# NEW ADMIN BUILDING

# Red Bay High School

FOR THE

# Franklin County Board of Education

RUSSELLVILLE, ALABAMA DCM# 2024019

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# **LOCATION MAP**







# OWNER

Franklin County Board of Education 500 North Coffee Avenue Russellville, Alabama 35653 Phone: (256) 332.1360

# **STRUCTURAL**

Blackburn, Daniels, O'barr Consulting Structural Engineers 1005 Browns Hill Road Lowndesboro, Alabama 36752 Phone: (334) 265.0206

# CONTACTS

Mckee and Associates 631 South Hull Street Montgomery, Alabama 36104 Phone: (334) 834.9933

**ARCHITECTURAL** 

# PLUMBING and MECHANICAL

Zgouvas, Eiring and Associates 800 South McDonough Street Montgomery, Alabama 36104 Phone: (334) 263.4406

# **ELECTRICAL**

Morell Engineering, Inc.

CIVIL

112 North Marion Street

Athens, Alabama 35611

Phone: (256) 867.1324

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

BUILDING NEW

**COVER SHEET** 

MCKEE JOB #: 23-251

DRAWN BY

DATE: 05.18.2024

**REVISED DATE:** REVISED DATE:

**REVISED DATE:** 

SHEET NO.: GO.1

# PLUMBING CALCULATIONS

### PLUMBING REQUIREMENTS

OCCUPANT LOAD TOTAL = 29 PERSONS

TOILETS (TABLE 2902.1)

MEN'S (1 PER 25 OCC.) (15 OCC.): 1R

WOMEN'S (1 PER 25 OCC.) (15 OCC.): 1R

LAVATORIES (TABLE 2902.1)

MEN'S (1 PER 40 OCC.) (15 OCC.): 1R

WOMEN'S (1 PER 40 OCC.) (15 OCC.): 1R

DRINKING FOUNTAINS (TABLE 2902.1) (1 PER 100 OCC.) (29 OCC.): 1R

SERVICE SINK (TABLE 2902.1): 1R

# PLUMBING PROVIDED TOTAL

TOILETS (TABLE 2902.1)

MEN'S - 1 PROVIDED

WOMEN'S - 2 PROVIDED

LAVATORIES (TABLE 2902.1) MEN'S - 1 PROVIDED WOMEN'S - 2 PROVIDED

DRINKING FOUNTAINS (TABLE 2902.1) 2 PROVIDED

SERVICE SINK (TABLE 2902.1): 1 PROVIDED

# CODE REVIEW

CODE: 2021 INTERNATIONAL BUILDING CODE

OCCUPANCY TYPE: **B**SPRINKLERED: **NO** 

NUMBER OF STORIES: 1

CONSTRUCTION TYPE: TYPE III-B

TYPE **III-B**, REQUIRES THE FOLLOWING FIRE RESISTANCE (TABLE 601):

STRUCTURAL FRAME:

EXTERIOR BEARING WALLS:
INTERIOR BEARING WALLS:
INTERIOR NONBEARING WALLS:
INTERIOR NONBEARING WALLS:
INTERIOR NONBEARING WALLS:
INTERIOR NONBEARING WALLS:
INTERIOR CONSTRUCTION:
INTERIOR CONSTRUCTION:
INTERIOR CONSTRUCTION:
INTERIOR OF CONSTRUCTION:
INTERIOR

OTHER REQUIREMENTS:

OCCUPANCY SEPARATION (TABLE 508.4): NO MIXED OCCUPANCY

INCIDENTAL USE AREAS (TABLE 509.1): N/A

CORRIDORS (1020.2, ): NOT REQUIRED - OCCUPANT LOAD LESS THAN 30

STAIRS & SHAFT ENCLOSURES (707 & TABLE 707.3.10 NOT LEES THAN 508.4 IF APPLICABLE): **NONE** 

SINGLE OCCUPANCY FIRE BARRIERS (TABLE 707.3.10): **NOT APPLICABLE** 

ALLOWABLE EXIT ACCESS TRAVEL DISTANCE:

200 FEET FOR NON-SPRINKLERED EDUCATIONAL OCCUPANCY (TABLE

# **EXIT CALCULATIONS**

### TOTAL BUILDING AREA

OCCUPANCY TYPE - 'B'
BUILDING TYPE: III-B NON-SPRINKLERED
ALLOWABLE AREA FACTOR: 19,000 SQ FT (TABLE 506.2)

ACTUAL SF: **2,926** SQ FT

ALLOWABLE HEIGHT (TABLE 504.3) ALLOWABLE # OF STORIES (TABLE 504.4)

ALLOWABLE HEIGHT: 155 FT

ALLOWABLE NO. OF STORIES: 3

ACTUAL BUILDING HEIGHT: ± 18 FT

BUILDING AREA MODIFICATION (506.3) FRONTAGE INCREASE (506.3.3) - NOT NEEDED

ACTUAL NO. OF STORIES: 1

### OCCUPANT LOAD

OCCUPANT LOAD TOTAL (1004 & TABLE 1004.1.2) = 29 PERSONS

### EXIT REQUIREMENTS

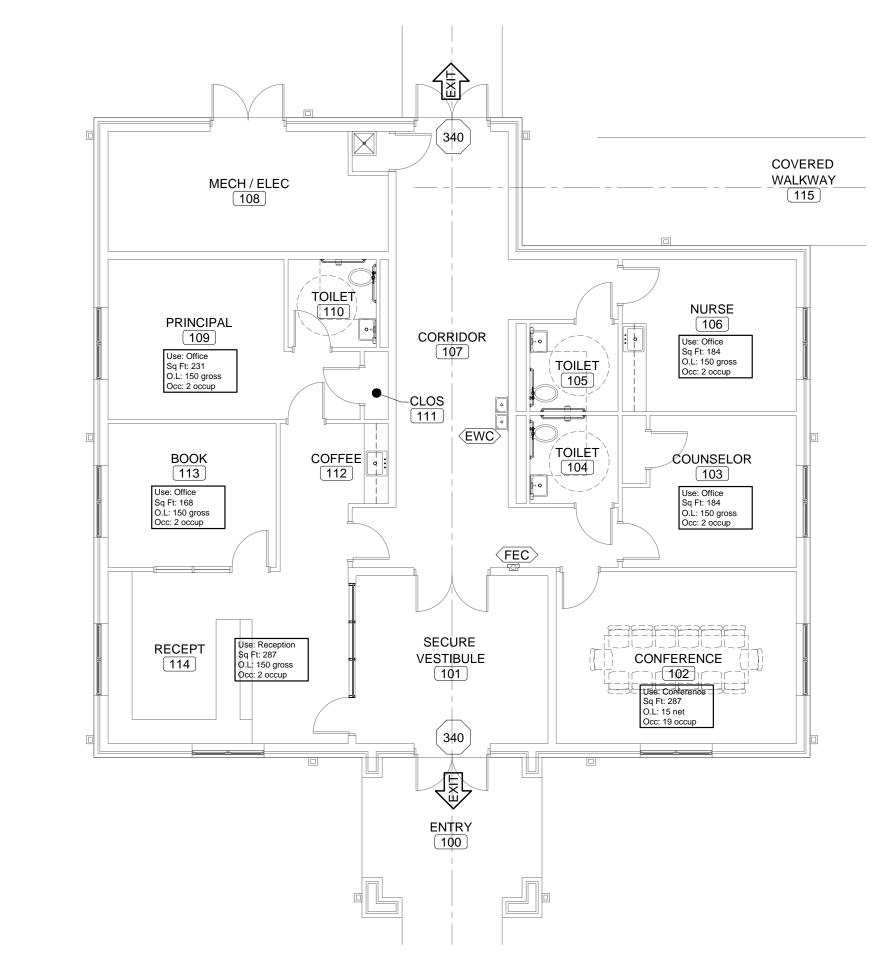
EXIT ACCESS (TABLE 1006.2.1 & TABLE 1006.3.3)
NO. OF EXITS REQUIRED: 2
NO. OF EXITS FURNISHED: 2

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

EXITS PROVIDED HAVE A COMBINED EXIT CAPACITY OF 680 PEOPLE.

MINIMUM CORRIDOR WIDTH (TABLE 1020.2) 72 INCHES

	CODE LEGEND
SYMBOL	DESCRIPTION
EXIT	PRIMARY BUILDING EXIT
TD 250'	TRAVEL DISTANCE NEAREST TO EXIT
<b>b</b>	HANDICAP ACCESSIBLE
(FEC)	FIRE EXTINGUISHER CABINET
340	CALCULATED EGRESS CAPACITY (PERSONS)





NEW ADMIN BU
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RANKLIN COUNTY BOAR
MCKEE and ASSOCIAT

DING

SHEET TITLE : CODE PLAN

MCKEE JOB # : 23-251

DRAWN BY :

REVISED DATE:

05.18.2024

REVISED DATE:

**REVISED DATE:** 

SHEET NO.: G1.1

## **GENERAL NOTES**

- 1. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES CONCERNING CONFLICTS, RELOCATION, REMOVAL, AND INTERRUPTIONS OF SERVICE.
- 2. THE CONTRACTOR SHALL PRESERVE AND PROTECT ACCORDING TO THE INSTRUCTIONS OF THE UTILITY INVOLVED, ANY 'LIVE' UTILITIES LOCATED BY THE UTILITY COMPANY OR THE CONTRACTOR.
- 3. THE CONTRACTOR SHALL BE IN POSSESSION OF ALL REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION BEGINNING.
- 4. ANY CHANGES OR REVISIONS MADE TO THE SITE PLANS SHALL BE SUBMITTED FOR APPROVAL TO THE ALABAMA BUILDING COMMISSION AND ALL OTHER PERTINENT AGENCIES
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL DEBRIS NOT ACCEPTABLE TO THE OWNER AND ENGINEER.
- 6. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THE CONTRACTOR SHALL MAKE A TOPOGRAPHIC SURVEY AT THEIR OWN EXPENSE AND SUBMIT IT TO THE OWNER FOR REVIEW.
- 7. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL UTILITIES BEFORE CONSTRUCTION AND VERIFYING LOCATION OF ALL UTILITIES SHOWN OR NOT SHOWN.
- 8. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURBS, SIDEWALKS
- 9. UNSTABLE AND PUMPING SUBGRADE CONDITIONS MAY OCCUR DURING SITE PREPARATION AND GRADING OPERATIONS. PROPER PROTECTION OF SUBGRADE, DRAINAGE AND DE-WATERING WILL BE CRITICAL TO SITE CONSTRUCTION EFFORTS. IT SHALL BE THE RESPONSIBLY OF THE CONTRACTOR TO MINIMIZE TRAFFIC ACROSS THE SITE. EVERY EFFORT SHALL BE MADE TO LOCALIZE EQUIPMENT STAGING AND TRAFFIC TO SPECIFIC AREAS AND LIMIT THE AMOUNT OF UNDERCUTTING AND SOIL STABILIZATION THAT MY BE NEEDED. UNDERCUTTING AND OTHER REPAIRS NECESSARY BECAUSE OF THE CONTRACTOR'S FAILURE TO DO SO WILL BE MADE AT HIS EXPENSE. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS.
- 10. ALL GRADING OPERATIONS SHALL BE MONITORED BY A QUALIFIED GEOTECHNICAL CONSULTANT AS CHOSEN AND PAID FOR BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING SAID CONSULTANT IN ADVANCE OF ALL REQUIRED TESTING AND SECURING COPIES OF THE RESULTING REPORTS.
- 11. THE CONTRACTOR SHALL PAY ALL CONNECTION COSTS AND FEES, INCLUDING BY NOT LIMITED TO, TAPPING FEES, METER COSTS AND SETTING CHARGES, AND CONNECTION CHARGES.
- 12. ANY EXISTING ABANDONED SANITARY SEWER LATERALS, WATER LINES, STORM SEWERS AND GAS LINES, ETC. SHALL BE CAPPED AND PLUGGED OR REMOVED AS REQUIRED BY THE APPROPRIATE UTILITY PROVIDER OR GOVERNING AGENCY, AND SHOULD BE PERFORMED PER THE RESPECTIVE ENTITY'S STANDARDS AND SPECIFICATIONS.
- 13. ALL SPOT ELEVATIONS ARE AT TOP OF CURB, PAVEMENT EDGE, GUTTER LINE, OR GROUND LEVEL UNLESS OTHERWISE NOTED.
- 14. ALL DIMENSIONS SHOWN ARE TO THE BACK OF CURB, FACE OF BUILDING OR AS SHOWN IN THE PLANS.
- 15. ALL STORM DRAIN MATERIAL SHALL BE RCP UNLESS OTHERWISE SPECIFIED.

ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.

### **EROSION CONTROL NOTES**

- SITE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS, CODES, AND REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A "NOTICE OF INTENT"(NOI) FROM ADEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MONITORING, INSPECTIONS, ETC. TO ENSURE THE OWNER THAT THE SITE IS AT ALL TIMES IN ACCORDANCE WITH ADEM RULES & REGULATIONS. DOCUMENTATION OF INSPECTIONS BY A Q.C.I. OR Q.C.P. SHALL BE MAINTAINED BY THE CONTRACTOR AND PROVIDED TO THE OWNER AT HIS/HER REQUEST. ANY AND ALL FEES, FINES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING THE CONSTRUCTION PROCESS AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
- EROSION CONTROL DEVICES SHOWN ON THESE PLANS ARE A MINIMUM. ADDITIONAL DEVICES SHALL BE INSTALLED AS REQUIRED TO PREVENT SILTATION, EROSION AND OTHER DEGRADATION OR POLLUTION TO THE SITE OR ADJACENT PROPERTIES, STREAMS, DITCHES, AND PUBLIC ROADWAYS.
- EROSION CONTROL DEVICES SHALL INCLUDE, BUT NOT LIMITED, TO THE FOLLOWING DEVICES: SILT FENCING, SEDIMENT BASINS, DETENTION PONDS, STRAW WATTLES, CHECK DAMS, FILTER BERMS, JUTE MATTING, VEGETATIVE FILTER STRIPS, TURF REINFORCEMENT MAT, DIVERSION BERMS, ETC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES IN GOOD OPERATING CONDITION DURING ALL LAND DISTURBING ACTIVITIES. THIS RESPONSIBILITY SHALL INCLUDE THE CLEANUP AND/OR REPAIRS TO THE DEVICES AT NO ADDITIONAL COST TO THE OWNER.
- EROSION CONTROL DEVICES SHALL BE MONITORED AND MAINTAINED UNTIL THE SITE HAS BEEN PERMANENTLY STABILIZED AND AFTER EACH RAINFALL GREATER THAN 0.75 INCHES IN A 24 HOUR PERIOD, ANY WIND GUSTS GREATER THAN 25 MPH, AND ANY SUSTAINED WINDS GREATER THAN 20 MPH IN A 24 HOUR PERIOD.
- AFTER ALL LAND DISTURBANCE ACTIVITIES HAVE CEASED AND AFTER ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED, THE EROSION CONTROL DEVICES SHALL BE REMOVED BY THE CONTRACTOR AND THE AREA CLEANED AND DRESSED.
- DEWATERING OPERATIONS MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE OR POLLUTION TO ADJACENT PROPERTIES, STREAMS, DITCHES, OR PUBLIC ROADWAYS.
- A GRAVELED ACCESS DRIVE OF SUFFICIENT SIZE SHALL BE AT EACH SITE ENTRANCE/EXIT TO PREVENT TRACKING OF DIRT AND SEDIMENT ONTO PUBLIC OR PRIVATE ROADWAYS. IF SEDIMENT REACHES THE ROADWAY, THEN IT MUST BE CLEANED AT THE END OF EACH WORKDAY.
- ALL LAND DISTURBANCE ACTIVITIES SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE EXPOSURE OF BARE AREAS AT ANY ONE TIME.
- ALL DISTURBED AREAS LEFT INACTIVE FOR MORE THAN 13 DAYS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ALDOT SPECIFICATIONS SECTION 652 AND 656.
- ALL PREVIOUSLY GRADED AREAS SHALL RECEIVE 4 INCHES OF TOPSOIL AND PERMANENT GRASSING UNLESS OTHERWISE INDICATED ON THE LANDSCAPE PLAN.
- PRIOR TO SITE CLEARING, ALL PERIMETER SILT FENCING, BRUSH BERMS, ETC. AND GRAVELED ACCESS DRIVES SHALL BE INSTALLED.
- ALL EXISTING STREAMS, DITCHES, ETC. SHALL BE PROTECTED FROM SEDIMENTS AND SILTS BY SILT FENCING, WATTLES, BRUSH BERMS, ETC.
- WATTLES OR SILT FENCING SHALL BE INSTALLED AT ALL INLETS UPON THE COMPLETION OF EACH INLET.
- RIP RAP SHALL BE PLACED AT EACH HEADWALL IMMEDIATELY FOLLOWING CONSTRUCTION OF EACH HEADWALL.
- GEOTEXTILE SHALL BE PLACED ON ALL DITCH BOTTOMS & 1' UP EACH SIDE. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

### TEMPORARY SEEDING SPECIFICATION:

1. REFERENCE: ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION, SECTION 665, SECTION 860, AND OTHERS THAT APPLY.

### PERMANENT SEEDING SPECIFICATION:

1. REFERENCE: ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION, SECTION 650, SECTION 652, SECTION 860 AND OTHERS THAT APPLY. USE ZONE 1 - AREAS SUBJECT TO FREQUENT MOWING.

# SODDING SPECIFICATION:

- 1. SEE ARCH SITE PLAN FOR LOCATIONS.
- 2. REFERENCE: ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION, SECTION 650, SECTION 654, SECTION 860 AND OTHERS THAT APPLY.
- 3. THE SOD SHALL BE OF COMMON TIFLAWN BERMUDAGRASS, CENTIPEDE, ZOYSIA, OR OTHER APPROVED TYPES OF NATIVE OR ADAPTABLE GRASSES, SUITABLE FOR GROWING IN THE LOCALITY OF THE WORK.

### UTILITY NOTES

- 1. THE BUILDING CONTRACTOR IS RESPONSIBLE FOR COORDINATING LOCATION, SIZE AND SPECIFICATIONS OF ALL ELECTRICAL TRANSFORMER PADS WITH THE LOCAL POWER COMPANY AND PROVIDING SERVICE FROM THE TRANSFORMER TO THE BUILDING.
- 2. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS AND IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION AT NO EXTRA COST TO THE OWNER.
- 3. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OR OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL PROVIDE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE BUT NOT LIMITED TO ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.
- 4. SANITARY SEWER PIPE SHALL MEET MINIMUM COVER
- 5. SEWER SERVICE LATERALS SHALL BE COORDINATED WITH BUILDING PLANS. ANY DISCREPANCIES SHOULD BE CLARIFIED BEFORE INSTALLATION.
- 6. THE TOP ELEVATION OF MANHOLES CONSTRUCTED IN PAVED AREAS SHALL MATCH FINISH GRADE, AND SHALL HAVE TRAFFIC BEARING LIDS. THE TOP ELEVATION OF ON SITE MANHOLES CONSTRUCTED IN GRASSED AREAS MUST MATCH FINISHED GRADE. ALL OFFSITE MANHOLES TOPS MUST BE SET 24" ABOVE EXISTING GRADE. ALL EXISTING MANHOLES & UTILITY BOXES SHALL BE ADJUSTED AS NECESSARY TO MATCH PROPOSED GRADING.
- 7. ALL WATERLINES SHALL MAINTAIN A MINIMUM OF 3 FEET COVER AND MAXIMUM OF 5 FEET.
- 8. CONTRACTOR SHALL COORDINATE INSTALLATION OF WATER SERVICE WITH WATER DEPARTMENT.
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, PURCHASE AND/OR FEES ASSOCIATED WITH ALL APPARATUS INCLUDING; WATER METERS, BACK FLOW PREVENTERS, POST INDICATOR VALVES, AND ENCLOSURES.
- 10. THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF WATER AND SEWER LINE IS (5') FIVE FEET. THE MINIMUM VERTICAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINES IS (24") TWENTY-FOUR INCHES.
- 11. EXISTING UTILITIES LOCATIONS ARE APPROXIMATE AND SHOULD BE VERIFIED FOR LOCATION AND NUMBER BY THE CONTRACTOR.
- 12. ALL ELECTRIC, TELEPHONE AND GAS LINES, INCLUDING SERVICE LINES, ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE UTILITY COMPANIES SPECIFICATIONS.
- 13. CONTRACTOR TO COORDINATE INSTALLATION OF ALL UTILITIES BY OTHERS WITH HIS WORK.
- 14. PRIMARY ELECTRIC SERVICE IS PROVIDED BY THE POWER COMPANY. THIS INCLUDES THE TRANSFORMER AND PAD, TRENCHING, BACKFILL AND COMPACTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND FEES ASSOCIATED WITH POWER SERVICE AS WELL AS SECONDARY SERVICE.
- 15. ANY UTILITIES NOT SHOWN THAT REQUIRE RELOCATION OR REMOVAL IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS TO REPORT ALL DISCREPANCIES TO THE ENGINEER IMMEDIATELY UPON DISCOVERY.
- 16. ALL MANHOLES SHALL BE XYPEX LINED, OR APPROVED EQUAL.

# MORELL ENGINEERING PROJECT NO: 24-0006

### **BEST MANAGEMENT PRACTICES NOTES:**

- 1. ALL BEST MANAGEMENT PRACTICES SHALL BE DEVELOPED AND MAINTAINED BY THE CONTRACTOR ACCORDING TO THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS, (JULY 2018 OR MOST CURRENT) BY THE ALABAMA SOIL AND WATER CONSERVATION COMMITTEE ("BLUE BOOK"). THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND FAMILIARIZING HIMSELF WITH THE HANDBOOK AND THE STANDARDS AND MATERIALS CONTAINED THEREIN. THE HANDBOOK MAY BE DOWNLOADED FROM THE ALABAMA SOIL & WATER CONSERVATION COMMITTEE WEBSITE (alabamasoilandwater.gov).
- 2. THE MAINTENANCE OF ALL BEST MANAGEMENT PRACTICES, SO AS TO BE AN EFFECTIVE BARRIER TO EROSION AND SEDIMENTATION, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGHOUT THE DURATION OF THE CONSTRUCTION PERIOD. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN COMPLIANCE WITH ALL ADEM AND EPA BEST MANAGEMENT PRACTICES AND THE NPDES PERMIT ASSOCIATED WITH THIS SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR, REPLACEMENT, AND/OR SUPPLEMENTATION OF ANY CONTROL MEASURES THAT ARE NOT FUNCTIONING PROPERLY. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THE PLANS SHALL BE CONSIDERED A MINIMUM.
- 3. OTHER THAN LAND-CLEARING ACTIVITIES REQUIRED TO INSTALL THE APPROPRIATE BMP IN ACCORDANCE WITH THE BMP PLANS, ANY DOWN SLOPE EROSION AND SEDIMENT CONTROL MEASURES, ON-SITE STREAM CHANNEL PROTECTION AND UPSLOPE DIVERSION OF DRAINAGE REQUIRED BY THE BMP PLAN SHALL BE IN PLACE AND FUNCTIONAL BEFORE ANY CLEARING OR EARTH MOVING OPERATIONS BEGIN AND SHALL BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT SHALL BE REPLACED AT THE END OF THE WORKDAY.
- 4. THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN 3:1. ANY SLOPE OR FILL WHICH HAS BEEN GRADED SHALL BE PLANTED OR OTHERWISE BE PROVIDED GROUND COVER WITHIN FOURTEEN (14) DAYS OF COMPLETION. THE DOWN GRADE BMPS SHALL REMAIN IN PLACE UNTIL THE GRADED SLOPES HAVE BEEN PERMANENTLY STABILIZED.
- 5. ALL CONTROL MEASURES SHALL BE CHECKED AND REPAIRED MONTHLY IN DRY PERIODS AND WITHIN 24 HOURS AFTER A QUALIFYING EVENT OF .75 INCH IN A 24 HOUR PERIOD. DURING PROLONGED RAINFALL EVENTS, DAILY INSPECTION MAY BE NECESSARY. NEEDED REPAIRS WILL BE COMPLETED IN A EXPEDIENT MANNER. THE PERMITTEE SHALL MAINTAIN WRITTEN RECORDS OF SUCH INSPECTIONS AND REPAIRS.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING EROSION AND SEDIMENT OFF ADJOINING PROPERTIES. AT HIS EXPENSE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SEDIMENTS AND DEBRIS ESCAPING THIS PROJECT SITE, THE REMEDIATION AND REPAIR THAT MAY OCCOR, AND ANY FINES OR PENALTIES LEVIED AGAINST THE PROJECT BY REGULATORY AGENCIES DUE TO DEFICIENCIES OF CONTROL MEASURES.

LEGEND	EXISTING	PROPOSED
WATER LINE		w
FIRELINE		—— F ——
SANITARY SEWER LINE	SS <sub>X</sub>	SS
GAS LINE	G <sub>X</sub>	—— G ——
COMMUNICATION LINE (UNDERGROUND)	$  C_{X}$ $  C_{X}$ $-$	—— c—— c—
POWER (OVERHEAD)	E <sub>X</sub>	—— E ——
POWER (UNDERGROUND	$$ $E_{X}$ $$ $E_{X}$ $$	—— E ——
POWERPOLE	-O-	<b>-</b> PP
SANITARY SEWER MANHOLE	(MH)	S
CLEANOUT	CO	$\bigcirc^{\text{co}}$
GAS VALVE	<b>©</b>	G
WATER METER	W	W
DRAINAGE PIPE		
STORM MANHOLE/INLET	D	
STORM JUNCTION BOX		Ō
SIGN	IP	— LP
LIGHT POLE	φ	₩V
WATER VALVE	₩V N	₩ <sup>wv</sup>
FIRE HYDRANT	FH	$\mathcal{C}_{\mathcal{O}}$
FIRE DEPARTMENT CONNECTION		₩
GAS METER	G	G
AIR CONDITIONING UNIT	AC	
CONTOUR - MAJOR	<del></del>	100
CONTOUR - MINOR	——99 ——	———99———

SHEET TITLE: GENERAL NOTES

MCKEE JOB #: 23-251

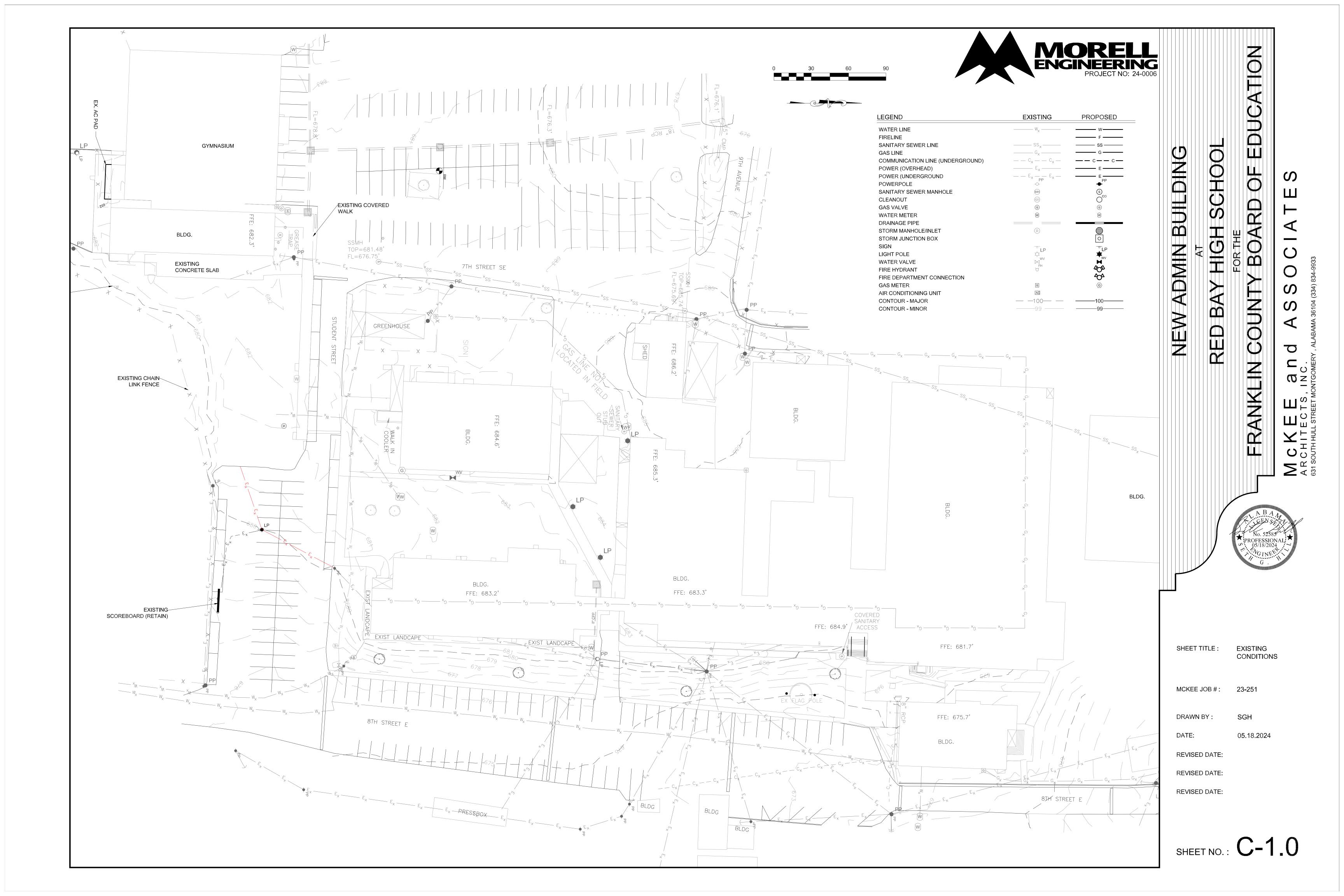
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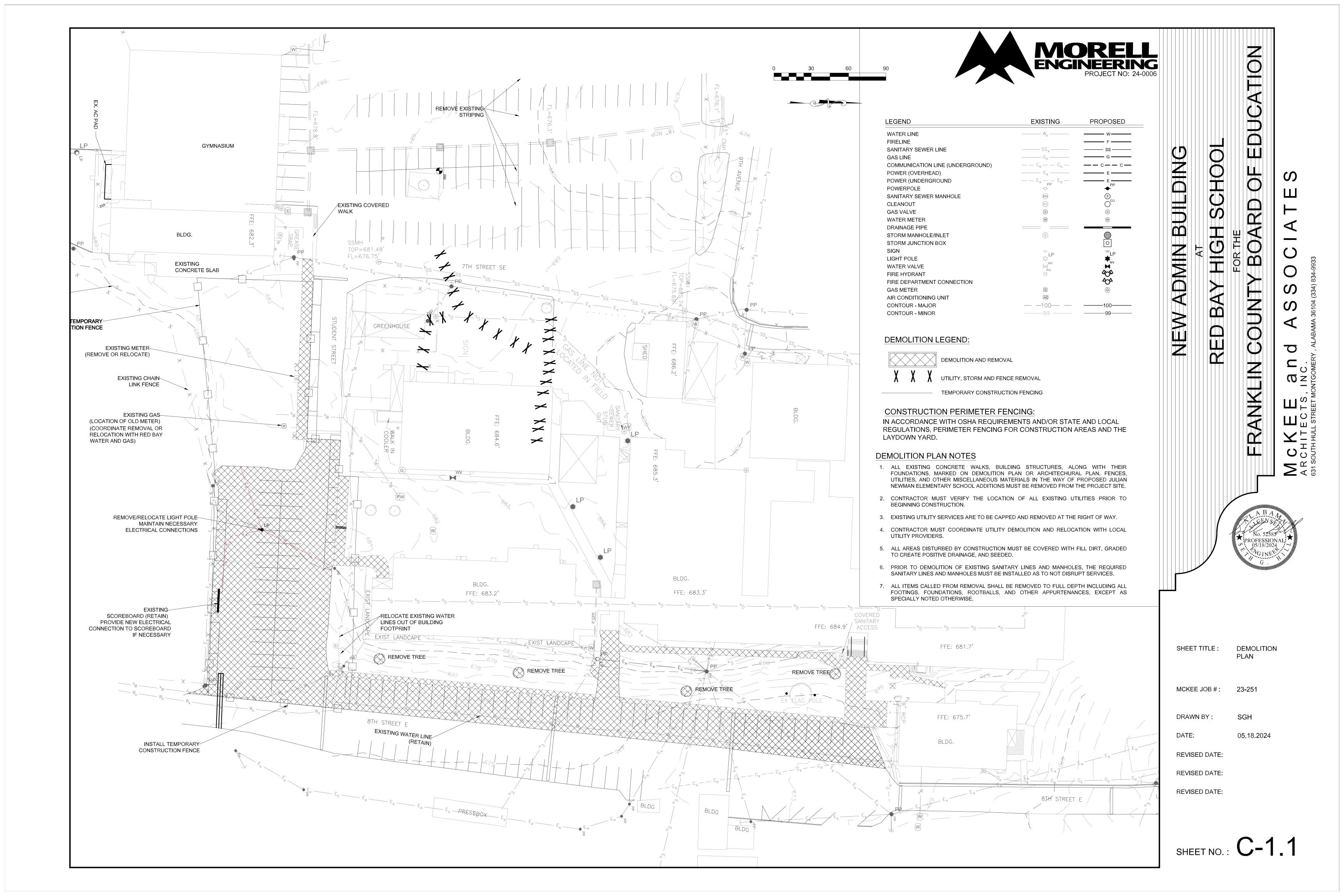
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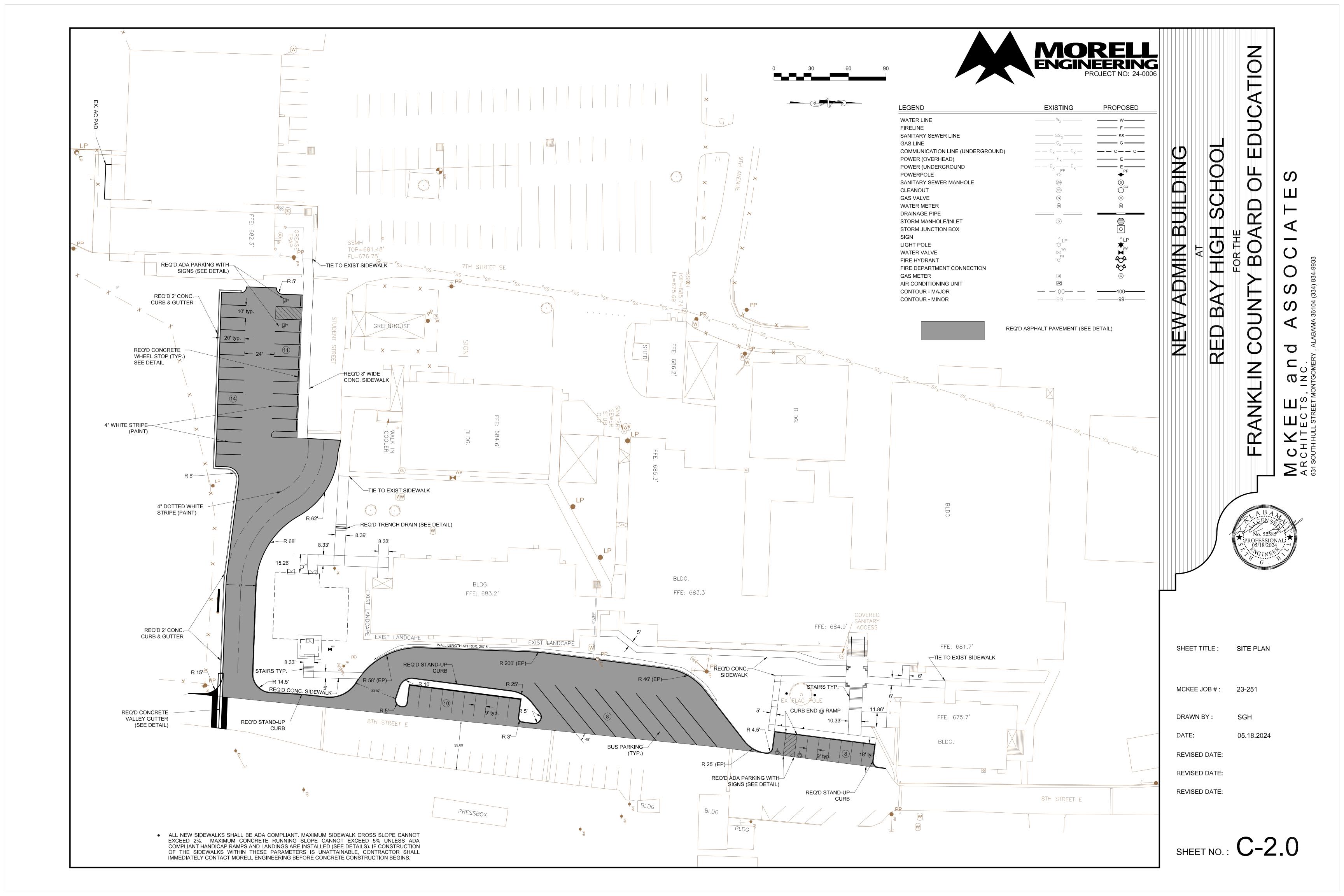
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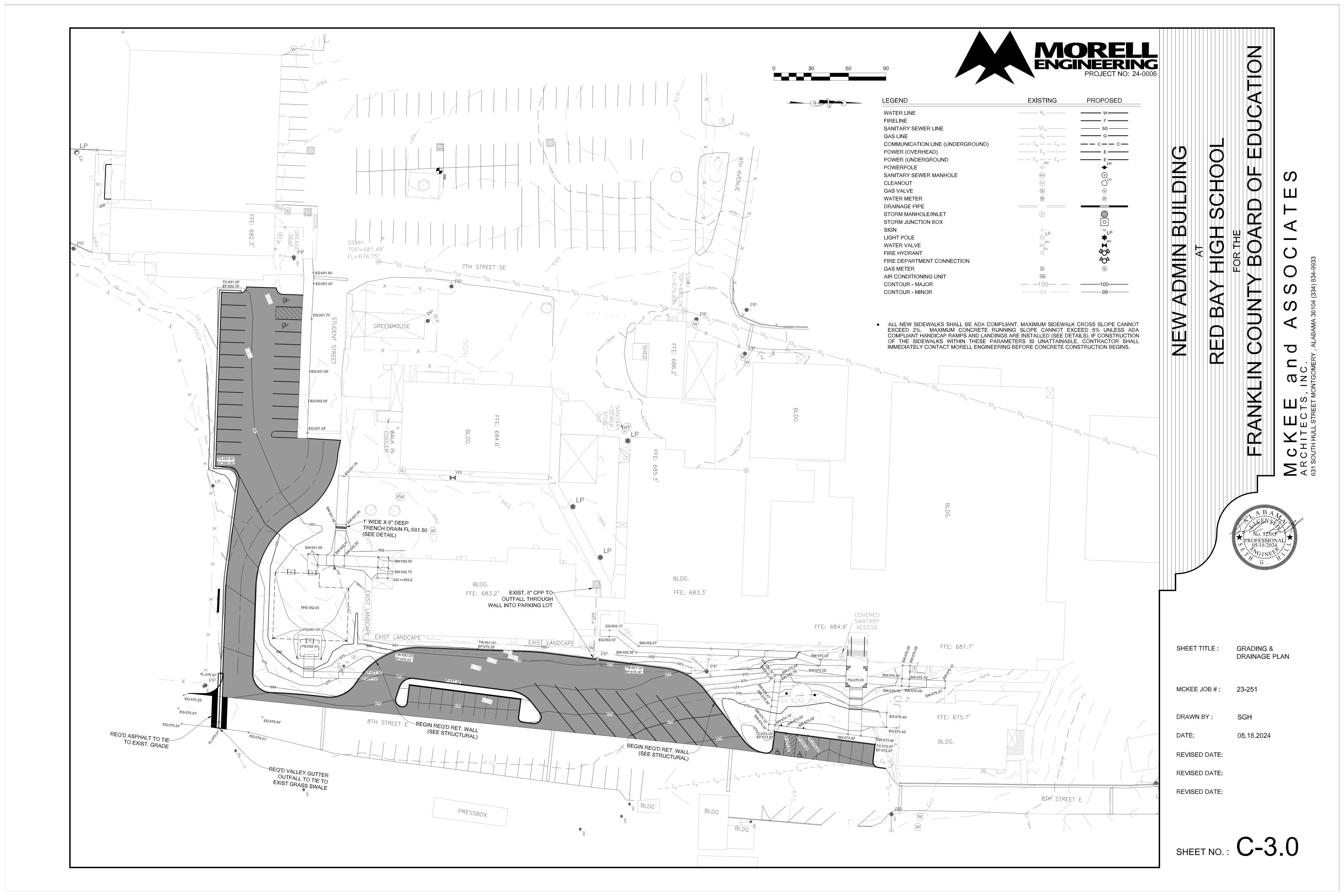
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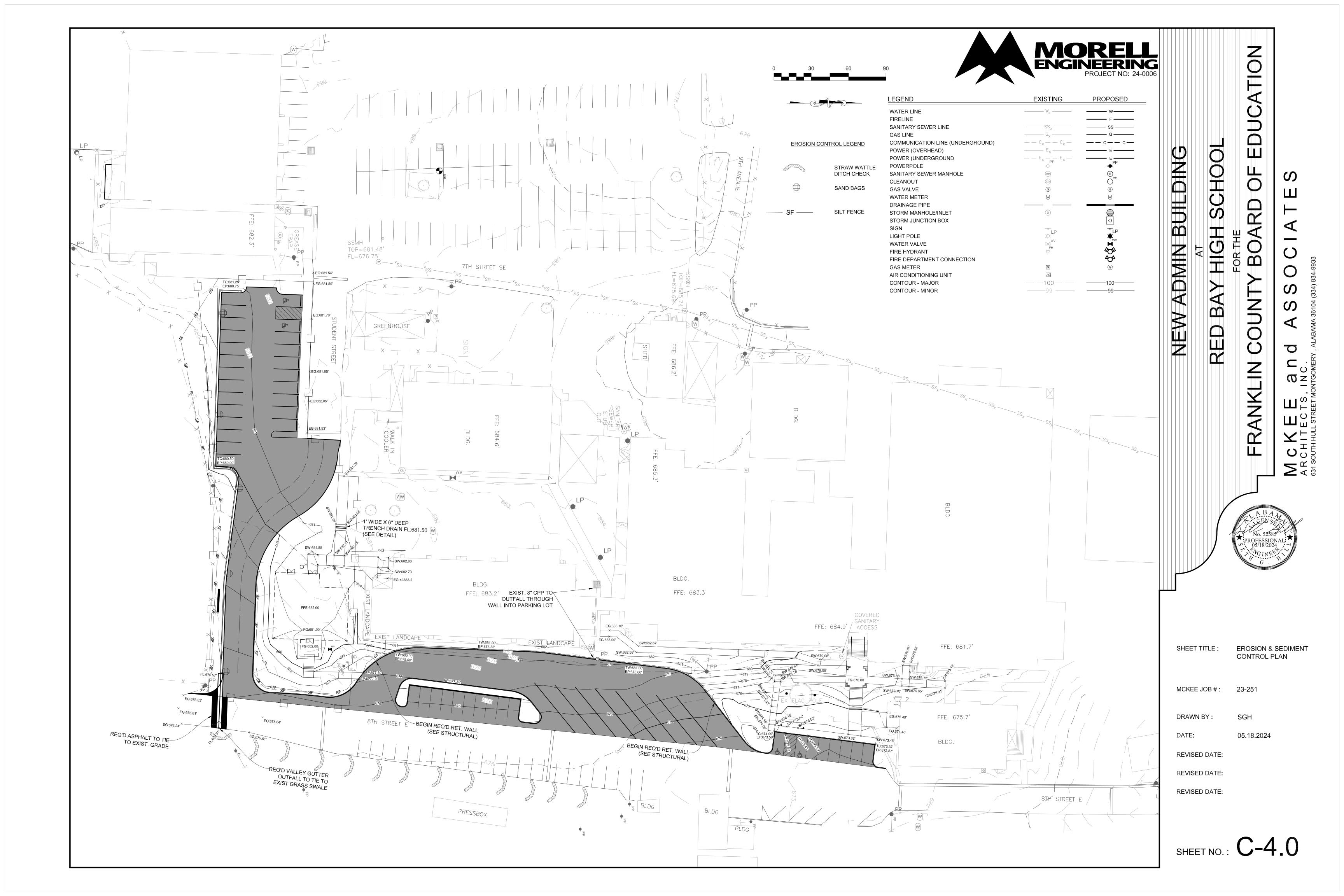
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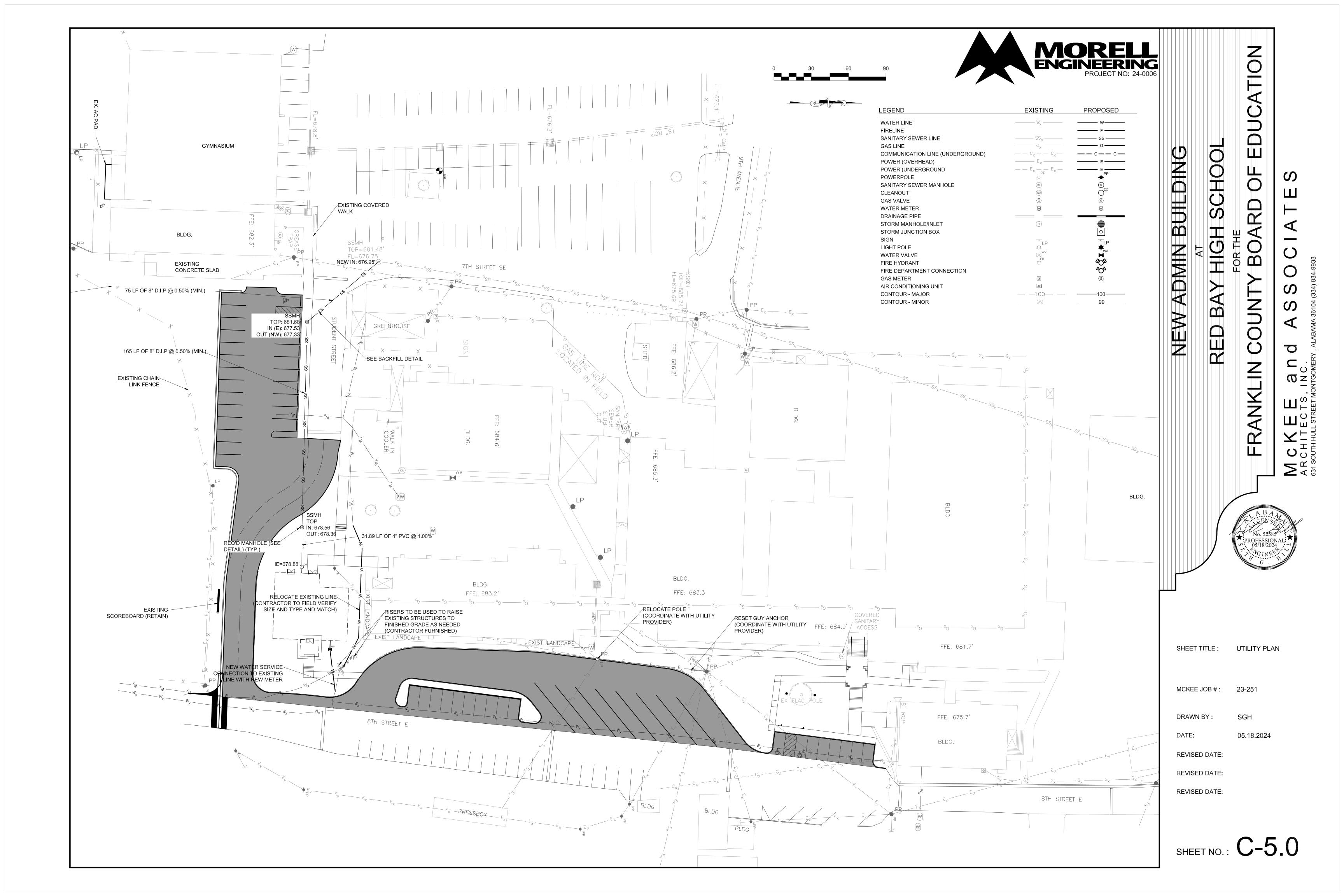


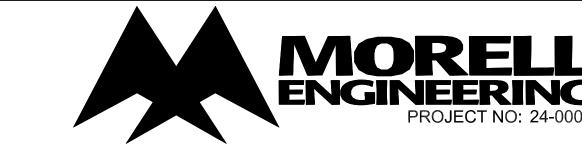


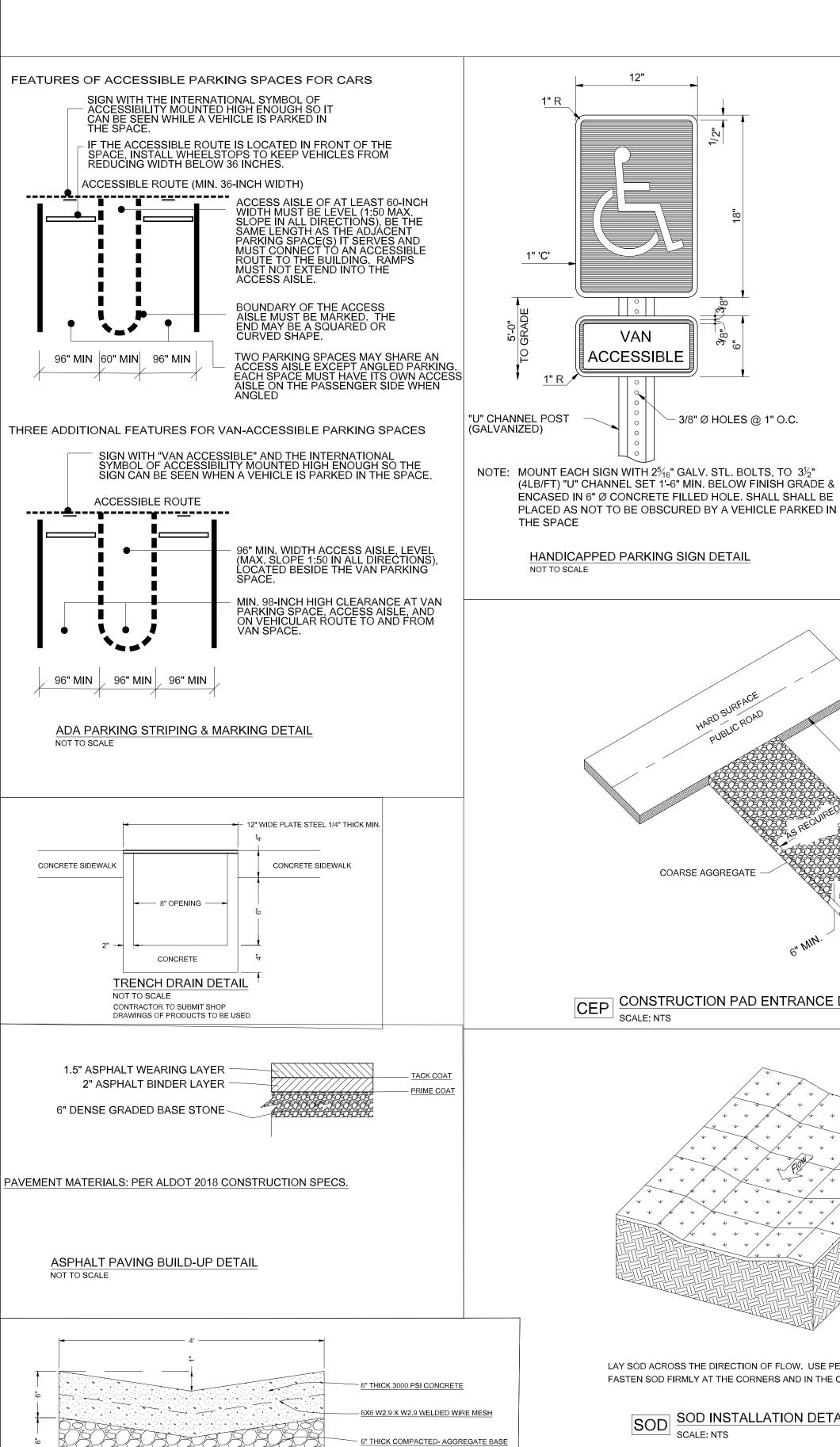




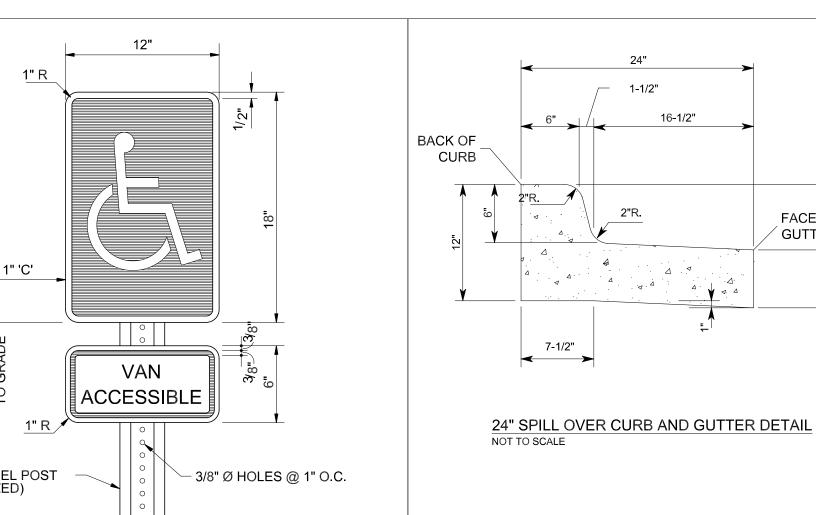


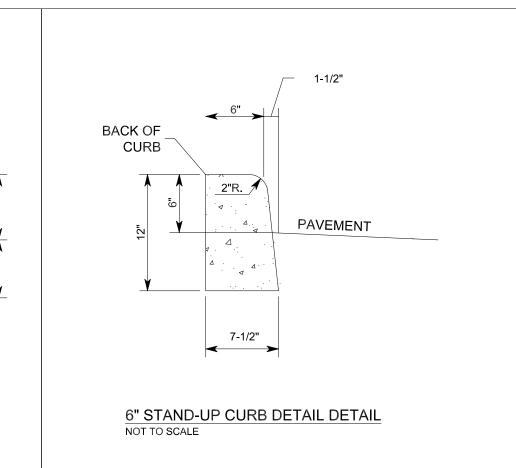






CONCRETE VALLEY GUTTER DETAIL



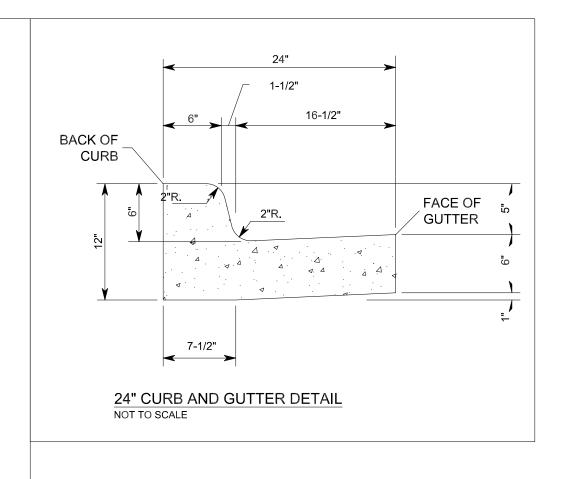


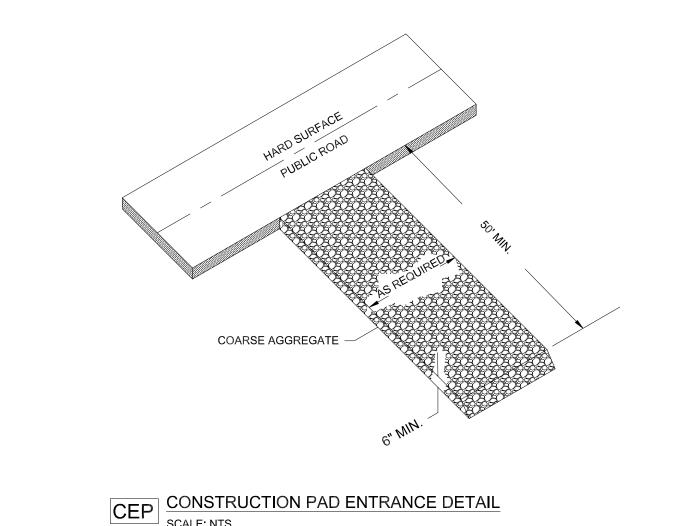
FACE OF

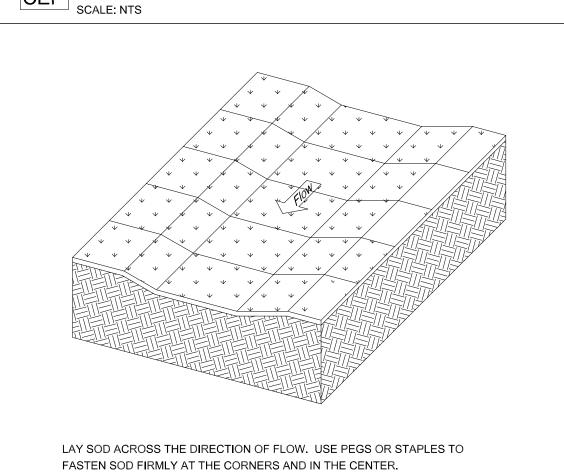
GUTTER

TO THE WOVEN WIRE FENCING.

MAINTENANCE SCHEDULE:

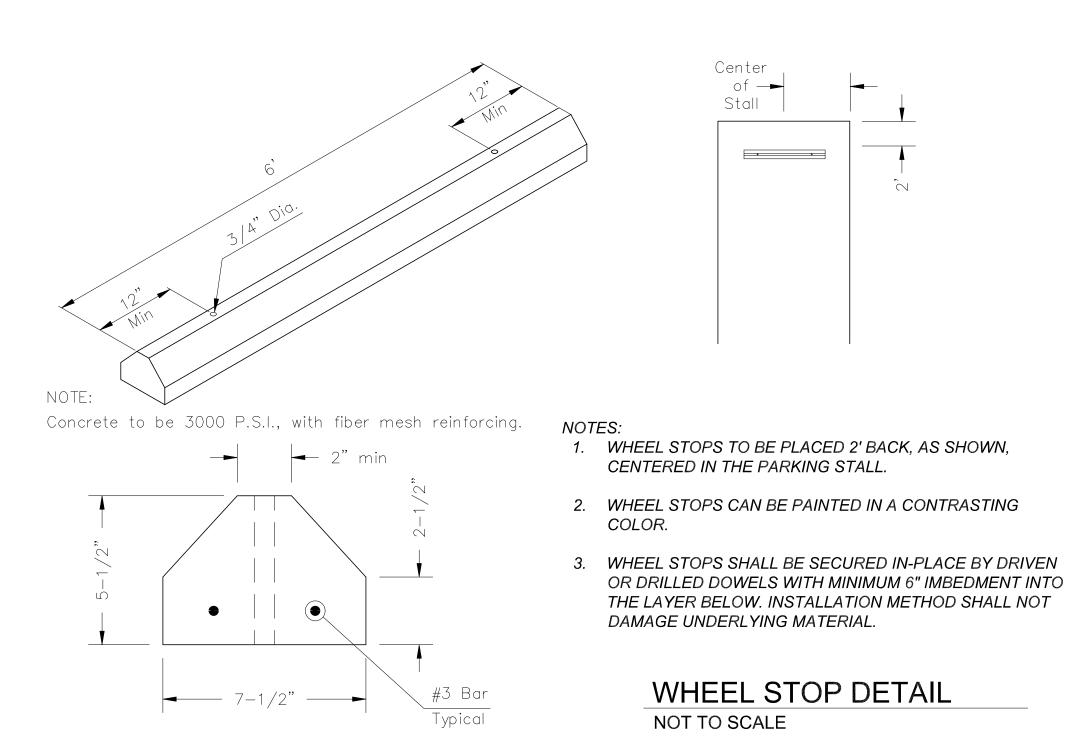


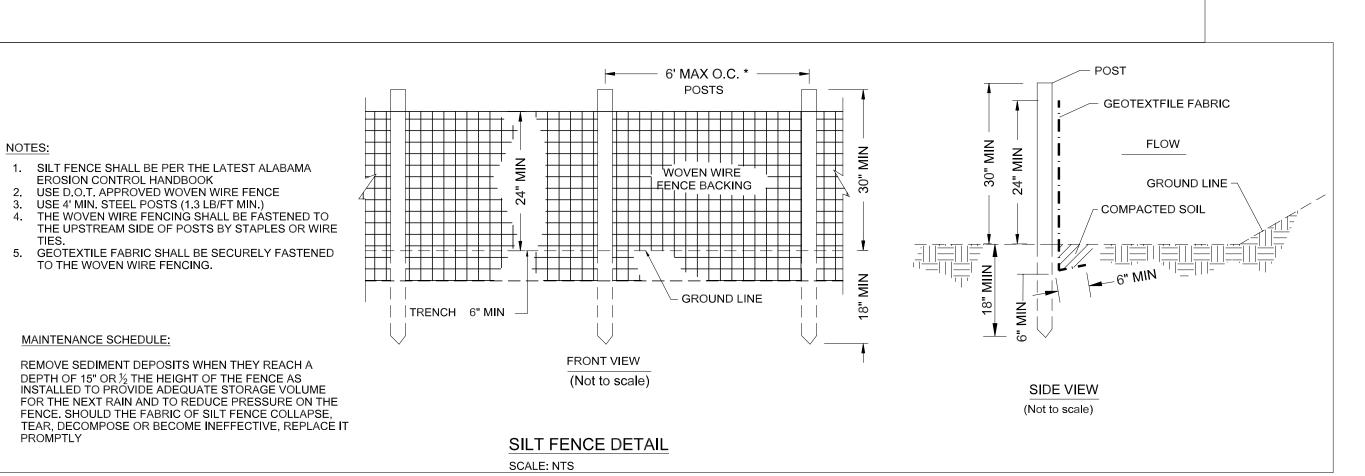




SOD SOD INSTALLATION DETAIL

SCALE: NTS





SHEET TITLE: STANDARD **DETAILS** 

DNC

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DING

N

23-251 MCKEE JOB #:

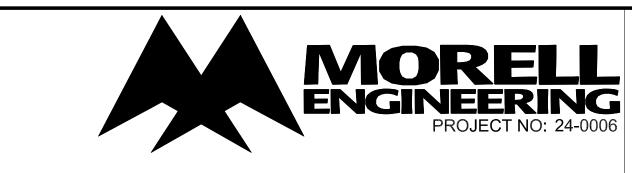
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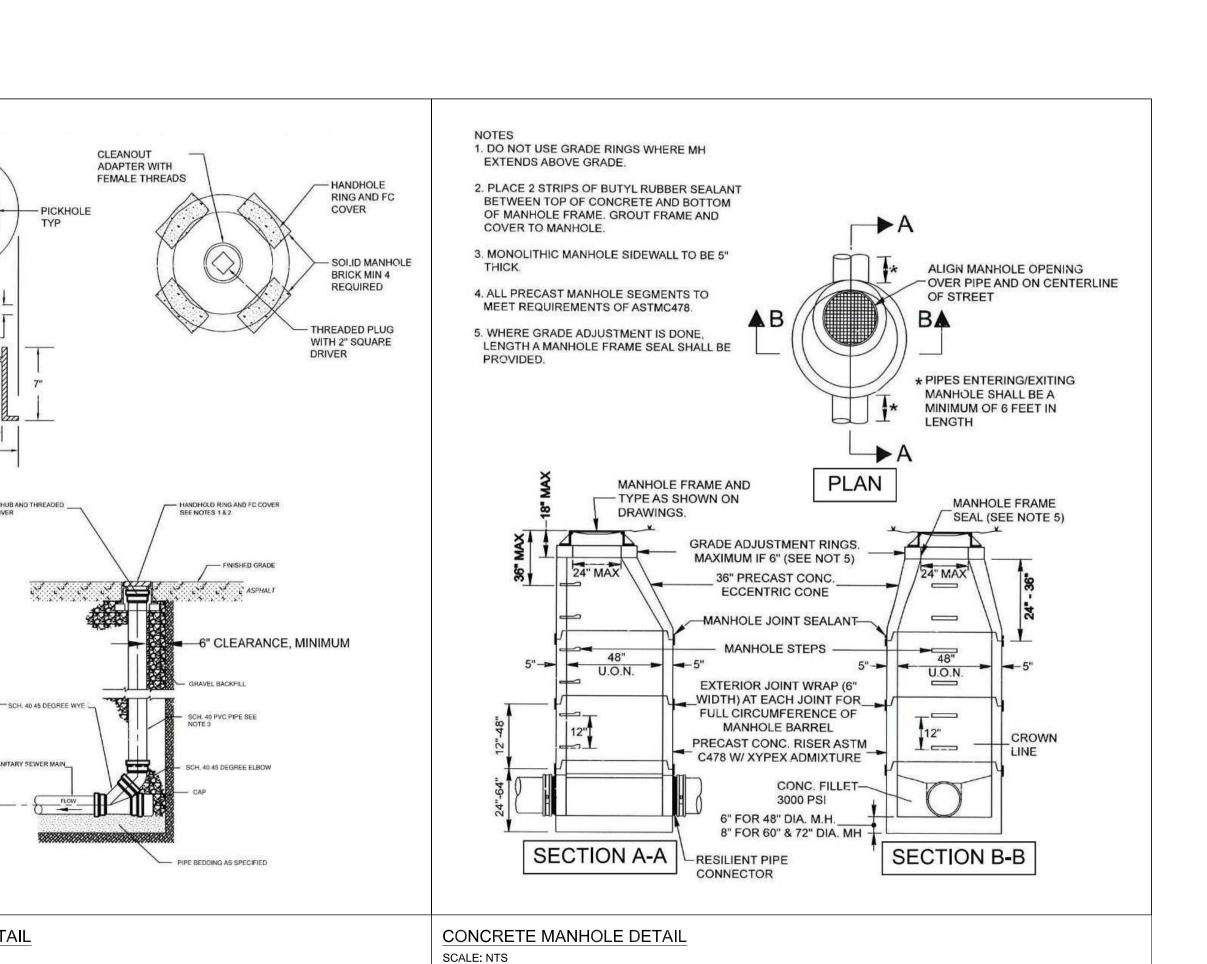
05.18.2024

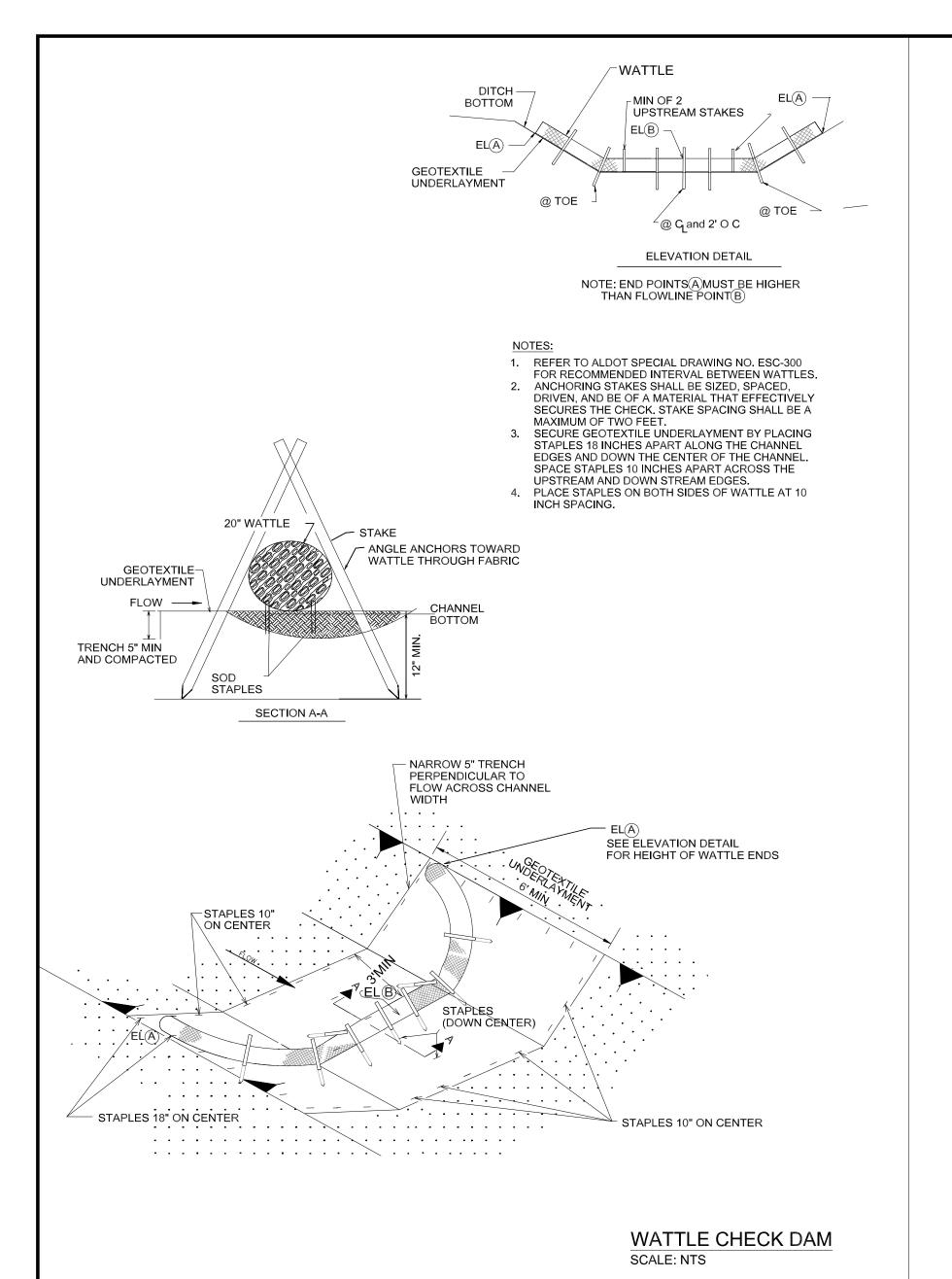
SGH

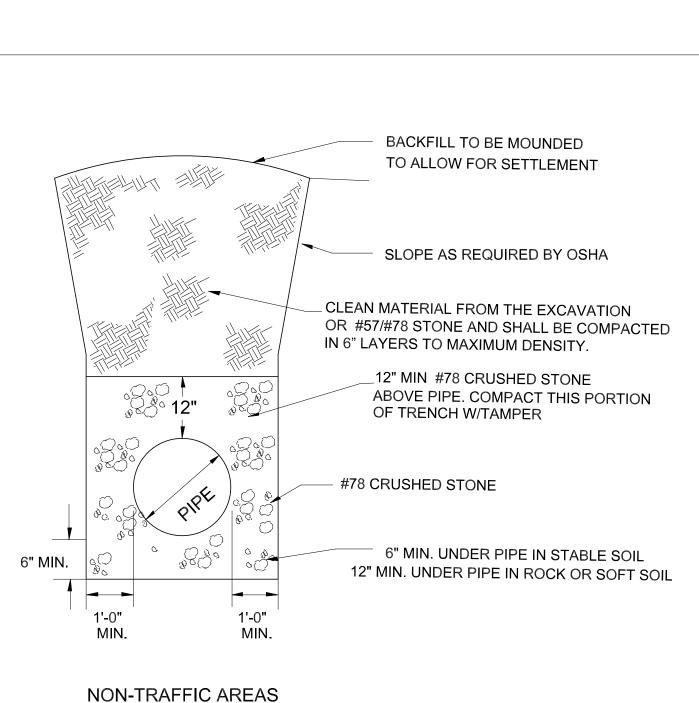
REVISED DATE:

REVISED DATE:









SANITARY SEWER CLEANOUT DETAIL

SCALE: NTS

CASTING TO BE U.S.

FOUNDRY, NO. 7610 OR

FOR 6" OR LARGER DIA.

-2 1/2" 1 1/2"-

APPROVED EQUAL

2. COVER TO BE MARKED

WITH LETTER "S"

3. USE 6" DIA. CLEANOUT

OTHERWISE NOTED

PIPE UNLESS

STORM AND UTILITY PIPE BEDDING
NOT TO SCALE

1.5" ASPHALT WEARING SURFACE

6" MIN. COMPACTED DENSE GRADED

SLOPE AS REQUIRED BY OSHA

12" MIN. #78 CRUSHED STONE

COMPACT THIS PORTION OF TRENCH

COMPACT THIS PORTION OF TRENCH

#57 OR #78 CRUSHED STONE

(MATCH EX. GRADE)

- 2" ASPHALT BINDER

BASE MATERIAL

W/ TAMPER

W/ TAMPER

#78 CRUSHED STONE

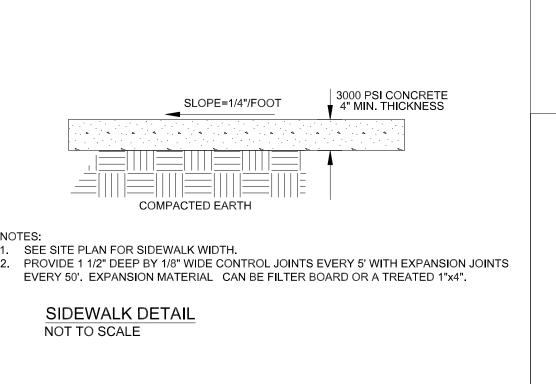
6" MIN. UNDER PIPE IN STABLE SOIL

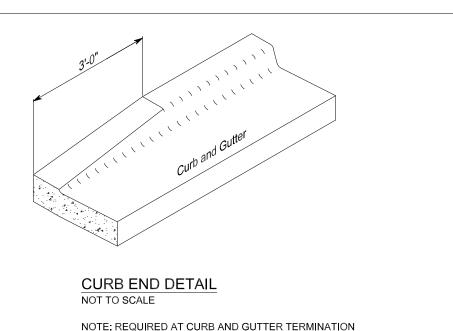
12" MIN. UNDER PIPE IN ROCK OR SOFT SOIL

- 4' WIDE PATCH -

EXISTING PAVEMENT AREAS

6" MIN.





NEW ADMIN BUILDING

STANDARD DETAILS

SHEET TITLE: STANDAR DETAILS

MCKEE JOB #: 23-251

DRAWN BY: SGH

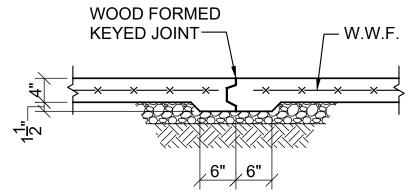
DATE: 05.18.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO.: C-6.1



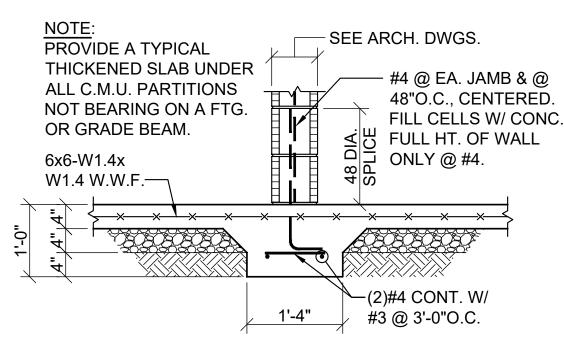
# TYPICAL SLAB CONSTRUCTION JOINT DETAIL-(C.J.)

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

W.W.F.

SAW CUT ¼"x1" DEEP
SAWED JOINT. FILL
JOINT W/ SEALANT

ALTERNATE SLAB CONSTRUCTION
JOINT DETAIL (SAWED JOINT)



GENERAL CONTRACTOR OPTION

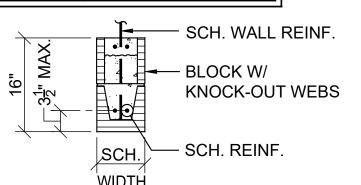
#4 DOWELS MAY BE DRILLED & EPOXY
GROUTED 6" MINIMUM INTO THICKENED SLAB

TYPICAL THICKENED SLAB DETAIL

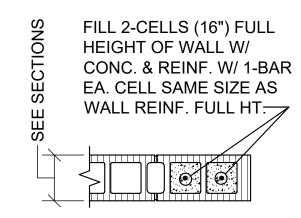
	LINTEL SCHEDULE									
MARK OR LOCATION SPAN TYPE SIZE REINFORCEMENT REMARKS										
8"C.M.U.	6'-4"	U-BLOCK	8"x16"	(2)#5 TOP & BOT.	16" HI U-BLOCK					
8"C.M.U.	12'-8"	CONC. BEAM	7 5/8"x16"	(2)#5 TOP & BOT. W/ #3 @ 6"O.C.						
BRICK	6'-4"	STEEL ANGLE	∠6x4x <del>3</del>		BEAR 8" EA. END, L.L.V.					

# NOTES:

- 1 BEAR 8" HIGH U-BLOCKS 8" EACH END & 16" HIGH U-BLOCKS 16" EACH END.
- 2 FILL CELLS W/ CONCRETE FULL HEIGHT @ U-BLOCK BEARING, FOR ENTIRE LENGTH OF BEARING. REINF. EA. CELL W/ BAR SAME SIZE AS WALL REINFORCING FULL HT. OF WALL. VERTICAL REINFORCING SHALL BE CONT. THRU LINTEL @ BEARING.
- 3 FILL CELLS OF U-BLOCK LINTEL TO FULL HT. IN ONE POUR.



16" HIGH U-BLOCK



TYPICAL JAMB AT 16" HIGH CMU LINTELS BEARING 16" AND INTERIOR CONCRETE BEAM LINTEL

# **BEARING & BASE PLATE SCHEDULE ANCHOR BOLT** BASE & SIZE MARK NO. & SIZE (2)<sup>3</sup>/<sub>4</sub>"Øx14" HEADED <sup>1</sup>/<sub>2</sub>"x7"x16" BP-1 (2)<sup>3</sup>/<sub>7</sub>"Øx14" HEADED BP-2 $\frac{3}{4}$ "x7"x16" −**℄** WALL E BEAM € WALL¬ & BEAM TYPE A TYPE B BASE PLATE TYPES ALL ANCHOR BOLTS SHALL BE GRADE 55KSI STEEL, HEADED ANCHOR BOLTS

### GENERAL NOTES

### FOUNDATION:

- 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.
- 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 = 2000 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.
- 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.
- 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.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 OR ASTM A1064.
   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 (EXCEPT TUBE SECTIONS).
- STRUCTURAL STEEL TUBE SECTIONS SHALL CONFORM TO ASTM A500, GRADE B, Fy = 46.0 KSI.
- 3. THE CONTRACTOR SHALL VERIFY ALL SHOP DRAWINGS DIMENSIONS WITH STRUCTURAL AND ARCHITECTURAL PLANS AND DETAILS.
- 4. BOLTED CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS CONFORMING TO ASTM A325. USE 3/4 INCH DIAMETER MINIMUM.
- 5. 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.

# WOOD FRAMING

- 1. ALL WOOD FRAMING MEMBERS SHALL BE STRESS RATED AND GRADE MARKED.
- 2. FRAMING MEMBERS SHALL BE NO.2, KILN DRIED, SOUTHERN YELLOW PINE OR APPROVED EQUAL.
- PROVIDE PREFABRICATED WOOD TRUSSES WHERE INDICATED ON PLAN.
   ALL TRUSSES SHALL BE DESIGNED AND MANUFACTURED TO MEET THE
- 4. ALL TRUSSES SHALL BE DESIGNED AND MANUFACTURED TO MEET THE FOLLOWING WORKING LOADS AND CODES.

  MINIMUM LOADS:

  ROOF LIVE LOAD 20 PSE

ROOF LIVE LOAD.......20 PSF.
ROOF DEAD LOAD......15 PSF.
CEILING LOAD......10 PSF.

- 5. CONNECTORS SHALL MEET THE SPECIFICATIONS OF THE TRUSS PLATE INSTITUTE AND SHALL BE SANFORD, GANG-NAIL, TEMPLIN OR EQUAL.
- 6. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND DESIGN CAL-CULATIONS FOR EACH TYPE TRUSS. DESIGNS SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF ALABAMA. SIZES OF MEMBERS MAY BE CHANGED AS ALLOWED OR REQUIRED BY THE GRADE OF LUMBER USED EXCEPT THAT ALL TOP CHORDS AND BOTTOM CHORDS SHALL BE 2X6 MINIMUM.
- 7. PROVIDE CAMBER IN ALL TRUSSES.
- 8. PROVIDE VERTICAL WEB MEMBERS TO ACCOMODATE TRUSS VERTICAL X-BRACING (SEE PLAN FOR LOCATIONS).
- 9. IN ADDITION TO THE "X" BRACING SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL PROVIDE ALL BRACING REQUIRED BY THE TRUSS MANUFACTURER. THE DESIGN OF BRACING FOR INDIVIDUAL TRUSS MEMBERS INCLUDING CONTINUOUS BRACING SHALL BE THE RESPONSIBILITY OF THE TRUSS DESIGN ENGINEER AND HE SHALL SHOW THE SIZES OF THIS BRACING ON THE SHOP DRAWINGS INCLUDING ALL END ANCHORAGE DETAILS FOR CONTINUOUS BRACING.
- 10. ANCHOR ALL TRUSSES, JOISTS, AND RAFTERS TO SUPPORTS WITH GALVANIZED FRAMING ANCHORS.
- 11. HURRICANE ANCHORS SHOWN ON DRAWINGS ARE MINIMUM REQUIRED. PROVIDE ADDITIONAL ANCHORS AND/OR DIFFERENT TYPES OF ANCHORS AS REQUIRED TO RESIST NET UPLIFT IN ACCORDANCE WITH TRUSS MANUFACTURER'S RECOMMENDATIONS. TRUSS MANUFACTURER SHALL INDICATE REQUIRED ANCHORAGE ON SHOP DRAWINGS.
- 12. ALL NAILS, ANCHOR BOLTS, AND OTHER STEEL ANCHORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL. PROVIDE 15# FELT SEPARATOR (OR EQUIVALENT) AS REQUIRED BETWEEN ALL PRESSURE TREATED WOOD AND OTHER METAL FRAMING.
- 13. UNLESS NOTED OTHERWISE ATTACH PLYWOOD ROOF DECK WITH 10d NAILS @ 6" O.C. AT SUPPORTED EDGES AND @ 12" O.C. AT INTERMEDIATE SUPPORTS.

### 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)

NATIONAL LUMBER MANUFACTURER'S ASSOCIATION (NLMA)

AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC)

INTERNATIONAL BUILDING CODE (IBC 2021) (ICC)

# DESIGN LIVE LOADS:

MAPPED SPECTRAL ACCELERATION (1-SECOND)...S1=0.142g
SITE CLASS......D
SHORT-PERIOD SPECTRAL RESPONSE ACCEL.....Sds=0.317g
1-SECOND SPECTRAL RESPONSE ACCEL......Sd1=0.220g
SEISMIC DESIGN CATEGORY......B
SEISMIC FORCE-RESISTING SYSTEM:
SPECIAL REINFORCED CMU SHEAR WALLS
DESIGN BASE SHEAR (ULTIMATE).......13.4k

SEISMIC RESPONSE COEFFICIENT.......Cs=0.063
RESPONSE MODIFICATION FACTOR......R=5.0
ANALYSIS PROCEDURE......ASCE 7 (SECT 12.8)

# SNOW......INTERNATIONAL BUILDING CODE GROUND SNOW LOAD......Pg=10 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: -41.9 PSF/18.6 PSF ZONE 2e:-58.8 PSF/18.6 PSF ZONE 2r:-54.6 PSF/18.6 PSF ZONE 3: -58.8 PSF/18.6 PSF ROOF:TRIBUTARY AREA A = 100 SF ZONE 1: -24.9 PSF/10.2 PSF ZONE 2e:-39.3 PSF/10.2 PSF ZONE 2r:-36.7 PSF/10.2 PSF ZONE 3: -39.3 PSF/10.2 PSF WALL:TRIBUTARY AREA A = 10 SF ZONE 4: -27.1 PSF/24.9 PSF ZONE 5: -33.5 PSF/24.9 PSF WALL:TRIBUTARY AREA A = 50 SF ZONE 4: -24.4 PSF/22.4 PSF ZONE 5: -28.2 PSF/22.4 PSF WALL:TRIBUTARY AREA A = 100 SF ZONE 4: -23.3 PSF/21.3 PSF

# SPECIAL INSPECTIONS:

CORNER ZONE = 5 FT

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:

ZONE 5: -25.9 PSF/21.3 PSF

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 1705.13 OF IBC 2021 AND PROJECT SPECIFICATIONS:

ROOF DIAPHRAGM SYSTEM AND ATTACHMENT CMU SHEAR WALLS (INCL. ANCHORAGE TO FOUNDATION)

CMU SHEAR WALLS (INCL. ANCHORAGE TO FOUNDATION)
THESE SPECIFIC COMPONENTS ARE IN ADDTION TO ALL GENERAL COMPONENTS
LISTED IN SECTIONS 1705.12 AND 1705.13 OF IBC 2021 AND ARE SUBJECT
TO ALL SPECIAL INSPECTIONS AND TESTING AS REQUIRED BY CHAPTER 17 OF
IBC 2021, 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.

# RED BAY HIGH SCH FORTHE FRANKLIN COUNTY BOARD 0

7

**S** A S 150

EDUCATION

SHEET TITLE: GENERAL NOTES SCHEDULES TYPICAL DETAILS

MCKEE JOB # : 23-251

DRAWN BY: R. Casey

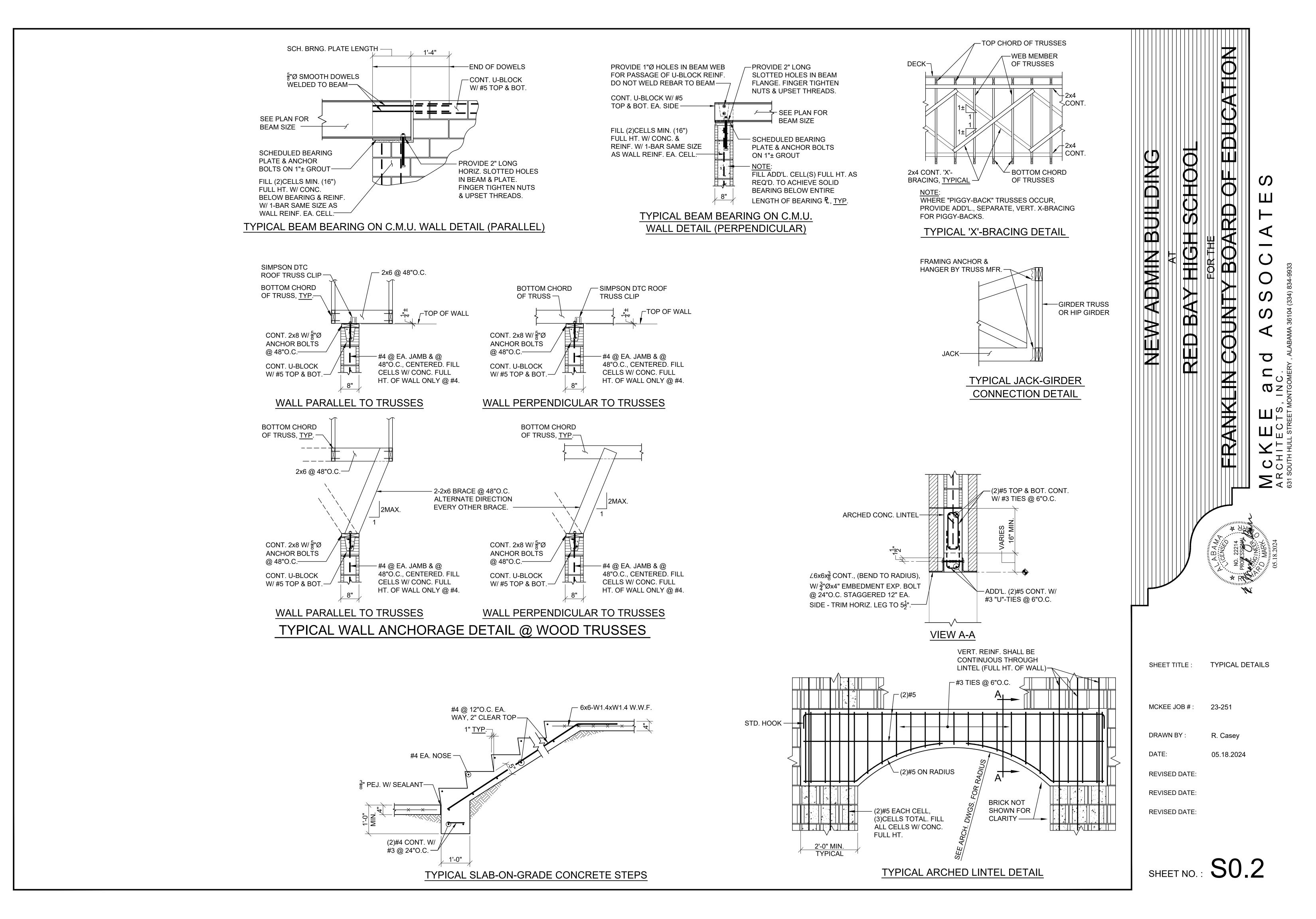
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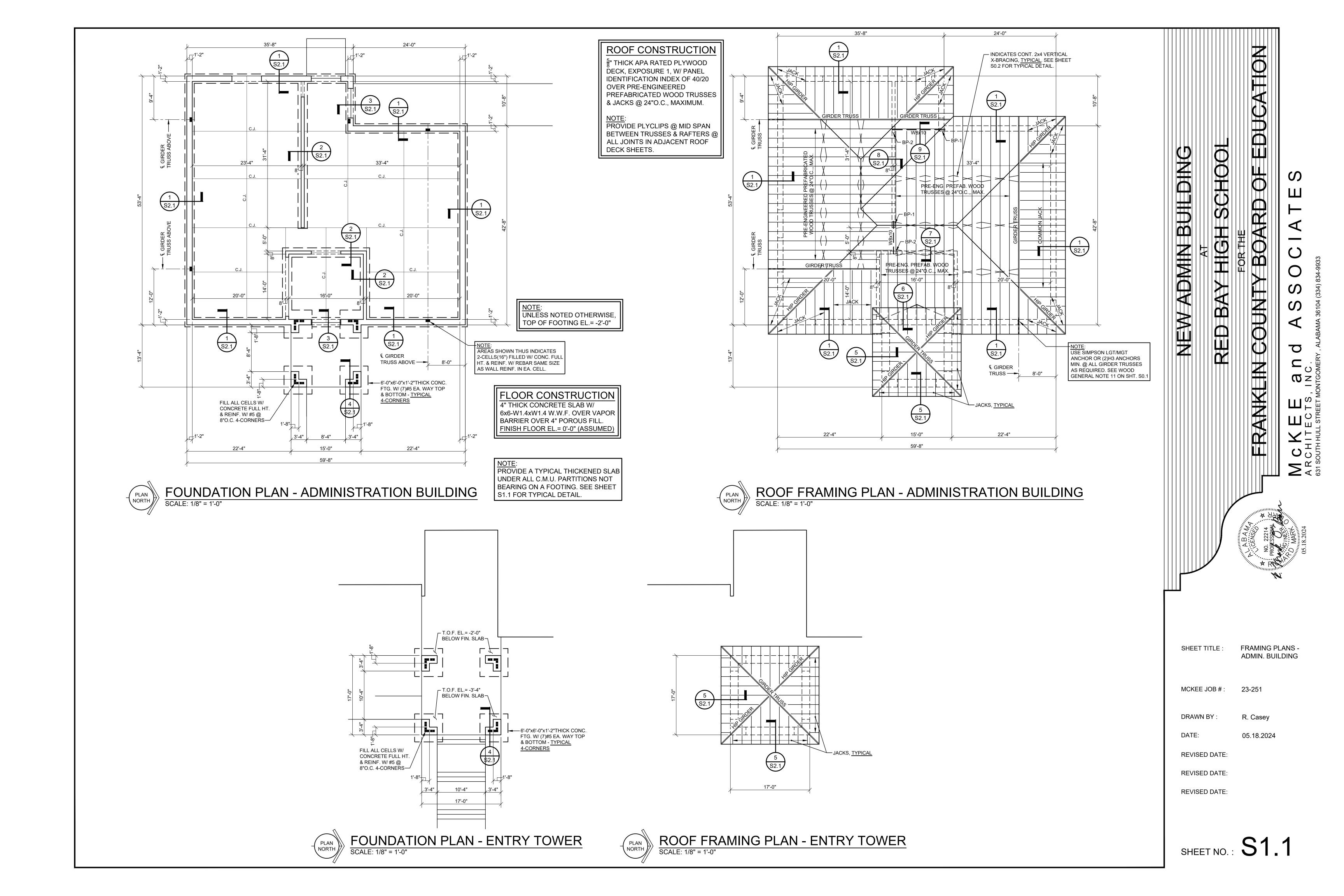
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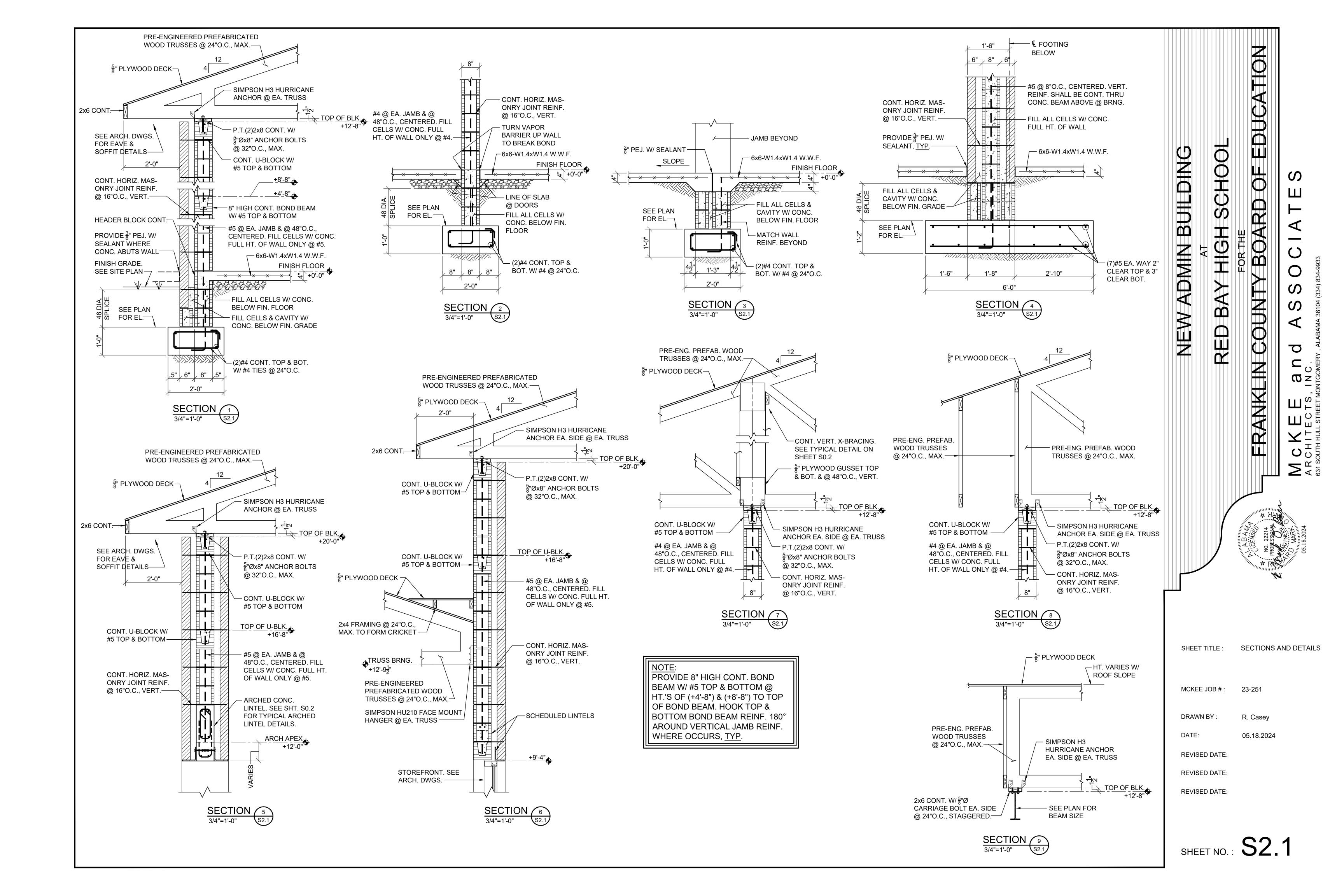
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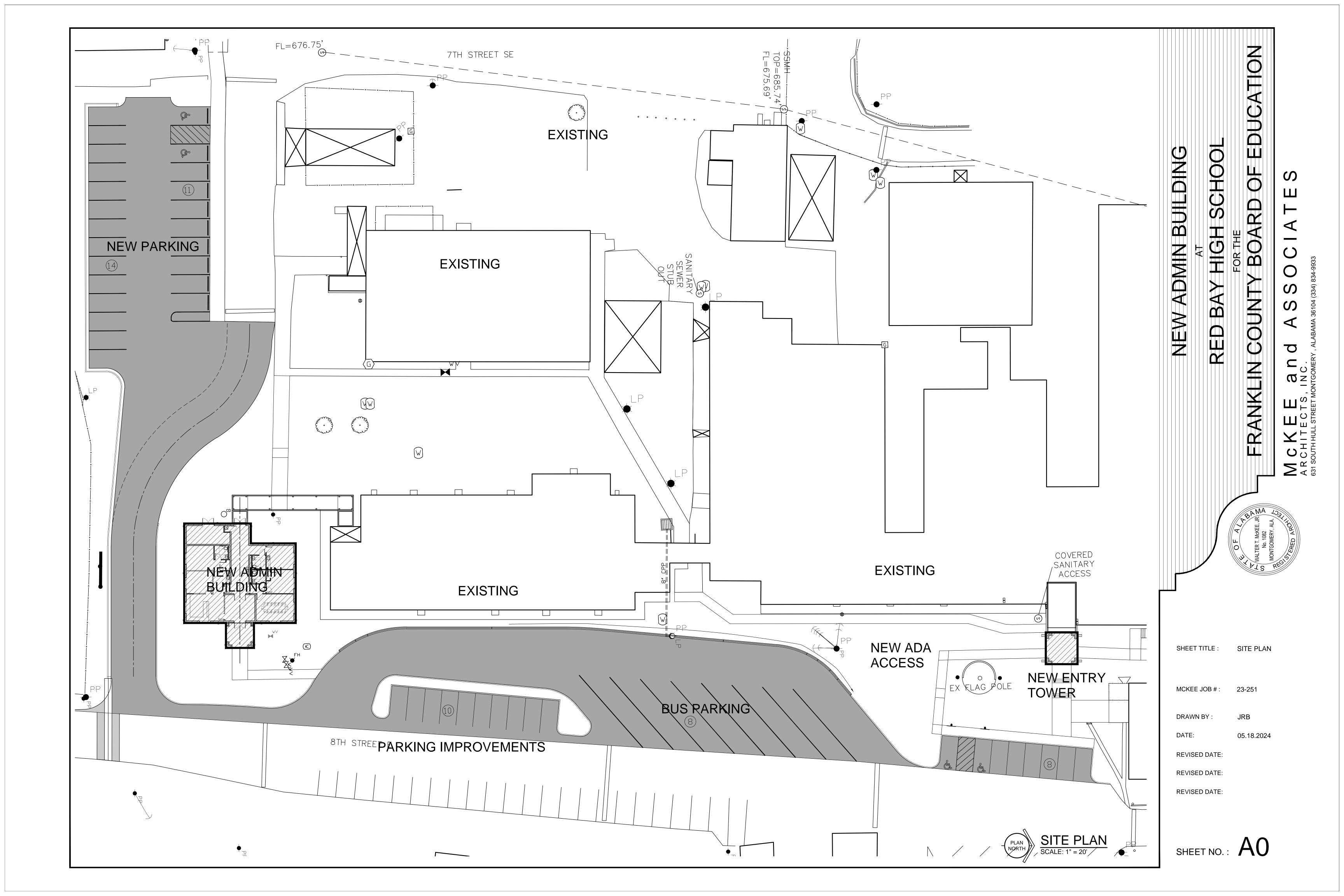
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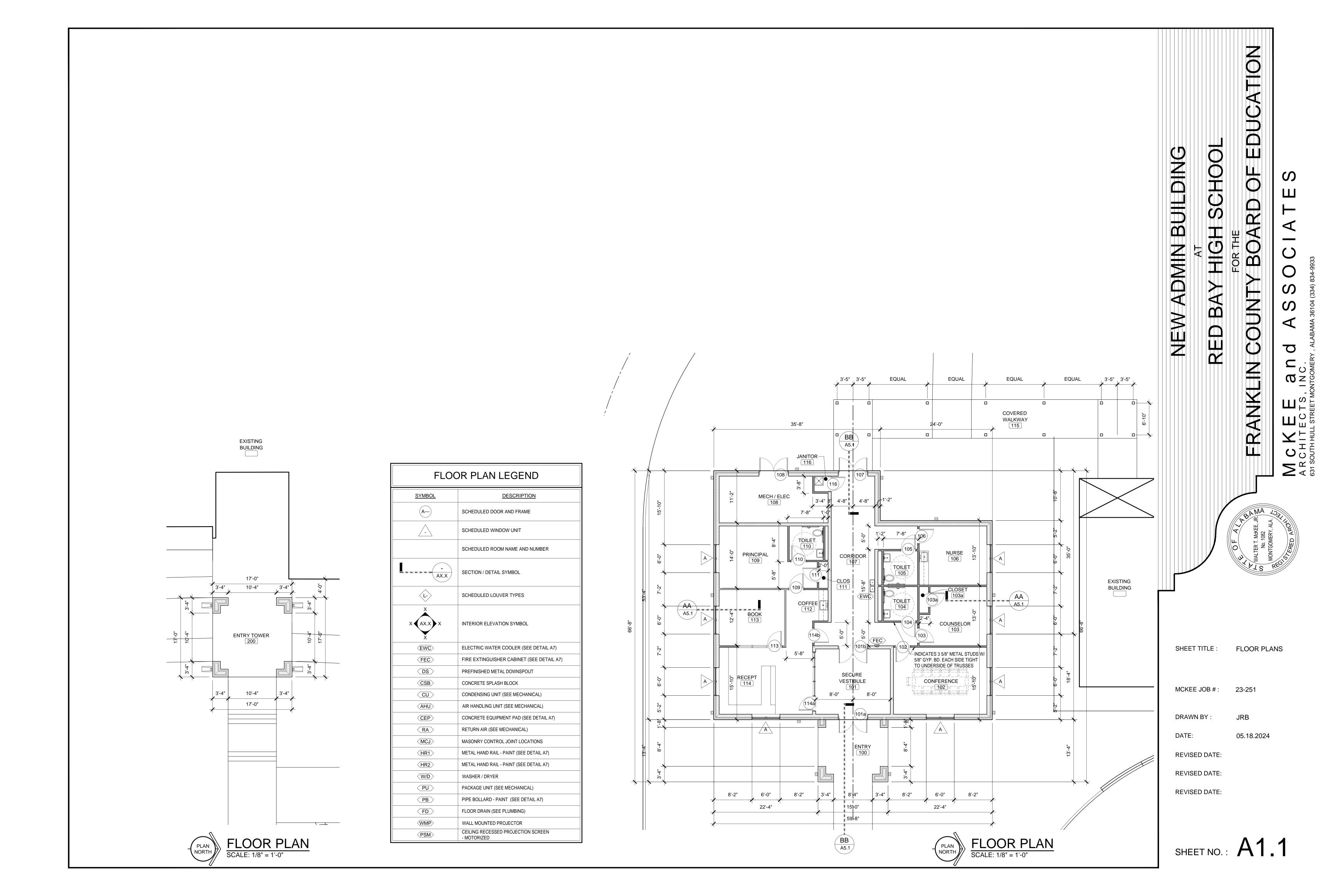
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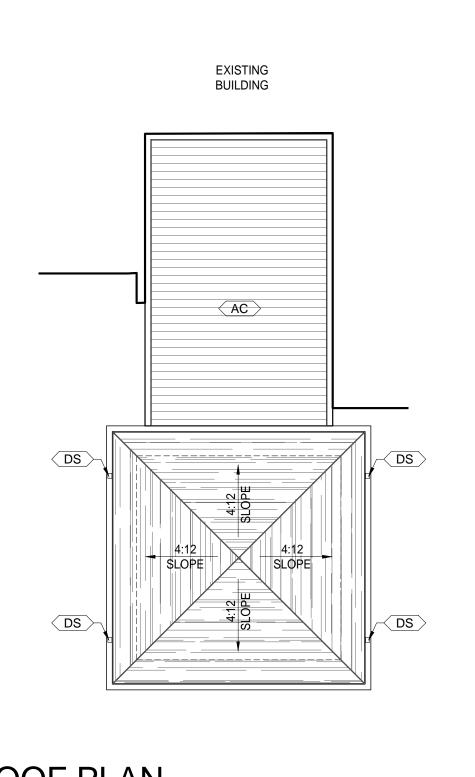


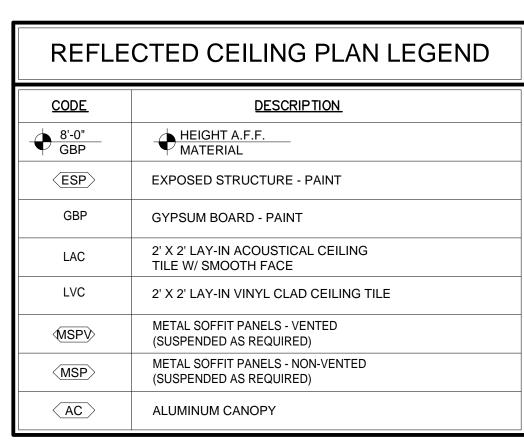








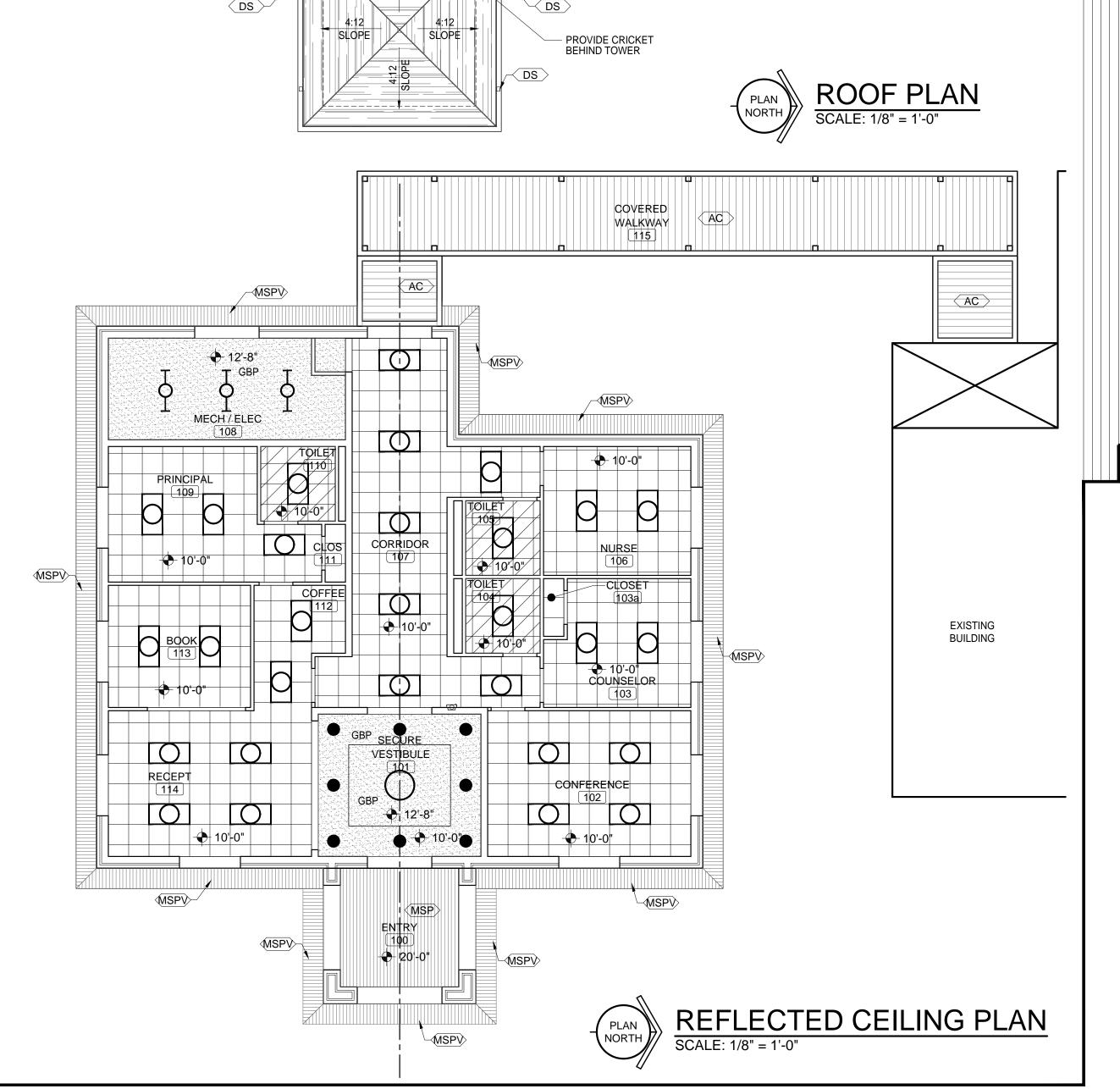


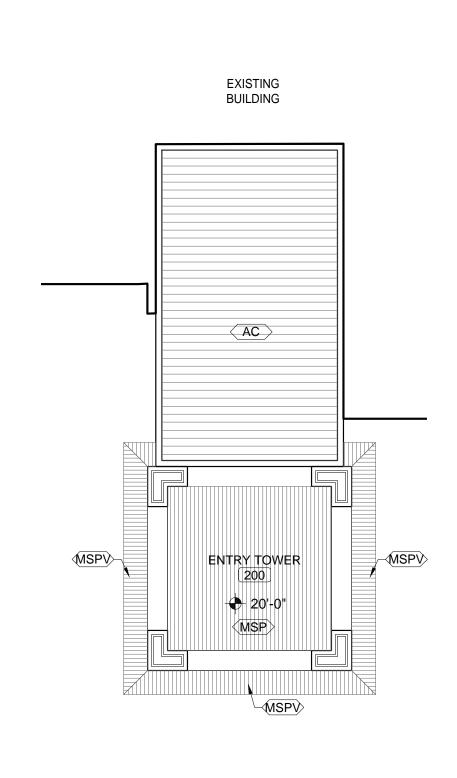


DS

DS

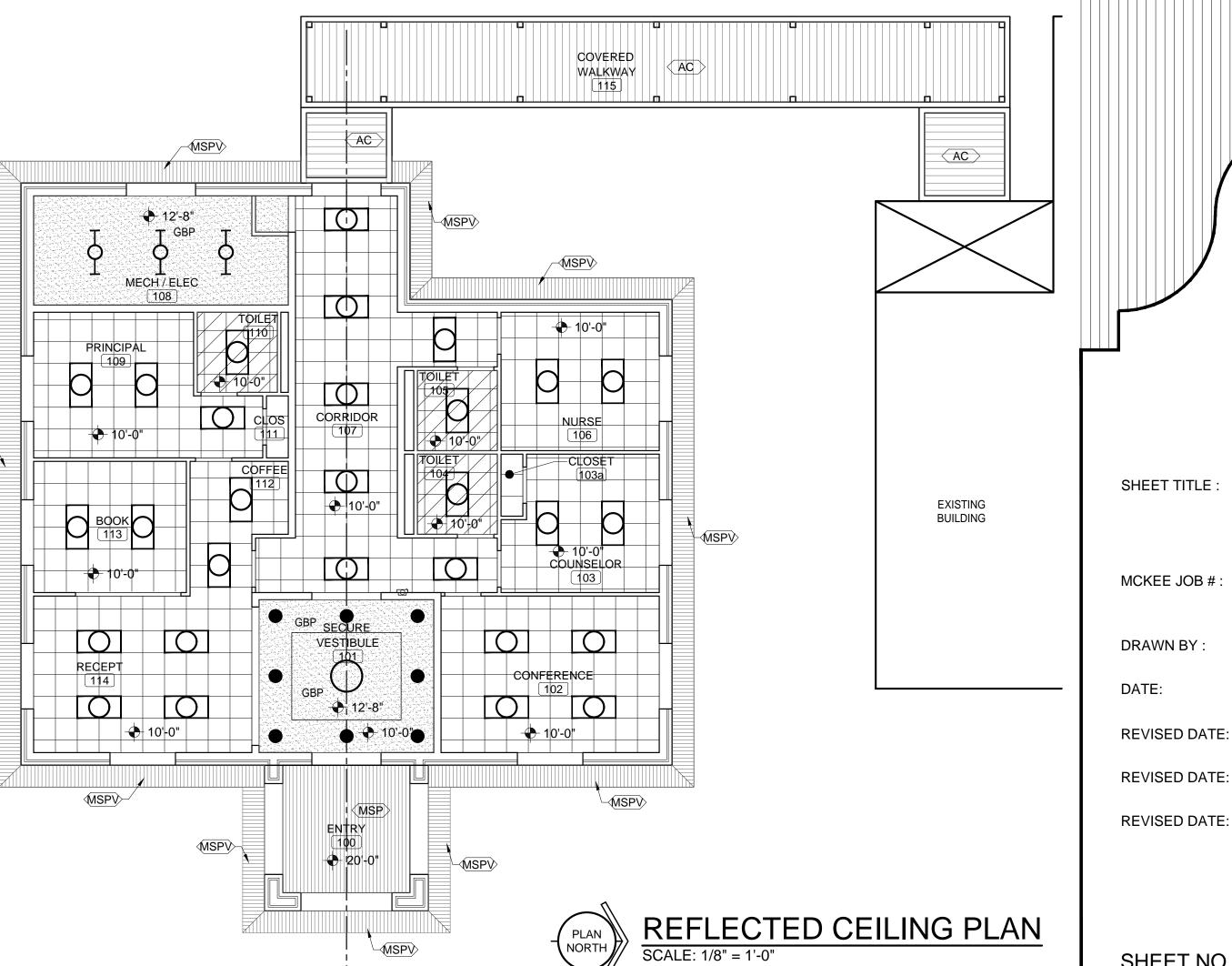
	SYMBOLS							
3 I VIDOLO								
SYMBOL	<u>DESCRIPTION</u>							
0	2'x4' RECESSED FLUORESCENT							
0	2'x4' RECESSED FLUORESCENT EMERGENCY FIXTURE							
0	LINEAR PENDANT HUNG FLUORESCENT							
0	8" RECESSED COMPACT FLUORESCENT DOWNLIGHT							
	FLUORESCENT STRIP							
	THERMOPLASTIC LED EXIT SIGN. 'W' DESIGNATES WALL MOUNTED FIXTURES							
	HVAC SUPPLY AIR							
	HVAC RETURN AIR							
	HVAC BAROMETRIC DAMPER							
	HVAC EXHAUST FAN							





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

PLAN NORTH



AC

 $\langle \mathsf{AC} \rangle$ 

EXISTING BUILDING

ADMIN BUILDING

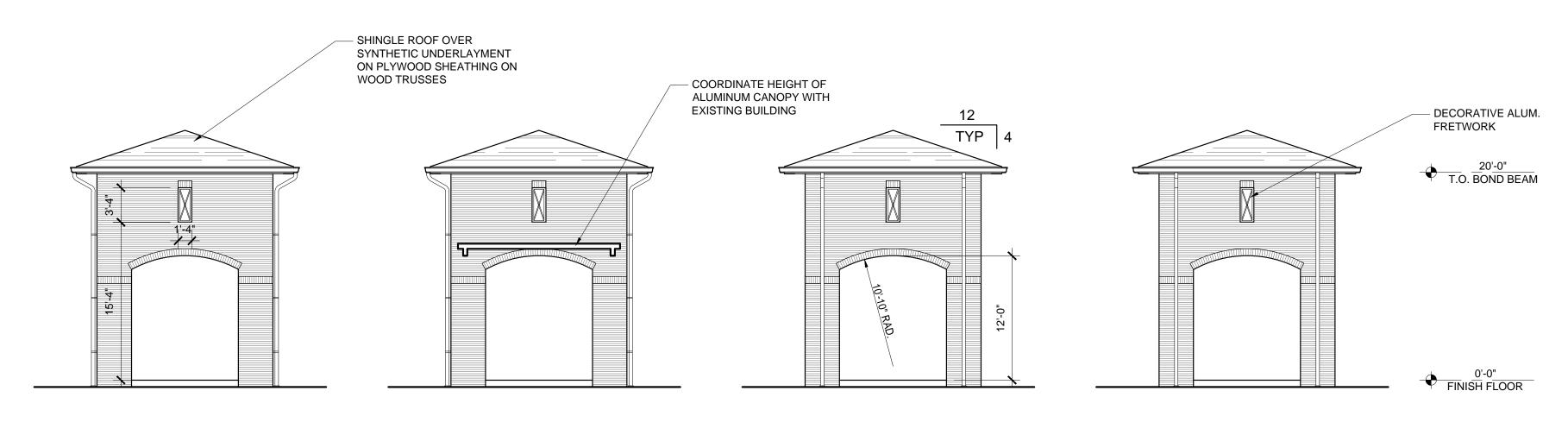
NEW

EDUCATION

REFLECTED CEILING PLAN, ROOF PLAN

23-251

05.18.2024



H EAST ELEVATION

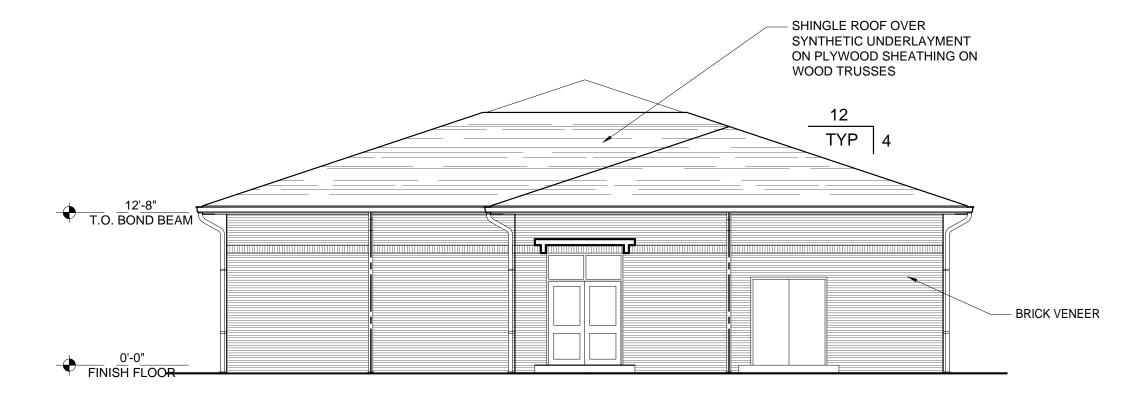
SCALE: 1/8" = 1'-0"

G WEST ELEVATION
SCALE: 1/8" = 1'-0"

F NORTH ELEVATION
SCALE: 1/8" = 1'-0"

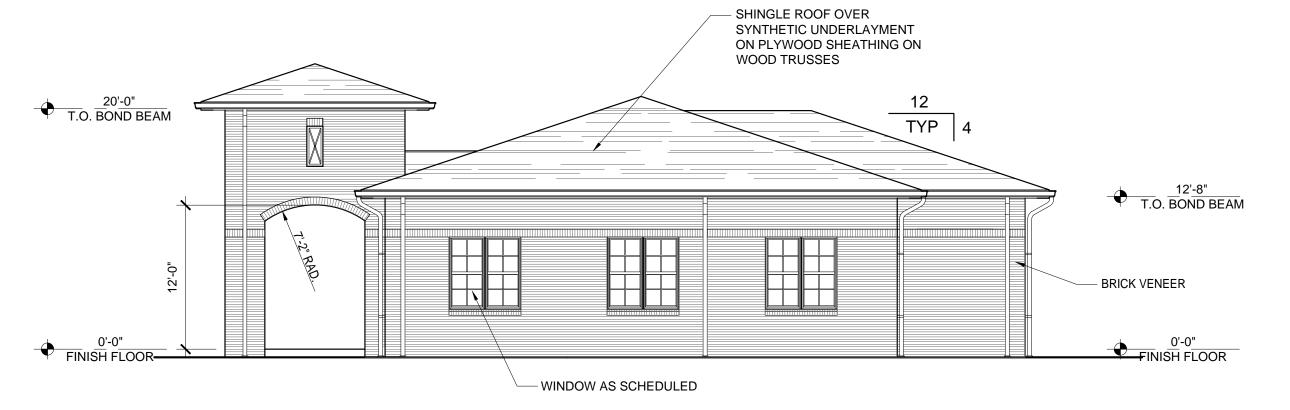
SOUTH ELEVATION

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



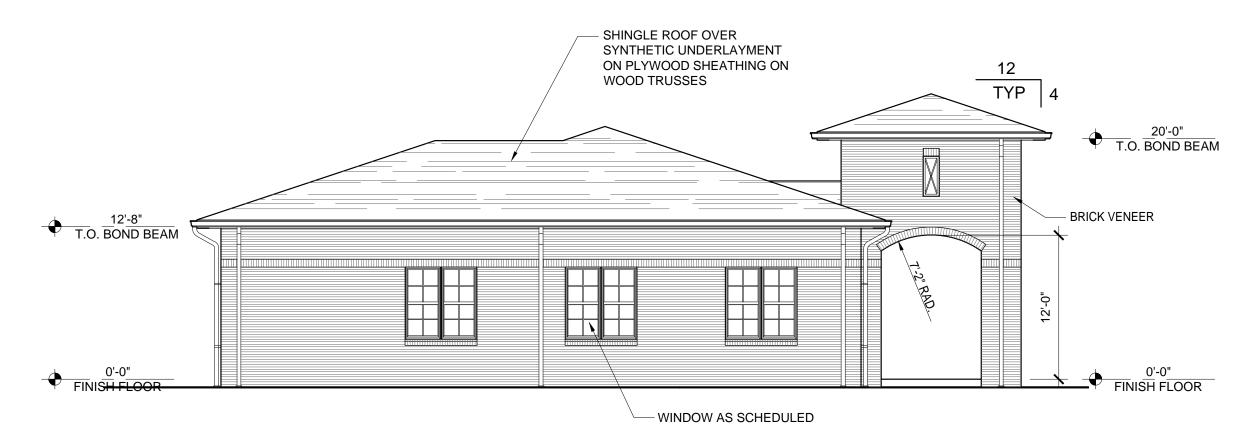
WEST EXTERIOR ELEVATION

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



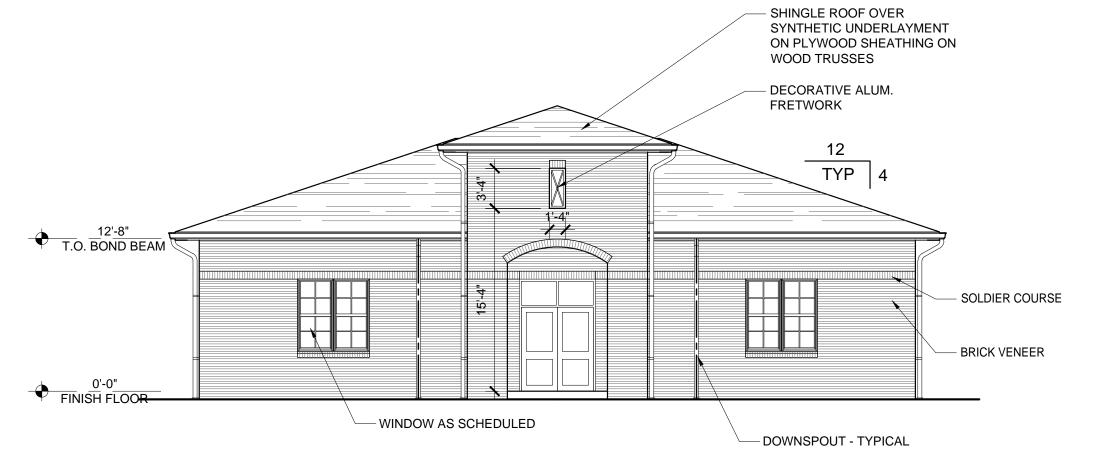
C NORTH EXTERIOR ELEVATION

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



B SOUTH EXTERIOR ELEVATION

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



A EAST EXTERIOR ELEVATION

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

SHEET TITLE: EXTERIOR ELEVATIONS

MCKEE JOB #: 23-251

DRAWN BY: JRB

DATE: 05.18.2024

REVISED DATE:

0

FRANKLIN

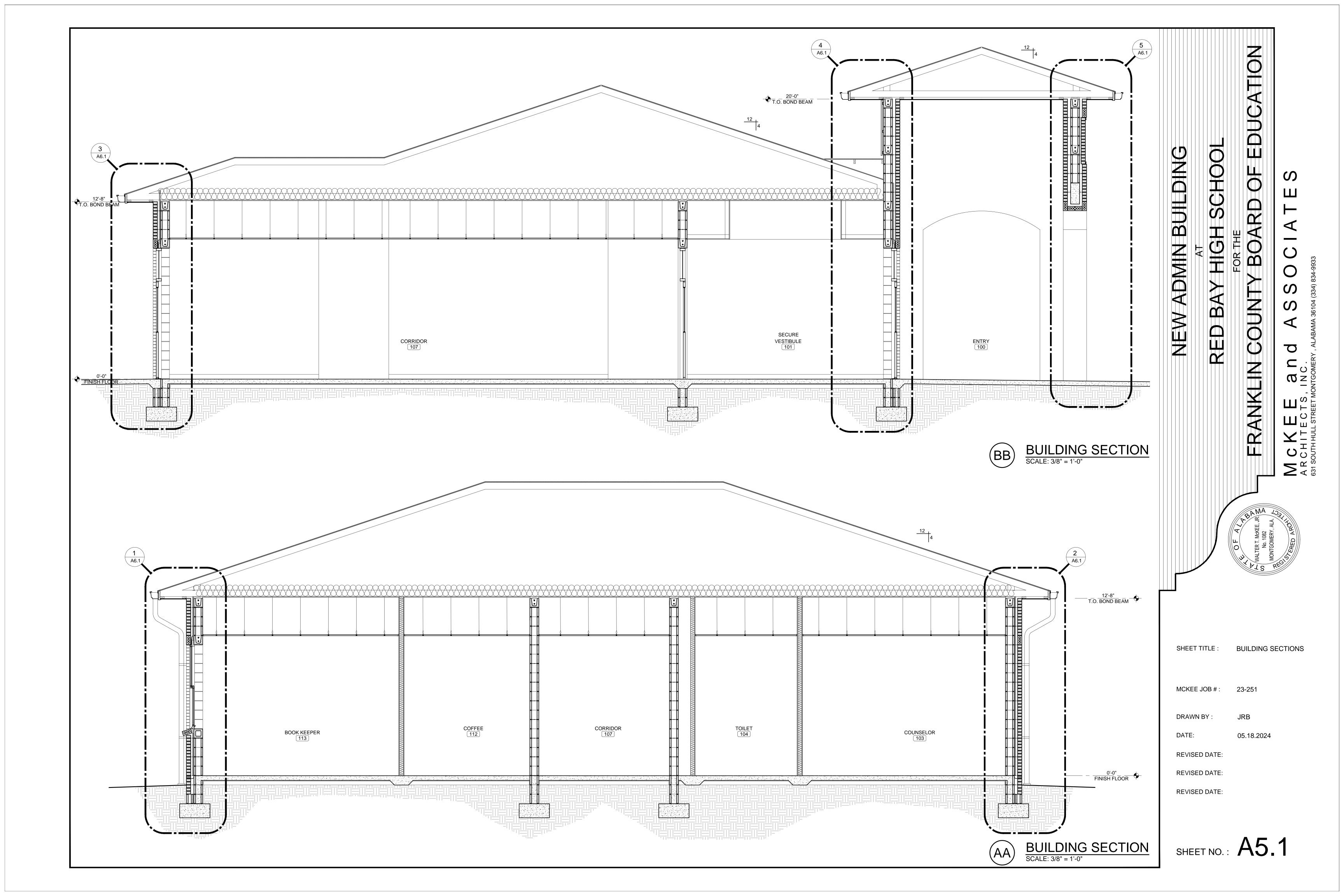
BUILDING

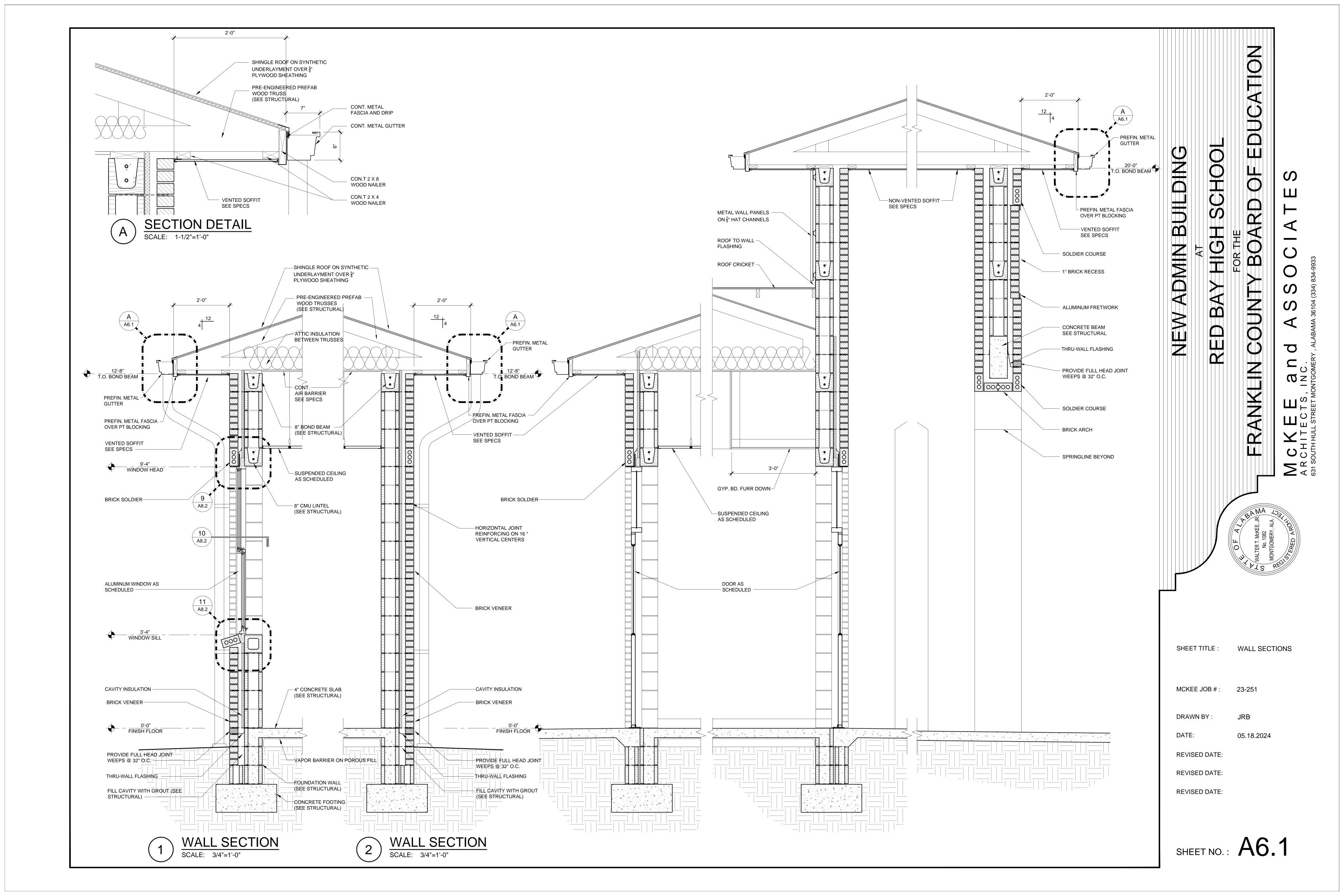
ADMIN

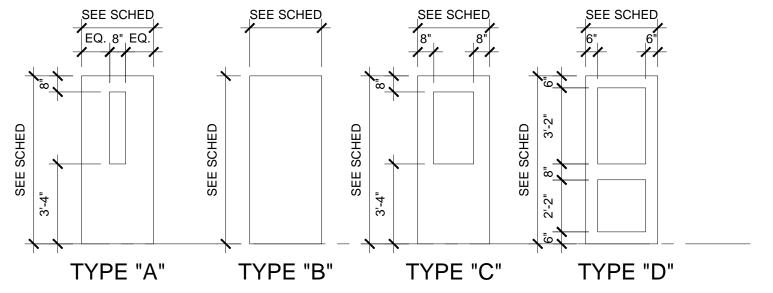
NEW

SHEET NO : A4 1

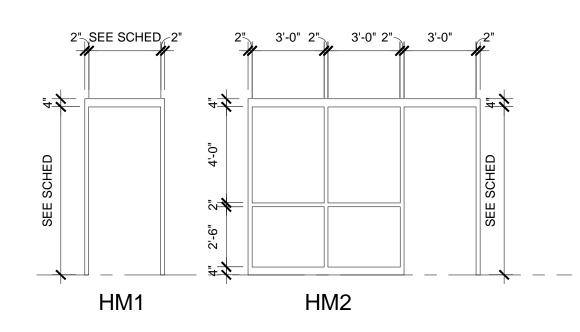
**REVISED DATE:** 



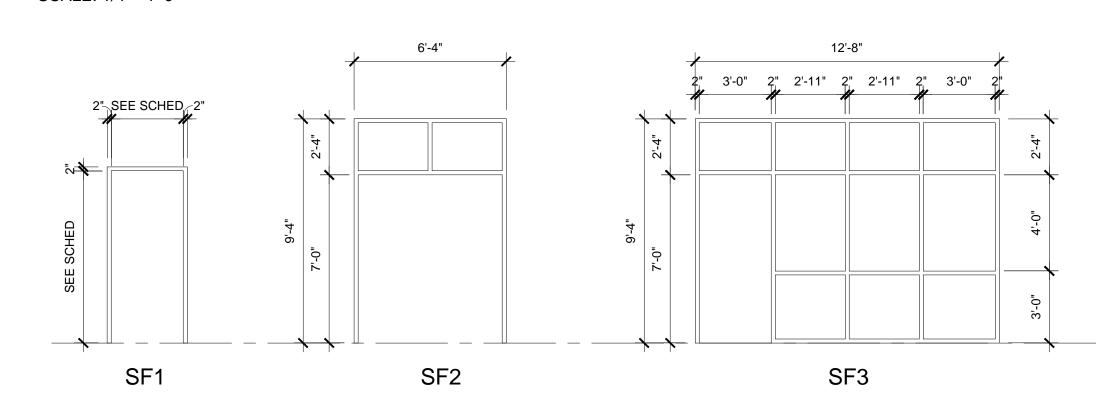




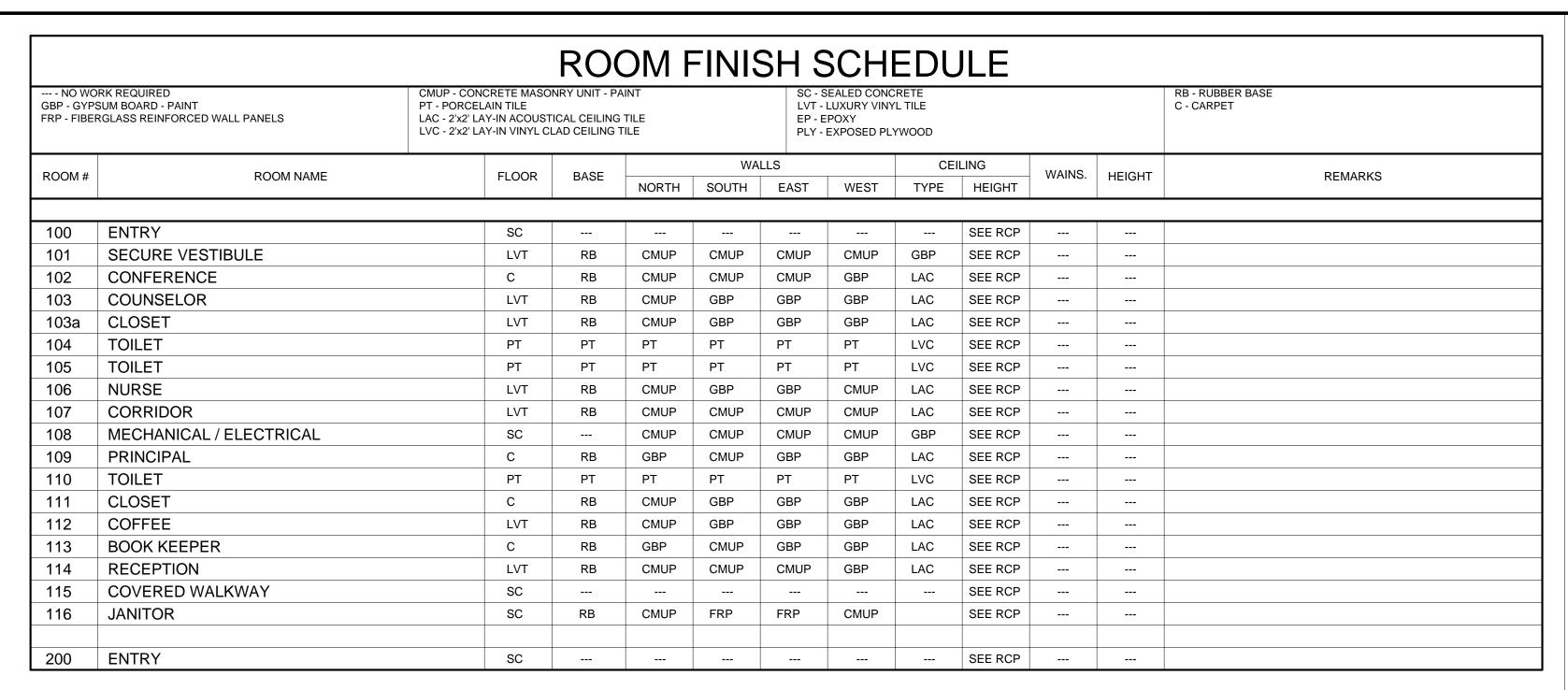
# TYPICAL DOOR TYPES SCALE: 1/4" - 1'-0"



# HOLLOW METAL FRAME TYPES SCALE: 1/4" - 1'-0"



ALUMINUM STOREFRONT FRAME TYPES SCALE: 1/4" - 1'-0"



	DOOR SCHEDULE												
DOOR#	WIDTH	HEIGHT	THICKNESS	MATERIALS	DOOR TYPE	DOOR FINISH	FRAME TYPE	FRAME FINISH	LABEL	DETA HEAD	AILS JAMB	SIGNAGE	REMARKS
101a	PAIR 3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	D	FACTORY	SF2	FACTORY					
101b	PAIR 3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	D	FACTORY	SF2	FACTORY					
102	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	Α	FACTORY	HM1	PAINT				CONFERENCE	
103	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	Α	FACTORY	HM1	PAINT				COUNSELOR	
103a	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	В	FACTORY	HM1	PAINT					
104	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	В	FACTORY	HM1	PAINT				TOILET	
105	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	В	FACTORY	HM1	PAINT				TOILET	
106	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	А	FACTORY	HM1	PAINT				NURSE	
107	PAIR 3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	D	FACTORY	SF2	FACTORY					
108	PAIR 3'-0"	7'-2"	1 3/4"	FRP	В	FACTORY	SF1	FACTORY				MECHANICAL / ELECTRICAL	
109	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	Α	FACTORY	HM1	PAINT				PRINCIPAL	
110	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	В	FACTORY	HM1	PAINT				TOILET	
111	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	В	FACTORY	HM1	PAINT				CLOSET	
113	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	С	FACTORY	HM2	PAINT				BOOK KEEPER	
114a	3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	D	FACTORY	SF3	FACTORY				RECEPTION	
114b	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	С	FACTORY	HM1	PAINT				RECEPTION	
116	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	В	FACTORY	HM1	PAINT				JANITOR	

# **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.

# **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"

# **SIGN MOUNTING HEIGHT**

703.4.1 HEIGHT ABOVE FINISH FLOOR OF 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  $\frac{3}{16}$  INCHES (4.8 mm) MINIMUM AND SHALL BE LOCATED EITHER DIRECTLY BELOW OR ADJACENT TO THE CORRESPONDING RAISED CHARACTERS OR SYMBOLS.

A8.2

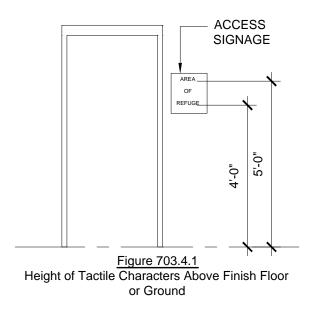
SCALE: 1/4" - 1'-0"

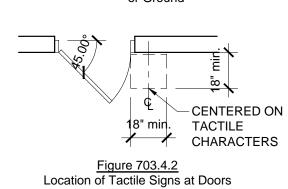
ALUMINUM

SINGLE HUNG

TYPICAL WINDOW TYPES

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.





SCHEDULES

DING

MCKEE JOB #: 23-251

JRB DRAWN BY:

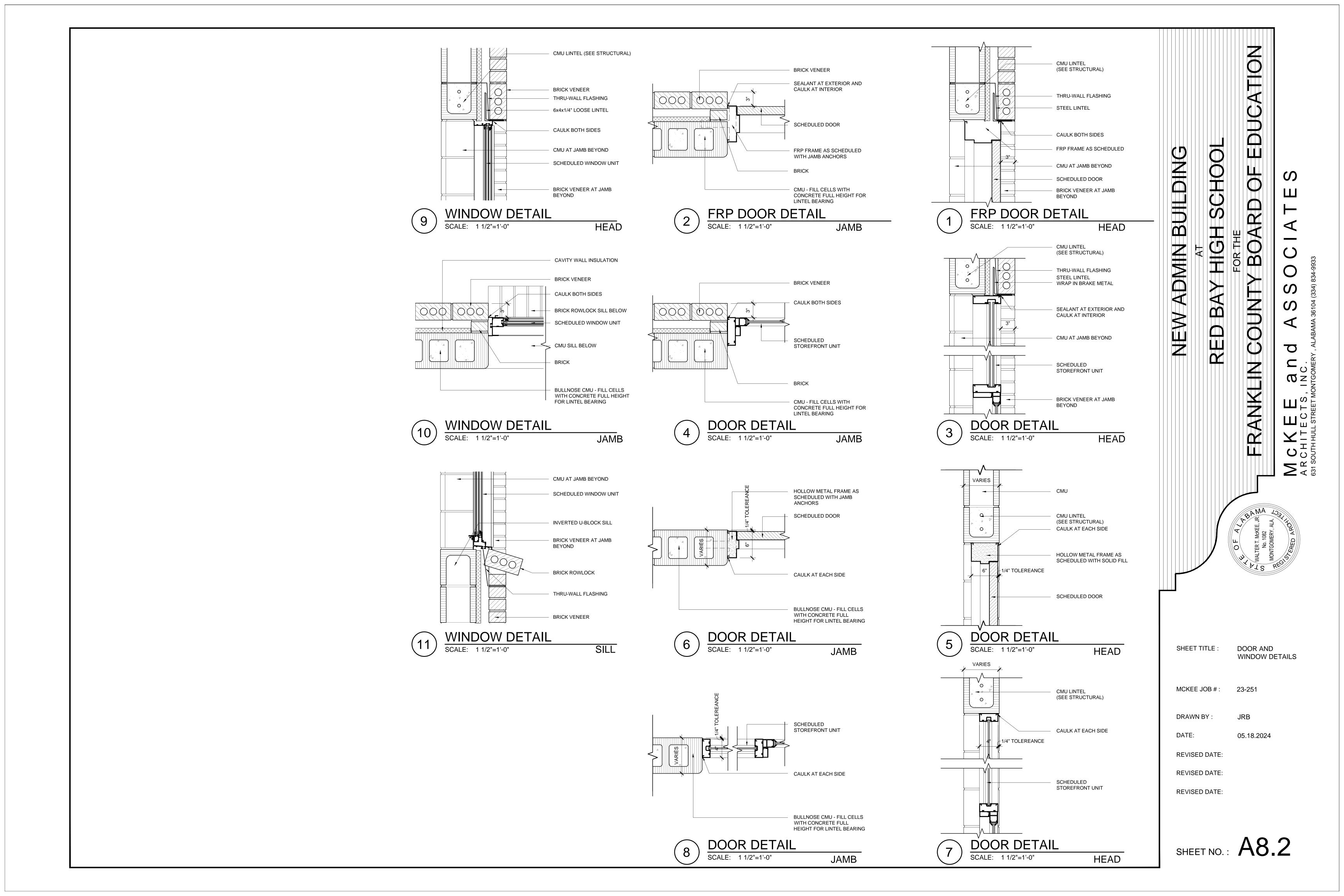
DATE: 05.18.2024

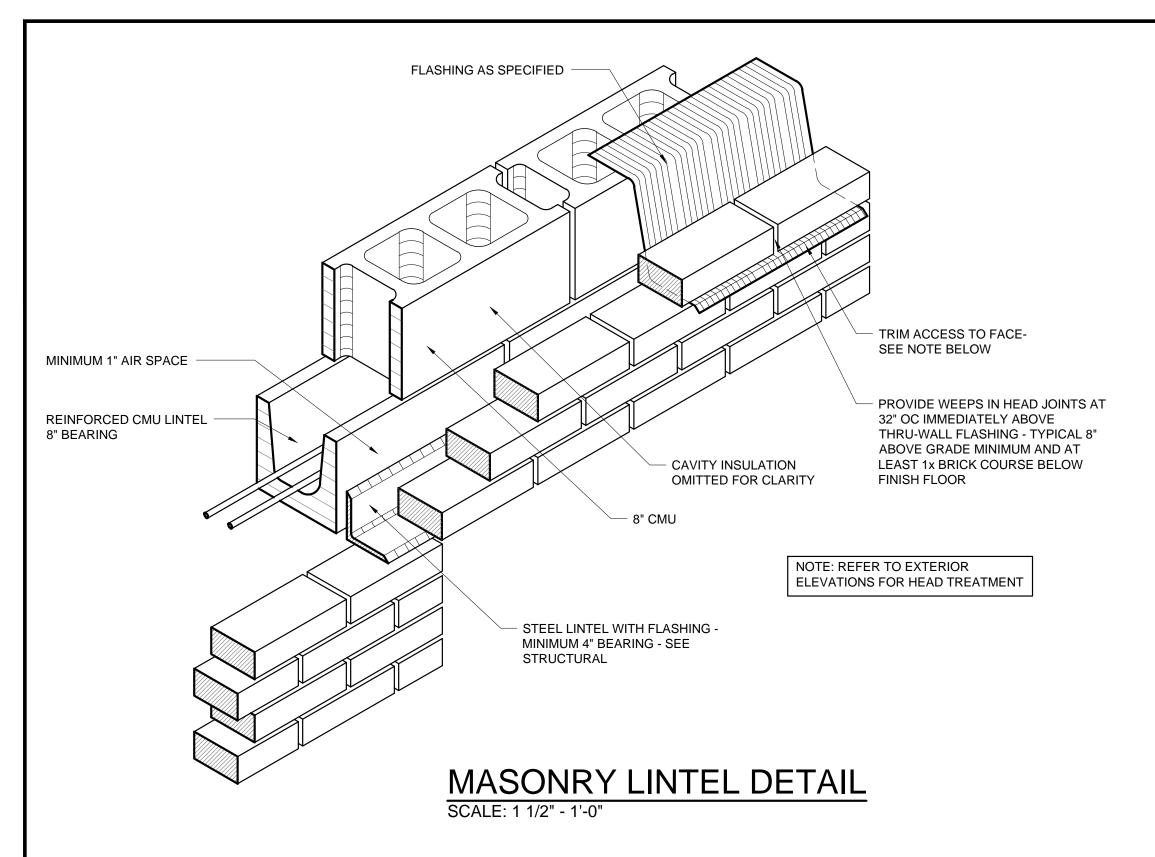
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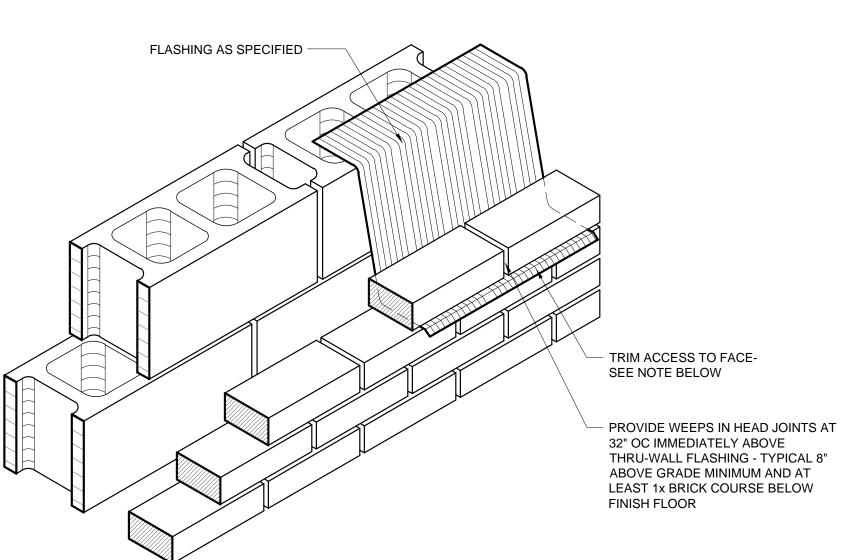
**REVISED DATE:** 

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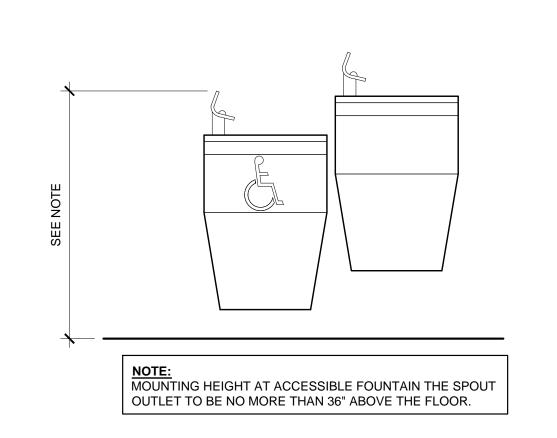




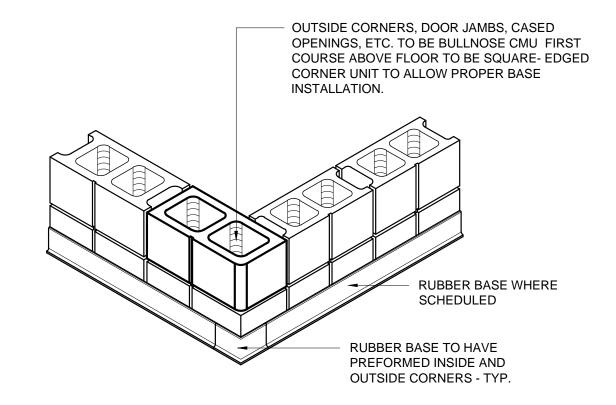


NOTE: BRICK INSTITUTE OF AMERICA TECHNICAL NOTE # 7 STATES THAT ALL FLASHING MUST EXTEND PAST THE EXTERIOR FACE OF THE MASONRY OR BE CUT FLUSH WITH THE EXTERIOR MASONRY. CUT FABRIC TYPE FLASHING FLUSH WITH THE EXTERIOR FACE OF MASONRY AFTER BEING LEFT EXPOSED FOR INSPECTION PURPOSES ONLY.

# THRU-WALL FLASHING DETAIL SCALE: 1 1/2" - 1'-0"

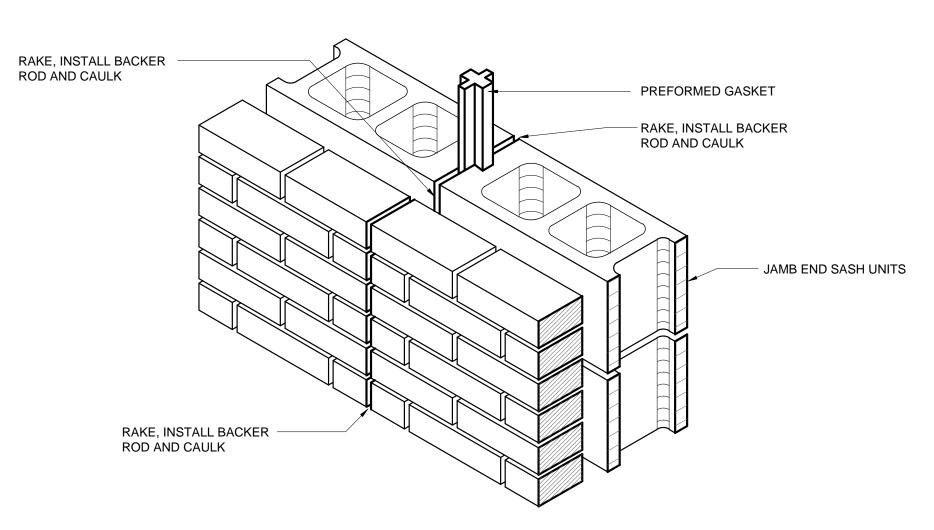


# ELECTRIC WATER COOLER (EWC) SCALE: 1 1/2" - 1'-0"

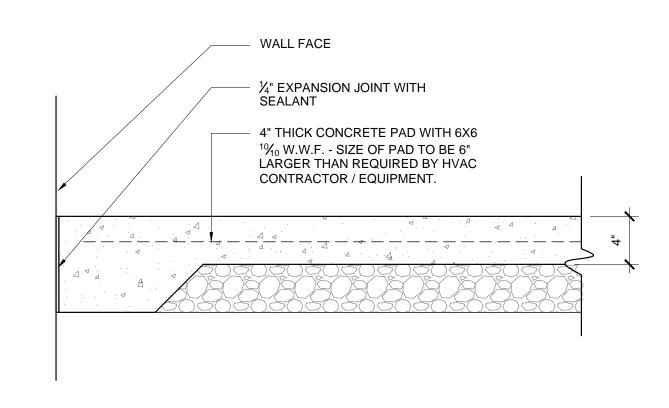


RUBBER BASE DETAIL

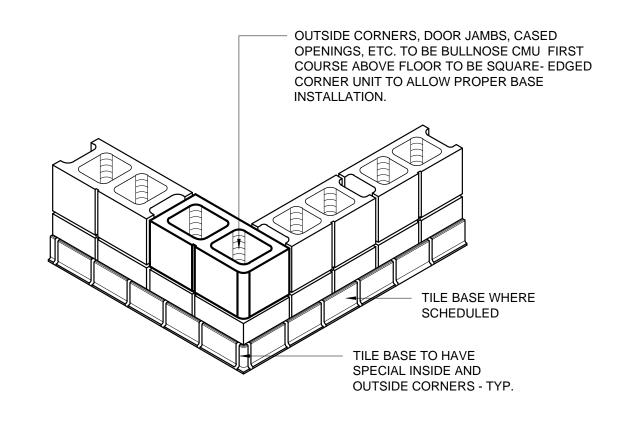
SCALE: 3/4" - 1'-0"



MASONRY CONTROL JOINT DETAIL (MCJ)
SCALE: 1 1/2" - 1'-0"

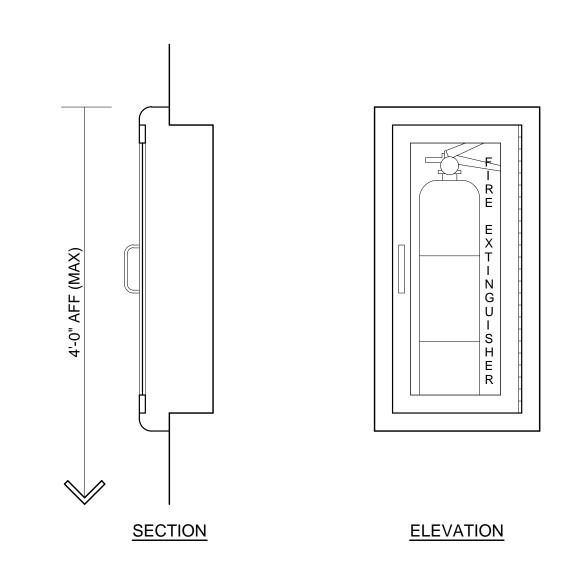


# HVAC EQUIPMENT PAD (CEP) SCALE: 1 1/2" - 1'-0"



HARD TILE DETAIL

SCALE: 3/4" - 1'-0"



FIRE EXTINGUISHER CABINET (FEC)

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

SHEET TITLE: MISCELLANEOUS DETAILS

MCKEE JOB #: 23-251

DRAWN BY: JRB

DATE: 05.18.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

REVISED DATE:

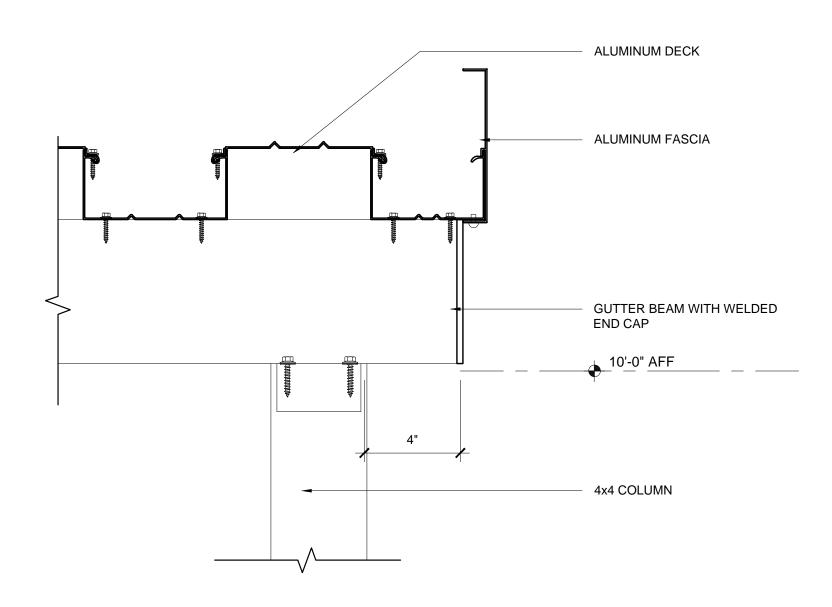
REVISED DATE:

BUILDING

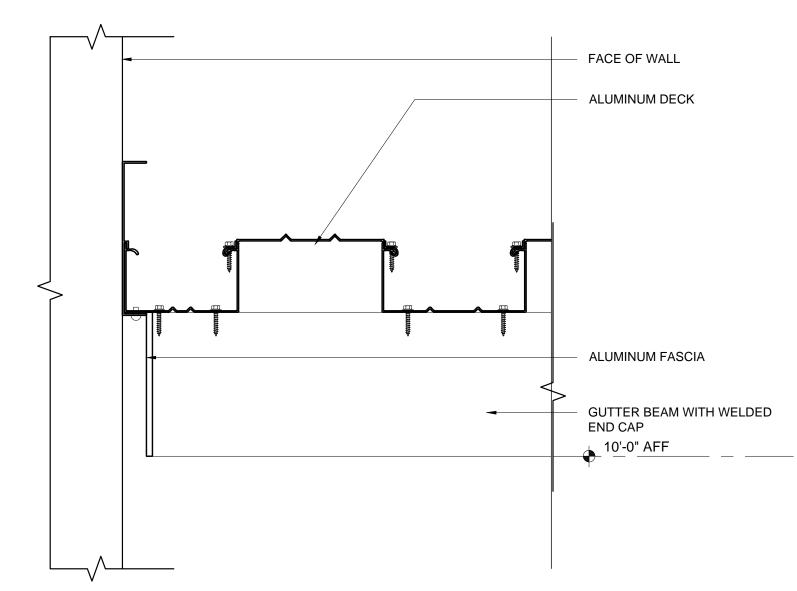
ADMIN

NEW

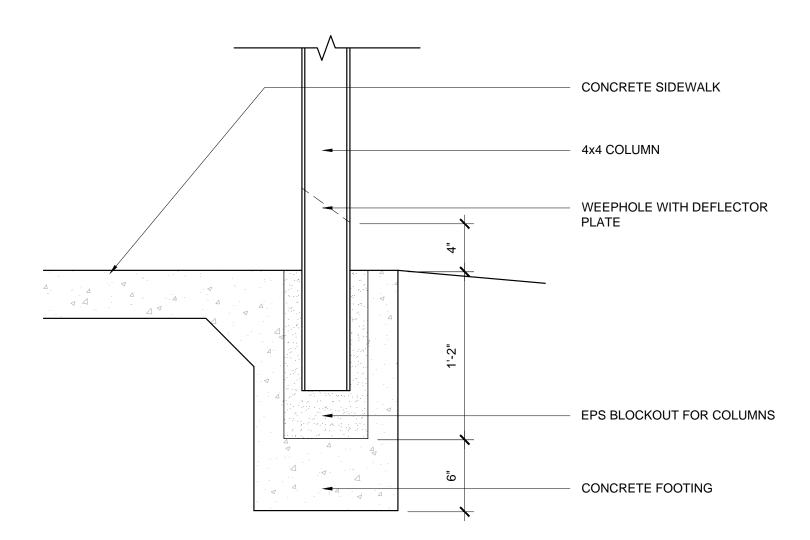
SHEET NO : A9 1



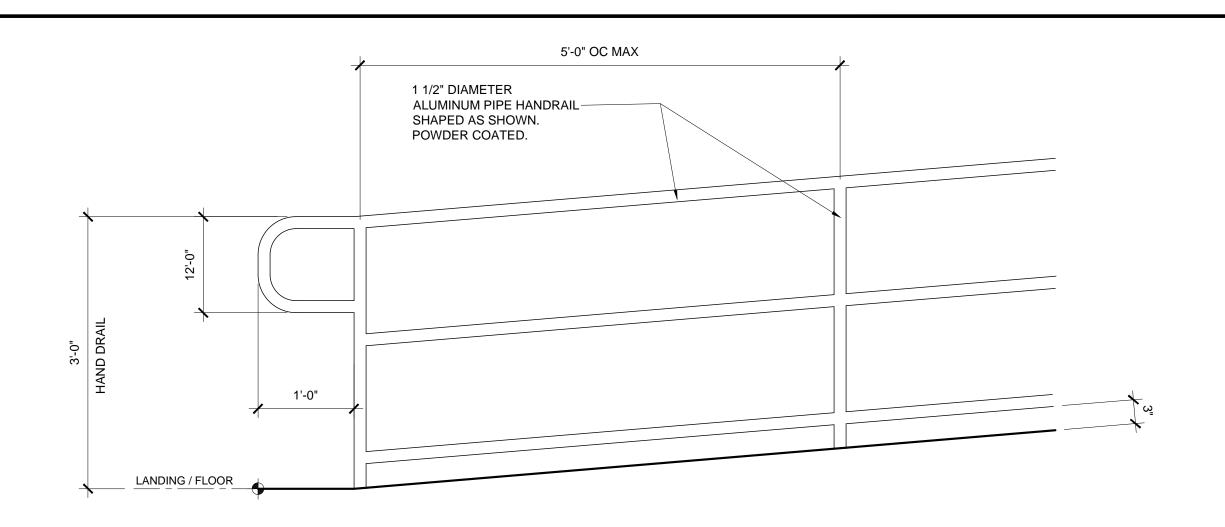
# CANOPY EDGE SCALE: 3" - 1'-0"



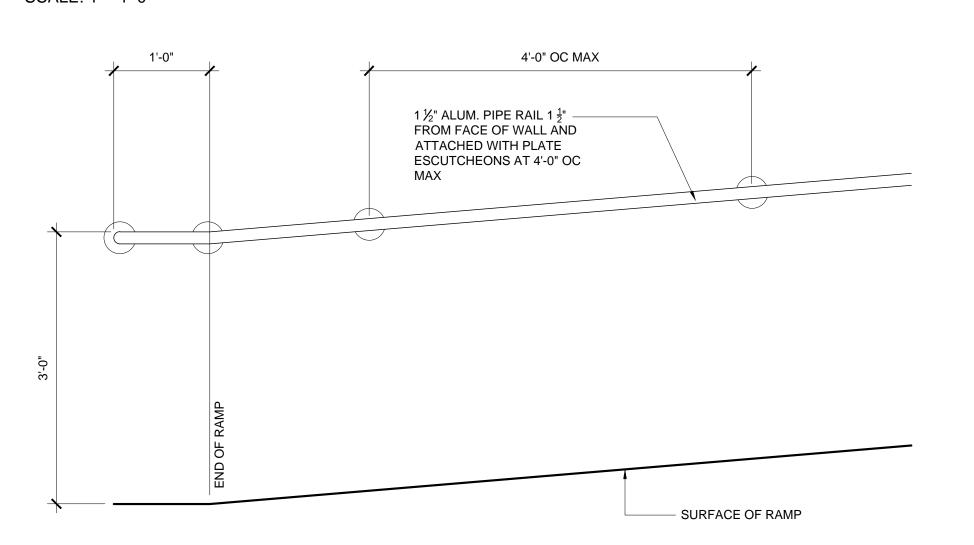
# CANOPY WALL ATTACHMENT



# CANOPY FOOTING SCALE: 1 1/2" - 1'-0"



# METAL HANDRAIL AT EDGE OF RAMP (HR) SCALE: 1" - 1'-0"



WALL MOUNTED HANDRAIL AT RAMP (WHR)
SCALE: 1" - 1'-0"

CODE NOTES:

OF THE RAMP.

**GENERAL NOTES:** 

1) HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION WITH AN OUTSIDE DIAMETER

OF AT LEAST 1-1/4 INCHES AND NOT MORE THAN 2 INCHES (IBC SEC 1014.3.1).

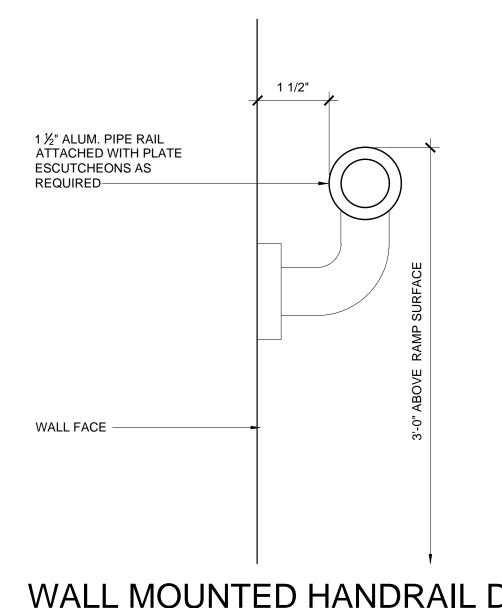
2) WALL HANDRAILS SHALL BE RETURNED TO THE WALL. THEY SHALL EXTEND HORIZONTALLY, AT THE REQUIRED HEIGHT, AT LEAST 12 INCHES BEYOND THE TOP

1) ALL HANDRAILS AND GUARDRAILS ARE TO BE CONSTRUCTED TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND THE INTERNATIONAL BUILDING CODE.

3) FIELD VERIFY ALL CONDITIONS PRIOR TO FABRICATION. AT ALL TRANSITIONS WITH THE

FLOOR, PROVIDE ESCUTCHEONS OF THE SAME MATERIAL FOR CRAFTED APPEARANCE.

2) PRIME AND PAINT ALL EXPOSED STEEL OF METAL STAIRS AND RAILS.



WALL MOUNTED HANDRAIL DETAIL
SCALE: 6" - 1'-0"

MISCELLANEOUS DETAILS

23-251 MCKEE JOB #:

BUILDING

ADMIN

NEW

JRB DRAWN BY

05.18.2024 DATE:

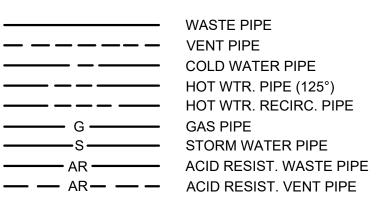
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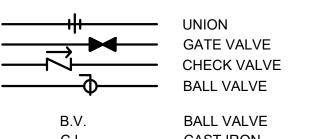
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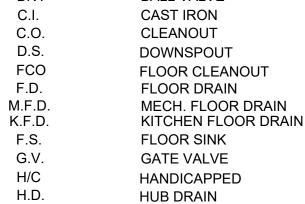
PLU	PLUMBING FIXTURE SCHEDULE								
NO.	FIXTURE	WASTE	C.W.	H.W.	REMARKS				
P1	ADA WATER CLOSET	3"	1"		FL. MTD ADA				
P2	ADA LAVATORY **	1 1/4"	1/2"	1/2"	WALL HUNG - SEE ARCH. PLANS FOR MOUNTING HEIGHT				
P3	MOP BASIN	3"	1/2"	1/2"	FL. MTD. CORNER TYPE				
P4	SPLIT LEVEL EWC	1 1/2"	1/2"		WALL HUNG - HIGH/LOW				
P5	ADA SINK	1 1/2"	1/2"	1/2"	1-COMP. MTD. IN COUNTER				
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



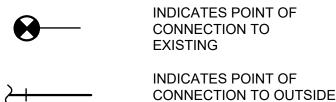






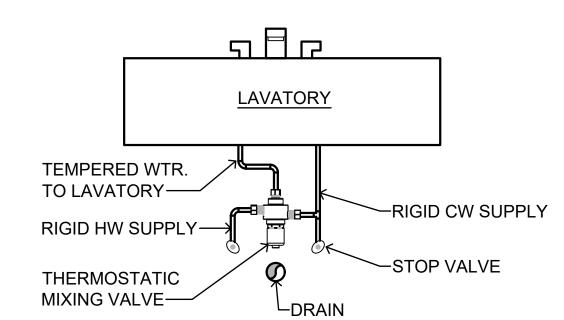
WASTE AND VENT

UTILITY. SEE CIVIL DWGS..

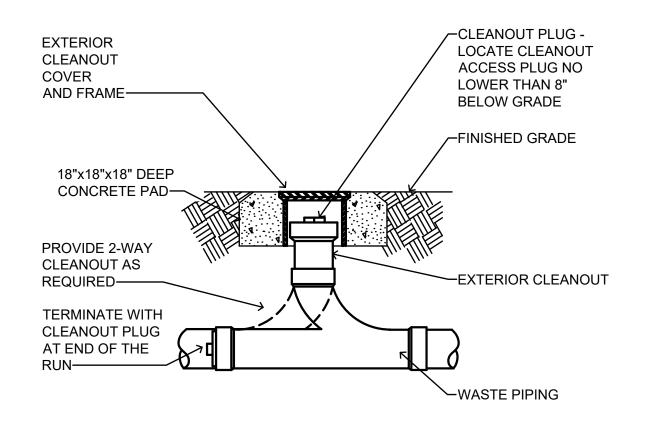


W&V

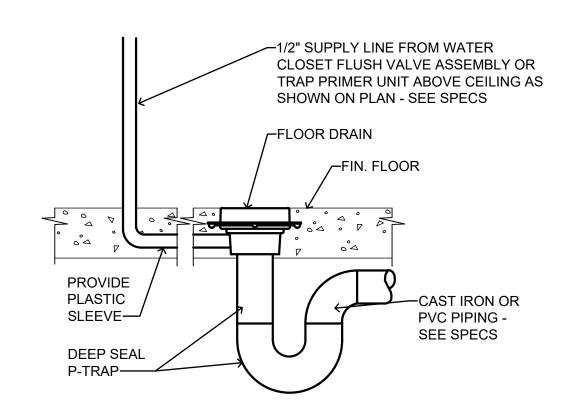
NO SCALE



DETAIL OF TMV BELOW LAVATORY

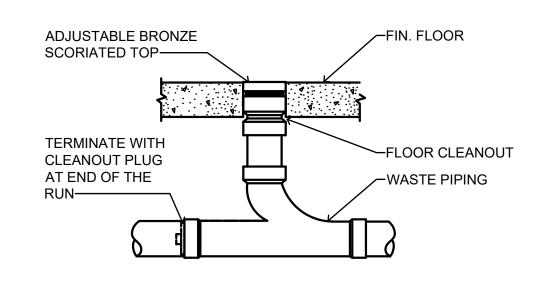


# TYP. EXTERIOR CLEANOUT DETAIL NO SCALE

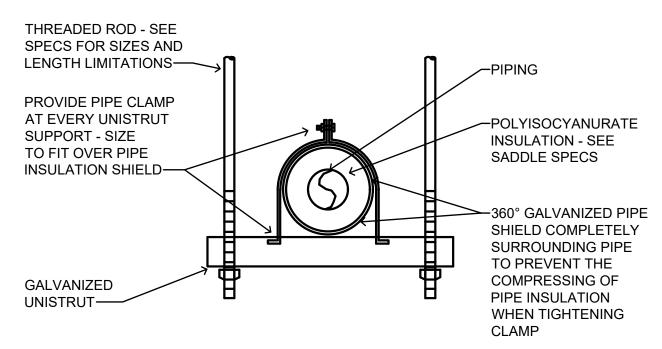


# TRAP PRIMER DETAIL

NO SCALE

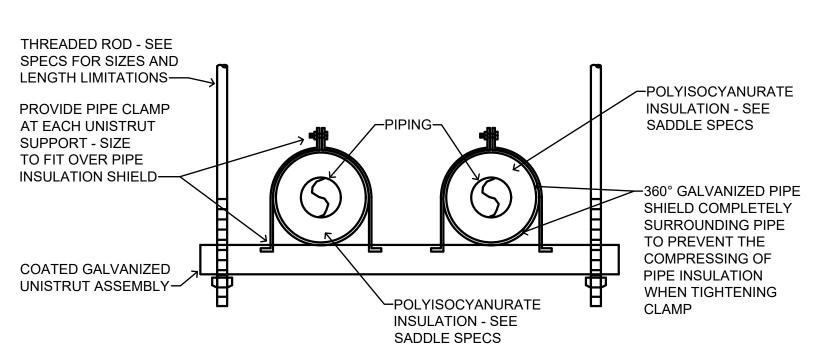


TYP. INTERIOR FLOOR CLEANOUT DETAIL



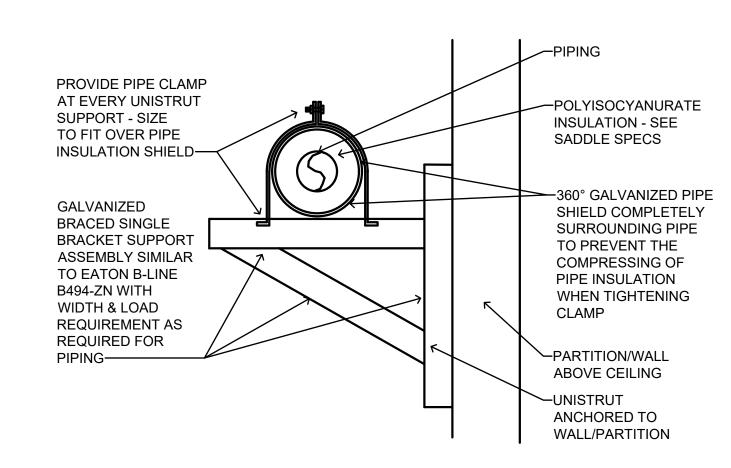
# TYPICAL UNISTRUT HANGER DETAIL

NO SCALE



# TYPICAL MULTIPLE PIPES HANGER DETAIL

NO SCALE



# TYPICAL HORIZONTAL UNISTRUT PIPING SUPPORT DETAIL AT ABOVE CEILING PARTITION

NOTES:

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.

# **GENERAL PLUMBING NOTES**

- ROUGH IN WATER CLOSET AND URINAL FLUSH VALVE SO THAT THE FLUSH TUBE IS VERTICALLY STRAIGHT.
- 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
- 7. ALL WATER PIPING WITHIN MASONRY WALLS SHALL BE INSULATED AS SPECIFIED.

INSULATION ENVELOPE.

- 8. ALL WATER PIPING INSTALLED IN EXTERIOR WALLS SHALL BE LOCATED ON THE INTERIOR (WARM) SIDE OF THE BUILDING EXTERIOR WALL INSULATION
  - 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.

ZGOUVAS, EIRING & ASSOCIATES
CONSULTING ENGINEERS
800 S McDONOUGH STREET
MONTGOMERY, AL. 36104
334.263.4406

NEW ADMIN BUIL

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FOR THE

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FOR THE

MCKEE and ASSOCIATI

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

SHEET TITLE : PLBG. SCHEDULES, NOTES & DETAILS

MCKEE JOB # : 23-251

DRAWN BY: C. WARD
CHECKED BY: T. ZGOUVAS

DATE: 05.18.2024

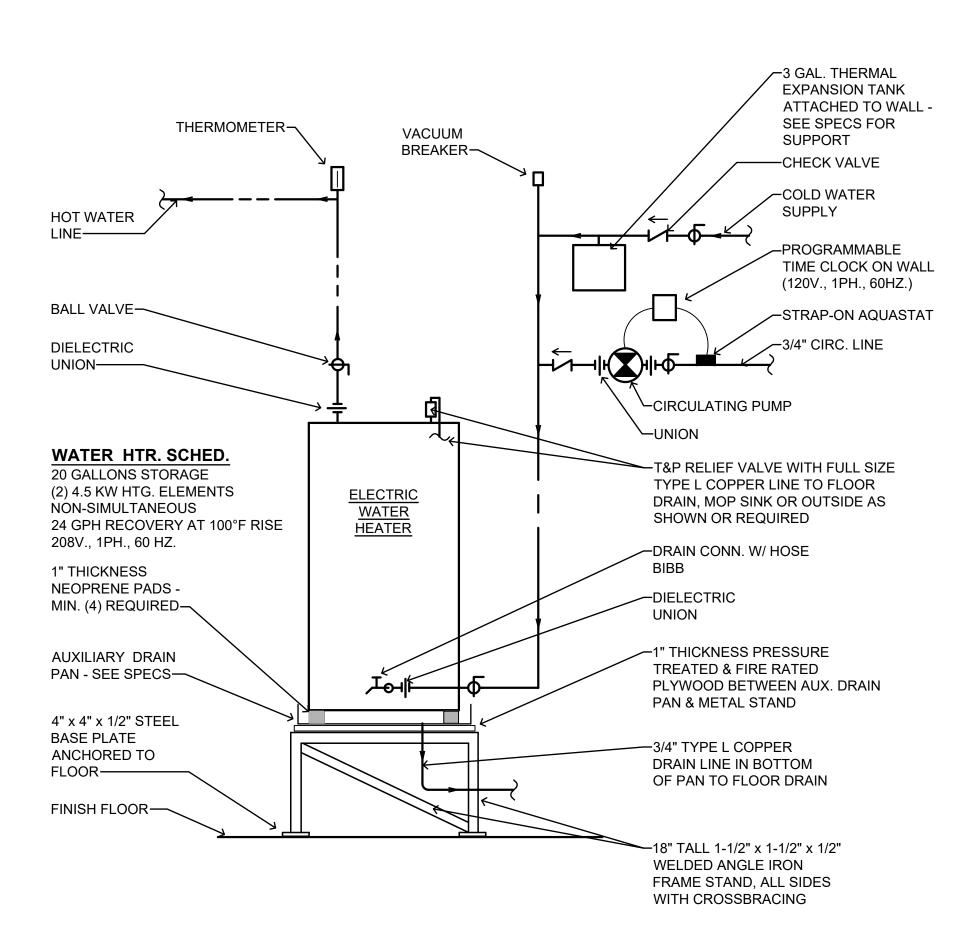
REVISED DATE:

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SHEET NO.:

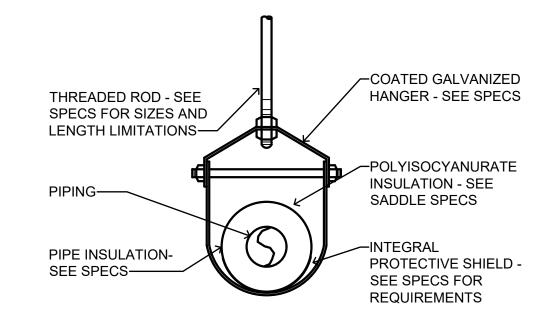
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# WATER HEATER DETAIL NO SCALE

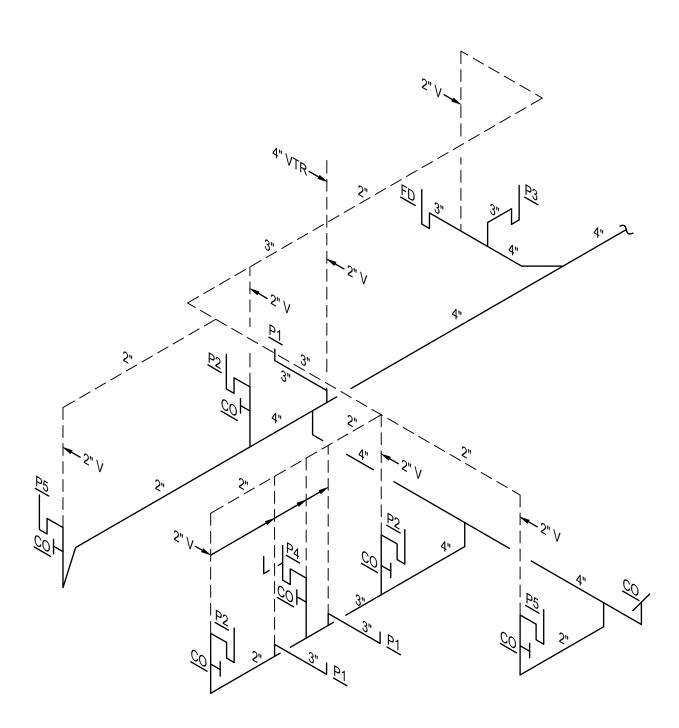
### NOTES:

- PREFABRICATED STANDS ARE NOT ALLOWED.
   CONTRACTOR MAY SUBSTITUTE A 6" THICKNES
- CONTRACTOR MAY SUBSTITUTE A 6" THICKNESS, 6,000 PSI HOUSEKEEPING PAD WITH ROUNDED EDGES IN PLACE OF THE ANGLE IRON STAND PROVIDED THE ARCHITECT APPROVES THE USE OF THE CONC. PAD.
- 3. IF HOUSEKEEPING PAD IS PROVIDED, INSTALL 3/4" TREATED PLYWOOD BETWEEN AUX. PAN AND CONCRETE PAD AUX. PAN SHALL NOT BE IN CONTACT WITH CONCRETE.
- 4. IF HOUSEKEEPING PAD IS PROVIDED, NEOPRENE PADS THICKNESS SHALL BE AS REQUIRED TO RAISE BOTTOM OF WATER HEATER TO ABOVE DRAIN LINE DISCHARGE MIN. 4 PADS REQUIRED.

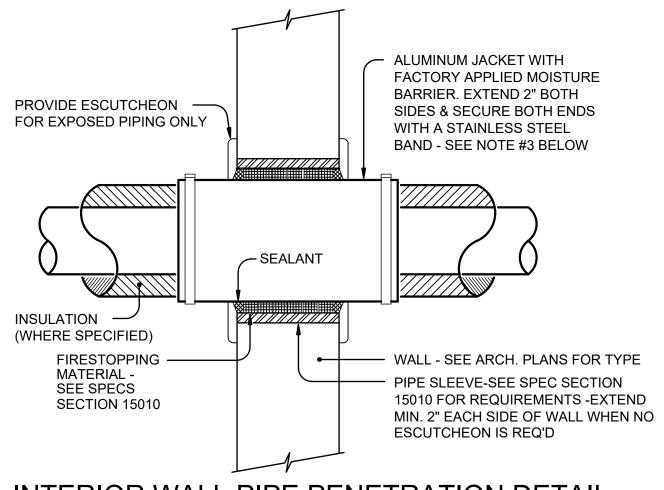


# TYPICAL PIPE HANGER DETAIL

NO SCALE



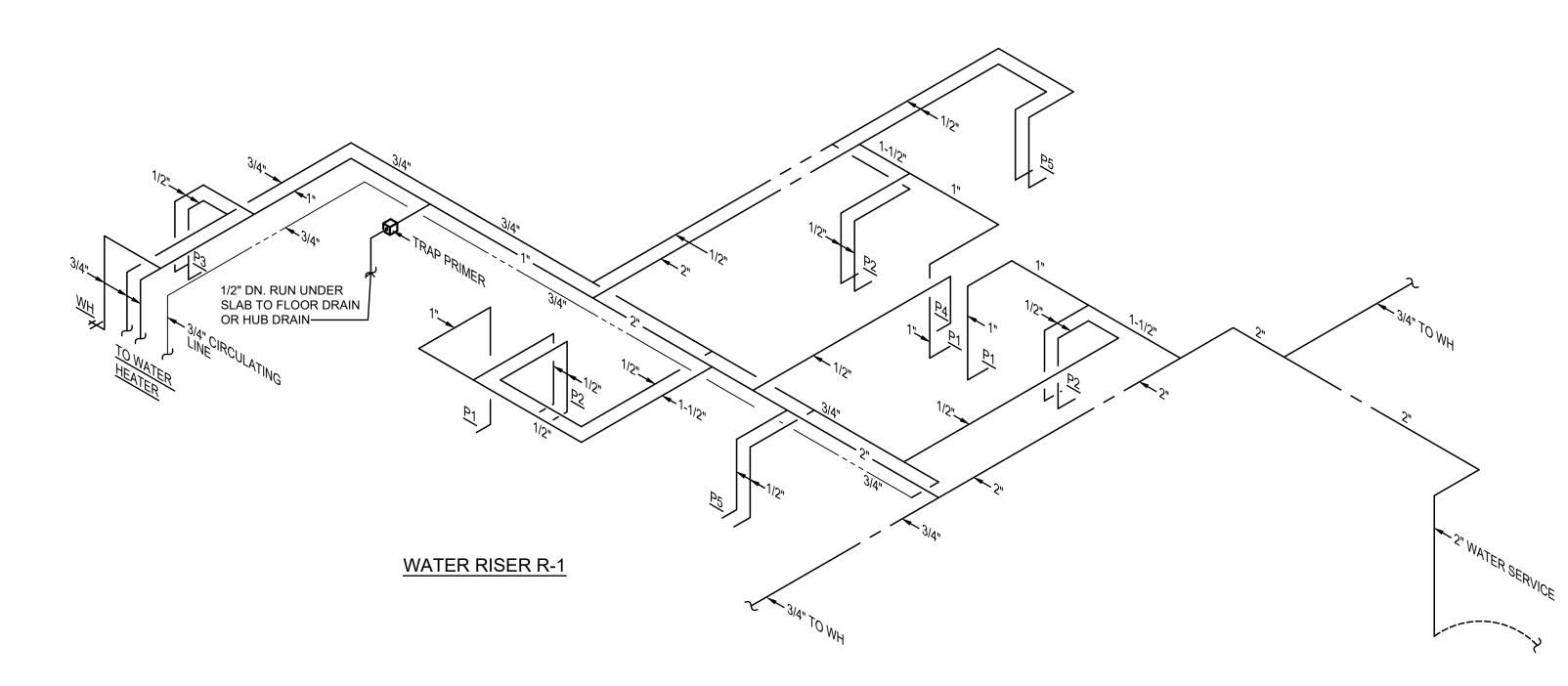
WASTE RISER WR-1



# INTERIOR WALL PIPE PENETRATION DETAIL

# NOT TO SCALE

- 1. DETAIL APPLIES TO ALL WATER PIPING.
- 2. SEE SPECS FOR SLEEVE REQUIREMENTS
- OMIT ALUMINUM JACKET IF PIPING IS UNINSULATED
   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.





SHEET TITLE : PLBG. DETAILS AND RISERS

D

MCKEE JOB#: 23-251

DRAWN BY: C. WARD

CHECKED BY: T. ZGOUVAS

DATE: 05.18.2024

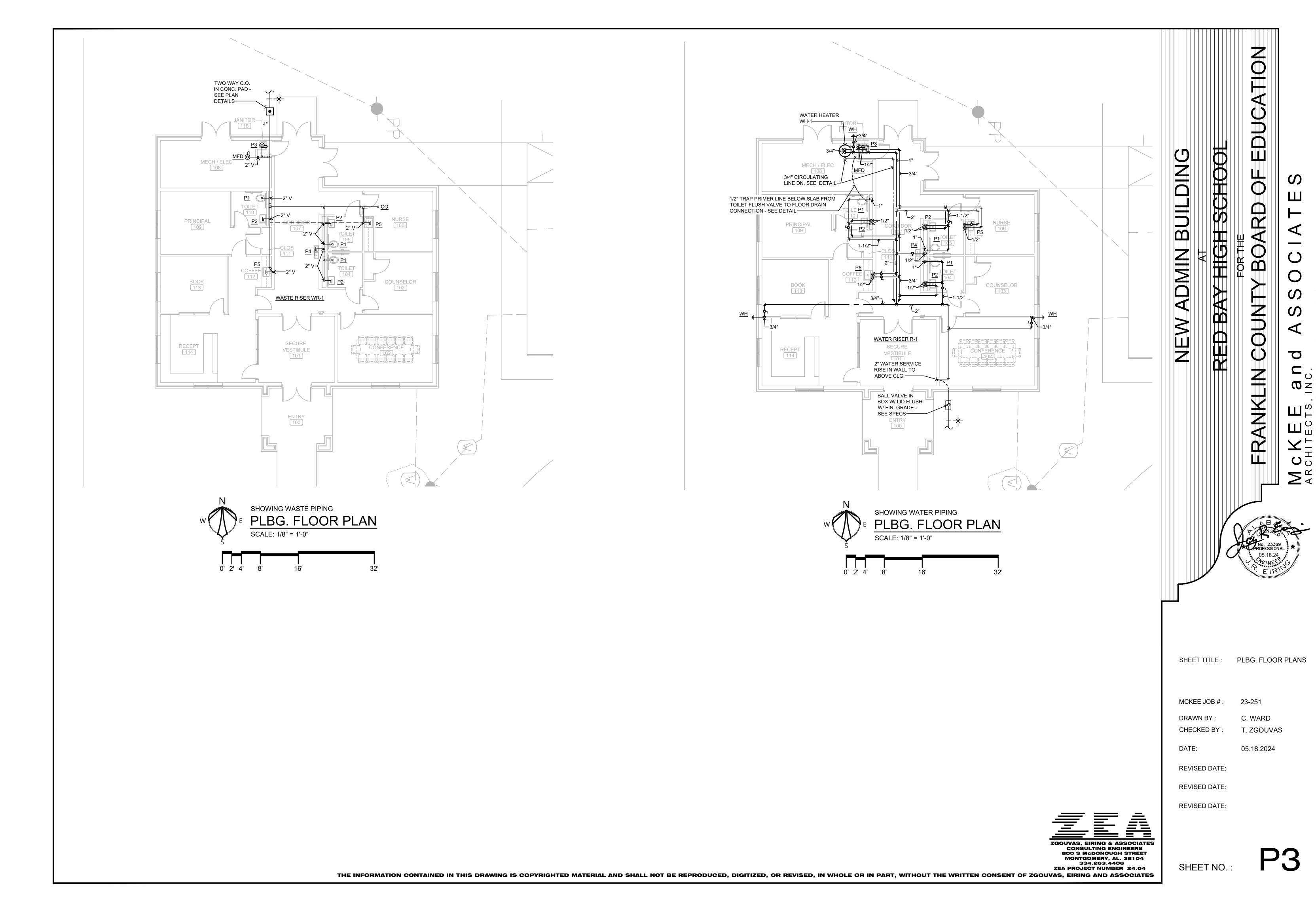
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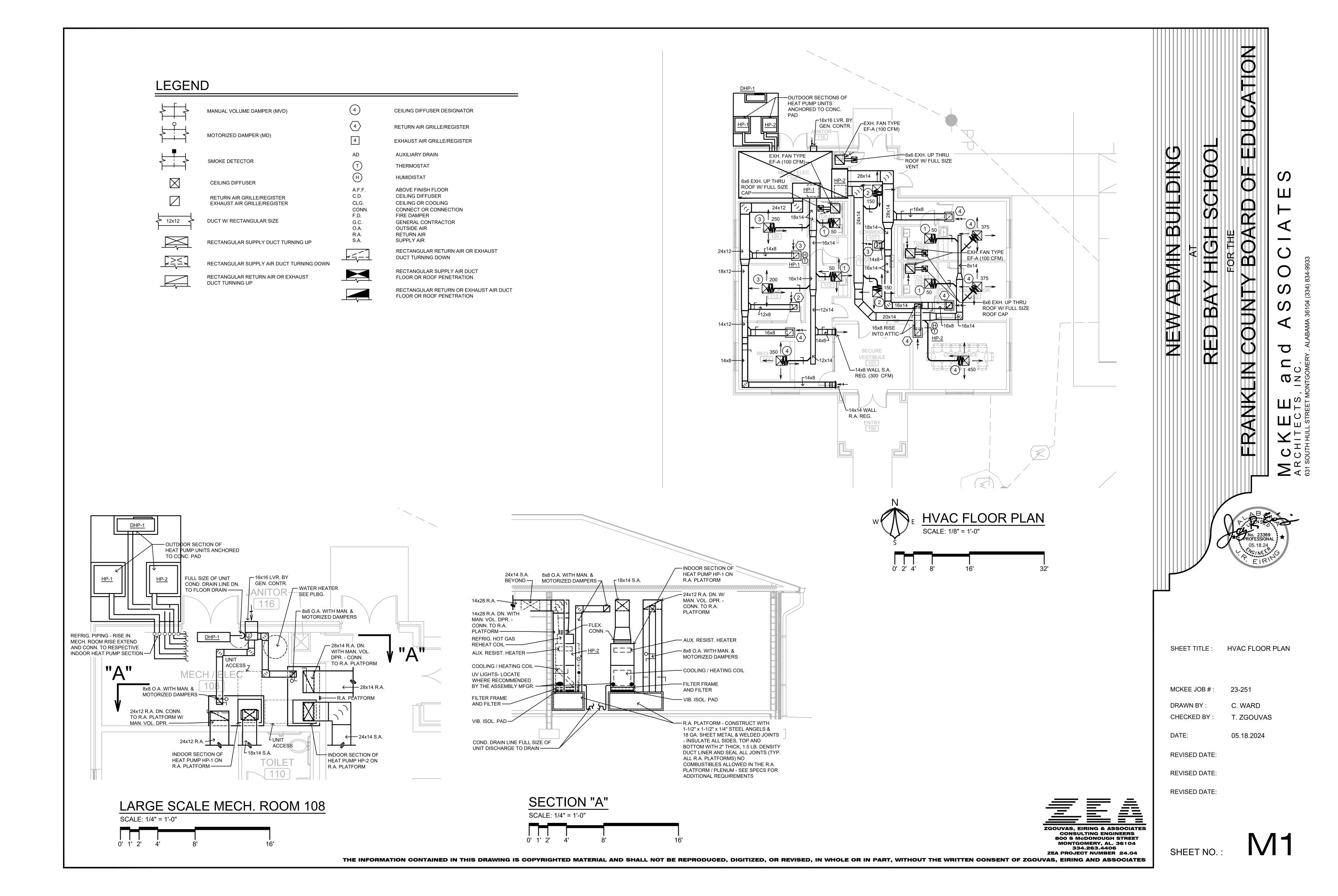
REVISED DATE:

ADMIN

REVISED DATE:

SHEET NO.:





# SPLIT SYSTEM HEAT PUMP UNITS SCHEDULE

UNIT NUMBER OR TYPE	——— HP-1 ————————————————————————————————————	HP-2
MINIMUM TOTAL AIR CFM ———————————————————————————————————	1200 <del></del>	<del></del> 1600
MINIMUM OUTSIDE AIR SETPOINT/MAX. CO2 SETPOINT/MAX. O.A. (ECONOMIZER) CFM —————	150 / N/A / N/A	250 / N/A / N/A
APPROXIMATE EXTERNAL STATIC PRESSURE - IN. WATER COLUMN ————————————————————————————————————	0.90 <del></del>	<b></b> 0.81
APPROXIMATE INDOOR FAN MOTOR HP-POWER	3/4 HP - 208V., 3PH., 60HZ.,	—— 1.0 HP - 208V., 3PH., 60HZ.
MINIMUM TOTAL COOLING CAPACITY AT A.R.I. CONDITIONS-BTU/HR	36,000 —	48,000
MINIMUM HEATING CAPACITY (COMPRESSOR ONLY) AT 70°F		
INDOOR TEMPERATURE AND 22°F OUTDOOR TEMPERATURE-BTU/HR ————————————————————————————————————	36,000	<b>——</b> 30,000
MINIMUM AUXILIARY ELECTRIC RESISTANCE HEAT - KW ——————————————————————————————————	10.0	12.0
NUMBER OF CONTROL STEPS ————————————————————————————————————	TWO	TWO
POWER ————————————————————————————————————	208V., 3PH., 60HZ	—— 208V., 3PH., 60HZ.
APPROXIMATE COMPRESSOR MOTOR(S) F.L.A POWER ————————————————————————————————————	——— 11.0 - 208V., 3PH., 60HZ. ———	——— 15.0 - 208V., 3PH., 60HZ.
APPROXIMATE OUTDOOR SECTION FAN MOTOR(S) F.L.A POWER ————————————————————————————————————		—— 2.1 - 208V., 3PH., 60HZ.
MINIMUM ENERGY EFFICIENCY RATING AT A.H.R.I. CONDITIONS ————————————————————————————————————	14.0 SEER	—— 14.0 SEER
MINIMUM HSPF ————————————————————————————————————	8.2	<del></del> 8.2

### **NOTES**

- 1. ALL INDOOR UNITS SHALL BE FACTORY WIRED FOR SINGLE POINT POWER CONNECTIONS (FAN AND HEATER).
- 2. 208 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. SEER RATINGS BASED ON AHRI 210/240
- 4. HSPF RATING BASED ON AHRI 210/240
- 5. EACH UNIT WITH SCHEDULED COOLING CAPACITY GREATER THAN 40.0 MBH 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 HO 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

	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					
4	275 - 400	12" ROUND	24x24	12"Ø	20	TITUS TMS					
5	405 - 530	14" ROUND	24x24	14"Ø	20	TITUS TMS					
6	535 - 625	15" ROUND	24x24	15"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.

# WALL MOUNTED DUCTLESS HEAT PUMP UNIT SCHEDULE

UNIT TYPE —	DHP-A
MINIMUM TOTAL COOLING CAP. AT A.R.I. CONDITIONS - BTU/HR	12,000
MINIMUM HEATING CAP. (COMPRESSOR ONLY) AT 70°F INDOOR & 47°F AMBIENT - BTU/HR ————	14,000
INDOOR FAN CFM AT HIGH SPEED (WET COIL)	380
INDOOR UNIT MCA - POWER ————————————————————————————————————	1.5 A - 208 V., 1 PH., 60 HZ.
OUTDOOR UNIT MCA (COMPRESSOR AND COND. FAN) - POWER	11.0 A - 208 V., 1 PH., 60 HZ.
OUTDOOR UNIT MOP (COMPRESSOR AND COND. FAN) - POWER	———— 28.0 A - 208 V., 1 PH., 60 HZ.
MINIMUM HSPF AT AHRI 210/240 CONDS.	10.2
MINIMUM S.E.E.R. AT AHRI 210/240 CONDS ————————————————————————————————————	20.8
BASIS OF DESIGN ————————————————————————————————————	MITSUBISHI PKA / PUZ

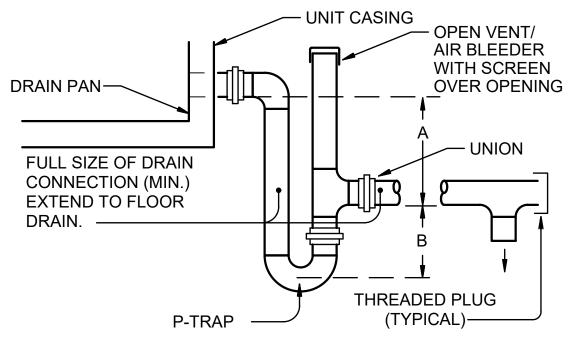
# FANS SCHEDULE

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

EXHAUST/RETURN AIR REGISTER SCHEDULE								
SYMBOL		CFM	SIZE -			BRANCH		
EXH.	R.A.	RANGE	IN. x IN.		NC RATING	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		
5	5	461 - 600	18x18	CEILING EXH. OR RETURN REG.	20	18x10		
6	6	601 - 760	20x20	CEILING EXH. OR RETURN REG.	20	20x12		
7	7	761 - 940	24x24	CEILING EXH. OR RETURN REG.	20	24x12		
8	8	941 - 1200	30x24	CEILING EXH. OR RETURN REG.	20	24x14		
9	9	1201 - 1400	36x24	CEILING EXH. OR RETURN REG.	20	28x14		

# 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.



UNIT TYPE	А	В
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

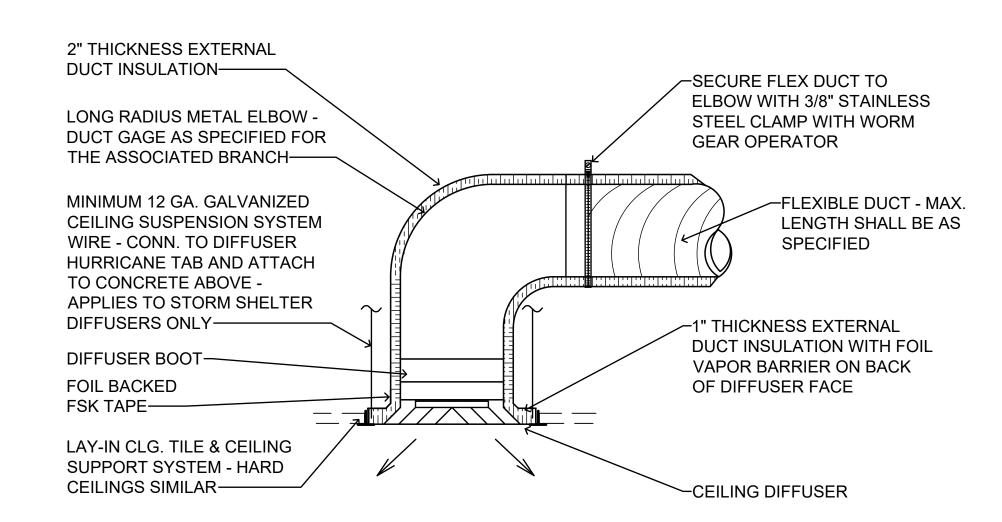
NOT TO SCALE

# 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 AND ALARM TO THE BUILDING ENERGY MANAGEMENT SYSTEM (BAS) OPERATOR CONSOLE (IF APPLICABLE) SHOULD THE LINE BECOME OBSTRUCTED



# DIFFUSER BOOT/PLENUM CONNECTION DETAIL

# NOT TO SCALE

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



SHEET TITLE : HVAC SCHEDULES AND DETAILS

MCKEE JOB # : 23-251

CHECKED BY: T. ZGOUVAS

C. WARD

05.18.2024

REVISED DATE:

**REVISED DATE:** 

DRAWN BY:

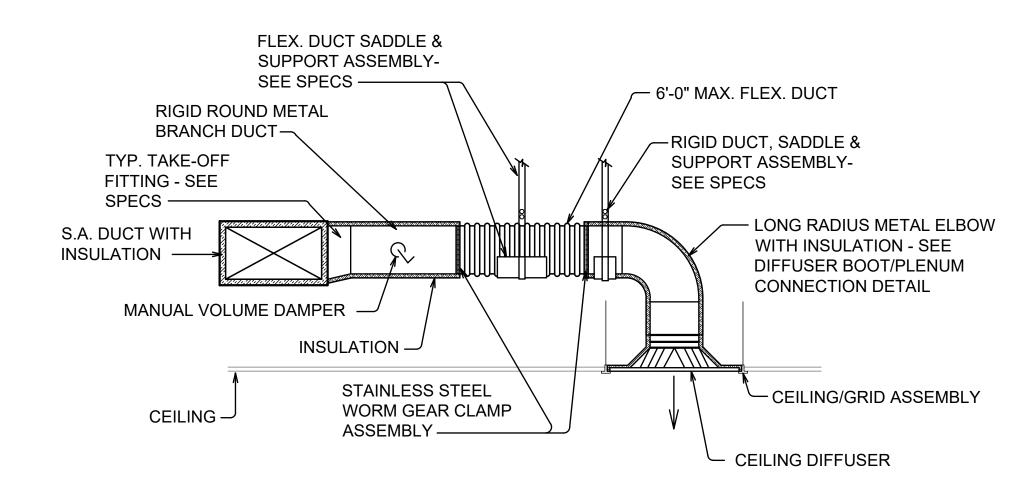
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ADMIN

REVISED DATE:

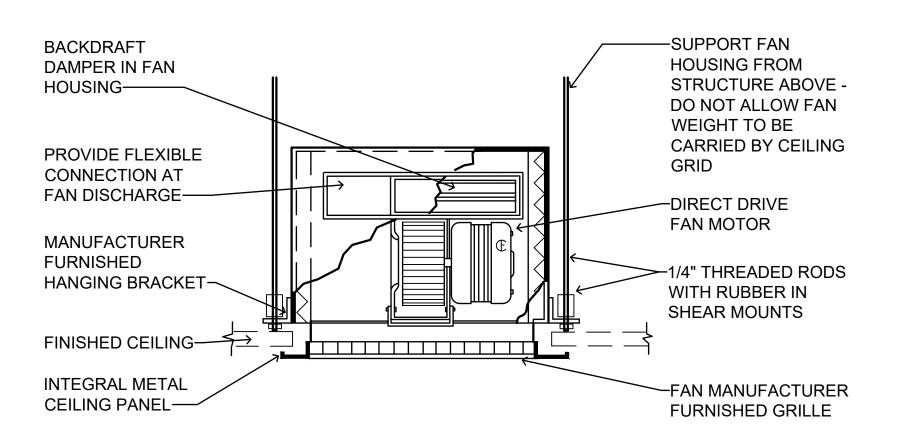
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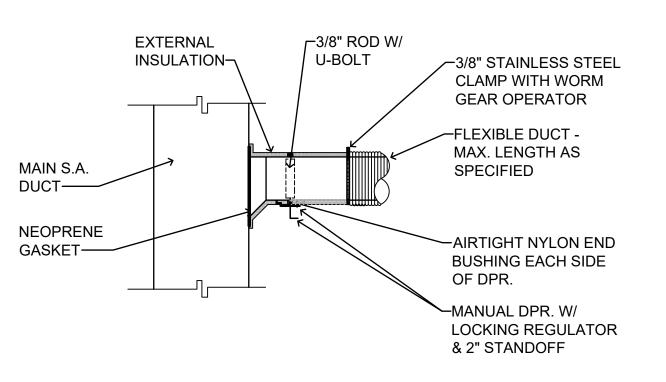
# TYPICAL DIFFUSER RUN-OUT CONN.

NOT TO SCALE



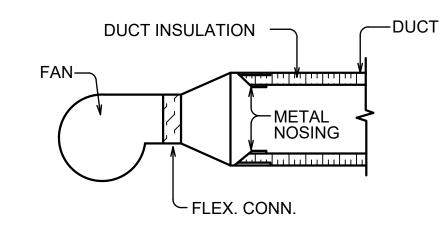
# CEILING MOUNTED EXHAUST FAN CONN. DETAIL

NO SCALE



# ROUND BRANCH DUCT TAKE-OFF DETAIL

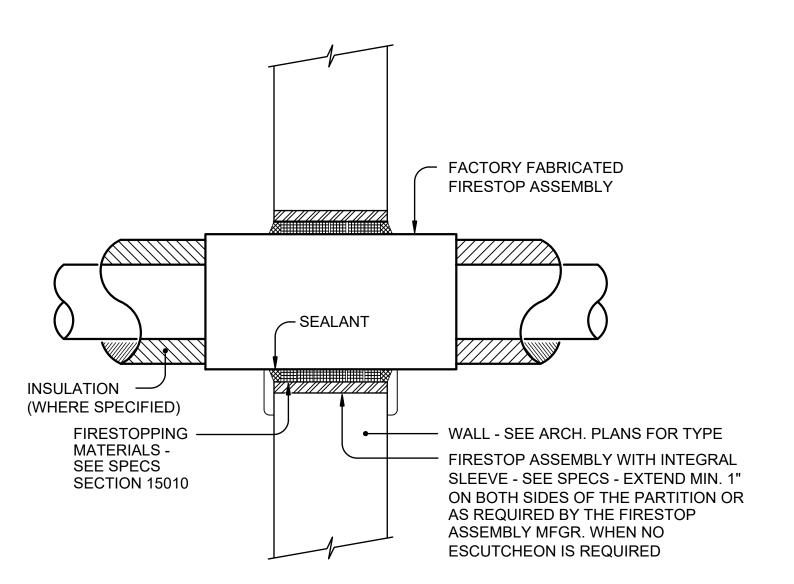
RECTANGULAR RUNOUTS SAME EXCEPT WITH RECTANGULAR DUCT



# 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



# INTERIOR WALL REFRIGERANT AND CONDENSATE PIPING PENETRATION DETAIL

NOT TO SCALE

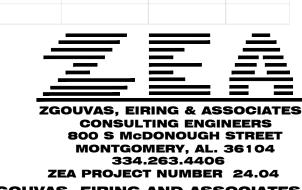
1. DETAIL APPLIES TO ALL REFRIGERANT & CONDENSATE

2. SEE SPECS FOR FIRESTOPPING REQUIREMENTS

3. ONLY ONE PIPE PER SLEEVE ALLOWED. 4. WHERE PIPING IS EXPOSED IN FINISHED AREAS, PROVIDE ESCUTCHEONS OVER PENETRATIONS AND DELETE REQUIREMENT FOR EXTENDING OF THE FIRESTOP ASSEMBLY 1" ON EACH SIDE OF THE PARTITION. ALUMINUM JACKET IS STILL REQUIRED. DO NOT USE SPLIT TYPE ESCUTCHEONS. SEE SPECS

	Area	Peo/1000SF	#People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	#Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	ZpEC
PRINCIPAL 109	235	5	2	0.06	15	5	10	31.25	8.0				0	200	0.156
BOOK113	170	5	1	0.06	11	5	5	20	8.0				0	150	0.133
RECEPT114	280	5	2	0.06	17	5	10	33.75	8.0				0	250	0.13
COFFEE 112	90	5	1	0.06	6	5	5	13.75	0.8				0	100	0.13
SECURE VESTIBULE 101	224	5	2	0.06	14	5	10	30	8.0				0	250	0.1
TOILET 110										1	70		70	50	0
Total			8		63		40								
							Cumulative CFM	128.75							
Max "Zp"	0.15625														
"E/"	0.9														
"Vou" Total OSA EQ 4-6	128.75														
Total Building Occupancy	8														
Zone Occupancy	8														
"D" from EQ4-7	1														
"Vot" Equation 4-8	143.0556														
TOTALOSA	143.0556														

	<del></del> .			ID 2 6	NITE O		D EV/114116	E CALCI		NIC .				,	-
			ŀ	1P-2 C	טעדטט	OR AIR AN	D EXHAUS	CALCU	JLATIO	INS					
	Area	Peo/1000SF	#People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	#Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ4-5
NURSE106	185	5	1	0.06	12	5	5	21.25	8.0				0	200	0.10625
TOILET 104/105										2	70		140	100	0
COUNSEL 103	185	5	1	0.06	12	5	5	21.25	8.0				0	200	0.10625
CONFERENCE102	290	50	15	0.06	18	5	75	116.25	8.0				0	500	0.2325
CORRIDOR 107	500	0	0	0.06	30	5	0	37.5	0.8				0	200	0.1875
T.4.1			47		40		05								
Total			17		42		85								
							Cumulative CFM	196.25							
Max "Zp"	0.2325														
"EV"	0.9														
"Vou" Total OSAEQ4-6	196.25														
Total Building Occupancy	21														
Zone Occupancy	17														
"D" from EQ4-7	1.235294														
"Vot" Equation 4-8	218.0556														
TOTALOSA	218.0556														



HVAC O.A. SHEET TITLE: CALCULATIONS & DETAILS

ADMIN

O

23-251 MCKEE JOB #: C. WARD DRAWN BY: CHECKED BY T. ZGOUVAS

05.18.2024

REVISED DATE: REVISED DATE:

# ELECTRICAL LEGEND

# CEILING OUTLETS

A (2) 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"

FS - SURFACE OR PENDANT MOUNTED LED STRIP FIXTURE MARK "FS" CIRCUIT No. 2 TYPICAL

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"

(J) JUNCTION BOX

EXHAUST FAN

DUPLEX RECEPTACLE — 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5—20R. MOUNT IN CEILING. UNLESS NOTED OTHERWISE UPPER RECEPTACLE NON CONTROLLED/LOWER RECEPTACLE CONTROLLED BY ROOM AUTOMATION SYSTEM. CONTROLLED RECEPTACLE SHALL BE MARKED WITH THE SYMBOL SHOWN IN NEC FIGURE 406.3 (E) AND LOCATED ON THE CONTROLLED RECEPTACLE OUTLET WHERE VISIBLE AFTER INSTALLATION.

DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. CEILING MOUNTED.

# WALL OUTLETS

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

COMBO WALL MOUNTED EXIT/EMERGENCY LIGHT

 $dash \otimes$  Wall mounted exit light

├○ WALL MOUNTED LIGHTING FIXTURE

MOUNT 6" ABOVE COUNTER

₩ WALL MOUNTED LIGHTING FIXTURE "EMERGENCY POWER"

BATTERY OPERATED EMERGENCY LIGHTING FIXTURE

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

DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA \$\iff \text{W}\$ 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.

DUPLEX RECEPTACLE — 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER

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

SINGLE RECEPTACLE - 30 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA L6-30R. MOUNT AS DIRECTED FOR RACK UPS SYSTEM

JUNCTION BOX SIZE NOTED OR REQUIRED, WITH BLANK SCREW COVER AND FLEXIBLE CONDUIT CONNECTION

PHOTOCELL; TORK MODEL 5231 (120V), TWIST RECEPTACLE: TORK 2421.

DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT AS DIRECTED FOR INTERATIVE DISPLAY

# INTERCOM SYSTEM

- INTERCOM SYSTEM - CLASSROOM CALL STATION

(S) INTERCOM SPEAKER - DROP-IN CEILING TILE SPEAKER

H(S) INTERCOM SPEAKER - WALL MOUNTED HORN

-S INTERCOM SPEAKER - WALL MOUNTED SPEAKER SHOP

INT INTERCOM SYSTEM - CONSOLE

— I — INTERCOM CIRCUITRY

# **COMMUNICATIONS SYSTEMS**

WALL OUTLET − 4−1/2" SQ X 3−1/2" DEEP BOX; MOUNT 18" AFF;

FOR TYPICAL UNITS — SEE DETAIL ON SHEET E4.1

(X) INDICATES NUMBER OF DATA RJ45 JACKS AND CAT6 CABLES BACK TO NEAREST IDF/CBB

C > WALL OUTLET - 4-1/2" SQ X 3-1/2" DEEP BOX; MOUNT ABOVE COUNTER;

FOR TYPICAL UNITS - SEE DETAIL ON SHEET E4.1

(X) INDICATES NUMBER OF DATA RJ45 JACKS AND CAT6 CABLES BACK TO NEAREST IDF/CBB

© CEILING OUTLET FOR WIRELESS INTERNET - 1-RJ45 AND 1-CAT 6 CABLE BACK TO

HDMI OUTLET AT PROJECTOR AND TECHERS DESK LOCATION WITH HDMI CABLE CONNECTION

WALL OUTLET - 4-1/2" SQ X 3-1/2" DEEP BOX;

FOR TYPICAL UNITS - SEE COMMUNICATIONS RISER SHEET E4.1

SB INDICATES FOR SMARTBOARD MOUNT AT HEIGHT AS NEEDED. 1-RJ45 & 1 CAT6 CABLE BACK TO NEAREST TELECOM CLOSET

TELEPHONE BACKBOARD - 3/4" EXTERIOR GRADE PLYWOOD WITH TWO COATS OF INSULATING VARNISH, SIZE AS SHOWN

COMMUNICATIONS RACK

CCTV SECURITY CAMERA - SINGLE GANG JUNCTION BOX WITH 3/4" CONDUIT TO TBB

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

S A.C. TYPE, SINGLE POLE, 20 AMP, 120/277 VOLT

S<sub>M2</sub> MOTOR RATED TOGGLE SWITCH DISCONNECT, WITH THERMAL OVERLOADS DOUBLE POLE SINGLE THROW, A.C. TYPE, 30 AMP, 208 VOLT

S<sub>3</sub> A.C. TYPE, 3-WAY, 20 AMP, 120/277 VOLT

MOTOR RATED TOGGLE SWITCH DISCONNECT, WITH THERMAL OVERLOADS A.C. TYPE, 20 AMP, 120/277 VOLT

OCCUPANCY SENSOR WALL SWITCH, MULTI-TECHNOLOGY, SELF POWERED, SIMILAR TO LEVITON OSSTMT-MD

ST PRESET INTERVAL TIMER SWITCH, SENSOR SWITCH PTS 720 SERIES OR APPROVED FOLIALS

PUSH BUTTON, TOGGLE SWITCH, ROTARY SWITCH, ETC., FURNISHED WITH EQUIPMENT BY OTHERS, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR.

# 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

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<sub>I</sub> LOW VOLTAGE SWITCH, 2-BUTTON

S<sub>LX</sub> LOW VOLTAGE SWITCH CONNECTED TO LIGHTING CONTROL PANEL, 2-BUTTON

SO1 OCCUPANCY SENSOR WALL SWITCH, ULTRASONIC TECHNOLOGY, 1-BUTTON SIMILAR TO HUBBELL LIGHT HAWK 2

\*COORDINATE WITH LIGHTING CONTROL DETAILS FOR MORE REQUIREMENTS

# CLOSED CIRCUIT TELEVISION

CCTV CLOSED CIRCUIT TELEVISION CAMERA − 1-CAT 6 CABLE BACK TO CCTV MONITOR

CCTV CLOSED CIRCUIT TELEVISION CAMERA — 1—CAT 6 CABLE BACK TO CCTV MONITOR

NVR CLOSED CIRCUIT TELEVISION CAMERA - NETWORK VIDEO RECORDER

FLOOR OUTLETS

RECESSED FLOOR BOX — QUADRAPLEX RECEPTACLE — 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5—20R, PROVIDE WITH 4 GANGS, ARCHITECT TO SELECT COLORS, SIMILAR TO WIREMOLD EVOLUTION SERIES RFBA4C30OG/(2)RFBADP/(1)RFBADEC/6CTC2XX COVER PLATE OR PRIOR APPROVED EQUALS. FOR TYPICAL UNITS — PROVIDE TWO 1 1/4" CONDUITS TO CABLE BASKET.

(X) INDICATES NUMBER OF RJ45 JACKS AND CAT6 CABLES BACK TO NEAREST TBB

# PANELS AND POWER

PANELBOARD

PANELBOARD FLUSH MOUNTED

CON CONTROL PANEL

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

MOTOR FURNISHED BY OTHERS AND CONNECTED BY ELECTRICAL CONTRACTOR; '5' INDICATES HORSE POWER RATING

\_\_O CIRCUIT BREAKER

ELECTRIC METER

∘ | ├── GROUNDING ELECTRODE CONNECTION

# MISCELLANEOUS EQUIPMENT

(WH) WATER HEATER

# FIRE ALARM SYSTEM

FACP FIRE ALARM SYSTEM CONTROL PANEL

ANN FIRE ALARM SYSTEM REMOTE ANNUNCIATOR — FLUSH MOUNTING

F FIRE ALARM SYSTEM MANUAL PULL STATION

FIRE ALARM SYSTEM VOICE EVAC SPEAKER/STROBE,

WEATHERPROOF FIRE ALARM SYSTEM SIGNAL HORN;

FIRE ALARM SYSTEM STROBE;

TS) FIRE ALARM SYSTEM TAMPER SWITCH

FIRE ALARM SYSTEM FLOW SWITCH

FIRE ALARM SYSTEM AUTOMATIC HEAT DETECTOR; 135 DEGREE/RATE OF RISE TYPE; CEILING MOUNTED

FIRE ALARM SYSTEM AUTOMATIC SMOKE DETECTOR; CEILING MOUNTED

DD FIRE ALARM SYSTEM AUTOMATIC AIR DUCT SMOKE DETECTOR MOUNTED IN MECHANICAL DUCT

T FIRE ALARM SYSTEM REMOTE TEST STATION

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

# BRANCH CIRCUITING

RUN CONCEALED UNDER FLOOR OR IN GROUND

RUN CONCEALED IN CEILING OR WALLS

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.

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.

HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2 #8, 1 #10 GROUND - 1" C; -8 #/- 3 #8, 1 #10 GROUND - 1" C; -8 #/- 4 #8, 1 #10 GROUND - 1 1/4" C; ETC. AS PER NEC. LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.

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 FOR MAX AMPACITY OF CONDUCTOR SIZE AS SHOWN. SIZE CONDUIT PER NEC ANNEX C.

SURFACE MOUNTED CONDUIT; RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES

E EMPTY CONDUIT WITH PULLWIRE, RUN CONCEALED IN CEILING OR WALLS

LIQUID-TIGHT FLEXIBLE CONDUIT CONNECTION

SHEET TITLE : ELECTRICAL LEGEND & NOTES

Kennetty R.Ju

PROFESSIONA

05-18-2024

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**≥** A S 631

MCKEE JOB # : 23-251

DRAWN BY: J. TILLERY

DATE: 05.18.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

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3102 Highway 14
Millbrook, AL 36054
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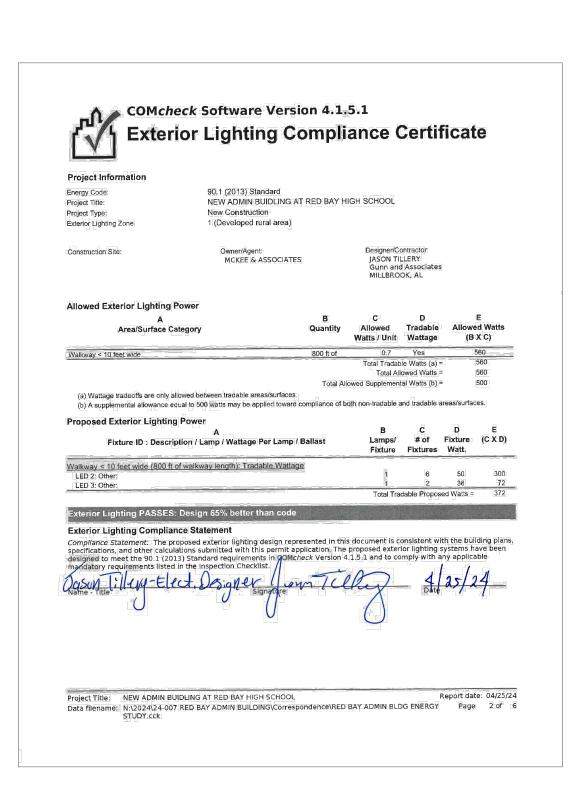
Gunn & Associates, P.C.

SHEET NO.: **LO.** 

# MISCELLANEOUS

AMERICANS WITH DISABILITIES ACT ABOVE FINISH FLOOR AMPERE INTERRUPTING CAPACITY AUTOMATIC TRANSFER SWITCH CONDUIT CENTER LINE COLD WATER PIPE EMERGENCY ELECTRIC METALLIC TUBING GROUND FAULT INTERRUPTER GALVANIZED RIGID METAL CONDUIT LIGHTING CONTACTOR MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER MAIN LUGS ONLY MOUNT NEUTRAL NOT IN CONTRACT NATIONAL ELECTRICAL CODE NATIONAL ELECTRICAL MANUFACTURER'S ASSOC. NATIONAL FIRE PROTECTION ASSOCIATION NIGHT LIGHT NOT TO SCALE POLE POWER FACTOR PHASE PANEL PVC (POLYVINYL CHLORIDE) CONDUIT SINGLE LINE DIAGRAM TELEPHONE BACKBOARD TRANSIENT VOLTAGE SURGE SUPPRESSORS UNDERWRITER'S LABORATORY UNLESS NOTED OTHERWISE VOLTAGE WEATHERPROOF NEMA 3R WEATHERPROOF ENCLOSURE NEMA 4X WEATHERPROOF/CORROSION ENCLOSURE

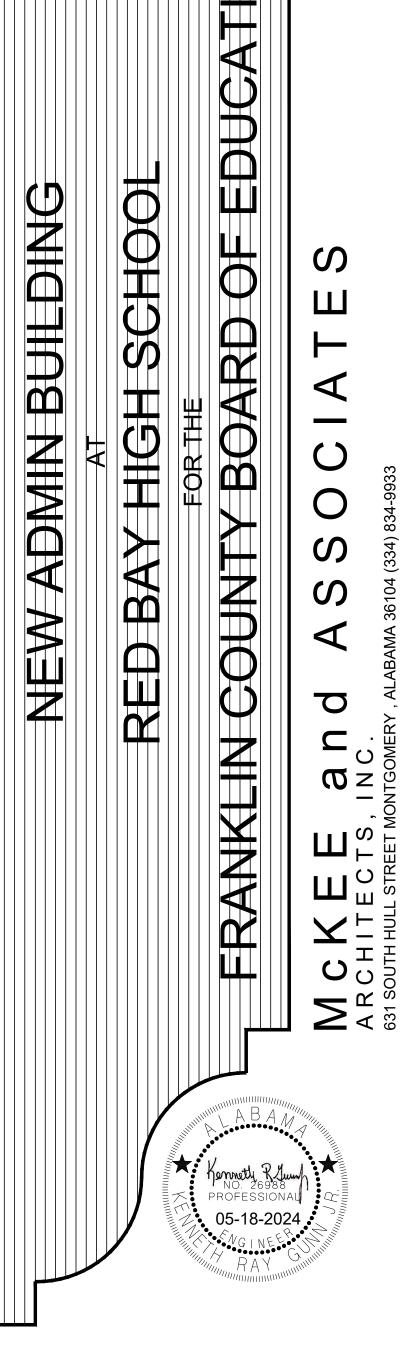
	terior Lighting Comp			
Project Information	n _			
Energy Code: Project Title: Project Type:	90,1 (2013) Standard NEW ADMIN BUIDLING AT RED New Construction	BAY HIGH SCHOOL		
Construction Site:	Owner/Agent: MCKEE & ASSOCIATES	Designer/C JASON TI Gunn an MILLBRO	LLERY d Associates	
Allowed Interior Li	ghting Power			
	A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watt (B X C)
1-OFFICE AREA (Comm	non Space Types:Office - Enclosed)	2926	1.11	3248
		Ŧ¢	tal Allowed Wa	atts = 3248
Proposed Interior I	Lighting Power			
Fixture ID	A D: Description / Lamp / Wattage Per Lamp ∄ Ballast	B Lamps/ Fixture	C # of Fixtures	D E Fixture (C X D) Watt.
	nmon Space Types:Office - Enclosed)	1	11	38 418
LG48: Other: LG60, LS1: Other:		Ť	11	45 495
LG72: Other:		1	8	76 608
LS2: Other:		9 1	8	24 192 28 224
D1: Other: A: Other:		1	1	125 125
LS2: Other:		1	1	28 28 ed Watts = 2090
			Total Propose	d Watts = 2090
Interior Lighting P.	ASSES: Design 36% better than code			
	ompliance Statement			
Compliance Statemen	nt: The proposed interior lighting design represented	in this document is con The proposed inter	onsistent with or lighting sy	the building plan stems have been
designed to meet the	her calculations submitted with this permit application 90.1 (2013) Standard requirements in COMcheck Ve	rsion 4.1.5.1 and to co	mply with ar	ny applicable
mandatory requireme	ents listed in the Inspection Checklist	1500	11	2-/11
Jasen 1-11-11-11	-Elect. Designer Lisa	(Cley	Date	DIAT
Manic Milit	O Signature			
<b>O</b> ,		U		



# GENERAL ELECTRICAL NOTES:

- 1. THE SERVICE VOLTAGE TO THE FACILITY IS 120/208 VOLT, 3 PHASE, 4 WIRE.
- 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. ALL EMERGENCY LIGHTS AND EXIT SIGNS SHALL HAVE AN EMERGENCY BATTERY BALLAST CONNECTED AHEAD OF LOCAL SWITCHING.
- 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.
- 26. BUILDING OWNER MUST RECEIVE RECORD DRAWINGS AND MANUALS THAT PROVIDE INSTRUCTIONS ABOUT THE OPERATION AND MAINTENANCE OF THE BUILDING'S ELECTRICAL DISTRIBUTION SYSTEM.





SHEET TITLE: ELECTRICAL LEGEND &

NOTES

MCKEE JOB # : 23-251

DRAWN BY: J. TILLERY

DATE: 05.18.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO.: **E0.2** 

# NOTES:

DIMENSION BLOCK

305mm

51mm

203mm

76mm

B 152mm

ENGLISH

1. TRENCH/CUT EXISTING SURFACES. BACKFILL/PATCH/REPAIR ALL SURFACES AS SHOWN.

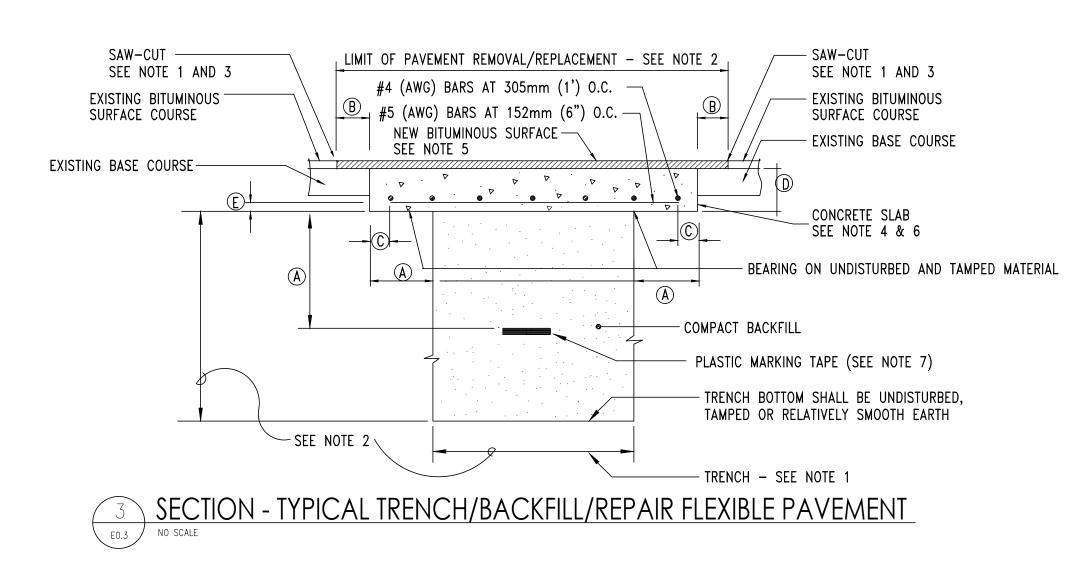
2. TRENCH DEPTH AND WIDTH SHALL BE AS REQUIRED FOR THE INSTALLATION OF THE RACEWAY LINE SPECIFIED. SEE APPLICABLE RACEWAY LINE SECTION.

3. PAVEMENT REMOVAL SHALL BE COMPLETE FROM THE SITE AND EXTEND BEYOND THE TRENCH WIDTH AS INDICATED. 4. CONCRETE SHALL BE CLASS A.

5. MATCH THICKNESS OF EXISTING BITUMINOUS SURFACE, OR 38mm (1.5") MINIMUM, WHICHEVER IS GREATER. 6. REINFORCING BARS SHALL MEET ASTM A615, A616 OR A617, GRADE 40.

REINFORCING BARS SHALL BE INSTALLED THE CONTINUOUS LENGTH OF CONCRETE SLAB.

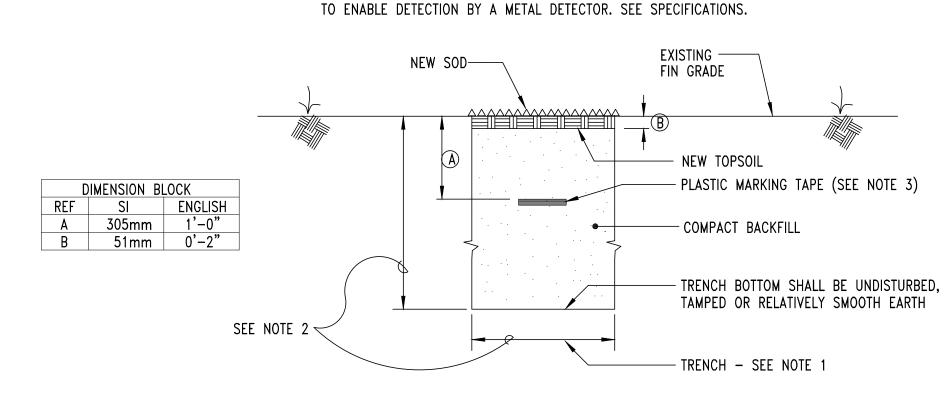
7. PLASTIC MARKER TAPE SHALL BE RED AND CONTAIN FOIL BACKING OR EQUIVALENT TO ENABLE DETECTION BY A METAL DETECTOR. SEE SPECIFICATIONS.



# NOTES:

1. TRENCH/CUT EXISTING SURFACES. BACKFILL/PATCH/REPAIR AND INSTALL NEW SOD. 2. TRENCH DEPTH AND WIDTH SHALL BE AS REQUIRED FOR THE INSTALLATION OF THE RACEWAY LINE SPECIFIED. SEE APPLICABLE RACEWAY LINE SECTION.

3. PLASTIC MARKER TAPE SHALL BE RED AND CONTAIN FOIL BACKING OR EQUIVALENT



SECTION - TYPICAL TRENCH/BACKFILL/REPAIR SODDED AREAS

DIMENSION BLOCK SI ENGLISH 305mm 152mm 51mm 203mm <u>E 76mm</u>

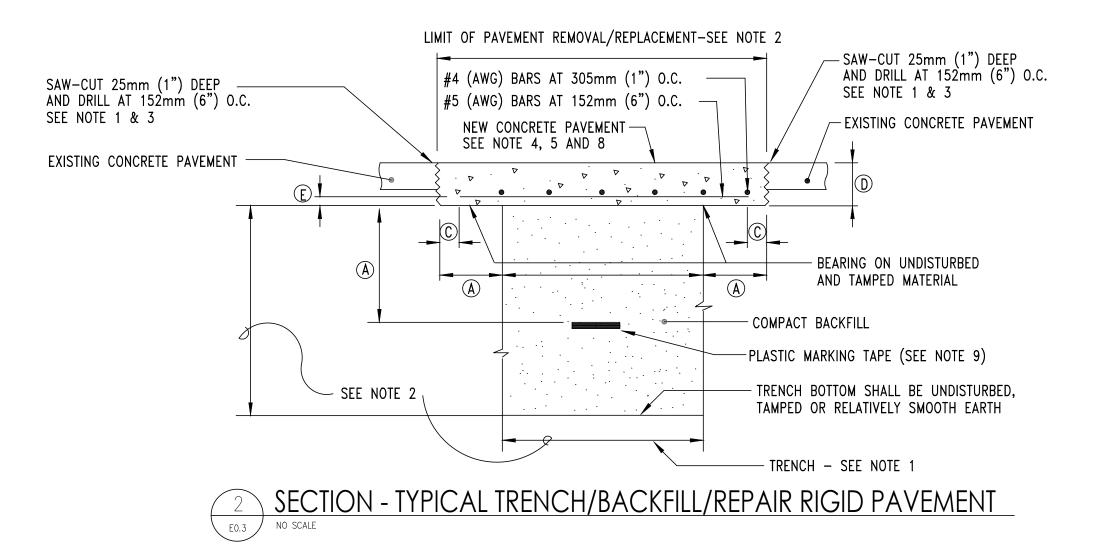
1. TRENCH/CUT EXISTING SURFACES. BACKFILL/PATCH/REPAIR ALL SURFACES AS SHOWN. 2. TRENCH DEPTH AND WIDTH SHALL BE AS REQUIRED FOR THE INSTALLATION OF THE RACEWAY LINE SPECIFIED.

SEE APPLICABLE RACEWAY LINE SECTION. 3. PAVEMENT REMOVAL SHALL BE COMPLETE FROM THE SITE AND EXTEND BEYOND THE TRENCH WIDTH AS INDICATED. 4. CONCRETE SHALL BE CLASS A. 5. MATCH THICKNESS OF EXISTING CONCRETE PAVEMENT 8" (20.32cm) MIN. 6. LEAVE DRILLED FACE OF EXISTING PAVEMENT IRREGULAR TO INSURE KEY TO NEW CONCRETE PAVEMENT.

'. ALL EXISTING JOINTS TO BE RE-ESTABLISHED. 8. REINFORCING BARS SHALL MEET ASTM A615, A616 OR A617, GRADE 40.

REINFORCING BARS SHALL BE INSTALLED THE CONTINUOUS LENGTH OF CONCRETE PAVEMENT. 9. PLASTIC MARKER TAPE SHALL BE RED AND CONTAIN FOIL BACKING OR EQUIVALENT

TO ENABLE DETECTION BY A METAL DETECTOR. SEE SPECIFICATIONS.



SHEET TITLE: TRENCHING DETAILS &

NOTES

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MCKEE JOB # : 23-251

J. TILLERY DRAWN BY:

DATE: 05.18.2024

REVISED DATE:

**REVISED DATE:** 

ADMIN

REVISED DATE:

Gunn & Associates, P.C. Consulting Engineers 1200 Providence Park, Suite 200 3102 Highway 14 Millbrook, AL 36054 Birmingham, AL 35242 Tel: 334.285.1273 GA#24-007

SHEET NO.: **E0.3** 

# **GENERAL NOTES:**

- 1. COORDINATE WITH POWER RISER DIAGRAM SHEETS E7.1 & E7.2 FOR FEEDER AND CONDUIT SIZES AND ALL OTHER ADDITIONAL REQUIREMENTS NOT SHOWN ON SITE PLAN.
- 2. ALL UNDERGROUND CONDUITS SHALL BE 36" MINIMUM BELOW GRADE. UNDERGROUND PRIMARY SHALL BE 48" MIMIMUM BELOW GRADE
- 3. ALL ROUTING IS SHOWN DIAGRAMMATIC. VERIFY ACTUAL ROUTING AND FIELD CONDITIONS PRIOR TO BIDS.
- 4. LOCATIONS OF RISER POLES, AND TRANSFORMERS SHALL BE COORDINATED PRIOR TO BIDS. ADJUST FEEDER AND CONDUIT LENGTHS ACCORDINGLY. PAY ALL UTILITY COMPANY FEES. BID ACCORDINGLY.
- 5. VISIT SITE PRIOR TO BIDS TO VERIFY ROUTING AND LENGTHS OF CIRCUITRY ON ALL SYSTEMS PRIOR TO BIDS. ADJUST ALL LENGTHS ACCORDINGLY.

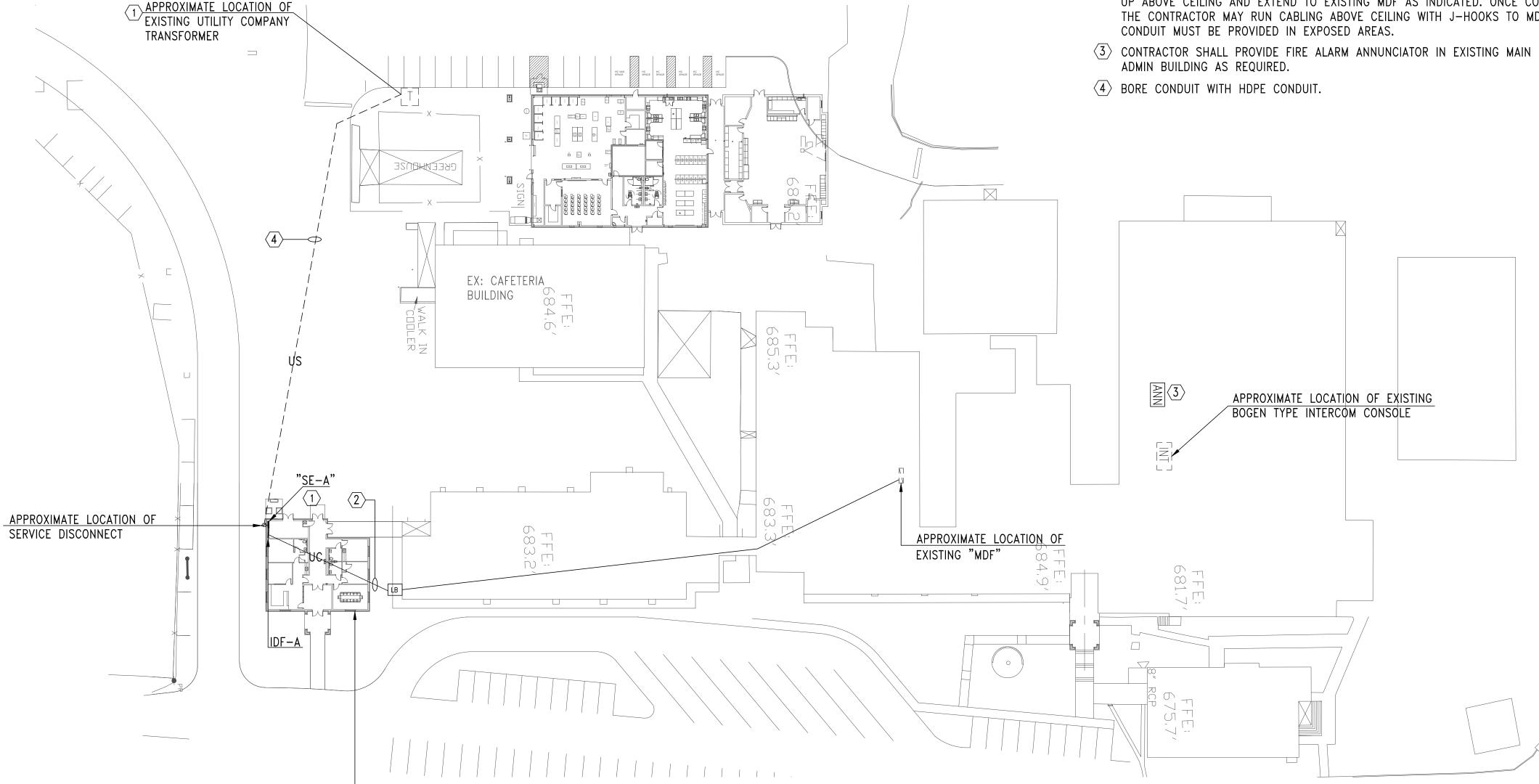
# SITE LEGEND

- ----US---- UNDERGROUND SECONDARY
- — -UP — UNDERGROUND PRIMARY
- EX:OP EXISTING OVERHEAD PRIMARY
- —— OP —— OVERHEAD PRIMARY

NEW ADMIN BUILDING

EXISTING PAD MOUNTED TRANSFORMER

8"X8"X4" WEATHERPROOF JUNCTION BOX. INSTALL TOP OF BOX FLUSH WITH GRADE.



SITE PLAN - ELECTRICAL
SCALE: 1" = 40'-0"

**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.

# SHEET NOTES:

(1) CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR UNDERGROUND SERVICE TO EXISTING PAD MOUNTED TRANSFORMER. MODIFY EXISTING CONCRETE PAD AS NEEDED TO GET CONDUIT INTO SECONDARY COMPARTMENT OF TRANSFORMER. VERIFY ROUTING AND TRANSFORMER LOCATION PRIOR TO BIDS.

 $\bigcirc$  CONTRACTOR SHALL PROVIDE TWO (2) 2" CONDUITS FROM NEW IDF-A AND LB INTO EXISTING BUILDING, THEN RISE UP ABOVE CEILING AND EXTEND TO EXISTING MDF AS INDICATED. ONCE CONDUIT IS STUBBED INTO NEW BUILDING THE CONTRACTOR MAY RUN CABLING ABOVE CEILING WITH J-HOOKS TO MDF IF CONCEALED ABOVE DROP CEILINGS.

 $\overline{\langle 3 \rangle}$  CONTRACTOR SHALL PROVIDE FIRE ALARM ANNUNCIATOR IN EXISTING MAIN BUILDING TO COMMUNICATE TO NEW

SHEET TITLE: SITE PLAN - ELECTRICAL

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MCKEE JOB #: 23-251

J. TILLERY DRAWN BY

DATE: 05.18.2024

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**REVISED DATE:** 

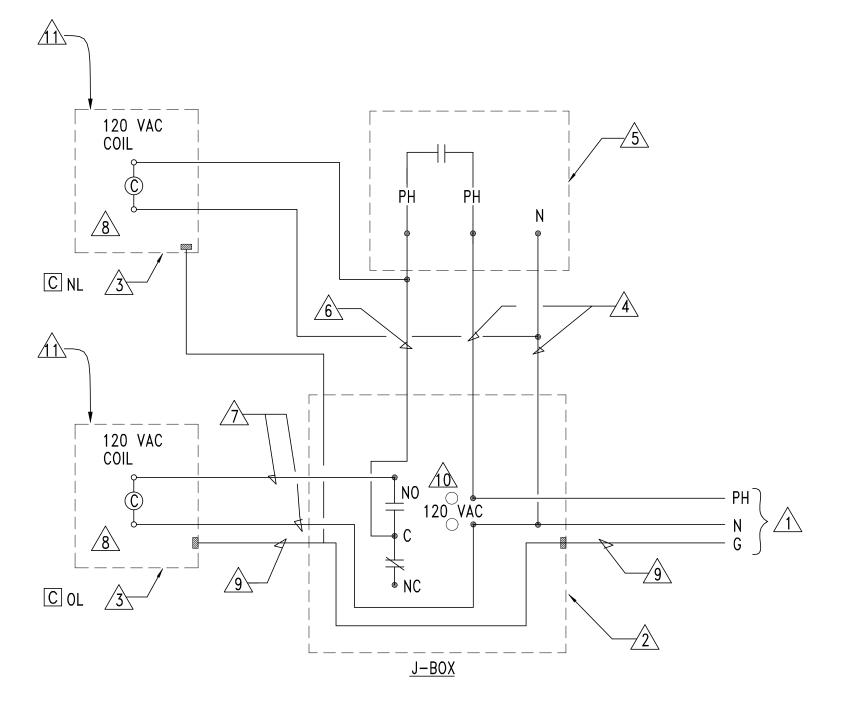
**REVISED DATE:** 

SHEET NO.: E1.1

Gunn & Associates, P.C. Consulting Engineers 1200 Providence Park, Suite 200 Birmingham, AL 35242 3102 Highway 14 Millbrook, AL 36054 GA#24-007 Tel: 334.285.1273

SCALE: 1'' = 40'-0''

GRAPHIC SCALE



# DETAIL - TYPICAL OPERATION OF TIME SWITCH/PHOTO-CELL/CONTACTOR NO SCALE

TO CONTACTORS

\PHOTO-ELECTRIC SWITCH

# KEYED NOTES

1 POWER SUPPLY - 120V, 1PH, 60HZ

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

SWITCH LEG RETURN IN GRC

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

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)

PROVIDE NUMBER OF POLES REQUIRED.

# GENERAL NOTES:

- . PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
- . COORDINATE WITH LIGHTING CONTROL DETAILS FOR ADDITIONAL REQUIREMENTS.
  . SEE LIGHTING CONTROL DETAILS ON SHEET E2.2 FOR ADDITIONAL REQUIREMENTS.

# SHEET NOTES:

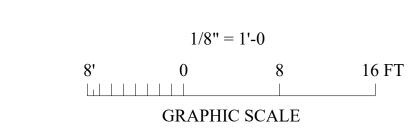
1 ROUTE EXTERIOR LIGHTING CIRCUITS THRU CONTACTORS AS SHOWN IN DETAIL 3. "NL' DESIGNATES LIGHTS ARE PHOTOCELL ON/PHOTOCELL OFF. "OL" DESIGNATES PHOTOCELL ON/TIMECLOCK OFF.

# 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.







05-18-2024

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MCKEE JOB # : 23-251

DRAWN BY : J. TILLERY

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ADMIN

SHEET NO.: **E2.1** 



2-D2

NL 5 WP1

 $\pm$  5-LG48

2-LG72

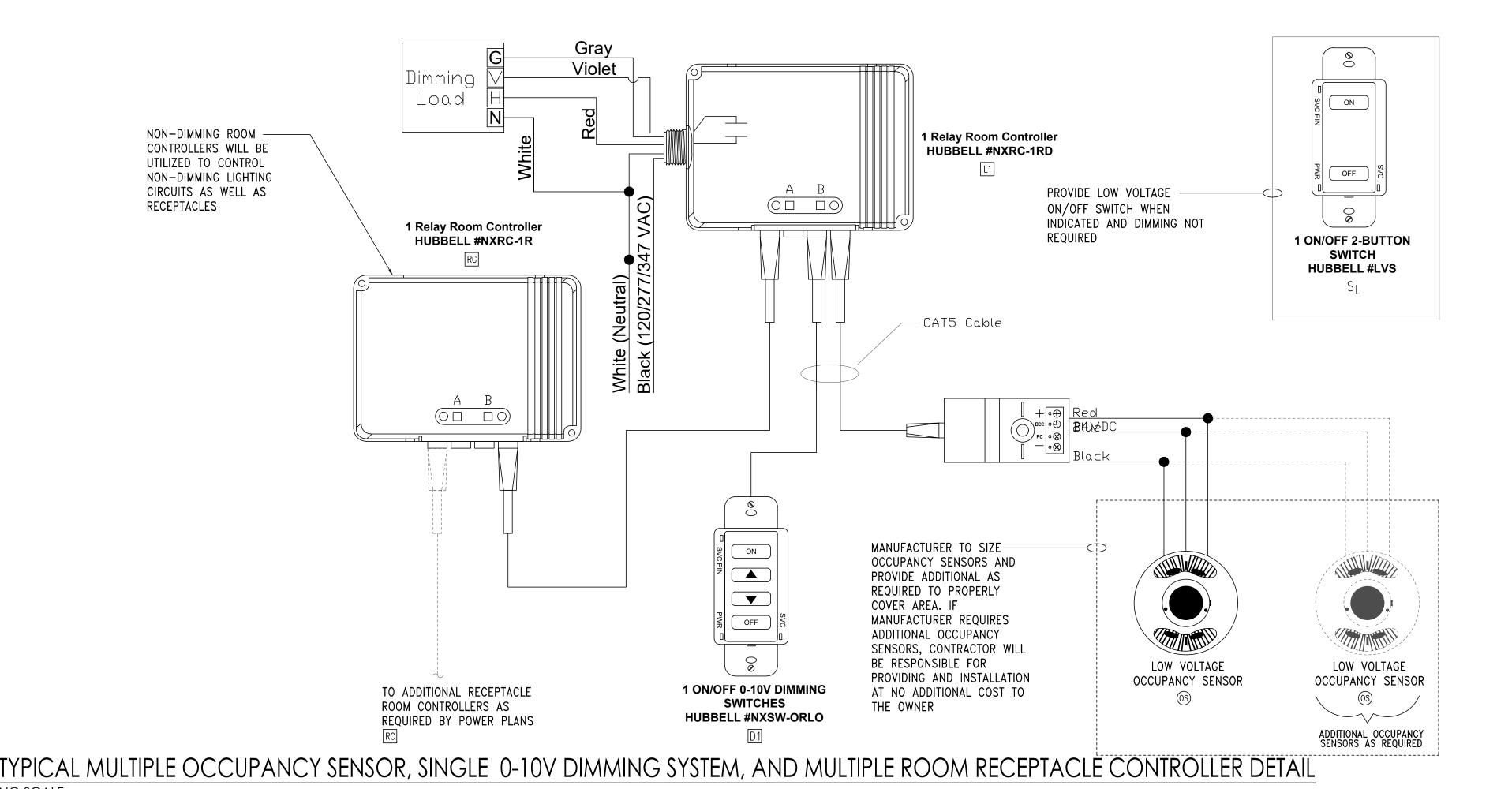
\_\_2−LG72

3-LS1

2-LG72

# OCCUPANCY SENSOR AND CONTROL NOTES:

- OCCUPANCY SENSORS SHALL BE VACANCY TYPE WITH DUAL TECHNOLOGY DETECTION AND 20-MINUTE CUTOFF TIME.
   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 OR ANY OTHER EQUIPMENT IS REQUIRED IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND INSTALL. IT
  - 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. 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.



E2.2 NO SCALE

Gunn & Associates, P.C.

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3102 Highway 14
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1200 Providence Park, Suite 200
Birmingham, AL 35242

GA#24-007

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SHEET TITLE: LIGHTING CONTROLS,
DETAILS & NOTES

J. TILLERY

05-18-2024

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MCKEE JOB # : 23-251

DRAWN BY:

ADMIN

ATE: 05.18.2024

REVISED DATE:

REVISED DATE:

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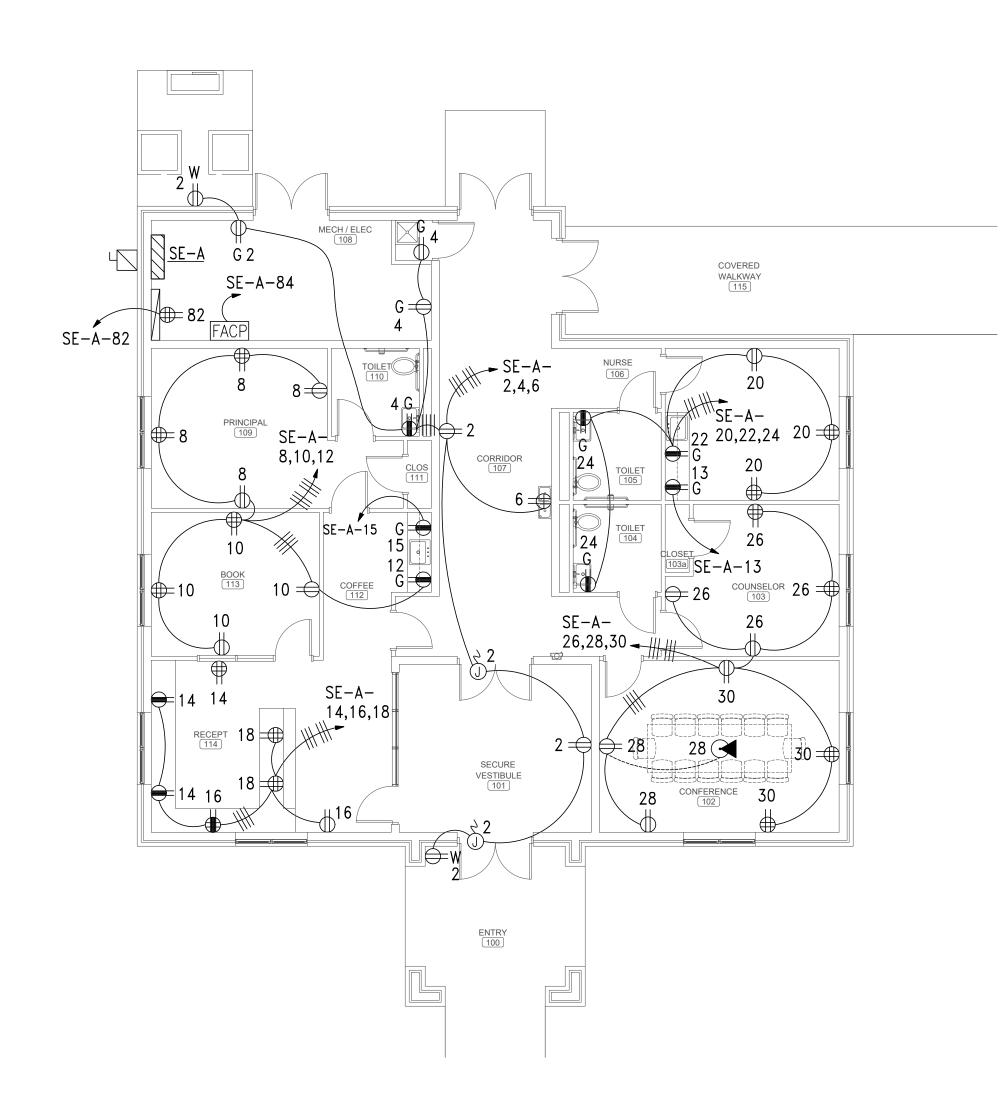
F2 (

# **GENERAL NOTES:**

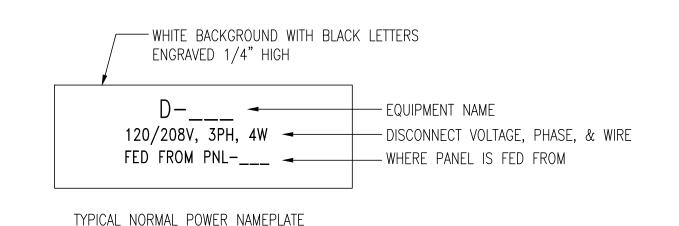
- 1. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
- 2. COORDINATE EXACT LOCATION OF ALL ELECTRICAL AND COMMUNICATIONS DEVICES WITH MILLWORK PROVIDERS PRIOR TO ROUGH—IN.
- 3. ALL DISCONNECTS TO HAVE NAMEPLATE AS SHOWN IN DETAIL, NO EXCEPTIONS.
- 4. ALL RECEPTACLE CIRCUITS THAT ARE ROUTED UNDERGROUND SHALL BE STUBBED UP ABOVE CEILING IN AN ACCESSIABLE LOCATION FOR FUTURE USE.
- 5. 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.

# SHEET NOTES:

- 1 PROVIDE 3/4" CONDUIT FOR CONTROL FROM THE ELECTRIFIED HARDWARE TO THE CONTROL BUTTON AT THE FRONT DESK.
- (2) INTERIOR UNIT RECEIVES POWER FROM THE EXTERIOR UNIT. PROVIDE INTERCONNECTING CIRCUITRY AS NEEDED IN CONDUIT TO CONNECT THE INTERIOR UNIT.



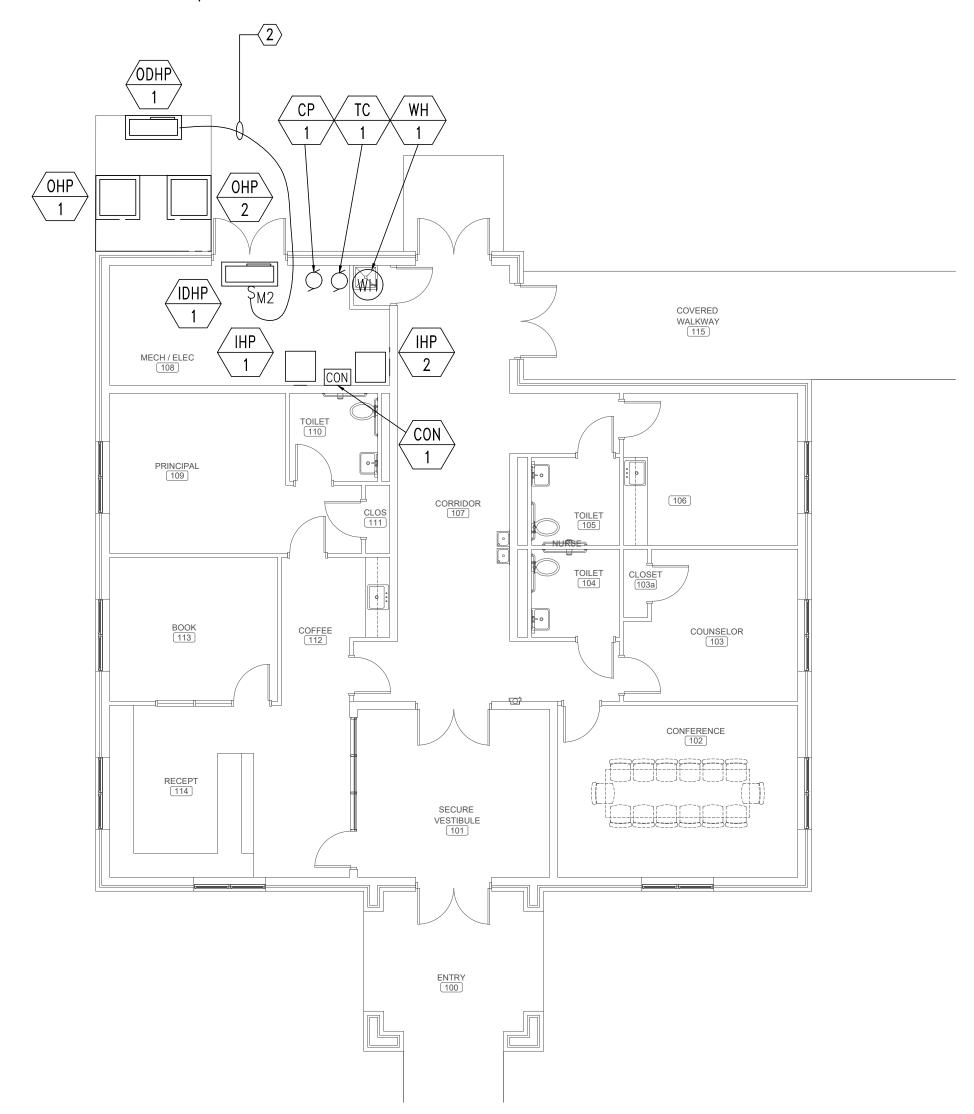




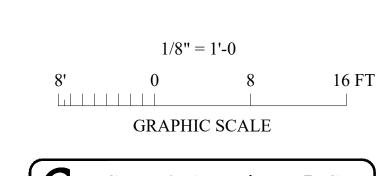
# 3 DETAIL - TYPICAL DISCONNECT NAMEPLATE NO SCALE

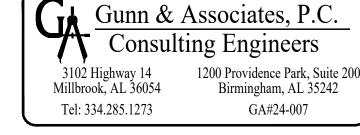
# GENERAL MECHANICAL POWER NOTES:

- 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. COORDINATE WITH GENERAL EQUIPMENT SCHEDULES ON SHEET E3.2 FOR CIRCUITRY OF ALL EQUIPMENT TAGGED ON THIS SHEET.
- 9. SEE DETAIL 1/E3.2 FOR MECHANICAL UNIT CONNECTION DETAIL.











SHEET TITLE: FLOOR PLAN - POWER

MCKEE JOB # : 23-251

DRAWN BY: J. TILLERY

DATE: 05.18.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO.: E3.1

JIPMENT MARK:	EQUIPMENT DESCRIPTION:	EQUIPMENT  VOLTAGE/PHASE:		CHARACTERISTIC	`S·	DISCONNECT:	FUSE:	HOMERUN:	FEEDER:
zon merri mara	Eggii MERTI BEGGIAII TIGIA.	VOET/NOE/T TI/NOE.	HP	KW	AMPS				
CON-1	MECH CONTROL	120V/1PH		0.200		TS		SE-A - 38	2#12 & 1#12GRD - 3/4"C
CP-1	CIRCULATION PUMP	120V/1PH		0.300		TS		SE-A - 36	2#12 & 1#12GRD - 3/4"C
IHP-1	INDOOR HEAT PUMP	208V/1PH	3/4	10		60/3/1	F	SE-A - 43,45,47	3#6 & 1#10GRD - 1 1/4"C
IHP-2	INDOOR HEAT PUMP	208V/1PH	1	12		60/3/1	F	SE-A - 49,51,53	3#4 & 1#10GRD - 1 1/4"C
ODHP-1	OUTDOOR DUCTLESS	208V/1PH			11	30/2/3R	F	SE-A - 9,11	2#10 & 1#10GRD - 3/4"C
OHP-1	OUTDOOR HEAT PUMP	208V/1PH			12.5	30/3/3R	F	SE-A - 44,46,48	3#10 & 1#10GRD - 3/4"C
OHP-2	OUTDOOR HEAT PUMP	208V/1PH			17.1	60/3/3R	F	SE-A - 50,52,54	3#8 & 1#10GRD - 1"C
TC-1	TIME CLOCK	120V/1PH		0.265		TS		SE-A - 36	2#12 & 1#12GRD - 3/4"C
WH-1	ELEC. WATER HTR	208V/3PH		4.5		30/2/1	F	SE-A - 32,34	2#10 & 1#10GRD - 3/4"C

COORDINATE WITH MANUFACTURER'S CUTSHEETS OR NAMEPLATE DATA AND ADJUST OVERCURRENT PROTECTION AS NEEDED TO
 PROTECT EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND TO COMPLY WITH NEC AND ALL LOCAL CODES. COORDINATION

E3.2 NO SCALE

SHALL BE DONE PRIOR TO BIDS AND ACCOUNTED FOR IN THE CONTRACTOR'S BID PRICE.

2. ALL DISCONNECTS SHALL BE HEAVY DUTY TYPE.3. ALL FUSES SHALL BE SIZED PER NAMEPLATE DATA.

4. "NF" - NON-FUSED

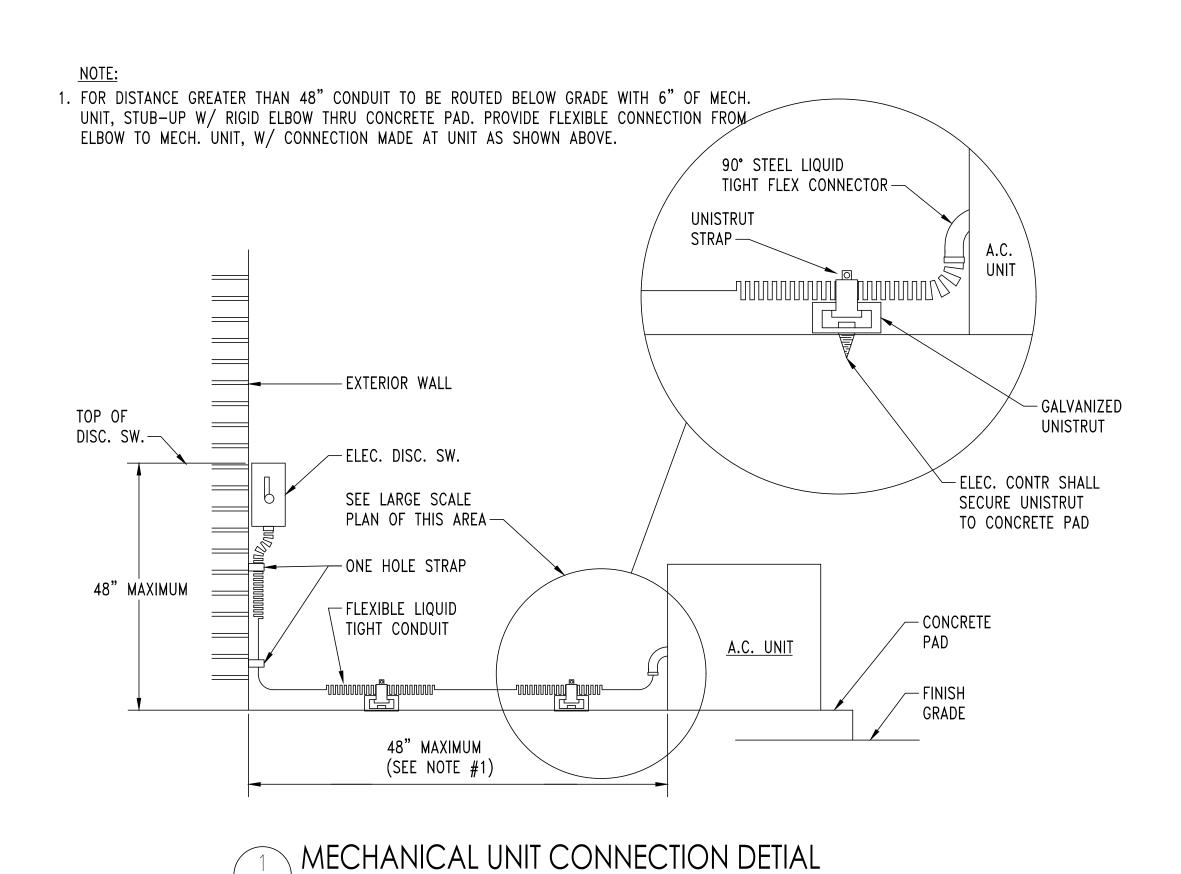
5. "F" - FUSED

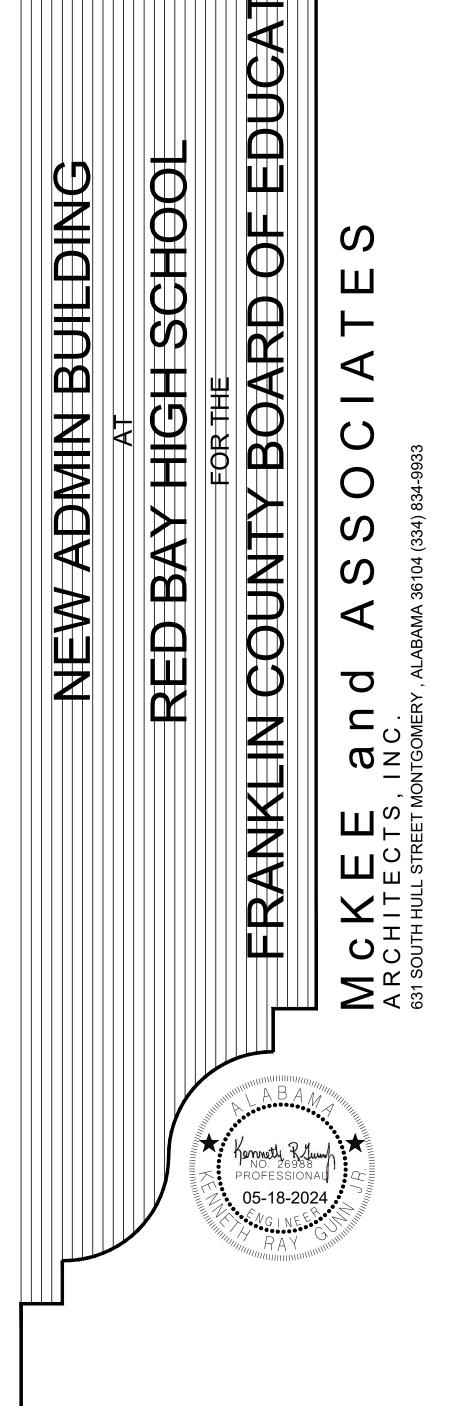
6. "TS" MANUAL MOTOR STARTER WITH THERMAL OVERLOAD ("W" - WEATHERPROOF) ("30-AMP" - 30-AMP RATED)

7. PROVIDE INTERCONNECTING RELAY SUCH THAT FAN IS CONTROLLED BY LIGHTING.

8. "WP" - WEATHERPROOF ENCLOSURE.
9. CONTRACTOR SHALL COORDINATE EXACT REQUIREMENTS AND LOCATIONS FOR ALL CIRCULATING PUMPS AND TIME CLOCKS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

10. "\*" ASTRICK MEANS PROVIDE SHUNT TRIP CIRCUIT BREAKER.





SHEET TITLE: GENERAL EQUIPMENT SCHEDULE & DETAILS

J. TILLERY

MCKEE JOB #: 23-251

DRAWN BY:

DATE: 05.18.2024

REVISED DATE:

REVISED DATE:

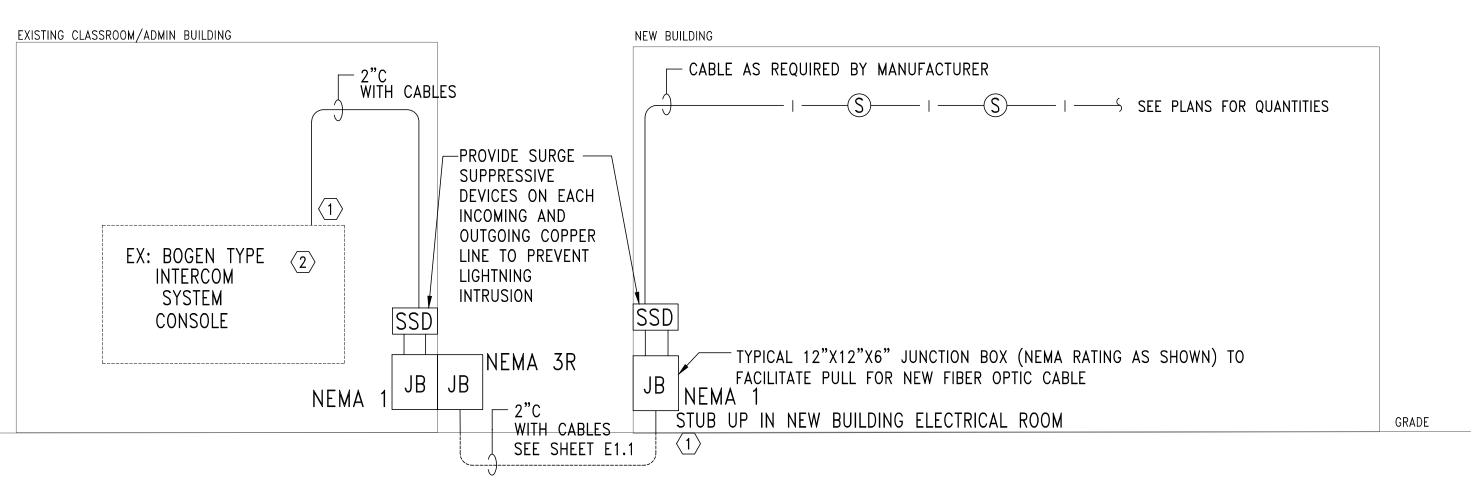


SHEET NO.: **E3.2** 

# INTERCOM SYSTEM NOTES:

E4.1

- 1. THE INTERCOM SYSTEM SHALL BE INSTALLED COMPLETE, WITH ALL EQUIPMENT, DEVICES, COMPONENTS, CABLE AND WIRING SYSTEMS, ETC., READY FOR OPERATION.
- 2. INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), INSULATED CABLE ENGINEERS ASSOCIATION (ICEA) AND THE ELECTRONIC INDUSTRIES ASSOCIATION (EIA).
- 3. ALL SYSTEM COMPONENTS, ENCLOSURES, FRAMES, CONDUCTOR AND CABLE SHIELDS, ETC., SHALL BE GROUNDED. SYSTEM SHALL BE BONDED TO THE FACILITY GROUND ELECTRODE SYSTEM AS NOTED.
- 4. IN GENERAL THE INTERCOM WIRING SYSTEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS FOR THE SYSTEM SPECIFIED.
- 5. ALL WIRING TO BE IN CONDUIT SIZED IN ACCORDANCE WITH NEC WITH A MINIMUM SIZE OF 3/4".
- STENCIL IN 2" HIGH LETTERS ON EVERY JUNCTION BOX COVER ABOVE CEILING THE LETTERS "INT". 6. 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 OPERATION
- 7. A "CERTIFICATE OF COMPLETION" FROM THE MANUFACTURER'S REPRESENTATIVE SHALL BE FURNISHED PRIOR TO FINAL ACCEPTANCE
- 8. INTERCOM SYSTEM PROVIDER IS RESPONSIBLE FOR PROVIDING SIGNAL LINE BOOSTERS AND AMPLIFIERS AS REQUIRED FOR SYSTEM TO FUNCTION PROPERLY.
- 9. PROVIDE PROPERLY SIZED JUNCTION BOXES TO HOUSE DEVICES. COORDINATE WITH SHOP DRAWING PRIOR TO ROUGH-IN. INCLUDE IN BID ALL MATERIAL NECESSARY TO MOUNT AND CONNECT DEVICES PER MANUFACTURER'S RECOMMENDATIONS.

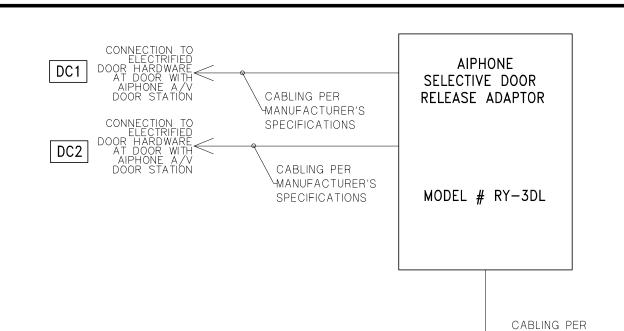


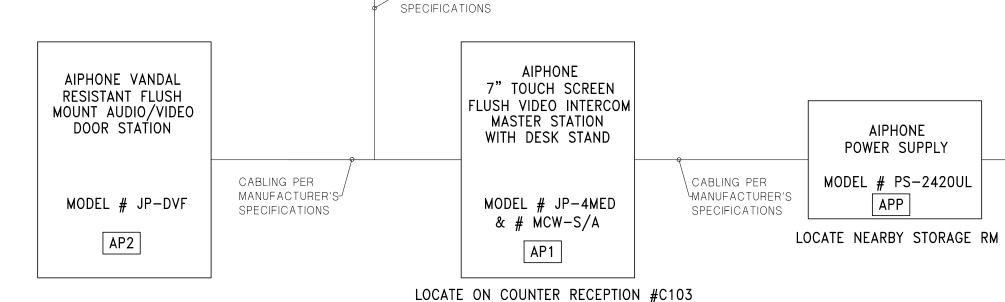
INTERCOM SHEET NOTES:

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

MODIFY EXISTING INTERCOM SYSTEM AS REQUIRED TO ACCOMMODATE ADDITIONAL DEVICES.



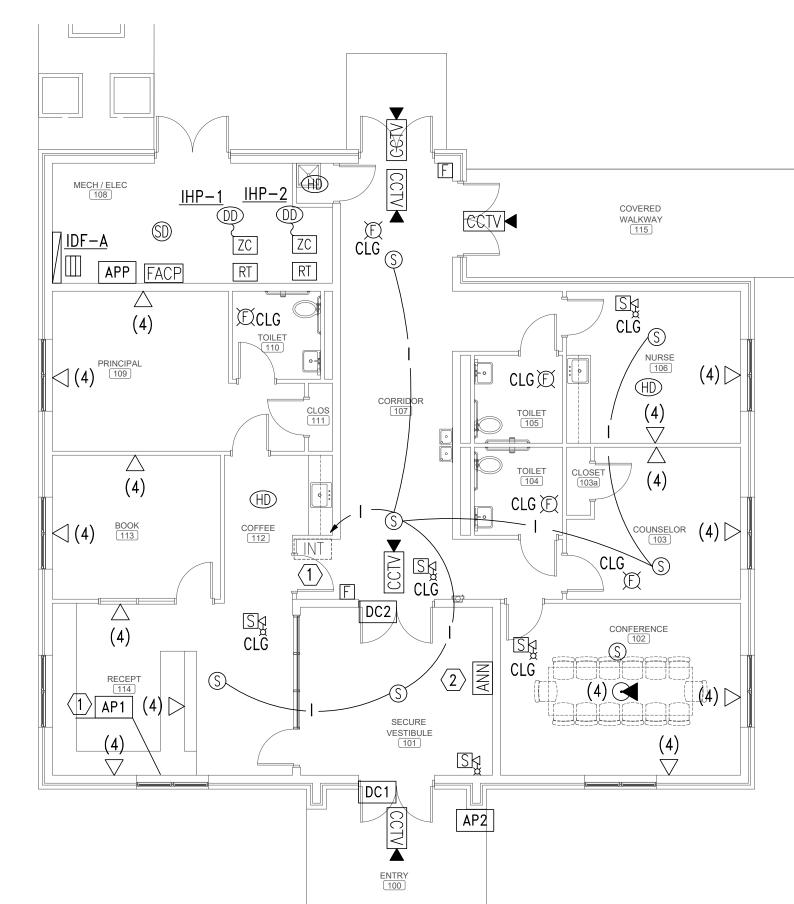


-MANUFACTURER'S

DOOR SECURITY SYSTEM

NO SCALE E4.1

# INTERCOM/CLASS BELL RISER DIAGRAM



FLOOR PLAN - AUXILIARY

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

## **GENERAL NOTES:**

- 1. ALL CONDUIT SHALL STUB ABOVE ACCESSIBLE CEILING. PROVIDE PROTECTIVE PLASTIC COLLAR AT STUB AND PULLSTRING.
- 2. COORDINATE AND MOUNT COMMUNICATIONS OUTLETS WITHIN 6" OF CORRESPONDING POWER RECEPTACLE.
- 3. COORDINATE ALL MOUNTING HEIGHTS WITH MILLWORK SHOP DRAWINGS TO INSURE CORRECT MOUNTING HEIGHT AND LOCATION PRIOR TO ROUGH-IN.

### SHEET NOTE:

- <1> CONTRACTOR SHALL CONNECT NEW INTERCOM DEVICES TO EXISTING "BOGAN" TYPE INTERCOM SYSTEM. CONTRACTOR SHALL MODIFY EXISTING INTERCOM CONSOLE SYSTEM AS REQUIRED TO ACCOMMODATE NEW INTERCOM DEVICES. PROVIDE SURGE SUPPRESION ON ALL INCOMING AND OUTGOING CABLES FROM BUILDING TO BUILDING.
- (2) PROVIDE FLUSH MOUNTING FOR FIRE ALARM ANNUNCIATOR PANEL.

SHEET TITLE: FLOOR PLAN - AUXILIARY

MCKEE JOB #: 23-251

J. TILLERY DRAWN BY

DING

ADMIN

D

>TO 120VAC

PANEL SEA-2

DATE: 05.18.2024

**REVISED DATE:** 

REVISED DATE:

**REVISED DATE:** 

16 FT

Gunn & Associates, P.C. Consulting Engineers 3102 Highway 14 1200 Providence Park, Suite 200 Birmingham, AL 35242 Millbrook, AL 36054

1/8" = 1'-0

**GRAPHIC SCALE** 

Tel: 334.285.1273 GA#24-007

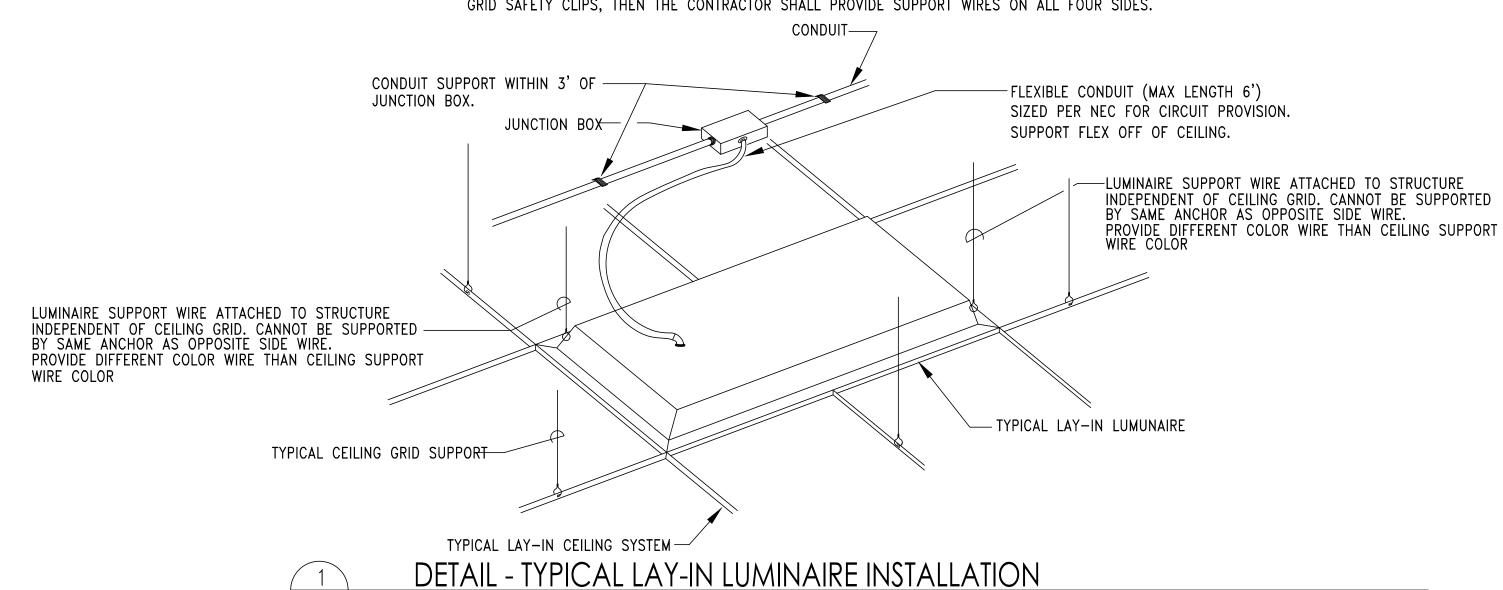
SHEET NO.: E4.1

	LIGHTING FIXTURE SCHEDULE								
TYPE:	MANUFACTURER NUMBER AND EQUALS:	VOLTAGE:	MOUNTING:	LAMP TYPE:	LAMP QUANTITY:	DESCRIPTION:			
A	MANNING LIGHTING NO. DP-292-XX-B129-40-0-10-120-WH-CBL OR EQUALS BY WILLIAMS, LUMAX, OR COOPER	MVOLT	PENDANT	LED	5091 LUMENS 3710 LUMENS	LED PENDAND MOUNT BOWL FIXTURE WITH UP/DOWN LIGHT. PROIVDE WITH AIRCRAFT CABLE. 0-10V DIMMING.			
D1	PRESCOLITE NO. LTR-6ED-H-ML-DM1-LV-EMR-XL-40K-8-WD OR EQUALS BY WILLIAMS, LUMAX, OR COOPER	MVOLT	RECESSED	LED	3000 LUMEN	6 INCH 3000 LUMEN LED DOWNLIGHT 4000K TEMPETURE LAMPS AND FEATURE REMOTE PHOSPHOR TECHNOLOGY ENABLING A HIGH SYSTEM EFFICACY AND MINIMUM 80 CRI. 0-10V DIMMING			
D2	PRESCOLITE NO. LTR-6RD-H-ML-20L-DM1-LTR-6RD-T-ML40K8MDSWT OR EQUALS BY WILLIAMS, LUMAX, OR COOPER	MVOLT	RECESSED	LED	2000 LUMEN	6 INCH 2000 LUMEN LED DOWNLIGHT 4000K TEMPETURE LAMPS AND FEATURE REMOTE PHOSPHOR TECHNOLOGY ENABLING A HIGH SYSTEM EFFICACY AND MINIMUM 80 CRI. WET LOCATION			
LG48	HUBBELL NO. LCAT-24-40K-ML-G-ED-MVOLT OR EQUALS BY WILLIAMS, LUMAX, OR COOPER	MVOLT	RECESSED	LED	5000 LUMEN	2'X4' 5000-LUMEN VOLUMETRIC FIXTURE. 0-10V DIMMING CAPABLE.			
LG60	HUBBELL NO. LCAT-24-40K-HL-G-ED-MVOLT OR EQUALS BY WILLIAMS, LUMAX, OR COOPER	MVOLT	RECESSED	LED	6000 LUMEN	2'X4' 6000-LUMEN VOLUMETRIC FIXTURE. 0-10V DIMMING CAPABLE.			
LG72	HUBBELL NO. LCAT-24-40K-VL-G-ED-MVOLT OR EQUALS BY WILLIAMS, LUMAX, OR COOPER	MVOLT	RECESSED	LED	7200 LUMEN	2'X4' 7200-LUMEN VOLUMETRIC FIXTURE. 0-10V DIMMING CAPABLE.			
LS1	HUBBELL NO. LCL-4-40K-ML-E-MVOLT OR EQUALS BY WILLIAMS, LUMAX, OR COOPER	MVOLT	SURFACE OR CHAIN HUNG	LED	5000 LUMEN	SURFACE MOUNTED 4'-0" LED STRIP. CHAIN HANG WHEN SURFACE MOUNT IS NOT POSSIBLE.			
LS2	HUBBELL NO. LCL-2-40K-ML-E-MVOLT-WIREGUARD OR EQUALS BY WILLIAMS, LUMAX, OR COOPER	MVOLT	WALL WELDING BOOTH	LED	2850 LUMEN	SURFACE MOUNTED 2'-0" LED STRIP WITH WIREGUARD. CHAIN HANG WHEN SURFACE MOUNT IS NOT POSSIBLE.			
WP1	HUBBELL NO. QSP-30L-4000K-053-TYPE 3-U-COLOR BY ARCH - SCP-20F OR EQUALS BY WILLIAMS, LUMAX, 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.			

- 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.

#### 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.

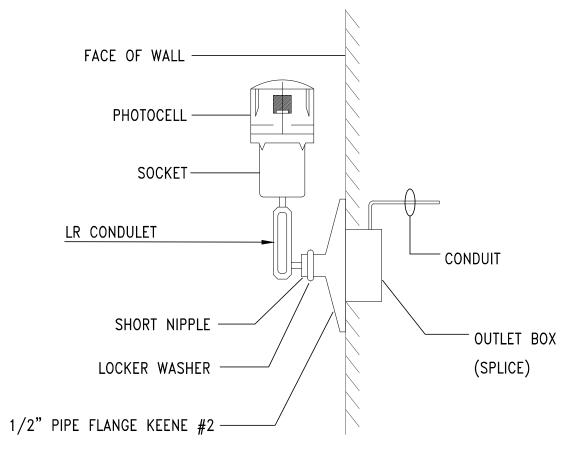


#### LUMINAIRE NOTES:

- 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.

#### 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.



DETAIL - INSTALLATION OF PHOTO-CELL

NO SCALE



SHEET TITLE: LIGHTING SCHEDULE, **DETAILS & NOTES** 

MCKEE JOB #: 23-251

J. TILLERY DRAWN BY:

05.18.2024 DATE:

**REVISED DATE:** 

**REVISED DATE:** 

REVISED DATE:



E: 400 AMP MAIN LUG ONLY	AIC	- SE-A  MOUNTED: SURFACE					VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE						
CIRCUIT DIRECTORY		(VA) PER PHASE				CIRC	UIT				(VA) PER PHASE		CIRCUIT DIRECTORY
	PHASE A	PHASE B	PHASE C	AMP	POLE	NUM	BER	AMP	POLE	PHASE A	PHASE B	PHASE C	
LIGHTS	1,490			20	1	1	2	20	1	1,200			RECEPTACLE
LIGHTS		954		20	1	3	4	20	1		1,200		RECEPTACLE
LIGHTS			704	20	1	5	6	20	1			1,200	RECEPTACLE
EXTERIOR LIGHTS	445			20	1	7	8	20	1	1,200			RECEPTACLE
ODHP-A1		915		30		9	10	20	1		1,200		RECEPTACLE
			915		2	11	12	20	1			1,200	RECEPTACLE
RECEPTACLE	1,200			20	1	13	14	20	1	1,200			RECEPTACLE
RECEPTACLE		1,200		20	1	15	16	20	1		1,200		RECEPTACLE
BUSSED SPACE						17	18	20	1			1,200	RECEPTACLE
BUSSED SPACE						19	20	20	1	1,200			RECEPTACLE
BUSSED SPACE						21	22	20	1		1,200		RECEPTACLE
BUSSED SPACE						23	24	20	1			1,200	RECEPTACLE
BUSSED SPACE						25	26	20	1	1,200			RECEPTACLE
BUSSED SPACE						27	28	20	1		1,200		RECEPTACLE
BUSSED SPACE						29	30	20	1			1,200	RECEPTACLE
BUSSED SPACE						31	32	30		2,250			WH-1
BUSSED SPACE						33	34		2		2,250		
BUSSED SPACE						35	36	20	1			600	CP-1 & TC-1
BUSSED SPACE						37	38	20	1	600			CON-1
BUSSED SPACE						39	40	20	1	000			SPARE
BUSSED SPACE						41	42	20	1				SPARE
IHP-1	3,840			50		43	44	30	<u>'</u>	1,500			OHP-1
1111 1	3,010	3,840		- 00		45	46	- 00		1,000	1,500		0111 1
		0,010	3,840		3	47	48		3		.,000	1,500	
IHP-2	4,560		0,010	60	<u> </u>	49	50	40		2,052		1,000	OHP-2
1111 -2	1,000	4,560		- 00		51	52	40		2,002	2,052		OIII -2
		1,000	4,560		3	53	54		3		2,002	2,052	
BUSSED SPACE			4,000		3	55	56	20	1			2,002	SPARE
BUSSED SPACE						57	58	20	1				SPARE
						59	60	20	1				SPARE
BUSSED SPACE						1			1				
BUSSED SPACE						61	62	20					SPARE
BUSSED SPACE						63	64	20	1				SPARE
BUSSED SPACE						65	66	20	1				SPARE
BUSSED SPACE						67	68	20	<u>'</u>			_	SPARE
BUSSED SPACE						69	70	20	1				SPARE
BUSSED SPACE						71	72	20	1				SPARE
BUSSED SPACE						73	74	20	1				SPARE
BUSSED SPACE						75	76	20	1				SPARE
BUSSED SPACE						77	78	20	1				SPARE
BUSSED SPACE						79	80	20	1				SPARE
BUSSED SPACE						81	82	20	1		600		IDF-A
BUSSED SPACE			45.5.5	<u> </u>		83	84	20	1			600	FACP (NOTE 2)
SUB TOTAL (VA)	11,535	11,469	10,019							12,402	12,402	10,752	SUB TOTAL (VA)
TAL LOAD PHASE A:		23,937					NOTES:						
TAL LOAD PHASE B:		23,871	. ` ′				1. PANE	LBOARD	TO BE BO	OLT-ON TYPE	WITH DOOR-IN-D	OOR CONSTRUCT	TION.
TAL LOAD PHASE C:		20,771	. ` '				2. PRO\	/IDE LOC	CK HANDL	E CIRCUIT BR	EAKER.		
TAL LOAD:		68,579	(VA) =	190	AMPS		3. PRO\	/IDE INT	ERGRAL T	VSS UNIT.			
							4. PRO\	/IDE PAN	NEL WITH	NAME PLATE	INDICATING AIC F	RATING	
							5. PRO\	/IDE ARC	C FAULT L	ABEL PER DE	TAIL.		

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.

#### PANELBOARD NOTES:

- 1. PANELBOARDS SHALL BE INSTALLED AND ALL CLEARANCES MAINTAINED IN ACCORDANCE WITH THE NEC.
- ALL PANELBOARDS SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH THAT LISTING.
   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.

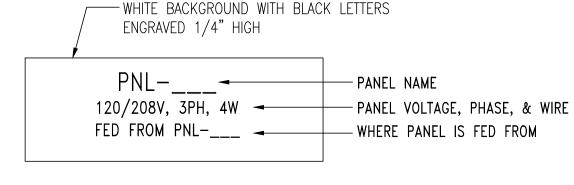
- 5. THE TERMINATION POINT OF THE FEEDER SERVING EACH ASSEMBLY SHALL BE AT THE NEAREST POINT OF FEEDER ENTRY INTO THE PANEL, SO AS TO MINIMIZE CONDUCTOR FILL IN THE ENCLOSURE. COORDINATE TOP/BOTTOM FEED PANELBOARD PROVISIONS WITH EACH FEEDER INSTALLATION.
- 6. PROVIDE THE PROPER SIZE AND QUANTITY OF 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.



TYPICAL NORMAL POWER NAMEPLATE





Appropriate PPE Required
Failure to Comply Can Result
in Injury or Death

#### 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"



# ARC FLASH WARNING LABELS

Gunn & Associates, P.C.

Consulting Engineers

3102 Highway 14
Millbrook, AL 36054

1200 Providence Park, Suite 200
Birmingham, AL 35242

GA#24-007

Tel: 334.285.1273

SHEET TITLE: PANELBOARD SCHEDULE, DETAILS & NOTES

MCKEE JOB # : 23-251

DRAWN BY: J. TILLERY

DATE: 05.18.2024

REVISED DATE:

REVISED DATE:

**REVISED DATE:** 

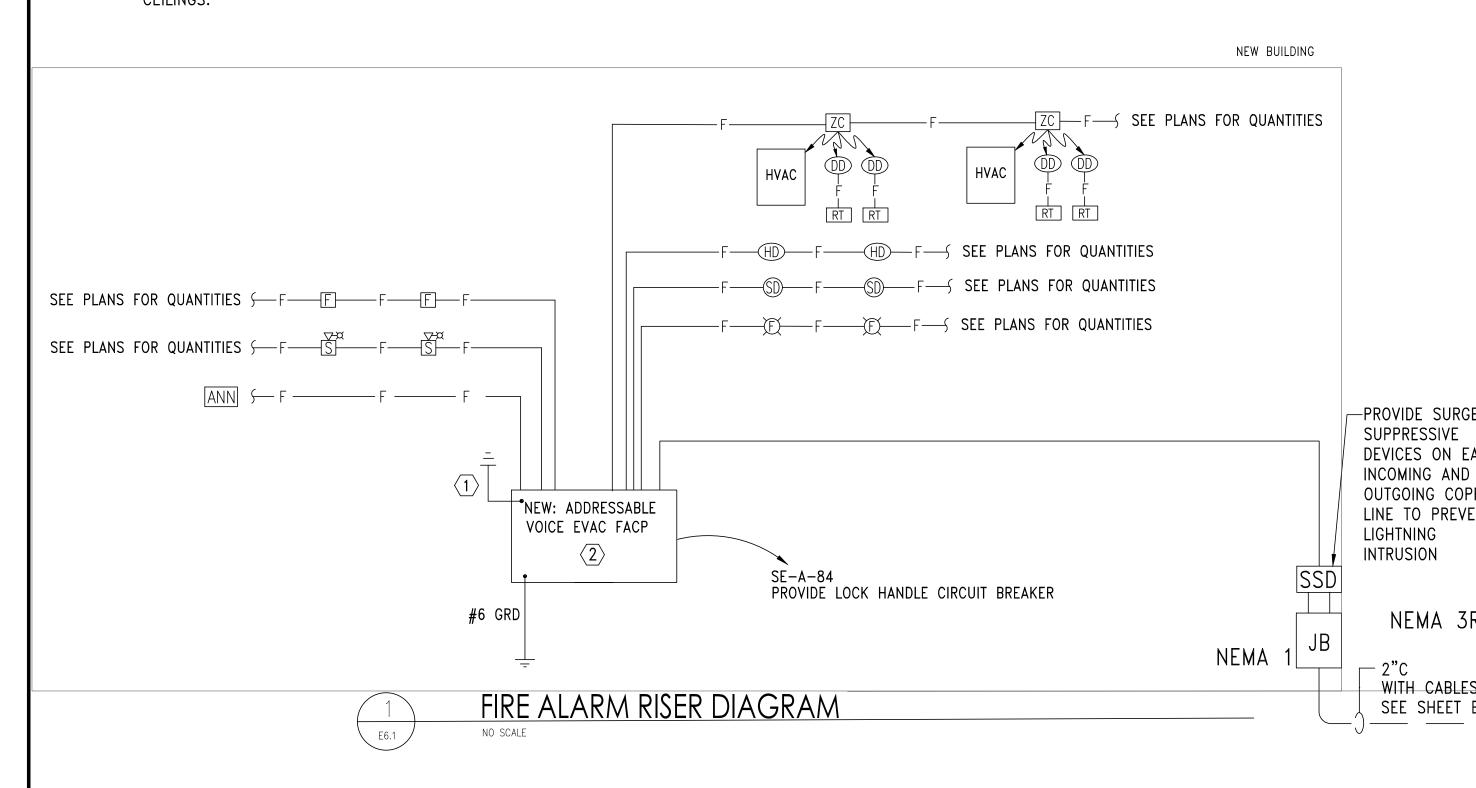
SHEET NO. F5.2

# 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. PROVIDE ADDITIONAL NOTIFICATION APPLIANCE CIRCUIT PANELS, AMPLIFIERS, POWER SUPPLIES, ETC. FOR FUTURE CAPACITY TO HAVE SYSTEM WORK CORRECTLY AS ONE SYSTEM.
- 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.

#### SHEET NOTES:

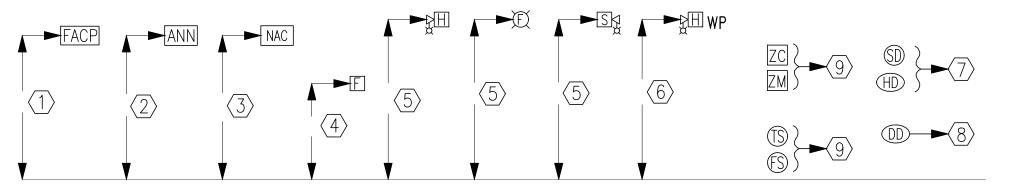
- PROVIDE A UL LISTED CELLULAR COMMUNICATOR IN THE NEW FIRE ALARM PANEL. PROVIDE TWO YEARS OF CELLULAR MONITORING FROM THE DATE OF FINAL ACCEPTANCE.
- RED MC CABLING WILL BE ALLOWED FOR FIRE ALARM CABLING WHEN CONCEALED ABOVE CEILINGS.



# 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 HFIGHT.

- (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 PRIOF 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.
- $9\,
  angle$  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.



NO SCALE

STANDARD MOUNTING HEIGHTS/INSTRUCTIONS

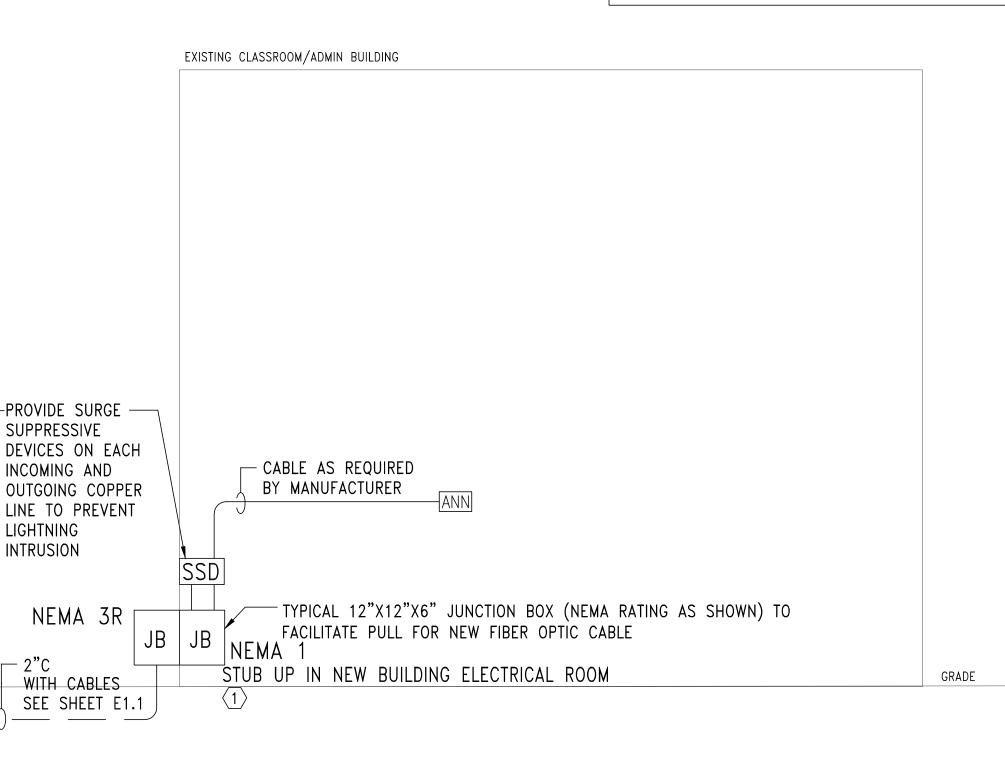
#### EMERGENCY RADIO SYSTEM

PROVIDE EMERGENCY RESPONDER RADIO SYSTEM TO MEET 2021 INTERNATIONAL FIRE CODE WITHIN THE BUILDING. SYSTEM SHALL MEET UL2524 AND COMPLY WITH IBC 2021 510.

- ELECTRICAL CONTRACTOR SHALL PROVIDE (1) SIGNAL STRENGTH TEST AT (5) LOCATIONS ON SITE WITHIN PROPOSED BUILDING FOOTPRINT. THE RESULTS SHALL BE SUBMITTED TO THE FIRE MARSHAL FOR ACCEPTANCE.
- . PROVIDE SHOP DRAWING FOR A DISTRIBUTION ANTENNA SYSTEM WITH AMPLIFIER TO COVER THE ENTIRE STRUCTURE
- 3. ELECTRICAL CONTRACTOR SHALL PROVIDE EMPTY CONDUIT WITH NYLON PULL STRINGS AS REFLECTED ON DRAWINGS. CONDUIT SHALL BE INSTALLED AS BASED BID AND ARE NOT ALLOWED FOR USE WITH ANY OTHER SYSTEM. ALL EMERGENCY RESPONDER RADIO SYSTEM CONDUIT SHALL BE MARKED WITH 'BDA'.
- 4. ELECTRICAL CONTRACTOR SHALL PROVIDE (1) SIGNAL STRENGTH TEST WITHIN THE BUILDING AT 80% COMPLETION OF CONSTRUCTION. THE RESULTS SHALL BE SUBMITTED TO THE FIRE MARSHAL FOR ACCEPTANCE. IF SIGNAL STRENGTH AT ANY PORTION OF THE BUILDING FALLS BELOW REQUIREMENTS OF IFC 510 AN EMERGENCY RESPONDER RADIO SYSTEM SHALL BE PROVIDED. SEE ALLOWANCE FOR ADDITIONAL INFORMATION.

#### ALLOWANCE:

. IF THE TEST SIGNAL IS DEEMED NOT TO BE ACCEPTABLE THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE FOLLOWING BY ALLOWANCE. PROVIDE AMPLIFIER, ANTENNA AND ALL ADDITIONAL REQUIRED SYSTEM PARTS IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS (SEE ITEM 2 UNDER BASE BID ABOVE) AND IFC 2021 510.5. THIS INCLUDES OBTAINING PERMIT PER SECTION 510.3. THE SYSTEM SHALL BE RETESTED BY THE TESTING AGENCY PER 510.5.3 AND TEST RECORDS SHALL BE PROVIDED TO THE FIRE MARSHALL FOR ACCEPTANCE.



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

J. TILLERY

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MCKEE JOB #: 23-251

DRAWN BY

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05.18.2024 DATE:

REVISED DATE:

**REVISED DATE:** 

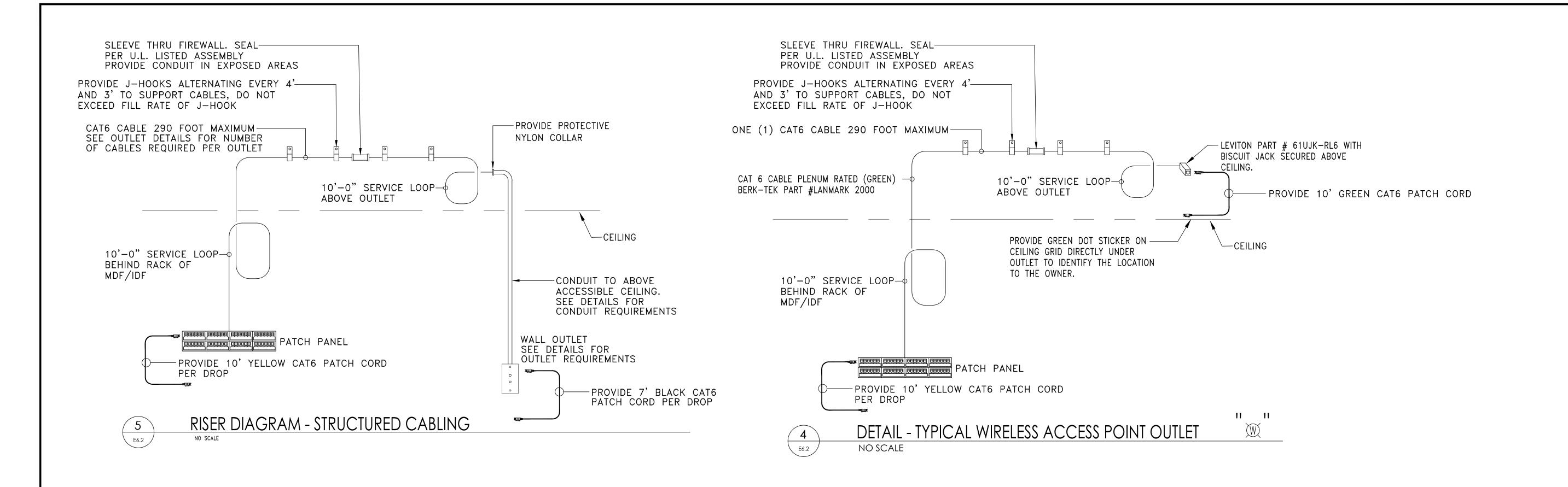
**REVISED DATE:** 

Consulting Engineers 1200 Providence Park, Suite 200 3102 Highway 14 Millbrook, AL 36054 Birmingham, AL 35242

Tel: 334.285.1273

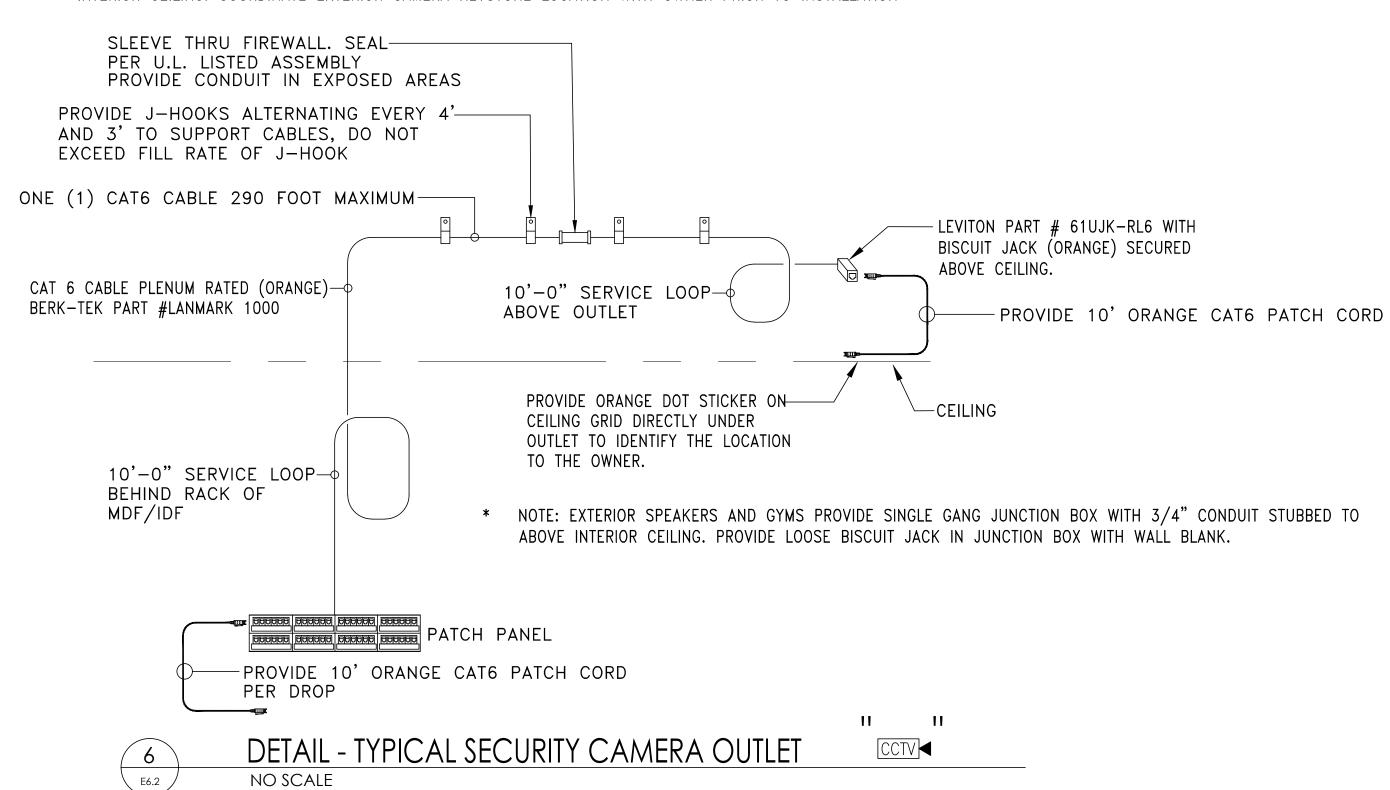
Gunn & Associates, P.C

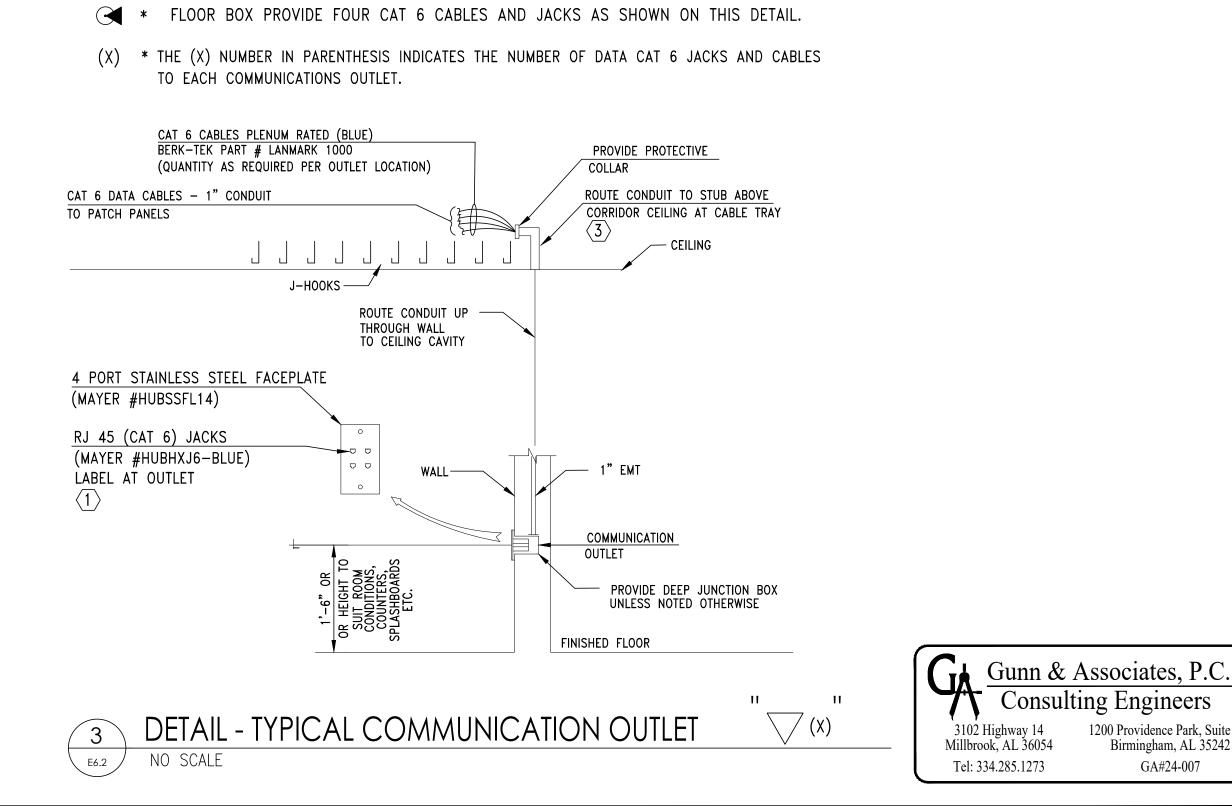
GA#24-007



#### SHEET NOTES:

- $\langle 1 \rangle$  THE (X) NUMBER IN PARENTHESIS INDICATES THE NUMBER OF DATA CAT 6 JACKS AND CABLES TO EACH COMMUNICATIONS OUTLET.
- SECURITY CAMERAS TO BE OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT. PROVIDE CAT 6 CABLE FROM CAMERA TO NEW NVR TO BE MOUNTED IN THE IDF LOCATION. NVR TO BE OWNER PROVIDED CONTRATOR INSTALLED.
- (3) WIRELESS ACCESS POINTS TO BE OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT. PROVIDE CAT 6 CABLE FROM WIRELESS ACCESS POINTS TO PATCH PANELS IN THE IDF LOCATION.
- \* NOTE: EXTERIOR CAMERAS PROVIDE SINGLE GANG JUNCTION BOX WITH 3/4" CONDUIT STUBBED TO ABOVE INTERIOR CEILING. COORDINATE EXTERIOR CAMERA KEYSTONE LOCATION WITH OWNER PRIOR TO INSTALLATION





SHEET TITLE: COMMUNICATIONS RISER, DETAILS, & NOTES

05-18-2024

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**A** R 8 631 S

MCKEE JOB #: 23-251

J. TILLERY DRAWN BY

DING

ADMIN

DATE: 05.18.2024

**REVISED DATE:** 

**REVISED DATE:** 

REVISED DATE:

1200 Providence Park, Suite 200

Birmingham, AL 35242

GA#24-007

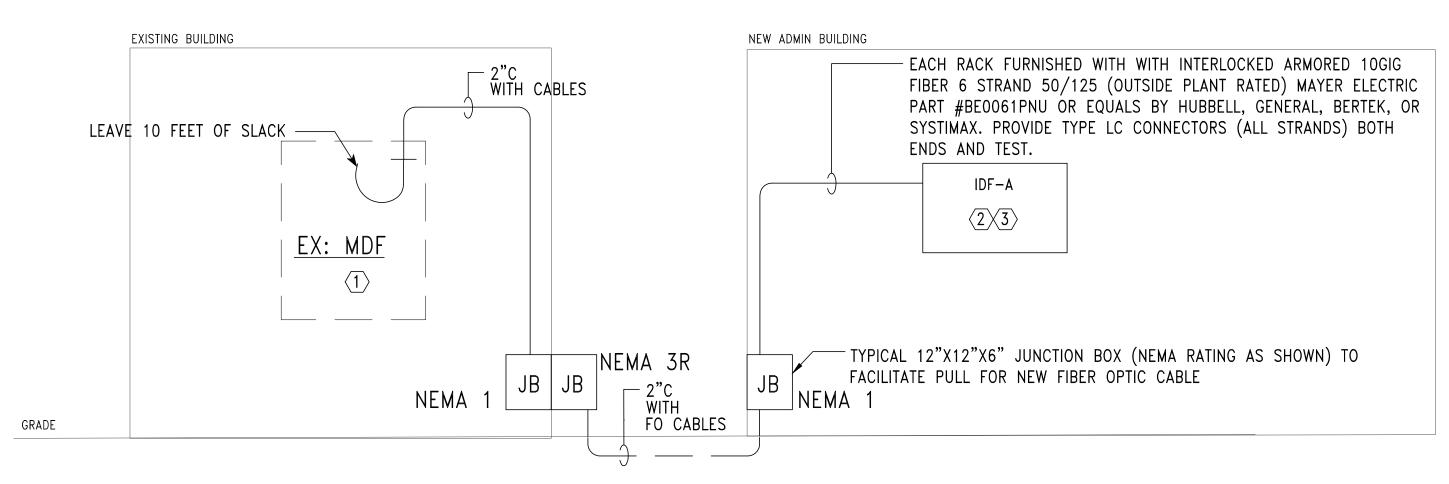
#### NOTE:

CONTRACTOR SHALL PROVIDE ONE (1) CAT 6 PATCH CORD IN MDF/IDF/CBB FOR EACH HORIZONTAL COPPER CABLE INSTALLED IN CONTRACT. PROVIDE 50% OF THE PATCH CORDS AS ONE FOOT AND PROVIDE THE OTHER 50% AS THREE FOOT.

EQUIPMENT TRAY FURNISH AND INSTALL 18" EQUIPMET TRAY FROM EACH RACK TO WALL. FURNISH AND INSTALL 18" EQUIPMENT TRAY AROUND WALL AS REQUIRED TO SUPPORT 48 PORT CATEGORY 6 PATCH PANEL -(LEVITON #49255-L48) LOADED WITH CAT6 CONNECTORS TYPICAL OF TWO (2) LABEL AT RACK, CABLE, AND OUTLET STRUT SUPPORTS ATTACHED TO WALL AND TO BACKBOARD COORDINATE SIZES TO PROVIDE STRAIGHT CONDUIT RUNS. TYPICAL TOP AND BOTTOM OF BACKBOARD. - FIBER OPTIC PATCH PANELS CONTRACTOR SHALL FURNISH AND INSTALL ALL FIBER IN RACK MOUNT FIBER ENCLOSURE UTILIZING "ST" FIBER CONNECTORS. MULTI-MODE FIBER SHALL BE INSTALLED IN FIBER ENCLOSURES. PLYWOOD BACKBOARD, 3/4" x 7'h x WIDTH INDICATED FIBER ADAPTER MODULE "ST" MULTIMODE 50/125 WITH CONNECTORS ON PLAN - PAINT ALL OVER WITH TWO COATS OF FIRE PROOF, LT. GRAY ENAMEL. FURNISH AND INSTALL HORIZONTAL WIRE MANAGEMENT -NETWORK SWITCH (OWNER FURNISHED CONTRACTOR INSTALLED) (HUBBELL #HUBHC219CC3P) ABOVE AND BELOW EACH--#4 COPPER GROUNDING CONDUCTOR FROM THE GROUND BUS 48 PORT PATCH PANELS (TYPICAL OF 1 RACKS) TO THE RACK FRAME. GRD BUS FURNISH AND INSTALL AN UNINTERUPPTIABLE POWER SUPPLY (APC #2200VA SMART RACK MOUNT 120VOLT) IDF-A AT THE BOTTOM OF EACH CABINET FIN. FLOOR (TYPICAL OF 2 RACKS) FLOOR MOUNTED DATA/TELECOMMUNICATIONS EQUIPMENT RACK. PROVIDE ONE (1) TWO POST RACK (EATON #SB556084XUFB) WITH FRONT VERTICAL MANAGEMENT & REAR VERTICAL CABLE MANAGEMENT (EATON #SB86086D084FB) ON EACH SIDE. INSTALL RACK WHERE INDICATED ON DRAWINGS. SUPPORT TOP OF RACK OFF BACK WALL WITH TWO STRUT SUPPORTS, ONE FROM EACH SIDE OF RACK. INSTALL VERTICAL POWER STRIP (TRIP LITE #PDUMV30NET) IN EACH TELECOMMUNICATION RACK. IDF-A COMMUNICATIONS RACK ELEVATION

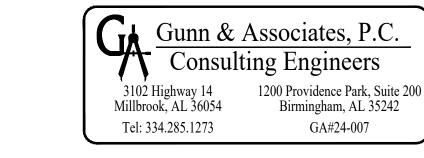
# SHEET NOTES:

- $\langle 1 \rangle$  PROVIDE FIBER PATCH PANEL AS NEEDED TO TERMINATE FIBER AT EXISTING RACK.
- SECURITY CAMERAS TO BE OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT. PROVIDE CAT 6 CABLE FROM CAMERA TO NEW NVR TO BE MOUNTED IN THE IDF LOCATION. NVR TO BE OWNER PROVIDED CONTRATOR INSTALLED.
- WIRELESS ACCESS POINTS TO BE OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT. PROVIDE CAT 6 CABLE FROM WIRELESS ACCESS POINTS TO PATCH PANELS IN THE IDF LOCATION.



1 E6.3

COMMUNICATIONS BACKBONE CABLING RISER DIAGRAM
NO SCALE



SHEET TITLE: COMMUNICATIONS RISER, DETAILS, & NOTES

MCKEE JOB # : 23-251

DRAWN BY: J. TILLERY

DATE: 05.18.2024

REVISED DATE:

REVISED DATE:

REVISED DATE:

SHEET NO · F6.3

## POWER RISER DIAGRAM NOTES:

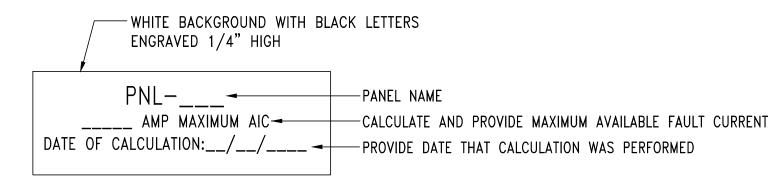
- 1. INSTALLATION AND CONNECTION OF ALL DEVICES SHALL BE IN ACCORDANCE WITH NEC, MANUFACTURER'S RECOMMENDATIONS, AND STATE AND LOCAL CODES.
- 2. CONTRACTOR IS RESPONSIBLE FOR THE CONNECTING, INSTALLATION, AND MARKING OF ALL POWER FEEDER CONDUCTORS FOR THE PROPER PHASE SEQUENCE AND LOADING. CONTRACTOR 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. COORDINATE WITH GROUNDING DETAILS ON SHEET E7.1 FOR ALL THE DIFFERENT TYPE GROUNDING REQUIREMENTS.
- 6. ALL UNDERGROUND SECONDARY FEEDERS SHALL BE A MINIMUM OF 36" BELOW GRADE TO THE TOP OF THE DUCT BANK.
- 7. ALL UNDERGROUND PRIMARY FEEDERS SHALL BE A MINIMUM OF 48" BELOW GRADE TO THE TOP OF THE CONDUIT.
- 8. 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.

# SHEET NOTES:

CONNECT TO EXISTING TRANSFORMER. NEW BAND BUILDING TO BE METERED WITH OTHER BUILDINGS BEING FEED BY TRANSFORMER.

#### NOTES:

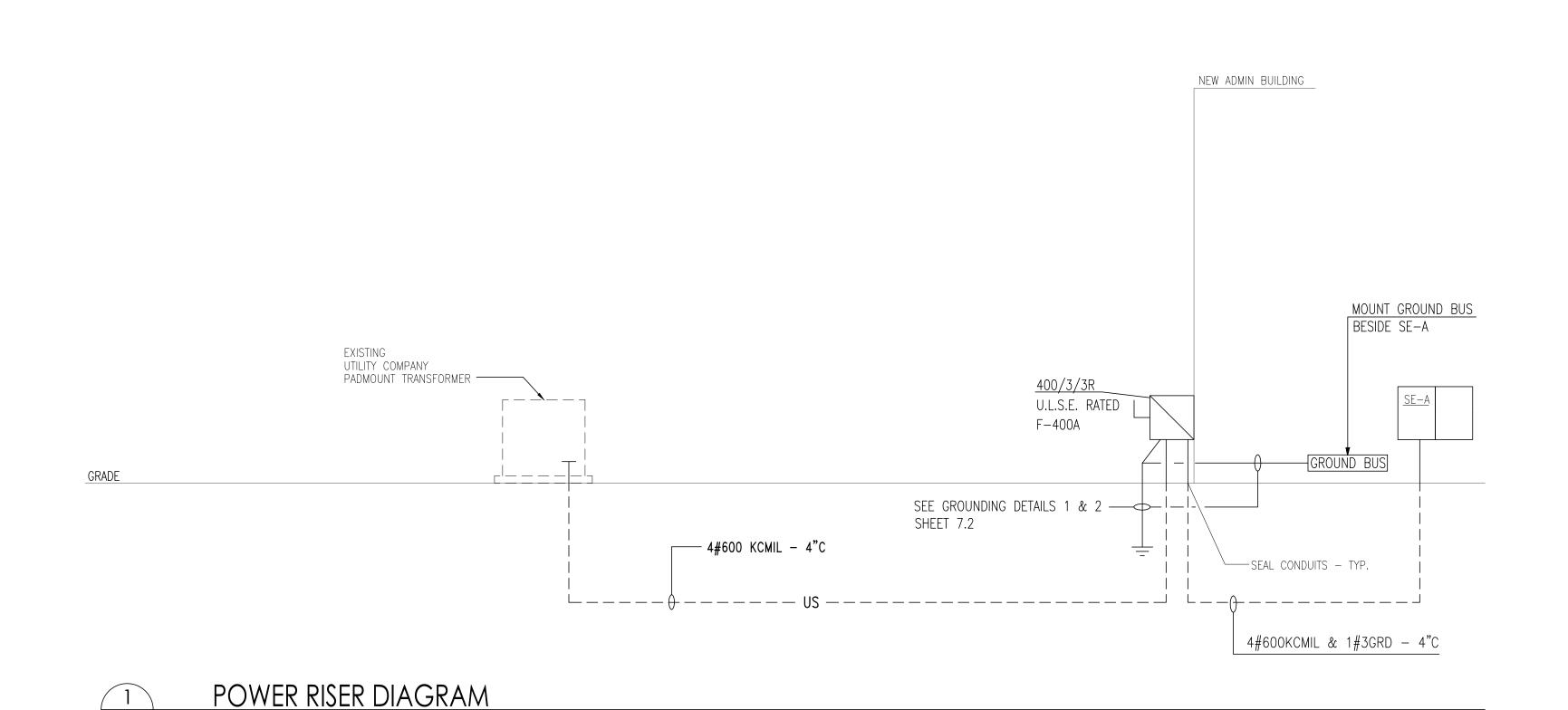
1. CONTRACTOR SHALL CALCULATE AND PROVIDE NAMEPLATE ON THE SERVICE ENTRANCE EQUIPMENT THAT INDICATES THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE CALCUALTION WAS PERFORMED. SEE NAMEPLATE REQUIREMENTS BELOW.



TYPICAL SERVICE ENTRANCE FAULT CURRENT NAMEPLATE

E7.1

DETAIL - SERVICE ENTRANCE FAULT CURRENT NAMEPLATE



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3102 Highway 14
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Tel: 334.285.1273

GA#24-007

Monorty Raman No. 26988 PROFESSIONAL O5-18-2024

NO. 18-2024

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SHEET TITLE : POWER RISER DIAGRAM, DETAILS, & NOTES

MCKEE JOB #: 23-251

DRAWN BY:

ADMIN

TE: 05.18.2024

J. TILLERY

REVISED DATE:

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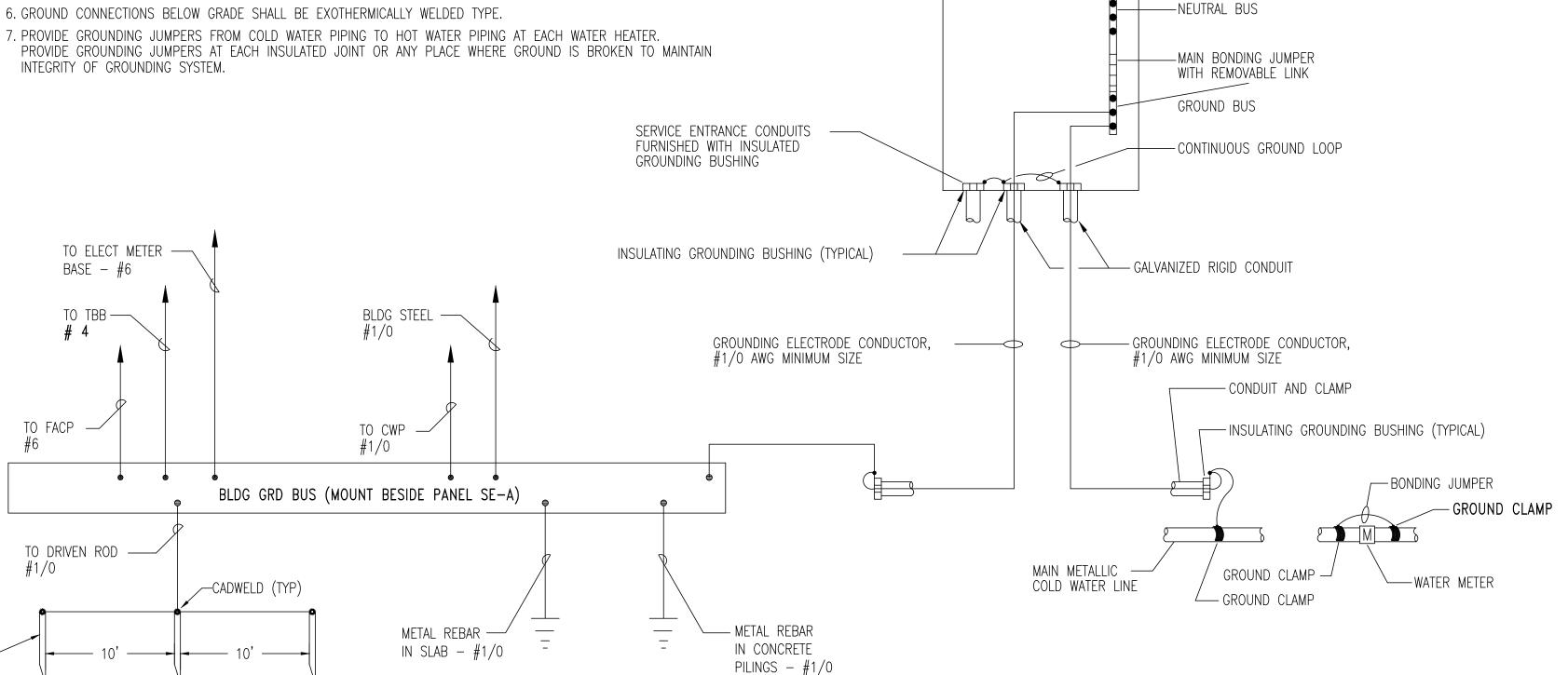
SHEET NO.: **E7.**1



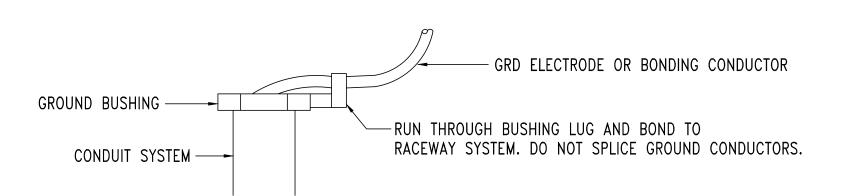
3/4" X 10' LONG COPPERWELD

GROUND ROD (TYP)

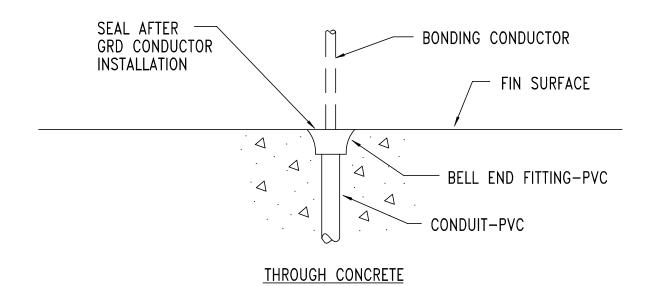
- 1. GROUNDING ELECTRODE SYSTEM SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250
- 2. GROUNDING ELECTRODE CONDUCTORS SHALL BE CONTINUOUS AND NOT SPLICED.
- 3. GROUNDING ELECTRODE CONDUCTORS SHALL BE ENCLOSED FULL LENGTH GALVANIZED RIGID CONDUIT AS INDICATED.
- 4. GROUNDING ELECTRODE CONDUCTORS SHALL BE BARE COPPER.
- 5. ALL BUSHINGS INSTALLED IN DIRECT CONTACT WITH EARTH SHALL BE APPROVED FOR THE PURPOSE.
- 7. PROVIDE GROUNDING JUMPERS FROM COLD WATER PIPING TO HOT WATER PIPING AT EACH WATER HEATER.



# DETAIL - SERVICE ENTRANCE GROUNDING INSTALLATION



#### SURFACE MOUNTED



#### <u>NOTES</u>

1. ALL GROUND ELECTRODE CONDUCTORS, SYSTEM BONDING CONDUCTORS, ETC., RUN SEPARATELY SHALL BE PROTECTED BY A CONDUIT SYSTEM.

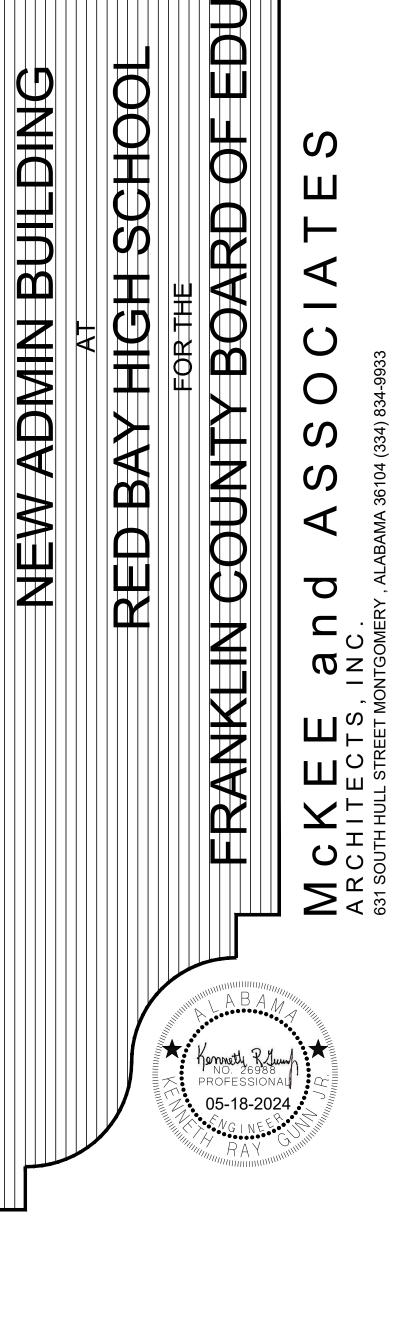
SERVICE ENTRANCE EQUIPMENT WITH

ULSE LABEL

- 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.

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





SHEET TITLE: GROUNDING DETAILS & NOTES

MCKEE JOB #: 23-251

J. TILLERY DRAWN BY:

05.18.2024

**REVISED DATE:** 

REVISED DATE:

REVISED DATE:

# GROUNDING AND BONDING INSTALLATION NOTES

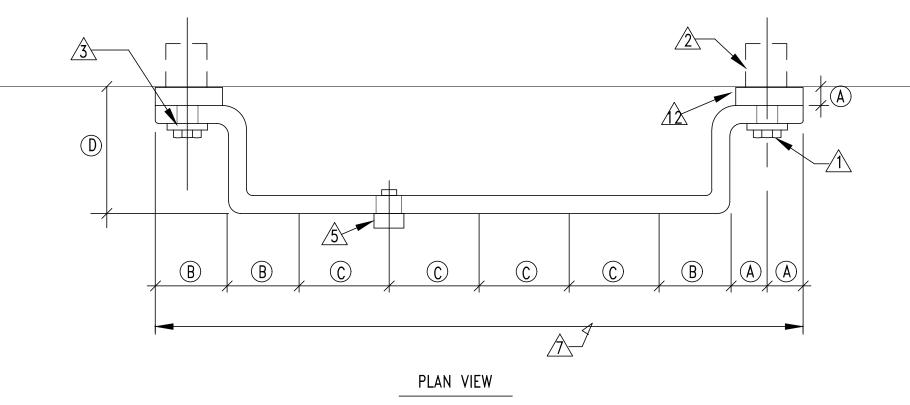
- 1. ALL GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH THE NEC, NESC, IEEE, ANSI AND UL STANDARDS. 2. ALL DIMENSIONING INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD. 3. THE PURPOSE OF THE GROUNDING 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.

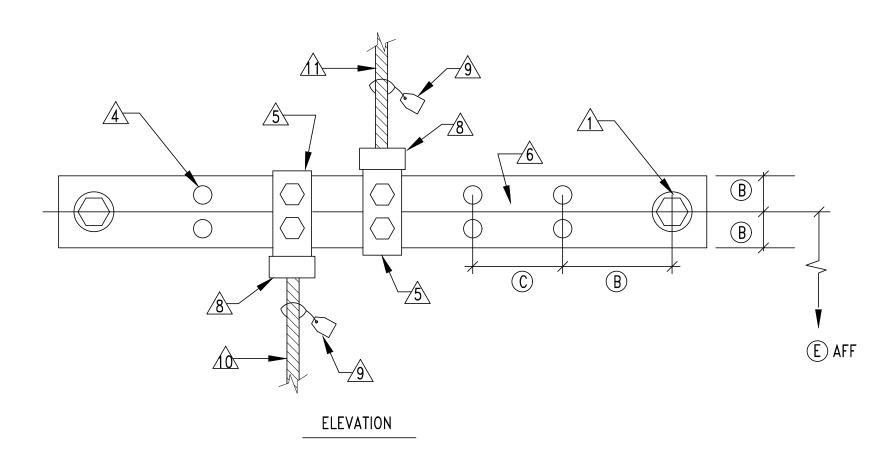
DIMENSION BLOCK									
REF	ENGLISH	SI							
Α	1"	25.4mm							
В	2"	50.8mm							
С	2 1/2"	63.5mm							
D	3"	76.2mm							
E	1'-6"	.4572m							

#### GROUND BUS NOTES

1. GROUND BUS INSTALLATION SHALL BE IN ACCORDANCE

WITH THIS DETAIL AND AS INDICATED ON THE DRAWINGS.





### KEYED NOTES

- 1/2" (12.7mm) X 1 1/2" (38.1mm) SILICON-BRONZE MACHINE BOLT & SILICON-BRONZE WASHER
- 1/2" (12.7mm) EXPANSION ANCHOR
- 3 9/16"ø (14.2875mm) HOLE IN BAR
- DRILLED DOUBLE CONNECTOR HOLES
- 5 FLAT, TWO-HOLE CU CABLE CONNECTOR #6 TO #2 (DOUBLE LUGS) #1 TO #4/O (SINGLE LUGS ONLY)
- 6 4" (101.6mm) WIDE, 1/4" (6.35mm) DEEP COPPER BUS BAR.
- LENGTH AS REQUIRED BY NUMBER OF CONDUCTOR CONNECTIONS OR AS SPECIFICALLY INDICATED. PROVIDE INTERMEDIATE WALL SUPPORTS AS REQUIRED.
- TYP CU GRD CONDUCTOR CONNECTION
- 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.
- $\triangle$  TYP GRD CONNECTION FROM ABOVE. SEE APPLICABLE DETAILS FOR GRC INSTALLATIONS.
- 12 INSULATED NON-CONDUCTIVE SPACER

DETAIL - TYPICAL GROUND BUS INSTALLATION

Gunn & Associates, P.C. Consulting Engineers 1200 Providence Park, Suite 200 3102 Highway 14 Birmingham, AL 35242 Millbrook, AL 36054 Tel: 334.285.1273 GA#24-007



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