4. THE CONTRACTOR SHALL REMOVE ALL WALL CONDUITS, SWITCH PLATES, TELEPHONE, OR ELECTRICAL DEVICES NOT INDICATED ON OTHER PLANS WITHIN THIS DOCUMENT SET. ALL WALL CONDUITS, SWITCH PLATES, TELEPHONE OR ELECTRICAL WIRING OR EQUIPMENT SHALL BE REMOVED AND STUBBED AT SOURCE PANEL. 5. PRIOR TO DEMOLITION OF ELECTRICAL AND COMMUNICATIONS OUTLETS, COORDINATE WITH OWNER FOR SCOPE OF WORK TO PULL LINES OUT, CLEAN OUT PLENUM, PATCH AND REPAIR. PLENUM SHALL REMAIN CLEAN OF ABANDONED CABLES. 6. REMOVE EXISTING MECHANICAL COMPONENTS AS REQUIRED TO ACOMMODATE NEW HVAC DESIGN AND DUE TO CEILING-RELATED WORK. SALVAGE DEVICES AS PRACTICAL FOR REUSE. CLEAN/REPLACE SUPPLY AIR DIFFUSERS AND RETURN AIR GRILLES. CALIBRATE AND RELOCATE THERMOSTATS AND INSTALL NEW DUCTWORK AS REQUIRED. 7. WHERE DEMOLITION IS TO TAKE PLACE IN THE AREA OF THE BUILDING WHERE THE

FIRE SAFETY EQUIPMENT SUCH AS ALARMS, SPEAKERS, SMOKE DETECTORS, ETC. ARE LOCATED. THE BUILDING MANAGER/ OWNER REPRESENTATIVE MUST BE NOTIFIED THREE (3) WORKING DAYS (OR AS REQUIRED AS PER THE RULES AND REQUIREMENTS). PRIOR TO THE START OF DEMOLITION.

8. CONTRACTOR TO COORDINATE WITH THE OWNER ALL CORE DRILLING, CUTTING AND CHOPPING WORK SHALL BE DONE WITH MINIMUM DAMAGE TO SURROUNDING SURFACES TO BE RETAINED.

9. ELECTRICAL CONTRACTOR TO VERIFY LOCATION OF EXISTING PANEL(S) / TRANSFORMERS/ SECURITY EQUIPMENT TO BE RELOCATED OR MODIFIED. 10. ALL PHYSICAL STRUCTURES AND FEATURES OF THE BUILDING AND IMPROVEMENTS INDICATED THAT ARE NOT ILLUSTRATED BY "DASHED" LINE, OR OTHERWISE SPECIFICALLY DESIGNATED TO BE REMOVED, SHALL REMAIN "AS IS". GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL CAREFULLY STUDY THE DRAWINGS AND COMPARE THEM TO THE EXISTING CONDITIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO SUBMISSION OF BIDS TO GENERAL

11. ALL DEMOLITION IS TO COMPLY WITH THE BUILDING RULES / REGULATIONS FOR DUST CONTROL CONSTRUCTION. PROTECT HVAC WORK SHALL INCLUDE ALL DEMOLITION. PATCHING AND REPAIR REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. EXTENT OF WORK IS TO BE ASCERTAINED BY CONTRACTOR AT PRE-BID SITE VISIT AND SHALL BE SUFFICIENT TO ACCOMMODATE NEW WORK.

12. CONTRACTOR SHALL PATCH, SMOOTH AND FLUSH SURFACES WHERE EXISTING PARTITIONS, DOORS, WINDOWS AND ETC. HAVE BEEN REMOVED FROM PARTITIONS & FLOORS. PREPARE ALL REMAINING SURFACES TO RECEIVE NEW FINISHES. 13. LEVEL EXISTING CONCRETE FLOOR SLABS AS NECESSARY TO PROVIDE A LEVEL SURFACE VARYING NO MORE THAN 1/4" IN 10'-0". AT ALL REQUIRED LANDINGS, THERE SHALL NOT BE ANY SLOPE TO ACHIEVE LEVEL LANDING. 14. PATCH, REPAIR, MODIFY AND LEVEL CEILING TEES AS REQUIRED TO ACCOMMODATE

NEW CEILING GRID LAYOUT. PATCH AND REPAIR AS REQUIRED TO ACHIEVE A UNIFORM 15. ANY EXISTING EQUIPMENT INDICATED TO REMAIN MUST BE IN GOOD OPERATIONAL

CONDITION. CONTRACTOR MUST VERIFY. 16. THE CONTRACTOR SHALL ERECT ALL NECESSARY PLASTIC DROP CLOTH PARTITIONS TO PROTECT ADJACENT BUILDING PROPERTY AND INTERIOR SPACE WHILE DEMOLITION AND CONSTRUCTION IS IN PROGRESS.

#### REFLECTED CEILING PLAN- GENERAL NOTES

\*NOTE: THESE ARE GENERAL REFLECTED CEILING PLAN NOTES. NOT ALL NOTES MAY NOT BE UTILIZED. REFER TO ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION.

1. ALL LIGHT FIXTURES, CEILING GRID AND CEILING TILE WITHIN SCOPE OF WORK AREA ARE NEW UNLESS NOTED OTHERWISE.

2. FIXTURE TYPES ARE AS NOTED ON SYMBOL LEGEND. 3. CONTRACTOR TO LOCATE SUPPLY/RETURN AIR INDICATED ON ENGINEERING DRAWINGS AND AS REQUIRED BY LOCAL, STATE, AND BUILDING CODES AND TO

PROPERLY BALANCE THE HVAC SYSTEM WITHIN THE SPACE. PROVIDE A TEST AND BALANCE CERTIFICATE UPON COMPLETION OF JOB. 4. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL DUCTWORK AND PLUMBING LINES. TO COORDINATE WITH INSTALLATION OF LIGHT FIXTURES AS SHOWN

ON CONSTRUCTION DOCUMENTS. CONTRACTOR WILL NOTIFY THE ARCHITECT IMMEDIATELY UPON DISCOVERY OF ANY FIELD CONDITIONS WHICH WILL PROHIBIT INSTALLATION OF FIXTURES AS SHOWN. 5. CONTRACTOR TO REPLACE AND REFURBISH DAMAGED CEILING TILES AND GRID TO

PRODUCE A UNIFORM COLOR AND APPEARANCE THROUGHOUT THE SPACE, UNLESS NOTED OTHERWISE.

6. ALL SWITCH PLATES SHALL MATCH BUILDING STANDARD UNLESS NOTED OTHERWISE. 7. SUBMIT CUT SHEETS OF ALL SPECIALTY LIGHTING (NONSTANDARD FIXTURES AND/OR EQUIPMENT IF APPLICABLE), FOR ARCHITECT'S /ENGINEER'S APPROVAL PRIOR TO ORDER PLACEMENT/INSTALLATION.

8. ALL EXIT SIGNS TO MATCH EXISTING AND BE CODE COMPLIANT, UNLESS NOTED OTHERWISE.

9. GANG LIGHT SWITCHES AS REQUIRED. REFERENCE REFLECTED CEILING PLAN FOR SWITCH LOCATIONS AS SHOWN.

10. REFER TO ENGINEERING PLANS FOR THE FOLLOWING: CIRCUITING AND WIRING OF LIGHT FIXTURES AND SWITCHES, LIFE SAFETY EQUIPMENT, AND EMERGENCY LIGHT FIXTURE INFORMATION.

11. WHERE ACOUSTICAL CEILING TILE MUST BE CUT, CUT TILES TO MAINTAIN A SHARP AND NEAT EDGE.

12. IF ADDITIONAL FIRE STROBES, ANNUNCIATORS, AND EXIT SIGNS ARE REQUIRED OTHER THAN WHAT IS INDICATED IN THE DRAWING, CONTRACTOR SHALL PROVIDE ADDITIONAL DEVICES AS REQUIRED BY CODE TIED TO BUILDING ALARM SYSTEM AS REQUIRED FOR NEW WALL LAYOUT.

#### FINISH PLAN GENERAL NOTES

\*NOTE: THESE ARE GENERAL FINISH INSTALLATION NOTES. ALL NOTES MAY NOT BE

1. ALL FINISHES REQUIRED BY THE ARCHITECT ARE INCLUDED HEREIN, SHOULD THERE BE ANY DISCREPANCIES, DISCONTINUED OR DELAYED MATERIALS, THE ARCHITECT IS TO BE NOTIFIED IMMEDIATELY AND CONSULTED BEFORE PROCEEDING. NO SUBSTITUTION OF MATERIALS SHALL BE ACCEPTED WITHOUT ARCHITECT'S FINAL APPROVAL. 2. INSTALL ALL MANUFACTURERS ITEMS, MATERIALS, AND EQUIPMENT IN STRICT

ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS, EXCEPT THAT THE SPECIFICATIONS HEREIN. WHERE MORE STRINGENT. SHALL BE COMPLIED

3. ALL SURFACES SPECIFIED TO RECEIVE FLOOR COVERING SHALL BE SMOOTH, EVEN, AND FREE FROM DEFECTS. SURFACES NOT MEETING SUBSTRATE CONDITIONS REQUIRED BY FLOORING MANUFACTURER SHALL BE REPAIRED. CONTACT ARCHITECT FOR APPROVAL TO PROCEED IN CASE OF EXTREME FLOOR SLAB VARIATIONS. 4. NEW CARPET SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION METHODS/INSTRUCTIONS. ALL CARPET PATTERNS TO BE MATCHED. LAY CARPET IN PILE DIRECTION THAT BEST UTILIZES IT'S QUANTITY UNLESS NOTED OTHERWISE.

5. NEW CARPET SHALL BE DIRECT-GLUED DOWN UNLESS NOTED OTHERWISE. DO NOT SEAM WARP TO WEFT.

6. CARPET TO CARPET TRANSITION AT DOORS SHALL OCCUR DIRECTLY UNDER CENTERLINE OF DOORS (IN CLOSED POSITION). INSTALL VINYL CARPET TRANSITION STRIP ON LOCATIONS WHERE THERE IS A CHANGE IN THE FLOOR LEVEL AND THE EDGE OF CARPET IS EXPOSED TO TRAFFIC. EXCEPT WHERE ANOTHER DEVICE, SUCH AS THRESHOLD, IS INDICATED, COLOR SHALL MATCH VINYL BASE SPECIFIED FOR THAT

7. ALL CARPET TO BE FROM ONE DYE LOT. NO HEAD SEAMS ALLOWED. CARPET SEAMS WITH CUT EDGES SHOULD BE SEALED WITH LATEX TO PREVENT RAVELING. 8. THE START AND STOP POINTS OF CARPET DESIGNS/SEAMS IN ALL AREAS ARE TO BE APPROVED BY THE ARCHITECT. SUBMIT CARPET SEAM DIAGRAM FOR ARCHITECT'S APPROVAL, PROVIDE DIRECT GLUE APPLICATION UNLESS NOTED OTHERWISE. 9. EXTEND CARPET INTO CLOSETS OF ROOMS INDICATED TO BE CARPETED UNLESS

NOTED OTHERWISE 10. CARPET TILE INSTALLATION SHALL BE QUARTER TURNED THROUGHOUT UNLESS

NOTED OTHERWISE. 11. CONTRACTOR SHALL PERFORM MOISTURE TEST OF EXISTING SLAB PER MANUFACTURER'S RECOMMENDATIONS TO ENSURE OPTIMUM INSTALLATION OF

FLOORING MATERIALS. 12. BUTT VINYL TILES TIGHTLY TO ADJACENT VERTICAL SURFACES, THRESHOLDS,

NOSING AND EDGINGS. SCRIBE AROUND OBSTRUCTION, EXTEND TILES INTO TOE SPACES, DOOR REVEALS, CLOSETS AND SIMILAR OPENINGS. ASSUME ANY PATTERN SHOWN ON FINISH PLAN TO CONTINUE IN THE INDICATED MANNER UNDER ANY FREESTANDING EQUIPMENT, SUCH AS COPY MACHINES AND REFRIGERATORS. INSTALL VINYL TILES WHERE PATTERN/GRAIN RUNS IN THE SAME DIRECTION. MATCH TILES FOR PATTERN AND COLOR BY USING TILES FROM CARTONS IN SAME SEQUENCE AS MANUFACTURED AND PACKAGED.

14. PROVIDE CUTOUTS FOR ALL ELECTRICAL AND TELEPHONE FLOOR OUTLETS AS REQUIRED. CARPET TO BE CAREFULLY CUT AROUND OUTLETS SO AS NOT TO UNRAVEL OR TEND TO PULL OUT AROUND OUTLET. 15. BEFORE MATERIALS ARE ORDERED/INSTALLED, CONTRACTOR SHALL SUBMIT

THREE 12" X 12" SAMPLES OF EACH SPECIFIED FINISH, SHOWING COLOR AND FINISH TO ARCHITECT FOR APPROVAL.

16. PROVIDE AND APPLY PRIMER AND MINIMUM OF TWO (2) COATS OF ACRYLIC LATEX SEMI-GLOSS WALL PAINT, UNLESS NOTED OTHERWISE. FINISHED SURFACES SHALL BE FREE FROM RUNS, DROPS, RIDGES, WAVES, LAPS, BRUSH MARKS, AND VARIATIONS IN COLOR, TEXTURE, AND FINISH. THE HIDING SHALL BE COMPLETE AND EACH COAT SHALL BE APPLIED TO PRODUCE A FILM OF UNIFORM THICKNESS.

17. ALL MISCELLANEOUS GRILLES, DIFFUSERS, FIRE EXTINGUISHER CABINETS, ETC., SHALL BE PAINTED TO MATCH THE SURFACES ON WHICH THEY OCCUR UNLESS NOTED OTHERWISE. ALL METAL SURFACES SHALL BE PRIMED PRIOR TO PAINTING. INSIDE OF VISIBLE DUCT WORK SHALL BE PAINTED FLAT BLACK.

18. WHERE DEEP-TONE WALL COVERING OR PAINT IS TO BE INSTALLED, PRIME WALL WITH MATCHING COLOR PRIOR TO WALL COVERING INSTALLATION.

19. AT SOFFITS, PAINT UNDERSIDE OF SOFFIT FLAT FINISH WITH SAME COLOR AS FACE OF WALL UNLESS NOTED OTHERWISE.

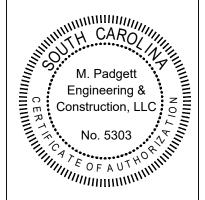
20. DO NOT SEAM WALL COVERING IN MIDDLE OF WALLS OR COLUMNS.

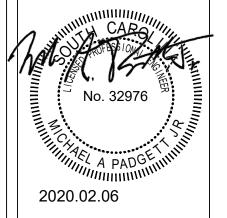
21. INSTALL RUBBER BASE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE COVE BASE THROUGHOUT UNLESS NOTED OTHERWISE. PROVIDE PRE-FORMED EXTERNAL CORNERS AT ALL CORNERS WHERE COVE BASE IS INSTALLED. JOIN ALL INSIDE CORNERS WITH MITERED SEAMS IN LIEU OF PRE-FORMED INTERNAL CORNERS.

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E&C M. Padgett Engineering & Construction, LLC

PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





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POWER AND COMMUNICATION PLAN GENERAL NOTES: \*NOTE: THESE ARE GENERAL POWER AND COMMUNICATION NOTES. ALL NOTES MAY NOT BE UTILIZED. REFER TO ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION.

1. ALL OUTLETS/RECEPTACLES INDICATED ON PLAN WITHIN SCOPE OF WORK AREA ARE NEW UNLESS NOTED OTHERWISE. 2. ALL OUTLETS IN EXISTING WALLS WHICH SHALL REMAIN ARE EXISTING TO REMAIN AS

WELL U.N.O. 3. ALL COVER PLATES SHALL BE THE SAME COLOR AND FINISH AS THE BUILDING STANDARD SPECIFICATION UNLESS NOTED OTHERWISE. PROVIDE NEW COVER PLATES AS REQUIRED TO MATCH EXISTING.

4. TELEPHONE OUTLETS MUST INCLUDE BOTH TELEPHONE AND DATA LINES. 5. ALL OUTLETS OCCURRING ABOVE BUILT-IN COUNTER TOPS OR FURNITURE WORK SURFACES ARE TO BE MOUNTED HORIZONTALLY ABOVE BACK SPLASH UNLESS NOTED OTHERWISE. SEE PLAN FOR MOUNTING HEIGHTS. GROUNDED OUTLETS ARE TO BE INSTALLED AS REQUIRED BY CODE IN WET AREAS.

6. COORDINATE THERMOSTAT PLACEMENT WITH ARCHITECT. AT OFFICE LOCATIONS, THERMOSTATS TO BE CENTERED ABOVE LIGHT SWITCH, ADJACENT TO DOOR AT REQUIRED HEIGHT, PROVIDE NEW THERMOSTAT COVERS AS REQUIRED.

7. CONTRACTOR SHALL VERIFY REQUIREMENTS FOR OWNER'S TELEPHONE/IT RACK TO BE RELOCATED. 8. FURNITURE IS SHOWN FOR INFORMATIONAL PURPOSES ONLY AND IS TO BE PROVIDED

AND INSTALLED BY OWNER'S FURNITURE VENDOR UNLESS NOTED OTHERWISE DIMENSIONS OF OUTLETS ARE FROM FINISHED FLOOR TO CENTER OF OUTLET. 10. ALL ELECTRICAL AND VOICE/DATA RECEPTACLES SHALL BE MOUNTED AT 18" AFF TO

CENTERLINE OF BOX UNLESS NOTED OTHERWISE. 11. ELECTRICAL SUBCONTRACTOR SHALL RECORD ALL CIRCUITS AND CIRCUIT NUMBERS ON AS-BUILT DRAWINGS AND LABEL ALL CIRCUITS ON PANEL DIRECTORIES. LABELS TO

BE TYPED. 12. TELEPHONE AND/OR ELECTRICAL OUTLETS ON OPPOSITE SIDES OF A COMMON PARTITION SHALL BE LOCATED ON SEPARATE STUD CAVITIES. NO BACK TO BACK OUTLETS WILL BE ALLOWED. WHERE SPECIFIC DIMENSIONS CONTRADICT THIS NOTE, THE ELECTRICAL CONTRACTOR SHALL RELOCATE ONE OUTLET TO THE OPPOSITE SIDE OF THE STUD NEAREST THAT DIMENSION.

#### PARTITION PLAN GENERAL NOTES:

CONTRACTOR AND OWNER.

\*NOTE: THESE ARE GENERAL PARTITION NOTES. ALL NOTES MAY NOT BE UTILIZED.

1. THESE DRAWING MAY NOT REPRESENT ALL EXISTING SITE CONDITIONS. GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS PRIOR TO ORDERING ANY MATERIALS OR PROCEEDING WITH THE WORK. CONTRACTOR SHALL NOTIFY ARCHITECT AND OWNER OF ANY DISCREPANCIES OR QUESTIONS AND OBTAIN REQUIRED CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK DESCRIBED HERE IN. 2. CONTRACTOR SHALL VERIFY ALL DEMISING WALLS EXTEND FROM SLAB TO DECK AND MATCH CONSTRUCTION OF BUILDING STANDARD DEMISING WALL TYPES. GENERAL CONTRACTOR SHALL MAINTAIN RATING AT ALL EXISTING FIRE WALLS. FIRE SAFE AS REQUIRED AT FLOOR OR CEILING SLAB AND RATED CONDITIONS.

3. PROVIDE DRYWALL OPENINGS FOR SMOKE AND FIRE DAMPERS WHERE REQUIRED BY

4. PLANS FOR ALL FIRE PROTECTION EQUIPMENT MUST BE SUBMITTED TO THE FIRE PREVENTION BUREAU FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. INSTALLATION OF FIRE ALARM SYSTEMS SHALL BE IN ACCORDANCE WITH ALL LOCAL CODES.

5. ALL FIRE EXTINGUISHERS AND CABINETS SHALL REMAIN UNLESS NOTED OTHERWISE. CONTRACTOR SHALL ENSURE PROPER WORKING CONDITION, CODE COMPLIANCE AND

QUANTITY. 6. CONTRACTOR SHALL PROVIDE ADEQUATE FIRE-RATED WOOD BLOCKING IN ALL PARTITIONS AS REQUIRED FOR SUPPORT OF NEW MILLWORK. 7. CONTRACTOR SHALL PROVIDE BUILDING STANDARD WATER LINES AS INDICATED ON

PLAN (AT SINK, REFRIGERATOR AND COFFEE EQUIPMENT). PROVIDE CUT-OFF IN WALL BOX. RE-USE EXISTING IF AVAILABLE. 8. CONTRACTOR SHALL SUBMIT CUT SHEETS OF ALL SPECIALTY ITEMS, FINISHES AND EQUIPMENT IF APPLICABLE TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING. 9. ANY EXISTING EQUIPMENT OR NEW EQUIPMENT SPECIFIED WITHIN THIS DOCUMENT

SET MUST BE IN GOOD OPERATIONAL CONDITION. CONTRACTOR MUST VERIFY. COORDINATE WITH BUILDING ENGINEER FOR ADDITIONAL INFORMATION & DIRECTION FOR ITEMS NOTED TO MATCH EXISTING. 10. CONTRACTOR SHALL CONFIRM ALL EXISTING AND AVAILABLE STOCK OF DOORS,

FRAMES, BLINDS, HARDWARE, FIRE EXTINGUISHERS AND LIGHT FIXTURES WITH OWNER FOR ANY EXISTING BUILDING STANDARD ITEMS WHICH MAY BE ADDED TO MATCH EXISTING. 11. ALL INTERIOR DIMENSIONS SHOWN ARE FROM FACE OF FINISH WALL TO FACE OF

FINISH WALL UNLESS NOTED OTHERWISE. 12. HINGE SIDE OF ALL DOORS SHALL BE 6" PERPENDICULAR FROM FINISH WALL UNLESS NOTED OTHERWISE.

13. PROVIDE A MINIMUM OF 1'-6" CLEAR ON THE PULL SIDE OF DOORS AND 1'-0" CLEAR ON THE PUSH SIDE OF DOORS.

#### MILLWORK GENERAL NOTES

\* NOTE: THESE ARE GENERAL MILLWORK NOTES. NOT ALL MAY BE UTILIZED.

1. GENERAL CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, MANUFACTURING, FACILITIES, HANDLING, AND TRANSPORTATION REQUIRED TO FABRICATE AND INSTALL ALL ITEMS OF MILLWORK SHOWN ON THE PROJECT DOCUMENTS UNLESS NOTED OTHERWISE.

2. ON AWARD OF CONTRACT, AND BASED ON FIELD DIMENSIONS, CONTRACTOR'S SHOP DRAWINGS AND SCHEDULES FOR ALL MILLWORK/CABINETWORK AND FINISHED CABINETRY SHALL BE SUBMITTED FOR ARCHITECT'S APPROVAL. NO FABRICATION OR INSTALLATION SHALL BEGIN UNTIL SHOP DRAWINGS HAVE BEEN APPROVED. 3. CONTRACTOR SHALL HAVE EXAMINED THE JOB SITE IN CONJUNCTION WITH THE CONSTRUCTION DOCUMENTS SO AS TO BE SATISFIED AS TO THE CONDITIONS UNDER

WHICH THE WORK WILL BE PREFORMED. 4. FINISH WORK SHALL BE SMOOTH AND FREE FROM ABRASION, TOOL MARKS, RAISED GRAIN ETC. ON ALL EXPOSED SURFACES.

5. ALL MILLWORK SHALL BE PERFORMED IN ACCORDANCE WITH AWI (ARCHITECTURAL

WOODWORK INSTITUTE) STANDARD COMMERCIAL GRADE 6. FLOOR/BASE FINISHES SHALL EXTEND IN TO ALL OPEN KNEE SPACES. Project:

Edisto ations epartn

Renova Fire Do 2413 Mus Edisto Isl **GENERAL** ARCHITECTURAL NOTES

SC

Scale: NTS

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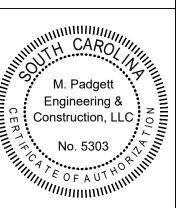
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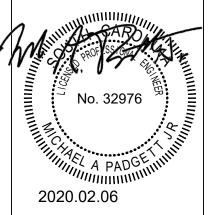


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E&C

M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





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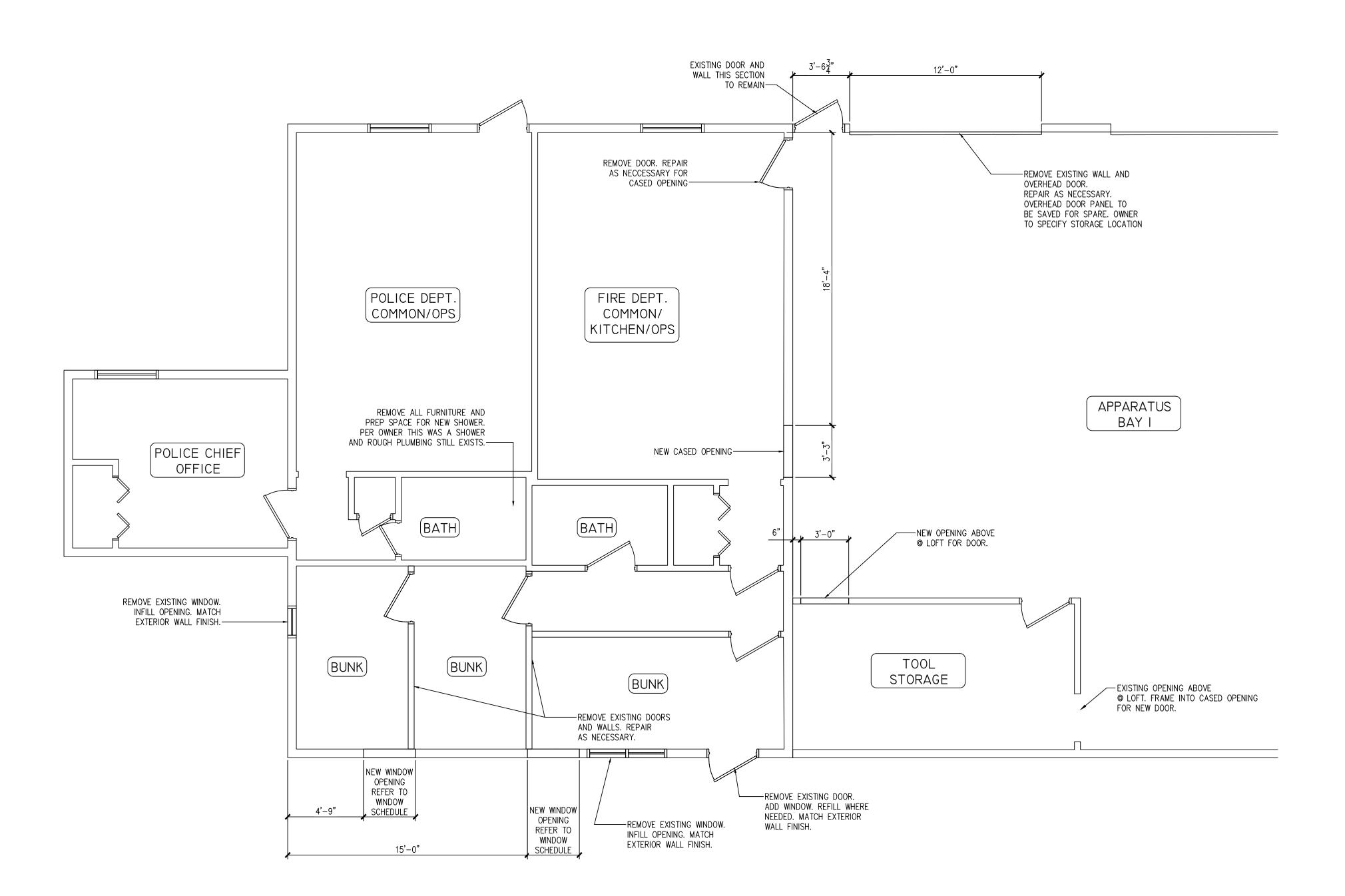
Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

OVERALL FLOOR PLAN EXIST/NEW

NTS Scale:

Drawn: TMH

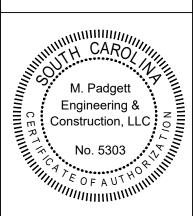
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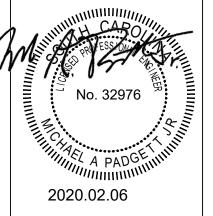


FLOOR PLAN-DEMO
Scale: 1/4" =1'-0"

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FURNITURE IS (NIC) NOT IN CONTRACT.
OWNER TO PROVIDE FURNITURE AND BID

SEPERATELY.

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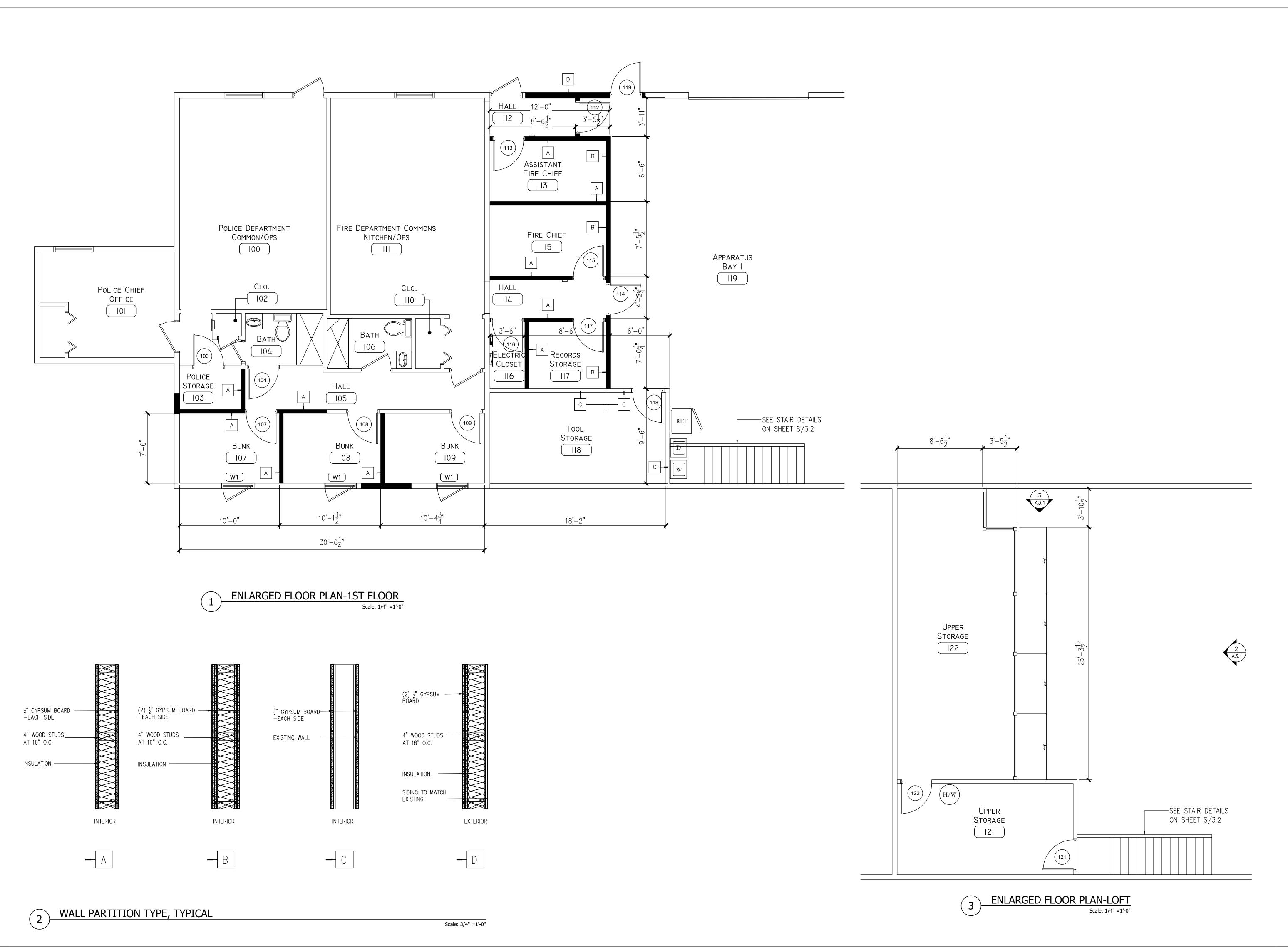
DEMOLITION PLOOR PLAN

Scale: NTS

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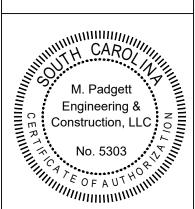
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M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com



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2020.02.06

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ENLARGED FLOOR PLAN

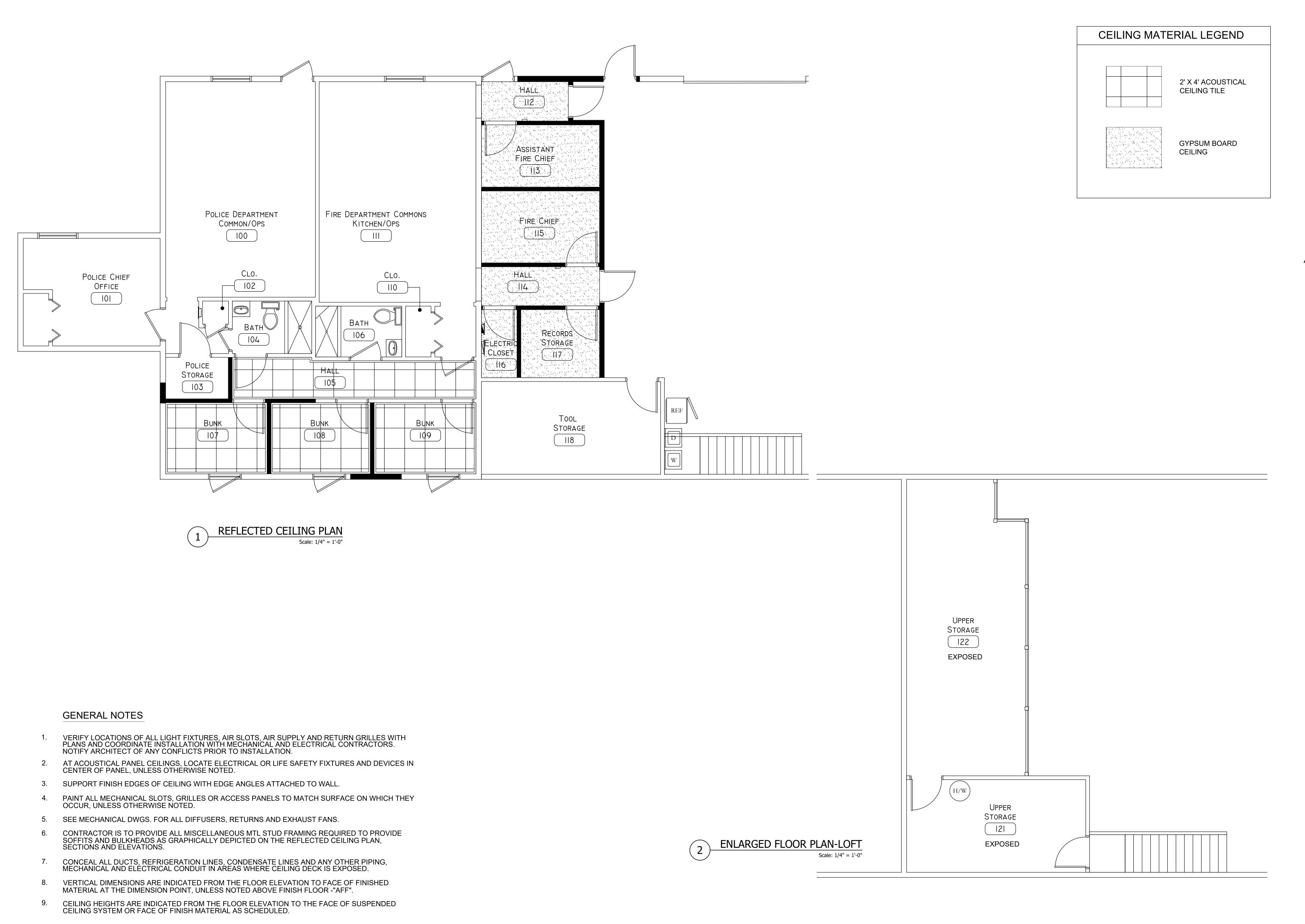
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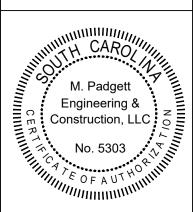
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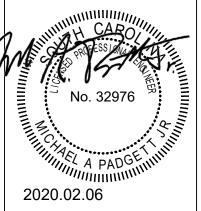
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REFLECTED CEILING PLAN

Scale: NTS

Drawn: TMH

Check: MP

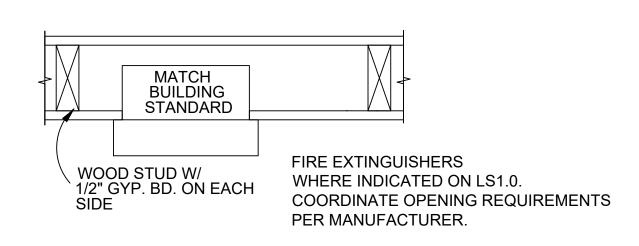
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					ROOM	FINISH :	SCHED	ULE			
	ı	ROOM		F	LOOR	W	ALL	CEILING	G		NOTES
NO.	ROOM NAME			BASE	FINISH	W	ALL				
				5,102		MAT.	FIN.				
103	POLICE STORAGE			RB	VCT	DW	PT	ACT			
107	BUNK			RB	VCT	DW	PT	ACT			
108		BUNK		RB	VCT	DW	PT	ACT			
109		BUNK		RB	VCT	DW	PT	ACT			
112		HALL		RB	VCT	DW	PT	GYP.			
113		ASST. FIRE C	HIEF	RB	VCT	DW	PT	GYP.			
114		HALL		RB	VCT	DW	PT	GYP.			
115		FIRE CHIEF	=	RB	VCT	DW	PT	GYP.			
116		ELEC. CLOS	ET	RB	VCT	DW	PT	GYP.			
117	R	ECORDS STO	RAGE	RB	VCT	DW	PT	GYP.			
121		UPPER STORA	AGE	RB	VCT	DW	PT	GYP.			
122		UPPER STORA	AGE	RB	VCT	DW	PT	GYP.			
LEGEN	D				•	•			-		
ACT	ACOUSTIC	C TILE	DW	DRYWALL			Р	PLYWOOI	PLYWOOD VS		VINYL SHEET TILE
CPT	CARPET		RB	RUBBER BA	SE		PT	PAINT VCT			VINYL COMPOSITION TILE
QT	QUARRY '	TILE	FRP	FIBERGLASS	REINFORCED	PLASTIC	М	MDF BOA	MDF BOARD CT		CERAMIC TILE
				<b>'</b>	WINE	DOW SC	HEDUI	_E			•
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103	36"x84"x1-	3/4"	w	sc	PT	W		PT	PER O\	WNER	
104	36"x84"x1-	3/4"	W	sc	PT	W		PT	PER O\	WNER	AUTOMATIC LOCKING HARDWARE
107	36"x84"x1-	3/4"	W	SC	PT	W		PT	PER O\	WNER	
108	36"x84"x1-	3/4"	w	SC	PT	W		PT	PER O\	WNER	
109	36"x84"x1-	3/4"	W	SC	PT	W		PT	PER OWNER		
112	36"x84"x1-	3/4"	W	SC	PT	W		PT	PER OWNER		
113	36"X84"X1	-3/4"	W	SC	PT	W		PT	PER OWNER		
114	36"X84"x1-	-3/4"	W	sc	PT	W		PT	PER OWNER		
115	36"X84"X1	-3/4"	W	SC	PT	W		PT	PT PER OWNER		
116	36"X84"X1		W	SC	PT	W		PT	PER O\		
117	36"x84"x1-	3/4"	W	SC	PT	W		PT	PER O\		
118	36"x84"x1-	3/4"	W	SC	PT	W		PT	PER O\	WNER	
119	36"X84"X1	-3/4"	W	SC	PT	W		PT	PER O\	WNER	
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LEGEND									
AL	ALUMINUM	НМ	HOLLOW META	AL	PRE	PRE-FINISHED		W	WOOD
ВВ	BALL BEARING BOLTS	IN	INSULATED		PT	PAINT		WS	WEATHERSTRIPPING
С	CHAIN	LPRS	LEVER PRIVAC	CY SET	SC	SOLID CORE		FF	FACTORY FINISH
CL	CLOSER	LS	LOCK SET		ST	STAIN			
DB	DEAD BOLT	NRP	NON REMOVA	BLE PIN	ST	STOP			
GL	GLAZING	PB	PANIC BAR		ТН	ALUMINUM THRE	ESHOLD		

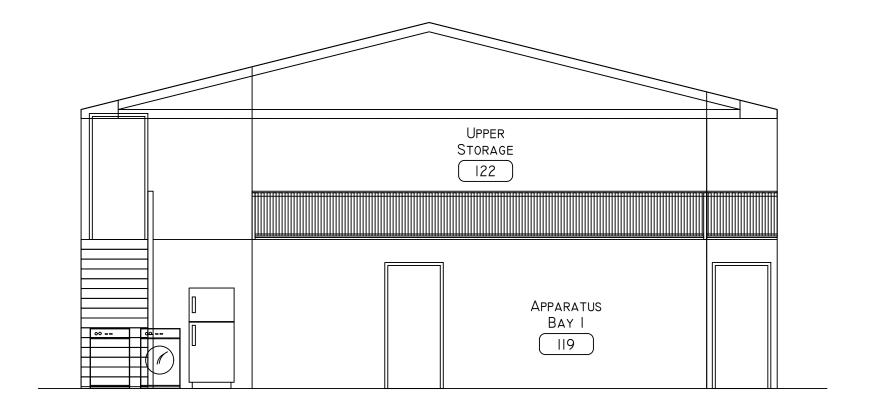
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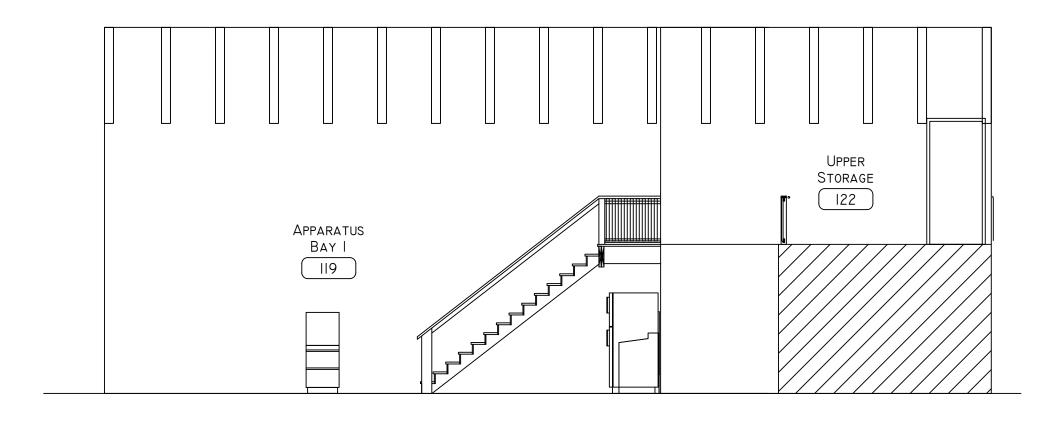


122 36"X84"X1-3/4"

Scale: 3/4" =1'-0"

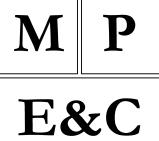


2 INTERIOR ELEVATIONS
Scale: 3/16" =1'-0"

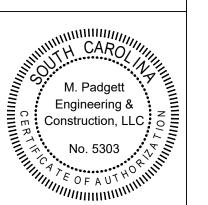


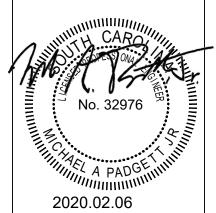
3 INTERIOR ELEVATIONS

Scale: 3/16" =1'-0"



M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





Date/Revisions:
2020.02.06
Construction
Documents

Project:

Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

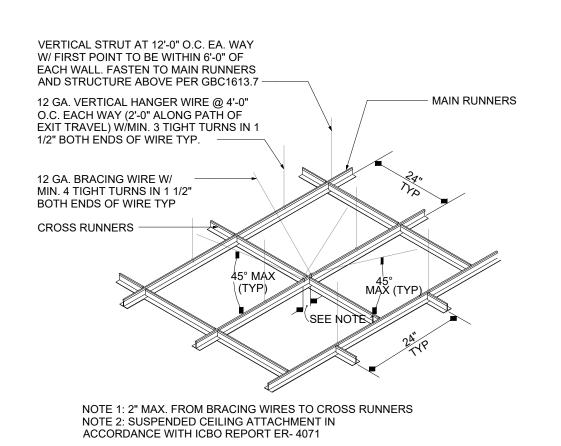
SCHEDULES & ELEVATIONS

Scale: NTS
Drawn: TMH

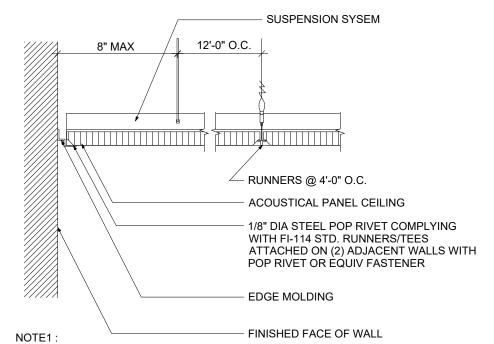
Check: MP

Proj#: J1870

A3.1



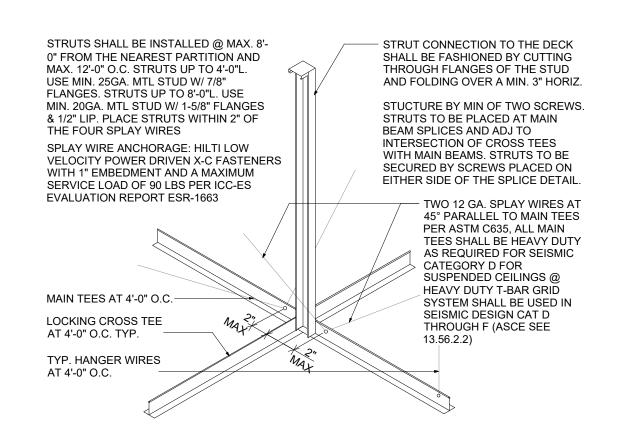




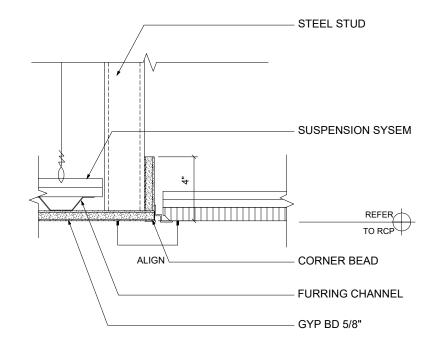
PROVIDE "BERC2" RETAINING CLIPS @ WALL CONNECTION AT ALL AREAS WHERE LENGTH OF CONTINUOUS ACOUSTICAL TILE CEILING EXCEEDS 25' INSTALL SEISMIC PERIMETER CLIP. INSTALL AT MAIN AND CROSS RUNNERS AT (2) ADJ WALLS AND ALLOW FREE MOVEMENT OF RUNNERS ON (2) OPPOSING WALLS PER ICC #ESR-2282

WALL CONNECTION AT ACOUSTICAL CEILING TILE-TYPICAL

NTS

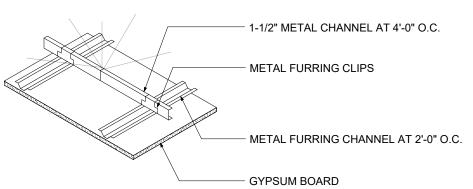


# CEILING COMPRESSION STRUCT-TYPICAL

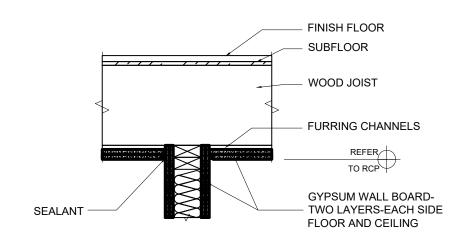


FLUSH GWB TO ACOUSTICAL CEILING TRANSITION-TYPICAL LATERAL SUPPORT SHALL BE PROVIDED BY (4) WIRES (12 GA. MIN) SPLAYED IN FOUR DIRECTIONS 90° APART. CONNECT TO MAIN RUNNER AT 2" MAX. FROM CROSS-RUNNER AND TO STRUCTURE ABOVE AT AN ANGLENOT EXCEEDING 45° FROM PLANE OF CEILING. INSTALL LATERAL SUPPORTS AT 12'-0" INTERVALS EA. DIRECTION WITH FIRST POINT AT 4'-0" MAX.

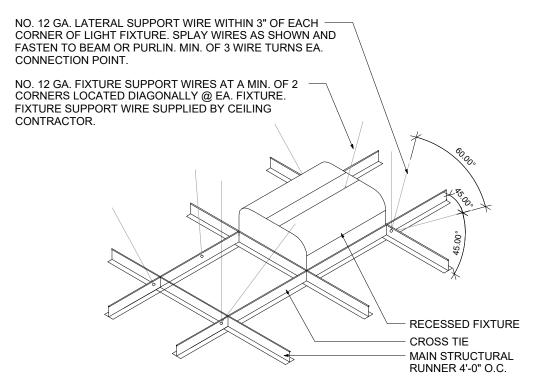
NOTE 2: VERTICAL SUPPORT SHALL BE PROVIDED AS REQUIRED IN CHAPTER 47 UNIFORM BUILDING CODE, WITH THE ADDED REQUIREMENT THAT DISCONTINUOUS ENDS OF CROSS-RUNNERS AND MAIN RUNNERS SHALL BE VERTICALLY SUPPORTED AT 8" MAX. FROM SUCH DISCONTINUITIES WHICH OCCUR WHERE CEILING IS DISRUPTED BY A WALL.



# SUSPENDED GYP. CEILING **AXONOMETRIC-TYPICAL**



ACOUSTICAL CEILING 2 HOUR FIRE WALL DETAILS Scale: NTS



CEILING GRID LIGHT FIXTURE-TYPICAL



M. Padgett Engineering & Construction, LLC

E&C

M. Padgett Engineering

& Construction, LLC

PO Box 6996,

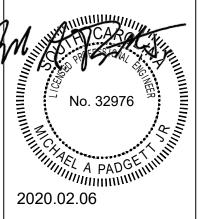
Florence, SC 29502

tel: 843-908-4569

fax: 866-384-7749

mp.eng.con@gmail.com

www.mpadgettengineering.com



Date/Revisions: 2020.02.06 Construction

Documents

Project:

Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

CEILING DETAILS

Scale: NTS

Drawn: TMH

Check:

Proj#: J1870

MP

#### Structural Notes:

Notes listed below and herein are where applicable for this project. Some notes may not be relevant.

#### General Notes:

- 1. The requirements of these general notes shall apply to all structural work. Installation shall be in accordance with the current building code, state and local codes and the latest amendments thereto.
- 2. The work covered by this contract consists of furnishing all labor, equipment materials and service necessary for and reasonably incidental to the proper completion of all work shown on the drawings and specified. Materials or products specified by trade name, manufacturer's name or catalog number shall be interpreted as establishing a standard of quality and design. Substitutions shall not be allowed unless they are submitted for review to use and approved by the engineer and/or architect.
- Contractor shall fully brace and otherwise protect all work in progress until the building is completed.
- 4. Furnish copies of shop drawings for approval prior to purchasing.
- Contractor and sub-contractors shall coordinate with architectural, civil, structural, mechanical, electrical, fire protection, plumbing and all other trades for pipe routing and equipment placement. Avoid interference with architectural features, beams, footings, windows, etc. Notify architect immediately of any conflicts. Sleeves shall be installed where piping passes through structure. All openings through fire rated walls or floors shall be sealed with U.L. listed penetration and shall maintain the fire rated integrity of the wall or floor. The contractor shall verify fire ratings with architectural drawings prior to installation. Submit U.L. penetration details with shop drawings for engineer's review. Minimum ratings shall be as follows: walls -F=1, T=0; floor - F=1, T=1.
- Contractor shall keep a record of the locations of all concealed work and upon completion of the job, shall supply as-built drawings showing in colored pencil on black line prints any deviation from the original drawings. These drawings shall indicate dimensions of buried utility lines from building walls. The structural drawings shall be used in conjunction with the specifications and the architectural and mechanical drawings. If there is a discrepancy between drawings, it is the contractor's responsibility to notify the architect prior to performing work. In case of conflict the most stringent condition shall apply.
- All dimensions must be coordinated with architectural drawings and with equipment manufacturer (i.e. window, door, air handler, etc.). Contractor must obtain an architectural directive in case of any conflict. Refer to architectural drawings for dimensions not shown in structural drawings.
- All work shall be guaranteed, both material and installation, for a period of one year from acceptance by owner.
- 9. All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.
- 10. Drawings are not to be scaled. All dimensions are to be read or
- 11. Work not indicated as part of drawings but reasonably implied to be similar to that at corresponding places shall be repeated.
- 12. All sections and details are typical at similar locations and where applicable.
- 13. The dimensions on this project are considered as nominal dimensions. The shape and actual size of member units shall be considered in the building and layout plan.
- 14. Framing materials and members and similar components specified in common sizes unless specifically noted.
- 15. These plans are the property of MPE&C only. Any unauthorized use, reproduction, or otherwise is prohibited. Doing so is subject to prosecution.
- 16. These plans are site specific to this particular project, site, and location

#### Structural Notes Continued

#### Concrete and Reinforcing:

- 1. All concrete work shall conform to the latest ACI "building code requirements for reinforced concrete, ACI-318".
- 2. All concrete shall have a minimum 28-day compressive strengths as indicated
  - Concrete Max Strength / Water Cement Ratio / Aggregate / Location
  - / 0.45 / Stone / Concrete U.N.O.
  - / Stone / Slab on Grade Foundations
- 3. All reinforcing steel shall be intermediate grade, new billet steel, deformed bars, conforming to ASTM a-615, grade 60. All bars shall be securely supported and wired in place. Prior to pouring concrete. All reinforcing steel to be welded shall conform to ASTM a-706.
- 4. All welded wire fabric (W.W.F.) in flat sheets only and shall conform to ASTM a-185.
- 5. Unless noted, all bars marked continuous shall be spliced at all lap points and corners and developed at non-continuous ends as per typical details. Splice continuous top bars at center between supports and splice continuous bottom bars at supports.
- 6. Concrete cover for reinforcing bars shown in typical details.
- 7. Unless noted, temperature reinforcing (ASTM a-615-60) to be 0.0018 x concrete area.
- 8. Provide #4 @ 12" O.C., with standard hook, top bars in all slabs at discontinuous ends unless otherwise noted on plans. Length of bars 1/4 of span, minimum 3'-0". Unless otherwise noted provide #4 @ 12" O.C. in all cantilevers. Bar length shall be cantilever span plus 10'-0" plus standard hook at cantilever ends.
- 9. Where pipe sleeves (up to 2" in diameter) pass through concrete beams, provide additional stirrup each side of sleeve, sleeves for pipes 2" in diameter or larger must be steel or cast iron, and the location must be approved by the structural engineer.
- 10. All construction joints shall be thoroughly cleaned just before placing new concrete in accordance with the building code.
- 11. Provide 1"x1" chamfer of exposed corners of beams and/or columns.
- 12. Contractor shall coordinate placement of, or box out for, all pipe sleeves, openings, etc., required for various trades.
- 13. Contractor shall coordinate and notify other trades in sufficient time to allow them to set anchors, inserts, bolts, hangers, etc., as required for their use.
- 14. See architectural drawings for details of flashing reglets, fascia details, etc.
- 15. Under no circumstances shall concrete be pumped through aluminum pipes. Concrete shall not be placed in contact with aluminum, aluminum mixing drums, truck mixers, buggies, chutes, conveyors, tremie pipes, and other equipment made of aluminum shall not be used on this project.
- 16. Slumps of over 4 inches will not be permitted unless the HRWR admixture (super plasticizer) is used. Maximum slump is then 8 inches unless otherwise directed by the engineer.
- 17. No admixture shall be used in concrete except with the permission of the engineers and after laboratory design mix approval. All admixtures shall contain no more chloride ions than are present in municipal drinking water.
- 18. Water reducing admixture shall conform to the ASTM C-494, Type A, and shall be used in all concrete.
- 19. Air entraining admixture shall conform to ASTM C260. Air content of concrete shall be used as follows:
- A. For concrete exposed to soil and/or weather, 5%.
- B. For interior walls, columns, and slabs, 3%.
- 20. Fly ash ASTMC618, type c or type f should be used but not to exceed 20% cementitious content
- 21. All exposed concrete slabs shall receive a curing compound. The curing compound shall conform to ASTM C309 and shall have 30% solids minimum. Water/blanket curing as per ACI recommendation may be used as alternate.

#### Structural Notes Continued:

Masonry:

- 1. Design and construction shall conform to building code requirements for masonry structures (ACI 530-11 ASCE 7-10) / TMS 402-11 and specifications for masonry structures ACI 530.1-11 / ASCE 7-10.
- 2. Minimum net compressive strength of block assembly shall be 2000 psi (F'M) mortar for masonry shall be type "S" or "N".
- 3. For all exterior and interior bearing, bed joints are to cover 100% of the masonry surfaces and all head joints are to cover 100% of the projected area of the face shells.
- 4. Fill all cells as required with 3000 psi grout. Slump shall be 8 to 11 inches. Submit design mix for approval.
- 5. Minimum horizontal joint reinforcing shall be 9 gage hot dip galvanized truss or ladder type joint reinforcing at 16" O.C., provide manufacture "T" and "L" shapes for intersections and corners, (minimum lap 8").
- 6. Minimum vertical reinforcing shall be 1-#5 @ 48" or 1-#4 @ 32" O.C.,
- 7. Provide additional vertical reinforcing bar at every corner, intersection, control joint, and opening edges (U.N.O.).
- 8. Minimum splice for vertical reinforcing is shown in detail 4-023, splice for horizontal joint reinforcing = 12".
- 9. Walls are designed to be braced by floor or roof members, contractor shall provide temporary bracing during construction.
- 10. All cells below first floor finished elevation must be fully grout filled
- 11. All knock out block horizontal bars shall have corner bars at all corners and wall intersections. Size and number of corner bars shall be same as horizontal
- 12. All intersecting walls and corner walls shall be laid in an overlapping masonry bonding pattern, with alternate units

#### Light Gauge Metal Framing:

- 1. All structural members shall be designed in accordance with American iron and steel institute, "specification for the design of cold formed structural members", 2007 Edition with 2009 supplements. Provide sign and sealed calculations and drawings for all light gauge structural elements of the building, including the exterior metal studs (curtain wall), and all exterior
- 2. All structural studs and joists 22, 20, and 18 gauges shall be formed from galvanized steel per ASTM A653, G60 coating meeting the requirements of ASTM C955 with a yield strength of 33,000 psi.
- 3. All structural studs and joists 16, 14, and 12 gauges shall be formed from galvanized steel per ASTM a653, G60 coating meeting ASTM C955, with yield strength of 50,000 psi.
- 4. All structural track and bridging shall be formed from galvanized steel per ASTM A653, G60 coating meeting the requirements of ASTM C595, with yield strength of 33,000 psi.
- 5. With each type of metal framing required, provide manufacturer's standard steel runners (tracks), blocking, lintels, clip angels, shoes, reinforcements, fasteners, and accessories as recommended by manufacturer for applications indicated, as needed to provide a complete metal framing system.
- 6. Provide galvanized finish to metal framing components complying with ASTM A653 for minimum G60 coating. Attach similar components by welding. Attach dissimilar components by welding, bolting or screw fasteners, as standard with manufacturer. All welding shall be performed by welders certified and experienced in light gauge structural steel framing work.
- 7. Install metal framing systems in accordance with manufacturer's printed or written instructions and recommendations, unless otherwise indicated.
- 8. Install continuous tracks sized to match studs.
- 9. Set studs plumb, except as needed for diagonal bracing or required for non-plumb walls or warped surfaced and similar requirements.
- 10. Where stud system abuts structural column or walls, including masonry wall, anchor ends of stiffeners to supporting structure.
- 11. Secure studs to top and bottom runner tracks by either welding or screw fasteners at both inside and outside flanges.

#### Structural Design Criteria / Property Info:

Information listed below and herein is where applicable for this project. Some items may not be relevant.

- 1. Property/Structure/Site Info:
- 1.1. 2413 Murray St, Edisto Island, SC 29438
- 2. Heights/Stories:
- $2.1. \sim 25' / 1$
- 3. Weather/Environment:
- 3.1. Extreme Frost Depth: 5"
- 3.2. Climate Zone: 3
- 4. Classifications: 4.1. Construction Type: V
- 4.2. Occupancy Group: Mixed: R3, B, S-2
- 4.3. Occupancy Risk Category: IV
- 5. Wind Zone
- 5.1. 157mph
- 5.2. Exposure: B
- 6. Seismic:
- 6.1. Site Class: D
- 6.2. Seismic Design Category: D
- 6.3. Importance Factor: 1.5
- 6.4. Soil Capacity: Assumed 2000psf
- 6.5. Fundamental Harmonic Frequency (T): = 0.224s < 0.5s
- 6.6. Acceleration Parameters
- SS = 0.808, MCER ground motion (period=0.2s)
- S1 = 0.259, MCER ground motion (period=1.0s) SMS = 0.951, Site-modified spectral acceleration value
- SM1 = 0.488, Site-modified spectral acceleration value
- SDS = 0.634, Numeric seismic design value at 0.2s SA
- SD1 = 0.325, Numeric seismic design value at 1.0s SA
- 7. Flood Zone: AE (EL 9)
- 8. Loads/Deflections:
- 8.1. Minimum Design Loads/Deflections: ASCE 7-10
- 8.2. Dead & Concentrated Loads: Actual
- 8.3. Roof Live Load: 20psf
- 8.4. Snow Load: 10 psf
- 8.5. Floor Live Load: 100 psf
- 8.6. Soil: See Seismic
- 9. Applicable Building Codes and Regulations:
- 9.1. IBC 2018 w/ SC Modifications
- 9.2. IFC 2018 w/ SC Modifications 9.3. IEBC 2018 w/ SC Modifications
- 9.4. IPMC 2018 w/ SC Modification
- 9.5. IMC 2018 w/ SC Modifications
- 9.6. IPC 2018 w/SC Modifications
- 9.7. IFGC 2018 w/ SC Modifications 9.8. NEC 2017 (NFPA 70) w/ SC Modifications
- 9.9. ICC/ANSI A117.1-2017 w/ SC Modifications
- 9.10. See International Code Council for more information: http://www.iccsafe.org/
- 9.11. See National Fire Protection Association for more information: http://www.nfpa.org/
- 9.12. Other Relevent & Current Adopted Codes
- 9.13.1. As Required
- 9.14. Zoning & Ordinances:
- 9.14.1. Town of Edisto Beach, SC

E&C

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Date/Revisions

Construction Documents

2020.02.06

Project:

Edisto 29438 Renovations t Fire Departm 2413 Murray St. Edisto Island, SC 2

GENERAL STRUCTURAL NOTES

NTS Scale:

Drawn: TMH

Check: MP|Proj#: J1870

#### Structural Notes Continued:

#### Structural steel:

- 1. All structural steel work shall be fabricated and erected in accordance with the latest AISC specifications.
- 2. Structural steel shall conform to:
- A. Wide Flange (WF) ASTM A992 (50 ksi)
- B. Shapes (L,T,C,PL) ASTM A36
- C. Structural Tube (HSS) ASTM A500 (46 ksi)
- D. Steel pipe (HSS) ASTM A500 (42 ksi)
- E. Anchor Bolts ASTM F1554 (36ksi) U.N.O.
- F. Framing Bolts ASTM A325 or A490
- G. Shear Studs ASTM A108
- H. Welding Electrodes E70XX
- I. All high strength bolts shall conform to ASTM specification A325 and shall be provided with hardened washers under the turned element (nut or bolt head).
- J. Installation and tightening of all high strength bolts shall conform to the "specification for structural joints using ASTM A325 or A490 bolts".
- K. Shop connections may be welded or high strength bolted. All bolts shall be 3/4" diameter minimum. All connections shall conform to the typical connection details shown on the plans unless specifically approved by the engineer.
- L. All field connections shall be bolted with high strength bolts, slip-critical (friction) type except where slotted holes are specified or where movement of the connected members is expected. In these cases provide oversized washer, hand tighten bolts, and tack weld washer to nut to verify assembly is held together.
- M. All welding shall conform to the American Welding Society Code, ans01.1, all welding shall be performed using E7OXX U.N.O.
- N. Cuts, holes, copings, etc. Required in structural steel members for the work of other trades shall be shown in the structural steel shop drawings and shall be made in the shop. Holes shall be reinforced as required by the engineer.
- O. Burning of holes, cuts, etc. In structural steel members in the field will not be permitted, except with the specific approval of the engineer.
- P. All steel members exposed to weather (such as lintels, door jambs, etc.) Shall be hot dipped galvanized.
- Q. For miscellaneous steel, see architectural drawings.
- R. Any steel members required by the electrical or mechanical trades for the support of their equipment, which are not shown on architectural or structural drawings, shall be provided by the trade requiring such support.
- S. See specifications for painting of structural steel. All fabrication and erection marks shall be covered during field touch-up painting.
- T. All connections to be double angle framed beam connection per AISC unless noted otherwise. All bolts to be 3/4" minimum diameter unless noted otherwise. Shop connections may be welded or bolted. Welds are to be equal in strength to bolts.
- U. Design connections for the maximum shear (v in kips) listed in the table 3-6 "maximum total uniform load" at the bottom of each page in the "beam properties" of the 13th edition of the AISC "manual of steel construction. "minimum connection shall consist of two 3/4"ø bolts. Reactions shown are based on unfactored loads. Provide signed and sealed drawings and calculations by a professional engineer.
- V. When steel members are welded to embed plates in concrete, welding process should be performed in such way that embed plate does not overheat and expand. Such expansion will crack the concrete surrounding the embed plate and may weaken the structural capacity of the connection. We recommend to provide several single passes to built up the weld size require with cooling off periods to avoid the embed plate expansion. Under no circumstances provide more than 6" of 1/4" weld without allowing a cooling off period.

#### Structural Notes Continued:

#### Foundation Notes:

- 1. See Design Criteria regarding soils report if applicative. Foundation has been designed in accordance with this or assumed site conditions for contractor to verify.
- 2. Fill and subgrade preparation shall be in accordance with the geotechnical engineer recommendation if applicapable.
- 3. All column footings shall be centered under column centerlines unless otherwise noted.
- 4. Backfilling against foundation walls shall be done carefully with small compaction equipment, after slabs on ground are in place and concrete has set. No trucks, bulldozers, etc. Shall be allowed closer than 6'-0" to any foundation wall. Any wall 3'-0" or higher must be braced during the construction process.
- 5. No foundations shall be placed above 1 vertical on 2 horizontal slopes extended from the closest edge of any undisturbed soil or other foundation structure. Bottom of footings shall not be less than 1'-0" below existing grade (U.N.O.).
- 6. For foundations size and reinforcing see schedule.
- 7. Elevator pit dimensions = verify with elevator manufacturers approved shop drawings.
- 8. Water proofing materials shall be provided on all sides and bottom of elevator core and escalator pit.
- 9. Contractor shall treat soil beneath building for termites.

#### Commodity Lumber:

- 1. All lumber specified in standard nominal dimensions and to be #2 southern pine or better unless otherwise specified. See architectural plans for additional information.
- 2. All structural wood shall follow the AWC Wood Frame Construction Manual and AWC Material Data Specifications, latest editions.
- 3. All exposed wood to be pressure treated per AWPA guidelines and applicable building codes. Wood to be treated specifically for above or below ground contact, whichever is in use.

#### Engineered Lumber, Trusses, Steel Beams:

- 1. All engineered lumber, where supplied, to be installed per manufacturer's specifications unless specifically stated on plans by engineer.
- 2. Trusses, where supplied, shall be designed by the manufacturer and installed per manufacturer's specifications.
- 3. LVL and TJI beams specified in Weyerhaeuser brand unless otherwise stated. Substitution of approved equivalents is acceptable.
- 4. Trimmable truss-joists specified in TrimJoist brand unless otherwise stated. Substitution of approve equivalents is acceptable.
- 5. All structural wood shall follow the AWC Wood Frame Construction Manual and AWC Material Data Specifications, latest editions.

#### Fasteners, Strapping, Hardware:

- 1. All strapping, fasteners, hardware, etc. to be Hot Dipped Galvanized or Stainless Steel per ASTM A123 or ASTM 153, unless otherwise specified.
- 2. Anchor bolts to be minimum ASTM A36. Threaded fasteners to be minimum ASTM A307.
- 3. All connections per IRC/IBC standard fastening schedules unless otherwise noted.
- 4. Bolts, Nails and Screw sizes specified in common sizes unless specifically noted.

#### Masonry:

- 1. All masonry to conform to ASTM C-90 unless otherwise specified.
- 2. All masonry to use Type S mortar unless specifically stated otherwise.

### Other:

1. All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.

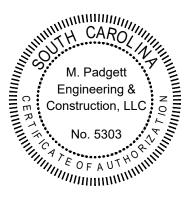
#### Structural Notes Continued:

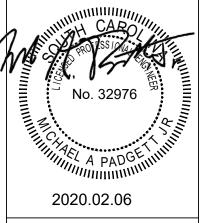
#### Steel Joist:

- 1. Steel joist construction shall conform to the latest specifications of, and the joists shall be approved by, the steel joist institute.
- 2. Unless otherwise noted, bear short span joists minimum of 2-1/2" on steel beams and bear long span joist minimum of 4" on steel supports. In cases where joists bear on beams from one side only, joist seats shall extend a minimum of 1" past the centerline of supporting beam.
- 3. All joists bearing on beams shall be welded or bolted to those beams.
- 4. Provide bridging for all joists as shown on plan but not less than what is required by the steel joist institute or the steel joist designer. Bridging shall consist of minimum 1-1/4" x 1-1/4" x 7/64" angles, (U.N.O.).
- 5. All bridging shall be provided and installed by joist supplier.
- 6. All clips and connections shall be shop welded.
- 7. No field welding to bar joists except items specifically shown on structural drawings shall be allowed without specific permission from the engineer.
- 8. No joist shall be field spliced.
- 9. Maximum deflection of steel joists = L/240.
- 10. For painting of steel joist, see specifications.
- 11. Joist manufacturer shall submit with the shop drawings his catalog used for the manufacture of joists, indicating the load tables and sizes of all members used
- 12. No loads exceeding 40 pounds may be hung from joists without specific permission from the structural engineer. Loads less than 40 pounds may be hung at panel points only. Any cost involved in reinforcing of joists shall be borne by the prime contractor requiring added loads.
- 13. All short span joists, and deep long span joists shall have uniform cross section, with standard dead load camber. Roof pitch is accomplished by sloped joists and support beams. Adjust joist seats as shown on drawings.
- 14. For specific joist ends, see roof sections.
- 15. Rigid connections of bottom chords of joists to columns shall be made only after the application of all the dead loads. Provide loose bolted connection of these bottom chords during erection.



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Date/Revisions:
2020.02.06
Construction

Documents

Project:

Renovations to Edisto Fire Department 2413 Murray St. Edisto Island, SC 29438

GENERAL STRUCTURAL NOTES-CONT.

Scale: NTS

Drawn: TMH

MP

Check:

Proj#: J1870

S1.2

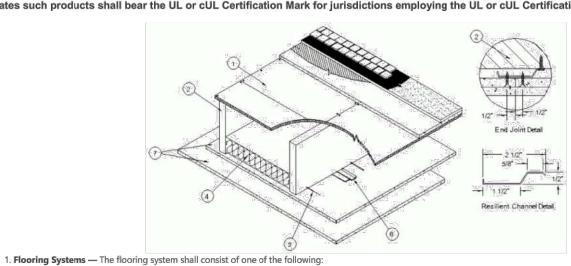
#### **Design No. L541** May 24, 2019

#### Unrestrained Assembly Rating — 2 Hr.

Finish Rating — 74 Min.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



System No. 3

**Subflooring** — Min 15/32 in. thick plywood wood structural panels, min grade "C-D". Face grain of plywood to be perpendicular to joists with end joints located over wood joists and staggered min 32 in. between adjacent lengths. Plywood secured to wood joists with 6d common nails spaced 6 in. OC at the ends and 10 in. OC in the field.

Damping Compound - (Optional) — Applied to top surface of subfloor with a 1/4 in. square notched trowel for sound control.

Finish Flooring - Floor Topping Mixture\* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Types LRK, HSLRK, CSD

USG MEXICO S A DE C V — Types LRK, HSLRK, CSD

Floor Mat Materials\* - (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor material

UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials\* - (Optional) — Nom 1/4 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under Floor Topping Mixture.

Alternate Floor Mat Material\* — (Optional) - Floor mat material nominal 3/8 in. thick loose laid over the subfloor. Floor topping shall be a min 1-1/2 in. thick.

2. **Wood Joists** — Min 2 by 10, spaced 16 in. OC and effectively fireblocked in accordance with local codes.

3. Cross Bridging - (Not Shown) — Min 1 by 3 in. or min 2 by 10 solid blocking.

4. Batts and Blankets\* — Nom 3 in. thick batts, supplied in 48 in. lengths, cut to nom 14-3/4 in. widths and installed 1 in. from bottom surface of wood joists.

THERMAFIBER INC — Type SAFB, SAFB FF

ROCKWOOL — Type SAFEnSOUND

GRASSWORX L L C — Type SC50

5. Insulation Clips — Nom 0.087 in. diam steel wire supplied in 15-7/16 in. lengths, friction fitted between wood joists. Four clips are used per 48 in. length of batt, installed 4 and 17-5/8 in. from each end of the batt.

6. Resilient Channels — Resilient channels, 2-1/2 in. wide by 1/2 in. deep, formed from No. 25 MSG galv steel and shaped as shown, spaced 16 in. OC perpendicular to joists. Channels overlapped 4 in. at splices and secured to each joist with one 1-7/8 in. long Type S bugle head steel screws. Additional resilient channels positioned so as to coincide with end joints of gypsum board (Item 7). Additional channels shall extend min 3 in. beyond each side of board.

6A. Steel Framing Members\* — (Optional, Not Shown) — As an alternate to Item 6 — Furring channels and Steel Framing Members as described below:

a. Furring Channels — Formed of No. 25 ga galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to trusses. Channels secured to trusses as described in

Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Additional resilient channels positioned so as to coincide with end joints of gypsum board (Item 7). Additional channels shall extend min 3 in. beyond each side of board.

b. Steel Framing Members\* — Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 32 in. OC and secured to the bottom chord to alternating joist with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item a. Additional

PLITEQ INC — Type Genie Clip

6B. Alternate Steel Framing Members\* — (Optional, Not Shown) — As an alternate to Items 6 and 6A, furring channels and Steel Framing Members as described below.

a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to joists. Channels secured to joists as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap.

b. Steel Framing Members\* — Used to attach furring channels (Item a) to the wood joists (Item 2). Clips spaced a max of 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to alternating joists with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clips for use with 2-23/32 in. wide furring channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the wallboard butt joints, as described in Item 7.

PAC INTERNATIONAL L. C — Types RSIC-1 or RSIC-1 (2.75)

6C. Steel Framing Members\* — (Optional, Not Shown) — As an alternate to Item 6.

a. Furring Channels — Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced 16 in. OC, perpendicular to the joists. Channels secured to Cold Rolled Channels at every intersection with a 3/4 in. TEK screw through each furring channel leg. Ends of adjoining channels overlapped 12 in. and fastened together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap, or with two 3/4 in. TEK screws in each leg of the overlap section. Two furring channels positioned 3 in. OC, 1-1/2 in. on each side of gypsum board (Item 7) end joints, each extending a min of 6 in. beyond both side edges of the board.

b. Cold Rolled Channels — 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to joists, friction-fitted into the channel caddy on the Steel Framing Members (Item 6Cc) and secured with two 3/4 in. TEK screws. Adjoining lengths of cold rolled channels lapped min. 12 in. and secured along bottom legs with four 3/4 in. TEK screws and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. Steel Framing Members\* — Spaced 48 in. OC. max along joist, and secured to the joist on alternating joists with two, #10 x 1-1/2 in. screws through mounting holes on the hanger bracket.

PAC INTERNATIONAL L L C — Type RSIC-SI-CRC EZ Clip

6D. Steel Framing Members\* — (Optional, Not Shown) — As an alternate to Item 6.

a. Furring Channels — Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to joists and friction fit into Steel Framing Members (Item 6Db). Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap or with two TEK screws along each leg of the 6 in. overlap. Two furring channels positioned 6 in. OC, 3 in. on each side of gypsum board (Item 7) end joints. Butt joint channels held in place by strong back channels placed upside down, on top of, and running perpendicular to primary furring channels, extending 6 in. longer than length of gypsum side joint. Strong back channels spaced maximum 48 in. OC. Strong back channels secured to every intersection of primary furring channels with four 7/16 in. pan head screws, two along each of the legs at intersections. Butt joint channels run perpendicular to strong back channels and shall be minimum 6 in. longer than length of joint, secured to strong back channels with 7/16 in. pan head screws, two along each of the legs at intersections.

b. Steel Framing Members\* — Used to attach furring channels (Item 6Da) to joists. Clips spaced 48 in. OC and secured along joist webs at each furring channel intersection with min. 3/4 in. long self-drilling #10 x 1-1/2 in. screws through each of the provided hole locations. Furring channels are friction fitted into clips.

PAC INTERNATIONAL L L C — Type RSIC-S1-1 Ultra

7. **Gypsum Board\*** — Nom 5/8 in. thick, 4 ft wide gypsum board. Base layer installed with long dimension perpendicular to resilient/furring channels and side joints centered between wood joists. Butted end joints in adjacent rows staggered min 32 in. Base layer secured to resilient/furring channels with 1 in. long Type S bugle head steel screws spaced 16 in. OC in the field. End joints of base layer similarly fastened to additional pieces of resilient/furring channel positioned at end joint locations with 1 in. long Type S bugle head steel screws spaced 8 in. OC. Face layer installed with long dimension perpendicular to resilient/furring channels. Face layer secured to resilient/furring channels with 1-5/8 in. long Type S bugle head steel screws spaced 8 in. OC in the field. Butted end joints secured to base layer with 1-1/2 in. long Type G bugle head steel screws spaced 8 in. OC. Face layer side joints offset min 24 in. from base layer side joints. Face layer end joints offset min 16 in. from end joints of base layer. When **Steel Framing Members** (Item 6A or 6B) are used, the butt joints in the gypsum board shall be supported by two furring channels. The two furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the joist with one RSIC-1, RSIC-1 (2.75) or Genie clip at each end of the channel.

When Steel Framing Members (Item 6C) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Adjacent butt joints staggered minimum 48 in. OC.

When Steel Framing Members (Item 6D) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Butt joints staggered minimum 24 in. OC.

AMERICAN GYPSUM CO — Type AG-C

CERTAINTEED GYPSUM INC — Type C

CGC INC — Types C, IP-X2

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Types LGFC-C, LGFC-C/A

**GEORGIA-PACIFIC GYPSUM L L C** — Types 5, DAPC, TG-C.

NATIONAL GYPSUM CO — Types FSK-C, FSW-C, FSW-G

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C.

UNITED STATES GYPSUM CO — Types C, IP-X2

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2

8. **Finishing System - (Not Shown)** — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board.

9. Acoustical Sealant - (Optional) — A bead of acoustical sealant applied to the top surface of the wood joists for sound-control sealing.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

1

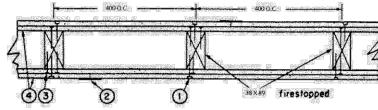
UL ASSEMBLY - L541

clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.

UL ASSLIMBLI - LUTI

Design No. U301 February 12, 2019 Assembly Rating - 2 h

Load Restricted — Assembly evaluated in accordance with Working Stress Design methods, for use under Limit States Design methods; refer to information under Guide <u>BXUVC</u>.



Bearing Wall - Combustible Construction
(Finish Rating - 66 minutes)

Nailheads — Exposed or covered with joint finisher.

Joints — Exposed or covered with tape and joint finisher.
 Nails — 51 mm, coment-coated flathead.

3. Nails — 51 mm, cement-coated flathead.

4. Gypsum Board — (CKNXC). 15.9 mm thick applied in two layers. Base layer placed vertically with joints butted over studs and nailed to studs 150 mm OC. Face layer applied horizontally with joint finisher cement and nailed 300 mm OC temporarily to base layer until cement sets. All joints in face layers staggered with loints in hace layers and with loints in opposite sides.

 $\mathbf{CGC}$  INC — Types SCX, SGX, AR, WRX, IP-X1, IP-AR, SHX, C, IP-X2, WRC, ULX

 $\bf UNITED$  STATES GYPSUM  $\bf CO$  — Types SCX, SGX, AR, WRX, IP-X1, IP-AR, SHX, C, IP-X2, WRC, ULX

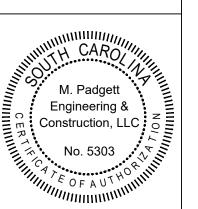
GEORGIA-PACIFIC GYPSUM L L C — Types 9, X, DGG, DS, GuardGF-2, C, TR-AR, GF-6, DAP

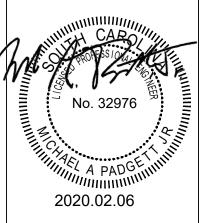
NATIONAL GYPSUM CO — Types FSW, FSW-30

NTS

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M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





Date/Revisions:

2020.02.06 Construction Documents

Project:

ns to Edisto Beach

Renovations to E Fire Department 2413 Murray St. Edisto Island, SC 2943

UL Details

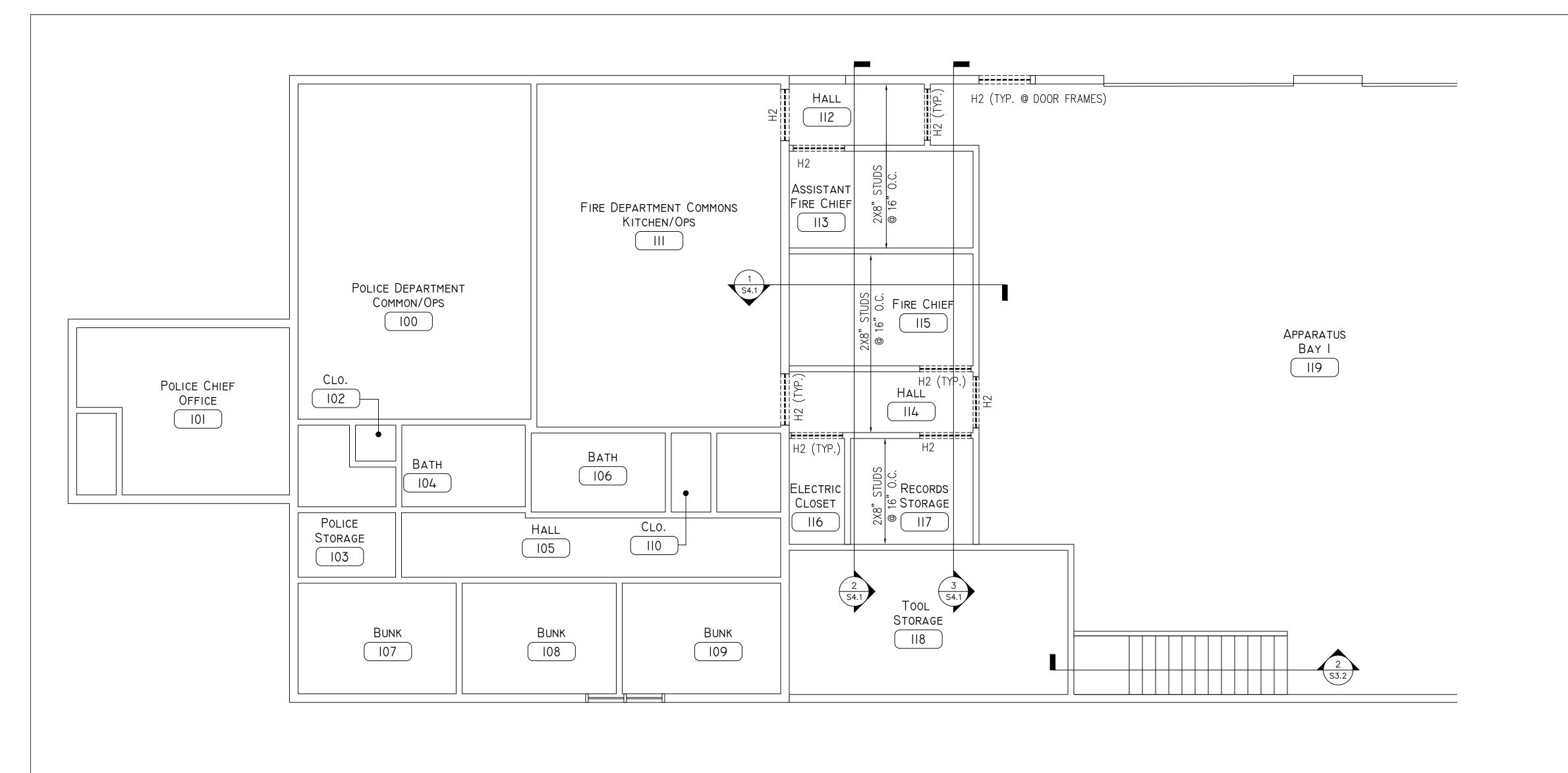
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Proj#: J1870

**S**1 3



#### MINIMUM WALL AND HEADER STUD REQUIREMENTS

		MAXIMUM	HEADER SI	PAN (FT.)	
		3 ft	6 ft	9 ft	12 ft
		R OF HEAD	ER STUDS END OF THE	HEADER	
		1	1	2	2
UNSUPPORTED WALL HEIGHT	STUD SPACING		OF FULL LENE		S
10 FEET OR LESS	16"o/c	2	2	3	3
GREATER THEN 10 FEET	16"o/c	2	2	3	3

#### DOOR AND WINDOW HEADER SCHEDULE: (WALLS 2x6's @ 16" O.C.)

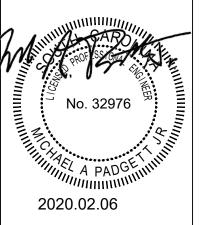
H1-(3) 2x8's W/ (1/2) PLYWOOD FILLERS FOR UP TO 4'-0" OPENINGS H2-(3) 2x10's W/ (1/2) PLYWOOD FILLERS FOR UP TO 8'-0" OPENINGS H3-(3) 2x12's W/ (1/2) PLYWOOD FILLERS FOR UP TO 10'-0" OPENINGS

#### DOOR AND WINDOW HEADER SCHEDULE: (WALLS 2x4's @ 16" O.C.)

H4-(2) 2x8's W/ (1/2) PLYWOOD FILLERS FOR UP TO 4'-0" OPENINGS H5-(2) 2x10's W/ (1/2) PLYWOOD FILLERS FOR UP TO 8'-0" OPENINGS H6-(2) 2x12's W/ (1/2) PLYWOOD FILLERS FOR UP TO 10'-0" OPENINGS M P
E&C

M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com

M. Padgett
Engineering &
Construction, LLC
No. 5303



Date/Revisions: 2020.02.06

Construction Documents

Project:

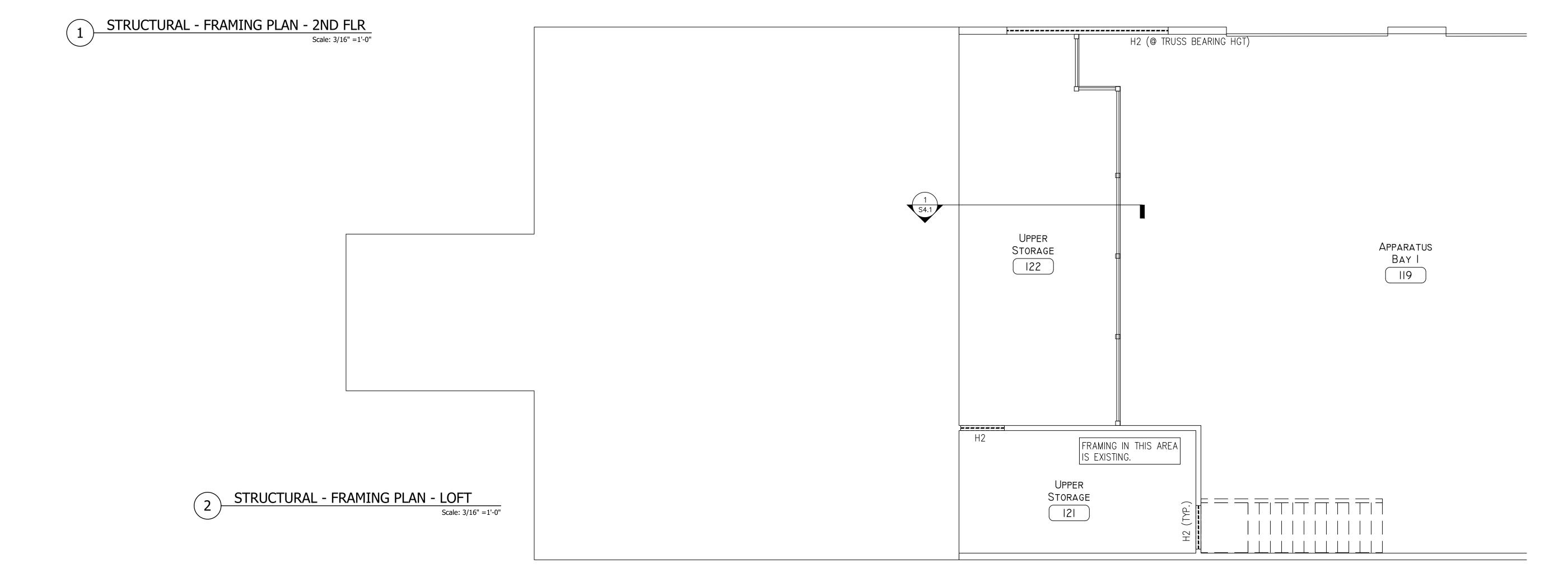
Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

FRAMING PLAN

Scale: NTS

Drawn: TMH

Check: MP



#### **WOOD FRAMING**

ALL WOOD FRAMING PER IBC2015 & AWC DETAILS FOR CONVENTIONAL WOOD FRAME CONSTRUCTION.

#### WOOD FRAMING SCHEDULE

	Stud Height Schedule		
Unsupported Wall Height (ft)	Stud Size &	Spacii	ng (SPF#2)
0'-0" to 9'-0"	2"x4" @ 16" OC	Or	2"x6" @ 16" OC
9'-1" to 10'-4"	2"x4" @ 12" OC	Or	2"x6" @ 16" OC
10'-5" to 15'-0"	(2) 2"x4" @ 16" OC	Or	2"x6" @ 16" OC
15'-1" to 16'-7"	2"x6" @ 12" OC	Or	2"x8" @ 16" OC
16'-8" to 18'-6"	2"x8" @ 16" OC		
18'-7" to 20'-0"	(2) 2"x6" @ 12" OC	Or	2"x8" @ 12" OC

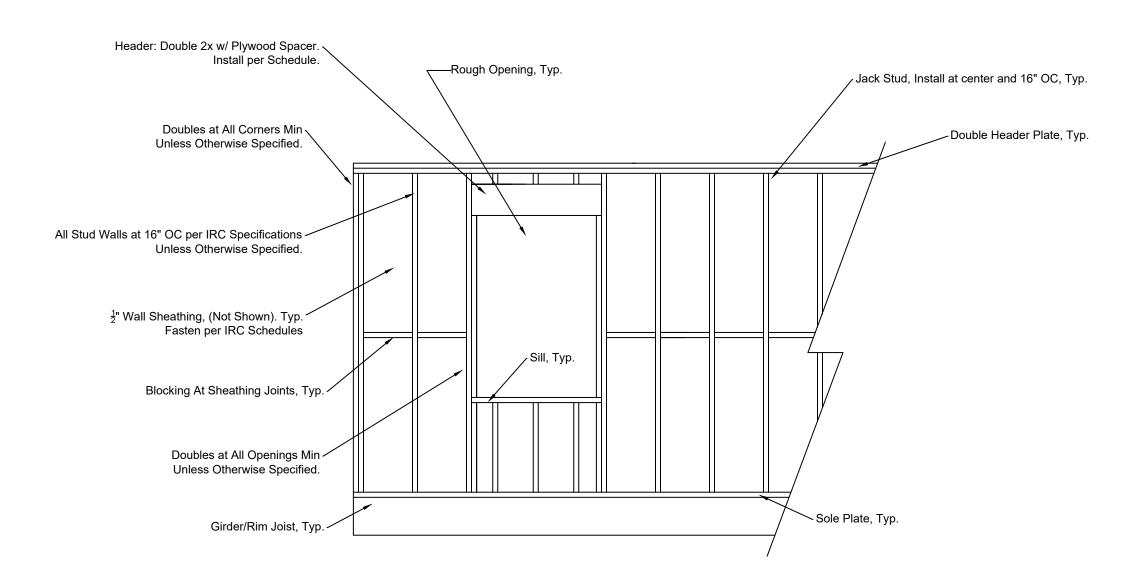
Roof Rafter Schedule
2"x6" @ 16" OC up to 8'-0" Unsupported Span
2"x8" @ 16" OC up to 12'-0" Unsupported Span
2"x10" @ 16" OC up to 15'-0" Unsupported Span
2"x12" @ 16" OC up to 18'-0" Unsupported Span

Ceiling Joists for Non-Storage Attic Schedule
2"x6" @ 16" OC up to 8'-0" Unsupported Span
2"x8" @ 16" OC up to 12'-0" Unsupported Span
2"x10" @ 16" OC up to 15'-0" Unsupported Span
2"x12" @ 16" OC up to 18'-0" Unsupported Span
* Center Span Blocking Required @ 8' OC Min

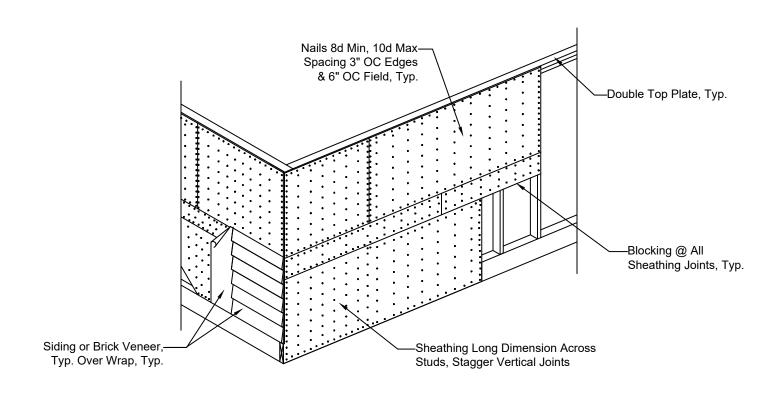
2"x4" @ 16" OC Wall, Door & Window Header Schedule
(2) 2"x8" w/ 1/2" Plywood Filler up to 4'-0" Openings
(2) 2"x10" w/ 1/2" Plywood Filler up to 8'-0" Openings
(2) 2"x12" w/ 1/2" Plywood Filler up to 10'-0" Openings
Openings > 10"-0" Require Engineer Sized Members

2"x6" @ 16" OC Wall, Door & Window Header Schedule
(3) 2"x8" w/ 1/2" Plywood Filler up to 4'-0" Openings
(3) 2"x10" w/ 1/2" Plywood Filler up to 8'-0" Openings
(3) 2"x12" w/ 1/2" Plywood Filler up to 10'-0" Openings
Openings > 10"-0" Require Engineer Sized Members

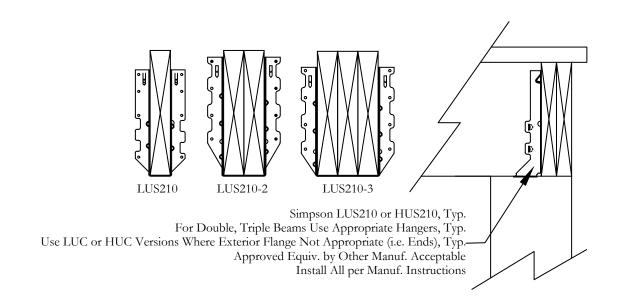
Minimum Wall & Header Stud Requirements
(2) Studs for Headers < 8'-0"
(3) Studs for Headers $> 8'-0$ " Max 16"-0"
* See Shear Wall Framing Detail for Openings Near Corners

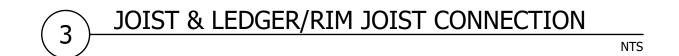


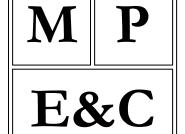
# WALL, HEADER, JACK STUD, OPENING DETAIL











M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





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Project:

Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

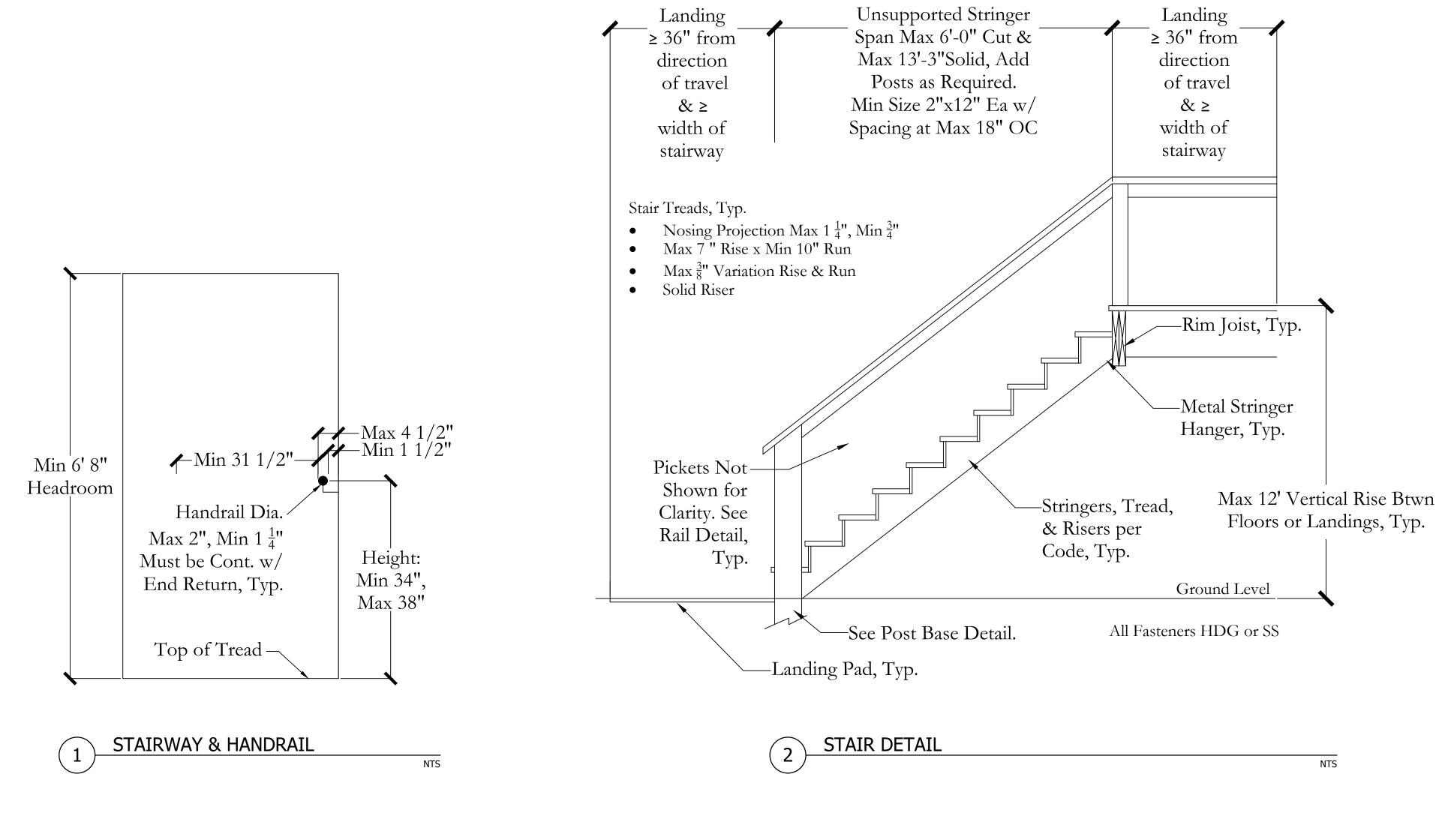
STRUCTURAL DETAILS

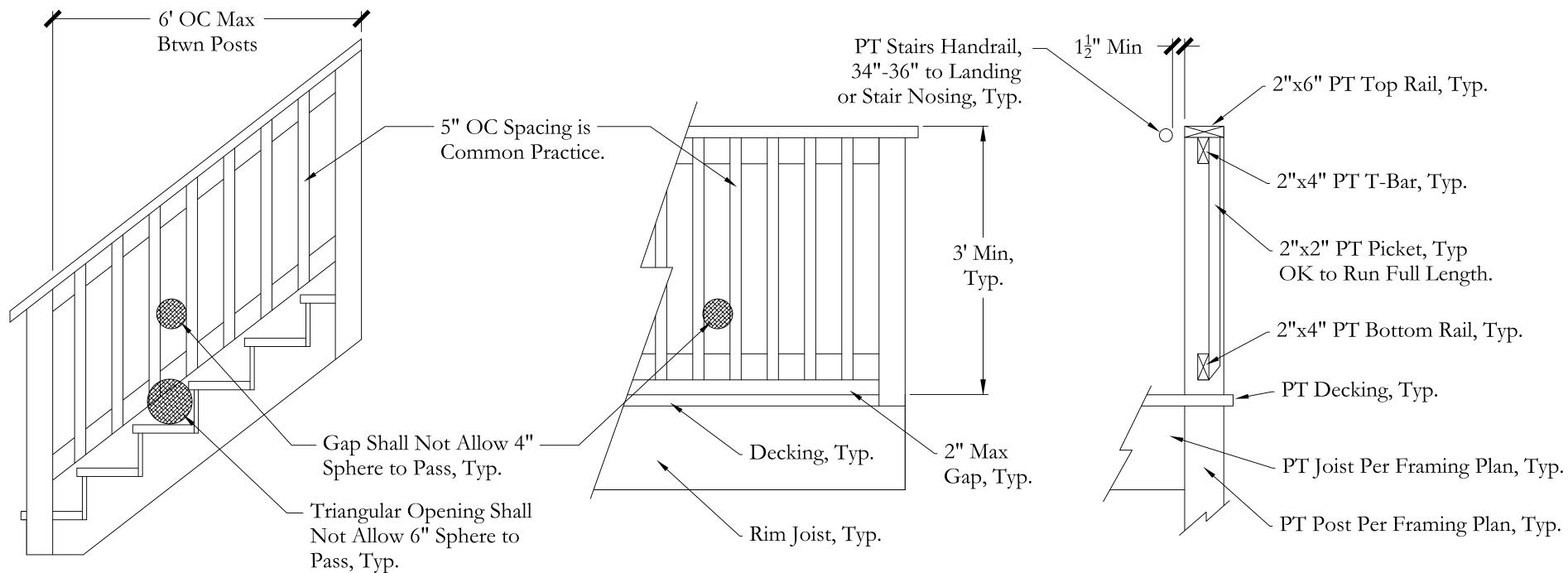
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Proj#: J1870

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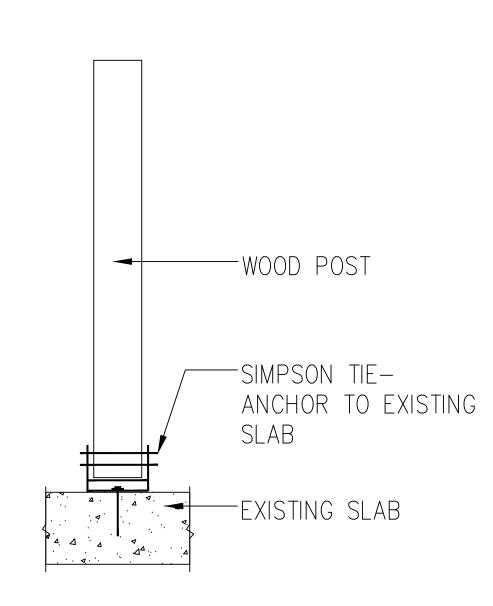


3 STAIR & DECK RAIL DETAIL

## Stair & Rail Notes:

Notes listed below are where applicable for this project. Some notes may not be relevant.

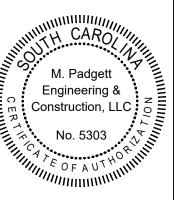
- All stairs & railings to meet current building codes. Other local codes/ordiances may apply. Verify with local building authority.
- Deck & rail systems shown herein are based upon standard commodity lumber and engineered wood products sizes.
- If installing a manufactured rail system (metal, vinyl, etc). Install per manufacturer's specifications. Verify compliancy with building code and local building authority.
- Other deck/rail/picket configurations (not shown) are acceptable if compliant with current building code and approved by owner and local building authority.

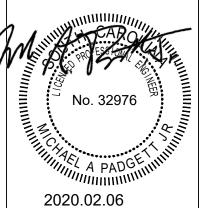




M P E&C

M. Padgett Engineering & Construction, LLC
PO Box 6996,
Florence, SC 29502
tel: 843-908-4569
fax: 866-384-7749
mp.eng.con@gmail.com
www.mpadgettengineering.com





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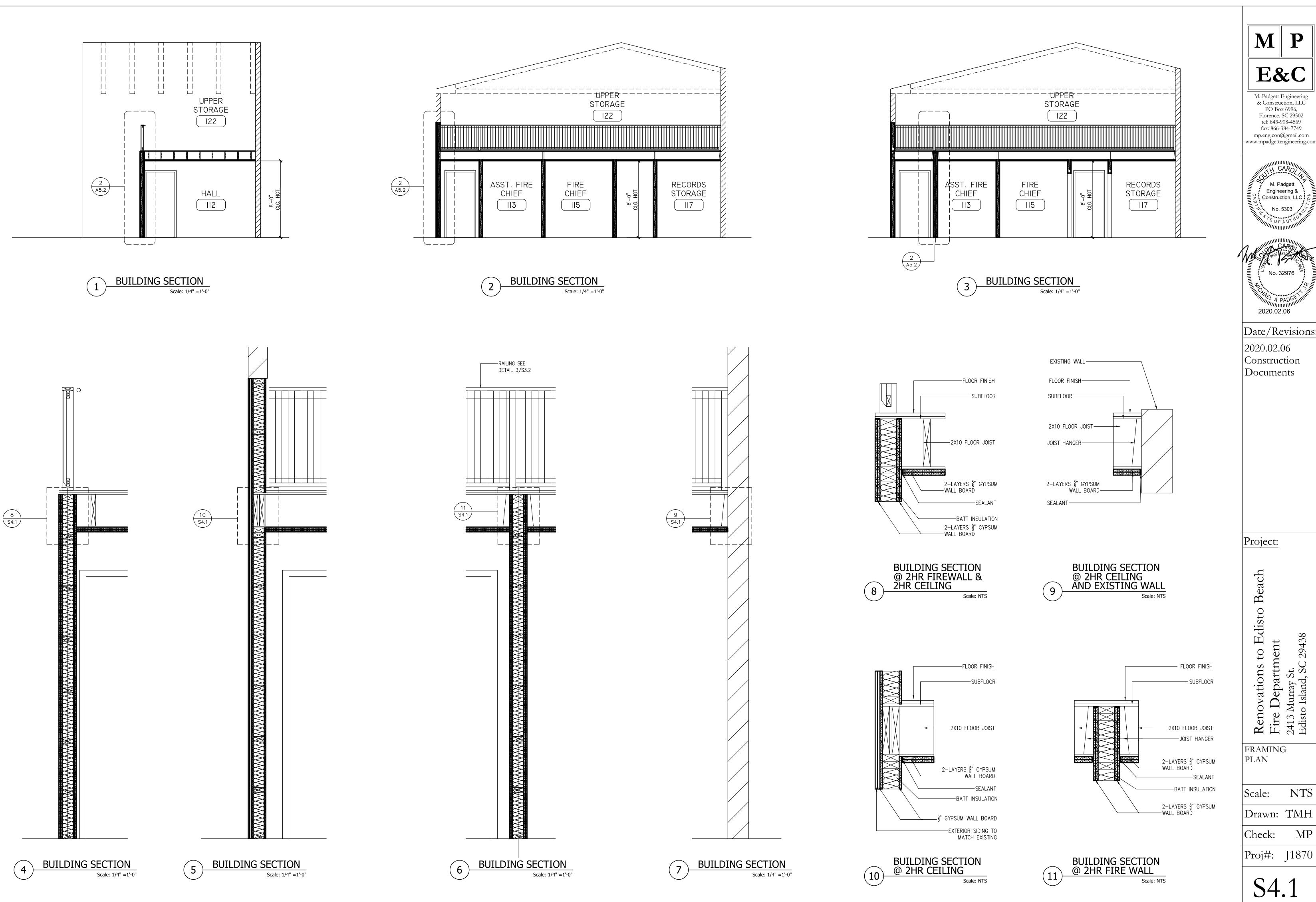
STRUCTURAL DETAILS

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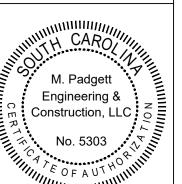
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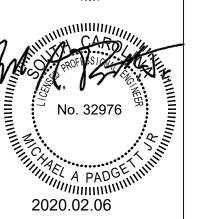
S3.2



E&C

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Date/Revisions:

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Edisto Beach Renovations to Edi Fire Department 2413 Murray St. Edisto Island, SC 29438

FRAMING

NTS

Drawn: TMH

MPCheck:

#### Mechanical Notes:

Notes listed below and herein are where applicable for this project. Some notes may not be relevant.

#### General Notes:

- 1. The requirements of these general notes shall apply to all mechanical work. Installation shall be in accordance with the current building code, state and local codes and the latest amendments thereto.
- 2. The work covered by this contract consists of furnishing all labor, equipment, materials and service necessary for and reasonably incidental to the proper completion of all mechanical work shown on the drawings and specified. Materials or products specified by trade name, manufacturer's name or catalog number shall be interpreted as establishing a standard of quality and design. Substitutions shall not be allowed unless they are submitted for review to use and approved by the architect.
- 3. Furnish copies of shop drawings of equipment or fixtures for approval prior to purchasing.
- 4. Mechanical contractor shall coordinate with architectural, civil, structural, electrical, fire protection, plumbing and all other trades for pipe routing and equipment placement. Avoid interference with architectural features, beams, footings, windows, etc. Notify architect immediately of any conflicts. Sleeves shall be installed where piping passes through structure. All openings through fire rated walls or floors shall be sealed with U.L. listed penetration and shall maintain the fire rated integrity of the wall or floor. The contractor shall verify fire ratings with architectural drawings prior to installation. Submit U.L. penetration details with shop drawings for engineer's review. Minimum ratings shall be as follows: walls - F=1, T=0; floor - F=1, T=1. Contractor shall keep a record of the locations of all concealed work and upon completion of the job, shall supply as-built drawings showing in colored pencil on black line prints any deviation from the original drawings. These drawings shall indicate dimensions of buried utility lines from building walls.
- 5. All work shall be guaranteed, both material and installation, for a period of one year from acceptance by owner.
- 6. All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.
- 7. Drawings are not to be scaled. All dimensions are to be read or calculated
- 8. Work not indicated as part of drawings but reasonably implied to be similar to that at corresponding places shall be repeated.
- 9. All sections and details are typical at similar locations and where applicable.
- 10. The dimensions on this project are considered as nominal dimensions. The shape and actual size of member units shall be considered in the building and layout plan.
- 11. Ducts, piping and similar components specified in common sizes unless specifically noted.
- 12. These plans are the property of MPE&C only. Any unauthorized use, reproduction, or otherwise is prohibited. Doing so is subject to prosecution.
- 13. These plans are site specific to this particular project, site, and location

#### Mechanical Notes Continued:

#### HVAC:

- 1. Do not scale drawing. Rough-in dimensions per equipment manufacturer and architectural drawings.
- 2. Dimensions noted on plans are in inches unless otherwise noted.
- 3. Duct sizes noted on plans are interior dimensions.
- 4. Route condensate drain lines to dry wells as shown on drawings.
- 5. Mechanical contractor shall be responsible for verifying all equipment voltages with the electrical contractor prior to releasing equipment from manufacturer.
- Some refrigerant line lengths and/or vertical lifts may exceed manufacturer's recommendations; mechanical contractor is responsible for insuring the equipment manufacturer sizes for all refrigerant lines for these pieces of equipment
- Round ductwork shown on drawing is diagrammatic. Actual run shall be shortest possible without sharp bends. Round ductwork shall be galvanized steel with fiberglass duct wrap insulation per IMC specifications.
- 8. Flexible ductwork will be allowed at the end of galvanized steel run outs; maximum length of flexible duct shall not exceed 8'-0". Refer to typical run out detail.
- 9. All supply and return ductwork, unless specifically noted on plans, to be internally lined for 15'-0" from unit.
- 10. All piping and ducts in finished rooms or spaces shall be concealed in furred chases or suspended ceilings, unless otherwise noted.
- 11. Provide access panels or doors in inaccessible ceilings and/or chases for all valves, traps, dampers, cleanouts, coils, fans, controls, etc. They shall be furnished and installed per architectural specifications. Access door rating shall match classification of wall and ceiling fire rating.
- 12. Water pipe connections to water coils shall be made so there will be counter flow between water and air.
- 13. Coordinate the location of all diffusers, grilles, registers, access doors, etc., with the architectural reflected ceiling plan(s).
- 14. All round runouts and drops to diffusers shall be the same nominal size as the scheduled diffuser neck size.
- 15. The first figure of duct size indicates dimension of face shown or indicated. All duct sizes shown on drawings are net inside dimensions. Provide one-inch acoustical lining in low velocity rectangular ductwork unless noted otherwise on the drawings.
- 16. Provide 1/2" manual air vents at all high points of closed system piping and 1/2" manual drain valves with hose connection at low points as required to provide complete system drainage. Where drain valves occur above ceiling areas and in areas outside mechanical range provide hose connection on valve.
- 17. Provide turning vanes in all square elbows, except transfer air sound elbows.
- 18. Refer to the architectural drawings for exact location of all fire rated and/or smoke rated walls and assemblies. Provide approved fire dampers in all required penetrations for ductwork, grilles, registers and diffusers. All pipe and ductwork penetrations of fire, smoke and full height walls shall be caulked airtight to the adjacent structure by means of U.L. approved fire proof caulking material.
- 19. Contractor shall coordinate all ductwork, piping, plumbing and fire protection piping with structural and electrical systems and shall provide necessary offsets to avoid conflicts and to maintain equipment access and serviceability.
- 20. Contractor shall furnish all necessary structures, inserts, sleeves, and hanging devices for installation of mechanical and plumbing equipment, ductwork and piping, etc. Contractor shall coordinate with general contractor and all building trades to avoid conflicts and to maintain equipment access and serviceability.
- 21. Contractor shall be responsible for providing all necessary miscellaneous angles, channels, unistrut, etc., as may be required to adequately support the mechanical piping, ductwork, and equipment in a manner approved by the architect, and compliant with the most current edition of the IMC which will not overload the building structural system.
- 22. Contractor shall provide return air or transfer air openings in full height walls sized at 350 fpm (unless otherwise specifically shown on the drawings) to create and/or maintain a return air path as required. Fire dampers and/or smoke dampers shall be provided in such openings where required by building code.
- 23. Seal all transverse joints, longitudinal seams, duct wall penetrations and fitting connections on all duct systems.
- 24. Mechanical items such as roof drains, floor drains, plumbing fixtures, etc. Shown on the architectural drawings but not shown on the mechanical drawings shall be included in the project. These items shall be brought to the attention of the architect.

#### Mechanical Notes Continued

#### Gas piping

- 1. Gas piping shall be installed in accordance with the current fuel gas code or NFPA-54 where requirements are more stringent.
- 2. All gas equipment shall be AGA approved.
- 3. The installation shall be for natural gas or propane as per plan design specifications.
- 4. The installing subcontractor shall be licensed for the installation of natural
- 5. Above ground gas piping shall be schedule 40, welded and seamless, wrought steel pipe (ASME B36.10) with threaded fittings. Underground gas piping shall be polyethylene (PE) pipe (ASTM D-2513). Provide with tracer wire or
- 6. Any gas piping, which is exposed, shall be painted with black "Rustoleum" paint verify color with architect.
- 7. Gas piping shall be hung tight to the roof structure, supported with hangers by Grinnell or equal.
- 8. Branch taps must be made off-of the top of the piping.
- 9. Connection to each piece of equipment shall include an inverted trap, a gas cock, a union and a dirt leg. Connections shall be rigid (no flex).
- 10. All gas flues shall be minimum of 10'-0", or as required by code, away from fresh air intakes.

#### Construction:

- 1. Contractor shall field verify all elevations, dimensions, and locations of existing features before starting work and notify engineer of any discrepancies for justification and/or corrections. The contractor/homeowner shall assume liability for all errors that are not reported. Note, the information provided in these plans is limited to the visual observation and information provided by the contractor and/or homeowner.
- 2. The engineer assumes no liability for any changes or modifications by others made to the plans in whole or in part.
- 3. Contractor is responsible for coordination of all trades involved.
- 4. Contractor to verify with owner all specific makes, models, sizes, etc. of all fixtures, furniture, cabinets, appliances, etc. to be installed.
- 5. Contractor is to review all mechanical systems (including but not limited to electrical, HVAC, plumbing, etc.) with owner prior to construction. This includes type, brand, quality, energy rating, size, etc for each particular system and its components.
- 6. All work shall conform to all local codes, ordinances, and regulations of all appropriate regulating bodies.
- 7. No soils report or site condition information provided to the engineer. Contractor to verify ground and soils conditions are acceptable for construction. Engineer shall not be liable for unforeseen site or soil conditions.
- 8. Contractor to verify if tree conflicts exist prior to construction.
- 9. All construction methods, practices, and materials to follow current building code standards except as noted. These should also be pre-approved by owner or general contractor in charge. Engineer shall not be responsible for methods, techniques, sequences, etc. of construction activities. Supervision of all work is the responsibility of the contractor.
- 10. All construction layout is the responsibility of owner or general contractor in charge.
- 11. In case of conflict between drawings and specifications the more rigid, robust, stronger, etc. to be assumed to prevail unless explicitly specified by engineer.
- 12. Wall, floor, ceiling penetrations to be per current building code standards unless otherwise specified.
- 13. Call P.U.P.S. 811 before digging.

#### Mechanical Design Criteria / Property Info:

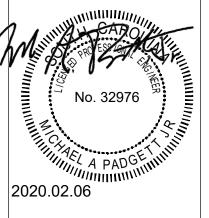
Information listed below and herein is where applicable for this project. Some items may not be relevant.

- 1. Property/Structure/Site Info:
- 1.1. Address: Per Architectural
- 2. Electrical Utility
- 2.1. Dominion Energy
- 3. Natural Gas Utility
- 3.1. N/A
- 4. Weather/Environment:
- 4.1. Extreme Frost Depth: 5"
- 4.2. Climate Zone: 3 5. IBC Classifications:
- 5.1. Construction Type: V
- 5.2. Occupancy Group: Per Architectural
- 6. Flood Zone: Per Architectural
- 7. Applicable Building Codes and Regulations
- 7.1. IBC 2018 w/ SC Modifications
- 7.2. IFC 2018 w/ SC Modifications
- 7.3. IEBC 2018 w/ SC Modifications
- 7.4. IPMC 2018 w/ SC Modifications 7.5. IMC 2018 w/ SC Modifications
- 7.6. IPC 2018 w/ SC Modifications
- 7.7. IFGC 2018 w/ SC Modifications
- 7.8. NEC 2017 (NFPA 70) w/ SC Modifications
- 7.9. ICC/ANSI A117.1-2017 w/ SC Modifications
- 7.10. See International Code Council for more information:
- http://www.iccsafe.org/ 7.11. See National Fire Protection Association for more information:
- http://www.nfpa.org/ 7.12. Other Relevent & Current Adopted Codes
- 7.13.1. N/A
- 7.13.2. N/A
- 7.14. Zoning & Ordinances:
- 7.14.1. Town of Edisto Beach

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M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





Date/Revisions 2020.02.06 Construction Documents

Project:

Edisto 29438 Renovations to Fire Departmon 2413 Murray St. Edisto Island, SC 2

GENERAL MECHANICAL NOTES

NTS Scale:

Drawn: TMH

Check:

|Proj#: J1870

MP

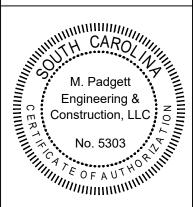
# MECHANICAL SYMBOL LEGEND (NOTE: NOT ALL SYMBOLS MAY BE APPLICABLE TO THIS PROJECT)

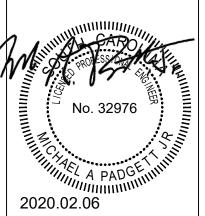
ABBREVIATIONS		DUCTWORK SYMBOLS	FITTING SYMBOLS		FI	TTING SYMBOLS	VALVE SYMBOLS		
EV. DEFINITION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION  STRICT FOR THE PURE SYMPROMS	
ACCESS DOOR		FLEXIBLE DUCT		SINGLE LINE PIPE SYMBOLS		DOUBLE LINE PIPE SYMBOLS		SINGLE LINE PIPE SYMBOLS GATE VALVE	
AIR CONDITIONING UNIT			©+	ELBOW - DOWN ELBOW - UP				GLOBE VALVE	
ACCESS DOOR		ACOUSTICAL DUCT LINING	——————————————————————————————————————	PIPE RISE - DROP	0	ELBOW - DOWN		CHECK VALVE	
ABOVE FINISHED FLOOR AIR HANDLING UNIT	EDDD	MANUAL BALANCING DAMPER	<del></del>	ELBOW - DOWN TO TEE	<b>O</b>	ELBOW - UP		PLUG VALVE	
ACOUSTIC LINING	F.DPR	FIRE DAMPER	101	TEE - DOWN		PIPE RISE - DROP			
BRAKE HORSEPOWER	S.DPR		<del></del>	TEE - UP ELBOW - UP TO TEE		ELBOW - DOWN TO TEE		PRESSURE REDUCING VALVE	
BOTTOM OF DUCT		SMORE DAMPER	<u></u>	END CAP		TEE - DOWN			
BOTTOM OF PIPE BRITISH THERMAL UNIT	F/S DPR	COMBINATION FIRE/SMOKE DAMPER		FLEX CONNECTION	H	TEL DOWN		THREE-WAY MODULATING CONTROL VA	
H BTU PER HOUR				PIPE REDUCER - CONCENTRIC		END CAP			
COMPRESSED AIR		DRAWINGS)		PIPE REDUCER - ECCENTRIC PIPE STRAINER		PIPE REDUCER - CONCENTRIC		TWO-WAY CONTROL VALVE	
CONDENSATE DRAIN CUBIC FEET PER MINUTE	• • •	2HR FIRE BARRIER (VERIFY WITH ARCHITECTURAL DRAWINGS)	——————————————————————————————————————	UNION - SCREWED		PIPE REDUCER - ECCENTRIC		SAFETY VALVE OR PRESSURE RELIEF	
CLEANOUT		2HR SMOKÉ BARRIER (VERIFY WITH ARCHITECTURAL	A	AIR VENT - AUTOMATIC			$\Box$		
T. CONTINUATION		DRAWINGS)	<u> </u>	AIR VENT - MANUAL		UNION - SCREWED		MANUAL AIR VENT	
DRAIN		CONNECT NEW DUCT TO EXISTING DUCT	(AP)	GAUGE - DIFFERENTIAL		PIPE STRAINER		SOLENOID VALVE	
DIRECT EXPANSION			PS	GAUGE - PRESSURE	V	DOUBLE LINE PIPE SYMBOLS		3/4" GATE VALVE WITH ADAPTER TO 3/4 HOSE THREAD	
ENTERING EXHAUST		EXISTING DUCT TO BE REMOVED	$\bigcirc$	GAUGE - PRESSURE		GATE VALVE		BUTTERFLY VALVE	
ENERGY MANAGEMENT	<u> </u>	FLEXIBLE CONNECTION		GAUGE - PRESSURE WITH COCK		GLOBE VALVE			
CONTROL SYSTEM			<u>+</u>	GAUGE - TEMPERATURE		CHECK VALVE	——————————————————————————————————————	BALL VALVE VALVE IN RISE	
DEGREES FAHRENHEIT FLAT BOTTOM		RISE IN DUCT		PIPE - CAPPED WITH SHUT-OFF VALVE		PLUG VALVE			
FLAT BOTTOM FLOOR CLEANOUT			<u> </u>	PIPE ANCHOR PIPE EXPANSION JOINT		PRESSURE REDUCING VALVE 3-WAY CONTROL VALVE		WATER FLOW MEASURING DEVICE	
FAN COIL UNIT		,		PIPE EXPANSION JOIN I PIPE GUIDE				VALVE BALLLEYER	
FLOOR DRAIN		SHORT RADIUS VANED ELBOW (ALL SHORT RADIUS ELBOWS ARE TO HAVE VANES PER SMACNA)	<u></u>	SENSOR - FLOW		2-WAY CONTROL VALVE		VALVE - BALL LEVER	
FILTER GAUGE FLEXIBLE		CTANDADD DADILIC ELDOW		SWITCH - FLOW	, <u> </u>			VALVE - GATE MANUAL	
FEET PER MINUTE		STANDARD RADIUS ELBOW	PS	SWITCH - PRESSURE		RELIEF VALVE		VALVE - BUTTERFLY LEVER	
FLOOR SINK		SUPPLY DUCT, SECTION	TS	SWITCH - TEMPERATURE			<u>M</u>	VALVE - BUTTERFLY MOTORIZED	
FLAT TOP		EXHAUST DUCT, SECTION		TEMPERATURE - PRESSURE TEST FITTING		SOLENOID VALVE			
FEET GALLONS PER HOUR		PETUDNI DUCT SECTION		THERMOMETER		BUTTERFLY VALVE		VALVE - GLOBE MANUAL	
GALLONS PER MINUTE		RETURN DOCT, SECTION				BALL VALVE DIAPHRAGM VALVE		VALVE - GLOBE LEVER	
HOSE BIBB		CEILING DIFFUSERS (ARROWS DENOTE THROW PATTERN IF THROW IS SOMETHING OTHER THAN 4-WAY)		THERMOMETER WELL		CIRCUIT SETTER	<u> </u>	VALVE - PLUG LEVER	
HAND DAMPER (VOLUME DAMPER)		IF THROW IS SOMETHING OTHER THAN 4-WAT)				STEAM TRAP INVERTED BUCKET	—————————————————————————————————————	VALVE - PLUG MANUAL	
HIGH EFFICIENCY		DUCTED EXHAUST REGISTER							
PARTICULATE AIR (FILTER) INCHES			MF	CHANICAL SYMBOLS	MECE	HANICAL SYMBOLS		VALVE - PRESSURE REGULATING	
KILOWATT		DUCTED RETURN REGISTER	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION		VALVE - CHECK	
KILOWATT HOUR MAIN AIR (CONTROLS)						DESCRIPTION		MAINE PRESSURE RELIES	
MOTOR CONTROL CENTER		CEILING RETURN AIR REGISTER OR TRANSFER AIR GRILLE		SUPPLY AIR DUCT SECTION		4-WAY CEILING DIFFUSER		VALVE - PRESSURE RELIEF	
NOT APPLICABLE		SIDEWALL EXHAUST OR RETURN AIR GRILLE		RETURN AIR DUCT SECTION		3-WAY CEILING DIFFUSER		PIPING SYMBOLS	
NOT IN CONTRACT NUMBER (QUANTITY)		OR REGISTER	$\overline{\text{T}}$	THERMOSTAT		2-WAY CEILING DIFFUSER	SYMBOL	DESCRIPTION	
OUTSIDE AIR	$\qquad \qquad \longrightarrow$	SIDEWALL SUPPLY REGISTER	T				STMBOL	DESCRIPTION	
OPPOSED BLADE DAMPER PRESSURE REDUCING VALVE		DUCT TRANSITION	1	NIGHT SETBACK THERMOSTAT		2-WAY CEILING DIFFUSER	— HWS —	HEATING WATER SUPPLY	
POUNDS PER SQUARE			S	SWITCH		1-WAY CEILING DIFFUSER	— HWR — — CHS —	HEATING WATER RETURN CHILLED WATER SUPPLY	
INCH GAGE	24"x12"	INDICATES A RECTANGULAR DUCT SIZE (WIDTH x DEPTH)	$\bigcirc$	UNDERCUT DOOR			CHS —— CHR ——	CHILLED WATER SUPPLY CHILLED WATER RETURN	
QUANTITY	12" ø	INDICATES A ROUND DUCT SIZE	_			CEILING RETURN/EXHAUST GRILLE	——CD——	CONDENSATE DRAIN	
QUADRANT RETURN AIR	24"/12"	INDICATES A FLAT OVAL DUCT SIZE (WIDTH x DEPTH)		HI / LO RETURN		SIDE WALL DIFFUSER	D	DRAIN VENT	
RELATIVE HUMIDITY			<b>←</b>	SPLITTER DAMPER	+		V MU	MAKE-UP WATER	
REVOLUTIONS PER MINUTE		ACCESS DOOR		STLITTER DAWIFER	]-	SIDE WALL RETURN	RS	REFRIGERATION SUCTION	
SMOKE CONTROL DAMPER	T	ROOM THERMOSTAT/TEMP. TRANSMITTER LOCATION ONLY		TURNING VANES	AD	ACCESS DOOR	——————————————————————————————————————	REFRIGERATION LIQUID	
STATIC PRESSURE (INCHES OF WATER)		SEE CONTROL DRAWINGS FOR TYPE	¬	MANUAL DAMPER	FD	FIRE DAMPER	R TWS	REFRIGERATION TOWER WATER SUPPLY	
SINGLE DUCT VARIABLE VOLUME	H	ROOM HUMIDISTAT/HUMIDITY TRANSMITTER LOCATION ONLY	•		FC	FLEXIBLE CONNECTION	TWS	TOWER WATER SUPPLY TOWER WATER RETURN	
SOUND TRAP		SEE CONTROL DRAWINGS FOR TYPE	<u> </u>	MOTORIZED DAMPER			TWB	TOWER WATER RETORIV  TOWER WATER BYPASS	
TOP OF PIPE TRAPEZE	$\bigcirc$ CO $_2$	ROOM CARBON DIOXIDE SENSOR LOCATION ONLY	-	CONNECT TO EXISTING	DAE	DUCT AIR EXTRACTOR	——————————————————————————————————————	STEAM - HIGH PRESSURE SUPPLY	
TOTAL PRESSURE (INCHES OF WATER)	SD				OA	OUTSIDE AIRFLOW	—— HPR ——	STEAM - HIGH PRESSURE RETURN	
TYPICAL		DUCT MOUNTED SMOKE DETECTOR	S	TIMED OVERRIDE SWITCH.	SD	SMOKE DAMPER	MPS —	STEAM - MEDIUM PRESSURE SUPPLY	
VOLTS			(SD)	SMOKE DETECTOR	C.O.	CASED OPENING	—— MPR —————————————————————————————————	STEAM - MEDIUM PRESSURE RETURN STEAM - LOW PRESSURE SUPPLY	
VOLTS, ALTERNATING CURRENT VARIABLE AIR VOLUME					AFF	ABOVE FINISHED FLOOR	LPS	STEAM - LOW PRESSURE RETURN	
VELOCITY VELOCITY		DUCT MOUNTED STATIC PRESSURE PROBE	- C -	CONDENSATE PIPING	BFC	BELOW FINISHED CEILING	CND	STEAM - CONDENSATE RETURN	
VENT THRU ROOF					RFD	ROUND FIRE DAMPER	——————————————————————————————————————	STEAM - CONDENSATE RETURN STEAM - PUMPED CONDENSATE	
WALL CLEANOUT WALL HYDRANT							DOWN		
WALL HYDRANT								DIRECTION OF PIPE PITCH (DOWN)	
								DIRECTION OF FLOW	
	1 1							EXISTING PIPE TO REMAIN	
								EXISTING PIPE TO BE REMOVED	

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Date/Revisions:

2020.02.06 Construction Documents

Project:

Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

MECHANICAL SYMBOLS

Scale: NTS

Drawn: TMH

Check: MP Proj#: J1870

M1.2

#### MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF INDOOR UNIT SCHEDIILE

SCHEDULE						
	System Tag	System 1	System 1	System 1		
	Tag Reference		AH 2	AH 3		
Nominal Data	Room Name	Tool Storage	Fire Chief	Asst FC		
	M-Net Address	N/A	N/A	N/A		
	Model	MSZ-GL06NA-U1	MSZ-GL06NA-U1	MSZ-GL06NA-U1		
omin	Туре	Wall mounted type	Wall mounted type	Wall mounted type		
Ž	Nominal Cooling Capacity (BTU/h)	6,000.0	6,000.0	6,000.0		
	Nominal Heating Capacity (BTU/h)	7,400.0	7,400.0	7,400.0		
S	Cooling Design Entering Temp DB/WB (°F) / [Water in temp]	75.0/62.5	75.0/62.5	75.0/62.5		
dition	Heating Design Entering Temp DB/WB (°F) / [Water in temp]	70.0	70.0	70.0		
Con	Cooling Diversity Full/Partial (See Note 5, 6)	FULL DEMAND	FULL DEMAND	FULL DEMAND		
Design Conditions	Heating Diversity Full/Partial (See Note 5, 6)	FULL DEMAND	FULL DEMAND	FULL DEMAND		
<u> </u>	Refrig Pipe Dim Liquid/Suction (inch)	1/4 / 3/8	1/4 / 3/8	1/4 / 3/8		
, e	Cooling Total Capacity (BTU/h)	5,875.3	5,802.8	5,783.2		
Performance Data	Cooling Sensible Capacity (BTU/h)	5,875.3	5,802.8	5,783.2		
manc	Heating Capacity (BTU/h)	6,554.3	6,536.2	6,531.4		
erfor	Estimated Cooling Coil LAT (°F) / [LWT]	61.5	61.6	61.7		
<u> </u>	Estimated Heating Coil LAT (°F) / [LWT]	85.0	84.9	84.9		
nter ata	Peak Fan Airflow (cfm) / [Design gpm]	406	406	406		
Fan / Water Flow Data	Max Fan ESP Setting 208V/230V (IN WG)					
Far	Sound Pressure Per Fan Speed 208V/230V (dBA)	19-22-30-37-43/19-22-30-37-43	19-22-30-37-43/19-22-30-37-43	19-22-30-37-43/19-22-30-37-43		
Electrical Data	Voltage / Phase	208/230V/1-phase	208/230V/1-phase	208/230V/1-phase		
	Power Cooling 208V/230V (kW)					
ectric	Power Heating 208V/230V (kW)					
	Electrical MCA/MFS	Powered by Outdoor	Powered by Outdoor	Powered by Outdoor		
Notes / Options	Applicable System Notes - See Notes Below	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6		

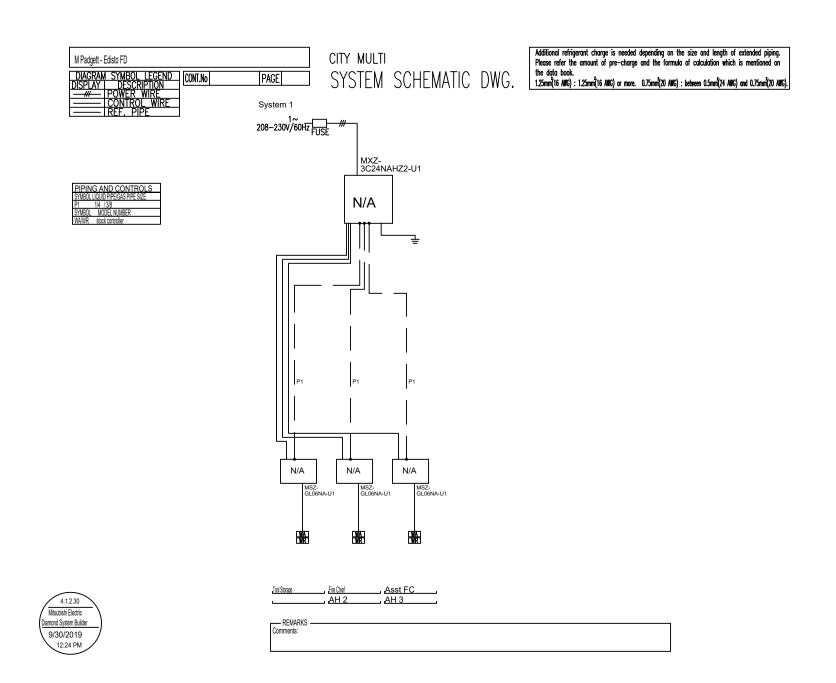
- Notes & Options:
- Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
   Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
- 3 See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with corrected capacities
  4 See schematic piping/control diagram for indication of required indoor unit remote controllers, system controllers, and integration devices.
- Full demand corrected capacity includes de-rate associated with indoor vs. outdoor connected capacity indicated on outdoor unit schedule for associated system. Partial corrected capacity assumes sufficient diversity exists such that the connected capacity de-rate does not apply.
- 5 It is the designer's responsibility to ensure "Diamond System Builder" is set in the appropriate output capacity setting (full demand/partial demand) prior to
- 6 It is recommended to always base heating corrected capacity on full demand.

#### MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF OUTDOOR UNIT **SCHEDULE**

	System Tag	System 1
	Tag Reference	CU 1
	M-Net Address	N/A
	Model Number	MXZ-3C24NAHZ2-U1
Ē	Modules	
Nominal Data	Nominal Cooling Capacity (BTU/h)	22,000.0
omin	Nominal Heating Capacity (BTU/h)	25,000.0
Z	Cooling Efficiency IEER/EER [SEER]	[19(Non-Ducted), 17.3(Mix), 15.5(Ducted)]
	Heating COP @ 47°F [HSPF]	[10(Non-Ducted), 9.5(Mix), 9(Ducted)]
	Nom System Connected Capacity (% of NOM)	75.0%
ions	Design Cooling Outdoor Temp DB (°F)	92.7
ondit	Design Heating Outdoor Temp WB (°F)	26.3
Design Conditions	Max Pipe Length from BC or 1st Joint (feet)	45.0
Desi	Refrig Pipe Dim High/Low Pressure (inch) (See Note 4)	1/4 / 1/2
nce	Corrected Cooling Total Capacity (BTU/h)	17,461.3
Performance Data	Corrected Heating Capacity (BTU/h)	19,621.9
	Sound Pressure (dBA)	54/58
Compres sor Data	Compressor Type	
Com sor I	Compressor Quantity	
	Preliminary Added Field Charge (See Note 5)	0.2
Ita	Voltage / Phase	208/230V / 1-phase
Electrical Data	MCA 208/230 or [460V]	30.5
ectric	Recommended Fuse Size (RFS)	40
	MOCP	40
Notes / Options	Applicable System Notes - See Notes Below	1, 2, 3, 4, 5

- Notes & Options:
- 1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- 2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)

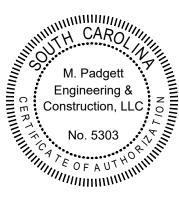
  3 Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted indoor units.
- 4 For systems with multiple modules, refrigerant pipe dimensions indicate total system combined piping downstream of module twinning.
- 5 Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layout.
  6 Include low ambient hood kit with associated wind baffles for 100% low ambient cooling down to minus (-) 10°F.

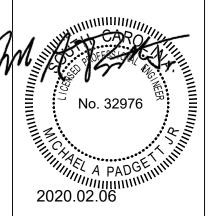




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Project:

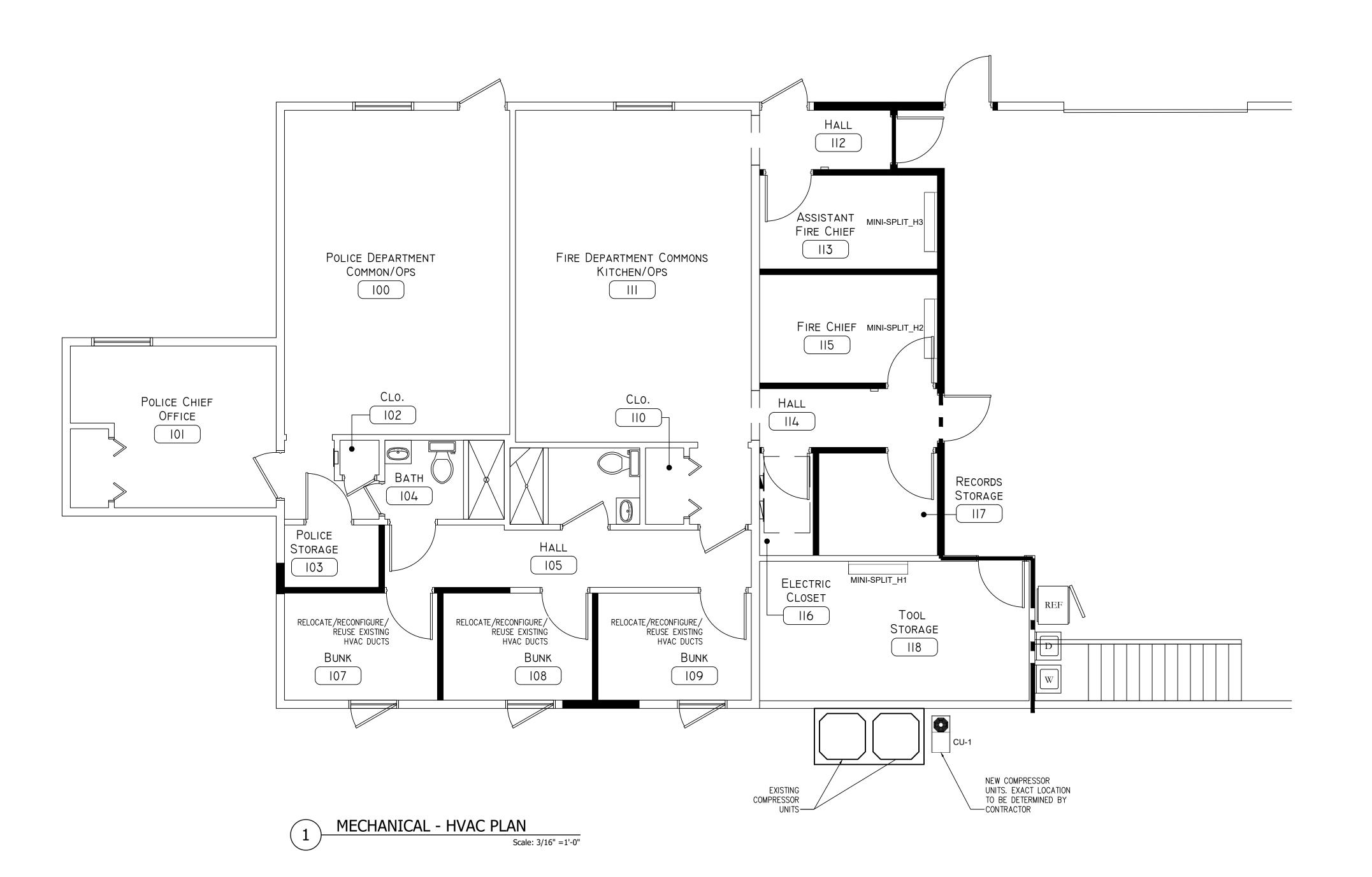
Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

MECHANICAL SCHEDULES & DIAGRAMS

NTS Scale:

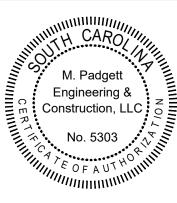
Drawn: TMH

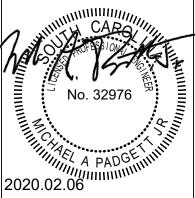
MP Check: Proj#: J1870



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Project:

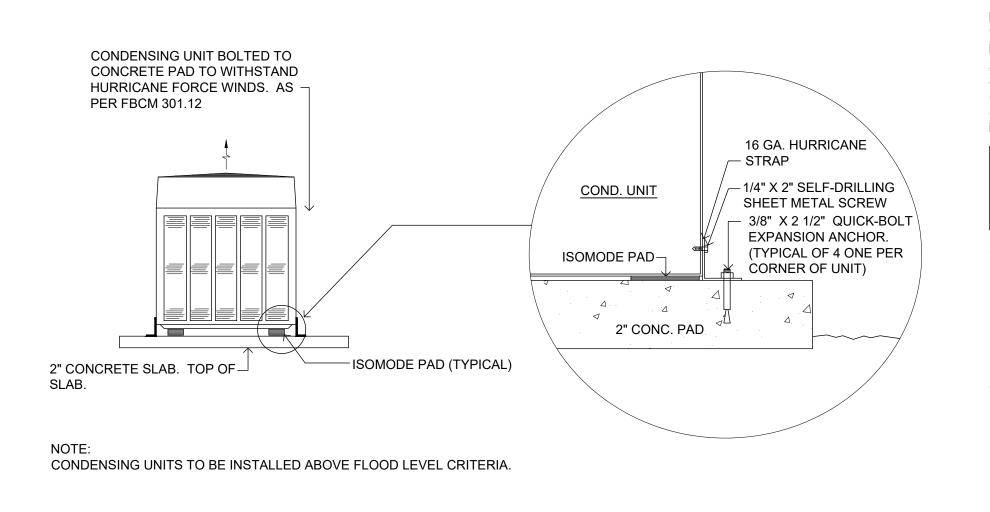
Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

HVAC PLAN

Scale: NTS

Drawn: TMH

MP Check:

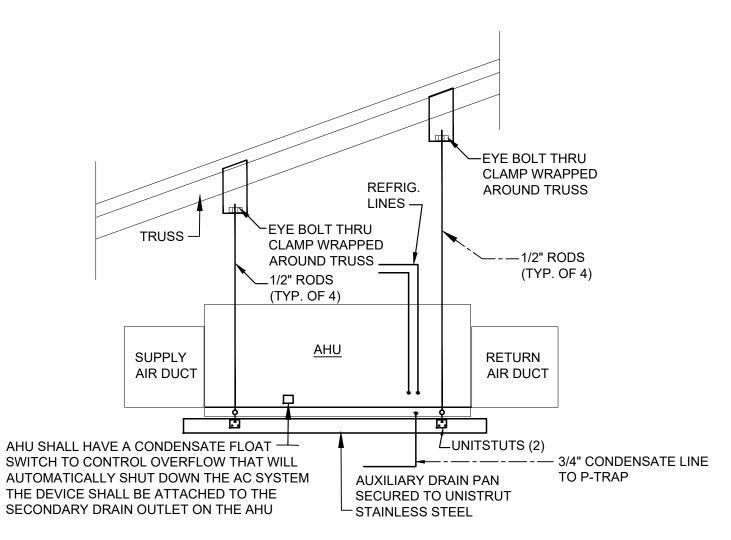


CONDENSING UNIT MOUNTING DETAIL

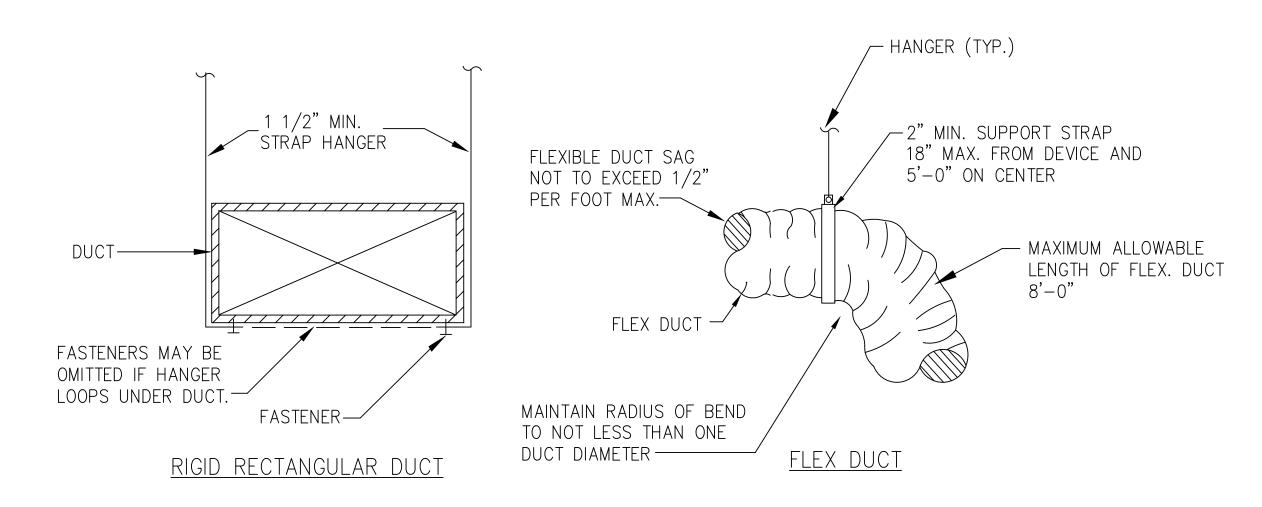
(a) THIS DIMENSION IN INCHES MUST BE 1. ALLOW SUFFICIENT SPACE BELOW DRAIN EQUAL TO THE MAXIMUM FAN SUCTION PAN FOR TRAP. (NEGATIVE) STATIC PRESSURE IN INCHES WC 2. PITCH DRAIN FOR PROPER RUNOFF. (WITH DIRTY FILTERS, COILS, AND MAXIMUM 3. MANUALLY PRIME FILL TRAP BEFORE AIR FLOW) + 1" W.C. START-UP TO FORM INITIAL DRAIN SEAL. 4. SUPPORT LENGTHY DRAIN LINES TO (b) THIS DIMENSION IN INCHES MUST BE PREVENT SAG AND CONDENSATE OVERFLOW. EQUAL TO MIN. 1/2 OF THE (a) ABOVE. THIS STANDARD DETAIL (c) EQUAL (a) + (b) + PIPE DIA. + INSULATION. MUST BE REVIEWED AND SITE ADAPTED BY (d) TRAP SEAL SHALL BE 2" MIN. ON UNITS CONTRACTOR PRIOR TO USE LARGER THAN 3 TONS SHALL BE 3" MIN. PER FOR FINAL EQUIPMENT. F.B.C. -4606.7 WHERE APPLICABLE. (e) TRAP SEAL SHALL BE 2" MIN. TO 4" MAX.

PER S.B.C.C.I. -1002.4 WHERE APPLICABLE. - CLEANOUT A/C UNIT (TYPICAL) PITCH VENT LINE PERFORATED CAP. 1/2" ABOVE BOTTOM OF DRAIN PAN PAIN PAN DRAIN PIPE TO MATCH DRAIN OUTLET SIZE.

DRAW THRU UNIT CONDENSATE TRAP



AIR HANGING UNIT INSTALLATION DETAILS



Scale: NTS

1. ALLOW SUFFICIENT SPACE BELOW DRAIN PAN FOR TRAP. 2. PITCH DRAIN FOR PROPER RUNOFF. 3. MANUALLY PRIME FILL TRAP BEFORE START-UP TO FORM INITIAL DRAIN SEAL.

4. SUPPORT LENGTHY DRAIN LINES TO

THIS STANDARD DETAIL

FOR FINAL EQUIPMENT.

SITE ADAPTED BY

MUST BE REVIEWED AND

CONTRACTOR PRIOR TO USE

PREVENT SAG AND CONDENSATE OVERFLOW

(b) THIS DIMENSION IN INCHES MUST BE EQUAL TO MIN. 1/2 OF THE (a) ABOVE.

(a) THIS DIMENSION IN INCHES MUST BE

**EQUAL TO THE MAXIMUM FAN SUCTION** 

AIR FLOW) + 1" W.C.

(NEGATIVE) STATIC PRESSURE IN INCHES WC

(WITH DIRTY FILTERS, COILS, AND MAXIMUM

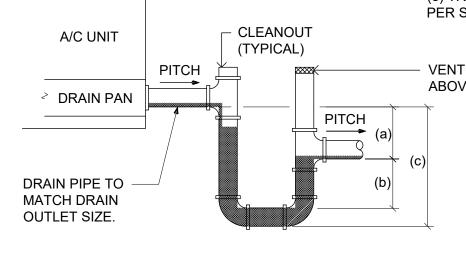
(c) EQUAL (a) + (b) + PIPE DIA. + INSULATION.

(d) TRAP SEAL SHALL BE 2" MIN. ON UNITS LARGER THAN 3 TONS SHALL BE 3" MIN. PER F.B.C. -4606.7 WHERE APPLICABLE.

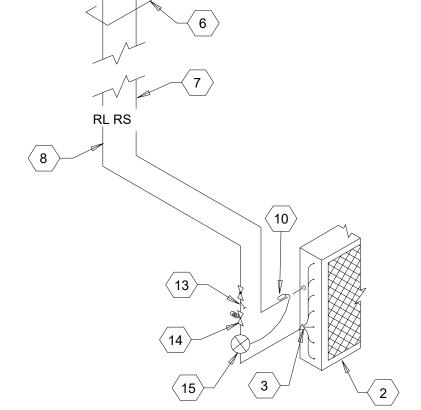
(e) TRAP SEAL SHALL BE 2" MIN. TO 4" MAX.

PER S.B.C.C.I. -1002.4 WHERE APPLICABLE.

VENT LINE PERFORATED CAP. 1/2" ABOVE BOTTOM OF DRAIN PAN



DRAW THRU UNIT CONDENSATE TRAP Scale: NO SCALE



ROOF MOUNTED OUTDOOR HEAT PUMP UNIT MOUNTED ON 4" CONCRETE PAD WITH NEOPRENE VIBRATION ISOLATION PADS.

INDOOR UNIT, DIRECT EXPANSION (DX) COIL

(3) DISTRIBUTION NOZZLE

4 GLOBE VALVES AT OUTDOOR UNIT

(5) SWING JOINT

PIPE PENETRATION THROUGH ROOF, SEE DETAIL

REFRIGERANT SUCTION LINE, SEE 7 REFRIGERATION STATE FLOOR PLAN FOR SIZE

8 REFRIGERANT LIQUID LINE, SEE FLOOR PLAN FOR SIZE

 $\langle$  9  $\rangle$  SIGHT GLASS

(10) REMOTE BULB

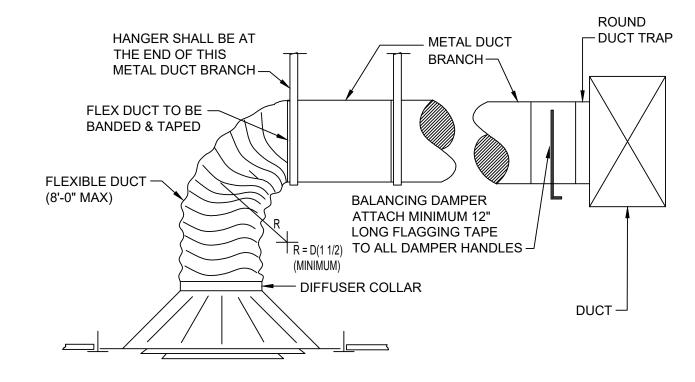
(11) FILTER

(12) LIQUID CHARGING VALVE

 $\langle 13 \rangle$  STRAINER

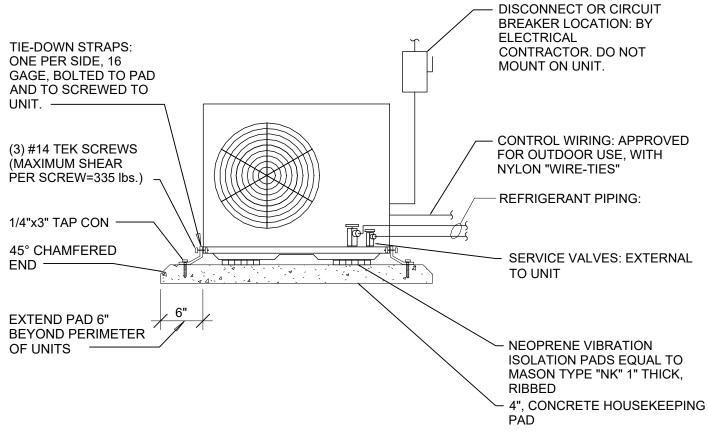
(14) SOLENOID VALVE TO BE LOCATED AS CLOSE TO EXPANSION VALVE AS POSSIBLE

(15) EXPANSION VALVE



**DUCTWORK SUPPORT DETAILS** 

CEILING DIFFUSER BRANCH DUCTS Scale: NTS



CONDENSING UNIT MOUNTING DETAIL - (TYPICAL) Scale: NO SCALE SPLIT SYSTEM HEAT PUMP REFRIGERANT PIPING DETAIL Scale: NO SCALE

Engineering & ຕິ Construction, LLC

D

E&C

M. Padgett Engineering

& Construction, LLC

PO Box 6996,

Florence, SC 29502

tel: 843-908-4569

fax: 866-384-7749

mp.eng.con@gmail.com

www.mpadgettengineering.com

M. Padgett

2020.02.06

Date/Revisions: 2020.02.06

Construction Documents

Project:

Beach Edisto 29438 Renovations to E Fire Department 2413 Murray St. Edisto Island, SC 2943

MECHANICAL DETAILS

NTS Scale:

MP Check:

Drawn: TMH

#### Electrcial Notes:

Notes listed below and herein are where applicable for this project. Some notes may not be relevant.

#### General Notes:

- 1. The requirements of these general notes shall apply to all electrical and mechanical work. Installation shall be in accordance with the current building code, state and local codes and the latest amendments thereto.
- 2. The work covered by this contract consists of furnishing all labor, equipment, materials and service necessary for and reasonably incidental to the proper completion of all mechanical work shown on the drawings and specified. Materials or products specified by trade name, manufacturer's name or catalog number shall be interpreted as establishing a standard of quality and design. Substitutions shall not be allowed unless they are submitted for review to use and approved by the architect.
- 3. Furnish copies of shop drawings of equipment or fixtures for approval prior to purchasing
- 4. Contractor and sub-contractors shall coordinate with architectural, civil, structural, electrical, fire protection, plumbing and all other trades for pipe routing and equipment placement. Avoid interference with architectural features, beams, footings, windows, etc. Notify architect immediately of any conflicts. Sleeves shall be installed where piping passes through structure. All openings through fire rated walls or floors shall be sealed with U.L. listed penetration and shall maintain the fire rated integrity of the wall or floor. The contractor shall verify fire ratings with architectural drawings prior to installation. Submit U.L. penetration details with shop drawings for engineer's review. Minimum ratings shall be as follows: walls - F=1, T=0; floor - F=1, T=1. Contractor shall keep a record of the locations of all concealed work and upon completion of the job, shall supply as-built drawings showing in colored pencil on black line prints any deviation from the original drawings. These drawings shall indicate dimensions of buried utility lines from building
- 5. All work shall be guaranteed, both material and installation, for a period of one year from acceptance by owner.
- 6. All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.
- 7. Drawings are not to be scaled. All dimensions are to be read or calculated
- 8. Work not indicated as part of drawings but reasonably implied to be similar to that at corresponding places shall be repeated
- 9. All sections and details are typical at similar locations and where applicable
- 10. The dimensions on this project are considered as nominal dimensions. The shape and actual size of member units shall be considered in the building and layout plan.
- 11. Ducts, piping, conduit and similar components specified in common sizes unless specifically noted.
- 12. These plans are the property of MPE&C only. Any unauthorized use, reproduction, or otherwise is prohibited. Doing so is subject to
- 13. These plans are site specific to this particular project, site, and location

#### **Electrical Continued:**

#### HVAC:

- 1. Do not scale drawing. Rough-in dimensions per equipment manufacturer and architectural drawings.
- 2. Contractor shall coordinate all ductwork, piping, plumbing and fire protection piping with structural and electrical systems and shall provide necessary offsets to avoid conflicts and to maintain equipment access and serviceability
- 3. Contractor shall furnish all necessary structures, inserts, sleeves, and hanging devices for installation of electrical equipment, fixtures, conduit etc. Contractor shall coordinate with general contractor and all building trades to avoid conflicts and to maintain equipment access and serviceability.
- These drawings are a part of a complete set of architectural/engineering contract documents. Electrical contractor should refer to the architectural drawings for actual location of items where specified. See said configurations for wall definitions, elevations, casework, reflected ceiling plan, etc. Rough-in installations which are not located according to the architectural elevations shall be relocated at no additional cost.
- 5. Ceiling clearances are critical for this project. General contractor must coordinate all trades to avoid potential interferences. Conflicts between trades shall be referred to the architect for resolution.
- 6. All electrical work shall be done in accordance with the current edition of the NEC and local ordinances. Contractor shall obtain and pay for all necessary
- 7. All panelboards are single phase unless otherwise noted.
- 8. All branch circuit conduit shall be galvanized EMT 1/2" conduit minimum
- 9. All circuits shown concealed shall be run in furred ceiling spaces and shall be concealed in concrete slab only when no furred ceiling space is provided.
- 10. All conduits crossing expansion joints shall have expansion type fittings.
- 11. All outlet boxes mounted back-to-back in walls shall have fireproof sound insulating material installed between the boxes to prevent sound transmission from one room to the other.
- 12. All flush mounted panels shall have 3-1" empty conduits stubbed out above ceiling for future circuits.
- 13. All wall outlets not provided with a device by this contractor shall be provided with blank wall plates.
- 14. All branch circuits shall include a green covered ground wire sized per NED or as shown. Connect to each device and outlet box on the circuit and to the panelboard ground bus. Multiple wire branch circuits with common neutral require only one ground wire. Number of wires shown on drawings does not include ground wire.
- 15. Final equipment connections this contractor is responsible for providing all labor & materials required to make final connections to all equipment furnished by this contractor and/or equipment furnished by others. Verify all requirements, conductor size, overcurrent protection, phase, voltage, motor rotation, etc., with equipment supplier prior to rough-in. Provide fused disconnect if required by manufacturer.
- 16. Furnish & install fire alarm system which conforms to all national, state, & local codes. Provide additional devices as required. Provide to architect a complete set of manufacturer's system installation plans including riser diagram, conduit & wiring, interconnection diagrams, device locations and all required connections to equipment furnished by others. Provide conduit & wiring as directed by system supplier.
- 17. Contractor shall provide arc-flash warning labels complying with NEC article 110.16 on new electrical equipment or existing equipment that is modified.
- 18. New panelboards shall be identified to indicate the device or equipment where the power supply originates.
- 19. For 120 or 208v circuits, contractor shall increase wire size from that shown one size A.W.G. for every 100' homerun length, and one size every 200' for 277v or 480v circuits.
- 20. Contractor shall label electrical service equipment with available fault current in accordance with NEC 110.24.
- 21. Contractor shall label electrical panelboards with equipment where feeder originates in accordance with NEC 408.4(b).

#### Electrical Notes Continued

#### Construction:

- 1. Contractor shall field verify all elevations, dimensions, and locations of existing features before starting work and notify engineer of any discrepancies for justification and/or corrections. The contractor/homeowner shall assume liability for all errors that are not reported. Note, the information provided in these plans is limited to the visual observation and information provided by the contractor and/or homeowner.
- 2. The engineer assumes no liability for any changes or modifications by others made to the plans in whole or in part.
- 3. Contractor is responsible for coordination of all trades involved.
- 4. Contractor to verify with owner all specific makes, models, sizes, etc. of all fixtures, furniture, cabinets, appliances, etc. to be installed.
- 5. Contractor is to review all mechanical systems (including but not limited to electrical, HVAC, plumbing, etc.) with owner prior to construction. This includes type, brand, quality, energy rating, size, etc for each particular system and its components.
- 6. All work shall conform to all local codes, ordinances, and regulations of all appropriate regulating bodies.
- 7. No soils report or site condition information provided to the engineer. Contractor to verify ground and soils conditions are acceptable for construction. Engineer shall not be liable for unforeseen site or soil conditions.
- 8. Contractor to verify if tree conflicts exist prior to construction.
- 9. All construction methods, practices, and materials to follow current building code standards except as noted. These should also be pre-approved by owner or general contractor in charge. Engineer shall not be responsible for methods, techniques, sequences, etc. of construction activities. Supervision of all work is the responsibility of the contractor.
- 10. All construction layout is the responsibility of owner or general contractor in charge.
- 11. In case of conflict between drawings and specifications the more rigid, robust, stronger, etc. to be assumed to prevail unless explicitly specified by engineer.
- 12. Wall, floor, ceiling penetrations to be per current building code standards unless otherwise specified.
- 13. Call P.U.P.S. 811 before digging.

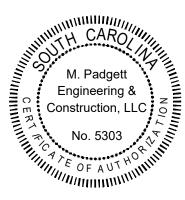
#### Electrical Design Criteria / Property Info:

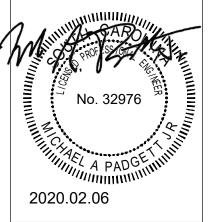
Information listed below and herein is where applicable for this project. Some items may not be relevant.

- 1. Property/Structure/Site Info:
- 1.1. Per Architectural
- 2. Electrical Service Utility
- 2.1. Dominion Energy 3. Natural Gas Utility
- 3.1. N/A
- 4. Weather/Environment:
- 4.1. Extreme Frost Depth: 5"
- 4.2. Climate Zone: 3
- 5. Applicable Building Codes and Regulations:
- 5.1. IBC 2018 w/ SC Modifications
- 5.2. IFC 2018 w/ SC Modifications
- 5.3. IEBC 2018 w/SC Modifications
- 5.4. IPMC 2018 w/ SC Modifications 5.5. IMC 2018 w/ SC Modifications
- 5.6. IPC 2018 w/ SC Modifications
- 5.7. IFGC 2018 w/ SC Modifications
- 5.8. NEC 2017 (NFPA 70) w/ SC Modifications
- 5.9. ICC/ANSI A117.1-2017 w/ SC Modifications
- 5.10. See International Code Council for more information: http://www.iccsafe.org/
- 5.11. See National Fire Protection Association for more information: http://www.nfpa.org/
- 5.12. Other Relevent & Current Adopted Codes
- 5.13.1. As Required
- 5.14. Zoning & Ordinances:
- 5.14.1. Town of Edisto Beach

E&C

M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





Date/Revisions

2020.02.06 Construction Documents

Project:

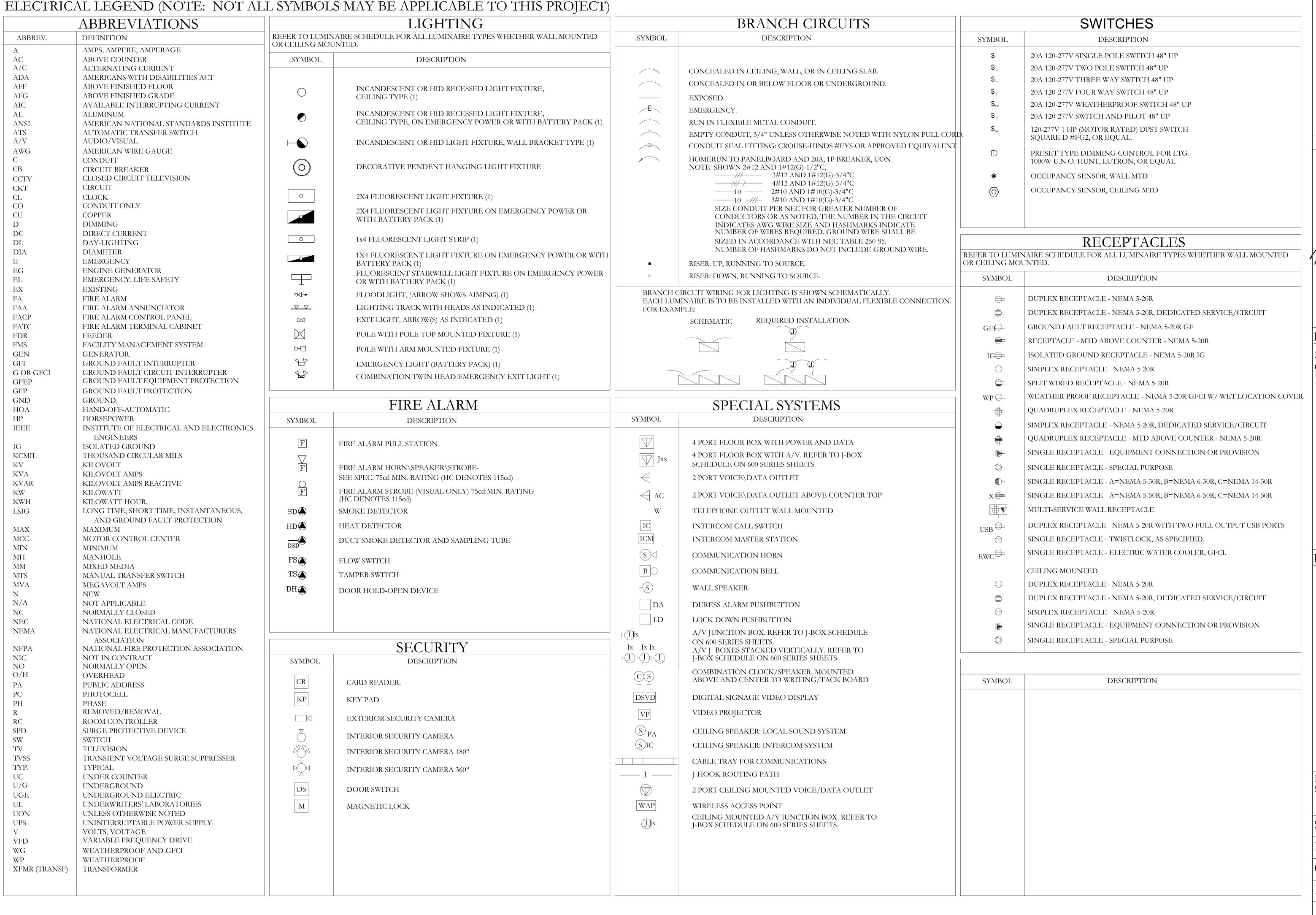
Edisto Renovations 1 Fire Departm 2413 Murray St. Edisto Island, SC.

GENERAL ELECTRICAL NOTES

NTS Scale:

Drawn: TMH

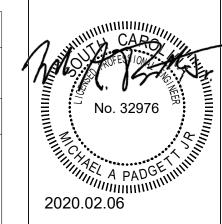
Check: MP



M P E&C

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Date/Revisions
2020.02.06

Construction Documents

Project:

Renovations to Edisto Beachire Department
413 Murray St.

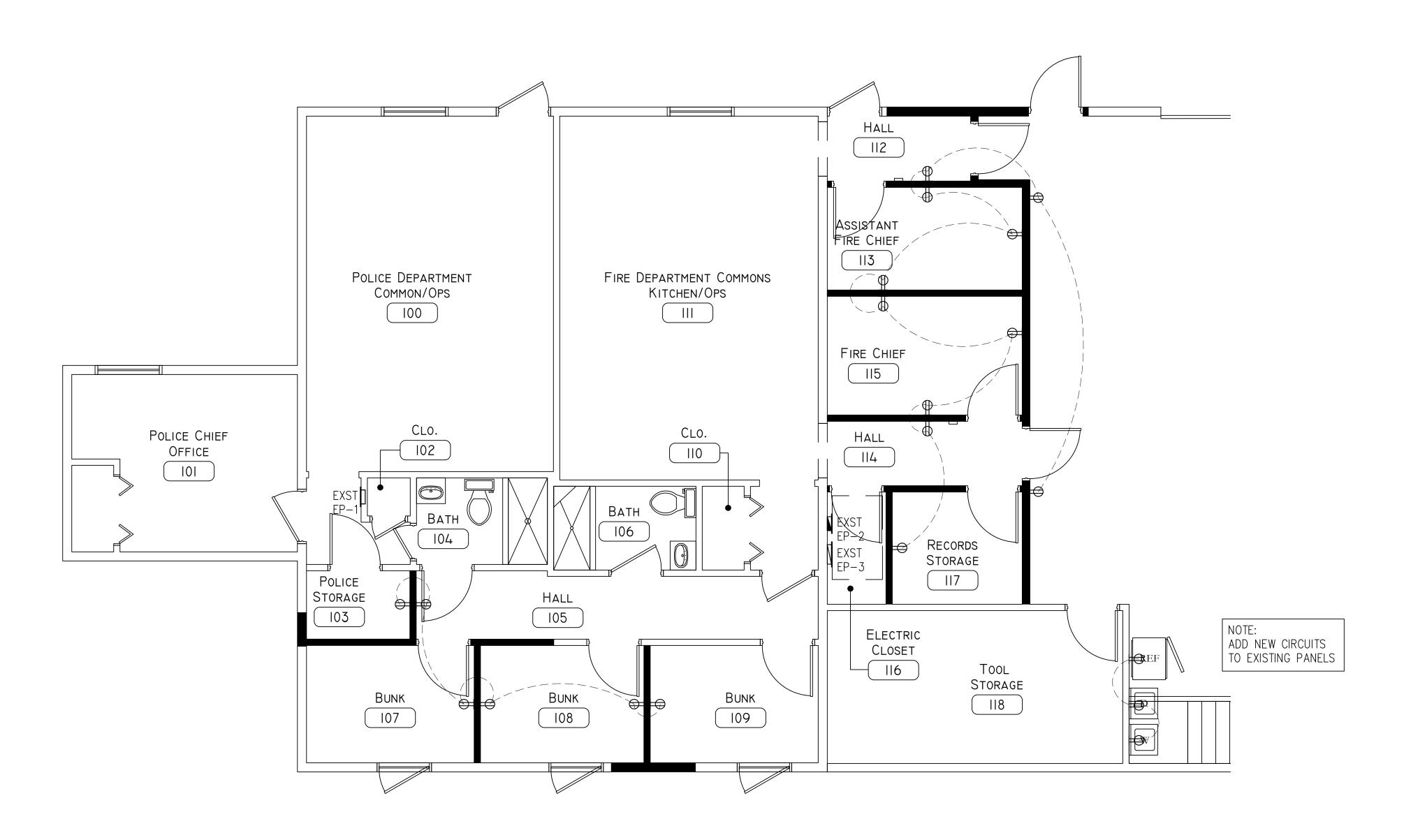
ELECTRICAL SYMBOLS

Scale: NTS

Drawn: TMH
Check: MP

Proj#: J1870

E1.2

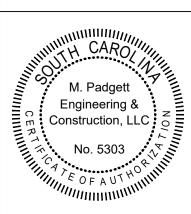


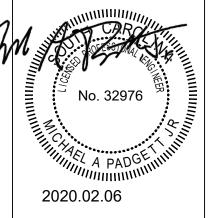
ELECTRICAL - POWER PLAN

Scale: 3/16" =1'-0"

P E&C

M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





Date/Revisions: 2020.02.06 Construction Documents

Project:

Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

ELECTRICAL POWER PLAN

NTS Scale:

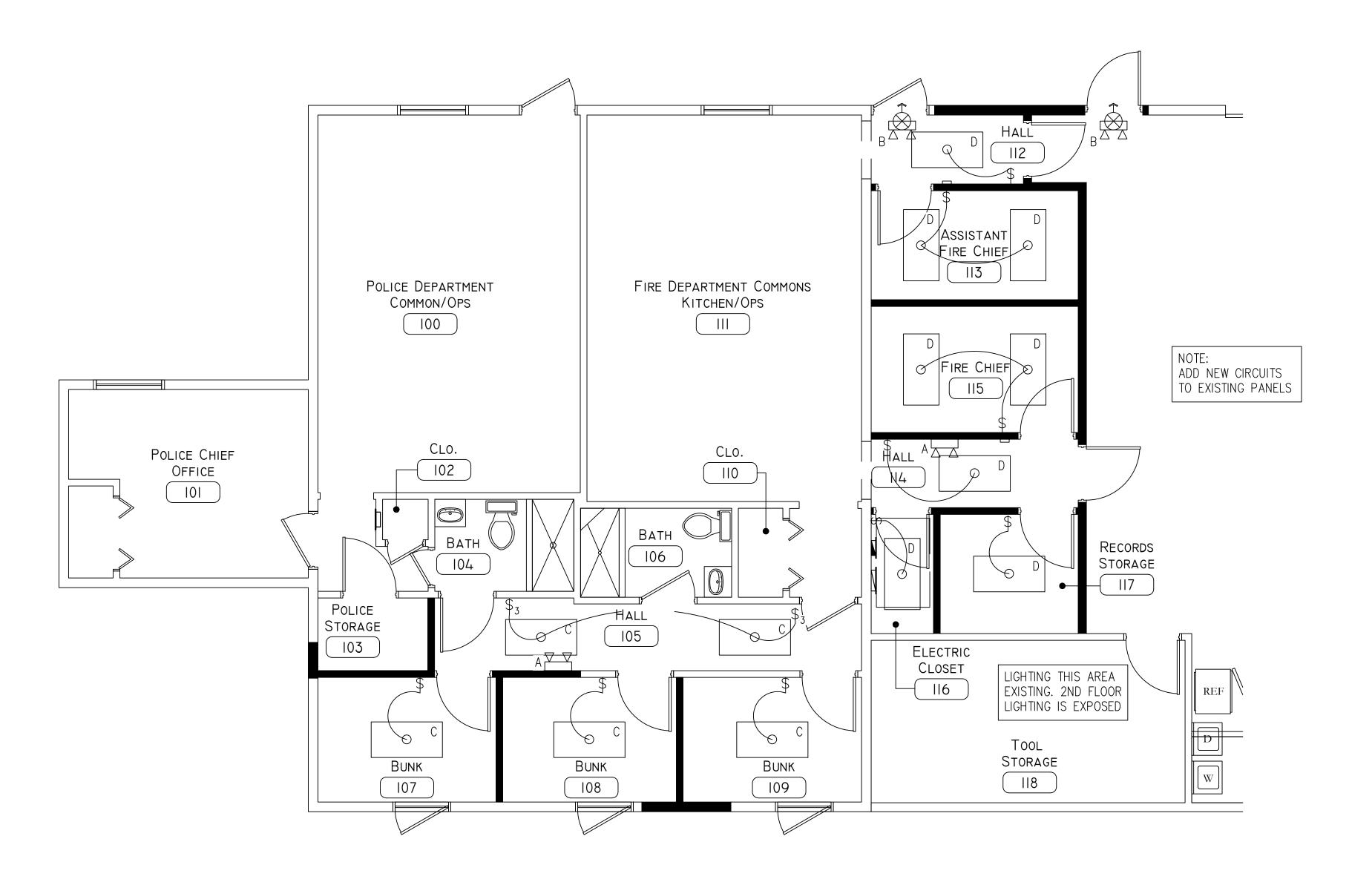
Drawn: TMH

Check:

Proj#: J1870

MP

E2.1





Lighting Schedule

Lighting Schedule									
Sym	Qty	Location	Description	Manuf.	Catalog	Mount	V	W	Notes
A	2	112	Emergency Lighting w/ Backup Battery	Lithonia	ELM2L	Wall/Below Ceilin	120	10	1, 3, 7, 8
В	2	105	Exit Light Combo w/ Backup Battery	Lithonia	EXR LED EL M6	Wall/Below Ceilin	120		1, 3, 7, 8
С	5	105, 107-109	2x4 LED Panel - Surface Mount	Lithonia	EPANL 2x4 4800LM 80CRI 40K MIN1	Panel	120	39	1, 2, 6, 7,8,
D	8	112-117	2x4 LED Panel - Panel Mount	Lithonia	EPANL 2x4 3000LM 80CRI 50K MIN1, w/ 2X4SMKSH Mount Kit	Celing	120	39	1, 2, 6, 7,8,
Е									
F									
G									

## Notes:

- Makes and Models listed for design purposes only. Substitution of equivalent makes and models allowed if code compliant and approved by owner or architect.
- Emergency Battery Pack or Equivalent on Indicated Fixtures
- Coordinate Height with Architectural
- Damp Location Rated
- Wet Location Rated
- With compatible Lithonia WSX-D and/or SPOD Occupancy Sensor Switches. Substitution of equivalent makes and models allowed if code compliant and approved by owner or architect.
- Coordinate Finishes w/ Architectural/Interior Design
- Contractor to include any accessories/components required to complete full and functional lighting system. I.e. switches, connectors, covers, lenses, bulbs, etc. Check manuf. specifications
- 9 Dimmer Switch

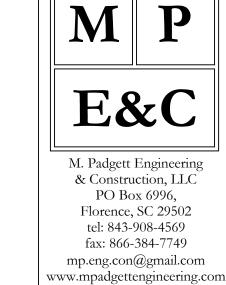
## LIGHTING LEGEND

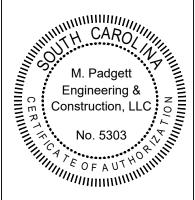
EMERGENCY LIGHTING WITH BACKUP BATTERY

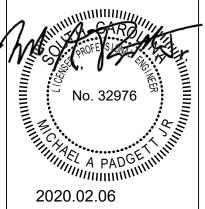
EXIT LIGHTING/EMERGENCY LIGHTING WITH BACKUP BATTERY

PANEL TROFFER-SURFACE MOUNT

PANEL TROFFER-PANEL MOUNT







Date/Revisions: 2020.02.06 Construction Documents

Project:

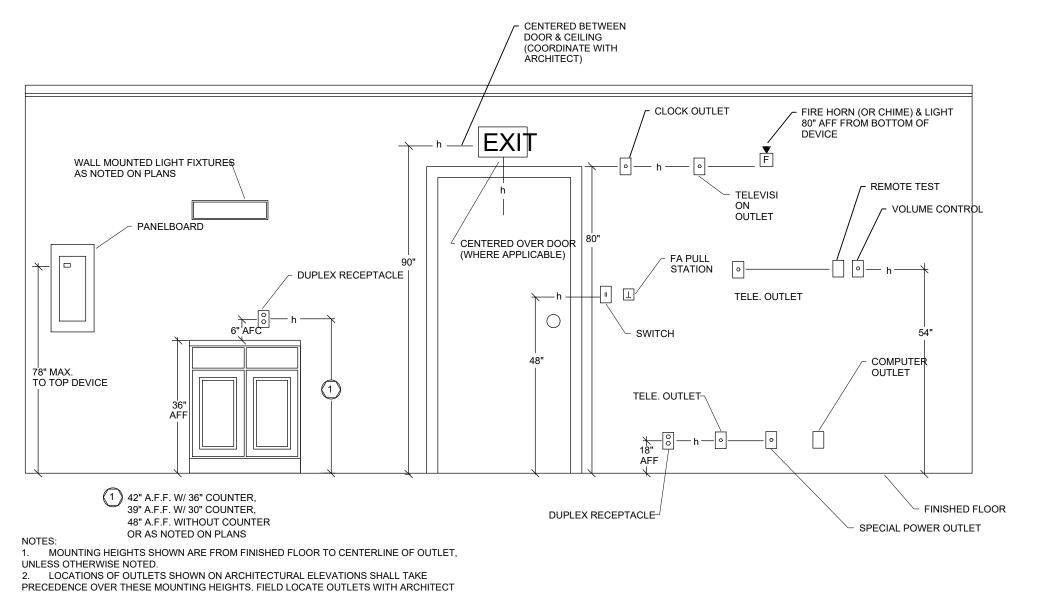
Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

ELECTRICAL LIGHTING PLAN

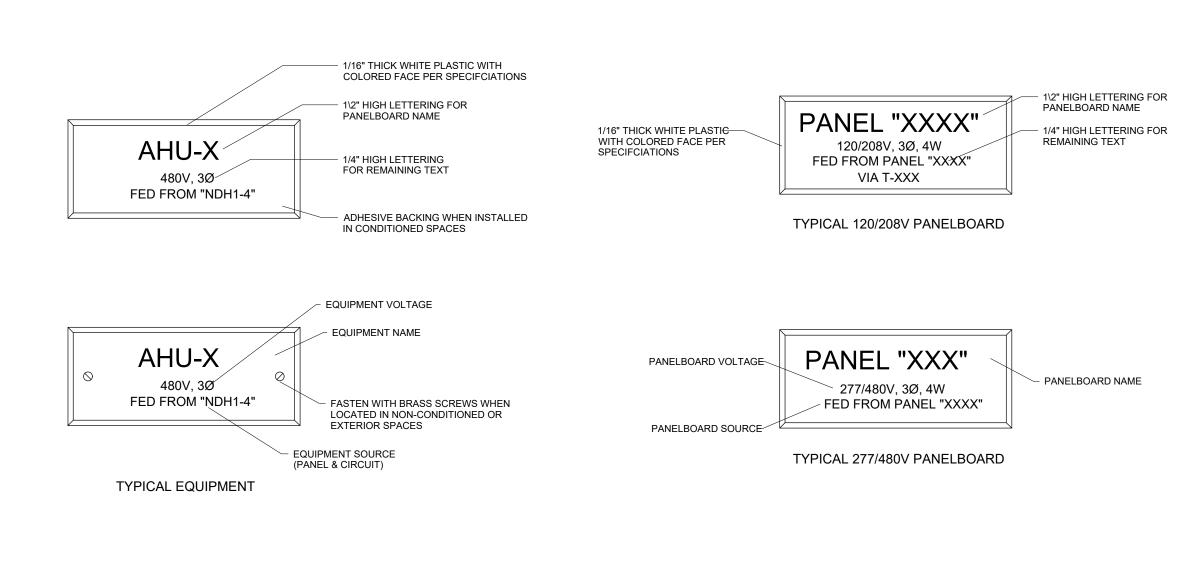
Scale: NTS

Drawn: TMH

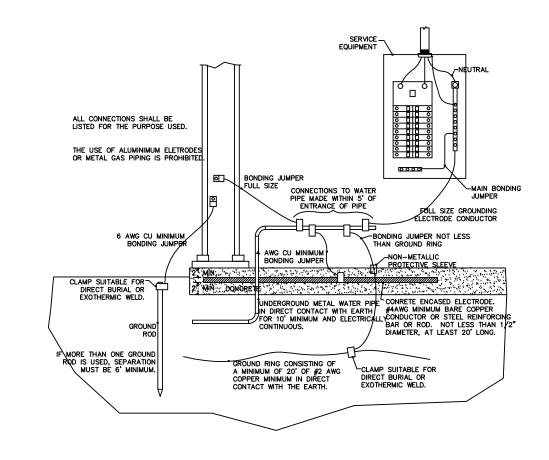
Check: MP



**EQUIPMENT NAMEPLATE DETAIL** 



PANELBOARD NAMEPLATE DETAIL



TYPICAL GROUNDING DETAIL

Scale: NTS

Date/Revisions:

2020.02.06

P

E&C

M. Padgett Engineering

PO Box 6996,

Florence, SC 29502

tel: 843-908-4569

fax: 866-384-7749

mp.eng.con@gmail.com

www.mpadgettengineering.com

M. Padgett

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& Construction, LLC

2020.02.06 Construction Documents

Project:

Renovations to Edisto Beach Fire Department 2413 Murray St. Edisto Island, SC 29438

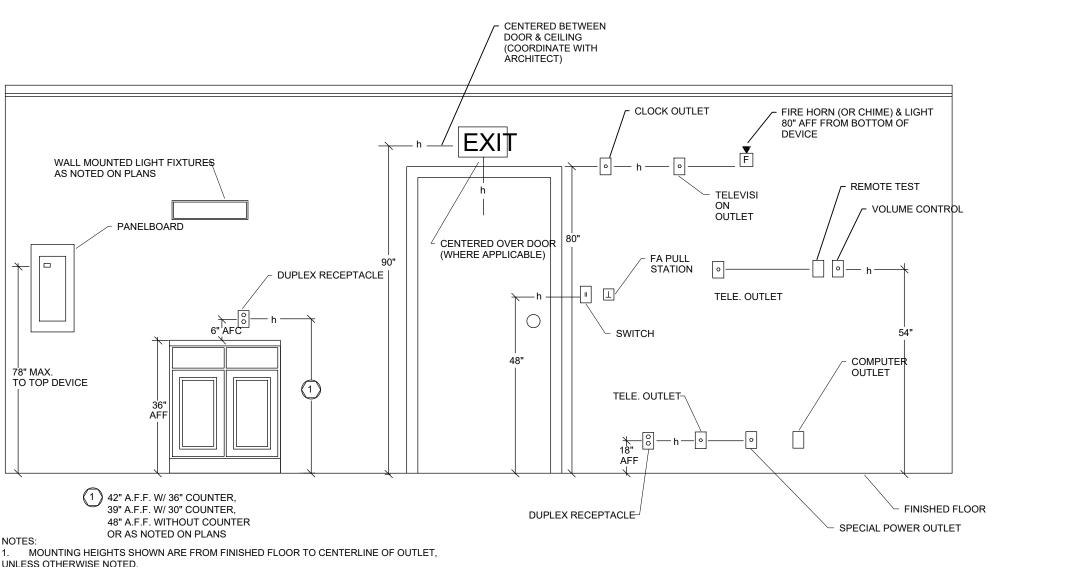
ELECTRICAL DETAILS

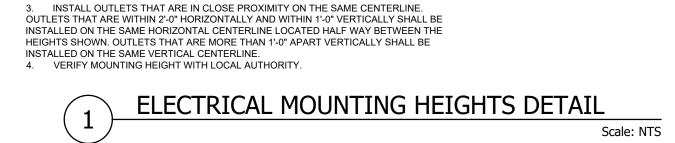
NTS Scale:

Drawn: TMH MP Check:

Proj#: J1870

E3.1





#### Plumbing Notes:

Notes listed below and herein are where applicable for this project. Some notes may not be relevant.

#### General Notes:

- 1. The requirements of these general notes shall apply to all plumbing work. Installation shall be in accordance with the current building code, state and local codes and the latest amendments thereto.
- 2. The work covered by this contract consists of furnishing all labor, equipment materials and service necessary for and reasonably incidental to the proper completion of all plumbing work shown on the drawings and specified. Materials or products specified by trade name, manufacturer's name or catalog number shall be interpreted as establishing a standard of quality and design. Substitutions shall not be allowed unless they are submitted for review to use and approved by the architect. Fixtures by Eljer, Kohler or American-Standard are approved equal.
- 3. Furnish copies of shop drawings of equipment or fixtures for approval prior to purchasing.
- 4. Plumbing contractor shall coordinate with architectural, civil, structural, electrical, fire protection, mechanical and all other trades for pipe routing and equipment placement. Avoid interference with architectural features, beams, footings, windows, etc. Notify architect immediately of any conflicts. Sleeves shall be installed where piping passes through structure. All openings through fire rated walls or floors shall be sealed with U.L. listed penetration and shall maintain the fire rated integrity of the wall or floor. The contractor shall verify fire ratings with architectural drawings prior to installation. Submit U.L. penetration details with shop drawings for engineer's review. Minimum ratings shall be as follows: walls F=1, T=0; floor F=1, T=1. Contractor shall keep a record of the locations of all concealed work and upon completion of the job, shall supply as-built drawings showing in colored pencil on black line prints any deviation from the original drawings. These drawings shall indicate dimensions of buried utility lines from building walls.
- 5. All work shall be guaranteed, both material and installation, for a period of one year from acceptance by owner.
- 6. Provide wall carriers for all wall hung plumbing fixtures. All wall hung plumbing fixtures shall be capable of supporting a 250-pound vertical load.
- 7. Insulate P-trap and supplies under wall hung handicapped lavatory for ADA compliance.
- 8. All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.
- 9. Drawings are not to be scaled. All dimensions are to be read or calculated.
- 10. Work not indicated as part of drawings but reasonably implied to be similar to that at corresponding places shall be repeated.
- 11. All sections and details are typical at similar locations and where applicable.
- 12. The dimensions on this project are considered as nominal dimensions. The shape and actual size of member units shall be considered in the building and layout plan.
- 13. Piping and similar components specified in common sizes unless specifically noted.
- 14. These plans are the property of MPE&C only. Any unauthorized use, reproduction, or otherwise is prohibited. Doing so is subject to prosecution.
- 15. These plans are site specific to this particular project, site, and location only.

#### Plumbing Notes Continued:

#### Storm Piping:

1. Storm piping shall be schedule 40 PVC (ASTM-2665 with approved PVC solvent welded fittings. Comply with current building code. PVC piping shall not be run in return air plenum or fire rated assemblies.

#### Supply Water Piping:

- 1. Water piping shall be PEX or (CPVC) chlorinated polyvinyl chloride plastic pipe and tubing (ASTM-2846) with approved CPVC solvent welded fittings. Comply with current plumbing code.
- 2. The site subcontractor shall provide the backflow preventer and the water meter.
- 3. A service valve shall be provided on the domestic water riser at 5'-0" above finished floor, where water enters the building.
- 4. Provide each fixture with stops and supplies. Exposed stops and supply piping shall be chrome plated, with a chrome plated escutcheon plate.
- 5. Provide unions for all connections to equipment. Provide dielectric type where dissimilar metals are connected.
- 6. Insulate all hot water piping with 1" thick, 3-1/2-pound density, rigid fiberglass insulation. Insulate fittings, valves and all similar items. Insulate water pipe and p-trap below all handicapped lavatories.
- 7. Provide water hammer protection (equal to precision plumbing product "SWA" series) at each fixture or group of similar fixtures. Field fabricated models are not acceptable.
- 8. Provide vacuum breakers as required by code.
- 9. Provide trap primers for all floor drains as required by code.
- 10. Test all water piping at 100-psig for twenty-four (24) hours or as required by code.
- 11. Sterilize all water piping in accordance with health department regulations and American Water Works specifications.
- 12. Support all water piping with pipe hangers by Grinnell or approved equal.
- 13. Provide access panels for valves concealed in walls or ceiling plenums.

#### Sanitary, Waste and Vent Piping::

- 1. Sanitary, waste and vent piping shall be schedule 40 PVC (ASTM-2665) with approved PVC solvent welded fittings. Comply with current building code. PVC piping shall not be run in return air plenum or fire rated assemblies.
- 2. All soil and waste piping, 2-1/2" and smaller, shall be sloped at 1/4" per foot. Larger waste piping shall be sloped at 1/8" per foot.
- 3. All vents through roof shall be a minimum of 10'-0" or as required by code away from fresh air intakes.
- 4. All vents through roof shall be provided with four (4) pound sheet lead flashing extending upward around the pipe and turned down inside the pipe.
- 5. Exposed waste drains, in toilets, shall be chrome plated brass with matching escutcheons.
- 6. Cleanout shall be provided at the base of each waste or soil stack at 18" A.F.F. minimum, per latest edition of plumbing code.
- 7. Test sanitary, waste and vent piping by a 10' water column for twenty-four (24) hours or as required by the building department.

#### Plumbing Notes Continued:

Gas piping

- Gas piping shall be installed in accordance with the current fuel gas code or NFPA-54 where requirements are more stringent.
- 2. All gas equipment shall be AGA approved.
- 3. The installation shall be for natural gas or propane as per plan design specifications.
- 4. The installing subcontractor shall be licensed for the installation of natural gas.
- 5. Above ground gas piping shall be schedule 40, welded and seamless, wrought steel pipe (ASME B36.10) with threaded fittings. Underground gas piping shall be polyethylene (PE) pipe (ASTM D-2513). Provide with tracer wire or magnetic tape.
- 6. Any gas piping, which is exposed, shall be painted with black "Rustoleum" paint verify color with architect.
- 7. Gas piping shall be hung tight to the roof structure, supported with hangers by Grinnell or equal.
- 8. Branch taps must be made off-of the top of the piping.
- 9. Connection to each piece of equipment shall include an inverted trap, a gas cock, a union and a dirt leg. Connections shall be rigid (no flex).
- 10. All gas flues shall be minimum of 10'-0", or as required by code, away from fresh air intakes.

#### Construction:

- 1. Contractor shall field verify all elevations, dimensions, and locations of existing features before starting work and notify engineer of any discrepancies for justification and/or corrections. The contractor/homeowner shall assume liability for all errors that are not reported. Note, the information provided in these plans is limited to the visual observation and information provided by the contractor and/or homeowner.
- 2. The engineer assumes no liability for any changes or modifications by others made to the plans in whole or in part.
- 3. Contractor is responsible for coordination of all trades involved.
- 4. Contractor to verify with owner all specific makes, models, sizes, etc. of all fixtures, furniture, cabinets, appliances, etc. to be installed.
- 5. Contractor is to review all mechanical systems (including but not limited to electrical, HVAC, plumbing, etc.) with owner prior to construction. This includes type, brand, quality, energy rating, size, etc for each particular system and its components.
- 6. All work shall conform to all local codes, ordinances, and regulations of all appropriate regulating bodies.
- 7. No soils report or site condition information provided to the engineer. Contractor to verify ground and soils conditions are acceptable for construction. Engineer shall not be liable for unforeseen site or soil conditions.
- 8. Contractor to verify if tree conflicts exist prior to construction.
- 9. All construction methods, practices, and materials to follow current building code standards except as noted. These should also be pre-approved by owner or general contractor in charge. Engineer shall not be responsible for methods, techniques, sequences, etc. of construction activities. Supervision of all work is the responsibility of the contractor.
- 10. All construction layout is the responsibility of owner or general contractor in charge.
- 11. In case of conflict between drawings and specifications the more rigid, robust, stronger, etc. to be assumed to prevail unless explicitly specified by engineer.
- 12. Wall, floor, ceiling penetrations to be per current building code standards unless otherwise specified.
- 13. Call P.U.P.S. 811 before digging.

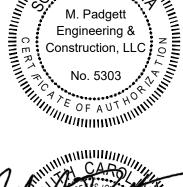
#### Plumbing Design Criteria / Property Info:

Information listed below and herein is where applicable for this project. Some items may not be relevant.

- 1. Property/Structure/Site Info:
- 1.1. Address: Per Architectural
- 2. Domestic Water Supplier
- 2.1. Town of Edisto Beach
- 3. Sewer Utility
- 3.1. Town of Edisto Beach
- 4. Natural Gas Utility
- 4.1. N/A
- 5. Weather/Environment:
- 5.1. Extreme Frost Depth: 5"
- 5.2. Climate Zone: 3
- 6. IBC Classifications:
- 6.1. Construction Type: Per Architectural
- 6.2. Occupancy Group: Per Architectural
- 7. Flood Zone: Per Architectural
- 8. Applicable Building Codes and Regulations:
- 8.1. IBC 2018 w/ SC Modifications
- 8.2. IFC 2018 w/ SC Modifications
- 8.3. IEBC 2018 w/ SC Modifications
- 8.4. IPMC 2018 w/ SC Modifications 8.5. IMC 2018 w/ SC Modifications
- 8.6. IPC 2018 w/ SC Modifications
- 8.7. IFGC 2018 w/ SC Modifications
- 8.8. NEC 2017 (NFPA 70) w/ SC Modifications
- 8.9. ICC/ANSI A117.1-2017 w/ SC Modifications
- 8.10. See International Code Council for more information: http://www.iccsafe.org/
- 8.11. See National Fire Protection Association for more information: http://www.nfpa.org/
- 8.12. Other Relevent & Current Adopted Codes
- 8.13.1. N/A
- 8.13.2. N/A
- 8.14. Zoning & Ordinances:

8.14.1. Town of Edisto Beach

M. Padgett
Engineering &
Construction, LLC



E&C

M. Padgett Engineering

& Construction, LLC

PO Box 6996,

Florence, SC 29502

tel: 843-908-4569

fax: 866-384-7749

mp.eng.con@gmail.com

www.mpadgettengineering.com



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GENERAL PLUMBING NOTES

Scale: NTS

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Proj#: J1870

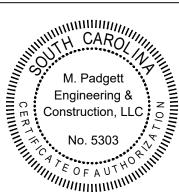
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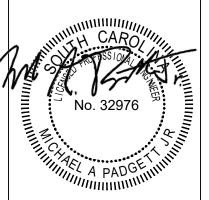
#### VALVE SYMBOLS ABBREVIATIONS SCHEMATIC SYMBOLS PIPING SYMBOLS SYMBOL ABBREVIATION/DESCRIPTION ABBREV. **DEFINITION** ABBREVIATION/DESCRIPTION SYMBOL SYMBOL DESCRIPTION ACID VENT — — — AV — — $\langle XX \rangle$ ABOVE FINISHED FLOOR KEYED NOTE ACID WASTE AWAFG ABOVE FINISHED GRADE CA COMPRESSED AIR GATE VALVE ANT ACID NEUTRALIZING TANK POINT OF CONNECTION TO EXISTING CDCONDENSATE DRAIN AVTR ACID RESISTANT VENT THROUGH ROOF EXISTING PIPE TO BE REMOVED XXXXX CWBALANCING COCK DOMESTIC COLD WATER GLOBE VALVE BOP BOTTOM OF PIPE HW**NEW PIPING** DOMESTIC HOT WATER BRITISH THERMAL UNIT HWR DOMESTIC HOT WATER RETURN EXISTING PIPING TO REMAIN BTUH BTU PER HOUR SOLENOID VALVE HW140 140° DOMESTIC HOT WATER CLOTHES WASHER BOX CWB NEW CONNECTION TO EXISTING PIPING HWR 140° DOMESTIC HOT WATER RETURN — — — — HWR 140°F — — CFH CUBIC FEET PER HOUR OS&Y VALVE CLEANOUT ROS REVERSE OSMOSIS SUPPLY COTO CLEANOUT TO GRADE ROR REVERSE OSMOSIS RETURN SLOPE OF PIPE CIRCULATION PUMP **BUTTERFLY VALVE** MU MAKE-UP WATER CWV COMBINATION WASTE AND VENT **DIRECTION OF FLOW** NPW NON-POTABLE WATER DCO DOUBLE CLEANOUT DROP IN PIPE BALL VALVE VENT DOUBLE CLEANOUT TO GRADE DIS DEIONIZED WATER SUPPLY DRINKING FOUNTAIN RISE IN PIPE CHECK VALVE DOWN DIR DEIONIZED WATER RETURN TOP CONNECTION, 45° OR 90° DOWNSPOUT SAN SANITARY SEWER PLUG VALVE DOWNSPOUT NOZZLE BOTTOM CONNECTION, 45° OR 90° — GW —— GW GREASE WASTE $\operatorname{EL}$ ELEVATION — — — — GV— — GV BALANCING VALVE/CIRCUIT MEASURING DEVICE GREASE VENT CAPPED OUTLET EWH ELECTRIC WATER HEATER STORM/ROOF DRAIN RD EWC ELECTRIC WATER COOLER WATER PRESSURE REDUCING VALVE ———— ORD ——— ORD OVERFLOW ROOF DRAIN SIDE CONNECTION EEW EMERGENCY EYEWASH LIQUIFIED PETROLEUM GAS - LPG ----LPG ES **EMERGENCY SHOWER** UNION 2-WAY CONTROL VALVE EMERGENCY SHOWER EYE WASH NG NATURAL GAS-LOW PRESSURE ⊢ G — ⊢ DEGREES FAHRENHEIT - NGM-----NGM NATURAL GAS-MEDIUM PRESSURE FLANGED UNION 3-WAY MODULATING CONTROL VALVE FCO FLOOR CLEANOUT —— NGH—— NGH NATURAL GAS-HIGH PRESSURE FINISHED FLOOR ELEVATION IRR IRRIGATION ORIFICE UNION FΤ **FEET** SCW SOFT COLD WATER FUEL GAS PRESSURE REGULATOR FUEL OIL SUPPLY FOS SHW SOFT HOT WATER FOR FUEL OIL RETURN REDUCER OR INCREASER ⊢ — — TWR (\_ \_ \_) — → TWR TEMPERED WATER RETURN (TEMP ° FOV FUEL OIL VENT PRESSURE RELIEF VALVE ECCENTRIC REDUCER TWTEMPERED WATER (TEMP °F) FLUSH VALVE FV **GUTTER DRAIN** PD PUMPED DISCHARGE LINE PIPE GUIDE TEMPERATURE AND PRESSURE RELIEF VALVE GI GREASE INTERCEPTOR **ICW** INDUSTRIAL COLD WATER GALLONS PER HOUR IHW INDUSTRIAL HOT WATER FLEXIBLE CONNECTION GPM DRAIN VALVE GALLONS PER MINUTE ⊢ — — — IHWR—— **IHWR** INDUSTRIAL HOT WATER RETURN GAS WATER HEATER GWH \_\_\_\_\_ INW \_\_\_\_\_ INW INDUSTRIAL WASTE UNIVERSAL TEMPERATURE-PRESSURE HOSE BIBB IΑ INSTRUMENT COMPRESSED AIR FITTING (PETE'S PLUG) HEAD HDVALVE IN VERTICAL IW⊢ IW — INDIRECT WASTE HORSEPOWER STRAINER WITH BLOWDOWN VALVE LA LAB COMPRESSED AIR **INCHES** & HOSE BIBB FLOW SWITCH INV INVERT THERMOMETER KILOWATT 1,000 BTUH DIAPHRAGM (PROCESS SYSTEMS) PRESSURE GAUGE AND GAUGE COCK MIXING VALVE NA NOT APPLICABLE AQUASTAT SITE UTILITY SYMBOLS REDUCED PRESSURE BACKFLOW PREVENTER (RPBP) NIC NOT IN CONTRACT NUMBER **ABBREV DEFINITION** WATER HAMMER ARRESTOR NORMALLY CLOSED ATMOSPHERIC VACUUM BREAKER N.O. NORMALLY OPEN TEST PLUG (PRESS/TEMP) OUTSIDE SCREW AND YOKE PENETRATION SANITARY SEWER POWERS OF HARDNESS POUNDS PER SQUARE INCH GAUGE PRESSURE STYLE MANUAL AIR VENT (MAV) COLD WATER SUPPLY STATIC PRESSURE VACUUM BREAKER TRENCH DRAIN AUTOMATIC AIR VENT (AAV) FIRE PROTECTION TYPICAL FS/FD/AD FLOOR SINK, FLOOR DRAIN, AREA DRAIN YARD BOX ΥH YARD HYDRANT NATURAL GAS FCO/COTG FLOOR CLEANOUT/CLEANOUT TO GRADE WCO WALL CLEANOUT DCOTG 2-WAY OR DOUBLE CLEANOUT TO GRADE WC WATER CLOSET STORM DRAIN RD/OD/DD ROOF/OVERFLOW/DECK DRAIN IRRIGATION VALVE WITH VALVE BOX TRAP PRIMER WITH ACCESS PANEL FIRE HYDRANT VENT THROUGH ROOF F.D.C. FIRE DEPARTMENT INLET CONNECTION AIR GAP FITTING CONSTRUCTION (WH) (HB) WALL HYDRANT, HOSE BIBB $\bigcirc$ THRUST BLOCK CLEANOUT POWER POLE **FENCING** LIGHT POLE WATER METER GM NATURAL GAS METER GATE VALVE VALVE IN RISER POST INDICATOR VALVE REDUCED PRESSURE BACKFLOW PREVENTER SANITARY MANHOLE 255' OF 6" @ 0.15%SLOPE SLOPE AND LINEAL FOOTAGE

PLUMBING SYMBOL LEGEND (NOTE: NOT ALL SYMBOLS MAY BE APPLICABLE TO THIS PROJECT)

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M. Padgett Engineering & Construction, LLC PO Box 6996, Florence, SC 29502 tel: 843-908-4569 fax: 866-384-7749 mp.eng.con@gmail.com www.mpadgettengineering.com





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13 Murray St.

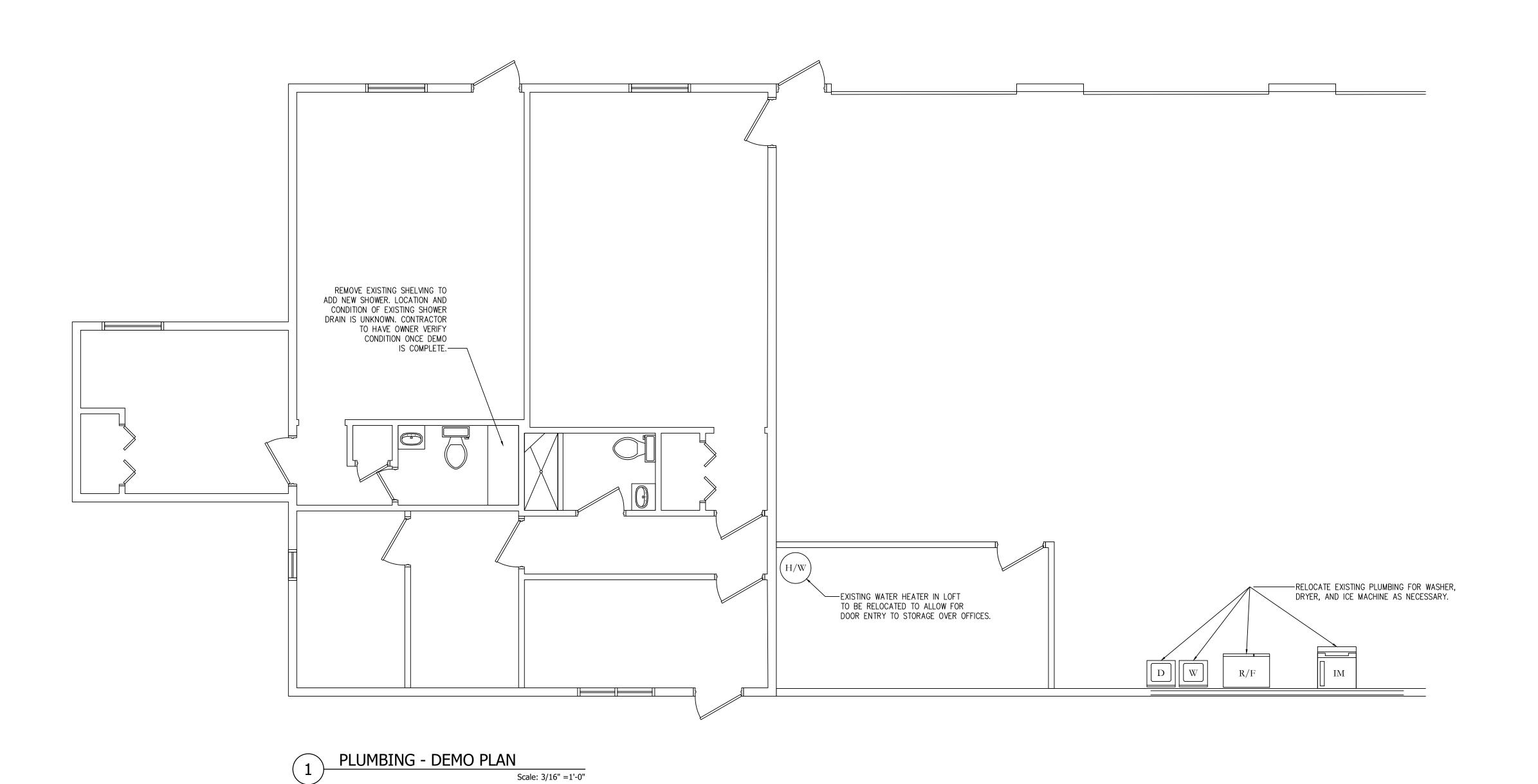
PLUMBING SYMBOLS

Scale: NTS

Drawn: TMH
Check: MP

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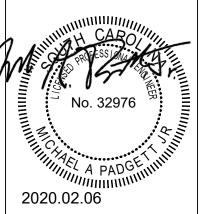
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PLUMBING DEMO PLAN

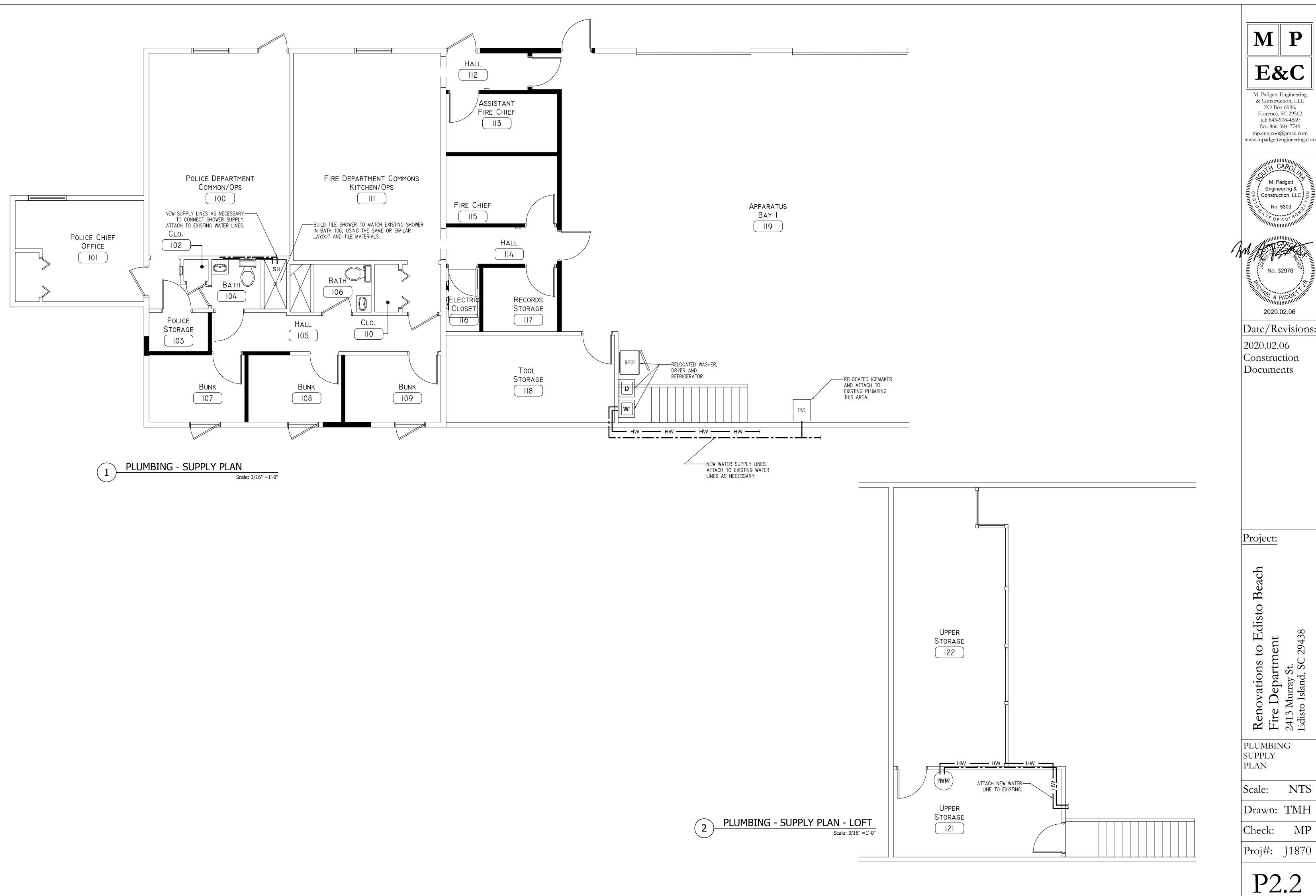
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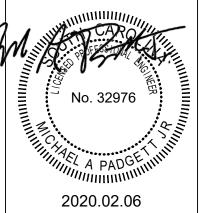
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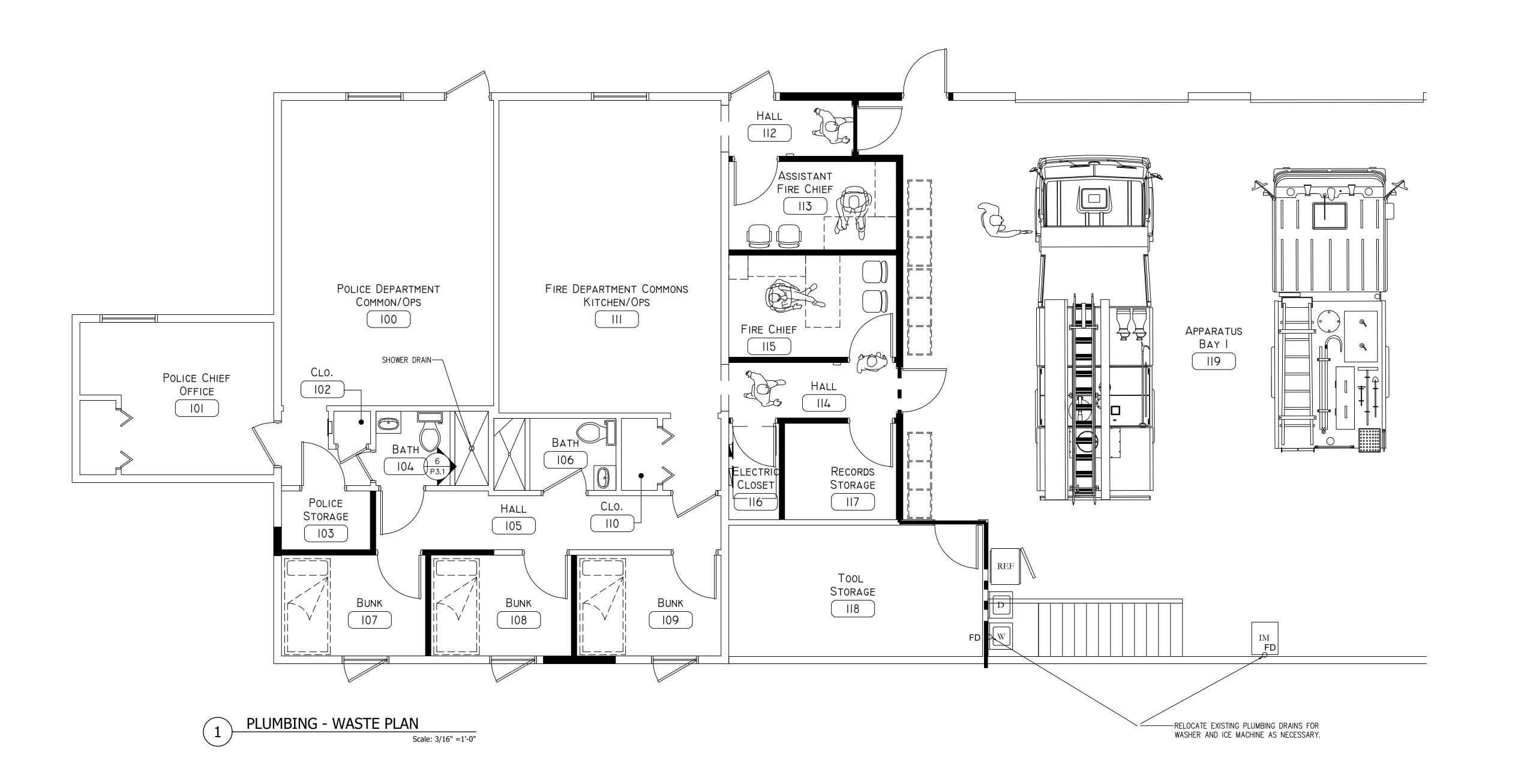
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PLUMBING SUPPLY PLAN

Scale: NTS

Drawn: TMH

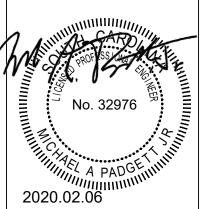
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PLUMBING WASTE PLAN

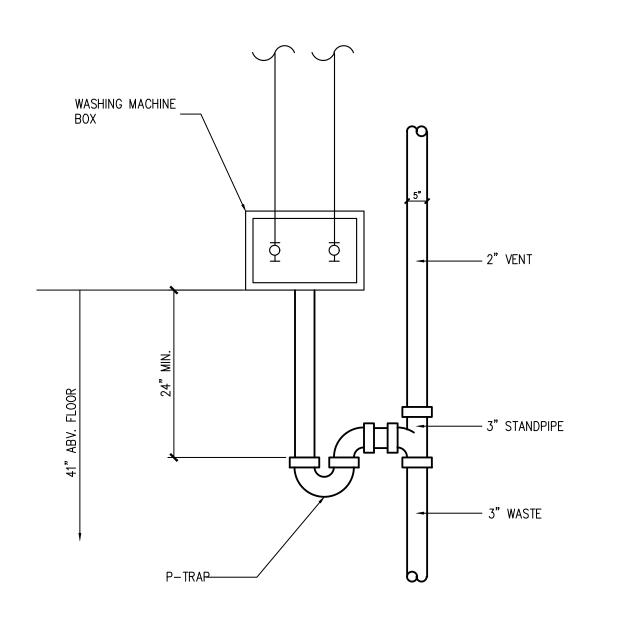
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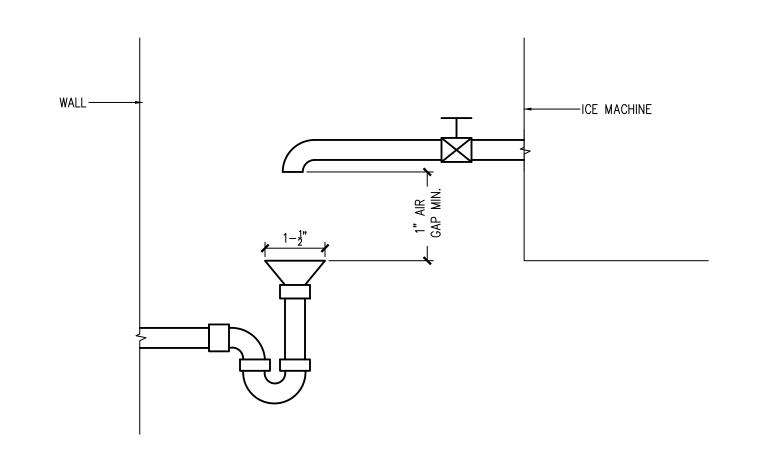
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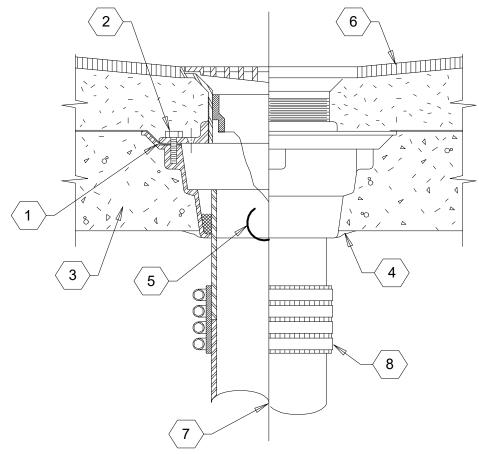




-WALL FRAMING -BACKER BOARD TILE/WALL FINISH TILE/FINISH FLOOR TILE/FINISH FLOOR -REINFORCED CONRETE CURB BONDED TO SLAB EXISTING SLAB -BASE @ 2%-4% SLOPE —SLOPED MORTAR BED REINFORCED W/2X2 WWM DETAIL THRU SHOWER

WAHING MACHINE HOOK-UP/DRAIN DETAIL

ICE MACHINE DRAIN DETAIL



- (1) FLOOR DRAIN WITH ADJUSTABLE STRAINER, DOUBLE DRAINAGE FLANGE AND WEEP HOLES. SEE FLOOR DRAIN SPECIFICATIONS
- 2 CLAMP TO 24"x24" 4# LEAD SHEET AND WATERPROOFING MEMBRANE (NOT REQUIRED FOR SINGLE POUR CONSTRUCTION)
- 3 CONCRETE FLOOR OF TWO POUR CONSTRUCTION
- 4 CAULK AS REQUIRED ON INSTALLATION ABOVE GRADE

- 5 TRAP GUARD WATER SAVING DEVICE SIZED PER DRAIN (IF SPECIFIED)
- 6 FINISHED FLOOR SLOPED IN ACCORDANCE WITH ARCH. DRAWINGS. COORDINATE WITH STRUCTURAL
- 7 SEE PLUMBING FLOOR PLANS FOR SIZING AND P-TRAP REQUIREMENTS
- 8 FOUR BAND HEAVY DUTY CLAMP, SEE SPECIFICATIONS
- FLOOR/SHOWER DRAIN DETAIL Scale: NTS

 $\langle$  8  $\rangle$  4" MIN. HOUSEKEEPING PAD

9 CIRCUIT SETTER/BALANCING VALVE  $\langle 10 \rangle$  PETE'S PLUGS (TYPICAL)

FINISH FLOOR

 $\langle$  11  $\rangle$  HEAT TRAP PER MFG. SPEC'S

MECHANICAL

11

 $\langle$  12 $\rangle$  UNION (TYPICAL)  $\left< 13 \right>$  COMBUSTION AIR INTAKE AND FLUE BY

14 DOMESTIC WATER HEATER P9

NOTE: INSTALL THERMOSTATIC MIXING VALVE ASSEMBLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION. PROVIDE PIPING SCHEMATIC WITH SUBMITTALS

12

3

(1) EXPANSION TANK P10

3 PLUG VALVE W/DIRT LEG

4 THERMOMETER (TYPICAL)

6 RECIRCULATION PUMP P11

(IF REQUIRED)

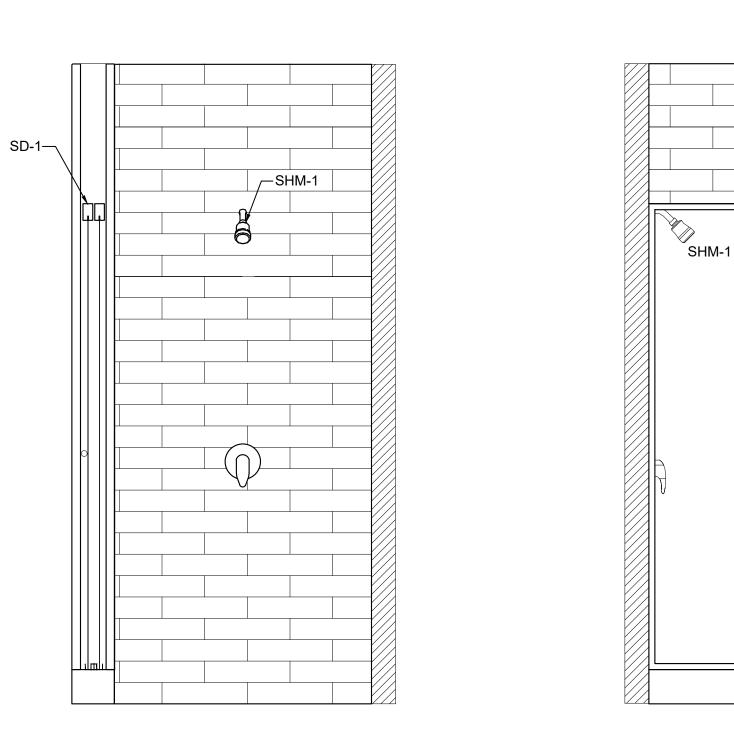
5 THERMOSTATIC MIXING VALVE P12

7 SEISMIC STRAPPING PER UPC 508.2

2 > FULL SIZED T&P RELIEF VALVE

INDIRECTLY DISCHARGED TO FLOOR SINK, 2X PIPE DIA.





SHOWER FIXTURE SCHEDULE

SHOWER ELEVATION AND FIXTURE SCHEDULE

Scale: NTS

SD-1

NTS Scale: Drawn: TMH

> MPCheck:

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DETAILS

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E&C

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& Construction, LLC PO Box 6996,

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fax: 866-384-7749

mp.eng.con@gmail.com www.mpadgettengineering.com

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DOMESTIC WATER HEATER DETAIL-TYPICAL