NEW FIELDHOUSE FOR THE JUNIOR VARSITY

AT

CENTRAL HIGH SCOOL

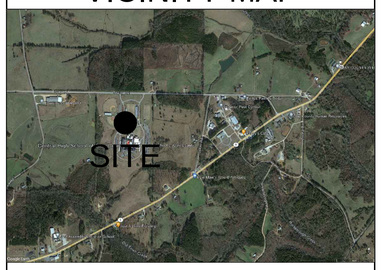
FOR THE

CLAY COUNTY BOARD of EDUCATION

LINEVILLE, ALABAMA

LOCATION MAP

VICINITY MAP



CONTACTS

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81774 Hwy 9
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Phone: (256) 396.1475

CIVIL
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PLUMBING and MECHANICAL
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ARCHITECTURAL
Mckee and Associates
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Montgomery, Alabama 36104
Phone: (334) 834.9933

STRUCTURAL
Blackburn, Daniels, O'barr Consulting Structural Engineers
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Lowndesboro, Alabama 36752
Phone: (334) 265.0206

ELECTRICAL
Gunn and Associates
3102 Highway 14
Millbrook, AL 36054
Phone: (334) 285.1273

INDEX TO DRAWINGS

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
AT
CENTRAL HIGH SCHOOL
FOR THE
CLAY COUNTY BOARD OF EDUCATION
LINEVILLE, ALABAMA

McKEE and ASSOCIATES
ARCHITECTS, INC.
631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933

STATE OF ALABAMA
WALTER T. MCKEE, JR.
No. 10262
MONTGOMERY, ALA.
REGISTERED ARCHITECT

SHEET TITLE : COVER SHEET AND INDEX TO DRAWINGS

MCKEE JOB # : 22-304

DRAWN BY : GAC

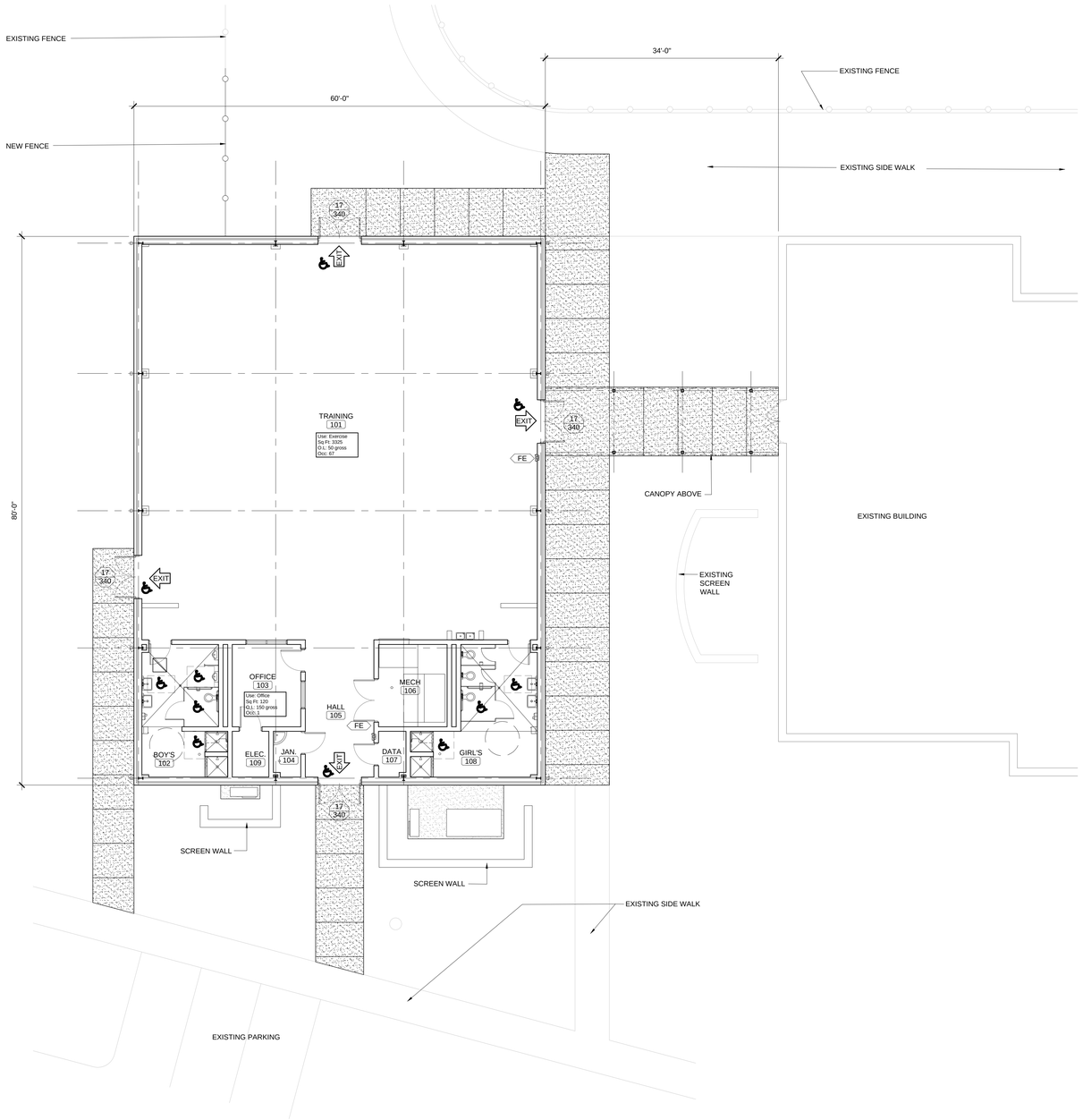
DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : G0.1



CODE PLAN
SCALE: 1/8" = 1'-0"

NOTICE
FOR YOUR SAFETY
THIS IS AN
EDUCATIONAL
OCCUPANCY
WITH A
MAXIMUM OCCUPANCY OF:
68
PERSONS
THIS IS NOT AN ASSEMBLY
OCCUPANCY AND CANNOT ALLOW
SPECTATORS TO OCCUPY THIS
FACILITY
BY ORDER OF
THE CODE OFFICIAL
Keep Posted Under Penalty Of Law

CODE LEGEND

SYMBOL	DESCRIPTION
EXIT	PRIMARY BUILDING EXIT
TD 200'	TRAVEL DISTANCE NEAREST TO EXIT
	HANDICAP ACCESSIBLE
FE	FIRE EXTINGUISHER LOCATION (SEE DETAIL AX.X)
17 / 340	ACTUAL OCCUPANT LOAD SERVED TOTAL EGRESS CAPACITY
3/4 HOUR	RATED DOOR ASSEMBLY

CODE REVIEW

CODE: **2021 INTERNATIONAL BUILDING CODE**

OCCUPANCY TYPE: **GROUP 'E'**

SPRINKLERED: **NO**
NUMBER OF STORIES: **1**

CONSTRUCTION TYPE: **TYPE IIB**

TYPE **IIB.** REQUIRES THE FOLLOWING
FIRE RESISTANCE (TABLE 601):

STRUCTURAL FRAME:	**0 HOUR**
EXTERIOR BEARING WALLS:	**0 HOUR**
INTERIOR BEARING WALLS:	**0 HOUR**
EXTERIOR NONBEARING WALLS:	**0 HOUR**
INTERIOR NONBEARING WALLS:	**0 HOUR**
FLOOR CONSTRUCTION:	**0 HOUR**
ROOF CONSTRUCTION:	**0 HOUR**

OTHER REQUIREMENTS:

FIRE WALL RATING (TABLE 706.4): **NA**

OCCUPANCY SEPARATION (TABLE 508.4): **NA**

INCIDENTAL USE AREAS (TABLE 509): **NA**

CORRIDORS (TABLE 1020.1): CORRIDORS SERVING MORE THAN 30 OCCUPANTS IN UNSPRINKLERED **'E'** OCCUPANCY SHALL HAVE A 1-HOUR WALL. **NA**

STAIRS & SHAFT ENCLOSURES (707 & TABLE 707.3.10 NOT LEES THAN 508.4 IF APPLICABLE): **NA**

SINGLE OCCUPANCY FIRE BARRIERS
(TABLE 707.3.10): **NA**

EXIT ACCESS TRAVEL DISTANCE
IS **200** FEET FOR **E** NON SPRINKLERFED (TABLE 1017.2)

EXIT CALCULATIONS

TOTAL BUILDING AREA

OCCUPANCY TYPE - GROUP **'E'**
BUILDING TYPE: **IIB**
ALLOWABLE SF: **14,500** SQ FT (TABLE 506.2)
ACTUAL SF - **4,800** SQ FT

ALLOWABLE HEIGHT (TABLE 504.3) ALLOWABLE # OF STORIES (TABLE 504.4)
ALLOWABLE HEIGHT: **55** FT
ALLOWABLE NO. OF STORIES: **2**
ACTUAL BUILDING HEIGHT: **± 22** FT
ACTUAL NO. OF STORIES: **1**

OCCUPANT LOAD

OCCUPANT LOAD TOTAL (1004 & TABLE 1004.5) =
68 PERSONS

EXIT REQUIREMENTS

EXIT ACCESS (TABLE 1006.2.1 & TABLE 1006.3.3)
NO. OF EXITS REQUIRED: **2**
NO. OF EXITS FURNISHED: **4**

MEANS OF EGRESS WIDTH (1005.3)
SEE PLAN FOR EXIT WIDTHS

MINIMUM CORRIDOR WIDTH (TABLE 1020.3) **NA**

PLUMBING CALCULATIONS

2021 INTERNATIONAL PLUMBING CODE
REQUIREMENTS:

OCCUPANT LOAD TOTAL = **68** PERSONS

TOILETS (TABLE 2902.1)
MEN'S (1 PER 50 OCC.) (**34** OCC.): **1** REQUIRED **3** PROVIDED
WOMEN'S (1 PER 50 OCC.) (**34** OCC.): **1** REQUIRED **3** PROVIDED

LAVATORIES (TABLE 2902.1)
MEN'S (1 PER 50 OCC.) (**34** OCC.): **1** REQUIRED **2** PROVIDED
WOMEN'S (1 PER 50 OCC.) (**34** OCC.): **1** REQUIRED **2** PROVIDED

DRINKING FOUNTAINS (TABLE 2902.1)
(1 PER 100 OCC.) (**68** OCC.): **2** REQUIRED **2** PROVIDED

SERVICE SINK (TABLE 2902.1): **1** REQUIRED **1** PROVIDED

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ARCHITECTS, INC.
631 SOUTH HULL STREET , MONTGOMERY , ALABAMA 36104 (334) 834-9833

STATE OF ALABAMA
WALTER T. MCKEE, JR.
No. 10262
MONTGOMERY, ALA.
REGISTERED ARCHITECT

SHEET TITLE : CODE PLAN

MCKEE JOB # : 22-304

DRAWN BY : GAC

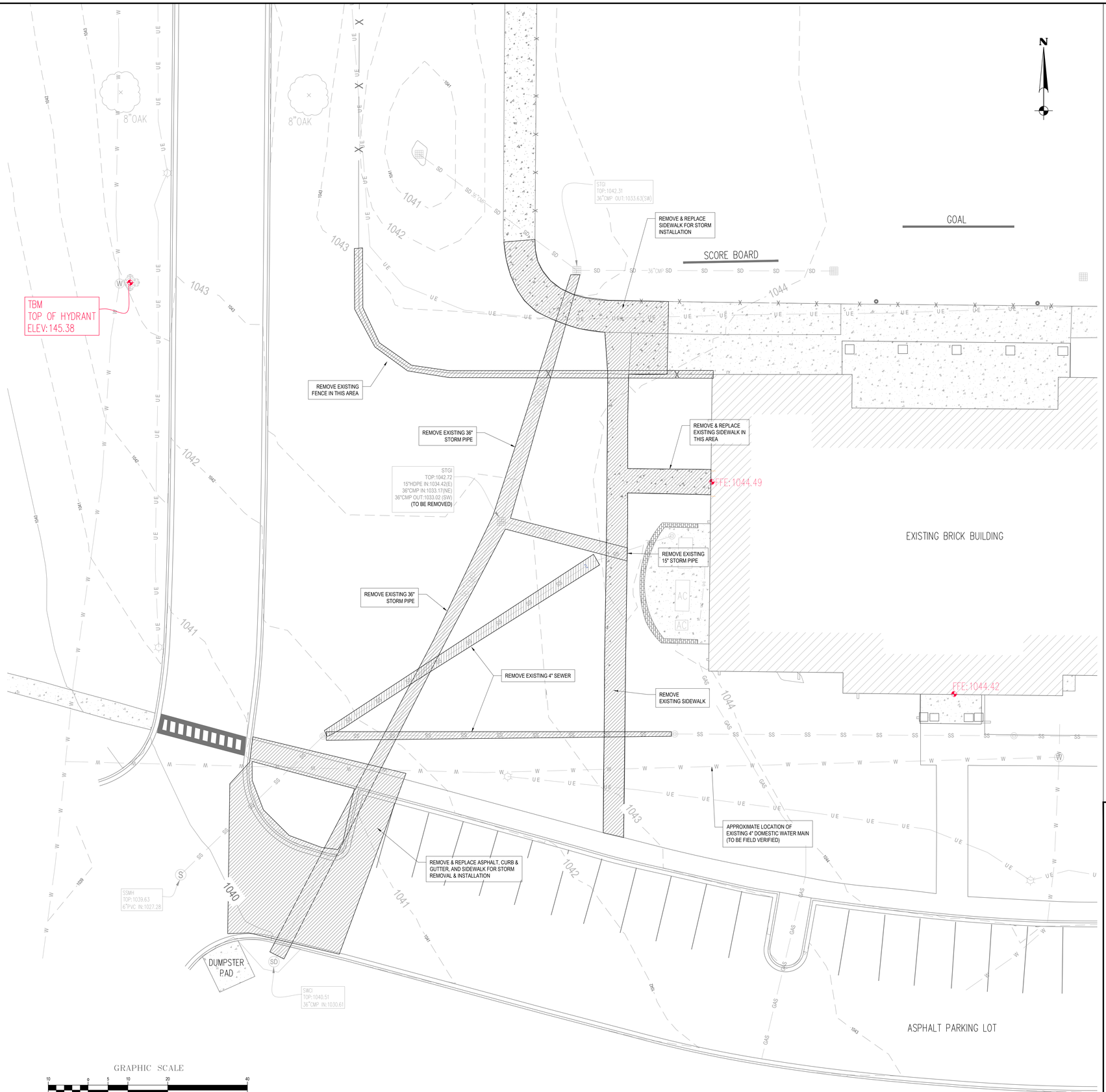
DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : G1.1



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
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ARCHITECTS, INC.
631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933

ALABAMA REGISTERED 2/15/24 No. 30447 PROFESSIONAL ENGINEER CHRISTOPHER M. ROGERS

SHEET TITLE : EXISTING SITE & DEMOLITION PLAN

MCKEE JOB # : 22-304

DRAWN BY : GAC

DATE: 02.15.2024

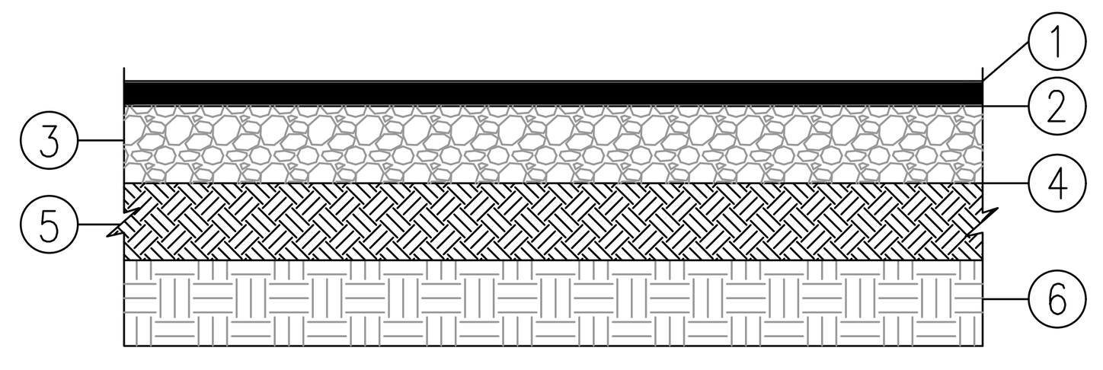
REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : C1

BARRETT-SIMPSON, INC.
Engineers & Land Surveyors
706 12th STREET, PHENIX CITY, AL 36868 (PH 334-297-2423, FAX 334-297-2449)
121 W. BROAD STREET, EUFAULA, AL 36027 (PH 334-687-4257, FAX 334-687-4829)
223 SOUTH 9th STREET, OPELIKA, AL 36801 (PH 334-745-7026, FAX 334-745-4367)

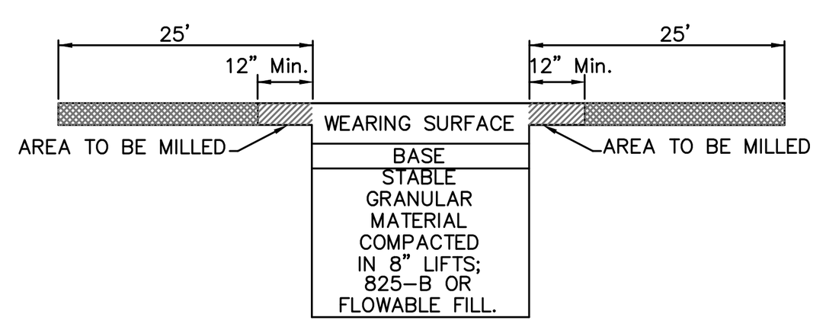


LEGEND:

1. ALDOT 429A ASPHALT WEARING SURFACE (1")
2. ALDOT 405 TACK COAT
3. ALDOT 429B BINDER (2")
4. ALDOT 401 PRIME COAT
5. ALDOT SOIL AGGREGATE 100% COMPACTION (6")
6. IMPROVED SUB-GRADE 98% COMPACTION (TOP 6")

ASPHALT PAVEMENT DETAIL

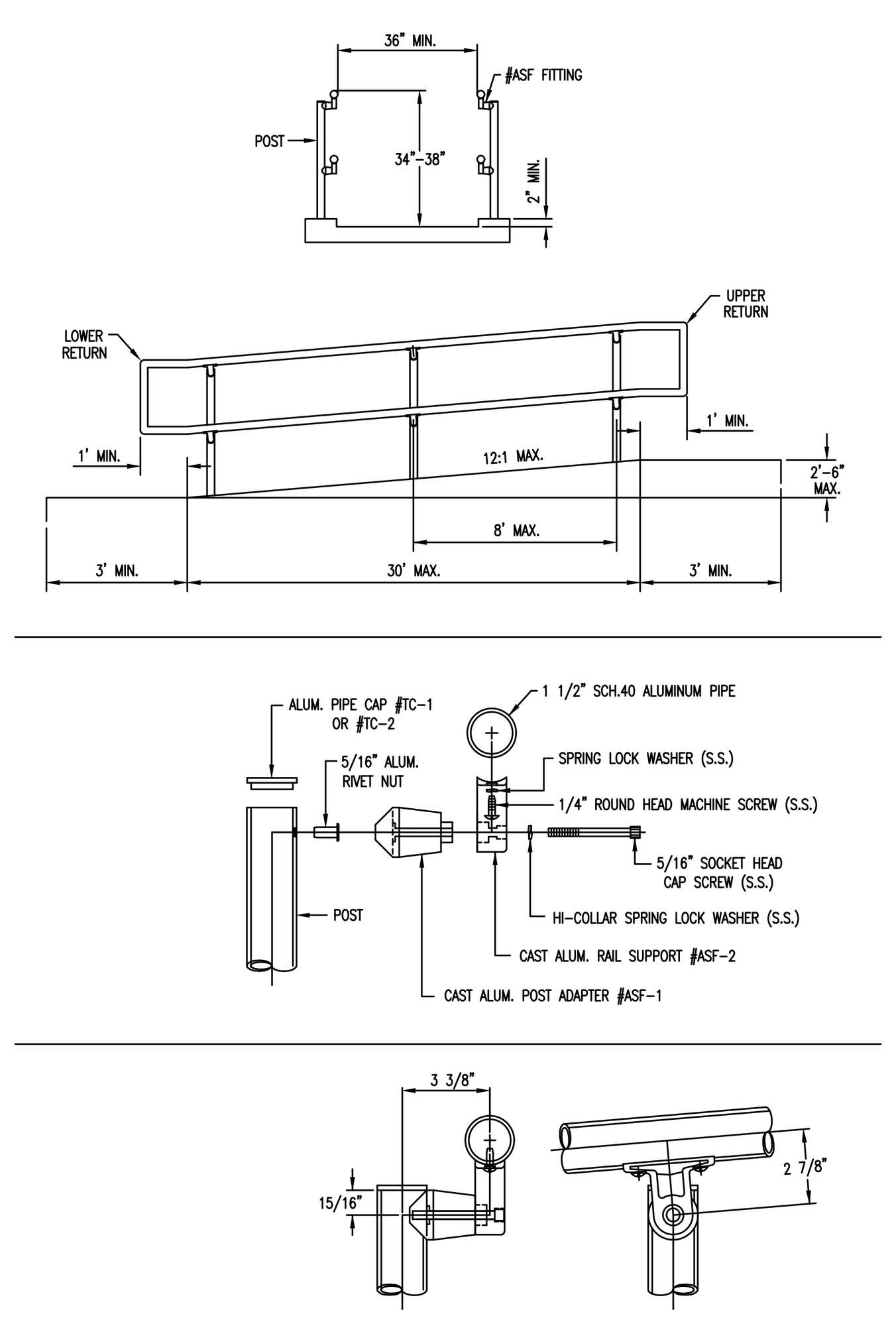
NOT TO SCALE



NOTES:
1. EDGES SHALL BE SAW CUT, VERTICAL AND SMOOTH, OR JACK HAMMERED.
2. EDGES SHALL BE COATED WITH TACK TO INSURE A GOOD BOND.
3. THE WEARING SURFACE SHALL BE IN ACCORDANCE WITH ALDOT. SECTION 429 (SEE TABLE FOR THICKNESS).
4. BASE SHALL BE 825 MIX-B STONE, 429 BINDER OR 429 BASE (SEE TABLE FOR THICKNESS).
5. THE WEARING SURFACE PLACEMENT SHALL INCLUDE THE TRENCH WIDTH PLUS AN ADDITIONAL 12" ON EITHER SIDE OF THE TRENCH TO PROVIDE A SMOOTH TIE.
6. A TEMPORARY PATCH MUST BE IN PLACE AT LEAST EIGHT WEEKS PRIOR TO PLACING THE FINAL SURFACE. PATCH WIDTH INCLUDES 12" EITHER SIDE. ASPHALT MUST BE PLACED IMMEDIATELY FOLLOWING WORK.
7. PERMANENT PATCH MUST BE 25' EACH SIDE OF TRENCH FOLLOWING THE 8 WEEK TIME. MILLING IS REQUIRED AT THE END.

UTILITY PATCH DETAIL

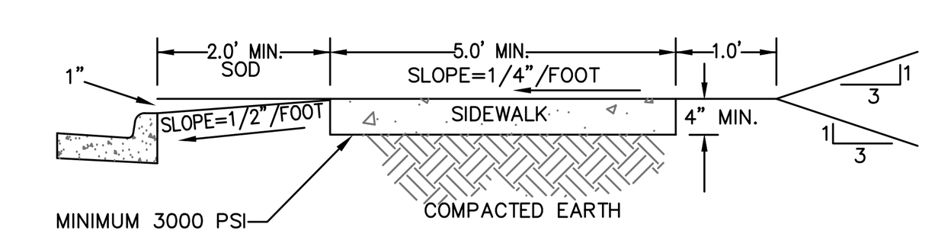
NOT TO SCALE



ADA COMPLIANT HANDRAIL DETAIL

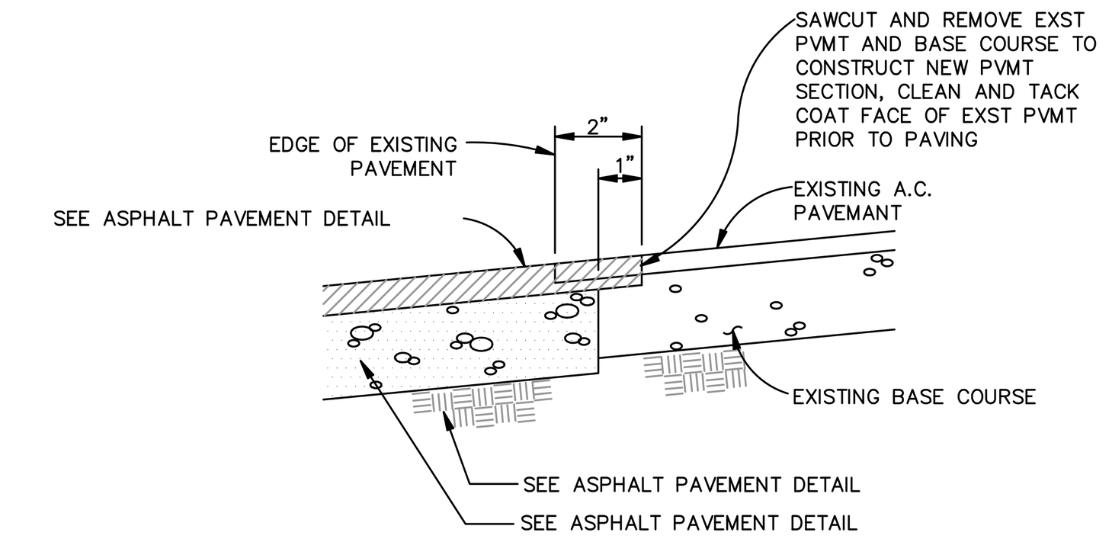
NOT TO SCALE

NOTES:
1. PROVIDE 1 1/2" DEEP BY 1/8" WIDE CONTROL JOINTS EVERY 5' WITH EXPANSION JOINTS EVERY 50'. EXPANSION MATERIAL CAN BE FILTER BOARD OR A TREATED 1x4.



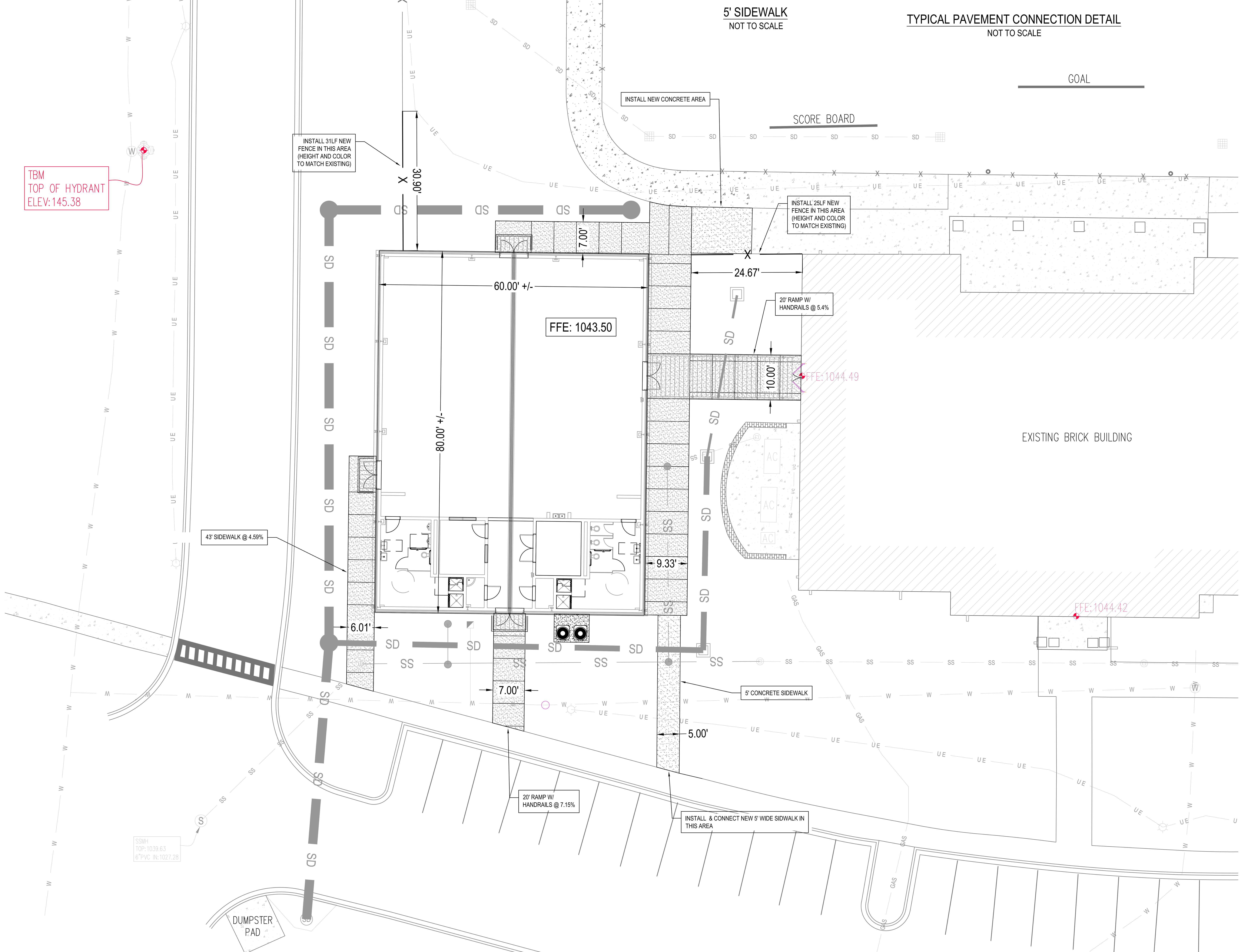
5' SIDEWALK

NOT TO SCALE



TYPICAL PAVEMENT CONNECTION DETAIL

NOT TO SCALE



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

HANDICAP RAMP W/ RAIL DETAIL

NOT TO SCALE

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223 SOUTH 9th STREET, OPELIKA, AL 36801 (PH 334-745-7026, FAX 334-745-4367)

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NEW FIELDHOUSE FOR THE JUNIOR VARSITY

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LINEVILLE, ALABAMA

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ARCHITECTS, INC.
631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933

ALABAMA REGISTERED 2/15/24 No. 30447 PROFESSIONAL ENGINEER CHRISTOPHER M. ROGERS

SHEET TITLE :	SITE PLAN
MCKEE JOB # :	22-304
DRAWN BY :	GAC
DATE:	02.15.2024
REVISED DATE:	
REVISED DATE:	
REVISED DATE:	
SHEET NO. :	C2

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
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631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933

ALABAMA REGISTERED 1/15/24 No. 30447 PROFESSIONAL ENGINEER CHRISTOPHER M. ROGERS

TBM
TOP OF HYDRANT
ELEV:145.38

8"OAK

8"OAK

STO
TOP:1042.31
36"CMP OUT:1033.63(SW)

SCORE BOARD

GOAL

JB-02

JB-03

GI-04

FFE: 1043.50

FFE:1044.49

EXISTING BRICK BUILDING

INTERCEPT EXISTING 4" PVC LATERAL & INSTALL CLEANOUT

GI-05

9LF 4" PVC @ 1.00% MIN SLOPE

PROPOSED 4" PVC CLEANOUT

43LF 4" PVC @ 1.00% MIN SLOPE

CONNECT TO EXISTING 4" PVC SEWER CLEANOUT

FFE:1044.42

JB-01

GI-06

2" DOMESTIC WATER SUPPLY

49LF 4" PVC @ 1.00% MIN SLOPE

CONNECT TO EXISTING 4" PVC CLEANOUT

19LF 4" PVC @ 1.00% MIN SLOPE

PROPOSED 4" PVC CLEANOUT

CONNECT TO EXISTING 4" WATER MAIN

PROPOSED 4" PVC CLEANOUT

20LF 4" PVC @ 1.00% MIN SLOPE

APPROXIMATE LOCATION OF EXISTING 4" DOMESTIC WATER MAIN (TO BE FIELD VERIFIED)

SSMH
TOP:1039.63
6"PVC IN:1027.28

DUMPSTER PAD

SWO
TOP:1040.51
36"CMP IN:1030.61

ASPHALT PARKING LOT

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

SHEET TITLE :	UTILITY PLAN
MCKEE JOB # :	22-304
DRAWN BY :	GAC
DATE:	02.15.2024
REVISED DATE:	
REVISED DATE:	
REVISED DATE:	

SHEET NO. : C3

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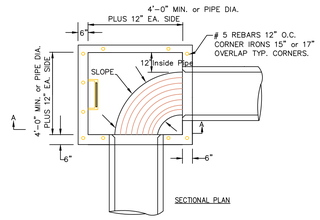
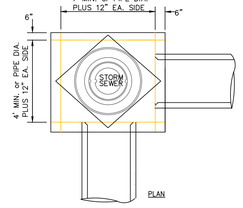
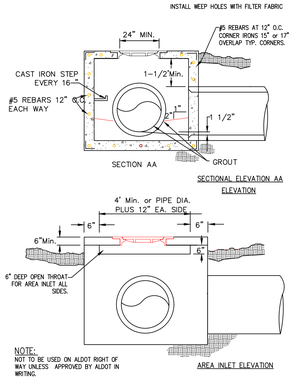
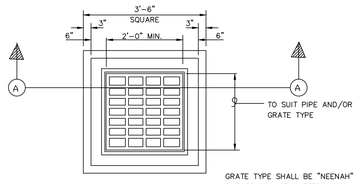


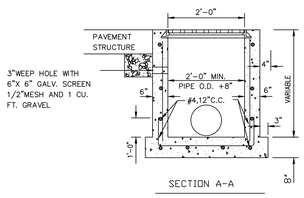




JUNCTION BOX/ AREA INLET DETAILS
NOT TO SCALE

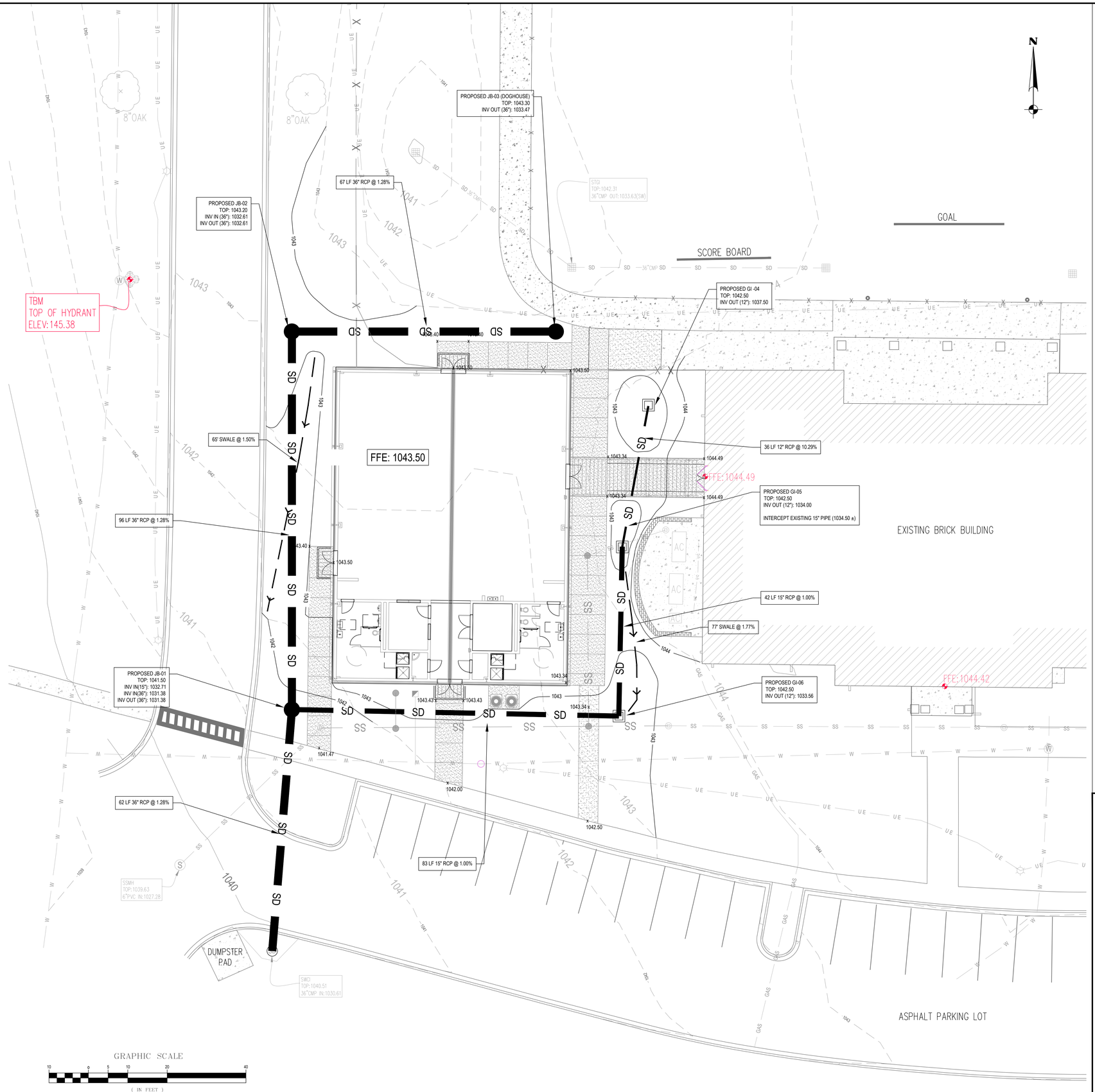


GRATE TYPE SHALL BE "NEENAH" R-3433 SQUARE GUTTER INLET FRAME



NOTE:
WEEP HOLES SHALL BE REQUIRED IN EACH WALL IF INLET IS LOCATED WITHIN PAVED AREA AND SHALL BE SPACED 24"C.C. MAXIMUM.

GRATE INLET DETAILS
NOT TO SCALE



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631 SOUTH HULL STREET , MONTGOMERY , ALABAMA 36104 (334) 834-9933

ALABAMA REGISTERED 2/8/24 No. 26447 PROFESSIONAL ENGINEER CHRISTOPHER M. ROGERS

SHEET TITLE : GRADING PLAN

MCKEE JOB # : 22-304

DRAWN BY : GAC

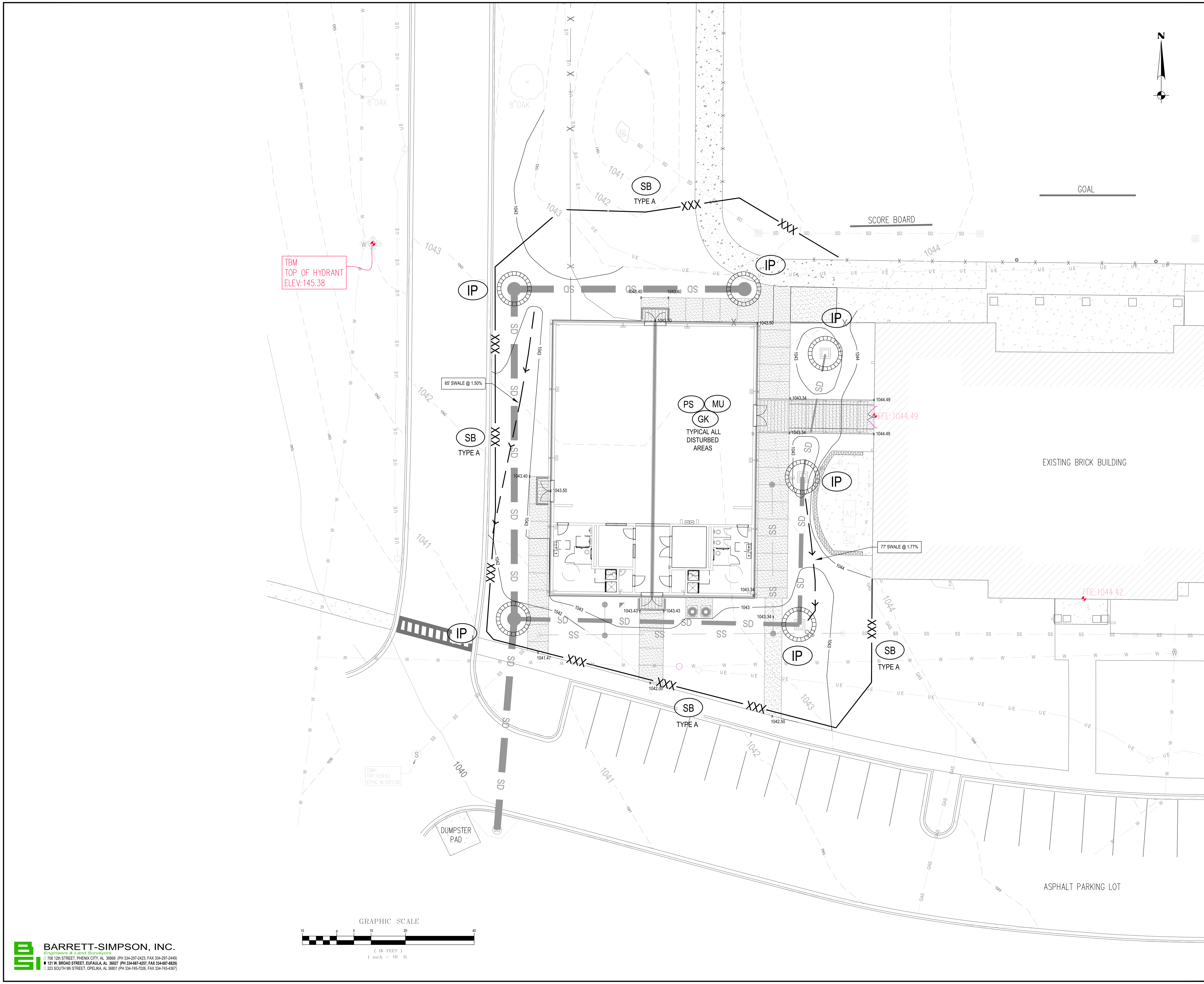
DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : C4



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- Thursday, February 15, 2024 2:47:05 PM

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McKEE and ASSOCIATES
ARCHITECTS, INC.
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ALABAMA REGISTERED 2/15/24 No. 30447 PROFESSIONAL ENGINEER CHRISTOPHER M. ROGERS

SHEET TITLE : EROSION CONTROL PLAN

MCKEE JOB # : 22-304

DRAWN BY : GAC

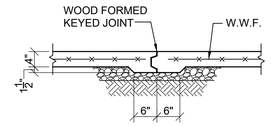
DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

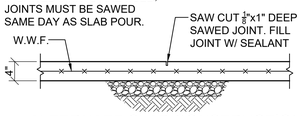
REVISED DATE:

SHEET NO. : C5

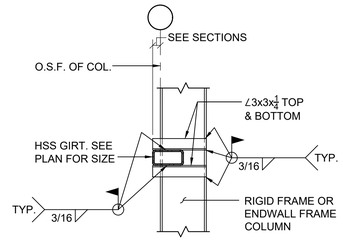


TYPICAL SLAB CONSTRUCTION
JOINT DETAIL-(C.J.)

NOTE:
IF SAWED JOINTS ARE USED, JOINTS MUST BE SAWED SAME DAY AS SLAB POUR.

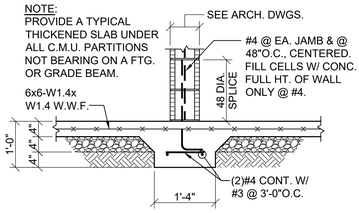


ALTERNATE SLAB CONSTRUCTION
JOINT DETAIL (SAWED JOINT)



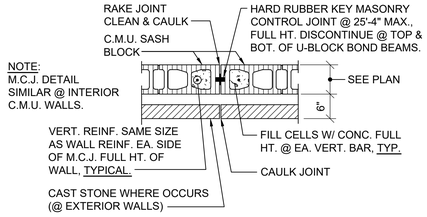
TYPICAL HSS GIRT TO BUILDING COLUMN DETAIL

NOTE:
PROVIDE A TYPICAL THICKENED SLAB UNDER ALL C.M.U. PARTITIONS NOT BEARING ON A FTG. OR GRADE BEAM.



TYPICAL THICKENED SLAB DETAIL

NOTE:
M.C.J. DETAIL SIMILAR @ INTERIOR C.M.U. WALLS.

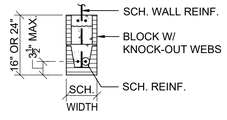


TYPICAL MASONRY CONTROL JOINT (M.C.J.)

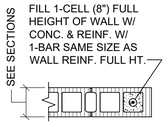
STEEL & CMU LINTEL SCHEDULE

MARK OR LOCATION	MAX. SPAN	TYPE	SIZE	REINFORCEMENT	REMARKS
8"CMU	4'–0"	U–BLOCK	8x8	#5 TOP & BOT.	8" HIGH U–BLOCK
8"CMU	6'–4"	U–BLOCK	8x16	(2)#5 TOP & BOT.	16" HIGH U–BLOCK
8"CMU	10'–0"	U–BLOCK	8x24	(2)#5 TOP & BOT.	24" HIGH U–BLOCK
L–1	6'–4"	U–BLOCK	8x8	#5 TOP & BOT.	8" HIGH U–BLOCK BEAR 16" EA. END

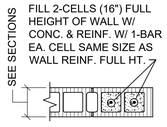
NOTES:
1. UNLESS NOTED OTHERWISE, BEAR 8" HIGH U-BLOCKS 8" EA. END AND BEAR 16" AND 24" HIGH U-BLOCKS 16" EACH END.
2. FILL CELLS WITH CONCRETE FULL HEIGHT AT U-BLOCK BEARING FOR ENTIRE LENGTH OF BEARING. REINF. EA. CELL W/ BAR SAME SIZE AS WALL REINFORCING FULL HT. OF WALL. VERTICAL REINF. SHALL BE CONTINUOUS THRU LINTEL AT BEARING.



16" OR 24" HIGH U-BLOCK



JAMB AT C.M.U.
LINTELS BEARING 8"



JAMB AT C.M.U.
LINTELS BEARING 16"

TYPICAL JAMB REINFORCING DETAILS
(UNLESS NOTED OTHERWISE)

FOOTING SCHEDULE

MARK	SIZE	DEPTH	REINFORCEMENT
A	3'–6" x 3'–6"	12"	3–#4 EA. WAY TOP 5–#4 EA. WAY BOT.✳
B	4'–0" x 4'–0"	12"	4–#4 EA. WAY TOP 6–#4 EA. WAY BOT.
C	4'–6" x 4'–6"	12"	4–#4 EA. WAY TOP 6–#4 EA. WAY BOT.

✳- PROVIDE 180° HOOK EACH END OF BARS

GENERAL NOTES

FOUNDATION:
1. THE BEARING STRATA OF ALL FOOTINGS AND GRADE BEAMS SHALL BE INSPECTED AND APPROVED BY THE SOILS TESTING LABORATORY PRIOR TO PLACING THE REINFORCING STEEL AND CONCRETE.
2. ALL FOOTINGS SHALL BEAR ON AN UNDISTURBED SOIL STRATA OR COMPACTED FILL CAPABLE OF SUSTAINING THE LOADS.
3. FOOTINGS WERE DESIGNED FOR AN ASSUMED ALLOWABLE SOIL BEARING OF P = 1500 PSF. ALLOWABLE SOIL BEARING SHALL BE VERIFIED BY TESTING AGENCY PRIOR TO FOOTINGS BEING POURED.
4. ELEVATIONS SHOWN ON PLAN ARE TOP OF FOOTINGS AND ARE MINIMUM DEPTH. DIFFERENT OR UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ARCHITECT AND/OR ENGINEER.
5. ALL FOOTING REINFORCEMENT SHALL BE HELD SECURELY FROM THE GROUND. CONCRETE BLOCK AND BROKEN TILE SHALL NOT BE USED. CONCRETE OR CLAY BRICK MAY BE USED.
6. DOWEL ALL FOOTINGS AND WALLS WHERE THEY ABUT WITH SAME STEEL AS VERTICAL.
7. PROVIDE PREFORMED EXPANSION JOINT WHERE SHOWN.
8. IN FOOTINGS PROVIDE CORNER BARS AT ALL EXTERIOR BUILDING CORNERS.

CONCRETE:
1. ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH AT 28 DAYS OF F'c = 3000 PSI AND A MAXIMUM WATER-CEMENT RATIO OF 0.53. ALL CONCRETE FOR EXTERIOR APPLICATIONS SHALL CONTAIN ENTRAINED AIR. SEE SPECS FOR ADDITIONAL INFORMATION.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 OR ASTM A1064.
4. UNLESS NOTED OTHERWISE PROTECTIVE COVERING OF REINFORCEMENT SHALL BE AS FOLLOWS (SEE DETAILS) : FOOTINGS AND GRADE BEAMS 3" CLEAR BOTTOM AND SIDES, 1 1/2" CLEAR TOP. CONCRETE SLABS 3/4" CLEAR. WALLS 1 1/2" CLEAR SIDES. BEAMS 1 1/2" CLEAR TO STIRRUPS. FORMED CONCRETE COLUMNS 1 1/2" CLEAR TO TIES.
5. LAP ALL CONCRETE WALL VERTICAL REINFORCING AND CONCRETE BEAM HORIZONTAL REINFORCING WITH CLASS B LAP SPLICES. LAP ALL OTHER CONTINUOUS BARS WITH CLASS A SPLICES UNLESS NOTED OTHERWISE.
6. PLACING PLANS AND DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST "A.C.I. DETAILING MANUAL".
7. STEEL FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR THE ARCHITECT AND/OR ENGINEER'S REVIEW.

STRUCTURAL STEEL:
1. ALL STRUCTURAL STEEL W AND WT SHAPES SHALL CONFORM TO ASTM A992 (GRADE 50). OTHER SHAPES SHALL CONFORM TO ASTM, A36, LATEST EDITION.
2. THE CONTRACTOR SHALL VERIFY ALL SHOP DRAWINGS DIMENSIONS WITH STRUCTURAL AND ARCHITECTURAL PLANS AND DETAILS.
3. BOLTED CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS CONFORMING TO ASTM A325. USE 3/4 INCH DIAMETER MINIMUM.
4. CONNECTIONS NOT SHOWN ON DRAWINGS SHALL BE DESIGNED BY THE FABRICATOR. WHERE POSSIBLE USE DOUBLE ANGLE CONNECTIONS. USE MAXIMUM NUMBER OF BOLTS FOR DEPTH OF BEAM WITH SINGLE ROW OF BOLTS.

PRE-ENGINEERED METAL BUILDING:
1. THE COMPLETE DESIGN OF METAL BUILDING INCLUDING ALL COMPONENTS SHOWN OR NOT SHOWN ON THE DRAWINGS SHALL BE ACCOMPLISHED BY THE BUILDING MANUFACTURER.
2. THE DESIGN SHALL BE MADE BY A REGISTERED ENGINEER, REGISTERED IN THE STATE OF ALABAMA AND HE SHALL AFFIX HIS REGISTRATION NUMBER TO ALL SHOP DRAWINGS AND CALCULATIONS.
3. THE BUILDING AND ALL OF ITS COMPONENTS SHALL BE DESIGNED FOR THE FOLLOWING DEAD AND LIVE LOADS;
   a.) ACTUAL WEIGHT OF STEEL STRUCTURE.
   b.) 8 PSF DEAD (COLLATERAL) LOAD IN ADDITION TO ACTUAL WEIGHT OF STRUCTURE AND ROOFING MATERIALS.
   c.) 18 PSF ROOF LIVE LOAD.
   d.) ANY ADDITIONAL LOADS AND REACTIONS THAT ARE SHOWN ON THE DRAWINGS.
   e.) WIND LOADING AS REQUIRED BY INTERNATIONAL BUILDING CODE.
4. NO LIVE LOAD REDUCTION SHALL BE TAKEN FOR THE DESIGN OF THE RIGID FRAMES.
5. WHERE MEMBER SIZES AND GAGES ARE SHOWN THEY SHALL BE CONSIDERED A MINIMUM SIZE. THE MANUFACTURER SHALL NOT USE SMALLER SIZE OR LIGHTER GAGES, OR OMIT FRAMING WHERE INDICATED. HE SHALL USE ONLY LARGER SIZE AND HEAVIER GAGES IF HIS DESIGN INDICATES THESE ARE REQUIRED TO MEET THE LOADING CRITERIA
6. THE DEFLECTION OF GIRTS SHALL BE LIMITED TO 1/240 OF THE SPAN AND DEFLECTION OF PURLINS SHALL BE LIMITED TO 1/240 OF THE SPAN. DEFLECTION OF RIGID FRAMES SHALL BE LIMITED TO 1/240 OF THE SPAN. DEFLECTIONS SHALL BE BASED ON TOTAL LOAD (DEAD PLUS LIVE LOADS). TOTAL RIGID FRAME DRIFT SHALL BE LIMITED TO H/240, WHERE H IS EQUAL TO THE EAVE HEIGHT.
7. COLUMN BASES SHALL BE DESIGNED AS PINNED CONNECTIONS. MOMENTS AT COLUMN BASE PLATES ARE NOT ACCEPTABLE.
8. PROVIDE ROD X-BRACING ABOVE TOP OF CMU WALLS AS REQUIRED (COORDINATE LOCATIONS WITH ARCHITECTURAL). PROVIDE COLUMN STIFFENERS OR BRACES AS REQUIRED TO TRANSFER SHEAR INTO HSS GIRTS AT TOP OF CMU SHEAR WALLS.

CODES:
ALL PARTS SHALL BE FURNISHED AND ERECTED ACCORDING TO THE APPLICABLE CODES AND SPECIFICATIONS OF THE FOLLOWING:
AMERICAN CONCRETE INSTITUTE (ACI)
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
AMERICAN WELDING SOCIETY (AWS)
OSHA STEEL ERECTION STANDARD (OSHA)
INTERNATIONAL BUILDING CODE (IBC 2021) (ICC)

DESIGN LIVE LOADS:
ROOF.....18 PSF.
RISK CATEGORY (PER IBC 2021/ASCE 7-16).....II
WIND.....INTERNATIONAL BUILDING CODE (PER ASCE 7-16)
ULTIMATE DESIGN WIND SPEED (Vult).....107 MPH
NOMINAL DESIGN WIND SPEED (Vasd).....83 MPH
WIND EXPOSURE.....C
INTERNAL PRESSURE COEFFICIENTS.....+/-0.18
SEISMIC....INTERNATIONAL BUILDING CODE (PER ASCE 7-16)
SEISMIC IMPORTANCE FACTOR.....Ie=1.0
MAPPED SPECTRAL ACCELERATION (SHORT-TERM).Ss=0.202g
MAPPED SPECTRAL ACCELERATION (1-SECOND)...S1=0.085g
SITE CLASS.....D
SHORT-PERIOD SPECTRAL RESPONSE ACCEL.....Sds=0.216g
1-SECOND SPECTRAL RESPONSE ACCEL.....Sd1=0.136g
SEISMIC DESIGN CATEGORY.....C
SEISMIC FORCE-RESISTING SYSTEM(S):
STEEL RIGID MOMENT FRAMES
ROD X-BRACING
DESIGN BASE SHEAR (ULTIMATE).....13.7k
SEISMIC RESPONSE COEFFICIENT.....Cs=0.072
RESPONSE MODIFICATION FACTOR.....R=3.0
ANALYSIS PROCEDURE.....ASCE 7 (SECT 12.8)

SNOW.....INTERNATIONAL BUILDING CODE
GROUND SNOW LOAD.....Pg=5 PSF

COMPONENTS AND CLADDING ULTIMATE WIND PRESSURES:
NOTE: MULTIPLY ALL VALUES SHOWN BELOW BY 0.6 TO GET ALLOWABLE DESIGN PRESSURES.
SEE FIGURE 30.4-1 OF ASCE 7-16 FOR INDICATED ZONES.

ROOF:TRIBUTARY AREA A = 10 SF
ZONE 1: -38.2 PSF/16.3 PSF
ZONE 2e: -38.2 PSF/16.3 PSF
ZONE 2n: -60.9 PSF/16.3 PSF
ZONE 2r: -60.9 PSF/16.3 PSF
ZONE 3e: -60.9 PSF/16.3 PSF
ZONE 3r: -78.5 PSF/16.3 PSF
ROOF:TRIBUTARY AREA A = 100 SF
ZONE 1: -28.1 PSF/11.0 PSF
ZONE 2e: -28.1 PSF/11.0 PSF
ZONE 2n: -35.8 PSF/11.0 PSF
ZONE 2r: -35.8 PSF/11.0 PSF
ZONE 3e: -35.8 PSF/11.0 PSF
ZONE 3r: -45.0 PSF/11.0 PSF
WALL:TRIBUTARY AREA A = 10 SF
ZONE 4: -29.1 PSF/26.8 PSF
ZONE 5: -35.9 PSF/26.8 PSF
WALL:TRIBUTARY AREA A = 50 SF
ZONE 4: -26.3 PSF/24.1 PSF
ZONE 5: -30.3 PSF/24.1 PSF
WALL:TRIBUTARY AREA A = 100 SF
ZONE 4: -25.1 PSF/22.8 PSF
ZONE 5: -27.9 PSF/22.8 PSF
CORNER ZONE = 6 FT

SPECIAL INSPECTIONS:
ALL SPECIAL INSPECTIONS REQUIRED BY CHAPTER 17 OF IBC SHALL BE PERFORMED BY A DESIGNATED TESTING AGENCY OR AGENCIES RESPONSIBLE FOR SPECIAL INSPECTIONS.

SEISMIC REQUIREMENTS FOR SPECIAL INSPECTIONS:
1. THE FOLLOWING STRUCTURAL COMPONENTS ARE DESIGNATED AS SEISMIC SYSTEMS AND/OR PART OF THE SEISMIC-FORCE-RESISTING SYSTEM OF THE BUILDING AND ARE SUBJECT TO THE REQUIREMENTS OF SECTIONS 1705.12 AND 1705.13 OF IBC 2015 AND PROJECT SPECIFICATIONS:
   ROOF DIAPHRAGM SYSTEM(S) AND ATTACHMENT
   STEEL MOMENT FRAMES INCLUDING ANCHORAGE TO FOUNDATION
   THESE SPECIFIC COMPONENTS ARE IN ADDTION TO ALL GENERAL COMPONENTS LISTED IN SECTIONS 1705.12 AND 1705.13 OF IBC 2015 AND ARE SUBJECT TO ALL SPECIAL INSPECTIONS AND TESTING AS REQUIRED BY CHAPTER 17 OF IBC 2015, PROJECT SPECIFICATIONS, AND SCHEDULE OF SPECIAL INSPECTIONS. SPECIAL INSPECTION REPORTS SHALL BE SUBMITTED AS PER THE STATEMENT OF SPECIAL INSPECTIONS.
2. OTHER ARCHITECTURAL, MECHANICAL, OR ELECTRICAL COMPONENTS AND THEIR ANCHORAGES MAY ALSO BE DESIGNATED AS SEISMIC SYSTEMS. SEE OTHER DISCIPLINE'S DRAWINGS AND SPECIFICATIONS.

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
AT
CENTRAL HIGH SCHOOL
FOR THE
CLAY COUNTY BOARD OF EDUCATION
LINEVILLE, ALABAMA

McKEE and ASSOCIATES
ARCHITECTS, INC.
631 SOUTH HULL STREET . MONTGOMERY . ALABAMA 36104 (334) 834-9933

SHEET TITLE : GENERAL NOTES
SCHEDULES
TYPICAL DETAILS

MCKEE JOB # : 22-304

DRAWN BY : GAC

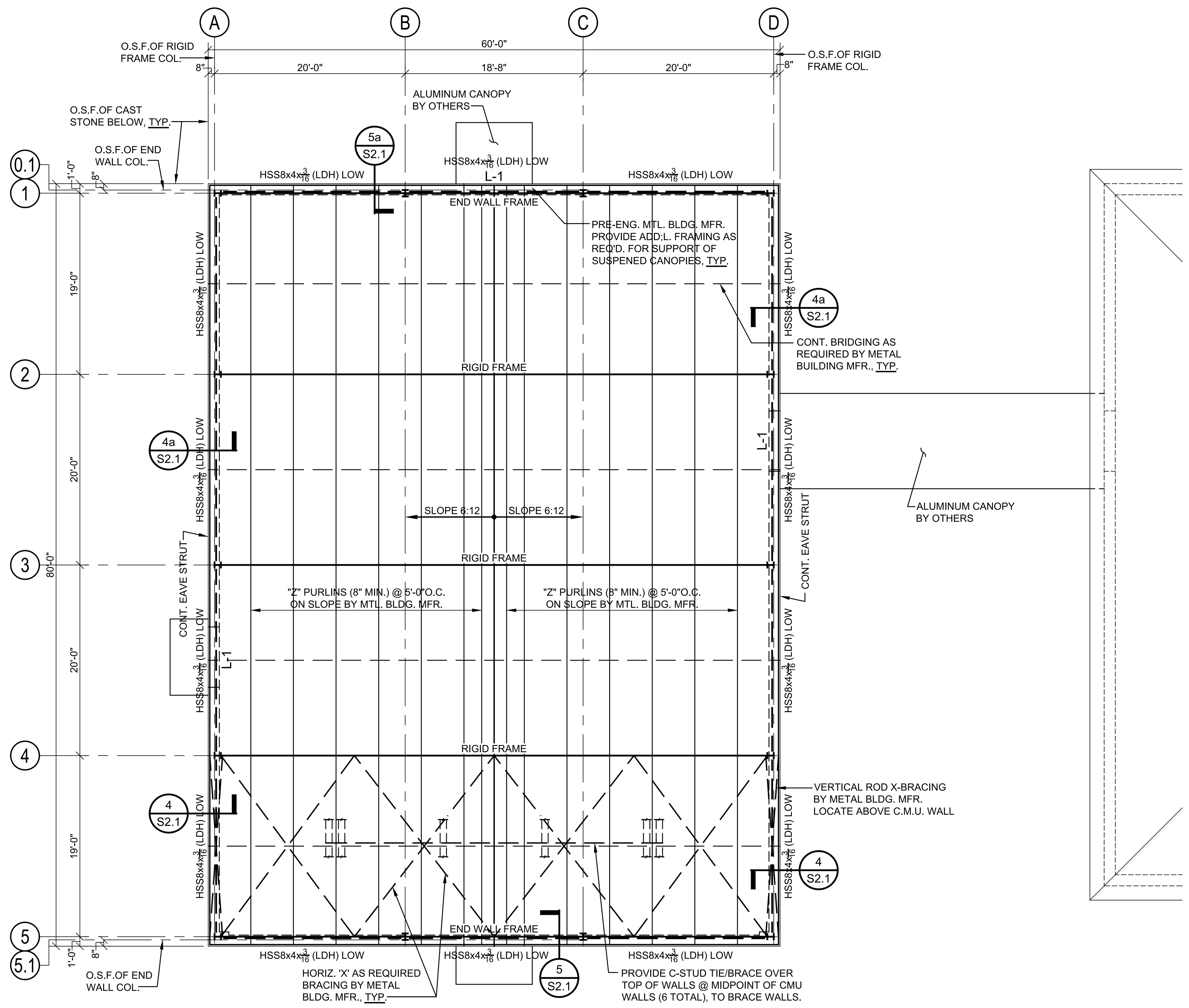
DATE: 02.15.2024

REVISED DATE:

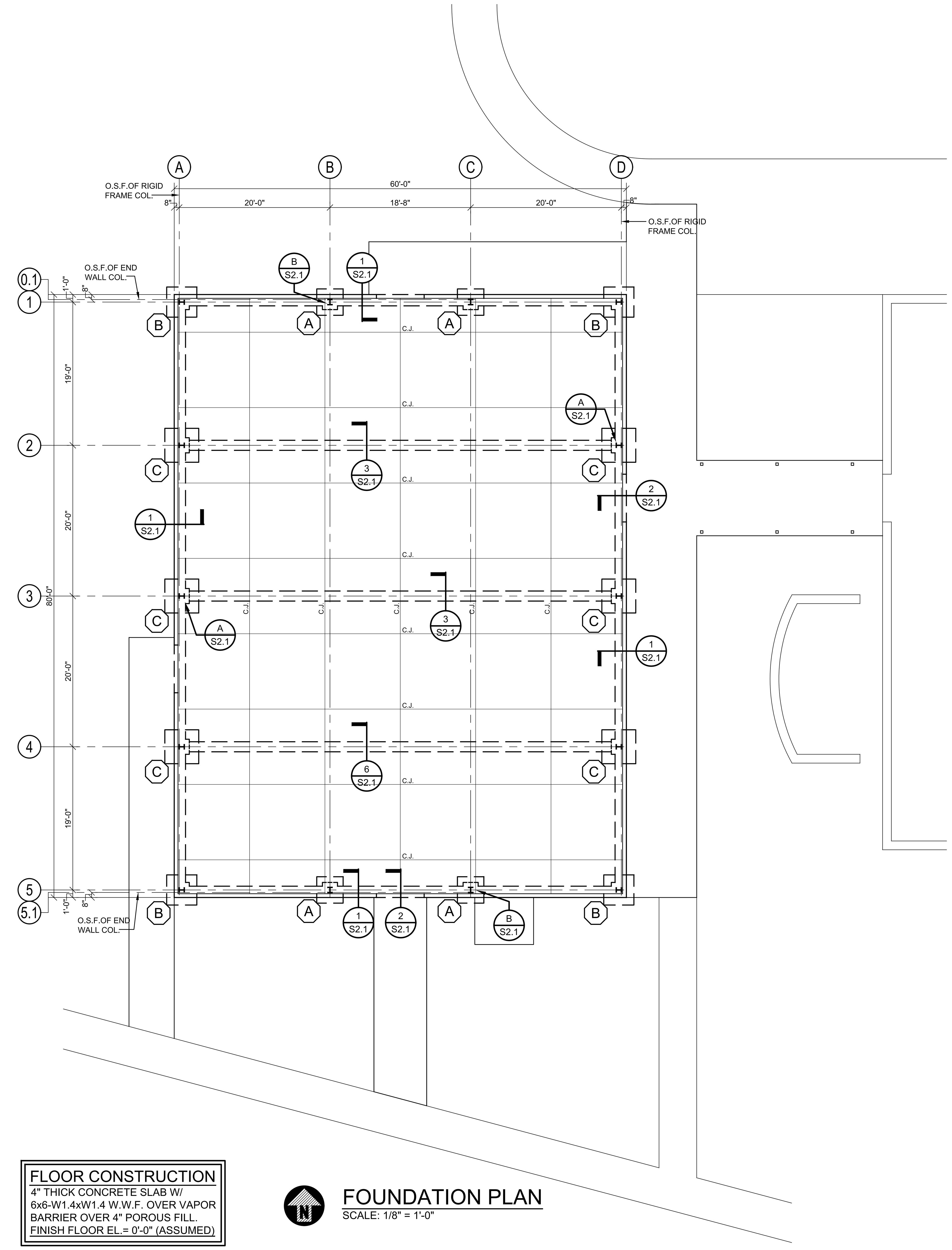
REVISED DATE:

REVISED DATE:

SHEET NO. : S0.1



ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"



FLOOR CONSTRUCTION
4" THICK CONCRETE SLAB W/ 6x6-W1.4xW1.4 W.W.F. OVER VAPOR BARRIER OVER 4" POROUS FILL.
FINISH FLOOR EL.= 0'-0" (ASSUMED)

FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

NOTE:
PROVIDE A TYPICAL THICKENED SLAB UNDER ALL C.M.U. PARTITIONS NOT BEARING ON A FOOTING. SEE SHEET S0.1 FOR TYPICAL DETAIL.

NOTE:
PROVIDE KEYED RUBBER MASONRY CONTROL JOINTS @ 25'-4" MAX. SPACING. SEE SHT. S0.1 FOR TYPICAL DETAIL. COORDINATE LOCATIONS W/ ARCH. DWGS.

NOTE:
UNLESS NOTED OTHERWISE, TOP OF FOOTING EL.= (-2'-8")

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02-15-24

SHEET TITLE : FOUNDATION AND ROOF FRAMING PLANS

MCKEE JOB # : 22-304

DRAWN BY : GAC

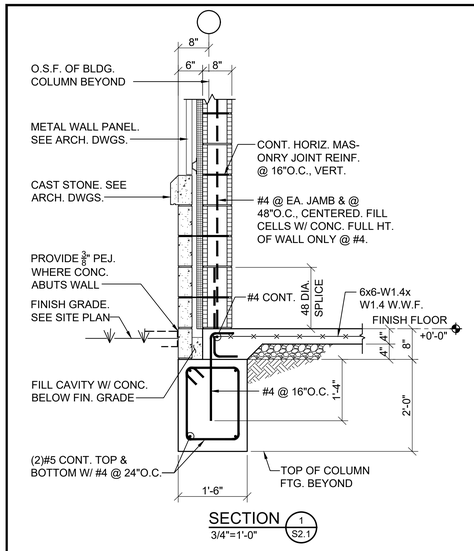
DATE: 02.15.2024

REVISED DATE:

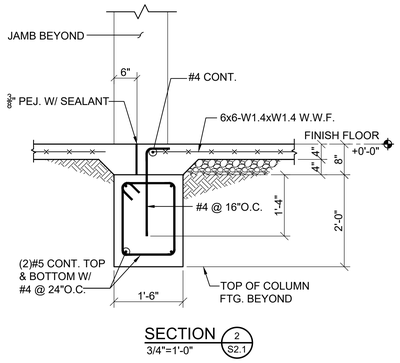
REVISED DATE:

REVISED DATE:

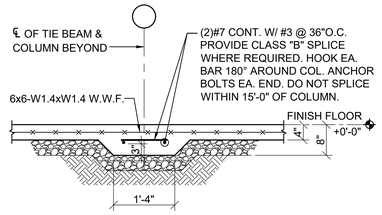
SHEET NO. : S1.1



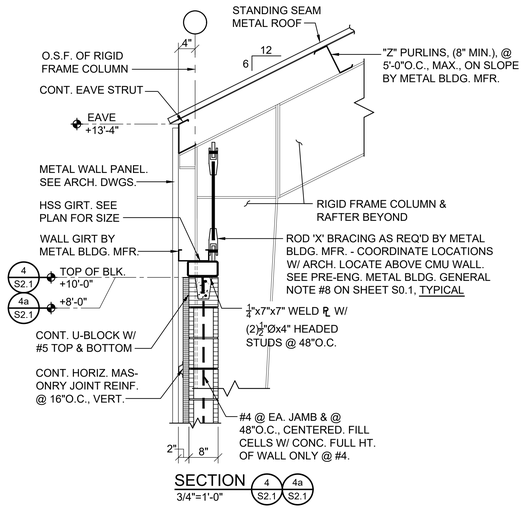
SECTION 1 S2.1
3/4"=1'-0"



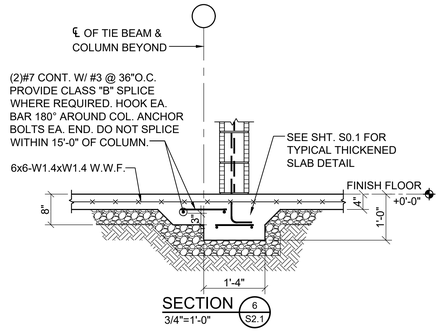
SECTION 2 S2.1
3/4"=1'-0"



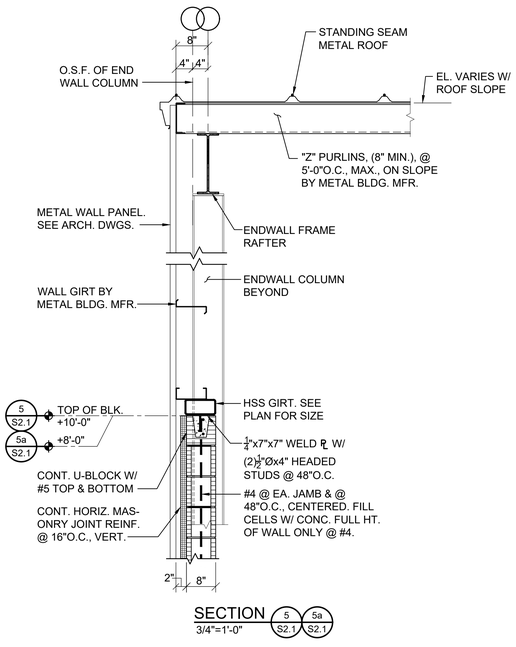
SECTION 3 S2.1
3/4"=1'-0"



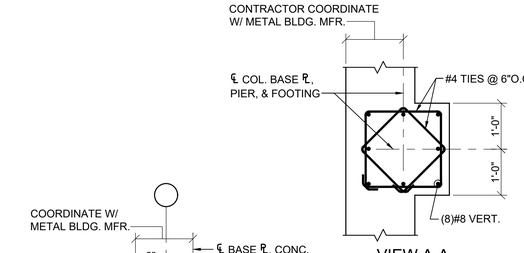
SECTION 4 4a
3/4"=1'-0" S2.1 S2.1



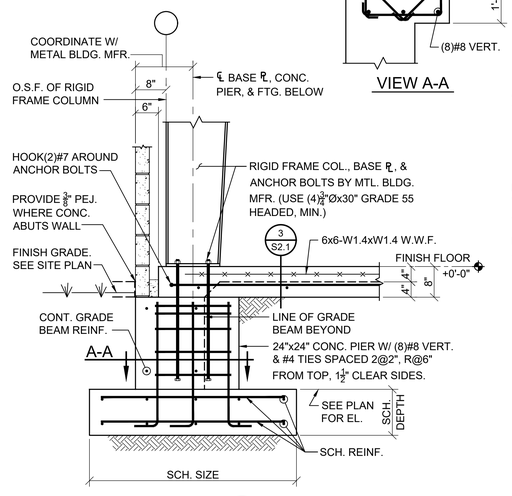
SECTION 6
3/4"=1'-0" S2.1



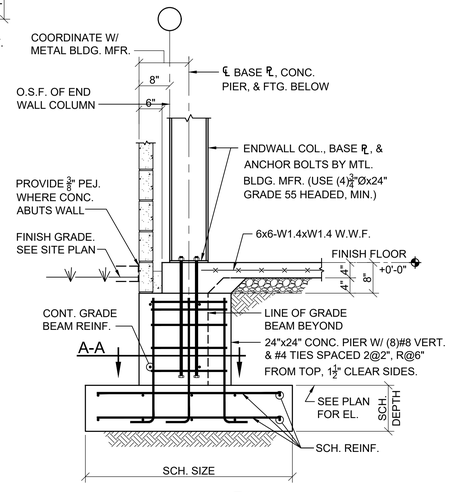
SECTION 5 5a
3/4"=1'-0" S2.1 S2.1



VIEW A-A



DETAIL A
3/4"=1'-0" S2.1



DETAIL B
3/4"=1'-0" S2.1

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ALABAMA LICENSED ARCHITECT NO. 22214 PROFESSIONAL SEAL
02-15-24

SHEET TITLE : SECTIONS AND DETAILS

MCKEE JOB # : 22-304

DRAWN BY : GAC

DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : S2.1

ROOM FINISH SCHEDULE

-- - NO WORK REQUIRED
GBP - GYPSUM BOARD - PAINT
GB - GYPSUM BOARD - NO PAINT
MGBP - MOISTURE RESISTANT GYPSUM BOARD - PAINT
MGB - MOISTURE RESISTANT GYPSUM BOARD - NO PAINT
IGBP - IMPACT RESISTANT GYPSUM BOARD - PAINT
IGB - IMPACT RESISTANT GYPSUM BOARD - NO PAINT

CMUP - CONCRETE MASONRY UNIT - PAINT
CMU - CONCRETE MASONRY UNIT - NO PAINT
IMWP - INTERIOR METAL WALL PANELS
PLP - PLASTIC LAMINATE WALL PANELS
AWC - ACCOUSTICAL WALL COVERING
CT - CERAMIC TILE
PT - PORCELAIN TILE

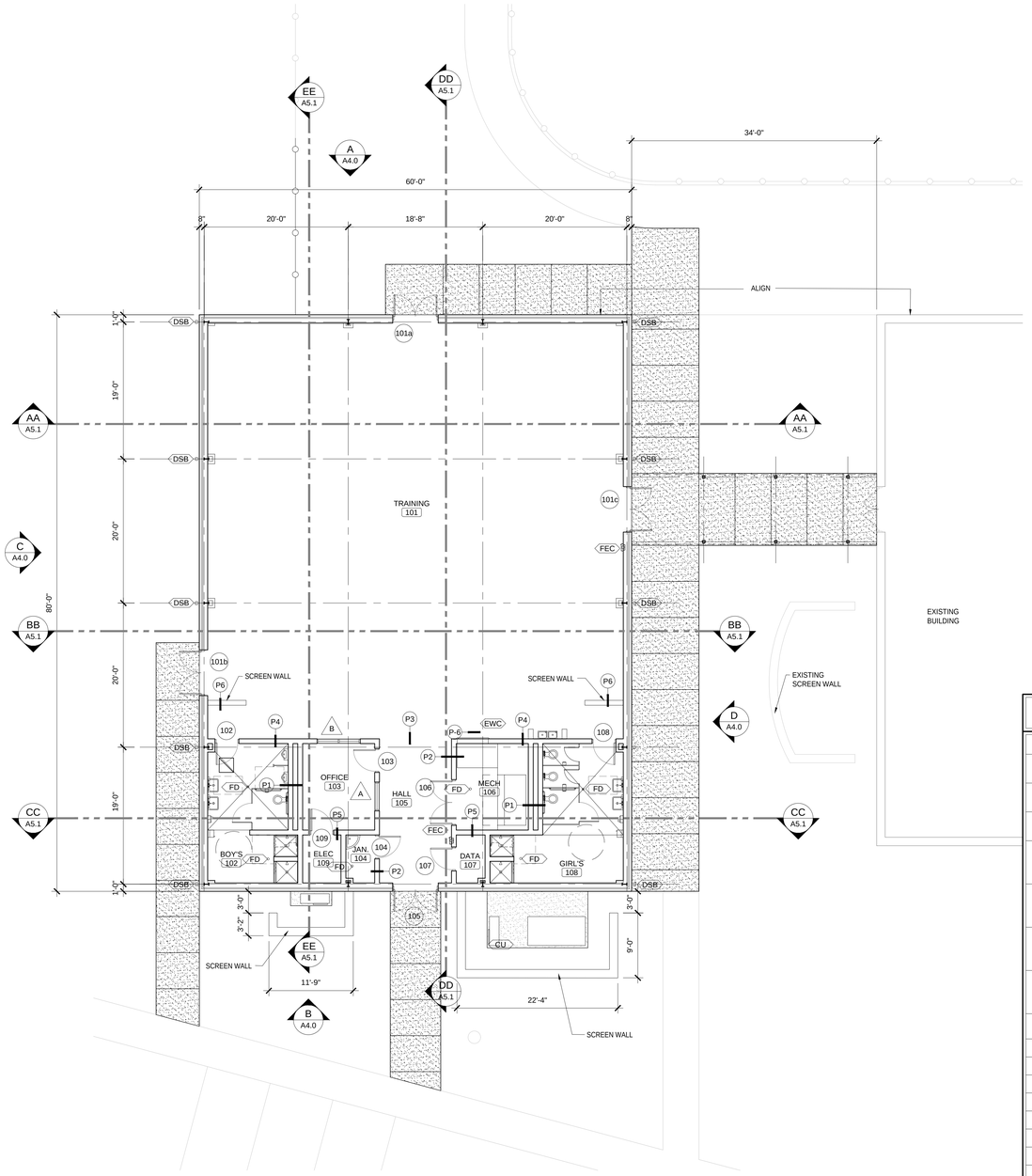
TR - TERRAZZO
SC - SEALED CONCRETE
RFT - RUBBER FLOOR TILES
RSF - ROLL RUBBER SPORTS FLOORING
VCT - VINYL COMPOSITION TILE
WGF - WOOD GYMNASIUM FLOORING
C - CARPET

PF - POLYMER FLOORING
RB - RUBBER BASE
W - WOOD BASE
VCB - VENTILATED COVE BASE

ROOM #	ROOM NAME	FLOOR	BASE	WALLS				CEILING		WAINS.	HEIGHT	REMARKS
				NORTH	SOUTH	EAST	WEST	TYPE	HEIGHT			
101	TRAINING	SC	RB	CMUP	CMUP/GBP	CMUP	CMUP	SEE RCP PLAN		---	---	---
102	BOY'S	PT	PT	CMUP	CMUP	PT/CMUP	PT/CMUP	SEE RCP PLAN		---	---	PORCELAIN TILE ON WET WALLS & SHOWER WALLS
103	OFFICE	LVT	RB	CMUP	CMUP	CMUP	CMUP	SEE RCP PLAN		---	---	---
104	JANITOR	SC	---	CMUP	CMUP	CMUP	CMUP	SEE RCP PLAN		---	---	---
105	HALL	LVT	RB	CMUP	CMUP	CMUP	CMUP	SEE RCP PLAN		---	---	---
106	MECHANICAL	SC	---	CMUP	CMUP	CMUP	CMUP	SEE RCP PLAN		---	---	---
107	DATA	LVT	RB	CMUP	CMUP	CMUP	CMUP	SEE RCP PLAN		---	---	---
108	GIRL'S	PT	PT	CMUP	CMUP	PT/CMUP	PT/CMUP	SEE RCP PLAN		---	---	PORCELAIN TILE ON WET WALLS & SHOWER WALLS
109	ELECTRICAL											

DOOR SCHEDULE

DOOR #	WIDTH	HEIGHT	THICKNESS	MATERIALS	DOOR TYPE	DOOR FINISH	FRAME TYPE	FRAME FINISH	LABEL	DETAILS		SIGNAGE	REMARKS
										HEAD	JAMB		
101a	(2)3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	A	FACTORY	AS1	FACTORY	---	5/A2.1	3&4/A2.1		---
101b	(2)3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	A	FACTORY	AS1	FACTORY	---	5/A2.1	3&4/A2.1		---
101c	(2)3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	A	FACTORY	AS1	FACTORY	---	5/A2.1	3&4/A2.1		---
102	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	C	FACTORY	HM1	PAINT	---	2/A2.1	1/A2.1	BOY'S	---
103	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	PAINT	---	2/A2.1	1/A2.1	OFFICE	---
104	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	C	FACTORY	HM1	PAINT	---	2/A2.1	1/A2.1	JANITOR	---
105	(2)3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	A	FACTORY	AS1	FACTORY	---	5/A2.1	3&4/A2.1		---
106	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	C	FACTORY	HM1	PAINT	---	2/A2.1	1/A2.1	MECHANICAL	---
107	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	C	FACTORY	HM1	PAINT	---	2/A2.1	1/A2.1	DATA	---
108	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	C	FACTORY	HM1	PAINT	---	2/A2.1	1/A2.1	GIRL'S	---
109	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	C	FACTORY	HM1	PAINT	---	2/A2.1	1/A2.1	ELECTRICAL	



FLOOR PLAN
SCALE: 1/8" = 1'-0"

SIGN MOUNTING HEIGHT

703.4.1 HEIGHT ABOVE FINISH FLOOR OR GROUND
TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES (1220 mm) MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER AND 60 INCHES (1525 mm) MAXIMUM ABOVE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER.
EXCEPTION: BRAILLE PROVIDED ON ELEVATOR CAR CONTROLS SHALL BE SEPARATED 3/8 INCHES (4.8 mm) MINIMUM AND SHALL BE LOCATED EITHER DIRECTLY BELOW OR ADJACENT TO THE CORRESPONDING RAISED CHARACTERS OR SYMBOLS.

703.4.2 LOCATION
WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT THE CLEAR FLOOR SPACE OF 18 INCHES (455 mm) MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSEST POSITION AND 45 DEGREE OPEN POSITION.
EXCEPTION: SIGNS WITH TACTILE CHARACTERS SHALL BE PERMITTED ON THE PUSH SIDE OF DOORS WITH CLOSERS AND WITHOUT HOLD-OPEN DEVICES.

SIGNAGE NOTES:

FURNISH INDIVIDUAL PLASTIC LAMINATE SIGNAGE SYSTEM WITH ROOM OR OCCUPANT'S NAME AND ROOM NUMBER. FINAL WORDING TO BE FURNISHED WHEN SHOP DRAWINGS FOR SIGNAGE SYSTEM ARE SUBMITTED. FURNISH INDIVIDUAL PLASTIC LAMINATE RESTROOM SIGNS FOR DOOR(S) AND HANDICAPED ACCESS SIGN TO BE PLACED ON WALL BESIDE RESTROOM DOOR(S) -SEE DIAGRAM.

LABELED DOOR AND FRAME NOTE:

HOURLY RATING DESIGNATIONS AND / OR ALPHABETICAL LETTER DESIGNATIONS ARE GIVEN WHERE PROTECTED OPENINGS ARE REQUIRED IN RATED PARTITIONS. THESE OPENING PROTECTIVE ASSEMBLIES SHALL INCLUDE THE FRAME, DOOR, HARDWARE, CLOSING DEVICE, SILL AND ANCHORAGE. CONTRACTOR SHALL SEE THAT NO COMPONENT IS OMITTED OR SUBSTANDARD QUALITY USED SUCH THAT THE EFFECTIVENESS OF THE ENTIRE OPENING AS A FIRE OR SMOKE BARRIER MIGHT BE JEOPARDIZED. DOORS AND FRAMES SHALL BE FURNISHED WITH UNDERWRITER'S LABORATORIES OR WARNOCKHERSEY LABELS WITH APPROPRIATE FIRE RESISTANCE RATINGS FOR THE CLASS OF OPENING SCHEDULED. SUBJECT TO DOOR MANUFACTURER'S PROCEDURAL LIMITATIONS, LABELS SHOULD BEAR THE FOLLOWING NOTATION: "FIRE DOOR, TO BE EQUIPPED WITH FIRE EXIT HARDWARE"

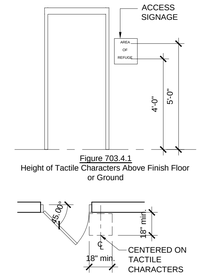
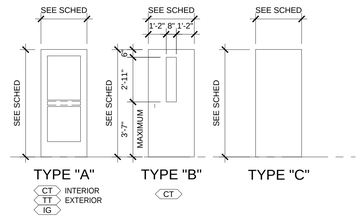
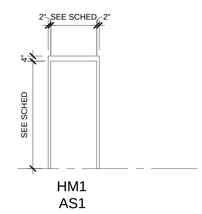


Figure 703.4.1
Height of Tactile Characters Above Finish Floor or Ground

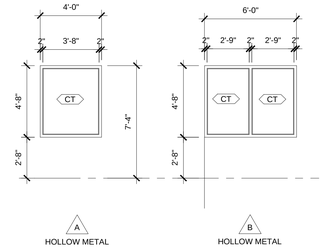
Figure 703.4.2
Location of Tactile Signs at Doors



TYPICAL DOOR TYPES
SCALE: 1/4" - 1'-0"



TYPICAL FRAME TYPES
SCALE: 1/4" - 1'-0"



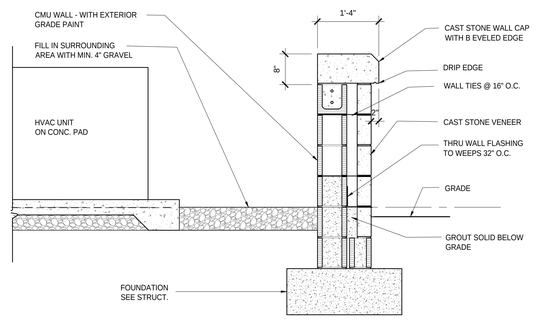
TYPICAL WINDOW TYPES
SCALE: 1/4" - 1'-0"

GLAZING SCHEDULE

SYMBOL	DESCRIPTION
CT	CLEAR TEMPERED
IG	INSULATING GLASS
TT	TINTED TEMPERED

FLOOR PLAN LEGEND

SYMBOL	DESCRIPTION
101a	SCHEDULED DOOR AND FRAME
A	SCHEDULED WINDOW UNIT
CORRIDOR ---	SCHEDULED ROOM NAME AND NUMBER
- AX.X	SECTION / DETAIL SYMBOL
- AX.X	BUILDING SECTION SYMBOL
- AX.X	EXTERIOR ELEVATION SYMBOL
X AX.X X X	INTERIOR ELEVATION SYMBOL
P-	WALL PARTITION TYPES
EWC	ELECTRIC WATER COOLER (SEE DETAIL A9.1)
FEC	FIRE EXTINGUISHER CABINET (SEE DETAIL A9.1)
DSB	PREFINISHED METAL DOWNSPOUT TO BOOT
CU	CONDENSING UNIT (SEE MECHANICAL)
CEP	CONCRETE EQUIPMENT PAD (SEE DETAIL A9.1)
FD	FLOOR DRAIN



1 SCREEN WALL DETAIL
SCALE: 3/4" = 1'-0"

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STATE OF ALABAMA REGISTERED ARCHITECT
WALTER T. McKEE, JR.
No. 1882
MONTGOMERY, ALA.

SHEET TITLE : FLOOR PLAN - PART "X"

MCKEE JOB # : 22-304

DRAWN BY : GAC

DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

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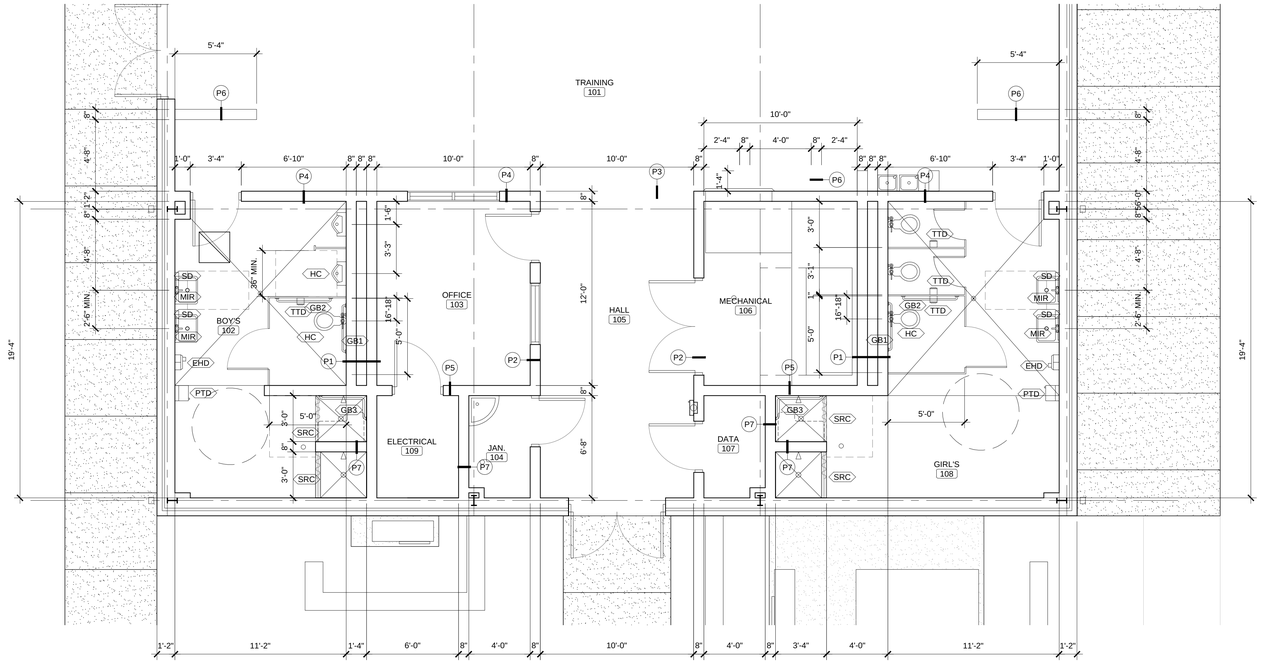
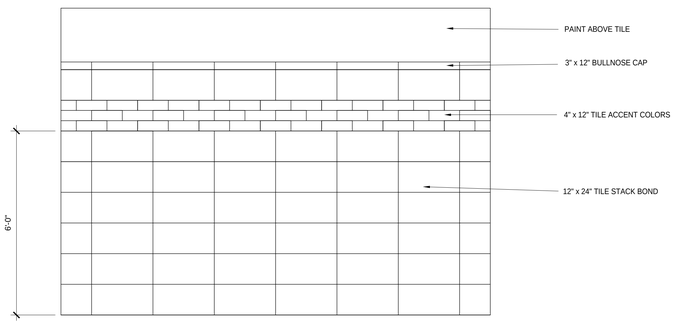


1 ENLARGED PLAN
SCALE: 1/4" = 1'-0"



A TYPICAL TILE PATTERN EAST AND WEST WALL
SCALE: 1/2" = 1'-0"

TOILET ACCESSORIES LEGEND

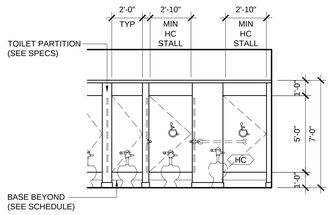
KEYNOTE	DESCRIPTION
TTD	TOILET TISSUE DISPENSER TO BE MOUNTED 8" OC IN FRONT OF TOILET AND OUTLET OF DISPENSER MUST BE BETWEEN 15" & 48" AFF (SEE SPECS)
PTD	PAPER TOWEL DISPENSER TO BE MOUNTED 48" OC AFF (SEE SPECS)
SD	SOAP DISPENSER TO BE MOUNTED WHERE HAND CONTROLS ARE 48" OC AFF (SEE SPECS)
GB1	36" GRAB BAR MOUNTED WHERE CENTERLINE OF WALL MOUNT IS 6" OUT FROM CORNER OF WALL / TOILET PARTITION AND IS TO BE 33"-36" AFF (SEE SPECS)
GB2	42" GRAB BAR MOUNTED WHERE CENTERLINE OF WALL MOUNT IS 12" OUT FROM CORNER OF WALL / TOILET PARTITION AND IS TO BE 33"-36" AFF (SEE SPECS)
GB3	CORNER GRAB BAR AND IS TO BE 33"-36" AFF (SEE SPECS)
MIR	18" X 36" MIRROR WITH SHELF TO BE MOUNTED WITH THE BOTTOM EDGE 35" AFF AND THE TOP EDGE 71" AFF (SEE SPECS)
HC	HANDICAPPED ACCESSIBLE TOILET / URINAL TO BE MOUNTED 17" AFF
SRC	40" LONG SHOWER ROD AND CURTAIN TO BE MOUNTED 84" AFF
EHD	ELECTRIC HAND DRYER TO BE MOUNTED 48" OC AFF (SEE SPECS)

FLOOR PLAN LEGEND

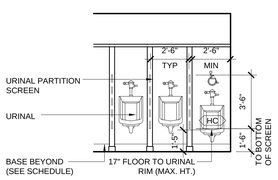
SYMBOL	DESCRIPTION
CORRIDOR (---)	SCHEDULED ROOM NAME AND NUMBER
P-	WALL PARTITION TYPES
X / X AX.X X / X	INTERIOR ELEVATION SYMBOL
WHR	WALL MOUNTED METAL HANDRAIL - PAINT
HGR	METAL HANDRAIL / GUARDRAIL - PAINT
GR	METAL GUARDRAIL - PAINT

ACCESSIBLE SHOWER NOTES

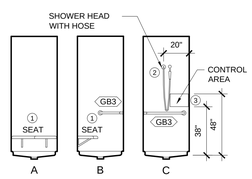
1	A FOLDING SEAT SHALL BE PROVIDED IN EACH ACCESSIBLE SHOWER STALL AND SHALL BE MOUNTED 17"-19" FROM THE SHOWER FLOOR AND SHALL EXTEND THE FULL DEPTH OF THE SHOWER STALL (SEE SPECS) SEAT SHALL BE MOUNTED SECURELY AND SHALL NOT SLIP DURING USE.
2	A SHOWER SPRAY UNIT WITH A HOSE AT LEAST 60" LONG THAT CAN BE USED AS A FIXED SHOWER HEAD OR AS A HAND-HELD SHOWER SHALL BE PROVIDED (SEE SPECS)
3	ALL CONTROLS, SHOWER HEADS ETC SHALL BE LOCATED ON OPPOSITE WALL FROM SHOWER SEAT (SEE ELEVATIONS FOR MOUNTING HEIGHTS)
4	ONE ACCESSIBLE SHOWER STALL SHALL BE PROVIDED AT EACH TOILET/SHOWER ROOM (SEE PLAN FOR LOCATION). SECOND STALL TO BE A STANDARD SHOWER WITH A FIXED SHOWER HEAD. GRAB BARS AND SHOWER SEAT WILL NOT BE REQUIRED.



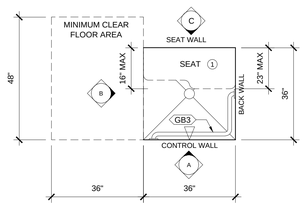
TYPICAL TOILET SCREEN PARTITION ELEVATION
SCALE: 1/4" - 1'-0"



TYPICAL URINAL SCREEN PARTITION ELEVATION
SCALE: 1/4" - 1'-0"



ACCESSIBLE SHOWER ELEVATIONS
SCALE: 1/4" - 1'-0"



ACCESSIBLE SHOWER PLAN
SCALE: 1/2" - 1'-0"

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STATE OF ALABAMA REGISTERED ARCHITECT
WALTER T. McKEE, JR.
No. 1882
MONTGOMERY, ALA.

SHEET TITLE : ENLARGED PLANS AND DETAILS

MCKEE JOB # : 22-304

DRAWN BY : GAC

DATE: 02.15.2024

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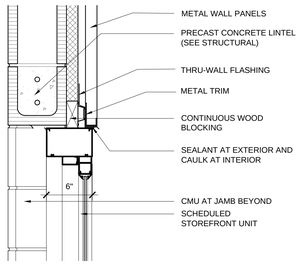
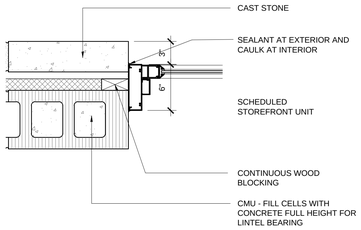
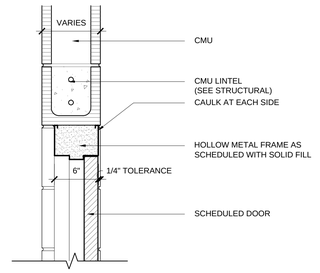


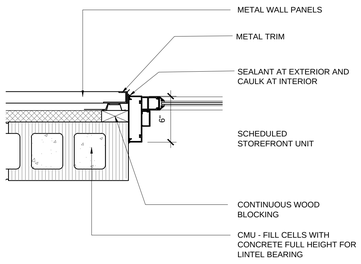
5 DOOR DETAIL HEAD
SCALE: 1 1/2"=1'-0"



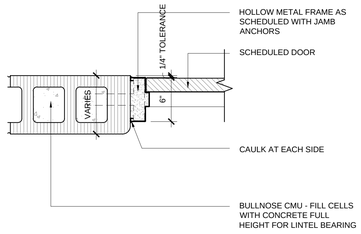
4 DOOR DETAIL JAMB
SCALE: 1 1/2"=1'-0"



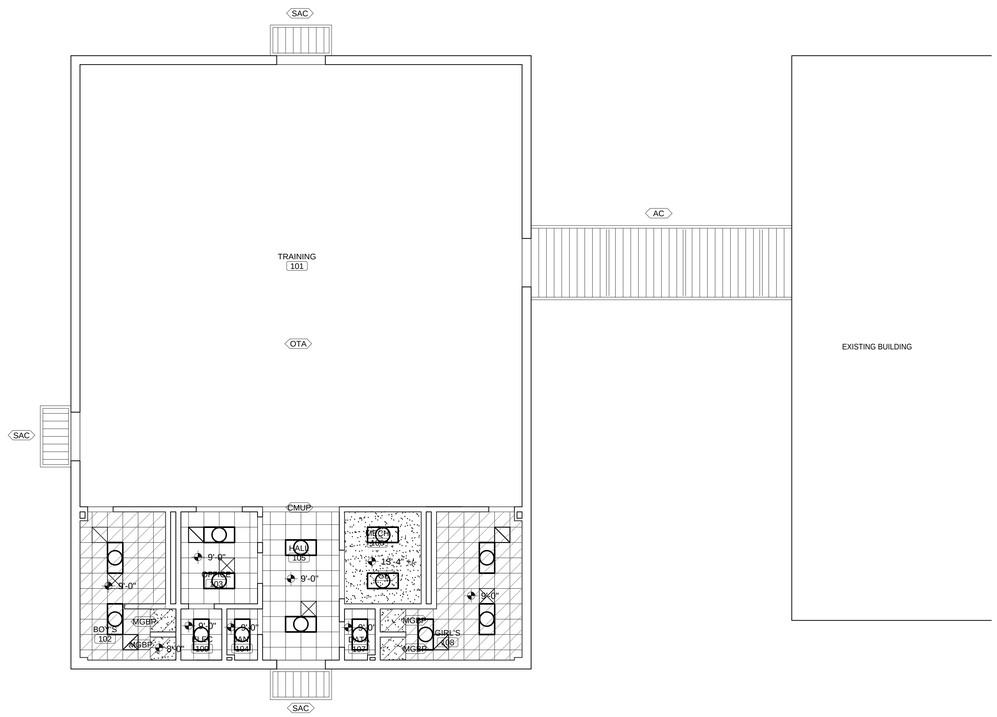
2 DOOR DETAIL HEAD
SCALE: 1 1/2"=1'-0"



3 DOOR DETAIL JAMB
SCALE: 1 1/2"=1'-0"



1 DOOR DETAIL JAMB
SCALE: 1 1/2"=1'-0"



N REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

REFLECTED CEILING PLAN LEGEND

SYMBOL	DESCRIPTION
9'-0"	HEIGHT ABOVE FINISHED FLOOR ELEVATION
	2'x2' LAY-IN ACOUSTICAL CEILING
	2'x2' VINYL CLAD LAY-IN ACOUSTICAL CEILING
	GYPSUM BOARD (SUSPENDED AS REQUIRED)
	MOISTURE RESISTANT GYPSUM BOARD (SUSPENDED AS REQUIRED)
OTA	OPEN TO ABOVE
	2'x4' RECESSED OR SURFACE MOUNTED LIGHT FIXTURE (SEE ELECTRICAL)
	2'x2' RECESSED OR SURFACE MOUNTED LIGHT FIXTURE (SEE ELECTRICAL)
	1'x4' RECESSED OR SURFACE MOUNTED LIGHT FIXTURE (SEE ELECTRICAL)
	1'x4' SURFACE MOUNTED LIGHT FIXTURE (SEE ELECTRICAL)
	RECESSED ROUND LIGHT FIXTURE (SEE ELECTRICAL)
	HVAC SUPPLY AIR GRILLE (SEE MECHANICAL)
	HVAC RETURN AIR GRILLE (SEE MECHANICAL)
	EXHAUST FAN GRILLE (SEE MECHANICAL)
	CASSETTE HEAT PUMP (SEE MECHANICAL)
GBF	GYPSUM BOARD FURRING
GBP	GYPSUM BOARD - PAINT
GB	GYPSUM BOARD - NO PAINT
MGBP	MOISTURE RESISTANT GYPSUM BOARD - PAINT
MGB	MOISTURE RESISTANT GYPSUM BOARD - NO PAINT
AC	ALUMINUM CANOPY
SA	SUSPENDED ALUMINUM AWNING
CMUP	CONCRETE MASONRY UNIT - PAINT

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STATE OF ALABAMA REGISTERED ARCHITECT
WALTER T. McKEE, JR.
No. 3882
MONTGOMERY, ALA.

SHEET TITLE : REFLECTED CEILING PLAN - PART "X"

MCKEE JOB # : 22-304

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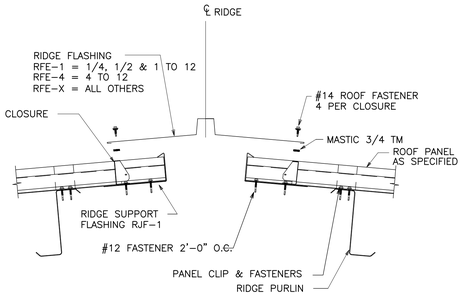
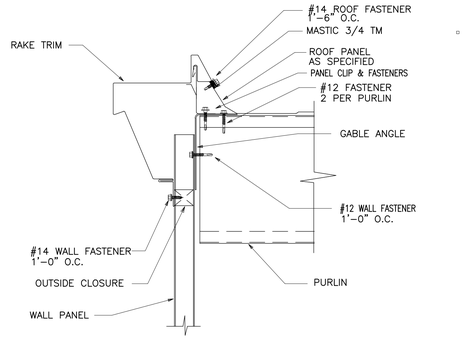
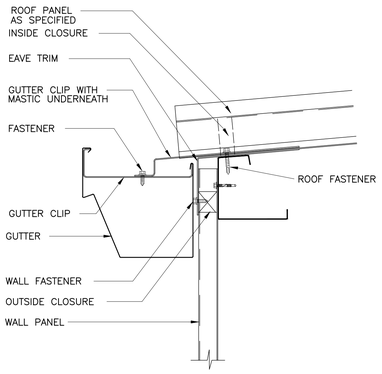


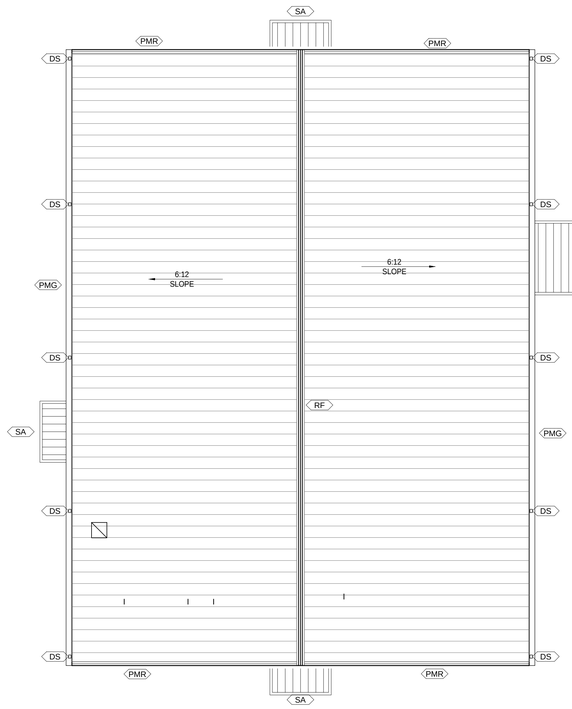
1 A3.1 **RIDGE DETAIL**
SCALE: NTS



2 A3.1 **TYPICAL RAKE DETAIL**
SCALE: NTS

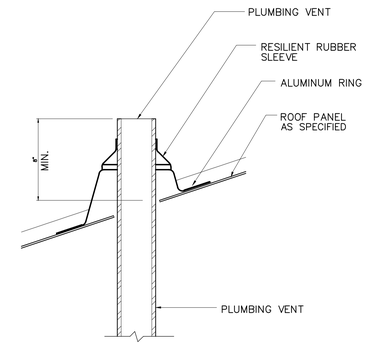


3 A3.1 **TYPICAL GUTTER DETAIL**
SCALE: NTS



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

ROOF PLAN LEGEND	
SYMBOL	DESCRIPTION
MRP	METAL ROOF PANELS
X / A3.X	DETAIL SYMBOL
RF	RIDGE FLASHING - NON VENTED
PMG	PREFINISHED METAL GUTTER
PMF	PREFINISHED METAL FASCIA
PMR	PREFINISHED METAL RAKE TRIM
PV	PLUMBING VENT
EF	EXHAUST FAN
GFV	GAS FLUE VENT
AC	ALUMINUM CANOPY
SA	SUSPENDED ALUMINUM AWNING
DS	PREFINISHED METAL DOWNSPOUT



4 A3.1 **PLUMBING VENT DETAIL**
SCALE: NTS (METAL ROOFING)

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STATE OF ALABAMA
WALTER T. MCKEE, JR.
NO. 3882
MONTGOMERY, ALA.
REGISTERED ARCHITECT

SHEET TITLE : ROOF PLAN

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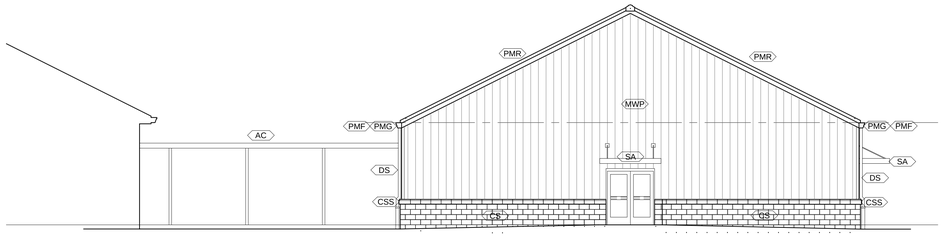
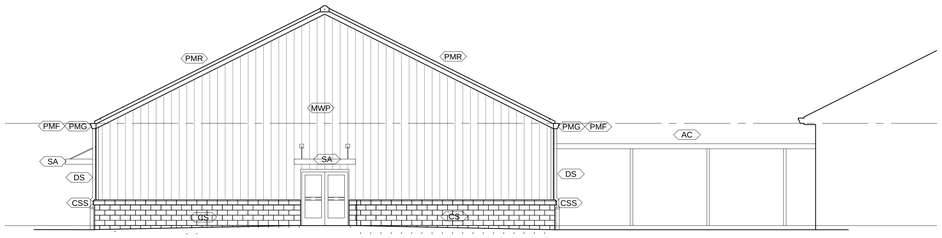
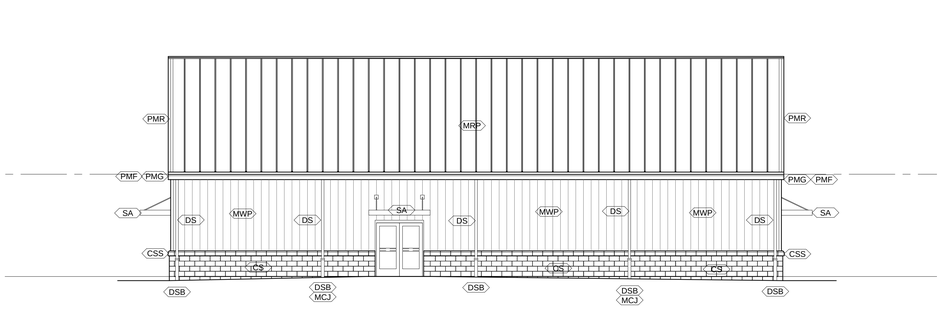


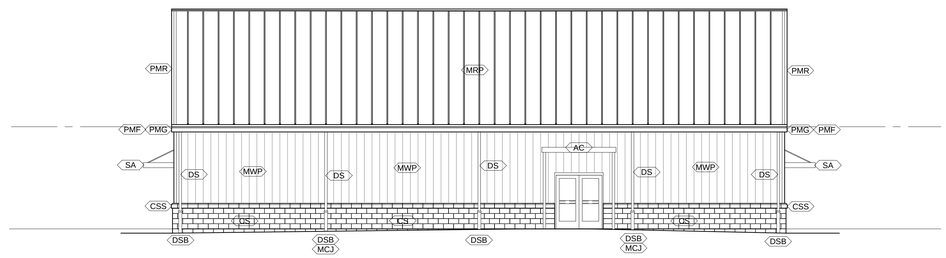
A EXTERIOR ELEVATION
SCALE: 1/16" = 1'-0"



B EXTERIOR ELEVATION
SCALE: 1/16" = 1'-0"



C EXTERIOR ELEVATION
SCALE: 1/16" = 1'-0"



D EXTERIOR ELEVATION
SCALE: 1/16" = 1'-0"

EXTERIOR ELEVATION LEGEND

SYMBOL	DESCRIPTION
- / AX.X	BUILDING SECTION SYMBOL
L1	SCHEDULED LOUVER TYPES
DS	PREFINISHED METAL DOWNSPOUT
DSB	PREFINISHED METAL DOWNSPOUT TO BOOT
MCJ	MASONRY CONTROL JOINT LOCATIONS
MWP	METAL WALL PANELS
MRP	METAL ROOF PANELS
CS	CAST STONE (TO MATCH EXIST ADJACENT BLDG.)
CSS	CAST STONE SILL (TO MATCH EXIST. ADJACENT BLDG.)
PMG	PREFINISHED METAL GUTTER
PMF	PREFINISHED METAL FASCIA
PMR	PREFINISHED METAL RAKE TRIM
AC	ALUMINUM CANOPY
SA	SUSPENDED ALUMINUM AWNING

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STATE OF ALABAMA
WALTER T. MCKEE, JR.
No. 1882
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SHEET TITLE : EXTERIOR ELEVATIONS

MCKEE JOB # : 22-304

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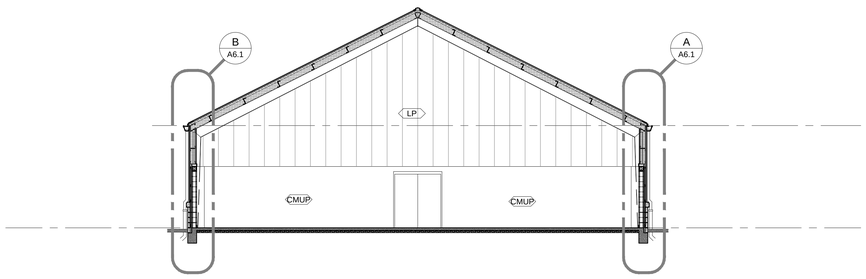
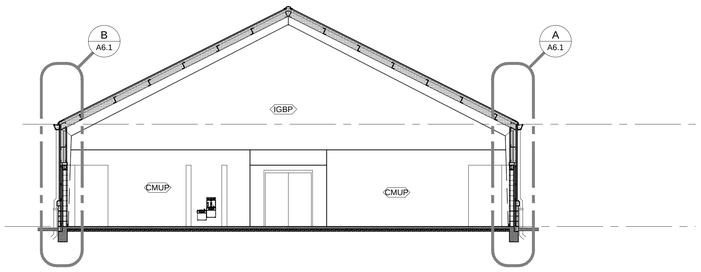
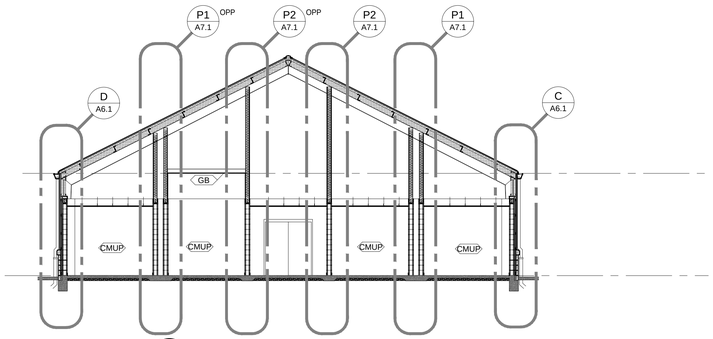


AA BUILDING SECTION
SCALE: 1/8" = 1'-0"



BB BUILDING SECTION
SCALE: 1/8" = 1'-0"

BUILDING SECTION LEGEND	
SYMBOL	DESCRIPTION
CMUP	CONCRETE MASONRY UNIT - PAINT
CMU	CONCRETE MASONRY UNIT - NO PAINT
MWP	METAL WALL PANELS
GBP	GYPSUM BOARD - PAINT
GB	GYPSUM BOARD - NO PAINT
IGBP	IMPACT RESISTANT GYPSUM BOARD - PAINT
IGB	IMPACT RESISTANT GYPSUM BOARD - NO PAINT
MGBP	MOISTURE RESISTANT GYPSUM BOARD - PAINT
MGB	MOISTURE RESISTANT GYPSUM BOARD - NO PAINT
LP	METAL LINER PANELS



CC BUILDING SECTION
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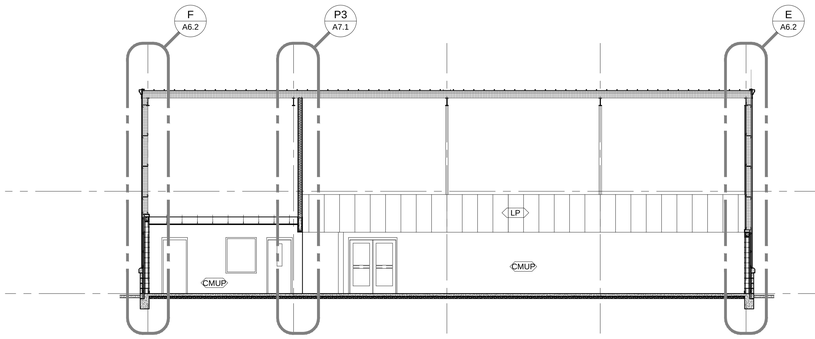

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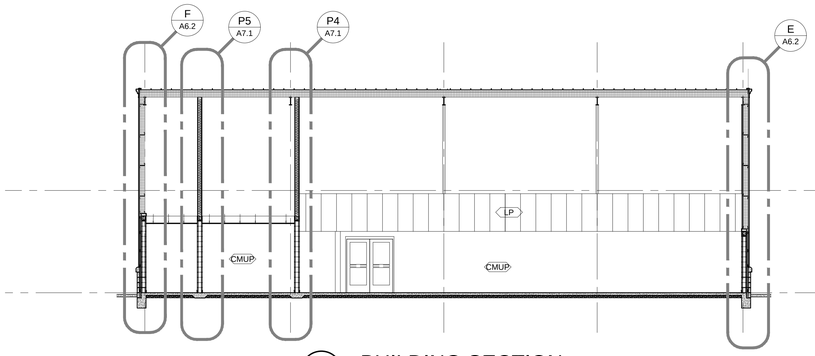

EE BUILDING SECTION
SCALE: 1/8" = 1'-0"

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
AT
CENTRAL HIGH SCHOOL
FOR THE
CLAY COUNTY BOARD OF EDUCATION
LINEVILLE, ALABAMA

McKEE and ASSOCIATES
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STATE OF ALABAMA
WALTER T. MCKEE, JR.
No. 10262
MONTGOMERY, ALA.
REGISTERED ARCHITECT

SHEET TITLE : BUILDING SECTIONS

MCKEE JOB # : 22-304

DRAWN BY : GAC

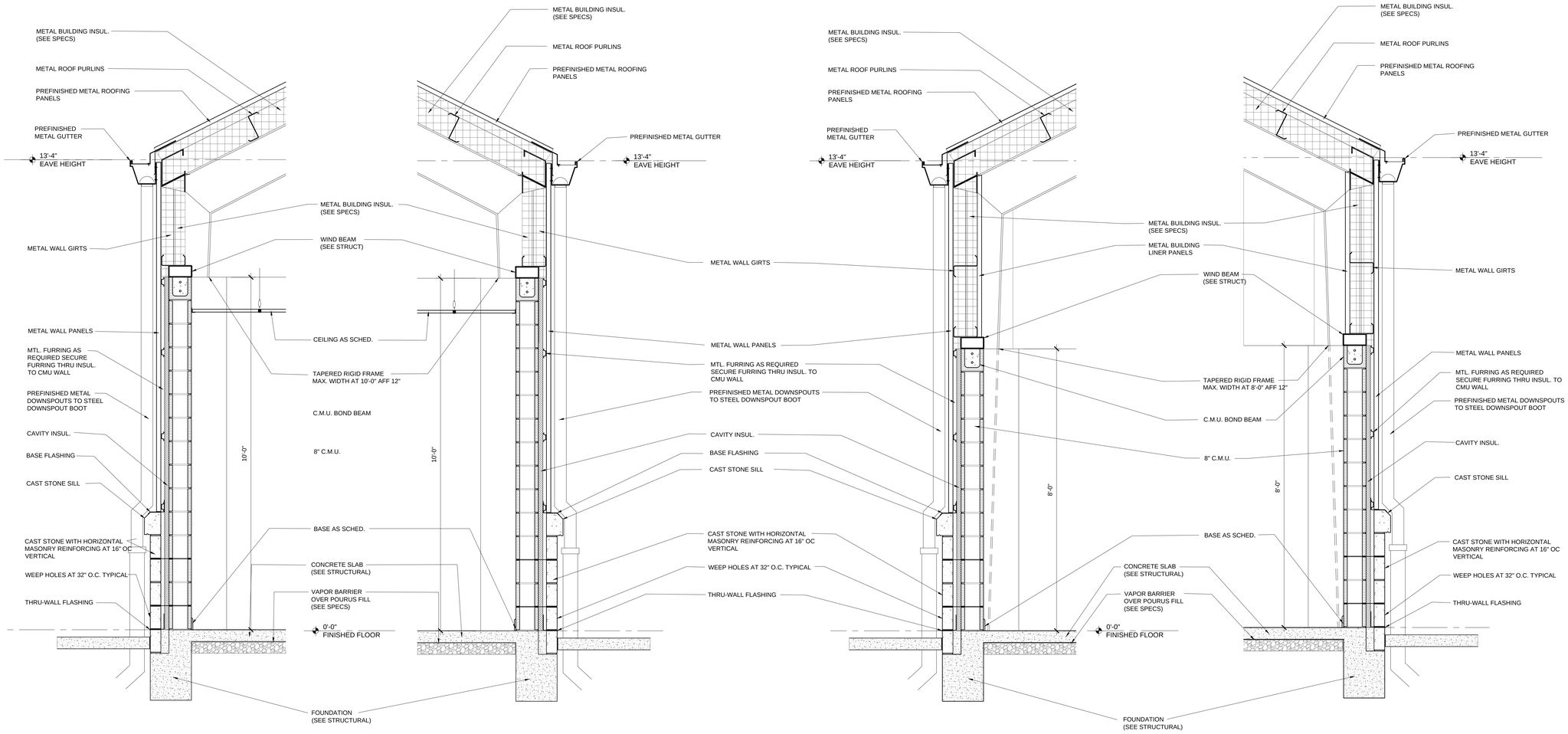
DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : A5.1



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

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

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

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

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
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STATE OF ALABAMA
WALTER T. MCKEE, JR.
NO. 1882
MONTGOMERY, ALA.
REGISTERED ARCHITECT

SHEET TITLE : WALL SECTIONS

MCKEE JOB # : 22-304

DRAWN BY : GAC

DATE: 02.15.2024

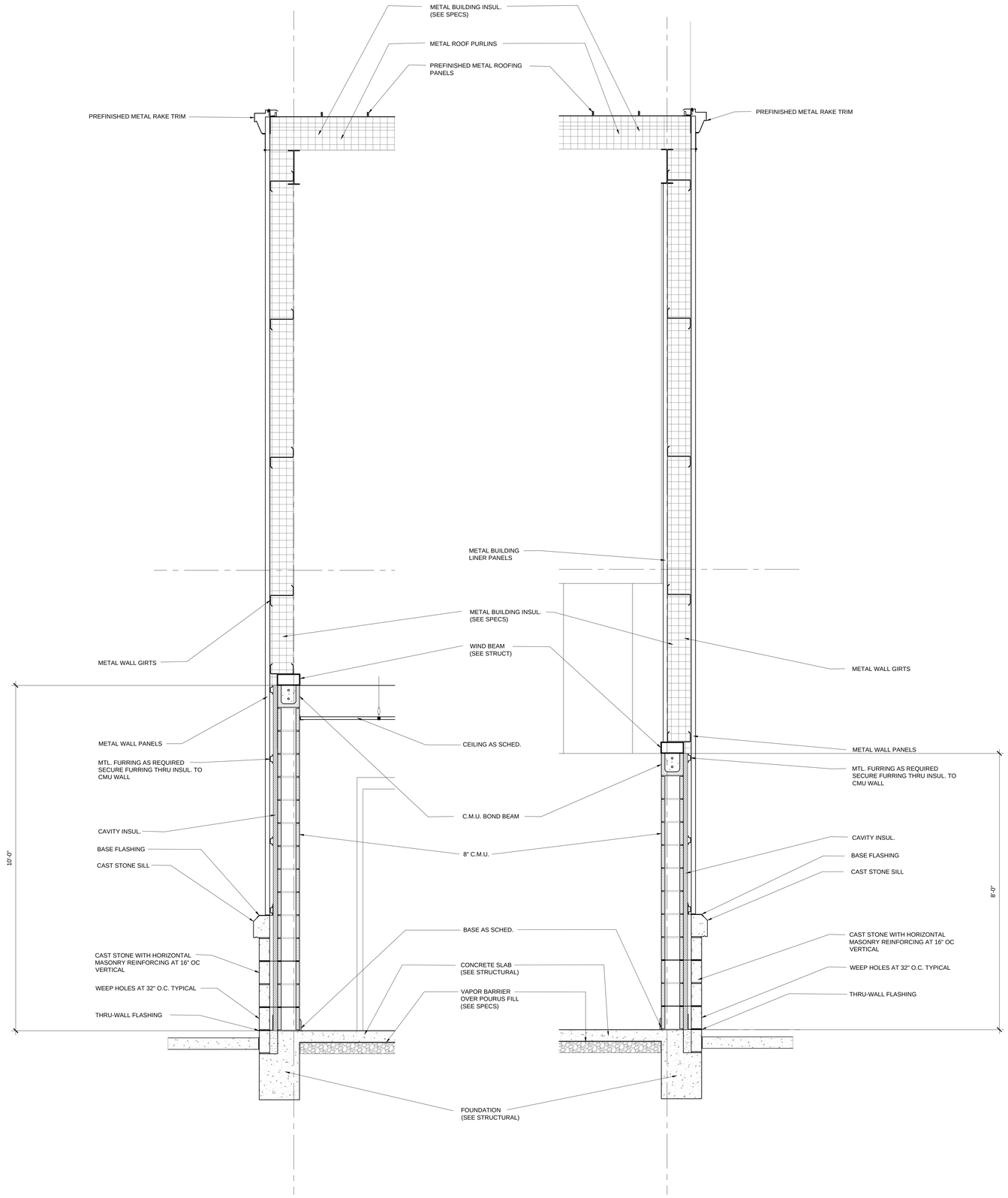
REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : A6.1

- Z:\2022\22-304 New Fieldhouse for the Junior Varsity for the Clay County\CAD Drawings\Architectural\A6.1 Wall Sections.dwg
- Thursday, February 15, 2024 4:30:39 PM



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

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

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
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STATE OF ALABAMA
WALTER T. McKEE, JR.
No. 1082
MONTGOMERY, ALA.
REGISTERED ARCHITECT

SHEET TITLE : WALL SECTIONS

MCKEE JOB # : 22-304

DRAWN BY : GAC

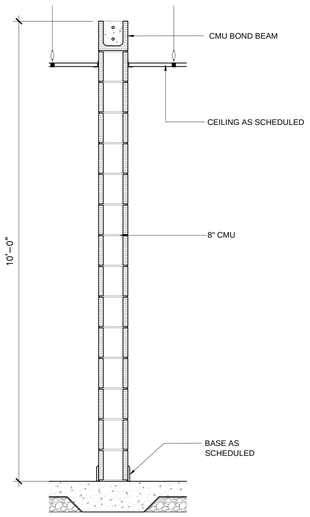
DATE: 02.15.2024

REVISED DATE:

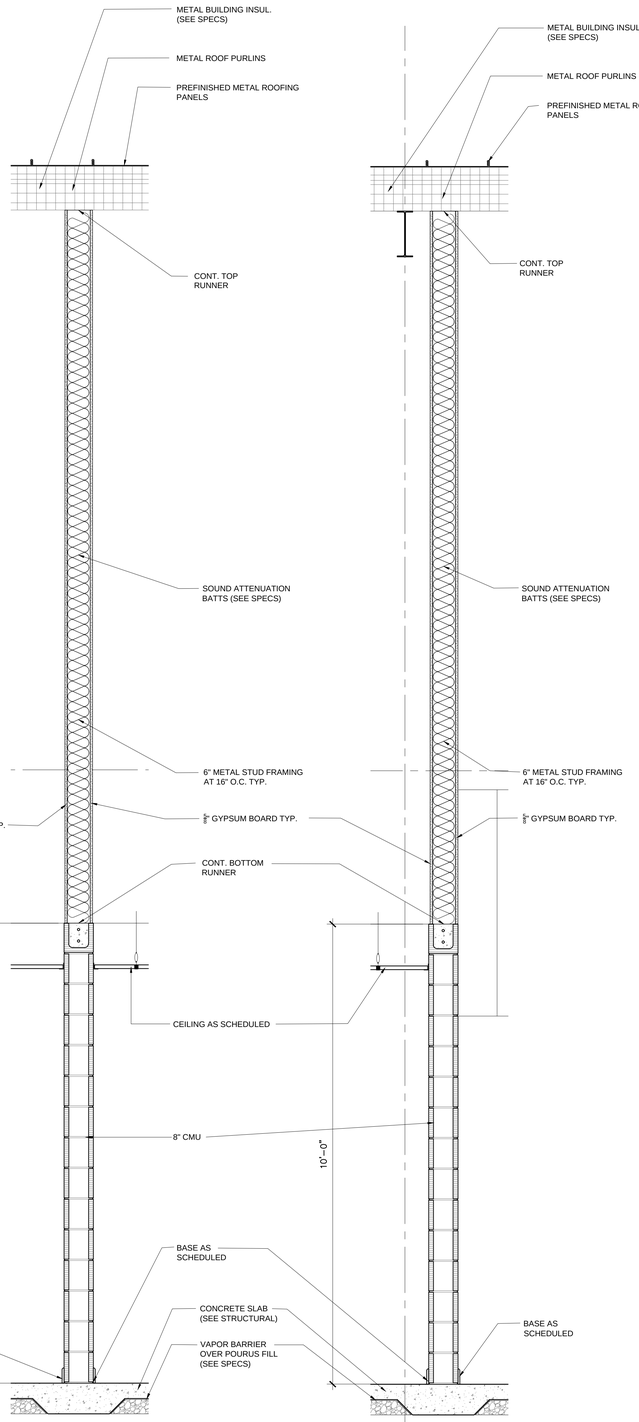
REVISED DATE:

REVISED DATE:

SHEET NO. : A6.2



P7 PARTITION TYPES
SCALE: 3/4"=1'-0"



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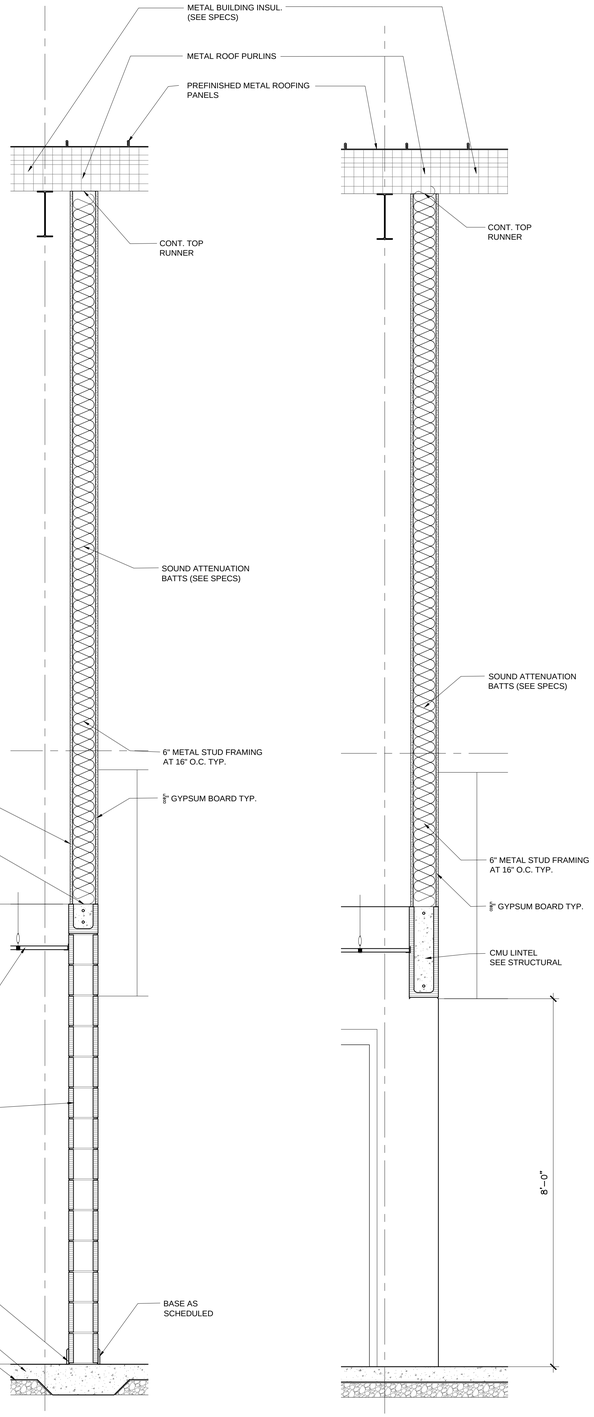

P5 PARTITION TYPES
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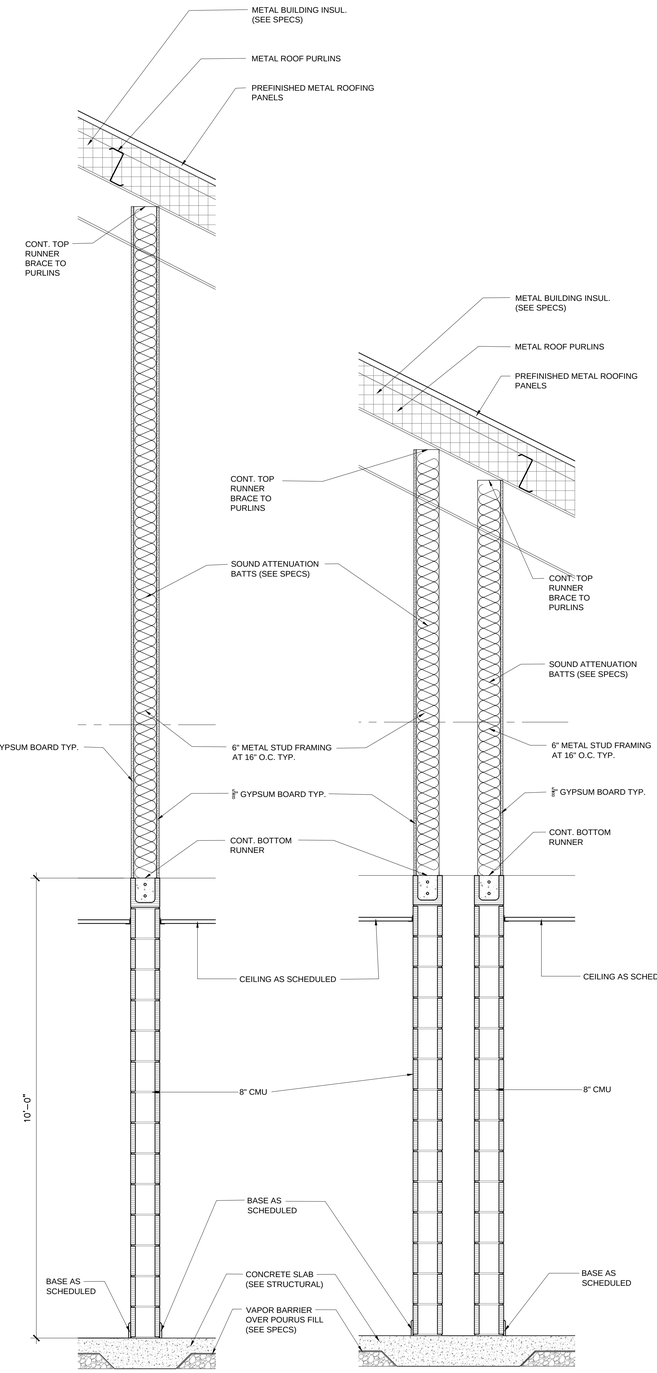
P4 PARTITION TYPES
SCALE: 3/4"=1'-0"



P3 PARTITION TYPES
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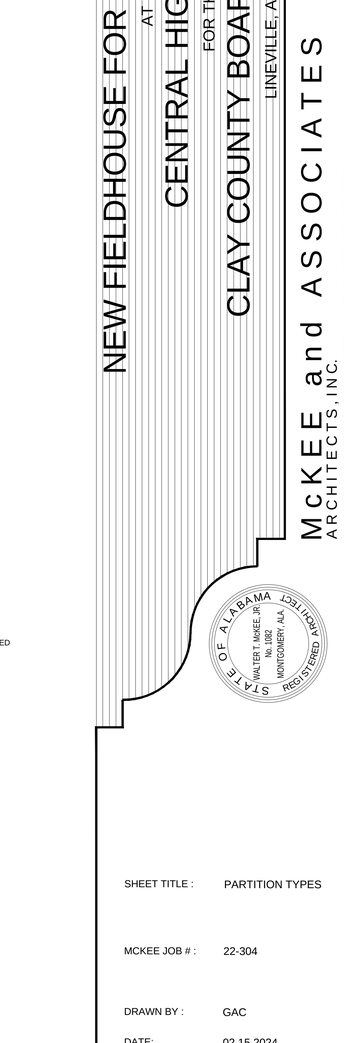
P2 PARTITION TYPES
SCALE: 3/4"=1'-0"



P1 PARTITION TYPES
SCALE: 3/4"=1'-0"

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
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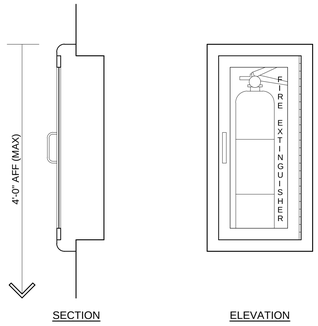
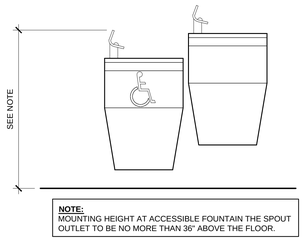
STATE OF ALABAMA
WALTER T. MCKEE, JR.
NO. 10262
MONTGOMERY, ALA.
REGISTERED ARCHITECT

SHEET TITLE :	PARTITION TYPES
MCKEE JOB # :	22-304
DRAWN BY :	GAC
DATE:	02.15.2024
REVISED DATE:	
REVISED DATE:	
REVISED DATE:	

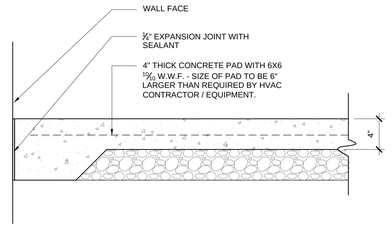
SHEET NO. : A7.1



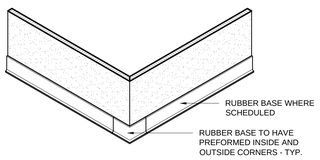
FIRE EXTINGUISHER CABINET (FEC)
SCALE: 1 1/2" - 1'-0"



ELECTRIC WATER COOLER (EWC)
SCALE: 1 1/2" - 1'-0"



HVAC EQUIPMENT PAD (CEP)
SCALE: 1 1/2" - 1'-0"



RUBBER BASE DETAIL
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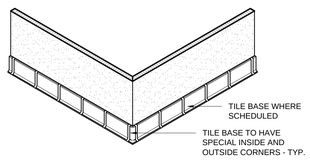
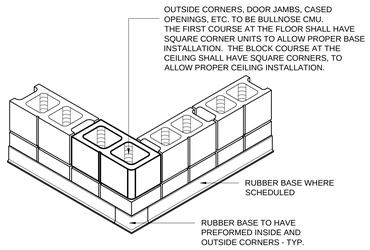


HARD TILE DETAIL
SCALE: 3/4" - 1'-0"



RUBBER BASE DETAIL
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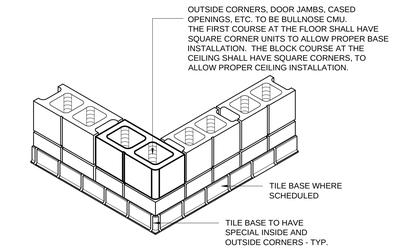

HARD TILE DETAIL
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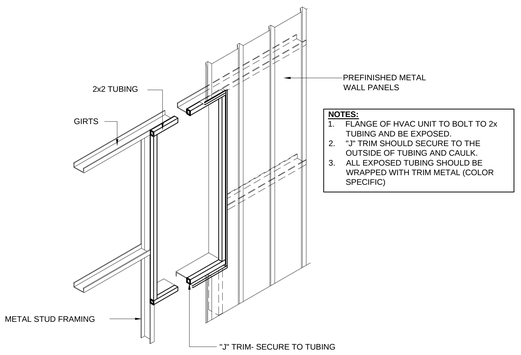

HVAC THRU-WALL FRAMING DETAIL
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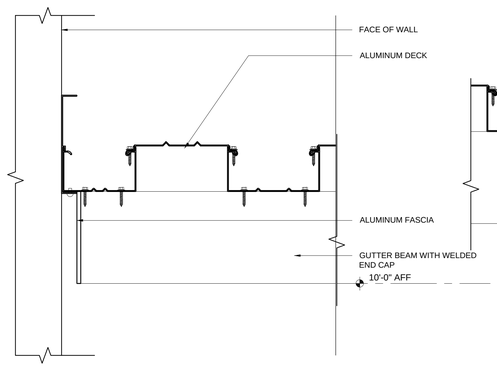
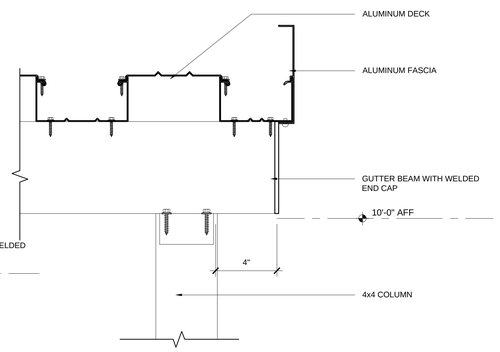


ALUM. CANOPY DETAIL
SCALE: 3" - 1'-0"



ALUM. CANOPY DETAIL
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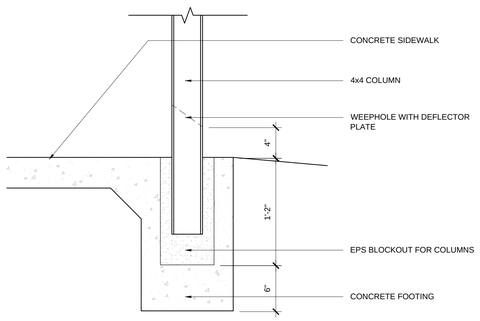

ALUM. CANOPY DETAIL
SCALE: 1 1/2" - 1'-0"

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STATE OF ALABAMA
WALTER T. MCKEE, JR.
NO. 11852
MONTGOMERY, ALA.
REGISTERED ARCHITECT

SHEET TITLE : MISCELLANEOUS DETAILS

MCKEE JOB # : 22-304

DRAWN BY : GAC

DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : A9.1

PLUMBING FIXTURE SCHEDULE

NO.	FIXTURE	WASTE	C.W.	H.W.	REMARKS
P1	WATER CLOSET	3"	1"	---	FL. MTD. - REG.
P2	ADA WATER CLOSET	3"	1"	---	FL. MTD. - ADA
P3	URINAL	2"	3/4"	---	WALL HUNG - SEE ARCH. PLANS FOR MOUNTING HEIGHT
P4	ADA LAVATORY **	1 1/4"	1/2"	1/2"	WALL HUNG - SEE ARCH. PLANS FOR MOUNTING HEIGHT
P5	MOP BASIN	3"	1/2"	1/2"	FL. MTD. CORNER TYPE
P6	SPLIT LEVEL EWC	1 1/2"	1/2"	---	WALL HUNG - HIGH/LOW
P7	ADA SHOWER	SD	1/2"	1/2"	---
P8	SHOWER	SD	1/2"	1/2"	ROUGH-IN AND CONN.
T.P.	TRAP PRIMER	---	1/2"	---	CONNECT TO FLOOR DRAIN AS SPECIFIED

** PROVIDE A WATER TEMPERATURE LIMITING DEVICE (ASSE 1070 MIXING VALVE) WITH 1/2" TEMPERED WATER LINE TO FAUCET - SEE SPECS FOR REQUIREMENTS

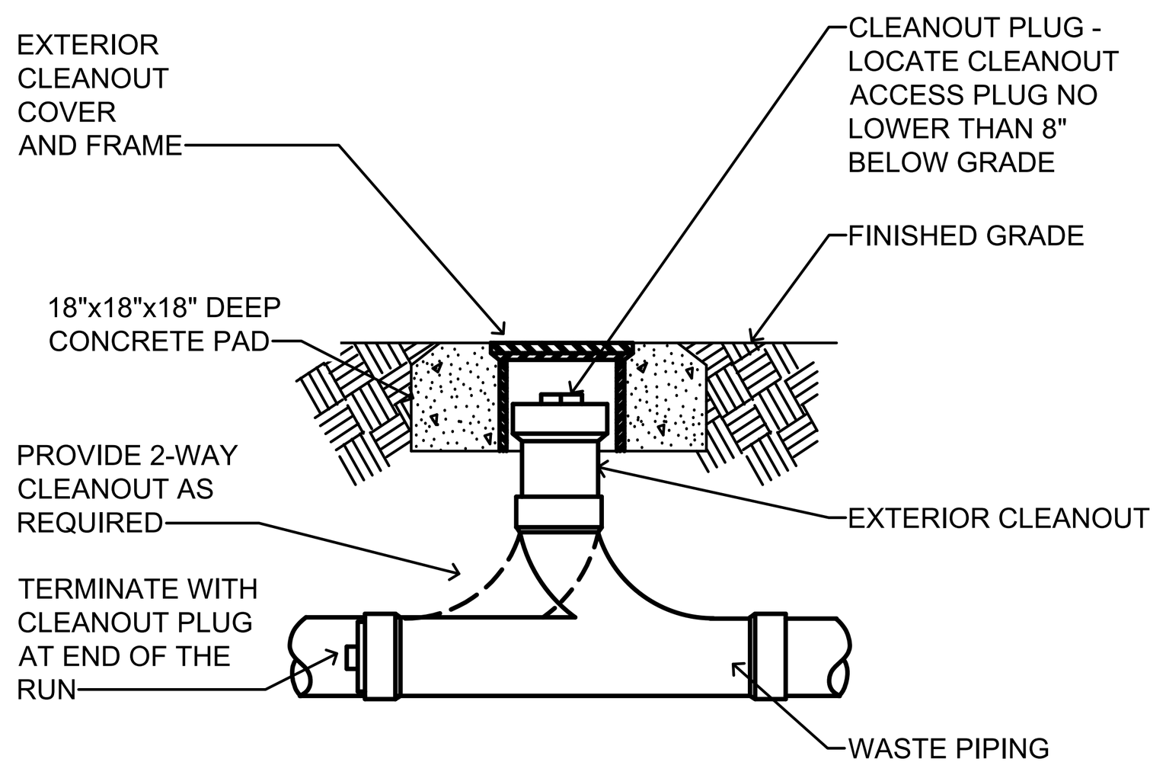
LEGEND

- WASTE PIPE
- VENT PIPE
- COLD WATER PIPE
- HOT WTR. PIPE (125°)
- HOT WTR. RECIRC. PIPE
- G — GAS PIPE
- S — STORM WATER PIPE
- AR — ACID RESIST. WASTE PIPE
- AR — ACID RESIST. VENT PIPE

- UNION
- GATE VALVE
- CHECK VALVE
- BALL VALVE

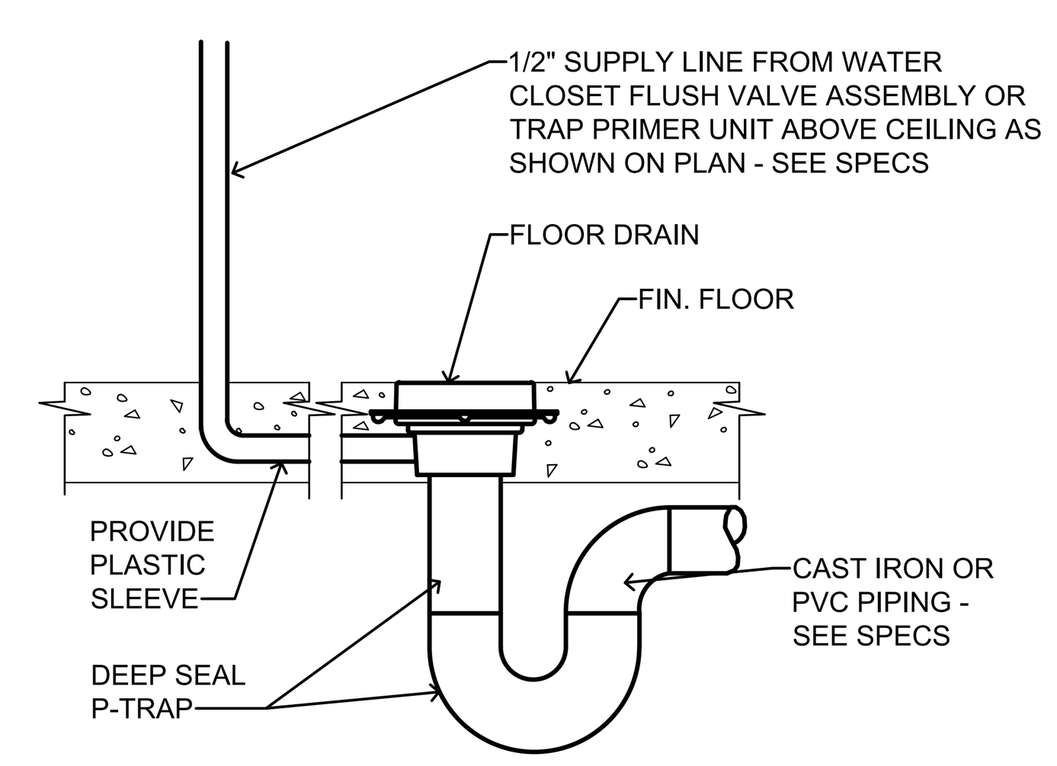
B.V.	BALL VALVE
C.I.	CAST IRON
C.O.	CLEANOUT
D.S.	DOWNSPOUT
FCO	FLOOR CLEANOUT
F.D.	FLOOR DRAIN
M.F.D.	MECH. FLOOR DRAIN
K.F.D.	KITCHEN FLOOR DRAIN
F.S.	FLOOR SINK
G.V.	GATE VALVE
H/C	HANDICAPPED
H.D.	HUB DRAIN
H.B.	HOSE BIBS
W.H.	WALL HYDRANT
R.D.	ROOF DRAIN
T.P.	TRAP PRIMER
V	VENT
VS	VENT STACK
VTR	VENT THRU ROOF
VSTR	VENT STACK THRU ROOF
VSTW	VENT STACK THRU WALL
W&V	WASTE AND VENT

- INDICATES POINT OF CONNECTION TO EXISTING
- INDICATES POINT OF CONNECTION TO OUTSIDE UTILITY. SEE CIVIL DWGS..



TYP. EXTERIOR CLEANOUT DETAIL

NO SCALE



TRAP PRIMER DETAIL

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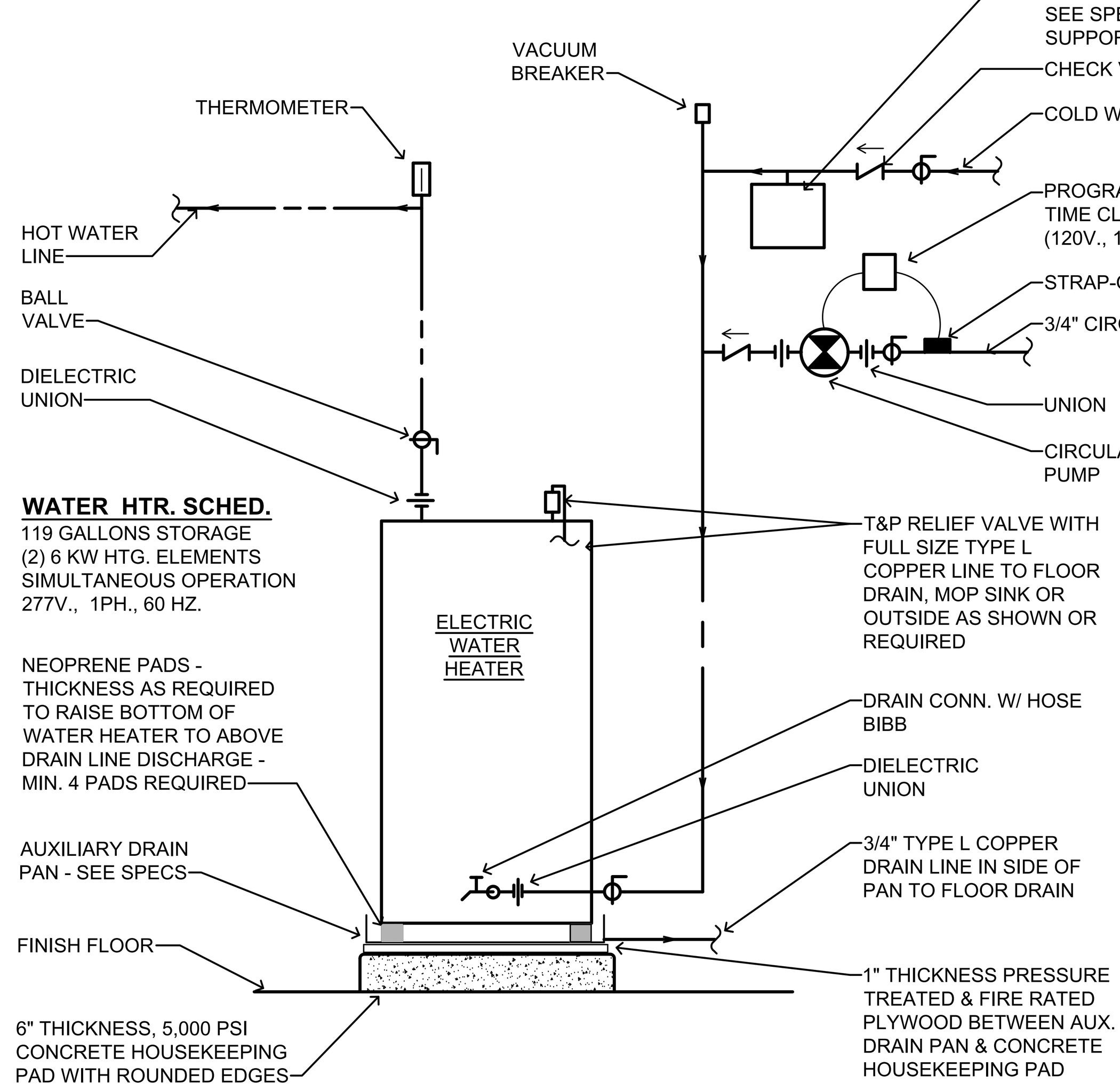
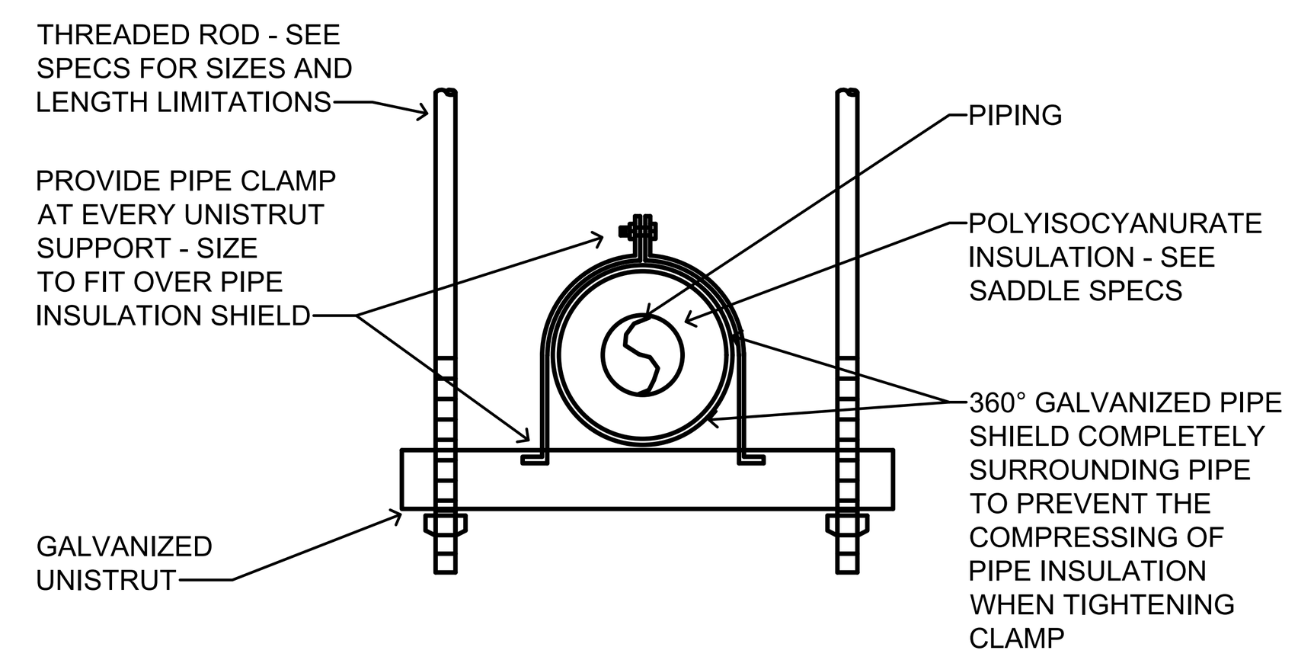


WATER HTR. SCHED.
119 GALLONS STORAGE
(2) 6 KW HTG. ELEMENTS
SIMULTANEOUS OPERATION
277V., 1PH., 60 HZ.

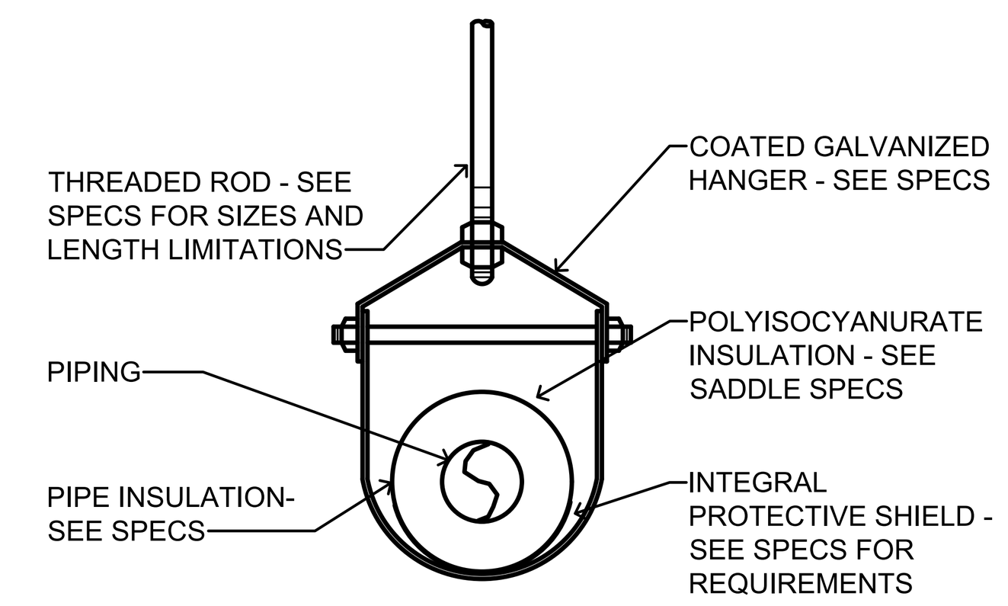
WATER HEATER DETAIL

NO SCALE



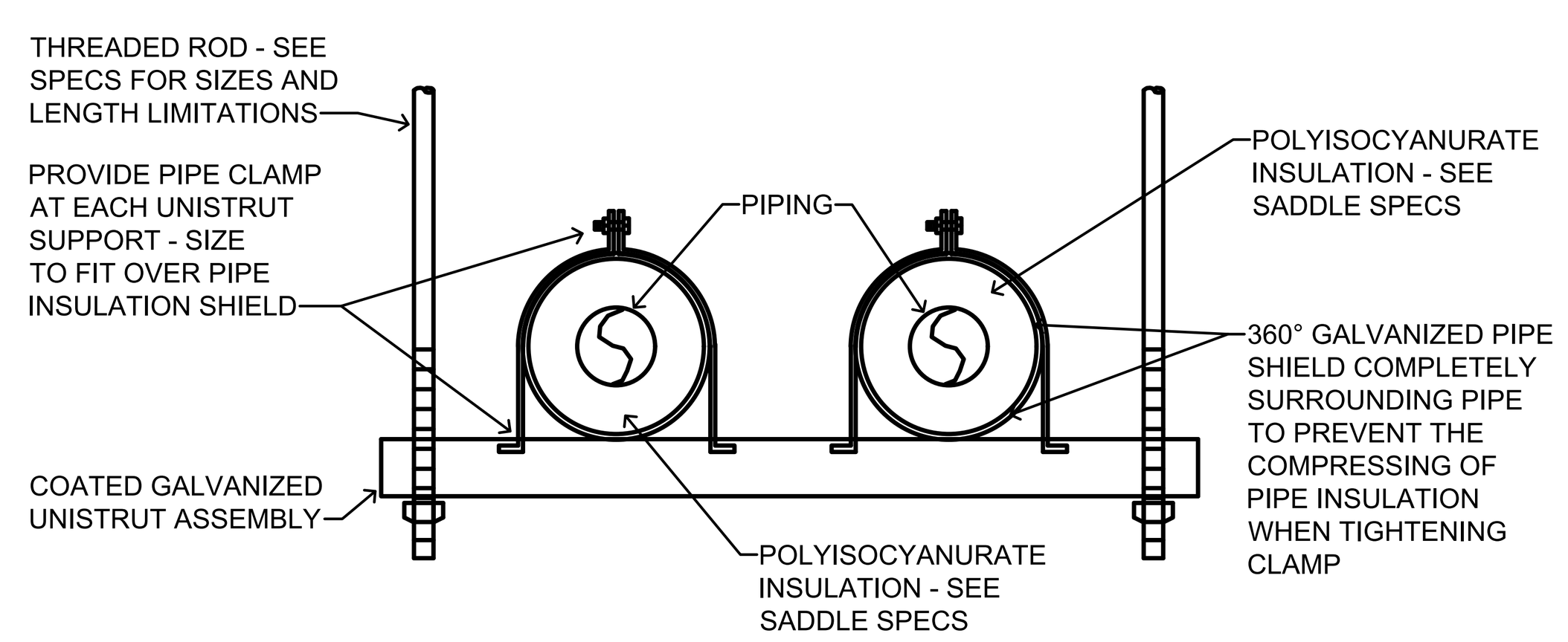
TYPICAL UNISTRUT HANGER DETAIL

NO SCALE



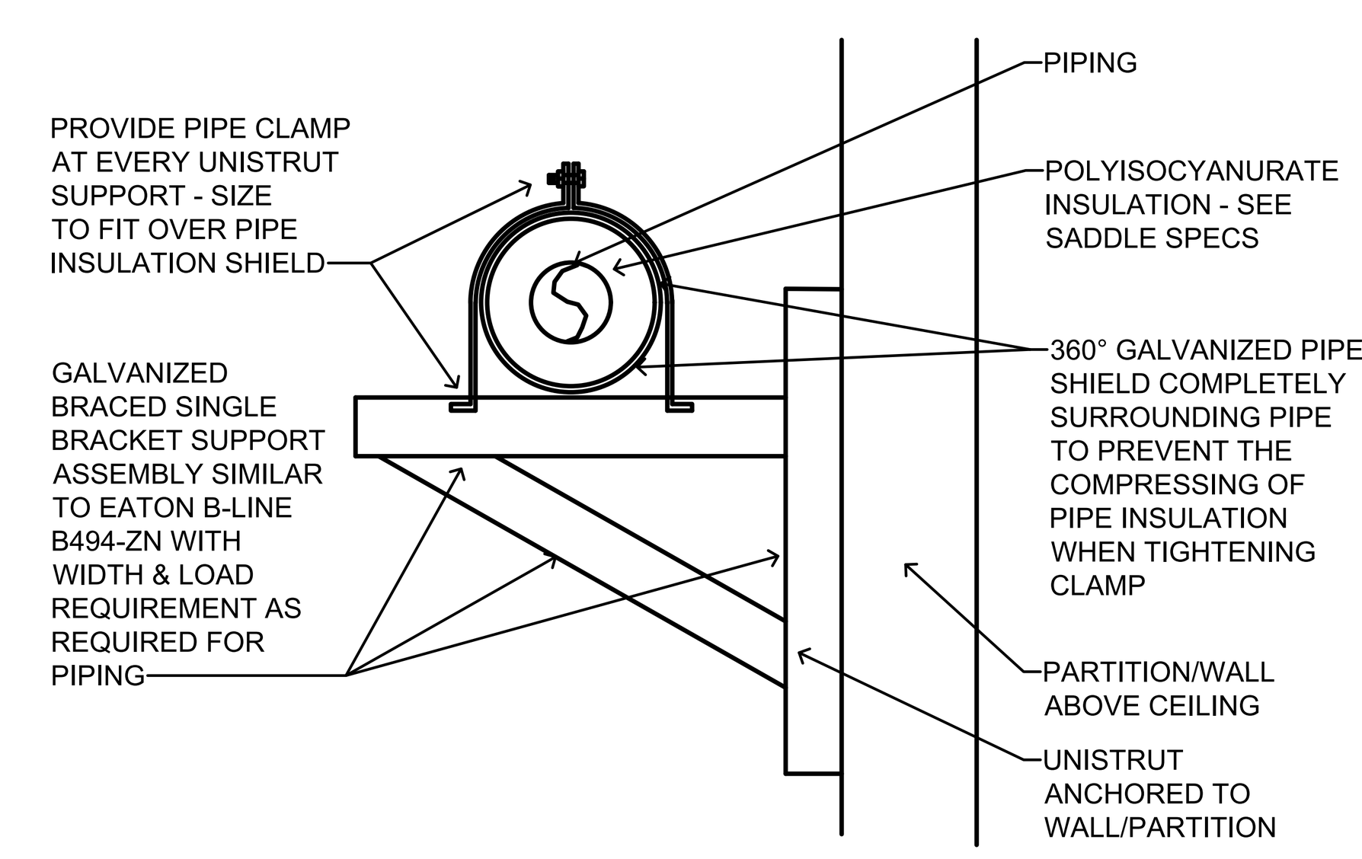
TYPICAL PIPE HANGER DETAIL

NO SCALE



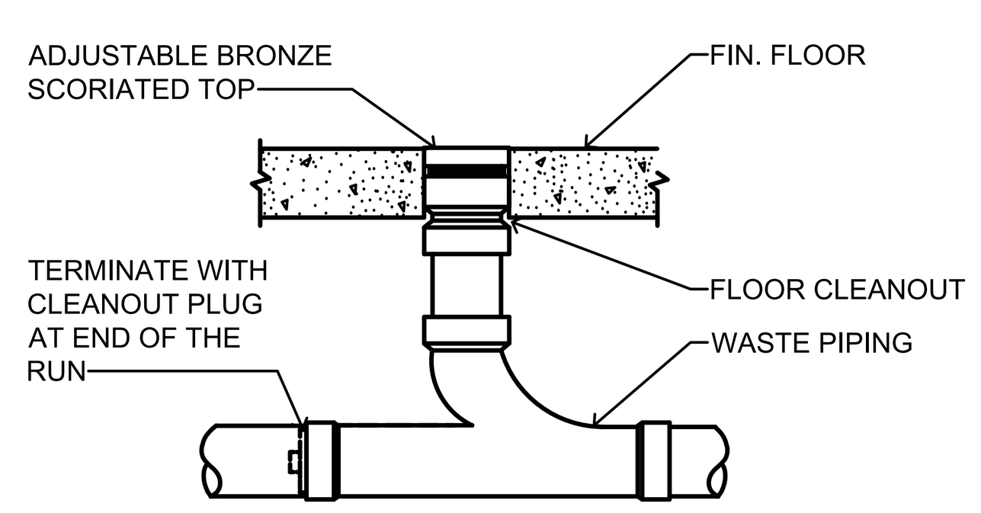
TYPICAL MULTIPLE PIPES HANGER DETAIL

NO SCALE



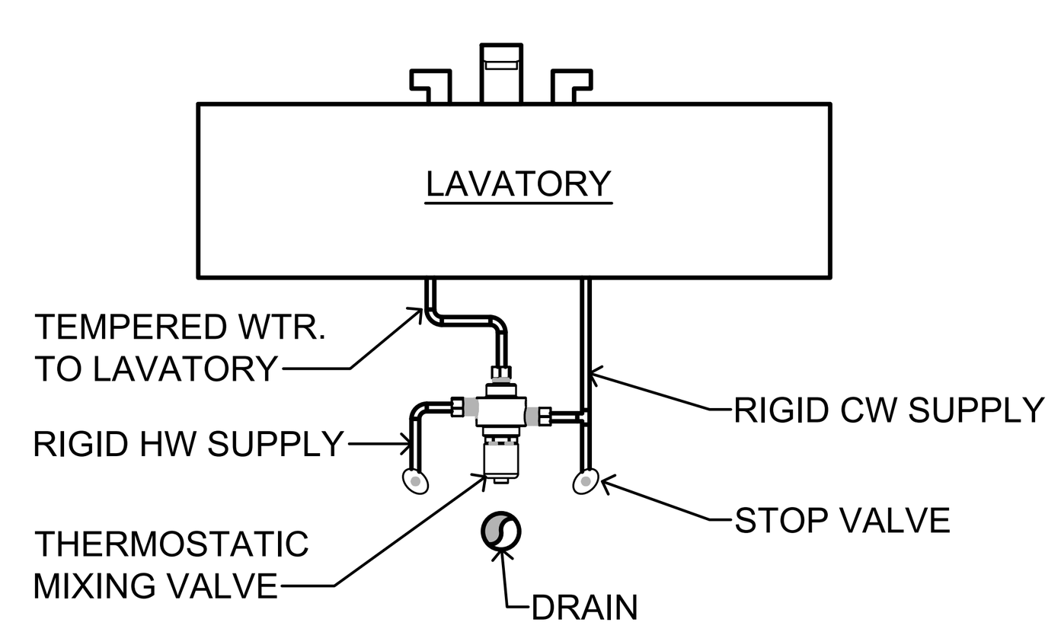
TYPICAL HORIZONTAL UNISTRUT PIPING SUPPORT DETAIL AT ABOVE CEILING PARTITION

NOTES:
1. MULTIPLE PIPES SIMILAR.
2. SUPPORT SPACING TO BE AS SPECIFIED FOR UNISTRUT ASSEMBLIES.
3. MANUFACTURER'S SADDLE LABEL WITH LOGO STICKER SHALL BE APPLIED TO EACH SADDLE AND SHALL BE VISIBLE FOR VERIFICATION OF PROPER INSTALLATION.
4. THREE DETAILS INDICATED ARE PREFERRED. OPTION FOR PIPING SUPPORT WHEN HANGER RODS EXCEED 36" TO STRUCTURE ABOVE CEILING.
5. COORDINATE UNISTRUT ATTACHMENTS/ANCHORS TO WALL WITH ARCHITECT'S SPECIFICATIONS FOR TYPE OF WALL INSTALLED AND PROVIDE ANCHORS/ATTACHMENTS AS REQUIRED.
6. VERTICAL RISER ASSEMBLY SIMILAR.



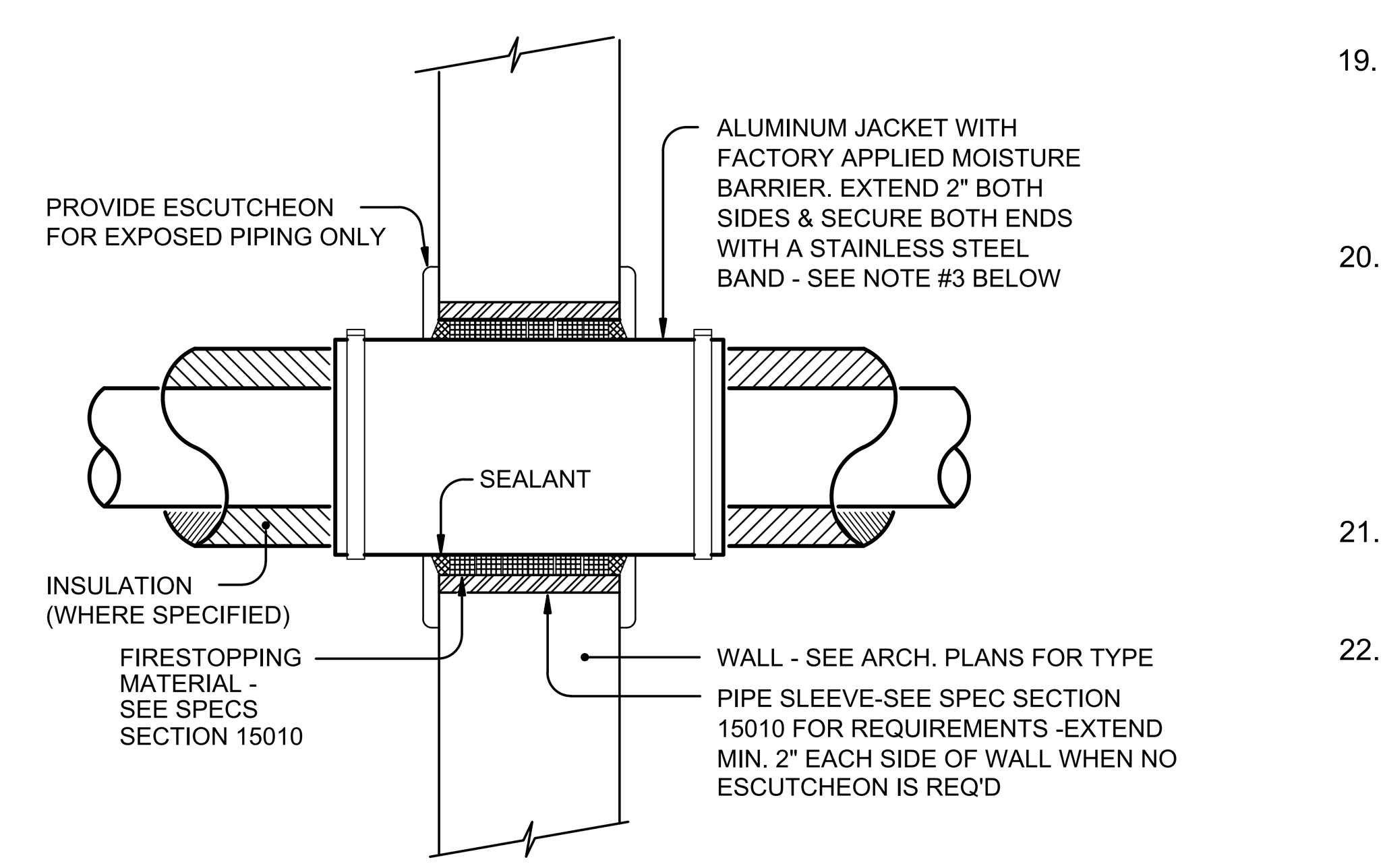
TYP. INTERIOR FLOOR CLEANOUT DETAIL

NO SCALE



DETAIL OF TMV BELOW LAVATORY

NO SCALE



INTERIOR WALL PIPE PENETRATION DETAIL

NOT TO SCALE

NOTES:
1. DETAIL APPLIES TO ALL WATER PIPING.
2. SEE SPECS FOR SLEEVE REQUIREMENTS
3. OMIT ALUMINUM JACKET IF PIPING IS UNINSULATED
4. ONLY ONE PIPE PER SLEEVE ALLOWED.
5. WHERE PIPING IS EXPOSED IN FINISHED AREAS, PROVIDE ESCUTCHEONS OVER PENETRATIONS AND DELETE REQUIREMENT FOR EXTENDING SLEEVE 2" ON EACH SIDE. ALUMINUM JACKET IS STILL REQUIRED.

GENERAL PLUMBING NOTES

1. ROUGH IN WATER CLOSET AND URINAL FLUSH VALVE SO THAT THE FLUSH TUBE IS VERTICALLY STRAIGHT.
2. ADA FIXTURES AND INSTALLATION SHALL COMPLY WITH CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
3. FLUSH VALVE HANDLE FOR ALL MANUAL FLUSH WATER CLOSETS SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AS REQUIRED BY CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
4. ROUGH-IN ADA WATER CLOSETS 18" FROM FINISHED WALL TO CENTERLINE OF THE WATER CLOSET. MEASURE FROM FACE OF SHORT SIDE OF THE STALL TO THE FINISHED WALL.
5. PROVIDE A CAST IRON DEEP SEAL P-TRAP FOR EACH FLOOR DRAIN AND HUB DRAIN WITH TRAP PRIMER AS SPECIFIED.
6. ROUTE ALL OVERHEAD WATER PIPING AND WATER PIPING WITHIN NON-MASONRY WALLS WITHIN THE BUILDING INSULATION ENVELOPE.
7. ALL WATER PIPING WITHIN MASONRY WALLS SHALL BE INSULATED AS SPECIFIED.
8. ALL WATER PIPING INSTALLED IN EXTERIOR WALLS SHALL BE LOCATED ON THE INTERIOR (WARM) SIDE OF THE BUILDING EXTERIOR WALL INSULATION
9. COORDINATE ALL PIPING RUNS WITH THE ELECTRICAL PLANS AND THE ELECTRICAL CONTRACTOR. DO NOT ROUTE ANY PIPING OVER ELECTRICAL PANELS, TRANSFORMERS, SWITCHGEAR, ETC. MAINTAIN CLEARANCES AS REQUIRED BY RESPECTIVE CODES.
10. ALL PIPING AND FITTINGS ROUTED IN/THROUGH RETURN AIR PLENUMS, RETURN AIR PLATFORMS, OR FIRE RATED PARTITIONS AND ENCLOSURES SHALL BE CAST IRON OR PVDF. SEE SPECS.
11. PLUMBING VENTS SHALL TERMINATE A MINIMUM OF 10'-0" DISTANCE FROM ALL HVAC OUTSIDE AIR INTAKES.
12. PROVIDE A READILY ACCESSIBLE CLEANOUT AT OR NEAR THE BASE OF EACH WASTE AND VENT STACK PER INTERNATIONAL PLUMBING CODE AND THE SPECIFICATIONS. CLEANOUTS SHALL BE HIGH ENOUGH TO CLEAR THE TILE BASE WITHOUT CUTTING OF THE BASE AND SHALL BE LOCATED WITHIN THE SPECIFIED PIPING ENCLOSURE FOR ALL WALL MOUNTED LAVATORIES AND WALL MOUNTED HAND SINKS WHEN POSSIBLE.
13. LOCATE CLEANOUTS TO THE SIDE OF THE WATER CLOSETS WITH A MINIMUM CLEARANCE OF 6" FROM THE ROUGH-IN OF THE WATER CLOSETS. PREFERRED LOCATION IS IN ADA STALL TO ALLOW FOR ADDITIONAL ACCESS SPACE.
14. WATER SUPPLY SYSTEM IS DESIGNED FOR A STATIC PRESSURE OF 50 TO 75 PSI. GAUGE WATER SUPPLY PRESSURE AND VERIFY PRESSURE IS WITHIN THE SPECIFIED LIMITS. PROVIDE WATER PRESSURE REDUCING VALVE AS REQUIRED TO MAINTAIN WATER PRESSURE WITHIN DESIGN LIMITS.
15. PROVIDE A BALL VALVE ON ONE SIDE OF EVERY DIELECTRIC UNION AS REQUIRED TO FACILITATE ITS REMOVAL.
16. TOPS OF ALL OUTSIDE CLEANOUTS SHALL BE FLAT AND BROUGHT TO GRADE AND FINISHED FLUSH IN 12x12x12 CONCRETE PAD.
17. ALL INTERIOR AND EXTERIOR WALL HYDRANTS AND HOSE BIBBS SHALL BE LOCATED 24" A.F.F. COORDINATE FINAL HEIGHT OF INDOOR WALL HYDRANTS WITH ARCHITECTURAL CABINET PLANS PRIOR TO ROUGHING IN.
18. WATER HAMMER ARRESTORS SHALL BE INSTALLED AT ALL SOLENOID, REMOTE OPERATED OR QUICK CLOSING VALVES AND AT EACH PLUMBING FIXTURE OR BATTERY OF PLUMBING FIXTURES. SEE SPECS FOR ADDITIONAL REQUIREMENTS.
19. ALL HUB DRAINS THAT RISE THROUGH RETURN AIR PLATFORMS SHALL BE INSULATED CAST IRON, SHALL BE TERMINATED TO 6" ABOVE THE RETURN AIR PLATFORM AND SEALED AIR TIGHT. COORDINATE REQUIREMENT WITH MECHANICAL CONTRACTOR.
20. ALL PIPING WITH VALVES AND OTHER ITEMS THAT MAY REQUIRE MAINTENANCE, SERVICE OR REPLACEMENT, SHALL BE LOCATED NO MORE THAN 12" ABOVE THE FINISHED CEILING AND NO MORE THAN 14'-0" ABOVE FINISH FLOOR IN AREAS WITHOUT CEILINGS, TO ENSURE PROPER ACCESS. PROVIDE DROPS IN PIPING AS REQUIRED FOR COMPLIANCE.
21. IPC 704.1 REQUIRES ALL DRAINAGE PIPING UPSTREAM OF A GREASE INTERCEPTOR TO BE SLOPED AT 1/4" PER FOOT (2% SLOPE).
22. DEMOLISH ALL EXISTING WALLS AS REQUIRED TO INSTALL NEW ITEMS AS SHOWN AND/OR SPECIFIED. RECONSTRUCTION AND REPAIR OF DEMOLISHED WALLS SHALL BE AS DIRECTED BY THE ARCHITECT. COORDINATE DEMOLITION AND REPAIRING/REBUILDING OF EXISTING WALLS WITH GENERAL CONTRACTOR PRIOR TO BID TO ALLOW FOR INSTALLATION OF CARRIERS, FIXTURES, PIPING, ETC. AS REQUIRED AND AS APPLICABLE.

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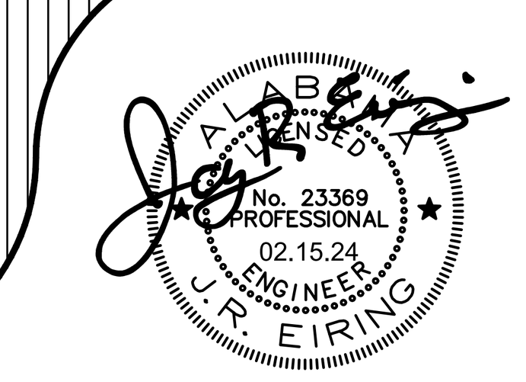

SHEET TITLE :	PLBG. SCHEDULES, DETAILS AND NOTES
MCKEE JOB # :	22-304
DRAWN BY :	C. WARD
CHECKED BY :	T. ZGOUVAS
DATE:	02.15.2024
REVISED DATE:	
REVISED DATE:	
REVISED DATE:	

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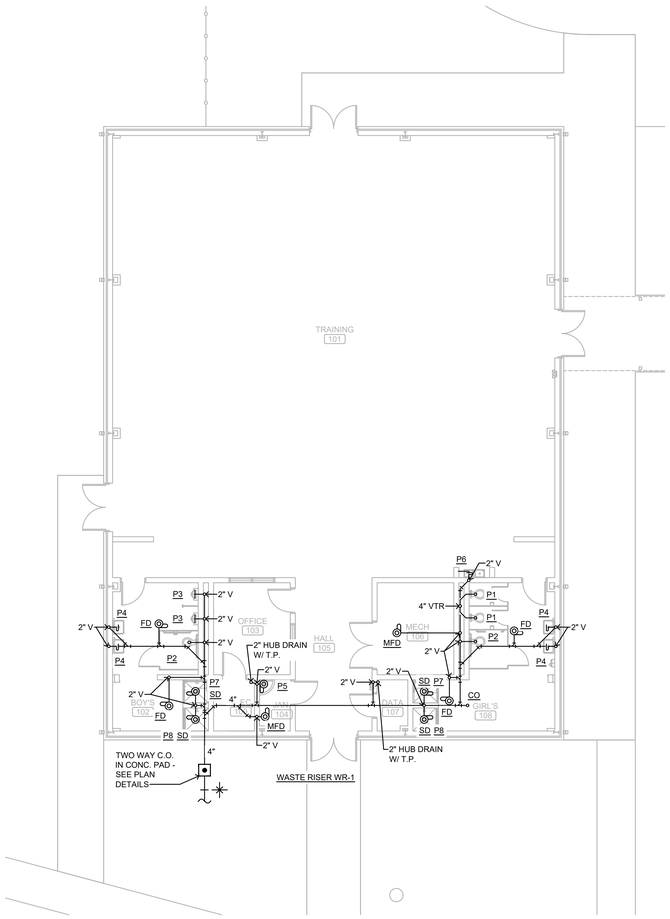
ZEA PROJECT NUMBER 24.31



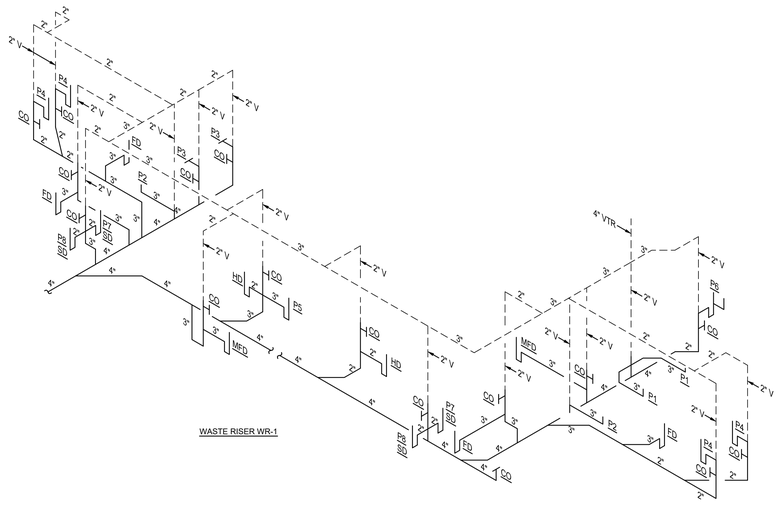
N
W E
S

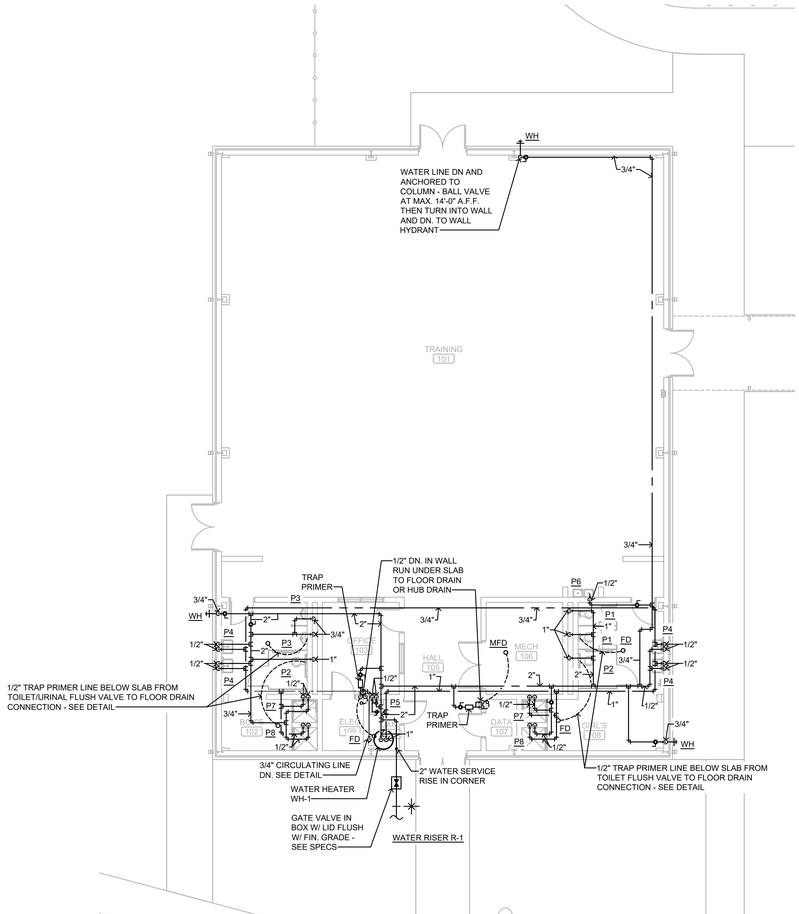
SHOWING WASTE PIPING

PLBG. FLOOR PLAN

SCALE: 1/8" = 1'-0"

0' 2' 4' 8' 16' 32'





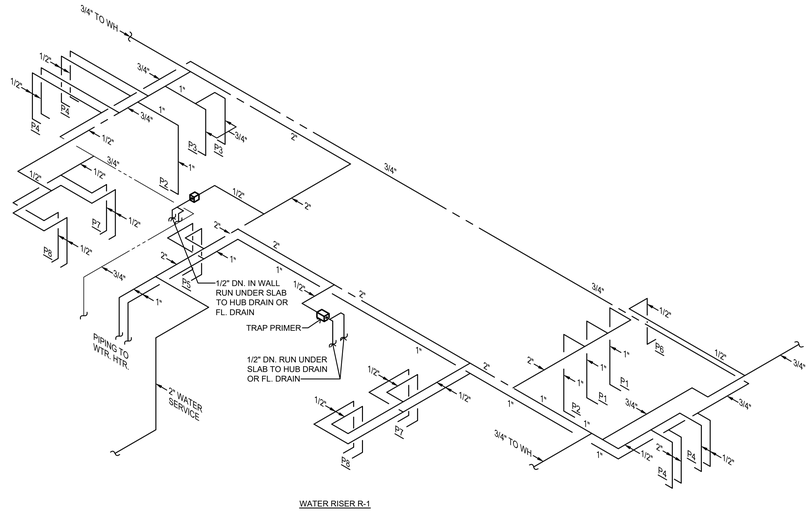
N
W E
S

SHOWING WATER PIPING

PLBG. FLOOR PLAN

SCALE: 1/8" = 1'-0"

0' 2' 4' 8' 16' 32'



WATER RISER R-1

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SHEET TITLE :	PLBG. FLOOR PLANS AND RISERS
MCKEE JOB # :	22-304
DRAWN BY :	C. WARD
CHECKED BY :	T. ZGOUVAS
DATE:	02.15.2024
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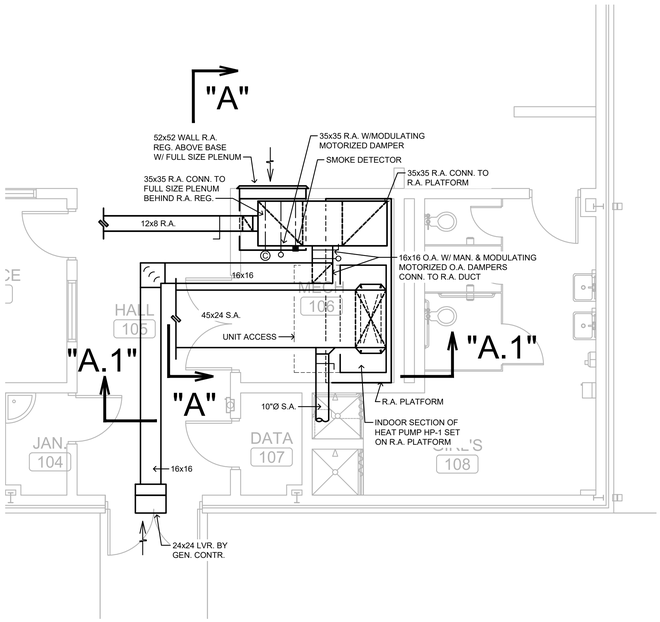
SHEET NO. : P2

LEGEND

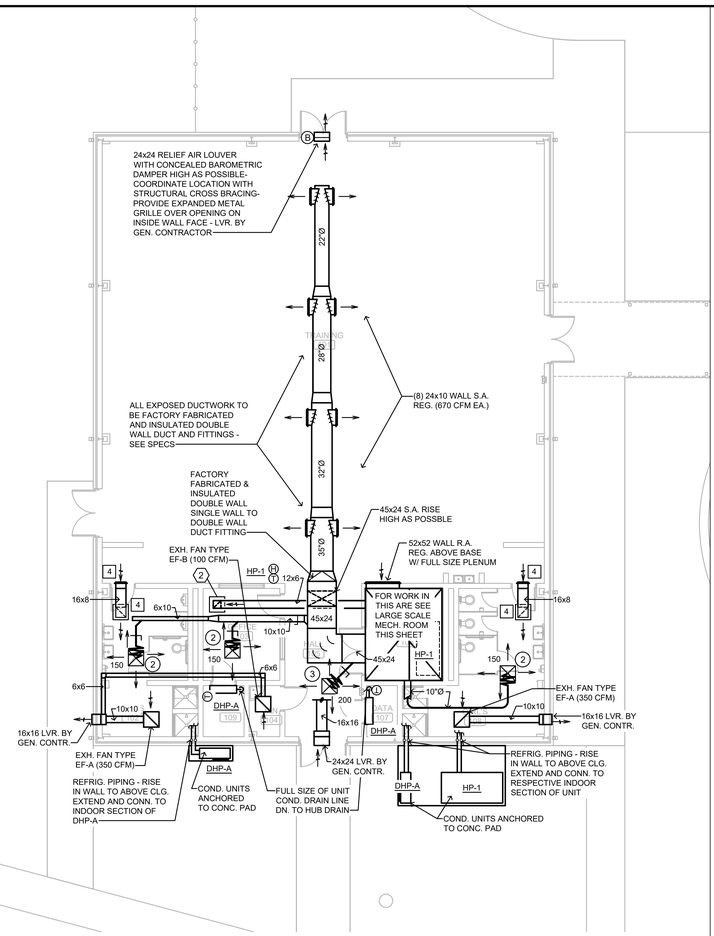
B	BAROMETRIC DAMPER	4	CEILING DIFFUSER DESIGNATOR
	MANUAL VOLUME DAMPER (MVD)	4	RETURN AIR GRILLE/REGISTER
		4	EXHAUST AIR GRILLE/REGISTER
	MOTORIZED DAMPER (MD)	AD	AUXILIARY DRAIN
		T	THERMOSTAT
	SMOKE DETECTOR	S	REMOTE TEMPERATURE SENSOR
		H	HUMIDISTAT
C	DUCT MOUNTED C02 SENSOR	C	CO2 SENSOR
		A.F.F.	ABOVE FINISH FLOOR
		C.D.	CEILING DIFFUSER
	CEILING DIFFUSER	CLG.	CEILING OR COOLING
		CONN.	CONNECT OR CONNECTION
		F.D.	FIRE DAMPER
		G.C.	GENERAL CONTRACTOR
	RETURN AIR GRILLE/REGISTER	O.A.	OUTSIDE AIR
	EXHAUST AIR GRILLE/REGISTER	R.A.	RETURN AIR
		S.A.	SUPPLY AIR
12x12	DUCT W/ RECTANGULAR SIZE		RECTANGULAR RETURN AIR OR EXHAUST DUCT TURNING DOWN
	RECTANGULAR SUPPLY DUCT TURNING UP		RECTANGULAR SUPPLY AIR DUCT FLOOR OR ROOF PENETRATION
	RECTANGULAR SUPPLY AIR DUCT TURNING DOWN		RECTANGULAR RETURN OR EXHAUST AIR DUCT FLOOR OR ROOF PENETRATION
	RECTANGULAR RETURN AIR OR EXHAUST DUCT TURNING UP		



LARGE SCALE MECH. ROOM 106

SCALE: 1/8" = 1'-0"

0' 2' 4' 8' 16' 32'

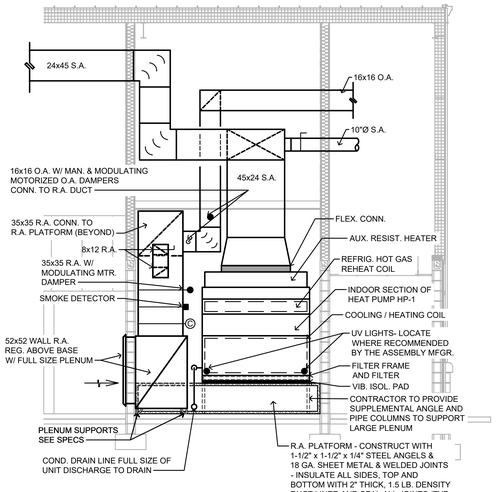


N

HVAC FLOOR PLAN

SCALE: 1/8" = 1'-0"

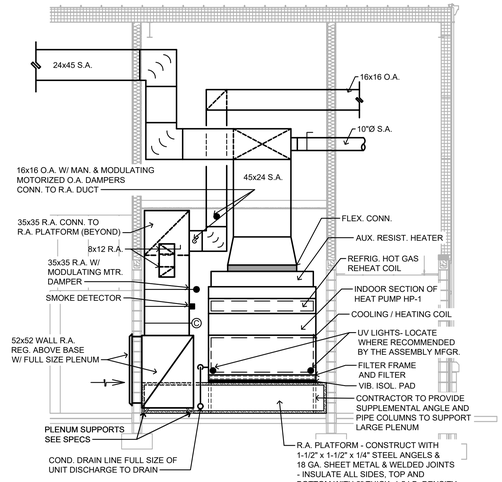
0' 2' 4' 8' 16' 32'



SECTION "A"

SCALE: 1/4" = 1'-0"

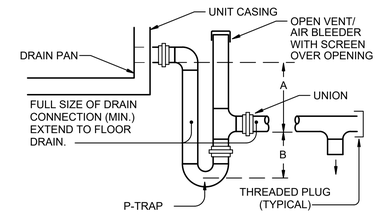
0' 1' 2' 4' 8' 16'



SECTION "B"

SCALE: 1/4" = 1'-0"

0' 1' 2' 4' 8' 16'



UNIT TYPE	A	B
DRAW-THRU	2" PLUS "X"	"X" PLUS 1"
BLOW-THRU	1" MINIMUM	2X PLUS 1"

WHERE "X" = UNIT STATIC PRESSURE

TYPICAL AIR HANDLING UNIT CONDENSATE DRAIN DETAIL

NOT TO SCALE

NOTES:

1. CONTRACTOR SHALL PROVIDE DRAIN ARRANGEMENT AS REQUIRED BY THE UNIT MANUFACTURER. IN ABSENCE OF THOSE REQUIREMENTS, CONTRACTOR SHALL PROVIDE DRAIN AS DETAILED ABOVE

2. CONTRACTOR SHALL RAISE THE RESPECTIVE UNIT AS REQUIRED TO ALLOW FOR INSTALLATION OF THE DRAIN AS DETAILED ABOVE

3. PROVIDE AN ELECTRIC SWITCH IN THE AUXILIARY CONDENSATE DRAIN LINE ON THE UNIT, THAT CONFORMS TO UL 508, TO SHUT DOWN THE UNIT SHOULD THE LINE BECOME OBSTRUCTED

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LINEVILLE, ALABAMA

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631 SOUTH HULL STREET , MONTGOMERY , ALABAMA 36104 (334) 834-9933

JOHN R. EIRING
LICENSED
No. 23369
PROFESSIONAL
02.15.24
ENGINEER
JOHN R. EIRING

SHEET TITLE :	HVAC FLOOR PLANS AND SECTIONS
MCKEE JOB # :	22-304
DRAWN BY :	C. WARD
CHECKED BY :	T. ZGOUVAS
DATE:	02.15.2024
REVISED DATE:	
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SHEET NO. : M1

SPLIT SYSTEM HEAT PUMP UNITS SCHEDULE

UNIT NUMBER OR TYPE	HP-1
MINIMUM TOTAL AIR CFM	6000
MINIMUM OUTSIDE AIR SETPOINT/MAX. CO2 SETPOINT/MAX. O.A. (ECONOMIZER) CFM	770 / 1110 / N/A
APPROXIMATE EXTERNAL STATIC PRESSURE - IN. WATER COLUMN	.60
APPROXIMATE INDOOR FAN MOTOR HP-POWER	3.0HP - 480V., 3PH., 60HZ.
MINIMUM TOTAL COOLING CAPACITY AT A.R.I. CONDITIONS-BTU/HR	180,000
MINIMUM HEATING CAPACITY (COMPRESSOR ONLY) AT 70°F INDOOR TEMPERATURE AND 22°F OUTDOOR TEMPERATURE-BTU/HR	121,000
MINIMUM AUXILIARY ELECTRIC RESISTANCE HEAT - KW	48.0
NUMBER OF CONTROL STEPS	TWO
POWER	480V., 3PH., 60HZ.
APPROXIMATE COMPRESSOR MOTOR(S) F.L.A. - POWER	26.0 - 480V., 3PH., 60HZ.
APPROXIMATE OUTDOOR SECTION FAN MOTOR(S) F.L.A. - POWER	7.0 - 480V., 1PH., 60HZ.
MINIMUM ENERGY EFFICIENCY RATING AT A.H.R.I. CONDITIONS	10.6 EER
MINIMUM COP	3.2

NOTES:

1. ALL INDOOR UNITS SHALL BE FACTORY WIRED FOR SINGLE POINT POWER CONNECTIONS (FAN AND HEATER).
2. 480 VOLT, 3 PHASE POWER IS BEING PROVIDED BY ELECTRICAL TO THE INDOOR HEAT PUMP UNIT SECTIONS. UNIT MANUFACTURER SHALL PROVIDE FACTORY INSTALLED RELAYS, TRANSFORMERS, ETC., AS REQUIRED TO OPERATE EQUIPMENT AT POWER REQUIREMENTS SPECIFIED ABOVE.
3. EER RATINGS BASED ON AHRI 340/360
4. COP RATING BASED ON AHRI 340/360 AT 47°F DB/43°F WB
5. UNIT SHALL BE PROVIDED WITH A REFRIGERANT HOT GAS REHEAT COIL COMPLETE WITH REFRIGERANT PIPING, PIPE INSULATION, VALVES, CONTROLS, ETC. REQUIRED FOR HUMIDITY CONTROL - PROVIDE MANUAL REFRIGERANT ISOLATION VALVES FOR HOT GAS AND LIQUID LINES - FURNISH FOR APPROVAL DETAILED REFRIGERANT PIPING CONN. DIAGRAM AND CONTROL WIRING DIAGRAM - PRIOR TO SUBMITTING THE DIAGRAM OBTAIN EQUIPMENT MANUFACTURER'S APPROVAL. SEE SPECS FOR ADDITIONAL REQUIREMENTS
6. UNIT WITH SCHEDULED COOLING CAPACITY GREATER THAN 60 MBH SHALL HAVE MINIMUM OF TWO COMPRESSORS OR 2-STAGES OF COOLING AS REQUIRED BY ASHRAE 90.1
7. UNIT WITH SCHEDULED COOLING CAPACITIES GREATER THAN 60 MBH SHALL BE PROVIDED WITH TWO SPEED CONTROL OF THE SUPPLY FAN SUCH THAT THE FAN AIRFLOW WILL VARY AS A FUNCTION OF LOAD AS REQUIRED BY ASHRAE 90.1.

FANS SCHEDULE

FAN TYPE	EF-A	EF-B
C.F.M.	350	100
MINIMUM FAN SIZE - INCHES	10.0	8.0
APPROX. FAN ROOF/WALL OPENING - INCHES	N/A	N/A
MAXIMUM FAN SPEED - RPM	1050	1050
APPROX. EXTERNAL STATIC PRESSURE - IN. OF WATER	.30	.38
MINIMUM FAN MOTOR H.P - POWER	235 WATTS - 120V, 1PH., 60 HZ.	84 WATTS - 120V, 1PH., 60HZ.
CONTROL INTERLOCK	LIGHTING CIRCUIT	LIGHTING CIRCUIT
DESCRIPTION	CEILING MOUNTED, CENTRIFUGAL, DIRECT DRIVEN	CEILING MOUNTED, CENTRIFUGAL, DIRECT DRIVEN

WALL MOUNTED DUCTLESS HEAT PUMP UNIT SCHEDULE

UNIT TYPE	DHP-A
MINIMUM TOTAL COOLING CAP. AT A.R.I. CONDITIONS - BTU/HR	9,000
MINIMUM HEATING CAP. (COMPRESSOR ONLY) AT 70°F INDOOR & 47°F AMBIENT - BTU/HR	9,600
INDOOR FAN CFM AT HIGH SPEED (WET COIL)	325
INDOOR UNIT MCA - POWER	1.5 A - 208 V., 1 PH., 60 HZ.
OUTDOOR UNIT MCA (COMPRESSOR AND COND. FAN) - POWER	10.0 A - 208 V., 1 PH., 60 HZ.
OUTDOOR UNIT MOP (COMPRESSOR AND COND. FAN) - POWER	15.0 A - 208 V., 1 PH., 60 HZ.
MINIMUM HSPF AT AHRI 210/240 CONDS.	13.5
MINIMUM S.E.E.R. AT AHRI 210/240 CONDS	27.5
BASIS OF DESIGN	MITSUBISHI MSZ / MUZ

OUTDOOR AIR AND EXHAUST CALCULATIONS

	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	# Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
TRAINING 101	3300	10	33	0.06	198	20	660	858	1				0	3250	0.264
OFFICE 103	120	5	1	0.06	8	5	5	16.25	0.8				0	150	0.108333
HALL 105	200	0	0	0.06	12	0	0	12	1				0	200	0.06
BOYS 102										5	70		350	200	0
GIRLS 108										5	70		350	200	0
Total			34		218		665								
							Cumulative CFM	886.25							

Max "Zp"	0.264
"Ev"	0.8
"Vou" Total OSA EQ 4-6	886.25
Total Building Occupancy	34
Zone Occupancy	34
"D" from EQ 4-7	1
"Vot" Equation 4-8	1107.813
TOTAL OSA	1107.813

EXHAUST/RETURN AIR REGISTER SCHEDULE

SYMBOL EXH.	SYMBOL R.A.	CFM RANGE	SIZE - IN. x IN.	DESCRIPTION	MAXIMUM NC RATING	BRANCH DUCT SIZE
1	1	0 - 140	9x9	CEILING EXH. OR RETURN REG.	20	9x6
2	2	141 - 240	12x12	CEILING EXH. OR RETURN REG.	20	12x7
3	3	241 - 340	14x14	CEILING EXH. OR RETURN REG.	20	14x7
4	4	341 - 460	16x16	CEILING EXH. OR RETURN REG.	20	16x9

NOTES

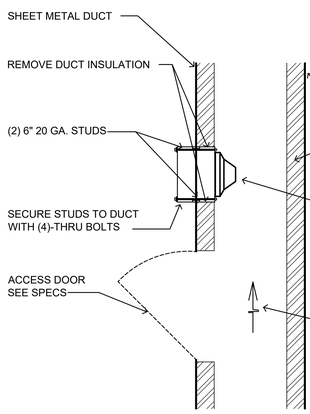
1.) RUNOUTS/BRANCH DUCTS SHALL BE AS SCHEDULED ABOVE UNLESS NOTED OTHERWISE ON THE PLANS.
2.) 8 (8) & 9 (9) SHALL BE IN INTEGRAL 48x24 METAL CEILING PANEL AS SPECIFIED. ALL OTHERS SHALL BE IN INTEGRAL 24x24 METAL CEILING PANEL AS SPECIFIED.
3.) CONTRACTOR SHALL INSULATE THE BACK SIDE OF CEILING MOUNTED EXHAUST & RETURN AIR GRILLES/REGISTERS WITH 1" THICKNESS EXTERNAL DUCT INSULATION WITH CHARACTERISTICS SPECIFIED FOR EXTERNAL DUCT INSULATION.

CEILING DIFFUSER SCHEDULE

SYMBOL	CFM RANGE	NECK SIZE INCHES	FACE SIZE INCHES	BRANCH DUCT SIZE	MAXIMUM NC VALUE	BASIS OF DESIGN
1	10 - 95	6" ROUND	24x24	6"Ø	20	TITUS TMS
2	100 - 180	8" ROUND	24x24	8"Ø	20	TITUS TMS
3	185 - 270	10" ROUND	24x24	10"Ø	20	TITUS TMS

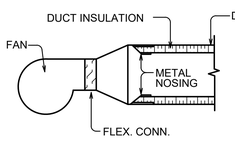
NOTES

1.) RUNOUTS/BRANCH DUCTS SHALL BE AS SCHEDULED ABOVE UNLESS NOTED OTHERWISE ON THE PLANS
2.) CONTRACTOR SHALL INSULATE THE EXTERIOR (BACK SIDE OF DIFFUSER PANEL) WITH 1" THICKNESS EXTERNAL DUCT INSULATION WITH CHARACTERISTICS SPECIFIED FOR EXTERNAL DUCT INSULATION.



SMOKE DETECTOR MOUNTING DETAIL

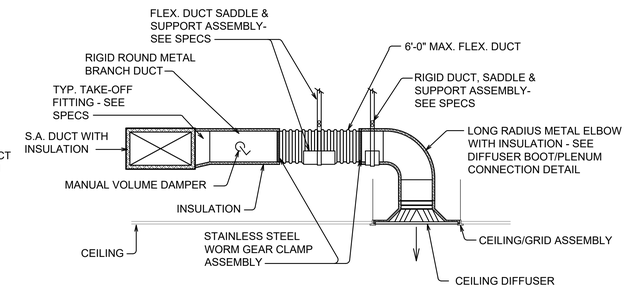
NOT TO SCALE



TYPICAL DUCT LINER INTERRUPTION DETAIL

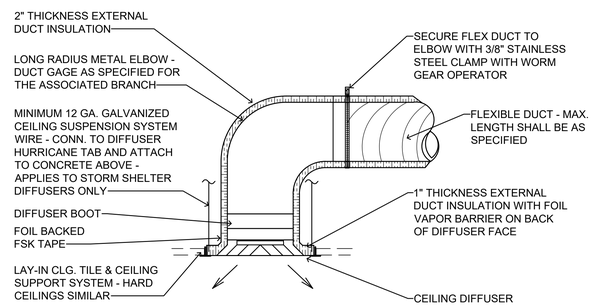
NOT TO SCALE

NOTE !! THIS DETAIL APPLIES TO FIRE DAMPER INSTALLATION, WHERE DUCTS CONNECT TO FAN SECTION, ANYWHERE BARE DUCT LINER PROTRUDES INTO THE AIRSTREAM, ANY POINT WHERE LINED DUCT IS PRECEDED BY UNLINED DUCT, BARE DUCT INSULATION EDGES THAT ARE EXPOSED IN THE RETURN AIR PLENUM, ETC. - SEE SPECS FOR ADDITIONAL REQUIREMENTS



TYPICAL DIFFUSER RUN-OUT CONN.

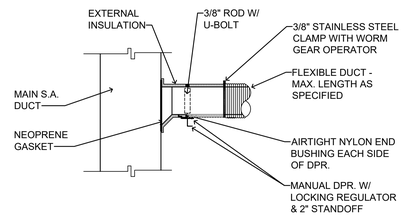
NOT TO SCALE



DIFFUSER BOOT/PLENUM CONNECTION DETAIL

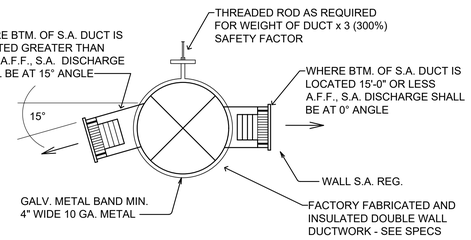
NOT TO SCALE

1. DIFFUSERS PANELS SHALL BE INSULATED PRIOR TO INSTALLING INTO THE CEILING GRID
2. DO NOT COVER STAINLESS STEEL BAND AND WORM GEAR OPERATOR UNTIL ENGINEER HAS INSPECTED THE INSTALLATION.



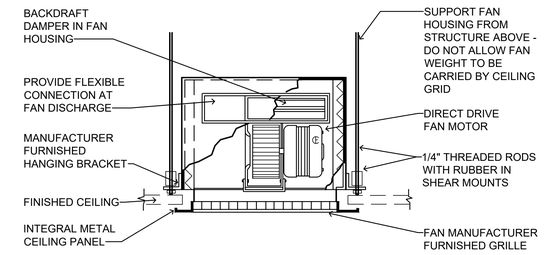
ROUND BRANCH DUCT TAKE-OFF DETAIL

NOT TO SCALE
RECTANGULAR RUNOUTS SAME EXCEPT WITH RECTANGULAR DUCT



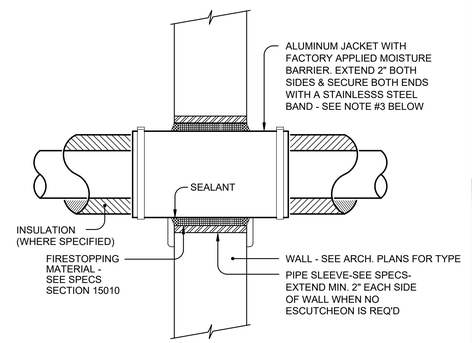
TYP. EXPOSED ROUND DUCT / REGISTER MOUNTING DETAIL

NOT TO SCALE



CEILING MOUNTED EXHAUST FAN CONN. DETAIL

NO SCALE



INTERIOR WALL REFRIGERANT PIPING PENETRATION DETAIL

NOT TO SCALE

NOTES:
1. DETAIL APPLIES TO ALL REFRIGERANT PIPING.
2. SEE SPECS FOR SLEEVE REQUIREMENTS
3. OMIT ALUMINUM JACKET IF PIPING IS UNINSULATED
4. ONLY ONE PIPE PER SLEEVE ALLOWED.
5. WHERE PIPING IS EXPOSED IN FINISHED AREAS, PROVIDE ESCUTCHEONS OVER PENETRATIONS AND DELETE REQUIREMENT FOR EXTENDING SLEEVE 2" ON EACH SIDE. ALUMINUM JACKET IS STILL REQUIRED.

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SHEET TITLE : HVAC SCHEDULES AND DETAILS

MCKEE JOB # : 22-304

DRAWN BY : C. WARD

CHECKED BY : T. ZGOUVAS

DATE: 02.15.2024

REVISED DATE:

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SHEET NO. : M2

ELECTRICAL LEGEND

CEILING OUTLETS

- RECESSED 2' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL
- RECESSED 2' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- RECESSED 1' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL
- RECESSED 1' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- RECESSED 2' X 2' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL
- RECESSED 2' X 2' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- FS — SURFACE OR PENDANT MOUNTED LED STRIP FIXTURE MARK "FS" CIRCUIT No. 2 TYPICAL
- FS — SURFACE OR PENDANT MOUNTED LED STRIP FIXTURE MARK "FS" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- RECESSED OR SURFACE MOUNT DOWNLIGHT
- RECESSED OR SURFACE MOUNT DOWNLIGHT "EMERGENCY POWER"
- SURFACE OR PENDANT MOUNTED ROUND FIXTURE
- J — JUNCTION BOX
- EXIT LIGHT
- EF — EXHAUST FAN

WALL OUTLETS

- COMBO WALL MOUNTED EXIT/EMERGENCY LIGHT

1. ALL 120V RECEPTACLES ON THIS PROJECT SHALL BE TAMPER PROOF TYPE PER THE NATIONAL ELECTRIC CODE.

- WALL MOUNTED COMBO EXIT LIGHT/EMERGENCY
- WALL MOUNTED LIGHTING FIXTURE
- WALL MOUNTED LIGHTING FIXTURE "EMERGENCY POWER"
- BATTERY OPERATED EMERGENCY WALL PACK
- DUPLEX RECEPTACLE – 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- G — DUPLEX RECEPTACLE – 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- W — DUPLEX RECEPTACLE – 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE; PROVIDE WEATHERPROOF BOX FOR RECEPTACLE; OUTLET BOX HOODS SHALL BE IDENTIFIED AS "EXTRA-DUTY"
- DUPLEX RECEPTACLE – 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER
- G — DUPLEX RECEPTACLE – 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER
- G — QUADRAPLEX RECEPTACLE – 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- QUADRAPLEX RECEPTACLE – 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- QUADRAPLEX RECEPTACLE – 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER UNLESS NOTED OTHERWISE
- DUPLEX RECEPTACLE – 20 AMP, 125 VOLT, GFI, 3 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 26" AFF TO C/L FOR DRINKING FOUNTAIN
- SINGLE RECEPTACLE – 30 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA L6-30R. MOUNT AS DIRECTED FOR RACK UPS SYSTEM
- J — JUNCTION BOX SIZE NOTED OR REQUIRED, WITH BLANK SCREW COVER AND FLEXIBLE CONDUIT CONNECTION
- P — PHOTOCELL; TORK MODEL 5231 (120V), TWIST RECEPTACLE: TORK 2421.

BRANCH CIRCUITING

- RUN CONCEALED UNDER FLOOR OR IN GRADE
- RUN CONCEALED IN CEILING OR WALLS
- LA-1 — HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2 #12, 1 #12 GROUND – 3/4" C; /// 3 #12, 1 #12 GROUND – 3/4" C; //// 4 #12, 1 #12 GROUND – 3/4" C; ETC. AS PER NEC. LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
- LA-1 —10— HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2 #10, 1 #10 GROUND – 3/4" C; –10/// 3 #10, 1 #10 GROUND – 3/4" C; –10//// 4 #10, 1 #10 GROUND – 1" C; ETC. AS PER NEC. LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
- LA-1 —8— HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2 #8, 1 #10 GROUND – 1" C; –8/// 3 #8, 1 #10 GROUND – 3/4" C; –8//// 4 #8, 1 #10 GROUND – 1 1/4" C; ETC. AS PER NEC. LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
- —6— WHERE A NUMBER IS SHOWN NEXT TO OR ON THE CIRCUIT OR HOMERUN. THE NUMBER INDICATES CONDUCTOR SIZE OTHER THAN #12 – NUMBER #6 CONDUCTORS INDICATED. PROVIDE GROUND SIZED PER NEC TABLE 250-95 FOR MAX AMPACITY OF CONDUCTOR SIZE AS SHOWN. SIZE CONDUIT PER NEC ANNEX C.
- LIQUID-TIGHT FLEXIBLE CONDUIT CONNECTION
- SURFACE MOUNTED CONDUIT; RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES

TELEPHONE & TELEVISION SYSTEMS

- WALL COMMUNICATIONS OUTLET – SEE DETAILS ON SHEET E4.1
- W — WIRELESS ACCESS POINT – SEE DETAILS ON SHEET E4.1
- COMMUNICATIONS FLOOR RACK SEE DETAIL E4.1

PANELS AND POWER

- PANELBOARD
- PANELBOARD FLUSH MOUNTED
- CON — CONTROL PANEL
- NON-FUSIBLE DISCONNECT SWITCH; XX/YY/ZZ WHERE X INDICATES AMPERAGE, Y INDICATES # OF POLES, AND Z INDICATES NEMA RATING
- FUSIBLE DISCONNECT SWITCH; XX/YY/ZZ WHERE X INDICATES AMPERAGE, Y INDICATES # OF POLES, AND Z INDICATES NEMA RATING; FURNISH AND INSTALL FUSES PER MANUFACTURER'S RECOMMENDATIONS
- 5 — MOTOR FURNISHED BY OTHERS AND CONNECTED BY ELECTRICAL CONTRACTOR; '5' INDICATES HORSE POWER RATING
- CIRCUIT BREAKER
- NONFUSIBLE SWITCH
- FUSIBLE SWITCH
- DRAWOUT CONNECTION
- T — TRANSFORMER
- B — ENCLOSED CIRCUIT BREAKER
- ELECTRIC METER
- GROUNDING ELECTRODE CONNECTION
- G — GROUND BUSS

FIRE ALARM SYSTEM

- FACP — FIRE ALARM SYSTEM CONTROL PANEL
- ANN — FIRE ALARM SYSTEM REMOTE ANNUNCIATOR – FLUSH MOUNTING
- F — FIRE ALARM SYSTEM MANUAL PULL STATION
- S — FIRE ALARM SYSTEM VOICE EVAC SPEAKER/STROBE,
- H — WEATHERPROOF FIRE ALARM SYSTEM SIGNAL HORN;
- F — FIRE ALARM SYSTEM STROBE;
- TS — FIRE ALARM SYSTEM TAMPER SWITCH
- FS — FIRE ALARM SYSTEM FLOW SWITCH
- HD — FIRE ALARM SYSTEM AUTOMATIC HEAT DETECTOR; 135 DEGREE/RATE OF RISE TYPE; CEILING MOUNTED
- SD — FIRE ALARM SYSTEM AUTOMATIC SMOKE DETECTOR; CEILING MOUNTED
- SD CO — FIRE ALARM SYSTEM AUTOMATIC SMOKE DETECTOR WITH CO DETECTOR BASE; CEILING MOUNTED
- DD — FIRE ALARM SYSTEM AUTOMATIC AIR DUCT SMOKE DETECTOR MOUNTED IN MECHANICAL DUCT
- RT — FIRE ALARM SYSTEM REMOTE TEST STATION
- ZC — FIRE ALARM SYSTEM ZONE MODULE, CONTROL TYPE
- ZM — FIRE ALARM SYSTEM ZONE MODULE, MONITOR TYPE
- — F — FIRE ALARM SYSTEM SUPERVISED CIRCUITING IN CONDUIT, RACEWAY INSTALLED CONCEALED
- FIRE ALARM SYSTEM MAGNETIC DOOR HOLDERS

WALL SWITCHES (UNLESS OTHERWISE NOTED, MOUNT 48" A.F.F.)

- S — A.C. TYPE, SINGLE POLE, 20 AMP, 120/277 VOLT
- S_3 — A.C. TYPE, 3-WAY, 20 AMP, 120/277 VOLT
- S_M — MOTOR RATED TOGGLE SWITCH DISCONNECT, WITH THERMAL OVERLOADS A.C. TYPE, 20 AMP, 120/277 VOLT
- 30/1 S_M — MOTOR RATED TOGGLE SWITCH DISCONNECT, WITH THERMAL OVERLOADS A.C. TYPE, 30 AMP, 120/277 VOLT
- S_T — PRESET INTERVAL TIMER SWITCH, HUBBELL TD-300 SERIES OR EQUALS
- PUSH BUTTON, TOGGLE SWITCH, ROTARY SWITCH, ETC., FURNISHED WITH EQUIPMENT BY OTHERS, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR.

MISCELLANEOUS

A	AMPERE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISH FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CL	CENTER LINE
CWP	COLD WATER PIPE
EM	EMERGENCY
EMT	ELECTRIC METALLIC TUBING
GFI	GROUND FAULT INTERRUPTER
GRC	GALVANIZED RIGID METAL CONDUIT
GRD	GROUND
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
MT	MOUNT
N	NEUTRAL
NIC	NOT IN CONTRACT
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOC.
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NL	NIGHT LIGHT
NTS	NOT TO SCALE
P	POLE
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PVC	PVC (POLYVINYL CHLORIDE) CONDUIT
SLD	SINGLE LINE DIAGRAM
TBB	TELEPHONE BACKBOARD
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSORS
UL	UNDERWRITER'S LABORATORY
U.N.O.	UNLESS NOTED OTHERWISE
V	VOLTAGE
W	WIRE
WP	WEATHERPROOF
#	NUMBER
3R	NEMA 3R WEATHERPROOF ENCLOSURE
4X	NEMA 4X WEATHERPROOF/CORROSION ENCLOSURE

MISCELLANEOUS EQUIPMENT

- C — CONTACTOR
- EXTERIOR POLE LIGHT
- WH — WATER HEATER
- MON — SCREEN MONITOR

LIGHTING CONTROLS

- OS — CEILING MOUNTED OCCUPANCY SENSOR
- PP — POWER PACK FOR OCCUPANCY SENSOR
- L1 — ROOM CONTROLLER – 1 ZONE DIMMING
- L2 — ROOM CONTROLLER – 2 ZONE DIMMING
- LE — ROOM CONTROLLER – EMERGENCY LIGHTING UL924 DEVICE
- RC — ROOM CONTROLLER – ON/OFF NO DIMMING
- D1 — WALL DIMMER – ON/OFF & 0-10V 1-ZONE DIMMING
- D2 — WALL DIMMER – ON/OFF & 0-10V 2-ZONE DIMMING
- S_L — LOW VOLTAGE SWITCH, 2-BUTTON
- S_{LX} — LOW VOLTAGE SWITCH CONNECTED TO LIGHITNG CONTROL PANEL, 2-BUTTON
- S_{01} — OCCUPANCY SENSOR WALL SWITCH, ULTRASONIC TECHNOLOGY, 1-BUTTON SIMILAR TO HUBBELL LIGHT HAWK 2

*COORDINATE WITH LIGHTING CONTROL DETAILS FOR MORE REQUIREMENTS

GENERAL ELECTRICAL NOTES:

1. THE SERVICE VOLTAGE TO THE FACILITY IS EXISTING.
2. INSTALLATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, STATE AND LOCAL CODES, AND MANUFACTURER'S RECOMMENDATIONS.
3. MAINTAIN ALL CLEARANCES FOR ELECTRICAL EQUIPMENT PER THE NEC.
4. COORDINATE ROUGH-IN OF ALL ELECTRICAL DEVICES WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND MILLWORK SHOP DRAWINGS PRIOR TO ROUGH-IN. AVOID ALL BACKSPLASHES AT COUNTERS.
5. ALL DIMENSIONS INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD, AND COORDINATING WORK WITH OTHER TRADES TO AVOID CONFLICTS.
6. VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL BEFORE ROUGH-IN OF LIGHT SWITCHES TO ENSURE PROPER SWITCH LOCATION.
7. THE LOCATION OF OUTLETS, FIXTURES, AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE, OFFSET AS NEEDED OR AS REQUESTED BY THE OWNER. THE OWNER SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ANY ADDITIONAL COST.
8. COORDINATE EXACT LOCATION OF ALL ELECTRICAL FLOOR DEVICES WITH ARCHITECT PRIOR TO INSTALLATION.
9. ALL CONDUIT SIZE SHALL BE A MINIMUM 3/4" UNLESS NOTED OTHERWISE IN THE DRAWINGS OR SPECIFICATIONS.
10. ALL ELECTRICAL RACEWAYS AND CABLING SHALL BE INSTALLED CONCEALED WITHIN THE CONFINES OF THE BUILDING FOUNDATIONS EXCEPT THOSE SPECIFICALLY SERVING LOADS OR EQUIPMENT EXTERIOR OF THE BUILDING. ALL SUCH RACEWAYS SHALL BE A MINIMUM 18" INSIDE FOUNDATIONS AND POWER AND COMMUNICATIONS RACEWAYS SHALL BE SEPARATED BY A MINIMUM 18".
11. ALL CONDUITS INSTALLED UNDERFLOOR SHALL BE ROUTED UNDER STRUCTURAL CONCRETE FLOOR SLABS. CONTRACTOR SHALL NOT INSTALL CONDUITS IN CONCRETE FLOORING WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER. CONDUITS PENETRATING THRU CONCRETE FLOORS SHALL ADHERE TO THE ELECTRICAL SPECIFICATIONS AND RECOMMENDATIONS OF THE STRUCTURAL ENGINEER.
12. ALL RACEWAYS INSTALLED ON EXTERIOR OF THE BUILDING, INCLUDING CONDUIT UNDER CANOPIES, SHALL BE GRC. EMT WILL NOT BE ACCEPTED.
13. ALL RACEWAYS SHALL BE SUPPORTED PER NEC AND AT LEAST EVERY 10' AND WITHIN 3' OF EVERY JUNCTION BOX. RACEWAYS SUPPORTED ON BOTTOM OF SECONDARY CEILING SHALL BE SUPPORTED FROM THE STRUCTURE NOT FROM THE GYPBOARD CEILING.
14. ALL EMPTY WALL MOUNTED JUNCTION BOXES SHALL BE PROVIDED WITH A WALL BLANK AND ALL EMPTY RACEWAYS SHALL BE PROVIDED WITH A PULL WIRES.
15. PROVIDE ALL CONDUIT STUBS WITH A PROTECTIVE COLLAR.
16. INSURE THAT ALL PENETRATIONS OF FIRE WALLS AND DECKS ARE PROPERLY SEALED PER INTERNATIONAL BUILDING CODE 712 AND WITH AN UL APPROVED DEVICE OR FIRE CAULK. REFER TO ARCHITECTURAL PLANS FOR THE LOCATIONS OF RATED FIRE WALLS AND UL ASSEMBLY LOCATIONS AND TYPES AND BID ACCORDINGLY.
17. PROVIDE A CONDUIT EXPANSION JOINTS WITH BONDING JUMPER IN ALL CONDUITS CROSSING AN EXPANSION JOINT. REFER TO ARCHITECTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS.
18. ALL UNDERGROUND CONDUITS RUNS ENTERING THE BUILDING SHALL BE SEALED TO PREVENT THE ENTRANCE OF MOISTURE.
19. ALL FLEXIBLE CONDUITS ON THE EXTERIOR, IN WET LOCATIONS OR ANY MECHANICAL ROOM SHALL BE LIQUID TIGHT WITH SUITABLE FITTINGS.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING AROUND DEVICES, PENETRATIONS, OUTLETS, AND CONDUITS THAT PENETRATE THE WALLS ABOVE THE CEILING TO MAINTAIN SOUNDPROOFING. CONTRACTOR SHALL VERIFY THAT THE OPENINGS SIZES ARE LESS THAN 1/2" ON ALL SIDES OF THE PENETRATIONS. ALL OPENINGS IN EXCESS OF 1/2" SHALL BE CAULKED/SEALED WITH SHEET ROCK MUD. THE DRYWALL CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING PENETRATIONS IN PLACE WHEN THE SHEETROCK ARE INSTALLED. PENETRATIONS MADE AFTER THE DRYWALL CONTRACTOR HAS FINISHED IN AN AREA SHALL BE SEALED BY THE CONTRACTOR MAKING THE PENETRATION.
21. PLANNED INTERRUPTIONS OF UTILITY SERVICE TO ANY EXISTING FACILITY OR AREAS WITHIN ANY FACILITY AFFECTED BY THIS CONTRACT, SHALL BE CAREFULLY PLANNED AND COORDINATED IN ADVANCE OF THE REQUESTED INTERRUPTION. THE CONTRACTOR SHALL NOT INTERRUPT SERVICES UNTIL SPECIFIED APPROVAL HAS BEEN GRANTED. THE REQUEST SHALL INDICATE SERVICES AND AREAS TO BE AFFECTED, DATE AND TIME OF INTERRUPTION AND DURATION OF OUTAGE. REQUEST FOR INTERRUPTION OF SERVICE WILL NOT BE APPROVED UNTIL ALL EQUIPMENT AND MATERIAL REQUIRED FOR THE COMPLETION OF THAT PARTICULAR PHASE OF WORK ARE ON THE JOB SITE. CONTRACTOR IS RESPONSIBLE FOR ALL OVERTIME, HOLIDAY, AND WEEKEND PAY TO THEIR EMPLOYEES TO DO THIS WORK DURING SCHEDULED NON-NORMAL WORK HOURS.
22. BUILDING OWNER MUST RECEIVE RECORD DRAWINGS AND MANUALS THAT PROVIDE INSTRUCTIONS ABOUT THE OPERATION AND MAINTENANCE OF THE BUILDING'S ELECTRICAL DISTRIBUTION SYSTEM.
23. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR OCCUPANCY SENSORS. PROVIDE PROPER NUMBER OF POWER PACKS AND LOCATE POWER PACKS AND OCCUPANCY SENSORS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
24. ALL JUNCTION BOX COVERS ABOVE THE CEILING SHALL BE CLEARLY MARKED WITH WHICH CIRCUITS OR ELECTRICAL SYSTEM THEY CONTAIN.
25. HVAC EQUIPMENT POWER WIRING SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. CONTROL EQUIPMENT AND CONTROL WIRING SHALL BE FURNISHED UNDER DIVISION 15 UNLESS OTHERWISE NOTED. PROVIDE 3/4" CONDUITS WITH PULL WIRE BETWEEN INSIDE AND OUTSIDE UNITS, THERMOSTAT OUTLETS AND UNITS AND/OR MECHANICAL CONTROL PANEL AS APPLICABLE. THERMOSTAT OUTLETS SHALL BE 4" SQUARE OUTLETS, FLUSH MOUNTED WITH SINGLE GANG OR DOUBLE GANG PLASTER RINGS AS DIRECTED BY THE HVAC CONTRACTOR. COORDINATE EXACT LOCATION OF ALL EQUIPMENT, DEVICES, OUTLETS, ETC, WITH THE MECHANICAL DRAWINGS AND DIVISION 15 SPECIFICATIONS. COORDINATE WITH THE HVAC CONTRACTOR FOR EXACT LOCATIONS OF ALL EQUIPMENT.

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ALABAMA PROFESSIONAL ENGINEER
KENNETH RAY GUNN JR.
NO. 26988
02-15-2024

SHEET TITLE : ELECTRICAL LEGEND & NOTES

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : E0.1

GENERAL NOTES:

1. CONCRETE ENCASE ALL DUCTS (POWER AND COMMUNICATIONS) WHERE PASSING UNDER PARKING AREAS, DRIVES AND STREETS.
2. COORDINATE WITH POWER RISER DIAGRAM SHEET E7.1 FOR FEEDER AND CONDUIT SIZES AND ALL OTHER ADDITIONAL REQUIREMENTS NOT SHOWN ON SITE PLAN.
3. ALL UNDERGROUND CONDUITS SHALL BE 36" MINIMUM BELOW GRADE. UNDERGROUND PRIMARY SHALL BE 48" MINIMUM BELOW GRADE
4. ALL ROUTING IS SHOWN DIAGRAMMATIC. VERIFY ACTUAL ROUTING AND FIELD CONDITIONS PRIOR TO BIDS.

SITE LEGEND

---UP---- UNDERGROUND PRIMARY

---US---- UNDERGROUND SECONDARY

---UC---- UNDERGROUND COMMUNICATIONS

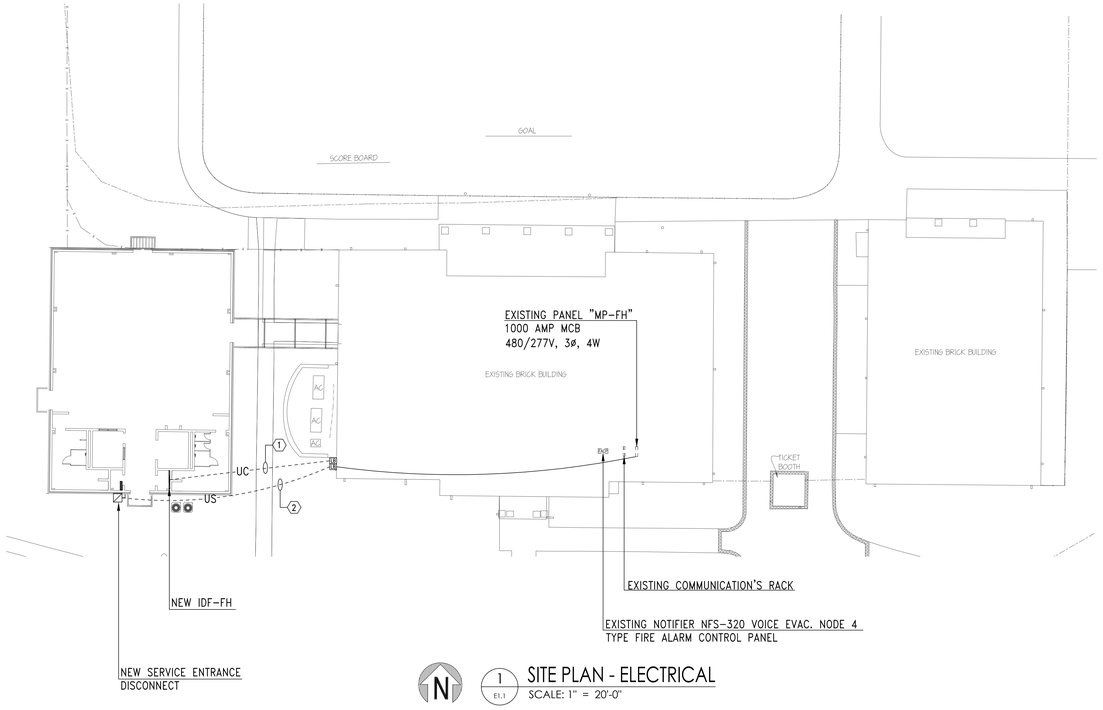
SHEET NOTES:

① CONTRACTOR SHALL PROVIDE (1) ONE 2" CONDUIT FOR COMMUNICATIONS. UTILIZE CONDUIT TO INTERCONNECT THE THE COMM RACKS AND THE FIRE ALARM PANELS WITH FIBER. CONTRACTOR SHALL LB INTO EXISTING BUILDING ABOVE CEILING. CONTRACTOR SHALL PAINT NEW CONDUIT TO MATCH EXISTING BRICK WHEN RISING UP EXISTING BUILDING. PROVIDE J-HOOKS TO EXTEND CABLING ABOVE EXISTING CEILINGS.

② CONTRACTOR SHALL PROVIDE FEEDER FOR NEW FIELDHOUSE. CONTRACTOR SHALL LB INTO EXISTING BUILDING ABOVE CEILING AND THEN EXTEND TO EXISTING PANEL MP-FH. CONTRACTOR SHALL PAINT NEW CONDUIT TO MATCH EXISTING BRICK WHEN RISING UP EXISTING BUILDING.

UNDERGROUND UTILITY NOTES:

1. THE UNDERGROUND UTILITY PORTION OF THIS PROJECT CONSISTS OF BUT IS NOT LIMITED TO:
   a. TRENCHING/BACKFILLING FOR DUCT LINES AND CONDUIT SYSTEMS
   b. DUCTBANK INSTALLATIONS
   c. LOW VOLTAGE CONDUCTOR INSTALLATION
   d. PATCH/REPAIR ALL DAMAGED SURFACES AS A RESULT OF DUCTLINE INSTALLATIONS
2. INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL SAFETY CODE (NESC) AND THE NATIONAL ELECTRICAL CODE (NEC).
3. ALL CONDUCTIVE PARTS OF EQUIPMENT, ENCLOSURES, SUPPORTS, FRAMES, CASES, CONDUIT SYSTEMS AND SURGE ARRESTORS, CABLE SHEATHS, CABLE SHIELDS, COMMON NEUTRALS, ETC., SHALL BE GROUNDED. UNLESS NOTED OTHERWISE CONNECTIONS BELOW GRADE SHALL BE FUSION-WELDED AND ABOVE GRADE FUSION-WELDED OR BOLTED SOLDERLESS. ALL GROUND CONDUCTORS SHALL BE COPPER.
4. ALL CLEARANCES SHALL BE MAINTAINED PER NESC AND NEC. ALL PARTS, DEVICES, EQUIPMENT, ETC. WHICH REQUIRE MAINTENANCE, ADJUSTMENT, OPERATION OR EXAMINATION DURING NORMAL NETWORK OPERATION SHALL BE ARRANGED SO AS TO BE ACCESSIBLE BY THE PROVISION OF ADEQUATE WORKING SPACES, WORKING FACILITIES AND CLEARANCES. UNLESS NOTED OTHERWISE ALL CLEARANCES ARE MEASURED FROM SURFACE TO SURFACE.
5. ALL DIMENSIONS INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD.
6. UNLESS OTHERWISE SHOWN OR DIRECTED DUCT LINES SHALL NOT BE LOCATED DIRECTLY UNDER STRUCTURES AND NOT DIRECTLY UNDER OR OVER OTHER SUBSURFACE STRUCTURES. WHERE DUCT LINES ARE REQUIRED TO CROSS OTHER UTILITIES SUCH AS SEWERS, WATER LINES, OTHER POWER LINES, COMMUNICATION LINES, ETC., ADEQUATE SUPPORT SHALL BE PROVIDED ON EACH SIDE OF THE CROSSING TO PREVENT TRANSFERRING ANY DIRECT LOAD ONTO THE OTHER LINE. DUCT LINES SHALL BE SO INSTALLED AS TO PREVENT HEAT TRANSFER BETWEEN ANY HEAT PRODUCING LINES AND/OR EQUIPMENT TO DUCT LINES.
   a. ROUTING SHOWN ON DRAWINGS IS TYPICAL AND THE CONTRACTOR SHALL PROPOSE FINAL ROUTING BASED UPON ACTUAL FIELD DIMENSIONS, CONDITIONS AND EXISTING UNDERGROUND UTILITIES AND STRUCTURES.
   b. PRIOR TO TRENCHING, THE CONTRACTOR SHALL STAKE OUT THE ENTIRE NETWORK ARRANGEMENT. ONE GRADE A WOODEN STAKE WITH RED FLAG SHALL BE DRIVEN EVERY 50'-0" AND AT EACH CHANGE OF DIRECTION. FOUR STAKES SHALL BE DRIVEN TO OUTLINE EQUIPMENT AND/OR MANHOLE LOCATIONS. ON PAVEMENTS RED PAINT SHALL BE USED TO OUTLINE THE AREAS TO BE CUT. SECURE EXISTING UNDERGROUND UTILITY INFORMATION FROM THE CONTRACTING OFFICER PRIOR TO PERFORMING ANY TRENCHING.
   c. DEPTHS INDICATED FOR INSTALLATION ARE MINIMUM. ACTUAL DEPTHS MAY VARY DUE TO TERMINATIONS, COMPENSATIONS FOR RADIUS OF VERTICAL TRANSITIONS, EXISTING UTILITY CROSSINGS, ETC. APPROVAL SHALL BE OBTAINED FOR ANY DEPTH LESS THAN INDICATED. TRENCHES SHALL BE OVER-EXCAVATED AS NECESSARY TO ALLOW FOR PROPER TRENCH PREPARATION, DUCT BANK CONSTRUCTION, FORMING AND/OR BACKFILLING REQUIREMENTS.
   d. ALL TRENCHING AND BACKFILL COMPACTION SHALL COMPLY WITH GEOTECHNICAL REPORT AND DIVISION 200.



N

1 / E1.1 SITE PLAN - ELECTRICAL
SCALE: 1" = 20'-0"

SCALE: 1" = 20'-0"

20' 0 20 40FT

GRAPHIC SCALE

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02-15-2024

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MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

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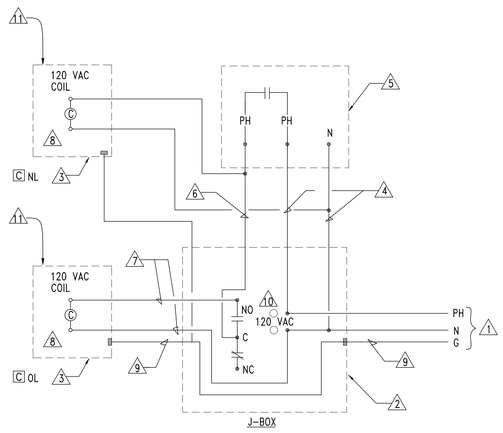


3 / E2.1 DETAIL - TYPICAL OPERATION OF TIME SWITCH/PHOTO-CELL/CONTACTOR

NO SCALE

KEYED NOTES

1. POWER SUPPLY – 120V, 1PH, 60HZ
2. TIME SWITCH ENCLOSURE – NEMA 1 UNLESS NOTED OTHERWISE
3. CONTACTOR ENCLOSURE – NEMA 1 UNLESS NOTED OTHERWISE
4. POWER TAP TO PHOTO-CELL IN GRC
5. TURN-LOCK PHOTO-CELL, SEE DETAIL
6. SWITCH LEG RETURN IN GRC
7. POWER TO CONTACTOR COIL
8. LIGHTING CONTACTOR C NL & C OL AS FOLLOWS:
   - –NEMA ICS 2-211B INDUSTRIAL DUTY TYPE
   - –ELECTRICALLY OPERATED-ELECTRICALLY HELD
   - –RATING AND NUMBER OF POLES INDICATED
   - –CONTACTS SHALL BE SILVER ALLOY, DOUBLE-BREAK, SUITABLE FOR TUNGSTEN, BALLAST LIGHTING, RESISTANCE AND MOTOR LOADS
   - –FUSING FOR CONTROL CIRCUIT
9. GROUND CONDUCTOR – BOND TO EACH ENCLOSURE AND INSTALL IN EACH CONDUIT SYSTEM
10. DIGITAL TIME SWITCH AS FOLLOWS:
    - –ONE CHANNEL WITH 24 HOUR, SEVEN DAY PROGRAMMING AND SKIP-A-DAY FEATURE
    - –INPUT: 120 VAC, 60HZ
    - –OUTPUT: DPST DRY CONTACTS (UNPOWERED)
    - –HEAVY DUTY CONTACTS RATED 20 AMPERE RESISTIVE AT 120 VAC
    - –TEMPERATURE RANGE: –20 TO +60 DEGREES CELSIUS
    - –RELATIVE HUMIDITY: 0 TO 90% RH
    - –CLOCK ACCURACY: ±2 MINUTES PER YEAR
    - –LED INDICATION OF TIME AND LOAD STATUS
    - –FULL WEEK'S RESERVE POWER (BATTERY BACK-UP)
11. PROVIDE NUMBER OF POLES REQUIRED.

ROOM CONTROLLER NOTES:

1. CONTRACTOR SHALL LOCATE ALL ROOM CONTROLLERS ABOVE DOORS IN EACH ROOM 6" ABOVE CEILING GRID. PROVIDE ACCESS PANELS WHERE LOCATED ABOVE HARD CEILINGS OR MOUNT IN UTILITY TYPE ROOMS WHENEVER POSSIBLE. ROOM CONTROLLERS SHOWN ON THIS PLAN IS DIAGRAMMATIC FOR CIRCUITRY. DO NOT USE THESE FOR ACTUAL LOCATIONS. PROVIDE A WHITE PHENOLIC LABLEL WITH 1" BLACK TEXT THAT READS "RC" GLUED ON CEILING GRID UNDER POWER PACK FOR EACH LOCATION FOR FUTURE MAINTENANCE.

PHOTOCONTROL OF LIGHTING:

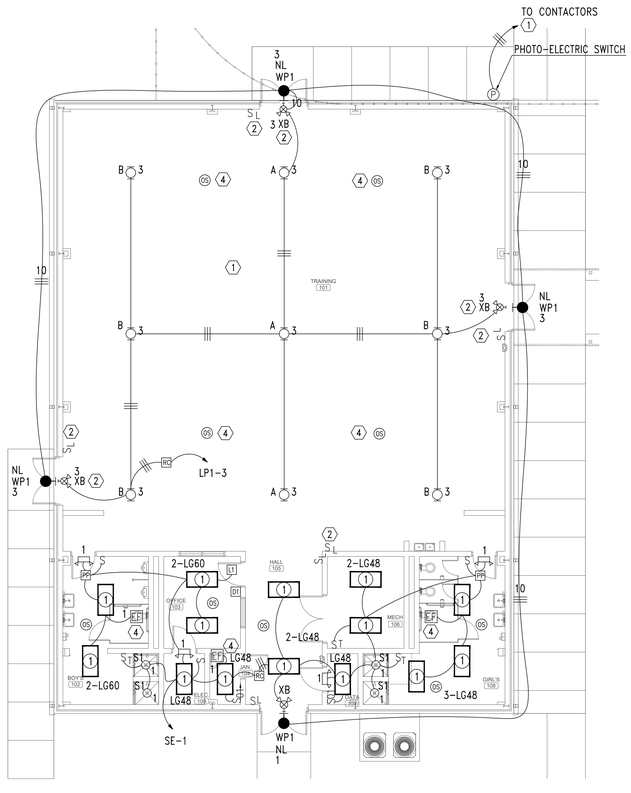
1. PHOTOCONTROL OF LIGHT FIXTURES WILL NOT BE REQUIRED FOR THE AREAS ON THIS PAGE. THE PRIMARY SIDELIGHTED AREA WILL NOT HAVE WATTAGES EXCEEDING 150W.

GENERAL NOTES:

1. OCCUPANCY SENSORS SHALL BE VACANCY TYPE WITH DUAL TECHNOLOGY DETECTION AND 20-MINUTE CUTOFF TIME.
2. OCCUPANCY SENSOR MANUFACTURER PROVIDER WILL BE RESPONSIBLE FOR SIZING THE OCCUPANCY SENSORS IN EACH SPACE. PROVIDE THIS SIZING TO THE ENGINEER DURING SUBMITTAL PHASE FOR APPROVAL. PROVIDE ADDITIONAL OCCUPANCY SENSORS AS REQUIRED TO FULLY COVER ALL SPACES. IF ADDITIONAL OCCUPANCY SENSORS OR ANY OTHER EQUIPMENT IS REQUIRED IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND INSTALL. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THIS WITH LIGHTING MANUFACTURER PRIOR TO BIDS AND COVER THE COST OF ALL MATERIAL AND LABOR FOR ANY ADDITIONAL OCCUPANCY SENSORS.
3. ALL OCCUPANCY SENSORS LOCATIONS ARE APPROXIMATE, REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EXACT MOUNTING AND SPACING REQUIREMENTS PRIOR TO INSTALLATION.
4. ULTRASONIC CEILING MOUNTED OCCUPANCY SENSORS SHALL BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC SUPPLY/RETURN VENTS.
5. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR OCCUPANCY SENSORS, FOLLOWING THE MANUFACTURER'S RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.
6. OCCUPANCY SENSORS MOUNTED OVER DOORWAYS SHALL BE PLACED ONE (1) FOOT INSIDE THRESHOLD.
7. LIGHTING CONTROL SYSTEM IS SPECIFIED AROUND THE HUBBELL AUTOMATION SYSTEM. CONTRACTOR SHALL PROVIDE ALL MATERIALS, DEVICES, WIRING, CONNECTIONS, AND PROGRAMMING NEEDED IF ANY OTHER LIGHTING CONTROL SYSTEM SUBMITS FOR APPROVAL AND IS PROVIDED.
8. HUBBELL, COOPER, CRESTON, AND N-LIGHT ARE APPROVED MANUFACTURERS.
9. CONTRACTOR SHALL GROUND ALL JUNCTION BOXES CONTAINING LOW VOLTAGE SWITCHES OR ANY OTHER TYPE LIGHTING CONTROL DEVICE WITH #12 GRD.
10. SEE POWER PLANS FOR PANEL LOCATIONS.
11. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
12. COORDINATE WITH LIGHTING CONTROL DETAILS FOR ADDITIONAL REQUIREMENTS.

SHEET NOTES:

1. PROVIDE INTERCONNECTING RELAY TRANSFORMER TO CONTROL 120V EXHAUST FAN ON/OFF BY THE 277 VOLT LIGHTING CIRCUIT IN THIS ROOM. TRANSFORMER SHALL BE 277V INPUT, 120V OUTPUT, 1,000 VA.
2. PROVIDE WIREGUARD FOR ALL LIGHTS, EXIT SIGNS, EMERGENCY WALL PACKS, AND SWITCHES IN THIS AREA.
3. ROUTE THRU CONTACTOR ARRANGEMENT. "NL" DESIGNATES LIGHTS THAT SHALL BE TURNED ON FROM DUSK TO DAWN. "OL" DESIGNATES LIGHTS ON TURNED ON AT DUCK AND TURNED OFF BY TIMECLOCK AT 12 MIDNIGHT.
4. PROVIDE HIGH BAY TYPE OCCUPANCY SENSOR AS NEEDED.



N

1 / E2.1 FLOOR PLAN - LIGHTING

SCALE: 1/8" = 1'-0"

1/8" = 1'-0

8' 0 8 16 FT

GRAPHIC SCALE

Gunn & Associates, P.C.
Consulting Engineers
3102 Highway 14, Millbrook, AL 36054, Tel: 334.285.1273
1200 Providence Park, Suite 200, Birmingham, AL 35242, GA#24-034

NEW FIELDHOUSE FOR THE JUNIOR VARSITY AT CENTRAL HIGH SCHOOL FOR THE CLAY COUNTY BOARD OF EDUCATION

LINEVILLE, ALABAMA

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ALABAMA
Kenneth Ray Gunn
NO. 26956
PROFESSIONAL
ENGINEER
02-15-2024

SHEET TITLE : FLOOR PLAN - LIGHTING

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

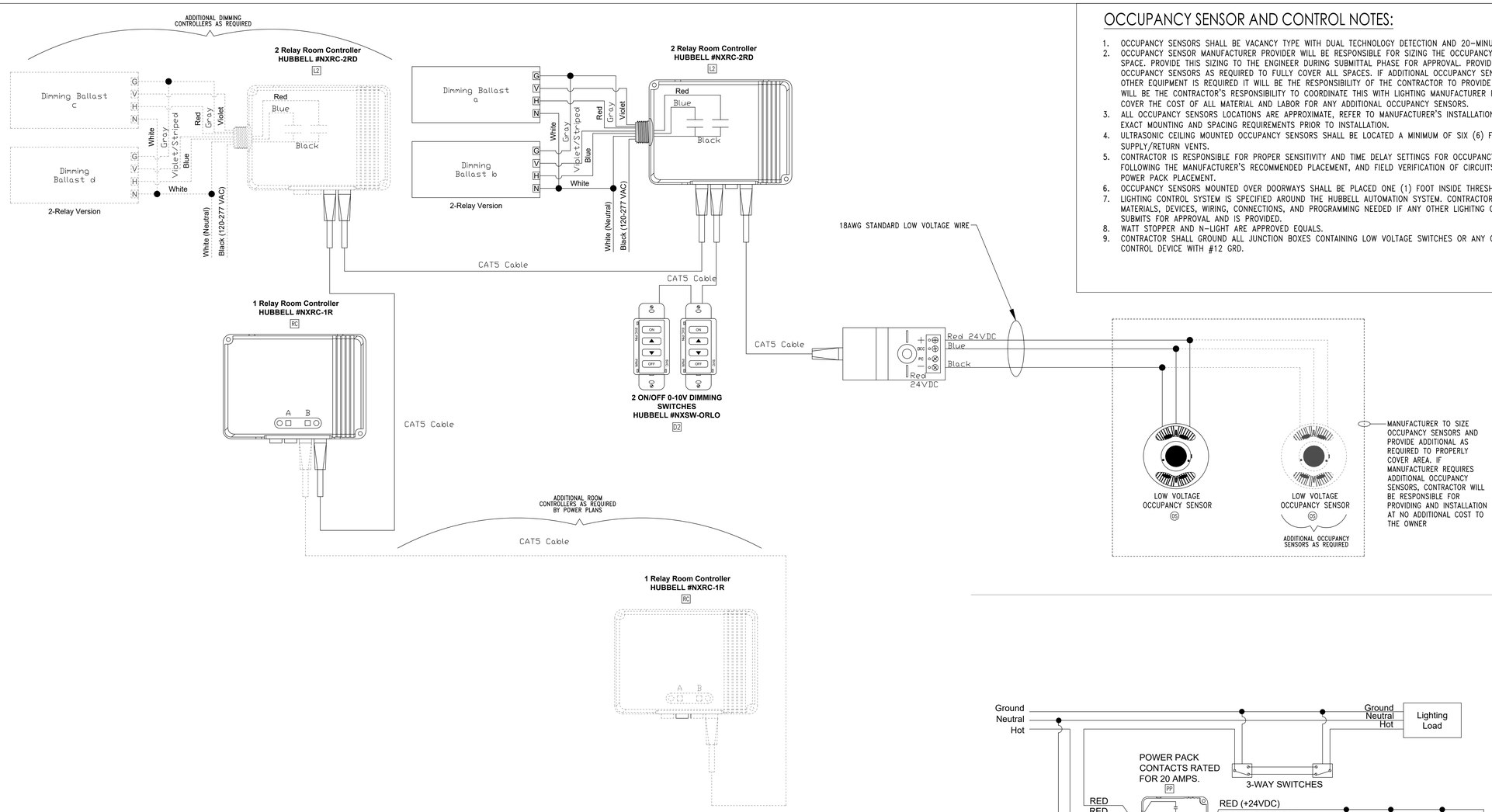
REVISED DATE:

SHEET NO. : E2.1

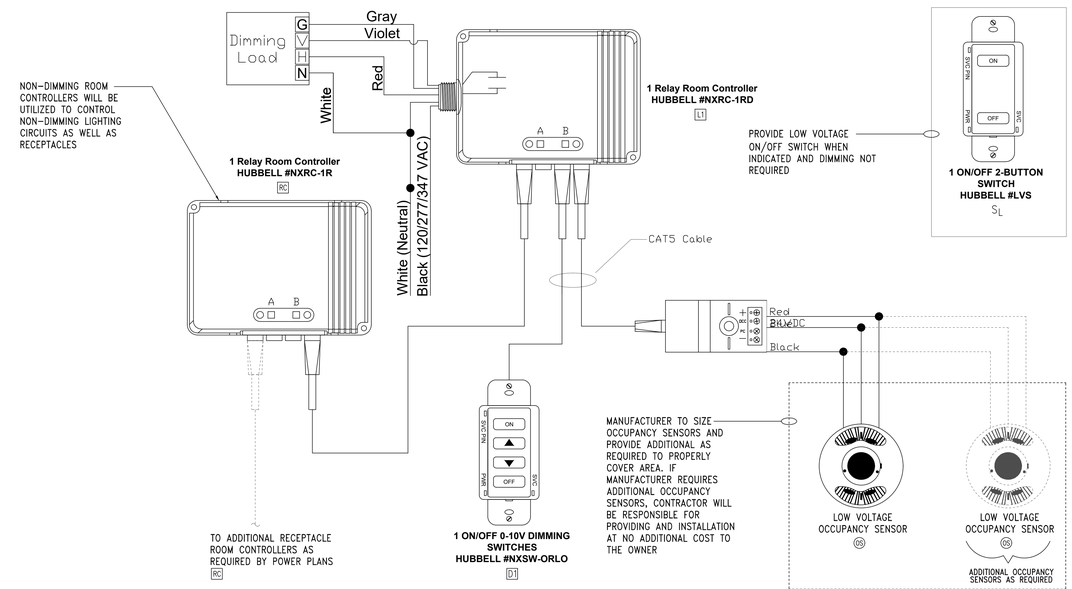
- Tuesday, February 20, 2024 1:21:43 PM

OCCUPANCY SENSOR AND CONTROL NOTES:

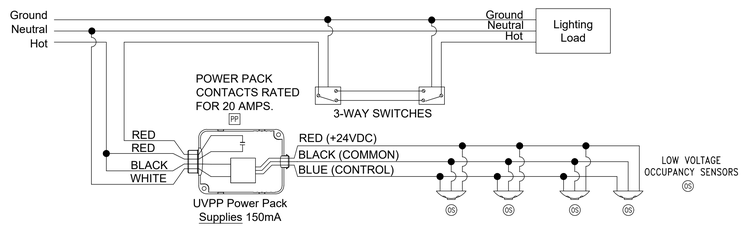
1. OCCUPANCY SENSORS SHALL BE VACANCY TYPE WITH DUAL TECHNOLOGY DETECTION AND 20-MINUTE CUTOFF TIME.
2. OCCUPANCY SENSOR MANUFACTURER PROVIDER WILL BE RESPONSIBLE FOR SIZING THE OCCUPANCY SENSORS IN EACH SPACE. PROVIDE THIS SIZING TO THE ENGINEER DURING SUBMITTAL PHASE FOR APPROVAL. PROVIDE ADDITIONAL OCCUPANCY SENSORS AS REQUIRED TO FULLY COVER ALL SPACES. IF ADDITIONAL OCCUPANCY SENSORS OR ANY OTHER EQUIPMENT IS REQUIRED IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND INSTALL. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THIS WITH LIGHTING MANUFACTURER PRIOR TO BIDS AND COVER THE COST OF ALL MATERIAL AND LABOR FOR ANY ADDITIONAL OCCUPANCY SENSORS.
3. ALL OCCUPANCY SENSORS LOCATIONS ARE APPROXIMATE, REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EXACT MOUNTING AND SPACING REQUIREMENTS PRIOR TO INSTALLATION.
4. ULTRASONIC CEILING MOUNTED OCCUPANCY SENSORS SHALL BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC SUPPLY/RETURN VENTS.
5. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR OCCUPANCY SENSORS, FOLLOWING THE MANUFACTURER'S RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.
6. OCCUPANCY SENSORS MOUNTED OVER DOORWAYS SHALL BE PLACED ONE (1) FOOT INSIDE THRESHOLD.
7. LIGHTING CONTROL SYSTEM IS SPECIFIED AROUND THE HUBBELL AUTOMATION SYSTEM. CONTRACTOR SHALL PROVIDE ALL MATERIALS, DEVICES, WIRING, CONNECTIONS, AND PROGRAMMING NEEDED IF ANY OTHER LIGHITNG CONTROL SYSTEM SUBMITS FOR APPROVAL AND IS PROVIDED.
8. WATT STOPPER AND N-LIGHT ARE APPROVED EQUALS.
9. CONTRACTOR SHALL GROUND ALL JUNCTION BOXES CONTAINING LOW VOLTAGE SWITCHES OR ANY OTHER TYPE LIGHTING CONTROL DEVICE WITH #12 GRD.



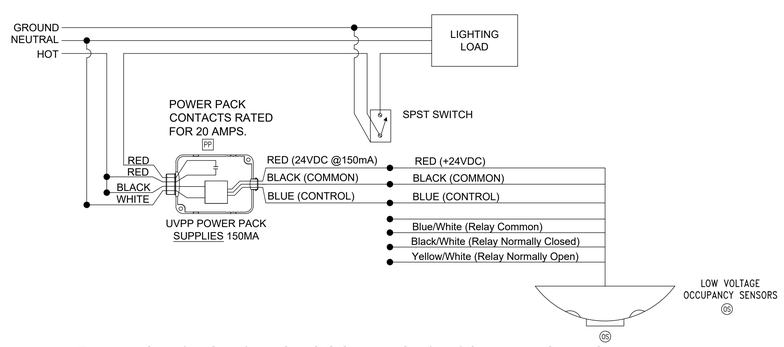
1 E2.2 TYPICAL MULTIPLE OCCUPANCY SENSOR, PHOTOCELL, MULTIPLE 0-10V DIMMING ZONES, AND MULTIPLE ROOM RECEPTACLE CONTROLLER DETAIL
NO SCALE



2 E2.2 TYPICAL MULTIPLE OCCUPANCY SENSOR, SINGLE 0-10V DIMMING SYSTEM, AND MULTIPLE ROOM RECEPTACLE CONTROLLER DETAIL
NO SCALE



4 E2.2 TYPICAL 3-WAY SWITCHING OCCUPANCY SENSOR WIRING DIAGRAM
NO SCALE



3 E2.2 TYPICAL SINGLE SWITCH OCCUPANCY SENSOR WIRING DIAGRAM
NO SCALE

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02-15-2024
KENNETH RAY GUNN III

SHEET TITLE : LIGHTING CONTROLS, DETAILS & NOTES

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

DATE: 02.15.2024

REVISED DATE:

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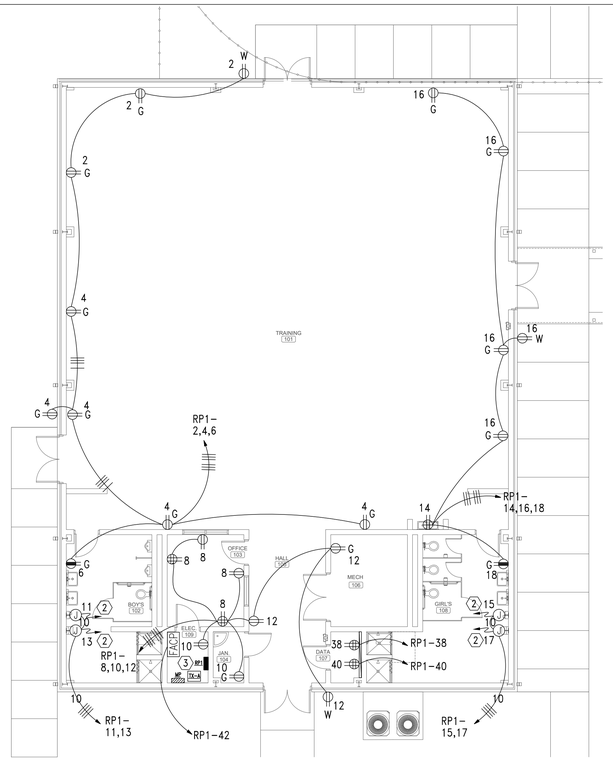
GA#24-034

SHEET NO. : E2.2



N

1 E3.1 FLOOR PLAN - POWER

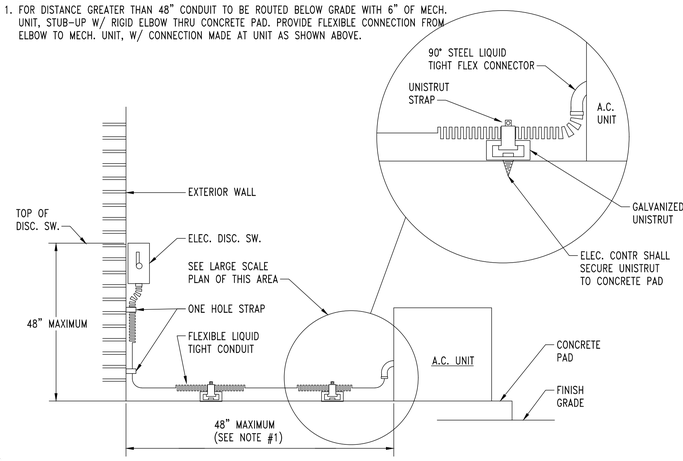
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
2. COORDINATE EXACT LOCATION OF ALL ELECTRICAL AND COMMUNICATIONS DEVICES WITH MILLWORK PROVIDERS PRIOR TO ROUGH-IN.
3. THE OWNER TAKES EXCEPTION TO THE FOLLOWING SECTIONS OF 2013 ASHRAE 90. SECTION 8.4.2 AUTOMATIC RECEPTACLE CONTROLS AND SECTION 8.4.3 ELECTRICAL ENERGY MONITORING. THESE REQUIREMENTS WILL NOT BE PROVIDED IN THIS PROJECT.

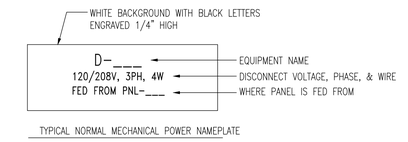
NOTE:

1. FOR DISTANCE GREATER THAN 48" CONDUIT TO BE ROUTED BELOW GRADE WITH 6" OF MECH. UNIT, STUB-UP W/ RIGID ELBOW THRU CONCRETE PAD. PROVIDE FLEXIBLE CONNECTION FROM ELBOW TO MECH. UNIT, W/ CONNECTION MADE AT UNIT AS SHOWN ABOVE.



3 E3.2 MECHANICAL UNIT CONNECTION DETIAL

NO SCALE



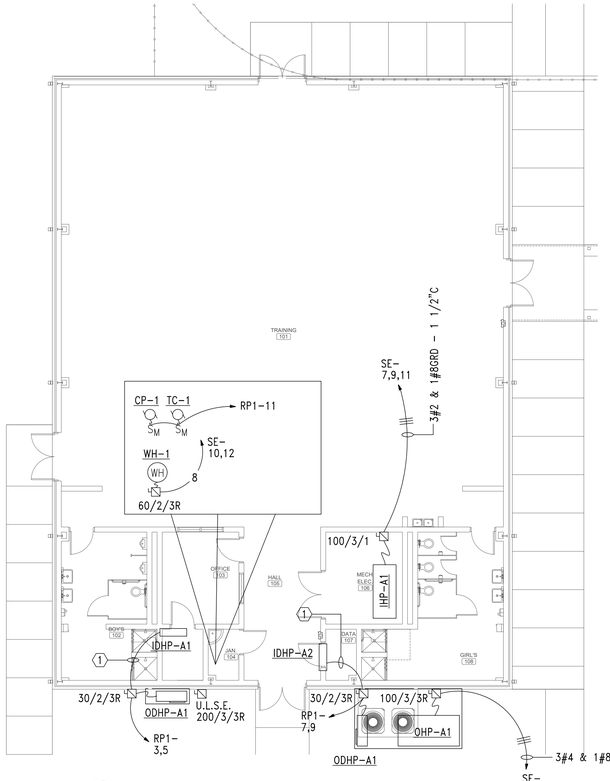
TYPICAL NORMAL MECHANICAL POWER NAMEPLATE

2 E3.2 DETAIL - TYPICAL DISCONNECT NAMEPLATE

NO SCALE

SHEET NOTES:

1. INTERIOR UNIT RECEIVES POWER FROM THE EXTERIOR UNIT. PROVIDE INTERCONNECTING CIRCUITRY AS NEEDED IN CONDUIT TO CONNECT THE INTERIOR UNIT.
2. PROVISIONS FOR ELECTRIC HAND DRYER. IF ELECTRIC HAND DRYER NOT PROVIDED, MOUNT JUNCTION BOX BEHIND PAPER TOWEL DISPENSER AND WALL BLANK OFF. CIRCUIT BREAKERS FEEDING CIRCUITRY SHALL BE SWITCHED OFF AND WIRE DISCONNECTED.
3. ARRANGE ELECTRICAL EQUIPMENT IN ELECTRICAL ROOM TO ALLOW FOR ALL NEC CLEARANCES.



N

2 E3.1 FLOOR PLAN - MECHANICAL POWER

SCALE: 1/8" = 1'-0"

GENERAL MECHANICAL POWER NOTES:

1. COORDINATE WITH MECHANICAL/PLUMBING DRAWINGS FOR EXACT LOCATIONS OF EQUIPMENT.
2. MOUNT EXTERIOR DISCONNECTS ON EXTERIOR WALLS AT LEAST 18" FROM WINDOWS. LOCATIONS OF DISCONNECTS AND EQUIPMENT ARE SHOWN FOR DRAWING CLARITY PURPOSES ONLY.
3. COORDINATE WITH MECHANICAL/PLUMBING CONTRACTORS TO INSURE OVERCURRENT PROTECTION DEVICES FOR THEIR EQUIPMENT IS SIZED PER MANUFACTURER'S RECOMMENDATIONS. ENGINEER SIZED OVERCURRENT PROTECTION ACCORDING TO MECHANICAL/PLUMBING DRAWINGS AND SPECIFICATIONS, ACTUAL EQUIPMENT SUPPLIED MAY DIFFER. ELECTRICAL CONTRACTOR SHALL WORK WITH OTHER TRADE DISCIPLINES TO INSURE ANY CHANGES WILL BE INSTALLED CORRECTLY AT THE COST OF THE PERSON MAKING THE CHANGES.
4. ALL FLEXIBLE CONNECT TO HVAC UNITS SHALL BE RUN PARALLEL TO HARD SURFACE AND STRAPPED AT LEAST EVERY 2'.
5. CONTRACTOR SHALL PROVIDE CONDUIT FOR MECHANICAL CONTROLS. COORDINATE EXACT LOCATIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
6. ALL DISCONNECTS TO HAVE NAMEPLATE AS SHOWN IN DETAIL (3) THIS SHEET, NO EXCEPTIONS.
7. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
8. SEE DETAIL (4) THIS SHEET FOR MECHANICAL UNIT CONNECTION DETAIL.

1/8" = 1'-0

8' 0 8 16 FT

GRAPHIC SCALE

Gunn & Associates, P.C.
Consulting Engineers
3102 Highway 14, Millbrook, AL 36054, Tel: 334.285.1273
1200 Providence Park, Suite 200, Birmingham, AL 35242
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ALABAMA
No. 26958
PROFESSIONAL
KENNETH RAY GUNN, III
ENGINEER
02-15-2024

SHEET TITLE : FLOOR PLAN - POWER

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

DATE: 02.15.2024

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- Tuesday, February 20, 2024 1:21:40 PM

COMMUNICATIONS RISER DIAGRAM SHEET NOTES:

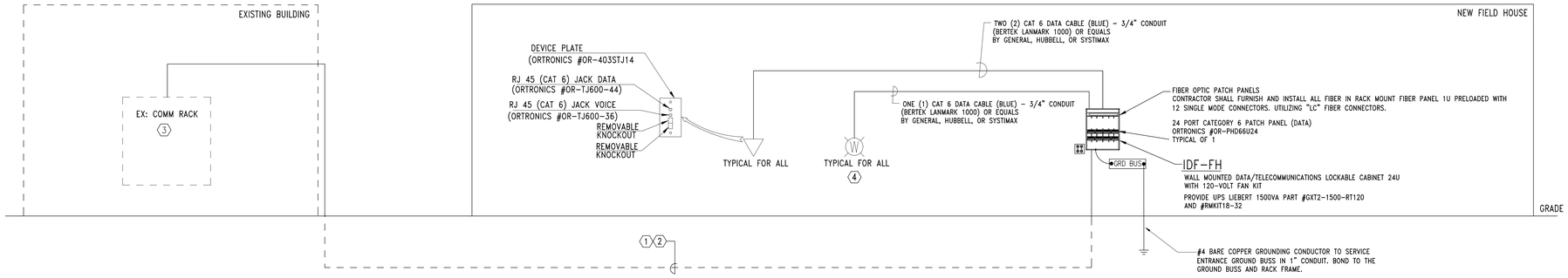
1. CONTRACTOR SHALL PROVIDE A 6 STRAND LOOSE TUBE GEL FILLED OUTSIDE PLANT RATED OS2 SINGLE MODE FIBER OPTIC CABLE INTERCONNECTING THE EXISTING COMM RACK TO THE NEW IDF-FH. PROVIDE FIBER OPTIC PATCH EQUIPMENT IN EXISTING COMMUNICATIONS RACK TO INTERCONNECT THE TWO BUILDINGS BY FIBER. PROVIDE "LC" TYPE FIBER CONNECTIONS. VISIT SITE PRIOR TO BIDS AND ADJUST ROUTING AND CABLING LENGTHS ACCORDINGLY.
2. CONTRACTOR SHALL ROUTE FIBER IN CONDUIT AND J-HOOK SYSTEM AS REQUIRED.
3. PROVIDE FIBER OPTIC PATCH PANEL AS NEEDED AT EXISTING RACK.
4. PROVIDE SINGLE GANG JUNCTION BOX WITH CAT6-RJ45 MALE.

COMMUNICATION NOTES:

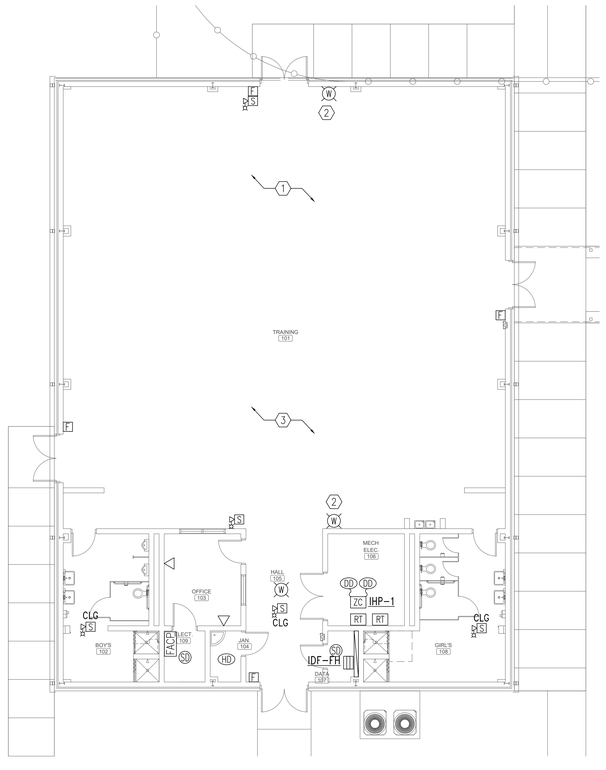
1. PROVIDE 5/8" STRUT ASSEMBLY AT TOP AND BOTTOM OF TBB TO SUPPORT ALL CONDUITS TERMINATING AT BACKBOARD.
2. TBB SHALL BE 3/4" PLYWOOD EXTERIOR RATED AND CUT TO COVER ALL WALLS OR AS INDICATED. PAINT WITH TWO COATS OF FIRE RETARDENT PAINT. MOUNT 2' AFF.
3. PROVIDE A PLASTIC BUSHING OR PROTECTIVE COLLAR AT EACH CONDUIT TERMINATION, INCLUDING TERMINATIONS ABOVE THE CEILING, AT CABLE TRAY, OR AT TBB.
4. ALL CONDUIT TERMINATIONS SHOULD BE DONE EVENLY AT THE TOP AND BOTTOM OF TBB. TERMINATIONS SHALL BE MADE WITHIN THE FIRST FEW INCHES OF THE TBB.
5. SEAL ALL CONDUITS FROM THE EXTERIOR WITH A SEALING COMPOUND, ONCE ALL CABLING HAS BEEN INSTALLED.
6. PROVIDE GROUND BUS FOR EACH TBB. SEE GROUND BUS INSTALLATION DETAIL.
7. PROVIDE ALL CONDUITS WITH PULLWIRES.
8. STENCIL ALL JUNCTION BOX COVERS ABOVE THE CEILING WITH 2" LETTERS THAT READ "COMM".
9. ELECTRICAL CONTRACTOR WILL BE RESPONSIABLE FOR ALL RACEWAYS, CONDUIT, LB'S, CABLING, PATCH PANELS, TERMINATIONS, BACKBOARDS, ETC. SEE RISER DIAGRAM, DETAILS, AND SPECIFICATIONS FOR FURTHER EQUIPMENT REQUIREMENTS.

NOTE:
1. CONTRACTOR SHALL PROVIDE ONE (1) CAT 6 PATCH CORD IN CBB FOR EACH HORIZONTAL COPPER CABLE INSTALLED IN CONTRACT. PROVIDE 100% OF THE PATCH CORDS AS ONE FOOT IN LENGTH.
2. IN ADDITION TO THE CABLES IN NOTE 1, PROVIDE AN EXTRA STOCK OF TEN (10) CAT 6 PATCH CORDS OF TWO FEET IN LENGTH.
3. IN ADDITION TO THE CABLES IN NOTE 1, PROVIDE AN EXTRA STOCK OF TEN (10) CAT 6 PATCH CORDS OF FOUR FEET IN LENGTH.
4. HUBBELL AND ORTRONIX WILL BE ACCEPTED EQUALS ON ALL COMMUNICATIONS EQUIPMENT. OTHERS MAY BE ACCEPTED PENDING PRIOR APPROVAL

*ALL DATA CABLES SHALL BE TERMINATED ON DATA PATCH PANELS
*ALL WIRELESS ACCESS CABLES SHALL BE TERMINATED ON WIRELESS ACCESS PATCH PANELS
*ALL FIBER OPTIC CONNECTIONS SHALL BE "LC" TYPE



2 E4.1 COMMUNICATIONS RISER DIAGRAM
NO SCALE



N 1 E4.1 FLOOR PLAN - AUXILIARY
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. COORDINATE AND MOUNT COMMUNICATIONS OUTLETS WITHIN 6" OF CORRESPONDING POWER RECEPTACLE.
2. COORDINATE WITH RISER DIAGRAMS FOR ADDITIONAL REQUIREMENTS FOR COMMUNICATIONS AND FIRE ALARM SYSTEMS.

SHEET NOTES:

1. PROVIDE WIREGUARDS FOR FOR ALL FIRE ALARM, SPEAKERS AND WIRELESS ACCESS POINTS IN THIS AREA
2. MOUNT OUTLET AT 12' AFF FOR WALL MOUNTED WIRELESS ACCESS POINTS.

1/8" = 1'-0
8' 0 8 16 FT
GRAPHIC SCALE

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ALABAMA
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PROFESSIONAL
KENNETH RAY GUNN, JR.
ENGINEER
02-15-2024

SHEET TITLE : FLOOR PLAN - POWER

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

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- Tuesday, February 20, 2024 1:20:00 PM

LIGHTING FIXTURE SCHEDULE

TYPE:	MANUFACTURER NUMBER AND EQUALS:	VOLTAGE:	MOUNTING:	LAMP TYPE:	LAMP QUANTITY:	DESCRIPTION:
A	METALUX NO. SPHB-1224SE-H-L84050-CD-U-SP1-U-C12 OR PRIOR APPROVED EQUAL BY WILLIAMS, OR HUBBELL	MVOLT	SUSPENDED	LED	24,000 LUMEN	LED LINEAR HIGH BAY. PROVIDE WITH 12' AIR CRAFT CABLE AS REQUIRED.
B	METALUX NO. SPHB-1224SE-M-L84050-CD-U-SP1-U-C12 OR PRIOR APPROVED EQUAL BY WILLIAMS, OR HUBBELL	MVOLT	SUSPENDED	LED	18,802 LUMEN	LED LINEAR HIGH BAY. PROVIDE WITH 12' AIR CRAFT CABLE AS REQUIRED.
LG48	HUBBELL NO. SRP24-40ML-G-EDU OR EQUALS BY WILLIAMS, LUMAX, OR COOPER	MVOLT	RECESSED	LED	5000 LUMEN	2'X4' 5000-LUMEN FLAT PANEL FIXTURE. 0-10V DIMMING CAPABLE.
LG60	HUBBELL NO. SRP24-40HL-G-EDU OR EQUALS BY WILLIAMS, OR COOPER	MVOLT	RECESSED	LED	6000 LUMEN	2'X4' 6000-LUMEN FLAT PANEL FIXTURE. 0-10V DIMMING CAPABLE.
S1	PRESCOLITE NO. LFS61-6LFSL20L40K8WNCTDL OR EQUALS BY WILLIAMS, LITHONIA, OR COOPER	MVOLT	RECESSED	LED	2000 LUMEN	6 INCH 2000 LUMEN LED DOWNLIGHT 4000K TEMPERATURE LAMPS AND FEATURE REMOTE PHOSPHOR
WP1	HUBBELL NO. QSP-30L-4000K-053-TYPE 3-U-COLOR BY ARCH - SCP-20F OR PRIOR APPROVED EQUALS BY WILLIAMS, OR COOPER	MVOLT	WALL	LED	5700 LUMEN	DARK BRONZE EXTERIOR LED LIGHT. UL LISTED FOR WET LOCATIONS.
EM WALL PACK	COMPASS NO. CU2HLHOSD - WIREGUARDS IN GYM OR PRIOR APPROVED EQUAL BY EMERGI-LITE, MCPHILBEN, OR PRESCOLITE	MVOLT	WALL	LED	1000 LUMEN	1000 LUMEN LED EMERGENCY WALL PACK
EXIT SIGN COMBO "XB"	DUAL-LITE NO. EVCHLU*W12-06L OR PRIOR APPROVED EQUAL BY EMERGI-LITE, MCPHILBEN, OR PRESCOLITE	MVOLT	UNIVERSAL	LED	1000 LUMEN	THERMOPLASTIC 1000-LUMEN COMBO LED EXIT SIGN EGRESS LIGHT. PROVIDE WITH NUMBER OF FACES AND DIRECTIONAL ARROWS AS SHOWN ON DRAWINGS. COORDINATE COLOR OF SIGNAGE WITH LOCAL REQUIREMENTS. PROVIDE WITH EMERGENCY BATTERY. PROVIDE WIREGUARDS IN GYM.

NOTES:

1. ARCHITECT RESERVES THE RIGHT TO SELECT ALL COLORS OR MAKE CUSTOM COLOR DURING SHOP DRAWING REVIEW. BID ACCORDINGLY.
2. COORDINATE MOUNTING OF ALL LUMINAIRES WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION
3. PROVIDE EMERGENCY BATTERY BALLAST FOR ALL EMERGENCY TYPE FIXTURES CAPABLE OF 90-MINUTES. ALL EMERGENCY LIGHTS IN SAFE AREA SHALL BE CONNECTED TO THE BATTERY INVERTER FOR 180-MINUTES OF RUN TIME.
4. FOR WARRANTY AND LONG TERM SUPPORT FOR OWNER, ALL LIGHTING FIXTURES SHALL BE PURCHASED THROUGH MANUFACTURER REPRESENTATIVES LOCATED IN THE STATE OF ALABAMA. SUBMITTALS RECEIVED THAT DO NOT COMPLY WITH THIS REQUIREMENT WILL BE REJECTED WITHOUT REVIEW. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIABLE FOR ANY DELAYS CAUSED BY NON COMPLIANCE WITH THIS REQUIREMENT.
5. ALL INTERIOR LIGHTS SHALL HAVE 4000K TEMPERTURE LAMPS, UNLESS NOTED OTHERWISE.
6. ALL EXTERIOR LIGHTS SHALL HAVE 4000K TEMPERTURE LAMPS.
7. LIGHTS SPECIFIED WILL BE USED AT BOTH 120V AND 277V CIRCUITS. PROVIDE UNIVERSAL TYPE VOLTAGE DRIVERS FOR ALL LIGHT FIXTURES. IF A SPECIFIC VOLTAGE IS REQUIRED, LIGHTING MANUFACTURER AND CONTRACTOR SHALL WORK TOGETHER TO PROVIDE THE REQUIRED VOLTAGES FOR EACH OF THE DIFFERENT FACILITIES. ENGINEER WILL NOT BE RESPONSIBLE FOR THIS COORDINATION DURING SUBMITTALS. WE WILL ASSUME THE VOLTAGE SUBMITTED IS CORRECT.

LUMINAIRE NOTES:

1. ALL LUMINAIRES AND INSTALLATION SHALL BE IN ACCORDANCE WITH NEC, NFPA AND LOCAL CODES. ALL LUMINAIRES SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH THE UL LISTING.
2. LUMINAIRES SHALL BE FURNISHED COMPLETE WITH THE PROPER LAMP BASE OR PIN RECEPTORS, WIRING COMPONENTS, LAMPS, SUPPORTING FRAMES AND DEVICES, ETC., FOR A COMPLETE INSTALLATION.
3. ALL LUMINAIRE DEVICES, COMPONENTS, FITTINGS, SUPPORTS, ETC., SHALL BE COORDINATED TO PROVIDE A COMPLETE UL LISTED INSTALLATION
4. ALL LUMINAIRES BALLAST, DRIVERS, LAMPS, ETC SHALL BE COMPATIABLE WITH THE LIGHTING CONTROL SYSTEM OR DIMMING CONTROL SYSTEM PROVIDED.
5. SECURE EACH LAY-IN LUMINAIRE AT TWO LOCATIONS TO THE CEILING GRID. PROVIDE BOLTS, SCREWS, RIVETS OR APPROVED CLIPS FOR USE WITH THE TYPE CEILING AND LUMINAIRE INSTALLED.
6. ALL LUMINAIRES IN MECHANICAL AND ELECTRICAL ROOMS SHALL BE INSTALLED TO CLEAR ELECTRICAL EQUIPMENT, DUCT, PIPING, ETC., SUSPEND BELOW OBSTRUCTION WHEN CONFLICTS OCCUR.
7. ALL LED LUMINARIES SHALL BE PROVIDED WITH 4000K COLOR TEMPERATURE LAMPS, UNLESS NOTED OTHERWISE.
8. ARCHITECT RESERVES THE RIGHT TO SELECT ALL COLORS FOR LUMINAIRES, POLES, MOUNTING ACCESSORIES, ETC. DURING SHOP DRAWING REVIEW.
9. COORDINATE LUMINAIRE MOUNTING WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION.
10. ALL EXIT SIGNS AND LUMINAIRES DESIGNATED AS EMERGENCY SHALL BE PROVIDED WITH A MINIMUM 1100 LUMEN EMERGENCY BATTERY BALLAST CAPABLE OF 90 MINUTES OF ILLUMINATION. X DESIGNATION MEANS DIFFERENT TYPE BATTERY SEE SCHEDULE.
11. CONTRACTOR SHALL PROVIDE ALL SLOPE ADAPTERS, FLANGE KITS, TRIMS, AND ALL OTHER MOUNTING ACCESSORIES AS NEEDED TO MOUNT EACH LUMINAIRE IN CEILINGS AS SHOWN. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS.
12. PROVIDE ALL EXIT SIGNS WITH DIRECTIONAL ARROWS AS SHOWN ON DRAWINGS.

COMcheck Software Version 4.1.5.1

Interior Lighting Compliance Certificate

Project Information

Energy Code: 90.1 (2013) Standard
Project Title: NEW FIELDHOUSE FOR THE JUNIOR VARSITY AT CENTRAL HIGH SCHOOL
Project Type: New Construction

Construction Site:
Owner/Agent: MCKEE & ASSOCIATES
Designer/Contractor: JASON TILLERY, GUNN & ASSOCIATES, MILLBROOK, AL

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-JUNIOR HIGH SCHOOL (Gymnasium/Fitness Center:Exercise Area)	4755	0.72	3424
		Total Allowed Watts =	3424

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-JUNIOR HIGH SCHOOL (Gymnasium/Fitness Center:Exercise Area)				
LG48: Other:	1	8	38	304
LG60: Other:	1	4	45	180
A: Other:	1	3	164	492
B: Other:	1	6	123	738
S1: Other:	1	4	30	120
		Total Proposed Watts =		1834

Interior Lighting PASSES: Design 46% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.1 (2013) Standard requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Jason Tillery - Elect. Designer — [signature] — 2/14/24
Name - Title — Signature — Date

Project Title: NEW FIELDHOUSE FOR THE JUNIOR VARSITY AT CENTRAL HIGH SCHOOL — Report date: 02/14/24
Data filename: N:\2024\24-034 CENTRAL CLAY CO HS FIELDHOUSE\Correspondence\CENTRAL CLAY COUNTY HIGH SCHOOL FIELD HOUSE.cck — Page 1 of 6

COMcheck Software Version 4.1.5.1

Exterior Lighting Compliance Certificate

Project Information

Energy Code: 90.1 (2013) Standard
Project Title: NEW FIELDHOUSE FOR THE JUNIOR VARSITY AT CENTRAL HIGH SCHOOL
Project Type: New Construction
Exterior Lighting Zone: 1 (Developed rural area)

Construction Site:
Owner/Agent: MCKEE & ASSOCIATES
Designer/Contractor: JASON TILLERY, GUNN & ASSOCIATES, MILLBROOK, AL

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Walkway < 10 feet wide	400 ft of	0.7	Yes	280
		Total Tradable Watts (a) =		280
		Total Allowed Watts =		280
		Total Allowed Supplemental Watts (b) =		500

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 500 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Walkway < 10 feet wide (400 ft of walkway length): Tradable Wattage				
LED 2: Other:	1	4	45	180
		Total Tradable Proposed Watts =		180

Exterior Lighting PASSES: Design 77% better than code

Exterior Lighting Compliance Statement

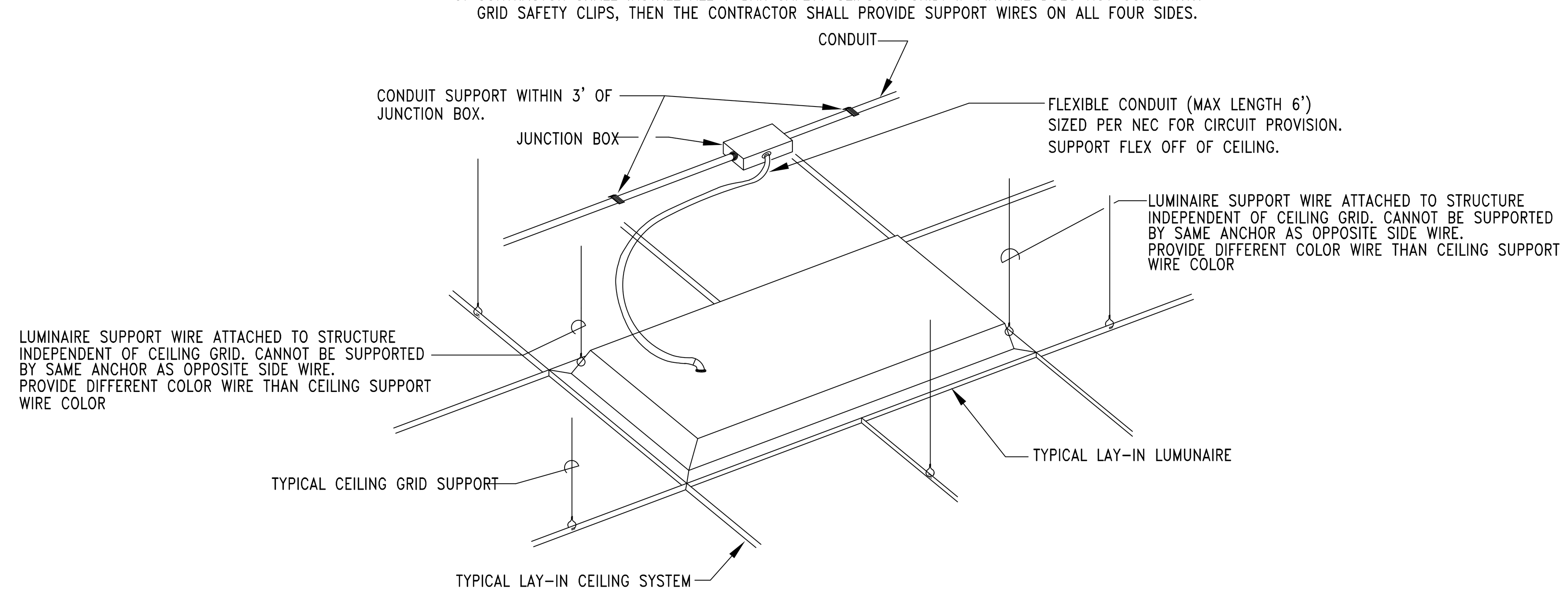
Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 90.1 (2013) Standard requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Jason Tillery - Elect. Designer — [signature] — 2/14/24
Name - Title — Signature — Date

Project Title: NEW FIELDHOUSE FOR THE JUNIOR VARSITY AT CENTRAL HIGH SCHOOL — Report date: 02/14/24
Data filename: N:\2024\24-034 CENTRAL CLAY CO HS FIELDHOUSE\Correspondence\CENTRAL CLAY COUNTY HIGH SCHOOL FIELD HOUSE.cck — Page 2 of 6

NOTES:

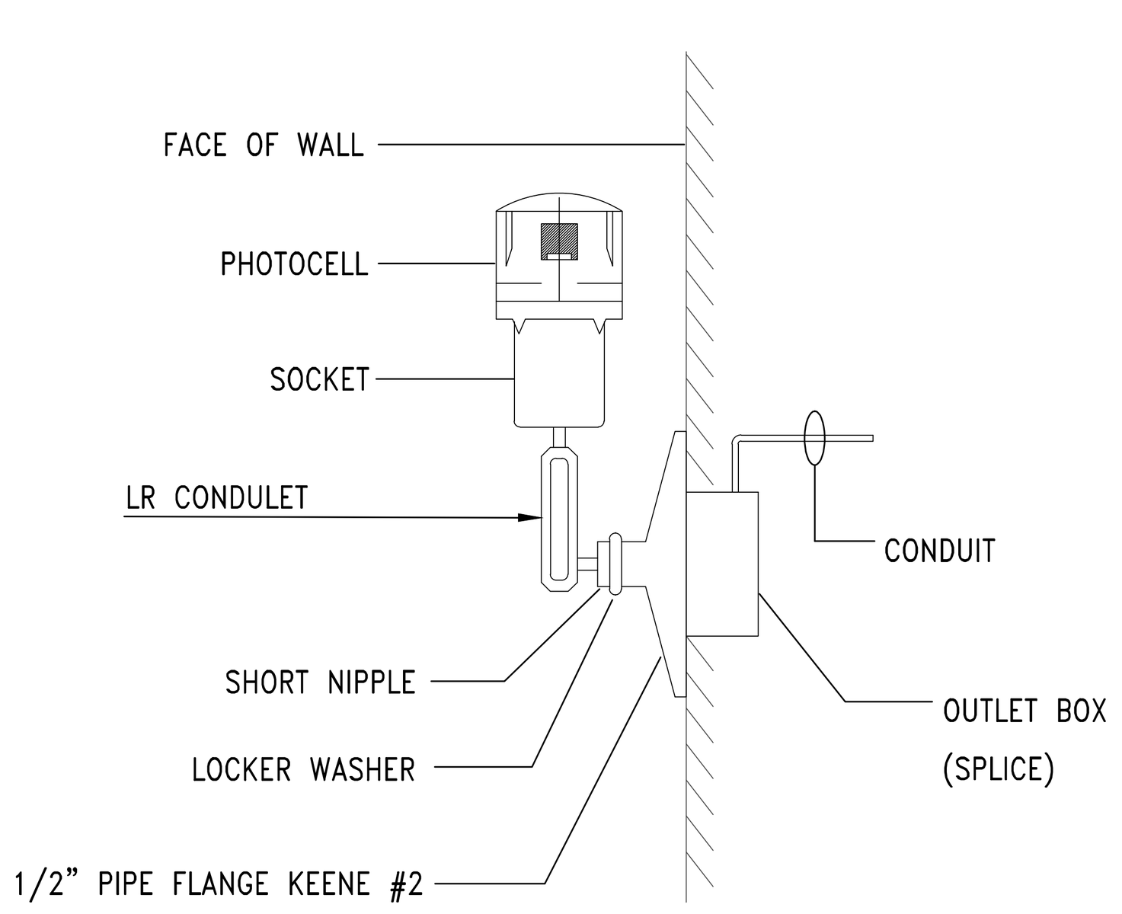
1. ALL RECESSED LUMINAIRES SHALL BE WIRED FROM A JUNCTION BOX AS SHOWN, INCLUDING LUMINAIRES IN A CONTINUOUS ROW. NO WIRING THRU FIXTURES. NO MORE THAN TWO LUMINAIRES SHALL BE CIRCUITED TO ONE JUNCTION BOX.
2. LUMINAIRE SUPPORT WIRES TO BE A MINUMUM OF #14 GAGE PRE-STRAINED GALVINIZED WIRE ATTACHED AT OPPOSITE CORNERS. LUMINAIRE SHALL BE SUPPORTED TO THE STRUCTURE INDEPENDENT OF THE CEILING GRID.
3. CONDUCTORS IN FLEXIBLE CONDUIT FROM JUNCTION BOX TO LUMINAIRE SHALL CONTAIN AN INSULATED GREEN GROUND WIRE, WITH NEUTRAL AND PHASE CONDUCTORS REQUIRED FOR THE CIRCUITING AND SWITCHING REQUIREMENTS INDICATED.
4. JUNCTION BOXES SHALL BE ACCESSIBLE AND LOCATED WITHIN 1'-6" ABOVE LAY-IN CEILING INSTALLATION. PROVIDE PENDANT ALL-THREAD RODS AND/OR STRUT ASSEMBLIES TO MEET THIS REQUIREMENT WHERE DROP CEILING IS MORE THAN 1'-6" FROM STRUCTURE.
5. CONTRACTOR SHALL INSTALL ALL T-BAR SAFETY CLIPS TO GRID. IF FIXTURE DOES NOT COME WITH GRID SAFETY CLIPS, THEN THE CONTRACTOR SHALL PROVIDE SUPPORT WIRES ON ALL FOUR SIDES.



1 / E5.1 DETAIL - TYPICAL LAY-IN LUMINAIRE INSTALLATION
NO SCALE

NOTES

1. PAINT CONDUIT NIPPLE, SOCKET AND PIPE FLANGE WITH TWO COATS OF ENAMEL.
2. COMPLETE ASSEMBLY TO BE UL LISTED FOR WET LOCATIONS.
3. PHOTOCELL TO BE MOUNTED FACING NORTH FREE FROM ALL SHADOWS WHICH MIGHT CAUSE PHOTOCELL TO TURN LIGHTS ON EARLY. CONTRACTOR SHALL COORDINATE PROPER MOUNTING LOCATION PRIOR TO INSTALLATION.



2 / E5.1 DETAIL - INSTALLATION OF PHOTO-CELL
NO SCALE

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
AT
CENTRAL HIGH SCHOOL
FOR THE
CLAY COUNTY BOARD OF EDUCATION
LINEVILLE, ALABAMA

McKEE and ASSOCIATES
ARCHITECTS, INC.
631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933

ALABAMA — KENNETH RAY GUNN JR. — NO. 26988 — PROFESSIONAL ENGINEER — 02-15-2024

Gunn & Associates, P.C.
Consulting Engineers
3102 Highway 14, Millbrook, AL 36054, Tel: 334.285.1273
1200 Providence Park, Suite 200, Birmingham, AL 35242
GA#24-034

SHEET TITLE : LIGHTING SCHEDULE, DETAILS & NOTES

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO. : E5.1

- Tuesday, February 20, 2024 1:28:11 PM

PANEL - SE

TYPE: 225 AMP MAIN LUG ONLY | AIC: 42,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 277/480 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE PHASE A	PHASE B	PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE PHASE A	PHASE B	PHASE C	CIRCUIT DIRECTORY
LIGHTING	1,780			20	1	1	2	40		7,832			TX-A
LIGHTING		1,539		20	1	3	4				7,164		
SPARE				20	1	5	6		3			7,632	
IHP-1	17,451			90		7	8	40		3,000			WH-1
		17,451				9	10		2		3,000		
			17,451		3	11	12						
OHP-1	9,141			70		13	14	100					SPARE
		9,141				15	16						
			9,141		3	17	18		3				
SPARE				20	1	19	20						BUSSED SPACE
				20	1	21	22						BUSSED SPACE
				20	1	23	24						BUSSED SPACE
BUSSED SPACE						25	26						BUSSED SPACE
BUSSED SPACE						27	28						BUSSED SPACE
BUSSED SPACE						29	30						BUSSED SPACE
BUSSED SPACE						31	32						BUSSED SPACE
BUSSED SPACE						33	34						BUSSED SPACE
BUSSED SPACE						35	36						BUSSED SPACE
BUSSED SPACE						37	38						BUSSED SPACE
BUSSED SPACE						39	40						BUSSED SPACE
BUSSED SPACE						41	42						BUSSED SPACE
SUB TOTAL (VA)	28,372	28,131	26,592							10,832	10,164	7,632	

TOTAL LOAD PHASE A: 39,204 (VA)
TOTAL LOAD PHASE B: 38,295 (VA)
TOTAL LOAD PHASE C: 34,224 (VA)
TOTAL LOAD: 111,723 (VA) = 134 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE WITH INTEGRAL TVSS WITH 160,000 AMPS PER MODE PROTECTION.
3. PROVIDE PANEL WITH NAME PLATE INDICATING AIC RATING. SEE DETAIL.
4. PROVIDE ARC FAULT LABEL PER DETAIL.

PANEL - RP1

TYPE: 125 AMP MAIN CIRCUIT BREAKER | AIC: 10,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

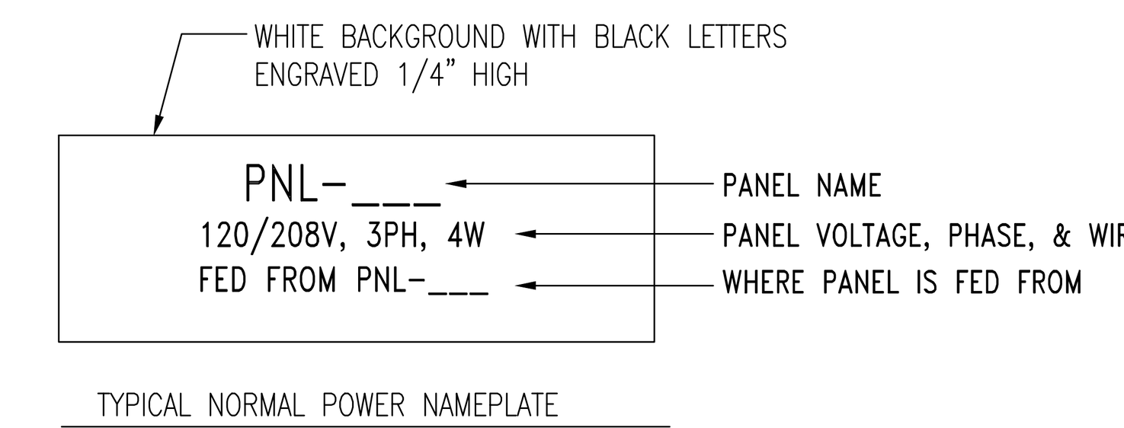
CIRCUIT DIRECTORY	(VA) PER PHASE PHASE A	PHASE B	PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE PHASE A	PHASE B	PHASE C	CIRCUIT DIRECTORY
CP-1 & TC-1	600			20	1	1	2	20	1	1,200			RECEPTACLE
ODHP-A1		832		15		3	4	20	1		1,200		RECEPTACLE
			832		2	5	6	20	1			1,200	RECEPTACLE
ODHP-A1	832			15		7	8	20	1	1,200			RECEPTACLE
		832			2	9	10	20	1		1,200		RECEPTACLE
HAND DRYER			1,300	20	1	11	12	20	1			1,200	RECEPTACLE
HAND DRYER	1,300			20	1	13	14	20	1	1,200			RECEPTACLE
HAND DRYER		1,300		20	1	15	16	20	1		1,200		RECEPTACLE
HAND DRYER			1,300	20	1	17	18	20	1			1,200	RECEPTACLE
SPARE				20	1	19	20	20	1				SPARE
SPARE				20	1	21	22	20	1				SPARE
SPARE				20	1	23	24	20	1				SPARE
BUSSED SPACE						25	26	20	1				SPARE
BUSSED SPACE						27	28	20	1				SPARE
BUSSED SPACE						29	30	20	1				SPARE
BUSSED SPACE						31	32	20	1				SPARE
BUSSED SPACE						33	34	20	1				SPARE
BUSSED SPACE						35	36	20	1				SPARE
BUSSED SPACE						37	38	20	1	1,500			UPS TBB
BUSSED SPACE						39	40	20	1		600		TBB
BUSSED SPACE						41	42	20	1			600	FACP (NOTE 3)
SUB TOTAL (VA)	2,732	2,964	3,432							5,100	4,200	4,200	SUB TOTAL (VA)

TOTAL LOAD PHASE A: 7,832 (VA)
TOTAL LOAD PHASE B: 7,164 (VA)
TOTAL LOAD PHASE C: 7,632 (VA)
TOTAL LOAD: 22,628 (VA) = 63 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE ARC FAULT LABEL PER DETAIL.
3. PROVIDE LOCK HANDLE CIRCUIT BREAKER.

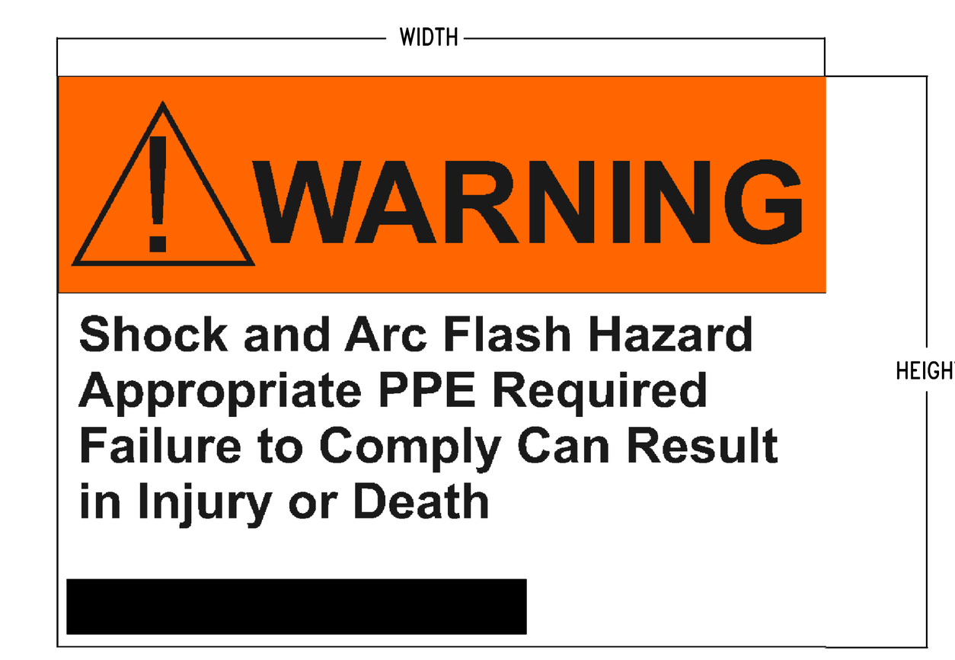
PANELBOARD NOTES:

1. PANELBOARDS SHALL BE INSTALLED AND ALL CLEARANCES MAINTAINED IN ACCORDANCE WITH THE NEC.
2. ALL PANELBOARDS SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH THAT LISTING.
3. PANELBOARDS SHALL BE FURNISHED COMPLETE WITH THE PROPERLY SIZED ENCLOSURE, INTERNAL HARDWARE, COMPONENTS, SUPPORTING STRUCTURES, ETC., FOR A COMPLETE INSTALLATION.
4. FURNISH EACH PANELBOARD WITH A GROUND BAR BONDED TO THE PANEL ENCLOSURE.
5. THE TERMINATION POINT OF THE FEEDER SERVING EACH ASSEMBLY SHALL BE AT THE NEAREST POINT OF FEEDER ENTRY INTO THE PANEL, SO AS TO MINIMIZE CONDUCTOR FILL IN THE ENCLOSURE. COORDINATE TOP/BOTTOM FEED PANELBOARD PROVISIONS WITH EACH FEEDER INSTALLATION.
6. PROVIDE THE PROPER SIZE AND QUANTITY OF CONDUCTOR TERMINATION POINTS OR LUGS (MULTIPLE LUGS WHEN PARALLEL FEEDERS ARE USED) ON BUSES AND CIRCUIT BREAKERS FOR THE RESPECTIVE SIZE AND NUMBER OF CONDUCTORS INDICATED.
7. ALL FLUSH-MOUNTED PANELBOARDS SHALL BE PROVIDED WITH AT LEAST SIX (6) 3/4" SPARE CONDUITS STUBBED TO ABOVE THE NEAREST ACCESSIBLE CEILING.
8. PANELBOARDS SHALL BE FULLY RATED. SERIES RATED PANELBOARDS WILL NOT BE ACCEPTED.
9. ALL PANELBOARDS SHALL BE CLEARLY MARKED TO COMPLY WITH NEC ARTICLE 110.16 WITH REGARD TO POTENTIAL HAZARDS OF ARC FLASH.
10. ALL PANELBOARDS SHALL BE "DOOR-IN-DOOR" OR "HINGED-FRONT-TRIM" CONSTRUCTION.
11. COMPLY WITH NEC ARTICLE 408.4. PROVIDE A TYPED CIRCUIT DIRECTORY THAT INDICATES WHAT EACH CIRCUIT IS SERVING. FOR LIGHTING AND RECEPTACLE CIRCUITS, INCLUDE THE ROOM NUMBER IN THE CIRCUIT DESCRIPTION ON THE DIRECTORY.
12. EACH PANELBOARD SHALL HAVE A NAMEPLATE AS SHOWN IN DETAIL 1 ON THIS SHEET. ENGINEER WILL NOT PROVIDE FINAL ACCEPTANCE UNTIL THESE NAMEPLATES ARE PROVIDED.
13. MANUFACTURER THAT WILL BE PROVIDING PANELBOARDS ON THIS PROJECT SHALL BE RESPONSIBLE FOR PERFORMING A SHORT CIRCUIT ANALYSIS AND TIME-CURRENT COORDINATION (TCC) STUDY, WHICH DEMONSTRATES THAT THE UPSTREAM OVERCURRENT PROTECTIVE DEVICE NEAREST TO THE FAULT LOCATION WILL OPERATE BEFORE OVERCURRENT PROTECTIVE DEVICES WHICH ARE FURTHER UPSTREAM (I.E. SELECTIVE COORDINATION). INCLUDE COORDINATION STUDY IN THE SHOP DRAWING PACKAGE FOR THE PANELBOARDS FOR REVIEW BY THE ENGINEER OF RECORD. AIC RATINGS MAY BE LOWERED BASED ON STUDY.



1 E5.2 DETAIL - TYPICAL PANELBOARD NAMEPLATE

NO SCALE



NOTES:

1. PROVIDE SELF-ADHESIVE VINYL LABEL TO AFFIX TO ELECTRICAL EQUIPMENT TO WARN OF ARC FLASH HAZARDS.
2. THE LABEL FORMAT AND TEXT SHALL BE IN ACCORDANCE WITH THE FIGURE.
3. THE LABEL SHALL BE LOCATED ON THE EQUIPMENT TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.
4. THE SIZE OF THE LABEL SHALL BE:

EQUIPMENT TYPE	HEIGHT	WIDTH
INDOOR	4"	6"
OUTDOOR	4"	6"

2 E5.2 ARC FLASH WARNING LABELS

NO SCALE

POWER EQUIPMENT MANUFACTURES BIDDING THIS PROJECT SHALL INCLUDE IN THEIR BASE BID PRICE AN AND ALL EXPEDITED CHARGES AS REQUIRED TO SHIP SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, AND DISCONNECTS TO THE JOB SITE S REQUIRED TO MEET PROJECT SCHEDULE. CONTRACTOR AND SUPPLIER SHALL SET THIS TIME PRIOR TO BID ACCORDING PUBLISHED SCHEDULE IN BID DOCUMENTS.

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
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631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933

ALABAMA — KENNETH RAY GUNN JR. — NO. 26988 — PROFESSIONAL ENGINEER — 02-15-2024

SHEET TITLE : PANELBOARD SCHEDULE, DETAILS & NOTES

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

Gunn & Associates, P.C.
Consulting Engineers
3102 Highway 14, Millbrook, AL 36054, Tel: 334.285.1273
1200 Providence Park, Suite 200, Birmingham, AL 35242
GA#24-034

SHEET NO. : E5.2

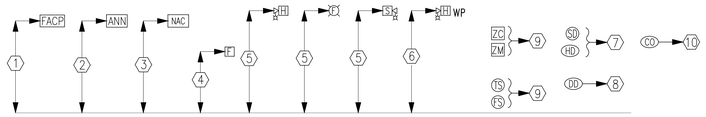
- Tuesday, February 20, 2024 1:27:34 PM

FIRE ALARM SYSTEM NOTES:

1. THE FIRE ALARM SYSTEM SHALL BE A COMPLETE SUPERVISED DETECTION AND ALARM SYSTEM. PROVIDE PRIMARY POWER CIRCUITS AND ALARM NOTIFICATION AND INITIATING CIRCUITS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
2. INSTALLATION SHALL COMPLY WITH THE ADA, NEC, NFPA, AND UL.
3. ALL SYSTEM COMPONENTS, ENCLOSURES, FRAMES, SURGE ARRESTORS, ETC., SHALL BE GROUNDED.
4. THE FIRE ALARM WIRING SYSTEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS FOR CLASS "B" SYSTEM AND AS FOLLOWS:
   PRIMARY POWER – 120V AC
   NOTIFICATION APPLIANCE CIRCUITS (NAC) – 24V DC
   SIGNALING LINE CIRCUIT (SLC) – 24V DC
5. ALL EQUIPMENT AND DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, APPLICABLE STANDARDS AND ACCESSIBLE FOR VISUAL INSPECTION AND MAINTENANCE. WIRING DIAGRAMS SHALL BE SECURED FROM THE SYSTEM MANUFACTURER AND INSTALLED ACCORDINGLY TO MEET THE SPECIFIED TYPES.
6. A "CERTIFICATE OF COMPLETION" IN ACCORDANCE WITH NFPA 72 SHALL BE FURNISHED PRIOR TO FINAL ACCEPTANCE.
7. CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND PROVIDING ALL FIRE ALARM DEVICE QUANTITIES FROM AUXILIARY DRAWINGS. DO NOT USE THIS RISER FOR DEVICE COUNTS.
8. THE CONTRACTOR OR THEIR FIRE ALARM SYSTEM VENDOR SHALL PROVIDE AUDIBILITY CALCULATIONS INDICATING COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE IBC. THE CONTRACT DRAWINGS INDICATE A MINIMUM DESIGN REQUIRED TO COMPLY WITH APPLICABLE CODES. HOWEVER, SINCE DEVICES VARY FROM MANUFACTURER TO MANUFACTURER THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ANY/ALL ADDITIONAL DEVICES AS REQUIRED TO PROVIDE AUDIBILITY AND VISIBILITY LEVELS THAT COMPLY WITH APPLICABLE SECTIONS OF NFPA 72 AND IBC.
9. PROVIDE ADDITIONAL 100% SPARE CAPACITY IN FIRE ALARM CONTROL PANEL FOR FUTURE USE.
10. PROVIDE EMERGENCY BATTERIES CAPABLE OF RUNNING THE COMPLETE FIRE ALARM SYSTEM IN ALARM MODE, PER NFPA GUIDELINES AT A MINUMUM. BATTERIES SHALL BE SIZED TO HANDLE THE FUTURE CAPACITY.
11. THE FIRE ALARM SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. PROVIDE IP DIALER FOR MONITORING OF THE FIRE ALARM SYSTEM.
12. ALL WIRING TO BE IN CONDUIT SIZED IN ACCORDANCE WITH NEC WITH A MINIMUM SIZE OF 3/4". PROVIDE ALL FIRE ALARM CONDUIT WITH 3" WIDE RED STRIPE EVERY 10' FOR LENGTH OF RUN.
13. PROVIDE ALL FIRE ALARM JUNCTION BOXES WITH RED COVER, STENCIL THE LETTERS "FA" IN 2" HIGH LETTERS ON EACH BOX COVER.
14. FIRE ALARM SYSTEM PROVIDER IS RESPONSIBLE FOR PROVIDING SIGNAL LINE BOOSTERS AS REQUIRED FOR SYSTEM TO FUNCTION PROPERLY.
15. IN ADDITION TO THE DEVICES INDICATED ON THE PLANS THE CONTRACTOR SHALL PROVIDE A SMOKE DETECTOR LOCATED WITHIN 5 FEET OF EACH FIRE ALARM NOTIFICATION APPLIANCE PANEL.
16. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL 120 VOLT CIRCUITS NEEDED TO MAKE THE FIRE ALARM SYSTEM A COMPLETE FUNCTIONAL SYSTEM.
17. PROVIDE VOICE EVACUATION PER IBC SECTION 907 AND ALL SECTIONS OF THE INTERNATIONAL FIRE CODE.
18. "CLG" DENOTES A CEILING MOUNTED DEVICE AND "WP' DENOTES WEATHERPROOF DEVICE..
19. SEE STANDARD MOUNTING HEIGHT INSTRUCTIONS ON DETAILS (2) THIS SHEET.
20. CONTRACTOR OR THEIR FIRE ALARM SYSTEM VENDOR SHALL PROVIDE SMOKE DETECTOR REPORTS AT THE FINAL TESTING OF THE FIRE ALARM SYSTEM TO SHOW THAT ALL SMOKE DETECTORS ARE LESS THAN 10% DIRTY. ANY SMOKE DETECTOR GREATER THAN 10% DIRTY SHALL BE CLEANED OR REPLACED UNTIL VALUE IS LESS THAN 10%.

FIRE ALARM MOUNTING HEIGHTS/INSTRUCTIONS NOTES:

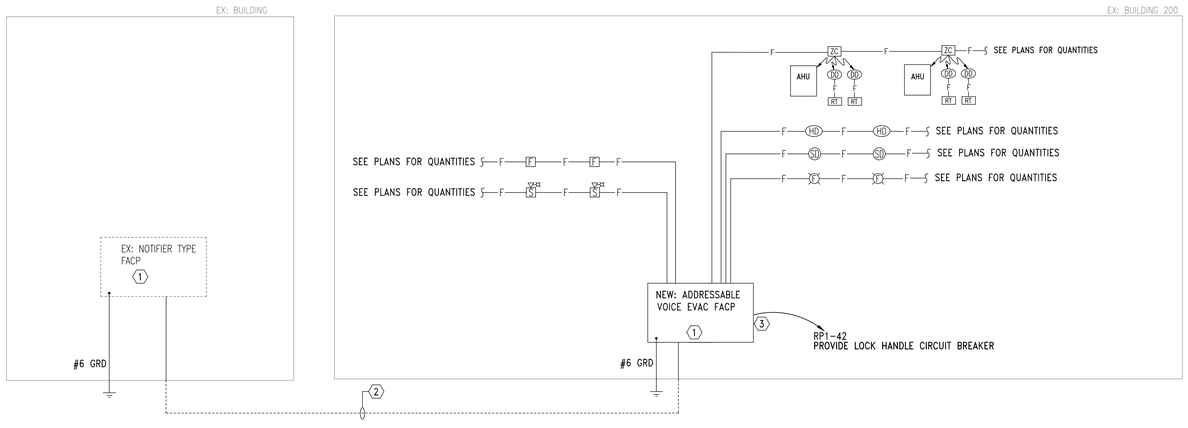
1. MOUNT FIRE ALARM ENCLOSURE WITH THE TOP OF THE CABINET 72" ABOVE THE FINISHED FLOOR OR CENTER THE CABINET AT 63", WHICHEVER IS LOWER.
2. MOUNT ANNUNCIATOR WITH THE TOP OF THE PANEL 72" ABOVE THE FINISHED FLOOR OR CENTER OF THE PANEL AT 63", WHICHEVER IS LOWER. FLUSH MOUNT ANNUNCIATOR UNLESS OTHERWISE NOTED.
3. REMOTE POWER SUPPLIES AND AUXILIARY FIRE ALARM PANELS. LOCATE THE PANEL OR CABINET WITH THE TOP OF THE PANEL 72" ABOVE THE FINISHED FLOOR OR CENTER THE PANEL AT 63", WHICHEVER IS LOWER. DO NOT LOCATE THESE PANELS ABOVE CEILINGS OR WHERE INACCESSIBLE BY A PERSON STANDING ON THE FINISHED FLOOR OF THE SPACE.
4. MOUNT STATIONS SO THAT THEIR OPERATING HANDLES ARE BETWEEN 42" AND 48" ABOVE THE FINISHED FLOOR. DO NOT USE BRICK OR BLOCK COURSES AS YOUR ONLY GUIDE. CUT BRICK OR BLOCK TO ACHIEVE PROPER HANDLE HEIGHT.
5. ALL WALL MOUNTED AUDIO/VISUAL DEVICES SHALL BE MOUNTED SO THE ENTIRE LENS IS BETWEEN 80" AND 96" ABOVE THE FINISHED FLOOR. WHERE LOW CEILING HEIGHTS DO NOT PERMIT MOUNTING AT A MINIMUM OF 80" AFF, VISIBLE APPLIANCES SHALL BE MOUNTED WITHIN 6" OF THE CEILING. DO NOT USE BRICK OR BLOCK COURSES AS YOUR ONLY GUIDE. CUT BRICK OR BLOCK TO ACHIEVE PROPER LENS HEIGHT.
6. WEATHER PROOF APPLIANCES INSTALLED OUTDOORS SHALL BE UL LISTED FOR OUTDOOR USE. MOUNT SO THE ENTIRE LENS IS BETWEEN 80" AND 96" ABOVE FINISHED FLOOR. FOR WEATHERPROOF APPLIANCES MOUNTED AT FIRE DEPARTMENT CONNECTION (FDC), COORDINATE WITH LOCAL AUTHORITY HAVING JURISDICTION PRIOR TO ROUGH-IN FOR MOUNTING HEIGHT.
7. SMOKE AND HEAT DETECTOR HEADS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED. IF DETECTOR HEADS ARE INSTALLED PRIOR TO CONSTRUCTION CLEAN-UP, PROTECTIVE COVERS MUST BE IN PLACE TO PROTECT DETECTOR HEADS FROM PARTICULATE DAMAGE. DETECTORS LOCATED ON THE WALL SHALL HAVE THE TOP OF THE DETECTOR AT LEAST 4" AND NOT MORE THAN 12" BELOW THE CEILING. INSTALL SMOKE DETECTORS NO CLOSER THAN 3 FEET FROM AIR HANDLING SUPPLY AIR DIFFUSERS OR RETURN AIR OPENINGS. LOCATE DETECTORS NO CLOSER THAN 12" FROM ANY PART OF A LIGHTING FIXTURE.
8. DUCT SMOKE DETECTOR HEADS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED. DETECTOR HEADS INSTALLED PRIOR TO CONSTRUCTION CLEAN-UP SHALL BE REPLACED. DUCT DETECTORS ARE TO BE PROVIDED BY THE FIRE ALARM CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR.
9. ADDRESSABLE MODULES SHALL BE INSTALLED LESS THAN 3-FEET FROM THE DEVICE BEING CONTROLLED OR MONITORED. ORIENT THE DEVICE MOUNTING FOR BEST MAINTENANCE ACCESS. LABEL ALL ADDRESSABLE MODULES AS TO THEIR FUNCTION.
10. MOUNT WITHIN 5'-0" OF FURNACE DISCHARGE REGISTER.



2 E6.1 STANDARD MOUNTING HEIGHTS/INSTRUCTIONS
NO SCALE

SHEET NOTES:

1. PROVIDE NETWORKING CARDS AND ALL OTHER LABOR/MATERIAL TO HAVE BOTH FIRE ALARM SYSTEMS FUNCTION AS ONE SYSTEM.
2. PROVIDE 2" CONDUIT AND FIBER OPTIC CONNECTION BETWEEN EXISTING NOTIFIER FIRE ALARM CONTROL PANEL AND NEW FIRE ALARM CONTROL PANEL IN NEW BUILDING. PROVIDE ALL CONNECTORS, JUNCTION FIBER CABLES, TERMINATIONS, NETWORK CARDS, ETC. REQUIRED FOR FULL DUPLEX FIBER COMMUNICATIONS BETWEEN PANELS.
3. PROVIDE SURGE SUPPRESSION ON ON ALL INCOMING AND OUTGOING CABLES WHERE THEY ENTER OR EXIT THE FACILITY. SURGE SUPPRESSION WILL BE REQUIRED FOR EACH CABLE.



1 E6.1 FIRE ALARM RISER DIAGRAM
NO SCALE

NEW FIELDHOUSE FOR THE JUNIOR VARSITY
AT
CENTRAL HIGH SCHOOL
FOR THE
CLAY COUNTY BOARD OF EDUCATION
LINEVILLE, ALABAMA

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KENNETH RAY GUNN, JR.
ENGINEER
02-15-2024

SHEET TITLE : COMMUNICATION & FIRE ALARM RISER, DETAILS & NOTES

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

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SHEET NO. : E6.1

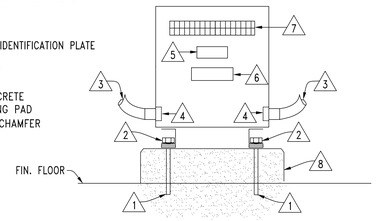
- Tuesday, February 20, 2024 1:20:00 PM

DETAIL KEYED NOTES

1. FLOOR ANCHOR SYSTEM
2. VIBRATION ISOLATORS – TYP. FOR FOUR
3. FLEXIBLE CONNECTION
4. GROUND BUSSING TERMINATIONS
5. NAMEPLATE
6. TRANSFORMER IDENTIFICATION PLATE
7. VENTED COVER
8. 4" HIGH CONCRETE HOUSE-KEEPING PAD WITH 45° 1" CHAMFER

INSTALLATION NOTES:

1. SIZE ALL SUPPORTS, ANCHOR SYSTEMS, BOLTS, ETC., AS REQUIRED FOR A SECURE INSTALLATION IN ACCORDANCE WITH THE SPECIFICATIONS.



FLOOR MOUNTED

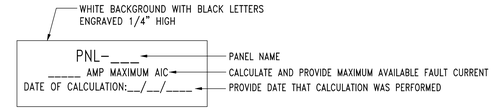
2 / E7.1 DETAIL-TYPICAL INDOOR INSTALLATION OF DRY TYPE TRANSFORMERS

NO SCALE

DRY TYPE TRANSFORMER SCHEDULE						
MARK	KVA	VOLTAGE		°C RISE	K FACTOR	NOTES
		PRIMARY	SECONDARY			
TX-A	30	480 V. DELTA 3 PH., 3 W.	208Y/120 V. 3 PH., 4 W.	150	1	

NOTES:

1. CONTRACTOR SHALL CALCULATE AND PROVIDE NAMEPLATE ON THE SERVICE ENTRANCE EQUIPMENT THAT INDICATES THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE CALCUALTION WAS PERFORMED. SEE NAMEPLATE REQUIREMENTS BELOW.



TYPICAL SERVICE ENTRANCE FAULT CURRENT NAMEPLATE

3 / E7.1 DETAIL - SERVICE ENTRANCE FAULT CURRENT NAMEPLATE

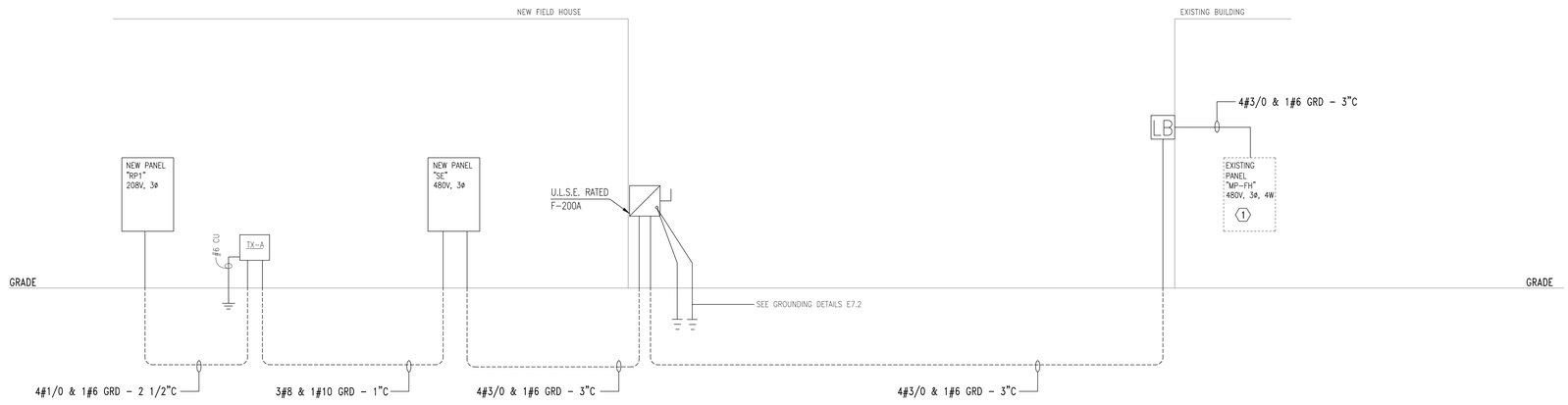
NO SCALE

KEYED NOTES:

1. PROVIDE NEW 200A/3P (65KAIC) RATED CIRCUIT BREAKER IN SQUARE D PANELBOARD TO FEED NEW FIELDHOUSE. REMOVE SPARE CIRCUIT BREAKER IF REQUIRED. EDIT PANEL DIRECTORY TO REFLECT CHANGES.

POWER RISER DIAGRAM NOTES:

1. INSTALLATION AND CONNECTION OF ALL DEVICES SHALL BE IN ACCORDANCE WITH NEC, MANUFACTURER'S RECOMMENDATIONS, AND STATE AND LOCAL CODES.
2. CONTRACTOR IS RESPONSIBLE FOR THE CONNECTING, INSTALLATION, AND MARKING OF ALL POWER FEEDER CONDUCTORS FOR THE PROPER PHASE SEQUENCE AND LOADING. CONTRACTOR SHALL TEST EACH FEEDER AND EQUIPMENT FEEDERS WITH A PHASE METER PRIOR TO CONNECTING LOADS.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND VERIFYING WITH ALL DIVISIONS THE ACTUAL NAMEPLATE DATA OF ALL EQUIPMENT AND DEVICES SUPPLIED ON THIS PROJECT PRIOR TO BID. CONTRACTOR SHALL THEN PROVIDE THE PROPERLY SIZED OVERCURRENT DEVICES (CIRCUIT BREAKERS, CONDUCTORS, DISCONNECTS, FUSES, ETC.) TO PROPERLY PROTECT THE EQUIPMENT PER THE NEC. ENGINEER'S DESIGN BASED ON DATA GIVEN TO HIM BY DESIGNERS OF OTHER DIVISIONS, ACTUAL NAMEPLATE DATA COULD DIFFER.
4. SEAL ALL CONDUITS FROM THE EXTERIOR WITH A SEALING COMPOUND, ONCE ALL CABLING HAS BEEN INSTALLED.
5. PROVIDE 4" CONCRETE HOUSEKEEPING PAD WITH 1" CHAMFER FOR ALL FLOOR MOUNTED TRANSFORMERS AND SWITCHBOARDS.
6. COORDINATE WITH GROUNDING DETAILS ON SHEET E7.2 FOR ALL THE DIFFERENT TYPE GROUNDING REQUIREMENTS.
7. ALL UNDERGROUND SECONDARY FEEDERS SHALL BE A MINIMUM OF 36" BELOW GRADE TO THE TOP OF THE DUCT BANK.
8. ALL UNDERGROUND PRIMARY FEEDERS SHALL BE A MINIMUM OF 48" BELOW GRADE TO THE TOP OF THE CONDUIT.
9. CONTRACTOR SHALL PROVIDE A FULL SIZE COPY OF THE AS-BUILT POWER RISER DIAGRAM FRAMED BEHIND PLEXIGLASS SCREWED TO THE WALL NEAR MAIN SERVICE PANEL.



1 / E7.1 POWER RISER DIAGRAM

NO SCALE

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WITH PAT GUNN

SHEET TITLE : POWER RISER, DETAILS, & NOTES

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

DATE: 02.15.2024

REVISED DATE:

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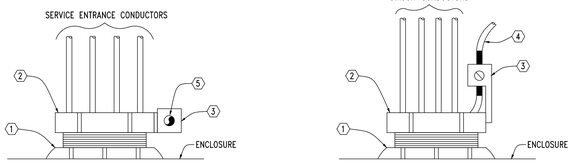
SHEET NO. : E7.1

- Tuesday, February 20, 2024 1:20:01 PM

DETAIL NOTES

1. LOCK-NUT ASSEMBLIES
2. METAL GROUNDING BUSHING
3. COPPER GROUND LUG
4. COPPER GROUND CONDUCTOR. REMOVE INSULATION AT BUSHING, RUN THROUGH BUSHING LUG AND BOND TO RACEWAY SYSTEM. DO NOT SPLICE OR TAP.
5. CONTINOUS COPPER GROUND CONDUCTOR FROM GROUND BUS THROUGH EACH BUSHING. DO NOT SPLICE OR TAP.



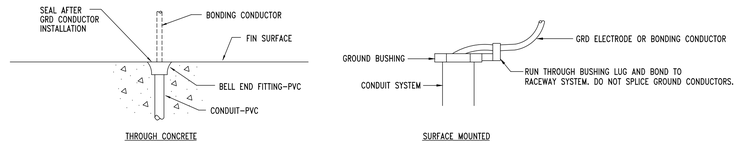
FOR SERVICE ENTRANCE CONDUITS

FOR FEEDER AND/OR BRANCH CIRCUITS

3 E7.2 DETAIL - TYPICAL GROUND BUSHING INSTALLATION
NO SCALE

NOTES

1. ALL GROUND ELECTRODE CONDUCTORS, SYSTEM BONDING CONDUCTORS, ETC., RUN SEPARATELY SHALL BE PROTECTED BY A CONDUIT SYSTEM.
2. ALL SYSTEM GROUNDING OR BONDING CONDUCTORS SHALL GENERALLY BE ENCLOSED BY A GRC CONDUIT. PROVIDE GROUND BUSHINGS ON EACH END AND BOND CONDUCTORS TO RACEWAY SYSTEM.
3. SYSTEM BONDING CONDUCTORS THAT PENETRATE CONCRETE SLABS SHALL BE ENCLOSED BY A PVC CONDUIT. PROVIDE BELL END FITTING ON EACH END AND SEAL. THOSE TERMINATING AT A STUB-UP SHALL BE FLUSH WITH FLOOR.



THROUGH CONCRETE

SURFACE MOUNTED

4 E7.2 DETAIL - TYPICAL GROUND CONDUCTOR IN CONDUIT SYSTEM
NO SCALE

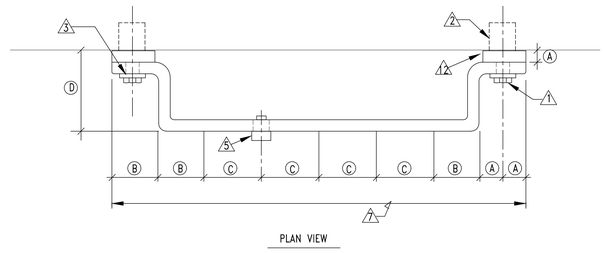
GROUNDING AND BONDING INSTALLATION NOTES

1. ALL GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH THE NEC, NESC, IEEE, ANSI AND UL STANDARDS.
2. ALL DIMENSIONING INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD.
3. THE PURPOSE OF THE GROUNDING AND BONDING SYSTEM IS TO ESTABLISH ALL EQUIPMENT ENCLOSURES, NON-CURRENT CARRYING METALLIC PORTIONS OF THE ELECTRICAL DISTRIBUTION SYSTEM, METAL PIPING, METAL BUILDING FRAME, ETC., AT A ZERO POTENTIAL RELATIVE TO THE EARTH GROUND AND PROVIDE FOR A SAFE, LOW IMPEDANCE RETURN PATH FOR GROUND-FAULT CURRENT. THIS SHALL BE ACCOMPLISHED IN THE FOLLOWING MANNER:
   a. PROVIDE A SOLIDLY GROUNDED SECONDARY SYSTEM.
   b. INTER-CONNECT ALL GROUND BUSES AND POINTS IN THE SYSTEM WITH A COPPER GRD CONDUCTOR (BUS) SYSTEM.
   c. ALL METALLIC RACEWAYS SHALL BE UL APPROVED AND MADE-UP TIGHT AT ALL COUPLINGS AND TERMINATIONS.
   d. ALL GROUND CONDUCTORS IN CIRCUITS SHALL BE CONTAINED WITHIN THE SAME RACEWAY AS CURRENT CARRYING CONDUCTORS.
   e. ALL SPLICES AND TERMINATIONS SHALL BE MADE TIGHT AND AS SUCH TO PROVIDE LOW IMPEDANCE AND SHALL HAVE THE SAME SHORT-TIME CURRENT-CARRYING CAPABILITY AS THE CONDUCTOR IT IS CONNECTED TO.
   f. ALL GRD ELECTRODES OR BONDING CONDUCTORS INSTALLED ALONE WITHIN A RACEWAY SHALL UTILIZE GRC WITH GROUNDING BUSHINGS AT EACH END. THIS GROUND CONDUCTOR SHALL LOOP THROUGH THE BUSHING LUG PRIOR TO TERMINATION.

DIMENSION BLOCK		
REF	ENGLISH	SI
A	1"	25.4mm
B	2"	50.8mm
C	2 1/2"	63.5mm
D	3"	76.2mm
E	1'-6"	.4572m

GROUND BUS NOTES

1. GROUND BUS INSTALLATION SHALL BE IN ACCORDANCE WITH THIS DETAIL AND AS INDICATED ON THE DRAWINGS.

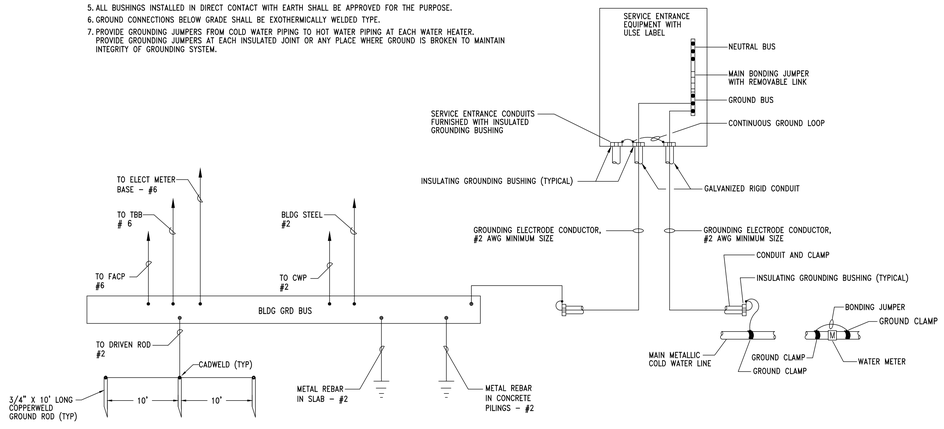


KEYED NOTES

1. 1/2" (12.7mm) X 1 1/2" (38.1mm) SILICON-BRONZE MACHINE BOLT & SILICON-BRONZE WASHER
2. 1/2" (12.7mm) EXPANSION ANCHOR
3. 9/16"ø (14.2875mm) HOLE IN BAR
4. DRILLED DOUBLE CONNECTOR HOLES
5. FLAT, TWO-HOLE CU CABLE CONNECTOR #6 TO #2 (DOUBLE LUGS) #1 TO #2/0 (SINGLE LUGS ONLY)
6. 4" (101.6mm) WIDE, 1/4" (6.35mm) DEEP COPPER BUS BAR.
7. LENGTH AS REQUIRED BY NUMBER OF CONDUCTOR CONNECTIONS OR AS SPECIFICALLY INDICATED. PROVIDE INTERMEDIATE WALL SUPPORTS AS REQUIRED.
8. TYP CU GRD CONDUCTOR CONNECTION
9. DESCRIPTION TAG. STATE SIZE OF CONDUCTOR AND TO WHAT IT IS CONNECTED TO.
10. TYP GRD CONNECTION FROM BELOW. SEE APPLICABLE DETAILS FOR SLAB PENETRATIONS.
11. TYP GRD CONNECTION FROM ABOVE. SEE APPLICABLE DETAILS FOR GRC INSTALLATIONS.
12. INSULATED NON-CONDUCTIVE SPACER

NOTES

1. GROUNDING ELECTRODE SYSTEM SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250
2. GROUNDING ELECTRODE CONDUCTORS SHALL BE CONTINUOUS AND NOT SPLICED.
3. GROUNDING ELECTRODE CONDUCTORS SHALL BE ENCLOSED FULL LENGTH GALVANIZED RIGID CONDUIT AS INDICATED.
4. GROUNDING ELECTRODE CONDUCTORS SHALL BE BARE COPPER.
5. ALL BUSHINGS INSTALLED IN DIRECT CONTACT WITH EARTH SHALL BE APPROVED FOR THE PURPOSE.
6. GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMICALLY WELDED TYPE.
7. PROVIDE GROUNDING JUMPERS FROM COLD WATER PIPING TO HOT WATER PIPING AT EACH WATER HEATER. PROVIDE GROUNDING JUMPERS AT EACH INSULATED JOINT OR ANY PLACE WHERE GROUND IS BROKEN TO MAINTAIN INTEGRITY OF GROUNDING SYSTEM.



1 E7.2 DETAIL - SERVICE ENTRANCE GROUNDING INSTALLATION
NO SCALE

2 E7.2 DETAIL - TYPICAL GROUND BUS INSTALLATION
NO SCALE

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SHEET TITLE : GROUNDING DETAILS & NOTES

MCKEE JOB # : 22-304

DRAWN BY : J. TILLERY

DATE: 02.15.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

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