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www.sb-kc.net

New Airplane Hangar
at Lees Summit Airport
2751 N. DOUGLAS ST., UNIT V
LEES SUMMIT, MO 64064

RELEASE FOR
CONSTRUCTION
NOTED ON PLANS REVI
DEVELOPMENT SERVICE:
EE'S SUMMIT, MISSOUR
08/14/2020



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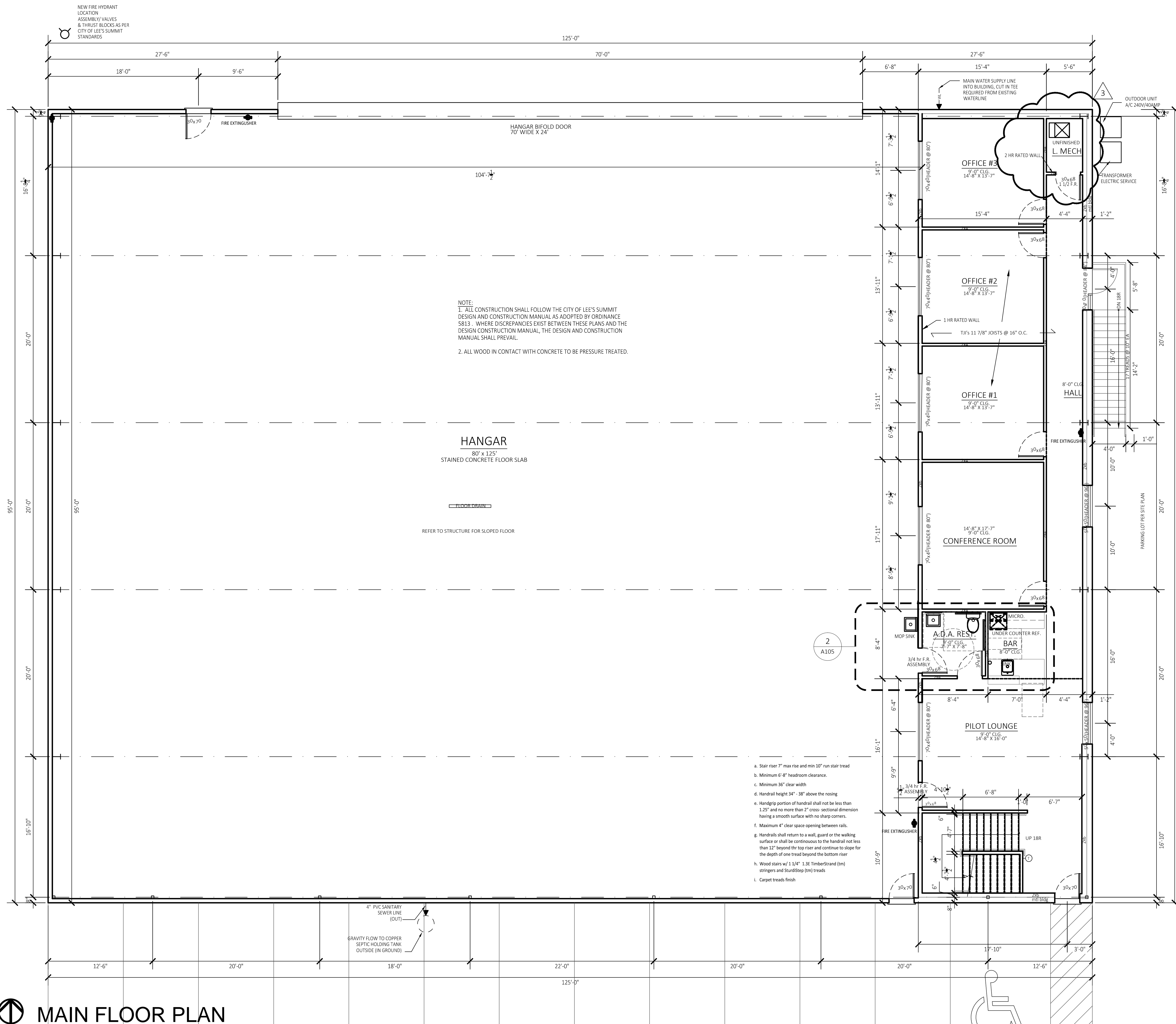
No.	Description	Date
2	2nd City Comments	6/24/20
3	3rd City Comments	7/8/20

CONSTRUCTION
DOCUMENTS

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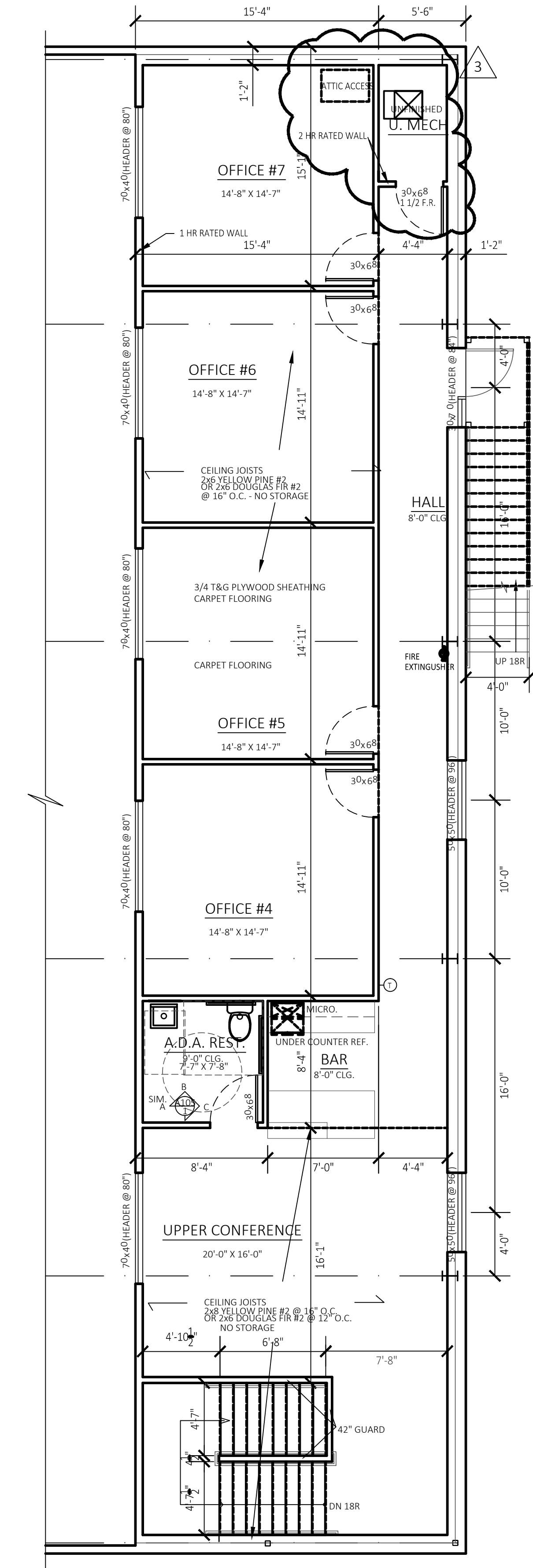
A 101

SHEET SIZE: 24" x 36"

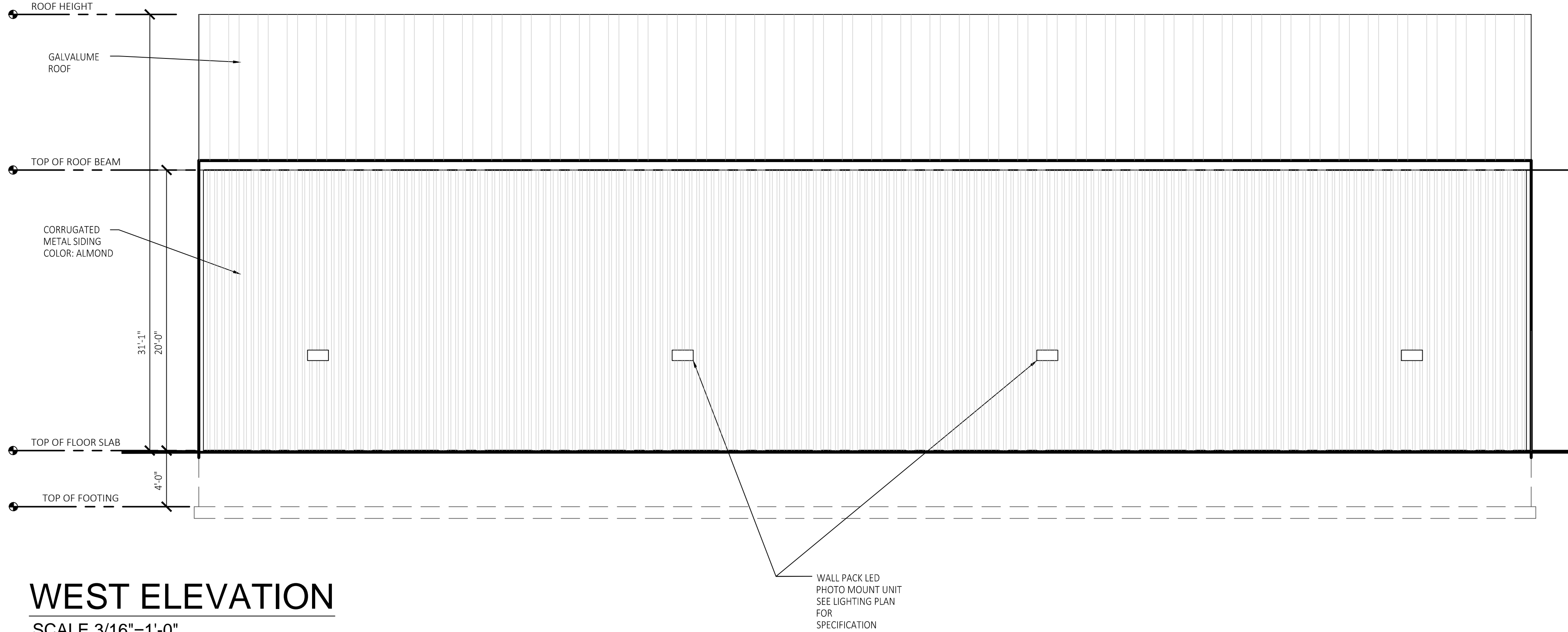


MAIN FLOOR PLAN

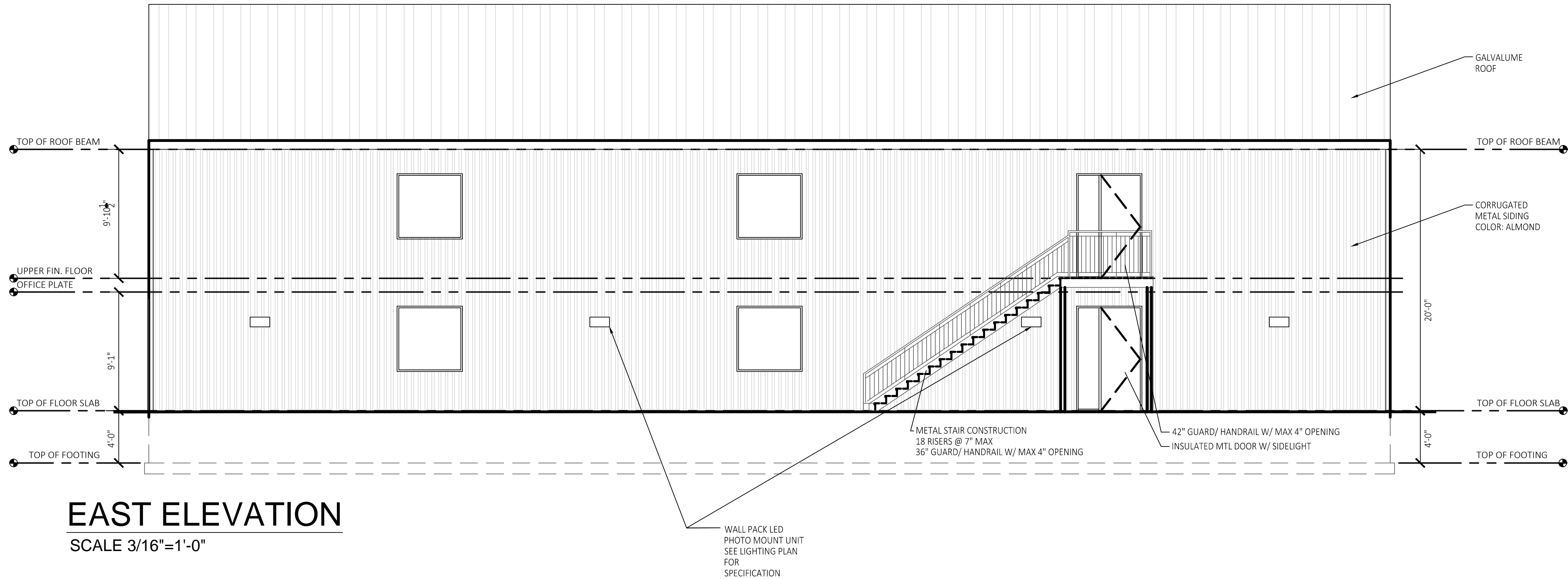
NORTH SCALE 3/16"=1'-0"



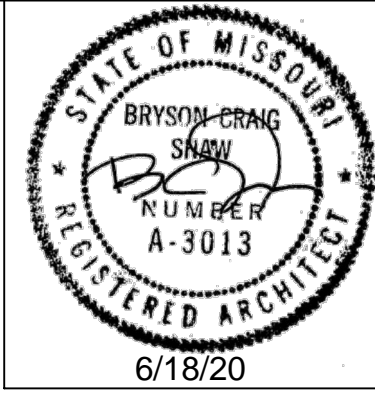
MEZZANINE FLOOR PLAN
SCALE 3/16"=1'-0"



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



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



Signature Builders KC, LLC
2751 NE Douglas St. - Suite R
Lee's Summit, Missouri 64064
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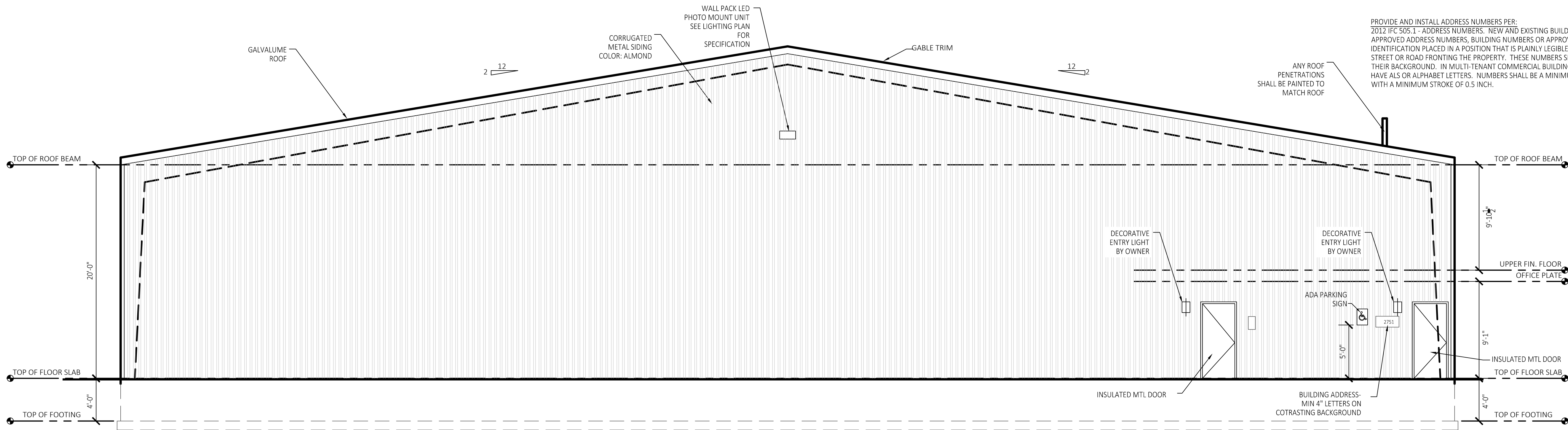
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CONSTRUCTION DOCUMENTS

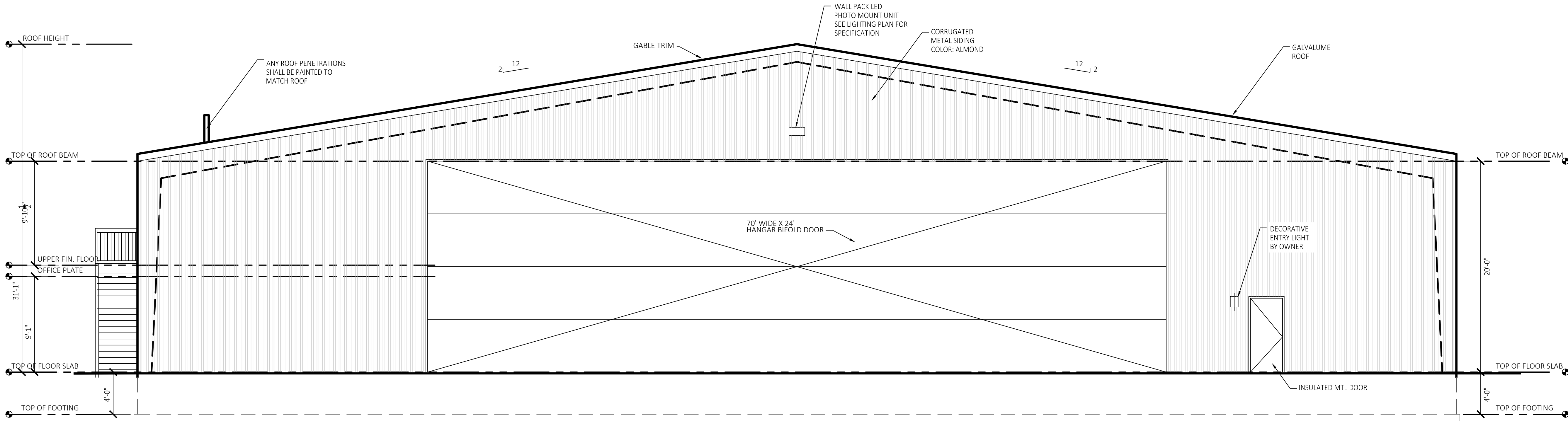
Project Number	LS V
Date	2020 JUNE 19
Drawn By	CCD
Checked By	SBKC

A 102

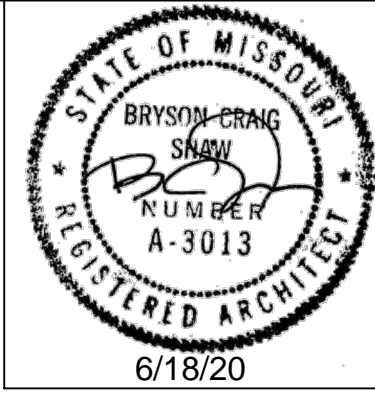
SHEET SIZE: 24" x 36"



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



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



Signature
BUILDERS
— KC, LLC —

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PLEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
BY ARCHITECTURAL SERVICES
LEE'S SUMMIT, MISSOURI
6/14/2020

SH
ASSOCIATES

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Project Number **LS V**

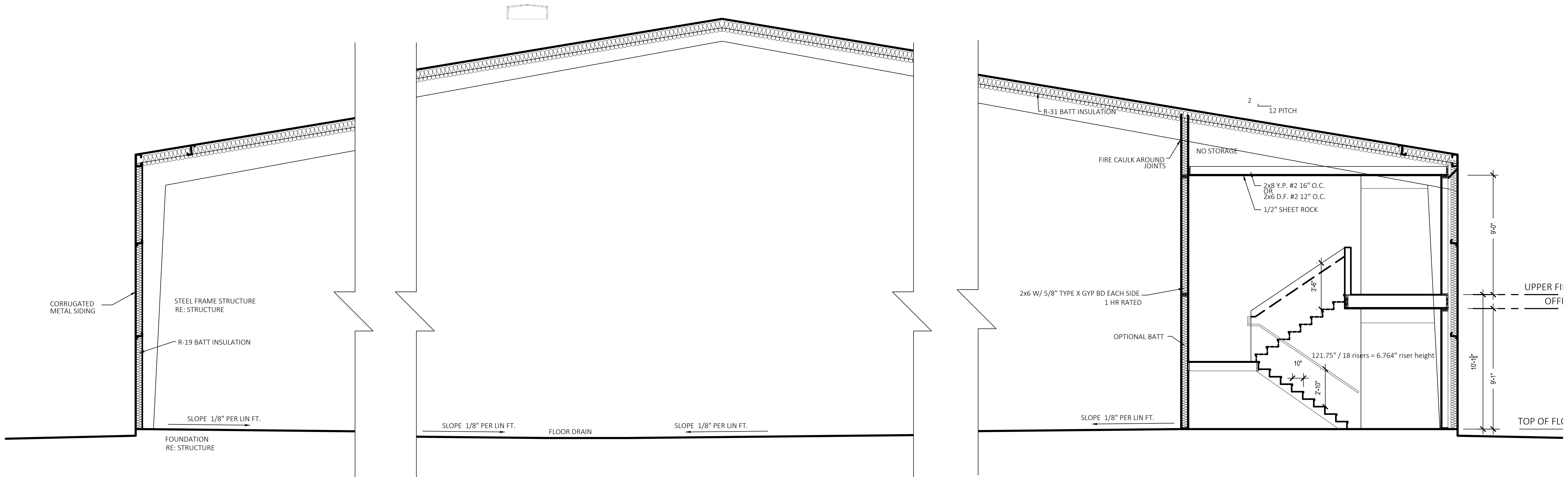
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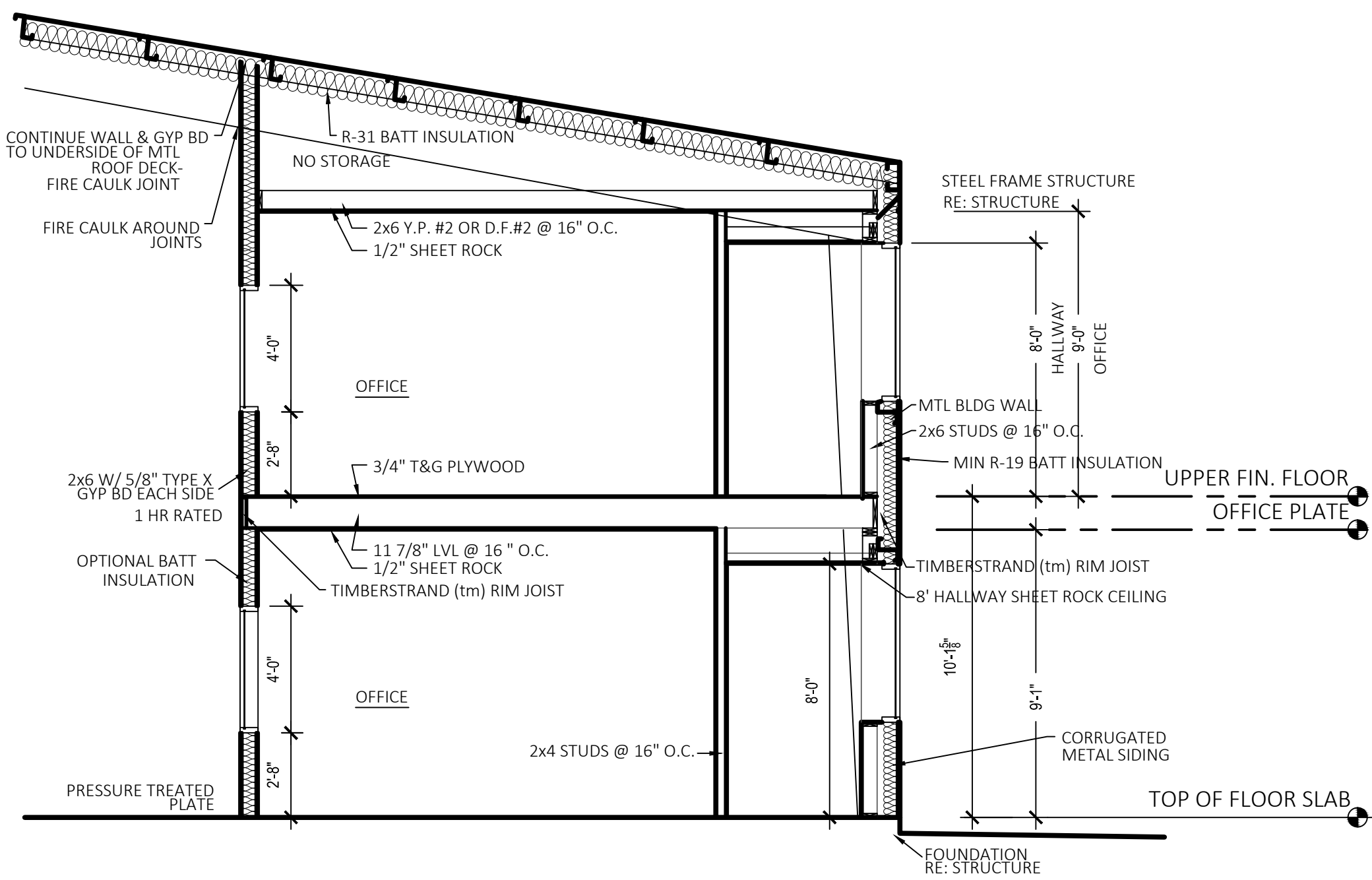
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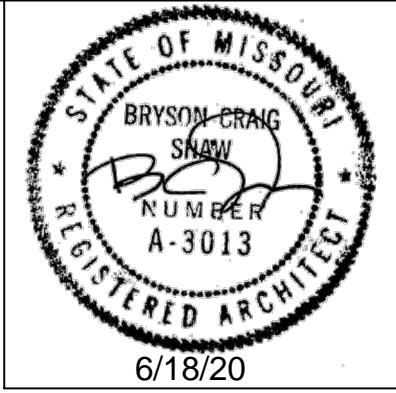
SHEET SIZE: 24" x 36"



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



BLDG SECTION @ MEZZANINE
SCALE 1/4"=1'-0"



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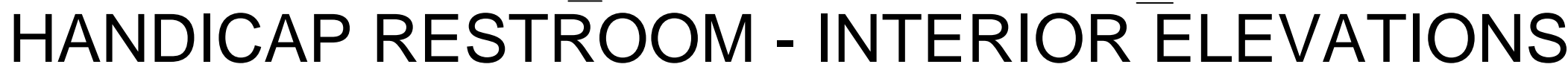
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SHEET SIZE: 24" x 36"

BI-FOLD DOOR SPEC



- (T1) ADA COMPLIANT PORCELAIN TOILET AMERICAN STANDARD OR EQUAL W/ HANDLE ON DOOR OPENING SIDE
- (T2) NOT USED
- (T3) ADA COMPLIANT FRAMED MIRROR, SURFACE MOUNTED
- (T4) SEAT COVER DISPENSER/NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER BOBRICK CLASSIC SERIES RECESSED DUAL UNIT
MODEL NO. B-3574

WALL FINISH @ MOP SINK
WALL SHALL HAVE EPOXY SATIN "WASHABLE" PAINT FINISH-
SMOOTH, HARD AND NON-ABSORBANT WALL FINISH SURFACE WITHIN TWO FEET OF MOP
SINK AND MINIMUM 4' HIGH ABOVE FLOOR.

PROVIDE AND INSTALL BATHROOM FIXTURES AND ACCESSORIES PER:
 2012 ICC A117.1 - 2009 G.O.S.1 - 5.1 FIXED WALL GRAB BARS. FIXED SIDE WALL GRAB BARS SHALL BE 42 INCHES MINIMUM IN LENGTH LOCATED 12 INCHES MAXIMUM FROM THE REAR WALL AND EXTENDING 54 INCHES MINIMUM FROM THE REAR WALL. IN ADDITION, A VERTICAL GRAB BAR 18 INCHES MINIMUM IN LENGTH GTH SHALL BE MOUNTED WITH THE BOTTOM OF THE BAR LOCATED 39 INCHES MINIMUM AND 41 INCHES MAXIMUM ABOVE THE FLOOR, AND WITH THE CENTER LINE OF THE BAR LOCATED 39 INCHES MINIMUM AND 41 INCHES MAXIMUM FROM THE REAR WALL.
 ALL PLUMBING FIXTURES AND TOILET ACCESSORIES TO BE ADA COMPLIANT, INSTALLED AS INDICATED AND IN COMPLIANCE WITH THE ADA AND PER MANUFACTURER'S GUIDELINES. INSTALL STEEL BACKER PLATES IN WALL ASSEMBLY TO SUPPORT GRAB BARS. COMPLETED ASSEMBLY CAPABLE OF SUPPORTING A MINIMUM VERTICAL OR HORIZONTAL FORCE OF 250 LBS. WITHOUT DAMAGE TO ANY PART OF THE ASSEMBLY.

RESTROOM FIXTURES AND ACCESSORIES LEGEND AND SPECIFICATIONS



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

WINDOW SCHEDULE

DOOR SCHEDULE

INTERIOR DOOR
SOLID WOOD CORE
STAINED

PRIVACY LOCK @ BATHROOM

SHEET SIZE: 24" x 36"

DESIGN CRITERIA:

- LIVE LOADS (UNIFORM (PSF) / POINT LOADS (KIPS)):
-- ROOF:.....20 PSF / 1.0 K
- ROOF SNOW LOAD:
-- GROUND SNOW LOAD (Pg):.....20 PSF
-- FLAT ROOF SNOW LOAD (Pi):.....20 PSF
-- SNOW EXPOSURE FACTOR (Ce):.....1.0
-- SNOW LOAD IMPORTANCE FACTOR (I):.....1.0
-- THERMAL FACTOR (Ct):.....1.0
- WIND DESIGN DATA:
-- BASIC WIND SPEED (3 SEC GUST):.....115 MPH
-- WIND IMPORTANCE FACTOR (I):.....1.0
-- WIND EXPOSURE:.....C
-- BUILDING ENCLOSURE:.....ENCLOSED
-- INTERNAL PRESSURE COEFF:.....0.18
-- COMPONENTS AND CLADDING WIND PRESSURE: PER ASCE 7-16
- EARTHQUAKE DESIGN DATA:
-- SEISMIC IMPORTANCE FACTOR (I):.....1.00
-- BUILDING OCCUPANCY CATEGORY:.....II
-- MAPPED SPECTRAL RESP ACCEL (Ss / S1):.....0.113 / 0.066
-- SITE CLASS:.....D
-- SPECTRAL RESPONSE COEFF (Sds / Sd1):.....0.120 / 0.106
-- SEISMIC DESIGN CATEGORY:.....B
-- SEISMIC FORCE RESISTING SYSTEM:
STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
-- DESIGN BASE SHEAR:.....6.92 K
-- SEISMIC RESPONSE COEFF (C039):.....0.039
-- RESPONSE MODIFICATION FACTOR (R):.....3.0
-- ANALYSIS PROCEDURE:.....ELF
- ADDITIONAL PRE-ENGINEERED METAL BLDG CRITERIA
A. LOADS
-- COLLATERAL ROOF DEAD LOAD:.....4 PSF
B. MEMBER DEFLECTIONS (LIVE LOAD)
-- ROOF, NOT SUPPORTING CEILING:.....L/180
-- ROOF, SUPPORTING PLASTER CEILING:.....L/360
-- ROOF, SUPPORTING OTHER CEILING:.....L/240
-- WALL GIRT, BACKING NON-BRITTLE FINISH:.....L/180
-- WALL GIRT, BACKING BRITTLE FINISH (MASONRY):.....L/600
C. MEMBER DEFLECTIONS (DEAD + LIVE LOAD)
-- ROOF, SUPPORTING PLASTER CEILING:.....L/240
-- ROOF, SUPPORTING OTHER CEILING:.....L/180
D. FRAME DRIFT (BRACED, PORTAL, WIND COL)
-- NON BRITTLE EXTERIOR FINISH:.....H/120
-- BRITTLE EXTERIOR FINISH:.....H/400

STRUCTURAL GENERAL NOTES:

- DESIGN AND CONSTRUCTION SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE, 2015 EDITION*. REFER TO THE SPECIAL STRUCTURAL INSPECTION NOTES FOR ADDITIONAL REQUIREMENTS.
 - CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.
 - IF DISCREPANCIES EXIST BETWEEN STRUCTURAL PLANS, ARCHITECTURAL PLANS, OTHER PLANS, OR SPECIFICATIONS, THE CONTRACTOR OR SUBCONTRACTOR SHALL PROVIDE A WRITTEN REQUEST FOR CLARIFICATION FROM THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
 - THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO EXECUTE AND DETERMINE FINAL ERECTION PROCEDURES, SEQUENCING AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYING OR TIE DOWNS WHICH MIGHT BE NECESSARY.
 - THE STRUCTURE AND FOUNDATIONS ARE NOT DESIGNED FOR FUTURE EXPANSION.
 - FABRICATORS AND SUPPLIERS SHALL CLEARLY NOTE AND HIGHLIGHT CHANGES MADE IN SHOP DRAWINGS, WHICH DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.
 - COLUMNS, BEAMS, JOISTS, OR TRUSSES SHALL NOT BE FIELD CUT OR TRIMMED FOR ANY REASON WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
 - HOLES, PIPES, SLEEVES, ETC. NOT SHOWN ON THE DRAWINGS MUST BE REVIEWED BY THE ARCHITECT BEFORE PLACEMENT THROUGH STRUCTURAL MEMBERS.
 - IF MECHANICAL AND ELECTRICAL EQUIPMENT SIZES, WEIGHTS, OR LOCATIONS DO NOT COINCIDE WITH EQUIPMENT SHOWN ON THE PLANS, COORDINATE ADJUSTMENTS WITH THE ARCHITECT.
 - NO AREA OF THE STRUCTURE SHALL BE LOADED WITH CONSTRUCTION MATERIALS OR EQUIPMENT THAT EXCEEDS FINAL DESIGN CRITERIA.
 - BEAMS, COLUMNS, WALLS AND FOOTING CENTERS SHALL BE CENTERED UNDER SUPPORTING MEMBERS (TYPICAL UNLESS NOTED).
 - FOR DEFERRED SUBMITTALS (EXAMPLES: PREFABRICATED WOOD OR COLD FORMED STEEL JOISTS, PRECAST CONCRETE ELEMENTS, COLD FORMED FRAMING), SHOP DRAWINGS AND CALCULATIONS SEALED BY A STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE JURISDICTION OF THE PROJECT SHALL BE FURNISHED TO THE ENGINEER OF RECORD FOR REVIEW.
- PRE-ENGINEERED METAL BUILDING GENERAL NOTES:**
- THE METAL BUILDING MANUFACTURER SHALL BE RESPONSIBLE FOR THE METAL BUILDING DESIGN. THE METAL BUILDING DESIGN AND CALCULATIONS SEALED BY AN ENGINEER LICENSED TO PRACTICE IN THE JURISDICTION OF THE PROJECT SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE FABRICATION AND APPROVED BEFORE ANY CONCRETE FOOTINGS ARE POURED. THE METAL BUILDING MANUFACTURER SHALL PROVIDE ALL ACTUAL COLUMN LOCATIONS AND LOADS AT THE FOUNDATIONS FOR DESIGN VERIFICATION INCLUDING WIND COLUMN/BRACING CONDITIONS.
 - THE METAL BUILDING DESIGN SHALL MEET ALL LOCAL CODE REQUIREMENTS.
 - ROOF LIVE LOADS, INCLUDING SNOW LOADS, SHALL NOT BE REDUCED. DESIGN ROOF AND ROOF MEMBERS FOR ALL REQUIRED UNBALANCED LOADS AND SNOW DRIFTING.
 - COLLATERAL ROOF LOADING IS IN ADDITION TO DEAD LOAD OF PRE-ENGINEERED BUILDING FRAMING, METAL DECK, AND INSULATION
 - CONTRACTOR TO VERIFY ALL BASE PL ELEVATIONS AND GROUTING REQUIREMENTS w/ METAL BUILDING SUPPLIER.

EARTHWORK AND FOUNDATIONS:

- PRESUMPTIVE ALLOWABLE SOIL BEARING PRESSURE = 1500 PSF (PER IBC). GEOTECHNICAL ENGINEER TO CONFIRM MINIMUM BEARING VALUES HAVE BEEN MET PRIOR TO PLACING FOOTINGS.
- ALL PERIMETER AND EXTERIOR FOOTINGS SHALL EXTEND AT LEAST 3'-0" BELOW FINAL ADJACENT GRADE. DEEPEN FOOTINGS AS REQUIRED TO PROVIDE THIS MINIMUM BOTTOM OF FOOTING.
- SURFACE WATER SHALL NOT BE ALLOWED TO STAND ADJACENT TO OR DRAIN TOWARDS THE FOUNDATION UNDER ANY CIRCUMSTANCES. PAVEMENTS OR GRADED SOILS AT THE PERIMETER OF THE BUILDING, EXCEPT AS REQUIRED AT EXITS OR AS NOTED, SHALL BE SLOPED AWAY AT 5% OR 6" MIN FOR THE FIRST TEN FEET.
- FOOTINGS MAY BE POURED TO NEAT LINES OF EXCAVATIONS PROVIDING VERTICAL LINES OF EXCAVATIONS CAN BE MAINTAINED DURING CONCRETE PLACEMENT.
- FOUNDATION CONTRACTOR TO ENSURE PROPER ANCHOR ROD PROJECTION AND THAT ANCHOR RODS ARE HELD SECURELY IN POSITION PRIOR TO CONCRETE PLACEMENT. STRUCTURAL STEEL COLUMN ANCHOR RODS SHALL BE SET WITH A TEMPLATE

CONCRETE AND MASONRY REINFORCING STEEL:

- ALL REINFORCING BARS SHALL MEET ASTM A615 GRADE 60.
- ALL MESH SHALL MEET ASTM A-185; LAP A MINIMUM OF 8" OR ONE FULL MESH, WHICHEVER IS GREATER.
- REINFORCING BARS QUANTITIES SHOWN ARE FOR ESTIMATING PURPOSES ONLY.
- PROVIDE AND ADDITIONAL ALLOWANCE OF 1% OF THE TOTAL REINFORCING SHOWN ON THE FINAL DRAWINGS TO BE FABRICATED AND ERECTED DURING THE PROGRESS OF THE WORK AT THE DIRECTION OF THE STRUCTURAL ENGINEER. FOR THE ADDITIONAL REINFORCING ALLOWANCE, INCLUDE BOTH THE COST OF THE REINFORCING AND THE LABOR TO PLACE IT.
- CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE 3/4" CLEAR FOR SLABS, 2" CLEAR FOR FORMED SURFACES AND 3" CLEAR FOR FOOTINGS (TYPICAL UNLESS NOTED).
- CONTRACTOR SHALL VERIFY THAT ALL REINFORCEMENT, SLAB DOWELS, INSERTS, SLEEVES AND EMBEDDED ITEMS ARE PROPERLY LOCATED AND RIGIDLY SECURED PRIOR TO CONCRETE PLACEMENT, "WET STICKING" DOWELS WILL NOT BE ALLOWED.
- REINFORCEMENT SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST A.C.I. DETAILING MANUAL BY A QUALIFIED AND EXPERIENCED FIRM AND PERSON. PLACE AND SUPPORT REINFORCEMENT WITH ACCESSORIES; MAXIMUM SPACING - 48" CENTERS (PLASTIC) TYPED LEGS FOR EXPOSED SURFACES). USE 3" SBP SUPPORTS AT ALL FOOTINGS.

CAST IN PLACE CONCRETE:

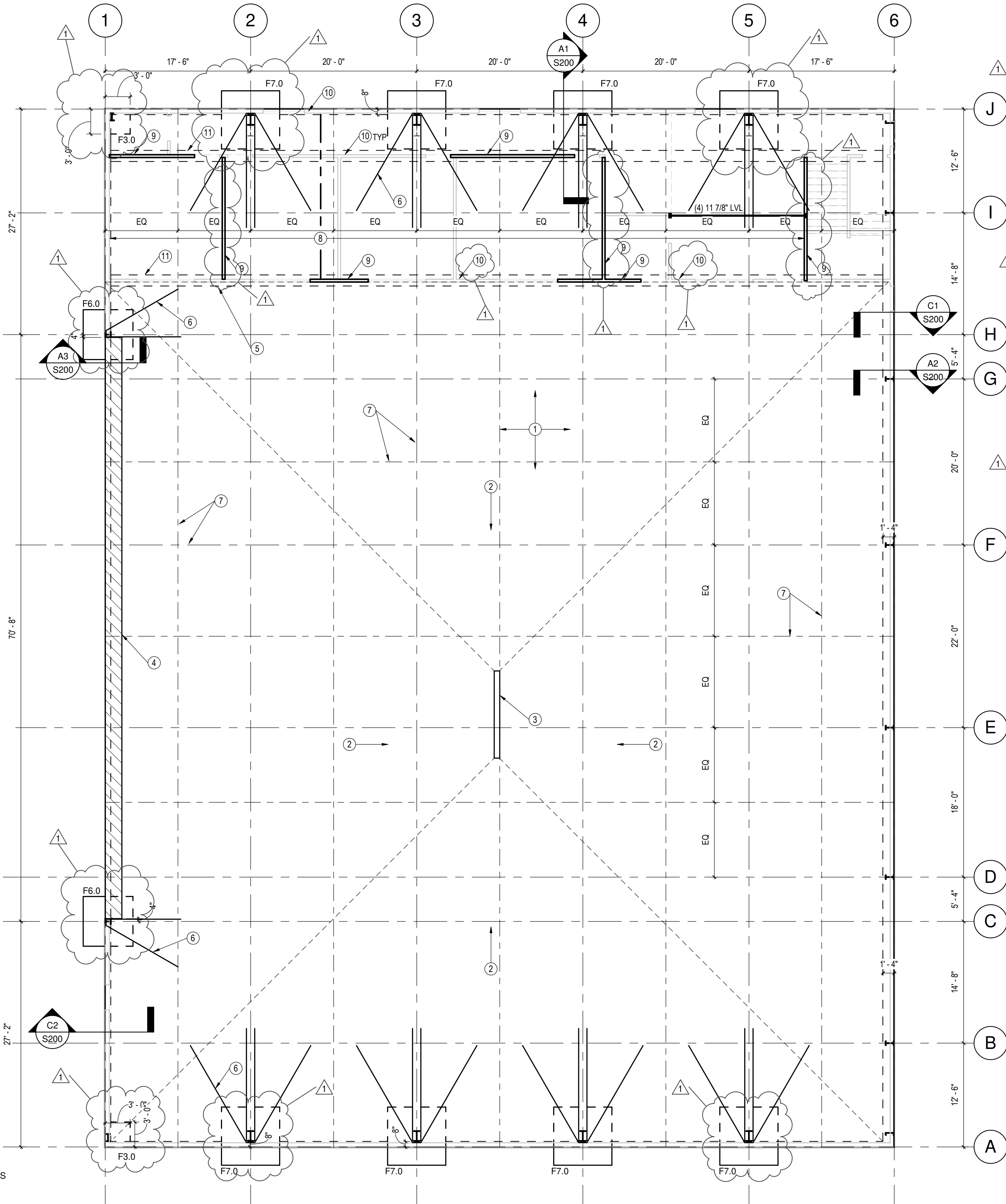
- REQUIRED MINIMUM CONCRETE COMPRESSIVE STRENGTHS AT 28 DAYS:
a. FOOTING, WALL, AND GRADEBEAM CONCRETE.....3000 PSI
b. SLAB ON GRADE AND STRUC SLAB ABOVE GRADE.....3500 PSI
- ALL CONCRETE MIX DESIGNS SHALL HAVE WATER TO CEMENT RATIOS LESS THAN 0.50, WITH A MAXIMUM 60/40 FINE TO COARSE AGGREGATE RATIO. CONCRETE MIX DESIGNS THAT DO NOT CONFORM TO THE ABOVE STANDARD AND/OR CONTAIN WATER REDUCING ADMIXTURES SHALL BE SUBMITTED WITH APPROPRIATE TEST DATA PER A.C.I. ALL CONCRETE SHALL BE IN CONFORMANCE WITH THE LATEST A.C.I. 301 STANDARDS PUBLICATION.
- EXTERIOR CONCRETE (FLOOR SLABS, WALLS, ETC) SHALL HAVE 6% (PLUS/MINUS 1%) ENTRAINED AIR.
- CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" (VERIFY WITH ARCHITECT).
- NO ALUMINUM SHALL BE EMBEDDED IN ANY CONCRETE.
- NO CALCIUM CHLORIDE SHALL BE USED IN CONCRETE
- THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK IS THE RESPONSIBILITY OF THE CONTRACTOR
- ALL CONCRETE IS REINFORCED UNLESS SPECIFICALLY NOTED AS UNREINFORCED. REINFORCE ALL CONCRETE NOT OTHERWISE SHOWN WITH THE SAME REINFORCING AS SIMILAR SECTIONS OR AREAS.
- CONSTRUCTION JOINTS IN GRADE BEAMS, CONTINUOUS FOOTINGS, AND WALLS THAT DO NOT CHANGE DIRECTION SHALL BE SPACED NO GREATER THAN 60'-0". INTERMEDIATE CONTROL JOINTS SHALL BE SPACED AT 25'-0" MAX FOR WALLS. CONTROL JOINTS IN WALLS SHALL ALSO BE LOCATED 15'-0" FROM CORNERS AND AT CHANGES IN WALL THICKNESS
- WHERE FRESH CONCRETE IS DEPOSITED AGAINST HARDENED CONCRETE (GREATER THAN 8 HRS OLD), CLEAN EXISTING SURFACE OF LAUNCE AND FOREIGN MATERIAL AND DAMPEN THE EXISTING SURFACE. IF REQUIRED, ROUGHEN EXISTING CONCRETE TO 1/4" AMPLITUDE.
- SLABS ON GRADE SHALL BE 5" THICK MINIMUM ON 4" OF GRANULAR FILL. REINF SLAB WITH 6 X 6 W2.9XW2.9 W.W.F. IN UPPER 1/3 OF SLAB THICKNESS. SUPPLY WWF IN SHEETS. AT INTERIOR SLABS, AN 10 MIL VAPOR BARRIER SHALL BE PLACED BETWEEN THE CONCRETE AND GRANULAR BASE AND CARE SHOULD BE TAKEN DURING CURING TO PREVENT SLAB CURLING. THIS NOTE SHALL BE TYPICAL UNLESS NOTED OTHERWISE
- SAW CUT JOINTS OR KEYED CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL BE SPACED TO DIVIDE THE SLAB INTO PANELS NOT TO EXCEED 225 SQUARE FEET. THE LONGER DIMENSION OF EACH PANEL SHALL NOT EXCEED THE SHORTER DIMENSIONS BY MORE THAN 50%. JOINTS SHALL BE LOCATED AT COLUMN CENTERLINES WHERE POSSIBLE. CONTRACTOR SHALL SUBMIT JOINT LAYOUT TO ARCHITECT FOR APPROVAL. REFER TO TYP DETAIL RC-001A.
- REINFORCEMENT SHALL BE CONTINUOUS AND LAPPED 53 BAR DIAMETERS (2'-6" MIN.) EXCEPT AS NOTED AND PROVIDE CORNER BARS OF SAME SIZE AND SPACING.

SPECIAL STRUCTURAL INSPECTION NOTES:

- SPECIAL STRUCTURAL INSPECTIONS AND VERIFICATIONS SHALL BE PROVIDED BY THE OWNER OR OWNER'S REPRESENTATIVE MEETING THE REQUIREMENTS OF CHAPTER 17 OF THE CODE.
- SPECIAL INSPECTORS SHALL BE QUALIFIED AND FURNISH THEIR REPORTS TIMELY TO THE BUILDING OFFICIAL, ARCHITECT AND/OR ENGINEER.
- SPECIAL INSPECTIONS AS REQUIRED BY CODE:
a. STEEL: SECTION 1704.3 AND TABLE 1704.3
b. CONCRETE: SECTION 1704.4 AND TABLE 1704.4

SCHEDULE - SPREAD FOOTING

Type	LENGTH	WIDTH	THICK	REINF
F3.0	3' - 0"	3' - 0"	2' - 6"	(4) #6 EA WAY, TOP AND BOT
F6.0	6' - 0"	6' - 0"	2' - 6"	(5) #6 EA WAY, TOP AND BOT
F7.0	7' - 0"	7' - 0"	3' - 0"	(7) #6 EA WAY, TOP AND BOT

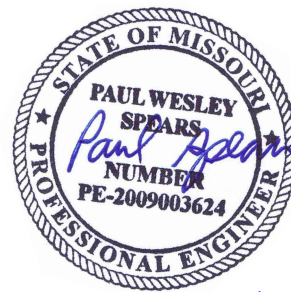


GENERAL SHEET NOTES

- REFERENCE SHEET S200 FOR STRUCTURAL DETAILS
- SEE ARCHITECTURAL DRAWING FOR DETAILS & DIMENSIONS NOT SHOWN.
- FINISH FLOOR ELEVATION = 100'-0" UNO. THIS A REFERENCE ELEVATION AND IS GENERALLY 6" ABOVE GRADE
- ALL EXTERIOR FOOTING SHALL BE 3'-0" MIN. BELOW GRADE. DEEPEN FOOTINGS AS REQUIRED.
- SPREAD FOOTINGS ARE DENOTED "FX.X". REFER TO SCHEDULE ON THIS SHEET FOR SIZE AND REINFORCING.
- REFER TO SCHEDULE ON THIS SHEET FOR ANCHOR ROD SCHEDULE. REFER TO DETAIL 04/S200 FOR ANCHOR ROD DETAIL
- SEE S201 FOR WOOD FRAMING GENERAL NOTES AND HEADER SCHEDULE.

FOUNDATION PLAN NOTES:

- 5" CONC SLAB OVER 3" OF CRUSHED GRAVEL. REINF W/ 6x6-W2.9XW2.9 WWF IN UPPER 1/3 OF SLAB. PROVIDE VAPOR BARRIER BELOW SLAB PER THE GENERAL NOTES.
- SLOPE SLAB TO DRAIN @ 1/8" PER FT MIN
- SLOT DRAIN AS REQD.
- RAMP UP AS REQD. ASSUME EXTERIOR PAVEMENT ELEVATION = 99'-6".
- TRANSITION FROM FLAT SLAB TO SLOPING SLAB TO DRAIN. COORD WITH EXTENTS OF OFFICE SPACES
- #6 HAIR-PIN SLAB REINF. RE: SECTIONS FOR ADDNL INFO AND D2/S200 FOR DIMENSIONS
- SLAB CONTROL JOINTS AT ALL GRID LINES AND AT LOCATIONS DENOTED.
- 11 7/8" I-JOISTS @ 16" O.C. (TJI 210 IS BASIS OF DESIGN). MAY SUBSTITUTE COLD FORMED STEEL JOISTS AT CONTRACTOR'S OPTION (CONTACT ENGINEER).
- GYP BOARD SHEAR WALL. TYPICAL FASTENING AND LAYOUT MAY BE USED.
- 2X4 STUD (MIN) BEARING WALL. PLATE HEIGHT = 10'-0" OR LESS. SEE S201 FOR ADDITIONAL REQUIREMENTS. PROVIDE HEADERS OVER ALL DOORS AND OPENINGS PER TYPICAL DETAILS. MAY SUBSTITUTE COLD FORMED STEEL STUDS AT CONTRACTOR'S OPTION (CONTACT ENGINEER).
- 16" WIDE BY 12" DEEP THICKENED SLAB BENEATH BEARING WALLS. REINFORCE W/2" CONT #4 BARS BOT. CAST MONOLITHICALLY WITH SLAB ON GRADE AND RUN SLAB REINF CONT THROUGH THICKENED SLAB.



6/26/2020

PROJECT INFORMATION:

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/14/2020

AIRPLANE HANGER
2751 NE DOUGLAS RD
LEE'S SUMMIT, MO 64064

REVISIONS

DATE	DESCRIPTION
01/28/2020	1 REV 1
06/26/2020	2 REV 2

CLIENT: BILL BARNARD

JOB NO.: 19492
DESIGN BY: PWS
DRAWN BY: PWS

DATE: 01/28/2020

SHEET NAME: STRUCTURAL PLAN AND GENERAL NOTES

SHEET #:

S100

FOUNDATION PLAN

1/8" = 1'-0"

WOOD:

1. FRAMING MATERIAL:
A. NOMINAL STRUCTURAL LUMBER -- NO. 1 / NO.2 OR BETTER, S-DRY SPF, MIN Fb = 875 PSI, MIN E = 1400 KSI.
B. EXPOSED NOMINAL STRUCT LUMBER -- PRESS TREATED NO.2 OR BETTER, MIN Fb = 1000 PSI, MIN E = 1300 KSI.
C. MICROLAM LVL (LAMINATED VENEER LUMBER) BEAMS SHALL MEET TRUS JOIST SPECIFICATIONS: MINIMUM Fb = 2600 PSI AND MINIMUM E = 1900 KSI.
D. TIMBERSTRAND LSL (LAMINATED STRAND LUMBER) BEAMS SHALL MEET TRUS JOIST SPECIFICATIONS: MINIMUM Fb = 2600 PSI AND MINIMUM E = 1700 KSI.
E. GLULAM FRAMING: 24F-V4 DOUGLAS FIR, ARCHITECTURAL FINISH (COORDINATE WITH ARCH).

2. SUBSTITUTIONS OF SPECIFIED WOOD MEMBERS SHALL NOT BE MADE WITHOUT REVIEW OF THE ARCHITECT/ENGINEER.

3. WOOD SHEATHING:
A. ROOF SHEATHING SHALL BE 15/32" OR 1/2" APA RATED SHEATHING 40/20, EXPOSURE 1, MINIMUM 2 SPAN, FASTEN WITH 10d COMMON NAILS AT 6" CENTERS AT ALL PANEL EDGES AND 12" CENTERS MAXIMUM AT INTERMEDIATE FRAMING MEMBERS (IN THE FIELD). USE PLYCLIPS AT MIDSPAN.
B. WOOD FLOOR DECKING -- 3/4" APA RATED TOUNGE AND GROOVE SHEATHING, 48" SPAN RATING, EXPOSURE 1, MINIMUM 2 SPAN, FASTEN WITH APA APPROVED ADHESIVE AND 10d RING SHANKED NAILS AT 6" ON CENTERS AT ALL PANEL EDGES AND AT 10" ON CENTERS MAXIMUM AT INTERMEDIATE FRAMING MEMBERS (IN THE FIELD).
C. ALL EXTERIOR WOOD WALL SHEATHING EXCEPT WHERE NOTED SHALL BE APA RATED 7/16" SHEATHING. ALL PANEL EDGES SHALL BE BACKED WITH 2 INCH NOMINAL OR WIDER FRAMING. FASTEN WITH 8d COMMON NAILS AT 6" O.C. MAXIMUM AT ALL TOP PLATES, BLOCKING, BOUNDARIES AND 10" O.C. MAXIMUM IN THE FIELD.

4. ALL WOOD SHEATHING TO BE STAGGERED 4'X8' SHEETS. ORIENTED PERPENDICULAR TO SUPPORTING MEMBERS.

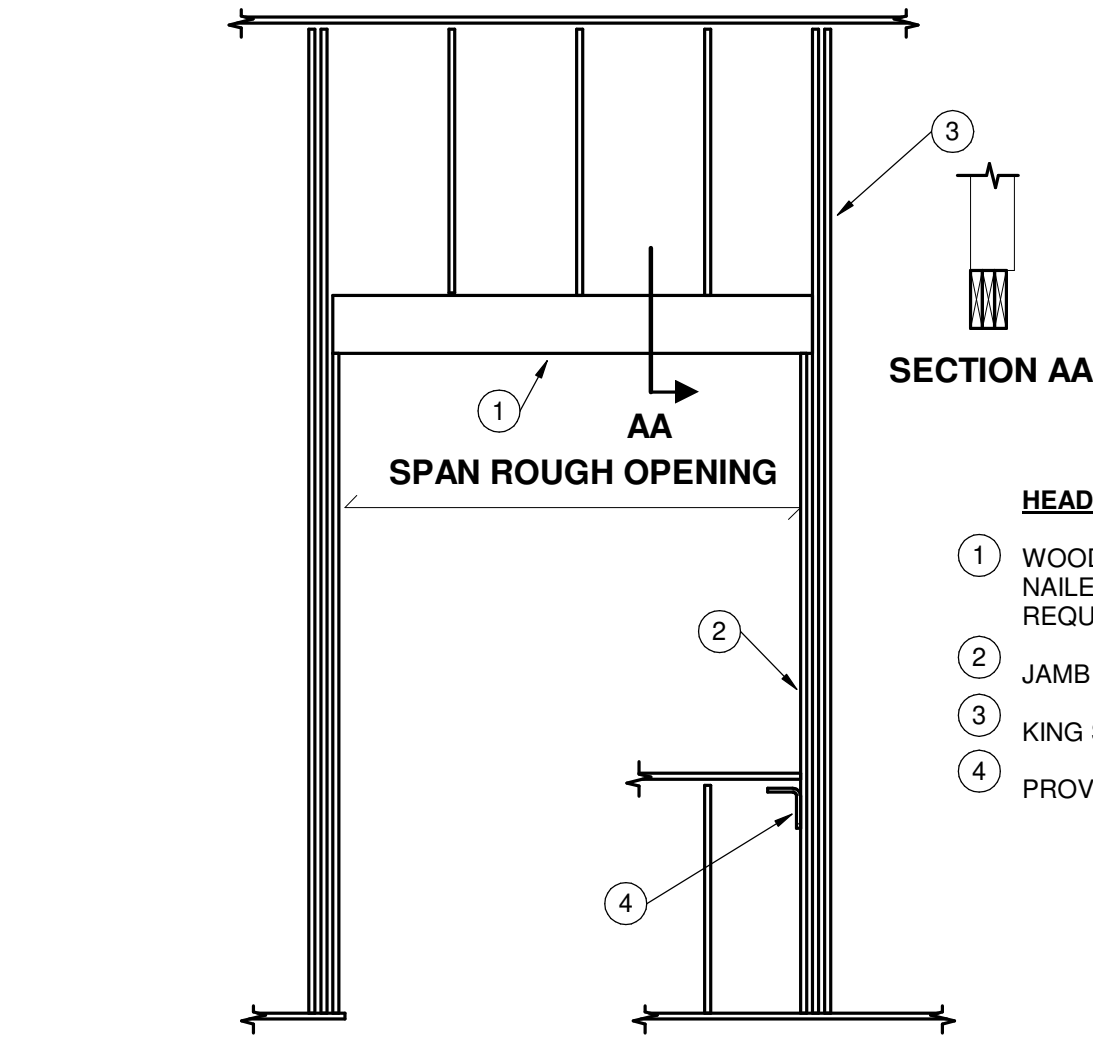
5. PROVIDE 1/8" GAP AT ALL SHEATHING PANEL EDGES AND END JOINTS UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. DUE TO CONSTRUCTION CONDITIONS, TEMPORARY EXPANSION JOINTS MAY BE REQUIRED IN FLOOR/ROOF SHEATHING.

6. ALL HEADERS IN EXTERIOR OR INTERIOR BEARING WALLS SPANNING MORE THAN 3'-8" SHALL BE SUPPORTED ON DOUBLE STUDS UNLESS NOTED.

7. MINIMUM NAILING SHALL CONFORM TO IRC TABLE R602.3 (1). USE COMMON NAILS EXCEPT WHERE NOTED. ALL FASTENERS (BOLTS, SCREWS, NAILS, ETC) IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED.

8. LIGHT GAGE WOOD FRAMING CONNECTORS AS NOTED ON THE PLANS FOR WOOD JOISTS, COLUMNS, BEAMS AND TRUSSES SHALL BE "STRONG - TIE" CONNECTORS BY THE SIMPSON CO. OR REVIEWED EQUIVALENT. CONNECTORS IN DIRECT CONTACT WITH PRESSURE TREATED LUMBER SHALL HAVE "ZMAX" G185 HOT DIP GALVANIZED COATING OR REVIEWED EQUIVALENT.

9. STAINLESS STEEL FASTENERS, ANCHOR BOLTS, LIGHT GAGE CONNECTORS, ETC. MAY BE SUBSTITUTED FOR HOT DIP GALVANIZED MATERIALS AT THE CONTRACTORS OPTION.



WOOD HEADER SCHEDULE			
MARK	MEMBERS	MAX SPAN	JAMB MEMBERS
H206	(2) 2X6	4'-0"	2X4 - 1 KING, 1 TRIMMER
H208	(2) 2X8	5'-0"	2X4 - 1 KING, 1 TRIMMER
H210	(2) 2X10	6'-0"	2X4 - 2 KING, 1 TRIMMER
H212	(2) 2X12	7'-3"	2X4 - 2 KING, 2 TRIMMER
HLVL	(2) 1.75"x11.875" LVL	10'	2X4 - 3 KING, 2 TRIMMER

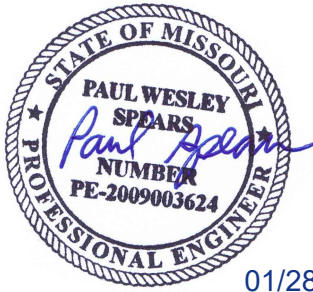
HEADER DETAIL NOTES:

- 1 WOOD HEADER PER SCHEDULE. ALL HEADERS SHALL BE GLUED AND NAILED TOGETHER AT 16" O.C. MAX. PROVIDE PLYWOOD FILLER AS REQUIRED TO MATCH STUD THICKNESS.
2 JAMB STUDS PER SCHEDULE
3 KING STUDS PER SCHEDULE
4 PROVIDE STUD UNDER SILL END OR SIMPSON A35 CLIP ANGLE.

1 WD-113 HEADER
1/2" = 1'-0"

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Engineering Inc

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(913) 234-9115
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REVISIONS

DATE	Δ	DESCRIPTION
01/28/2020	1	REV 1

CLIENT:	BILL BARNARD
JOB NO. :	19492
DESIGN BY :	Designer
DRAWN BY :	Author
DATE:	01/28/2020
SHEET NAME:	WOOD FRAMING GENERAL NOTES AND DETAILS

SHEET #:

S201

MULTIPLIERS:
ALL EMBEDMENT AND LAP SPLICE LENGTHS SHALL BE INCREASED AS REQD BY THE MULIPLIERS BELOW.
APPLY MULTIPLE MULTIPLIERS IF APPLICABLE.
1.3 -- IF CONC CONTAINS LIGHT WEIGHT AGGREGATES
1.3 -- IF EPOXY COATED REBAR USED




D1 ST-001a - TYP ANCHOR ROD
1" = 1'-0"



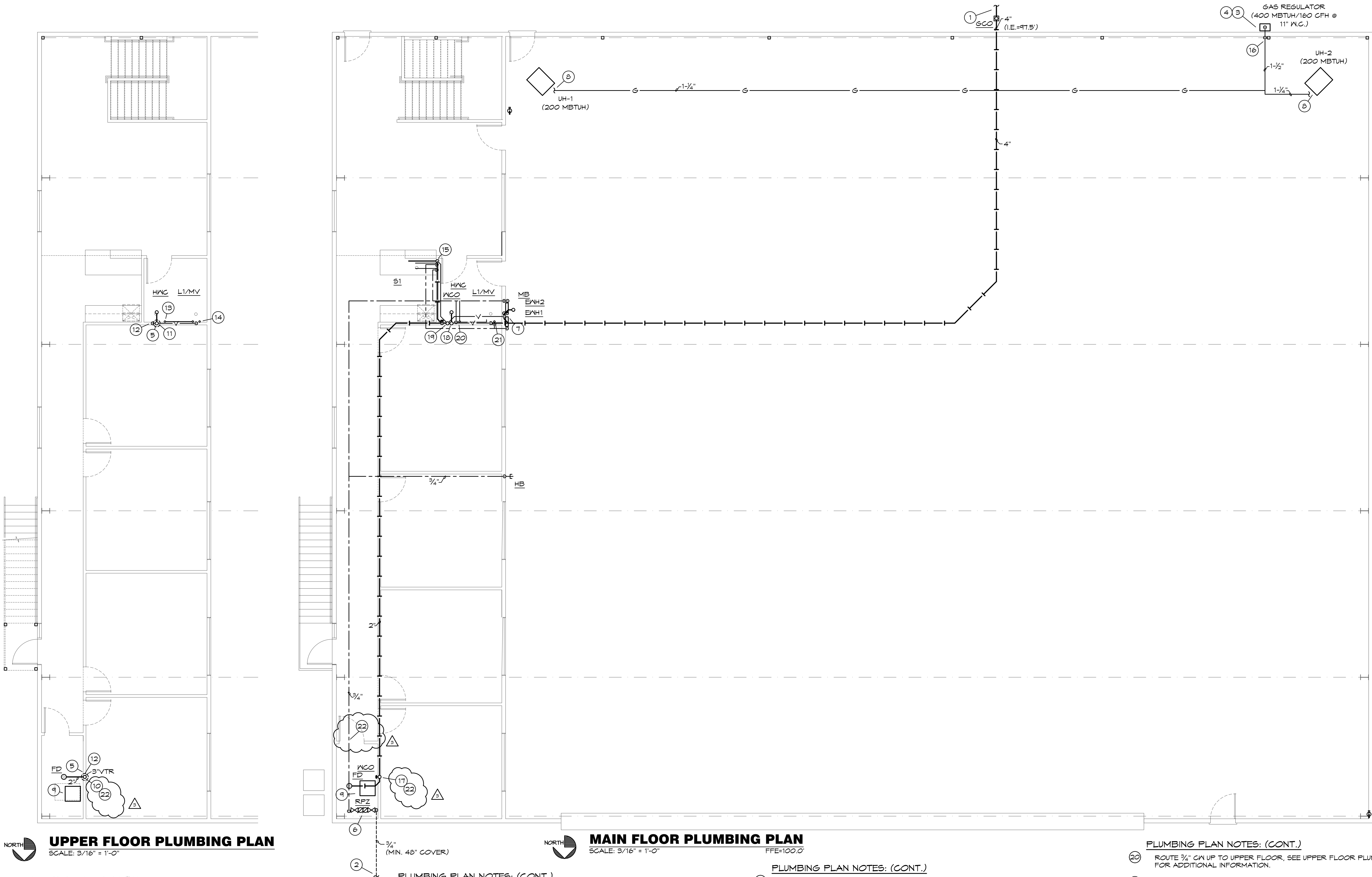
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REVISIONS		
DATE		DESCRIPTION
01/28/2020	1	REV 1
CLIENT: BILL BARNARD		
JOB NO. : 19492		
DESIGN BY : EJS		
DRAWN BY : EJS		
DATE: 01/28/2020		
SHEET NAME: STRUCTURAL DETAILS		
SHEET #:		

S200



UPPER FLOOR PLUMBING PLAN

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

PLUMBING PLAN NOTES:

- EXTEND AND CONNECT 4" WASTE TO SEPTIC TANK AND FIELD AS REQUIRED, COORDINATE WITH GC FOR EXACT LOCATION.
- EXTEND AND CONNECT 3/4" CW TO EXISTING WATER MAIN AS REQUIRED. VERIFY EXACT LOCATION PRIOR TO INSTALLATION OF ANY PIPING. MAINTAIN MINIMUM 48" COVER
- COORDINATE PROPANE GAS REGULATOR FOR TOTAL CAPACITY OF 400 MBTUH (160 CFH) AT 11" W.C.
- COORDINATE LOCATION AND SIZE OF PROPANE TANK WITH CIVIL/OWNER/ARCH. CODE DICTATES THAT LARGEST ALLOWABLE SIZE OF TANK IS TO BE 2,000 GALLONS WITH A 25' CLEARANCE FROM "ALL BUILDINGS, PUBLIC WAYS, OR LOT LINES OF ADJOINING PROPERTY THAT CAN BE BUILT UPON". IF THE TANK SIZE IS REDUCED TO 1,200 GALLONS, THAT CLEARANCE REQUIREMENT DROPS TO 10'.
- LOCATION OF 3" VTR. VERIFY 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES. SEAL PENETRATION WEATHTIGHT.



MAIN FLOOR PLUMBING PLAN

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

FFE=100.0'

PLUMBING PLAN NOTES: (CONT.)

- ROUTE 3/4" CW UP FROM BELOW FLOOR AND CONNECT TO RPZ AS REQUIRED. ROUTE DRAIN FROM RPZ TO FLOOR DRAIN AND DISCHARGE WITH AIR GAP AS REQUIRED.
- SECURE (2) TANKLESS WATER HEATERS ON WALL ABOVE MOP BASIN AS PER MANUFACTURER RECOMMENDATIONS. CONNECT CW AND HW PIPING AS REQUIRED BY MANUFACTURER. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- CONNECT GAS TO EQUIPMENT AS REQUIRED AND AS DETAILED.
- ROUTE CONDENSATE FROM AIR HANDLER TO FLOOR DRAIN AND DISCHARGE WITH AIR GAP AS REQUIRED.
- ROUTE 2" WASTE DOWN. SEE MAIN FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.
- ROUTE 3" WASTE DOWN. SEE MAIN FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.
- 2" VENT UP FROM MAIN FLOOR, SEE MAIN FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.

PLUMBING PLAN NOTES: (CONT.)

- ROUTE 3/4" CW UP FROM MAIN FLOOR, SEE MAIN FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.
- ROUTE 1/2" HW UP FROM MAIN FLOOR, SEE MAIN FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.
- ROUTE 1/2" CW, 1/2" HW, 1-1/2" WASTE AND 1-1/2" VENT IN WALL TO BELOW CASEWORK, EXTEND AND CONNECT TO SINK AS REQUIRED.
- ROUTE PIPING IN WALL. ALL CONCEALED JOINTS TO BE WELDED, OR APPROVED FOR CONCEALED INSTALLATION.
- 2" WASTE FROM FLOOR ABOVE, SEE UPPER FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.
- 3" WASTE FROM ABOVE, PROVIDE CLEANOUT AT BASE OF RISER. SEE UPPER FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.
- ROUTE 2" VENT UP TO FLOOR ABOVE, SEE UPPER FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.

PLUMBING PLAN NOTES: (CONT.)

- ROUTE 3/4" CW UP TO UPPER FLOOR, SEE UPPER FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.
- ROUTE 1/2" HW UP TO UPPER FLOOR, SEE UPPER FLOOR PLUMBING PLAN FOR ADDITIONAL INFORMATION.
- FIRE CAULK WALL PENETRATION WITH LISTED APPROVED ASSEMBLY TO MEET UL REQUIREMENTS OF CONSTRUCTION ASSEMBLY.

BC PROJECT #: 20388
MISSOURI PE COA #2009003629

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Residential AutoCAD Drafting
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No.	Description	Date
1	City Comments	6/18/20

CONSTRUCTION
DOCUMENTS

Project Number 2019.03

Date 2020 MAY 14

Drawn By SP/BH

Checked By EK/DS

P-101

Scale 3/16" = 1'-0"

PLUMBING GENERAL NOTES:

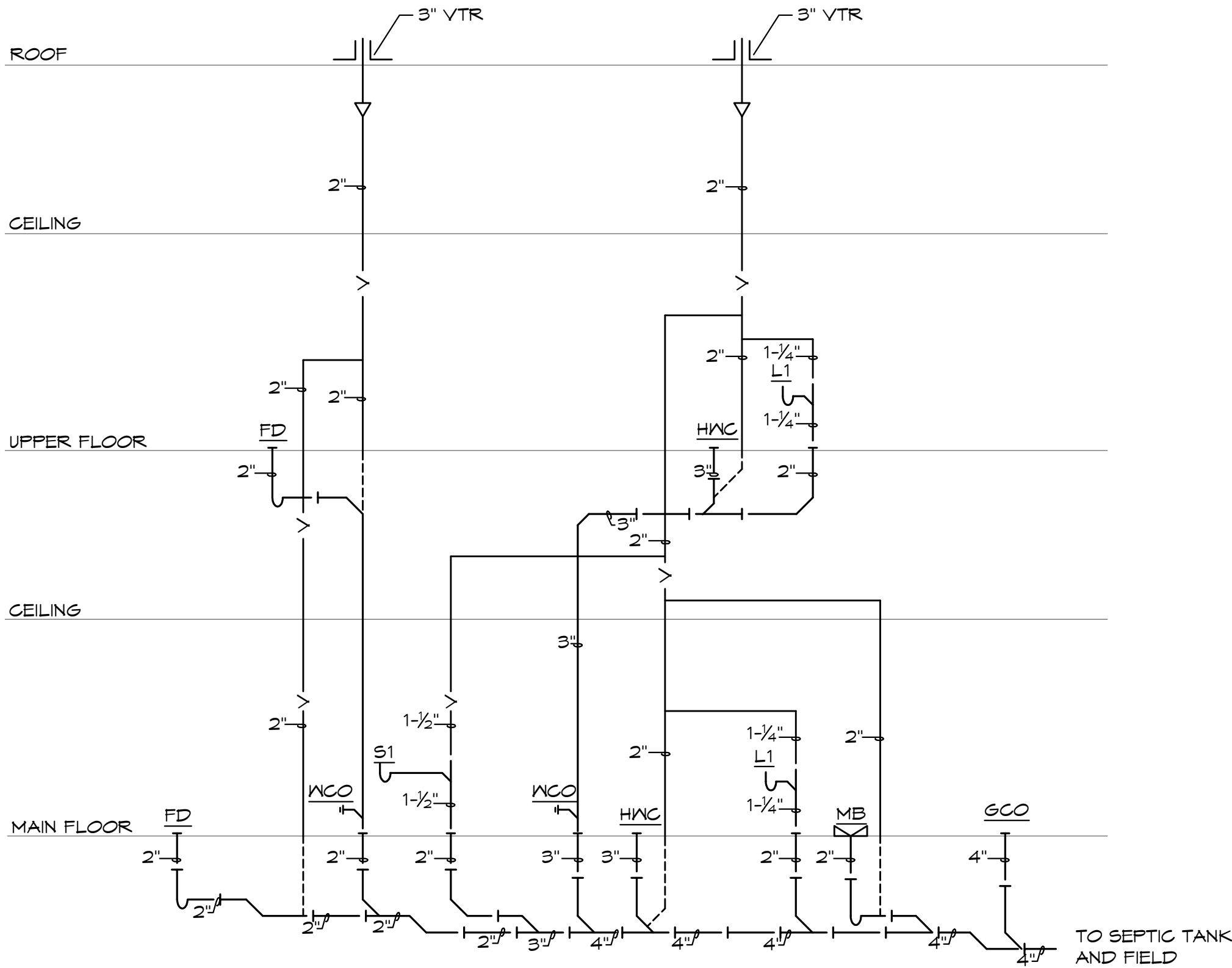
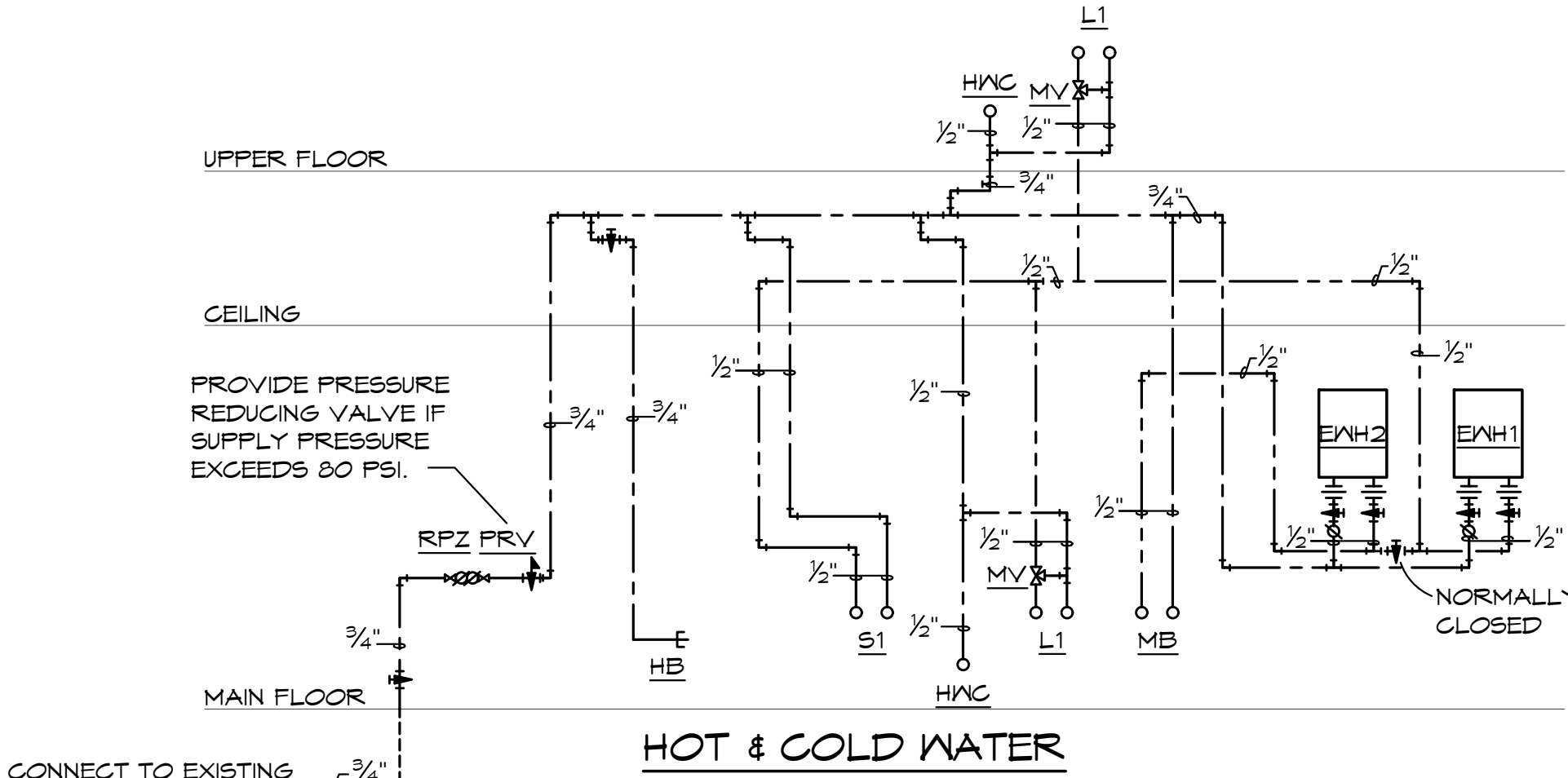
1. INSTALL ALL PIPE, ETC. AS HIGH AS POSSIBLE.
2. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF FIXTURES.
4. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING PIPING, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.
5. NO PIPING SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
6. CONTRACTOR TO TEST WATER PRESSURE ON SITE AND PROVIDE PRESSURE REDUCING VALVE ON WATER SERVICE IF PRESSURE IS OVER 80 PSI.

PEX PIPING REQUIREMENTS

PIPE SIZES GIVEN ON THE DRAWINGS ARE NOMINAL COPPER PIPE SIZE. IF PEX PIPING IS USED, INCREASE PEX PIPING ONE SIZE ABOVE LISTED SIZES AS REQUIRED TO EQUAL OR EXCEED COPPER PIPE INSIDE DIAMETER.

PLUMBING SYMBOLS

— — —	SOIL AND WASTE PIPING BELOW FLOOR/GRADE
— — —	SOIL AND WASTE PIPING ABOVE FLOOR/GRADE
— —V— —	SANITARY VENT PIPING ABOVE GRADE
— —V— —	SANITARY VENT PIPING BELOW GRADE
— — — —	DOMESTIC COLD WATER PIPING
— — — —	DOMESTIC HOT WATER PIPING
— — — —	DOMESTIC HOT WATER RECIRCULATION PIPING
— —G— —	PROPANE GAS PIPING
— —D— —	EQUIPMENT DRAIN LINE
— — — —	PIPING TURNING DOWN
— — — —	PIPING TURNING UP
— — — —	TEE TOP CONNECTION
— — — —	UNION
— — — —	BACKFLOW PREVENTER
FD	FLOOR DRAIN
FCO	FLOOR CLEAN OUT
WCO	WALL CLEAN OUT
GCO	GRADE CLEAN OUT
— — — —	VALVE
— — — —	BALANCING VALVE
— — — —	SOLENOID VALVE
— — — —	PRESSURE REGULATOR
— — — —	CHECK VALVE
— — — —	CONNECT TO EXISTING
I.E.	INVERT ELEVATION OF PIPE
(A)	MATCH MARKS ON PLUMBING RISER DIAGRAM



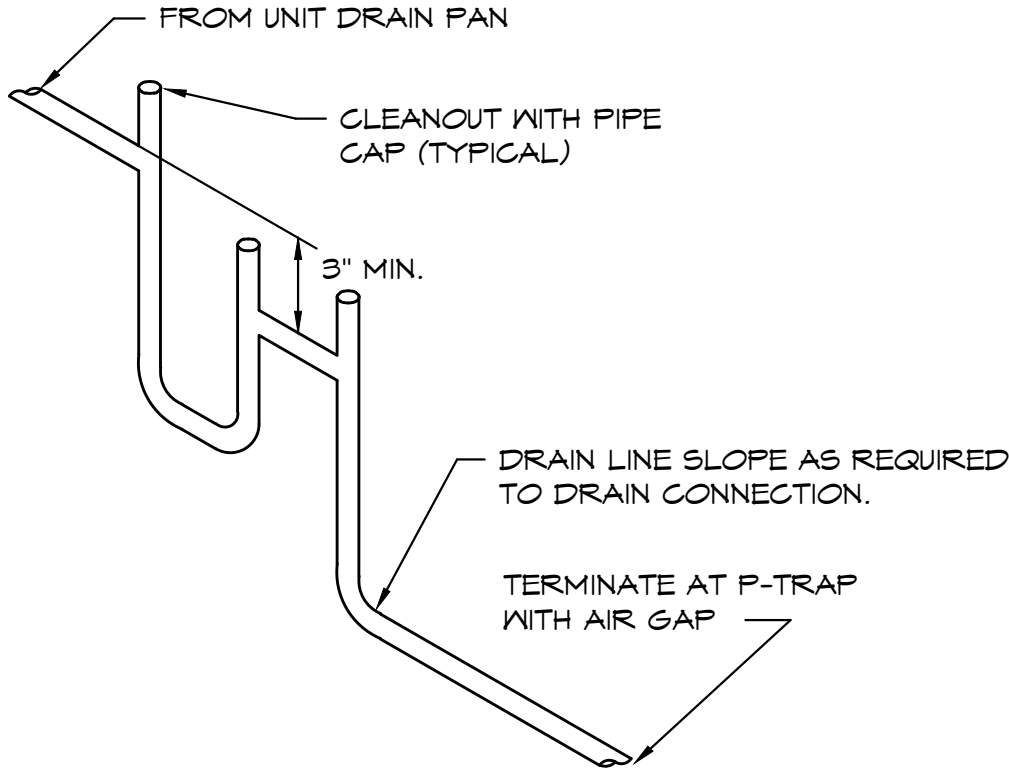
PLUMBING RISER DIAGRAMS

PLUMBING FIXTURE BRANCH PIPING SCHEDULE				
FIXTURE	WASTE	VENT	CN	HW
WATER CLOSET (TANK TYPE)	3"	2"	1/2"	--
LAVATORY	1-1/4"	1-1/4"	1/2"	1/2"
SINK	1-1/2"	1-1/2"	1/2"	1/2"
FLOOR DRAIN	2"	2"	--	--
MOP BASIN	2"	2"	1/2"	1/2"

NOTE: INDIVIDUAL VENTS FOR FIXTURES ON PLANS AND RISER DIAGRAMS HAVE BEEN INCREASED WHERE HORIZONTAL VENT LENGTH IS IN EXCESS OF THE MAXIMUM DISTANCE INDICATED BY THE CODE.

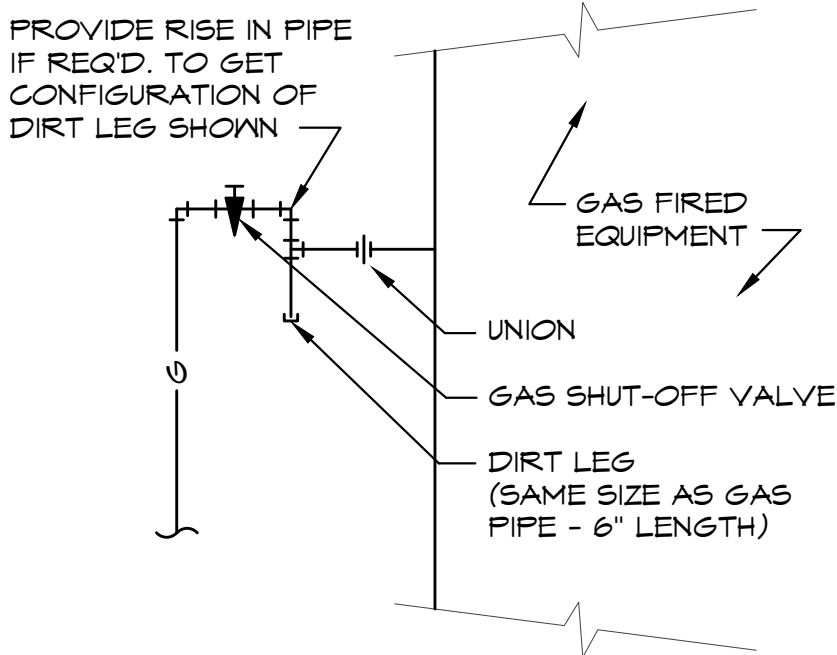
PLUMBING FIXTURE SCHEDULE: (OR EQUAL)

- HWC** HANDICAP WATER CLOSET: AMERICAN STANDARD, 1.6 GALLON FLUSH, 16-1/2" HIGH ELONGATED BOWL, FLOOR MOUNTED, FLOOR OUTLET, TANK TYPE, VITREOUS CHINA, SIPHON-JET ACTION, OPEN FRONT SEAT WITH CHECK HINGE AND LESS COVER, CHROME PLATED ANGLE STOP AND RISER, HANDLE ON WIDE SIDE OF FIXTURE.
- L1** HANDICAP LAVATORY, WALL HUNG: AMERICAN STANDARD, 20"x 18", VITREOUS CHINA, FRONT OVERFLOW, FAUCET WITH SINGLE METAL LEVER HANDLE, 0.5 GPM AERATOR, OFFSET GRID ELBOW DRAIN AND 1-1/4" TAILPIECE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT (MOUNTED PARALLEL WITH WALL), CHROME PLATED ANGLE STOPS AND RISERS, INSULATE EXPOSED DRAIN, WATER SUPPLIES, AND VALVES WITH PROWRAP SEAMLESS MOLDED CLOSED CELL VINYL INSULATION.
- S1** SINK: ELKAY, #LRAD-2222, 19"x18"x 6-1/2" DEEP BOWL, 21-3/8"x 21-3/8" CUT-OUT, ADA COMPLIANT, SINGLE COMPARTMENT, SELF-RIMMING STAINLESS STEEL SINK WITH SATIN FINISH AND SOUND DAMPENING UNDERCOATING, #LK-1000CR FAUCET, SINK SPOUT, 1.0 GPM AERATOR, SINGLE LEVER HANDLE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED ANGLE STOPS AND RISERS, IN-SINK-ERATOR #BADGER 5 DISPOSAL, 1/2 HP, 120 VOLT.
- MB** MOP BASIN: FIAT, #MSB-2424, MOLDED STONE MOP BASIN, 2" DRAIN, 24"x 24" BASIN, VINYL BUMPER GUARD, STERN WILLIAMS #T-10-VB FAUCET, SPRING CHECKS, VACUUM BREAKER, INTEGRAL STOPS, WALL BRACE & PAIL HOOK, WALL BRACKET WITH 30" HOSE.
- HB** HOSE BIBB: WOODFORD, #24, 3/4" HOSE NOZZLE OUTLET, BRASS FINISH, HANDWHEEL OPERATED, INTEGRAL VACUUM BREAKER.
- FD** FLOOR DRAIN: JR SMITH, #2005-A, CAST IRON FLOOR DRAIN WITH ADJUSTABLE TOP, 6" NIKALLOY STRAINER. PROVIDE WITH #2692 QUAD CLOSE TRAP SEAL DEVICE.
- EWH1** ELECTRIC TANKLESS HOT WATER HEATER: EEMAX #HA018240, 240 VOLT, 18.0 KW.
- EWH2** ELECTRIC TANKLESS HOT WATER HEATER: EEMAX #HA018240, 240 VOLT, 18.0 KW.
- MV** MIXING VALVE: WATTS, #LFUSG-B, THERMOSTATIC CONTROLLED MIXING VALVE, LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT CAP (VANDAL RESISTANT), COPPER ENCAPSULATED THERMOSTAT ASSEMBLY WITH BRASS SHUTTLE, STAINLESSSTEEL SPRINGS, INTEGRAL CHECK VALVES ON HOT AND COLD INLETS. (SET TO 110°F). ASSE 1010 LISTED.
- RPZ** REDUCED ZONE PRESSURE BACKFLOW PREVENTOR: WATTS #LF009, LEAD FREE BRONZE BODY CONSTRUCTION, TWO, IN-LINE INDEPENDENT CHECK VALVES, REPLACEABLE CHECK SEATS WITH AN INTERMEDIATE RELIEF VALVE, AND BALL VALVE TEST COCKS.
- FCO/WCO** VINYL TILE FLOOR: JR SMITH #4140, OR EQUAL.
QUARRY TILE FLOOR: JR SMITH #4200, OR EQUAL.
CARPETED FLOOR: JR SMITH #4020-Y, OR EQUAL.
UNFINISHED FLOOR: JR SMITH #4020, OR EQUAL.
WALL: JR SMITH #4412, OR EQUAL, 24" ABOVE THE FLOOR.



CONDENSATE DRAIN DETAIL

SCALE: NONE



GAS CONNECTION DETAIL

SCALE: NONE

BC PROJECT #: 20388
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No.	Description	Date
1	City Comments	6/18/20

CONSTRUCTION DOCUMENTS

Project Number 2019.03
Date 2020 MAY 14
Drawn By SP/BH
Checked By EK/DS

P-201

Scale 3/16" = 1'-0"



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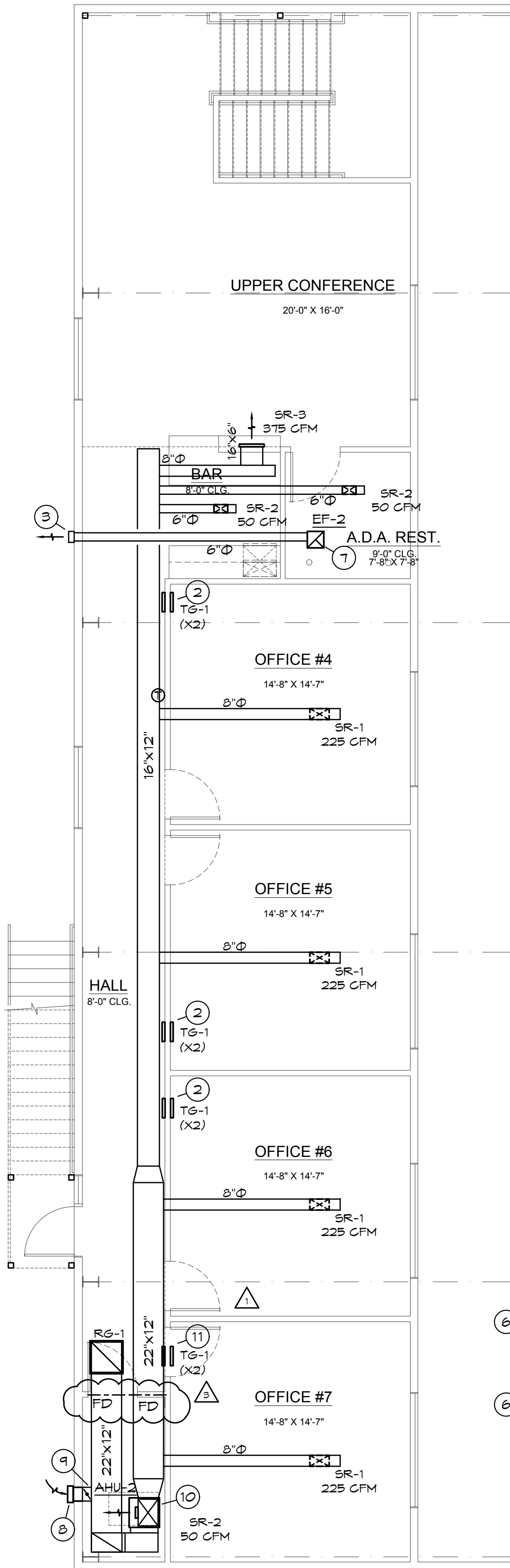
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M-101
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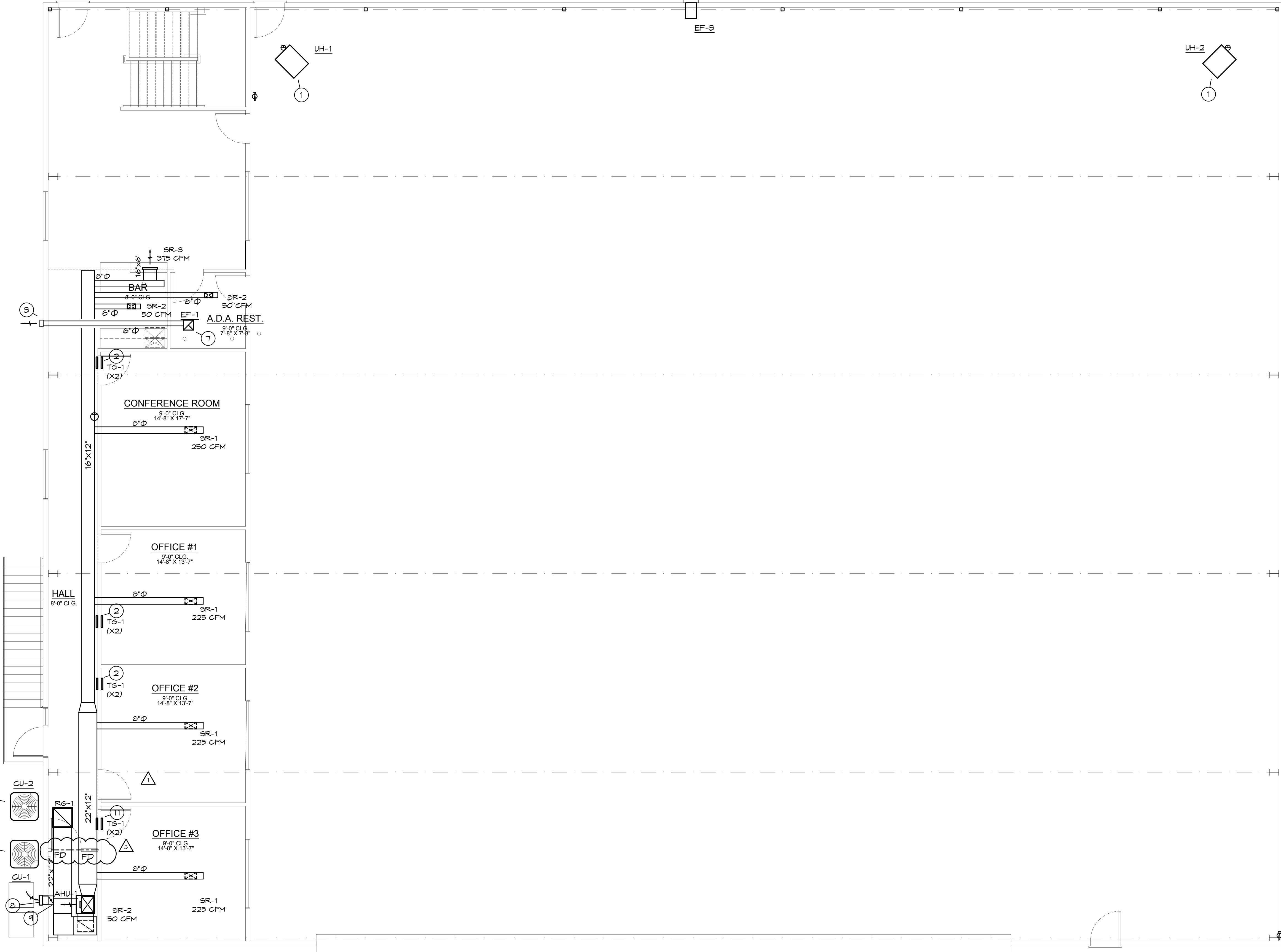
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UPPER FLOOR MECHANICAL PLAN
SCALE: 3/16" = 1'-0"

MECHANICAL PLAN NOTES:

- SUPPORT UNIT FROM STRUCTURE AS REQUIRED. ROUTE 6"Ø TYPE 'B' DOUBLE WALL FLUE UP THROUGH ROOF. PROVIDE ROOF THIMBLE, FLASHING, COUNTER FLASHING & WEATHERHEAD. LOCATE WEATHERHEAD 36" ABOVE EVERYTHING WITHIN 10'. VERIFY 10'-0" FROM ALL OUTDOOR AIR INTAKES. SEAL PENETRATION WEATHERTIGHT.
- HIGH/LOW RETURN AIR GRILLES - OFFICE SIDE GRILLE LOCATED AT 12" AFF. CENTRAL AREA SIDE LOCATED AT 8" AFF. TG-1, SEE DIFFUSER SCHEDULE.
- PROVIDE WALL VENT CAP WITH BACKDRAFT DAMPER FOR EXHAUST FAN. SEAL PENETRATIONS WEATHERTIGHT.
- REFRIGERANT PIPING THROUGH EXTERIOR WALL AT 18" ABOVE GRADE. SEAL WALL PENETRATION WEATHERTIGHT. ROUTE PIPE UP INSIDE WALL TO AS HIGH AS POSSIBLE AND ROUTE TO UNITS.
- CONNECT REFRIGERANT PIPING TO CONDENSING UNIT & COIL AS REQUIRED BY THE MANUFACTURER. PROVIDE AND INSTALL REFRIGERANT PIPING FOR CONDENSING UNIT AS REQUIRED BY MANUFACTURER.



MAIN FLOOR MECHANICAL PLAN
SCALE: 3/16" = 1'-0"

MECHANICAL PLAN NOTES:

- PROVIDE PREFABRICATED PAD FOR CONDENSING UNITS. NO SCREENING ALLOWED AROUND CONDENSING UNITS PER FAA REGULATIONS.
- SUPPORT FAN FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
- PROVIDE WALL VENT CAP FOR OUTDOOR INTAKE WITH BIRD SCREEN. SEAL PENETRATIONS WEATHERTIGHT.
- CONNECT 10"Ø OUTDOOR AIR DUCT WITH BALANCING DAMPER AND FLEX DUCT TO RETURN AIR DUCT. REFER TO OUTDOOR AIR CALCULATIONS FOR MINIMUM OUTDOOR AIR VOLUME.
- PROVIDE WATERPROOF GALVANIZED SHEET METAL DRAIN PAN UNDER AIR HANDLER WITH CONDENSATE FLOAT SWITCH TO DE-ENERGIZE UNIT IF DRAIN PAN FILLS WITH WATER.
- INSTALL TRANSFER AIR GRILLES, TG-1, ABOVE DOOR ON BOTH SIDES OF WALL.

HEAT PUMP CONDENSING UNIT SCHEDULE											
MARK	MFG'R	MODEL NO.	COOLING			ELECTRICAL			EVAP. COIL MODEL NO.	SEER	NOTES
			TOTAL BTUH	AMB.	EVAP. EAT DB/WB	VOLT/Ø/HZ	MIN. MCA (AMPS)	MIN. MOCF (AMPS)			
CU-1	LENNOX	ML-14XPI-042	42,000	95	80/67	240/1/60	24.2	40	AHU-1	14	1,2,3,4
CU-2	LENNOX	ML-14XPI-042	42,000	95	80/67	240/1/60	24.2	40	AHU-2	14	1,2,3,4

- NOTES: 1. PROVIDE TIME DELAY ON COMPRESSOR RE-START, CRANKCASE HEATER, AND COMPRESSOR LOCK-OUT WITH AMBIENT BELOW 35 °F. PROVIDE INDOOR COIL WITH THERMAL EXPANSION VALVE (TXV).
2. MECHANICAL CONTRACTOR SHALL COORDINATE ALL UNIT MOCF'S OF ACTUAL INSTALLED EQUIPMENT WITH ELECTRICAL CONTRACTOR.
3. PROVIDE CONCRETE OR PRE-MANUFACTURED POLYOLEFIN PAD FOR EACH UNIT. SCREENING OF UNIT NOT ALLOWED PER FAA REQUIREMENTS.
4. PROVIDE HAIL GUARDS FOR EACH UNIT.

AIR HANDLING UNIT SCHEDULE													
MARK	MFSR	MODEL NO.	CFM	E.S.P. IN. WG.	COOLING		HEATING (ELECTRIC) (RESISTANCE)		ELECTRICAL		OUTSIDE AIR (CFM)	NOTES	
					TOTAL BTUH	AMB.	EVAP. EAT DB/WB	KVA	STAGES	VOLT/Ø/HZ			HP
AHU-1	LENNOX	GBA25UH-042	1,400	0.5	42,000	95	80/67	15	2	240/1/60	1	305	1,2,3,4,5,7,8
AHU-2	LENNOX	GBA25UH-042	1,400	0.5	42,000	95	80/67	15	2	240/1/60	1	285	1,2,3,4,5,6,7,8

- NOTES: 1. PROVIDE 1" THICK THROWAWAY TYPE FILTER FOR EACH UNIT.
2. PROVIDE EACH UNIT WITH 7-DAY PROGRAMMABLE HEAT/COOL/AUTO CHANGEOVER THERMOSTAT.
3. CONDENSING UNITS, AND AIR HANDLING UNITS SHALL ALL BE OF THE SAME MANUFACTURER.
4. MECHANICAL CONTRACTOR SHALL COORDINATE ALL UNIT MOCF'S OF ACTUAL INSTALLED EQUIPMENT WITH ELECTRICAL CONTRACTOR.
5. EXTERNAL STATIC PRESSURE LISTED REPRESENTS STATIC PRESSURE REQUIRED FOR DUCTWORK AND DIFFUSERS OUTSIDE THE HVAC UNIT COMPLETELY INDEPENDENT OF ANY PRESSURE DROP THROUGH THE HVAC EQUIPMENT INCLUDING BUT NOT LIMITED TO FILTERS AND COILS.
6. PROVIDE GALVANIZED WATERTIGHT DRAIN PAN AND CONDENSATE FLOAT SWITCH TO DE-ENERGIZE THE AHU IF THE DRAIN PAN FILLS WITH WATER.
7. PROVIDE MANUFACTURER'S UNIT STAND FOR SIDE RETURN.
8. PROVIDE SINGLE-POINT POWER CONNECTION.

GAS FIRED UNIT HEATER SCHEDULE								
MARK	MFG'R	MODEL	CFM	HEATING (GAS)		ELECTRICAL		REMARKS
				BTUH INPUT	BTUH OUTPUT	VOLT/Φ/HZ	HP	
UH-1	LENNOX	LF-25-200A	2,650	200,000	166,000	120/1Φ/60	1/3	1,2,3
UH-2	LENNOX	LF-25-200A	2,650	200,000	166,000	120/1Φ/60	1/3	1,2,3

- NOTES: 1. PROVIDE EACH UNIT ELECTRONIC DIRECT SPARK IGNITION & ALUMINIZED STEEL HEAT EXCHANGER.
2. PROVIDE EACH UNIT WITH UNIT MOUNTED THERMOSTAT & CONTROL VOLTAGE TRANSFORMER.
3. PROVIDE WITH PROPANE CONVERSION KIT.

EXHAUST FAN SCHEDULE										
MARK	MFG'R	MODEL	CFM	EXTERNAL STATIC P. IN. WG.	RPM	ELECTRICAL		FAN TYPE	CONTROLS	NOTES
						VOLT/Ø/HZ	PAR			
EF-1	COOK	GC-12Ø	75	0.1	750	120/1/60	24 W	CEILING EXH.	SWITCH	1
EF-2	COOK	GC-12Ø	75	0.1	750	120/1/60	24 W	CEILING EXH.	SWITCH	1
EF-3	COOK	12A1TD	730	0.1	1725	120/1/60	1/4 HP	WALL PROP	SWITCH	2

- NOTES: 1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING), AND WALL CAP.
2. PROVIDE WALL SLEEVE, REAR GUARD HOUSING, BACKDRAFT DAMPER, WEATHER HOOD, BIRD SCREEN.

MECHANICAL GENERAL NOTES:

- COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
- THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE MECHANICAL SYSTEMS.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS.
- INSTALL ALL DUCT, PIPE, ETC. AS HIGH AS POSSIBLE.
- DUCT SIZES SHOWN ARE ACTUAL SHEET METAL SIZES AND INCLUDE AN ALLOWANCE FOR DUCT LINER WHERE APPLICABLE.
- PROVIDE FLEXIBLE CONNECTION BETWEEN DUCTWORK AND AIR HANDLING UNITS, EXHAUST FANS, AND OTHER MOTORIZED EQUIPMENT.
- NO DUCT SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
- ALL MECHANICAL SYSTEMS SHALL BE BALANCED BY A CERTIFIED BALANCING CONTRACTOR. REFER TO SPECIFICATIONS FOR DETAILS.

DIFFUSER SCHEDULE						
MARK	MFG'R	MODEL	NECK SIZE	FACE SIZE	FINISH	NOTES
SR-1	TITUS	300RS	12"x6"	-	WHITE	W/ O.B.D.
SR-2		300RS	8"x6"	-		W/ O.B.D.
SR-3		300RS	16"x6"	-		W/ O.B.D.
TG-1		350RL	14"x8"	-		-
RG-1		PAR/3	22"x22"	24"x24"		W/ TRM

MECHANICAL SYMBOLS

	NEW SUPPLY DIFFUSER
	NEW RETURN AIR GRILLE
	EXHAUST GRILLE/FAN
	THERMOSTAT, MOUNTED AT 48" AFF
	MOTORIZED DAMPER/LOUVER
	NEW DUCTWORK
	SIZE OF RECTANGULAR DUCT
	SIZE OF ROUND DUCT
	FLEXIBLE DUCTWORK
	FLEXIBLE CONNECTION TO FAN
	FLOOR PLAN NOTE DESIGNATION
	S.A. SUPPLY AIR
	R.A. RETURN AIR
	EXHAUST AIR
	TRANSITION IN DUCT SIZE
	ELBOW WITH TURNING VANES
	MANUAL VOLUME DAMPER
	MOTORIZED CONTROL DAMPER
	SPLITTER DAMPER WITH HORIZONTAL REGULATOR
	SUPPLY AIR DUCT UP/DOWN
	RETURN AIR DUCT UP/DOWN
	EXHAUST AIR DUCT UP/DOWN
	CHANGE IN ELEVATION UP (UP) DOWN (DN) IN DIRECTION OF FLOW
	SCHEDULED MECHANICAL EQUIPMENT
	FIRE DAMPER



Signature
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—KC, LLC—

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www.sb-kc.net

New Airplane Hangar

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/14/2020

OUTDOOR AIR CALCULATIONS									
UNIT	Area (sqft)	OCCUPANCY CLASSIFICATION	Occupant Density #/1000 sqft	People outdoor airflow rate in breathing zone, (Rp) cfm/person	Area outdoor airflow rate in breathing zone, (Ra) cfm/sqft	Exhaust airflow rate cfm/sqft	Breathing zone outdoor airflow (Vbz)	Zone air distribution effectiveness (Ez)	Zone outdoor airflow (cfm)
AHU-1		Offices							
	260	Conference rooms	50	5	0.06		31	0.8	101
	610	Office spaces	5	5	0.06		52	0.8	65
	420	Break Room	25	5	0.06		34	0.8	111
		Public spaces							
	350	Corridors	0	0	0.06		21	0.8	26
	60	Toilet rooms public	0	0	0	59%	0	0.8	0
Total									303
AHU-2		Offices							
	445	Conference rooms	50	5	0.06		133	0.8	172
	650	Office spaces	5	5	0.06		55	0.8	64
	60	Break Room	25	5	0.06		11	0.8	14
		Public spaces							
	350	Corridors	0	0	0.06		21	0.8	26
	60	Toilet rooms public	0	0	0	59%	0	0.8	0
Total									282
EF-3		Storage							
	4700	Warehouses	0	0	0.06		582	0.8	728
Total									728

BC PROJECT #: 20388
MISSOURI PE COA #2009003629
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Residential AutoCAD Drafting
and Design Services

No.	Description	Date
1	City Comments	6/18/20

CONSTRUCTION
DOCUMENTS

Project Number	2019.03
Date	2020 MAY 14
Drawn By	SP/BH
Checked By	EK/DS

M-201

Scale 3/16" = 1'-0"

RIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE
NED.

LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR
THE AUTHORITIES.

FORMED IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE
NED), AND ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE
OWNING JURISDICTION OVER THE SITE.

AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.

FIXTURES, EQUIPMENT, CONDUIT, ETC. SHALL BE COVERED, FLUSHED, OR
CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO
PLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL
ACCEPTANCE.

CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS
ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL
IS THE RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY

WARRANTY ALL WORK AND MATERIALS THAT EXIST FOR A PERIOD OF
CEPTANCE.

DE ACCESS PANELS WHERE NECESSARY FOR CONCEALED ELECTRICAL
WIRING.

MANUALS:

INSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING
LIBERATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS,
RANGED UNDER THIS CONTRACT.

ITEMS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION
IN THE MANUALS.

AND ALL PAPERS LISTED WARRANTED, ETC. SHALL BE COLLECTED
PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC.
MENTS SHALL BE COMPILED AND BOUND IN DIGITAL FILE OR 3 RING BINDER.

2. FUSES:

- A. FUSES PROTECTING CIRCUIT BREAKER PANELS SHALL BE CURRENT LIMITING UL CLASS RK-1 FUSES WITH 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE SILVER FOR RATINGS ABOVE 60 AMPERES.
- B. ALL OTHER FUSES SHALL BE UL CLASS RK-5, DUAL-ELEMENT WITH A MINIMUM TIME-DELAY OF 10 SECONDS RATING. FUSES SHALL HAVE CURRENT-LIMITING SHORT-CIRCUIT LINKS AND 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE COPPER.

3. LIGHT FIXTURES:

- A. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXTURE AND THE BUILDING STRUCTURE. SUPPORT WIRES SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED STEEL NIRE, SOFT ANNEALED.
- B. FIXTURES ARE REQUIRED AT ALL LIGHTING OUTLETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND FIXTURE RECEPTS. WEATHERPROOF WIRING IS REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.
- C. ALL FIXTURES SHALL CARRY UL AND ETL LABELS.

4. SLEEVES:

- A. PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK.
- B. INTERIOR PARTITIONS: 16 GAUGE GALVANIZED STEEL. PACK BETWEEN CONDUIT AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.
- C. ROOF: PROSECT OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WEATHERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.

5. GROUNDING:

- A. GROUND ALL ELECTRICAL APPARATUS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 250, AND ALL LOCAL REQUIREMENTS. INSURE CONTINUOUS BOND HERE FLEXIBLE CONDUIT IS USED. PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE CONDUIT.
- B. BOND METAL PIPING SYSTEMS IN COMPLIANCE WITH NEC 250.4(A)(4).
























6. BOXES IN FIRE RATED ASSEMBLIES:

- A. OUTLET BOXES THAT DO NOT EXCEED 16 SQUARE INCHES AND INSTALLED IN FIRE RATED WALLS SHALL NOT BE INSTALLED CLOSER THAN 24" HORIZONTAL INCHES TO OTHER OUTLET BOXES.
- B. IF BOXES MUST BE INSTALLED WITHIN 24" OF EACH OTHER THAN BOTH OUTLET BOXES SHALL BE PROTECTED WITH LISTED PUTTY PADS, 3M FIRE BARRIER MOLDABLE PUTTY + OR EQUAL.

MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LIGHT SOURCE	DESCRIPTION
A	8' LED FIXTURE	120 150	LED	8' LED FIXTURE IN HANGER. VERIFY MOUNTING WITH OWNER/ARCHITECT.
B	8' LED FIXTURE	120 150	LED	8' LED FIXTURE IN HANGER. VERIFY MOUNTING WITH OWNER/ARCHITECT.
C	WALL MOUNTED FIXTURE	120 50	LED	EXTERIOR RATED EXTERIOR FIXTURE. VERIFY LOCATION WITH OWNER/ARCHITECT.
D	WALL MOUNTED FIXTURE	120 25	LED	WALL MOUNTED FIXTURE FOR STORAGE UNDER STAIRS.
F	WALL MOUNTED FIXTURE	120 25	LED	WALL MOUNTED FIXTURE ABOVE VANITY MIRROR IN RESTROOM.
R	6" IC RATED LED CAN	120 20	LED	6" IC RATED LED CAN
WP	EXTERIOR WALL PACK	120 75	LED	EXTERIOR WALL PACK WITH INTEGRAL PHOTOCELL. VERIFY EXACT LOCATION WITH OWNER/ARCHITECT
EL	WALL MOUNTED EMERGENCY LIGHT	120 1	INCL	EMERGENCY LIGHT WITH TWIN ADJUSTABLE LED HEADS AND BATTERY, MOUNT AT T-6", TO CLEAR OBSTACLES.
EL	WALL MOUNTED COMBINATION EXIT/EMERGENCY LIGHT	120 3	INCL	COMBINATION EMERGENCY/EXIT LIGHT WITH LED LAMPS, RED LETTERS ON WHITE BACKGROUND, TWIN LED EMERGENCY LIGHT HEADS, UNIVERSAL MOUNT, BATTERY BACKUP
EL	WALL MOUNTED COMBINATION EXIT/EMERGENCY LIGHT AND REMOTE TWIN HEAD EMERGENCY LIGHT	120 5	INCL	COMBINATION EMERGENCY/EXIT LIGHT WITH LED LAMPS, RED LETTERS ON WHITE BACKGROUND, TWIN EMERGENCY LIGHT HEADS, UNIVERSAL MOUNT, HIGH CAPACITY BATTERY BACKUP AND REMOTE TWIN HEAD OUTDOOR RATED FIXTURE

1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.
3. ALL EXPOSED RACEWAYS SHALL BE EMT CONDUIT, MC CABLE IS NOT PERMITTED IN EXPOSED AREAS.
4. ELECTRICAL CONTRACTOR TO COORDINATE MANUFACTURER ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT BEING FURNISHED WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. EQUIPMENT DISCONNECTS TO BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE IN MECHANICAL SCHEDULES.
5. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF LIGHT FIXTURES AND DEVICES.
6. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING TRANSFORMERS, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.
7. ALL MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
8. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 210.4.
9. IF BRANCH CIRCUITS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 3% VOLTAGE DROP. ALL FEEDERS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 2% VOLTAGE DROP. ELECTRICAL CONTRACTOR SHALL VERIFY WIRING INDICATED IS SUFFICIENT AND INCREASE CONDUCTOR SIZE AS REQUIRED BASED OFF ACTUAL INSTALLED LENGTH OF CONDUCTORS.
10. REFER TO ELECTRICAL SCHEDULE OF WORK ON SHEET A102 FOR MORE INFORMATION.
11. ALL WIRING SHALL BE IN ACCORDANCE WITH 2017 NEC ARTICLE 513 FOR AIRCRAFT HANGARS.

CIRCUITING & NOTES

143°	SPECIAL MOUNTING HEIGHT FOR ASSOCIATED DEVICE (CENTERLINE OF DEVICE)
GFI	GROUND FAULT CIRCUIT INTERRUPTER DEVICE
WP	WEATHERPROOF ENCLOSURE ON DEVICE
WR	WEATHERPROOF RESISTANT DEVICE
	ELECTRICAL FLOOR PLAN NOTE WITH DESIGNATION
	CONDUIT CONCEALED WHERE POSSIBLE OR AS NOTED, ARROWS INDICATE HOME RUN TO PANEL. CIRCUIT NUMBERS INDICATED
	#12 WIRE IN CONDUIT, UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	GROUNDING CONDUCTOR, #12 WIRE UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	CONDUIT ROUTED UNDER FLOOR/GRADE
LIGHTING	
	EMERGENCY TWIN HEAD LIGHT FIXTURE
	EXIT LIGHT WITH DIRECTIONAL ARROWS INDICATED
	STRIP FIXTURE WITH TYPE DESIGNATION
	RECESSED OR SURFACE MOUNTED FIXTURE WITH TYPE DESIGNATION
	NIGHT LIGHT, CONNECT TO UNSWITCHED CIRCUIT
	CEILING OR RECESSED FIXTURE WITH TYPE DESIGNATION
	WALL MOUNTED FIXTURE WITH TYPE DESIGNATION
POWER DEVICES	
	DUPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	FOURPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	DEVICE MOUNTED ABOVE COUNTER AND/OR SPLASH GUARD
	HEAVY DUTY OUTLET - NEMA CONFIGURATION SIZE PER EQUIPMENT MANUFACTURER'S RECOMMENDATION
	PANEL BOARD, TOP OF BOX 6'-0" AFF
	JUNCTION BOX
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	MOTOR WITH DESIGNATION
CONTROLS	
S	SINGLE POLE WALL SWITCH, TOP OF BOX AT 48" AFF
S ₂	TWO POLE WALL SWITCH, TOP OF BOX AT 48" AFF
S ₃	THREE-WAY WALL SWITCH, TOP OF BOX AT 48" AFF
S ₄	FOUR-WAY WALL SWITCH, TOP OF BOX AT 48" AFF
S _m	MANUAL MOTOR STARTER WITH OVERLOADS
COMMUNICATIONS	
	DATA/TELEPHONE OUTLET WITH MINIMUM ¾" CONDUIT STUBBED UP TO ABOVE ACCESSIBLE CEILING, BOTTOM OF BOX AT 16", UNLESS NOTED OTHERWISE. PROVIDE WITH PULL STRING
MISCELLANEOUS	
	120V AUDIBLE BASE CEILING MOUNT SMOKE DETECTOR. WIRE TO CIRCUIT P-18 WITH #12AWG.

1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.
3. ALL EXPOSED RACEWAYS SHALL BE EMT CONDUIT, MC CABLE IS NOT PERMITTED IN EXPOSED AREAS.
4. ELECTRICAL CONTRACTOR TO COORDINATE MANUFACTURER ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT BEING FURNISHED WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. EQUIPMENT DISCONNECTS TO BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE IN MECHANICAL SCHEDULES.
5. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF LIGHT FIXTURES AND DEVICES.
6. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING TRANSFORMERS, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.
7. ALL MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
8. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 210.4.
9. IF BRANCH CIRCUITS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 3% VOLTAGE DROP. ALL FEEDERS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 2% VOLTAGE DROP. ELECTRICAL CONTRACTOR SHALL VERIFY WIRING INDICATED IS SUFFICIENT AND INCREASE CONDUCTOR SIZE AS REQUIRED BASED OFF ACTUAL INSTALLED LENGTH OF CONDUCTORS.
10. REFER TO ELECTRICAL SCHEDULE OF WORK ON SHEET A102 FOR MORE INFORMATION.
11. ALL WIRING SHALL BE IN ACCORDANCE WITH 2017 NEC ARTICLE 513 FOR AIRCRAFT HANGARS.

SCALE: NONE

6/18/2020

STATE OF MISSOURI
REGISTERED PROFESSIONAL
BRETT M. HERMANN
NUMBER
PE-2018035615
PROFESSIONAL ENGINEER

B. Hermann

Signature Builders
BUILDERS
KC, LLC

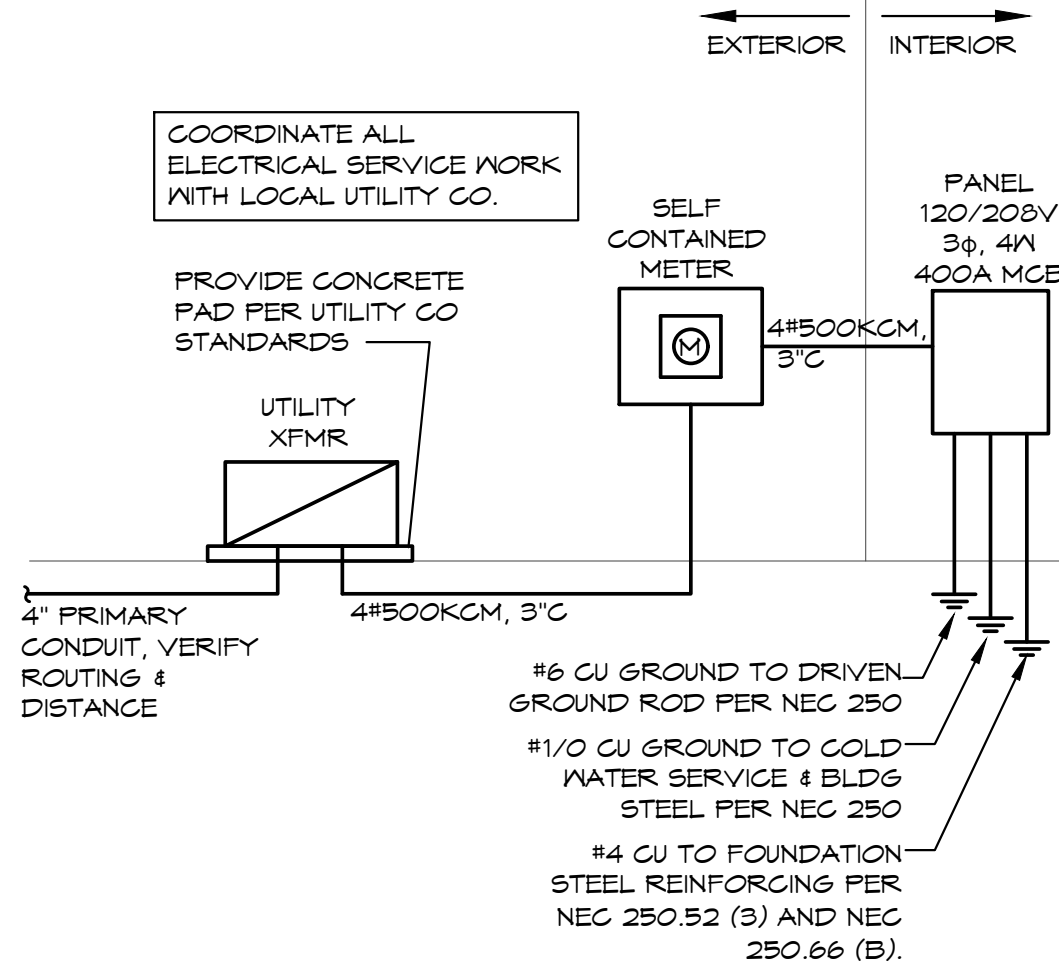
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New Airplane Hangar

**RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI**

08/14/2020

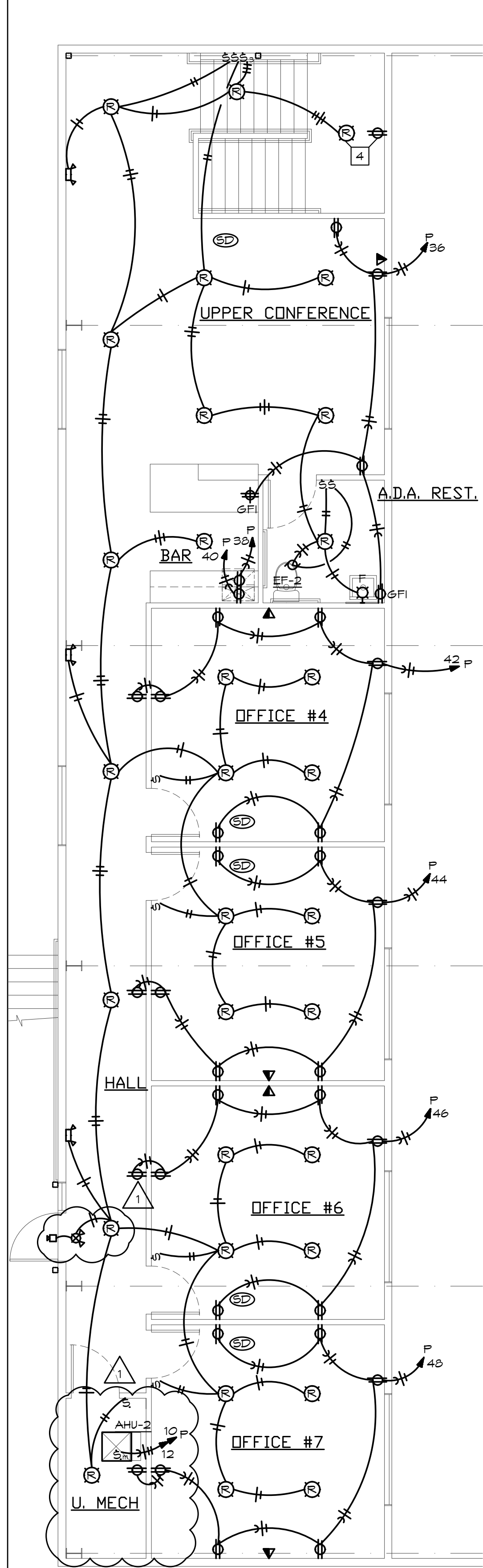


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Residential AutoCAD Drafting and Design Services

No.	Description	Date
1	City Comments	6/18/20
CONSTRUCTION DOCUMENTS		
Project Number		2019.03
Date		2020 MAY 14
Drawn By		SP/BH
Checked By		EK/DS
E-000		
Scale		3/16" = 1'-0"

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UPPER FLOOR ELECTRICAL PLAN
SCALE: 3/16" = 1'-0"

ELECTRICAL PLAN NOTES:

- 1 CONNECT EXTERIOR LIGHT TO CIRCUIT P-16 WITH #10AWG.
- 2 CONNECT TO OVERHEAD DOOR OPERATOR PER MANUFACTURERS INSTRUCTIONS. INSTALL COMPLETE. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
- 3 MAKE CONNECTION BETWEEN 3-WAY/4-WAY SWITCHES CONTROLLING HANGER LIGHTS AS INDICATED BY (a,b).
- 4 LIGHT FIXTURE AND RECEPTACLE SHOWN ON BOTH MAIN FLOOR AND UPPER FLOOR PLAN.



MAIN FLOOR ELECTRICAL PLAN
SCALE: 3/16" = 1'-0"

BC PROJECT #: 20388
MISSOURI PE COA #2009003629
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BC ENGINEERS
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6/18/2020
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New Airplane Hangar

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/14/2020

CAD Construction Documents
Voice / Text : 913.638.3241
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