BID SET CONSTRUCTION DOCUMENTS FOR

NEW CONSTRUCTION OF

CITY OF COLUMBIA FIRE & RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

ARCHITECTURAL AND CIVIL:

Renaissance Group
architecture ▪ engineering ▪ planning ▪ interiors
9700 Village Circle, ste.100
Lakeland, tn 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

STRUCTURAL, MECHANICAL:

Smith Seckman Reid
2650 Thousand Oaks Blvd, Suite 3200
Memphis, TN 38118
Voice: 901.683.3900

ELECTRICAL:

Chad Stewart & Associates
9700 Village Circle, Suite 300
Lakeland, TN 38002
Voice: 901.260.7850

SET NO.

INDEX OF DRAWINGS

		03/03/18 CODE SET	04/13/18 BID SET	ISSUE DATE 3
PR1	Unnamed			
GENERAL				
G0.0	COVER SHEET	•	•	
G0.1	GENERAL INFORMATION	•	•	
G0.2	CODE PLANS	•	•	
LIFE SAFETY				
LS.1	LIFE SAFETY PLANS	•	•	
CIVIL				
C1.1	SITE PLAN	•	•	
C1.2	SITE DETAILS	•	•	
C2.1	GRADING & DRAINAGE	•	•	
C2.2	GRADING DETAILS 1	•	•	
C2.3	GRADING DETAILS 2	•	•	
C3.1	EPSC PH.1	•	•	
C3.2	EPSC PH.2	•	•	
C3.3	EPSC DETAILS	•	•	
C4.1	UTILITY	•	•	
ARCHITECTURAL				
A1.1	SITE PLAN	•	•	
A1.2	SITE DETAILS	•	•	
A2.1	FLOOR PLANS	•	•	
A2.2	DIMENSION PLANS	•	•	
A2.3	REFLECTED CEILING PLANS	•	•	
A2.4	ROOF PLAN	•	•	
A3.1	EXTERIOR ELEVATIONS	•	•	
A3.2	EXTERIOR ELEVATIONS	•	•	
A4.1	BUILDING SECTIONS	•	•	
A4.2	BUILDING SECTIONS	•	•	
A4.3	WALL SECTIONS	•	•	
A4.4	WALL SECTIONS	•	•	
A4.5	WALL SECTIONS	•	•	
A4.6	WALL SECTIONS	•	•	
A4.7	EXTERIOR DETAILS	•	•	
A4.8	STAIR DETAILS	•	•	
A5.1	ENLARGED PLANS AND INT. ELEVATIONS	•	•	
A5.2	INTERIOR ELEVATIONS	•	•	
A5.3	INTERIOR ELEVATION	•	•	
A5.4	INTERIOR ELEVATION	•	•	
A5.5	MILWORK DETAILS	•	•	
A6.1	DOOR SCHEDULE	•	•	
A6.2	DOOR DETAILS	•	•	
A7.1	WINDOW TYPES & DETAILS	•	•	
A8.1	FINISH SCHEDULE	•	•	
A8.2	FURNITURE PLAN	•	•	
STRUCTURAL				
S0.1	STRUCTURAL GENERAL NOTES	•	•	
S0.2	SPECIAL INSPECTIONS	•	•	
S0.3	STRUCTURAL DETAILS MISCALANIOUS	•	•	
S2.0	FOUNDATION SLAB PLAN	•	•	
S2.1	ROOF FRAMING PLAN	•	•	
S4.0	FOUNDATION DETAILS	•	•	
S4.1	FRAMING DETAILS	•	•	
S4.2	FRAMING DETAILS	•	•	
S4.3	MOMENT CONNECTION	•	•	
FIRE PROTECTION				
FP0.0	FIRE PROTECTION NOTES AND LEGEND	•	•	
FP2.1	FLOOR PLANS - FIRE PROTECTION	•	•	
FP3.1	FIRE PROTECTION DETAILS	•	•	
MECHANICAL				
M0.0	GENERAL NOTES AND LEGENDS	•	•	
M0.1	SCHEDULES MECHANICAL	•	•	
M1.1	FLOOR PLANS-MECHANICAL	•	•	
M1.2	FLOOR PLANS-MECHANICAL PIPING	•	•	
M3.1	ROOF PLAN-MECHANICAL	•	•	
M5.1	DETAILS-MECHANICAL	•	•	
M5.2	SEISMIC DETAILS-MECHANICAL	•	•	
M5.3	KITCHEN HOOD	•	•	
PLUMBING				
P0.1	GENERAL NOTES, SCHEDULES AND LEGEND - PLUMBING	•	•	
P2.1	FLOOR PLANS-WASTE AND VENT	•	•	
P2.2	FLOOR PLAN-WATER	•	•	
P3.1	PLUMBING DETAILS	•	•	
P3.2	PLUMBING DETAILS	•	•	
P3.3	PLUMBING DETAILS	•	•	
ELECTRICAL				
E0.1	SITE PLAN - ELECTRICAL	•	•	
E1.1	FLOOR PLANS - LIGHTING	•	•	
E2.1	FIRST FLOOR PLAN - POWER	•	•	
E2.2	SECOND FLOOR PLAN - POWER	•	•	
E2.3	ENLARGED POWER PLANS	•	•	
E2.4	ROOF PLAN - POWER	•	•	
E3.1	ELECTRICAL SCHEDULES	•	•	
E3.2	ELECTRICAL DETAILS	•	•	
E3.3	ELECTRICAL DETAILS	•	•	
E4.1	ONE LINE DIAGRAM - ELECTRICAL	•	•	
E4.2	PANELBOARD SCHEDULES	•	•	

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
NO. 101065
STATE OF TENNESSEE
9/28/2018

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
COVER SHEET

Project No.
17032

Drawn by
REC

Date
09/27/18

Sheet No.
G0.0

renaissance group
S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/28/2018 1:52:24 PM

ABBREVIATIONS

AB	ANCHOR BOLT
ACT	ACOUSTIC TILE
ABV	ABOVE
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECT(URAL)
BD	BOARD
BG	BUMPER GUARD
BLDG	BUILDING
BLK	BLOCK(ING)
BM	BEAM
BO or B/	BOTTOM OF
BRZ	BRONZE
BTW	BETWEEN
CB	CATCH BASIN
CC	COLUMN COVER
CEM	CEMENT (ITIOUS)
CF	COMPRESSIBLE FILLER
CG	CORNER GUARD
CJ	CONTROL JOINT
CK	CARD KEY
CL	CENTER LINE
CLDG	CLADDING
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
COMP	COMPOSITION
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONTR	CONTRACTOR
CONT	CONTINUOUS
COORD	COORDINATE
CP	CEMENT PLASTER
CPT	CARPET
CR	CARD READER
CT	CERAMIC TILE
CTR	CENTER
CTRSK	COUNTERSUNK
DB	DRY BULB
DBL	DOUBLE
DEM	DEMOUNTABLE
DIA	DIAMETER
DIM	DIMENSION
DIST	DISTRIBUTION
DN	DOWN
DP	DAMP PROOFING
DR	DOOR
DS	DOWN SPOUT
DTL	DETAIL
DWG	DRAWING
EXIST (E)	EXISTING
EA	EACH
EDF	ELECTRIC DRINKING FOUNTAIN
EWSS	EYEWASH/ SAFETY SHOWER
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EM	EMERGENCY
ENCL	ENCLOSURE
ENG	ENGINEER
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EMERGENCY SHOWER
EW	EYE WASH
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXP	EXPOSED
EXT	EXTERIOR
FL	FLOOR
FA	FIRE ALARM
FB	FLAT BAR
FC	FINISH(ED) CEILING
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FIN	FINISH(ED)
FOB	FACE OF BRICK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOS	FACE OF STUD
FP	FIRE PROOFING
FRP	FIRE RATED POLYPROPYLENE
FS	FIRESTOP
FT	FOOT/FEET
FTG	FOOTING
FURR	FURRING
FV	FIELD VERIFY
FVC	FIRE VALVE CABINET
FXT	FIXTURE
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GL	GLASS
GR	GRANITE
GYPBD	GYPSUM BOARD
GWB	GYPSUM WALLBOARD
H	HIGH
HC	HOLLOW CORE
HCP	HANDICAP(PED)
HD	HEAD
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR (FIRE RESISTANCE)
HSS	HOLLOW STRUCTURAL SHAPE
HT	HEIGHT
HWD	HARDWOOD
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
JT	JOINT
LAM	LAMINATE
LAV	LAVATORY
LF	LINEAR FOOT/FEET
LT	LIGHT
LOC	LOCATION
LP	LOW POINT
LL	LIVE LOAD
MACH	MACHINE
MAT	MATERIAL
MAX	MAXIMUM
MB	MARKER BOARD
MECH	MECHANICAL
MFR	MANUFACTURER
MR	MOISTURE RESISTANT
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MTD	MOUNTED
(N)	NEW
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
O/	OVER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFD	OVER FLOW DRAIN
OH	OVERHEAD
OHD	OVERHEAD DOOR
O/O	OUTSIDE OF
OPNG	OPENING
OPP	OPPOSITE
PAF	POWER ACTUATED FASTENER
PC	PRECAST CONCRETE
PL	PLATE
PERM	PERIMETER
PKG	PARKING
PERF	PERFORATED
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PNL	PANEL
POL	POLISHED
PR	PAIR
PRESS	PRESSURE, PRESSURIZATION
PS	PROJECTION SCREEN
PT	PAINT
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PWD	PLYWOOD
R	RISER
RAD	RADIUS
RAU	RETURN AIR UNIT
RB	RESILIENT BASE
RD	ROOF DRAIN
REF	REFERENCE
REIN	REINFORCE(D), REINFORCING
REQD	REQUIRED
RET	RETAINING
RM	ROOM
RO	ROUGH OPENING
SAN	SANITARY
SC	SOLID CORE
SD	SQUARE DRIVE
SECT	SECTION
SERV	SERVICE
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SLNT	SEALANT
SMS	SHEET METAL SCREW
SPEC	SPECIFICATION
SQ	SQUARE
S/R	SUPPLY/RETURN
SS	STAINLESS STEEL
SCHED	SCHEDULE(D)
STD	STANDARD
STL	STEEL
STRUC	STRUCTURE, STRUCTURAL
SUSP	SUSPEND(ED)
SV	SMOKE VENT
T	TREAD
T/	TOP OF
T/B	TOP & BOTTOM
T&B	TOP & BOTTOM
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPERED
TERR	TERRAZO
THK	THICK(NESS)
THLD	THRESHOLD
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOD	TOP OF DECK
TOP	TOP OF PARAPET
TOR	TOP OF ROOF
TOS	TOP OF SLAB
TS	TUBE STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VAR	VARY/VARIES
VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
W	WIDE
WB	WET BULB
W/	WITH
W/O	WITHOUT
WD	WOOD
WP	WATERPROOFING
WR	WATER RESISTANT
WT	WEIGHT
WPT	WORK POINT
WW	WINDOW WASHING
WWF	WELDED WIRE FABRIC

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
2. ALL CAVITY WALLS SHALL HAVE MEMBRANE FLASHING INSTALLED ABOVE ALL DOOR HEADS, & WINDOW HEADS EXTENDING 8" MINIMUM BEYOND JAMBS, CONTINUOUS ABOVE GRADE (BELOW FINISHED FLOOR). MEMBRANE FLASHING SHALL BE SEALED AT ALL LAP JOINTS. ALL MEMBRANE FLASHING SHALL HAVE MORTAR NET INSTALLED ABOVE.
3. ALL GRADES INDICATED ON THE DRAWINGS ARE FINISHED GRADES. CONTRACTOR TO CONSIDER THICKNESS OF MATERIALS PRIOR TO FINE GRADING. ALL WEEP HOLES SHALL REMAIN EXPOSED AT ALL TIMES. ALL FINISHED GRADING SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING TO DRAIN LOCATIONS. CONTRACTOR TO VERIFY ALL FINISHED GRADES DRAIN AND DO NOT HOLD WATER.
4. CONTRACTOR AND SUB-CONTRACTORS TO BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS ON DRAWINGS AS IT RELATES TO THEIR WORK PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCIES WITH ARCHITECT. NO WORK OR ORDERING OF MATERIAL SHALL BE STARTED UNTIL ALL DIMENSIONED ITEMS HAVE BEEN RESOLVED. NO EXTRA CHARGE OF COMPENSATION WILL BE ALLOWED ON ACCOUNT OF ANY DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND THE MEASUREMENTS WHICH MAY BE FOUND AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL ASSUME FULL AND UNDIVIDED RESPONSIBILITY FOR THE ACCURACY, FIT, AND STABILITY OF ALL PARTS OF THE WORK.
5. ALL WORK SHALL BE CONSIDERED NEW UNLESS OTHERWISE INDICATED.
6. CONTRACTORS SHALL NOT SCALE THESE DRAWINGS FOR CONSTRUCTION PURPOSES, IN THE EVENT OF OMISSION OF NECESSARY DIMENSIONS OR INFORMATION, CONTRACTOR SHALL NOTIFY ARCHITECT.
7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION OF EXISTING WORK AND NEWLY ADDED WORK.
8. ANY DISTURBANCE OR DAMAGE TO THE EXISTING BUILDING OR UTILITIES RESULTING EITHER DIRECTLY OR INDIRECTLY FROM THE OPERATION OF THIS CONTRACT SHALL BE PROMPTLY REPAIRED, RESTORED, OR REPLACED TO THE SATISFACTION OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTION, AND MISALIGNMENT ACCORDING TO APPLICABLE CODES AND STANDARDS.
10. THE CONTRACTOR SHALL COORDINATE THE WORK WITH MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ALL NECESSARY OPENINGS AND PENETRATIONS THROUGH WALL, CEILINGS, AND FLOORS. FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE MANUFACTURER'S STANDARD DETAILS OR APPROVED SHOP DRAWINGS / DATA SHEETS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
11. ALL EXPOSED PIPES, CONDUITS, OR DUCTS IN FINISHED AREAS, WHETHER SHOWN ON DRAWINGS OR NOT, SHALL BE FURRED OUT WITH GYPSUM BOARD.
12. ALL PLUMBING, ELECTRICAL, AND MECHANICAL WORK WHICH WILL BE ABANDONED FOR PROPOSED CONSTRUCTION WORK SHALL BE CUT BACK, REROUTED, CAPPED, AND SAFED-OFF.
13. ALL MATERIALS AND CONSTRUCTION TO BE INCORPORATED IN THE WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE ASTM SPECIFICATIONS APPLICABLE AND SHALL CONFORM TO THE STANDARDS AND RECOMMENDATION OF THE VARIOUS TRADE INSTITUTES (A.C.I., A.I.S.C., ETC.) WHERE APPLICABLE.
14. CEILING HEIGHTS SCHEDULED ON THE ROOM CRITERIA MATRIX OR REFLECTED CEILING PLAN ARE TAKEN FROM THE FINISHED FLOOR ELEVATION.
15. ALL FINISHED FLOOR ELEVATIONS ON ARCHITECTURAL SHEETS REFER TO ARCHITECTURAL DRAWINGS ONLY. REFER TO THE CIVIL DRAWINGS FOR RELATIONSHIP TO PROJECT BENCHMARK(S).
16. ALL PRODUCTS USED IN CONSTRUCTION SHALL BE ASBESTOS FREE.
17. ALL DOORS ADJACENT TO WALLS ARE GIVEN AS 6 INCHES FROM FACE OF JAMB TO FACE OF FINISH OF ADJACENT WALL OR CENTERED IN WALL UNO.
18. TRANSITION OF DIFFERENT FLOORING MATERIALS AT DOORWAYS SHALL OCCUR AT CENTERLINE OF DOORS TYPICALLY.
19. "TYP" - REPEAT WHENEVER THIS CONDITION OCCURS
20. "SIM." - REPEAT AND MODIFY AS REQUIRED TO SUIT CONDITION
21. CEILING HEIGHTS SCHEDULED ON THE ROOM CRITERIA MATRIX OR REFLECTED CEILING PLAN ARE TAKEN FROM THE FINISHED FLOOR ELEVATION.
22. PROVIDE SEALANT AS PER MANUFACTURER'S RECOMMENDATIONS AT THE INTERSECTIONS OF ALL DISSIMILAR MATERIALS. SUBMIT TECHNICAL DATA AND COLOR SAMPLES TO OWNER FOR APPROVAL.
23. CONTRACTOR AND SUBCONTRACTORS SHALL VERIFY THAT ALL CONSTRUCTION AND/OR MATERIALS MEET TITLE III OF THE AMERICANS WITH DISABILITIES ACT (ADA). GENERAL CONTRACTOR MUST HAVE A CURRENT COPY OF ADA REGULATIONS ON SITE.
24. GENERAL CONTRACTOR SHALL COORDINATE ALL EQUIPMENT AND REQUIREMENTS FOR BLOCKING WITH MANUFACTURER REQUIREMENTS. ALL IN WALL BLOCKING SHALL BE FIRE-TREATED WOOD BLOCKING. ALL EQUIPMENT SHALL BE INSTALLED AS PER MANUFACTURERS REQUIREMENTS.
25. GENERAL CONTRACTOR SHALL VERIFY WITH ALL LOCAL AGENCIES THE REQUIRED CLEARANCES FOR ITEMS INCLUDING BUT NOT LIMITED TO: TRANSFORMERS, BACK-UP GENERATORS, CONDENSING UNITS, ETC. REPORT ALL DISCREPANCIES TO ARCHITECT BEFORE ANY INSTALLATION BEGINS.
26. MANUFACTURER REPRESENTATIVE SHALL INSPECT VAPOR RETARDER INSTALLATION AND SUBMIT LETTER OF APPROVAL TO ARCHITECT BEFORE CONCRETE SLAB IS POURED.
27. MANUFACTURER REPRESENTATIVE SHALL INSPECT AND APPROVE FLUID APPLIED AIR BARRIER INSTALLATION. LETTER OF APPROVAL MUST BE ON FILE WITH ARCHITECT BEFORE BRICK AND BLOCK VENEER CAN BEGIN. CONSULT WITH MANUFACTURER AND PREPARE ALL REQUIRED OPENINGS IN SHEATHING WITH PROPER FLASHING AND AIR BARRIER.
28. ALL EXPOSED STEEL INCLUDING BUT NOT LIMITED TO, LINTELS, DUMPSTER ENCLOSURE GATES, STEEL STRUCTURE, EXTERIOR HOLLOW METAL DOORS AND FRAMES, ARE TO RECEIVE EPOXY COATING FINISH; COLOR AS SELECTED BY ARCHITECT. REF. SPEC SECTION 09970.
29. GENERAL CONTRACTOR, OWNER, AND ARCHITECT TO INSPECT ALL MEMBRANE FLASHING AND SHEATHING TO ENSURE PROPER INSTALLATION AT ALL AREAS OF EXTERIOR WALLS.
30. GENERAL CONTRACTOR MUST KEEP A SAMPLE BOARD OF ALL FINISHES AND MATERIALS FOR PROJECT IN JOB TRAILER FOR REFERENCE.
31. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND SUBCONTRACTORS TO VERIFY THAT ALL SHOP DRAWINGS AND SUBMITTALS MEET ALL CODE REQUIREMENTS AND REQUIREMENTS FROM THE CITY OF MEMPHIS PRIOR TO SUBMISSION TO ARCHITECT OR ENGINEERS FOR APPROVAL.
32. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL VERIFY THE LOCATIONS OF DUCT MOUNTED SMOKE DETECTORS W/ INSPECTORS AND FIRE DEPARTMENT PRIOR TO INSTALLATION.
33. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND MECHANICAL SUBCONTRACTOR TO REGULARLY INSPECT & CHANGE AIR FILTERS IN HVAC EQUIPMENT AS REQUIRED BY THE OWNER.
34. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND SUBCONTRACTORS TO VERIFY THAT ALL INSTALLED MATERIALS, ITEMS, AND/OR COMPONENTS MEET THE REQUIRED ADA CLEARANCES AND TOLERANCES.
35. INSTALL ATTIC INSULATION OVER ALL WET PIPING - TYPICAL. PROVIDE INSULATION WRAP AT ALL AREAS OF PIPING THAT IS NOT COVERED WITH INSULATION.

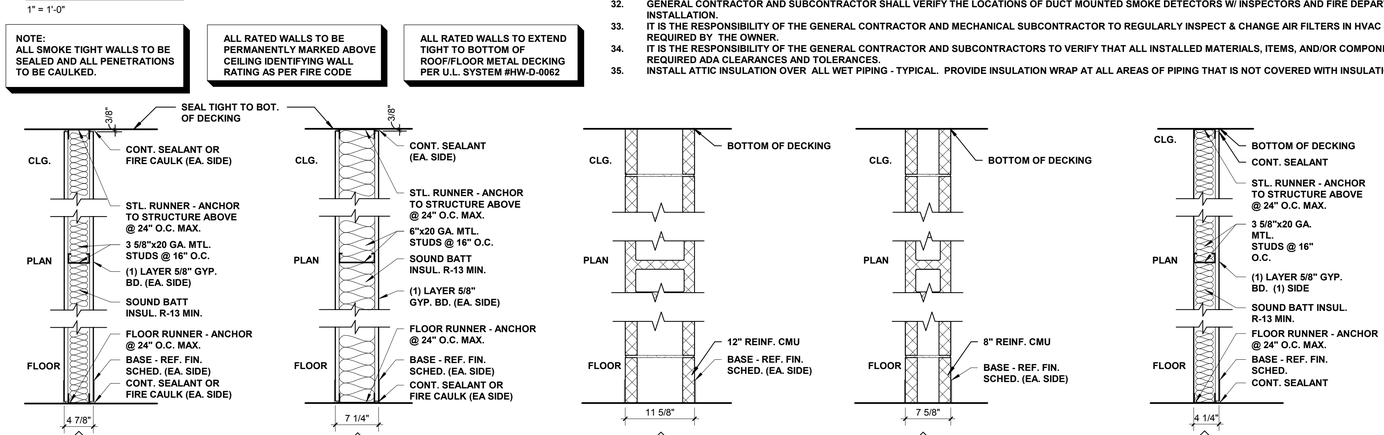
WALL TYPES

1" = 1'-0"

NOTE:
ALL SMOKE TIGHT WALLS TO BE SEALED AND ALL PENETRATIONS TO BE CAULKED.

ALL RATED WALLS TO BE PERMANENTLY MARKED ABOVE CEILING IDENTIFYING WALL RATING AS PER FIRE CODE

ALL RATED WALLS TO EXTEND TIGHT TO BOTTOM OF ROOF/FLOOR METAL DECKING PER U.L. SYSTEM #HW-D-0062



Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
No. 101065
STATE OF TENNESSEE
04/13/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
GENERAL INFORMATION

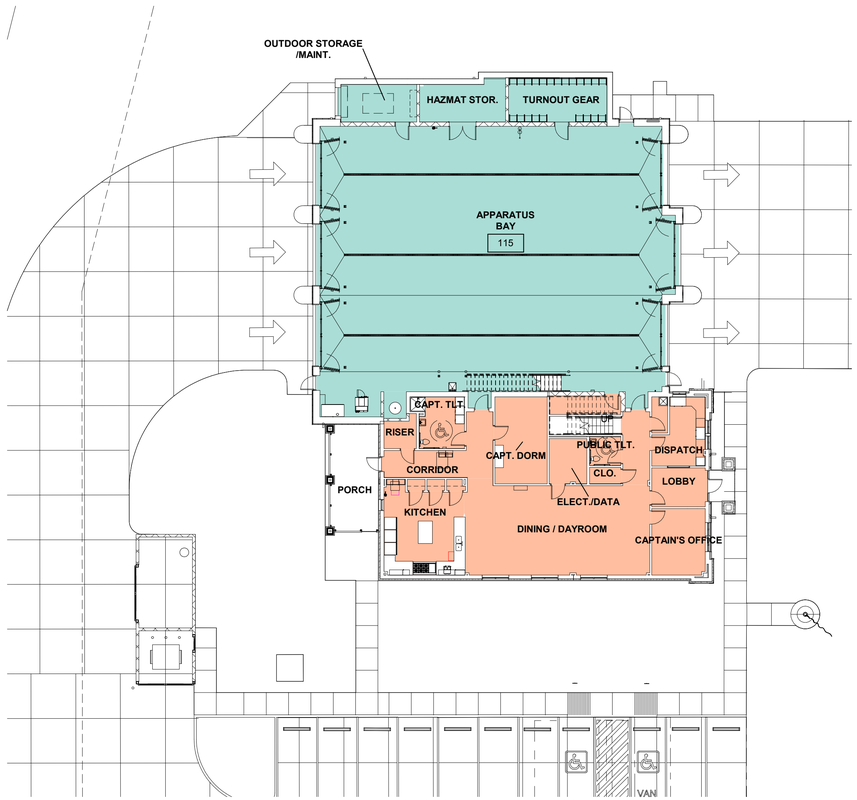
Project No.
17032

Drawn by
REC

Date
04/13/18

G0.1
Sheet No.

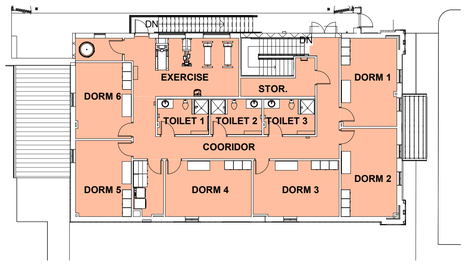
r e n a i s s a n c e g r o u p
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcoln@rgroup.biz.rvt
4/16/2018 1:21:04 PM



1 FIRST FLOOR CODE PLAN
1/16" = 1'-0"

OCCUPANCY LEGEND

- R-2 RESIDENTIAL
- S-1 STORAGE



2 SECOND FLOOR CODE PLAN
1/16" = 1'-0"

PROJECT DATA

A. GENERAL COMMENTS

1. Applicable Codes

City of Columbia, TN Code Enforcement
2012 International Building Code (IBC) including Appendices D and G
2012 International Mechanical Code
2012 International Fuel Gas Code
2012 International Fire Code including Appendices B, C, and D
2012 International Plumbing Code
2009 International Energy Conservation Code
2011 National Electric Code
2009 ICC/ANSI A117.1-2009 Accessible and Usable Buildings and Facilities
2012 NFPA Life Safety Code 101

2. This project shall comply with the Americans with Disabilities Act (ADA)

3. Project Name: Fire Rescue No. 3

4. Project Location: Columbia, TN

5. Project Description: New Construction of a two story fire station.

B. BUILDING

1. New Construction occupancy type
   a. Non-separated mixed use (IBC 508.3)
   b. Groups S-1/R-2: Storage/Residential (IBC - Section 311)
2. Area:
   a. The maximum allowable area is 17,500 sq. ft. per floor (IBC - Table 503)
   b. Sprinkler increase 200% = 52,500 sq. ft. (IBC - 506.3)
   c. Frontage increase .75 = 13,125 sq. ft.
      Allowable with increases = 83,125 sq. ft.
   d. Building square footage: 11,613 sq. ft. (8,594 first floor + 3,019 second floor)
   e. Canopies square footage: 405 sq. ft.
   f. Building total square footage with canopies: *12,018 sq. ft.*
3. Height:
   a. The maximum allowable height is 55 ft. (IBC - Table 503)
   b. The actual building height is:
   34'-0" to top of parapet.
4. Type of Construction: Type IIB - sprinkled
   a. Construction Materials To Be: (Table 601)
      (1.) Exterior Walls - brick veneer and metal studs/cmu - rated 0
      (2.) Interior Walls - metal studs and gyp. bd./cmu - rated 0
      (3.) Roof Structure - light gauge trusses and metal decking. - rated 0 fire resistance
      (4.) Corridor Walls (Table 1016.1) - rated 0 fire resistance
      (5.) Sleep Rooms Walls (709.3 Exception 2) - rated 30 minute

6. Max. Travel Distance to an exit:
   a. 250 ft. travel distance to exit. (LSC 26-2.6/IBC table 1016.1)
   b. Maximum dead end corridor length shall not exceed 50 ft. (sprinklered)

7. Earthquake Resistance:
   a. Ref. structural for design loads.

8. Occupant Load for determining Means of Egress: (IBC Table 1004.1.2)
   a. First floor = 42 persons
   b. Second floor = 25 persons
   c. Total occupant load = 67occupants

9. Number of Exits and Continuity: (IBC Table 1021.2)
   a. Stories with one exit: Storage Occupancy - ***max 29 persons and 75 feet travel distance***
   b. Second floor Workout Room with one exit = 17 persons and 49 feet travel distance

10. Means of Egress Width per Occupant: 0.2 inches per person (IBC Table 1004/LSC 7.3.3)
   a. Minimum corridor/aisle width is 44 inches
   b. Minimum clear opening of an exit door is 33.6 inches.
   c. Minimum clear stair width is 44 inches.
      1. 13.4 inches of egress width required (67 persons x 0.2 inches/person)
      2. 50% of the capacity to exit out main entrance 6.7 inches required
      3. Total provided at main entrance 340 inches total for floor 660 inches
   d. Minimum clear opening of an exit door is 32 inches. .(IBC Table 1004)/LSC 7.2.1.2.3)
      (1) 33" provided

11. Plumbing Fixture Requirements: (IBC Table 2902.1)
Classification - R-2 Residential
   a. Occupants = 42 occupants

Plumbing Fixtures	Required	Provided
Men toilets	1	3
Women toilets	1	1
Unisex toilets	0	1
Lavatories	2	5 (1 at unisex)
Drinking fountain	1	2 (1 hi 1 low)
Utility sink	1	1

11. Design of Handrails and Guardrails Shall Comply with International Building Code (2009) Chapter 16 Paragraph 1607.7 Loads on Handrails, guards, grab bars, and vehicle barriers and 1607.7.1 Handrails and guards.

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901.332.5534
www.rgroup.biz

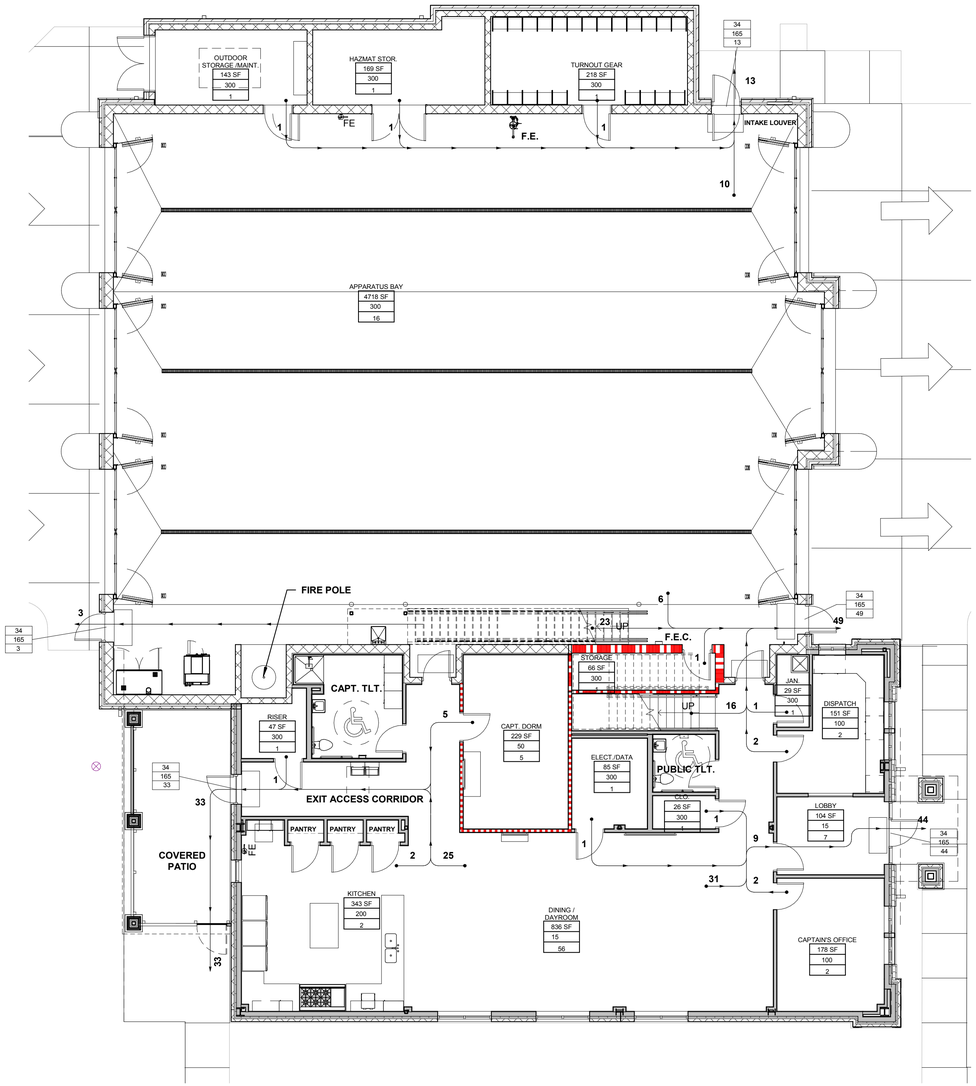
MICHAEL E. TERRY REGISTERED ARCHITECT NO. 101065 STATE OF TENNESSEE 4/13/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

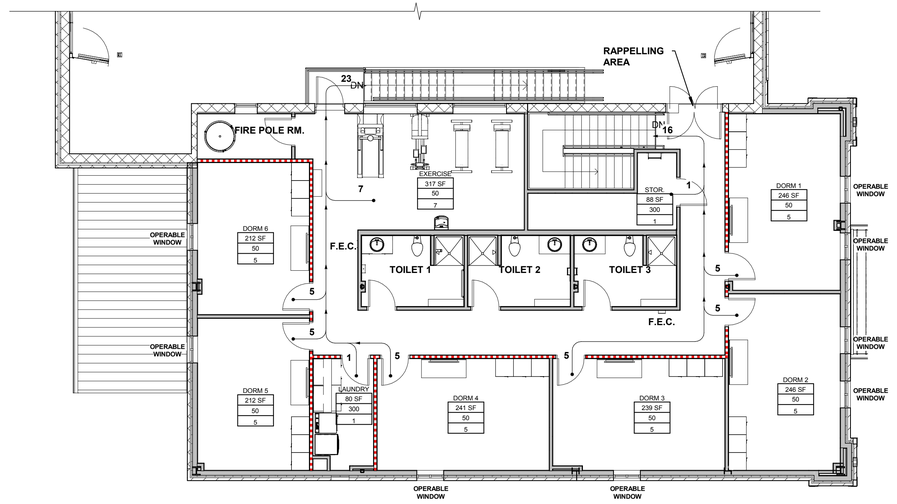
Sheet Title: CODE PLANS
Project No.: 17032
Drawn by: REC
Date: 04/13/18
Sheet No.: G0.2

renaissance group
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcollin@group.biz.rvt
4/16/2018 1:22:08 PM



1 FIRST FLOOR PLAN LIFE SAFETY

1/8" = 1'-0"



2 SECOND FLOOR PLAN LIFE SAFETY

1/8" = 1'-0"

LIFE SAFETY LEGEND

200	TOTAL NUMBER PERSONS TO EXIT AND DIRECTION OF TRAVEL
250 S.F. 25 NET 10 ROOM CODE TAG	AREA SIZE FLOOR AREA PER PERSON OCCUPANCY LOAD/AREA
FEC	=SEMI-RECESSED, 2-A-10BC DRY CHEM. M.P. FIRE EXTINGUISHER CABINET
FE	=BRACKET MTD., 2-A-10BC DRY CHEM.M.P. FIRE EXTINGUISHER CABINET (KITCHEN)
X" X X DOOR CODE TAG	CLEAR WIDTH IN INCHES ALLOWABLE OCCUPANT ACTUAL OCCUPANT
	1 HOUR FIRE RATED PARTITIONS
	SMOKE WALL PARTITION

Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
NO. 101065
STATE OF TENNESSEE
9/28/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY

Sheet Title
LIFE SAFETY PLANS

Project No.
17032

Drawn by
RGI

Date
04/13/18

LS.1
Sheet No.

r e n a i s s a n c e g r o u p

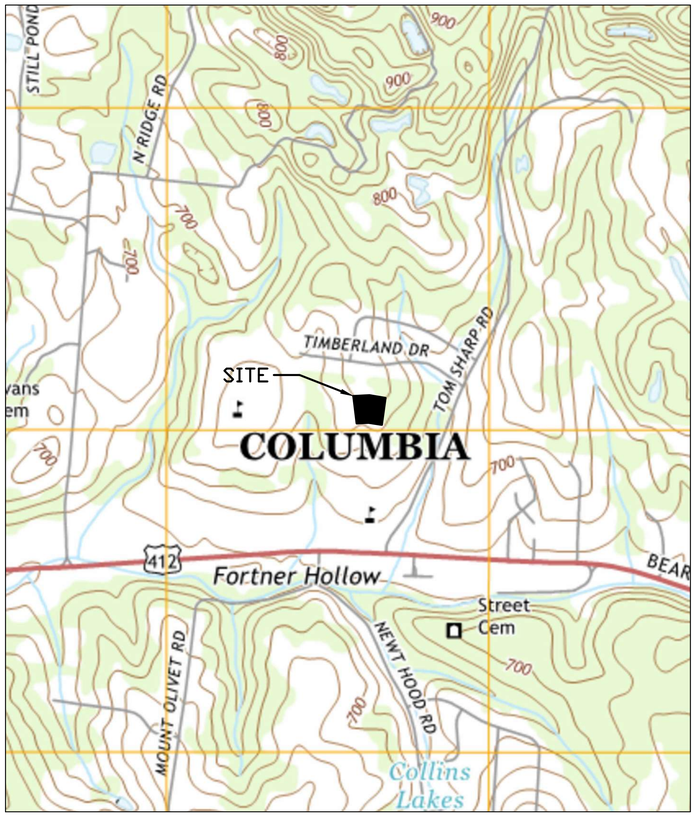
S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/28/2018 7:45:27 AM

INDEX OF DRAWINGS

1. COVER
2. SITE PLAN
3. SITE DETAILS
4. GRADING & DRAINAGE PLAN
5. GRADING DETAILS 1
6. GRADING DETAILS 2
7. EROSION CONTROL PLAN PH. 1
8. EROSION CONTROL PLAN PH. 2
9. EROSION CONTROL DETAILS
10. UTILITY PLAN

COLUMBIA FIRE & RESCUE NO. 3
COLUMBIA, TN

VICINITY MAP



PROPERTY MAP: 91 PARCEL: 014.03

PROJECT NO. 17032

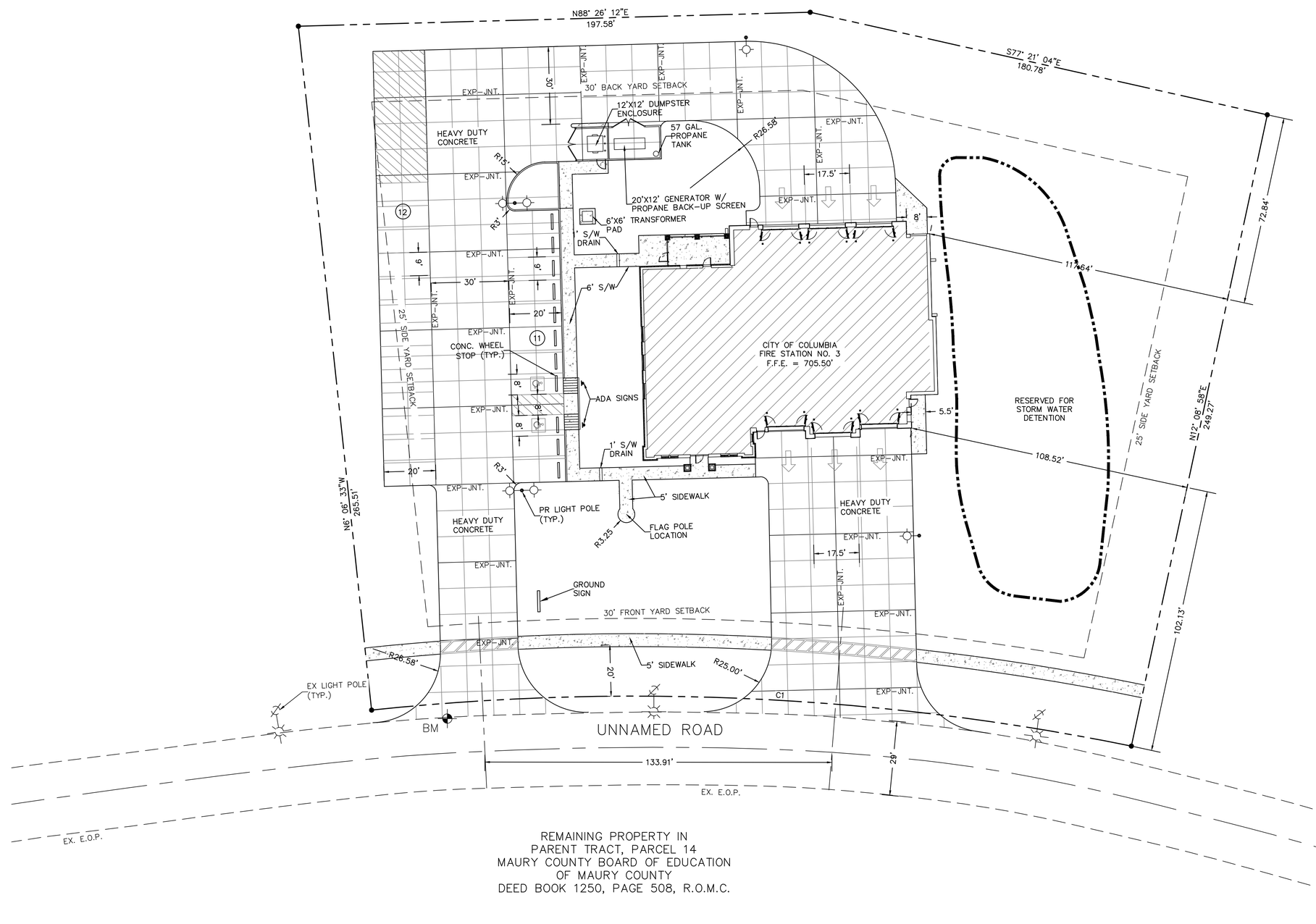
DEVELOPER
CITY OF COLUMBIA

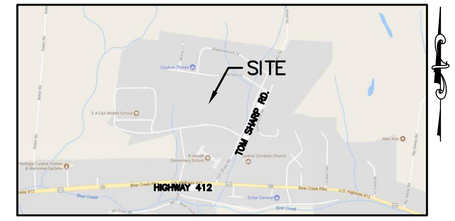
J. Wesley Woolbridge
REGISTERED ENGINEER
AGRICULTURE
No. 104678
STATE OF TENNESSEE

TDEC TRACKING NO.:

Renaissance Group
architecture ▪ engineering ▪ planning ▪ interiors

9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002





VICINITY MAP

N.T.S.

REMAINING PROPERTY IN
PARENT TRACT, PARCEL 14
MAURY COUNTY BOARD OF EDUCATION
OF MAURY COUNTY
DEED BOOK 1250, PAGE 508, R.O.M.C.

SITE DATA	
LOT AREA	87,133 SF(2.00 AC)
GROSS BLDG. AREA (ADMIN.)	7,994 S.F.
EX. ZONING: RS-40	
PARKING REQUIRED: 10 (1 SPACE/EMPLOYEE/SHIFT +1/FACILITY VEHICLE)	
PROVIDED HANDICAP ACCESSIBLE SPACES: FIRE STATION	2
PROVIDED STANDARD SPACES: FIRE STATION	21
TOTAL	23
MAX. BLDG. HEIGHT	35 FT
FRONT S/B	30 FT
SIDE S/B (INTERNAL)	25 FT
REAR S/B (INTERNAL)	30 FT

HATCH LEGEND

- CONCRETE SIDEWALK
- LIGHT DUTY ASPHALT
- ADD ALTERNATE NO. 1

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Wesley Woolwine
REGISTERED ENGINEER
AGRICULTURE
No. 104078
STATE OF TENNESSEE
4/18/18

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SITE BENCH MARK- PK NAIL GPS1 NORTH EDGE OF PAVEMENT.
ELEVATION 700.55 (NAVD '88 DATUM)

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 47157C0490G, THIS PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA AS IDENTIFIED IN COMMUNITY PANEL #470263 0490G, ZONE X. MAP REVISED FEB. 6, 2013.

CITY OF COLUMBIA
FIRE & RESCUE NO. 3
DEVELOPER: CITY OF COLUMBIA

RENAISSANCE GROUP, INC.
9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002
(901) 332-5533 VOICE (901) 332-5534 FAX EMAIL @RGROUPINC.BIZ

SHEET _____ OF _____

DEPARTMENT OF ENGINEERING

SITE LAYOUT PLAN

COLUMBIA, TENNESSEE

FROM: NA TO: NA

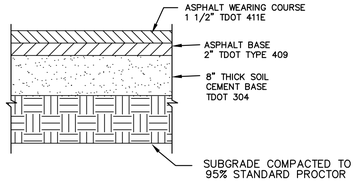
SURVEY: SAWYER LAND SURVEYING, LLC DATE: 2/17 BOOK: _____

SCALE: 1" = 30'

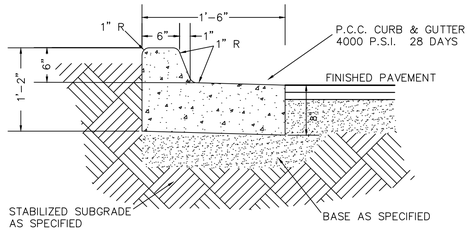
DESIGN: JWW DATE: 4/18 CKD: JWW DATE: 4/18

REVIEWED BY:

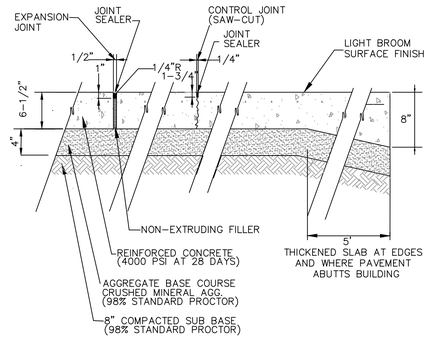
RGI JOB NO. 17032



TYPICAL LIGHT DUTY PAVEMENT DETAIL

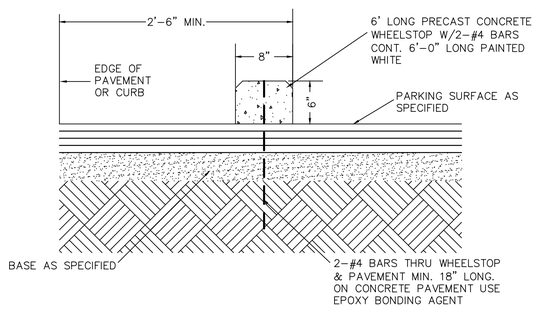


6-18 CURB & GUTTER DETAIL

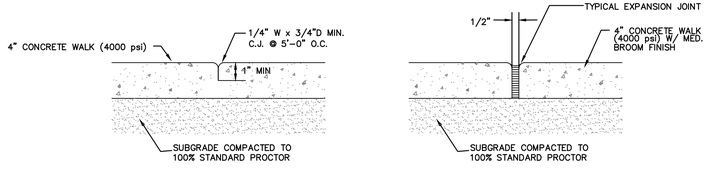


HEAVY DUTY CONCRETE PAVEMENT SECTION

N.T.S.

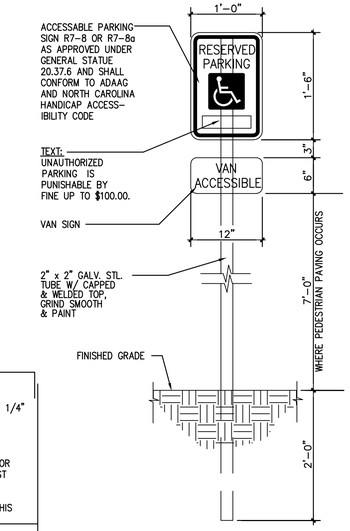


CONCRETE WHEELSTOP



NOTE:
1. EXP. JOINTS 30'-0" O/C.
2. CONTROL JOINTS @ 5'-0" O/C.

TYPICAL WALK DETAILS



NOTES:
1. CONNECT SIGN TO TUBE W/ 3 - 1 1/4" DIA. ROUND HEAD BOLTS
2. RADIUS ALL SIGN CORNERS
3. SET SIGN BACK 1'-0" FROM BACK OF SIDEWALK
4. SIGN W/ POST BY SIGN CONTRACTOR
5. ACCESSIBLE PARKING SIGNAGE MUST MEET A.D.A. & NORTH CAROLINA HANDICAP CODE STANDARDS AND REQUIREMENTS AND CITY OF MEMPHIS SIGN STANDARDS.

COLORS:
GREEN LEGEND & BORDER
WHITE H.C. SYMBOL ON BLUE BACKGROUND
WHITE SIGN BACKGROUND

ACCESSIBLE PARKING SIGN

Wesley Woolwine
REGISTERED ENGINEER
AGRICULTURE
No. 106078
4/18
STATE OF TENNESSEE

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SITE BENCH MARK- PK NAIL GPS1 NORTH EDGE OF PAVEMENT.
ELEVATION 700.55 (NAVD '88 DATUM)

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 47157C0490G, THIS PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA AS IDENTIFIED IN COMMUNITY PANEL #470263 0490G, ZONE X. MAP REVISED FEB. 6, 2013.

CITY OF COLUMBIA
FIRE & RESCUE NO. 3
DEVELOPER: CITY OF COLUMBIA

RENAISSANCE GROUP, INC.
9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002
(901) 332-5533 VOICE (901) 332-5534 FAX EMAIL @RGROUPINC.BIZ

SHEET ____ OF ____

DEPARTMENT OF ENGINEERING

SITE DETAILS

COLUMBIA, TENNESSEE

FROM: NA TO: NA

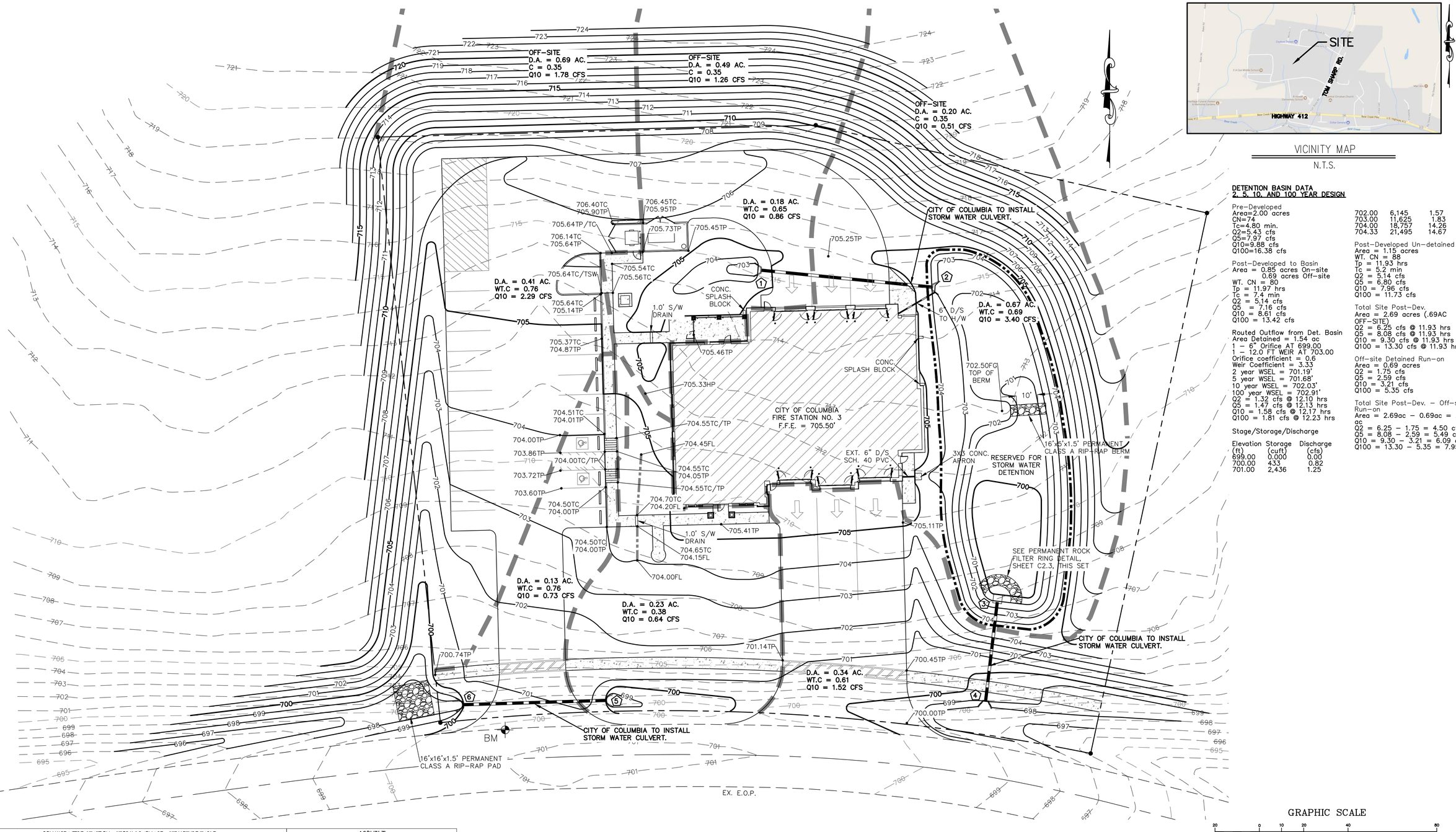
SURVEY: SAWYER LAND SURVEYING, LLC DATE: 2/17 BOOK: _____

SCALE: 1" = 30'

DESIGN: JWW DATE: 4/18 CKD: JWW DATE: 4/18

REVIEWED BY:

RGI JOB NO. 17032



VICINITY MAP

N.T.S.

DETENTION BASIN DATA
2, 5, 10, AND 100 YEAR DESIGN

Pre-Developed
Area=2.00 acres
CN=74
Tc=4.80 min.
Q2=5.43 cfs
Q5=7.97 cfs
Q10=9.88 cfs
Q100=16.38 cfs

Post-Developed to Basin
Area = 0.85 acres On-site
0.69 acres Off-site
WT. CN = 80
Tp = 11.97 hrs
Tc = 7.4 min
Q2 = 5.14 cfs
Q5 = 7.16 cfs
Q10 = 8.61 cfs
Q100 = 13.42 cfs

Routed Outflow from Det. Basin
Area Detained = 1.54 ac
1 - 6" Orifice AT 699.00
1 - 12.0 FT WEIR AT 703.00
Orifice coefficient = 0.6
Weir Coefficient = 3.33
2 year WSEL = 701.19'
5 year WSEL = 701.68'
10 year WSEL = 702.03'
100 year WSEL = 702.91'
Q2 = 1.32 cfs @ 12.10 hrs
Q5 = 1.47 cfs @ 12.13 hrs
Q10 = 1.58 cfs @ 12.17 hrs
Q100 = 1.81 cfs @ 12.23 hrs

Stage/Storage/Discharge

Elevation (ft)	Storage (cuft)	Discharge (cfs)
699.00	0.000	0.00
700.00	433	0.82
701.00	2,436	1.25
702.00	6,145	1.57
703.00	11,625	1.83
704.00	18,757	14.26
704.33	21,495	14.67

Post-Developed Un-detained
Area = 1.15 acres
WT. CN = 88
Tp = 11.93 hrs
Tc = 5.2 min
Q2 = 5.14 cfs
Q5 = 6.80 cfs
Q10 = 7.96 cfs
Q100 = 11.73 cfs

Total Site Post-Dev.
Area = 2.69 acres (.69AC OFF-SITE)
Q2 = 6.25 cfs @ 11.93 hrs
Q5 = 8.08 cfs @ 11.93 hrs
Q10 = 9.30 cfs @ 11.93 hrs
Q100 = 13.30 cfs @ 11.93 hrs

Off-site Detained Run-on
Area = 0.69 acres
Q2 = 1.75 cfs
Q5 = 2.59 cfs
Q10 = 3.21 cfs
Q100 = 5.35 cfs

Total Site Post-Dev. - Off-site Run-on
Area = 2.69ac - 0.69ac = 2.00 ac
Q2 = 6.25 - 1.75 = 4.50 cfs
Q5 = 8.08 - 2.59 = 5.49 cfs
Q10 = 9.30 - 3.21 = 6.09 cfs
Q100 = 13.30 - 5.35 = 7.95 cfs

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

COLUMBIA FIRE STATION - STORM DRAINAGE - STRUCTURE TABLE								ASBUILT					
NO	TYPE	DA	Q10	TG/RIM	FL IN	FL IN	FL IN	FL OUT	INV.	INV.	INV.	SLOPE	CAPACITY	RIM
		(AC)	(CFS)	ELEV					ELEV	ELEV	ELEV	(%)	Q (CFS)	ELEV.
1	TYPE D HW	0.67	2.12	N.A.	702.58			702.58						
2	TYPE D HW	N.A.	N.A.	N.A.	702.19			702.19						
3	OCS	1.58	8.86	703.00	699.00			697.50						
4	TYPE D HW	N.A.	N.A.	N.A.	697.27			697.27						
5	TYPE D HW	0.23	0.64	N.A.	698.32			698.32						
6	TYPE D HW	N.A.	N.A.	N.A.	697.99			697.99						

COLUMBIA FIRE STATION - STORM DRAINAGE - PIPE TABLE													ASBUILT							
FROM	INV.	TO	INV.	PIPE	LEN	MATERIAL	SLOPE	D.A.	DESIGN	CAPACITY	VEL.	VELOCITY	FROM	INV.	TO	INV.	PIPE	LENGTH	SLOPE	CAPACITY
	ELEV		ELEV	DIA (IN)	(FT)		(%)	(AC)	Q10 (CFS)	QC (CFS)	(FPS)	FULL (FPS)		ELEV		ELEV	DIA (IN)	(FT.)	(%)	Q (CFS)
1	702.58	2	702.19	15	77	RCP	0.51	0.67	2.12	4.60	3.67	3.75								
++ 3	697.50	4	697.27	15	45	HDPE	0.51	1.59	1.65**	4.62	3.39	3.76								
++ 5	698.32	6	697.99	15	65	RCP	0.51	0.23	0.64	4.60	2.59	3.75								

** - OUTFLOW FROM DETENTION BASIN

++ CULVERTS TO BE INSTALLED BY CITY OF COLUMBIA

Wesley Woodall, Jr. Registered Engineer 4/12/18 STATE OF TENNESSEE No. 104078

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SITE BENCH MARK- PK NAIL GPS1 NORTH EDGE OF PAVEMENT.
ELEVATION 700.55 (NAVD '88 DATUM)

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 47157C0490G, THIS PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA AS IDENTIFIED IN COMMUNITY PANEL #470263 0490G, ZONE X. MAP REVISED FEB. 6, 2013.

CITY OF COLUMBIA
FIRE & RESCUE NO. 3
DEVELOPER: CITY OF COLUMBIA

RENAISSANCE GROUP, INC.
9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002
(901) 332-5533 VOICE (901) 332-5534 FAX EMAIL @RGROUPINC.BIZ

SHEET _____ OF _____

DEPARTMENT OF ENGINEERING

GRADING & DRAINAGE PLAN

COLUMBIA, TENNESSEE

FROM: NA TO: NA

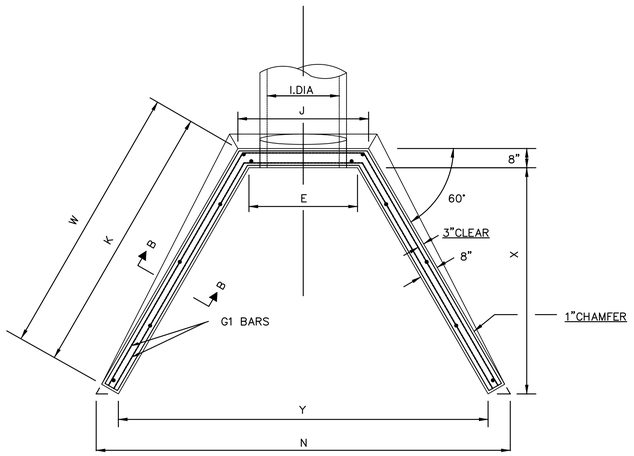
SURVEY: SAWYER LAND SURVEYING, LLC DATE: 2/17 BOOK: _____

SCALE: 1" = 30'

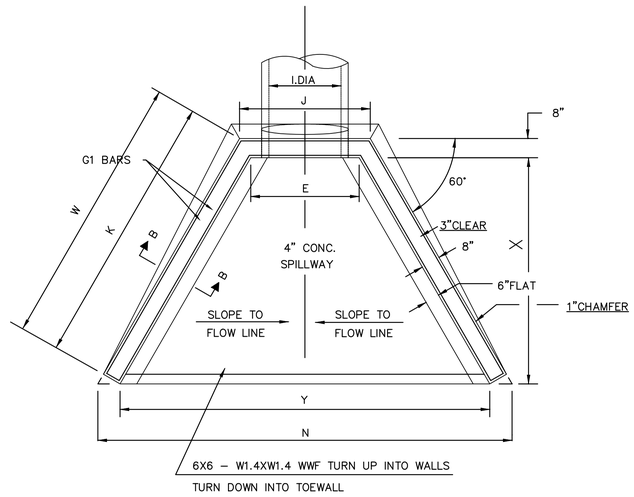
DESIGN: JWW DATE: 4/18 CKD: JWW DATE: 4/18

REVIEWED BY:

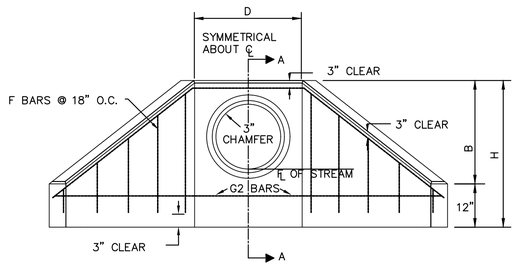
RGI JOB NO. 17032



PLAN
INLET

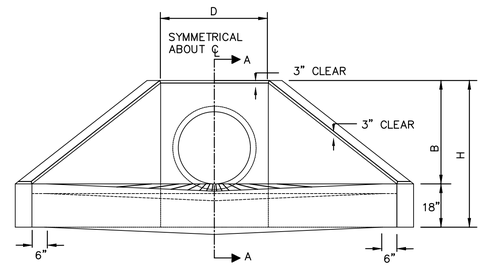


PLAN
OUTLET



*F BARS – NO.4 REBAR

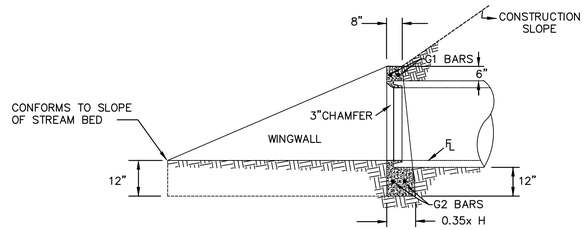
ELEVATION
INLET



ELEVATION
OUTLET

TYPE D HEADWALL
with WINGWALLS

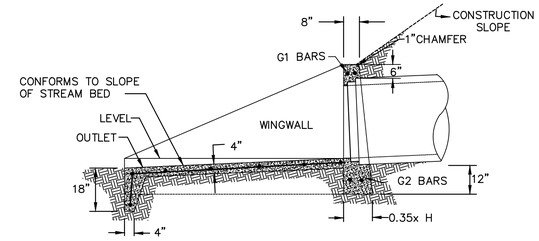
N.T.S.



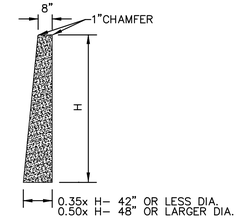
SECTION A–A
INLET

TABLE OF DIMENSIONS AND DIAMETERS		
DIA.	15"	18"
B	1'–11 ½"	2'–2 ¼"
D	1'–7 ¼"	1'–10 ½"
E	1'– 9 ¼"	2'– 0 ½"
H	3'– 1 ¼"	3'– 4 ½"
J	2'– 7 ⅝"	3'– 10 ⅞"
K	4'–10 ⅝"	5'– 5 ¾"
N	7'– 11 ½"	8'– 9 ⅞"
W	5'– 3 ¾"	5'– 11"
X	3'– 10 ¼"	4'– 4 ½"
Y	6'– 2 ⅝"	7'– 1 ⅛"

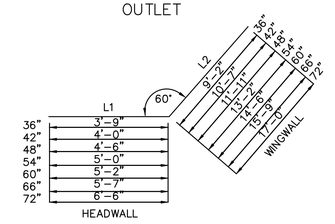
* This Table of Dimensions is for 2:1 construction slope.



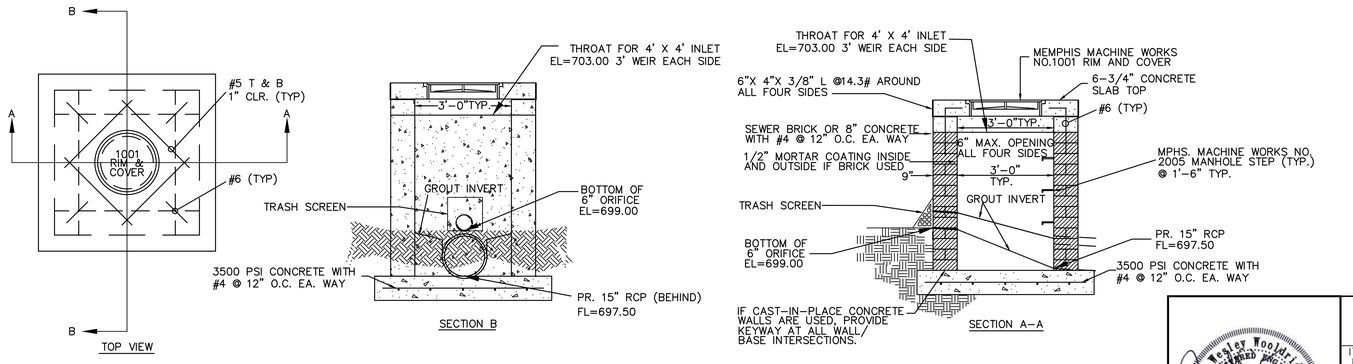
SECTION A–A
OUTLET



SECTION B–B
WINGWALL SECTION

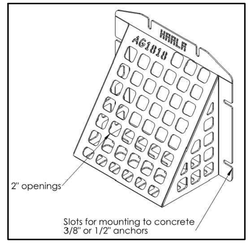


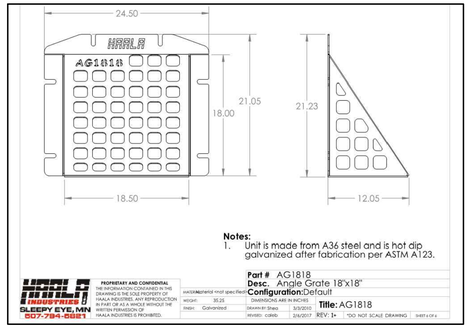
G1, G2 AND F BARS – NO. 4 BARS



OUTLET CONTROL STRUCTURE (DETENTION POND 1)
– MOD. 4'X4' STRUCTURE W/ 6" ORIFICE

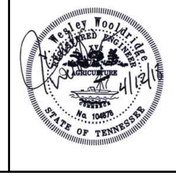
N.T.S.





TRASH SCREEN DETAIL

N.T.S.



REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SITE BENCH MARK– PK NAIL GPS1 NORTH EDGE OF PAVEMENT. ELEVATION 700.55 (NAVD '88 DATUM)

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 47157C0490G, THIS PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA AS IDENTIFIED IN COMMUNITY PANEL #470263 0490G, ZONE X. MAP REVISED FEB. 6, 2013.

CITY OF COLUMBIA
FIRE & RESCUE NO. 3
DEVELOPER: CITY OF COLUMBIA

RENAISSANCE GROUP, INC.
9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002
(901) 332-5533 VOICE (901) 332-5534 FAX EMAIL @RGROUPINC.BIZ

DEPARTMENT OF ENGINEERING

GRADING DETAILS

COLUMBIA, TENNESSEE

FROM: NA TO: NA

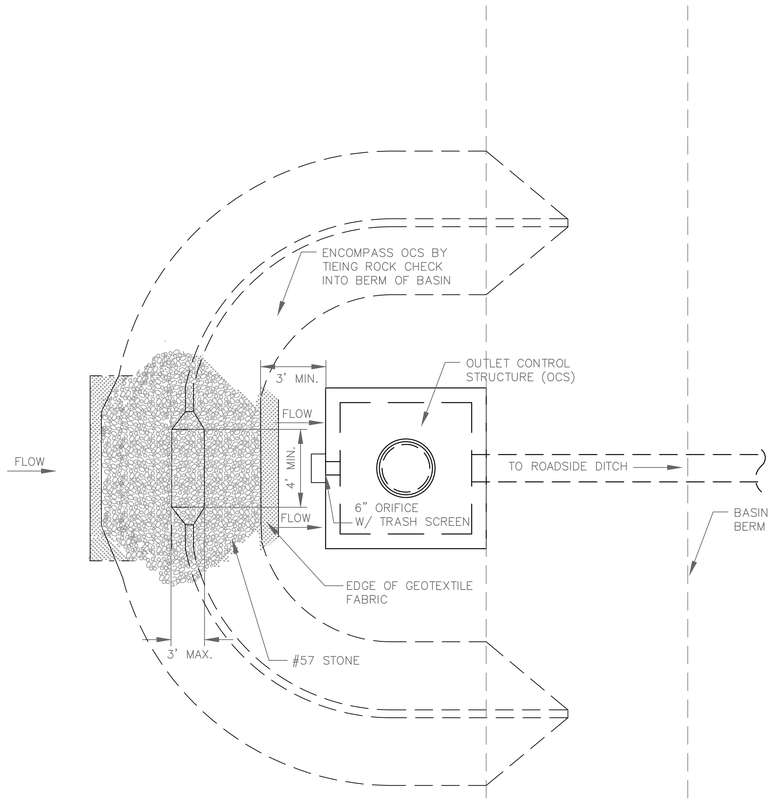
SURVEY: SAWYER LAND SURVEYING, LLC DATE: 2/17 BOOK:

SCALE: 1" = 30'

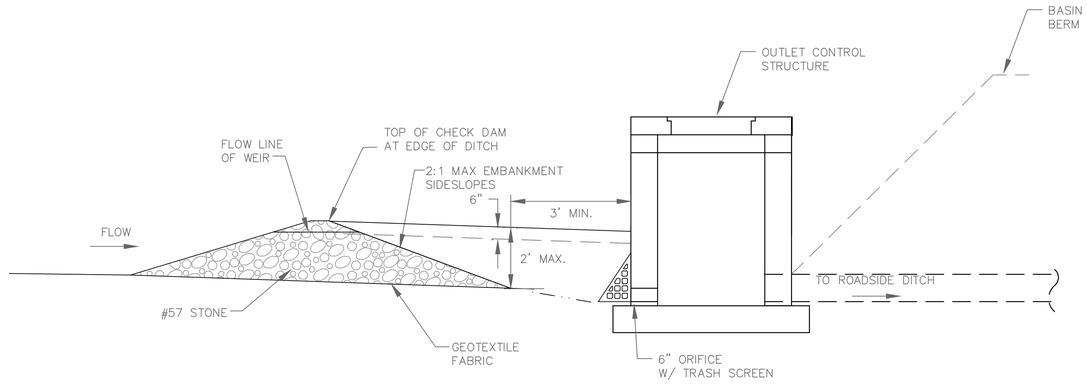
DESIGN: JWW DATE: 4/18 CK'D: JWW DATE: 4/18

REVIEWED BY:

RGI JOB NO. 17032



PLAN VIEW



PROFILE VIEW

PERMANENT ROCK FILTER RING AT OUTLET CONTROL

N.T.S.

Wesley Woodridge Registered Engineer
AGRICULTURE
4/18/17
No. 104078
STATE OF TENNESSEE

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SITE BENCH MARK– PK NAIL GPS1 NORTH EDGE OF PAVEMENT.
ELEVATION 700.55 (NAVD '88 DATUM)

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 47157C0490G, THIS PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA AS IDENTIFIED IN COMMUNITY PANEL #470263 0490G, ZONE X. MAP REVISED FEB. 6, 2013.

CITY OF COLUMBIA
FIRE & RESCUE NO. 3
DEVELOPER: CITY OF COLUMBIA

RENAISSANCE GROUP, INC.
9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002
(901) 332-5533 VOICE (901) 332-5534 FAX EMAIL @RGROUPINC.BIZ

DEPARTMENT OF ENGINEERING

GRADING DETAILS

COLUMBIA, TENNESSEE

FROM: NA TO: NA

SURVEY: SAWYER LAND SURVEYING, LLC DATE: 2/17 BOOK: _____

SCALE: 1" = 30'

DESIGN: JWW DATE: 4/18 CKD: JWW DATE: 4/18
REVIEWED BY:

RGI JOB NO. 17032

VICINITY MAP

N.T.S.

CONSTRUCTION EXIT NOTICE

THE STONE CONSTRUCTION EXIT FOR THIS SITE IS LOCATED ON THE SOUTH PROPERTY LINE ALONG THE UN-NAMED ROAD. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN VEHICLES PRIOR TO THEM EXITING THE SITE. ONCE THE STONE CONSTRUCTION EXIT IS REMOVED, THE CONTRACTOR SHALL DESIGNATE AN AREA AS A CONSTRUCTION EXIT AND ENSURE ANY SEDIMENT OR DUST THAT HAS ACCUMULATED AT THE CONSTRUCTION EXIT, OR ON ANY OTHER EXISTING STABILIZED SURFACE SHALL BE CLEANED IMMEDIATELY. ANY WATER USED FOR CLEANING VEHICLES SHALL BE COLLECTED PRIOR TO LEAVING THE LIMITS OF DISTURBANCE OR BEFORE ENTERING THE EXISTING STORM DRAINAGE SYSTEM AND ROUTED THROUGH A FILTER BAG OR OTHER FILTER MEDIAN BEFORE BEING DISCHARGED.

LIMITS OF DISTURBANCE

ALL GROUND AND SUBGRADE DISTURBING ACTIVITIES SHALL BE RESTRICTED TO WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THE EROSION CONTROL PLANS. NO GROUND OR SUBGRADE DISTURBANCES NOR STORAGE OF NEW, SALVAGED OR WASTE MATERIALS OR CHEMICALS SHALL OCCUR OR BE STORED BEYOND THE LIMITS SHOWN. IF SUCH DISTURBANCES OR STORAGE NEEDS ARE REQUIRED BEYOND THE LIMITS SHOWN, THE CONTRACTOR SHALL UPDATE THE NPDES PERMIT COVERAGE FOR THE SITE PRIOR TO INITIATING SUCH CONSTRUCTION ACTIVITIES.

EROSION CONTROLS–PH. 1

PHASE 1 EROSION CONTROL WILL ENCAPSULATE THE BOUNDARY IN SEDIMENT BARRIER SILT FENCE AND ESTABLISH THE CONSTRUCTION ENTRANCE/EXIT AS WELL AS PROTECT EXISTING STORM DRAINAGE STRUCTURES LOCATED ON SITE WITH SITE FENCE SEDIMENT BARRIERS AND ROCK FILTER RINGS. THE CONTRACTOR SHALL POST NPDES PERMIT AND SWPPP ON SITE.

BMP NOTICE

INLET PROTECTION MEASURES MAY NOT BE SPECIFIED AT ALL LOCATIONS WITHIN THE VICINITY OF CONSTRUCTION ACTIVITIES. WHERE OVER EXCAVATION IS POSSIBLE, THOSE AREAS SHALL BE UTILIZED AS SEDIMENT TRAPS WHERE THE DISTURBED GRADE IS BENEATH THE SURROUNDING GRADES. WHEN NECESSARY, THE CONTRACTOR MAY UTILIZE ADDITIONAL BMP MEASURES, INCLUDING, BUT NOT LIMITED TO, SILT DIKE ON PAVEMENT, SILT FENCE AND DANDY BAG PRODUCTS, AS NECESSARY TO ENSURE ADEQUATE EROSION AND SEDIMENTATION CONTROL. IN THE UNLIKELY EVENT THAT CONSTRUCTION AREAS ARE OVERWHELMED DURING STORM EVENTS, ANY ACCUMULATED STORM WATER SHALL BE PUMPED OUT AND ROUTED THROUGH A FILTER BAG BEFORE DISCHARGING BEYOND THE PROJECT LIMITS OR ENTERING THE STORM DRAINAGE SYSTEM.

–CAUTION NOTICE TO CONTRACTOR–

IN CASE OF CONFLICTS BETWEEN EROSION CONTROL PLANS, THE SWPPP DOCUMENT, ANY PROJECT OR MUNICIPAL SPECIFICATIONS AND THE ACTUAL STATE NPDES GENERAL PERMIT, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

IF PROPERLY IMPLEMENTED, THIS PLAN WILL PROVIDE AN EFFECTIVE MEANS FOR CONTROLLING EROSION. HOWEVER, IT IS ACKNOWLEDGED THAT NO ONE PLAN CAN BE PREPARED THAT WILL DEPICT ALL POSSIBLE CONTROL MEASURES NECESSARY FOR VARIOUS STAGES OF CONSTRUCTION. THE CONTRACTOR SHALL INCLUDE IN THE BASE BID ADEQUATE FUNDS TO PROVIDE ALL EROSION CONTROL MEASURES NECESSARY TO COMPLY WITH CODES FOR THE DURATION OF THE CONSTRUCTION PROJECT.

PH.1 CONTRACTOR TO INSTALL CONCRETE WASHOUT

PH.1 – INSTALL 25'x50' STONE CONSTRUCTION ENT/EXIT & SWPPP BOARD BEFORE GRADING BEGINS

CONC. WASH–OUT

PH.1 – INSTALL ROCK CHECK DAMS IN ROADSIDE DITCH BEFORE GRADING BEGINS

PH.1 – INSTALL PERIMETER SILT FENCE BEFORE GRADING BEGINS

PH.1 – INSTALL ROCK CHECK DAMS IN ROADSIDE DITCH BEFORE GRADING BEGINS

BM

EX. E.O.P.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

BEST MANAGEMENT PRACTICES SEQUENCE

NOTE: UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS (AS APPLICABLE): TRAILER, PARKING, LAY DOWN, PORTA–POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC, IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF–SITE AREAS WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.

EROSION & SEDIMENTATION CONTROL PLAN/SITE MAP, SHEET 1, 2 OF 3, MUST BE POSTED IN JOB TRAILER.

PHASE 1 – EROSION CONTROL SEQUENCING

1. INSTALL CONSTRUCTION ENTRANCE/EXIT AND POST NPDES PERMIT BEFORE EARTH MOVING OPERATIONS BEGIN.
2. INSTALL ROCK CHECK DAMS & PERIMETER SILT FENCE BEFORE EARTH MOVING OPERATIONS BEGIN.

EROSION CONTROL LEGEND

	– DRAINAGE AREA BOUNDARY	CE	– STONE CONSTRUCTION EXIT
	– DRAINAGE PATTERN	SF	– SEDIMENTATION/SILT FENCE
LD	– LIMITS OF DISTURBANCE	WT	– WATTLE INLET PROTECTION
CD	– ROCK CHECK DAM		– SWPPP INFORMATION SIGN
DB	– DANDY BAG	RF	– ROCK FILTER RING
		ST	– SEDIMENT TRAP

Wesley Woodard Registered Engineer AGRICULTURE No. 104074 STATE OF TENNESSEE 4/12/18

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SITE BENCH MARK– PK NAIL GPS1 NORTH EDGE OF PAVEMENT.
ELEVATION 700.55 (NAVD '88 DATUM)

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 47157C0490G, THIS PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA AS IDENTIFIED IN COMMUNITY PANEL #470263 0490G, ZONE X. MAP REVISED FEB. 6, 2013.

CITY OF COLUMBIA
FIRE & RESCUE NO. 3
DEVELOPER: CITY OF COLUMBIA

RENAISSANCE GROUP, INC.
9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002
(901) 332–5533 VOICE (901) 332–5534 FAX EMAIL @RGROUPINC.BIZ

SHEET ___ OF ___

DEPARTMENT OF ENGINEERING

EROSION CONTROL PHASE 1

COLUMBIA, TENNESSEE

FROM: NA TO: NA

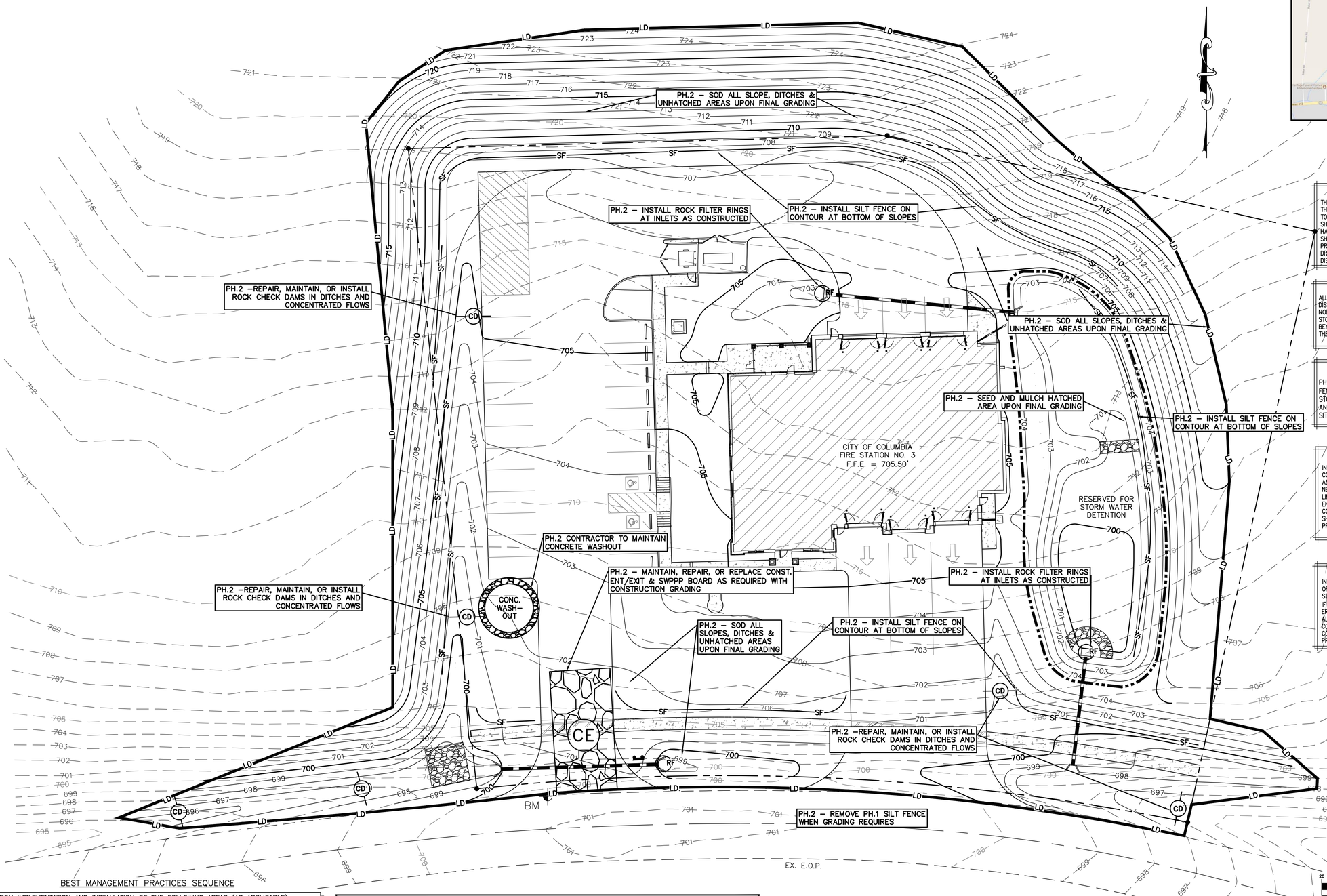
SURVEY: SAWYER LAND SURVEYING, LLC DATE: 2/17 BOOK: _____

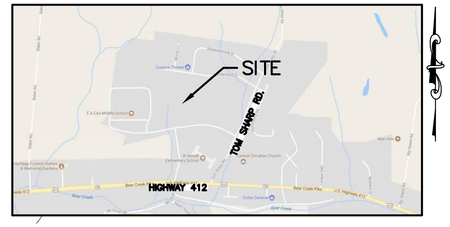
SCALE: 1" = 30'

DESIGN: JWW DATE: 4/18 CKD: JWW DATE: 4/18

REVIEWED BY:

RGI JOB NO. 17032





VICINITY MAP

N.T.S.

CONSTRUCTION EXIT NOTICE

THE STONE CONSTRUCTION EXIT FOR THIS SITE IS LOCATED ON THE SOUTH PROPERTY LINE ALONG THE UN-NAMED ROAD. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN VEHICLES PRIOR TO THEM EXITING THE SITE. ONCE THE STONE CONSTRUCTION EXIT IS REMOVED, THE CONTRACTOR SHALL DESIGNATE AN AREA AS A CONSTRUCTION EXIT AND ENSURE ANY SEDIMENT OR DUST THAT HAS ACCUMULATED AT THE CONSTRUCTION EXIT, OR ON ANY OTHER EXISTING STABILIZED SURFACE SHALL BE CLEANED IMMEDIATELY. ANY WATER USED FOR CLEANING VEHICLES SHALL BE COLLECTED PRIOR TO LEAVING THE LIMITS OF DISTURBANCE OR BEFORE ENTERING THE EXISTING STORM DRAINAGE SYSTEM AND ROUTED THROUGH A FILTER BAG OR OTHER FILTER MEDIAN BEFORE BEING DISCHARGED.

LIMITS OF DISTURBANCE

ALL GROUND AND SUBGRADE DISTURBING ACTIVITIES SHALL BE RESTRICTED TO WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THE EROSION CONTROL PLANS. NO GROUND OR SUBGRADE DISTURBANCES NOR STORAGE OF NEW, SALVAGED OR WASTE MATERIALS OR CHEMICALS SHALL OCCUR OR BE STORED BEYOND THE LIMITS SHOWN. IF SUCH DISTURBANCES OR STORAGE NEEDS ARE REQUIRED BEYOND THE LIMITS SHOWN, THE CONTRACTOR SHALL UPDATE THE NPDES PERMIT COVERAGE FOR THE SITE PRIOR TO INITIATING SUCH CONSTRUCTION ACTIVITIES.

EROSION CONTROLS–PH. 2

PHASE 2 EROSION CONTROL WILL ENCAPSULATE THE BOUNDARY IN SEDIMENT BARRIER SILT FENCE AND ESTABLISH THE CONSTRUCTION ENTRANCE/EXIT AS WELL AS PROTECT EXISTING STORM DRAINAGE STRUCTURES LOCATED ON SITE WITH SITE FENCE SEDIMENT BARRIERS AND ROCK FILTER RINGS. THE CONTRACTOR SHALL POST NPDES PERMIT AND SWPPP ON SITE.

BMP NOTICE

INLET PROTECTION MEASURES MAY NOT BE SPECIFIED AT ALL LOCATIONS WITHIN THE VICINITY OF CONSTRUCTION ACTIVITIES. WHERE OVER EXCAVATION IS POSSIBLE, THOSE AREAS SHALL BE UTILIZED AS SEDIMENT TRAPS WHERE THE DISTURBED GRADE IS BENEATH THE SURROUNDING GRADES. WHEN NECESSARY, THE CONTRACTOR MAY UTILIZE ADDITIONAL BMP MEASURES, INCLUDING, BUT NOT LIMITED TO, SILT DIKE ON PAVEMENT, SILT FENCE AND DANDY BAG PRODUCTS, AS NECESSARY TO ENSURE ADEQUATE EROSION AND SEDIMENTATION CONTROL. IN THE UNLIKELY EVENT THAT CONSTRUCTION AREAS ARE OVERWHELMED DURING STORM EVENTS, ANY ACCUMULATED STORM WATER SHALL BE PUMPED OUT AND ROUTED THROUGH A FILTER BAG BEFORE DISCHARGING BEYOND THE PROJECT LIMITS OR ENTERING THE STORM DRAINAGE SYSTEM.

–CAUTION NOTICE TO CONTRACTOR–

IN CASE OF CONFLICTS BETWEEN EROSION CONTROL PLANS, THE SWPPP DOCUMENT, ANY PROJECT OR MUNICIPAL SPECIFICATIONS AND THE ACTUAL STATE NPDES GENERAL PERMIT, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

IF PROPERLY IMPLEMENTED, THIS PLAN WILL PROVIDE AN EFFECTIVE MEANS FOR CONTROLLING EROSION. HOWEVER, IT IS ACKNOWLEDGED THAT NO ONE PLAN CAN BE PREPARED THAT WILL DEPICT ALL POSSIBLE CONTROL MEASURES NECESSARY FOR VARIOUS STAGES OF CONSTRUCTION. THE CONTRACTOR SHALL INCLUDE IN THE BASE BID ADEQUATE FUNDS TO PROVIDE ALL EROSION CONTROL MEASURES NECESSARY TO COMPLY WITH CODES FOR THE DURATION OF THE CONSTRUCTION PROJECT.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

BEST MANAGEMENT PRACTICES SEQUENCE

NOTE: UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS (AS APPLICABLE): TRAILER, PARKING, LAY DOWN, PORTA–POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC. IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF–SITE AREAS WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.

EROSION & SEDIMENTATION CONTROL PLAN/SITE MAP, SHEET 1, 2 OF 3, MUST BE POSTED IN JOB TRAILER.

PHASE 2 – EROSION CONTROL SEQUENCING

1. MAINTAIN CONSTRUCTION ENTRANCE/EXIT AND POST NPDES PERMIT BEFORE EARTH MOVING OPERATIONS BEGIN.
2. INSTALL SILT FENCE ON CONTOUR AT BOTTOM OF SLOPES, CHECK DAMS IN DITCHES, AND, ROCK FILTER RINGS AT COMPLETED STRUCTURES.
3. INSTALL SEED & MULCH/ SOD UPON FINAL GRADING

EROSION CONTROL LEGEND

– – – –	– DRAINAGE AREA BOUNDARY	(CE)	– STONE CONSTRUCTION EXIT
– – – →	– DRAINAGE PATTERN	------SF------	– SEDIMENTATION/SILT FENCE
LD	– LIMITS OF DISTURBANCE	WT	– WATTLE INLET PROTECTION
---(CD)---	– ROCK CHECK DAM		– SWPPP INFORMATION SIGN
DB	– DANDY BAG	RF	– ROCK FILTER RING
		(ST)	– SEDIMENT TRAP

Tesley Lovelace Registered Engineer 4/12/17 TENNESSEE No. 104078 STATE OF TENNESSEE

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SITE BENCH MARK– PK NAIL GPS1 NORTH EDGE OF PAVEMENT. ELEVATION 700.55 (NAVD '88 DATUM)

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 47157C0490G, THIS PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA AS IDENTIFIED IN COMMUNITY PANEL #470263 0490G, ZONE X. MAP REVISED FEB. 6, 2013.

CITY OF COLUMBIA
FIRE & RESCUE NO. 3
DEVELOPER: CITY OF COLUMBIA

RENAISSANCE GROUP, INC.
9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002
(901) 332–5533 VOICE (901) 332–5534 FAX EMAIL @RGROUPINC.BIZ

SHEET ____ OF ____

DEPARTMENT OF ENGINEERING

EROSION CONTROL PHASE 2

COLUMBIA, TENNESSEE

FROM: NA TO: NA

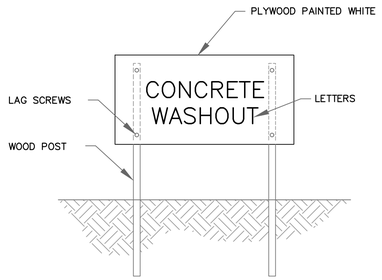
SURVEY: SAWYER LAND SURVEYING, LLC DATE: 2/17 BOOK: _____

SCALE: 1" = 30'

DESIGN: JWW DATE: 4/18 CKD: JWW DATE: 4/18

REVIEWED BY:

RGI JOB NO. 17032



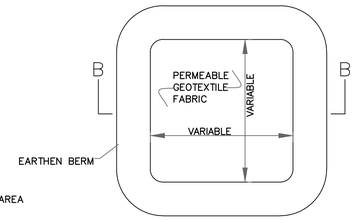
CONCRETE WASHOUT
SIGN (OR EQUIVALENT)

NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.

2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5FT.OF THE WASHOUT FACILITY.

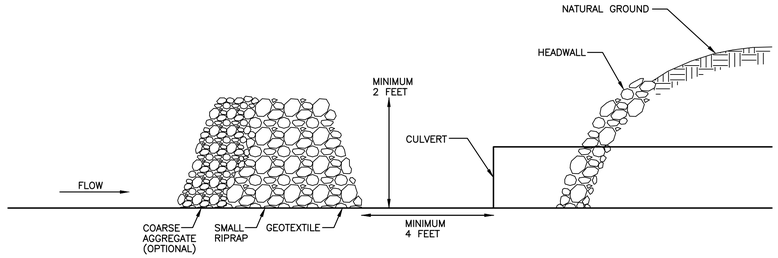
SECTION B–B
NOT TO SCALE

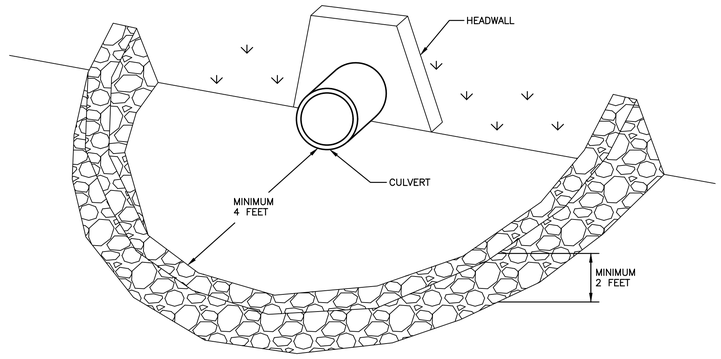


PLAN VIEW
NOT TO SCALE

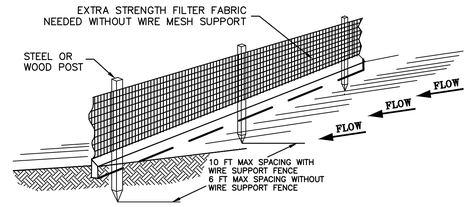
TYPE "ABOVE GRADE"
WITH EATHERN BERMS

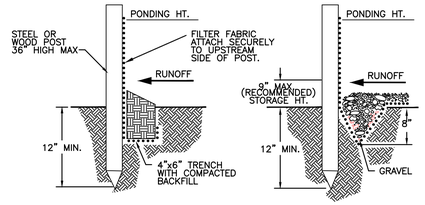
CONCRETE WASHOUT
N.T.S.





ROCK FILTER RING
N.T.S.



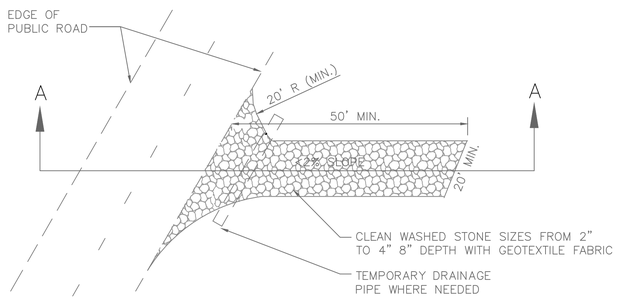


STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

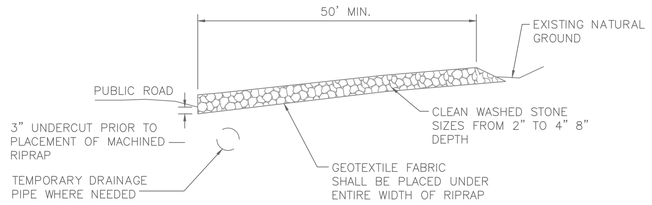
ALTERNATE DETAIL
TRENCH WITH GRAVEL

NOTE: 1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF–SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE

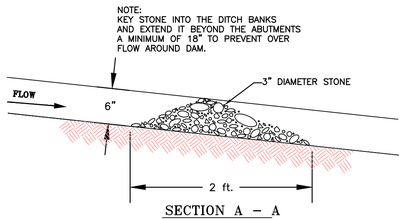


PLAN VIEW OF TEMPORARY CONSTRUCTION ROAD



SECTION A–A

VIEW LOOKING UPSTREAM



SECTION A – A

ROCK CHECK DAM
N.T.S.

CONSTRUCTION EXIT

Wesley Woodruff Registered Engineer Agricultural No. 104078 State of Tennessee 4/12/18

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SITE BENCH MARK– PK NAIL GPS1 NORTH EDGE OF PAVEMENT. ELEVATION 700.55 (NAVD '88 DATUM)

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 47157C0490G, THIS PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA AS IDENTIFIED IN COMMUNITY PANEL #470263 0490G, ZONE X. MAP REVISED FEB. 6, 2013.

CITY OF COLUMBIA
FIRE & RESCUE NO. 3
DEVELOPER: CITY OF COLUMBIA

RENAISSANCE GROUP, INC.
9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002
(901) 332-5533 VOICE (901) 332-5534 FAX EMAIL @RGROUPINC.BIZ

SHEET ____ OF ____

DEPARTMENT OF ENGINEERING

EROSION CONTROL DETAILS

COLUMBIA, TENNESSEE

FROM: NA TO: NA

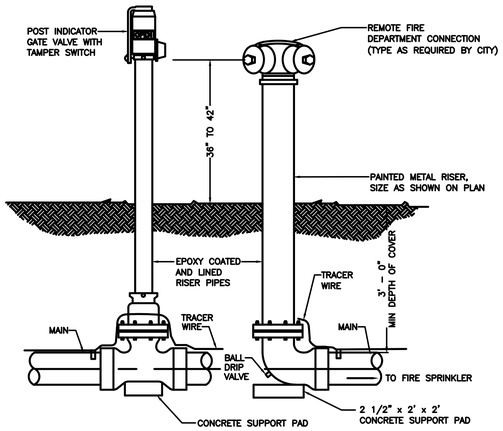
SURVEY: SAWYER LAND SURVEYING, LLC DATE: 2/17 BOOK: _____

SCALE: 1" = 30'

DESIGN: JWW DATE: 4/18 CKD: JWW DATE: 4/18

REVIEWED BY:

RGI JOB NO. 17032



NOTES:

1. LANDSCAPE PLANTING, WHEN FULLY GROWN, SHALL NOT OBSCURE VALVE OR FIRE DEPARTMENT CONNECTION (THREE FEET MINIMUM CLEARANCE REQUIRED ON ALL SIDES).
2. ALL UNDERGROUND BOLTS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL.
3. PROVIDE A MINIMUM OF 2 CY OF CLEAN 3/4" GRAVEL AROUND BALL DRIP VALVE.
4. PROVIDE BOLLARD PROTECTION AS SHOWN ON THE PLANS.
5. LOCATE A SINGLE SWING CHECK VALVE ON THE FDC LINE IMMEDIATELY INSIDE THE BUILDING TO PREVENT FLOW FROM THE FIRE SPRINKLER SYSTEM TO THE FDC.

TYPICAL FIRE HYDRANT INSTALLATION

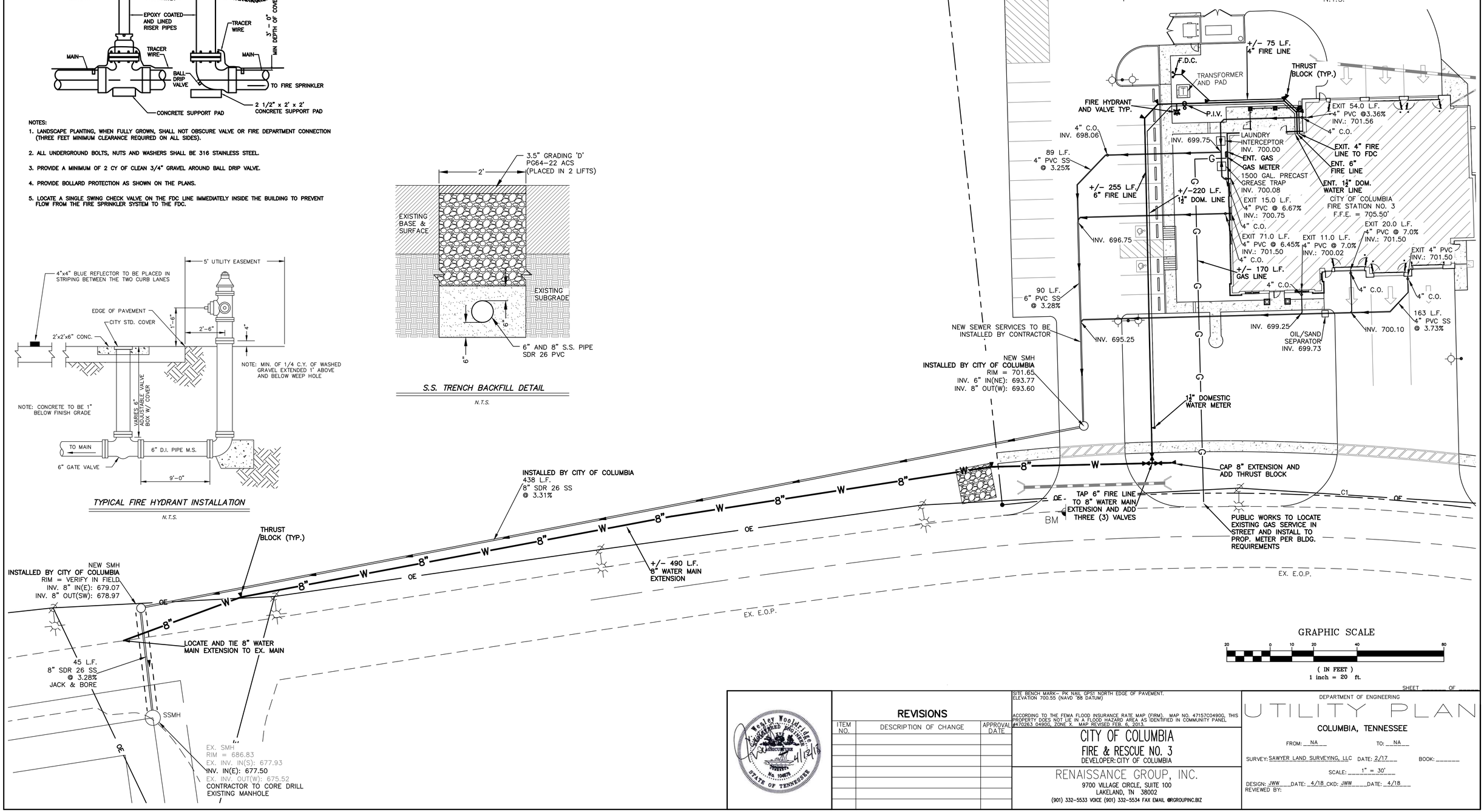
N.T.S.

S.S. TRENCH BACKFILL DETAIL

N.T.S.

VICINITY MAP

N.T.S.



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

SHEET _____ OF _____

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SITE BENCH MARK– PK NAIL GPS1 NORTH EDGE OF PAVEMENT. ELEVATION 700.55 (NAVD '88 DATUM)

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 47157C0490G, THIS PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA AS IDENTIFIED IN COMMUNITY PANEL #470263 0490G, ZONE X. MAP REVISED FEB. 6, 2013.

CITY OF COLUMBIA
FIRE & RESCUE NO. 3
DEVELOPER: CITY OF COLUMBIA

RENAISSANCE GROUP, INC.
9700 VILLAGE CIRCLE, SUITE 100
LAKELAND, TN 38002
(901) 332-5533 VOICE (901) 332-5534 FAX EMAIL @RGROUPINC.BIZ

DEPARTMENT OF ENGINEERING

UTILITY PLAN

COLUMBIA, TENNESSEE

FROM: NA TO: NA

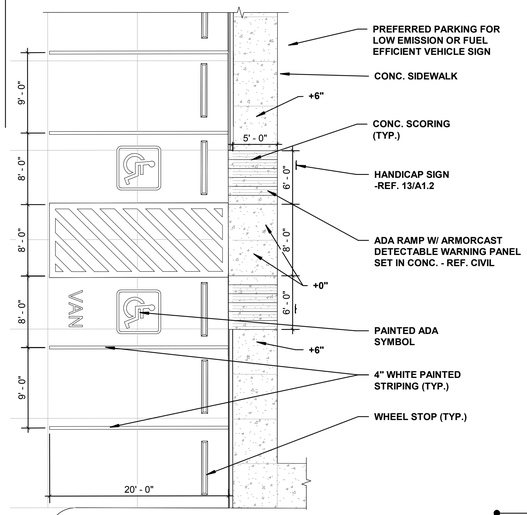
SURVEY: SAWYER LAND SURVEYING, LLC DATE: 2/17 BOOK: _____

SCALE: 1" = 30'

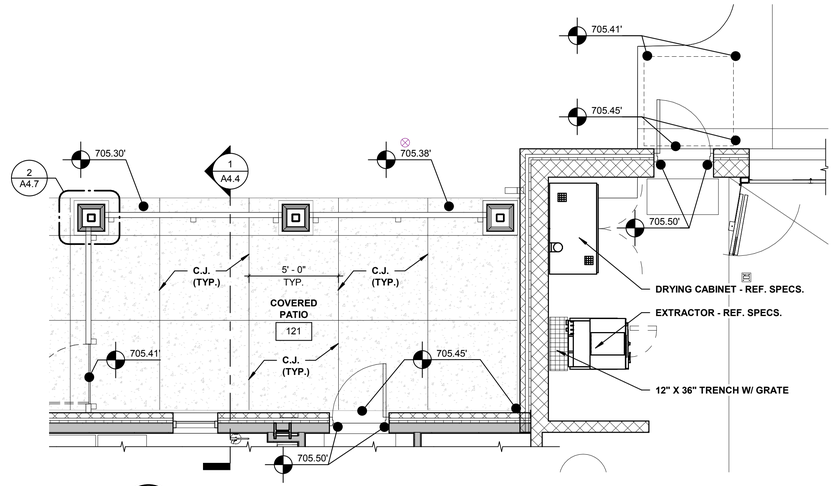
DESIGN: JWW DATE: 4/18 CKD: JWW DATE: 4/18

REVIEWED BY:

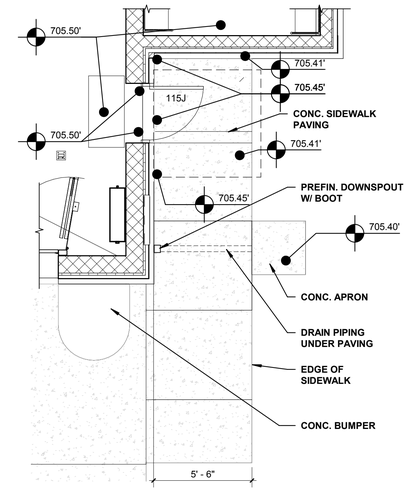
RGI JOB NO. 17032



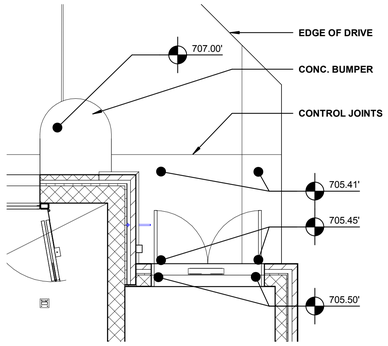
2 ENL. PLAN @ HANDICAP PARKING
1/8" = 1'-0"



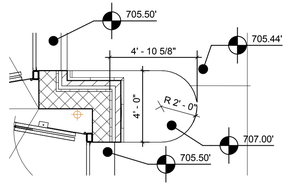
3 PLAN @ EXT. PATIO
1/4" = 1'-0"



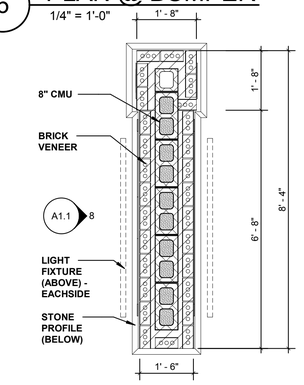
4 PLAN DETAIL @ DOOR 115J
1/4" = 1'-0"



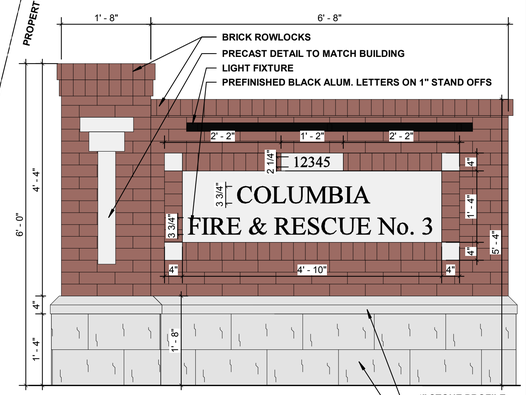
5 PLAN @ DOOR 118A
1/4" = 1'-0"



6 PLAN @ BUMPER
1/4" = 1'-0"



7 PLAN @ SIGN WALL
1/2" = 1'-0"



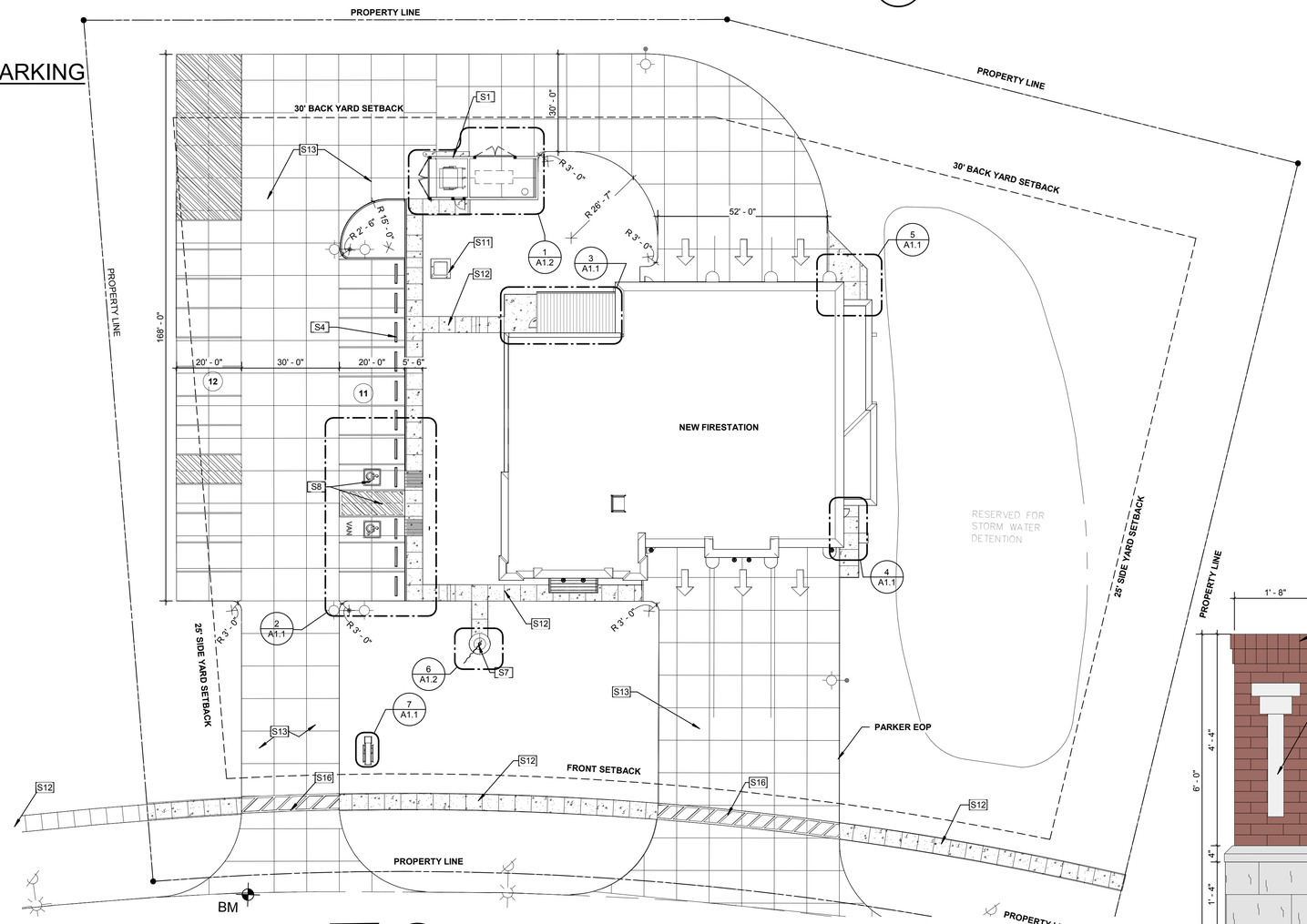
8 ELEV. @ SIGN WALL
3/4" = 1'-0"

SITE DATA

Site Acreage:	2.00 AC
Standard parking stalls:	57 spaces
ADA parking stalls:	4 space
TOTAL Parking count:	61 spaces

SITE KEYNOTE LEGEND

S1	MASONRY DUMPSTER ENCLOSURE
S4	CONC. WHEEL STOP (TYP.)
S7	FLAG POLE -REF. SPECS.
S8	HANDICAP STRIPING
S9	PARKING STRIPING
S11	6'x6' TRANS. PAD - REF. CIVIL
S12	CONCRETE SIDEWALK
S13	HEAVY DUTY CONCRETE
S14	HANDICAP PARKING SIGN
S16	PAINTED CROSSWALK



1 SITE PLAN
1" = 20'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

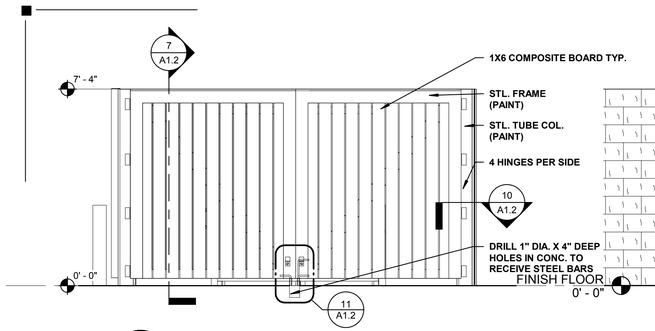
MICHAEL E. TERRY REGISTERED ARCHITECT NO. 101065 STATE OF TENNESSEE 04/13/18

REV	DESCRIPTION	DATE

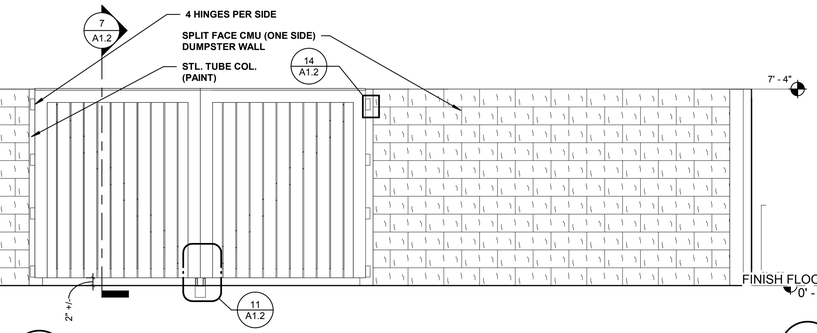
NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: SITE PLAN
Project No.: 17032
Drawn by: KNG
Date: 04/13/18
Sheet No.: A1.1

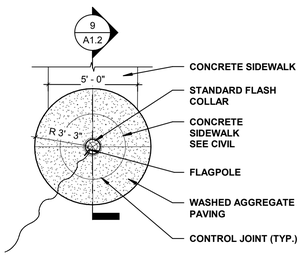
renaissance group
S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcollin@rgroup.biz.rvt
9/26/2018 4:11:43 PM



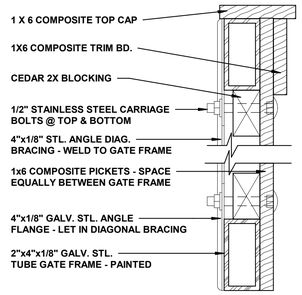
2 DUMPSTER ELEV. @ FRONT
3/8" = 1'-0"



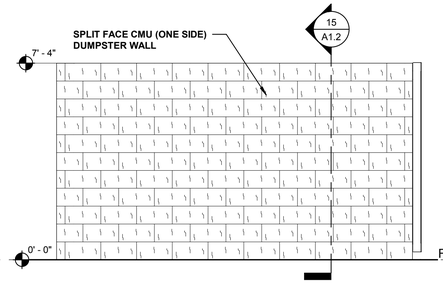
3 DUMPSTER ELEV. @ SIDE
3/8" = 1'-0"



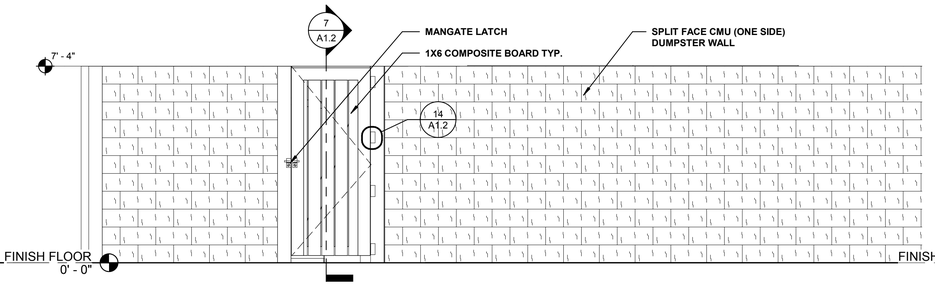
6 PLAN @ FLAGPOLE
1/4" = 1'-0"



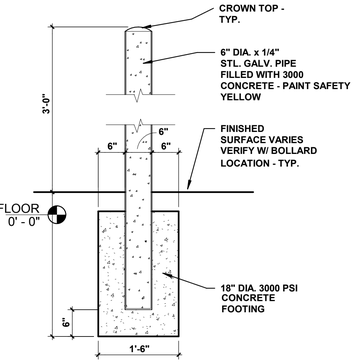
7 GATE SECTION
3" = 1'-0"



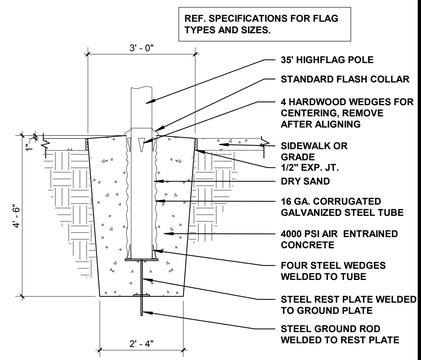
4 DUMPSTER ELEV. @ REAR
3/8" = 1'-0"



5 DUMPSTER ELEV.@ SIDE
3/8" = 1'-0"

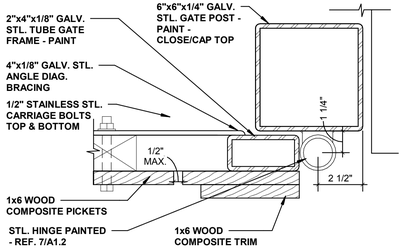


8 BOLLARD DETAIL
3/4" = 1'-0"

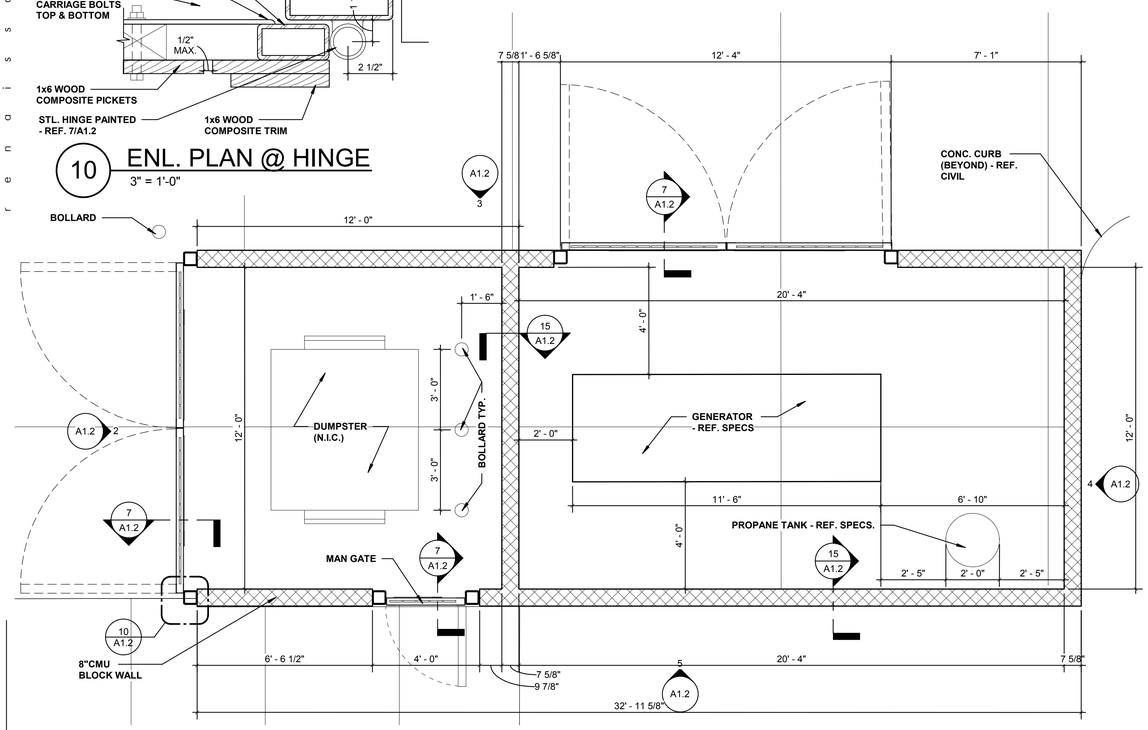


NOTE: VERIFY INSTALLATION REQUIREMENTS WITH APPROVED FLAGPOLE MANUFACTURER.

9 FLAG POLE DETAIL
1/2" = 1'-0"



10 ENL. PLAN @ HINGE
3" = 1'-0"

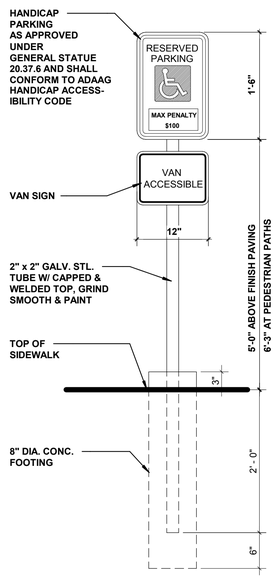


1 ENL. PLAN @ DUMPSTER
3/8" = 1'-0"

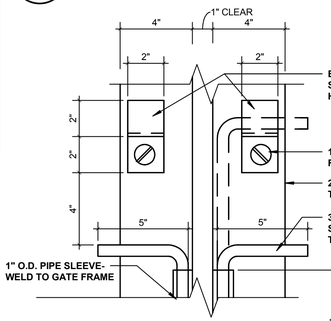
NOTES:

1. RADIUS ALL SIGN CORNERS
2. SIGN W/ POST BY SIGN CONTRACTOR
3. HANDICAP SIGNAGE MUST MEET A.D.A. & ANSI 117.1

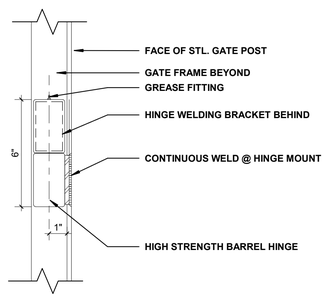
COLORS:
WHITE H.C. SYMBOL ON BLUE BACKGROUND
GREEN LEGEND & BORDER
WHITE SIGN BACKGROUND



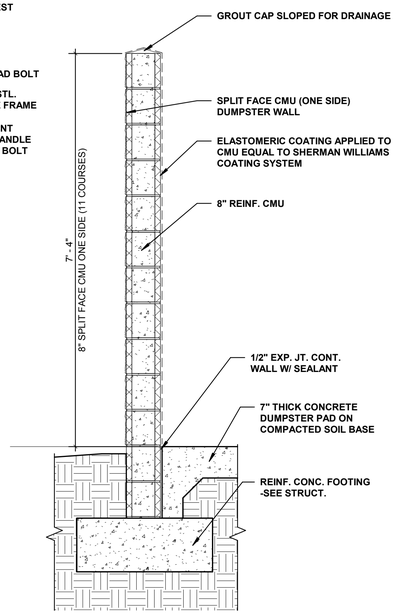
13 HANDICAP ADA SIGN
1" = 1'-0"



11 HANDLE DETAIL
3" = 1'-0"



14 HINGE DETAIL
3" = 1'-0"



15 DUMPSTER SECTION
3/4" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901.332.5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
STATE OF TENNESSEE
NO. 101065
4/18/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY

Sheet Title
SITE DETAILS

Project No.
17032

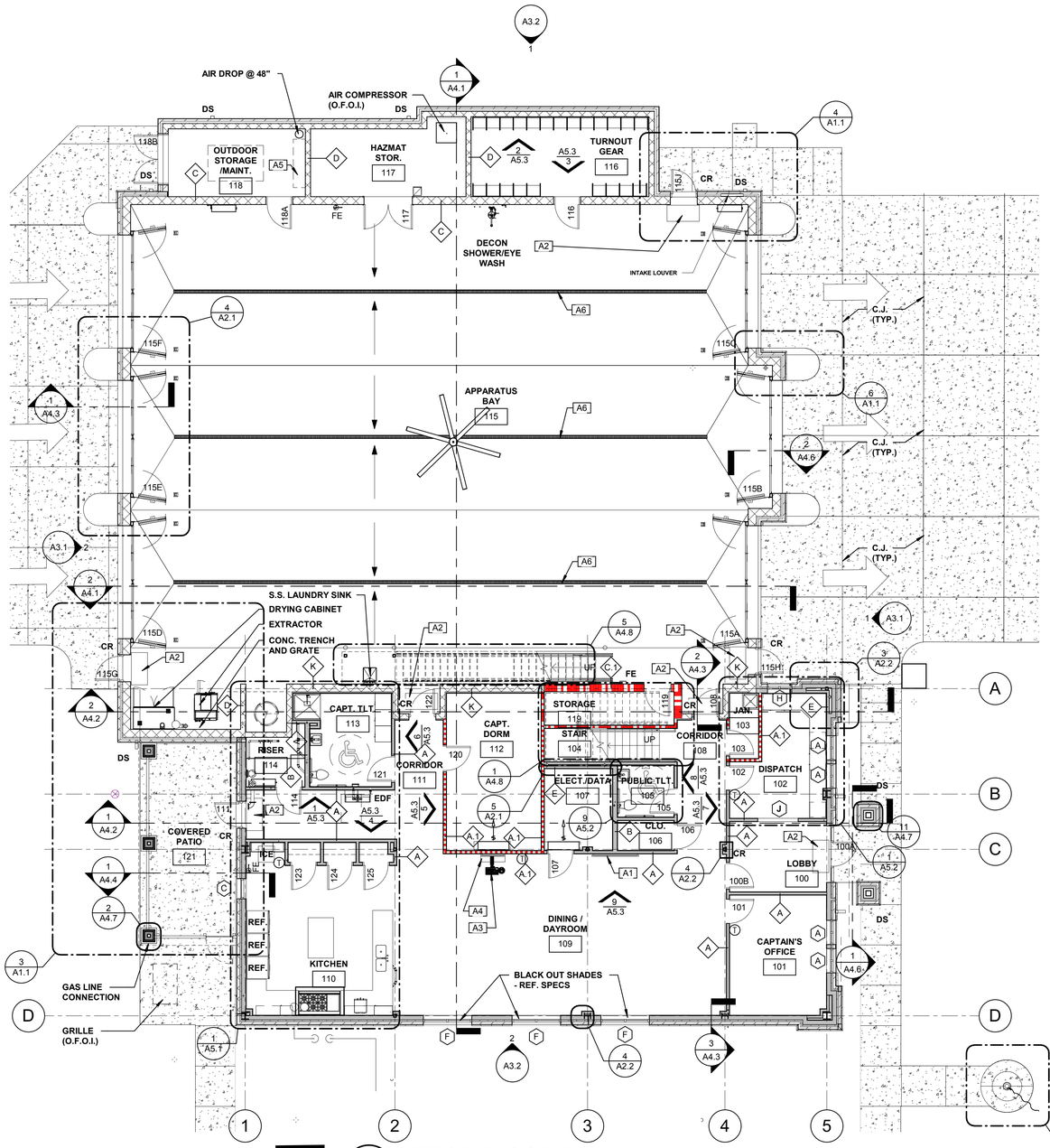
Drawn by
REC

Date
04/13/18

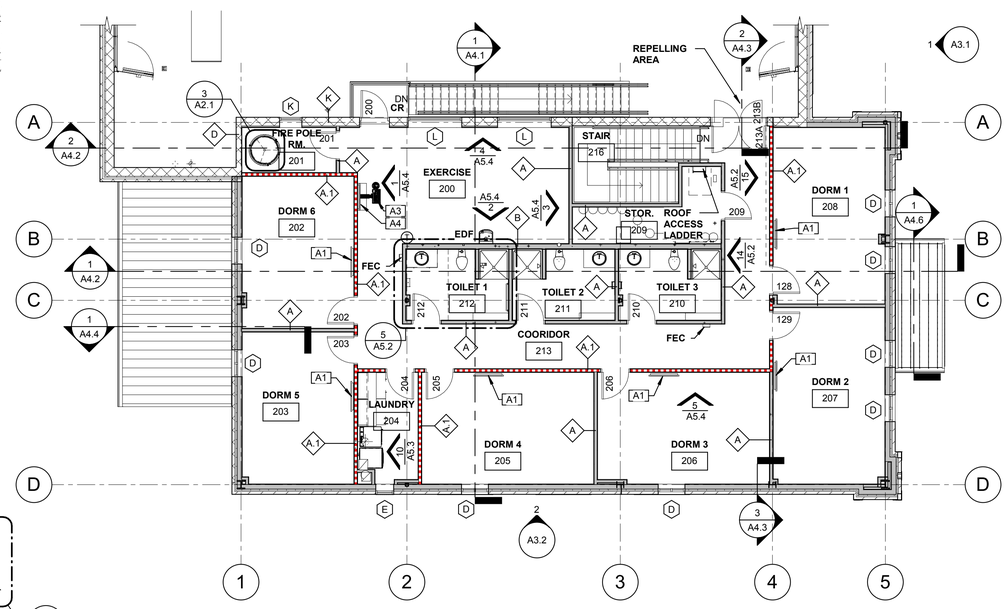
Sheet No.
A1.2

r e n a i s s a n c e g r o u p
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
4/16/2018 1:26:14 PM

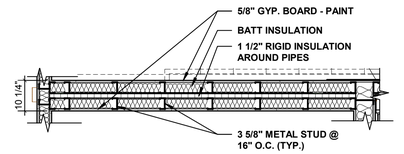
PLAN KEYNOTE LEGEND	
A1	TELEVISION - O.F.O.I.
A2	ROLL-UP WALK OFF MAT
A3	COMPUTER STATION
A4	MONITOR - O.F.O.I.



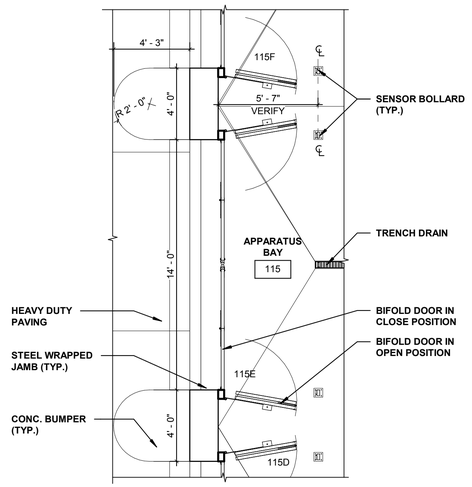
1 FIRST FLOOR PLAN
1/8" = 1'-0"



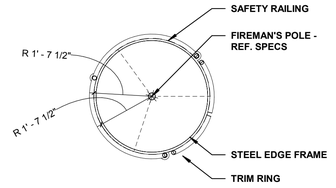
2 SECOND FLOOR PLAN
1/8" = 1'-0"



5 ENL. PLAN @ ELECT. CHASE
1/2" = 1'-0"



4 ENL. PLAN @ DOOR 115E
1/4" = 1'-0"



3 PLAN @ FIREMAN'S POLE
1/2" = 1'-0"

SYMBOLS LEGEND

	STUD WALL - SEE WALL TYPES
	30 MIN. RATED WALL - SEE WALL TYPES
	CMU WALL - SEE WALL TYPES
	30 MIN. RATED CMU WALL - SEE WALL TYPES
101	DOOR WITH DOOR NUMBER KEY
113	ROOM NUMBER REF: FINISH SCHEDULE A8.1
EDF	ELECTRIC DRINKING FOUNTAIN - REF. PLUMBING
F.E.C.	FIRE EXTINGUISHER CABINET - REF. SPECS.
F.E.	FIRE EXTINGUISHER BRACKET MOUNTED - REF. SPECS.
A	WINDOW TYPE KEY - REF. SHEET A7.1
A	WALL TYPE KEY - REF. WALL TYPES
1	KEY NOTES - REF. THIS SHEET
X / AX.X	ELEVATION KEY (XX / AX.X)
1 / A1.1	DETAIL KEY — DRAWING NUMBER / SHEET NUMBER

O.F.O.I. -	OWNER FURNISHED OWNER INSTALLED
C.F.C.I. -	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
O.F.C.I. -	OWNER FURNISHED CONTRACTOR INSTALLED
D.S. -	PREFIN. MTL. DOWNSPOUT W/ PVC BOOT OR CONC. SPLASH PAD - SEE CIVIL
CR. -	CARD ACCESS LOCATION

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901.332.5534
www.rgroup.biz

MICHAEL E. TERRY REGISTERED ARCHITECT 04/13/18 NO. 101065 STATE OF TENNESSEE

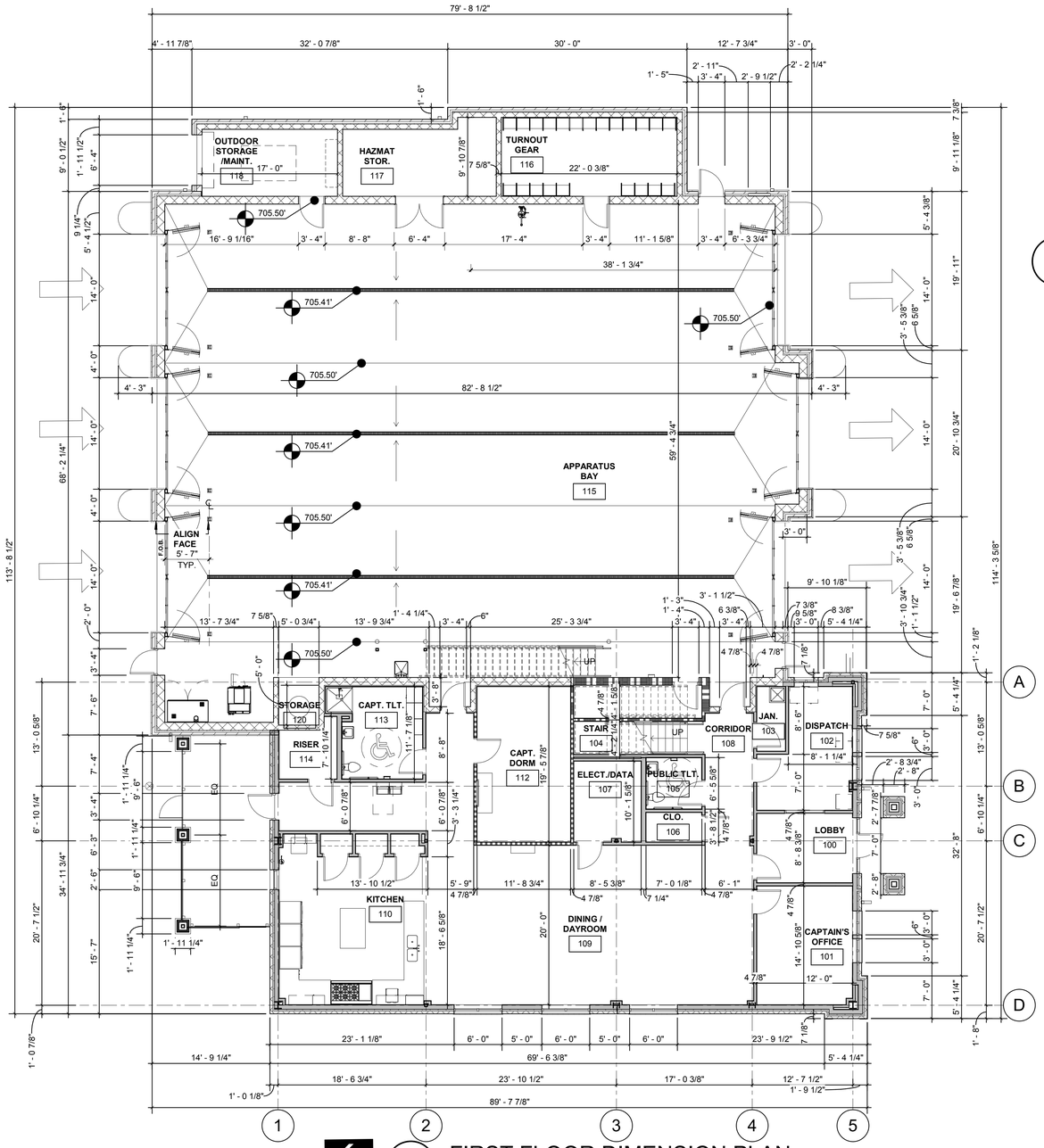
REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

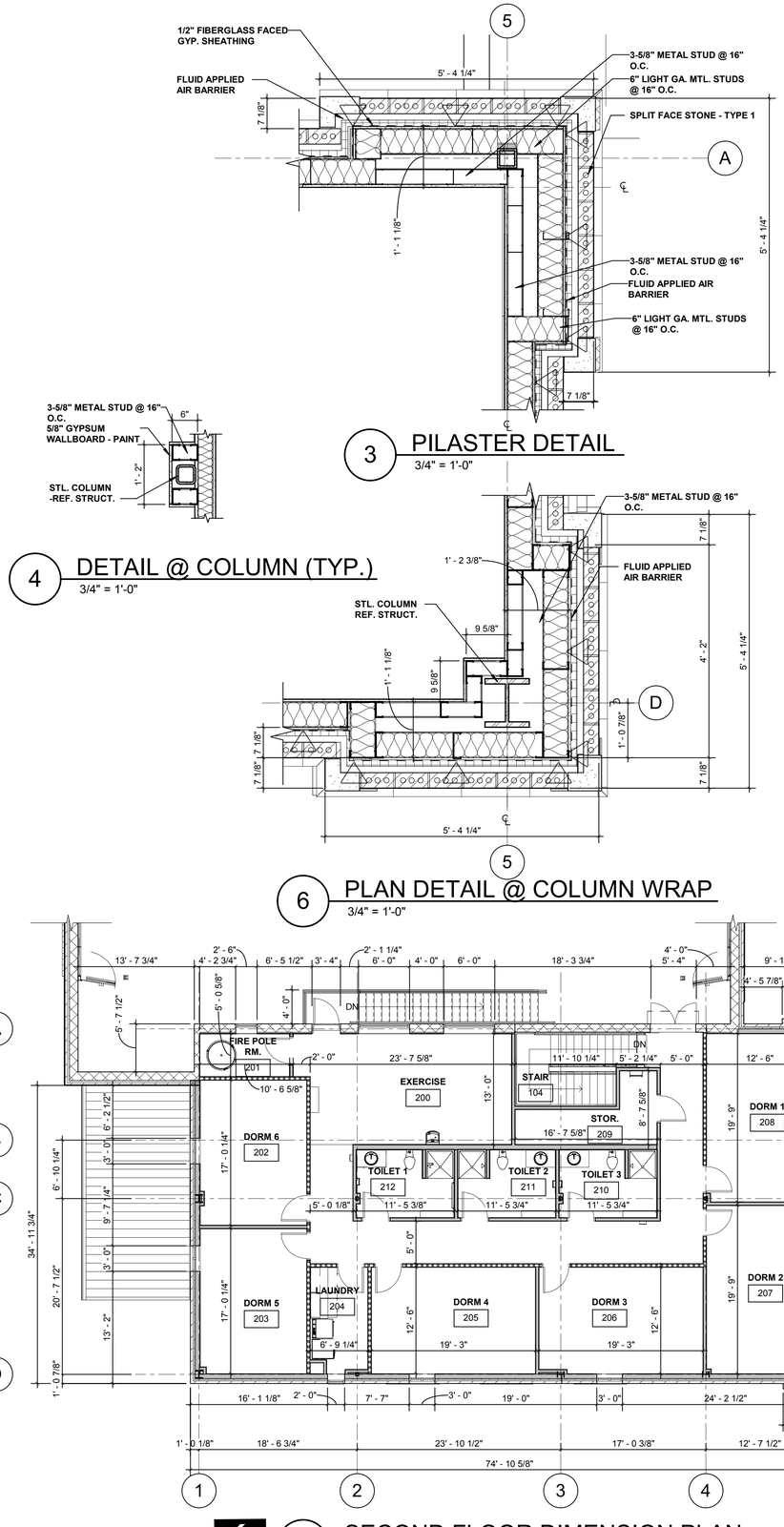
Sheet Title: FLOOR PLANS
Project No.: 17032
Drawn by: REC
Date: 04/13/18
Sheet No.: A2.1

renaissance group

S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/28/2018 7:56:36 AM



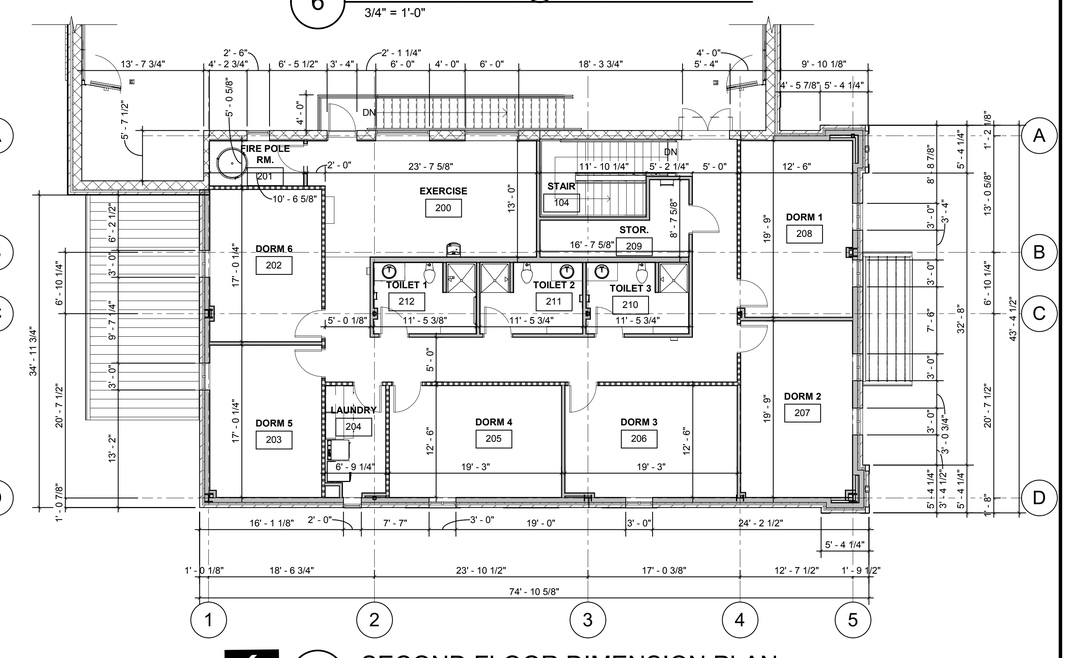
1 FIRST FLOOR DIMENSION PLAN
1/8" = 1'-0"



3 PILASTER DETAIL
3/4" = 1'-0"

4 DETAIL @ COLUMN (TYP.)
3/4" = 1'-0"

6 PLAN DETAIL @ COLUMN WRAP
3/4" = 1'-0"



2 SECOND FLOOR DIMENSION PLAN
1/8" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901.332.5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
ARCHITECTURE
COMMERCE
NO. 101065
STATE OF TENNESSEE
4/13/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY

Sheet Title
DIMENSION PLANS

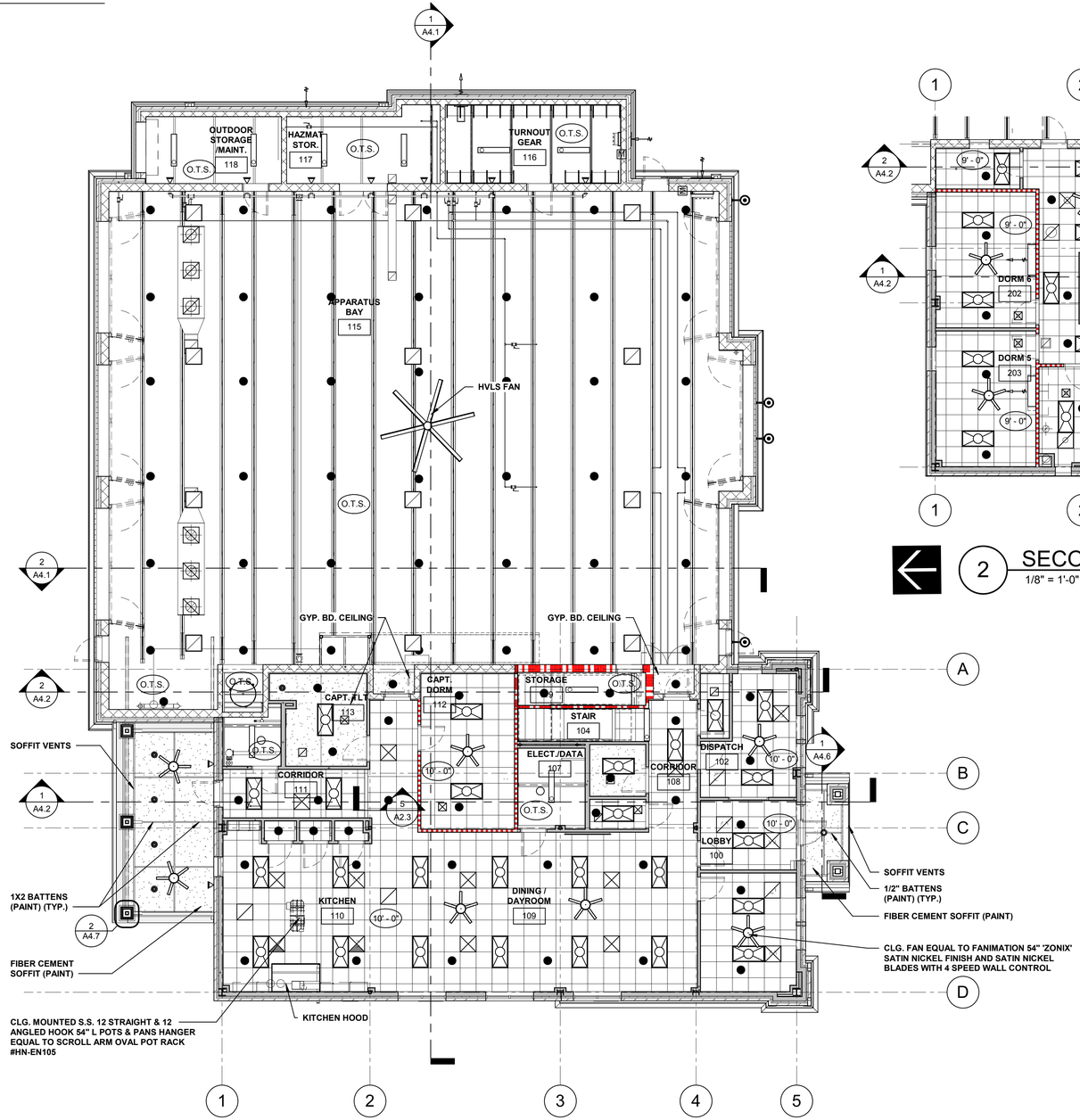
Project No.
17032

Drawn by
REC

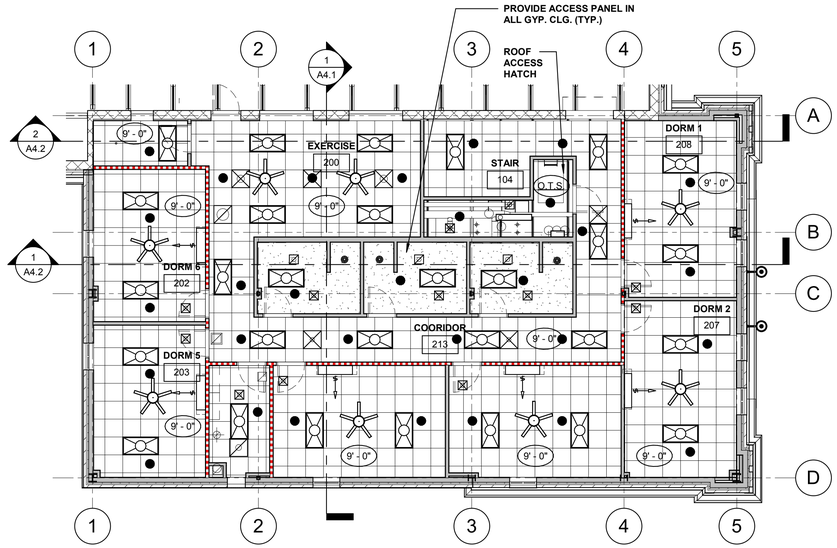
Date
04/13/18

Sheet No.
A2.2

renaissance group
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcollin@rgroup.biz.rvt
4/16/2018 1:29:45 PM



1 FIRST FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"



2 SECOND FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

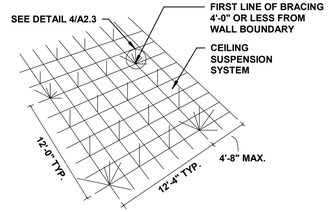
REFLECTED CEILING LEGEND

- LAY-IN ACOUSTICAL TILE CEILING GRID
- GYP. BD. SUSPENDED CEILING
- SUPPLY DIFFUSER
- RETURN AIR VENT
- CEILING MOUNTED UNIT
- WALL MOUNTED LIGHT FIXTURE
- 6" CAN LIGHT FIXTURE
- 2x4 LIGHT FIXTURE
- 4' STRIP FLUORESCENT
- SPRINKLER HEAD - REF. FIRE PROTECTION
- 9' - 0" CEILING HEIGHT RELATIVE TO FINISH FLOOR
- O.T.S. OPEN TO STRUCTURE

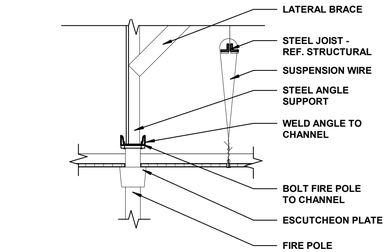
GENERAL NOTES

1. ALL CEILINGS ARE 10'-0" A.F.F. ON FIRST FLOOR AND 9'-0" A.F.F. ON SECOND FLOOR UNLESS NOTED OTHERWISE.
2. PAINT ALL EXPOSED PIPING, DUCTWORK, CONDUIT, ETC. IN APPARATUS BAY AND ADJACENT SPACES.
3. COORDINATE EXACT LOCATIONS WITH LIGHTING, SPRINKLERS, AND MECHANICAL AND NOTIFY ARCHITECT OF ANY CONFLICTS PRIOR TO START OF WORK.

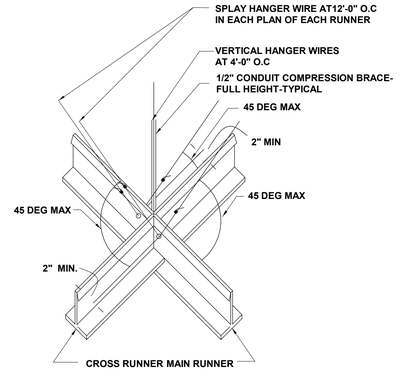
VERIFY EXACT SEISMIC REQUIREMENTS WITH CEILING GRID MANUFACTURER AND INSTALL ACCORDINGLY. PROVIDE ALL NECESSARY COMPONENTS TO MEET MFR.'S RECOMMENDATIONS AND LOCAL CODE REQUIREMENTS.



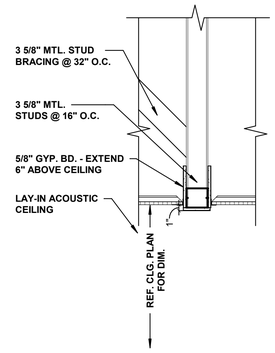
3 CEILING BRACING DETAIL
12" = 1'-0"



6 FIRE POLE CONNECTION
1" = 1'-0"



4 SEISMIC BRACING DETAIL
12" = 1'-0"



5 FURRDOWN DETAIL
1" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901.332.5534
www.rgroup.biz

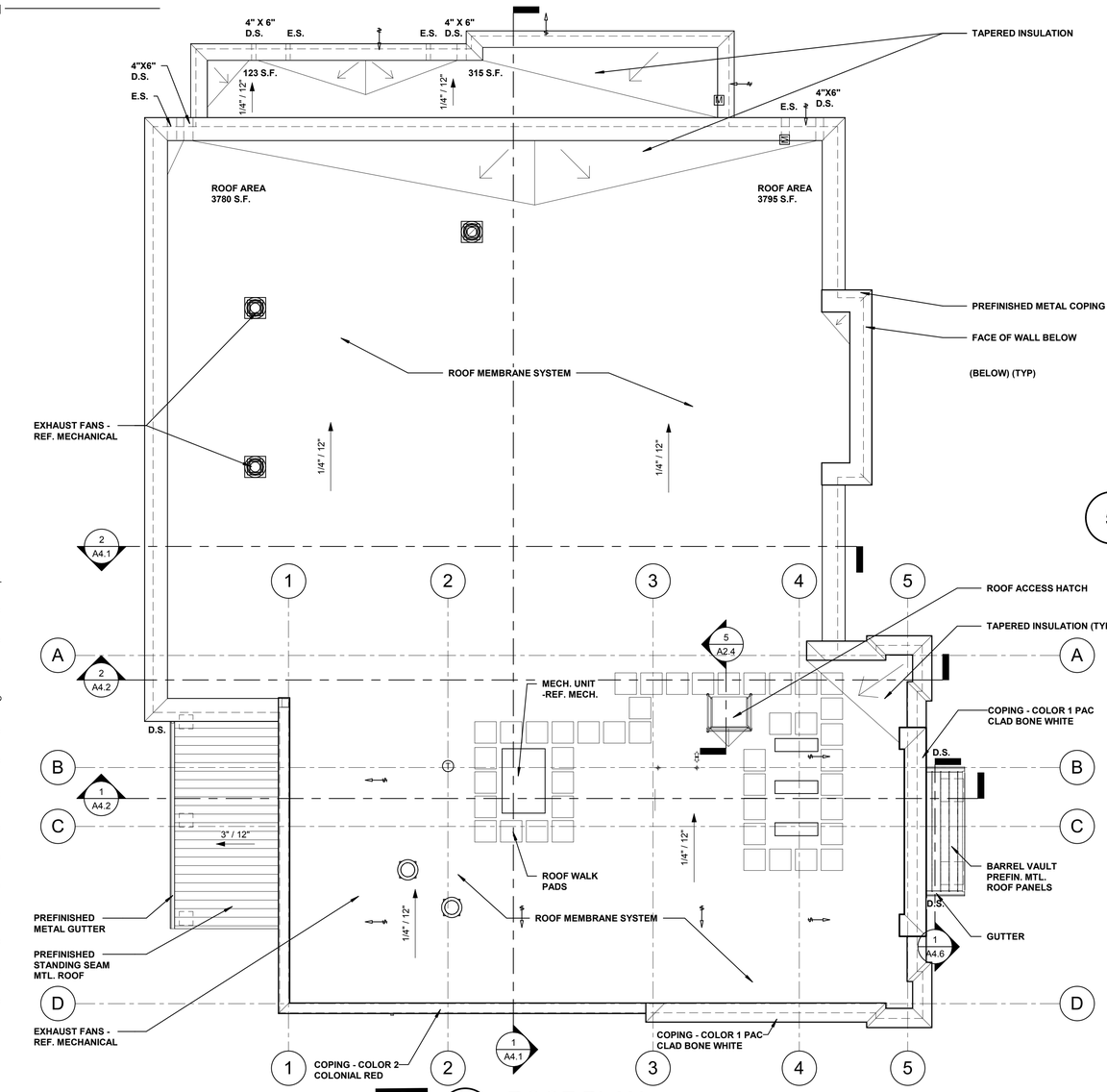
MICHAEL E. TERRY REGISTERED ARCHITECT NO. 101065 STATE OF TENNESSEE 4/16/2018

REV	DESCRIPTION	DATE

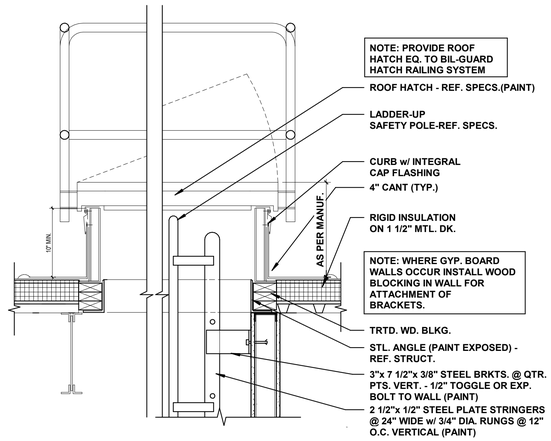
NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: REFLECTED CEILING PLANS
Project No.: 17032
Drawn by: REC
Date: 04/13/18
Sheet No.: A2.3

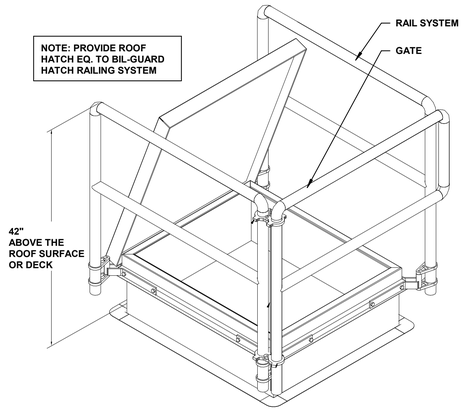
renaissance group
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
4/16/2018 3:39:59 PM



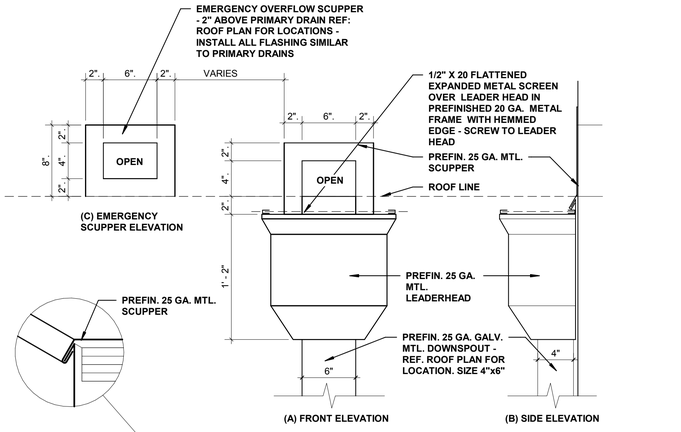
1 ROOF PLAN
1/8" = 1'-0"



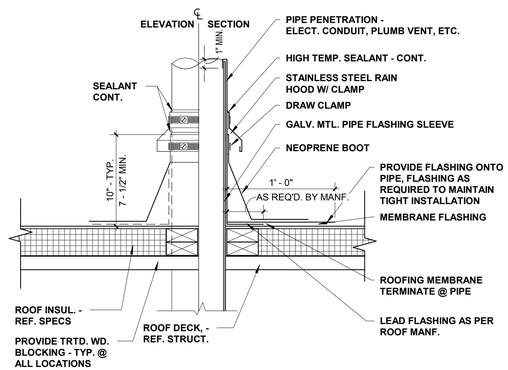
5 SECTION @ ROOF HATCH
1" = 1'-0"



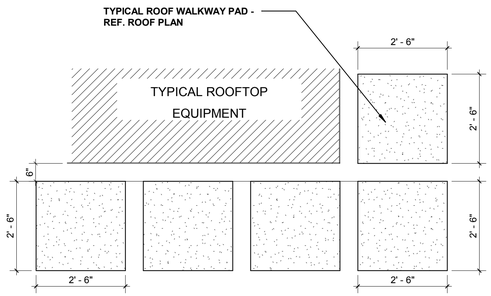
4 ROOF HATCH
1 1/2" = 1'-0"



3 ROOF SCUPPER AND DOWNSPOUT DETAILS
1 1/2" = 1'-0"



6 ROOF PENETRATION DETAIL
1 1/2" = 1'-0"



2 ROOF WALK PADS
1/2" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901 332 5534
www.rgroup.biz

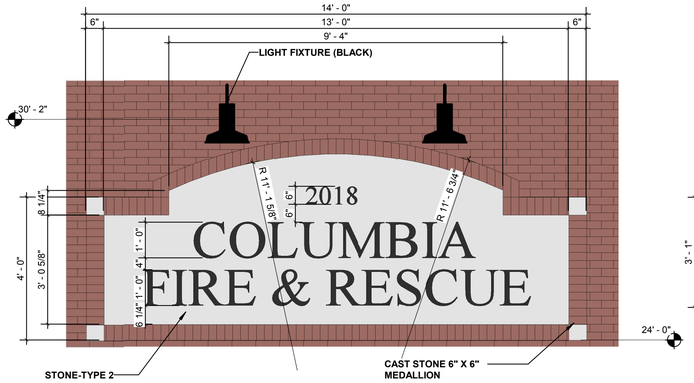
MICHAEL E. TERRY REGISTERED ARCHITECT 5/8/2018 NO. 101065 STATE OF TENNESSEE

REV	DESCRIPTION	DATE

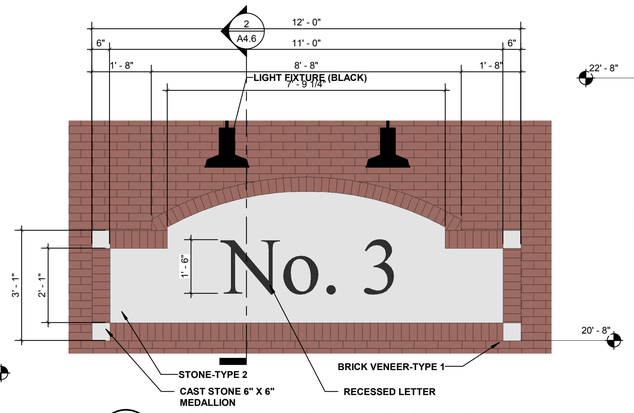
NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: ROOF PLAN
Project No.: 17032
Drawn by: REC
Date: 04/13/18
Sheet No.: A2.4

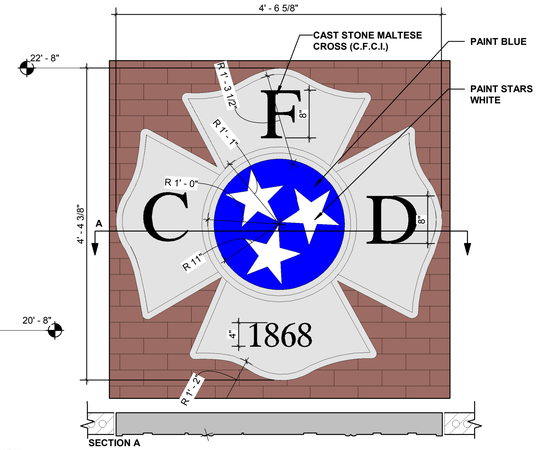
r e n a i s s a n c e g r o u p
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcollin@group.biz.rvt
4/16/2018 3:48:00 PM



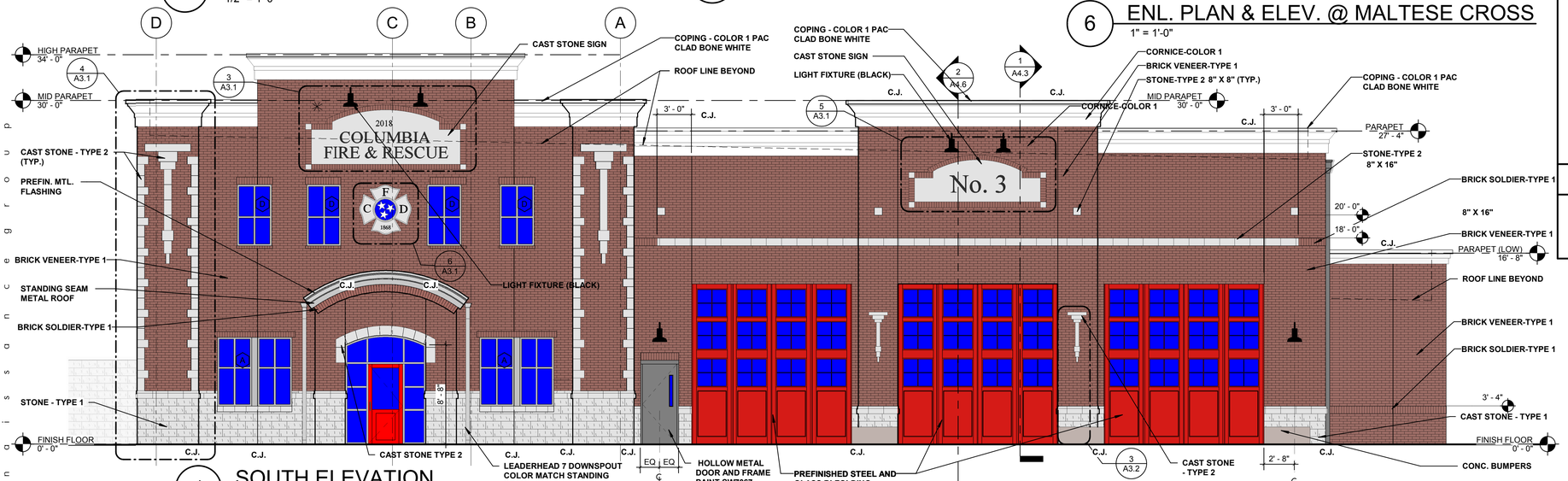
3 FRONT ENTRY SIGNAGE
1/2" = 1'-0"



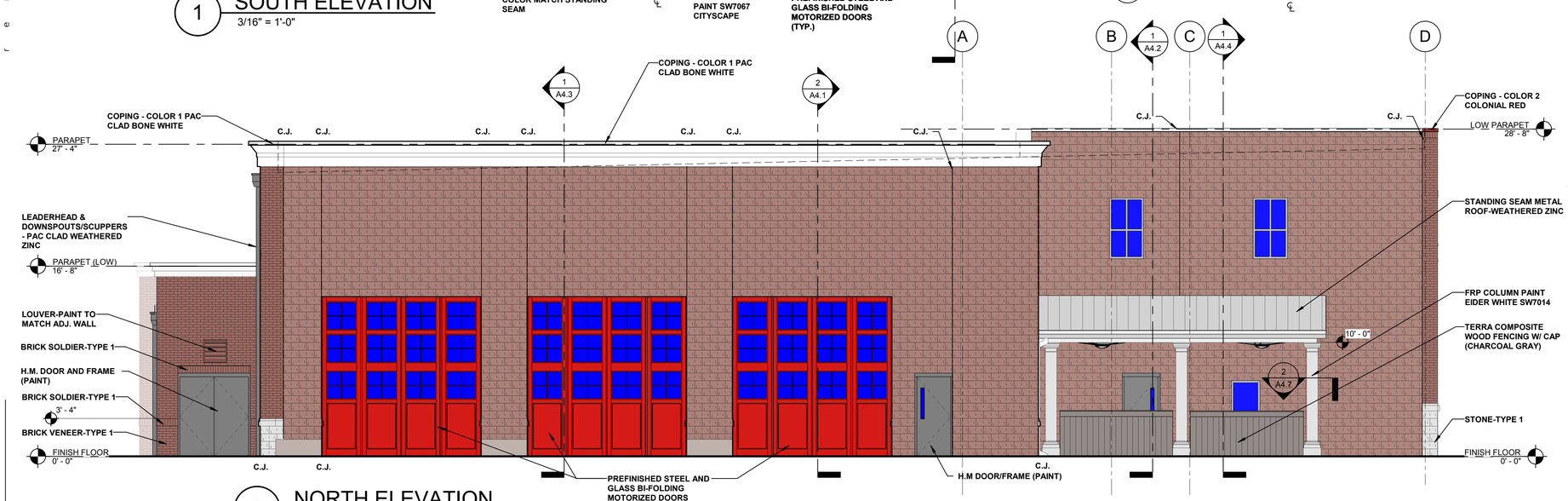
5 APPARATUS BAY SIGNAGE
1/2" = 1'-0"



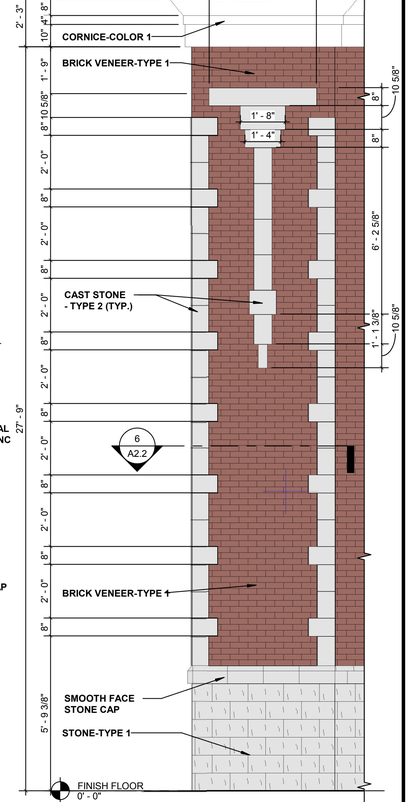
6 ENL. PLAN & ELEV. @ MALTESE CROSS
1" = 1'-0"



1 SOUTH ELEVATION
3/16" = 1'-0"



2 NORTH ELEVATION
3/16" = 1'-0"



4 ELEV. @ ENG. COLUMN
3/8" = 1'-0"

EXTERIOR ELEVATIONS LEGEND

MASONRY TYPES :

- BRICK TYPE 1 - CHEROKEE BRICK ST. JAMES MODULAR SIZE
- STONE TYPE 1 - 8" ROCK FACE DELTA CAST STONE COLOR: NATURAL LIME
- STONE TYPE 2 - 8" SMOOTH FACE DELTA CAST STONE COLOR: NATURAL LIME
- SMOOTH FACE STONE CAP
- STANDING SEAM METAL ROOF - PAC CLAD WEATHERED ZINC
- STONE TYPE 2 - CMU VENEER (BASE BID) - REF. ALTERNATE #1 COLOR: PAINT TO MATCH BRICK

MORTAR:
NATIONAL CEMENT COMPANY
COOSA IVORY BUFF

PAINT COLORS:

- CORNICE - EIDER WHITE SW 7014
- APPARATUS BAY AND TOWER ENTRY DOORS - GYPSY RED SW 6865
- HOLLOW METAL DOORS/FRAMES - CITYSCAPE - SW 7067

ROOFING:

- METAL ROOF PANELS - PAC CLAD WEATHERED ZINC
- COPING COLOR 1 - PAC CLAD BONE WHITE
- COPING COLOR 2 - PAC CLAD COLONIAL RED
- LEADERHEAD & DOWNSPOUTS/SCUPPERS - PAC CLAD WEATHERED ZINC

WINDOWS:

- CLEAR ANODIZED ALUMINUM

FRP COLUMNS & BRACKETS:

- EIDER WHITE SW7014

WALL MOUNTED LIGHT FIXTURES: BLACK

FENCING:

- NATURES COMPOSITES COMPOSITE WOOD FENCING W/ CAP (COLOR - CHARCOAL GRAY)

ELEVATIONS GENERAL NOTES

1. THESE ELEVATIONS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE CITY OF COLUMBIA'S ARCHITECTURAL REVIEW BOARD APPROVAL. CHANGES SHALL NOT BE MADE TO THE APPROVED ELEVATIONS UNLESS APPROVED BY THE COLUMBIA DEPARTMENT OF DEVELOPMENT SERVICES.

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

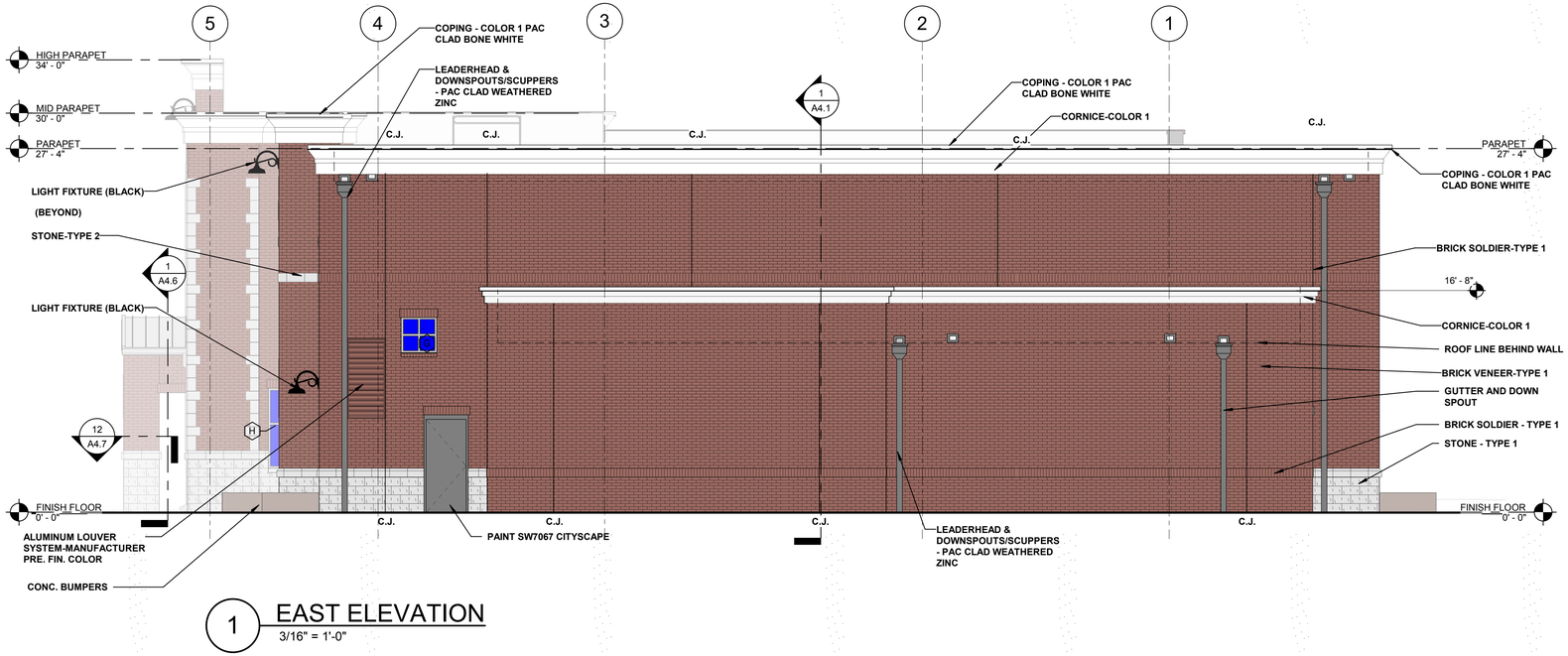
MICHAEL E. TERRY
REGISTERED ARCHITECT
TENNESSEE
COMMERCE
NO. 101065
STATE OF TENNESSEE
4/26/18

REV	DESCRIPTION	DATE

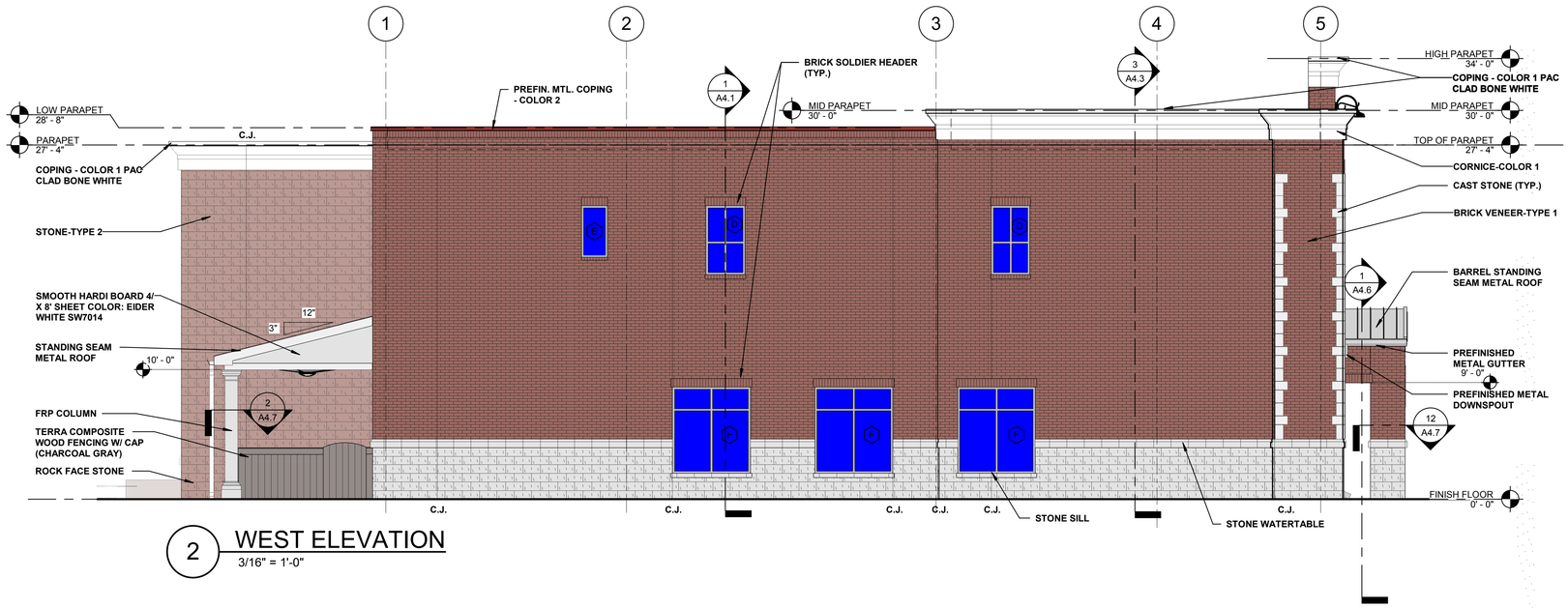
NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: EXTERIOR ELEVATIONS
Project No.: 17032
Drawn by: REC
Date: 04/13/18
Sheet No.: A3.1

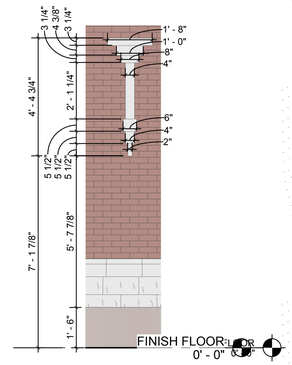
renaissance group
S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcollin@rgroup.biz.rvt
9/26/2018 2:30:09 PM



1 EAST ELEVATION
3/16" = 1'-0"



2 WEST ELEVATION
3/16" = 1'-0"



3 ELEV. @ STONEWORK
3/8" = 1'-0"

EXTERIOR ELEVATIONS LEGEND

MASONRY TYPES :

- BRICK TYPE 1 - CHEROKEE BRICK ST. JAMES MODULAR SIZE
- STONE TYPE 1 - 8" ROCK FACE DELTA CAST STONE COLOR: NATURAL LIME
- STONE TYPE 2 - 8" SMOOTH FACE DELTA CAST STONE COLOR: NATURAL LIME
- SMOOTH FACE STONE CAP
- STANDING SEAM METAL ROOF - PAC CLAD WEATHERED ZINC
- STONE TYPE 2 - CMU VENEER (BASE BID) - REF. ALTERNATE #1 COLOR: PAINT TO MATCH BRICK

MORTAR:
NATIONAL CEMENT COMPANY
COOSA IVORY BUFF

PAINT COLORS:

CORNICE - EIDER WHITE SW 7014

APPARATUS BAY AND TOWER ENTRY DOORS - GYPSY RED SW 6865

HOLLOW METAL DOORS/FRAMES - CITYSCAPE - SW 7067

ROOFING:
METAL ROOF PANELS - PAC CLAD WEATHERED ZINC

COPING COLOR 1 - PAC CLAD BONE WHITE

COPING COLOR 2 - PAC CLAD COLONIAL RED

LEADERHEAD & DOWNSPOUTS/SCUPPERS - PAC CLAD WEATHERED ZINC

WINDOWS:

CLEAR ANODIZED ALUMINUM

FRP COLUMNS & BRACKETS:

EIDER WHITE SW7014

WALL MOUNTED LIGHT FIXTURES: BLACK

FENCING:

NATURES COMPOSITES COMPOSITE WOOD FENCING W/ CAP (COLOR - CHARCOAL GRAY)

ELEVATIONS GENERAL NOTES

1. THESE ELEVATIONS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE CITY OF COLUMBIA'S ARCHITECTURAL REVIEW BOARD APPROVAL. CHANGES SHALL NOT BE MADE TO THE APPROVED ELEVATIONS UNLESS APPROVED BY THE COLUMBIA DEPARTMENT OF DEVELOPMENT SERVICES.

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
ARCHITECTURE
COMMERCE
NO. 101065
STATE OF TENNESSEE
5/8/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE & RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
EXTERIOR ELEVATIONS

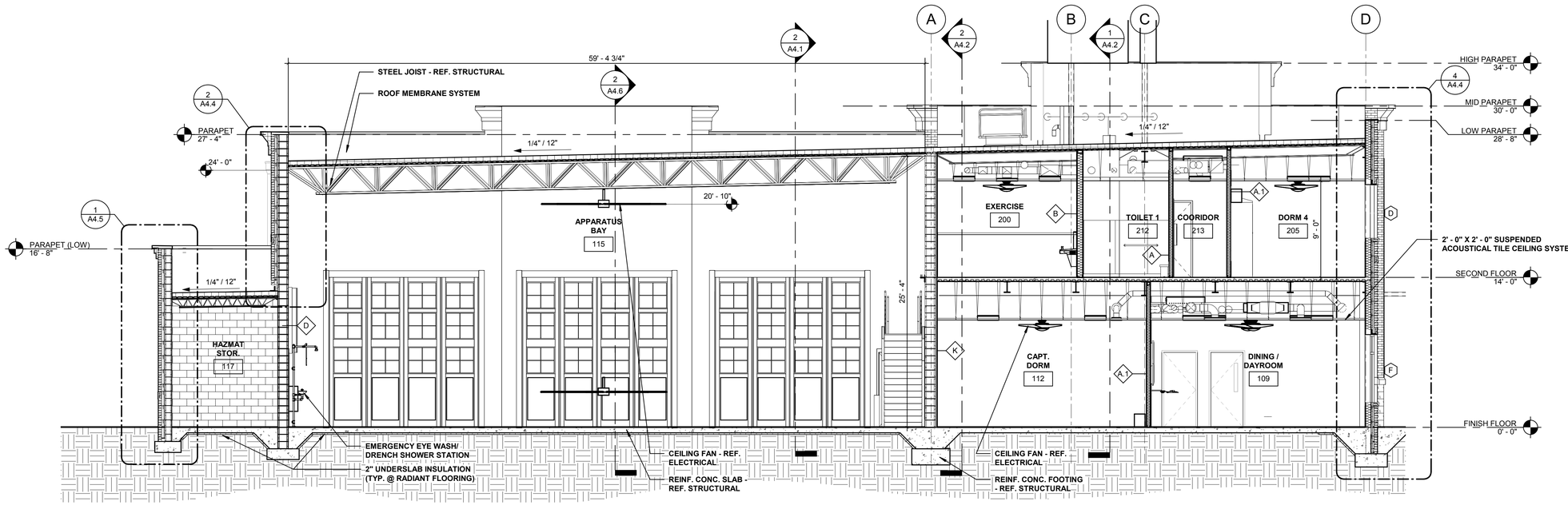
Project No.
17032

Drawn by
REC

Date
04/13/18

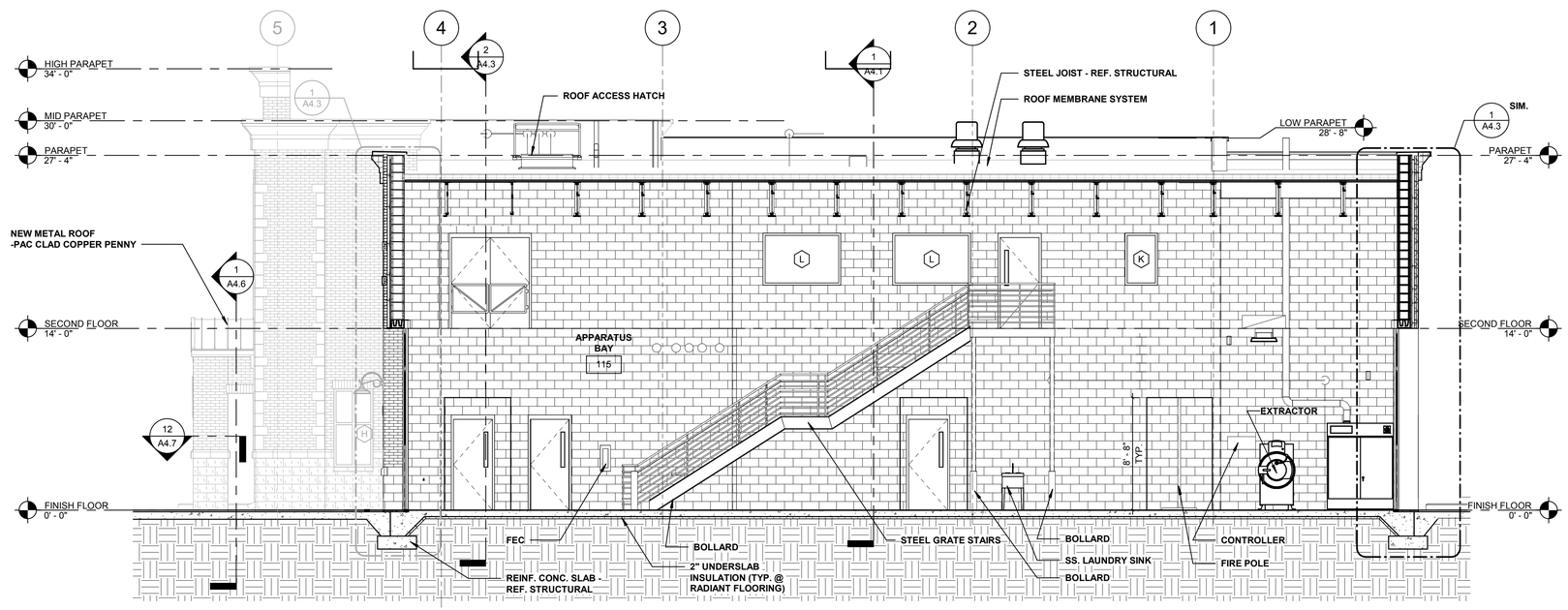
Sheet No.
A3.2

renaissance group
S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/26/2018 2:31:16 PM



1 LONGITUDINAL BUILDING SECTION

3/16" = 1'-0"



2 APPARATUS BAY SECTION

3/16" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY REGISTERED ARCHITECT 04/13/18 STATE OF TENNESSEE NO. 101065

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE & RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: BUILDING SECTIONS

Project No.: 17032

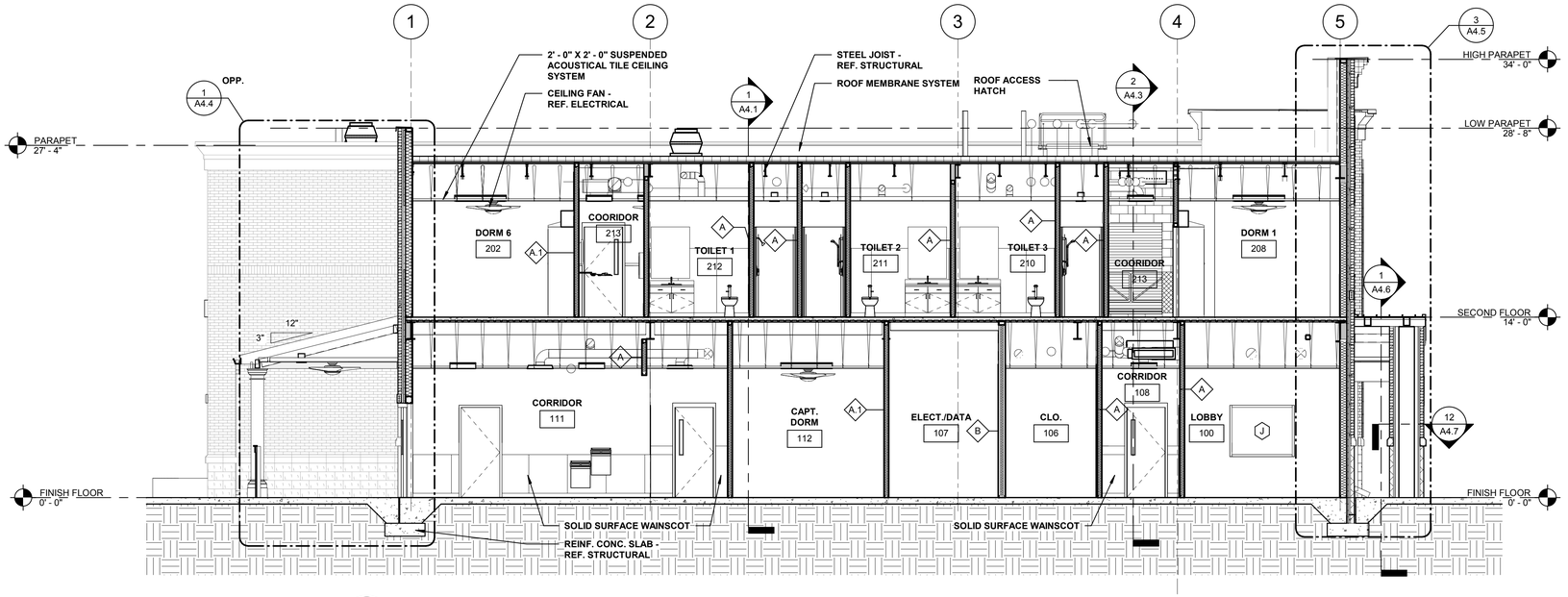
Drawn by: REC

Date: 04/13/18

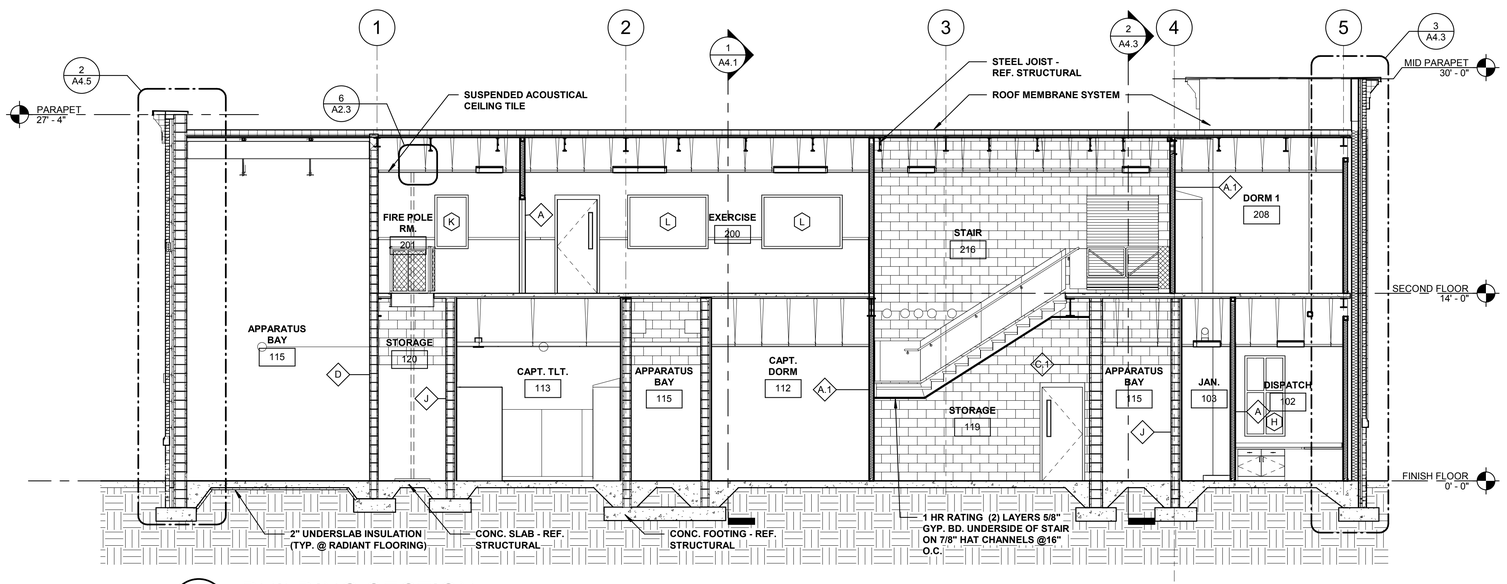
Sheet No.: A4.1

renaissance group

S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/28/2018 1:35:10 PM



1 BUILDING SECTION
3/16" = 1'-0"



2 BUILDING SECTION
3/16" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
TENNESSEE
COMMERCE
NO. 101065
STATE OF TENNESSEE
4/13/2018

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE & RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY
CITY OF COLUMBIA TENNESSEE

Sheet Title
BUILDING SECTIONS

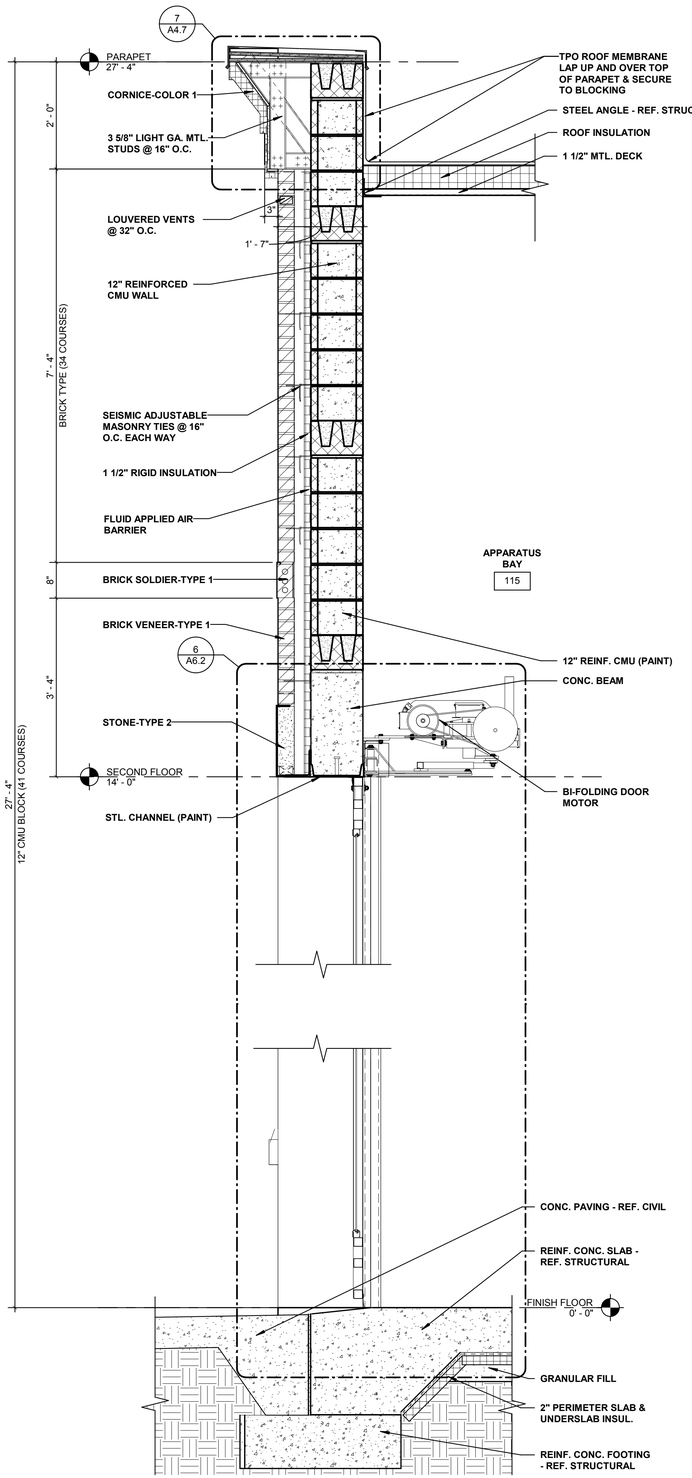
Project No.
17032

Drawn by
REC

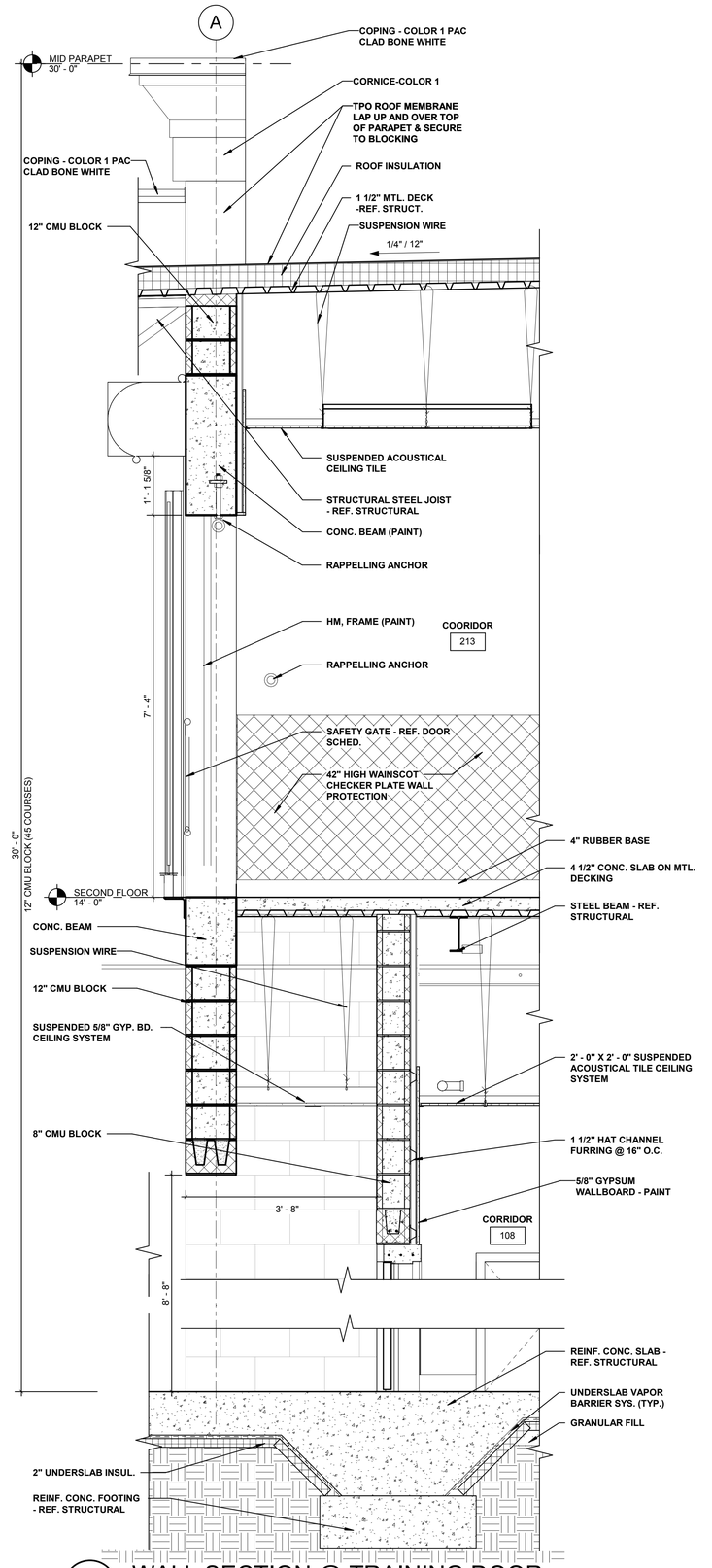
Date
04/13/18

A4.2
Sheet No.

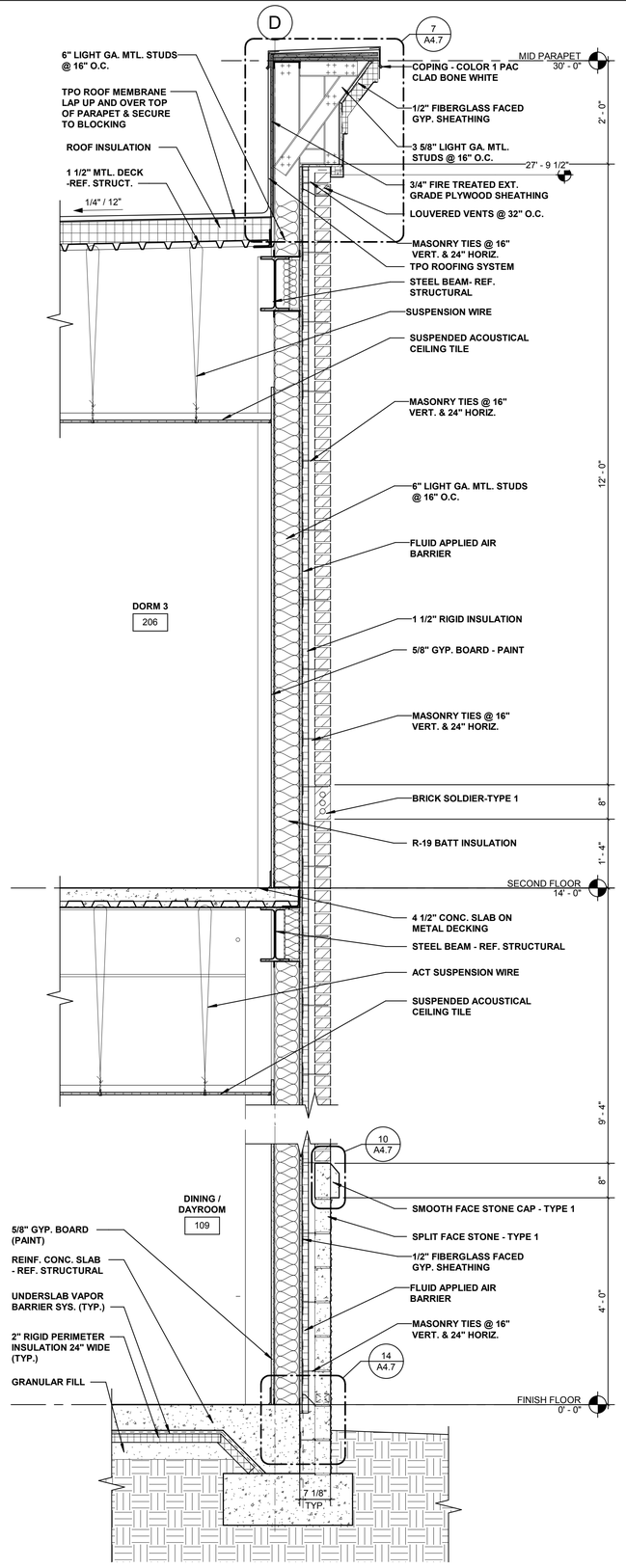
renaissance group
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
4/16/2018 1:45:11 PM



1 WALL SECTION @ FOLDING DOOR
3/4" = 1'-0"



2 WALL SECTION @ TRAINING DOOR
3/4" = 1'-0"



3 WALL SECTION @ BRICK/MTL. STUD
3/4" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901.332.5534
www.rgroup.biz

MICHAEL E. TERRY REGISTERED ARCHITECT 04/13/18 NO. 101065 STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
WALL SECTIONS

Project No.
17032

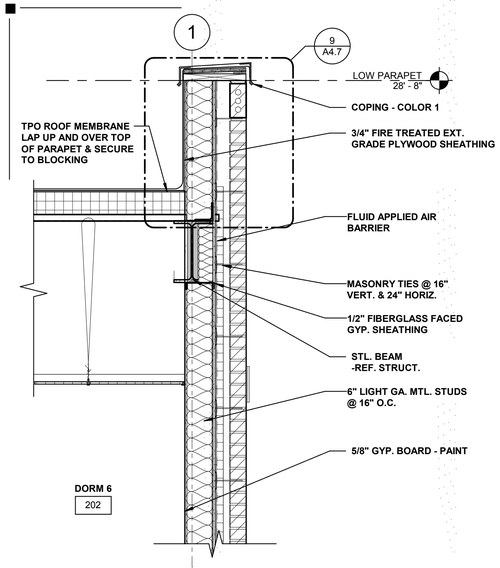
Drawn by
KNG

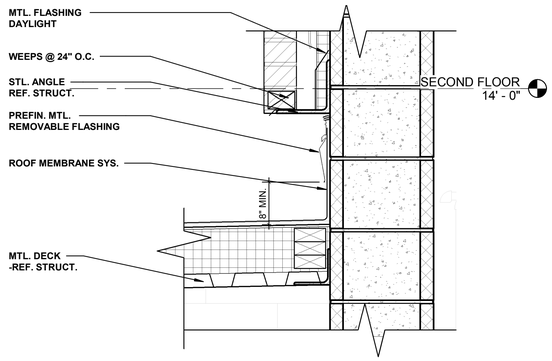
Date
04/13/18

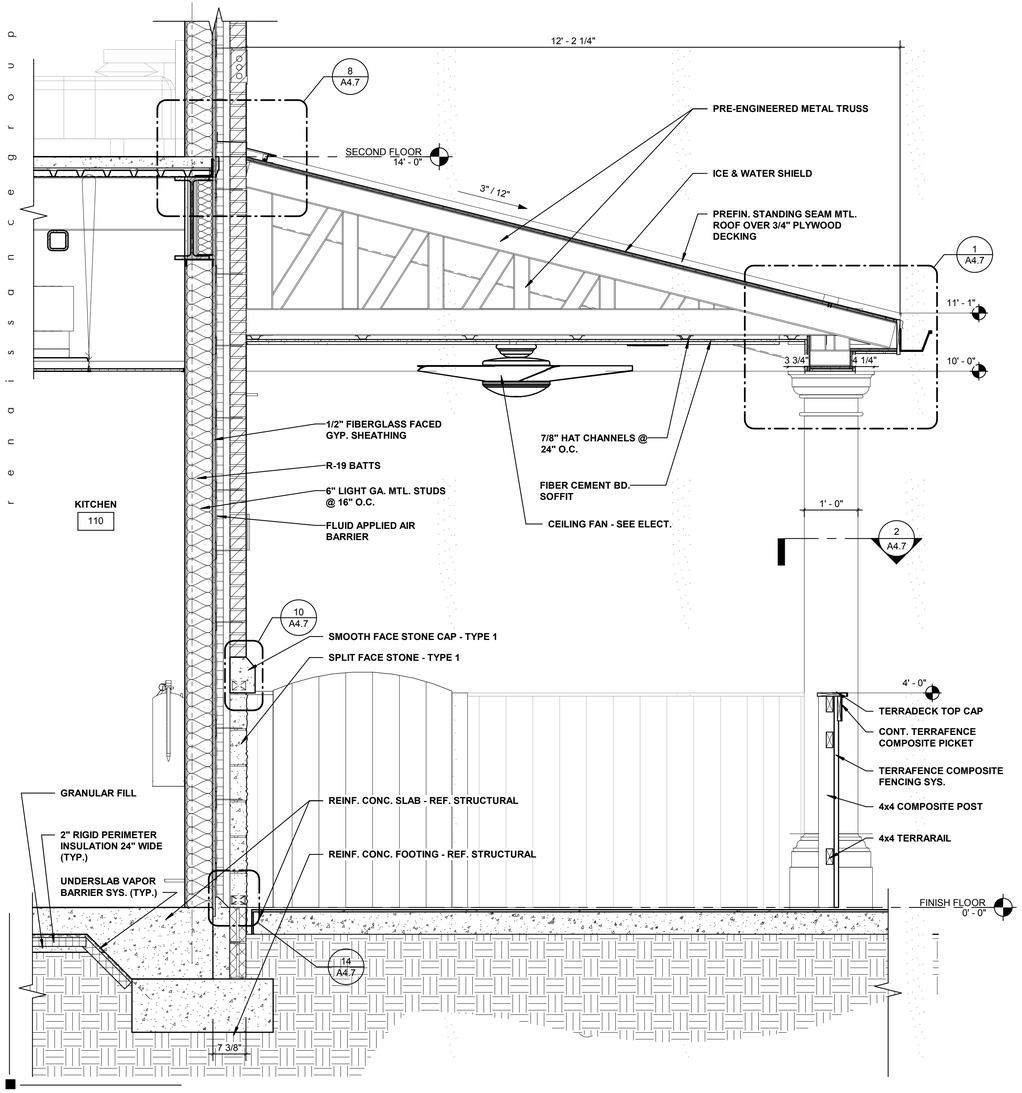
Sheet No.
A4.3

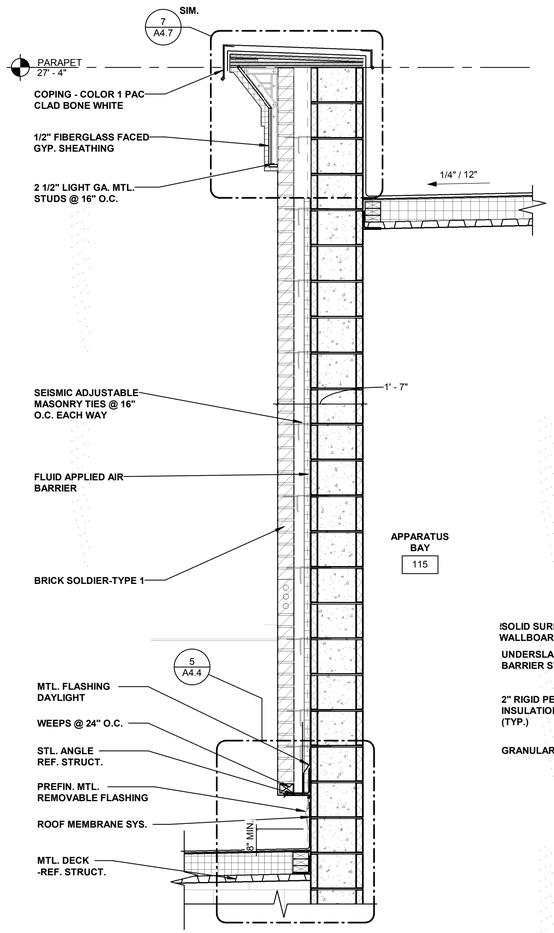
r e n a i s s a n c e g r o u p

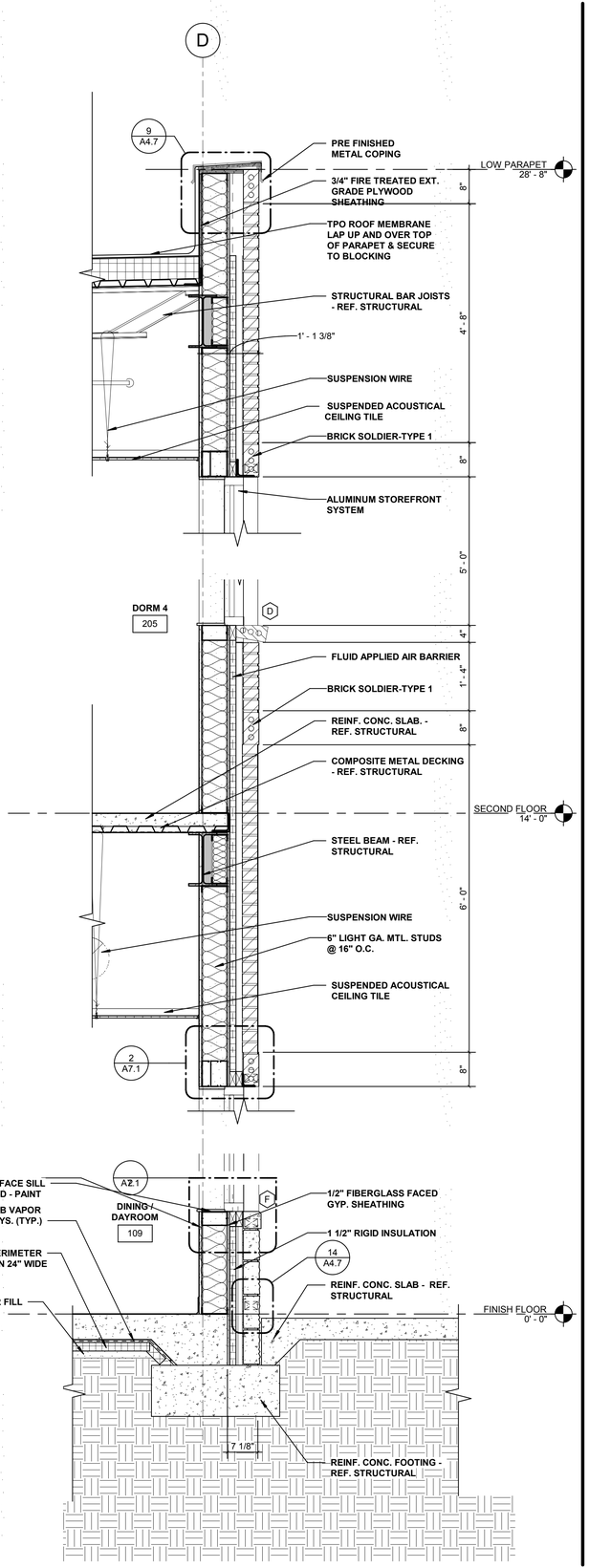
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
4/16/2018 1:43:58 PM











Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901.332.5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
STATE OF TENNESSEE
NO. 101065
4/13/2018

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE & RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY
CITY OF COLUMBIA TENNESSEE

Sheet Title
WALL SECTIONS

Project No.
17032

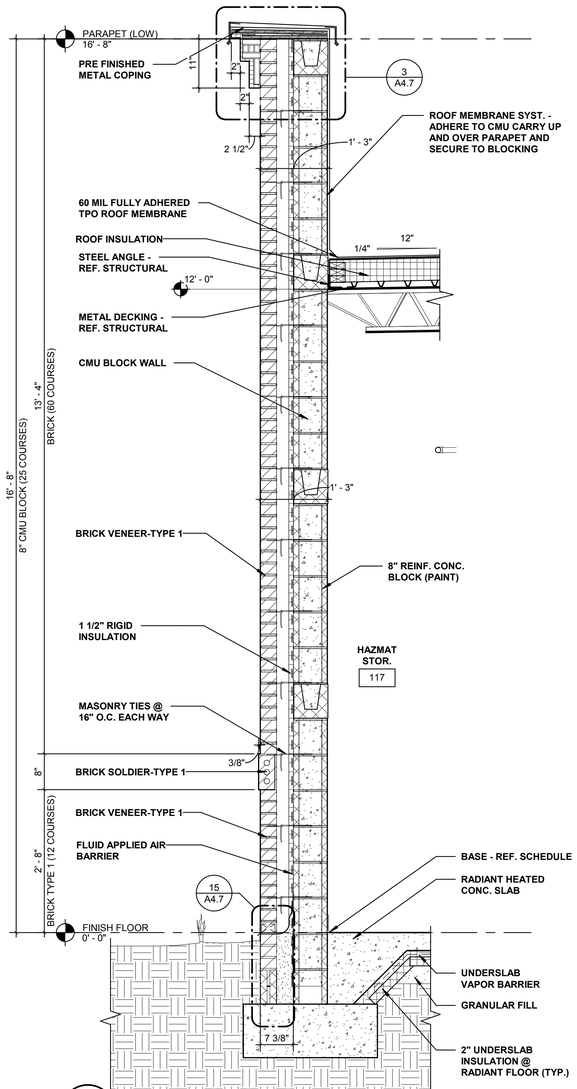
Drawn by
KNG

Date
04/13/18

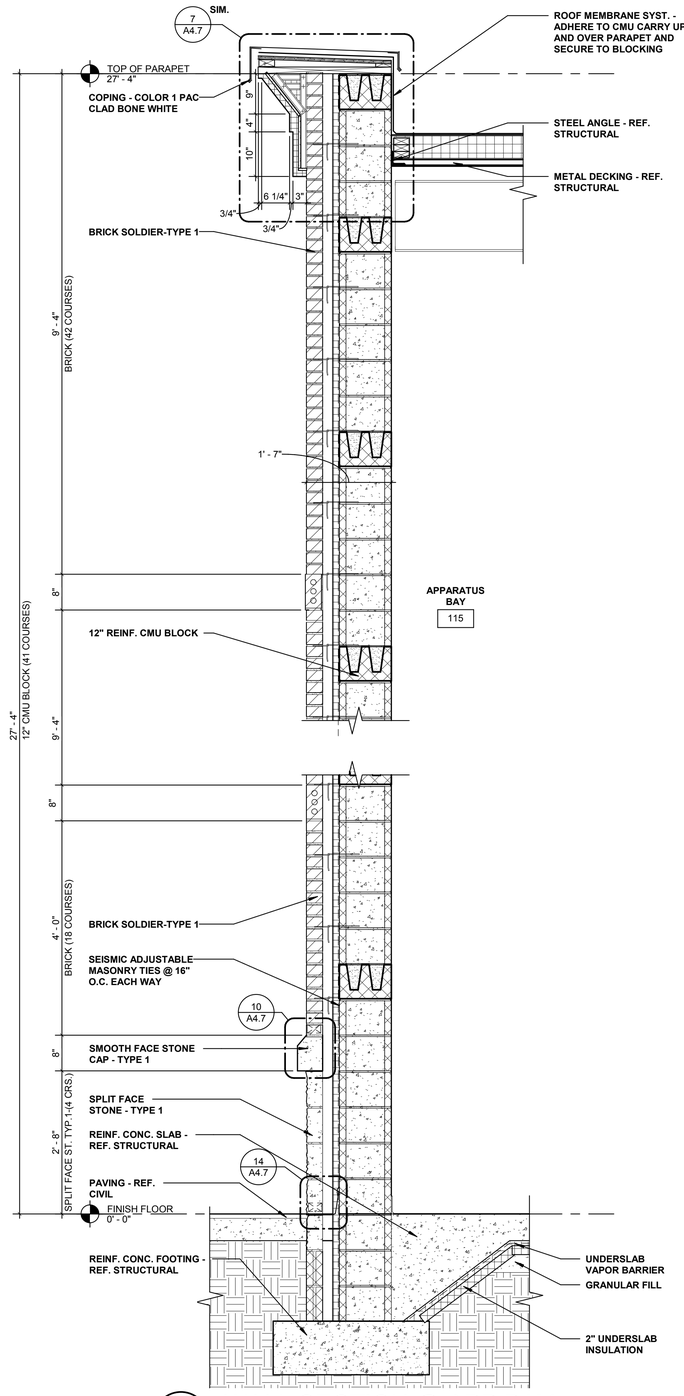
Sheet No.
A4.4

C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
4/16/2018 1:47:11 PM

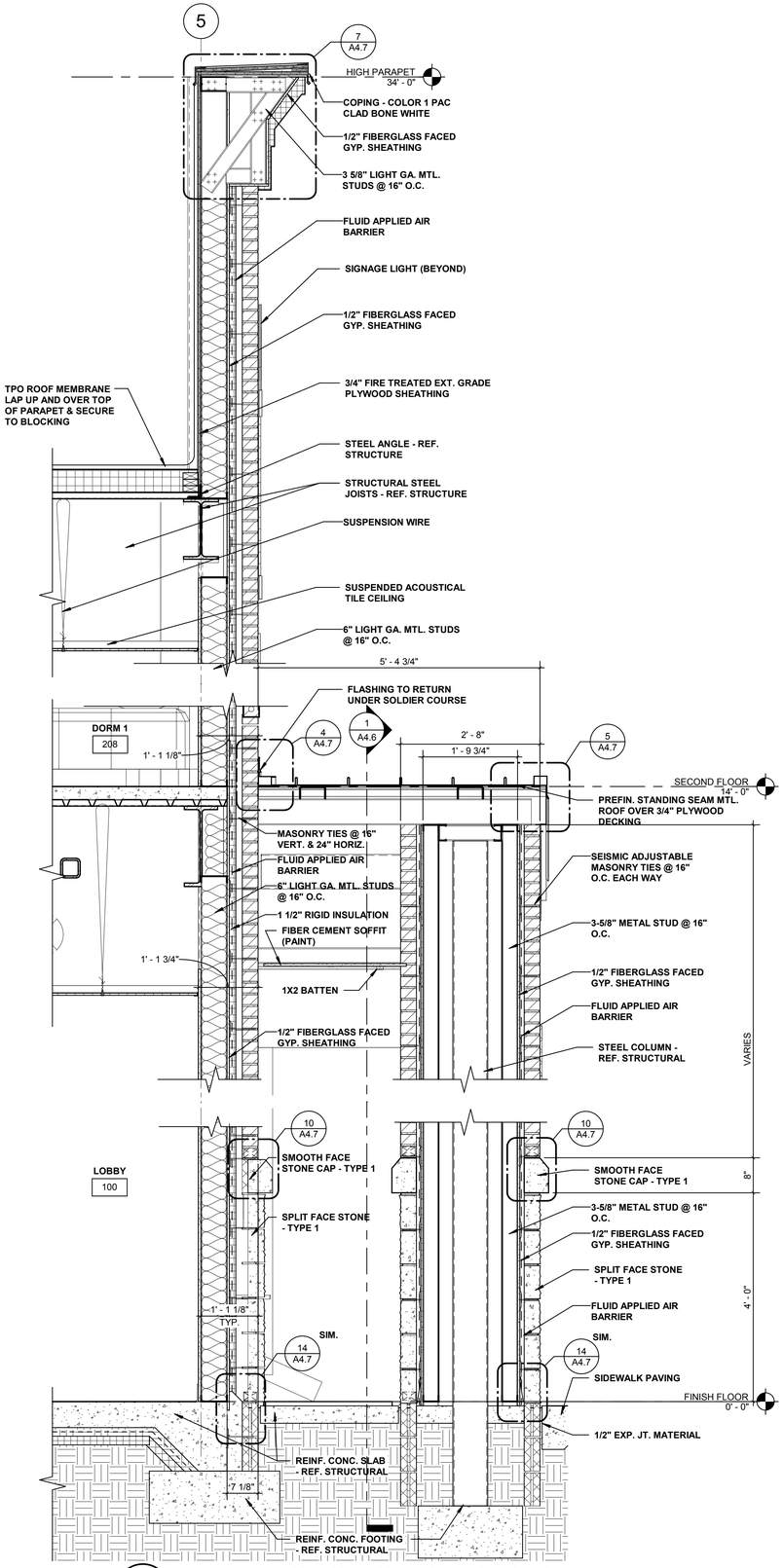
renaissance group



1 WALL SECTION @ HAZMAT STORAGE
3/4" = 1'-0"



2 WALL SECTION @ APP BAY
3/4" = 1'-0"



3 WALL SECTION @ HIGH PARAPET
3/4" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
ARCHITECTURE
COMMERCE
NO. 101065
STATE OF TENNESSEE
4/13/18

REV	DESCRIPTION	DATE

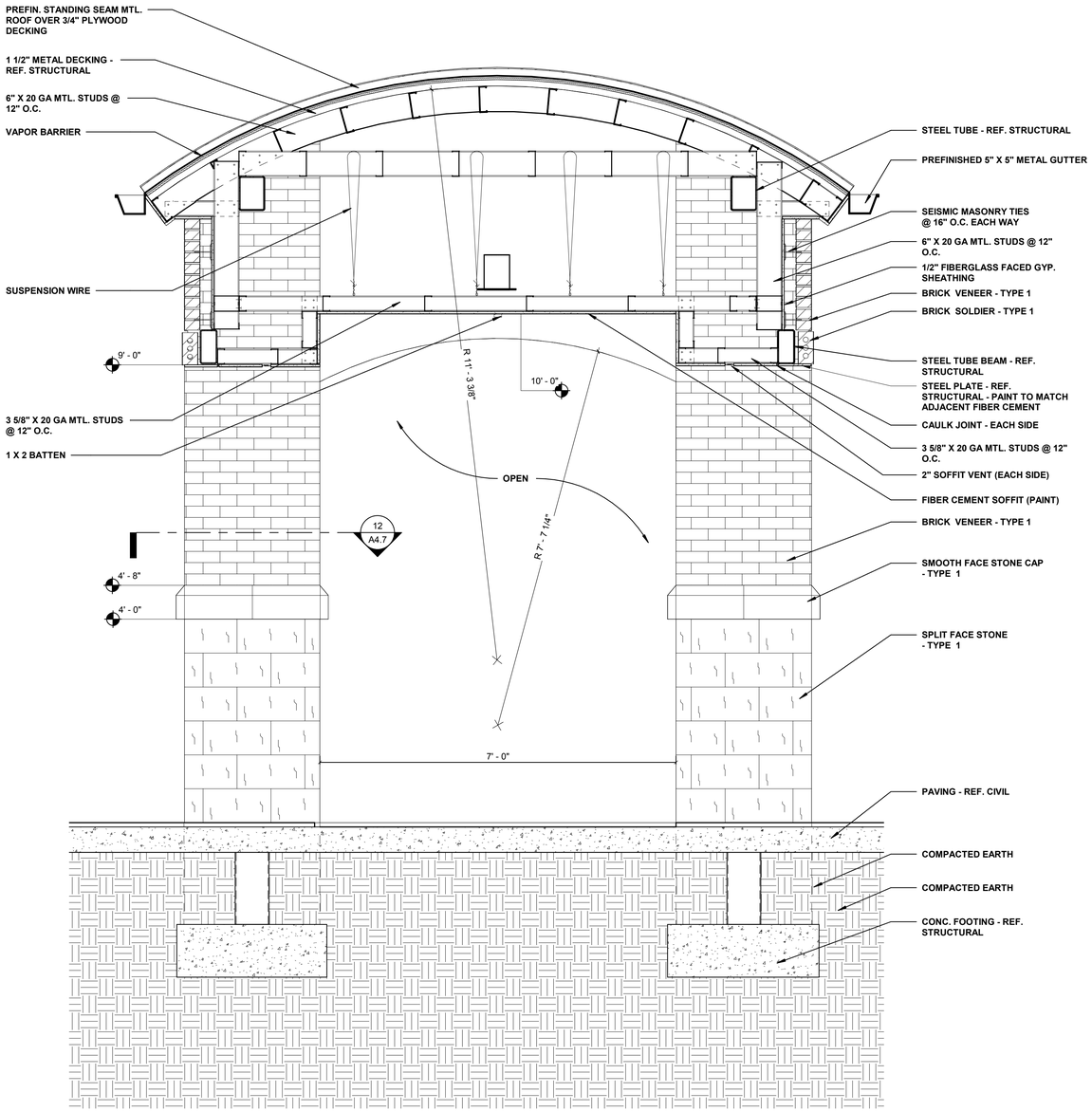
NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY

Sheet Title: WALL SECTIONS
Project No.: 17032
Drawn by: KNG
Date: 04/13/18
Sheet No.: A4.5

r e n a i s s a n c e g r o u p

C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
4/16/2018 1:44:56 PM



1 SECTION @ ENTRY CANOPY
3/4" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901.332.5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
NO. 101065
STATE OF TENNESSEE
5/8/2018

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY
CITY OF COLUMBIA TENNESSEE

Sheet Title
WALL SECTIONS

Project No.
17032

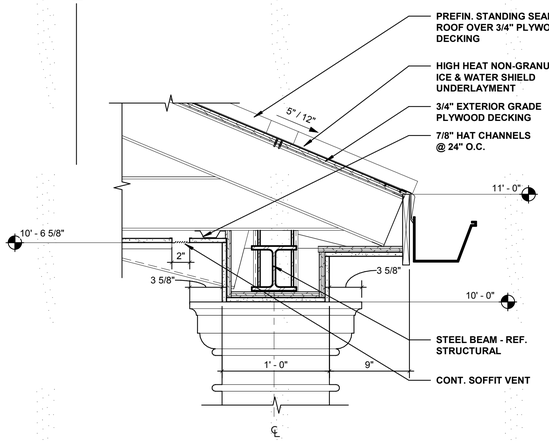
Drawn by
Author

Date
04/13/18

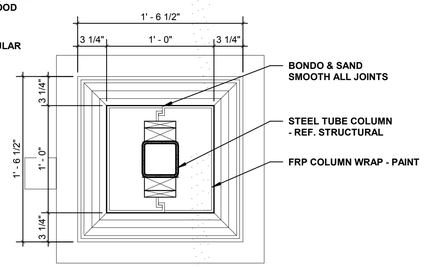
Sheet No.
A4.6

c e g r o u p
r e n a i s s a n c e

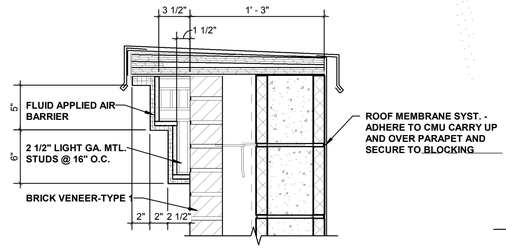
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcoln@rgroup.biz.rvt
4/16/2018 1:44:57 PM



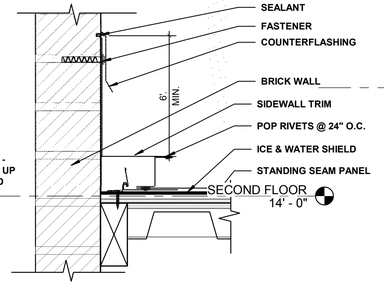
1 SECTION @ EAVE
1 1/2" = 1'-0"



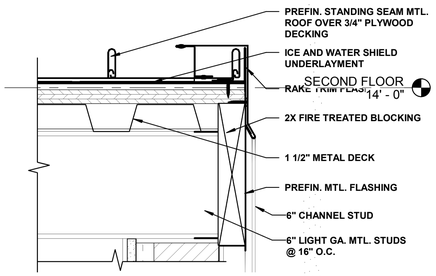
2 SECTION @ COLUMN
1 1/2" = 1'-0"



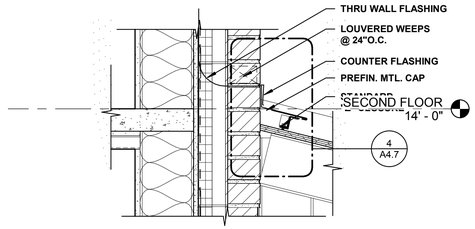
3 SECTION @ COPING
1 1/2" = 1'-0"



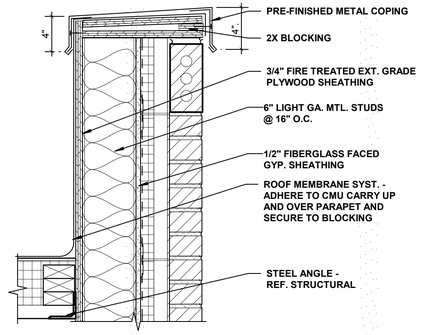
4 DETAIL @ COUNTERFLASHING
3" = 1'-0"



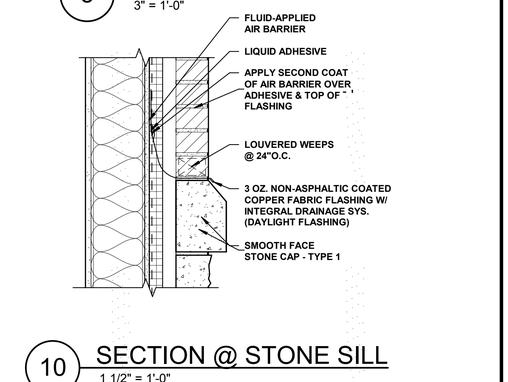
5 DETAIL @ RAKE TRIM
3" = 1'-0"



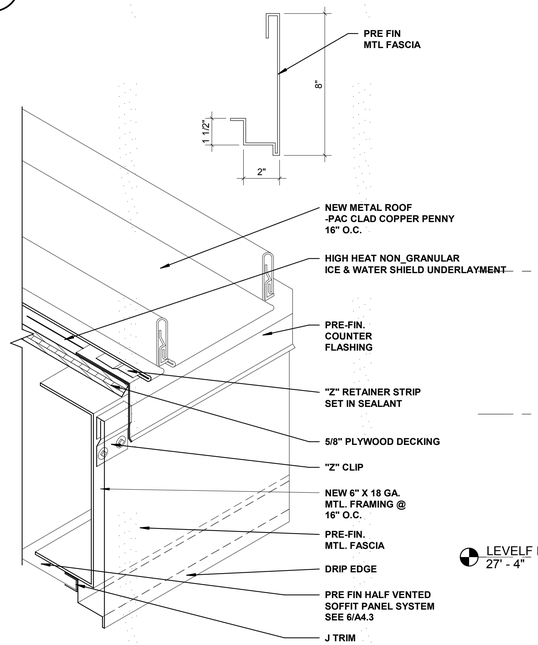
8 DETAIL @ CANOPY FLASHING
1 1/2" = 1'-0"



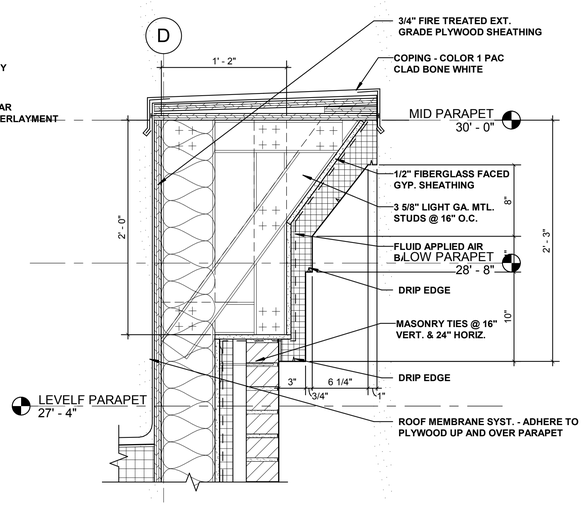
9 COPING DETAIL (TYP.)
1 1/2" = 1'-0"



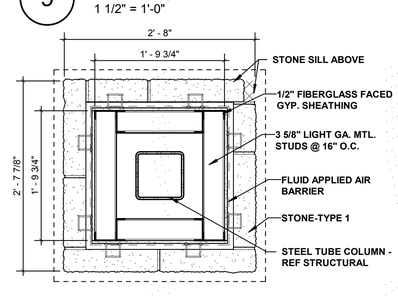
10 SECTION @ STONE SILL
1 1/2" = 1'-0"



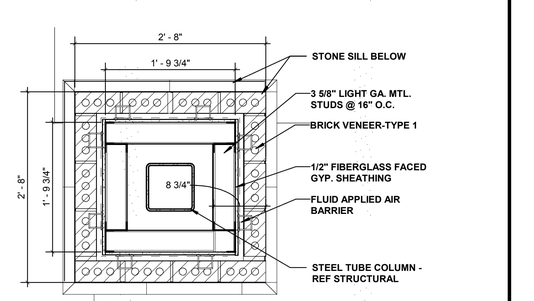
6 COUNTER FLASHING ISOMETRIC
3" = 1'-0"



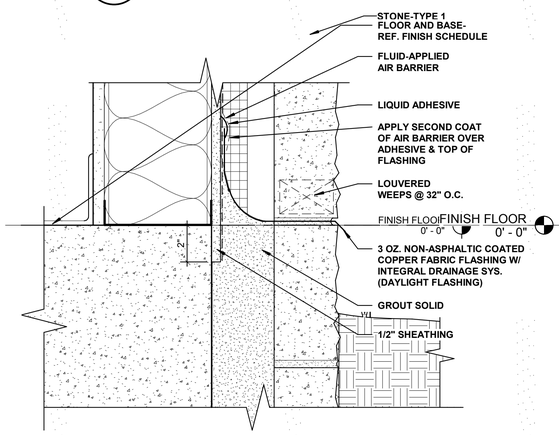
7 COPING DETAIL @ EIFS PARAPET
1 1/2" = 1'-0"



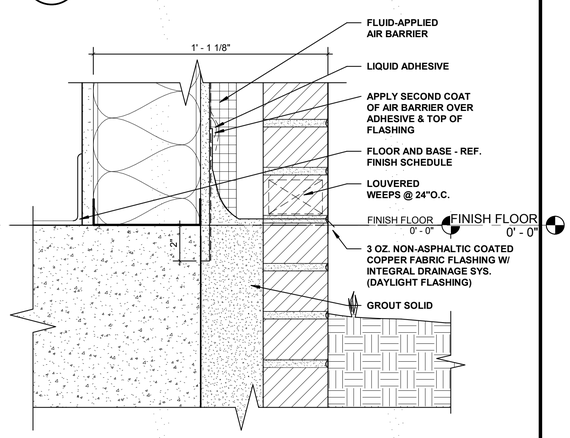
11 PLAN DETAIL @ (STONE)
1" = 1'-0"



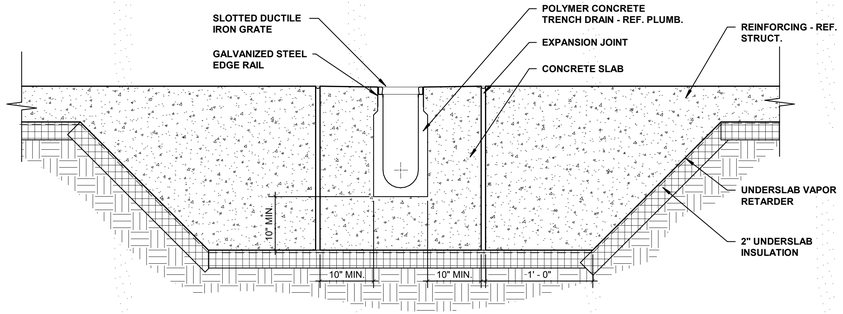
12 PLAN DETAIL @ BRICK
1" = 1'-0"



14 TYP. FLASHING DETAIL @ STONE
3" = 1'-0"



15 TYP. FLASHING DETAIL @ BRICK
3" = 1'-0"



13 TRENCH DRAIN DTL.
1 1/2" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

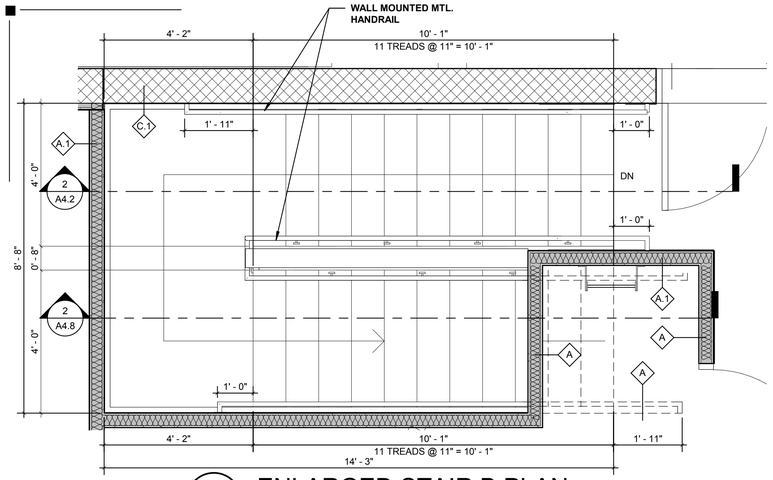
MICHAEL E. TERRY REGISTERED ARCHITECT 5/8/2018 NO. 101065 STATE OF TENNESSEE

REV	DESCRIPTION	DATE

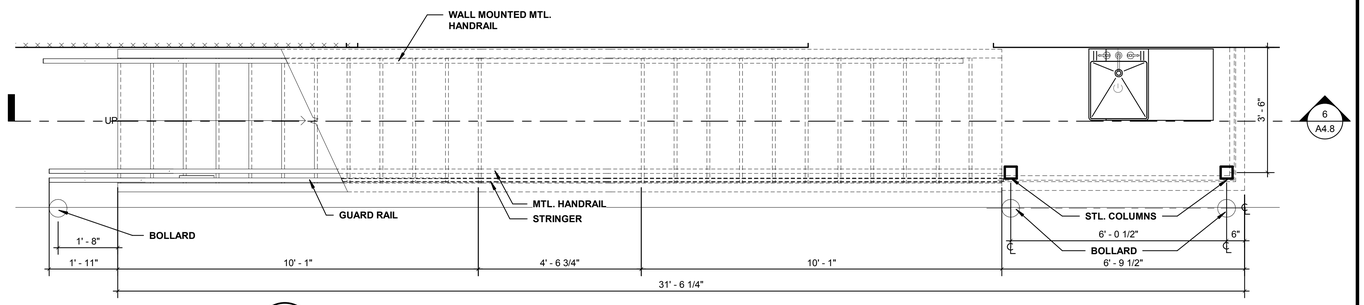
NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: EXTERIOR DETAILS
Project No.: 17032
Drawn by: REC
Date: 04/13/18
Sheet No.: A4.7

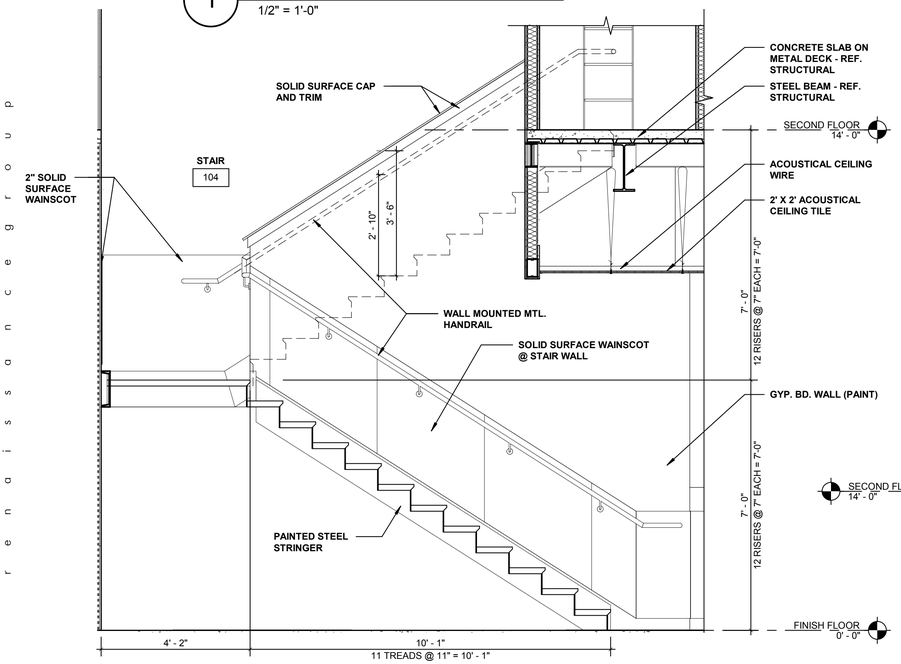
renaissance group
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
4/16/2018 1:45:01 PM



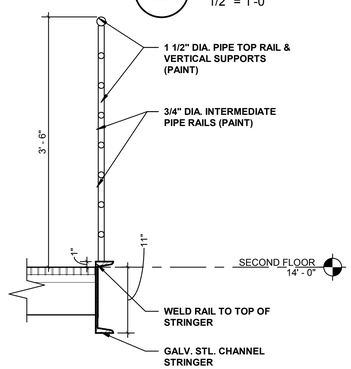
1 ENLARGED STAIR B PLAN
1/2" = 1'-0"



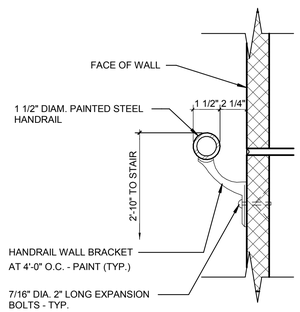
5 ENLARGED STAIR A PLAN
1/2" = 1'-0"



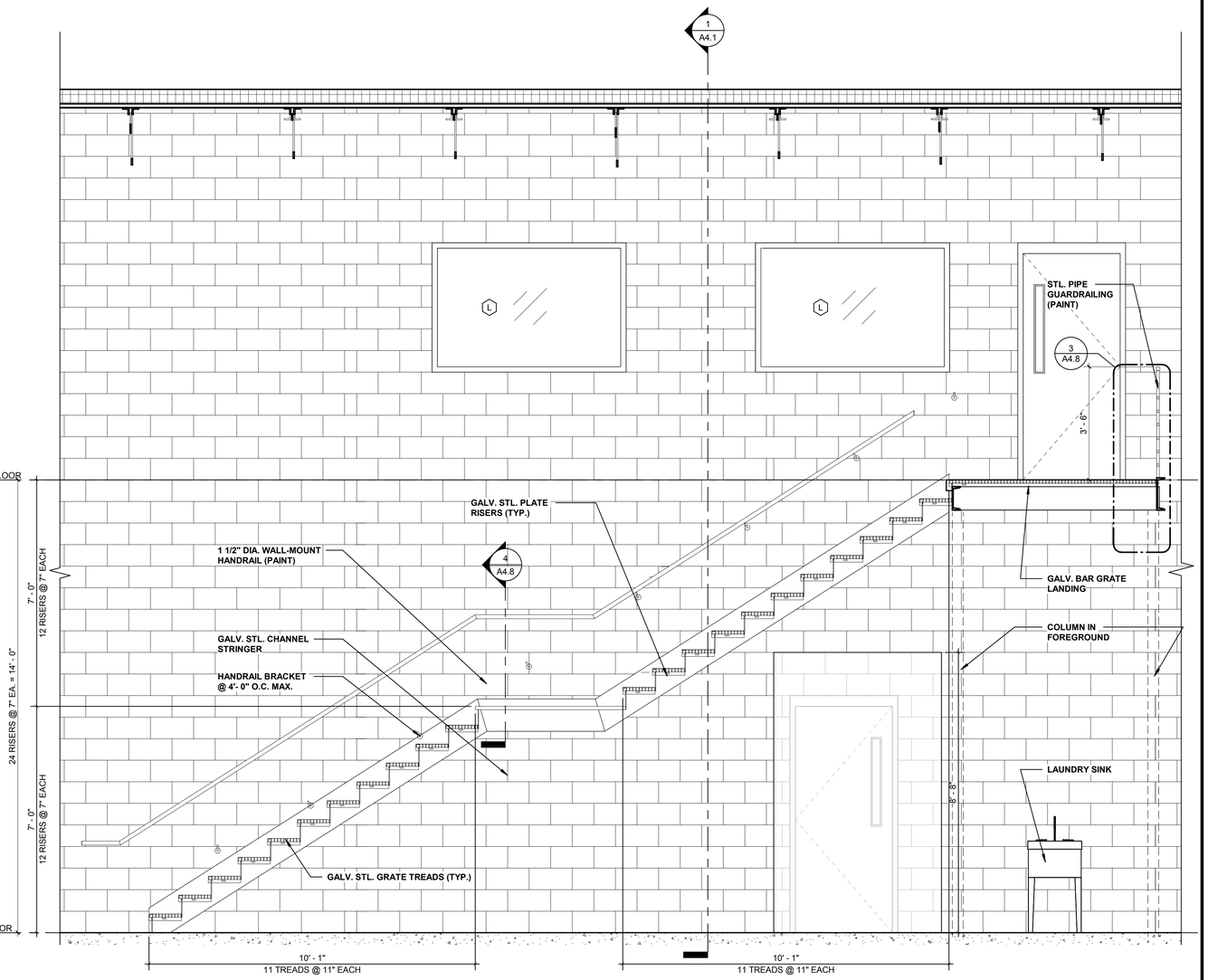
2 SECTION @ STAIR
1/2" = 1'-0"



3 DETAIL @ GUARDRAIL
1" = 1'-0"



4 HANDRAIL SECTION
3" = 1'-0"



6 SECTION @ STAIRS
1/2" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901 337 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
ARCHITECTURE
COMMERCE
NO. 101065
STATE OF TENNESSEE
4/13/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
STAIR DETAILS

Project No.
17032

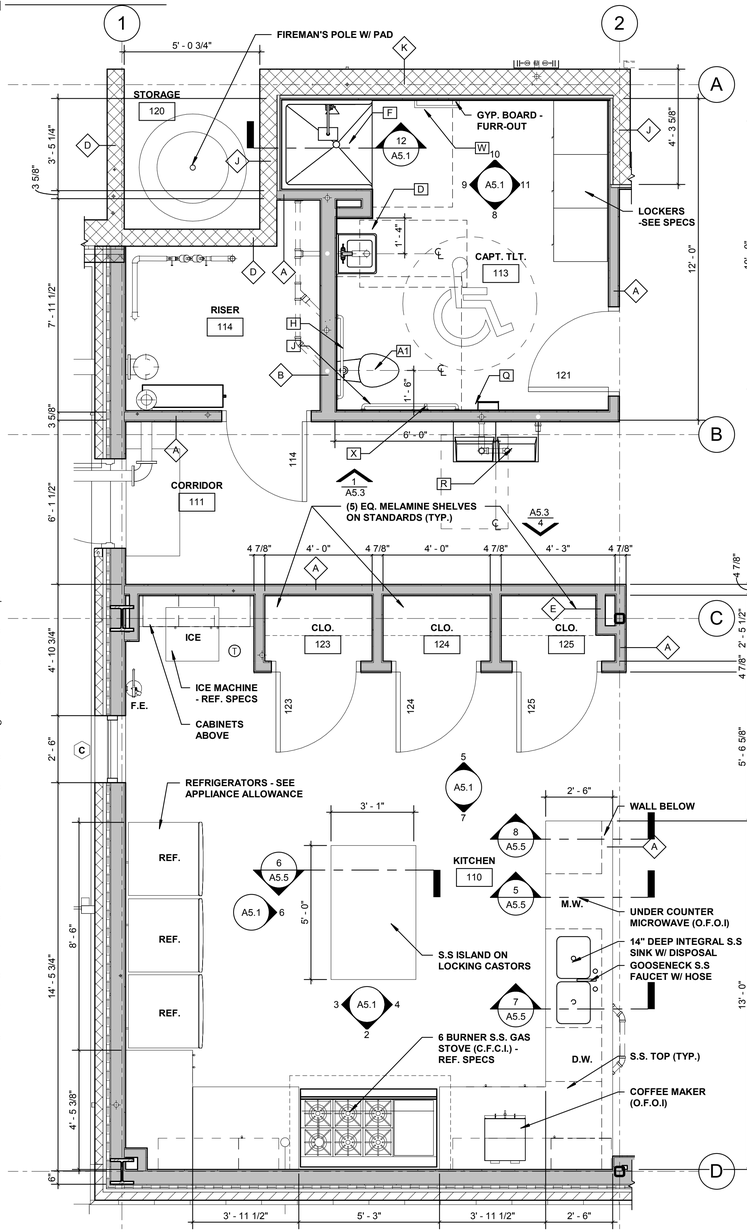
Drawn by
REC

Date
04/13/18

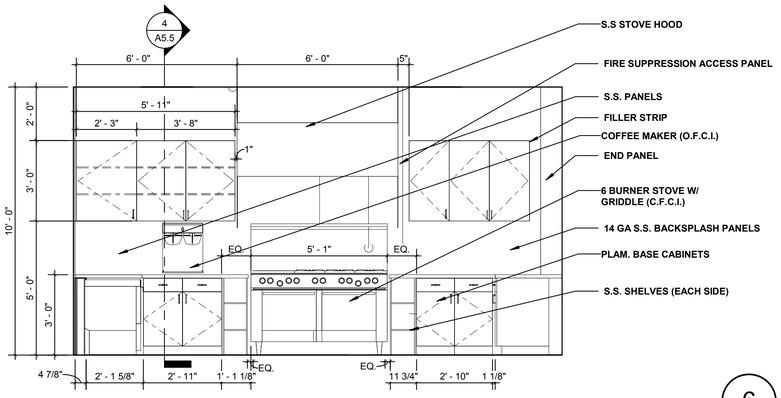
A4.8
Sheet No.

r e n a i s s a n c e g r o u p

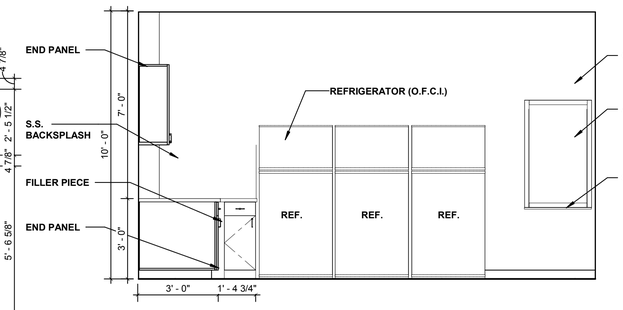
S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/28/2018 1:45:07 PM



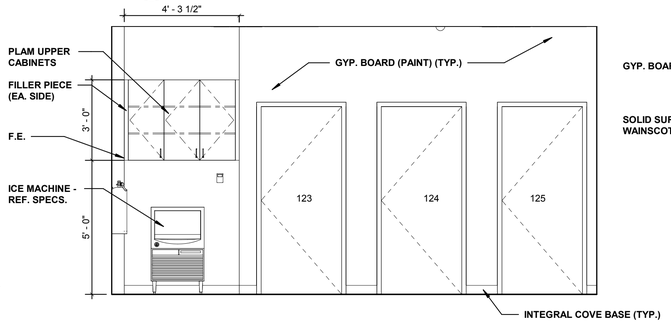
1 ENLARGED KITCHEN PLAN
3/8" = 1'-0"



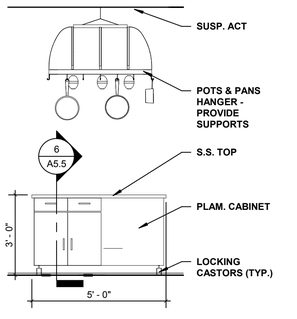
2 KITCHEN ELEVATION A
3/8" = 1'-0"



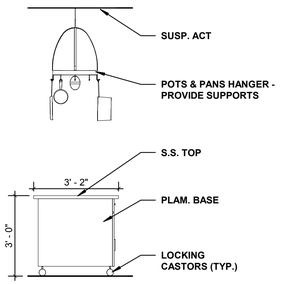
3 KITCHEN ELEVATION B
3/8" = 1'-0"



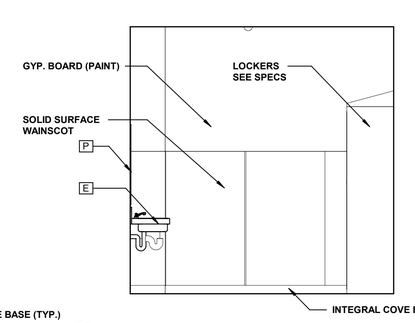
5 PANTRY ELEVATION
3/8" = 1'-0"



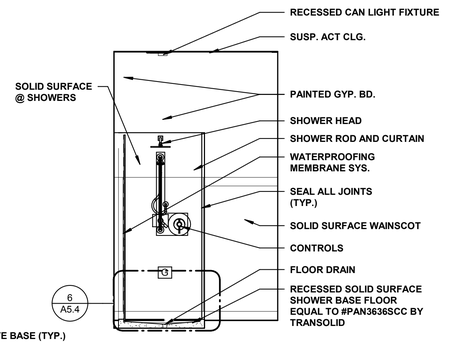
6 ISLAND ELEVATION A
3/8" = 1'-0"



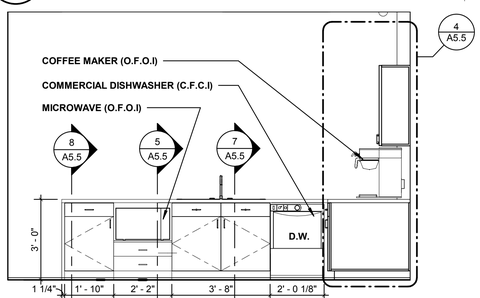
7 ISLAND ELEVATION B
3/8" = 1'-0"



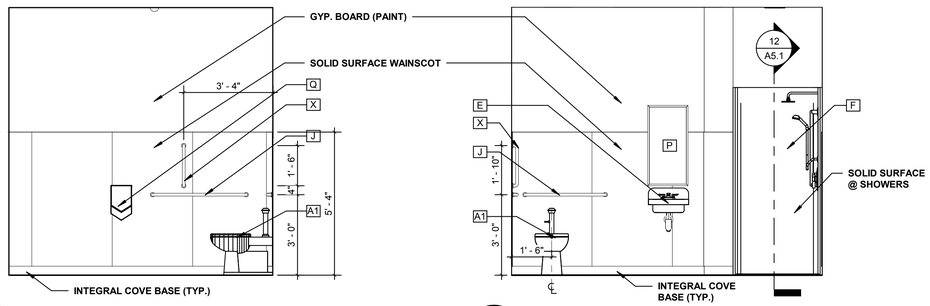
10 CAPT. TLT. ELEVATION C
3/8" = 1'-0"



12 SECTION @ ADA SHOWER
3/8" = 1'-0"

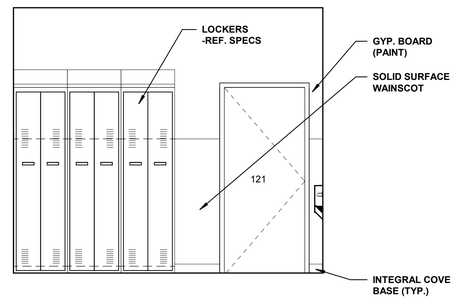


4 KITCHEN ELEVATION C
3/8" = 1'-0"



8 CAPT. TLT. ELEVATION A
3/8" = 1'-0"

9 CAPT. TLT. ELEVATION B
3/8" = 1'-0"



11 CAPT. TLT. ELEVATION D
3/8" = 1'-0"

TOILET KEY NOTES

PROVIDE FIRE TREATED WOOD BLOCKING FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES

ALL TOILET ACCESSORIES (TOILET PAPER, PAPER TOWEL, AND SOAP DISPENSER) ARE OWNER FURNISHED, CONTRACTOR INSTALLED.

- A — WALL MOUNT TOILET: REF. PLUMBING
- A1 — ACCESSIBLE TOILET: WALL MOUNTED WATER CLOSET; FLUSH VALVE SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREA NO MORE THAN 44" A.F.F.; THE HEIGHT SHALL BE 17" TO 19" TO THE TOP OF THE TOILET SEAT. - REF. PLUMBING
- B — 14" DEEP SHELVING ON STANDARDS 4'-0" A.F.F TO CEILING @ 16" O.C. - REF. SPECS.
- C — ROBE HOOK @ EACH DOOR - MOUNT @ 48" A.F.F.
- D — ACCESSIBLE VANITY HAND SINK W/ SKIRT AND ADA COMPLIANT HARDWARE; TOP OF COUNTER MOUNTED @ 34" A.F.F. - REF. PLUMBING
- E — ACCESSIBLE WALL MOUNTED HAND SINK W/ ADA COMPLIANT HARDWARE & UNDERSINK PIPE COVERS; TOP OF COUNTER MOUNTED @ 34" A.F.F. - REF. PLUMBING
- F — ADA SHOWER W/ GRAB BARS : REF. PLUMBING FOR FIXTURES
- G — SHOWER : REF. PLUMBING FOR FIXTURES
- H — 36" GRAB BAR: 1 1/2" O.D. x 36" GRAB BAR MOUNTED W/ CONCEALED HARDWARE. MOUNT TOP OF GRAB BAR @ 36" A.F.F. AND 6" MAX. FROM ADJACENT CORNER. MUST BE ABLE TO SUPPORT 250 LB. LOAD.
- J — 42" GRAB BAR: 1 1/2" O.D. x 42" GRAB BAR MOUNTED W/ CONCEALED HARDWARE. MOUNT TOP OF GRAB BAR @ 36" A.F.F. AND 6" MAX FROM ADJACENT CORNER. MUST BE ABLE TO SUPPORT 250 LB. LOAD.
- L — S.S. MOP HOLDER - REF. SPECS.
- M — MOP SINK - REF. PLUMB.
- N — MIRROR 48" HIGH x FULL WIDTH OF VANITY W/ 2" SPACE EA. SIDE.
- P — S.S. TILT MIRROR 18" x 30" HIGH W/ S.S. SHELF
- Q — PAPER TOWEL DISPENSER - O.F.C.I.
- R — SIDE-BY-SIDE ACCESSIBLE ELECTRIC DRINKING FOUNTAIN- WALL MOUNTED FOUNTAIN W/ SPOUT OUTLET @ 42" A.F.F. W/ CONNECTED WALL MOUNTED FOUNTAIN W/ SPOUT OUTLET @ 36" A.F.F. MAX. - REF. PLUMBING
- S — ADA LOCKER BENCH- REF. SPECS.
- T — ROBE HOOK
- U — LOCKER BENCH- REF. SPECS.
- W — 18" TOWEL BAR
- X — 18" VERTICAL GRAB BAR: 1 1/2" O.D. x 42" GRAB BAR MOUNTED W/ CONCEALED HARDWARE. MOUNT TOP OF GRAB BAR @ 36" A.F.F. AND 6" MAX FROM ADJACENT CORNER. MUST BE ABLE TO SUPPORT 250 LB. LOAD.

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

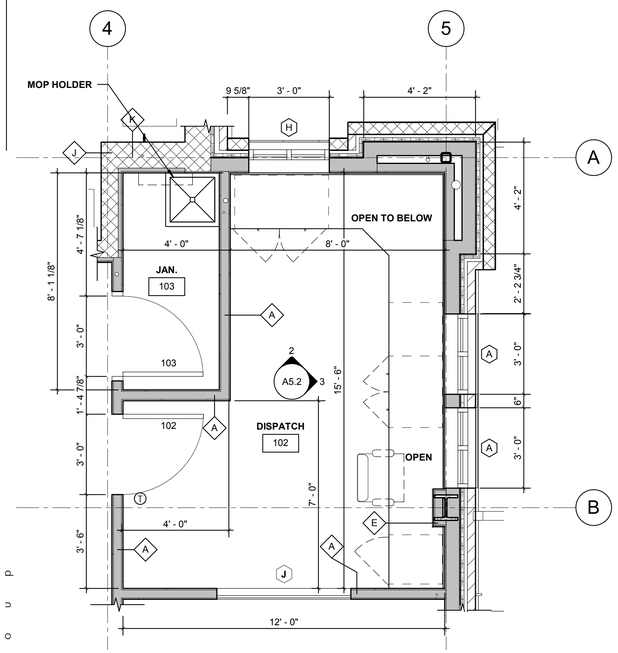
MICHAEL E. TERRY REGISTERED ARCHITECT XVI 5/8/2018 COMMERCE NO. 101065 STATE OF TENNESSEE

REV	DESCRIPTION	DATE

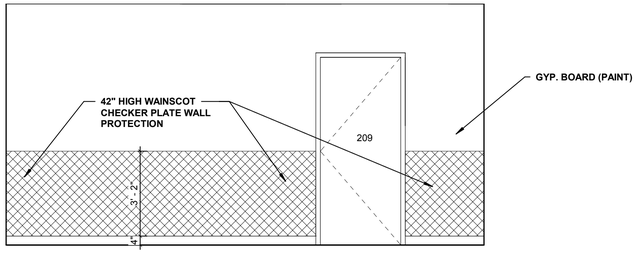
NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: ENLARGED PLANS AND INT. ELEVATIONS
Project No: 17032
Drawn by: RGI
Date: 04/13/18
Sheet No: A5.1

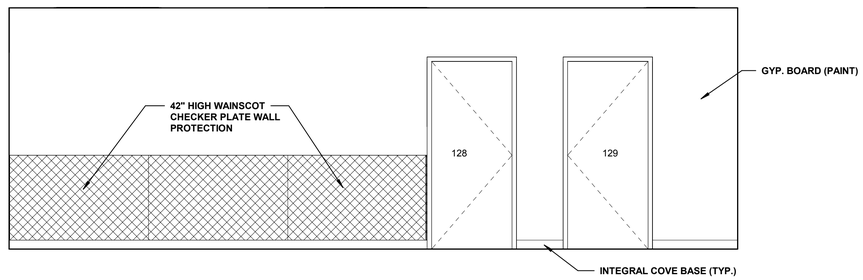
S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/26/2018 2:41:06 PM



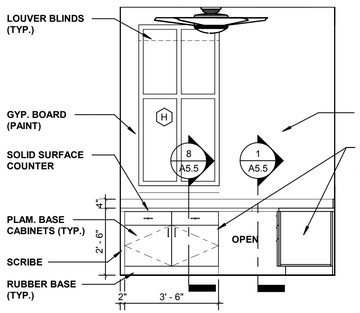
1 ENLARGED DISPATCH PLAN
3/8" = 1'-0"



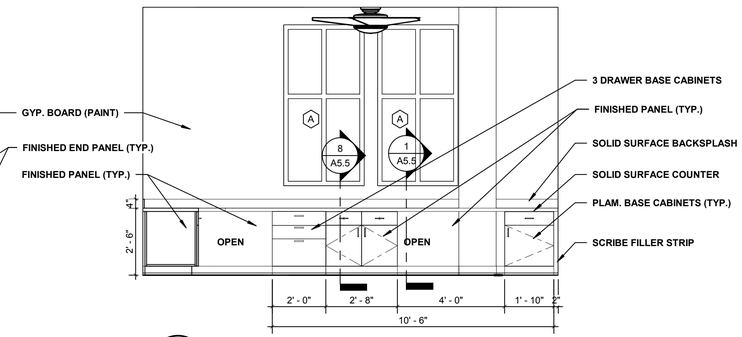
14 INT. ELEV. @ WAINSCOT
3/8" = 1'-0"



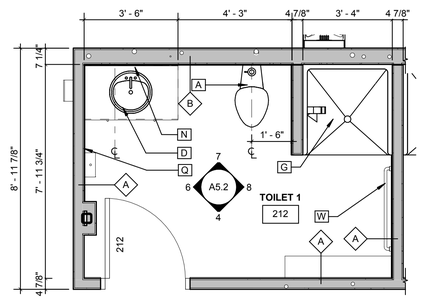
15 INT. ELEV. @ WAINSCOT
3/8" = 1'-0"



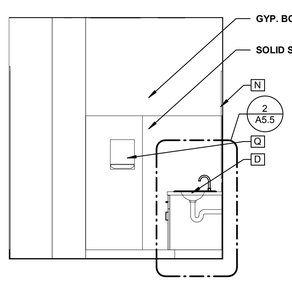
2 DISPATCH ELEAVATION A
3/8" = 1'-0"



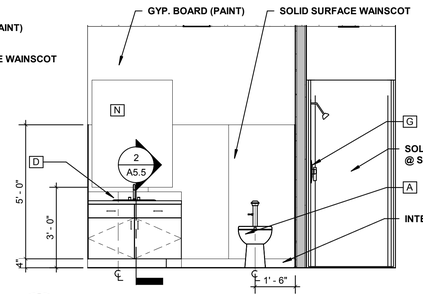
3 DISPATCH ELEVATION B
3/8" = 1'-0"



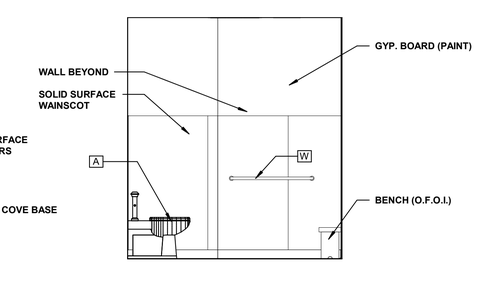
5 ENLARGED PLAN @ TLT. 212
3/8" = 1'-0"



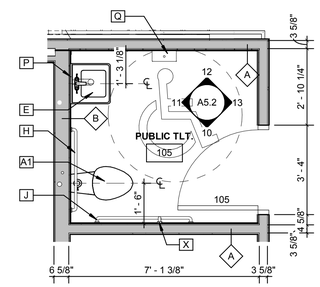
6 INT. ELEV. @ TLT 212
3/8" = 1'-0"



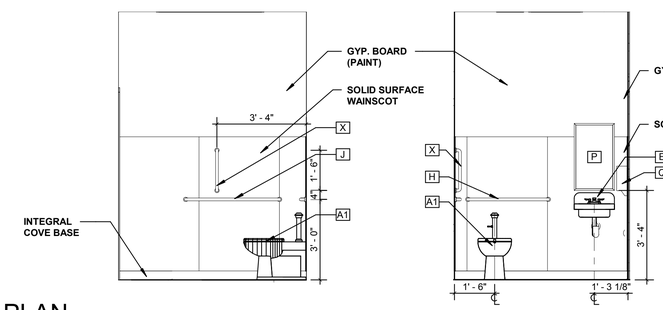
7 INT. ELEV. @ TLT 212
3/8" = 1'-0"



8 INT. ELEV. @ TLT 212
3/8" = 1'-0"

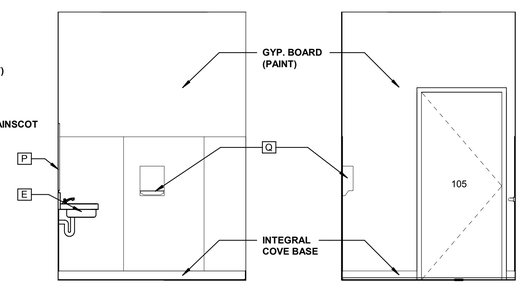


9 ENLARGED PUBLIC R.R. PLAN
3/8" = 1'-0"



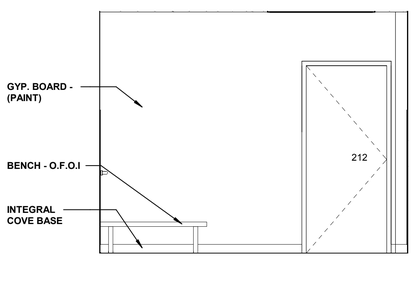
10 PUBLIC R.R. ELEV. A
3/8" = 1'-0"

11 PUBLIC R.R. ELEV. B
3/8" = 1'-0"



12 PUBLIC R.R. ELEV. C
3/8" = 1'-0"

13 PUBLIC R.R. ELEV. D
3/8" = 1'-0"



4 SECOND FLOOR R.R. ELEV. D
3/8" = 1'-0"

TOILET KEY NOTES

PROVIDE FIRE TREATED WOOD BLOCKING FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES

ALL TOILET ACCESSORIES (TOILET PAPER, PAPER TOWEL, AND SOAP DISPENSER) ARE OWNER FURNISHED, CONTRACTOR INSTALLED.

- A — WALL MOUNT TOILET: REF. PLUMBING
- A1 — ACCESSIBLE TOILET; WALL MOUNTED WATER CLOSET; FLUSH VALVE SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREA NO MORE THAN 44" A.F.F.; THE HEIGHT SHALL BE 17" TO 19" TO THE TOP OF THE TOILET SEAT. - REF. PLUMBING
- B — 14" DEEP SHELVING ON STANDARDS 4'-0" A.F.F TO CEILING @ 16" O.C. - REF. SPECS.
- C — ROBE HOOK @ EACH DOOR - MOUNT @ 48" A.F.F.
- D — ACCESSIBLE VANITY HAND SINK W/ SKIRT AND ADA COMPLIANT HARDWARE; TOP OF COUNTER MOUNTED @ 34" A.F.F. - REF. PLUMBING
- E — ACCESSIBLE WALL MOUNTED HAND SINK W/ ADA COMPLIANT HARDWARE & UNDERSINK PIPE COVERS; TOP OF COUNTER MOUNTED @ 34" A.F.F. - REF. PLUMBING
- F — ADA SHOWER W/ GRAB BARS : REF. PLUMBING FOR FIXTURES
- G — SHOWER : REF. PLUMBING FOR FIXTURES
- H — 36" GRAB BAR: 1 1/2" O.D. x 36" GRAB BAR MOUNTED W/ CONCEALED HARDWARE. MOUNT TOP OF GRAB BAR @ 36" A.F.F. AND 6" MAX. FROM ADJACENT CORNER. MUST BE ABLE TO SUPPORT 250 LB. LOAD.
- J — 42" GRAB BAR: 1 1/2" O.D. x 42" GRAB BAR MOUNTED W/ CONCEALED HARDWARE. MOUNT TOP OF GRAB BAR @ 36" A.F.F. AND 6" MAX FROM ADJACENT CORNER. MUST BE ABLE TO SUPPORT 250 LB. LOAD.
- L — S.S. MOP HOLDER - REF. SPECS.
- M — MOP SINK - REF. PLUMB.
- N — MIRROR 48" HIGH x FULL WIDTH OF VANITY W/ 2" SPACE EA. SIDE.
- P — S.S. TILT MIRROR 18" x 30" HIGH W/ S.S. SHELF
- Q — PAPER TOWEL DISPENSER - O.F.C.I.
- R — SIDE-BY-SIDE ACCESSIBLE ELECTRIC DRINKING FOUNTAIN- WALL MOUNTED FOUNTAIN W/ SPOUT OUTLET @ 42" A.F.F. W/ CONNECTED WALL MOUNTED FOUNTAIN W/ SPOUT OUTLET @ 36" A.F.F. MAX. - REF. PLUMBING
- S — ADA LOCKER BENCH- REF. SPECS.
- T — ROBE HOOK
- U — LOCKER BENCH- REF. SPECS.
- W — 18" TOWEL BAR
- X — 18" VERTICAL GRAB BAR: 1 1/2" O.D. x 42" GRAB BAR MOUNTED W/ CONCEALED HARDWARE. MOUNT TOP OF GRAB BAR @ 36" A.F.F. AND 6" MAX FROM ADJACENT CORNER. MUST BE ABLE TO SUPPORT 250 LB. LOAD.

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

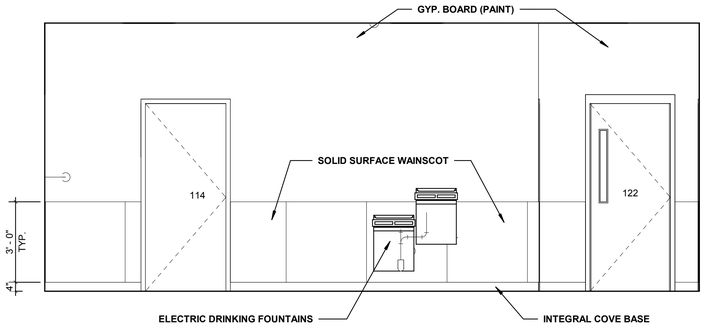
MICHAEL E. TERRY
REGISTERED ARCHITECT
STATE OF TENNESSEE
NO. 101065
4/13/18

REV	DESCRIPTION	DATE

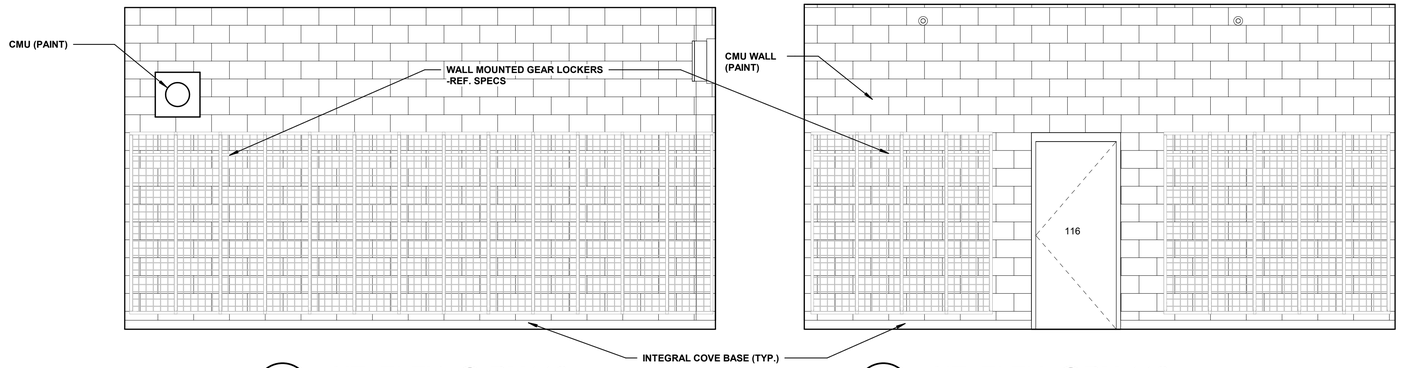
NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: INTERIOR ELEVATIONS
Project No.: 17032
Drawn by: REC
Date: 04/13/18
Sheet No.: **A5.2**

r e n a i s s a n c e g r o u p
S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/26/2018 2:40:46 PM

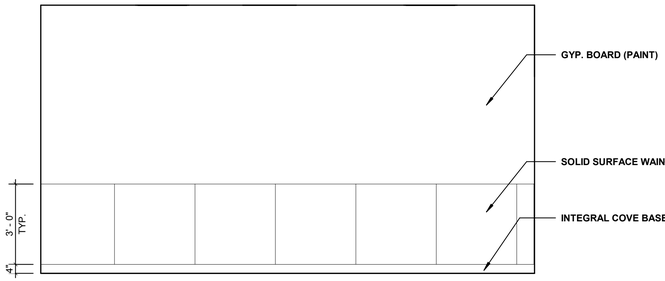


1 INT. ELEV. @ CORRIDOR 111
3/8" = 1'-0"

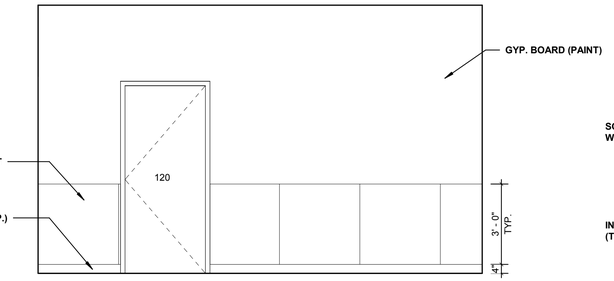


2 INT. ELEV. @ RM116
3/8" = 1'-0"

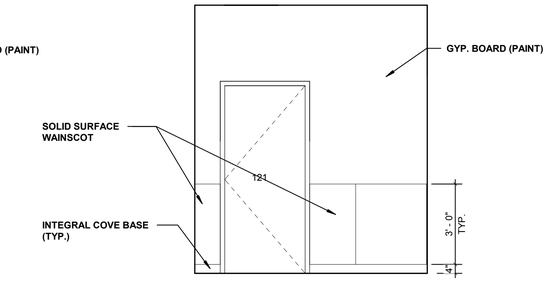
3 INT. ELEV. @RM 116
3/8" = 1'-0"



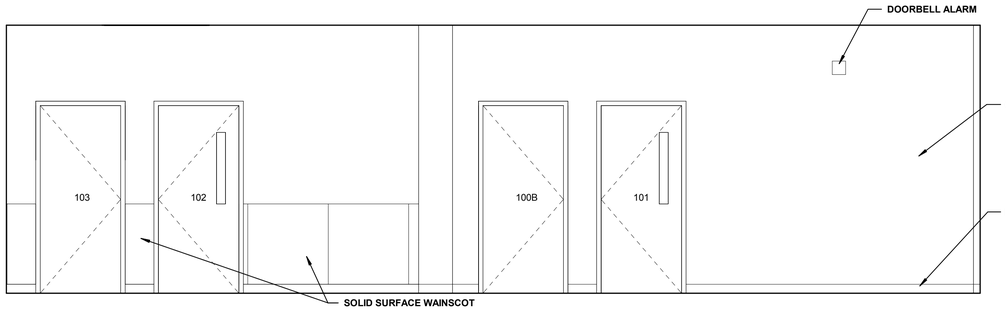
4 INT. ELEV. @ CORRIDOR 111
3/8" = 1'-0"



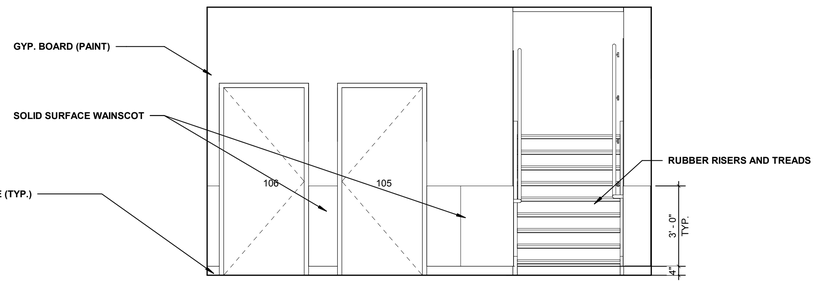
5 INT. ELEV. @ CORRIDOR 111
3/8" = 1'-0"



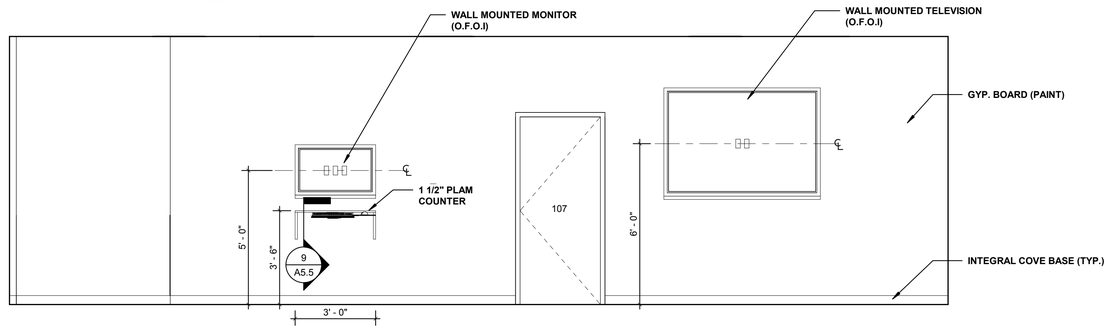
6 INT. ELEV. @ CORRIDOR 111
3/8" = 1'-0"



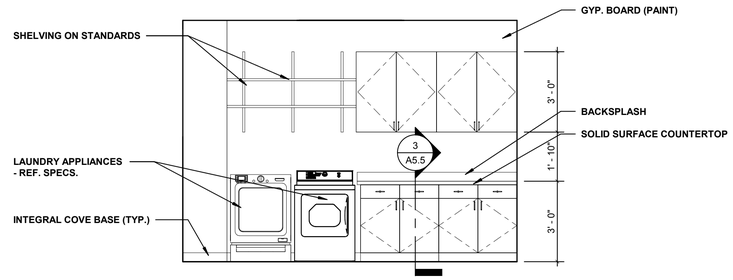
7 INT. ELEV. @ CORRIDOR 111
3/8" = 1'-0"



8 INT. ELEV. @ DINING/DAYROOM
3/8" = 1'-0"



9 INT. ELEV. @ DINING/DAYROOM
3/8" = 1'-0"



10 INT. ELEV. @ LNDRY.
3/8" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY REGISTERED ARCHITECT NO. 101065 STATE OF TENNESSEE
4/13/2018

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
INTERIOR ELEVATION

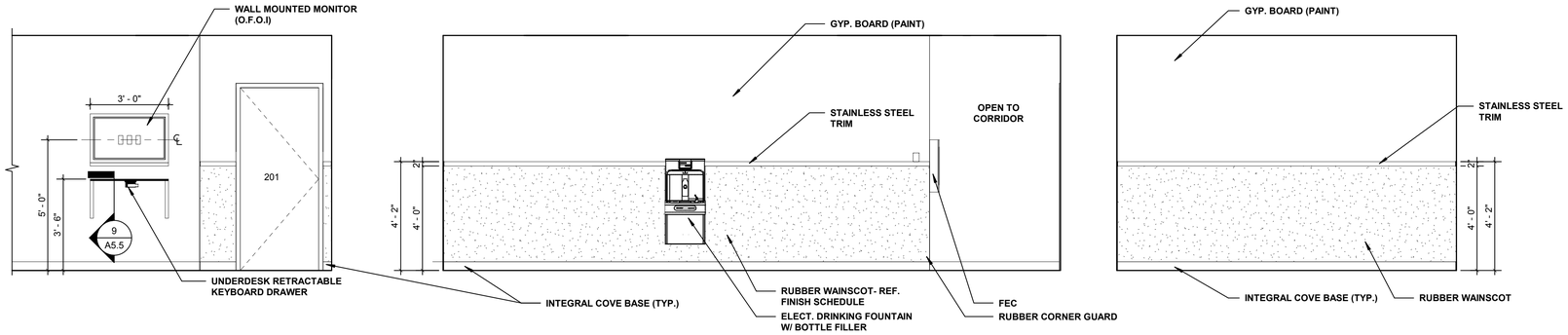
Project No.
17032

Drawn by
RGI

Date
04/13/18

A5.3
Sheet No.

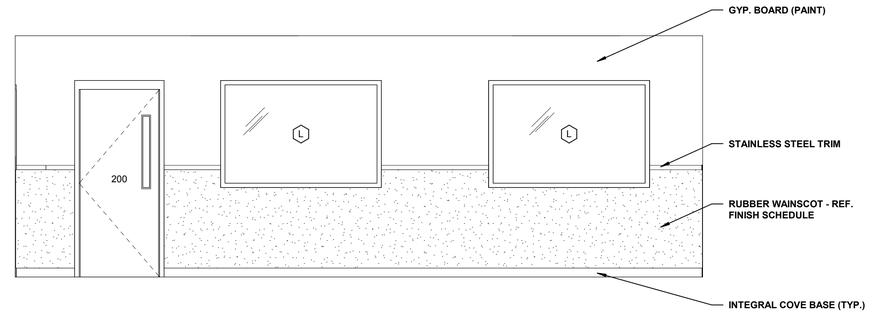
renaissance group
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
4/16/2018 1:51:18 PM



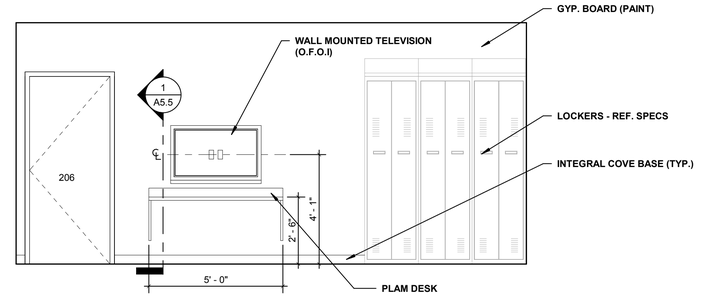
1 INT. ELEV. A @ EXCERCISE 200
3/8" = 1'-0"

2 INT. ELEV. B @ EXCERECISE 200
3/8" = 1'-0"

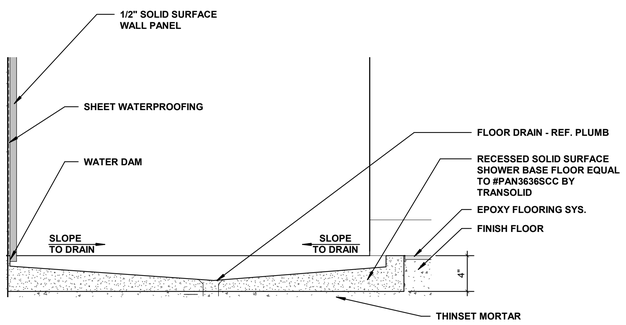
3 INT. ELEV. C @ EXCERCISE 200
3/8" = 1'-0"



4 INT. ELEV. D @ EXCERCISE 200
3/8" = 1'-0"



5 INT. ELEV. @ DORM (TYP.)
3/8" = 1'-0"



6 SECTION @ SHOWER PAN
1 1/2" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
NO. 101065
STATE OF TENNESSEE
4/13/2018

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
INTERIOR ELEVATION

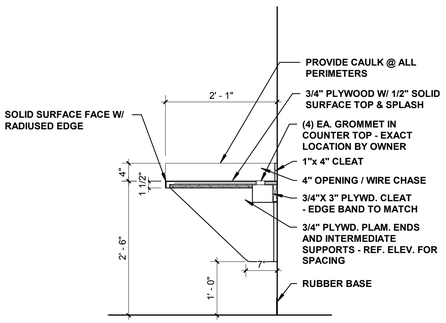
Project No.
17032

Drawn by
RGI

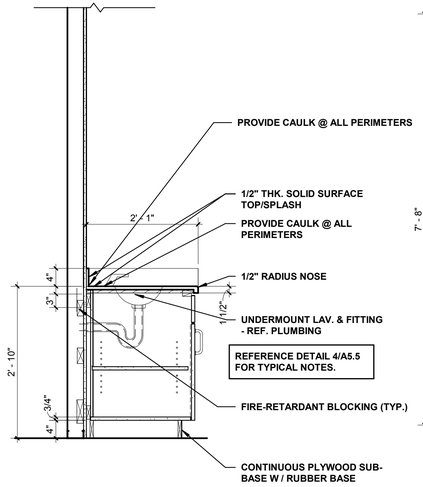
Date
04/13/18

A5.4
Sheet No.

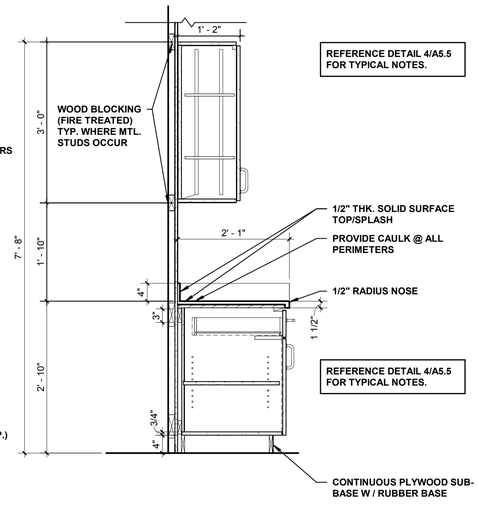
renaissance group
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcollin@group.biz.rvt
4/16/2018 2:12:35 PM



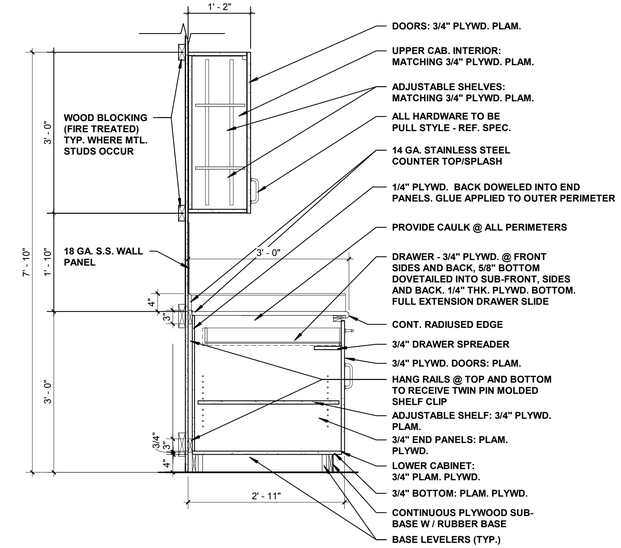
1 SECTION @ DESK COUNTER
3/4" = 1'-0"



2 SECTION @ VANITY
3/4" = 1'-0"



3 SECTION @ LAUNDRY CABINET
3/4" = 1'-0"



4 SECTION @ S.S. TOP CABINET
3/4" = 1'-0"

5 SECTION @ MICROWAVE
3/4" = 1'-0"

6 SECTION @ ISLAND
3/4" = 1'-0"

7 SECTION @ SINK
3/4" = 1'-0"

8 SECTION @ BASE CABINET
3/4" = 1'-0"

9 SECTION @ COMPUTER COUNTER
3/4" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
STATE OF TENNESSEE
NO. 101065
4/13/2018

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
MILWORK DETAILS

Project No.
17032

Drawn by
REC

Date
04/13/18

Sheet No.
A5.5

r e n a i s s a n c e g r o u p
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
4/16/2018 2:00:25 PM

GENERAL NOTES:

1. ALL INTERIOR DOOR FRAMES SHALL BE 16 GA. HOLLOW METAL AND 14 GA. AT EXTERIOR FRAMES UNLESS NOTED OTHERWISE.
2. ALL HARDWARE MUST COMPLY WITH ADA AND A117.1.
3. PROVIDE GRADE 1 HARDWARE
4. UNLESS SPECIFIED OTHERWISE ALL DOORS SHALL BE KEYED ALIKE TO FIRE DEPARTMENT SPECIFICATIONS. COORDINATE WITH OWNER.

DOOR REMARKS

REFERENCE DOOR SCHEDULE:

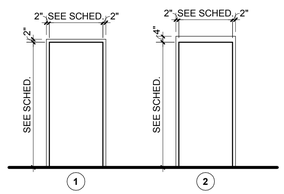
1. MOTORIZED BI-FOLDING DOOR
2. CARD ACCESS CONTROL SYSTEM

DOOR SCHEDULE

	DOOR					FRAME							
WT	TYPE	HEIGHT	WIDTH	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	HEAD DETAIL	JAMB DETAIL	FIRE RATING	HARDWARE SET	REMARKS
100A	G	7' - 0"	3' - 0"	ALUM.	PREFIN.	2	ALUM.	PREFIN.	3/A7.1	3F/A7.1		01	
100B	A	7' - 0"	3' - 0"	H.M.	PAINT	1	H.M.	PAINT	1A/A6.2	1B/A6.2		02	2
101	A	7' - 0"	3' - 0"	H.M.	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		03	
102	A	7' - 0"	3' - 0"	H.M.	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		03	
103	A	7' - 0"	3' - 0"	H.M.	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2	SMOKE	04	
105	A	7' - 0"	3' - 0"	H.M.	PAINT	1	H.M.	PAINT	1A/A6.2	1B/A6.2		05	
106	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		06	
107	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		07	
108	B	7' - 0"	3' - 0"	H.M.	PAINT	2	H.M.	PAINT	5A/A6.2	5B/A6.2		02	2
111	B	7' - 0"	3' - 0"	H.M.	PAINT	1	H.M.	PAINT	1A/A6.2	1B/A6.2		16	
114	A	7' - 0"	3' - 0"	H.M.	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		07	
115A	D	14' - 0"	14' - 0"	STEEL	PAINT	---	---	---	6A/A6.2	6B/A6.2		08	1
115B	D	14' - 0"	14' - 0"	STEEL	PAINT	---	---	---	6A/A6.2	6B/A6.2		08	1
115C	D	14' - 0"	14' - 0"	STEEL	PAINT	---	---	---	6A/A6.2	6B/A6.2		08	1
115D	D	14' - 0"	14' - 0"	STEEL	PAINT	---	---	---	6A/A6.2	6B/A6.2		08	1
115E	D	14' - 0"	14' - 0"	STEEL	PAINT	---	---	---	6A/A6.2	6B/A6.2		08	1
115F	D	14' - 0"	14' - 0"	STEEL	PAINT	---	---	---	6A/A6.2	6B/A6.2		08	1
115G	B	7' - 0"	3' - 0"	H.M.	PAINT	2	H.M.	PAINT	3C/A6.2	3D/A6.2		09	
115H	B	7' - 0"	3' - 0"	H.M.	PAINT	2	H.M.	PAINT	3A/A6.2	3B/A6.2		09	
115J	A	7' - 0"	3' - 0"	H.M.	PAINT	2	H.M.	PAINT	3A/A6.2	3B/A6.2		09	
116	A	7' - 0"	3' - 0"	H.M.	PAINT	2	H.M.	PAINT	2C/A6.2	2D/A6.2		10	
117	C	7' - 0"	6' - 0"	H.M.	PAINT	2	H.M.	PAINT	2C/A6.2	2D/A6.2		11	
118A	A	7' - 0"	3' - 0"	H.M.	PAINT	2	H.M.	PAINT	2C/A6.2	2D/A6.2		10	
118B	C	7' - 0"	6' - 0"	H.M.	PAINT	2	H.M.	PAINT	7A/A6.2	7B/A6.2		20	
119	B	7' - 0"	3' - 0"	H.M.	PREFIN.	2	H.M.	PREFIN.	5A/A6.2	5B/A6.2	45 MIN.	07	
120	A	7' - 0"	3' - 0"	H.M.	PAINT	1	H.M.	PAINT	1A/A6.2	1B/A6.2	SMOKE	13	
121	A	7' - 0"	3' - 0"	WOOD	PAINT	1	H.M.	PAINT	1A/A6.2	1B/A6.2		14	
122	B	7' - 0"	3' - 0"	H.M.	PREFIN.	2	H.M.	PREFIN.	5A/A6.2	5B/A6.2		02	2
123	A	7' - 0"	3' - 0"	WOOD	PAINT	1	H.M.	PAINT	1A/A6.2	1B/A6.2		15	
124	A	7' - 0"	3' - 0"	WOOD	PAINT	1	H.M.	PAINT	1A/A6.2	1B/A6.2		15	
125	A	7' - 0"	3' - 0"	WOOD	PAINT	1	H.M.	PAINT	1A/A6.2	1B/A6.2		15	
128	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2	SMOKE	18	
129	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2	SMOKE	18	
200	B	7' - 0"	3' - 0"	WOOD	PREFIN.	2	H.M.	PREFIN.	5A/A6.2	5B/A6.2		02	2
201	A	7' - 0"	3' - 0"	H.M.	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		17	
202	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2	SMOKE	18	
203	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2	SMOKE	18	
204	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2	SMOKE	18	
205	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2	SMOKE	18	
206	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2	SMOKE	18	
209	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		07	
210	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		14	
211	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		14	
212	A	7' - 0"	3' - 0"	WOOD	PREFIN.	1	H.M.	PREFIN.	1A/A6.2	1B/A6.2		14	
213A	C	7' - 0"	6' - 0"	H.M.	PAINT	1	H.M.	PREFIN.	2C/A6.2	2D/A6.2		21	
213B	E	3' - 6"	5' - 4"	STEEL	PREFIN.	---	---	---				---	SAFETY GATE

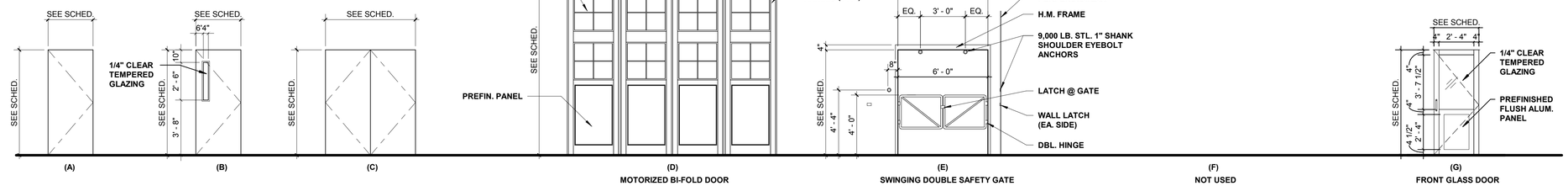
FRAME TYPES

1/4" = 1'-0"



DOOR TYPES

1/4" = 1'-0"



Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901.332.5534
www.rgroup.biz

MICHAEL E. TERRY REGISTERED ARCHITECT NO. 101065 STATE OF TENNESSEE 9/28/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE & RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
DOOR SCHEDULE

Project No.
17032

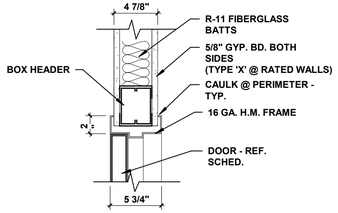
Drawn by
REC

Date
04/13/18

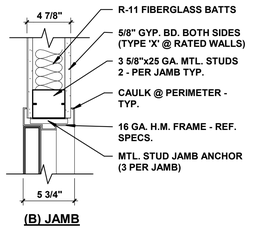
Sheet No.
A6.1

renaissance group

S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/28/2018 1:27:32 PM



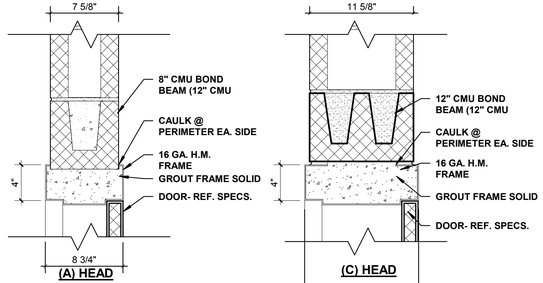
(A) HEAD



(B) JAMB

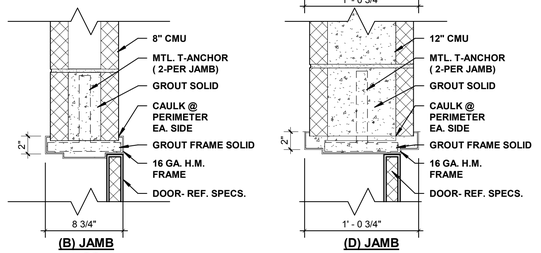
1 DOOR DETAIL @ STUD WALL

1 1/2" = 1'-0"



(A) HEAD

(C) HEAD

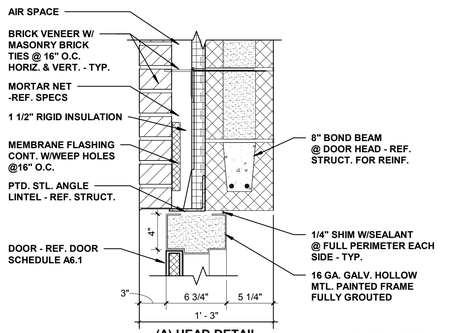


(B) JAMB

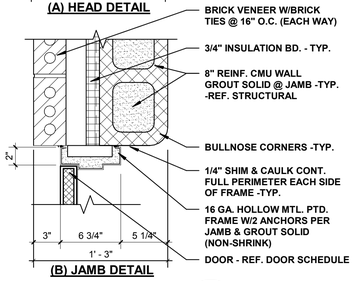
(D) JAMB

2 H.M. DOOR DTL @CMU

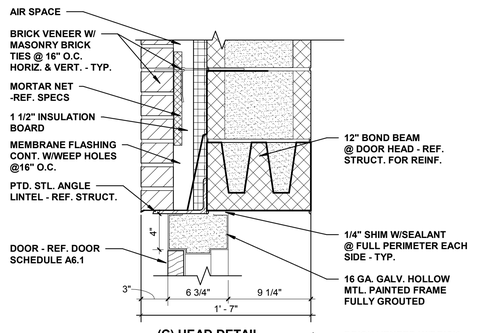
1 1/2" = 1'-0"



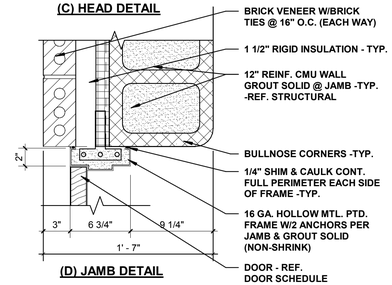
(A) HEAD DETAIL



(B) JAMB DETAIL



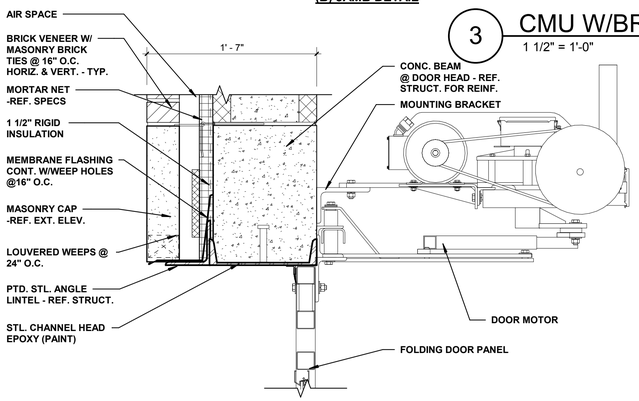
(C) HEAD DETAIL



(D) JAMB DETAIL

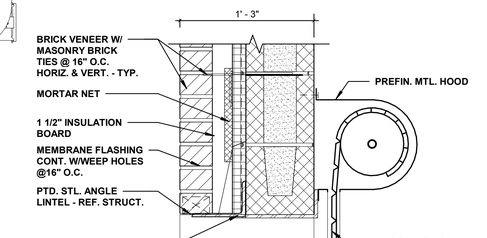
3 CMU W/BRICK EXTERIOR

1 1/2" = 1'-0"

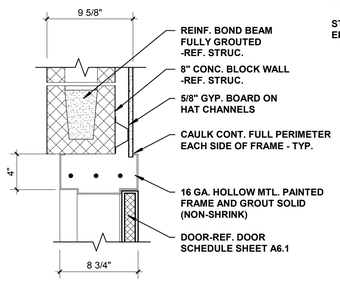


(A) HEAD DETAIL

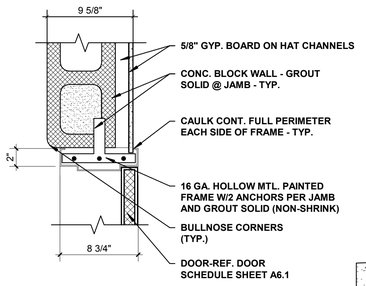
(B) JAMB DETAIL



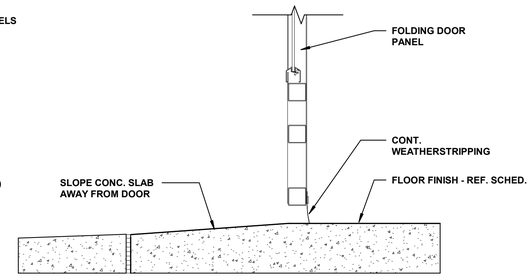
(A) HEAD



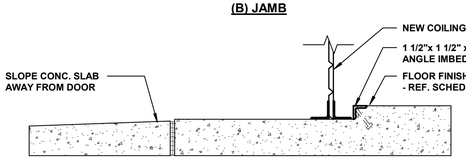
(A) HEAD DETAIL



(B) JAMB DETAIL



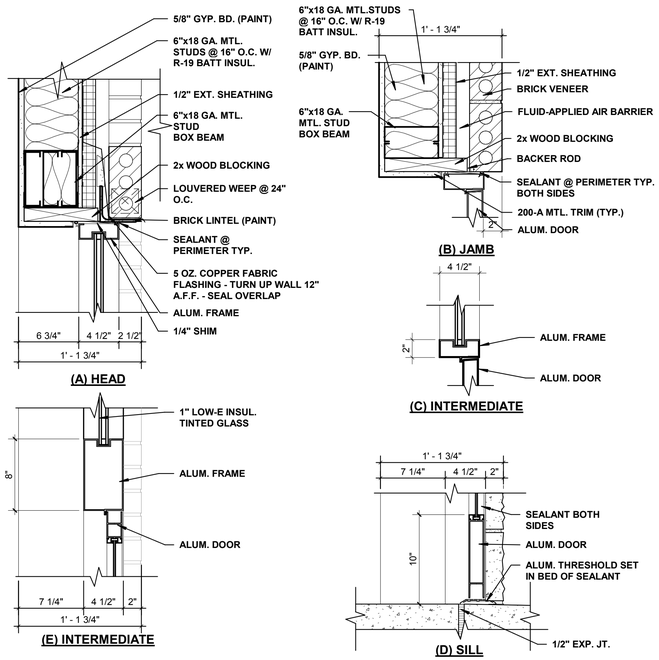
(C) SILL DETAIL



(C) SILL DETAIL

7 COILING DOOR DETAILS

1 1/2" = 1'-0"



(A) HEAD

(B) JAMB

(C) INTERMEDIATE

(E) INTERMEDIATE

(D) SILL

4 ALUM. DOOR DTL. @ BRICK & MTL. STUDS

1 1/2" = 1'-0"

5 CMU INTERIOR DOORS W/ GYP.

1 1/2" = 1'-0"

6 FOUR FOLD DOOR DETAILS

1 1/2" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901.332.5534
www.rgroup.biz

MICHAEL E. TERRY REGISTERED ARCHITECT 5/8/2018 NO. 101065 STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DEPARTMENT TRUST DUTY FIRE INTEGRITY

Sheet Title: DOOR DETAILS
Project No.: 17032
Drawn by: REC
Date: 04/13/18

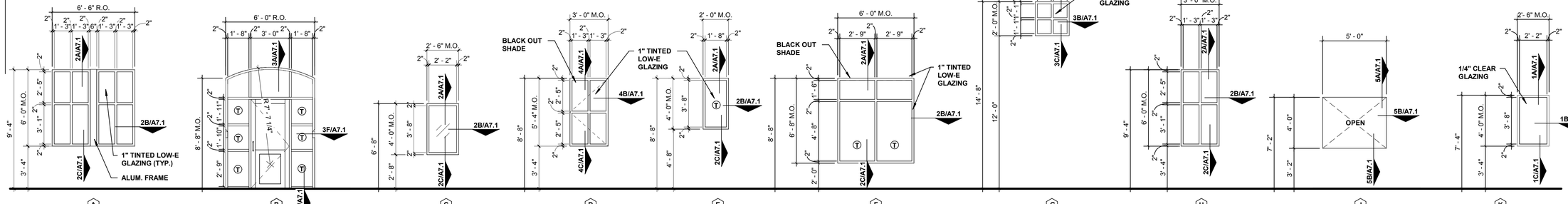
A6.2
Sheet No.

renaissance group
C:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcollin@rgroup.biz.rvt
4/16/2018 1:45:22 PM

WINDOW TYPES

1/4" = 1'-0"

Ⓣ = TEMPERED



Ⓐ ALUMINUM STOREFRONT SYSTEM (EXTERIOR)

Ⓑ ALUMINUM STOREFRONT SYSTEM W/ ARCH TRANSOM (EXTERIOR)

Ⓒ ALUMINUM STOREFRONT SYSTEM (EXTERIOR)

Ⓓ ALUMINUM STOREFRONT SYSTEM OPERABLE OUTSWING CASEMENT @ SLEEP ROOMS

Ⓔ ALUMINUM STOREFRONT SYSTEM (EXTERIOR)

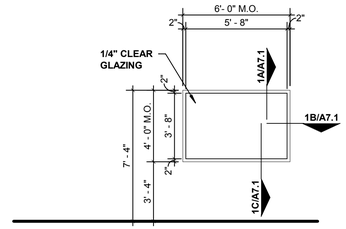
Ⓕ ALUMINUM STOREFRONT SYSTEM (EXTERIOR)

Ⓖ ALUMINUM STOREFRONT SYSTEM (EXTERIOR)

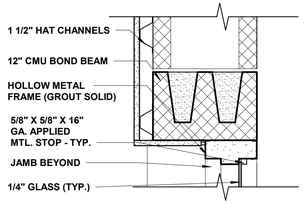
Ⓗ ALUMINUM STOREFRONT SYSTEM (EXTERIOR)

Ⓙ UNCASED OPENING

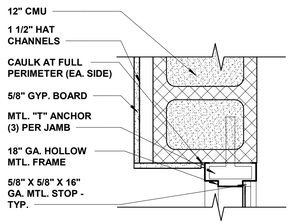
Ⓚ HOLLOW METAL SYSTEM (INTERIOR)



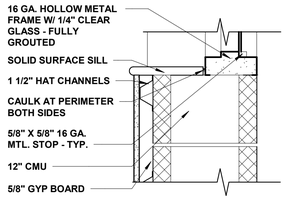
Ⓛ HOLLOW METAL SYSTEM (INTERIOR)



A - HEAD DETAIL @ CMU



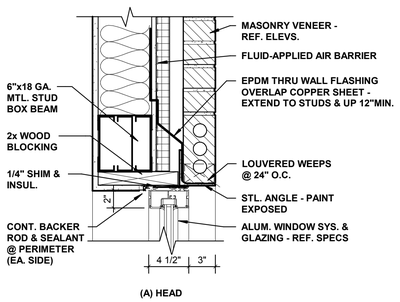
B - JAMB DETAIL @ CMU



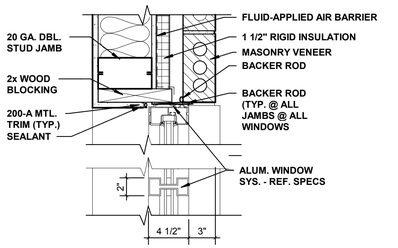
C - SILL DETAIL @ CMU

1 WINDOW DTLS. @ CMU

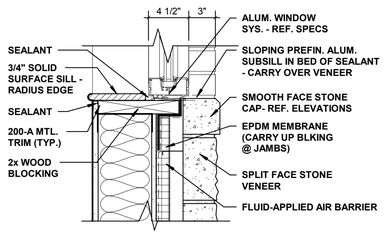
1 1/2" = 1'-0"



(A) HEAD



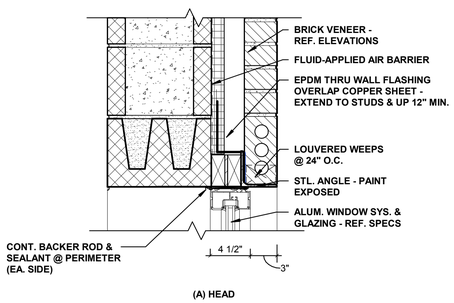
(B) JAMB



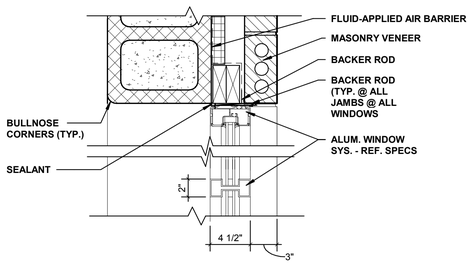
(C) SILL

2 ALUM. WIN. DTLS. @ STUD

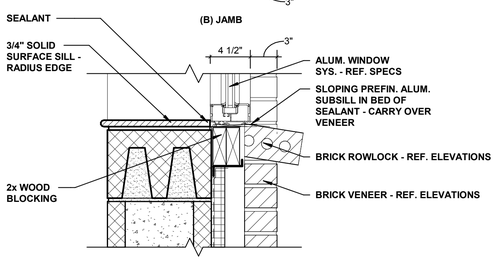
1 1/2" = 1'-0"



(A) HEAD



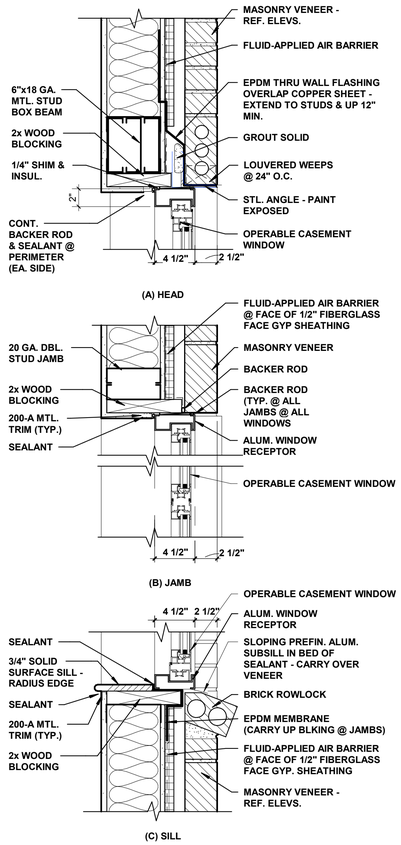
(B) JAMB



(C) SILL

3 ALUM. WIN. DTLS. @ CMU

1 1/2" = 1'-0"



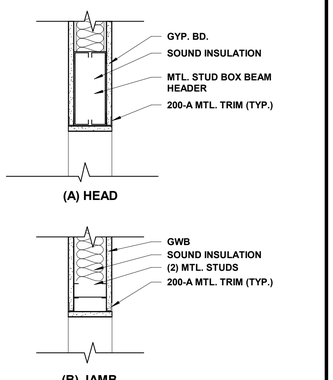
(A) HEAD

(B) JAMB

(C) SILL

4 CASEMENT WINDOW DETAIL

1 1/2" = 1'-0"



(A) HEAD

(B) JAMB

5 INT. UNCASED OPENING

1 1/2" = 1'-0"

Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax 901.332.5534
www.rgroup.biz

MICHAEL E. TERRY REGISTERED ARCHITECT TENNESSEE COMMERCE N.O. 101065 STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: WINDOW TYPES & DETAILS

Project No.: 17032

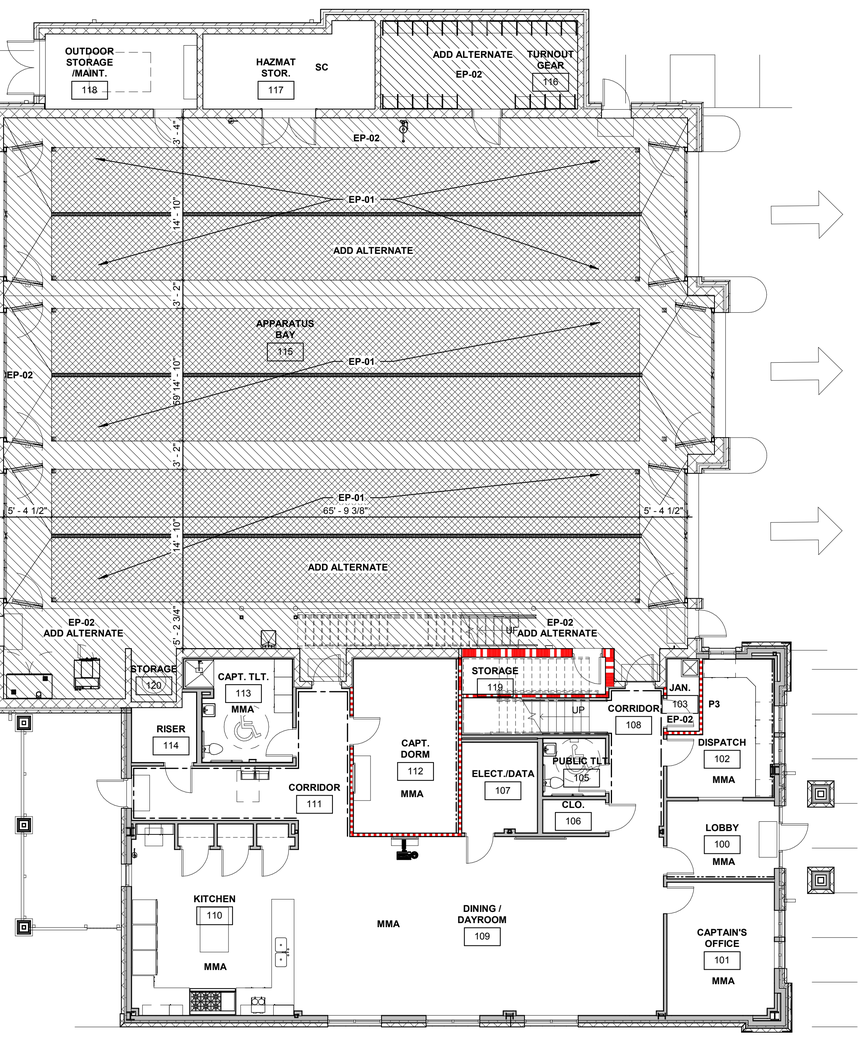
Drawn by: REC

Date: 04/13/18

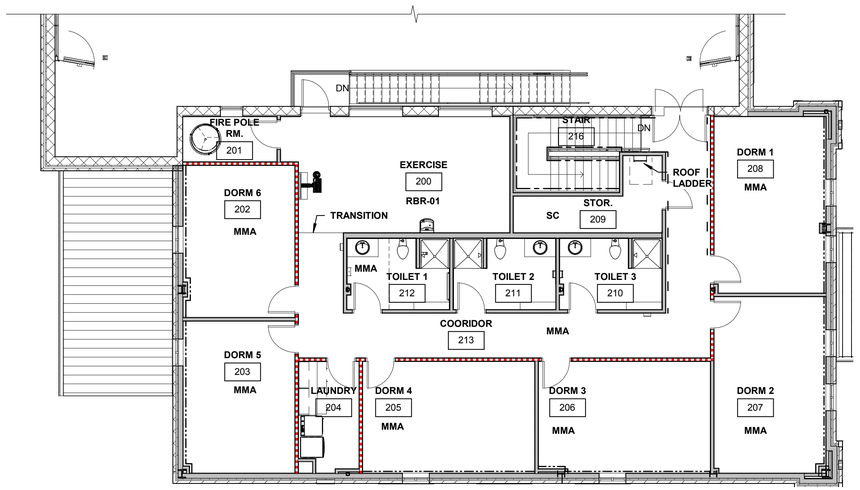
Sheet No.: A7.1

renaissance group

S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcollin@rgroup.biz.rvt
9/28/2018 1:50:10 PM



1 FIRST FLOOR FINISH PLAN
1/8" = 1'-0"



2 SECOND FLOOR FINISH PLAN
1/8" = 1'-0"

WALL FINISH LEGEND

	ACCENT WALL COLOR
—·—·—·—	SHERWIN WILLIAMS SW7514 FOOTHILLS
	WAINSCOT WALL SURFACE
— — — —	ARRAY SOLID SURFACE SANDSTONE F373 UP TO 36" (ABOVE BASE) PT-03 BEGINS ABOVE S.S.
— — —	CHECKERED PLATE UP TO 42" - PT-03 BEGINS ABOVE C.P.

FINISH SCHEDULE

WT	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING MATERIAL	REMARKS
100	LOBBY	MMA	MMA	PGB-01/PGB-02	ACT-1	3
101	CAPTAIN'S OFFICE	MMA	MMA	PGB-01	ACT-1	-
102	DISPATCH	MMA	MMA	PGB-01/PGB-02	ACT-1	3
103	JAN.	MMA	MMA	PGB-01	PGB-03	-
104	STAIR	MMA	MMA	PGB-01/SS-01	PGB-03	1
105	PUBLIC TLT.	MMA	MMA	SS-01/PGB-01	PGB-03	6
106	CLO.	MMA	MMA	PGB-01	ACT-1	-
107	ELECT./DATA	SC	RB-01	PGB-01	PGB-03	2
108	CORRIDOR	MMA	MMA	PGB-01/SS-01	ACT-1	1
109	DINING / DAYROOM	MMA	MMA	PGB-01	ACT-1	-
110	KITCHEN	MMA	MMA	PGB-01	ACT-1	-
111	CORRIDOR	MMA	MMA	PGB-01/SS-01	ACT-1	1
112	CAPT. DORM	MMA	MMA	PGB-01/PGB-02	ACT-1	3
113	CAPT. TLT.	MMA	MMA	SS-01/PGB-01	ACT-2	6
114	RISER	SC	RB-01	PGB-01	ACT-1	-
115	APPARATUS BAY	SC	RB-01	PTB-01/PTB-02	PGB-03	4
116	TURNOUT GEAR	SC	RB-01	PTB-01	PGB-03	-
117	HAZMAT STOR.	SC	RB-01	PTB-01	PGB-03	-
118	OUTDOOR STORAGE /MAINT.	SC	RB-01	PTB-01	PGB-03	-
119	STORAGE	SC	RB-01	PGB-01	PGB-03	-
120	STORAGE	SC	RB-01	PGB-01	PGB-03	-
121	COVERED PATIO	SC	---	---	---	-
123	CLO.	MMA	MMA	PGB-01	ACT-1	-
124	CLO.	MMA	MMA	PGB-01	ACT-1	-
125	CLO.	MMA	MMA	PGB-01	ACT-1	-
200	EXERCISE	RBR	---	PGB-01/RBR-02	ACT-1	-
201	FIRE POLE RM.	RBR	---	PGB-01/RBR-02	ACT-1	-
202	DORM 6	MMA	MMA	PGB-01/PGB-02	ACT-1	3
203	DORM 5	MMA	MMA	PGB-01/PGB-02	ACT-1	3
204	LAUNDRY	MMA	MMA	PGB-01	ACT-1	-
205	DORM 4	MMA	MMA	PGB-01/PGB-02	ACT-1	3
206	DORM 3	MMA	MMA	PGB-01/PGB-02	ACT-1	3
207	DORM 2	MMA	MMA	PGB-01/PGB-02	ACT-1	3
208	DORM 1	MMA	MMA	PGB-01/PGB-02	ACT-1	3
209	STOR.	SC	RB-01	PGB-01	PGB-03	-
210	TOILET 3	MMA	MMA	SS-01/PGB-01	ACT-2	6
211	TOILET 2	MMA	MMA	SS-01/PGB-01	ACT-2	6
212	TOILET 1	MMA	MMA	SS-01/PGB-01	ACT-2	6
213	COORIDOR	MMA	MMA	PGB-01/CP	ACT-1	5
216	STAIR	MMA	MMA	PGB-01/SS-01	PGB-03	1

FINISH LEGEND

FLOOR

EP-01	EPOXY RES. FLOOR COATING SYS. ADD ALTERNATE 3 COLOR: DESERT TAN LOCATION: APPARATUS BAY TYP.
EP-02	EPOXY RESINOUS FL. COATING SYS. ADD ALTERNATE 3 COLOR: BEACHWOOD LOCATION: APPARATUS BAY ACCENT
MMA	FLAKE FILLED RESINOUS EPOXY FL. COATING SYS.
RBR-01	RUBBER ATHLETIC FLOORING ECOSURFACES STYLE: ECONIGHTS (3/8") COLOR: 646 MISSION POSSIBLE LOCATION: FITNESS
SC	SEALED CONCRETE

BASE

EP-01	4" HIGH EPOXY RESINOUS COVE BASE COLOR: DESERT TAN ADD ALTERNATE 3
EP-02	4" HIGH EPOXY RESINOUS COVE BASE COLOR: BEECHWOOD ADD ALTERNATE 3
MMA	4" HIGH FLAKE FILLED RESINOUS EPOXY FLOOR COATING SYS.
RB-01	4" HIGH RUBBER COVE BASE JOHNSONITE COLOR: TA3 CASTAWAY CB

DOOR

PTM-01	PAINTED METAL SHERWIN WILLIAMS SW7507 STONE LION LOCATION: INTERIOR METAL DOORS
PTM-02	PAINTED METAL SHERWIN WILLIAMS COLOR: SW 7514 FOOTHILLS LOCATION: METAL DOOR FRAME
SWD	FACTORY STAINED WOOD DOOR ALGOMA HARDWOODS WHITE OAK RA-100

MISC.

LK-01	LOCKERS COLOR: #710 SANDSTONE

WALL

CP	CHECKER PLATE WALL PROTECTION
PGB-01	PAINTED GYP. BD. SHERWIN WILLIAMS COLOR: SW7529 SAND BEACH LOCATION: MAIN SPACES, DORMS
PGB-02	PAINTED GYP. BD. SHERWIN WILLIAMS COLOR: SW7514 FOOTHILLS LOCATION: ACCENT WALLS
PTB-01	PAINTED CMU SHERWIN WILLIAMS COLOR: SW7529 SAND BEACH LOCATION: APPARATUS BAY
PTB-02	PAINTED CMU SHERWIN WILLIAMS COLOR: SW7514 FOOTHILLS LOCATION: APPARATUS BAY
RBR-02	RUBBER WAINSCOT ECOSURFACES STYLE: ECOFIT (1/8" THK.) COLOR: 1209 MRS. DOUBTFIREPLACE LOCATION: FITNESS
SS-01	SOLID SURFACE ARRAY (1/4" THK.) COLOR: SANDSTONE F373

CEILING

ACT-01	2X2 ACOUSTICAL LAY-IN CEILING TILE
PGB-03	PAINTED GYP. BD. SHERWIN WILLIAMS SW7007 CEILING BRIGHT WHITE LOCATION: CEILINGS

MILLWORK

PLAM	PLASTIC LAMINATE WILSONART COLOR: TUNSTEN EV 4814-60
SS-02	SOLID SURFACE AT VANITY ARRAY (1/2") DEWPOINT A903
SST	STAINLESS STEEL 14 GA. - BRUSHED

WINDOW

BKS	BLACKOUT SHADES SWF CONTRACT STYLE: BLACKOUT - ENTERPRISE COLOR: TAN C1303
MB	MINI BLINDS SWF CONTRACT BRUSHED ALUMINUM 121
SS-02	SOLID SURFACE AT SILL ARRAY (1/2") DEWPOINT A903

FINISH REMARKS

1. 36" HIGH SOLID SURFACE WALL PROTECTION PANELS ABOVE 4" BASE - REF. DETAILS.
2. PLYWOOD SHALL BE FROM FLOOR TO 8 FEET A.F.F. - ALL WALLS.
3. ACCENT WALL - REF. FINISH PLAN.
4. USE PT-03 UP TO 7' - 4" A.F.F. TRANSITION TO PT-02 (STARTING ABOVE PT-03) AND STOP AT CEILING.
5. 42" HIGH CHECKER PLATE WALL PROTECTION PANELS - REF. DETAILS.
6. 60" HIGH SOLID SURFACE WAINSCOT ABOVE 4" BASE - USE PGB-01 ABOVE S.S. - REF. INT. ELEVATIONS.

GENERAL NOTES

1. PROVIDE SOLID SURFACE WAINSCOT AT WET WALLS IN ALL RESTROOMS - SEE INTERIOR ELEVATIONS.
2. PAINTED ACCENT WALL LOCATIONS TO BE PROVIDED BY ARCHITECT. COORDINATE WITH ARCHITECT PRIOR TO START OF PAINTING.
4. PROVIDE TRANSITION STRIPS AT ALL LOCATIONS FOR FLOOR MATERIAL TRANSITIONS AND UNDERNEATH DOORS WHERE TRANSITIONS OCCUR.
5. PROVIDE VERTICAL GYP. BD. CONTROL JOINTS AT ALL WALLS AND CEILINGS OVER 30 FEET IN LENGTH PER GYPSUM CONSTRUCTION HANDBOOK. ALIGN WITH HINGE SIDE OF DOORS AS APPLICABLE.
6. PAINT HOLLOW METAL DOOR AND WINDOW FRAMES SEMI-GLOSS. COLOR BY ARCHITECT.
7. ALL INTERIOR PAINTED WALLS SHALL HAVE EGGSHELL FINISH.

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY REGISTERED ARCHITECT 04/13/18 NO. 101065 STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

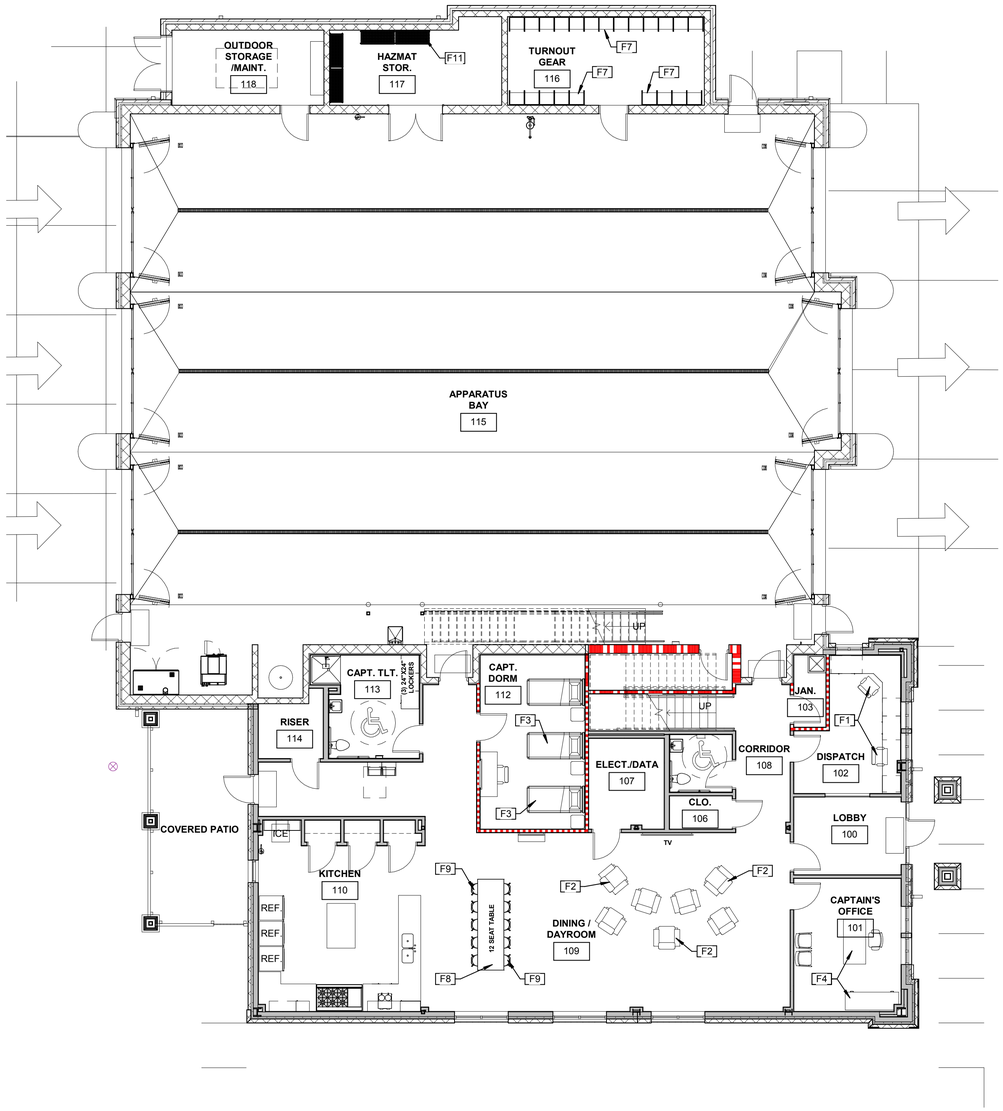
Sheet Title: FINISH SCHEDULE
Project No.: 17032
Drawn by: REC
Date: 04/13/18
Sheet No.: A8.1

renaissance group
S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcollin@rgroup.biz.rvt
9/28/2018 1:48:20 PM

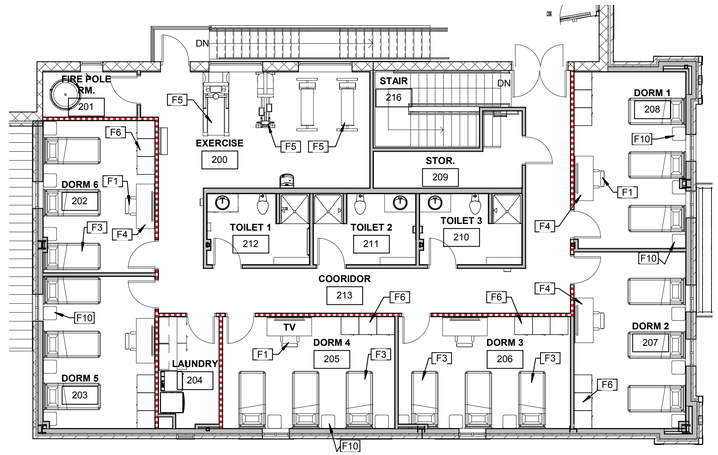
renaissance group

FURNITURE KEYNOTE LEGEND

F1	DESK CHAIR
F2	ARM CHAIR
F3	BED
F4	DESK - REF. MILLWORK DWGS.
F5	EXERCISE EQUIPMENT
F6	LOCKER - REF. SPECS.
F7	WALL MOUNTED LOCKER - REF. SPECS.
F8	DINING TABLE
F9	DINING CHAIR
F10	TABLE END
F11	WIRE FRAME SHELF - REF. SPECS.



1 FIRST FLOOR FURNITURE PLAN
1/8" = 1'-0"



2 SECOND FLOOR FURNITURE PLAN
1/8" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax- 901 332 5534
www.rgroup.biz

MICHAEL E. TERRY
REGISTERED ARCHITECT
NO. 101065
STATE OF TENNESSEE
4/13/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: FURNITURE PLAN
Project No.: 17032
Drawn by: REC
Date: 04/13/18
Sheet No.: A8.2

S:\Users\Ron\Documents\17032 - Columbia Fire Station - CENTRAL_rcolin@rgroup.biz.rvt
9/28/2018 1:47:35 PM

GENERAL NOTES

DESIGN CRITERIA

DESIGN PER INTERNATIONAL BUILDING CODE (2012)

DEAD LOADS:
ROOF AND CANOPIES: . . . . . 20 PSF
FLOORS(MEZZANINE): . . . . . S.W. + 10PSF MPE/CEILING

LIVE LOADS: (REDUCIBLE AS APPLICABLE PER IBC 2012)
ROOFS AND CANOPIES: . . . . . 20 PSF
FLOORS (GROUND FLOOR)
CORRIDORS: . . . . . 100 PSF
OFFICES/BEDROOMS: . . . . . 50 PSF
STORAGE: . . . . . 100 PSF
FLOORS (MEZZANINE)
EXERCISE AREA: . . . . . 150 PSF
STORAGE: . . . . . 100 PSF

WIND LOADS: (ASCE 7-10)
BASIC WIND SPEED: . . . . . 120 MPH
EXPOSURE CATEGORY: C

COMPONENTS & CLADDING PRESSURES: (20 S.F.)
(VALUES MAY BE ADJUSTED PER ASCE 7-10 FOR LARGER EFFECTIVE WIND AREAS)
ZONE 1: . . . . . +16.0 PSF, -39.3 PSF
ZONE 2: . . . . . +16.0 PSF, -44.8 PSF
ZONE 2': . . . . . +16.0 PSF, -53.1 PSF
ZONE 3: . . . . . +16.0 PSF, -55.0 PSF
ZONE 3': . . . . . +16.0 PSF, -76.2 PSF
ZONE 4: . . . . . +34.7 PSF, -37.8 PSF
ZONE 5: . . . . . +34.7 PSF, -45.4 PSF

NET ROOF UPLIFT:
ZONE 1: . . . . . -20.6 PSF
ZONE 2: . . . . . -23.9 PSF
ZONE 2': . . . . . -28.9 PSF
ZONE 3: . . . . . -30.0 PSF
ZONE 3': . . . . . -42.7 PSF

SNOW LOADS:
GROUND SNOW LOAD: . . . . . 10 PSF
FLAT ROOF SNOW LOAD: . . . . . 10 PSF
EXPOSURE FACTOR Ce: 0.9
IMPORTANCE FACTOR Is: 1.2
THERMAL FACTOR Ct: 1.0

SEISMIC:
IMPORTANCE FACTOR IE: 1.5
RISK CATEGORY: IV
MAPPED SPECTRAL RESPONSE ACCELERATION:
Ss = ... 0.323
S1 = ... 0.152
SPECTRAL DESIGN COEFFICIENTS:
SDS 0.258
SD1 . . . . . 0.167
SEISMIC FORCE RESISTING SYSTEM
SPECIAL REINFORCED MASONRY SHEAR WALLS:
RESPONSE MODIFICATION FACTOR (R): 5.0
DEFLECTION AMPLIFICATION FACTOR (Cd): . . . 3.5
OVERSTRENGTH (Omega) 2.5
SPECIAL STEEL MOMENT FRAMES
RESPONSE MODIFICATION FACTOR (R): 5.0
DEFLECTION AMPLIFICATION FACTOR (Cd): . . . 3.5
OVERSTRENGTH (Omega) 2.5
SEISMIC RESPONSE COEFFICIENT (Cs): 0.08,
ANALYSIS PROCEDURE: . . . . . EQUIV. LATERAL FORCE PROCEDURE
SEISMIC BASE SHEAR: . . . . . 170 KIPS
SEISMIC DESIGN CATEGORY: . . . . . D
SITE CLASSIFICATION: C

CONCRETE (DESIGN PER CURRENT EDITION ACI 318)
SLAB ON GRADE: . . . . . F'c = 4500 PSI (MIN)
FOOTINGS: . . . . . F'c = 4500 PSI
ALL OTHER CONCRETE: . . . . . F'c = 3000 PSI

ALL REINFORCING STEEL ASTM A615 GRADE 60

ALL WELDED WIRE FABRIC ASTM A185

CONCRETE MASONRY (DESIGN PER CURRENT EDITION ACI 530)
COMPRESSIVE STRENGTH: . . . . . F'm = 2000 PSI

STRUCTURAL STEEL (DESIGN PER CURRENT EDITION AISC)
ALL WIDE FLANGE SECTIONS ASTM A992 GRADE 50
ALL PLATE AND BAR STOCK, ASTM A36

ALLOWABLE SOIL BEARING PER GEOTECHNICAL REPORT BY TERRACON CONSULTANTS INC. DATED NOV. 21, 2017
SPREAD FOOTINGS: . . . . . 2500 PSF
STRIP FOOTINGS: . . . . . 2000 PSF

GENERAL NOTES

CONCRETE:
UNLESS NOTED OTHERWISE (UNO) ON THE DRAWINGS, MINIMUM COVER FOR REINFORCING SHALL BE AS FOLLOWS
FOOTINGS: . . . . . 3"
SLABS AND WALLS:
EXPOSED TO EARTH LIQUID OR WEATHER: . . . . . 2"
NOT EXPOSED TO EARTH LIQUID OR WEATHER: . . . 3/4"
SLABS ON GRADE: . . . . . 2" FROM TOP

ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES IN CONFORMANCE W/ THE CRSI MANUAL OF STANDARD PRACTICE AND ACI 315 DURING THE PLACING OF THE CONCRETE.

UNLESS NOTED OTHERWISE, SPLICES IN REINFORCING, WHERE PERMITTED, SHALL BE AS FOLLOWS:
WELDED WIRE FABRIC: . . . . . SPACING PLUS 6"
REINFORCING BARS:

LAP SPLICE SCHEDULE

f'c	#6 and Smaller				#7 and Larger			
	Other Bars		Top Bars		Other Bars		Top Bars	
	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B
3000 psi	44 d_b	57 d_b	57 d_b	74 d_b	55 d_b	72 d_b	72 d_b	93 d_b
4000 psi	38 d_b	50 d_b	50 d_b	65 d_b	48 d_b	62 d_b	62 d_b	81 d_b
5000 psi	34 d_b	45 d_b	45 d_b	58 d_b	43 d_b	56 d_b	56 d_b	72 d_b

ALL HOOKS IN REINFORCING BARS SHALL BE ACI STANDARD HOOKS, U.N.O.

DOWELS FROM FOUNDATIONS OR SLABS TO WALLS SHALL MATCH WALL REINFORCING, UNLESS NOTED OTHERWISE. DOWELS SHALL BE PLACED BEFORE CONCRETE IS POURED. DOWELS SHALL NOT BE PUSHED INTO THE CONCRETE.

PROVIDE ¾" CHAMFER AT ALL EXPOSED CORNERS OF BEAMS, WALLS, SLABS, ETC.

PROVIDE ½" PRE-MOLDED EXPANSION JOINT MATERIAL WHERE SLAB ON GRADE IS POURED AROUND COLUMNS AND AGAINST GRADE BEAMS OR WALLS, UNLESS OTHERWISE SHOWN OR NOTED.

MASONRY:
ALL LOAD BEARING WALLS AND EXTERIOR WALLS SHALL BE COMPOSED OF ASTM C90, LIGHTWEIGHT HOLLOW CONCRETE MASONRY UNITS WITH ASTM C270, TYPE "S" MORTAR.

LAP VERTICAL BARS PER LAP SPLICE SCHEDULE ON THIS SHEET, TIE LAPS WITH WIRE TIES.

GROUT ALL CELLS SOLID BELOW FINISHED GRADE.

PROVIDE HORIZONTAL TRUSS-TYPE JOINT REINFORCEMENT IN WALLS AT 16"o.c. VERTICALLY UNO. IN ADDITION, INSTALL JOINT REINFORCING IN THE FIRST TWO MORTAR JOINTS ABOVE AND BELOW OPENINGS, EXTENDING AT LEAST 24 INCHES BEYOND THE OPENING. PROVIDE HORIZONTAL JOINT REINFORCEMENT IN PARAPETS AND FREE STANDING WALLS AT 8"o.c. VERTICALLY. LAP JOINT REINFORCEMENT 6" MINIMUM.

16" U-BLOCK OR BOND BEAM SHALL CONSIST OF AN 8" U-BLOCK UNDER A KNOCK-OUT BLOCK.

FOUNDATIONS:
ALL FOUNDATIONS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT TO CONFIRM THE BEARING PRESSURES LISTED.

IF FOOTING ELEVATIONS SHOWN OCCUR IN A DISTURBED, UNSUITABLE, OR UNSTABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.

FOOTING & SLAB SUB-GRADE PREPERATION SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE GEOTECHNICAL REPORT FOR THE PROJECT PREPARED BY TERRACON CONSULTANTS, INC. (DATED 11/21/2017). SPECIAL ATTENTION SHALL BE GIVEN TO RECOMMENDED UNDERCUTTING, POSSIBLE ROCK EXCAVATION, & COMPACTION FOR STRUCTURAL FILL.

STEPS IN WALL FOOTINGS SHALL NOT EXCEED A SLOPE OF ONE (1) VERTICAL TO TWO (2) HORIZONTAL.

PROVIDE A MINIMUM OF TWO #4 BARS IN TOP OF CONTINUOUS WALL FOOTINGS AT DOOR AND OTHER OPENINGS, 4'-0" LONGER THAN THE OPENING, U.N.O.

STEEL:
ALL BOLTS SHALL BE 3/4 INCH DIAMETER (ASTM A325N) UNLESS NOTED OTHERWISE.
ANCHOR BOLTS ASTM F1554, GRADE 36
WELDED STUDS ASTM A108
DEFORMED BAR ANCHORS ASTM A706

PROVIDE 1" NON SHRINK GROUT UNDER COLUMN BASE PLATE UNO. WHERE MINIMUM BASEPLATE WIDTH EXCEEDS 12" ADD 1/8" TO MINIMUM GROUT THICKNESS PER 2" WIDTH EXCEEDING 12".

UNLESS NOTED OTHERWISE, WF BEAM TO WF BEAM SHALL BE 3/8" SHEAR TABS AND WF BEAM TO COLUMN SHALL BE 3/8" THRU COLUMN SHEAR PLATES. PROVIDE 3/4"ASTMA325N BOLTS MAXIMUM NUMBER THAT WILL FIT IN WEB AT 3" PITCH.

MINIMUM SIZE OF ALL FILLET WELDS SHALL CONFORM TO SECTION J2 AISC SPECIFICATIONS EVEN THOUGH SHOWN OTHERWISE ON ARCHITECTURAL, MECHANICAL, OR STRUCTURAL DRAWINGS.

ALL WELDS ALONG THE LENGTH OF MEMBERS INDICATED ON ARCHITECTURAL OR STRUCTURAL DRAWINGS, BUT NOT SIZED SHALL BE A MINIMUM OF A 2" LONG, 3/16" FILLET WELD EA. SIDE.

ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES

ANGLE FRAME MEMBERS AROUND TRENCHES, PITS, OPENINGS, ETC. SHALL BE MITERED, WELDED, AND GROUND SMOOTH.

METAL DECK:
FLOOR DECK SHALL BE VULCRAFT TYPE 1.5 20 GAGE CONFORM DECK. DECKING SHALL HAVE A MINIMUM OF THREE SPANS PER PANEL. EACH DECKING PANEL SHALL BE ATTACHED TO SUPPORTING MEMBERS AS SHOWN IN DETAIL12/S0.3

ROOF DECK SHALL BE VULCRAFT TYPE B WIDE RIB ROOF DECK 22GA. DECKING SHALL HAVE A MINIMUM OF THREE SPANS PER PANEL. EACH DECKING PANEL SHALL BE ATTACHED TO SUPPORTING MEMBERS USING #12 TEK SCREWS IN 36/7 PATTERN. ADJACENT PANELS SHALL BE CONNECTED WITH 3 #12 TEK SCREW SIDE LAP FASTENED @ EQUAL SPACES PER SPAN. SEE DETAIL 9/S0.3

JOISTS & JOIST GIRDERS:
ALL OPEN WEB STEEL JOISTS, JOIST ACCESSORIES AND BRIDGING SHALL CONFORM TO STEEL JOIST INSTITUTE .(SJI) SPECIFICATIONS. ALL JOISTS SHALL HAVE DOUBLE ANGLE TOP AND BOTTOM CHORDS.

JOISTS SHALL BE FABRICATED, DESIGNED, AND INSTALLED IN ACCORDANCE WITH STEEL JOIST INSTITUTE

ALL ROOF JOISTS SHALL BE DESIGNED FOR A NET UPLIFT EQUAL TO THE FOLLOWING:
ROOF EDGE: XX PSF, DISTANCE "A"
CORNER ZONES: XX PSF, 2 INTERSECTING "A" DIMENSIONS
INTERIOR ZONES: XX PSF, AREA NOT AN EDGE OR CORNER ZONE
"A" DISTANCE: XX feet

PROVIDE BRIDGING AT FIRST BOTTOM CHORD PANEL POINT OF JOISTS REQUIRED TO RESIST UPLIFT.

UNLESS SHOWN OTHERWISE ALL BRIDGING SHALL BE CONT. ANGLE BRIDGING TOP AND BOTTOM IN ACCORDANCE WITH SJI.

DIAGONAL BRIDGING SHALL BE BOLTED "X "BRIDGING IN ACCORDANCE WITH SJI

PROVIDE BRIDGING EACH SIDE OF OPENINGS THAT INTERRUPT JOIST BRIDGING. RUN ADDITIONAL BRIDGING ONE JOIST SPACING EACH SIDE OF OPENINGS.

ALL BRIDGING ROWS INTERRUPTED AT PERPINDICULAY CMU WALLS SHALL BE CONNECTED WELDED) TO L3x3x1/4"x8" ATTACHED TO CMU WALL WITH (2) ¾" DIA. HILTI HY 70 ANCHORS MIN EMBED 4." ALL BRIDGING ROWS SHALL BE WELDED TO PARALLEL STEEL BEAMS.

EXTEND ALL JOIST BOTTOM CHORDS AT COLUMNS AND PROVIDE STABILIZER PLATE BETWEEN EXTENDED CHORDS. DO NOT WELD BOTTOM CHORDS TO STABILIZER PLATES.

JOISTS WHOSE TOP CHORDS CANTILEVER PAST BRG. POINT SHALL BE TYPE "R12 " JOIST EXTENSIONS.

JOISTS MARKED (SP) SHALL BE DESIGNED BY THE JOIST MANUFACTURER FOR THE LOADS LISTED ON THE PLANS. DESIGN SHALL BE SIGNED AND SEALED BY ENGINEER REGISTERED IN THE STATE OF THE PROJECT.

ALL JOIST GIRDERS SHALL BE DESIGNED, FABRICATED AND ERECTED I ACCORDANCE WITH THE STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS AND CODE OF STANDARD PRACTICE

ALL JOIST GIRDERS ARE TO BE DESIGN FOR THE PANEL SPACING AND LOADING INDICATED ON THE PLANS AS WELL AS WITH THE TOP CHORD PITCH INDICATED.

REFER TO GIRDER ELEVATIONS FOR ANY "SPECIAL" ADDITIONAL LOADING CRITERIA ABOVE THE PANEL LOADING INDICATED. ALL SPECIAL JOIST GIRDERS WITH ATYPICAL LOADINGS SHOWN SHALL BE DESIGNED BY THE MANUFACTURER FOR THE LOADS AND SIGNED AND SEALED BY AN ENGINEER IN THE STATE OF THE PROJECT.

SUPPLEMENTARY NOTES:
PROVIDE ALL TEMPORARY BRACING, GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. THE STRUCTURE SHOULD NOT BE CONSIDERED STABLE UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN CONSTRUCTED.

THE STRUCTURAL ENGINEER SHALL NOT HAVE CONTROL OR BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES OR SEQUENCES. FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, OR ANY OTHER PERSONS PERFORMING THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

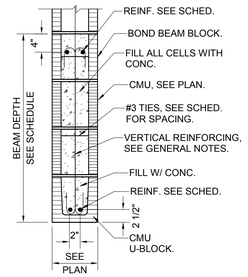
VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS

SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR EMBEDS, OPENINGS, SLEEVES, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS.

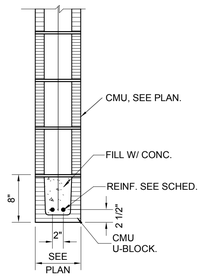
ALL STRUCTURAL OPENINGS AROUND OR AFFECTED BY MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT SHALL BE VERIFIED WITH EQUIPMENT PURCHASED BEFORE PROCEEDING WITH STRUCTURAL WORK AFFECTED.

ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF AN ENGINEER REGISTERED IN THE STATE OF THE PROJECT.

GENERAL CONTRACTOR MUST REVIEW AND APPROVE SHOP DRAWINGS PRIOR TO SUBMITTAL TO ARCHITECT/ENGINEER. SUBMITTALS WHICH DO NOT CONTAIN THE CONTRACTORS SHOP DRAWING OR STAMP OR HAVE BEEN MERELY "RUBBER STAMPED" SHALL BE RETURNED WITHOUT REVIEW.



MASONRY OPENING MORE THAN 5'-0" (SEE SCHEDULE FOR SIZE AND REINFORCING)



MASONRY OPENING 5'-0" OR LESS

MASONRY BEAM SCHEDULE

MARK	CLEAR SPAN	DEPTH	BOTTOM REINF	TOP REINF	#3 TIE SPACING
L1	≤ 5'-0"	0'-8"	2-#5	-	-
L2	5'-1" TO 5'-11"	1'-4"	2-#5	2-#5	-
L3	6'-0" TO 7'-3"	2'-0"	2-#5	2-#5	0'-8"
L4	7'-4" TO 9'-11"	2'-8"	2-#5	2-#5	1'-4"
L5	10'-0" TO 11'-11"	3'-4"	2-#6	2-#6	1'-4"

TYPICAL CMU LINTEL DETAIL

NOTES:
1) FOR OPENING LOCATIONS SEE ARCHITECTURAL DRAWINGS.
2) PROVIDE 8" BEARING EACH SIDE OF OPENING.
3) SEE BRICK LINTEL SCHEDULE FOR SIZE OF BRICK LINTEL ANGLES.
4) EXTEND REINF. STEEL (1) ONE LAP SPLICE LENGTH EITHER SIDE OF OPENING.
5) PROVIDE LINTEL AS MARKED ON PLANS AND ELEVATIONS, IF NOT MARKED USE LINTEL CORRESPONDING TO OPENING SIZE

FOOTING SCHEDULE

MARK	SIZE (LxWxD)	REINFORCING
W30	CONT.x2'-6"x1'-0"	3 #5 CONT. BOTT. W/ #5 TRANSVERSE @ 24" O.C.
W42	CONT.x3'-6"x1'-6"	4 #6 CONT. TOP & BOTT. W/ #4 TRANSVERSE @ 12" O.C. *
F30	2'-6"x2'-6"x1'-0"	3 #4x2'-0" BOTT. EA. WAY *
F54	4'-6"x4'-6"x1'-4"	4 #5x4'-0" BOTT. EA. WAY
F72	6'-0"x6'-0"x1'-2"	7 #6x5'-6" TOP & BOTT. EA. WAY
F108	9'-0"x9'-0"x1'-7"	8 #8x8'-6" TOP&BOTT. EA. WAY

* TERMINATE W/ ACI STANDARD HOOK

BRICK LINTEL SCHEDULE

WIDTH OF OPENING	LINTEL
≤ 5'-11"	L3 1/2x3 1/2x5/16
6'-0" TO 7'-11"	L5x3 1/2x5/16 (L.L.V.)
8'-0" TO 10'-0"	L6x4x3/8 (L.L.V.)

LINTEL SECTION

NOTES:
1. UNLESS SHOWN OTHERWISE, LINTEL IN BRICK MASONRY WALLS SHALL BE PROVIDED AS SHOWN IN SCHEDULE.
2. OPENINGS GREATER THAN 10'-0" SHALL BE COORDINATED WITH ENGINEER.
3. LINTELS SHALL BEAR A MINIMUM OF 8" ON EACH END.

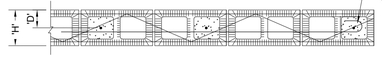
MASONRY LAP SPLICE LENGTHS

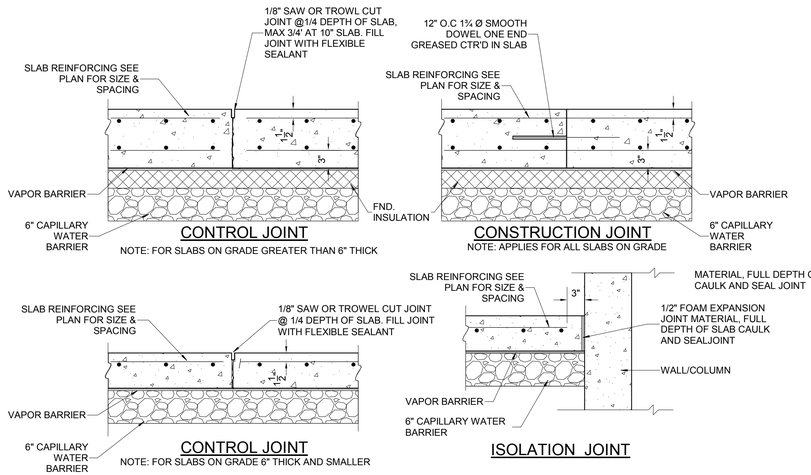
BAR SIZE	MINIMUM LAP SPLICE LENGTH, in INCHES
#3 (#10)	17
#4 (#13)	30
#5 (#16)	45
#6 (#19)	54

MASONRY WALL REINFORCING SCHEDULE

WALL TYPE	'H'	'D'	VERTICAL STEEL	HORIZONTAL STEEL	GROUT
8" WALL	8"	4"	#5 @ 32" O.C. (U.N.O.) 1-LAYER	1-#5 @ 3'-4" O.C. (@ BOND BEAM) & STD. CONT. TRUSS REINF. @ 16" O.C.	@ REINF.
12" WALL	12"	3"	#5 @ 8" O.C. 2-LAYERS	(1) #6 @ 16" O.C. , U.N.O. & STD. CONT. TRUSS REINF. @ 16" O.C.	@ REINF. (U.N.O.)

NOTES:
- DO NOT PROVIDE VERTICAL CONTROL JOINTS IN MASONRY WALLS.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND TYPES OF CMU WALL TYPES.
- 'H' & 'D' ARE NOMINAL DIMENSIONS.
- STD. CONT. REINF. IS #9 DEFORMED SIDE & TRUSS WIRE.
- PROVIDE #5 VERTICAL BARS (FULL HEIGHT & FULLY GROUTED) ON EACH SIDE OF ALL OPENINGS - SEE 7/S0.2.





TYPICAL SLAB JOINT DETAILS

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

DANIEL J. SOURS — REGISTERED ENGINEER — AGRICULTURE — NUMBER 111983 — STATE OF TENNESSEE — 4-20-18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
U.S. HIGHWAY 412
COLUMBIA, TN. 38401

Sheet Title: STRUCTURAL GENERAL NOTES
Project No: 17032
Drawn by: SSR
Date: 4/13/18
Sheet No: S0.1

drawings prepared by renaissance group

STATEMENT OF SPECIAL INSPECTIONS

THIS STATEMENT OF SPECIAL INSPECTIONS IS SUBMITTED AS REQUIRED FOR BUILDING PERMIT ISSUANCE IN ACCORDANCE WITH THE SPECIAL INSPECTION AND STRUCTURAL TESTING REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE. THIS STATEMENT OF SPECIAL INSPECTIONS IS ONLY FOR THE STRUCTURAL PORTION OF THE WORK. REFER TO OTHER DISCIPLINES FOR OTHER SPECIAL INSPECTION REQUIREMENTS FOR THIS PROJECT.

THE OWNER OR REGISTERED DESIGN PROFESSIONAL IN CHARGE (ARCHITECT) ACTING AS THE OWNERS AGENT SHALL EMPLOY ONE OR MORE AGENCIES APPROVED BY THE BUILDING OFFICIAL TO PERFORM INSPECTION DURING CONSTRUCTION. THESE INSPECTIONS ARE IN ADDITION TO SECTION 110 OF THE IBC. CONTRACTOR IS RESPONSIBLE TO ENSURE THE INSPECTOR IS PRESENT WHERE WORK REQUIRES PERIODIC OR CONTINUOUS INSPECTION.

RESPONSIBILITIES OF THE SPECIAL INSPECTOR

THE INSPECTOR SHALL KEEP RECORDS OF ALL INSPECTIONS AND SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. DISCOVERED DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF SUCH DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING ALL THE REQUIRED SPECIAL INSPECTIONS AND TESTING, AND CORRECTION OF ANY DISCREPANCIES NOTED PREVIOUSLY SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO ISSUANCE OF A CERTIFICATE OF USE AND OCCUPANCY.

FABRICATIONS

SPECIAL INSPECTIONS OF THE FABRICATION PROCESS SHALL NOT BE REQUIRED WHERE FABRICATION OF STRUCTURAL LOAD BEARING MEMBERS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATOR IS REGISTERED AND APPROVED TO PERFORM THE WORK WITHOUT SPECIAL INSPECTIONS. AT THE COMPLETION OF THE FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL.

THE SPECIAL INSPECTIONS ARE IN ADDITION TO THE MATERIAL TESTING AND INSPECTIONS LISTED IN THE CONTRACT SPECIFICATIONS. CONTRACTOR IS TO COORDINATED SPECIAL INSPECTIONS, MATERIAL SPECIFIC TESTING AND INSPECTIONS WITH THE OWNER FURNISHED SPECIAL INSPECTOR MATERIAL TESTING LABS.

THE SPECIAL INSPECTIONS INDICATED HEREIN DO NOT RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITIES. CONTRACTOR SHALL PAY FOR ANY ADDITIONAL TESTING OR INSPECTION REQUIRED FROM WORK OR MATERIALS NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.

THE STATEMENT OF SPECIAL INSPECTIONS INCLUDES REQUIRED VERIFICATION AND INSPECTION OF THE FOLLOWING SECTIONS:

1. STRUCTURAL STEEL CONSTRUCTION
2. CONCRETE MASONRY CONSTRUCTION
3. CONCRETE CONSTRUCTION
4. SOILS
5. ADDITIONAL SPECIAL INSPECTION FOR SEISMIC RESISTANCE OF STRUCTURAL STEEL

COMPONENTS PART OF THE MAIN WIND FORCE RESISTING SYSTEM AND SUBJECTED TO SPECIAL INSPECTIONS FOR WIND RESISTANCE: ROOF CLADDING, WALL CLADDING

COMPONENTS PART OF THE MAIN SEISMIC FORCE RESISTING SYSTEM AND SUBJECTED TO SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE: MOMENT FRAME BEAMS, COLUMNS, BASES, CONNECTIONS.

AISC 360-10: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS

TASK	CONTINUOUS	PERIODIC
TABLE N5.4-1 INSPECTION TASKS PRIOR TO WELDING		
1. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	X	-
2. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X	-
3. MATERIAL IDENTIFICATION (TYPE/GRADE)	-	X
4. WELDER IDENTIFICATION SYSTEM	-	X
5. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) A. JOINT PREPARATION B. DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) C. CLEANLINESS (CONDITION OF STEEL SURFACES) D. TACKING (TACK WELD QUALITY AND LOCATION) E. BACKING TYPE AND FIT (IFAPPLICABLE)	-	X
6. CONFIGURATION AND FINISH OF ACCESS HOLES	-	X
7. FIT-UP OF FILLET WELDS A. DIMENSIONS (ALIGNMENT, GAPS AT ROOT) B. CLEANLINESS (CONDITION OF STEEL SURFACES) C. TACKING (TACK WELD QUALITY AND LOCATION)	-	X
8. CHECK WELDING EQUIPMENT	-	X
TABLE N5.4-2 INSPECTION TASKS DURING WELDING		
1. USE OF QUALIFIED WELDERS	-	X
2. CONTROL AND HANDLING OF WELDING CONSUMABLES A. PACKING B. EXPOSURE CONTROL	-	X
3. NO WELDING OVER CRACKED TACK WELDS	-	X
4. ENVIRONMENTAL CONDITIONS A. WIND SPEED WITHIN LIMITS B. PRECIPITATION AND TEMPERATURE	-	X
5. WPS FOLLOWED A. SETTINGS ON WELDING EQUIPMENT B. TRAVEL SPEED C. SELECTED WELDING MATERIALS D. SHIELDING GAS TYPE/RATE FLOW E. PREHEAT APPLIED F. INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) G. PROPER POSITION (F, V, H, OH)	-	X
6. WELDING TECHNIQUES A. INTERPASS AND FINAL CLEANING B. EACH PASS WITHIN PROFILE LIMITATIONS C. EACH PASS MEETS QUALITY REQUIREMENTS	-	X

TABLE N5.4-3 INSPECTION TASKS AFTER WELDING		
1. WELDS CLEANED	-	X
2. SIZE, LENGTH AND LOCATION OF WELDS	X	-
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA A. CRACK PROHIBITION B. WELD/BASE-METAL FUSION C. CRATER CROSS SECTION D. WELD PROFILES E. WELD SIZE F. UNDERCUT G. POROSITY	-	X
4. ARC STRIKES	X	-
5. k-AREA	X	-
6. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X	-
7. REPAIR ACTIVITIES	X	-
8. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	X	-
TABLE N5.6-1 INSPECTION TASKS PRIOR TO BOLTING		
1. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIAL	X	-
2. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	-	X
3. PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	-	X
4. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	-	X
5. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	-	X
6. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHOD USED	X	X
7. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	-	X
TABLE N5.6-2 INSPECTION TASKS DURING BOLTING		
1. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	-	X
2. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	-	X
3. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	-	X
4. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RSCS SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	-	X
TABLE N5.6-3 INSPECTION TASKS AFTER BOLTING		
1. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	X	-
TABLE N6.1 INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT		
1. PLACEMENT AND INSTALLATION OF STEEL DECK	X	-
2. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	X	-
3. DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS	X	-

***** USE THIS FOR OCCUPANCY IV *****

TABLE 1704.5.3, LEVEL 2 INSPECTION OF CONCRETE MASONRY CONSTRUCTION

VERIFICATION AND INSPECTION	FREQUENCY		REFERENCE FOR CRITERIA		
	CONTINUOUS	PERIODIC			
1. FROM THE BEGINNING OF MASONRY CONSTRUCTION, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
A. PROPORTIONS OF SITE-PREPARED MORTAR, GROUT, AND PRESTRESSING GROUT FOR BONDED TENDONS.	---	X	---	---	ART. 2.6A
B. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS.	---	X	---	---	ART. 3.3B
C. PLACEMENT OF REINFORCEMENT, CONNECTORS, PRESTRESSING TENDONS, AND ANCHORAGES.	---	X	---	SEC. 1.13	ART. 3.4, 3.6A
D. GROUT SPACE PRIOR TO GROUTING.	X	---	---	---	ART. 3.2D
E. PLACEMENT OF GROUT.	X	---	---	---	ART. 3.5
F. PLACEMENT OF PRESTRESSING GROUT.	X	---	---		ART. 3.6C
2. THE INSPECTION PROGRAM SHALL VERIFY:					
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	---	X	---	---	ART. 3.3G
B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.	X	---	---	SEC. 1.2.2(E), 2.1.4, 3.1.6	---
C. SPECIFIED SIZE, GRADE, AND TYPE OF REINFORCEMENT.	---	X	---	SEC. 1.13	ART. 2.4, 3.4
D. WELDING OF REINFORCING BARS.	X	---	---	SEC. 2.1.10.7.2, 3.3.3.4(B)	---
E. PROTECTION OF MASONRY DURING COLD WEATHER (BELOW 40°) OR HOT WEATHER (ABOVE 90°),	---	X	SEC. 2104.3, 2104.4	---	ART. 1.8C, 1.8D
F. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.	X	---	---	---	ART. 3.6B
3. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS SHALL BE OBSERVED.	X	---	SEC. 2105.2.2, 2105.3	---	ART. 1.4
4. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	---	X	---	---	ART. 1.5

TABLE 1705.3, REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.	---	X	ACI 318: 3.5, 7.1-7.7	1910.4
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2B.	---	---	AWS D1.4 ACI 318:3.5.2	---
3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	---	X	ACI 318:8.1.3, 21.2.8	1908.5, 1909.1
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	---	X	ACI 318: 3.8.6, 8.1.3, 21.2.8	1909.1
5. VERIFYING USE OF REQUIRED DESIGN MIX	---	X	ACI 318: CH. 4,5.2-5.4	1904.2, 1910.2, 1910.3
6. AT THE TIME OF FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---	ASTM C172 ASTM C31 ACI 318: 5.6, 5.8	1910.10
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	---	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X	ACI 318: 5.11-5.13	1910.9
12. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X	ACI 318: 6.1.1	---

TABLE 1705.6, REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	---	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X

TABLE 1705.10, REQUIRED VERIFICATION AND INSPECTION OF WIND RESISTANCE

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
3. WIND RESISTING COMPONENTS:				
a.) ROOF CLADDING	---	X	---	1705.10.3
b.) WALL CLADDING	---	X	---	

TABLE 1705.11, REQUIRED VERIFICATION AND INSPECTION OF SEISMIC RESISTANCE

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. STRUCTURAL STEEL				
SEE AISC 341 AND INSPECTION LIST ATTACHED	X	X	AISC 341	1705.11.1

4. REFER TO MECHANICAL, ELECTRICAL, PLUMBING AND ARCHITECTURAL PLANS FOR FURTHER SPECIAL INSPECTIONS RELATED TO EACH DISCIPLINE.

ADDITIONAL SPECIAL INSPECTION FOR SEISMIC RESISTANCE FOR STRUCTURAL STEEL PER AISC 341

TASK	CONTINUOUS	PERIODIC
TABLE J6-1 VISUAL INSPECTION TASKS PRIOR TO WELDING		
1. MATERIAL IDENTIFICATION (TYPE/GRADE)	-	X
2. WELDER IDENTIFICATION SYSTEM	-	X
3. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) A. JOINT PREPARATION B. DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) C. CLEANLINESS (CONDITION OF STEEL SURFACES) D. TACKING (TACK WELD QUALITY AND LOCATION) E. BACKING TYPE AND FIT (IF APPLICABLE)	-	X
4. CONFIGURATION AND FINISH OF ACCESS HOLES	-	X
5. FIT-UP OF FILLET WELDS A. DIMENSIONS (ALIGNMENT, GAPS AT ROOT) B. CLEANLINESS (CONDITION OF STEEL SURFACES) C. TACKING (TACK WELD QUALITY AND LOCATION)	-	X
TABLE J6-2 VISUAL INSPECTION TASKS DURING WELDING		
1. WPS FOLLOWED A. SETTINGS ON WELDING EQUIPMENT B. TRAVEL SPEED C. SELECTED WELDING MATERIALS D. SHIELDING GAS TYPE/RATE FLOW E. PREHEAT APPLIED F. INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) G. PROPER POSITION (F, V, H, OH) H. INTERMIX OF FILLER METALS AVOIDED UNLESS APPROVED	-	X
2. USE OF QUALIFIED WELDERS	-	X
3. CONTROL AND HANDLING OF WELDING CONSUMABLES A. PACKING B. EXPOSURE CONTROL	-	X
4. ENVIRONMENTAL CONDITIONS A. WIND SPEED WITHIN LIMITS B. PRECIPITATION AND TEMPERATURE	-	X
5. WELDING TECHNIQUES A. INTERPASS AND FINAL CLEANING B. EACH PASS WITHIN PROFILE LIMITATIONS C. EACH PASS MEETS QUALITY REQUIREMENTS	-	X
6. NO WELDING OVER CRACKED TACK WELDS	-	X
TABLE J6-3 VISUAL INSPECTION TASKS AFTER WELDING		
1. WELDS CLEANED	-	X
2. SIZE, LENGTH AND LOCATION OF WELDS	X	-
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA A. CRACK PROHIBITION B. WELD/BASE-METAL FUSION C. CRATER CROSS SECTION D. WELD PROFILES E. WELD SIZE F. UNDERCUT G. POROSITY	X	-
4. PLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS (IF REQUIRED)	X	-
5. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X	-
6. REPAIR ACTIVITIES	X	-
TABLE J7-1 INSPECTION TASKS PRIOR TO BOLTING		
1. PROPER FASTENERS SELECTED FOR THE JOINT DETAIL	-	X
2. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	-	X
3. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	-	X
4. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHOD USED	-	X
5. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	-	X
TABLE J7-2 INSPECTION TASKS DURING BOLTING		
1. FASTENER ASSEMBLIES, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	-	X
2. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	-	X
3. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	-	X
4. FASTENERS ARE PRETENSIONED PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	-	X
TABLE J7-3 INSPECTION TASKS AFTER BOLTING		
1. DOCUMENT ACCEPTED AND REJECTED CONNECTIONS	X	-

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

DANIEL J. SOURS — REGISTERED ENGINEER — AGRICULTURE — NO. 119823 — STATE OF TENNESSEE — 4/20/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE & RESCUE NO. 3

U.S. HIGHWAY 412
COLUMBIA, TN. 38401

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Sheet Title: **SPECIAL INSPECTIONS**

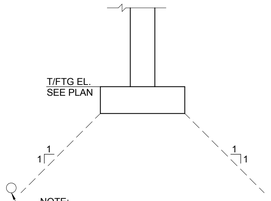
Project No.: **17032**

Drawn by: **Author**

Date: **4/13/18**

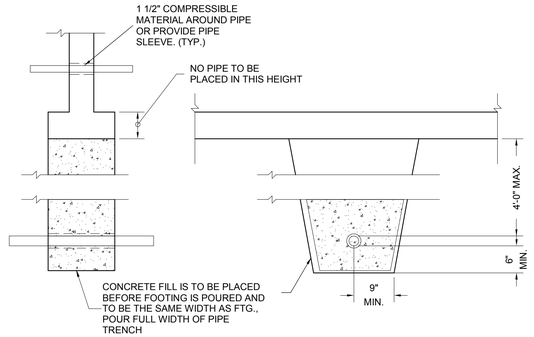
Sheet No.: **S0.2**

progress issue

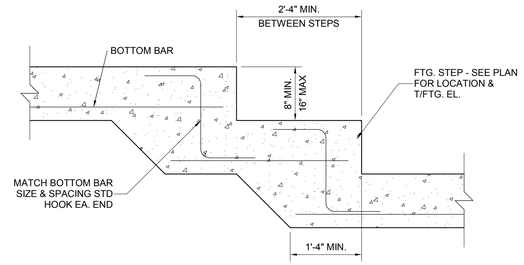


TYPICAL PIPE PARALLEL TO WALL

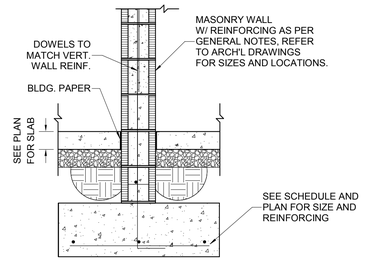
FTGS, FTG. DEPTH & PIPE LOCATION SHALL BE COORDINATED SO THAT THE PIPE IS NOT WITHIN FTG. LOAD DISTRIBUTION INFLUENCE LINE AS ILLUSTRATED.



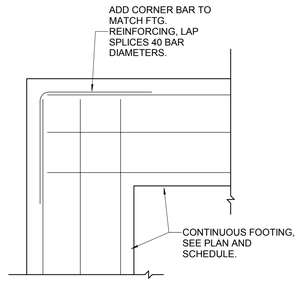
TYPICAL PIPE PENETRATION THRU WALL OR UNDER WALL



2 DETAIL
3/4" = 1'-0"

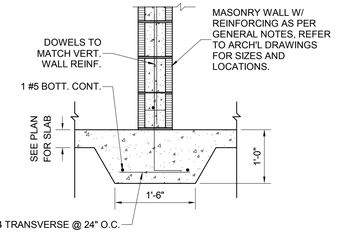


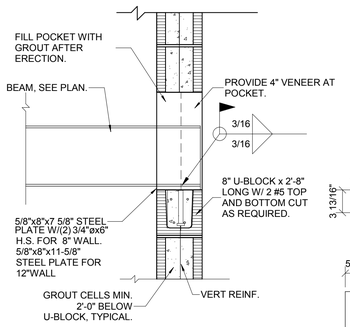
3 SECTION
3/4" = 1'-0"

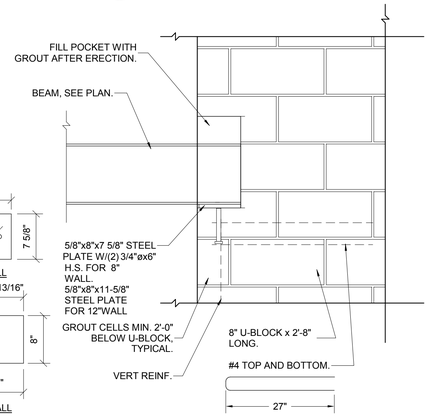


4 DETAIL
3/4" = 1'-0"

1 DETAIL
3/4" = 1'-0"

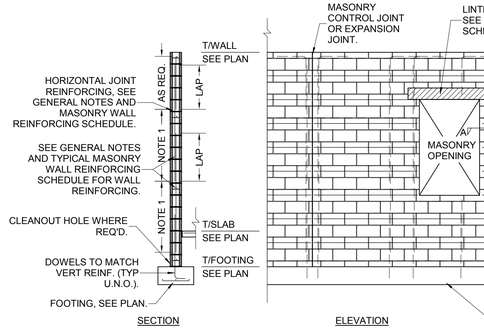




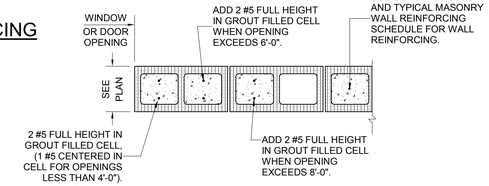


6 DETAILS
1" = 1'-0"

TYPICAL MASONRY WALL REINFORCING

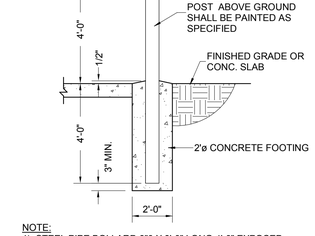


NOTES:
1) 5' MAXIMUM IF LOW LIFT GROUTING IS USED.
2) IF HIGH LIFT GROUTING IS USED, REINFORCING SHALL BE FULL HEIGHT AND A CLEANOUT HOLE IS REQUIRED AT CELLS WITH REINFORCING BARS, GROUT SHALL BE PLACED IN 5' LIFTS TO PREVENT BLOWOUTS.
3) LAP SHALL BE AS SHOWN IN THE MASONRY LAP SPLICE SCHEDULE ON SHEET S0.1.



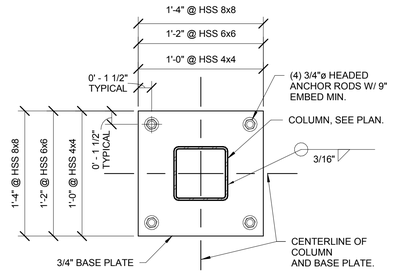
SECTION "AA"
TYPICAL WALL REINFORCING AT OPENINGS

7 DETAILS
1/4" = 1'-0"

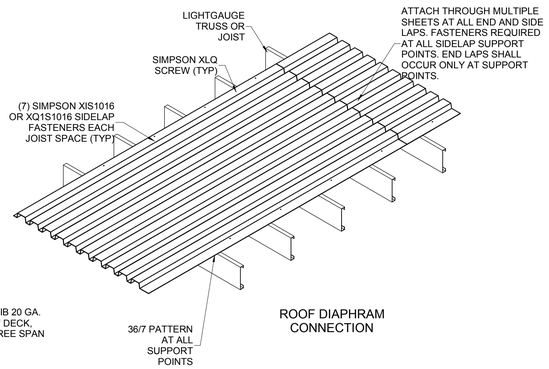


NOTE:
1) STEEL PIPE BOLLARD 8"O X 8'-0" LONG 4'-0" EXPOSED ABOVE FIINISHED GRADE. SINK INTO A 2'-0" DIAMETER CONCRETE FOOTING. GROUT/FILL THE PIPE WITH CONCRETE AND TOOL THE CONCRETE AT THE TOP OF THE BOLLARD INTO A ROUNDED CAP.
2). CAST BOLLARD INTEGRAL W/ ANY BUILDING FOUNDATION IF THEY INTERSECT.

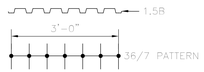
8 PIPE BOLLARD DETAIL
3/4" = 1'-0"



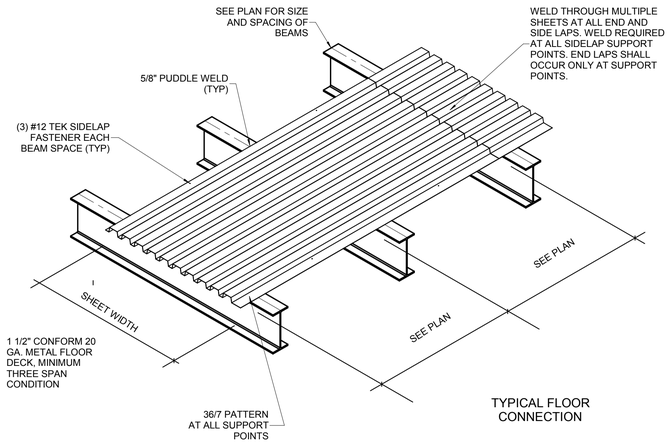
9 TYPICAL BASE PLATE DETAIL
1 1/2" = 1'-0"



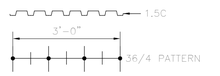
10 DETAIL



11 36/7 FASTENER LAYOUT
1/2" = 1'-0"



12 DETAIL



13 36/4 FASTENER LAYOUT
1/2" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

DANIEL J. SOURS — REGISTERED ENGINEER — AGRICULTURE — NUMBER 119837 — STATE OF TENNESSEE — 7-20-18

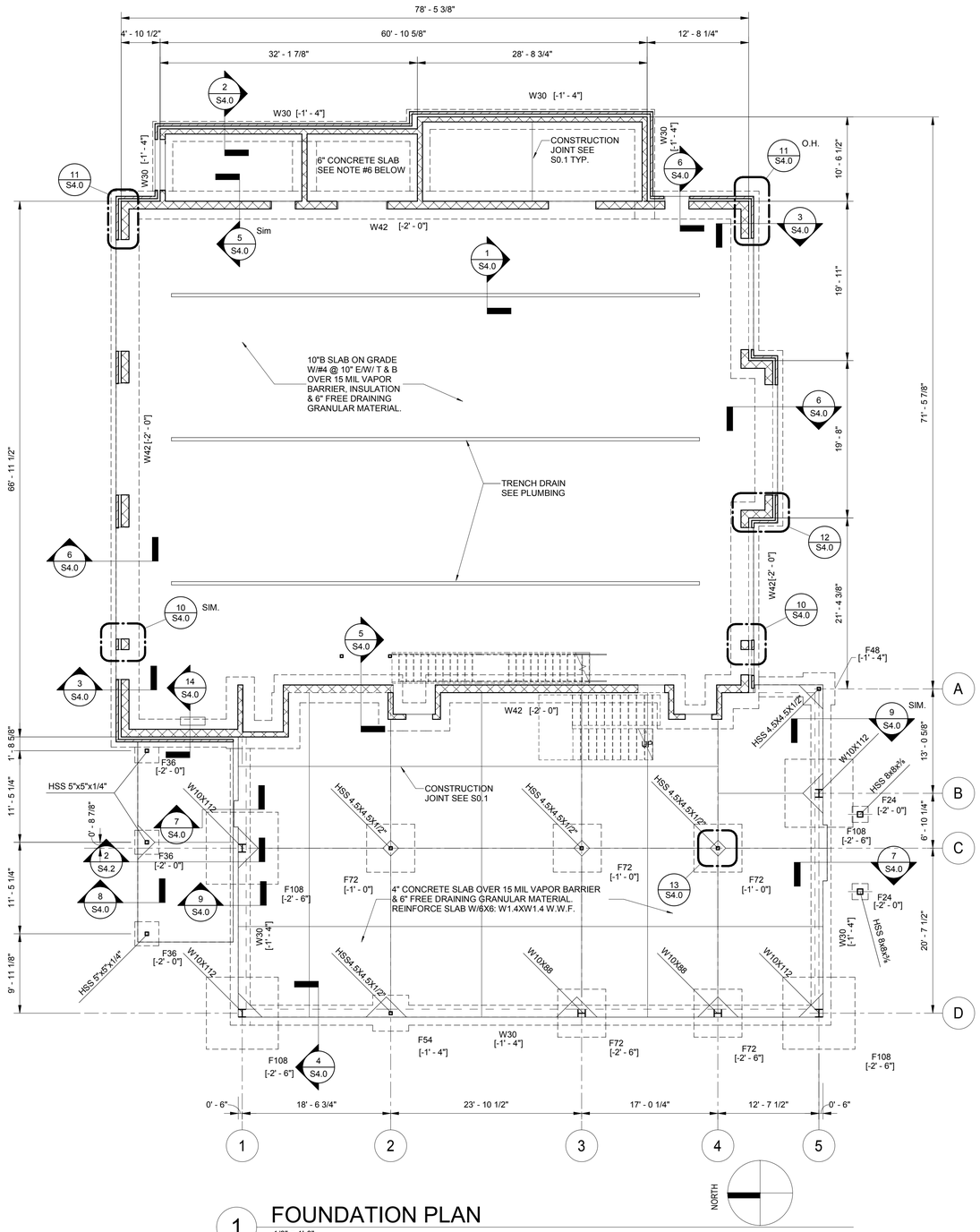
REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
U.S. HIGHWAY 412
COLUMBIA, TN. 38401

Sheet Title: STRUCTURAL DETAILS MISCELANIOUS
Project No: 17032
Drawn by: SSR
Date: 4/13/18
Sheet No: S0.3

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

renaissance group

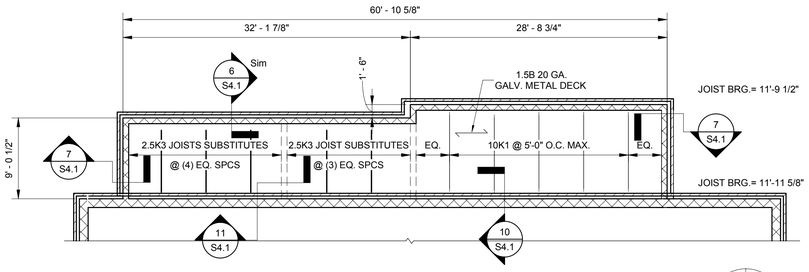


1 FOUNDATION PLAN

1/8" = 1'-0"

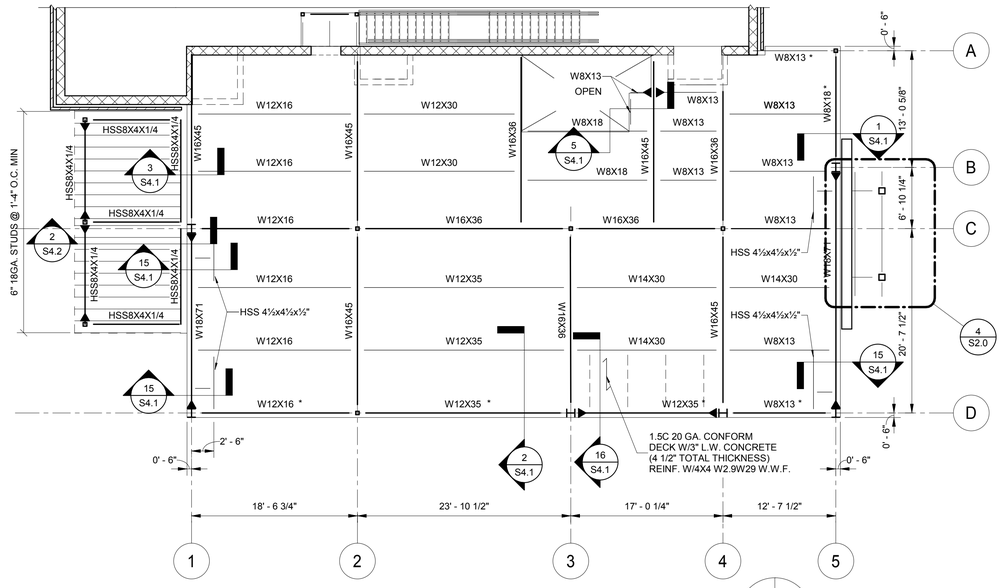
NOTES:

1. REFER TO S0.1 FOR GENERAL NOTES
2. REFER TO S0.3 FOR SPECIAL INSPECTIONS.
3. FXX DENOTES SPREAD FOOTING SIZE, SEE S0.1 FOR FOOTING SCHEDULE.
4. WXX DENOTES STRIP FOOTING SIZE, SEE S0.1 FOR FOOTING SCHEDULE.
5. [X'-X"] DENOTES T/FTG LOCATION RELATIVE TO FINISHED FLOOR.
6. 6" CONCRETE SLAB OVER 15 MIL VAPOR BARRIER & 6" FREE DRAINING GRANULAR MATERIAL. REINFORCE W/ 6X6: W2.9XW2.9 W.W.F.



3 STORAGE AREA ROOF FRAMING PLAN

1/8" = 1'-0"

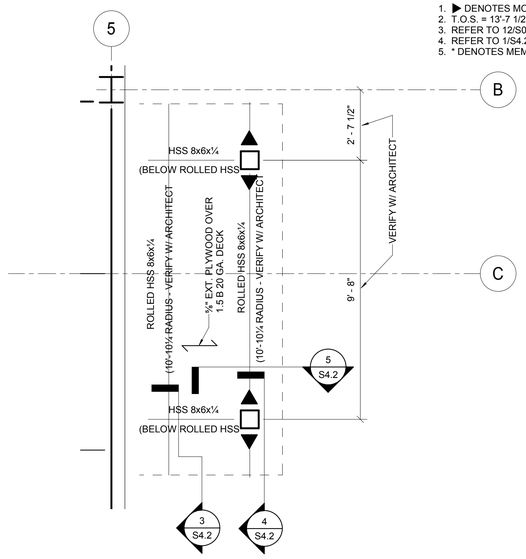


2 SECOND FLOOR FRAMING PLAN

1/8" = 1'-0"

NOTES:

1. ▶ DENOTES MOMENT CONNECTION. SEE 2/S4.2
2. T.O.S. = 13'-7 1/2" A.F.F.
3. REFER TO 12/S0.2 FOR FLOOR DECK ATTACHMENT.
4. REFER TO 1/S4.2 FOR SIMPLE BEAM CONNECTION.
5. * DENOTES MEMBER IS A COLLECTOR .



4 SECOND FLOOR PLAN - Callout 1

3/8" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

DANIEL J. SOURS — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — No. 119851 — STATE OF TENNESSEE — 4-20-18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
U.S. HIGHWAY 412
COLUMBIA, TN. 38401

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

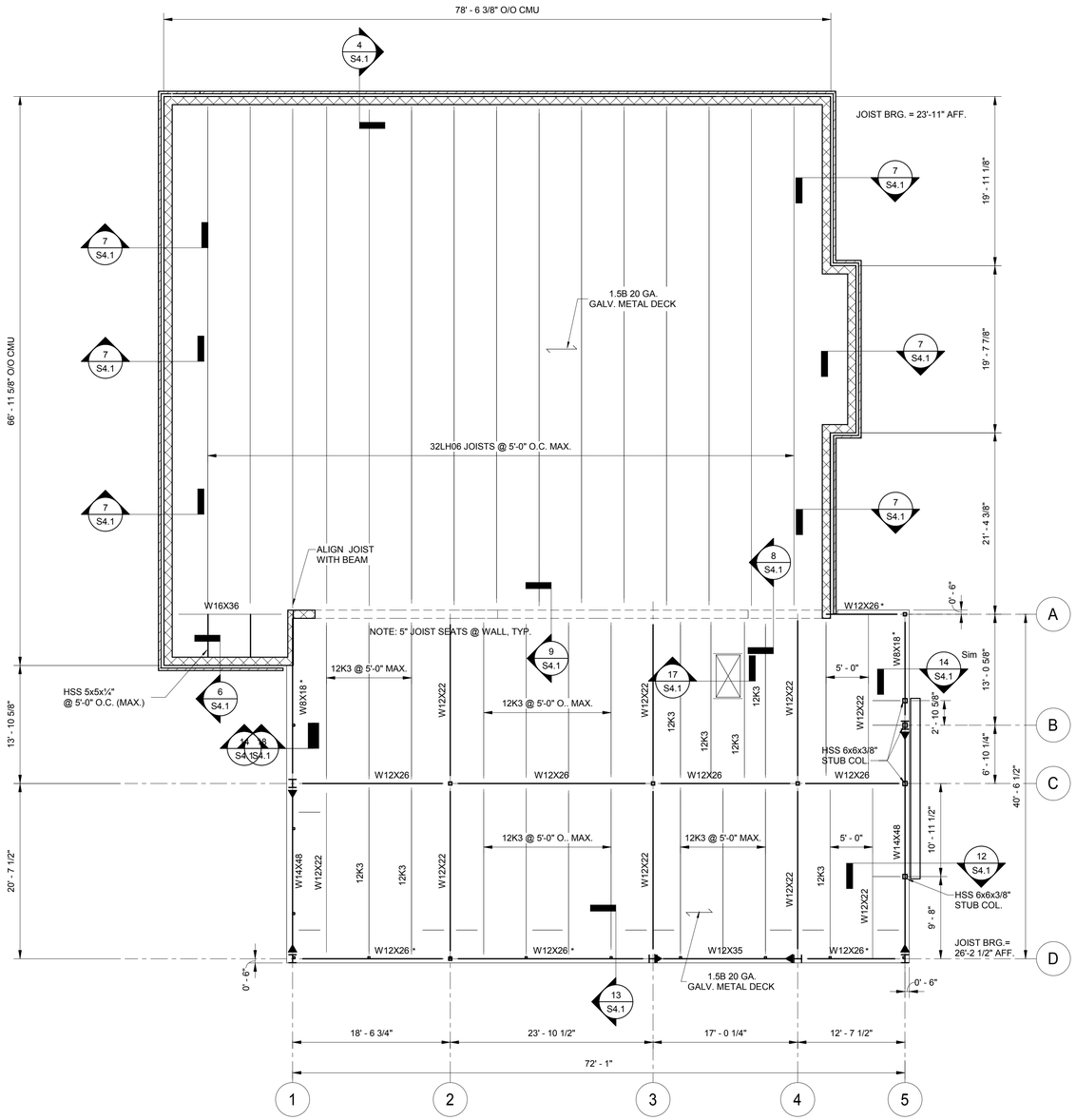
Sheet Title: **FOUNDATION SLAB PLAN**

Project No: **17032**

Drawn by: **SSR**

Date: **4/13/18**

Sheet No. **S2.0**



1 ROOF FRAMING PLAN

1/8" = 1'-0"

NOTES:

1. ► DENOTES MOMENT CONNECTION. SEE 1/S4.3
2. SEE 10/S0.3 FOR ROOF DECK/DIAPHRAM CONNECTION.
3. * DENOTES MEMBER IS A COLLECTOR.

Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

DANIEL J. SOURS
REGISTERED ENGINEER
AGRICULTURE
NO. 119893
STATE OF TENNESSEE
4/20/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
U.S. HIGHWAY 412
COLUMBIA, TN. 38401

Sheet Title: ROOF FRAMING PLAN

Project No: 17032

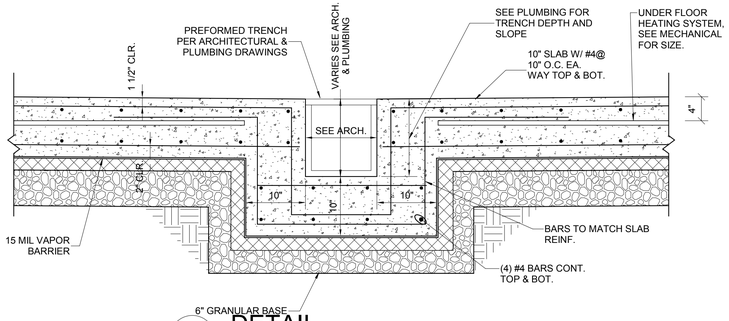
Drawn by: SSR

Date: 4/13/18

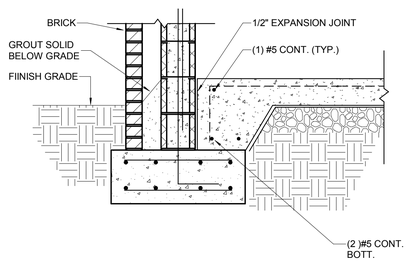
Sheet No. S2.1

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

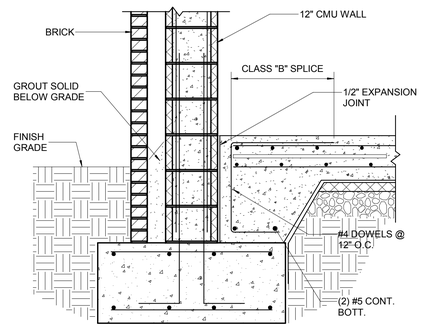
renaissance group



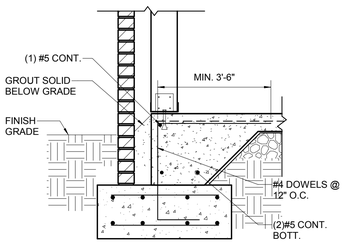
1 DETAIL
1" = 1'-0"



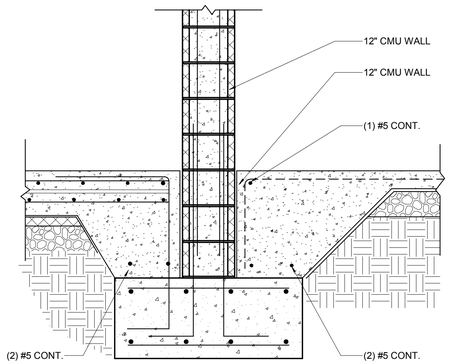
2 SECTON
3/4" = 1'-0"



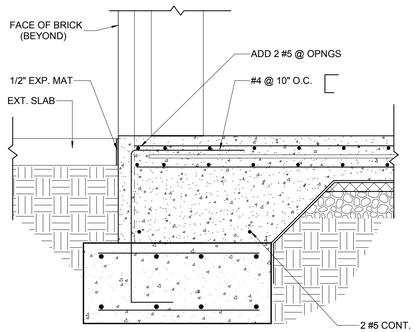
3 SECTION
3/4" = 1'-0"



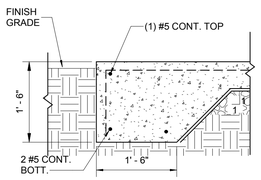
4 SECTION
3/4" = 1'-0"



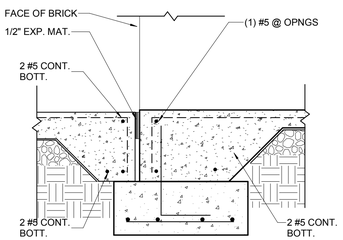
5 SECTION
3/4" = 1'-0"



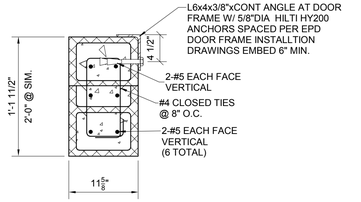
6 SECTION
3/4" = 1'-0"



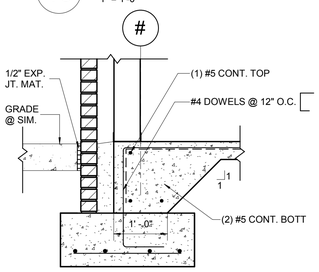
8 SECTION
3/4" = 1'-0"



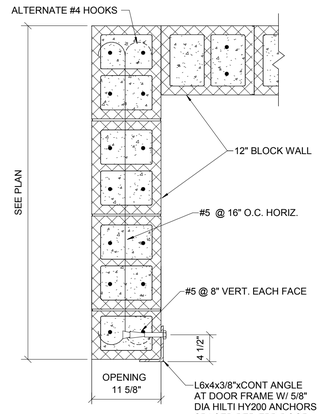
7 SECTION
3/4" = 1'-0"



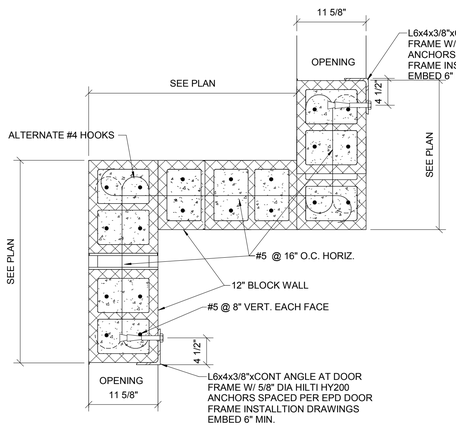
10 DETAIL
1" = 1'-0"



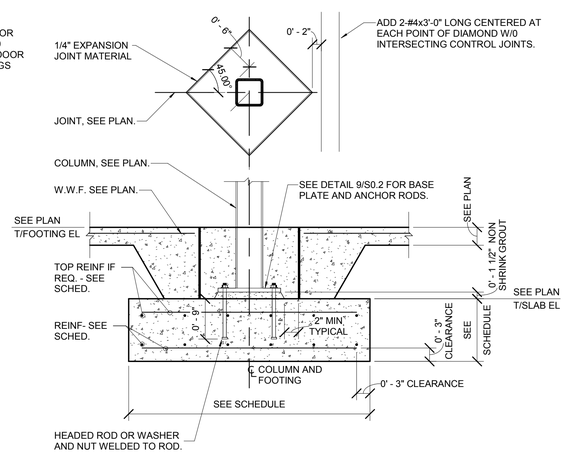
9 SECTION
3/4" = 1'-0"



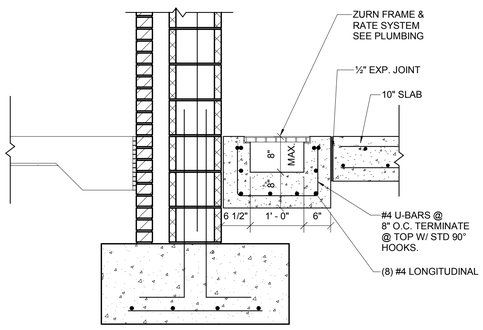
11 DETAIL
1" = 1'-0"



12 DETAIL
1" = 1'-0"



13 TYPICAL COLUMN FOOTING
3/4" = 1'-0"



14 SECTION
3/4" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

DANIEL J. SOURS — REGISTERED ENGINEER — AGRICULTURE — NO. 119893 — STATE OF TENNESSEE — 4-20-18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
U.S. HIGHWAY 412
COLUMBIA, TN. 38401

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Sheet Title: **FOUNDATION DETAILS**

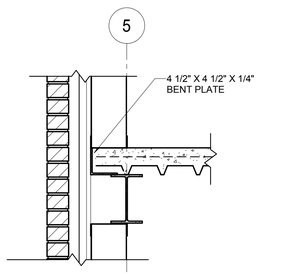
Project No.: **17032**

Drawn by: **SSR**

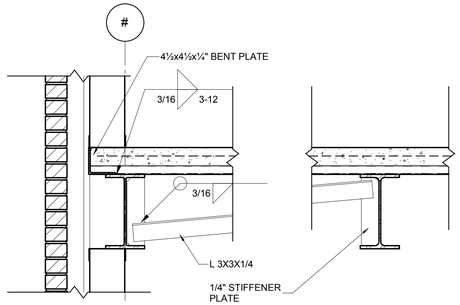
Date: **4/13/18**

Sheet No.: **S4.0**

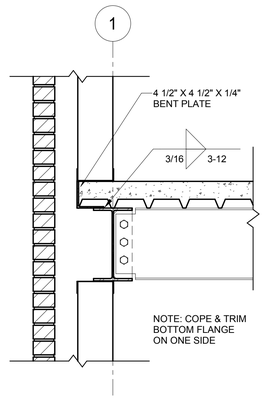
renaissance group



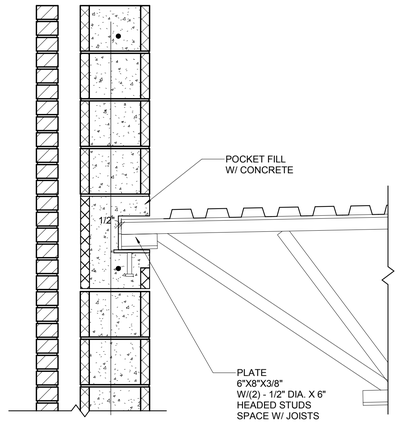
1 SECTION
1" = 1'-0"



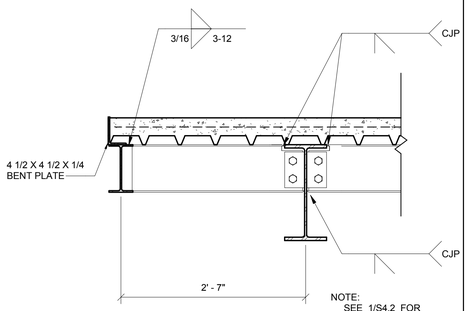
2 SECTION
1" = 1'-0"



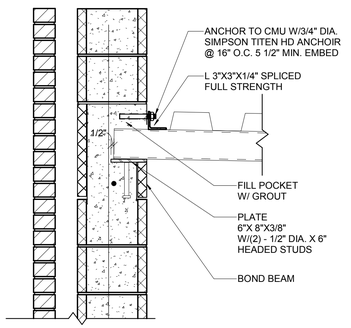
3 SECTION
1" = 1'-0"



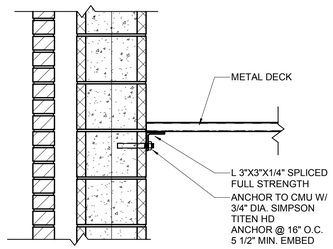
4 SECTION
1" = 1'-0"

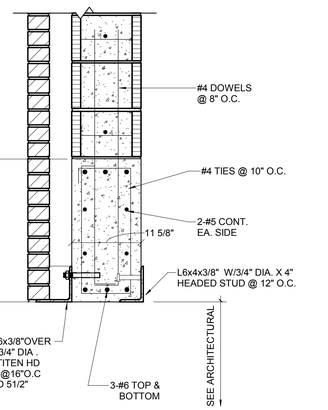


5 SECTION
1" = 1'-0"



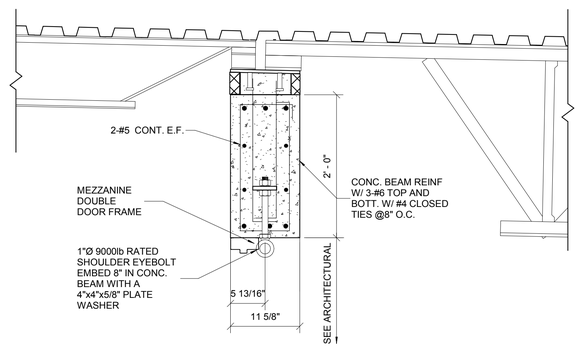
6 SECTION
1" = 1'-0"



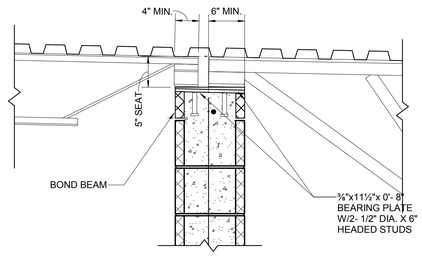


7 SECTION
1" = 1'-0"

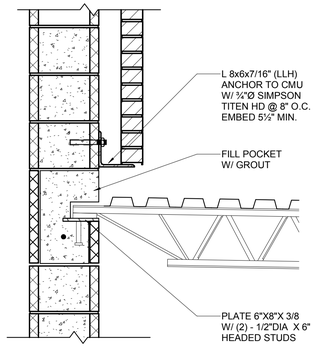
601 261 2244



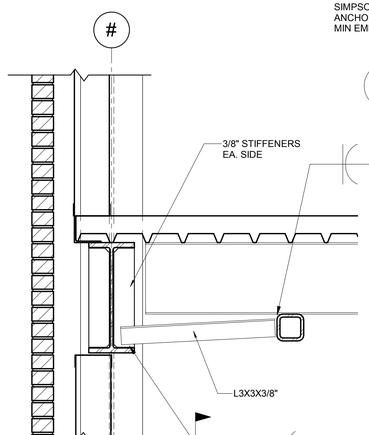
8 SECTION
1" = 1'-0"



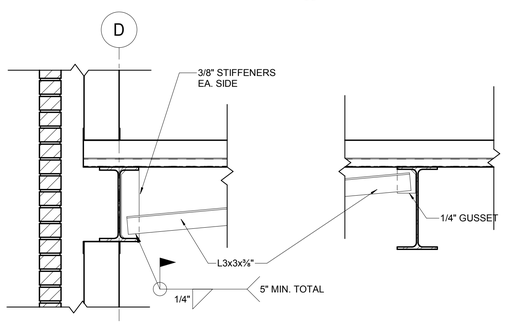
9 SECTION
1" = 1'-0"



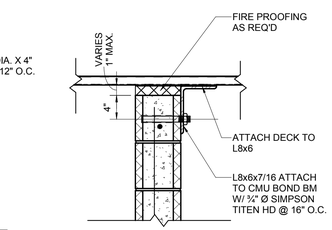
10 SECTION
1" = 1'-0"



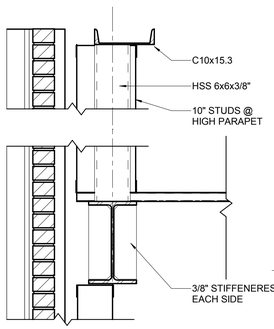
15 SECTION
1" = 1'-0"



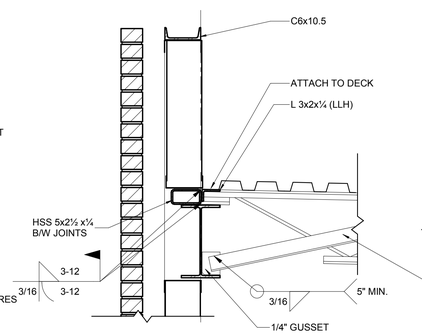
16 SECTION
1" = 1'-0"



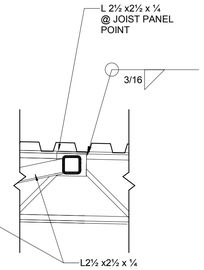
11 SECTION
1" = 1'-0"

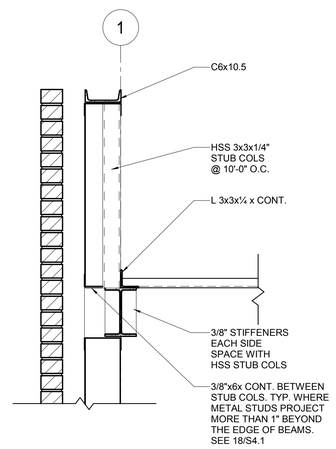


12 SECTION
1" = 1'-0"

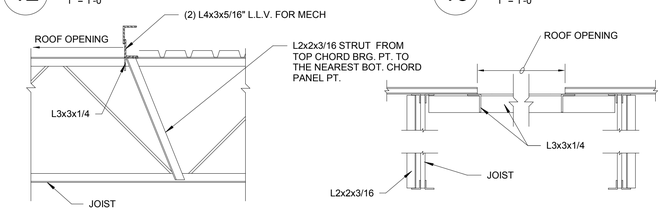


13 SECTION
1" = 1'-0"



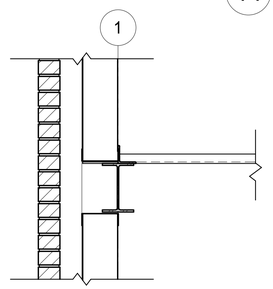


14 SECTION
1" = 1'-0"



NOTES:
THIS DETAIL APPLIES AT EXHAUST FANS, R.T.U.'S, ROOF HATCH OPENINGS AND OTHER ROOF PENETRATIONS.

17 TYPICAL ROOF OPENING DETAILS
3/4" = 1'-0"



18 SECTION
1" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

DANIEL J. SOURS
REGISTERED
ENGINEER
AGRICULTURE
COMMERCE
No. 119853
STATE OF TENNESSEE
7-20-18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE & RESCUE NO. 3
U.S. HIGHWAY 412
COLUMBIA, TN. 38401

Sheet Title
FRAMING DETAILS

Project No.
17032

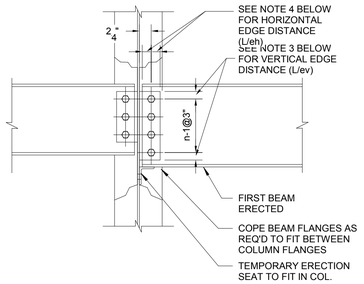
Drawn by
SSR

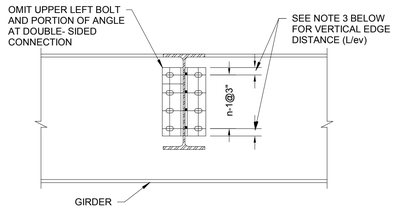
Date
4/13/18

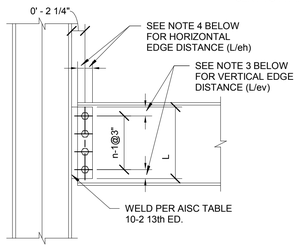
S4.1
Sheet No.

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

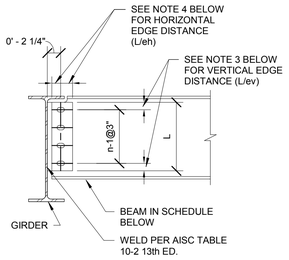
renaissance group







BEAM TO COLUMN CONNECTION

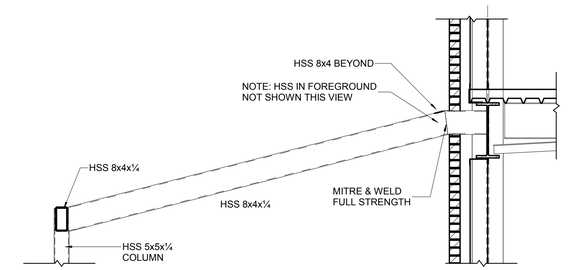


BEAM TO BEAM CONNECTIONS

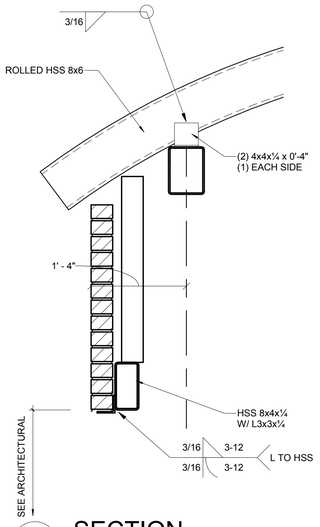
ALLOWABLE REACTION (KIPS)	BEAM	ALL BOLTED DOUBLE-ANGLE CONNECTIONS		SINGLE-PLATE CONNECTIONS			ALLOWABLE REACTION (KIPS)
		NO. ROWS OF BOLTS	DOUBLE ANGLE LENGTH, L	NO. ROWS OF BOLTS	SHEAR TAB		
		3/4"ø A325N BOLTS	5/16" ANGLE LEG THICKNESS	1"ø A325N BOLTS	THICKNESS	LENGTH, L	
205	W36	n=10	29 1/2"	n=10	1/2"	30 1/2"	167
185	W33	n=9	26 1/2"	n=9	1/2"	27 1/2"	151
165	W30	n=8	23 1/2"	n=8	1/2"	24 1/2"	135
145	W27,W24	n=7	20 1/2"	n=7	1/2"	21 1/2"	119
124	W21	n=6	17 1/2"	n=6*	1/2"	18"	97.9
104	W18	n=5	14 1/2"	n=5*	7/16"	15"	71.4
83.9	W16	n=4	11 1/2"	n=4	5/16"	12 1/2"	43.5
63.6	W14,W12	n=3	8 1/2"	n=3	1/4"	9 1/2"	26.6
40.8	W10,W8	n=2	5 1/2"	n=2	1/4"	6 1/2"	18.5

NOTE:
1) ALL HOLES IN SHEAR TABS SHALL BE SHORT-HORIZONTAL-SLOTTED HOLES.
2) WELDED CONNECTIONS PER AISC TABLE 10-2, 13TH ED. IN LIEU OF BOLTED CONNECTIONS MAY BE USED FOR THE CONNECTION OF DOUBLE ANGLES TO THE BEAM WEB.
3) VERTICAL EDGE DISTANCE, L/ev, SHALL BE 13/4" FOR ALL SINGLE PLATE SIMPLE BEAM CONNECTIONS & 11/4" FOR ALL DOUBLE ANGLE SIMPLE BEAM CONNECTIONS, U.N.O.
4) HORIZONTAL EDGE DISTANCE, L/eh, SHALL BE 2" FOR ALL SINGLE PLATE SIMPLE BEAM CONNECTIONS & 11/4" FOR ALL DOUBLE ANGLE SIMPLE BEAM CONNECTIONS, U.N.O.
5) * DENOTES L/ev DOES NOT MEET THE DIMENSIONS REFERENCED IN NOTES 3 & 4. THE ALLOWABLE REACTION HAS BEEN REDUCED ACCORDINGLY.

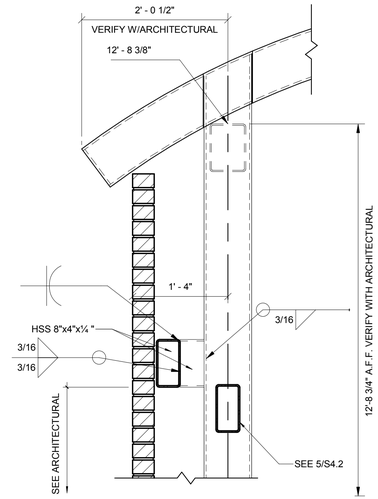
1 SIMPLE BEAM CONNECTIONS
1" = 1'-0"



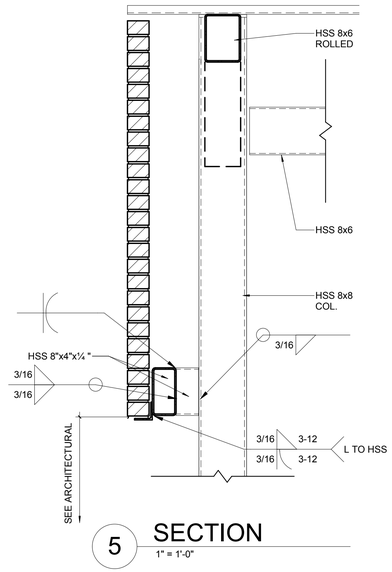
2 SECTION
1/2" = 1'-0"



3 SECTION
1" = 1'-0"



4 SECTION
1" = 1'-0"



5 SECTION
1" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

DANIEL J. SOURS
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 119893
STATE OF TENNESSEE
4/20/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
U.S. HIGHWAY 412
COLUMBIA, TN. 38401

Sheet Title
FRAMING DETAILS

Project No.
17032

Drawn by
SSR

Date
4/13/18

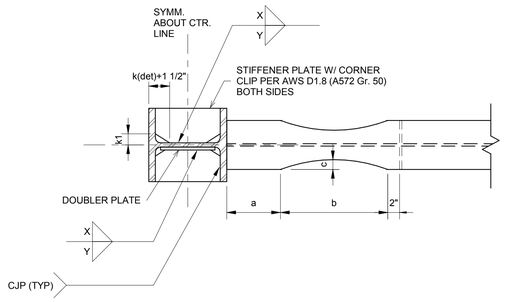
Sheet No.
S4.2

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

renaissance group

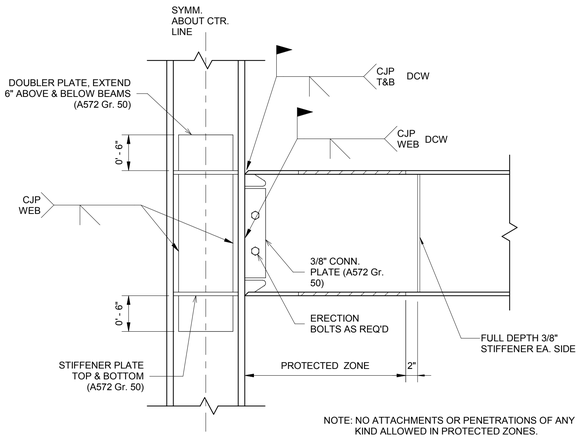
COLUMN STIFFENER PLATE SCHEDULE				
BEAM	COLUMN	tp	WELD	
			X	Y
W18X71	W10X112	7/8"	5/16"	5/16"
W16X40	W10X112	1/2"	5/16"	5/16"
W12X35	W10X88	5/8"	5/16"	5/16"

NOTE :ALL BEAM TO COLUMN CONNECTIONS SHALL HAVE FULL DEPTH STIFFENERS FULL WIDTH OF COLUMN AS SHOWN.



COLUMN DOUBLER PLATE SCHEDULE				
LEVEL	LOC.	BEAM	COLUMN	tp
2ND	C/, D1, B/5, D/5	W18X71	W10x112	1/2"

NOTE :IF BEAM/COLUMN JOINT IS NOT SHOWN ABOVE NO COLUMN DOUBLER IS REQUIRED

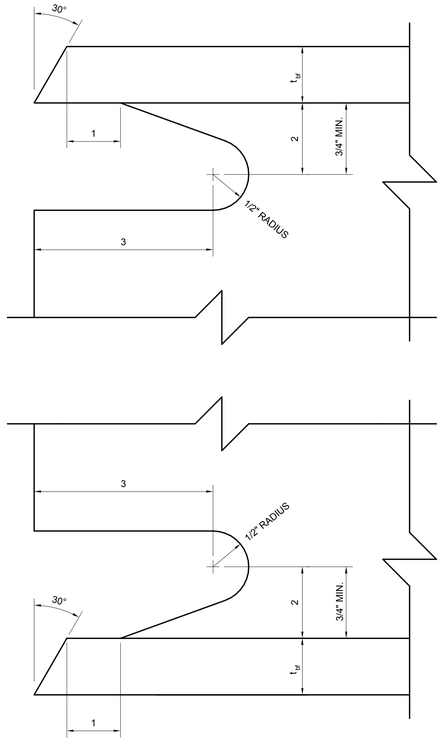


NOTE: NO ATTACHMENTS OR PENETRATIONS OF ANY KIND ALLOWED IN PROTECTED ZONES.

REDUCE BEAM SCHEDULE			
BEAM	a (in)	b (in)	c (in)
W18x71	3 7/8"	12"	1 ¾"
W16x40	3 1/2"	10¼ "	1⅝"
W12x35	3 3/8"	8¼ "	1⅛"

1 SPECIAL MOMENT FRAME CONNECTION

1" = 1'-0"

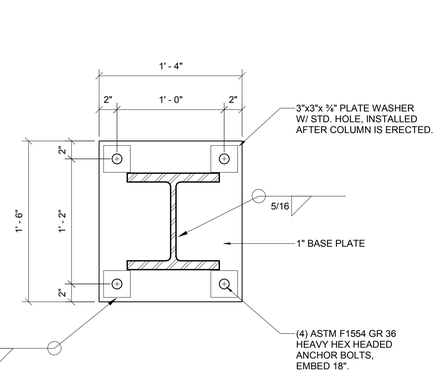


SEISMIC WELD ACCESS HOLE CONFIGURATIONS			
ACCESS HOLE TYPE	DIMENSIONS		
	1	2	3
	In.	In.	In.
A	1/2	3/4	1 1/4
B	1/2	3/4	1 1/2
C	3/4	1	2 1/2
D	1	1 1/4	3 1/2
E	1 1/4	1 1/2	4 1/2
F	1 1/2	1 3/4	5 1/2
G	1 3/4	2	6 1/2
H	2	2 1/4	7 1/2
I	2 1/4	2 1/2	8 1/2
J	2 1/2	2 3/4	9 1/2
K	3	3	11
L	3 1/4	3 1/2	12 1/2
M	3 3/4	4	14
N	4	4 1/4	15

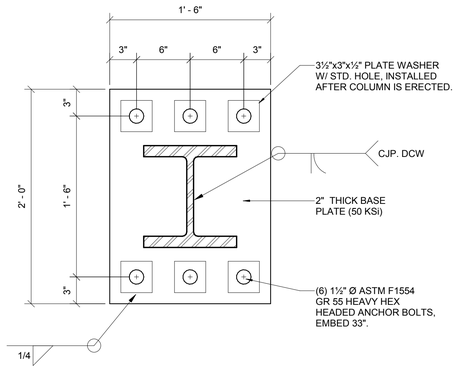
BEAM ACCESS HOLE TYPE	
BEAM	ACCESS HOLE TYPE
W18x71	C
W16x40	A OR B
W12x35	A OR B
W10x26	A OR B

2 SEISMIC WELD ACCESS HOLE CONFIGURATION

12" = 1'-0"



W10X88 BASE PLATE



W10x112 BASE PLATE

3 MOMENT FRAME BASE PLATES

1 1/2" = 1'-0"

Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

DANIEL J. SOURS
REGISTERED ENGINEER
AGRICULTURE
119893
STATE OF TENNESSEE
4-20-18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE & RESCUE NO. 3
U.S. HIGHWAY 412
COLUMBIA, TN. 38401

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Sheet Title
MOMENT CONNECTION

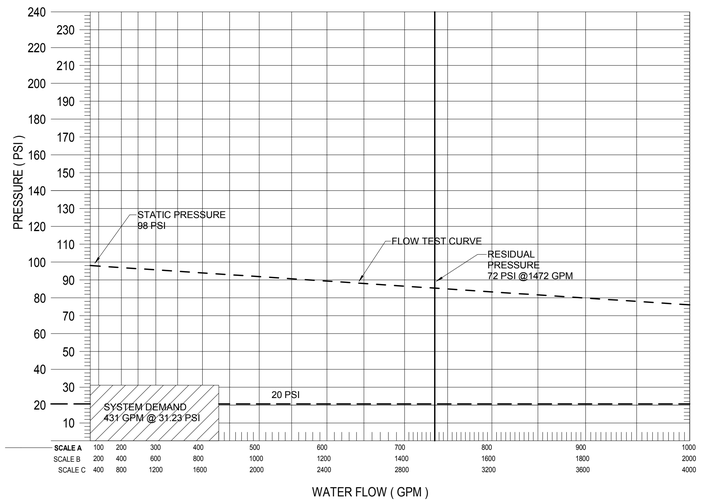
Project No.
17032

Drawn by
Author

Date
4/13/18

S4.3
Sheet No.

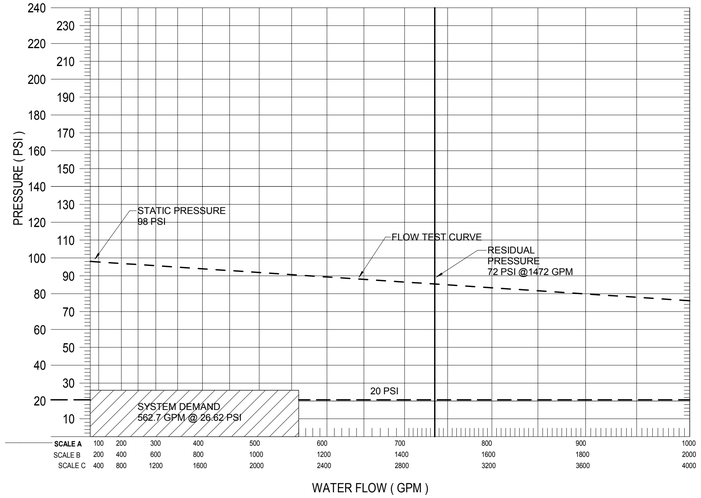
renaissance group



WATER FLOW TEST:
STATIC 98 psi
RESIDUAL 72 psi
FLOW 1425 GPM

1 SPRINKLER SYSTEM DEMAND - SECOND FLOOR DRY SYSTEM

NO SCALE



WATER FLOW TEST:
STATIC 98 psi
RESIDUAL 72 psi
FLOW 1425 GPM

NOTE: FLOW TEST, HYDRAULIC CALCULATIONS AND ESTIMATED DEMANDS INDICATED FOR BIDDING PURPOSES. CONTRACTOR SHALL OBTAIN HIS CURRENT FLOW TEST DATA AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION FOR HIS FINAL HYDRAULIC CALCULATIONS AS REQUIRED.

2 SPRINKLER SYSTEM DEMAND - APPARATUS BAY DRY SYSTEM

NO SCALE

FIRE PROTECTION GENERAL NOTES

1. ALL WORK ON DESIGNATED SPRINKLER/STANDPIPE SYSTEMS SHALL PERFORMED BY A STATE LICENSED FIRE SPRINKLER CONTRACTOR.
2. THE CONTRACTOR SHALL PROVIDE SPRINKLER AND STANDPIPE SYSTEM(S) AS SPECIFIED AND AS INDICATED FOR THE ENTIRE FACILITY, UNLESS NOTED OTHERWISE IN SPECIFIC AREAS. PROVIDE AUTOMATIC SPRINKLER ZONING AND/OR AUXILIARY FIRE PROTECTION SYSTEMS AS INDICATED ON THE FIRE PROTECTION DRAWINGS. COMPLETE FIRE SPRINKLER SHOP DRAWINGS, INCLUDING HYDRAULIC CALCULATIONS, SEISMIC CALCULATIONS, AND EQUIPMENT CUT SHEETS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD, THE LOCAL FIRE MARSHAL, AND ANY OTHER AUTHORITIES HAVING JURISDICTION FOR REVIEW AND APPROVAL. NO WORK SHALL BEGIN PRIOR TO OBTAINING APPROVAL FROM ALL AUTHORITIES HAVING JURISDICTION.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS PRIOR TO INSTALLATION.
4. THE FIRE PROTECTION SYSTEM, EQUIPMENT AND COMPONENTS SHALL BE DESIGNED, HYDRAULICALLY CALCULATED, AND INSTALLED IN FULL ACCORDANCE WITH APPLICABLE SECTIONS OF NFPA 10, 13, 14, 20, 24 AND 101. FINAL SYSTEM DESIGN AND INSTALLATION SHALL ALSO COMPLY WITH ALL LOCAL, COUNTY AND STATE BUILDING CODES ALONG WITH THE REQUIREMENTS OF ANY INSURANCE UNDERWRITERS. WHENEVER A CONFLICT IN CRITERIA OCCURS, THE MORE STRINGENT REQUIREMENT TAKES PRECEDENCE.
5. ALL CONTROL VALVES SHALL HAVE TAMPER SWITCHES CONNECTED TO THE FACILITY'S FIRE ALARM SYSTEM. REFER TO FIRE ALARM DRAWINGS FOR FIRE ALARM DEVICES, FIRE DETECTION DEVICES AND INTERFACE POINTS WITH TAMPER SWITCHES, FLOW SWITCHES AND RELATED ITEMS INDICATED ON THE FIRE PROTECTION PLANS.
6. DRAWINGS ARE SCHEMATIC ONLY, INDICATE DESIGN INTENT AND SHALL NOT BE SCALED. ACTUAL LOCATION OF PIPE, SPRINKLERS, AND EQUIPMENT SHOWN ON DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR. COORDINATE FIRE PIPE ROUTING WITH ALL TRADES TO MAXIMIZE AVAILABLE CLEARANCES AND AVOID FIELD INSTALLATION CONFLICTS. ALL EXPOSED PIPING SHALL BE ROUTED AS CLOSE AS POSSIBLE TO THE BUILDING STRUCTURAL MEMBERS, UNLESS NOTED OTHERWISE.
7. MAINTAIN ACCESSIBILITY OF VALVES, FLOW AND TAMPER SWITCHES, INSPECTOR'S TEST STATIONS, FIRE DEPARTMENT CONNECTIONS AND RELATED ITEMS. PROVIDE LABELED ACCESS DOORS WHERE NECESSARY AND AS APPROVED BY THE ARCHITECT.
8. ALL CONTROL, DRAIN, AND TEST CONNECTION VALVES SHALL BE PROVIDED WITH PERMANENTLY MARKED WEATHERPROOF METAL OR RIGID PLASTIC IDENTIFICATION SIGNS INDICATING THE FUNCTION AND THE PORTION OF THE BUILDING/FACILITY SERVED.
9. INSTALL ALL PIPING, FITTINGS AND JOINTS TO FOLLOW THE GEOMETRY OF THE STRUCTURE. LOCATE EXPOSED PIPING IN PUBLIC AREAS OUT OF DIRECT VIEW WHERE PRACTICAL. EXPOSED PIPING SHALL BE INSTALLED PARALLEL TO ADJACENT BUILDING COMPONENTS.
10. COORDINATE INSTALLATION OF PIPING AND EQUIPMENT WITH ELECTRICAL EQUIPMENT TO MAINTAIN WORKING CLEARANCES IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
11. INSTALL PIPING TO MAINTAIN SPECIFIED CLEARANCES ABOVE CEILINGS.
12. PROVIDE UL APPROVED PENETRATION ASSEMBLIES FOR ALL FIRE PROTECTION PIPING PASSING THROUGH RATED ASSEMBLIES.
13. ALL SPRINKLERS IN FINISHED AREAS SHALL BE QUICK RESPONSE CONCEALED TYPE, UNLESS NOTED OTHERWISE.
14. ALL SPRINKLERS SHALL BE INSTALLED SYMMETRICALLY WHERE POSSIBLE. INSTALL SPRINKLERS IN THE CENTER POINT OF ALL 2 X 2 CEILING TILES, OR CENTERED IN THE NARROW DIRECTION AND EITHER AT THE CENTER OR QUARTER POINT OF THE LONG DIRECTION OF ALL 2 X 4 CEILING TILES.
15. PROVIDE AUTOMATIC SPRINKLERS BELOW ALL DUCTWORK OR OTHER OBSTRUCTIONS AS REQUIRED BY NFPA 13. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR APPLICABLE LOCATIONS. COORDINATE PLACEMENT WITH ACTUAL INSTALLATION.
16. MULTIPLE CEILING MATERIALS AND EXPOSED BUILDING FEATURES ARE DESIGNED THROUGHOUT THIS FACILITY. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DETAILS.
17. CONTRACTOR SHALL INSTALL AN INSPECTOR'S TEST, MAIN DRAIN, AND AUXILIARY DRAINS FOR ALL SYSTEMS AS REQUIRED. ROUTE ALL TEST AND DRAIN PIPING OUTSIDE OF THE BUILDING, UNLESS NOTED OTHERWISE.
18. PROVIDE A GENERAL INFORMATION SIGN FOR EACH SYSTEM AT THE RISER OR SYSTEM CONNECTION. THE SIGN SHALL INCLUDE THE FOLLOWING INFORMATION: NAME AND LOCATION OF THE FACILITY, PRESENCE OF HIGH-PILED AND/OR RACK STORAGE, FLOW TEST INFORMATION, AREA SERVED, PRESENCE OF FLAMMABLE/COMBUSTIBLE LIQUIDS, PRESENCE OF HAZARDOUS MATERIALS, PRESENCE OF OTHER SPECIAL STORAGE, LOCATION OF AUXILIARY AND LOW POINT DRAINS, NAME OF INSTALLING CONTRACTOR, AND LOCATION OF ANTIFREEZE OR ANY OTHER AUXILIARY FIRE PROTECTION SYSTEMS.
19. THE CONTRACTOR SHALL CONTACT AUTHORITIES HAVING JURISDICTION, ANY INSURANCE UNDERWRITERS, ARCHITECT/ENGINEER AND THE OWNER'S REPRESENTATIVE TO WITNESS THE FINAL ACCEPTANCE TESTING OF ALL SYSTEMS.
20. SEE PLUMBING GENERAL NOTES FOR ADDITIONAL REQUIREMENTS..
21. SPRINKLERS, PIPE LOCATION, AND PIPE SIZES INDICATED ARE SCHEMATIC ONLY.
22. SPRINKLER CONTRACTOR SHALL COORDINATE EXACT ROUTE OF PIPING AND SPRINKLER LOCATIONS TO CONFORM TO ALL CODES AND TO ACCOMMODATE ALL OTHER TRADES.
23. SPRINKLER PIPING SHALL BE INSTALLED INSIDE INTERSTITIAL SPACE ABOVE CEILING AND BELOW BUILDING INSULATION AND BELOW STRUCTURAL MEMBERS.
24. CONTRACTOR SHALL VERIFY ALL PIPE SIZES REQUIRED BY HYDRAULIC CALCULATIONS AND INCLUDE ALL COSTS IN TOTAL CONTRACT PRICE.
25. THE SYSTEM DESIGN MUST BE SIGNED BY A RESPONSIBLE MANAGING EMPLOYEE WITH A NICET LEVEL III OR GREATER.
26. SYSTEM CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
27. INSTALL SEISMIC BRACING FOR THE FIRE PROTECTION SYSTEM(S) PER NFPA 13.
28. ALL SPRINKLERS IN PUBLIC AREAS SHALL BE INSTALLED CENTER OF TILE IN 2X2 CEILING TILES AND CENTER OR QUARTER OF TILE IN 2X4 CEILING TILES. THE CONTRACTOR SHALL PROVIDE A MEANS OF SYMMETRY IN THE LOCATION OF SPRINKLERS WHEN POSSIBLE.
29. PROVIDE CORROSIVE RESISTANT SPRINKLERS IN CORROSIVE ENVIRONMENTS SUCH AS MECHANICAL ROOMS, LAUNDRY ROOMS AND SHOWER AREAS. PROVIDE SPRINKLER GUARDS IN AREAS WHERE SPRINKLER HEADS ARE SUBJECT TO DAMAGE.
30. SCREWED PIPING WITH A WALL THICKNESS LESS THAN SCHEDULE 40 IS NOT ACCEPTABLE FOR ANY PORTION OF THE FIRE PROTECTION SYSTEM. PIPING WITH A WALL THICKNESS LESS THAN SCHEDULE 10 IS NOT ACCEPTABLE FOR ANY PORTION OF THE FIRE PROTECTION SYSTEM. CPVC IS AN ACCEPTABLE PIPING MATERIAL IN CONCEALED AREAS PROTECTED BY WET SPRINKLER SYSTEM. CPVC AND TUBING SHALL BE INSTALLED TO MEET THE REQUIREMENTS OF NFPA 13.
31. EACH SYSTEM SHALL HAVE INSPECTOR'S TEST CONNECTION COMPLETE WITH COMBINATION DRAIN, TEST VALVE AND SIGHT GLASS AT REMOTE END OF SYSTEM OR AS INDICATED ON DRAWING, IN ACCESSIBLE LOCATIONS. SPILL DRAIN THRU WALL TO OUTSIDE ON SPLASH BLOCK. COORDINATE LOCATIONS WITH ARCHITECT/OWNER.
32. ALL VALVES SHALL HAVE A PERMANENTLY AFFIXED SIGN INDICATING ITS FUNCTION. ALL FIRE SPRINKLER CONTROL VALVES SHALL BE LOCKED IN THE OPEN POSITION AND SHALL BE EQUIPPED WITH TAMPER SWITCHES UNLESS NOTED OTHERWISE.
33. COORDINATE WITH THE ELECTRICAL CONTRACTOR AND POSITION SPRINKLERS AS REQUIRED TO MINIMIZE WATER SPRAY ON ELECTRICAL EQUIPMENT.
34. PROVIDE U.L. APPROVED PENETRATION ASSEMBLIES AT FIRE PROTECTION PIPING PASSING THRU FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF FIRE WALLS. SEE DETAILS OF U.L. LISTED PENETRATIONS.
35. THE INSTALLER SHALL PERFORM ALL REQUIRED ACCEPTANCE TEST IN THE PRESENCE OF THE FIRE MARSHAL, FIRE CHIEF, OR DESIGNATED SPECIAL STATE/LOCAL FIRE INSPECTOR.
36. PROVIDE ELECTRONIC "AS BUILTS" OF THE NEW FIRE PROTECTION PIPING TO THE ENGINEER OF RECORD. DRAWINGS SHALL BE SUBMITTED IN FORMAT REQUIRED BY OWNER.
37. CONTRACTOR SHALL COORDINATE AND INSTALL ALL SLEEVES REQUIRED AT RATED WALLS AND SLABS AT TIME OF CONSTRUCTION.
38. DESIGN, INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF NFPA 13 AND INTERNATIONAL BUILDING CODE.
39. PITCH DRY PIPING SYSTEM PER NFPA 13.

FIRE PROTECTION LEGEND

NOT ALL SYMBOLS MAY BE USED

SYMBOL	ABB.	DESCRIPTION
A/S	A/S	AUTOMATIC SPRINKLER SYSTEM
DPSS	DPSS	DRY PIPE SPRINKLER SYSTEM
FDR	FDR	FIRE DRAIN RISER
F	F	FIRE MAIN
MDSP	MDSP	MANUAL DRY STANDPIPE SYSTEM
PASS	PASS	PRE-ACTION SPRINKLER SYSTEM
		PIPE TURN DOWN
		PIPE TURN UP
		BALL VALVE
		GATE VALVE
		CHECK VALVE
		BALANCING VALVE
		BUTTERFLY VALVE
	PRV	PRESSURE REGULATING VALVE
		SOLENOID VALVE
		STRAINER
		REDUCER
		PIPE GUIDE
		ANCHOR
		PRESSURE GAUGE
		PRESSURE SENSOR
		THERMOMETER
		CAP/PLUG
	CO	CLEANOUT (ABOVE CEILING)
		UNION
	PR	PRESSURE RELIEF VALVE
		SHOCK ARRESTOR
FCO	FCO	FLOOR CLEAN OUT
	WCO	WALL CLEAN OUT
	FD	FLOOR DRAIN
	VTR	VENT THRU ROOF
	I.E.	INVERT ELEVATION
	AFF	ABOVE FINISHED FLOOR
	DCVA	DOUBLE CHECK VALVE ASSEMBLY
	DDCVA	DOUBLE DETECTOR CHECK VALVE ASSEMBLY
F-		FIRE RISER NO.
"		RISER SIZE
		CEILING SPRINKLER - UPRIGHT
		CEILING SPRINKLER - CONCEALED
		CEILING SPRINKLER - RECESSED PENDANT
		SIDEWALL SPRINKLER
		SIDEWALL EXTENDED COVERAGE SPRINKLER
		WALL HUNG FIRE EXTINGUISHER
		FIRE EXTINGUISHER CABINET
		FIRE DEPARTMENT CONNECTION

FIRE PROTECTION SHEET INDEX

NUMBER	SHEET NAME
FP0.0	FIRE PROTECTION NOTES AND LEGEND
FP2.1	FLOOR PLANS - FIRE PROTECTION
FP3.1	FIRE PROTECTION DETAILS

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
FIRE PROTECTION NOTES AND LEGEND

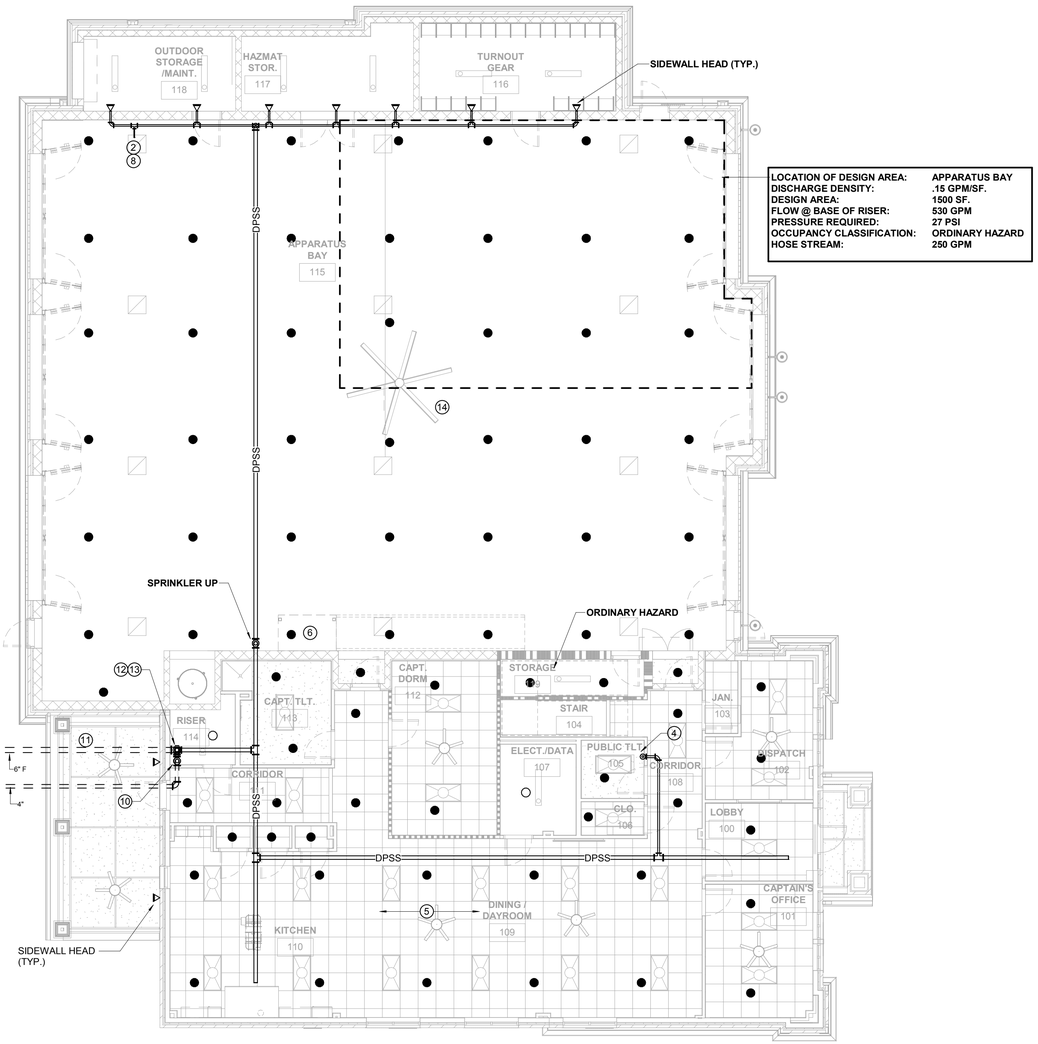
Project No.
17032

Drawn by
TS

Date
4/13/18

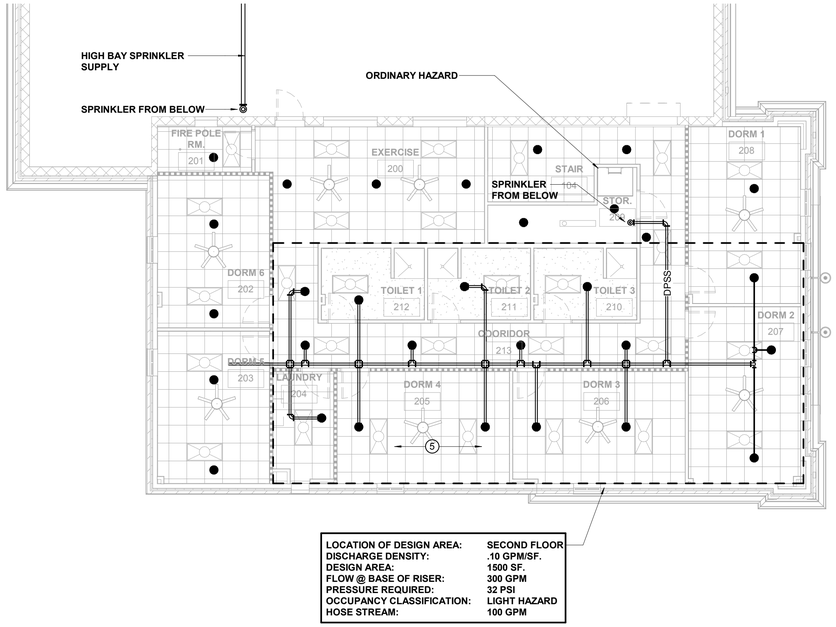
Sheet No.
FP0.0

renaissance group
C:\Users\tings\Documents\SSR_PLBG_COLUMBIA_FIRE_STATION-3-2018_tings.rvt
4/12/2018 11:35:28 AM



1 FIRST FLOOR RCP - FIRE PROTECTION

1/8" = 1'-0"



2 SECOND FLOOR RCP - FIRE PROTECTION

1/8" = 1'-0"

PLAN KEYED NOTES

1. 1" PIPE DOWN TO INSPECTOR'S TEST VALVE WITH SIGHT GLASS. COORDINATE LOCATION WITH GENERAL CONTRACTOR AND OTHER TRADES. INSTALL DRY SYSTEM AUX. DRAIN 6'-0" A.F.F.
2. RUN INSPECTORS TEST PIPING TO HUB DRAIN.
3. APPARATUS BAY IS ORDINARY HAZARD COVERAGE.
4. UP 2 1/2" PIPE TO SECOND FLOOR AREA.
5. ALL AREAS ON THE FIRST/SECOND FLOORS ARE LIGHT HAZARD NFPA 13. (U.N.O.)
6. INSTALL UPRIGHT SPRINKLER BENEATH STAIR LANDING.
7. NOT USED.
8. INSTALL 1" INSPECTORS TEST WITH SIGHT GLASS AND PIPED OUTSIDE WALL. COORDINATE LOCATION WITH ARCHITECT, GENERAL CONTRACTOR AND OTHER TRADES. SPILL DISCHARGE OUT 12" A.F.G. ONTO CONCRETE SPLASH BLOCK. TEST CONNECTION SHALL BE MADE TO REMOTE END OF FIRST FLOOR SPRINKLER SYSTEM. SEE DETAIL SHEET FS.2 DRY PIPE SYSTEM SIZE SHALL BE SUCH TO DELIVER WATER TO SYSTEM TEST CONNECTION IN NOT MORE THAN 15 SECONDS AS REQUIRED BY NFPA 7.2.3.1.1 FOR A DWELLING UNIT PORTION OF THE OCCUPANCY.
9. PROVIDE SPRINKLER FOR WATER CURTAIN.
10. SPRINKLER DN. TO FDC. SEE CIVIL ENGINEERING DRAWINGS FOR LOCATION AND CONTINUATION.
11. 6" FIRE PROTECTION UNDER GROUND LEAD-IN. SEE CIVIL ENGINEERING DRAWINGS FOR CONTINUATION AND LOCATION OF DOUBLE CHECK ASSUMABLY.
12. DRY SYSTEM SPRINKLER RISER. SEE DETAIL 11/FP3.1 12/FP3.1
13. FIRE MAIN UP. SEE DETAIL 10/FP3.1
14. COORDINATE SPRINKLER HEAD LOCATIONS WITH FAN PER NFPA 13.
15. FROM BELOW.

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

4/13/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Sheet Title: FLOOR PLANS - FIRE PROTECTION

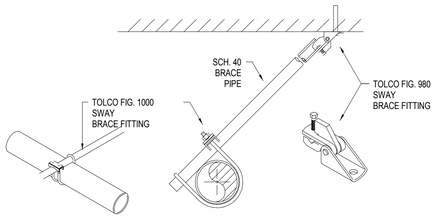
Project No.: 17032

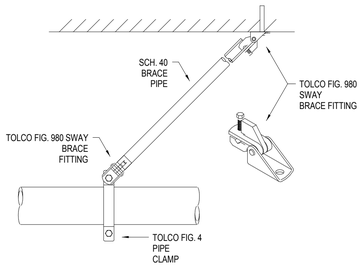
Drawn by: TS

Date: 4/13/18

Sheet No.: FP2.1

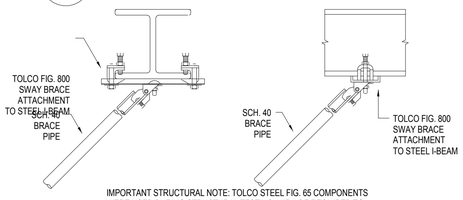
renaissance group
C:\Users\tings\Documents\SSR_PLBG_COLUMBIA_FIRE_STATION-3-2018_tings.rvt
4/12/2018 11:35:33 AM





1 TOLCO LATERAL SEISMIC BRACE

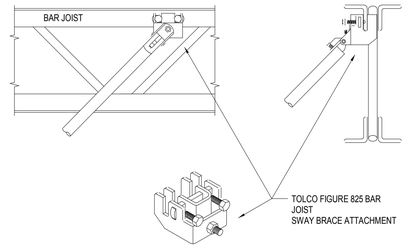
NO SCALE



IMPORTANT STRUCTURAL NOTE: TOLCO STEEL FIG. 65 COMPONENTS WERE USED DURING STRUCTURAL TESTING AND ARE REQUIRED TO ACHIEVE THE LISTED RESULTS. MALLEABLE IRON COMPONENTS MUST NEVER BE SUBSTITUTED BECAUSE OF THIS MATERIALS SERIOUS POTENTIAL FOR FRACTURE AND FAILURE.

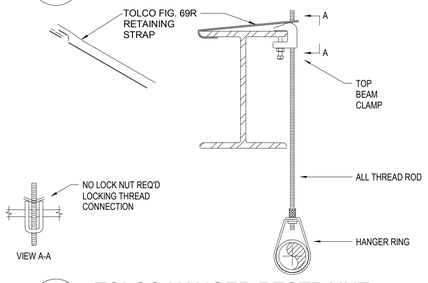
2 TOLCO LONGITUDINAL SEISMIC BRACE

NO SCALE



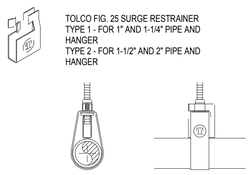
3 TOLCO I-BEAM ATTACHMENT

NO SCALE



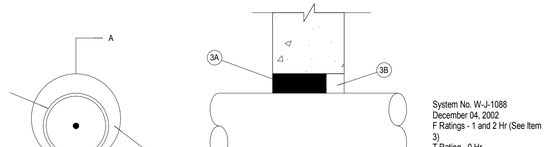
4 TOLCO BAR JOIST ATTACHMENT

NO SCALE



5 1 & 2 HOUR FIRE RATED PENETRATIONS

NO SCALE



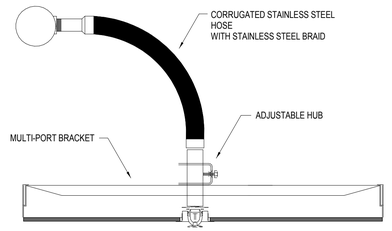
System No. W-J-1088
December 04, 2002
F Ratings - 1 and 2 Hr (See Item 3)
T Rating - 0 Hr

SECTION A-A

1. WALL ASSEMBLY - MIN 3-3/4 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAMETER OF OPENING 10-1/2 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. THROUGH-PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. AN ANNULAR SPACE OF MIN 1/4 IN. TO MAX 1-5/8 IN. IS REQUIRED WITHIN FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE - NOM 8 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE - NOM 8 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT - NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT) OR 6 IN. DIAM STEEL CONDUIT.
   D. COPPER TUBING - NOM 4 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE - NOM 4 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
   F. FLEXIBLE STEEL CONDUIT+ - NOM 2 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT. SEE FLEXIBLE METAL CONDUIT (DXUZ) CATEGORY IN THE ELECTRICAL CONSTRUCTION EQUIPMENT DIRECTORY FOR NAMES OF MANUFACTURERS.
3. FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. PACKING MATERIAL - MIN 2-1/8 IN. OR 2-3/4 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING ON ONE SIDE OF THE WALL AS PERMANENT FORM FOR 1 AND 2 HR WALLS, RESPECTIVELY. PACKING MATERIAL TO BE RECESSED FROM ONE SIDE OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
   B. FILL, VOID OR CAVITY MATERIAL - SEALANT* - MIN 1 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN OPENING, FLUSH WITH ONE SURFACE OF WALL.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS-ONE SEALANT

*BEARING THE UL CLASSIFICATION MARK
+BEARING THE UL LISTING MARK



6 TOLCO HANGER RESTRAINT

NO SCALE

7 TOLCO HANGER INSERT

NO SCALE

8 FLEX-HEAD DETAIL (OPTIONAL)

SCALE: 1" = 1'-0"

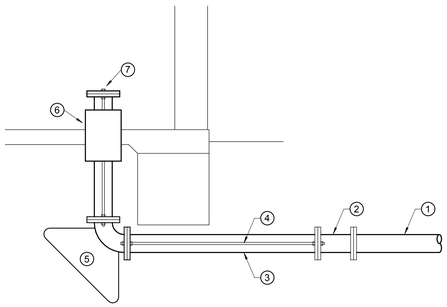
9 RETURN BEND DETAIL

SCALE: 1" = 1'-0"

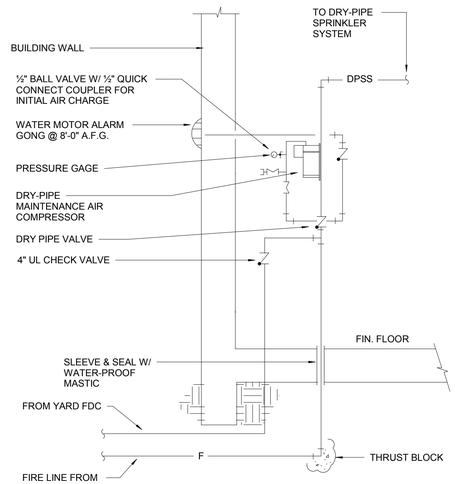
LEAD-IN COMPONENTS:

1. 6" UNDERGROUND LEAD-IN PIPING (SEE CIVIL PLANS).
2. 6" MECHANICAL JOINT SLEEVE.
3. PIPE PASSING UNDER FOOTING SHALL BE CLASS 350 CEMENT LINED DUCTILE IRON PIPE.
4. ROD

   NOTE: PIPE SHALL BE PROPERLY BLOCKED, RODDED, AND/OR CLAMPED PER NFPA 24. ALL BOLTED JOINT ACCESSORIES SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION.
5. THRUST BLOCK
6. SLEEVE
7. FLANGE SET AT 12 INCHES ABOVE FINISHED FLOOR (BOLTS SHALL BE PERPENDICULAR TO THE WALL), WITH BLIND FLANGE AND GASKET.

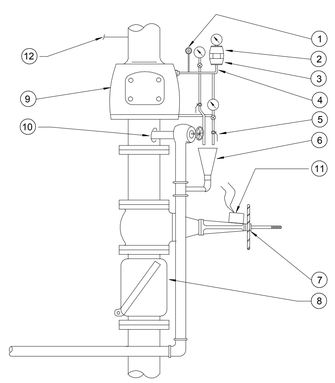


LEAD-IN DETAIL | 10



*ALL SHUT-OFF VALVES SHALL BE FURNISHED WITH TAMPER SWITCH CONNECTED TO FP SYSTEM.

FIRE PROTECTION DIAGRAM | 11



1. AIR PRESSURE MAIN. DEVICE
2. ACCELERATOR (OPTIONAL)
3. PRESSURE SWITCH (HIDDEN)
4. ALARM LINE STRAINER (HIDDEN)
5. ALARM TEST VALVE
6. DRAIN CUP
7. O.S. &Y. VALVE (OPTIONAL)
8. CHECK VALVE
9. DRY PIPE VALVE
10. MAIN DRAIN VALVE
11. TAMPER SWITCH
12. FROM RISER MOUNTED AIR COMPRESSOR

DRY PIPE VALVE & RISER | 12

FIRE PROTECTION SEISMIC BRACING REQUIREMENTS:

A. FLEXIBILITY/RIGIDITY
1. LISTED FLEXIBLE PIPE COUPLINGS JOINING GROOVED END PIPE SHALL BE PROVIDED AS FLEXURE JOINTS TO ALLOW INDIVIDUAL SECTIONS OF PIPING 2½" OR LARGER TO MOVE DIFFERENTIALLY WITH THE INDIVIDUAL SECTIONS OF THE BUILDING TO WHICH IT IS ATTACHED.
2. COUPLINGS SHALL BE ARRANGED TO COINCIDE WITH STRUCTURAL SEPARATIONS WITHIN A BUILDING.
3. ALL OTHER COUPLINGS TO BE RIGID TYPE.
4. SYSTEMS HAVING MORE FLEXIBLE COUPLINGS THAN REQUIRED SHALL BE PROVIDED WITH ADDITIONAL SWAY BRACING AS REQUIRED BY NFPA 13.
5. SEISMIC SEPARATION ASSEMBLIES WITH FLEXIBLE FITTINGS SHALL BE INSTALLED WHERE SPRINKLER PIPING, REGARDLESS OF SIZE, CROSSES BUILDING SEISMIC SEPARATION JOINTS ABOVE GROUND LEVEL.

B. CLEARANCE
1. CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS, AND FOUNDATIONS, INCLUDING DRAINS, FIRE DEPARTMENT CONNECTIONS, AND OTHER AUXILIARY PIPING.
2. UNLESS THE REQUIREMENTS OF NFPA ARE MET, WHERE PIPE PASSES THROUGH HOLES IN PLATFORMS, FOUNDATIONS, WALLS, OR FLOORS, THE HOLES SHALL BE SIZED SUCH THAT THE DIAMETER OF THE HOLES IS NOMINALLY 2" LARGER THAN THE PIPE FOR 1" TO 3½" AND 4" LARGER THAN THE PIPE FOR PIPE 4" AND LARGER.
3. CLEARANCE FROM STRUCTURAL MEMBERS NOT PENETRATED OR USED COLLECTIVELY OR INDEPENDENTLY TO SUPPORT THE PIPE SHALL BE AT LEAST 2".
4. WHERE CLEARANCE IS PROVIDED BY A PIPE SLEEVE, A NOMINAL DIAMETER 2" LARGER THAN THE NOMINAL DIAMETER OF THE PIPE IS ACCEPTABLE FOR PIPE SIZES 1" THROUGH 3½" AND THE CLEARANCE PROVIDED BY A PIPE SLEEVE OF NOMINAL DIAMETER 4" LARGER THAN THE NOMINAL DIAMETER OF THE PIPE IS ACCEPTABLE FOR PIPE SIZES 4" AND LARGER.
5. WHERE REQUIRED THE CLEARANCE SHALL BE FILLED WITH A FLEXIBLE MATERIAL SUCH AS MASTIC.
6. CLEARANCE IS NOT REQUIRED FOR PIPING PASSING THROUGH GYPSUM BOARD OR EQUALLY FRANGIBLE CONSTRUCTION THAT IS NOT REQUIRED TO HAVE A FIRE RESISTANCE RATING.
7. CLEARANCE IS NOT REQUIRED IF FLEXIBLE COUPLINGS ARE LOCATED WITHIN 1 FT OF EACH SIDE OF A WALL, FLOOR, PLATFORM, OR FOUNDATION.
8. CLEARANCE IS NOT REQUIRED WHERE HORIZONTAL PIPING PASSES PERPENDICULARLY THROUGH SUCCESSIVE STUDS OR JOISTS THAT FORM A WALL OR FLOOR/CEILING ASSEMBLY.
9. CLEARANCE IS NOT REQUIRED WHERE NONMETALLIC PIPE HAS BEEN DEMONSTRATED TO HAVE INHERENT FLEXIBILITY EQUAL TO OR GREATER THAN THE MINIMUM PROVIDED BY FLEXIBLE COUPLINGS LOCATED WITHIN 1 FT OF EACH SIDE OF A WALL, FLOOR, PLATFORM, OR FOUNDATION.

C. SWAY BRACING
1. THE SYSTEM PIPING SHALL BE BRACED TO RESIST BOTH LATERAL AND LONGITUDINAL HORIZONTAL SEISMIC LOADS AND TO PREVENT VERTICAL MOTION RESULTING FROM SEISMIC LOADS.
2. SWAY BRACES SHALL BE DESIGNED TO WITHSTAND FORCES IN TENSION AND COMPRESSION, UNLESS THE REQUIREMENTS OF NFPA ARE MET.
3. TENSION-ONLY BRACING SYSTEMS SHALL BE PERMITTED FOR USE WHERE LISTED FOR THIS SERVICE AND WHERE INSTALLED IN ACCORDANCE WITH THEIR LISTING LIMITATIONS, INCLUDING INSTALLATION INSTRUCTIONS.
4. THE STRUCTURAL COMPONENTS TO WHICH BRACING IS ATTACHED SHALL BE DETERMINED TO BE CAPABLE OF CARRYING THE ADDED APPLIED SEISMIC LOADS.
5. SWAY BRACING SHALL BE TIGHT.

D. LATERAL SWAY BRACING
1. LATERAL SWAY BRACING SPACED AT A MAXIMUM INTERVAL OF 40 FT ON CENTER SHALL BE PROVIDED ON ALL FEED AND CROSS MAINS REGARDLESS OF SIZE AND ALL BRANCH LINES AND OTHER PIPING WITH A DIAMETER OF 2½" AND LARGER.
2. THE DISTANCE BETWEEN THE LAST BRACE AND THE END OF THE PIPE SHALL NOT EXCEED 20 FT.
3. THE LAST LENGTH OF PIPE AT THE END OF A FEED OR CROSS MAIN SHALL BE PROVIDED WITH A LATERAL BRACE.
4. LATERAL BRACES SHALL BE ALLOWED TO ACT AS LONGITUDINAL BRACES IF THEY ARE WITHIN 24" OF THE CENTERLINE OF THE PIPING BRACED LONGITUDINALLY FOR LINES THAT ARE 2½" AND GREATER IN DIAMETER.
5. WHERE FLEXIBLE COUPLINGS ARE INSTALLED ON MAINS OTHER THAN AS REQUIRED IN BY NFPA, A LATERAL BRACE SHALL BE PROVIDED WITHIN 24" OF EVERY OTHER COUPLING, BUT NOT MORE THAN 40 FT ON CENTER.
3. FOR LATERAL BRACES, THE LOAD SHALL INCLUDE ALL BRANCH LINES AND MAINS, UNLESS THE BRANCH LINES ARE PROVIDED WITH LONGITUDINAL BRACING, WITHIN THE ZONE OF INFLUENCE OF THE BRACE.

E. LONGITUDINAL SWAY BRACING
1. LONGITUDINAL SWAY BRACING SPACED AT A MAXIMUM OF 80 FT ON CENTER SHALL BE PROVIDED FOR FEED AND CROSS MAINS.
2. LONGITUDINAL BRACES SHALL BE PERMITTED TO SERVE AS LATERAL BRACES WHERE THEY ARE INSTALLED WITHIN 24" OF THE PIPING THAT IS BRACED LATERALLY.
3. THE DISTANCE BETWEEN THE LAST BRACE AND THE END OF THE PIPE SHALL NOT EXCEED 40 FT.
4. FOR LONGITUDINAL BRACES, THE LOAD SHALL INCLUDE ALL MAINS WITHIN THE ZONE OF INFLUENCE OF THE BRACE.

F. RISERS
1. TOPS OF RISERS EXCEEDING 3 FT IN LENGTH SHALL BE PROVIDED WITH A FOUR-WAY BRACE.
2. DISTANCE BETWEEN FOUR-WAY BRACES FOR RISERS SHALL NOT EXCEED 25 FT.

G. HORIZONTAL LOADS
1. FOR INDIVIDUAL BRACES, THE SLENDERNESS RATIO (L/R) SHALL NOT EXCEED 300 WHERE L IS THE LENGTH OF THE BRACE AND R IS THE LEAST RADIUS OF GYRATION.
2. WHERE THREADED PIPE IS USED AS PART OF A SWAY BRACE ASSEMBLY, IT SHALL NOT BE LESS THAN SCHEDULE 30.
3. ALL PARTS AND FITTINGS OF A BRACE SHALL LIE IN A STRAIGHT LINE TO AVOID ECCENTRIC LOADINGS ON FITTINGS AND FASTENERS.
4. FOR TENSION-ONLY BRACES, TWO TENSION-ONLY BRACE COMPONENTS OPPOSING EACH OTHER MUST BE INSTALLED AT EACH LATERAL OR LONGITUDINAL BRACE LOCATION.
5. FOR ALL BRACES, WHETHER OR NOT LISTED, THE MAXIMUM ALLOWABLE HORIZONTAL LOAD SHALL BE BASED ON THE WEAKEST COMPONENT OF THE BRACE WITH SAFETY FACTORS.

H. CODES
1. BRACING NOTES AND REQUIREMENTS DERIVED FROM NFPA 2002 EDITION
2. ADDITIONAL REQUIREMENTS PER NFPA, FIRE CODE, AND BUILDING CODE ARE REQUIRED.

I. MANUFACTURERS AND METHODS
1. TOLCO SEISMIC BRACE FITTINGS AND DETAILS ARE AN ACCEPTABLE MEANS OF SEISMIC PROTECTION. SPRINKLER CONTRACTOR IS ALOWED TO SUBSTITUTE OTHER APPROVED MEANS AND MATERIALS.

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
FIRE PROTECTION DETAILS

Project No.
17032

Drawn by
TS

Date
4/13/18

Sheet No.
FP3.1

renaissance group
C:\Users\tings\Documents\SSR_PLBG_COLUMBIA_FIRE_STATION-3-2018_tings.rvt
4/12/2018 11:35:40 AM

DRAIN AND HOSE BIB SCHEDULE

LABEL	TYPE	DESCRIPTION
FD-1	FLOOR DRAIN	ZURN Z415 CAST IRON FLOOR DRAIN WITH SEEPAGE FLANGE AND MEMBRANE CLAMP, SEEPAGE OPENINGS AND ADJUSTABLE TYPE "B" 6" NICKLE BRONZE STRAINER WITH SLOTTED GRATE.
FD-2	SHOWER DRAIN	ZURN Z415 CAST IRON FLOOR DRAIN WITH SEEPAGE FLANGE AND MEMBRANE CLAMP, SEEPAGE OPENINGS AND ADJUSTABLE TYPE "J" 5x21 NICKLE BRONZE RECTANGULAR STRAINER
FD-3	FLOOR DRAIN	SAME AS FD-1 EXCEPT WITH TYPE "I" EXTEND RIM FLOOR STRAINER. TOP OF RIM FLUSH WITH FINISHED FLOOR.
FD-4	FLOOR DRAIN	SAME AS FD-1 EXCEPT WITH TYPE "S" 10x10 SQUARE STRAINER.
TD-1	TRENCH DRAIN	ACO DRAIN K100S SERIES, 4" OPENING, SLOPED INVERT, POLYMER CONCRETE TRENCH SYSTEM WITH GALVANIZED STEEL EDGE RAIL AND SLOTTED DUCTILE IRON CLASS E GRATING
NFWH	NON-FREEZE WALL HYDRANT	ZURN 1305 3/4" NON-FREEZE WALL HYDRANT WITH ANTI-SIPHON, AUTO DRAIN, BRONZE CASING, NICKLE BRONZE BOX AND HINGE COVER AND INTEGRAL BACKFLOW PREVENTER
HB	HOSE BIBB	ZURN 1333 3/4" MODERATE CLIMATE WALL HYDRANT WITH ANTI-SIPHON, AUTO DRAIN, BRONZE CASING, POLISHED BRONZE FACE AND INTEGRAL BACKFLOW PREVENTER
FCO	FLOOR CLEANOUT	ZURN 1400 ADJUSTABLE WITH POLISHED NICKLE BRONZE TOP (IN PUBLIC AREAS), BRONZE TOP FOR EQUIPMENT AREAS, CLEANOUT SIZE SHALL MATCH PIPE SIZE EXCEPT NO CLEANOUT NEEDS TO BE LARGER THAN 4"
GCO	GRADE CLEANOUT	ZURN 1400 ADJUSTABLE WITH HEAVY DUTY TOP, ANCHOR FLANGE, CAST IN 16"x16"x6" DEEP FORMED AND FINISHED CONCRETE PAD
WCO	WALL CLEANOUT	ZURN 1468 BRONZE PLUG WITH STAINLESS STEEL COVER
HD-1	HUB DRAIN	OPEN PIPE HUB WITH RIM 2" AFF WITH BAR GRATE (NO LEGS)

NOTES:
1. ALL FLOOR DRAINS SHALL HAVE A DEEP SEAL TRAP.
2. ITEMS SPECIFIED IN THIS SCHEDULE ARE LISTED AS STANDARD. COMPARABLE ITEMS MAY BE SUBMITTED FOR APPROVAL MEETING THIS STANDARD.

PLUMBING GENERAL NOTES

A. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT SCOPE, UTILITY CONNECTIONS AND ALL BUILDING SERVICES. EXISTING SITE UTILITIES SHALL BE FIELD LOCATED FOR EXACT LOCATION AND ELEVATION BEFORE BEGINNING CONSTRUCTION OR DEMOLITION.

B. DRAWINGS SHOW KNOWN EXISTING SERVICES, PIPING, FIXTURES, EQUIPMENT, AND CONNECTIONS IN REASONABLE PROXIMITY. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS AND SIZES. ANY DISCREPANCIES AND / OR DEVIATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ARCHITECTS ATTENTION.

C. COORDINATE WATER, WASTE, VENT, RAIN WATER AND OTHER PIPING WITH ALL TRADES TO AVOID SPACING AND ROUTING PROBLEMS.

D. FIXTURES, EQUIPMENT, CONNECTIONS AND PIPING SHALL BE FURNISHED AND INSTALLED TO MEET OR EXCEED STATE AND LOCAL CODES AND REQUIREMENTS.

E. FURNISH AND INSTALL SHOCK ARRESTORS IN WATER LINES AT CONNECTIONS TO FLUSH VALVES AND QUICK CLOSING VALVES.

F. PLUMBING VENTS AND STACKS THROUGH ROOF SHALL BE INSTALLED A MINIMUM OF 25 FEET CLEAR OF HVAC OUTSIDE AIR INTAKES AND ANY OPERABLE WINDOW OR BUILDING OPENING.

G. VENT AND WASTE STACKS LESS THAN THREE INCHES IN DIAMETER SHALL NOT ROUTE THROUGH THE ROOF. PROVIDE INCREASERS ON PIPING BELOW ROOF.

H. PENETRATIONS THROUGH WALLS AND FLOORS SHALL BE SLEEVED, SEALED AND FIRESAFED TO MAINTAIN THE INTEGRITY OF THE WALL AND FLOOR UL FIRE RESISTANCE RATING.

I. DRAWINGS ARE SCHEMATIC IN NATURE AND SHALL NOT BE SCALED. CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT ROUTING OF ALL SERVICES WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES.

J. PROVIDE INSULATION KIT FOR SUPPLIES, TRAP AND DRAIN PIPING FOR ALL HANDICAP ACCESSIBLE LAVATORIES AND SINKS. INSULATION OF PIPING IS NOT REQUIRED WHERE PROTECTIVE SKIRT IS PROVIDED BELOW FIXTURE.

K. PROVIDE HOUSEKEEPING PADS UNDER ALL EQUIPMENT. COORDINATE PAD SIZE AND FLOOR DRAIN LOCATIONS WITH FINAL EQUIPMENT PAD LOCATIONS. LOCATE DRAINS NEAR EQUIPMENT DRAINS AND DISCHARGE TO AVOID ROUTING OF PIPING ACROSS WALK PATHS.

L. SUPPORTS, ANCHOR BOLTS AND HANGERS FOR ALL EQUIPMENT SPECIFIED SHALL CONFORM TO THE SPECIFICATIONS. MISCELLANEOUS STEEL BRACING SUPPORTS AND REINFORCING STEEL NEEDED TO SUPPORT EQUIPMENT AND PIPING SYSTEMS SPECIFIED SHALL BE FURNISHED AND INSTALLED AS PART OF THE WORK.

M. MAINTAIN ACCESSIBILITY OF ALL EQUIPMENT AND VALVES. PROVIDE ACCESS PANELS AS REQUIRED. COORDINATE PLACEMENT WITH THE ARCHITECT PRIOR TO INSTALLATION.

N. INSTALL EXTERIOR WALL HYDRANTS AT 18" ABOVE FINISHED GRADE.

O. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT PRIOR TO CUTTING ANY OPENING IN THE STRUCTURE. COORDINATE SLEEVING OF BEAMS AND CORING OF STRUCTURE WITH STRUCTURAL DRAWINGS AND DETAILS PRIOR TO INSTALLATION.

P. CONTRACTOR SHALL PROVIDE TRAP PRIMERS ON ALL FLOOR DRAINS NOT RECEIVING CONSTANT DISCHARGE FROM FIXTURES AND/OR EQUIPMENT AND AS REQUIRED BY STATE AND LOCAL CODES.

Q. ALL SANITARY AND STORM WATER PIPING BELOW GRADE IN AREAS SUBJECT TO TRAFFIC WITH LESS THAN TWO FEET OF EARTH COVER SHALL BE DUCTILE IRON.

R. PROVIDE PIPING EXPANSION JOINTS AT EACH PIPE CROSSING AN INTERIOR BUILDING EXPANSION JOINT.

S. ORIENT FLUSH VALVE HANDLES ASSOCIATED WITH BARRIER-FREE WATER CLOSETS ON THE WIDE SIDE OF THE STALL TO COMPLY WITH ADA REQUIREMENTS.

PLUMBING FIXTURE SCHEDULE

LABEL	DESCRIPTION	W	V	HW	CW	REMARKS
P-1C	WATER CLOSET	4"	2"	-	1"	FLOOR MOUNTED, 1.28 GPF MANUAL OPERATED FLUSH VALVE, SIPHON JET, VITREOUS CHINA, ELONGATED BOWL WITH OPEN FRONT WHITE SEAT, SIPHON JET BOWL — AMERICAN STANDARD 2855.128 FLUSH VALVE — ZURN Z6200-HET.0006-WS1 1.28 FLUSH VALVE OPEN FRONT SEAT — AMERICAN STANDARD 5910.100
P-1D	WATER CLOSET HANDICAPPED	4"	2"	-	1"	ADA, FLOOR MOUNTED, 1.28 GPF MANUAL OPERATED FLUSH VALVE, SIPHON JET, VITREOUS CHINA, ELONGATED BOWL WITH OPEN FRONT WHITE SEAT. SIPHON JET BOWL — AMERICAN STANDARD 2854.128 FLUSH VALVE — ZURN Z6200-HET.0006-WS1 1.28 FLUSH VALVE OPEN FRONT SEAT — AMERICAN STANDARD 5910.100
P-3	SINK	2"	2"	1/2"	1/2"	STAINLESS STEEL DOUBLE COMPARTMENT SINK INTEGRAL WITH COUNTERTOP (SEE ARCHITECTURAL). PROVIDE 0.5 GPM FLOW RESTRICTOR. FAUCET/HOSE SPRAY — ELKAY LK543AF08C 1 1/2" P-TRAP — MCGUIRE 8912, 17 GA. 3/8" SUPPLIES — MCGUIRE 165LK DISPOSER — BADGER 5 1/2 HP VOLT.120/1/60
P-4A	SHOWER	2"	2"	1/2"	1/2"	ANTI-SCALD PRESSURE BALANCING VALVE WITH INTEGRAL VOLUME CONTROL, INTEGRAL SERVICE STOPS, MAXIMUM TEMPERATURE LIMIT STOP, FIXED SHOWER HEAD SET AT 2.0 GPM. MOUNT FIXED SHOWER HEAD AT 7'-0" AFF. FAUCET — TEMPTROL II BP-56-1-231 FLOOR DRAIN — FD-1 EXCEPT WITH 6" DIA. SQUARE HOLE STRAINER
P-4B	SHOWER HANDICAPPED	2"	2"	1/2"	1/2"	ANTI-SCALD PRESSURE BALANCING VALVE WITH INTEGRAL VOLUME CONTROL, INTEGRAL SERVICE STOPS, MAXIMUM TEMPERATURE LIMIT STOP, FIXED SHOWER HEAD AND HAND HELD SHOWER HEAD SET AT 2.0 GPM WITH 5 FOOT METAL HOSE. MOUNT FIXED SHOWER HEAT AT 7'-0" AFF. FAUCET — TEMPTROL II 25-500-B30-V FLOOR DRAIN — FD-1 EXCEPT WITH 6" DIA. SQUARE HOLE STRAINER
P-5E	LAVATORY	2"	2"	1/2"	1/2"	UNDERCOUNTER, VITREOUS CHINA, WITH 4" CENTER SET ADA FAUCET WITH POP UP DRAIN. PROVIDE 0.5 GPM FLOW RESTRICTOR. BOWL — AMERICAN STANDARD 0491.019 FAUCET — DELTA 520-WF 1 1/4" P-TRAP — McGUIRE 8872, 17 GA., 3/8" SUPPLIES — McGUIRE LF167 WITH SHALLOW BRASS ESCUTCHEON
P-5B	ADA LAVATORY	2"	2"	1/2"	1/2"	ADA WALL MOUNT, VITREOUS CHINA, WITH 4" CENTER SET ADA FAUCET AND FLAT GRID STRAINER. PROVIDE 0.5 GPM FLOW RESTRICTOR. BOWL — AMERICAN STANDARD 0455.221US FAUCET — DELTA 520-WF 1 1/4" P-TRAP — McGUIRE 8872, 17 GA., 3/8" SUPPLIES — McGUIRE LF167 WITH SHALLOW BRASS ESCUTCHEON INSULATION KIT — TRUEBRO #102 CARRIER — ZURN 1200 SERIES WITH CONCEALED ARMS
P-6	DRINKING FOUNTAIN	2"	2"	-	1/2"	BARRIER FREE ELECTRIC DRINKING FOUNTAIN FOUNTAIN — ELKAY EZS8 1 1/4" P-TRAP — McGUIRE 8872, 17 GA., 3/8" SUPPLIES — McGUIRE 165LK CARRIER — ZURN Z1200 SERIES
P-6D	SINK	2"	2"	1/2"	1/2"	STAINLESS STEEL DOUBLE COMPARTMENT SINK INTEGRAL WITH COUNTERTOP (SEE ARCHITECTURAL). PROVIDE 0.5 GPM FLOW RESTRICTOR. FAUCET/HOSE SPRAY — ELKAY LK543AF08C 1 1/2" P-TRAP — MCGUIRE 8912, 17 GA. 3/8" SUPPLIES — MCGUIRE 165LK DISPOSER — BADGER 5 1/2 HP VOLT.120/1/60
P-6E	SINK	2"	2"	1/2"	1/2"	STAINLESS STEEL, SINGLE COMPARTMENT SINK INTEGRAL WITH COUNTERTOP (SEE ARCHITECTURAL), GOOSENECK SWING SPOUT FAUCET WITH WRIST BLADES FAUCET — ELKAY LKD232SBH5 1 1/2" P-TRAP — MCGUIRE 8912, 17 GA. 3/8" SUPPLIES — MCGUIRE LF 167 WITH SHALLOW BRASS ESCUTCHEON
P-7	LAUNDRY SINK	2"	2"	1/2"	1/2"	16G TYPE 304 STAINLESS STEEL, FREE STANDING, 24"x24"x12", FAUCET WITH HOSE AND WALL BRACKET, LOOSE KEY SUPPLY STOPS, STAINLESS STEEL CUP STRAINERS, 17 GAUGE P-TRAP AND CONTINUOUS WASTE BOWL — ELKAY SSP IC24x24 FAUCET — ELKAY LK943C 1/2" SUPPLY STOPS — MCGUIRE 167LK 1 1/2" P-TRAP — MCGUIRE 8912, 17 GA. 1 1/2" CONTINUOUS WASTE — MCGUIRE 11CxxG17
P-9	SERVICE SINK	3"	2"	1/2"	1/2"	TERRAZZO FLOOR MOUNTED WITH STAINLESS STEEL CAP ON THRESHOLD, 24"x24"x10",HOSE AND WALL BRACKET, 3 STATION MOP HANGER AND STAINLESS STEEL FLAT STRAINER. FURNISH S.S. WALL PANELS ON BACK AND ADJACENT WALL. FAUCET — ELKAY LKB940C BOWL — STERN WILLIAMS HL-1800
P-11	WASHING MACHINE BOX	2"	2"	1/2"	1/2"	OATEY - NO. 38747 POLYSTYRENE BOX COMPLETE W/HW AND CW 1/4 TURN SHUT-OFF VALVES
P-12	DRINKING FOUNTAIN	2"	2"	-	1/2"	SINGLE DRINKING FOUNTAIN WITH BOTTLE FILLER. FOUNTAIN — ELKAY EZS8WSLK & EZH20 1 1/4" P-TRAP — McGUIRE 8872, 17 GA., 3/8" SUPPLIES — McGUIRE 165LK CARRIER — ZURN Z1200 SERIES
P-12A	ADA BI-LEVEL DRINKING FOUNTAIN HANDICAPPED	2"	2"	-	1/2"	BI-LEVEL BARRIER FREE ELECTRIC DRINKING FOUNTAIN WITH BOTTLE FILLER. MOUNT ONE UNIT AT ADA HEIGHT. FOUNTAIN — ELKAY EZS8WSLK & EZH20 1 1/4" P-TRAP — McGUIRE 8872, 17 GA., 3/8" SUPPLIES — McGUIRE 165LK CARRIER — ZURN Z1200 SERIES
P-20	EMERGENCY SHOWER EYEWASH STATION	-	-	1 1/4" TEMPERED WATER		EMERGENCY SHOWER EYE/FACE WASH SAFETY STATION (BARRIER FREE) SAFETY STATION, STAINLESS STEEL EMERGENCY SHOWER HEAD AND EYE/FACE WASH WITH STAY OPEN BALL VALVE. ACTUATING HANDLE AT CLOSED POSITION SHALL BE MOUNTED 48" ABOVE FINISHED FLOOR. FIXTURE: WATERSAVER FAUCET CO., MODEL SSBF909SSH-GC-BC-FC20 TRIM: LEONARD TM-850-STSTL-REC THERMOSTATIC MIXING VALVE WITH COLD WATER BY-PASS PROTECTION IN A RECESSED STAINLESS STEEL CABINET ASSEMBLY. PROVIDE UNIT WITH ADJUSTABLE HIGH TEMPERATURE LIMIT STOP. PROVIDE TEMPERATURE GAUGE FOR OUTLET SIDE OF MIXING VALVE AS PART OF ASSEMBLY. PROVIDE 20 GPM FLOW CONTROL VALVE ON DISCHARGE SIDE OF MIXING VALVE. MOUNTING: COORDINATE LOCATION OF MIXING VALVE BOX WITH LOCATION OF CONTROL HANDLE. CONTRACTOR SHALL COORDINATE MOUNTING OF BOXES IN WALL WITH ARCHITECT.

PLUMBING LEGEND

NOT ALL SYMBOLS MAY BE USED

SYMBOL	ABB.	DESCRIPTION
—CW—	CW	DOMESTIC COLD WATER
---CW---	CW	DOM. COLD WATER (BELOW)
—HW—	HW	DOMESTIC HOT WATER
---HW---	HW	DOMESTIC HOT WATER (BELOW)
—HWR—	HWR	DOMESTIC HOT WATER RECIRC.
---HWR---	HWR	DOMESTIC HOT WATER RECIRC. (BELOW)
—D—	D	DRAIN
---D---	D	DRAIN (BELOW)
—PD—	PD	PUMP DISCHARGE
---PD---	PD	PUMP DISCHARGE (BELOW)
— G —	G	NATURAL GAS
— TP —	TP	TRAP PRIMER
— W —	W	WASTE
---W---	W	WASTE (BELOW)
---V---	V	SANITARY VENT
		PIPE TURN DOWN
		PIPE TURN UP
		BALL VALVE
		GATE VALVE
		CHECK VALVE
		BALANCING VALVE
		BUTTERFLY VALVE
	PRV	PRESSURE REGULATING VALVE
		SOLENOID VALVE
		STRAINER
		REDUCER
		PIPE GUIDE
		ANCHOR
		PRESSURE GAUGE
		PRESSURE SENSOR
		THERMOMETER
		CAP/PLUG
	CO	CLEANOUT (ABOVE CEILING)
		UNION
	PR	PRESSURE RELIEF VALVE
		SHOCK ARRESTOR
FCO	FCO	FLOOR CLEAN OUT
	WCO	WALL CLEAN OUT
	FD	FLOOR DRAIN
	VTR	VENT THRU ROOF
	I.E.	INVERT ELEVATION
	AFF	ABOVE FINISHED FLOOR

PLUMBING SHEET INDEX

NUMBER	SHEET NAME
P0.1	GENERAL NOTES, SCHEDULES AND LEGEND - PLUMBING
P2.1	FLOOR PLANS - WASTE AND VENT
P2.2	FLOOR PLAN - WATER
P3.1	PLUMBING DETAILS
P3.2	PLUMBING DETAILS
P3.3	PLUMBING DETAILS

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

MICHAEL E. PATRICK
AGRICULTURE
4/13/18
LICENSED PROFESSIONAL ENGINEER

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title:
GENERAL NOTES, SCHEDULES AND LEGEND - PLUMBING

Project No.:
17032

Drawn by:
TS

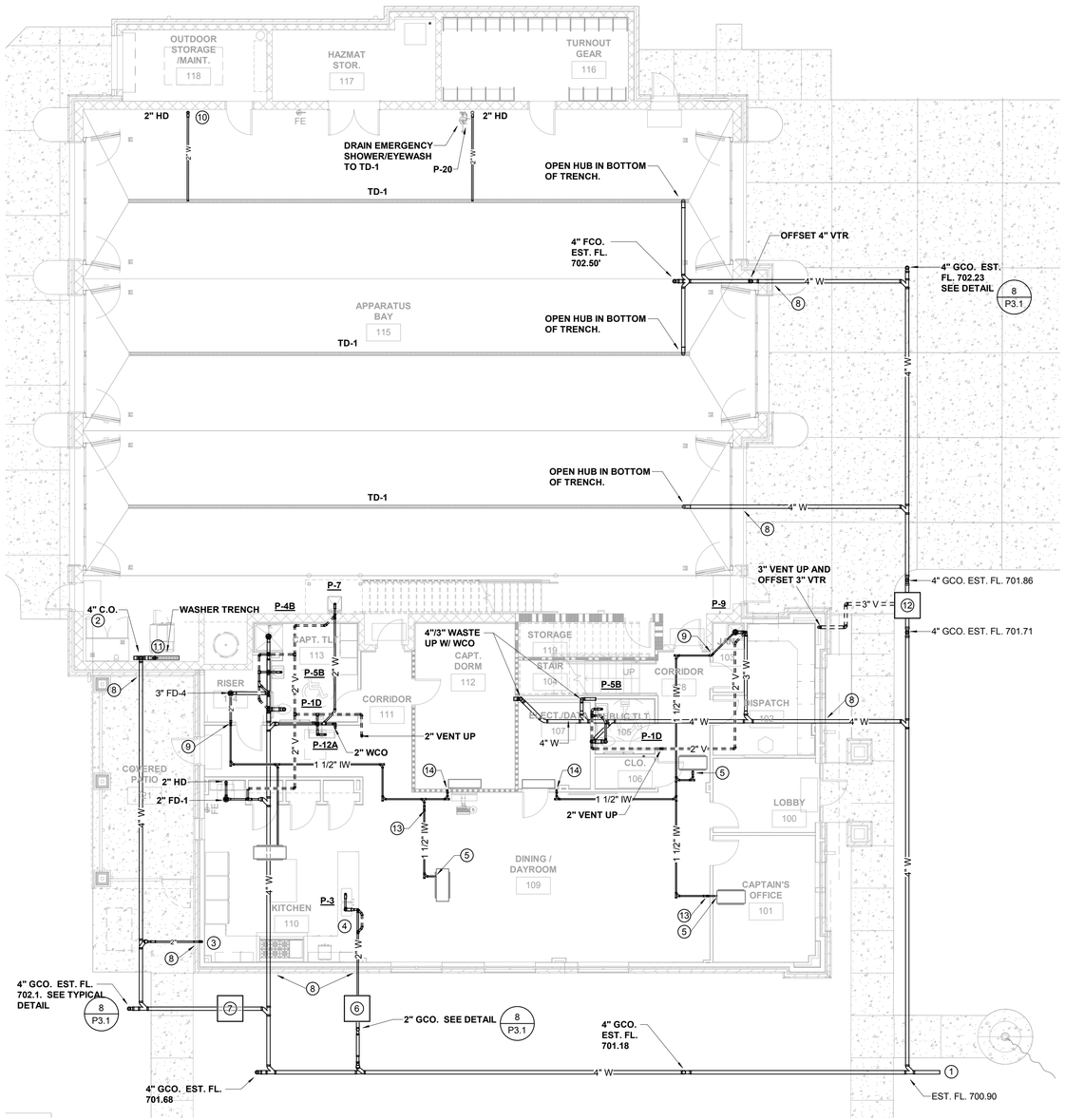
Date:
4/13/18

Sheet No.
P0.1

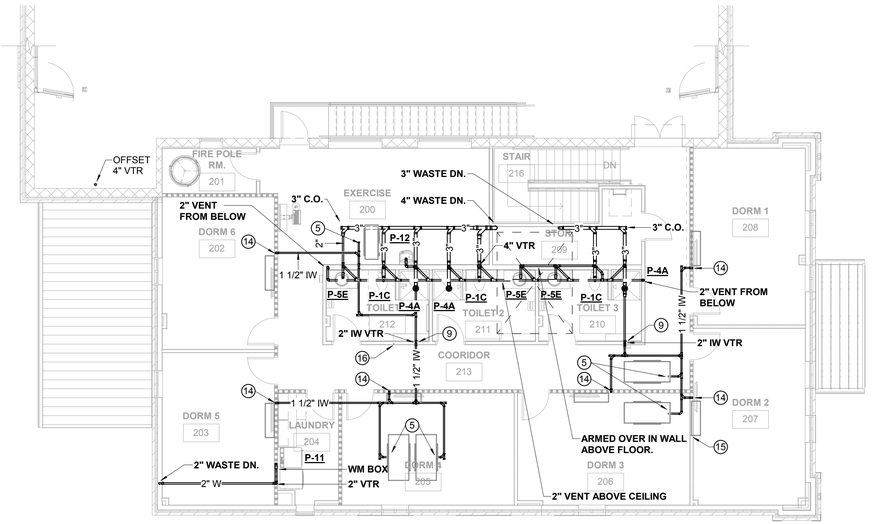
renaissance group
C:\Users\tings\Documents\SSR_PLBG_COLUMBIA_FIRE_STATION-3-2018_tings.rvt
4/12/2018 11:35:41 AM

PLAN KEYED NOTES

1. REFER TO UTILITY DRAWINGS FOR CONTINUATION.
2. 4" LAUNDRY IW VENT UP. 4" IW VTR
3. 2" WASTE UP W/ WCO.
4. CONNECT DISHWASHER TO GARBAGE DISPOSAL.
5. 1 1/2" TRAP FOR HVAC CONDENSATE CONNECTION. PROVIDE ADAPTERS AND COORDINATE EXACT LOCATION OF DRAIN WITH UNIT AS REQUIRED.
6. GREASE INTERCEPTOR. SEE DETAIL 1/P3.1
7. LAUNDRY INTERCEPTOR. SEE DETAIL 4/P3.1
8. COORDINATE EXACT LOCATION OF PLUMBING PIPING WITH STRUCTURAL FOOTING PRIOR TO CONSTRUCTION.
9. 1 1/2" CONDENSATE DRAIN DOWN IN WALL. CONNECT TO HOUSE SIDE OF P-TRAP OF FLOOR DRAIN/MOP SINK..
10. 2" HUB DRAIN FOR SPRINKLER SYSTEM INSPECTOR'S TEST. PIPE OVER TO TRENCH DRAIN.
11. 4" FD IN BOTTOM OF WASHER TRENCH. SEE DETAIL 3/P3.2 SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
12. OIL/SAND SEPARATOR. SEE DETAIL 7/P3.1
13. 2" IW VENT UP.
14. 1 1/2" IW DN. IN WALL FOR WALL MOUNTED HVAC UNIT (EQUIPPED WITH PUMP) CONDENSATE CONNECTION. PROVIDE ADAPTERS AND COORDINATE EXACT LOCATION OF DRAIN WITH UNIT AS REQUIRED.
15. 2" IW VENT FROM BELOW & 2" IW VTR.



1 FIRST FLOOR PLAN - PLUMBING
1/8" = 1'-0"



2 SECOND FLOOR PLAN - PLUMBING
1/8" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

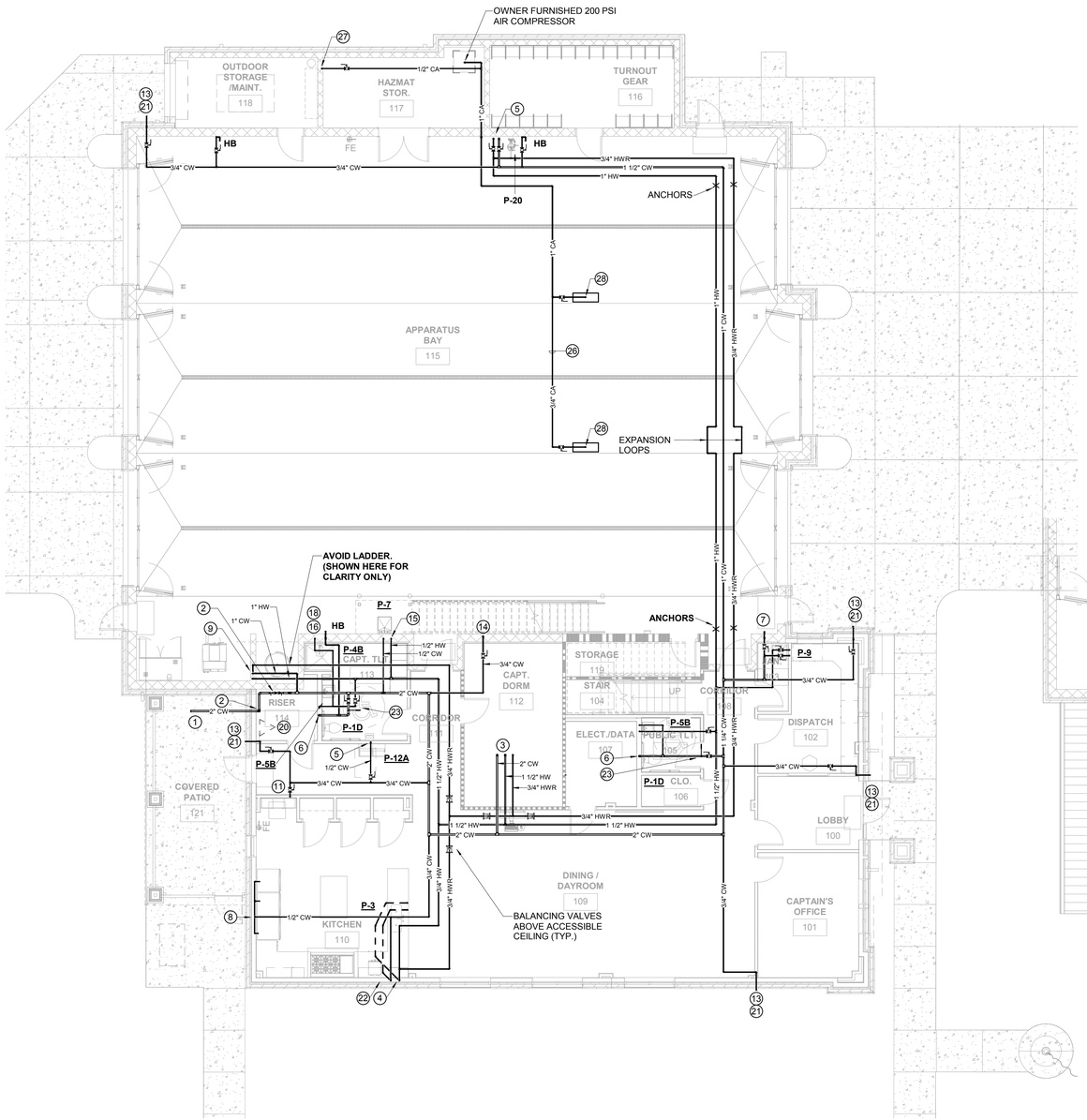
SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Sheet Title: **FLOOR PLANS - WASTE AND VENT**
Project No.: **17032**
Drawn by: **TS**
Date: **4/13/18**
Sheet No.: **P2.1**

C:\Users\tings\Documents\SSR_PLBG_COLUMBIA_FIRE_STATION-3-2018_tings.rvt
4/12/2018 11:36:01 AM

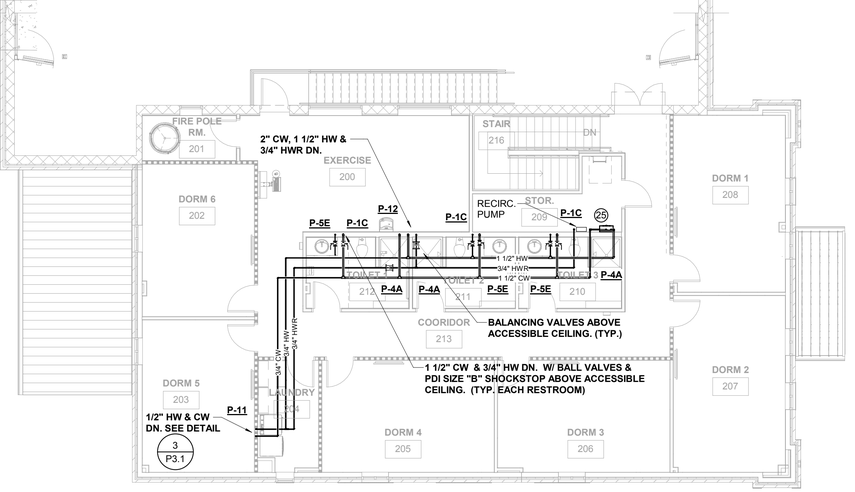
PLAN KEYED NOTES

1. DOMESTIC WATER SERVICE. SEE CIVIL DRAWINGS FOR CONTINUATION.
2. 2" CW UP TO BACKFLOW PREVENTER. SEE DIAGRAM 5/P3.1
3. 1 1/2" CW, 1 1/2" HW AND 3/4" HWR UP TO SECOND FLOOR.
4. 3/4" CW AND 3/4" HW DN. IN WALL. MAKE 1/2" CW CONNECTION TO P-9 COFFEE MAKER VALVE BOX. 1/2" HW AND CW TO HOSE SPRAY ASSEMBLY AND 1/2" HW TO DISHWASHER. INSTALL WATTS 009 DBL. CHECK VALVE. MAKE FINAL CONNECTION TO COFFEE MAKER AND DISHWASHER
5. 1" HW & CW DN. TO MIXING VALVE FOR EMERGENCY SHOWER/EYEWASH STATION. SEE DETAIL 4/P3.2
6. 1 1/4" CW AND 1/2" HW DOWN TO LAVATORY, WATER CLOSETS. PROVIDE BALL VALVES & PDI SIZE "B" SHOCKSTOP ABOVE ACCESSIBLE CEILING.
7. 1 1/2" ELKHART BRASS 4-25-1.5 HOSE CONNECTION 36" A.F.F.
8. 1/2" CW DOWN WALL. EXTEND 1/2" IN WALL TO EACH OF 3 CUTOFF STOP AND MAKE FINAL CONNECTION TO REFRIGERATOR ICE MAKERS.
9. 1" CW AND HW DOWN WALL. PROVIDE PDI SIZE "C" SHOCK ARRESTOR. PROVIDE 3/4" QUARTER TURN BALL VALVE INSIDE EXTRACTOR ROOM AND MAKE FINAL CONNECTIONS TO EXTRACTOR.
10. 1 1/2" CW & 3/4" HW DN. W/ BALL VALVES & PDI SIZE "B" SHOCKSTOP ABOVE ACCESSIBLE CEILING. (TYP. EACH RESTROOM)
11. 1/2" CW DN. WALL TO ICE MACHINE. INSTALL AN IM ICE MAKER BOX. MAKE FINAL CONNECTIONS TO ICE MACHINE.
12. 1/2" CW AND HW DOWN WALL TO WASHER BOX. SEE DETAIL 3/P3.1
13. 3/4" CW DOWN WALL TO NFHB. INSTALL LINE BETWEEN INTERIOR WALL FINISH AND BUILDING INSULATION.
14. 3/4" CW DN. TO HOSE REEL. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS. MAKE FINAL CONNECTION.
15. 1/2" HW & CW DN.
16. 3/4" CW AND 1/2" HW DN.
17. NOT USED.
18. 1/2" CW DN. TO HOSE BIBB IN WALL FACING TRUCK BAY AT 18" A.F.F.
19. NOT USED.
20. INDICATES FIRE SPRINKLER RISER. REFER TO FIRE SPRINKLERS FOR COORDINATION.
21. 3/4" NFWH. INSTALL AT 18" A.F.G.
22. 1/2" CW WITH BALL VALVE FOR COFFEE MAKER. MAKE FINAL CONNECTION.
23. BALL VALVES AND PDI SIZE "B" SHOCKSTOP ABOVE ACCESSIBLE CEILING.
24. 1 1/2" CW UP.
25. 1 1/2" CW, 1 1/2" HW & 3/4" HWR TO TANKLESS WATER HEATER. WATER HEATER SHALL BE EQUAL "NORITZ" MODEL NCC300DV (GQ-C5032WZ-FF-US) 250,000 BTH WITH SCH. 80 PVC 4" VENT. COORDINATE WITH MECHANICAL DRAWINGS FOR VENTING REQUIREMENT.
26. PROVIDE 1" SCH. 40 THREADED STEEL PIPE FOR OWNER FURNISHED 200 PSI AIR COMPRESSOR.
27. PROVIDE VALVED 1/2" COMPRESSED AIR QUICK CONNECT 48" AFF. COORDINATE QUICK CONNECT TYPE WITH OWNER.
28. PROVIDE 3/4" COMPRESSED AIR CONNECTION TO HOSE REEL @ CEILING SUPPORTED STRUCTURE. HOSE REEL SHALL HAVE 100' 1/2" HOSE WITH QUICK CONNECT EQUAL TO REELCRAFT 8000 SERIES RETRACTABLE ALL STEEL CONSTRUCTION & CORROSION RESISTANT.



1 FIRST FLOOR PLAN - PLUMBING

1/8" = 1'-0"



2 SECOND FLOOR PLAN - PLUMBING

1/8" = 1'-0"

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
FLOOR PLAN - WATER

Project No.
17032

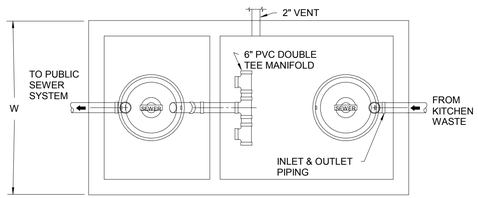
Drawn by
TS

Date
4/13/18

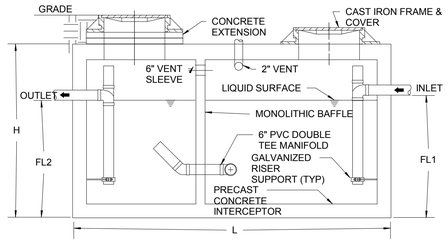
Sheet No.
P2.2

renaissance group
C:\Users\tings\Documents\SSR_PLBG_COLUMBIA_FIRE_STATION-3-2018_tings.rvt
4/12/2018 11:36:10 AM

GREASE INTERCEPTOR SCHEDULE						
MODEL NO.	CAPACITY USGal	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
GT-500	500	7'-10"	4'-4"	4'-6"	3'-3"	3'-0"

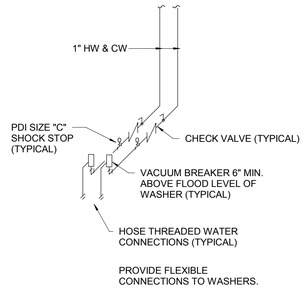


PLAN VIEW



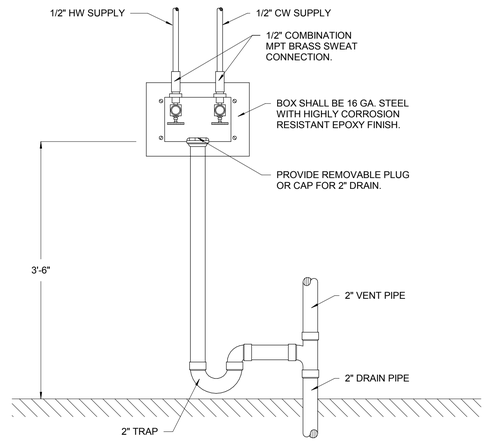
ELEVATION

GREASE INTERCEPTOR DETAIL | 1



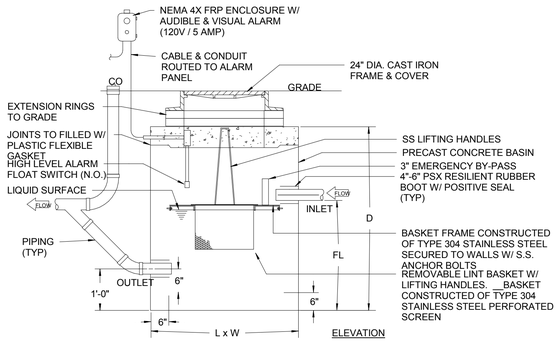
03P517

WASHER CONNECTION | 2

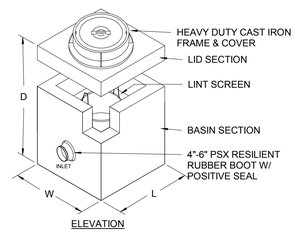


03P516

WASHING MACHINE BOX | 3



ELEVATION



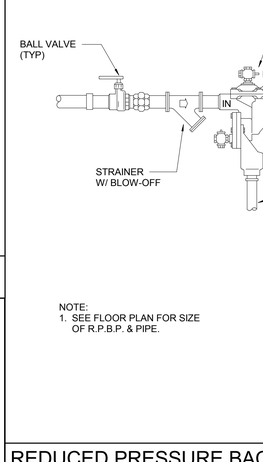
ELEVATION

PROVIDE PARKS EQUIPMENT CO. MODEL NO. LTSSB-200 OR APPROVED EQUAL

LINT INTERCEPTOR SCHEDULE						
MODEL	FLOW GPM	QTY OF WASHERS	DIMENSIONS			
			L	W	FL	D
LTSSB-200	200	2	60	60	45	60

ALL DIMENSIONS IN INCHES

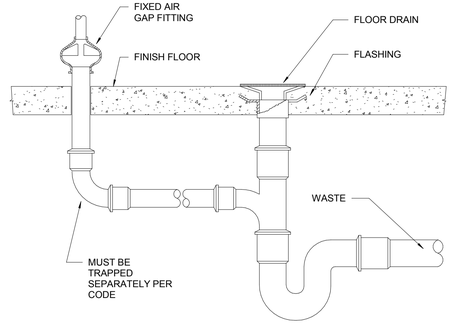
LINT INTERCEPTOR DETAIL | 4



NOTE:
1. SEE FLOOR PLAN FOR SIZE OF R.P.B.P. & PIPE.

03P101

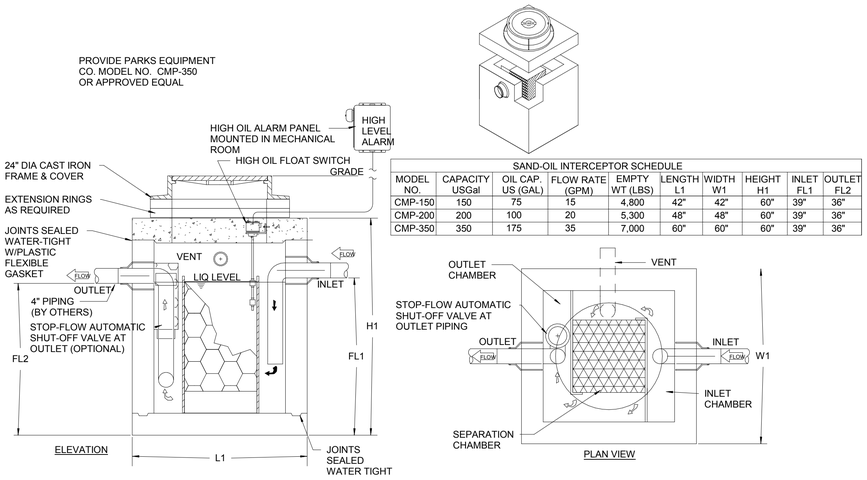
REDUCED PRESSURE BACKFLOW PREVENTER | 5



10P302

ICE MACHINE DRAIN | 6

PROVIDE PARKS EQUIPMENT CO. MODEL NO. CMP-350 OR APPROVED EQUAL

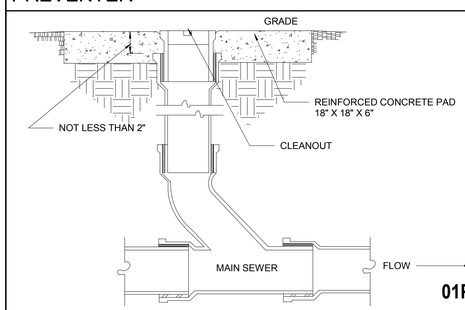


ELEVATION

PLAN VIEW

SAND-OIL INTERCEPTOR SCHEDULE									
MODEL NO.	CAPACITY USGal	OIL CAP. US (GAL)	FLOW RATE (GPM)	EMPTY WT (LBS)	LENGTH L1	WIDTH W1	HEIGHT H1	INLET FL1	OUTLET FL2
CMP-150	150	75	15	4,800	42"	42"	60"	39"	36"
CMP-200	200	100	20	5,300	48"	48"	60"	39"	36"
CMP-350	350	175	35	7,000	60"	60"	60"	39"	36"

OIL-SAND SEPARATOR DETAIL | 7



01P401

CLEANOUT DETAIL | 8

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: **PLUMBING DETAILS**

Project No.: **17032**

Drawn by: **TS**

Date: **4/13/18**

Sheet No.: **P3.1**

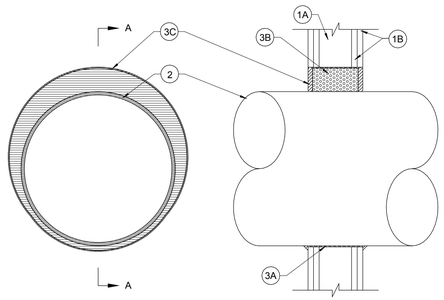
Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

rgroup renaissance
C:\Users\tings\Documents\SSR_PLBG_COLUMBIA_FIRE_STATION-3-2018_tings.rvt
4/12/2018 11:36:14 AM

System No. W-L-1058

F Rating - 2 Hr

T Ratings - 0 and 1/4 Hr (See Item 2)



SECTION A-A

1.Wall Assembly — The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.

B. Gypsum Board' — Two layers of nom 5/8 in. thick gypsum wallboard, as specified in the individual Wall and Partition Design. Max diam of opening is 14-1/2 in. for wood stud walls and 20 in. for steel stud walls. Diam of circular through opening to be min 3/8 in. to max 2-3/4 in. larger than diam of through penetrants (Item 2).

2. Through-Penetrants — One metallic pipe or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:

A. Steel Pipe — 17-1/4 in. diam (or smaller) by 0.125 (or heavier) steel pipe. The annular space shall be min 0 to max 2-3/4 in. The T Rating is 1/4 hr when steel pipe is used.

B. Copper Tubing — Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing. The annular space shall be min 0 to max 3 in. The T rating is 0 hr when copper tubing is used.

C. Copper Pipe — Nom 4 in. diam (or smaller) regular (or heavier) copper pipe. The annular space shall be min. 0 to max 3 in. The T rating is0 hr when copper pipe is used.

3. Firestop System — The firestop system shall consist of the following:

A. Steel Wire Mesh — No. 8 steel wire mesh having a min 1 in. lap along the longitudinal seam. Length of steel wire mesh to be 4-3/4 in., centered and formed to fit periphery of through opening.

B. Packing Material — Min 4-1/2 in. thickness of flexible urethane sheet or mineral wool insulation firmly packed into opening as a permanent form. Packing material to be recessed from both surfaces of wall as required to accommodate the required thickness of fill material.

C. Fill, Void or Cavity Material* — Sealant — Min 1/4 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe and wall, a min 1/2 in. diam bead of caulk shall be applied at the wall/pipe interface on both surfaces of wall assembly.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant 'Bearing the UL Classification Mark

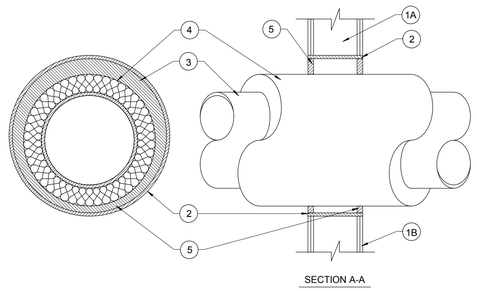
10P514

METAL PIPE THROUGH SLEEVE IN 2-HR RATED WALL | 1

System No. W-L-5096

F Ratings - 1 and 2 Hr (See Item 1 and 3)

T Ratings - 0,1/2 and 1 Hr (See Items 1, 3 and 4)



SECTION A-A

1. **Wall Assembly** The 1 or 2 hr fire rated wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.

B. **Gypsum Board*** Nom 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the Fire Resistance Directory. Max dia. of openings is 14-1/2 in. for wood stud walls. Max dia. of opening is 18 in. for steel studs walls. **The hourly F and T Ratings of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.**

2. **Steel Sleeve** (Optional) Max 18 in. dia. Schedule 40 (or heavier) steel pipe sleeve inserted in nom 18 in. dia. circular opening core drilled through wall. Length of steel sleeve to be equal to thickness of wall.

3. **Through Penetrant** One metallic pipe or tubing installed concentrically or eccentrically within the firestop system. Pipe or tube to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tube may be used:

A. **Steel Pipe** Nom 12 in. dia. (or smaller) Schedule 40 (or heavier) steel pipe.
When steel pipe is used, T Rating is 1/2 hr.

B. **Copper Tube** Nom 6 in. dia. (or smaller) Type L (or heavier) copper tube.
When copper tube is used, T Rating is 1/2 hr and 1 hr when installed in 1 and 2 hr rated walls, respectively.

C. **Copper Pipe** Nom 6 in. dia. (or smaller) Regular (or heavier) copper pipe.
When copper pipe is used, T Rating is 1/2 and 1 hr when installed in 1 and 2 hr rated walls respectively.

4. **Pipe Covering*** Max. 2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units, jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied SSL tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. When pipe covering thickness is less than 2 in., T Rating is 0 hr.

See **Pipe and Equipment Covering-Materials** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used. The annular space of the firestop system is dependent on the type and size of the through penetrant as shown in the table below:

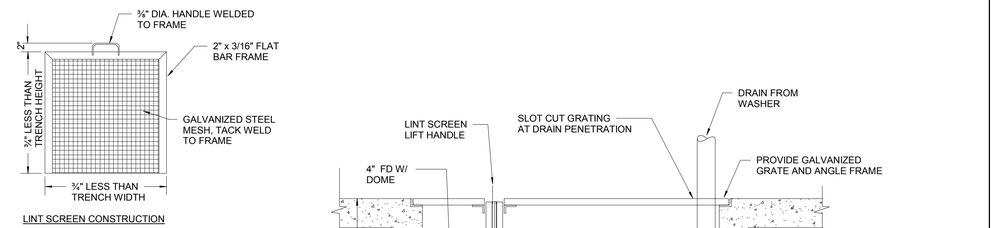
Through Penetrant		Annular Space	
Type	Max. dia. In.	Min In.	Max In.
A	12	0	1/2
B or C	6	0	1-7/8

5. **Fill, Void or Cavity Material*-Sealant** Min 5/8 in. or thickness of fill material applied within annulus, flush with both surfaces of wall assembly for At point contact an additional 1/2 in. bead of sealant shall be applied to the insulated pipe/ wall interface.

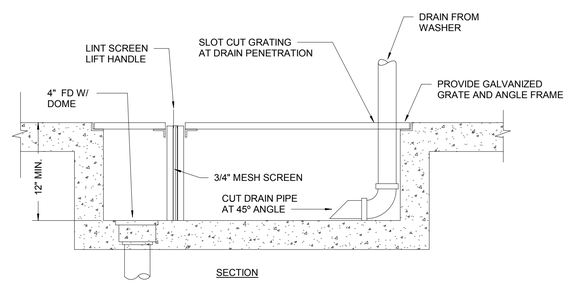
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- FS-ONE Sealant
*Bearing the UL Classification Mark

10P512

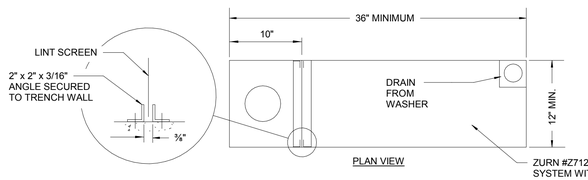
INSULATED METAL PIPE THROUGH SLEEVE IN 1-HR OR 2-HR WALL | 2



LINT SCREEN CONSTRUCTION

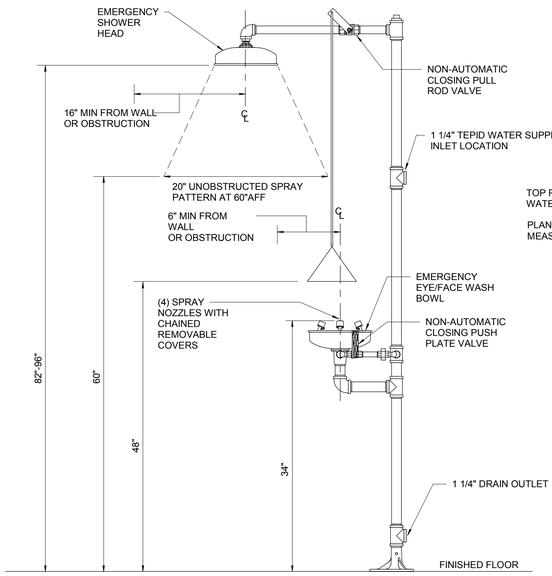


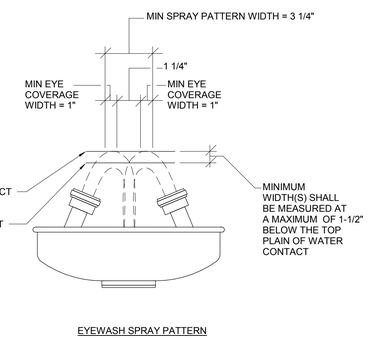
SECTION



PLAN VIEW

WASHER/EXTRACTOR - TRENCH/LINT SCREEN | 3





EYEWASH SPRAY PATTERN

NOTES:

1. WATER SUPPLY SHALL BE TEPID WATER
2. ALL MATERIALS SHALL BE CORROSION RESISTANT

10P418

COMBINATION ADA EMERGENCY SHOWER AND EYE/FACE WASH STATION | 4

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

REV	DESCRIPTION	DATE
1	Revision 1	Date 1

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
PLUMBING DETAILS

Project No.
17032

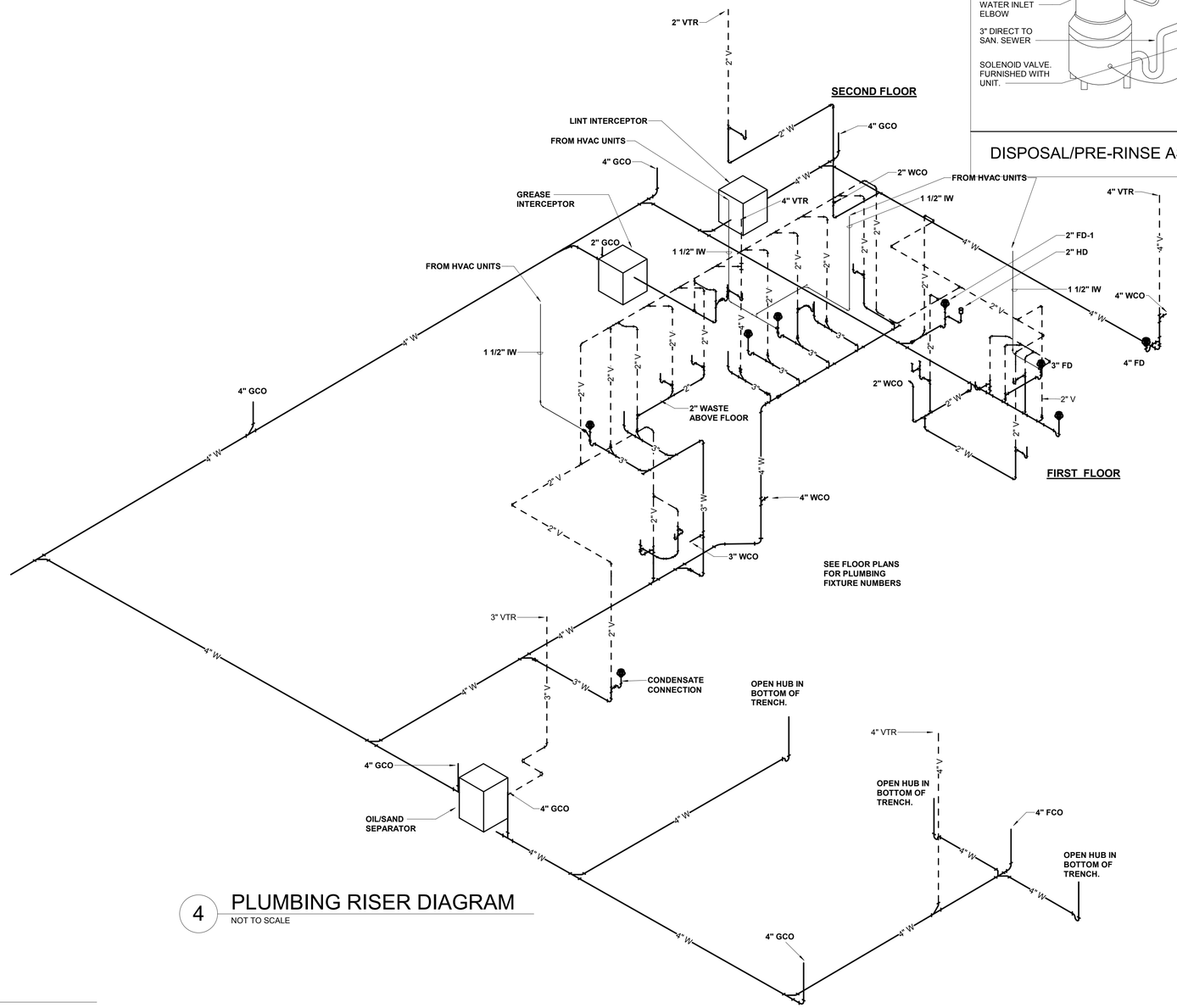
Drawn by
TS

Date
4/13/18

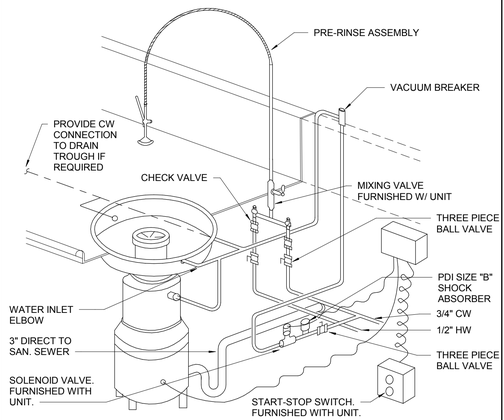
Sheet No.
P3.2

r e n a i s s a n c e g r o u p

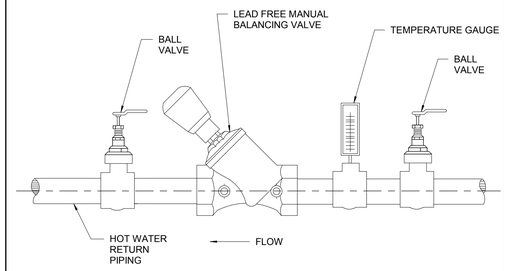
C:\Users\tings\Documents\SSR_PLBG_COLUMBIA_FIRE_STATION-3-2018_tings.rvt
4/12/2018 11:36:17 AM



4 PLUMBING RISER DIAGRAM
NOT TO SCALE



DISPOSAL/PRE-RINSE ASSEMBLY | 1



NOTES:
1. EACH VALVE SHALL BE FURNISHED WITH A PRE-FORMED REMOVABLE PVC INSULATION JACKET.
2. THE VALVE SHALL BE INSTALLED WITH FLOW IN THE DIRECTION OF THE ARROW ON THE VALVE BODY AND INSTALLED AT LEAST FIVE PIPE DIAMETERS DOWNSTREAM FROM ANY FITTING, AND AT LEAST 10 PIPE DIAMETERS DOWNSTREAM FROM ANY PUMP. TWO PIPE DIAMETERS DOWNSTREAM FROM THE BALANCING VALVE SHALL BE FREE OF ANY FITTINGS. PROVIDE EASY AND UNOBSTRUCTED ACCESS TO THE VALVE HANDWHEEL AND METERING PORTS FOR ADJUSTMENT AND MEASUREMENT . MOUNTING OF VALVE IN PIPING MUST PREVENT SEDIMENT BUILD-UP IN METERING PORTS.
3. SEE FLOOR PLAN FOR BALANCING VALVE LOCATION AND PIPE SIZE.

03P406

HOT WATER RETURN BALANCING VALVE | 2

02P101

IN-LINE CIRCULATING PUMP | 3

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Sheet Title: **PLUMBING DETAILS**
Project No.: **17032**
Drawn by: **TS**
Date: **4/13/18**
Sheet No.: **P3.3**

C:\Users\tings\Documents\SSR_PLBG_COLUMBIA_FIRE_STATION-3-2018_tings.rvt
4/12/2018 11:36:23 AM

MECHANICAL LEGEND

(NOT ALL SYMBOLS MAY BE USED)

DUCTWORK

SYMBOL	ABB.	DESCRIPTION
		RECTANGULAR SUPPLY DUCT - UP
		RECTANGULAR SUPPLY DUCT - DOWN
		RECTANGULAR RETURN / EXHAUST DUCT - UP
		RECTANGULAR RETURN / EXHAUST DUCT - DOWN
		ROUND SUPPLY DUCT - UP
		ROUND SUPPLY DUCT - DOWN
		ROUND RETURN / EXHAUST DUCT - UP
		ROUND RETURN / EXHAUST DUCT - DOWN
		OVAL SUPPLY DUCT - UP
		OVAL SUPPLY DUCT - DOWN
		OVAL RETURN / EXHAUST DUCT - UP
		OVAL RETURN / EXHAUST DUCT - DOWN
FD	FD	FIRE DAMPER
SD	SD	SMOKE DAMPER
FSD	FSD	COMBINATION FIRE/SMOKE DAMPER
MVD MVD		MANUAL VOLUME DAMPER
M M		MOTORIZED DAMPER
A A		AIR FLOW MONITORING STATION
DP DP		DIFFERENTIAL PRESSURE SENSOR
SP SP		STATIC PRESSURE SENSOR
SD SD		SMOKE DETECTOR
CO CO		CARBON DIOXIDE DETECTOR
CO CO		CARBON MONOXIDE DETECTOR
O O		DUCT SENSOR
		TRAVERSE DUCT TEST AND BALANCE
H-XX HUM H H-XX		HUMIDIFIER WITH IDENTIFICATION
		TRANSITION
		RADIUS ELBOW
		SQUARE THROAT ELBOW WITH TURNING VANES
		BRANCH DUCT CONNECTION RECTANGULAR OR ROUND BRANCH. RECTANGULAR TRUNK. MVD REQUIRED TO AIR DEVICES
R/D R/D		RISE/DROP IN ELEVATION
X X		SPLITTER WITH SPLIT SIZE SHOWN
X X		SPLITTER WITH SPLIT SIZES SHOWN
		BRANCH DUCT CONNECTION CONICAL TEE AND TAP ROUND TRUNK.
		BRANCH DUCT CONNECTION BEVELED TEE. ROUND TRUNK. MVD REQUIRED TO AIR DEVICES.

SYMBOL	ABB.	DESCRIPTION
12"X12" FACE / 24"X24" FACE — SX		SUPPLY DIFFUSER AND AIR QUANTITY. BLANK OUTS INDICATE THROW IN THIS DIRECTION. (SX DENOTES TYPE. SEE NOTE 1 OF AIR DISTRIBUTION DEVICE SCHEDULE)
RX		RETURN GRILLE AND AIR QUANTITY (X DENOTES TYPE)
EX		EXHAUST GRILLE AND AIR QUANTITY (X DENOTES TYPE)
100SX 100SX		LAMINAR FLOW SUPPLY DIFFUSER AND AIR FLOW QUANTITY (X DENOTES TYPE)
100		LINEAR SLOT DIFFUSER AND AIR FLOW QUANTITY
100		SCREENED OPENING AND AIR FLOW QUANTITY
AT-XX-XX		SOUND ATTENUATOR
XXX		HEATING COIL WITH IDENT.
XXX		ELECTRIC HEATING COIL WITH IDENT.
ATU-XX-XX XXX		AIR TERMINAL UNIT WITH IDENT. & MAX CFM
ATU-XX-XX XXX		AIR TERMINAL UNIT WITH IDENT., MIN AND MAX CFM
CB-XX-XX XXX		CHILLED BEAM WITH IDENT. & CFM
CFM		AIR FLOW RATE AT DOOR UNDERCUT
	AD	ACCESS DOOR
	AFF	ABOVE FINISHED FLOOR
	ATC	AUTOMATIC TEMPERATURE CONTROL PANEL
	BDD	BACKDRAFT DAMPER
	BOD	BOTTOM OF DUCT
	BOP	BOTTOM OF PIPE
	CB	CIRCUIT BREAKER
	CCT	CONTROL CIRCUIT TRANSFORMER
	CS	COLD DECK SUPPLY
	DDC	DIRECT DIGITAL CONTROL
	EA	EXHAUST AIR
	HS	HOT DECK SUPPLY
	IE	ISOLATION EXHAUST
	LE	LAB EXHAUST
	ML	MARINE LIGHT
	MVD	MANUAL VOLUME DAMPER
	OA	OUTSIDE AIR
	OBD	OPPOSED BLADE DAMPER
	RA	RETURN AIR
	SA	SUPPLY AIR
	SWR	SIDEWALL REGISTER
	SWG	SIDEWALL GRILLE
	UNO	UNLESS NOTED OTHERWISE
	VFD	VARIABLE FREQUENCY DRIVE
WALL MOUNTED CONTROL DEVICES		
T		THERMOSTAT OR TEMP SENSOR
H		HUMIDISTAT OR HUMIDITY SENSOR
P		PRESSURE MONITOR
CO2		CARBON DIOXIDE SENSOR
CO		CARBON MONOXIDE SENSOR
MPM-X		MULTI-POINT MONITOR

MECHANICAL GENERAL NOTES

A. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT SCOPE, UTILITY CONNECTIONS, AND ALL BUILDING SERVICES.

B. STANDARD DETAILS ILLUSTRATED ON THE DRAWINGS SHALL BE APPLIED IN ALL CASES WHERE THE FEATURE OCCURS IN THE SYSTEM DESIGN.

C. ALL DUCTWORK SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS IN INCHES. REFER TO SPECIFICATION SECTION 230700 FOR DUCT INSULATION REQUIREMENTS.

D. MAJOR EQUIPMENT SHOWN ON THE PLANS AND ELEVATIONS ILLUSTRATE THE GENERAL ARRANGEMENT AND SPACE ALLOCATIONS. THE CONTRACTOR SHALL VERIFY THE SPACE REQUIREMENTS FOR EACH SYSTEM COMPONENT USING MANUFACTURER CERTIFIED SHOP DRAWINGS AND MAKE THE NECESSARY ADJUSTMENTS IN EQUIPMENT PLACEMENT AND CONNECTION IN ORDER TO ACCOMMODATE THE EXACT EQUIPMENT TO BE INSTALLED.

E. SUPPORTS, ANCHOR BOLTS, AND HANGERS FOR ALL EQUIPMENT SPECIFIED IN DIVISION 23 SHALL CONFORM TO THE SPECIFICATIONS. MISCELLANEOUS STEEL BRACING SUPPORTS AND REINFORCING STEEL NEEDED TO SUPPORT EQUIPMENT SPECIFIED IN DIVISION 23 SHALL BE PART OF THE SCOPE OF WORK OF DIVISION 23.

F. DIFFUSERS, REGISTERS, AND GRILLES SHOWN ON THE MECHANICAL DRAWINGS SHALL BE IN ACCORDANCE WITH THE AIR DISTRIBUTION DEVICE SCHEDULE AND SPECIFICATIONS. BRANCH DUCTS TO AIR DEVICES SHALL BE IN ACCORDANCE WITH THE SCHEDULE UNLESS NOTED OTHERWISE.

G. FIRE/SMOKE DAMPERS SHALL BE INSTALLED IN DUCTWORK PENETRATIONS THROUGH RATED PARTITIONS, WALLS, BARRIERS, FLOORS, AND SHAFTS IN ACCORDANCE WITH THE PROJECT APPLICABLE BUILDING CODES. DAMPERS SHALL MEET THE REQUIREMENTS OF THE FIRE/SMOKE RATING AND BE "U.L." LABELED. REFER TO ARCHITECTURAL DRAWINGS FOR THE LOCATIONS AND RATINGS OF ALL WALLS AND FLOORS.

H. PENETRATIONS THROUGH RATED WALLS AND FLOORS SHALL BE SLEEVED, SEALED AND FIRESAFED TO MAINTAIN THE INTEGRITY OF THE WALL AND FLOOR UL FIRE RESISTANCE RATING.

I. DUCTWORK STORED ON-SITE AWAITING INSTALLATION SHALL REMAIN PROPERLY SEALED AND PROTECTED. OPEN ENDS OF DUCTWORK SHALL BE CAPPED AND SEALED AFTER INSTALLATION.

J. SMOKE DETECTORS SHALL BE LOCATED AS INDICATED ON THE MECHANICAL PLANS AND IN CONFORMANCE WITH NFPA 90A AND LOCAL CODES.

K. CEILING DIFFUSER LOCATIONS SHALL BE AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS.

L. CEILING DIFFUSERS, REGISTERS AND GRILLES SHALL BE FURNISHED WITH MOUNTING FRAMES AND FEATURES IN ACCORDANCE WITH THE CEILING TYPE.

M. PROVIDE MANUAL BALANCING/VOLUME DAMPERS AT ALL LOW PRESSURE BRANCH TAKE-OFFS TO DIFFUSERS AND GRILLES FROM SUPPLY, RETURN AND EXHAUST MAINS AND SUB-MAINS, AND AT ALL LOW PRESSURE DUCT SPLITS OR SUB-MAIN TAKE-OFFS. DAMPERS SHALL BE INSTALLED ABOVE AN ACCESSIBLE CEILING OR ACCESS PANEL.

N. DRAWINGS ARE SCHEMATIC IN NATURE AND SHALL NOT BE SCALED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT ROUTING OF ALL SERVICES WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES. REFER TO SPECIFICATIONS FOR COORDINATION DRAWING REQUIREMENTS.

O. MAINTAIN ACCESSIBILITY OF ALL EQUIPMENT, DAMPERS, CONTROL PANELS, VALVES, AND OTHER DEVICES. PROVIDE ACCESS PANELS AS REQUIRED. COORDINATE PLACEMENT WITH THE ARCHITECT PRIOR TO INSTALLATION.

P. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT PRIOR TO CUTTING ANY OPENING IN THE STRUCTURE

Q. OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF 25 FEET AWAY FROM PLUMBING VENTS, EXHAUST VENTS, AND OTHER SOURCES OF NOXIOUS FUMES AND/OR ODORS. INTAKES SHALL BE A MINIMUM OF 36" ABOVE FINISHED ROOF AND 72" ABOVE FINISHED GRADE.

DEDICATED OUTSIDE AIR UNIT SEQUENCE OF OPERATIONS

THE UNIT SHALL BE INDEPENDENTLY CONTROLLED BY A FACTORY MOUNTED DIGITAL CONTROLLER THAT COMES COMPLETE WITH SUPPLY AIR TEMPERATURE SENSOR, OUTSIDE AIR TEMPERATURE SENSOR, AND OUTSIDE AIR HUMIDITY SENSOR.

OCCUPIED MODE – WHEN THE UNIT IS IN THE OCCUPIED MODE IT WILL HAVE THREE CONTROL MODES: COOLING/DEHUMIDIFICATION, VENTILATION AND HEATING. DURING ALL OCCUPIED MODES THE SUPPLY FAN WILL BE ENERGIZED AND THE OUTSIDE AIR DAMPER WILL BE OPEN.

COOLING/DEHUMIDIFYING MODE – WHEN THE OUTSIDE AIR DEWPOINT IS ABOVE 55OF (ADJUSTABLE), THE UNIT WILL BE IN THE COOLING/DEHUMIDIFYING MODE. DURING THE COOLING/DEHUMIDIFYING MODE, THE UNIT WILL MODULATE THE DIGITAL SCROLL COMPRESSOR AND CYCLE THE ON/OFF COMPRESSORS TO MAINTAIN A CONSTANT COIL SUCTION TEMPERATURE. THE MODULATING HOT GAS REHEAT VALVE WILL MODULATE TO MAINTAIN A ROOM NEUTRAL SUPPLY AIR TEMPERATURE (72OF ADJUSTABLE).

HEATING MODE – WHEN THE OUTSIDE AIR TEMPERATURE IS BELOW 58OF (ADJUSTABLE), THE UNIT WILL BE IN THE HEATING MODE. DURING THE HEATING MODE THE UNIT WILL BE IN HEAT PUMP MODE TO MAINTAIN 72OF SUPPLY AIR TEMPERATURE. IF THE HEAT PUMP CANNOT MAINTAIN THE SETPOINT THEN THE AUXILLARY ELECTRIC HEATER WILL BE MODULATED TO MAINTAIN 72OF SUPPLY AIR TEMPERATURE.

VENTILATION MODE – WHEN THE OUTSIDE AIR DEWPOINT IS BELOW 55OF AND THE OUTSIDE AIR DRY BULB TEMPERATURE IS BETWEEN 60OF AND 70OF, THE UNIT WILL BE IN THE VENTILATION MODE. DURING THE VENTILATION MODE THE SUPPLY FAN WILL OPERATE.

UNOCCUPIED MODE – DURING THE UNOCCUPIED MODE, ALL FUNCTIONS WILL BE DISABLED.

FIRE SHUTDOWN – THE UNIT WILL SHUTDOWN BY THE BUILDING ALARM SYSTEM IN RESPONSE TO THE DETECTION OF FIRE OR SMOKE IN ANY ZONE SERVERED BY THE UNIT.

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

CASPER B. BRIGGS — REGISTERED — PROFESSIONAL ENGINEER — 114870 — 04/13/18 — STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: GENERAL NOTES AND LEGENDS

Project No.: 17032

Drawn by: CASPER BRIGGS

Date: 4/13/18

Sheet No.: M0.0

renaissance group
C:\Users\djackson\Documents\SSR_MECH_COLUMBIA_FIRE_STATION-3-2018_djackson.rvt
4/16/2018 3:07:51 PM

AIR DISTRIBUTION DEVICE SCHEDULE

IDENTITY	CFM RANGE MIN	CFM RANGE MAX	MFR	MODEL	TYPE	SERVICE S	SERVICE R	SERVICE E	LOCATION	FACE SIZE	NECK SIZE	RUNOUT SIZE	PANEL SIZE	REMARKS
S1	0	95	TITUS	TMS	LOUVERED FACE	X	-	-	CEILING	12"X12"	6" DIA.	6" DIA. / 8"x4"	12"X12"	-
	100	200	TITUS	TMS	LOUVERED FACE	X	-	-	CEILING	12"X12"	8" DIA.	8" DIA. / 10"x6"	12"X12"	-
	0	95	TITUS	TMS	LOUVERED FACE	X	-	-	CEILING	24"X24"	6" DIA.	6" DIA. / 8"x4"	24"X24"	-
	100	200	TITUS	TMS	LOUVERED FACE	X	-	-	CEILING	24"X24"	8" DIA.	8" DIA. / 10"x6"	24"X24"	-
	205	320	TITUS	TMS	LOUVERED FACE	X	-	-	CEILING	24"X24"	10" DIA.	10" DIA. / 12"x8"	24"X24"	-
	325	450	TITUS	TMS	LOUVERED FACE	X	-	-	CEILING	24"X24"	12" DIA.	12" DIA. / 14"x10"	24"X24"	-
	455	650	TITUS	TMS	LOUVERED FACE	X	-	-	CEILING	24"X24"	14" DIA.	14" DIA. / 16"x10"	24"X24"	-
R5/E5	0	120	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL	8"Wx8"H	6"Wx6"H	6"x6"	N/A	B
	125	240	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL	14W"x8"H	12W"x6"H	12"x6"	N/A	B
	245	300	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL	18"Wx10"H	16"Wx8"H	16"x8"	N/A	B
	305	400	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL	18"Wx12"H	16"Wx10"H	16"x10"	N/A	B
	405	600	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL	20"Wx14"H	18"Wx12"H	20"x8"	N/A	B
	605	700	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL	20"Wx16"H	18"Wx14"H	20"x10"	N/A	B
	705	900	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL	20"Wx20"H	18"Wx18"H	20"x12"	N/A	-
	905	1300	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL (LOW)	20"Wx26"H	18"Wx24"H	24"x14"	N/A	A
	1305	1700	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL (LOW)	20"Wx32"H	18"Wx30"H	28"x16"	N/A	A
	1705	2100	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL (LOW)	20"Wx38"H	18"Wx36"H	34"x16"	N/A	A
	2105	2400	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL (LOW)	20"Wx44"H	18"Wx42"H	38"x16"	N/A	A
	2405	2800	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL (LOW)	20"Wx50"H	18"Wx48"H	42"x16"	N/A	A
	2805	3200	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL (LOW)	26"Wx44"H	24"Wx42"H	44"x18"	N/A	A
	3205	3600	TITUS	355RL	FIXED BLADE 1/2" SPACING - 35 DEG.	-	X	X	SIDEWALL (LOW)	26"Wx50"H	24"Wx48"H	44"x20"	N/A	A
R6	0	150	TITUS	PAR	PERFORATED	-	X	X	CEILING	12"x12"	10"x10"	N/A	12"x12"	-
	155	600	TITUS	PAR	PERFORATED	-	X	X	CEILING	24"x24"	22"x22"	N/A	24"x24"	-

GENERAL NOTES:

1. DIFFUSERS AND GRILLES SHOWN ON FLOOR PLANS ARE TYPE S1, R6 OR E6 UNLESS NOTED OTHERWISE.
2. PROVIDE MOUNTING STYLE BASED ON CEILING TYPE INDICATED ON THE REFLECTED CEILING PLANS.
3. ALL AIR DISTRIBUTION DEVICES SHALL HAVE A MAXIMUM NC RATING OF 25.
4. IN AREAS WITH LAY-IN CEILINGS, PROVIDE LISTED PANEL SIZE. IN AREAS WITH HARD CEILINGS, PROVIDE SURFACE MOUNTED TYPE AIR DISTRIBUTION DEVICE AT LISTED FACE SIZE WITHOUT PANEL.
5. ALL AIR DEVICES LOCATED IN INACCESSIBLE HARD CEILINGS SHALL BE PROVIDED WITH VOLUME DAMPERS (OPPOSED BLADE WHEN AVAILABLE).
6. CONTRACTOR SHALL PAINT THE INTERIOR OF RETURN / EXHAUST SQUARE TO ROUND TRANSITIONS AND PLENUMS FLAT BLACK.
7. PROVIDE TRANSITION AS REQUIRED FOR DUCT AND DEVICE CONNECTION.
8. LOW SIDEWALL RETURN / EXHAUST GRILLES SIZED AT MAXIMUM CORE FACE VELOCITY OF 500 FPM.
9. RUNOUT DUCTS FOR RETURN / EXHAUST GRILLES SIZED AT MAXIMUM VELOCITY OF 600 FPM.
10. CEILING DIFFUSERS ARE 4-WAY THROW UNLESS NOTED OTHERWISE. INCREASE NECK SIZE ONE STEP FOR 2-WAY THROW AND PROVIDE BLANK OFF PLATES AS REQD.
11. REFER TO SPECIFICATION SECTION 233300 FOR ADDITIONAL REQUIREMENTS.

REMARKS:

A - BLADES PARALLEL TO THE SHORT DIMENSION
B - BLADES PARALLEL TO THE LONG DIMENSION
C - FIELD EXTERNALLY INSULATED PLENUM / BACKPAN
D - MANUFACTURER PROVIDED EXTERNAL INSULATION
E - FACTORY LEAK TESTED
F - MANUFACTURER PROVIDED BACK PLENUM WITH NECK OPENING SIZES INDICATED
G - PROVIDE WITH KNIFE EDGE FOR HEPA GEL SEAL
H - COLOR SELECTED BY ARCHITECT
I - PROVIDE BLANK OFF PLATES FOR UNUSED PORTIONS OF CONTINUOUS SLOT
J - HEAVY DUTY CONSTRUCTION
K - PROVIDE WITH HINGED FRAME
L - FACE OPERATED (VIA SLOT) OPPOSED BLADE DAMPER
M - REAR OPERATED (VIA SLOT) OPPOSED BLADE DAMPER

VARIABLE REFRIGERANT FLOW INDOOR UNIT SCHEDULE

MARK	ASSOC. UNIT	MANUFACTURE	MODEL	SERVICE	CFM	OSA	ESP IN WC	COOLING DATA ENT. AIR DB	COOLING DATA ENT. AIR WB	CAPACITY...	HEATING DATA ENT. DB	HEATING DATA CAPACITY...	ELECTRICAL DATA SOURCE	AMPS	MCA	MOCP	GENERAL DATA MOUNTING	WEIGH...
VRU-1	HP-3	LG	ARNU	DISPATCH	550	120	0.3	80	67	11,612	57	16,903	208/1/60	3.5	4.4	15	CONCEALED	100
VRU-2	HP-3	LG	ARNU	CAPT DORM	200	60	0.3	80	67	2,729	57	6,147	208/1/60	0.16	0.2	15	WALL	30
VRU-3	HP-1	LG	ARNU	KITCHEN	860	160	0.3	80	67	17,185	57	26,431	208/1/60	3.5	4.4	15	CONCEALED	100
VRU-4	HP-1	LG	ARNU	DAYROOM	1120	200	0.3	80	67	13,056	57	27,352	208/1/60	3.5	4.4	15	CONCEALED	100
VRU-5	HP-2	LG	ARNU	EXERCISE	1275	350	0.3	80	67	9,569	57	32,884	208/1/60	3.5	4.4	15	CONCEALED	100
VRU-6	HP-2	LG	ARNU	DORM	200	60	0.3	80	67	2,839	57	6,147	208/1/60	0.16	0.2	15	WALL	30
VRU-7	HP-2	LG	ARNU	DORM	200	60	0.3	80	67	3,300	57	6,147	208/1/60	0.16	0.2	15	WALL	30
VRU-8	HP-2	LG	ARNU	DORM	230	60	0.3	80	67	4,462	57	7,069	208/1/60	0.16	0.2	15	WALL	30
VRU-9	HP-1	LG	ARNU	CAPT OFFICE	250	20	0.3	80	67	4,890	57	7,683	208/1/60	3.5	4.4	15	CONCEALED	100
VRU-10	HP-2	LG	ARNU	DORM	230	60	0.3	80	67	4,462	57	7,069	208/1/60	0.16	0.2	15	WALL	30
VRU-11	HP-2	LG	ARNU	DORM	270	60	0.3	80	67	5,431	57	8,298	208/1/60	0.16	0.2	15	WALL	30
VRU-12	HP-2	LG	ARNU	DORM	290	60	0.3	80	67	5,740	57	8,913	208/1/60	0.16	0.2	15	WALL	30
VRU-13	HP-3	LG	ARNU	ELECT/DATA	910	0	0.3	80	67	18,308	57	23,145	208/1/60	0.16	4.4	15	WALL	30

NOTES
1. UNIT PERFORMACE SHALL BE RATED AT SCHEDULED CONDITIONS IN CONJUNCTION WITH ASSOCIATED UNIT.
2. PROVIDE NON FUSED ELECTRIC DISCONNECT.
3. PROVIDE UNIT WITH CONDENSATE PUMP; CONDENSATE TO BE PIPED PER PLUMBING PLAN.
4. PROVIDE UNIT WITH HARDWIRED WALL MOUNTED THERMOSTAT. INTEGRATE ALL UNITS TO CENTRAL CONTROLLER.
5. UNIT MFG SHALL SUBMIT WIRING AND REFRIGERANT PIPE SCHEMATICS FOR COMPLETE INSTALLATION AND OPERATION OF VARIABLE VOLUME REFRIGERANT SYSTEMS PRIOR TO SUBMITTING BID.
6. PROVIDE WASHABLE FILTER IN WALL MOUNTED UNIT.
7. PROVIDE 2" PLEATED FILTER AND DUCT MOUNTED FILTER BOX WITH UNIT.
8. INSTALL EQUIPMENT AND REFRIGERANT PIPING PER MANUFACTURES RECOMMENDATIONS.

HEAT RECOVERY OUTDOOR UNIT SCHEDULE

MARK	MANUFACTURE	MODEL	REFRIG.	COOLING CAPACITY (BTUH)	MIN. SUCTION TEMP.	AMB. AIR TEMP.	MAX COND. TEMP.	HEATING CAPACITY (BTUH)	ELECTRICAL DATA COND. FAN F.L.A.	COMP. R.L.A.	SOURCE	UNIT MCA	UNIT MOCP	REMARKS
HP-1	LG	ARU	R410A	60,000	45	95	115	64,000	6	19.5	208/1/60	25.4	40	1, 2, 3, 4, 5
HP-2	LG	ARU	R410A	60,000	45	95	115	64,000	6	19.5	208/1/60	25.4	40	1, 2, 3, 4, 5
HP-3	LG	ARU	R410A	60,000	45	95	115	64,000	6	19.5	208/1/60	25.4	40	1, 2, 3, 4, 5

NOTES
1. UNIT PERFORMACE SHALL BE RATED AT SCHEDULED CONDITIONS IN CONJUNCTION WITH ASSOCIATED UNIT.
2. SIZE AND ROUTE REFRIGERANT LINES AS PER MANUFACTURER'S RECOMMENDATIONS.
3. INSTALL UNIT ON CONDENSING UNIT ROOF RAIL SUPPORTS FIXED TO STRUCTURE.
4. PROVIDED FUSED DISCONNECT .
5. INTEGRATE TO CENTRAL CONTROLLER.

BOILER SCHEDULE

MARK	MANUFACTURE	MODEL	MEDIUM	INPUT...	OUTPUT...	WORKING...	INTAKE...	FLUE SIZE	ELECTRICAL	FUEL	REMARKS
B-1	KNIGHT	WB-210	30% GLYCOL/ WATER	210,000	190,000	150	3"	3"	120/1/60	NATURAL GAS	1, 2

NOTES
1. PROVIDE DISCONNECT
2. PROVIDE UNIT WITH TEMPERATURE/PRESSURE GAUGE, HIGH LIMIT TEMPERATURE CONTROL, ASMECERTIFIED PRESSURE RELIEF VALVE, OUTLET WATER TEMPERATURE SENSOR, RETURN WATER TEMP SENSOR, FLUE TEMP SEMNSOR, OUTDOOR AIR SENSOR, INDOOR AIR SENSOR, LOW WATER PROTECTION AND BUILT IN FREEZE PROTECTION.

PUMP SCHEDULE

MARK	MANUFACTU...	MODEL	SERVICE	GPM	HEAD...	RPM	ELECTRICAL HP	ELECTRICAL SOURCE	ELECTRICAL STARTER	REMARKS
P-1	ARMSTRONG	E-SERIES	RADIANT FLOOR 30% GLYCOL /...	18	38	3,600	2/5	120/1/60	COMB. MAG	1, 2

NOTES
1. FURNISH WITH A COMBINATUION STARTER AND DISCONNECT.
2. HEAD PRESSURE IS FOR PIPING AND MANIFOLD ONLY. ALLOWANCE SHALL BE MADE FOR PRESSURE DROP THROUGH SUBMITTED RADIANT FLOOR SYSTEM FITTING BEFORE PUMP IS SUBMITTED.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURE	MODEL	MIN CFM	S.P....	MAX...	MAX TIP...	MAX...	DAMPER	MOTOR HP	SOURCE	STARTER	REMARKS
EF-1	GREENHECK	GB-101	540	1	1750	-	10	BAROMETRIC	1/4	120/1/60	MANUAL	1, 3
EF-2	GREENHECK	BCF-112-20	3375	0.625	1290	3920	27	MOTORIZED	2	120/1/60	COMB. MAG.	1, 2, 3, 4
EF-3	GREENHECK	BCF-112-20	3375	0.625	1290	3920	27	MOTORIZED	2	120/1/60	COMB. MAG.	1, 2, 3, 4
EF-4	GREENHECK	SE1	500	0.125	1650	-	-	BAROMETRIC	1/20	120/1/60	MANUAL	1, 2, 3
EF-5	GREENHECK	GB-101	500	0.5	1750	-	-	BAROMETRIC	1/4	120/1/60	MANUAL	1, 3
KEF-1	GREENHECK	CUBE-101-HP	700	1.5	1650	-	-	-	1/2	120/1/60	MANUAL	1, 3
VF-1	BA	ESSENCES 10...	-	-	107	-	35 DBA	-	10 AMP	120/1/60	MANUAL	1, 3, 5, 6

NOTES:
1. PROVIDE DISCONNECT
2. INTERLOCK WITH INTAKE LOUVER
3. CONTROLLED BY WALL SWITCH TO OPERATE CONTINUOUSLY.
4. PROVIDE CARBON MONOXIDE MONITOR TO ENERGIZE FAN WHEN CO INCREASES ABOVE 100 PPM (ADJUSTABLE).
5. SHUDOWN FAN UPON FIRE ALARM ACTIVATION. MAINTAINE 3' CLEARANCE TO SPRINKLER DEFLECTOR.
6. MOTOR IS LOCATED IN AN UNCONDITIONED SPACE.

HEAT RECOVERY BOX UNIT SCHEDULE

MARK	MANUFACTURE	MODEL	ELECTRICAL DATA POWER W	ELECTRICAL DATA SOURCE
HRU-1	LG	PRHR042A	40	208/1/60
HRU-2A	LG	PRHR042A	40	208/1/60
HRU-2B	LG	PRHR042A	40	208/1/60
HRU-3	LG	PRHR042A	40	208/1/60

NOTE:
1. SIZE AND ROUTE REFRIGERANT LINES PER MFG RECOMMENDATION

ELECTRIC UNIT HEATER SCHEDULE

MARK	MANUFACTURE	MODEL	MIN. CFM	MIN KW	STEPS	SOURCE	FAN HP	REMARKS
EUH-1	TRANE	UHWA	-	5	1	208/1/60	1/125	1
EUH-2	TRANE	UHWA	-	3	1	208/1/60	1/125	1
EUH-3	TRANE	UHWA	-	5	1	208/1/60	1/125	1

NOTES:
1. PROVIDE DISCONNECT
2. TOP DISCHARGE

PACKAGED HEAT PUMP ROOFTOP UNIT SCHEDULE

MARK	MANUFACTURER	MODEL NUMBER	UNIT EER	SUPPLY FAN CFM	SUPPLY FAN ESP (IN. WG)	SUPPLY FAN HP (EA)	SUPPLY FAN RPM	COOLING COIL EAT DB/WB (° F)	COOLING COIL LAT DB/WB (° F)	COOLING COIL CAPACITY MBTUH	COOLING COIL REFRIG.	HEATING COIL EAT (° F)	HEATING COIL CAPACITY (MBTUH)	ELECTRIC HEAT EAT (° F)	ELECTRIC HEAT CAPACITY (MBTUH)	ELECTRIC HEAT FLA	ELECTRIC HEAT KW	REHEATCOIL LAT DB/WB (° F)	REHEATCOIL CAPACITY (MBTUH)	REHEATCOIL RH %	CONDENSER QTY FANS	CONDENSER HP (EA)	COMPRESSOR QTY	COMPRESSOR RLA (EA)	ELECTRICAL MCA	ELECTRICAL MOCP	ELECTRICAL VOLT /PH	OPERATING WEIGHT (LBS)
RTU-1	AAON	RN-009	11.6	1300	0.75	1	1760	95/75	53/52	92	R410	47	96	16	102	125	30	73/60	29	47%	2	0.333	2	22	165	175	230/1	1800

NOTES
1. PROVIDE 14" MIN ROOF CURB. SLOPE CURB AS NECESSARY TO PROVIDE LEVEL MOUNTING...
2. PROVIDE UNIT MOUNTED DISCONNECT.
3. PROVIDE UNIT WITH HOT GAS REHEAT.

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

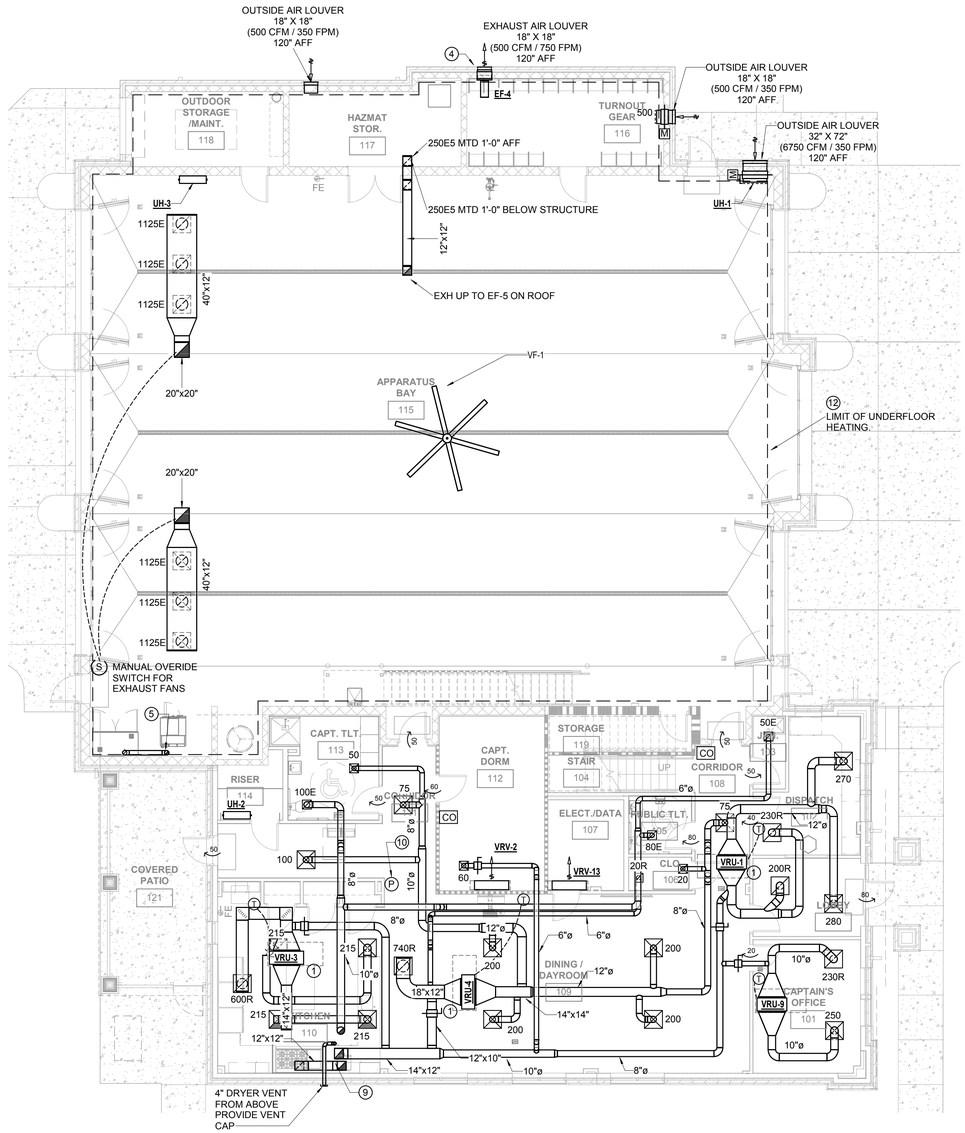
CASPER B. BRIGGS
REGISTERED
ENGINEER
No. 114870
STATE OF TENNESSEE
4/13/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

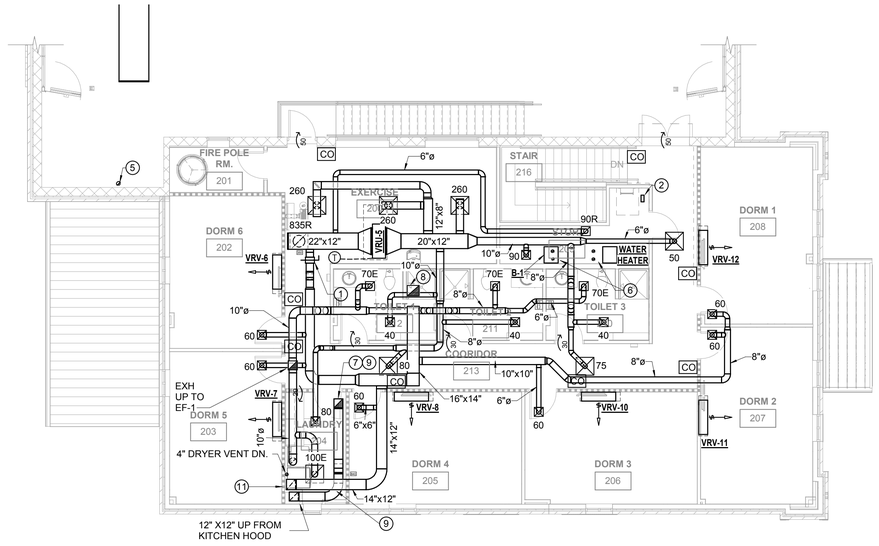
Sheet Title: SCHEDULES - MECHANICAL
Project No.: 17032
Drawn by: CASPER BRIGGS
Date: 4/13/18
Sheet No.: M0.1

r e n a i s s a n c e g r o u p
C:\Users\djackson\Documents\SSR_MECH_COLUMBIA_FIRE_STATION-3-2018_djackson.rvt
4/16/2018 3:07:54 PM



1 FIRST FLOOR PLAN - MECHANICAL DUCTWORK

NOT TO SCALE



2 SECOND FLOOR PLAN - MECHANICAL DUCTWORK

NOT TO SCALE

KEYED NOTES

1. BALANCE TO SCHEDULE OSA CFM.
2. HVAC CENTRAL CONTROLLER LG PACS43000. PROVIDE 24VAC/60 Hz POWER SUPPLY.
3. DISTECH CONTROL INTERFACE (APPARATUS BAY VENTILATION) AND MONITORS (CO) 24 VAC /DC EXTERNALLY SUPPLIED.
4. GREENHECK EDJ-401 18"X18" LOUVER. REFER TO A3/M5.1 FOR DETAIL.
5. 10" DRYER EXHAUST UP TO ROOF. REFER TO C3/M5.1 FOR DETAIL.
6. REFER TO C2/M5.1 FOR BOILER CONCENTRIC COMBUSTION KIT AND C4 FOR BOILER PIPING SCHEMATICS.
7. 12" X12" UP TO KEF-1 ON ROOF.
8. UP TO ROOF TOP UNIT. TRANSITION TO FULL SIZE OF UNIT OPENING.
9. PROVIDE ACCESS DOOR AT EACH ELBOW ON KITCHEN HOOD EXHAUST SYSTEM FOR GREASE CLEAN UP.
10. REMOTE MANUAL PULL STATION TO ACTIVATE KITCHEN HOOD FIRE SUPPRESSION SYSTEM.
11. OUTSIDE AIR DOWN TO FIRST FLOOR.
12. UNDERFLOOR HEATING SYSTEM. CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWING LAYOUT OF SYSTEM, SPECIFICATIONS, OPERATING MANUAL AND PROVIDE CONTROLS TO OWNER AND GENERAL CONTRACTOR FOR PRIOR APPROVAL BEFORE INSTALLATION. TOP OF RADIANT HEATING SYSTEM SHALL BE A MINIMUM OF 1" AND A MAXIMUM OF 4" BELOW FINISHED SLAB SURFACE. COORDINATE PIPE ROUTING WITH STRUCTURAL DRAWINGS. SECURE PIPE ACCORDING TO MANUFACTURE'S RECCOMENDATIONS. REFER TO ARCH DETAILS AND SECTIONS FOR PIPING AND INSULATION LAYERING.

Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

CASPER B. BRIGGS
REGISTERED
PROFESSIONAL
ENGINEER
No. 114870
STATE OF TENNESSEE
04/13/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

SSR Smith Seckman Reid, Inc.

2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Sheet Title
FLOOR PLANS - MECHANICAL

Project No.
17032

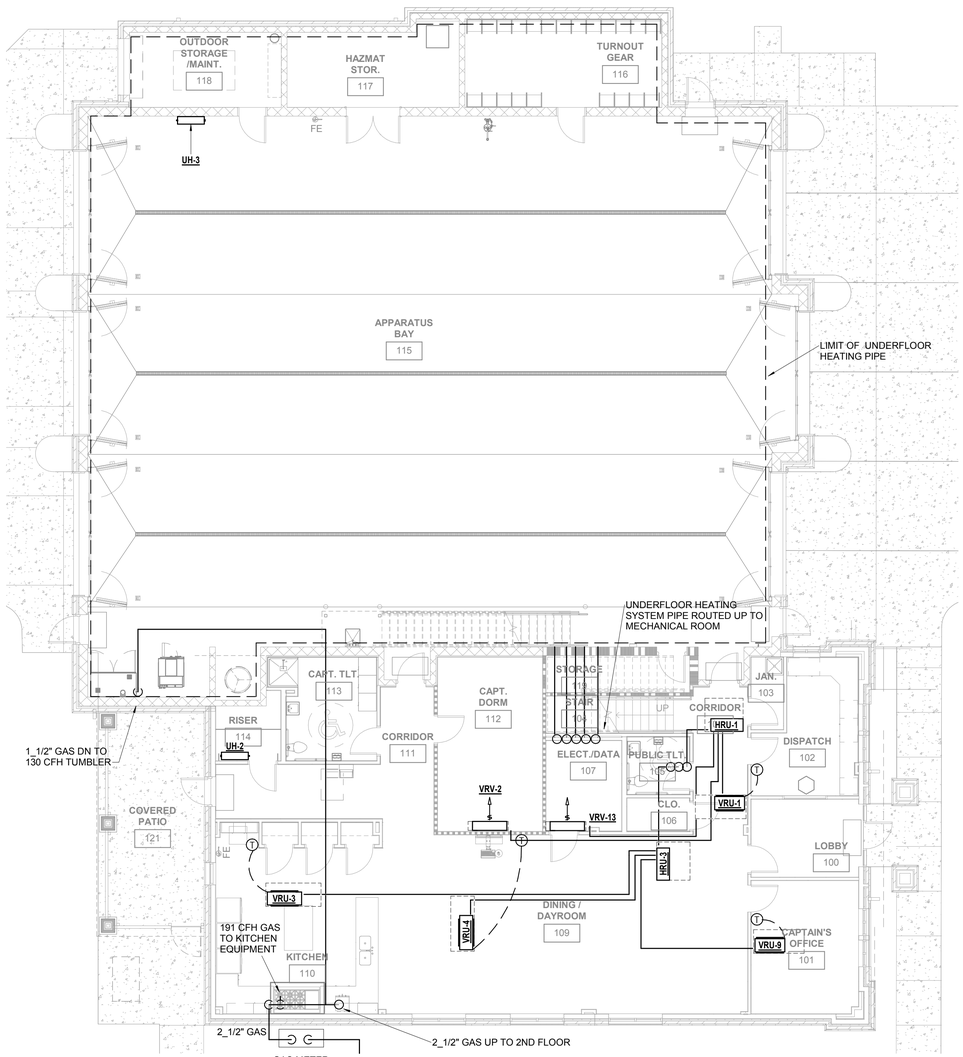
Drawn by
CASPER BRIGGS

Date
4/13/18

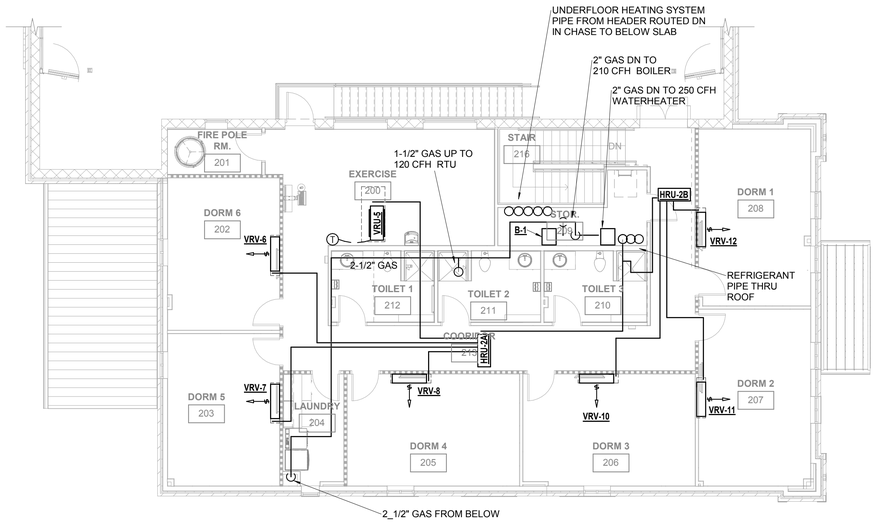
Sheet No.
M1.1

renaissance group

C:\Users\djackson\Documents\SSR_MECH_COLUMBIA_FIRE_STATION-3-2018_djackson.rvt
4/16/2018 3:08:09 PM



1 FIRST FLOOR PLAN - MECHANICAL PIPING
NOT TO SCALE



2 SECOND FLOOR PLAN - MECHANICAL PIPING
NOT TO SCALE

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

CASPER B. BRIGGS
REGISTERED
ENGINEER
No. 114870
STATE OF TENNESSEE
04/13/18

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

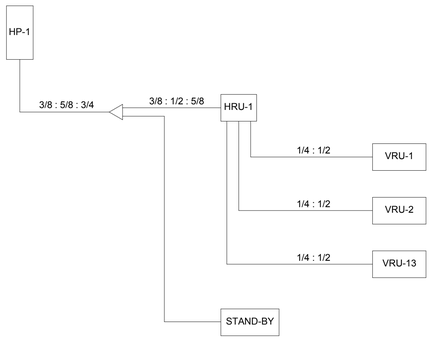
Sheet Title: FLOOR PLANS - MECHANICAL PIPING
Project No.: 17032
Drawn by: CASPER BRIGGS
Date: 4/13/18
Sheet No.: M1.2

r e n a i s s a n c e g r o u p

C:\Users\djackson\Documents\SSR_MECH_COLUMBIA_FIRE_STATION-3-2018_djackson.rvt
4/16/2018 3:08:18 PM

KEYED NOTES

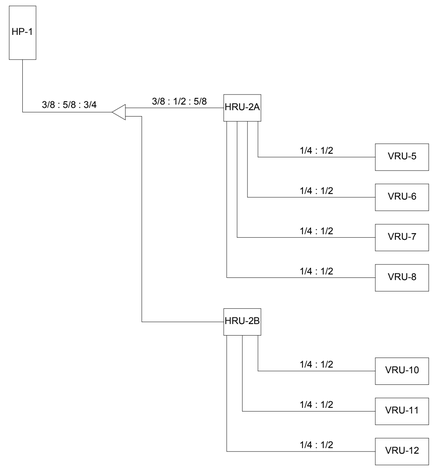
1. DRYER VENT EXHAUST. PROVIDE WITH CAP
2. PROVIDE GREENHECK MODEL GRSI-16, GRAVITY INTAKE ROOF VENTILATOR.



2 PIPE SCHEMATIC HP-1

NOT TO SCALE

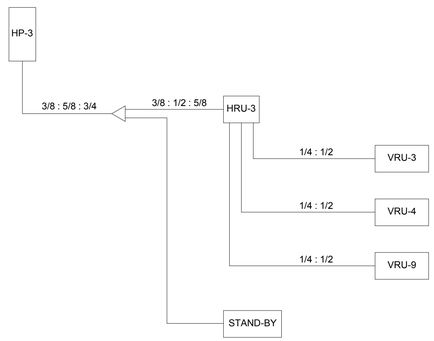
NOTE:
THREE PIPE: LIQUID : HIGH VAPOR : LOW VAPOR
TWO PIPE: LIQUID : VAPOR



3 PIPE SCHEMATIC HP-2

NOT TO SCALE

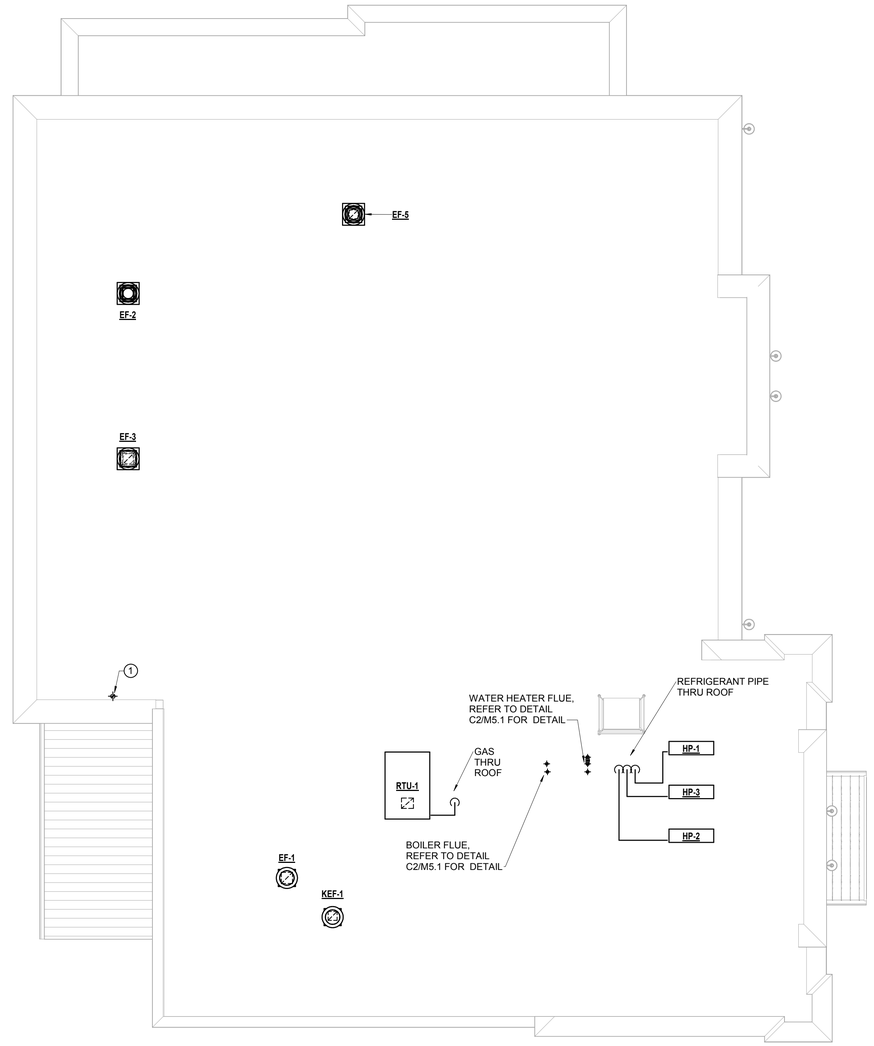
NOTE:
THREE PIPE: LIQUID : HIGH VAPOR : LOW VAPOR
TWO PIPE: LIQUID : VAPOR



4 PIPE SCHEMATIC HP-3

NOT TO SCALE

NOTE:
THREE PIPE: LIQUID : HIGH VAPOR : LOW VAPOR
TWO PIPE: LIQUID : VAPOR



1 ROOF PLAN - MECHANICAL PLAN

1/8" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

CASPER B. BRIGGS
REGISTERED
ARCHITECT
No. 114870
04/17/18
STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

SSR Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Sheet Title
ROOF PLAN - MECHANICAL

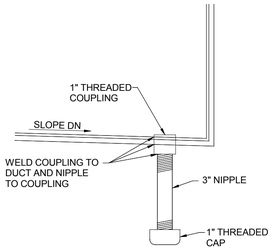
Project No.
17032

Drawn by
CASPER BRIGGS

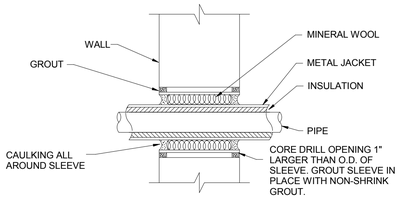
Date
4/13/18

Sheet No.
M3.1

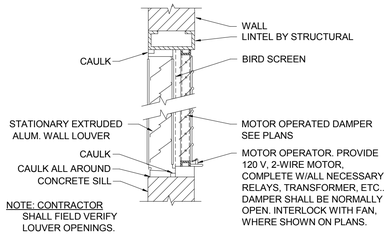
renaissance group
C:\Users\djackson\Documents\SSR_MECH_COLUMBIA_FIRE_STATION-3-2018_djackson.rvt
4/16/2018 3:08:21 PM



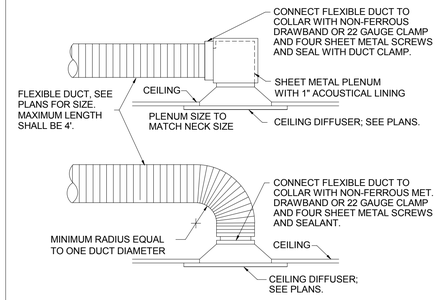
A1 — GREASE RESIDUE TRAP DETAIL — N.T.S.



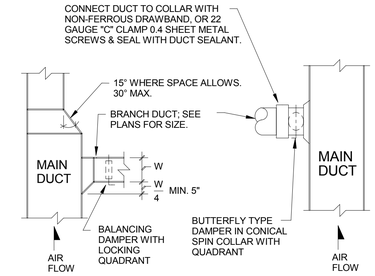
A2 — PIPE PENETRATION THRU WALL (NON-RATED) — N.T.S.



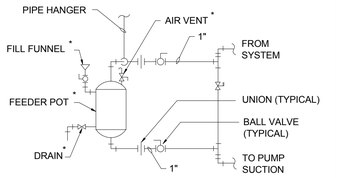
A3 — WALL LOUVER DETAIL — N.T.S.



A4 — DIFFUSER CONNECTION — N.T.S.

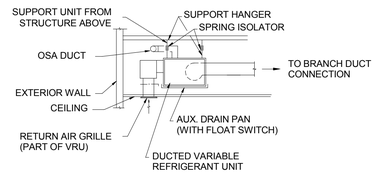


A5 — BRANCH DUCT CONNECTION — N.T.S.

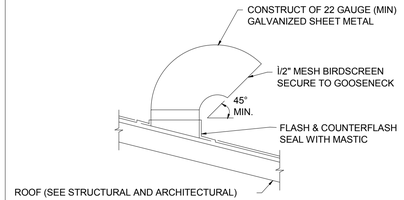


NOTES:
1. (*) FURNISHED WITH FEEDER.
2. THIS IS A TYPICAL INSTALLATION DRAWING. LOCAL CODES SHOULD BE REVIEWED FOR REQUIREMENTS SPECIFIC TO LOCALITY.
3. COORDINATE INSTALLATION WITH MANUFACTURER'S RECOMMENDATIONS.

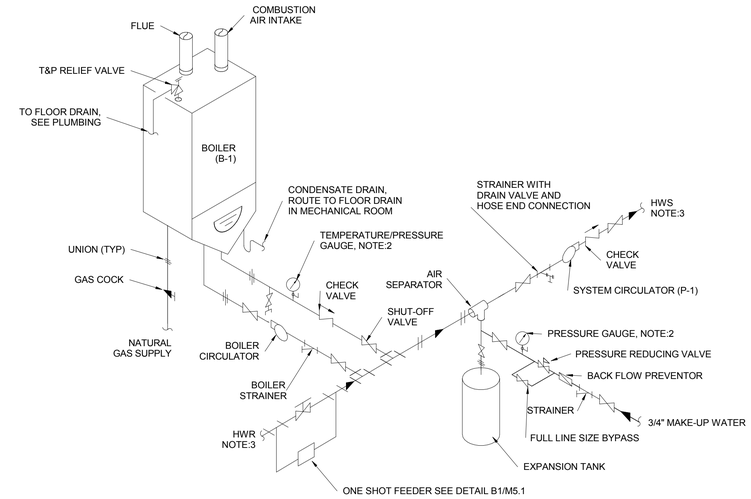
B1 — ONE-SHOT CHEMICAL FEEDER PIPING — N.T.S.



B2 — DUCTED VARIABLE REFRIGERANT UNIT INSTALLATION DETAIL — N.T.S.

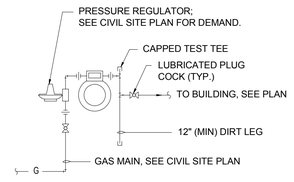


B3 — TYPICAL GOOSENECK — N.T.S.



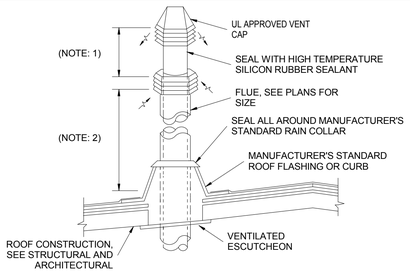
NOTES:
1. CONDENSATE DRAIN TRAP SHALL BE ARRANGED TO PERMIT THE FLUID TO DRAIN FREELY, BY GRAVITY, TO A CONVENIENT FLOOR DRAIN (SEE PLUMBING).
2. ITEM SHALL BE INCLUDED SEPARATELY IN SHIPMENT FROM FACTORY. INITIAL WATER SETPOINT SHALL BE 135°F (ADJUSTABLE).
3. MANIFOLD SHALL BE INCLUDED SEPARATELY IN SHIPMENT FROM FACTORY.
4. LOCATE WATER INLET AND OUTLET FITTINGS (I.E. UNIONS, ELBOWS, ETC.) A MINIMUM OF 6" FROM BOILER FITTINGS TO PREVENT INTERFERENCE WITH REMOVAL OF BOILER PANELS AND COVERS. ALL PIPING AND ELECTRIC CONNECTIONS (SERVICE SWITCHES, CONDUIT BOXES) SHALL BE 6" AWAY FROM SIDE PANELS.
5. THIS IS A TYPICAL INSTALLATION DRAWING. LOCAL CODES SHOULD BE REVIEWED FOR REQUIREMENTS SPECIFIC TO LOCALITY.
6. BOILER SYSTEM SHALL BE SUPPLIED WITH A ONE-SHOT CHEMICAL FEEDER.
7. COORDINATE INSTALLATION WITH MANUFACTURER'S RECOMMENDATIONS.
8. PIPING FOR BOILER CIRCULATOR (SHUT-OFF VALVES, BOILER STRAINER, ETC.) AND THE CIRCULATOR ITSELF MAY BE COMBINED INTO A SINGLE CABINET. CONSULT WITH BOILER MANUFACTURER PRIOR TO PROVIDING PIPING COMPONENTS SHOWN ABOVE.
9. SUBMIT SHOP DRAWINGS OF COMPLETE UNDER FLOOR HEATING SYSTEM FOR APPROVAL.

C4 — BOILER PIPING SCHEMATIC — N.T.S.



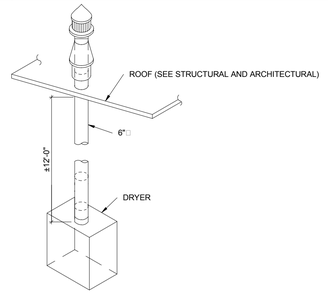
NOTE:
GAS METER & REGULATOR BY LOCAL GAS COMPANY; ALL COSTS WILL BE INCURRED BY THE CONTRACTOR INCLUDING CONCRETE, PAD WHEN REQUIRED. THIS IS A TYPICAL INSTALLATION DRAWING. LOCAL CODES SHOULD BE REVIEWED FOR REQUIREMENTS SPECIFIC TO LOCALITY.

C1 — GAS METER — N.T.S.



NOTES:
1. EXTEND 16" MINIMUM, USE MANUFACTURER'S RECOMMENDATION FOR ACTUAL INSTALLATION.
2. 12" MIN. USE MANUFACTURER'S RECOMMENDATIONS FOR ACTUAL INSTALLATION.

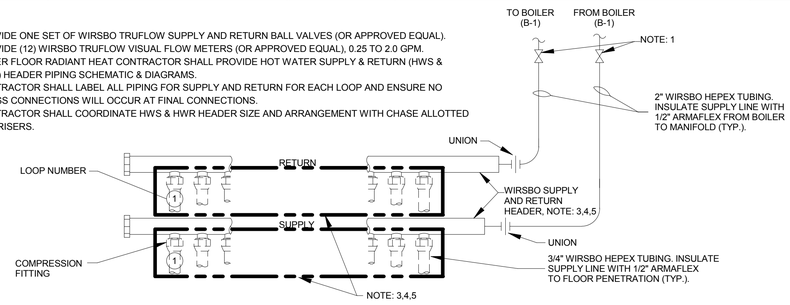
C2 — SEALED COMBUSTION FLUE THRU METAL ROOF — N.T.S.



NOTES:
1. ALL DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY DUCT LENGTHS. DO NOT EXCEED MANUFACTURER'S MAXIMUM EQUIVALENT LENGTH FOR DUCT.

C3 — DRYER RISER SCHEMATIC — N.T.S.

NOTES:
1. PROVIDE ONE SET OF WIRSBO TRUFLOW SUPPLY AND RETURN BALL VALVES (OR APPROVED EQUAL).
2. PROVIDE (12) WIRSBO TRUFLOW VISUAL FLOW METERS (OR APPROVED EQUAL), 0.25 TO 2.0 GPM.
3. UNDER FLOOR RADIANT HEAT CONTRACTOR SHALL PROVIDE HOT WATER SUPPLY & RETURN (HWS & HWR) HEADER PIPING SCHEMATIC & DIAGRAMS.
4. CONTRACTOR SHALL LABEL ALL PIPING FOR SUPPLY AND RETURN FOR EACH LOOP AND ENSURE NO CROSS CONNECTIONS WILL OCCUR AT FINAL CONNECTIONS.
5. CONTRACTOR SHALL COORDINATE HWS & HWR HEADER SIZE AND ARRANGEMENT WITH CHASE ALLOTTED FOR RISERS.



D1 — HEATING SLAB PIPING SCHEMATIC — N.T.S.

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

CASPER B. BRIGGS — REGISTERED — ENGINEER — No. 114970 — STATE OF TENNESSEE — 04/13/18

REV	DESCRIPTION	DATE

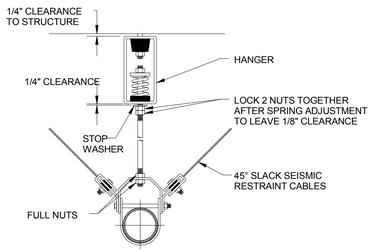
NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Sheet Title: DETAILS - MECHANICAL
Project No.: 17032
Drawn by: CASPER BRIGGS
Date: 4/13/18
Sheet No.: M5.1

C:\Users\jackson\Documents\SSR_MECH_COLUMBIA_FIRE_STATION-3-2018_djackson.rvt
4/16/2018 3:08:22 PM



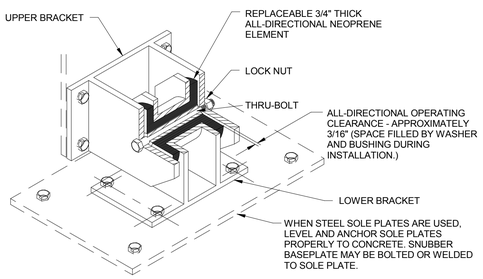
SEISMIC PIPE SUSPENSION DETAIL

SEISMIC SUBMITTAL AND BRACING INSTALLATION REQUIREMENTS

NOTE: CONTRACTOR SHALL SECURE THE SERVICES OF AN ENGINEER REGISTERED WITH THE APPLICABLE STATE TO PROVIDE SEALED AND SIGNED SHOP DRAWINGS OF ALL SUBMITTED SEISMIC SUPPORT SYSTEMS. THE DRAWINGS SHALL SHOW DETAILS OF THE SUBMITTED SYSTEM, LOCATION OF EACH SUPPORT, AND IDENTIFICATION OF SUPPORT TYPE (LONGITUDINAL AND/OR TRAVERSE). SHOP DRAWINGS SHALL BE SUBMITTED TO THE CODE ENFORCEMENT OFFICE FOR APPROVAL. SMACNA SEISMIC RESTRAINT MANUAL, SECOND EDITION, OR LATEST REVISION MAY BE USED AS A GUIDE FOR GENERAL SEISMIC SUPPORT DETAIL AND SUPPORT SPACING RECOMMENDATIONS. CONTRACTOR'S REGISTERED ENGINEER SHALL ALSO INSPECT THE INSTALLATION AT THE COMPLETION OF CONSTRUCTION AND PROVIDE A SIGNED AND SEALED LETTER TO THE CODE OFFICIAL STATING THAT THE INSTALLATION MEETS THE DESIGN REQUIREMENTS.

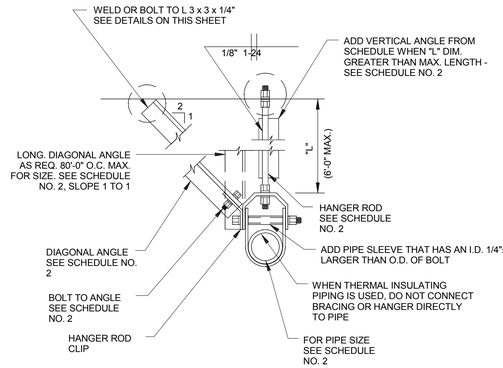
TYPICAL NOTES FOR BRACING OF PIPES

1. BRACE ALL GAS PIPES.
2. DETAILS SHOWN PROVIDE A LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED. HOWEVER, WHERE BRACE OCCURS, THE VERTICAL ANGLE SHOWN MAY BE REPLACE A TYPICAL VERTICAL SUPPORT.
3. TRANSVERSE BRACING AT 40'-0" (20'-0" FOR ALL NATURAL GAS PIPE SIZES) O.C. MAXIMUM.
4. LONGITUDINAL BRACING AT 80'-0" (40'-0" FOR ALL NATURAL GAS PIPE SIZES) O.C. MAXIMUM
5. TRANSVERSE BRACING FOR ONE PIPE SECTION MAY ALSO ACT AS LONGITUDINAL BRACING FOR THE PIPE SECTION CONNECTED PERPENDICULAR TO IT. IF THE BRACING IS INSTALLED WITHIN 24" OF THE ELBOW OR TEE AND SIMILAR SIZE.
6. DO NOT USE BRANCH LINES TO BRACE MAIN LINES.
7. PROVIDE FLEXIBILITY IN JOINTS WHERE PIPES PASS THROUGH BUILDING SEISMIC OR EXPANSION JOINTS, OR WHERE RIGIDLY SUPPORTED PIPES CONNECT TO EQUIPMENT WITH VIBRATION ISOLATORS.
8. AT VERTICAL PIPE RISERS, WHEREVER POSSIBLE, SUPPORT THE WEIGHT OF THE RISER AT A POINT OR POINTS ABOVE THE CENTER OF GRAVITY OF THE RISER. PROVIDE LATERAL GUIDES AT THE TOP AND BOTTOM OF THE RISER AND AT INTERMEDIATE POINTS NOT TO EXCEED 30'-0" ON CENTER.
9. PROVIDE LARGE ENOUGH PIPE SLEEVES THROUGH WALLS OR FLOORS TO ALLOW FOR ANTICIPATED DIFFERENTIAL MOVEMENTS.
10. DO NOT FASTEN ONE RIGID PIPING SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE; FOR EXAMPLE, A WALL AND A ROOF.
11. BRACING DETAILS, SCHEDULE, AND NOTES ARE TO BE USED WITH THE FOLLOWING TYPES OF PIPE: STEEL PIPE SCHEDULE 40, AND COPPER PIPE TYPE "L" (ONLY SILVER SOLDERED BRAZED JOINTS TO BE USED WITH COPPER PIPE).

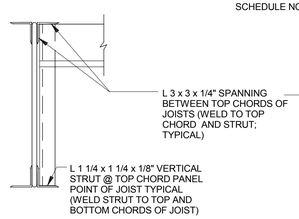


TYPICAL FOR FANS

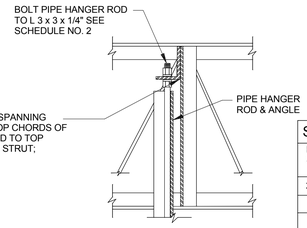
SEISMIC EQUIPMENT SUPPORT DETAIL



TYPICAL PIPE BRACING



TYP. ANGLE & JOINT CONNECTION



PIPE SUPPORT

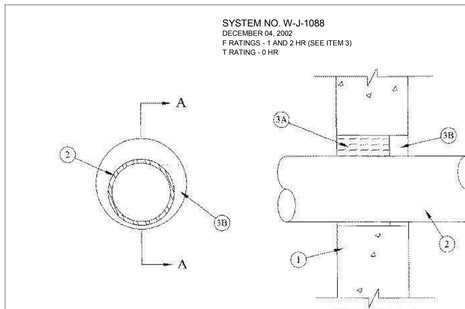
STRUCTURAL SUPPORTS FOR PIPES AND DUCTS

SCHEDULE NO. 2 BRACING FOR PIPING

PIPE SIZE IN.	HANGER TYPE	BOLT TO ANGLE	VERTICAL ANGLE	DIAGONAL ANGLE	LONGITUDINAL ANGLE	ROD SIZE	MAX. LENGTH FOR RODS
2 1/2	CLEVIS TYPE	3/8"□	2x2x16GA.	2x2x16GA.	2 1/2x2 1/2x16GA.	1/2"□	25"
3	CLEVIS TYPE	3/8"□	2x2x16GA.	2x2x16GA.	2 1/2x2 1/2x16GA.	1/2"□	25"
4	CLEVIS TYPE	3/8"□	2x2x16GA.	2x2x16GA.	2 1/2x2 1/2x16GA.	5/8"□	31"
5	CLEVIS TYPE	1/2"□	2x2x16GA.	3x3x16GA.	2 1/2x2 1/2x16GA.	5/8"□	31"
6	CLEVIS TYPE	1/2"□	2 1/2x2 1/2x16GA.	2 1/2x2 1/2x16GA.	2 1/2x2 1/2x16GA.	3/4"□	37"
8	CLEVIS TYPE	5/8"□	2 1/2x2 1/2x12GA.	2 1/2x2 1/2x12GA.	2 1/2x2 1/2x12GA.	7/8"□	43"

NOTES:
1. ALL HOLES IN ANGLES 1/16" OVERSIZE MAX. PLACE STANDARD CUT WASHERS BETWEEN SHEETMETAL ANGLES AND NUTS.
2. ALL NATURAL GAS PIPE SIZES LESS THAN 2 1/2" SHALL BE BRACED AS SIZED IN TABLE FOR 2 1/2" PIPE SIZE.

MIN. EDGE DISTANCE FOR BOLTS
1/4"□ - 1" 5/8"□ - 1 1/8"
3/8"□ - 1" 3/4"□ - 1 1/4"
1/2"□ - 1" 7/8"□ - 1 1/2"



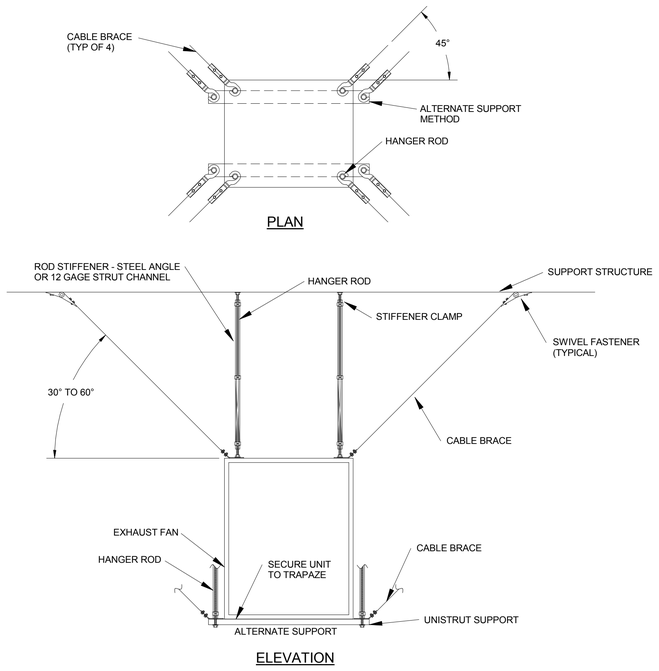
SECTION A-A

1. WALL ASSEMBLY - MIN 3-3/4 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAMETER OF OPENING 10-1/2 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. THROUGH-PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. AN ANNULAR SPACE OF MIN 1/4 IN. TO MAX 1-5/8 IN. IS REQUIRED WITHIN FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE - NOM 8 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE - NOM 8 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT - NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT) OR 6 IN. DIAM STEEL CONDUIT.
   D. COPPER TUBING - NOM 4 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE - NOM 4 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
   F. FLEXIBLE STEEL CONDUIT+ - NOM 2 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT. SEE FLEXIBLE METAL CONDUIT (DXUZ) CATEGORY IN THE ELECTRICAL CONSTRUCTION EQUIPMENT DIRECTORY FOR NAMES OF MANUFACTURERS.
3. FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. PACKING MATERIAL - MIN 2-1/8 IN. OR 2-3/4 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING ON ONE SIDE OF THE WALL AS PERMANENT FORM FOR 1 AND 2 HR WALLS, RESPECTIVELY. PACKING MATERIAL TO BE RECESSED FROM ONE SIDE OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
   B. FILL, VOID OR CAVITY MATERIAL - SEALANT* - MIN 1 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN OPENING, FLUSH WITH ONE SURFACE OF WALL.

HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC - FS-ONE SEALANT
*BEARING THE UL CLASSIFICATION MARK
+BEARING THE UL LISTING MARK

PENETRATION THRU 1-2 HOUR FIRE RATED WALL OR FLOOR

N.T.S.



SUSPENDED EQUIPMENT SEISMIC SUPPORT DETAIL

N.T.S.

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

CASPER B. BRIGGS
REGISTERED
ENGINEER
No. 114870
04/13/18
STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: SEISMIC DETAILS - MECHANICAL
Project No.: 17032
Drawn by: CASPER BRIGGS
Date: 4/13/18
Sheet No.: M5.2

renaissance group
C:\Users\djackson\Documents\SSR_MECH_COLUMBIA_FIRE_STATION-3-2018_djackson.rvt
4/16/2018 3:08:23 PM

PK-ND-2-Q SERIES SPECIFICATION:

THE PK-ND-2-Q SERIES HOOD IS AN EXHAUST ONLY CANOPY HOOD RATED FOR ALL TYPES OF COOKING EQUIPMENT. THE HOOD SHALL HAVE THE SIZE, SHAPE AND PERFORMANCE SPECIFIED ON DRAWINGS.

CONSTRUCTION SHALL BE TYPE 430 STAINLESS STEEL WITH A #3 OR #4 POLISH WHERE EXPOSED. INDIVIDUAL COMPONENT CONSTRUCTION SHALL BE DETERMINED BY THE MANUFACTURER, ETL, AND NSF. CONSTRUCTION SHALL BE DEPENDENT ON THE STRUCTURAL APPLICATION TO MINIMIZE DISTORTION AND OTHER DEFECTS. ALL SEAMS, JOINTS AND PENETRATIONS OF
THE HOOD ENCLOSURE TO THE LOWER OUTERMOST PERIMETER THAT DIRECTS AND CAPTURES GREASE-LADEN VAPOR AND EXHAUST GASES SHALL HAVE A LIQUID-TIGHT CONTINUOUS EXTERNAL WELD IN ACCORDANCE WITH NFPA 96. HOOD SHALL BE WALL TYPE WITH FULLY WELDED 10 GAUGE CORNER HANGING ANGLES. CORNER HANGING ANGLES HAVE A .625 X 1.500 SLOT PRE-PUNCHED AT THE FACTORY, ALLOWING HANGING RODS TO BE USED FOR QUICK AND SAFE INSTALLATION. HANGING ROD AND CONNECTION IS PROVIDED BY AND INSTALLED BY OTHERS.

VENTILATOR SHALL BE FURNISHED WITH U.L. CLASSIFIED STAINLESS STEEL HIGH EFFICIENCY BAFFLE FILTERS, SUPPLIED IN SIZE AND QUANTITY AS REQUIRED BY VENTILATOR. THE FILTERS SHALL EXTEND THE FULL LENGTH OF THE HOOD AND THE FILLER PANELS SHALL NOT BE MORE THAN 6" IN WIDTH.

THE HOOD MANUFACTURER SHALL SUPPLY COMPLETE COMPUTER GENERATED SUBMITTAL DRAWINGS INCLUDING HOOD SECTION
VIEW(S) AND HOOD PLAN VIEW(S). THESE DRAWINGS MUST BE AVAILABLE TO THE ENGINEER, ARCHITECT AND OWNER FOR THEIR USE IN CONSTRUCTION, OPERATION AND MAINTENANCE.

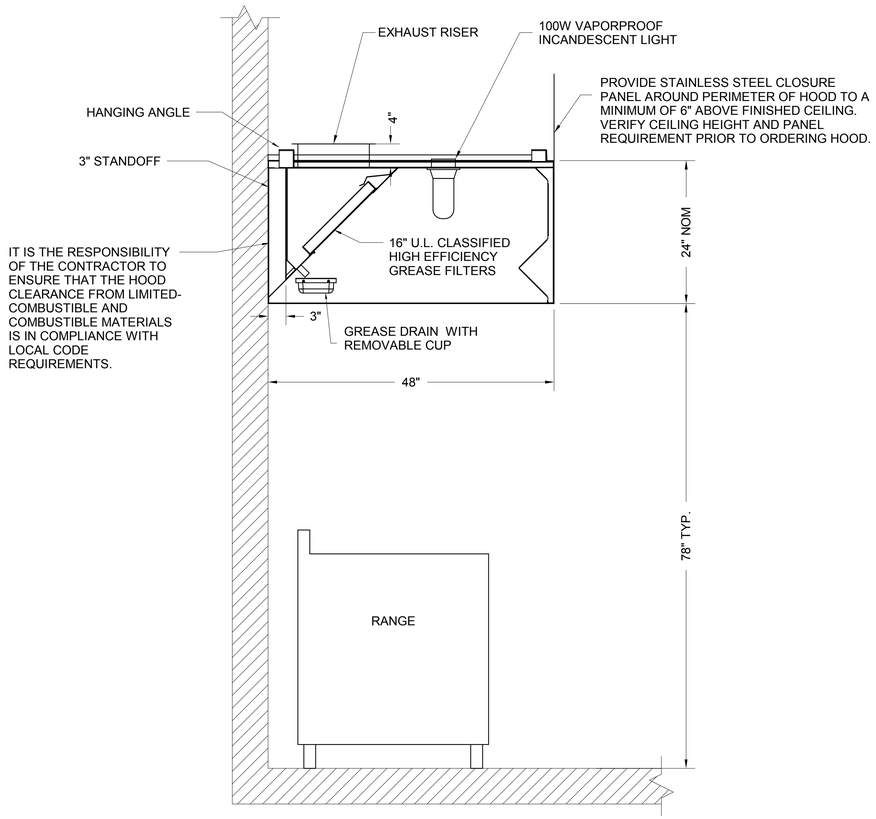
EXHAUST DUCT COLLAR TO BE 4" HIGH WITH 1" FLANGE. DUCT SIZES, CFM AND STATIC PRESSURE REQUIREMENTS SHALL BE AS SHOWN ON DRAWINGS. STATIC PRESSURE REQUIREMENTS SHALL BE PRECISE AND ACCURATE; AIR VELOCITY AND VOLUME INFORMATION SHALL BE ACCURATE WITHIN 1-FT INCREMENTS ALONG THE LENGTH OF THE VENTILATOR.

U.L. INCANDESCENT LIGHT FIXTURES AND GLOBES SHALL BE INSTALLED AND PRE-WIRED TO A JUNCTION BOX. THE LIGHT FIXTURES SHALL BE INSTALLED WITH A MAXIMUM OF 4'0" SPACING ON CENTER AND ALLOW UP TO A 100 WATT STANDARD LIGHT BULB.

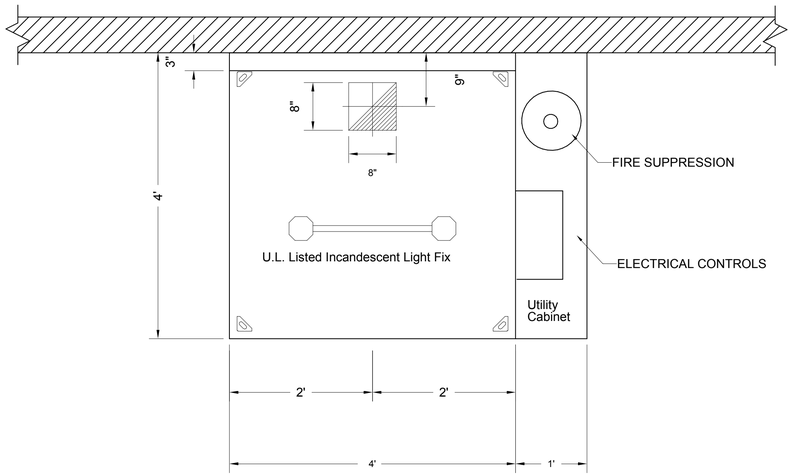
THE HOOD SHALL HAVE:
- A DOUBLE WALL INSULATED FRONT TO ELIMINATE CONDENSATION AND INCREASE RIGIDITY. THE INSULATION SHALL HAVE A FLEXURAL MODULUS OF 475 EI, MEET UL 181 REQUIREMENTS AND BE IN ACCORDANCE WITH NFPA 90A AND 90B.

- AN INTEGRAL FRONT BAFFLE TO DIRECT GREASE LADEN VAPORS TOWARD THE EXHAUST FILTER BANK.
- A BUILT-IN WIRING CHASE PROVIDED FOR OUTLETS AND ELECTRICAL CONTROLS ON THE HOOD FACE AND SHALL NOT PENETRATE THE CAPTURE AREA OR REQUIRE AN EXTERNAL CHASEWAY.
- A REMOVABLE GREASE CUP FOR EASY CLEANING.

THE HOOD SHALL BE ETL LISTED AS "EXHAUST HOOD WITHOUT EXHAUST DAMPER", NSF LISTED AND BUILT IN ACCORDANCE WITH NFPA 96. THE HOOD SHALL BE LISTED FOR 450°F COOKING SURFACES AT 150 CFM/FT, 600°F COOKING SURFACES AT 200 CFM/FT, AND 700°F COOKING SURFACES AT 250 CFM/FT.

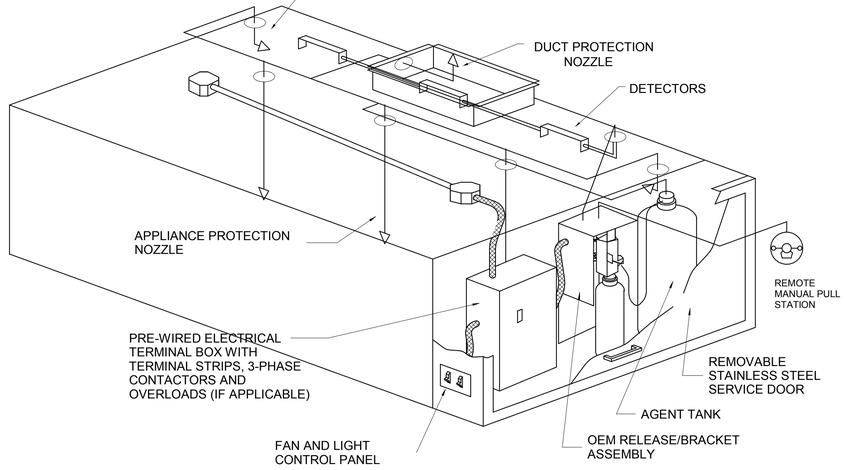


SECTION VIEW - MODEL 4824-PK-ND-2-Q



PLAN VIEW - (KEH-1) - 4' 0.00" LONG 4824PK-ND-2 Q

NOTE:
K-TECH RECOMMENDS KEEPING HVAC AIR DIFFUSERS AND RETURNS AT LEAST 10' AWAY FROM THE PERIMITER OF THE VENTILATOR TO ELIMINATE CROSS-TURBULENCES AND IMPROPER PERFORMANCE.
IF HVAC DIFFUSERS MUST BE INSTALLED IN CLOSE PROXIMITY, 4-WAY DIFFUSERS ARE NOT RECOMMENDED. THE USE OF LOW VELOCITY PERFORATED DOWN DISCHARGE DIFFUSERS ARE ACCEPTABLE.



TYPICAL ANSUL R-102 SYSTEM LAYOUT

KITCHEN EXHAUST HOOD SCHEDULE

HOOD NO.	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM					HOOD CONSTRUCTION	HOOD CONFIG.	
				TOTAL EXH. CFM	RISER(S) WIDTH	RISER(S) LENG.	RISER(S) CFM	RISER(S) S.P.		END TO END	ROW
KEH-1	4824 PK-ND-2 Q	4' 0.00"Nom. 4' 0.00"OD	450 Deg.	700	8"	8"	700	-0.500"	430 SS Where Exposed	ALONE	N/A

KITCHEN EXHAUST HOOD SCHEDULE (CONTINUED)

HOOD NO.	FILTER(S)				LIGHT(S)			UTILITY CABINET(S)						FIRE SYSTEM PIPING	HOOD WEIGHT
	TYPE	QTY.	HEIGHT	LENGTH	QTY.	TYPE	WIRE GUARD	LOCATION	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	SWITCHES LOCATION		
KEH-1	Stainless Steel (High E)	3	16"	16"	2	Incandescent Light	NO	Right	Ansul R102	1.5	11011002	1 Light 1 Fan	Outside	YES	344 LBS.

KITCHEN EXHAUST HOOD OPTIONS (SHIPPED WITH UNIT)

HOOD NO.	OPTION
KEH-1	BACKSPLASH (80.00" High X 60.00" Long; 430 SS)
	FIELD WRAPPER (18.00" High; Front, Left, Right)

FIRE SUPPRESSION SPECIFICATIONS:

THE FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. (UL 300)

THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. ACCESSORIES SHALL BE AVAILABLE FOR MECHANICAL OR ELECTRICAL GAS LINE SHUT-OFF APPLICATIONS.

THE EXTINGUISHING AGENT SHALL BE A POTASSIUM CARBONATE, POTASSIUM ACETATE-BASED FORMULATION DESIGNED FOR FLAME KNOCKDOWN AND SECUREMENT OF GREASE RELATED FIRES. IT SHALL BE AVAILABLE IN PLASTIC CONTAINERS WITH INSTRUCTIONS FOR LIQUID AGENT HANDLING AND USAGE.

THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH A FUSIBLE LINK DETECTION SYSTEM. THE FUSIBLE LINK SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM. THE FUSIBLE LINK SHALL BE SUPPORTED BY A DETECTOR BRACKET/ LINKAGE ASSEMBLY.

Smith Seckman Reid, Inc.
2650 Thousand Oaks Boulevard,
Suite 3200
Memphis, TN 38118
(901) 683-3900
FAX: (901) 683-3990
www.ssr-inc.com
SSR Project #: 17671770

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

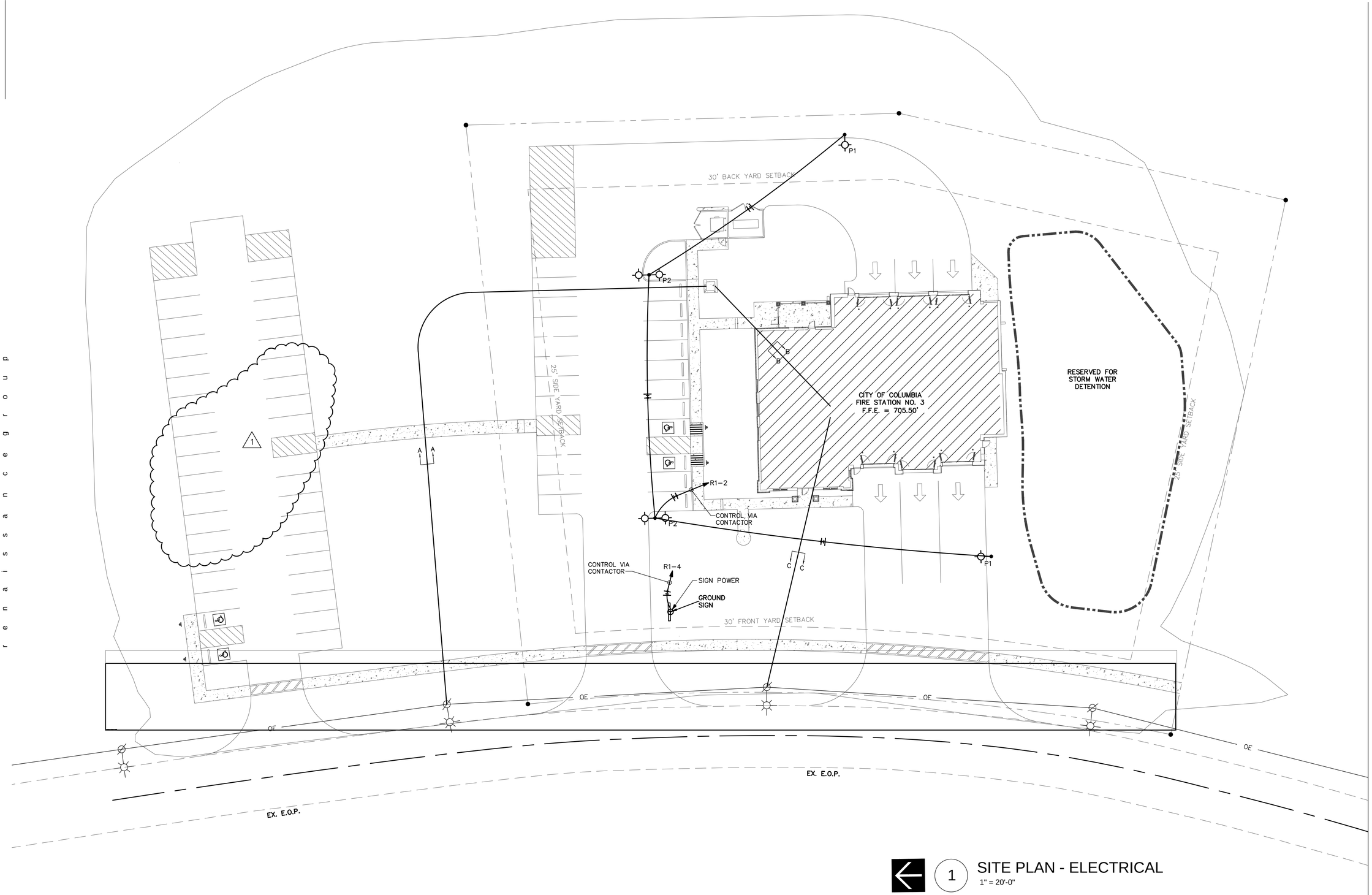
CASPER B. BRIGGS
REGISTERED
ENGINEER
No. 114570
04/13/18
STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title: KITCHEN HOOD
Project No.: 17032
Drawn by: CASPER BRIGGS
Date: 4/13/18
Sheet No.: M5.3

renaissance group
C:\Users\djackson\Documents\SSR_MECH_COLUMBIA_FIRE_STATION-3-2018_djackson.rvt
4/16/2018 3:08:24 PM



1 SITE PLAN - ELECTRICAL
1" = 20'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
w w w . r g r o u p . b i z

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 115636
STATE OF TENNESSEE

REV	DESCRIPTION	DATE
1	VE REVISION	9/27/18

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
SITE PLAN - ELECTRICAL

Project No.
17032

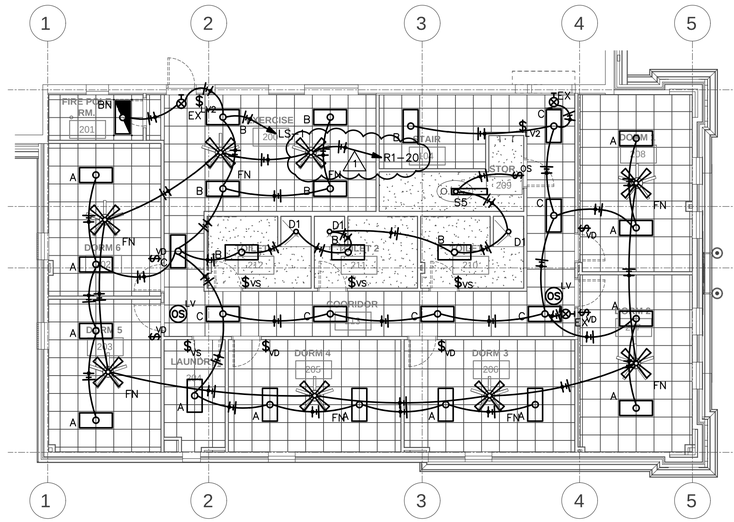
Drawn by
EJW

Date
04/13/18

E0.1

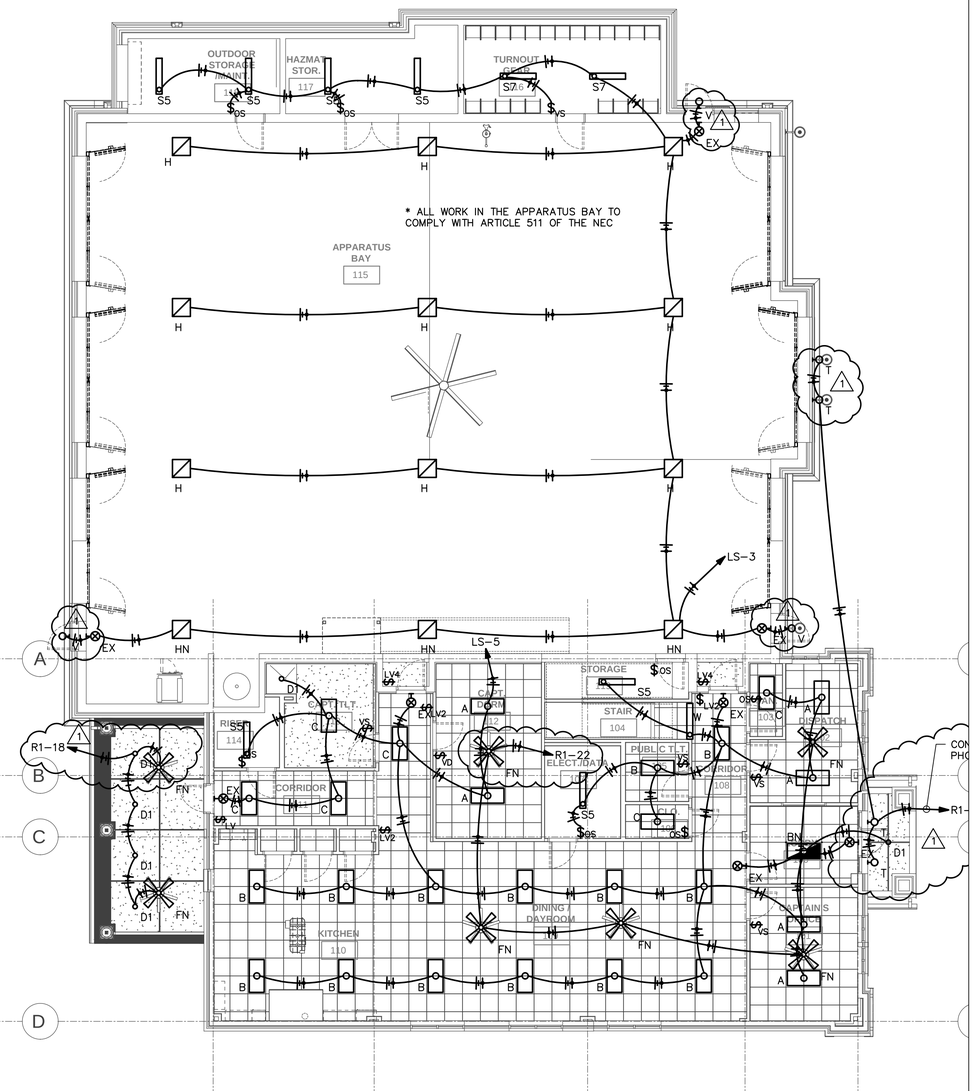
r e n a i s s a n c e g r o u p

C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM



1 SECOND FLOOR PLAN - LIGHTING

1/8" = 1'-0"



1 FIRST FLOOR PLAN - LIGHTING

1/8" = 1'-0"

Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
w w w . r g r o u p . b i z

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
NUMBER
NO. 115636
STATE OF TENNESSEE

REV	DESCRIPTION	DATE
1	ADDENDUM #2	05/11/18

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY
CITY OF COLUMBIA TENNESSEE

Sheet Title
LIGHTING FLOOR PLANS

Project No.
17032

Drawn by
EJW

Date
04/13/18

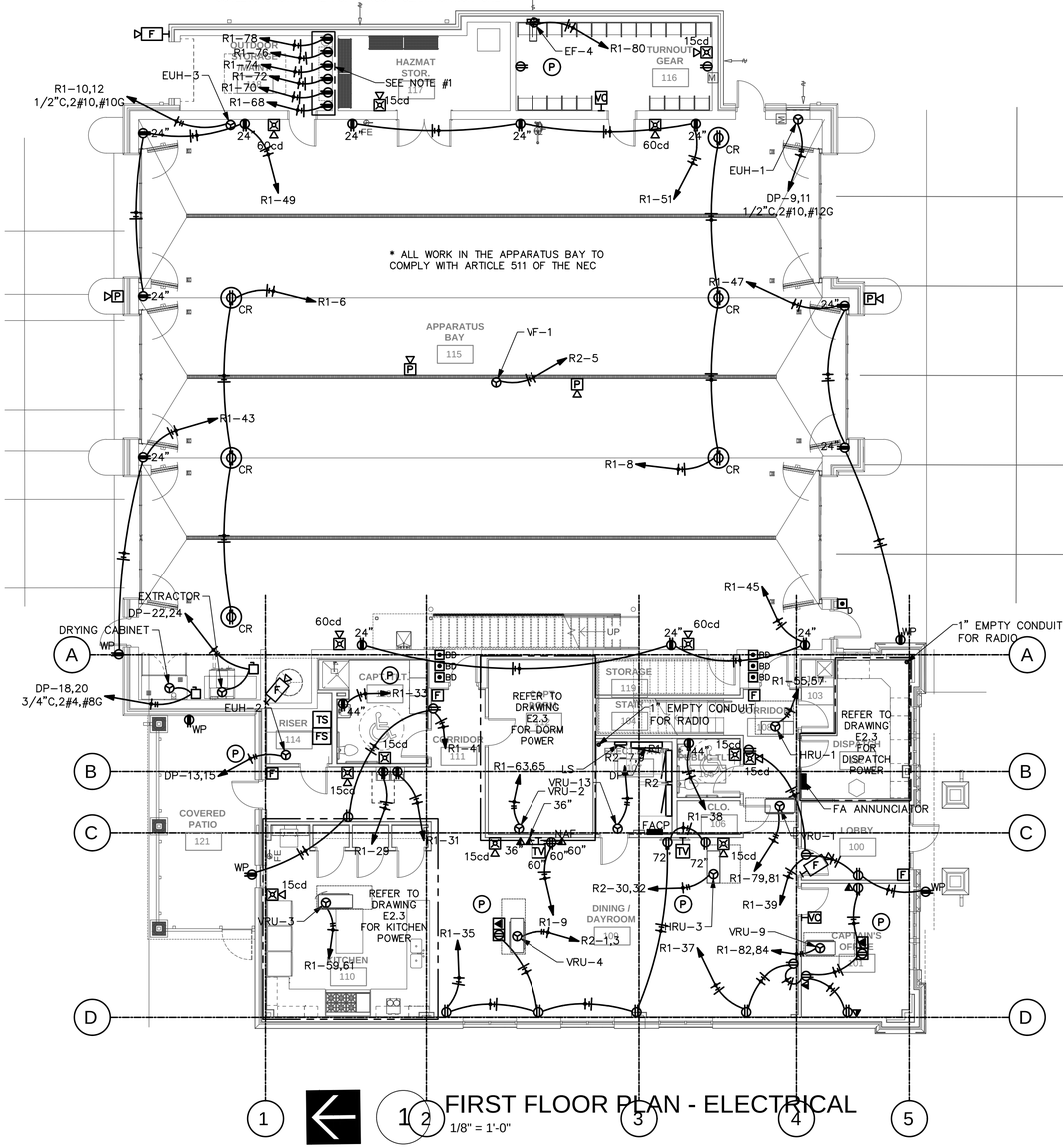
E1.1

r e n a i s s a n c e g r o u p

C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM

NOTES:

1. FURNISH AND INSTALL (3) 8' PLUG MOLD STRIPS WITH DUPLEX OUTLET EVERY SIX INCHES FOR A TOTAL OF (10) OUTLETS PER STRIP. PLUG MOLD STRIPS TO BE MOUNTED AT 42", 66", AND 90". EACH STRIP TO HAVE (2) POWER CIRCUITS EACH. OUTLETS SHOWN ARE FOR CIRCUIT CLARIFICATION ONLY.



FIRST FLOOR PLAN - ELECTRICAL
1/8" = 1'-0"

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
w w w . r g r o u p . b i z

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
NO. 115636
STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
FLOOR PLAN - ELECTRICAL

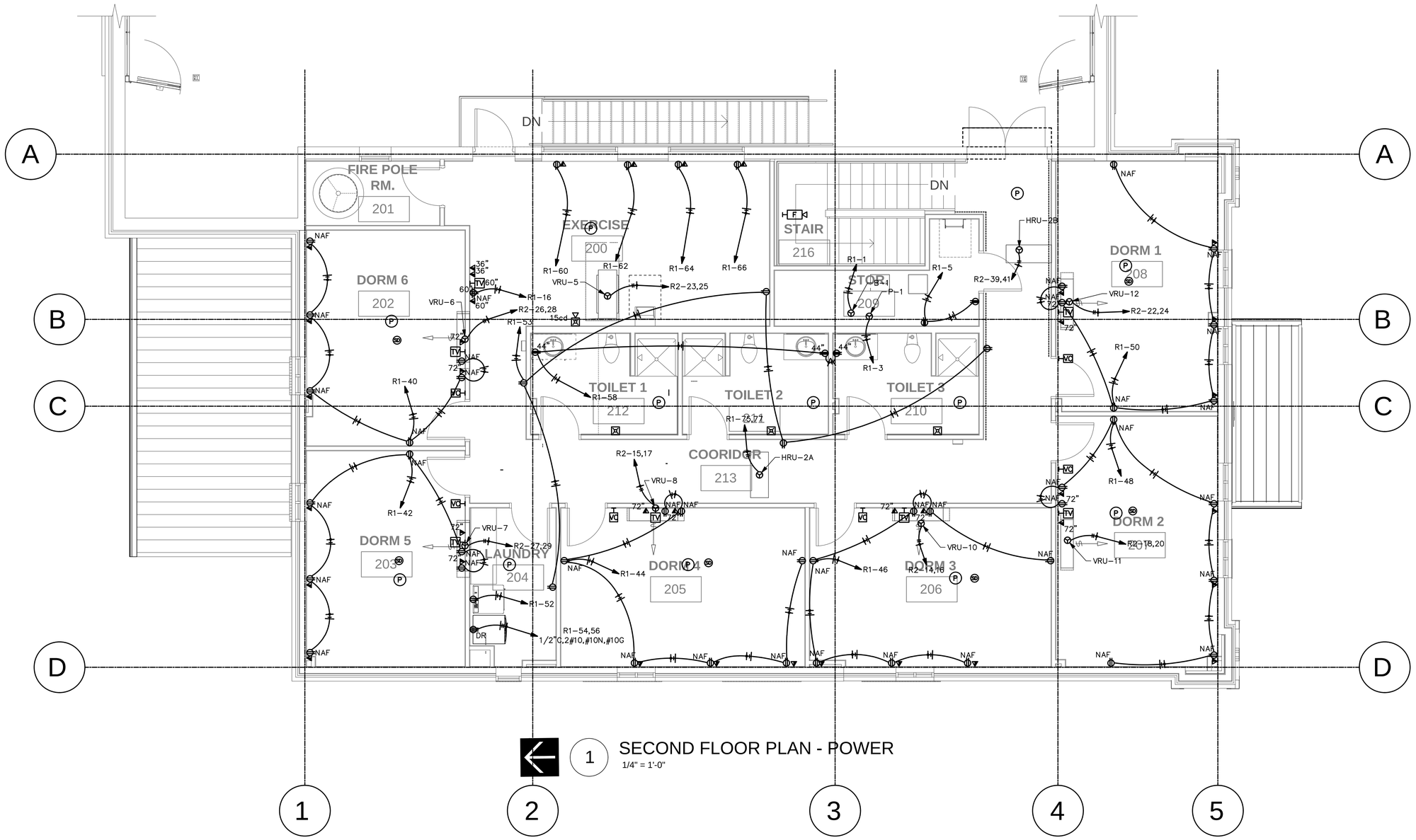
Project No.
17032

Drawn by
EJW

Date
04/13/18

E2.1

renaissance group
C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM



1 SECOND FLOOR PLAN - POWER

1/4" = 1'-0"

Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
w w w . r g r o u p . b i z

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
MECHANICAL
NO. 115636
STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
SECOND FLOOR PLAN - POWER

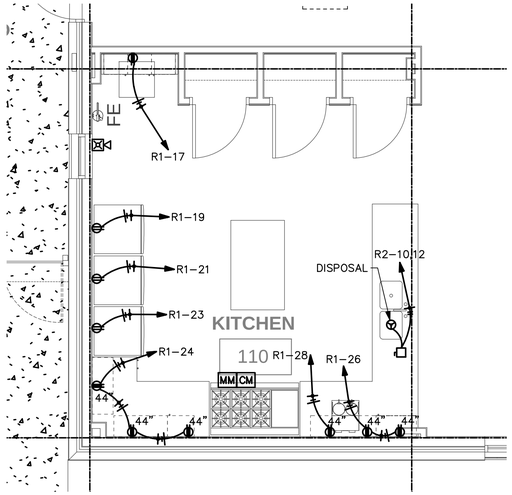
Project No.
17032

Drawn by
EJW

Date
04/13/18

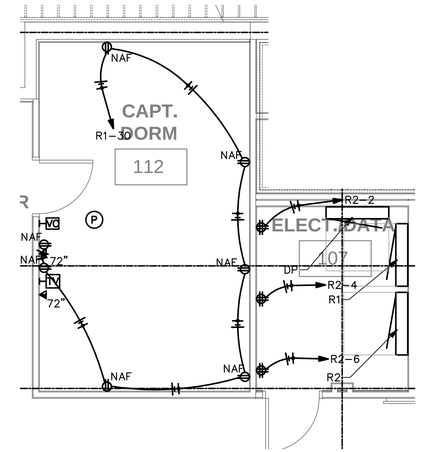
E2.2

c e g r o u p
r e n a i s s a n c e
C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM



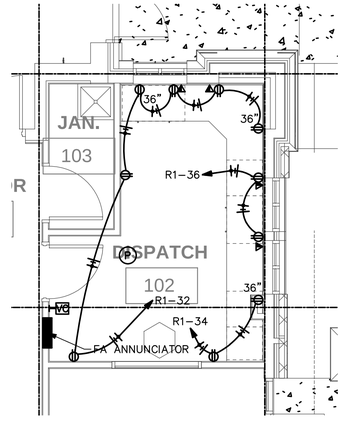
1 PARTIAL FIRST FLOOR PLAN - ELECTRICAL

1/4" = 1'-0"



2 PARTIAL FIRST FLOOR PLAN - ELECTRICAL

1/4" = 1'-0"



4 PARTIAL FIRST FLOOR PLAN - ELECTRICAL

1/4" = 1'-0"

Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
w w w . r g r o u p . b i z

ETHAN JAMES WIGGINS
REGISTERED ENGINEER
AGRICULTURE
MECHANICAL
NO. 115636
STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
PARTIAL FLOOR PLANS - ELECTRICAL

Project No.
17032

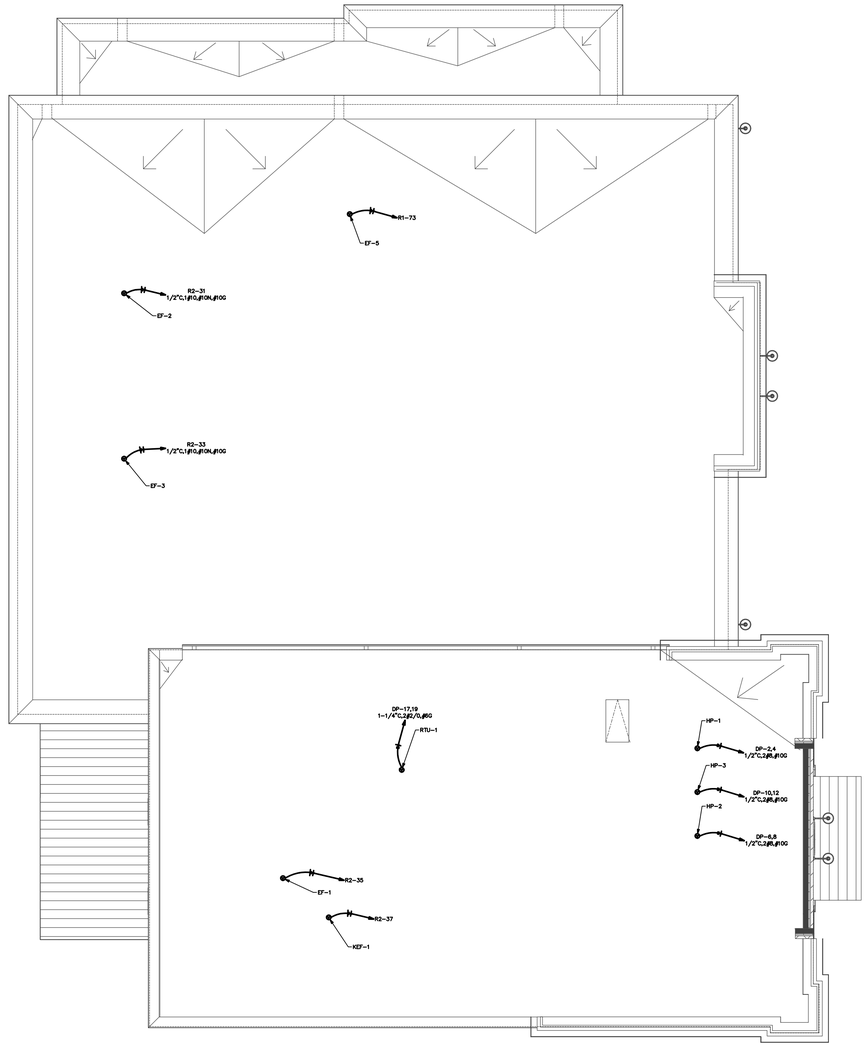
Drawn by
EJW

Date
04/13/18

E2.3

r e n a i s s a n c e g r o u p

C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM



1 ROOF PLAN - POWER

1/8" = 1'-0"

Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
w w w . r g r o u p . b i z

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
No. 115636
STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
ROOF PLAN - POWER

Project No.
17032

Drawn by
EJW

Date
04/13/18

E2.4

r e n a i s s a n c e g r o u p

C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM

RECEPTACLE SCHEDULE

CALLOUT	SYMBOL	NEMA	VOLTS	FEATURES	NOTE 1	NOTE 2	NOTE 3
DRYER RECEPTACLE	DR		208/120V 2P 3W	GND	COOPER INDUSTRIES #1257	HUBBELL # HBL9430A FLUSH MOUNTED	PASS AND SEYMOR # 3864 FLUSH MOUNTED
DUPLEX CORD REEL	CR		120V 1P 2W	GND	HUBBELL INDUSTRIAL POWER REEL # HBL45123R20. 40' CABLE, 12/3 SJEO CORD	HUBBELL # HBL5462I	PASS AND SEYMOR # CRB5362-I
DUPLEX FLOOR BOX			120V 1P 2W	GND	COOPER INDUSTRIES # 5252 WITH CARLON FLOOR BOX # E976RFB GANGED AS REQUIRED	HUBBELL # HBL5362BK WITH CARLON FLOOR BOX # E976RFB GANGED AS REQUIRED	PASS AND SEYMOR # CRB5362-I WITH CARLON FLOOR BOX # E976RFB GANGED AS REQUIRED
DUPLEX OUTLET			120V 1P 2W	GND	COOPER INDUSTRIES # 5252	HUBBELL # HBL5462I	PASS AND SEYMOR # CRB5362-I
DUPLEX OUTLET ARC FAULT	NAF		120V 1P 2W	GND	COOPER INDUSTRIES # TRAFCI15	HUBBELL # AFR20TRW	LEVITON # AFTR1-I
ELECTRIC STRIKE	ES		120V 1P 2W	GND			
GFI COUNTER OUTLET	44"		120V 1P 2W	GND	GFCI - COOPER INDUSTRIES # VGF20FI	GFCI - HUBBELL # GFR5362SGI	GFCI - PASS AND SEYMOR # 2095I
GFI DUPLEX OUTLET			120V 1P 2W	GND	GFCI - COOPER INDUSTRIES # VGF20FI	GFCI - HUBBELL # GFR5362SGI	GFCI - PASS AND SEYMOR # 2095I
QUAD OUTLET			120V 1P 2W	GND	COOPER INDUSTRIES 2 EACH	HUBBELL 2 EACH # HBL5362BK	PASS AND SEYMOR 2 EACH # CRB5362-I
QUAD OUTLET ARC FAULT	NAF		120V 1P 2W	GND	COOPER INDUSTRIES # TRAFCI15 2 EACH	HUBBELL # AFR20TRW 2 EACH	LEVITON # AFTR1-I 2 EACH
WP GFI DUPLEX OUTLET			120V 1P 2W	WP, GND	GFCI - COOPER INDUSTRIES # VGF20FI	GFCI - HUBBELL # GFR5362SGI	GFCI - PASS AND SEYMOR # 2095I

Fire Alarm Schedule

CALLOUT	SYMBOL	NOTE 1	NOTE 2	NOTE 3
A/V ALARM 15cd	15cd	AUDIO/VISUAL NOTIFICATION APPLIANCE 15 CANDELLA RATED STROBE		
A/V ALARM 60cd	60cd	AUDIO/VISUAL NOTIFICATION APPLIANCE 60 CANDELLA RATED STROBE		
Audio / Visual Alarm				
FA CONTROL MODULE	CM			
FA FLOW SWITCH	FS			
FA MANUAL STATION	F			
FA MONITOR MODULE	MM			
FA TAMPER SWITCH	TS			
FA VISUAL ALARM 15 cd	15cd	VISUAL ONLY ALARM 15 CANDELLA		
Smoke Detector	SD			
Visual Alarm				

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTE 1	NOTE 2	NOTE 3
A		(1) LED 3500K	LED FLAT PANEL	ELECTRONIC	RECESSED	REVOLUTION LTG # ETP-24-75-F-35-D	75.3	120V 1P 2W			
B		(1) LED 3500K	LED FLAT PANEL	ELECTRONIC	RECESSED	REVOLUTION LTG # ETP-24-50-F-35-D	49.9	120V 1P 2W			
BN		(1) LED 3500K	NIGHT LIGHT LED FLAT PANEL	ELECTRONIC	RECESSED	REVOLUTION LTG # ETP-24-50-F-35-D	49.9	120V 1P 2W			
C		(1) LED 3500K	LED FLAT PANEL	ELECTRONIC	RECESSED	REVOLUTION LTG # ETP-24-35-F-35-D	34.8	120V 1P 2W			
D1		(1) LED 3500K	LED DOWNLIGHT	ELECTRONIC	RECESSED	LITHONIA # LDN6 35/05 LO6 AR LSS MVOLT EZ10 WL	7.6	120V 1P 2W			
EX		(1) LED	LED EXIT SIGN	ELECTRONIC	WALL MOUNT 8'-0" AFF	LITHONIA # LQM S W 3 R 120/277	5	120V 1P 2W			
FN		(1)	CEILING FAN	ELECTRONIC	CEILING		75	120V 1P 2W			
H		(1) LED 4000K	LED HIGHBAY	ELECTRONIC	CEILING	REVOLUTION LTG # ELHB-128-22-D-DLM-SV-40	129	120V 1P 2W			
HN		(1) LED 4000K	NIGHT LIGHT LED HIGHBAY	ELECTRONIC	CEILING	REVOLUTION LTG # ELHB-128-22-D-DLM-SV-40	129	120V 1P 2W			
P1		(1)	LED AREA LIGHT (TYPE III)	ELECTRONIC	POLE MOUNT 25'-0" AFG	LITHONIA # DSX1 LED P5 40K T3M MVOLT SPA HS DBLXD	138	120V 1P 2W			
P2		(2)	TWIN LED AREA LIGHT (TYPE III)	ELECTRONIC	POLE MOUNT 25'-0" AFG	(2) LITHONIA # DSX1 LED P5 40K T3M MVOLT SPA HS DBLXD	276	120V 1P 2W			
R1		(1)	LED AREA LIGHT (TYPE IV)	ELECTRONIC	POLE MOUNT 25'-0" AFG	LITHONIA # DSX1 LED P5 40K T4M MVOLT SPA HS DBLXD	138	120V 1P 2W			
S5		(1) LED 4000K	4' LED STRIP	ELECTRONIC	CEILING	LITHONIA # ZL1N L46 SMR 5000LM FST MVOLT 40K 80CRI WH	34	120V 1P 2W			
S7		(1) LED 4000K	4' LED STRIP	ELECTRONIC	CEILING	LITHONIA # ZL1N L46 SMR 7000LM FST MVOLT 40K 80CRI WH	52	120V 1P 2W			
T 1		(1) LED 4000K	LED GOOSE NECK	ELECTRONIC	MOUNT ABOVE BUILDING SIGNAGE	LSI # AD 150 10 NW LED 120 GBK LDS96	11	120V 1P 2W	PROVIDE WITH GOOSE NECK BRACKET GB A 3 GBK	COORDINATE MOUNTING WITH ARCHITECTURAL ELEVATIONS	
V 1		(1) LED 4000K	LED WALL PACK	ELECTRONIC	WALL MOUNT 1'-0" ABOVE DOOR	LITHONIA # DSXW1 LED 10C 350 40K T3M MVOLT PE DBLXD	13	120V 1P 2W			
W		(1) 3000K	LED STAIR LIGHT	ELECTRONIC	WALL MOUNT 8'-0" AFF	LITHONIA #WL4 30L EZ1 LP830	28	120V 1P 2W			

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgrou
p.biz

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
NUMBER
NO. 115636
STATE OF TENNESSEE

REV	DESCRIPTION	DATE
1	ADDENDUM #2	05/11/18

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
ELECTRICAL SCHEDULES

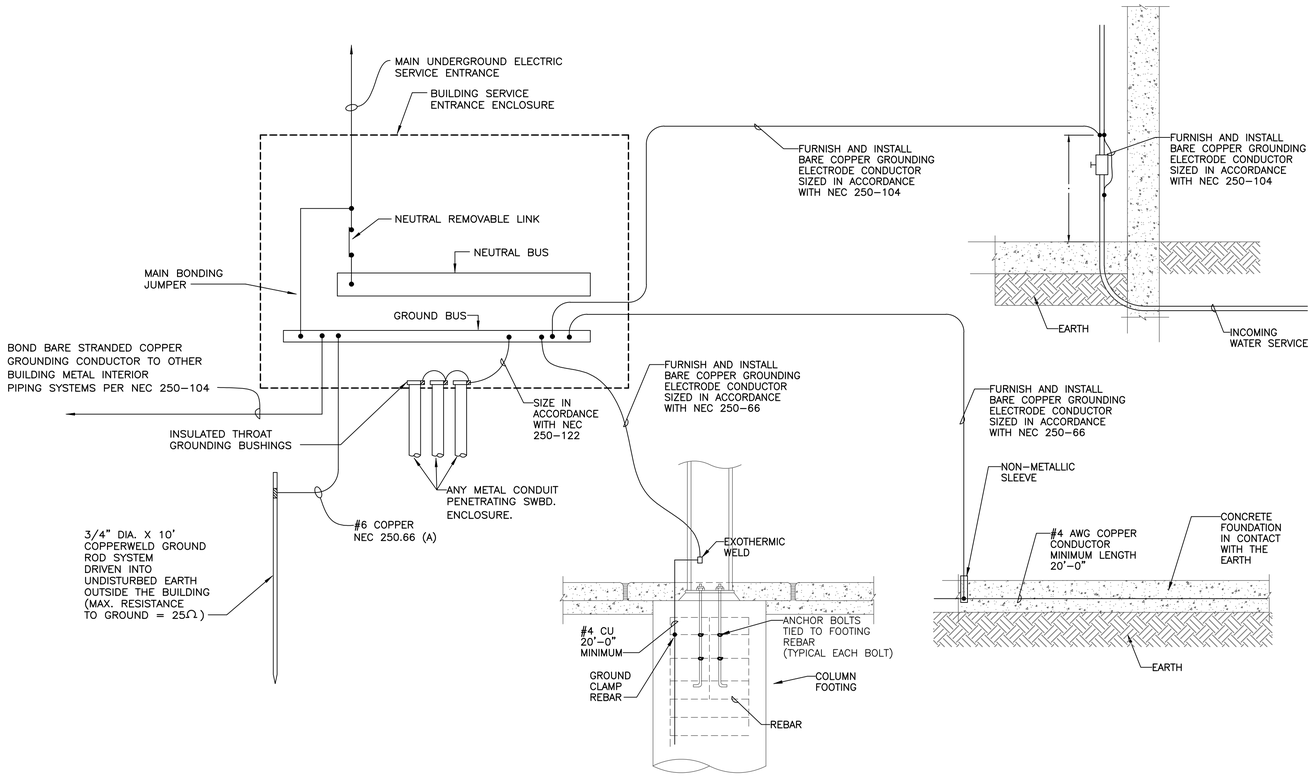
Project No.
17032

Drawn by
EJW

Date
04/13/18

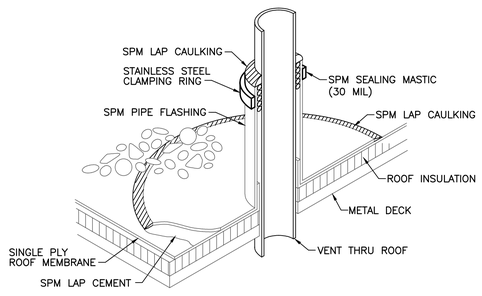
E3.1

renaissance group
C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM



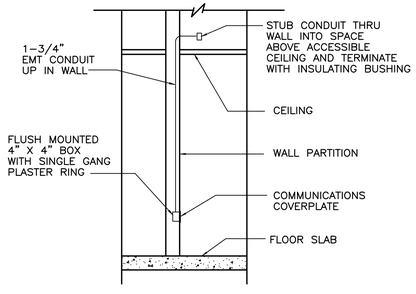
1 GROUNDING PROCEDURE FOR BUILDING SERVICE ENTRANCE ENCLOSURE

NTS



2 TYPICAL CONDUIT THRU ROOF

NTS



3 COMMUNICATIONS OUTLET WALL INSTALLATION

NTS

NATIONAL ELECTRICAL CODE

REFER TO PARAGRAPH 250.50 – "GROUNDING ELECTRODE SYSTEM" OF THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE AND WHERE THE FOLLOWING ARE AVAILABLE BOND TOGETHER TO FORM A GROUNDING ELECTRODE SYSTEM:

250.50 GROUNDING ELECTRODE SYSTEM

ALL GROUNDING ELECTRODES AS DESCRIBED IN 250.52(A)(1) THROUGH 250.52(A)(7) THAT ARE PRESENT AT EACH BUILDING OR STRUCTURE SERVED SHALL BE BONDED TOGETHER TO FORM THE GROUNDING ELECTRODE SYSTEM.

250.52 GROUNDING ELECTRODES.

(A) ELECTRODES PERMITTED FOR GROUNDING.

(1) METAL UNDERGROUND WATER PIPE.

(2) METAL FRAME OF THE BUILDING OR STRUCTURE.

(3) CONCRETE–ENCASED ELECTRODE.

(4) GROUND RING.

(5) ROD AND PIPE ELECTRODES.

(A) ELECTRODES OF PIPE OR CONDUIT SHALL NOT BE SMALLER THAN METRIC DESIGNATOR 21 (TRADE SIZE 3/4) AND, WHERE OF IRON OR STEEL, SHALL HAVE THE OUTER SURFACE GALVANIZED OR OTHERWISE METAL–COATED FOR CORROSION PROTECTION.

(B) ELECTRODES OF RODS OF IRON OR STEEL SHALL BE AT LEAST 15.87 MM (5/8 IN.) IN DIAMETER. STAINLESS STEEL RODS LESS THAN 16 MM (5/8 IN.) IN DIAMETER, NONFERROUS RODS, OR THEIR EQUIVALENT SHALL BE LISTED AND SHALL NOT BE LESS THAN 13 MM (1/2 IN.) IN DIAMETER.

(6) PLATE ELECTRODES.

(7) OTHER LOCAL METAL UNDERGROUND SYSTEMS OR STRUCTURES.

(B) ELECTRODES NOT PERMITTED FOR GROUNDING. THE FOLLOWING SHALL NOT BE USED AS GROUNDING ELECTRODES:
(1) METAL UNDERGROUND GAS PIPING SYSTEM
(2) ALUMINUM ELECTRODES

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
No. 115281
STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY

Sheet Title
ELECTRICAL DETAILS

Project No.
17032

Drawn by
EJW

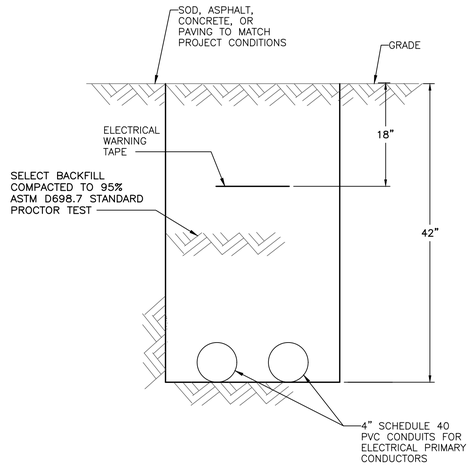
Date
04/13/18

E3.2

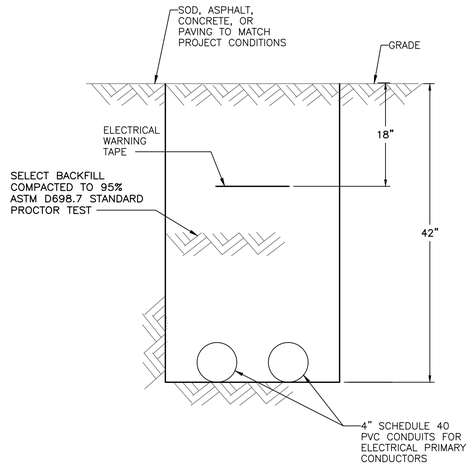
renaissance group
C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM

GENERAL SCHEDULE

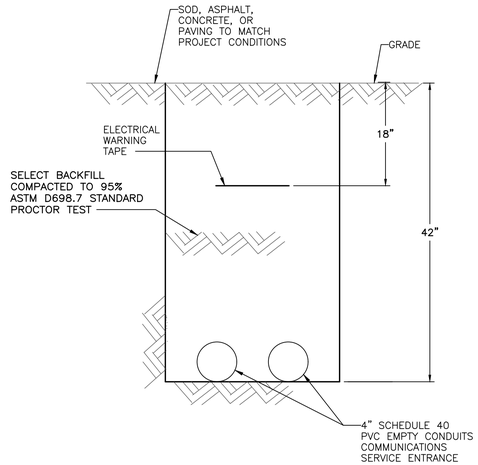
CALLOUT	SYMBOL	NEMA	VOLTS	AMPS	KVA	HP	CIRCUIT	NOTE 1
B–1			120V 1P 2W	4.2	0.5		R1–1	
DISPOSAL			240V 2P 2W	12	2.88	2 HP	R2–10,12	
DRYING CABINET			240V 2P 2W	50	12		DP–18,20	
EF–1			120V 1P 2W	5.8	0.7	1/4 HP	R2–35	
EF–2			120V 1P 2W	24	2.88	2 HP	R2–31	
EF–3			120V 1P 2W	24	2.88	2 HP	R2–33	
EF–4			120V 1P 2W	0.8	0.1	F HP	R1–80	
EF–5			120V 1P 2W	5.8	0.7	1/4 HP	R1–73	
EUH–1			240V 2P 2W	20.8	5		DP–9,11	
EUH–2			240V 2P 2W	12.5	3		DP–13,15	
EUH–3			240V 2P 2W	20.8	5		R1–10,12	
EXTRACTOR			240V 2P 2W	15	3.6		DP–22,24	
HP–1			240V 2P 2W	25.4	6.1		DP–2,4	
HP–2			240V 2P 2W	25.4	6.1		DP–6,8	
HP–3			240V 2P 2W	25.4	6.1		DP–10,12	
HRU–1			240V 2P 2W	0.2	0.04		R1–55,57	
HRU–2A			240V 2P 2W	0.2	0.04		R1–75,77	
HRU–2B			240V 2P 2W	0.2	0.04		R2–39,41	
HRU–3			240V 2P 2W	0.2	0.04		R2–30,32	
KEF–1			120V 1P 2W	9.8	1.18	1/2 HP	R2–37	
P–1			120V 1P 2W	9.8	1.18	1/2 HP	R1–3	
RTU–1			240V 2P 2W	165	39.6		DP–17,19	
SIGN POWER			120V 1P 2W	8.3	1		R1–4	
VF–1			120V 1P 2W	10	1.2		R2–5	
VRU–1			240V 2P 2W	4.4	1.06		R1–79,81	
VRU–2			240V 2P 2W	0.2	0.05		R1–63,65	
VRU–3			240V 2P 2W	4.4	1.06		R1–59,61	
VRU–4			240V 2P 2W	4.4	1.06		R2–1,3	
VRU–5			240V 2P 2W	4.4	1.06		R2–23,25	
VRU–6			240V 2P 2W	0.2	0.05		R2–26,28	
VRU–7			240V 2P 2W	0.2	0.05		R2–27,29	
VRU–8			240V 2P 2W	0.2	0.05		R2–15,17	
VRU–9			240V 2P 2W	4.4	1.06		R1–82,84	
VRU–10			240V 2P 2W	0.2	0.05		R2–14,16	
VRU–11			240V 2P 2W	0.2	0.05		R2–18,20	
VRU–12			240V 2P 2W	0.2	0.05		R2–22,24	
VRU–13			240V 2P 2W	4.4	1.06		R2–7,9	



1 SECTION "A–A" THRU PRIMARY SERVICE ENTRANCE
NTS



2 SECTION "B–B" THRU SECONDARY SERVICE ENTRANC
NTS



3 SECTION "C–C" THRU COMMUNICATIONS CONDUIT
NTS

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
w w w . r g r o u p . b i z

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
PLUMBER
NO. 115626
STATE OF TENNESSEE

REV	DESCRIPTION	DATE

NEW CONSTRUCTION OF
CITY OF COLUMBIA FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

Sheet Title
ELECTRICAL DETAILS

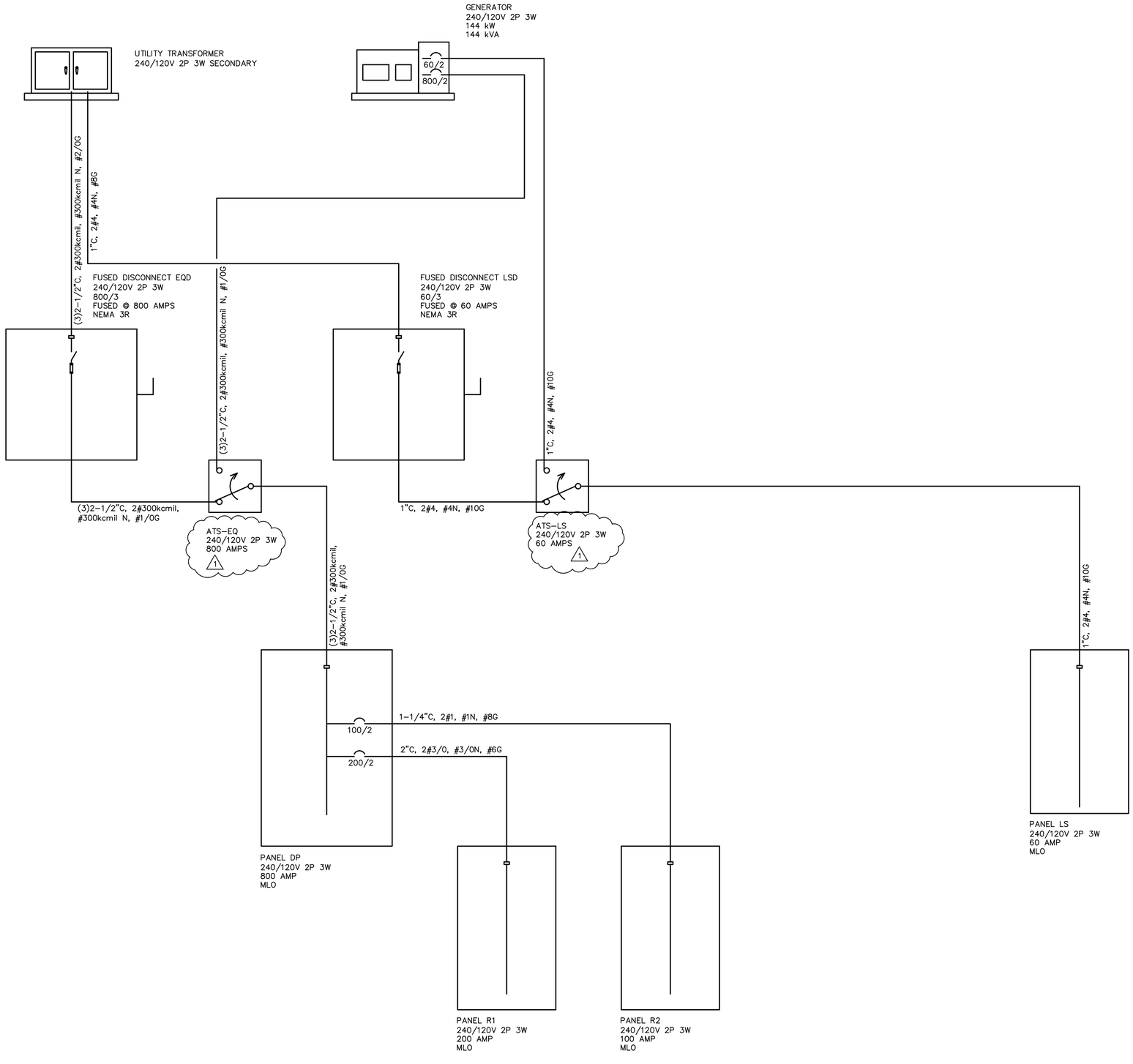
Project No.
17032

Drawn by
EJW

Date
04/13/18

E3.3

r e n a i s s a n c e g r o u p
C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM



Renaissance Group

9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
www.rgroup.biz

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
POWER
NO. 115636
STATE OF TENNESSEE

REV	DESCRIPTION	DATE
1	ADDENDUM #2	05/11/18

NEW CONSTRUCTION OF CITY OF COLUMBIA FIRE RESCUE NO. 3

US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY

Sheet Title
ONE-LINE DIAGRAM - ELECTRICAL

Project No.
17032

Drawn by
EJW

Date
04/13/18

E4.1

renaissance group

C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM

DP

ROOM | VOLTS 240/120V 2P 3W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 800 | MAIN BKR MLO
FED FROM ATS-EQ | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD A	KVA LOAD B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD A	KVA LOAD B
1	15/2	VRU-4	0.528		2	20/1	RECEPTACLE	0.36	
3	|			0.528	4	20/1	RECEPTACLE		0.36
5	20/1	VF-1	1.2		6	20/1	RECEPTACLE	0.36	
7	15/2	VRU-13		0.528	8	20/1	SPARE		0
9	|		0.528		10	20/2	DISPOSAL	1.44	
11	20/2	SPARE		0	12	|			1.44
13	|		0		14	15/2	VRU-10	0.024	
15	15/2	VRU-8		0.024	16	|			0.024
17	|		0.024		18	15/2	VRU-11	0.024	
19	20/2	SPARE		0	20	|			0.024
21	|		0		22	15/2	VRU-12	0.024	
23	15/2	VRU-5		0.528	24	|			0.024
25	|		0.528		26	15/2	VRU-6	0.024	
27	15/2	VRU-7		0.024	28	|			0.024
29	|		0.024		30	20/2	HRU-3	0.02	
31	30/1	EF-2		2.88	32	|			0.02
33	30/1	EF-3	2.88		34	20/2	SPARE	0	
35	20/1	EF-1		0.696	36	|			0
37	20/1	KEF-1	1.18		38	20/2	SPARE	0	
39	20/2	HRU-2B		0.02	40	|			0
41	|		0.02		42	20/1	SPARE	0	
							TOTAL CONNECTED KVA BY PHASE	9.18	7.14
							TOTAL CONNECTED AMPS BY PHASE	76.5	59.5

	CONN. KVA	CALC. KVA			CONN. KVA	CALC. KVA	
LIGHTING	0	0	(125%)	CONTINUOUS	0	0	(125%)
LARGEST MOTOR	2.88	3.6	(125%)	HEATING	0	0	(100%)
OTHER MOTORS	12.4	12.4	(100%)	NONCONTINUOUS	0	0	(100%)
RECEPTACLES	1.08	1.08	(50%>10)	KITCHEN EQUIP	0	0	(N/A)
				NONCOIN/DIVERSE	0	0	(N/A)
				TOTAL KVA	16.3	17	

BALANCED PHASE AMPS 71

R1

ROOM | VOLTS 240/120V 2P 3W | AIC 42000
MOUNTING FLUSH | BUS AMPS 200 | MAIN BKR MLO
FED FROM DP | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD A	KVA LOAD B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD A	KVA LOAD B
1	20/1	B-1	0.5		2	20/1	LIGHTING	1.1	
3	20/1	P-1		1.18	4	20/1	SIGN POWER		1
5	20/1	RECEPTACLE	0.36		6	20/1	RECEPTACLE	0.54	
7	20/1	LIGHTING (1)		0.044	8	20/1	RECEPTACLE		0.54
9	20/1	RECEPTACLE	0.36		10	30/2	EUH-3	2.5	
11	20/2	SPARE		0	12	|			2.5
13	|		0		14	20/1	SPARE	0	
15	20/1	SPARE		0	16	20/1	RECEPTACLE		0.36
17	20/1	RECEPTACLE	0.18		18	20/1	FAN, LIGHTING (1)	0.18	
19	20/1	RECEPTACLE		0.18	20	20/1	FAN		0.6
21	20/1	RECEPTACLE	0.18		22	20/1	FAN	0.375	
23	20/1	RECEPTACLE		0.18	24	20/1	RECEPTACLE		0.54
25	20/2	SPARE	0		26	20/1	RECEPTACLE	0.36	
27	|			0	28	20/1	RECEPTACLE		0.18
29	20/1	RECEPTACLE	0.18		30	20/1	RECEPTACLE	1.26	
31	20/1	RECEPTACLE		0.18	32	20/1	RECEPTACLE		1.08
33	20/1	RECEPTACLE	0.18		34	20/1	RECEPTACLE	0.36	
35	20/1	RECEPTACLE		1.08	36	20/1	RECEPTACLE		0.36
37	20/1	RECEPTACLE	1.08		38	20/1	RECEPTACLE	0.18	
39	20/1	RECEPTACLE		0.72	40	20/1	RECEPTACLE		1.08
41	20/1	RECEPTACLE	0.54		42	20/1	RECEPTACLE	1.08	
43	20/1	RECEPTACLE		0.36	44	20/1	RECEPTACLE		1.26
45	20/1	RECEPTACLE	0.54		46	20/1	RECEPTACLE	1.26	
47	20/1	RECEPTACLE		0.54	48	20/1	RECEPTACLE		1.26
49	20/1	RECEPTACLE	0.54		50	20/1	RECEPTACLE	1.26	
51	20/1	RECEPTACLE		0.54	52	20/1	RECEPTACLE		0.18
53	20/1	RECEPTACLE	0.9		54	30/2	RECEPTACLE	2.5	
55	20/2	HRU-1		0.02	56	|			2.5
57	|		0.02		58	20/1	RECEPTACLE	0.54	
59	15/2	VRU-3		0.528	60	20/1	RECEPTACLE		0.18
61	|		0.528		62	20/1	RECEPTACLE	0.18	
63	15/2	VRU-2		0.024	64	20/1	RECEPTACLE		0.18
65	|		0.024		66	20/1	RECEPTACLE	0.18	
67	20/1	SPARE		0	68	20/1	RECEPTACLE		0.18
69	20/1	SPARE	0		70	20/1	RECEPTACLE	0.18	
71	20/1	SPARE		0	72	20/1	RECEPTACLE		0.18
73	20/1	EF-5	0.696		74	20/1	RECEPTACLE	0.18	
75	20/2	HRU-2A		0.02	76	20/1	RECEPTACLE		0.18
77	|		0.02		78	20/1	RECEPTACLE	0.18	
79	15/2	VRU-1		0.528	80	20/1	EF-4		0.1
81	|		0.528		82	15/2	VRU-9	0.528	
83	20/1	SPARE		0	84	|			0.528
							TOTAL CONNECTED KVA BY PHASE	22.3	21.1
							TOTAL CONNECTED AMPS BY PHASE	186	176

	CONN. KVA	CALC. KVA			CONN. KVA	CALC. KVA	
LIGHTING	2.3	2.88	(125%)	CONTINUOUS	5.5	6.88	(125%)
LARGEST MOTOR	1.18	1.47	(125%)	HEATING	5	5	(100%)
OTHER MOTORS	5.09	5.09	(100%)	NONCONTINUOUS	0	0	(100%)
RECEPTACLES	24.3	17.2	(50%>10)	KITCHEN EQUIP	0	0	(N/A)
				NONCOIN/DIVERSE	0	0	(N/A)
				TOTAL KVA	43.4	38.5	

BALANCED PHASE AMPS 160

LS

ROOM | VOLTS 240/120V 2P 3W | AIC 42000
MOUNTING SURFACE | BUS AMPS 60 | MAIN BKR MLO
FED FROM ATS-LS | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD A	KVA LOAD B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD A	KVA LOAD B
1	20/1	LIGHTING	1.74		2	20/1	SPARE	0	
3	20/1	LIGHTING		1.84	4	20/1	SPARE		0
5	20/1	LIGHTING	1.58		6	20/1	SPARE	0	
7	20/1	SPARE		0	8	20/1	SPARE		0
9	20/1	SPARE	0		10	20/1	SPARE	0	
11	20/1	SPARE		0	12	20/1	SPARE		0
13	20/1	SPARE	0		14	20/1	SPARE	0	
15	20/1	SPARE		0	16	20/1	SPARE		0
17	20/1	SPARE	0		18	20/1	SPARE	0	
19	20/1	SPARE		0	20	20/1	SPARE		0
21	20/1	SPARE	0		22	20/1	SPARE	0	
23	20/1	SPARE		0	24	20/1	SPARE		0
							TOTAL CONNECTED KVA BY PHASE	3.32	1.84
							TOTAL CONNECTED AMPS BY PHASE	27.7	15.4

	CONN. KVA	CALC. KVA			CONN. KVA	CALC. KVA	
LIGHTING	5.16	6.46	(125%)	CONTINUOUS	0	0	(125%)
LARGEST MOTOR	0	0	(125%)	HEATING	0	0	(100%)
OTHER MOTORS	0	0	(100%)	NONCONTINUOUS	0	0	(100%)
RECEPTACLES	0	0	(50%>10)	KITCHEN EQUIP	0	0	(N/A)
				NONCOIN/DIVERSE	0	0	(N/A)
				TOTAL KVA	5.16	6.46	

BALANCED PHASE AMPS 26.9

R2

ROOM | VOLTS 240/120V 2P 3W | AIC 42000
MOUNTING FLUSH | BUS AMPS 100 | MAIN BKR MLO
FED FROM DP | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD A	KVA LOAD B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD A	KVA LOAD B
1	15/2	VRU-4	0.528		2	20/1	RECEPTACLE	0.36	
3	|			0.528	4	20/1	RECEPTACLE		0.36
5	20/1	VF-1	1.2		6	20/1	RECEPTACLE	0.36	
7	15/2	VRU-13		0.528	8	20/1	SPARE		0
9	|		0.528		10	20/2	DISPOSAL	1.44	
11	20/2	SPARE		0	12	|			1.44
13	|		0		14	15/2	VRU-10	0.024	
15	15/2	VRU-8		0.024	16	|			0.024
17	|		0.024		18	15/2	VRU-11	0.024	
19	20/2	SPARE		0	20	|			0.024
21	|		0		22	15/2	VRU-12	0.024	
23	15/2	VRU-5		0.528	24	|			0.024
25	|		0.528		26	15/2	VRU-6	0.024	
27	15/2	VRU-7		0.024	28	|			0.024
29	|		0.024		30	20/2	HRU-3	0.02	
31	30/1	EF-2		2.88	32	|			0.02
33	30/1	EF-3	2.88		34	20/2	SPARE	0	
35	20/1	EF-1		0.696	36	|			0
37	20/1	KEF-1	1.18		38	20/2	SPARE	0	
39	20/2	HRU-2B		0.02	40	|			0
41	|		0.02		42	20/1	SPARE	0	
							TOTAL CONNECTED KVA BY PHASE	9.18	7.14
							TOTAL CONNECTED AMPS BY PHASE	76.5	59.5

	CONN. KVA	CALC. KVA			CONN. KVA	CALC. KVA	
LIGHTING	0	0	(125%)	CONTINUOUS	0	0	(125%)
LARGEST MOTOR	2.88	3.6	(125%)	HEATING	0	0	(100%)
OTHER MOTORS	12.4	12.4	(100%)	NONCONTINUOUS	0	0	(100%)
RECEPTACLES	1.08	1.08	(50%>10)	KITCHEN EQUIP	0	0	(N/A)
				NONCOIN/DIVERSE	0	0	(N/A)
				TOTAL KVA	16.3	17	

BALANCED PHASE AMPS 71

Renaissance Group
9700 Village Circle, ste.100
Lakeland, TN 38002
901.332.5533
fax: 901.332.5534
w w w . r g r o u p . b i z

ETHAN JAMES WRIGHT
REGISTERED ENGINEER
AGRICULTURE
NUMBER 115626
STATE OF TENNESSEE

REV	DESCRIPTION	DATE
1	ADDENDUM #2	05/11/18

NEW CONSTRUCTION OF
CITY OF COLUMBIA
FIRE RESCUE NO. 3
US HIGHWAY 412
COLUMBIA, TN 38401

HONOR DUTY FIRE DEPARTMENT TRUST INTEGRITY
CITY OF COLUMBIA TENNESSEE

Sheet Title
PANELBOARD SCHEDULES

Project No.
17032

Drawn by
EJW

Date
04/13/18

E4.2

renaissance group
C:\Users\ewright\Downloads\17032 - Columbia Fire Station - CENTRAL.rvt
3/8/2018 9:53:00 AM