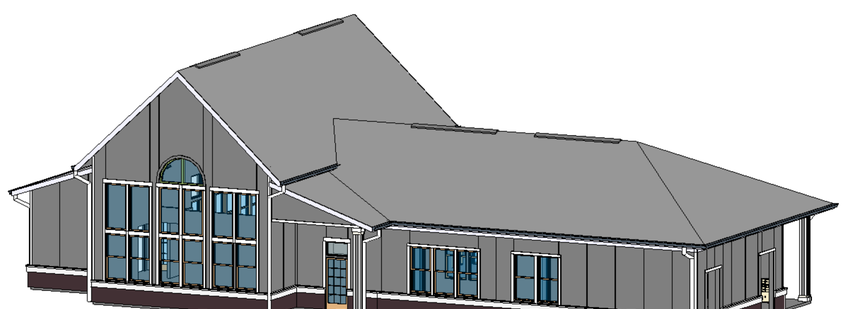
VICINITY MAP



PROJECT SITE

N



THE ROBERT

MADISON, ALABAMA

PROJECT NARRATIVE:

This project narrative is provided as a brief outline of the proposed scope of building improvements for this Project.

The Project consists of the construction of a Clubhouse with in a new multi-unit residential rental apartment complex in Madison, AL accessed off of Dunlop Blvd and Lime Quarry Rd. The program includes a total of 270 dwelling units of 7 unit types (1, 2, & 3 bedroom).

The Clubhouse shall serve 6 multi-family residential buildings of 2 separate building types and 10 duplex townhomes consisting of 20 residences. The Clubhouse is classified as Type V(B) construction and is designed as a wood frame structure that includes engineered truss components for roofs. The buildings are placed on concrete slab on grade foundations with integral thickened edges and grade beams.

The Project program also includes amenity buildings which include a Pool Pavilion, a Fitness Center and a Trash enclosure, that are submitted under separate packages.

The Project scope includes site engineering and landscape improvements that are submitted under separate cover.

SYMBOL KEY:

DOOR SYMBOL	NUMBERED BY TYPE REFER TO SCHEDULE
WINDOW SYMBOL	NUMBERED BY TYPE REFER TO SCHEDULE
WALL TAG	WALL TYPE OR UL
GRID LINE TARGET	A,B,C, ETC. IN ONE DIRECTION 1,2,3, ETC. IN THE OTHER
ROOM TAG	ROOM NUMBER
TITLE	DRAWING NUMBER; SCALE
ELEVATION REFERENCES	DIRECTION OF VIEW; SHEET NUMBER
SECTION REFERENCES	DIRECTION OF VIEW; SHEET NUMBER
DETAIL REFERENCES	DETAIL AREA; SHEET NUMBER
INTERIOR ELEVATIONS	VIEW NUMBER; DIRECTION OF VIEW; SHEET NUMBER
LEVEL REFERENCE	Name; Elevation
ROOF SLOPE ARROW	SLOPE; SLOPE DIRECTION
ROOF SLOPE	SLOPE
ACCESSORY TAG	LOCATION OF NOTE APPLICATION; NOTE NUMBER
NOTE TAG	LOCATION OF NOTE APPLICATION; NOTE NUMBER
LEVEL CHANGE	CHANGE IN LEVEL
REVISION MARK	REV. LOCATION; REV. No.

DEFERRED SUBMITTALS:

1) Deferral of any submittal items shall have the prior approval of the Building Official having jurisdiction.

2) Submittal documents for deferred submittal items shall be submitted to the Entity designated below for the project who shall review them. These will then be forwarded by the Owner to the Building Official having jurisdiction with a notation indicating that the deferred submittal documents have been reviewed and that they have been found to be in general compliance with the design of the project.

3) The deferred submittal items shall not be installed until their design and submittal documents have been approved.

LIST (INCLUDING BUT NOT LIMITED TO):

A) BUILDING RAILINGS & GUARDRAILS
REVIEW BY ARCHITECT

B) FIRE ALARM SYSTEM
REVIEW BY ARCHITECT

C) AUTOMATIC FIRE SUPPRESSION (SPRINKLER) SYSTEM REVIEW BY ARCHITECT

D) PRE-ENGINEERED (WOOD) FLOOR & ROOF TRUSS SYSTEMS
REVIEW BY ARCHITECT

E) BUILDING IDENTIFICATION AND WAYFINDING SIGNAGE REVIEW BY OWNER

F) SITE FENCING
REVIEW BY LANDSCAPE ARCHITECT

OWNER/DEVELOPER	ARCHITECT	CIVIL ENGINEER	STRUCTURAL	MECHANICAL / ELECTRICAL / PLUMBING	LANDSCAPE ARCHITECT	INTERIOR DESIGN	CONTRACTOR
ROHDIE MADISON, LLC ATTN: RON LEICHTNER 52 VANDERBILT NEW YORK, NEW YORK 10017 PHONE (212) 682-5784	FUGLEBERG KOCH PLLC FUGLEBERG KOCH ATTN: MICHAEL GOVE, AIA 2555 TEMPLE TRAIL WINTER PARK, FLORIDA 32789 PHONE (407) 629-0595 FAX (407) 628-1057	MULLINS, LLC MULLINS, LLC 2101 WEST CLINTON AVE, SUITE 503, HUNTSVILLE, AL PHONE (256) 690-5312	ASE ENGINEERING SERVICES, INC. ASE ENGINEERINGSERVICES, INC 10244 EAST COLONIAL DRIVE, SUITE 202 ORLANDO, FLORIDA 32817 PHONE (407) 677-5565 FAX (407) 730-2999	JOSEPH, LAWRENCE & CO J&C Consulting Engineers 1180 HARWOOD AVE. SUITE 3000 ALTAMONTE SPRINGS, FLORIDA 32714 PHONE (321) 972-4466	TBD ATTN: NAME ADDRESS CITY, FL 3xxxx (407) 123-4567	ALYSSA ROHDIE ATTN: ALYSSA ROHDIE 52 VANDERBILT NEW YORK, NEW YORK 10017 PHONE (212) 682-5784	ESSIAN CONSTRUCTION & DEVELOPMENT ATTN: RICHARD SHASSIAN 999 DOUGLAS AVE. STE 1115 ALTAMONTE SPRINGS, FLORIDA 32714 PHONE (407) 245-8920

ARCHITECTURAL ABBREVIATIONS

A	
ABV	ABOVE
ACC.FL.	ACCESS FLOOR
ACOUST.	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
A.D.	AREA DRAIN
ADJ.	ADJACENT
ADJUST.	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
ALT.	ALTERNATE
ALUM.	ALUMINUM
AL	ALUMINUM
ANG.	ANGLE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
AUTO.	AUTOMATIC
AVG.	AVERAGE
B	
BD.	BOARD
BLBD.	BLACK BOARD
BLDG.	BUILDING
BLK/BLK'G	BLOCK OR BLOCKING
BM.	BEAM
BOT.	BOTTOM
B.O.	BOTTOM OF
BRK.	BRICK
BSMT.	BASEMENT
BTWN	BETWEEN
B.U.	BUILT-UP
B.W.	BOTH WAYS
C	
CAB.	CABINET
CB. / TB.	CORKBOARD/TACKBOARD
C.B.	CATCH BASIN
CEM.	CEMENT
CER.	CERAMIC
C.H.	CEILING HEIGHT
CIR.	CIRCLE
C.J.	CONTROL JOINT
CLG.	CEILING
CLKG.	CAULKING
CL/℄	CENTER LINE
CLO.	CLOSET
CLR.	CLEAR
CMU.	CONCRETE MASONRY UNIT
C.O.	CLEAR OPENING
COL.	COLUMN
COMM.	COMMUNICATION
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONTR.	CONTRACTOR
COOR.	COORDINATE
CONT.	CONTINUOUS
CPT.	CARPET
CSMT.	CASEMENT
C.T.	CERAMIC TILE
CTR.	CENTER
D	
D.	DEPTH
DBL.	DOUBLE
DEG.	DEGREE
DET.	DETAIL
D.F.	DRINKING FOUNTAIN
DIA.	DIAMETER
DIAG.	DIAGONAL
DIFF.	DIFFUSER
DIM.	DIMENSION
DISP.	DISPOSAL
DIV.	DIVIDER
DN.	DOWN
DR	DOOR
DRAP.	DRAPERY
DS.	DOWNSPOUT
DTL.	DETAIL
DWG.	DRAWING
DWR.	DRAWER
DW	DISHWASHER
E	
E	EAST
EA.	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
E.I.F.S.	EXTERIOR INSULATION AND FINISH SYSTEM
EL. / ELEV.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMER.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
E.W.	EACH WAY
E.W.C.	ELECTRIC WATER COOLER
EXIST.	EXISTING
EXP. JT	EXPANSION JOINT
EXT.	EXTERIOR
EXTRU.	EXTRUDED
F	
F.A.	FIRE ALARM
F.D.	FLOOR DRAIN
F.D.C.	FIRE DEPARTMENT CONNECTION
FDN.	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
FED.	FEDERAL
F.F.	FINISH FLOOR
F.H.C.	FIRE HOSE CABINET
FIN.	FINISH
FIXT	FIXTURE
F.L.	FLOW LINE
FLR.	FLOOR
FLUOR	FLUORESCENT
F.O.B.	FACE OF BRICK
F.O.C.	FACE OF CONCRETE
F.O.F.	FACE OF FINISH
F.O.S.	FACE OF STUD
F.R.	FIRE RETARDANT
F.S.	FULL SIZE
FT.	FOOT OR FEET
FTG.	FOOTING
FURR	FURRING
FUT.	FUTURE
F.V.	FIELD VERIFY
G	
GA.	GAUGE
GALV.	GALVANIZE
G.B.	GRAB BAR
G.C.	GENERAL CONTRACTOR
GEN.	GENERAL
GL.	GLASS
GR.	GRADE
GYP.	GYPSUM
H	
H.	HIGH
H.B.	HOSE BIBB
H.C.	HOLLOW CORE
H/C	HANDICAPPED
HD.	HEAD
HDW.	HARDWARE
HDWD.	HARDWOOD
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
H.P.	HORSE POWER
HR	HOUR
HT.	HEIGHT
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HOL.	HOLLOW
I	
IN.	INCHES
INSUL.	INSULATION
INT.	INTERIOR
J	
JAN.	JANITOR
J.F.	JOINT FILLER
JNT.	JOINT
JST.	JOIST
K	
KIT.	KITCHEN
L	
L.	LONG OR LENGTH
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LBL.	LABEL
L.H.	LEFT HAND
LIN	LINEN
L.L.V.	LONG LEG VERTICAL
LN	LINE
L.P.	LOW POINT
LT.	LIGHT
LVR.	LOUVER
M	
MAS.	MASONRY
MATL.	MATERIAL
MAX.	MAXIMUM
M.C.	MINERAL CORE
MECH.	MECHANICAL
MEMB.	MEMBRANE
MEZZ.	MEZZANINE
MFTR	MANUFACTURER
MGR.	MANAGER
M.H.	MANHOLE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MLDG.	MOLDING
MLWK.	MILLWORK
M.O.	MASONRY OPENING
M.R.	MOISTURE RESISTIVE
MRB.	MARBLE
M.T.	MARBLE THRESHOLD
MTD.	MOUNTED
MTL.	METAL
MULL.	MULLION
N	
N	NORTH
N/A	NOT APPLICABLE
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O	
O.C.	ON CENTER
OD	OVERFLOW DRAIN
OH.	OVERHEAD
OPNG.	OPENING
OPP.	OPPOSITE
P	
PART.	PARTITION
PH	PRE HUNG
PL.	PLATE
P.L.	PROPERTY LINE
P.LAM.	PLASTIC LAMINATE
PLAS.	PLASTER
PLYWD.	PLYWOOD
PNL.	PANEL
POL.	POLISHED
PR.	PAIR
PREC.	PRECAST
PREFAB.	PREFABRICATED
PROJ.	PROJECT
PROP.	PROPERTY
P.T.	PRESSURE TREATED
PTD.	PAINTED
PVC	POLYVINYL CHLORIDE
PVRS	PAVERS
Q	
Q.T.	QUARRY TILE
QTY.	QUANTITY
R	
R	RISER
RAD.	RADIUS
R.B.	RUBBER BASE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RE:	REFER TO...
REF.	REFRIGERATOR
REINF.	REINFORCED
REQD.	REQUIRED
REV.	REVISED / REVISION
RH	RIGHT HAND
RM	ROOM
R.O.	ROUGH OPENING
S	
S	SOUTH
SAFB	SOUND ACOUSTICAL FIBER BOARD
S.C.	SOLID CORE
SCHED.	SCHEDULE
SECT.	SECTION
S.F.	SQUARE FOOT / FEET
SHLV./SH	SHELVING
SHT.	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATION
SQ.	SQUARE
SR	SEMI RECESSED
S.S.	STAINLESS STEEL
STAGG.	STAGGERED
STD.	STANDARD
STL.	STEEL
STN.	STAINED
STOR.	STORAGE
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED
SYST.	SYSTEM
T	
T	TREAD
T & G	TONGUE & GROOVE
TEMP GL.	TEMPERED GLASS
TER	TERRAZZO
TH.	THICK
T.O.	TOP OF
TOIL.	TOILET
TYP.	TYPICAL
U	
U.O.N.	UNLESS OTHERWISE NOTED
V	
VAR.	VARIES
V.B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VER.	VERIFY
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W	
W	WEST / WIDE
W/	WITH
W.C.	WATER CLOSET
W/D	WASHER/DRYER COMBO
WD.	WOOD
WP.	WATER PROOF
W.R.	WATER RESISTANT
W/O	WITHOUT
WWF	WELDED WIRE FABRIC

ISSUE HISTORY

No.	Date	Description
1	04/15/22	Permit Submittal

REVISION HISTORY

No.	Date	Description

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www. fuglebergkoch.com *AA26002103*

CONSULTANT

STATE OF ALABAMA
MICHAEL E. GOVE
8234
4/15/22
REGISTERED ARCHITECT

MICHAEL GOVE
8234

Drawn:	MB
Checked:	JK
Approval:	MG
Date:	04/15/2022
Project #:	5722

THE MADISON
MADISON, AL

CLUBHOUSE COVER SHEET

CH0.00

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GRAND TOTAL: 62			

ISSUE HISTORY

No.	Date	Description
1	04/15/2022	PERMIT SUBMITTAL

REVISION HISTORY

No.	Date	Description

FUGLEBERG KOCH

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CONSULTANT

STATE OF ALABAMA
MICHAEL E GOVE
8234
4/15/22
REGISTERED ARCHITECT

MICHAEL GOVE
8234

THE ROBERT MADISON	Drawn: MB
MADISON, ALABAMA	Checked: JK
	Approval: MG
	Date: 04/15/2022
	Project #: 5722

SHEET INDEX

A0.01b

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BUILDING CODE ANALYSIS - [2018 INTERNATIONAL BUILDING CODE]

CODE SUMMARY

APPLICABLE CODES

1. BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE
2. LIFE SAFETY CODE: 2018 NFPA 101
3. PLUMBING CODE: 2018 INTERNATIONAL PLUMBING CODE
4. ENERGY CODE: 2018 INTERNATIONAL ENERGY CONSERVATION CODE AND AMMENDMENTS
5. FIRE CODE: 2018 INTERNATIONAL FIRE CODE
6. ICC/ANSI ACCESSIBILITY CODE: 2009 ACCESSIBLE AND USABLE BUILDING AND FACILITIES (AS REFERENCED IN 2018IBC).
7. ELECTRICAL CODE: 2017 NATIONAL ELECTRIC CODE
8. MECHANICAL CODE: 2018 INTERNATIONAL MECHANICAL CODE
9. NFPA 70, STANDARD FOR PORTABLE FIRE EXTINGUISHERS, 2017 ED.
10. NFPA 13R, STANDARD FOR INSTALLATION OF SPRINKLER SYSTEMS IN RESIDENTIAL OCCUPANCIES UP TO, AND INCLUDING FOUR STORIES IN HEIGHT, 2012 EDITION.

GENERAL CODE PARAMETERS

CLUBHOUSE

DESCRIPTION	REQUIRED OR ALLOWABLE	THIS PROJECT	REFERENCE	REMARKS
WIND SPEED	110 MPH	110 MPH	SEC. 1609	
SEISMIC ZONE	B	B	SEC. 1613	
SNOW LOAD	10	10	SEC. 1608	
FROST DEPTH	N/A	N/A	SEC 1805.2.1	

COMPONENTS AND CLADDING PRESSURES (NET, SEE PRESSURE ZONE DETAILS ON STRUCTURAL DRAWINGS

BUILDING CODE PARAMETERS - [2018 IBC]

DESCRIPTION	REQUIRED (Table 503)	AREA MODIFICATION REQUIREMENT	THIS PROJECT CLUBHOUSE	REFERENCE (FBC)	REMARKS
CONSTRUCTION TYPE	TYPE V(B)	TYPE V(B)	TYPE V(B)		
USE / OCCUPANCY			A-3	CH. 3 & 4	
FIRE RATING	0 HR	0 HR	0 HR	CH. 6	
OCCUPANCY SEPARATION	0 HR	0 HR	0 HR		TABLE 508.3.3
SPRINKLER	-	-	-	TABLE 903	
CLUBHOUSE	6,000 SF		2,850 SF	TABLE 506.2	
MEZZ/LOFT INCL	--		NO	TABLE 505	
HEIGHT LIMIT (S)	1 STORIES		1 STORIES	TABLE 504.4	
HEIGHT LIMIT PROVIDED (FT)	40'-0"		30'-10"	TABLE 504.3	
OCCUPANT LOAD	TABLE 1004.1.1		126 PEOPLE	TABLE 1004.1.1	
MIN No. OF EXITS	2		5	TABLE 1006.3.1	
MIN. STAIR WIDTH	N/A		N/A	S. 1005.1 / 1009.1	

BUILDING CODE PARAMETERS - [IBC 2018]

DESCRIPTION	REQUIRED OR ALLOWABLE	THIS PROJECT	REFERENCE	REMARKS
CLUBHOUSE (GROUP A-3, TYPE V (B):				
GROSS AREA	6,000 SF	2,850 SF	TABLE 503	
HEIGHT LIMIT	40'-0"	30'-10"	TABLE 503	
OCCUPANT LOAD	TABLE 1004.1.2	126 PERSONS	TABLE 1004.1.2	
MEZZ/LOFT INCL	NO			
HEIGHT LIMIT (S)	1 STORY	1 STORY	TABLE 503	

TABLE 402.4.2 AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

COMPONENT	CRITERIA
Air barrier and thermal barrier	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier. Breaks or joints in the air barrier are filled or repaired. Air-permeable insulation is not used as a sealing material. Air-permeable insulation is inside of an air barrier.
Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed. Attic access (except unvented attic), knee wall door, or drop down stair is sealed.
Walls	Corners and headers are insulated. Junction of foundation and sill plate is sealed.
Windows and doors	Space between window/door jambs and framing is sealed.
Rim joists	Rim joists are insulated and include an air barrier.
Floors (including above-garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking. Air barrier is installed at any exposed edge of insulation.
Crawl space walls	Insulation is permanently attached to walls. Exposed earth in unvented crawl spaces is covered with Class I vapor retarder with overlapping joints taped.
Shafts, penetrations	Duct shafts, utility penetrations, knee walls and flue shafts opening to exterior or unconditioned space are sealed.
Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled by sprayed/blown insulation.
Garage separation	Air sealing is provided between the garage and conditioned spaces.
Recessed lighting	Recessed light fixtures are air tight, IC rated, and sealed to drywall. Exception-fixtures in conditioned space.
Plumbing and wiring	Insulation is placed between outside and pipes. Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring.
Shower/tub on exterior wall	Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall.
Electrical/phone box on exterior walls	Air barrier extends behind boxes or air sealed-type boxes are installed.
Common wall	Air barrier is installed in common wall between dwelling units.
HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.
Fireplace	Fireplace walls include an air barrier.

FIRE-RESISTANCE RATING REQUIREMENTS (PER TABLE 601)

CLUBHOUSE - TYPE V(B)

	V(B) REQ'D	V(B) PROV
STRUCTURAL FRAME: INCLUDING COLUMNS, GIRDERS, TRUSSES	0	0
BEARING WALLS: EXTERIOR (PER TABLE 601/602/704.10)	0	0
INTERIOR	0*	0*
NONBEARING WALLS AND PARTITIONS: EXTERIOR (PER TABLE 601/602)	0	0
INTERIOR (PER SECTION 601)	0	0
FLOOR CONSTRUCTION: NOT INCLUDING SUPPORTING BEAMS AND JOISTS per EXCEPTION 2 of 7.12.4	0*	0*
ROOF CONSTRUCTION	0*	0*
SEPARATION DISTANCE (PER TABLE 602) 10' ≤ X < 30'	0	0

* SEE CODE PARAMETERS TABLE BELOW AND LIFE-SAFETY SHEETS FOR ADDITIONAL INFORMATION

ALABAMA ACCESSIBILITY CODE NOTES

1. CLUBHOUSE SHALL COMPLY WITH 2018 IBC: CHAPTER 11 ACCESSIBILITY.
2. ALL OPENINGS IN CLUBHOUSE SHALL BE MIN. 32" CLEAR WITH A 2'-10" DOOR MIN.
3. PROVIDE SOLID BLOCKING IN BATHROOM WALLS FOR GRAB BARS AS REQUIRED.
4. PROVIDE THERMOSTATS AND ELECTRICAL SWITCHES WHERE SHOWN ON M.E.P. DRAWINGS MOUNTED 42"-48" A.F.F. TO BOTTOM OF CONTROL.
5. RECEPTICALS IN CLUBHOUSE SHALL BE MOUNTED MIN. 15" A.F.F. TO BOTTOM OF CONTROL.

MEANS OF EGRESS - [IBC TABLE 1006.2.1 AND 1017.2]

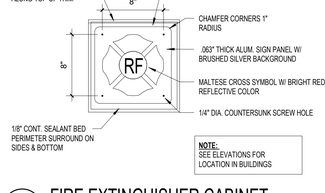
OCCUPANCY CLASSIFICATION	LOCATION	MAX. TRAVEL DISTANCE TO EXIT (ALLOWABLE) UNSPRINK.	SPRINK.	MAX. TRAVEL DISTANCE (ACTUAL)	REMARKS
A-3 - CLUBHOUSE	CLUBHOUSE	200'	N/A	49'-9"	

1) See Life Safety Plans for specific information.

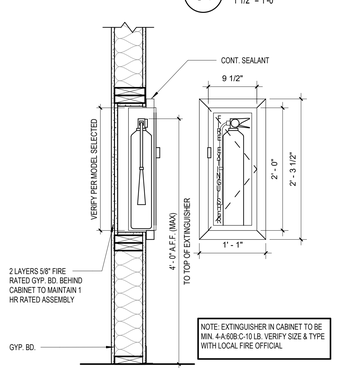
2) Section 1015.2.1 Two Exits:
Exception 1: Where interior exit stairways are interconnected by a 1-hour fire-resistance-rated *corridor* conforming to the requirements of Section 1018, the required exit separation shall be measured along the shortest direct line of travel within the *corridor*.

Exception 2: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the exit doors or exit access doorways shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

b) Table 1014.3 - Note b & 1016.2 - Note b
Buildings equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1 or 903.3.1.2.
See section 903 for occupancies where automatic sprinkler systems are permitted in accordance with section 903.3.1.2.



C4 FIRE EXTINGUISHER CABINET
1 1/2" = 1'-0"



F3 FIRE EXTINGUISHER CABINET
1" = 1'-0"

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (INTERNATIONAL ENERGY CONSERVATION CODE 2018 - CHAPTER 4 (CE)

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	ATTIC KNEEWALL	MASS FRAME WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE & DEPTH	CRAWL SPACE WALL R-VALUE
3A	0.50	0.55	0.25	38	20	N/A	N/A	N/A	0	0	0
PROVIDED	0.40	N/A	0.25	38	21	N/A	N/A	N/A	N/A	N/A	N/A

MAXIMUM AREA OF EXTERIOR WALL OPENINGS:

FROM TABLE 705.8 - [2018 IBC]

ASSUMED PROPERTY LINE DISTANCE:

	ALLOWABLE	ACTUAL (WORST CASE)
UNPROTECTED, SPRINKLERED (UP, S)		
0 FT TO 3 FT	NP	NP
OVER 3 FT TO 5 FT	15%	--
OVER 5 FT TO 10 FT	25%	--
OVER 10 FT TO 15 FT	45%	25%
OVER 15 FT TO 20 FT	75%	--
OVER 20 FT TO 25 FT	NL	NL
OVER 25 FT TO 30 FT	NL	NL
OVER 30' FROM ASSUMED PROPERTY LINE	NR	NR

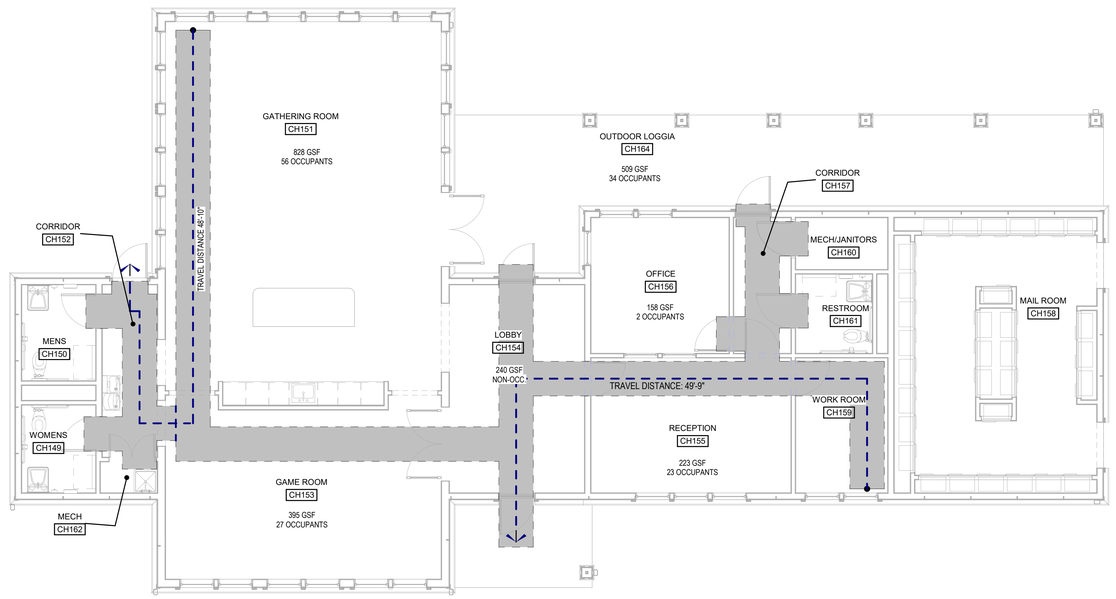
OCCUPANCY LOAD CHART PER 2018 IBC TABLE 1004.5

ROOM	AREA	S.F./PERSON	OCCUPANCY
GATHERING	828 S.F.	15 GSF	56
GAMEROOM	395 S.F.	15 GSF	27
RECEPTION	223 S.F.	100 GSF	3
OFFICE 1	158 S.F.	100 GSF	2
WORK ROOM	106 S.F.	100 GSF	2
OUTDOOR LOGIA	509 S.F.	15 GSF	34
TOTAL			124 PERSONS
MECH	20 S.F.	300 GSF	1
MECH/JANITORS	145 S.F.	300 GSF	1
TOTAL			2 PERSONS
TOTAL OCCUPANTS			126 PERSONS

PLUMBING FIXTURES REQ'D - IBC 2018 TABLE 2902.1

OCCUPANCY CLASSIFICATION	LOCATION	WATER CLOSETS (URINALS 419.2) MALE	WATER CLOSETS (URINALS 419.2) FEMALE	LAVATORIES MALE	LAVATORIES FEMALE	DRINKING FOUNTAIN	SERVICE SINK
A-3	CLUBHOUSE	1 PER 125	1 PER 65	1 PER 200	1 PER 200	1 PER 500	1
TOTAL OCCUPANTS = 126							
FIXTURES REQUIRED		2	2	2	2	1	1
FIXTURES PROVIDED		2	2	2	2	1 HI / 1 LOW	1

* URINAL = .67 IN ASSEMBLY OCCUPANCY PER 419.2
* CLUBHOUSE OCCUPANTS = 126



F6 CLUBHOUSE - LIFE SAFETY PLAN
3/16" = 1'-0"

LEGEND:

- EMERGENCY LIGHT (SEE ELECT DWGS FOR LOCATIONS)
- EXIT SIGN
- EXIT ACCESS TRAVEL DISTANCE
- COMMON PATH OF EGRESS TRAVEL
- F.E.C. — FIRE EXTINGUISHER VERIFY EXACT LOCATIONS AND TYPES WITH LOCAL FIRE OFFICIALS
- TD — EXIT ACCESS TRAVEL DISTANCE
- CP — COMMON PATH OF EGRESS TRAVEL
- 20 MIN DOOR
- 45 MIN DOOR
- 60 MIN DOOR
- 90 MIN DOOR
- REQUIRED 1 HOUR FIRE SEPARATION
- REQUIRED 2 HOUR FIRE SEPARATION

ISSUE HISTORY

No.	Date	Description
1	04/15/22	Permit Submittal

REVISION HISTORY

No.	Date	Description

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FUGLEBERG KOCH
2555 Temple Trail, Winter Park, FL 32789 (407) 629-0595
www.fuglebergkoch.com AA26002103
CONSULTANT
STATE OF ALABAMA MICHAEL E. GOVE 8234 4/15/22 REGISTERED ARCHITECT
MICHAEL GOVE
8234

THE MADISON
MADISON, AL

Drawn:	MB
Checked:	JK
Approval:	MG
Date:	04/15/2022
Project #:	5722

CLUBHOUSE CODE/ LIFE SAFETY PLAN

CH0.01

PLOTTED: 5/3/2022 3:03:37 PM

The Roberts Apartments at Town Madison

Address:
Dunlop Blvd
Madison, AL 35758

Prepared for:
Rohdie Group

Plan Set Date:
November 16, 2021

General Notes:

1.The locations of existing utilities are shown in as approximate only. The contractor shall verify the exact location of all existing utilities before commencing work. Contractor shall be fully responsible for any and all damages which might occur by his failure to exactly locate and preserve any and all utilities.

2.Contractor is responsible for making application and paying for necessary permits.

3.The Contractor shall prevent the destruction of all survey monuments, bench marks, property corners and all other survey points. Where the removal of such points are necessary for the accomplishment of the work, the Contractor shall inform the Engineer in writing, prior to the disturbance of any point, and shall not disturb the point until written permission to do so has been issued by the Engineer.

4.All existing trees outside of the limits of work shall be protected during the accomplishment of the work, and are not to be damaged in any manner.

5.All boulders, debris, excess construction materials, material generated from demolition of existing structures and facilities or trash shall be removed from site at contractor's expense.

6.Pavement cuts shall be repaired with material in-kind to that removed.

7.In accordance with generally accepted construction practices, the contractor is solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement applies continuously and shall not be limited to normal working hours.

8.Contractor shall provide adequate traffic control devices and safety measures for construction work within public right-of-ways in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways.

9.The duty of the Engineer to conduct construction observation of the contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures, in, on or near the construction site.

10.The Contractor shall be responsible for cleaning dirt and debris from the adjoining streets parking lots, and drives during construction. Any damage to adjoining and existing facilities shall be repaired by the Contractor, at no additional cost to the owner, during the construction of this site.

11.No fill dirt shall be placed on the property that might interfere with drainage flow from adjacent property. Storm drainage system shall be installed prior to fill material being placed.

12.The Contractor shall be totally responsible for TVI, vacuum testing manholes, and air testing sewer lines if required.

13.No changes shall be made to these approved plans without the Engineer of Record being notified before changes are made and the Engineer of Record acquiring approval from the City Engineer.

14.All sanitary sewer pipe shall either be SDR 26 PVC or Class 350 Ductile Iron.

15. The City of Madison Construction Specifications Manual for Public Improvements, latest edition and any revision thereof, are hereby made part of these plans.

16. If approval from any State or Federal Regulatory Agency is required to perform work on this project, a copy of each permit required shall be delivered to the City of Madison Engineering Department prior to the approval of said plans.

17. The Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas, Vol. 1 and 2, latest edition and any revision thereof, are hereby made a part of these plans.

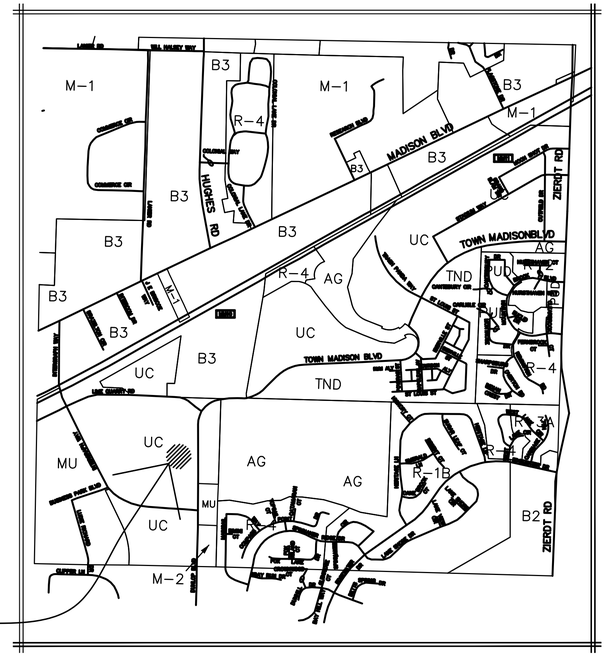
18. Contractor is required to schedule a Pre-Construction meeting with Engineering Inspector before commencement of work. Call 256-797-8025 for scheduling or go to www.madisonal.gov/index.aspx?NID=126 (pre-construction requirements) for more information.

19. Call 811 prior to any digging for Utility work.

Sheet Index

Cover	C0
Existing Conditions & Demolition Plan	C1
Site Plan	C2.X
Keynote Plan	C2.3
Water Infrastructure Plan	C3
Storm Infrastructure Plan	C4.X
Sanitary Sewer Infrastructure Plan	C5.X
Grading & Drainage Plan	C6.X
Erosion Control Plan	C7
Fire Truck Access Plan	C8
Civil Details	C9.X

Site



Vicinity Map
Not to Scale

Certificate of Approval by Fire Department
The undersigned, as a duly authorized representative of the Madison Fire Department, City of Madison, AL, certifies the within site plan has been reviewed and approved.

By: _____

Date: 12-7-21

Certificate of Approval by City Council
The undersigned, as representative of the City Council of Madison, Alabama, hereby certified that the property and site plan has been approved by the City Council

By: _____

Date: 12-7-21

Certificate of Approval by City Engineer
The undersigned, as City Engineer of the City of Madison, AL, hereby approves the within site plan.

By: E. Michelle Dumas

Date: December 3, 2021

Certificate of Approval by Planning Director
The undersigned, as Director of Planning for the City of Madison, AL, hereby certifies that the property and site plan has been inspected, reviewed, and found to be compliant with the City's Zoning Ordinance and Subdivision Regulations.

By: _____

Date: 12/9/2021

Madison Utilities

Submitted for approval:

ENGINEER

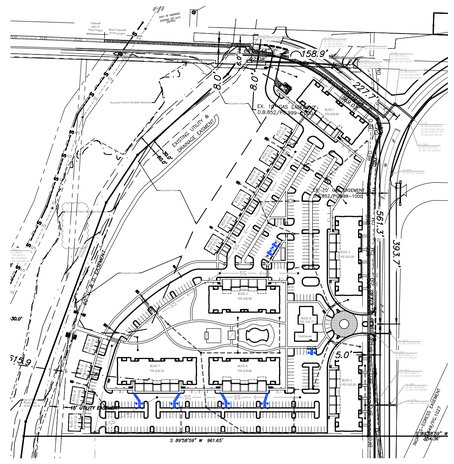
APPROVED:

BUSINESS DEVELOPMENT COORDINATOR

DEVELOPER

GENERAL MANAGER

NOTE: CONSTRUCTION SPECIFICATIONS FOR WATER AND SANITARY SEWER LATEST EDITION AS ADOPTED BY MADISON UTILITES (MU), IS HEREBY MADE PART OF THESE PLANS. CONTRACTOR SHALL CONTACT MU TO SCHEDULE A PRE-CONSTUCTION MEETING PRIOR TO THE START OF ANY WATER OR SEWER CONSTRUCTION.



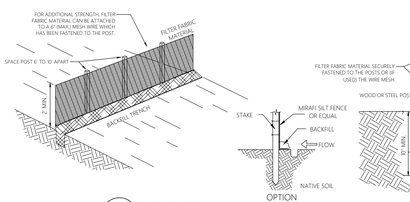
Overall View
Scale: 1" = 200'

FINAL FOR DEVELOPMENT
DEC 09 2021

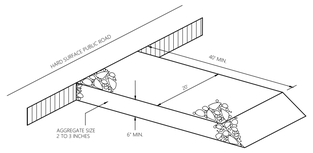
TOWN MADISON

Prepared by:

MULLINS, LLC
CIVIL ENGINEERING, DEVELOPMENT DESIGN
SURVEYING, LANDSCAPE ARCHITECTURE
2101 West Clinton Avenue, Suite 503, Huntsville, AL 35805
(256) 690-5312



SILT FENCE
NOT to Scale



Gravel Construction Entrance
NOT to Scale

I, CHARLES MIKE FRANKLIN, THE SURVEYOR OF RECORD, CERTIFY THAT THE SUBDIVISION SHOWN HEREON LIES WITHIN FLOOD HAZARD AREAS "X" & "AE" AS SHOWN ON THE FEDERAL INSURANCE ADMINISTRATION'S FLOOD INSURANCE RATE MAPS FOR THE CITY OF HUNTSVILLE, ALABAMA.

FIRM PANEL # 01089C0311F (EFFECTIVE DATE 8/16/2018)
(AMENDED BY LOMR-F 19-04-3126 P EFFECTIVE DATE 10/13/2020)

CHARLES MIKE FRANKLIN, PLS
AL REG. NO. 18980

ALABAMA LICENSED NO. 18980 PROFESSIONAL LAND SURVEYOR CHARLES M. FRANKLIN

Demolition Notes: (this sheet only)

1. CONTRACTOR SHALL LOCATE, MAINTAIN & PROTECT EX. UTILITIES ON SITE. ANY DAMAGE TO SUCH SHALL BE REPAIRED AND/OR REPLACE AT NO EXPENSE TO THE OWNER.
2. ALL EXISTING TREES WITHIN THE GRADING LIMITS ARE TO BE REMOVED.

Demolition Keynote Legend: (this sheet only)

- A. Req'd sawcut, full depth, ex. curb & gutter, sidewalk, and/or asphalt, at this point.
- B. Req'd demo & remove ex. curb & gutter, sidewalk, and/or asphalt, this area.
- C. Req'd silt fence, length as shown, coord. w/ Erosion Control Plan, see detail.
- D. Req'd Gravel Construction Entrance, coord. w/ Erosion Control Plan, see detail.
- E. Req'd rework, coord w/ Utility Plan.

LIME QUARRY ROAD

S 88°08'48" E 92.08'

S 51°19'08" E 169.03'

S 00°00'00" E 674.80'

N 49°01'17" E 186.22'

N 35°35'52" E 209.51'

N 43°35'16" E 334.61'

N 22°15'19" E 321.00'

N 17°16'19" E 268.77'

S 12°42'27" W 220.61'

S 10°24'36" W 162.85'

S 18°05'36" W 204.42'

S 89°58'59" W 961.65'

1% Annual Chance Floodplain Boundary

Excavation Area

FLOODWAY

FLOODWAY BOUNDARY

EX. 10' GAS EASEMENT D.B.852/PG.999-1000

EXISTING UTILITY & DRAINAGE EASEMENT

60' U & D. EASEMENT

30.0'

60.0'

50.0'

615.9

C 2,185 LF

15' UTILITY EASEMENT

Special Flood Hazard Area (SFHA) Zone AE

LOT 2

LOT 4

DUNLOP BOULEVARD

GRESS EASEMENT D.B.1027/PG.1027

Ex. SPHW
Ex. INV OUT 617.98±

Ex. SWSI
Ex. INV IN (E) 623.29±
Ex. INV (S) 619.39±
Ex. INV OUT 619.39±

Ex. SPHW
Ex. INV OUT 624.50±

Ex. JB
Ex. RIM 634.21±
Ex. INV IN 625.4
Ex. INV OUT 62(

Ex. SWSI
Ex. INV IN 624.00±
Ex. INV OUT 623.90±

Ex. JB
Ex. RIM 634.24±
Ex. INV IN 625.96±
Ex. INV OUT 625.86±

Ex. JB
Ex. INV IN (S)629.13±
Ex. INV IN (N) 628.63±
Ex. INV IN (E) 627.24±
Ex. INV OUT 627.14±

Ex. DWSI
Ex. INV IN 629.35±
Ex. INV OUT 629.25±

Ex. SWSI
Ex. INV OUT 630.80±

Ex. SWSI
Ex. INV OUT 630.45±

Ex. SWSI
Ex. INV IN 630.14±
Ex. INV OUT 630.04±

Ex. SWSI
Ex. INV IN 628.57±
Ex. INV OUT 628.07±

Ex. SWSI
Ex. INV IN 628.98±
Ex. INV OUT 628.88±

Ex. SPHW
Ex. INV OUT 629.59±

FINAL FOR DEVELOPMENT
DEC 09 2021

Existing Conditions & Demo Plan
Scale: 1" = 50'

TOWN MADISON

REVISIONS

Date:	---
Date:	---
Date:	---
Date:	---
Date:	---
Date:	---
Date:	---
Date:	---
Date:	---

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2101 West Clinton Avenue, Suite 103, Huntsville, AL 35805
(256) 690-5312

ALABAMA LICENSED NO. 18980 PROFESSIONAL LAND SURVEYOR CHARLES M. FRANKLIN
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: Rohdie Group

Existing Conditions & Demolition Plan

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER

C1

AASHTO NOTE:

THE INTERSECTION SITE DISTANCE AND GEOMETRIC DESIGN OF THIS SUBDIVISION MEET RECOMMENDATIONS SET FORTH IN THE PREVAILING AASHTO STANDARDS.

INTERSECTION SIGHT DISTANCE

LOCATION	DESIGN SPEED	AASHTO GUIDELINES RIGHT	AASHTO GUIDELINES LEFT	ACTUAL SIGHT DISTANCE RIGHT	ACTUAL SIGHT DISTANCE LEFT	SIGHT DISTANCE SATISFIED
DRIVE @ LIMESTONE QUARRY ROAD	25 MPH	280	240	386	500+	YES
DRIVE @ DUNLOP BLVD	45 MPH	500	430	500+	500+	YES

Fire Flow & Notes:

Date & Time Tested: 6-3-21 at 9:20 AM

Static	112
Residual	88
Flow	76

1,465 GPM

Note: Knox Boxes shall be required for riser room access

City Notes:

1. All traffic controls devices shall be erected and maintained in conformance with the Manual of Uniform-Control Devices and any revisions thereof.
2. Required fire flows cannot be determined precisely until the specific building use, construction type, and other faactors have been disclosed and reviewed. The applicant will comply with the fire flow and fire safety and suppression requirements and all adopted city codes and regulations.
3. All drainage ditches are to be centered on property lines unless shown.
4. All utilities will be underground.
5. If adverse conditions are uncovered during construction, the city engineer may require modification of these plans to the extent necessary to assure compliance with the city's construction specifications manual.
6. Setbacks are governed by the latest addition of the Madison Zoning Ordinance.
7. Any signage requires separate review, approval, and permitting.

Layout Notes:

1. All dimensions are from back of curb, U.N.O.
2. Sidewalks to have max cross slope of 2%.

Site Notes:

1. Property line bearings are based on state plan coordinates, NAD 1983, as determined by CORS, GTAC. Distances are based on actual field survey. All bearing and distances are plat and measured.
2. All traffic control devices shall be erected and maintained in conformance with the Manual on Uniform Traffic Control Devices and any revisions thereof.
3. All drainage ditches shall be centered on property lines unless otherwise shown.
4. All utilities are underground.
5. If adverse conditions on the site are uncovered during construction, the City Engineer may require modification to these plans to the extent necessary to assure compliance with the City's Construction Specifications.
6. All lots shall be graded so that runoff will be directed to the Street or to drainage ways in a dedicated easement.
7. Setbacks are governed by the latest edition of the Madison Zoning Ordinance.
9. Required fire flows cannot be determined precisely until the specific building use, construction type, and other factors have been disclosed and reviewed. The applicant will comply with the fire flow and fire safety and suppression requirements of all adopted City codes and regulations.
10. Plaza areas shall be hardscape areas of concrete, paver, or some other durable, consistent material, compliant with ADA accessible surfaces; pattern & materials to be further refined through the design and construction process.
11. Contractor shall coordinate with site Engineer for handicap ramp layout prior to construction to ensure compliance with design and ADA requirements.
12. Special maintenance agreement for utilities under streetscape conditions/elements/materials (pavers, walls, trees, etc.) required prior to issuance of C.O.
13. Coordinate with Geotechnical Engineer to ensure roads in excavated areas achieve proper compaction to Geotechnical Engineers requirements and recommendations.

Site Information:

Total Lot Area:
- Pre Subdivided: 30.48 acre (1,327,894 sf)
- Remaining Property: 12.81 acre (558,067 sf)
- Post Subdivision: 17.67 acre (769,807 sf)

Zoning District: UC (Urban Center District)

Adjoining Zoning
- North: B3 (General Business District)
- South: UC (Urban Center District)
- West: UC (Urban Center District)
- East: UC (Urban Center District)

Building Info:
- Sprinkler System: Residential Buildings NFPA 13r
- Stories (max.): 4
- Height
  - 4-Story Buildings: 55'-3"
  - Townhouse Apartment: 27'-8"

Type of Construction
- 4-Story Building: V(a)
- Others: V(b)

Occupancy type
- Residential Buildings: R-2
- Clubhouse & Fitness Buildings: A-3
- Dumpster Enclosure: U

Units:

1 Bed	102
2 Bed	138
3 Bed	44
Total	284

Density Schedule:

Net: 284/17.67 = 16.07 = 16 units/acre

Building Number	SF * Stories	Total SF by Type
Building 1	12,989 * 4	= 51,956 sf
Building 2 & 5	14,612 * 4	= 116,896 sf
Building 3 & 6	13,043 * 4	= 104,344 sf
Building 4	4,415 * 1	= 4,415 sf
Building 7	14,610 * 4	= 58,440 sf
Building 8 - 17	1,787 * 2	= 32,166 sf
Grill Building	480 * 1	= 480 sf
Maintenance and Pool Building	200 * 1	= 200 sf
Total		= 317,948 sf
Ratio	317,948 sf / 769,807 sf = 0.41	

Total Disturbed Area:
- Total: 17.67 acre

Parking Information:

Req'd Parking
- Units: 1.0 * units (1 bed) + 2.0 * units (2 bed) + 2.5 * units (3 bed) ==> 1.0 * 102 + 2 * 138 + 2.5 * 44 = 102 + 276 + 110 =
- Total Required: 488
- Total Provided: 520

Clubhouse/Rental Office
- Total Required: 1
- Total Provided: 17

Tandem Spaces: 78

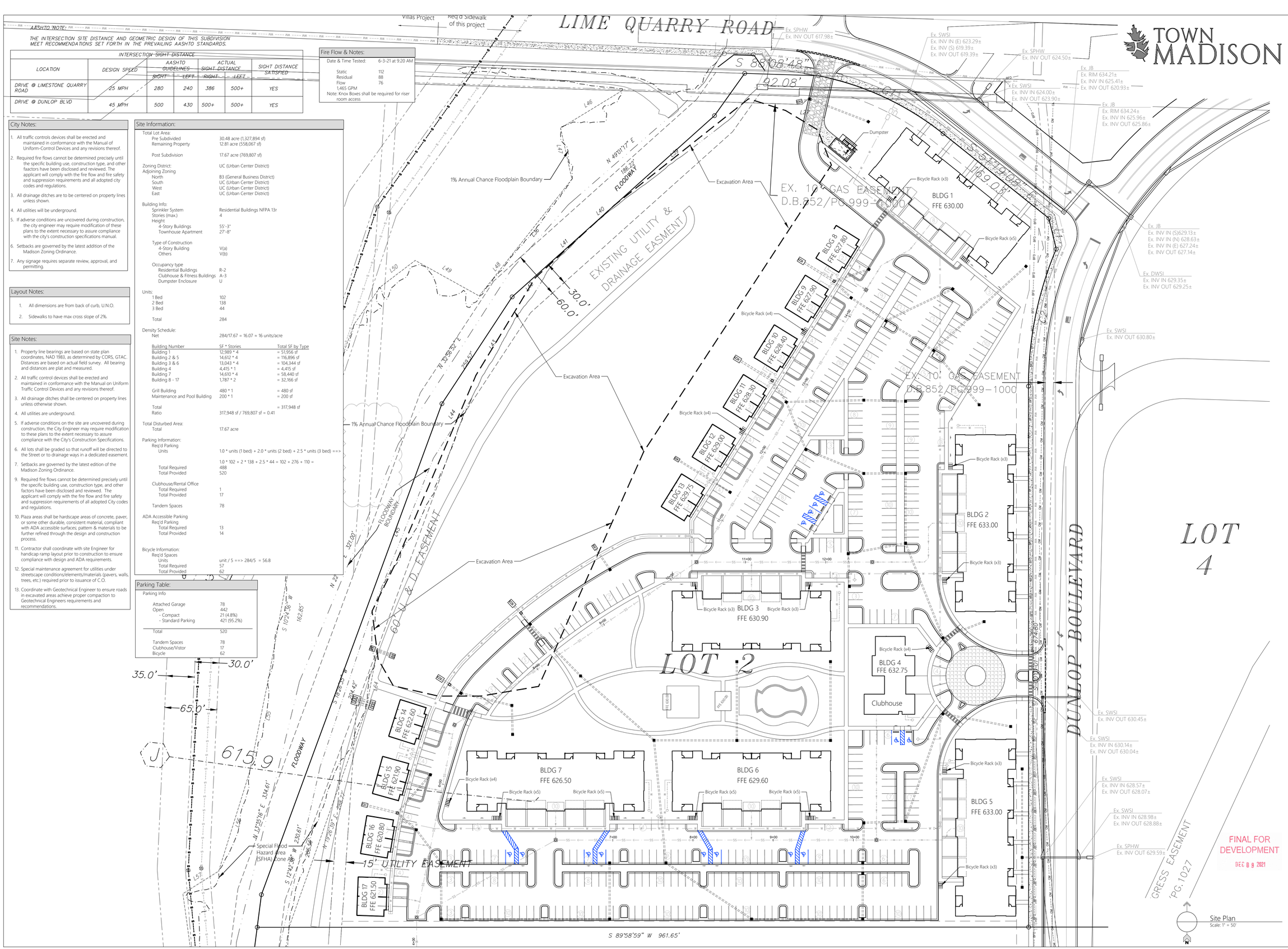
ADA Accessible Parking
Req'd Parking
- Total Required: 13
- Total Provided: 14

Bicycle Information:
Req'd Spaces
- Units: unit / 5 ==> 284/5 = 56.8
- Total Required: 57
- Total Provided: 62

Parking Table:

Parking Info

Attached Garage	78
Open	442
- Compact	21 (4.8%)
- Standard Parking	421 (95.2%)
Total	520
Tandem Spaces	78
Clubhouse/Vistor	17
Bicycle	62


LIME QUARRY ROAD
Villas Project
Req'd Sidewalk of this project
S 88°08'48" E
92.08'
S 51°19'08" E
69.05'
Ex. SPHW
Ex. INV OUT 617.98±
Ex. SWSI
Ex. INV IN (E) 623.29±
Ex. INV (S) 619.39±
Ex. INV OUT 619.39±
Ex. SPHW
Ex. INV OUT 624.50±
Ex. JB
Ex. RIM 634.21±
Ex. INV IN 625.41±
Ex. INV OUT 620.93±
Ex. SWSI
Ex. INV IN 624.00±
Ex. INV OUT 623.90±
Ex. JB
Ex. RIM 634.24±
Ex. INV IN 625.96±
Ex. INV OUT 625.86±
Ex. JB
Ex. INV IN (S)629.13±
Ex. INV IN (N) 628.63±
Ex. INV IN (E) 627.24±
Ex. INV OUT 627.14±
Ex. DWSI
Ex. INV IN 629.35±
Ex. INV OUT 629.25±
Ex. SWSI
Ex. INV OUT 630.80±
Ex. SWSI
Ex. INV OUT 630.45±
Ex. SWSI
Ex. INV IN 630.14±
Ex. INV OUT 630.04±
Ex. SWSI
Ex. INV IN 628.57±
Ex. INV OUT 628.07±
Ex. SWSI
Ex. INV IN 628.98±
Ex. INV OUT 628.88±
Ex. SPHW
Ex. INV OUT 629.59±
Dumpster
Bicycle Rack (x3)
BLDG 1
FFE 630.00
Bicycle Rack (x5)
EX. 10' GAS EASEMENT
D.B.852/PG.999-1000
Excavation Area
1% Annual Chance Floodplain Boundary
N 49°01'17" E
186.22'
FLOODWAY
L46
L47
L40
L41
L42
L43
L44
L45
L48
L49
L50
L51
L52
L53
L54
L55
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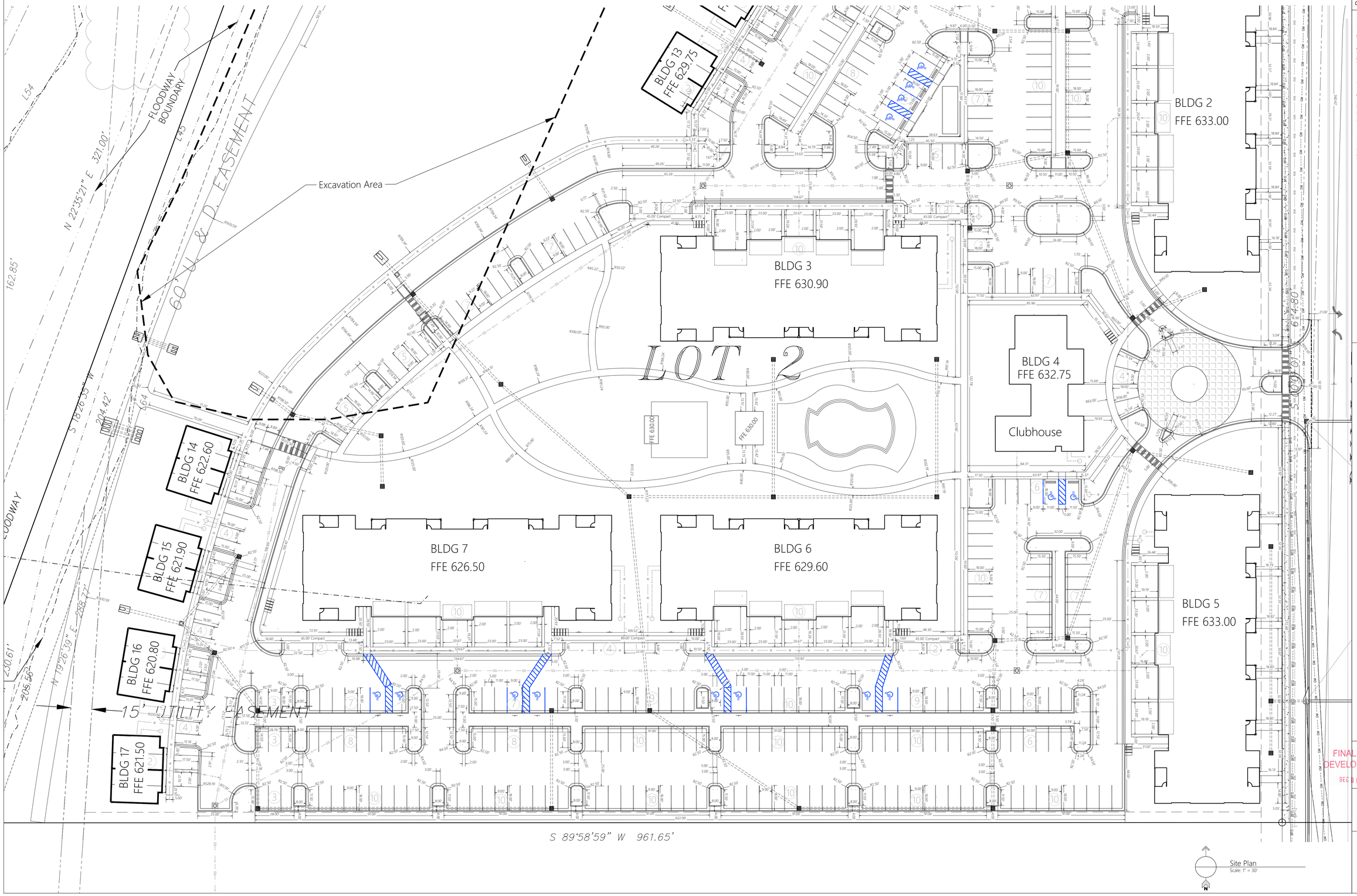
L72
L73
L74
L75
L76
L77
L78
L79
L80
L81
L82
L83
L84
L85
L86
L87

Layout Notes:

1. All dimensions are from back of curb, U.N.O.
2. Sidewalks to have max cross slope of 2%.



Site Plan
Scale: 1" = 30'

TOWN MADISON

REVISIONS

Date: ---
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CIVIL ENGINEERING, DEVELOPMENT DESIGN
SURVEYING, LANDSCAPE ARCHITECTURE
2101 West Clinton Avenue, Suite 503, Huntsville, AL 35805
(256) 690-5312

ALABAMA REGISTERED PROFESSIONAL ENGINEER MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: Rohdie Group

FINAL FOR DEVELOPMENT
DEC 09 2021

Site Plan

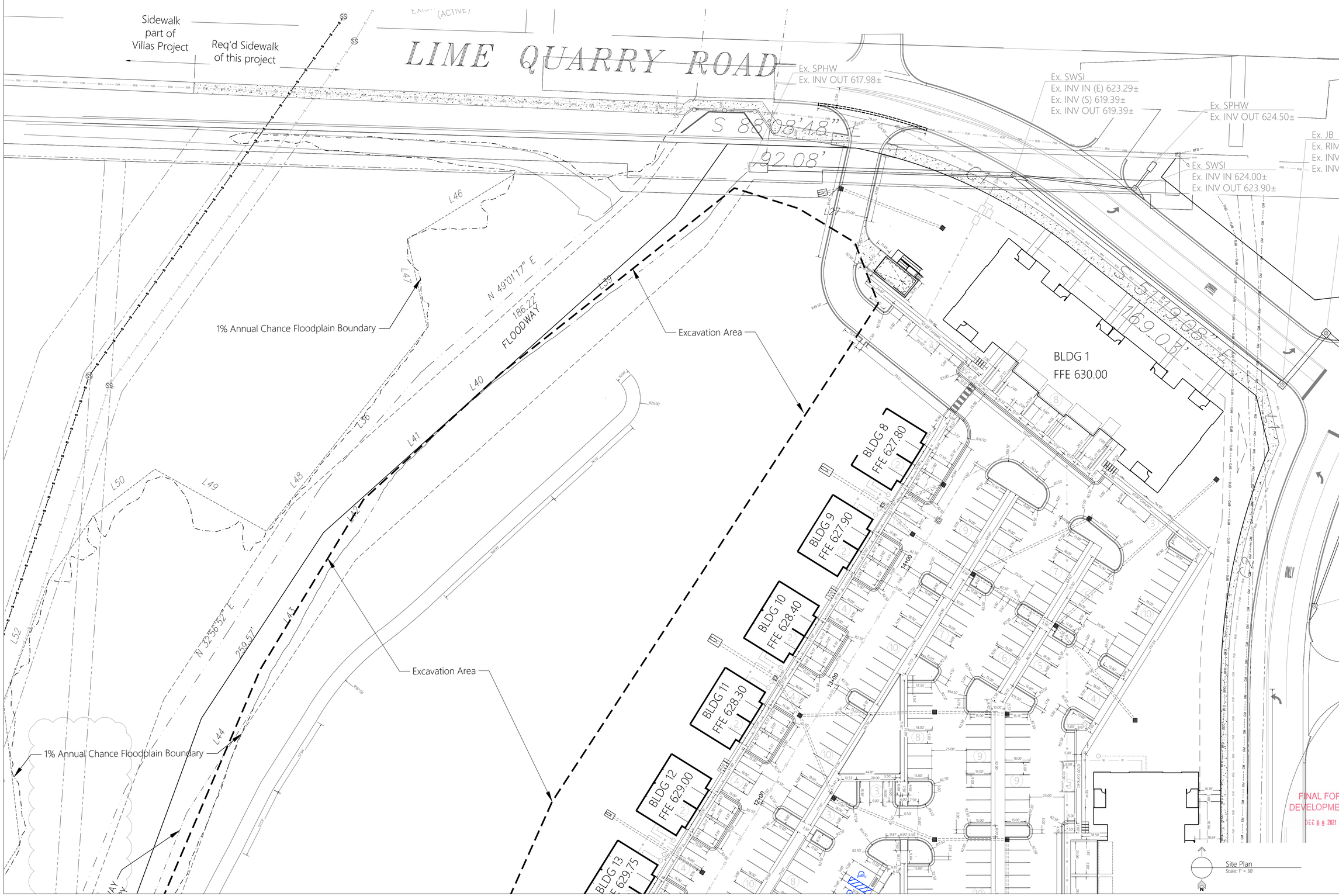
Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER

C2.1

Layout Notes:

1. All dimensions are from back of curb, U.N.O.
2. Sidewalks to have max cross slope of 2%.



TOWN MADISON

REVISIONS

Date: ---
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ALABAMA REGISTERED PROFESSIONAL ENGINEER
MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: Rohdie Group

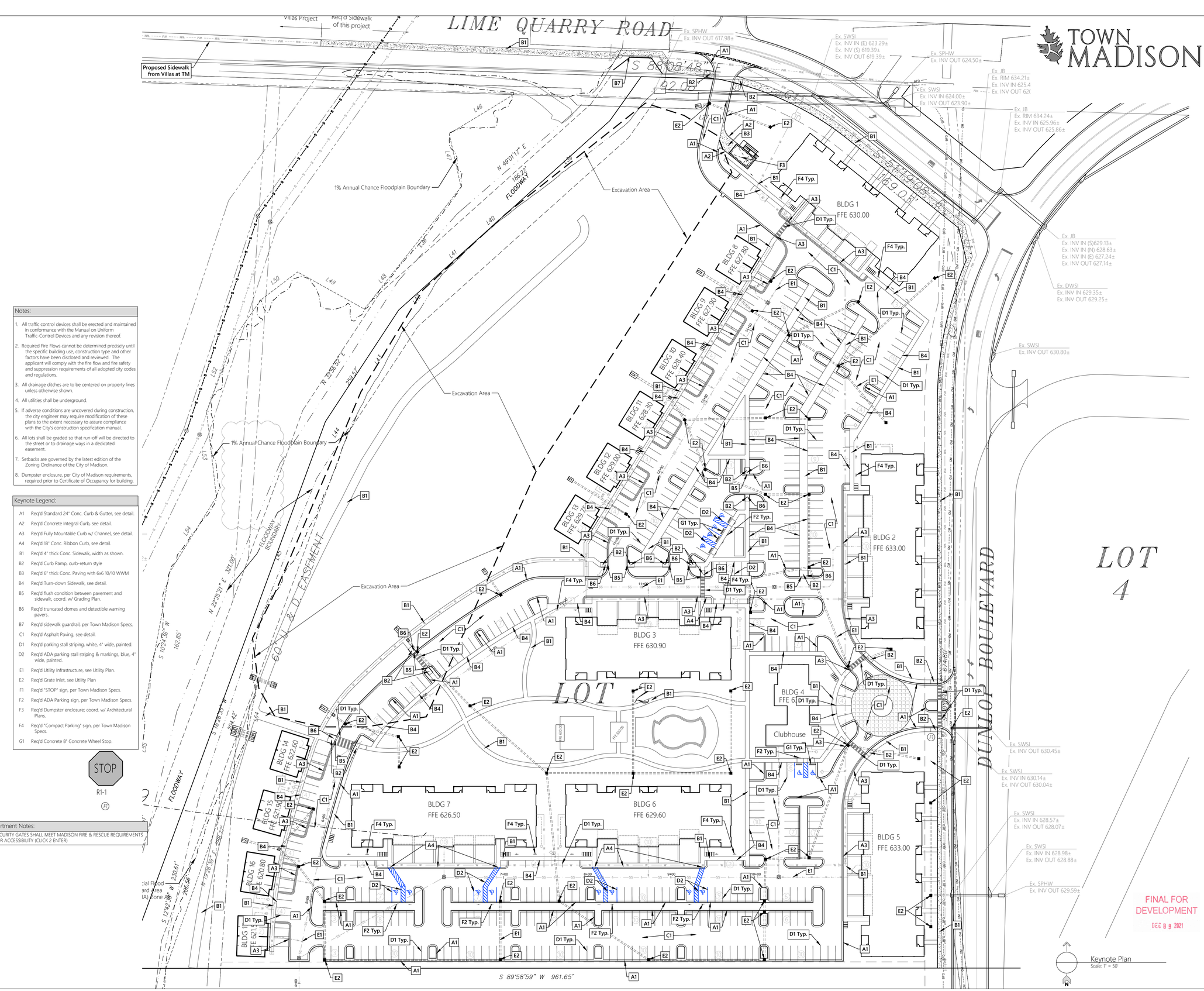
Site Plan

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

FINAL FOR DEVELOPMENT
DEC 09 2021

SHEET NUMBER

C2.2



Notes:

1. All traffic control devices shall be erected and maintained in conformance with the Manual on Uniform Traffic-Control Devices and any revision thereof.
2. Required Fire Flows cannot be determined precisely until the specific building use, construction type and other factors have been disclosed and reviewed. The applicant will comply with the fire flow and fire safety and suppression requirements of all adopted city codes and regulations.
3. All drainage ditches are to be centered on property lines unless otherwise shown.
4. All utilities shall be underground.
5. If adverse conditions are uncovered during construction, the city engineer may require modification of these plans to the extent necessary to assure compliance with the City's construction specification manual.
6. All lots shall be graded so that run-off will be directed to the street or to drainage ways in a dedicated easement.
7. Setbacks are governed by the latest edition of the Zoning Ordinance of the City of Madison.
8. Dumpster enclosure, per City of Madison requirements, required prior to Certificate of Occupancy for building.

Keynote Legend:

A1	Req'd Standard 24" Conc. Curb & Gutter, see detail.
A2	Req'd Concrete Integral Curb, see detail.
A3	Req'd Fully Mountable Curb w/ Channel, see detail.
A4	Req'd 18" Conc. Ribbon Curb, see detail.
B1	Req'd 4" thick Conc. Sidewalk, width as shown.
B2	Req'd Curb Ramp, curb-return style
B3	Req'd 6" thick Conc. Paving with 6x6 10/10 WWM
B4	Req'd Turn-down Sidewalk, see detail.
B5	Req'd flush condition between pavement and sidewalk, coord. w/ Grading Plan.
B6	Req'd truncated domes and detectible warning pavers.
B7	Req'd sidewalk guardrail, per Town Madison Specs.
C1	Req'd Asphalt Paving, see detail.
D1	Req'd parking stall striping, white, 4" wide, painted.
D2	Req'd ADA parking stall striping & markings, blue, 4" wide, painted.
E1	Req'd Utility Infrastructure, see Utility Plan.
E2	Req'd Grate Inlet, see Utility Plan
F1	Req'd "STOP" sign, per Town Madison Specs.
F2	Req'd ADA Parking sign, per Town Madison Specs.
F3	Req'd Dumpster enclosure; coord. w/ Architectural Plans.
F4	Req'd "Compact Parking" sign, per Town Madison Specs.
G1	Req'd Concrete 8" Concrete Wheel Stop.

Fire Department Notes:

1. SECURITY GATES SHALL MEET MADISON FIRE & RESCUE REQUIREMENTS FOR ACCESSIBILITY (CLICK 2 ENTER)

Keynote Plan
Scale: 1" = 50'

FINAL FOR DEVELOPMENT
DEC 09 2021

TOWN MADISON

REVISIONS

Date:	---
Date:	---
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(256) 690-5312

ALABAMA REGISTERED LANDSCAPE ARCHITECT JAMES L. MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: Rohdie Group

Keynote Plan

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER

C2.3

TOWN MADISON

REVISIONS

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ALABAMA REGISTERED LANDSCAPE ARCHITECT ROBERT SCOTT MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: Rohdie Group

Overall Site Plan

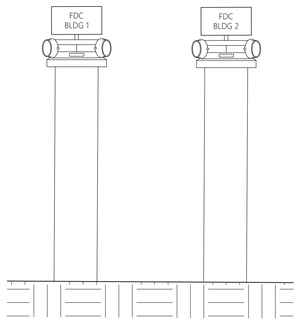
Job No.: 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER

C2.4

FINAL FOR DEVELOPMENT
DEC 09 2021

Overall View
Scale: 1" = 100'



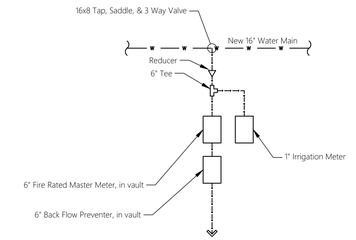
FDC w/ Sign Detail
NOT to Scale

Notes:

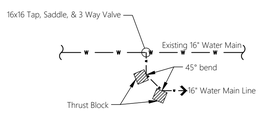
1. All service lines shall be stubbed & capped within 5' of buildings for plumbing tie-in.
2. Private hydrants shall be silver in color.
3. Connection to existing water main to be provided and installed by Developer.
4. Class 1 commination automatic standpipe shall be required in stairways for 4 story buildings.
5. Elevator/Emergency Knox Boxes required.
6. IFC 2015 510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the exisiting coverage levels of the public safety communication systems of the jurisdicton at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.
7. Fire vault valves are required to be electronically tampered.

Water Legend:

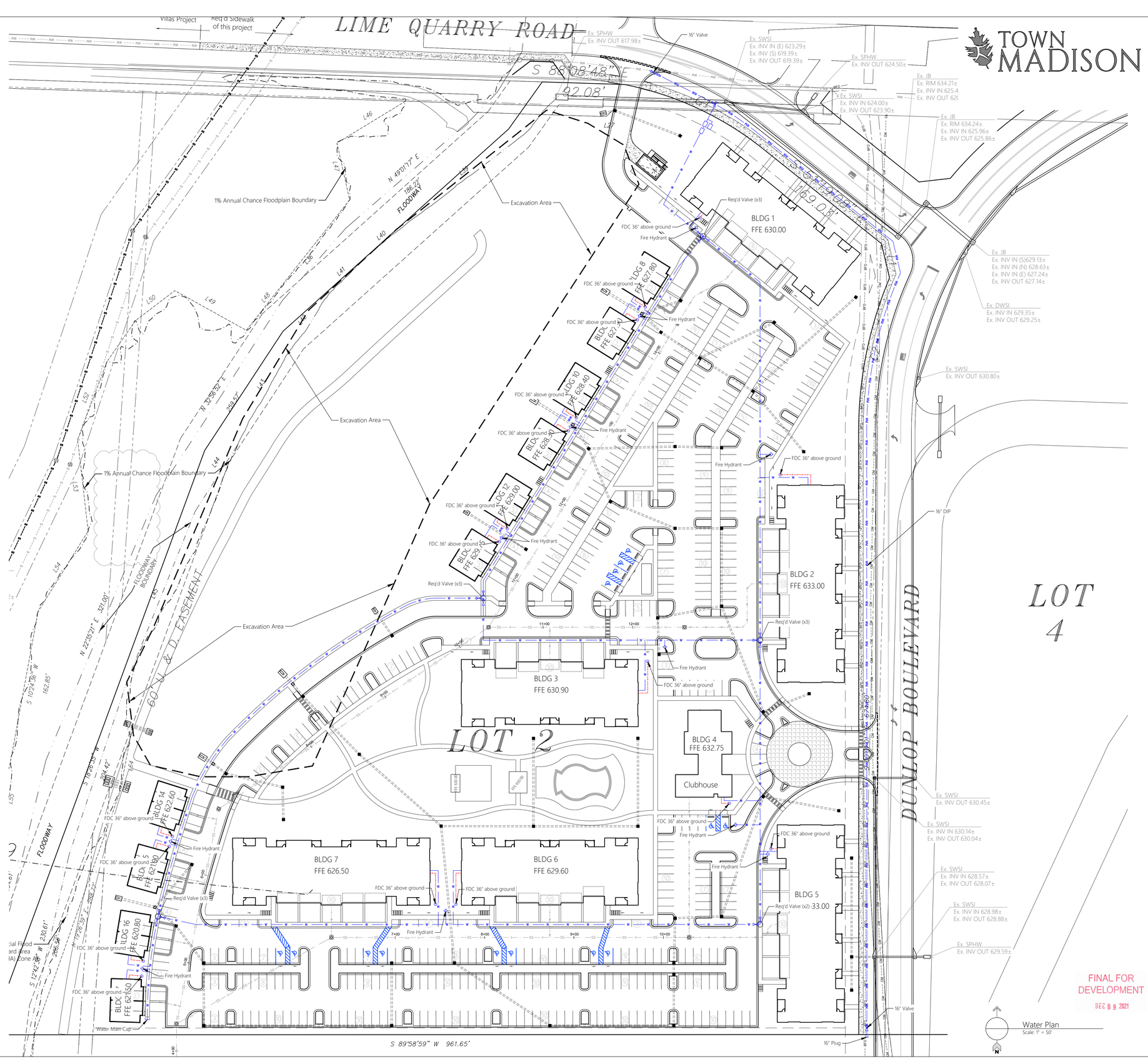
- W — W — 8" Domestic Line
- — • — • — 2" Domestic Service Line
- 6" Sprinkler Line



Utility Meter Detail
NOT to Scale



Utility Branch Detail
NOT to Scale



Water Plan
Scale: 1" = 50'

FINAL FOR DEVELOPMENT
DEC 09 2021

TOWN MADISON

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ALABAMA REGISTERED LANDSCAPE ARCHITECT RICHARD SCOTT MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: ---

Water Infrastructure Plan

Job No.	21-128
Date:	2021 11-16
Drawn By:	JLH
Checked By:	RS

SHEET NUMBER

C3

TOWN MADISON

LIME QUARRY ROAD

Villas Project

Req'd Sidewalk of this project

S 88°08'48" E 92.08'

S 5°51'19" E 69.05'

BLDG 1
FFE 630.00

BLDG 2
FFE 633.00

BLDG 3
FFE 630.90

BLDG 4
FFE 632.75

Clubhouse
FFE 631.18

BLDG 5
FFE 633.00

BLDG 6
FFE 627.80

BLDG 7
FFE 626.50

BLDG 9
FFE 627.50

BLDG 10
FFE 628.00

BLDG 11
FFE 629.60

BLDG 12
FFE 629.00

BLDG 13
FFE 629.75

BLDG 14
FFE 621.60

BLDG 15
FFE 621.90

BLDG 16
FFE 620.60

BLDG 17
FFE 621.50

LOT 2

LOT 4

DUNLOP BOULEVARD

1% Annual Chance Floodplain Boundary

Excavation Area

FLOODWAY

FLOODWAY BOUNDARY

60' U. & D. EASEMENT

N 49°01'17" E 186.22'

N 35°55'52" E 259.57'

N 22°35'21" E 321.00'

S 10°24'36" W 162.85'

N 13°35'16" E 334.61'

N 4°19'26" W 230.61'

S 12°42'28" W 265.56'

S 89°56'59" W 961.65'

Ex. SSMH 3
STA 7+06.03
Ex. TOP 625.52±
Ex. INV IN 608.98±
Ex. INV OUT 608.92±

Special Flood Hazard Area (SFHA) Zone AE

33 LF of 15" HDPE (x2) @ 1.00%

29 LF of 24" HDPE (x3) @ 1.00%

Ex. SWSI
Ex. INV IN (E) 623.29±
Ex. INV (S) 619.39±
Ex. INV OUT 619.39±

Ex. SPHW
Ex. INV OUT 624.50±

Ex. JB
Ex. RIM 634.21±
Ex. INV IN 625.4
Ex. INV OUT 62(

Ex. SWSI
Ex. INV IN 624.00±
Ex. INV OUT 623.90±

Ex. JB
Ex. RIM 634.24±
Ex. INV IN 625.96±
Ex. INV OUT 625.86±

Ex. JB
Ex. INV IN (S)629.13±
Ex. INV IN (N) 628.63±
Ex. INV IN (E) 627.24±
Ex. INV OUT 627.14±

Ex. DWSI
Ex. INV IN 629.35±
Ex. INV OUT 629.25±

Ex. SWSI
Ex. INV OUT 630.80±

Ex. SWSI
Ex. INV OUT 630.45±

Ex. SWSI
Ex. INV IN 630.14±
Ex. INV OUT 630.04±

Ex. SWSI
Ex. INV IN 628.57±
Ex. INV OUT 628.07±

Ex. SWSI
Ex. INV IN 628.98±
Ex. INV OUT 628.88±

Ex. SPHW
Ex. INV OUT 629.59±

EX SW
Rim = 632.00

SPHW H
Rim = 622.00

Pipe H1 10.99'
of 18.00" HDPE

Pipe H2 18.02'
of 18.00" HDPE

GI H1
Rim = 624.76

GI H2
Rim = 625.00

SPHW G
Rim = 623.00

Pipe G1 52.50'
of 24.00" HDPE

Pipe G8 43.90'
of 18.00" HDPE

GI G8
Rim = 626.69

GI G6
Rim = 628.00

GI G9
Rim = 628.38

Pipe G2 29.69'
of 24.00" HDPE

Pipe G3 52.08'
of 24.00" HDPE

Pipe G7 92.27'
of 18.00" HDPE

Pipe G6 155.96'
of 18.00" HDPE

JB G1
Rim = 627.25

SPHW E
Rim = 622.00

Pipe E1 55.26'
of 24.00" HDPE

Pipe E2 37.37'
of 24.00" HDPE

GI G2
Rim = 626.52

Pipe G4 69.91'
of 18.00" HDPE

SPHW F
Rim = 623.00

GI G3
Rim = 627.54

GI G4
Rim = 628.56

GI G5
Rim = 630.86

Pipe F12 52.06'
of 18.00" HDPE

Pipe F11 96.79'
of 18.00" HDPE

Pipe F10 52.06'
of 18.00" HDPE

JB F1
Rim = 628.58
Pipe F1 = 622.90
Pipe F2 = 623.08

GI F12
Rim = 629.59
Pipe F12 = 625.84

GI F11
Rim = 627.75
Pipe F11 = 624.40
Pipe F12 = 624.50

GI F10
Rim = 630.39
Pipe F10 = 626.64

GI F4
Rim = 627.06
Pipe F2 = 623.42
Pipe F3 = 623.42
Pipe F11 = 623.42

Pipe F3 64.12'
of 24.00" HDPE

SPHW I
Rim = 625.00

GI I3
Rim = 627.94
Pipe F3 = 623.75
Pipe F4 = 623.85

Pipe F4 78.22'
of 18.00" HDPE

Pipe F5 52.04'
of 18.00" HDPE

GI F8
Rim = 629.99
Pipe F5 = 624.91
Pipe F6 = 624.71

Pipe F6 86.99'
of 18.00" HDPE

GI F1
Rim = 628.39
Pipe E1 = 623.14

GI F2
Rim = 628.67
Pipe F4 = 624.25
Pipe F5 = 624.35

Pipe F9 72.72'
of 18.00" HDPE

GI F9
Rim = 628.97
Pipe F9 = 625.62
Pipe F10 = 625.72

Pipe F7 127.04'
of 18.00" HDPE

GI F7
Rim = 631.18
Pipe F7 = 627.37
Pipe F8 = 627.47

Pipe F8 55.31'
of 18.00" PVC

GI F8
Rim = 631.00
Pipe F8 = 627.75

SPHW D
Rim = 624.00

Pipe D1 37.41'
of 18.00" HDPE

JB B1
Rim = 622.90
Pipe B1 = 618.30
Pipe B2 = 618.40

GI D1
Rim = 626.50
Pipe D1 = 623.25

GI D2
Rim = 622.93
Pipe B2 = 618.49
Pipe B3 = 618.59

Excavation Area

SPHW B
Rim = 612.00

Pipe B1 20.99'
of 30.00" HDPE

Pipe B3 90.09'
of 30.00" HDPE

Pipe B2 18.00'
of 30.00" HDPE

GI B3
Rim = 623.80
Pipe B3 = 619.05
Pipe B4 = 619.15

GI A1
Rim = 620.63
Pipe A1 = 617.13
Pipe A2 = 617.23

SPHW A
Rim = 618.00

GI A2
Rim = 620.67
Pipe A2 = 617.32
Pipe A3 = 617.42

Pipe A1 18.49'
of 18.00" HDPE

Pipe A3 64.08'
of 18.00" HDPE

Pipe A4 36.22'
of 18.00" RCP

Pipe A2 78.05'
of 18.00" HDPE

GI A3
Rim = 622.60
Pipe A3 = 619.25
Pipe A4 = 619.35

GI A4
Rim = 622.80
Pipe A4 = 619.55

GI B4
Rim = 624.64
Pipe B4 = 619.76
Pipe B5 = 619.86
Pipe B13 = 619.86

Pipe B4 121.79'
of 30.00" HDPE

Pipe B16 98.54'
of 18.00" RCP

Pipe B15 98.73'
of 18.00" HDPE

GI B15
Rim = 628.00
Pipe B15 = 624.75

GI B16
Rim = 628.00
Pipe B16 = 624.75

GI B11
Rim = 631.18
Pipe B11 = 626.38
Pipe B12 = 626.48

Pipe B14 116.78'
of 18.00" HDPE

Pipe B13 103.78'
of 18.00" RCP

GI B14
Rim = 628.00
Pipe B14 = 624.15
Pipe B15 = 624.25

GI B13
Rim = 628.00
Pipe B13 = 623.46
Pipe B14 = 623.56
Pipe B16 = 623.56

Pipe B11 84.78'
of 18.00" HDPE

GI B12
Rim = 630.20
Pipe B12 = 626.99

Pipe B12 85.97'
of 18.00" HDPE

GI J2
Rim = 631.49
Pipe J2 = 629.36

Pipe J2 110.42'
of 15.00" HDPE

GI J1
Rim = 631.49
Pipe J1 = 628.70
Pipe J2 = 628.80
Pipe J3 = 628.80

Pipe J1 25.51'
of 15.00" HDPE

GI J3
Rim = 631.49
Pipe J3 = 629.25

Pipe J3 37.27'
of 15.00" HDPE

SPHW C
Rim = 615.00

Pipe C1 45.69'
of 24.00" HDPE

Pipe C7 63.17'
of 18.00" HDPE

Pipe C2 31.00'
of 18.00" HDPE

Pipe C3 51.78'
of 18.00" HDPE

GI C7
Rim = 621.00
Pipe C7 = 617.80

GI C6
Rim = 623.88
Pipe C6 = 620.63

GI C3
Rim = 620.04
Pipe C3 = 615.89
Pipe C4 = 615.98

JB C1
Rim = 619.65
Pipe C1 = 615.26
Pipe C2 = 615.36
Pipe C7 = 615.36

GI C2
Rim = 615.65
Pipe C2 = 615.52
Pipe C3 = 615.62

GI C4
Rim = 619.34

Pipe C4 69.95'
of 18.00" HDPE

Pipe C6 70.10'
of 18.00" HDPE

Pipe C5 209.98'
of 18.00" HDPE

GI B5
Rim = 626.00
Pipe B5 = 620.63
Pipe B6 = 620.73

Pipe B6 127.61'
of 24.00" HDPE

Pipe B17 12.96'
of 24.00" HDPE

Pipe B9 50.06'
of 18.00" HDPE

GI B17
Rim = 626.46
Pipe B17 = 623.21
Pipe B9 = 623.31

GI B8
Rim = 626.56
Pipe B8 = 623.01
Pipe B17 = 623.11

Pipe B8 57.07'
of 24.00" HDPE

Pipe B7 138.63'
of 24.00" HDPE

GI B6
Rim = 624.72
Pipe B6 = 621.37
Pipe B7 = 621.47

GI B7
Rim = 626.12
Pipe B7 = 622.14

GI B10
Rim = 630.31
Pipe B10 = 625.01
Pipe B11 = 625.11

Pipe B10 52.06'
of 18.00" HDPE

GI B9
Rim = 627.72
Pipe B9 = 624.38
Pipe B10 = 624.48

Storm Plan
Scale: 1" = 50'

FINAL FOR DEVELOPMENT
DEC 09 2021

REVISIONS

Date:	---
Date:	---
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ALABAMA REGISTERED PROFESSIONAL ENGINEER JAMES L. MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: ---

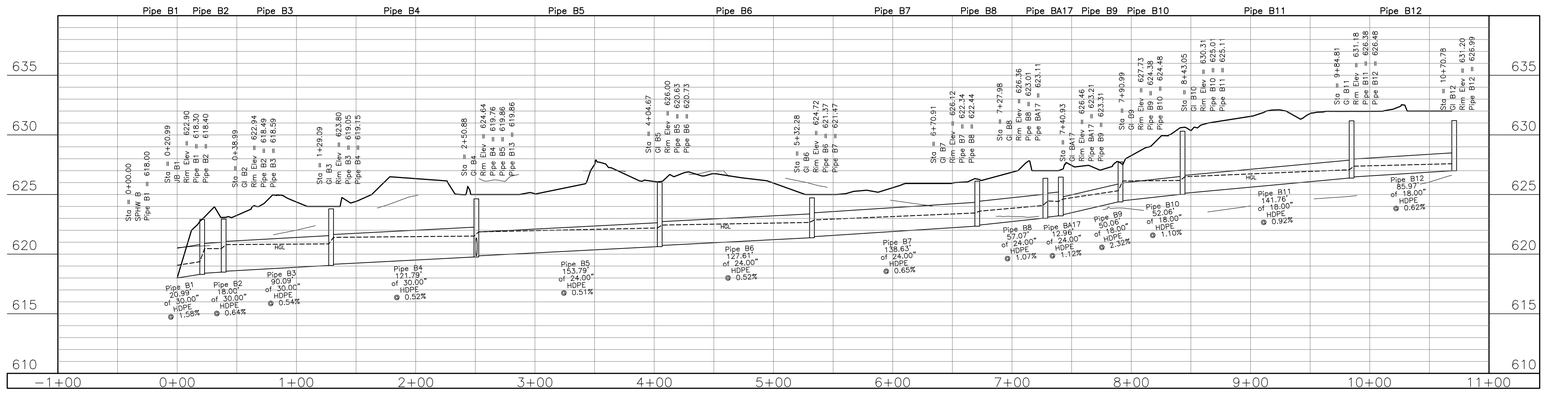
Storm Infrastructure Plan

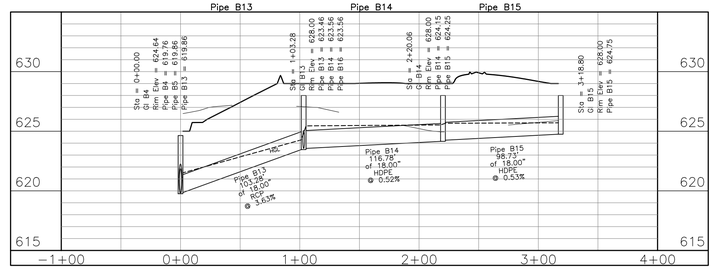
Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

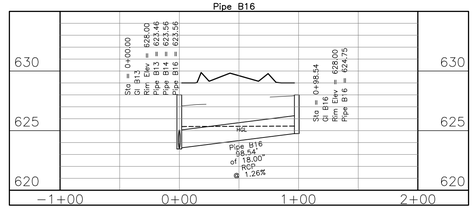
SHEET NUMBER

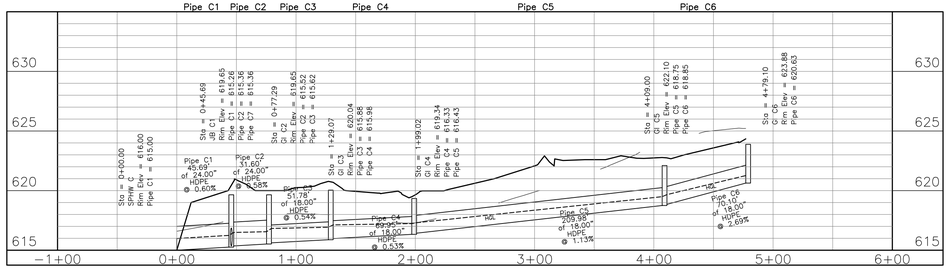
C4.1

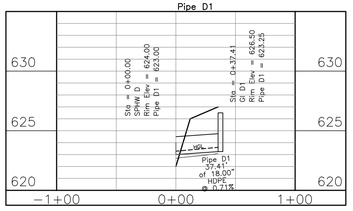
TOWN MADISON

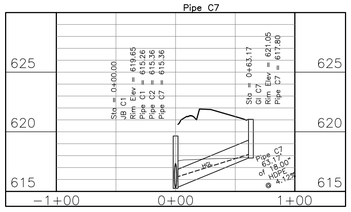


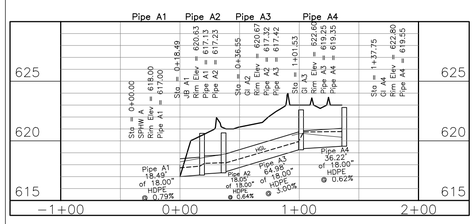


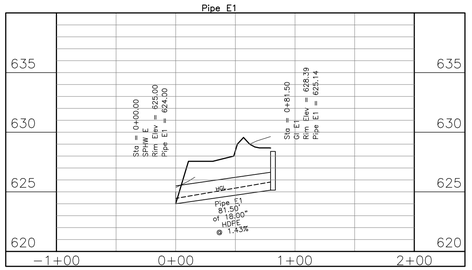


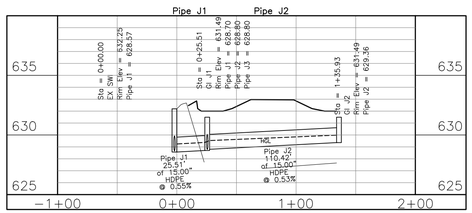


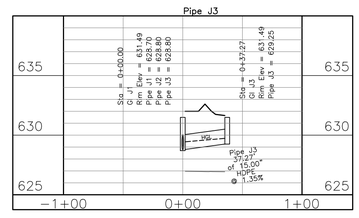












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CIVIL ENGINEERING, DEVELOPMENT DESIGN
SURVEYING, LANDSCAPE ARCHITECTURE
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(256) 690-5312

ALABAMA REGISTERED PROFESSIONAL ENGINEER RICHARD SCOTT MULLINS 29511
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: ---

Storm Infrastructure Profiles

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

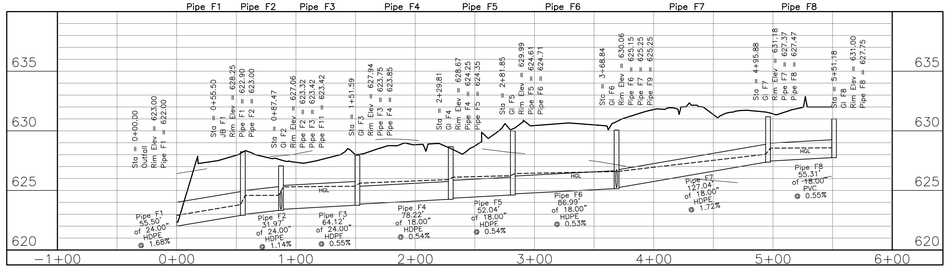
SHEET NUMBER

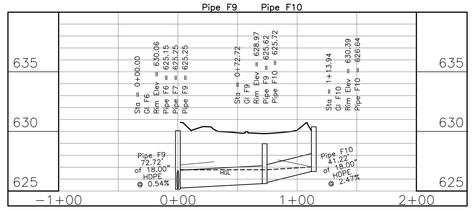
C4.2

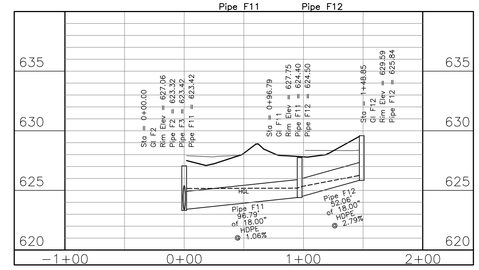
FINAL FOR DEVELOPMENT
DEC 09 2021

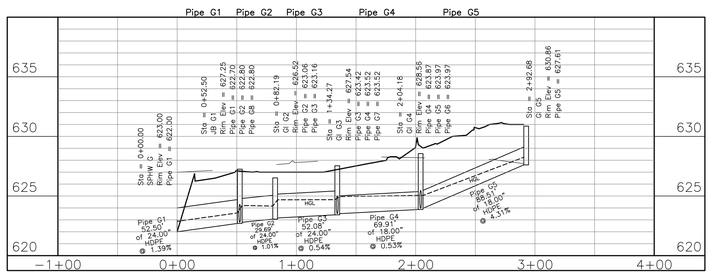
Storm Profiles
Horizontal Scale: 1" = 60'
Vertical Scale: 1" = 6'

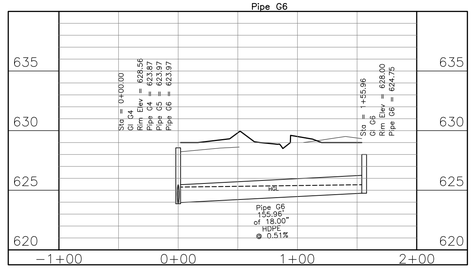
TOWN MADISON

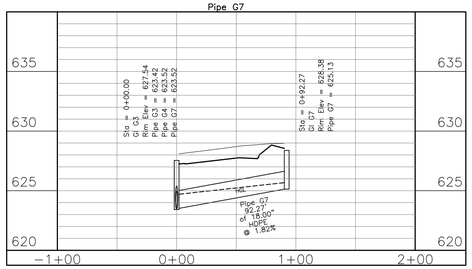


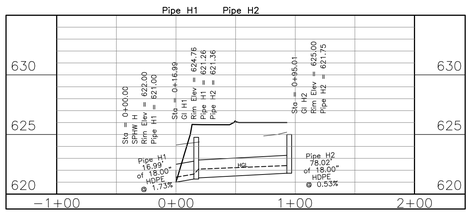


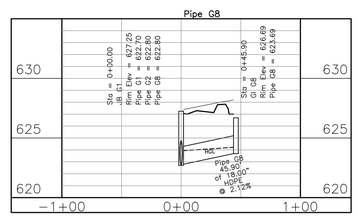












FINAL FOR DEVELOPMENT
DEC 09 2021

Storm Profiles
Horizontal Scale: 1" = 60'
Vertical Scale: 1" = 6'

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(256) 690-5312

ALABAMA REGISTERED PROFESSIONAL ENGINEER JOSEPH L. MULLINS
November 16, 2021

The Roberts Apartments at TM

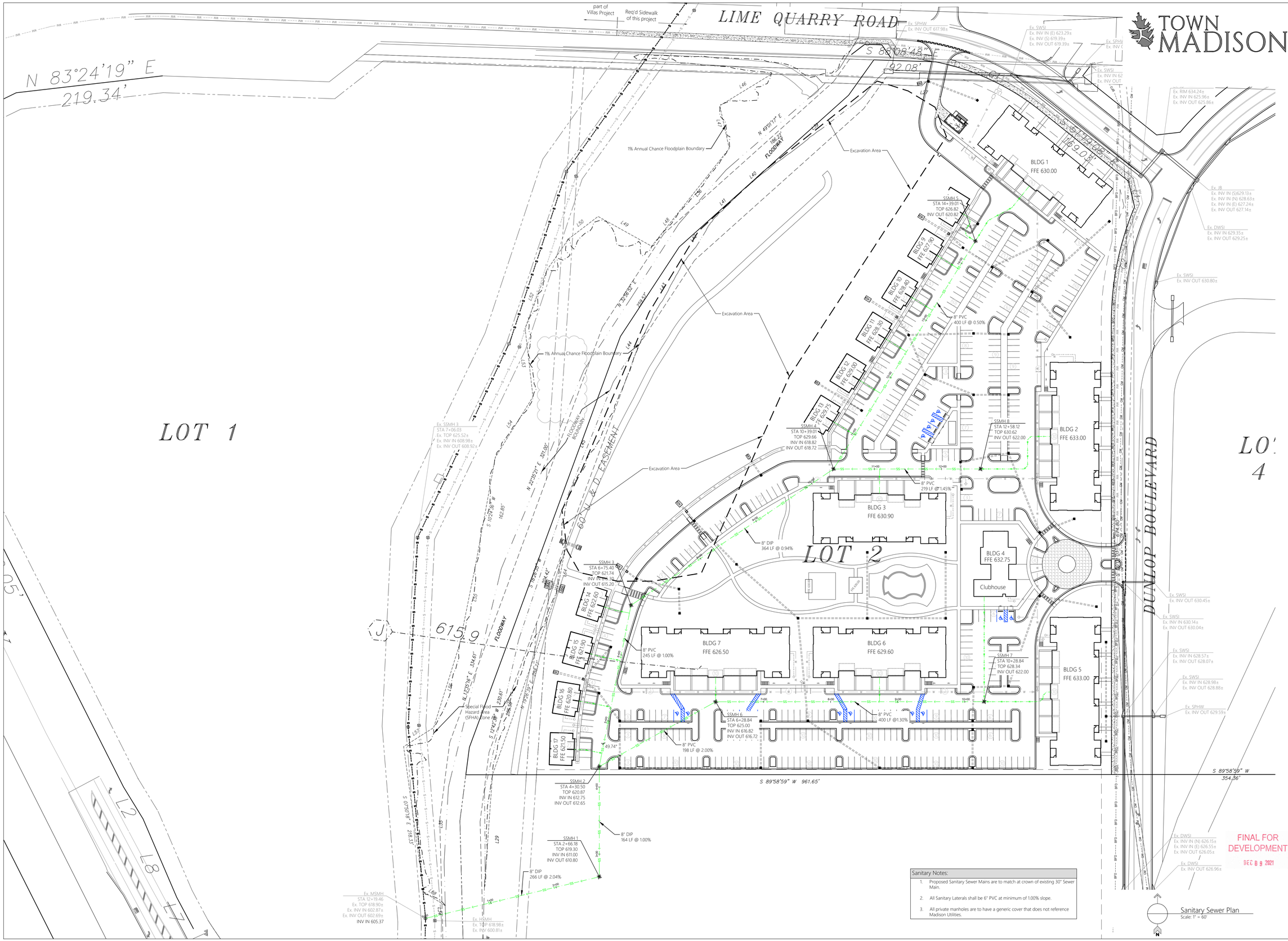
Madison, AL

PREPARED FOR: ---

Storm Infrastructure Profiles

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER
C4.3



Sanitary Notes:

1. Proposed Sanitary Sewer Mains are to match at crown of existing 30" Sewer Main.
2. All Sanitary Laterals shall be 6" PVC at minimum of 1.00% slope.
3. All private manholes are to have a generic cover that does not reference Madison Utilities.

FINAL FOR DEVELOPMENT

DEC 09 2021

TOWN MADISON

REVISIONS

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ALABAMA REGISTERED PROFESSIONAL ENGINEER MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: ----

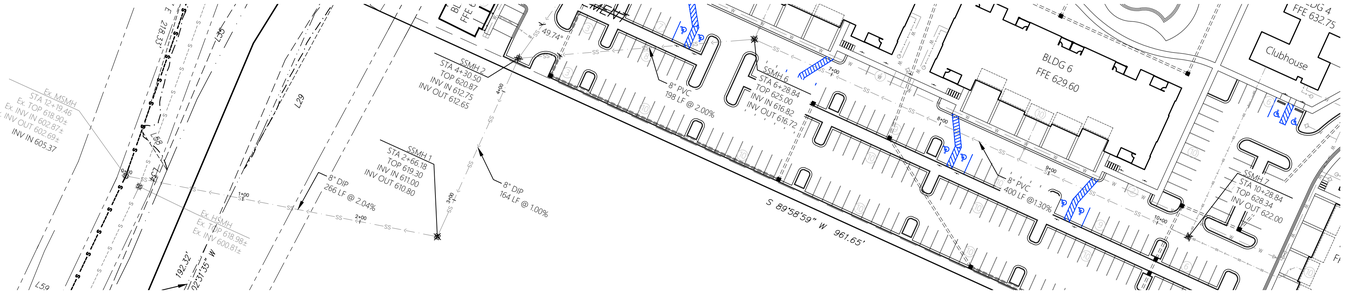
Sanitary Sewer Infrastructure Plan

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER

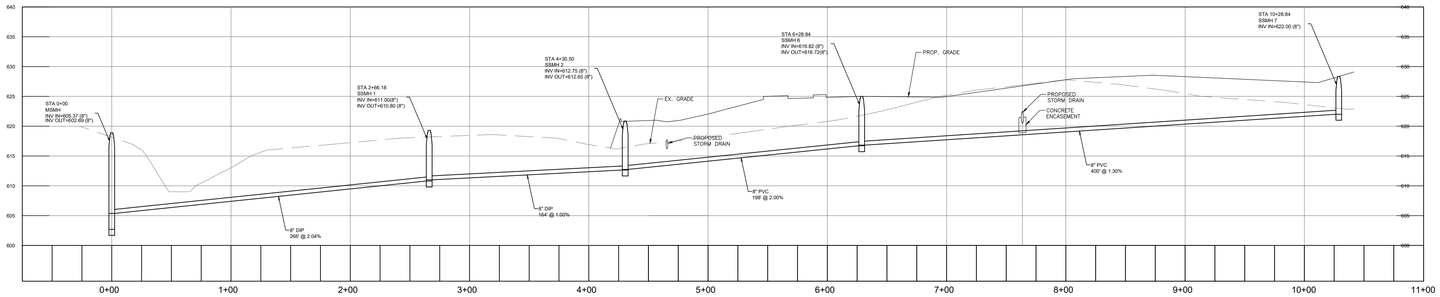
C5

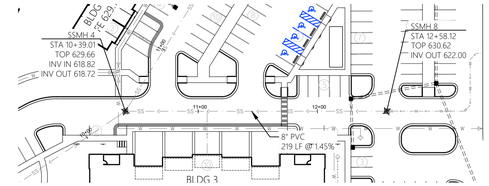
TOWN MADISON



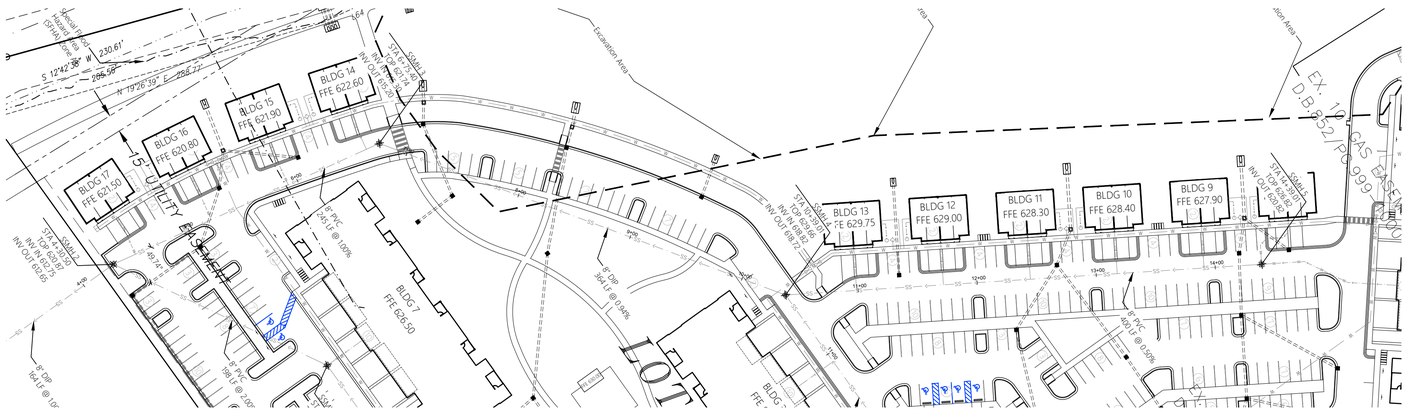
Sanitary Sewer Plan & Profile
Horizontal Scale: 1" = 60'
Vertical Scale: 1" = 12'

ALIGNMENT - Ex. MSMH TO SSMH 7

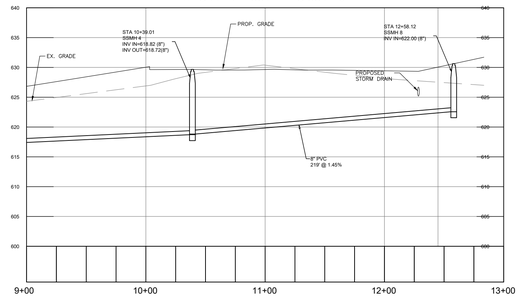




Sanitary Sewer Plan & Profile
Horizontal Scale: 1" = 60'
Vertical Scale: 1" = 12'

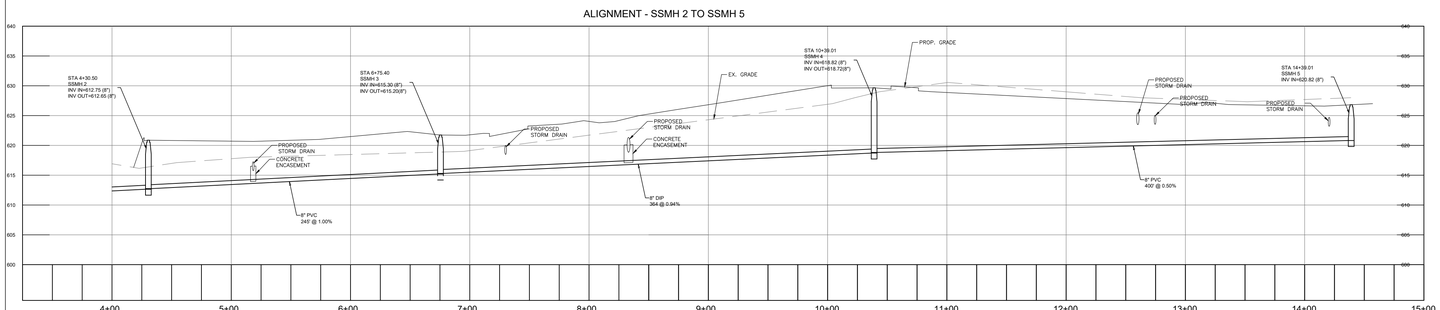


ALIGNMENT - SSMH 4 TO SSMH 8



Sanitary Sewer Plan & Profile
Horizontal Scale: 1" = 60'
Vertical Scale: 1" = 12'

ALIGNMENT - SSMH 2 TO SSMH 5



FINAL FOR DEVELOPMENT
DEC 8 2021

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ALABAMA REGISTERED PROFESSIONAL ENGINEER JOHN L. HOLLOWAY
November 16, 2021

The Roberts Apartments at TM
Madison, AL

PREPARED FOR: ---

Sanitary Sewer Plan & Profile

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER
C5.1



TOWN MADISON

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ALABAMA REGISTERED LANDSCAPE ARCHITECT JAMES L. MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: ---

Overall Grading Plan

Job No.	21-128
Date:	2021 11-16
Drawn By:	JLH
Checked By:	RS

SHEET NUMBER

C6

1% Annual Chance Floodplain Boundary

FLOODWAY BOUNDARY

Excavation Area

60' W. & D. EASEMENT

BLDG 12
FFE 629.00

BLDG 13
FFE 629.75

BLDG 14
FFE 622.60

BLDG 15
FFE 621.90

BLDG 16
FFE 620.80

BLDG 17
FFE 621.50

BLDG 3
FFE 630.90

BLDG 4
FFE 632.75

Clubhouse

BLDG 7
FFE 626.50

BLDG 6
FFE 629.60

BLDG 2
FFE 633.00

BLDG 5
FFE 633.00

FINAL FOR DEVELOPMENT
DEC 09 2021

Grading Plan
Scale: 1" = 30'

TOWN MADISON

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ALABAMA REGISTERED LANDSCAPE ARCHITECT MJL
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: ---

Grading Plan

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER

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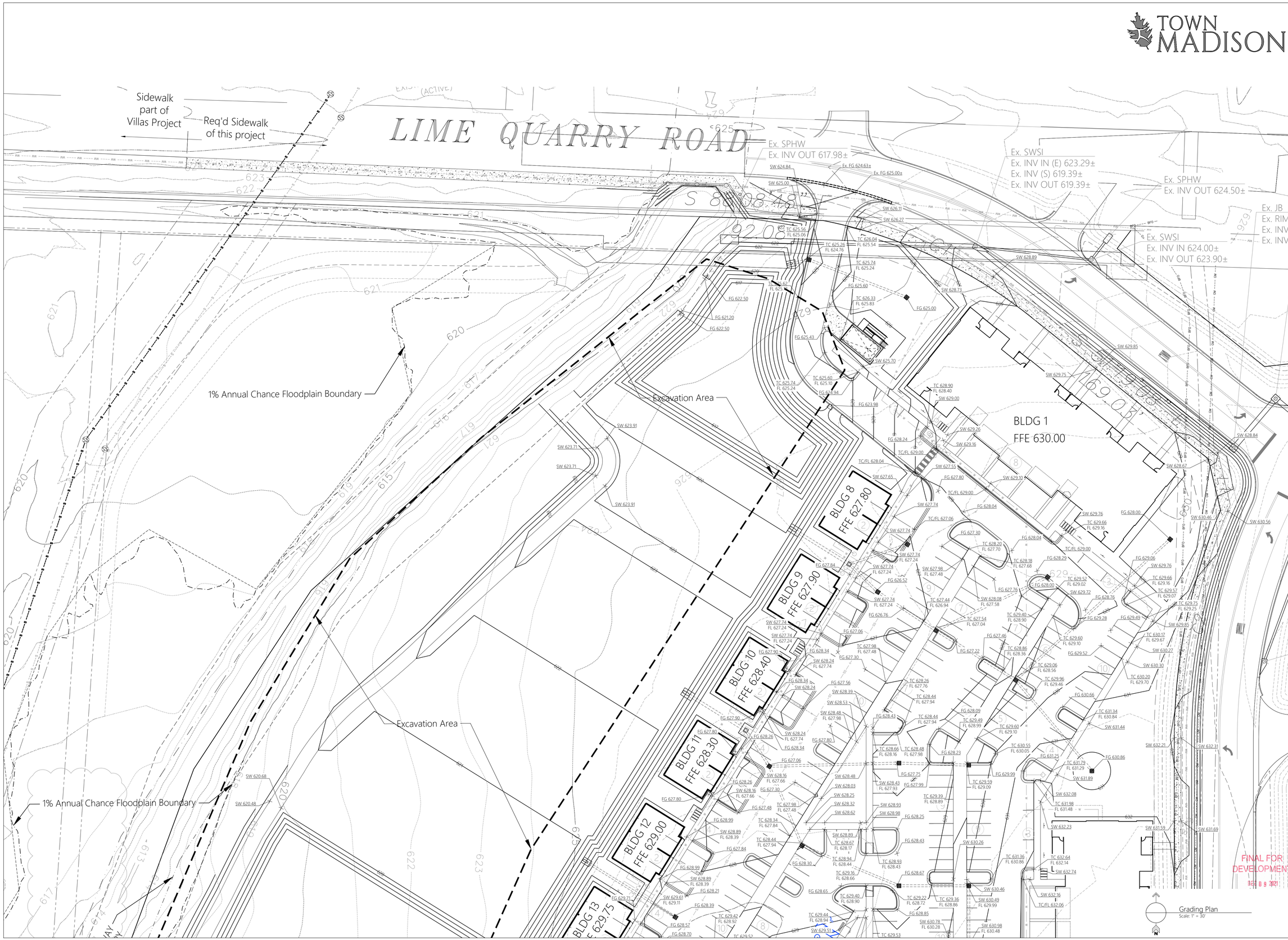

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ALABAMA REGISTERED PROFESSIONAL ENGINEER MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

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Checked By: RS

SHEET NUMBER

C6.2

Erosion Control Phasing:

THIS CONSTRUCTION SEQUENCE IS BASED ON THE ENGINEER'S OPINION AND NOT INTENDED TO BE A COMPREHENSIVE LIST OF EVENTS. THE CONTRACTOR SHOULD USE HIS/HER DISCRETION TO DETERMINE THE BEST SEQUENCE OF CONSTRUCTION. IN ADDITION, ALL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE INSTALLED PRIOR TO SELECT WORK ITEMS OR AT THE POINT OF COMPLETION OF EACH WORK ITEM, DEPENDING ON THE NATURE OF THE ITEM. EXAMPLE: SEDIMENT CONTROL PRIOR TO GRADING AND INLET PROTECTION UPON COMPLETION OF INLET CONSTRUCTION.

PHASE 1 - PRE CONSTRUCTION

1. INSTALL SILT FENCE AND CONSTRUCTION ENTRANCE AS SHOWN AND OTHER AREAS TO PREVENT SEDIMENT FROM BEING WASHED ON TO ADJOINING PROPERLY.

PHASE 2 - DEMOLITION, SITE PREPARATION AND GRADING

1. PROTECT EXISTING VEGETATION BUFFER ALONG EXISTING PROPERTY BOUNDARY.
2. INSTALL SILT FENCE AS SHOWN AND OTHER AREAS TO PREVENT SEDIMENT FROM BEING WASHED FROM THE SITE.
3. INSTALL WATTLE CHECK DAMS IN DITCHES & CONCENTRATED DRAINAGE WAYS TO PREVENT SEDIMENT FROM BEING WASHED DOWNSTREAM.
4. PERFORM SITE PREPARATION, DEMOLITION, AND CLEAR AND GRUB THE SITE.
5. INSTALL UTILITIES AND UNDERGROUND-RELATED IMPROVEMENTS.
6. GRADING ACCORDING TO THE GRADING PLAN; INSTALL FILTER AT DRAINAGE FLUMES AND LEAVE EXISTING DRAINAGE WAYS IN PLACE.

PHASE 3

1. BEGIN FOUNDATION CONSTRUCTION AND OTHER BUILDING PREPARATIONS.
2. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES, SUCH THAT THEY ARE PERFORMING THEIR FUNCTION PROPERLY, CLEAN OUT, SEDIMENT BUILD-UP WHEN FACILITIES REACH 50% CAPACITY, MAKE SURE THAT ADEQUATE DRAINAGE IS PROVIDED TO REDUCE RUNOFF ONTO EXISTING ROADS.
3. COMPLETE THE PLACEMENT OF AGGREGATE BASE TO MEET GRADE AND COMPACTION REQUIREMENTS, & COMPACTION TEST AFTER PASSING INSPECTION, THEN START ASPHALT PAVING.
4. INSTALL SIDEWALKS AND RELATED SITE IMPROVEMENTS.
5. CONTRACTOR SHOULD BLOW SEED AND STRAW ON ALL DISTURBED AREAS IN ORDER TO REDUCE EROSION. BARE GROUND AREAS SHOULD BE MINIMIZED DURING CONSTRUCTION.
6. CONTRACTOR SHOULD BE AWARE THAT EROSION MAY OCCUR IN AREAS THAT ARE UNPROTECTED ON THE CONSTRUCTION SITE. IF THE CONTRACTOR OBSERVES SEDIMENT ACCUMULATION OR EROSION PROBLEMS ON SITE, THEN THE CONTRACTOR MUST CONSULT WITH THE QCP TO DETERMINE THE NECESSARY MEASURES TO STOP SEDIMENTATION, SUCH AS SILT FENCES, WATTLE CHECK DAMS, ETC., AND THEN TAKE THE NECESSARY MEASURES TO STOP THE EROSION, SUCH AS SEED/MULCH, SOD, EROSION BLANKETS, ETC. AS DIRECTED BY THE QCP.

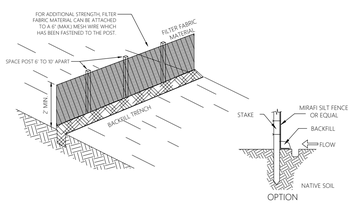
PHASE 4

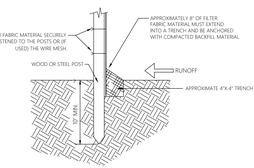
1. SOLID SOD WILL BE UTILIZED IN ALL DISTURBED AREAS TO EXPEDITE VEGETATIVE COVER ON THE AREAS DISTURBED BY CONSTRUCTION. THE VEGETATIVE COVER WILL PREVENT LONG TERM EROSION OF THE SITE.
2. PERMANENT SEEDING WILL BE UTILIZED IN ANY OTHER DISTRUBED AREAS THAT DO NOT RECEIVE SOLID SOD. THE PERMANENT SEEDING WILL BE MAINTAINED AND WILL PREVENT SOIL EROSION.
3. FINAL STABILIZATION OF DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE. TEMPORARY, STABILIZATION OF DISTRUBED AREAS MUST BE INITIATED IMMEDIATELY WHENEVER WORK TOWARD PROJECT COMPLETION AND FINAL STABILIZATION OF ANY PRTION OF THE SITE HAS TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING THIRTEEN (13) DAYS.
4. RIP RAP - NO STEEP DISTURBED SLOPES ARE ANTICIPATED BUT IF UNEXPECTED CONSTRUCITON ISSUES CREATE STEEPER DISTURB SLOPES, THEY WILL BE STABILIZED WITH RIP RAP TO PROTECT SOIL ON THE SLOPES FROM EROSION. THE RIP RAP WILL PROTECT THE SOIL FROM EROSION DUE TO CONCENTRATED RUNOFF. IT WILL BE USED TO STABILIZE SLOPES THAT ARE UNSTABLE DUE TO SEEPAGE. IT IS ALSO USED TO SLOW THE VELOCITY OF CONCENTRATED RUNOFF WHICH IN TURN INCREASES THE POTENTIAL FOR INFILTRATION.
5. STORM WATER DETENTION BASIN MUST BE MAINTAINED AFTER CONSTRUCTION AND REGULAR USAGE, REPLANT REES, GRASS, SHRUBS OR VINES WHERE NEEDED TO MAINTAIN ADEQUATE COVER FOR EROSION CONTROL MAINTAIN GRASS PLANTINGS WITH PERIODIC APPLICATIONS OF FERTILIZER AND MOWING. THE CITY OF MADISON ALSO REQUIRES THAT THESE DETENTION PONDS RETAIN THE 1.14 INCH, 24 HOUR STORM TO MIMIC THE PRE-DEVELOPMENT CONDITIONS OF PEAK DISCHARGE RATE AND DISCHARGE VOLUME. THIS WILL RETAIN AND SLOW DISCHARGE TO ALLOW SETTLEMENT, OR FILTERING, OF SEDIMENT AND DEBRIS PRIOR TO DISCHARGE INTO THE ADJACENT EXISTING GRASS DRAINAGE DITCH.

GRASS SWALES MUST BE MAINTAINED: INSPECT THE CHANNEL FOLLOWING STORM EVENTS BOTH DURING AND AFTER GRASS COVER IS ESTABLISHED; MAKE NEEDED REPAIRS IMMEDIATELY. ALSO, CHECK THE CHANNEL OUTLET AND ROAD CROSSING FOR BLOCKAGE, PONDING, SEDIMENT, AND BANK INSTABILITY, BREAKS AND ERODED AREAS; REMOVE ANY BLOCKAGE, AND MAKE REPAIRS IMMEDIATELY TO.

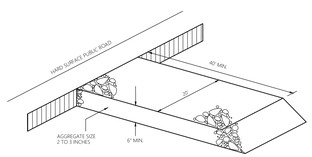
Erosion Control Notes:

1. EROSION CONTROL SHALL BE MAINTAINED AT ALL TIMES AND SHALL BE IN ACCORDANCE WITH ALABAMA'S BEST MANAGEMENT PRACTICES.
2. SILT FENCE SHALL BE PLACED IN ACCORDANCE WITH THE CITY OF MADISON STORMWATER MANAGEMENT MANUAL.
3. SILT FENCE IS REQUIRED WHERE NECESSARY TO PREVENT EROSION AND WASHING OF TOPSOIL INTO EXISTING WATERWAYS AND DRAINAGE DITCHES UNTIL TIME AS GRASS HAS BEEN FINALLY ESTABLISHED.
4. EROSION CONTROL IS REQUIRED AROUND INSTALLED STORM DRAINAGE INLETS AND BOXES AS SHOWN HEREON, UNTIL SUCH TIME AS GRASS HAS BEEN FIRMLY ESTABLISHED TO PREVENT TOPSOIL EROSION FROM WASHING INTO SAID INLETS.
5. 20" WATTLES SHALL BE USED AS TEMPORARY CHECK DAMS IN NEW AND EXISTING DRAINAGE DITCHES UNTIL SUCH TIME AS GRASS HAS BEEN FIRMLY ESTABLISHED TO PREVENT DITCHES FROM WASHING OUT.
6. AN ENTRANCE CONSTRUCTION PAD SHALL BE BUILT AT ALL EXITS FROM THIS CONSTRUCTION AREA TO EXISTING TRAVELED ROADWAYS IN ACCORDANCE WITH THE DETAILS SHOWN ON THESE PLANS.
7. THE CONTRACTOR IS REQUIRED TO SEED GRASS OR OTHERWISE STABILIZE ALL DISTURBED AREAS AS SHOWN AS SOON AS CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
8. THE CONTRACTOR IS REQUIRED TO INSURE THAT ALL RUNOFF FROM THE CONSTRUCTION SITE ONTO EXISTING AREAS HAVE BEEN ADEQUATELY TREATED BY THE USE OF EROSION CONTROL METHODS AS SHOWN HEREON.
9. ALL REAR YARD DITCHES MUST BE FULLY SODDED.
10. ALL R.O.W. MUST HAVE FULL STAND OF GRASS PRIOR TO FINAL INSPECTION.
11. ALL GRADED SLOPES SHALL BE GRADED TO A MAXIMUM SLOPE OF 4%.

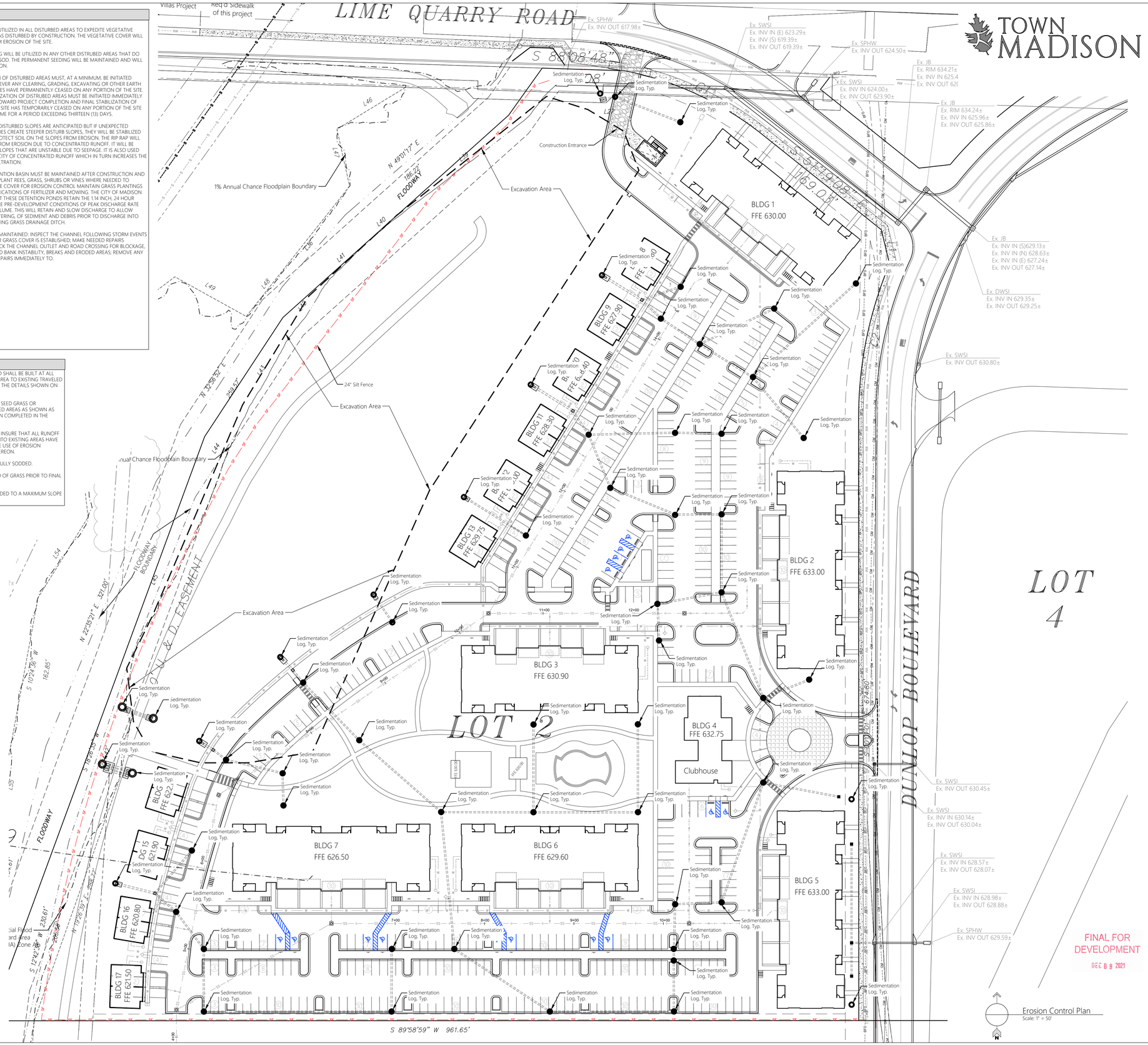




SILT FENCE
NOT to Scale



Gravel Construction Entrance
NOT to Scale



Erosion Control Plan
Scale: 1" = 50'

FINAL FOR DEVELOPMENT
DEC 09 2021

TOWN MADISON

REVISIONS

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MULLINS, LLC
CIVIL ENGINEERING, DEVELOPMENT DESIGN
SURVEYING, LANDSCAPE ARCHITECTURE
2101 West Clinton Avenue, Suite 103, Huntsville, AL 35805
(256) 690-5312

ALABAMA REGISTERED LANDSCAPE ARCHITECT RICHARD SCOTT MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: ---

Erosion Control Plan

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER
C7

TOWN MADISON

LIME QUARRY ROAD

Villas Project

Req'd Sidewalk of this project

Ex. SPHW
Ex. INV OUT 617.98±

Ex. SWSI
Ex. INV IN (E) 623.29±
Ex. INV (S) 619.39±
Ex. INV OUT 619.39±

Ex. SPHW
Ex. INV OUT 624.50±

Ex. JB
Ex. RIM 634.21±
Ex. INV IN 625.4
Ex. INV OUT 62(

Ex. SWSI
Ex. INV IN 624.00±
Ex. INV OUT 623.90±

Ex. JB
Ex. RIM 634.24±
Ex. INV IN 625.96±
Ex. INV OUT 625.86±

S 88°08'48" E
92.08'

S 51°19'05" E
69.05'

1% Annual Chance Floodplain Boundary

N 49°01'17" E
186.22'
FLOODWAY

Excavation Area

BLDG 1
FFE 630.00

BLDG 8
FFE 627.80

BLDG 9
FFE 627.90

BLDG 10
FFE 628.40

BLDG 11
FFE 628.30

BLDG 12
FFE 629.00

BLDG 13
FFE 629.75

Ex. JB
Ex. INV IN (S)629.13±
Ex. INV IN (N) 628.63±
Ex. INV IN (E) 627.24±
Ex. INV OUT 627.14±

Ex. DWSI
Ex. INV IN 629.35±
Ex. INV OUT 629.25±

Ex. SWSI
Ex. INV OUT 630.80±

N 30°58'52" E
209.57'

1% Annual Chance Floodplain Boundary

Excavation Area

FLOODWAY BOUNDARY

60' U & D EASEMENT

N 22°35'21" E 321.00'

S 10°24'36" W 162.85'

S 16°40'35" W 324.42'

Excavation Area

BLDG 2
FFE 633.00

LOT 4

BLDG 3
FFE 630.90

LOT 2

BLDG 4
FFE 632.75

Clubhouse

DUNLOP BOULEVARD

S 00°01'47" E 674.80'

Ex. SWSI
Ex. INV OUT 630.45±

Ex. SWSI
Ex. INV IN 630.14±
Ex. INV OUT 630.04±

Ex. SWSI
Ex. INV IN 628.57±
Ex. INV OUT 628.07±

Ex. SWSI
Ex. INV IN 628.98±
Ex. INV OUT 628.88±

Ex. SPHW
Ex. INV OUT 629.59±

BLDG 14
FFE 622.60

BLDG 15
FFE 621.90

BLDG 16
FFE 620.80

BLDG 17
FFE 621.50

BLDG 7
FFE 626.50

BLDG 6
FFE 629.60

BLDG 5
FFE 633.00

FLOODWAY

N 12°42'28" W 230.61'
N 19°26'59" E 295.58'

S 89°58'59" W 961.65'

FINAL FOR DEVELOPMENT
DEC 09 2021

Fire Truck Plan
Scale: 1" = 50'

REVISIONS

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ALABAMA REGISTERED LANDSCAPE ARCHITECT
RICHARD SCOTT MULLINS
November 16, 2021

The Roberts Apartments at TM

Madison, AL

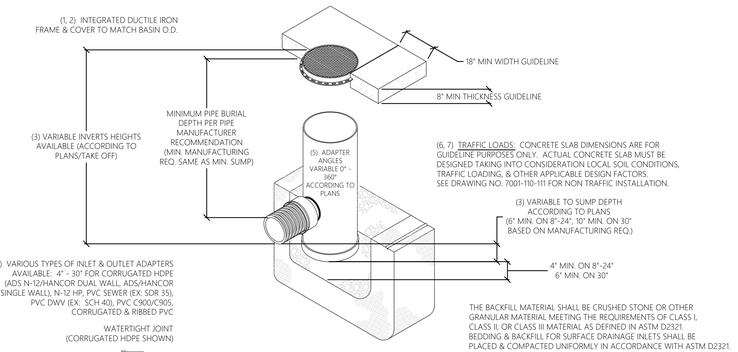
PREPARED FOR: ---

Fire Truck Access Plan

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

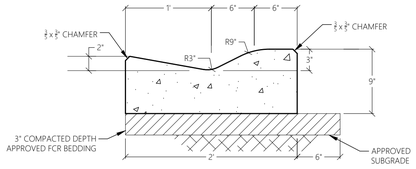
SHEET NUMBER

C8

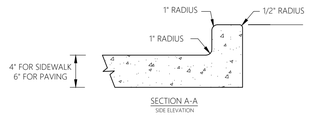


1 - 8" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
7 - 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

Nyloplast Junction-Box
NOT to Scale

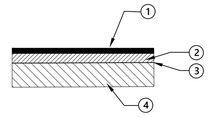


Fully Mountable Curb & Channel
NOT to Scale



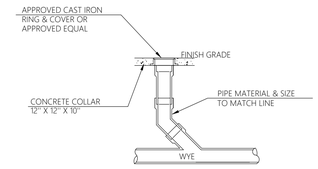
Concrete Integral Curb
NOT to Scale

TOP 6" OF SUBGRADE SHALL BE COMPACTED TO 100% PROCTOR DENSITY, BELOW 6" IS TO BE COMPACTED TO 95% PROCTOR DENSITY AS DETERMINED BY AASHTO T-99 COMPACTION TEST. SEE SPECIFICATIONS. FOR ADDITIONAL INFORMATION.

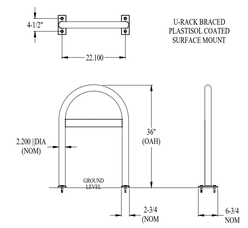


1. 112 LBS./S.Y. (1") HOT BITUMINOUS CONCRETE WEARING COURSE, ALDOT REF. 424-A, MIX 2 (SLUICEOUS AGGREGATE)
2. 224 LBS./S.Y. (2") HOT BITUMINOUS CONCRETE BINDER COURSE, ALDOT REF. 414, MIX 1 OF SPECS.
3. 0.10 GAL./S.Y. EMULSIFIED ASPHALT OR 0.07 GAL./S.Y. TACK COAT. ALL MATERIALS ARE TO BE IN ACCORDANCE WITH SEC. 405 OF THE AL. DOT SPECIFICATIONS.
4. 1" LAYER OF DENSE GRADED LIMESTONE BASE COURSE. AL. DOT REF. 301 OF SPECS. ALL MATERIALS SHALL BE IN ACCORDANCE WITH SEC. 825, TYPE "B", COMPACTION TO 100% LVD.

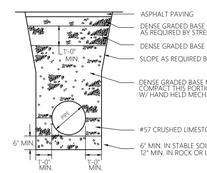
Asphalt Paving Section
NOT to Scale



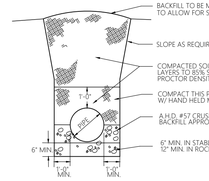
Clean-out
NOT to Scale



Arcat U-Rack "Braced' 2-Bike Rack Module
NOT to Scale

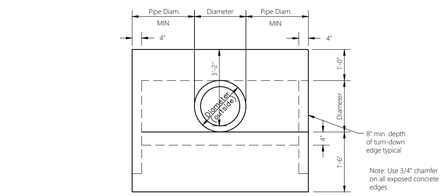


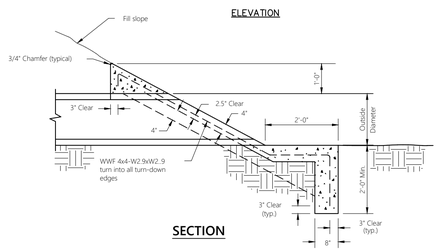
TRAFFIC AREAS



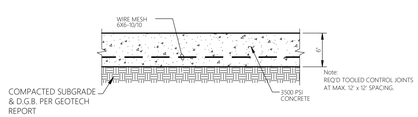
NON-TRAFFIC AREAS

Storm Pipe Bedding
NOT to Scale

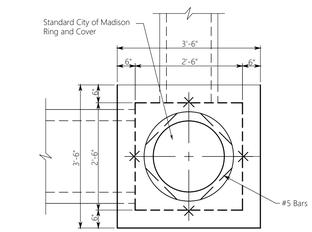


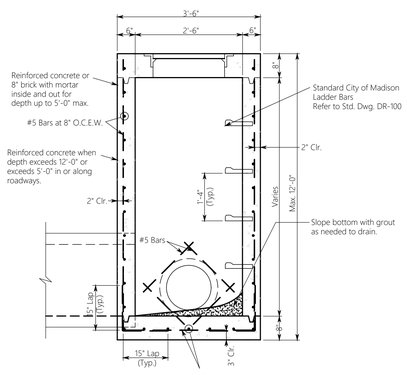


Concrete Sloped Paved Headwall
NOT to Scale



Concrete Paving
NOT to Scale



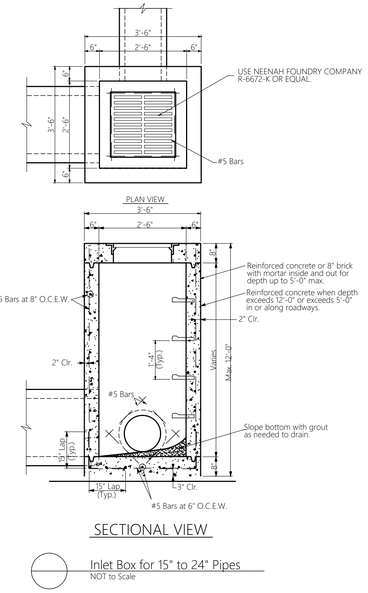


SECTIONAL VIEW

NOTES

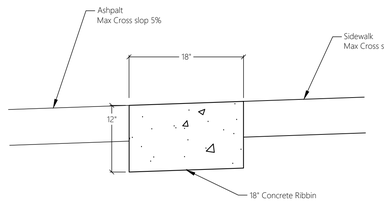
1. All concrete shall be class "A" and shall develop a minimum compressive strength of 3000 PSI in 28 days.
2. Reinforcing shall be grade 60 deformed bars and shall conform to ASTM requirements.
3. Steps are required on all Junction Boxes when dimensions from bottom of top slab to top of bottom slab is greater than 4'-0".

Junction Box for 15" to 24" Pipes
NOT to Scale

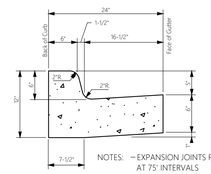


SECTIONAL VIEW

Inlet Box for 15" to 24" Pipes
NOT to Scale



Concrete Ribbon
NOT to Scale



NOTES: – EXPANSION JOINTS REQUIRED AT 75' INTERVALS
– CONSTRUCTION JOINTS REQUIRED AT 25' INTERVALS
– 3000 p.s.i. CONCRETE

Concrete Curb & Gutter
NOT to Scale

FINAL FOR DEVELOPMENT
DEC 09 2021

TOWN MADISON

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(256) 690-5312

ALABAMA REGISTERED PROFESSIONAL ENGINEER JOHN L. MULLINS 24918
November 16, 2021

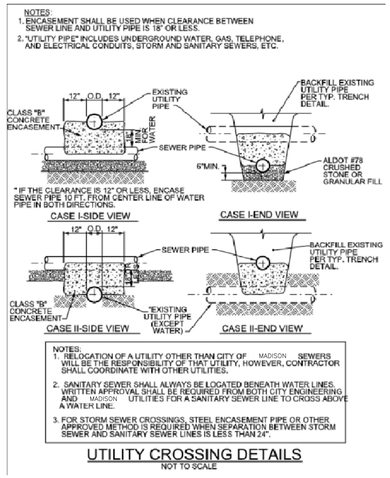
The Roberts Apartments at TM
Madison, AL
PREPARED FOR: ---

Civil Details

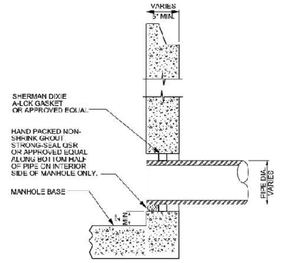
Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER
C9.1

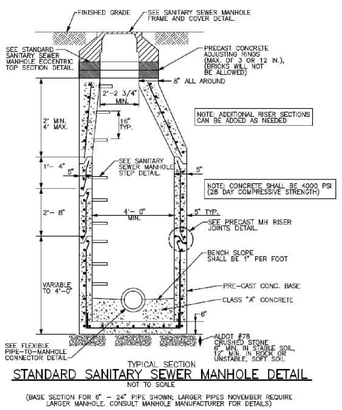
TOWN MADISON



UTILITY CROSSING DETAILS
NOT TO SCALE

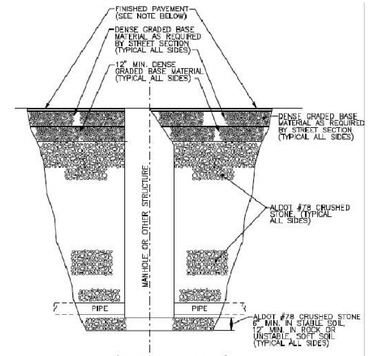


FLEXIBLE PIPE-TO-MANHOLE CONNECTOR DETAIL
NOT TO SCALE



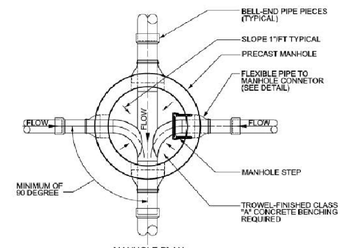
TYPICAL SECTION
STANDARD SANITARY SEWER MANHOLE DETAIL
NOT TO SCALE

(BASE SECTION FOR 8" – 24" PIPE SHOWN. LARGER PIPES MOVEMBER REQUIRE LARGER MANHOLE. CONSULT MANHOLE MANUFACTURER FOR DETAILS)



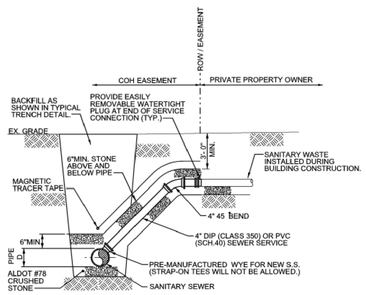
(OPTION NO. 1)
BEDDING AND BACKFILL REQUIREMENTS AROUND MANHOLES AND OTHER DRAINAGE & SANITARY SEWER STRUCTURES WITHIN TRAFFIC AREAS
NOT TO SCALE

NOTE:
1. TRAFFIC AREAS SHALL EXTEND TO 5 FT BEYOND BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED ON PLAN VIEW.
2. ASPHALT PAVING FOR STREETS SHALL MEET CURRENT CITY REQUIREMENTS.



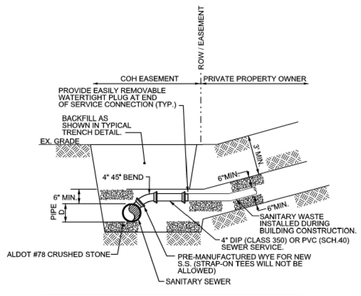
MANHOLE PLAN

MANHOLE INVERT DETAIL
NOT TO SCALE



NOTES:
1. ALL PVC SERVICE LATERALS SHALL HAVE A CONTINUOUS STRIP OF METAL TRACER TAPE INSTALLED 2' - 3' BELOW FINISH GRADE FROM CENTERLINE OF SANITARY SEWER TO ROW/EASEMENT.
2. CURB MARKERS SHALL BE PROVIDED FOR SERVICE LATERALS. REFER TO SECTION 5 - DESIGN CRITERIA FOR SERVICE LATERALS.

SERVICE CONNECTION FOR DEEP SEWER (MORE THAN 6')
NOT TO SCALE



NOTES:
1. ALL PVC SERVICE LATERALS SHALL HAVE A CONTINUOUS STRIP OF METAL TRACER TAPE INSTALLED 2' - 3' BELOW FINISH GRADE FROM CENTERLINE OF SANITARY SEWER TO ROW/EASEMENT.
2. CURB MARKERS SHALL BE PROVIDED FOR SERVICE LATERALS. REFER TO SECTION 5 - DESIGN CRITERIA FOR SERVICE LATERALS.

SERVICE CONNECTION FOR SHALLOW SEWER (6' OR LESS)
NOT TO SCALE

FINAL FOR DEVELOPMENT
DEC 09 2021

REVISIONS

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MULLINS, LLC
CIVIL ENGINEERING, DEVELOPMENT DESIGN
SURVEYING, LANDSCAPE ARCHITECTURE
2101 West Clinton Avenue, Suite 103, Huntsville, AL 35805
(256) 690-5312

ALABAMA REGISTERED PROFESSIONAL ENGINEER JAMES L. MULLINS
November 16, 2021

The Roberts Apartments at TM
Madison, AL

PREPARED FOR: ---

Civil Details

Job No. 21-128
Date: 2021 11-16
Drawn By: JLH
Checked By: RS

SHEET NUMBER
C9.2

Irrigation Requirements:

1. Piping
   - 1.1. All irrigation main lines shall be SCH 40 PVC, sized as shown, and shall be buried a min. of 30" below finish grade and installed in trenches with proper identifying tape for in-field location.
   - 1.2. All irrigation laterals shall be Class 200 PVC and shall be buried a min. of 18" below finish grade.
   - 1.3. Funny pipe may be used for connection of spray head bodies or dripline to irrigation mains, however, individual funny pipe runs shall not exceed 6'.
   - 1.4. In all instances where irrigation piping crosses hardscape, irrigation piping shall be installed in a SCH 40 PVC sleeve sized a min. of 2 sizes larger than the largest pipe crossing hardscape.
   - 1.5. Common trenches may be used for main and lateral piping and wiring.
2. Valves
   - 2.1. System shall have a master valve as part of the controlled irrigation system in location as indicated on Landscape Plan.
   - 2.2. Master Valve shall be pressure-regulated such that output pressure is ~100 psi.
   - 2.3. All valves for this system shall be RainBird PESB model with PRS-D pressure regulation module, sized as appropriate for the individual zone for lateral lines or to match the main line for the master valve.
   - 2.4. System shall be zoned to such that beds and turf areas are not irrigated together, with proximate, similar areas zoned together to minimize zone/valve count, within reason. Zoning/valving shall be included in submitted design for approval by Landscape Architect, prior to beginning installation.
   - 2.5. All valves shall be fitted with RainBird decoders for communication with two-wire based controller system.
   - 2.6. All valves shall be installed in RainBird PVB standard or jumbo valve boxes, installed per manufacturer's details, specs, & requirements.
3. Landscape Bed Irrigation
   - 3.1. Landscape Bed zone valves shall be pressure-regulated such that dripline operates at ~40 psi.
   - 3.2. Landscape beds shall be irrigated by dripline tubing, RainBird model XFS. Dripline tubing may be installed at finish grade, below mulch, or just below finish grade.
   - 3.3. Shrubs and trees shall, at minimum, have 1 row of dripline along 2 sides of the plants, located generally above the rootball of the plant, as well as 1 row of dripline along 2 sides of the plants, located 1' outside the rootball for shrubs and 3' outside the rootball for trees.
4. Sod Area Irrigation
   - 4.1. Sod zone valves shall be pressure-regulated such that heads operate at ~40 psi.
   - 4.2. Sod areas shall be irrigated by spray nozzle, with pressure-regulating spray body. Spray bodies shall be Hunter Pro-Spray model PRS40 with MP Rotator spray nozzles.
   - 4.3. Nozzle selection shall be appropriate for throw radius and area shape.
   - 4.4. All spray heads shall be trained to minimize overspray onto all hardscape areas, buildings, fences, furnishings, etc.
5. Quick Couplers
   - 5.1. Contractor shall install a 1" RainBird quick coupler at each location indicated on Landscape Plan.
   - 5.2. Quick Couplers shall be piped off of Irrigation Mains.
   - 5.3. Quick Coupler shall be installed in RainBird PVB standard valve box, per manufacturer's details, specs, & requirements.
6. Controller
   - 6.1. Irrigation controller for this system shall be RainBird ESP-LXD two-wire decoder controller. Location as shown on Landscape Plan.
   - 6.2. Controller shall be mounted in appropriate RainBird stainless steel pedestal, per manufacturer's requirements and specifications.
   - 6.3. Contractor shall coordinate with Owner for any communication tie-in to Owner's overall property infrastructure management system.
7. Wiring & Grounding
   - 7.1. All valves shall be connected to the controller by two-wire product which meets or exceeds minimum requirements of controller manufacturer, using DBY connectors installed in gel-filled housing.
   - 7.2. Grounding, lightning arrestors, and other related fixtures shall be installed per controller manufacturer's details, specs, & requirements. Should the controller manufacturer require certification of grounding measures installation, contractor shall arrange for such inspection and make adjustments as required for certification. Landscape Architect shall be included in all correspondence and inspections.

Landscape/Irrigation Inspections:

1. Contractor shall coordinate with Landscape Architect at tree delivery for inspection by Landscape Architect and approval prior to unloading.
2. Contractor shall stake, identify, and/or prepare the following for approval by Landscape Architect prior to installation:
   - 2.1. Finish Grade
   - 2.2. Tree Locations
   - 2.3. Bed Lines
   - 2.4. Landscape Irrigation Main Line
   - 2.5. All Valve Boxes
   - 2.6. Quick Couplers
   - 2.7. Landscape Irrigation Controller

NOTE: Any plant materials that are damaged (by transport, handling, installation, or other construction activities) are rejected and shall be replaced at no cost or delay to the Owner.

Landscape Installation Notes:

1. All existing trees outside of the limits of work for this project shall be protected during the construction and installation of these improvements and are not to be damaged in any manner. Any damage to such shall be brought to the attention of the Landscape Architect immediately for determination of appropriate corrective measures, if any. Contractor shall execute said corrective measures at no additional cost to the Owner.
2. All areas to receive landscape plantings (trees, shrubs, sod, etc.) shall be backfilled with min. 12" of topsoil (from nearby stripped topsoil stockpiles) prior to plant material installation or mulching. Placed topsoil shall be worked to remove and/or break-up any large clumps of soil and shall be fine-graded in all areas for a smooth, consistent finish product. Any debris or deleterious materials within the 12" profile of landscape areas shall be removed prior to placing any topsoil Any debris, large roots, rocks, etc. shall be removed from the topsoil prior to finish-grading efforts.
3. Contractor shall stake tree locations and layout bed lines for approval by Landscape Architect prior to installation. Adjust staked locations and bed lines as directed.
4. All landscape materials are subject to approval of the Owner or Landscape Architect at any time during the job, up until point of acceptance.
5. All plants shall meet standards set forth by the American Standards for Nursery Stock.
6. Provide No. 1 grade or better nursery grown stock grown in an approved, recognized nursery in accordance with requirements of applicable standards as noted herein. Provide only healthy, vigorous, stock free of disease, insects, injuries, abrasions crown die-back or disfigurements.
7. All trees shall have a single, straight leader (co-dominate leaders are unacceptable) unless otherwise noted. Trees with narrow crotches of included bark, split bark with inrolled callus, dead, broken, or flush-cut branches will not be accepted. Rootballs shall be firm, neat, slightly tapered and well burlapped. Trees with loose or broken rootballs at time of planting shall be rejected. All trees indicated as B&B/WB in plant schedule shall be balled and burlapped and set in wire basket at time of digging at nursery.
8. Plant material transported in open vehicles / trailers is damaged and subject to rejection.
9. Any rejected plants shall be removed from the site and replaced by acceptable plants meeting drawings notes & specifications at no additional cost to the owner.
10. All plant material, upon delivery to site shall be immediately planted in prepared and prior-approved beds and pits. If contractor is unable to plant within 2 hours of plant delivery to site, plants shall be heeled in, the roots kept moist, and plants otherwise protected and maintained until installation at no cost to the owner.
11. All plant material shall be handled by the container or rootball and not by the top growth.
12. Plants injured on job site are not acceptable and shall be replaced by contractor at no additional cost to the owner.
13. All plant material shall be warranted by Landscape Contractor for a period of one year after final acceptance. Dead or declining plant material shall be rejected and shall be replaced by Landscape Contractor at no cost to the owner. It is the Contractor's responsibility to contact the Owner at the end of the warranty period. If the Contractor fails to notify and meet with the Owner, the warranty period shall continue until the meeting is held, dead or declining plant material is replaced, and the project is accepted by the Owner.
14. Trees shall be staked with ArborTie product, min. three (3) per tree, per manufacturer's requirements and recommendations. Tree staking shall be removed from established plants at the end of the warranty period.
15. Mulch for trees and shrub beds shall be pine straw, installed to 3" settled thickness. Mulch shall extend min. 4' around trees.
16. All trees shall be purchased from the following supplier list, all subject to approval & pre-selection by Owner and/or Landscape Architect:

Hunter Trees	Alpine, AL	(866) 348-6837
Select Trees	Bishop, GA	(706) 743-5124
Bold Spring Nursery	Hawkinsville, GA	(478) 783-4975

17. Finish grade shall be approved by Landscape Architect and Owner's representative. All weeds shall be sprayed and removed prior to planting, seeding, and/or sodding.
18. All disturbed areas within the project's property and associated ROW shall be fully treated by either:
    - 18.1. Solid sod shall be planted with Tifton Bermuda over raked and fine-graded finish grade. Full, consistent stand of turf shall be established in all areas designated, prior to landscape acceptance.
    - 18.2. Landscape Bed area, mulched per notes.
19. Ex. turf areas shall be protected as much as is practicable. Any turf areas damaged as part of this work shall be repaired/replaced to match surrounding at no cost to the owner.
20. Contractor shall arrange for landscape inspection with Landscape Architect upon completion of installation for final acceptance.

Landscape Design Notes:

Plantings shown on this plan are required as part of the City of Madison's Zoning Ordinance. The plantings shall be installed prior to project Certificate of Occupancy.

This project is expected to have a full landscape design and implementation which will be handled by contractor direction and/or Supplemental Landscape Plan. Such plantings are not required by the Municipality and are, therefore, not subject to review/approval by such and are not included herein.

Contractor is to coordinate with Owner/Engineer/Landscape Architect to include such plantings in any pricing/bids put forth on this project.

Grand Avenue Site Furnishings:

The following are required at each location indicated:

1. 4' x 12' x 4" thk Conc. Pad
2. Bench -- "Harpo" as manufactured by LandscapeForms 69" length with aluminum slats
3. Litter Receptacle -- "Poe" as manufactured by LandscapeForms

Both bench and receptacle shall be installed per manufacturer's requirements and recommendations, mounted to concrete pad.

Plant List

Key	Scientific name	Common Name	Min. Size	Condition	Notes
Trees					
ARB	*Acer rubrum 'Brandywine'*	Brandywine Red Maple	3.5" Caliper	B&B / WB	Full & Matched
LSF	*Lagerstroemia x 'Sarah's Favorite'*	Sarah's Favorite Crape Myrtle	12' Height	B&B / WB	3- or 5-cane Only, Full & Matched
MVG	*Magnolia virginiana 'Australis'*	Australs Bay Magnolia	3.5" Caliper	B&B / WB	3- or 5-cane Only, Full & Matched
QLR	*Quercus lyrata 'QLR5D' P.P.A.F.*	Resilience Overcup Oak	3.5" Caliper	B&B / WB	Full & Matched
QTN	*Quercus nuttallii 'QNSTD' P.P. #16,254*	Sangria Nuttall Oak	3.5" Caliper	B&B / WB	Full & Matched
UAP	*Ulmus americana 'Princeton'*	Princeton American Elm	3.5" Caliper	B&B / WB	Full & Matched
Shrubs					
JGC	*Juniperus x pfitzeriana 'Aurea Improved'*	Gold Coast Juniper	5 Gal. and 18" hgt.	Container	Full & Matched
LES	*Loropetalum chinense 'Shang-white'*	Emerald Snow Loropetalum	5 Gal. and 18" hgt.	Container	Full & Matched
LRD	*Loropetalum chinense 'Shang-Red'*	Red Diamond Loropetalum	7 Gal. and 36" hgt.	Container	Full & Matched
TGZ	*Cleyera japonica 'Conthery'*	Bronze Beauty Cleyera	7 Gal. and 36" hgt.	Container	Full & Matched
Decorative Grasses					
CSL	*Cortaderia selloana*	Selloa Pampasgrass	5 Gal. and 30" hgt.	Container	Full & Matched
MSA	*Miscanthus sinensis 'Adagio'*	Adagio Fountain Grass	5 Gal. and 24" hgt.	Container	Full & Matched
MCL	*Muhlenbergia capillaris 'Lenca'*	Royal Mist Pink Muhly Grass	3 Gal. and 18" hgt.	Container	Full & Matched
MLL	*Muhlenbergia lindheimeri 'Lein'*	Autumn Glow Muhly Grass	3 Gal. and 18" hgt.	Container	Full & Matched



STATE OF ALABAMA
HARRY MATHIS SNEED
NUMBER 690
PROFESSIONAL LANDSCAPE ARCHITECT
Nov 17, 2021

Req'd PVA Landscape Calculations:

Grand Avenue			
	Total Length	733 LF	
	Req'd Trees	9	(1 tree / 50 LF)
	Provided Trees	9	
Perimeter			
	Total Length	979 LF	
	Req'd Trees	20	(1 tree / 50 LF)
	Req'd Shrubs	120	(6 shrubs / 50 LF)
	Provided Trees	20	
	Provided Shrubs	120	
Interior			
	Req'd LS Area	8,352 sf	(464 spaces x 18 sf)
	Req'd Trees	42	(1 tree / 200 sf)
	Req'd Shrubs	168	(4 shrubs / 200 sf)
	Provided LS Area	8,500+ sf	
	Provided Trees	42	
	Provided Shrubs	172	

FINAL FOR DEVELOPMENT
DEC 09 2021

REVISIONS
Date: ---
Date: ---
Date: ---
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Date: ---

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SURVEYING, LANDSCAPE ARCHITECTURE
2101 West Clinton Avenue, Suite 303, Huntsville, AL 35805
(256) 690-5312

The Roberts Apartments at Town Madison

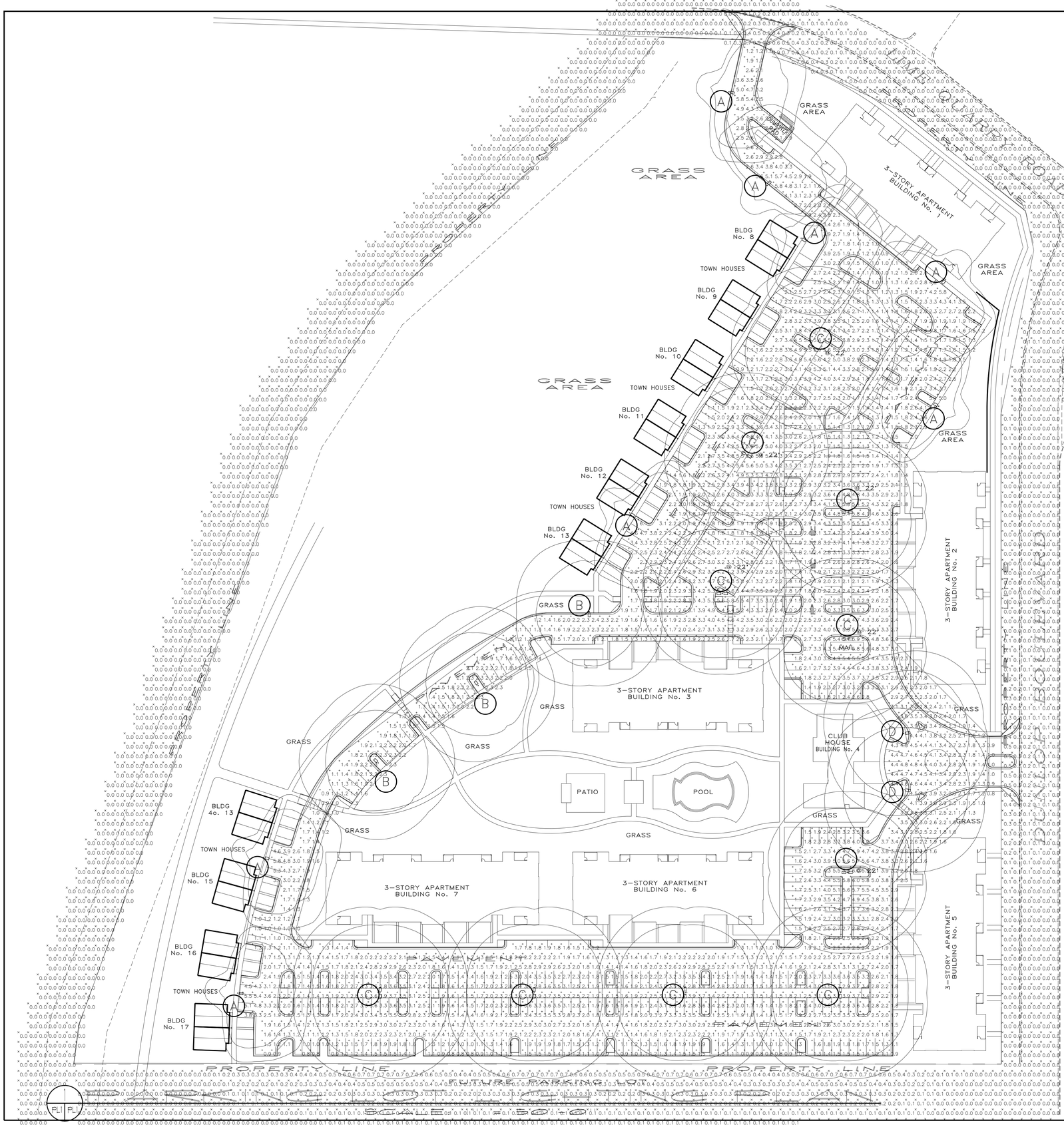
Madison, AL

PREPARED FOR: Rohdie Group

PVA Landscape Plan

Job No. 21-128
Date: 2021 11/17
Drawn By: HMS
Checked By: HMS

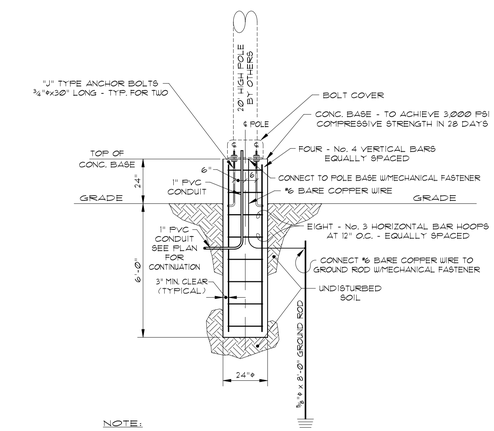
SHEET NUMBER
L1



LIGHTING NOTES

1. VERIFY EXACT LOCATIONS WITH OWNER'S REPRESENATIVE BEFORE ROUGHING IN.
2. CONTRACTOR SHALL CHECK ALL LIGHTING FIXTURES FOR EXACT MOUNTING TYPE AND SPACE REQUIRED BEFORE ROUGHING IN.
3. ELECTRICAL CONTRACTOR SHALL WORK CLOSELY WITH THE OWNER'S REPRESENTATIVE, TO VERIFY EXACT TYPE OF EQUIPMENT TO BE INSTALLED, AND THE DIMENSIONS WHICH MAY EFFECT THE EXACT PLACEMENT OF ELECTRICAL WORK.
4. FURNISH AND INSTALL LAMPS AS WITH FIXTURES.
5. ALL WORK SHALL BE IN COMPLIANCE WITH NFPA 70, AND THE CITY OF MADISON LIGHTING ORDINANCE REQUIREMENTS.





NOTE:
FACTORY SUPPLIED TEMPLATE MUST BE USED WHEN SETTING ANCHOR BOLTS.

2 PL1 PL1 TYPICAL POLE BASE DETAIL
NOT TO SCALE

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Lum. Watts	Lum. Lumens	LLF	Arrangement	Description
	A	8	147	22020	0.95	SINGLE	RSX2-LED-P3-40K-R4-MVOLT-SPA-DDBXD Mounted on 25' Sq Steel Pole
	B	3	244	31073	0.95	SINGLE	RSX2-LED-P6-40K-R5-MVOLT-SPA-DDBXD Mounted on 25' Sq Steel Pole
	C	10	374	25667	0.95	SINGLE	RSX2-LED-P4-40K-R5-MVOLT-SPA-DDBXD Mounted on 25' Sq Steel Pole
	D	2	312	41525	0.95	SINGLE	RSX3-LED-P4-40K-R5-MVOLT-SPA-DDBXD Mounted on 25' Sq Steel Pole

CALCULATION SUMMARY

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Parking and Driveways	Illuminance	Fc	2.5	6.1	0.8	3.1:1	7.6:1
Spillover	Illuminance	Fc	0.1	0.9	0.0	N.A.	N.A.

FINAL FOR DEVELOPMENT
DEC 09 2021

50' 0 50'
GRAPHIC SCALE: 1"=50'-0"
Sept 20, 2021 - 05:39:57

REVISIONS	BY

PROJECT TITLE:
ROBERTS APARTMENTS
INTER DUNLOP BLVD/LIME QUARRY
MADISON, ALABAMA

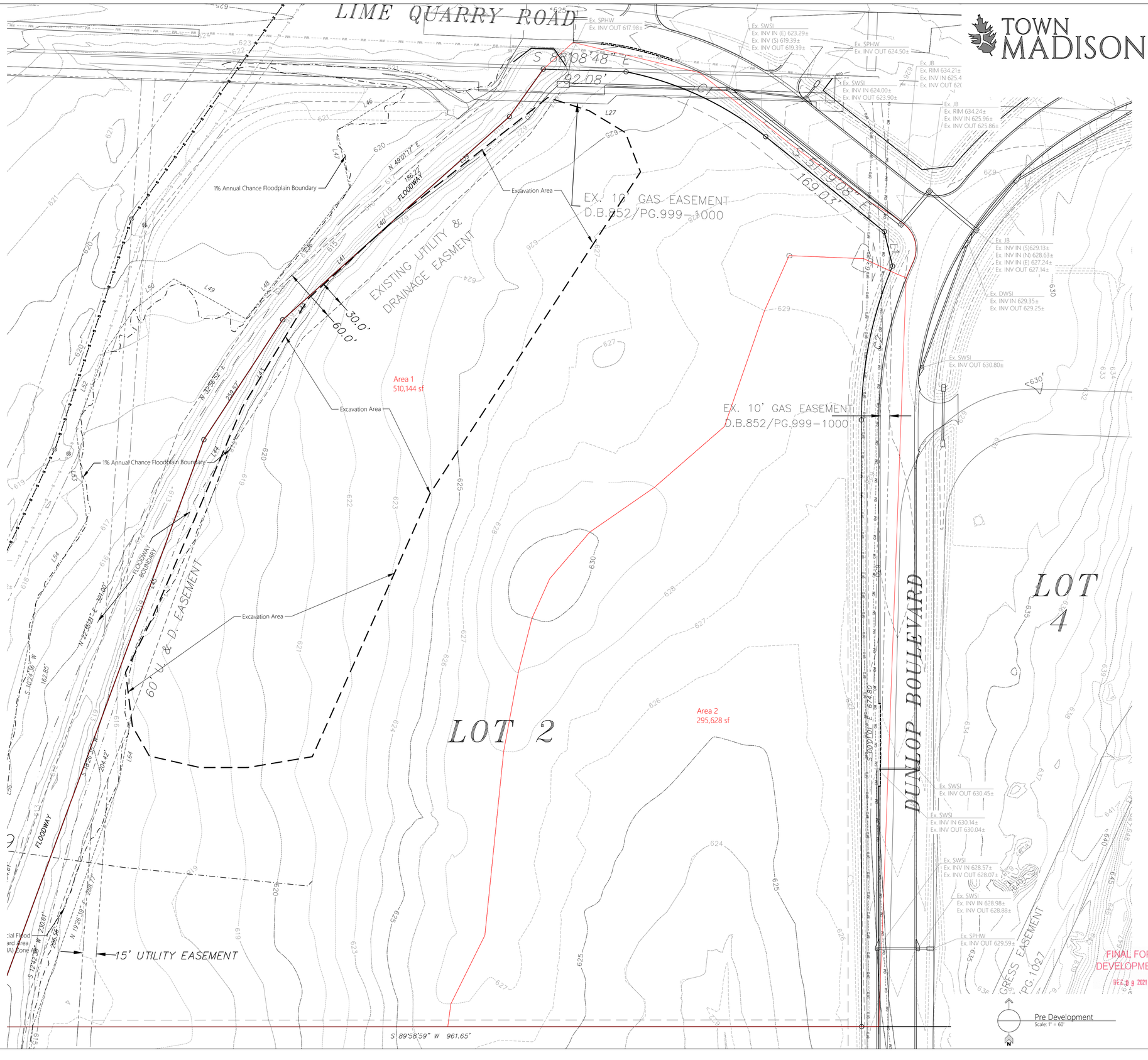
SHEET TITLE:
PARKING LOT LIGHTING
PLAN, NOTES AND LEGEND

STAMP
ALABAMA REGISTERED NO. 11037 PROFESSIONAL ENGINEER JOHN A. SNOW
9-20-2021

ASSOCIATED ENGINEERING SERVICES
HUNTSVILLE, ALABAMA

DATE SEP 2021
SCALE 1"=50'-0"
DRAWN N.A. Snow
JOB P-21135
SHEET PL-1
OF --- SHEETS

P135-PL1



TOWN MADISON

REVISIONS

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2101 West Clinton Avenue, Suite 103, Huntsville, AL 35805
(256) 690-5312

The Roberts Apartments at TM

Madison, AL

PREPARED FOR: ---

Pre Development Drainage Map

Job No.	19-177
Date:	2021 9-21
Drawn By:	JLH
Checked By:	RS

SHEET NUMBER

D1

TOWN MADISON

LIME QUARRY ROAD

Villas Project

Req'd Sidewalk of this project

1% Annual Chance Floodplain Boundary

FLOODWAY

Excavation Area

EXISTING UTILITY & DRAINAGE EASEMENT

60' U & D EASEMENT

15' UTILITY EASEMENT

GRESS EASEMENT PG. 1027

EXISTING GAS EASEMENT D.B. 552 PG. 999-1000

DUNLOP BOULEVARD

LOT 2

LOT 4

BLDG 1 FFE 630.00

BLDG 2 FFE 633.00

BLDG 3 FFE 630.90

BLDG 4 FFE 632.75

BLDG 5 FFE 633.00

BLDG 6 FFE 627.80

BLDG 7 FFE 626.50

BLDG 8 FFE 627.90

BLDG 9 FFE 627.80

BLDG 10 FFE 629.00

BLDG 11 FFE 629.00

BLDG 12 FFE 629.00

BLDG 13 FFE 629.75

BLDG 14 FFE 629.60

BLDG 15 FFE 621.90

BLDG 16 FFE 620.80

Clubhouse FFE 631.00

Special Flood Hazard Area (SFHA) Zone AE

Ex. SPHW Ex. INV OUT 617.98±

Ex. SWSI Ex. INV IN (E) 623.29± Ex. INV (S) 619.39± Ex. INV OUT 619.39±

Ex. SPHW Ex. INV OUT 624.50±

Ex. SWSI Ex. INV IN 624.00± Ex. INV OUT 623.90±

Ex. JB Ex. RIM 634.21± Ex. INV IN 625.4 Ex. INV OUT 62(

Ex. JB Ex. RIM 634.24± Ex. INV IN 625.96± Ex. INV OUT 625.86±

Ex. JB Ex. INV IN (S)629.13± Ex. INV IN (N) 628.63± Ex. INV IN (E) 627.24± Ex. INV OUT 627.14±

Ex. DWSI Ex. INV IN 629.35± Ex. INV OUT 629.25±

Ex. SWSI Ex. INV OUT 630.80±

Ex. SWSI Ex. INV OUT 630.45±

Ex. SWSI Ex. INV IN 630.14± Ex. INV OUT 630.04±

Ex. SWSI Ex. INV IN 628.57± Ex. INV OUT 628.07±

Ex. SWSI Ex. INV IN 628.98± Ex. INV OUT 628.88±

Ex. SPHW Ex. INV OUT 629.59±

FINAL FOR DEVELOPMENT Dec 09 2021

REVISIONS

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(256) 690-5312

The Roberts Apartments at TM

Madison, AL

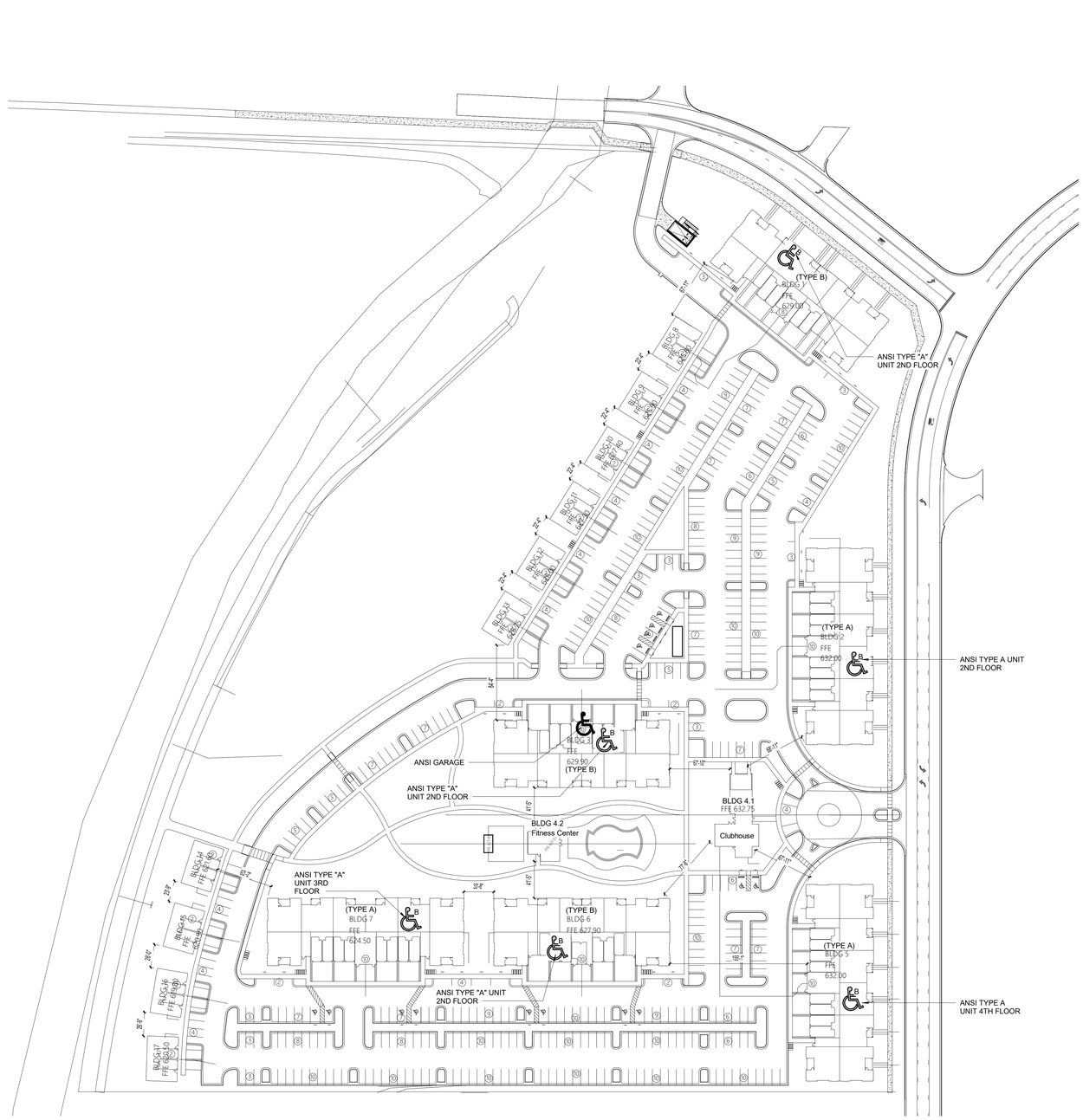
PREPARED FOR: ---

Post Development Drainage Map

Job No.	19-177
Date:	2021 9-21
Drawn By:	JLH
Checked By:	RS

SHEET NUMBER

D2



H2 ARCHITECTURAL SITE PLAN
1" = 60'-0"

N

GENERAL NOTES:

1. SEE CIVIL PLAN FOR PARKING SUMMARY.
2. THIS SITE PLAN IS FOR ARCHITECTURAL INFORMATION ONLY. SEE CIVIL & LANDSCAPE DOCUMENTS FOR SPECIFIC BUILDING LOCATION & OTHER SITE REQUIREMENTS. SEE LANDSCAPE DRAWINGS UNDER SEPARATE COVER FOR SITE CONFIGURATION, LAYOUT, GRADING AND RELATED INFORMATION
3. THE SWIMMING POOL(S) SHOWN ON THE DRAWINGS ARE PROVIDED FOR GENERAL LOCATION AND SHAPE SUGGESTION PURPOSES ONLY. FUGLEBERG KOCH LLC IS NOT QUALIFIED TO PROVIDE SERVICES FOR POOLS AND MAKES NO ATTEMPT TO DO SO. POOL DESIGN DOCUMENTS FOR CONSTRUCTION, CODE COMPLIANCE, AGENCY APPROVALS, CONSTRUCTION CERTIFICATION AND OTHER SERVICES REQUIRED FOR THE POOL(S) SHALL BE PERFORMED BY OTHERS UNDER THE SEPARATE CONTRACT WITH THE OWNER

LEGEND:

M.C METER CENTER. APROX 2000 AMP LOAD PER NEC

B DESIGNATED ANSI TYPE 'A' UNIT

DESIGNATED ACCESIBLE GARAGE

ISSUE HISTORY

No.	Date	Description
1	04/15/2022	PERMIT SUBMITTAL

REVISION HISTORY

No.	Date	Description

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FUGLEBERG KOCH
2555 Temple Trail, Winter Park, FL 32789 (407) 629-0595
www. fuglebergkoch.com AA26002103

CONSULTANT

STATE OF ALABAMA LICENSED ARCHITECT 8234 4/15/22 REGISTERED ARCHITECT

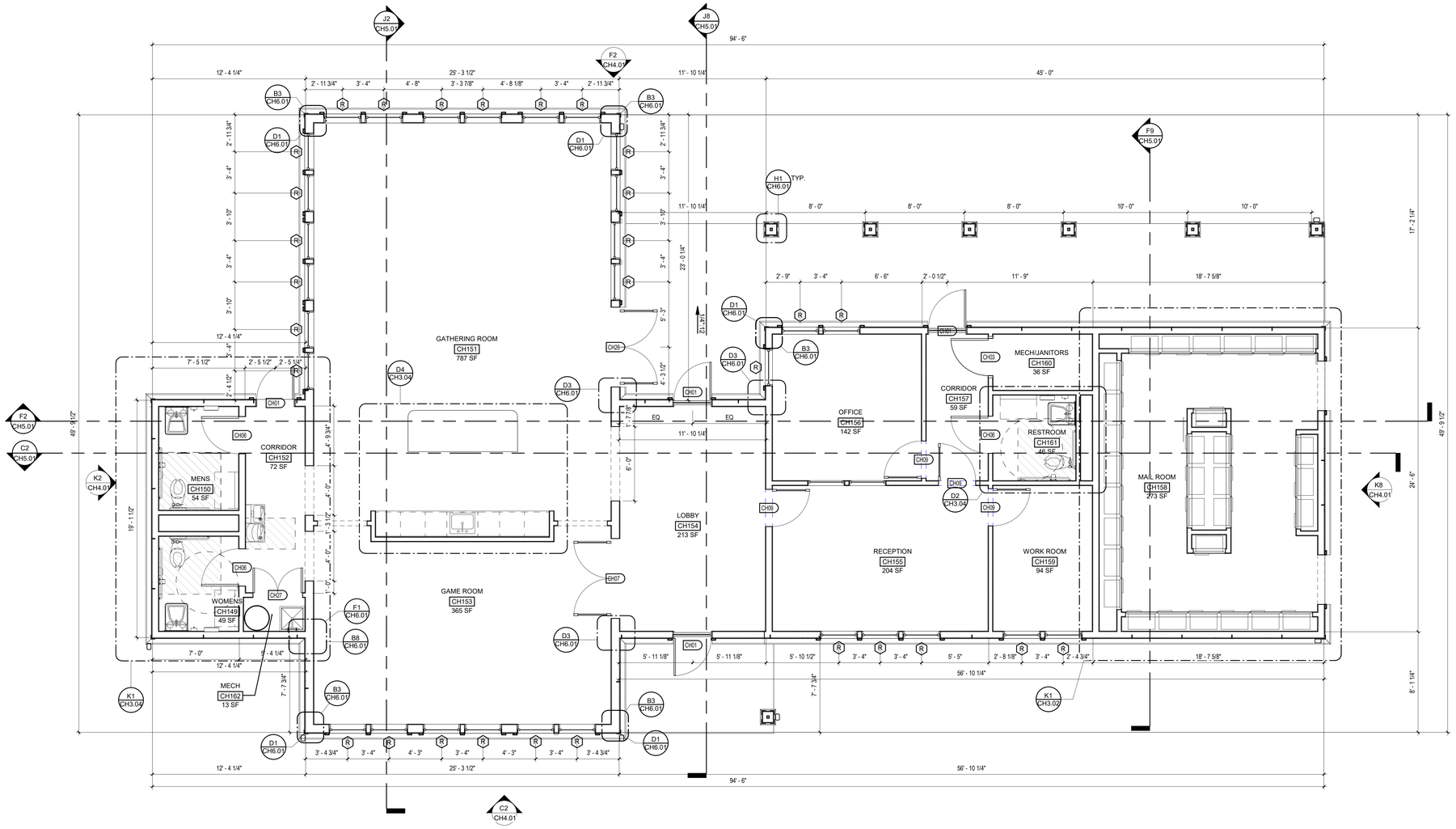
MICHAEL GOVE
8234

THE ROBERT MADISON *MADISON, ALABAMA*	Drawn: MB Checked: JK Approval: MG Date: 04/15/2022 Project #: 5722

ARCHITECTURAL SITE PLAN

A1.01

PLOTTED: 5/5/2022
4:14:52 PM



H1 CLUBHOUSE - GROUND LEVEL
1/4" = 1'-0"

GENERAL NOTES:

01. EXTERIOR DIMENSIONS ARE FROM EXTERIOR FACE OF STUD TO EXTERIOR FACE OF STUD. WHEN A TENANT WALL OCCURRS, DIMENSIONS ARE TAKEN TO THE CENTERLINE. ALL OTHER DIMENSIONS ARE FROM OUTSIDE FACE OF STUD UNLESS NOTED OTHERWISE. SEE UNIT PLANS FOR FURTHER DIMENSIONS.

02. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.

03. CONTRACTOR TO COORDINATE FLOOR & CEILING CONTROL JOINT PLACEMENT COMMON AREA AT 8'-0" MAX ON CENTER WHERE POSSIBLE.

04. SEE CIVIL PLANS FOR ACTUAL FINISH FLOOR ELEVATIONS.

05. REFER TO CIVIL DWGS. FOR SIDEWALK CONDITIONS.

LEGEND:

A. REFER TO ARCHITECTURAL PLANS FOR LOCATION OF FIRE RISER ROOM AND THE WATER RISER ROOM REQUIRED FOR EACH BUILDING LOCATION.

ISSUE HISTORY

No.	Date	Description
1	04/15/22	Permit Submittal

REVISION HISTORY

No.	Date	Description

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2555 Temple Trail, Winter Park, FL 32789 (407) 629-9595
www.fuglebergkoch.com AA26002103
CONSULTANT

STATE OF ALABAMA
MICHAEL E. GOVE
8234
4/15/22
REGISTERED ARCHITECT
MICHAEL GOVE
8234

Drawn:	MB
Checked:	JK
Approval:	MG
Date:	04/15/2022
Project #:	5722

THE MADISON
MADISON, AL

CLUBHOUSE FLOOR PLAN

CH2.01

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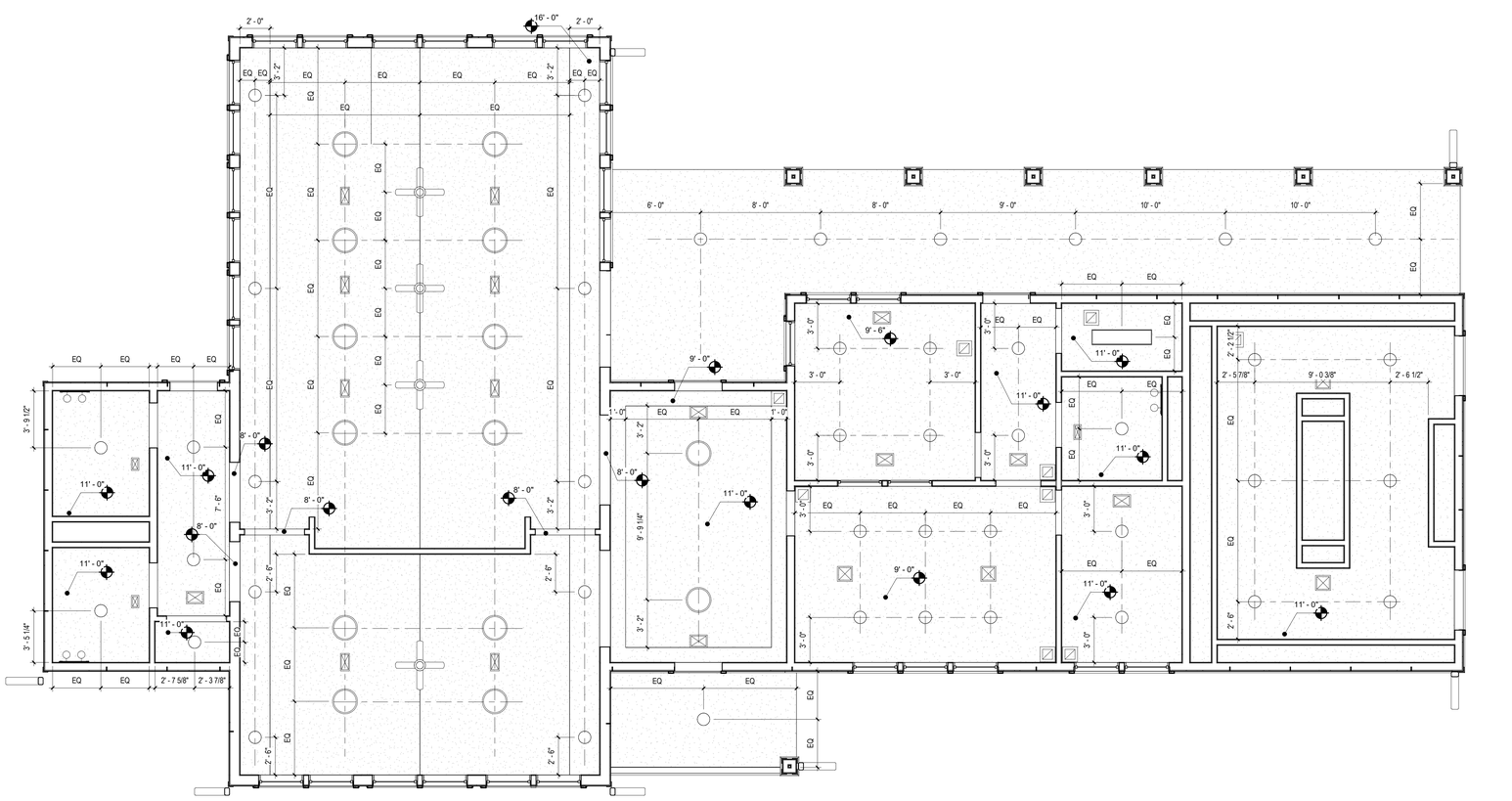

K2 CLUBHOUSE REFLECTED CEILING PLAN
1/4" = 1'-0"

GENERAL NOTES:

A. ALL DIMENSIONS ARE FROM OUTSIDE FACE OF STUD UNLESS NOTED OTHERWISE. SEE UNIT PLANS FOR FURTHER DIMENSIONS.
B. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
C. SEE A300 SERIES SHEETS FOR UNIT PLAN INFORMATION.

RCP LEGEND

NOTE: SEE ELECTRICAL AND INTERIOR DESIGN FOR FIXTURE SCHEDULES

- SURFACED MOUNTED LED LIGHT FIXTURE
- PENDANT LIGHT FIXTURE
- CHANDALIER
- ATTIC ACCESS PANEL
- CEILING FAN
- EXHAUST FAN - CEILING MOUNTED
- SQUARE SUPPLY DIFFUSER - CEILING MOUNTED
- SQUARE RETURN DIFFUSER - CEILING MOUNTED
- (F) FAN JUNCTION BOX
- LIGHTED EXIT SIGN
- WALL MOUNTED LIGHT FIXTURE - COORDINATE LOCATION AND MOUNTING HEIGHT WITH OWNER & INTERIOR DESIGNER

ISSUE HISTORY

No.	Date	Description
1	04/15/22	Permit Submittal

REVISION HISTORY

No.	Date	Description

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MICHAEL E. GOVE
8234
4/15/22
REGISTERED ARCHITECT

MICHAEL GOVE
8234

THE MADISON
MADISON, AL

Drawn:	MB
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Date:	04/15/2022
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CLUBHOUSE REFLECTED CEILING PLAN

CH2.03

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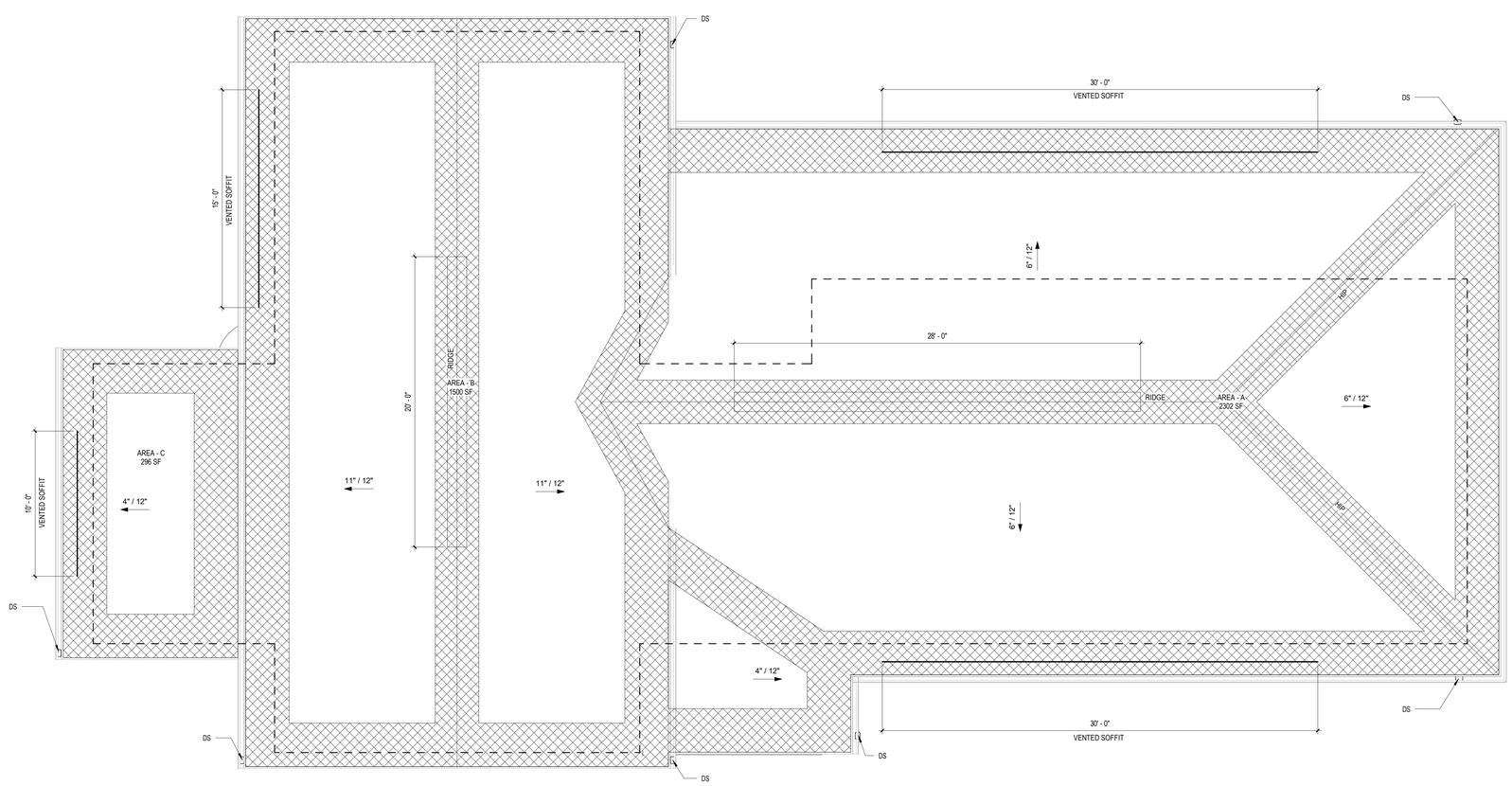
VENTILATION SCHEDULE		
ROOF VENT	MF'GR & MODEL #	FREE AREA
HARDIE VENTED SOFFIT	HARDIE SOFFIT	0.0347 SQ.FT
RIDGE VENT	CERTAINTEED	0.125 SQ.FT
OFF RIDGE VENT	4'-0" OFF RIDGE SHINGLE "FLAMCO"	0.96 SQ.FT
	6'-0" OFF RIDGE SHINGLE "FLAMCO"	1.46 SQ.FT

ATTIC VENT CALCULATIONS - AREA "A"		
	REQUIRED	PROVIDED
TOTAL ROOF AREA	= 2302 Sq.Ft.	
PER IBC 2018	x 0.0033	
REQ. VENTILATED AREA	7.60 Sq.Ft.	
TOTAL SOFFIT LIN. FT.		60 Lin.Ft.
OPENING NET VENTILATION		x 0.07 Sq.Ft.
NET FREE AREA	3.80 Sq.Ft.	4.2 Sq.Ft.
TOTAL RIDGE VENT LIN. FT.		28 Lin.Ft.
OPENING NET VENTILATION		x 0.125 Sq.Ft.
NET FREE AREA	3.80 Sq.Ft.	3.50 Sq.Ft.
TOTAL VENTILATED AREA	7.60 Sq.Ft.	7.70 Sq.Ft.

ATTIC VENT CALCULATIONS - AREA "B"		
	REQUIRED	PROVIDED
TOTAL ROOF AREA	= 599 Sq.Ft.	
PER IBC 2018	x 0.0033	
REQ. VENTILATED AREA	1.98 Sq.Ft.	
TOTAL SOFFIT LIN. FT.		15 Lin.Ft.
OPENING NET VENTILATION		x 0.07 Sq.Ft.
NET FREE AREA	0.99 Sq.Ft.	1.05 Sq.Ft.
TOTAL RIDGE VENT LIN. FT.		10 Lin.Ft.
OPENING NET VENTILATION		x 0.125 Sq.Ft.
NET FREE AREA	0.99 Sq.Ft.	1.25 Sq.Ft.
TOTAL VENTILATED AREA	1.98 Sq.Ft.	2.30 Sq.Ft.

ATTIC VENT CALCULATIONS - AREA "C"		
	REQUIRED	PROVIDED
TOTAL ROOF AREA	= 296 Sq.Ft.	
PER IBC 2018	x 0.0033	
REQ. VENTILATED AREA	0.98 Sq.Ft.	
TOTAL SOFFIT LIN. FT.		10 Lin.Ft.
OPENING NET VENTILATION		x 0.07 Sq.Ft.
NET FREE AREA	0.49 Sq.Ft.	0.7 Sq.Ft.
TOTAL RIDGE VENT LIN. FT.		4 Lin.Ft.
OPENING NET VENTILATION		x 0.125 Sq.Ft.
NET FREE AREA	0.49 Sq.Ft.	0.50 Sq.Ft.
TOTAL VENTILATED AREA	0.98 Sq.Ft.	1.20 Sq.Ft.



H2 CLUBHOUSE - ROOF PLAN
1/4" = 1'-0"

GENERAL NOTES:

1. PAINT ALL ROOF VENTS & PENETRATIONS TO MATCH ROOF SHINGLE COLOR
2. COORDINATE DOWNSPOUT DISCHARGE WITH CIVIL DRAWINGS. WHERE NOT TAKEN TO STORM, PROVIDE SPLASH BLOCK.
3. LEAVE OPENING IN MAIN ROOF SHEATHING FOR VENTILATION UNDERNEATH OVER BUILT AREAS.
4. DOWNSPOUTS AND GUTTERS SHOWN ARE MIN. REQUIREMENTS SUBJECT TO OWNER'S CONSIDERATIONS
5. CONTRACTOR SHALL BE RESPONSIBLE TO MEET MINIMUM ROOF VENT REQUIREMENTS
6. GENERAL CONTRACTOR SHALL COORDINATE ALL ROOF ACCESSORIES INSTALLATION DETAILS PER MANUFACTURERS SPEC'S TO MAINTAIN THE WATERTIGHT SYSTEM & EXTENDED WARRANTY
7. SEE CIVIL SITE PLAN FOR BUILDING ORIENTATION. CARDINAL DIRECTIONS SHOWN FOR REFERENCE ONLY

LEGEND:

- ATTIC DRAFT STOP PARTITION.
- REMOVABLE ACCESS PANEL, MIN. 36" X 36"
- 1HR. FIRE RATED ATTIC ACCESS PANEL, MIN. 22"X36". COORDINATE WITH ROOF TRUSSES
- RIDGE VENTS
- ICE AND WATER SHIELD / SELF-ADHEARED MEMBRANE UNDER ROOF FELT, 24" BACK FROM FACE OF EXTERIOR WALL TO EDGE OF EVE AND 24" WIDE @ ALL RAKES, RIDGES, VALLEYS, HIPS. FLASHING AND UNDER ALL SHINGLE ROOFS.
- D.S. DOWNSPOUT
- OFF-RIDGE VENT
- OUTLINE OF WALLS
- L.B. 12x24 LOUVER (BELOW ROOF LINE) LOCATE 12" MIN. ABOVE ROOF SURFACE

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8234
4/15/22
REGISTERED ARCHITECT

MICHAEL GOVE
8234

THE MADISON
MADISON, AL

Drawn:	MB
Checked:	JK
Approval:	MG
Date:	04/15/2022
Project #	5722

CLUBHOUSE ROOF PLAN

CH2.04

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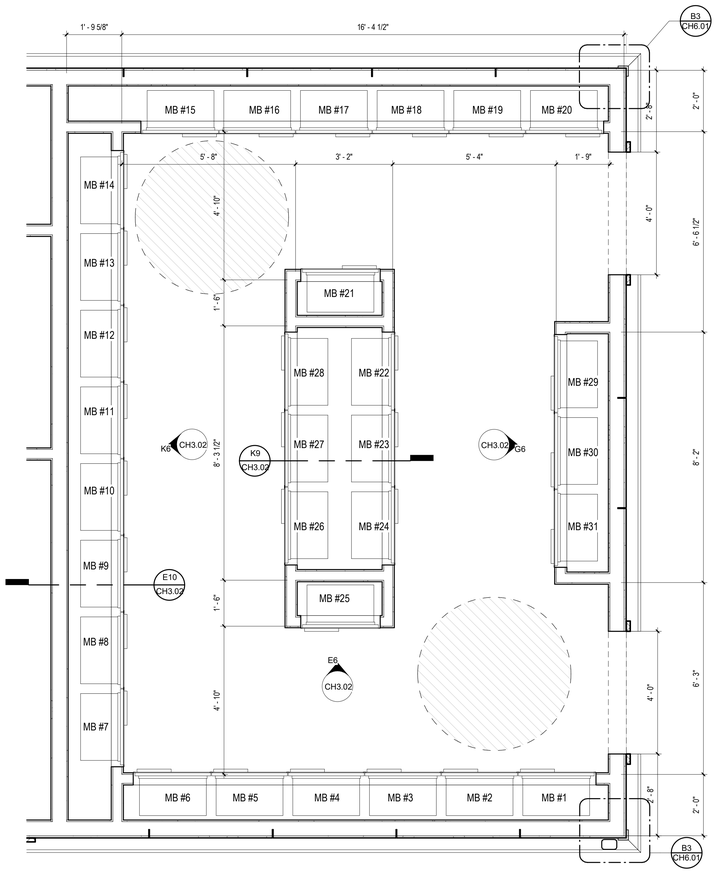
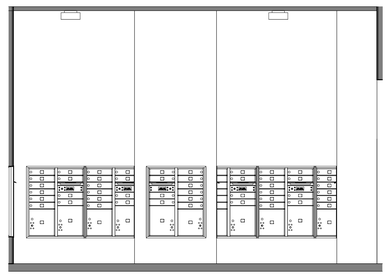
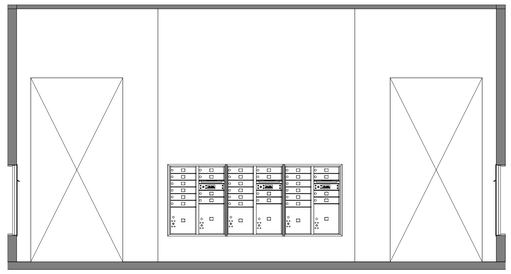


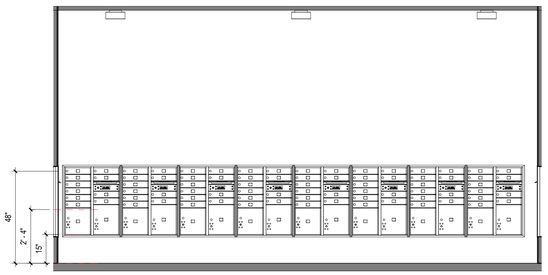
K1 CLUBHOUSE - ENLARGED MAIL KIOSK 2
1/2" = 1'-0"



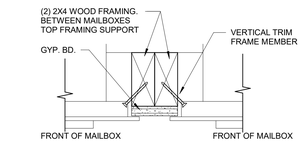
E6 MAIL KIOSK ELEVATION C
3/8" = 1'-0"



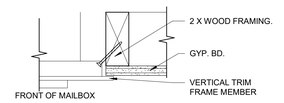
G6 MAIL KIOSK ELEVATION B
3/8" = 1'-0"



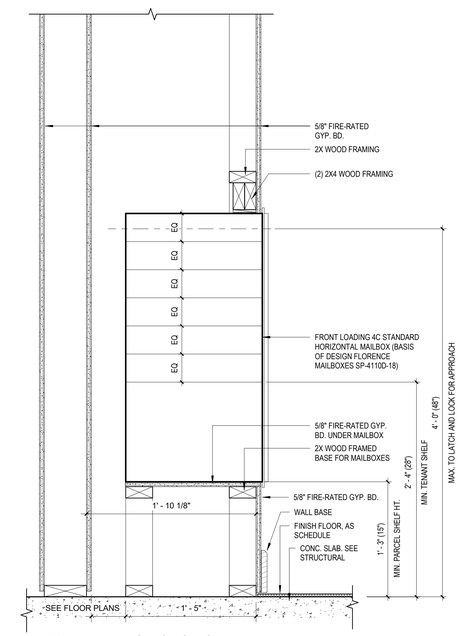
K6 MAIL KIOSK ELEVATION A
3/8" = 1'-0"



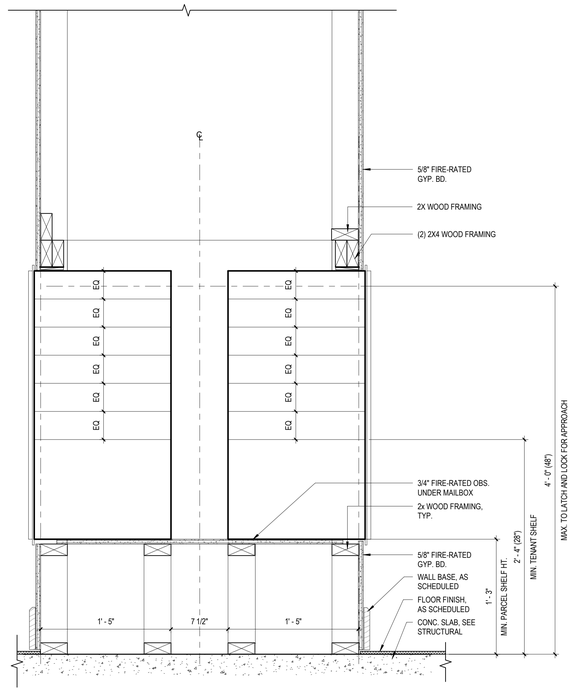
B9 MAILBOX FRAMING DETAIL
3" = 1'-0"



B11 MAILBOX FRAMING - EXTRA SUPPORT
3" = 1'-0"



E10 MAIL BOX SECTION
1 1/2" = 1'-0"



K9 SECTION DETAIL AT BACK TO BACK MAILBOXES
1 1/2" = 1'-0"

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STATE OF ALABAMA MICHAEL E. GOVE 8234 4/15/22 REGISTERED ARCHITECT

MICHAEL GOVE
8234

Drawn:	MB
Checked:	JK
Approval:	MG
Date:	04/15/2022
Project #:	5722

THE MADISON
MADISON, AL

CLUBHOUSE - MAIL KIOSK INTERIOR ELEVATIONS

CH3.02

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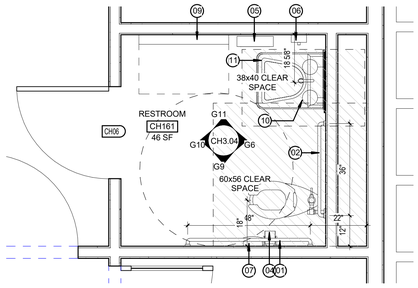
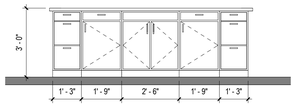
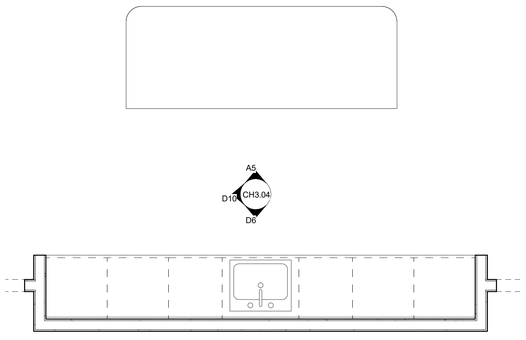


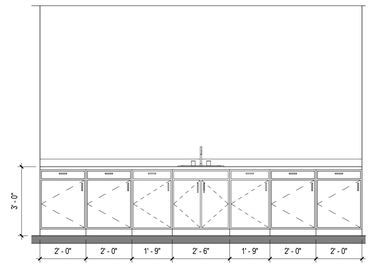
D2 CLUBHOUSE - RESTROOM B CALLOUT
1/2" = 1'-0" B3/ A1.01



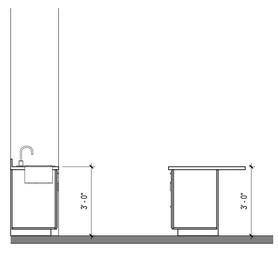
A5 COMMON ISLAND ELEVATION
3/8" = 1'-0" D4/ CH3.04



D4 CLUBHOUSE - COMMON SINK PLAN
1/2" = 1'-0" H1/ CH2.01

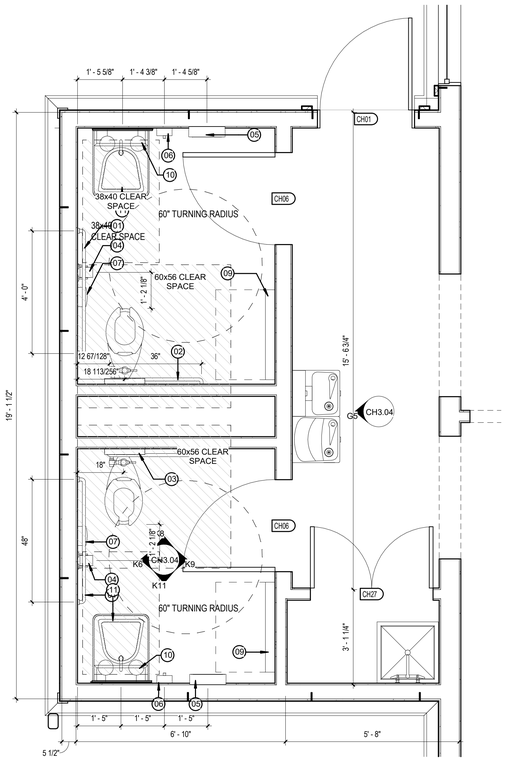


D6 COMMON SINK ELEVATION
3/8" = 1'-0" D4/ CH3.04

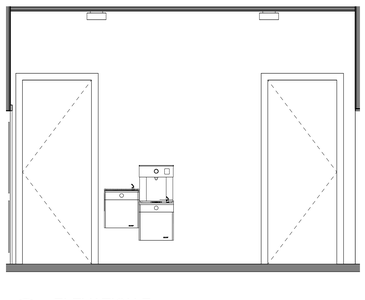


D10 COMMON SINK SECTION
3/8" = 1'-0" D4/ CH3.04

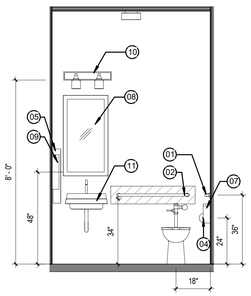
RESTROOM ACCESSORY SCHEDULE			
REF #	DESCRIPTION	MFGR	MODEL NUMBER
01	48" GRAB BAR	BOBRICK	B-5806 X 42
02	36" GRAB BAR	BOBRICK	B-5806 X 36
03	TOILET SEAT COVER DISPENSER	American Specialties	B-4221
04	TOILET PAPER DISPENSER		
05	PAPER TOWEL DISPENSER	BOBRICK	B-43699
06	SOAP DISPENSER	BOBRICK	B-4112
07	SANITARY NAPKIN DISPOSAL	BOBRICK	B-270
08	FRAMED MIRROR	(BY OWNER/INT. DESIGNER)	(BY OWNER/INT. DESIGNER)
09	BABY CHANGING STATION	KOALA CARE	KB-208
10	VANITY LIGHT - 2 BULB	PROGRESS LIGHTING	P3262
11	ADA SINK		



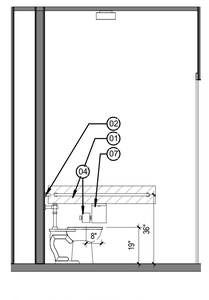
K1 CLUBHOUSE - RESTROOM A CALLOUT
1/2" = 1'-0"



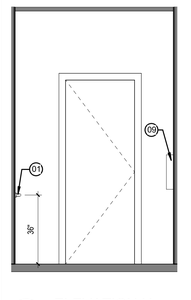
G5 ELEVATION E
3/8" = 1'-0" K1/ CH3.04



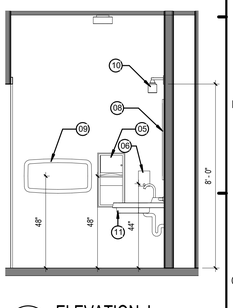
G6 ELEVATION F
3/8" = 1'-0" D2/ CH3.04



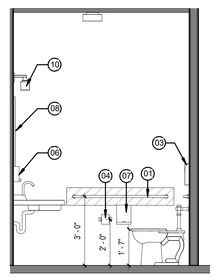
G9 ELEVATION G
3/8" = 1'-0" K1/ CH3.02



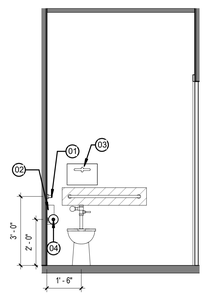
G10 ELEVATION H
3/8" = 1'-0" D2/ CH3.04



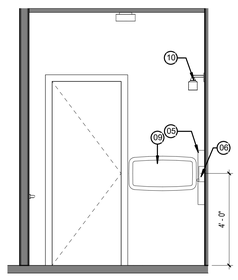
G11 ELEVATION J
3/8" = 1'-0" K1/ CH3.02



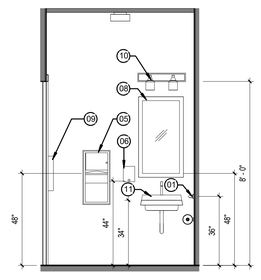
K6 ELEVATION A
3/8" = 1'-0" K1/ CH3.04



K8 ELEVATION B
3/8" = 1'-0" K1/ CH3.04



K9 ELEVATION C
3/8" = 1'-0" K1/ CH3.04



K11 ELEVATION D
3/8" = 1'-0" K1/ CH3.04

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REGISTERED ARCHITECT

MICHAEL GOVE
8234

THE MADISON	Drawn: MB
	Checked: JK
	Approval: MG
MADISON, AL	Date: 04/15/2022
	Project #: 5722

CLUBHOUSE ENLARGED PLANS

CH3.04

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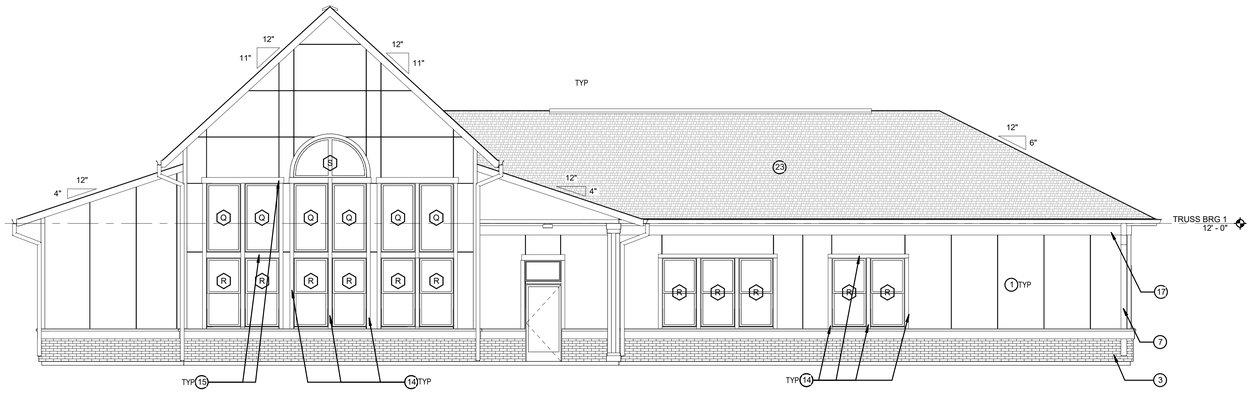
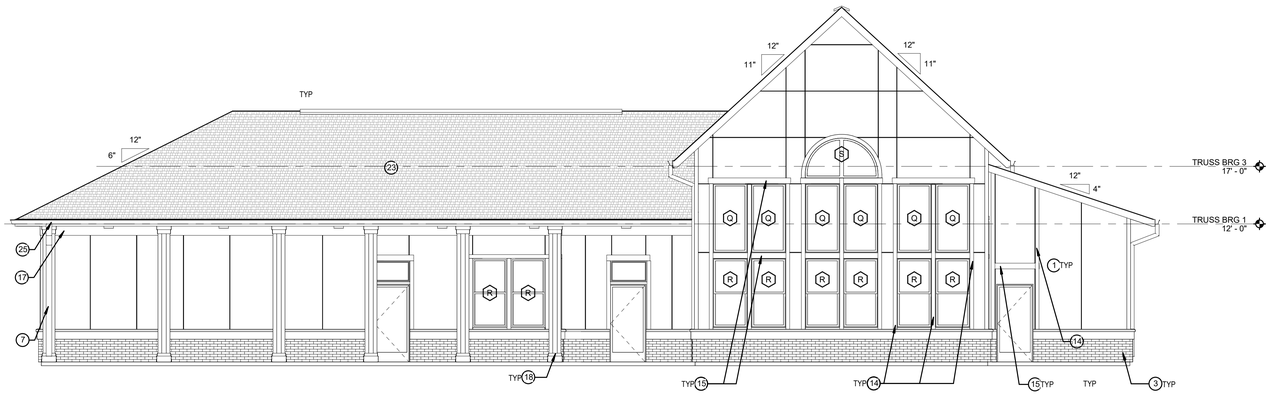


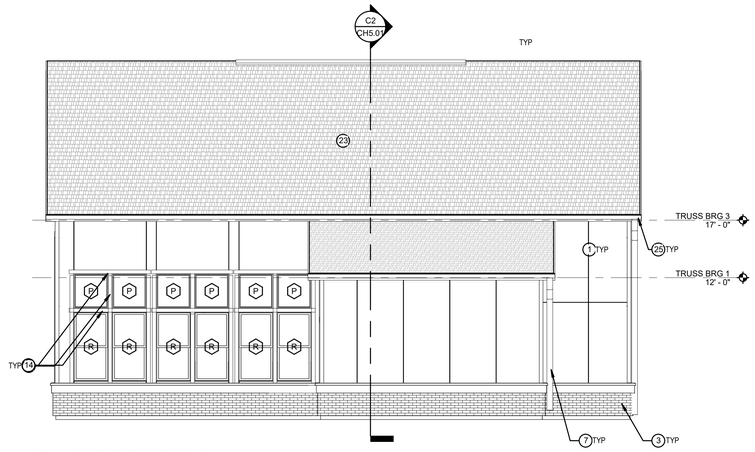
C2 FRONT ELEVATION

3/16" = 1'-0" H1/ CH2.01



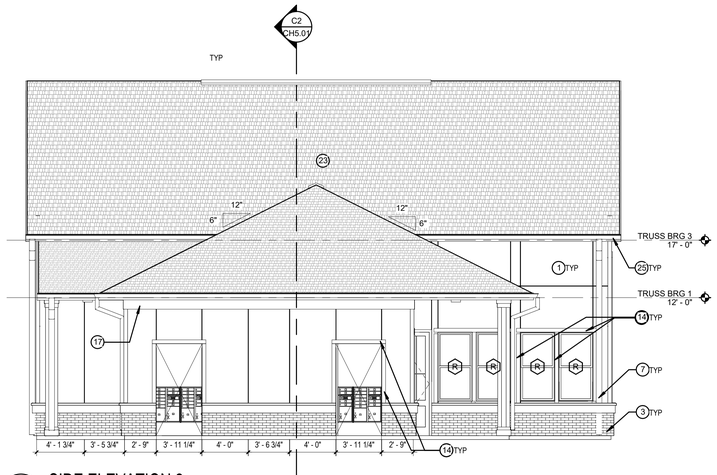
F2 REAR ELEVATION

3/16" = 1'-0" H1/ CH2.01



K2 SIDE ELEVATION 1

3/16" = 1'-0" H1/ CH2.01



K8 SIDE ELEVATION 2

3/16" = 1'-0" H1/ CH2.01

ELEVATION KEY NOTES:

1. FIBER CEMENT PANEL
2. FIBER CEMENT CORNER TRIM
3. BRICK
4. FIBER CEMENT SIDING 8" EXPOSURE
5. FIBER CEMENENT TRIM BAND
6. VINYL WINDOW SYSTEM - SEE SCHEDULE
7. DOWNSPOUT
8. METAL AWNING: BLDG A 9'-0", CLUB. 1'-8", MAINT. 4'-0", REMAINING BLDG HAVE 8'-0"
9. METAL GUARD RAIL
10. SIGNAGE/AREA - SIGNAGE DESIGN BY OTHERS - TO BE SUBMITTED LATER.
11. LAUNDRY / BATHROOM EXHAUST VENTS
12. ELECTRICAL METER CENTER - SEE ELECTRICAL
13. LIGHT FIXTURE - SEE ELECTRICAL
14. 5/4 X 3 1/2 FIBER CEMENT TRIM
15. 5/4 X 5 1/2 FIBER CEMENT TRIM
16. 5/4 X 7 1/2 FIBER CEMENT TRIM
17. 5/4 X 11 1/2 FIBER CEMENT TRIM
18. COLUMN
19. PILASTER
20. ALUM. WRAP FASCIA
21. DECORATIVE FEATURE
22. 6" X 9" OPENING
23. ASPHALT ROOF SHINGLES
24. STANDING SEAM METAL ROOF
25. 6" PREFINISHED METAL RAIN GUTTER
26. EXTERIOR WALL LIGHT. SEE ELECTRICAL
27. ELECTRICAL PANEL. REFER TO ELECTRICAL DWGS.
28. ROOF VENT
29. ROOF RIDGE
30. BRACKET

ISSUE HISTORY

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No.	Date	Description

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MICHAEL E. GOVE
8234
4/15/22
REGISTERED ARCHITECT

MICHAEL GOVE
8234

THE MADISON	Drawn: MB
MADISON, AL	Checked: JK
	Approval: MG
	Date: 04/15/2022
	Project #: 5722

CLUBHOUSE EXTERIOR ELEVATIONS

CH4.01

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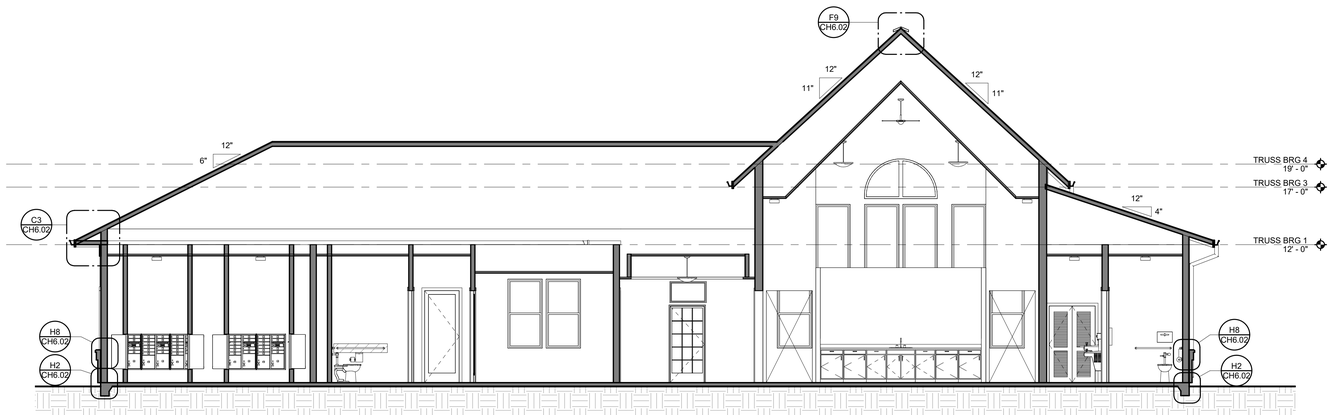
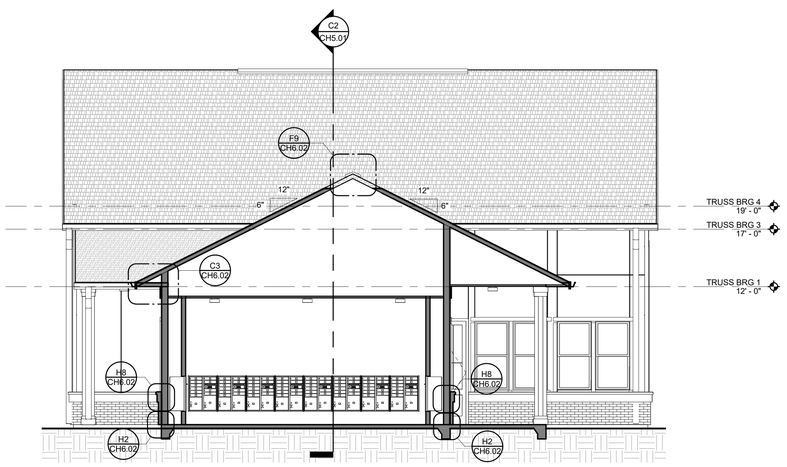


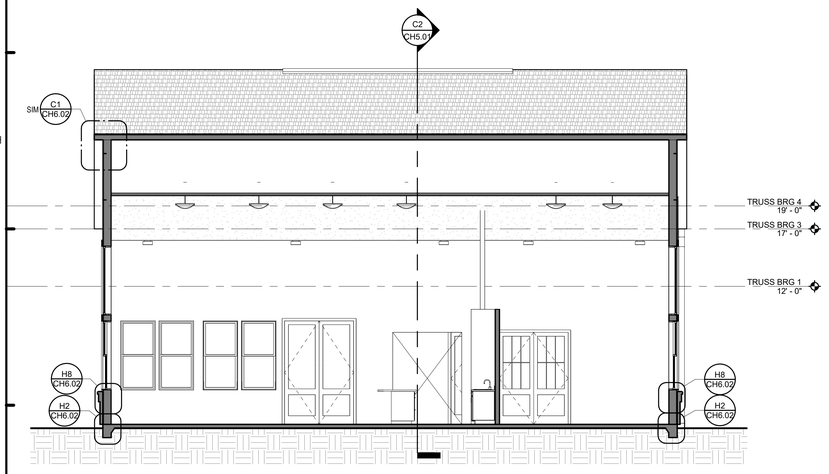
C2 LONGITUDINAL SECTION A
3/16" = 1'-0" H1/ CH2.01



F2 LONGITUDINAL SECTION B
3/16" = 1'-0" H1/ CH2.01



F9 SECTION C
3/16" = 1'-0" H1/ CH2.01



J2 SECTION A
3/16" = 1'-0" H1/ CH2.01



J8 SECTION B
3/16" = 1'-0" H1/ CH2.01

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Drawn:	MB
Checked:	JK
Approval:	MG
Date:	04/15/2022
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CLUBHOUSE BUILDING SECTIONS

CH5.01

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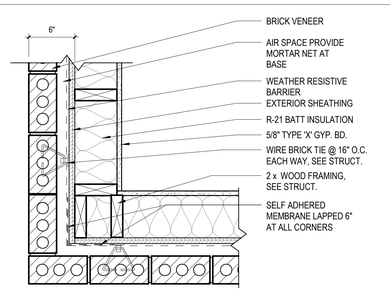
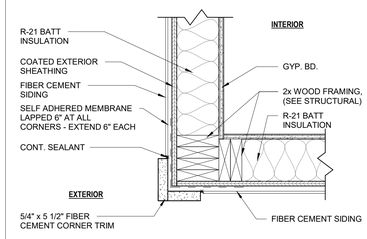


D1 OUTSIDE CORNER (BRICK)
1 1/2" = 1'-0" H1/ CH2.01



B3 OUTSIDE CORNER (SIDING)
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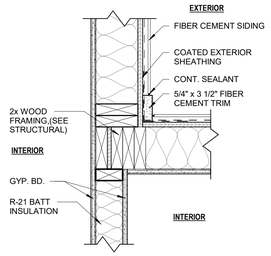
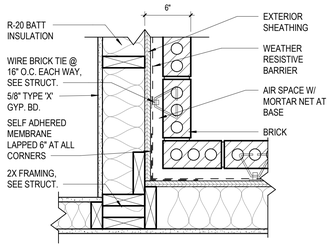
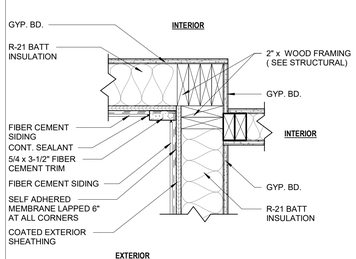


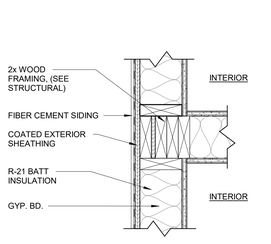
B8 INSIDE CORNER (SIDING)
1 1/2" = 1'-0" H1/ CH2.01



F1 INSIDE CORNER (BRICK)
1 1/2" = 1'-0" H1/ CH2.01



F8 INSIDE CORNER (SIDING)
1 1/2" = 1'-0" K1/ CH3.02



D8 TYPICAL DETAIL @ (SIDING)
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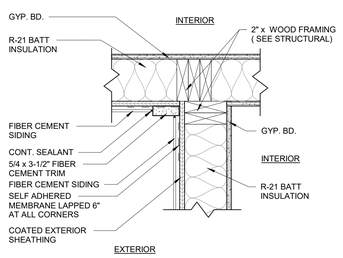
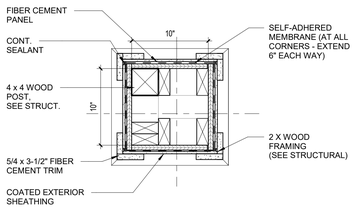
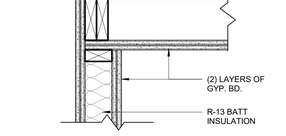


D3 INSIDE CORNER (SIDING)
1 1/2" = 1'-0" H1/ CH2.01



H1 COLUMN PLAN DETAIL
1 1/2" = 1'-0" H1/ CH2.01



H3 INT. WALL AT BDA RM
1 1/2" = 1'-0"

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8234

THE MADISON
MADISON, AL

Drawn:	MB
Checked:	JK
Approval:	MG
Date:	04/15/2022
Project #:	5722

CLUBHOUSE PLAN DETAILS

CH6.01

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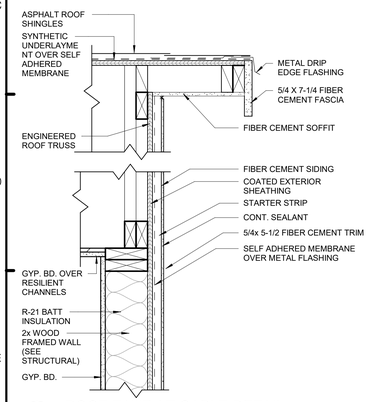
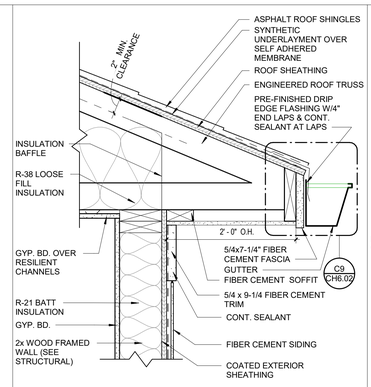
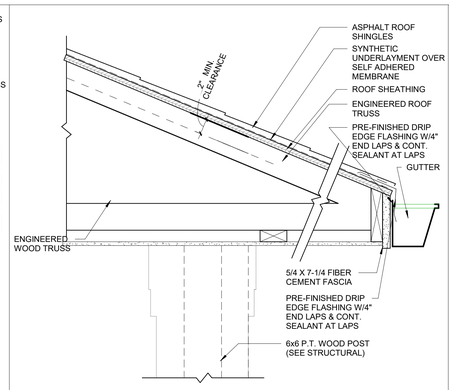


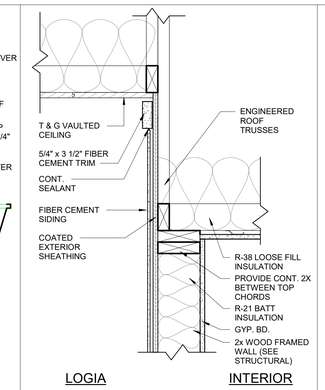
C1 ROOF EAVE AT GABLE DETAIL
1 1/2" = 1'-0" J2/ CH5.01



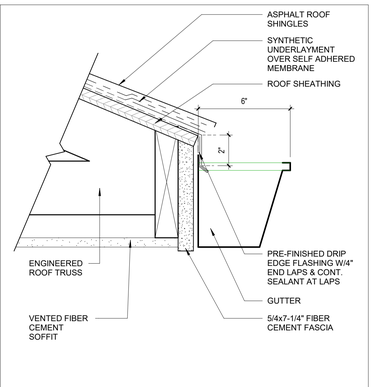
C3 TYP. ROOF VENT EAVE DETAIL
1 1/2" = 1'-0" C2/ CH5.01



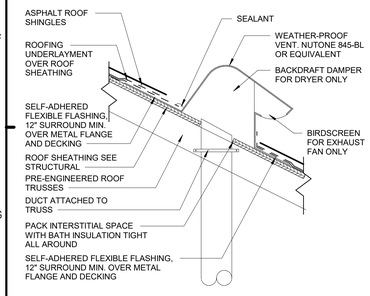
C5 ROOF VENT EAVE DETAIL @ LOGIA
1 1/2" = 1'-0"



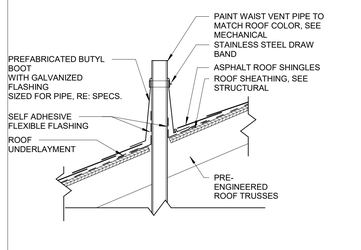
C7 SECTION WALL DETAIL
1 1/2" = 1'-0" J8/ CH5.01



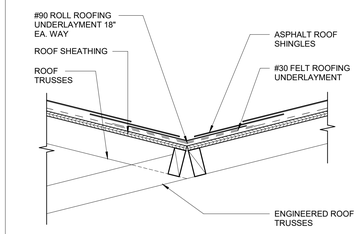
C9 ENLARGED FACIA DETAIL
3" = 1'-0" C3/ CH6.02



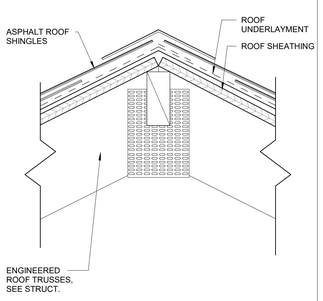
F1 ROOF VENT DETAIL
1 1/2" = 1'-0"



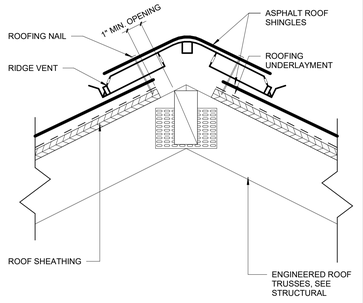
F3 ROOF VENT PIPE DETAIL
1 1/2" = 1'-0"



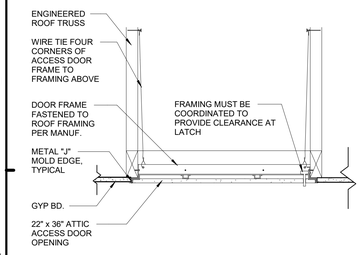
F5 ROOF VALLEY DETAIL
1 1/2" = 1'-0" F2/ CH5.01



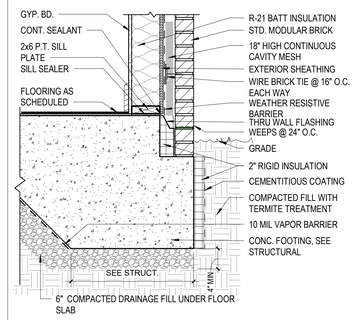
F7 ENLARGED RIDGE DETAIL
3" = 1'-0" H2/ CH2.04



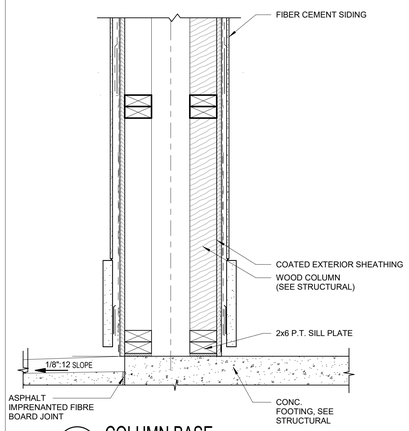
F9 ENLARGED RIDGE VENT DETAIL
3" = 1'-0" H2/ CH2.04



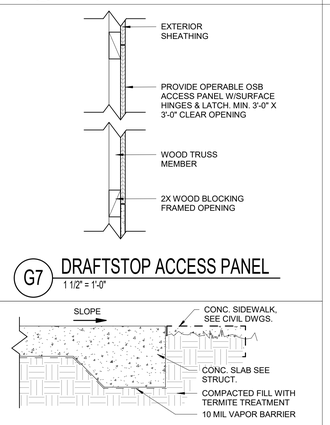
H1 ATTIC ACCESS DETAIL
1 1/2" = 1'-0"



H2 FOUNDATION DETAIL - BRICK
1" = 1'-0" C2/ CH5.01

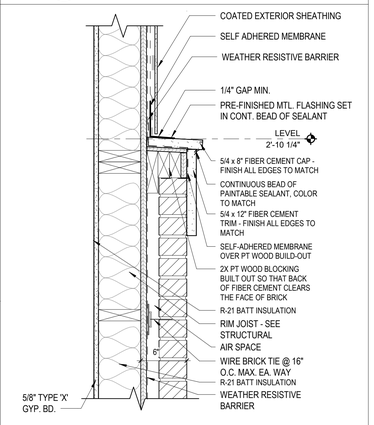


H5 COLUMN BASE
1 1/2" = 1'-0"



G7 DRAFTSTOP ACCESS PANEL
1 1/2" = 1'-0"

H7 FOUNDATION DETAIL @ LOGIA
1 1/2" = 1'-0"



H8 WALL SECTION - BRICK @ CAP
1 1/2" = 1'-0" C2/ CH5.01

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8234

THE MADISON
MADISON, AL

Drawn:	MB
Checked:	JK
Approval:	MC
Date:	04/15/2022
Project #:	5722

CLUBHOUSE SECTION DETAILS

CH6.02

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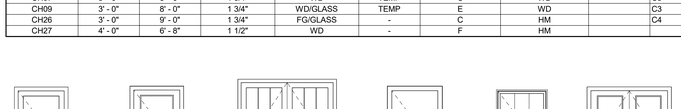
DOOR SCHEDULE

DOOR					GLAZING	FRAME		DOOR	HARDWARE	
TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	TYPE	TYPE	MATERIAL	RATING	SET	REMARKS
CH01	3' - 0"	6' - 8"	1 3/8"	FG/GLASS	TEMP	A	HM		C1	SINGLE SWING
CH03	3' - 0"	8' - 0"	1 3/4"	WD	-	D	WD		C3	
CH06	3' - 0"	8' - 0"	1 3/4"	HM	-	D	HM		C2	
CH07	3' - 0"	8' - 0"	1 3/4"	WD	TEMP	C	WD		C5	
CH09	3' - 0"	8' - 0"	1 3/4"	WD/GLASS	TEMP	E	WD		C3	
CH26	3' - 0"	9' - 0"	1 3/4"	FG/GLASS	-	C	HM		C4	
CH27	4' - 0"	6' - 8"	1 1/2"	WD	-	F	HM			



CLUBHOUSE - DOOR TYPES
1/4" = 1'-0"

DOOR NOTES:

A. ALL FIRE DOORS AND FRAMES TO HAVE APPROVED CLOSERS AND LATCHING MECHANISMS.

B. THERSHOLDS AT EXTERIOR DOORS ARE NO HIGHER THAN 1/2" MAX.

C. VERIFY ROUGH OPENING REQUIRED WITH DOOR FRAME MANUFACTURER.

D. PROVIDE WEATHERSTRIPING AT ALL EXTERIOR DOORS.

E. DOOR MANUFACTURER SHALL PROVIDE CERTIFICATION, SIGNED AND SEAL BY A REGISTERED ALABAMA PROFESSIONAL ENGINEER THAT:

1- DOORS WILL BE ABLE TO WITHSTAND REQUIRED WIND LOADS AND PRESSURE.

2- TO SUPPLY TYPE AND NUMBER OF FASTENERS REQUIRED TO SECURE FRAME TO HEAD, JAMBS OF ALL DOOR OPENINGS.

HARDWARE NOTES:

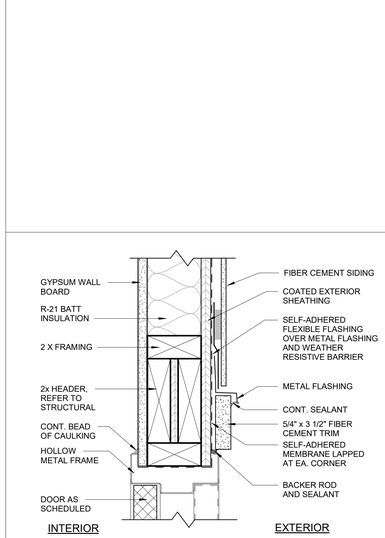
A. REFER TO SPECIFICATIONS FOR HARDWARE GROUPS. ALL HARDWARE TO MEET INTERNATIONAL BUILDING CODE REQUIREMENTS AND MEET FAIR HOUSING GUIDELINES FOR ACCESSIBLE AND USABLE DOORS.

B. PRIMARY ENTRY DOORS OF DWELLING UNIT EXTERIOR SIDE, PUBLIC AND COMMON USED DOORS MUST PROVIDE 32" CLEAR WIDTH AND HAVE 1/2" THRESHOLDS.

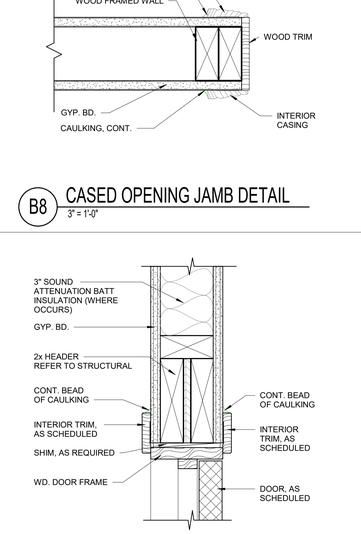
C. BALCONY DOOR THRESHOLD TO NOT EXCEED 4" FOR IMPERVIOUS CONSTRUCTION OF THE WET SIDE.

D. ALL UNITS AT GROUND LEVEL SHALL HAVE LEVER TYPE HARDWARE ON ALL DOORS. IF CLOSER IS PROVIDED, SHALL NOT REQUIRED MORE THAN 5 LBF. TO OPERATE AND CLOSE UNLESS REQUIRED BY LOCAL FIREAUTHORITY.

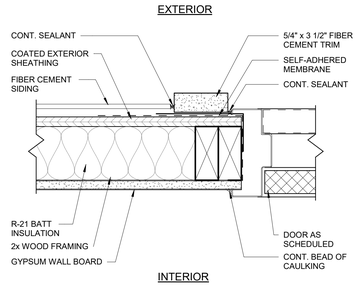
B8 CASED OPENING JAMB DETAIL
3" = 1'-0"



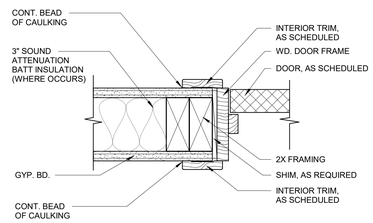
D6 EXTERIOR DOOR HEAD DETAIL
3" = 1'-0"



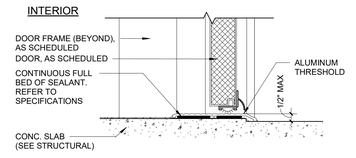
D8 INTERIOR DOOR HEAD DETAIL
3" = 1'-0"



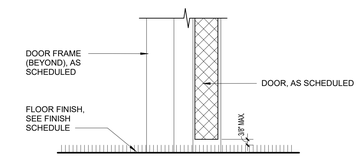
F6 EXTERIOR DOOR JAMB DETAIL
3" = 1'-0"



F8 INTERIOR DOOR JAMB DETAIL
3" = 1'-0"



H6 EXTERIOR DOOR THRESHOLD DETAIL
3" = 1'-0"



H8 INTERIOR DOOR THRESHOLD DETAIL
3" = 1'-0"

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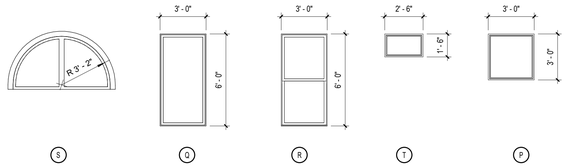
Date:	04/15/2022
Project #:	5722

DOOR SCHEDULE AND DETAILS

CH7.01

PLOTTED: 5/3/2022 3:04:14 PM

CLUBHOUSE WINDOW SCHEDULE											
MARK	QTY	WINDOW UNIT WIDTH	WINDOW UNIT HEIGHT	Head Height	WINDOW UNIT OPERATION	GLAZING TYPE	GLAZING THICKNESS	U VALUE	SHGC	FRAME MATERIAL	REMARKS
P		2' - 10"	2' - 10"	12' - 3"							
Q		3' - 0"	6' - 0"	15' - 6"	FIXED			.35	.40		
R		3' - 0"	6' - 0"	9' - 0"				0.34	0.27		
S		6' - 4"	3' - 0"								
T		3' - 0"	1' - 8"	8' - 8 1/2"	FIXED			.35	.40		



CLUBHOUSE - WINDOW TYPES
1/4" = 1'-0"

NOTES:

A. VERIFY ROUGH OPENING REQUIRED WITH WINDOW MANUFACTURER.

B. WINDOW MANUFACTURER SHALL PROVIDE CERTIFICATION, SIGNED AND SEAL BY A REGISTERED **ALABAMA** PROFESSIONAL THAT:

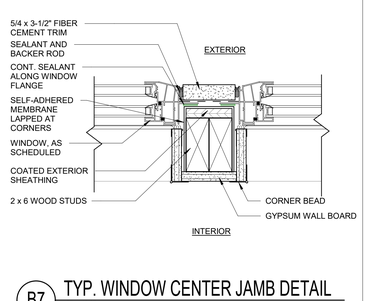
1- WINDOWS WILL BE ABLE TO WITHSTAND REQUIRED WIND LOADS AND PRESSURE.

2- TO SUPPLY TYPE AND NUMBER OF FASTENERS REQUIRED TO SECURE FRAME TO HEAD, JAMBS & SILL OF ALL WINDOW OPENINGS.

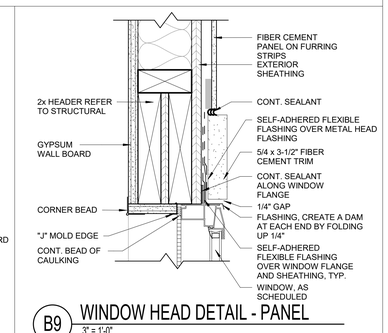
C. PROVIDE SEALANT AT ALL SCREW-HOLES PROVIDED FOR FASTENING PRIOR TO FASTENER INSTALLATION.

D. WINDOWS UNITS SHALL BE ANCHOR THROUGH THE JAMB, ANCHORS SHALL BE SECURELY FASTENED IN TO THE STRUCTURAL MATERIAL

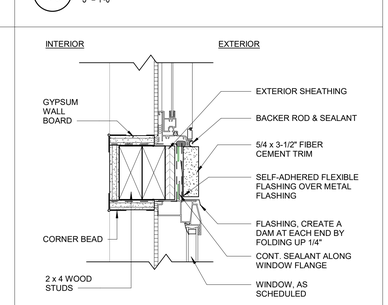
E. PROVIDE TEMPERED GLASS AT ALL WINDOWS LOWER SASH IF SILL HEIGHT IS BELOW 2 FEET, WITHIN 3'-0" OF PATIO DOORS, OR AS OTHERWISE NOTED.



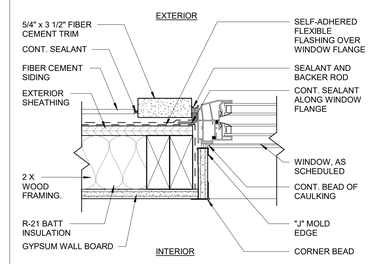
B7 TYP. WINDOW CENTER JAMB DETAIL
3" = 1'-0"



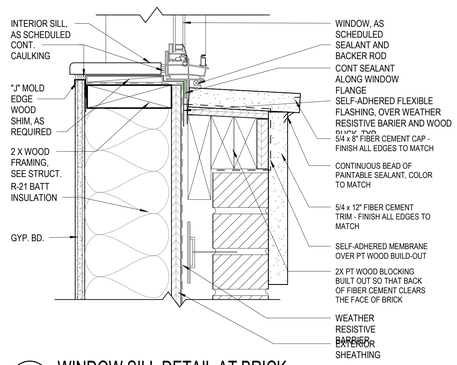
B9 WINDOW HEAD DETAIL - PANEL
3" = 1'-0"



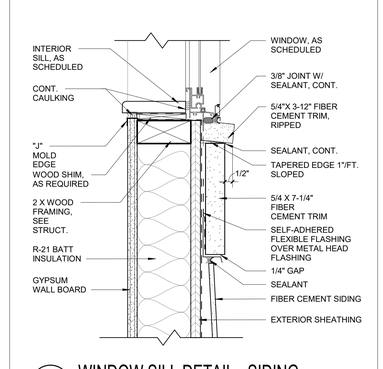
D9 TRANSOM WINDOW HEAD/ SILL
3" = 1'-0"



F9 WINDOW JAMB DETAIL
3" = 1'-0"



H8 WINDOW SILL DETAIL AT BRICK
3" = 1'-0"



H9 WINDOW SILL DETAIL - SIDING
3" = 1'-0"

ISSUE HISTORY

No.	Date	Description
1	04/15/22	Permit Submittal

REVISION HISTORY

No.	Date	Description

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CONSULTANT

STATE OF ALABAMA
MICHAEL E. GOVE
8234
4/15/22
REGISTERED ARCHITECT

MICHAEL GOVE
8234

Drawn:	MB
Checked:	JK
Approval:	MG
Date:	04/15/2022
Project #:	5722

THE MADISON
MADISON, AL

CLUBHOUSE WINDOW DETAILS AND SCHEDULES

CH7.02

PLOTTED: 5/3/2022 3:04:18 PM

GENERAL NOTES

1. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS MAY BE NECESSARY.

CODES AND SPECIFICATIONS

A. GENERAL BUILDING CODE:
1. INTERNATIONAL BUILDING CODE 2018.

B. CONCRETE:
1. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-19)
2. SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301-16).

DESIGN LOADS

A. DESIGN LIVE LOADS
- ROOF....................20 PSF
- ELEVATED FLOORS....................40 PSF
- BALCONY, CORRIDORS AND BREEZE WAYS....................100 PSF
- STAIRS....................100 PSF

B. WIND LOADS:
1) BASIC WIND SPEED (ULTIMATE) = 115 MPH
2) IMPORTANCE FACTOR = 1.0
3) WIND EXPOSURE C.
4) INTERNAL PRESSURE COEFFICIENT ;0.18 FULLY ENCLOSED STRUCTURE
5) COMPONENTS AND CLADDING: +34.7 PSF AND -45.4 PSF FOR DESIGN WIND PRESSURES.

C. SEISMIC LOADS:
1) SEISMIC DESIGN CATEGORY....................B
2) SDS....................0.26
3) SD1....................0.117
4) SMS....................0.337
5) SDS....................0.225

FOUNDATIONS

1. FOUNDATION DESIGN IS BASED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF AS RECOMMENDED IN THE FOUNDATION INVESTIGATION PREPARED BY GEOSERVICES, LLC (PROJECT NO. 21-0759) AUGUST 3, 2021.
2. PLACE FOOTINGS/SLAB ON COMPACTED SOIL. FOLLOW RECOMMENDATIONS OF SOILS REPORT.
3. VERIFY BEARING CAPACITY BY TESTING PRIOR TO SLAB PLACEMENT. SUBMIT REPORTS TO ARCHITECT.

CAST-IN-PLACE CONCRETE

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, HAVE A SLUMP OF 4" PLUS OR MINUS 1", AND HAVE 2-4% AIR ENTRAINMENT.
2. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
3. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318-19.
4. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315-18.
5. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS, ETC., AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED.
6. CONTRACTOR SHALL PROVIDE SPACERS, CHAIRS, BOLSTERS, ETC., NECESSARY TO SUPPORT REINFORCING STEEL.
7. ALL SLABS SHALL BE POURED MONOLITHICALLY, EXCEPT FOR REQUIRED CONSTRUCTION JOINTS.
8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

   3"---------CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.
   1-1/2"-------ALL OTHER CASES.
9. HORIZONTAL SLAB BARS SHALL BE BENT 1'-6" AROUND CORNERS, OR PROVIDE CORNER BARS WITH A 2'-0" LAP ON EACH LEG.
10. TESTING LABORATORY SHALL SUBMIT ONE COPY OF ALL CONCRETE TEST REPORTS DIRECTLY TO THE POST TENSION ENGINEER ARCHITECT-SEE SPECS.

WOOD CONSTRUCTION

1. WOOD CONSTRUCTION SHALL CONFORM TO THE NDS "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", LATEST EDITION.
2. ALL WALL STUDS AND MISC. WOOD FRAMING SHALL BE NO.2 SOUTHERN YELLOW PINE. STUDS FOR LOAD BEARING WALLS SHALL BE AS FOLLOWS:

   EXTERIOR WALLS — 2x6'S @ 16"O.C. (U.N.O)
   INTERIOR WALLS — 2x6'S @ 16"O.C. (U.N.O)

   ALL LOAD BEARING WALLS SHALL HAVE MIDSPAN HORIZONTAL BLOCKING SPACED AT 48" O.C. INSTALLED BEFORE WALLS ARE LOADED.
   ALL NON-LOAD BEARING PARTITIONS SHALL CONSIST OF 2x4 STUDS SPACED AT 24" O.C. 2x4 STUDS DO NOT NEED TO BE DOUBLED AT THE FIRST FLOOR FOR NON-LOAD BEARING WALLS.
3. PLACE A SINGLE PLATE AT THE BOTTOM AND A DOUBLE PLATE AT THE TOP OF ALL STUD WALLS. 2x SOLE PLATES AT THE EDGES OF SLABS SHALL BE ATTACHED TO THE SLAB WITH SIMPSON MAS MUDSILL ANCHORS (WITH 6 10d NAILS) AT 32" O.C..
   AT INTERIOR STUD WALLS PROVIDE EITHER HILTI ZF72 (WITH 2 7/8" LENGTH, 5/64" THICK WASHERS) POWDER DRIVEN FASTENERS AT 8" ON CENTER, OR 1/2" DIAMETER ANCHOR BOLTS WITH 6" EMBEDMENT, AT 32" ON CENTER.
   RED-HEAD FASTENERS OF EQUIVALENT SIZES MAY BE USED. ALL OTHER SUBSTITUTIONS MUST BE APPROVED BY ADVANCED STRUCTURAL ENGINEERING PRIOR TO INSTALLATION.
   SEE THE SHEAR WALL SCHEDULE BELOW FOR SPECIAL SOLE PLATE ATTACHMENT
4. STUDS SHALL BE PACKED AT ALL ANGLES, CORNERS, AROUND ALL OPENINGS AND AT . SHEAR WALLS. SEE SCHEDULES, UL ASSEMBLIES AND ARCH. DETAILS FOR REQUIREMENTS.
5. WOOD LINTELS OVER OPENINGS SHALL BE AS NOTED PER DETAIL 1/S5.02 . NAIL MULTIPLE STUDS TOGETHER WITH 16d NAILS @ 12" O.C. EACH PLY.

6. WALL SHEATHING SHALL BE: (SEE SHEAR WALL SCHEDULE S1.02 FOR REQUIREMENTS AT SHEAR WALLS.)

   AT INTERIOR WALLS PROVIDE 5/8" GYPSUM WALLBOARD (SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS) EACH SIDE OF STUDS, NAILED WITH 5d COOLER NAILS AT 7" O.C. (USE 6d COOLER NAILS FOR 5/8" WALLBOARD) AT ALL SUPPORTS. PROVIDE SOLID 2x BLOCKING AT ALL SHEET EDGES. BLOCKING IS NOT REQUIRED AT NON-LOAD BEARING PARTITIONS.

   AT EXTERIOR WALLS SHEATH THE INTERIOR FACE OF WALLS WITH 5/8" GYPSUM WALLBOARD AS NOTED ABOVE FOR INTERIOR WALLS. SHEATH THE EXTERIOR FACE OF WALLS WITH 7/16" C-DX PLYWOOD (OR 7/16" O.S.B.), NAILED WITH 8d NAILS AT 6" O.C. AT ALL EDGE SUPPORTS, AND 8d NAILS AT 6" O.C. AT ALL INTERMEDIATE SUPPORTS. PROVIDE SOLID DOUBLE 2x BLOCKING AT ALL SHEET EDGES.
   SHEARWALL SCHEDULE NOTE 5.
7. ALL WOOD IN CONTACT WITH CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.
8. ROOF SHEATHING SHALL BE 15/32" C - D PLYWOOD OR 15/32" O.S.B., NAILED WITH 8d NAILS AT 6" O.C. AT SUPPORTED EDGES, AND 8d NAILS AT 12" O.C. AT INTERMEDIATE SUPPORTS. PROVIDE ONE PLYWOOD CLIP PER SPAN BETWEEN SHEET EDGES. PROVIDE SOLID 2x BLOCKING BETWEEN SUPPORTS AT ALL HIPS, RIDGES, VALLEYS, AND CHANGES IN ROOF SLOPE.
9. ALL LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED GRADING AGENCY.
10. NAILING SCHEDULE:

CONNECTION	COMMON NAIL	NUMBER OR SPACING
SOLE PLATE TO TRUSS OR BLOCKING	16d	8" O.C.
STUD TO SOLE PLATE, TOE NAIL	8d	4
DOUBLE STUDS, FACE NAIL	16d	24" O.C.
DOUBLE TOP PLATES, FACE NAIL	16d	16" O.C.
TOP PLATES LAPS AND INTERSECTIONS	16d	3
TRUSSES, LAPS OVER WALLS, FACE NAIL	16d	4
BUILT-UP CORNER STUDS	16d	12" O.C.
STUDS TO SOLE PLATE, END NAIL	16d	2

   WHERE WOOD BEAMS/HEADERS ABUT WOOD COLUMNS, PROVIDE SIMPSON "HHUC" CONNECTORS WITH ALL NAILS SPECIFIED BY THE MANUFACTURER.

   AT ALL WALLS SUPPORTING ROOF TRUSSES PROVIDE UPLIFT STRAPPING/CONNECTORS SHOWN IN THE TYPICAL WALL ELEVATION 1/S5.02. OR ALTERNATE: HURRY-BOLT
11. SYSTEM OR EQUAL. - SUBMIT ENGINEERED SHOP DRAWINGS FOR REVIEW.

12. ALL LOAD BEARING WALLS SHALL HAVE MIDSPAN HORIZONTAL BLOCKING SPACED AT 48" O.C. INSTALLED BEFORE WALLS ARE LOADED.
   ALL NON-LOAD BEARING PARTITIONS SHALL CONSIST OF 2x4 STUDS SPACED AT 24" O.C. 2x4 STUDS DO NOT NEED TO BE DOUBLED AT THE FIRST FLOOR FOR
13. NON-LOAD BEARING WALLS.

PREFABRICATED WOOD TRUSSES

1. ALL PREFABRICATED WOOD TRUSSES SHALL BE SECURELY FASTENED AT EACH END TO THEIR SUPPORTING WALLS OR BEAMS AS SHOWN IN THE TYPICAL WALL ELEVATION 1/S5.02
2. PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENERS" AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.
3. TRUSS MEMBERS AND CONNECTIONS SHALL BE DESIGNED (WITH A MAXIMUM ALLOWABLE STRESS INCREASE FOR LOAD DURATION OF 25% FOR ROOF TRUSSES ONLY) TO WITHSTAND THE LIVE LOADS GIVEN IN THE NOTES AND TOTAL DEAD LOAD.
4. TRUSS MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND DESIGN NOTES WITH A ALABAMA REGISTERED ENGINEER'S SEAL FOR APPROVAL BY THE ARCHITECT. DESIGN NOTES TO INCLUDE THE RATED LOAD CAPACITY OF THE CONNECTORS USED TO SECURE THE MEMBERS, CERTIFICATION OF THE CONNECTOR CAPACITIES AND MANUFACTURER'S LICENSE TO FABRICATE TRUSSES UTILIZING THE CONNECTOR SYSTEM PROPOSED.
5. THE CONTRACTOR SHALL APPROVE FABRICATION AND INSTALLATION DRAWINGS SHOWING SIZE, SHAPE AND LAYOUT PRIOR TO SUBMITTAL FOR REVIEW BY THE ARCHITECT AND BEFORE FABRICATION HAS BEGUN.
6. BRIDGING FOR PRE-ENGINEERED TRUSSES SHALL BE AS REQUIRED BY TRUSS MANUFACTURER, AND THE LOCAL BUILDING CODE, UNLESS NOTED ON PLANS. ALSO WHERE HEEL HEIGHT ON BOTTOM CHORD BEARING TRUSSES EXCEEDS 11" PROVIDE CONTINUOUS 2x4 LET IN.
7. DESIGN LOADS - DEAD LOADS:

FLOOR TRUSSES	BOTTOM CHORD	8 PSF
	TOP CHORD (APTS)	15 PSF
OUTSIDE TRUSSES	BOTTOM CHORD	8 PSF
	TOP CHORD	45 PSF
ROOF TRUSSES	BOTTOM CHORD	10 PSF
	TOP CHORD	10 PSF (SHINGLE)
	TOP CHORD	12 PSF (TILE)
	TOP CHORD (AT OVERBUILT AREAS)	5 PSF ADDITIONAL

8. ALL SIMPSON TRUSS ANCHORS SHOWN ON DRAWINGS SHALL BE VERIFIED FOR LOADS SHOWN ON WOOD TRUSS DESIGN CALCULATIONS. THEREFORE, ANCHOR SIZES AND TYPES ARE SUBJECT TO CHANGE BY ADVANCED STRUCTURAL ENGINNERING II.

FASTENER SUBSTITUTIONS:

ALL NAILS ARE COMMON NAILS, UNLESS NOTED OTHERWISE. THE FOLLOWING FASTENERS ARE ACCEPTABLE SUBSTITUTIONS. THE ALTERNATE FASTENERS SHALL BE SPACED AT THE SAME SPACING AS THE SCHEDULED FASTENERS.

SCHEDULED FASTENER	ALTERNATE FASTENER
8d COMMON NAIL	8d RING SHANK NAIL 8d SCREW SHANK NAIL 0.131 P-NAIL
10d COMMON NAIL	10d RING SHANK NAIL 10d SCREW SHANK NAIL 0.148 P-NAIL
16d COMMON NAIL	16d RING SHANK NAIL 16d SCREW SHANK NAIL
6d COOLER NAIL	#6 x 1 1/4" TYPE S OR W DRYWALL SCREW

SHOP DRAWING SUBMITTALS

A. ALL SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL. ALL SUBMITTALS SHALL BE PROVIDED FOR THE ENGINEER REVIEW A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION OR REQUIRED DELIVERY OF MATERIALS. THE ENGINEER SHALL BE PROVIDED A MINIMUM OF (10) BUSINESS DAY TO REVIEW SUBMITTALS. THE CONTRACTOR SHALL MAKE NO CLAIMS FOR DELAY FOR SUBMITTALS NOT PROVIDED IN ACCORDANCE WITH THIS REQUIRED REVIEW PERIOD OR NOT OTHERWISE SUBMITTED IN A TIMELY MANNER.

B. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
1. STRUCTURAL STEEL
2. REINFORCING STEEL (*).
3. PRE-ENGINEERED WOOD TRUSSES (*).
4. CONCRETE MIX DESIGNS
5. POST-TENSION CABLE SHOP DRAWINGS WITH CALCULATIONS (*).
6. CMU WALL.
7. PRE-ENGINEERED STAIRS WITH CALCULATIONS.

ITEMS MARKED (*) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ALABAMA. ITEMS MARKED (#) SHALL BE SUBMITTED FOR ENGINEERS RECORD ONLY.

C. MANUFACTURER'S LITERATURE: SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

WOOD HEADER/BEAM SCHEDULE			
TYPE	HEADER/BEAM	TYPE	HEADER/BEAM
H-1	DOUBLE 2x8 FOR 4" WALL TRIPLE 2x6 FOR 6" WALL	H-4	(2) 1 3/4" x 11 7/8" LVL
H-2	DOUBLE 2x10 FOR 4" WALL TRIPLE 2x8 FOR 6" WALL	H-5	(2) 2x12
H-3	DOUBLE 2x12 FOR 4" WALL TRIPLE 2x10 FOR 6" WALL	H-6	(2) 1 3/4" x 16" LVL
H-3B	TRIPLE 2x12	H-7	(3) 1 3/4" x 16" LVL

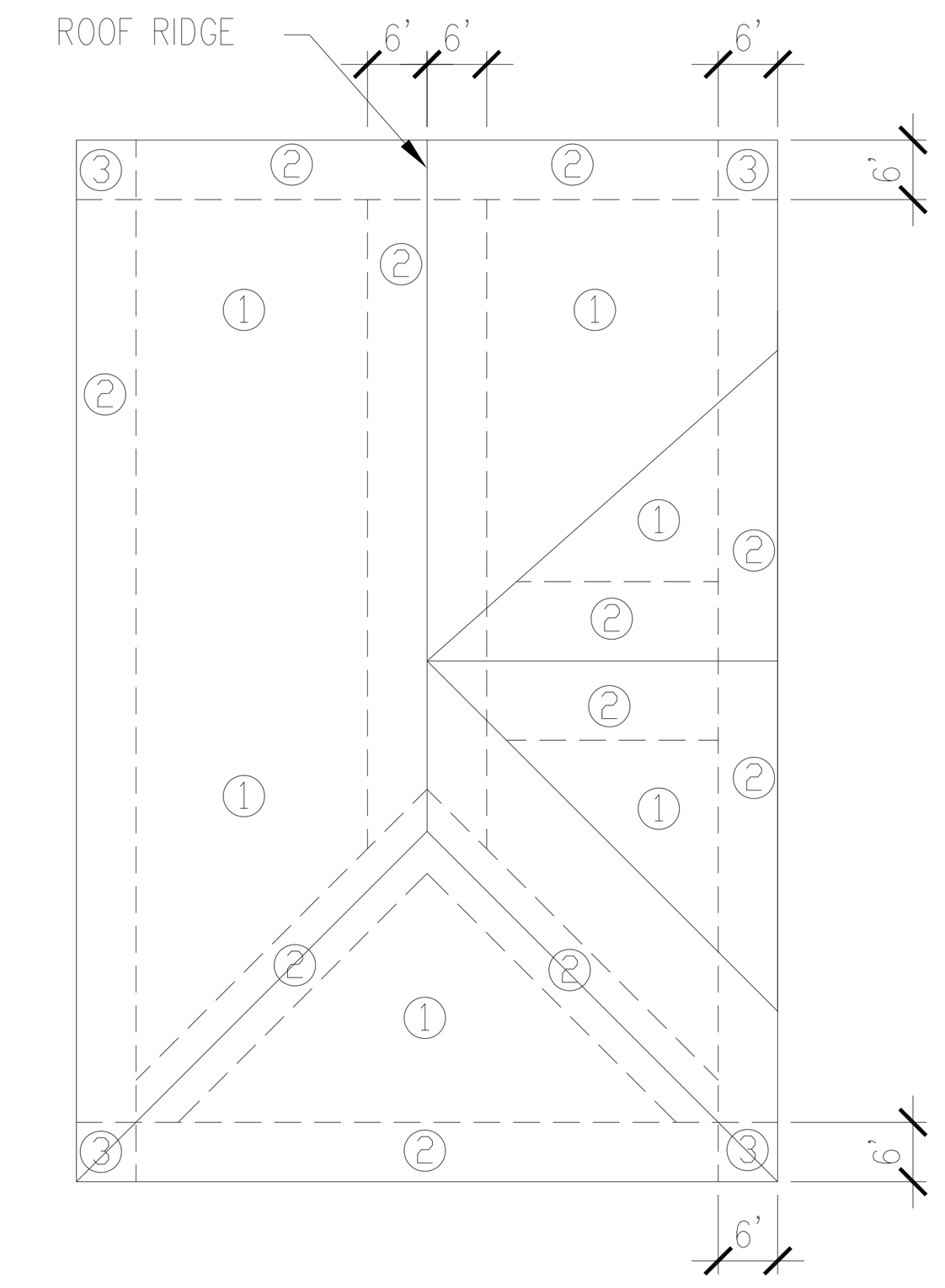
1. PROVIDE WOOD HEADERS OVER ALL LOAD BEARING OPENINGS. IF NO HEADER IS SPECIFIED, PROVIDE H-3 AT WALLS SUPPORTING TRUSSES, AND H-1 AT OTHER WALLS.
2. AT DOUBLE OR TRIPLE 2x HEADER/BEAMS PROVIDE A 1/2" PLYWOOD (OR O.S.B.) SPACER BETWEEN MEMBERS.
3. NAIL ALL MULTI-MEMBER HEADERS AND BEAMS TOGETHER WITH 12d NAILS AT 12" O.C. TOP AND BOTTOM, EACH SIDE, STAGGERED.

ADDITIONAL NOTES

1. WATERPROOFING DESIGN IS NOT IN THE STRUCTURAL SCOPE OF WORK, HENCE NO DETAILS OF FLASHING, FLOOR, SLOPE AND STEP, NOR ANY OTHER WATERPROOFING MEASURES HAVE BEEN INCLUDED IN OUR DRAWINGS. IF SLOPE AND FLOOR STEPS ARE SHOWN ON OUR DRAWINGS, THEY SHALL BE USED ONLY AS A REFERENCE. FLOOR SLOPE AND STEPS SHALL FOLLOW ARCHITECTURAL DRAWINGS.
2. CONTRACTOR SHALL VERIFY THAT THE TRUSS LAYOUT SUPPLIED BY THE TRUSS MANUFACTURER MATCHES THE TRUSS LAYOUT SHOWN ON THE STRUCTURAL DRAWINGS. IF THERE IS ANY DISCREPANCY BETWEEN TRUSS LAYOUT SHOWN ON TRUSS SHOP DRAWINGS AND TRUSS LAYOUT SHOWN STRUCTURAL DRAWINGS, CONTRACTOR SHALL STOP CONSTRUCTION AND INFORM IN WRITING THE ENGINEER OF RECORD. CONTRACTOR SHALL WAIT FOR ENGINEER OF RECORD RESPONSE IN WRITING PRIOR TO START OF CONSTRUCTION.
3. EACH PLY OF EVERY MULTIPLE-PLY GIRDER TRUSS SHALL BE NAILED TOGETHER PER TRUSS MANUFACTURER SPECIFICATIONS.
4. ALL STUCCO AND/OR VENEER DESIGNS ARE NOT IN THE SCOPE OF WORK FOR THE STRUCTURAL ENGINEER.
5. PAVER AND SIDE WALK DESIGNS ARE NOT IN THE SCOPE OF WORK FOR THE STRUCTURAL ENGINEER.
6. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS. INFORM ARCH/ENG IF DIMENSIONS DO NOT MATCH. CONTRACTOR SHALL GET A RESPONSE FROM ARCHITECT/ENGINEER IN WRITING TO RESOLVE THE PROBLEMS PRIOR TO STARTING CONSTRUCTION.
7. BUILDING MAINTENANCE SUCH AS PAINTING AND SEALING ETC. IS THE HOME OWNER SOLELY RESPONSIBLE.
8. CONTRACTOR TO PROVIDE CRACK ISOLATION MEMBRANE OVER SLAB AT AREAS TO BE TILED PRIOR TO INSTALLATION OF FLOOR TILE.
9. ALL REBAR SHOWN ON ALL DRAWING DETAILS AND SECTIONS IS CONTINUOUS UNLESS NOTICE OTHERWISE.
10. THE SECTIONS SHOWN ON THE DESIGN DRAWINGS INDICATE THE TYPICAL SECTIONS WHICH ARE APPLIED TO ALL SIMILAR BUILDING CONDITIONS.
11. DEVELOPER OR G.C. SHOULD HIRE DELEGATED ENGINEERS TO SUBMIT SHOP DRAWINGS WITH CALCULATIONS TO ENGINEER OF RECORD FOR REVIEW SUCH AS TRUSSES, STEEL FRAMING AND CONNECTION, METAL STUD FRAMING, STEEL STAIRS, RAILING, POST TENSION MEMBERS, PRECAST STRUCTURES AND ETC.

ROOF FASTENING ZONES

GABLE ROOF



HIP ROOF

ROOF SHEATHING FASTENING SCHEDULE:
NOTE: USE 8d RING SHANK NAILS IN ZONE

PANEL EDGES	PANEL FIELD
① NAILS 6" O.C.	① NAILS 6" O.C.
② NAILS 6" O.C.	② NAILS 6" O.C.
③ NAILS 4" O.C.	③ NAILS 4" O.C.

WINDOW & DOOR WINDOW PRESSURES 115 MPH WIND ZONE EXPOSURE C BUILDING CATAGORY II		
OPENING SIZE	INTERIOR ZONE	EXTERIOR ZONE**
10 SQFT	+36.4 / -39.5	+36.4 / -48.8
20 SQFT	+34.7 / -37.8	+34.7 / -45.4
50 SQFT	+32.6 / -35.5	+32.6 / -41.2
100 SQFT	+30.9 / -34.0	+30.9 / -37.8
**END ZONE IS DEFINED AS AN AREA WITHIN 6' FROM THE EDGE OF THE BUILDING		

STANDARD WINDOWS AND DOORS WILL GENERALLY FALL INTO THE 10 TO 20 SQ. FT. CATEGORY.
STANDARD DOUBLE SLIDING GLASS DOOES WILL GENERALLY FALL INTO THE 20 TO 50 SQ. FT. CATEGORY.
STANDARD DOUBLE GARAGE DOORS WILL GENERALLY FALL INTO THE 50 TO 100 SQ. FT. CATEGORY

WATERPROOFING FOR THIS BUILDING IS THE SOLE RESPONSIBILITY OF THE BUILDER/CONTRACTOR/ARCHITECT, HENCE NO DETAILS OF FLASHING, FLOOR, SLOPE AND STEP, NOR ANY OTHER WATERPROOFING MEASURES HAVE BEEN INCLUDED IN OUR DRAWINGS. IF SLOPE AND FLOOR STEPS ARE SHOWN ON OUR DRAWINGS, THEY SHALL BE USED ONLY AS A REFERENCE. FLOOR SLOPE AND STEPS SHALL FOLLOW ARCHITECTURAL DRAWINGS.

FASTENER SCHEDULES:

ALL NAILS ARE RING SHANK NAILS, UNLESS NOTED OTHERWISE.

SCHEDULED FASTENER

8d RINK SHANK NAIL (0.131 x 2 1/2")	12d RINK SHANK NAIL (0.148 x 3 1/4")
10d RING SHANK NAIL (0.148 x 3")	16d RING SHANK NAIL (0.162 x 3 1/2")

ISSUE HISTORY

No.	Date	Description
1	09/30/21	SCHEMATIC DESIGN

REVISION HISTORY

No.	Date	Description

FUGLEBERG KOCH
2555 Temple Trail, Winter Park, FL 32789 (407) 629-0595
www. fuglebergkoch.com AA26002103

CONSULTANT

ASE ENGINEERING SERVICES, INC.
STRUCTURAL DESIGN GROUP
TO THE BEST OF MY KNOWLEDGE, THE BUILDING DESIGN PLANS AND SPECIFICATIONS COMPLY WITH BUILDING STRUCTURAL DESIGN CODE. THE SIGNING AND SEALING OF THE PLANS AND SPECIFICATIONS ARE ONLY FOR THE BUILDING'S STRUCTURAL COMPONENTS AFFECTED BY WIND, LIVE AND GRAVITY LOADS.
10244 East Colonial Drive, Suite 202
Orlando, Florida 32817 - 407-677-5565 Fax 407-730-2999
Certificate of Authorization No. 25873

Wenyi Hu P.E.
Alabama No. 26652

ALABAMA LICENSED No. 26652 PROFESSIONAL ENGINEER
4/26/2022

THE ROBERT MADISON MADISON, ALABAMA	Drawn: CW
	Checked: CW
	Approval: MX
	Date: 02-20-22
	Project #: XXX-XXX

GENERAL NOTES

CS1.01

PLOTTED:

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CONNECTOR SCHEDULE
SIMPSON

#	SIMPSON OR EQUAL	FASTENERS	UPLIFT(lbs.)	WOOD TO:	USP
1	H10	(8) 8d	990	WOOD	N/A
2	HTS20	(24) 10d x 1-1/2	1450	WOOD	HTW20
3	LTS12	(12) 10d x 1-1/2	775	WOOD	LTW12
4	H3	(4) 8d	455	WOOD	RT7
5	LTT20B	(10) 12d INTO STUDS	1750 (NAILS)	CONCRETE, WOOD	LTS20B
6	HTT16	(18) 12d	4175 (NAILS)	CONCRETE, WOOD	HTT16
7	SP-1 SP-4	(10) 10d (6) 10d x 1-1/2	585 735	WOOD (BOTT OF STUD) WOOD (TOP OF STUD)	SPT22 SPT4
7	THA/THAC TYP	PER SIMPSON CATALOG	PER SIMPSON CATALOG	SELECTION BASE ON TRUSS WIDTH AND HEIGHT	MSH TYP
8	CS16	(22) 10d	1650	11" MIN AT EA END FOR WOOD	RS150
9	MAS	(6) 10d x 1-1/2	1005	SLAB, STEMWALL	FA3
10	HCP2 HCP4	(12) 10d x 1-1/2 (16) 10d	605 1000	FOR 2x MEMBER FOR 4x MEMBER	N/A N/A
11	A35	(12) 8d x1 1/2	450 SHEAR	WOOD	MPA1
12	CC44, ECCU44 CC66, ECCU66	(4) 5/8d BOLTS (6) 5/8d BOLTS	1465 (UPLIFT) 3660 (UPLIFT)	ECCU44 AT BEAM END ECCU66 AT BEAM END	KCC44, KECCU44 KCC66, KECCU66
13	PC/EPC TYP	PER SIMPSON CATALOG	PER SIMPSON CATALOG	SELECTION BASE ON POST AND BEAM WIDTH	PCM/EPCM TYP
14	ECCLL44 ECCLL66	BOLTS AS REQ	1465 (UPLIFT) 3660 (UPLIFT)	ECCLLU44 FOR 4x4 POST ECCLLU66 FOR 6x6 POST	KECCLL44 KECCLL66
15	ABU44 ABU66	(12) 12d 5/8 ANCHOR BOLT	2200	ABU44 FOR 4x4 POST ABU44 FOR 4x4 POST	PAU44 PAU66
16	HUC410	(18) 12d FOR WOOD	1510	CONCRETE, MASONRY, WOOD FOR 4x10 BM	HD410IF
17	HUC412	(22) 12d FOR WOOD	1510	CONCRETE, MASONRY, WOOD FOR 4x12 BM	HD412IF
18	LUS TYP	PER SIMPSON CATALOG	PER SIMPSON CATALOG	LUS24 FOR 2x6, LUS26 FOR 2x8, LUS28 FOR 2x10, ETC.	JUS TYP

NOTE: USE TRUSS SHOP DRAWINGS TO DETERMINE UPLIFT REQUIREMENTS. PROVIDE TRUSS ANCHOR THAT PROVIDES AN UPLIFT CAPACITY EQUAL TO OR GREATER THAN THE UPLIFT INDICATED ON THE TRUSS SHOP DRAWINGS. INSTALL ALL TRUSS ANCHORS PER THE MANUFACTURER'S REQUIREMENTS.

SHEARWALL SCHEDULE

TYPE	SHEATHING	SHEATHING NAILING	FND CONN EACH END OF WALL				FND SOLE PLATE ATTACHMENT
	FND-ROOF	FND-ROOF	CONNECTOR	FND BOLT-12" EMBED DBL NUT EA END	ATTACH TO STUDS	REQ'D STUDS AT END OF WALL	
1	1/2" C-DX PLYWOOD *1	8d NAILS @ 4" O.C.	HD5B	3/4" DIA	(2) 3/4" DIA	(2) 2x6 OR WD POST	1/2" DIAx 7" EMB. A. BOLTS @ 32" O.C.
2	5/8" GYPSUM WALLBOARD	6d COOLER NAILS @ 6" O.C.	HD5B	3/4" DIA	(2) 3/4" DIA	(3) 2x6	1/2" DIAx 7" EMB. A. BOLTS @ 32" O.C.

*1 SHEATH EXTERIOR FACE WITH PLYWOOD SCHEDULED, AND THE INTERIOR FACE OF STUDS AS SPECIFIED IN THE GENERAL NOTES FOR INTERIOR WALLS.

NOTES:

1 ALL HD AND CS FASTENERS ARE AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, INC, OR EQUAL.

2 WHERE SCHEDULED ADDITIONAL STUDS AT THE ENDS OF SHEAR WALLS ARE INTERRUPTED AT TRUSS BEARING, PROVIDE SOLID BLOCKING IN THE TRUSS SPACE TO MATCH THE STUDS SCHEDULED FOR THE LOWER FLOOR.

3 WHERE SCHEDULED SHEATHING CANNOT EXTEND FULL HEIGHT OF WALL, PROVIDE SHEATHING OR BLOCKING BETWEEN FLOOR TRUSSES AT ALL SHEARWALLS.

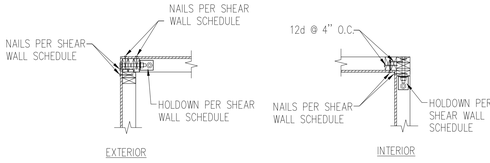
4 SHEATHING SHALL EXTEND FULL HEIGHT OF SHEARWALLS. STAGGER SHEATHING HORIZONTAL JOINTS SO THEY DO NOT FALL AT HORIZONTAL JOINT BETWEEN DOUBLE TOP PLATES.

5 WHEREVER THE SHEATHING OF A SHEAR WALL IS INTERRUPTED (I.E. BY AN INTERSECTING WALL) IN THE VERTICAL PLANE, THE SCHEDULED "ADD'L STUD AT END OF WALL" AND HOLDDOWN ANCHORS SHALL BE PROVIDED AT THE END OF THE SHEATHING (ONE EACH SIDE OF THE INTERRUPTION). THE QUANTITY OF SHEARWALL CALLOUTS ON THE PLANS MAY NOT ACCURATELY REFLECT THE NUMBER OF HOLDDOWNS REQUIRED BECAUSE OF THIS. THE CONTRACTOR MUST FIRST DETERMINE WHERE THE SHEARWALL SHEATHING WILL BE INTERRUPTED BEFORE DETERMINING THE NUMBER HOLDDOWNS REQUIRED.

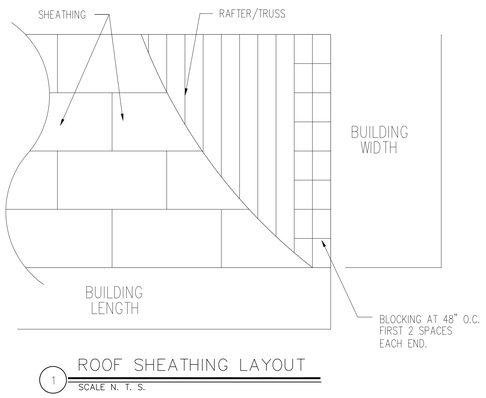
6 WHERE BOLTS ARE CALLED OUT FOR HOLDDOWN ANCHORS, THE BOLTS SHALL BE THROUGH BOLTS CONFORMING TO ASTM A307.

7 7/16" O.S.B. MAY BE USED IN LIEU OF THE 1/2" C-DX PLYWOOD SHEATHING.

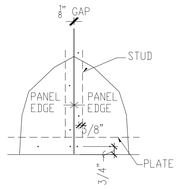
8 ANCHOR BOLTS SHALL ALL HAVE 3" HOOKS. A36 ALL THREAD RODS, DRILLED AND EPOXY GROUTED INTO FOOTINGS, MAY BE SUBSTITUTED FOR ANCHOR BOLTS CAST IN PLACE. ALL THREAD RODS SHALL HAVE SAME EMBEDMENT DEPTH AS ANCHOR BOLTS.



2 TYP. HOLDOWN ARRAGEMENTS AT CORNER
SCALE 3/4" = 1'-0"



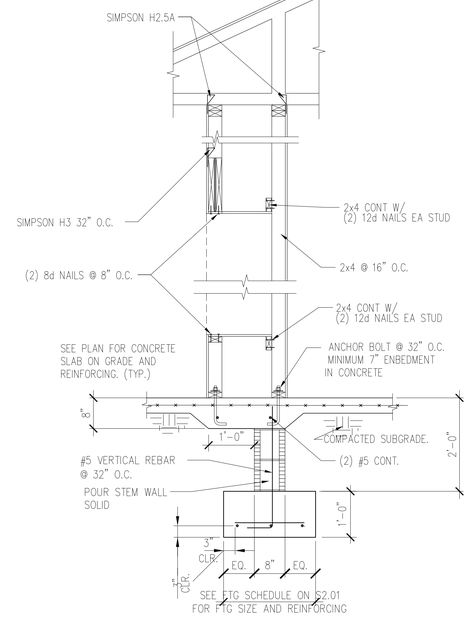
1 ROOF SHEATHING LAYOUT
SCALE N. T. S.



1. ALL HORIZONTAL & VERTICAL JOINTS SHALL OCCUR OVER FRAMING & SHALL BE ATTACHED IN THE SPACING SHOWN ON SHEARWALL SCHEDULE @ SHEARWALLS. SOLID 2X BLOCKING OR FRAMING MEMBER SHALL BE AT ALL PANEL EDGES.

2. FOLLOW SHEATHING ORIENTATION DIAGRAM (BELOW). BOTTOM PLATE OF FIRST FLOOR FRAMING SHALL BE ATTACHED TO FOUNDATION WITH MAS CONNECTORS OR ANCHOR BOLTS AS SCHEDULED.

4 PLYWOOD/OSB SHEATHING JOINT LOCATION
SCALE 3/4" = 1'-0"



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

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ISSUE HISTORY

No.	Date	Description
1	09/30/21	SCHEMATIC DESIGN

REVISION HISTORY

No.	Date	Description

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ALABAMA LICENSED No. 28652 PROFESSIONAL ENGINEER
11/26/2021

Drawn:	CW
Checked:	CW
Approval:	MK
Date:	02-20-22
Project #:	XXX-XXX

THE ROBERT MADISON
MADISON, ALABAMA

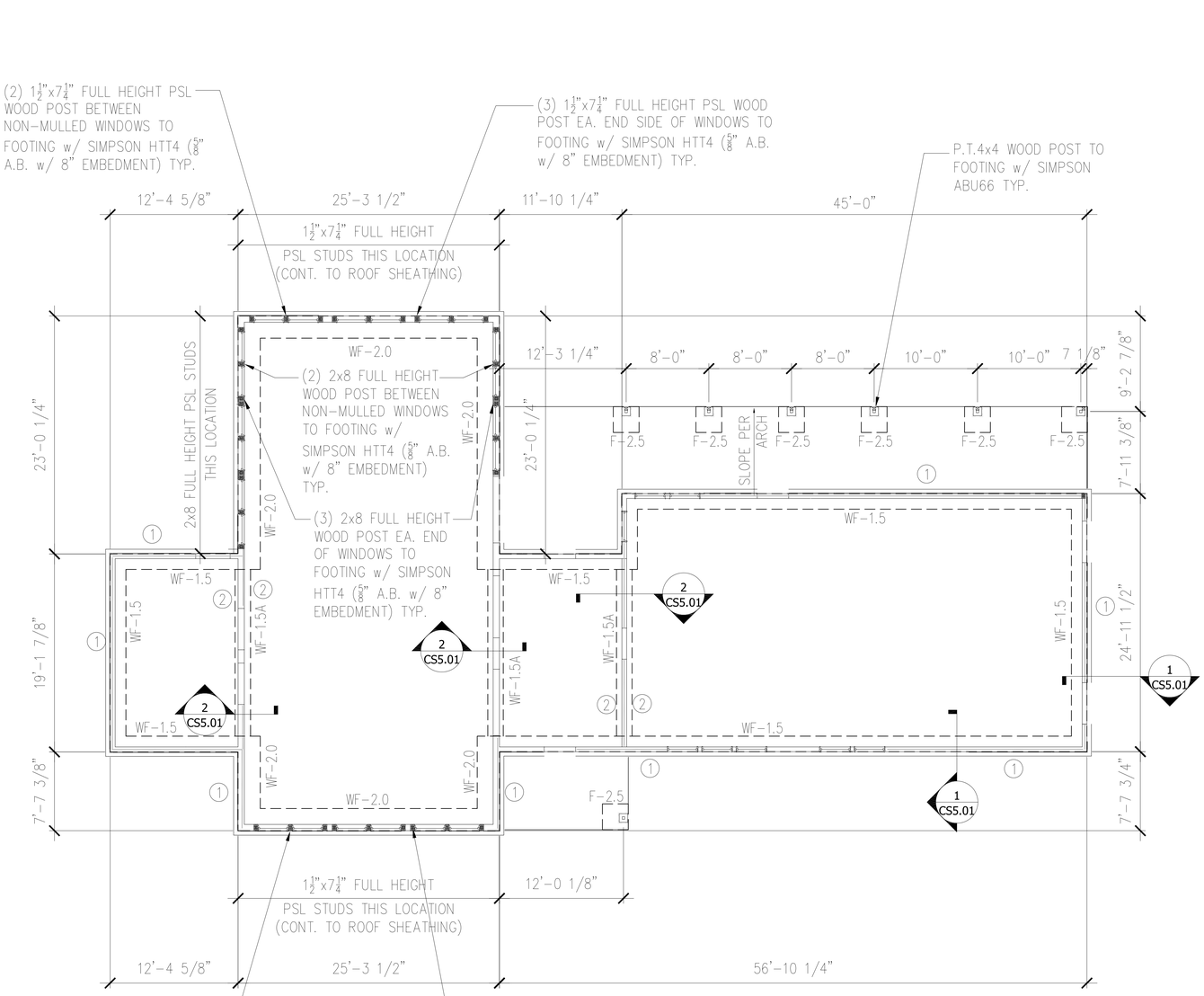
SHEAR SCHEDULE AND DETAILS

CS1.02

PLOTTED:

PLAN NOTES:

1. SEE GENERAL NOTES ON SHEETS CS1.01 & CS1.02.
2. DO NOT SCALE DRAWINGS. SEE ARCH'L. DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN, VERIFY ALL DIMENSIONS WITH ARCH'L. DRAWINGS PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES SHOULD OCCUR – CONTACT THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.
3. 4" (TOTAL) CONCRETE SLAB REINFORCED WITH 6x6–W1.4xW1.4 W.W.F. OVER 10 MIL VAPOR BARRIER ON COMPACTED SUBGRADE. COORDINATE ALL SLAB SLOPES, DEPRESSIONS AND LIMITS THERE OF WITH ARCH'L. DRAWINGS (FOR ACTUAL TOP OF SLAB ELEVATIONS, SEE ARCH'L. AND / OR CIVIL DRAWINGS)
4. PRIOR TO CONCRETE PLACEMENT PROVIDE TERMITE SOIL TREATMENT PER LOCAL BUILDING CODE.
5. ◯ INDICATES WOOD STUD SHEAR WALL TYPE, AND SHADING INDICATES EXTENT OF SHEAR WALL. SEE THE SHEAR WALL SCHEDULE ON SHEET CS1.02 FOR SHEAR WALL INFORMATION.
6. THE MAX. SPACING OF CONTROL JOINT FOR ENCLOSURE SPACE SHALL BE 20'–0" O.C., AND FOR OPEN SPACE SHALL BE 8'–0" O.C. COORD. W/ FLOOR COVERING PLACEMENT. SEND SUBMITTAL TO ARCHITECT FOR REVIEW.
7. SEE ARCH'L. DRAWINGS FOR LOCATIONS / LIMITS AND CONSTRUCTION INFORMATION OF INTERIOR NON–BEARING PARTITION WALLS NOT SHOWN ON PLAN. SEE GENERAL NOTES.
8. COORDINATE ALL SLAB (TOPPING) SLOPES AND DEPRESSIONS WITH ARCH'L. DRAWINGS. (FOR ACTUAL TOP OF SLAB ELEVATIONS, SEE ARCH'L. DRAWINGS)
9. SEE MECHANICAL DRAWINGS FOR LOCATION (ON PLANK) OF MECHANICAL UNITS. H.C. MANUFACTURER / SUPPLIER TO DESIGN FOR UNIT WEIGHT. AS REQUIRED VERIFY WEIGHTS WITH MECHANICAL DRAWINGS.
10. DIMENSIONS ARE FOR EDGE OF SLAB. SEE DETAILS FOR CLARIFICATION.



1 FOUNDATION PLAN
SCALE: 3/16" = 1'–0"

FOOTING SCHEDULE		
MARK	SIZE WIDTH x LENGTH x DEPTH	REINFORCEMENT BOTTOM
WF–1.33A	1'–4"xCONT.x12"	(2)–#5's CONT.
WF–1.5A	2'–0"xCONT.x12"	(3)–#5's CONT. #5's @ 48" O.C. TRANSVERSE
WF–1.5	1'–6"xCONT.x2'–2"	(3)–#5's CONT. #5's @ 48" O.C. TRANSVERSE
F–2.5	2'–6"x2'–6"x2'–2"	(3)–#5's EA WAY
F–3.0	3'–0"x3'–0"x2'–2"	(4)–#5's EA WAY
F–3x5	3'–0"x5'–0"x2'–2"	(4)–#5's EA WAY

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ISSUE HISTORY

No.	Date	Description
1	09/30/21	SCHEMATIC DESIGN
1	04/15/22	PERMIT SUBMISSION

REVISION HISTORY

No.	Date	Description

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ALABAMA LICENSED No. 26652 PROFESSIONAL ENGINEER
4/26/2022

THE ROBERT MADISON
MADISON, ALABAMA

Drawn:	CW
Checked:	CW
Approval:	MX
Date:	02-20-22
Project #:	XXX-XXX

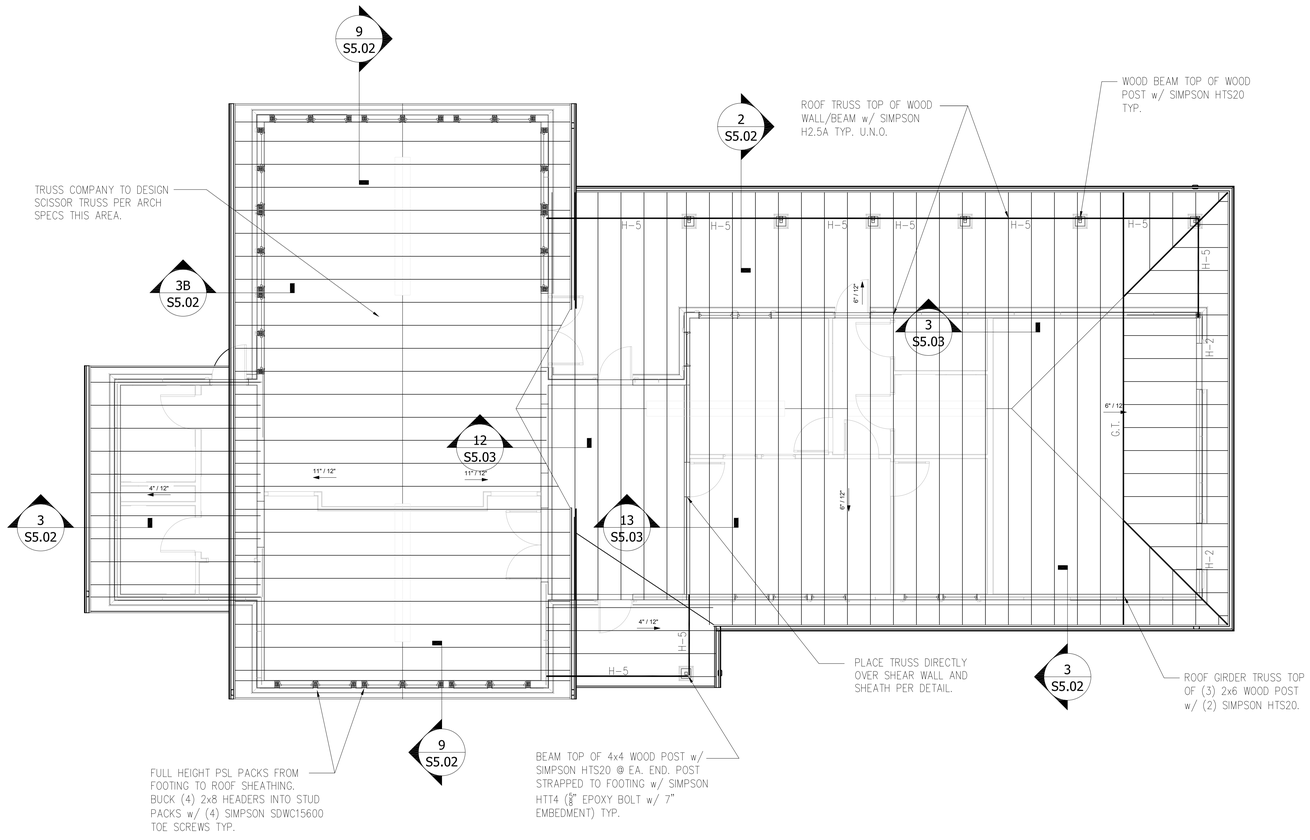
FOUNDATION PLAN

CS2.01

PLOTTED:

PLAN NOTES:

1. SEE GENERAL NOTES ON SHEET CS1.01 & CS1.02.
2. DO NOT SCALE DRAWINGS. SEE ARCH'L. DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN, VERIFY ALL DIMENSIONS WITH ARCH'L. DRAWINGS PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES SHOULD OCCUR – CONTACT THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.
3. SEE ARCH'L. DRAWINGS FOR LOCATIONS/LIMITS AND CONSTRUCTION INFORMATION OF INTERIOR NON-BEARING PARTITION WALLS NOT SHOWN ON PLAN. SEE GENERAL NOTES (SHEET CS1.01) FOR ADDITIONAL WALL FRAMING INFORMATION.
4. PROVIDE WOOD HEADER OVER ALL OPENINGS IN WOOD WALLS (COORD. EXACT SIZE, LOCATION AND ELEVATIONS WITH ARCH'L. DRAWINGS) IF NO HEADER TYPE HAS BEEN CALL-OUT ON PLAN, PROVIDE WOOD HEADER BASED ON HEADER SCHEDULE SHOWN ON CS1.01 SHEET.
5. PRE-ENGINEERED WOOD TRUSSES & MISCELLANEOUS WOOD FRAMING SPACED AT 24" O.C.(MAX).
6. O.B. INDICATES OVER-BUILT PRE-ENG. TRUSS.
7. G.T. INDICATES GIRDER TRUSS.
8. THE REQUIRED NUMBER OF FASTENERS FOR CONNECTORS SUCH AS NAILS TO WOOD MEMBERS, SEE SIMPSON CATALOG.
9. SEE THE GENERAL NOTES FOR ROOF SHEATHING INFORMATION, AND FOR WOOD TRUSS TYPES.
10. TRUSS ENGINEER TO DESIGN TRUSS TO INCORPORATE LOADS FROM MECHANICAL UNITS.
11. PROVIDE MIN. DOUBLE WOOD STUDS UNDRE WOOD HEADER, WOOD BEAM, F.G.T., G.T. TO THE FTG. U.N.O.
12. PROVIDE L 4x4x1/4 STEEL FOR BRICK VENEER OPENING WITH 4" BEARING MINIMUM, AND ATTACH L4x4x1/4 TO HEADER AND WOOD STUDS BEHIND WITH 1/2 DIA x 5" LG LAG SCREWS @ 32" O.C.
13. PROVIDE HORIZONTAL BRICK TIES @ 16" O.C. AND VERTICAL BRICK TIES @ 24" O.C.



1 ROOF FRAMING PLAN

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

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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11/24/2021

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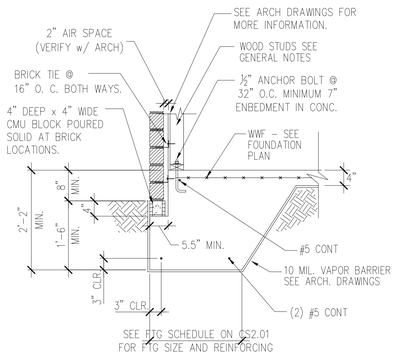
MADISON, ALABAMA	Checked: CW
	Approval: MX
	Date: 02-20-22
	Project #: XXX-XXX

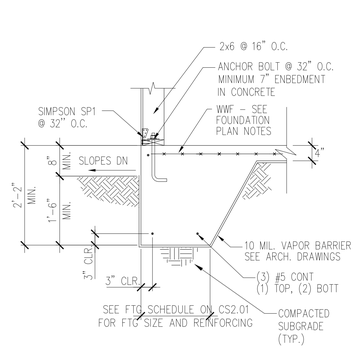
ROOF FRAMING PLAN

CS3.01

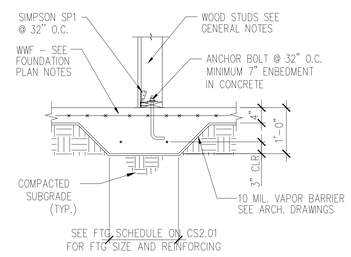
PLOTTED:



1 FOOTING AT BRICK FACING
SCALE 3/4" = 1'-0"



1B FOOTING w/o BRICK FACING
SCALE 3/4" = 1'-0"



2 SECTION
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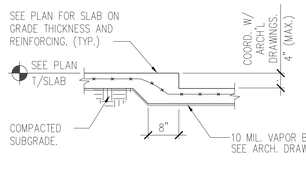
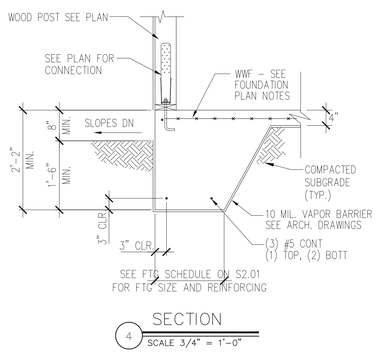


3 DEPRESSED SLAB DETAIL
SCALE 3/4" = 1'-0"

VERIFY ALL MIN. FOOTING DEPTHS W/ SOIL REPORT REQUIREMENTS.



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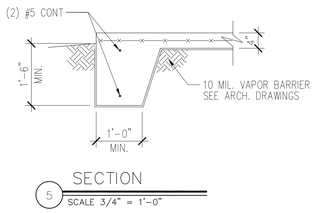
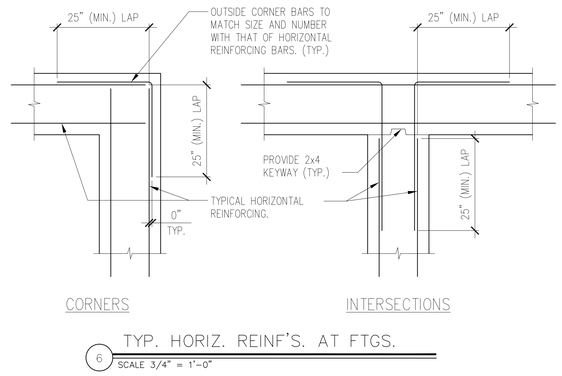
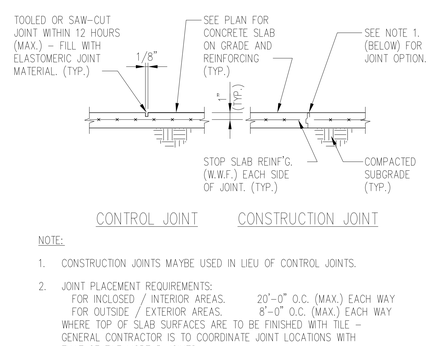


5 SECTION
SCALE 3/4" = 1'-0"



CORNERS INTERSECTIONS

6 TYP. HORIZ. REINF'S. AT FTGS.
SCALE 3/4" = 1'-0"

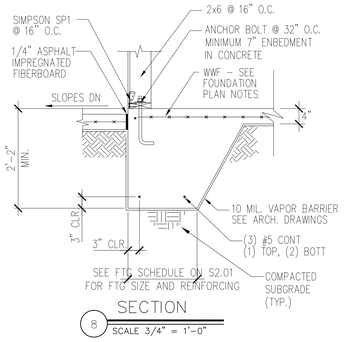


CONTROL JOINT CONSTRUCTION JOINT

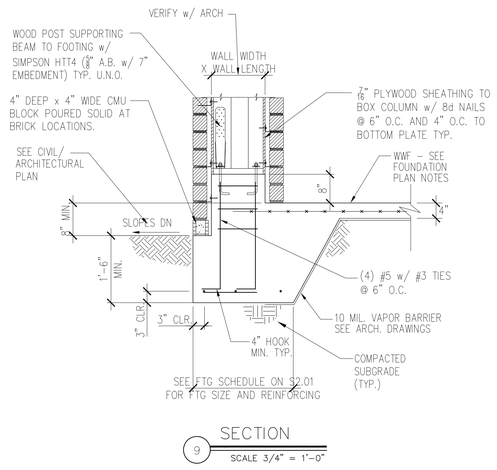
NOTE:

1. CONSTRUCTION JOINTS MAYBE USED IN LIEU OF CONTROL JOINTS.
2. JOINT PLACEMENT REQUIREMENTS:
   FOR INCLOSED / INTERIOR AREAS. 20'-0" O.C. (MAX.) EACH WAY
   FOR OUTSIDE / EXTERIOR AREAS. 8'-0" O.C. (MAX.) EACH WAY
   WHERE TOP OF SLAB SURFACES ARE TO BE FINISHED WITH TILE – GENERAL CONTRACTOR IS TO COORDINATE JOINT LOCATIONS WITH THAT OF TILE MORTAR JOINTS.

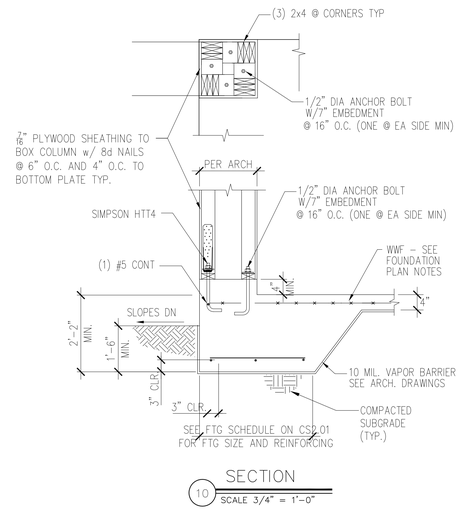
7 TYPICAL CONTROL JOINT DETAIL
SCALE 3/4" = 1'-0"



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



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



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

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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Wenyi Hu P.E.
Alabama No. 26652

ALABAMA LICENSED No. 26852 PROFESSIONAL
4/28/2022

THE ROBERT MADISON
MADISON, ALABAMA

Drawn:	CW
Checked:	CW
Approval:	MK
Date:	02-20-22
Project #:	XXX-XXX

SECTIONS AND DETAILS

CS5.01

PLOTTED:

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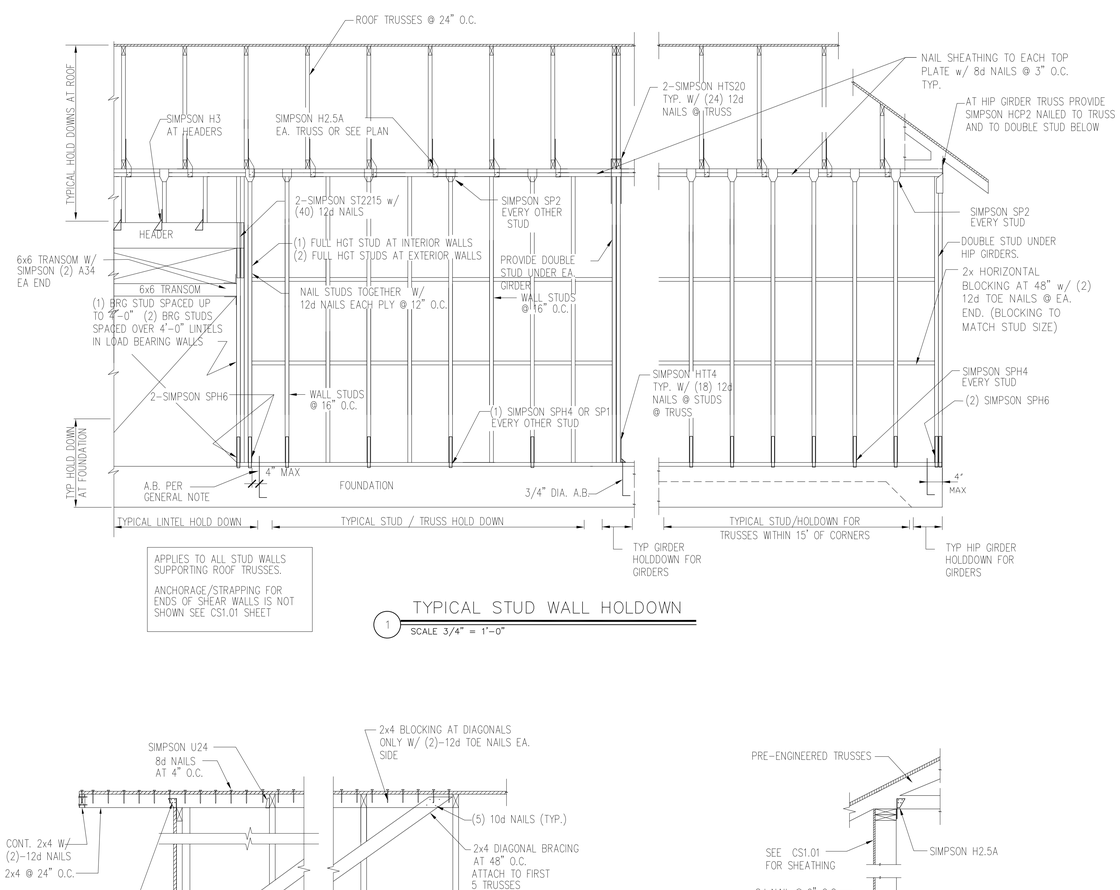
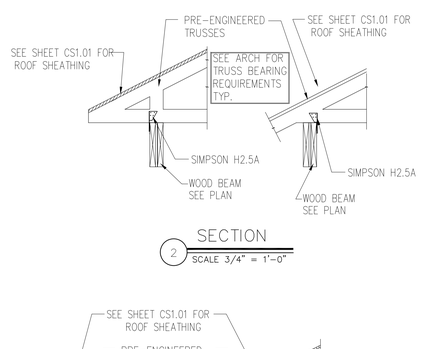
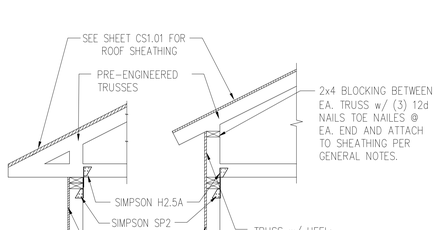


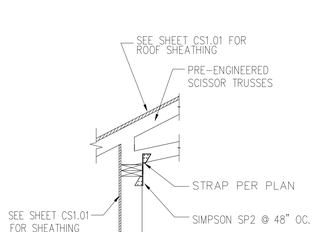
1 TYPICAL STUD WALL HOLDOWN
SCALE 3/4" = 1'-0"



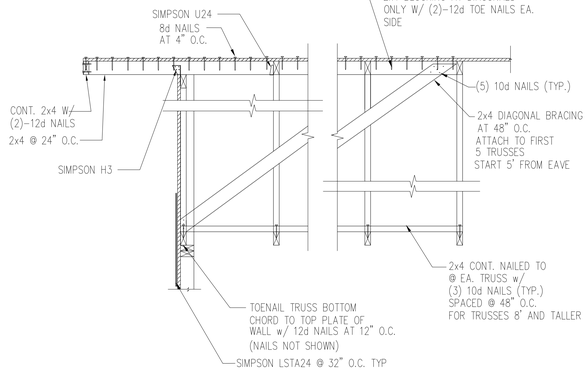
2 SECTION
SCALE 3/4" = 1'-0"



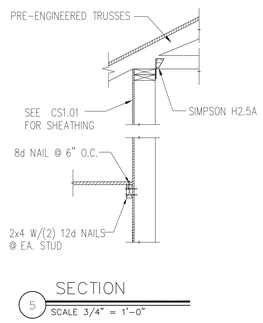
3 TYP. TRUSS TO FRAME WALL
SCALE 3/4" = 1'-0"



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



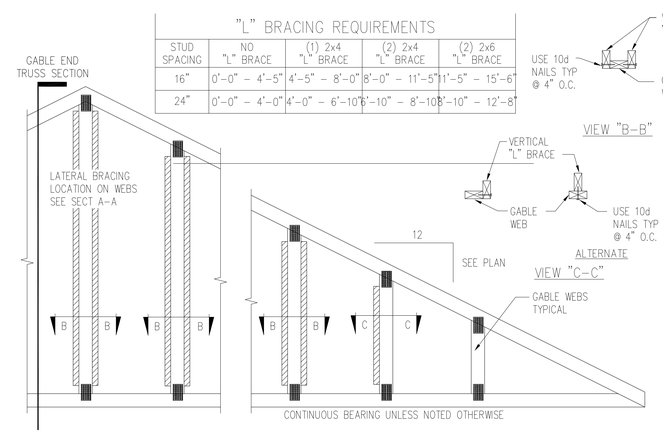
4 TYPICAL SECTION AT GABLE END TRUSSES
SCALE 3/4" = 1'-0"



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

"L" BRACING REQUIREMENTS

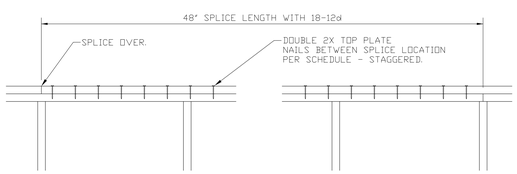
STUD SPACING	NO "L" BRACE	(1) 2x4 "L" BRACE	(2) 2x4 "L" BRACE	(2) 2x6 "L" BRACE
16"	0'-0" - 4'-5"	4'-5" - 8'-0"	8'-0" - 11'-5"	11'-5" - 15'-6"
24"	0'-0" - 4'-0"	4'-0" - 6'-10"	6'-10" - 8'-10"	8'-10" - 12'-8"



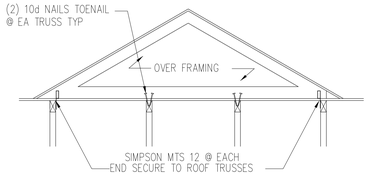
6 STANDARD GABLE END BRACING DETAIL
SCALE 3/4" = 1'-0"

NOTES:

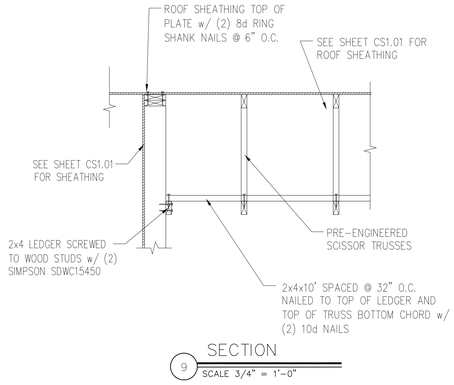
1. THIS DETAIL APPLIES AT ALL EXTERIOR WALLS AND INTERIOR SHEARWALLS.



7 TYP. TOP PLATE SPLICE
SCALE 3/4" = 1'-0"



8 STRAP OVER FRAMING
SCALE N. T. S.



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

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ISSUE HISTORY

No.	Date	Description
1	09/30/21	SCHEMATIC DESIGN

REVISION HISTORY

No.	Date	Description

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ALABAMA LICENSED No. 29652 PROFESSIONAL ENGINEER
4/26/2022

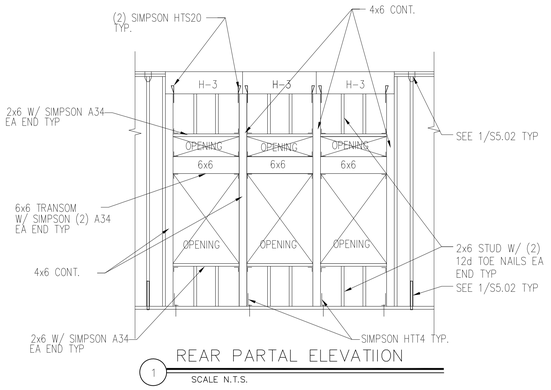
Drawn:	CW
Checked:	CW
Approval:	MX
Date:	02-20-22
Project #:	XXX-XXX

THE ROBERT MADISON
MADISON, ALABAMA

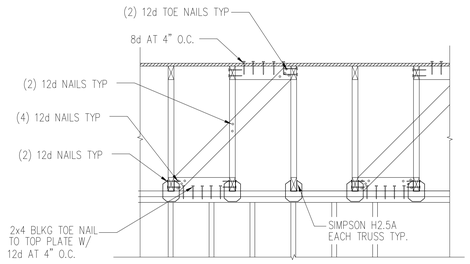
SECTIONS AND DETAILS

CS5.02

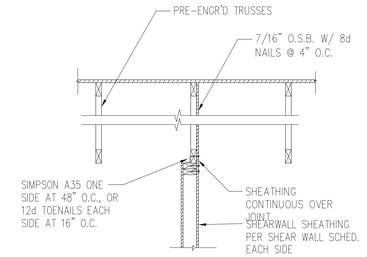
PLOTTED:



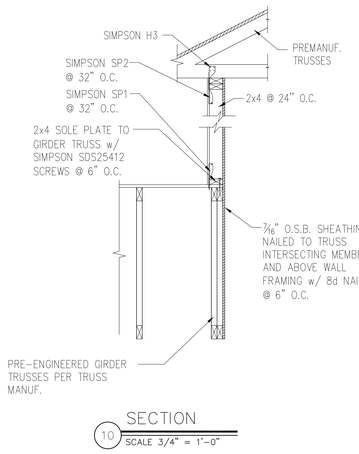
1 REAR PARTAL ELEVATIION
SCALE N.T.S.



3 TYP. TRUSS BRACING AT PERPENDICULAR SHEAR WALL
SCALE 3/4" = 1'-0"



3 TYP. SHEARWALL SECTION AT ROOF
SCALE 3/4" = 1'-0"



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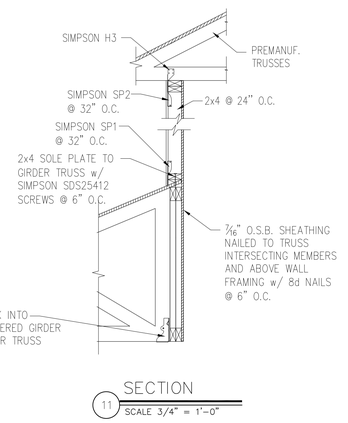
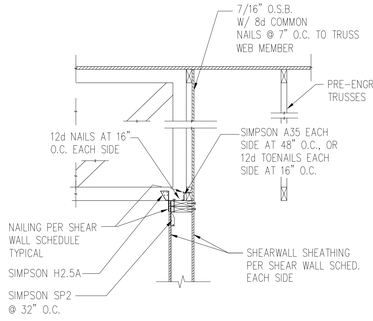
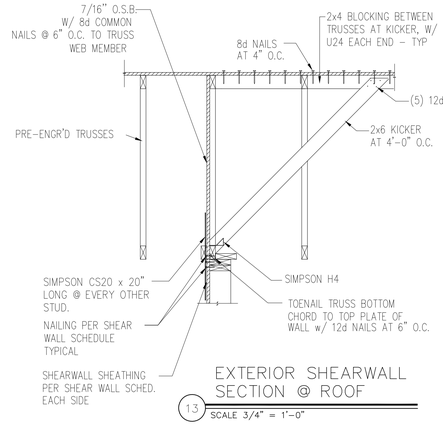
SCALE 3/4" = 1'-0"



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



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



13 EXTERIOR SHEARWALL SECTION @ ROOF
SCALE 3/4" = 1'-0"

MINIMUM WALL AND HEADER STUD REQUIREMENTS

UPLIFT CONNECTION REQUIREMENT AT POINTS 'A'(TOP AND BOTTOM OF HEADER STUDS. UPLIFT CONNECTION IS REQUIRED AT EACH END OF HEADER AND AT BOTTOM OF HEADER STUDS IN ADDITION TO CONNECTORS AT WALL STUDS

		MAXIMUM HEADER SPAN (FEET)					
		3	6	9	12	15	
		NUMBER OF HEADER STUDS SUPPORTING END OF HEADER					
		1 *	2	2	2	2	
UNSUPPORTED WALL HEIGHT	STUD SPACING	NUMBER OF FULL LENGTH STUDS AT EACH END OF HEADER					
10'-6" OR LESS	16"	2	2	3	3	3	
GREATER THAN 10'-6"	16"	2	4	4	6	6	

*THE HEADER STUD SHALL NOT BE REQUIRED IF THE HEADER IS SUPPORTED BY A SUITABLE FRAMING ANCHOR

14 HEADER AND BEAM STUD SCHEDULE
SCALE 3/4" = 1'-0"

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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THE ROBERT MADISON	Drawn: CW
MADISON, ALABAMA	Checked: CW
	Approved: MX
	Date: 02-20-22
	Project #: XXX-XXX

SECTIONS AND DETAILS

CS5.03

PLOTTED:

ABBREVIATIONS

ABV	ABOVE	HWR	HOT WATER RETURN
ADJ	ADJUSTABLE	HWS	HOT WATER SUPPLY
AF	AIRFOIL	HVAC	HEATING VENTILATION AND AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR	HV	HEATING AND VENTILATING
AC	AIR CONDITIONER	IN.WG	INCHES WATER GAUGE
ACU	AIR CONDITIONING UNIT	KW	KILOWATTS
AHU	AIR HANDLING UNIT	LAT	LEAVING DIFFUSER
AP	ACCESS PANEL	LD	LINEAR DIFFUSER
BAS	BUILDING AUTOMATION SYSTEM	LWT	LEAVING WATER TEMPERATURE
BI	BACKWARD INCLINE	MAX	MAXIMUM
BLDG	BUILDING	MBH	1000 X BTUH
BHP	BRAKE HORSEPOWER	MIN	MINIMUM
BTUH	BRITISH THERMAL UNIT PER HOUR	MD	MANUAL VOLUME DAMPER
BDD	BACKDRAFT DAMPER	M	MOTORIZED DAMPER
CD	CONDENSATE DRAIN	MZ	MULTI–ZONE
CFM	CUBIC FEET PER MINUTE	N.T.S.	NOT TO SCALE
CLG	CEILING	OA	OUTSIDE AIR
CHW	CHILLED WATER	OBMVD	OPPOSED BLADE MANUAL VOLUME DAMPER
CHWR	CHILLED WATER RETURN	OPD	OPEN DRIP PROOF
CHWS	CHILLED WATER SUPPLY	PROP	PROPELLER
CWR	CONDENSER WATER RETURN	PCR	PRE–CONDITIONED AIR SYSTEM RETURN WATER
CWS	CONDENSER WATER SUPPLY	PCS	PERCENT
CONC	CONCRETE	PD	PRESSURE DROP
COND	CONDENSATE	PERF. PL.	PERFORATED PLATE
CONT	CONTINUOUS	PLBG	PLUMBING
CO	CARBON MONOXIDE	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
COP	COEFFICIENT OF PERFORMANCE	PSIG	POUNDS PER SQUARE INCH GAUGE
CU	CONDENSING UNIT	RA	RETURN AIR
DB	DRYBULB	RD	RADIATION DAMPER
DWDI	DOUBLE WIDTH, DOUBLE INLET	REG	REGISTER
DWGS	DRAWINGS	REQ'D	REQUIRED
DX	DIRECT EXPANSION	RG	RETURN AIR GRILLE
EF	EXHAUST FAN	RH	RELATIVE HUMIDITY
EXH	EXHAUST	RPM	REVOLUTIONS PER MINUTE
EA	EACH	RR	RETURN AIR REGISTER
EAT	ENTERING AIR TEMPERATURE	RTU	ROOFTOP UNIT
EER	ENERGY EFFICIENCY RATIO	SA	SUPPLY AIR
ELECT	ELECTRICAL	SF	SUPPLY FAN
ENT	ENTERING	SD	SMOKE DETECTOR
EQ	EQUAL	SDMP	SMOKE DAMPER
ER	EXHAUST REGISTER	SQ.FT.	SQUARE FOOT
EWT	ENTERING WATER TEMPERATURE	SR	SUPPLY REGISTER
FC	FORWARD CURVED	STR	STARTER
FCU	FAN COIL UNIT	SWSI	SINGLE WIDTH, SINGLE INLET
FD	FIRE DAMPER	SZ	SINGLE ZONE
FL	FLOOR	TEFC	TOTALLY ENCLOSED FAN COOLED
FLEX	FLEXIBLE CONNECTOR OR DUCT	TEMP	TEMPERATURE
FPM	FEEL PER MINUTE	TG	TRANSFER GRILLE
F/S	COMBINATION FIRE AND SMOKE DAMPER	T/O	TRANSFER OPENING ABOVE CEILING
FT. H_2O	FEET WATER GAUGE	T'STAT	THERMOSTAT
F	DEGREES FAHRENHEIT	TYP	TYPICAL
GA	GAUGE	VFDC	VARIABLE FREQUENCY DRIVE
GAL	GALLON	VAV	VARIABLE AIR VOLUME
GALV	GALVANIZED	VS	VARIABLE SPEED
GPM	GALLONS PER MINUTE	W	WATTS
HP	HORSEPOWER	W/	WITH
HTWR	HIGH TEMPERATURE HOT WATER RETURN	W/O	WITHOUT
HTWS	HIGH TEMPERATURE HOT WATER SUPPLY	WB	WETBULB
HW	HOT WATER	ZD	ZONE DAMPER

GENERAL NOTES

1. INSTALL EQUIPMENT AND MATERIALS IN COMPLIANCE WITH MANUFACTURER'S MINIMUM CLEARANCE REQUIREMENTS AND RECOMMENDATIONS.
2. COMPLY WITH THE LATEST EDITIONS OF NFPA AND THE LATEST ADOPTED EDITION INTERNATIONAL BUILDING CODE (MECHANICAL, PLUMBING, GAS AND ENERGY CONSERVATION).
3. ALL MATERIALS SHALL FIT THE SPACE AVAILABLE. VERIFY DIMENSIONS AND CLEARANCES ON BUILDING PLANS PRIOR TO COMMENCING WORK.
4. AN INDEPENDENT TEST AND BALANCE CONTRACTOR (TABC) SHALL BE HIRED BY THE GENERAL CONTRACTOR.
5. TABC IS RESPONSIBLE FOR TESTING AND BALANCING OF AIR SYSTEMS IN ACCORDANCE WITH AABC GUIDELINES. A TEST AND BALANCE REPORT SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
6. PROVIDE 45 DEGREE BRANCH TAKE–OFF PER SMACNA FIG. 2–8 ON ALL RECTANGULAR DUCT TAKE–OFFS.
7. ALL DUCTWORK TAKE–OFFS AND/OR BRANCH DUCTWORK SHALL BE PROVIDED WITH BALANCING DAMPERS (REMOTE IF IN HARD CEILING AREAS).
8. CONTRACT SHALL MAINTAIN ALL RATED FIRE, SMOKE AND MEMBRANE ASSEMBLIES (EVEN IF NOT NOTED ON PLANS). PROVIDE AND INSTALL FIRE/SMOKE/RADIATION DAMPERS AT ALL RATED PENETRATIONS AND PROVIDE DUCT MOUNTED HINGED ACCESS DOORS. THIS APPLIES FOR ALL FIRE/SMOKE/RADIATION DAMPERS.
9. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING AND SHALL COORDINATE WITH ALL OTHER TRADES PRIOR TO OR INSTALLING EQUIPMENT AND MATERIALS.
10. COORDINATE ALL HVAC SYSTEM DRAWINGS WITH EXISTING/NEW TRUSS TO AVOID INTERFERENCE BETWEEN MECHANICAL SYSTEMS AND ROOF STRUCTURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH TRUSS INTERFERENCE THAT OCCURS IN THE FIELD DURING CONSTRUCTION. COORDINATE IN ADVANCE. DUCT SIZES MAY BE REVISED TO FIT TRUSS SYSTEM SO LONG AS THE EQUIVALENT INSIDE CROSS SECTIONAL AREA IS NOT DECREASED.
11. GAUGES AND CONSTRUCTION FOR DUCTWORK SHALL CONFORM TO THE LATEST EDITION OF SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS.
12. TRANSITION RECTANGULAR DUCTWORK ON BOTTOM AND SIDES. MAINTAIN TOP OF DUCTWORK LEVEL AND HIGH AS POSSIBLE. FLEXIBLE DUCT RUN–OUTS TO CEILING DIFFUSERS SHALL BE AS STRAIGHT AS POSSIBLE AND FREE OF SAGS AND KINKS. FLEX DUCT SHALL BE THE SAME SIZE AS THE DIFFUSER NECK IT SERVES.
13. ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS. SPIN–IN FITTINGS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.
14. THE CONTRACTOR SHALL FULFILL ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS AND SHALL COMPLETE THE WORK SHOWN ON THESE DRAWINGS. ALL SYSTEMS SHALL BE FINISHED, TESTED AND BALANCED, ADJUSTED, AND PROVEN TO BE FULLY OPERATIONAL AND USEABLE.
15. ADJUST ALL DIFFUSERS IN CORRIDORS OR WITHIN THREE (3) FEET OF A WALL TO PROVIDE 2–WAY OR 3–WAY BLOW AWAY FROM OR PARALLEL TO WALLS. ALL DIFFUSERS SHALL HAVE 4–WAY BLOW UNLESS NOTED OTHERWISE.
16. PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
17. ALL DAMPERS IN AND ABOVE CEILING SHALL BE ACCESSIBLE. CONTRACTOR SHALL COORDINATE ALL ACCESS PANELS IN CEILINGS OR WALLS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND INTERIOR DRAWINGS FOR PROPER LOCATION.
18. MOUNT THERMOSTATS WHERE INDICATED ON PLANS 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. IN HANDICAPPED ACCESSIBLE AREAS, MOUNT CONTROLS AT 48" (MAXIMUM) ABOVE FINISHED FLOOR.
19. COORDINATE DUCTWORK AND PIPING WITH PLUMBING, FIRE PROTECTION AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ANY ADDITIONAL EXPENSE TO THE CONTRACT.
20. SEAL ALL TRANSVERSE JOINTS AND FITTINGS WITH DUCT SEALER.
21. TRAP AND ROUTE CONDENSATE DRAINS LINES, FULL SIZE OF UNIT CONNECTION, AS INDICATED. SLOPE 1/8" PER FOOT.
22. ALTERNATE MANUFACTURERS AND MODELS WILL BE REVIEWED. THERE MAY BE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL CHANGES RESULTING FROM THE ALTERNATES. THE COST OF IMPLEMENTING AND ENGINEERING THESE CHANGES SHALL BE BORNE BY THE MECHANICAL SUBCONTRACTOR.
23. PIPE AND DUCT ROUTING SHOWN IS SCHEMATIC. PROVIDE ANY ADDITIONAL OFFSETS AND FITTINGS, INCLUDING DIVIDED DUCTS, REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES AS ENCOUNTERED IN THE FIELD.
24. COORDINATE CEILING MOUNTED AIR DEVICE LOCATION WITH REFLECTED CEILING PLAN AND OTHER TRADES.
25. ALL CONTROL WIRING AND CONDUIT SHALL COMPLY WITH NEC DIVISION 16 SPECIFICATIONS.
26. PROVIDE MATERIALS WHICH HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS WHEN TESTED IN ACCORD WITH ASTM E84.
27. SLEEVE AND FIRE STOP PENETRATIONS THROUGH FIRE RATED SYSTEMS TO MAINTAIN RATING OF SYSTEM. USE MINIMUM GALVANIZED STEEL GAUGE DUCT AS REQUIRED TO MAINTAIN RATING OF SYSTEM.
28. WHERE THE EXHAUST DUCT IS CONCEALED WITHIN THE BUILDING CONSTRUCTION, THE EQUIVALENT LENGTH OF THE DUCT SHALL BE IDENTIFIED ON A PERMANENT LABEL OR TAG. THE LABEL OR TAG SHALL BE LOCATED WITHIN 6 FEET OF THE EXHAUST DUCT CONNECTION.
29. CONTRACTOR TO ORDER ALL FIRE/SMOKE DAMPERS WITH INTEGRAL SMOKE DETECTORS AND END STOP INDICATOR OPTIONS. VERIFY VOLTAGE WITH ELECTRICAL DRAWINGS. IF BUILDING IS EQUIPPED WITH FIRE ALARM SYSTEM ALL FIRE/SMOKE DAMPERS WILL BE CONNECTED TO BUILDING FIRE ALARM SYSTEM.
30. ALL MECHANICAL EQUIPMENT SHALL BE THOROUGHLY CLEANED OF ALL DIRT, OIL, CONCRETE, ETC. ANY DENTS, SCRATCHES OR OTHER VISIBLE BLEMISHES SHALL BE CORRECTED AND THE APPEARANCE OF THE EQUIPMENT MADE "LIKE NEW" AND TO THE SATISFACTION OF THE ARCHITECT/ENGINEER. UPON COMPLETION, AND BEFORE FINAL ACCEPTANCE OF THE WORK, ALL DEBRIS, RUBBISH, LEFTOVER MATERIALS, TOOLS AND EQUIPMENT SHALL BE REMOVED FROM THE SITE. PROTECTION OF WORK UNTIL FINAL ACCEPTANCE: PROTECT ALL MATERIALS AND EQUIPMENT FROM DAMAGE, ENTRANCE OF DIRT AND CONSTRUCTION DEBRIS FROM THE TIME OF INSTALLATION UNTIL FINAL ACCEPTANCE. ANY MATERIALS AND EQUIPMENT WHICH ARE DAMAGED SHALL BE REPAIRED TO "AS NEW" CONDITION OR REPLACED AT THE DIRECTION OF THE ARCHITECT/ENGINEER. WHERE FACTORY FINISHES OCCUR AND DAMAGE IS MINOR, FINISHES MAY BE TOUCHED UP. IF, IN THE OPINION OF THE ARCHITECT/ENGINEER THE DAMAGE IS EXCESSIVE, FACTORY FINISH SHALL BE REPLACED TO "NEW" CONDITION.
31. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT AND EXTENT OF WORK. EXACT LOCATIONS AND ARRANGEMENT OF MATERIALS AND EQUIPMENT SHALL BE DETERMINED, WITH THE ACCEPTANCE OF THE ARCHITECT/ENGINEER, AS WORK PROGRESSES TO CONFORM IN THE BEST POSSIBLE MANNER WITH THE SURROUNDINGS AND WITH THE ADJOINING WORK OF OTHER TRADES. WHERE LOCATIONS OF EQUIPMENT, DEVICES OR FIXTURES ARE CONTROLLED BY ARCHITECTURAL FEATURES, ESTABLISH SUCH LOCATIONS BY REFERRING TO DIMENSIONS ON ARCHITECTURAL DRAWINGS AND NOT BY SCALING DRAWINGS.
32. IN CASE OF DIFFERENCES BETWEEN DRAWINGS AND SPECIFICATIONS, OR WHERE DRAWINGS AND SPECIFICATIONS ARE NOT CLEAR OR DEFINITE, THE SUBJECT SHALL BE REFERRED TO ARCHITECT/ENGINEER FOR CLARIFICATION AND INSTRUCTIONS.
33. ANY INTERRUPTION OF EXISTING MECHANICAL AND ELECTRICAL SERVICES SHALL BE COORDINATED IN ADVANCE WITH THE OWNER'S REPRESENTATIVE. THIS INCLUDES, BUT IS NOT LIMITED TO, SERVICES PROVIDING CHILLED WATER, ELECTRICITY, OR OTHER CRITICAL SYSTEMS AS MAY BE PERTINENT TO THIS PARTICULAR PROJECT. SERVICE INTERRUPTION TIMES AND DURATION OF INTERRUPTION OF SERVICES SHALL BE DECIDED BY THE OWNER. PROVIDE APPROPRIATE PROVISIONS (SUCH AS ISOLATION SHUT–OFF VALVES, DAMPERS, END CAPS, AND SIMILAR ITEMS) AS NECESSARY TO ACCOMMODATE THE REQUIRED SERVICE INTERRUPTIONS. IF SHUTDOWNS CANNOT BE ACCOMMODATED, PROVIDE MEANS FOR "WET" TAPPING OR "HOT" TAPPING OF PIPING SYSTEMS.
34. ALL MAIN DUCTWORK SHOWN PER PLAN IS TO BE SHEET METAL OR DUCT BOARD. ALL DUCT BOARD INSTALLATIONS ARE TO BE APPROVED BY BUILDING OWNER PRIOR TO MATERIAL PURCHASE.
35. FIRE & FIRE/SMOKE DAMPERS ARE REQUIRED TO BE UL LISTED AND APPROVED FOR THE ASSEMBLIES LISTED ON THE ARCHITECTURAL DRAWINGS. THESE DAMPERS MUST ALSO BE REVIEWED AND APPROVED BY THE ARCHITECT PRIOR TO ORDERING.

ENERGY CALCULATION VALUES

ROOF:	R–38
WALLS:	R–21
WINDOWS:	
SHGC:	0.25
U VALUE:	U–0.30
VLT:	0.5
DOORS:	R–2.85
FLOORS:	R–10

NOTE:

THIS PROJECT HAS MET THE MINIMUM ENERGY CODE REQUIREMENTS AND HAS BEEN DESIGNED TO THE MINIMUM VALUES NOTED. ALL MATERIALS USED IN THE CONSTRUCTION OF THIS PROJECT MUST MEET OR EXCEED THE MINIMUM VALUES NOTED PER THE LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE AND INTERNATIONAL ENERGY CODE.

NOTE:

GENERAL NOTES ON THIS MECHANICAL SHEET ARE FOR GENERAL REFERENCE PURPOSES ONLY. ALL OF THESE NOTES MAY NOT BE USED FOR THIS PROJECT.

LEGEND

- SUPPLY DIFFUSER (4–WAY)
- RETURN OR OUTDOOR AIR GRILLE
- EXHAUST GRILLE
- SUPPLY DUCT UP SECTION (RECTANGULAR)
- RETURN DUCT UP SECTION (RECTANGULAR)
- EXHAUST DUCT UP SECTION (RECTANGULAR)
- SUPPLY DUCT DOWN SECTION (RECTANGULAR)
- RETURN DUCT DOWN SECTION (RECTANGULAR)
- EXHAUST DUCT DOWN SECTION (RECTANGULAR)
- SUPPLY DUCT UP SECTION (ROUND)
- SUPPLY DUCT DOWN SECTION (ROUND)
- LINEAR SLOT DIFFUSER
- EXISTING LINEAR SLOT DIFFUSER (LIGHT LINETYPE)
- A/B — RECTANGULAR DUCTWORK WITH TAKE–OFF, BALANCING DAMPER AND INSULATED FLEXIBLE ROUND DUCT. SAME SIZE AS DIFFUSER INLET UNLESS NOTED OTHERWISE. FIRST DIMENSION IS THAT OF SIDE SHOWN
- A ø — ROUND DUCTWORK
- CONICAL FITTING WITH DAMPER ON BRANCH CONNECTION TO RECTANGULAR MAIN (PROVIDE DAMPER IN LOW PRESSURE DUCTWORK ONLY)
- EXISTING DUCTWORK TO REMAIN (LIGHT LINETYPE)
- R — DUCT OFFSETS UP (RISE) IN DIRECTION INDICATED
- D — DUCT OFFSETS DOWN (DROP) IN DIRECTION INDICATED
- OPPOSED BLADE VOLUME DAMPER (OBD)
- MANUAL DAMPER
- FLEXIBLE DUCT CONNECTION
- FIRE/RADIATION DAMPER WITH ACCESS PANEL
- COMBINATION FIRE/SMOKE DAMPER WITH ACCESS PANEL
- EXISTING DUCTWORK TO BE REMOVED (DASHED LINETYPE)
- DUCT MOUNTED SMOKE DETECTOR PROVIDED AND WIRED BY ELECTRICAL CONTRACTOR AND INSTALLED IN DUCT BY MECHANICAL CONTRACTOR. REFER TO SPECIFICATIONS FOR CONTROL REQUIREMENTS.
- A–100 — AIR DEVICE TAG MARK–CFM
- SIDEWALL TRANSFER GRILLE
- SIDEWALL SUPPLY REGISTER
- SIDEWALL RETURN GRILLE OR OUTSIDE AIR LOUVER
- SIDEWALL EXHAUST GRILLE
- TS — WALL MOUNTED DDC TEMPERATURE SENSOR MOUNT 4'–0" ABOVE FINISHED FLOOR
- T — WALL MOUNTED THERMOSTAT MOUNT 4'–0" ABOVE FINISHED FLOOR
- C — WALL MOUNTED CO SENSOR MOUNT 4'–0" ABOVE FINISHED FLOOR
- H — WALL MOUNTED DDC HUMIDITY SENSOR MOUNT 4'–0" ABOVE FINISHED FLOOR
- H S — WALL MOUNTED HUMIDISTAT SENSOR MOUNT 4'–0" ABOVE FINISHED FLOOR
- A / B — PHOTO DETAIL OR SECTION IDENTIFICATION TARGET A = DETAIL NUMBER B = SHEET NUMBER ON WHICH DETAIL IS LOCATED
- RD — RADIATION DAMPER INSTALLED IN AIR DEVICE
- RD — RADIATION DAMPER INSTALLED IN DUCT
- ELBOW WITH TURNING VANES
- X — REFERENCE NOTES
- X — REFERENCE NOTE – MULTI–DISCIPLINE SHEETS
- FLOW DIRECTION
- INDICATES POINT OF CONNECTION BETWEEN NEW AND EXISTING
- POINT OF DISCONNECT
- CWS — CONDENSER WATER SUPPLY PIPING
- CWR — CONDENSER WATER RETURN PIPING
- BCWS — BUILDING CONDENSER WATER SUPPLY PIPING
- BCWR — BUILDING CONDENSER WATER RETURN PIPING
- CHWS — CHILLED WATER SUPPLY PIPING
- CHWR — CHILLED WATER RETURN PIPING
- HWS — HEATING WATER SUPPLY PIPING
- HWR — HEATING WATER RETURN PIPING
- CD — CONDENSATE DRAIN PIPING
- R — REFRIGERANT PIPING
- FS — FLOW SENSOR
- SP — STATIC PRESSURE TRANSMITTER ASSEMBLY
- L=1/4W, MIN. 4" / 45° / W — RECTANGULAR BRANCH DUCT CONNECTION. (PROVIDE BALANCING DAMPER AT ALL BRANCH CONNECTIONS)
- TEE (PLAN, UP, DOWN)
- ELBOW (PLAN, UP, DOWN)
- VALVE
- TWO WAY MOTORIZED CONTROL VALVE
- THREE WAY MOTORIZED CONTROL VALVE
- PRESSURE REDUCING VALVE
- FLOW CONTROL VALVE
- BALL VALVE FOR PIPING 2–INCHES AND SMALLER, BUTTERFLY VALVE FOR PIPING 2–1/2 INCHES AND LARGER
- BUTTERFLY VALVE
- CHECK VALVE
- STRAINER
- BALANCE VALVE WITH INTEGRAL TAPS FOR CONNECTION OF DIFFERENTIAL PRESSURE METER. VALVE SHALL HAVE NAMEPLATE INDICATING WATER FLOW RATE VERSUS VALVE PRESSURE DROP
- A — AUTOMATIC FLOW CONTROL VALVE WITH INTEGRAL TEMPERATURE AND PRESSURE TEST PORTS
- UNION
- VENTURI FLOW METER
- PRESSURE AND/OR TEMPERATURE PORT
- THERMOMETER
- PRESSURE GAUGE WITH GAUGE COCK
- FLEXIBLE CONNECTION
- PRESSURE RELIEF VALVE
- OPENING IN WALL ABOVE CEILING
- AHU 3 — EQUIPMENT TYPE, MARK — EQUIPMENT TAG
- UC — 1" DOOR UNDER CUT. ARROW INDICATES DIRECTION OF FLOW
- FLEX DUCT

NOTE:

SYMBOLS SHOWN ON THIS MECHANICAL LEGEND ARE FOR REFERENCE PURPOSES ONLY. ALL OF THESE SYMBOLS MAY NOT BE USED FOR THIS PROJECT.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ISSUE HISTORY

No.	Date	Description
1	04/15/22	Permit Submission

REVISION HISTORY

No.	Date	Description

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HUNTSVILLE, AL

Drawn:	MJR/SMB
Checked:	BLS/AJB
Approval:	BLS/AJB
Date:	04/15/2022
Project #:	5722

SYMBOL LEGEND & GENERAL NOTES MECHANICAL

CHM0.01

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GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL MECHANICAL EQUIPMENT SELECTED FITS WITHIN DESIGNATED SPACE SHOWN ON MECHANICAL PLANS AND PROVIDES THE CORRECT CLEARANCES REQUIRED BY THE MANUFACTURER.
2. CONTRACTOR SHALL COORDINATE VOLTAGE, PHASE AND REQUIRED MOCP FOR EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
3. IF PRODUCTS/EQUIPMENT ARE VALUE ENGINEERED OR SUBSTITUTED IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD COORDINATE ALL NEW PRODUCTS/EQUIPMENT REQUIREMENTS WITH OTHER DISCIPLINES/TRADES.

OUTSIDE AIR CALCULATIONS (AMENITIES AREA)

CLASSIFICATION	OCC. FACTOR OCCUPANCY/ 1000 SQFT. (PERSONS)	ASHRAE 62.1 VALUES PER TABLE 6.2.2.1 Rp	Ra	SPACE AREA (SQFT) Az	SPACE LOAD (PERSONS) Pz	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
AHU-1.C							
GATHERING ROOM	120	5	0.06	787	28**	187.22	190
GAME ROOM	20	7.5	0.18	366	6**	110.88	115
CORRIDOR	–	–	0.06	79	–	4.74	5
AHU-2.C							
LOBBY	30	7.5	0.06	216	6	54.96	60
RECEPTION	30	5	0.06	205	6	42.3	45
OFFICE	5	5	0.06	142	3	23.52	25
CORRIDOR	–	–	0.06	59	–	3.54	5
MAIL KIOSK	2	10	0.12	422	1	60.64	65
WORK ROOM	5	5	0.06	94	2	15.64	20
TOTAL	–	–	–	2,370*	49	444.94	530

NOTES:
1. REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62.1, TABLE 6.2.2.1.
   VENTILATION BREATHING ZONE FORMULA: Vbz = Rp * Pz + Ra * Az
   Pz = OCCUPANCY FACTOR * SPACE AREA
2. OUTSIDE AIR CALC. REFERENCES CHAPTER 15 OF THE 2020 EDITION OF THE OF THE FLORIDA BUILDING BUILDING CODE (MECHANICAL).

*AREA DOES NOT INCLUDE RESTROOMS.
**FIXED NUMBER OF SEATING PER PLAN.

AIR DEVICE SCHEDULE (AMENITIES AREA)

MARK	DESCRIPTION	FACE SIZE	NECK	MATERIAL	MANUFACTURER & MODEL NO.	NOTES
AA	LOUVERED FACE SUPPLY DIFFUSER – CEILING	14"x10"	SEE PLAN	STEEL	TRUAIRE 401	1.
AB	LOUVERED FACE SUPPLY DIFFUSER – CEILING	10"x6"	SEE PLAN	STEEL	TRUAIRE 401	1.
AC	SQUARE FACE DIFFUSER – SUPPLY	12"x12"	SEE PLAN	STEEL	TRUAIRE 170	1.
AD	LOUVERED FACE RETURN GRILLE	18"x18"	SEE PLAN	STEEL	TRUAIRE 170	1.
AE	LOUVERED FACE RETURN GRILLE	12"x12"	SEE PLAN	STEEL	TRUAIRE 170	1.

NOTES:
1. COORIDINATE SURFACE FINISHES WITH ARCHITECTURAL DRAWINGS.

FAN SCHEDULE (CLUBHOUSE)

MARK	AREA SERVED	TYPE	CFM	T.S.P.	HP/WATTS	RPM	VOLTS/PH	SONES	WEIGHT	MANUFACTURER & MODEL NO.	NOTES
EF-1.C	MEN'S RR	CEILING	71	0.25	8.5 WATTS	1,112	120/1ø	0.5	11.9	PANASONIC FV-0511VK2	1. & 2.
EF-2.C	WOMEN'S RR	CEILING	71	0.25	8.5 WATTS	1,112	120/1ø	0.5	11.9	PANASONIC FV-0511VK2	1. & 2.
EF-3.C	RESTROOM	CEILING	71	0.25	8.5 WATTS	1,112	120/1ø	0.5	11.9	PANASONIC FV-0511VK2	1. & 2.

NOTES:
1. PROVIDE WITH VIBRATION ISOLATORS, INTEGRAL BACKDRAFT DAMPER, MOTION SENSOR (FV-MSVK1), MULTI-SPEED MODULE (FV-VS15VK1) AND WALL CAP.
2. EXHAUST FAN TO OPERATE ON OCCUPANCY SENSOR (ACCESSORY TO FAN).

CLUBHOUSE & COMMON AREAS DX SPLIT AIR HANDLING UNIT SCHEDULE

MARK	LOCATION SERVED	FAN: TOTAL AIR FLOW (CFM)	OUTSIDE AIR FLOW (CFM)	EXTERNAL STATIC PRESS. (IN.WG.)	DRIVE TYPE	HP	COOLING COIL: ENTERING AIR TEMP. (F° DB/WB)	LEAVING AIR TEMP. (F° DB/WB)	TOTAL CAPACITY (BTUH)	FILTERS: TYPE	EFFICIENCY	THICKNESS	ELECTRIC HEATING COIL: NO. OF STAGES	TOTAL KW	VOLTAGE/ PHASE	SINGLE POINT UNIT ELEC. REQUIREMENTS: SINGLE CIRCUIT MCA	SINGLE CIRCUIT MOCP	UNIT INFORMATION: UNIT SIZE (H"xW"xD")	OPERATING WEIGHT (LBS.)	MANUFACTURER	MODEL NUMBER	MOUNTING	NOTES
AHU-1.C	GATHERING/GAME ROOM	1,600	310	0.8	DIRECT	1	80.0/67.0	56.0/54.0	48,000	THROWAWAY	25%-30%	1"	1	10	208/1ø	52.0	60	58"x25"x21"	167	GOODMAN OR EQUAL	ASPT49D14*	METAL STAND	1., 2., 3. & 4.
AHU-2.C	LOBBY, RECEPTION OFFICES	1,400	220	0.8	DIRECT	3/4	80.0/67.0	56.0/54.0	42,000	THROWAWAY	25%-30%	1"	1	8	208/1ø	41.0	45	54"x21"x21"	144	GOODMAN OR EQUAL	ASPT47C14*	METAL STAND	1., 2., 3. & 4.

NOTES:
1. PROVIDE COMPLETE WITH PULL TYPE DISCONNECT SWITCH (PROVIDED BY DIVISION 16) AND HONEYWELL TH8321WF1001 7-DAY PROGRAMMABLE THERMOSTAT AND INTEGRAL HUMIDISTAT.
2. ROUTE AND SIZE REFRIGERANT LINES PER MANUFACTURER'S REQUIREMENTS.
3. PROVIDE CONDENSATE OVERFLOW SWITCH SAFE-T SWITCH MODEL SS2 OR EQUIVALENT.
4. PROVIDE WITH MOTORIZED OUTSIDE AIR DAMPER. DAMPER TO BE INTERLOCKED WITH AHU AND BALANCED PER OUTSIDE AIR SCHEDULE.

CLUBHOUSE & COMMON AREAS DX SPLIT CONDENSING UNIT SCHEDULE (STRAIGHT COOL)

MARK	LOCATION	COMPRESSOR: OUTDOOR DESIGN TEMP. (F°)	QTY.	CAPACITY STEPS %	CONDENSER FANS: QTY.	NOMINAL HP	ELECTRICAL: VOLTAGE/ PHASE	COMPRESSOR RLA EACH	CONDENSER FANS: QTY.	FLA (EA.)	MCA	MOCP	SEER	UNIT INFORMATION: UNIT SIZE (H"xW"xD")	OPERATING WEIGHT (LBS.)	MANUFACTURER	MODEL NUMBER	NOTES
CU-1.C	GROUND	95°	1	100	1	1/4	208/1ø	19.9	1	1.30	26.2	45	14.0	36"x36"x36"	220	GOODMAN OR EQUAL	GSX140481*	1. & 2.
CU-2.C	GROUND	95°	1	100	1	1/6	208/1ø	16.7	1	0.95	21.8	35	14.0	36"x29"x29"	189	GOODMAN OR EQUAL	GSX140431*	1. & 2.

NOTES:
1. PROVIDE COMPLETE WITH PULL TYPE DISCONNECT SWITCH (PROVIDED BY DIVISION 16), TIME DELAY RELAY AND ANTI-SHORT CYCLE TIMER.
2. MOUNT AND SECURE CONDENSING UNITS PER DETAILS PROVIDED.

FLEX DUCT SCHEDULE

CFM	FLEX SIZE
0 – 35	4"ø
36 – 60	5"ø
61 – 100	6"ø
101 – 140	7"ø
141 – 210	8"ø
211 – 280	9"ø
281 – 400	10"ø
401 – 600	12"ø
601 – 900	14"ø
901 – 1,300	16"ø
1,300 – 1,700	18"ø

AIR BALANCE

EXHAUST:

EF-1.C	71 CFM
EF-2.C	71 CFM
EF-3.C	71 CFM
EXHAUST TOTAL:	213 CFM

MAKEUP AIR:

AHU-1.C	310 CFM
AHU-2.C	220 CFM
MAKEUP TOTAL:	530 CFM

BUILDING PRESSURE = +317
(WITH ALL FANS ACTIVATED)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ISSUE HISTORY

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No.	Date	Description

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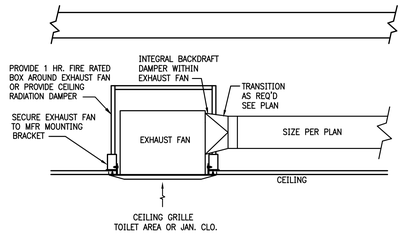
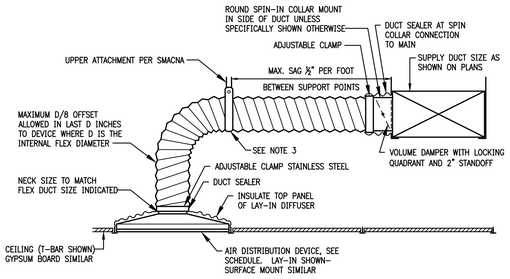
HUNTSVILLE, AL	Checked: BLS/AJB
	Approval: BLS/AJB
	Date: 04/15/2022
	Project #: 5722
SCHEDULES MECHANICAL	
CHM3.01	



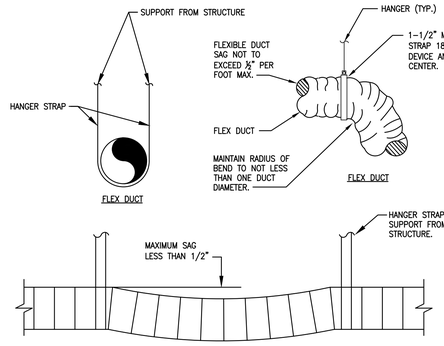
11 NTS **CEILING EXHAUST FAN SUPPORT DETAIL FIRE RATED CEILING**



NOTES:

1. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
2. MINIMUM 1-1/2" WIDE 22 GAUGE GALVANIZED STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3-10.
3. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D=1.0.

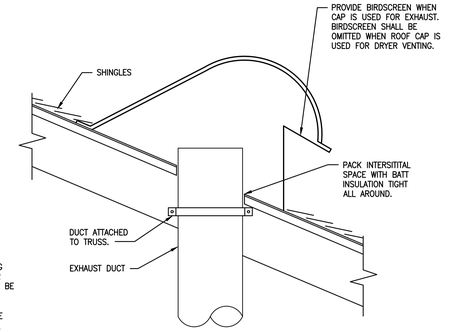
10 NTS **FLEXIBLE DUCT DETAIL**



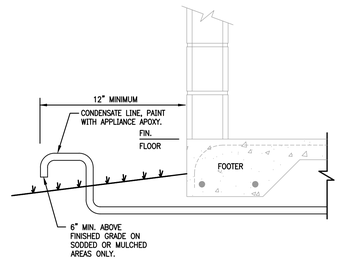
NOTES:

1. MAXIMUM SPACING BETWEEN HANGER LOCATIONS SHALL BE 5'-0".
2. STRAPS SHALL BE MINIMUM 1-1/2".
3. REFER TO SMACNA AND FLORIDA MECHANICAL CODE FOR ADDITIONAL REQUIREMENTS.
4. FOR COMMERCIAL PROJECTS MAX FLEX DUCT LENGTH TO BE 12'-0".
5. FOR MULTI-FAMILY PROJECTS FLEX DUCT LENGTH HAS NO MAXIMUM LIMIT.

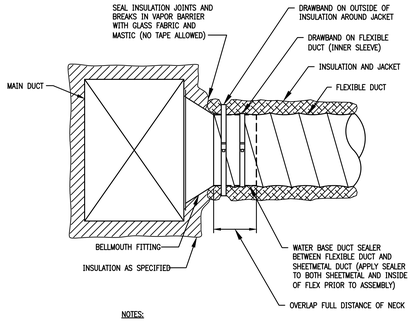
9 NTS **FLEX DUCT HANGER DETAIL**



8 NTS **ROOF CAP DETAIL**



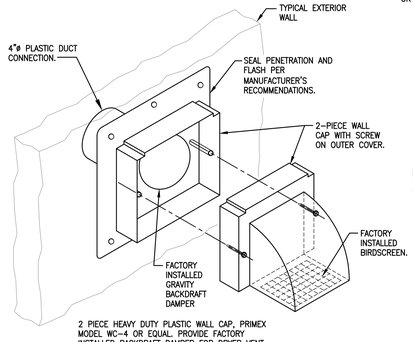
7 NTS **CONDENSATE DRAIN TERMINATION DETAIL**



NOTES:

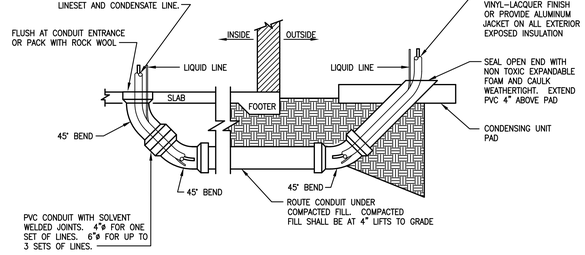
1. TYPICAL FOR: LOW PRESSURE AND HIGH PRESSURE CONNECTION TO MAIN DUCT, FAN TERMINAL UNITS, VARIABLE AIR VOLUME UNITS, AND DIFFUSERS.
2. DRAWBANDS SHALL BE EQUIVALENT TO PANDUIT PLT-H.

6 NTS **FLEXIBLE DUCT CONNECTION DETAIL**

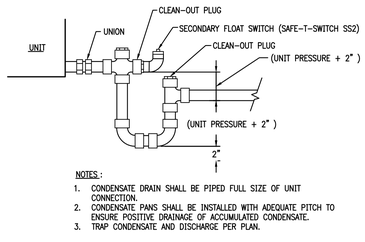


2 PIECE HEAVY DUTY PLASTIC WALL CAP, PRIMEX MODEL WC-4 OR EQUAL. PROVIDE FACTORY INSTALLED BACKDRAFT DAMPER FOR DRYER VENT AND RESTROOM EXHAUST FANS. REMOVE BACKDRAFT DAMPER FOR USE AS OUTSIDE AIR INTAKE. FOR DRYER APPLICATIONS USE THE NO BIRD SCREEN (NS) MODEL. PAINT TO OWNERS SPEC.

4 NTS **TYPICAL WALL JACK DETAIL**



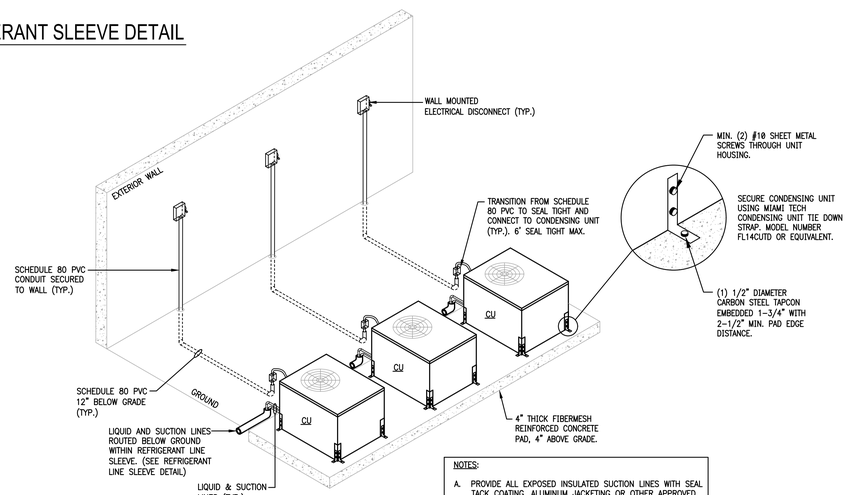
5 NTS **REFRIGERANT SLEEVE DETAIL**



NOTES:

1. CONDENSATE DRAIN SHALL BE PIPED FULL SIZE OF UNIT CONNECTION.
2. CONDENSATE PANS SHALL BE INSTALLED WITH ADEQUATE PITCH TO ENSURE POSITIVE DRAINAGE OF ACCUMULATED CONDENSATE.
3. TRAP CONDENSATE AND DISCHARGE PER PLAN.

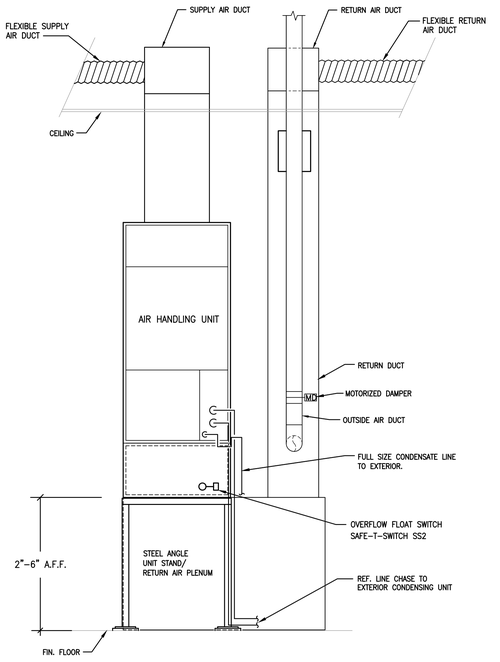
3 NTS **CONDENSATE DRAIN DETAIL**



NOTES:

A. PROVIDE ALL EXPOSED INSULATED SUCTION LINES WITH SEAL TACK COATING, ALUMINUM JACKETING OR OTHER APPROVED PROTECTIVE MEANS.
B. CONTROL THERMOSTAT WIRING TO BE WRAPPED NEATLY AROUND LIQUID LINE AND INSULATED SUCTION LINE.

2 NTS **GROUND MOUNTED CONDENSING UNIT PIPING DETAIL (REFRIGERANT & ELECTRICAL BELOW GRADE)**



1 NTS **VERTICAL AHU DETAIL (CLUBHOUSE)**

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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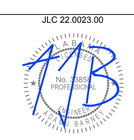
CA NO. 4050 - E

JLC 22.0023.00



THE MADISON
HUNTSVILLE, AL

Drawn:	MJR/SMB
Checked:	BLS/AJB
Approved:	BLS/AJB
Date:	04/15/2022
Project #:	5722

DETAILS MECHANICAL

CHM4.01

COM*check* Software Version COMcheckWeb

Envelope Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	The Madison - Clubhouse
Location:	Madison (Madison), Alabama
Climate Zone:	3a
Project Type:	New Construction
Vertical Glazing / Wall Area:	22%

Construction Site:	Owner/Agent:	Designer/Contractor:
	Ron Leichtner Rohdie Schoolhouse, LLC 52 Vanderbilt New York New York, New York 10017 (212) 682-5784	Adam Barney Joseph Lawrence & Co 1180 Harwood Ave Suite 3000, Florida 32714 (321) 972-4466

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Reduced Lighting Power, 1.0 credit

Building Area	Floor Area
1-Multifamily : Nonresidential	2243

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof: Attic Roof, Wood Joists, [Bldg. Use 1 - Multifamily]	7539	38.0	0.0	0.027	0.027
Floor: Unheated Slab-On-Grade, Vertical 2 ft., [Bldg. Use 1 - Multifamily] (c)	306	---	10.0	0.540	0.540
NORTH					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Multifamily]	1468	21.0	0.0	0.062	0.064
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID N/A, SHGC 0.40, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	19	---	---	0.450	0.770
Window: Metal Frame: Operable, Perf. Specs.: Product ID N/A, SHGC 0.25, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	194	---	---	0.300	0.600
Window: Metal Frame: Fixed, Perf. Specs.: Product ID N/A, SHGC 0.25, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	131	---	---	0.300	0.460
EAST					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Multifamily]	733	21.0	0.0	0.062	0.064
Window: Metal Frame: Operable, Perf. Specs.: Product ID N/A, SHGC 0.25, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	112	---	---	0.300	0.600
Window: Metal Frame: Fixed, Perf. Specs.: Product ID N/A, SHGC 0.25, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	52	---	---	0.300	0.460
SOUTH					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Multifamily]	1467	21.0	0.0	0.062	0.064
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID N/A, SHGC 0.40, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	59	---	---	0.450	0.770
Window: Metal Frame: Operable, Perf. Specs.: Product ID N/A, SHGC 0.25, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	147	---	---	0.300	0.600

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Window: Metal Frame: Fixed, Perf. Specs.: Product ID N/A, SHGC 0.25, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	131	---	---	0.300	0.460
WEST					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Multifamily]	655	21.0	0.0	0.062	0.064
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID N/A, SHGC 0.40, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	19	---	---	0.450	0.770
Door: Uninsulated Single-Layer Metal, Swinging, [Bldg. Use 1 - Multifamily]	64	---	---	1.200	0.610
Window: Metal Frame: Operable, Perf. Specs.: Product ID N/A, SHGC 0.25, PF 0.50, [Bldg. Use 1 - Multifamily] (b)	73	---	---	0.300	0.600

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.
(c) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Envelope PASSES: Design 18% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2018 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Adam J. Barney, P.E. — Name - Title
Signature
04/18/2022 — Date

ADAM J BARNEY LICENSE NO. 69124 STATE OF FLORIDA PROFESSIONAL ENGINEER

COM*check* Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	The Madison - Clubhouse
Project Type:	New Construction

Construction Site:	Owner/Agent:	Designer/Contractor:
	Ron Leichtner Rohdie Schoolhouse, LLC 52 Vanderbilt New York New York, New York 10017 (212) 682-5784	Adam Barney Joseph Lawrence & Co 1180 Harwood Ave Suite 3000, Florida 32714 (321) 972-4466

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Reduced Lighting Power, 1.0 credit

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Multifamily	2243	0.61	1373
		Total Allowed Watts =	1373

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
1-Multifamily				
LED: CA: LED Other Fixture Unit 16W:	1	36	19	684
LED: CC: LED Other Fixture Unit 25W:	1	2	19	38
LED: CD: LED Other Fixture Unit 16W:	1	3	17	51
LED: P1: LED Other Fixture Unit 50W:	1	2	32	64
LED: P2: LED Other Fixture Unit 50W:	1	4	32	128
LED: P3: LED Other Fixture Unit 50W:	1	8	32	256
LED: CF1: LED Other Fixture Unit 28W:	1	4	27	108
LED: EM: LED Other Fixture Unit 6.5W:	1	12	3	Exempt
Exemption:Emergency lighting automatically off during normal business operation				
			Total Proposed Watts =	1329

Interior Lighting PASSES: Design 3% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Blake L. Suddeth, P.E. — Name - Title
Signature
04/18/2022 — Date

BLAKE L SUDDETH LICENSE NO. 69060 STATE OF FLORIDA PROFESSIONAL ENGINEER

COM*check* Software Version COMcheckWeb

Exterior Lighting Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	The Madison - Clubhouse
Project Type:	New Construction
Exterior Lighting Zone	2 (Residentially zoned area (LZ2))

Construction Site:	Owner/Agent:	Designer/Contractor:
	Ron Leichtner Rohdie Schoolhouse, LLC 52 Vanderbilt New York New York, New York 10017 (212) 682-5784	Adam Barney Joseph Lawrence & Co 1180 Harwood Ave Suite 3000, Florida 32714 (321) 972-4466

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
Entry canopy	593 ft2	0.25	Yes	148
Pedestrian and vehicular entrances and exits	18 ft of	14	Yes	252
		Total Tradable Watts (a) =		400
		Total Allowed Watts =		400
		Total Allowed Supplemental Watts (b) =		400

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
Entry canopy (593 ft2): Tradable Wattage				
LED: CA: LED Other Fixture Unit 16W:	1	7	19	133
LED: EM: LED Other Fixture Unit 6.5W:	1	4	3	Exempt
Exemption:Emergency lighting automatically off during normal business operation				
Pedestrian and vehicular entrances and exits (18 ft of door width): Tradable Wattage				
LED: CW: LED Other Fixture Unit 16W:	1	4	20	80
			Total Tradable Proposed Watts =	213

Exterior Lighting PASSES: Design 73% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2018 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Blake L. Suddeth, P.E. — Name - Title
Signature
04/18/2022 — Date

BLAKE L SUDDETH LICENSE NO. 69060 STATE OF FLORIDA PROFESSIONAL ENGINEER

COM*check* Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	The Madison - Clubhouse
Location:	Madison (Madison), Alabama
Climate Zone:	3a
Project Type:	New Construction

Construction Site:	Owner/Agent:	Designer/Contractor:
	Ron Leichtner Rohdie Schoolhouse, LLC 52 Vanderbilt New York New York, New York 10017 (212) 682-5784	Adam Barney Joseph Lawrence & Co 1180 Harwood Ave Suite 3000, Florida 32714 (321) 972-4466

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Reduced Lighting Power, 1.0 credit

Mechanical Systems List

Quantity	System Type & Description
1	AHU-1.C (Single Zone): Cooling: 1 each - Split System, Capacity = 48 kBtu/h, Air-Cooled Condenser, Unknown Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency: 13.00 SEER Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes Fans: FAN 1 Supply, Constant Volume, 1600 CFM, 1.8 motor nameplate hp, 93.0 fan efficiency grade, 98.0 total fan efficiency, 98.0 design fan efficiency , fan exception: Fan array <= 5 total HP
1	AHU-2.C (Single Zone): Cooling: 1 each - Split System, Capacity = 48 kBtu/h, Air-Cooled Condenser, Unknown Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency: 13.00 SEER Fan System: FAN SYSTEM 2 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes Fans: FAN 2 Supply, Constant Volume, 1400 CFM, 0.8 motor nameplate hp, 93.0 fan efficiency grade, 98.0 total fan efficiency, 98.0 design fan efficiency , fan exception: Fan array <= 5 total HP
1	Water Heater: Electric Storage Water Heater, Capacity: 38 gallons w/ Circulation Pump Proposed Efficiency: 0.92 SL, %/h (if > 12 kW), Required Efficiency: 1.01 SL, %/h (if > 12 kW)

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Adam J. Barney, P.E. — Name - Title
Signature
04/18/2022 — Date

ADAM J BARNEY LICENSE NO. 69124 STATE OF FLORIDA PROFESSIONAL ENGINEER

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ISSUE HISTORY

No.	Date	Description
1	04/15/22	Permit Submission

REVISION HISTORY

No.	Date	Description

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WWW.JLCENG.COM
CA NO. 4050 - E

JLC 22.0023.00

ALABAMA LICENSED No. 33858 PROFESSIONAL ENGINEER ADAM J. BARNEY

THE MADISON	Drawn:	MJR/SMB
	Checked:	BLS/AJB
	Approval:	BLS/AJB
	Date:	04/15/2022
HUNTSVILLE, AL	Project #:	5722

ENERGY CALCULATIONS MECHANICAL

CHM5.01

ELECTRICAL SYMBOL LEGEND

WIRING AND POWER

NOTE:
SYMBOLS SHOWN ARE FOR REFERENCE PURPOSES ONLY. ALL OF THESE SYMBOLS MAY NOT BE USED FOR THIS PROJECT.

Symbol	Description
	WALL OUTLET BOX AND SINGLE RECEPTACLE
	WALL OUTLET BOX AND DUPLEX RECEPTACLE
	TWO GANG WALL OUTLET BOX AND (2) DUPLEX RECEPTACLES
	WALL OUTLET BOX AND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER
	WALL OUTLET BOX AND DUPLEX RECEPTACLE WITH TOP HALF SWITCHED
	WALL OUTLET BOX AND DUPLEX RECEPTACLE CONNECTED TO EMERGENCY SYSTEM
	CEILING OUTLET BOX AND SINGLE RECEPTACLE
	CEILING OUTLET BOX AND DUPLEX RECEPTACLE
	WALL OUTLET BOX AND GFCI DUPLEX RECEPTACLE
	WALL OUTLET BOX AND GFCI DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER
S	WALL OUTLET BOX AND DUPLEX SAFETY RECEPTACLE
T	WALL OUTLET BOX AND DUPLEX TWIST-LOCK RECEPTACLE
WP	WALL OUTLET BOX AND GFCI DUPLEX RECEPTACLE WITH WEATHERPROOF COVER
	WALL OUTLET BOX AND SPECIAL PURPOSE OUTLET AS NOTED ON PLANS
	FLUSH FLOOR OUTLET BOX WITH DUPLEX RECEPTACLE
	FLUSH FLOOR OUTLET BOX WITH (2) DUPLEX RECEPTACLES
	FLUSH FLOOR OUTLET BOX WITH DUPLEX RECEPTACLE AND TELECOMMUNICATIONS OUTLET
	FLUSH WALL JUNCTION BOX AND BLANK PLATE
	JUNCTION BOX AND BLANK PLATE ABOVE CEILING
	SURFACE MOUNTED JUNCTION BOX AND BLANK PLATE
WP	SURFACE MOUNTED WEATHERPROOF JUNCTION BOX AND COVER
PB	FLUSH GRADE FIBER COMPOSITE PULL BOX AS NOTED
M	MOTOR CONNECTION AS NOTED
	FLUSH SHUNT-TRIP BUTTON, MOUNTED 80" TO TOP
C	CONTROL AND/OR POWER EQUIPMENT CONNECTION
	TIME CLOCK
PC	PHOTO CELL
	DISCONNECT SWITCH, SIZE AS NOTED
	120/208V BRANCH CIRCUIT PANELBOARD, SURFACE MOUNTED
	120/208V BRANCH CIRCUIT PANELBOARD, FLUSH MOUNTED
	277/480V BRANCH CIRCUIT PANELBOARD
T	TRANSFORMER
	AUTOMATIC TRANSFER SWITCH
A-3	BRANCH CIRCUIT HOMERUN WITH PANEL NAME AND CIRCUIT NUMBER, QUANTITY OF ARROWHEADS DENOTES QUANTITY OF BRANCH CIRCUITS
	BRANCH CIRCUIT WIRING, PROVIDE QUANTITY OF CONDUCTORS REQUIRED FOR CIRCUITING AND SWITCHING INDICATED ON PLANS
	POWER LEG ONLY (NO SWITCH LEG BETWEEN ROOMS)
	CONDUIT CAPPED OFF
	CONDUIT CONTINUED
	CONDUIT RUN UP
	CONDUIT RUN DOWN
	GROUND OR GROUND ROD AS NOTED

LIGHTING AND SWITCHING

Symbol	Description
	CEILING MOUNTED LIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	CEILING MOUNTED RECESSED DOWNLIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	CEILING MOUNTED RECESSED WALLWASH FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	CEILING MOUNTED "CLOSE TO CEILING" FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	PENDANT MOUNTED LIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	TRACK LIGHT FIXTURE WITH HEADS AS REQUIRED, REFER TO LIGHT FIXTURE SCHEDULE
	WALL MOUNTED LIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	CEILING MOUNTED LIGHT FIXTURE WITH EMERGENCY BACKUP
	CEILING MOUNTED RECESSED DOWNLIGHT FIXTURE WITH EMERGENCY BACKUP
	WALL MOUNTED LIGHT FIXTURE WITH EMERGENCY BACKUP
	WALL MOUNTED EMERGENCY BATTERY LIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	CEILING MOUNTED EMERGENCY BATTERY LIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	CEILING MOUNTED EXIT SIGN WITH EMERGENCY BACKUP, REFER TO LIGHT FIXTURE SCHEDULE
	WALL MOUNTED EXIT SIGN WITH EMERGENCY BACKUP, REFER TO LIGHT FIXTURE SCHEDULE
	COMBINATION EXIT SIGN AND EMERGENCY LIGHT FIXTURE WITH BATTERY BACKUP
Sa	WALL OUTLET BOX AND SINGLE POLE SWITCH ('a' INDICATES SWITCH LEG)
S3	WALL OUTLET BOX AND THREE-WAY SWITCH
SF	WALL OUTLET BOX AND FAN CONTROL SWITCH
SD	WALL OUTLET BOX AND DIMMER SWITCH AS REQUIRED FOR LOAD SERVED
SD3	WALL OUTLET BOX AND THREE-WAY DIMMER SWITCH
SM	WALL OUTLET BOX WITH SINGLE POLE MANUAL MOTOR STARTER SWITCH
SO	WALL OUTLET BOX AND DUAL TECHNOLOGY OCCUPANCY SENSOR
ST	WALL OUTLET BOX AND DIGITAL TIMECLOCK SWITCH FOR AUTOMATIC CONTROL
OS	CEILING OUTLET BOX AND DUAL TECHNOLOGY OCCUPANCY SENSOR
DL	CEILING OUTLET BOX AND DAYLIGHT HARVESTING SENSOR

FIRE ALARM SYSTEM LEGEND

Symbol	Description
F	MANUAL PULL STATION
cd	WALL MOUNTED HORN WITH STROBE (cd=CANDELA RATING)
WP	WALL MOUNTED HORN WITH STROBE IN WEATHERPROOF ENCLOSURE
	CEILING MOUNTED HORN WITH STROBE
M	WALL MOUNTED MINI HORN
M	WALL MOUNTED MINI HORN WITH STROBE
	WALL MOUNTED VOICE EVACUATION SPEAKER WITH STROBE
	CEILING MOUNTED VOICE EVACUATION SPEAKER WITH STROBE
	WALL MOUNTED STROBE
	SMOKE DETECTOR
CO	SMOKE AND CARBON MONOXIDE COMBINATION DETECTOR
	DUCT MOUNTED SMOKE DETECTOR
	HEAT DETECTOR
	REMOTE DUCT DETECTOR INDICATOR LIGHT AND TEST SWITCH (NUMBER INDICATES QUANTITY)
R	FAN SHUT-DOWN RELAY
D	ELECTROMAGNETIC DOOR RELEASE DEVICE
	SMOKE DAMPER (PROVIDE BY MECHANICAL, CONNECTED BY ELECTRICAL)
P	FIREMAN'S PHONE JACK
TS	SPRINKLER SYSTEM SUPERVISORY SWITCH CONNECTION
FS	SPRINKLER SYSTEM FLOW SWITCH CONNECTION
CM	CONTROL MODULE
MM	MONITOR MODULE
LB	LOCK BOX
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FAAP	FIRE ALARM ANNUNCIATOR PANEL
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER

TELECOMMUNICATION SYSTEM LEGEND

Symbol	Description
	COMBINATION TELECOMMUNICATIONS/DATA WALL OUTLET BOX AND BLANK PLATE WITH MIN. 3/4"C. TO ACCESSIBLE CEILING SPACE. COORDINATE OUTLET REQUIREMENTS WITH OWNER.
W	TELECOMMUNICATIONS WALL OUTLET BOX AND BLANK PLATE FOR WALL MOUNTED TELEPHONE WITH MIN. 3/4"C. TO ACCESSIBLE CEILING SPACE. COORDINATE OUTLET REQUIREMENTS WITH OWNER.
	DATA WALL OUTLET BOX AND BLANK PLATE WITH MIN. 3/4"C. TO ACCESSIBLE CEILING SPACE. COORDINATE OUTLET REQUIREMENTS WITH OWNER.
	FLUSH FLOOR OUTLET BOX WITH POWER DEVICE AND TELECOMMUNICATIONS OUTLET WITH MIN. 3/4"C. TO ACCESSIBLE CEILING SPACE.
WAP	CEILING OUTLET BOX AND BLANK PLATE WITH MIN. 3/4"C. TO TTB FOR WIRELESS ACCESS POINT. COORDINATE OUTLET REQUIREMENTS WITH OWNER.
TV	COMBINATION TELECOMMUNICATIONS/TELEVISION WALL OUTLET BOX AND BLANK PLATE. COORDINATE OUTLET AND CABLING REQUIREMENTS WITH OWNER.
	3/4" PLYWOOD TELEPHONE TERMINAL BOARD, SIZE AS SHOWN ON PLANS.
TTC	TELEPHONE TERMINAL CABINET, SIZE AS NOTED ON PLAN.

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70), AND THE LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE.
2. CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND COORDINATE WITH ALL EQUIPMENT MANUFACTURER/INSTALLERS PRIOR TO BIDDING.
3. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD-PARTY TESTING AGENCY.

BUILDING:

4. INSTALLATION HEIGHT OF EQUIPMENT (TO CENTERLINE) ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE SHALL BE:

   RECEPTACLE = 18"
   CLOCK = 7'-6"
   SWITCH = 44"
   MODULAR JACK FOR WALL MOUNTED TELEPHONE = 48"
   MODULAR TELEPHONE JACK = 18"
   TELEVISION OUTLET = 84"
   COMPUTER OUTLET = 18"
   CALL SWITCH = 44"
   REMOTE TEST STATION FOR DUCT DETECTOR = 52"
   C = ABOVE COUNTER BACKSPLASH, COORDINATE WITH ARCHITECTURAL ELEVATIONS AND MILLWORK.

5. ALL CONDUIT AND WIRING SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS UNLESS NOTED OTHERWISE OR APPROVED BY THE ARCHITECT/ENGINEER. ALL DEVICE OUTLET BOXES SHALL BE RECESSED UNLESS NOTED OTHERWISE OR APPROVED BY THE ARCHITECT/ENGINEER. WHERE APPROVED OR NOTED SURFACE METAL RACEWAY AND DEVICE BOXES SHALL BE USED IN LIEU OF CONDUIT AND CONCEALED BOXES AT NO EXTRA COST TO THE OWNER.
6. ALL CONDUIT ROUTING SHOWN IS APPROXIMATE ONLY. CONTRACTOR SHALL FIELD VERIFY FINAL ROUTE WITH ALL OTHER TRADES AND CONDITIONS IN FIELD PRIOR TO ROUGH-IN.
7. CONDUIT RUNS SHOWN ARE SCHEMATIC AND DO NOT INDICATE THE NECESSARY FITTINGS AND JUNCTION BOXES THAT ARE INCLUDED IN THE SCOPE OF THE WORK.
8. CONTRACTOR SHALL PERMANENTLY IDENTIFY ALL WIRING WITH THE SOURCE AND CIRCUIT AT ALL ELECTRICAL EQUIPMENT, PULL AND JUNCTION BOXES AND ELECTRICAL TERMINATIONS PROVIDED OR ASSOCIATED WITH THIS CONSTRUCTION.
9. COORDINATE EXACT LOCATION OF LIGHTING FIXTURES IN MECH. ROOMS/SPACES WITH DUCTWORK INSTALLER PRIOR TO ROUGH-IN. LOCATE BELOW DUCTWORK(8'-0" AFF MINIMUM) CENTERED IN ROOM AS MUCH AS POSSIBLE.
10. COORDINATE EXACT INSTALLATION REQUIREMENTS OF OUTLETS IN MILLWORK WITH ARCHITECTURAL DRAWINGS, APPROVED SHOP DRAWINGS AND MILLWORK INSTALLER PRIOR TO ROUGH-IN.
11. VERIFY EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.
12. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF ALL LIGHT FIXTURES.
13. PROVIDE NYLON PULLSTRINGS IN ALL EMPTY CONDUITS.
14. COORDINATE THE EXACT LOCATION OF ALL ELECTRICAL EQUIPMENT LOCATED IN ELEVATOR MACHINE ROOMS, SHAFTS AND PITS. LOCATE EQUIPMENT AS REQUIRED TO MEET APPLICABLE CODES.PROVIDE AUTOMATIC DISCONNECTION OF THE ELEVATOR MAIN POWER SUPPLY (PER ANSI A17.1, RULE 102.2 1987 ED.) PRIOR TO ACTIVATION OF AUTOMATIC SPRINKLER LOCATED WITHIN THE ELEVATOR MACHINE ROOM, PIT OR SHAFT. COORDINATE WITH FIRE PROTECTION AND FIRE ALARM INSTALLER.
15. COORDINATE THE REQUIRED SIZE OF ALL CIRCUIT BREAKERS FEEDING EQUIPMENT, (I.E. MOTORS, HVAC, KITCHEN EQUIPMENT, SPECIAL PURPOSE OUTLETS, ELEVATORS, OWNER FURNISHED EQUIPMENT ETC.) WITH APPROVED EQUIPMENT SHOP DRAWINGS AND OWNER REPRESENTATIVES PRIOR TO ORDERING PANELBOARDS. BREAKERS SHALL BE SIZED PER THE NEC, THE EQUIPMENT NAME PLATE AND MANUFACTURERS RECOMMENDATIONS.
16. ALL DIMMED CIRCUITS SHALL BE PROVIDED WITH DEDICATED NEUTRALS FOR EACH DIMMER AND PHASE CONDUCTOR THROUGHOUT THE ENTIRE CIRCUIT.
17. THE POWER COMPANY SHALL BE CONTACTED WITHIN 10 DAYS OF THE AWARD OF THE CONTRACT BY THE CONTRACTOR TO VERIFY THE ACTUAL AVAILABLE SHORT CIRCUIT FAULT CURRENT (AIC) AT THE TRANSFORMER SECONDARY BUSHINGS. THE CONTRACTOR SHALL PROVIDE ELECTRICAL DISTRIBUTION AND UTILIZATION EQUIPMENT AND PANELBOARDS WHICH HAVE AIC/WITHSTAND RATINGS GREATER THAN THE AVAILABLE AIC AT EACH POINT IN THE ELECTRICAL SYSTEM.
18. VISIT THE EXISTING FACILITY AND CAREFULLY EXAMINE THOSE PORTIONS OF THE BUILDING AND SITE AFFECTED BY THIS WORK BEFORE SUBMITTING PROPOSALS, SO AS TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT EXECUTION OF THE WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
19. CONTRACTOR SHALL INCLUDE IN HIS BID THE TRANSPORT AND DISPOSAL OR RECYCLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL RULES, REGULATIONS AND GUIDELINES APPLICABLE.
20. PANEL SCHEDULES INDICATE CIRCUIT DESIGNATIONS ONLY. CONTRACTOR TO PROVIDE MATERIALS AS REQUIRED WHEN NEUTRALS ARE SHARED TO COMPLY WITH NEC REQUIREMENTS. ALL SINGLE PHASE MULTIWIRE BRANCH CIRCUITS SHALL BE FED VIA A TWO POLE BREAKER OR TWO SINGLE POLE BREAKERS WITH AN IDENTIFIED HANDLE TIE. ALL THREE PHASE MULTIWIRE BRANCH CIRCUITS SHALL BE FED VIA A THREE POLE BREAKER OR THREE SINGLE POLE BREAKERS WITH AN IDENTIFIED HANDLE TIE (PER NEC 210.4B).
21. PER NEC 110.22; PROVIDE PERMANENT LABELING FOR ALL SERIES RATED PANEL ENCLOSURES TO READ AS FOLLOWS: CAUTION – SERIES COMBINATION SYSTEM RATED _______ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED.
27. ELECTRICAL CONTRACTOR SHALL PROVIDE FULL LIGHTNING PROTECTION SYSTEM FOR THIS PROJECT PER NFPA 780.

GROUNDING:

28. ALL METAL RACEWAYS, INCLUDING CONDUIT, WIRE TROUGHS, WIREMOLD, ETC., SHALL BE GROUNDED. ALL CONNECTIONS IN METAL RACEWAYS SHALL BE COMPLETED IN SUCH A MANNER AS TO MAINTAIN A CONTINUOUS PATH TO GROUND THROUGHOUT THE ENTIRE LENGTH OF THE RACEWAY.

WIRING:

29. UNLESS NOTED OTHERWISE ON THE DRAWINGS OR ON THE EQUIPMENT WIRING SCHEDULE, EACH BRANCH CIRCUIT HOME RUN SHALL BE THREE (3) #12 AWG THHN/THWN (1 HOT, 1 NEUTRAL & 1 EQUIPMENT GROUND) IN 3/4" EMT CONDUIT. PROTECT EACH CIRCUIT WITH A 20 AMPERE, 1-POLE OVERCURRENT DEVICE UNLESS NOTED OTHERWISE. COMBINED NEUTRALS ARE NOT PERMITTED.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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No.	Date	Description

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	Approval: BLS/AJB
	Date: 04/15/2022
	Project #: 5722

CLUBHOUSE SYMBOL LEGEND & GENERAL NOTES ELECTRICAL

CHE2.00

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GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2017 NATIONAL ELECTRICAL CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

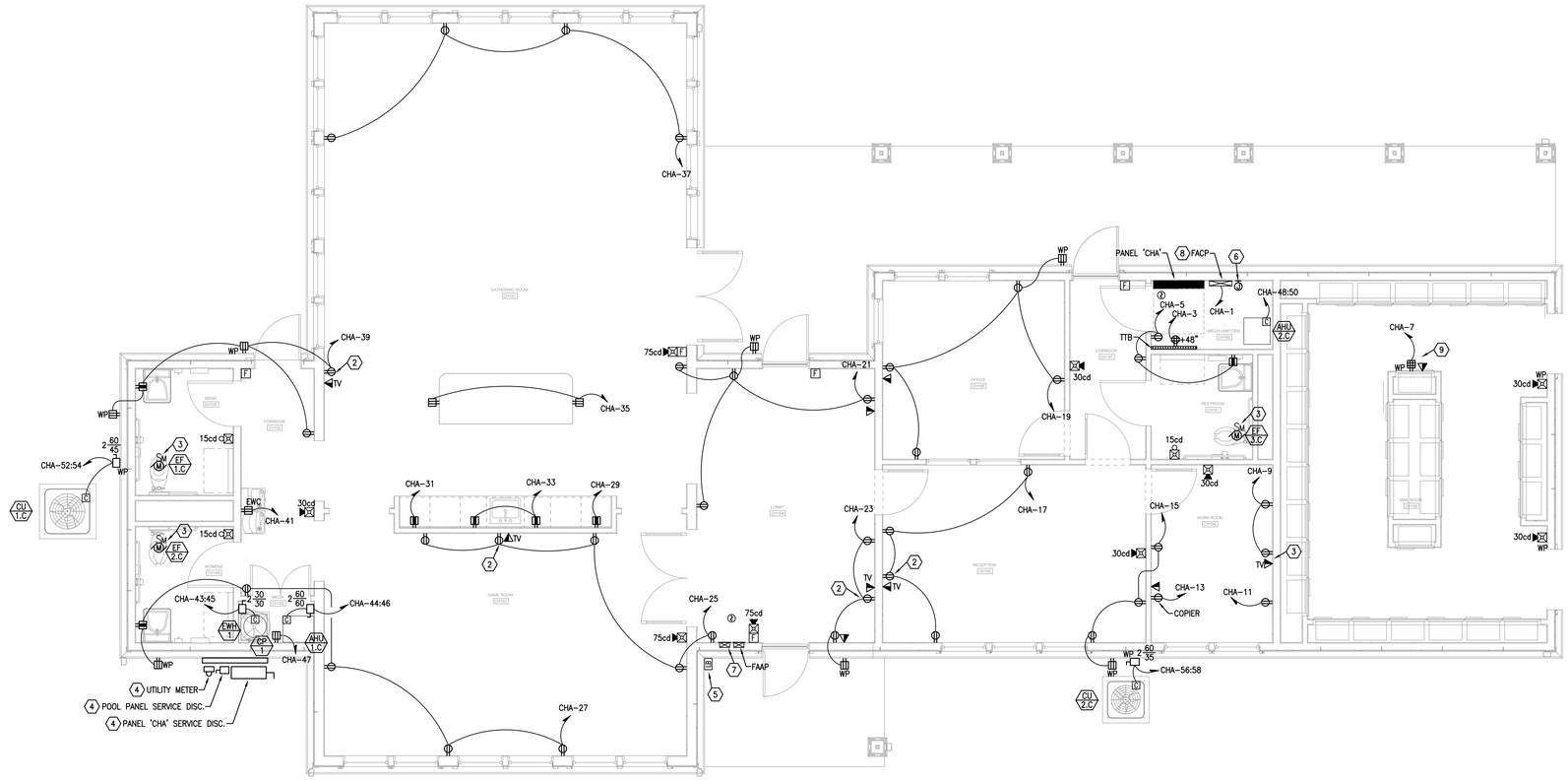
C. SEE SINGLE LINE DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC. ALL CONDUCTORS SHALL HAVE AN EQUIPMENT GROUND WIRE SIZED PER NEC.

D. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.

E. ALL 125V, 15A AND 20A RECEPTACLES INSTALLED IN CLUBROOMS, CONFERENCE ROOMS, MULTIPURPOSE ROOMS, AND OTHER ASSEMBLY OCCUPANCIES AS LISTED PER NEC 518.2 SHALL BE LISTED TAMPER-RESISTANT PER NEC 406.12.

REFERENCE NOTES: ⟨X⟩

1. ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT AND FUSE REQUIREMENTS FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED. COORDINATE LOCATION OF DISCONNECT WITH OWNER AND MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES.
2. PROVIDE 120V RECEPTACLE AND TELEVISION OUTLET FOR WALL MOUNTED TELEVISION. COORDINATE LOCATION AND MOUNTING HEIGHT WITH OWNER/EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.
3. CONNECT FRACTIONAL HORSEPOWER EXHAUST FAN TO LOCAL LIGHTING CIRCUIT. FAN SHALL BE CONTROLLED BY INDIVIDUAL SWITCH. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. ELECTRICAL SERVICE EQUIPMENT LOCATION. REFER TO POWER RISER DIAGRAM FOR ADDITIONAL INFORMATION.
5. PROVIDE RECESSED KNOX BOX FOR FIRE DEPARTMENT BUILDING ACCESS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH OWNER AND FIRE DEPARTMENT PRIOR TO ROUGH-IN.
6. ELECTRICAL CONTACTOR SHALL PROVIDE (1) 8"X8" JUNCTION BOX WITH COVERPLATE ON EACH FLOOR OF BUILDING FOR FUTURE DAS SYSTEM IF REQUIRED. PROVIDE 1"C. (EMPTY W/ PULLSTRING) BETWEEN ALL JUNCTION BOXES FOR FUTURE DAS SYSTEM WIRING. COORDINATE LOCATION OF JUNCTION BOXES WITH OWNER AND FIRE ALARM CONTRACTOR PRIOR TO ROUGH-IN. LABEL ALL JUNCTION BOXES, COVERPLATE AND CONDUIT AS REQUIRED FOR FUTURE IDENTIFICATION.
7. PROVIDE TWO-WAY COMMUNICATIONS BASE STATION AS REQUIRED BY 2018 NFPA 101 LIFE SAFETY CODE. COORDINATE LOCATION WITH OWNER AND AUTHORITY HAVING JURISDICTION. SYSTEM SHALL HAVE TIMED DIAL-OUT CAPABILITY TO A MONITORING LOCATION OR 911. SYSTEM SHALL INCLUDE BOTH AUDIBLE AND VISIBLE SIGNALS.
8. PROVIDE 2" UNDERGROUND CONDUIT FROM MASTER FACP TO SUB-PANEL FACP'S LOCATED IN BUIDLINDS. REFER TO FIRE ALARM RISER DIAGRAM FOR ADDITIONAL INFORMATION.
9. PROVIDE 120V QUAD RECEPTACLE AND DATA OUTLET FOR MAIL PARCEL PACKAGE SYSTEM. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH ARCHITECT AND EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.



K2 CLUBHOUSE - FLOOR PLAN - POWER & SYSTEMS
1/4" = 1'-0"

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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Date:	04/15/2022
Project #:	5722

THE MADISON
HUNTSVILLE, AL

CLUBHOUSE
POWER & SYSTEMS

CHE2.01

GENERAL NOTES:

A. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT FIXTURE LOCATIONS AND ORIENTATIONS.

B. REFER TO ARCHITECTURAL ELEVATIONS AND SECTIONS FOR ADDITIONAL LIGHTING FIXTURE MOUNTING DETAILS AND INFORMATION.

C. ALL EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS SHALL BE CONNECTED "HOT" TO THE INDICATED LOCAL LIGHTING CIRCUIT.

D. VERIFY ALL MOUNTING HEIGHTS AND PENDANT LENGTHS WITH ARCHITECT AND ENGINEER PRIOR TO ORDERING FIXTURES.

E. EMERGENCY ILLUMINATION SHALL BE PROVIDED FOR A PERIOD OF 90 MINUTES IN THE EVENT OF FAILURE OF NORMAL LIGHTING. EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL ILLUMINATION THAT IS AT LEAST AN AVERAGE OF 1 FOOTCANDLE (10 LUX) AND A MINIMUM AT ANY POINT OF 0.1 FOOTCANDLE (1 LUX) MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FOOTCANDLE (6 LUX) AVERAGE AND A MINIMUM AT ANY POINT OF 0.06 FOOTCANDLE (0.6 LUX) AT THE END OF THE EMERGENCY LIGHTING TIME DURATION. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40:1 SHALL NOT BE EXCEEDED.

F. PROVIDE BLOCKING IN CEILING FOR LARGE LIGHT FIXTURES PER ID DRAWINGS.

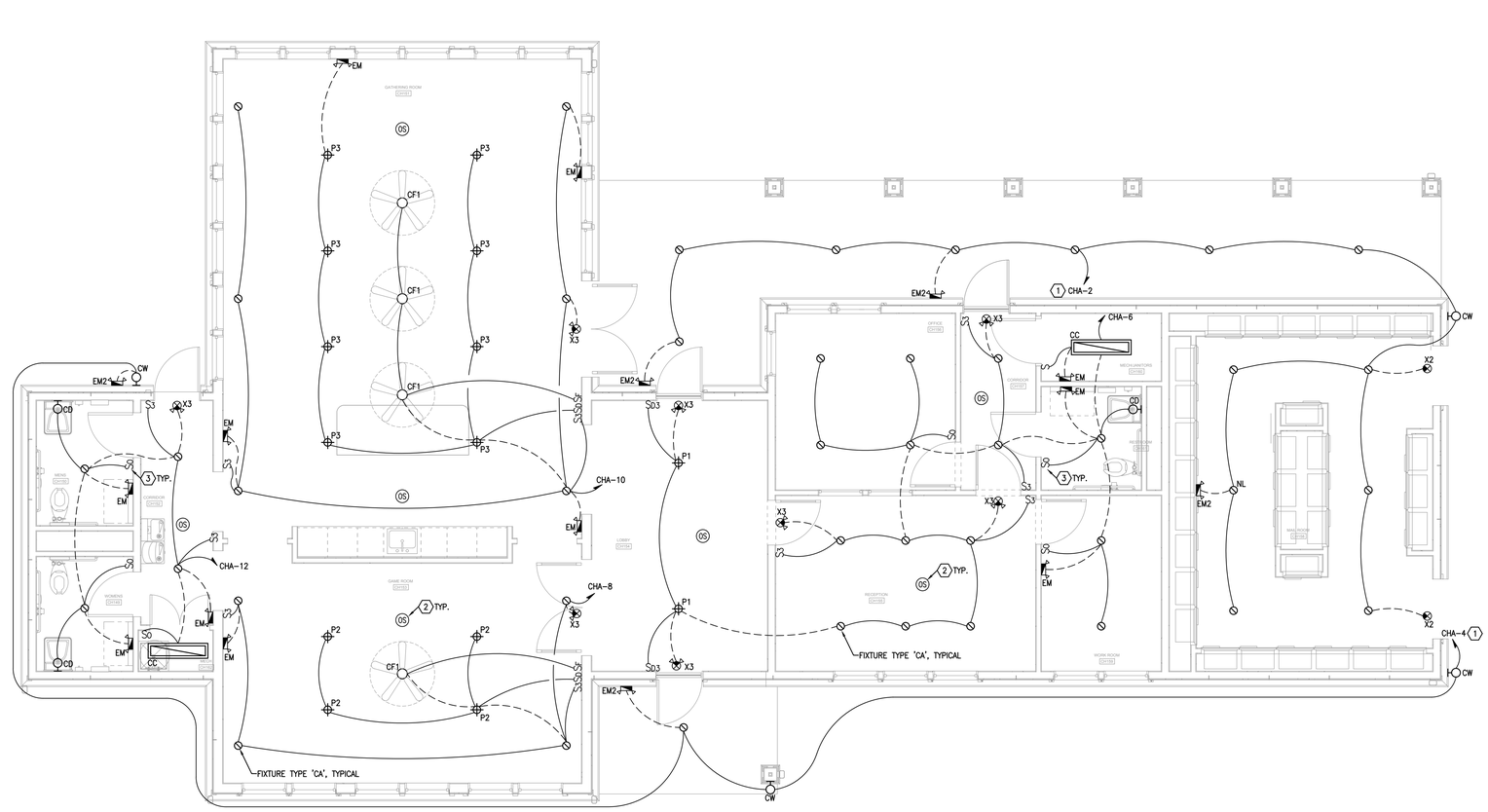
G. ALL SWITCHES IN CLUBHOUSE TO BE DECORATIVE ROCKER SWITCHES.

REFERENCE NOTES: (X)

(1) CONNECT EXTERIOR LIGHTING FIXTURES VIA LIGHTING CONTACTOR 'LC1' FOR AUTOMATIC CONTROL OF FIXTURES. REFER TO DETAIL FOR ADDITIONAL INFORMATION.

(2) PROVIDE CEILING MOUNTED OCCUPANCY SENSOR FOR AUTOMATIC CONTROL OF ROOM LIGHTING. SENSOR SHALL OVERRIDE WALL CONTROL AND "TURN OFF" ROOM LIGHTS IF ROOM UNOCCUPIED FOR MORE THAN 20 MINUTES. PROVIDE ADDITIONAL SENSORS, RELAY PACKS, CONTROL WIRING, ETC. AS REQUIRED FOR COMPLETE COVERAGE OF ROOM AND CIRCUITS/SWITCH LEGS SHOWN. CONTROLS SHALL BE "MANUAL ON/AUTOMATIC OFF" WITH THE EXCEPTION OF RESTROOMS, PUBLIC CORRIDORS, AND LOBBIES. THESE AREAS SHALL BE FULLY AUTOMATIC ON/AUTOMATIC OFF" IN ACCORDANCE WITH THE 2020 INTERNATIONAL BUILDING CODE.

(3) PROVIDE WALL MOUNTED, DUAL TECHNOLOGY, LOW VOLTAGE VACANCY SENSOR, WATTSTOPPER #DW-100-24 (OR APPROVED SUBSTITUTION) FOR AUTOMATIC CONTROL OF LIGHTING. CONNECT LIGHTING IN SPACE AS SHOWN ON PLANS VIA WATTSTOPPER LIGHTING POWER PACK #BZ-200 (OR APPROVED SUBSTITUTION). PROVIDE ALL ADDITIONAL POWER PACKS, RELAYS, SENSORS AS REQUIRED FOR COMPLETE COVERAGE OF SPACE AND SWITCHING AS SHOWN ON PLANS. INSTALLATION SHALL COMPLY WITH 2020 INTERNATIONAL BUILDING CODE.



K2 CLUBHOUSE - FLOOR PLAN - LIGHTING
1/4" = 1'-0"

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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Date:	04/15/2022
Project #:	5722

THE MADISON
HUNTSVILLE, AL

CLUBHOUSE LIGHTING

CHE2.02

FEEDER SCHEDULE

- (A) 2 SETS [(4)#250 kcmil AL., IN 2-1/2"C.]
- (B) 2 SETS [(4)#250 kcmil AL., (1)#1/0 AWG AL. GND.]
- (C) (3)#1/0 AWG AL., IN 2"C.
- (D) (3)#1/0 AWG AL., (1)#6 AWG AL. GND., IN 2"C.
- (E) 2 SETS [(4)#250 kcmil AL., IN 2-1/2"C.]
- (F) 2 SETS [(4)#250 kcmil AL., (1)#1 AWG AL. GND., IN 2-1/2"C.]

ELECTRICAL SERVICE LOAD CALCULATION

PANEL 'CHA'	37.68 KVA
POOL PANEL	9.06 KVA
TOTAL	46.74 KVA = 129.83 AMPS

SERVICE ENTRANCE FEEDERS ARE SIZED FOR 400A

REFERENCE NOTES: ⟨X⟩

1. REFER TO SITE PLAN – ELECTRICAL, SHEET E1.01 FOR LOCATION OF UTILITY TRANSFORMER.
2. COORDINATE ALL CONNECTION REQUIREMENTS OF NEW SERVICE WITH LOCAL UTILITY COMPANY PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED.
3. PROVIDE HARD WIRED SURGE PROTECTIVE DEVICE OF SAME MANUFACTURER AS PANELBOARD.
4. PROVIDE 100A, 250V, 1ø, 3W, NEMA 3R, SERVICE ENTRANCE RATED DISCONNECT SWITCH FUSED AT 100AMPS FOR POOL PANEL. COORDINATE ALL REQUIREMENTS WITH UTILITY COMPANY PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED. PROVIDE PHENOLIC LABELING AT EACH DISCONNECT FOR SERVICE AS REQUIRED BY NEC.
5. PROVIDE 400A, 250V, 3ø, 4W, NEMA 3R, SERVICE ENTRANCE RATED DISCONNECT SWITCH FUSED AT 400AMPS. COORDINATE ALL REQUIREMENTS WITH UTILITY COMPANY PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED. PROVIDE PHENOLIC LABELING AT EACH DISCONNECT FOR SERVICE AS REQUIRED BY NEC.
6. PROVIDE NEMA 3R WIREWAY SIZED AS REQUIRED PER NEC. MINIMUM LENGTH TO BE 8'-0".
7. POOL PANEL TO BE PROVIDED BY POOL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE LOCATION AND REQUIREMENTS WITH POOL CONTRACTOR PRIOR TO ROUGH-IN.
8. ELECTRICAL CONTRACTOR TO PROVIDE 20'-0" OF CONCRETE ENCASED ELECTRODE IN CONCRETE FOUNDATION AS REQUIRED BY NEC 250.52(A)(3). COORDINATE ALL REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN.
9. BOND NEUTRAL AND GROUND SERVICE CONDUCTORS IN SERVICE DISCONNECT SWITCH PER NEC 250.
10. PROVIDE #6 AWG CU. GND. INTER-SYSTEM BONDING JUMPER TO INTER-SYSTEM BONDING TERMINAL PER NEC 250.94.

GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, STATE, AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. COORDINATE ALL WORK WITH LOCAL UTILITY COMPANY.

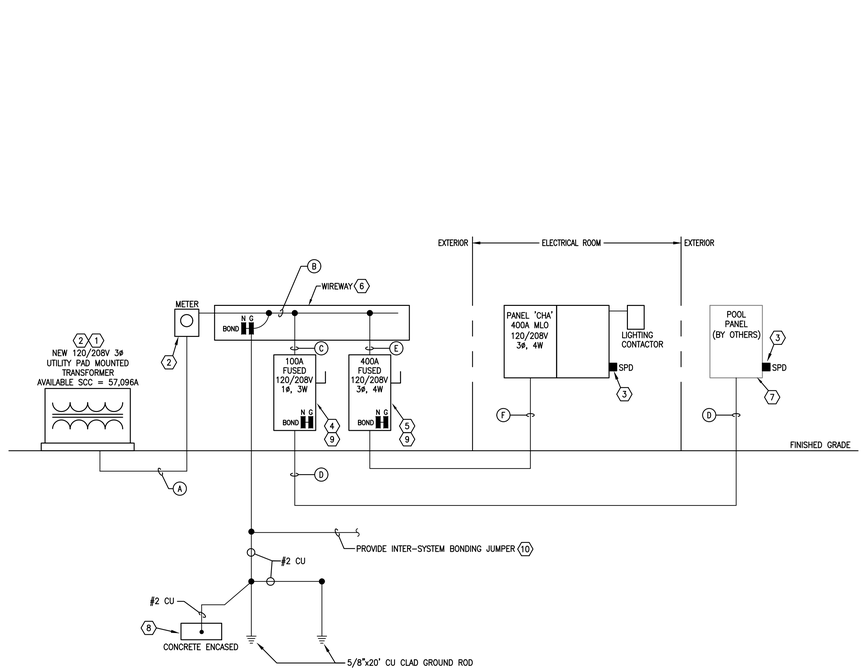
D. FEEDERS ARE DESIGNED FOR A MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD. BRANCH CIRCUITS ARE DESIGNED FOR A MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD.

E. PER NEC ARTICLE 110.24, ALL CONSTRUCTION DOCUMENTS SHALL PROVIDE A PERMANENT LABEL TO THE FRONT OF SERVICE EQUIPMENT ENCLOSURE STATING THE MAXIMUM AVAILABLE FAULT CURRENT IN AMPS, THE DATE CALCULATED, THE NOMINAL VOLTAGE AND THE FREQUENCY IN HERTZ, THE SERVICE EQUIPMENT BUS RATING IN AMPS, AND THE SCCR OF SERVICE EQUIPMENT IN AMPS. SIGNAGE SHALL BE ENGRAVED, LAMINATED ACRYLIC, OR MELAMINE LABEL, PUNCHED OR DRILLED FOR MECHANICAL FASTENERS WITH WHITE LETTERS ON A BLACK BACKGROUND, MINIMUM 1/16" THICK. MINIMUM LETTER HEIGHT SHALL BE 1/2".

F. PER NEC ARTICLE 110.16, ARC FLASH WARNING LABELS ARE TO BE INSTALLED ON ALL SWITCHBOARDS, PANELBOARDS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED. ARC FLASH WARNING LABELS SHALL MEET THE ARTICLE 110.21(B).

G. CONTRACTOR TO PROVIDE AND INSTALL ARC ENERGY REDUCTION MITIGATION SYSTEM AND DOCUMENTATION FOR ALL OVERCURRENT DEVICES RATED 1200A OR GREATER PER NEC 240.87.

NOTE:
FEEDERS ARE DESIGNED FOR A MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD.
BRANCH CIRCUITS ARE DESIGNED FOR A MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD.



G8 CLUBHOUSE POWER RISER DIAGRAM
NOT TO SCALE

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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Project #:	5722

THE MADISON
HUNTSVILLE, AL

CLUBHOUSE RISER DIAGRAM ELECTRICAL

CHE3.01

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DESIGN OF FIRE ALARMS & DETECTION SYSTEMS

61G15-32.008 DESIGN OF FIRE ALARM AND DETECTION SYSTEM COMPLIANCE NOTES FOR APARTMENTS AND CLUBHOUSE:

APPLICABLE CODES: IBC INTERNATIONAL BUILDING CODE (2020) 7TH EDITION
FPC FIRE PREVENTION CODE (2018) 7TH EDITION
- NFPA 1 FIRE CODE (2018) FLORIDA EDITION
- NFPA 101 LIFE SAFETY CODE (2018) FLORIDA EDITION

NFPA 70 NATIONAL ELECTRICAL CODE (2017)
NFPA 72 NATIONAL FIRE ALARM & SIGNALING CODE (2016)
AHJ – MADISON, ALABAMA – LOCAL CODES & AMENDMENTS

(4) ENSURE MINIMUM DESIGN QUALITY OF FIRE ALARM SYSTEM AS FOLLOWS

A. DESIGN INTENT

1. SYSTEM TYPE: MASTER FIRE ALARM CONTROL PANEL LOCATED IN CLUBHOUSE SHALL BE AN ADDRESSABLE PANEL BY EDWARDS, HONEYWELL, NOTIFIER, SILENT KNIGHT, OR APPROVED EQUIVALENT. SUB-PANEL FACP'S IN EACH APARTMENT BUILDING SHALL BE ADDRESSABLE TYPES.
2. SEE SYMBOL LEGEND ON THIS SHEET.
3. SEE FIRE ALARM RISER DIAGRAM(S) THIS SHEET.
4. CABLING REQUIREMENTS:
   a. WIRING METHOD: THE SYSTEM WILL BE FREE WIRED USING APPROPRIATE STRAPS, TIES, FITTINGS, ETC. TO PREVENT DAMAGE TO THE WIRING.
   b. INITIATION CIRCUITS (LOOP): INITIATION LOOP CONDUCTORS SHALL BE WEST PENN #D991 FOR 3000'0" IN LENGTH AND LESS. WEST PENN #D995 SHALL BE USED FOR CIRCUITS OVER 3000'0" IN LENGTH. BELOW GRADE, WET OR DAMP LOCATION INSTALLED CABLE, INCLUDING CABLE INSTALLED ON THE TOP OF EXTERIOR WALKWAYS, SHALL BE WEST PENN AQUASEAL MULTI-CONDUCTOR (14 GAUGE), UNLESS NOTED OTHERWISE, SHALL BE INSTALLED IN CONDUIT.
   c. SIGNAL CIRCUITS: SIGNAL CIRCUITS SHALL BE #14 AWG THWN 19 STRAND COPPER (USE #12 AWG IF VOLTAGE DROP EXCEEDS MANUFACTURER'S SPECIFICATIONS).
   d. ANNUNCIATOR CIRCUITS: #14 AWG THWN 19 STRAND COPPER (USE #12 AWG IF VOLTAGE DROP EXCEEDS MANUFACTURER'S SPECIFICATIONS).
   e. EACH AND EVERY WIRE SHALL BE LABELED AT EACH END WITH SLC #, CHANNEL # OR SIGNAL #. EACH SEPARATE CIRCUIT, INITIATION, SIGNAL AND AUXILIARY SHALL HAVE A SPECIFIC NUMBER. LABEL EACH CONDUCTOR BY THIS CIRCUIT NUMBER AT THE CONTROL CONNECTIONS AND AT EACH TERMINAL CONNECTION IN THE TERMINAL CABINETS.
5. FIRE RATINGS REQUIRED FOR SURVIVABILITY: UNLESS NOTED OTHERWISE, PATHWAY SURVIVABILITY SHALL BE LEVEL 0 OR 1.

B. DEVICE LOCATIONS AND RELATED SYSTEMS

1. ALL INITIATION AND NOTIFICATION DEVICES ARE SHOWN ON ELECTRICAL POWER AND SYSTEMS PLANS WITHIN THIS ELECTRICAL DRAWING SET.
2. CONNECTIONS TO OTHER SYSTEMS: PROVIDE RELAYS FOR OTHER LOCAL CONTROL SUCH AS HVAC SHUTDOWN AND FIRE/SMOKE DAMPER RELEASE. RELAYS SHALL BE 10 AMP RATED RELAYS. UPON ACTIVATION OF THE FIRE ALARM SYSTEM, THE RELAY SHALL ACTIVATE AND SHUTDOWN THE CONTROLLED EQUIPMENT. LOCATE ALL RELAYS WITHIN 36" OF EQUIPMENT CONTROLLED. PROVIDE WEATHERPROOF UNITS WHERE INDICATED OR INSTALL IN WEATHERPROOF BOXES.

C. STROBE INTENSITY AND SPEAKER OUTPUT RATINGS

1. PER NFPA 72 SECTION 18.4.3 AUDIBLE SIGNALS SHALL BE AT LEAST 15dB ABOVE AVERAGE AMBIENT SOUND LEVEL OR 5dB ABOVE MAXIMUM SOUND LEVEL, WHICHEVER IS GREATER.
2. ALL VISUAL NOTIFICATION DEVICES SHALL HAVE CANDELA RATINGS AS INDICATED ON PLAN SHEET(S), PER NFPA 72 SECTION 18.5.5.4.
3. AUDIBLE APPLIANCES FOR SLEEPING AREAS SHALL PRODUCE A LOW FREQUENCY ALARM SIGNAL THAT COMPLIES WITH NFPA SECTION 18.4.5.3.
4. VISUAL FIRE ALARM NOTIFICATION APPLIANCES LOCATED IN SLEEPING AREAS SHALL HAVE AN INTENSITY LEVEL OF:
   - 110 CD WHERE TOP OF LENS IS INSTALLED GREATER THAN OR EQUAL TO 24 INCHES FROM THE CEILING
   - 177 CD WHERE TOP OF LENS IS INSTALLED LESS THAN 24 INCHES FROM THE CEILING

   AND SHALL NOT BE FURTHER THAN 16 FEET FROM THE PILLOW, IN ACCORDANCE WITH NFPA 72 SECTIONS 18.5.5.7.1–18.5.5.7.3.

D. CIRCUIT CLASSES

INITIATING DEVICE CIRCUITS – CLASS B. SIGNALING LINE CIRCUITS – CLASS B. NOTIFICATION APPLIANCE CIRCUIT – CLASS B.

E. FUNCTIONS – SEE FIRE ALARM MATRIX OF OPERATIONS THIS SHEET.

F. FIRE ALARM TYPE AND ZONING

1. FIRE ALARM SYSTEM IS AN ADDRESSABLE TYPE. SUB-PANELS ARE ADDRESSABLE TYPE.
2. INITIATING DEVICES SHALL BE ZONED BY BUILDING/FLOOR.
3. EVACUATION SIGNALS SHALL BE ZONED BY BUILDING.

G. SURGE PROTECTION

DITEK SURGE PROTECTION DEVICES DEVICES SHALL BE PROVIDED AT EACH CONNECTION TO MAIN POWER AND WHERE A CIRCUIT ENTERS/EXITS THE BUILDING. ALL SURGE/TRANSIENT SUPPRESSORS MUST BE CONNECTED TO APPROVED BUILDING GROUND.

H. ENVIRONMENTAL FACTORS

NO SPECIAL ENVIRONMENTAL FACTORS APPLY. FIRE ALARM DEVICES AND EQUIPMENT TO BE INSTALLED OUTDOORS IN EXTERIOR LOCATIONS SHALL BE SPECIFICALLY DESIGNED AND U.L. LISTED AS WEATHERPROOF AND WATERPROOF.

I. SITE PLAN

AN ELECTRICAL SITE PLAN HAS BEEN PROVIDED ON SHEET E1.01 INDICATING THE LOCATIONS OF MASTER FACP IN CLUBHOUSE AND SUB PANEL FACP'S IN APARTMENT BUILDINGS.

J. AREA SMOKE DETECTION

1. WHERE SMOKE DETECTORS ARE USED TO PROVIDE AREA COVERAGE, THEY SHALL BE LOCATED IN ACCORDANCE WITH NFPA 72 SECTION 17.7.3 "LOCATION AND SPACING" AND NFPA SECTION 29.8.3.4 "SPECIFIC LOCATION REQUIREMENTS" FOR THE APPLICABLE CONDITIONS.
2. SMOKE ALARMS AND SMOKE DETECTORS SHALL NOT BE LOCATED WHERE AMBIENT CONDITIONS, INCLUDING HUMIDITY AND TEMPERATURE, ARE OUTSIDE THE LIMITS SPECIFIED BY THE MANUFACTURER'S PUBLISHED INSTRUCTIONS.
3. SMOKE ALARMS AND SMOKE DETECTORS SHALL NOT BE LOCATED WITHIN UNFINISHED ATTICS OR GARAGES OR IN OTHER SPACES WHERE TEMPERATURES CAN FALL BELOW 40°F OR EXCEED 100°F.
4. SMOKE ALARMS AND SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 10 FT FROM A STATIONARY OR FIXED COOKING APPLIANCE, UNLESS LISTED FOR INSTALLATION IN CLOSE PROXIMITY TO COOKING APPLIANCES OR MEETING THE ADDITIONAL CRITERIA LIST IN SECTION 29.8.3.4(4).
5. SMOKE ALARMS AND SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 3 FT FROM THE FOLLOWING: A DOOR TO A BATHROOM CONTAINING A SHOWER OR TUB, SUPPLY AIR REGISTERS, AND/OR THE TIP OF THE BLADE OF A CEILING PADDLE FAN.

K. SMOKE STRATIFICATION – SMOKE STRATIFICATION IS NOT EXPECTED TO OCCUR IN THIS/THESE INTERIOR BUILDING(S).

L. PERFORMANCE BASED DESIGN (PBD) – THE DESIGN IS DERIVED FROM A PRESCRIPTIVE DESIGN BASIS.

M. EVACUATION SIGNAL – EVACUATION SIGNAL IS A GENERAL SIGNAL ☐ BY FLOOR ☒ BY BUILDING.

N. WIRING REQUIREMENTS

1. WIRING SHALL BE IN ACCORDANCE WITH NFPA 72 AND NFPA 70 ARTICLES 300, 760, 770, AND 800, AS APPLICABLE, UNLESS OTHERWISE NOTED.
2. PROTECTION AGAINST DAMAGE: INSTALL WIRING IN METAL RACEWAY. CONCEAL RACEWAY EXCEPT IN UNFINISHED SPACES AND AS INDICATED.
3. FIRE ALARM DEVICES AND EQUIPMENT TO BE INSTALLED OUTDOORS IN EXTERIOR LOCATIONS SHALL BE SPECIFICALLY DESIGNED AND U.L. LISTED AS WEATHERPROOF AND WATERPROOF. PROVIDE WEATHERPROOF NEOPRENE GASKETS BETWEEN WALL MOUNTING SURFACE AND FIRE ALARM DEVICE FOR ALL DEVICES MOUNTED OUTDOORS.

O. OPERATIONS AND MAINTENANCE PROCEDURES

1. PROVIDE THE SERVICES OF A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO DEMONSTRATE THE SYSTEM AND TRAIN OWNER'S MAINTENANCE PERSONNEL AS SPECIFIED BELOW:
   a. TRAIN OWNER'S MAINTENANCE PERSONNEL IN THE LOCATION OF DEVICES, BOXES, PROCEDURES AND SCHEDULES INVOLVED IN OPERATING, TROUBLESHOOTING, SERVICING, AND PREVENTIVE MAINTAINING OF THE SYSTEM. PROVIDE A MINIMUM OF 4 HOURS' TRAINING. TRAINING SHALL INCLUDE A COMPLETE PROJECT WALKDOWN WITH OWNER'S AUTHORIZED REPRESENTATIVE TO IDENTIFY DEVICE LOCATIONS, JUNCTION BOX LOCATIONS AND SURGE SUPPRESSION MODULE LOCATIONS.
   b. SCHEDULE TRAINING WITH THE OWNER AT LEAST SEVEN WORKING DAYS IN ADVANCE.

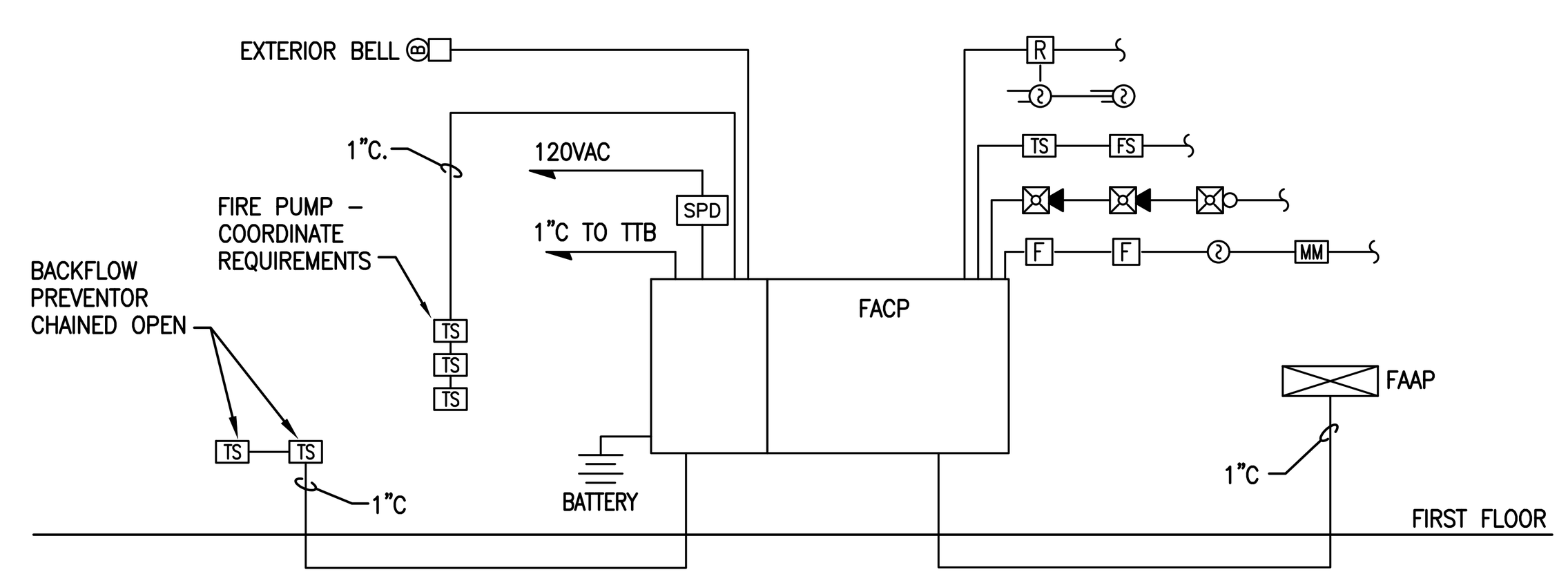
(5) BATTERY CALCULATIONS AND VOLTAGE DROP CALCULATIONS

FIRE ALARM CONTRACTOR SHALL SUBMITTALS AND SHOP DRAWINGS WITH BATTERY CALCULATIONS AND VOLTAGE DROP (CIRCUIT ANALYSIS) CALCULATIONS BASED ON THE SPECIFIC EQUIPMENT INCLUDED IN THOSE SUBMITTALS AND SHOP DRAWINGS. CALCULATIONS SHALL BE COMPLETED USING THE EQUIPMENT MANUFACTURE'S DATA AND APPLICABLE NFPA 72 PROCEDURES.

(6) SYSTEM TEST AND DOCUMENTATION REQUIREMENTS

FIRE ALARM CONTRACTOR SHALL PERFORM THE TESTING LISTED BELOW AND PREPARE RECORDS PER NFPA 72 SECTION 14.6.

☒ INITIAL ACCEPTANCE TESTING SHALL BE IN ACCORDANCE WITH NFPA 72 SECTION 14.4.1 FOR ALL NEW APPLIANCE AND CIRCUITS.
☐ RE-ACCEPTANCE TESTING IN ACCORDANCE WITH NFPA 72 14.4.2 FOR MODIFICATIONS OF EXISTING CIRCUITS.
☒ AFTER INITIAL ACCEPTANCE TESTING, FIRE ALARM SYSTEM TESTING SHALL BE PERFORMED AND DOCUMENTED IN COMPLIANCE WITH THE PERIODIC FREQUENCIES AND METHODS AS SHOWN IN NFPA 72 TABLE 14.3.1.



FIRE ALARM SYSTEM RISER DIAGRAM

NO SCALE

FIRE ALARM RISER - GENERAL NOTES:

A. FIRE ALARM SYSTEM RISER DIAGRAM IS DIAGRAMMATICAL. SEE FLOOR PLANS FOR EXACT QUANTITIES OF DEVICES. WIRING SHALL BE AS RECOMMENDED BY SYSTEMS MANUFACTURER.

B. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

C. ALL WORK SHALL COMPLY WITH THE 2017 NATIONAL ELECTRICAL CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

D. PROVIDE 120VAC SURGE SUPPRESSION AND LOW VOLTAGE FIRE ALARM CIRCUIT SURGE SUPPRESSION.

E. PROVIDE NOTIFICATION APPLIANCE CIRCUITS AND POWER SUPPLIES AS REQUIRED.

F. REFER TO POWER AND SYSTEMS FLOOR PLANS FOR FIRE ALARM EQUIPMENT COUNT.

G. PROVIDE 1" CONDUIT FROM FACP TO TTB.

H. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT WHERE REQUIRED BY CODE OR AHJ. PROVIDE ALL REQUIRED MONITORING AND CONTROL OF MECHANICAL UNITS AS REQUIRED BY AUTHORITY HAVING JURISDICTION.

I. VERIFY FIRE PROTECTION FLOW AND TAMPER SWITCH LOCATION WITH FIRE PROTECTION DRAWINGS. PROVIDE ALL REQUIRED MONITORING OF FIRE PROTECTION SYSTEM.

J. PER FFPC 6TH EDITION NFPA 1 SECTION 11.10 TWO-WAY RADIO COMMUNICATION ENHANCEMENT SYSTEMS: IN ALL NEW AND EXISTING BUILDINGS, MINIMUM RADIO SIGNAL STRENGTH FOR THE FIRE DEPARTMENT COMMUNICATIONS SHALL BE SHALL BE MAINTAINED AT A LEVEL DETERMINED BY THE AHJ.

K. CARBON MONOXIDE DETECTION SHALL BE PROVIDED NEAR GAS APPLIANCES AND WITHIN 10' OF SLEEPING AREAS IN BUILDINGS WITH FUEL BURNING APPLIANCES OR ATTACHED GARAGES, PER STATE STATUTES.

FIRE ALARM SYSTEM LEGEND

Symbol	Description
F	MANUAL PULL STATION
cd	WALL MOUNTED HORN WITH STROBE (cd=CANEDLA RATING)
WP	WALL MOUNTED HORN WITH STROBE IN WEATHERPROOF ENCLOSURE
	CEILING MOUNTED HORN WITH STROBE
M	WALL MOUNTED LOW FREQUENCY MINI HORN
M	WALL MOUNTED LOW FREQUENCY MINI HORN WITH STROBE
	WALL MOUNTED VOICE EVACUATION SPEAKER WITH STROBE
	CEILING MOUNTED VOICE EVACUATION SPEAKER WITH STROBE
	WALL MOUNTED STROBE
B	FIRE ALARM BELL
	SMOKE DETECTOR
CO	SMOKE AND CARBON MONOXIDE COMBINATION DETECTOR
	DUCT MOUNTED SMOKE DETECTOR
	HEAT DETECTOR
	REMOTE DUCT DETECTOR INDICATOR LIGHT AND TEST SWITCH
R	FAN SHUT-DOWN RELAY
D	ELECTROMAGNETIC DOOR RELEASE DEVICE
	SMOKE DAMPER (PROVIDE BY MECHANICAL, CONNECTED BY ELECTRICAL)
P	FIREMAN'S PHONE JACK
TS	SPRINKLER SYSTEM SUPERVISORY TAMPER SWITCH CONNECTION
FS	SPRINKLER SYSTEM FLOW SWITCH CONNECTION
CM	CONTROL MODULE
MM	MONITOR MODULE
LB	LOCK BOX
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FAAP	FIRE ALARM ANNUNCIATOR PANEL
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER

		CONTROL UNIT ANNUNCIATION							NOTIFICATION	FIRE SAFETY CONTROL										
		ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE COMMON TROUBLE SIGNAL	ACTUATE ALARM INDICATOR	ACTUATE EVACUATION SIGNAL	DISPLAY/PRINT CHANGE OF STATUS	TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION	RELEASE MAGNETICALLY HELD SMOKE DOORS	RECALL ELEVATORS TO PRIMARY RECALL FLOOR	RECALL ELEVATORS TO ALTERNATE RECALL FLOOR	CLOSE SMOKE/FIRE DAMPERS IN RATED WALLS	SHUTDOWN AFFECTED ELEVATOR POWER	SHUTDOWN AFFECTED AIR HANDLING UNIT(S)	UNLOCK SECURED EGRESS EXITS
	SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	MANUAL FIRE ALARM BOXES	●	●					●	●	●	●			●						●
2	AREA SMOKE DETECTORS	●	●					●	●	●	●			●			●			●
3	IN-DUCT SMOKE DETECTORS			●	●					●		●					●		●	●
4	HEAT DETECTOR IN ELEVATOR SHAFT/PIT	●	●							●	●						●	●		●
5	ELEVATOR LOBBY SMOKE DETECTORS – FIRST FLOOR	●	●							●	●			●		●	●			●
6	ELEVATOR LOBBY SMOKE DETECTORS – UPPER FLOORS	●	●							●	●			●	●		●			●
7	WATER FLOW	●	●					●		●	●			●	●					●
8	SPRINKLER CONTROL VALVE			●	●					●		●								
9	OPEN CIRCUIT					●	●						●							
10	GROUND FAULT					●	●						●							
11	NOTIFICATION APPLIANCE CIRCUIT SHORT					●	●						●							

FIRE ALARM MATRIX OF OPERATIONS

NO SCALE

ISSUE HISTORY

No.	Date	Description
1	04/15/22	Permit Submission

REVISION HISTORY

No.	Date	Description

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THE MADISON

HUNTSVILLE, AL

Drawn:	MJR/SMB
Checked:	BLS/AJB
Approval:	BLS/AJB
Date:	04/15/2022
Project #:	5722

CLUBHOUSE FIRE ALARM RISER DIAGRAM ELECTRICAL

CHE3.02

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LIGHTING FIXTURE SCHEDULE - CLUBHOUSE

MARK	DESCRIPTION	MANUFACTURER	MODEL	VOLTS	LAMP QTY	LAMP WATTS	LAMP MODEL	FIXTURE WATTS
CA	6" RECESSED AIR-TIGHT, IC-RATED LED DOWNLIGHT WITH GALVANIZED STEEL HOUSING, CLEAR SEMI-SPECULAR REFLECTOR, DAMP LABEL RATED	H.E. WILLIAMS	6DR-TL-L20/835-DIM-UNV-OM-OF-CS-MWT-I-F1	120	1	19	LED	19
CC	1'x4' SURFACE OR PENDANT MOUNT WRAP FIXTURE AT UTILITY CLOSETS WITH FROSTED RIBBED ACRYLIC SHIELDING AND WHITE POLYESTER POWDER COAT FINISH	H.E. WILLIAMS	39-4-L30/835-A-DRV-120	120	1	25	LED	25
CD	DECORATIVE LED BATHROOM VANITY SCONCE	TBD	TBD	120	1	17	LED	17
CF1	52" INTERIOR CEILING FAN	TBD	TBD	120	–	–	–	55
CW	DECORATIVE EXTERIOR LED WALL SCONCE. UL WET LABEL RATED.	TBD	TBD	120	1	20	LED	20
P1	DECORATIVE LED PENDANT IN LOBBY	TBD	TBD	120	1	32	LED	32
P2	DECORATIVE LED PENDANT IN GAME ROOM	TBD	TBD	120	1	32	LED	32
P3	DECORATIVE LED PENDANT IN GATHERING ROOM	TBD	TBD	120	1	32	LED	32
EM	WALL MOUNTED EMERGENCY LIGHT WITH THERMOPLASTIC HOUSING, WHITE FINISH, TWIN HEADS AND BATTERY BACKUP.	BEGHELLI	PEH-T20	120	2	1.7	LED	3.4
EM2	WALL MOUNTED ECCO LUNA LED EMERGENCY LIGHT WITH CORROSION/FLAME/VANDAL RESISTANT POLYCARBONATE HOUSING, BATTERY BACKUP, UL WET LABEL RATED	BEGHELLI	EL-SE-205LED-120/277-W	120	2	5	LED	10
X1	UNIVERSAL FACE/MOUNT EXIT SIGN EXIT SIGN WITH WHITE THERMOPLASTIC HOUSING, RED LETTERS, BATTERY BACKUP, DAMP LABEL RATED	BEGHELLI	PX-R-HT-AT	120	–	–	LED	–
X3	UNIVERSAL FACE/MOUNT EXIT SIGN WITH SIDE MOUNTED EMERGENCY LIGHTING HEADS, WHITE THERMOPLASTIC HOUSING, RED LETTERS, BATTERY BACKUP.	BEGHELLI	XCL-R-U-W	120	–	–	LED	–

NOTES:
1. DIVISION 16 CONTRACTOR SHALL VERIFY ALL FIXTURE TYPES AND FINISHES WITH OWNER PRIOR TO ORDERING.

PANEL 'CHA' (SECTION 1)

LOCATION: ELEC. ROOM | VOLTAGE: 208Y/120V 3ø 4W | MIN. AIC RATING: 22K AIC | NOTES: PROVIDE TYPED WRITTEN DIRECTORY, PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE-D, TYPE NQ | MAINS: 400A ☒ MLO ☐ MCB | MOUNTING: SURFACE
FED FROM: SERVICE DISC. | LUGS: ☐ SUB-FEED ☒ FEED-THRU | ENCLOSURE: NEMA 1

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT #	NEUT	GND	COND	BKR	LOAD KVA	PHASE ø	LOAD KVA	BKR	BRANCH CIRCUIT #	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	FACP	2	12	12	12	1/2"	20/1	0.50	A	0.27	20/1	12	12	12	1/2"	1	LTG – EXTERIOR/MAIL	2
3	TTB		12	12	12	1/2"	20/1	0.36	B	0.08	20/1	12	12	12	1/2"	1	LTG – EXTERIOR	4
5	RCPTS – MECH/RR/CORRIDOR		12	12	12	1/2"	20/1	0.54	C	0.39	20/1	12	12	12	1/2"		LTG – ELEC/RR/OFFICE/WORK	6
7	PARCEL PACKAGE SYSTEM		12	12	12	1/2"	20/1	0.50	A	0.26	20/1	12	12	12	1/2"		LTG – GAMEROOM	8
9	RCPTS – WORKROOM		12	12	12	1/2"	20/1	0.36	B	0.55	20/1	12	12	12	1/2"		LTG – GATHERING ROOM	10
11	WORKROOM EQUIPMENT		12	12	12	1/2"	20/1	1.00	C	0.14	20/1	12	12	12	1/2"		LTG – RR/CORRIDOR	12
13	COPIER		12	12	12	1/2"	20/1	0.50	A	–	–	–	–	–	–		SPARE	14
15	RCPTS – WORKROOM/RECEPTION		12	12	12	1/2"	20/1	0.72	B	–	–	–	–	–	–		SPARE	16
17	RCPTS – RECEPTION		12	12	12	1/2"	20/1	0.72	C	–	–	–	–	–	–		SPARE	18
19	RCPTS – OFFICE/EXTERIOR		12	12	12	1/2"	20/1	0.90	A	–	–	–	–	–	–		SPARE	20
21	RCPTS – LOBBY/EXTERIOR		12	12	12	1/2"	20/1	0.90	B	–	–	–	–	–	–		SPARE	22
23	RCPTS – LOBBY		12	12	12	1/2"	20/1	0.72	C	–	–	–	–	–	–		SPARE	24
25	RCPTS – GAMEROOM		12	12	12	1/2"	20/1	0.90	A	–	–	–	–	–	–		SPARE	26
27	RCPTS – GAMEROOM/EXTERIOR		12	12	12	1/2"	20/1	1.08	B	–	–	–	–	–	–		SPARE	28
29	GAMEROOM EQUIPMENT		12	12	12	1/2"	20/1	1.00	C	–	–	–	–	–	–		SPARE	30
31	GAMEROOM EQUIPMENT		12	12	12	1/2"	20/1	1.00	A	–	–	–	–	–	–		SPARE	32
33	RCPTS – GAMEROOM COUNTER		12	12	12	1/2"	20/1	0.36	B	–	–	–	–	–	–		SPACE ONLY	34
35	RCPTS – GATHERING ROOM		12	12	12	1/2"	20/1	0.36	C	–	–	–	–	–	–		SPACE ONLY	36
37	RCPTS – GATHERING ROOM		12	12	12	1/2"	20/1	0.72	A	–	–	–	–	–	–		SPACE ONLY	38
39	RCPTS – CORRIDOR/GATHERING/EXT		12	12	12	1/2"	20/1	0.90	B	–	–	–	–	–	–		SPACE ONLY	40
41	EWC		12	12	12	1/2"	20/1	0.70	C	–	–	–	–	–	–		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
LIGHTING	1.68 KVA		125%	2.10 KVA	
RECEPTACLES – GENERAL	9.18 KVA		100%	9.18 KVA	
EQUIPMENT	5.56 KVA		100%	5.56 KVA	
PANELS (SECTION 2)	20.84 KVA		100%	20.84 KVA	
NOTES: 1) CONNECT VIA LIGHTING CONTACTOR 2) PROVIDE "LOCK OUT" STYLE BREAKER HANDLE PER NEC 422.31 3) SPLIT A/C, CONDENSING UNIT NOT INCLUDED IN LOAD CALC					TOTAL DEMAND LOAD: 37.68 KVA TOTAL AMPS: 104.67 AMPS

PANEL 'CHA' (SECTION 2)

LOCATION: ELEC. ROOM | VOLTAGE: 208Y/120V 3ø 4W | MIN. AIC RATING: 22K AIC | NOTES: PROVIDE TYPED WRITTEN DIRECTORY, PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE-D, TYPE NQ | MAINS: 400A ☒ MLO ☐ MCB | MOUNTING: SURFACE
FED FROM: SERVICE DISC. | LUGS: ☐ SUB-FEED ☒ FEED-THRU | ENCLOSURE: NEMA 1

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT #	NEUT	GND	COND	BKR	LOAD KVA	PHASE ø	LOAD KVA	BKR	BRANCH CIRCUIT #	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
43	EWH-1		10	10	10	3/4"	30/2	2.25	A	4.33	60/2	6	6	10	1.25"		AHU-1.C	44
45	–		10	–	–	–	–	2.25	B	4.33	–	6	–	–	–		–	46
47	CP-1		12	12	12	1/2"	15/1	0.86	C	3.41	45/2	8	8	10	1"		AHU-2.C	48
49	SPACE ONLY		–	–	–	–	–	–	A	3.41	–	8	–	–	–		–	50
51	SPACE ONLY		–	–	–	–	–	–	B	2.18	45/2	8	8	10	1"	3	CU-1.C	52
53	SPACE ONLY		–	–	–	–	–	–	C	2.18	–	8	–	–	–		–	54
55	SPACE ONLY		–	–	–	–	–	–	A	1.81	35/2	8	8	10	3/4"	3	CU-2.C	56
57	SPACE ONLY		–	–	–	–	–	–	B	1.81	–	8	–	–	–		–	58
59	SPACE ONLY		–	–	–	–	–	–	C	–	–	–	–	–	–		SPACE ONLY	60
61	SPACE ONLY		–	–	–	–	–	–	A	–	–	–	–	–	–		SPACE ONLY	62
63	SPACE ONLY		–	–	–	–	–	–	B	–	–	–	–	–	–		SPACE ONLY	64
65	SPACE ONLY		–	–	–	–	–	–	C	–	–	–	–	–	–		SPACE ONLY	66
67	SPACE ONLY		–	–	–	–	–	–	A	–	–	–	–	–	–		SPACE ONLY	68
69	SPACE ONLY		–	–	–	–	–	–	B	–	–	–	–	–	–		SPACE ONLY	70
71	SPACE ONLY		–	–	–	–	–	–	C	–	–	–	–	–	–		SPACE ONLY	72
73	SPACE ONLY		–	–	–	–	–	–	A	–	–	–	–	–	–		SPACE ONLY	74
75	SPACE ONLY		–	–	–	–	–	–	B	–	–	–	–	–	–		SPACE ONLY	76
77	SPACE ONLY		–	–	–	–	–	–	C	–	–	–	–	–	–		SPACE ONLY	78
79	SPACE ONLY		–	–	–	–	–	–	A	–	30/3	10	10	10	3/4"		SURGE PROTECTIVE DEVICE (SPD)	80
81	SPACE ONLY		–	–	–	–	–	–	B	–	–	10	–	–	–		–	82
83	SPACE ONLY		–	–	–	–	–	–	C	–	–	10	–	–	–		–	84

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
LIGHTING	– KVA		125%	– KVA	
RECEPTACLES – GENERAL	– KVA		100%	– KVA	
EQUIPMENT	20.84 KVA		100%	20.84 KVA	
NOTES: 1) CONNECT VIA LIGHTING CONTACTOR 2) PROVIDE "LOCK OUT" STYLE BREAKER HANDLE PER NEC 422.31 3) SPLIT A/C, CONDENSING UNIT NOT INCLUDED IN LOAD CALC					TOTAL DEMAND LOAD: 20.84 KVA LOAD CARRIED OVER TO FIRST SECTION

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ISSUE HISTORY

No.	Date	Description
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REVISION HISTORY

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THE MADISON
HUNTSVILLE, AL

CLUBHOUSE SCHEDULES ELECTRICAL

CHE4.01

LEGEND

- DIRECTION OF FLOW IN PIPE
- PITCH PIPE DOWN IN DIRECTION OF ARROW
- PIPE UP
- PIPE DOWN
- EJ — EXPANSION JOINT
- FLEXIBLE PIPE CONNECTOR
- BALL VALVE
- CHECK VALVE, HORIZONTAL SWING
- GATE VALVE
- BUTTERFLY VALVE
- GLOBE VALVE
- BALANCING VALVE
- BC — BALANCING COCK
- STRAINER, Y-TYPE AND BLOWOFF VALVE
- RV — PRESSURE RELIEF VALVE (WATER)
- PRV — PRESSURE REDUCING VALVE
- MAV — MANUAL AIR VENT
- SOLENOID VALVE
- VALVE OS & Y
- CAPPED LINE
- SAN — SANITARY SEWER (ABOVE GRADE)
- SAN — SANITARY SEWER (BELOW GRADE)
- DOMESTIC COLD WATER
- BP — BOOSTED PRESSURE DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DOMESTIC HOT WATER RETURN
- CD — CONDENSATE DRAIN (BELOW GRADE)
- CD — CONDENSATE DRAIN (ABOVE GRADE)
- ST — STORM SEWER (BELOW GRADE)
- ST — STORM SEWER (ABOVE GRADE)
- SEC — SECONDARY STORM SEWER
- GR — GREASE SEWER (BELOW GRADE)
- GR — GREASE SEWER (ABOVE GRADE)
- SCW — SOFT COLD WATER
- VENT
- G — GAS LINE (BELOW GRADE)
- G — GAS LINE (ABOVE GRADE)
- POINT OF CONNECTION NEW TO EXISTING
- POINT OF REMOVAL FOR DEMOLITION
- ΔT — DELTA T (TEMPERATURE DIFFERENCE)
- A / B — PHOTO DETAIL OR SECTION IDENTIFICATION TARGET
  A = DETAIL NUMBER.
  B = SHEET NUMBER ON WHICH DETAIL IS LOCATED.
- HB — HOSE BIBB
- FD — FLOOR DRAIN
- HD — HUB DRAIN
- TD — TRENCH DRAIN
- A — COMPRESSED AIR (BELOW GRADE)
- A — COMPRESSED AIR (ABOVE GRADE)
- FLOOR CLEANOUT
- CLEANOUT
- EXTERIOR CLEANOUT
- HORIZONTAL CLEANOUT
- PD — PAN DRAIN (FROM WATER HEATER)
- FW — FILTERED WATER
- SHOCK ABSORBER
- GD — GARBAGE DISPOSAL
- DW — DISHWASHER

NOTE:

SYMBOLS SHOWN ON THIS PLUMBING LEGEND ARE FOR REFERENCE PURPOSES ONLY. ALL OF THESE SYMBOLS MAY NOT BE USED FOR THIS PROJECT.

SPECIFICATIONS

PART 1 – GENERAL

1.1 SECTION INCLUDES
A. GENERAL PROVISIONS SPECIFICALLY APPLICABLE TO DIVISION 15 SECTIONS, IN ADDITION TO DIVISION 1 – GENERAL REQUIREMENTS.

1.2 SCOPE
A. THE WORK SHALL INCLUDE THE PROVISIONS OF SYSTEMS, EQUIPMENT AND MATERIALS SPECIFIED IN THIS DIVISION AND AS CALLED FOR ON THE DRAWINGS. WORK SHALL ALSO INCLUDE SUPERVISION, OPERATION, METHODS AND LABOR FOR THE FABRICATION, START–UP AND TESTS FOR A COMPLETE OPERATIONAL PLUMBING INSTALLATION.

B. DRAWINGS FOR THE WORK ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO CONVEY THE SCOPE OF THE INSTALLATION AND TO INDICATE THE GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS PIPE FITTINGS, ACCESS PANELS, AND SLEEVES MAY NOT BE SHOWN. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE EQUIPMENT TO FIT THE SPACE PROVIDED. THE LOCATION AND SIZES FOR PIPE FITTINGS, SLEEVES, INSERTS, FIRE AND/OR SMOKE DAMPERS, AND OTHER BASIC ITEMS REQUIRED BY CODE AND OTHER SECTIONS SHALL BE COORDINATED AND INCLUDED FOR THE PROPER INSTALLATION OF THE WORK.

C. EQUIPMENT SPECIFICATIONS MAY NOT DEAL INDIVIDUALLY WITH MINUTE ITEMS REQUIRED SUCH AS COMPONENTS, PARTS, CONTROLS AND DEVICES WHICH MAY BE REQUIRED TO PRODUCE THE EQUIPMENT PERFORMANCE SPECIFIED OR AS REQUIRED TO MEET THE EQUIPMENT WARRANTIES. WHERE SUCH ITEMS ARE REQUIRED, THEY SHALL BE INCLUDED BY THE INSTALLER OF THE EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS WITH NO ADDITIONAL COST INCURRED.

D. WHERE NOTED ON THE DRAWINGS OR INDICATED IN OTHER SECTIONS OF THE SPECIFICATION, THE CONTRACTOR FOR THIS DIVISION SHALL INSTALL PLUMBING EQUIPMENT FURNISHED BY OTHERS, AND SHALL MAKE ALL FINAL CONNECTIONS. CONTRACTOR SHALL INSTALL EQUIPMENT AND SYSTEMS IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

E. COORDINATE WITH ALL TRADES IN SUBMITTAL OF SHOP DRAWINGS. TIGHT SPACE CONDITIONS SHALL BE DETAILED TO THE SATISFACTION OF ALL TRADES, SUBJECT TO THE REVIEW AND FINAL ACCEPTANCE OF THE ARCHITECT/ENGINEER. IN THE EVENT THAT THE CONTRACTOR INSTALLS HIS WORK BEFORE COORDINATING WITH OTHER TRADES OR SO AS TO CAUSE ANY INTERFERENCE WITH THE WORK OF THE OTHER TRADES THIS CONTRACTOR SHALL MAKE ALL REQUIRED CHANGES TO CORRECT THE CONDITION AT NO ADDITIONAL COST TO THE PROJECT.

F. CONTRACTOR SHALL VERIFY ALL EQUIPMENT CONNECTION SIZES PRIOR TO INSTALLATION OF ANY SYSTEMS. THIS CONTRACTOR SHALL ADJUST PIPING SYSTEM SIZES AS REQUIRED TO MATCH EQUIPMENT CONNECTIONS. UTILIZE REDUCERS WHERE EQUIPMENT CONNECTIONS ARE SMALLER THAN PIPE SIZES INDICATED ON PLANS, NO PIPING SHALL BE DECREASED IN SIZE (IN THE DIRECTION OF FLOW).

1.3 EXAMINATION OF BIDDING DOCUMENTS:
A. EACH BIDDER SHALL EXAMINE THE BIDDING DOCUMENTS CAREFULLY AND NOT LATER THAN TEN (10) DAYS PRIOR TO THE DATE FOR RECEIPT OF BIDS, SHALL MAKE WRITTEN REQUEST TO THE ENGINEER FOR INTERPRETATION OR CORRECTION OF ANY AMBIGUITY, INCONSISTENCY OR ERROR THEREIN. ANY INTERPRETATION OR CORRECTION WILL BE ISSUED AS AN ADDENDUM BY THE ENGINEER. ONLY A WRITTEN INTERPRETATION OR CORRECTION TO BID DOCUMENTS BY ADDENDUM SHALL BE BINDING. NO BIDDER SHALL RELY UPON ANY INTERPRETATION OR CORRECTION GIVEN BY ANY OTHER METHOD.

1.4 SUBSTITUTIONS:
A. EXCEPT AS PROVIDED BELOW, EACH BIDDER REPRESENTS THAT HIS BID IS BASED UPON THE MATERIALS AND EQUIPMENT DESCRIBED IN THE BIDDING DOCUMENTS.

B. NO SUBSTITUTIONS FOR OTHER MATERIALS AND EQUIPMENT WILL BE CONSIDERED UNLESS WRITTEN REQUEST HAS BEEN SUBMITTED TO THE ENGINEER FOR APPROVAL AT LEAST TEN (10) DAYS PRIOR TO THE DATE FOR RECEIPT OF BIDS. EACH SUCH REQUEST SHALL INCLUDE A COMPLETE DESCRIPTION OF THE PROPOSED SUBSTITUTE, THE NAME OF THE MATERIAL OR EQUIPMENT FOR WHICH IT IS TO BE SUBSTITUTED, DRAWINGS, CUTS, PERFORMANCE AND TEST DATA OR INFORMATION NECESSARY FOR A COMPLETE EVALUATION.

C. IF THE ENGINEER APPROVES ANY PROPOSED SUBSTITUTION, SUCH APPROVAL WILL BE ISSUED AS AN ADDENDUM FORWARDED TO ALL PARTICIPATING BIDDERS.

D. IF ANY BIDDER IS UNABLE TO PROCURE WRITTEN APPROVAL OF ANY SUBSTITUTION FROM THE ENGINEER PRIOR TO THE OPENING OF BIDS, THEN HE SHALL BASE HIS BID ON ITEMS AND SYSTEMS AS SPECIFIED IN BID DOCUMENTS.

E. SUBSTITUTIONS REQUESTED ON THE BID PROPOSAL FORM WHICH ARE PRIOR APPROVED BY THE ENGINEER WILL BE INCORPORATED INTO THE CONTRACT WITH THE SUCCESSFUL BIDDER.

F. REQUESTS FOR ANY SUBSTITUTIONS NOT SUBMITTED AND APPROVED IN ACCORDANCE WITH THE ABOVE INSTRUCTIONS WILL BE DENIED BY THE ENGINEER.

1.5 REGULATORY REQUIREMENTS:
A. ALL INSTALLATIONS AND EQUIPMENT SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE STATUTES, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION.
B. CONFORM TO THE LATEST EDITION OF THE INTERNATIONAL PLUMBING CODE.
C. CONFORM TO THE LATEST EDITION OF THE INTERNATIONAL FIRE PREVENTION CODE.
D. CONFORM TO THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE.

1.6 CUTTING AND PATCHING:
A. SUBMIT WRITTEN REQUEST IN ADVANCE OF CUTTING OR ALTERING ELEMENTS.

B. EMPLOY SKILLED AND EXPERIENCED INSTALLER TO PERFORM CUTTING AND PATCHING WHICH EFFECT:
B.1 STRUCTURAL INTEGRITY OF ELEMENT.
B.2 INTEGRITY OF WEATHER.
B.3 EFFICIENCY, MAINTENANCE, OR SAFETY OF ELEMENT.
B.4 VISUAL QUALITIES OF SIGHT.
B.5 WORK OF OWNER OR SEPARATE CONTRACTOR.

PART 2 – PRODUCTS

2.1 PIPE HANGERS AND SUPPORTS
A. MANUFACTURERS:
A.1 B–LINE
A.2 OTHER ACCEPTABLE MANUFACTURERS OFFERING EQUIVALENT PRODUCTS.
A.2.1 MICHIGAN HANGER
A.2.2 PHD

2.2 PIPING INSULATION:
A. COMMERCIAL SPACE:
A.A. ALL HOT WATER PIPING = R–4 MINIMUM
A.B. HOT WATER RETURN PIPING = R–4.
C. ALL PIPING WITHIN THE ATTIC OR UNCONDITIONED SPACE SHALL BE INSULATED.

D. MANUFACTURERS:
A.1 OWENS CORNING
A.2 JOHNS MANVILLE
A.3 KNAUF
E. ASTM C547, RIGID MOLDED NON–COMBUSTIBLE FIBERGLASS INSULATION. 'K' VALUE .024 @ 75 DEGREES F.
F. VAPOR BARRIER JACKET, KRAFT PAPER WITH GLASS FIBER YARN AND BONDED TO ALUMINUM FILM. CLOSURE SYSTEM SHALL BE UL 181.

2.3 PIPING: DRAINAGE, WASTE & VENT PIPING
A. PVC: ASTM D2665 SCHEDULE 40 PVC SOLID WALL PIPING.
A.1 FITTINGS: ASTM D2665 SCHEDULE 40 PVC DWV FITTINGS.
A.2 JOINTS: ASTM D2564 SOLVENT CEMENT. JOINTS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2855.
B. FIRE WRAPPED PVC OR CAST IRON PIPING TO BE USED IN ALL PLENUM SPACES.
C. FOAM CORE SCHEDULE 40 DWV PIPE IS NOT AN ACCEPTABLE ALTERNATE TO STANDARD SCHEDULE 40 PVC.

2.4 PIPING: WATER PIPING
A. COPPER PIPING: ASTM B88 TYPE 'L' HARD DRAWN.
A.1 FITTINGS: ASME 16.18 CAST BRONZE OR ASME B16.22 WROUGHT COPPER OR BRONZE.
A.2 JOINTS: ASTM B32 SOLDER, ASTM 95–5 TA MINIMUM, FLUX ASTM B813. JOINTS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM B828.
A.3 SUBSTITUTIONS: CPVC IS AN ACCEPTABLE ALTERNATIVE TO COPPER ONLY IF APPROVED BY BUILDING OWNER.
B. CPVC PIPING: ASTM F441/F441M–15 CHLORINATED POLY PLASTIC PIPE. SCHEDULE 40 AND 80 HOT AND COLD WATER DISTRIBUTION PIPING. IS AN ACCEPTABLE ALTERNATE UPON APPROVAL OF ENGINEER, BUILDING OWNER AND PROJECT OWNER.
B.A. IT IS NOT ACCEPTABLE TO ROUTE CPVC PIPING BELOW GRADE OR WITHIN CONCRETE.
C. PEX PIPING: ASTM F877–18 CROSSLINKED POLYETHYLENE HOT AND COLD WATER DISTRIBUTION PIPING. IS AN ACCEPTABLE ALTERNATE UPON APPROVAL OF ENGINEER, BUILDING OWNER AND PROJECT OWNER

2.5 PIPING: GAS PIPING
A. STEEL PIPE: ASTM A 53/A 53M; TYPE E OR S; GRADE B; BLACK. WALL THICKNESS OF WROUGHT–STEEL PIPE SHALL COMPLY WITH ASME B36.10M.
A.1 MALLEABLE–IRON THREADED FITTINGS: ASME B16.3, CLASS 150, STANDARD PATTERN, WITH THREADED ENDS ACCORDING TO ASME B1.20.1.
A.2 STEEL THREADED FITTINGS: ASME B16.11, FORGED STEEL WITH THREADED ENDS ACCORDING TO ASME B1.20.1.
A.3 STEEL WELDING FITTINGS: ASME B16.9, WROUGHT STEEL OR ASME B16.11, FORGED STEEL.
A.4 UNIONS: ASME B16.39, CLASS 150, MALLEABLE IRON WITH BRASS–TO–IRON SEAT, GROUND JOINT, AND THREADED ENDS ACCORDING TO ASME B1.20.1.
A.5 CAST–IRON FLANGES AND FLANGED FITTINGS: ASME B16.1, CLASS 125.
A.6 JOINT COMPOUND AND TAPE: SUITABLE FOR NATURAL GAS.
A.7 STEEL FLANGES AND FLANGED FITTINGS: ASME B16.5.
A.8 GASKET MATERIAL: THICKNESS, MATERIAL, AND TYPE SUITABLE FOR NATURAL GAS.

2.5 CONDENSATE PIPING
A. ALL PIPING RECEIVING CONDENSATE OR DRAINAGE FROM ANY TYPE OF EVAPORATOR PRODUCING COLD WATER SHALL BE INSULATED.

PART 3 – INSTALLATION

3.1 INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

3.2 PROVIDE NON–CONDUCTING DIELECTRIC CONNECTIONS WHEREVER JOINTING DISSIMILAR METALS.

3.3 ROUTE PIPING IN ORDERLY MANNER AND MAINTAIN GRADIENT.

3.4 INSTALL PIPING TO CONSERVE BUILDING SPACE AND NOT INTERFERE WITH USE OF SPACE.

3.5 GROUP PIPING WHENEVER PRACTICAL AT COMMON ELEVATIONS.

3.6 INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT.

3.7 PROVIDE CLEARANCE FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES AND FITTINGS.

3.8 PROVIDE ACCESS WHERE VALVES AND FITTINGS ARE NOT EXPOSED. COORDINATE SIZE AND LOCATION OF ACCESS DOORS WITH APPROPRIATE ARCHITECTURAL SECTION.

3.9 ESTABLISH ELEVATIONS OF BURIED PIPING OUTSIDE THE BUILDING TO ENSURE PROPER SLOPE AND COVER.

3.10 ESTABLISH ELEVATIONS OF EXISTING BURIED PIPING FOR CONNECTION TO NEW WORK TO ENSURE PROPER SLOPE AND COVER.

3.11 WHERE PIPE SUPPORT MEMBERS ARE WELDED TO STRUCTURAL BUILDING FRAMING, SCRAPE, BRUSH CLEAN, AND APPLY ONE COAT OF ZINC RICH PRIMER TO WELDING.

3.12 EXTEND CLEANOUTS TO FINISHED FLOOR OR WALL SURFACE. LUBRICATE THREADED CLEANOUT PLUGS WITH MIXTURE OF GRAPHITE AND LINSEED OIL. ENSURE CLEARANCE AT CLEANOUT FOR RODDING OF DRAINAGE SYSTEM.

3.13 RESET SPRINKLER HEADS FROM UPRIGHT POSITION TO DOWN POSITION TO CENTER OF NEW CEILING TILE.

3.14 TORQUE ALL HUBLESS CAST IRON COUPLING IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. UTILIZE COUPLING MANUFACTURER'S PRE–SET TORQUE WRENCH.

3.15 INSTALL WATER HAMMER SHOCK ARRESTORS AT EACH FIXTURE OR BATTERY OF FIXTURES WHERE QUICK CLOSING VALVES ARE UTILIZED. . ARRESTORS SHALL BE FACTORY FABRICATED AND CONFORM TO ASSE 1010. INSTALL ARRESTORS AND SIZE PER PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I. WH–201. ACCEPTABLE MANUFACTURERS ARE ZURN, JOSAM, SIOUX CHIEF. PPP INC. FOR 1–11 FU'S PROVIDE PDI–A, FOR 12–32 FU'S PDI–B, 33–60 FU'S PDI–C, 61–113 FU'S PDI–D. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

3.16 ALL CONTRACTORS ARE RESPONSIBLE FOR PROPERLEY FIRE SEALING ALL FIRE RATED PENETRATIONS WITH AN APPROVE UL FIRE RATED PENETRATION INSTALLATION METHOD.

GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FITTINGS AS REQUIRED BY ALL APPLICABLE CODES AND GOVERNING AUTHORITIES.
2. CONTRACTOR SHALL VERIFY AND CORRECT AS REQUIRED TO MEET ALL CODES AND REGULATIONS ANY POSSIBLE DISCREPANCIES BETWEEN TYPE AND SIZE OF CONNECTION SPECIFIED IN PLUMBING FIXTURE SCHEDULE AND FIXTURES ACTUALLY INSTALLED ON THE SITE.
3. ALL DRAINAGE PIPING 3" AND LARGER SHALL HAVE A MINIMUM $\frac{1}{8}$" PER FOOT SLOPE. ALL DRAINAGE PIPING 2$\frac{1}{2}$" AND SMALLER SHALL HAVE A MINIMUM $\frac{1}{4}$" PER FOOT SLOPE, UNLESS OTHERWISE NOTED.
4. VENT PIPING SHOWN ON FLOOR PLANS IS ONLY INDICATIVE EXCEPT FOR VTR LOCATIONS.
5. VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY ARE LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
6. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.
7. CONTRACTOR SHALL FIELD VERIFY ALL GIVEN MEASUREMENTS PRIOR TO LAYING AND CONNECTING ALL SANITARY AND WASTE PIPING AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
8. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER ARRESTORS AS SPECIFIED.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FIRE RATING AND WEATHERPROOFING INTEGRITY OF ALL PIPING AND PENETRATIONS.
10. ALL WATER SUPPLY AND SANITARY LINES SHALL BE RUN AS CLOSE TO PLANS AS POSSIBLE WITH NO CHANGES IN SIZING.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES FOR ALL FIXTURES INCLUDED IN CONTRACT OR HEREIN SPECIFIED OR OTHERWISE.
12. CHANGES IN THE DIRECTION OF SANITARY PIPING SHALL NOT BE MADE WITH FITTINGS WHICH WILL CAUSE EXCESSIVE REDUCTION IN THE VELOCITY OF FLOW OR CREATE ANY OTHER ADVERSE EFFECT UNLESS PHYSICALLY IMPOSSIBLE (IE: USE OF SANITARY TEE IN A HORIZONTAL CONNECTION, USE OF A DOUBLE SANITARY TEE IN A VERTICAL STACK, IN GENERAL, USE OF SHORT–RADIUS FITTINGS FOR BRANCH TO HOUSE DRAIN OR STACK CONNECTION).
13. ALL DRAINAGE PIPING SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION.
14. DO NOT PENETRATE FOUNDATIONS WITH PIPING, COORDINATE WITH GENERAL CONTRACTOR TO DROP FOUNDATIONS AS REQUIRED TO CLEAR PLUMBING SERVICES WHERE ABSOLUTELY NECESSARY. ALL PIPING PENETRATING A BEARING WALL OR FOOTING MUST BE SLEEVED AND LOCATION APPROVED BY STRUCTURAL ENGINEER.
15. ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR IN CHASES. PIPING EXPOSED SHALL BE SLOPED AND PAINTED TO MATCH ARCHITECTURAL FINISHES. PIPING IN MECHANICAL ROOMS MAY BE EXPOSED.
16. PROVIDE ACCESS PANELS TO ALL VALVES WITHIN CHASES OR ABOVE NON–ACCESSIBLE CEILINGS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
17. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING FIXTURE MOUNTING HEIGHTS, AND DIMENSIONS.
18. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW SEWER LINES ARE TO BE CONNECTED BEFORE INSTALLATION OF NEW SEWER LINE.
19. ALL VENTS THROUGH ROOF SHALL BE MINIMUM OF 10'–0" FROM ANY AIR INTAKES.
20. CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
21. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (INCLUDING PIPE ROUTING AND EQUIPMENT LOCATIONS) TO ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE INSTALLATION OR PURCHASING OF ANY PIPING AND/OR EQUIPMENT.
22. PROVIDE $\frac{3}{4}$" C.W. SUPPLY WITH ANGLE STOP AND FLEXIBLE SUPPLY TO REFRIGERATORS WITH ICE MAKERS AT HEIGHT REQUIRED BY MANUFACTURER OF EQUIPMENT INSTALLED.
23. PROVIDE $\frac{3}{4}$" H.W. SUPPLY WITH ANGLE STOP AND FLEXIBLE SUPPLY TO DISHWASHER MACHINE, AT HEIGHT REQUIRED BY MANUFACTURER OF EQUIPMENT INSTALLED.
24. ALL WATER PIPING INSTALLED IN EXTERIOR WALLS SHALL BE PLACED ON THE INTERIOR SIDE OF THE WALL, SO THAT WALL INSULATION CAN BE PLACED ON THE EXTERIOR SIDE OF THE PIPING.
25. FIELD VERIFICATION OF EXISTING PIPING: ALL EXISTING PIPING SHOWN ON THE CONSTRUCTION DOCUMENTS IS BASED OFF OF VISUAL SITE INVESTIGATION AND AS BUILTS DRAWINGS OF THE EXISTING SITE AND BUILDING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE LICENSED PLUMBING CONTRACTOR TO FIELD VERIFY ALL EXISTING PIPING LOCATIONS, TYPES, SIZES, ELEVATIONS AND INVERTS. NOTIFY ENGINEER IF THE CONDITIONS ARE NOT AS SHOWN ON THE PLANS OR AS STATED IN THE SPECIFICATIONS PRIOR TO THE INITIATION OF ANY WORK. IDENTIFICATION AND VERIFICATION OF EXISTING PIPING TO BE ACCOMPLISHED BY THE FOLLOWING MEANS:
    - MANDATORY DYE TESTING OF ALL EXISTING SANITARY, STORM AND GREASE WASTE PIPING FOR SYSTEM IDENTIFICATION.
    - SNAKE ALL SANITARY, STORM AND GREASE WASTE PIPING FOR A DISTANCE OF 100 FEET AND REPORT ANY BLOCKAGES.
    - TEST WATER PRESSURE TO INSURE MINIMUM PSI MATCHES MOST DEMANDING EQUIPMENT SUPPLIED OR TO BE INSTALLED.
    - ALL IDENTIFICATION AND VERIFICATION RESULTS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO THE INITIATION OF ANY WORK.
26. IF NO PLUMBING ELEVATION OR INVERT IS NOTED ON PLANS THE MINIMUM DEPTH OF THE PLUMBING TO CIVIL CONNECTION SHALL BE CALCULATED BASED ON THE FURTHERS POSSIBLE PLUMBING FIXTURE DISTANCE TIMES 1%. TOTAL LINE LENGTH*1%=DEPTH B.F.F. AT CIVIL POINT OF CONNECTION.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ISSUE HISTORY

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JLC 22.0023.00



THE MADISON
HUNTSVILLE, AL

Drawn:	MJR/SMB
Checked:	BLS/AJB
Approved:	BLS/AJB
Date:	04/15/2022
Project #:	5722

SYMBOL LEGEND & GENERAL NOTES PLUMBING

CHP0.01

PLUMBING FIXTURE UNIT CALCULATION

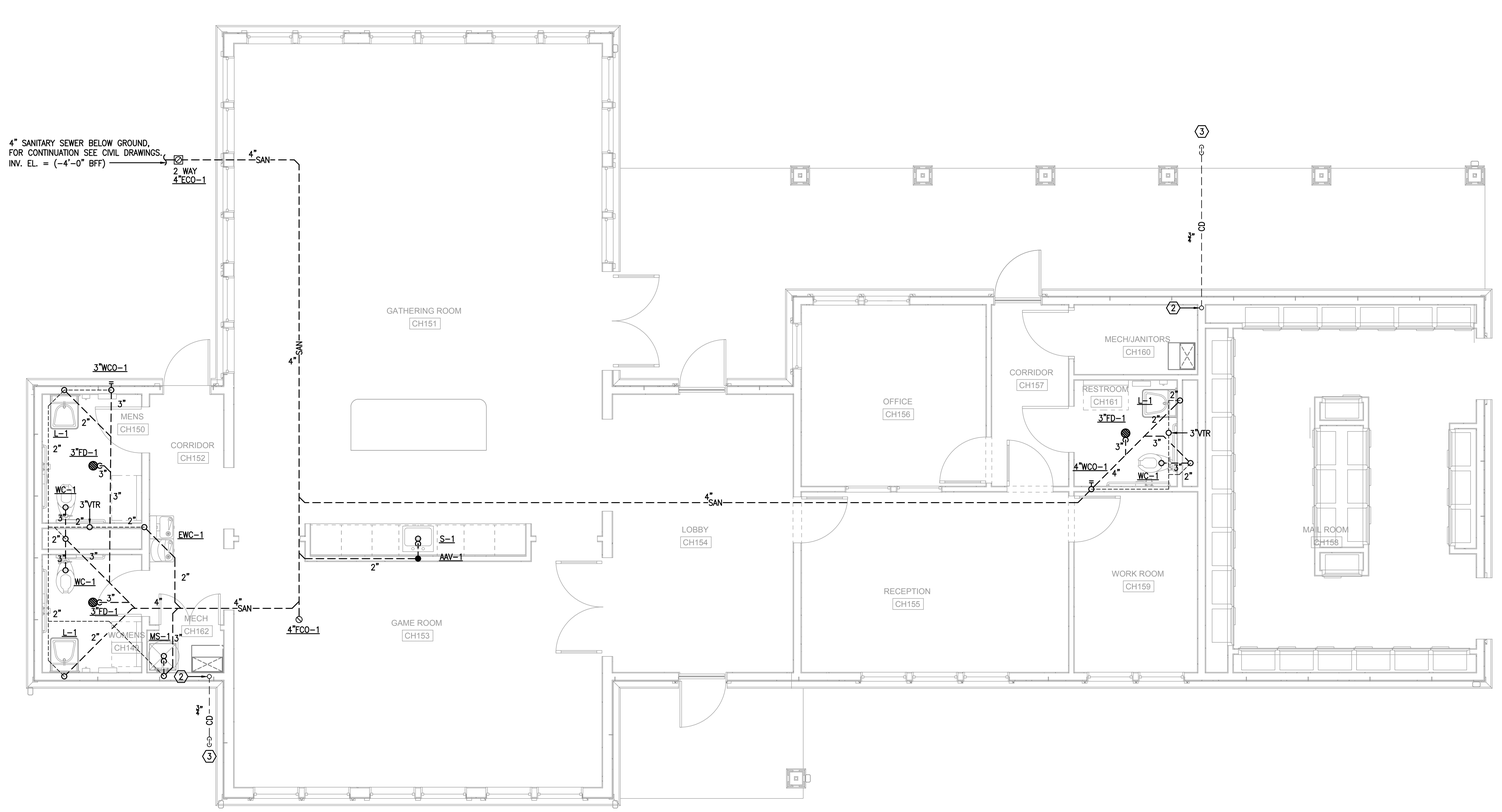
TYPE OF SERVICE	WATER	SANITARY
FIXTURE UNIT COUNT TOTAL	45	31
TOTAL GALLONS PER MINUTE	48	--
SIZE OF SERVICE CONNECTION	2"	4"

GENERAL NOTES:

1. WHERE A HORIZONTAL DRAINAGE PIPE HAS A CHANGE OF HORIZONTAL DIRECTION GREATER THAN 45 DEGREES, A CLEANOUT SHALL BE INSTALLED AT THE CHANGE OF DIRECTION. WHERE MORE THAN ONE CHANGE OF HORIZONTAL DIRECTION GREATER THAN 45 DEGREES OCCURS WITHIN 40 FEET OF DEVELOPED LENGTH OF PIPING, THE CLEANOUT INSTALLED FOR THE FIRST CHANGE OF DIRECTION SHALL SERVE AS THE CLEANOUT FOR ALL CHANGES IN DIRECTION WITHIN THAT 40 FEET OF DEVELOPED LENGTH OF PIPING.
2. ALL SHUT-OFF VALVES SHALL BE FULLY ACCESSIBLE. SEE ARCHITECTURAL DRAWINGS FOR RATED WALLS AND CEILINGS, AND PROVIDE RATED ACCESS PANELS.
3. SEE SHEET CHP2.03 FOR RISER DIAGRAMS.
4. PROVIDE TRAP PRIMER VALVES TPV-1 WITH SHUT OFF VALVE AND ¾" CW SUPPLY TO EACH FLOOR DRAIN. ALL VALVES SHALL BE FULLY ACCESSIBLE.
5. INSTALL WATER HAMMER SHOCK ARRESTORS AT ICE MAKERS, DISHWASHERS. WASHER BOXES, AND AT ALL QUICK CLOSING SOLENOID VALVES. SIZE SHOCK ARRESTORS PER PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I. WH-201. SHOCK ARRESTORS SHALL CONFORM TO ASSE 1010. ACCEPTABLE MANUFACTURERS – SIOUX CHIEF, PRECISION PLUMBING PRODUCTS INC., FOR 1-11 F.U.'S PROVIDE PDI-A, 12-32 F.U.'S PDI-B, 33-60 F.U.'S PDI-C. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
6. ALL FREEZE PROOF WALL HYDRANTS/HOSE BIBS TO BE COORDINATED WITH WALL THICKNESS TO ENSURE PROPER INSTALLATION DEPTH PRIOR TO CONSTRUCTION.
7. PROVIDE ASSE 1024 DUAL CHECK VALVE BACKFLOW PREVENTER AT DISHWASHER, COFFEE, ICE AND TEA MACHINES. WATTS NO. SD-2.
8. PROVIDE LEAD-FREE POINT OF USE THERMOSTATIC MIXING VALVES TMV-1 ASSE 1070 AT HAND SINKS AND/OR PUBLIC LAVATORIES TO TEMPER HOT WATER TO 110°F.
9. ALL COMMERCIAL WATER HEATERS ARE REQUIRED TO HAVE A MIXING VALVE FOR MEANS OF TEMPERING WATER PRIOR TO DISTRIBUTION TO FIXTURES.

REFERENCE NOTES: ⓧ

1. TERMINATE WATER HEATER DRAIN PAN PIPING ABOVE GROUND AT EXTERIOR.
2. ¾" CONDENSATE DRAIN CONNECTION TO AC UNIT. ¾" CONDENSATE DRAIN DOWN.
3. TERMINATE CONDENSATE DRAIN PIPING ABOVE GRADE AT EXTERIOR WITH SCREENED WEATHERPROOF FITTING, SEE DETAIL.



K2 CLUBHOUSE - SANITARY FLOOR PLAN - PLUMBING
1/4" = 1'-0"

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ISSUE HISTORY

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Approval:	BLS/AJB
Date:	04/15/2022
Project #:	5722

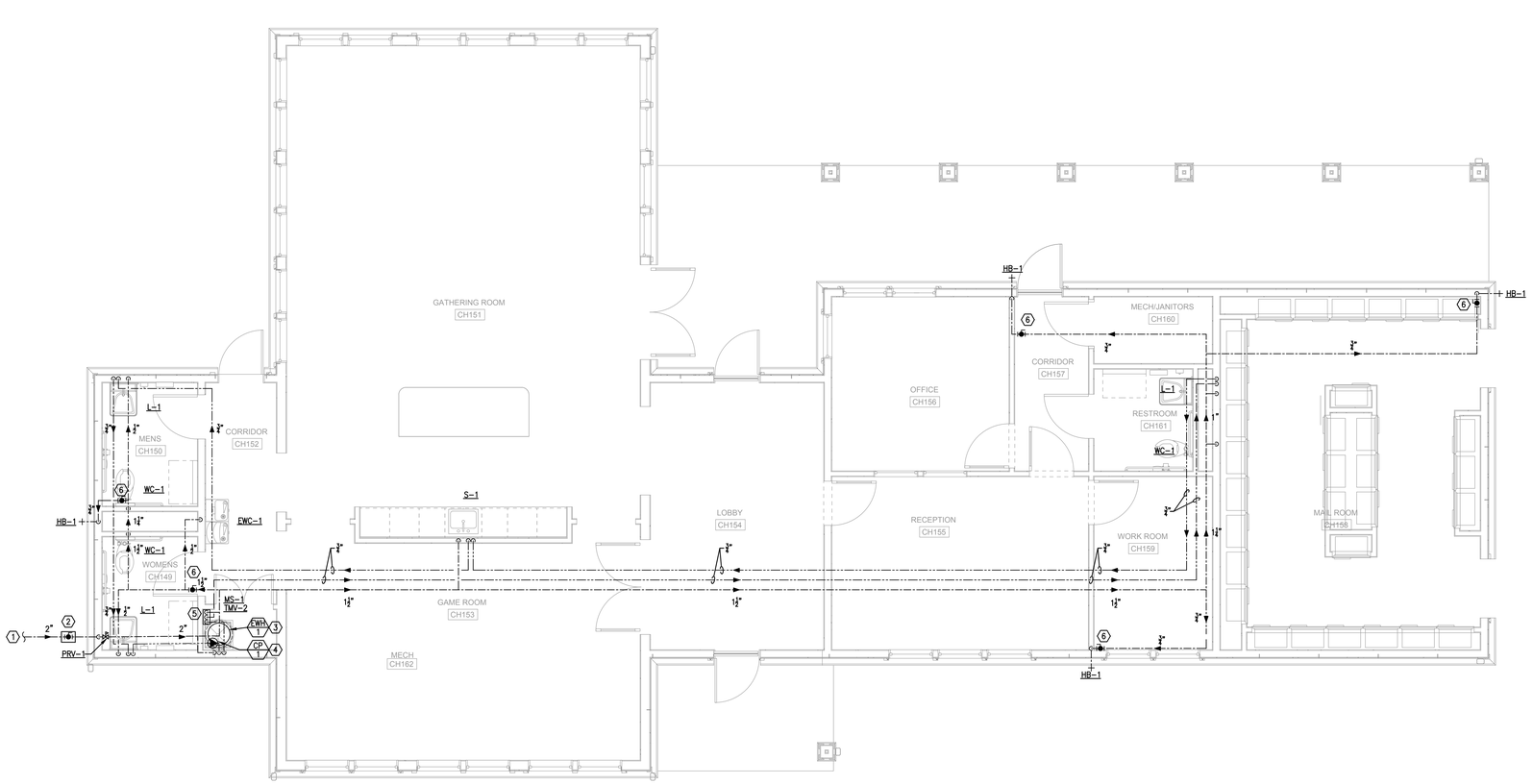
THE MADISON
HUNTSVILLE, AL

CLUBHOUSE SANITARY PLUMBING

CHP2.01

REFERENCE NOTES: ⓧ

1. 2" POTABLE CW SUPPLY BELOW GRADE, FOR CONTINUATION SEE CIVIL DRAWINGS.
2. SHUT-OFF VALVE AND WATER METER IN CAST IRON ACCESS BOX FLUSH WITH PAVEMENT.
3. ELECTRIC WATER HEATER, SEE SCHEDULE & DETAIL.
4. HOT WATER RECIRCULATION PUMP, SEE SCHEDULE & DETAIL.
5. ¾" CW & HW DOWN TO THERMOSTATIC MIXING VALVE TMV-2, ¾" 140°F TEMPERED WATER TO PLUMBING FIXTURES.
6. SHUT-OFF VALVE WITHIN RATED ACCESS PANEL, TYPICAL.



K2 CLUBHOUSE - DOMESTIC WATER FLOOR PLAN - PLUMBING
1/4" = 1'-0"

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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THE MADISON
HUNTSVILLE, AL

CLUBHOUSE
DOMESTIC WATER
PLUMBING

CHP2.02

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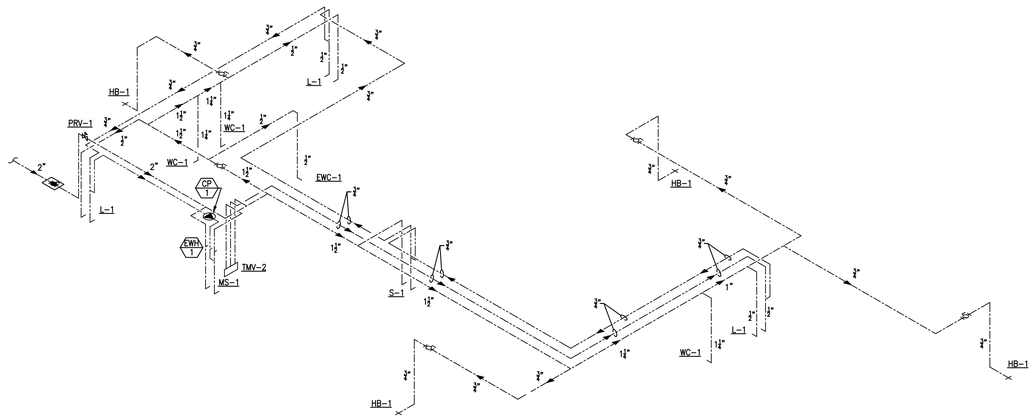
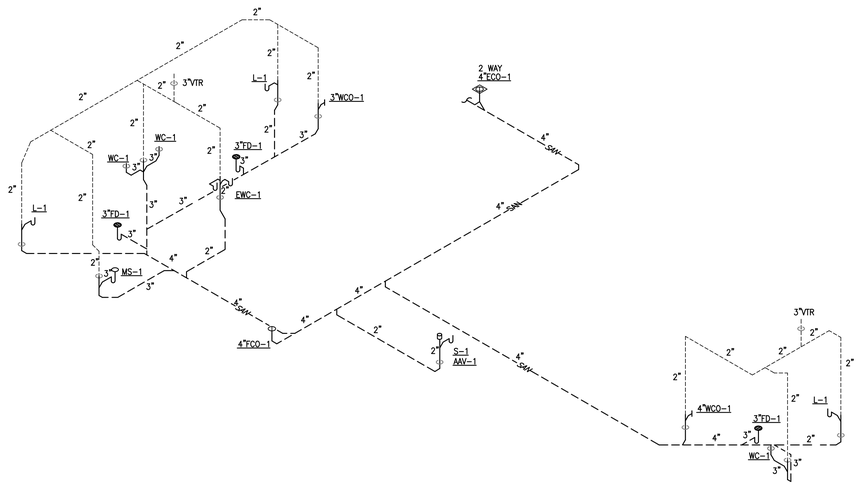


1 CLUBHOUSE - DOMESTIC WATER ISOMETRIC - PLUMBING
NTS



2 CLUBHOUSE - SANITARY ISOMETRIC - PLUMBING
NTS

ISSUE HISTORY

No.	Date	Description
1	04/15/22	Permit Submission

REVISION HISTORY

No.	Date	Description

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Drawn:	MJR/SMB
Checked:	BLS/AJB
Approval:	BLS/AJB
Date:	04/15/2022
Project #:	5722

CLUBHOUSE
ISOMETRIC
PLUMBING

CHP2.03

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GENERAL NOTES:

A. ALL PLUMBING FIXTURES MUST BE REVIEWED AND APPROVED BY THE ARCHITECT/OWNER/BRAND PRIOR TO ORDERING.

B. CONTRACTOR TO VERIFY ALL BATHTUB AND SHOWER SIZES, INCLUDING DRAIN LOCATIONS, WITH ARCHITECT PRIOR TO ORDERING.

C. CONTRACTOR TO VERIFY LAVATORY AND SINK SIZES ARE COORDINATED WITH COUNTERTOPS BEING INSTALLED PRIOR TO ORDERING.

D. CONTRACTOR TO VERIFY ALL PLUMBING EQUIPMENT SELECTED FITS WITHIN DESIGNATED SPACE SHOWN ON PLUMBING PLANS AND PROVIDES REQUIRED CLEARANCE AS LISTED BY MANUFACTURER.

E. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.

PLUMBING SPECIALTIES SCHEDULE - CLUBHOUSE

MARK	FIXTURE	WASTE	TRAP	VENT	COLD WATER	HOT WATER	MANUFACTURER /MODEL #	DESCRIPTION
AAV–1	AIR ADMITTANCE VALVE	–	–	–	–	–	STUDOR TEC–VENT	AUTOMATIC AIR ADMITTANCE VALVE WITH VENTED ACCESS PANEL. LOCATE FULLY ACCESSIBLE.
SA	SHOCK ARRESTOR	–	–	–	–	–	SIOUX CHIEF 650 SERIES	SIZE PER MANUFACTURER'S RECOMMENDATIONS. PDI CERTIFIED. WHA–1: SIZE "A", WHA–2: SIZE "B". SIZE PER PDI METHOD.
WCO–1	WALL CLEANOUT	SEE DWG.	–	–	–	–	ZURN Z1446	CLEANOUT TEE, DURA–COATED CAST IRON BODY, GAS AND WATERTIGHT ABS TAPERED THREAD PLUG, AND ROUND, SMOOTH STAINLESS STEEL WALL ACCESS COVER WITH SECURING SCREW.
ECO–1	EXTERIOR CLEANOUT	SEE DWG.	–	–	–	–	ZURN ZS1400–VP	"LEVEL–TROL" ADJUSTABLE FLOOR CLEANOUT, DURA–COATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND SECURED STAINLESS STEEL ADJUSTABLE TO FINISHED FLOOR WITH VANDALPROOF SCREWS.
FCO–1	FLOOR CLEANOUT	SEE DWG.	–	–	–	–	ZURN ZS1400–VP	"LEVEL–TROL" ADJUSTABLE FLOOR CLEANOUT, DURA–COATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND SECURED STAINLESS STEEL ADJUSTABLE TO FINISHED FLOOR WITH VANDALPROOF SCREWS.
HB–1	HOSE BIBB – BUILDING FREEZE PROOF						ZURN Z1320XL WITH BOX	FREEZE PROOF ANTI–SIPHON WALL FAUCET WITH EXTERNAL VACUUM BREAKER, ALL BRONZE INTERIOR COMPONENTS, VANDAL–RESISTANT OPERATING STEM, ROUGH BRONZE EXTERIOR AND ¾" MALE HOSE CONNECTION, LOOSE KEY HANDLE AND 3⅛" DEEP BOX.
FD–1	FLOOR DRAIN	SEE DWG.	–	–	–	–	ZURN ZN415S–HD–P	DURA–COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND "TYPE S" POLISHED NICKEL BRONZE, SQUARE HEAVY–DUTY STRAINER AND ½" TRAP PRIMER CONNECTION.
TPV–1	TRAP PRIMER VALVE	–	–	–	1/2"	–	PRECISION PLUMBING PRODUCTS PR–500	PROVIDE FULLY ACCESSIBLE SHUT OFF VALVE TO EACH PRIMER VALVE.
TMV–1	MIXING VALVE	–	–	–	1/2"	1/2"	SYMMONS 7–225–CK	THERMOSTATIC CONTROLLER, CHECK STOPS, REMOVABLE CARTRIDGE WITH STRAINER, S.S. PISTON, THERMAL MOTOR. MIN FLOW RATE .5 GPM.
TMV–2	MIXING VALVE	–	–	–	3/4"	3/4"	WATTS LF1170	THERMOSTATIC CONTROLLER, LEAD FREE CAST COPPER SILICON ALLOY BODY CONSTRUCTION, SOLID WAX HYDRAULIC PRINCIPLE THERMOSTAT, INTEGRAL FILTER WASHERS AND CHECK VALVES, ADJUSTMENT CAP WITH LOCKING FEATURE. MIN FLOW RATE .5 GPM.
PRV–1	PRESSURE REGULATING VALVE	–	–	–	SIZE/ SEE DWG.	–	CLA–VAL 90–01	BRONZE BODY AND COVER, ANSI B16.24, GLOBE TPYE, BRONZE DISC GUIDE, SEAT & COVER, BUNA–N RUBBER DISC, NYLON REINFORCED BUNA–N RUBBER DIAPHRAGM, STAINLESS STEEL STEM NUT AND SPRING, STAINLESS STEEL PILOT SYSTEM.

NOTES:

1. ALL PLUMBING FIXTURES SHALL BE SUPPLIED WITH ANGLE STOP SUPPLY RISERS. THIS SHALL INCLUDE ALL WASHING MACHINES, DISHWASHERS & ICE MAKERS.
2. PROVIDE FULLY ACCESSIBLE SHOCK ARRESTORS ON SUPPLIES TO WASHING MACHINES, DISHWASHERS & ICE MAKERS.

PLUMBING FIXTURE SCHEDULE - CLUBHOUSE

MARK	FIXTURE	WASTE	TRAP	VENT	COLD WATER	HOT WATER	MANUFACTURER /MODEL #	DESCRIPTION
WC–1	WATER CLOSET – ADA TYPE	3"	INTEG	2"	1"	–	AMERICAN STANDARD 3351.511 ZURN Z1201–N_3 ZURN Z1201–ND3	WALL MOUNT, FLUSH VALVE – RIM 17" AFF, VITREOUS CHINA, WATER SAVER 1.1 GPF, SIPHON JET, ELONGATED BOWL, BOLT CAPS. COORDINATE FINISH WITH ARCHITECT. AMERICAN STANDARD FLUSH VALVE. SOLID PLASTIC OPEN FRONT ELONGATED SEAT (WHITE) W/S,S, CHECK HINGES. PROVIDE WALL CARRIER. EZCARRY ADJUSTABLE HORIZONTAL HIGH PERFORMANCE SIPHON JET NO–HUB WATER CLOSET CARRIER SYSTEM EZCARRY ADJUSTABLE HORIZONTAL HIGH PERFORMANCE BACK–TO–BACK SIPHON JET NO–HUB WATER CLOSET CARRIER SYSTEM
L–1	LAVATORY – ADA WALL HUNG	2"	1–1/4"	1–1/2"	1/2"	1/2"	AMERICAN STANDARD LUCERNE 0355.012 MOEN ADLER 84603 ZURN Z1231EZ	20"x18" WALL HUNG, VITREOUS CHINA, 4" CENTERS WITH FRONT OVERFLOW. TWO HANDLE LAVATORY FAUCET, 1.2 GPM, POP UP WASTE, P–TRAP AND WALL ARM. BRASSCRAFT ℄ TURN ANGLE STOP SUPPLIES W/SUPPLY TUBES AND ESCUTCHEONS. UNIVERSAL CONCEALED ARM CARRIER SYSTEM WITH ADJUSTABLE UPRIGHTS AND HEADER PLATES.
S–1	SINK (SINGLE BOWL)	2"	1–1/2"	1–1/2"	1/2"	1/2"	AMERICAN STANDARD COLONY 22SB.6252283S.075 MOEN ADLER 87233	25"x22"x6" SINGLE BOWL, 20 GAUGE STAINLESS STEEL, TOP MOUNT SINK. SINGLE LEVER HANDLE PULL DOWN SPRAYER, 1.5 GPM, STAINLESS STEEL FINISH. STAINLESS STEEL STRAINER DRAIN AND TAILPIECE, P–TRAP AND WALL ARM. BRASSCRAFT ℄ TURN ANGLE STOP SUPPLY TUBES & ESCUTCHEONS.
EWC–1	ELECTRIC WATER COOLER HIGH/LOW – INDOOR NO BOTTLE FILLER	2"	1–1/2"	1–1/2"	1/2"	–	ELKAY EZSTL8LC	WALL MOUNTED ADA BI–LEVEL NON–FILTERED REFRIGERATED, LIGHT GRAY GRANITE WATER COOLER. CHILLING CAPACITY OF 8.0 GPH WITH ELECTRONIC FRONT BUBBLER PUSHBAR ACTIVATION. 120V, 5 FLA, 370 WATTS POWER REQUIRED.
MS–1	MOP SINK	3"	3"	1–1/2"	1/2"	1/2"	FIAT MSB 830–AA 832–AA 889–CC TSB–100	24x24 TERRAZZO MOP BASIN. PROVIDE SERVICE FAUCET WITH VACUUM BREAKER, HOSE AND HOSE BUCKET, MOP HANGER AND STAINLESS STEEL DRAIN ASSB.

NOTES:

1. CONTRACTOR TO VERIFY IF THIS PROJECT HAS I.D. DRAWINGS. IF THERE ARE I.D. DRAWINGS THE PLUMBING FIXTURES SELECTED IN THE I.D. PACKAGE OVERRIDE THIS PLUMBING SCHEDULE.
2. COLOR/FINISH OPTIONS SHALL BE SUBMITTED TO THE ARCHITECT/I.D./OWNER PRIOR TO PURCHASE AND INSTALLATION.
3. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS OF ALL FIXTURES.
4. ALL PLUMBING FIXTURES SHALL BE SUPPLIED WITH ANGLE STOP SUPPLY RISERS. THIS SHALL INCLUDE ALL FAUCETS AND TOILETS.

ELECTRIC WATER HEATER SCHEDULE - CLUBHOUSE

MARK	TYPE	GALLONS	INPUT KW	GPH REC. @ 90°F RISE	VOLTAGE/PHASE	OPERATING WEIGHT (LBS.)	DIMENSIONS	SELECTION BASED ON: MANUFACTURER	SELECTION BASED ON: MODEL #	UNIFORM ENERGY FACTOR	NOTES
EWH–1	ELECTRIC	38	4.5	21	208/1ø	418	32"H x 23"ø – LOW BOY	A.O. SMITH OR EQUAL	ENLB–40	.92	1. & 2.

NOTES:
1. PROVIDE T & P VALVE, EXPANSION CONTROL DEVICE, AND 24 GAUGE 1½" DEEP WATER HEATER DRAIN PAN WITH 1" DRAIN CONNECTION. REFER TO DETAIL.
2. COORDINATE WATER HEATER LOCATION AND PIPING WITH MECHANICAL PLANS.

PUMP SCHEDULE - CLUBHOUSE

MARK	LOCATION	GPM	FT HEAD	CONN. SIZE OUTLET	MOTOR DATA HP/WATT	MOTOR DATA VOLTAGE/PHASE	SELECTION BASED ON: MANUFACTURER	SELECTION BASED ON: MODEL	NOTES
CP–1	CLUBHOUSE CIRCULATING PUMP	5	12	3/4"	1/25 HP	120/1ø	GRUNDFOS	UP15–42B7	1. & 2.

NOTES:
1. CIRCULATING PUMP SHALL OPERATE PER FBCE C404.6. PUMP SHALL START ON FLOW OF DEMAND HOT WATER AND BASED ON MAINTAINING LOOP TEMPERATURE OF 104°F.
2. PROVIDE WITH AQUASTAT AND FLOW CONTROL.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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Date:	04/15/2022
Project #:	5722

CLUBHOUSE SCHEDULE PLUMBING

CHP2.04

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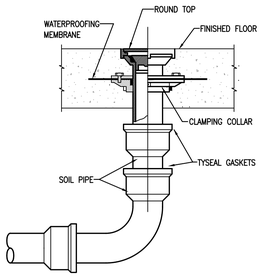
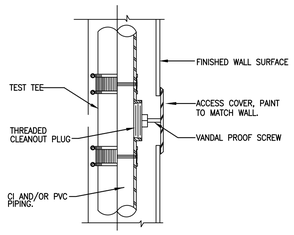
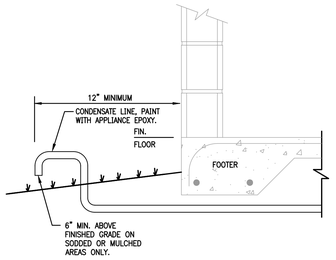


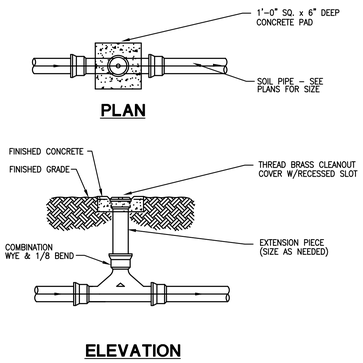
7 NTS FLOOR CLEANOUT



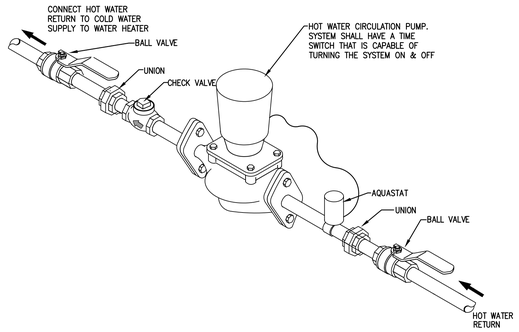
6 NTS WALL CLEANOUT



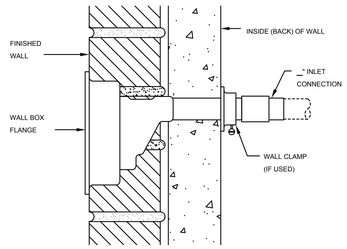
5 NTS CONDENSATE DRAIN TERMINATION DETAIL



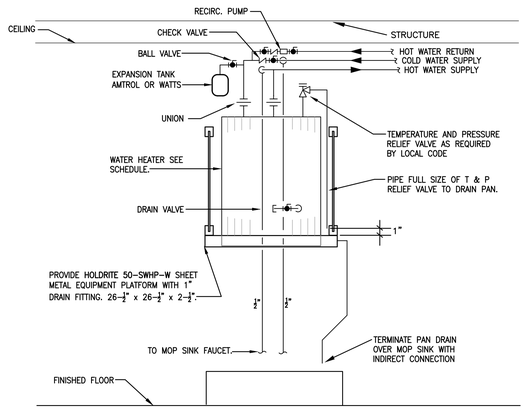
4 NTS TWO-WAY CLEANOUT



3 NTS HOT WATER RECIRCULATING PUMP DETAIL



2 NTS FREEZEPROOF WALL HYDRANT



1 NTS ELECTRIC WATER HEATER DETAIL

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CLUBHOUSE DETAIL PLUMBING

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