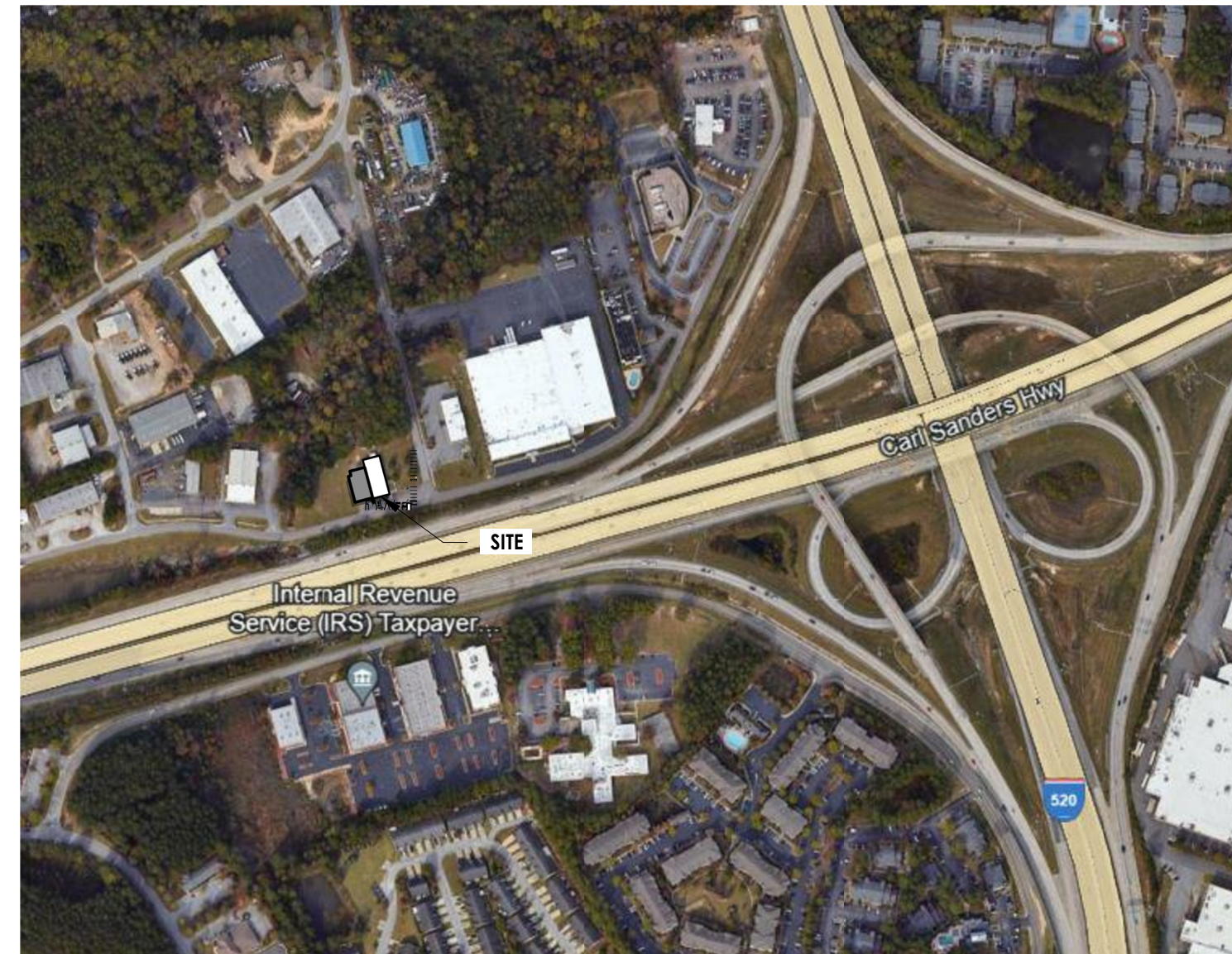


PROPOSED RENOVATION & ADDITION McKNIGHT CONSTRUCTION COMPANY

635 NW FRONTAGE ROAD
AUGUSTA, GEORGIA 30907



PROJECT LOCATION



DRAWING LIST

CS1.0 COVER SHEET
CS1.1 DRAWING LIST, CODE ANALYSIS, PROJECT LOCATION

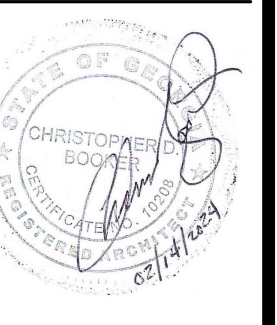
S1.0 GENERAL NOTES
S2.0 FOUNDATION PLAN
S2.1 ROOF FRAMING PLAN
S3.0 STRUCTURAL DETAILS - SHEET 1
S3.1 STRUCTURAL DETAILS - SHEET 2
S3.2 STRUCTURAL DETAILS - SHEET 3

A0.1 LIFE SAFETY PLAN
A1.1 EXISTING/ DEMO FLOOR PLAN
A1.2 EXTERIOR ELEVATIONS EXISTING
A2.0 WALL TYPES
A2.1 FLOOR PLAN PROPOSED
A2.2 CEILING PLAN PROPOSED
A2.3 ROOF PLAN PROPOSED
A2.4 PLAN DETAILS
A3.1 EXTERIOR ELEVATIONS PROPOSED
A3.2 EXTERIOR ELEVATIONS PROPOSED
A4.1 WALL SECTIONS & WALL SECTION DETAILS
A4.2 WALL SECTIONS & WALL SECTION DETAILS
A4.3 WALL SECTIONS & WALL SECTION DETAILS
A4.4 WALL SECTIONS & WALL SECTION DETAILS
A5.1 ENLARGED PLANS & INTERIOR ELEVATIONS
A5.2 INTERIOR ELEVATIONS
A6.0 WINDOW & DOOR CONFIGURATION, DOOR SCHEDULE

M1.0 HVAC PLAN
M2.0 HVAC NOTES & SCHEDULES
M2.1 HVAC DETAILS
M2.2 HVAC SCHEDULES
M2.3 HVAC SPECIFICATIONS

P1.0 WASTE PLAN
P1.1 WATER PLAN
P2.0 PLUMBING NOTES & SCHEDULES
P2.1 PLUMBING SPECIFICATIONS

E1.1 LIGHTING PLAN
E2.1 POWER PLAN
E2.2 MECH POWER PLAN
E3.1 SPECIFICATIONS AND NOTES
E3.2 RISER DIAGRAMS
E3.3 PANEL SCHEDULES



COVER SHEET
DRAWING LIST
PROJECT LOCATION

DRAWN BY: MB
CHECKED BY: CBN
DATE: FEBRUARY 9, 2024

REVISIONS

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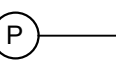


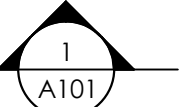
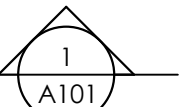
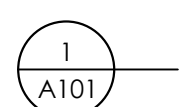
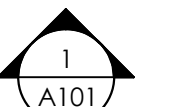

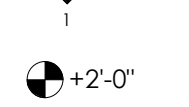
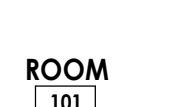


JOB NO. 2254

SHEET NO. CS1.0

ABBREVIATIONS

A/C	AIR CONDITIONING	R	R-VALUE (INSULATION)
ACT	ACOUSTICAL CEILING TILE	RB	RADIUS, RISER, RESILIENT
ADA	AMERICANS WITH DISABILITIES ACT	RCP	REFLECTED CEILING PLAN
A.F.F.	ABOVE FINISH FLOOR	RD	ROOF DRAIN
A.H.U.	AIR HANDLING UNIT	RE	REFERENCE
ALT	ALTERNATIVE	REBAR	REINFORCING BAR
ALUM	ALUMINUM	REF	REFRIGERATOR
ANO	ANODIZED	REQD	REQUIRED
ARCH	ARCHITECTURAL	REV	REVISION
		RM	ROOM
BD	BOARD	RO	ROUGH OPENING
BLDG	BUILDING		
BLKG	BLOCKING	SF	SQUARE FOOT
B/	BOTTOM OF	SF CMU	SPLIT-FACE CMU
BRG	BEARING	SHG	SHEATHING
		SIM	SIMILAR
C.I.P.	CAST IN PLACE	SPECS	SPECIFICATIONS
C.J.	CONTROL JOINT	SS	STAINLESS STEEL
CL	CENTERLINE	STC	SOUND TRANSMISSION CLASS
CLG	CEILING	STD	STANDARD
CMU	CONCRETE MASONRY UNITS	STL	STEEL
CONC.	CONCRETE	STOR	STORAGE
CONT.	CONTINUOUS	STRUC	STRUCTURAL
COORD	COORDINATE	SYS	SYSTEM
		T&G	TONGUE AND GROOVE
DEMO	DEMOLITION	TBD	TO BE DETERMINED
DIA	DIAMETER	THRU	THROUGH
DISP	DISPENSER	TF	TOP OF
DN	DOWN	TV	TELEVISION
DR	DOOR	TYP	TYPICAL
DW	DISHWASHER		
DWG	DRAWING	UL	UNDERWRITERS LABORATORY
		UNO	UNLESS NOTED OTHERWISE
(E)	EXISTING	VB	VINYL BASE
EJ	EXPANSION JOINT	VCT	VINYL COMPOSITION TILE
EL	ELEVATION	VERT	VERTICAL
ELEC	ELECTRICAL	VIF	VERIFY IN FIELD
ELEV	ELEVATOR	W/	WITH
EQ	EQUAL	W/O	WITHOUT
EQUIP	EQUIPMENT	WC	WATER CLOSET
EXIST	EXISTING	WD	WOOD
EXT	EXTERIOR	WF	WIDE FLANGE
		WH	WATER HEATER
FD	FLOOR DRAIN	WRB	WATER RESISTANT BARRIER
FE	FIRE EXTINGUISHER	WWF	WELDED WIRE FABRIC
FEC	FIRE EXTINGUISHER CABINET		
FIN FL.	FINISH FLOOR		
FF & E	FURNITURE FIXTURES & EQUIPMENT		
FIN	FINISH		
FO	FINISH OPENING		
F.O.S.	FACE OF STUD		
FR	FIRE RATED		
FT	FOOT / FEET		
F.V.	FIELD VERIFY		
GA	GAUGE		
GALV	GALVANIZED		
GC	GENERAL CONTRACTOR		
GD	GARBAGE DISPOSAL		
GFCI	GROUND FAULT CIRCUIT INTERRUPTER		
GL	GLASS		
GL BLK	GLASS BLOCK		
GLU LAM	GLUE LAMINATED WOOD		
GYP BD	GYPNUM BOARD		
HC	HOLLOW CORE		
HT	HEIGHT		
HM	HOLLOW METAL		
HORIZ	HORIZONTAL		
HR	HOUR, HANDRAIL		
HVAC	HEATING, VENTILATING & AIR CONDITIONING		
IBC	INTERNATIONAL BUILDING CODE		
INFO	INFORMATION		
INT	INTERIOR		
JAN	JANITOR		
JT	JOINT		
MAINT.	MAINTENANCE		
MATL.	MATERIAL		
MAX.	MAXIMUM		
MECH.	MECHANICAL		
MANUF.	MANUFACTURER		
MIN.	MINIMUM		
MICR.	MICROWAVE		
MISC.	MISCELLANEOUS		
M.O.	MASONRY OPENING		
MIL	METAL		
N.I.C.	NOT IN CONTRACT		
NTS	NOT TO SCALE		
O.C.	ON CENTER		
PT	PAINT		
P.T.	PORCELAIN TILE		
PVC	POLYVINYL CHLORIDE		
QA	QUALITY ASSURANCE		
QT	QUARRY TILE		

SYMBOLS

	Wall Type (see wall types)
	Door Type (see door schedule)
	Window Type (see window configuration)
	Building Section
	Wall Section
	Detail Callout
	Elevation (without line)
	Interior Elevation Mark
	Elevation Mark
	Room Name / Number
	Plan Notes
	Revision Tag

CODE ANALYSIS

APPLICABLE CODES:	
BUILDING CODES:	2018 IBC, WITH GEORGIA AMENDMENTS NFPA 101 LIFE SAFETY 2018 EDITION 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN 2018 IMC, WITH GEORGIA AMENDMENTS 2020 NEC
ACCESSIBILITY CODE:	2018 IFC, WITH GEORGIA AMENDMENTS
MECHANICAL CODE:	2015 IECC, WITH GEORGIA SUPPLEMENTS AND AMENDMENTS
ELECTRICAL CODE:	
PLUMBING CODE:	
ENERGY CODE:	

OCCUPANCY CLASSIFICATION:	
BUSINESS (LSC 2018) CH 38	
B-BUSINESS (IBC 2018)	

TYPE OF CONSTRUCTION:	VB NON-SPRINKLERED
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FIRE RESISTANCE RATINGS FOR BUILDING ELEMENTS: (IBC TABLE 601)

STRUCTURAL	0
BEARING WALLS- EXT.	0
BEARING WALLS- INT.	0
NON-BEARING WALLS	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

BUILDING AREA & HEIGHT: (PER IBC 2018 TABLES 506.2, 504.3, 504.4)

ALLOWABLE BUILDING AREA=	9,000 SQ. FT. PER FLOOR (NO INCREASES CALCULATED)
ALLOWABLE HEIGHT=	40'-0"
ALLOWABLE STORIES=	TWO (2)
ACTUAL BUILDING AREA=	7,785 SQ. FT. PER FLOOR (EXIST. + ADDITION)
ACTUAL HEIGHT=	±20'-0"
ACTUAL STORIES=	ONE (1)

FIRE PROTECTION & SEPARATION REQUIREMENTS:

SHAFT	N/A
STAIRWAYS	N/A
MECH. ROOM	0
STORAGE	0

OCCUPANT LOAD: (NFPA 101 LSC 2018 TABLE A7.3.1.2)

BUSINESS USE:	6,485 SQ. FT. @ 150 GROSS SQ. FT. =	44
CONFERENCE ROOM:	280 SQ. FT. @ 30 GROSS SQ. FT. =	10
BID ROOM:	265 SQ. FT. @ 30 GROSS SQ. FT. =	9
MULTIPURPOSE ROOM:	755 SQ. FT. @ 15 GROSS SQ. FT. =	51
TOTAL OCCUPANCY		114

EGRESS: (NFPA 101 LSC 2018 TABLE A.7.6)

TRAVEL DISTANCE LIMIT:	200'
COMMON PATH LIMIT:	75'
DEAD-END LIMIT:	20' (EXISTING 50')

INTERIOR FINISHES: (NFPA 101 LSC 2018 38.3.3.3)

WALLS & CEILING

EXIT ENCLOSURES AND EXIT PASSAGEWAYS -	CLASS A OR CLASS B
OTHER SPACES -	CLASS A, CLASS B, OR CLASS C

CLASS A: FLAME SPREAD 0-25; SMOKE-DEVELOPED 0-450
CLASS B: FLAME SPREAD 26-75; SMOKE-DEVELOPED 0-450
CLASS C: FLAME SPREAD 76-200; SMOKE-DEVELOPED 0-450

FLOOR

EXIT ENCLOSURES AND EXIT PASSAGEWAYS -	CLASS I OR CLASS II
OTHER SPACES -	CLASS I OR CLASS II

CLASS I:	INTERIOR FLOOR FINISH SHALL BE CHARACTERIZED BY A CRITICAL RADIANT FLUX NOT LESS THAN 0.45 W/cm ² , AS DETERMINED BY THE TESTING DESCRIBED IN 10.2.7.3 (LSC).
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CLASS II:	INTERIOR FLOOR FINISH SHALL BE CHARACTERIZED BY A CRITICAL RADIANT FLUX NOT LESS THAN 0.22 W/cm ² BUT LESS THAN 0.45 W/cm ² , AS DETERMINED BY THE TESTING DESCRIBED IN 10.2.7.3 (LSC).
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PROJECT DIRECTORY

ARCHITECT:	BOOKER + VICK ARCHITECTS
ADDRESS:	670 BROAD STREET AUGUSTA, GEORGIA 30901
PHONE:	(706) 789-6792
FAX:	(706) 789-2836
CONTACT:	CHRIS BOOKER, AIA
EMAIL:	CHRIS@CBARCHITECTSPC.COM

STRUCTURAL ENGINEER:	SLATER ENGINEERING
ADDRESS:	P.O. BOX 56 AUGUSTA, GA 30903
PHONE:	(706) 364-9547
CONTACT:	BRIAN W. SLATER, PE
EMAIL:	BSLATER@SLATERENG.COM

MECHANICAL / PLUMBING ENGINEER:	GREENCO
ADDRESS:	P.O. BOX 56 HARLEM, GA 30814
PHONE:	(706) 565-0405
CONTACT:	JOE GREEN, PE
EMAIL:	GREENCO@AUGUSTA@GMAIL.COM

ELECTRICAL ENGINEER:	CLIFFORD LUSK, PE
PHONE:	(803) 652-7220
CONTACT:	CLIFFORD LUSK, PE
EMAIL:	CLUSKPE@AOL.COM

PROJECT NOTES

GENERAL

- THESE NOTES SUMMARIZE PROJECT INFORMATION, PLANS, AND DETAILS SHALL ALSO BE REFERENCED FOR COMPLETE REQUIREMENTS.
- REFERENCE ARCHITECTURAL PLANS FOR DIMENSIONAL CONTROL.
- REQUIREMENTS GIVEN FOR ONE LOCATION SHALL ALSO APPLY AT OTHER LOCATIONS WITH SIMILAR CONDITIONS, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COORDINATE WORK OF OTHER TRADES WITH STRUCTURAL WORK. SHOP DRAWINGS SHALL BE SUBMITTED WITH ALL INTERFERENCES AND CONFLICTS, NOT RESOLVED BETWEEN DISCIPLINES, NOTED FOR INSTRUCTIONS. ANY CONFLICTS THAT ARISE FROM WORK COMPLETED WITHOUT COORDINATED SHOP DRAWINGS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- DESIGN LOADS
 - A. BUILDING CODE: INTERNATIONAL BUILDING CODE, 2018 EDITION SECTION 2308 - CONVENTIONAL LIGHT FRAME CONSTRUCTION.
 - B. DEAD LOAD
ACTUAL WEIGHT OF MATERIALS USED
 - C. LIVE LOAD
ROOF = 20 PSF
GROUND SNOW LOAD, Pg = 5 PSF
BUILDING CATEGORY: II
 - D. WIND LOAD
BUILDING RISK CATEGORY: II
BASIC WIND SPEED = 115 MPH
WIND EXPOSURE CATEGORY = B
INTERNAL PRESSURE COEFFICIENT, GCp1 = 0.18
 - E. EARTHQUAKE LOAD (EQUIVALENT LATERAL FORCE ANALYSIS)
IMPORTANCE FACTOR, Ie = 1.00
BUILDING RISK CATEGORY = II
Sds = 0.279 Sd1 = 0.153 SITE CLASS D - ASSUMED
SEISMIC DESIGN CATEGORY C

EARTHWORK

- STRIP AND STOCK PILE ALL ORGANIC TOPSOIL PRIOR TO GRADING OPERATIONS OR CONSTRUCTION. TOPSOIL SHALL BE STOCKPILED FOR LATER USE AS INDICATED BY PROJECT SPECIFICATIONS. PROJECT GEOTECHNICAL ENGINEER SHALL VERIFY REMOVAL OF TOPSOIL.
- PROOF ROLL BUILDING AREA AND 10 FEET BEYOND PRIOR TO FILLING OR CONSTRUCTION. AREAS THAT EXHIBIT PUMPING SHALL BE CORRECTED AS INDICATED IN THE PROJECT SPECIFICATIONS.
- EXTREME CARE SHALL BE EXERCISED WHEN EXCAVATING OR GRADING ADJACENT TO EXISTING STRUCTURES OR IMPROVEMENTS SO AS NOT TO DAMAGE OR UNDERMINE FOUNDATIONS, WALLS, SLABS, UTILITIES ETC.
- STRUCTURAL FILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8" THICK AND SHOULD BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AND WITHIN 3% OF OPTIMUM MOISTURE CONTENT. PROJECT GEOTECHNICAL ENGINEER SHALL OBSERVE STRUCTURAL FILL PLACEMENT AND PERFORM COMPACTION TEST ON EACH 5,000 SQUARE FEET OF FILL FOR EACH FILL LAYER. COMPACTION SHALL BE VERIFIED AT THE BOTTOM OF FOOTING PER THE FOLLOWING SCHEDULE:
 - A. ONE TEST FOR EACH SPREAD FOOTING
 - B. ONE TEST FOR EACH 100 LINEAR FEET OF CONTINUOUS FOOTING
- DESIGN SOIL PRESSURE = 2,000 PSF ASSUMED, ALLOWABLE SOIL BORING PRESSURE TO BE CONFIRMED BY GEOTECHNICAL ENGINEER PRIOR TO FOUNDATION PLACEMENT.

CONCRETE

- CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 318-14.
- CONCRETE SHALL BE AS FOLLOWS:

LOCATION	28 DAY STRENGTH	MIN CEMENT CONTENT	SLUMP	MAX AGG SIZE
FOOTINGS	3000 PSI	5.5 BAG/YD	4" ±1"	1 1/2"
SLAB ON GRADE	4000 PSI	6.3 BAG/YD	3" ±1"	¾"
- FLY ASH PER ASTM C618, TYPE C OR F SHALL BE PERMITTED WITHIN THE FOLLOWING LIMITS:
-RATE OF REPLACEMENT SHALL BE 125 TO 15 LBS OF FLY ASH TO 10 LBS OF CEMENT. QUANTITY OF CEMENT REPLACED SHALL BE NO MORE THAN 15%.
- GROUT FOR MASONRY WALLS SHALL COMPLY WITH ASTM-C476. GROUT FOR REINFORCED MASONRY. AGGREGATES SHALL COMPLY WITH ASTM-C404. GROUT SHALL BE "COURSE GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI.
- REINFORCING SHALL COMPLY WITH ASTM-A615, GRADE 60. WELDED WIRE FABRIC (WVF) SHALL BE PER ASTM-A185. WVF LAPS SHALL BE A MINIMUM OF 8". ALL REINFORCING STEEL, DOWELS, ANCHOR BOLTS, INSERTS, ET. SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE. CONCRETE BLOCKS ONLY SHALL BE USED TO SUPPORT REINFORCING (METAL STACKS OR RODS WILL NOT BE PERMITTED). SLAB REINFORCING SHALL BE ADEQUATELY SUPPORTED BY APPROVED CHAIRS TO MINIMIZE SAG.
- FIELD WELDING OR BENDING OF REINFORCING IS NOT PERMITTED EXCEPT AS APPROVED BY THE STRUCTURAL ENGINEER.
- POLYPROPYLENE FIBERS SHALL BE PER ASTM-C1116.
- CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS NOTED OTHERWISE.
- SHOP DRAWINGS FOR CONCRETE, REINFORCING AND EMBEDDED ITEMS SHALL BE SUBMITTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. SHOP DRAWINGS SHALL BE SUBMITTED CONTRACTOR APPROVED.
- CONTRACTOR SHALL NOTIFY ARCHITECT 24 HOURS TO BEGINNING FILL/BACKFILL OPERATIONS AND CONCRETE PLACEMENT. NOTIFICATIONS SHALL BE FOR OBSERVATION OF FORMWORK, REINFORCING AND EMBED ITEMS.
- CONTRACTOR SHALL COORDINATE DEPTH OF FOOTINGS WITH PLUMBING PIPING. FOOTINGS SHALL BE STEPPED TO ALLOWING PIPE TO PASS OVER FOOTING UNLESS PIPING IS A MINIMUM OF 1'-4" BELOW BOTTOM OF FOOTING ELEVATION. FOOTINGS STEPS SHALL BE SHOWN ON SHOP DRAWINGS. TUNNELING UNDER A PREVIOUSLY PLACED FOOTING SHALL NOT BE PERMITTED.

TIMBER

- ALL FRAMING SHALL BE IN ACCORDANCE WITH THE FOLLOWING, IBC 2018, CHAPTER 23-SECTION 2308, AND AFPA NDS-2018.
- ROOF TRUSSES SHALL BE SPACED NO FARTHER THAN 2'-0" O.C.
- PREMANUFACTURED ROOF TRUSSES SHALL BE BRACED PER TRUSS MANUFACTURER REQUIREMENTS, BUT NOT LESS THAN THE FOLLOWING:
 - PERMANENT BRACING:
 - * LATERAL WEB BRACING, 1x4 #3 SPRUCE-PINE-FIR OR BETTER, CONTINUOUS DOWN FULL LENGTH OF BUILDING AT MIDPOINT OF CENTER TWO MEMBERS OF EACH TRUSS. LAPS SHALL CROSS 2 TRUSSES, MINIMUM.
 - * DIAGONAL WEB BRACING, 2x4 #3 SPRUCE-PINE-FIR OR BETTER, AT 45° +/- SPACED AT 12'-0" O.C. DOWN LENGTH OF TRUSS.
 - * LATERAL BOTTOM CHORD BRACING, 2x4 #3 SPRUCE-PINE-FIR OR BETTER, CONTINUOUS DOWN FULL LENGTH OF BUILDING LOCATED AT TRUSS PANEL POINTS (12'-0" O.C. MAXIMUM). LAPS SHALL CROSS 2 TRUSSES, MINIMUM.
 - * DIAGONAL BOTTOM CHORD BRACING, 2x4 #3 SPRUCE-PINE-FIR OR BETTER, ALONG LENGTH OF TRUSS AT 45° +/- AT 20'-0" O.C. AND AT EACH END WALL.
 - TEMPORARY BRACING:
 - * BRACING AS REQUIRED BY MANUFACTURE TO ASSURE SAFETY AND STABILITY DURING CONSTRUCTION.
 - * IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN STABILITY OF STRUCTURE UNTIL CONSTRUCTION IS COMPLETE.
- EXTERIOR SHEATHING TO BE NAILED TO TOP PLATES AND SILL PLATES WITH 0.131 x 2 1/2" COMMON NAILS @ 6" O.C. OR ALL LOAD BEARING STUD WALLS SHALL BE CONSTRUCTED WITH ONE SIMPSON SP1 STUD PLATE TIE AT EACH STUD TO TOE PLATE CONNECTION AND ONE SP2 STUD PLATE TIE AT EACH STUD TO TOP PLATE CONNECTION.
- EXTERIOR WALLS SHALL BE CONSTRUCTED WITH 2x BLOCKING AT ALL JOINTS IN SHEATHING.
- SHEATHING FASTENERS SHALL BE DRIVEN SUCH THAT THEIR HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE SHEATHING.
- ALL CONNECTIONS NOT REFERENCED ON DRAWINGS TO COMPLY WITH IBC 2012, TABLE 2304.9.1.
- ALL FRAMING MEMBERS TO BE SOUTHERN YELLOW PINE NO. 2 DENSE OR BETTER.
- ANY MEMBERS EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.
- ANY FASTENERS OR CONNECTORS EXPOSED TO WEATHER SHALL BE STAINLESS STEEL OR GALVANIZED.
- ALL BOLTED CONNECTIONS TO HAVE 2" φ x 1/8" WASHERS AT BOTH ENDS OF BOLT.
- WALL AND ROOF SHEATHING MATERIAL TO BE STRUCTURAL I GRADE.
- SHOP DRAWINGS SHALL BE SUBMITTED INDICATING TRUSS CONFIGURATION, SPECIES, SPECIES GROUP, SIZES AND STRESS GRADES OF LUMBER TO BE USED, TRUSS SPAN AND SPACING FOR EACH TYPE OF TRUSS, LOADING, ALLOWABLE STRESSES, AND CALCULATIONS. DRAWINGS TO INCLUDE LOCATION AND TYPE OF METAL CONNECTOR PLATES, BEARING, AND FASTENING DETAILS. SHOP DRAWINGS TO BE STAMPED AND SIGNED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION. SHOP DRAWINGS SHALL BE SUBMITTED CONTRACTOR APPROVED.

GENERAL NOTES

DRAWN BY: BWS

CHKD BY:

DATE: FEBRUARY 9, 2024

REVISIONS

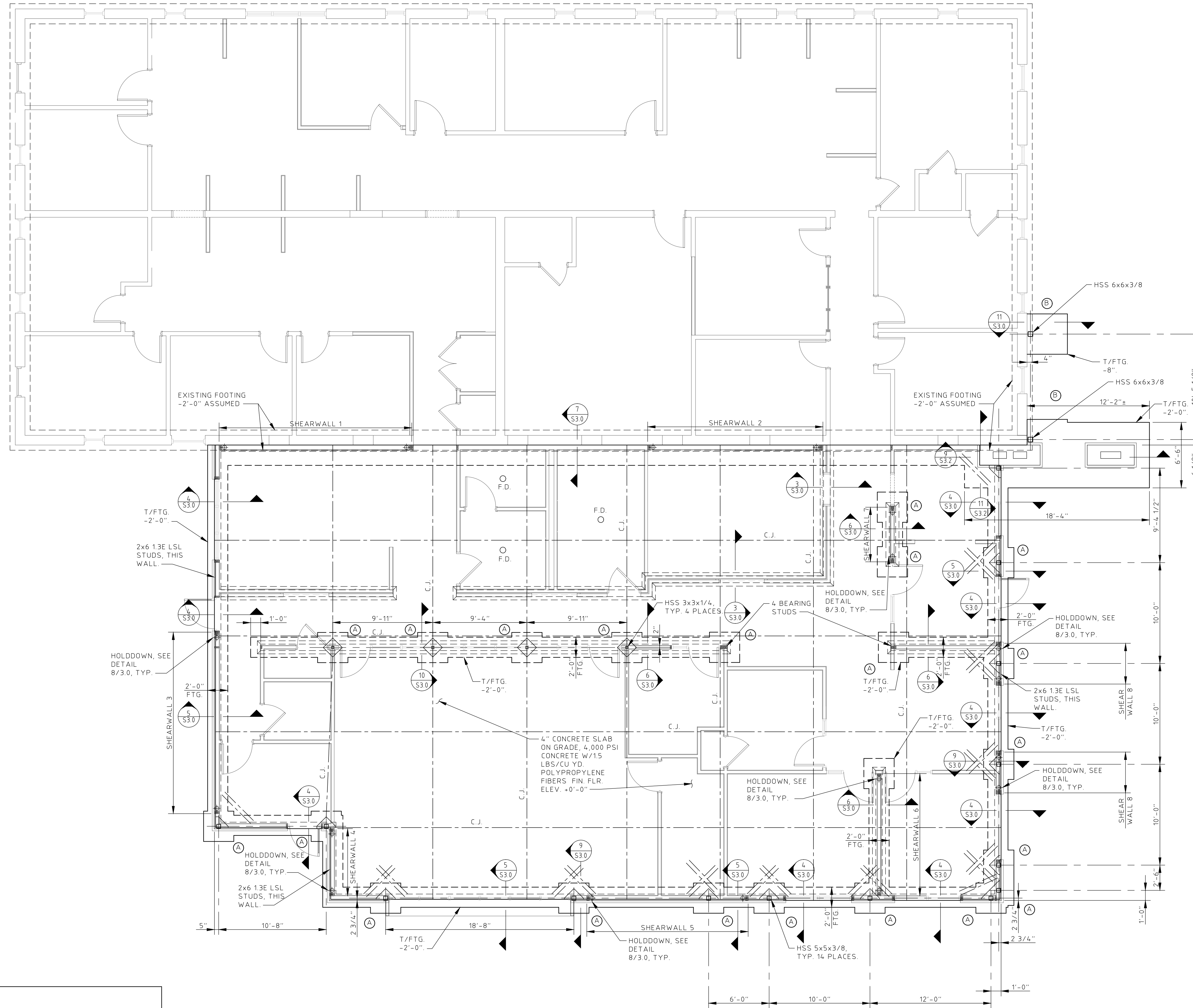
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SHEET NO.

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WALL FRAMING NOTES:
 1) WALL FRAMING SHALL BE 2x6 #2 SPF STUDS @ 16" O.C. W/ 7/16" CDX OR OSB SHEATHING W/ 0.131 (8d) x 2 1/2" COMMON NAILS @ 6" O.C. ALONG EDGES U.O. & @ 12" O.C. IN FIELD. SEE SCHEDULE FOR LOCATIONS REQUIRING EDGE NAILING @ 4" O.C. SPACING. ALL EDGES ARE TO BE BLOCKED.
 2) LOAD BEARING STUD WALLS TO BE ANCHORED TO FOUNDATION WALL WITH 1/2" HOOKED ANCHOR BOLTS AND 3"x3"x1/4" PLATE WASHERS @ 4'-0" O.C. MAX. U.O.
 3) EXTERIOR SHEATHING TO BE NAILED TO TOP PLATES AND SILL PLATES WITH 0.131 (8d)x2 1/2" COMMON NAILS @ 6" O.C. U.O. SEE SCHEDULE FOR LOCATIONS REQUIRING 4" O.C. EDGE SPACING.
 4) ALL FASTENERS, INCLUDING ANCHOR BOLTS, IN CONTACT WITH PRESSURE TREATED WOOD, SHALL BE GALVANIZED OR STAINLESS STEEL TO RESIST THE CORROSIVE EFFECTS.
 5) SEE TYPICAL FRAMING DETAIL 1/S3.1.

BRACING NOTE:
 THIS STRUCTURE IS HIGHLY UNSTABLE UNTIL THE SHEAR WALLS AND ROOF DIAPHRAGM HAVE BEEN CONSTRUCTED AND ALL CONNECTIONS BETWEEN THEM AND OTHER STRUCTURAL ELEMENTS HAVE BEEN COMPLETED. ADEQUATE BRACING TO STABILIZE THE STRUCTURE TO RESIST WIND AND ERECTION LOADING DURING CONSTRUCTION MUST BE MAINTAINED UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN COMPLETELY INSTALLED. CONSTRUCTION BRACING AND SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.

SHEAR WALL SCHEDULE				
MARK	EDGE NAILING	SIMPSON HOLDDOWN	SIMPSON ANCHOR	LENGTH (APPX.)
SW1	8d @ 6" O.C.	DTT2Z	PAB4-36	19'-2"±
SW2	8d @ 6" O.C.	DTT2Z	PAB4-36	17'-5"±
SW3	8d @ 6" O.C.	HDU4-SDS2.5	PAB5-36	18'-0"±
SW4	8d @ 6" O.C.	HDU4-SDS2.5	PAB5-36	6'-8"±
SW5	8d @ 6" O.C.	DTT2Z	PAB4-36	18'-0"±
SW6	8d @ 4" O.C.	HDU5-SDS2.5	PAB5-36	12'-0"±
SW7	8d @ 4" O.C.	HDU5-SDS2.5	PAB5-36	5'-5"±
SW8	8d @ 6" O.C.	HDU5-SDS2.5	PAB5-36	4'-0"±

FOOTING SCHEDULE		
MARK	FOOTING SIZE	REINFORCING
(A)	3'-0" x 3'-0" x 1'-0"	4-#5'S EACH WAY - BOTTOM
(B)	4'-0" x 4'-0" x 2'-0"	4-#5'S EACH WAY - BOTTOM

FOUNDATION AND SLAB PLAN

3/16" = 1'-0"

LEGEND

- C.J. - SEE DETAIL 1/S3.0
- 2-#4x4'-0" BARS @ 4" O.C.
- STEP IN FOOTING SEE DETAIL 3/S3.0
- F.D. - FLOOR DRAIN, SEE ARCH AND PLUMB. DWG'S



SLATER ENGINEERING
 603 WELLESLEY DR.
 AUGUSTA, GA 30909
 706-364-9547

DRAWN BY: BWS

CHKD BY:

DATE: FEBRUARY 9, 2024

REVISIONS

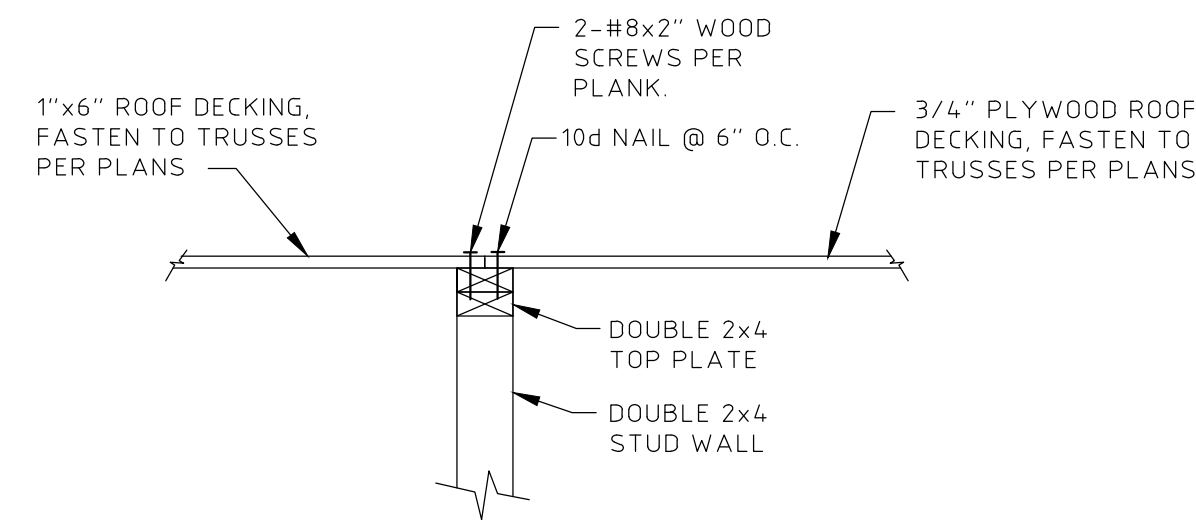
0 ISSUED FOR PERMIT 02/09/2024

FOR NO.

2254

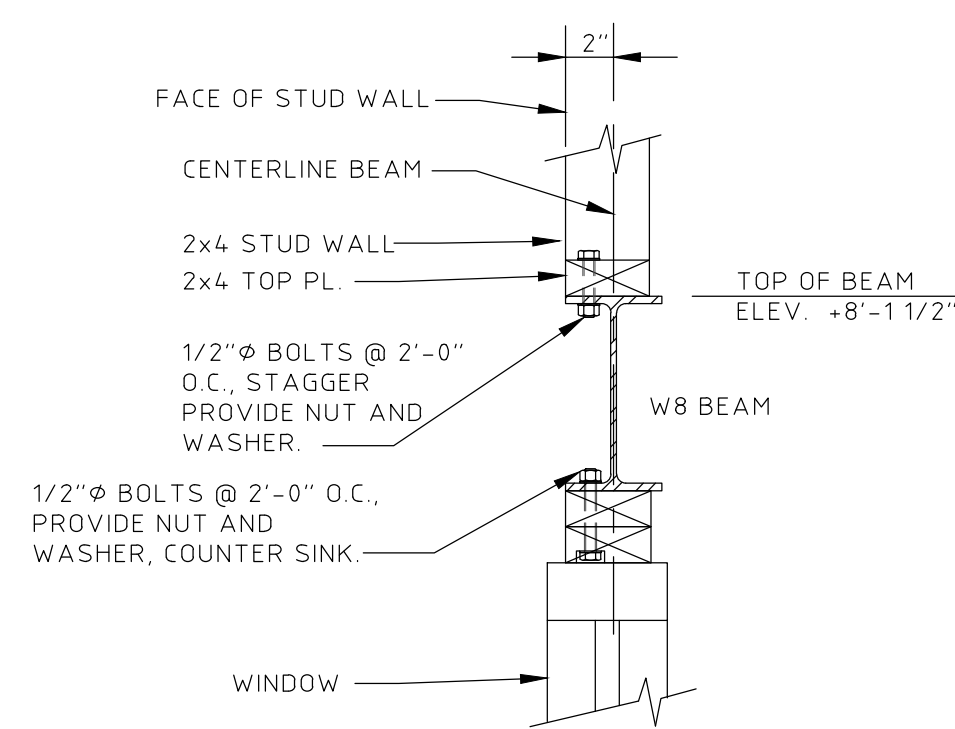
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S2.0



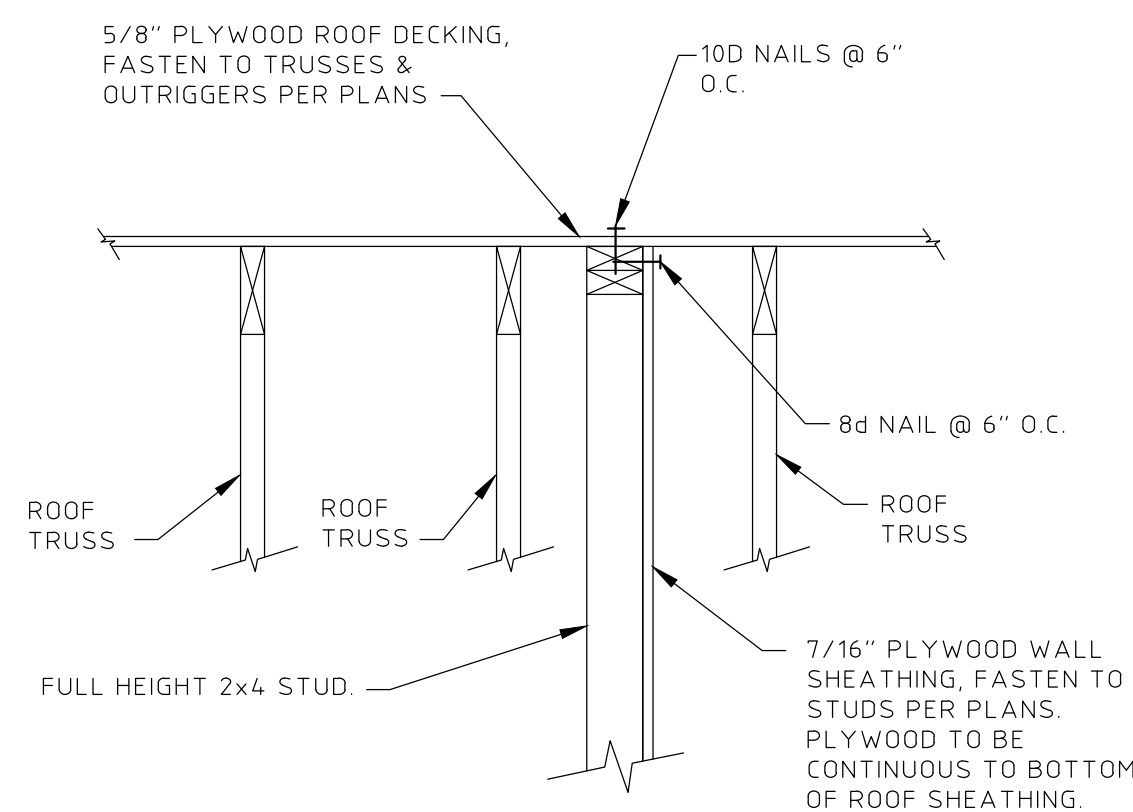
SECTION
NOT TO SCALE

1
S21



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

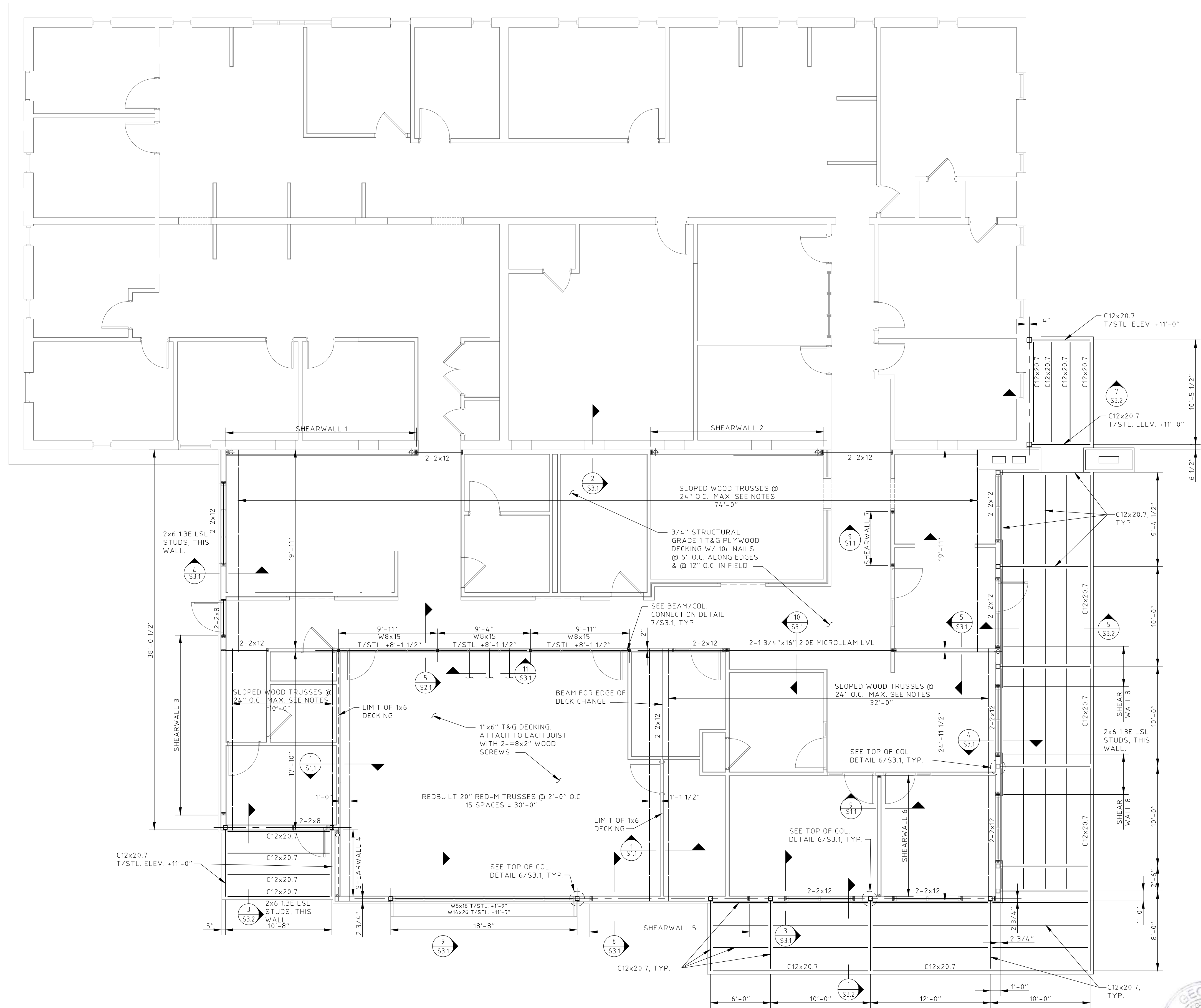
5
S21



SECTION
SCALE 1" = 1'-0"

NOTE: ALL CONNECTIONS NOT SPECIFICALLY REFERENCED ON THE DRAWINGS SHALL COMPLY WITH IBC 2018, TABLE 2304.10.1

9
S21



WALL FRAMING NOTES:
 1) WALL FRAMING SHALL BE 2x6 #2 SPF STUDS @ 16" O.C. W/ 7/16" CDX OR OSB SHEATHING W/ 0.131 (8d) x 2 1/2" COMMON NAILS @ 6" O.C. ALONG EDGES U.N.O. & @ 12" O.C. IN FIELD. SEE SCHEDULE FOR LOCATIONS REQUIRING EDGE NAILING @ 4 O.C. SPACING. ALL EDGES ARE TO BE BLOCKED
 2) LOAD BEARING STUD WALLS TO BE ANCHORED TO FOUNDATION WALL WITH 1/2" HOOKED ANCHOR BOLTS AND 3"x3"x1/4" PLATE WASHERS @ 4'-0" O.C. MAX. U.N.O.
 3) EXTERIOR SHEATHING TO BE NAILED TO TOP PLATES AND SILL PLATES WITH 0.131 (8d) x 2 1/2" COMMON NAILS @ 6" O.C. U.N.O. SEE SCHEDULE FOR LOCATIONS REQUIRING 4" O.C. EDGE SPACING.
 4) ALL FASTENERS, INCLUDING ANCHOR BOLTS, IN CONTACT WITH PRESSURE TREATED WOOD, SHALL BE GALVANIZED OR STAINLESS STEEL TO RESIST THE CORROSIVE EFFECTS.
 5) SEE TYPICAL FRAMING DETAIL 1/S3.1.

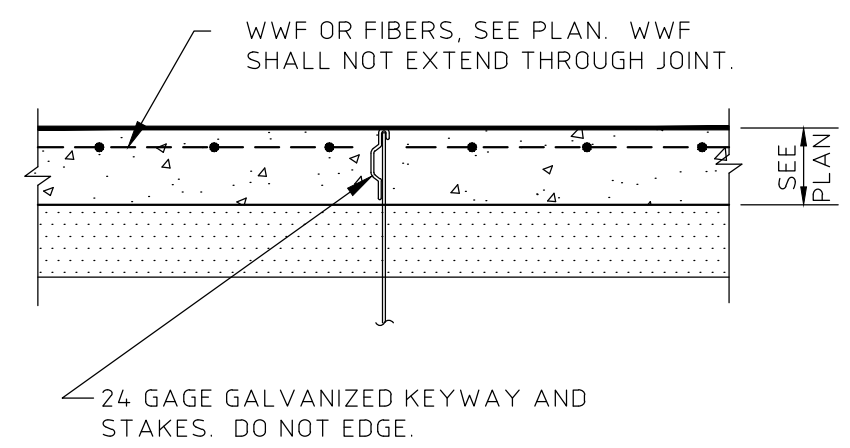
BRACING NOTE:
 THIS STRUCTURE IS HIGHLY UNSTABLE UNTIL THE SHEAR WALLS AND ROOF DIAPHRAGM HAVE BEEN CONSTRUCTED AND ALL CONNECTIONS BETWEEN THEM AND OTHER STRUCTURAL ELEMENTS HAVE BEEN COMPLETED. ADEQUATE BRACING TO STABILIZE THE STRUCTURE TO RESIST WIND AND ERECTION LOADING DURING CONSTRUCTION MUST BE MAINTAINED UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN COMPLETELY INSTALLED. CONSTRUCTION BRACING AND SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.

ROOF FRAMING PLAN
3/16" = 1'-0"

TRUSS NOTES:
 1) EACH ROOF TRUSS SHALL BE FASTENED TO SUPPORT WITH 1-SIMPSON H10A HURRICANE TIE, UNLESS NOTED OTHERWISE.
 2) ROOF TRUSSES ARE TO HAVE BOTH TEMPORARY AND PERMANENT BRACING PER MANUFACTURER'S REQUIREMENTS.
 3) ROOF TRUSSES AND TRUSS CONNECTIONS SHALL BE DESIGNED FOR THE FOLLOWING LOADS:
 TOP CHORD LIVE LOAD = 20 PSF
 TOP CHORD DEAD LOAD = 15 PSF
 BOTTOM CHORD DEAD LOAD = 10 PSF
 PARAPET WIND LOADS = 32 PSF
 4) SLOPE TOP OF TRUSS, SEE ARCH DRAWINGS.

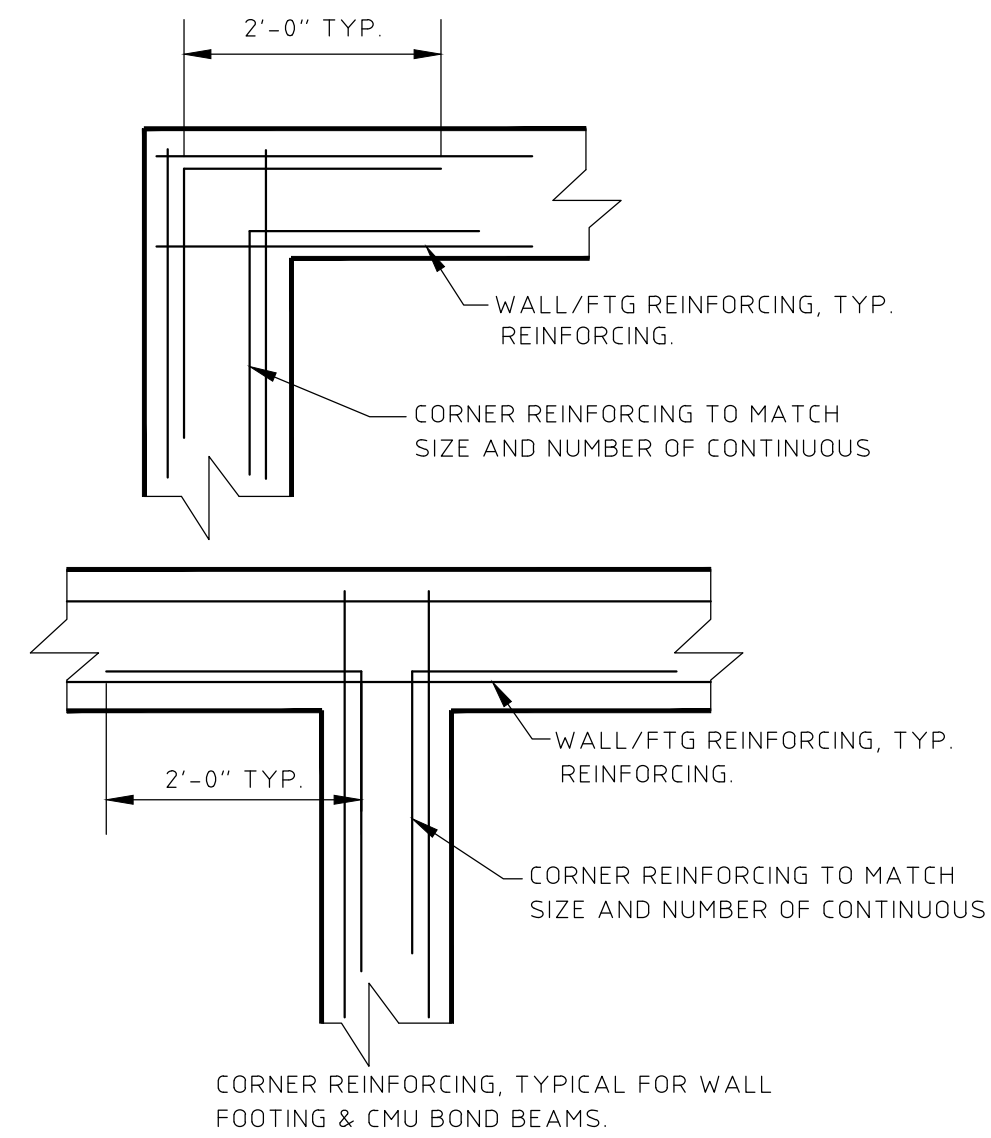


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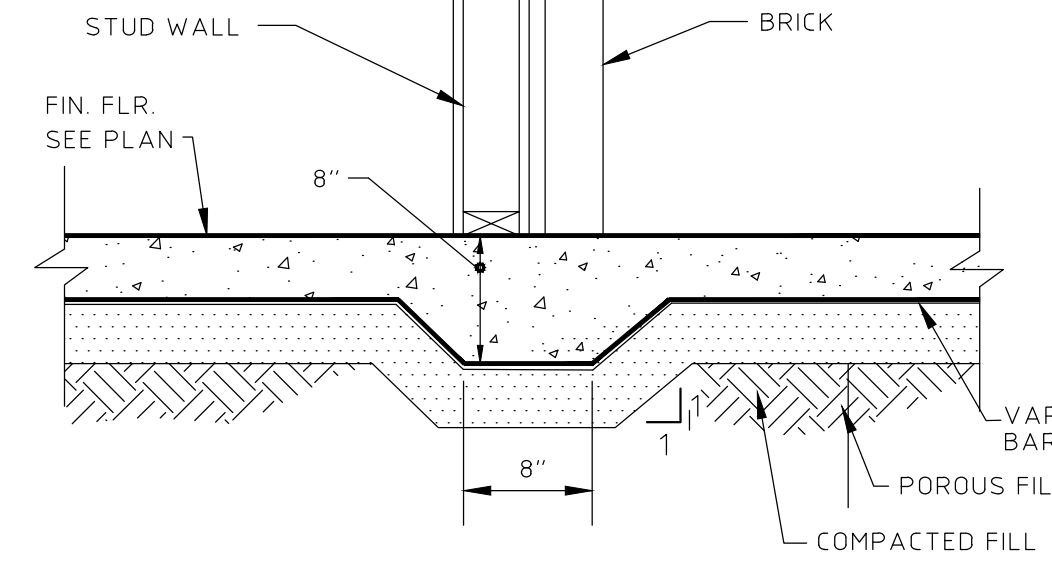
DETAIL
NOT TO SCALE

1
S3.0



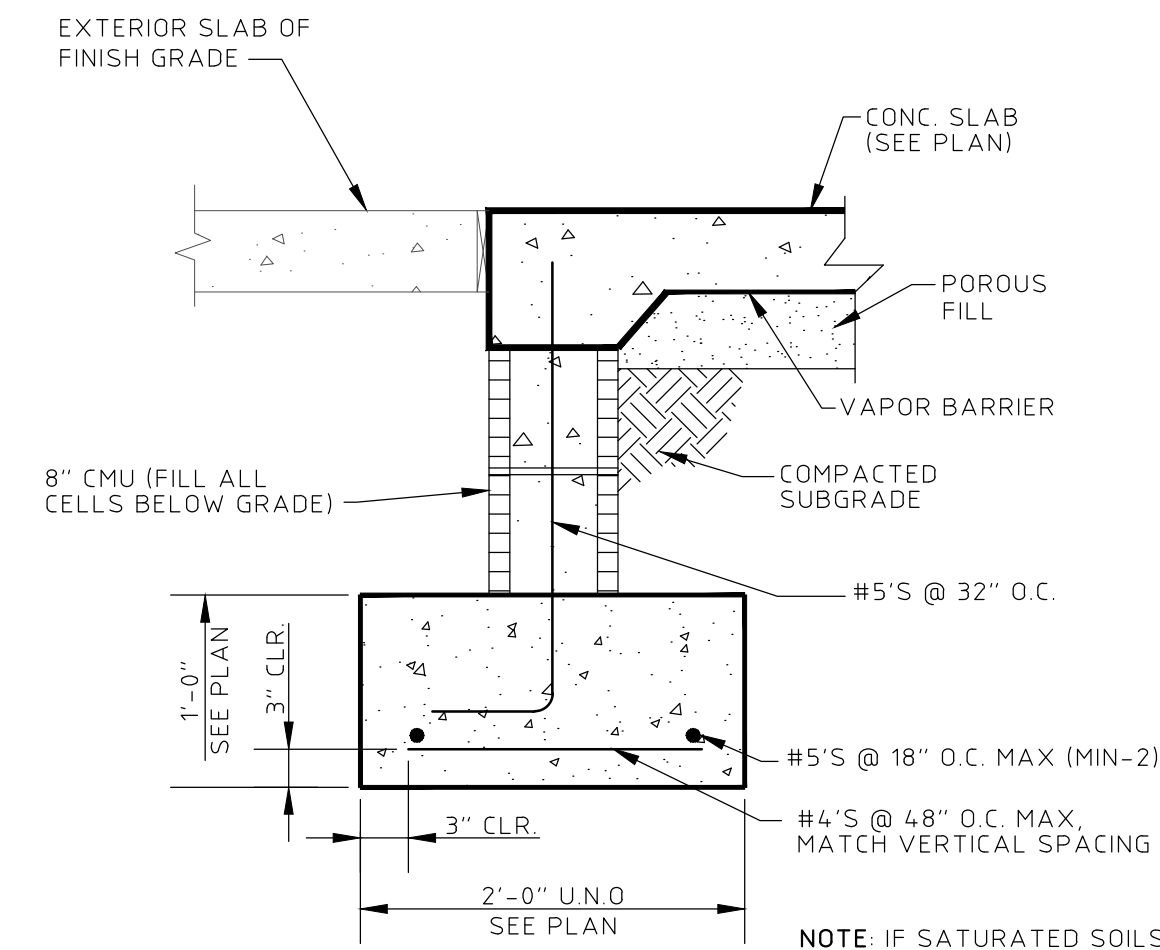
DETAIL
NOT TO SCALE

2
S3.0



SECTION
1"=1'-0"

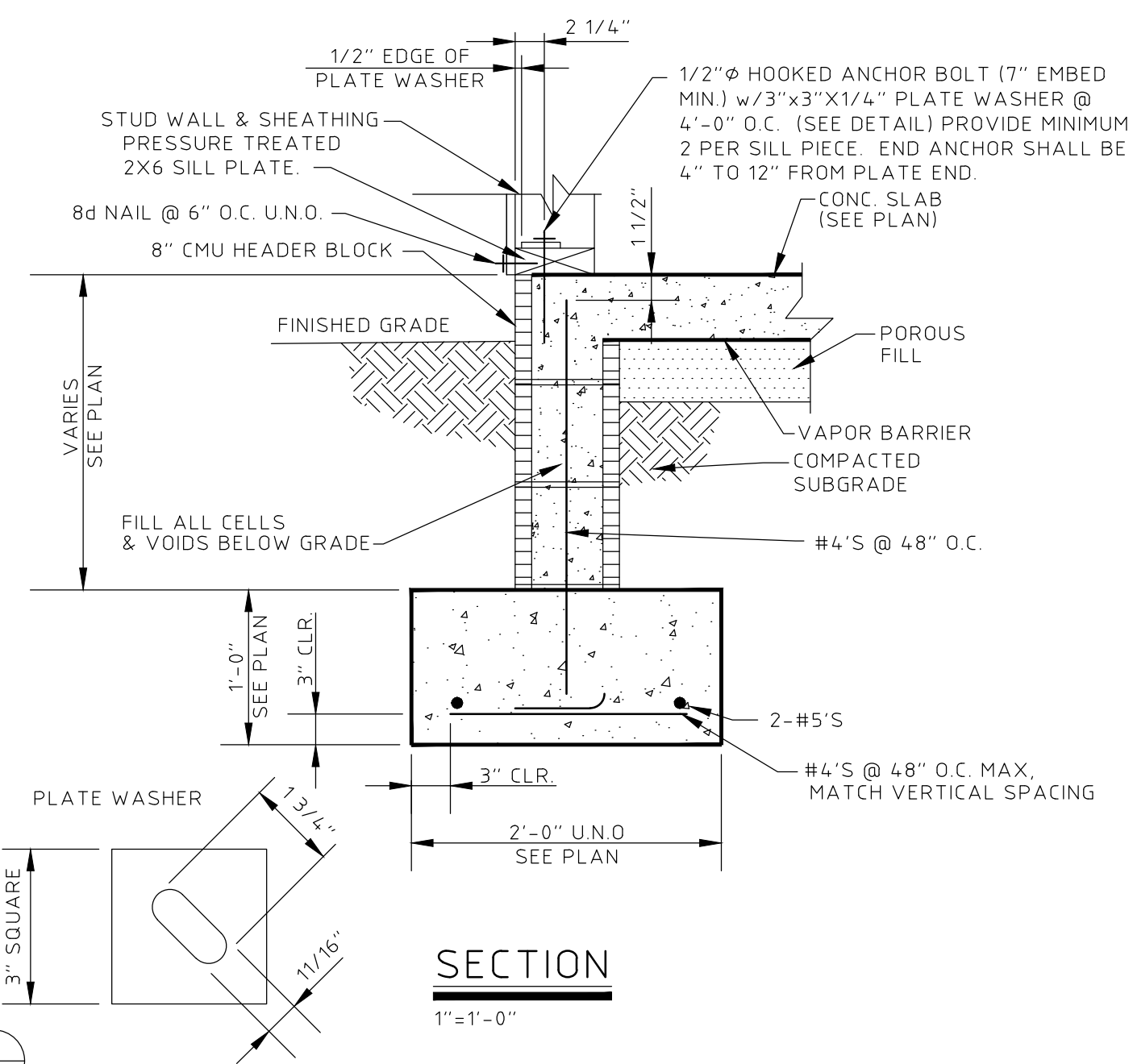
3
S3.0



SECTION
NO SCALE

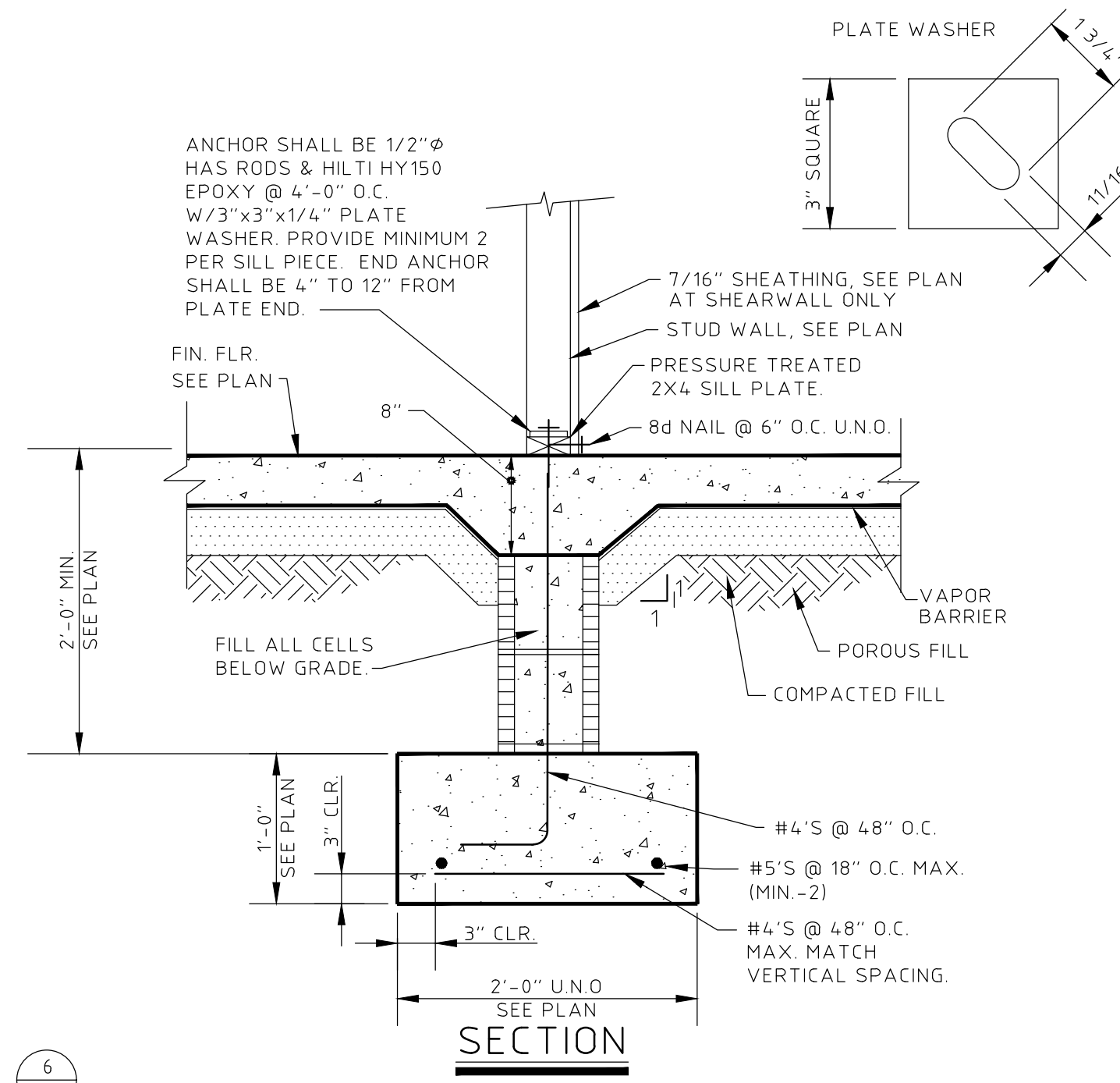
4
S3.0

NOTE: IF SATURATED SOILS ARE ENCOUNTERED AT THE BOTTOM OF FOOTING ELEVATION, OVER-EXCAVATE 6"-12" AND BACK FILL WITH NO. 57 STONE.



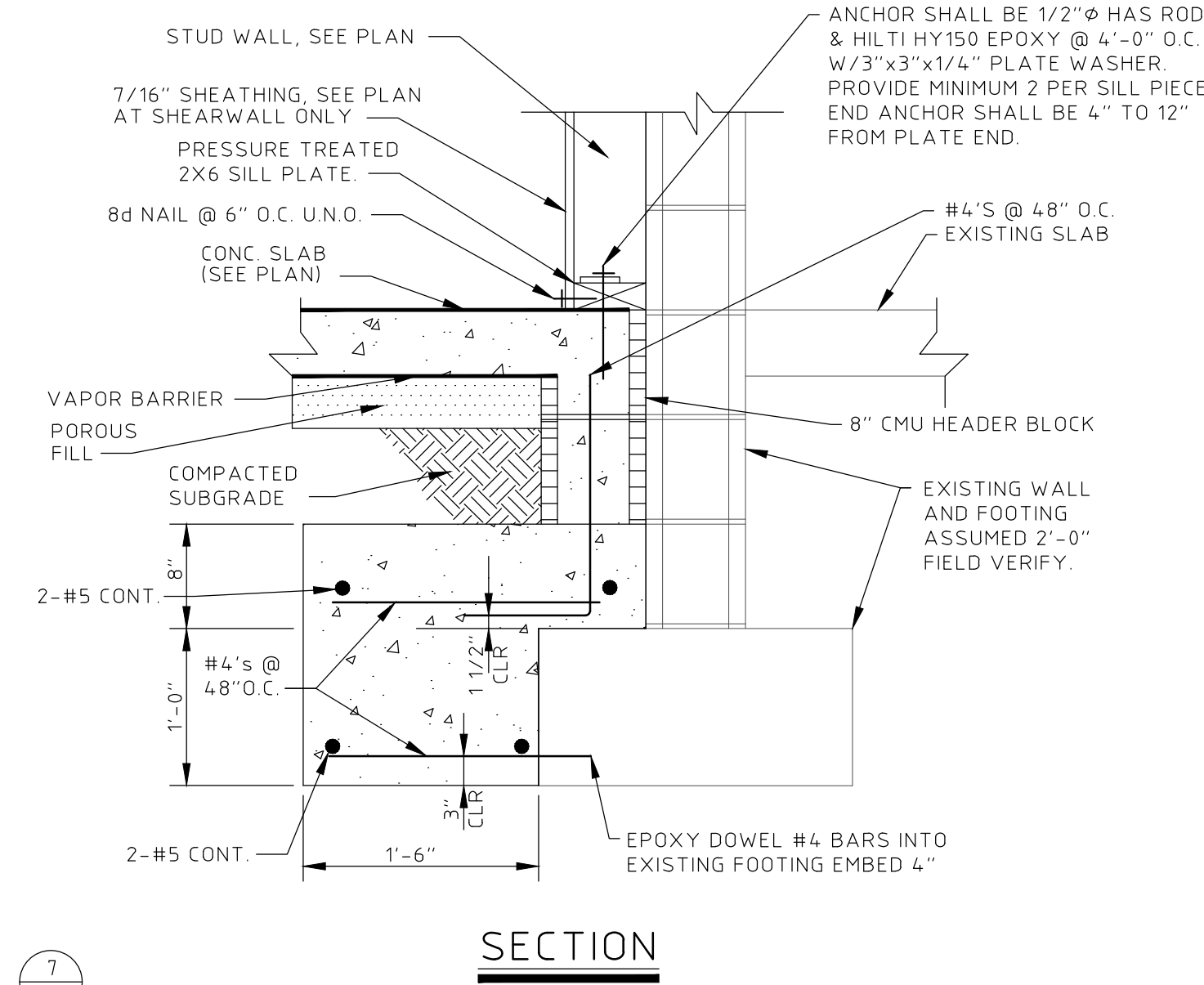
SECTION
1"=1'-0"

5
S3.0



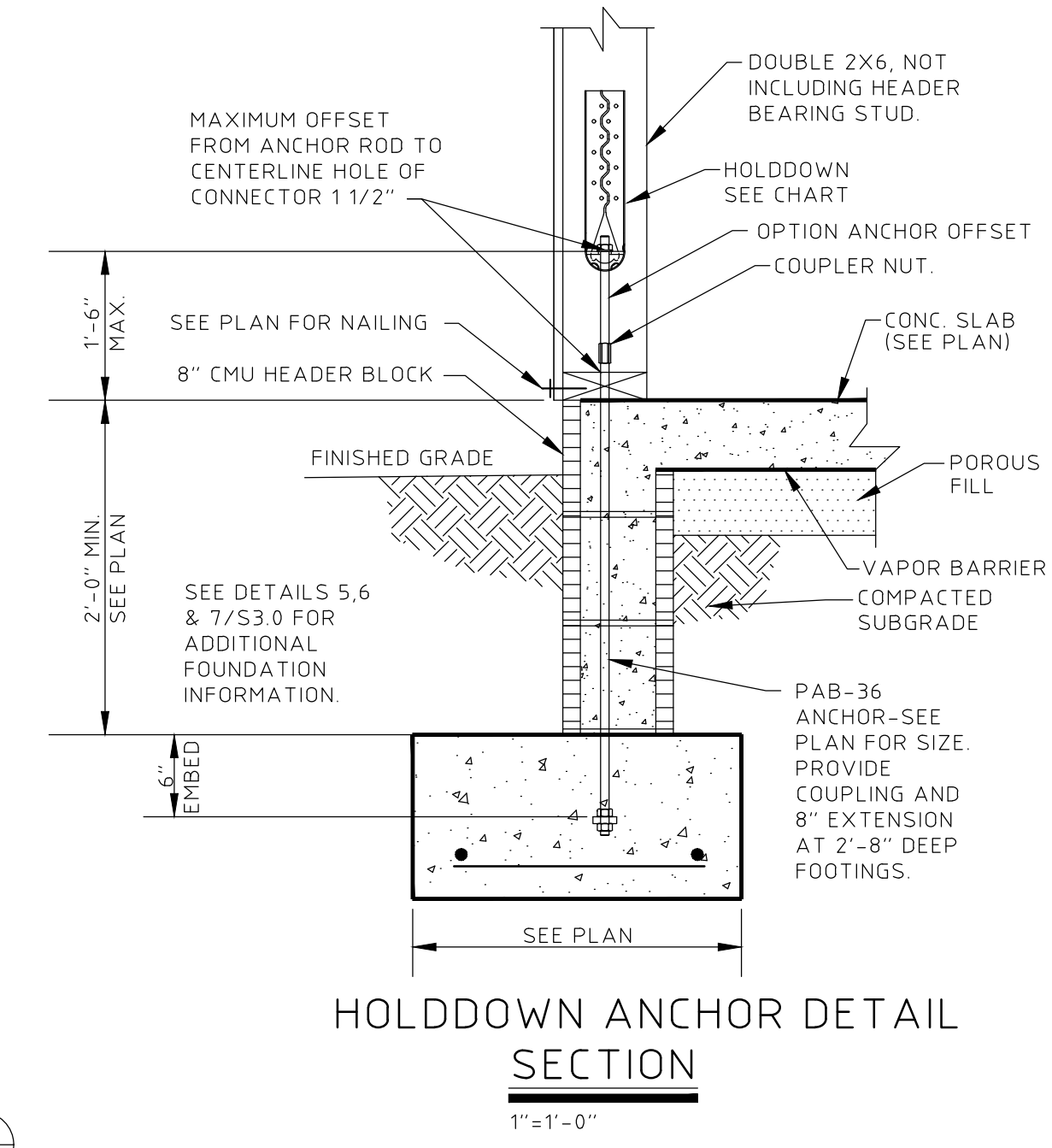
SECTION
1"=1'-0"

6
S3.0



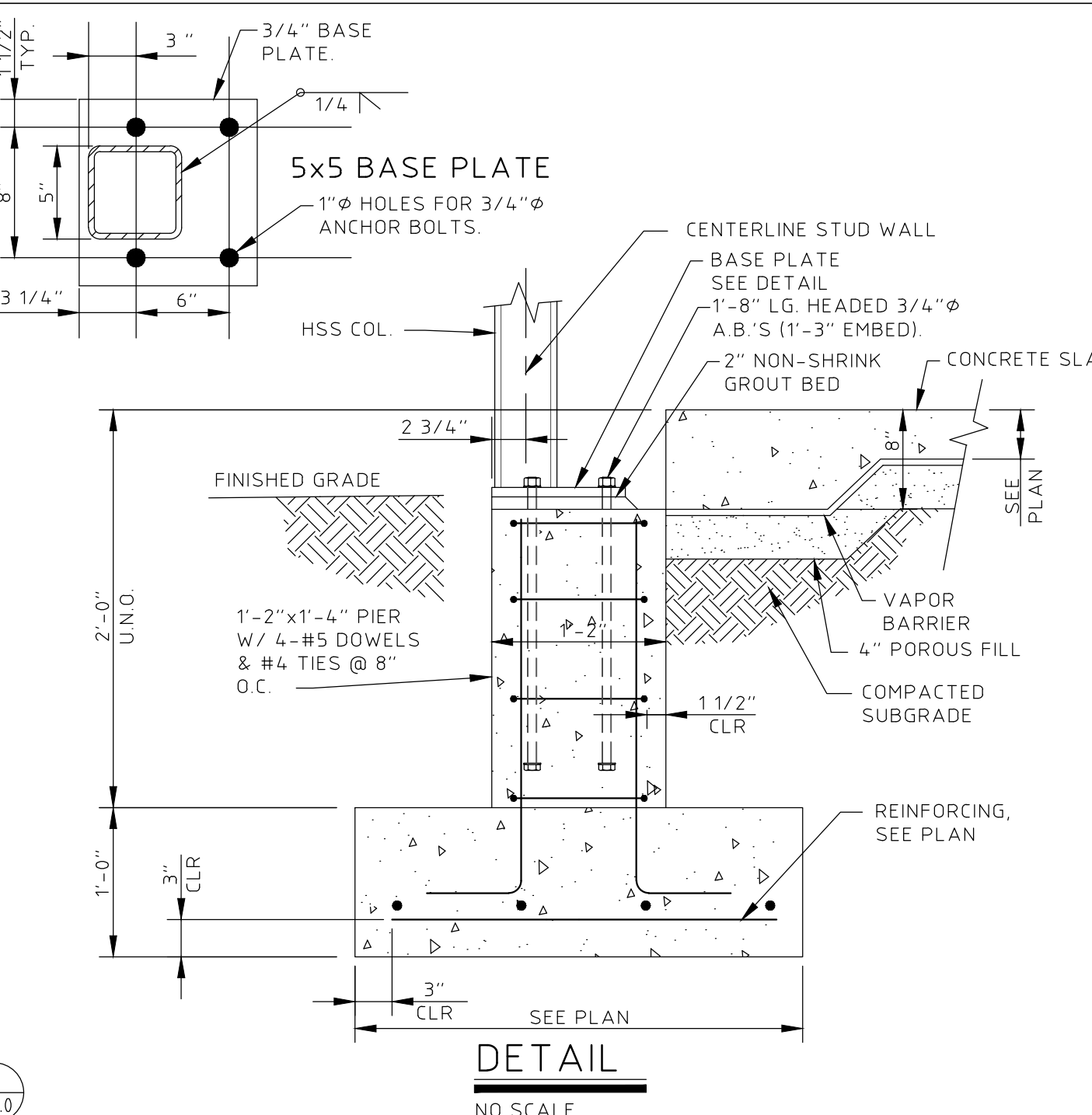
SECTION
1"=1'-0"

7
S3.0



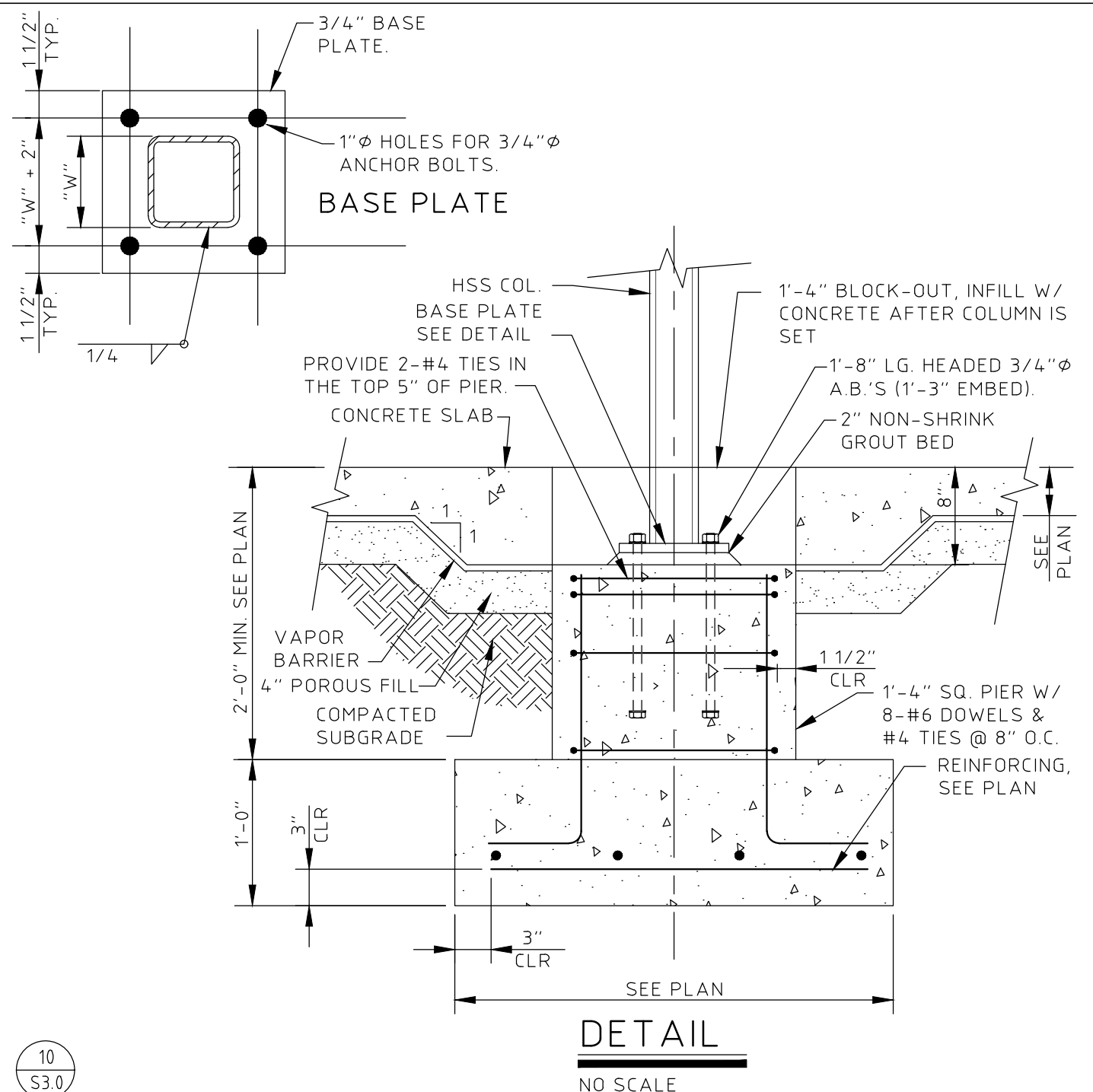
HOLDDOWN ANCHOR DETAIL SECTION
1"=1'-0"

8
S3.0



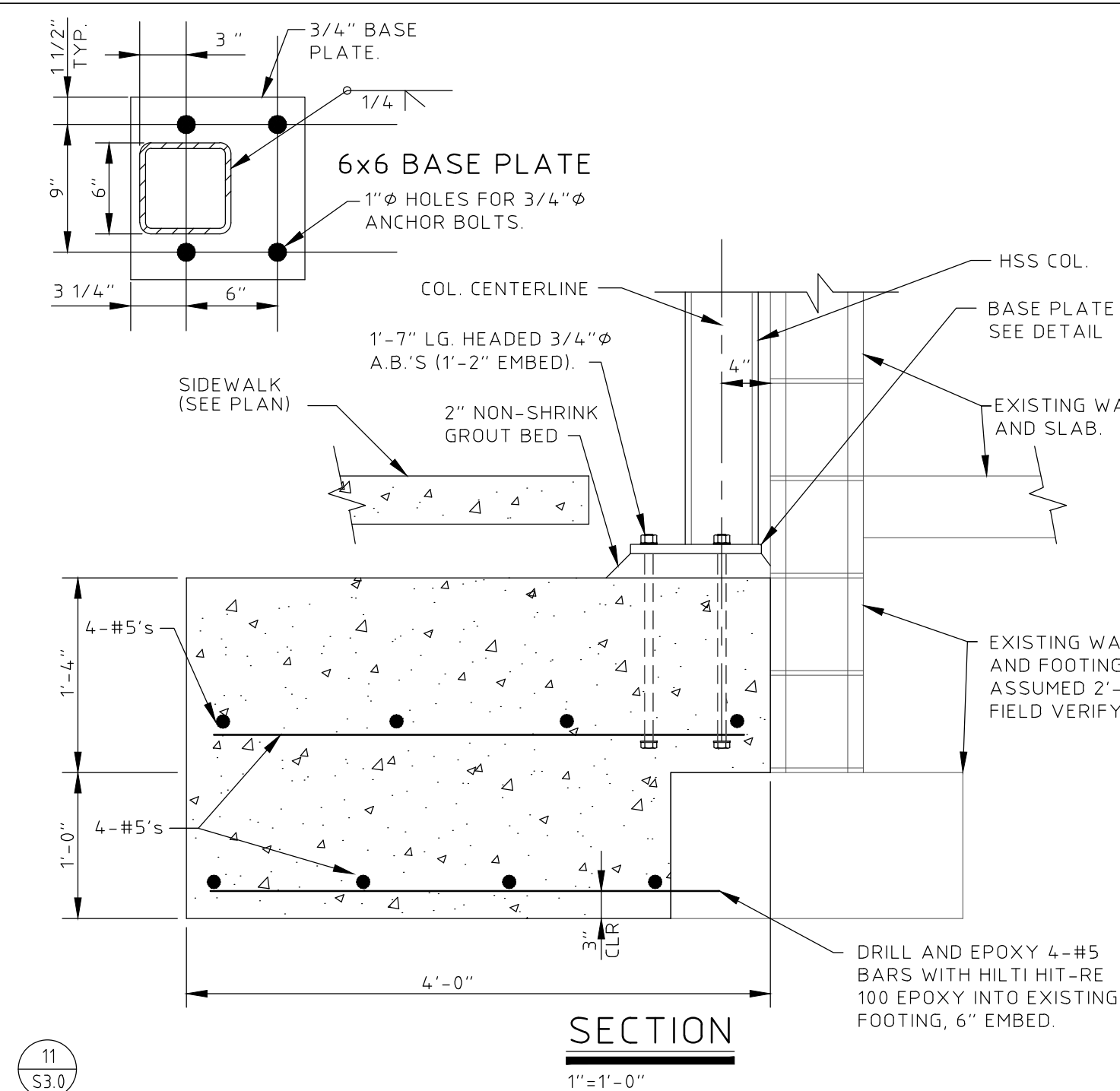
DETAIL
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9
S3.0



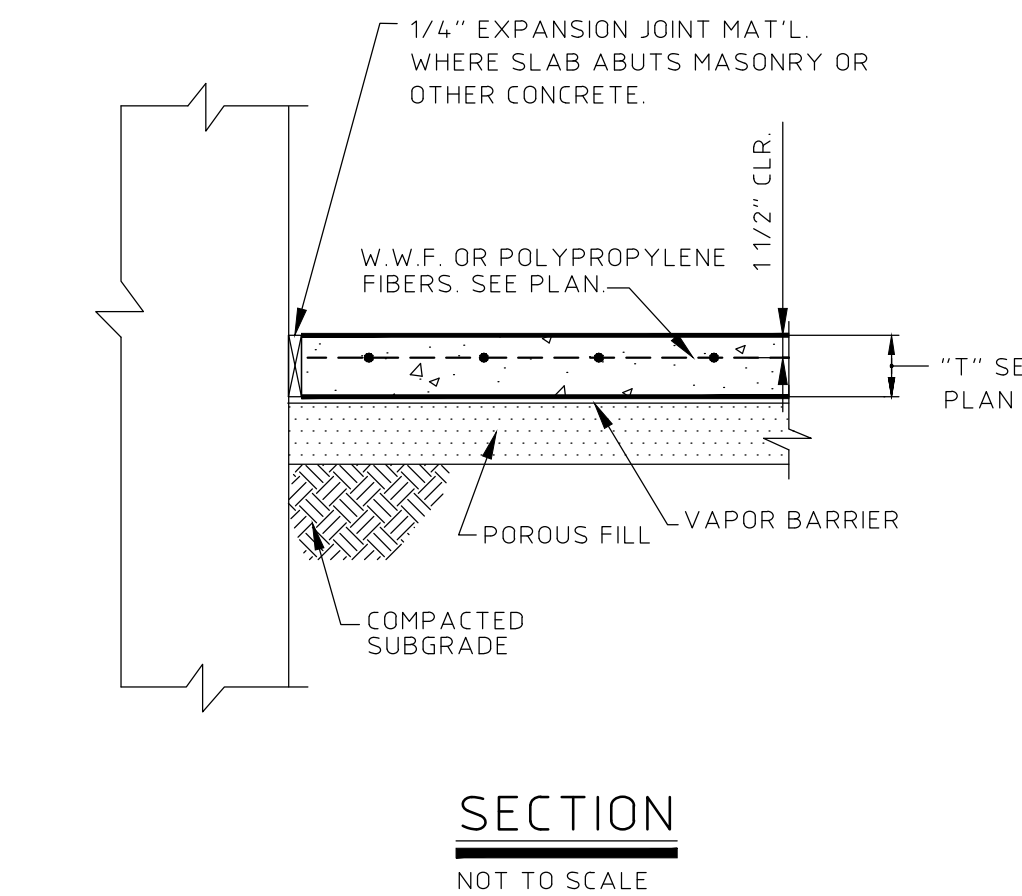
DETAIL
NO SCALE

10
S3.0



SECTION
1"=1'-0"

11
S3.0

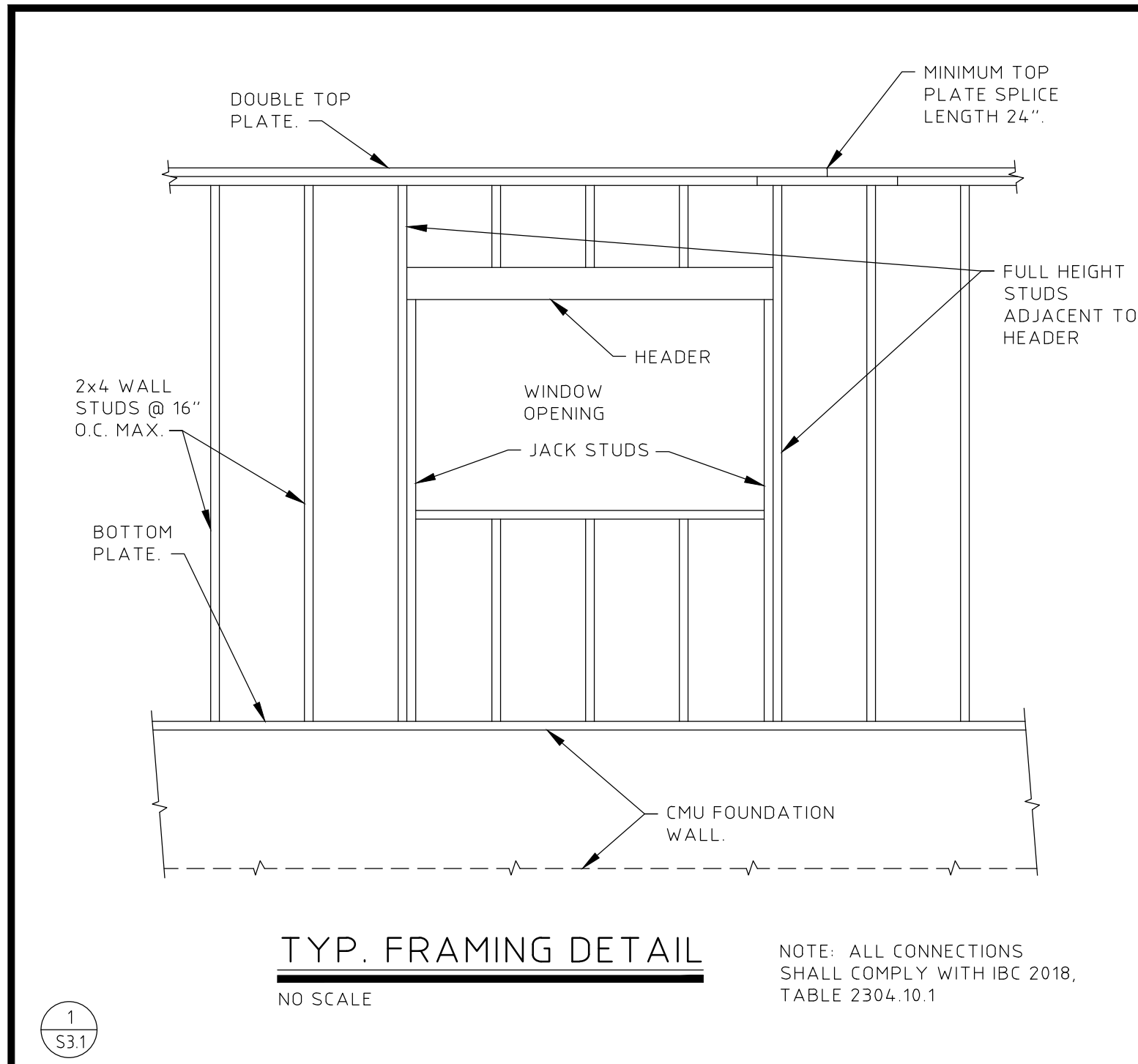


SECTION
NOT TO SCALE

12
S3.0

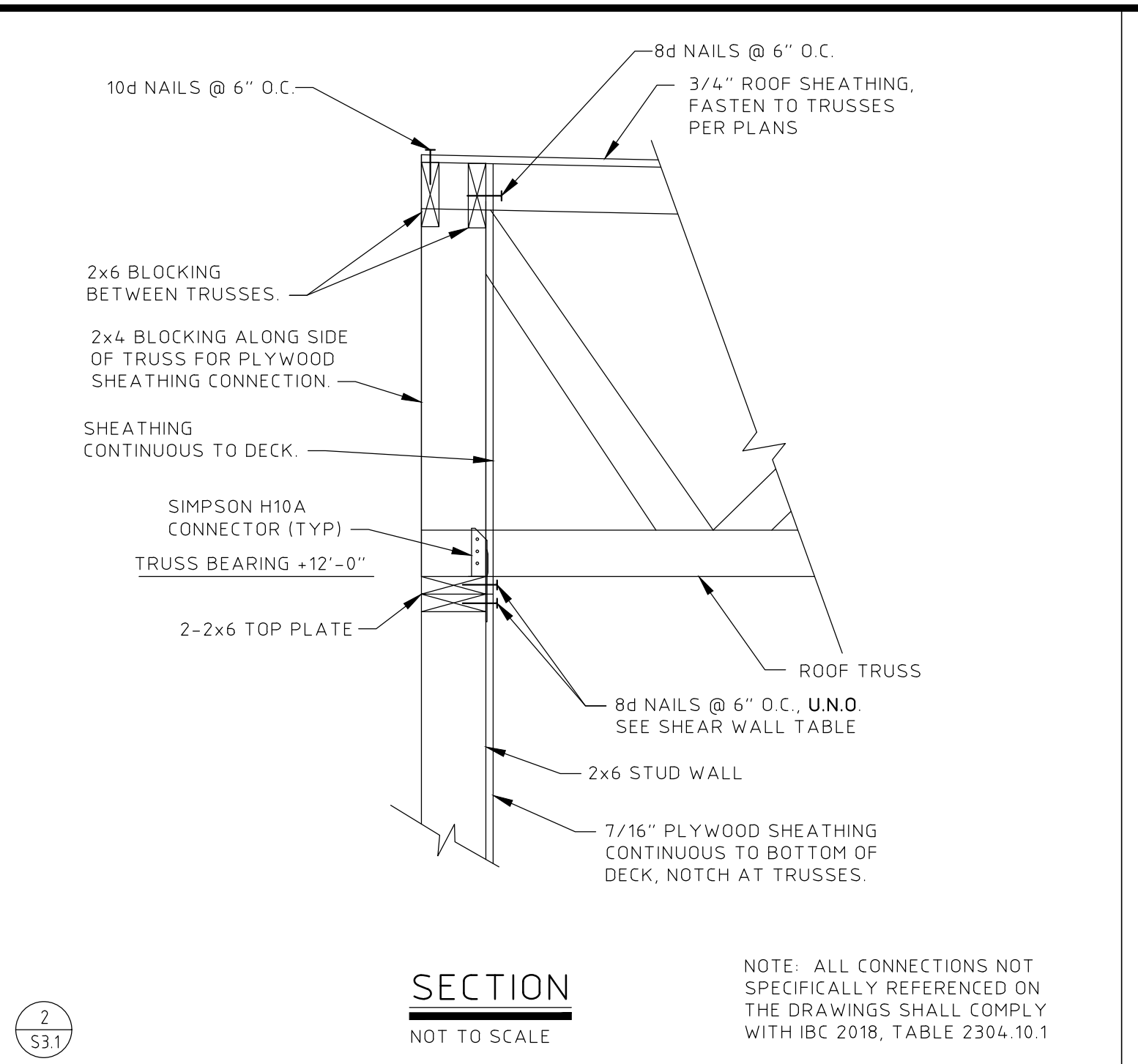
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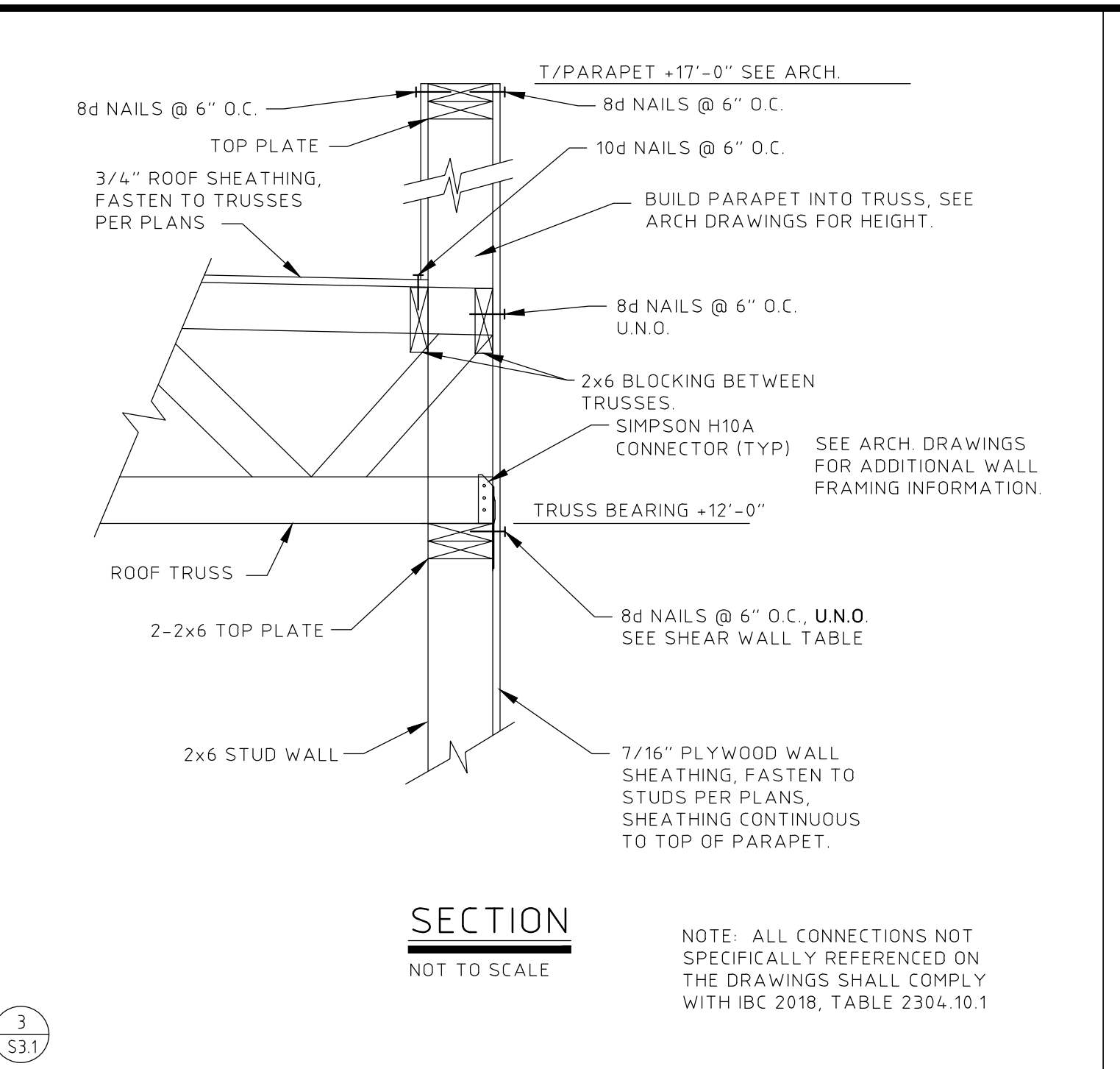
TYP. FRAMING DETAIL
NO SCALE

NOTE: ALL CONNECTIONS SHALL COMPLY WITH IBC 2018, TABLE 2304.10.1



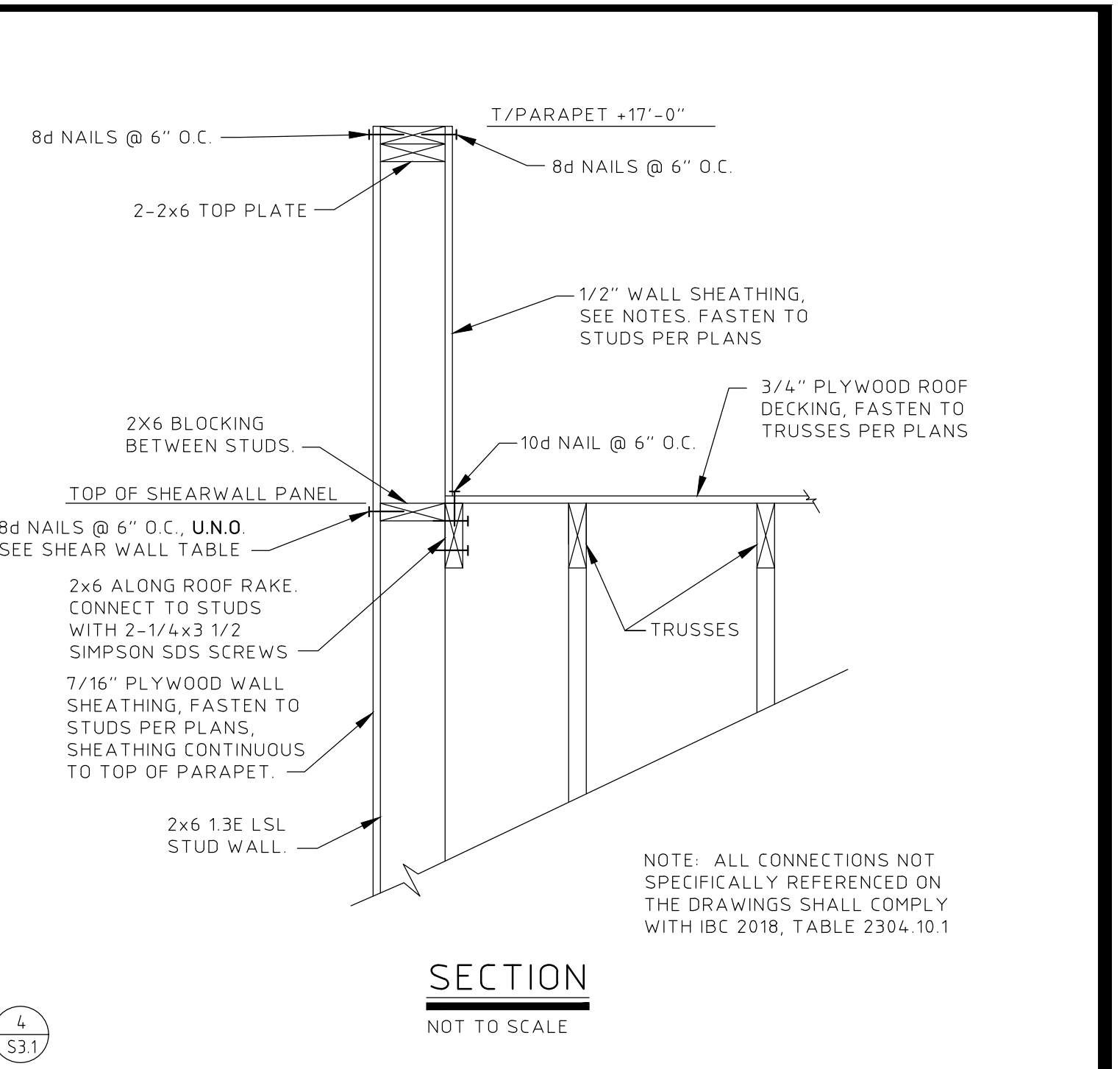
SECTION
NOT TO SCALE

NOTE: ALL CONNECTIONS NOT SPECIFICALLY REFERENCED ON THE DRAWINGS SHALL COMPLY WITH IBC 2018, TABLE 2304.10.1



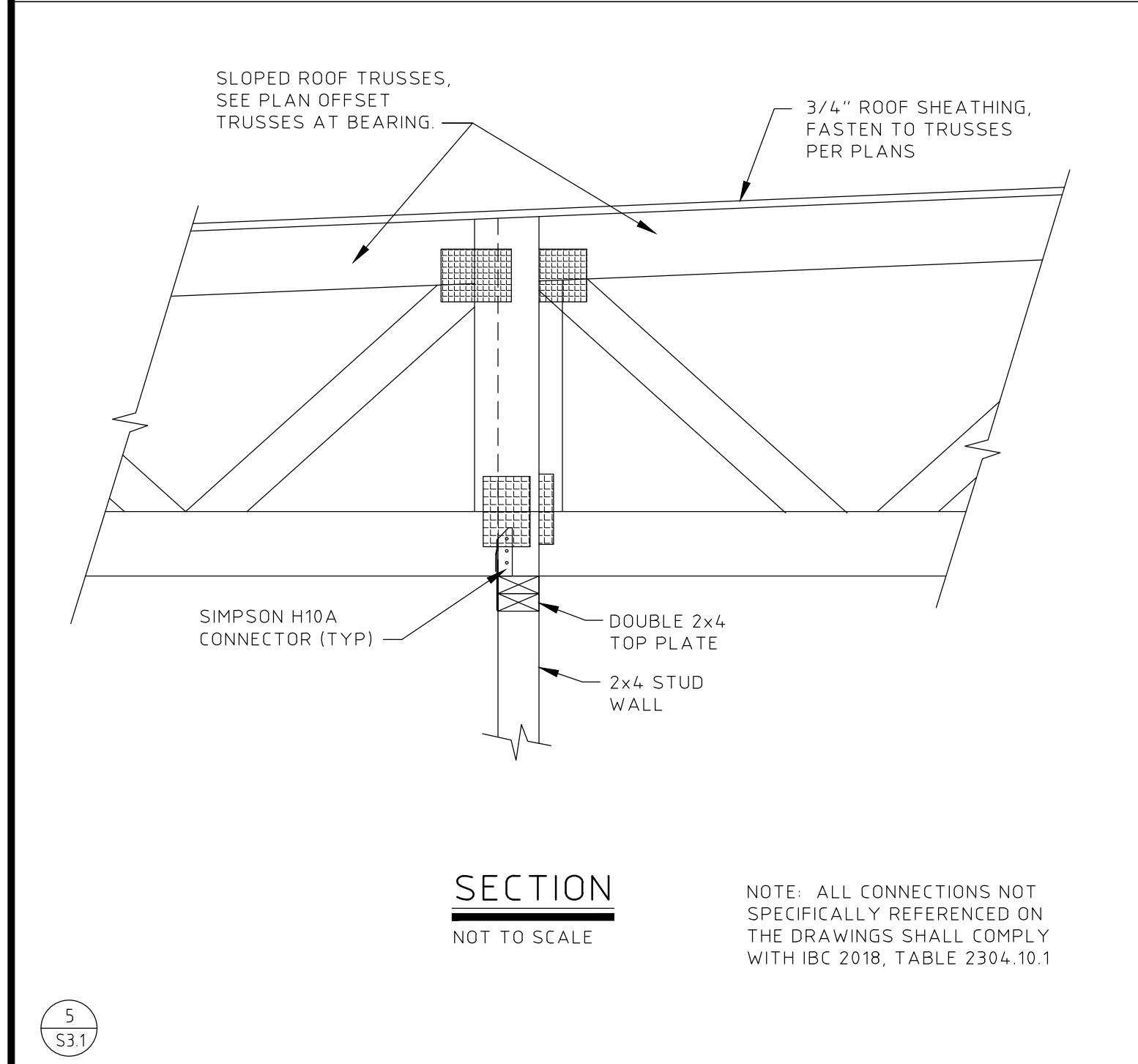
SECTION
NOT TO SCALE

NOTE: ALL CONNECTIONS NOT SPECIFICALLY REFERENCED ON THE DRAWINGS SHALL COMPLY WITH IBC 2018, TABLE 2304.10.1



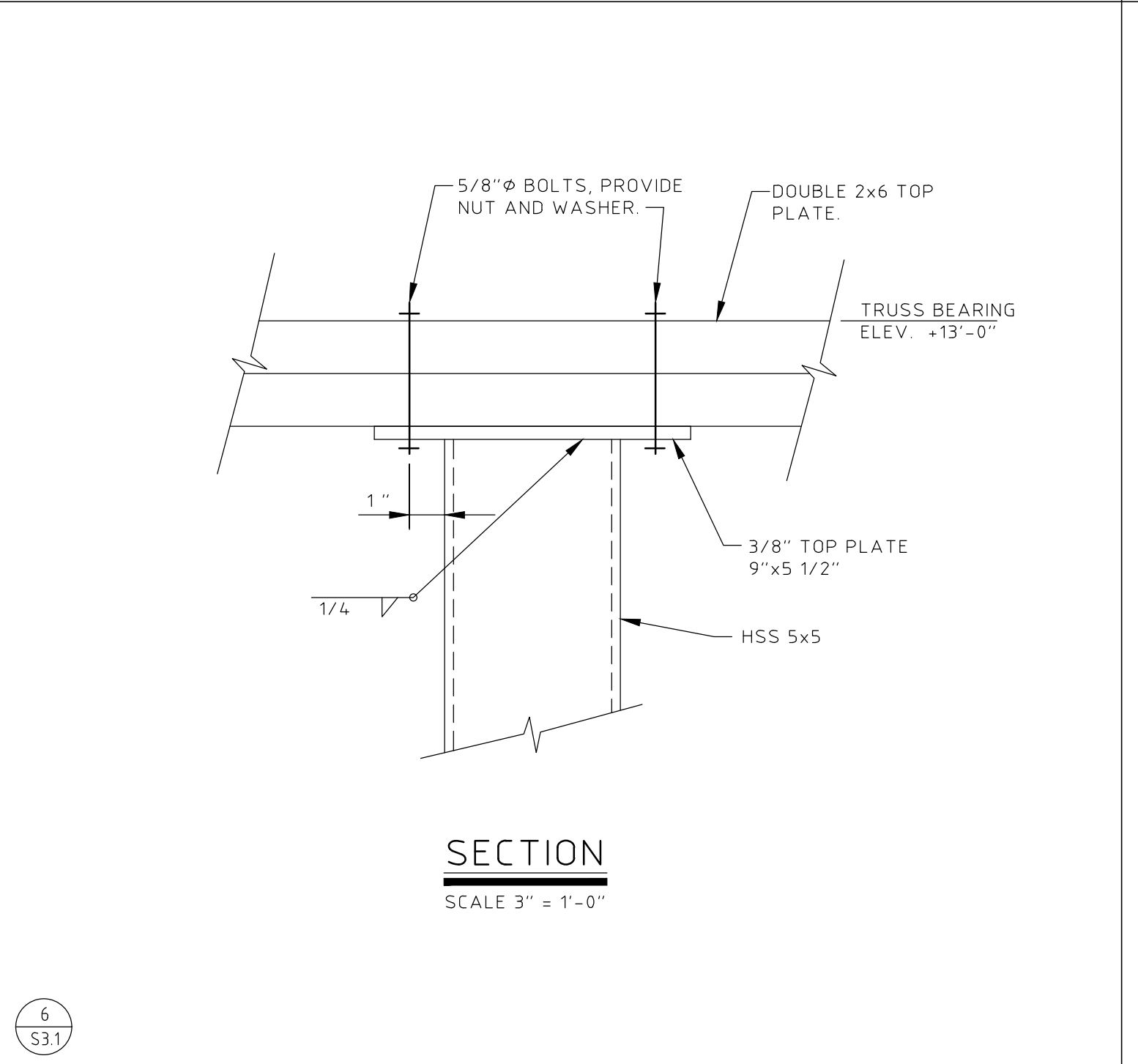
SECTION
NOT TO SCALE

NOTE: ALL CONNECTIONS NOT SPECIFICALLY REFERENCED ON THE DRAWINGS SHALL COMPLY WITH IBC 2018, TABLE 2304.10.1

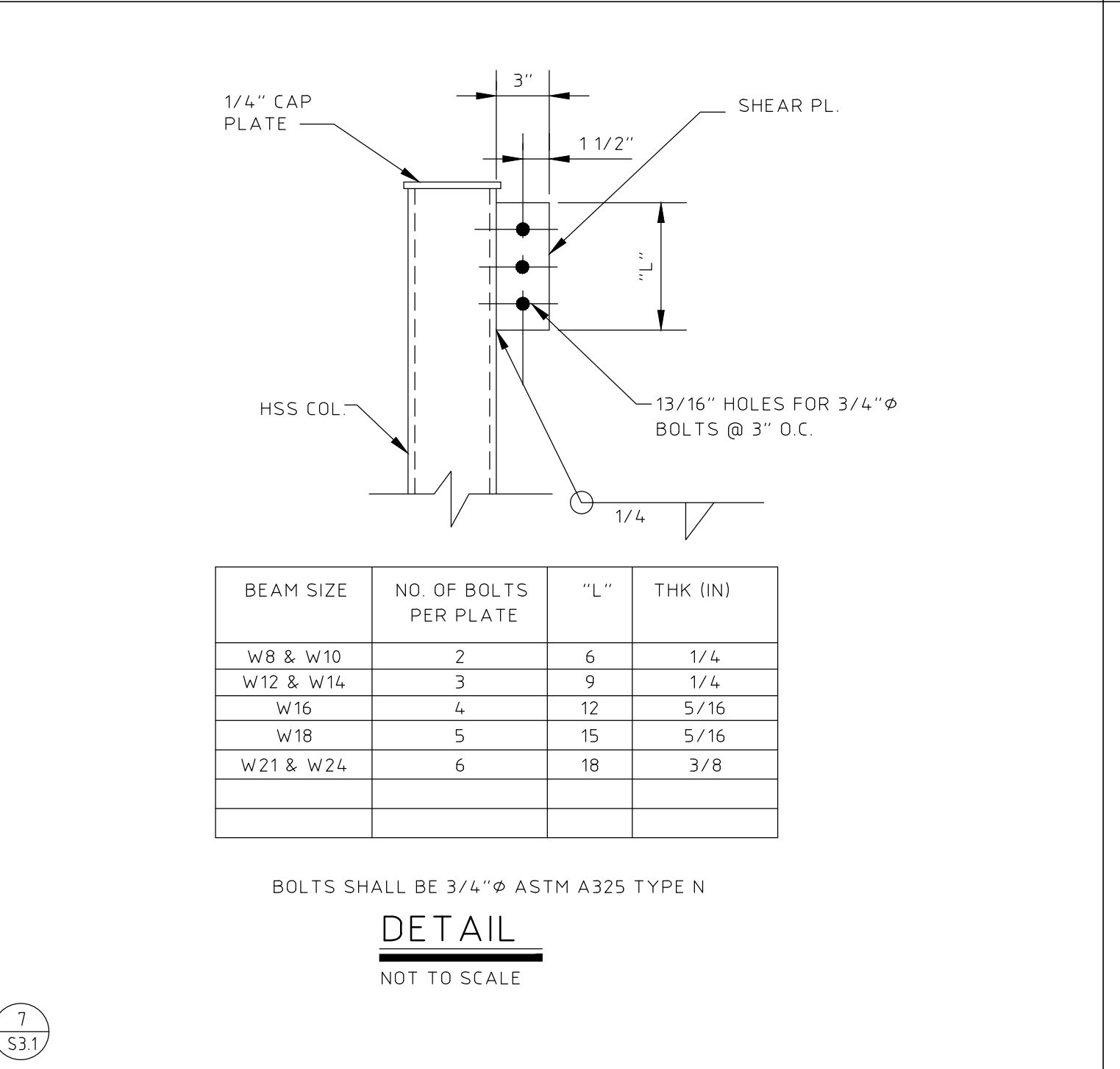


SECTION
NOT TO SCALE

NOTE: ALL CONNECTIONS NOT SPECIFICALLY REFERENCED ON THE DRAWINGS SHALL COMPLY WITH IBC 2018, TABLE 2304.10.1



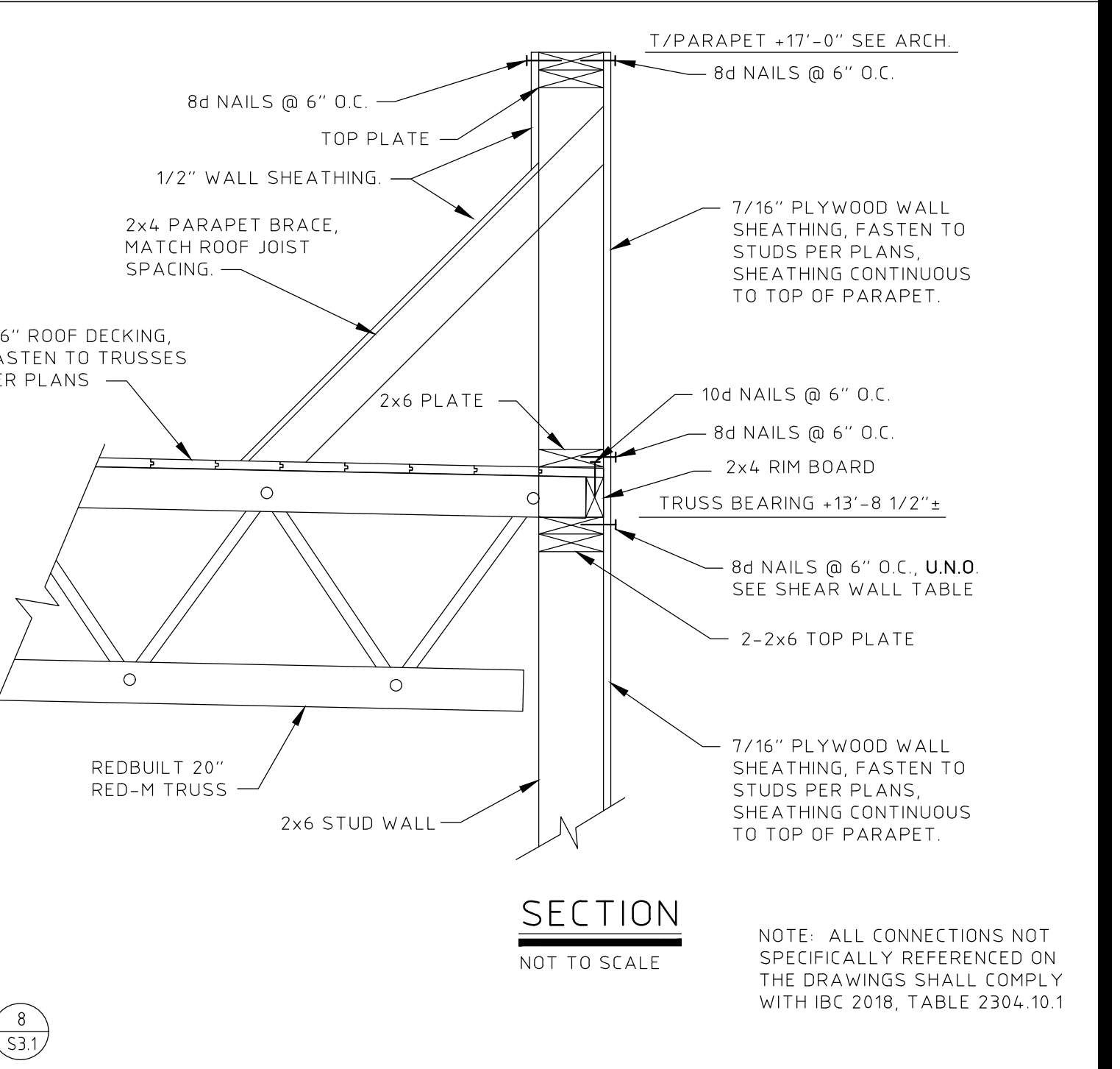
SECTION
SCALE 3" = 1'-0"



DETAIL
NOT TO SCALE

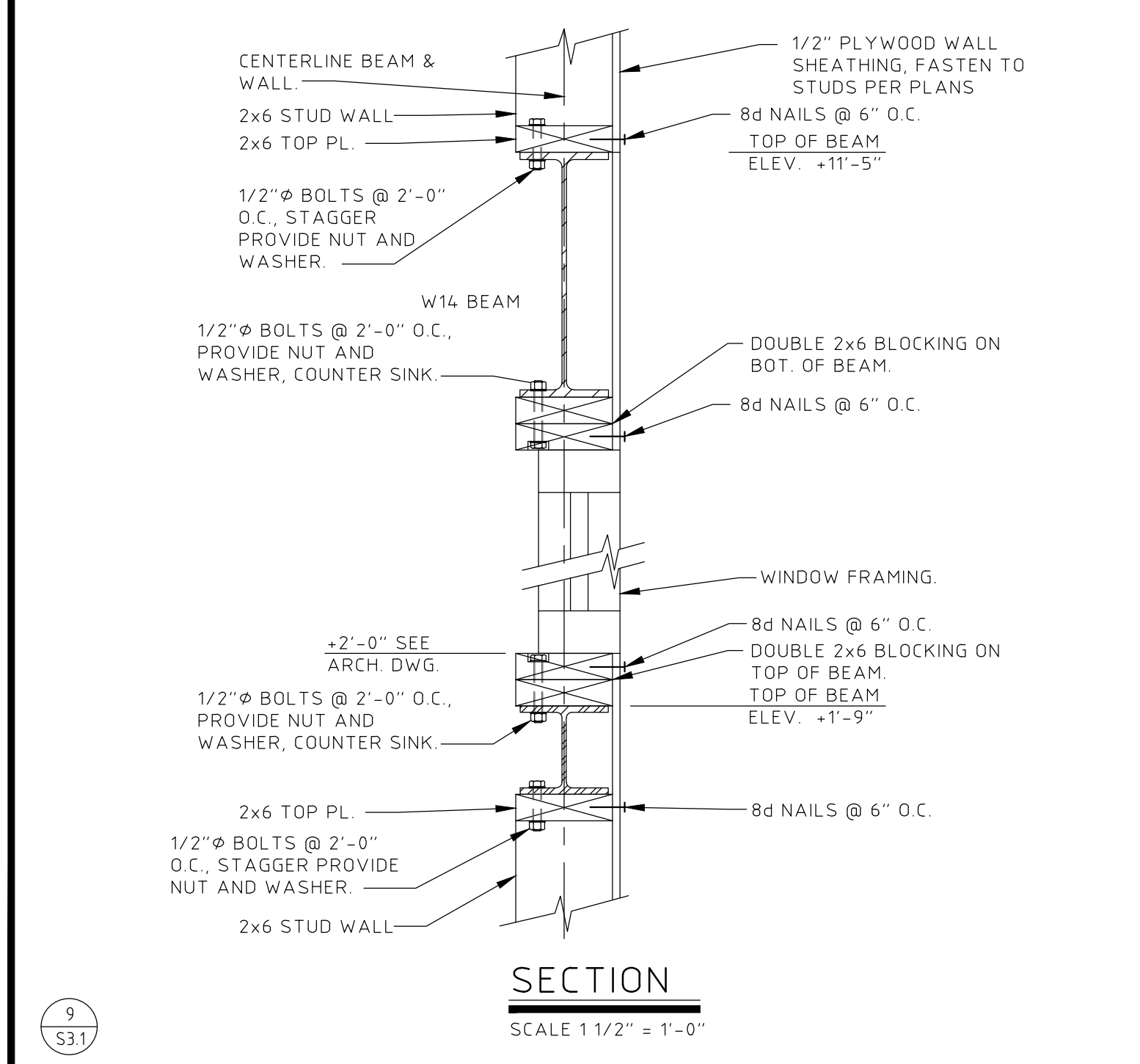
BEAM SIZE	NO. OF BOLTS PER PLATE	"L"	THK (IN)
W8 & W10	2	6	1/4
W12 & W14	3	9	1/4
W16	4	12	5/16
W18	5	15	5/16
W21 & W24	6	18	3/8

BOLTS SHALL BE 3/4" Ø ASTM A325 TYPE N

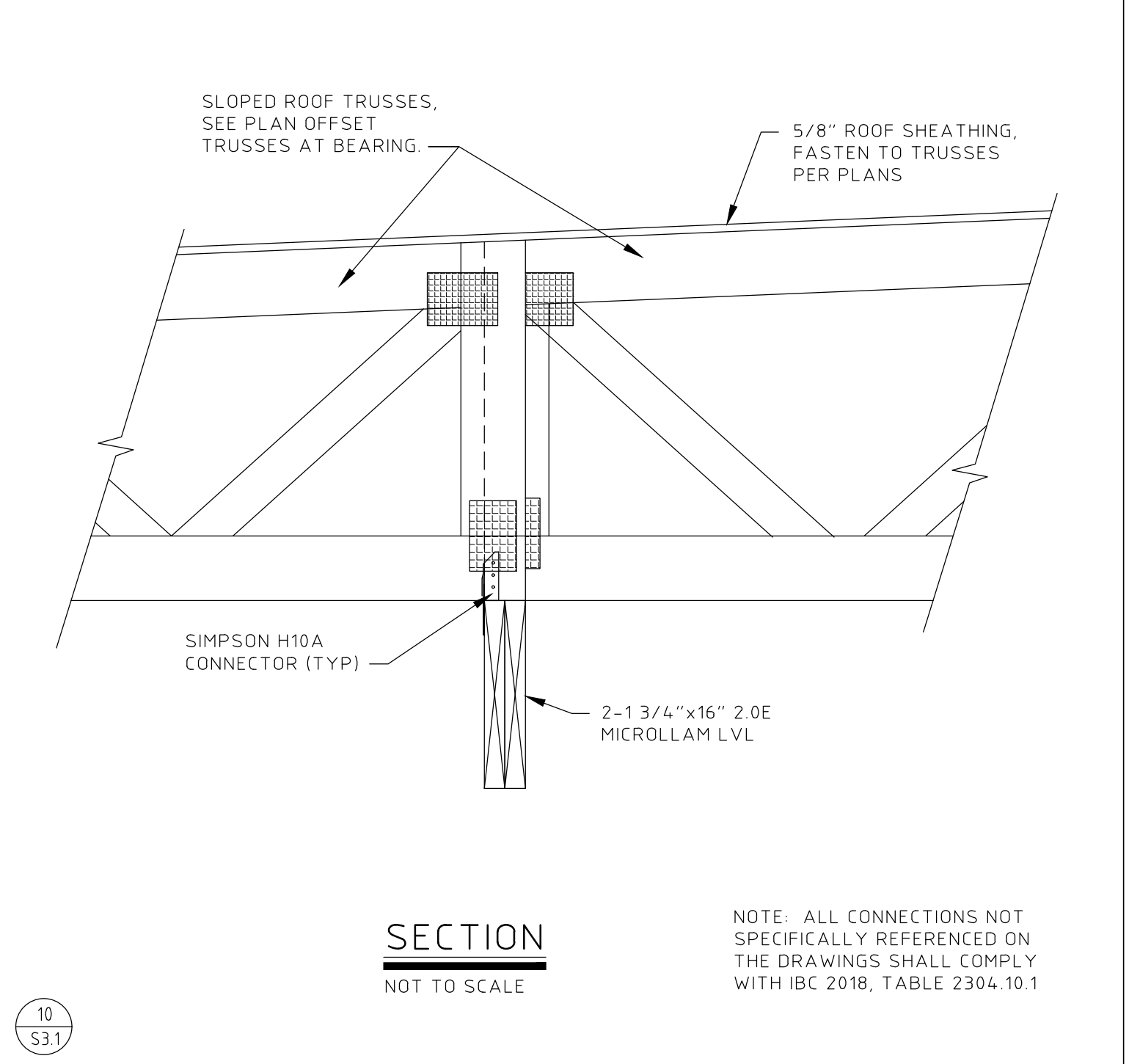


SECTION
NOT TO SCALE

NOTE: ALL CONNECTIONS NOT SPECIFICALLY REFERENCED ON THE DRAWINGS SHALL COMPLY WITH IBC 2018, TABLE 2304.10.1

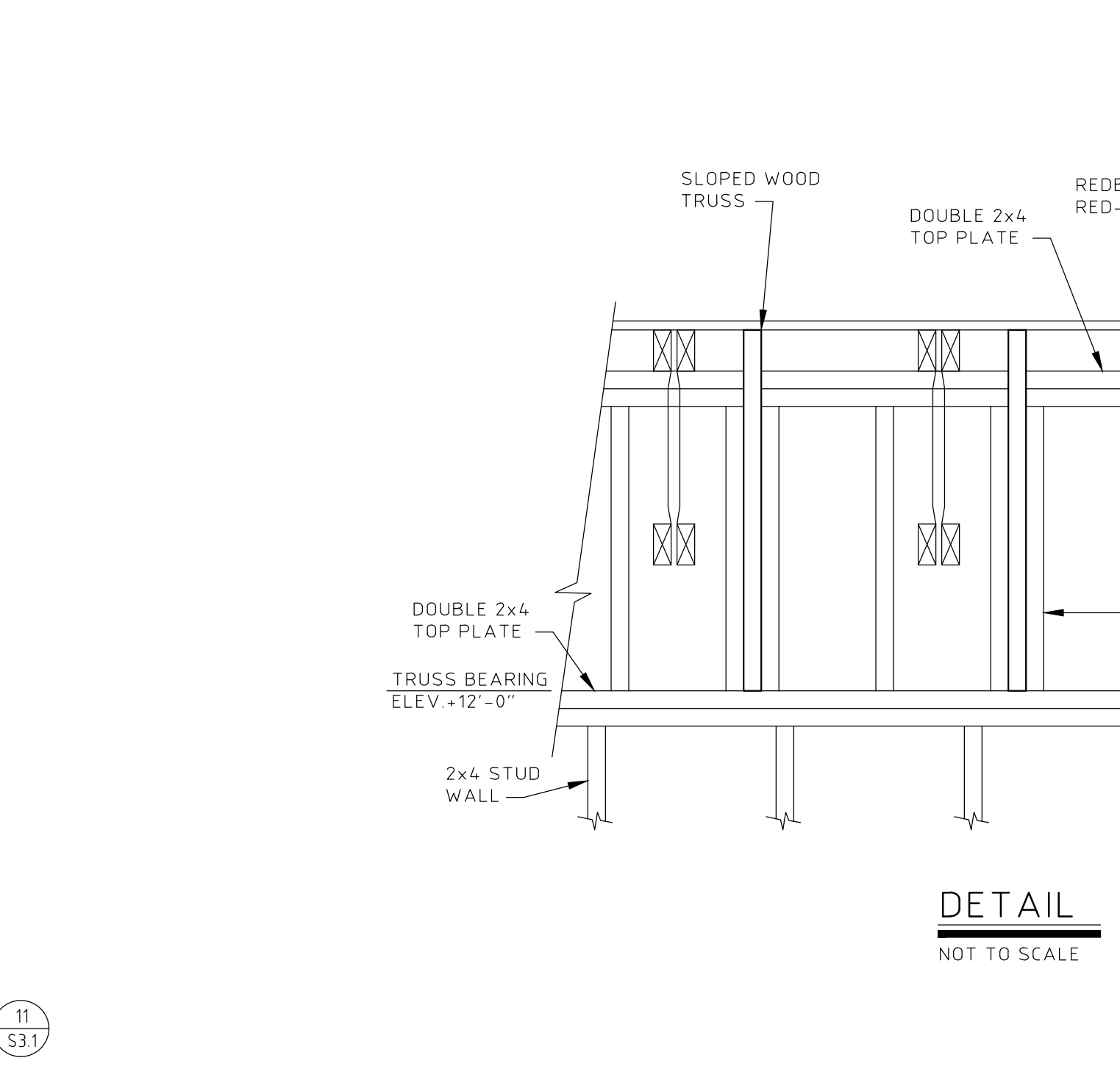


SECTION
SCALE 1 1/2" = 1'-0"



SECTION
NOT TO SCALE

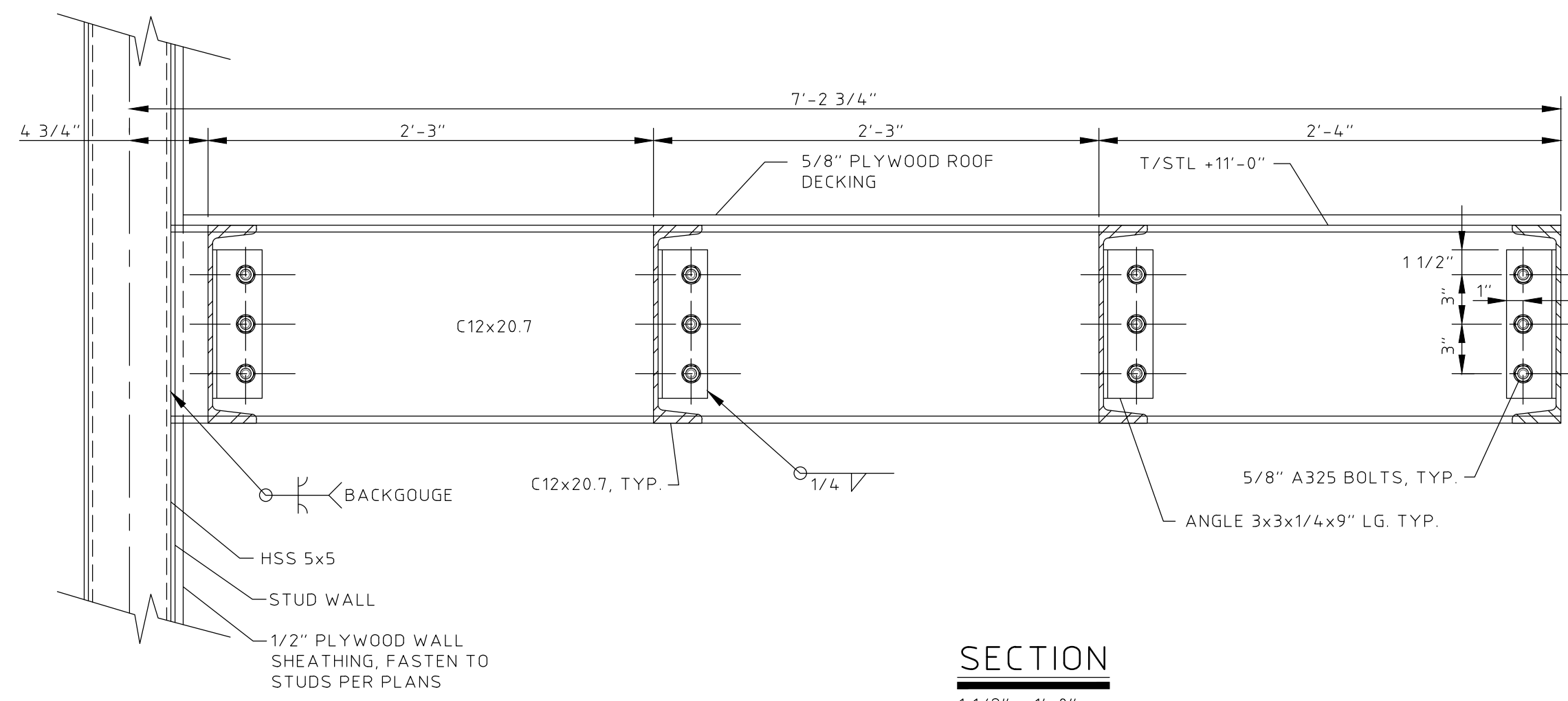
NOTE: ALL CONNECTIONS NOT SPECIFICALLY REFERENCED ON THE DRAWINGS SHALL COMPLY WITH IBC 2018, TABLE 2304.10.1



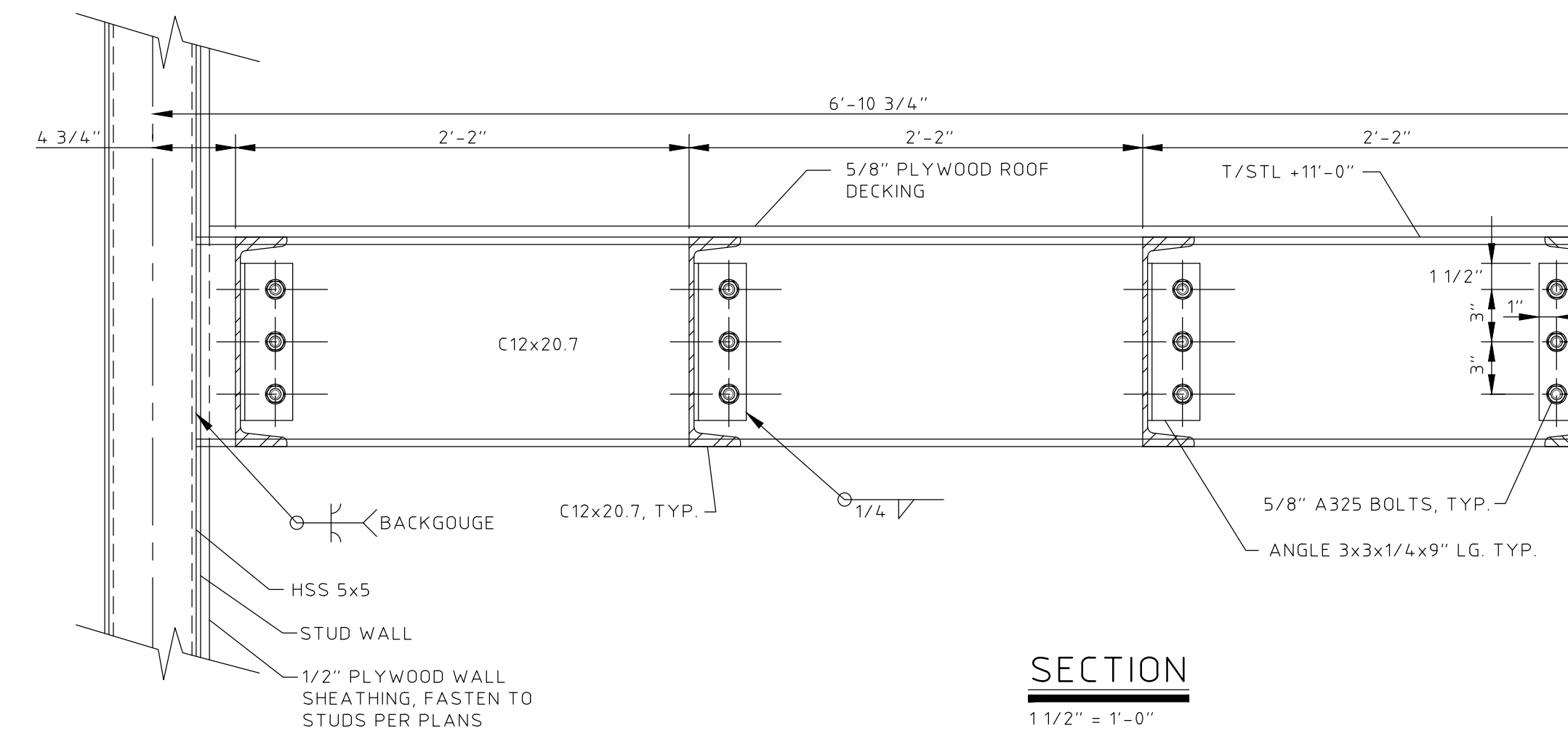
DETAIL
NOT TO SCALE

NOTE: ALL CONNECTIONS NOT SPECIFICALLY REFERENCED ON THE DRAWINGS SHALL COMPLY WITH IBC 2018, TABLE 2304.10.1

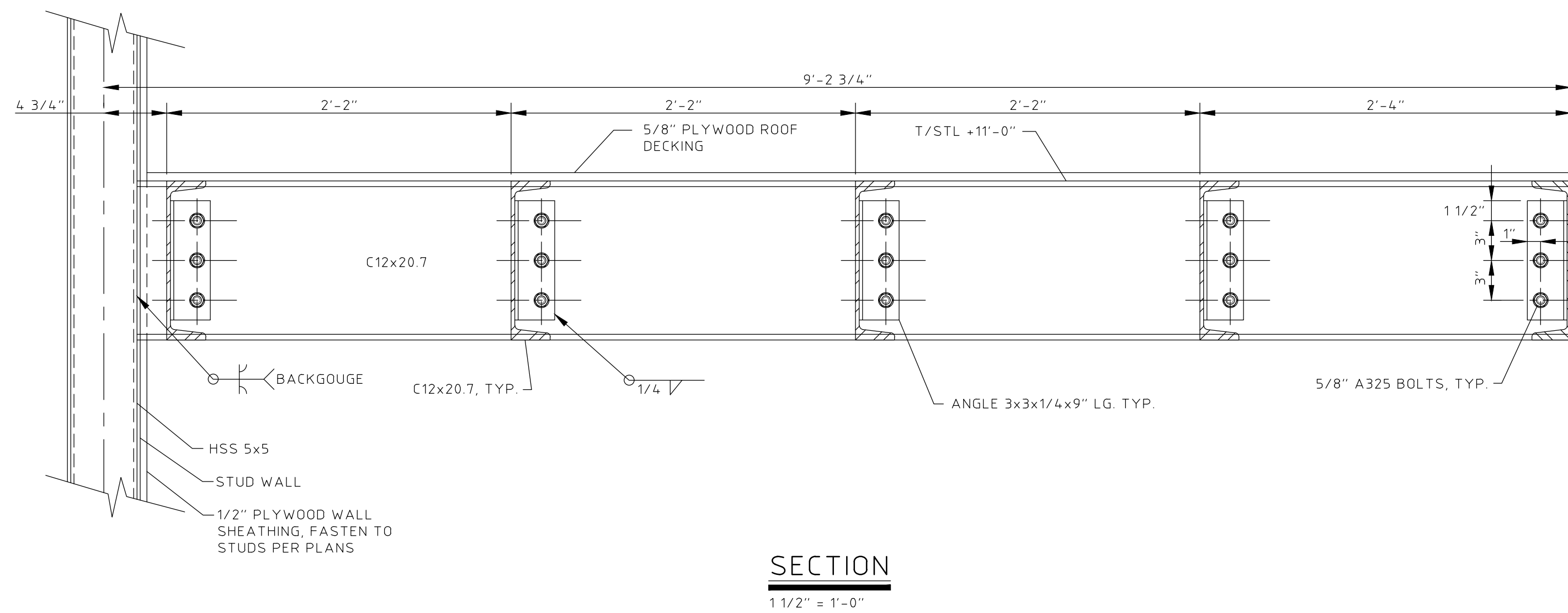




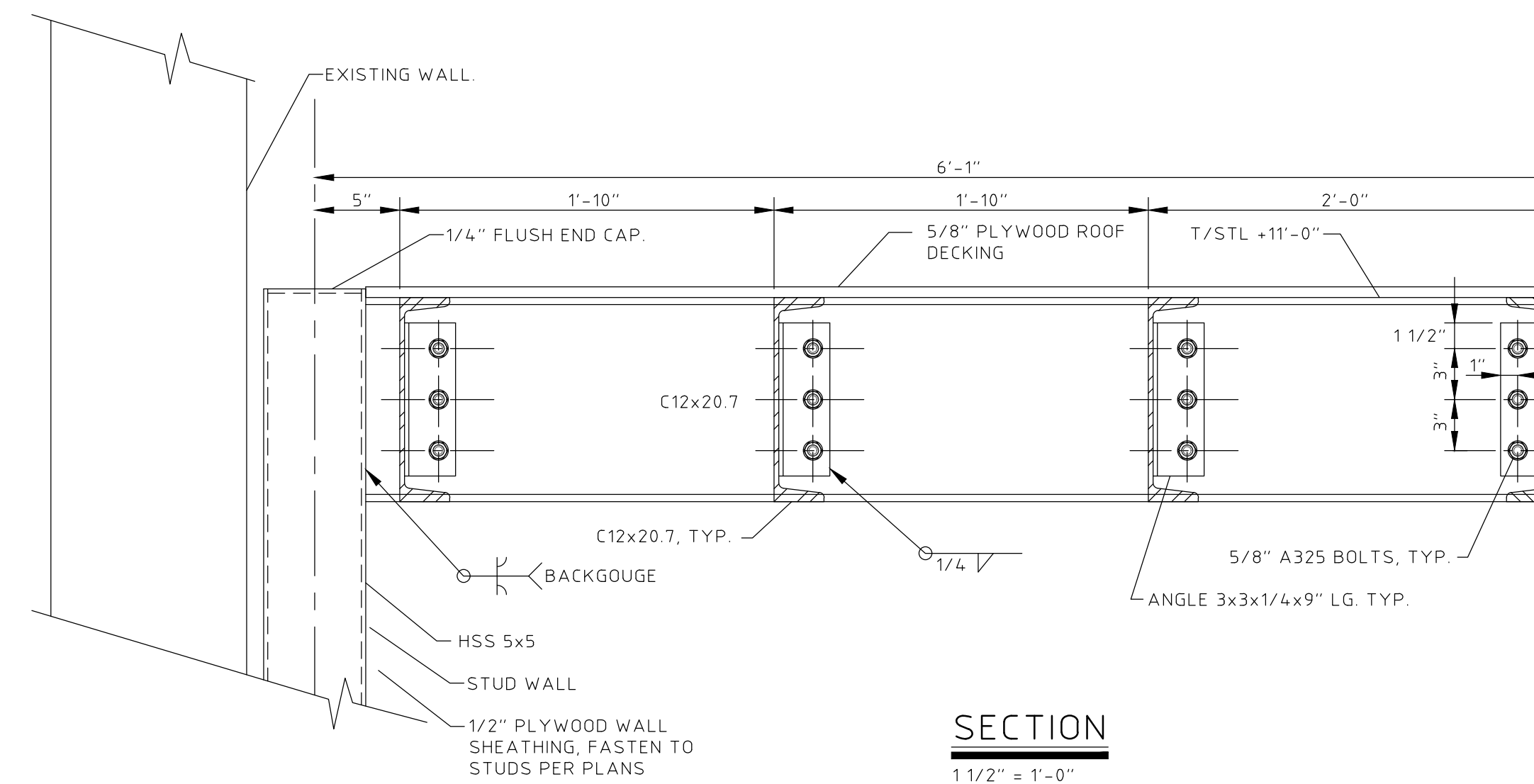
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S32



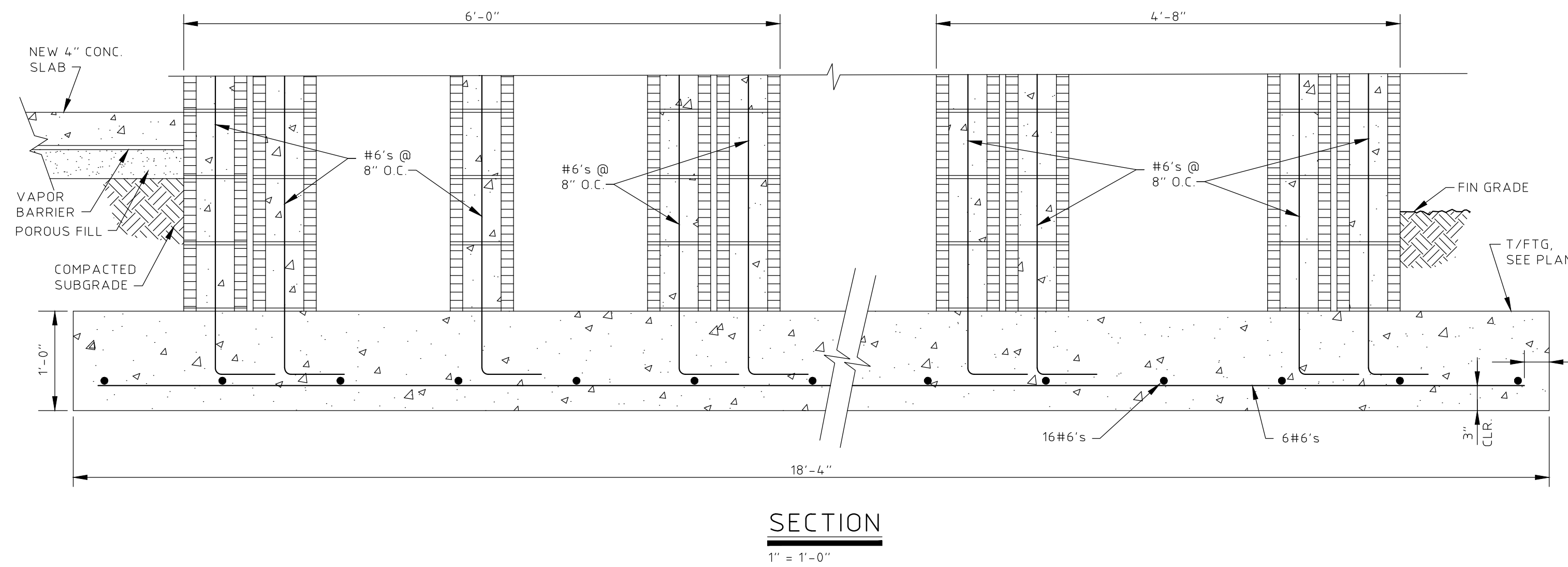
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S32



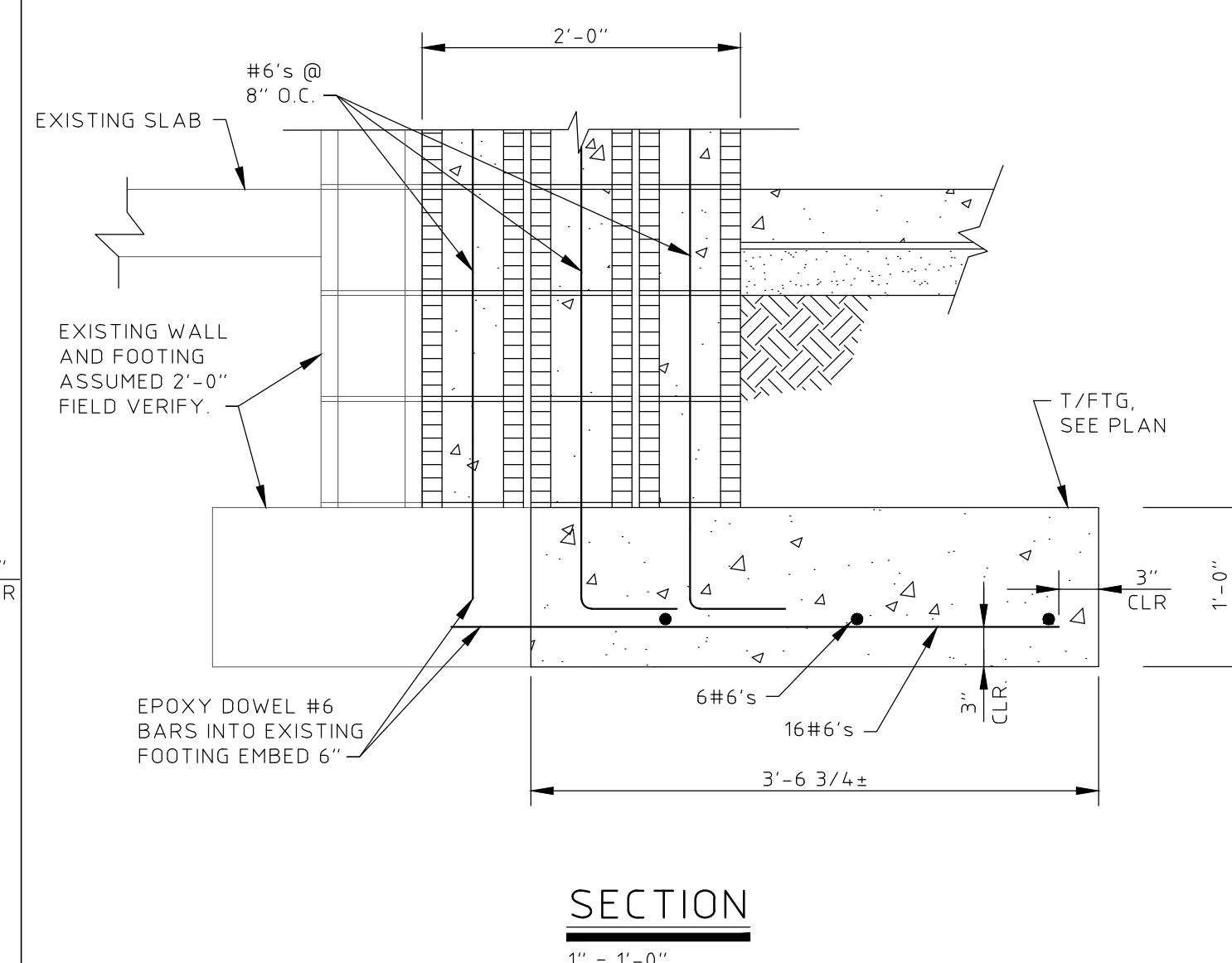
5
S32



7
S32



9
S32



11
S32

12
S32

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AUGUSTA, GA 30909
706-364-9547



PROPOSED RENOVATION & ADDITION
MCKNIGHT CONSTRUCTION COMPANY
635 NW FRONTAGE ROAD
AUGUSTA, GEORGIA 30907

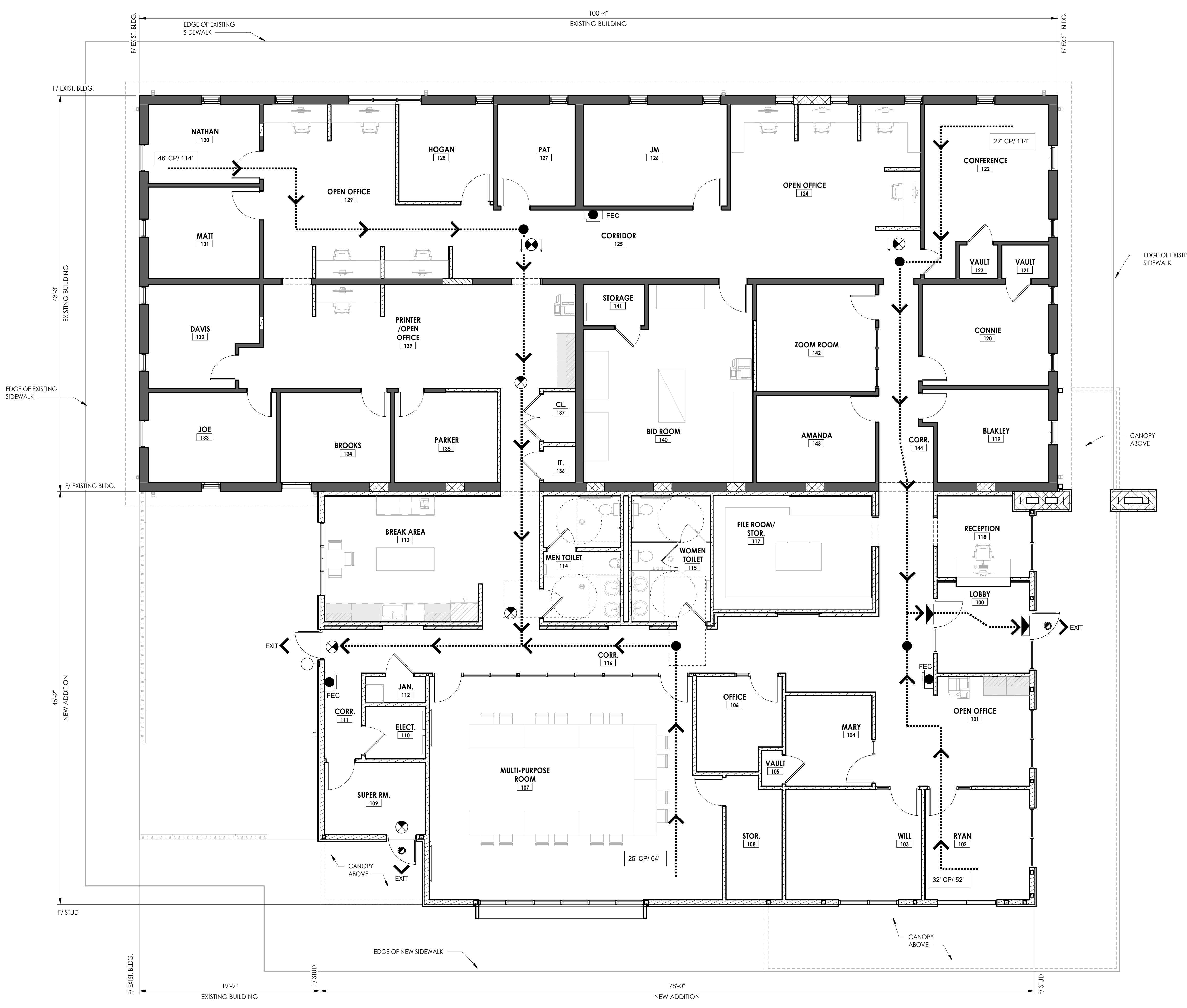
STRUCTURAL DETAILS - SHEET 3

DRWN BY: BWS
CHKD BY:
DATE: FEBRUARY 9, 2024
REVISIONS
0 ISSUED FOR PERMIT 02/09/2024

JOB NO. 2254
SHEET NO.

S3.2

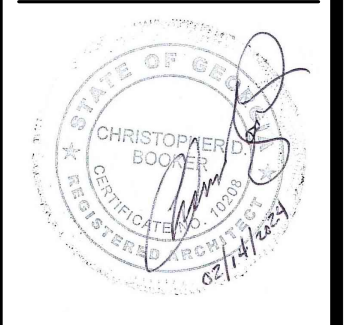
BVA BOOKER+VICK ARCHITECTS
670 BROAD STREET, AUGUSTA, GA 30901 P: (706) 798-6792 | WWW.CBARCHITECTSPC.COM



LIFE SAFETY LEGEND	
	EXIT
	FEC PORTABLE FIRE EXTINGUISHER, RECESSED CABINET MOUNTED. COMPLY WITH INTERNATIONAL FIRE CODE AND NFPA 10 (LATEST EDITION)
	EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (WALL MOUNTED)
	EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (CEILING MOUNT)
	RECESSED EXTERIOR EMERGENCY LIGHT WITH 1-1/2 HR. B.B.U.
	EXTERIOR EMERGENCY LIGHT WITH 1-1/2 HR. B.B.U. (WALL MOUNT)
	POINT OF COMMON PATH OF TRAVEL
NEW BUSINESS/ EXISTING BUSINESS:	
	DISTANCE OF COMMON PATH OF TRAVEL 75' (CORRIDOR COMMON PATH) PER NFPA 2018 TABLE A.7.6
	TRAVEL DISTANCE TO AN EXIT 200' (TOTAL) PER NFPA 2018 TABLE A.7.6
**DEAD-END CORRIDORS SHALL NOT EXCEED 20'-0" FOR NEW CONSTRUCTION & SHALL NOT EXCEED 50'-0" FOR EXISTING CONSTRUCTION PER NFPA 101 (2018) TABLE A.7.6	

NOTE:
 1. SEE ELECTRICAL DRAWINGS FOR ALL LIFE SAFETY LIGHTING AND EQUIPMENT LOCATIONS. ALL TRADES TO COORDINATE.

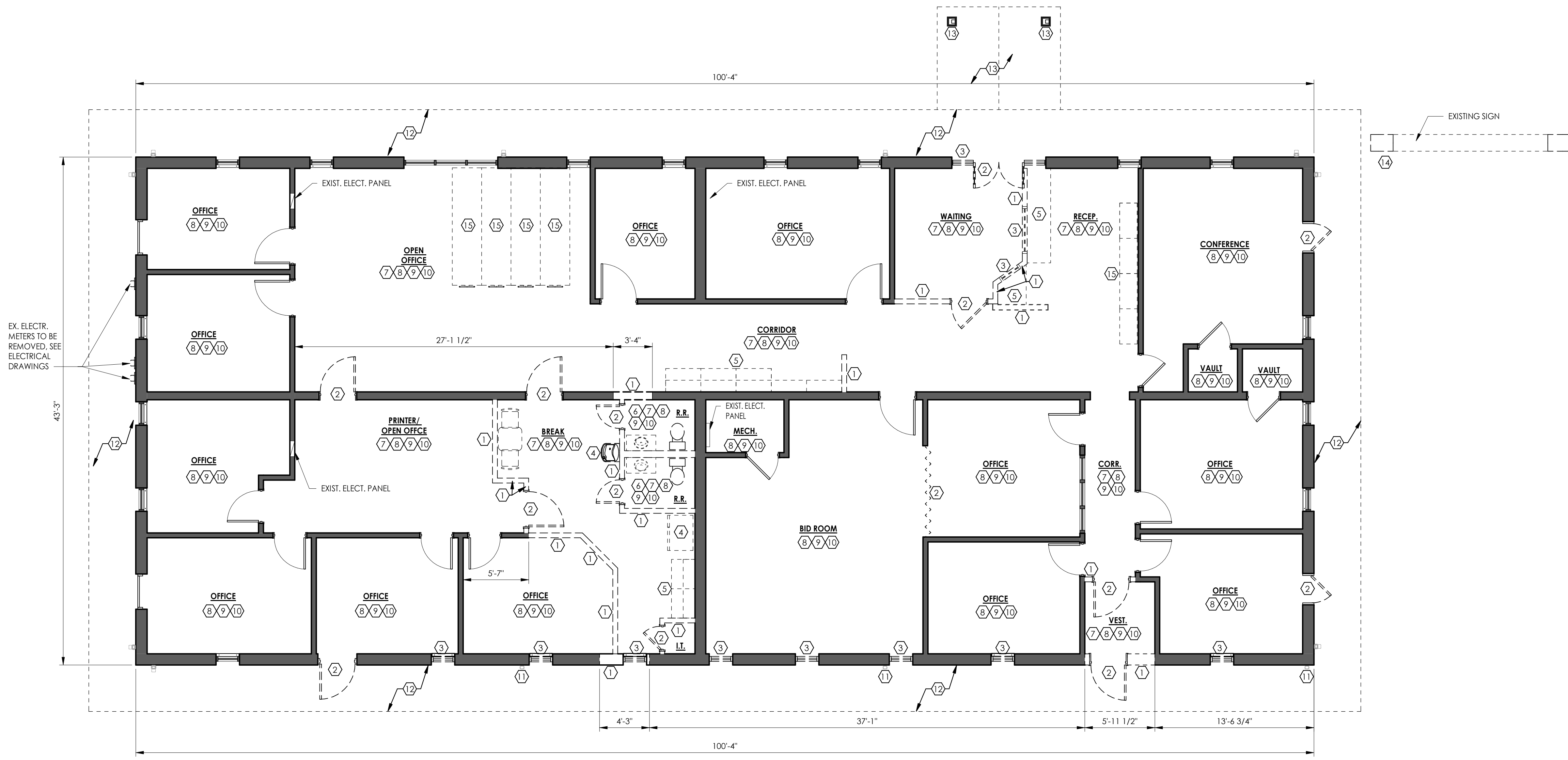
1 LIFE SAFETY FLOOR PLAN
 A0.1 SCALE: 3/16" = 1'-0"



LIFE SAFETY FLOOR PLAN

DESIGN BY: MB
 CHECKED BY: CB
 DATE: FEBRUARY 9, 2024

REVISIONS

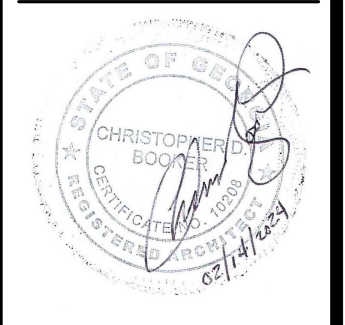


EX. ELECTR. METERS TO BE REMOVED, SEE ELECTRICAL DRAWINGS

1 EXISTING/ DEMO FLOOR PLAN
 A1.1 SCALE: 3/16" = 1'-0"

- ### GENERAL DEMOLITION NOTES
- ALL DIMENSIONS SHOULD BE FIELD VERIFIED BY G.C. BEFORE ANY DEMOLITION IS STARTED. CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION NECESSARY FOR INSTALLATION OF NEW WORK WHETHER SHOWN HERE OR NOT. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
 - THE GENERAL CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS REQUIRED TO COMPLETE DEMOLITION AND REMOVAL. ALL WORK DEMOLISHED SHALL BE REMOVED FROM PREMISES DAILY.
 - ALL EXISTING EXTERIOR WALL DIMENSIONS ARE SHOWN TO THE EXISTING FINISHED FACE OF WALLS UNLESS NOTED OTHERWISE.
 - PATCH OPENINGS IN WALLS, CEILINGS AND FLOORS RESULTING FROM DEMOLITION WORK. PATCH WITH MATCHING MATERIALS AND CONSTRUCTION, UNLESS NOTED OTHERWISE.
 - SAW CUT AND PATCH EXISTING FLOOR SLABS AND ROOF STRUCTURE FOR NEW MECHANICAL, ELECTRICAL AND PLUMBING DUCTWORK, PIPING AND CONDUIT. REINFORCE OPENINGS AS REQUIRED. SEE STRUCTURAL DRAWINGS FOR SPECIFIC INFORMATION ON OPENINGS AS REQUIRED BY NEW WORK AND EXISTING RENOVATIONS.
 - REFER TO MECHANICAL/ELECTRICAL/PLUMBING PLANS AND SPECIFICATIONS FOR REMOVAL, RELOCATION, OR REROUTING OF EXISTING UTILITIES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ADEQUATE PRECAUTIONS TO PROTECT BUILDING OCCUPANTS, MATERIALS AND EXISTING FINISHES THROUGHOUT ALL PHASES OF CONSTRUCTION. CONSTRUCTION AREAS AND OCCUPIED OR PUBLIC AREAS SHALL BE MAINTAINED BY CONTRACTOR. DAMAGE TO EXISTING-TO-REMAIN CONSTRUCTION MATERIALS OR EQUIPMENT TO BE RESTORED TO ORIGINAL CONDITION.
 - DEMOLITION OF EXISTING UTILITIES SHALL BE MADE SO THAT SERVICE TO OTHER AREAS UTILIZED BY THE OWNER ARE NOT INTERRUPTED. PROVIDE TEMPORARY UTILITIES, ISOLATION VALVES, DISCONNECTS, ETC. WHERE REQUIRED DURING DEMOLITION AND NEW CONSTRUCTION.
 - THE GENERAL CONTRACTOR SHALL SEAL OFF, REMOVE OR RENDER INACTIVE ALL EXISTING TELECOMMUNICATION, ELECTRICAL, PLUMBING, MECHANICAL, FIRE PROTECTION/ALARM DEVICES, SECURITY, ETC. THAT ARE INACTIVE AND/OR CANNOT BE INCORPORATED IN THE RENOVATION. ALL ABANDONED DEVICES / PIPES / VENTS / CONDUITS / ETC. TO BE REMOVED BACK TO SOURCE AFTER WALL DEMOLITION.
 - PATCH ALL WALL INTERSECTIONS AND PENETRATIONS RESULTING FROM THE REMOVAL OF EXISTING WALLS, DUCTWORK, PIPING, ELECTRICAL RACEWAYS, ETC. IN THE INTERIOR WALLS TO REMAIN. THE PENETRATIONS SHALL BE FILLED FLUSHED WITH AND OF THE SAME MATERIALS AS THE ADJACENT WALLS.
 - REFER TO ATTACHED FLOOR PLANS FOR EXISTING CONSTRUCTION TO REMAIN, EXTENT OF DEMOLITION, AND SCHEDULED ITEMS FOR RELOCATION.

- ### DEMOLITION PLAN NOTES
- REMOVE PORTION OF EXISTING WALL OR EXISTING WALL IN ITS ENTIRETY, INCLUDING ALL EXISTING WALL BRACING AND/OR STRUCTURAL REBAR IN CMU WALLS. REMOVAL OF WALL FOR NEW DOOR OPENINGS MUST BE COORDINATED WITH SPECIFIED DOOR ON NEW FLOOR PLANS AND DOOR SCHEDULE.
 - REMOVE EXISTING DOOR AND HOLLOW METAL FRAME. TERMINATE ANY EXISTING ELECTRICAL AND ACCESS CONTROL AS REQUIRED.
 - REMOVE EXISTING INTERIOR AND/OR EXTERIOR WINDOWS, FRAMES, AND GLAZING.
 - REMOVE EXISTING EQUIPMENT AND APPLIANCES. TERMINATE ALL ELECTRICAL AND/OR PLUMBING AS REQUIRED. REFER TO ELECTRICAL AND PLUMBING DRAWINGS.
 - REMOVE EXISTING MILLWORK, COUNTERTOPS AND SHELVING IN ITS ENTIRETY TO ACCOMMODATE NEW CONSTRUCTION.
 - REMOVE EXISTING PLUMBING FIXTURES. TERMINATE ALL SUPPLY AND WASTE PIPING AS REQUIRED. REFER TO PLUMBING DRAWINGS.
 - REMOVE EXISTING FLOOR FINISHES AND BASE COVERINGS. PATCH AND REPAIR FLOORS TO RECEIVE NEW FINISH.
 - REMOVE ALL EXISTING ACOUSTICAL CEILING TILE AND GRID IN ITS ENTIRETY. SEE NEW REFLECTED CEILING PLAN.
 - REMOVE ALL EXISTING LIGHT FIXTURES AND INFRASTRUCTURE IN ITS ENTIRETY. REFER TO ELECTRICAL DRAWINGS.
 - REMOVE ALL EXISTING HVAC SUPPLY DIFFUSERS. RETURN OR EXHAUST GRILLES, DUCT AND ASSOCIATED APPURTENANCES IN ITS ENTIRETY. REFER TO MECHANICAL DRAWINGS.
 - REMOVE EXISTING DOWNSPOUT. REPAIR AND MODIFY EXISTING ROOF. SEE NEW ROOF PLAN.
 - REMOVE EXISTING MANSARD ROOF IN ITS ENTIRETY AND PREP FOR CONSTRUCTION OF NEW FASCIA. SEE EXTERIOR ELEVATIONS AND DETAILS.
 - REMOVE EXISTING EXTERIOR COLUMNS, FOUNDATION AND ROOF STRUCTURE ABOVE IN ITS ENTIRETY. SEE NEW FLOOR PLANS.
 - REMOVE EXISTING SIGN STRUCTURE AND FOUNDATION IN ITS ENTIRETY.
 - REMOVE EXISTING ROLLING STORAGE AND/OR FILE STORAGE IN ITS ENTIRETY. SEE NEW FLOOR PLAN.



FLOOR PLAN
 EXISTING / DEMO

DESIGN BY: MB
 CHECKED BY: CB
 DATE: FEBRUARY 9, 2024

REVISIONS

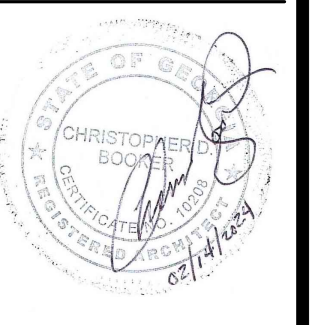
NO.	DESCRIPTION

EXTERIOR WALL LEGEND			
MARK	ASSEMBLY	COMPONENTS	REMARKS
E1		METAL PANEL 1 1/2" X 3" . BY METAL SALES (EM1S-126) OR EQUAL WEATHER RESISTANT BARRIER 1/2" STRUCTURAL SHEATHING 2x6. WOOD STUDS SPACED 16" O.C. R-20 BATT INSUL. 5/8" GWB	
E2		METAL PANEL 1 1/2" X 3" . BY METAL SALES (EM1S-126) OR EQUAL WEATHER RESISTANT BARRIER 1/2" STRUCTURAL SHEATHING 2x6. WOOD STUDS SPACED 16" O.C. R-20 BATT INSUL. 5/8" GWB	
E3		NICHIHA PANEL NICHIHA ULTIMATE CLIP ATTACHED TO FRAMING WEATHER RESISTANT BARRIER 1/2" STRUCTURAL SHEATHING 2x6. WOOD STUDS SPACED 16" O.C. R-20 BATT INSUL. 5/8" GWB	
E4		ADHERED MANUFACTURED STONE VENEER MORTAR SETTING BED MORTAR SCRATCH COAT (USED WITH LATH) LATH FASTENER LATH WATER BARRIER 8"X8"X16" CMU	**CONCAVE TOOLED JOINTS

NICHIHA PANEL NOTES:

1. THIS CONCEPTUAL DETAIL IS A GUIDE FOR INSTALLATION OF NICHIHA PRODUCTS. ARCHITECTS/ENGINEERS/CONTRACTORS ARE RESPONSIBLE FOR SUCCESSFUL APPLICATION WHICH DEPENDS UPON SUBSTRATE, DESIGN AND CONSTRUCTION BUILT IN ACCORDANCE WITH BEST PRACTICES AND LOCAL BUILDING CODES.
2. NICHIHA PANEL REPRESENTED HERE IS 5/8" NICHIHA PRODUCT. ADJUST ACCORDINGLY FOR OTHER NICHIHA PRODUCT THICKNESSES.
3. SHEATHING REPRESENTED HERE IS 5/8" EXTERIOR GYPSUM WALLBOARD, IF USING OSB OR PLYWOOD ADJUST ACCORDINGLY.
4. WOOD OR METAL FRAMING (METAL FRAMING MEMBERS MUST BE A MINIMUM OF 18 GA.)
5. EXPANSION JOINT FOR 1818 PANELS APPROXIMATELY EVERY 30', FOR 3030 PANELS EXPANSION JOINTS ARE AT THE END OF EVERY PANEL.

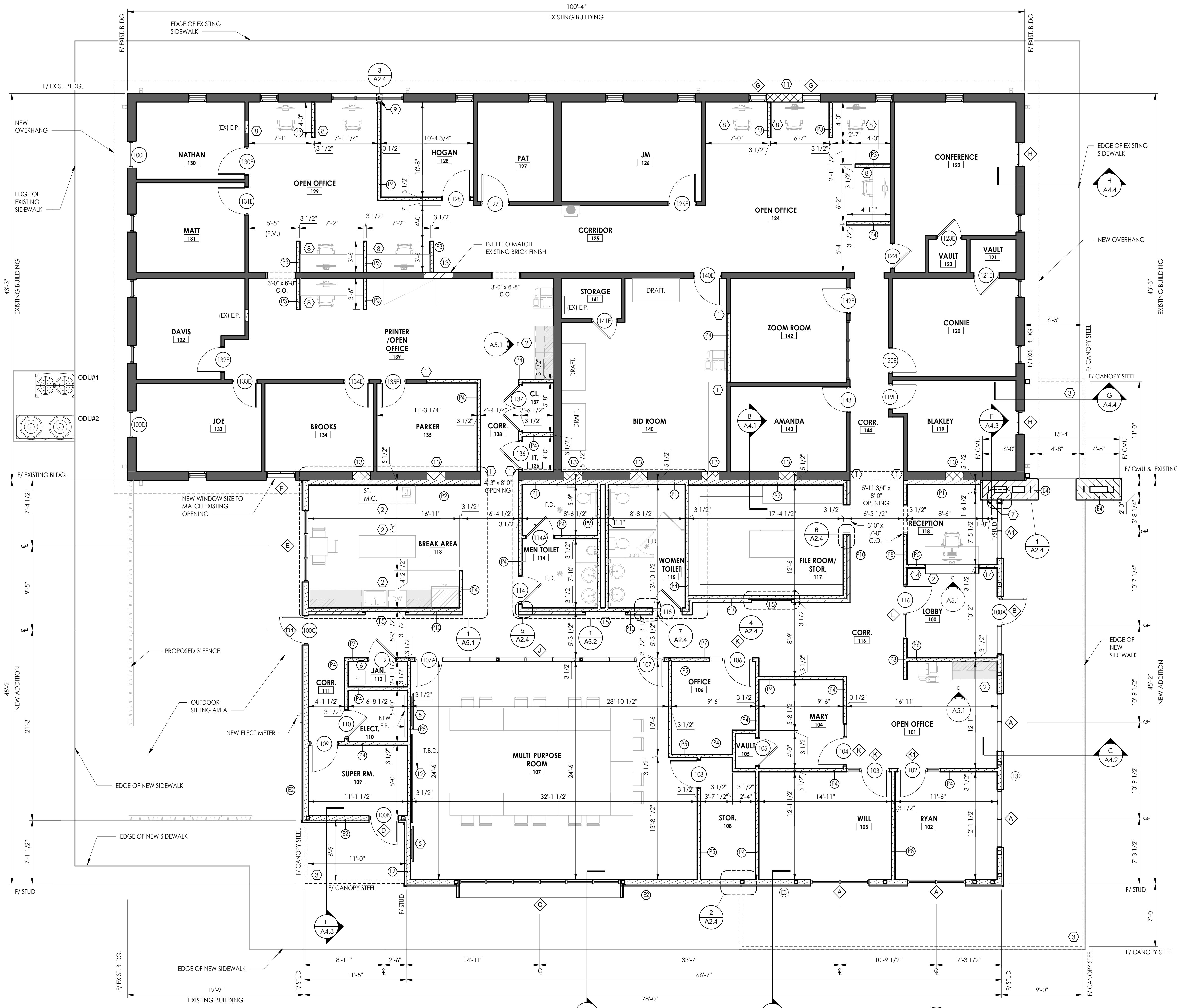
PARTITION LEGEND			
MARK	ASSEMBLY	COMPONENTS	REMARKS
P1		2x6 WOOD STUDS @ 16" O.C. (TYP.) INSULATE CAVITY WITH SOUND BATT 5/8" GWB	**LOAD BEARING WALL **VERIFY HEIGHT W/ STRUCTURAL
P2		2x6 WOOD STUDS @ 16" O.C. (TYP.) INSULATE CAVITY WITH SOUND BATT 1/2" PLYWOOD 5/8" GWB	**LOAD BEARING WALL **VERIFY BEARING HEIGHT & SHEAR REQUIREMENTS W/ STRUCTURAL
P3		5/8" GWB 2x4 WOOD STUDS @ 16" O.C. (TYP.) 5/8" GWB	**WALL HEIGHT 5'-0" **CAP WALL W/ 1X6 TRIM. SEE 9/A2.4
P4		5/8" GWB 2x4 WOOD STUDS @ 16" O.C. (TYP.) INSULATE CAVITY WITH SOUND BATT 5/8" GWB	**EXTEND WALL 4" MIN. ABOVE SCHEDULED CLG. HT. **BRACE AS NEEDED
P5		5/8" GWB 2x4 WOOD STUDS @ 16" O.C. (TYP.) INSULATE CAVITY WITH SOUND BATT 5/8" GWB	**EXTEND WALL TO BOTTOM OF THE DECK **VERIFY W/ STRUCTURAL
P6		5/8" GWB 2x4 WOOD STUDS @ 16" O.C. (TYP.) INSULATE CAVITY WITH SOUND BATT 5/8" GWB	**LOAD BEARING WALL **EXTEND WALL TO +/- 12'-0" COORDINATE W/ FINISH CEILING HEIGHT **VERIFY W/ STRUCTURAL
P7		5/8" GWB 2x4 WOOD STUDS @ 16" O.C. (TYP.) INSULATE CAVITY WITH SOUND BATT 5/8" GWB	**LOAD BEARING WALL **VERIFY HEIGHT W/ STRUCTURAL
P8		5/8" GWB 2x4 WOOD STUDS @ 16" O.C. (TYP.) INSULATE CAVITY WITH SOUND BATT 1/2" PLYWOOD 5/8" GWB	**VERIFY HEIGHT & SHEAR REQUIREMENTS W/ STRUCTURAL
P9		5/8" GWB 2x4 WOOD STUDS @ 16" O.C. (TYP.) INSULATE CAVITY WITH SOUND BATT	**EXTEND WALL 4" MIN. ABOVE SCHEDULED CLG. HT. **BRACE AS NEEDED
P10		5/8" GWB 2x4 WOOD STUDS @ 16" O.C. (TYP.) INSULATE CAVITY WITH SOUND BATT 5/8" GLASS MAT SHEATHING 1" AIR SPACE 3 5/8" BRICK VENEER STANDARD SIZE	**EXTEND WALL 4" MIN. ABOVE SCHEDULED CLG. HT. **BRACE AS NEEDED



WALL TYPES

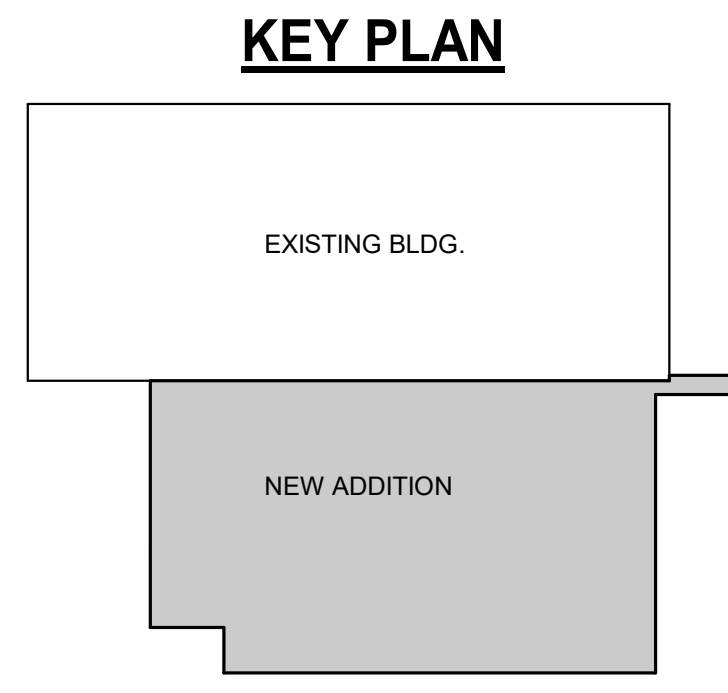
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DATE: FEBRUARY 9, 2024
REVISIONS

JOB NO. 2254
SHEET NO.

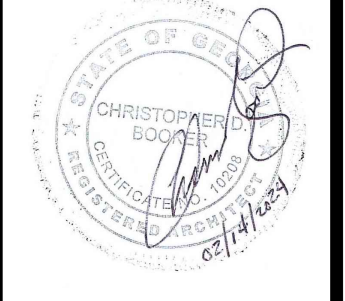


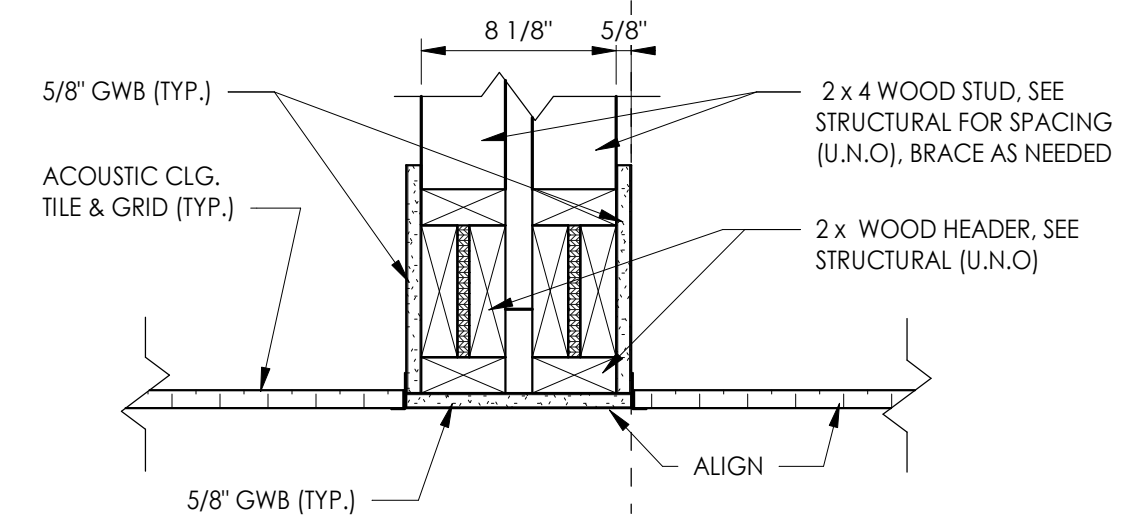
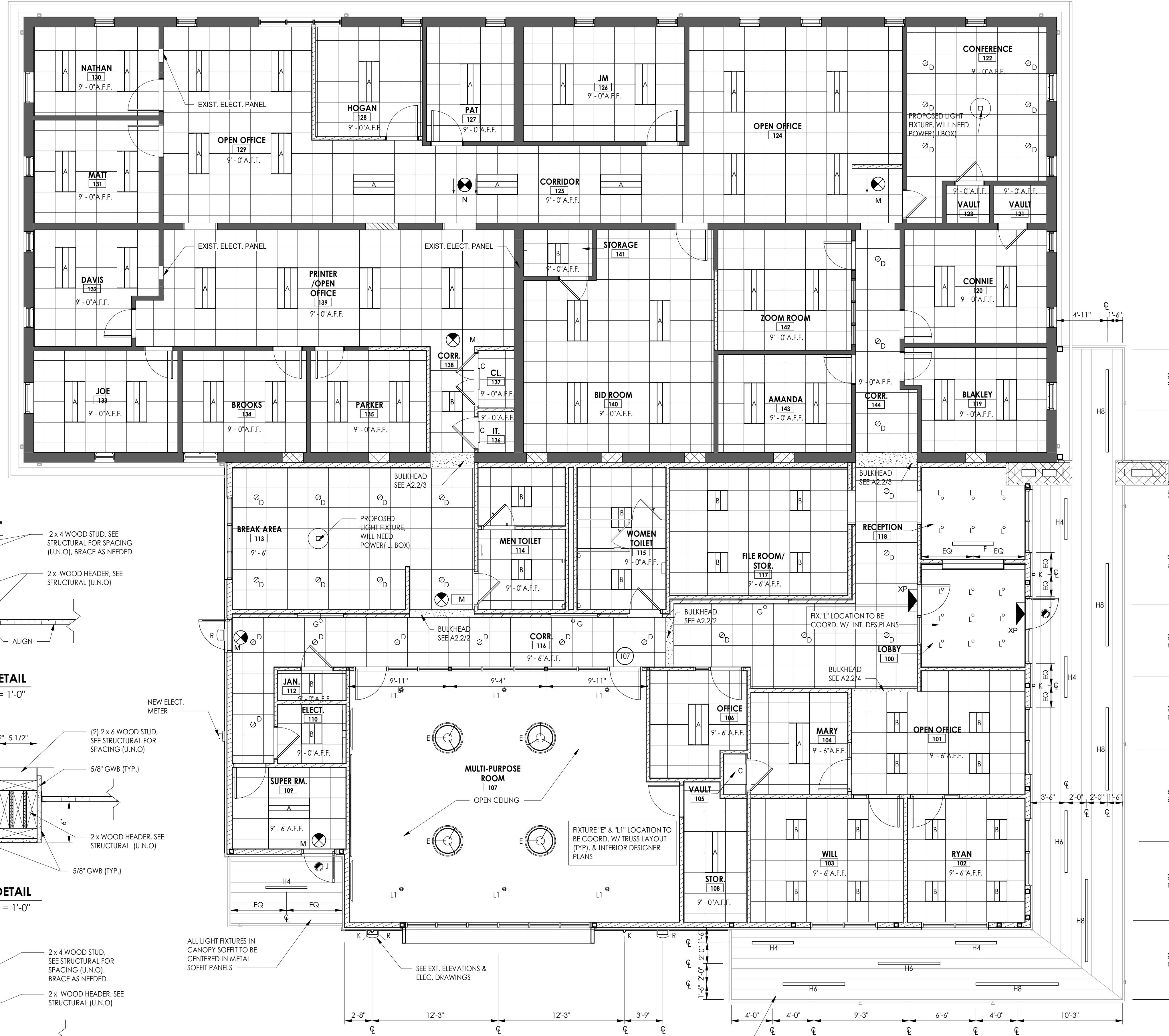
- GENERAL PROJECT NOTES**
- EXISTING INTERIOR/EXTERIOR WALL DIMENSIONS ARE SHOWN TO THE FACE OF EXISTING WALL FINISH (BRICK, GYPSUM BOARD, SIDING, ...), UNLESS NOTED OTHERWISE.
 - NEW EXTERIOR WALL DIMENSIONS ARE SHOWN TO EXTERIOR FACE OF WOOD STUDS (UNLESS NOTED OTHERWISE).
 - NEW INTERIOR WALL DIMENSIONS ARE SHOWN TO FACE OF WOOD STUD (UNLESS NOTED OTHERWISE).
 - NEW WALL FINISH IS TO BE ALIGNED WITH EXISTING WALL FINISH.
 - TYPICAL SUBSTRATE FOR INTERIOR WALLS SHALL BE 5/8" GYPSUM BOARD & 5/8" MOISTURE RESISTANT GYPSUM BOARD IN ALL WET AREAS OR ON WET WALLS. GENERAL CONTRACTOR TO PROVIDE ADEQUATE BLOCKING AS REQUIRED, UNLESS NOTED OTHERWISE.
 - ALL DOOR AND WINDOW ROUGH OPENING TO BE VERIFIED WITH MANUFACTURER SPECIFICATIONS. INSTALL TAPE, FLASH AND SEAL PER MANUFACTURER INSTALLATION SPECIFICATIONS.
 - SEE ENLARGED FLOOR PLANS FOR ANY & ALL DIMENSIONS & WALL TYPES THAT MAY NOT BE REFERENCED ON THE OVERALL FLOOR PLAN. TYPICAL UNLESS NOTED OTHERWISE.
 - ALL MATERIALS & SYSTEMS TO BE INSTALLED PER MANUFACTURER INSTALLATION REQUIREMENTS & SPECIFICATIONS.
 - NEW WALL IF NOT TAGGED ASSUME P4 TYPE.

- PLAN NOTES**
- WALLS TO BE ALIGNED WITH EXISTING WALLS.
 - CASEWORK - CABINETS & COUNTERTOPS. REFER TO CASEWORK NOTES & INTERIOR ELEVATIONS. REFER TO FINISHES & ADDITIONAL INFO. REF. TO INTERIOR DESIGNER DRAWINGS.
 - CANOPY ABOVE. SEE CANOPY DETAIL ON SHEETS A/A4.2, C/A4.3. FOR MORE DETAILS SEE STRUCTURAL DRAWINGS.
 - NEW ELECTRICAL SERVICE. COORDINATE FINAL LOCATIONS WITH ELECTRICAL. SEE ELECTRICAL DRAWINGS.
 - TELEVISION - WALL MOUNTED TV (BRACKET & TV BY OWNER). SEE ELECTRICAL DRAWINGS FOR DATA & POWER REQUIREMENTS. PROVIDE ADEQUATE BLOCKING AS NEEDED.
 - JANITOR SINK - FLOOR MOUNTED SINK. SEE PLUMBING DRAWINGS. PROVIDE F.R.P. BACK SPLASH W/ F.R.P. TRIM ON 2 SIDES (NO SEAMS). SIDE DIM. - 3'-0" MIN. FROM CORNER. HEIGHT 8'-0" MIN.
 - STONE ACCENT - EXTERIOR STONE VENEER TO BE BROUGHT INSIDE AND WRAP CORNER. FULL HT. FIN. FLOOR TO ABOVE FIN. CEILING.
 - DESK - BUILT-IN DESK. COUNTER TOP HT. 30". DEPTH 24". PLASTIC LAM. COUNTER TOP W/ 2.5" DIA. GROMMET ACCESS HOLE (COORD. GROMMET LOCATION W/ OWNER). BRACE AS NEEDED W/ STEEL SUPPORTS. FOR FINISHES REFER TO INTERIOR DESIGNER DRAWINGS.
 - MULLION MATE - MULLION MATE (SERIES 40) W/ BRAKE FORMED END CAP OR EQUAL. INSTALL PER MANUF. SPECS.
 - NEW WINDOW TO MATCH EXISTING FOR MORE DETAIL REF. TO A6.1 WINDOW CONFIGURATION & SCHEDULE.
 - STONE FINISH TO MATCH EXISTING STONE ALTERNATIVE EIFS FINISH.
 - SMART BOARD - WALL MOUNTED (BRACKET & S.B. BY OWNER). SEE ELECTRICAL DRAWINGS FOR DATA & POWER REQUIREMENTS. PROVIDE ADEQUATE BLOCKING AS NEEDED FOR WALL BRACKET.
 - INFILL EXISTING WALL W/ LIKE CONSTRUCTION. FINISHED FACE OF NEW INFILL TO ALIGN W/ EXISTING FINISHED FACE.
 - METAL MESH DECORATIVE ELEMENT REFER TO INTERIOR DRAWINGS FOR MORE DETAILS & INFORMATION.
 - WALL INSERT AT BRICK ACCENT WALL. LOCATED PER INTERIOR DESIGNER. SEE DETAIL ON A2.4/4.

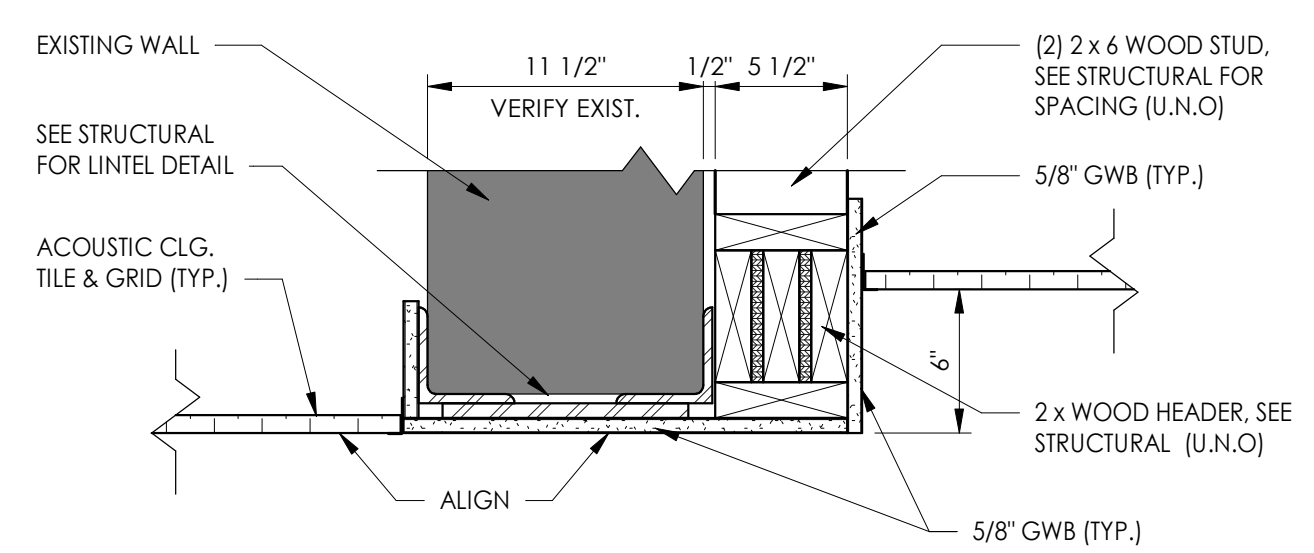


1 PROPOSED FLOOR PLAN
A2.1 SCALE: 3/16" = 1'-0"

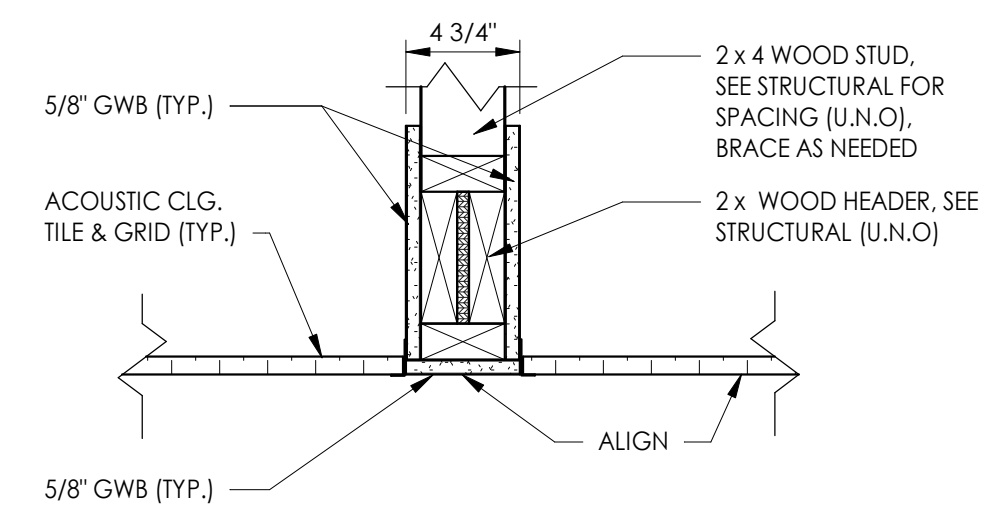




2 BULKHEAD DETAIL
A2.2 SCALE: 1 1/2" = 1'-0"



3 BULKHEAD DETAIL
A2.2 SCALE: 1 1/2" = 1'-0"



4 BULKHEAD DETAIL
A2.2 SCALE: 1 1/2" = 1'-0"

1 PROPOSED REFLECTED CEILING PLAN
A2.2 SCALE: 3/16" = 1'-0"

REFLECTED CEILING PLAN NOTES

- THE CONTRACTOR SHALL COMPARE THIS REFLECTED CEILING PLAN WITH ELECTRICAL LIGHTING PLANS, MECHANICAL SUPPLY, RETURN, AND EXHAUST PLANS. THE CONTRACTOR SHALL REPORT ANY OMISSIONS OR INCONSISTENCIES TO THE ARCHITECT.
- SIZES OF MECHANICAL EQUIPMENT (IF SHOWN) ARE FOR REFERENCE ONLY UNLESS NOTED OTHERWISE. IF APPLICABLE, COORDINATE ACTUAL SIZES WITH THE MECHANICAL ENGINEER.
- SIZES AND SHAPES OF LIGHTING AND OTHER MISCELLANEOUS ELECTRICAL EQUIPMENT (IF SHOWN) ARE FOR REFERENCE ONLY UNLESS NOTED OTHERWISE. IF APPLICABLE, COORDINATE ACTUAL SIZES WITH THE ELECTRICAL ENGINEER.
- INSTALL SUSPENDED CEILING GRID WITH EQUAL SIZE PANELS AT EACH SIDE OR END OF THE INDIVIDUAL SPACES UNLESS NOTED OTHERWISE. NO PANEL SHALL BE LESS THAN 4" WIDE.
- ALL CEILING MOUNTED ITEMS SHALL BE CENTERED IN THE CEILING PANELS UNLESS NOTED OTHERWISE.
- SEE LIFE SAFETY PLANS FOR ADDITIONAL LIFE SAFETY LIGHTING INFORMATION.

CEILING FINISHES LEGEND

- ACOUSTIC LAY-IN CEILING TILE, 2' - 0" X 2' - 0" SEE FINISH SCHEDULE SHEET A6.3 (NOTE: CLEANABLE IN TOILET ROOMS)
- GYPSON BOARD CEILING- PAINT
SUSPENDED HANGING SYSTEM WITH MAIN & TEE BARS AND HANGER WIRE
- OPEN CEILING
- METAL SOFFIT PANEL

LIGHTING LEGEND

A	TROFFER LIGHT LED 2X4
B	TROFFER LIGHT LED 2X2
C	LED STRIP WALL MOUNTED LIGHTING
D	6" RECESSED CAN LED LIGHT
E	LED DECORATIVE CHANDELIER 36"
F	LED STRIP PENDANT FIXTURE
G	WALL SCONCE
H4	VIA 3 SEAL RECESSED LINEAR TYPE, 4' EXTERIOR
H6	VIA 3 SEAL RECESSED LINEAR TYPE, 6' EXTERIOR
H8	VIA 3 SEAL RECESSED LINEAR TYPE, 8' EXTERIOR
J	RECESSED EXTERIOR EMERGENCY LIGHT WITH 1-1/2 HR. B.B.U.
K	OCL ARMET EXTERIOR LED LIGHT 48"
L	3" Ø CYLINDER SURFACE LIGHT, 8' HEIGHT
L1	3" Ø CYLINDER PENDANT LIGHT, 8' HEIGHT
M	EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (CEILING MOUNT)
N	EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (CEILING MOUNT)
R	LED EXTERIOR ELEVATION LIGHTING
XP	EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (WALL MOUNTED)

NOTE:

- SEE MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES & SPECIFICATIONS. ALL TRADES TO COORDINATE.
- SEE ELECTRICAL DRAWINGS FOR ADDITIONAL LIFE SAFETY EQUIPMENT.
- SEE MECHANICAL DRAWINGS

BOOKER+VICK ARCHITECTS
670 BROAD STREET, AUGUSTA, GA 30901 | P: 706) 798-6792 | WWW.CBARCHITECTS.PC.COM

PROPOSED RENOVATION & ADDITION
McKNIGHT CONSTRUCTION COMPANY
635 NW FRONTAGE ROAD
AUGUSTA, GEORGIA 30907

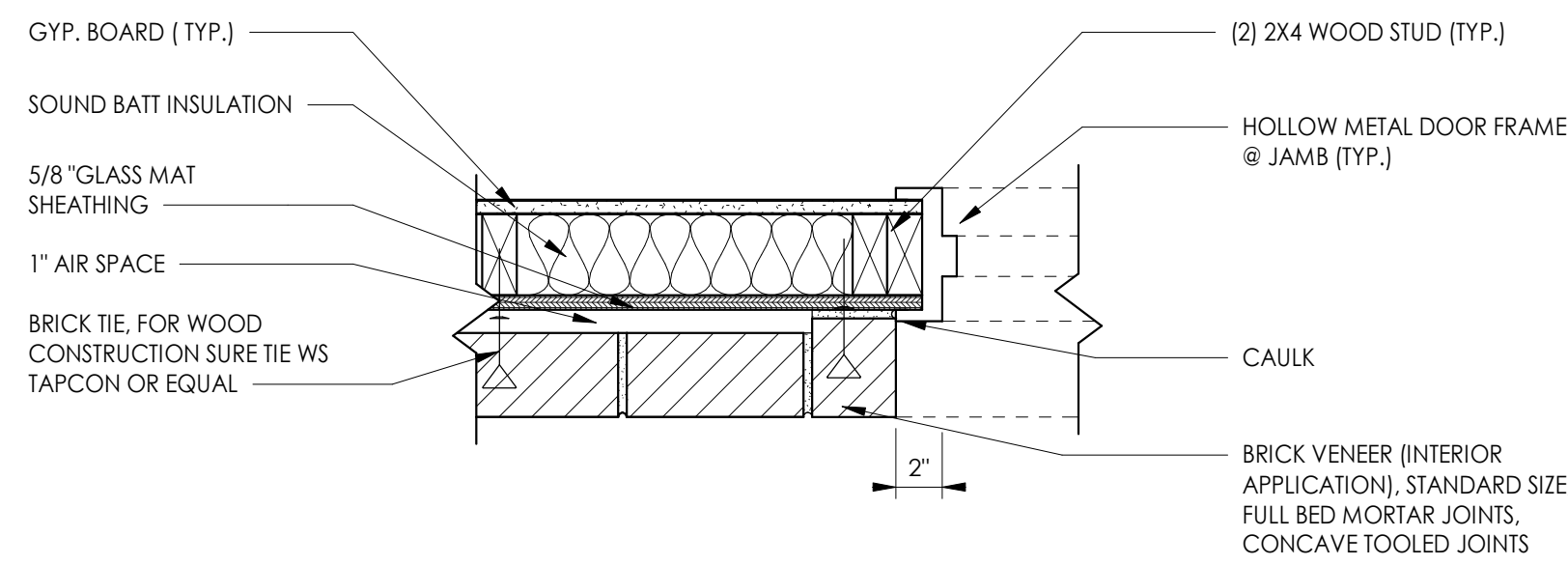
PROPOSED REFLECTED CEILING PLAN

DATE: FEBRUARY 9, 2024

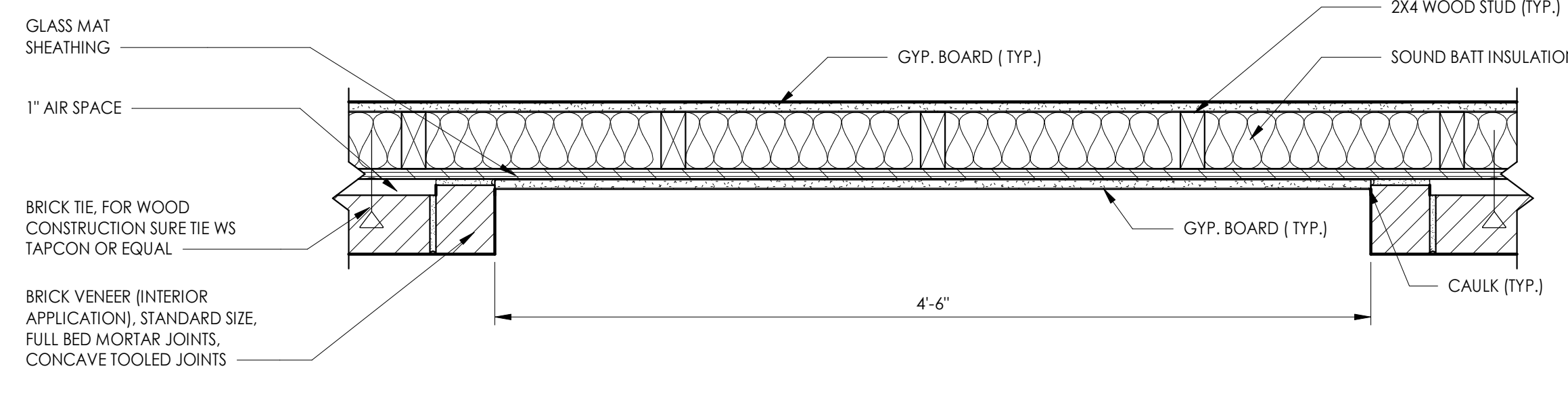
REVISIONS

JOB NO. **2254**

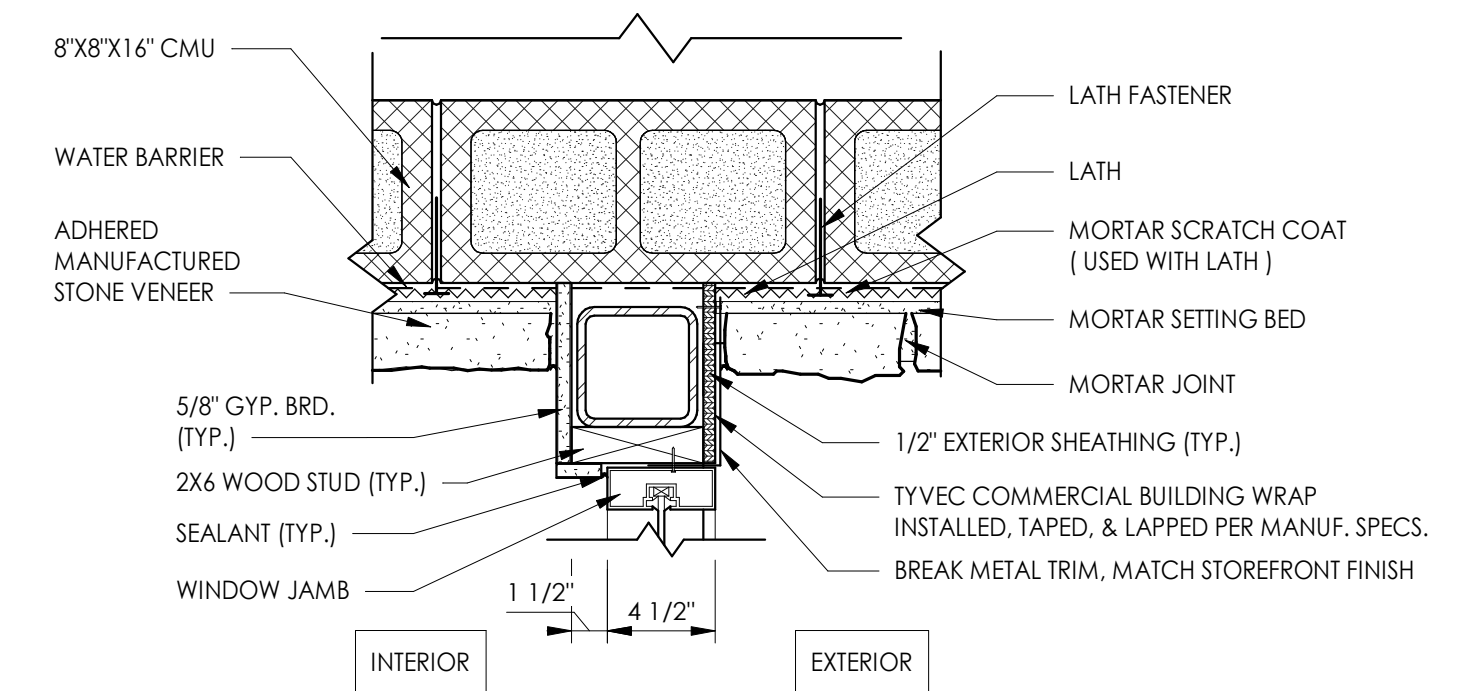
SHEET NO. **A2.2**



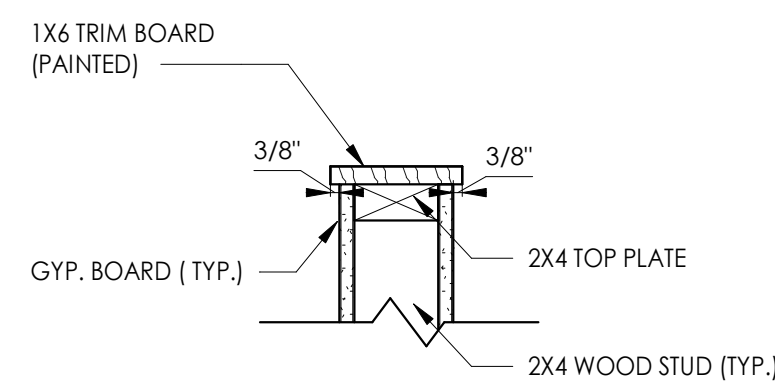
7 BRICK RETURN @ DOOR OPENING DETAIL
 A2.4 SCALE: 1 1/2" = 1'-0"



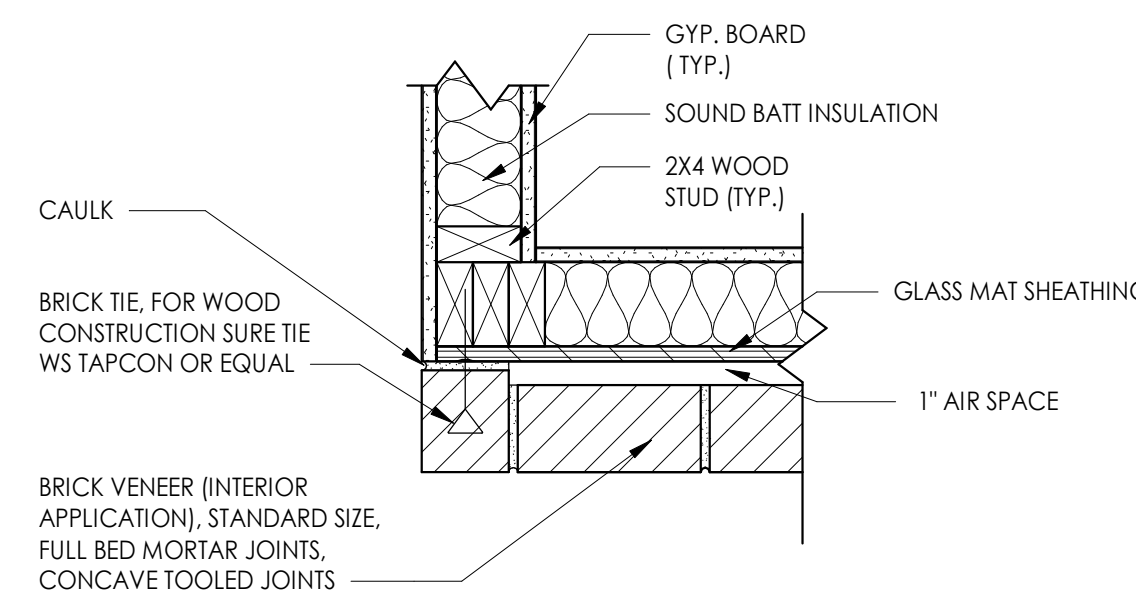
4 WALL INSERT AT BRICK WALL
 A2.4 SCALE: 1 1/2" = 1'-0"



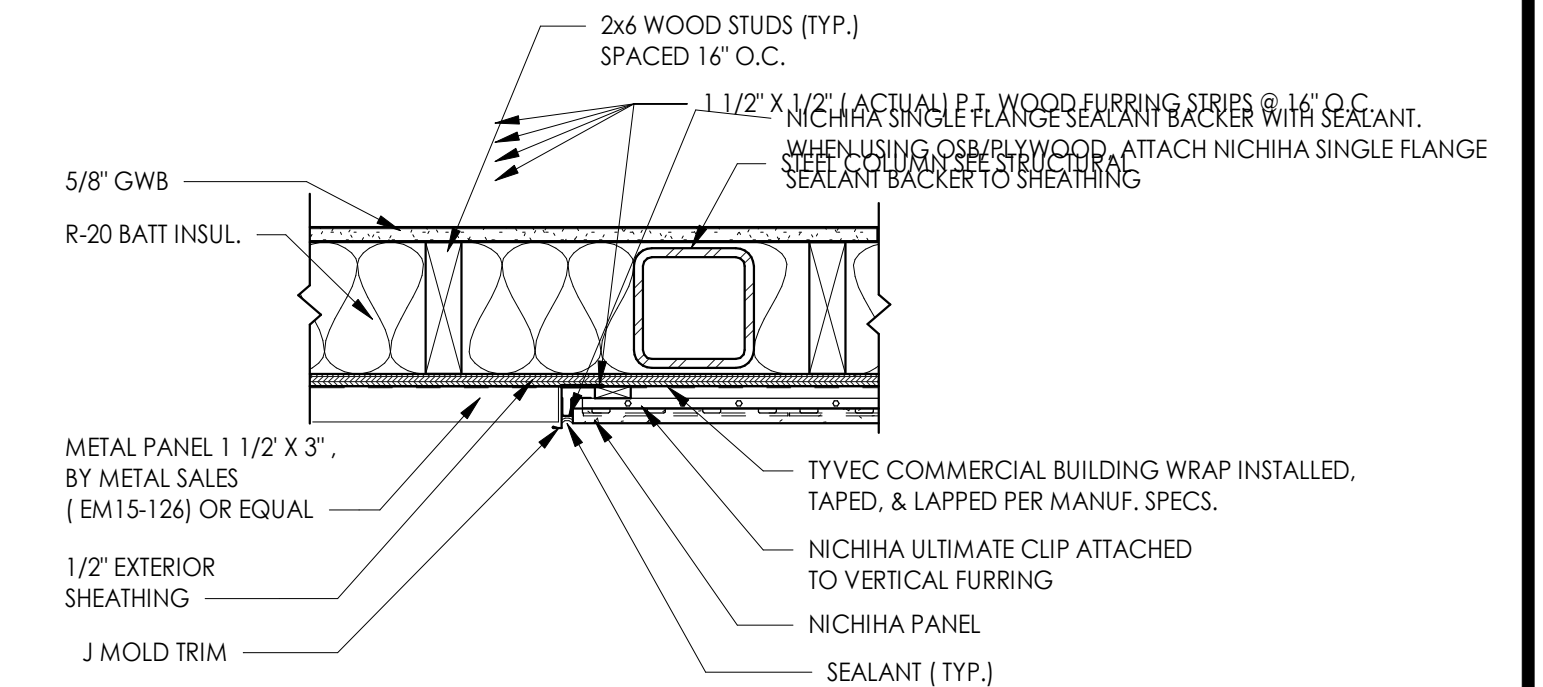
1 STONE VENEER/ MULLION DETAIL AT FIN WALL
 A2.4 SCALE: 1 1/2" = 1'-0"



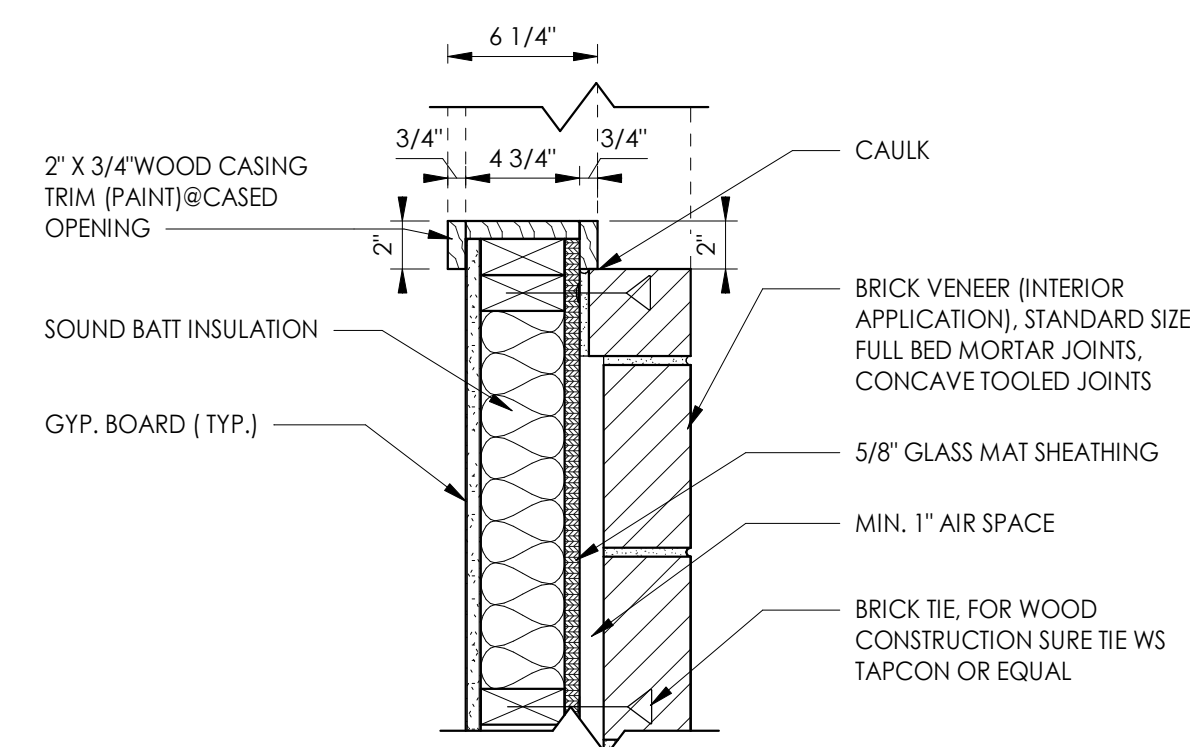
8 CAPING @ WALL DETAIL
 A2.4 SCALE: 1 1/2" = 1'-0"



5 WALL CORNER BRICK TO GYP. BRD.
 A2.4 SCALE: 1 1/2" = 1'-0"

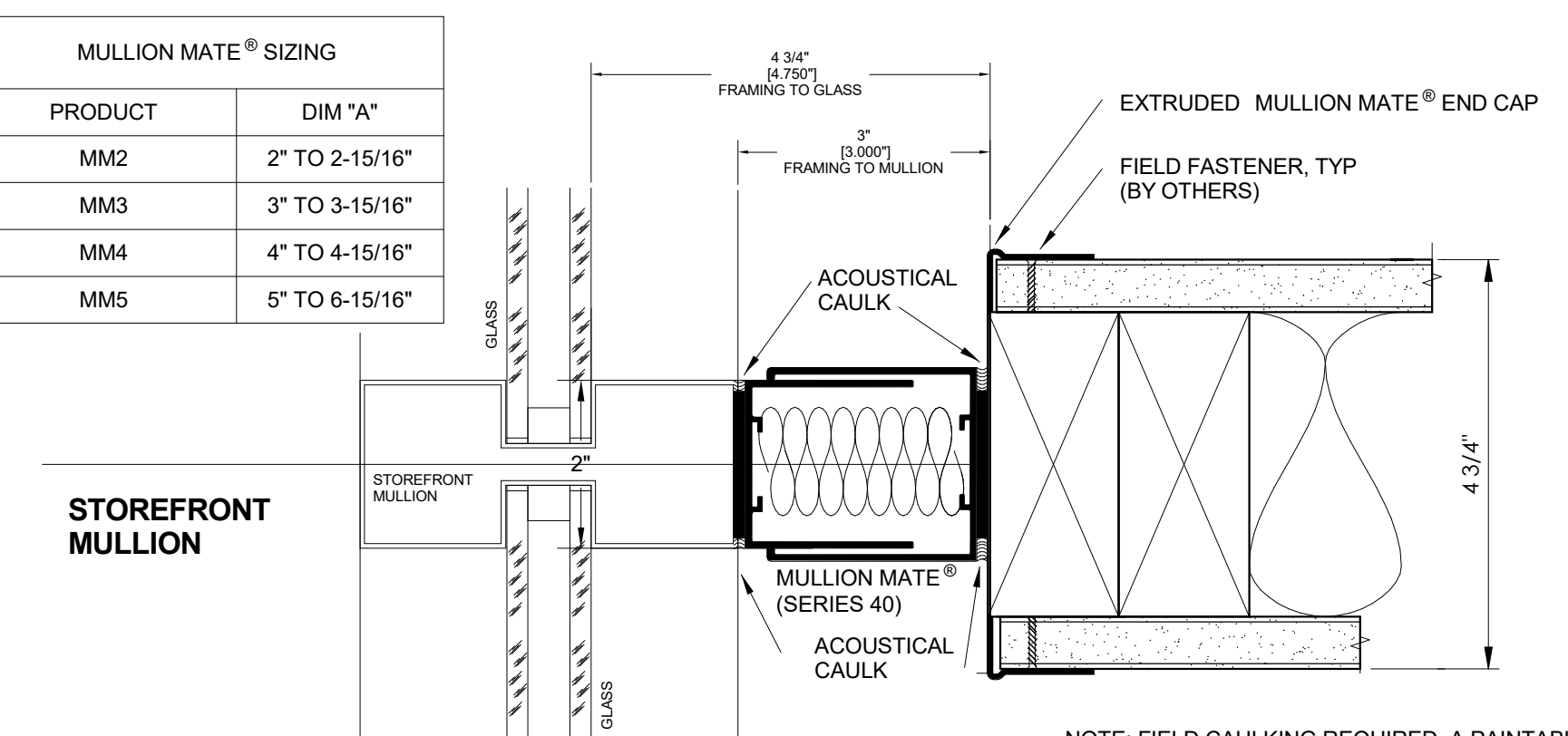


2 TRANSITION NICHHA TO METAL PANEL
 A2.4 SCALE: 1 1/2" = 1'-0"



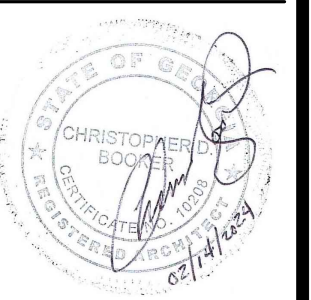
6 BRICK RETURN @ DOOR CASSED OPENING DETAIL
 A2.4 SCALE: 1 1/2" = 1'-0"

MULLION MATE® SIZING	
PRODUCT	DIM "A"
MM2	2" TO 2-15/16"
MM3	3" TO 3-15/16"
MM4	4" TO 4-15/16"
MMS	5" TO 6-15/16"



3 3 MM TO MULLION @ EXISTING WINDOW
 A2.4 SCALE: 6" = 1'-0"

NOTE: FIELD CAULKING REQUIRED. A PAINTABLE, ACOUSTICAL CAULK IS SUPPLIED WITH EACH ORDER TO SEAL EDGES FOR A HIGHER STC RATING.



PLAN DETAILS

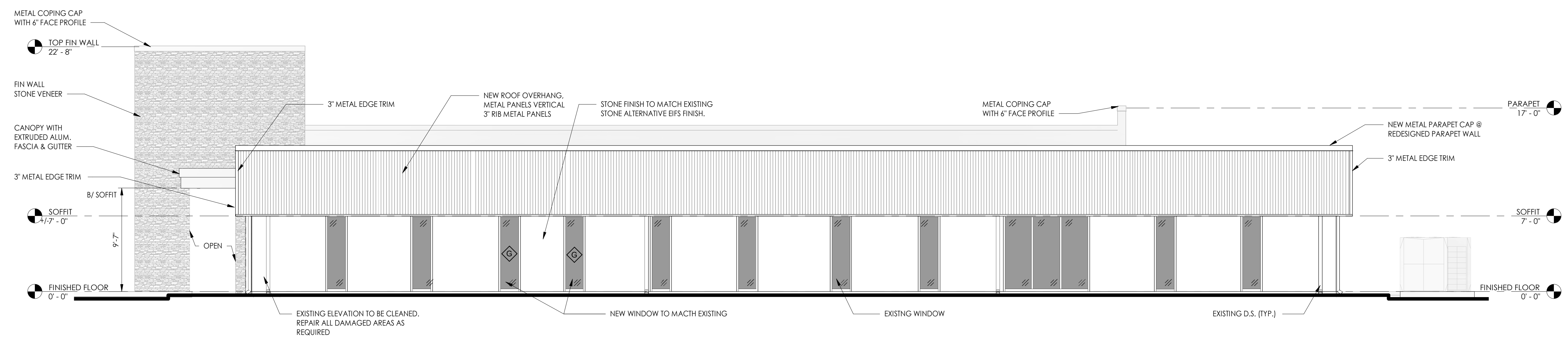
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 CHECKED BY: CB
 DATE: FEBRUARY 9, 2024

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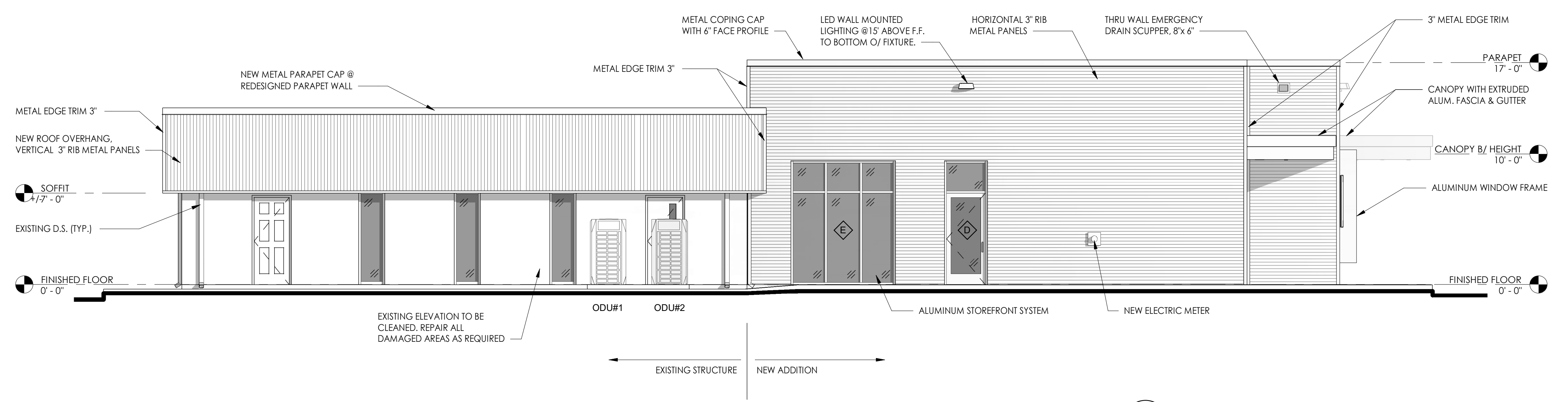
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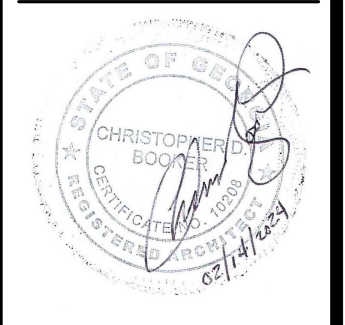
- GENERAL EXTERIOR ELEVATION NOTES**
1. CONTRACTOR TO VERIFY IN FIELD ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK
 2. NOTIFY ARCHITECT IMMEDIATELY IF CONDITIONS IN FIELD DO NOT MATCH THOSE SHOWN ON THE CONSTRUCTION DOCUMENTS.
 3. PROTECT ALL EXISTING TO REMAIN FROM DAMAGE DURING CONSTRUCTION
 4. NOT ALL KEYNOTES ARE USED ON ALL SHEETS
 5. 100% CLEAN EXTERIOR ELEVATIONS UPON COMPLETION OF MASONRY WORK



1 RIGHT ELEVATION PROPOSED
A3.2 SCALE: 3/16" = 1'-0"

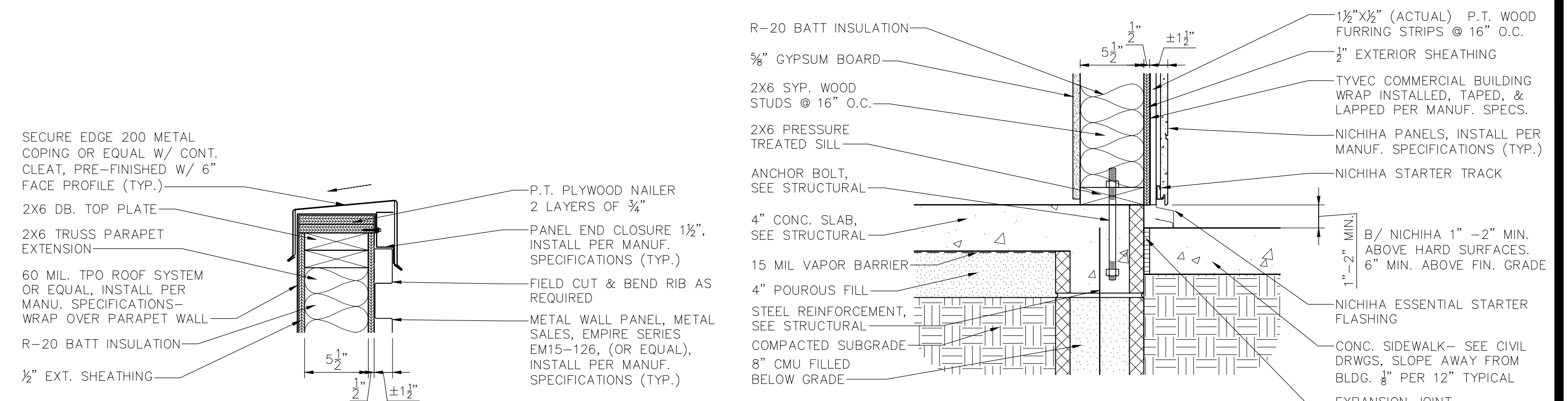


2 REAR ELEVATION PROPOSED
A3.2 SCALE: 3/16" = 1'-0"



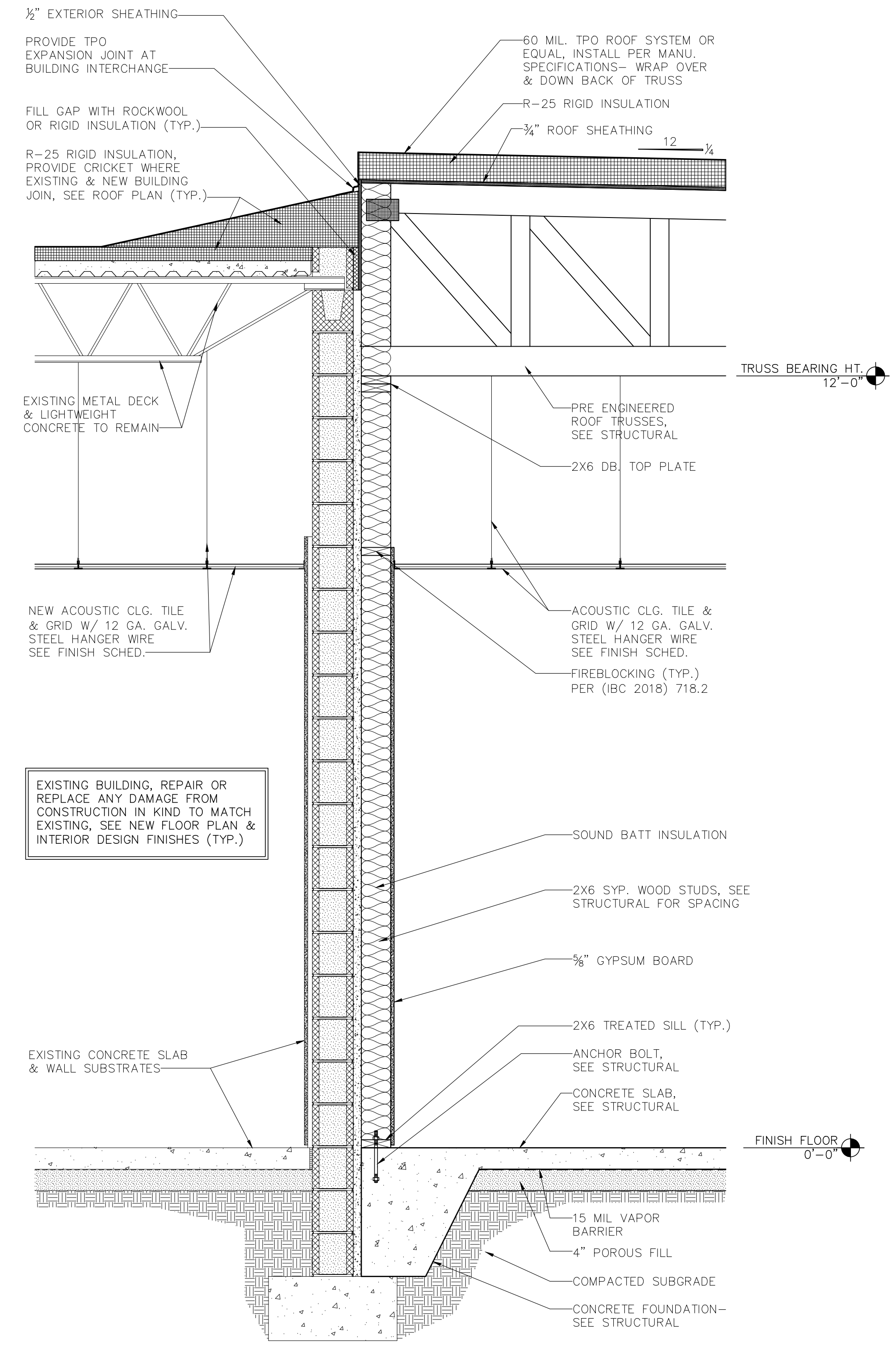
EXTERIOR ELEVATIONS PROPOSED

DESIGN BY: MB
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DATE: FEBRUARY 9, 2024
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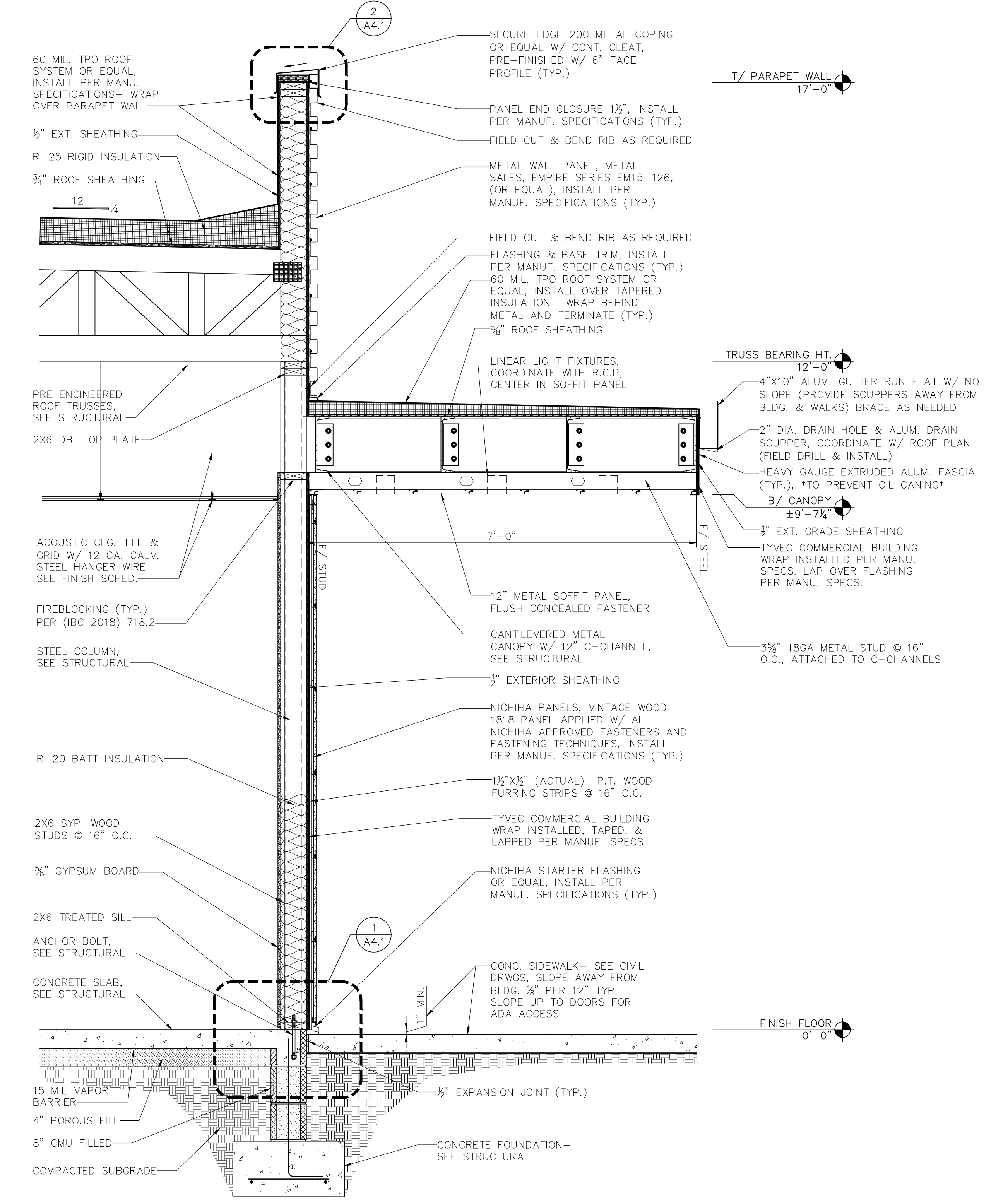


2 WALL CAP DETAIL
A4.1 SCALE: 1 1/2" = 1'-0"

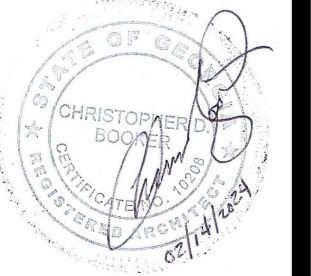
1 WALL BASE DETAIL NICHIIA @ SIDEWALK
A4.1 SCALE: 1 1/2" = 1'-0"



B WALL SECTION
A4.1 SCALE: 3/4" = 1'-0"



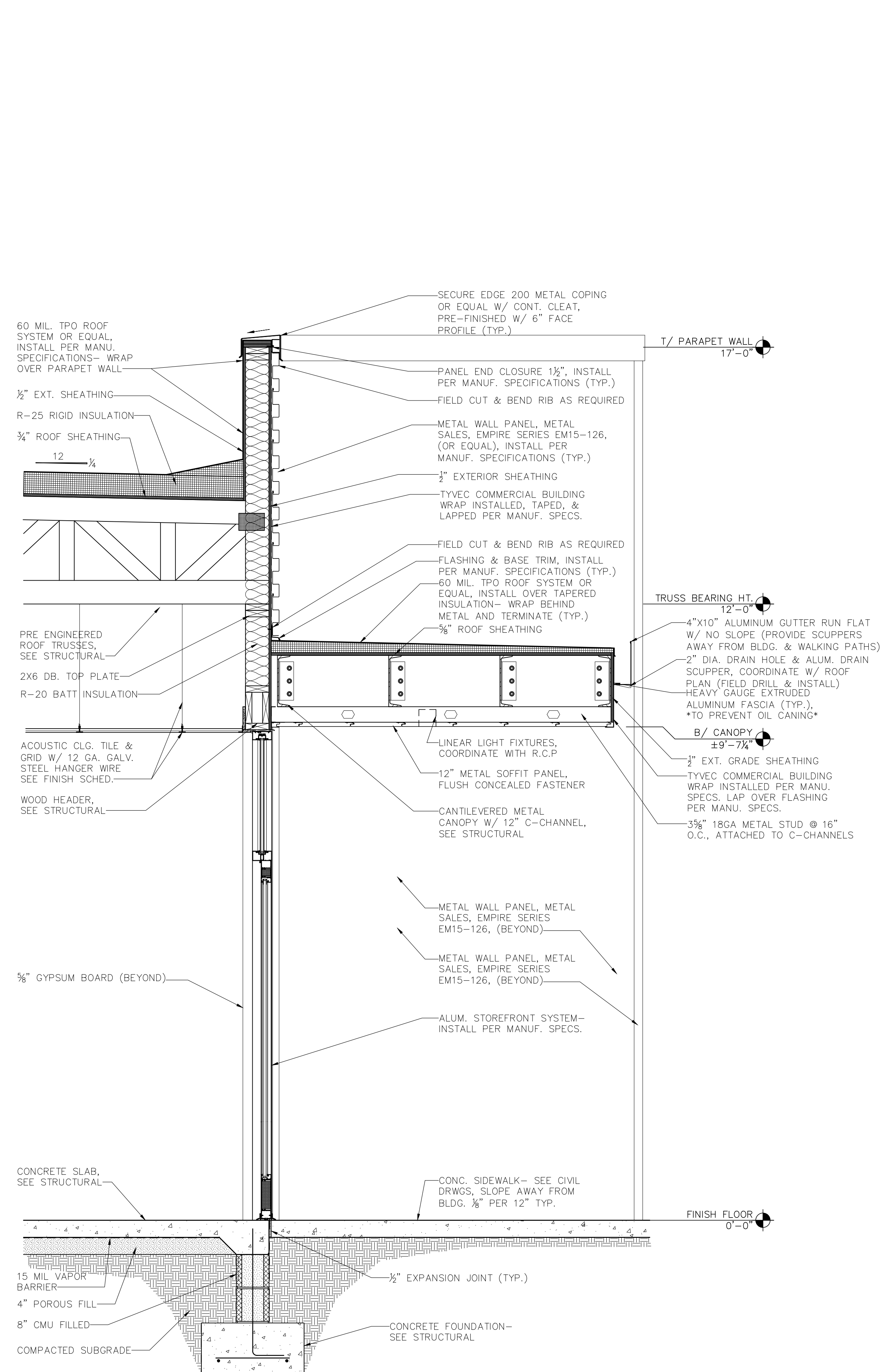
A WALL SECTION
A4.1 SCALE: 3/4" = 1'-0"



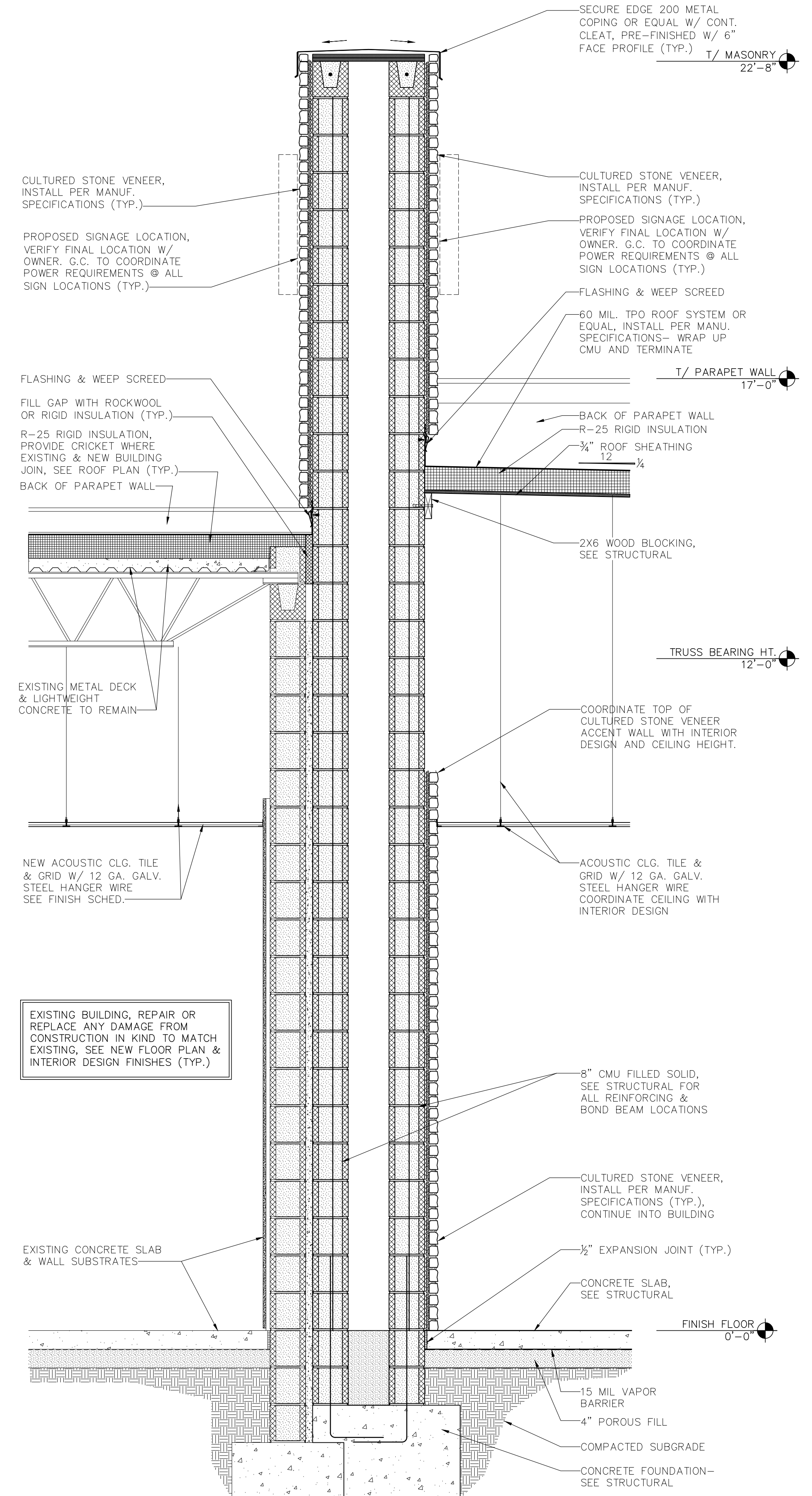
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CHKD BY: CB
DATE: FEBRUARY 9, 2024
REVISIONS

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JOB NO. 2254
SHEET NO. A4.1



F WALL SECTION
A4.3 SCALE: 3/4" = 1'-0"



E WALL SECTION
A4.3 SCALE: 3/4" = 1'-0"

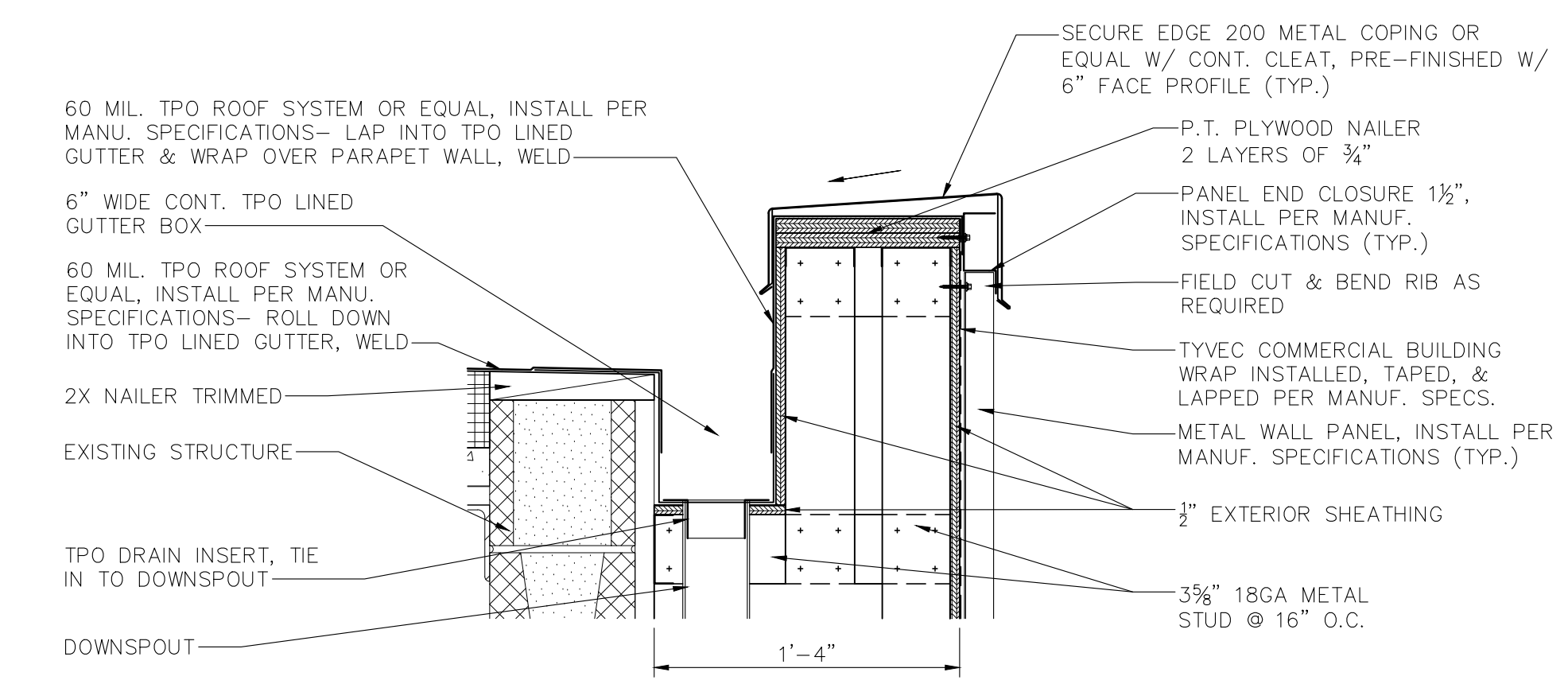
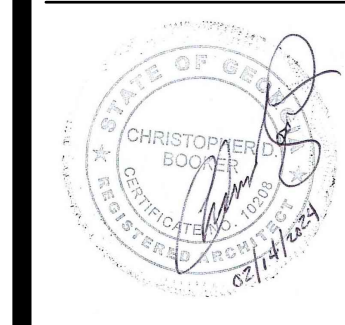
PROPOSED RENOVATION & ADDITION
MCKNIGHT CONSTRUCTION COMPANY
635 NW FRONTAGE ROAD
AUGUSTA, GEORGIA 30907

WALL SECTIONS

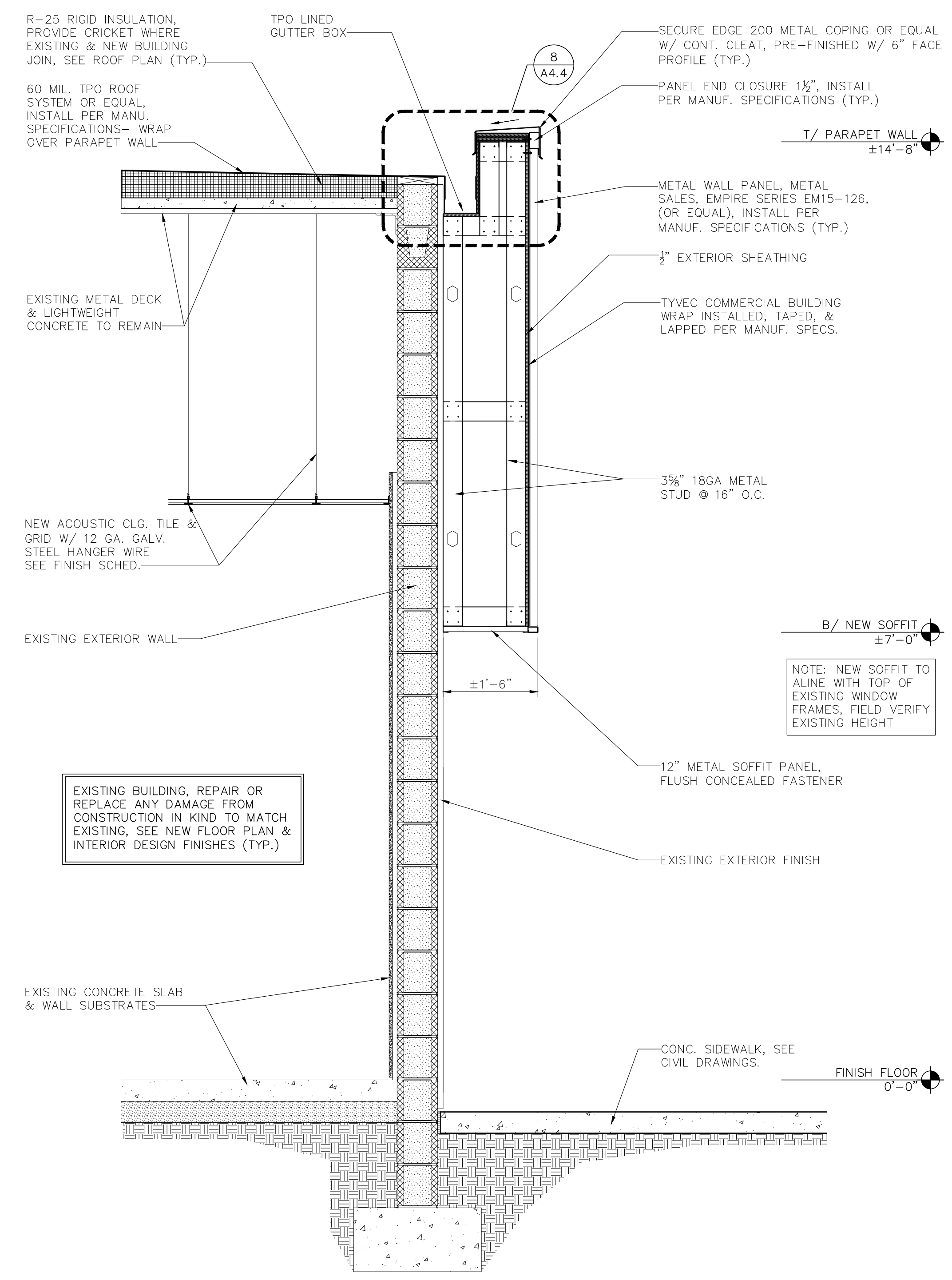
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02/09/2024

2254

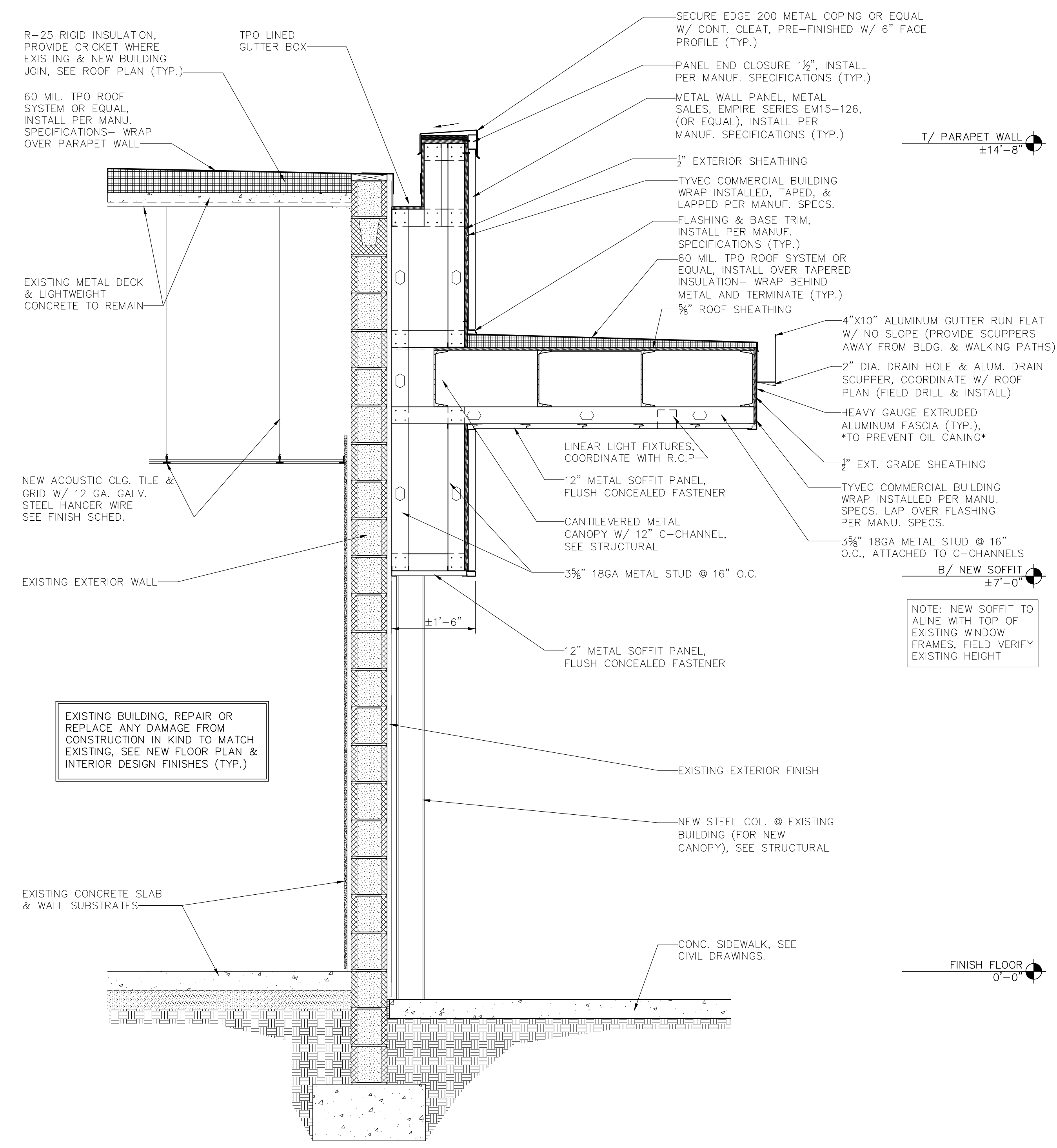
A4.3



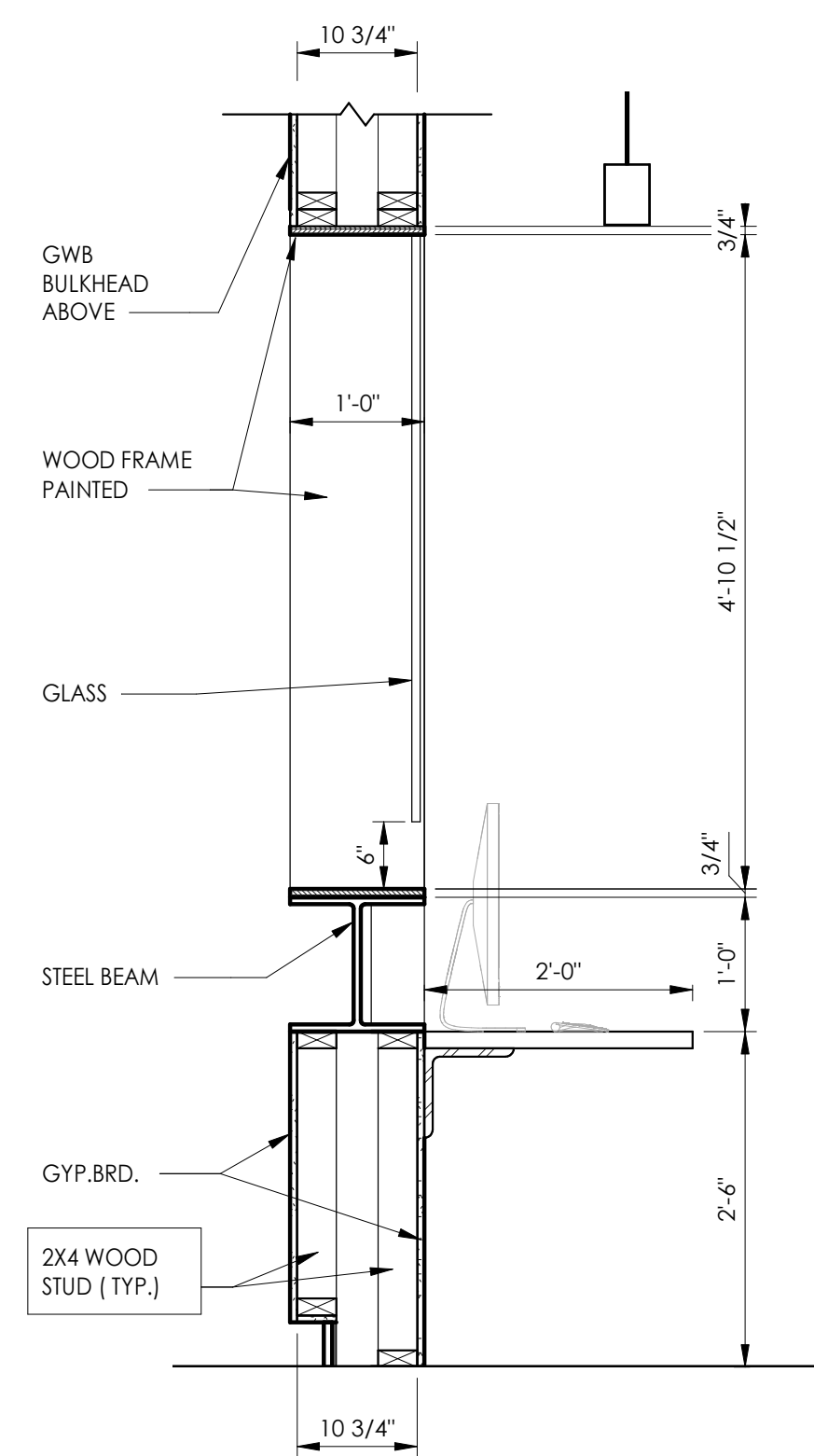
8 CONCEALED GUTTER DETAIL
SCALE: 1/2" = 1'-0"



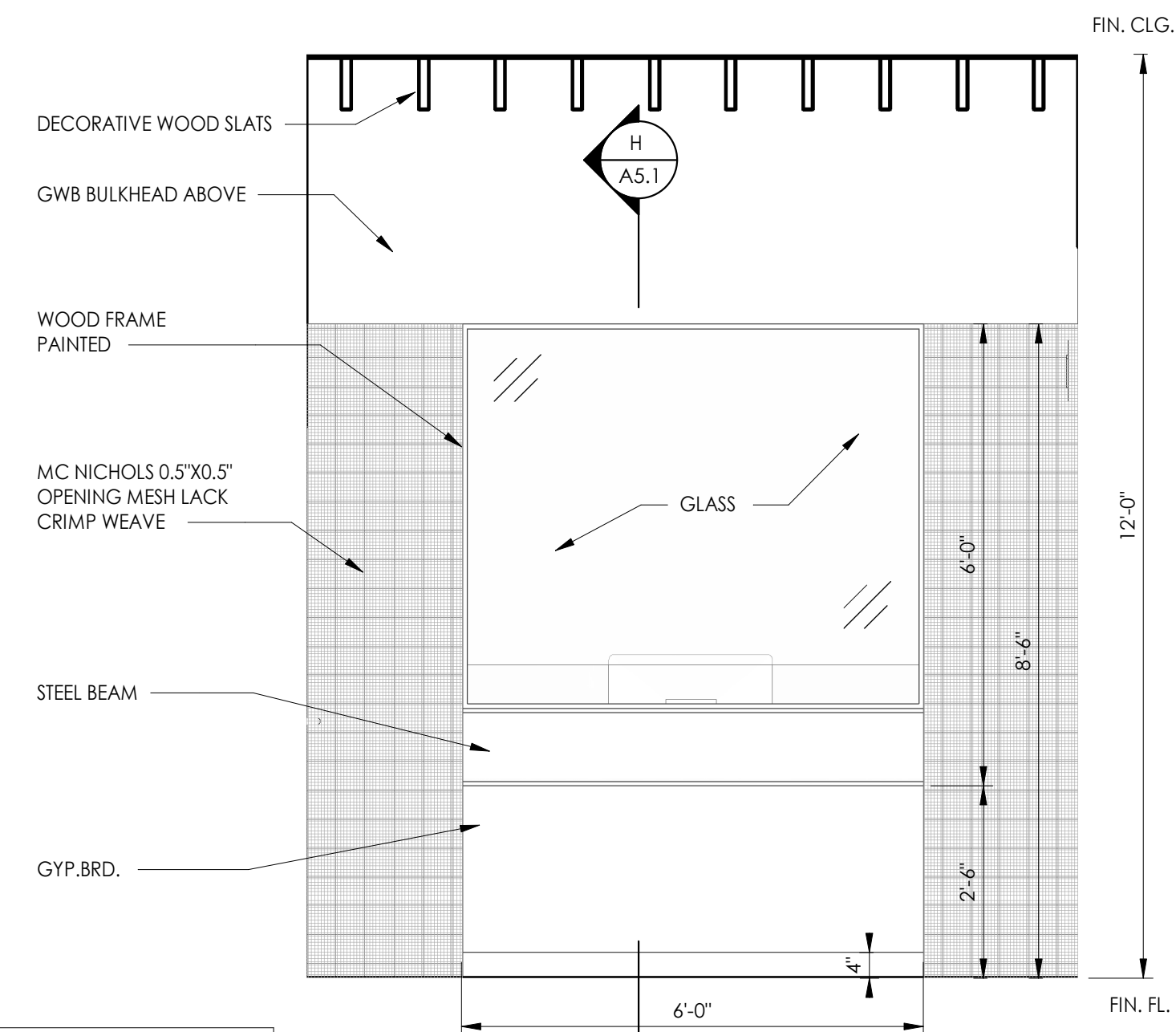
H WALL SECTION
SCALE: 3/4" = 1'-0"



G WALL SECTION
SCALE: 3/4" = 1'-0"

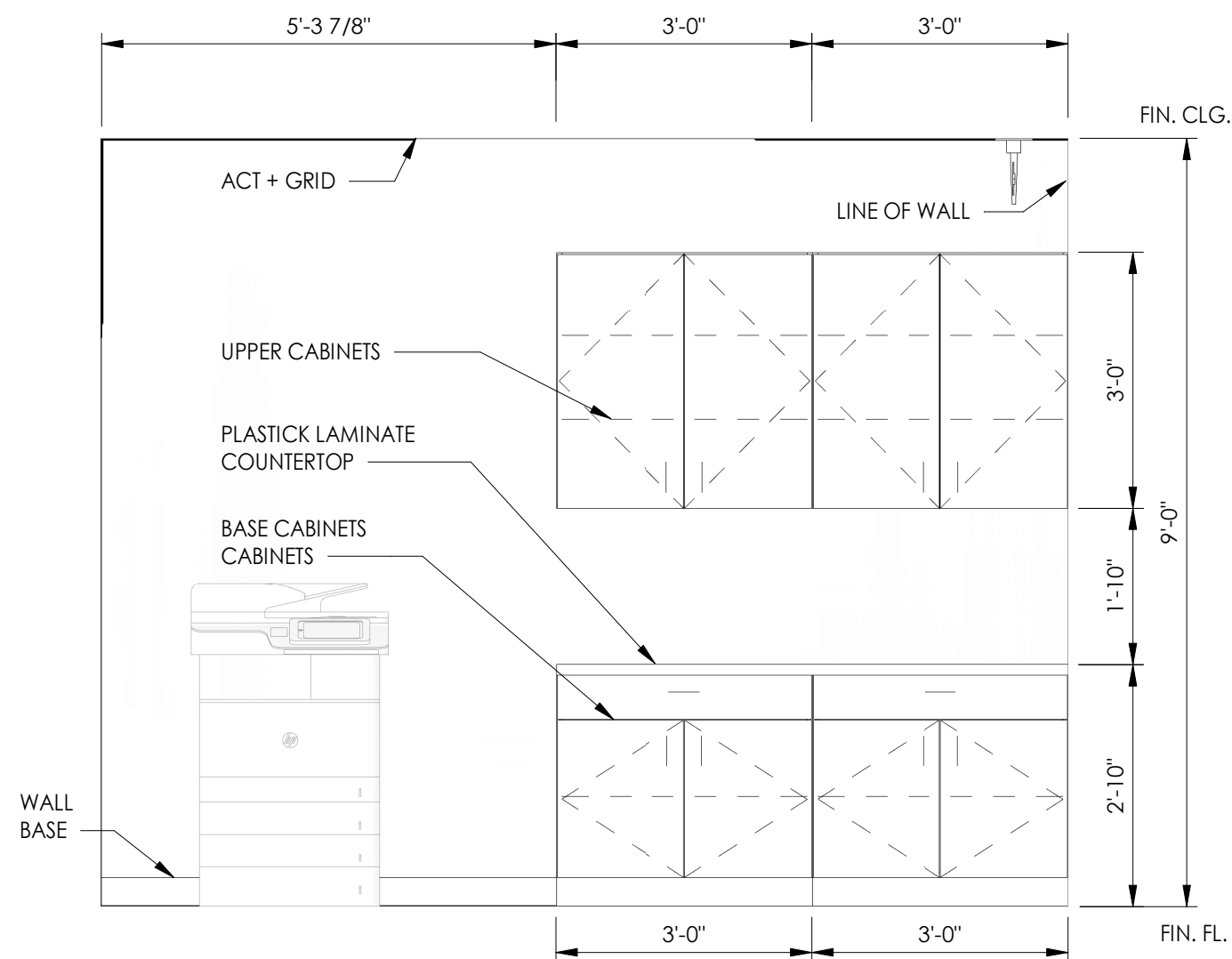


H SECTION @ LOBBY (RM.100)
A5.1 SCALE: 3/4" = 1'-0"

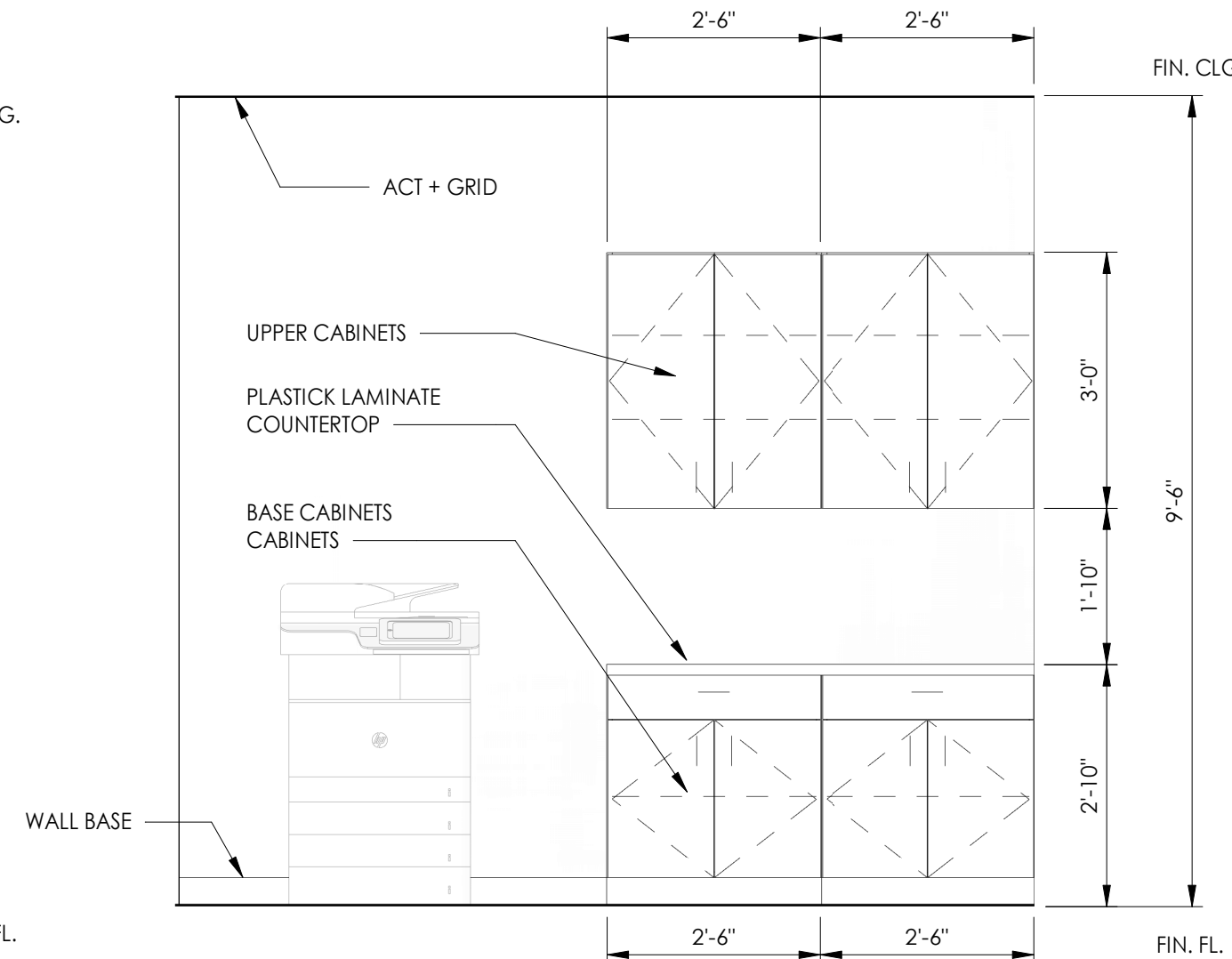


G ELEVATION @ LOBBY (RM.100)
A5.1 SCALE: 1/2" = 1'-0"

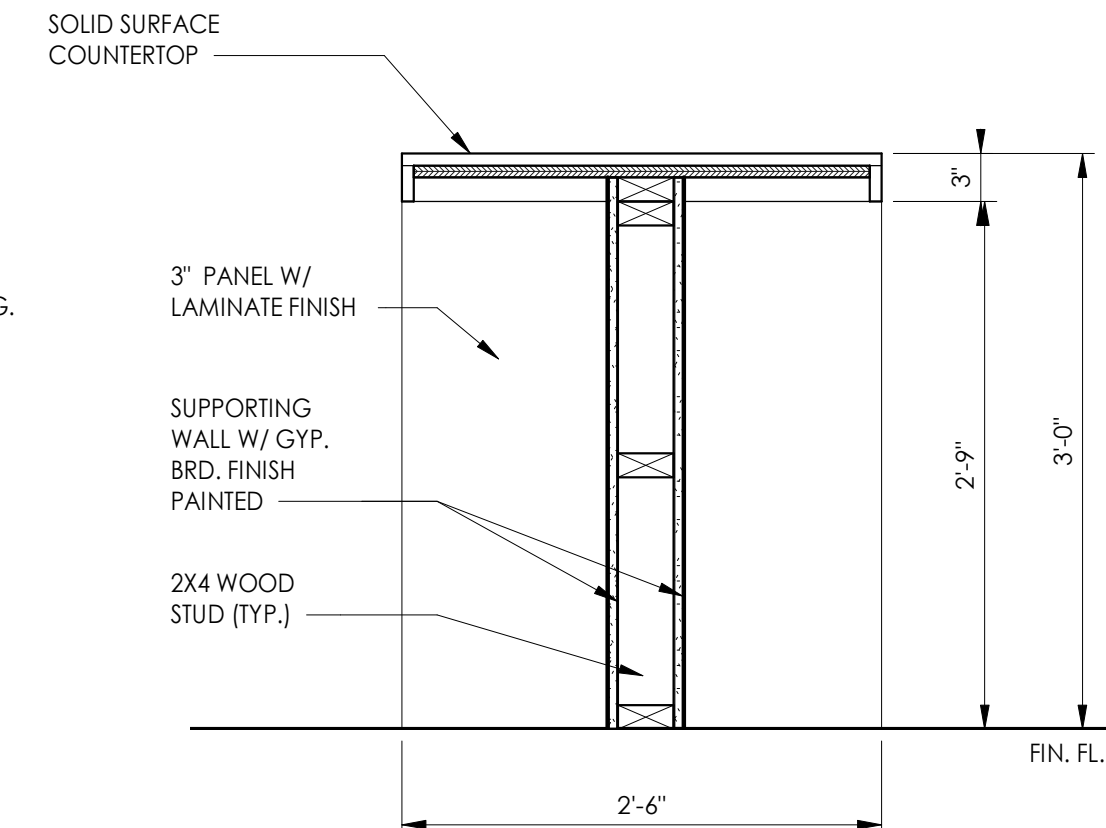
NOTE:
FOR MORE DETAILS REFER TO INTERIOR DESIGNER DRAWINGS



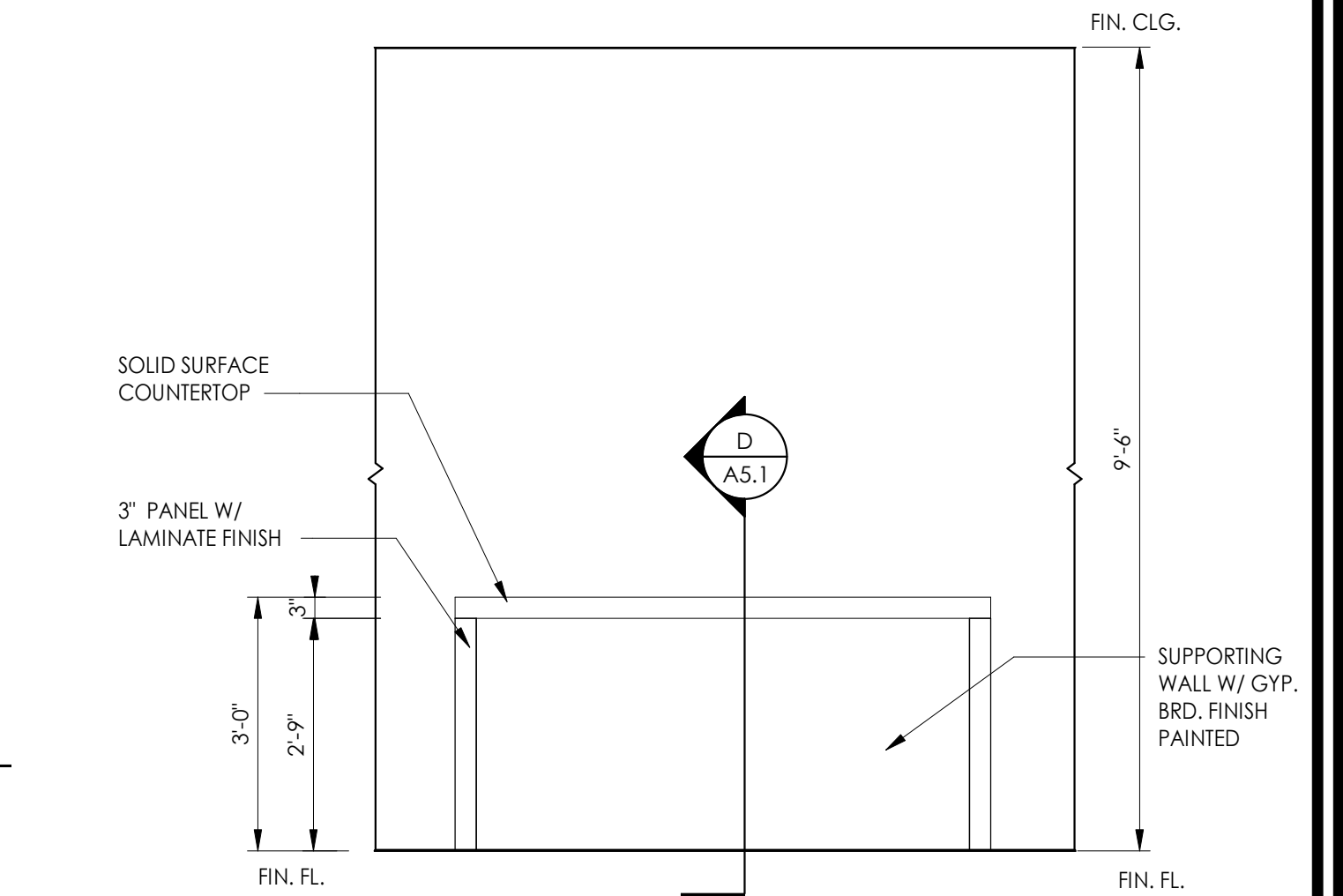
F ELEVATION @ PRINTER/ OFFICE (RM. 139)
A5.1 SCALE: 1/2" = 1'-0"



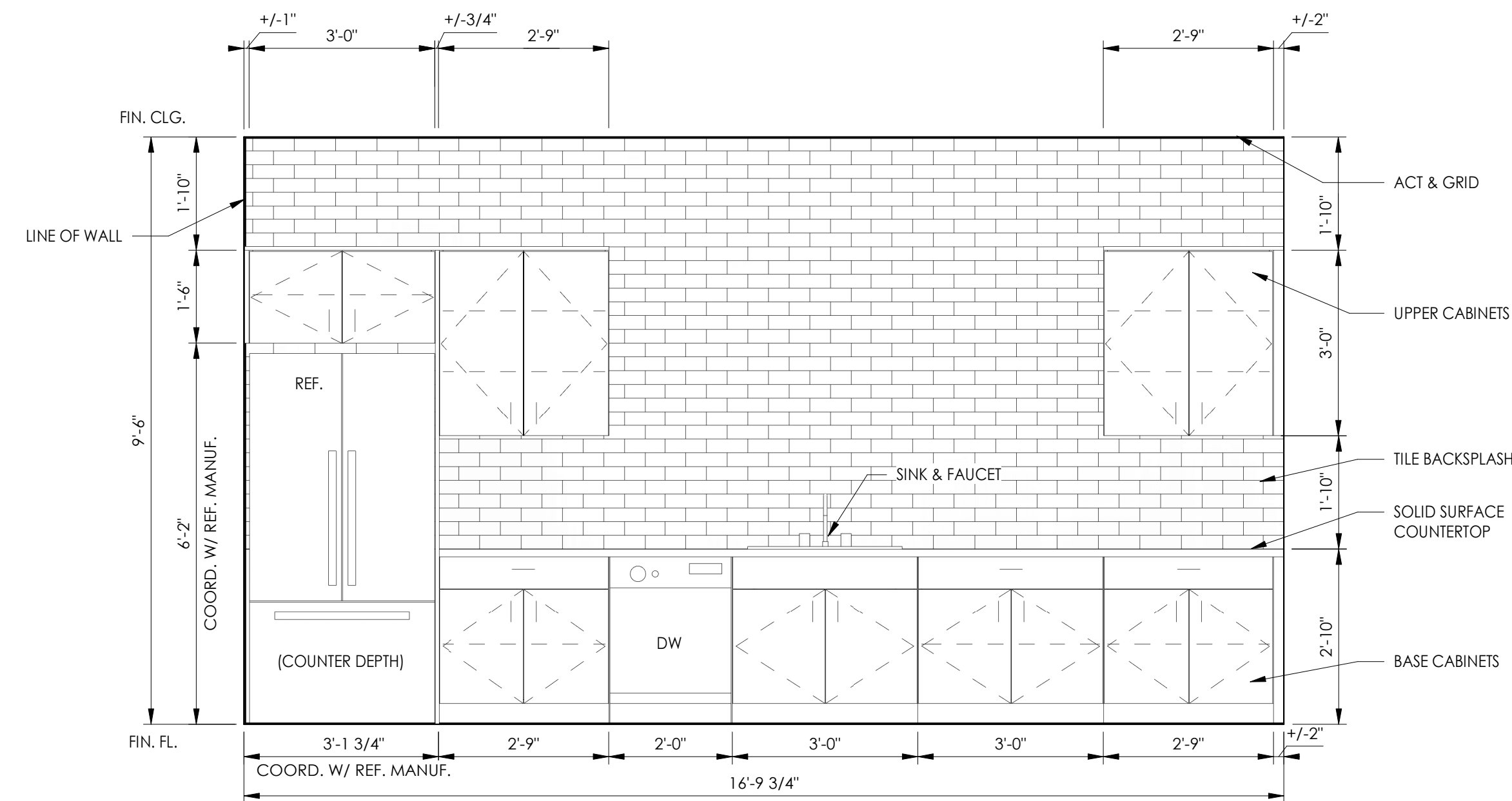
E ELEVATION @ PRINTER/ OFFICE (RM. 101)
A5.1 SCALE: 1/2" = 1'-0"



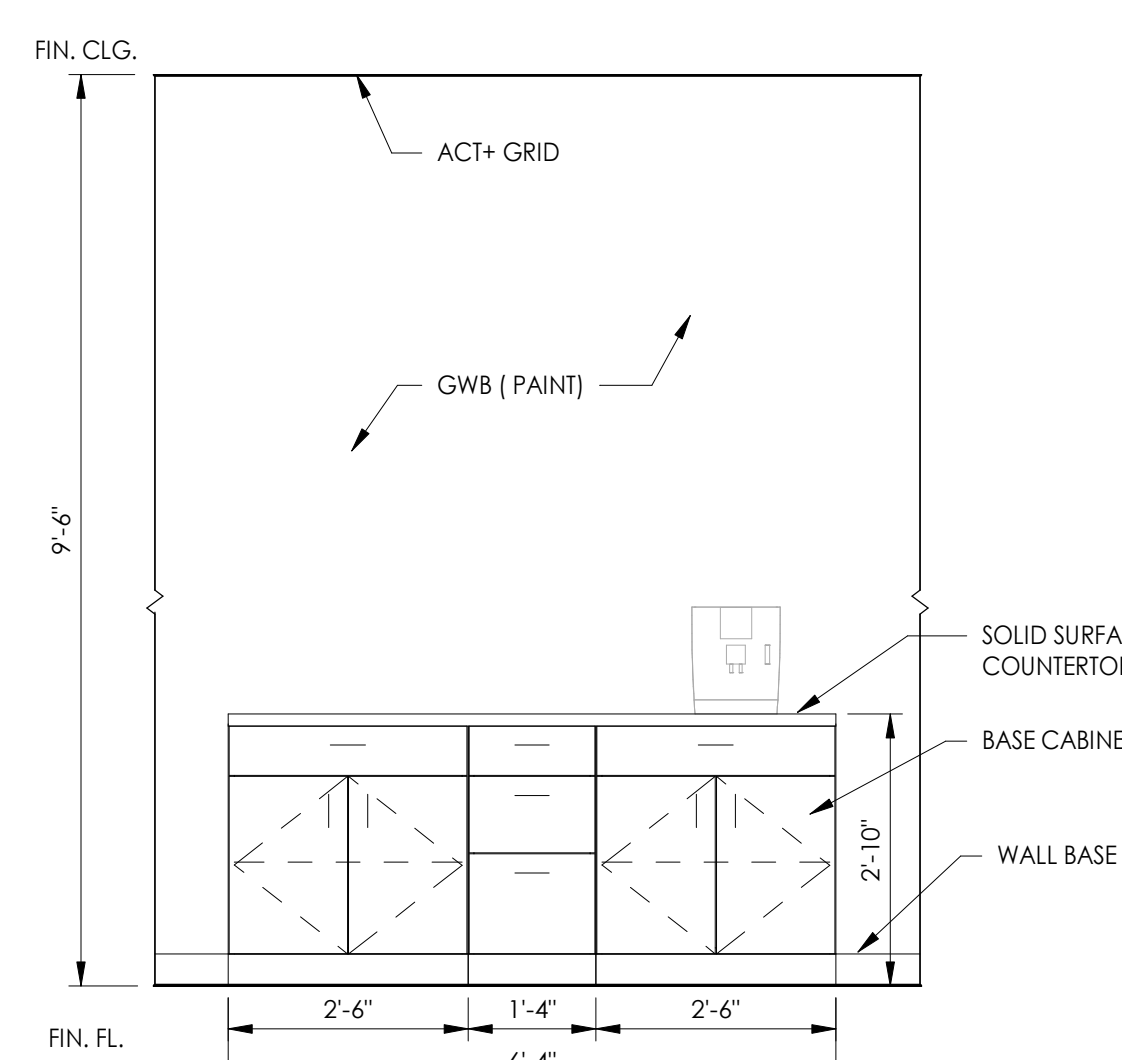
D SECTION @ BUILD IN ISLAND (RM. 113)
A5.1 SCALE: 1" = 1'-0"



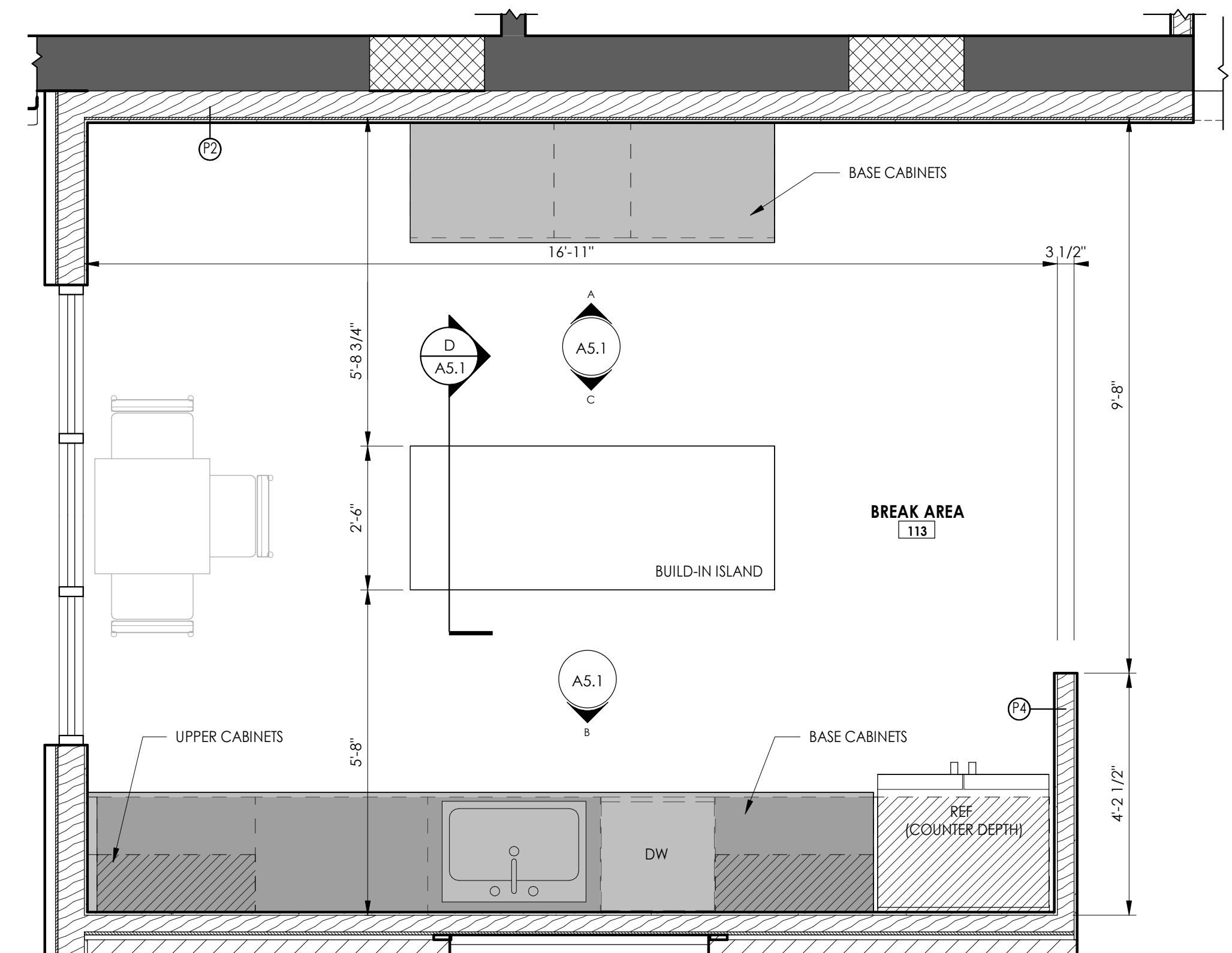
C ELEVATION @ BREAK AREA (RM. 113)
A5.1 SCALE: 1/2" = 1'-0"



B ELEVATION @ BREAK AREA (RM.113)
A5.1 SCALE: 1/2" = 1'-0"



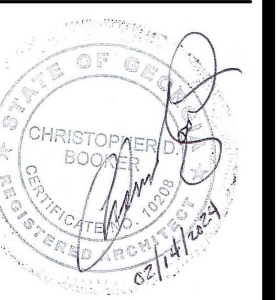
A ELEVATION @ BREAK AREA #113
A5.1 SCALE: 1/2" = 1'-0"



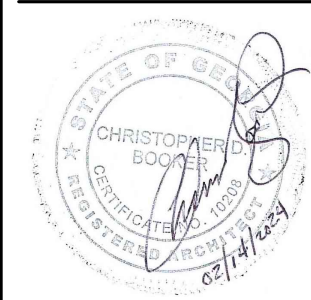
1 ENLARGED FLOOR PLAN @ BREAK AREA (RM.113)
A5.1 SCALE: 1/2" = 1'-0"

- CASEWORK NOTES**
1. PROVIDE PLASTIC LAMINATE FACED CASEWORK WITH FLUSH OVERLAY REVEAL DESIGN. ALL HINGES TO BE CONCEALED HINGES UNLESS NOTED OTHERWISE. ALL HINGES IN PUBLIC AND PROFILE AREAS TO BE CONCEALED HINGES.
 2. ALL CASEWORK COUNTER TOPS TO BE AS NOTED ON INTERIOR ELEVATIONS. PROVIDE HOLES AND GROMMET COVERS IN COUNTER TOPS AS NEEDED. ALL SPLASH GUARDS TO BE RESIN MATERIAL. VERIFY SIZE AND LOCATION WITH TENANT.
 3. ALL CABINET PULLS TO BE SATIN CHROME-PLATED WIRE PULLS UNLESS NOTED OTHERWISE. HINGE AND LOCK FINISHES SHALL MATCH CABINET PULL FINISH.
 4. LOCKING SYSTEM TO BE PROVIDED FOR ALL DRAWERS & DOORS AS SPECIFIED BY TENANT.
 5. CASEWORK DIMENSIONS TO BE COORDINATED WITH ALL EQUIPMENT, OWNER SUPPLIED AND G.C. SUPPLIED.
 6. ALL LAYOUTS TO BE APPROVED BY ARCHITECT AND OWNER WITH E SHOP DRAWINGS.

NOTE:
FOR MORE DETAILS AND FINISHES REFER TO INTERIOR DESIGNER DRAWINGS

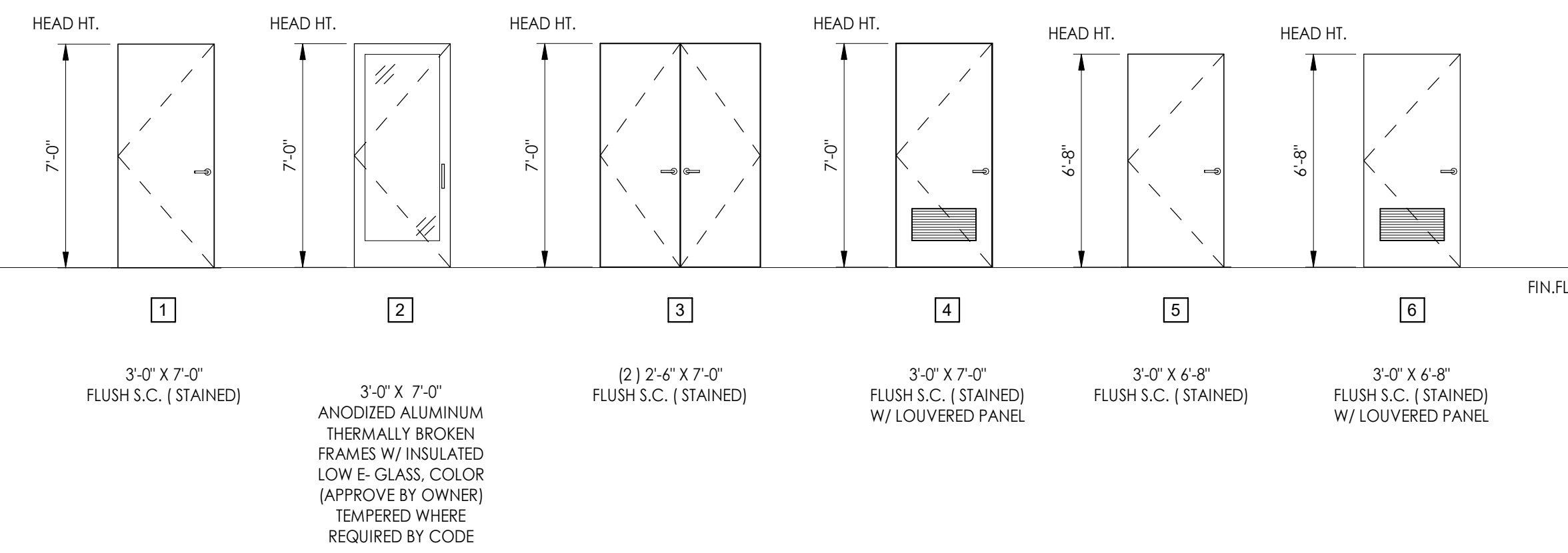
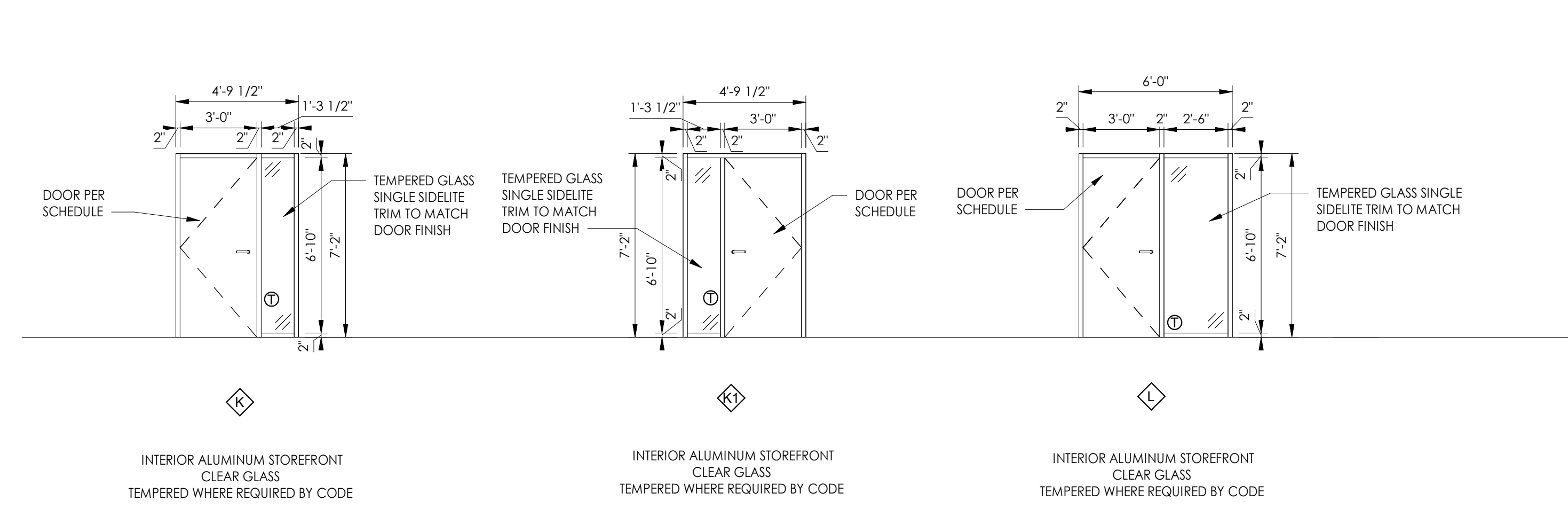
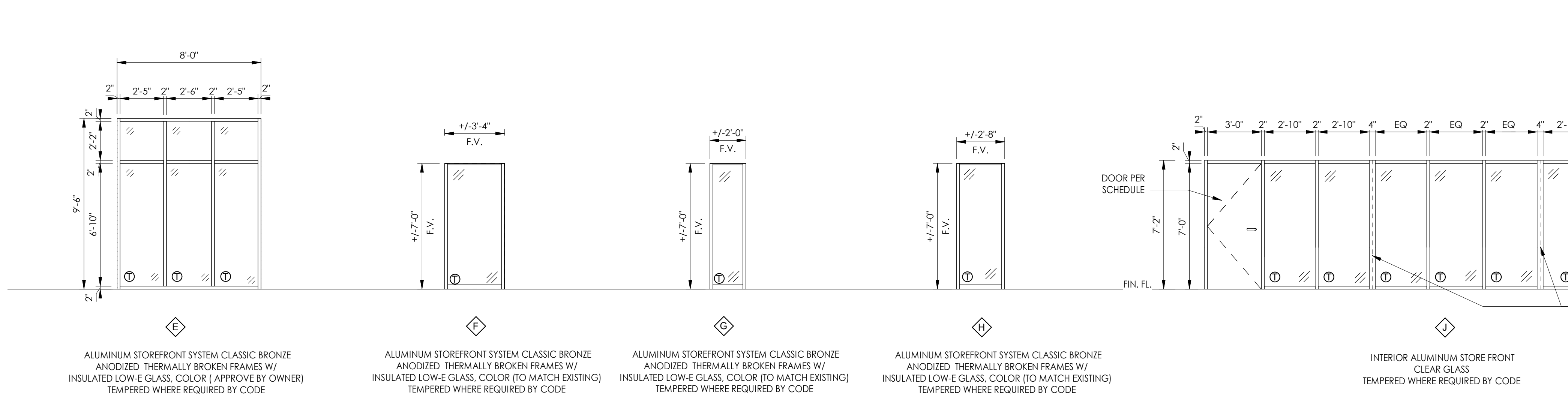
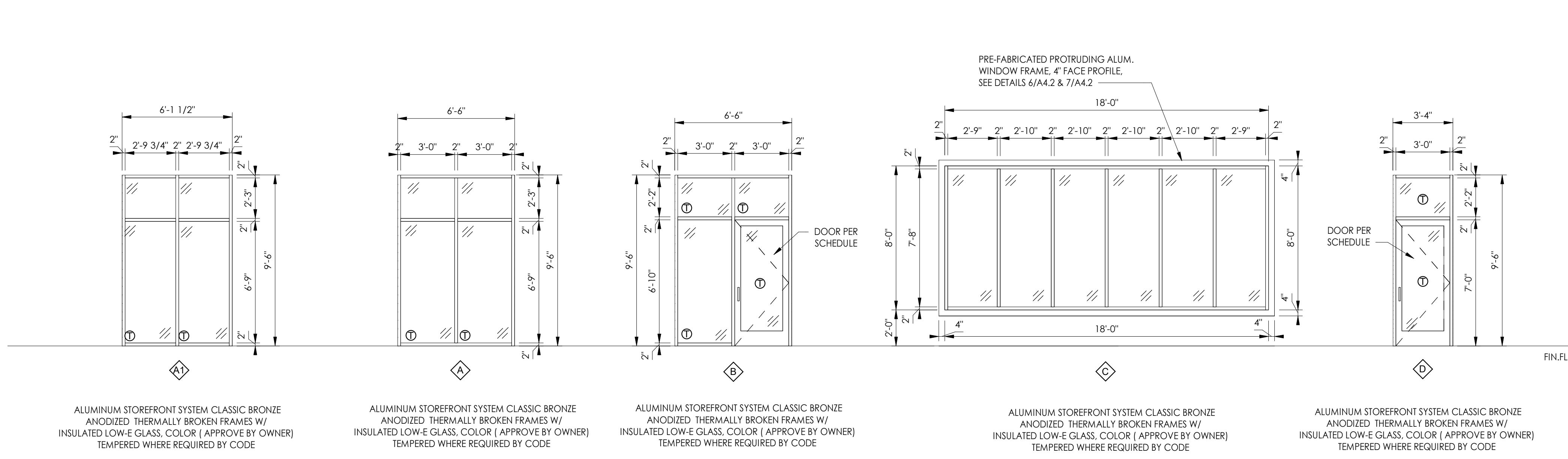


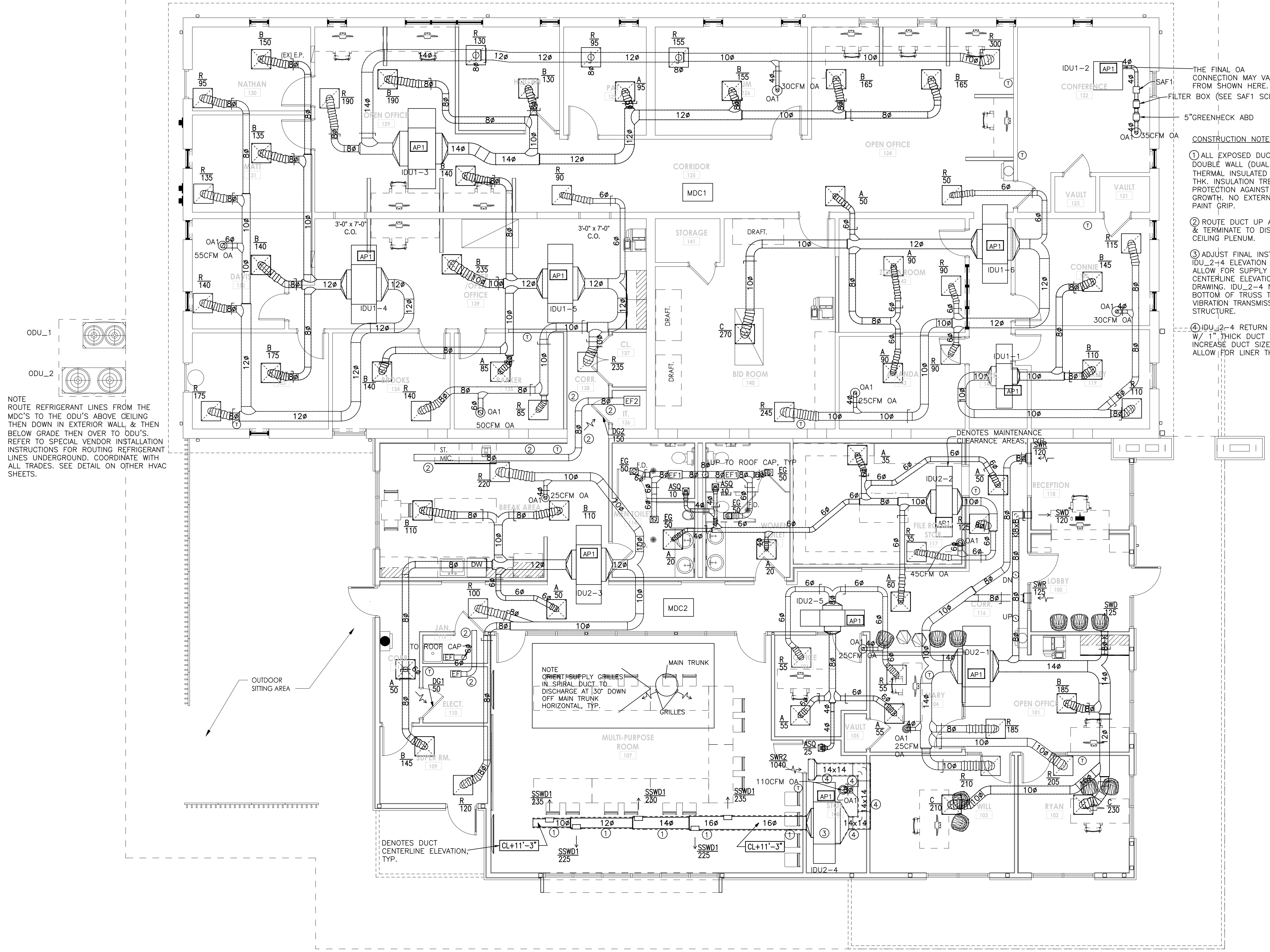
DESIGN BY: MB
CHECKED BY: CB
DATE: FEBRUARY 9, 2024
REVISIONS



DOOR SCHEDULE							
DOOR NO.	TYPE	CONFIG.	SIZE		THICKNESS	FRAME	NOTES
			WIDTH	HEIGHT			
100A	ALUM.	2	3'-0"	7'-0"		ALUM.	PUSH/PULL DEADBOLT (KEYED), CLOSER (VERIFY ACCESS CONTROL)
100B	ALUM.	2	3'-0"	7'-0"		ALUM.	LEVER LOCKSET, DEADBOLT, CLOSER (VERIFY ACCESS CONTROL)
100C	ALUM.	2	3'-0"	7'-0"		ALUM.	LEVER LOCKSET, DEADBOLT, CLOSER (VERIFY ACCESS CONTROL)
102	S.C.	1	3'-0"	7'-0"		ALUM.	OFFICE LEVER LOCKSET
103	S.C.	1	3'-0"	7'-0"		ALUM.	OFFICE LEVER LOCKSET
104	S.C.	1	3'-0"	7'-0"		ALUM.	OFFICE LEVER LOCKSET
105	S.C.	1	3'-0"	7'-0"	0'-1 3/4"	HM	STORAGE LEVER LOCK SET
106	S.C.	1	3'-0"	7'-0"		ALUM.	OFFICE LEVER LOCKSET
107	S.C.	1	3'-0"	7'-0"		ALUM.	LEVER PASSAGE SET
107A	S.C.	1	3'-0"	7'-0"		ALUM.	LEVER PASSAGE SET
108	S.C.	1	3'-0"	7'-0"	0'-1 3/4"	HM	STORAGE LEVER LOCK SET
109	S.C.	1	3'-0"	7'-0"	0'-1 3/4"	HM	LEVER LOCK SET
110	S.C.	4	3'-0"	7'-0"	0'-1 3/4"	HM	STORAGE LEVER LOCKSET
112	S.C.	1	3'-0"	7'-0"	0'-1 3/4"	HM	STORAGE LEVER LOCKSET
114	S.C.	1	3'-0"	7'-0"	0'-1 3/4"	HM	PUSH/PULL, CLOSER
114A	S.C.	1	3'-0"	7'-0"	0'-1 3/4"	HM	PRIVACY LEVER LOCKSET W/ CLOSER, COAT HOOK
115	S.C.	1	3'-0"	7'-0"	0'-1 3/4"	HM	PUSH/PULL, CLOSER
116	ALUM.	2	3'-0"	7'-0"		ALUM.	LEVER PASSAGE SET W/ ACCESS CONTROL RELEASE (ELE. STRIKE OR EQUAL, COORDINATE)
128	S.C.	5	3'-0"	6'-8"	0'-1 3/4"	HM	OFFICE LEVER LOCKSET
136	S.C.	6	3'-0"	6'-8"	0'-1 3/4"	HM	STORAGE LEVER LOCK SET
137	S.C.	3	5'-0"	6'-8"	0'-1 3/4"	HM	PULL LEVERS W/ BALL CATCH

- DOOR SCHEDULE NOTES:**
- ALL EXTERIOR DOORS TO HAVE ADA THRESHOLD AND WEATHERSTRIPPING.
 - ALL EXTERIOR G.H.M. (GALVANIZED HOLLOW METAL) DOORS TO BE INSULATED.
 - ALL H.M. (HOLLOW METAL) OR G.H.M. DOOR FRAMES TO BE PAINTED
 - ALL DOORS & HARDWARE TO BE COMMERCIAL GRADE, ADA COMPLIANT
 - ALUM: ALUMINUM FRAME, CURTAIN WALL (C.W.) OR STOREFRONT (STF.) SYSTEM.
 - ACCESS CONTROL REQUIRED LOCATIONS & REQUIRED INSTALLATION SPECS. TO BE COORDINATED WITH OWNERS SECURITY/ I.T. PROVIDER.





NOTE
 ROUTE REFRIGERANT LINES FROM THE
 MDC'S TO THE ODU'S ABOVE CEILING
 THEN DOWN IN EXTERIOR WALL, & THEN
 BELOW GRADE THEN OVER TO ODU'S.
 REFER TO SPECIAL VENDOR INSTALLATION
 INSTRUCTIONS FOR ROUTING REFRIGERANT
 LINES UNDERGROUND. COORDINATE WITH
 ALL TRADES. SEE DETAIL ON OTHER HVAC
 SHEETS.

THE FINAL OA
 CONNECTION MAY VARY
 FROM SHOWN HERE.
 FILTER BOX (SEE SAF1 SCHED)
 5" GREENHECK ABD

CONSTRUCTION NOTES

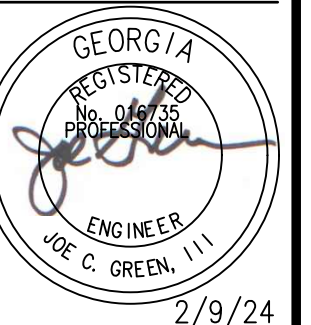
- ① ALL EXPOSED DUCT TO BE DOUBLE WALL (DUAL WALL) THERMAL INSULATED SPIRAL, 1" THK. INSULATION TREATED FOR PROTECTION AGAINST MICROBIAL GROWTH. NO EXTERNAL INSULATION, PAINT GRIP.
- ② ROUTE DUCT UP ABOVE CEILING & TERMINATE TO DISCHARGE INTO CEILING PLENUM.
- ③ ADJUST FINAL INSTALLED IDU_2-4 ELEVATION AS NEEDED TO ALLOW FOR SUPPLY DUCT CENTERLINE ELEVATION NOTED ON DRAWING. IDU_2-4 NOT TO TOUCH BOTTOM OF TRUSS TO AVOID VIBRATION TRANSMISSION TO STRUCTURE.
- ④ IDU_2-4 RETURN TO BE LINED W/ 1" THICK DUCT LINER. INCREASE DUCT SIZE SHOWN TO ALLOW FOR LINER THICKNESS.

NOTE
 ORIENT SUPPLY GRILLES
 IN SPIRAL DUCT TO
 DISCHARGE AT 30° DOWN
 OFF MAIN TRUNK
 HORIZONTAL, TYP.

NOTE
 DENOTES DUCT
 CENTERLINE ELEVATION,
 TYP.

1 HVAC PLAN
 M1.0 SCALE: 3/16" = 1'-0"

PROPOSED RENOVATION & ADDITION
 MCKNIGHT CONSTRUCTION COMPANY
 635 NW FRONTAGE ROAD
 AUGUSTA, GEORGIA 30907



HVAC PLAN

DRAWN BY:	JG
CHECKED BY:	CB
DATE:	FEBRUARY 9, 2024
REVISIONS:	
0	ISSUED FOR PERMIT 02/09/2024
JOB NO:	2254
SHEET NO:	M1.0

HVAC NOTES:

1. ALL WORK SHALL BE PERFORMED PER THE LATEST ADOPTED EDITIONS OF NFPA 90A & 91, THE NATIONAL ELECTRICAL CODE, THE INTERNATIONAL MECHANICAL CODE, INTERNATIONAL ENERGY EFFICIENCY CODE AND ALL APPLICABLE STATE & LOCAL CODES & LATEST STATE AMENDMENTS. ALL PERMITS & FEES SHALL BE PAID BY THE HVAC CONTRACTOR, WHERE TWO OR MORE CODES ARE IN CONFLICT THE MORE STRINGENT CODE SHALL APPLY. REFER TO ARCHITECTURAL CODE STUDY FOR CURRENT CODE EDITIONS APPLICABLE TO THIS PROJECT.
2. PLANS ARE DIAGRAMMATIC & SHOW THE GENERAL LOCATION OF THE EQUIPMENT & DUCTWORK. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS & DETAILS REGARDING BUILDING CONSTRUCTION & OTHER WORK SCOPE THAT MAY APPLY TO THE HVAC RELATED WORK. AS NOT SHOWN ON THE HVAC CONSTRUCTION DOCUMENTS FOR DEMOLITION WORK IS APPLICABLE & FOR NEW HVAC WORK DRAWINGS ARE NOT TO BE SCALED & ALL DIMENSIONS & LOCATIONS SHALL BE VERIFIED AT THE BUILDING SITE BEFORE FABRICATION & EQUIPMENT/DUCT PURCHASES. REPORT ANY ERRORS FOUND WITH THESE PLANS TO NOTIFY ARCHITECT IMMEDIATELY PRIOR TO BID FOR RESOLUTION & CLARIFICATION. COORDINATE EXACT LOCATION OF HVAC EQUIPMENT WITH GENERAL CONTRACTOR & ARCHITECT. CLOSELY COORDINATE ALL WORK WITH OTHER TRADES. REVIEW THE ARCHITECTURAL PLANS FOR MOUNTING HEIGHTS & ELEVATIONS REGARDING LOUVERS, GRILLES, LIGHTS OR OTHER CEILING MOUNTED ITEMS. IF THE HVAC CONTRACTOR INSTALLS HIS WORK PRIOR TO COORDINATING WITH ALL OTHER TRADES OR AS TO CAUSE ANY INTERFERENCE WITH WORK OF OTHER TRADES, HE SHALL MAKE NECESSARY CHANGES TO THE WORK OR CORRECT THE CONDITION WITHOUT EXTRA CHARGE. WHERE APPLICABLE, COORDINATE FINAL LOCATIONS NEEDED FOR ALL CONDENSATE DRAIN RELATED PIPING & FIXTURES WITH PLUMBING CONTRACTOR. PROVIDE DUCT OFFSETS, DUCT ELEVATION CHANGES & DUCT REROUTING AS NEEDED TO AVOID CONFLICTS & INTERFERENCES. GENERAL CONTRACTOR TO PROVIDE FRAMED OPENINGS REQUIRED FOR DUCT/GRILLE/DIFFUSER/EQUIPMENT INSTALLATION THRU FLOOR & CEILING JOISTS. NOTIFY ARCHITECT/ENGINEER OF MAJOR CONFLICTS: THE HVAC CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE DRAWINGS TO DETERMINE THE QUANTITY OF ALL MECHANICAL ITEMS REQUIRED. THE SYMBOLS SHOWN ON SCHEDULES DEFINE THE TYPE OF EQUIPMENT & NOT THE QUANTITY. HVAC CONTRACTOR TO PROVIDE/INSTALL/COORDINATE ANY/ALL ADDITIONAL STRUCTURAL/EQUIPMENT SUPPORTS/STEEL FASTENERS/HARDWARE NEEDED FOR EQUIPMENT/DUCT, ETC., INSTALL UNDER THE HVAC SCOPE. HVAC CONTRACTOR TO INVESTIGATE AVAILABLE BUILDING STRUCTURE WITH GENERAL CONTRACTOR AND/OR STRUCTURAL ENGINEER AND/OR METAL BUILDING VENDOR (IF METAL BUILDING) FOR ADEQUACY TO SUPPORT ANY/ALL OF THE PROPOSED HVAC EQUIPMENT/DUCTWORK, ETC., OR OTHER ADDITIONAL EQUIPMENT SUPPLIED BY OTHERS BUT WILL BE INSTALLED BY THE HVAC CONTRACTOR PRIOR TO BID.
3. ALL DUCTWORK & ACCESSORIES SHALL BE FABRICATED, SUPPORTED & INSTALLED PER ALL APPLICABLE ITEMS & REQUIREMENTS IN THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS, 4TH EDITION, FOR 1" W.G., & SEAL CLASS A. DUCT CAN BE SNAP LOCK ROUND UNLESS EXPOSED DUCT IN ROOMS/AREAS ARE SPECIFIED TO BE SPIRAL ON HVAC PLAN. SUPPORT ANY EXTERIOR DUCT PER THE LATEST SMACNA INDUSTRIAL ROUND & RECTANGULAR DUCT STANDARDS. SEAL ALL LONGITUDINAL, CIRCUMFERENTIAL & FITTING CORES WITH DUCT SEALANT. INSULATED FLEX FOR RUN-OUTS ONLY TO BE THERMAFLEX M-KE, R6.0 OR EQUAL. RUN-OUT LENGTH NOT TO EXCEED 6 FT. IN LENGTH. FLEX DUCT SIZE SHALL BE SAME AS TAKE-OFF DUCT SIZE. INSTALL VOLUME DAMPERS AT ALL SUPPLY AIR DEVICES, OUTSIDE AIR DUCTS & RETURN AIR DEVICES. INSTALL FOR RETURN AIR DEVICES WHERE INDICATED.
4. INSULATE ALL DUCTWORK (EXCLUDING INSULATED FLEX & DUCT WITHIN CONDITIONED SPACE) WITH 2 INCH THICK (R5 MIN.) FIBERGLASS BLANKET WITH FRK VAPOR BARRIER FACING. MIN. K @ 75 DEG. F SHALL BE 0.3 PER ASTM C158 & MIN. DENSITY SHALL BE 0.75 LB/CU. FT. SEAL ALL JOINTS WITH 3 INCH WIDE FSK TAPE TO MATCH VAPOR BARRIER, OR WITH 1 INCH THICK (R6 MIN.) 1" THICK, REFLECTIX BIG BUBBLE DUCT INSULATION OR EQUAL. SECURELY TAPE THE LINEAR AND CIRCUMFERENCE SEAMS WITH A UL 181 APPROVED TAPE (GOAL IS AN AIR-TIGHT, SNUG SEAL SEAM). DO NOT LEAVE ANY EXPOSED DUCT OR SPACE WHERE AIR CAN ENTER BETWEEN THE DUCT AND THE REFLECTIX OR EQ. WHERE INSULATION IS REQUIRED ON EXTERIOR DUCT, PROVIDE/INSTALL WATERPROOF INSULATION SYSTEM W/ VAPOR BARRIER, R8 MIN. IF APPLICABLE. INSULATE ALL DUCT RELATED TO THE KITCHEN HOOD SYSTEM PER CODE REQUIREMENTS.
5. DUCT SIZES MAY BE ALTERED AS LONG AS THE SAME CROSS SECTIONAL AREA IS MAINTAINED IN ORDER TO AVOID INTERFERENCES & CONFLICTS. COORDINATE FINAL DUCT LAYOUT WITH ALL OTHER TRADES & STRUCTURAL DRAWINGS & STRUCTURAL SHOP DRAWINGS PRIOR TO HVAC PROCUREMENT TO AVOID REWORK, INTERFERENCES & CONFLICTS.
6. INSTALL ALL MECHANICAL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ENSURE MANUFACTURER INSTALLATION INSTRUCTIONS ARE FOLLOWED NOT ONLY FOR MAJOR HVAC EQUIPMENT BUT ALSO ANY/ALL INSTALLATION INSTRUCTIONS FOR ANY/ALL ADDITIONAL OPTIONS AND/OR ACCESSORIES FOR THE RELATED HVAC EQUIPMENT SELECTIONS. PROVIDE/INSTALL ALL COMPONENTS WHETHER SPECIFICALLY INDICATED ON DRAWINGS OR NOT THAT ARE NEEDED TO RESULT IN FULLY FUNCTIONAL HVAC SYSTEMS. INSTALL TRAPPED CONDENSATE DRAINS ON UNITS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. ROUTE DRAIN & SPILL ON GRADE WHERE WATER WILL ABSORB SUCH AS BUT NOT LIMITED TO GRAVEL OR SOD AREAS OR TO PLUMBING DRAIN OR ROOF DRAIN (NOT EMERGENCY ROOF DRAIN) WITH ELBOW TURNED DOWN. CONTRACTOR TO REVIEW ALL APPLICABLE PROJECT SITE & ARCHITECTURAL DRAWINGS TO ENSURE THEY DO NOT ROUTE CONDENSATE LINES TO TERMINATE WHERE THE CONDENSATE WOULD CAUSE A NUISANCE SUCH AS SIDEWALKS OR OTHER SURFACES WHERE CONDENSATE WOULD BE A NUISANCE AS DEFINED BY THE MECHANICAL CODE. CONTRACTOR HAS THE OPTION TO ROUTE CONDENSATE DRAIN LINES IF NEEDED IF INDICATED ON PLANS TO AVOID INTERFERENCES & IF EQUIPMENT CONDENSATE DRAIN CONNECTION VARIES FROM WHAT IS SHOWN ON PLAN, DRAIN LINE SHALL BE 3/4" MINIMUM AS REQUIRED BY CODE. SCH 40 PVC WITH SOLVENT WELD JOINTS & WITH A 3 INCH MIN. TRAP. IF AIR HANDLING EQUIPMENT IS INSTALLED IN CEILING PLENUMS USED AS RETURN AIR PLENUMS PVC PIPING IS NOT ALLOWED. PIPING MUST BE PIPE MATERIAL THAT MEETS CODE FLAME SPREAD & SMOKE GENERATION REQUIREMENTS FOR PLENUMS. INSULATE DRAIN WITH 0.5 INCH THICK ARMAFLEX OR EQ. ADJUST ELEVATIONS OF EQUIPMENT REQUIRING CONDENSATE DRAINS TO ENSURE GRAVITY DRAINAGE. OTHERWISE PROVIDE/INSTALL CONDENSATE PUMPS. IF CONDENSATE PUMPS ARE INSTALLED COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR & MINIMUM PUMP DISCHARGE LINE TO MEET SAME REQUIREMENTS & TO BE INSULATED PREVIOUSLY LISTED. PROVIDE CONTACTORS FOR FANS/EQUIPMENT IF NEEDED. DO NOT SPILL DRAINS DIRECTLY TO ROOF.
7. REGARDING HVAC EQUIPMENT, DIFFERENT MANUFACTURERS WITH EQUAL OR BETTER PERFORMANCE OR CONSTRUCTION CHARACTERISTICS WILL BE CONSIDERED BY THE HVAC ENGINEER FOR ALL HVAC EQUIPMENT EXCEPT HEATING AND COOLING EQUIPMENT. HEATING & COOLING EQUIPMENT SHALL BE BY CARRIER, TRANE, JCI (YORK), MITSUBISHI OR SCHEDULED EQUIPMENT ON HVAC DRAWINGS. EXHAUST FANS BY GREENHECK, COOK, S&P, FANTECH OR BROAN. IF THE PROJECT OWNER/TENANT APPROVES OTHER HVAC BRANDS NOT LISTED PREVIOUSLY, THEIR APPROVAL MUST BE TRANSMITTED IN WRITING TO THE ARCHITECT 10 DAYS PRIOR TO BID DATE. ALL HVAC EQUIPMENT ALTERNATES DESIRED BY THE HVAC CONTRACTOR SHALL BE DOCUMENTED AND SENT TO THE ARCHITECT 10 BUSINESS DAYS PRIOR TO BID DATE. FOR ANY PROPOSED DIFFERENT MANUFACTURERS THE PROPOSED EQUIPMENT SPECIFICATIONS. THE SPECIFICATIONS/PRODUCT DATA OF THE DESIGN BASIS MANUFACTURER SHALL BE ADDRESSED/EVALUATED ITEM BY ITEM AS COMPARED TO THE PROPOSED DIFFERENT MANUFACTURERS SPECIFICATIONS/PRODUCT DATA, AND EACH ITEM LISTED IN THE SPECIFICATIONS/PRODUCT DATA SHALL BE COMPARED AND EQUAL TO IN VALUE OR BETTER THAN THE DESIGN BASIS MANUFACTURER. IF THE PROPOSED MANUFACTURERS EQUIPMENT IS INFERIOR WHEN COMPARED TO EACH ITEM OF THE DESIGN BASIS EQUIPMENT THE SUBMITTAL FOR THE DIFFERENT MANUFACTURER SHALL DOCUMENT THE DEFICIENCIES OF THE PROPOSED EQUIPMENT IN WRITING ON THE SUBMITTAL. OTHERWISE IF THE ENGINEER APPROVES THE ALTERNATE MANUFACTURER AND IT IS LATER FOUND TO HAVE INFERIOR PERFORMANCE, ETC., AS COMPARED TO THE DESIGN BASIS THE ENGINEER IS RELIEVED FROM ALL LIABILITY, CHANGE ORDERS, ETC., RESULTING FROM ANY INFERIOR QUALITIES/SPECIFICATIONS/PRODUCT DATA OF THE ALTERNATE EQUIPMENT.
8. ALL 90 DEGREE RECTANGULAR ELBOWS SHALL HAVE TURNING VANES.
9. PROVIDE PROGRAMMABLE COMMERCIAL AUTO CHANGEOVER TYPE THERMOSTAT. CONTROL WIRING SHALL BE 18 GAUGE THERMOSTAT CABLE. MOUNT THERMOSTAT 4'-0" ABOVE FINISHED FLOOR. THERMOSTAT TO ENABLE OCCUPIED & UNOCCUPIED CONTROL MODES. FANS TO OPERATE TO ENSURE PROPER SPACE VENTILATION DURING OCCUPIED MODE & FANS TO BE OFF DURING UNOCCUPIED MODE. INSTALL THERMOSTATS AS RECOMMENDED BY THE HVAC EQUIPMENT VENDOR THAT MEET CURRENT ENERGY & MECHANICAL CODES.
10. ALL DUCT DIMENSIONS ARE CLEAR INSIDE DIMENSIONS.
11. ALL SYSTEMS & AIRFLOWS SHALL BE ADJUSTED & BALANCED AFTER COMPLETE INSTALLATION & WITH ALL EXHAUST FANS ENERGIZED. AN INDEPENDENT TESTING AND BALANCING AGENCY CERTIFIED BY THE AABC OR NEBB SHALL BE ENGAGED TO TEST AND BALANCE THE HVAC SYSTEMS. SYSTEMS SHALL BE BALANCED TO PLUS/MINUS 10% OF DESIGN REQUIREMENTS. THE CONTRACTOR SHALL PLACE ALL SYSTEMS AND EQUIPMENT INTO FULL OPERATION FOR TESTING AND BALANCING. ONE COPY OF THE FINAL TEST AND BALANCE REPORT WITH THE AABC NATIONAL PERFORMANCE GUARANTY OR NEBB CONFORMANCE CERTIFICATE SHALL BE SENT DIRECTLY TO THE ENGINEER. PROVIDE FIVE (5) ADDITIONAL COPIES TO THE CONTRACTOR. THE TEST AND BALANCE SCOPE SHALL BE AS LISTED PER THE TAB AGENCY TAB PROCEDURES FOR THE HVAC EQUIPMENT & SYSTEMS INSTALLED. IF AN EXACT TAB PROCEDURE IS NOT LISTED FOR ANY OF THE PROJECT HVAC EQUIPMENT OR SYSTEMS APPLY A TAB PROCEDURE PER A SIMILAR TYPE EQUIPMENT OR SYSTEM. PROVIDE VOLUME DAMPERS FOR ALL BRANCH LINES TO AIR DEVICES WHETHER INDICATED ON PLANS OR NOT WHERE NEEDED TO PERFORM FINAL AIR BALANCING.
12. FILTERS SHALL BE LOCATED INSIDE AIR HANDLERS & SHALL BE DISPOSABLE TYPE. INSTALL CLEAN FILTERS AT COMPLETION OF ALL CONSTRUCTION.
13. PROVIDE FLEXIBLE CONNECTIONS TO ALL AIR HANDLING EQUIPMENT.
14. PROVIDE SPACING BETWEEN/AROUND ALL HVAC EQUIPMENT TO ALLOW MAINTENANCE CLEARANCES AND FREE AIR FLOW. ADJUST FINAL LOCATIONS OF HVAC EQUIPMENT SUCH AS SHIFTING OVER IN ANY DIRECTIONS AND ADJUSTING ELEVATIONS AS NEEDED TO COMPLY. EQUIPMENT IS SHOWN IN GENERAL VICINITY. LOCATION SHOWN ON DRAWINGS IS NOT DIMENSIONED SO EQUIPMENT/DUCTWORK CAN BE SHIFTED AS NEEDED TO WORK WITH FINAL BUILDING LAYOUT & UNANTICIPATED INTERFERENCES.
15. REFER TO ARCHITECTURAL DRAWINGS, ELECTRICAL LIGHTING PLANS & REFLECTED CEILING PLANS FOR FINAL LOCATIONS OF CEILING MOUNTED AIR DEVICES & EQUIPMENT.
16. ALL ALTERNATES DESIRED BY THE HVAC CONTRACTOR SHALL BE DOCUMENTED AND SENT TO THE ARCHITECT 10 BUSINESS DAYS PRIOR TO BID DATE. OTHERWISE THE HVAC CONTRACTOR SHALL PAY FOR ANY DRAWING REVISIONS OR CORRESPONDENCE REQUIRED OF THE ENGINEER TO OBTAIN THE BUILDING INSPECTORS APPROVAL OF INSTALLED EQUIPMENT, MATERIALS, ETC., THAT ARE NOT DESIGN BASIS PER THESE HVAC NOTES, HVAC SPECIFICATIONS, HVAC PLANS, AND/OR HVAC SCHEDULES.
17. REFRIGERANT PIPING (IF NEEDED) SHALL BE "ACR" WITH 15% SILVER SOLDER JOINTS. INSULATE SUCTION LINE WITH 0.75 INCH THICK ARMAFLEX INSULATION. IF HVAC EQUIPMENT VENDOR REQUIRES DIFFERENT INSULATION THICKNESS/AND OR REQUIREMENTS COMPLY WITH THE VENDOR REQUIREMENTS. PURGE TUBING WITH DRY NITROGEN WHILE BRAZING. INSULATION JOINTS SHALL BE BUTTED & GLUED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS. THE ZOOM LOCK BRAZE-FREE FITTINGS BY PARKER HANNIFIN CORPORATION ARE AN ACCEPTABLE ALTERNATE IF APPROVED BY THE HVAC EQUIPMENT MANUFACTURER. INSULATE & INSTALL TUBING & INSULATION PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. IF THESE SPECIFICATIONS CONFLICT WITH VENDOR REQUIREMENTS INSTALL IN ACCORDANCE WITH VENDOR REQUIREMENTS.
18. IF HVAC CONTRACTOR DESIRES TO VALUE ENGINEER THE DUCT SYSTEM(S) DESIGN, THE HVAC CONTRACTOR SHALL BEAR ALL COSTS REQUIRED TO REVISE ALL AFFECTED CONSTRUCTION DOCUMENTS FOR RESUBMITTAL TO ALL APPROVING PARTIES. ANY DESIRE TO VALUE ENGINEER SHALL BE DOCUMENTED VIA A FORMAL RFI DOCUMENT. HVAC CONTRACTOR TO COORDINATE PROPOSED CHANGES WITH ALL OTHER AFFECTED TRADES.
19. THE MECHANICAL/HVAC CONTRACTOR SHALL COORDINATE & CONFIRM ALL ELECTRICAL REQUIREMENTS & SPECIFICATIONS WITH THE ELECTRICAL CONTRACTOR IN WRITING ONCE THE PROJECT HAS BEEN AWARDED FOR ALL HVAC EQUIPMENT TO BE INSTALLED. ANY DIFFERENCES IN ELECTRICAL LOADS FOR EQUIPMENT OTHER THAN THE DESIGN BASIS SHALL NOT CONSTITUTE CHANGE ORDERS FOR ELECTRICAL CHANGES REQUIRED EVEN IF ENGINEER APPROVES SUBMITTALS.
20. IF HVAC CONTRACTOR SELECTS EQUIPMENT OTHER THAN THE BRANDS/MODELS SPECIFIED, THEY WILL BE RESPONSIBLE FOR PAYING FOR ANY HVAC DRAWING REVISIONS REQUIRED FOR ANY REASON DUE TO DIFFERENCES IN THE HVAC CONTRACTORS DESIRED EQUIPMENT, AS APPROVED BY THE ENGINEER, VS THE HVAC EQUIPMENT USED AS THE DESIGN BASIS ON THE HVAC BID DRAWINGS. IF THE HVAC EQUIPMENT INDICATED ON DRAWINGS HAS BEEN SUPERCEDED THE HVAC CONTRACTOR SHALL NOTIFY THE ENGINEER OF THIS PRIOR TO BID.
21. PAINT VISIBLE PORTION OF DUCTWORK BEHIND AIR OUTLETS AND INLETS MATTE BLACK.
22. VOLUME DAMPERS TO BE CROWN 175-XS1 OR EQUAL.
23. IF NEEDED, ADJUST ITEMS SUCH AS DIP SWITCHES ON AIR HANDLERS, ETC., TO ACHIEVE PROPER AIR FLOW CHARACTERISTICS PER MANUFACTURERS INSTALLATION INSTRUCTIONS. ALSO PROGRAM/ADJUST VFDs WHERE NEEDED TO PROHIBIT COIL FROM FREEZING AS DIRECTED BY MANUFACTURER INSTALLATION INSTRUCTIONS. .
24. MECHANICAL CONTRACTOR SHALL OBTAIN FINAL WRITTEN APPROVAL FOR KITCHEN HOOD SYSTEM PRIOR TO PROJECT BID AND/OR HOOD PURCHASE UNLESS IT IS SUPPLIED BY THE OWNER.
25. HVAC CONTRACTOR MUST VERIFY ALL EQUIPMENT ELECTRICAL REQUIREMENTS/SPECIFICATIONS W/ EQUIPMENT SUPPLIER, ELECTRICAL CONTRACTOR & GENERAL CONTRACTOR PRIOR TO HVAC EQUIPMENT PROCUREMENT.
26. IF ROOF TOP UNITS ARE INSTALLED, FILL ENTIRE ROOF CURB CAVITY BETWEEN RTU AND ROOF SURFACE WITHIN ROOF CURB WITH NON COMPACTED UNFACED FIBERGLASS INSULATION FOR SOUND DEADENING.
27. ROOF CAPS TO BE CROWN PRODUCTS 350 SERIES OR EQ, EXCEPT DRYER ROOF CAP. DRYER ROOF CAP TO BE CROWN MODEL 350-D W/ ROUND COLLAR IN BOTTOM & GRAVITY DAMPER. WALL CAPS TO BE HOODED CROWN MODEL 349 OR EQUAL.
28. MECHANICAL CONTRACTOR SHALL TRAIN OWNER ON OPERATION OF ALL HVAC SYSTEMS & HVAC CONTROLS, AND STRESS TO OWNER VENTILATION AIR DEVICES/SYSTEMS ARE LEGAL MECHANICAL CODE REQUIREMENTS & THEY ARE TO FUNCTION PROPERLY. DOCUMENT TRAINING VIA FORMAL LETTER OR EMAIL LISTING THE SPECIFIC HVAC INFORMATION COVERED IN THE TRAINING.
29. SEAL AND OR FLASH ALL OPENINGS IN INTERNAL/EXTERNAL BUILDING COMPONENTS RESULTING FROM THIS WORK IN COMPLIANCE WITH ALL APPLICABLE CODES. RODENTPROOF OPENINGS PER THE INTERNATIONAL BUILDING CODE AS WELL.
30. IF ANY HVAC EQUIPMENT IS FIELD PAINTED COVER ALL DATA PLATES/NAMEPLATES WITH TAPE PRIOR TO PAINTING. REMOVE TAPE AFTER PAINT DRIES.
31. "OR EQUAL" FOR MATERIALS/EQUIPMENT REQUIRES THAT ALL DESIGN BASIS SPECIFICATIONS/PERFORMANCE ARE TO BE MET OR EXCEEDED IN ALL CATEGORIES. IF SPECIFICATIONS OF DESIGN BASIS CANNOT BE MET THEN ALTERNATES TO BE SUBMITTED 10 DAYS PRIOR TO BID TO ARCHITECT/ENGINEER. ALSO ANY DEVIATIONS FROM THE DESIGN BASIS SPECIFICATIONS/PERFORMANCE TO BE DOCUMENTED AND SENT TO ARCHITECT/ENGINEER.
32. VRF AND DUCTLESS HVAC SYSTEMS AS WELL AS THE ASSOCIATED HVAC CONTROL SYSTEMS SHALL BE COMMISSIONED WITH 3 VISITS BY A FACTORY REPRESENTATIVE AND DOCUMENTED. HVAC CONTRACTOR TO PROVIDE ALL ASSISTANCE TO THE FACTORY REPRESENTATIVE AS NEEDED. A COPY OF EACH STARTUP REPORT DOCUMENTATION SHALL BE SENT TO THE ENGINEER. ALSO ALL INSTALLATION TECHNICIANS FOR THIS TYPE OF EQUIPMENT SHALL BE FACTORY TRAINED AND HAVE FACTORY DOCUMENTED TRAINING PAPERWORK.
33. WHERE APPLICABLE, PRIOR TO BID/PROCUREMENT OF CEILING FANS, VERIFY DROP LENGTH & ACTUAL MOUNTING KIT REQUIRED PER JOB SITE CONDITIONS.

GREENCO of Augusta, Inc.
 Consulting Engineering
 P. O. Box 56
 Harlem, GA 30814
 706-556-0405
 706-449-0732 fax

FAN SCHEDULE							
MARK	MFG./MODEL NO.	CFM NOM.	IN. S.P.	AMPS	ELEC.	WATTS	OPTIONS/ACCESSORIES
SAF1	FANTECH FG 4XL EC	70	0.40	.48	115/60/1	33	SAF TO OPERATE ANYTIME THE ROOM IT SERVES IS OCCUPIED. W/ BACKDRAFT DAMPER OPTION. INTERLOCK W/ LIGHTING OCCUPANCY SENSOR PER ELECTRICAL SHEETS. COORDINATE W ELECTRICAL CONTRACTOR W/ S&P FB6 (6 IN DUCT CONNECTIONS) FILTER BOX W/ MERV 8 FILTER.

GRAVITY INTAKE VENTILATOR FOR OUTSIDE AIR SCHEDULE					
MARK	OA FLOW RANGE CFM	MFG./MODEL NO.	GRSI SIZE	PRESSURE DROP IN. S.P.	OPTIONS/ACCESSORIES
OA1	0-250	GREENHECK GRSI	8	0.08	ROOF CURB

ALL OA DUCTS TO ROUTE TO ROOF MOUNTED GRAVITY INTAKE VENTILATORS.

EXHAUST FAN SCHEDULE							
MARK	MFG./MODEL NO.	CFM NOM.	IN. S.P.	AMPS	ELEC.	WATTS	OPTIONS/ACCESSORIES
EF	GREENHECK SP-A50	50	.125	.31	115/60/1	16	BACKDRAFT DAMPER. INTERLOCK WITH LIGHT SWITCHES.
EF1	GREENHECK CSP-A125	100	.15	.2	115/60/1	37	BACKDRAFT DAMPER. INTERLOCK WITH LIGHT SWITCHES.
EF2	GREENHECK SP-A190	150	.125	1.30	115/60/1	113	BACKDRAFT DAMPER. TO RUN CONTINUOUSLY.

DIFFUSER, GRILLE, AND REGISTER SCHEDULE

CALLOUT	AIRFLOW RANGE (CFM)	FACE SIZE (IN)	MODEL
A	0 - 100	24x24	TITUS TMS 24X24
ASQ	0 - 130	8x8	TITUS 300RL 6X6
B	101 - 200	24x24	TITUS TMS 24X24
C	201 - 300	24x24	TITUS TMS 24X24
DG1	0 - 125	8x8	TITUS CT-700 8X8
DG2	0 - 150	12x12	TITUS CT-700 12X12
EG	0 - 175	10x8	TITUS 350RS 8X6
R	0 - 2200	24x24	TITUS 50F 24X24 ALUMINUM
SSWD1	221 - 400	12x12	TITUS S300F 10X10 DBL DEFL W/ EXTRACTOR, DAMPER
SWD	0 - 220	10x10	TITUS 300RL 8X8
SWR	0 - 300	14x8	TITUS 8F 12X6
SWR2	0 - 1205	26x16	TITUS 8F 24X14

NECK SIZE SAME AS RUNOUT SIZE. PROVIDE PLASTER RINGS FOR DRYWALL CEILINGS. OR EQUAL VENDORS.

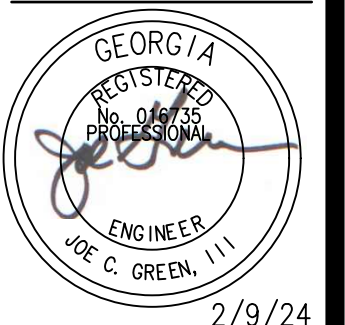
CURRENT MECHANICAL RELATED CODES REQUIRED FOR DESIGN AND INSTALLATION	
EDITION	CODE
2018	INTERNATIONAL MECHANICAL CODE W/ 2020 GA AMENDMENTS
2015	INTERNATIONAL ENERGY EFFICIENCY CODE W/ 2023 GA AMENDMENTS
2020	NATIONAL ELECTRICAL CODE W/ GA 2021 AMENDMENTS
2020	NFPA 91
2021	NFPA 90A

HVAC LEGEND

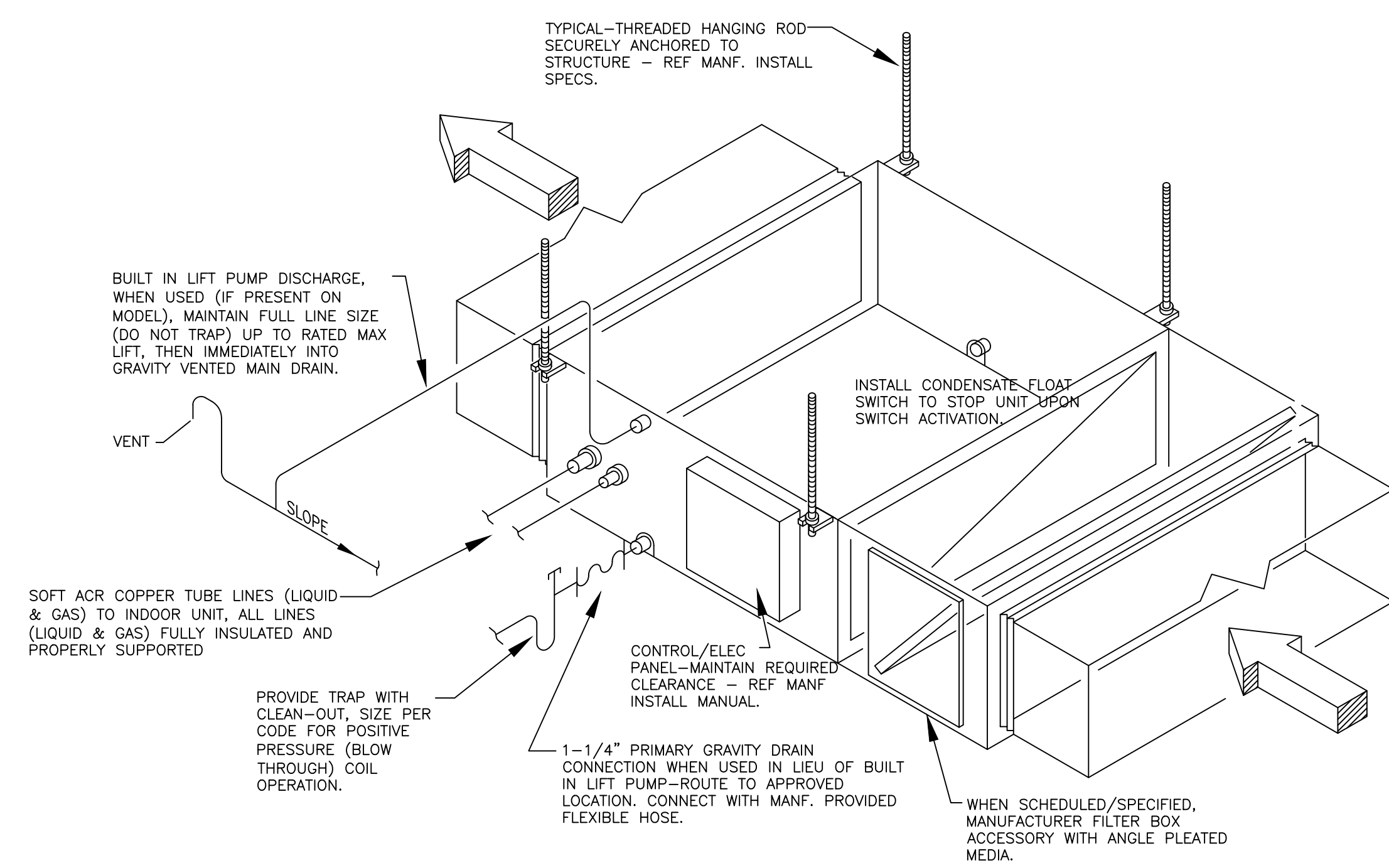
- SUPPLY
- RETURN
- TRANSITION
- VOLUME DAMPER
- THERMOSTAT
- DIFFUSER
- CFM
- OA OUTSIDE VENTILATION AIR
- APS-CI-2: SELF-CLEANING, UP TO 2,400 CFM. POLAR IONIZATION GENERATOR. W/ POWER SUPPLY TRANSFORMER

BOOKER+VICK ARCHITECTS
 670 BROAD STREET, AUGUSTA, GA 30901 | P. (706) 798-6792 | WWW.CBARCHITECTSPC.COM

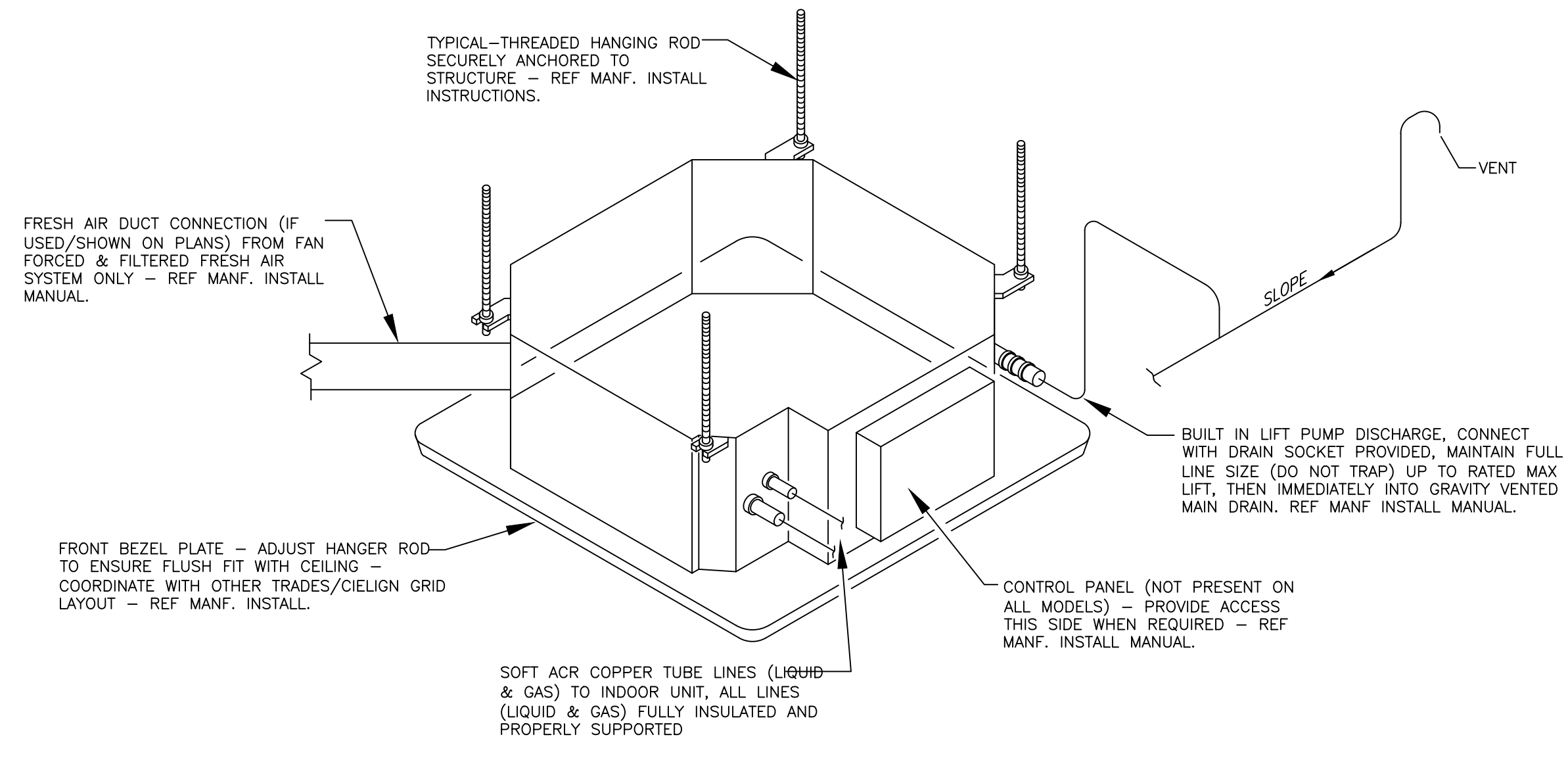
PROPOSED RENOVATION & ADDITION
McKNIGHT CONSTRUCTION COMPANY
 635 NW FRONTAGE ROAD
 AUGUSTA, GEORGIA 30907



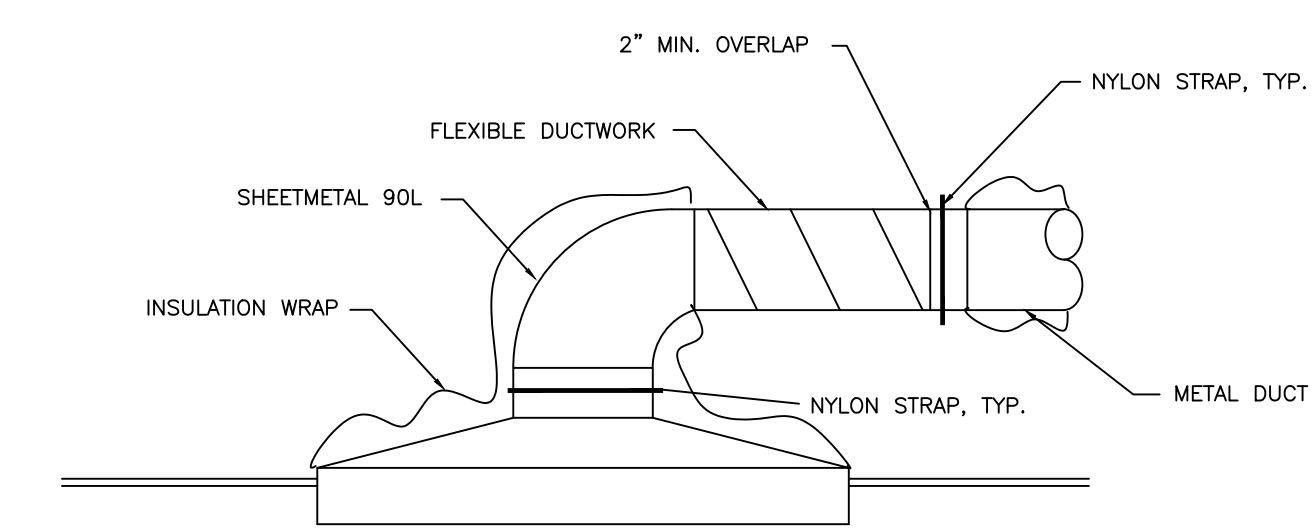
HVAC NOTES & SCHEDULES	
DRAWN BY: JD	
CHECKED BY: CB	
DATE: FEBRUARY 9, 2024	
REVISIONS:	
0	ISSUED FOR PERMIT 02/09/2024
JOB NO:	2254
SHEET NO:	M2.0



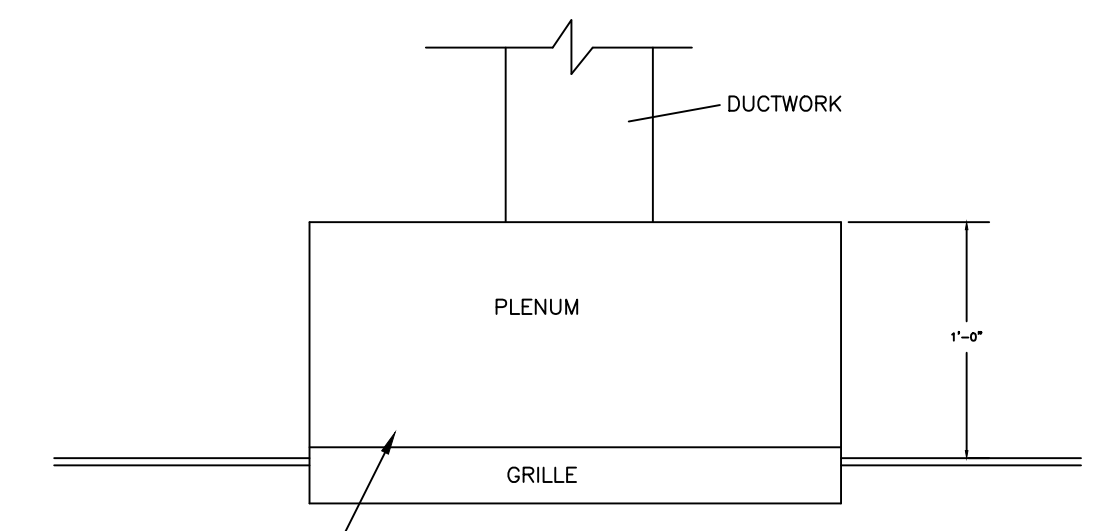
VRF DUCTED INDOOR UNIT DETAIL
 NO SCALE



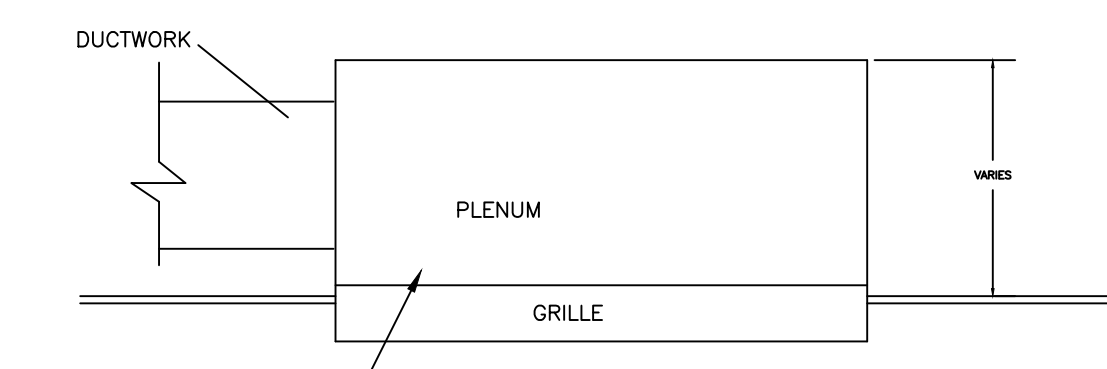
VRF CASSETTE INDOOR UNIT DETAIL
 NO SCALE



FLEXIBLE DUCTWORK CONNECTION DETAIL
 NO SCALE



RETURN/EXHAUST GRILLE PLENUM DETAIL 1
 NO SCALE



RETURN/EXHAUST GRILLE PLENUM DETAIL 2
 NO SCALE

RETURN/EXHAUST GRILLE PLENUM SAME SIZE AS GRILLE. CONSTRUCT OF 24 GAUGE GALV. SHEET METAL. GRILLE TO FIT INSIDE PLENUM. SCREW PLENUM TO CEILING GRID SYSTEM AT EACH CORNER OF PLENUM FOR RETURN/EXHAUST GRILLES ONLY. PAINT INTERIOR OF PLENUM FLAT BLACK.

RETURN/EXHAUST GRILLE PLENUM SAME SIZE AS GRILLE. CONSTRUCT OF 24 GAUGE GALV. SHEET METAL. GRILLE TO FIT INSIDE PLENUM. SCREW PLENUM TO CEILING GRID SYSTEM AT EACH CORNER OF PLENUM FOR RETURN/EXHAUST GRILLES ONLY. PAINT INTERIOR OF PLENUM FLAT BLACK.

PROPOSED RENOVATION & ADDITION
 MCKNIGHT CONSTRUCTION COMPANY
 635 NW FRONTAGE ROAD
 AUGUSTA, GEORGIA 30907



HVAC DETAILS

DRAWN BY: JG
 CHECKED BY: CB
 DATE: FEBRUARY 9, 2024

NO.	REVISIONS
0	ISSUED FOR PERMIT 02/09/2024

JOB NO. 2254
 SHEET NO.

M2.1

OUTDOOR UNIT SCHEDULE

System Tag	Tag Reference	Make	Model Number	Modules	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	System Connected Capacity	Main Refrigerant Pipe Dims (inch)	Preliminary Added Field Charge (lb)	Sound Pressure (dBA)	Unit Weight (lbs)	Project Design Cooling Outdoor Temp DB (°F)	Project Design Heating Outdoor Temp WB (or DB) (°F)	Corrected Cooling Total Capacity (BTU/h)	Corrected Heating Capacity (BTU/h)	Capacity Maintenance (%)	Voltage / Phase	MCA	MOCP	RFS	Cooling Efficiency IEER2/EER2	SEER2/EER2	SCHE(or HSPF2)	Heating COP @ 47°F (or @5°F)	Notes / Options
System 1	ODU_1	Carrier	38VMA096RDS5-1		96,000.0	108,000.0	131.3%	3/4 / 7/8	30.0	61.7	672.0	97.0	20.5	95,427.6	98,204.9	N/A	208/230V / 3-phase 4-wire	45	50	50	21.1 / 11.7	N/A	27.40	3.51	1, 2, 3, 4, 5, 6, 7
System 2	ODU_2	Carrier	38VMA144RDL5-1		144,000.0	160,000.0	99.7%	7/8 / 1 1/8	30.9	63.3	1,137.0	97.0	20.5	125,357.5	150,768.3	N/A	208/230V / 3-phase 4-wire	70	80	80	20.17 / 10.43	N/A	25.18	3.46	1, 2, 3, 4, 5, 6, 7

Notes & Options:

- Nominal cooling capacities are based on indoor air temperature of 80°F DB / 67°F WB, outdoor air temperature of 95°F (DB)
- Nominal heating capacities are based on indoor air temperature of 70°F DB, outdoor air temperature of 47°F DB / 43°F WB
- VRF Efficiency values for EER, IEER, and COP are for mixed ducted and non-ducted indoor units based on AHRI 1230 test method.
- Ductless and Single-Phase VRF Heat Pump Efficiency values for EER, SEER, and HSPF are for mixed ducted and non-ducted indoor units based on AHRI 210/240 test method.
- Preliminary Additional Field Charge is calculated based on software inputs; Final Additional Field Charge must be calculated based on final "as-built" piping dimensions.
- Project design elevation is 145.0 feet
- N/A = Not Applicable

PROVIDE 4" THK. CONCRETE PAD LARGER THAN UNIT FOR GRADE MOUNTED.

INDOOR UNIT SCHEDULE

System Tag	Room Name	Tag Reference	Address	Make	Model	Type	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Refrig Pipe Dimensions (inch)	Project Cooling Design Entering Temp DB/WB (°F)	Project Heating Design Entering Temp DB (°F)	Corrected Capacity			Electrical Data		Selected Fan Speed	Rated Airflow at Selected Fan Speed (cfm)	Max Fan ESP Setting (IN WG)	Sound Pressure Per Fan Speed (H/M/L) (dBA)	Zone Remote Controller 1	Notes / Options		
												Cooling Total Capacity (BTU/h)	Cooling Sensible Capacity (BTU/h)	Heating Capacity (BTU/h)	Estimated Cooling Coil LAT (°F)	Estimated Heating Coil LAT (°F)							Voltage / Phase	MCA / MOCP
System 1	Zone 1-1	IDU 1-1		Carrier	40VML012---3	Low Static Duct	12,000.0	13,500.0	1/4 / 1/2	75.0 / 64.0	70.0	11,287.3	8,365.2	11,357.5	52.8	99.8	208-230V / 1-phase	0.60 / 15	High	353	0.00/0.20	37.0 / 34.6 / 33.0	40VM900003	1, 2, 3, 4, 5, 6
System 1	Zone 1-2	IDU 1-2		Carrier	40VMF012A--3	4-Way Cassette	12,000.0	13,600.0	1/4 / 1/2	75.0 / 64.0	70.0	11,287.3	10,076.0	11,357.5	58.2	88.8	208-230V / 1-phase	0.91 / 15	High	560	0.12	41.4 / 37.3 / 33.0	40VM900003	1, 2, 3, 4, 5, 6
System 1	Zone 1-3	IDU 1-3		Carrier	40VMM036A--3	Medium Static Duct	36,000.0	42,000.0	3/8 / 5/8	75.0 / 64.0	70.0	35,762.8	25,960.9	35,334.5	54.8	97.3	208-230V / 1-phase	5.0 / 15	High	1200	0.6	47.8 / 43.8 / 40.8	40VM900003	1, 2, 3, 4, 5, 6
System 1	Zone 1-4	IDU 1-4		Carrier	40VMM024A--3	Medium Static Duct	24,000.0	27,000.0	3/8 / 5/8	75.0 / 64.0	70.0	22,584.4	16,770.2	22,715.0	55.4	96.3	208-230V / 1-phase	3.13 / 15	High	800	0.6	42.0 / 36.3 / 34.2	40VM900003	1, 2, 3, 4, 5, 6
System 1	Zone 1-5	IDU 1-5		Carrier	40VMM024A--3	Medium Static Duct	24,000.0	27,000.0	3/8 / 5/8	75.0 / 64.0	70.0	22,584.4	16,770.2	22,715.0	55.4	96.3	208-230V / 1-phase	3.13 / 15	High	800	0.6	42.0 / 36.3 / 34.2	40VM900003	1, 2, 3, 4, 5, 6
System 1	Zone 1-6	IDU 1-6		Carrier	40VMM018A--3	Medium Static Duct	18,000.0	21,000.0	3/8 / 5/8	75.0 / 64.0	70.0	17,881.4	12,970.5	17,667.3	56.0	95.6	208-230V / 1-phase	3.13 / 15	High	640	0.6	38.6 / 33.6 / 31.9	40VM900003	1, 2, 3, 4, 5, 6
System 2	Zone 2-1	IDU 2-1		Carrier	40VMM048A--3	Medium Static Duct	48,000.0	54,000.0	3/8 / 5/8	75.0 / 64.0	70.0	45,168.9	33,351.4	45,430.1	52.2	100.7	208-230V / 1-phase	5.0 / 15	High	1370	0.6	48.0 / 43.8 / 41.2	40VM900003	1, 2, 3, 4, 5, 6
System 2	Zone 2-2	IDU 2-2		Carrier	40VMM009A--3	Medium Static Duct	9,000.0	10,000.0	1/4 / 1/2	75.0 / 64.0	70.0	8,465.5	7,012.4	8,413.0	55.1	93.6	208-230V / 1-phase	1.25 / 15	High	330	0.32	32.7 / 32.4 / 31.8	40VM900003	1, 2, 3, 4, 5, 6
System 2	Zone 2-3	IDU 2-3		Carrier	40VMM024A--3	Medium Static Duct	24,000.0	27,000.0	3/8 / 5/8	75.0 / 64.0	70.0	22,584.4	16,770.2	22,715.0	55.4	96.3	208-230V / 1-phase	3.13 / 15	High	800	0.6	42.0 / 36.3 / 34.2	40VM900003	1, 2, 3, 4, 5, 6
System 2	Zone 2-4	IDU 2-4		Carrier	40VMH054--3	High Static Duct	53,500.0	60,000.0	3/8 / 5/8	75.0 / 64.0	70.0	50,347.2	41,865.8	50,477.9	53.7	95.5	208-230V / 1-phase	7.8 / 15	High	1835	0.20/0.80	58.1 / 55.7 / 52.0	40VM900003	1, 2, 3, 4, 5, 6
System 2	Zone 2-5	IDU 2-5		Carrier	40VML009---3	Low Static Duct	9,000.0	10,000.0	1/4 / 1/2	75.0 / 64.0	70.0	8,465.5	6,644.4	8,413.0	53.0	97.6	208-230V / 1-phase	0.50 / 15	High	283	0.00/0.20	34.5 / 32.0 / 31.0	40VM900003	1, 2, 3, 4, 5, 6

Notes & Options:

- Nominal cooling capacities are based on indoor air temperature of 80°F DB / 67°F WB, outdoor air temperature of 95°F (DB)
- Nominal heating capacities are based on indoor air temperature of 70°F DB, outdoor air temperature of 47°F DB / 43°F WB
- LATS estimated using formula for sensible capacity = (1.08 Btu/(hr cfm °F)) x cfm x delta T
- All ductless FMA/FMC/FMU or FV4 series indoor units require a piping adaptor kit (Model #: 331831-701 or 40MD000003)
- Warning: Accessories are filtered by system and unit type. Check product data to confirm accessory compatibility with voltage, product tier, etc.
- NOT USED
- Nominal cooling capacities are based on indoor air temperature of 80°F DB / 67°F WB, outdoor air temperature of 95°F (DB)

VRF HEAT RECOVERY MDC


System Tag	Tag Reference	Make	Model Number	Type (Main / Sub)	Number of Ports	Voltage / Phase	MCA	Notes / Options
System 1	MDC1	Carrier	40VMD006M--3	Main	6	208-230V/1-phase	.73	1, 2, 3, 4, 5
System 2	MDC2	Carrier	40VMD006M--3	Main	6	208-230V/1-phase	.73	1, 2, 3, 4, 5

Notes & Options:

- For indoor units with capacities greater than 54 kBtu/h, two ports must be twinned using Y-joints to create a single port.
- Up to 2 Sub MDCs can be connected to 1 Main MDC using Y-joint assembly.
- No port assignments are needed for communication wire between IDUs and MDC.
- Communication wiring between MDC and IDUs shall use "quick connects".
- Max IDU capacity for Standard Main MDCs is 324 kBtu/h; for Large Main MDCs, it is 504 kBtu/h. Max IDU capacity for a single Sub MDC is 126 kBtu/h; when two Sub MDCs are connected, their combined max IDU capacity is 168 kBtu/h.

CONSTRUCTION NOTES FOR ALL SHEETS

- ACTUAL CONNECTIONS LOCATIONS FOR VENTILATION AIR, SUPPLY AIR & CONDENSATE DRAINS MAY VARY FROM LOCATIONS SHOWN ON THIS PLAN. PROVIDE FITTINGS, EQUIPMENT, OFFSETS, ETC., AS NEEDED TO MAKE FINAL CONNECTIONS FOR THESE SERVICES.
- FINAL EQUIPMENT LOCATIONS MAY BE ADJUSTED TO AVOID INTERFERENCES & TO PROVIDE MAINTENANCE ACCESSIBILITY.
- VERIFY FINAL MODEL NUMBERS ON SCHEMATIC DRAWINGS FOR VRF EQUIPMENT.
- PROVIDE/INSTALL REFRIGERANT SHUT OFF VALVES AT EACH INDOOR UNIT. ALL LINES.
- PROVIDE ALL PARTS, EQUIPMENT, CONTROL ITEMS, ETC., NEEDED TO MAKE ALL NEW SYSTEMS FULLY FUNCTIONAL.



APPLICATION TIPS
North America HVAC Systems & Services

Date	Subject	Department
5/23/2018	Carrier VRF Underground Refrigerant Piping Guidelines	Ductless & VRF
Bulletin Number	Product Model Number(s)	Author Name/Phone/Email
VRFTIP-18-02	38VMA--H/RDS/L5/6---1	Matt Morris 404-807-4628 matthew.morris@carrier.utc.com

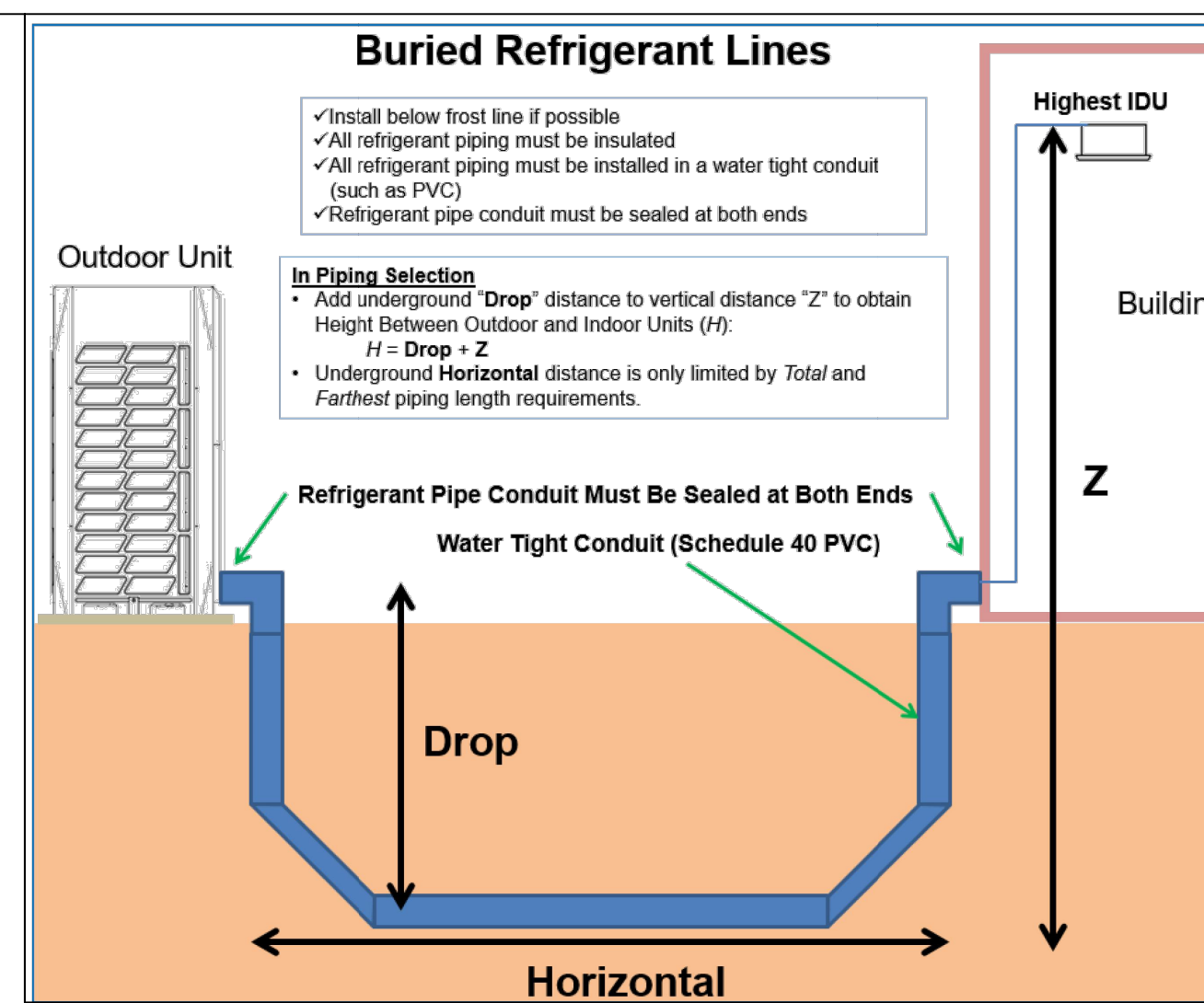
Carrier VRF Underground Refrigerant Piping Guidelines

Following proper guidelines, main refrigerant pipes for Carrier VRF systems may be installed underground in some applications. (This pertains to the main supply/return piping between the outdoor units and first branch section or Main MDC.) All standard Carrier VRF installation procedures must be followed, including those provided in:

- Factory-Authorized Service Training
- Engineering and Installation Documentation
- Selection Tool Software

Additional measures must also be taken to ensure proper application of underground refrigerant piping:

- Detailed design of underground piping should be performed by a licensed mechanical engineering firm familiar with local codes and experienced with underground piping applications.
- The piping must be installed in waterproof conduit (such as Schedule 40 PVC).
- The conduit must be sealed on both ends to prevent infiltration of moisture.
- The conduit internal diameter should be large enough to accommodate main piping along with its insulation without any compression or deformation. Underground piping design should account for thermal expansion and contraction of the conduit and piping system.
- Maximum underground depth ("Drop") must be added to the dimension for *Height Between Outdoor and Indoor Units*, effectively increasing it. Total underground distance shall be accounted for in *Total* and *Farthest* piping length dimensions.

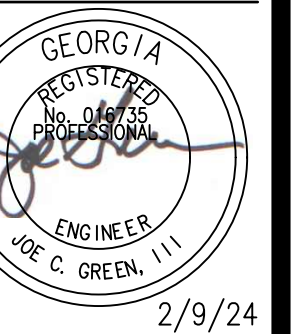


THIS PIPING SHALL BE INSTALLED AT LEAST 12" BELOW GRADE.

GREENCO of Augusta, Inc.
Consulting Engineering
P. O. Box 56
Harlem, GA 30814
706-556-0405
706-449-0732 fax

BOOKER+VICK
ARCHITECTS
 670 BROAD STREET, AUGUSTA, GA 30901 | P. (706) 798-6792 | WWW.CBARCHITECTSPC.COM

PROPOSED RENOVATION & ADDITION
 MCKNIGHT CONSTRUCTION COMPANY
 635 NW FRONTAGE ROAD
 AUGUSTA, GEORGIA 30907



HVAC SCHEDULES

DRAWN BY:	JG
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SHEET NO.:	M2.2

M2.2

GREENCO of Augusta, Inc.
 Consulting Engineering
 P. O. Box 56
 Harlem, GA 30814
 706-556-0405
 706-449-0732 fax

SECTION 23 05 03
 PIPES AND TUBES FOR HVAC PIPING AND EQUIPMENT

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Pipe and pipe fittings for the following systems:
 1. Equipment drains and over flows.
 2. Refrigerant piping.
 3. Unions, flanges, and couplings.

1.2 REFERENCES

- B. American Society of Mechanical Engineers:
 1. ASME B16.3 – Malleable Iron Threaded Fittings.
 2. ASME B16.18 – Cast Copper Alloy Solder Joint Pressure Fittings.
 3. ASME B16.22 – Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.
 4. ASME B16.26 – Cast Copper Alloy Fittings for Flared Copper Tubes.
 5. ASME B31.5 – Refrigeration Piping.
 6. ASME B31.9 – Building Services Piping.
 C. American Society for Testing and Materials:
 1. ASTM B32 – Standard Specification for Solder Metal.
 2. ASTM B88 – Standard Specification for Seamless Copper Water Tube.
 3. ASTM B88M – Standard Specification for Seamless Copper Water Tube (Metric).
 4. ASTM B280 – Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service.
 C. American Welding Society:
 1. AWS A5.8 – Specification for Filler Metals for Brazing and Braze Welding.
 2. AWS D1.1 – Structural Welding Code – Steel.

1.3 SYSTEM DESCRIPTION

- A. Where more than one piping system material is specified, provide compatible system components and joints. Provide flanges, union, and couplings at locations requiring servicing.
 B. Provide unions, flanges, and couplings downstream of valves and at equipment or apparatus connections.
 C. Provide non-conducting dielectric connections whenever joining dissimilar metals in open systems.
 D. Do not use direct welded or threaded connections to valves, equipment or other apparatus.

1.4 SUBMITTALS

- A. Product Data: Submit data on pipe materials and fittings. Submit manufacturers catalog information.
 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Furnish temporary end caps and closures on piping and fittings. Maintain in place until installation.
 B. Protect piping from entry of foreign materials by temporary covers, completing sections of the work, and isolating parts of completed system Protect.
 C. Maintain charge of refrigeration components until installation in piping system.

1.6 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

PART 2 PRODUCTS

2.1 EQUIPMENT DRAINS AND OVERFLOWS

- A. Copper Tubing: ASTM B88, Type M, hard drawn.
 1. Fittings: ASME B16.18, cast brass, or ASME B16.22 solder wrought copper.
 2. Joints: Solder, lead free, 95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F (220 to 280 degrees C).
 B. PVC Pipe: ASTM D1785, Schedule 40.
 1. Fittings: ASTM D2466 or ASTM D2467, PVC.
 2. Joints: ASTM D2855, solvent weld.

2.2 REFRIGERANT PIPING

- A. Copper Tubing: ASTM B280, Type ACR hard drawn or annealed.
 1. Fittings: ASME B16.22 wrought copper.
 2. Joints: Braze, AWS A5.8 BCuP silver/phosphorus/copper alloy with melting range 1190 to 1480 degrees F.

2.3 UNIONS, FLANGES, AND COUPLINGS

- A. Unions for Pipe 2 inches (50 mm) and Smaller:
 1. Ferrous Piping: 150 psig malleable iron, threaded.
 2. Copper Pipe: Bronze, soldered joints.
 B. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.

PART 3 EXECUTION

3.1 PREPARATION

- A. Ream pipe and tube ends. Remove burrs.
 B. Remove scale and dirt on inside and outside before assembly.
 C. Prepare piping connections to equipment with flanges or unions.
 D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.

3.2 INSTALLATION

- A. Install refrigerant in accordance with ASME B31.5.
 B. Route piping parallel to building structure and maintain gradient.
 C. Install piping to conserve building space, and not interfere with use of space.
 D. Group piping whenever practical at common elevations.
 E. Sleeve pipe passing through partitions, walls and floors.
 F. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
 G. Provide access where valves and fittings are not accessible.
 H. Provide unions at all valves except in refrigerant systems.
 I. Slope piping and orange systems to drain at low points.
 J. Arrange refrigeration piping to return oil to compressor. Provide traps and loops in piping, and where necessary provide double risers.
 K. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welds.
 L. Insulate piping; refer to drawing notes.
 END OF SECTION

SECTION 23 05 29
 HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT AND FIRESTOPPING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 1. Pipe hangers and supports.
 2. Hanger rods.
 3. Flashing.
 4. Sleeves.
 5. Formed steel channel.
 6. Equipment bases and supports.

B. Related Sections:

1. Section 230503 – Pipes and Tubes: Execution requirements for placement of hangers and supports specified by this section.

1.2 REFERENCES

- A. American Society of Mechanical Engineers:
 1. ASME B31.5 – Refrigeration Piping.
 2. ASME B31.9 – Building Services Piping.
 B. American Society for Testing and Materials:
 1. ASTM E84 – Test Method for Surface Burning Characteristics of Building Materials.
 2. ASTM E119 – Method for Fire Tests of Building Construction and Materials.
 3. ASTM E814 – Test Method of Fire Tests of Through Penetration Firestops.
 4. ASTM F708 – Standard Practice for Design and Installation of Rigid Pipe Hangers.
 C. American Welding Society:
 1. AWS D1.1 – Structural Welding Code – Steel.
 D. Manufacturers Standardization Society of the Valve and Fittings Industry:
 1. MSS SP 58 – Pipe Hangers and Supports – Materials, Design and Manufacturer.
 2. MSS SP 69 – Pipe Hangers and Supports – Selection and Application.
 3. MSS SP 89 – Pipe Hangers and Supports – Fabrication and Installation Practices.
 E. Underwriters Laboratories Inc.:
 1. UL 263 – Fire Tests of Building Construction and Materials.
 2. UL 723 – Tests for Surface Burning Characteristics of Building Materials.
 3. UL – Fire Resistance Directory.
 1.3 DELIVERY, STORAGE, AND HANDLING
 A. Accept materials on site in original factory packaging, labeled with manufacturer's identification.
 B. Protect from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original packaging.

PART 2 PRODUCTS

2.1 PIPE HANGERS AND SUPPORTS

- A. Manufacturers:
 1. Carpenter & Paterson Inc.
 2. Grinnell
 3. Eken
 B. Refrigerant & CONDENSATE Piping:
 Hangers for Pipe Sizes 1/2 to 22 inch 2: Malleable iron or Carbon steel, adjustable swivel, split ring. GALVANIZED OR ELECTROPLATED FOR EXTERIOR INSTALLATION.
 4. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.GALVANIZED OR ELECTROPLATED FOR EXTERIOR INSTALLATION.

2.2 ACCESSORIES

- A. Hanger Rods: Mild steel threaded both ends, threaded on one end, or continuous threaded.

2.3 FLASHING

- A. Metal Flashing: 26 gage thick galvanized steel.
 B. Lead Flashing:
 1. Waterproofing: 5 lb./sq. ft sheet lead
 2. Soundproofing: 1 lb./sq. ft sheet lead.
 2.4 SLEEVES
 A. Sleeves for Pipes through Non-fire Rated Floors: 18 gage thick galvanized steel.
 B. Sleeves for Pipes through Non-fire Rated Beams, Walls, Footings, and Potentially Wet Floors: Steel pipe galvanized steel.
 C. Sleeves for Round Ductwork: Galvanized steel.
 D. Sleeves for Rectangular Ductwork: Galvanized steel.
 E. Sealant: Acrylic except at fire barrier partitions and rated fire walls. Install sealants to continue fire ratings. Seal with U.L. listed firestopping sealant system where required.

2.5 FORMED STEEL CHANNEL

- A. Product Description: Galvanized 12 gage thick steel. With holes 1-1/2 inches on center.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify openings are ready to receive sleeves.

3.2 PREPARATION

- A. Obtain permission from Architect before drilling or cutting structural members.
 3.3 INSTALLATION – PIPE HANGERS AND SUPPORTS
 A. Support horizontal piping as scheduled.
 B. Install hangers with minimum 1/2 inch space between finished covering and adjacent work.
 C. Place hangers within 12 inches of each horizontal elbow.
 D. Use hangers with 1-1/2 inch minimum vertical adjustment.
 E. Support vertical piping at every floor.
 F. Where piping is installed in parallel and at same elevation, provide multiple pipe or trapeze hangers.
 G. Support riser piping independently of connected horizontal piping.
 H. Provide copper plated hangers and supports for all copper piping.
 I. Design hangers for pipe movement without disengagement of supported pipe.
 J. Prime coat exposed steel hangers and supports. Hangers and supports located in pipe shafts and suspended ceiling spaces are not considered exposed.
 K. Provide clearance in hangers and from structure and other equipment for installation of insulation.
 L. Provide 18 gauge galvanized shields 12 inches long for all insulated piping at supports.

3.4 INSTALLATION – EQUIPMENT BASES AND SUPPORTS

- A. Using templates furnished with equipment, install anchor bolts, and accessories for mounting and anchoring equipment.
 B. Construct supports of steel members or formed steel channel. Brace and fasten with flanges bolted to structure.
 C. Provide rigid anchors for pipes after vibration isolation components are installed.

3.5 INSTALLATION – HVAC Ductwork

- A. Install ductwork supports per SMACNA HVAC Duct Construction Standards Metal and Flexible 2005.
 3.6 INSTALLATION – FLASHING
 A. Provide flexible flashing and metal Counterflashing where piping and ductwork penetrate weather or waterproofed walls, floors, and roofs.
 B. Flash vent and soil pipes projecting 3 inches minimum above finished roof surface with lead worked 1 inch minimum into hub, 8 inches minimum clear on sides with 24 x 24 inches sheet size. For pipes through outside walls, turn flanges back into wall and caulk, metal counter-flash, and seal.

3.7 INSTALLATION – SLEEVES

- A. Exterior watertight entries: Seal with mechanical sleeve seals.
 B. Set sleeves in position in forms. Provide reinforcing around sleeves.
 C. Size sleeves large enough to allow for movement due to expansion and contraction. Provide for continuous insulation wrapping.
 D. Extend sleeves through floors 1 inch above finished floor level. Caulk sleeves.
 E. Where piping or ductwork penetrates floor, ceiling, or wall, close off space between pipe or duct and adjacent work with stuffing or firestopping insulation (if fire rated) and caulk airtight. Provide close fitting metal collar or escutcheon covers at both sides of penetration.
 3.8 SCHEDULES

PIPE HANGER SPACING

HANGER

ROD

PIPE SIZE MAX. HANGER SPACING DIAMETER

Inches (mm) Feet (m) Inches (mm)

1/2 (12) 7 (2.1) 3/8 (9)

3/4 (20) 7 (2.1) 3/8 (9)

1 (25) 7 (2.1) 3/8 (9)

1-1/4 (32) 7 (2.1) 3/8 (9)

1-1/2 (38) 9 (2.7) 3/8 (9)

2 (50) 10 (3) 3/8 (9)

2-1/2 (65) 11 (3.4) 1/2 (13)

3 (75) 12 (3.7) 1/2 (13)

4 (100) 14 (4.3) 5/8 (15)

PVC (All Sizes) 6 (1.8) 3/8 (9)

END OF SECTION

PROPOSED RENOVATION & ADDITION
 MCKNIGHT CONSTRUCTION COMPANY
 635 NW FRONTAGE ROAD
 AUGUSTA, GEORGIA 30907



HVAC SPECIFICATIONS

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DATE: FEBRUARY 9, 2024

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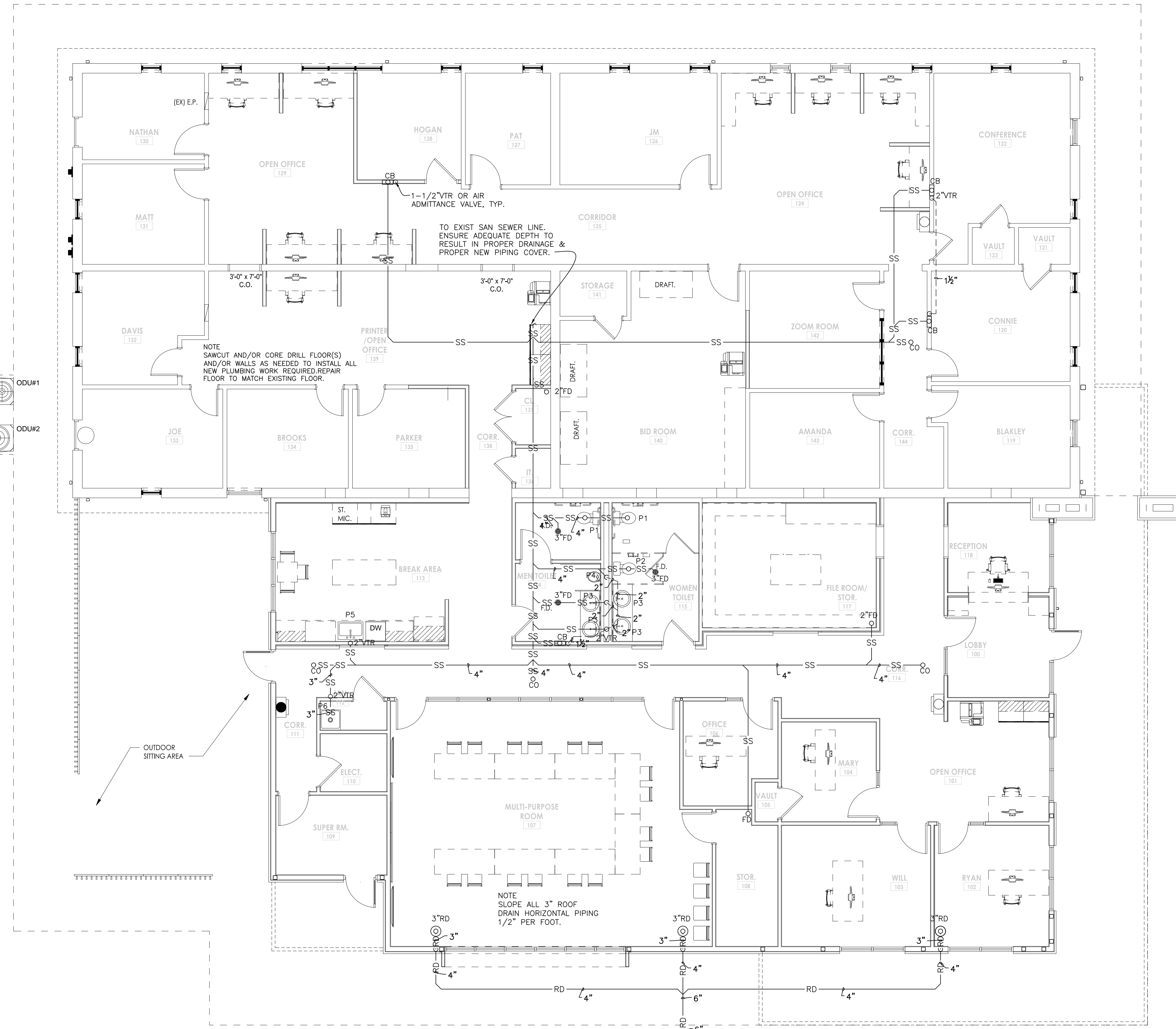
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M2.3

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PIPE TO RUN TO DAYLIGHT.
 SEE CIVIL DRAWINGS FOR
 CONTINUATION. SLOPE 4" &
 6" LINES 1/8" PER FOOT.

1 WASTE PLAN
 P1.0 SCALE: 3/16" = 1'-0"

WASTE PLAN

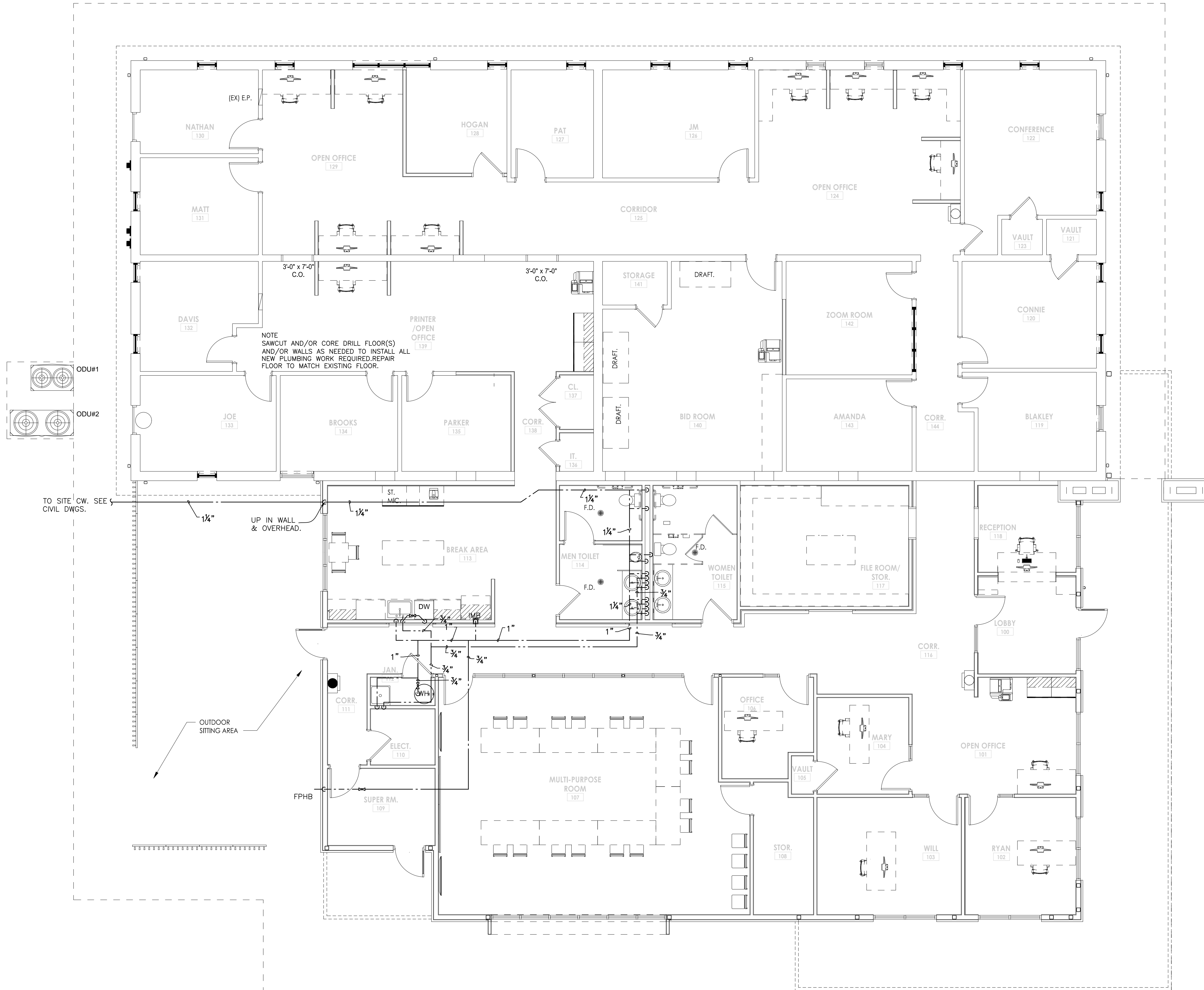
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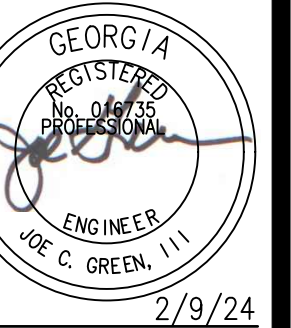
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 Consulting Engineering
 P. O. Box 56
 Harlem, GA 30814
 706-556-0405
 706-449-0732 fax



1 WATER PLAN
 P1.1 SCALE: 3/16" = 1'-0"



WATER PLAN

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JOB NO.

2254

SHEET NO.

P1.1

PLUMBING NOTES:

- PLUMBING WAS DESIGNED TO & ALL WORK SHALL BE PERFORMED PER THE CODES LISTED IN THE TABLE ON THIS SHEET AND ALL APPLICABLE STATE & LOCAL CODES & LATEST STATE AMENDMENTS. ALL PERMITS & FEES SHALL BE PAID BY THE PLUMBING CONTRACTOR, WHERE TWO OR MORE CODES ARE IN CONFLICT THE MORE STRINGENT CODE SHALL APPLY. REFER TO ARCHITECTURAL CODE STUDY FOR OTHER CURRENT CODE EDITIONS APPLICABLE TO THIS PROJECT.
- EXACT LOCATIONS AND ROUGHING REQUIREMENTS FOR ALL FIXTURES AND EQUIPMENT SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS, LARGE SCALE ARCHITECTURAL DETAILS AND APPROVED MANUFACTURER'S SHOP DRAWINGS. PARTICULAR ATTENTION SHALL BE DIRECTED TO FIXTURES OR EQUIPMENT FURNISHED UNDER OTHER DIVISIONS. COORDINATE ALL NEW WORK WITH ANY EXISTING CONDITIONS.
- PIPING IS SHOWN IN ITS GENERAL LOCATION (UNLESS DIMENSIONED). EXACT LOCATION SHALL BE DETERMINED BY JOB CONDITIONS. REVIEW ALL ARCHITECTURAL CONSTRUCTION DOCUMENTS FOR OTHER WORK SCOPE THAT MAY APPLY TO THE PLUMBING RELATED WORK & IS NOT SHOWN ON THE PLUMBING CONSTRUCTION DOCUMENTS FOR DEMOLITION WORK AS APPLICABLE & FOR NEW HVAC WORK. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF HIS WORK WITH THAT OF OTHER TRADES & ARRANGE PIPING TO CLEAR STRUCTURAL MEMBERS & DUCTWORK. IF THE PLUMBING CONTRACTOR INSTALLS HIS WORK PRIOR TO COORDINATING WITH ALL OTHER TRADES OR AS TO CAUSE ANY INTERFERENCE WITH WORK OF OTHER TRADES, HE SHALL MAKE NECESSARY CHANGES TO THE WORK OR CORRECT THE CONDITION WITHOUT EXTRA CHARGE. CONTRACTOR SHALL VERIFY LOCATIONS OF SEWER, WATER, GAS & ANY OTHER UTILITY CONNECTIONS FROM APPROVED SITE PLANS PRIOR TO BID. REROUTING OF UTILITIES FROM THAT SHOWN ON PLANS AT CONTRACTOR'S RISK. THE PLUMBING CONTRACTOR TO FURNISH ALL REQUIRED MATERIAL TO PROVIDE FOR THE PROPER INSTALLATION OF ALL PLUMBING EQUIPMENT. ANY CONFLICTS OR DISCREPANCIES REGARDING WHAT IS REQUIRED AS TO WHAT IS INDICATED ON PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BID & PRIOR TO CONSTRUCTION SO THIS CAN BE CLARIFIED. IF DISCREPANCIES ARE NOT BROUGHT TO THE ARCHITECT'S ATTENTION PRIOR TO FINAL BIDS THEN THE PLUMBING CONTRACTOR ACCEPTS THE DRAWINGS AS SUFFICIENT & CHANGE ORDERS DURING CONSTRUCTION WILL NOT BE CONSIDERED. IF INSTALLED PLUMBING WORK & SPECIFICATIONS VARY FROM WHAT IS INDICATED ON DRAWINGS & THE AUTHORITY HAVING JURISDICTION REQUIRES DRAWINGS TO BE REVISED OR FORMAL ENGINEER'S APPROVAL THE PLUMBING CONTRACTOR SHALL PAY ALL COSTS INVOLVED IN DRAWING REVISIONS AND/OR ENGINEER'S DOCUMENTED CORRESPONDENCE GENERATION.
- RISERS FOR FIXTURES, UNLESS OTHERWISE NOTED, SHALL BE CONCEALED IN WALLS OR PIPE CHASES. MINIMUM SIZE WATER LINE FOR ANY TWO FIXTURES SHALL BE 3/4".
- PROVIDE SLEEVES FOR PIPES PASSING THRU FLOORS, MASONRY WALLS AND FIRE OR SMOKE PARTITIONS. PACK MINERAL WOOL IN ANNULAR SPACE BETWEEN PIPE SLEEVE AND SEAL WITH FIRE CAULK.
- PLUMBING FIXTURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ALL FIXTURES SHALL BE APPROVED BY OWNER, U.O.S.
- ARRANGEMENT OF WORK SHALL BE AS SHOWN. DRAWINGS DO NOT INDICATE ALL PIPE JOINTS, COUPLINGS, ETC. PIPING LOCATIONS SHOWN MAY BE ADJUSTED TO AVOID INTERFERENCES WITH STRUCTURE & OTHER TRADES WORK. EXAMINE ALL DRAWINGS, INVESTIGATE CONDITIONS TO BE ENCOUNTERED AND ARRANGE WORK ACCORDINGLY FOR ALL PROJECT PHASES. FURNISH ALL FITTINGS AND OFFSETS NEEDED FOR COMPLETE & FUNCTIONAL SYSTEM.
- INSTALL SYSTEMS, EQUIPMENT AND COMPONENTS LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, WHERE INSTALLED IN FINISHED SPACES.
- COPPER PIPE SHALL NOT BE INSTALLED IN DIRECT CONTACT WITH MASONRY, CEMENT MORTAR, CONCRETE, OR DISSIMILAR METALS.
- INSTALL EXTERIOR HOSE BIBBS 18" ABOVE GRADE.
- ROUTE WATER PIPING UNDER CEILING INSULATION WHERE POSSIBLE.
- PLUMBING PIPING TO BE INSTALLED UNDER BUILDING FOUNDATION SLAB TURNDOWN. PLUMBING CONTRACTOR TO WORK OUT PIPING INVERTS TO ROUTE ALL PLUMBING SERVICE PIPING TO AVOID INTERFERENCE WITH CONCRETE SLAB TURNDOWN.
- WHERE APPLICABLE, COORDINATE INSTALLATION OF ALL PLUMBING LINES AT CMU WALLS SO THAT PLUMBING LINES ARE PLACED IN WALL DURING CMU WALL CONSTRUCTION. CUTTING & PATCHING OF CMU WALLS IN PLACE NOT PERMITTED.
- VERIFY BACKFLOW PREVENTER REQUIREMENTS OF LOCAL AUTHORITY & PROVIDE BACKFLOW PREVENTER AS REQUIRED. COORDINATE LOCATION WITH OTHER TRADES, ARCHITECT & OWNER PRIOR TO INSTALLATION.
- FIRE STOP ALL PENETRATIONS BY PIPING OR CONDUITS OF FIRE RATED WALLS OR FLOORS AND PARTITIONS. PROVIDE A DEVICE(S) OR SYSTEM(S) WHICH HAS BEEN TESTED & LISTED AS COMPLYING WITH ASTM E-184 & INSTALL IN ACCORDANCE WITH CONDITIONS OF THEIR TESTING. PROVIDE A DEVICE(S) OR SYSTEM(S) WITH AN "F" RATING EQUAL TO THE RATING OF THE ASSEMBLY BEING PROTECTED.
- GENERAL CONTRACTOR/PLUMBING CONTRACTOR SHALL VERIFY PLUMBING SCHEDULE WITH ARCHITECT & OWNER PRIOR TO BID & PRIOR TO PERFORMING ANY WORK.
- THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH THAT OF OTHER TRADES, i.e., ARCHITECTURAL, HVAC, ELECTRICAL, STRUCTURAL, CIVIL & FIRE PROTECTION. IF THE PLUMBING CONTRACTOR INSTALLS HIS WORK PRIOR TO COORDINATING WITH ALL OTHER TRADES OR AS TO CAUSE ANY INTERFERENCE WITH WORK OF OTHER TRADES, HE SHALL MAKE NECESSARY CHANGES TO THE WORK OR CORRECT THE CONDITION WITHOUT EXTRA CHARGE.
- THE PLUMBING CONTRACTOR SHALL COORDINATE/VERIFY UTILITY LOCATIONS (ELECTRICAL, SIGNAL, SANITARY SEWER, VENT, CONDENSATE DRAINS, POTABLE WATER, FIRE WATER & NATURAL GAS), & SIZES PRIOR TO CONSTRUCTION. ADEQUATE EXISTING INVERT ELEVATIONS TO BE VERIFIED PRIOR TO BID. NOTIFY OWNER IF INADEQUATE INVERT ELEVATIONS EXIST PRIOR TO BID.
- PROVIDE CLEANOUTS IN ALL SEWER LINES, WHETHER INDICATED OR NOT, AT SPACING NOT TO EXCEED 100 FEET, AT EACH CHANGE OF DIRECTION GREATER THAN 45 DEGREES & AT THE BASE OF ALL VERTICAL RISER STACKS (APPROXIMATELY 24" ABOVE FINISHED FLOOR).
- WHERE WATER PIPING IS ROUTED IN EXTERIOR WALLS, POSITION WATER PIPING ON THE HEATED SIDE (INTERIOR SIDE) OF THE WALL INSULATION.
- ALL CONDENSATE DRAIN, SEWER & VENT PIPING SHALL BE RODDED & CLEANED AT END OF CONSTRUCTION. ALL TRAPS SHALL BE CLEANED & PRIMED AT THE END OF CONSTRUCTION.
- PROVIDE WATER HAMMER ARRESTORS IN FIXTURE BRANCHES WHERE QUICK CLOSING VALVES ARE INSTALLED SUCH AS SPRING-LOADED FAUCETS, SOLENOID VALVES, FLOWMETER VALVES, DRINKING FOUNTAINS, DISHWASHING MACHINES, CLOTHES WASHING MACHINES, ICE MAKERS & ICE MAKER BOXES, BOILER MAKEUP WATER FEEDERS, SELF-WASHING AIR CLEANERS OR GREASE EXTRACTORS, AND PROCESS EQUIPMENT AND ELECTRONICALLY CONTROLLED TOUCHLESS FAUCETS. SIOUX CHIEF 650 SERIES OR EQUAL. INSTALL ON HOT AND COLD WATER SUPPLY LINES SERVING FIXTURE.
- ALL WATER PIPING & HORIZONTAL ROOF DRAIN PIPING SHALL BE INSULATED WITH 1" THICK INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER INCH/H X FT² X °F PER THE INTERNATIONAL ENERGY CONSERVATION CODE. INSULATION JACKET SHALL BE PER ASTM C921, TYPE 1, FOR BELOW AMBIENT SERVICE AND PER ASTM C921, TYPE 2, FOR ABOVE AMBIENT SERVICE.
- PROVIDE TEMPERED WATER FOR ALL HAND WASHING FACILITIES & EYEWASHES THROUGH AN APPROVED WATER-TEMPERATURE LIMITING DEVICE THAT CONFORMS TO IPC SECTION 416.5. SYMMONS MAXLINE SERIES OR EQUAL. PROVIDE THERMOSTATIC MIXING VALVES FOR SAFETY SHOWERS, ETC., PER CODES WITH MODEL NUMBERS AS RECOMMENDED BY THE FIXTURE MANUFACTURER.
- IF PLUMBING CONTRACTOR DESIRES TO INSTALL HIGHER PRESSURE GAS PIPING AS AN OPTION THE PLUMBING CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY & ALL ASSOCIATED COSTS FOR RESIZING & FURNISHING ALL ADDITIONAL COMPONENTS REQUIRED FOR A HIGHER PRESSURE GAS PIPING SYSTEM.
- ALL ALTERNATES DESIRED BY THE PLUMBING CONTRACTOR SHALL BE DOCUMENTED AND SENT TO THE ARCHITECT 10 BUSINESS DAYS PRIOR TO BID DATE. OTHERWISE THE PLUMBING CONTRACTOR SHALL PAY FOR ANY DRAWING REVISIONS OR CORRESPONDENCE REQUIRED OF THE ENGINEER TO OBTAIN THE BUILDING INSPECTORS APPROVAL OF INSTALLED EQUIPMENT, MATERIALS, ETC., THAT ARE NOT DESIGN BASIS PER THESE PLUMBING NOTES, PLUMBING SPECIFICATIONS, PLUMBING PLANS, AND/OR PLUMBING SCHEDULES.
- PROVIDE HEAT TRAP PIPING FOR WATER HEATERS NOT HAVING INTERNAL HEAT TRAPS PER MANUFACTURERS INSTRUCTIONS.
- PROVIDE & IDENTIFY VALVES & PIPING IN COMPLIANCE WITH THE INTERNATIONAL PLUMBING CODE & ANY SPECIAL LOCAL/STATE REQUIREMENTS.
- PROVIDE ACCESS DEVICES/DOORS AS NEEDED FOR VALVES, EQUIPMENT, ETC. COORDINATE SIZE & SELECTION W/ GENERAL CONTRACTOR & ARCHITECTURAL FINISHES.
- INSTALL ALL PLUMBING EQUIPMENT SUCH THAT THE RECOMMENDED MANUFACTURER CLEARANCES ARE MAINTAINED FOR SERVICEABILITY & MAINTENANCE.
- WHERE HIGH PRESSURE GAS SYSTEMS ARE SHOWN PROVIDE ALL ADDITIONAL EQUIPMENT SUCH AS PRESSURE REGULATORS AS REQUIRED FOR A COMPLETE OPERABLE SYSTEM, WHETHER CALLED OUT IN PLAN VIEW OR SCHEDULES OR NOT.
- ROUTE ALL DRAINS FROM WATER HEATERS TO NEAREST PLUMBING DRAINS OR TO EXTERIOR OF BUILDING. PROVIDE 2" FLOOR OR HUB DRAIN IF NEEDED.
- WHERE EXISTING PVC PLUMBING LINES ARE LOCATED OR TO BE LOCATED IN HVAC CEILING RETURN PLENUMS EITHER WRAP THE PIPING WITH CODE APPROVED FIRE WRAP BLANKET OR REPLACE THE PIPING WITH CAST IRON PIPING OR OTHER MEANS APPROVED BY THE AUTHORITY HAVING JURISDICTION. INSPECT ANY PROPOSED HVAC CEILING RETURN PLENUMS PRIOR TO BID FOR THIS CONDITION. WHERE THIS CONDITION EXISTS OBTAIN APPROVAL FROM AUTHORITY HAVING JURISDICTION FOR THE PROPOSED TREATMENT OF THE PVC PIPING PRIOR TO BID.
- SEAL AND OR FLASH ALL OPENINGS IN INTERNAL/EXTERNAL BUILDING COMPONENTS RESULTING FROM THIS WORK IN COMPLIANCE WITH ALL APPLICABLE CODES. RODENTPROOF OPENINGS PER THE INTERNATIONAL BUILDING CODE AS WELL.
- BACKFLOW PREVENTERS ARE SPECIFIED ON CIVIL DRAWINGS. IF THIS IS A RENOVATION PROJECT THE PLUMBING CONTRACTOR TO VERIFY THE EXISTING BACKFLOW PREVENTER MEETS THE EXISTING MUNICIPAL BACKFLOW REQUIREMENTS. IF NOT PLUMBING CONTRACTOR TO INCLUDE IN HIS BID TO REPLACE THE EXISTING BACKFLOW PREVENTER TO MEET CURRENT MUNICIPAL REQUIREMENTS.
- IF APPLICABLE, ALL PLUMBING VALVES ARE SHOWN ON THE PLUMBING PLANS. SEE VALVE SCHEDULE FOR SPECIFICATIONS.

PLUMBING FIXTURE SCHEDULE						
MARK	FIXTURE	NOM. PIPE, INCHES				DESCRIPTION OR EQUAL
		CW	HW	W	V	
						THE CW, HW, W, V COLUMNS INDICATE LINE SIZE TO FIXTURE UNLESS NOTED OTHERWISE ON THE PLUMBING PLANS
P1	WATER CLOSET (H.C.)	½"	-	4"	2"	AM STD 215AA104, 1.28 GPF, ELONGATED OPEN FRONT SEAT & TRIM
P2	WATER CLOSET	½"	-	4"	2"	AM STD 215CA104, 1.28 GPF, ELONGATED OPEN FRONT SEAT & TRIM
P3	LAVATORY (H.C.)	½"	½"	1½"	2"	AM STD 0476028 DROP IN, B-27111, FCT 1A-41 BATTERY OPERATION, MATT BLACK & TRIM & TRAP COVERS
P4	URINAL (H.C.)	¾"	-	2"	2"	AM STD 6550001, 6145051 FV, 0.5 GPF, MOUNT ONE AT ADA HEIGHT.
P5	KITCHEN SINK	½"	½"	1½"	2"	DAYTON, DSE13322, DELTA 400LF-HDF, 1.5GPM & TRIM
P6	MOP SINK	½"	½"	2"	2"	FIAT, MSB-2424, SPEAKMAN SC-5811 FCT & MOP HANGER
DW	DISHWASHER	¾"	¾"	2"	2"	PROVIDE ALL PIPE, FITTINGS, EQUIPMENT NEEDED TO MAKE DW FUNCTIONAL. FIELD PIPE TO SINK DRAIN & HW PER MANUFACTURERS INSTRUCTIONS & PLUMBING CODE. WATER HAMMER ARRESTOR PER PLUMBING NOTES.
IMB	ICE MAKER BOX	½"	-	-	-	WATER-TITE AB9700 SERIES W/ WATER HAMMER ARRESTOR OPTION
WH	ELEC WATER HEATER	-	-	-	-	RHEEM, ELD52, 240V/1PH/4.5KW, 0.92 EF
FPHB	HOSE BIBB	¾"	-	-	-	WOODFORD 27 W/VAC BKR
CO	CLEAN OUT	-	-	-	-	JR SMITH 4031
FD	FLOOR DRAIN	-	-	-	-	JR SMITH 2005A, ROUND TOP, NICKEL BRONZE HEAD
CB	CONDENSATE DRAIN BOX	-	-	2"	1.5"	OATEY BOX (37557 OR 37558) . MOUNT 4FT A.F.F. +/- . W/ PPP PR-500 TRAP PRIMER. TO HAVE 2" DRAIN. W/ SOLID FACEPLATE 37532 & SECONDARY DRAIN FUNNEL.
RD	ROOF DRAIN	-	-	-	-	JR SMITH FIG 1310

NOTE: REFERENCE ARCHITECTURAL DRAWINGS FOR FIXTURE RIM HEIGHTS. ALL FIXTURES SHALL MEET CURRENT ADA REQUIREMENTS. ALL FIXTURES TO BE SUPPLIED WITH ALL TRIM, FAUCETS, ETC., REQUIRED. OWNER SHALL APPROVE ALL FIXTURE SELECTIONS & SIZES. INSTALL 5 GAL EXPANSION TANK W/ WATER HEATER. FLUSH HANDLES/LEVERS TO WIDE SIDE OF STALL. PROVIDE PROSET TRAP GUARD FOR ALL FLOOR DRAINS.

INSTALL, CONNECT & MAKE OPERATIONAL ALL KITCHEN FIXTURES. SUPPLY ALL PIPING, TRIM, COMPONENTS, ETC., FOR THESE AS NEEDED TO MAKE FULLY OPERATIONAL.

PIPING INDEX	
SERVICE	MATERIAL
WATER, INTERIOR, ABOVE GRADE	COPPER, ASTM B88, TYPE L, DRAWN OR CPVC OR VIEGA PEX OR VIEGA PROGRESS SYSTEMS
WATER, BELOW GRADE	COPPER, ASTM B88, TYPE K, DRAWN OR CPVC OR VIEGA PEX OR VIEGA PROGRESS SYSTEMS
WASTE & VENT & ROOF DRAINS	SCH 40 PVC-DWV PER ASTM D2665 W/ SOCKET FITTINGS. SOCKETS PER ASTM D2564. NO FOAMCORE.
	OR
	SERVICE WT. CAST IRON OR HUBLESS, CAST IRON FITTINGS, NEOPRENE GASKET SYSTEM OR HUBLESS CLAMP & SHIELD

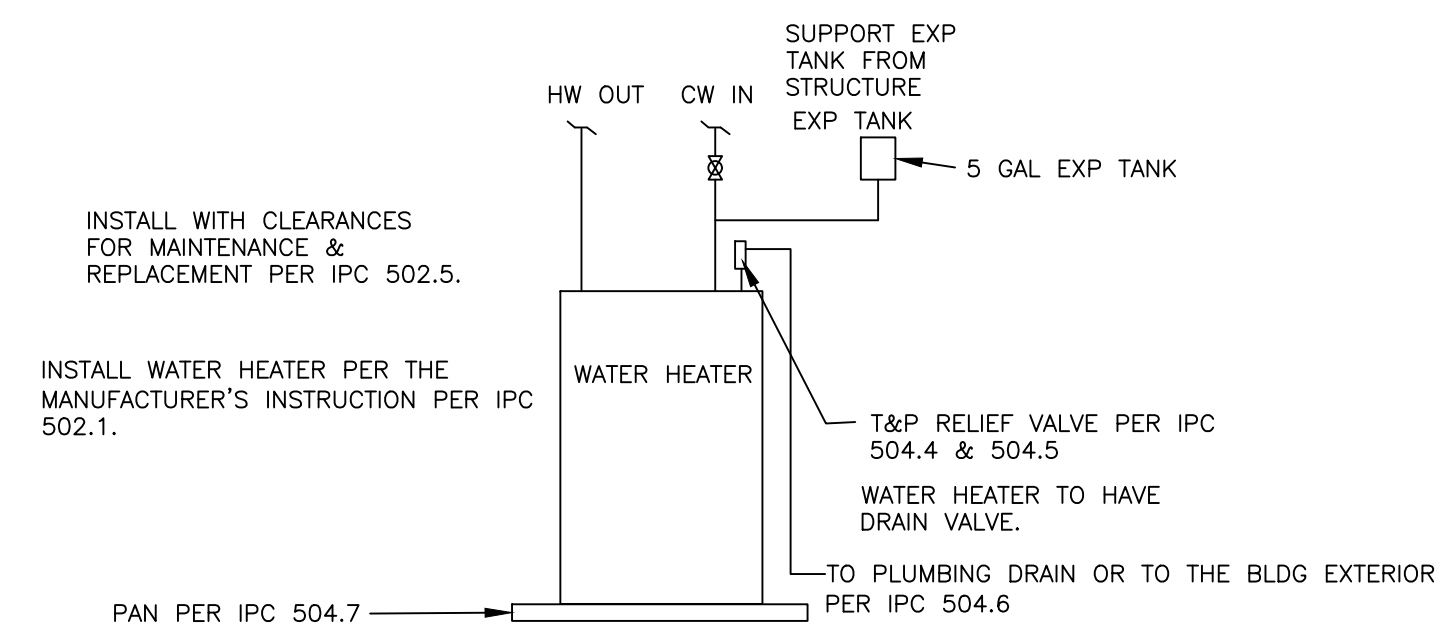
NOTE- ALL MATERIAL & JOINING SYSTEMS LISTED ABOVE MUST BE APPROVED BY LOCAL AUTHORITY HAVING JURISDICTION.

NOTE- NO PVC IN CEILING RETURN PLENUMS WHERE APPLICABLE.

NOTE- PEX PIPING SYSTEMS TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S DESIGN GUIDES & INSTALLATION INSTRUCTIONS. PAY PARTICULAR ATTENTION TO SUPPORTING, FIRE RATINGS/PROTECTION, EXPANSION & CONTRACTION REQUIREMENTS. INCREASE SIZES FOR SERVICE LINES AND MAINS ONE PIPE SIZE LARGER THAN SHOWN ON PLANS FOR PEX SYSTEMS. ENSURE CORRECT PEX MATERIAL SPEC IS USED FOR INTENDED SERVICE.

NOTE- ALL PIPING LISTED IN THE INDEX ABOVE MUST MEET THE SPECIFICATION REQUIREMENTS PER ALL APPLICABLE CODES FOR THIS PROJECT.

VALVES SCHEDULE		
CALLOUT	SYMBOL	NOTE 1
Ball		FULL PORT BRASS BALL VALVES. CHROME PLATED BRASS BALL FOR 1/4"-1". STAINLESS STEEL BALL FOR 1-1/4"-4"



WATER HEATER PIPING DETAIL
NO SCALE

CURRENT PLUMBING RELATED CODES REQUIRED FOR DESIGN AND INSTALLATION	
EDITION	CODE
2018	INTERNATIONAL PLUMBING CODE W/ 2023 GA AMENDMENTS
2018	INTERNATIONAL FUEL GAS CODE W/ 2022 GA AMENDMENTS
2015	INTERNATIONAL ENERGY CONSERVATION CODE W/ 2023 GA AMENDMENTS
2020	NATIONAL ELECTRICAL CODE W/ 2021 GA AMENDMENTS

PLUMBING LEGEND

- SS — SANITARY SEWER PIPING
- VENT PIPING
- COLD WATER PIPING
- HOT WATER PIPING
- VTR VENT THROUGH ROOF

GREENCO of Augusta, Inc.
Consulting Engineering
P. O. Box 56
Harlem, GA 30814
706-556-0405
706-449-0732 fax

BOOKER+VICK
ARCHITECTS
 670 BROAD STREET, AUGUSTA, GA 30901 | P: (706) 798-6792 | WWW.CBARCHITECTSPC.COM

PROPOSED RENOVATION & ADDITION
 MCKNIGHT CONSTRUCTION COMPANY
 635 NW FRONTAGE ROAD
 AUGUSTA, GEORGIA 30907



PLUMBING NOTES & SCHEDULES

DRWN BY: JG
 CHECKED BY: CB
 DATE: FEBRUARY 9, 2024
 REVISIONS
 0 ISSUED FOR PERMIT 02/09/2024
 JOB NO: 2254
 SHEET NO:

GREENCO of Augusta, Inc.
 Consulting Engineering
 P. O. Box 56
 Harlem, GA 30814
 706-556-0405
 706-449-0732 fax

SECTION 22 05 03
 PIPES AND TUBES FOR PLUMBING PIPING AND EQUIPMENT
 PART 1 GENERAL
 1.1 SUMMARY
 A. Section Includes: Pipe and pipe fittings for the following systems:
 1. Equipment drains and over flows.
 2. Unions, flanges, and couplings.
 1.2 REFERENCES
 B. American Society of Mechanical Engineers:
 1. ASME B16.3 - Malleable Iron Threaded Fittings.
 2. ASME B16.18 - Cast Copper Alloy Solder Joint Pressure Fittings.
 3. ASME B16.22 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.
 4. ASME B16.26 - Cast Copper Alloy Fittings for Flared Copper Tubes.
 5. ASME B31.9 - Building Services Piping.
 C. American Society for Testing and Materials:
 1. ASTM B32 - Standard Specification for Solder Metal.
 2. ASTM B88 - Standard Specification for Seamless Copper Water Tube.
 3. ASTM B88M - Standard Specification for Seamless Copper Water Tube (Metric).
 C. American Welding Society:
 1. AWS A5.8 - Specification for Filler Metals for Brazing and Braze Welding.
 2. AWS D1.1 - Structural Welding Code - Steel.
 1.3 SYSTEM DESCRIPTION
 A. Where more than one piping system material is specified, provide compatible system components and joints. Provide flanges, union, and couplings at locations requiring servicing.
 B. Provide unions, flanges, and couplings downstream of valves and at equipment or apparatus connections.
 C. Provide non-conducting dielectric connections whenever jointing dissimilar metals in open systems.
 D. Do not use direct welded or threaded connections to valves, equipment or other apparatus.
 1.4 SUBMITTALS
 Product Data: NONE.
 1.5 DELIVERY, STORAGE, AND HANDLING
 A. Furnish temporary end caps and closures on piping and fittings. Maintain in place until installation.
 B. Protect piping from entry of foreign materials by temporary covers, completing sections of the work, and isolating parts of completed system Protect.
 1.6 FIELD MEASUREMENTS
 A. Verify field measurements prior to fabrication.
 PART 2 PRODUCTS
 2.1 EQUIPMENT DRAINS AND OVERFLOWS
 A. Copper Tubing: ASTM B88, Type M, hard drawn.
 1. Fittings: ASME B16.18, cast brass, or ASME B16.22 solder wrought copper.
 2. Joints: Solder, lead free, 95-5 tin-antimony, or tin and silver, with melting range 430 to 535 degrees F (220 to 280 degrees C).
 B. PVC Pipe: ASTM D1785, Schedule 40.
 1. Fittings: ASTM D2466 or ASTM D2467, PVC.
 2. Joints: ASTM D2855, solvent weld.
 2.2 UNIONS, FLANGES, AND COUPLINGS
 A. Unions for Pipe 2 inches (50 mm) and Smaller:
 1. Ferrous Piping: 150 psig malleable iron, threaded.
 2. Copper Pipe: Bronze, soldered joints.
 B. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.
 PART 3 EXECUTION
 3.1 PREPARATION
 A. Ream pipe and tube ends. Remove burrs.
 B. Remove scale and dirt on inside and outside before assembly.
 C. Prepare piping connections to equipment with flanges or unions.
 D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.
 3.2 INSTALLATION
 A. Route piping parallel to building structure and maintain gradient.
 B. Install piping to conserve building space, and not interfere with use of space.
 C. Group piping whenever practical at common elevations.
 D. Sleeve pipe passing through partitions, walls and floors.
 E. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
 F. Provide access where valves and fittings are not accessible.
 G. Provide unions at all valves except in refrigerant systems.
 H. Slope piping and arrange systems to drain at low points.
 I. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welds.
 J. Insulate piping; per insulation notes on drawings.
 END OF SECTION

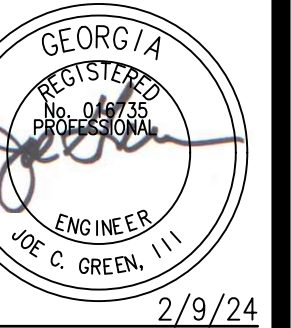
SECTION 22 05 29
 HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT
 PART 1 GENERAL
 1.1 SUMMARY
 A. Section Includes:
 1. Pipe hangers and supports.
 2. Hanger rods.
 3. Flashing.
 4. Sleeves.
 5. Formed steel channel.
 6. Equipment bases and supports.
 B. Related Sections:
 1. Section 22 05 03 - Pipes and Tubes for Plumbing Piping and Equipment: Execution requirements for placement of hangers and supports specified by this section.
 1.2 REFERENCES
 A. American Society of Mechanical Engineers:
 1. ASME B31.5 - Refrigeration Piping.
 2. ASME B31.9 - Building Services Piping.
 B. American Society for Testing and Materials:
 1. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
 2. ASTM E119 - Method for Fire Tests of Building Construction and Materials.
 3. ASTM E814 - Test Method of Fire Tests of Through Penetration Firestops.
 4. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.
 C. American Welding Society:
 1. AWS D1.1 - Structural Welding Code - Steel.
 D. Manufacturers Standardization Society of the Valve and Fittings Industry:
 1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacture.
 2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
 3. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.
 E. Underwriters Laboratories Inc.:
 1. UL 263 - Fire Tests of Building Construction and Materials.
 2. UL 723 - Tests for Surface Burning Characteristics of Building Materials.
 PART 2 PRODUCTS
 2.1 PIPE HANGERS AND SUPPORTS
 A. Manufacturers:
 1. Carpenter & Paterson Inc.
 2. Grinnell
 3. Elen
 B. Plumbing Piping - DWV:
 1. Hangers for Pipe Sizes 1/2 to 1-1/2 inch (13 to 38 mm): Malleable iron or Carbon steel, adjustable swivel, split ring, GALVANIZED FOR EXTERIOR INSTALLATION.
 2. Hangers for Pipe Sizes 2 inches (50 mm) and Larger: Carbon steel, adjustable, clevis, GALVANIZED FOR EXTERIOR INSTALLATION.
 3. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods. GALVANIZED FOR EXTERIOR INSTALLATION.
 4. Wall Support for Pipe Sizes 3 inches (75 mm) and Smaller: Cast iron hook. GALVANIZED FOR EXTERIOR INSTALLATION.
 5. Wall Support for Pipe Sizes 4 inches (100 mm) and Larger: Welded steel bracket and wrought steel clamp. GALVANIZED FOR EXTERIOR INSTALLATION.
 6. Vertical Support: Steel riser clamp.
 7. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support. GALVANIZED FOR EXTERIOR INSTALLATION.
 8. Copper Pipe Support: Copper-plated, carbon-steel adjustable, ring.
 C. Plumbing Piping - Water:
 1. Hangers for Pipe Sizes 1/2 to 1-1/2 inch (13 to 38 mm): Malleable iron or Carbon steel, adjustable swivel, split ring, GALVANIZED FOR EXTERIOR INSTALLATION.
 2. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods. GALVANIZED FOR EXTERIOR INSTALLATION.
 3. Wall Support for Pipe Sizes 3 inches (75 mm) and Smaller: Cast iron hook. GALVANIZED FOR EXTERIOR INSTALLATION.
 4. Wall Support for Pipe Sizes 4 inches (100 mm) and Larger: Welded steel bracket and wrought steel clamp. GALVANIZED FOR EXTERIOR INSTALLATION.
 5. Vertical Support: Steel riser clamp. GALVANIZED FOR EXTERIOR INSTALLATION.
 6. All Copper Pipe Supports: Copper-plated.
 D. Refrigerant Piping:
 1. Hangers for Pipe Sizes 1/2 to 1-1/2 inch (13 to 38 mm): Malleable iron or Carbon steel, adjustable swivel, split ring. GALVANIZED OR ELECTROPLATED FOR EXTERIOR INSTALLATION.
 2. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods. GALVANIZED OR ELECTROPLATED FOR EXTERIOR INSTALLATION.
 3. Wall Support for Pipe Sizes 3 inches (75 mm) and Smaller: Cast iron hook. GALVANIZED OR ELECTROPLATED FOR EXTERIOR INSTALLATION.
 4. Vertical Support: Steel riser clamp. GALVANIZED OR ELECTROPLATED FOR EXTERIOR INSTALLATION.
 5. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support. GALVANIZED OR ELECTROPLATED FOR EXTERIOR INSTALLATION.
 6. All Copper Pipe Supports: Copper-plated.
 2.2 ACCESSORIES
 A. Hanger Rods: Mild steel threaded both ends, threaded on one end, or continuous threaded. GALVANIZED FOR EXTERIOR INSTALLATION.
 2.3 FLASHING
 A. Metal Flashing: 26 gage thick galvanized steel.
 B. Lead Flashing:
 1. Waterproofing: 5 lb./sq. ft sheet lead
 2. Soundproofing: 1 lb./sq. ft sheet lead.
 2.4 SLEEVES
 A. Sleeves for Pipes through Non-fire Rated Floors: 18 gage thick galvanized steel.
 B. Sleeves for Pipes through Non-fire Rated Beams, Walls, Footings, and Potentially Wet Floors: Steel pipe galvanized steel.
 C. Sealant: Acrylic except at fire barrier partitions and rated fire walls. Install sealants to continue fire ratings. Seal with U.L. listed firestopping sealant system where required.
 2.5 FORMED STEEL CHANNEL
 A. Product Description: Galvanized 12 gage thick steel. With holes 1-1/2 inches on center.
 PART 3 EXECUTION
 3.1 EXAMINATION
 A. Verify openings are ready to receive sleeves.
 3.2 PREPARATION
 A. Obtain permission from Architect before drilling or cutting structural members.
 3.3 INSTALLATION - PIPE HANGERS AND SUPPORTS
 A. Support horizontal piping as scheduled.
 B. Install hangers with minimum 1/2 inch space between finished covering and adjacent work.
 C. Place hangers within 12 inches of each horizontal elbow.
 D. Use hangers with 1-1/2 inch minimum vertical adjustment.
 E. Support horizontal cast iron pipe adjacent to each hub, with 5 feet maximum spacing between hangers.
 F. Support vertical piping at every floor. Support vertical cast iron pipe at each floor at hub.
 G. Where piping is installed in parallel and at same elevation, provide multiple pipe or trapeze hangers.
 H. Support riser piping independently of connected horizontal piping.
 I. Provide copper plated hangers and supports for all copper piping.
 J. Design hangers for pipe movement without disengagement of supported pipe.
 K. Prime coat exposed steel hangers and supports. Hangers and supports located in pipe shafts and suspended ceiling spaces are not considered exposed.
 L. Provide clearance in hangers and from structure and other equipment for installation of insulation.
 M. Provide 18 gauge galvanized shields 12 inches long for all insulated piping at supports.
 3.4 INSTALLATION - EQUIPMENT BASES AND SUPPORTS
 A. Using templates furnished with equipment, install anchor bolts, and accessories for mounting and anchoring equipment.
 B. Construct supports of steel members or formed steel channel. Brace and fasten with flanges bolted to structure.
 C. Provide rigid anchors for pipes after vibration isolation components are installed.
 3.5 INSTALLATION - FLASHING
 A. Provide flexible flashing and metal Counterflashing where piping and ductwork penetrate weather or waterproofed walls, floors, and roofs.
 B. Flash vent and soil pipes projecting 3 inches minimum above finished roof surface with lead worked 1 inch minimum into hub, 6 inches minimum clear on sides with 24 x 24 inches sheet size. For pipes through outside walls, turn flanges back into wall and caulk, metal counter-flash, and seal.
 3.6 INSTALLATION - SLEEVES
 A. Exterior watertight entries: Seal with mechanical sleeve seals.
 B. Set sleeves in position in forms. Provide reinforcing ground sleeves.
 C. Size sleeves large enough to allow for movement due to expansion and contraction. Provide for continuous insulation wrapping.
 D. Extend sleeves through floors 1 inch above finished floor level. Caulk sleeves.
 E. Where piping penetrates floor, ceiling, or wall, close off space between pipe and adjacent work with stuffing or firestopping insulation (if fire rated) and caulk airtight. Provide close fitting metal collar or escutcheon covers at both sides of penetration.
 3.7 SCHEDULES
 PIPE HANGER SPACING
 HANGER ROD
 PIPE SIZE MAX. HANGER SPACING DIAMETER

Inches (mm)	Feet (m)	Inches (mm)
1/2 (12)	7 (2.1)	3/8 (9)
3/4 (20)	7 (2.1)	3/8 (9)
1 (25)	7 (2.1)	3/8 (9)
1-1/4 (32)	7 (2.1)	3/8 (9)
1-1/2 (38)	9 (2.7)	3/8 (9)
2 (50)	10 (3)	3/8 (9)
2-1/2 (65)	11 (3.4)	1/2 (13)
3 (75)	12 (3.7)	1/2 (13)
4 (100)	14 (4.3)	5/8 (15)
PVC (All Sizes)	6 (1.8)	3/8 (9)
C.I. Bell and Spigot (or No-Hub)	5 (1.5)	5/8 (15)
And at Joints		
END OF SECTION		

BOOKER+VICK
 ARCHITECTS

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PROPOSED RENOVATION & ADDITION
 MCKNIGHT CONSTRUCTION COMPANY
 635 NW FRONTAGE ROAD
 AUGUSTA, GEORGIA 30907



PLUMBING SPECIFICATIONS

DRAWN BY: JG
 CHECKED BY: CB
 DATE: FEBRUARY 9, 2024

REVISIONS
 0 ISSUED FOR PERMIT 02/09/2024

JOB NO.
 2254

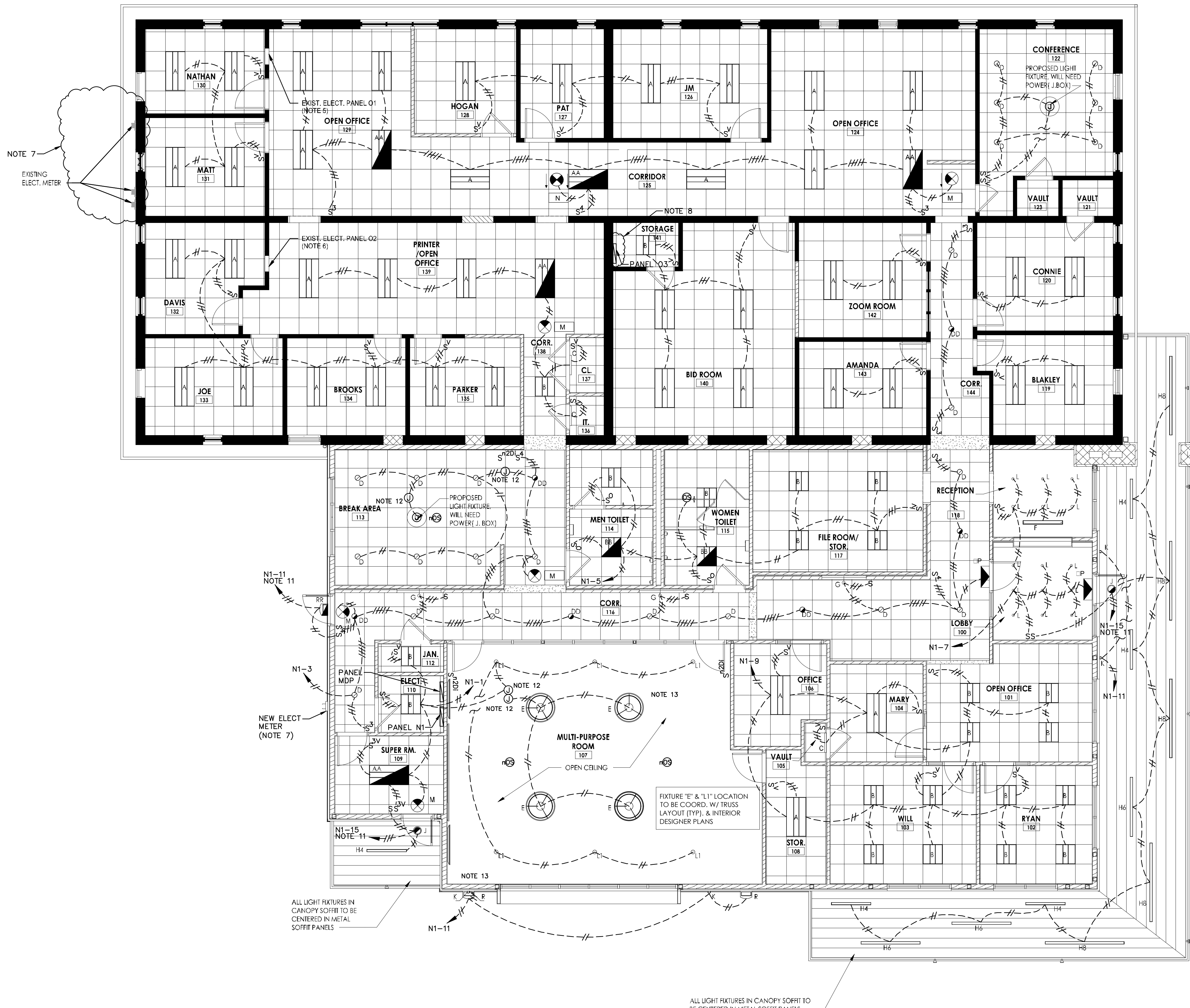
SHEET NO.

P2.1



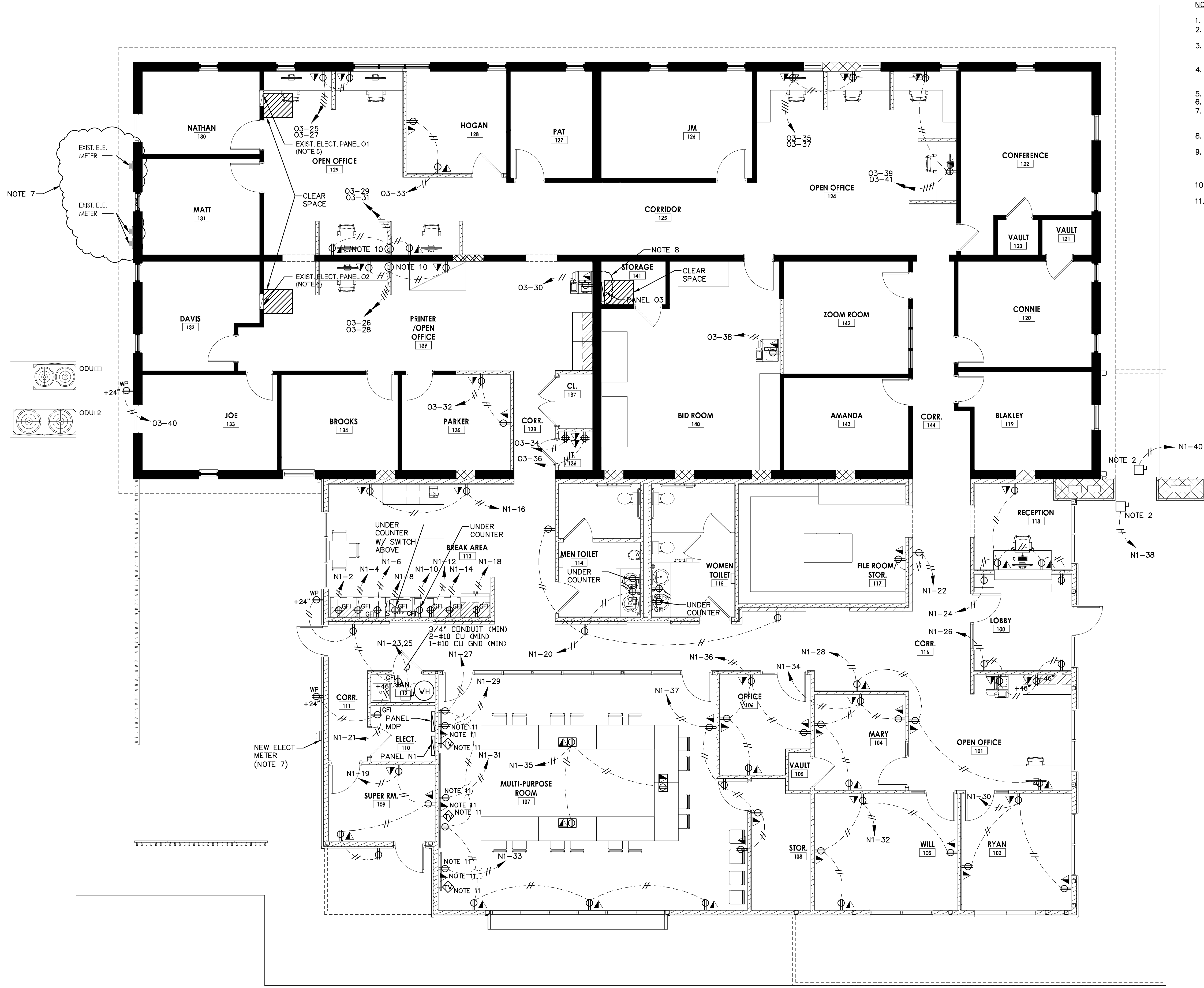
- NOTES:
- REFER TO DRAWING E-3.1 FOR GENERAL NOTES AND SPECIFICATIONS.
 - CONNECT EXIT SIGNS AND EMERGENCY LIGHTS TO A NON-SWITCH LEG (HOT) OF THE LIGHTING CIRCUIT FEEDING THIS AREA.
 - DIMENSIONS ARE FOR REFERENCE ONLY. COORDINATE FINAL LOCATION WITH GC AND/OR OWNER PRIOR TO ROUGH-IN.
 - UNLESS OTHERWISE NOTED, HOME RUNS FOR ALL 15 AND 20 AMP BRANCH CIRCUITS LONGER THAN 75 FEET SHALL BE AT LEAST 10 AWG.
 - LABEL EXISTING ELECTRICAL PANEL AS O1.
 - LABEL EXISTING ELECTRICAL PANEL AS O2.
 - DEMO EXISTING SERVICE(S) AND METERS AND IN INSTALL THE NEW SERVICE/METER PER THIS PLAN AND THE RISER DIAGRAM ON SHEET E3.2.
 - DEMO EXISTING FEDERAL PACIFIC PANEL AND REFEED THROUGH LOADS FROM THE NEW PANEL O3.
 - TO THE EXTENT PRACTICAL, THE EXISTING WIRING WITHIN THE ORIGINAL BUILDING SHOULD BE REUSED. NM CABLE (ROMEX WIRE) ABOVE THE DROP CEILING SHALL BE REPLACE PER CONDUCTOR SPECIFICATION ON SHEET E3.1.
 - SURFACE MOUNT RMC OR IMC AND OUTLET BOXES ON THE BRICK WALL.
 - ROUTE BOTH A SWITCHED LEG (VIA A TIMER) AND A NON-SWITCHED LEG (DIRECT FROM BREAKER) FROM THIS LIGHTING CIRCUIT.
 - USE DIMMING POWER PACK NPP16 D ERP IN CONJUNCTION WITH OCCUPANCY SENSORS NCM PDT 9 RB AND DIMMING WALL SWITCH. WIRE PER MANUFACTURER'S INSTRUCTION (I.E., CAT5e CABLE BETWEEN THE SWITCH, OCCUPANCY SENSOR AND THE POWER PACK, AND, 0-10V LOW VOLTAGE CABLE FROM THE POWER PACK TO ALL THE LIGHT FIXTURES IN THE ROOM).
 - ALL EXPOSED CONDUIT SHALL BE RAN IN A NEAT AND PROFESSIONAL MANNER. IT SHALL BE TIGHT TO THE ROOF DECK, AT THE SAME HEIGHT, GROUPED TOGETHER, ETC.

LIGHTING LEGEND		
A		TROFFER LIGHT LED 2x4
AA		TROFFER LIGHT LED 2x4 WITH 1-1/2 HR. B.B.U.
B		TROFFER LIGHT LED 2x2
BB		TROFFER LIGHT LED 2x2 WITH 1-1/2 HR. B.B.U.
C		LED STRIP WALL MOUNTED LIGHTING
D		6" RECESSED CAN LED LIGHT
DD		6" RECESSED CAN LED LIGHT WITH 1-1/2 HR. B.B.U.
E		LED DECORATIVE CHANDELIER 36"
F		LED STRIP PENDANT FIXTURE
G		WALL SCONCE
H4		VIA 3 SEAL RECESSED LINEAR TYPE 4' EXTERIOR
H6		VIA 3 SEAL RECESSED LINEAR TYPE 6' EXTERIOR
H8		VIA 3 SEAL RECESSED LINEAR TYPE 8' EXTERIOR
J		RECESSED EXTERIOR EMERGENCY LIGHT WITH 1-1/2 HR. B.B.U.
K		OCL ARMET EXTERIOR LED LIGHT 48"
L		3" Ø CYLINDER SURFACE LIGHT, 8' HEIGHT
LI		3" Ø CYLINDER PENDANT LIGHT, 8' HEIGHT
M		EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (CEILING MOUNT)
N		EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (CEILING MOUNT)
R		LED EXTERIOR ELEVATION LIGHTING
RR		LED EXTERIOR ELEVATION LIGHTING WITH 1-1/2 HR. B.B.U.
XP		EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (WALL MOUNTED)



1 LIGHTING PLAN
 E1.1 SCALE: 3/16" = 1'-0"

CLIFFORD LUSK, PE
 ELECTRICAL ENGINEER
 OFFICE: (706) 798-6792
 CELL: (706) 645-3495
 EMAIL: CLUSKPE@AOL.COM



- NOTES:**
1. REFER TO DRAWING E-3.1 FOR GENERAL NOTES AND SPECIFICATIONS.
 2. COORDINATE SIGN LOCATION AND HEIGHT WITH GC AND/OR OWNER PRIOR TO ROUGH-IN.
 3. ELECTRICAL CONTRACTOR SHALL ENSURE THAT A 120V MAINTENANCE RECEPTACLE IS AVAILABLE WITHIN 25 FEET OF THE HVAC EQUIPMENT PER NEC 210.63.
 4. UNLESS OTHERWISE NOTED, CABLE RUNS FOR ALL 15 AND 20 AMP BRANCH CIRCUITS LONGER THAN 75 FEET SHALL BE AT LEAST 10 AWG.
 5. LABEL EXISTING ELECTRICAL PANEL AS O1.
 6. LABEL EXISTING ELECTRICAL PANEL AS O2.
 7. DEMO EXISTING SERVICE(S) AND METERS AND IN INSTALL THE NEW SERVICE/METER PER THIS PLAN AND THE RISER DIAGRAM ON SHEET E3.2.
 8. DEMO EXISTING FEDERAL PACIFIC PANEL AND REFEED THOUGH LOADS FROM THE NEW PANEL O3.
 9. TO THE EXTENT PRACTICAL, THE EXISTING WIRING WITHIN THE ORIGINAL BUILDING SHOULD BE REUSED. NM CABLE (ROMEX WIRE) ABOVE THE DROP CEILING SHALL BE REPLACE PER CONDUCTOR SPECIFICATION ON SHEET E3.1.
 10. SURFACE MOUNT RMC OR IMC AND OUTLET BOXES ON THE BRICK WALL.
 11. MOUNTING HEIGHT IS TO-BE-ETERMINE. COORDINATE EXACT HEIGHT WITH GC PRIOR TO ROUGH-IN.

1 POWER PLAN
E2.1 SCALE: 3/16" = 1'-0"

CLIFFORD LUSK, PE
ELECTRICAL ENGINEER
OFFICE: 03-652-7220
CELL: 03-645-3495
EMAIL: CLUSKPE@AOL.COM



POWER PLAN

DRAWN BY: CRL
CHKD BY: CB
DATE: FEBRUARY 9, 2024
REVISIONS:

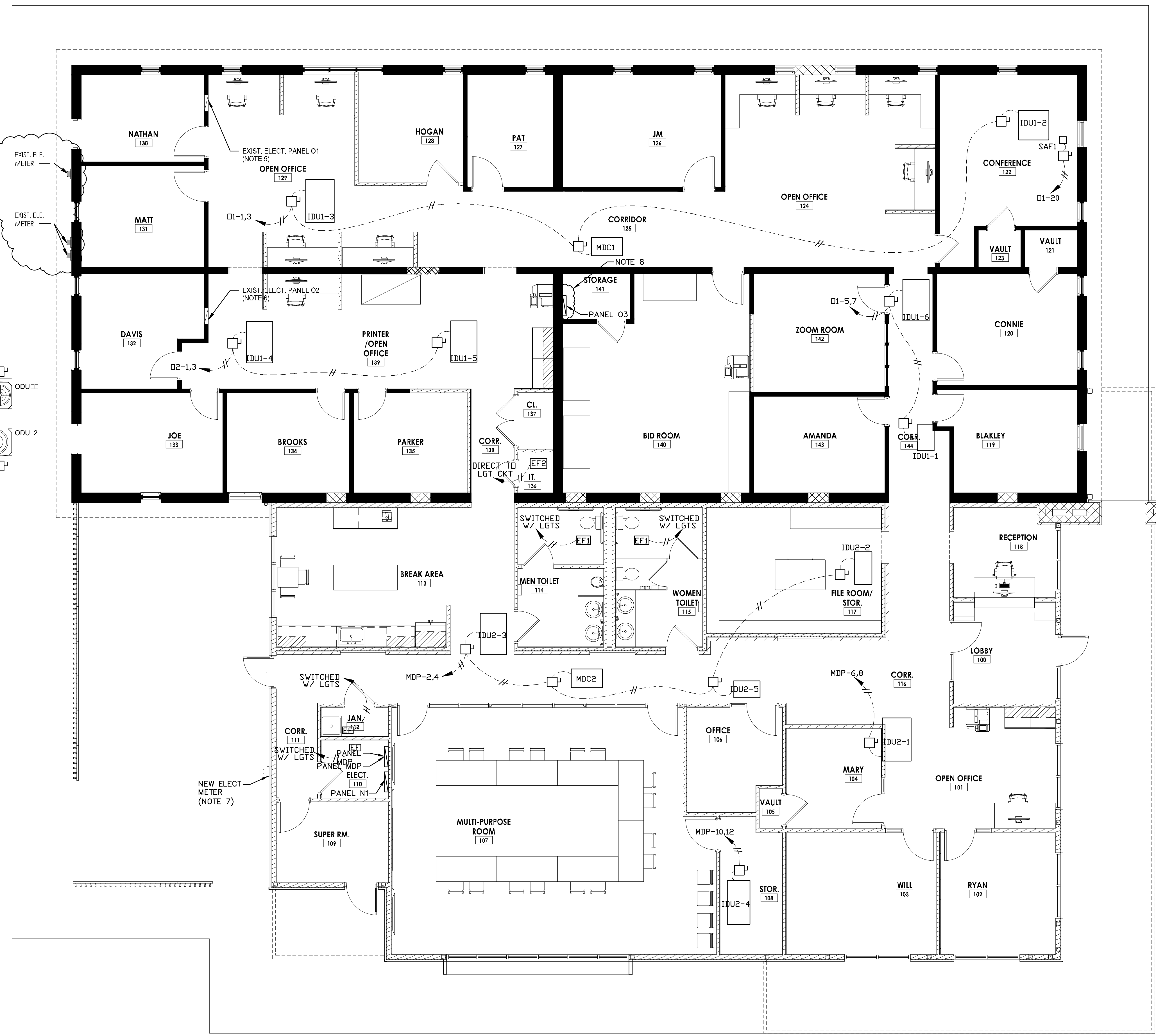
NO.	DESCRIPTION
0	ISSUED FOR PERMIT 02/09/2024

JOB NO. 2254
SHEET NO.



DRAWN BY:	CRL
CHKD BY:	CB
DATE:	FEBRUARY 9, 2024
REVISIONS:	0 ISSUED FOR PERMIT 02/09/2024
JOB NO.:	2254
SHEET NO.:	E2.2

- NOTES:**
- REFER TO DRAWING E-3.1 FOR GENERAL NOTES AND SPECIFICATIONS.
 - PROVIDE MAINTENANCE RECEPTACLE WITHIN 25 FEET OF ALL HVAC EQUIPMENT PER NEC 210.6.3.
 - DIMENSIONS ARE FOR REFERENCE ONLY. COORDINATE FINAL LOCATION WITH GC AND/OR OWNER PRIOR TO ROUGH-IN.
 - UNLESS OTHERWISE NOTED, HOME RUNS FOR ALL 15 AND 20 AMP BRANCH CIRCUITS LONGER THAN 75 FEET SHALL BE AT LEAST 10 AWG.
 - LABEL EXISTING ELECTRICAL PANEL AS O1.
 - LABEL EXISTING ELECTRICAL PANEL AS O2.
 - DEMO EXISTING SERVICE(S) AND METERS AND IN INSTALL THE NEW SERVICE/METER PER THIS PLAN AND THE RISER DIAGRAM ON SHEET E3.2.
 - DEMO EXISTING FEDERAL PACIFIC PANEL AND REFEED THROUGH LOADS FROM THE NEW PANEL O3.
 - TO THE EXTENT PRACTICAL, THE EXISTING WIRING WITHIN THE ORIGINAL BUILDING SHOULD BE REUSED. NM CABLE (ROMEX WIRE) ABOVE THE DROP CEILING SHALL BE REPLACE PER CONDUCTOR SPECIFICATION ON SHEET E3.1.



1 MECH POWER PLAN
E2.2 SCALE: 3/16" = 1'-0"

CLIFFORD LUSK, PE
ELECTRICAL ENGINEER
OFFICE: (706) 798-6720
CELL: (706) 645-3495
EMAIL: CLUSKPE@AOL.COM

LIGHTING LEGEND		
A		TROFFER LIGHT LED Zx4
AA		TROFFER LIGHT LED Zx4 WITH 1-1/2 HR. B.B.U.
B		TROFFER LIGHT LED Zx2
BB		TROFFER LIGHT LED Zx2 WITH 1-1/2 HR. B.B.U.
C		LED STRIP WALL MOUNTED LIGHTING
D		6" RECESSED CAN LED LIGHT
DD		6" RECESSED CAN LED LIGHT WITH 1-1/2 HR. B.B.U.
E		LED DECORATIVE CHANDELIER 36"
F		LED STRIP PENDANT FIXTURE
G		WALL SCONCE
H4		VIA 3 SEAL RECESSED LINEAR TYPE, 4 EXTERIOR
H6		VIA 3 SEAL RECESSED LINEAR TYPE, 6 EXTERIOR
H8		VIA 3 SEAL RECESSED LINEAR TYPE, 8 EXTERIOR
J		RECESSED EXTERIOR EMERGENCY LIGHT WITH 1-1/2 HR. B.B.U.
K		OCL ARCHMET EXTERIOR LED LIGHT 48"
L		3" Ø CYLINDER SURFACE LIGHT, 8" HEIGHT
LI		3" Ø CYLINDER PENDANT LIGHT, 8" HEIGHT
M		EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (CEILING MOUNT)
N		EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (CEILING MOUNT)
R		LED EXTERIOR ELEVATION LIGHTING
RR		LED EXTERIOR ELEVATION LIGHTING WITH 1-1/2 HR. B.B.U.
XP		EXIT LIGHT WITH 1 1/2 HR. B.B.U. -FACE ON DARK SIDE (WALL MOUNTED)

GENERAL SYMBOL LIST		
TYPE	DESCRIPTION	REMARKS
S	SINGLE POLE SWITCH	46" AFF UON
S ³	THREE-WAY SWITCH	46" AFF UON
S ⁴	FOUR-WAY SWITCH	46" AFF UON
S ^o	SINGLE POLE OCCUPANCY SENSOR AND SWITCH (SENSORSWITCH MODEL WSXA PDT D WH OR EQUAL)	DIMMING 46" AFF UON
S ^v	SINGLE POLE VACANCY SENSOR AND SWITCH (SENSORSWITCH MODEL WSXA PDT D VA WH OR EQUAL)	DIMMING 46" AFF UON
S ^{sv}	MULTIWAY SINGLE POLE VACANCY SENSOR AND SWITCH (SENSORSWITCH MODEL WSXA MWG PDT D VA WH OR EQUAL)	3-WAY, DIMMING 46" AFF UON
S ^{2di}	DIGITAL SWITCH (nLIGHT nPODM 2P DX WH OR EQUAL)	2 BUTTON, DIMMING 46" AFF UON
ms	OCCUPANCY SENSOR (nLIGHT MODEL nCM PDT 9 RJB OR EQUAL)	CEILING MOUNTED
Φ	DUPLEX RECEPTACLE, NEMA 5-20R	
⊕	QUAD RECEPTACLE, NEMA 5-20R	
⊕	DUPLEX RECEPTACLE, NEMA 5-20R	8" ABOVE FINISHED COUNTER, UON
▲	VOICE/DATA OUTLET	18" AFF UON
□	DISCONNECT SWITCH	
UON	UNLESS OTHERWISE NOTED	
GFI	GROUND FAULT PROTECTED	
WP	WEATHERPROOF & GROUND FAULT PROTECTED	
AFF	ABOVE FINISHED FLOOR	
AFC	ABOVE FINISHED CEILING	
F	FLOOR MOUNTED	
NL	NIGHTLIGHT (FIXTURE SHALL BE WIRED TO OPERATE 24/7)	
CU	COPPER	
AL	ALUMINUM	
	BRANCH CIRCUIT RACEWAY/CABLE NO. OF #12 CONDUCTORS AS INDICATED (NOTE: ALL CONDUCTOR AND ANY HOMERUN OVER 75' SHALL #10 (MIN))	

LIGHTING FIXTURE SCHEDULE						
TYPE	QTY	MFG	MODEL	LAMP	VOLT	COMMENTS
A	44	LITHONIA	2BLT4 48L ADMS MVOLT GZ1 LP835	LED	□20	OR E=UAL NOTE 4
AA	5	LITHONIA	2BLT4 48L ADMS MVOLT GZ1 LP835 EL=AL	LED	□20	OR E=UAL NOTE 4, WITH BATTERY BACKUP
B	20	LITHONIA	2BLT2 33L ADMS MVOLT GZ1 LP835	LED	□20	OR E=UAL NOTE 4
BB	2	LITHONIA	2BLT2 33L ADMS MVOLT G=LP=35 EL=14L	LED	□20	OR E=UAL NOTE 4, WITH BATTERY BACKUP
C	3	LITHONIA	CSS L24 ALO=5 MVOLT SWW3 □DCRI	LED	□20	OR E=UAL
D	23	LITHONIA	LDN6 ALO3 SWW□L06 BR TRBL LD MVOLT D=0	LED	□20	OR E=UAL
DD	6	LITHONIA	LDN6 ALO3 SWW□L06 BR TRBL LD MVOLT D=0 EL	LED	□20	OR E=UAL, W/ BATTERY BACKUP
E	4	LITHONIA	700GRC 36 BW LED935	LED	□20	OR E=UAL
F	□	LUMENWER	VIA4P DI WDO FH WIO2 SW □DCRI □00LMF 350LMF 35K 4FTOIN UNV D □ □C NA STS B NA NA SW □DCRI □200LM 35K STC SNPC 36IN B STB NA	LED	□20	OR E=UAL
G	3	TBD	WALL SCONCE	LED	□20	OWNER AND/OR INTERIOR DESIGNER TO SPECIFY, MA= 60W
H4	5	LUMENWER	V3SEALR D WET EPDO SW □0 500 40 4FT UNV □□ □C NA □□ □CF□NA	LED	□20	OR E=UAL, DAMP RATED
H6	3	LUMENWER	V3SEALR D WET EPDO SW □0 500 40 6FT UNV □□ □C NA □□ □CF□NA	LED	□20	OR E=UAL, DAMP RATED
H□	5	LUMENWER	V3SEALR D WET EPDO SW □0 500 40 4FT UNV □□ □C NA □□ □CF□NA	LED	□20	OR E=UAL, DAMP RATED
J	2	LITHONIA	LBR6 ALO2 SWW□BR TRBL LSS MWD MVOLT UG□E□DWCPR LBR6PF (frame)	LED	□20	OR E=UAL, DAMP RATED, NOTE 3 AND 4, W/ BATTERY BACKUP
K	4	OCL ARCH LIGHTING	AT□O□0A4□GW BNP LED2 40K UNV DM□SJB □O□A□	LED	□20	OR E=UAL, WET RATED
L	□5	LUMENWER	AE3CYS □IN FTMB BVL FTMB SDL SW □D 2STP 90CRI 35K NA UNV □4W □4W D□FLR FTMB NA	LED	□20	OR E=UAL
L□	6	LUMENWER	AE3CYS D □IN FTMB BVL FTMB SDL SW □D 2STP 90CRI 35K NA UNV 20W 20W NA D□IC FLR FTMB NA BKSS64IN NA	LED	□20	OR E=UAL, WITH SWIVEL STEM, CONFIRM E=ACT NEEDED STEM LENGTH PRIOR TO ORDERING.
M	5	LITHONIA	EDGR W □R EL	LED	□20	OR E=UAL, W/ BATTERY BACKUP, SINGLE FACE, CEILING MOUNT
N	□	LITHONIA	EDGR W 2 RMR EL	LED	□20	OR E=UAL, W/ BATTERY BACKUP, DOUBLE FACE, CEILING MOUNT
R	3	LITHONIA	ARC2 LED P5 40K MVOLT DSS□D	LED	□20	OR E=UAL, WET RATED
RR	□	LITHONIA	ARC2 LED P5 40K E=WC MVOLT DSS□D	LED	□20	OR E=UAL, WET RATED, W/ BATTERY BACKUP
□P	2	LITHONIA	EDG W □R EL	LED	□20	OR E=UAL, W/ BATTERY BACKUP, SINGLE FACE, WALL MOUNT

NOTES:
 □□ QUANTITIES LISTED ARE FOR REFERENCE ONLY. EC IS RESPONSIBLE FOR VERIFYING □QUANTITIES PER PLAN.
 □□ COORDINATE MOUNTING HEIGHT OF ALL LIGHTS WITH THE ARCHITECT PLANS AND /OR GENERAL CONTRACTOR PRIOR TO ROUGH-IN.
 □□ CONFIRM E=ACT PART NUMBERS, COLOR AND FINISH WITH THE OWNER PRIOR TO ORDERING ANY MATERIAL.
 □□ FIXTURE HAS SELECTABLE LUMEN OUTPUT, BUT SHOULD BE SET TO THE HIGHEST OUTPUT. FIXTURE ALSO HAS SELECTABLE COLOR TEMPERATURES. CONFIRM WHAT OUTPUT AND COLOR TEMPERATURE IS DESIRED WITH THE OWNER AND/OR GC PRIOR TO ROUGH-IN.

NOTES:

- IF NEEDED, FIRE ALARM AND DETECTION IS TO BE DESIGNED BY OTHERS.
- COORDINATE POWER AND COMMUNICATIONS SERVICES WITH THE SERVING UTILITY. CONFORM TO SERVICE UTILITY RULES AND REQUIREMENTS.
- THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS. SUBMISSION OF A BID ASSUMES THE CONTRACTOR HAS REVIEWED OR ACCEPTS ALL FIELD CONDITIONS AND EXISTING CONDITIONS. NO ADDITIONAL COMPENSATIONS SHALL BE ALLOWED FOR LABOR OR MATERIAL BECAUSE OF IGNORANCE OF THESE CONDITIONS BEFORE OR AFTER BID SUBMISSION.
- COORDINATE ELECTRICAL CONNECTIONS WITH THE REQUIREMENTS OF EQUIPMENT FURNISHED BY OTHER TRADES.
- COORDINATE LOCATION OF ELECTRICAL MATERIALS AND EQUIPMENT WITH THE WORK OF OTHER TRADES.
- MAINTAIN CONTINUOUS GROUND TO ALL EQUIPMENT.
- APPLY AND PAY FOR ALL REQUIRED PERMITS, INSPECTIONS, ETC.
- GROUND ELECTRICAL SERVICE PER NEC 250-24 AND AS APPROVED BY LOCAL BUILDING AUTHORITY.
- ALL NEW CIRCUIT BREAKERS SHALL BE LISTED FOR SWD OR HVAC AS APPLICABLE.
- THE ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL MATERIALS, EQUIPMENT AND LABOR FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OR FIRST BENEFICIAL USE BY THE OWNER, WHICHEVER COMES FIRST. THE ENTIRE SYSTEM SHALL BE FREE OF SHORTS AND GROUNDS. CORRECTIONS TO THE WIRING SYSTEM, DUE TO DEFECTIVE MATERIALS AND/OR WORKMANSHIP, WITHIN THE GUARANTEE PERIOD, SHALL BE MADE BY THE CONTRACTOR AT NO COST TO THE OWNER.
- DRAWING IS DIAGRAMMATICAL IN NATURE. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF FIXTURES.
- ALL LIGHT FIXTURES SHALL BE SECURELY SUPPORTED IN ACCORDANCE WITH NEC 410.30. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL NECESSARY EQUIPMENT SUCH AS UNISTUT TO PROPERLY SUPPORT BOX.
- THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL THE LIGHTING FIXTURES, RECEPTACLES, DEVICES AND EQUIPMENT. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE HARDWARE, PARTS, AND ACCESSORIES REQUIRED FOR THEIR PROPER INSTALLATION AND OPERATION (INCLUDING ALL THE PARTS, ACCESSORIES, AND SAFETY DEVICES BY CODE). THE CONTRACTOR SHALL ENSURE CURRENT OVERLOAD PROTECTION THAT IS SPECIFIED CONFORMS TO MANUFACTURER'S REQUIREMENTS.
- EC SHALL ENSURE WORKING CLEARANCE AROUND ALL ELECTRICAL EQUIPMENT IS MAINTAINED IN ACCORDANCE WITH NEC 110.26.
- CONNECT THE EXIT SIGNS AND EMERGENCY LIGHTS TO THE NON-SWITCHED (HOT) LIGHTING CIRCUIT OF THE AREA BEING COVERED.
- FINAL LOCATION OF SWITCHES, OUTLETS DEVICES SHALL MEET ALL LOCAL CODE REQUIREMENTS (INCLUDING ALL HANDICAPPED CODE AND ADA REQUIREMENTS).
- RECEPTACLE SHALL BE GFCI PROTECTED IN ACCORDANCE WITH NEC 210.8.
- CEILING PENETRATIONS SHALL MEET THE REQUIREMENTS OF NEC AND IBC.
- USE FIRE RATED MATERIALS IN RATED WALLS. FIRE STOP PER IBC.
- IECC 2015 SECTION C405.2 REQUIRES ALL LIGHTS BE EQUIPPED WITH AUTO-SHUTOFF CONTROLS, UNLESS DESIGNATED FOR SAFETY AND/OR SECURITY.
- ELECTRICAL CONTRACTOR SHALL ENSURE THAT A 120V MAINTENANCE RECEPTACLE IS AVAILABLE WITHIN 25 FEET OF THE HVAC EQUIPMENT PER NEC 210.63.
- DEVICE HEIGHTS ARE TO THE BOTTOM OF THE DEVICE.
- UNLESS OTHERWISE NOTED, CABLE RUNS FOR ALL 20 AMP BRANCH CIRCUITS LONGER THAN 75 FEET SHALL BE AT LEAST 10 AWG.

SPECIFICATIONS

GENERAL - ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (NEPA 70-2020) AND ALL APPLICABLE STATE AND LOCAL CODES. ALL MATERIALS SHALL BE NRTL LISTED/LABELED AS APPROPRIATE BY ORGANIZATIONS SUCH AS UL. FINAL LOCATIONS FOR ROUGH-INS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT BEING CONNECTED. AFTER COMPLETING INSTALLATION, REMOVE DIRT AND CONSTRUCTION DEBRIS FROM ALL ELECTRICAL WORK.

CONDUCTORS - CONDUCTOR INSULATION SHALL COMPLY WITH NEMA WC 5. CONDUCTORS #8 AWG AND LARGER SHALL BE CONCENTRIC STRANDED.

TYPE AND INSULATION (SERVICE): ALUMINUM OR COPPER (AS SPECIFIED) TYPE THWN-2, XHHW OR XHHW-2
 TYPE AND INSULATION (FEEDER): COPPER OR ALUMINUM, TYPE THWN/THHN
 TYPE AND INSULATION (BRANCH): COPPER, TYPE THWN/THHN

COLOR CODING (480/277 V, 3φ): A-BROWN, B-ORANGE, C-YELLOW, NEU-GRAY
 COLOR CODING (208/120V, 3φ): A- BLACK, B-RED, C-BLUE, NEU-WHITE

RACEWAYS - ALL CONDUIT SHALL BE ROUTED IN A PROFESSIONAL MANNER AND NOT TO INTERFERE WITH OTHER INSTALLATIONS.

CONDUIT BODIES AND FITTINGS FOR RIGID METAL CONDUIT SHALL BE CAST THREADED TYPE. CONDUIT FITTINGS FOR ELECTRICAL METALLIC TUBING SHALL BE COMPRESSION TYPE.

- OUTDOORS EXPOSED: RIGID GALVANIZED STEEL CONFORMING TO ANSI C80.1 (UL-6)
- OUTDOORS UNDERGROUND: RIGID NONMETALLIC CONDUIT (SCHEDULE 40 PVC, MIN) CONFORMING TO NEMA TC 2 (UL 651).
- OUTDOORS CONNECTED TO VIBRATING OR MOTORIZED EQUIPMENT: LIQUIDTIGHT FLEXIBLE METAL CONDUIT CONFORMING TO ANSI/UL 361
- INDOORS CONCEALED: ELECTRICAL METALLIC TUBING CONFORMING TO ANSI C80.3 (UL 797) OR TYPE MC/AC CABLE CONFORMING TO UL 4 FOR TYPE THWN/THHN WIRE.
- INDOORS EXPOSED: ELECTRICAL METALLIC TUBING CONFORMING TO ANSI C80.3 (UL 797), EXCEPT AS NOTED.
- INDOORS CONNECTED TO VIBRATING OR MOTORIZED EQUIPMENT: TYPE MC/AC CABLE CONFORMING TO UL 4 OR FLEXIBLE METALLIC CONDUIT CONFORMING TO UL 1

OUTLET BOXES - BOXES SHALL CONFORM TO NEMA OS 1. BOXES SHALL BE SHEET METAL TYPE WITH PLASTER RINGS IN DRY LOCATIONS. BOXES SHALL BE CAST METAL TYPE WITH GASKETED COVER IN DAMP OR WET LOCATIONS.

PULL AND JUNCTION BOXES - BOXES SHALL BE HOT-DIPPED GALVANIZED STEEL. BOX COVERS SHALL BE GASKETED TYPE WITH SCREWED OR BOLTED FASTENERS.

WIRING DEVICES - DEVICES SHALL CONFORM TO NEMA WD 1 AND WD 6. DEVICES SHALL BE COMMERCIAL SPECIFICATION GRADE OR BETTER. DEVICES SHALL BE OF THE GROUNDING TYPE. DEVICES SHALL BE MOUNTED FLUSH WITH THE LONG DIMENSION VERTICAL AND GROUNDING TERMINAL OF RECEPTACLES ON THE BOTTOM. SWITCHES SHALL BE QUIET TYPE RATED 20 AMPERES AT 120/277 VOLTS. RECEPTACLES SHALL BE NEMA 5-20R WEATHER RESISTANT UNLESS OTHERWISE SPECIFIED. GFCI BREAKERS SHALL BE USED INSTEAD OF GFCI RECEPTACLE AS INDICATED ON THE PANEL SCHEDULES. ELECTRICIAN TO LABEL ALL GFCI PROTECTED RECEPTACLES ACCORDINGLY. WEATHERPROOF COVERS SHALL BE PROVIDED IN DAMP OR WET LOCATIONS.

DEVICE COLOR: WHITE, UNLESS OTHERWISE INDICATED
 DEVICE COVER: SMOOTH PLASTIC WITH COLOR TO MATCH DEVICE COLOR
 DEVICE HEIGHT: REFER TO SYMBOLS LEGEND, UON. ALL DIMENSIONS ARE TO BOTTOM OF THE BOX.

GROUNDING - GROUNDING AND BONDING COMPONENTS SHALL CONFORM TO UL 467. AN INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH CIRCUIT CONDUCTORS FOR ALL FEEDER AND BRANCH CIRCUITS.

PANELBOARDS - PANELBOARDS SHALL CONFORM TO NEMA PB 1 AND SHALL BE UL RECOGNIZED IN ACCORDANCE WITH UL 67. PANELBOARDS SHALL BE PROVIDED WITH AN EQUIPMENT GROUND BUS AND SHALL BE BONDED TO THE PANEL BOX. PANELBOARDS EQUIPPED WITH SERVICE DISCONNECT(S) SHALL BE LISTED FOR USE AS SERVICE EQUIPMENT.

BREAKERS - CIRCUIT BREAKERS SHALL BE LISTED FOR SWD OR HVAC AS APPLICABLE. MULTIPOLE CIRCUIT BREAKERS SHALL HAVE A COMMON TRIP. TANDEM CIRCUIT BREAKERS SHALL NOT BE USED. FILLER PLATES SHALL BE INSTALLED IN ALL UNUSED SPACES. A TYPED OR COMPUTER GENERATED CIRCUIT DIRECTORY SHALL BE INSTALLED ON THE INSIDE OF PANELBOARD DOORS.

DISCONNECT SWITCHES - DISCONNECT SWITCHES SHALL BE FUSED OR NONFUSED AS INDICATED AND SHALL CONFORM TO NEMA KS 1 TYPE HD. DISCONNECT SWITCHES SHALL BE HANDLE LOCKABLE AND INTERLOCKED WITH THE COVER IN THE CLOSED POSITION. ENCLOSURES SHALL BE NEMA TYPE 1 IN DRY LOCATIONS AND NEMA TYPE 3R IN DAMP OR WET LOCATIONS.

FUSES - FUSES SHALL BE CARTRIDGE TYPE AND SHALL CONFORM TO NEMA FU 1. FUSE VOLTAGE RATING SHALL BE CONSISTENT WITH CIRCUIT VOLTAGE. FUSES SHALL BE ARRANGED IN FUSIBLE EQUIPMENT SUCH THAT THE FUSE RATINGS ARE READABLE WITHOUT REMOVING THE FUSE.

MOTOR FEEDER AND BRANCH CIRCUITS: UL CLASS RK5, TIME DELAY TYPE. OTHER FEEDER AND BRANCH CIRCUITS: UL CLASS RK1, NON TIME DELAY.

INTERIOR LIGHTING - FIXTURE MOUNTING HARDWARE AND TRIM SHALL BE COORDINATED WITH THE CEILING SYSTEM. RECESSED FIXTURES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURAL SYSTEM.

EXIT SIGNS AND EMERGENCY LIGHTS - MUST HAVE BATTERY BACKUP, WHICH WILL ILLUMINATE FOR A MINIMUM OF 90 MINUTES AND COMPLY WITH NEC ARTICLE 700-12. EXIT SIGNS SHALL CONFORM TO UL 924, NFPA 101, IFC AND OSHA ILLUMINATION STANDARDS WITH A MAXIMUM OF 5 WATTS. OUTDOOR FIXTURES SHALL BE RATED FOR WET LOCATIONS.

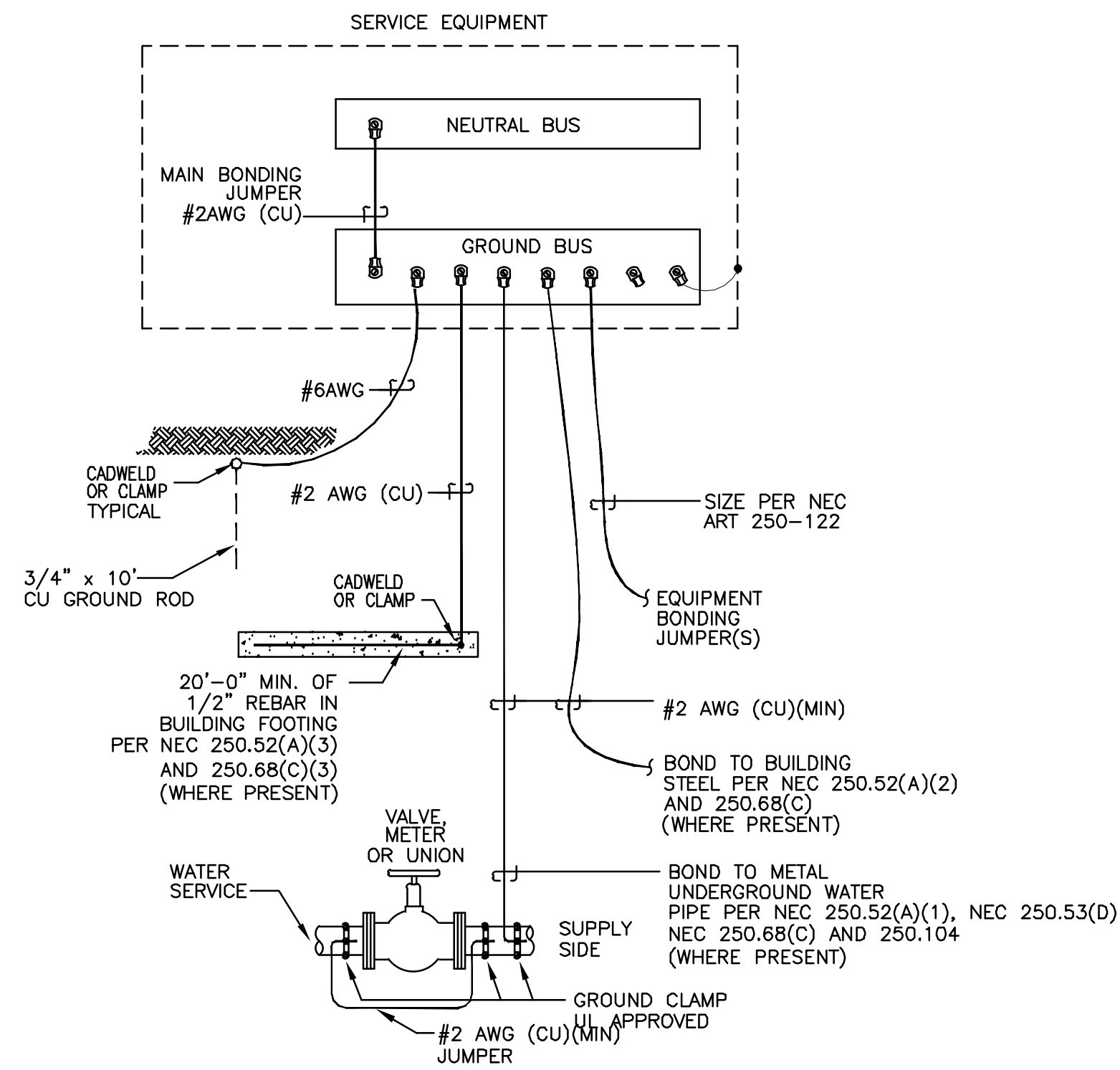
ELECTRICAL IDENTIFICATION - ALL PANELBOARDS, CONTACTOR PANELS AND DISCONNECT SWITCHES SHALL BE IDENTIFIED WITH SELF-ADHESIVE TYPE LABELS. LETTERING SHALL BE 1/2 INCHES HIGH AND SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

ALL CONTACTORS, RELAYS AND TIMERS MUST BE LABELED WITH PRINTED LABELS AND SHALL SHOW PANEL AND CIRCUIT NUMBER.

ARC FLASH HAZARD LABELS - ELECTRICAL PANELS AND EQUIPMENT SHALL BE LABELED IN ACCORDANCE WITH NFPA 70E IDENTIFYING THE APPROPRIATE ARC FLASH HAZARDS AND PPE REQUIREMENTS.



DRAWN BY:	CEL
CHECKED BY:	CB
DATE:	FEBRUARY 9, 2024
REVISIONS:	ISSUED FOR PERMIT 02/09/2024
JOB NO.:	2254
SHEET NO.:	E3.1



GROUND DIAGRAM A

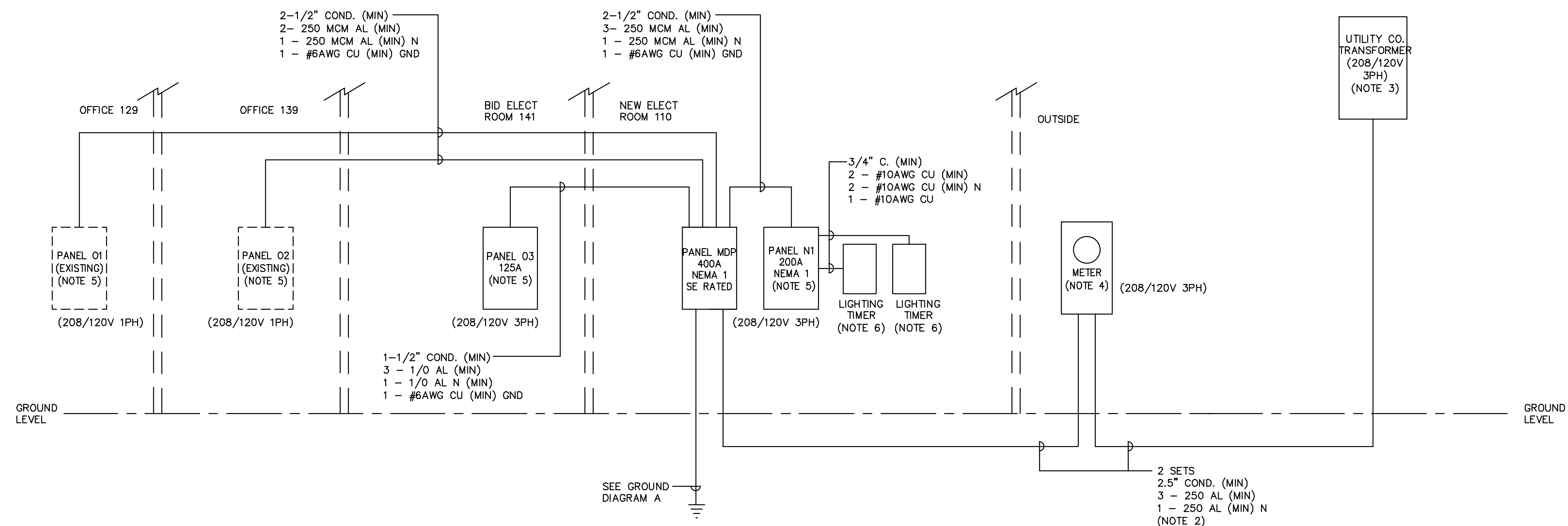
SCALE: NO SCALE

NOTES:

1. GROUNDING AND BONDING SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 250. GROUNDING AND BONDING COMPONENTS SHALL CONFORM WITH UL 467. COMPONENTS TO BE INSTALLED UNDERGROUND SHALL BE RATED FOR THAT. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH CIRCUIT CONDUCTORS FOR ALL FEEDER AND BRANCH CIRCUITS.

CALCULATED FAULT CURRENTS		
EQUIPMENT	ELECTRICAL SOURCE	AVAILABLE BOLTED CURRENT (NOTE 1) A
PANEL MDP	UTILITY	6
PANEL N1	PANEL MDP	0.2
PANEL O2	PANEL MDP	5.2
PANEL O3	PANEL MDP	6
PANEL O2	PANEL MDP	4.2

NOTES:
 1. FAULT CURRENTS ARE BASED ON AN AVAILABLE FAULT CURRENT OF 43,237A PER COOPER BUSSMAN EPR 2005, "ELECTRICAL PLAN REVIEW" TABLE 5 FOR A .50 KVA TRANSFORMER.



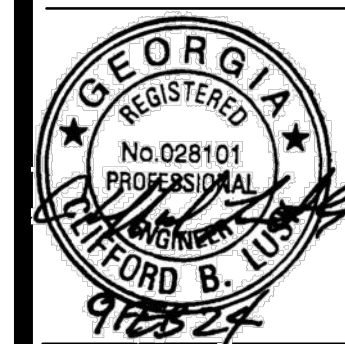
POWER RISER DIAGRAM

SCALE: NO SCALE

LEGEND
 --- EXISTING
 --- NEW

NOTES:

1. RISER DIAGRAM IS DIAGRAMMATIC IN NATURE. ACTUAL CONFIGURATION MAY DIFFER SLIGHTLY.
2. CONDUCTORS SHALL BE 90°C WET RATED, TYPE THWN-2, XHHW OR XHHW-2
3. CONSULT WITH POWER UTILITY COMPANY TO DETERMINE LOCATION OF UTILITY TRANSFORMER.
4. REMOVE THE EXISTING METER AND INSTALL A NEW SERVICE ENTRY PANEL. RE-FEED THE ORIGINAL SERVICE PANEL (VIA PASS-THRU LUGS) FROM THE NEW PANEL.
5. THE GROUND AND NEUTRAL BAR WILL HAVE TO BE ISOLATED.
6. LIGHTING TIMER SHOULD BE A TWO CHANNEL INTERMATIC MODEL ET8215C OR EQUAL.



DRAWN BY: CBL
CHKD BY: CB
DATE: FEBRUARY 9, 2024
REVISIONS:
0 ISSUED FOR PERMIT 02/09/2024
JOB NO. 2254
SHEET NO.

CLIFFORD LUSK, PE
 ELECTRICAL ENGINEER

OFFICE: 03-652-7220
 CELL: 03-645-3495
 EMAIL: CLUSKPE@AOL.COM

PANEL: MDP			RATING: 400A MAIN BREAKER, SE RATED						
MTG: SQUARE D		FEEDER SIZE: 2-250 MCM (AL)	VOLT: 208/120 V 3Ø, 4 WIRE		S/C: 22KA (MIN)				
TYPE: NQ		FEEDER CAP: 410A (NOTE 1)	ENCLOSURE: NEMA 1		MOUNT: SURFACE				
CKT #	CB	DESCRIPTION	LOADS (AMP)			DESCRIPTION	CB	CKT #	
			PHASE A	PHASE B	PHASE C				
1	20/1	SPARE	0	6	-	IDU2-2, IDU2-3, IDU2-5 AND MDC2	15/2	2	
3	20/1	SPARE	-	0	6	-	-	4	
5	20/1	SPARE	-	-	0	5	IDU2-1	15/2	6
7	20/1	SPARE	0	5	-	-	-	8	
9	20/1	SPARE	-	0	8	-	IDU2-4	15/2	10
11	20/1	SPARE	-	-	0	8	-	12	
13	20/1	SPARE	0	0	-	-	SPARE	20/1	14
15	20/1	SPARE	-	0	0	-	SPARE	20/1	16
17	20/1	SPARE	-	-	0	0	SPARE	20/1	18
19	20/1	SPARE	0	0	-	-	SPARE	20/1	20
21	20/1	SPARE	-	0	0	-	SPARE	20/1	22
23	20/1	SPARE	-	-	0	0	SPARE	20/1	24
25	50/3	ODU_1	45	70	-	-	ODU_2	80/3	26
27	-	-	-	45	70	-	-	-	28
29	-	-	-	-	45	70	-	-	30
31	20/1	SPARE	0	52	-	-	PANEL O3	125/3	32
33	20/1	SPARE	-	0	52	-	-	-	34
35	200/2	PANEL O1	-	-	50	49	-	-	36
37	-	-	52	97	-	-	PANEL N1	200/3	38
39	200/2	PANEL O2	-	46	86	-	-	-	40
41	-	-	-	-	46	77	-	-	42
TOTALS			326	312	350	TOTAL KVA = 119			
						TOTAL AMPS = 349.8			

NOTES:
1) THE ADJUSTED AMPACITY DUE TO AMBIENT TEMPERATURE DERATING IS BASED ON NEC TABLE 310.16 FOR 90DEG INSULATION (I.E., DERATED TO 91% DUE TO A MAX ASHRAE DESIGN TEMPERATURE OF 97 DEG FOR AUGUSTA GA). HOWEVER, THE ADJUSTED AMPACITY OF THE CABLE CANNOT EXCEED THE AMPACITY OF 75DEG INSULATION DUE TO THE LIMITATION OF THE CONNECTION TERMINALS.
2) GFCI BREAKER.
3) CIRCUIT CONNECTED TO LOAD THRU LIGHTING TIMER.

PANEL: N1			RATING: 200A MLO						
MTG: SQUARE D		FEEDER SIZE: 250 MCM (AL)	VOLT: 208/120 V 3Ø, 4 WIRE		S/C: 22KA (MIN)				
TYPE: NQ		FEEDER CAP: 205A (NOTE 1)	ENCLOSURE: NEMA 1		MOUNT: SURFACE				
CKT #	CB	DESCRIPTION	LOADS (AMP)			DESCRIPTION	CB	CKT #	
			PHASE A	PHASE B	PHASE C				
1	20/1	LIGHTS - ELECT ROOM, JAN, OFFICE 109 AND ROOM 107.	10	2	-	-	RECEPT - BREAKER ROOM COUNTER	20/1	2
3	20/1	LIGHTS - CORRIDORS AND BREAK ROOM	-	9	2	-	RECEPT - BREAKER ROOM COUNTER	20/1	4
5	20/1	LIGHTS - REST ROOMS AND ROOM 117	-	-	6	2	RECEPT - BREAKER ROOM COUNTER	20/1	6
7	20/1	LIGHTS - LOBBY 100 AND RECEPTION 118	8	13	-	-	DISPOSAL	20/1	8
9	20/1	LIGHTS - OFFICES 101 THRU 106 AND STOR 108	-	8	13	-	DISHWASHER	20/1	10
11	20/1	OUTSIDE LIGHTS - BUILDING PERIMETER (NOTE 3)	-	-	4	2	RECEPT - BREAKER ROOM COUNTER	20/1	12
13	20/1	SPARE	0	2	-	-	RECEPT - BREAKER ROOM COUNTER	20/1	14
15	20/1	OUTSIDE LIGHTS - FRONT PORCH (NOTE 3 AND 4)	-	11	3	-	RECEPT - BREAKER ROOM	20/1	16
17	20/1	SPARE	-	-	0	13	FRIG - BREAKER ROOM	20/1	18
19	20/1	RECEPT - ROOM 109 AND OUTSIDE	6	11	-	-	RECEPT - REST ROOMS AND CORRIDOR	20/1	20
21	20/1	RECEPT - ELECT ROOM, CORRIDOR AND OUTSIDE	-	6	3	-	RECEPT - FILE ROOM 117 AND CORRIDOR	20/1	22
23	30/2	WATER HEATER	-	-	14	8	RECEPT - RECEPTION 115 AND LOBBY 100	20/1	24
25	-	-	14	6	-	-	RECEPT - LOBBY 100 AND OPEN OFFICE 101	20/1	26
27	20/1	RECEPT - ROOM 107	-	8	5	-	RECEPT - OPEN OFFICE 101 AND CORRIDOR 106	20/1	28
29	20/1	TV - ROOM 107	-	-	4	5	RECEPT - OFFICE 102	20/1	30
31	20/1	TV - ROOM 107	4	6	-	-	RECEPT - OFFICE 103	20/1	32
33	20/1	TV - ROOM 107	-	4	6	-	RECEPT - OFFICE 104	20/1	34
35	20/1	RECEPT - ROOM 107	-	-	5	6	RECEPT - OFFICE 106	20/1	36
37	20/1	RECEPT - ROOM 107 AND STORAGE 108	6	10	-	-	SIGN (NOTE 3)	20/1	38
39	20/1	SPARE	-	0	10	-	SIGN (NOTE 3)	20/1	40
41	20/1	SPARE	-	-	10	0	SPARE	20/1	42
TOTALS			97	86	77	TOTAL KVA = 31			
						TOTAL AMPS = 96.7			

NOTES:
1) ADJUSTED AMPACITY DUE TO AMBIENT TEMPERATURE DERATING IS BASED ON NEC TABLE 310.16 FOR 90DEG INSULATION (I.E., DERATED TO 91% DUE TO A MAX ASHRAE DESIGN TEMPERATURE OF 97 DEG FOR AUGUSTA GA). HOWEVER, THE ADJUSTED AMPACITY OF THE CABLE CANNOT EXCEED THE AMPACITY OF 75DEG INSULATION DUE TO THE LIMITATION OF THE CONNECTION TERMINALS.
2) GFCI BREAKER.
3) CIRCUIT CONNECTED TO LOAD THRU LIGHTING TIMER.
4) ROUTE BOTH A SWITCHED LEG (VIA A TIMER) AND A NON-SWITCHED LEG (DIRECT FROM BREAKER) FROM THIS LIGHTING CIRCUIT.

PANEL: O1			RATING: 200A MAIN BREAKER				
MTG: MURRAY (EXISTING)		FEEDER SIZE: 250 MCM (AL)	VOLT: 240/120 V 1PH, 3 WIRE		S/C: EXISTING 10KA (MIN)		
TYPE: EXISTING		FEEDER CAP: 205A (NOTE 1)	ENCLOSURE: NEMA 1		MOUNT: FLUSH		
CKT #	CB	DESCRIPTION	LOADS (AMP)		DESCRIPTION	CB	CKT #
			PHASE L1	PHASE L2			
1	15/2	IDU1-2, IDU1-3 AND MDC1 (NOTE 4, 6 AND 7)	7	0	SABRINA'S RECEPT (NOTE 4)	20/1	2
3	-	-	-	7	SHEILA'S RECEPT (NOTE 4)	20/1	4
5	15/2	IDU1-1 AND IDU1-6 (NOTE 6 AND 7)	4	0	COPIER (NOTE 4)	20/1	6
7	-	-	-	4	OFFICE RECEPT (NOTE 4)	20/1	8
9	20/1	OFFICE LIGHTS (NOTE 4)	0	0	WILL'S RECEPT (NOTE 4)	20/1	10
11	20/1	BIG ROOM LIGHTS (NOTE 4)	-	0	WILL'S LIGHTS (NOTE 4)	20/1	12
13	20/1	OFFICE RECEPT (NOTE 4)	0	0	MASON'S RECEPT (NOTE 4)	20/1	14
15	20/1	UNKNOWN (NOTE 4)	-	0	MASON'S LIGHTS (NOTE 4)	20/1	16
17	20/1	HALL LIGHTS (NOTE 4)	0	0	OUTSIDE SIGN (NOTE 4)	20/1	18
19	20/1	WAITING ROOM LIGHTS (NOTE 4)	-	0	SAF1 (NOTE 8)	20/1	20
TOTALS (A)			50	52	TOTAL KVA = 12		
						TOTAL AMPS = 51.7	

NOTES:
1) ADJUSTED AMPACITY DUE TO AMBIENT TEMPERATURE DERATING IS BASED ON NEC TABLE 310.16 FOR 90DEG INSULATION (I.E., DERATED TO 91% DUE TO A MAX ASHRAE DESIGN TEMPERATURE OF 97 DEG FOR AUGUSTA GA). HOWEVER, THE ADJUSTED AMPACITY OF THE CABLE CANNOT EXCEED THE AMPACITY OF 75DEG INSULATION DUE TO THE LIMITATION OF THE CONNECTION TERMINALS.
2) GFCI BREAKER.
3) CIRCUIT CONNECTED TO LOAD THRU LIGHTING TIMER.
4) EXISTING LOAD NOT FIELD VERIFIED.
5) THE TOTAL PANEL LOAD IS ALL THE NEW LOADS PLUS 125% OF THE PREVIOUS 12 MONTH PEAK DEMAND OF 6.5KW AND ASSUMING A 0.85PF. NO CREATED IS TAKEN FOR ANY EXISTING LOADS THAT WERE REMOVED OR REPLACED.
6) REMOVE EXISTING BREAKER AND INSTALL NEW BREAKER. SIZE AS SHOWN.
7) REMOVE EXISTING HVAC CABLES TO THE EXTENT PRACTICAL.
8) CONFIRM THIS BREAKER WAS PREVIOUS SPARE.

PANEL: O2			RATING: 200A MAIN BREAKER				
MTG: MURRAY (EXISTING)		FEEDER SIZE: 250 MCM (AL)	VOLT: 240/120 V 1PH, 3 WIRE		S/C: EXISTING 10KA (MIN)		
TYPE: EXISTING		FEEDER CAP: 205A (NOTE 1)	ENCLOSURE: NEMA 1		MOUNT: FLUSH		
CKT #	CB	DESCRIPTION	LOADS (AMP)		DESCRIPTION	CB	CKT #
			PHASE L1	PHASE L2			
1	15/2	IDU1-4 AND IDU1-5 (NOTE 4, 6 AND 7)	6	0	PAT (NOTE 4)	20/1	2
3	-	-	-	6	BILL (NOTE 4)	20/1	4
5	40/2	SPARE (NOTE 4 AND 7)	0	0	BOBBY (NOTE 4)	20/1	6
7	-	-	-	0	JOHN (NOTE 4)	20/1	8
9	20/1	OFFICE LIGHTS (NOTE 4)	0	0	KITCHEN (NOTE 4)	20/1	10
11	20/1	PLAN ROOM LIGHTS (NOTE 4)	-	0	KITCHEN (NOTE 4)	20/1	12
13	20/1	REST ROOMS (NOTE 4)	0	0	SERVO (NOTE 4)	20/1	14
15	20/1	FRIG (NOTE 4)	-	0	SERVO (NOTE 4)	20/1	16
17	20/1	UNKNOWN (NOTE 4)	0	0	BLUE PRINT (NOTE 4)	20/1	18
19	20/1	FAX REC (NOTE 4)	-	0	SECURITY (NOTE 4)	20/1	20
TOTALS (A)			46	46	TOTAL KVA = 11		
						TOTAL AMPS = 46.1	

NOTES:
1) ADJUSTED AMPACITY DUE TO AMBIENT TEMPERATURE DERATING IS BASED ON NEC TABLE 310.16 FOR 90DEG INSULATION (I.E., DERATED TO 91% DUE TO A MAX ASHRAE DESIGN TEMPERATURE OF 97 DEG FOR AUGUSTA GA). HOWEVER, THE ADJUSTED AMPACITY OF THE CABLE CANNOT EXCEED THE AMPACITY OF 75DEG INSULATION DUE TO THE LIMITATION OF THE CONNECTION TERMINALS.
2) GFCI BREAKER.
3) CIRCUIT CONNECTED TO LOAD THRU LIGHTING TIMER.
4) EXISTING LOAD NOT FIELD VERIFIED.
5) THE TOTAL PANEL LOAD IS ALL THE NEW LOADS PLUS 125% OF THE PREVIOUS 12 MONTH PEAK DEMAND OF 6.5KW AND ASSUMING A 0.85PF. NO CREATED IS TAKEN FOR ANY EXISTING LOADS THAT WERE REMOVED OR REPLACED.
6) REMOVE EXISTING BREAKER AND INSTALL NEW BREAKER. SIZE AS SHOWN.
7) REMOVE EXISTING HVAC CABLES TO THE EXTENT PRACTICAL.

PANEL: O3			RATING: 125A MLO						
MTG: SQUARE D		FEEDER SIZE: 1/0 (AL)	VOLT: 208/120 V 3Ø, 4 WIRE		S/C: 22KA (MIN)				
TYPE: NQ		FEEDER CAP: 120A (NOTE 1)	ENCLOSURE: NEMA 1		MOUNT: SURFACE MOUNT				
CKT #	CB	DESCRIPTION	LOADS (AMP)			DESCRIPTION	CB	CKT #	
			PHASE A	PHASE B	PHASE C				
1	20/1	SPARE (NOTE 4, 6 AND 7)	0	0	-	-	BID ROOM LIGHTS (NOTE 4, 8 AND 9)	20/1	2
2	20/1	SPARE (NOTE 4, 6 AND 7)	-	0	0	-	OFFICE RECEPT (NOTE 4, 8 AND 9)	20/1	4
3	20/1	SPARE (NOTE 4, 6 AND 7)	-	-	0	0	BRICK WALL RECEPT (NOTE 4, 8 AND 9)	20/1	6
4	20/1	SPARE (NOTE 4, 6 AND 7)	0	0	-	-	CONNIE'S RECEPT (NOTE 4, 8 AND 9)	20/1	8
5	20/1	FAX MACHINE (NOTE 4, 8 AND 9)	-	0	0	-	BID ROOM LIGHTS (NOTE 4, 8 AND 9)	20/1	10
6	20/1	TELEPHONE BOARD RECEPT (NOTE 4, 8 AND 9)	-	-	0	0	OFFICE LIGHTS (NOTE 4, 8 AND 9)	20/1	12
7	20/1	OUTSIDE LIGHTS (NOTE 4, 8 AND 9)	0	0	-	-	CONEX POWER (NOTE 4, 8 AND 9)	20/1	14
8	20/1	RECEPT (NOTE 4, 8 AND 9)	-	0	0	-	TIME CLOCK (NOTE 4, 8 AND 9)	20/1	16
9	20/1	SPARE	-	-	0	0	TELEPHONE ROOM LIGHTS (NOTE 4, 8 AND 9)	15/1	18
10	20/1	SPARE	0	0	-	-	TIME CLOCK OUTSIDE LIGHTS (NOTE 4, 8 AND 9)	20/1	20
11	20/1	SPARE	-	0	0	-	SPARE	20/1	22
12	20/1	SPARE	-	-	0	0	SPARE	20/1	24
13	20/1	RECEPT - OPEN OFFICE 129	2	2	-	-	RECEPT - OPEN OFFICE 139	20/1	26
14	20/1	RECEPT - OPEN OFFICE 129	-	2	2	-	RECEPT - OPEN OFFICE 139	15/1	28
15	20/1	RECEPT - OPEN OFFICE 129	-	-	2	2	RECEPT - OPEN OFFICE 139	20/1	30
16	20/1	RECEPT - OPEN OFFICE 129	2	3	-	-	RECEPT - OFFICE 135	20/1	32
17	20/1	RECEPT - OFFICE 128	-	3	3	-	RECEPT - IT ROOM	20/1	34
18	20/1	RECEPT - OPEN OFFICE 124	-	-	2	3	RECEPT - IT ROOM	20/1	36
19	20/1	RECEPT - OPEN OFFICE 124	2	3	-	-	RECEPT - BID ROOM 140	20/1	38
20	20/1	RECEPT - OPEN OFFICE 124	-	2	2	-	RECEPT - OUTSIDE HVAC MAINTENANCE	20/1	40
41	20/1	RECEPT - OPEN OFFICE 124	-	-	2	0	SPARE	20/1	42
TOTALS			52	52	49	TOTAL KVA = 18			
						TOTAL AMPS = 51.8			

NOTES:
1) THE AMPACITY BASED ON NEC TABLE 310.16 WITH NO TEMPERATURE DERATING.
2) GFCI BREAKER.
3) CIRCUIT CONNECTED TO LOAD THRU LIGHTING TIMER.
4) EXISTING LOAD NOT FIELD VERIFIED.
5) THE TOTAL PANEL LOAD IS ALL THE NEW LOADS PLUS 125% OF THE PREVIOUS 12 MONTH PEAK DEMAND OF 6.5KW AND ASSUMING A 0.85PF. NO CREATED IS TAKEN FOR ANY EXISTING LOADS THAT WERE REMOVED OR REPLACED.
6) NOT USED.
7) REMOVE EXISTING HVAC CABLES TO THE EXTENT PRACTICAL.
8) EXISTING LOAD SHOULD BE RECONNECTED IN THE SAME BREAKER LOCATION AS THE CIRCUIT WAS IN THE PREVIOUS FEDERAL PACIFIC PANEL. THEREFORE THE ACTUAL CIRCUIT NUMBER WILL CHANGE SINCE THE OLD PANEL DID NOT USE THE COMMON NOMENCLATURE WITH ODD CIRCUIT NUMBERS ON THE LEFT AND EVEN CIRCUIT NUMBERS ON THE RIGHT.
9) WHEN DEVELOPING THE AS-BUILT EXISTING LOADS, THE ELECTRICAL CONTRACTOR SHALL INCLUDE THE ROOM NUMBERS AND DESCRIPTIONS THAT MATCH THE CURRENT FLOOR PLAN.

CLIFFORD LUSK, PE
ELECTRICAL ENGINEER
OFFICE: 03-652-7220
CELL: 03-645-3495
EMAIL: CLUSKPE@AOL.COM



CONSTRUCTION SITE PLAN FOR AN EXPANSION TO: MCKNIGHT OFFICE 635 AND 641 FRONTAGE ROAD AUGUSTA/RICHMOND COUNTY, GEORGIA

OWNER/DEVELOPER
MCKNIGHT CONSTRUCTION COMPANY
635 NW FRONTAGE ROAD
AUGUSTA, GA 30917
PHONE: (706) 863-7784

EMAIL: joekinsey@mcknightconstructionco.com

PROJECT DATA

- TOTAL PROPERTY AREA = 4.31 ACRES
- TOTAL PROJECT/DISTURBED AREA = 0.60 ACRES
- TOTAL LOT COVERAGE = 7,500 S.F. = 0.17 ACRES (44%)
- EXIST. IMPERVIOUS AREA = 0.34 ACRES
- IMPERVIOUS AREA ADDED/REPLACED = 9,500 S.F./0.22 ACRES
- TOTAL NEW IMPERVIOUS AREA = 0.43 ACRES
- TAX PARCELS: 022-0-078-01-0 & 022-0-022-00-0
- CURRENT ZONING = LI & HI
- ON-SITE DRAINAGE AREA = 4.31 ACRES
- DRAINAGE BASIN - RAES CREEK
- RECEIVING STREAM - CRANE CREEK
- EXISTING LAND USE IS PROFESSIONAL OFFICE
- PROPOSED LAND USE IS PROFESSIONAL OFFICE
- FEMA FIRM MAP 13245C 0105G DATED NOVEMBER 15, 2019
- PARKING PROVIDED:
EXIST. PARKING SPACES = 22 STALLS
PROP. PARKING SPACES = 25 STALLS

GENERAL NOTES:

- ALL EXISTING BOUNDARY, UTILITY AND TOPOGRAPHIC INFORMATION TAKEN FROM A SURVEY BY JACHENS LAND SURVEYING, INC. DATED MAY 3, 2023. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL FIELD LOCATION AND PROTECTION OF EXISTING UTILITIES.
- ALL DISTURBED AREAS TO BE REVEGETATED IMMEDIATELY FOLLOWING CONSTRUCTION IN ACCORDANCE WITH THE GEORGIA MANUAL OF EROSION AND SEDIMENT CONTROL, CURRENT EDITION.
- ALL INITIAL PHASE BMP'S SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- ANY NECESSARY TRAFFIC AND SIGNAGE CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION AND SHALL MEET ALL CURRENT GOVT STANDARDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PROPERTY CORNERS, RIGHT OF WAY MONUMENTS, SIGNS OR OTHER STRUCTURES DISTURBED DURING CONSTRUCTION.
- ALL DRAINAGE EASEMENTS AND DISTURBED AREAS MUST BE GRASSED AND/OR RIP-RAPPED AS REQUIRED TO CONTROL EROSION.
- ALL CONSTRUCTION WITHIN AUGUSTA RIGHTS-OF-WAYS SHALL CONFORM TO AUGUSTA, GEORGIA STANDARDS AND SPECIFICATIONS.
- ALL SILT BARRIERS MUST BE PLACED IMMEDIATELY FOLLOWING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER INSTALLATION IS COMPLETE.
- CONTRACTOR SHALL CONTACT THE INSPECTION DIVISION OF THE PUBLIC WORKS DEPARTMENT AT LEAST 48 HOURS PRIOR TO STARTING WORK ON THE PROJECT.
- THERE ARE NO KNOWN GRAVESITES, CEMETERIES OR BURIAL GROUNDS LOCATED ON THIS PROPERTY. SHOULD ANY SUCH SITE BE DISCOVERED DURING CONSTRUCTION THE CONTRACTOR SHALL CONTACT AUGUSTA PLANNING AND DEVELOPMENT IMMEDIATELY.
- APPROVAL BY AUGUSTA, GEORGIA IS FOR THE IMPROVEMENTS SHOWN IN THE SITE PLAN. ANY VARIATION FROM THE APPROVED SITE PLAN MUST BE APPROVED BY THE COUNTY ENGINEER.
- LAND USE INTENDED TO BE PROFESSIONAL OFFICE.
- THE COST OF INSPECTION BY THE CITY OF AUGUSTA-RICHMOND COUNTY'S DEPARTMENT OF PUBLIC WORKS AND ENGINEERING, BEFORE OR AFTER REGULAR WORKING HOURS, ON SATURDAYS, SUNDAYS OR LEGAL HOLIDAYS, SHALL BE PAID FOR BY THE INDIVIDUAL REQUESTING THE INSPECTION AT A RATE OF 1-1/2 TIMES THE REGULAR SALARY PER HOUR OF THE INSPECTOR PLUS 7.65% FROM THE EMPLOYER'S FICA/MEDICARE MATCH. APPROVAL FOR THE INSPECTION OUTSIDE OF NORMAL WORKING HOURS SHALL BE OBTAINED FROM THE COUNTY ENGINEER 48-HOURS IN ADVANCE. PRIOR TO THE COMMENCEMENT OF WORK REQUIRING INSPECTION OUTSIDE OF NORMAL WORKING HOURS, THE INDIVIDUAL REQUESTING THE INSPECTION SHALL SIGN A FORM WHICH IS FURNISHED BY THE DEPARTMENT OF PUBLIC WORKS AND ENGINEERING AGREEING TO PAY THE OVERTIME. THE INDIVIDUAL REQUESTING THE INSPECTION SHALL SIGN A FORM WHICH IS FURNISHED BY THE DEPARTMENT OF PUBLIC WORKS AND ENGINEERING AGREEING TO PAY THE OVERTIME. THE DEPARTMENT OF PUBLIC WORKS AND ENGINEERING FOR PAYMENT.
- A PRECONSTRUCTION CONFERENCE SHALL BE HELD WITH THE COUNTY ENGINEER OR HIS DESIGNATED REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION. THIS MEETING SHALL BE SCHEDULED WITH THE DEPARTMENT OF PUBLIC WORKS AT THE TIME THE NOTIFICATION OF WORK COMMENCEMENT IS GIVEN.
- THE CONTRACTOR SHALL BE REQUIRED TO HAVE ON SITE A COPY OF THE GEORGIA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS AND CONSTRUCTION STANDARD DETAILS, CURRENT EDITION.
- ALL STORM PIPE SHALL BE IN ACCORDANCE WITH GA D.O.T. CONSTRUCTION STANDARDS.
- THE CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF ALL EXISTING PIPES & ROAD GRADE ELEVATION OF EXISTING ROADS BEFORE BEGINNING CONSTRUCTION AND NOTIFY THE DESIGN ENGINEER IF ANY DISCREPANCIES ARE FOUND.
- ALL LOT CORNERS DISTURBED BY CONSTRUCTION ACTIVITIES WILL BE REPLACED BY THE CONTRACTOR.
- DATE OF FIELD SURVEY: MAY 2023.
- THE CONTRACTOR SHALL COORDINATE THE WORK OF THE UTILITY COMPANIES & SCHEDULE THE INSTALLATION OF ANY CROSSINGS.
- COMPACTION IN ALL FILL AREAS SHALL BE COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DENSITY. THE CONTRACTOR SHALL EMPLOY A SOILS TESTING FIRM TO PERFORM A SUFFICIENT NUMBER OF TESTS TO CERTIFY COMPACTION REQUIREMENTS HAVE BEEN MET. THESE TESTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- ACCORDING TO FEMA FIRM HAZARD MAP #13245C 0105G DATED NOVEMBER 15, 2019, A PORTION OF THIS PROPERTY IS LOCATED WITHIN A DESIGNATED 100 YEAR FLOOD PLAIN.
- ALL WATER AND SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH AUGUSTA/RICHMOND COUNTY SPECIFICATIONS.
- SOURCE OF VERTICAL DATUM: NAVD 1988.
- CURRENT ZONING = LI & HI
- THERE ARE NO KNOWN WETLANDS WITHIN THE LIMITS OF DISTURBANCE OF THIS PROJECT.
- PROPERTY BEING DEVELOPED IS TAX PARCELS 022-0-078-01-0 & 022-0-022-00-0.
- ALL STORM STRUCTURES MUST HAVE POURED INVERTS PRIOR TO CERTIFICATE OF OCCUPANCY (CO).
- THE DEVELOPER SHALL BE RESPONSIBLE FOR THE INITIAL INSTALLATION OF SIGNS.



VICINITY MAP
NOT TO SCALE

STORMWATER QUALITY CHART

SWQ #	SHEET #	STORMWATER QUALITY BMP TYPE
SWQ-1	3	VEGETATED FILTER STRIP
SWQ-2	3	DRY DETENTION BASIN

INDEX TO DRAWINGS

- | | |
|----------------------------|--------------------------|
| 1.) COVER SHEET | 5.) TREE PLAN |
| 2.) EXIST. CONDITIONS PLAN | 6.) E,S&PC PLAN |
| 3.) GRADING PLAN | 7.) CONSTRUCTION DETAILS |
| 4.) GEOMETRIC PLAN | 8.) CONSTRUCTION DETAILS |

GENERAL AUD NOTES

- ALL CONSTRUCTION OF WATER DISTRIBUTION SYSTEMS AND WASTEWATER COLLECTION SYSTEM LINES SHALL BE IN ACCORDANCE WITH AUGUSTA UTILITIES DEPARTMENT (AUD) WATER & SANITARY SEWER SYSTEMS-DESIGN STANDARDS. CONSTRUCTION SPECIFICATIONS AND DETAILS (LATEST PUBLICATION).
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION, SIZE, AND MATERIAL OF ANY EXISTING WATER OR SANITARY SEWER UTILITY PROPOSED FOR CONNECTION OR USE BY THE PROJECT.
- CONTRACTOR SHALL CONTACT THE UTILITIES PROTECTION INC. "CALL BEFORE YOU DIG" SERVICE (811) IN ORDER TO LOCATE UTILITIES PRIOR TO STARTING ANY EXCAVATION OR CONSTRUCTION. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN ON PLANS ARE APPROXIMATE AS DETERMINED FROM EXISTING RECORDS.
- THE CONTRACTOR SHALL COORDINATE THE WORK OF THE UTILITY COMPANIES.
- THE AUGUSTA ENGINEERING DEPARTMENT (AED) SHALL BE NOTIFIED AT LEAST 48 HOURS (TWO WORKING DAYS) IN ADVANCE DURING REGULAR WORKING HOURS (8:30AM TO 5:00PM, MONDAY-FRIDAY, EXCLUDING AUGUSTA, GEORGIA HOLIDAYS) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY WITHIN AUGUSTA, GEORGIA RIGHT-OF-WAY. CONTACT AED AT (706-821-1704).
- THE AUD ENGINEERING DIVISION SHALL BE NOTIFIED AT LEAST 48 HOURS (TWO WORKING DAYS) IN ADVANCE DURING REGULAR WORKING HOURS (8:30 AM TO 5:00 PM, MONDAY - FRIDAY, EXCLUDING AUGUSTA, GEORGIA HOLIDAYS) PRIOR TO ANY CONSTRUCTION, TIE-INS, OR TESTING OF WATER OR WASTEWATER UTILITIES. NO WORK SHALL COMMENCE UNTIL CONTACT IS MADE WITH THE PROJECT'S AUD INSPECTIONS REPRESENTATIVE.
- DISTURBANCE OF ANY SURVEY MARKERS OR MONUMENTS REQUIRES RE-ESTABLISHMENT BY A PROFESSIONAL LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE. DOCUMENTATION OF THE WORK MUST BE PRESENTED TO THE AUD ENGINEERING DIVISION BEFORE THE PROJECT IS COMPLETED.
- ANY DISCREPANCIES, ERRORS, OR OMISSIONS DISCOVERED ON PLANS OR IN THE SPECIFICATIONS SHOULD BE NOTED ON THE CONTRACT PROPOSAL AND DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO CORRECT THE SAME.
- ALL CONCRETE SHALL HAVE MINIMUM 28-DAY STRENGTH OF 3,000 PSI.
- IF A CONFLICT ARISES BETWEEN THE NEW WORK AND THE EXISTING WATER AND SEWER UTILITIES DURING THE COURSE OF CONSTRUCTION, IT WILL BE THE RESPONSIBILITY OF THE OWNER/DEVELOPER/CONTRACTOR, AT THEIR EXPENSE AND NOT AUD'S, TO CORRECT THE DISCREPANCY AS DIRECTED BY A REPRESENTATIVE OF AUD.
- ALL EXISTING AUGUSTA ROAD STRUCTURES SUCH AS STORM MANHOLES, INLET BOXES, ETC., SHALL BE MAINTAINED AND OR ADJUSTED AS IS APPROPRIATE TO ENSURE PROPER USE.
- ALL MATERIALS DEEMED SALVAGEABLE BY AUD ARE THE PROPERTY OF AUGUSTA, GEORGIA AND WILL BE REMOVED AND STORED ON SITE IN A SECURED AREA DETERMINED DURING CONSTRUCTION BY THE CONTRACTOR, AND AUGUSTA UTILITIES DEPARTMENT.
- FOR PRIVATE DEVELOPMENTS, AUD SHALL NOT BE RESPONSIBLE FOR PAVEMENT PATCHING AND/OR REPLACEMENT AND THE SITE RESTORATION WHENEVER AUD PERFORMS REPAIR, REPLACEMENT OR INSTALLATION WORK.
- IF AUD MUST REPAIR OR REPLACE UTILITIES ON THE WORK SITE, THEN THE RESPONSIBLE PARTY SHALL ARRANGE FOR ACCESS BY AUD AS REQUIRED TO REPAIR OR REPLACE THE UTILITY.
- A MINIMUM (20') UTILITY EASEMENT CENTERED OVER ALL WATER LINES AND A MINIMUM 20' UTILITY EASEMENT CENTERED OVER ALL WASTEWATER LINES SHALL BE DEED TO AUGUSTA, GEORGIA AT COMPLETION AND ACCEPTANCE OF SAID LINES. EASEMENTS CONTAINING BOTH WATER AND SEWER SHALL BE 10' FROM THE CENTER OF THE UTILITY TO OUTSIDE OF THE EASEMENT, WHILE MAINTAINING MINIMUM SEPARATION REQUIREMENTS AS LISTED IN AUD'S WATER AND SANITARY SEWER SYSTEMS-DESIGN STANDARDS, CONSTRUCTION SPECIFICATIONS, AND DETAILS.
- A RIGHT-OF-WAY ENCROACHMENT PERMIT SHALL BE OBTAINED FROM AED PRIOR TO COMMENCING ANY WORK WITHIN AN AUGUSTA, GEORGIA RIGHT-OF-WAY. THE UTILITIES ENCROACHMENT PERMIT MUST BE APPLIED FOR THROUGH AUD.
- A GEORGIA DOT RIGHT-OF-WAY ENCROACHMENT PERMIT MAY BE REQUIRED FOR WORK ON TEMPORARY OR PERMANENT STATE ROUTES. CONTACT AUD ENGINEERING DIVISION TO DETERMINE IF A PERMIT IS REQUIRED. THE UTILITIES ENCROACHMENT PERMIT MUST BE APPLIED FOR THROUGH AUD. CONDITIONS OF THE PERMIT MUST BE COMPLIED WITH FULLY. THE PERMIT MUST BE IN HAND A MINIMUM 24 HOURS NOTICE GIVEN TO GDOT PRIOR TO BEGINNING ANY WORK IN THE GDOT RIGHT-OF-WAY.
- TRAFFIC CONTROL DEVICES SHALL MEET AND BE INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), ALSO, A TRAFFIC CONTROL/DETOUR PLAN SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL AS NOTED IN THE AUGUSTA-RICHMOND COUNTY, GEORGIA-RIGHTS OF WAY ENCROACHMENT GUIDELINES.
- THE CONTRACTOR AND THE AUD REPRESENTATIVE SHALL HAVE A COPY OF THE AUGUSTA-RICHMOND COUNTY, GEORGIA-RIGHTS OF WAY ENCROACHMENT GUIDELINES DEVELOPMENT DOCUMENT #15, ADOPTED JUNE 1999, AMENDED JUNE 2021. THE REQUIREMENTS SET FORTH IN THIS DOCUMENT SHALL BE ADHERED TO AT ALL TIMES.
- CLEARING AND GRUBBING SHALL BE AT THE CONTRACTOR'S DISCRETION, SUBJECT TO AUD APPROVAL TO FACILITATE CONSTRUCTION.
- THE IMPLEMENTATION OF BEST MANAGEMENT PRACTICES (BMP'S) FOR EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA SHALL BE INSTALLED AND MAINTAINED AT ALL TIMES.

AUD WATER NOTES

- AN AUD INSPECTOR SHALL BE PRESENT OR SECTION LEFT UNCOVERED UNTIL INSPECTED BY THE INSPECTOR WHEN A TAP, TIE-IN OCCURS, RESTRAINED JOINTS ARE INSTALLED, BENDS, FITTINGS, FIRE HYDRANTS, VALVES AND PRESSURE TESTING.
- CONTRACTOR IS TO PROVIDE AT LEAST 48 HOURS NOTICE (TWO WORKING DAYS) IN ADVANCE DURING REGULAR WORKING HOURS (8:30 AM TO 5:00 PM, MONDAY-FRIDAY, EXCLUDING AUGUSTA, GEORGIA HOLIDAYS).
- ALL PVC WATER LINES SHALL BE A MINIMUM DR-18 PVC MEETING AWWA C-900 AND/OR C-905, UNLESS OTHERWISE SHOWN OR SPECIFIED.
- ALL DIP WATER LINES SHALL BE CLASS 350 FOR LINES 16" DIAMETER AND SMALLER, AND CLASS 300 FOR LINES 18" DIAMETER THROUGH 24" DIAMETER, UNLESS OTHERWISE SPECIFIED OR SHOWN.
- ALL NEW WATER LINES SHALL BE INSTALLED PER PIPELINE MANUFACTURER RECOMMENDATIONS.
- ALL WATER LINES TO BE TESTED, CHLORINATED, AND CHECKED FOR BACTERIA PER AUD'S WATER & SANITARY SEWER SYSTEMS-DESIGN STANDARDS, CONSTRUCTION SPECIFICATIONS AND DETAILS.
- COPPER WIRE (12-GAUGE, INSULATED, SINGLE STRAND) SHALL BE ATTACHED ALONG TOP OF ALL BURIED WATER LINES, WRAPPED AROUND SERVICE CORPORATIONS AND BROUGHT UP ON THE OUTSIDE OF ALL VALVE BOXES, STUBBING OUT AT THE TOP TO FACILITATE TRACEABILITY. THIS WIRE SHALL BE PROPERLY SPLICED WITH A WATER PROOF CONNECTOR FOR ELECTRICAL CONNECTIVITY, AND THEN INSULATED TO PROTECT AGAINST CORROSION. (REFERENCE AUD DETAILS WHEN APPLICABLE).
- DETECTOR TAPE SHALL BE 4 INCHES WIDE AND PLACED 2 FEET ABOVE PIPE. ADD SIMILAR DEVICE TO CONDUIT PER AUD DETAIL 4.3.
- ALL WATER VALVES ON THE MAIN LINES, INCLUDING HYDRANT LATERALS, SHALL BE OPEN-LEFT IF INSTALLED SOUTH OF GORDON HIGHWAY (S.R. 10), OR OPEN-RIGHT IF INSTALLED NORTH OF GORDON HIGHWAY.
- THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN A METER BOX AT THE TERMINATION POINT OF ALL WATER SERVICES. METER BOXES WILL IN NO WAY BE PLACED UNDER DRIVEWAYS. METER BOXES WILL PREFERABLY BE LOCATED IN THE CENTER OF THE LOT AND WITHIN 1' INSIDE OF THE R/W, AND MAINTAINED BY THE CONTRACTOR UNTIL SUCH TIME THE METER IS INSTALLED.
- WATER SERVICES SHALL HAVE MINIMUM DIAMETER OF 1 INCH (REFERENCE AUD DETAILS WHEN APPLICABLE).
- ANY EXISTING WATER SERVICE LINES WHICH ARE EXTENSIONS OFF AN EXISTING WATER MAIN TO BE ABANDONED DISCOVERED DURING CONSTRUCTION SHALL BE REPLACED. THESE NEW SERVICE LINES ARE TO TIE INTO THE NEW WATER MAIN AND BE RECONNECTED TO THE EXISTING WATER METER.
- ALL EXISTING WATER SERVICES SHALL BE EXTENDED AND METER BOXES RELOCATED AS REQUIRED BEYOND THE LIMITS OF CONSTRUCTION. THE SERVICES SHALL BE CONNECTED TO THE NEW WATER MAIN AFTER SAID MAIN HAS BEEN STERILIZED, PRESSURE TESTED AND PUT INTO SERVICE. IN THE EVENT THAT THE SERVICE LINE IS NOT ACTIVE, A NEW WATER SERVICE WILL BE REQUIRED TO BE CONSTRUCTED.
- ALL WATER METERS SHALL BE PURCHASED FROM AUD CONSTRUCTION AND MAINTENANCE DIVISION.
- THE DEVELOPER/CONTRACTOR SHALL LOCATE WATER SERVICES AND VALVES BY ETCHING A "W" FOR THE WATER SERVICE AND A "V" FOR A VALVE IN THE CURB OR IN THE PAVEMENT IF NO CURB IS AVAILABLE, AND HIGHLIGHT THE ETCHING WITH BLUE PAINT PER THE APWA UNIFORM COLOR CODE. IN THE EVENT THAT THE VALVE IS LOCATED BEHIND THE CURB OR PAVEMENT, INVERT THE "V" MARKING SO THAT IT POINTS TO THE VALVE OUTSIDE THE ROADWAY.
- FIRE HYDRANTS ARE TO BE LOCATED A MINIMUM OF ONE FOOT INSIDE EXISTING RIGHT-OF-WAY WITH A 3 FOOT RADIUS CLEARANCE.
- EXISTING FIRE HYDRANTS AND METERS THAT ARE REMOVED SHALL BE TURNED OVER TO AUD.
- PER AUD'S WATER & SANITARY SEWER SYSTEMS-DESIGN STANDARDS, CONSTRUCTION SPECIFICATIONS AND DETAILS:
a) FOR BACKFLOW INSTALLATIONS FOR NON-RESIDENTIAL DEVELOPMENT, A MINIMUM "DOUBLE-CHECK" BACKFLOW-PREVENTION DEVICE SHALL BE INSTALLED ON THE CUSTOMER'S SIDE OF ALL SERVICES.
b) FIRE LINES REQUIRE A MINIMUM "DOUBLE DETECTOR" BACKFLOW DEVICE.
c) FOR BACKFLOW INSTALLATIONS FOR RESIDENTIAL DEVELOPMENTS, A "DUAL CHECK" BACKFLOW DEVICE SHALL BE INSTALLED ON THE CUSTOMER'S SIDE OF THE SERVICE LINE AT THE POINT OF TIE-IN TO THE WATER METER.
d) FOR SOME MEDIUM HAZARD TO HIGH HAZARD LOCATIONS, A REDUCED PRESSURE ZONE (RPZ) BACKFLOW DEVICE WILL BE REQUIRED.
- BACKFLOW DEVICES SHALL BE TESTED BY A CERTIFIED PERSON WITHIN FIVE (5) WORKING DAYS OF INSTALLATION AND THE RESULTS FURNISHED TO THE AUD BACK FLOW INSPECTOR WITHIN 10 WORKING DAYS OF INSTALLATION PRIOR TO ANY WATER USE. AUD SHALL BE NOTIFIED PRIOR TO TESTING CONTACT THE AUGUSTA UTILITIES BACK FLOW INSPECTOR AT 706-722-1639.

AUD SEWER NOTES

- AN AUD INSPECTOR SHALL BE PRESENT OR SECTION LEFT UNCOVERED UNTIL INSPECTED BY THE INSPECTOR WHEN A CORE, TAP, TIE-IN OCCURS, MANHOLE INSTALLED, AND ALL REQUIRED TESTING. CONTRACTOR IS TO PROVIDE AT LEAST 48 HOUR NOTICE (TWO WORKING DAYS) IN ADVANCE DURING REGULAR WORKING HOURS (8:30 AM TO 5:00 PM, MONDAY-FRIDAY, EXCLUDING AUGUSTA, GEORGIA HOLIDAYS).
- THE CONTRACTOR IS TO VERIFY THE INVERT ELEVATIONS (I.E.) OF EXISTING PIPES PRIOR TO BEGINNING CONSTRUCTION.
- SEWER FORCE MAIN SHALL BE PVC DR-18 C-900 OR C-905 AS APPLICABLE OR DIP CLASS 350, EPOXY LINED.
- ALL NEW SEWER LINES SHALL BE INSTALLED PER PIPELINE MANUFACTURER REQUIREMENTS.
- COPPER WIRE (12-GAUGE, INSULATED, SINGLE STRAND) SHALL BE ATTACHED ALONG TOP OF ALL BURIED SEWER LINES TO FACILITATE TRACEABILITY. THE WIRE SHALL RUN ALONG THE TOP OF THE MAIN AND ALONG INDIVIDUAL SERVICE LINES AND BROUGHT UP ON THE OUTSIDE OF ALL MANHOLES, CLEANOUTS, OR OTHER ABOVE GROUND FEATURES STUBBING OUT AT THE TOP FOR LOCATING PURPOSES. THIS WIRE SHALL BE PROPERLY SPLICED WITH A WATER PROOF CONNECTOR FOR ELECTRICAL CONNECTIVITY, AND THEN INSULATED TO PROTECT AGAINST CORROSION. (REFERENCE AUD DETAILS WHEN APPLICABLE).
- DETECTOR TAPE SHALL BE 4 INCHES WIDE AND PLACED 2 FEET ABOVE PIPE ADD SIMILAR DEVICE TO CONDUIT PER AUD DETAIL 4.3.
- ALL TIE-INS TO EXISTING MANHOLES SHALL BE CORED UNLESS OTHERWISE APPROVED BY AUD INSPECTOR.
- ALL MANHOLES REQUIRE "X" OR "N SEAL" OR EQUAL, RUBBER BOOTS, UNLESS OTHERWISE APPROVED BY AUD INSPECTOR.
- NO CONNECTION SHALL BE MADE TO EXISTING WASTEWATER LINES UNTIL THE PROPOSED LINE IS INSPECTED AND APPROVED BY AUD'S ENGINEERING DIVISION.
- ALL WASTEWATER MANHOLES SHALL HAVE AN ELEVATION DROP OF 0.2 FOOT ACROSS THE INLET AND OUTLET INVERTS.
- WASTEWATER CLEAN-OUTS SHALL BE INSTALLED AT ALL INDIVIDUAL SERVICES AS SHOWN IN AUD-DETAILS, AND SHALL NOT BE INSTALLED UNDER DRIVEWAYS OR ANY PAVED AREAS WITHOUT PRIOR APPROVAL FROM AUD.
- SERVICE LINES TO SANITARY SEWER MAIN SHALL BE BEDED PER THESE AUD SPECIFICATIONS AND AUD DETAILS.
- MAXIMUM SANITARY SEWER INFILTRATION SHALL NOT EXCEED 100 GPD/INCH OF PIPE DIAMETER PER MILE.
- THE CONTRACTOR SHALL LOCATE SANITARY SEWER SERVICES BY ETCHING AN "S" IN THE CURB OR IN THE PAVEMENT IF NO CURB IS AVAILABLE, AND HIGHLIGHT THE ETCHING WITH GREEN PAINT PER THE APWA UNIFORM COLOR CODE.
- FINISHED FLOOR ELEVATIONS OF ALL PROPOSED BUILDINGS SHALL BE A MINIMUM OF FIVE (5) FEET ABOVE THE INVERT ELEVATION OF THE WASTEWATER MAIN OR MANHOLE AT THE POINT OF TIE-IN. IN INSTANCES WHERE THIS IS NOT POSSIBLE, A BACKWATER VALVE SHALL BE INSTALLED IN THE SEWER SERVICE.

NOTE:
AN ELECTRONIC COPY OF THE AS-BUILT FOR THIS PROJECT SHALL BE PROVIDED TO THE AUGUSTA ENGINEERING DEPARTMENT PRIOR TO ANY C.O. BEING ISSUED.



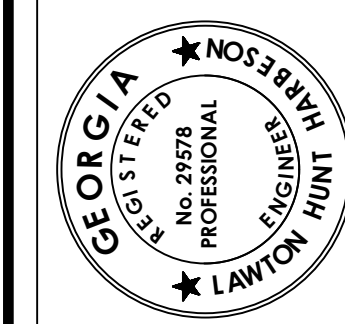
Know what's below.
Call before you dig.
Soil erosion control measures must be in place prior to any land disturbing activity



STATEMENT OF CERTIFICATION

I AM THE OWNER OF THE PROPERTY AFFECTED BY THIS SITE PLAN. PRIOR TO REQUESTING A CERTIFICATE OF OCCUPANCY, I WILL SUBMIT A NOTARIZED STATEMENT AS FOLLOWS. "I CERTIFY THAT THE SITE IMPROVEMENTS ARE COMPLETE AND IN ACCORDANCE WITH PLANS AND SPECIFICATIONS." THIS CERTIFICATION WILL BE BASED ON OBSERVATIONS OF AND SUPERVISION OF CONSTRUCTION BY MY REPRESENTATIVE OR ME. I UNDERSTAND THAT A CERTIFICATE OF OCCUPANCY WILL NOT BE APPROVED UNTIL THIS CERTIFICATION HAS BEEN MADE.

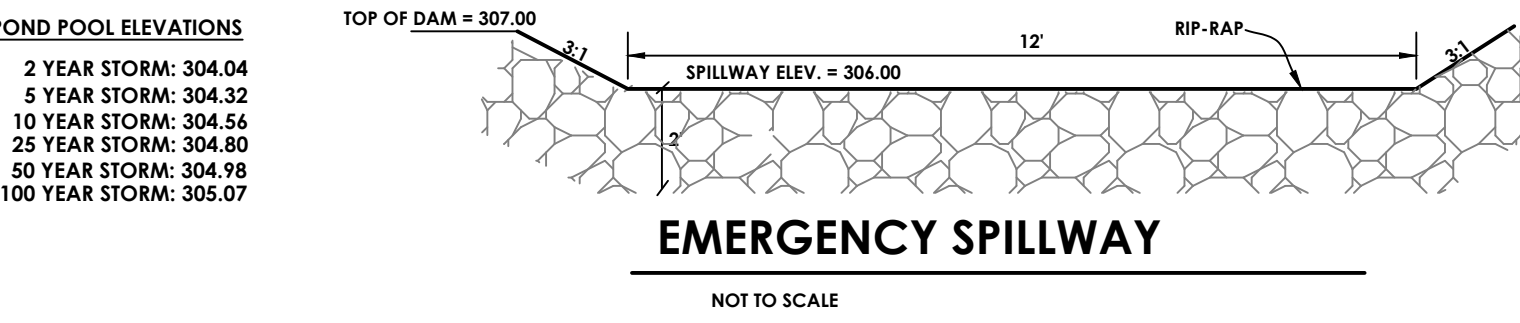
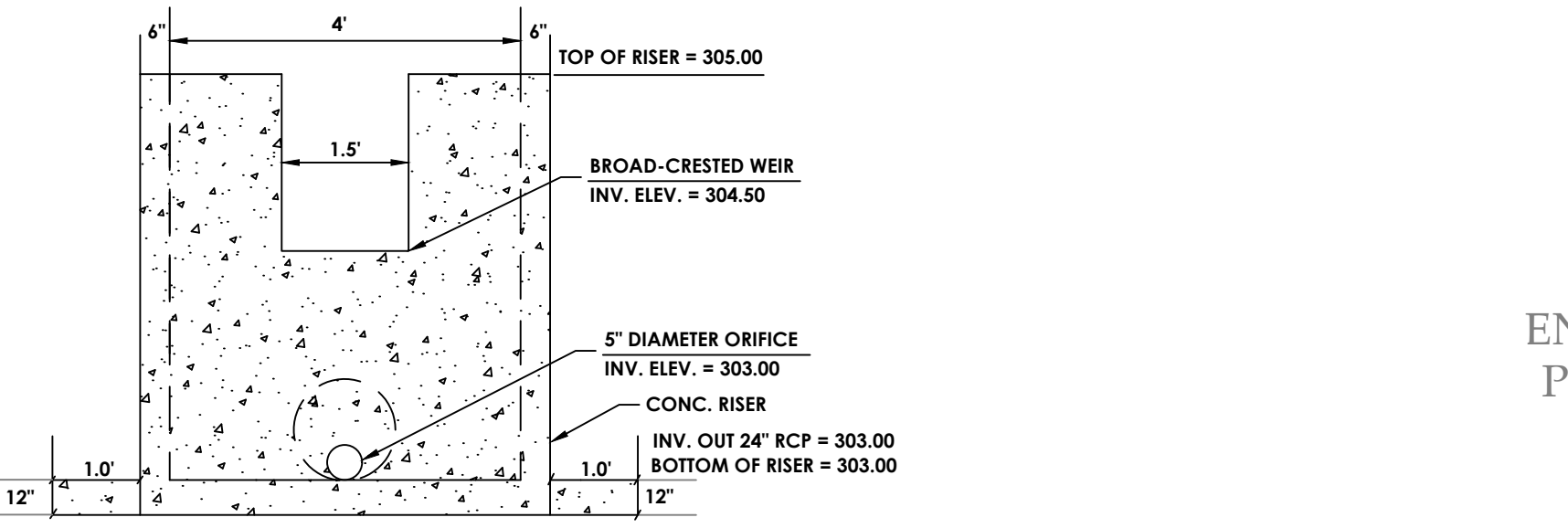
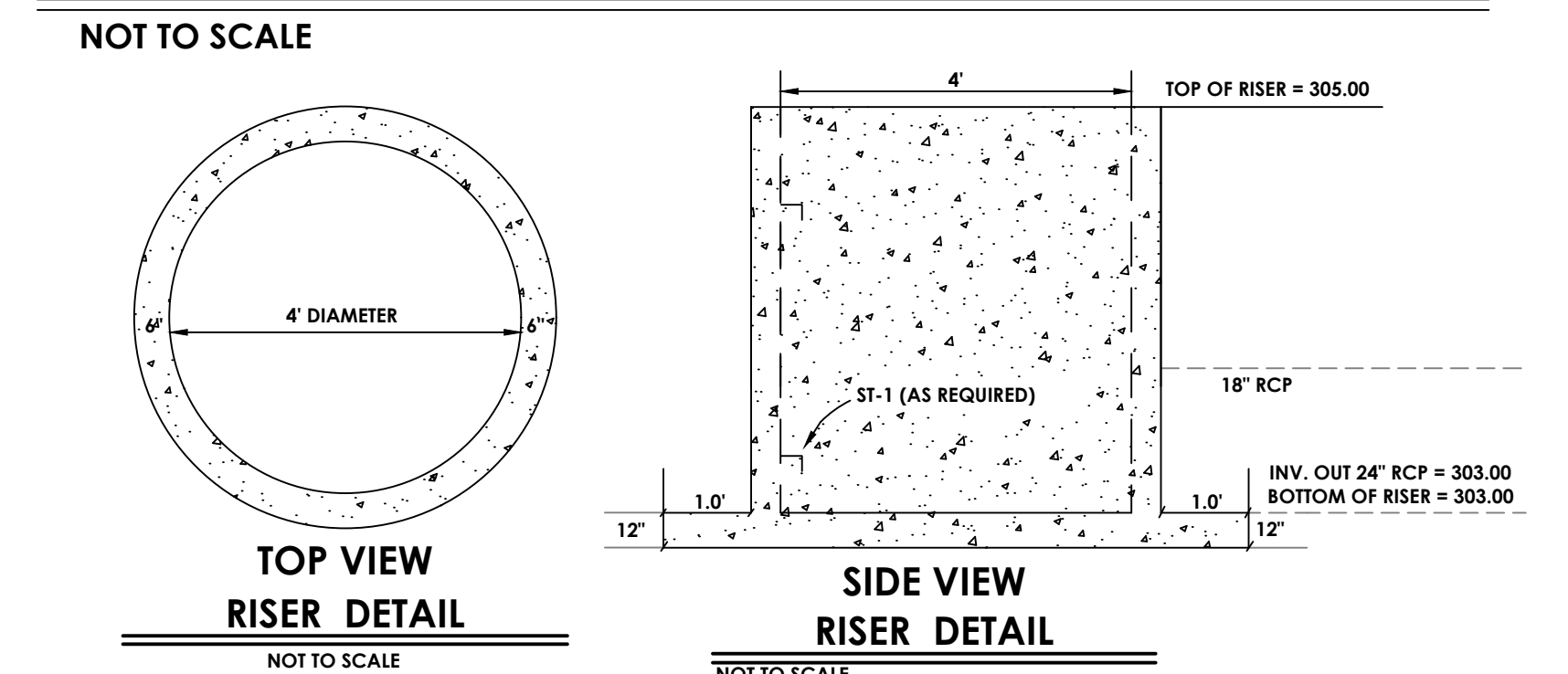
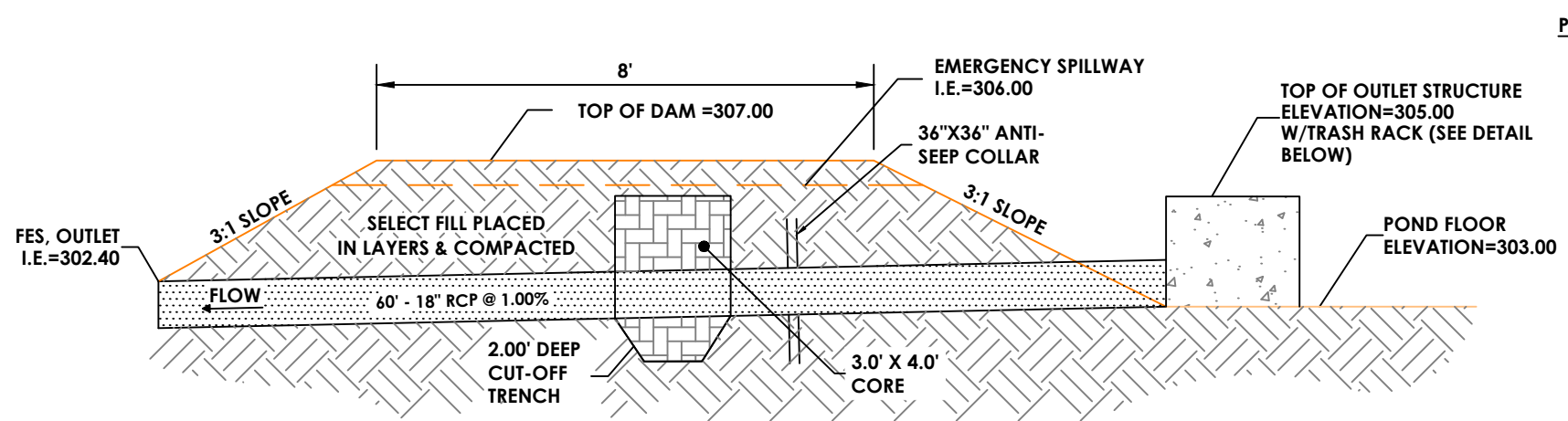
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2/16/24	AS PER OWNER & COUNTY COMMENTS			LHM



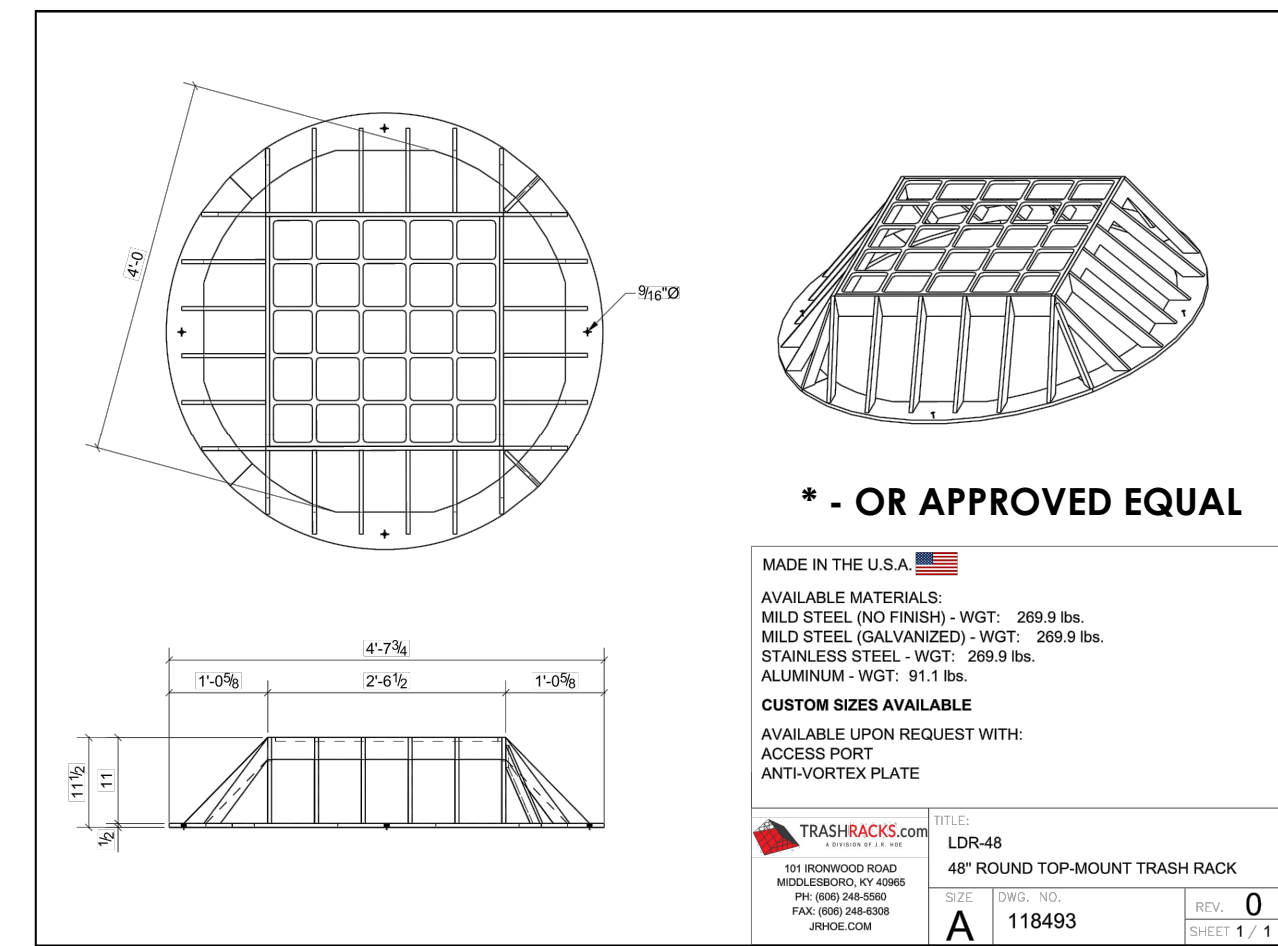
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WARRENTON, GA 30828

COVER SHEET
MCKNIGHT OFFICE EXPANSION
635 AND 641 FRONTAGE ROAD
PARCELS 022-0-078-01-0 & 022-0-022-00-0
4.31 ACRES
AUGUSTA/RICHMOND COUNTY, GEORGIA

DATE:	11/28/2023
SCALE:	N.T.S.
DESIGNED BY:	LHM
CHECKED BY:	SLJ
ACAD FILE:	23-077
DRAWING NO.:	23-077-1
SHEET NO.	1
OF	8 SHEET



- POND DAM SPECIFICATIONS**
- DAM TO BE CONSTRUCTED FROM CLAYS. DAM MATERIAL TO BE APPROVED BY A SOILS ENGINEER PRIOR TO PLACEMENT.
 - EMBANKMENT MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR AT OPTIMUM TO 3% ABOVE OPTIMUM MOISTURE CONTENT IN 4" LIFTS. THE FILL WILL BE FREE OF TOP SOIL, ORGANIC MATTER & STONES LARGER THAN 4".
 - ALL AREAS BENEATH THE DAM SHALL BE CLEARED OF ALL ROOTS, STUMPS AND TOP SOIL BEFORE PLACING FILL.
 - THE RISER SHALL BE PRECAST OR CONSTRUCTED OF APPROVED CONCRETE BLOCK.
 - SUFFICIENT TOP SOIL TO BE STOCK PILED TO PROVIDE A 4" COVER OVER THE EMBANKMENT.
 - ANTI-SEEP COLLARS SHALL BE PLACED BY EXCAVATING THE COMPACTED FILL AND THEN BACKFILLING WITH HAND TAMPED MATERIAL.
 - THE DAM SHALL BE MATTED, SEEDED, LIMED, FERTILIZED, AND MULCHED.
 - ONCE SITE IS STABILIZED REMOVE E&S CONTROLS.
 - A SOILS ENGINEER WILL PROVIDE A GEOTECHNICAL INVESTIGATION REPORT OF THE POND AREA AND APPROVE MATERIAL FOR DAM PRIOR TO PLACEMENT AND DETERMINE DEPTH AND DIMENSIONS NECESSARY FOR CUT OFF TRENCH.



- NOTE:** ANY CLEAN-OUTS LOCATED IN ASPHALT AREAS SHALL HAVE STREET-RATED CAPS.
- NOTE:** GRADING/LAND DISTURBANCE ACTIVITIES THAT RESULT IN VIOLATIONS OF STATE WATER BUFFERS MAY RESULT IN CIVIL PENALTIES.
- NOTE:** A RIGHT OF WAY ENCROACHMENT PERMIT WILL BE REQUIRED FOR ALL WORK WITHIN CITY OF AUGUSTA RIGHT OF WAY.
- NOTE:** CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS AND NOTIFY THE DESIGN ENGINEER IF A CONFLICT ARISES.
- NOTE:** CONTRACTOR SHALL ENSURE THAT THE SLOPE ACROSS HANDICAP PARKING STALLS SHALL NOT EXCEED 2.00% IN ANY DIRECTION.
- NOTE:** THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVALS WITH THE UTILITY OWNER/PROVIDER AS REQUIRED.
- NOTE:** CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING SITE AT ALL TIMES DURING CONSTRUCTION.
- NOTE:** ANY STORM DRAINAGE STRUCTURES SHALL HAVE POURED CONCRETE INVERTS.

NOTE: UTILITY SERVICES FOR THE EXPANSION SHALL COME FROM THE EXISTING BUILDING.

- Legend**
- PROPERTY CORNER
 - RBS #4 REBAR SET
 - RBF #4 REBAR FOUND
 - OTF OPEN TOP PIPE FOUND
 - FENCE
 - UT UNDERGROUND TELE./FIBEROPTIC LINES
 - OHP OVERHEAD ELEC. LINES
 - UE UNDERGROUND ELEC. LINES
 - SD STORM DRAIN LINES
 - W WATER LINES
 - 125 EXISTING CONTOUR
 - + 234.5 SPOT ELEVATION
 - ⊙ STORM MANHOLE
 - ⊙ SANITARY SEWER MANHOLE
 - ⊙ WATER VALVE
 - ⊙ WATER METER
 - ⊙ FIRE HYDRANT (W/VALVE)
 - ⊙ POWER POLE
 - ⊙ LIGHT POLE

THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ARE BASED ON VISIBLE SURFACE FEATURES AND ARE APPROXIMATE. OTHER UNDERGROUND UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS MAP AND ARE NOT VISIBLE ON THE SURFACE. ALL UTILITIES SHOULD BE FIELD VERIFIED BEFORE ANY CONSTRUCTION OR EXCAVATION BEGINS.

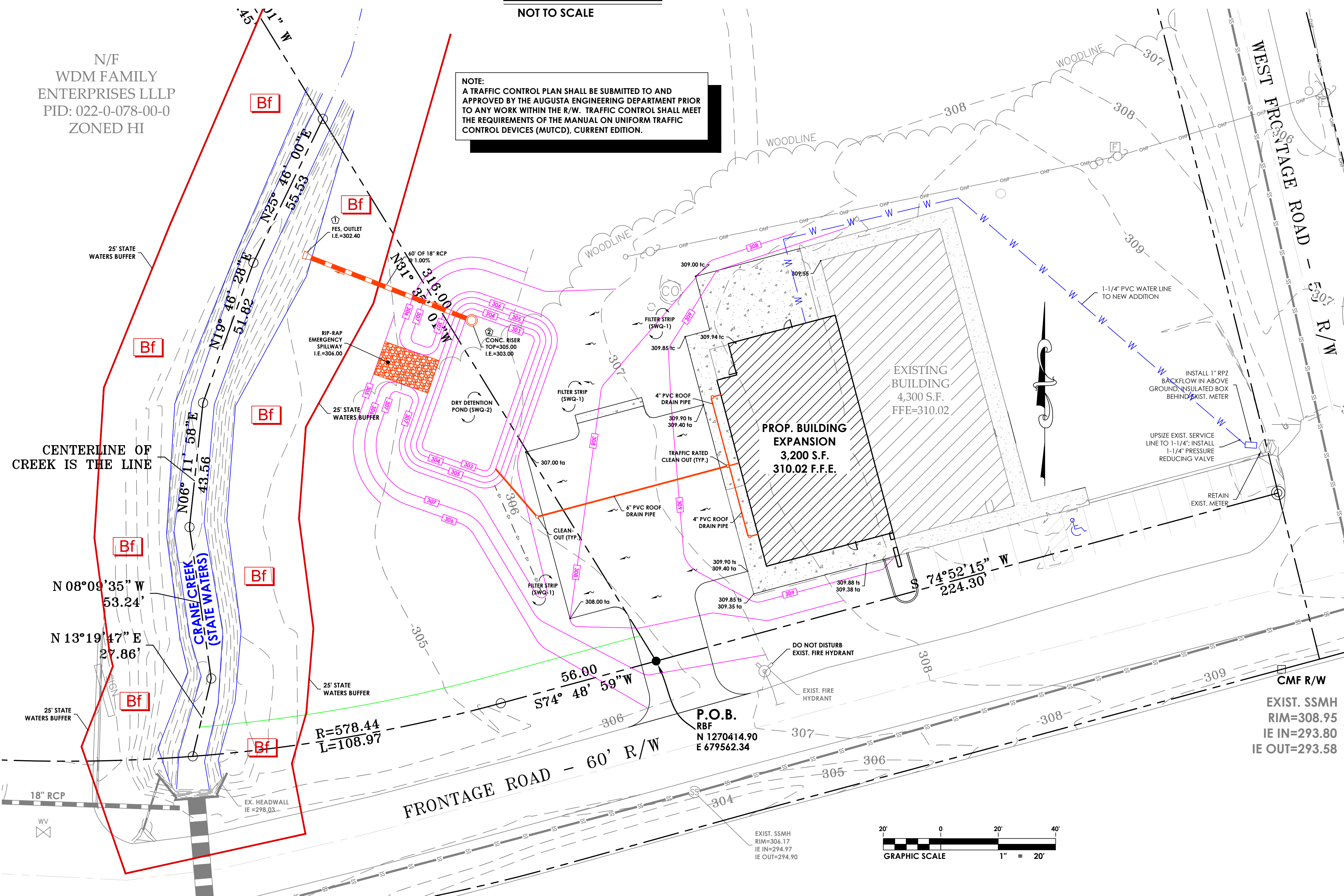
STATE PLANE COORDINATE DATUM
NAD 83 GEORGIA EAST ZONE
ALL COORDINATES ARE GROUND COORDINATES.
VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE NAVD 88.

NOTE: CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS AND NOTIFY THE DESIGN ENGINEER IF A CONFLICT ARISES.

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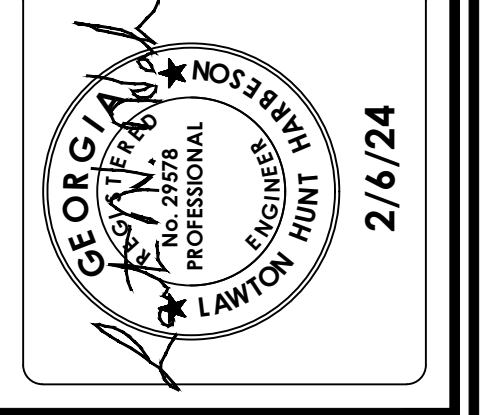


Soil erosion control measures must be in place prior to any land disturbing activity



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2/6/24		



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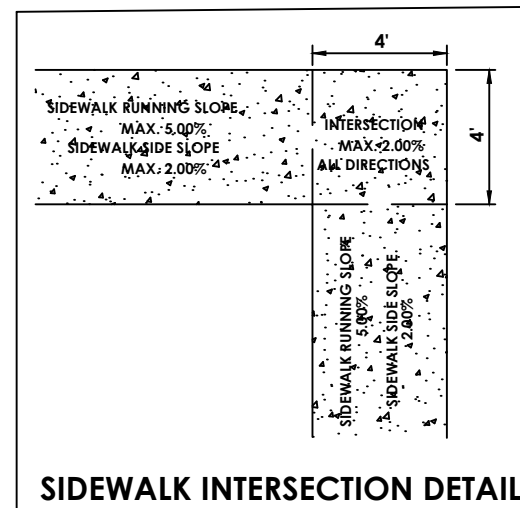
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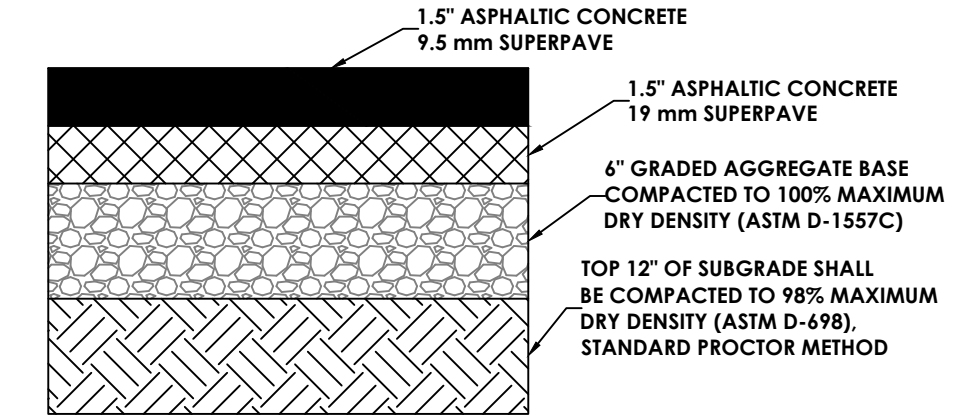
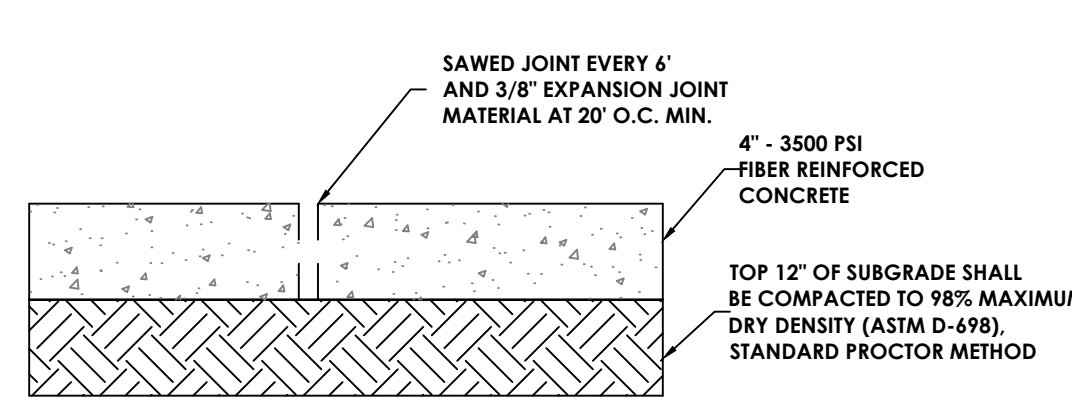
GRADING PLAN

MCKNIGHT OFFICE EXPANSION
635 AND 641 FRONTAGE ROAD
PARCELS 022-0-078-01-0 & 022-0-022-00-0
4.31 ACRES
AUGUSTA/RICHMOND COUNTY, GEORGIA

DATE:	11/28/2023
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SHEET NO.:	3
OF 8 SHEET	



NOTE:
THIS PROJECT SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS REGARDING HANDICAPPED ACCESS INCLUDING ANSI STANDARDS.



NOTE:
ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE GEORGIA DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS, CONSTRUCTION OF TRANSPORTATION SYSTEMS", CURRENT EDITION.

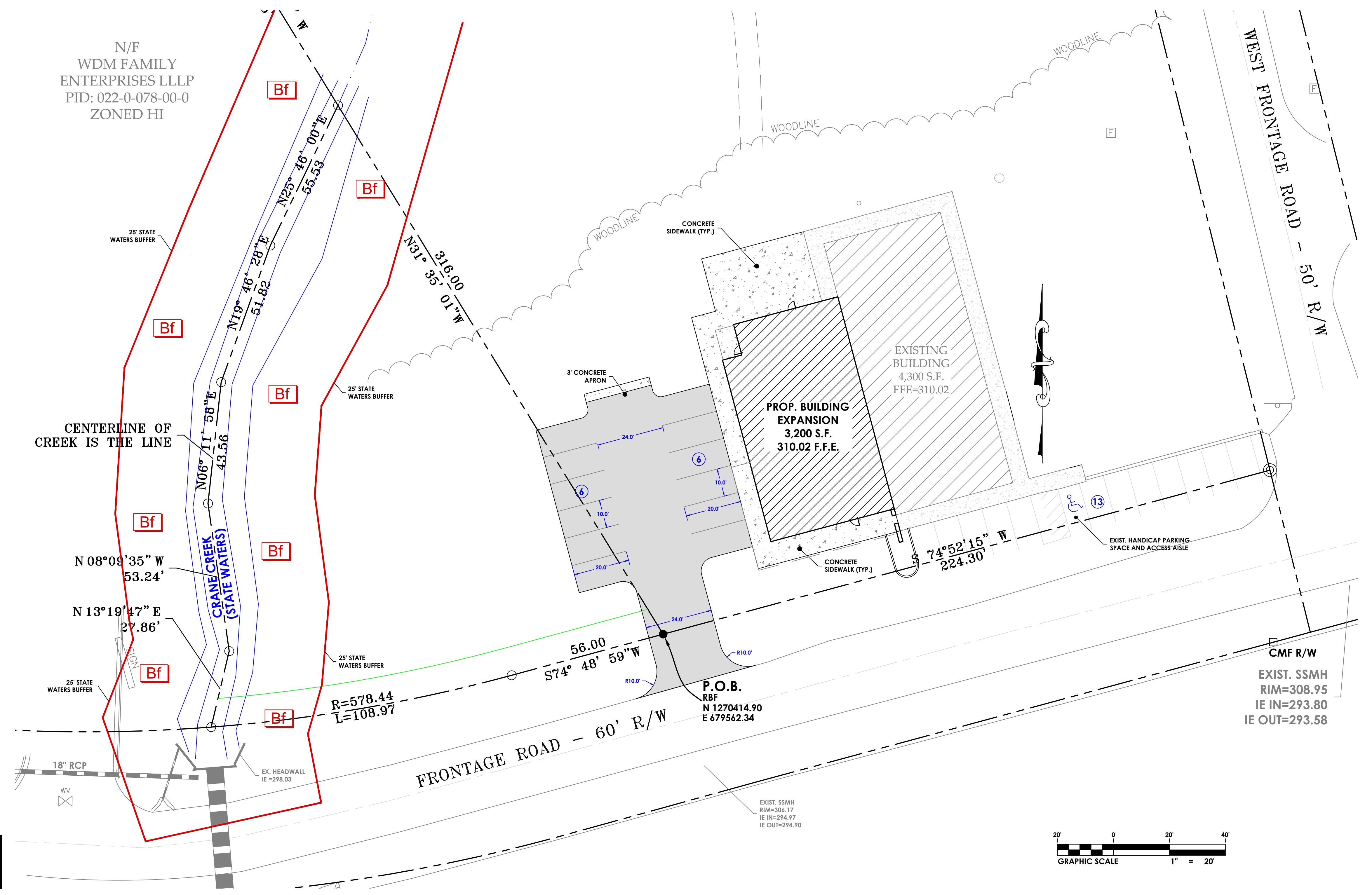
GENERAL ACCESSIBILITY NOTES:

1. ALL HANDICAP SPACES AND STRIPED ACCESSIBILITY AISLES ARE TO HAVE NO MORE THAN A 2.00% CROSS-SLOPE IN ALL DIRECTIONS.
2. ALL SIDEWALKS ARE TO HAVE NO MORE THAN A 5.00% SLOPE FOR THE LENGTH OF THE SIDEWALK AND NO MORE THAN A 2.00% SLOPE FOR THE WIDTH OF THE SIDEWALK.
3. IF CONTRACTOR NOTICES ANY DISCREPANCIES IN ANY OF THESE SLOPE REQUIREMENTS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER PRIOR TO POURING CONCRETE SO A SOLUTION CAN BE FOUND.
4. ANY CHANGES TO THE ACCESSIBLE ROUTE SHOWN ON THESE PLANS MUST BE APPROVED BY THE DESIGNER.

PARKING TABULATION

PARKING TYPE	MINIMUM # OF SPACES REQ'D	SPACES PROVIDED
OFFICE BUILDING (7,500 S.F.) - SECTION 4-2(d)(11) 1 SPACE PER 300 S.F.	7,500/300 = 25	25
HANDICAP SPACES		1

NOTE:
ALL PARKING LOT STRIPING TO BE WHITE UNLESS OTHERWISE NOTED.



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VERTICAL DATUM
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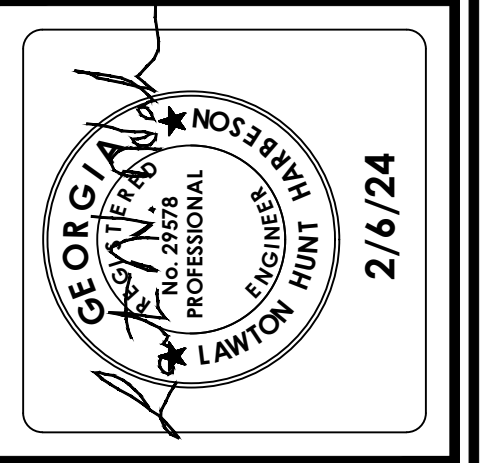


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Soil erosion control measures must be in place prior to any land disturbing activity

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GEOMETRIC PLAN

MCKNIGHT OFFICE EXPANSION
635 AND 641 FRONTAGE ROAD
PARCELS 022-0-078-01-0 & 022-0-022-00-0
4.31 ACRES
AUGUSTA/RICHMOND COUNTY, GEORGIA

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OF 8 SHEET	

SECTION 8-4-13(g) TREE SELECTION AND PLANTING STANDARDS (TREE NOTES):

- ALL REQUIRED TREES ARE RECOMMENDED TO BE GROWN WITHIN ONE CLIMATIC ZONE OF AUGUSTA, GA.
- TREES PLANTED FOR CANOPY COVER CREDIT SHALL MEET QUALITY AND SIZE STANDARDS AS DESCRIBED IN THE ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK DATED 1990 AND PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION, AS OFFICIALLY REVISED AND AMENDED FROM TIME TO TIME. ALL TREES SHALL BE PER IGO LIST.
- ALL TREES SELECTED FOR PLANTING SHOULD BE OF URBAN TOLERANT SPECIES AND SUITABLE FOR THE SITE CONDITIONS OF PLANTING LOCATION, INCLUDING GROWING SPACE LIMITS, SOIL MOISTURE, SOIL VOLUME, AND CANOPY WATER WISE PLANT ONCE ESTABLISHED. ALL TREES SHALL BE PER IGO LIST.
- ALL REQUIRED TREES SHALL BE NURSERY GROWN, TYPICAL OF THEIR SPECIES OF VARIETY, WITH NORMAL, DENSELY DEVELOPED BRANCHES AND VIGOROUS, FIBROUS ROOT SYSTEMS. TREES SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, FREE FROM DISFIGURING KNOTS, FREE FROM SUN SCALD INJURIES, FROST CRACKS AND/OR ABRASIONS OF THE BARK, AND BE FREE FROM PLANT DISEASES, INSECT EGGS, BORERS, AND ALL FORMS OF INFESTATIONS. ALL TREES SHALL HAVE A FULLY DEVELOPED FORM WITHOUT VOIDS AND OPEN SPACE. TREES SHALL NOT BE LOOSE IN THE CONTAINER OR ROOT BALL. IT IS RECOMMENDED THAT DUG TREES SHALL HAVE BEEN ROOT PRUNED AT LEAST ONCE.
- ALL REQUIRED TREES SHALL HAVE STRAIGHT, SINGLE CENTRAL LEADERS. TREES THAT HAVE THE MAIN TRUNK FORMING A "Y" SHAPE ARE NOT ACCEPTABLE. TREES THAT ARE NOT FULLY BRANCHED WILL NOT BE ACCEPTED. TREES SHALL HAVE NO BARK DAMAGE AND SHALL NOT BE LEANING OR HAVE SIGNIFICANT SWEEP, CROOK OR BEND. TREES SHALL HAVE A MINIMUM 3" CALIPER AND SHALL HAVE NO BRANCH MORE THAN 1/2 THE DIAMETER OF THE MAIN LEADER AND SHALL HAVE A STRAIGHT UNBRANCHED TRUNK TO 6'. TREES SPECIFIED AS "MULTI-STEMMED" SHALL HAVE A MINIMUM OF 3 AND A MAXIMUM OF 5 SEPARATE CANES A MINIMUM OF 1" CALIPER EACH COMING FROM THE ROOT BALL AND PRUNED INTO TREE FORM WITH NO BRANCHES ON THE LOWER HALF OF THE TREE. MULTIPLE PLANTS SHALL NOT BE USED AS A "MULTI-STEMMED" PLANT.
- ALL REQUIRED TREES SHALL BE SET IN THE PLANTING PIT TO PROPER GRADE AND ALIGNMENT, AND SHALL BE SET UPRIGHT, PLUMB AND FACED TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO OTHER TREES. EACH TREE SHALL BE SET 1-2" ABOVE THE FINISH GRADE AND BACKFILL SHALL BE BROUGHT EVEN WITH THE TOP OF THE ROOT BALL. NO FILL SHALL BE PERMITTED ATOP THE ROOT BALL.
- ALL BURLAP, ROPES, STRAPS AND WIRES SHALL BE REMOVED FROM THE ROOT BALL IF IT IS NOT POSSIBLE TO REMOVE THE BURLAP AND WIRE FROM THE BOTTOM OF THE ROOT BALL, THE BURLAP AND WIRE SHALL BE CUT AWAY FROM THE SIDES AND REMOVED FROM THE HOLE.
- AFTER REQUIRED TREES ARE SET, THE BACKFILL SHALL BE MOUNDLED AROUND THE BASE OF THE ROOT BALL AND ALL VOIDS SHALL BE FILLED.
- ALL REQUIRED TREES SHALL HAVE THEIR PLANTING PITS MULCHED WITH APPROVED MULCHING MATERIAL IMMEDIATELY AFTER PLANTING. THE MULCHED AREAS SHALL BE THOROUGHLY WATERED. NOTE: MULCH SHALL BE PLACED TO MAXIMUM THICKNESS OF 3". NO MULCH WITHIN EIGHT INCHES (8") OF TRUNK OF TREE.
- IF STAKING AND SUPPORTS HAVE BEEN INSTALLED ON THE REQUIRED TREE(S), ALL STAKING AND SUPPORTS SHALL BE REMOVED AFTER ONE GROWING SEASON.
- AS A GENERAL RULE, THE FOLLOWING GUIDELINES FOR TREE DIVERSITY WITHIN THE TREE PLANTING SITE AND POPULATION SHOULD BE ADHERED TO: 1) PLANT NO MORE THAN TEN PERCENT (10%) OF ANY SPECIES; NO MORE THAN TWENTY PERCENT (20%) OF ANY GENUS; AND NO MORE THAN THIRTY PERCENT (30%) OF ANY FAMILY.

NOTE:

THIS PLAN FOR LANDSCAPING PURPOSES ONLY!!

QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BID ON PROPER QUANTITIES SHOWN ON THE PLANS.

NO CHANGES OR SUBSTITUTIONS ARE TO BE MADE FOR PLANT MATERIAL WITHOUT THE APPROVAL OF THE COUNTY AGENT.

PLANTING TABULATION

KEY	TREE TYPE	MINIMUM TREE REQUIREMENTS	CR AREA/TREE	PROJ. AREA # TREES	CR AREA
WO	WILLOW OAK - LARGE CANOPY (QUERCUS PHELLOS)	3" CAL - 8' HT. UNBRANCHED TO 4' B & B	1400	6	8,400
NO	NUTTALL OAK - LARGE CANOPY (QUERCUS TEXANA)	3" CAL - 8' HT. UNBRANCHED TO 4' B & B	1400	4	5,600
			TOTALS:	10	14,000

TOTAL PROPERTY AREA = 4.31 ACRES
 TOTAL AREA TO BE DEVELOPED = 0.60 ACRES
 TOTAL IMPERVIOUS AREA = 0.24 ACRES
 TOTAL GREEN SPACE AREA = 0.36 ACRES (60%)

PROJECT DISTURBED AREA = 0.40 ACRES = 26,136 SF
 CANOPY AREA REQUIREMENT = 26,136 SF X 0.30 = 7,841 SF
 AREA TO BE PLANTED = 14,000

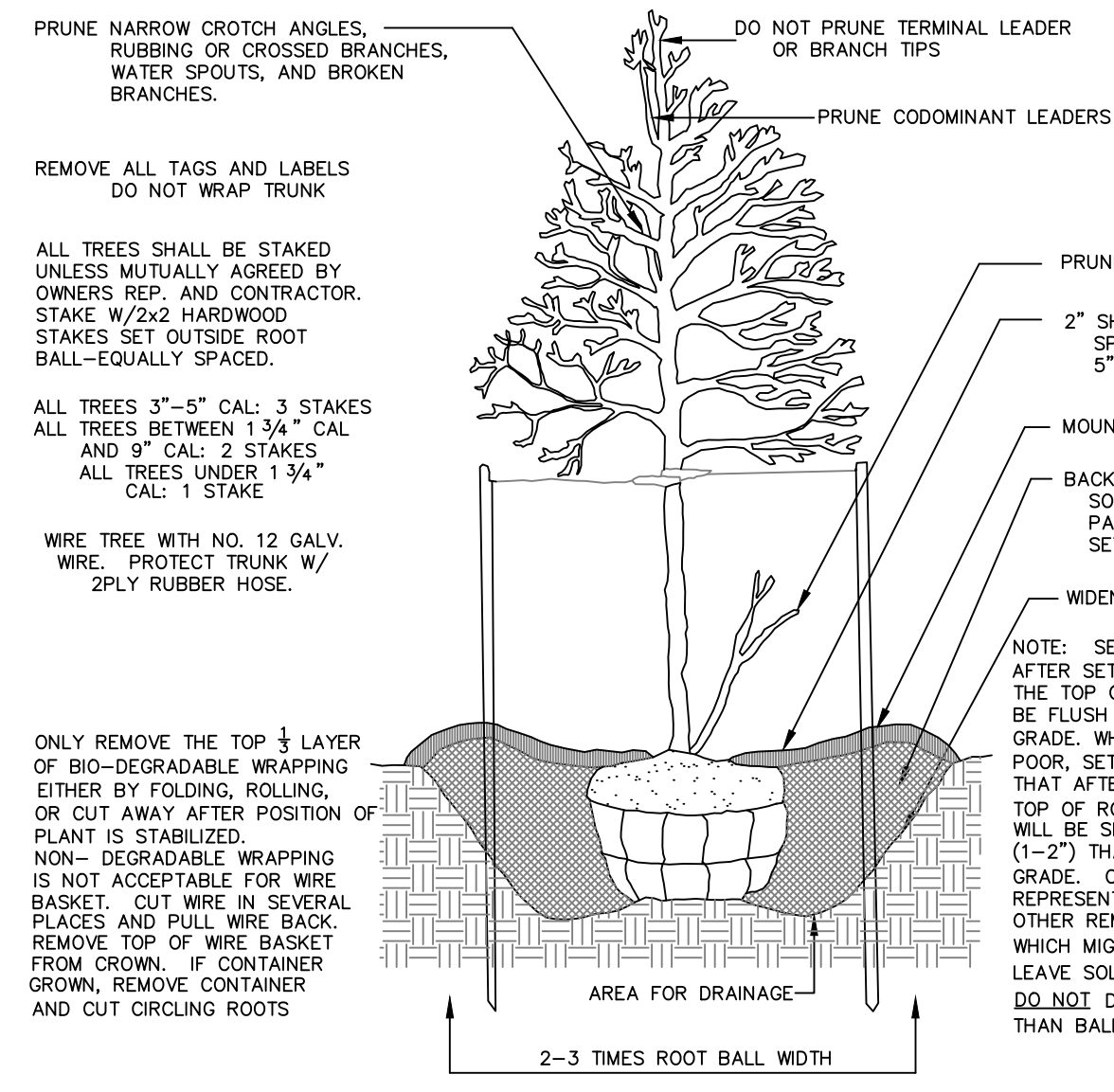
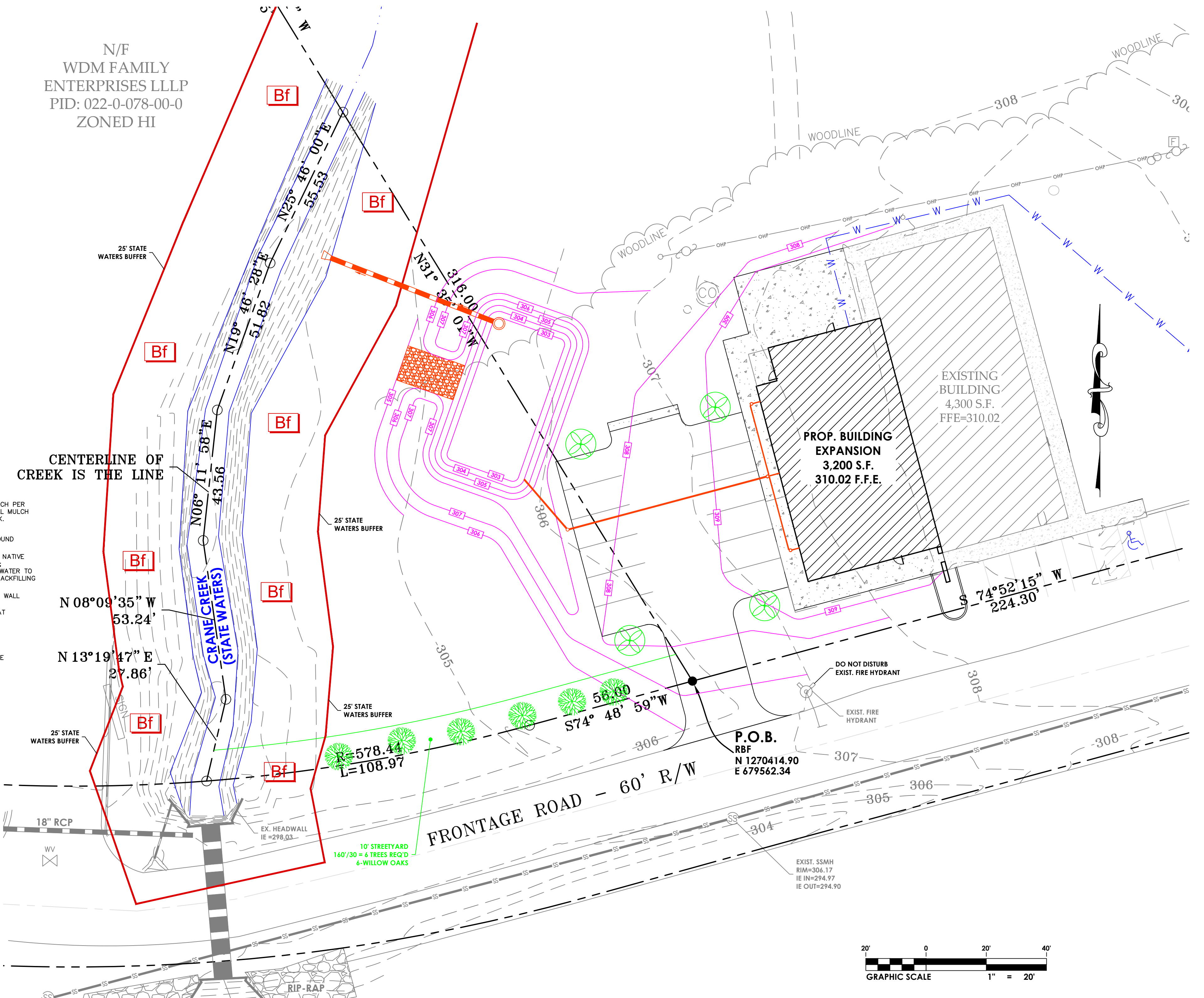
TREE NOTES

- ALL TREES MUST BE A MINIMUM OF 3" CALIPER DIAMETER, 8' IN HEIGHT, AND SINGLE TRUNK-LIMBED UP FOR THE FIRST 6'.
- A PERMANENT WATER SOURCE WITHIN 100' OF EVERY TREE IS REQUIRED.
- NO LIGHTING SHALL BE LOCATED WITHIN 20' OF ANY TREE, NOR IN ANY REQUIRED LANDSCAPE ISLAND.
- LIGHTING ON THE ELECTRICAL PLAN MUST BE CONSISTENT WITH LIGHTING DELINEATED ON THE LANDSCAPE PLAN; IF CONFLICTS BETWEEN THE TWO PLANS ARISE, THE LIGHTING ON THE LANDSCAPE PLAN SUPERCEDES LIGHTING ON THE ELECTRICAL PLAN.
- NO SIGNS, WITH THE EXCEPTION OF SMALL DIRECTIONAL SIGNS (THESE SIGNS MAY NOT EXCEED 30" IN HEIGHT NOR MORE THAN 4 S.F. IN AREA), MAY BE LOCATED WITHIN 20' OF A REQUIRED TREE OR WITHIN REQUIRED LANDSCAPE ISLANDS.
- NO BIKE RACKS, FIRE HYDRANTS, UTILITY BOXES, TRANSFORMERS OR OTHER SITE APPURTENANCES MAY BE LOCATED IN REQUIRED LANDSCAPE ISLANDS.
- NO NEW UTILITIES (OVERHEAD OR UNDERGROUND) MAY BE LOCATED DIRECTLY ABOVE OR BELOW EXISTING OR PROPOSED TREE LOCATIONS. PROPOSED UTILITIES MUST BE ROUTED AWAY FROM ALL REQUIRED TREES ON THIS SITE.

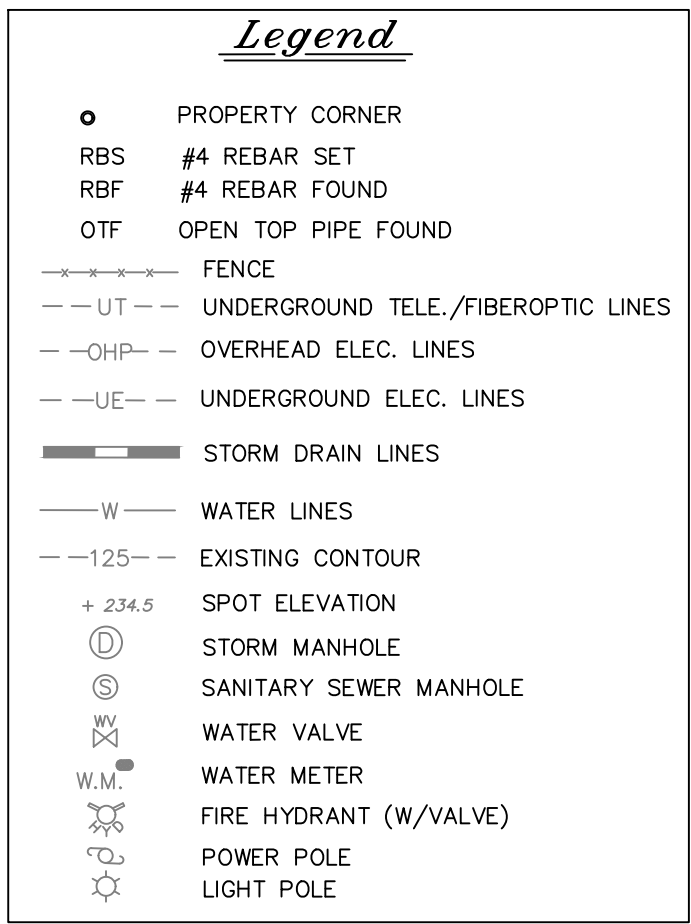
2017 TREE ORDINANCE NOTES

- CONTACT THE PLANNING DEPARTMENT TO SET UP A PRE-CONSTRUCTION MEETING PRIOR TO ANY TREE DISTURBANCE.
- ALL TREE PROTECTION DEVICES MUST BE INSTALLED PRIOR TO INSPECTION BY THE CODE INSPECTION OFFICER AND PRIOR TO ANY TREE DISTURBANCE ACTIVITIES.
- REMOVAL OR DAMAGE OF TREES IN THE CONSERVATION AREA WILL BE SUBJECT TO THE PENALTIES ESTABLISHED IN THE TREE ORDINANCE.
- THESE PLANS SHALL BE REVIEWED BY THE CODE INSPECTION OFFICER FOR CONFORMANCE WITH APPLICABLE PROVISIONS OF THIS SECTION AND FOR TREE AND VEGETATION VIABILITY. THE PLANS WILL EITHER BE APPROVED OR RETURNED FOR REVISIONS. REASONS FOR RETURN SHALL BE NOTED ON THE PROPOSED PLAN.
- ALL TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO INSPECTION OF CODE INSPECTION OFFICER AND PRIOR TO TREE DISTURBANCE.
- THE CODE INSPECTION OFFICER WILL CONDUCT FOLLOW-UP INSPECTIONS FOR ENFORCEMENT OF THE TREE PROTECTION REQUIREMENTS.

NOTE:
 GRADING/LAND DISTURBING ACTIVITIES THAT RESULT IN VIOLATIONS OF STATE WATER BUFFERS MAY RESULT IN CIVIL PENALTIES.



TREE PLANTING DETAIL
 NOT TO SCALE



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STATE PLANE COORDINATE DATUM
 NAD 83 GEORGIA STATE PLANE
 ALL COORDINATES ARE GROUND COORDINATES.
 VERTICAL DATUM
 ALL ELEVATIONS SHOWN ARE NAVD 88.

NOTE:
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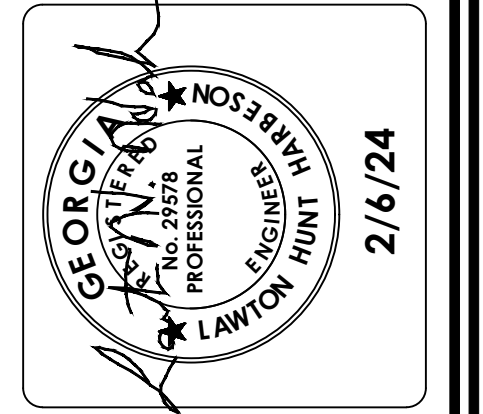
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Soil erosion control measures must be in place prior to any land disturbing activity

REVISION BLOCK

DATE	DESCRIPTION	BY
2/6/24	AS PER OWNER & COUNTY COMMENTS	LHM



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 civildesignsolutions.com

TREE PLAN
 MCKNIGHT OFFICE EXPANSION
 635 AND 641 FRONTAGE ROAD
 PARCELS 022-0-078-01-0 & 022-0-022-00-0
 4.31 ACRES
 AUGUSTA/RICHMOND COUNTY, GEORGIA

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OF 8 SHEET	

PROJECT LOCATION AND DESCRIPTION

THIS SITE IS LOCATED AT 635 AND 641 FRONTAGE ROAD IN AUGUSTA/RICHMOND COUNTY, GEORGIA. THE EXISTING SITE CONSISTS OF DEVELOPED PROPERTY WITH BIBB & OSIER SOILS. ALL STORMWATER FROM THIS PROJECT FLOWS INTO CRANE CREEK. THE INTENT OF THIS PLAN IS TO CONSTRUCT A BUILDING EXPANSION AND PARKING LOT FOR AN OFFICE BUILDING. THE PARCELS HAVE A TOTAL AREA OF 4.31 ACRES AND THE ESTIMATED DISTURBED AREA OF THE PROJECT IS 0.60 ACRES. NO ADJACENT AREAS WILL BE IMPACTED BY THIS DEVELOPMENT.



SOILS MAP
NOT TO SCALE

SOIL SERIES	SOIL SYMBOL
BIBB AND OSIER SOILS	BO

OWNER

MCKNIGHT CONSTRUCTION COMPANY
635 NW FRONTAGE ROAD
AUGUSTA, GA 30917
PHONE: (706) 863-7784
EMAIL: joekinsey@mcknightconstructionco.com

24-HOUR EMERGENCY CONTACT

JOE KINSEY
PHONE: (706) 863-7784
EMAIL: joekinsey@mcknightconstructionco.com

NPDES NOTES

1. PROPOSED LAND USE = BUSINESS OFFICE
2. ON-SITE CONTRIBUTING DRAINAGE AREA = 0.60 ACRES
OFF-SITE CONTRIBUTING DRAINAGE AREA = 0.00 ACRES
3. NEW IMPERVIOUS DRAINAGE AREA = 0.24 ACRES
4. RECEIVING BASIN = CRANE CREEK; BAE5 CREEK
5. PRE-DEVELOPED RUN-OFF CURVE NUMBER = 80
POST-DEVELOPED RUN-OFF CURVE NUMBER = 81

DUST CONTROL NOTES

BMP'S WILL BE IMPLEMENTED TO EFFECTIVELY REDUCE THE GENERATION OF DUST AND PREVENT AIRBORNE SEDIMENT FROM ESCAPING THE SITE. DISTURBED AREAS SHALL BE PROVIDED WITH APPROPRIATE GROUND COVER AS SPECIFIED ON THE PLANS TO EFFECTIVELY STABILIZE THE SOIL SURFACE. THE BMP'S APPLIED TO CONTROL DUST GENERATION ON THIS SITE WILL INCLUDE TEMPORARY GRASSING, MULCH, ROCK, AND IRRIGATION. ROCK WILL BE USED FOR CONSTRUCTION EXITS, AS SPECIFIED ON THE PLANS, AND WILL HELP MINIMIZE DUST CREATED BY CONSTRUCTION VEHICLES. AREAS OUTSIDE OF THOSE BEING PAVED WILL BE AT LEAST TEMPORARILY SEEDED AND MULCHED TO STABILIZED AND COVER DISTURBED SURFACES. IN AREAS WHERE ADDITIONAL BMP'S ARE NEEDED TO REDUCE DUST GENERATION, SUFFICIENTLY WETTING OR IRRIGATING THE GROUND SURFACE WITH WATER SHOULD EFFECTIVELY LIMIT AIRBORNE SEDIMENT ON AND AROUND THE SITE. SEE THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA FOR MORE DETAILS AND SPECIFICATIONS.

GEORGIA UNIFORM CODING SYSTEM
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES
GEORGIA SOIL AND WATER CONSERVATION COMMISSION

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SOODING)		Ds4	A permanent vegetative cover using sods on highly erodible or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Co	CONSTRUCTION EXIT		Co	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Sd1	SEDIMENT BARRIER		Sd1	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
St	STORMDRAIN OUTLET PROTECTION		St	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.

THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ARE BASED ON VISIBLE SURFACE FEATURES AND ARE APPROXIMATE. OTHER UNDERGROUND UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS MAP AND ARE NOT VISIBLE ON THE SURFACE. ALL UTILITIES SHOULD BE FIELD VERIFIED BEFORE ANY CONSTRUCTION OR EXCAVATION BEGINS.

STATE PLANE COORDINATE DATUM
NAD 83 GEORGIA EAST ZONE
ALL COORDINATES ARE GROUND COORDINATES.
VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE NAVD 88.

NOTE:
CONTRACTOR SHALL MAINTAIN ALL BMP'S UNTIL FINAL STABILIZATION IS ACHIEVED.



NOTE:
AN ELECTRONIC COPY OF THE AS-BUILT OF THIS PROJECT WILL BE PROVIDED TO THE AUGUSTA ENGINEERING DEPARTMENT PRIOR TO ANY C.O. BEING ISSUED.

Soil erosion control measures must be in place prior to any land disturbing activity

******* MAINTENANCE STATEMENTS *******

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO LAND-DISTURBING ACTIVITIES.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

NOTE:
NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

NOTE:
THE CONSTRUCTION EXIT IS LOCATED AT LAT. 33.492514° AND LON. -82.089879°.

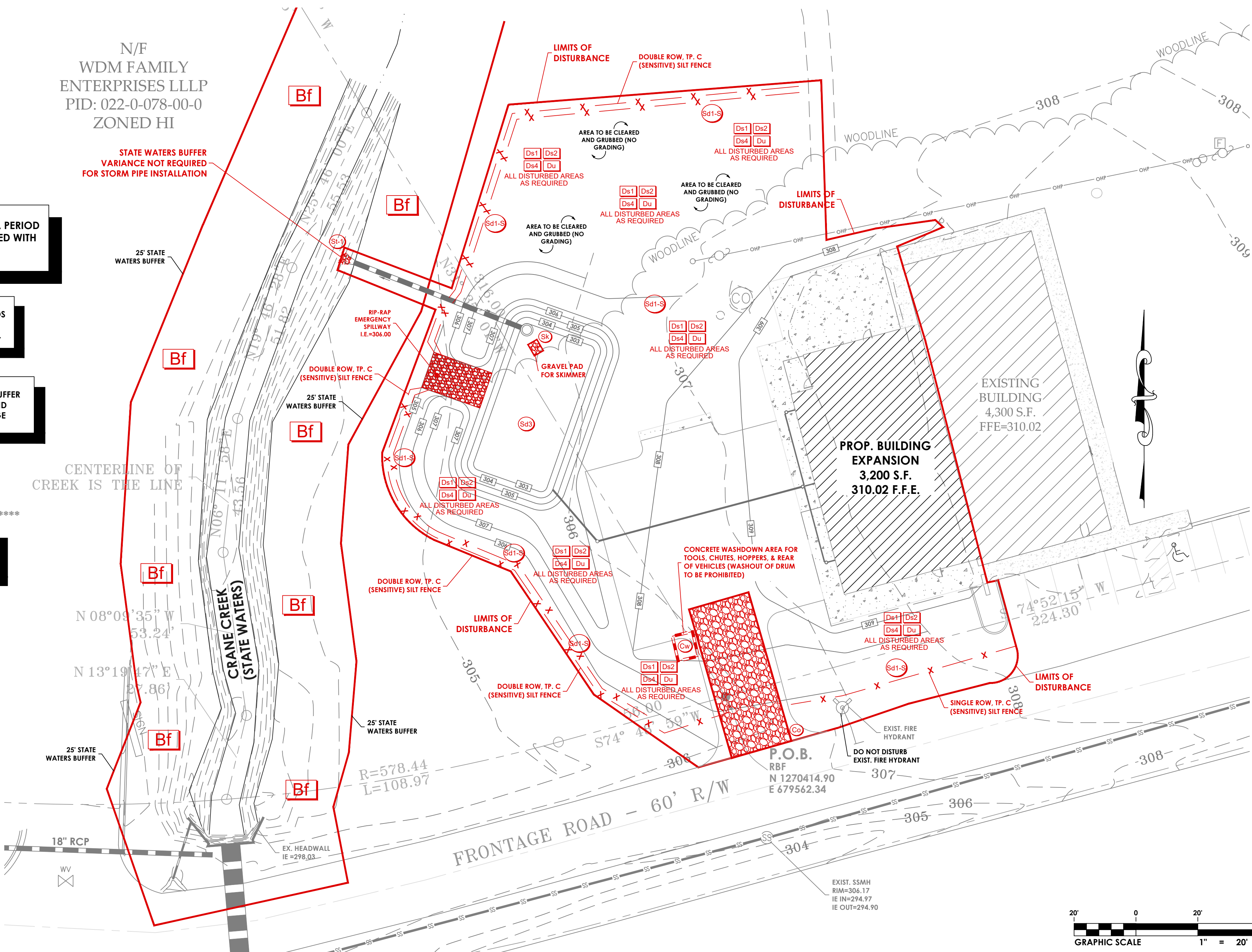
NOTE:
ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

NOTE:
THERE ARE STATE WATERS AND POSSIBLE WETLANDS LOCATED ON THIS PROPERTY. THESE SENSITIVE AREAS SHALL NOT BE DISTURBED BY THIS PROJECT.

NOTE:
IT WILL BE NECESSARY TO ENCRACH INTO THE BUFFER OF CRANE CREEK TO INSTALL THE DETENTION POND OUTLET PIPE. THE INSTALLATION OF THIS DRAINAGE STRUCTURE IS PERMITTED WITHIN THE BUFFER.

******* ALTERNATE BMP STATEMENT *******

NOTE:
PLEASE REFER TO THE ALTERNATIVE BMP GUIDANCE DOCUMENT AT www.gaswcc.org FOR USE OF ALTERNATIVE BMP'S THAT ARE EQUAL OR SUPERIOR TO CONVENTIONAL BMP'S AS CERTIFIED BY A DESIGN PROFESSIONAL.



E,S&PC PLAN DESIGNER

E,S&PC PLANS PREPARED BY CERTIFIED DESIGN PROFESSIONAL:

Lat N. Nah
LAWTON H. HARBESON, P.E. 0000001292 2/01/27
LEVEL II CERTIFICATION NO. EXPIRATION

NOTE:
NO ALTERNATIVE BMP'S ARE TO BE USED ON THIS PROJECT WITHOUT PRIOR APPROVAL FROM THE DESIGN ENGINEER.

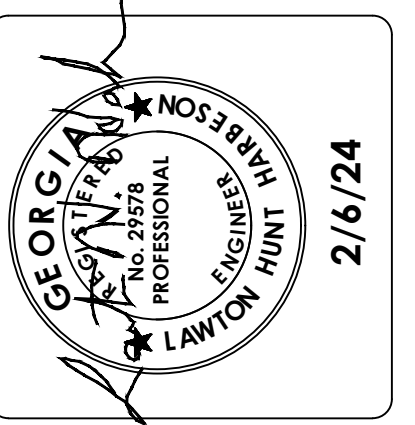
CERTIFICATION STATEMENT

"I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY DIRECT SUPERVISION."

Lat N. Nah
LAWTON H. HARBESON, P.E. 0000001292 2/01/27
LEVEL II CERTIFICATION NO. EXPIRATION

REVISION BLOCK

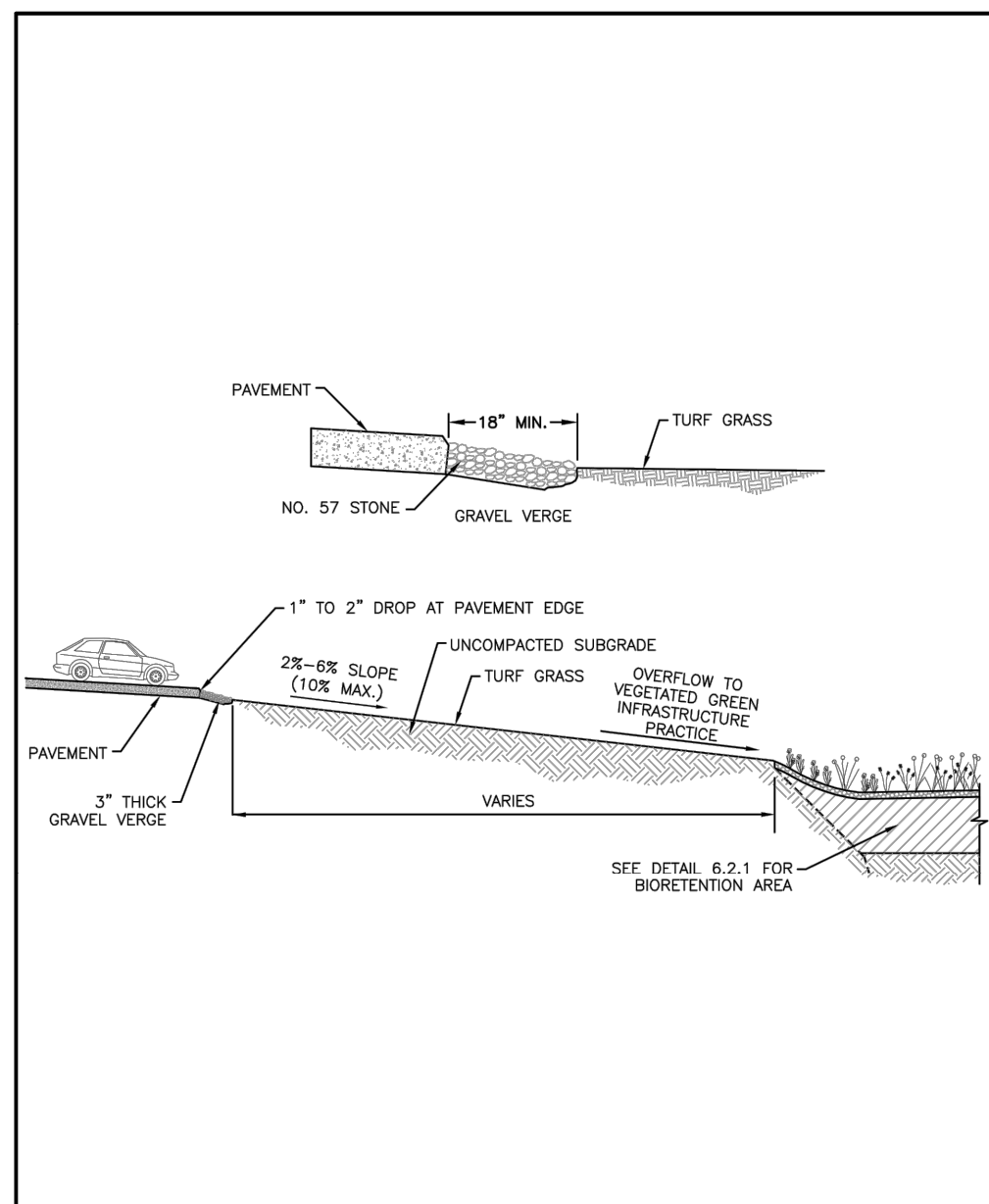
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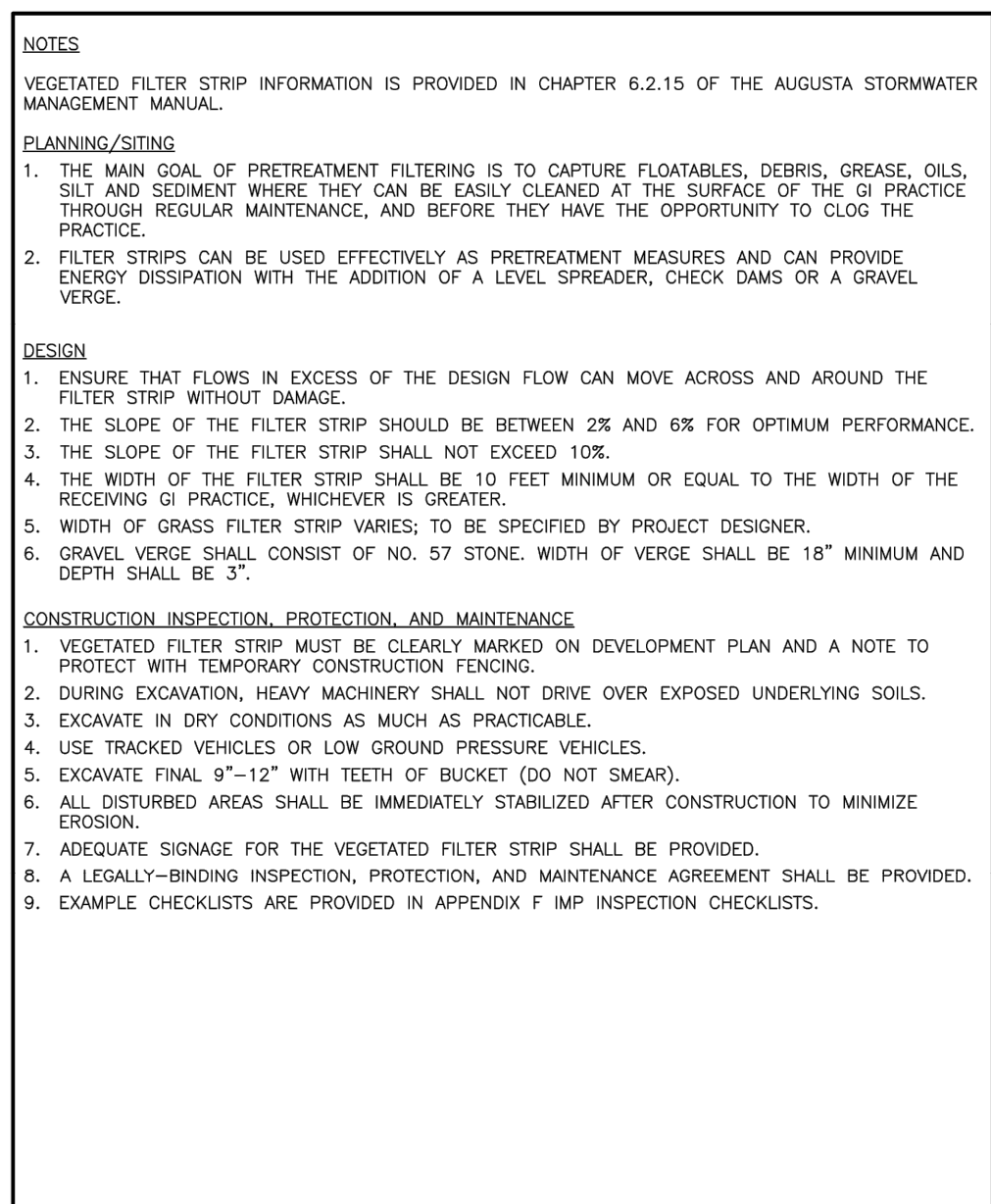
CIVILDESIGN SOLUTIONS
706.465.0900 OFFICE
706.465.0909 FAX
371 MAIN STREET
P.O. BOX 603
WARRENTON, GA 30828
civildesignsolutions.com

E,S&PC PLAN
MCKNIGHT OFFICE EXPANSION
635 AND 641 FRONTAGE ROAD
PARCELS 022-0-078-01-0 & 022-0-022-00-0
4.31 ACRES
AUGUSTA/RICHMOND COUNTY, GEORGIA

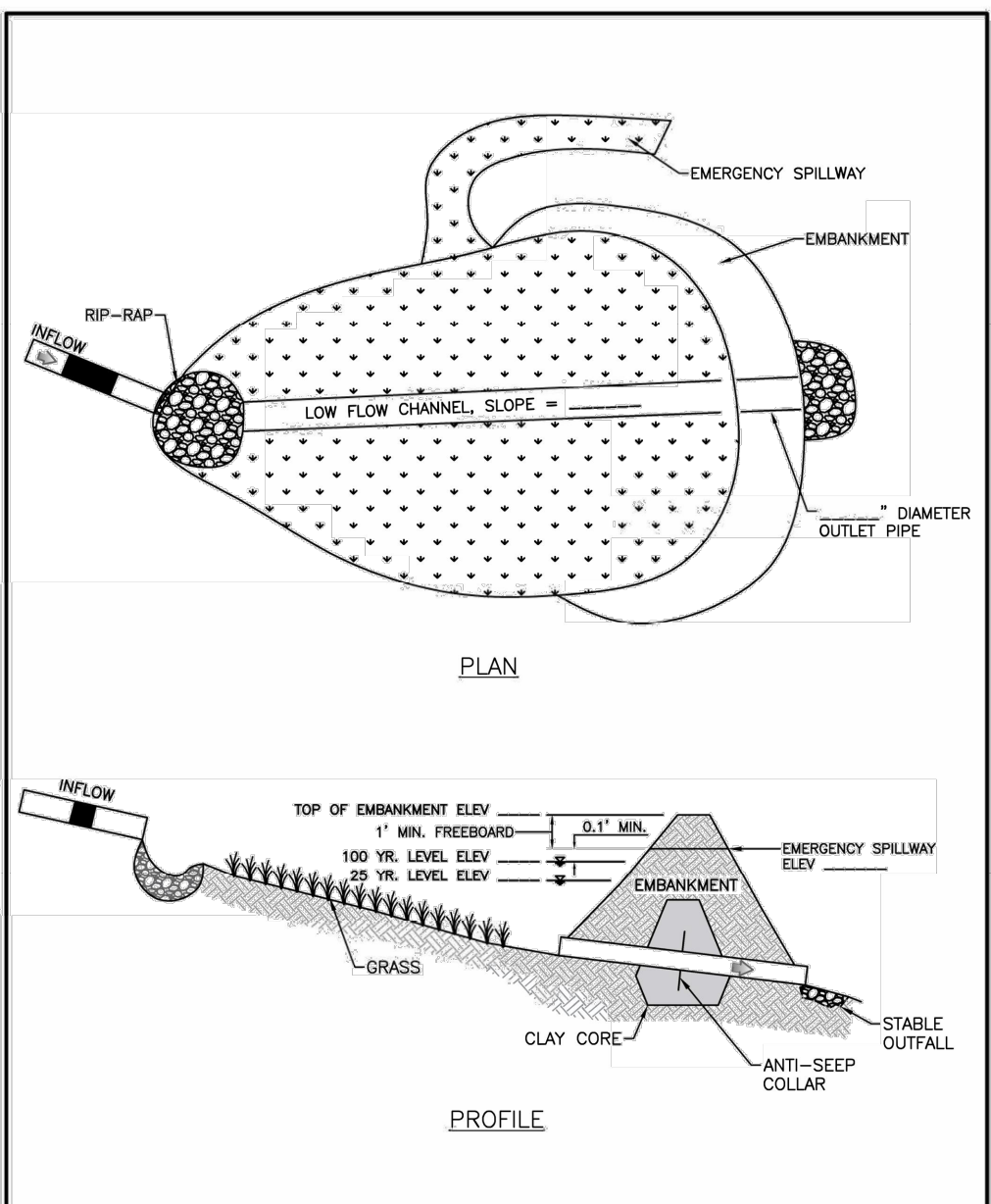
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OF 8 SHEET	



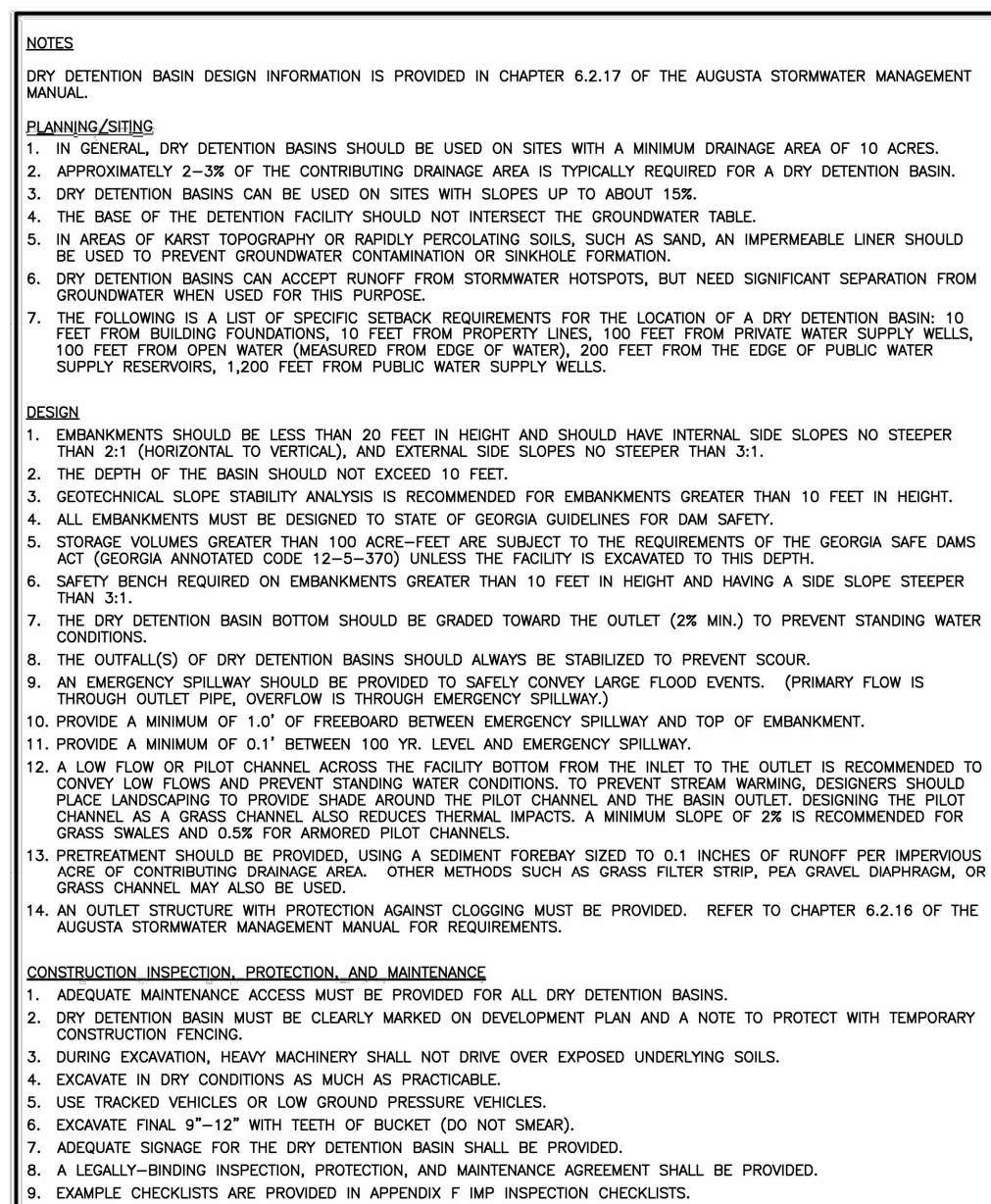
TYPICAL DETAILS
VEGETATED FILTER STRIP (PAGE 1)
 DATE: JULY 2020
 REV. DATE: -
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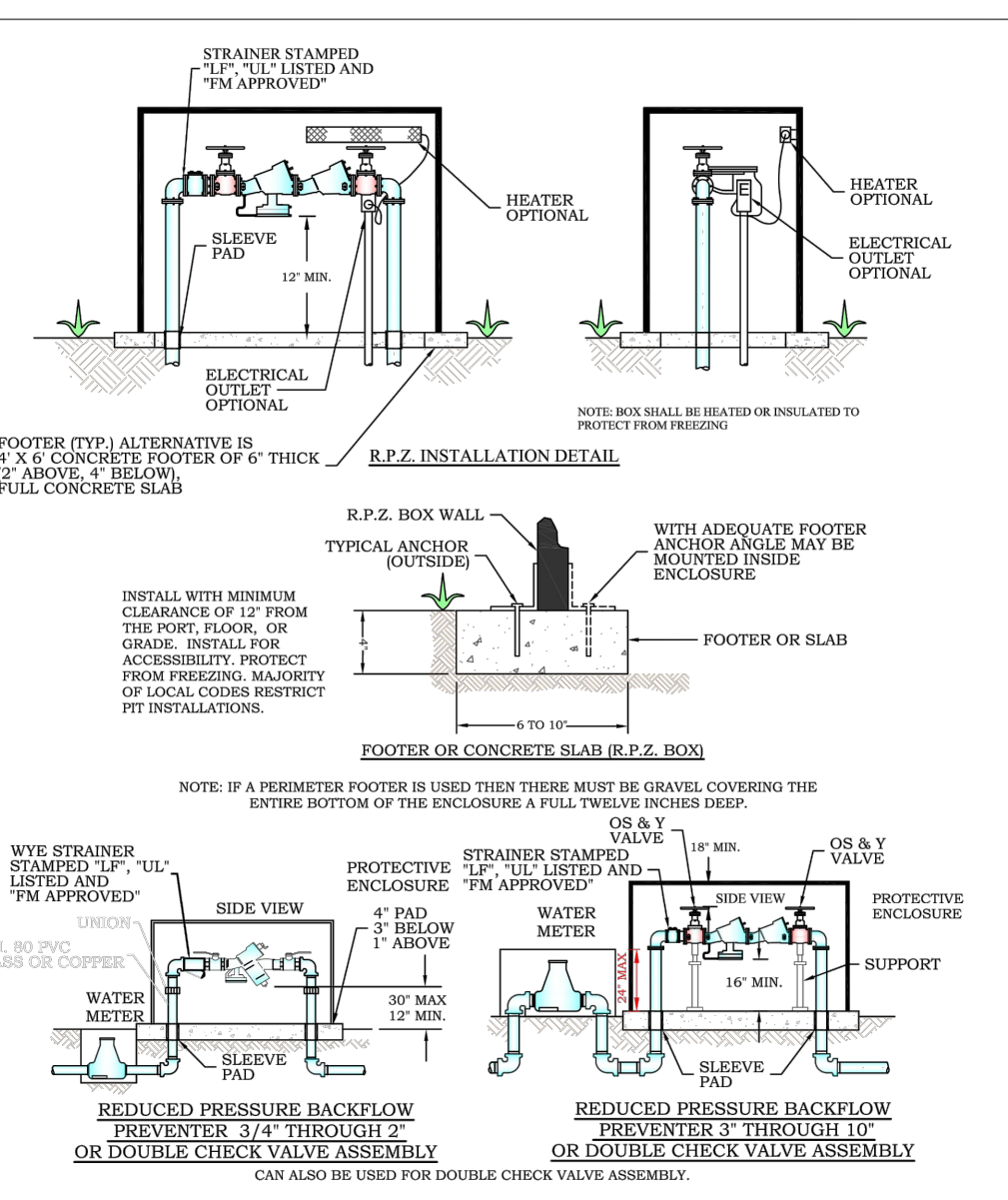
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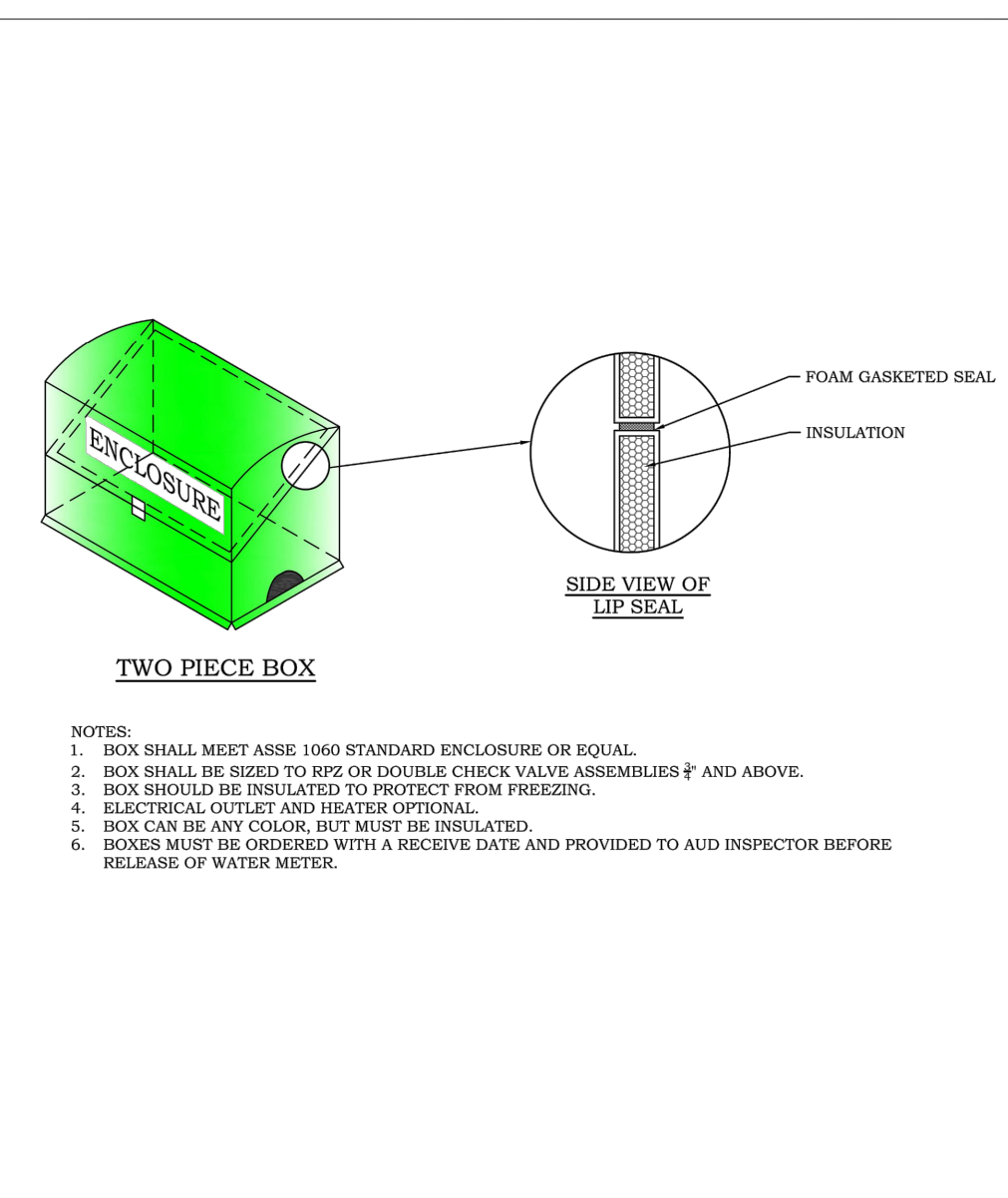
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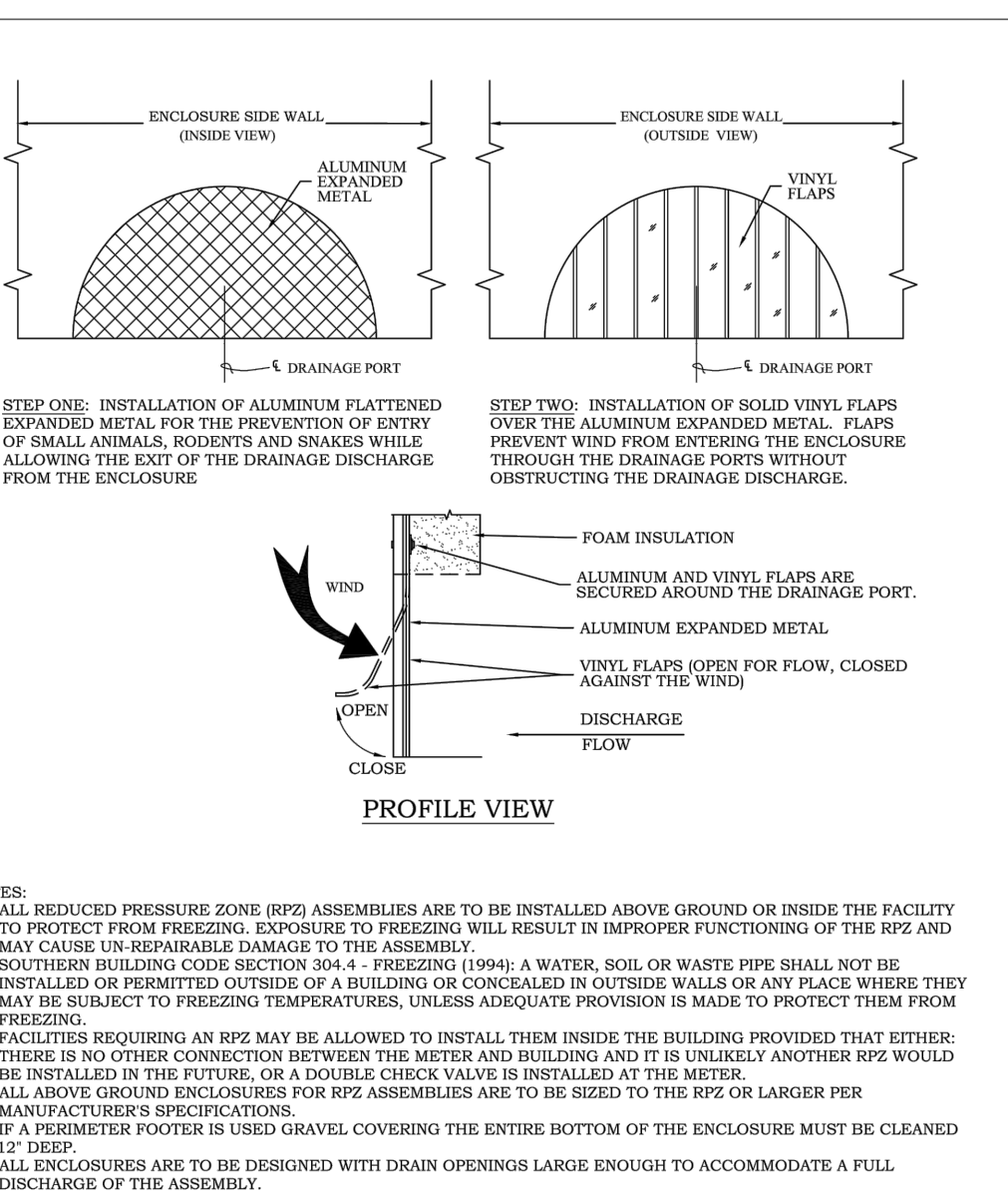
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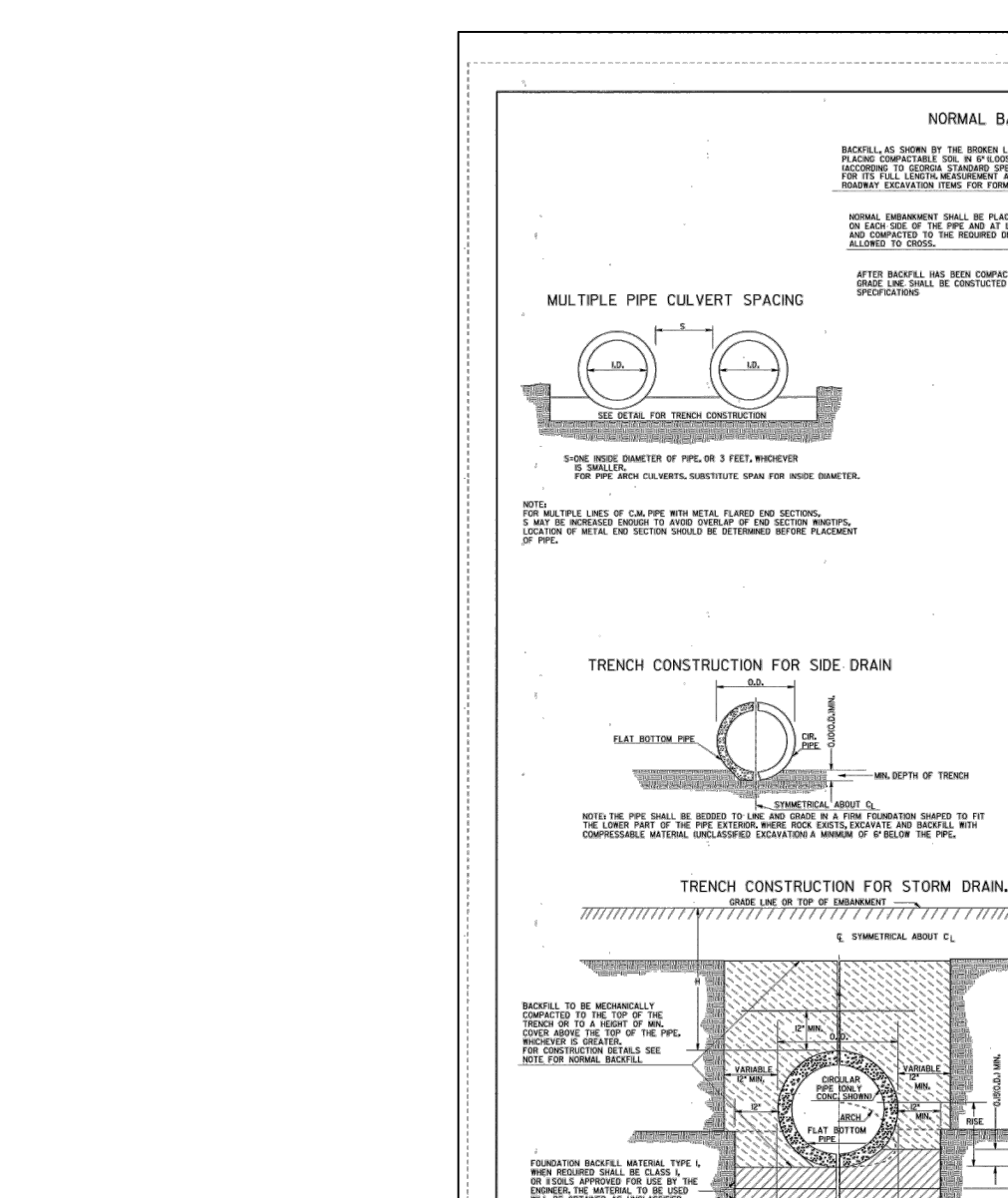
TWO PIECE BOX
 DATE: JAN. 2024
 REVISED: NOV. 2023



TWO PIECE BOX
 DATE: JAN. 2024
 REVISED: NOV. 2023



ABOVE GROUND ENCLOSURE DRAIN DETAIL
 DATE: JAN. 2024
 REVISED: NOV. 2023



REDUCED PRESSURE BACKFLOW PREVENTER 3/4 THROUGH 10 OR DOUBLE CHECK VALVE ASSEMBLY
 DATE: JAN. 2024
 REVISED: NOV. 2023



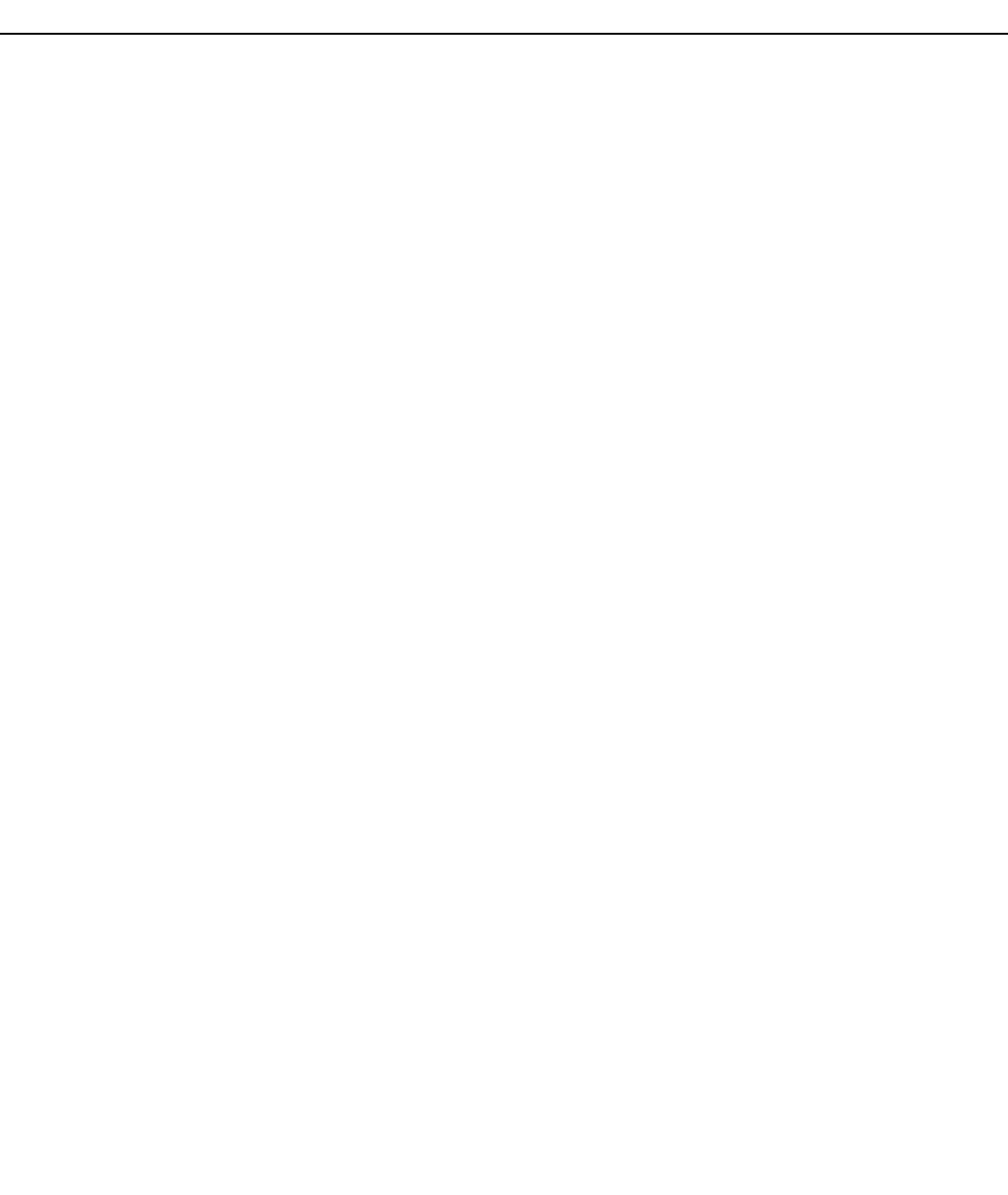
LONGITUDINAL SECTION OF IMPERFECT TRENCH BACKFILL AND BACKFILL METHOD
 DATE: JAN. 2024
 REVISED: NOV. 2023



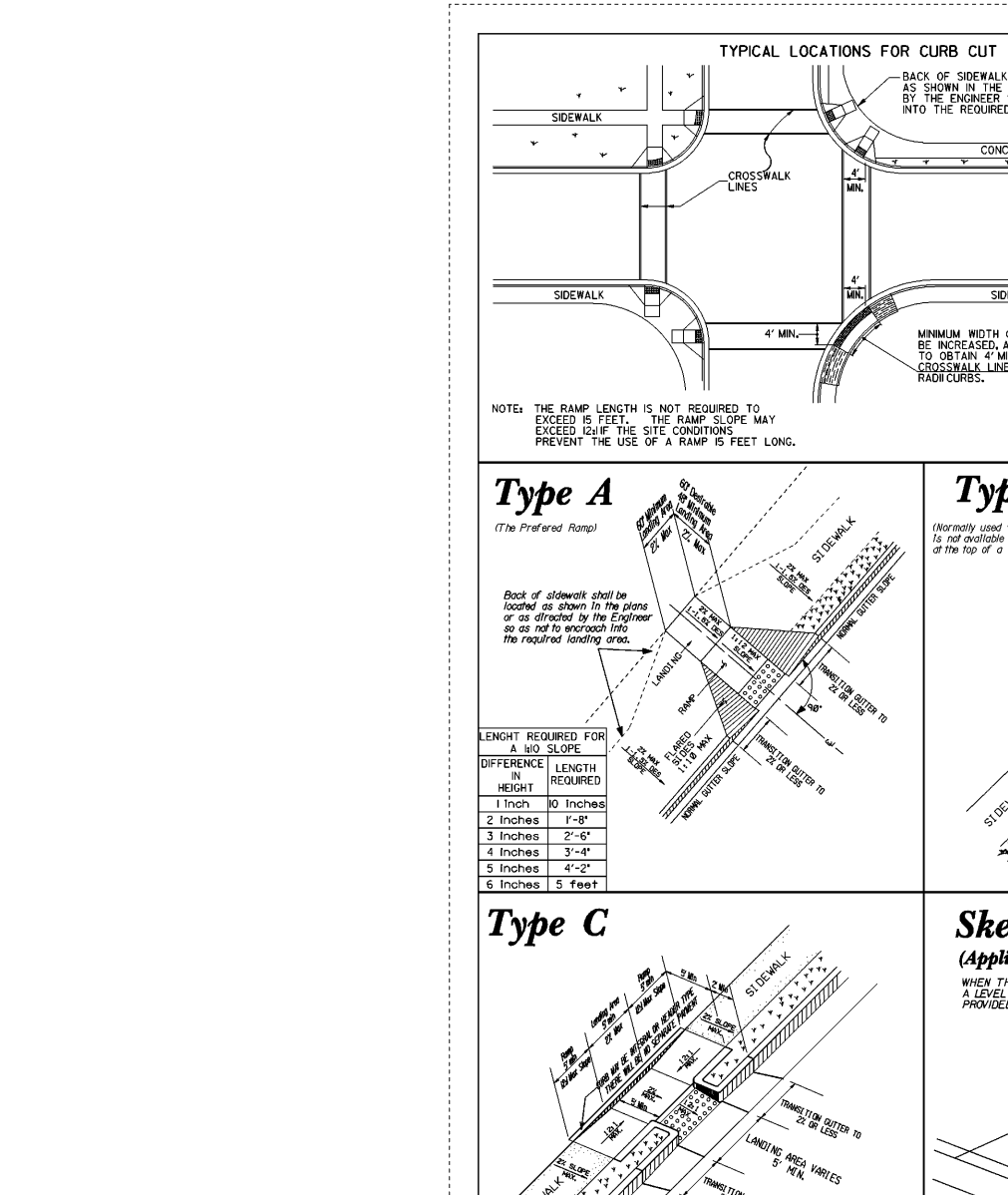
TYPICAL LOCATIONS FOR CURB CUT RAMPS - PLAN VIEW
 DATE: JAN. 2024
 REVISED: NOV. 2023



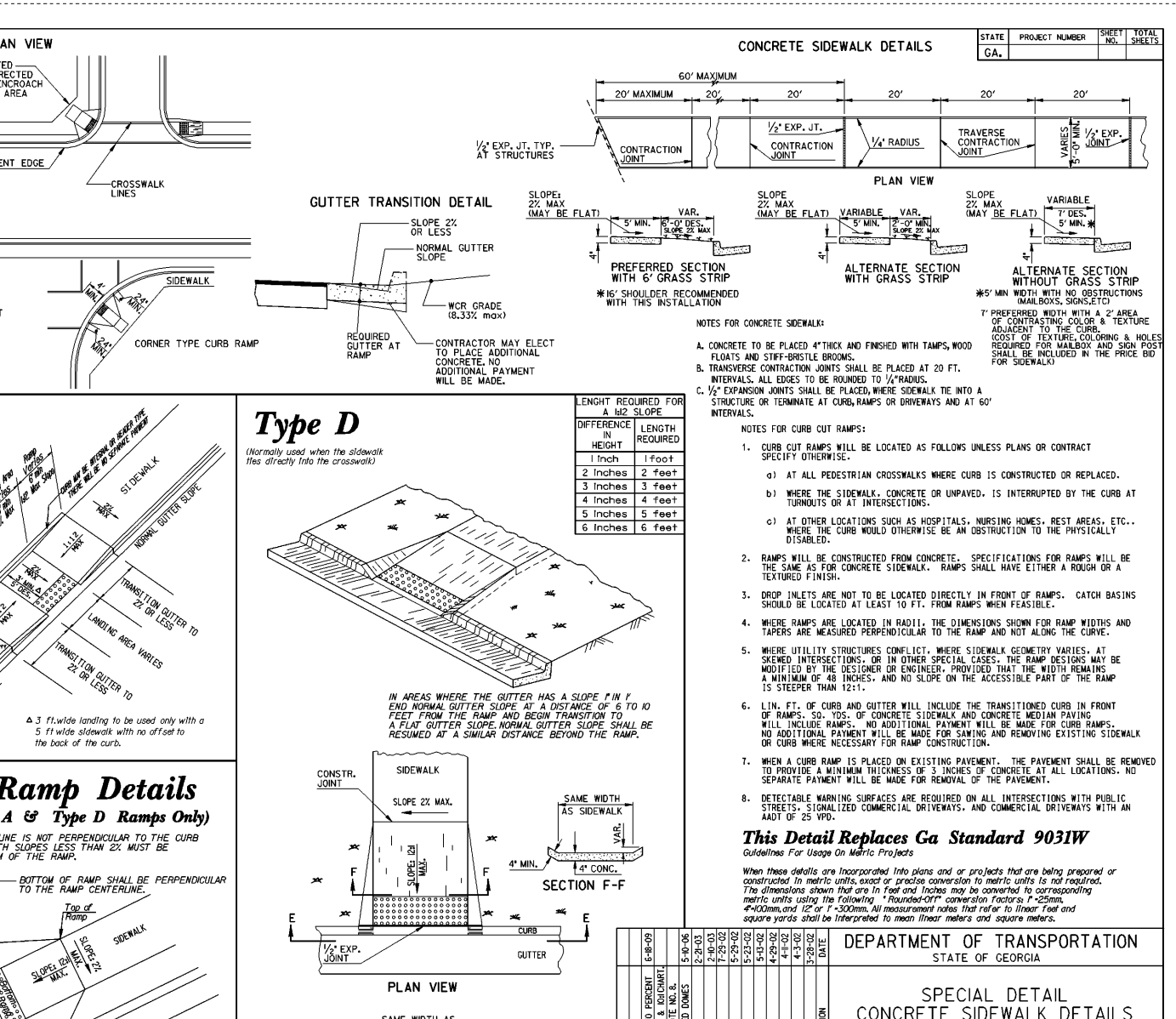
CONCRETE SIDEWALK DETAILS
 DATE: JAN. 2024
 REVISED: NOV. 2023



Type A, B, C, and D Curb Cut Ramps
 DATE: JAN. 2024
 REVISED: NOV. 2023

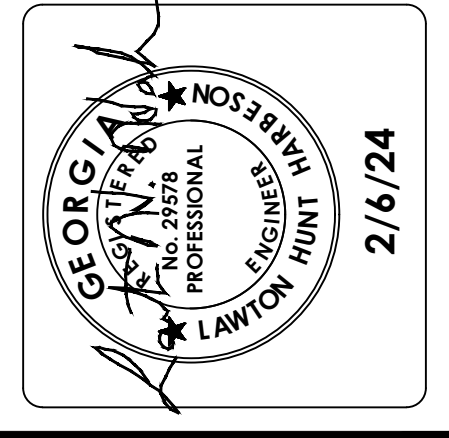


Skewed Ramp Details
 DATE: JAN. 2024
 REVISED: NOV. 2023



SPECIAL DETAIL CONCRETE SIDEWALK DETAILS CURB CUT (WHEELCHAIR) RAMPS
 DATE: JAN. 2024
 REVISED: NOV. 2023

REVISION BLOCK	DATE	DESCRIPTION
1	2/6/24	AS PER OWNER & COUNTY COMMENTS



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