New Fire Station No. 10

Court Street Montgomery Alabama 36108
for the
The City of Montgomery Fire Department

MGM PROJECT NO.: SP-5-21 BDW PROJECT NO.: 2021-118

5/17/2023

CONFORMANCE DOCUMENTS

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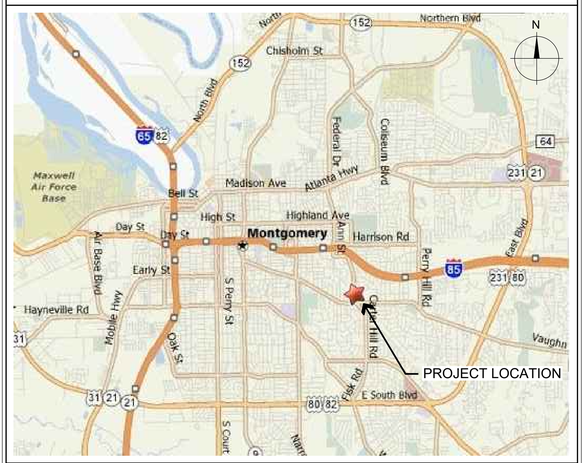
LOCATION MAP



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NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

TITLE SHEET

Sheet No:

T1.1

CONFORMANCE DOCUMENTS

SITE NOTES

1. SIDEWALKS SHALL BE 5 FEET WIDE AND 4 INCHES THICK EXCEPT AS SHOWN ON THE SITE PLAN. ALL SIDEWALKS SHALL HAVE A BROOM FINISH.

2. THE CONTRACTOR SHALL ADHERE TO THE LOCATIONS AND GEOMETRIC SHAPES FOR PADS OTHER THAN THE BUILDING AS SHOWN ON THE SITE PLAN UNLESS SPECIFIC DETAILS ARE PROVIDED IN THE ARCHITECTURAL DRAWINGS.

3. IN THE EVENT THAT THERE IS A DISCREPANCY FOR MINOR OUT STRUCTURES BETWEEN THE CIVIL DRAWINGS AND THE ARCHITECTURAL DRAWINGS, THE ARCHITECTURAL DRAWINGS WILL HAVE PRECEDENCE.

4. THE CONTRACTOR SHALL USE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ANY WORK DONE ON THE PAD, CONNECTING RAMPS, DOOR STOOPS, STEPS AND THE DUMPSTER PAD AREA.

5. THE CONTRACTOR SHALL ABIDE BY THE CONCRETE PAVEMENT RECOMMENDATIONS AS SET FORTH IN THE GEOTECHNICAL REPORT INCLUDING SUBGRADE PREPARATION.

6. THE CONTRACTOR SHALL PLACE CONSTRUCTION JOINTS AND FLEXIBLE JOINT COMPOUND AS RECOMMENDED IN THE GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE PORTLAND CEMENT ASSOCIATION.

7. THE CONTRACTOR SHALL SUBMIT A SKETCH OF JOINT PLACEMENT TO THE ENGINEER FOR APPROVAL PRIOR TO THAT PHASE OF WORK.

8. ALL RAMPS, GRADES IN HANDICAP AREAS, HANDICAP SIGNS AND HANDICAP PARKING AREAS SHALL CONFORM TO CURRENT ADA-AG STANDARDS.

9. THE USE OF SPILL OUT CURB AND GUTTER SHALL BE USED IN AREAS INDICATED AS HAVING A WATER FLOW THAT IS LEAVING THE CURB LINE. ANY TRANSITIONS FROM STANDARD CURB AND GUTTER TO SPILL OUT CURB AND GUTTER TO BE CONSTRUCTED IN SUCH A MANNER THAT NO PONDING OR 'BIRD BATHS' OCCUR. THE CONTRACTOR SHALL ENSURE THAT ALL PAVED AREAS DRAIN IN THIS SAME MANNER.

10. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM AN AS-BUILT SURVEY PRIOR TO BEGINNING ANY WORK IN ORDER TO SATISFY HIMSELF OF THE SITE CONDITIONS. THE COST ASSOCIATED SHALL BE INCLUDED IN THE BID.

UTILITY NOTES

1. ALL WORK DESCRIBED, SHOWN, REFERENCED, OR OTHERWISE INDICATED IN OR ON THE DRAWINGS, PROPOSAL, ADVERTISEMENT AND SPECIFICATIONS ARE TO BE COMPLETED IN-PLACE AND SERVICEABLE ACCORDING TO THE PLANS, INSTRUCTIONS, SPECIFICATIONS, LINES AND GRADES INDICATED ON THE PLANS AND ALL APPLICABLE STATE, FEDERAL, AND MUNICIPAL CODES AND STANDARDS. INDIVIDUAL ITEMS OF WORK THAT ARE NECESSARY TO COMPLETE THE PROJECT TO THE LINES AND GRADES, WHETHER SHOWN OR DESCRIBED IN THE PLANS AND SPECIFICATIONS, ARE TO BE CONSIDERED INCIDENTAL AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.

2. THE CONTRACTOR IS EXPECTED TO CAREFULLY EXAMINE THE PLANS, PROPOSAL AND SITE OF THE WORK. THEREFORE, IT WILL BE ASSUMED THAT THE BIDDER HAS SATISFIED HIMSELF AS TO THE CONDITIONS TO BE ENCOUNTERED IN REGARDS TO THE CHARACTER, QUALITY, AND QUANTITIES OF WORK TO BE PERFORMED AND MATERIALS TO BE FURNISHED, AND AS TO THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND CONTRACT. THE SUBMISSION OF A PROPOSAL BY A BIDDER WILL BE CONSIDERED PRIMA FACIE EVIDENCE THAT THE BIDDER HAS MADE SUCH AN EXAMINATION.

3. THE WORK ON THIS PROJECT SHALL ADHERE TO THE FOLLOWING SPECIFICATIONS, STANDARDS AND/OR REGULATIONS:

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM) AND THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) -
"BEST MANAGEMENT PRACTICES MANUAL" AND THE REQUIREMENTS OF THE SITE SPECIFIC NPDES DISCHARGE PERMIT ISSUED FOR THIS PROJECT.
ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - LATEST EDITION. ANY AND ALL REFERENCES TO UNIT PRICES ARE NOT APPLICABLE TO THIS PROJECT.
CITY OF MONTGOMERY STANDARDS AND SPECIFICATIONS.
WATER WORKS AND SANITARY SEWER BOARD OF THE CITY OF MONTGOMERY STANDARDS AND SPECIFICATIONS.
THE DRAWINGS AND SPECIFICATIONS.
IF CONFLICTS ARISE BETWEEN THESE REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.

4. THE CONTRACTOR WILL NOT HAVE TO PAY ANY PERMIT FEES OR POST A GRADING BOND TO THE CITY FOR THIS PROJECT.

5. SITE SECURITY WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6. ALL FUEL STORAGE TANKS USED ON THE SITE BY THE CONTRACTOR MUST MEET ALL LOCAL, STATE AND FEDERAL CODES AND REGULATIONS.

7. THE CONTRACTOR WILL BE RESPONSIBLE FOR TEMPORARY DIVERSION OF RUNOFF WATER, AS REQUIRED TO FACILITATE CONSTRUCTION OR AS DIRECTED ON-SITE BY THE ENGINEER. THIS TEMPORARY DRAINAGE OF RUNOFF IS CONSIDERED INCIDENTAL TO THE BID.

8. ELECTRONIC DATA THAT MAY BE GIVEN TO THE CONTRACTOR EITHER AS AN AID IN THE PREPARATION OF HIS BID OR IN THE CONSTRUCTION OF THE IMPROVEMENTS WILL BE DONE SO STRICTLY AS A COURTESY TO THE CONTRACTOR. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE ELECTRONIC INFORMATION SO TRANSFERRED. IN ALL CASES, THE PRINTED PLANS AS ISSUED BY THE ENGINEER SHALL GOVERN. A LETTER RELEASING THE ENGINEER FROM LIABILITY WILL BE REQUIRED OF THE CONTRACTOR PRIOR TO THE RELEASE OF SAID INFORMATION.

9. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE APPLICABLE GOVERNMENTAL AGENCIES AND DEPARTMENTS OF THE BEGINNING OF CONSTRUCTION.

10. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL EXISTING UTILITIES LOCATED PRIOR TO CONSTRUCTION, INCLUDING STUBOUTS. EXISTING UTILITIES SHOWN HAVE BEEN DRAWN USING THE BEST AVAILABLE INFORMATION AND HAVE NOT BEEN FIELD VERIFIED. ALL EXISTING UTILITIES TO BE UNCOVERED AND VERIFIED AS TO SIZE, LOCATION, ELEVATION AND CONDITION PRIOR TO COMMENCEMENT OF CONSTRUCTION.

11. THE CITY WILL WAIVE ALL TIPPING FEES FOR C&D MATERIAL AT THE NORTH MONTGOMERY LANDFILL.

12. NO DEVIATION FROM THE PLANS IS ALLOWED WITHOUT PRIOR APPROVAL FROM THE ENGINEER. SAID APPROVAL SHALL BE GIVEN IN WRITING.

13. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE VARIOUS UTILITY COMPANIES ON THE PLACEMENT OF THEIR SERVICES.

14. THE CONTRACTOR SHALL USE BENDS AND FITTINGS AS NECESSARY TO CONSTRUCT THE WATER LINE AS SHOWN.

15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN FINAL APPROVAL OF WORK DONE ON OR ADJACENT TO EXISTING STREETS/ROADS AND RIGHT OF WAY. WRITTEN APPROVAL FROM THE APPLICABLE AGENCY IS REQUIRED PRIOR TO RELEASE OF THE CONTRACTOR'S RETAINAGE.

16. THE CONTRACTOR MUST ADJUST ALL VALVE BOXES, COVERS, METERS, MANHOLE RIMS, AND OTHER WATER, STORM, POWER, TELECOMMUNICATIONS AND SANITARY SEWER SERVICE APPURTENANCES TO FINAL GRADE. THE COST OF THESE ADJUSTMENTS SHALL BE INCLUDED IN THE BID.

17. ALL STORM SEWER CONCRETE PIPE JOINTS SHALL BE WATERTIGHT.

18. ALL STORM SEWER AND SANITARY SEWER SHALL BE LAID FROM THE LOWEST POINT FOLLOWING THE RISING GRADE.

19. BACKFILL AND COMPACTION OF ALL TRENCHES WILL CONFORM TO THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER. TESTING OF THE FILL AND COMPACTION MUST BE PERFORMED BY THE TESTING LABORATORY ACCORDING TO THE SPECIFICATIONS WITH THE TEST REPORTS FORWARDED TO THE ENGINEER. ANY BACKFILL FAILING TO MEET COMPACTION REQUIREMENTS WILL BE REMOVED AND REWORKED UNTIL COMPACTION IS ACHIEVED, THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

20. WATER LINES SHALL HAVE A MINIMUM COVER OF 30 INCHES.

21. IF THE WATER OR SANITARY SEWER LINE CROSSES ANY UTILITY WITH LESS THAN 2 FEET OF VERTICAL SEPARATION BETWEEN THE WATER AND SANITARY SEWER, THE TRENCH SHALL BE BACKFILLED WITH CRUSHED STONE AND THE PIPE MATERIAL SHALL BE DUCTILE IRON.

22. THERE SHALL BE A MINIMUM OF 18 INCHES OF VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER LINE CROSSINGS.

23. ANY WORK ON PUBLIC RIGHT OF WAY WILL REQUIRE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE M.U.T.C.D. PREPARATION AND SUBMITTAL OF SAID PLAN TO THE APPROPRIATE AUTHORITY IS THE RESPONSIBILITY OF THE CONTRACTOR.

24. THE COST OF ALL WORK SHOWN IN THE PLANS IS THE RESPONSIBILITY OF THE CONTRACTOR UNLESS STATED OTHERWISE.

25. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR TO PUBLIC AND PRIVATE ROADS CAUSED BY HIS ACTIVITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MEET WITH PRIVATE ENTITIES, STATE, CITY AND COUNTY OFFICIALS TO AGREE UPON AND RECORD THE CONDITIONS OF THE ROADS BEFORE CONSTRUCTION COMMENCES

26. THE CONTRACTOR SHALL ENSURE THE CLEANING OF EXISTING STORM DRAIN SYSTEMS THAT ARE TO BE TIED TO BY NEW CONSTRUCTION.

26. ALL PAVING WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF ALDOT'S STANDARDS AND SPECIFICATIONS.

27. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS ASSOCIATED WITH SHORING/STABILIZING EXISTING UTILITIES DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

28. ALL PIPE LABELED AS RCP SHALL BE CLASS 3 REINFORCED CONCRETE PIPE.

29. THE WATER AND SANITARY SEWER LINES AND APPURTENANCES FOR THIS PROJECT SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE WATER WORKS AND SANITARY SEWER BOARD OF THE CITY OF MONTGOMERY.

30. ALL PIPES SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.

31. ALL DUCTILE IRON PIPING, FITTINGS AND APPURTENANCES SHALL BE POLYETHYLENE WRAPPED PER MWWSSB STANDARDS.

32. 3M MARKERS FOR WATER MODEL #1403-XR EVERY 20' AND AT FITTINGS. DO NOT INSTALL MORE THAN 48" DEEP. BALLS SHALL BE INSTALLED AT EVERY JOINT AND EVERY FITTING. WARNING TAPE IS REQUIRED.
33. GRATE INLETS SHALL BE CONSTRUCTED PER THE FLAT GRATE INLET DETAIL ON THE DETAILS SHEETS. GRATE USED IN HARD SURFACES SHALL BE RATED FOR HEAVY DUTY LOADING 6241 GRATE BY U.S. FOUNDRY. GRATE INLETS IN GRASS AREAS SHALL BE U.S. FOUNDRY 4132 FRAME AND 6001 GRATE. THE INLETS CALLED OUT 'FG-3' AND 'FG-5A' IN THE UTILITY PLAN SHALL BE A U.S. FOUNDRY 6450 ADA GRATE.

34. ALL STORM PIPE CONNECTIONS TO MANHOLES, INLETS, JUNCTION BOXES, ECT. SHALL BE MADE UTILIZING FLEXIBLE BOOTS. THESE BOOTS SHALL BE KOR-N-SEAL II 206 SERIES AS MANUFACTURED BY TRELLEBORG PIPE SEALS OR PSX DIRECT DRIVE AS MANUFACTURED BY PRESS-SEAL GASKET CORPORATION. THESE BOOTS SHALL BE ATTACHED TO THE PIPE WITH GASKETS AND SEALS, TO PROVIDE A WATER TIGHT CONNECTION BETWEEN THE PIPE AND STRUCTURES. ANY PIPE TO STRUCTURE CONNECTIONS NOT CONSTRUCTED USING FLEXIBLE BOOTS SHALL BE REMOVED AND CORRECTED AT THE CONTRACTOR'S EXPENSE. RIGID CONNECTIONS, OF ANY TYPE, SHALL NOT BE PERMITTED. TYLOX WT + CONNECTOR AS MANUFACTURED BY HAMILTON KENT MAY BE UTILIZED. ALL FLEXIBLE BOOTS/CAST IN CONNECTORS SHALL MEET ASTM C923.

EROSION/SEDIMENTATION CONTROL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE ADEM/EPA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THIS PROJECT PRIOR TO ANY CONSTRUCTION/DISTURBANCE ACTIVITIES. ALL ROUTINE COSTS ASSOCIATED WITH THIS PERMIT INCLUDING BUT NOT LIMITED TO TRANSFER FEES, PERIODIC INSPECTION FEES, NOTICE OF TERMINATION, ADEM/EPA FINES, ETC. SHALL BE THE RESPONSIBILITY OF THE OWNER.THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FINES INCURRED AS PART OF THE CONSTRUCTION ACTIVITY OF THE CONTRACTOR AS WELL ASANY PROFESSIONAL SERVICES ASSOCIATED WITH REPLYING TO NOTICE OF VIOLATION AND/OR CONSENT ORDERS SENT BY ADEM.

2. THESE STANDARD DETAILS SHALL BE APPLICABLE TO ALL LAND DISTURBING ACTIVITIES.

3. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION/ SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH ADEM/EPA "BEST MANAGEMENT PRACTICES" AND ADEM NPDES CONSTRUCTION GENERAL PERMIT CONDITIONS. MEASURES SHOWN ON THE PLANS SHOULD BE CONSIDERED MINIMUMS. THE ENGINEER, QCP, ADEM AND/OR LOCAL AUTHORITIES MAY REQUIRE THE CONTRACTOR TO CLEAN UP SILT/SEDIMENT, REPLACE EROSION CONTROL OR ADD ADDITIONAL EROSION CONTROL MEASURES AT ANY TIME OVER THE COURSE OF THE PROJECT, IF THE MEASURES IN PLACE DO NOT APPEAR TO BE ADEQUATE AND/OR FUNCTIONING PROPERLY. THE COST ASSOCIATED WITH ANY OF THESE CORRECTIVE MEASURES SHALL BE INCLUDED IN THE CONTRACTOR'S BID, NO ADDITIONAL COMPENSATION WILL BE GIVEN TO THE CONTRACTOR FOR THIS WORK.

4. MAINTENANCE OF SAID STRUCTURES AND /OR MEASURES IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL CONTROL MEASURES SHALL BE CHECKED, AND REPAIRED AS NECESSARY, MONTHLY IN DRY PERIODS, AND WITHIN 24 HOURS AFTER ANY RAINFALL AT THE SITE. DURING PROLONGED RAINFALLS, DAILY CHECKING AND, IF NECESSARY, REPAIRING SHALL BE DONE. THE PERMITTEE SHALL MAINTAIN WRITTEN RECORDS OF SUCH CHECKS AND REPAIRS ON SITE AT ALL TIMES, AND RECORDS SHALL BE SUBJECT TO INSPECTION AT ANY REASONABLE TIME.

5. ALL BMPS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE CONDITIONS OUTLINED IN THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORM WATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS, CITY OF MONTGOMERY STANDARDS FOR EROSION AND SEDIMENT CONTROL , THE PLANS AND SPECIFICATIONS. IF CONFLICTS ARISE BETWEEN THESE REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.

6. THE CONTRACTOR IS RESPONSIBLE FOR WHATEVER MEASURES ARE NECESSARY TO PRODUCE AND MAINTAIN AN ACCEPTABLE STAND OF GRASS. SAID MEASURES TO INCLUDE (BUT NOT LIMITED TO) WATERING, RE-SEEDING, REGRADING ERODED AREAS, RE-FERTILIZING, ETC.

7. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING MUD AND DEBRIS OFF PRIVATE STREETS, CITY/STATE STREETS AND ROW AT ALL TIMES. CLEANUP IS REQUIRED DAILY. THE CONTRACTOR SHALL ONLY USE THE CONSTRUCTION ENTRANCE SHOWN IN THE EROSION CONTROL PLAN TO HELP PREVENT MUD FROM TRACKING ONTO THE ROADWAYS.

8. THE CONTRACTOR SHALL KEEP A COPY OF THE 'BEST MANAGEMENT PRACTICES'/CBMPP ON SITE AT ALL TIMES FOR THE LIFE OF THE PROJECT.

9. ANY AREA THAT HAS BEEN CLEARED OF ITS VEGETATIVE COVER AND WILL REMAIN SO FOR FIFTEEN (15) DAYS OR LONGER WITHOUT APPRECIABLE CONSTRUCTION ACTIVITY MUST BE SEEDED AND MULCHED WITHIN THIRTEEN (13) DAYS OF BEING DISTURBED. THOSE AREAS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH THE LATEST EDITION OF THE AL.D.O.T. CONSTRUCTION SPECIFICATIONS, UTILIZING THE SEED MIXES SHOWN ON THE DETAILS.

10. ADDITIONAL BMPS MAY BE REQUIRED BY THE ENGINEER, QCP, ADEM AND CITY OF MONTGOMERY OVER THE COURSE OF THE PROJECT TO PREVENT SEDIMENT RELEASE FROM THE SITE. THE COST ASSOCIATED WITH THESE ADDITIONAL BMPS SHALL BE INCLUDED IN THE CONTRACTOR'S BID, NO ADDITIONAL COMPENSATION WILL BE GIVEN TO THE CONTRACTOR FOR THIS WORK.

11. THE USE OF FLOC-BLOCKS/ POLYACRYLAMIDE (PAM) OR OTHER SETTLING ENHANCEMENT MATERIALS SHALL BE REQUIRED DURING THE COURSE OF CONSTRUCTION TO MINIMIZE TURBIDITY AND PREVENT SEDIMENT RELEASE FROM THE SITE. THE ENGINEER, QCP, ADEM AND CITY OF MONTGOMERY MAY REQUIRE ADDITIONAL FLOC-BLOCKS/ PAM IF THE ITEMS BEING USED ARE NOT ADEQUATE TO PREVENT THE RELEASE OF SILT/SEDIMENTATION. THE COST ASSOCIATED WITH THESE ADDITIONAL FLOC-BLOCKS/ PAM SHALL BE INCLUDED IN THE CONTRACTOR'S BID, NO ADDITIONAL COMPENSATION WILL BE GIVEN TO THE CONTRACTOR FOR THIS WORK. AT A MINIMUM PAM SHALL BE PLACED AT SLOPE PAVED HEADWALLS.

12. THE CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS IMMEDIATELY AFTER THE COMPLETION OF THE GRADING OPERATION.

13. MAINTENANCE OF ALL EARTH SURFACES, INCLUDING DITCH/SWALE SLOPES, IS THE RESPONSIBILITY OF THE CONTRACTOR. SAID MAINTENANCE TO INCLUDE REGRADING, TEMPORARY GRASSING, MOWING, ETC. AS MAY BE REQUIRED.

14. THE ENGINEER OR THE QCP MAY REQUIRE THE CONTRACTOR TO CLEAN UP SILT/SEDIMENT, REPLACE EROSION CONTROL OR ADD ADDITIONAL EROSION CONTROL MEASURES AT ANY TIME, IF THE MEASURES IN PLACE DO NOT APPEAR TO BE ADEQUATE AND/OR FUNCTIONING PROPERLY. THE COST ASSOCIATED WITH ANY OF THESE CORRECTIVE MEASURES SHALL BE INCLUDED IN THE CONTRACTOR'S BID, NO ADDITIONAL COMPENSATION WILL BE GIVEN TO THE CONTRACTOR FOR THIS WORK.

15. THE CONTRACTOR SHALL FREQUENTLY REMOVE ANY AND ALL SILT/SEDIMENTATION FROM THE SILT FENCE, DITCHES, CHECK DAMS AND DETENTION AREAS AS PER ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORM WATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS. AT THE END OF CONSTRUCTION THESE AREAS SHALL BE COMPLETELY FREE OF SILT/SEDIMENTATION AND SHALL BE STABILIZED AS STATED IN THE PLANS AND SPECIFICATIONS.

16. MAINTENANCE OF ALL EARTH SURFACES, INCLUDING DITCH/SWALE SLOPES, IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL AN ACCEPTABLE STAND OF GRASS IS OBTAINED. SAID MAINTENANCE TO INCLUDE REGRADING, TEMPORARY GRASSING, MOWING, ETC. AS MAY BE REQUIRED.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION CONTROL MEASURES ONCE ACCEPTABLE PERMANENT STABILIZATION IS ACHIEVED. THE OWNER AND QCP/ENGINEER SHALL DETERMINE IF THE PERMANENT STABILIZATION IS ACCEPTABLE PRIOR TO REMOVAL OF ANY TEMPORARY EROSION CONTROL MEASURES.

18. THE CONTRACTOR SHALL INCLUDE IN HIS/HER BID THE INSTALLATION OF A MINIMUM 20 FT X 30 FT GRAVEL CONSTRUCTION ENTRANCE/ EXIT PAD. SEE THE CONSTRUCTION EXIT/ENTRANCE PAD ON DETAILS.

19. THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCES AS REQUIRED TO PREVENT SILT/SEDIMENTAION FROM LEAVING THE SITE. THIS INCLUDES BUT IS NOT LIMITED TO WASHING DOWN OF THE CONSTRUCTION ENTRANCE

20. ALL AREAS OUTSIDE OF THE BUILDING AND PAVEMENT AREA TO RECEIVE A 6-INCH LAYER OF TOPSOIL. TOPSOIL SHALL BE AS FOLLOWS:

A. FERTILE, FRIABLE, NATURALLY OCCURRING. FREE OF STONES, CLAY, LUMPS, HARDPAN, ROOTS, STUMPS, BRANCES, STICKS AND OTHER DEBRIS LARGER THAN ONE (1) INCH IN ANY DIMENSION; FREE OF NOXIOUS WEEDS, GRASSES, SEEDS, PLANTS, EXTRANEOUS MATTER AND ANY SUBSTANCE HARMFUL TO PLANT GROWTH. TOPSOIL FROM OPEN FIELDS WILL NOT BE ACCEPTED.
B. PH: 5.0 TO 7.0
C. ORGANIC MATTER: 5% TO 10%
D. SAND: 50% TO 70%
E. SILT: LESS THAN 30%
F. CLAY: 10% TO 25%
PERMEABILITY RATE OF 5 X 10 <-3> CENTIMETERS OR GREATER AT 85% COMPACTION.

21. ALL DISTURBED AREAS OUTSIDE THE BUILDING AND PAVEMENT AREA TO BE SEEDED AND MULCHED WITH THE APPROPRIATE ALDOT MIXTURE.

22. ALL STORM DRAINAGE INLETS AND JUNCTION BOXES TO BE PROTECTED FROM SEDIMENTATION AT ALL TIMES. THESE STRUCTURES SHALL BE PROTECTED WITH SILT SAVERS OR PRE-APPROVED EQUIVALENT PRIOR TO THE FRAME AND GRATE/LID BEING INSTALLED. IF THE CONTRACTOR UTILIZES ROUND BOXES, THEN ROUND FRAME SILT SAVERS SHALL BE USED. ONCE THE FRAME AND GRATE/LID IS PLACED ON THE INLETS, AND JUNCTION BOXES, THE CONTRACTOR SHALL UTILIZE DANDY SACKS OR PRE-APPROVED EQUIVALENT. GUTTER EELS SHALL BE UTILIZED UNTIL ALL VEGETATION HAS BEEN INSTALLED AND "GROWN IN".

23. THE CONTRACTOR SHALL UTILIZE NEW FILTERS ON THE SILT SAVERS AT THE BEGINNING OF THE PROJECT. THE CONTRACTOR SHALL BE REQUIRED TO REPLACE THE FILTERS WHENEVER THE ENGINEER, QCP OR CITY OF MONTGOMERY STATES THEY ARE NOT ADEQUATE. THE COST OF THE REPLACEMENT FILTERS SHALL BE INCLUDED IN THE CONTRACTORS BID. THE CONTRACTOR SHALL NOT RECEIVE ADDITIONAL COMPENSATION FOR THE COST OF REPLACING THE FILTERS.

24. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL DISTURBED AREAS PRIOR TO FINAL ACCEPTANCE OF WORK. PERMANENT STABILIZATION SHALL CONSIST OF FINE GRADING TO REMOVE ALL REELS, PERMANENT SEEDING SHALL BE PLACED ALONG WITH STRAW, AND SAID PERMANENT GRASSING SHALL HAVE TAKEN ROOT AND BE ESTABLISHED IN A MANNER TO PREVENT EROSION REELS FROM FORMING. THE CONTRACTOR SHALL RESEED, WATER, REDRESS WASHES, CUT TEMPORARY VEGETATION OR ANY PERFORM ANY OTHER WORK NECESSARY TO ESTABLISH PERMANENT VEGETATION. ALL COST ASSOCIATED WITH THIS WORK SHALL BE INCLUDED THE FINAL BID PRICE.

25. TEMPORARY STABILIZATION OF DISTURBED AREAS MUST BE INITIATED IMMEDIATELY WHENEVER WORK TOWARD PROJECT COMPLETION AND FINAL STABILIZATION OF ANY PORTION OF THE SITE HAS TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING THIRTEEN (13) CALENDAR DAYS. THOSE AREAS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH THE LATEST EDITION OF THE ALDOT CONSTRUCTION SPECIFICATIONS.

26. ALL HAZARDOUS SUBSTANCES USED FOR THIS PROJECT (PAINT, OIL, GREASE, AND OTHER PETROLEUM PRODUCTS) SHALL BE STORED IN ACCORDANCE WITH SPCC REGULATIONS. THESE SUBSTANCES SHALL BE STORED AWAY FROM STORM DRAINS, DITCHES, AND GUTTERS IN WATERTIGHT CONTAINERS. DISPOSAL OF THESE SUBSTANCES SHALL BE IN ACCORDANCE WITH ADEM REGULATIONS. CONTRACTOR SHALL PROVIDE ADEQUATE TRASH CONTAINERS ON SITE FOR THE DISPOSAL OF CONSTRUCTION MATERIALS WASTE. CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING ANY TRASH OR OTHER POLLUTANTS FROM ENTERING STORM DRAINS.

27. THE CONTRACTOR SHALL HAVE A WATER TRUCK AVAILABLE AT ALL TIMES TO HELP KEEP THE DUST DOWN ON THE SITE.

28. THE CONTRACTOR SHALL PROVIDE A FACILITY ON SITE FOR SANITARY WASTE DURING CONSTRUCTION AND SHALL ALSO PROVIDE A CONTAINER CAPABLE OF HOLDING CONSTRUCTION MATERIAL AND DEBRIS. ALL CONSTRUCTION WASTE AND DEBRIS AND TEMPORARY BMPS ARE TO BE REMOVED FROM THE SITE ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED AND SHALL BE DISPOSED OF AT A LANDFILL CAPABLE OF HANDLING SAID DEBRIS.

GRADING NOTES

1. THE CONTRACTOR SHALL MAKE SURE THAT THE CROSS SLOPE OF THE NEW SIDEWALKS DOES NOT EXCEED 2.00%. IF THE CROSS SLOPE IS CONSTRUCTED AT A SLOPE STEEPER THAN 2.00% THEN HE/SHE SHALL BE REQUIRED TO REMOVE AND REPLACE THE SIDEWALK AT HIS/HER EXPENSE.

2. THE CONTRACTOR SHALL GRADE THE SITE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT.

3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATION AND CONFIGURATION OF DOORS, WALKS, ETC. WITH THE ARCHITECTURAL PLANS.

4. ALL DEMOLITION DEBRIS AND EXCESS MATERIAL GENERATED FROM GRADING OPERATIONS TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF AT THE NORTH MONTGOMERY LANDFILL. FOR THIS PROJECT, THE CITY WILL WAIVE ALL TIPPING FEES FOR C&D MATERIAL IF DISPOSED OF AT THE NORTH MONTGOMERY LANDFILL.

5. ALL GRADING OPERATIONS TO BE MONITORED BY A QUALIFIED GEOTECHNICAL CONSULTANT AS CHOSEN AND PAID FOR BY THE OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE GEOTECHNICAL CONSULTANT ONSITE AT ALL TIMES DURING GRADING OPERATIONS.

6. THE CONTRACTOR SHALL INSTALL SPILL OUT CURB & GUTTER WHERE REQUIRED BY THE GRADES.

7. ALL WORK REQUIRED TO COMPACT, MOISTEN, DRY, CONDITION, MODIFY, OR IMPROVE ANY PORTION OF THE SUBGRADE, AND/OR BUILDING PADS, AS DIRECTED BY THE PLANS AND SPECIFICATIONS OR THE ENGINEER, IS PART OF THE LUMP SUM BID.

8. ALL WORK ASSOCIATED WITH TOPSOIL STRIPPING, INCLUDING, BUT NOT LIMITED TO: STRIPPING TO SPREAD, STRIPPING TO STOCKPILE, SPREADING FROM STOCKPILE, TOPSOIL HAUL-OFF, SEEDBED PREPARATION, ETC., AS DIRECTED BY THE PLANS AND SPECIFICATIONS OR THE ENGINEER IS PART OF THE LUMP SUM BID.

9. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT ATTACHED TO THE BID DOCUMENTS. SAID REPORT IS PROVIDED FOR THE CONTRACTOR'S CONVENIENCE. NEITHER THE ENGINEER NOR THE REPORT PREPARER WARRANTS THE COMPLETE AND TOTAL ACCURACY OF THE REPORT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE EXISTING SOIL CONDITIONS.

10. IF THE PAVEMENT, STONE OR SLAB IS NOT CONSTRUCTED IMMEDIATELY AFTER THE INITIAL SUBGRADE PREPARATION, THE CONTRACTOR SHALL BE REQUIRED TO RESTORE THE SUBGRADE PRIOR TO THE PLACEMENT OF THE PAVEMENT, STONE OR SLAB. THE COST OF THE SUBGRADE RESTORATION SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

11. THE CONTRACTOR SHALL REFER TO THE STRUCTURAL DRAWINGS FOR DETAILS ON THE BUILDING SLAB.

12. ALL SPOT ELEVATIONS ARE EDGE OF PAVEMENT ELEVATIONS UNLESS STATED OTHERWISE.

13. THE CONTRACTOR SHALL CONSTRUCT THE SLOPES WITH THE EQUIPMENT TRACKS TRAVERSING UP AND DOWN THE SLOPE AS SHOWN ON THE DETAILS.

14. FILL MATERIAL USED ON-SITE SHALL BE CLEAN, NON-SATURATED, NON-ORGANIC SOIL AS APPROVED BY THE GEOTECHNICAL CONSULTANT.

15. BURNING WILL NOT BE ALLOWED ON-SITE. DEBRIS SHALL BE HAULED OFFSITE AND DISPOSED OF IN A LEGAL MANNER.

16. THE CONTRACTOR SHALL COORDINATE THE SUBGRADE ELEVATION, SLAB THICKNESS, AND STONE THICKNESS WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

17. ALL DISTURBED AREAS WITH THE EXCEPTION OF BUILDING, PAVEMENT, AND SIDEWALKS SHALL RECEIVE A 6" LAYER OF TOPSOIL. ALL EXCESS TOPSOIL SHALL BE HAULED OFF-SITE. THE CONTRACTOR SHALL HAUL IN TOPSOIL IF REQUIRED.

18. THE ENGINEER DOES NOT GUARANTEE THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE. THE CONTRACTOR SHALL HAUL-IN OR HAUL-OFF AS REQUIRED TO ACHIEVE THE PLAN GRADES.

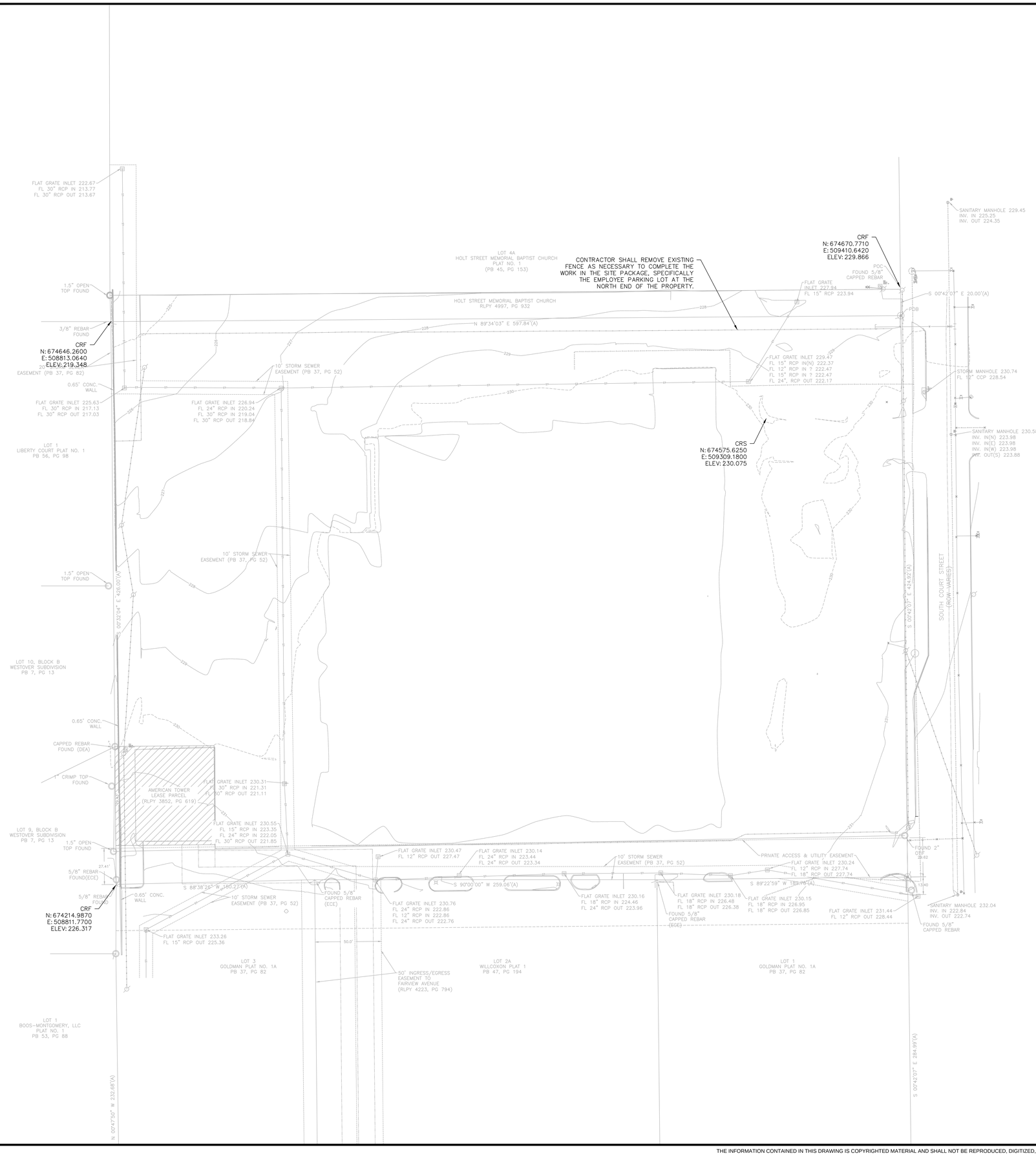
DEVELOPMENT PLAN NOTES

1. BEFORE WORK BEGINS WITHIN RIGHT-OF-WAY (ROW), CONTACT CITY ENGINEERING CHIEF CITY INSPECTOR CHARLIE HARRIS 48 HOURS PRIOR TO CONSTRUCTION AT (334) 354-6127.

2. ENGINEERING DEPARTMENT SHALL NOT ISSUE A C.O. UNTIL THE AS-BUILT EVALUATION AND CERTIFICATION DOCUMENTATION IS SUBMITTED AND APPROVED BY THE CITY.

3. ALL UTILITY CONNECTIONS MADE WITHIN EXISTING CITY STREETS MUST BE BORED UNLESS OTHERWISE DETERMINED BY CITY MAINTENANCE DEPARTMENT (625-2880). AN APPROVAL LETTER FROM MAINTENANCE WILL BE REQUIRED BEFORE DEVELOPMENT PLAN CAN BE APPROVED BY ENGINEERING.

4. ANY STREET CUTS REQUIRE A CITY STANDARD PAVEMENT PATCH AND



N

0 30' 60'

Scale: 1" = 30'

LEGEND

- POWER POLE
- GUY WIRE
- FIRE HYDRANT
- SIGN
- WATER METER
- WATER VALVE
- LIGHT POLE
- CABLE TV BOX
- EX. STORM MANHOLE
- EXISTING IRON PIN
- OE — OVERHEAD ELECTRIC
- S — UNDERGROUND SEWER LINE
- W — UNDERGROUND WATERLINE
- G — UNDERGROUND GAS LINE
- ST — UNDERGROUND STORM PIPE
- 197 — EX. MAJOR CONTOUR
- 190 — EX. MINOR CONTOUR

NOTE: THE EXISTING CONDITIONS SHOWN HERE WERE THE CONDITIONS OF THE SITE PRIOR TO THE DEMOLITION PACKAGE. PRIOR TO BEGINNING WORK ON THE SITE PACKAGE, THE CONTRACTOR SHALL PERFORM AN AS-BUILT SURVEY OF THE SITE. THE PRICE OF THE AS-BUILT SURVEY SHALL BE INCLUDED IN THE BID. ANY DISCEPREPANCIES SHALL BE COMMUNICATED TO THE OWNER AND ENGINEER SO THAT IT CAN BE ADJUSTED IN THE CONSTRUCTION DOCUMENTS.

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ALABAMA LICENSED PROFESSIONAL ENGINEER PABLO GICHI

05.19.23

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

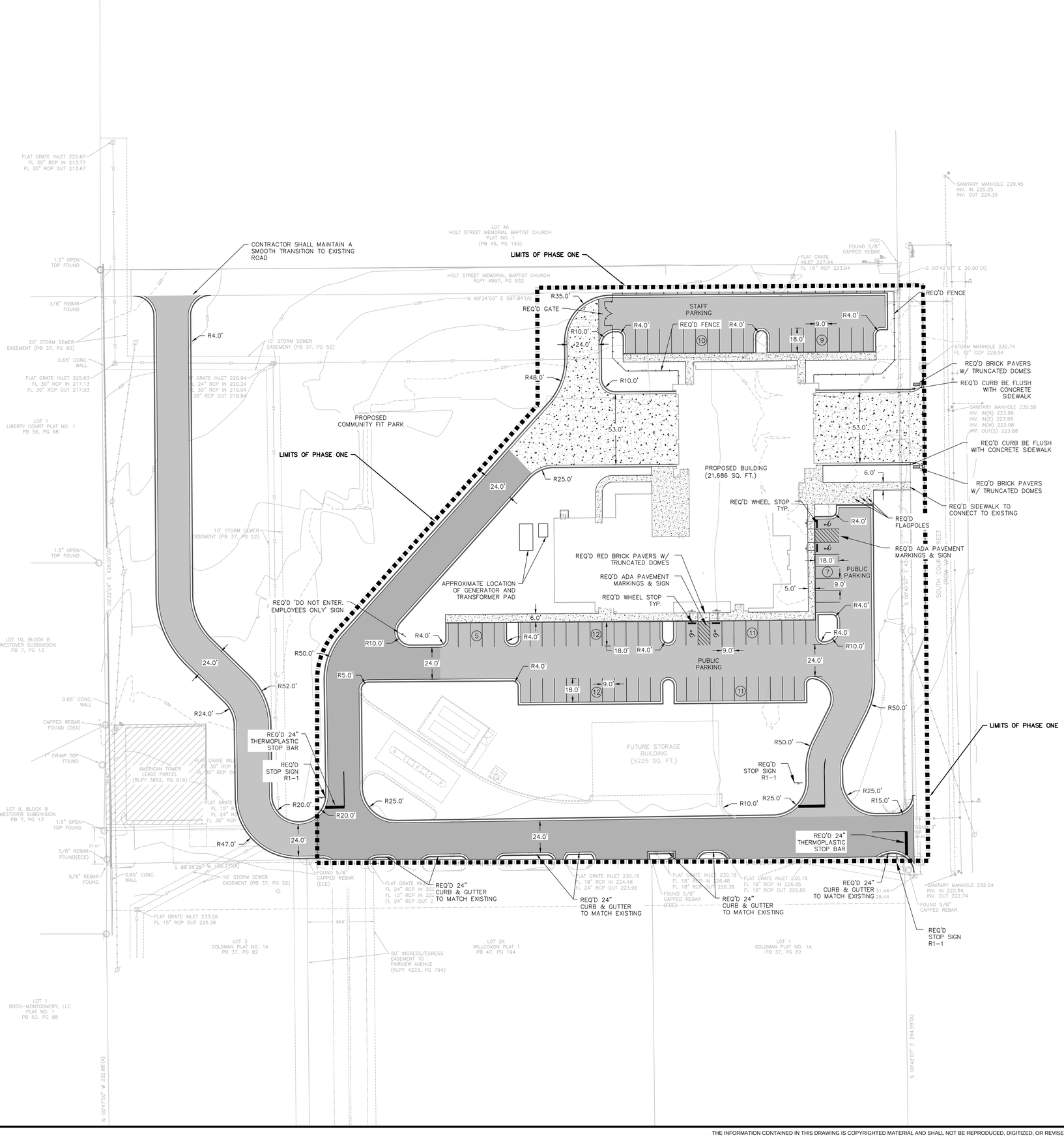
EXISTING CONDITIONS

Sheet No:

C-002

CONFORMANCE DOCUMENTS

DRAWING FILE T:\Montgomery\CM\GM Proj\Barganier, Davis, Sims\21-0158 New Fire Station No. 10\10 DWG\C-002 EXISTING CONDITIONS.dwg
PLOTTED: Jun 06, 2023 - 10:32am



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0 30' 60'

Scale: 1" = 30'

LEGEND

- POWER POLE
- GUY WIRE
- FIRE HYDRANT
- SIGN
- WATER METER
- WATER VALVE
- LIGHT POLE
- CABLE TV BOX
- EX. STORM MANHOLE
- EXISTING IRON PIN
- OE — OVERHEAD ELECTRIC
- S — UNDERGROUND SEWER LINE
- W — UNDERGROUND WATERLINE
- G — UNDERGROUND GAS LINE
- ST — UNDERGROUND STORM PIPE
- 197 — EX. MAJOR CONTOUR
- 190 — EX. MINOR CONTOUR
- — LIGHT DUTY PAVING
- — HEAVY DUTY PAVING
- — HEAVY DUTY CONCRETE PAVING
- — CONCRETE SIDEWALK
- — LIMITS OF PHASE ONE

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05.19.23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
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2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

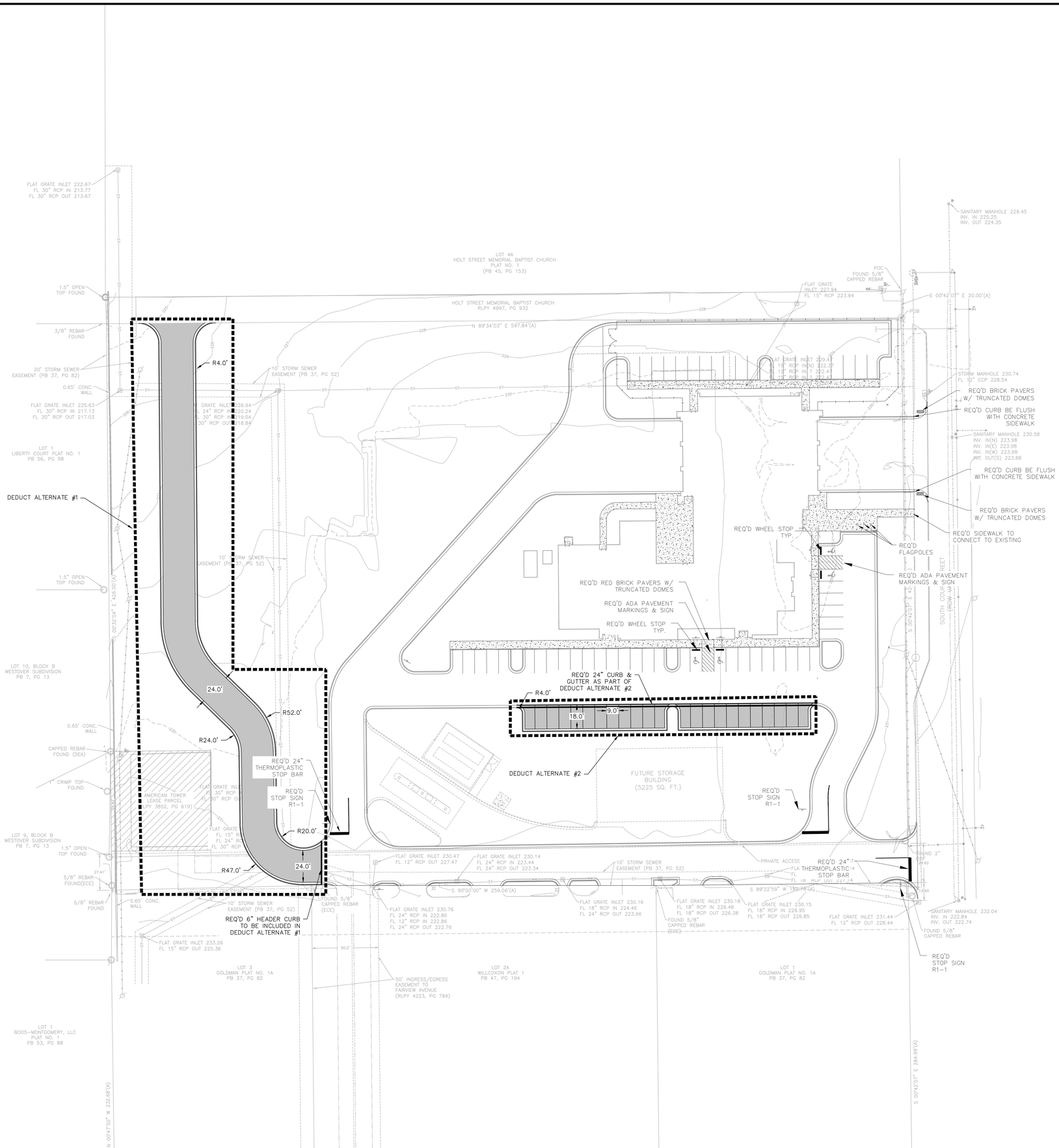
Drawing Title:

SITE PLAN - BASE BID

Sheet No:

C-101

CONFORMANCE DOCUMENTS



N

0 30' 60'

Scale: 1" = 30'

LEGEND

- POWER POLE
- GUY WIRE
- FIRE HYDRANT
- SIGN
- WATER METER
- WATER VALVE
- LIGHT POLE
- CABLE TV BOX
- EX. STORM MANHOLE
- EXISTING IRON PIN
- OE — OVERHEAD ELECTRIC
- S — UNDERGROUND SEWER LINE
- W — UNDERGROUND WATERLINE
- G — UNDERGROUND GAS LINE
- ST — UNDERGROUND STORM PIPE
- 197 — EX. MAJOR CONTOUR
- 190 — EX. MINOR CONTOUR
- — LIGHT DUTY PAVING
- — HEAVY DUTY PAVING
- — HEAVY DUTY CONCRETE PAVING
- — CONCRETE SIDEWALK
- — LIMITS OF DEDUCT ALTERNATES

NOTE: PAVING OPERATIONS SHALL BE INCLUDED AS A BASE BID ITEM. A DEDUCT ALTERNATE #3 SHALL DEDUCT BOTH THE WEARING AND BINDER SURFACES.

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05.19.23

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

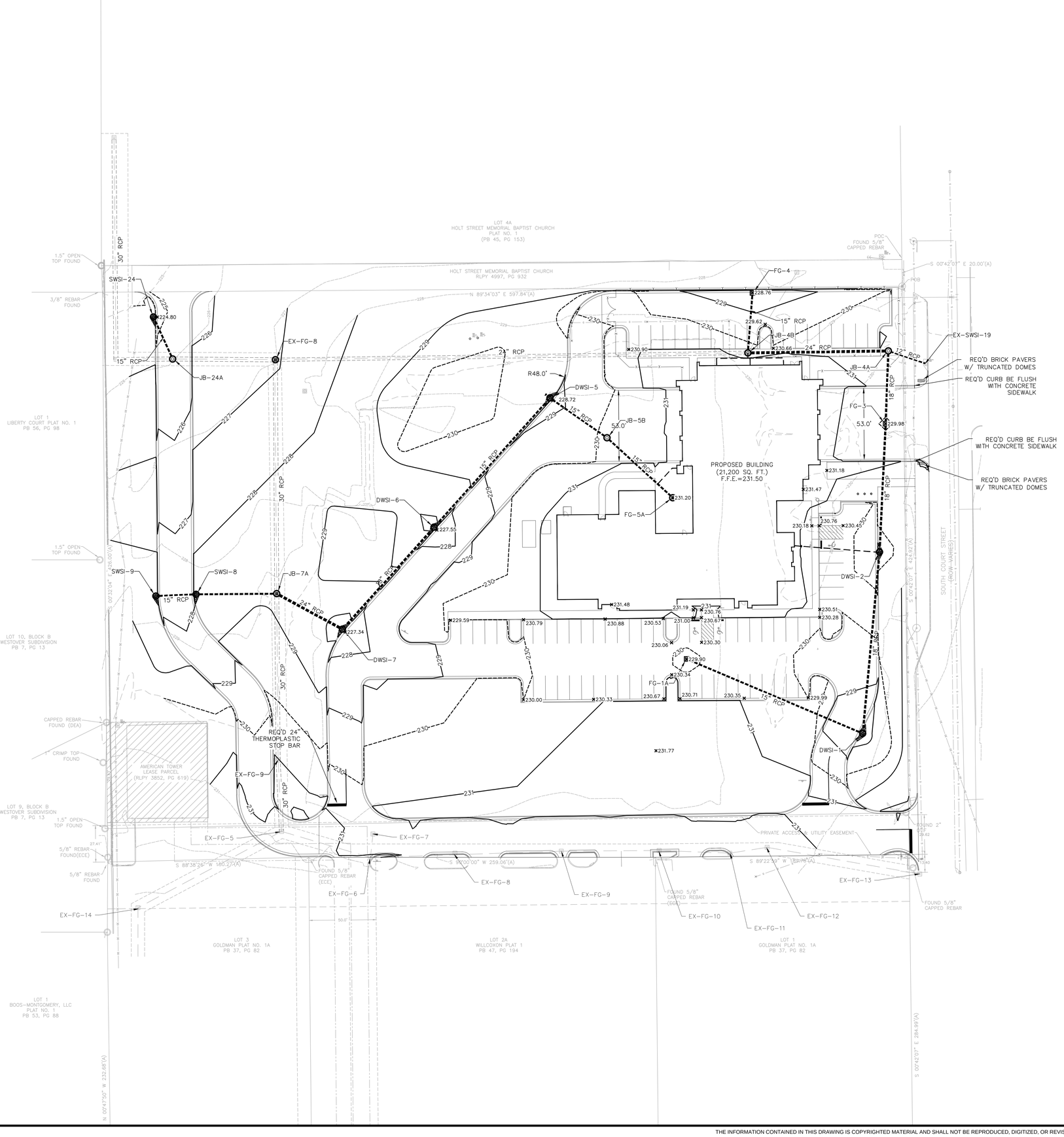
SITE PLAN - DEDUCT ALTERNATES

Sheet No:

C-102

CONFORMANCE DOCUMENTS

DRAWING FILE: T:\Montgomery\CMGM Proj\Barganier Davis Sheil\21-0058 New Fire Station No. 10\9 DWG\C-102 SITE PLAN.dwg
PLOTTED: Jun 06, 2023 - 10:34am



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0 30' 60'

Scale: 1" = 30'

LEGEND

- POWER POLE
- GUY WIRE
- FIRE HYDRANT
- SIGN
- WATER METER
- WATER VALVE
- LIGHT POLE
- CABLE TV BOX
- EX. STORM MANHOLE
- EXISTING IRON PIN
- OE — OVERHEAD ELECTRIC
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- W — UNDERGROUND WATERLINE
- G — UNDERGROUND GAS LINE
- ST — UNDERGROUND STORM PIPE
- 197 — EX. MAJOR CONTOUR
- 190 — EX. MINOR CONTOUR
- 248 — PROPOSED MINOR CONTOUR
- 250 — PROPOSED MAJOR CONTOUR
- PROPOSED STORM PIPE

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05.19.23

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

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MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

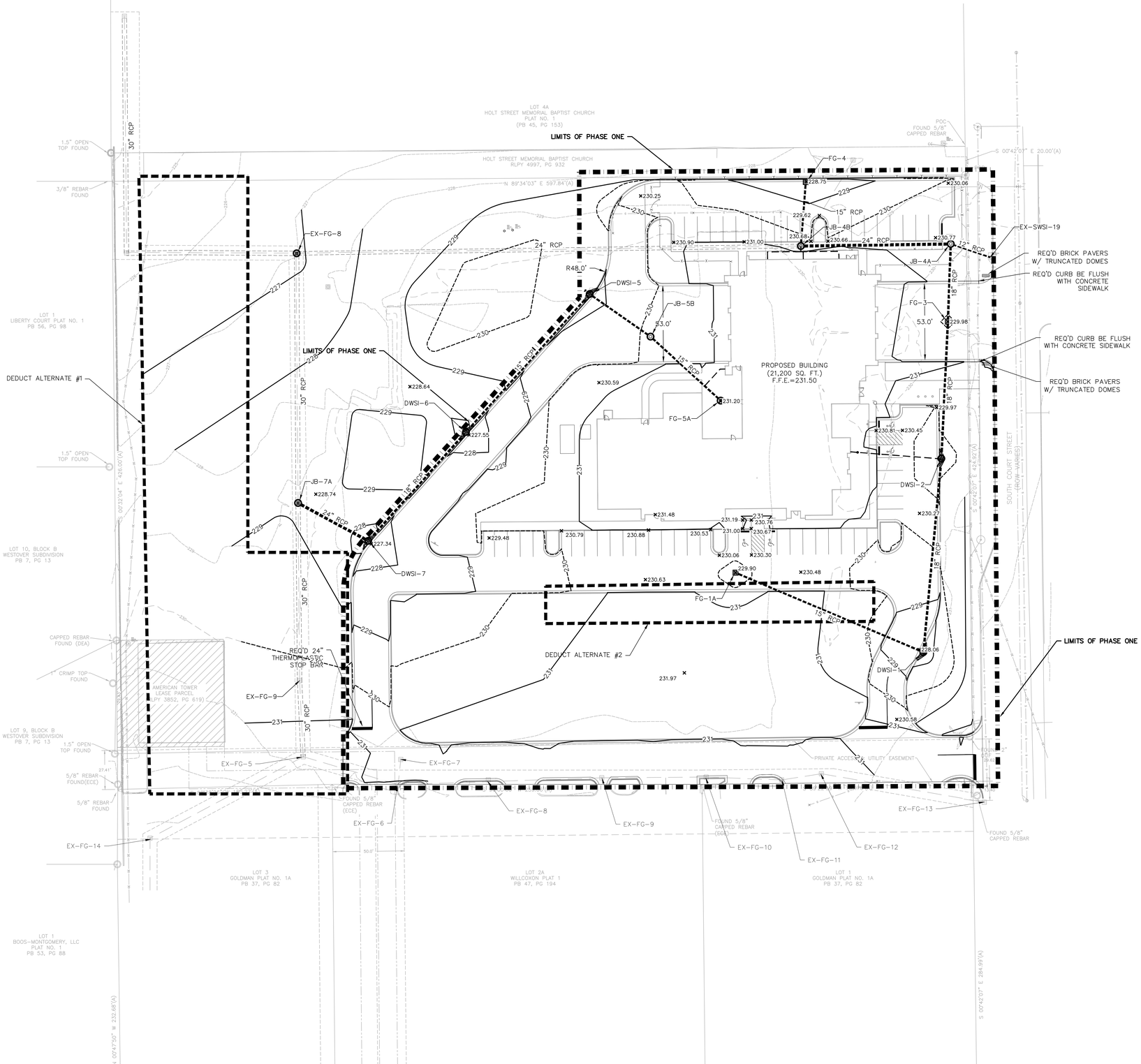
Drawing Title:

GRADING PLAN
- BASE BID

Sheet No:

C-201

CONFORMANCE
DOCUMENTS



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Scale: 1" = 30'

LEGEND

- POWER POLE
- GUY WIRE
- FIRE HYDRANT
- SIGN
- WATER METER
- WATER VALVE
- LIGHT POLE
- CABLE TV BOX
- EX. STORM MANHOLE
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- G — UNDERGROUND GAS LINE
- ST — UNDERGROUND STORM PIPE
- 197 — EX. MAJOR CONTOUR
- 190 — EX. MINOR CONTOUR
- 248 — PROPOSED MINOR CONTOUR
- 250 — PROPOSED MAJOR CONTOUR
- PROPOSED STORM PIPE
- LIMITS OF PHASE ONE

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FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
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2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

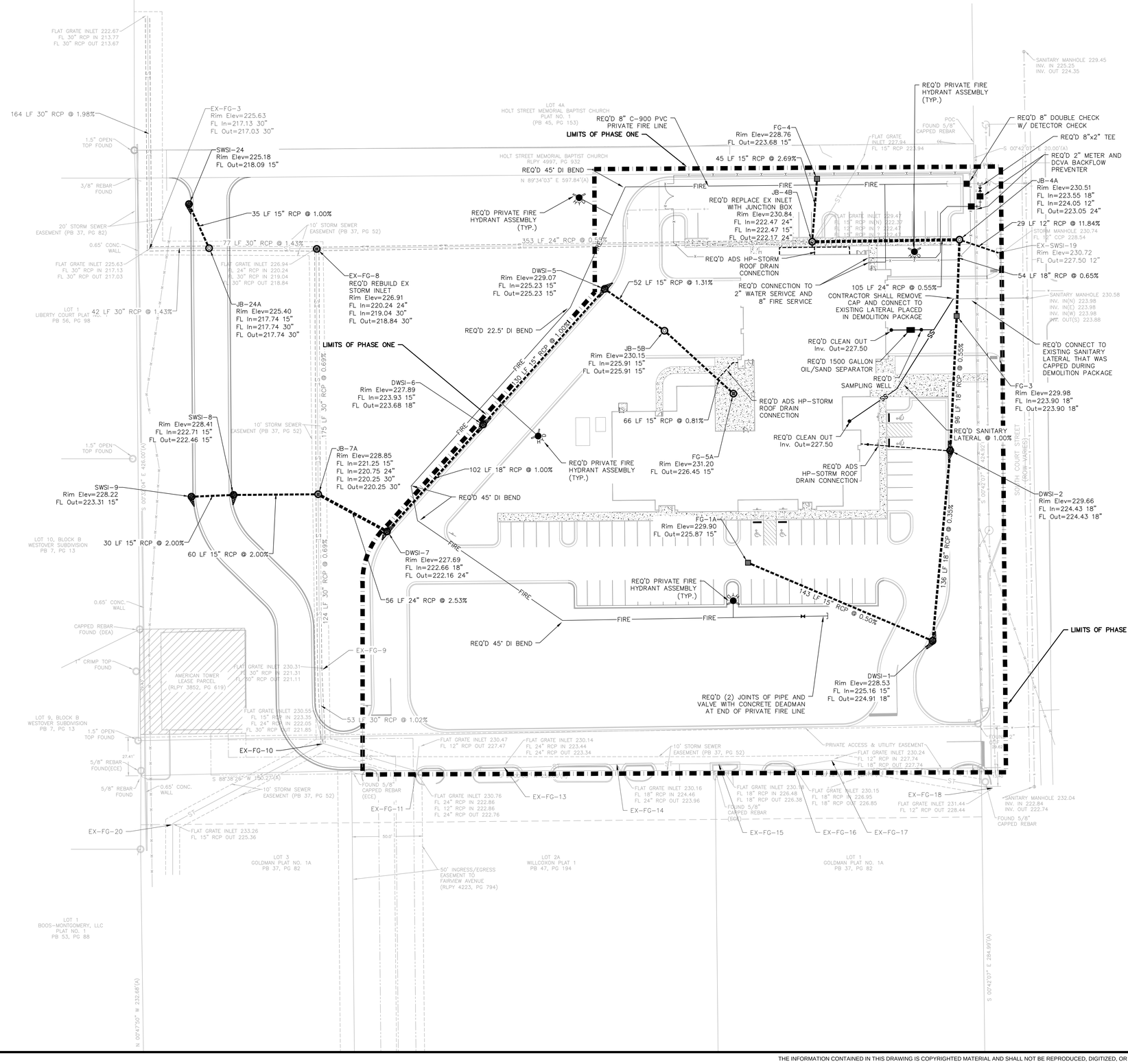
Drawing Title:

GRADING PLAN - DEDUCT ALTERNATES

Sheet No:

C-202

CONFORMANCE DOCUMENTS



N

0 30' 60'

Scale: 1" = 30'

LEGEND

- POWER POLE
- GUY WIRE
- FIRE HYDRANT
- SIGN
- WATER METER
- WATER VALVE
- LIGHT POLE
- CABLE TV BOX
- EX. STORM MANHOLE
- EXISTING IRON PIN
- OE — OVERHEAD ELECTRIC
- S — UNDERGROUND SEWER LINE
- W — UNDERGROUND WATERLINE
- G — UNDERGROUND GAS LINE
- ST — UNDERGROUND STORM PIPE
- PROPOSED STORM PIPE
- LIMITS OF PHASE ONE
- PROPOSED DOUBLE WING INLET
- PROPOSED SINGLE WING INLET
- PROPOSED FLAT GRATE INLET
- PROPOSED JUNCTION BOX
- PROPOSED ADA GRATE INLET

NOTE: FG-3 AND FG-5A SHALL HAVE ADA GRATES AS SPECIFIED IN THE PROJECT NOTES.

ALL MAIN ON PUBLIC SIDE OF RIGHT-OF-WAY SHALL BE C900 PVC.

RESTRAINT TABLE

Fitting	Material	Size	Restraint Length (feet)		
			Horizontal	Vertical	Direction
Tee Branch	DI	8"x2"	10		Along Branch
Tee Brancnh	DI	8"x2"	20	-	Along Run
Tee Brancnh	DI	8"x8"	70	-	Along Branch
Tee Brancnh	DI	8"x8"	20	-	Along Run
Cap (End)	DI	8"	86	-	End
22.5 Bend	DI	8"	12	18	Both Sides
45 Bend	DI	8"	24	36	Both Sides

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BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

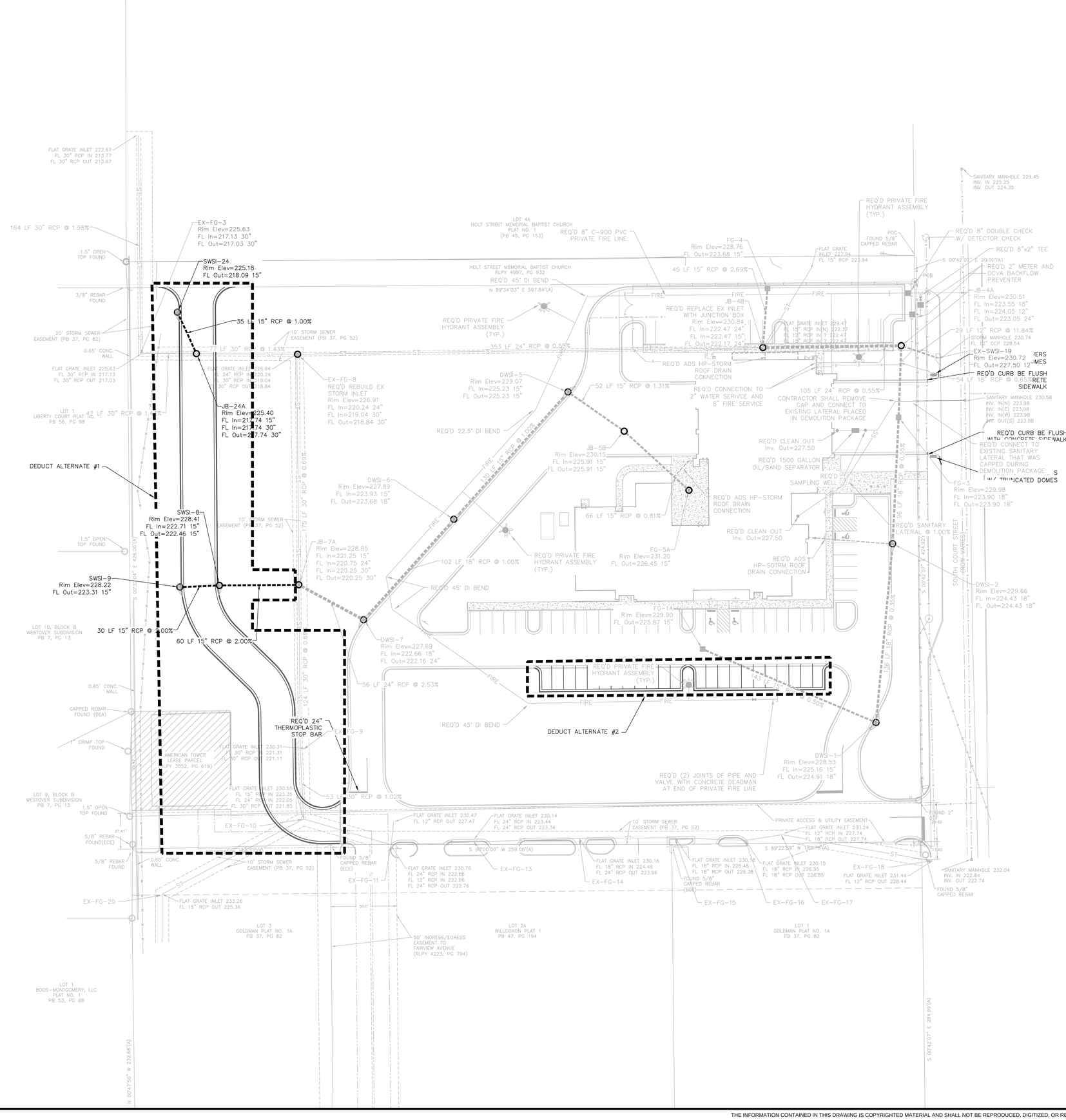
Drawing Title:

UTILITY PLAN - BASE BID

Sheet No:

C-301

CONFORMANCE DOCUMENTS



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ALABAMA REGISTERED PROFESSIONAL ENGINEER PABLO GOMEZ

05.19.23

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FOR

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2	Conformance Documents	05-22-2023

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BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

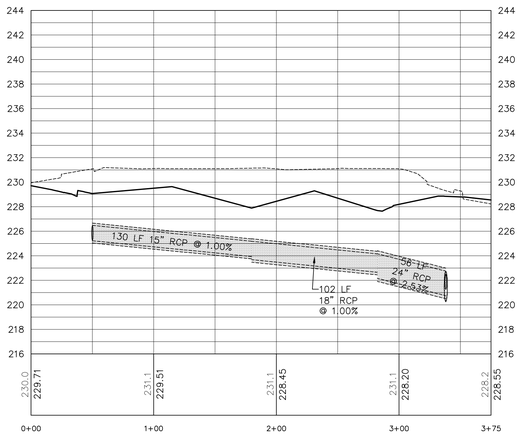
UTILITY PLAN - DEDUCT ALTERNATES

Sheet No:

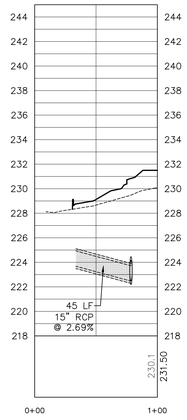
C-302

CONFORMANCE DOCUMENTS

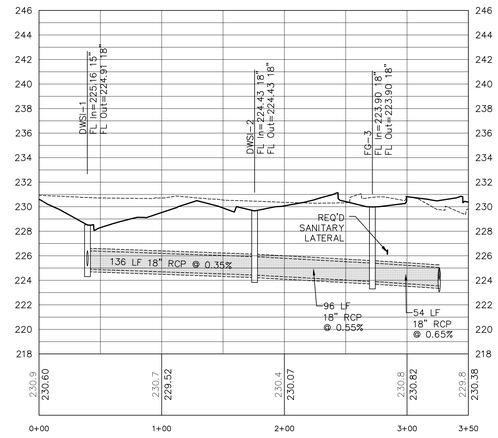
SCALE:
HORIZONTAL 1"=50'
VERTICAL 1"=5'



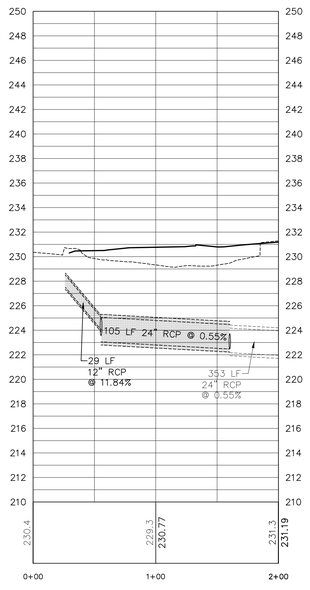
DWSI-5 TO DWSI-7



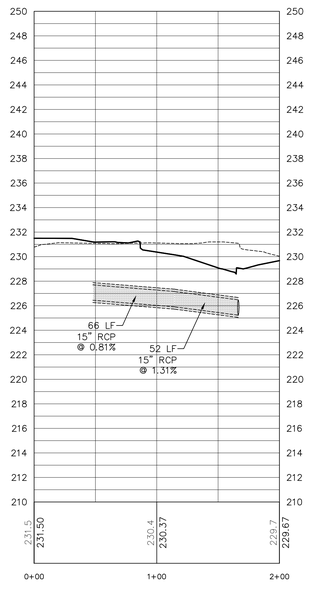
DWSI-4 TO JB-4B



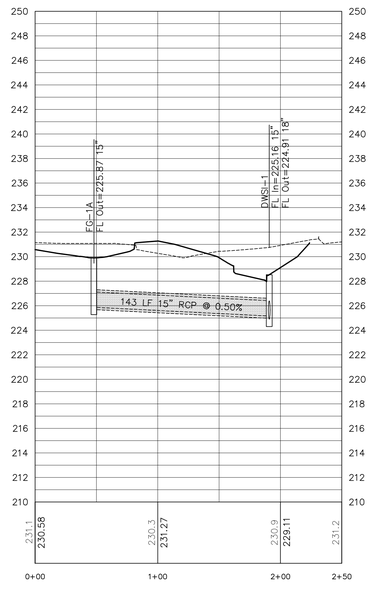
DWSI-1 TO JB-4A



EX-SWSI-1 TO JB-4B



FG-5B TO DWSI-5



FG-1A TO DWSI-1

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05.19.23

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

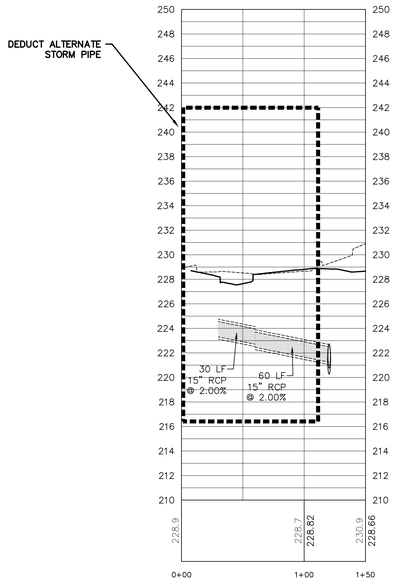
STORM PROFILES

Sheet No:

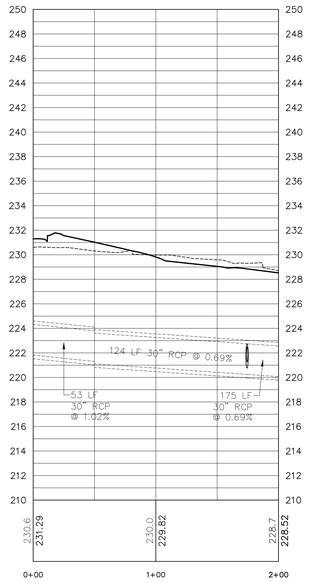
C-401

CONFORMANCE DOCUMENTS

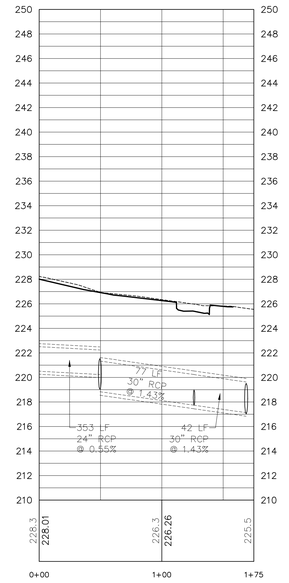
SCALE:
HORIZONTAL 1"=50'
VERTICAL 1"=5'



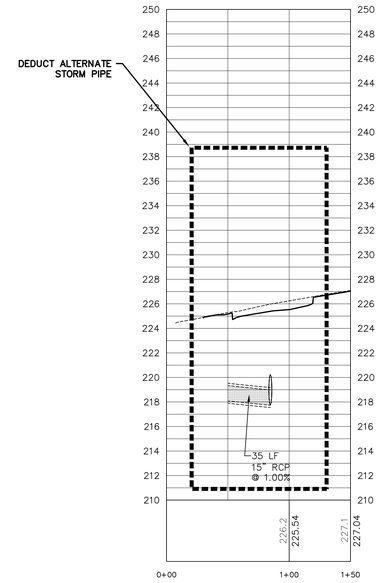
DEDUCT ALTERNATE SWSI-9 TO FG-7A



EX-FG-9 TO JB-7A



EX-FG-8 TO JB-10A



DEDUCT ALTERNATE SWSI-10 TO JB-10A

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JUAN PABLO GOMEZ

05.19.23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

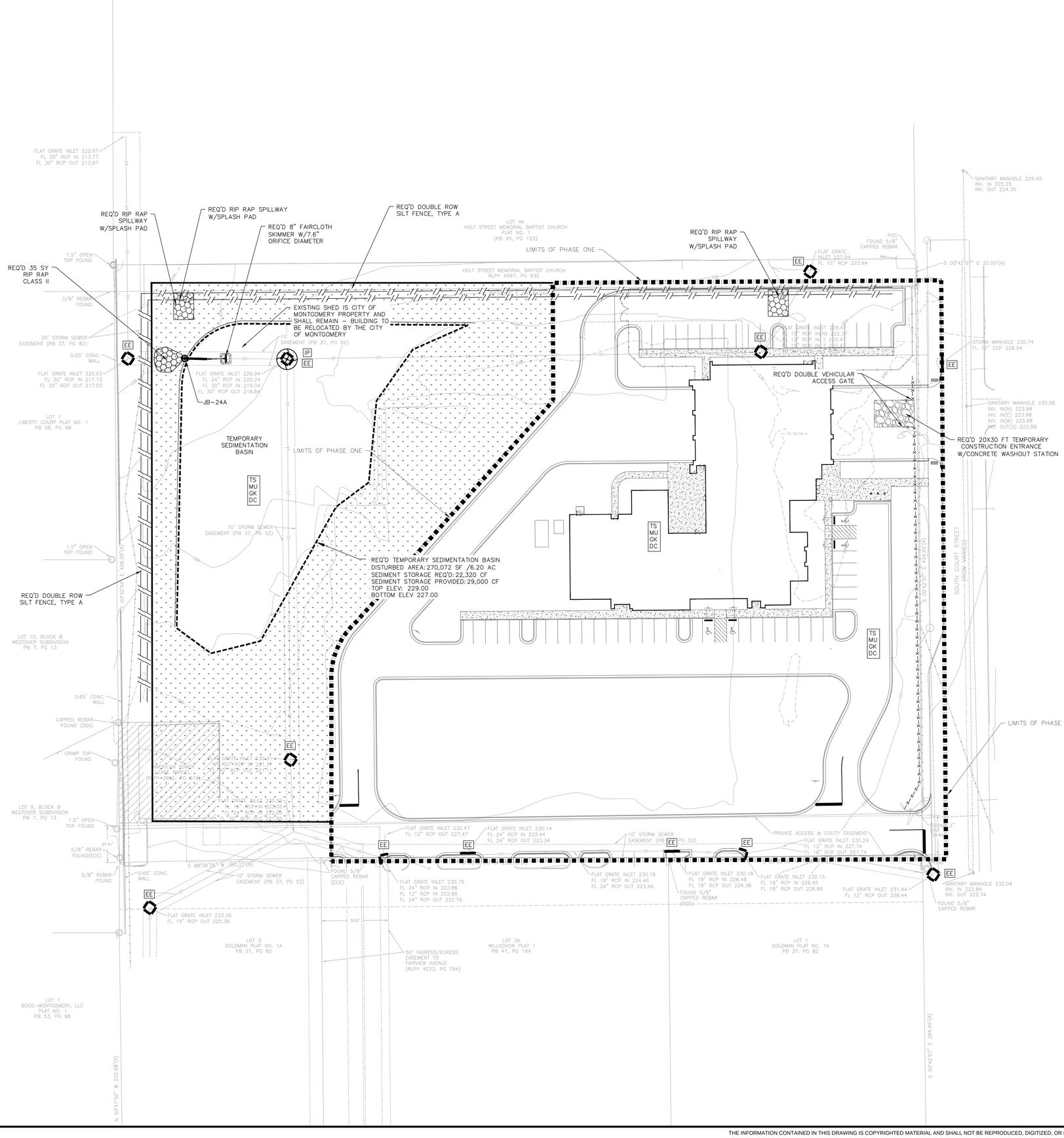
Drawing Title:

STORM
PROFILES

Sheet No:

C-402

CONFORMANCE
DOCUMENTS



0 30' 60'

Scale: 1" = 30'

LEGEND

- POWER POLE
- GUY WIRE
- FIRE HYDRANT
- SIGN
- WATER METER
- WATER VALVE
- LIGHT POLE
- CABLE TV BOX
- EX. STORM MANHOLE
- EXISTING IRON PIN
- OE — OVERHEAD ELECTRIC
- S — UNDERGROUND SEWER LINE
- W — UNDERGROUND WATERLINE
- G — UNDERGROUND GAS LINE
- ST — UNDERGROUND STORM PIPE
- 197 — EX. MAJOR CONTOUR
- 190 — EX. MINOR CONTOUR
- REQ'D TYPE "A" SILT FENCE
- REQ'D SILT SAVER INLET PROTECTION [IP]
- REQ'D CONSTRUCTION ENTRANCE
- REQ'D EROSION EEL [EE]
- REQ'D SPLASH PAD
- LIMITS OF PHASE ONE
- SEDIMENTATION BASIN BOUNDARY
- REQ'D CONSTRUCTION FENCE
- [TS] REQ'D TEMPORARY SEEDING
- [MU] REQ'D MULCHING
- [DC] REQ'D DUST CONTROL
- [GK] REQ'D GROUNDKEEPING
- TEMPORARY GRASSING

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05.19.23

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
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MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

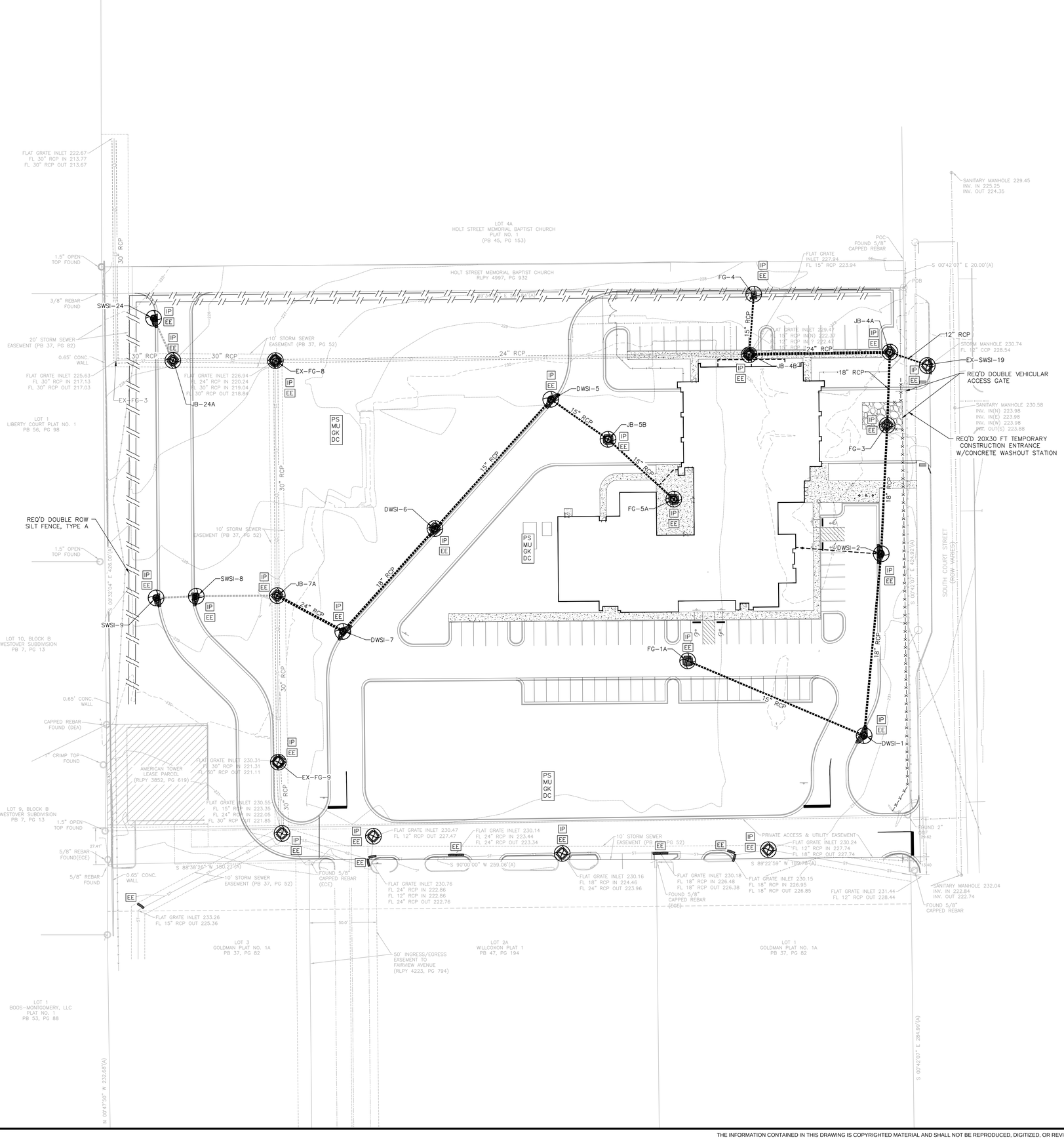
Drawing Title:

PHASE I EROSION CONTROL PLAN

Sheet No:

C-601

CONFORMANCE DOCUMENTS



N

0 30' 60'

Scale: 1" = 30'

LEGEND

- POWER POLE
- GUY WIRE
- FIRE HYDRANT
- SIGN
- WATER METER
- WATER VALVE
- LIGHT POLE
- CABLE TV BOX
- EX. STORM MANHOLE
- EXISTING IRON PIN
- OE — OVERHEAD ELECTRIC
- S — UNDERGROUND SEWER LINE
- W — UNDERGROUND WATERLINE
- G — UNDERGROUND GAS LINE
- ST — UNDERGROUND STORM PIPE
- 197 — EX. MAJOR CONTOUR
- 190 — EX. MINOR CONTOUR
- PROPOSED STORM PIPE
- REQ'D TYPE "A" SILT FENCE
- REQ'D SILT SAVER INLET PROTECTION [IP]
- REQ'D CONSTRUCTION ENTRANCE
- REQ'D EROSION EEL [EE]
- REQ'D SPLASH PAD
- 228 — PROPOSED MINOR CONTOUR
- 230 — PROPOSED MAJOR CONTOUR
- PROPOSED STORM PIPE
- LIMITS OF ALTERNATES
- X — X — X — REQ'D CONSTRUCTION FENCE
- [TS] REQ'D TEMPORARY SEEDING
- [MU] REQ'D MULCHING
- [DC] REQ'D DUST CONTROL
- [GK] REQ'D GROUNDKEEPING

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05.19.23

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

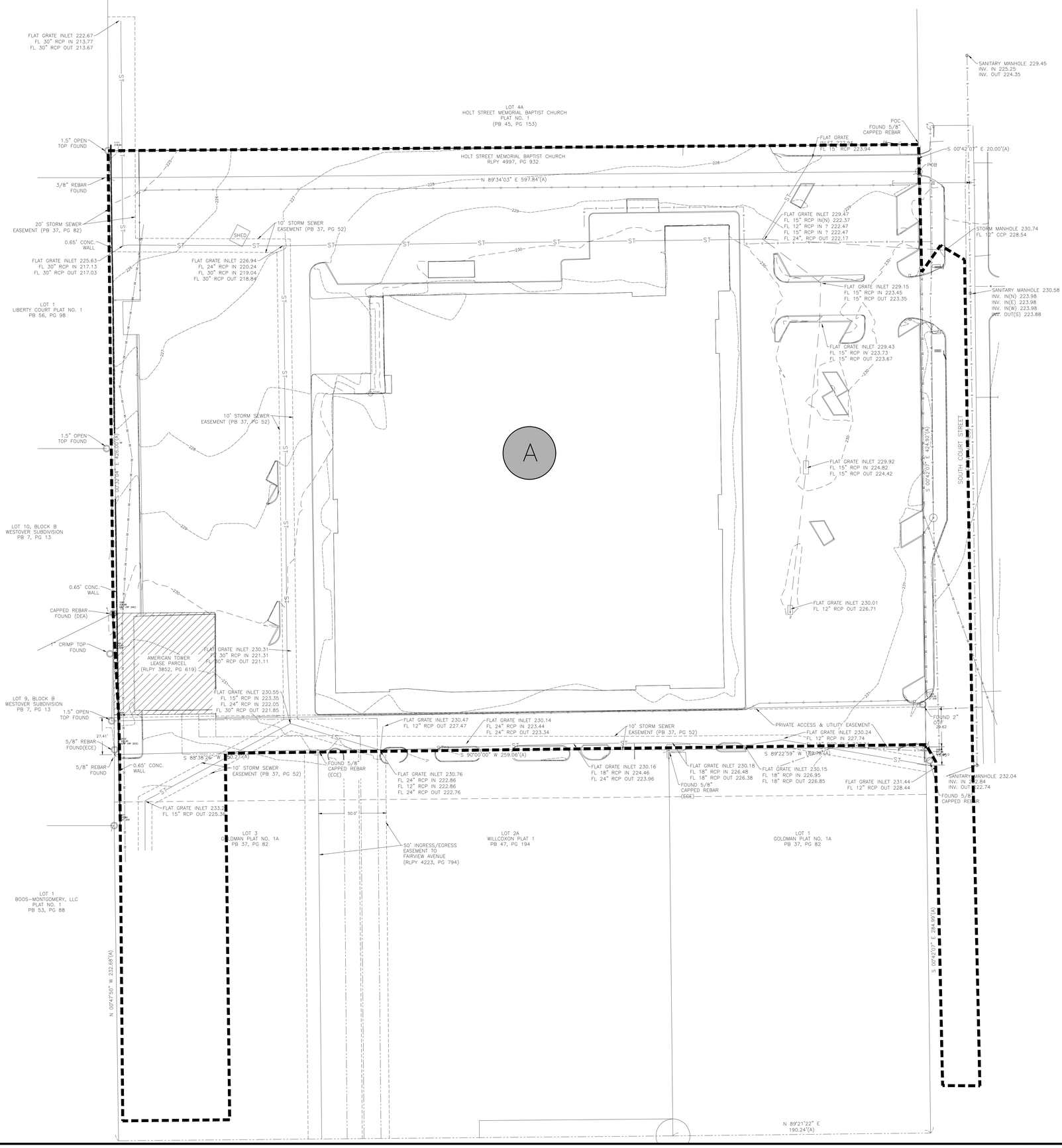
Drawing Title:

PHASE II EROSION CONTROL PLAN

Sheet No:

C-602

CONFORMANCE DOCUMENTS



Drainage Calculation - 25 Year Storm Event					
	Area(acre)	CN	Tc (min)	P (in)	qp (cfs)
A	7.03	98.00	5.00	7.64	22.97

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NEW FIRE STATION NO. 10

FOR

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SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

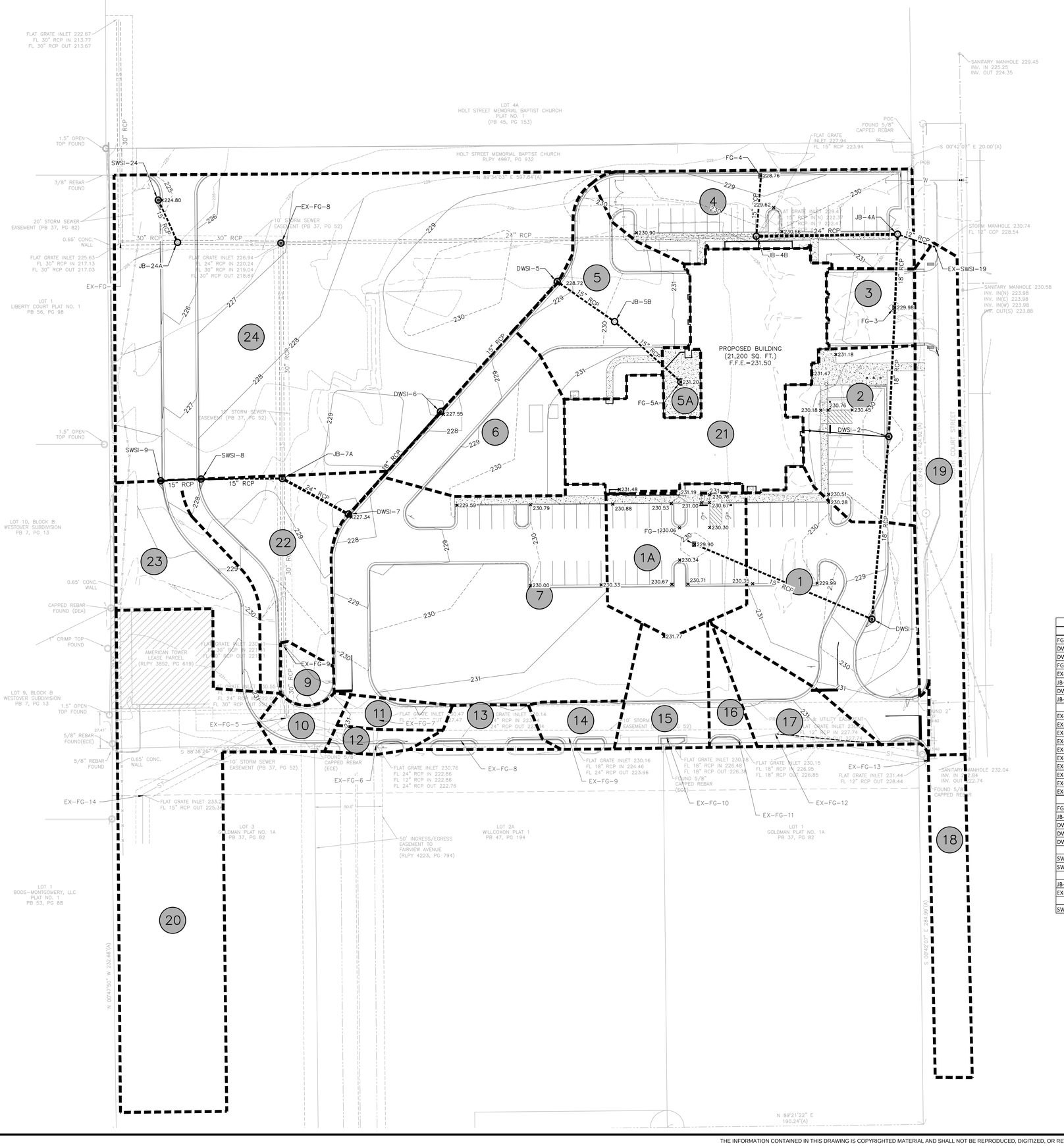
PRE-DEVELOPMENT DRAINAGE PLAN

Sheet No:

C-701

CONFORMANCE DOCUMENTS

DRAWING FILE T:\Montgomery\CMGM Proj\Barganier Davis Sims\21-0518 New Fire Station No. 10\1 DWG\C-701 DRAINAGE PLAN.dwg
PLOTTED: Jun 06, 2023 - 9:43am



Pipe Sizes - 25 Years Storm Event

STR	TO	STR	Added Q	Total Q	Pipe	Des. Slope,%	Min. Slope,%
FG-1A	-	DWSI-1	1.91	1.91	15	0.50	0.09
DWSI-1	-	DWSI-2	3.81	5.72	18	0.35	0.30
DWSI-2	-	FG-3	1.72	7.43	18	0.55	0.50
FG-3	-	JB-4A	0.86	8.29	18	0.65	0.62
EX-SWSI-19	-	JB-4A	2.53	2.53	12	11.84	0.51
JB-4A	-	JB-4B	-	10.83	24	0.55	0.23
DWSI-4	-	JB-4B	2.68	2.68	15	2.50	0.17
JB-4B	-	EX-FG-8	-	13.50	24	0.55	0.36
	-						
EX-FG-18	-	EX-FG-17	1.50	1.50	12	EXISTING	0.18
EX-FG-17	-	EX-FG-16	0.74	2.24	18	EXISTING	0.05
EX-FG-16	-	EX-FG-15	0.43	2.66	18	EXISTING	0.06
EX-FG-15	-	EX-FG-14	1.22	3.88	18	EXISTING	0.14
EX-FG-14	-	EX-FG-13	0.56	4.44	24	EXISTING	0.04
EX-FG-13	-	EX-FG-11	0.76	5.20	24	EXISTING	0.05
EX-FG-12	-	EX-FG-11	0.29	0.29	12	EXISTING	0.01
EX-FG-11	-	EX-FG-10	0.38	5.87	24	EXISTING	0.07
EX-FG-10	-	EX-FG-9	0.41	6.57	24	EXISTING	0.08
EX-FG-9	-	JB-7A	0.10	5.97	30	EXISTING	0.02
FG-5A	-	JB-5A	0.34	0.34	15	1.00	0.00
JB-5A	-	DWSI-5	0.00	0.34	15	1.00	0.00
DWSI-5	-	DWSI-6	2.11	2.11	15	1.00	0.11
DWSI-6	-	DWSI-7	1.38	3.49	18	1.00	0.11
DWSI-7	-	JB-7A	3.95	7.43	24	2.53	0.11
SWSI-9		SWSI-8	0.51	0.51	24	2.53	0.00
SWSI-8		JB-7A	3.99	4.50	24	2.53	0.04
JB-7A	-	EX-FG-8	0.00	17.90	30	1.43	0.19
EX-FG-8	-	JB-24A	2.23	20.13	30	1.43	0.24
SWSI-24	-	JB-24A	2.23	2.23	15	1.00	0.12

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ENGINEER
05.17.23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

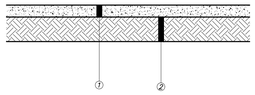
POST-DEVELOPMENT DRAINAGE PLAN

Sheet No:

C-702

CONFORMANCE DOCUMENTS

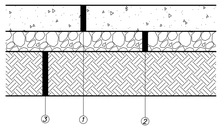
DRAWING FILE: T:\Montgomery\CMGM Proj\Barganier, Davis, Sms\21-0158 New Fire Station No. 10\0 DWG\C-702 DRAINAGE PLAN.dwg
PLOTTED: Jun 06, 2023 - 10:42am



CONCRETE SIDEWALK
N.T.S.

① 6.00" 3000psi COMPRESSIVE STRENGTH CONCRETE WITH 6"x6"–10/10 W.W.F. (MINIMUM 525psi FLEXURAL STRENGTH) MAXIMUM 4" SLUMP.

② SUBGRADE COMPACTED TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (SEE GEOTECHNICAL REPORT).

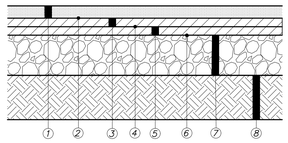


HEAVY–DUTY CONCRETE PAVING SECTION
N.T.S.

① 8.00" 4000psi COMPRESSIVE STRENGTH (550 PSI FLEXURAL STRENGTH) CONCRETE, MAXIMUM 4" SLUMP

② 5.00" MIN. CRUSHED STONE BASE, ALDOT SECTION 825, (100% MODIFIED DENSITY).

③ 6.00" IMPROVED SUBGRADE, ALDOT SECTION 230 MODIFIED ROADBEAD TO 100% STANDARD DENSITY (SEE GEOTECHNICAL REPORT).



HEAVY DUTY ASPHALT PAVING SECTION
N.T.S.

① *1.50" ALDOT Section 424–A 340 Bituminous Wearing Surface*

② ALDOT Section 405 Bituminous Tack Coat.

③ *2.25" ALDOT Section 424–B 635 Upper Bituminous Binder Placed And Compacted In Layers Not Greater Than 3.5")*

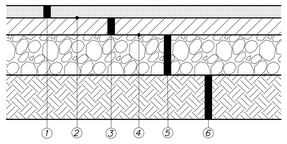
④ ALDOT Section 405 Bituminous Tack Coat.

⑤ *2.25" ALDOT Section 424–B 635 Lower Bituminous Binder Placed And Compacted In Layers Not Greater Than 3.5")*

⑥ ALDOT Section 401–A Bituminous Prime Coat.

⑦ *6.00" ALDOT Section 825 Crushed Aggregate Base Course (Compacted to 100% Modified Density, See Geotechnical Report)*

⑧ *6.00" ALDOT Section 230 Modified Roadbed (Compacted to 100% Modified Density, See Geotechnical Report)*



LIGHT DUTY ASPHALT PAVING SECTION
N.T.S.

① *1.50" ALDOT Section 424–A 340 Bituminous Wearing Surface*

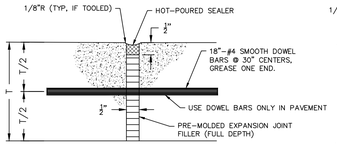
② ALDOT Section 405 Bituminous Tack Coat.

③ *2.50" ALDOT Section 424–B 635 Bituminous Binder Placed And Compacted In Layers Not Greater Than 3.5")*

④ ALDOT Section 401–A Bituminous Prime Coat.

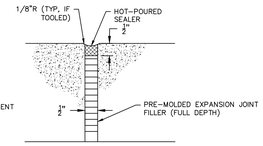
⑤ *6.00" ALDOT Section 825 Crushed Aggregate Base Course (Compacted to 100% Modified Density, See Geotechnical Report)*

⑥ *6.00" ALDOT Section 230 Modified Roadbed (Compacted to 100% Modified Density, See Geotechnical Report)*



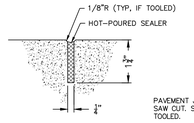
NOTE: DO NOT RUN MESH REINFORCEMENT THRU EXPANSION JOINT.

EXPANSION JOINT



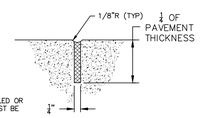
NOTE: DO NOT RUN MESH REINFORCEMENT THRU EXPANSION JOINT.

EXPANSION JOINT



CONTRACTION JOINT PAVEMENT

PAVEMENT JOINTS MAY BE TOOLED OR SAW CUT. SIDEWALK JOINTS MUST BE TOOLED.



CONTRACTION JOINT SIDEWALK & FLUME

CONCRETE JOINT DETAILS
N.T.S.

1. EXPANSION JOINTS IN THE PAVEMENT SHALL BE A MAXIMUM WIDTH OF 30 FEET. CONTRACTION JOINTS SHALL BE EQUALLY SPACED BETWEEN EXPANSION JOINTS, MAX 10 FEET.

2. EXPANSION JOINTS IN THE SIDEWALK SHALL BE A MAXIMUM WIDTH OF 20 FEET. CONTRACTION JOINTS SHALL BE EQUALLY SPACED BETWEEN EXPANSION JOINTS, MAX 5 FEET.

PURPOSE: THE R1–1 "STOP" SIGN SHALL BE USED ON APPROACHES OF INTERSECTIONS AND AT OTHER LOCATIONS WHERE CONDITIONS WARRANT STOP SIGN CONTROL. THE SIGN SHOULD BE SUPPLEMENTED WITH A STOP LINE ON THE PAVEMENT.

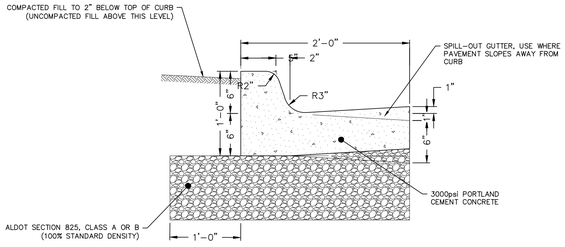
STANDARD SIZE
30"x30"

COLOR: BACKGROUND – RED (REFLECTORIZED)
MESSAGE, BORDER – WHITE (REFLECTORIZED)

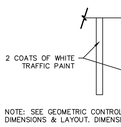
DETAILS

NUMBER:	R1–1
SIZE:	30"x30"
MARGIN:	NONE
BORDER:	3/4"
LETTER SIZE:	10"
CORNER RADIUS:	NONE
PLACEMENT:	STANDARD

SIGN R1–1
N.T.S.

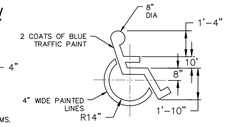


24" CURB & GUTTER DETAIL
N.T.S.

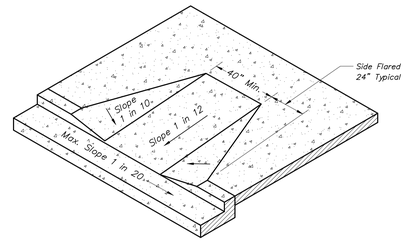


NOTE: SEE GEOMETRIC CONTROL PLAN FOR PARKING DIMENSIONS & LAYOUT. DIMENSIONS SHOWN ARE MINIMUMS.

PAVEMENT STRIPING DETAIL
N.T.S. SC–42

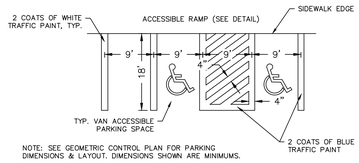


ACCESSIBLE SYMBOL
N.T.S. SC–42



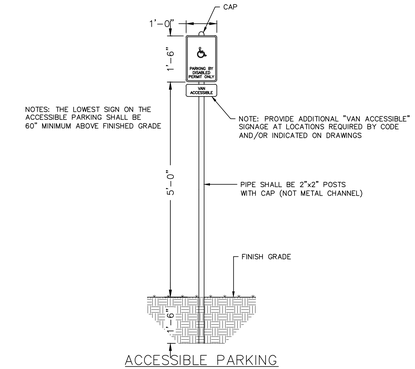
TYPICAL CURB CUT FOR HANDICAP ACCESS RAMP DETAIL
NOT TO SCALE

Modified Type I Ramp

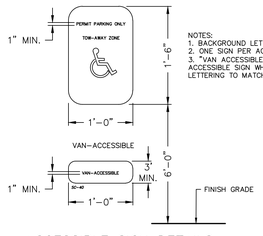


NOTE: SEE GEOMETRIC CONTROL PLAN FOR PARKING DIMENSIONS & LAYOUT. DIMENSIONS SHOWN ARE MINIMUMS.

PAVEMENT MARKINGS DETAIL
N.T.S.

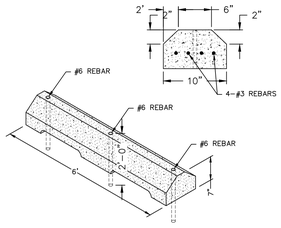


ACCESSIBLE PARKING SIGN DETAIL
N.T.S.



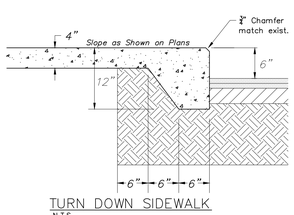
NOTES:
1. BACKGROUND LETTERING AND SYMBOL TO MATCH SIGNS.
2. ONE SIGN PER ACCESSIBLE SPACE.
3. "VAN ACCESSIBLE" SIGN TO BE MOUNTED BELOW STANDARD ACCESSIBLE SIGN WHERE SPECIFIED ON PLANS. COLORING AND LETTERING TO MATCH ACCESSIBLE SIGN.

ACCESSIBLE SIGN DETAILS
N.T.S.



NOTE: CONCRETE SHALL BE AIR ENTRAINED, REINFORCED 4000psi CONCRETE.

CONCRETE WHEEL STOP
N.T.S.



TURN DOWN SIDEWALK
N.T.S.

⑦ 3000psi COMPRESSIVE STRENGTH CONCRETE WITH 6"x6"–10/10 W.W.F. (MINIMUM 525psi FLEXURAL STRENGTH) MAXIMUM 4" SLUMP.

NOTES:

1.) TRENCH FOUNDATION REQUIRED ONLY WHEN EXISTING SOIL CONDITIONS ARE INADEQUATE FOR PROPER PIPE SUPPORT AS DETERMINED BY OWNER'S REPRESENTATIVE.

2.) ALL TRENCH BACKFILL OPERATIONS SHALL BE OBSERVED BY THE OWNER'S REPRESENTATIVE ON THE PROJECT. HOWEVER, THE PRESENCE OF THE OWNER'S REPRESENTATIVE SHALL NOT RELIEVE THE CONTRACTOR OF ANY REQUIREMENTS OR OBLIGATIONS ASSOCIATED WITH ALL UTILITY TRENCHES.

3.) ALL SLOPES SHALL CONFORM TO OSHA REQUIREMENTS. ADDITIONAL PROTECTIVE MEASURES MAY BE REQUIRED ABOVE AND BEYOND OSHA DEPENDING ON SPECIFIC TRENCH CONDITIONS. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF WORKERS, THE GENERAL PUBLIC AND OTHERS INVOLVED IN THE PROJECT AND SHALL PROVIDE SHEETING, BRACING, OR WHATEVER ACTION NECESSARY TO INSURE THE SAFETY OF PEOPLE, PROPERTY, AND STRUCTURES.

4.) THE LINES AND TRENCHES SHOWN ON THE TRENCH DETAILS ARE ONLY INTENDED TO DEFINE THE BACKFILL REQUIREMENTS AND THE MINIMUM DIMENSIONS FOR THE TRENCH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SHORE OR SLOPE TRENCH WALLS TO WHATEVER FLATNESS OF SLOPE IS NECESSARY TO PROVIDE SAFE WORKING CONDITIONS FOR THE PLACEMENT OF THE PIPE AND BEDDING.

5.) ALL UTILITY TRENCH BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPD ASTM D 698 UNLESS OTHERWISE NOTED BY ABOVE DETAILS.

6.) THE WIDTH OF THE TRENCH AT THE TOP OF THE PIPE SHALL PERMIT THE PIPE TO BE LAID AND JOINED PROPERLY AND TO ALLOW THE BACKFILL TO BE PLACED AND COMPACTED IN ACCORDANCE WITH THE TRENCH DETAILS. AS A GUIDE, TRENCH WIDTHS SHOULD BE THE NOMINAL PIPE DIAMETER PLUS 24". WHERE REQUIRED, TRENCHES SHALL BE WIDER TO PERMIT THE PLACEMENT OF SUPPORTS, SHEETING, BRACING, SHORING, ETC., AND OTHER APPURTENANCES AS REQUIRED BY THE SAFETY REQUIREMENTS OF UA AND/OR OSHA.

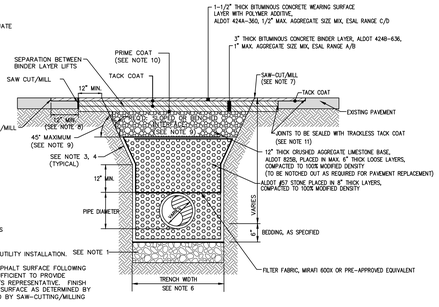
7.) SAW–CUT/MILL LINE FOR INITIAL REMOVAL OF EXISTING MATERIAL AS REQUIRED FOR UTILITY INSTALLATION. SEE NOTE

8.) SAW–CUT AND/OR MILL MINIMUM 12" WIDE BY 1–1/2"THICK PORTION OF EXISTING ASPHALT SURFACE FOLLOWING PLACEMENT OF BINDER LAYER. ACTUAL WIDTH OF SAW–CUT/MILL AREA SHALL BE SUFFICIENT TO PROVIDE MINIMUM OF 12" FROM ANY DAMAGED OR UNEVEN AREAS AS DETERMINED BY OWNER'S REPRESENTATIVE. FINISH EDGE OF MILLING SHALL PROVIDE NEAT, STRAIGHT APPEARANCE FOR FINAL WEARING SURFACE AS DETERMINED BY OWNER'S REPRESENTATIVE. EXISTING ADJACENT PAVEMENT SHALL NOT BE DISTURBED BY SAW–CUTTING/MILLING OPERATIONS.

9.) CONTRACTOR SHALL UTILIZE EITHER SLOPED PLANE OR BENCHED INTERFACE IN AREA OF PROPOSED CRUSHED AGGREGATE BASE COURSE IN ORDER TO PROPERLY TRANSFER LOAD FROM EXISTING AND REQUIRED SURFACES IN AREAS OF PAVEMENT REPAIRS. WHERE SLOPED PLANE SURFACE IS NOT OBTAINABLE BASED UPON MATERIAL CONDITIONS OR AS DIRECTED BY OWNER'S REPRESENTATIVE, A BENCHED SURFACE SHALL BE UTILIZED AS SHOWN ON DETAIL. THE SLOPED PLANE OR BENCHED SURFACE SHALL BE ON A MAXIMUM 45 DEGREE ANGLE AS SHOWN IN THE DETAIL. AREA OUTSIDE OF THE SLOPE PLANE OR BENCH SURFACE SHALL BE UNDISTURBED, WITH ANY AND ALL LOOSE OR UNSUITABLE MATERIAL REMOVED PRIOR TO PLACEMENT OF REQUIRED CRUSHED AGGREGATE BASE COURSE.

10.) PRIME COAT MAY BE OMITTED IF BINDER LAYER APPLIED WITHIN 48 HOURS OF ACCEPTED CRUSHED AGGREGATE BASE COURSE BY OWNER'S REPRESENTATIVE (GEOTECHNICAL TESTING LABORATORY).

11.) ALL ASPHALT LAYERS AND JOINTS SHALL BE PROPERLY CLEANED BY ANY AND ALL MEANS NECESSARY PRIOR TO APPLICATION OF TRACKLESS TACK COAT. NO LOOSE MATERIAL, DEBRIS, MOISTURE, ETC., SHALL BE ON SURFACE(S) WHEN TRACKLESS TACK COAT APPLIED BETWEEN LAYERS OR AT JOINT(S).



UTILITY TRENCH/PAVEMENT REPAIR DETAIL

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ALABAMA LICENSED PROFESSIONAL ENGINEER PABLO GIOIA

05.19.23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

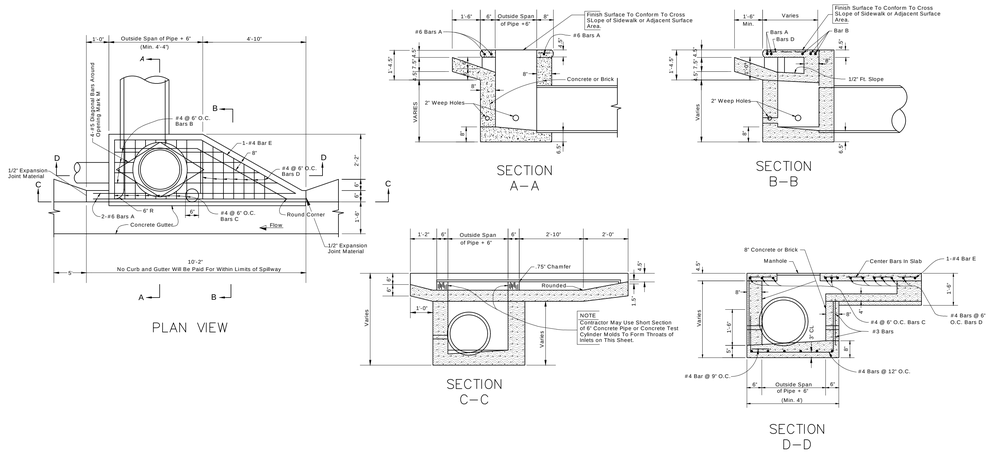
Drawing Title:

SITE DETAILS

Sheet No:

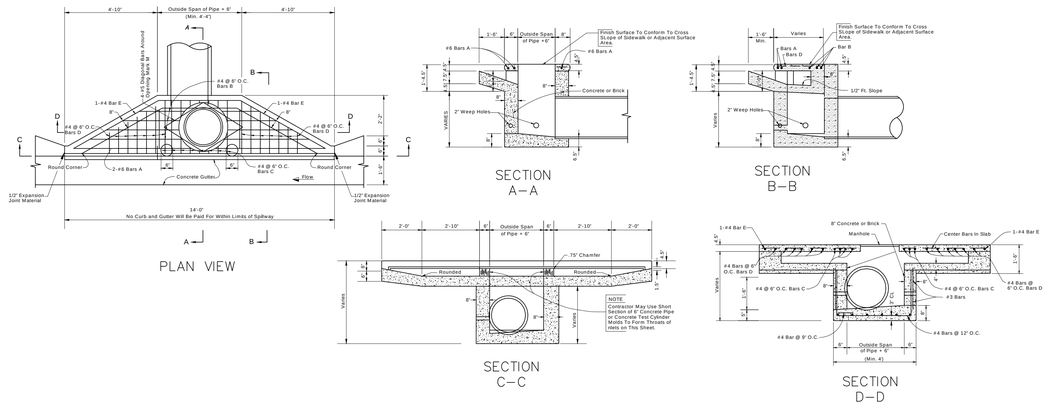
C-901

CONFORMANCE DOCUMENTS



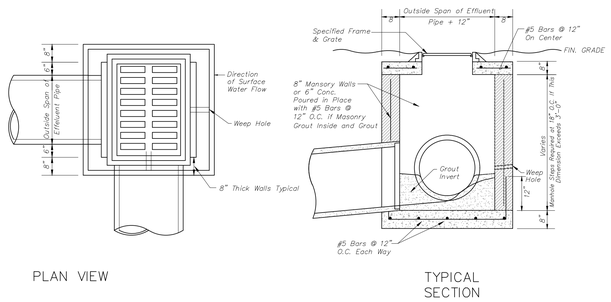
TYPICAL 'S' TYPE SINGLE WING INLET DETAIL

N.T.S.



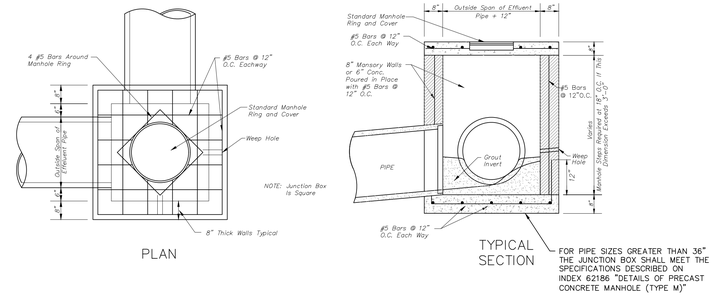
TYPICAL 'S' TYPE DOUBLE WING INLET DETAIL

N.T.S.



STANDARD FLAT GRATE INLET DETAIL

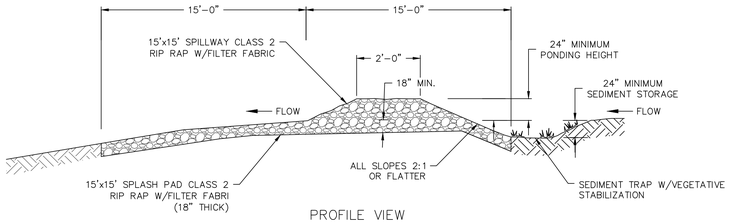
N.T.S.



FOR PIPE SIZES GREATER THAN 36" THE JUNCTION BOX SHALL MEET THE SPECIFICATIONS DESCRIBED ON INDEX 62186 "DETAILS OF PRECAST CONCRETE MANHOLE (TYPE M)"

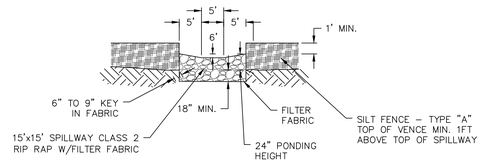
STANDARD JUNCTION BOX DETAIL - 12"-36" PIPE

N.T.S.



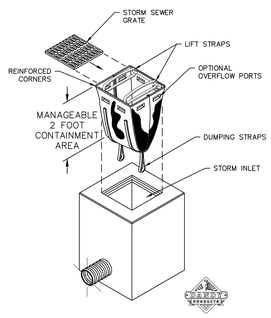
15'x15' RIP RAP SPILLWAY W/SPLASH PAD

N.T.S.



15'x15' RIP RAP SPILLWAY W/SPLASH PAD

N.T.S.



DANDY SACKÔ INLET SEDIMENT CONTROL DEVICE

NOTE: THE DANDY SACKSÔ WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

REGULAR FLOW DANDY SACKÔ (BLACK)			
MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	kN (lbs)	1.78 (400)x1.40 (315)
GRAB TENSILE ELONGATION	ASTM D 4632	%	15x15
PUNCTURE STRENGTH	ASTM D 4833	kN (lbs)	0.67 (150)
MULLEN BURST STRENGTH	ASTM D 3786	kPa (psi)	5506 (800)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	kN (lbs)	0.67 (150)x0.73 (165)
UV RESISTANCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
FLOW RATE	ASTM D 4491	l/min/m² (gal/min/ft²)	2852 (70)
PERMITTIVITY	ASTM D 4491	Sec⁻¹	0.90

HI-FLOW DANDY SACKÔ (SAFETY ORANGE)			
MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	kN (lbs)	1.62 (365)x0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24x10
PUNCTURE STRENGTH	ASTM D 4833	kN (lbs)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	kPa (psi)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	kN (lbs)	0.51 (115)x0.33 (75)
UV RESISTANCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
FLOW RATE	ASTM D 4491	l/min/m² (gal/min/ft²)	5907 (145)
PERMITTIVITY	ASTM D 4491	Sec⁻¹	2.10

NOTE: ALL DANDY SACKSÔ CAN BE ORDERED WITH OUR OPTIONAL OIL ABSORBENT PILLOWS.

Barganier Davis Williams Architects Associated

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www.bdwarchitects.com

ALABAMA LICENSED PROFESSIONAL ENGINEER PABLO GICHI

05.18.23

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

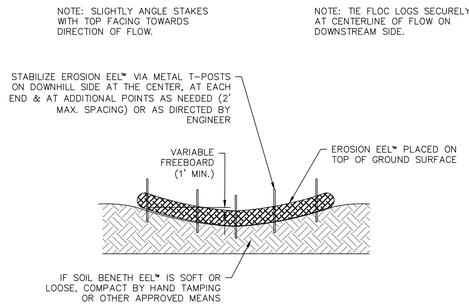
Drawing Title:

UTILITY DETAILS

Sheet No:

C-902

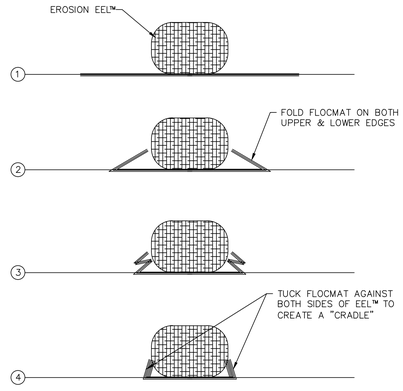
CONFORMANCE DOCUMENTS



SMALL DITCH CHECKS
FOR 9.5" AND 20"ø EELS

NOTE:
APPLICABLE TO SMALL WIDTH DITCHES WITH TOTAL WIDTH THAT REQUIRES ONLY ONE 10' EEL™ TO SPAN.

EROSION EEL DETAIL
N.T.S.

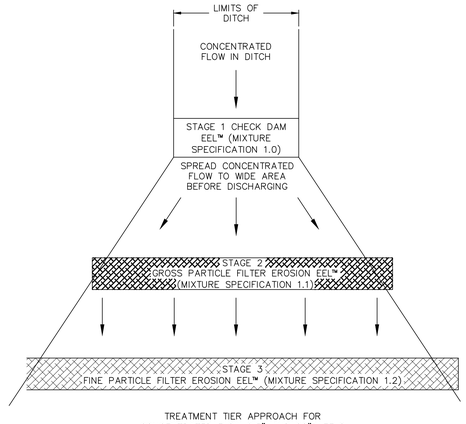


INSTALL FLOCMAT AT MAIN DISCHARGE LOCATIONS FOR WATERSHED

FLOCMAT DETAIL FOR GUTTER EEL
N.T.S.

GENERAL NOTES:

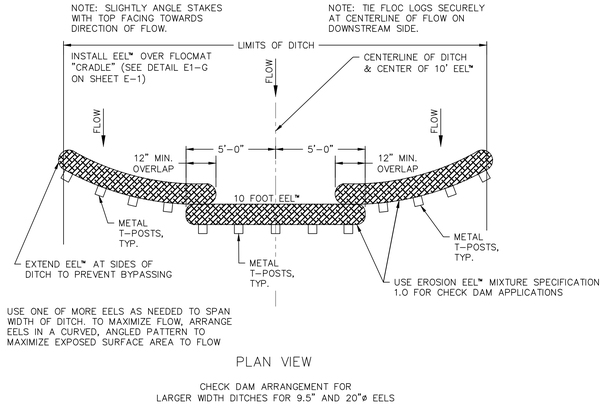
1. EROSION EELS USED IN PERIMETER CONTROL APPLICATIONS SHALL HAVE A SPECIFICATION MIXTURE 1.1 OR 1.2.
   a. MIXTURE SPECIFICATION 1.1. A FILTER MIXTURE COMPRISED OF 50% SHREDDED RUBBER AND 50% WOOD CHIP PARTICLES BY VOLUME. THE SHREDDED RUBBER SHALL BE WASHED AND PROCESSED TO REMOVE MOST, IF NOT ALL, METAL COMPONENTS. THE RUBBER SHALL BE DERIVED FROM RECYCLED TIRES AND SHALL BE SHREDDED TO PRODUCE A MAXIMUM PARTICLE SIZE OF +/– 3/4 INCH. THE WOOD CHIPS SHALL BE PRODUCED FROM HARDWOOD TREES AND SHALL CONFIRM TO AASHTO CERTIFICATION SPECIFICATION MP 9–03.
   b. MIXTURE SPECIFICATION 1.2. A FILTER MIXTURE COMPRISED OF 1/3 SHREDDED RUBBER, 1/3 WOOD CHIPS, AND 1/3 RECYCLED SYNTHETIC FIBERS. THE SHREDDED RUBBER SHALL BE WASHED AND PROCESSED TO REMOVE MOST, IF NOT ALL, METAL COMPONENTS. THE RUBBER SHALL BE DERIVED FROM RECYCLED TIRES AND SHALL BE SHREDDED TO PRODUCE A MAXIMUM PARTICLE SIZE OF +/– 3/4 INCH. THE WOOD CHIPS SHALL BE PRODUCED FROM HARDWOOD TREES AND SHALL CONFIRM TO AASHTO CERTIFICATION SPECIFICATION MP 9–03. THE SYNTHETIC FIBERS SHALL BE PRODUCED FROM RECYCLED, MANUFACTURED MATERIALS, SUCH AS, BUT NOT LIMITED TO, PRE–CONSUMER SCRAP CARPET, TIRE CHORD, AND TIRE FIBER MATERIALS.
2. EROSION EELS SHALL BE MANUFACTURED FROM A WOVEN GEOTEXTILE COVERING WITH INTERIOR FILTER MATERIALS SUCH AS 100% SHREDDED RUBBER (MIXTURE SPECIFICATION 1.0, 50% SHREDDED RUBBER/50% AASHTO–CERTIFIED WOOD CHIPS (MIXTURE SPECIFICATION 1.1).
3. LENGTHS OF EROSION EELS SHALL BE EITHER A NOMINAL +/–10 FT. OR +/– 4.5 FT. NOMINAL DIAMETER SHALL BE +/–9.5 INCHES.
4. EROSION EELS CAN BE PLACED AT THE TOP, ON THE FACE, OR AT THE TOE OF SLOPES TO INTERCEPT RUNOFF, REDUCE FLOW VELOCITY, RELEASE THE RUNOFF AS SHEET FLOW AND PROVIDE REMOVAL OF SEDIMENT FROM THE RUNOFF.
5. EROSION EELS SHALL BE INSTALLED ALONG THE GROUND CONTOUR, AT THE TOE OF SLOPES, AT AN ANGLE TO THE CONTOUR TO DIRECT FLOW AS A DIVERSION BERM, AROUND INLET STRUCTURES, IN A DITCH AS A CHECK DAM TO HELP REDUCE SUSPENDED SOLIDS LOADING AND RETAIN SEDIMENT, OR AS A GENERAL FILTER FOR ANY DISTURBED SOIL AREA.
6. NO TRENCHING IS REQUIRED FOR INSTALLATION OF EROSION EELS.
7. PREPARE BED FOR EEL INSTALLATION BY REMOVING ANY LARGE DEBRIS INCLUDING ROCKS, SOIL CLODS, AND WOODY VEGETATION. EROSION EELS CAN ALSO BE PLACED OVER PAVED SURFACES INCLUDING CONCRETE AND ASPHALT WITH NO SURFACE PREPARATION REQUIRED.
8. RAKE BED AREA WITH A HAND RAKE OR BY DRAG HARROW.
9. DO NOT PLACE EEL DIRECTLY OVER RILL AND GULLIES UNTIL AREA HAS BEEN HAND–EXCAVATED AND RAKED TO PROVIDE A LEVEL BEDDING SURFACE. ALL SURFACES SHALL BE UNIFORMLY COMPACTED FOR MAXIMUM SEATING OF EELS IN PLACE.
10. FOR LOCATIONS WHERE EELS WILL BE PLACED IN CONCENTRATED FLOWS (SUCH AS CHECK DAMS, INLET PROTECTION) AND FOR PERIMETER CONTROLS AT PRIMARY DISCHARGE LOCATIONS, BED THE EELS IN A FLOCMAT CRADLE PER THE DETAILED DRAWINGS.
11. FOR DITCH APPLICATIONS, THE MAXIMUM DRAINAGE AREA SHALL BE 10 ACRES.
12. IF MORE THAN ONE EROSION EEL IS PLACED IN A ROW, THE EELS SHALL BE OVERLAPPED A MINIMUM OF 12 INCHES TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. COMPRESS THE TWO EELS OF THE OVERLAP TIGHTLY TOGETHER EITHER BY HAND OR MANUFACTURER–APPROVED MECHANIZED MEANS.
13. WHEN USED IN DITCHES AS A CHECK DAM, EROSION EELS SHALL BE INSTALLED PER MANUFACTURER'S DETAILS.
14. FOR CHECK DAM APPLICATIONS, EROSION EELS SHALL BE PLACED PERPENDICULAR TO THE FLOW OF THE WATER. EROSION EELS SHALL CONTINUE UP THE SIDES SLOPES A MINIMUM OF 3 FEET ABOVE THE DESIGN FLOW DEPTH.
15. EROSION EELS SHALL REMAIN IN PLACE UNTIL FULLY ESTABLISHED VEGETATION HAS COMPLETELY DEVELOPED OR UNTIL THE STORAGE CAPACITY/FUNCTIONAL LIFE OF THE EEL HAS BEEN EXHAUSTED (REQUIRING REPLACEMENT WITH NEW EELS).
16. ANCHORING POSTS FOR CHECK DAM APPLICATIONS SHALL HAVE A MINIMUM WEIGHT OF 1.25 LBS/FT STEEL T–POSTS (5 TO 7 FT. LENGTHS) ROLLED FROM HIGH CARBON STEEL. POSTS SHOULD BE HOT–DIP GALVANIZED OR COATED WITH A WEATHER–RESISTANT PAINT FOR STEEL APPLICATION. POSTS SHOULD BE EQUIPPED WITH A METAL ANCHOR PLATE. INSTALL PER DETAILS ON THIS SHEET.
17. PLACE T–POSTS THROUGH HANDLE OF BAGS. DO NOT DRIVE POSTS THROUGH EROSION EELS . T–POSTS ARE TO BE EMBEDDED A MINIMUM OF 2 FT INTO GROUND.



TREATMENT TIER APPROACH FOR
CONCENTRATED FLOW 9.5" AND 20"ø EELS

NOTE:
1. PLACE CHECK DAM EELS (MIXTURE 1.0) UPSLOPE OF EELS WITH MIXTURES 1.1 OR 1.2.
2. EELS WITH MIXTURE 1.1 SHOULD ALWAYS BE PLACED UPSLOPE OF EELS WITH FINE PARTICLE MIXTURE 1.2.

EROSION EEL DITCH OUTLET DETAIL
N.T.S.



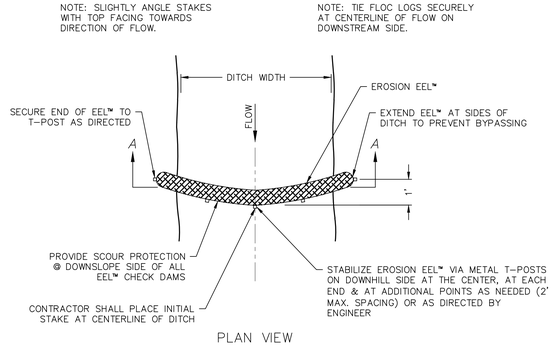
PLAN VIEW

CHECK DAM ARRANGEMENT FOR
LARGER WIDTH DITCHES FOR 9.5" AND 20"ø EELS

NOTE:
APPLICABLE TO LARGE WIDTH DITCHES WHERE ONE EEL™ IS NOT SUFFICIENT TO SPAN LENGTH.

MINIMIZE OVERLAP LENGTH IN CHECK DAM APPLICATIONS TO MAXIMIZE FLOW–THROUGH CAPACITY. IN LIEU OF OVERLAPS, EEL CAN BE USED PER DETAILS

EROSION EEL DETAIL
N.T.S.



PLAN VIEW

SMALL DITCH CHECKS SINGLE EEL™
(NO STACKING) FOR 9.5" AND 20"ø EELS

NOTE:
EROSION EEL™ USED FOR CHECK DAMS SHALL USE MIXTURE SPECIFICATION 1.0.

NOTE:
APPLICABLE TO SMALL WIDTH DITCHES WITH TOTAL WIDTH THAT REQUIRES ONLY ONE 10' EEL™ TO SPAN.

EROSION EEL DETAIL
N.T.S.

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ALABAMA LICENSED PROFESSIONAL ENGINEER PABLO GOHN
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REVISIONS

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MGM Project No.	SP-5-21
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Drawn By:	BDW
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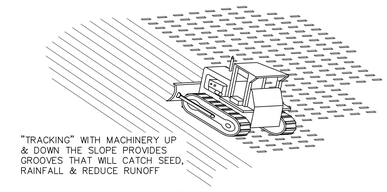
Drawing Title:

EROSION CONTROL DETAILS

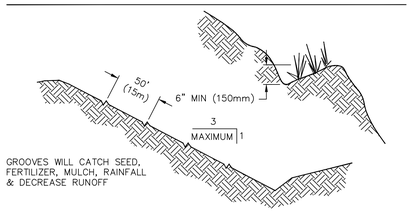
Sheet No:

C-903

CONFORMANCE DOCUMENTS

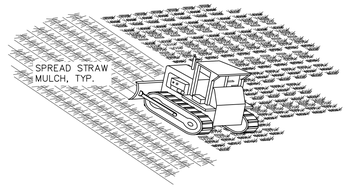


TRACKING



CONTOUR FURROWS

SURFACE ROUGHENING
N.T.S.

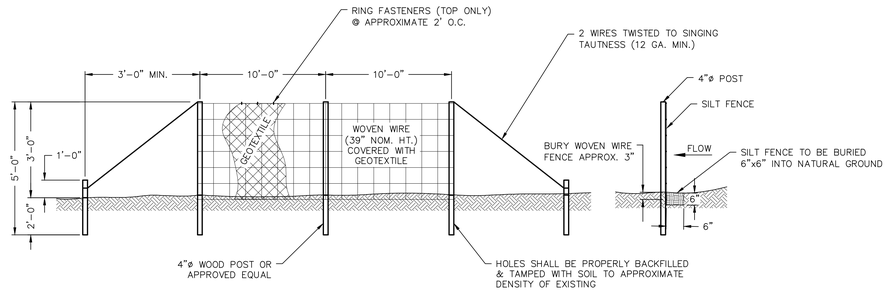


"TRACKING" WITH MACHINERY ON
SANDY SOIL PROVIDES ROUGHENING
WITHOUT UNDUE COMPACTION

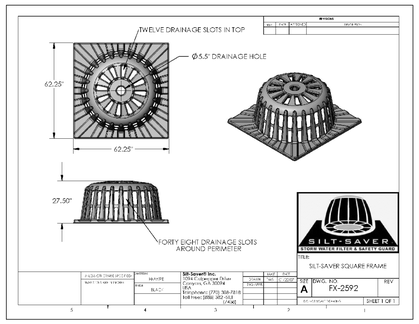
STRAW ANCHORING

NOTES:
1. ROUGHEN SLOPE WITH BULLDOZER.
2. BROADCAST SEED AND FERTILIZER.
3. SPREAD STRAW MULCH 3" (76mm) THICK. (1½ TO 2 TONS PER ACRE.
4. PUNCH STRAW MULCH INTO SLOPE BY RUNNING BULLDOZER UP AND DOWN SLOPE.

STRAW ANCHORING
N.T.S.



TYPE "A" SILT FENCE & INSTLLATION
N.T.S.

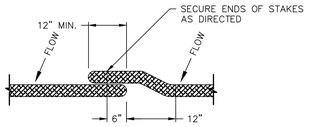


SILT-SAVER DETAIL
N.T.S.

Zone 2 - Areas Subject to Frequent Mowing Required Pounds Per Acre of Pure Live Seed				
Date of Planting	Jan. 1 to Feb. 15	Feb. 16 to Apr. 15	Apr. 16 to Aug. 15	Aug. 1 to Dec. 31
Annual Ryegrass	* 25			* 25
Hulled Bermudagrass		15	20	
Unhulled Bermudagrass		10		
Annual Lespideza (Kobe)			30	
White Dutch Clover		5		
* Requires seeding in stubble during the following month of fall arch for the establishment of permanent plants				

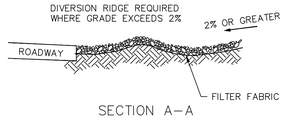
Zone 2	
Autauga	Marengo
Bibb	Montgomery
Bullock	Perry
Chambers	Pickens
Chilton	Russell
Choctaw	Sumter
Coosa	Tallapoosa
Dallas	Tuscaloosa
Elmore	Wilcox
Greene	
Hale	
Lee	
Lowndes	
Macon	

Temporary Seeding	
September through December	
Annual Ryegrass	25 pounds per acre
Kentuck 31 Fescue	30 pounds per acre
Reseeding Crimson Clover	10 pounds per acre
January through April 15	
Kentuck 31 Fescue	30 pounds per acre
Reseeding Crimson Clover	30 pounds per acre
Annual Ryegrass	15 pounds per acre
April 16 thrugh August	
Brown Top Millet	30 pounds per acre
Kentuck 31 Fescue	30 pounds per acre
Hulled Bermuda Grass	10 pounds per acre

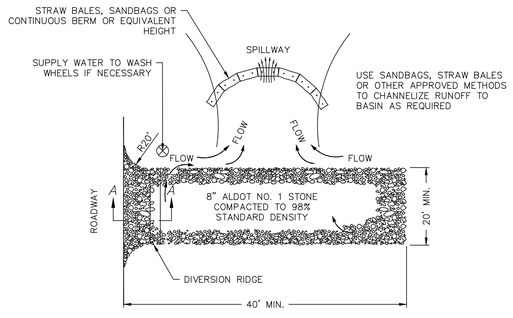


PLAN VIEW

OVERLAP/JOINT DETAIL
N.T.S.



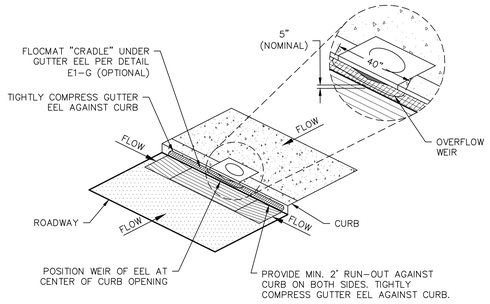
SECTION A–A



PLAN

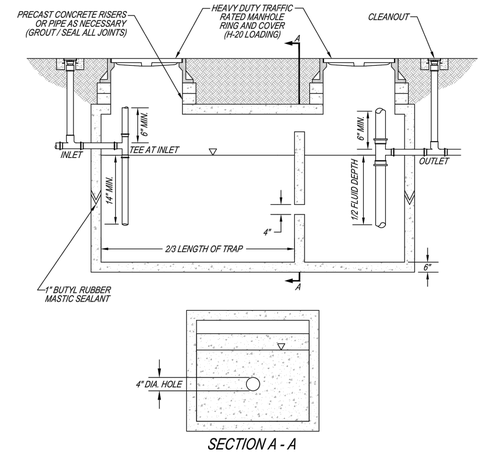
NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT–OF–WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT F ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT PAD
N.T.S.



NOTE: PERIODIC MAINTENANCE SHALL INCLUDE CLEANING GUTTER EEL SURFACE WITH HIGH PRESSURE WASH OR BRUSHING SURFACE WITH BROOM.

ISOMETRIC DETAIL E3–C: SMALL CURB INLET SEDIMENT TRAP – GUTTER EEL
N.T.S.



SECTION A - A

NOTES:
1. *MANHOLE RING AND COVERS SHALL NOT BE COVERED, OR OBSCURED BY LANDSCAPING, PAVEMENT, ETC.*
2. *INLET AND OUTLET PIPES SHALL BE SCHEDULE 40 PVC, AND SHALL NOT BE COVERED OR CAPPED.*
3. *INLET PIPE MUST BE A MINIMUM OF 4" DIAMETER. VERTICAL PIPE ON OUTLET SIDE MUST BE A MINIMUM OF 6" IN DIAMETER.*
4. *SEPARATOR SHALL NOT BE LOCATED IN AN ENTRANCE, EXIT, DRIVE-THRU, OR UNDER A MENU BOARD.*
5. *MINIMUM SIZE: 1000 GALLONS.*

OIL/SAND SEPERATOR DETAIL
N.T.S.

Barganier
Davis
Williams
Architects
Associated

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624 South McDonough Street
Montgomery, AL 36104

phone: 334.834.2038
www.bdwarchitects.com

ALABAMA
PABLO GIOIA
REGISTERED
PROFESSIONAL
ENGINEER
05.19.23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

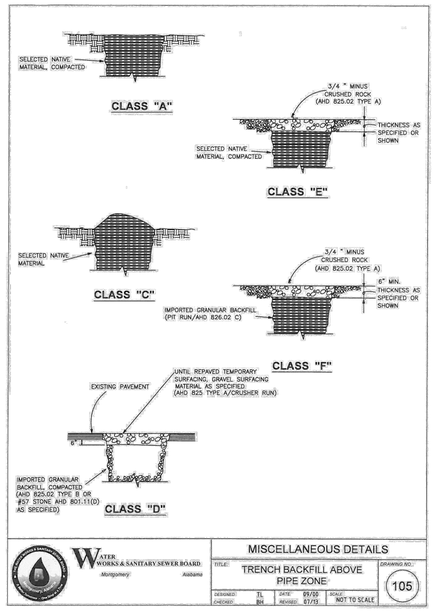
Drawing Title:

EROSION CONTROL DETAILS

Sheet No:

C-904

CONFORMANCE DOCUMENTS



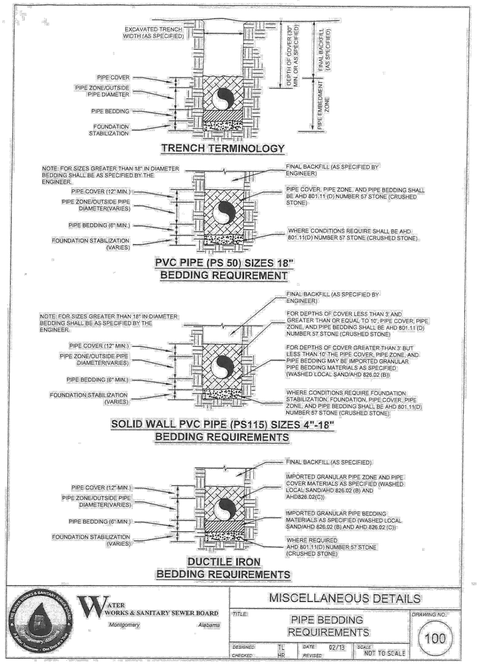
WATER WORKS & SANITARY SEWER BOARD Montgomery Alabama

MISCELLANEOUS DETAILS

TITLE: TRENCH BACKFILL ABOVE PIPE ZONE

DRAWING NO.: 105

DESIGNED: TL | DATE: 99/00 | SCALE: NOT TO SCALE
CHECKED: BH | REVISED: 07/13



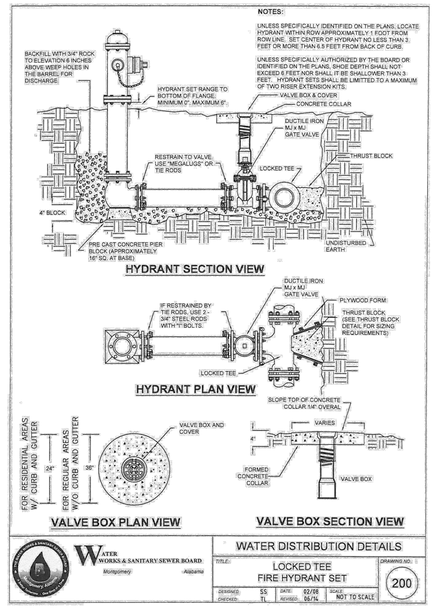
WATER WORKS & SANITARY SEWER BOARD Montgomery Alabama

MISCELLANEOUS DETAILS

TITLE: PIPE BEDDING REQUIREMENTS

DRAWING NO.: 100

DESIGNED: TL | DATE: 02/13 | SCALE: NOT TO SCALE
CHECKED: HB | REVISED:



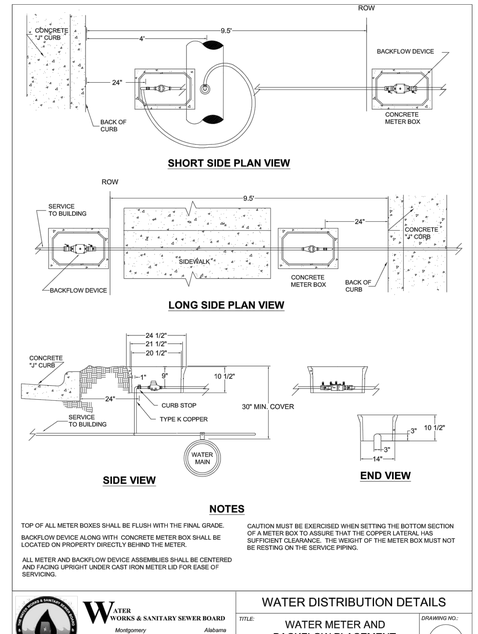
WATER WORKS & SANITARY SEWER BOARD Montgomery Alabama

WATER DISTRIBUTION DETAILS

TITLE: LOCKED TEE FIRE HYDRANT SET

DRAWING NO.: 200

DESIGNED: SS | DATE: 02/08 | SCALE: NOT TO SCALE
CHECKED: TL | REVISED: 05/14



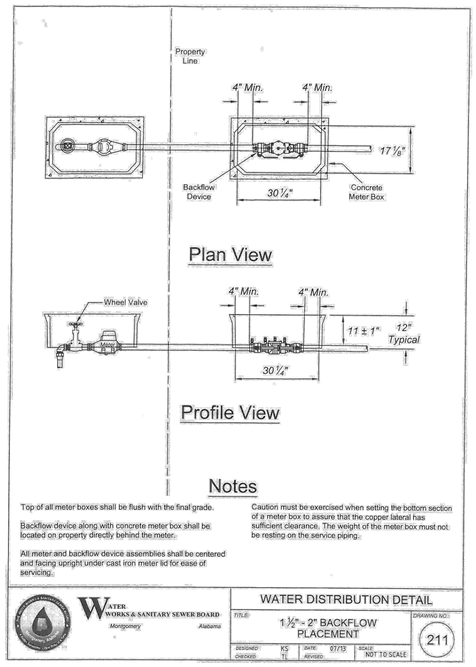
WATER WORKS & SANITARY SEWER BOARD Montgomery Alabama

WATER DISTRIBUTION DETAILS

TITLE: WATER METER AND BACKFLOW PLACEMENT

DRAWING NO.: 210

DESIGNED: TL | DATE: 99/00 | SCALE: NOT TO SCALE
CHECKED: BH | REVISED:



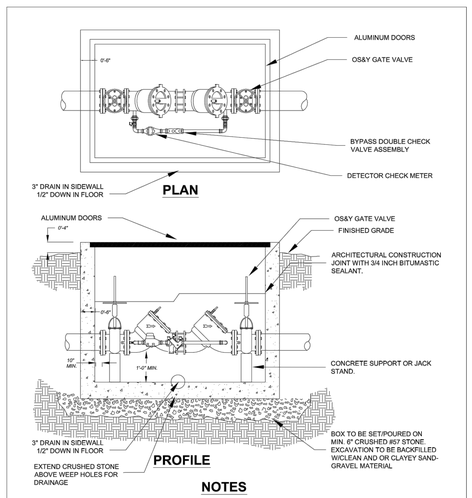
WATER WORKS & SANITARY SEWER BOARD Montgomery Alabama

WATER DISTRIBUTION DETAIL

TITLE: 1 ½" - 2" BACKFLOW PLACEMENT

DRAWING NO.: 211

DESIGNED: KS | DATE: 07/13 | SCALE: NOT TO SCALE
CHECKED: TL | REVISED:



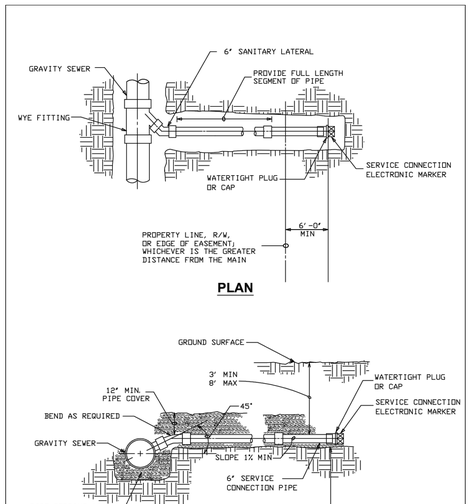
WATER WORKS & SANITARY SEWER BOARD Montgomery Alabama

WATER DISTRIBUTION DETAILS

TITLE: LARGE DOUBLE CHECK BACKFLOW VAULT

DRAWING NO.: 225

DESIGNED: TL | DATE: 09/00 | SCALE: NOT TO SCALE
CHECKED: BH | REVISED:



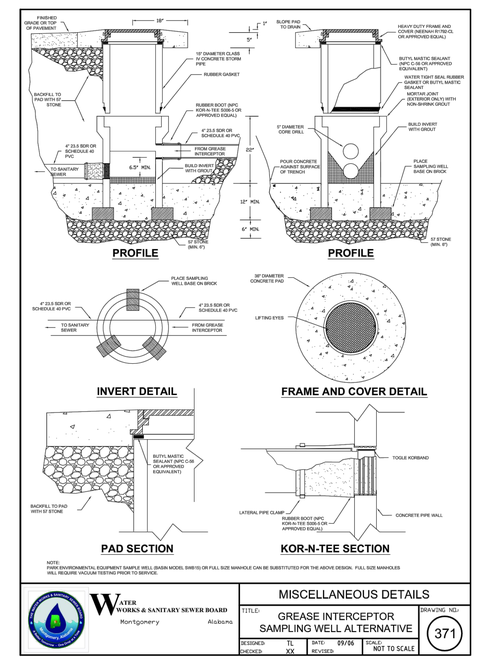
WATER WORKS & SANITARY SEWER BOARD Montgomery Alabama

SANITARY SEWER DETAILS

TITLE: STANDARD SANITARY LATERAL

DRAWING NO.: 310

DESIGNED: TL | DATE: 09/00 | SCALE: NOT TO SCALE
CHECKED: BH | REVISED: 03/04



WATER WORKS & SANITARY SEWER BOARD Montgomery Alabama

MISCELLANEOUS DETAILS

TITLE: GREASE INTERCEPTOR SAMPLING WELL ALTERNATIVE

DRAWING NO.: 371

DESIGNED: TL | DATE: 09/06 | SCALE: NOT TO SCALE
CHECKED: XX | REVISED:

Barganier Davis Williams Architects Associated

bdw architects

624 South McDonough Street
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phone: 334.834.2038
www.bdwarchitects.com

ALABAMA LICENSED PROFESSIONAL ENGINEER PABLO GOMEZ

05.19.23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-22-2023

MGM Project No. SP-5-21
BDW Project No. 2021-118
Drawn By: BDW
Date:
Scale: AS NOTED

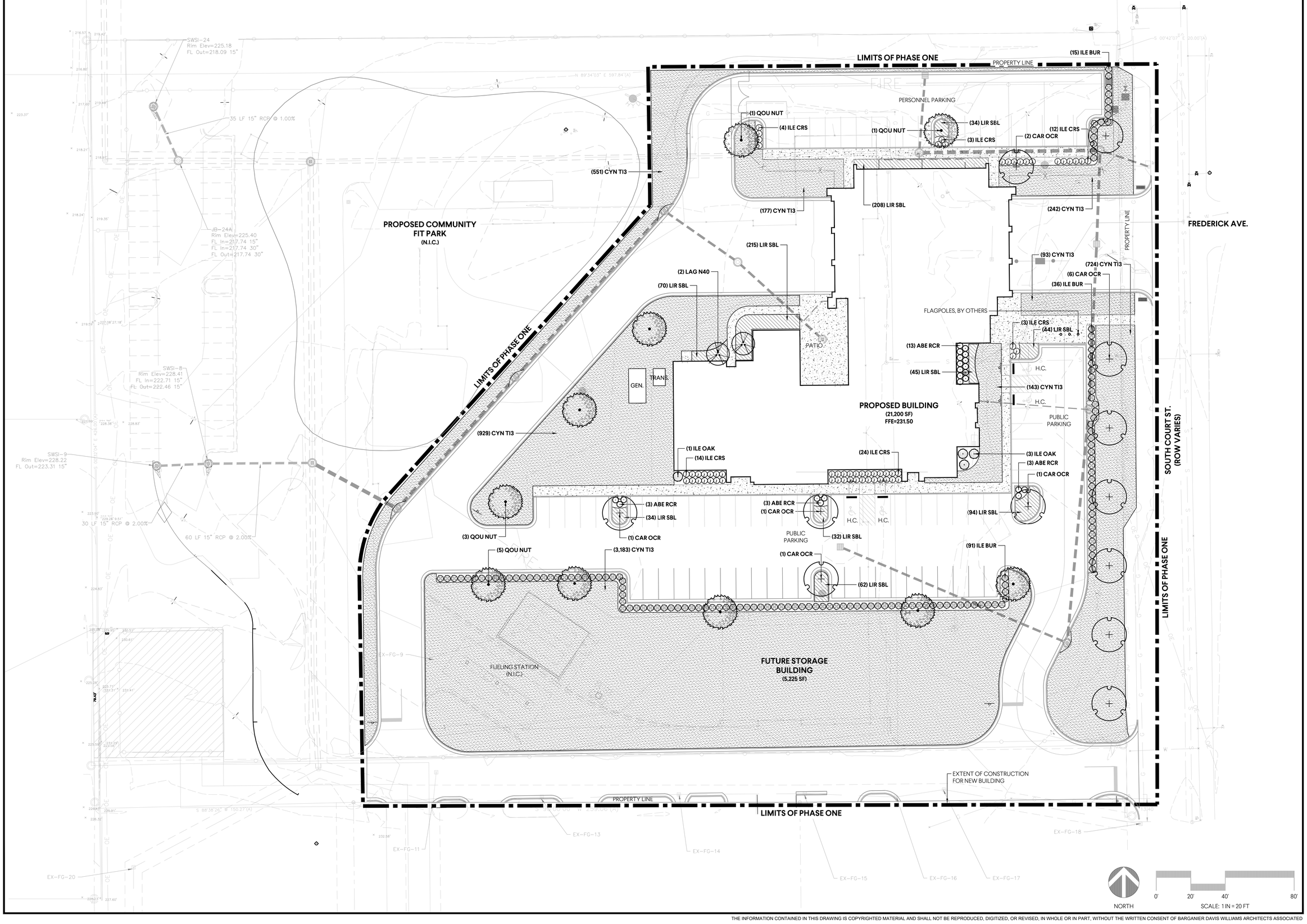
Drawing Title:

MWWSSB DETAILS

Sheet No:

C-905

CONFORMANCE DOCUMENTS



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Associated

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624 South McDonough Street
Montgomery, AL 36104

phone: 334.834.2038
www.bdwarchitects.com

STATE OF ALABAMA
LORI LOUISE MURASKI
REGISTERED LANDSCAPE ARCHITECT
NUMBER 506

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02/03/2023
2	Conformance Documents	05/22/2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-8-2022
Scale:	AS NOTED

Drawing Title:

PHASE 1 BASE BID - LANDSCAPE PLAN

Sheet No:

L1.0

CONFORMANCE DOCUMENTS

PLANT SCHEDULE - BASE BID

TREES	QTY	BOTANICAL NAME	COMMON NAME	CAL. / HT.		REMARKS
CAR OCR	12	CARPINUS CAROLINIANA 'ORANGE CRUSH'	ORANGE CRUSH AMERICAN HORNBEAM	3.0" CAL.		
ILE OAK	4	ILEX X 'OAK LEAF'	OAK LEAF HOLLY	6`-8` HT		FULL TO GROUND
LAG N40	2	LAGERSTROEMIA INDICA X FAURIEI 'NATCHEZ'	NATCHEZ CRAPE MYRTLE	8-10` HT.		MULTI-TRUNK, WHITE FLOWERS
QOU NUT	10	QUERCUS NUTTALLII	NUTTALL OAK	3.0" CAL.		
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS
ABE RCR	22	ABELIA X 'ROSE CREEK'	ROSE CREEK ABELIA	3 GAL	42" o.c.	PINK FLOWERS
ILE BUR	142	ILEX CORNUTA 'BURFORDII NANA'	DWARF BURFORD HOLLY	7 GAL	48" o.c.	
ILE CRS	60	ILEX CORNUTA 'CARISSA'	CARISSA CHINESE HOLLY	7 GAL	42" o.c.	
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	REMARKS
LIR SBL	838	LIRIOPE MUSCARI 'SUPER BLUE'	SUPER BLUE LILYTURF	4" POT	18" o.c.	PURPLE FLOWERS
SOD/SEED	QTY	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	REMARKS
CYN TI3	6,042	CYNODON DACTYLON 'TIF 419'	TIF 419 BERMUDA GRASS	SOD	S.Y.	

GENERAL PROJECT NOTES

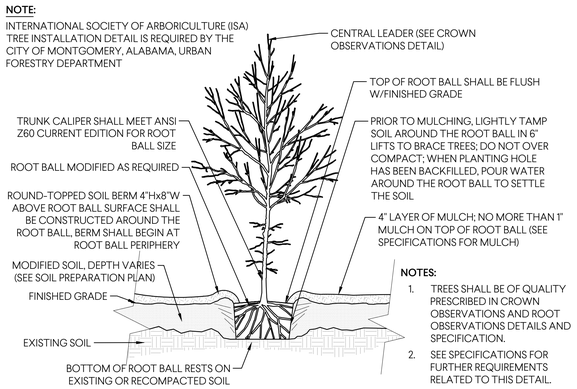
1. CONTRACTOR SHALL EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY TO ONE ANOTHER AND CORRESPOND WITH ONE ANOTHER. ALL COSTS SUBMITTED SHALL BE BASED ON THOROUGH KNOWLEDGE OF ALL WORK AND MATERIALS REQUIRED . ANY DISCREPANCY AND/OR UNCERTAINTY AS TO WHAT MATERIAL/PRODUCT IS TO BE USED SHALL BE VERIFIED WITH THE OWNER OR THE LANDSCAPE ARCHITECT PRIOR TO BIDDING AND CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR ALL FINAL QUANTITIES PER DRAWINGS AND SPECIFICATIONS. ANY QUANTITIES PROVIDED BY GMC ARE PROVIDED FOR CONVENIENCE ONLY AND SHALL NOT BE CONSIDERED ABSOLUTE. ANY DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT.
3. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND LINE RUNS IN THE FIELD PRIOR TO CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING UTILITIES ARE TO BE REPAIRED IMMEDIATELY AT NO ADDITIONAL EXPENSE TO THE OWNER. GMC ASSUMES NO RESPONSIBILITY FOR ANY UTILITIES NOT SHOWN ON PLANS.
4. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES REQUIRED FOR SAFE EXECUTION AND COMPLETION OF WORK, AND FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
5. THESE DRAWINGS MAY INDICATE A LIMIT OF PROPOSED IMPROVEMENTS, LIMITS OF SITE DEMOLITION, ETC, FOR DELINEATION OF EXPECTED EXTENTS OF DISTURBANCE. FINAL IMPACT SHALL BE DETERMINED IN THE FIELD. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL WORK DISTURBED BY CONSTRUCTION TO A CONDITION BETTER THAN OR EQUAL TO THE CONDITIONS THAT EXISTED PRIOR TO THE BEGINNING OF CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.
6. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A COMPLETE UP-TO-DATE SET OF DRAWINGS AND SPECIFICATIONS AT THE CONSTRUCTION SITE AND ENSURING THE DOCUMENTS ARE READILY AVAILABLE FOR REVIEW BY THE LANDSCAPE ARCHITECT AND GOVERNING AGENCIES.
7. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
8. WRITTEN DIMENSIONS PREVAIL OVER SCALED DIMENSIONS. NOTIFY LANDSCAPE ARCHITECT OF DISCREPANCIES.
9. DIMENSIONS ARE TO FACE OF OBJECT, UNLESS OTHERWISE NOTED.

GENERAL LANDSCAPE NOTES

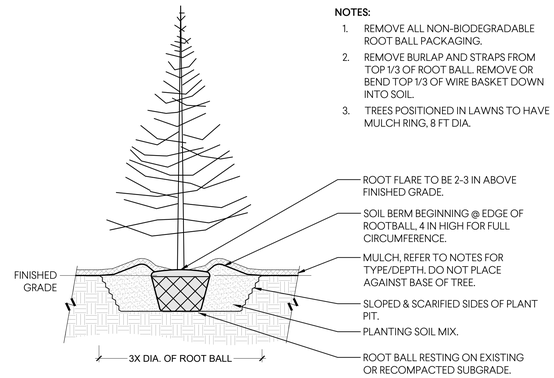
1. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS & RELATED EXISTING CONDITIONS, UTILITIES, STRUCTURES, ETC. PRIOR TO BIDDING AND CONSTRUCTION.
2. CONTRACTOR'S BASE BID TO INCLUDE ALL MATERIALS, LABOR, PERMITS, EQUIPMENT, TOOLS, INSURANCE, ETC. TO PERFORM THE WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS.
3. PERFORM ALL WORK IN COMPLIANCE WITH ALL APPLICABLE LAWS, CODES, & REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK & PROVIDE PERMITS REQUIRED BY LOCAL AUTHORITIES.
4. CONTRACTOR TO COMPLETE ALL WORK WITHIN SCHEDULE ESTABLISHED BY OWNER.
5. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL WORK DISTURBED BY CONSTRUCTION TO A CONDITION BETTER THAN OR EQUAL TO THE CONDITIONS THAT EXISTED PRIOR TO THE BEGINNING OF CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.
6. SEE CIVIL DRAWINGS FOR INFORMATION REGARDING EROSION/SEDIMENT CONTROL, LOCATION OF EXISTING & PROPOSED STRUCTURES, PAVING, DRIVEWAYS, CUT & FILL AREAS, LIMITS OF CONSTRUCTION, EXISTING & PROPOSED UTILITIES OR EASEMENTS.

PLANTING SOIL & PREPARATION NOTES

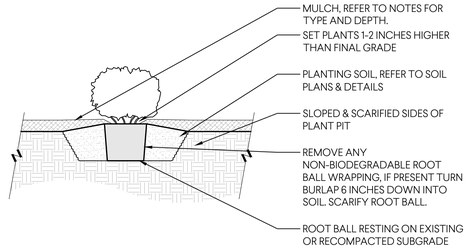
1. CONTRACTOR SHALL CONDUCT & SUBMIT TO THE LANDSCAPE ARCHITECT AN ANALYSIS OF A MINIMUM OF (3) SAMPLES OF EXISTING SOIL FROM AREAS TO BE PLANTED . THE ANALYSIS SHALL BE DONE BY A SOIL TESTING LAB APPROVED BY THE LANDSCAPE ARCHITECT IN ADVANCE AND SHALL INCLUDE THE FOLLOWING RESULTS WITH RECOMMENDATIONS:
   A. S1A - ORGANIC MATTER, AVAILABLE PHOSPHORUS, EXCHANGEABLE POTASSIUM, MAGNESIUM, CALCIUM, SOIL pH, CATION EXCHANGE CAPACITY, PERCENT BASE SATURATION OF CATION ELEMENTS.
   B. S3 - SULFUR, ZINC, MANGANESE, IRON, COPPER, BORON
   C. TEXTURE ANALYSIS
2. TOPSOIL (& PLANTING SOIL WHEN DIFFERENT) SHALL BE PROVIDED MIXED AND READY FOR INSTALLATION. TOPSOIL SHALL MEET THE FOLLOWING CRITERIA & STRIPPED/STOCKPILED TOPSOIL MAY BE USED IF IT CAN REASOANBLY BE BROUGHT UP TO THESE CRITERIA.
   A. FERTILE, FRIABLE, NATURALLY OCCURRING, FREE OF TRASH, ROCKS/STONES, & DEBRIS LARGER THAN 2 INCHES IN ANY DIMENSION
   B. FREE OF ANY GRASSES, WEEDS, SEEDS, PLANTS, & ANY SUBSTANCE HARMFUL TO PLANT GROWTH.
   C. pH RANGE OF 5.0-7.0
   D. ORGANIC MATTER: 5-10%
   E. SAND: 50-70%, SILT: LESS THAN 30%, CLAY: 10-25%
   F. PERMEABILITY RATE OF 5X10 (-3) CENTIMETERS OR GREATER AT 85% COMPACTION.
3. CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE THE LOCATION OF STOCKPILE AREAS FOR STRIPPED TOPSOIL AND PLANTING SOIL PRODUCTS. CONTRACTOR SHALL ENSURE AREA IS PROTECTED FROM CONTAMINATION & DISTURBANCE
4. FINAL GRADES DEPICTED ON THE GRADING PLAN (REFER TO CIVIL DRAWINGS) ARE TO ACCOUNT FOR PLANTING SOIL DEPTHS INDICATED IN THE LANDSCAPE DRAWINGS/DETAILS. CONTRACTOR SHALL ENSURE SUBGRADE IS SCARIFIED PRIOR TO INSTALLING PLANTING SOIL.
5. FINAL FINISHED GRADING SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT. CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL TOPSOIL REQUIRED TO CREATE A SMOOTH CONDITION SUITABLE FOR PLANTING.
6. ALL TRASH, DEBRIS LARGER THAN 2 INCHES IN DIAMETER IN ANY DIRECTION, ROCK, COBBLE, EXCAVATION SPOILS, & GRAVEL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE PRIOR TO THE INSTALLATION OF TOPSOIL/PLANTING SOIL.
7. COORDINATE INSTALLATION OF TOPSOIL/PLANTING SOIL WITH OTHER WORK. PLACEMENT SHALL OCCUR AFTER INSTALLATION OF HARDSCAPE IMPROVEMENTS, IRRIGATION SYSTEMS, UTILITIES, ETC. AND BEFORE PLANT INSTALLATION.
8. PRIOR TO PLANT INSTALLATION, PLANT BEDS AND PITS SHALL BE TESTED FOR PERCOLATION BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER. TEST SHALL CONSIST OF 1 FT DIAMETER BY 1 FT DEEP MIN HOLE, OR THE PLANTING PIT, FILLED WITH WATER. IF WATER HAS NOT DISSIPATED BY 50% WITHIN 2 HOURS, NOTIFY THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO INSTALLATION. IN HARDPAN CONDITIONS, INSTALL DRAIN PIPES AS PER PLANTING DETAILS.



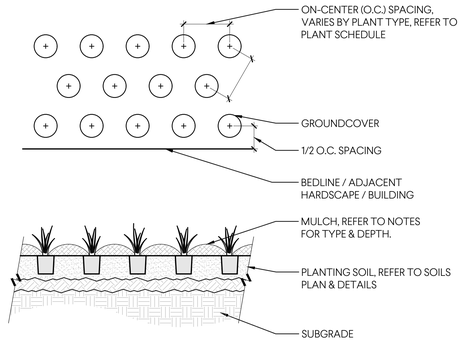
1 DETAIL: ISA TREE INSTALLATION DETAIL
NTS



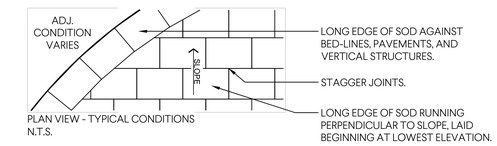
2 TREE PLANTING, EVERGREEN
3/8" = 1'-0"

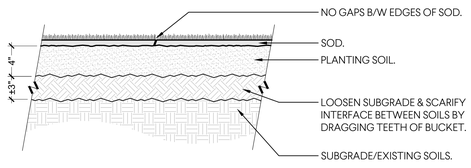


3 SHRUB PLANTING
3/4" = 1'-0"



4 GROUNDCOVER & PERENNIAL PLANTING
3/4" = 1'-0"





5 SOD INSTALLATION
1 1/2" = 1'-0"

Barganier Davis Williams Architects Associated

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624 South McDonough Street
Montgomery, AL 36104

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www.bdwarchitects.com

STATE OF ALABAMA — LORI LOUISE MURASKI — NUMBER 506 — REGISTERED LANDSCAPE ARCHITECT

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02/03/2023
2	Conformance Documents	05/22/2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-8-2022
Scale:	AS NOTED

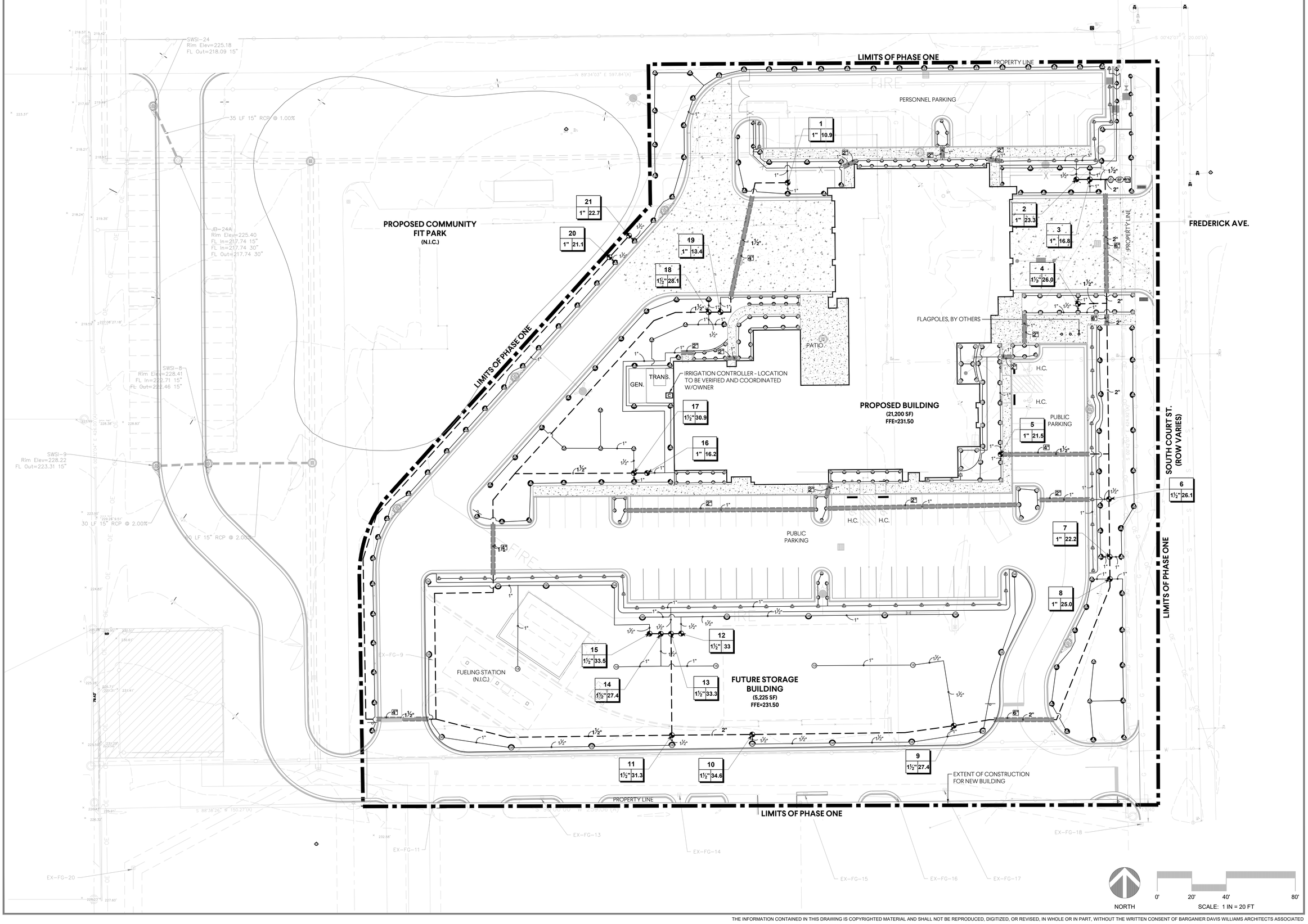
Drawing Title:

PHASE 1 BASE BID - PLANT SCHEDULE, NOTES, DETAILS

Sheet No:

L1.1

CONFORMANCE DOCUMENTS



NORTH

0' 20' 40' 80'

SCALE: 1 IN = 20 FT

Barganier
Davis
Williams
Architects
Associated

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STATE OF ALABAMA
LORI LOUISE MURASKI
LICENSED
506
REGISTERED LANDSCAPE ARCHITECT

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

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Drawing Title:

PHASE 1 BASE BID - IRRIGATION PLAN

Sheet No:

L3.0

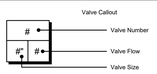
CONFORMANCE DOCUMENTS

IRRIGATION SCHEDULE - BASE BID

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI		
EST LCS RCS CST SST	RAIN BIRD 1804-SAM-PRS 15 STRIP SERIES TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	3	30		
Q T H F	RAIN BIRD 1804-SAM-PRS 8 SERIES MPR TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	10	30		
Q T H TQ F	RAIN BIRD 1804-SAM-PRS 12 SERIES MPR TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	30	30		
EST LCS RCS CST SST	RAIN BIRD 1812-SAM-PRS 15 STRIP SERIES SHRUB SPRAY 12IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	51	30		
Q T H F	RAIN BIRD 1812-SAM-PRS 8 SERIES MPR SHRUB SPRAY 12IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	69	30		
Q T H F	RAIN BIRD 1812-SAM-PRS 10 SERIES MPR SHRUB SPRAY 12IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	21	30		
Q T H TQ F	RAIN BIRD 1812-SAM-PRS 12 SERIES MPR SHRUB SPRAY 12IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	14	30		
LST SST RST	RAIN BIRD R-VAN-STRIP 1804-SAM-P45 SHRUB ROTARY, 5FT.X15FT. (LCS AND RCS), 5FT.X30FT. (SST) HAND ADJUSTABLE MULTI-STREAM ROTARY W/ 1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	16	45		
14 ADJ 14 F	RAIN BIRD R-VAN14 1804-SAM-P45 TURF ROTARY, 8FT.-14FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	13	45		
18 ADJ 18 F	RAIN BIRD R-VAN18 1804-SAM-P45 TURF ROTARY, 13FT.-18FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	39	45		
24 ADJ 24 F	RAIN BIRD R-VAN24 1804-SAM-P45 TURF ROTARY, 17FT.-24FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	73	45		

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
04	RAIN BIRD 6504-PC, FC 04 TURF ROTOR, 4.0IN. POP-UP, PLASTIC RISER, ADJUSTABLE AND FULL CIRCLE. WITH REMOVABLE SEAL-A-MATIC CHECK VALVE, 1IN. FEMALE THREADED INLET.	3	40	3.3	41'
06	RAIN BIRD 6504-PC, FC 06 TURF ROTOR, 4.0IN. POP-UP, PLASTIC RISER, ADJUSTABLE AND FULL CIRCLE. WITH REMOVABLE SEAL-A-MATIC CHECK VALVE, 1IN. FEMALE THREADED INLET.	2	40	4.9	45'
08	RAIN BIRD 6504-PC, FC 08 TURF ROTOR, 4.0IN. POP-UP, PLASTIC RISER, ADJUSTABLE AND FULL CIRCLE. WITH REMOVABLE SEAL-A-MATIC CHECK VALVE, 1IN. FEMALE THREADED INLET.	15	40	6.6	49'
18	RAIN BIRD 6504-PC, FC 18 TURF ROTOR, 4.0IN. POP-UP, PLASTIC RISER, ADJUSTABLE AND FULL CIRCLE. WITH REMOVABLE SEAL-A-MATIC CHECK VALVE, 1IN. FEMALE THREADED INLET.	5	40	13.7	59'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD PEB-PRS-D 1IN., 1-1/2IN., 2IN. PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. WITH PRESSURE REGULATOR MODULE.	21
MV	RAIN BIRD EFB-CP-PRS-D 1" 1IN., 1-1/4", 1-1/2IN., 2IN. BRASS MASTER VALVE, THAT IS CONTAMINATION PROOF W/SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION, RECLAIMED WATER COMPATIBLE, AND PURPLE HANDLE COVER DESIGNATES NON-POTABLE WATER USE. WITH PRESSURE REGULATOR.	1
BF	WATTS 919QT 1" BACKFLOW REDUCED PRESSURE ZONE	1
C	RAIN BIRD ESPLXME2 W/ (1) ESPLXMSM12 24 STATION, TRADITIONALLY-WIRED, COMMERCIAL CONTROLLER. (1) ESPLXME2 12-STATION, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE W/ (1) ESPLXMSM12 - 12-STATION EXPANSION MODULES.	1
WM	WATER METER 1" WATER METER LOCATION TO BE COORDINATED W/CIVIL	1
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	5,909 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40	1,763 L.F.
	PIPE SLEEVE: PVC SCHEDULE 40	570.2 L.F.



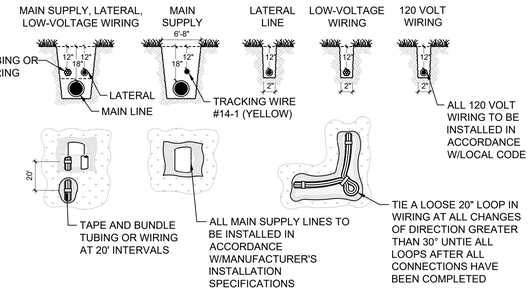
VALVE SCHEDULE - ALTERNATE NO. 1

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PEB-PRS-D	1"	TURF ROTARY	10.91	304.8	47.0	64.1	0.59 in/h
2	RAIN BIRD PEB-PRS-D	1"	SHRUB SPRAY	23.32	1,042	36.3	55.4	1.44 in/h
3	RAIN BIRD PEB-PRS-D	1"	TURF ROTARY	16.77	1,034	48.3	63.9	0.64 in/h
4	RAIN BIRD PEB-PRS-D	1-1/2"	TURF SPRAY	26.03	970.1	36.0	57.2	1.7 in/h
5	RAIN BIRD PEB-PRS-D	1"	TURF SPRAY	21.5	928.8	35.0	54.3	1.6 in/h
6	RAIN BIRD PEB-PRS-D	1-1/2"	SHRUB SPRAY	26.12	839.9	37.8	59.5	1.55 in/h
7	RAIN BIRD PEB-PRS-D	1"	TURF ROTARY	22.23	806.4	49.5	68.7	0.64 in/h
8	RAIN BIRD PEB-PRS-D	1"	TURF ROTARY	24.96	793.6	51.6	72.7	0.62 in/h
9	RAIN BIRD PEB-PRS-D	1-1/2"	TURF ROTOR	27.4	646.2	46.2	70.0	0.47 in/h
10	RAIN BIRD PEB-PRS-D	1-1/2"	TURF ROTOR	34.6	529.2	47.2	79.0	0.64 in/h
11	RAIN BIRD PEB-PRS-D	1-1/2"	TURF ROTOR	31.3	482.5	45.9	74.5	0.6 in/h
12	RAIN BIRD PEB-PRS-D	1-1/2"	TURF ROTOR	33	547.2	46.1	77.1	0.65 in/h
13	RAIN BIRD PEB-PRS-D	1-1/2"	SHRUB SPRAY	33.3	541.3	36.6	68.0	1.7 in/h
14	RAIN BIRD PEB-PRS-D	1-1/2"	TURF ROTOR	27.4	547.2	44.9	70.2	0.41 in/h
15	RAIN BIRD PEB-PRS-D	1-1/2"	TURF ROTOR	33.5	553.7	47.1	78.8	0.69 in/h
16	RAIN BIRD PEB-PRS-D	1"	SHRUB SPRAY	16.21	240.8	36.6	56.7	1.46 in/h
17	RAIN BIRD PEB-PRS-D	1-1/2"	TURF ROTARY	30.87	233.1	49.8	88.7	0.52 in/h
18	RAIN BIRD PEB-PRS-D	1-1/2"	TURF ROTARY	28.14	196.8	49.8	86.4	0.47 in/h
19	RAIN BIRD PEB-PRS-D	1"	TURF SPRAY	13.35	203.7	35.6	54.0	1.39 in/h
20	RAIN BIRD PEB-PRS-D	1"	TURF ROTARY	21.08	706.1	52.5	79.1	0.35 in/h
21	RAIN BIRD PEB-PRS-D	1"	TURF ROTARY	22.69	722.9	51.0	80.2	0.52 in/h
	Common Wire				1,763			

IRRIGATION NOTES

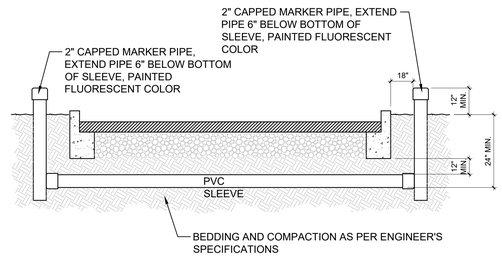
1. IRRIGATION DRAWINGS ARE DIAGRAMMATIC IN GENERAL AND SUBJECT TO THE REQUIREMENTS OF THE PLANTING PLAN. THE IRRIGATION DRAWINGS INDICATE THE GENERAL LOCATION OF THE COMPONENT PARTS OF THE SYSTEM, BUT ARE NOT INTENDED TO SHOW ALL FITTINGS OR ALL DETAILS OF THE IRRIGATION WORK.
2. ALL IRRIGATION WORK WILL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE CODES AND STANDARDS INCLUDING CITY CODES, ORDINANCES, AND REGULATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, FEES, AND APPROVALS FROM GOVERNING AUTHORITIES.
4. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH SITE CONTRACTOR THE INSTALLATION OF THE IRRIGATION WATER METER AND BACKFLOW PREVENTER AND CONNECTION TO NEW IRRIGATION SYSTEM.
5. TEST WATER PRESSURE DOWNSTREAM OF THE IRRIGATION WATER METER OR PUMP STATION DISCHARGE TO CONFIRM AVAILABILITY OF PROPER OPERATING PRESSURE. NOTIFY LANDSCAPE ARCHITECT IF AVAILABLE PRESSURE IS INSUFFICIENT OR EXCESSIVE.
6. PIPING FOR MAIN LINES SHALL BE PVC SCHEDULE 40 AND ALL LATERAL LINES SHALL BE PVC CLASS 200. FITTINGS WILL BE PVC FOR CORRESPONDING SERVICE. PIPE DEPTH WILL BE A MINIMUM OF 12 IN. TO 18 IN. FOR ALL MAIN AND LATERAL LINES. PIPE DEPTH MAY VARY DEPENDING ON LOCAL FROST DEPTH AND/OR REQUIREMENTS OF LOCAL GOVERNING AUTHORITIES AT SITE'S LOCATION.
7. ACCEPTABLE MANUFACTURER FOR IRRIGATION PRODUCTS IS SPECIFIED IN THE IRRIGATION SCHEDULE UNLESS OTHERWISE INDICATED. ALTERNATE IRRIGATION MANUFACTURER'S EQUIPMENT MAY BE SUBSTITUTED WITH APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO BID. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING HEAD LAYOUT AND LOCATIONS, VALVE LOCATIONS, PERFORMANCE DATA, ETC. SHOULD ALTERNATE MANUFACTURER BE USED.
8. INSTALL ALL IRRIGATION COMPONENTS AS PER MANUFACTURER'S RECOMMENDATIONS OR INSTRUCTIONS.
9. REMOTE CONTROL VALVES AND OTHER UNDERGROUND DEVICES WILL BE INSTALLED IN PLASTIC BOXES WITH PLASTIC COVERS OF THE SIZE REQUIRED TO ENSURE ADJUSTMENT OF THE DEVICE. GROUP DEVICES IN SINGLE BOXES WHERE POSSIBLE.
10. IRRIGATION HEADS TO BE LOCATED A MINIMUM OF 4 IN. OFF SIDEWALKS/CURBS AND 6 IN. FROM BUILDINGS OR WALLS.
11. ADJUST IRRIGATION AS NECESSARY TO AVOID EXISTING UTILITIES, LIGHT POLES, BUILDINGS, AND/OR OTHER UNFORESEEN OBSTRUCTIONS.
12. IRRIGATION CONTROLLER LOCATION SHOWN ON DRAWINGS IS APPROXIMATE AND ONLY A PLACEHOLDER. LANDSCAPE CONTRACTOR TO VERIFY EXACT LOCATION OF IRRIGATION CONTROLLER WITH OWNER PRIOR TO CONSTRUCTION. CONTRACTOR TO PROVIDE CONTROLLER WITH APPROPRIATE ENCLOSURE FOR SPECIFIC LOCATION WHETHER INTERIOR, EXTERIOR, WALL MOUNT, OR PEDESTAL ENCLOSURE APPLICATION.
13. CONTRACTOR SHALL INSTALL GROUNDING, SURGE, AND LIGHTNING PROTECTION AS PER IRRIGATION MANUFACTURER'S RECOMMENDATIONS.
14. VALVES, CONTROLLERS, AND ALL IRRIGATION EQUIPMENT TO HAVE PROPER GROUNDING PROTECTION AS PER IRRIGATION MANUFACTURER'S RECOMMENDATIONS.
15. CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS OF THE SYSTEM AT THE COMPLETION OF THE PROJECT.

CONTRACTOR TO COMPLY W/ALL LOCAL CODES AND ORDINANCES IN REFERENCE TO THE INSTALLATION OF PVC PIPING AND LOW VOLTAGE WIRING.

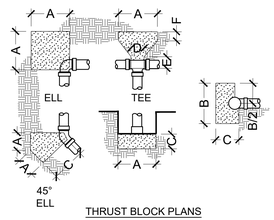


1 IRRIGATION TRENCHING
NTS

NOTE:
INSTALLER OF SLEEVES SHALL BE RESPONSIBLE TO LOCATE SLEEVES IF NOT PROPERLY INSTALLED



2 IRRIGATION SLEEVING
NTS

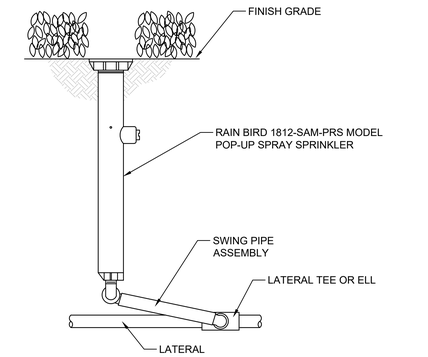


THRUST BLOCK PLANS

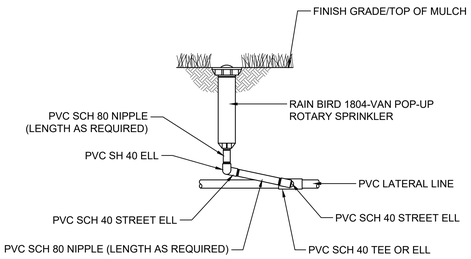
PIPE	TEES						PLUGS			90° BEND			45° BEND		
DIA.	A	B	C	D	E	F	A	B	C	A	B	C	A	B	C
3"	12	20	8	12	-	-	12	20	8	18	12	8	8	12	12

THRUST BLOCK SCHEDULE

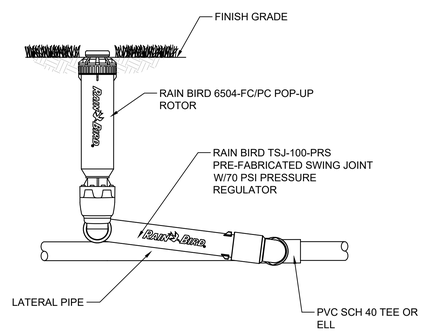
3 THRUST BLOCKS
NTS



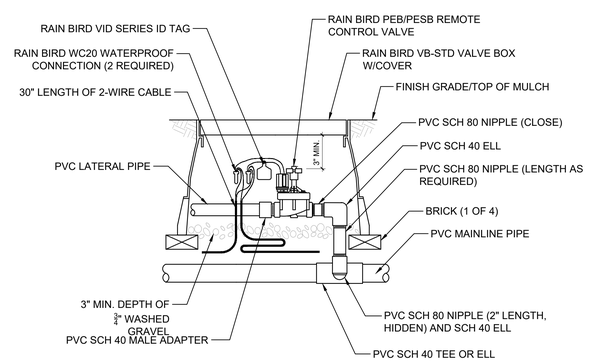
4 RAIN BIRD 12" POP-UP SPRAY SPRINKLER
NTS



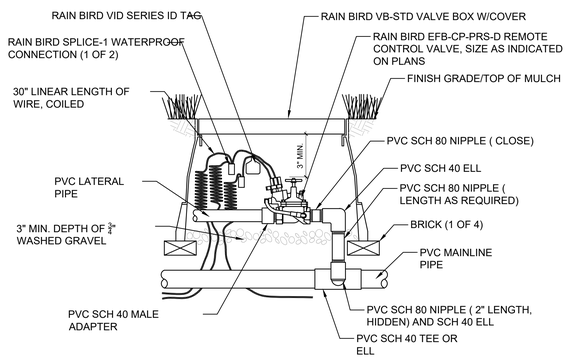
5 RAIN BIRD ROTARY POP-UP SPRINKLER
1" = 1'-0"



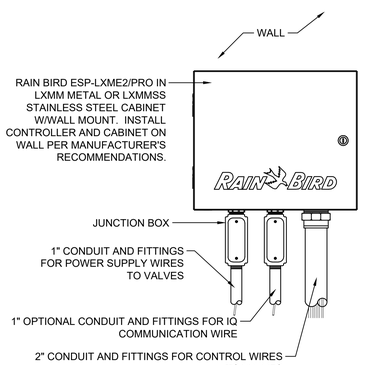
6 RAIN BIRD 6504 POP-UP ROTOR
NTS



7 RAIN BIRD PEB-PESB REMOTE CONTROL VALVE
NTS



8 RAIN BIRD EFB-CP MASTER VALVE
NTS



NOTES:
1. LXME2 CONTROLLER IS AVAILABLE IN TWO MODELS. THE LXME2 AND THE LXME2-PRO. REFER TO CHART FOR DIFFERENCES BETWEEN THE TWO MODELS.
2. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS. IF CONTROLLER IS MOUNTED INDOORS, USE POWER SUPPLY GROUND.

KEY SPECIFICATIONS

FEATURE ▶ / MODEL ▼	MAX PROGRAMS	MAX RUN TIMES	MAX SIMULSTATIONS	MASTER VALVES	FLOW SENSORS	WEATHER SENSORS
LX-IVM	10	60	8	5	5	4
LX-IVM PRO	40	240	16	10	10	8

9 RAIN BIRD ESP-LXME2/PRO CONTROLLER
NTS

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STATE OF ALABAMA
LORI LOUISE MURAWSKI
LICENSED LANDSCAPE ARCHITECT
NUMBER 506

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

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PHASE 1 BASE BID - IRRIGATION SCHEDULE, NOTES, DETAILS

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L3.1

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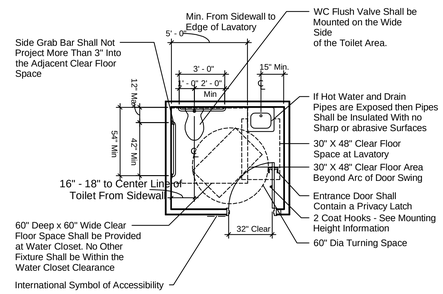
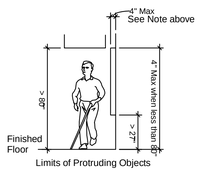


See Architectural Floor Plans For Locations of Diaper Changing Stations, if provided. Please Note that Size and Configuration of Single User Toilet May Change Depending on Location and Size of Diaper Baby Changing Station.

Note: Where multiple single-user toilet rooms are clustered in a single location, 50% shall be accessible.

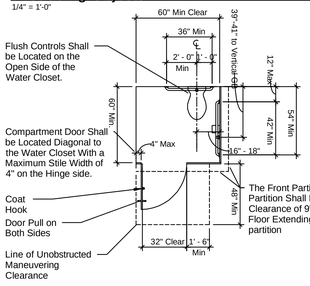
H1 Single User Toilet
1/4" = 1'-0"



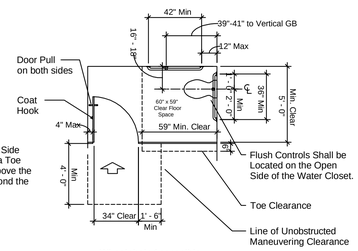
Limits of Protruding Objects

Note:
Structural Elements, Fixtures, Furnishings, Etc. shall not protrude horizontally from either side more than 4" over any Walking Surface between 27"-80" except at Stair Handrails and Door Closers.

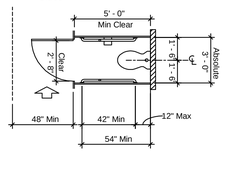
Protruding Objects
1/4" = 1'-0"



Wheelchair Accessible Compartment - Front Entry

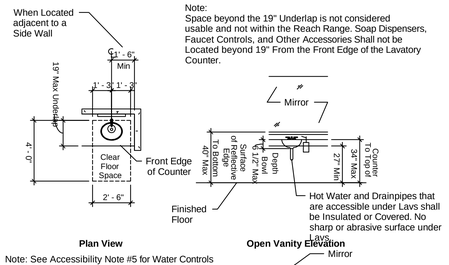


Wheelchair Accessible Compartment - Side Entry



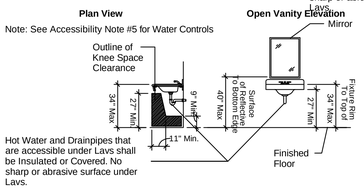
Ambulatory Accessible Compartment

Accessible Lavatories
1/4" = 1'-0"

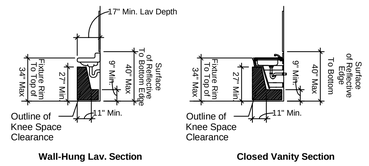


Plan View **Open Vanity Elevation**

Note: See Accessibility Note #5 for Water Controls

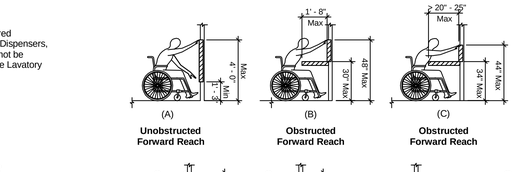


Open Vanity Section **Wall-Hung Lav. Elevation**

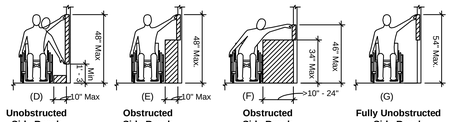


Wall-Hung Lav. Section **Closed Vanity Section**

Accessible Lavatories
1/4" = 1'-0"

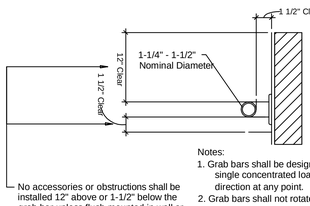


Unobstructed Forward Reach **Obstructed Forward Reach** **Obstructed Forward Reach**



Unobstructed Side Reach **Obstructed Side Reach** **Obstructed Side Reach** **Fully Unobstructed Side Reach**

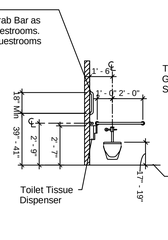
Forward and Side Reach Standards - ANSI1
1/4" = 1'-0"



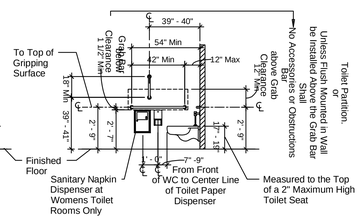
Notes:
1. Grab bars shall be designed and installed to resist a single concentrated load of 250 pounds applied in any direction at any point.
2. Grab bars shall not rotate within their fittings.
3. A grab bar and any wall or other surface adjacent to it shall be free of any sharp or abrasive. elements. Edges shall have a minimum radius of 1/8 Inch.

Typical Grab Bar Detail - ANSI1
1/4" = 1'-0"

Note:
Provide Vertical Grab Bar as Shown at Public Restrooms. Not Required at Guestrooms

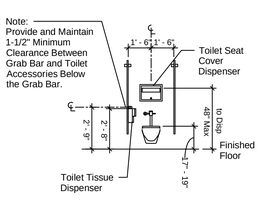


Typical Front Elevation at Wheelchair Accessible Compartment



Typical Side Elevation at Wheelchair Accessible Compartment

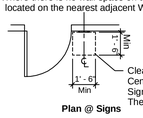
Note:
Provide and Maintain 1-1/2" Minimum Clearance Between Grab Bar and Toilet Accessories Below the Grab Bar.



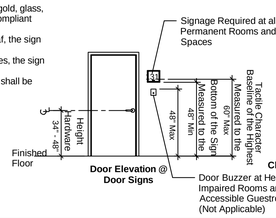
Typical Front Elevation at Ambulatory Accessible Compartment

Accessible Toilet Compartments
1/4" = 1'-0"

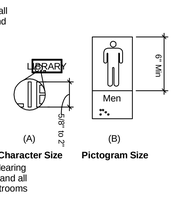
Notes:
1. Signs shall be provided for all permanent rooms and spaces and shall be mounted on the Wall (not the Door) adjacent to the latch side of the door. See diagrams below.
2. Signs shall include the same information in braille and with raised lettering that forms a high contrast with the background of the sign.
3. Signs shall not be made of reflective materials such as brass, silver, gold, glass, or mirrored surfaces unless there is an additional properly located compliant sign.
4. Where tactile signs are provided at double doors with one inactive leaf, the sign shall be located on the inactive Leaf.
5. Where tactile signs are provided at double doors with two active leaves, the sign shall be located to the right of the right-hand Door.
6. Where there is no wall space on the latch side of a single door, signs shall be located on the nearest adjacent Wall.



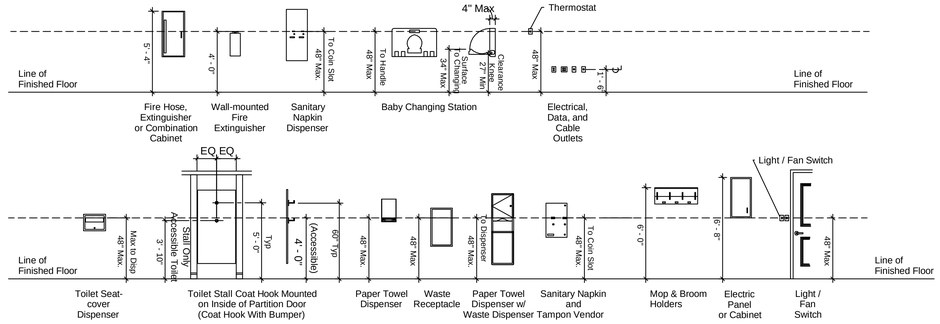
Plan @ Signs



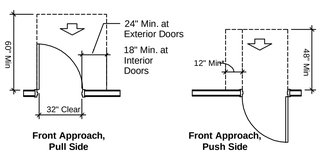
Door Elevation @ Door Signs



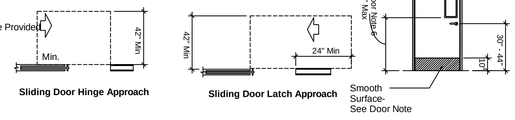
Character Size **Pictogram Size**



Signage
1/4" = 1'-0"



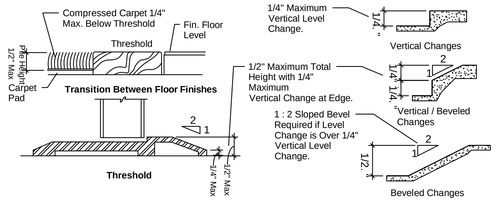
Notes:
* If Both Closer and Latch are Provided
** 48" Minimum if Both Closer and Latch are Provided
***48" Minimum if Closer is Provided
****54" Minimum if Closer is Provided



Maneuvering Clearances at Doors
1/4" = 1'-0"

MOUNTING HEIGHTS OF MISCELANEOUS ACCESSORIES1
1/4" = 1'-0"

Changes in Level
1/4" = 1'-0"



General Notes:

1. It is the intent for the completed project to conform to Chapter 11 of the applicable International Building Code, 2009 ANSI A117.1 and the Americans with Disabilities Act - Accessibility Guidelines ADAAG - 2010 Edition. If the owner or any of it's representatives directs the contractor to install products in locations or manner that conflicts with requirements of this sheet, other contract documents, or cited accessibility codes or publications, contractor shall notify the Owner and Architect in writing before complying with such directions.
2. The diagrams illustrate the specific requirements of the accessibility regulations and is intended only as an aid for building design and construction.
3. This sheet is a standard drawing that contains information that may not be applicable to the project.
4. The purpose of this sheet is to show diagrammatical installation dimensions that may not be shown elsewhere in the drawings. where dimensions elsewhere in the drawings conflict with dimensions on this sheet, contact the architect.
5. Drawing scale is 1/4" = 1'-0" unless otherwise noted.
6. All dimensions that are measured from a wall surface or a floor surface are measured from finished surfaces unless otherwise noted.
7. All audible and visual alarms and other notification devices for the fire alarm system shall be designed and installed per NFPA 72.

Accessibility Notes:

1. All accessible toilet compartment and ambulatory toilet compartment doors shall be equipped with a door that has an automatic-closing device, and shall have a clear, unobstructed opening width of 32" when located at the end or 34" when located at the side with the door positioned at an angle of 90 degrees from its closed position.
2. Where the combined total water closet compartments and urinals provided in a toilet room is six or more, at least one ambulatory-accessible water closet compartment shall be provided in addition to the wheelchair accessible compartment.
3. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting. controls for flush valves shall be mounted on the wide side of toilet areas, no more than 44" above the floor. The force required to activate controls shall be no greater than a 5 pound force. Flush valve controls for urinals have similar requirements in regards to mounted height and operation force
4. The structural strength of fasteners and mounting devices for grab bars, tubs, shower seats, and dressing room benches, fasteners and mounting devices shall be designed to resist a single concentrated load of 250 pounds in any direction at any point.
5. Water controls shall meet the following requirements:
   5.1 Controls shall be of a single lever design, operable with one hand and shall not require tight grasping, pinching, or Twisting of the Wrist.
   5.2 Controls shall require a maximum force to operate not in excess of 5 pounds.
   5.3 Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

Door Notes:

1. Doorways including hinged doors, sliding doors, folding doors shall have a clear opening width of 32" minimum measured between the face of the door and the opposite stop.
2. There shall be a floor or landing on each side of a door. The floor or landing shall not be more than 1/2" lower than the threshold of the doorway. Change in level between 1/4" and 1/2" shall be beveled with a slope no greater than one unit vertical to 2 units horizontal. (see Details below). Change in level greater than 1/2" shall be accomplished by means of a ramp.
3. If a door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the leading edge of the door.
4. The bottom 10" of all doors, except automatic and sliding doors shall have a smooth, uninterrupted surface. When narrow frame doors are used, a 10 inch high smooth panel shall be installed on the push side of the door.
5. Doors and sidelites adjacent to doors containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one panel on either the door or an adjacent sidelight 43 inches maximum above the floor. This does not apply when the lowest part of the Vision Lite is more than 66 inches above the floor.
6. Maximum effort to operate doors shall be 5 lbf for exterior and interior doors. Maximum effort to operate a Fire Door shall be 15 lbf. compensating devices or automatic door operators may be utilized to meet the maximum opening force requirement.

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RAY E. WILLIAMS 4239
JOHNNY B. RANES, III 7127

NEW FIRE STATION NO. 10 / FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

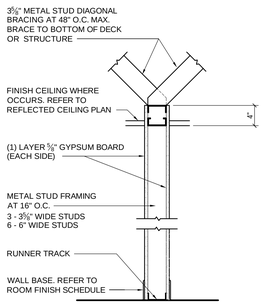
Drawing Title:

ACCESSIBILITY DETAILS AND GENERAL NOTES

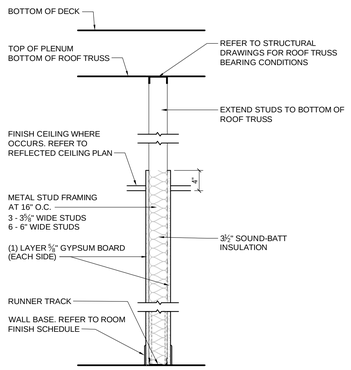
Sheet No:

A0.1

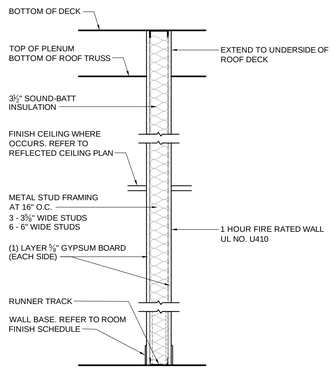
CONFORMANCE DOCUMENTS



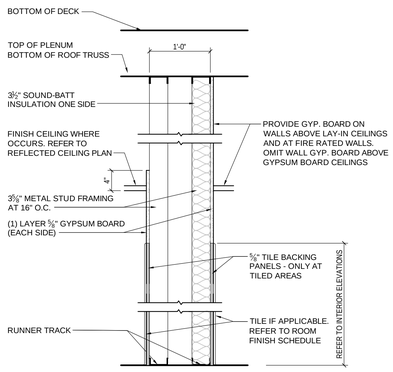
G1 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" METAL STUD PARTITION



G2 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" METAL STUD PARTITION



G3 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" FIRE RATED FULL HEIGHT METAL STUD PARTITION



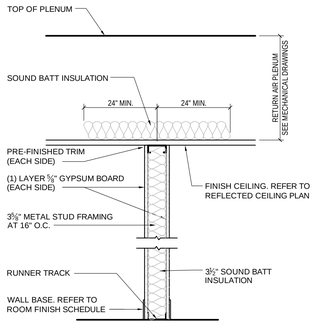
G4 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" FULL HEIGHT PLUMBING WALL

GENERAL NOTES

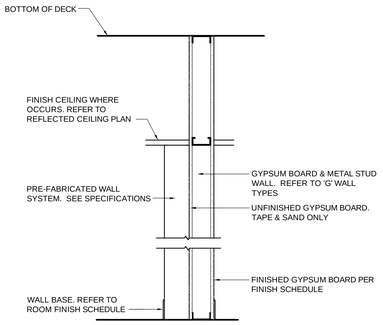
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
2. CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES AND OBTAIN OWNER APPROVAL FOR ANY CHANGES.
3. REFER TO SPECIFICATIONS FOR DESCRIPTIONS OF FINISH MATERIALS.
4. REFER TO WALL SECTIONS FOR ADDITIONAL WALL DETAILS & NOTES.
5. REFER TO DOOR & WINDOW SHEETS A6.# FOR STOREFRONT PARTITIONS.
6. REFER TO SHEET LS.1 FOR FIRE RATED PARTITIONS.
7. REFER TO WALL SECTIONS, SHEETS A5.# FOR EXTERIOR WALL FOUNDATION DETAILS.
8. REFER TO STRUCTURAL DRAWINGS FOR METAL STUD GAUGES AND BRACING REQUIREMENTS.

PARTITION NOTES

1. STUD DESIGN CRITERIA: ALL INTERIOR, NON-LOAD BEARING METAL STUDS SHALL BE 25 GAUGE (MIN.) UNLESS OTHERWISE NOTED. PROVIDE 5 PSF MIN. APPLIED LATERAL LOAD, L/240 MAX. DEFLECTION.
2. ALL FIRE RATED PARTITIONS MUST EXTEND AND SEAL TO DECK ABOVE.
3. TYPICAL FLOOR PLAN DIMENSIONS OF PARTITIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
4. PROVIDE WATER RESISTANT TYPE GYPSUM BOARD AT AREAS THAT ARE NOTED IN ROOM FINISH SCHEDULE TO RECEIVE CERAMIC OR PORCELAIN TILE FINISH. INSTALL ½" CEMENT BACKING BOARD AT ALL WALLS OF SHOWERS AND SHOWER DRYING AREAS.
5. PROVIDE MOLD & MOISTURE RESISTANT GYPSUM BOARD AT RESTROOMS AND JANITOR CLOSETS.
6. PROVIDE ⅝" FIRE RATED GYPSUM BOARD UNLESS OTHERWISE NOTED.
7. PROVIDE ⅝" TYPE X GYPSUM BOARD AT FIRE RATED PARTITIONS.
8. PENETRATIONS IN RATED PARTITIONS AND CONNECTIONS OF THE PARTITIONS TO OTHER PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED DETAILS AND IN COMPLIANCE WITH APPLICABLE TESTING AGENCY REQUIREMENTS.
9. INSTALL BLOCKING OR BACKER MATERIAL FOR ATTACHMENT / MOUNTING OF WALL HUNG ITEMS OR EQUIPMENT DESCRIBED IN THE DOCUMENTS.
10. WHEN INSTALLING GYPSUM BOARD, CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE MOST CURRENT EDITION OF THE GYPSUM ASSOCIATION "GA-600" FIRE RESISTANCE DESIGN MANUAL AND THE MOST CURRENT EDITION OF THE UL FIRE RESISTANCE DIRECTORY.
11. PARTITIONS THAT ARE REQUIRED TO EXTEND TO THE DECK ABOVE SHALL HAVE THE GYPSUM BOARD CUT TO FIT WITHIN A ½" MAXIMUM TOLERANCE TO THE SHAPE OF THE DECK ABOVE. GYPSUM BOARD SHALL BE CONTINUOUSLY SEALED FOR THE FULL DEPTH OF THE GYPSUM BOARD WITH FLEXIBLE SEALANT OR FIRE STOPPING WHERE REQUIRED.
12. GYPSUM BOARD SHALL BE CUT SO THAT THE CLEARANCE BETWEEN METALLIC ELECTRICAL OUTLET BOXES AND THE GYPSUM BOARD DOES NOT EXCEED 1/8".
13. THE BOTTOM OF THE GYPSUM BOARD AT INTERIOR PARTITIONS SHALL BE 1/4" MINIMUM AND 1/2" MAXIMUM ABOVE THE CONCRETE FLOOR SLAB AND SHALL BE SEALED FOR THE FULL DEPTH OF THE GYPSUM BOARD WITH FLEXIBLE SEALANT.
14. REFER TO THE FLOOR PLAN FOR EXTENT OF FIRE WALL RATINGS.
15. PARTITION TYPES DESCRIBE GENERAL REQUIREMENTS FOR PARTITIONS. REFER TO THE MANUFACTURER'S SPECIFICATIONS AND REQUIREMENTS OF APPLICABLE TESTING AGENCIES FOR SPECIFICS OF PARTITION CONSTRUCTION.
16. WHERE A CLEAR DIMENSION OR OPENING IS REQUIRED OR NOTED, MEASURE DIMENSION TO FACE OF PARTITION FINISH.
17. REFER TO INTERIOR FINISH SCHEDULE FOR ALL WALL FINISHES.

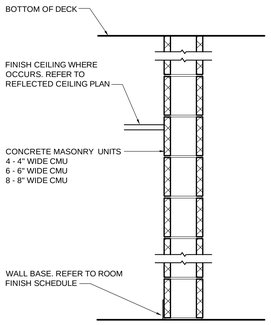


G5 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" METAL STUD PARTITION



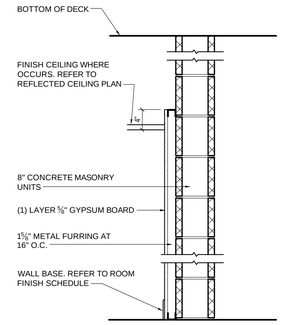
D1 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" PRE-FABRICATED PARTITION

PREFABRICATED WALL SYSTEM BY 'DIRTT' OR APPROVED EQUAL. SEE ALLOWANCES



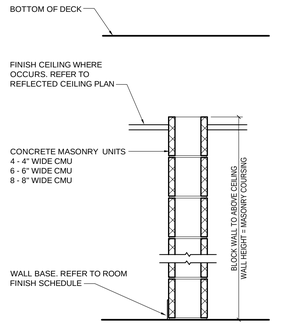
M1 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" FULL HEIGHT CMU BLOCK WALL

NOTE: PROVIDE BULLNOSE BLOCK AT ALL EXPOSED OUTSIDE CORNERS



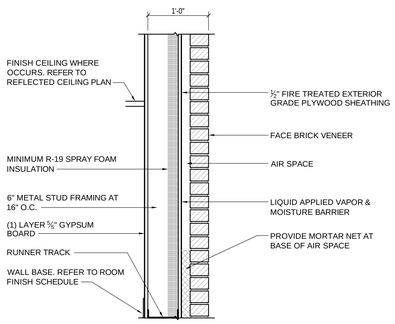
M2 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" FULL HEIGHT CMU BLOCK WALL WITH GYP. BOARD

NOTE: PROVIDE BULLNOSE BLOCK AT ALL EXPOSED OUTSIDE CORNERS

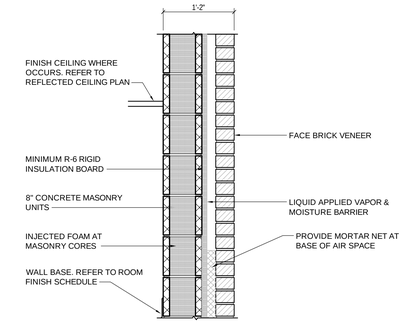


M3 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" PARTIAL HEIGHT CMU BLOCK WALL

NOTE: PROVIDE BULLNOSE BLOCK AT ALL EXPOSED OUTSIDE CORNERS

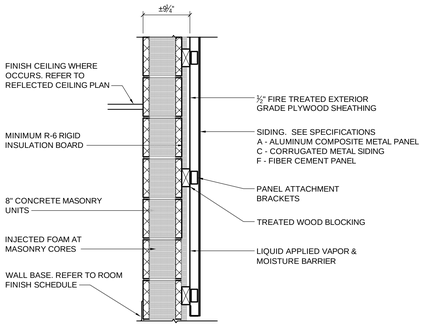


E1 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" BRICK VENEER ON METAL STUDS

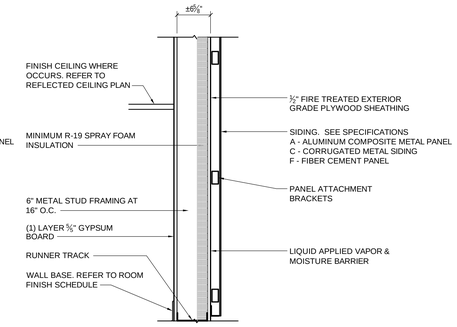


E2 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" BRICK VENEER ON CONCRETE BLOCK

NOTE: AT TRAINING ROOM #166 ALL CONCRETE BLOCK CELLS TO BE FILLED WITH GROUT IN LIEU OF INSULATION.



E3 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" CEMENT PANEL VENEER



E4 A0.2 **WALL TYPE**
SCALE: 1"=1'-0" METAL PANEL VENEER

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NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

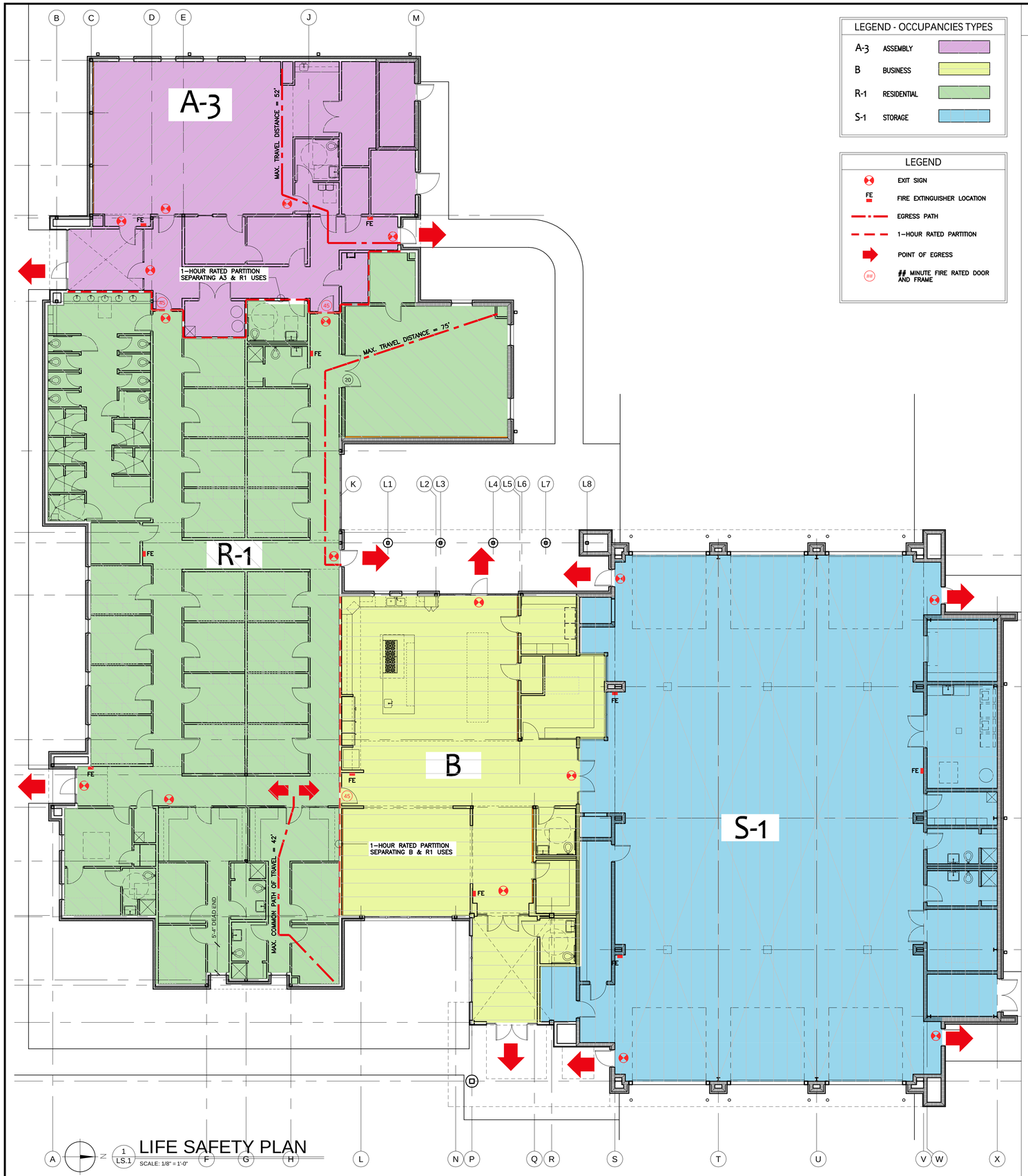
Drawing Title:

WALL TYPES AND PARTITION NOTES

Sheet No:

A0.2

CONFORMANCE DOCUMENTS



LEGEND - OCCUPANCIES TYPES

A-3	ASSEMBLY	
B	BUSINESS	
R-1	RESIDENTIAL	
S-1	STORAGE	

LEGEND

- EXIT SIGN
- FE — FIRE EXTINGUISHER LOCATION
- EGRESS PATH
- 1-HOUR RATED PARTITION
- POINT OF EGRESS
- ## — ## MINUTE FIRE RATED DOOR AND FRAME

LIFE SAFETY AND CODE REQUIREMENTS

APPICABLE CODES AND STANDARDS

INTERNATIONAL BUILDING CODE	2021 EDITION
INTERNATIONAL MECHANICAL CODE	2021 EDITION
INTERNATIONAL FUEL GAS CODE	2021 EDITION
INTERNATIONAL PLUMBING CODE	2021 EDITION
INTERNATIONAL FIRE CODE	2021 EDITION
INTERNATIONAL ENERGY CONSERVATION CODE	2021 EDITION
NATIONAL ELECTRICAL CODE (NEC)	2020 EDITION
NFPA 24	

BUILDING SUMMARY

NEW 21,640 SQ.FT. FULLY SPRINKLERED FIRE STATION OF TYPE IIB CONSTRUCTION WITH COMMUNITY ASSEMBLY AREA, FIRE FIGHTER LIVING SPACES AND FIRE VEHICLE PARKING / MAINTENANCE BAYS

OCCUPANCY CLASSIFICATION

INTERNATIONAL BUILDING CODE 2018 – MULTIPLE OCCUPANCY

OCCUPANCY USE CATEGORY:
- A–3 (IBC 303.4).....COMMUNITY HALLS
- B (IBC 304.1).....BUSINESS
- R–1 (IBC 310.2).....CONGREGATE LIVING FACILITIES
- S–1 (IBC 311.2).....MOTOR VEHICLE GARAGES

ACCESSORY USE AREAS:
- STORAGE S–1 (IBC 508.2)

INCIDENTAL USE AREAS:
- LAUNDRY (IBC TABLE 509)

ALLOWABLE HEIGHT AND AREA

IBC TABLE 504.3, 504.4 AND 506.2

GROUP – TYPE II B	ALLOWABLE HEIGHT	ALLOWABLE AREA	BUILDING AREA
ASSEMBLY A–3	3 STORIES /75 FT.	38,000 S.F.	21,640 S.F.
BUSINESS	4 STORIES /75 FT.	92,000 S.F.	
RESIDENTIAL R–1	5 STORIES /75 FT.	64,000 S.F.	
STORAGE S–1	3 STORIES /75 FT.	70,000 S.F.	

SEPARATION OF OCCUPANCIES

IBC TABLE 508.4 – FULLY SPRINKLERED

GROUPS	SEPARATION
ASSEMBLY A–3 / RESIDENTIAL R–1	1 HOUR
RESIDENTIAL R–1 / BUSINESS B	1 HOUR
STORAGE S–1 / BUSINESS B	0 HOUR

FIRE-RESISTANCE RATINGS FOR BUILDING ELEMENTS

BUILDING ELEMENT	TYPE II B
STRUCTURAL FRAME	0
BEARING WALLS EXTERIOR INTERIOR	 0 0
NON BEARING WALLS AND PARTITIONS EXTERIOR INTERIOR	 0 0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

EXTERIOR WALLS – BEARING (TABLE 602):
GREATER THAN 30 FEET SEPARATION – NO FIRE RESISTANCE RATING REQUIRED.

EXTERIOR WALL OPENINGS (TABLE 705.8):
GREATER THAN 30 FEET SEPARATION DISTANCE – NO LIMIT

FIRE WALLS (TABLE 706.4) – NONE

FIREBLOCKING (IBC 718.2) – NOT REQUIRED AT 2B CONSTRUCTION

DRAFTSTOPPING (IBC 718.3/718.4) – NOT REQUIRED AT 2B CONSTRUCTION

FIRE PROTECTION

FIRE SUPPRESSION SYSTEM (903.2.x/903.3.1.1) – REQUIRED / PROVIDED

AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT STORIES GROUP A–3 OCCUPANCIES, 903.2.1.3

AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3 SHALL BE PROVIDED THROUGHOUT ALL BUILDINGS WITH A GROUP R FIRE AREA.

AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT BUILDINGS CLASSIFIED AS ENCLOSED PARKING GARAGE IN ACCORDANCE WITH SECTION 406.6.

FIRE EXTINGUISHERS (906.1) – INSTALL ABC DRY CHEMICAL, LOCATED AS SHOWN ON PLANS AND PER FIRE INSPECTOR FIELD REVIEW, NFPA 10, AND THE INTERNATIONAL FIRE CODE (IFC).

FIRE ALARM SYSTEM – REFER TO ELECTRICAL DRAWINGS FOR FIRE ALARM PROVISIONS.

DESIGN OCCUPANT LOAD

OCCUPANT LOAD FACTORS (IBC TABLE 1004.5) :

ZONE	AREA	PERSONS
ASSEMBLY WITHOUT FIXED SEATS: 1/15 NET	1,864 S.F	125
BUSINESS AREAS: 1/150 GROSS	3,170 S.F.	22
SLEEPING AREAS: 1/120 GROSS	6,417 S.F.	54
WAREHOUSE: 1/500 GROSS	7,530 S.F.	15
ACTUAL TOTAL OCCUPANTS		216

NUMBER OF MEANS OF EGRESS

TWO EXITS OR EXIT ACCESS (MEANS OF EGRESS) ARE REQUIRED AS NOTED IN IBC TABLE 1015.1. TEN EXITS PROVIDED.

ARRANGEMENT OF MEANS OF EGRESS

THE EXITS ARE ARRANGED SO THAT THEY MEET THE SEPARATE AND REMOTE REQUIREMENTS OF THE IBC.

COMMON PATH OF EGRESS TRAVEL (TABLE 1006.2.1)
THE COMMON PATH OF EGRESS TRAVEL SHALL NOT EXCEED 100 FEET FROM ANY POINT TO A POINT WHERE AN OCCUPANT HAS A CHOICE OF TWO PATHS OF EGRESS TRAVEL TO TWO EXITS. ACTUAL MAXIMUM COMMON PATH = 42 FEET.

LENGTH OF EXIT ACCESS TRAVEL (TABLE 1017.2):
250 FEET WITH SPRINKLER SYSTEM. ACTUAL MAXIMUM LENGTH = 75 FEET

DEAD ENDS (1020.4)
WHERE MORE THAN ONE EXIT OR EXIT ACCESS DOORWAY IS REQUIRED, THE EXIT ACCESS SHALL BE ARRANGED SUCH THAT THERE ARE NO DEAD ENDS IN CORRIDORS MORE THAN 50 FEET IN LENGTH. ACTUAL DEAD END CORRIDOR LENGTH = 5'–4"

MARKING OF MEANS OF EGRESS

ALL MEANS OF EGRESS SHALL BE PROVIDED WITH ACCEPTABLE EXIT SIGNS WHICH DESIGNATE THE EXITS AND THE DIRECTION OF TRAVEL TO THE EXITS ACCORDING TO IBC SECTION 1011.

EMERGENCY LIGHTING

ADEQUATE EMERGENCY LIGHTING IS REQUIRED ACCORDING TO IBC SECTION 1008.

INTERIOR FINISHES

ALL INTERIOR WALL AND CEILING FINISHES SHALL COMPLY WITH IBC TABLE 803.1 FOR STORAGE OCCUPANCY OF AN UNSPRINKLERED BUILDING.

ALL INTERIOR FLOOR FINISHES IN EXIT ACCESS AREAS OR EXIT CORRIDORS SHALL COMPLY WITH IBC SECTION 804.4.1 AND SHALL HAVE MINIMUM CLASS II FINISHES.

ACCESSIBILITY

ACCESSIBILITY (2010 ADA STANDARDS FOR ACCESSIBLE DESIGN): REQUIRED/ PROVIDED.

UTILITIES

ALL ELECTRICAL SERVICES SHALL COMPLY WITH NFPA 70 – NATIONAL ELECTRICAL CODE.

HEATING, VENTILATING & AIR CONDITIONING EQUIPMENT

ALL HVAC EQUIPMENT SHALL COMPLY WITH THE PROVISIONS OF NFPA 101 SECTION 9.2 (NFPA 90A)

PLUMBING

ALL PLUMBING SYSTEM INSTALLATION MUST COMPLY WITH THE PROVISIONS OF THE INTERNATIONAL PLUMBING CODE.

PLUMBING FIXTURES

THE BUILDING IS A ONE OF TWO BUILDNGS ON THE SAME LOT, AND SHALL BE REGULATED AS A PORTION OF ONE BUILDING. THE BUILDING HEIGHTS AND AREAS ARE WITHIN THE LIMTS SPECIFIED IN SECTIONS 504 AND 506. ALL PLUMBING FIXTURES ARE PROVIDED IN THE ADJACENT BUILDING.

TOILET ROOM AND PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1):
216 OCCUPANTS
DRINKING FOUNTAINS 1 REQUIRED, 2 PROVIDED
SERVICE SINKS 1 REQUIRED, 1 PROVIDED

ASSEMBLY:	125 OCCUPANTS: 63 MALES / 63 FEMALES	
	MEN	WOMEN
WATER CLOSETS	1 REQ'D/ 1 PROV'D	1 REQ'D/ 1 PROV'D
URINALS	0 REQ'D/ 0 PROV'D	0 REQ'D/ 0 PROV'D
LAVATORIES	1 REQ'D/ 1 PROV'D	1 REQ'D/ 1 PROV'D

RESIDENTIAL / BUSINESS:	76 OCCUPANTS: 39 MALES / 39 FEMALES	
	MEN	WOMEN
WATER CLOSETS	4 REQ'D/ 7 PROV'D	4 REQ'D/ 7 PROV'D
URINALS	0 REQ'D/ 0 PROV'D	0 REQ'D/ 0 PROV'D
LAVATORIES	4 REQ'D/ 6 PROV'D	4 REQ'D/ 5 PROV'D
SHOWERS	5 REQ'D/ 5 PROV'D	5 REQ'D/ 5 PROV'D

STORAGE :	15 OCCUPANTS: 8 MALES / 8 FEMALES	
	MEN	WOMEN
WATER CLOSETS	1 REQ'D/ 1 PROV'D	1 REQ'D/ 1 PROV'D
URINALS	0 REQ'D/ 0 PROV'D	0 REQ'D/ 0 PROV'D
LAVATORIES	1 REQ'D/ 1 PROV'D	1 REQ'D/ 1 PROV'D
SHOWERS	0 REQ'D/ 1 PROV'D	0 REQ'D/ 1 PROV'D

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NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

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2	Conformance Documents	05-17-2023

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BDW Project No.	2021-118
Drawn By:	BDW
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Scale:	AS NOTED

Drawing Title:

LIFE SAFETY PLAN AND CODE NOTES

Sheet No:

LS.1

CONFORMANCE DOCUMENTS

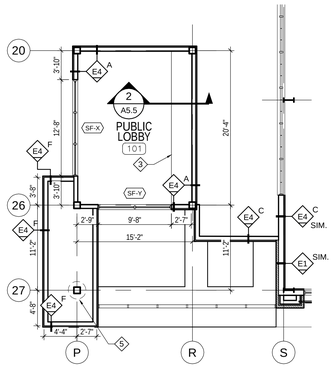
GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
2. CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES AND OBTAIN OWNER APPROVAL FOR ANY CHANGES.
3. REFER TO SHEET A7.1 FOR ENLARGED TOILET ROOM PLANS.
4. REFER TO SHEET A0.3 FOR WALL TYPES
5. REFER TO SHEET LS.1 FOR FIRE RATED DOORS & PARTITIONS

DF DRINKING FOUNTAIN. REFER TO PLUMBING DWGS.
DS STORMWATER DOWNSPOUT WITH BOOT TO UNDERGROUND STORM DRAIN.
FE WALL MOUNTED OR SEMI-RECESSED FIRE EXTINGUISHER CABINET. REFER TO SPECIFICATIONS.

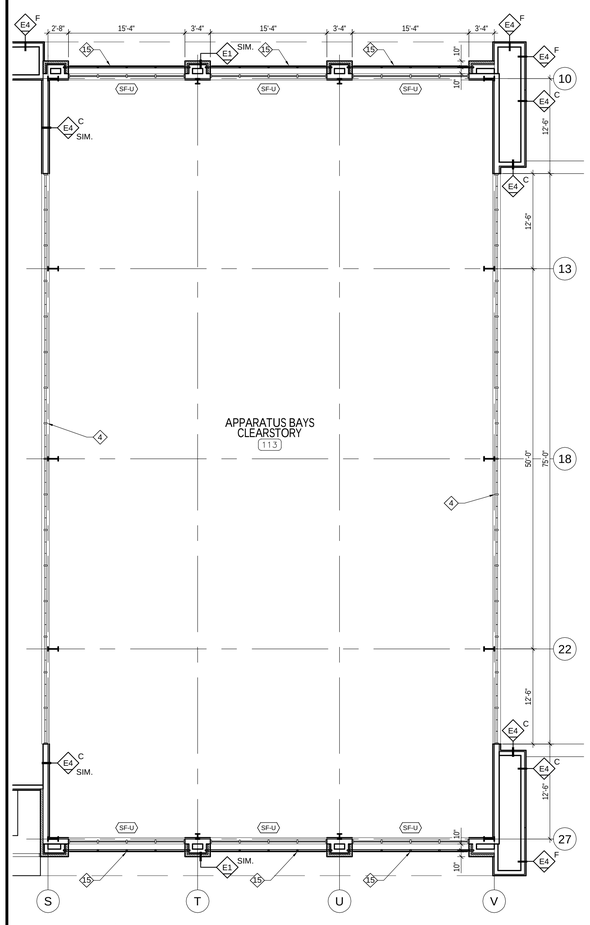
KEYNOTES

1. MECHANICAL OR PLUMBING CHASE. REFER TO MECHANICAL & PLUMBING DRAWINGS
2. PIPE BOLLARD. REFER TO DETAIL 1/A5.7
3. GYPSUM BOARD SHELF ABOVE ROOMS BELOW. SLOPE SHELF AT 45 DEGREES UPWARD
4. TRANSLUCENT PANEL SYSTEM. REFER TO BUILDING ELEVATIONS AND SPECIFICATIONS
5. COLUMN BELOW SHOWN FOR REFERENCE
6. PROVIDE 12" WIDE CONCRETE BLOCK BELOW ROOF LINE TO SUPPORT BRICK ABOVE ROOF LINE
7. 28" DIAMETER, ANODIZED ALUMINUM, FLUSH JOINT COLUMN COVER. REFER TO SPECIFICATIONS
8. RAISED CONCRETE SLAB. SEE STRUCTURAL DRAWINGS
9. PROVIDE (5) ADJUSTABLE 14" DEEP WIRE SHELVES ON 72" LONG WALL MOUNTED STANDARDS AS SHOWN
10. KITCHEN APPLIANCES WILL BE OWNER FURNISHED AND CONTRACTOR INSTALLED
11. PROVIDE WALL MOUNTED, PAINTED STEEL LADDER ACCESS TO ROOF HATCH
12. CONCRETE SIDEWALK OR PAVEMENT. REFER TO CIVIL DRAWINGS
13. 48" x 12" STAINLESS STEEL UTILITY SHELF W/ 4 MOP HOLDERS
14. TWIN XL FOLDING MURPHY BED CHEST BY AFI HAMILTON OR APPROVED EQUAL
15. 60" HIGH ANODIZED ALUMINUM MESH PANEL WITH APPLIED LETTERING ON 2"x6" ANODIZED ALUMINUM TUBES WITH INTERMEDIATE VERTICALS TO ALIGN WITH WINDOW FRAME. SEE BUILDING ELEVATIONS
16. KNOX BOX FOR EMERGENCY FIRE DEPARTMENT ACCESS AS APPROVED BY MONTGOMERY FIRE / RESCUE
17. LOW RETURN AIR GRILLE. REFER TO MECHANICAL DRAWINGS



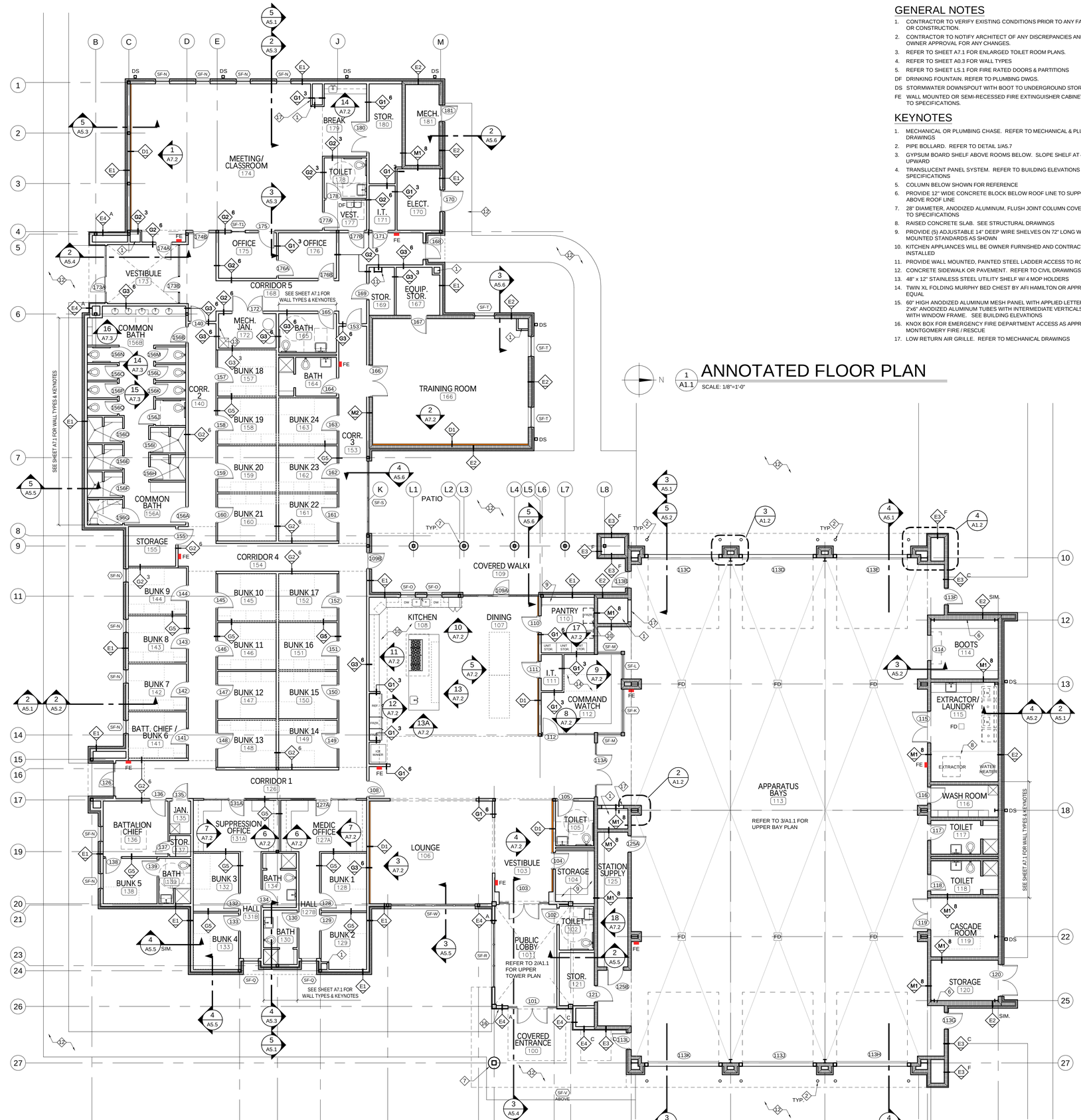
N 2 A1.1 SCALE: 1/8"=1'-0"

TOWER PLAN



N 3 A1.1 SCALE: 1/8"=1'-0"

CLEARSTORY PLAN



N 1 A1.1 SCALE: 1/8"=1'-0"

ANNOTATED FLOOR PLAN

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NEW FIRE STATION NO. 10
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BDW Project No.	2021-118
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Scale:	AS NOTED

Drawing Title:

ANNOTATED FLOOR PLAN

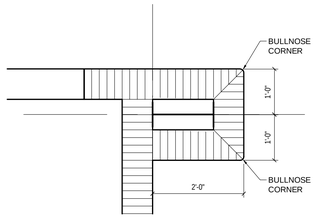
Sheet No:

A1.1

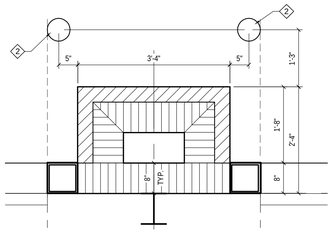
CONFORMANCE DOCUMENTS

GENERAL NOTES

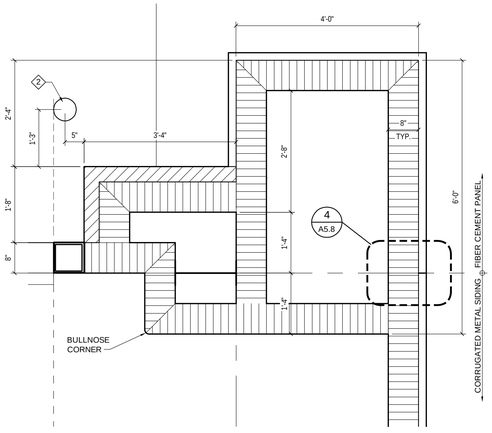
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
2. CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES AND OBTAIN OWNER APPROVAL FOR ANY CHANGES.
3. REFER TO SHEET A7.1 FOR ENLARGED TOILET ROOM PLANS.
4. COORDINATE DIMENSIONS OF OPENINGS WITH DOOR & WINDOW SCHEDULES.
5. REFER TO SHEET A1.1 FOR LIST OF KEYNOTES APPEARING ON THIS SHEET.



2 A1.2 ENLARGED DETAIL
SCALE: 3/4"=1'-0"



3 A1.2 ENLARGED DETAIL
SCALE: 3/4"=1'-0"



4 A1.2 ENLARGED DETAIL
SCALE: 3/4"=1'-0"

1 A1.2 DIMENSIONED FLOOR PLAN
SCALE: 1/8"=1'-0"

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Drawn By:	BDW
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DIMENSIONED FLOOR PLAN

Sheet No:

A1.2

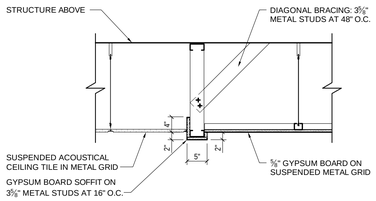
CONFORMANCE DOCUMENTS

CEILING LEGEND

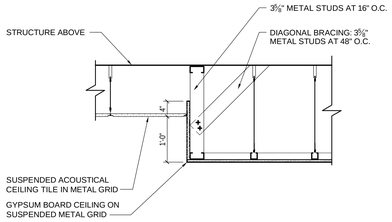
- 2x2 LAY-IN ACOUSTICAL CEILING TILE (ACT-1)
- MOISTURE RESISTANT GYPSUM BOARD
- PAINTED GYPSUM BOARD
- EXP — PAINTED EXPOSED STRUCTURE
- PRE-FINISHED VENTED METAL SOFFIT PANELS - LINEAR (4)
- RETURN AIR PLENUM. SEE NOTE ON PLAN

FIXTURE LEGEND

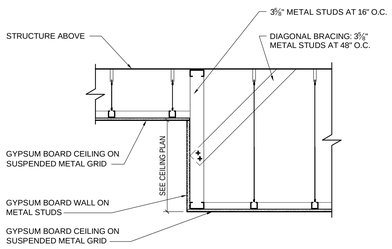
- 2 X 4 LIGHT FIXTURE
- 2 X 2 LIGHT FIXTURE
- 4' LED FIXTURE
- WALL-MOUNTED FIXTURE
- RECESSED LIGHT FIXTURE
- EXIT LIGHT
- UNDERCOUNTER LIGHTS
- LED LIGHT STRIP
- SCONCE FIXTURE
- UPLIGHT FIXTURE
- PENDANT FIXTURE
- RETURN AIR GRILLE
- SUPPLY AIR DIFFUSER
- EXHAUST FAN



3 A2.1 CEILING DETAIL (1)
SCALE: 3/4"=1'-0"



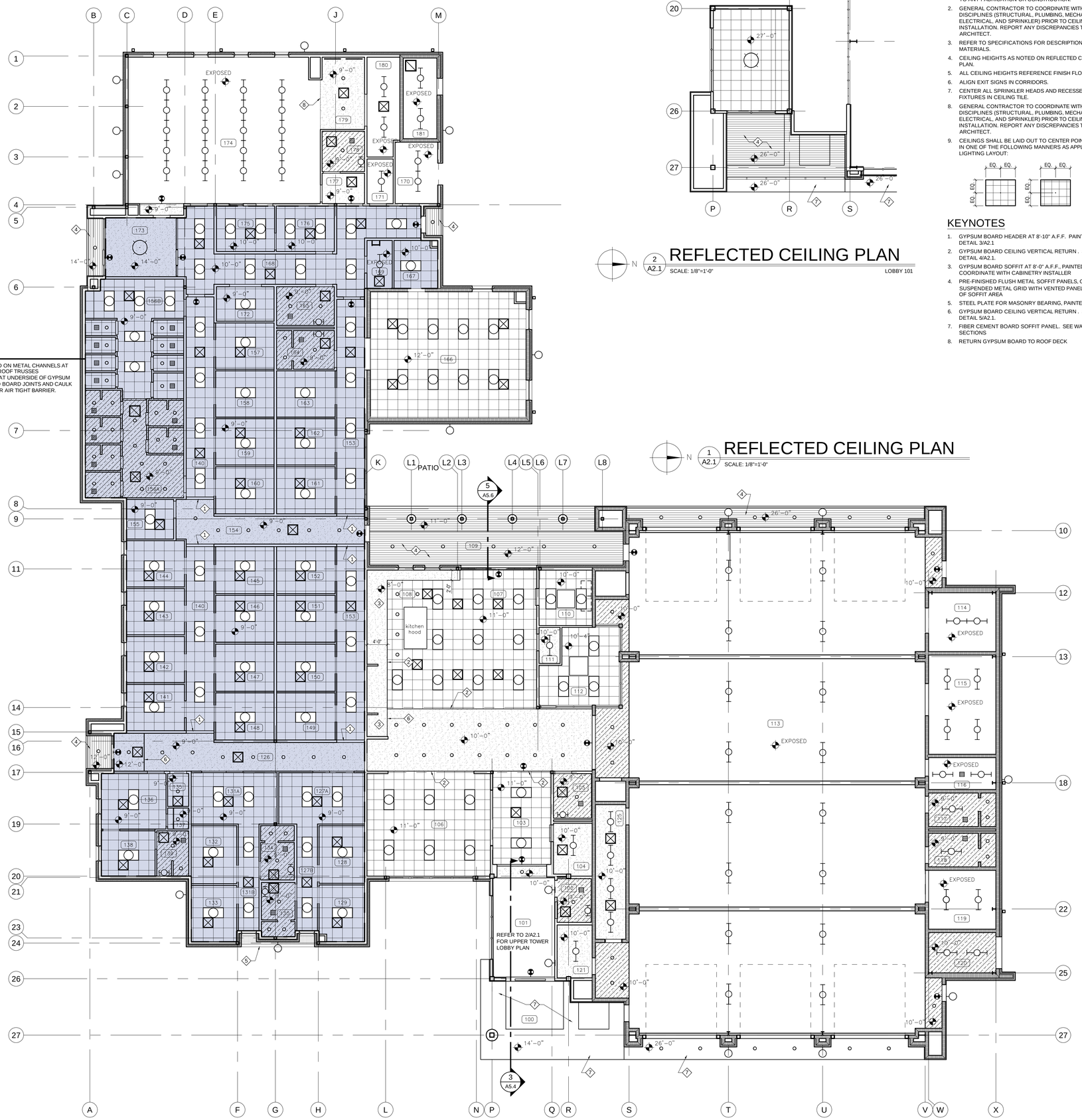
4 A2.1 CEILING DETAIL (2)
SCALE: 3/4"=1'-0"



5 A2.1 CEILING DETAIL (6)
SCALE: 3/4"=1'-0"

RETURN AIR PLENUM:

PROVIDE ½" GYPSUM BOARD ON METAL CHANNELS AT 16" O.C. AT UNDERSIDE OF ROOF TRUSSES THROUGHOUT THIS AREA. AT UNDERSIDE OF GYPSUM BOARD TAPE ALL BOARD TO BOARD JOINTS AND CAULK BOARD TO WALL JOINTS FOR AIR TIGHT BARRIER.



N 2 A2.1 REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0" LOBBY 101

N 1 A2.1 REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0"

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
2. GENERAL CONTRACTOR TO COORDINATE WITH ALL DISCIPLINES (STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, AND SPRINKLER) PRIOR TO CEILING INSTALLATION. REPORT ANY DISCREPANCIES TO ARCHITECT.
3. REFER TO SPECIFICATIONS FOR DESCRIPTIONS OF FINISH MATERIALS.
4. CEILING HEIGHTS AS NOTED ON REFLECTED CEILING PLAN.
5. ALL CEILING HEIGHTS REFERENCE FINISH FLOOR BELOW.
6. ALIGN EXIT SIGNS IN CORRIDORS.
7. CENTER ALL SPRINKLER HEADS AND RECESSED CAN FIXTURES IN CEILING TILE.
8. GENERAL CONTRACTOR TO COORDINATE WITH ALL DISCIPLINES (STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, AND SPRINKLER) PRIOR TO CEILING INSTALLATION. REPORT ANY DISCREPANCIES TO ARCHITECT.
9. CEILINGS SHALL BE LAID OUT TO CENTER POINT OF ROOM IN ONE OF THE FOLLOWING MANNERS AS APPLICABLE TO LIGHTING LAYOUT:

KEYNOTES

1. GYPSUM BOARD HEADER AT 8'-10" A.F.F. PAINTED. SEE DETAIL 3/A2.1
2. GYPSUM BOARD CEILING VERTICAL RETURN . SEE DETAIL 4/A2.1.
3. GYPSUM BOARD SOFFIT AT 8'-0" A.F.F., PAINTED. COORDINATE WITH CABINETRY INSTALLER
4. PRE-FINISHED FLUSH METAL SOFFIT PANELS, ON SUSPENDED METAL GRID WITH VENTED PANELS AT ½ OF SOFFIT AREA
5. STEEL PLATE FOR MASONRY BEARING, PAINTED
6. GYPSUM BOARD CEILING VERTICAL RETURN . SEE DETAIL 5/A2.1.
7. FIBER CEMENT BOARD SOFFIT PANEL. SEE WALL SECTIONS
8. RETURN GYPSUM BOARD TO ROOF DECK

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Date:	
Scale:	AS NOTED

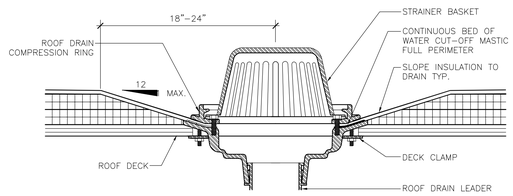
Drawing Title:

REFLECTED CEILING PLAN

Sheet No:

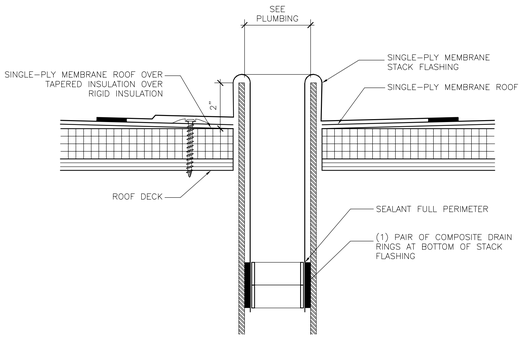
A2.1

CONFORMANCE DOCUMENTS



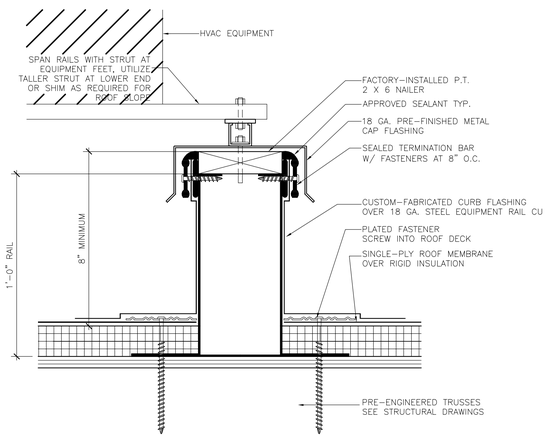
A A3.1 TYPICAL ROOF DRAIN

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



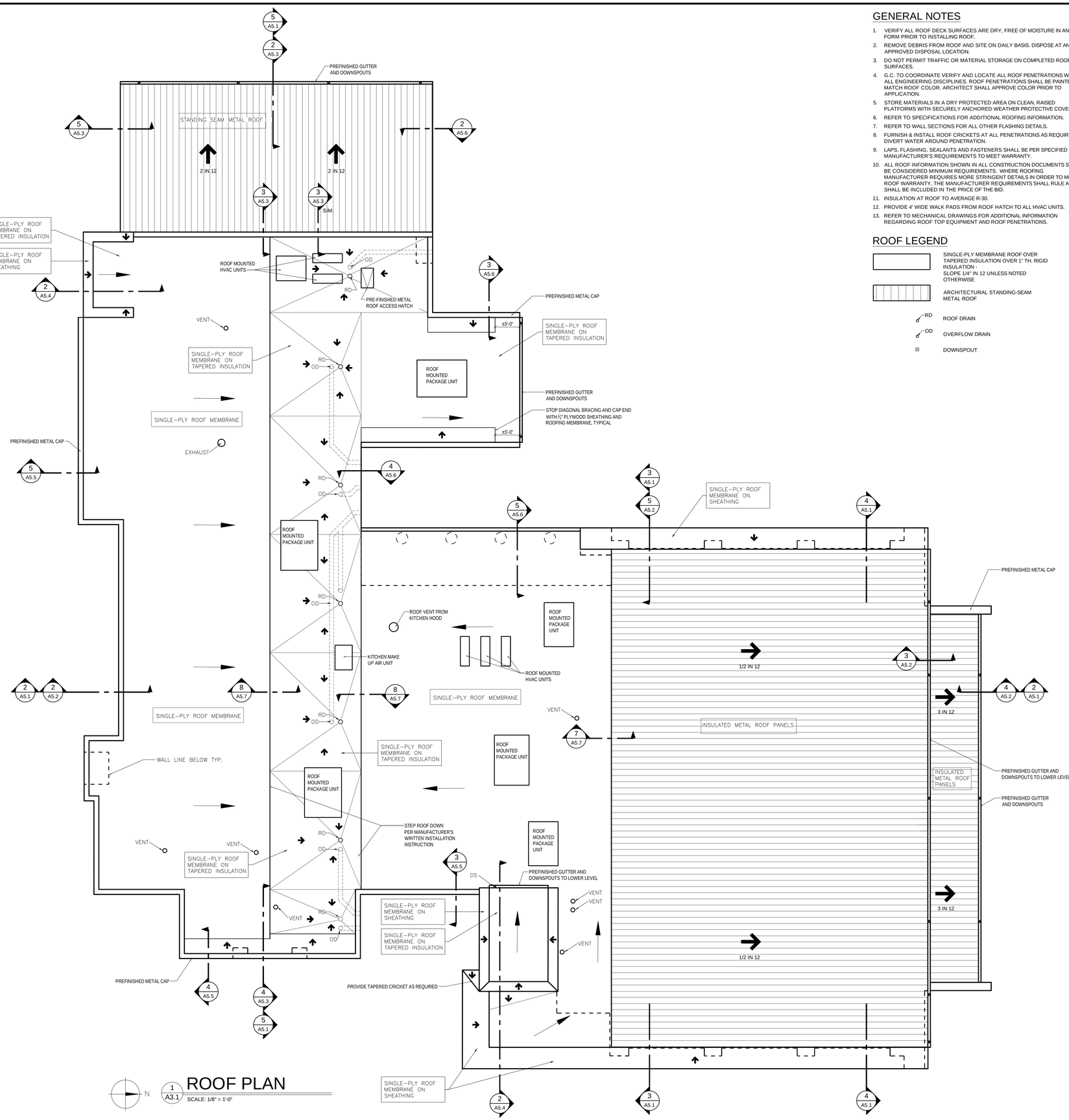
B A3.1 TYPICAL ROOF OVERFLOW

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



2 A3.1 TYPICAL ROOF CURB

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



1 A3.1 ROOF PLAN

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

GENERAL NOTES

1. VERIFY ALL ROOF DECK SURFACES ARE DRY, FREE OF MOISTURE IN ANY FORM PRIOR TO INSTALLING ROOF.
2. REMOVE DEBRIS FROM ROOF AND SITE ON DAILY BASIS. DISPOSE AT AN APPROVED DISPOSAL LOCATION.
3. DO NOT PERMIT TRAFFIC OR MATERIAL STORAGE ON COMPLETED ROOF SURFACES.
4. G.C. TO COORDINATE VERIFY AND LOCATE ALL ROOF PENETRATIONS WITH ALL ENGINEERING DISCIPLINES. ROOF PENETRATIONS SHALL BE PAINTED TO MATCH ROOF COLOR. ARCHITECT SHALL APPROVE COLOR PRIOR TO APPLICATION.
5. STORE MATERIALS IN A DRY PROTECTED AREA ON CLEAN, RAISED PLATFORMS WITH SECURELY ANCHORED WEATHER PROTECTIVE COVERING.
6. REFER TO SPECIFICATIONS FOR ADDITIONAL ROOFING INFORMATION.
7. REFER TO WALL SECTIONS FOR ALL OTHER FLASHING DETAILS.
8. FURNISH & INSTALL ROOF CRICKETS AT ALL PENETRATIONS AS REQUIRED TO DIVERT WATER AROUND PENETRATION.
9. LAPS, FLASHING, SEALANTS AND FASTENERS SHALL BE PER SPECIFIED MANUFACTURER'S REQUIREMENTS TO MEET WARRANTY.
10. ALL ROOF INFORMATION SHOWN IN ALL CONSTRUCTION DOCUMENTS SHALL BE CONSIDERED MINIMUM REQUIREMENTS. WHERE ROOFING MANUFACTURER REQUIRES MORE STRINGENT DETAILS IN ORDER TO MEET ROOF WARRANTY, THE MANUFACTURER REQUIREMENTS SHALL RULE AND SHALL BE INCLUDED IN THE PRICE OF THE BID.
11. INSULATION AT ROOF TO AVERAGE R-30.
12. PROVIDE 4' WIDE WALK PADS FROM ROOF HATCH TO ALL HVAC UNITS.
13. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING ROOF TOP EQUIPMENT AND ROOF PENETRATIONS.

ROOF LEGEND

- SINGLE-PLY MEMBRANE ROOF OVER TAPERED INSULATION OVER 1" TH. RIGID INSULATION w/ SLOPE 1/4" IN 12 UNLESS NOTED OTHERWISE
- ARCHITECTURAL STANDING-SEAM METAL ROOF
- RD — ROOF DRAIN
- OD — OVERFLOW DRAIN
- DOWNSPOUT

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RAY E. WILLIAMS 4239
JOHNNY B. RANES, III 7127

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

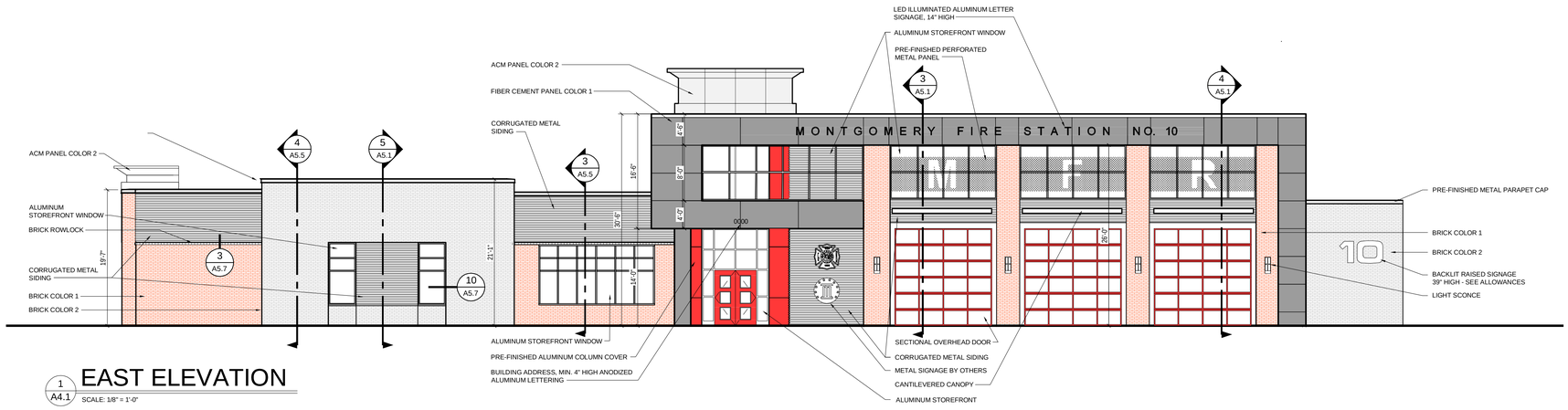
Drawing Title:

ROOF PLAN

Sheet No:

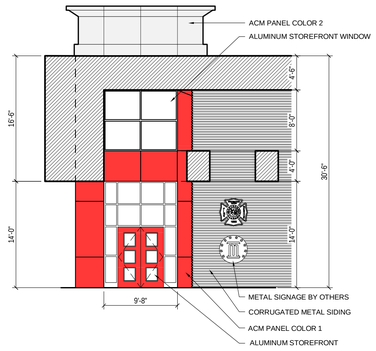
A3.1

CONFORMANCE DOCUMENTS



1 A4.1 EAST ELEVATION

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



1A A4.1 EAST ELEVATION

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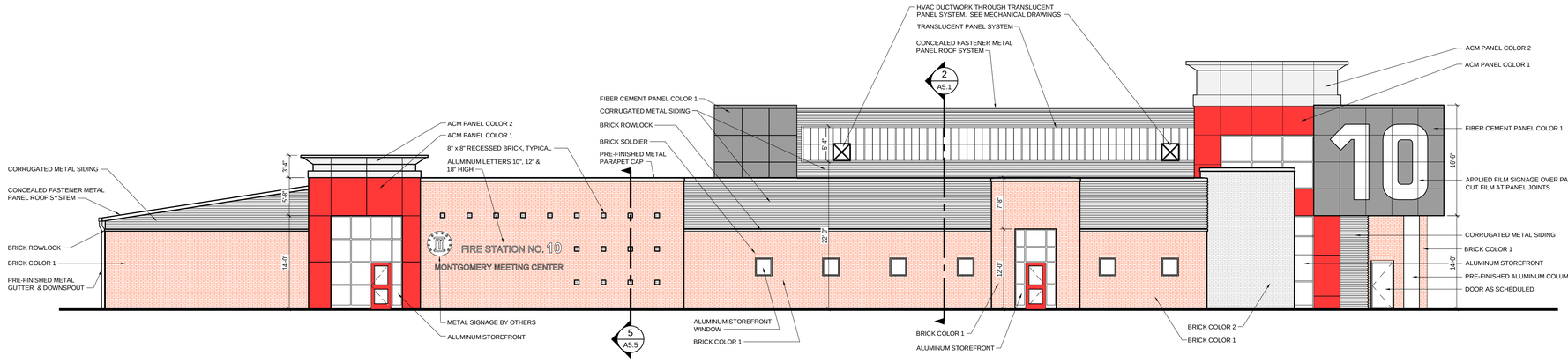

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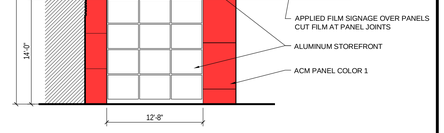

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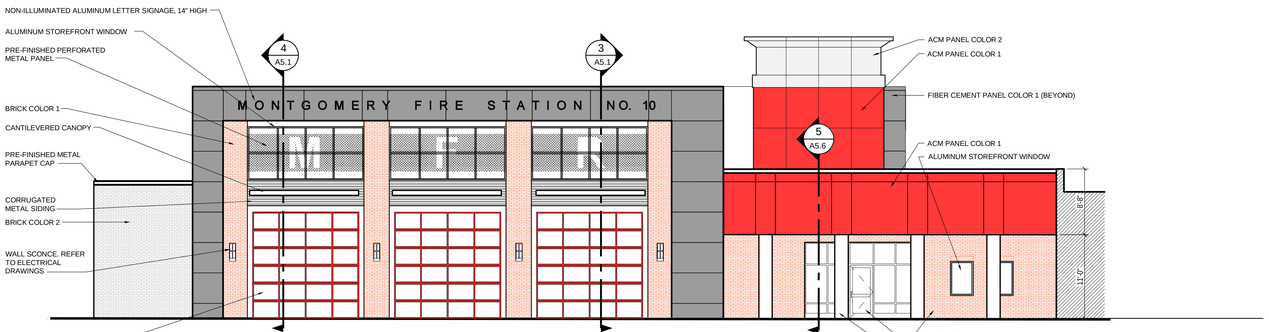

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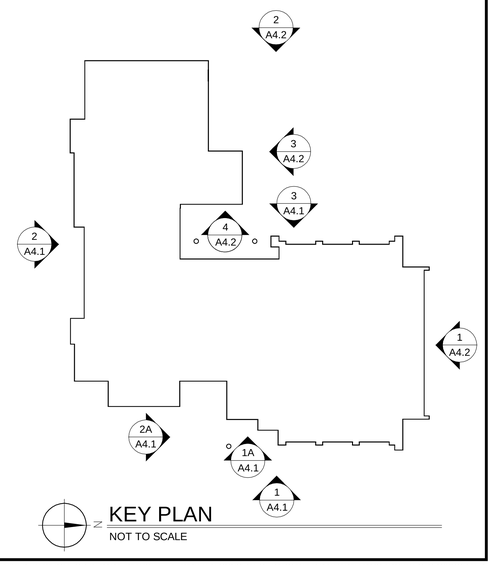

KEY PLAN

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EXTERIOR ELEVATIONS

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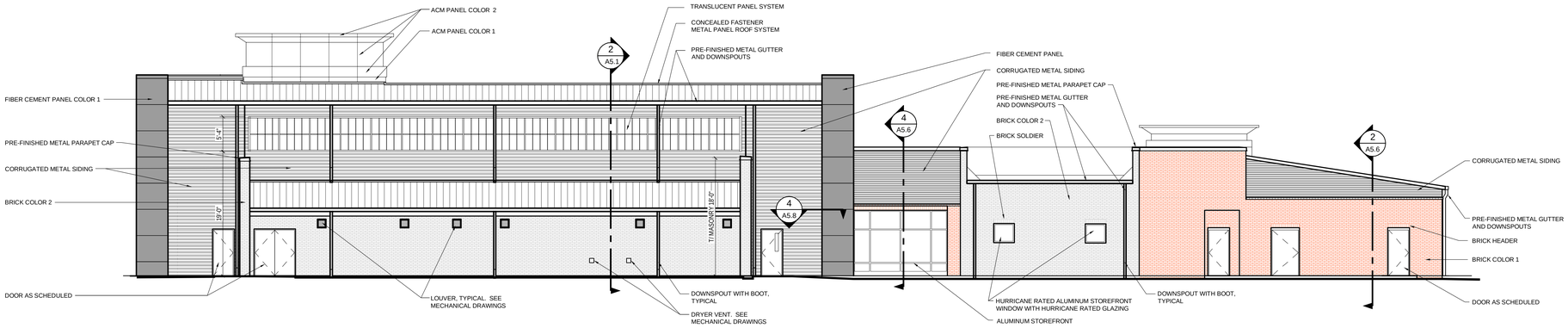

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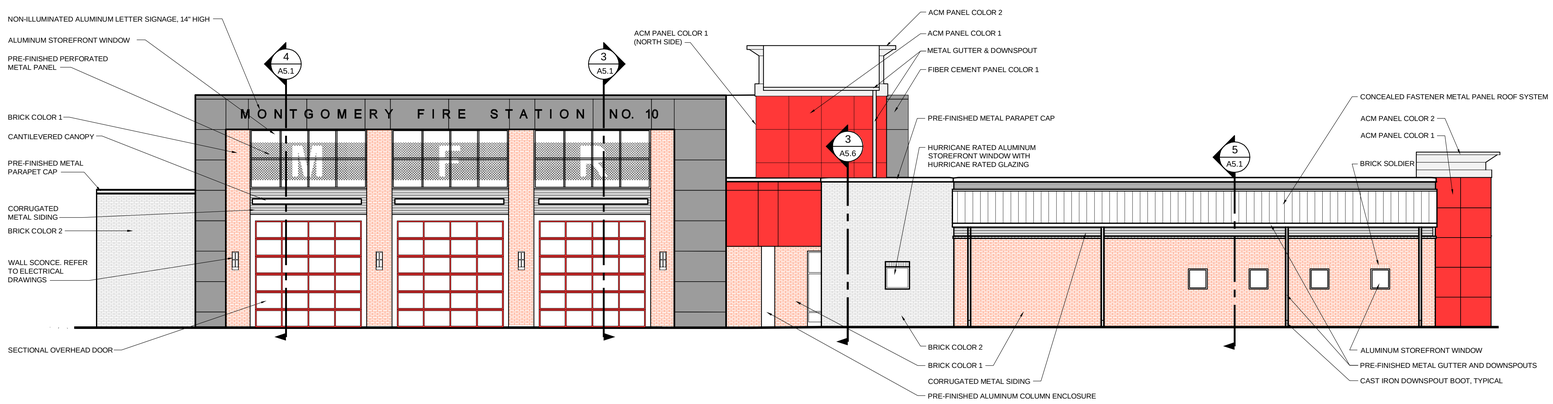

2 A4.2 **WEST ELEVATION**
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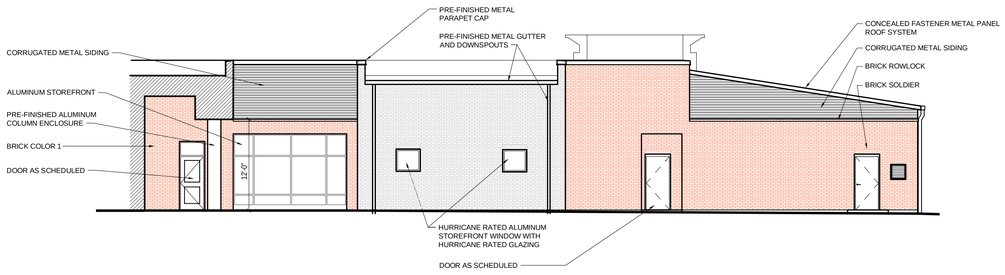

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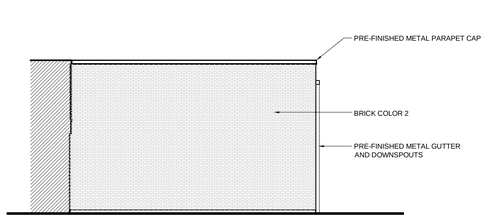

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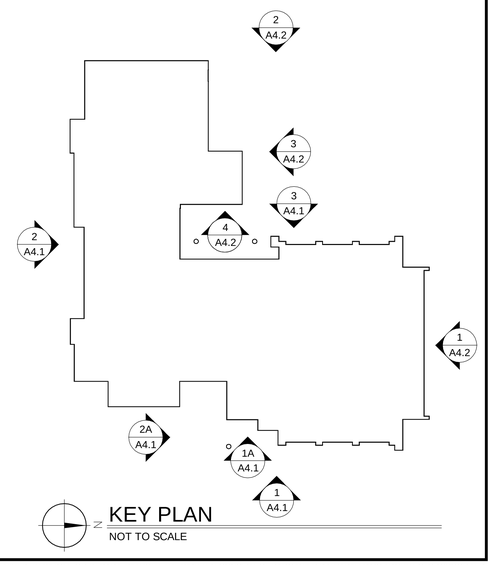

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EXTERIOR ELEVATIONS

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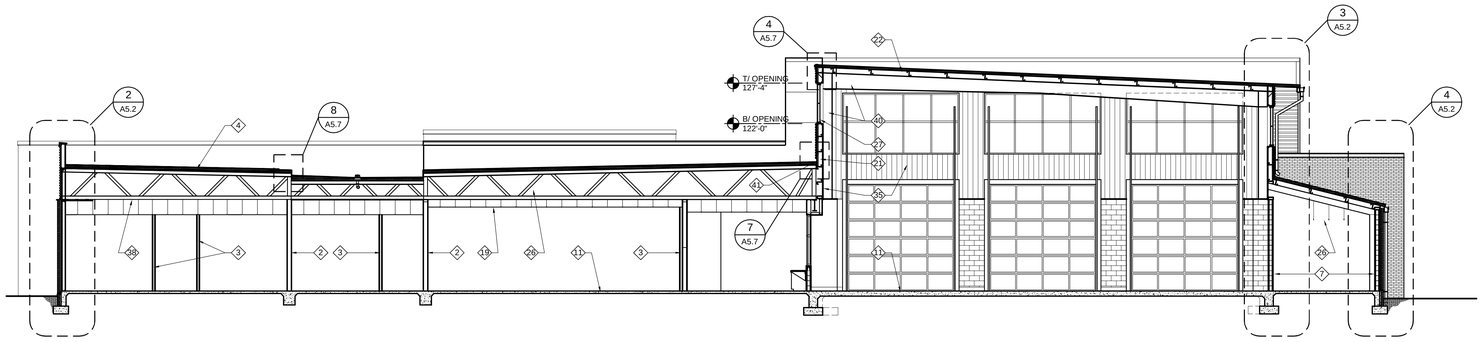
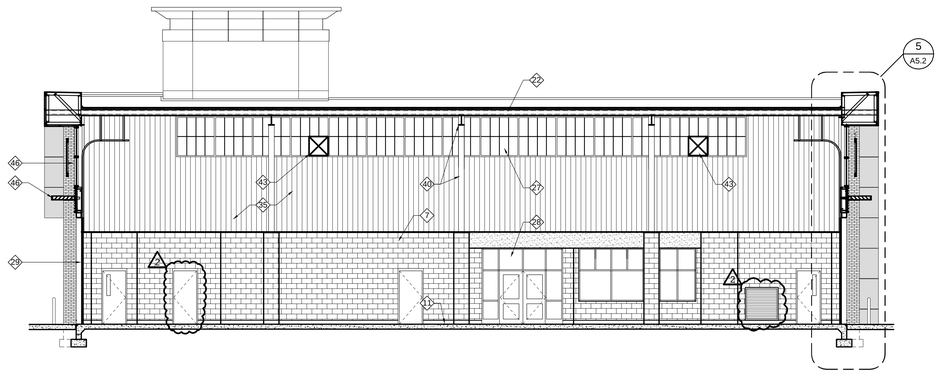
A4.2

CONFORMANCE DOCUMENTS



2 BUILDING SECTION

2 / A5.1 SCALE: 1/8" = 1'-0"



3 BUILDING SECTION

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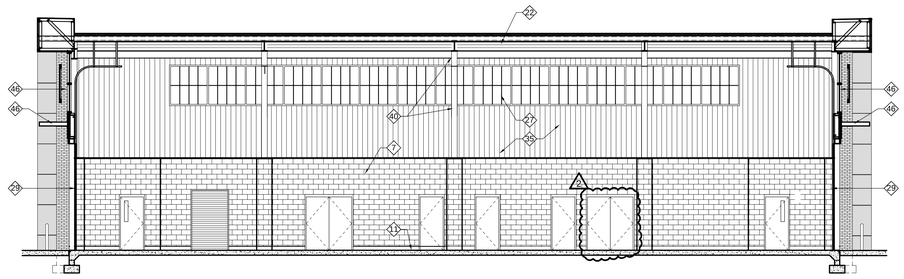

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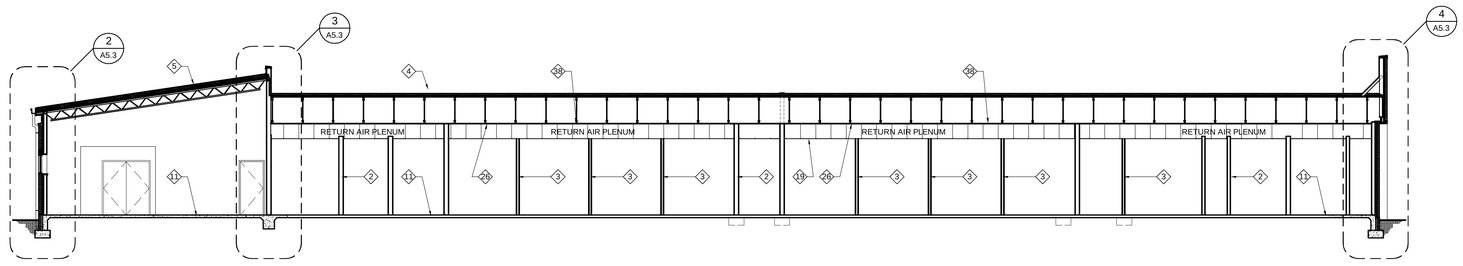

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3. ⅝" GYPSUM BOARD SHEATHING EACH SIDE OF 3⅝" METAL WALL STUD FRAMING AT 16" O.C. TO UNDERSIDE OF SUSPENDED CEILING
4. TPO MEMBRANE ROOFING ON ½" DECK BOARD OVER ±4" (R-30) RIGID INSULATION BOARD ON METAL ROOF DECKING, WHERE SHOWN. REFER TO SPECIFICATIONS
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13. STEEL BEAM / COLUMN. REFER TO STRUCTURAL DRAWINGS
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16. GROUT VOIDS SOLID
17. PROVIDE CONTINUOUS PRE-FINISHED METAL FLASHING
18. PROVIDE CONTINUOUS PRE-FINISHED METAL COPING OVER PRESSURE-TREATED WOOD BLOCKING. PROVIDE FLASHING
19. SUSPENDED ACOUSTIC TILE CEILING IN PRE-FINISHED METAL GRID
20. CONTINUOUS BASE FLASHING WITH WEEP HOLES AT 24" O.C. PROVIDE 24" HIGH MORTAR NET AT BOTTOM OF AIR SPACE. BASE FLASHING TO BE TWO BRICK COURSES BELOW FINISH FLOOR
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22. CONCEALED FASTENER PRE-FINISHED INSULATED METAL PANEL ROOF SYSTEM, R-30, ON METAL PURLINS
23. CORRUGATED METAL SIDING
24. STANDING SEAM METAL ROOFING ON 1½" METAL DECKING ON METAL ROOF TRUSSES WITH R-30 VINYL FACED BATT INSULATION
25. ½" GYPSUM BOARD CEILING ON SUSPENDED METAL CHANNELS
26. METAL ROOF TRUSS. REFER TO STRUCTURAL DRAWINGS
27. TRANSLUCENT PANEL SYSTEM. REFER TO SPECIFICATIONS
28. GLASS & ALUMINUM STOREFRONT SYSTEM. REFER TO SPECIFICATIONS
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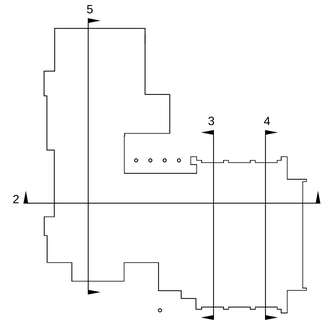
30. ALUMINUM PANEL CLADDING SYSTEM. REFER TO SPECIFICATIONS
31. 6"H x 36"D PRE-FINISHED ALUMINUM LOUVERED 'ECOSHADE' AWNING WITH SIX 35° BLADES BY MASA ARCHITECTURAL CANOPIES (www.architecturalcanopies.com) OR APPROVED EQUAL
32. 42" HIGH x 6" DIA. CONCRETE FILLED STEEL PIPE BOLLARD. REFER TO DETAIL 1/A5.5
33. CONCRETE PAVEMENT. SEE CIVIL ENGINEERING DRAWINGS
34. PROVIDE CAST IRON DOWNSPOUT BOOT AND CONNECT TO UNDERGROUND STORM WATER COLLECTION SYSTEM. SEE CIVIL ENGINEERING DRAWINGS
35. PRE-FINISHED METAL LINER PANEL. SEE SPECIFICATIONS
36. FIBER CEMENT BOARD CLADDING SYSTEM OVER ½" FIRE TREATED PLYWOOD WITH METAL FRAMING AT 16" O.C. REFER TO SPECIFICATIONS
37. PRE-FINISHED VENTED METAL SOFFIT PANEL
38. TOP OF RETURN AIR PLENUM: ½" GYPSUM BOARD ON METAL CHANNELS
39. EMBEDDED STEEL ANGLE
40. PRE-ENGINEERED RIGID STEEL FRAME. REFER TO STRUCTURAL DRAWINGS
41. PROVIDE EXPANSION JOINT
42. ½" FIRE TREATED PLYWOOD SHEATHING ON LIGHT GAUGE METAL FRAMING. REFER TO STRUCTURAL DRAWINGS
43. HVAC DUCTWORK FROM ROOF TOP UNITS. REFER TO MECHANICAL DRAWINGS
44. ⅝" GYPSUM BOARD SHEATHING ON METAL WALL STUDS AT 16" O.C.
45. PROVIDE CONTINUOUS PRE-FINISHED METAL COPING OVER BEAD OF SEALANT
46. 60" HIGH PRE-FINISHED ALUMINUM PERFORATED 0.040" PANEL, BR5-36 ½" ECONOLAP BY CENTRIA, WITH APPLIED LETTERING ON 2"x6" ANODIZED ALUMINUM TUBES WITH INTERMEDIATE VERTICALS TO ALIGN WITH WINDOW FRAME. SEE BUILDING ELEVATIONS
47. 8" x 8" RECESS. SEE BUILDING ELEVATIONS
48. DIAGONAL BRACE. SEE STRUCTURAL DRAWINGS
49. COMPRESSIBLE EXPANSION MATERIAL
50. PRE-FINISHED ALUMINUM COLUMN COVER
51. EXTEND ROOF PURLIN. SEE STRUCTURAL DRAWINGS
52. PRE-FINISHED METAL TRIM. AXIOM CLASSIC TRIM BY ARMSTRONG OR APPROVED EQUAL
53. PROVIDE ICE & WATER SHIELD MEMBRANE ON HORIZONTAL AREAS. EXTEND MEMBRANE MINIMUM 6" ON ADJOINING VERTICAL SURFACES.
54. X-BRACING. SEE STRUCTURAL DRAWINGS
55. SOLID SURFACE SILL AND APRON
56. 3" x ½" PVC BLOCKING AT SCREW DOWN LOCATIONS. DO NOT CAULK STOREFRONT TO ROOF MEMBRANE. ALLOW STORMWATER TO FLOW UNDER STOREFRONT
57. BREAK METAL TRIM (MATCH STOREFRONT) OVER WOOD BLOCKING



KEY PLAN

N / 1 / A5.1 SCALE: 1/32" = 1'-0"

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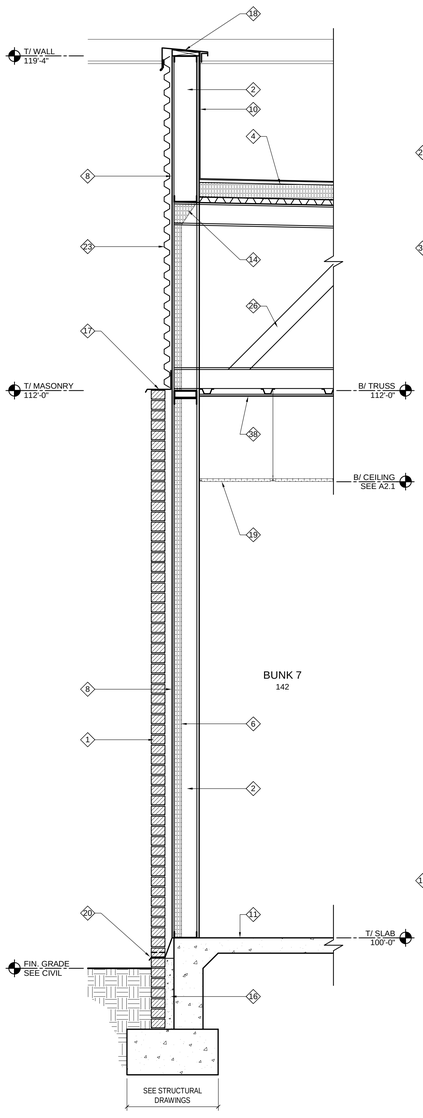
BUILDING SECTIONS

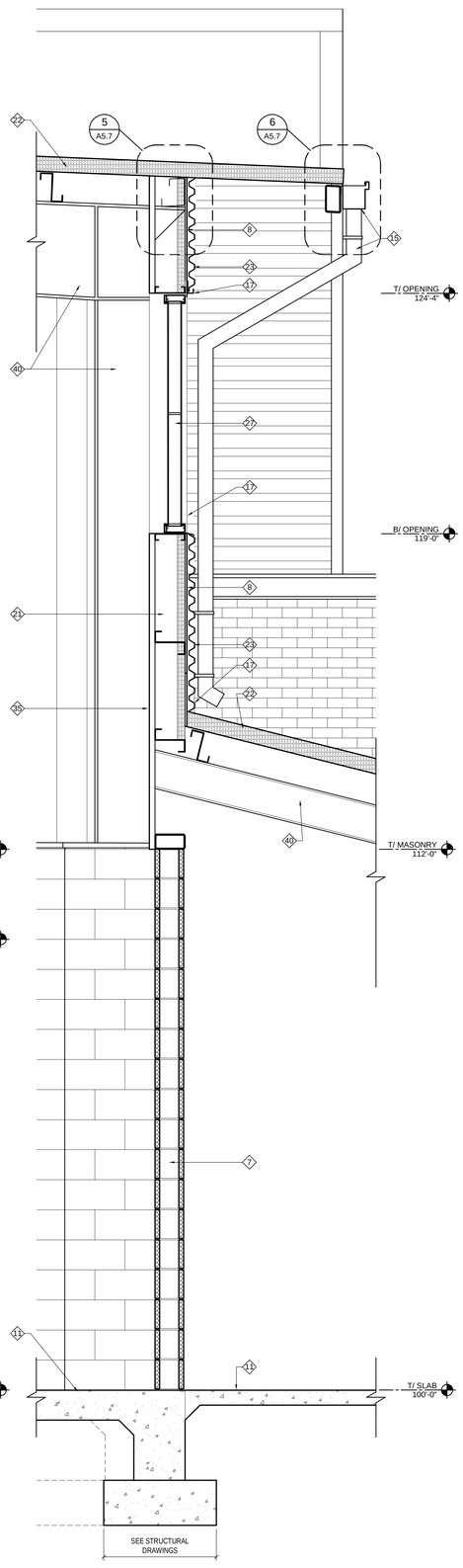
Sheet No:

A5.1

CONFORMANCE DOCUMENTS



2 A5.2 **WALL SECTION**
SCALE: 3/4" = 1'-0"



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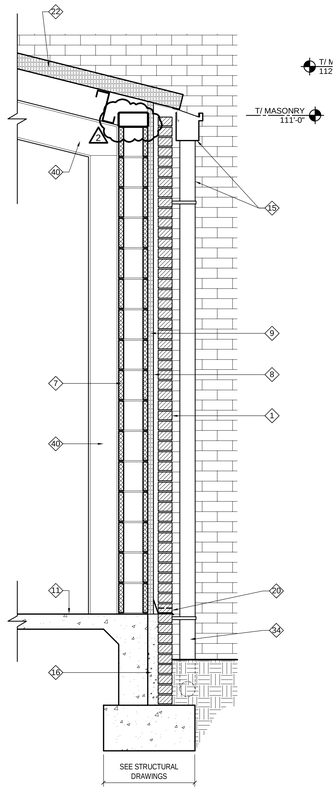

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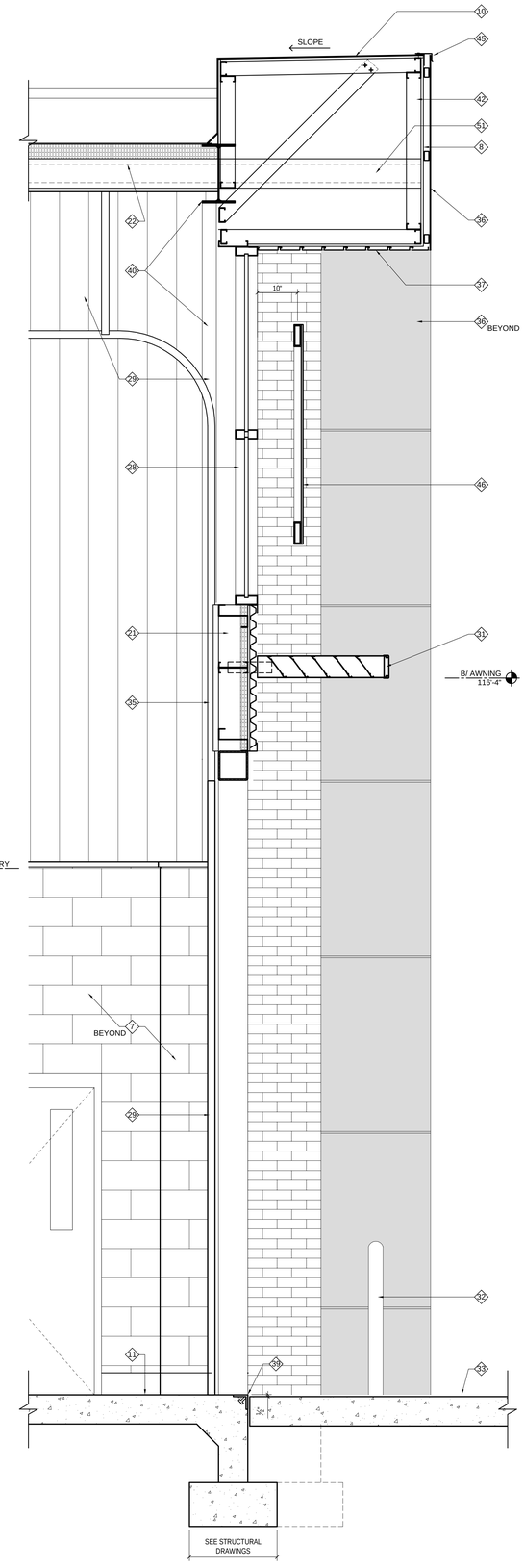

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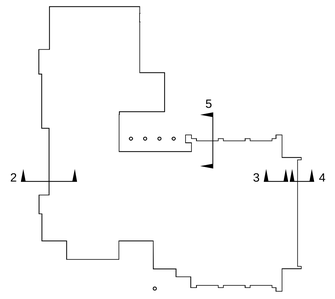

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JOHNNY B. RANES, III
7127

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

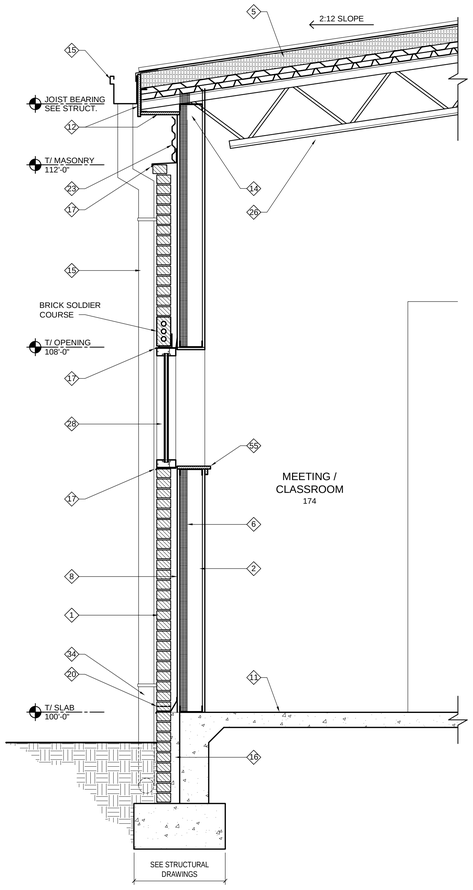
Drawing Title:

WALL SECTIONS

Sheet No:

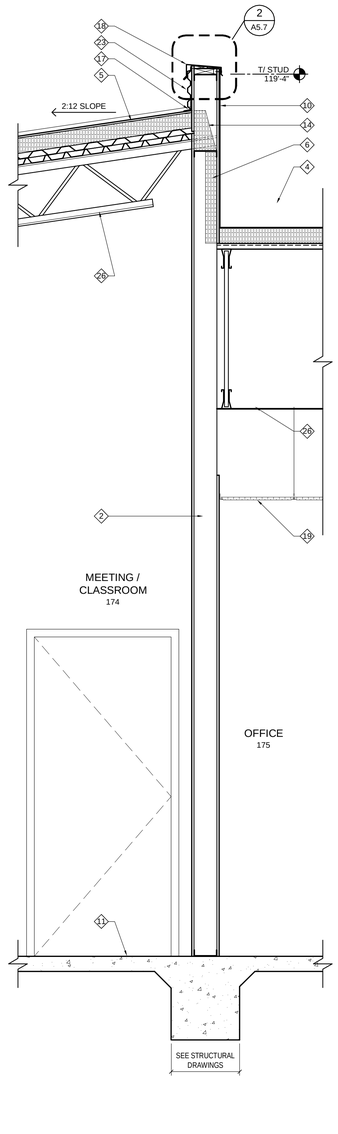
A5.2

CONFORMANCE DOCUMENTS



2 A5.3 WALL SECTION

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



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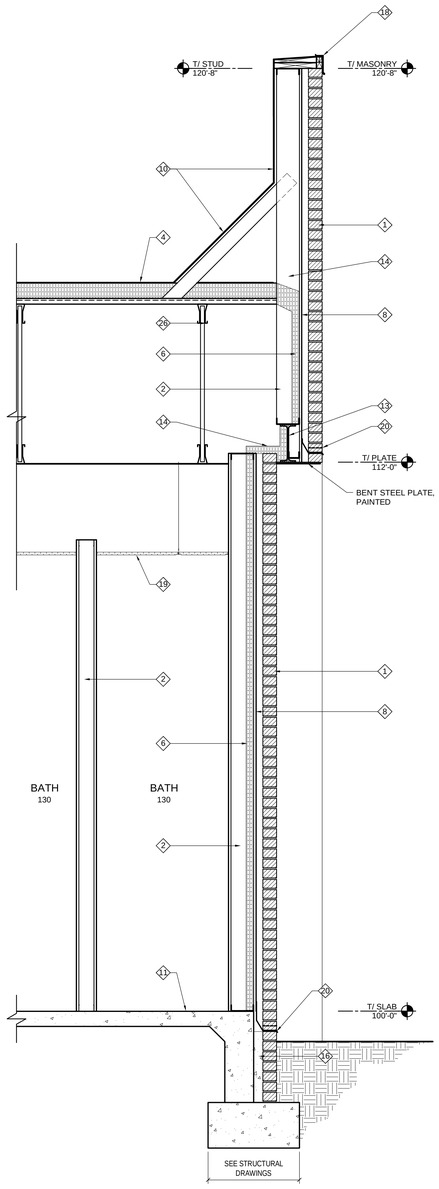

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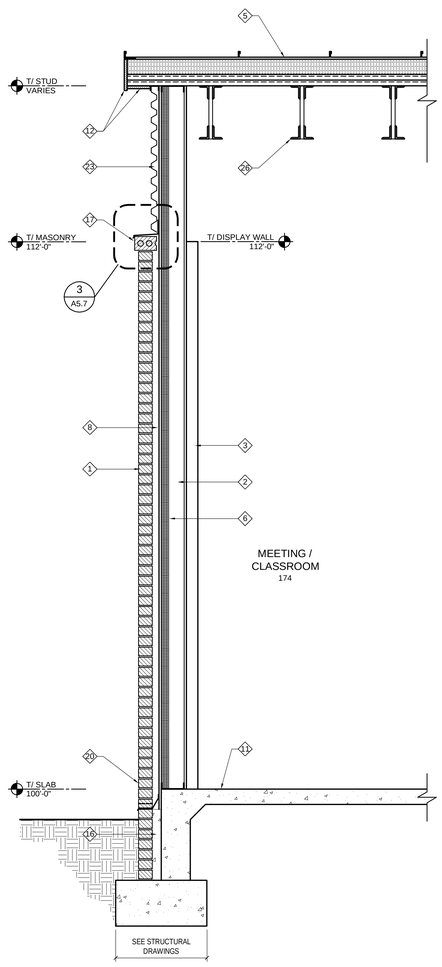

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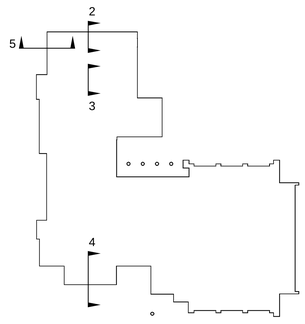

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1 A5.3 KEY PLAN

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NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
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MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

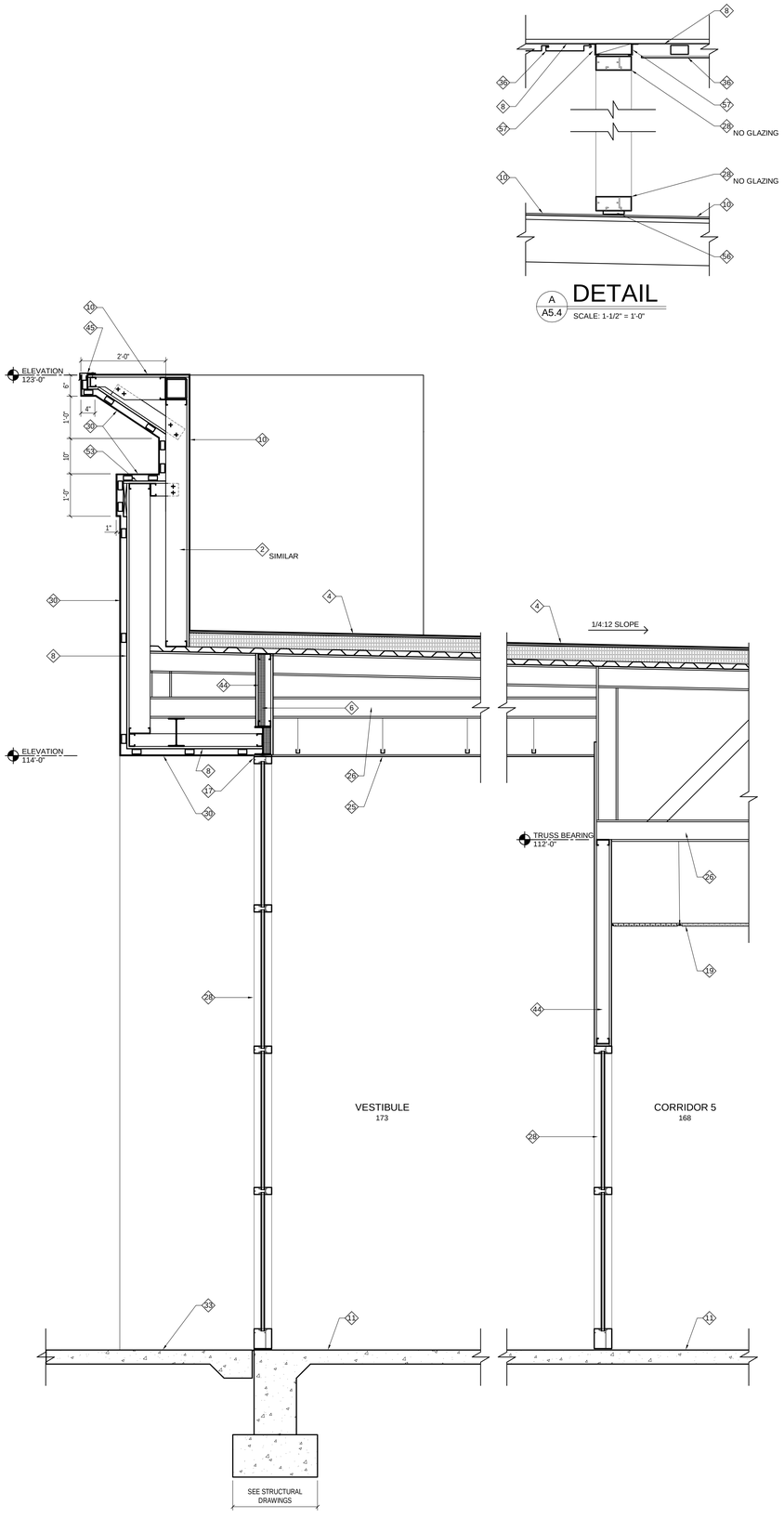
Drawing Title:

WALL SECTIONS

Sheet No:

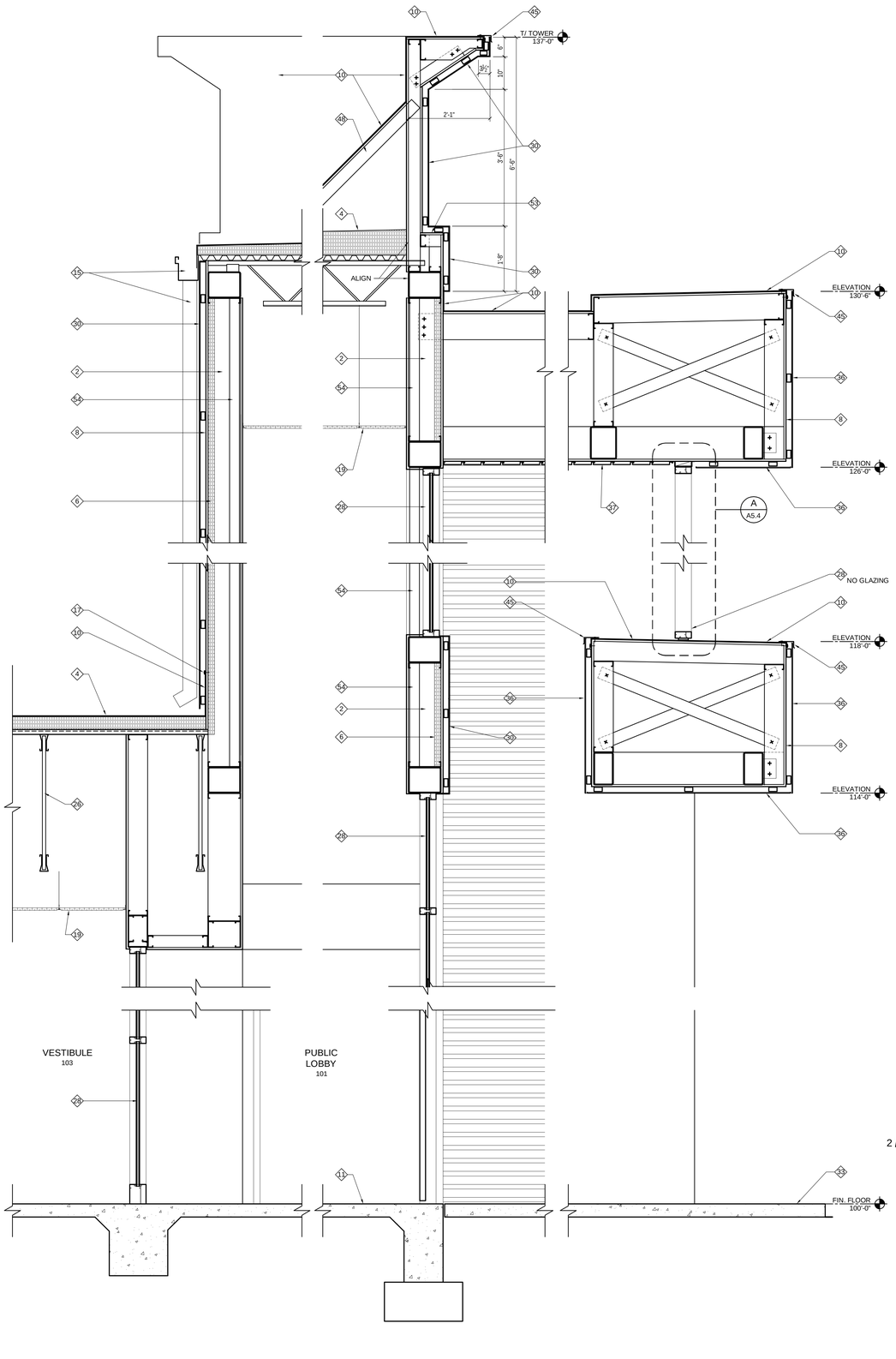
A5.3

CONFORMANCE DOCUMENTS



2 A5.4 WALL SECTION

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



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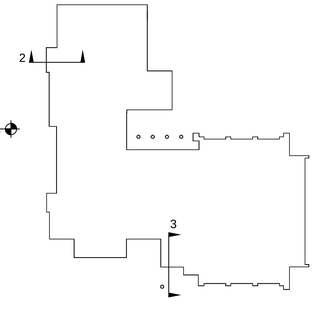

N

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WALL SECTIONS

Sheet No:

A5.4

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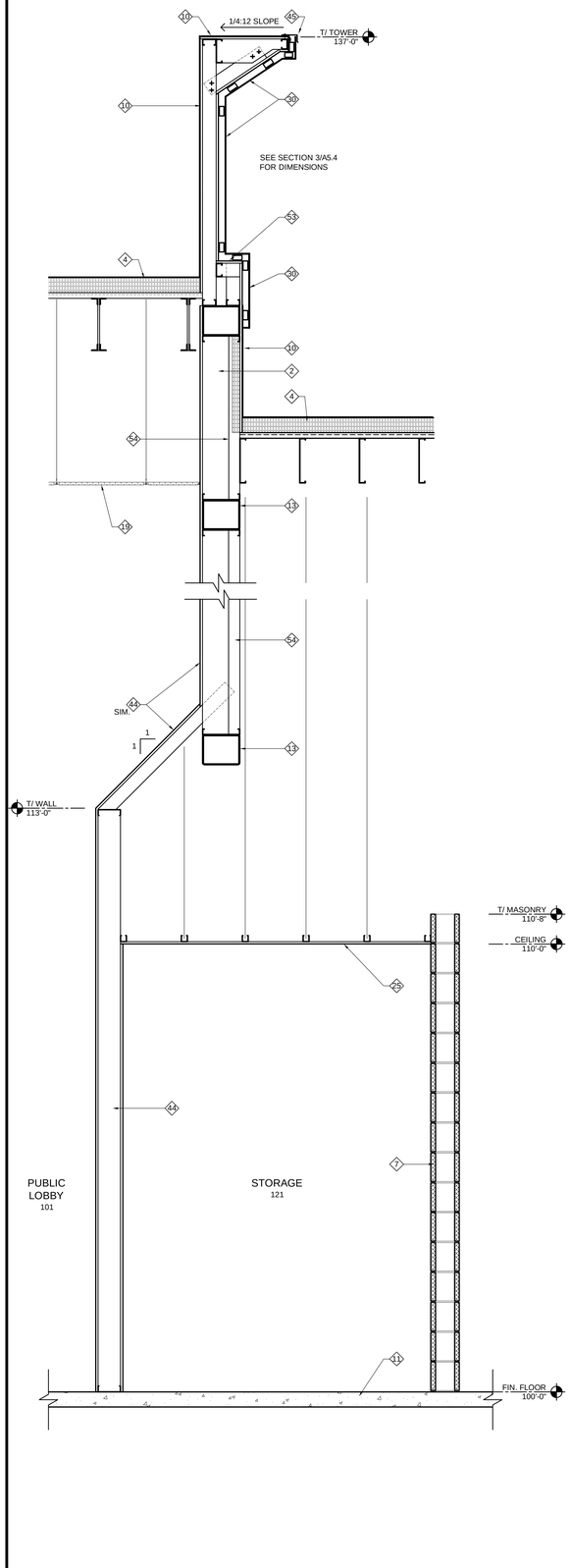

2 A5.5 WALL SECTION

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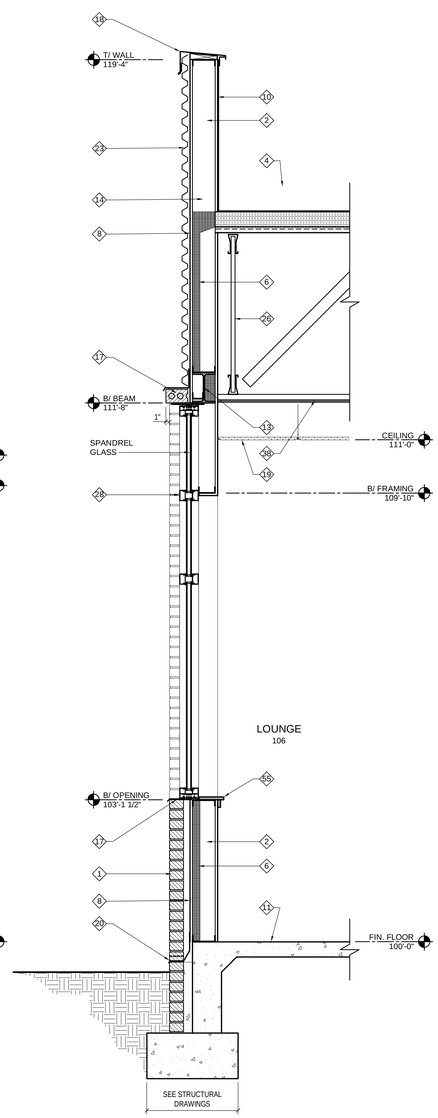

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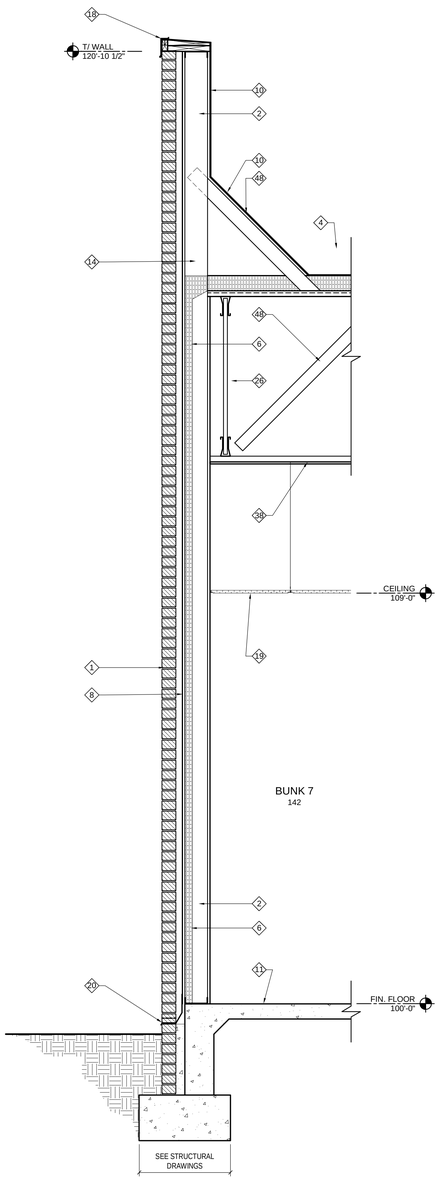

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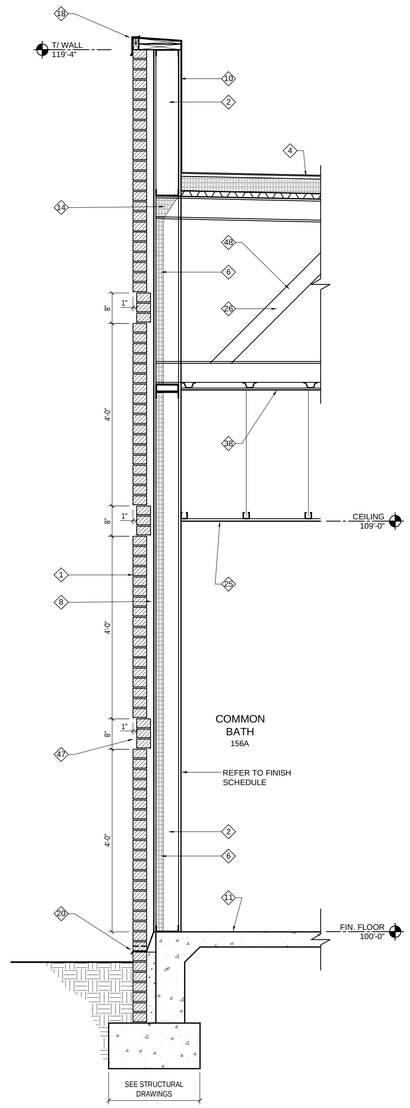

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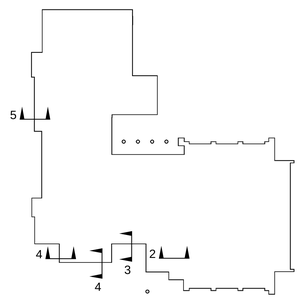
21. METAL GIRT WALL SYSTEM WITH EXTERIOR PRE-FINISHED METAL PANEL OVER ½" FIRE TREATED PLYWOOD SHEATHING, R-19 MIN. SPRAY FOAM INSULATION AND INTERIOR PRE-FINISHED METAL LINER PANEL
22. CONCEALED FASTENER PRE-FINISHED INSULATED METAL PANEL ROOF SYSTEM, R-30, ON METAL PURLINS
23. CORRUGATED METAL SIDING
24. STANDING SEAM METAL ROOFING ON 1½" METAL DECKING ON METAL ROOF TRUSSES WITH R-30 VINYL FACED BATT INSULATION
25. ½" GYPSUM BOARD CEILING ON SUSPENDED METAL CHANNELS
26. METAL ROOF TRUSS. REFER TO STRUCTURAL DRAWINGS
27. TRANSLUCENT PANEL SYSTEM. REFER TO SPECIFICATIONS
28. GLASS & ALUMINUM STOREFRONT SYSTEM. REFER TO SPECIFICATIONS
29. MOTOR OPERATED PRE-FINISHED OVERHEAD SECTIONAL METAL DOOR AND TRACK. REFER TO DOOR SCHEDULE & SPECIFICATIONS
30. ALUMINUM PANEL CLADDING SYSTEM. REFER TO SPECIFICATIONS
31. 6"H x 36"D PRE-FINISHED ALUMINUM LOUVERED 'ECOSHADE' AWNING WITH SIX 35° BLADES BY MASA ARCHITECTURAL CANOPIES (www.architecturalcanopies.com) OR APPROVED EQUAL
32. 42" HIGH x 6" DIA. CONCRETE FILLED STEEL PIPE BOLLARD. REFER TO DETAIL 1/A5.5
33. CONCRETE PAVEMENT. SEE CIVIL ENGINEERING DRAWINGS
34. PROVIDE CAST IRON DOWNSPOUT BOOT AND CONNECT TO UNDERGROUND STORM WATER COLLECTION SYSTEM. SEE CIVIL ENGINEERING DRAWINGS
35. PRE-FINISHED METAL LINER PANEL. SEE SPECIFICATIONS
36. FIBER CEMENT BOARD CLADDING SYSTEM OVER ½" FIRE TREATED PLYWOOD WITH METAL FRAMING AT 16" O.C. REFER TO SPECIFICATIONS
37. PRE-FINISHED VENTED METAL SOFFIT PANEL
38. TOP OF RETURN AIR PLENUM: ½" GYPSUM BOARD ON METAL CHANNELS
39. EMBEDDED STEEL ANGLE
40. PRE-ENGINEERED RIGID STEEL FRAME. REFER TO STRUCTURAL DRAWINGS
41. PROVIDE EXPANSION JOINT
42. ½" FIRE TREATED PLYWOOD SHEATHING ON LIGHT GAUGE METAL FRAMING. REFER TO STRUCTURAL DRAWINGS
43. HVAC DUCTWORK FROM ROOF TOP UNITS. REFER TO MECHANICAL DRAWINGS
44. ⅝" GYPSUM BOARD SHEATHING ON METAL WALL STUDS AT 16" O.C.
45. PROVIDE CONTINUOUS PRE-FINISHED METAL COPING OVER BEAD OF SEALANT
46. 60" HIGH PRE-FINISHED ALUMINUM PERFORATED 0.040" PANEL, BRS-36 ⅜" ECOVLAP BY CENTRIA, WITH APPLIED LETTERING ON 2'x6" ANODIZED ALUMINUM TUBES WITH INTERMEDIATE VERTICALS TO ALIGN WITH WINDOW FRAME. SEE BUILDING ELEVATIONS
47. 8" x 8" RECESS. SEE BUILDING ELEVATIONS
48. DIAGONAL BRACE. SEE STRUCTURAL DRAWINGS
49. COMPRESSIBLE EXPANSION MATERIAL
50. PRE-FINISHED ALUMINUM COLUMN COVER
51. EXTEND ROOF PURLIN. SEE STRUCTURAL DRAWINGS
52. PRE-FINISHED METAL TRIM. AXIOM CLASSIC TRIM BY ARMSTRONG OR APPROVED EQUAL
53. PROVIDE ICE & WATER SHIELD MEMBRANE ON HORIZONTAL AREAS. EXTEND MEMBRANE MINIMUM 6" ON ADJOINING VERTICAL SURFACES.
54. X-BRACING. SEE STRUCTURAL DRAWINGS
55. SOLID SURFACE SILL AND APRON
56. 3" x ½" PVC BLOCKING AT SCREW DOWN LOCATIONS. DO NOT CAULK STOREFRONT TO ROOF MEMBRANE. ALLOW STORMWATER TO FLOW UNDER STOREFRONT
57. BREAK METAL TRIM (MATCH STOREFRONT) OVER WOOD BLOCKING



N 1 A5.5 KEY PLAN

SCALE: 1/32" = 1'-0"

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7127

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

WALL SECTIONS

Sheet No:

A5.5

CONFORMANCE DOCUMENTS

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
2. CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES AND OBTAIN OWNER APPROVAL FOR ANY CHANGES.
3. ALL WOOD DECKING, FRAMING OR BLOCKING SHALL BE PRESSURE TREATED.
4. REFER TO STRUCTURAL DRAWINGS FOR FRAMING MEMBER SIZING, CONCRETE REINFORCING AND ADDITIONAL INFORMATION.
5. COORDINATE FOOTING ELEVATIONS AND FINAL GRADES WITH CIVIL ENGINEERING DRAWINGS

KEYNOTES

ALL KEYNOTES ON THIS LIST ARE NOT PRESENT ON EACH DRAWING

1. BRICK VENEER. REFER TO SPECIFICATIONS
2. ⅝" GYPSUM BOARD ON METAL WALL STUD FRAMING AT 16" O.C. WITH ½" EXTERIOR FIRE TREATED PLYWOOD SHEATHING. REFER TO FLOOR PLANS FOR FRAMING SIZING
3. ⅝" GYPSUM BOARD SHEATHING EACH SIDE OF 3⅝" METAL WALL STUD FRAMING AT 16" O.C. TO UNDERSIDE OF SUSPENDED CEILING
4. TPO MEMBRANE ROOFING ON ½" DECK BOARD OVER ±4" (R-30) RIGID INSULATION BOARD ON METAL ROOF DECKING, WHERE SHOWN. REFER TO SPECIFICATIONS
5. STANDING SEAM METAL ROOFING ON ½" DECK BOARD OVER ±4" (R-30) RIGID INSULATION BOARD ON METAL ROOF DECKING
6. PROVIDE MINIMUM R-19 CLOSED CELL SPAY FOAM INSULATION. REFER TO SPECIFICATIONS
7. CONCRETE BLOCK WALL. PROVIDE INSULATION IN BLOCK CORE AT EXTERIOR LOCATIONS
8. LIQUID APPLIED VAPOR & MOISTURE BARRIER
9. 1½" RIGID INSULATION BOARD
10. EXTEND ROOFING MEMBRANE OVER ½" EXTERIOR GRADE FIRE TREATED PLYWOOD SHEATHING
11. CONCRETE FLOOR SLAB ON COMPACTED GRANULAR FILL. REFER TO STRUCTURAL DRAWINGS. EXTERIOR SLABS SHALL SLOPE AWAY FROM BUILDING FOR DRAINAGE
12. PVC TRIM, PAINTED
13. STEEL BEAM / COLUMN. REFER TO STRUCTURAL DRAWINGS
14. CLOSE OFF OPENINGS OR FILL VOIDS WITH CLOSED CELL SPRAY FOAM INSULATION
15. PRE-FINISHED SHEET METAL GUTTER & DOWNSPOUT
16. GROUT VOIDS SOLID
17. PROVIDE CONTINUOUS PRE-FINISHED METAL FLASHING
18. PROVIDE CONTINUOUS PRE-FINISHED METAL COPING OVER PRESSURE-TREATED WOOD BLOCKING. PROVIDE FLASHING
19. SUSPENDED ACOUSTIC TILE CEILING IN PRE-FINISHED METAL GRID
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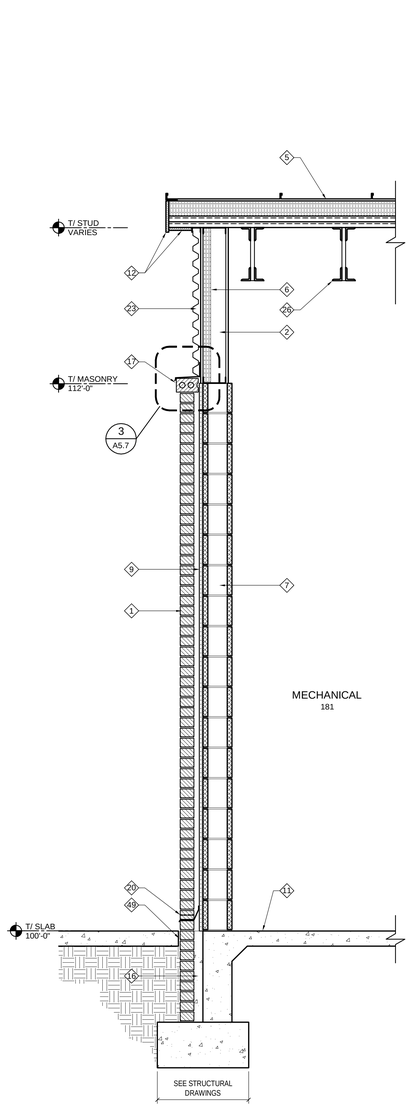
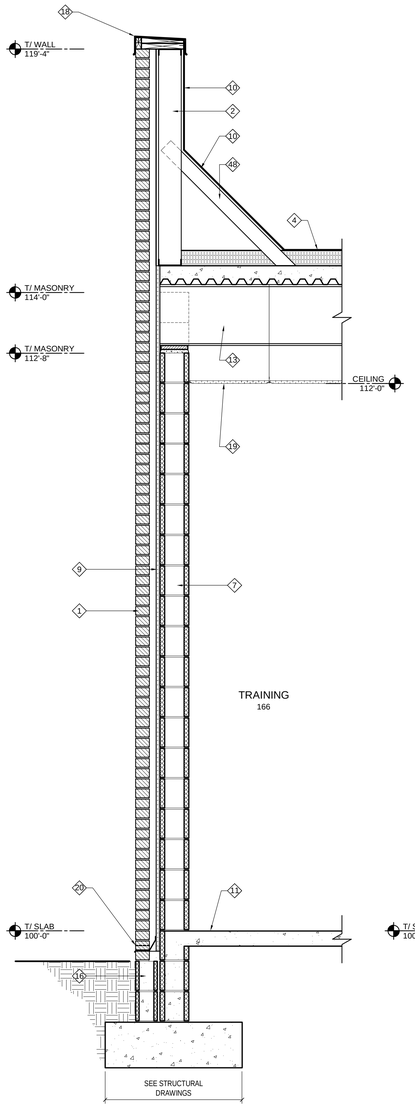


2 A5.6 WALL SECTION
SCALE: 3/4" = 1'-0"



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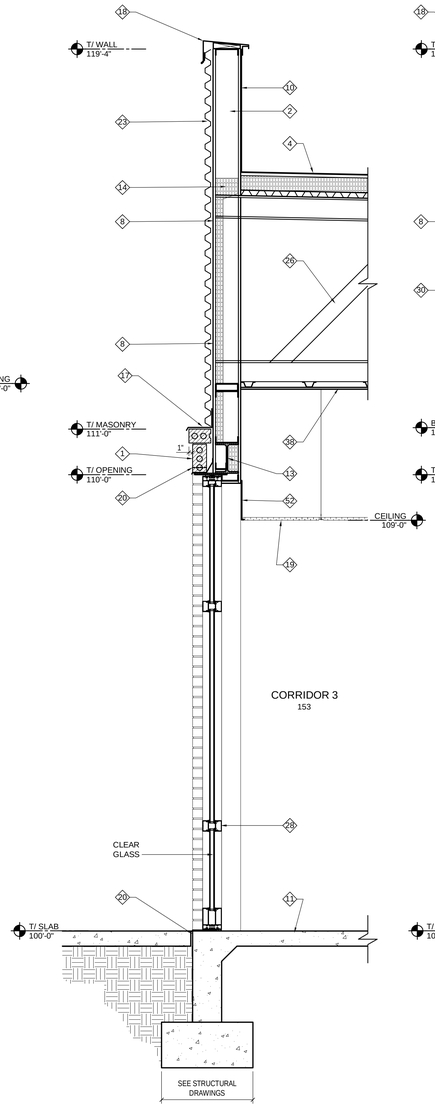

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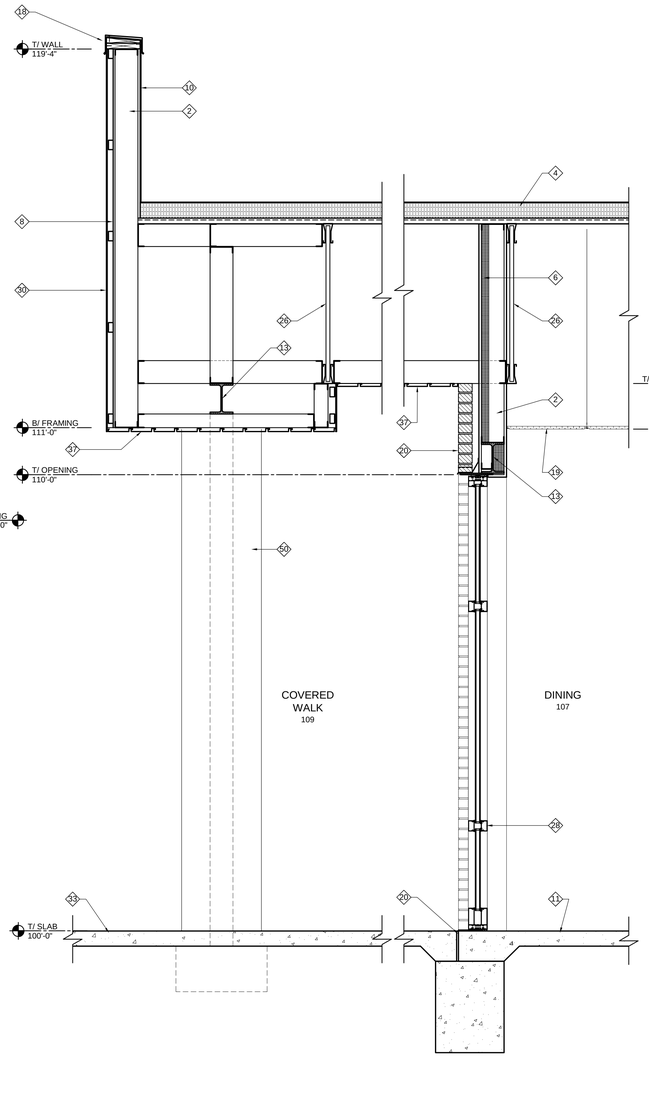

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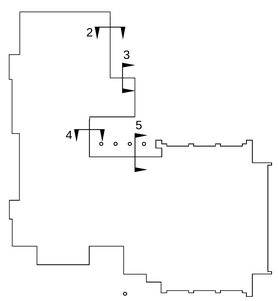

N 1 A5.6 KEY PLAN
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NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
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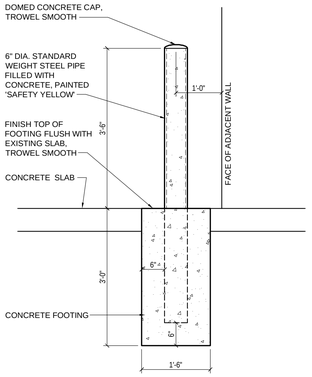
Drawing Title:

WALL SECTIONS

Sheet No:

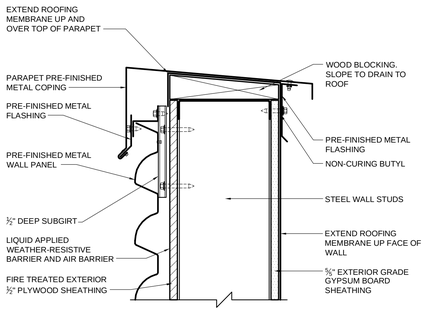
A5.6

CONFORMANCE DOCUMENTS



1 A5.7 PIPE BOLLARD

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



2 A5.7 PARAPET DETAIL

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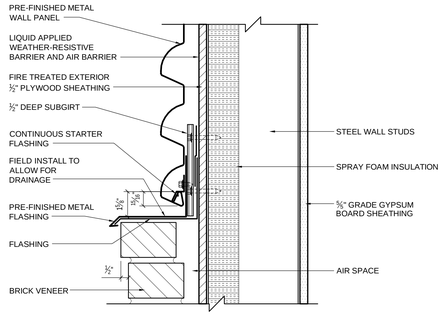

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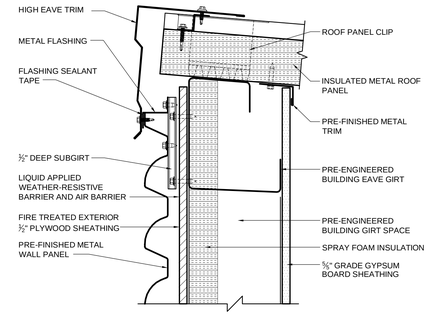


4 A5.7 EAVE DETAIL

SCALE: 3" = 1'-0"

5 A5.7 EAVE DETAIL

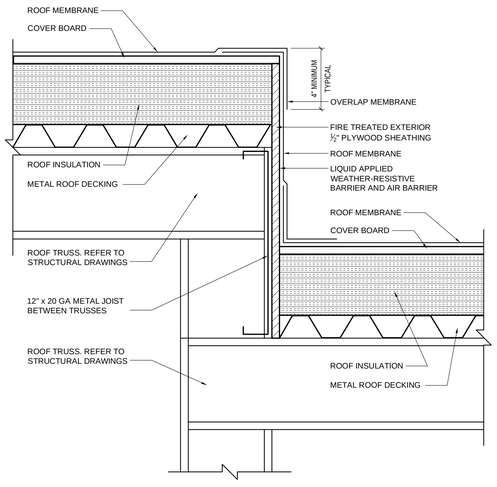
SCALE: 3" = 1'-0"

6 A5.7 OVERHANG DETAIL

SCALE: 3" = 1'-0"

7 A5.7 EXPANSION JOINT DETAIL

SCALE: 3" = 1'-0"



8 A5.7 ROOF STEP DETAIL

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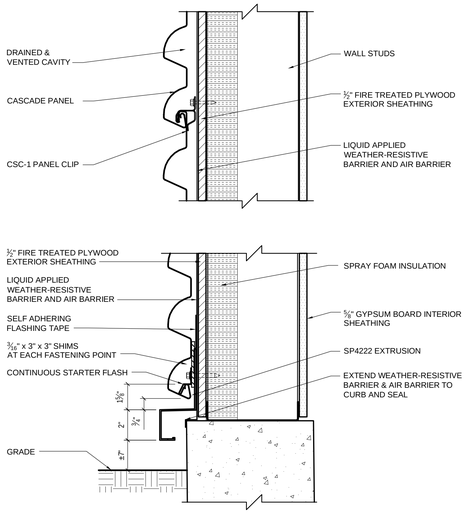

9 A5.7 METAL PANEL DETAIL

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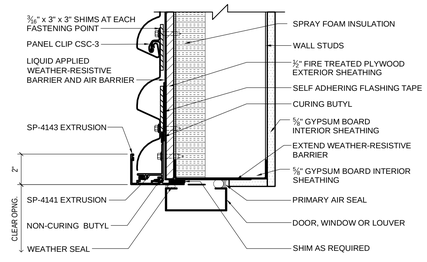

10 A5.7 METAL PANEL DETAIL

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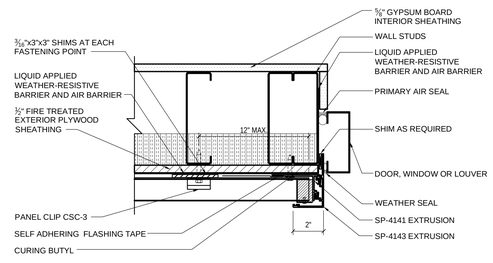

11 A5.7 METAL PANEL DETAIL

SCALE: 3" = 1'-0"

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REVISIONS

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Drawn By:	BDW
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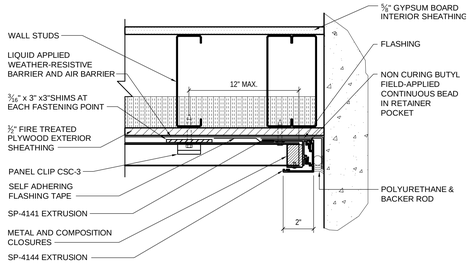
Drawing Title:

DETAILS

Sheet No:

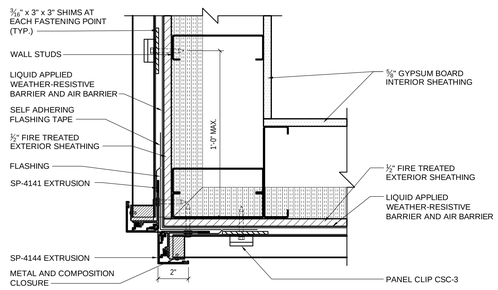
A5.7

CONFORMANCE DOCUMENTS



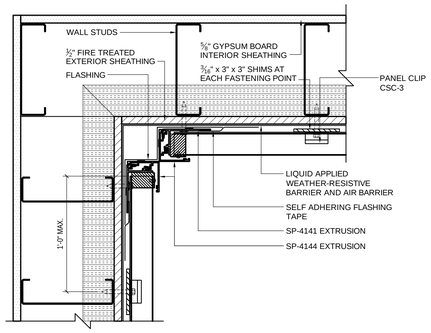
1 A5.8 METAL PANEL DETAIL

SCALE: 3" = 1'-0" — END WALL DETAIL



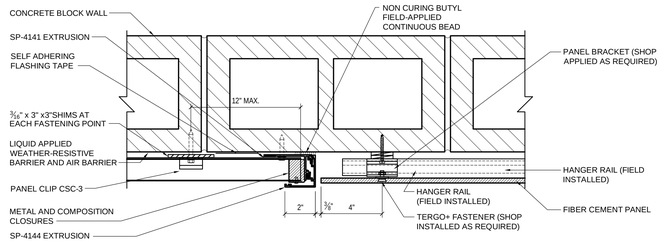
2 A5.8 METAL PANEL DETAIL

SCALE: 3" = 1'-0" — OUTSIDE CORNER DETAIL



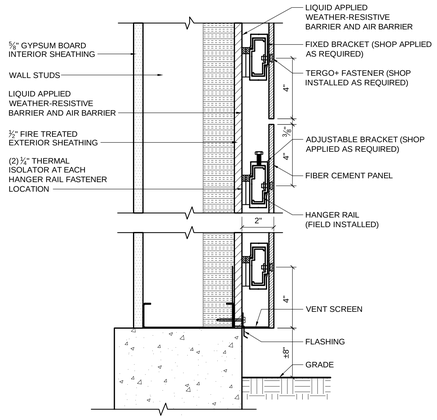
3 A5.8 METAL PANEL DETAIL

SCALE: 3" = 1'-0" — INSIDE CORNER DETAIL



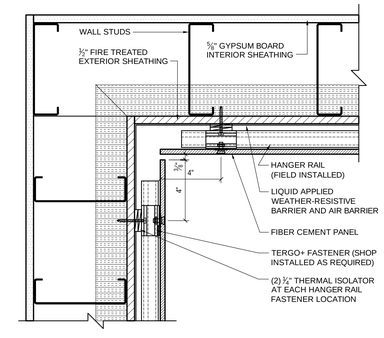
4 A5.8 PANEL TO PANEL DETAIL

SCALE: 3" = 1'-0" — TRANSITION DETAIL



5 A5.8 FIBER CEMENT PANEL DETAIL

SCALE: 3" = 1'-0" — HORIZONTAL JOINT & BASE DETAIL



6 A5.8 FIBER CEMENT PANEL DETAIL

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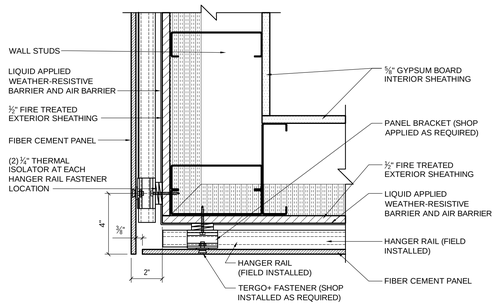
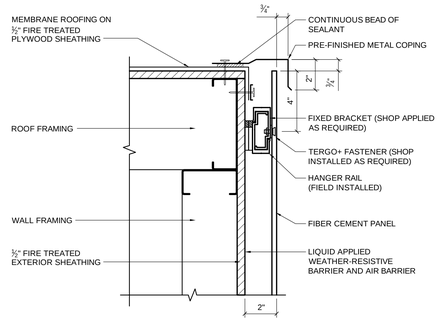


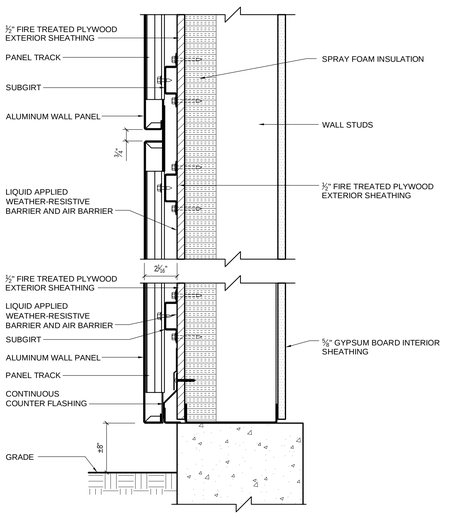
7 A5.8 FIBER CEMENT PANEL DETAIL

SCALE: 3" = 1'-0" — OUTSIDE CORNER DETAIL



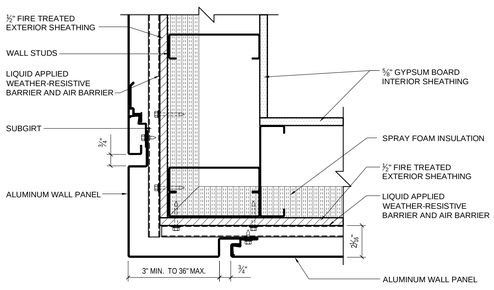
8 A5.8 FIBER CEMENT PANEL DETAIL

SCALE: 3" = 1'-0" — TOP OF WALL DETAIL



9 A5.8 ALUMINUM PANEL DETAIL

SCALE: 3" = 1'-0" — HORIZONTAL JOINT & BASE DETAIL



10 A5.8 ALUMINUM PANEL DETAIL

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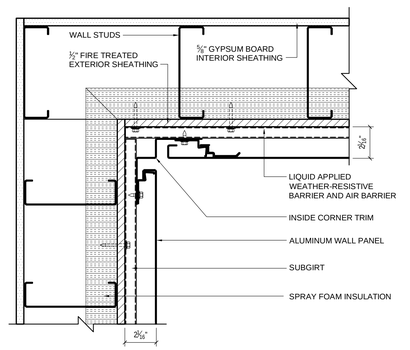
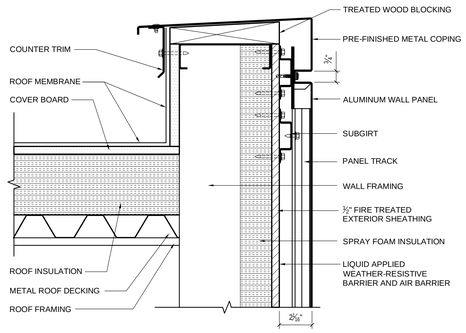


11 A5.8 ALUMINUM PANEL DETAIL

SCALE: 3" = 1'-0" — INSIDE CORNER DETAIL



12 A5.8 ALUMINUM PANEL DETAIL

SCALE: 3" = 1'-0" — PARAPET DETAIL

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STATE OF ALABAMA — REGISTERED ARCHITECTS
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RAY E. WILLIAMS 4239
JOHNNY B. RANES, III 7127

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

DETAILS

Sheet No:

A5.8

CONFORMANCE DOCUMENTS

DOOR SCHEDULE

MARK	DOOR			FRAME		FIRE RATING	SIGNAGE	DETAILS			REMARKS
	SIZE	TYPE	MATERIAL	TYPE	MATERIAL			HEAD	JAMB	SILL	
101	PR 3'-0" x 8'-0"	SF-1	S.F.	SF-A	S.F.			1/A6.5	2/A6.5		
102	3'-0" x 7'-0"	B	WOOD	C	H.M.		UNI-SEX TOILET	1/A6.4	2/A6.4	3/A6.4	
103	PR 3'-0" x 8'-0"	SF-1	S.F.	SF-B	S.F.			21/A6.4	22/A6.4		1
104	3'-0" x 7'-0"	B	WOOD	C	H.M.		STORAGE	1/A6.4 (sim.)	2/A6.4 (sim.)	3/A6.4 (sim.)	
105	3'-0" x 7'-0"	B	WOOD	C	H.M.		UNI-SEX TOILET	1/A6.4	2/A6.4	3/A6.4	
108	3'-0" x 7'-0"	B	WOOD	C	H.M.	45 MINUTES		1/A6.4	2/A6.4	3/A6.4	
109A	3'-0" x 7'-0"	SF-2	S.F.	SF-C	S.F.			13/A6.4	14/A6.4		
109B	3'-0" x 7'-0"	SF-2	S.F.	E	S.F.			5/A6.5	6/A6.5		
110	3'-0" x 7'-0"	B	WOOD	C	H.M.			1/A6.4 (sim.)	2/A6.4 (sim.)	3/A6.4 (sim.)	
111	3'-0" x 7'-0"	B	WOOD	C	H.M.		I.T.	1/A6.4 (sim.)	2/A6.4 (sim.)	3/A6.4 (sim.)	
112	3'-0" x 7'-0"	B	WOOD	SF-P	S.F.		COMMAND WATCH	1/A6.4	2/A6.4	3/A6.4	
113A	PR 3'-0" x 7'-0"	SF-5	S.F.	SF-D	S.F.			19/A6.4	20/A6.4		
113B	3'-0" x 7'-0"	G	GHM	B	GHM			7/A6.4	8/A6.4	9/A6.4	
113C	PR 7'-0" x 14'-0"	BD-1	SECTIONAL OVERHEAD								
113D	PR 7'-0" x 14'-0"	BD-1	SECTIONAL OVERHEAD								
113E	PR 7'-0" x 14'-0"	BD-1	SECTIONAL OVERHEAD								
113F	3'-0" x 7'-0"	G	GHM	B	GHM			11/A6.4	12/A6.4		
113G	3'-0" x 7'-0"	G	GHM	B	GHM			11/A6.4	12/A6.4		
113H	PR 7'-0" x 14'-0"	BD-1	SECTIONAL OVERHEAD								
113J	PR 7'-0" x 14'-0"	BD-1	SECTIONAL OVERHEAD								
113K	PR 7'-0" x 14'-0"	BD-1	SECTIONAL OVERHEAD								
113L	3'-0" x 7'-0"	G	GHM	B	GHM			11/A6.4	12/A6.4		
114	5'-0" x 8'-0"	F	ROLL UP DOOR				GEAR STORAGE	10/A6.4	11/A6.4		
115	PR 3'-0" x 7'-0"	E	GHM	A	GHM		LAUNDRY	4/A6.4	5/A6.4	6/A6.4	
116	3'-0" x 7'-0"	A	GHM	B	GHM		WASH ROOM	4/A6.4	5/A6.4	6/A6.4	
117	3'-0" x 7'-0"	A	GHM	B	GHM		UNI-SEX TOILET	4/A6.4	5/A6.4	6/A6.4	
118	3'-0" x 7'-0"	A	GHM	B	GHM		UNI-SEX TOILET	4/A6.4	5/A6.4	6/A6.4	
119	PR 3'-0" x 7'-0"	E	GHM	A	GHM		CASCADE	4/A6.4	5/A6.4	6/A6.4	
120	PR 3'-0" x 7'-0"	E	GHM	A	GHM		STORAGE	7/A6.4	8/A6.4	9/A6.4	2
121	3'-0" x 7'-0"	A	GHM	B	GHM		STORAGE	4/A6.4	5/A6.4	6/A6.4	
125A	3'-0" x 7'-0"	A	GHM	B	GHM		SUPPLY	4/A6.4	5/A6.4	6/A6.4	
125B	3'-0" x 7'-0"	A	GHM	B	GHM		SUPPLY	4/A6.4	5/A6.4	6/A6.4	
126	3'-0" x 7'-0"	SF-2	S.F.	SF-G	S.F.			13/A6.4	3/A6.5		
127A	3'-0" x 7'-0"	B	WOOD	SF-Z	S.F.		MEDIC OFFICE	1/A6.4	2/A6.4	3/A6.4	
128	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 1	1/A6.4	2/A6.4	3/A6.4	
129	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 2	1/A6.4	2/A6.4	3/A6.4	
130	3'-0" x 7'-0"	B	WOOD	C	H.M.			1/A6.4	2/A6.4	3/A6.4	
131A	3'-0" x 7'-0"	B	WOOD	SF-Z	S.F.		SUPPRESSION OFF.	1/A6.4	2/A6.4	3/A6.4	
132	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 3	1/A6.4	2/A6.4	3/A6.4	
133	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 4	1/A6.4	2/A6.4	3/A6.4	
134	3'-0" x 7'-0"	B	WOOD	C	H.M.			1/A6.4	2/A6.4	3/A6.4	
135	3'-0" x 7'-0"	B	WOOD	C	H.M.		JAN.	1/A6.4	2/A6.4	3/A6.4	
136	3'-0" x 7'-0"	B	WOOD	C	H.M.		BATTALION CHIEF	1/A6.4	2/A6.4	3/A6.4	
137	2'-6" x 7'-0"	B	WOOD	C	H.M.			1/A6.4	2/A6.4	3/A6.4	
138	3'-0" x 7'-0"	B	WOOD	C	H.M.			1/A6.4	2/A6.4	3/A6.4	
139	3'-0" x 7'-0"	B	WOOD	C	H.M.			1/A6.4	2/A6.4	3/A6.4	
140	3'-0" x 7'-0"	B	WOOD	C	H.M.	45 MINUTES		1/A6.4	2/A6.4	3/A6.4	
141	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 6	1/A6.4	2/A6.4	3/A6.4	
142	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 7	1/A6.4	2/A6.4	3/A6.4	
143	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 8	1/A6.4	2/A6.4	3/A6.4	
144	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 9	1/A6.4	2/A6.4	3/A6.4	
145	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 10	1/A6.4	2/A6.4	3/A6.4	
146	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 11	1/A6.4	2/A6.4	3/A6.4	
147	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 12	1/A6.4	2/A6.4	3/A6.4	
148	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 13	1/A6.4	2/A6.4	3/A6.4	
149	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 14	1/A6.4	2/A6.4	3/A6.4	
150	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 15	1/A6.4	2/A6.4	3/A6.4	
151	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 16	1/A6.4	2/A6.4	3/A6.4	
152	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 17	1/A6.4	2/A6.4	3/A6.4	
153	3'-0" x 7'-0"	B	WOOD	C	H.M.	45 MINUTES		1/A6.4	2/A6.4	3/A6.4	
155	3'-0" x 7'-0"	B	WOOD	C	H.M.		STORAGE	1/A6.4	2/A6.4	3/A6.4	
156A	3'-0" x 7'-0"	B	WOOD	C	GHM		SHOWERS	1/A6.4	2/A6.4	3/A6.4	
156B	3'-0" x 7'-0"	B	WOOD	C	GHM		TOILETS / SHOWERS	1/A6.4	2/A6.4	3/A6.4	
156D	2'-6" x 7'-0"	C	FIBERGLASS	D	FIBERGLASS			1/A6.4	2/A6.4	3/A6.4	
156E	2'-6" x 7'-0"	C	FIBERGLASS	D	FIBERGLASS			1/A6.4	2/A6.4	3/A6.4	
156F	2'-6" x 7'-0"	C	FIBERGLASS	D	FIBERGLASS			1/A6.4	2/A6.4	3/A6.4	
156G	3'-0" x 7'-0"	C	FIBERGLASS	D	FIBERGLASS			1/A6.4	2/A6.4	3/A6.4	
156H	2'-6" x 7'-0"	C	FIBERGLASS	D	FIBERGLASS			1/A6.4	2/A6.4	3/A6.4	
156I	2'-6" x 7'-0"	C	FIBERGLASS	D	FIBERGLASS			1/A6.4	2/A6.4	3/A6.4	
156J	3'-0" x 7'-0"	D	WOOD	D	GHM			1/A6.4	2/A6.4	3/A6.4	
156K	2'-6" x 7'-0"	D	WOOD	D	GHM			1/A6.4	2/A6.4	3/A6.4	
156L	2'-6" x 7'-0"	D	WOOD	D	GHM			1/A6.4	2/A6.4	3/A6.4	
156M	2'-6" x 7'-0"	D	WOOD	D	GHM			1/A6.4	2/A6.4	3/A6.4	
156N	3'-0" x 7'-0"	D	WOOD	D	GHM			1/A6.4	9/A6.5	3/A6.4	
156O	2'-6" x 7'-0"	D	WOOD	D	GHM			1/A6.4	2/A6.4	3/A6.4	
156P	2'-6" x 7'-0"	D	WOOD	D	GHM			1/A6.4	2/A6.4	3/A6.4	
156Q	2'-6" x 7'-0"	D	WOOD	D	GHM			1/A6.4	2/A6.4	3/A6.4	
157	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 18	1/A6.4	2/A6.4	3/A6.4	
158	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 19	1/A6.4	2/A6.4	3/A6.4	
159	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 20	1/A6.4	2/A6.4	3/A6.4	
160	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 21	1/A6.4	2/A6.4	3/A6.4	
161	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 22	1/A6.4	2/A6.4	3/A6.4	
162	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 23	1/A6.4	2/A6.4	3/A6.4	
163	3'-0" x 7'-0"	B	WOOD	C	H.M.		BUNK 24	1/A6.4	2/A6.4	3/A6.4	
164	3'-0" x 7'-0"	B	WOOD	C	H.M.		UNI-SEX TOILET	1/A6.4	2/A6.4	3/A6.4	
165	3'-0" x 7'-0"	B	WOOD	C	H.M.	45 MINUTES	UNI-SEX TOILET	1/A6.4	2/A6.4	3/A6.4	
166	PR 3'-0" x 7'-0"	E	H.M.	A	H.M.	20 MINUTES	TRAINING	7/A6.5	8/A6.5		

DOOR SCHEDULE

MARK	DOOR			FRAME		FIRE RATING	SIGNAGE	DETAILS			REMARKS
	SIZE	TYPE	MATERIAL	TYPE	MATERIAL			HEAD	JAMB	SILL	
167	3'-0" x 7'-0"	A	H.M.	B	H.M.		STORAGE	4/A6.4	5/A6.4	6/A6.4	
168	3'-0" x 7'-0"	G	GHM	B	GHM			5/A6.5	6/A6.5		
169	3'-0" x 7'-0"	B	WOOD	C	H.M.		STORAGE	1/A6.4	2/A6.4	3/A6.4	
170	3'-6" x 7'-0"	B	GHM	B	GHM		ELECTRICAL	5/A6.5	6/A6.5		2
171	3'-0" x 7'-0"	B	WOOD	C	H.M.		I.T.	1/A6.4	2/A6.4	3/A6.4	
172	PR 3'-0" x 7'-0"	E	H.M.	G	H.M.		MECHANICAL	1/A6.4	2/A6.4	3/A6.4	
173A	3'-0" x 7'-0"	SF-2	S.F.	SF-H	S.F.			1/A6.5	4/A6.5		
173B	3'-0" x 7'-0"	SF-2	S.F.	SF-J	S.F.			21/A6.4	22/A6.4		1
174A	3'-0" x 7'-0"	B	WOOD	C	H.M.		MEETING ROOM	1/A6.4	2/A6.4	3/A6.4	
174B	3'-0" x 7'-0"	B	WOOD	C	H.M.		MEETING ROOM	1/A6.4	2/A6.4	3/A6.4	
175	3'-0" x 7'-0"	B	WOOD	C	H.M.			1/A6.4	2/A6.4	3/A6.4	
176A	3'-0" x 7'-0"	B	WOOD	C	H.M.			1/A6.4	2/A6.4	3/A6.4	
176B	3'-0" x 7'-0"	B	WOOD	C	H.M.		OFFICE	1/A6.4	2/A6.4	3/A6.4	
177A	3'-0" x 7'-0"	B	WOOD	C	H.M.			1/A6.4	2/A6.4	3/A6.4	
177B	3'-0" x 7'-0"	B	WOOD	C	H.M.			1/A6.4	2/A6.4	3/A6.4	
178	3'-0" x 7'-0"	B	WOOD	C	H.M.		UNI-SEX TOILET	1/A6.4	2/A6.4	3/A6.4	
180	PR 3'-0" x 7'-0"	E	WOOD	G	H.M.		STORAGE	1/A6.4	2/A6.4	3/A6.4	
181	3'-0" x 7'-0"	A	GHM	B	GHM		MECHANICAL	7/A6.4	8/A6.4	9/A6.4	2

REMARKS:

1. GLAZING WILL BE G6 AT THESE DOORS AND FRAMES
2. PROVIDE SIGNAGE "NO BUILDING ACCESS"

ABBREVIATIONS:

FRP	FIBERGLASS REINFORCED PANEL
GHM	GALVANIZED HOLLOW METAL, PAINTED
H.M.	HOLLOW METAL, PAINTED
PR	PAIR OF DOORS
S.F.	STOREFRONT - ANODIZED ALUMINUM
WOOD	WOOD, PAINTED OR STAINED

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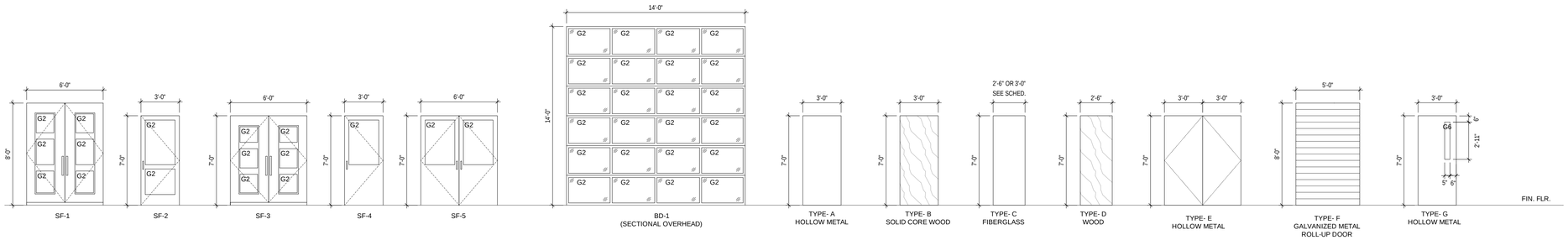
DOOR SCHEDULE

Sheet No:

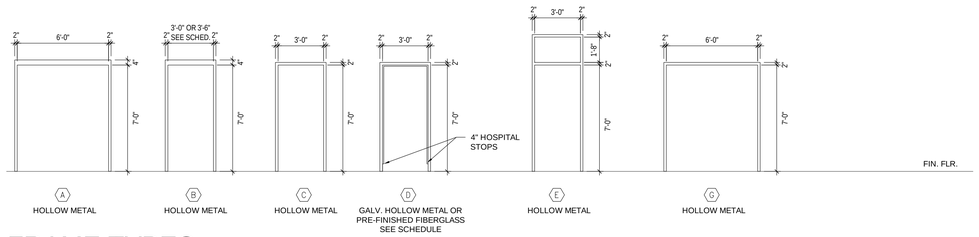
A6.1

CONFORMANCE DOCUMENTS



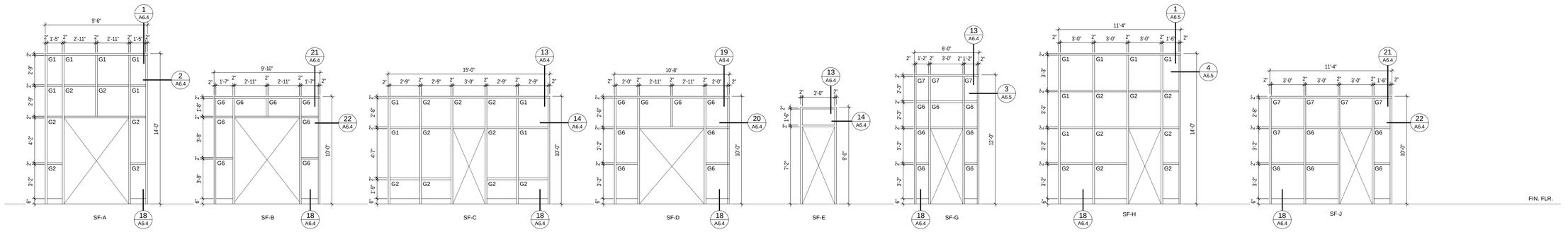
DOOR TYPES

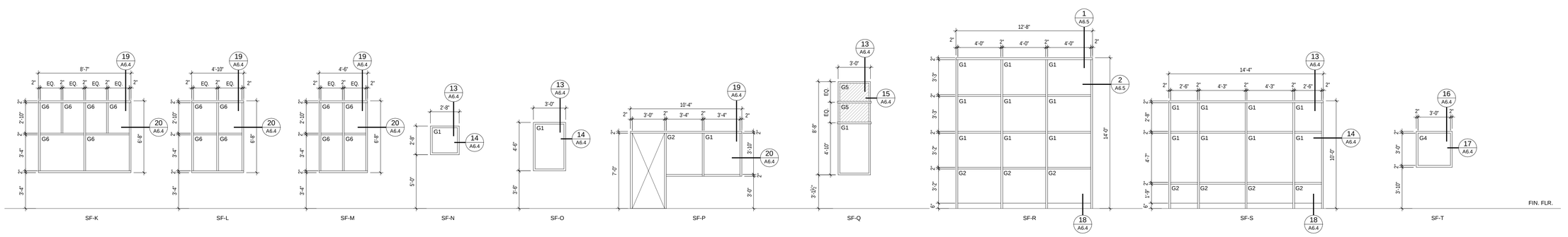
SCALE: 1/4"=1'-0"

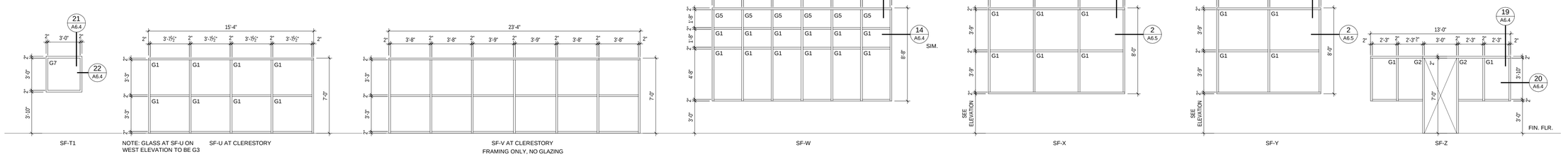


FRAME TYPES

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







STOREFRONT TYPES

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

GENERAL NOTES

1. REFER TO SPECIFICATIONS FOR DESCRIPTIONS OF FINISH MATERIALS.

GLAZING SCHEDULE

G1 1" TINTED INSULATED GLAZING (LOW E)
G2 1" TINTED TEMPERED & INSULATED GLAZING (LOW E)
G3 1" 50% TINTED INSULATED GLAZING
G4 1" INSULATED IMPACT RESISTANT (POLYCARBONATE)
G5 SPANDREL GLASS
G6 1/4" CLEAR TEMPERED GLASS
G7 1/4" CLEAR PLATE GLASS

DOOR HARDWARE

REFER TO SPECIFICATION SECTION 087100

DOOR & WINDOW NOTES

1. INSTALL FIRE TREATED WOOD BLOCKING AT ALL WALL MOUNTED DOOR STOP LOCATIONS.
2. ALL THUMB TURNS SHALL BE LEVER TYPE.
3. EGRESS DOORS: ALL EGRESS DOORS SHALL BE READILY OPERABLE FROM THE SIDE FROM WHICH EGRESS WILL BE MADE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
4. ALL INTERIOR WOOD DOORS TO BE FACTORY STAINED UNLESS NOTED OTHERWISE.
5. ALL HOLLOW METAL DOORS TO BE PAINTED, UNLESS NOTED OTHERWISE.
6. ALL ALUMINUM DOORS TO BE ANODIZED
7. GLAZING CONTRACTOR TO VERIFY DOOR & GLAZED FRAME SIZES IN THE FIELD, TYPICAL ALL LOCATIONS.
8. GLAZING NOTES: GLAZING CONTRACTOR TO VERIFY COMPLIANCE WITH ALL APPLICABLE DESIGN STANDARDS AND GOVERNING CODES. IN REGARDS TO WIND LOADS, ETC. ALL GLAZING SHALL COMPLY WITH THE SAFETY GLAZING REQUIREMENTS OF CODES HAVING JURISDICTION. PROVIDE TEMPERED GLASS IN ALL LOCATIONS REQUIRED BY CODE, TYPICAL ALL LOCATIONS.
9. HARDWARE SUPPLIER SHALL CONSULT OWNER FOR KEYING AND LOCK FUNCTIONS.
10. HARDWARE SUPPLIER TO PROVIDE ALL NECESSARY ITEMS FOR A COMPLETE & FUNCTIONAL DOOR OPENING ASSEMBLY.
11. COORDINATE CARD READER AND DOOR CONTROL LOCATIONS WITH OWNER.
12. PROVIDE SOLID SURFACE WINDOW SILLS & APRONS AT ALL WINDOWS OR STOREFRONT THAT DO NOT EXTEND TO FLOOR.

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Drawing Title:

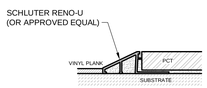
DOOR AND WINDOW ELEVATIONS

Sheet No:

A6.2

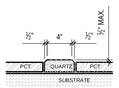
CONFORMANCE DOCUMENTS

FLOOR MATERIAL TRANSITION DETAILS



VINYL PLANK TO TILE

1 A6.3 DETAIL
SCALE: NONE



ADA QUARTZ THESHOLD

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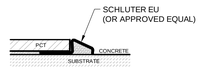

PCT TO CONCRETE

3 A6.3 DETAIL
SCALE: NONE

VINYL PLANK TO CONCRETE

4 A6.3 DETAIL
SCALE: NONE

PCT OUTSIDE CORNER

5 A6.3 DETAIL
SCALE: NONE

PCT INSIDE CORNER
(VERTICAL)

6 A6.3 DETAIL
SCALE: NONE

GENERAL NOTES

1. ALL EXPOSED CONCRETE MASONRY UNITS TO BE PAINTED.
2. ALL EXPOSED GYPSUM BOARD TO BE PAINTED.
3. ALL FLOOR TRANSITIONS BY:
   SCHLUTER-SYSTEMS, L.P.
   194 PLEASANT RIDGE ROAD PLATTSBURGH, NEW YORK 12901
   PHONE 888-472-4588 WWW.SCHLUTER.COM
4. ALL SCHLUTER TRIM TO BE ALUMINUM.
5. VERIFY ALL MATERIAL THICKNESSES PRIOR TO ORDERING TRANSITIONS. ALL THRESHOLDS MUST BE ADA COMPLIANT.
6. ALL EXPOSED CEILINGS SHALL BE PAINTED, INCLUDING STRUCTURAL, MECHANICAL AND ELECTRICAL COMPONENTS.
7. GYPSUM BOARD CEILINGS SHALL BE SUSPENDED FROM STRUCTURE ABOVE WITH METAL SUSPENSION SYSTEMS.
8. ALL GYPSUM BOARD AT WET LOCATIONS (TOILETS, SHOWERS, BATH & JANITOR) SHALL BE MOLD & MOISTURE RESISTANT. REFER TO REFLECTED CEILING PLAN, SHEET A2.1.

FINISH SCHEDULE

RM. NO.	RM. NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
101	PUBLIC LOBBY	PCT	RUBBER	GB	ACOUSTICAL	3
102	TOILET	PCT	PCT	GB / PCT	GB	
103	VESTIBULE	LVT	RUBBER	GB / MP (WHERE NOTED)	GB / EXPOSED	
104	STORAGE	LVT	RUBBER	GB	GB	3
105	TOILET	PCT	PCT	GB / PCT	GB	
106	LOUNGE	LVT	RUBBER	GB / MP (WHERE NOTED)	ACOUSTICAL	
107	DINING	LVT	RUBBER	GB / MP (WHERE NOTED)	GB / ACOUSTICAL	
108	KITCHEN	LVT	RUBBER	GB / MP	GB / ACOUSTICAL	
109	COVERED WALK	SEALED CONCRETE	-	-	METAL SOFFIT	
110	PANTRY	LVT	RUBBER	GB	ACOUSTICAL	
111	I.T.	LVT	RUBBER	GB	ACOUSTICAL	
112	COMMAND WATCH	LVT	RUBBER	CMU / GB	ACOUSTICAL	
113	APPARATUS BAY	EPOXY COATING	EPOXY COATING	CMU / GB / MP	EXPOSED	
114	BOOTS	EPOXY COATING	EPOXY COATING	CMU	EXPOSED	
115	EXTRACTOR / LAUNDRY	EPOXY COATING	EPOXY COATING	CMU	EXPOSED	
116	WASH ROOM	EPOXY COATING	EPOXY COATING	CMU	EXPOSED	
117	TOILET	PCT	PCT	CMU	ACOUSTICAL	2
118	TOILET	PCT	PCT	CMU	ACOUSTICAL	2
119	CASCADE ROOM	EPOXY COATING	EPOXY COATING	CMU	EXPOSED	
120	STORAGE	SEALED CONCRETE	NONE	CMU	GB	4
121	STORAGE	SEALED CONCRETE	NONE	CMU	GB	
122	NOT USED					
123	NOT USED					
124	NOT USED					
125	STORAGE	LVT	RUBBER	CMU	GB	4
126	CORRIDOR 1	LVT	RUBBER	GB / MP (WHERE NOTED)	GB	
127A	MEDIC OFFICE	LVT	RUBBER	GB	ACOUSTICAL	
127B	HALL	LVT	RUBBER	GB	ACOUSTICAL	
128	BUNK 1	LVT	RUBBER	GB	ACOUSTICAL	
129	BUNK 2	LVT	RUBBER	GB	ACOUSTICAL	
130	BATH	PCT	PCT	GB / PCT	ACOUSTICAL	1, 2
131A	SUPPRESSION OFFICE	LVT	RUBBER	GB	ACOUSTICAL	
131B	HALL	LVT	RUBBER	GB	ACOUSTICAL	
132	BUNK 3	LVT	RUBBER	GB	ACOUSTICAL	
133	BUNK 4	LVT	RUBBER	GB	ACOUSTICAL	
134	BATH	PCT	PCT	GB / PCT	ACOUSTICAL	1, 2
135	STORAGE	SEALED CONCRETE	RUBBER	GB / PCT	ACOUSTICAL	
136	BATTALION CHIEF	LVT	RUBBER	GB	ACOUSTICAL	
137	STORAGE	PCT	PCT	GB / PCT	ACOUSTICAL	
138	BUNK 5	LVT	RUBBER	GB	ACOUSTICAL	
139	BATH	PCT	PCT	GB / PCT	ACOUSTICAL	1, 2
140	CORRIDOR 2	LVT	RUBBER	GB / MP (WHERE NOTED)	ACOUSTICAL	
141	BATT. CHIEF / BUNK 6	LVT	RUBBER	GB	ACOUSTICAL	
142	BUNK 7	LVT	RUBBER	GB	ACOUSTICAL	
143	BUNK 8	LVT	RUBBER	GB	ACOUSTICAL	
144	BUNK 9	LVT	RUBBER	GB	ACOUSTICAL	
145	BUNK 10	LVT	RUBBER	GB	ACOUSTICAL	
146	BUNK 11	LVT	RUBBER	GB	ACOUSTICAL	
147	BUNK 12	LVT	RUBBER	GB	ACOUSTICAL	
148	BUNK 13	LVT	RUBBER	GB	ACOUSTICAL	
149	BUNK 14	LVT	RUBBER	GB	ACOUSTICAL	
150	BUNK 15	LVT	RUBBER	GB	ACOUSTICAL	
151	BUNK 16	LVT	RUBBER	GB	ACOUSTICAL	
152	BUNK 17	LVT	RUBBER	GB	ACOUSTICAL	
153	CORRIDOR 3	LVT	RUBBER	GB / MP (WHERE NOTED)	ACOUSTICAL	
154	CORRIDOR 4	LVT	RUBBER	GB / MP (WHERE NOTED)	GB	
155	STORAGE	LVT	RUBBER	GB	ACOUSTICAL	
156A	COMMON BATH	RESINOUS	RESINOUS	GB / PCT	GB	
156B	COMMON BATH	RESINOUS	RESINOUS	GB / PCT	ACOUSTICAL	
157	BUNK 18	LVT	RUBBER	GB	ACOUSTICAL	
158	BUNK 19	LVT	RUBBER	GB	ACOUSTICAL	
159	BUNK 20	LVT	RUBBER	GB	ACOUSTICAL	
160	BUNK 21	LVT	RUBBER	GB	ACOUSTICAL	
161	BUNK 22	LVT	RUBBER	GB	ACOUSTICAL	
162	BUNK 23	LVT	RUBBER	GB	ACOUSTICAL	
163	BUNK 24	LVT	RUBBER	GB	ACOUSTICAL	
164	BATH	PCT	PCT	GB / PCT	ACOUSTICAL	1, 2
165	BATH	PCT	PCT	GB / PCT	ACOUSTICAL	1, 2
166	TRAINING ROOM	LVT	RUBBER	CMU - PAINTED	ACOUSTICAL	
167	EQUIP. STORAGE	LVT	RUBBER	GB / CMU	ACOUSTICAL	
168	CORRIDOR 5	LVT	RUBBER	GB / MP (WHERE NOTED)	ACOUSTICAL	
169	STORAGE	LVT	RUBBER	GB	ACOUSTICAL	
170	ELECT.	SEALED CONCRETE	RUBBER	GB / CMU	EXPOSED	
171	I.T.	SEALED CONCRETE	RUBBER	GB	ACOUSTICAL	
172	MECH. / JAN.	SEALED CONCRETE	RUBBER	GB	ACOUSTICAL	
173	VESTIBULE	LVT	RUBBER	GB / MP	GB	
174	MEETING / CLASSROOM	LVT	RUBBER	GB / MP (WHERE NOTED)	EXPOSED	
175	OFFICE	LVT	RUBBER	GB	ACOUSTICAL	
176	OFFICE	LVT	RUBBER	GB	ACOUSTICAL	
177	VEST.	LVT	RUBBER	GB	GB	
178	TOILET	PCT	PCT	GB / PCT	GB	3
179	BREAK	PCT	PCT	GB / PCT	GB	
180	STORAGE	LVT	RUBBER	GB	ACOUSTICAL	
181	MECH.	SEALED CONCRETE	-	CMU	EXPOSED	

ABBREVIATIONS

ACOUSTICAL	ACOUSTICAL CEILING TILES IN METAL GRID
CMU	CONCRETE MASONRY UNITS, PAINTED OR SEALED
FRP	FIBERGLASS REINFORCED PANELS
GB	GYPSUM BOARD, PAINTED
LVT	LUXURY VINYL TILE
MP	PRE-FINISHED METAL PANELS
MRGB	MOISTURE RESISTANT GYPSUM BOARD
PCT	PORCELAIN CERAMIC TILE
RESINOUS	RESINOUS FLOORING SYSTEM & BASE
RUBBER	COVE RUBBER BASE
SEALED	CONCRETE SEALER

REMARKS

1. FULL HEIGHT 12" x 24" PCT AT PLUMBING WALL. OTHER WALLS TO BE PAINTED GYPSUM BOARD.
2. FULL HEIGHT 12" x 24" PCT AT SHOWER WALL AND 2" x 2" MOSAIC TILE AT SHOWER FLOORS.
3. PCT AT ALL FOUR WALLS.
4. PROVIDE MOLD & MOISTURE RESISTANT GYPSUM BOARD.

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Montgomery, AL 36104

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DART W. DAVIS 2767
RAY E. WILLIAMS 4239
JOHNNY B. RANES, III 7127
REGISTERED ARCHITECTS

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

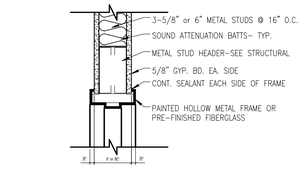
Drawing Title:

ROOM FINISH SCHEDULE

Sheet No:

A6.3

CONFORMANCE DOCUMENTS



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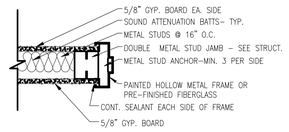

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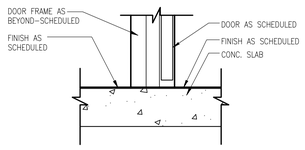

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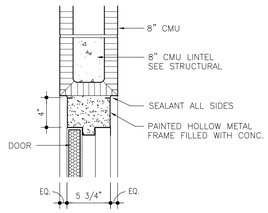

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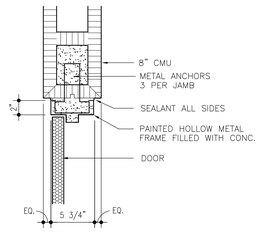

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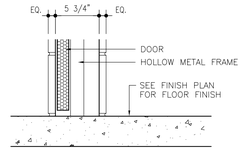

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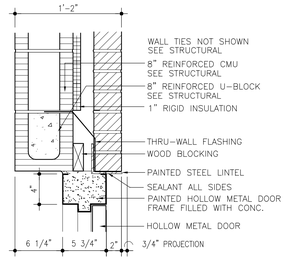

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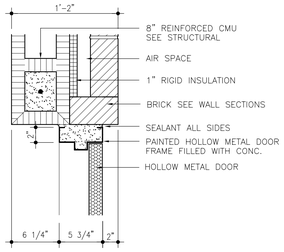

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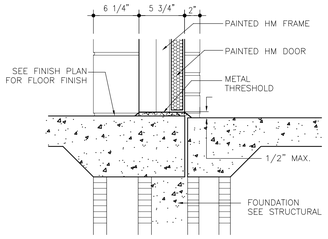

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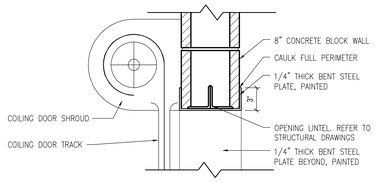

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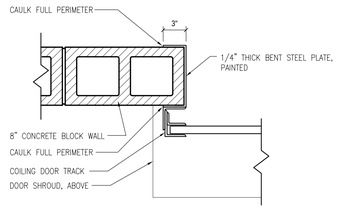

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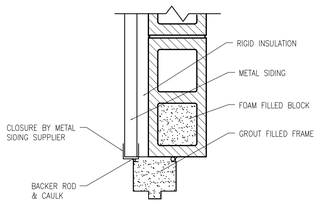

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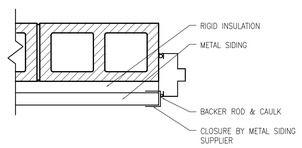

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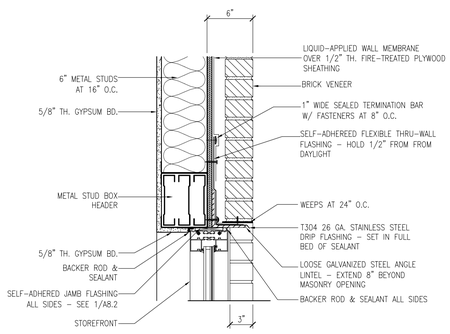

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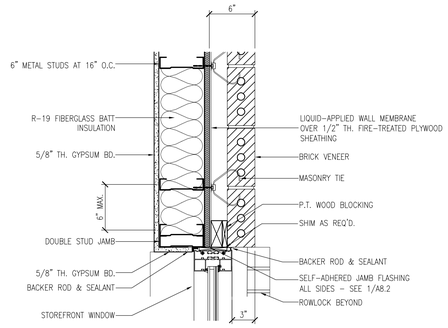

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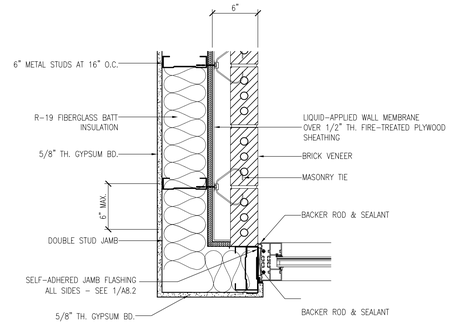

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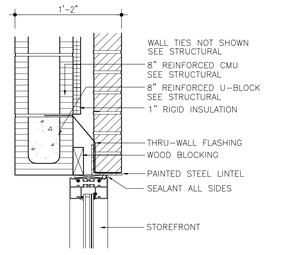

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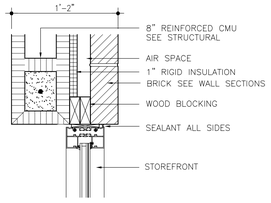

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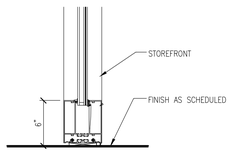

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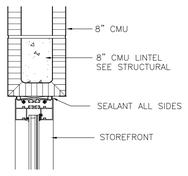

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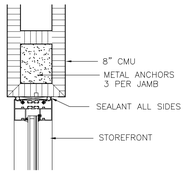

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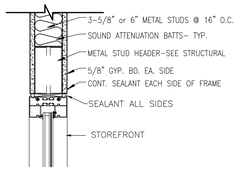

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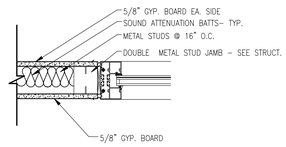

22 A6.4 **JAMB DETAIL**
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7127

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

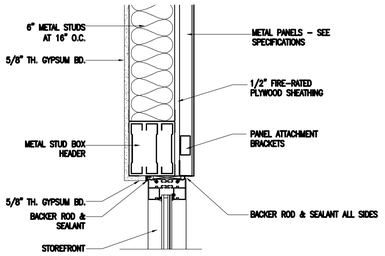
Drawing Title:

HEAD, JAMB &
SILL DETAILS

Sheet No:

A6.4

CONFORMANCE
DOCUMENTS



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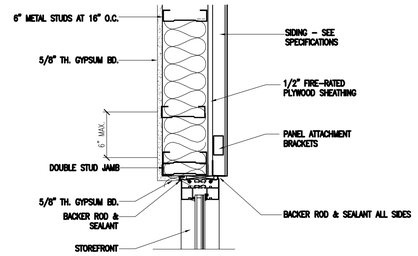

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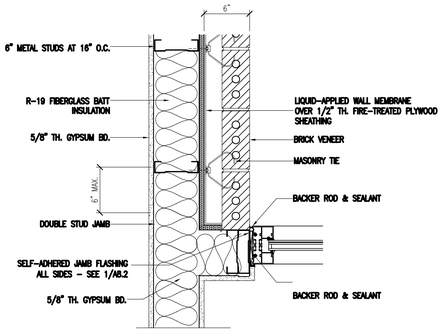

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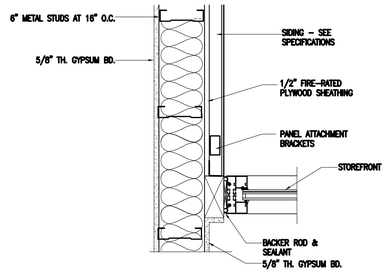

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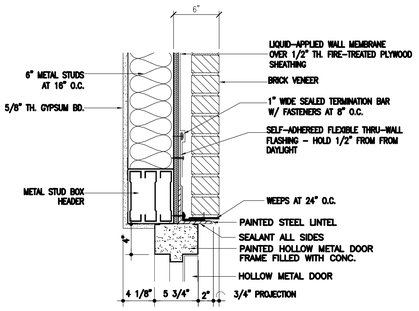

5 A6.5 HEAD DETAIL
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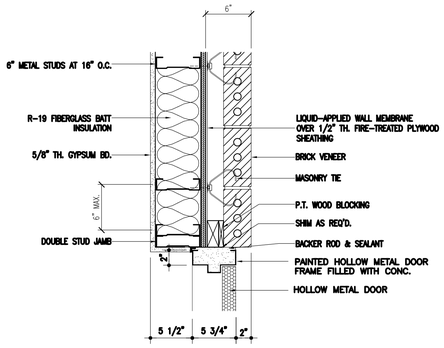

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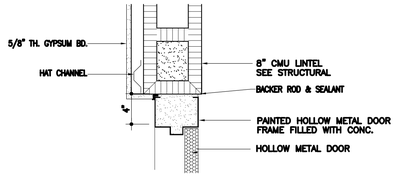

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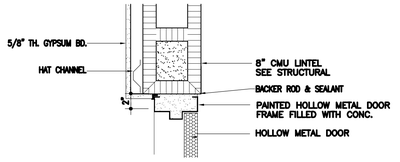

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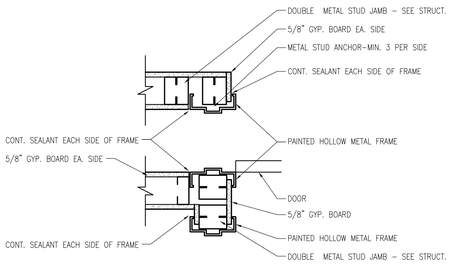

9 A6.5 JAMB DETAIL
SCALE: 1 1/2"=1'-0"

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NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

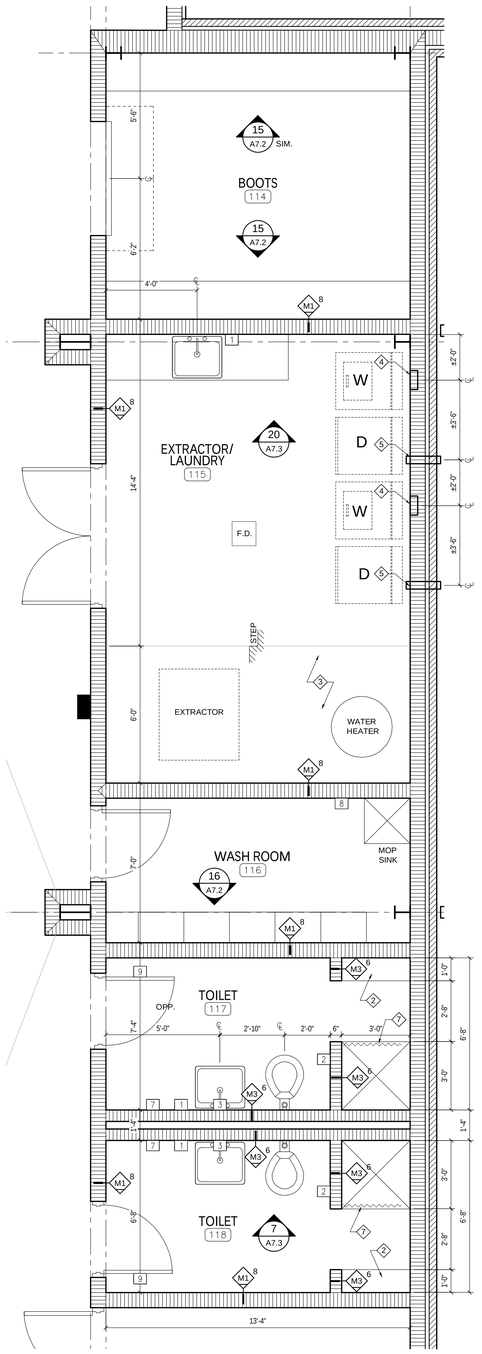
Drawing Title:

HEAD, JAMB & SILL DETAILS

Sheet No:

A6.5

CONFORMANCE DOCUMENTS



1 A7.1 FLOOR PLAN
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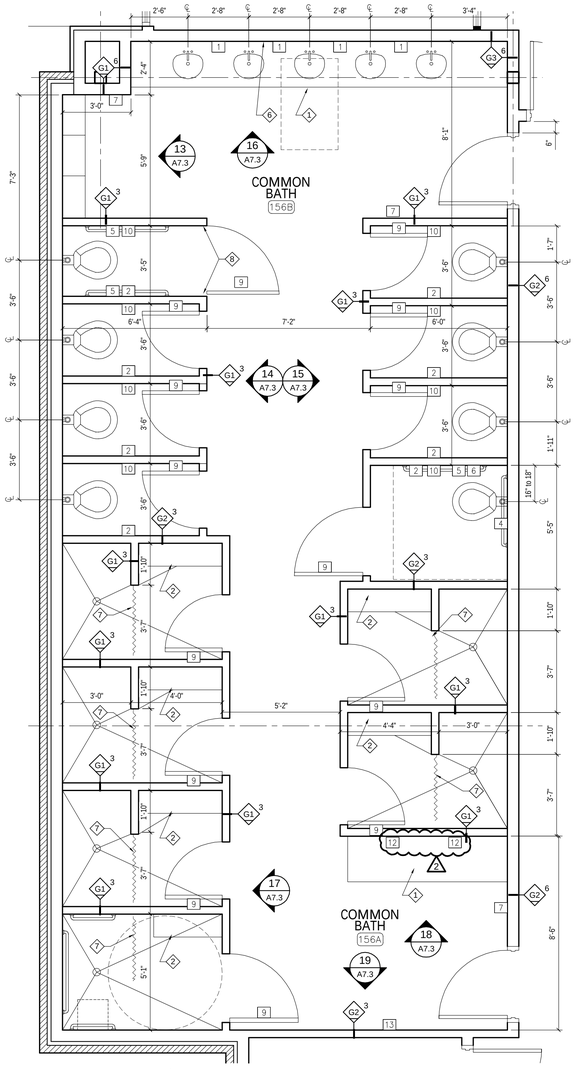

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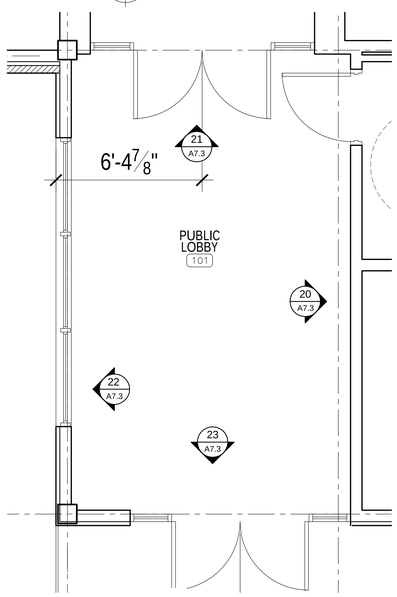

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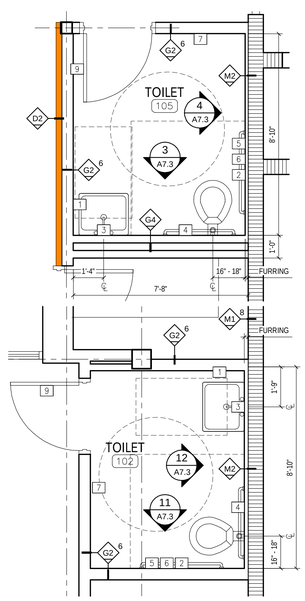

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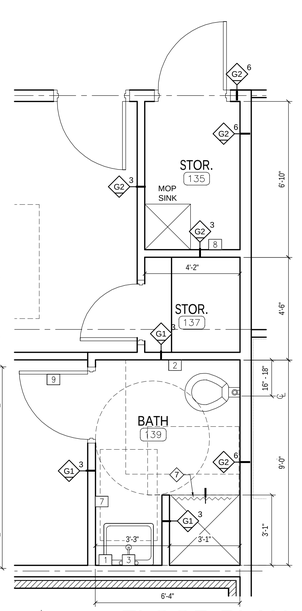

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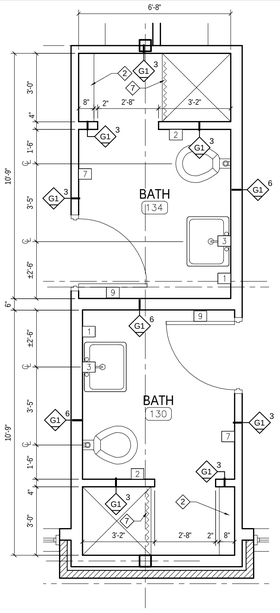

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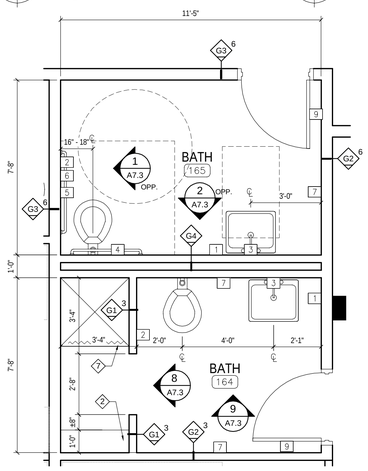

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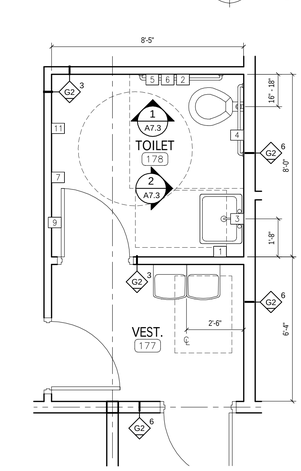


7 A7.1 FLOOR PLAN
SCALE: 3/8"=1'-0"

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
2. CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES AND OBTAIN OWNER APPROVAL FOR ANY CHANGES.
3. REFER TO SPECIFICATIONS FOR DESCRIPTIONS OF FINISH MATERIALS.
4. REFER TO SHEET A0.2 FOR WALL TYPE DESCRIPTIONS.

TYPICAL ADA PLUMBING ELEMENTS AND FACILITIES

DRINKING FOUNTAINS:
1. SPOUT HEIGHT : SPOUT OUTLETS SHALL BE 36 INCHES MAXIMUM ABOVE FINISH FLOOR.
2. SPOUT LOCATION : THE SPOUT SHALL BE LOCATED 15 INCHES MINIMUM FROM THE VERTICAL SUPPORT AND 5 INCHES MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
3. WATER FLOW : THE SPOUT SHALL PROVIDE A FLOW OF WATER 4 INCHES HIGH MINIMUM AND SHALL BE LOCATED 5 INCHES MAXIMUM FROM THE FRONT OF THE UNIT. THE ANGLE OF WATER STREAM SHALL BE MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE UNIT. WHERE THE SPOUTS ARE LOCATED LESS THAN 3 INCHES OF THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE SPOUTS ARE LOCATED BETWEEN 3 INCHES AND 5 INCHES MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.
4. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38 INCHES MINIMUM AND 43 INCHES MAXIMUM ABOVE THE FINISH FLOOR OF GROUND .

MIRRORS:
1. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 40 INCHES MAXIMUM ABOVE THE FINISH FLOOR. MIRRORS NOT LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

COAT HOOKS AND SHELVES:
1. COAT HOOKS SHALL BE LOCATED 47" MAXIMUM ABOVE FINISH FLOOR. SHELVES SHALL BE LOCATED 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FINISH FLOOR.

WATER CLOSETS
1. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16 INCHES TO 18 INCHES MAXIMUM FROM "FINISHED" FACE OF WALL
2. THE SEAT HEIGHT OF A WATER CLOSET ABOVE THE FINISH FLOOR SHALL BE 17 INCHES MINIMUM AND 19 INCHES MAXIMUM TO THE TOP OF THE SEAT. SEAT SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION.

GRAB BARS AT WATER CLOSET:
1. SIDE WALL : THE SIDE WALL GRAB BAR SHALL BE 42 INCHES LONG MINIMUM, LOCATED 12 INCHES MAXIMUM FROM THE REAR WALL AND EXTENDING 54 INCHES MINIMUM FROM THE REAR WALL.
2. REAR WALL : THE REAR WALL GRAB BAR SHALL BE 36 INCHES LONG AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12 INCHES MINIMUM ON ONE SIDE AND 24 INCHES MINIMUM ON THE OTHER SIDE.
3. GRAB BARS AND ANY WALL OR OTHER SURFACES ADJACENT TO GRAB BARS SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES.
4. STRUCTURAL STRENGTH: ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.

FLUSH CONTROLS:
1. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.

DISPENSERS:
1. TOILET PAPER DISPENSERS SHALL BE 7 INCHES MINIMUM AND 9 INCHES MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15 INCHES AND 48 INCHES MAXIMUM ABOVE THE FINISHED FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS.

LAVATORIES:
1. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER OF THE RIM OR COUNTER SURFACE 33 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

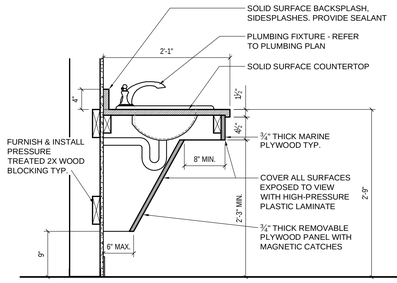
NOTE: PROVIDE SOLID WOOD BLOCKING IN WALL BEHIND ALL GRAB BARS AND TOILET ACCESSORIES.

KEYNOTES

1. COUNTERTOP CASEWORK. REFER TO DETAIL A/A7.1
2. STAINLESS STEEL SHOWER BENCH
3. RAISED CONCRETE FLOOR. REFER TO STRUCTURAL PLANS
4. PROVIDE GUY-GRAY BOX FOR WASHING MACHINE CONNECTION. REFER TO PLUMBING PLANS
5. PROVIDE THRU-WALL DRYER EXHAUST CONNECTION. REFER TO MECHANICAL PLANS
6. 42" HIGH x FULL WIDTH PLATE GLASS MIRROR
7. PROVIDE ROD & SHOWER CURTAIN
8. SEE JAMB DETAIL 9/A6.5

TOILET ACCESSORY INDEX

SYMBOL	ACCESSORY	MOUNTING HEIGHT
1	WALL MOUNTED SOAP DISPENSER	40" TO DISPENSING MECHANISM
2	TOILET TISSUE DISPENSER (SURFACE-MOUNTED)	28" AFF TO TOP OF UNIT
3	PLATE GLASS MIRROR 42" HIGH, FULL WIDTH	40" TO BOTTOM OF REFLECTIVE SURFACE
4	GRAB BAR 36"	36" AFF TO TOP OF BAR
5	GRAB BAR 42"	36" AFF TO TOP OF BAR
6	GRAB BAR 18"	SEE ELEVATIONS
7	TOWEL DISPENSER / WASTE RECEPTACLE	42" TO DISPENSER - SEE C/A7.1
8	STAINLESS STEEL UTILITY SHELF W/ 4 MOP HOLDERS	72" TO TOP OF SHELF
9	METAL COAT HOOK	48" TO HOOK, ON INSIDE FACE OF DOOR
10	SANITARY NAPKIN DISPOSER (WHERE APPLICABLE)	28" AFF TO TOP OF UNIT
11	WALL MOUNTED INFANT CHANGING STATION	30" AFF TO BOTTOM OF UNIT
12	18" x 36" PLATE GLASS MIRROR WITH FRAME	40" TO BOTTOM OF REFLECTIVE SURFACE
13	24" x 60" FRAMED PLATE GLASS MIRROR	12" TO BOTTOM OF REFLECTIVE SURFACE



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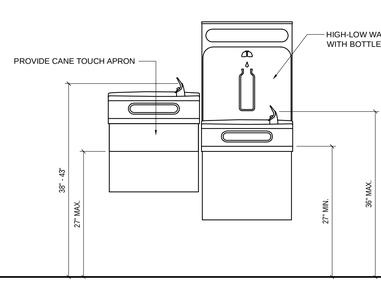

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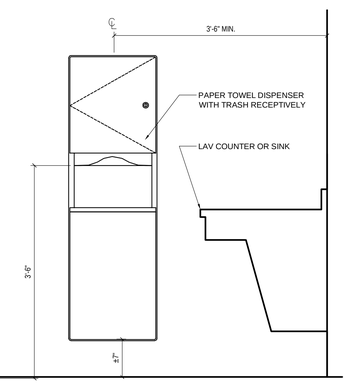

C A7.1 DETAIL
SCALE: 1"=1'-0"

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NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

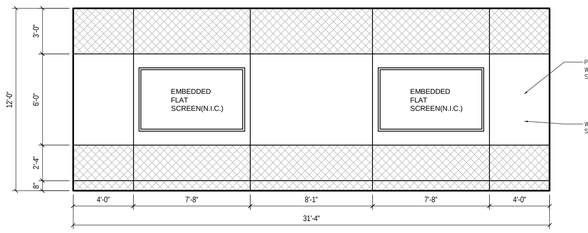
Drawing Title:

TOILET PLANS

Sheet No:

A7.1

CONFORMANCE DOCUMENTS



1 A7.2 MEETING/CLASSROOM - 174

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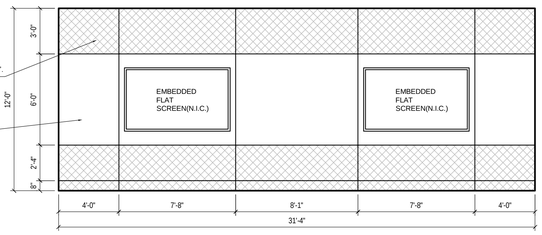

2 A7.2 TRAINING ROOM - 166

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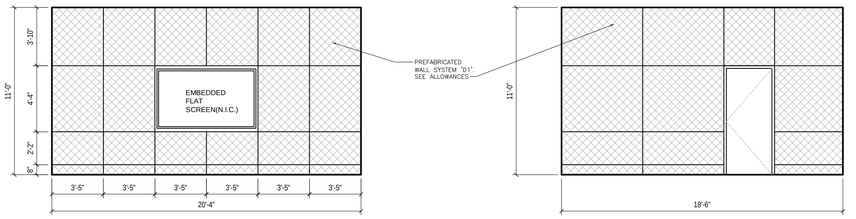

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4 A7.2 VESTIBULE - 103

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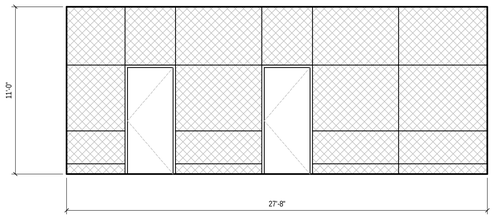

5 A7.2 DINING - 107

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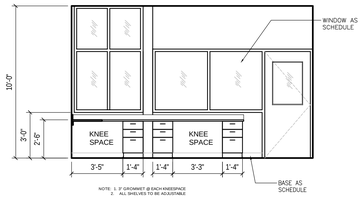
6 A7.2 SUPPRESSION/ MEDIC OFFICE - 131A/127A

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

7 A7.2



8 A7.2 COMMAND WATCH - 112

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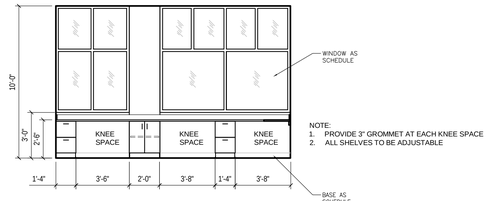

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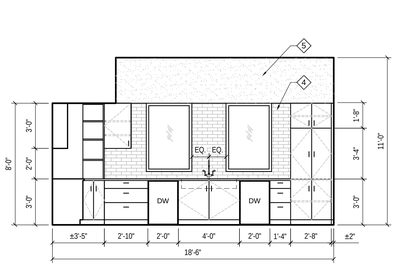

10 A7.2 KITCHEN - 108

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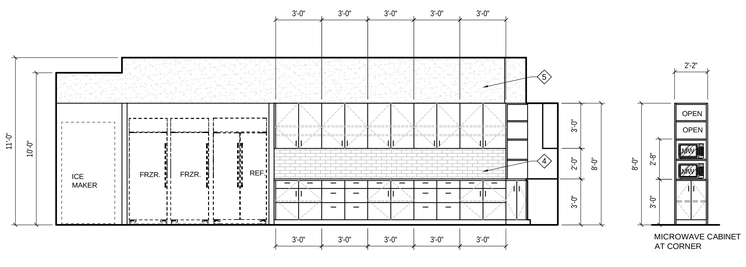

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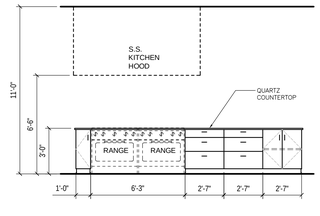

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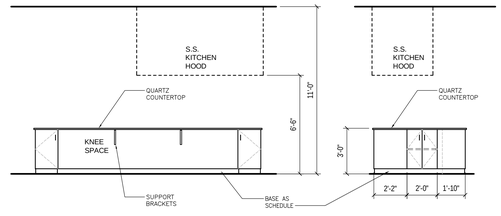

13 A7.2 ISLAND - 108

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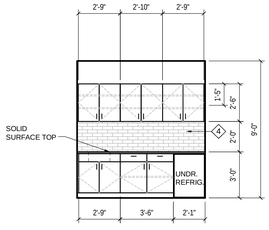
13A A7.2 END ELEVATION



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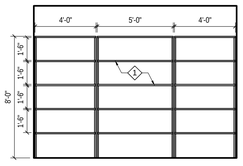

15 A7.2 BOOTS - 114

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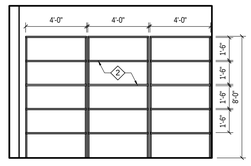

16 A7.2 WASH ROOM - 116

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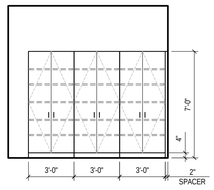

17 A7.2 PANTRY - 110

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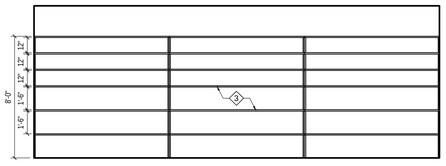

18 A7.2 SUPPLY STATION - 125

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

GENERAL NOTES

1. ALL CASEWORK TO BE LAMINATE CLAD CASEWORK UNLESS OTHERWISE NOTED. SEE SPECIFICATIONS.
2. COUNTER TOP MATERIALS TO BE (UNLESS NOTED OTHERWISE):
   - TOILETS & BATHS: SOLID SURFACE
   - KITCHEN #108: QUARTZ
   - ALL OTHER SPACES: PLASTIC LAMINATE

KEYNOTES

1. 20" DEEP, FREESTANDING, HEAVY DUTY STAINLESS STEEL WIRE SHELVING
2. 16" DEEP, FREESTANDING, HEAVY DUTY STAINLESS STEEL WIRE SHELVING
3. 16" DEEP, WALL MOUNTED, HEAVY DUTY PLASTIC LAMINATE SHELVING BY CASEWORK SUPPLIER
4. FULL HEIGHT PCT BACKSPLASH
5. GYPSUM BOARD SOFFIT

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STATE OF ALABAMA REGISTERED ARCHITECTS
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NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
A	ISSUED FOR REVIEWS	01/15/2023
0	ISSUED FOR REVIEWS	01/15/2023
1	ISSUED FOR BID	02/03/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

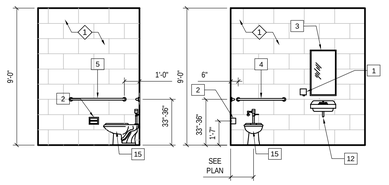
Drawing Title:

INTERIOR ELEVATIONS

Sheet No:

A7.2

CONFORMANCE DOCUMENTS



1 A7.3 TOILET-178 2 A7.3 -178
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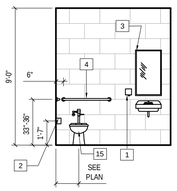

3 A7.3 TOILET-105
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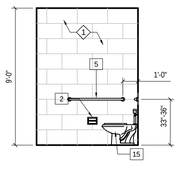

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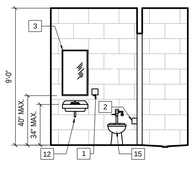

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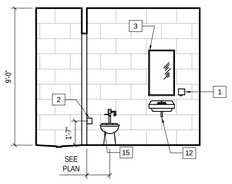

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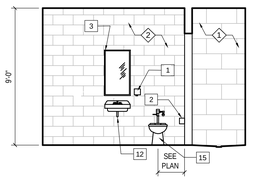
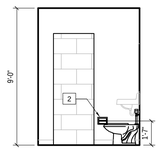


7 A7.3 TOILET-118
SCALE: 1/4"=1'-0" 117 REVERSED



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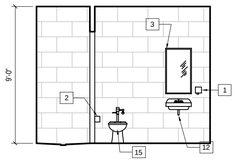

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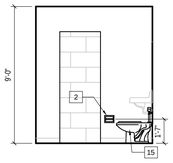

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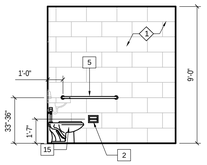

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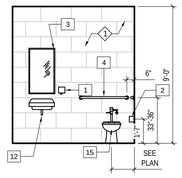

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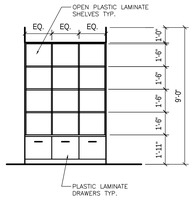

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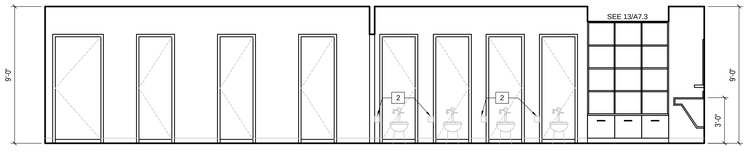

14 A7.3 COMMON BATH 156
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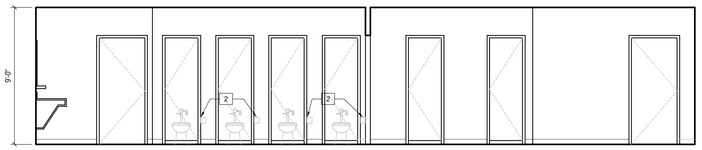

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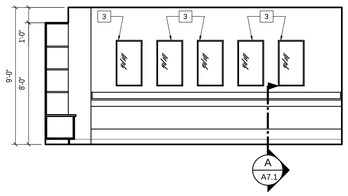

16 A7.3 COMMON BATH 156 B
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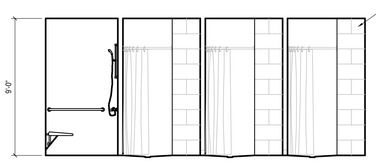

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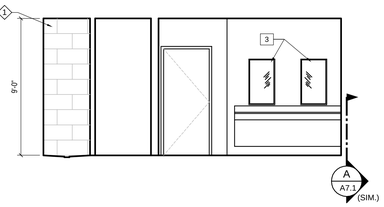

18 A7.3 COMMON BATH 156 A
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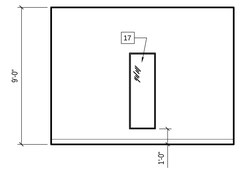

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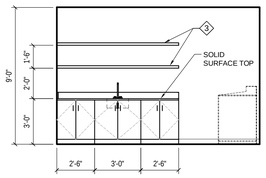


20 A7.3 EXTRACTOR/ LAUNDRY
SCALE: 1/4"=1'-0"

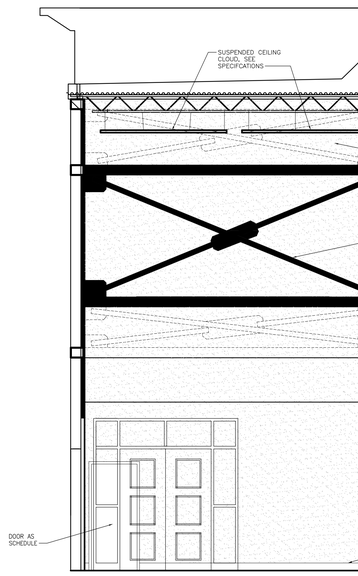
TOILET ACCESSORY INDEX		
SYMBOL	ACCESSORY	MOUNTING HEIGHT
1	WALL MOUNTED SOAP DISPENSER	40" TO DISPENSING MECHANISM
2	TOILET TISSUE DISPENSER (SURFACE-MOUNTED)	28" AFF TO TOP OF UNIT
3	18" x 36" PLATE GLASS MIRROR WITH FRAME	40" TO BOTTOM OF REFLECTIVE SURFACE
4	GRAB BAR 36"	36" AFF TO TOP OF BAR
5	GRAB BAR 42"	36" AFF TO TOP OF BAR
6	GRAB BAR 18" (WHERE APPLICABLE)	SEE ELEVATIONS
7	PAPER TOWEL DISPENSER / WASTE RECEPTACLE	42" TO DISPENSER - SEE C/A7.2
8	NOT USED	
9	METAL COAT HOOK	48" TO HOOK, ON INSIDE FACE OF DOOR
10	SANITARY NAPKIN DISPOSER (WHERE APPLICABLE)	28" AFF TO TOP OF UNIT
11	ADJUSTABLE SHELVING	
12	INSULATED PIPE, TYP.	
13	ACCESSIBLE FOLDING SEAT	
14	STAINLESS STEEL UTILITY SHELF W/ 4 MOP HOLDERS	
15	FLUSH VALVE TOILET	
16	UTILITY HOOKS	
17	24" x 60" FRAMED PLATE GLASS MIRROR	12" TO BOTTOM OF REFLECTIVE SURFACE

GENERAL NOTES

1. ALL CASEWORK TO BE LAMINATE CLAD CASEWORK UNLESS OTHERWISE NOTED. SEE SPECIFICATIONS.
2. COUNTER TOP MATERIALS TO BE (UNLESS NOTED OTHERWISE):
   - TOILETS & BATHS: SOLID SURFACE
   - KITCHEN #108: QUARTZ
   - ALL OTHER SPACES: PLASTIC LAMINATE

KEYNOTES

1. PORCELAIN TILE 12" x 24"
2. PAINTED CONCRETE MASONRY UNITS
3. 12" DEEP COATED WIRE SHELVES



20 A7.3 PUBLIC LOBBY 101
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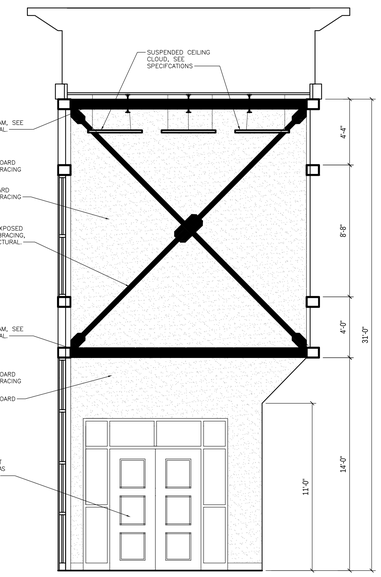

21 A7.3 PUBLIC LOBBY 101
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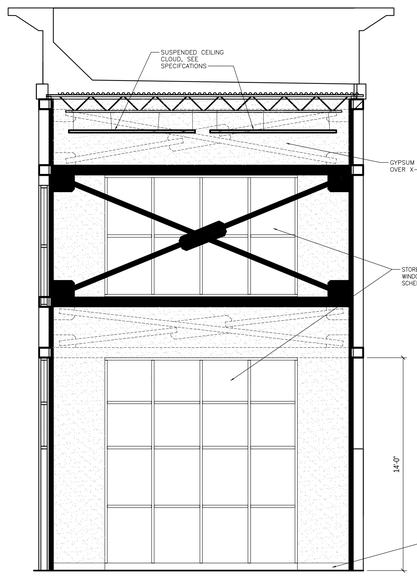

22 A7.3 PUBLIC LOBBY 101
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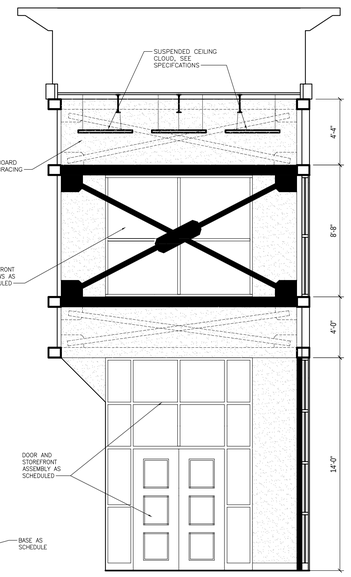

23 A7.3 PUBLIC LOBBY 101
SCALE: 1/4"=1'-0"

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STATE OF ALABAMA
DART W. DAVIS 2767
RAY E. WILLIAMS 4239
JOHNNY B. RAINES, II 7127
REGISTERED ARCHITECTS

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	BDW
Date:	
Scale:	AS NOTED

Drawing Title:

INTERIOR ELEVATIONS

Sheet No:

A7.3

CONFORMANCE DOCUMENTS

FOOTING SCHEDULE

MARK	SIZE	DEPTH	REINFORCEMENT
A	7'–0" x 7'–0"	14"	8–#5 EA. WAY TOP & BOT.
B	6'–6" x 6'–6"	12"	7–#5 EA. WAY TOP & BOT.
C	5'–0" x 5'–0"	12"	6–#5 EA. WAY TOP & BOT.
D	4'–0" x 4'–0"	12"	5–#5 EA. WAY TOP & BOT.
E	3'–0" x 3'–0"	12"	4–#4 EA. WAY TOP & BOT✳
F	8'–0" x 8'–0"	14"	9–#5 EA. WAY TOP & BOT.
G	10'–0" x 10'–0"	18"	10–#6 EA. WAY TOP & BOT.

✳– PROVIDE 180° HOOK EACH END OF BOTTOM BARS

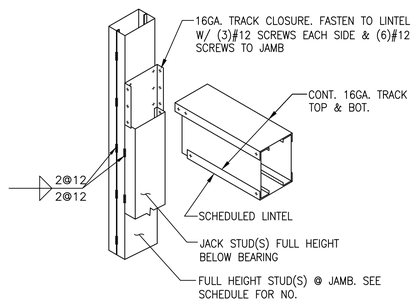
COLUMN BASE PLATE SCHEDULE

MARK	BASE PL SIZE
HSS4x4x$^1/_4$	$^3/_4$"x10"x10" W/ (4)$^3/_4$"øx18" HEADED ANCHOR BOLTS
HSS5x5x$^1/_4$	$^3/_4$"x11"x11" W/ (4)$^3/_4$"øx18" HEADED ANCHOR BOLTS
HSS6x6x$^1/_4$	$^3/_4$"x12"x12" W/ (4)$^3/_4$"øx18" HEADED ANCHOR BOLTS

NOTE:
ALL ANCHOR BOLTS ASSUME AN EMBEDMENT DEPTH OF 12" INTO CONCRETE

COLD–FORMED STEEL LINTEL SCHEDULE

MARK OR LOCATION	MAX. SPAN	TYPE	SIZE	REINFORCEMENT	REMARKS
6"NON–LOAD BEARING STUDS	3'–4"	2–'C' SECTIONS	2–6"x1$^5/_8$"–14GA. 'C' SECTIONS	–––––	PROVIDE (1)FULL HT. STUD & (1) JACK STUD @ JAMBS
6"NON–LOAD BEARING STUDS	6'–4"	2–'C' SECTIONS	2–8"x1$^5/_8$"–14GA. 'C' SECTIONS	–––––	PROVIDE (3)FULL HT. STUDS & (1) JACK STUD @ JAMBS
6"NON–LOAD BEARING STUDS	8'–8"	2–'C' SECTIONS	2–8"x1$^5/_8$"–14GA. 'C' SECTIONS	–––––	PROVIDE (4)FULL HT. STUDS & (1) JACK STUD @ JAMBS
6" LOAD BEARING STUDS	4'–0"	2–'C' SECTIONS	2–6"x1$^5/_8$"–12GA. 'C' SECTIONS	–––––	PROVIDE (2)FULL HT. STUDS & (1) JACK STUD @ JAMBS
6" LOAD BEARING STUDS (INTERIOR)	7'–0"	2–'C' SECTIONS	2–8"x1$^5/_8$"–12GA. 'C' SECTIONS	–––––	PROVIDE (2)FULL HT. STUDS & (2)JACK STUDS @ JAMBS
6" LOAD BEARING STUDS (EXTERIOR)	8'–4"	2–'C' SECTIONS	2–8"x1$^5/_8$"–12GA. 'C' SECTIONS	–––––	PROVIDE (3)FULL HT. STUDS & (2)JACK STUDS @ JAMBS
6" LOAD BEARING STUDS (INTERIOR)	9'–8"	2–'C' SECTIONS	2–12"x1$^5/_8$"–12GA. 'C' SECTIONS	–––––	PROVIDE (2)FULL HT. STUDS & (2) JACK STUDS @ JAMBS



TYPICAL LINTEL DETAIL AT STEEL STUD WALLS

GENERAL NOTES

FOUNDATION:
1. THE BEARING STRATA OF ALL FOOTINGS AND GRADE BEAMS SHALL BE INSPECTED AND APPROVED BY THE SOILS TESTING LABORATORY PRIOR TO PLACING THE REINFORCING STEEL AND CONCRETE.
2. ALL FOOTINGS SHALL BEAR ON AN UNDISTURBED SOIL STRATA OR COMPACTED FILL CAPABLE OF SUSTAINING THE LOADS.
3. FOOTINGS WERE DESIGNED FOR AN ALLOWABLE SOIL BEARING OF P = 2000 PSF.THE TESTING AGENCY SHALL VERIFY THAT THE SOILS ARE CAPABLE OF SUSTAINING 2000 PSF PRIOR TO CONCRETE PLACEMENT.
4. ELEVATIONS SHOWN ON PLAN ARE TOP OF FOOTINGS AND ARE MINIMUM DEPTH. DIFFERENT OR UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ARCHITECT AND/OR ENGINEER.
5. ALL FOOTING REINFORCEMENT SHALL BE HELD SECURELY FROM THE GROUND. CONCRETE BLOCK AND BROKEN TILE SHALL NOT BE USED. CONCRETE OR CLAY BRICK MAY BE USED.
6. DOWEL ALL FOOTINGS AND WALLS WHERE THEY ABUT WITH SAME STEEL AS VERTICAL.
7. PROVIDE PREFORMED EXPANSION JOINT WHERE SHOWN.
8. IN FOOTINGS PROVIDE CORNER BARS AT ALL EXTERIOR BUILDING CORNERS.
9. DO NOT BACK FILL BEHIND FOUNDATION WALLS UNTIL TOP AND BOTTOM SLABS HAVE BEEN POURED AND ATTAINED THEIR DESIGN STRENGTHS.
10. BACK FILL BOTH SIDES OF FOUNDATION WALLS AT SAME TIME TO PREVENT OVERTURNING.
11. BACK FILL BEHIND ALL RETAINING WALLS AND BASEMENT WALLS SHALL BE AN APPROVED GRANULAR MATERIAL.

CONCRETE:
1. ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH AT 28 DAYS OF F'c = 4000 PSI AND A MAXIMUM WATER–CEMENT RATIO OF 0.53. ALL CONCRETE FOR EXTERIOR APPLICATIONS SHALL CONTAIN ENTRAINED AIR. SEE SPECS FOR ADDITIONAL INFORMATION.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 OR ASTM A1064.
4. UNLESS NOTED OTHERWISE PROTECTIVE COVERING OF REINFORCEMENT SHALL BE AS FOLLOWS (SEE DETAILS) : FOOTINGS AND GRADE BEAMS 3" CLEAR BOTTOM AND SIDES, 1 1/2" CLEAR TOP. CONCRETE SLABS 3/4" CLEAR. WALLS 1 1/2" CLEAR SIDES. BEAMS 1 1/2" CLEAR TO STIRRUPS. FORMED CONCRETE COLUMNS 1 1/2" CLEAR TO TIES.
5. LAP ALL CONCRETE WALL VERTICAL REINFORCING AND CONCRETE BEAM HORIZONTAL REINFORCING WITH CLASS B LAP SPLICES. LAP ALL OTHER CONTINUOUS BARS WITH CLASS A SPLICES UNLESS NOTED OTHERWISE.
6. PLACING PLANS AND DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST "A.C.I. DETAILING MANUAL".
7. STEEL FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR THE ARCHITECT AND/OR ENGINEER'S REVIEW.
8. DO NOT RUN CONDUITS, RACEWAYS, OR PIPES IN CONCRETE SLABS, BEAMS, OR COLUMNS WITHOUT SPECIFIC APPROVAL FROM BLACKBURN DANIELS O'BARR.

MASONRY:
1. PROVIDE MASONRY HORIZONTAL JOINT REINFORCEMENT 16" O.C. VERTICAL IN ALL CONCRETE BLOCK WALLS. REINFORCEMENT SHALL BE FOR TOTAL WIDTH OF CAVITY WALLS.
2. WHERE CONCRETE OR STEEL BEAMS BEAR ON CONCRETE BLOCK WALLS, BLOCK CELLS SHALL BE FILLED WITH CONCRETE 1'–4" WIDE TO FOUNDATION AND REINFORCED WITH A #5 EACH CELL UNLESS NOTED OR DETAILED OTHERWISE.
3. CONCRETE OR GROUT FOR BLOCK FILL SHALL HAVE 3/8 INCH MAXIMUM SIZE COARSE AGGREGATE AND SUFFICIENT WATER SO THE CONCRETE WILL FLOW INTO THE BLOCK CELLS WITHOUT LEAVING VOIDS. HEIGHT OF LIFT WHEN FILLING CELLS SHALL NOT EXCEED 4'–0".
4. CONCRETE OR GROUT FILL FOR C.M.U. SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF F'c = 3000 PSI. ON 16" AND DEEPER U–BLOCKS, FILL CELLS FULL HEIGHT OF LINTEL AT SAME TIME.
5. ANCHOR ALL MASONRY WALLS TO STEEL COLUMNS WITH STRAP ANCHORS AT 16" O.C. VERTICALLY UNLESS SHOWN OTHERWISE.
6. UNLESS INDICATED OTHERWISE PROVIDE KEYED RUBBER MASONRY CONTROL JOINTS AT A MAXIMUM SPACING OF 25'–4". JOINT SHALL BE DISCONTINUOUS AT BOND BEAM. COORDINATE EXACT LOCATIONS WITH ARCHITECT.
7. PROVIDE REINFORCING BAR SUPPORTS TO CENTER VERTICAL REINFORCING IN MASONRY WALLS.
8. PROVIDE 48 DIAMETER LAP SPLICE IN VERTICAL MASONRY REINFORCING.
9. PROVIDE CORNER BARS IN U–BLOCK BOND BEAMS AT CORNERS, TYPICAL.
10. ALL CMU SHALL BE PLACED IN A RUNNING BOND PATTERN UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.
11. VERTICAL REINFORCING SHALL BE CONTINUOUS THROUGH BOND BEAMS AND LINTELS (CUT OUT OR NOTCH BOTTOM OF U–BLOCKS AS REQUIRED -- DO NOT SUBSTITUTE BLOCK WITH KNOCK–OUT WEBS WHERE STANDARD U–BLOCK IS INDICATED). FOR BOND BEAMS AT TOP OF WALL, EXTEND VERTICAL REINFORCING TO 1" CLEAR TOP OF BOND BEAM.

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 STEEL JOISTS AND TUBE SECTIONS).
2. STRUCTURAL STEEL TUBE SECTIONS SHALL CONFORM TO ASTM A500, GRADE B, Fy = 46.0 KSI.
3. HEADED STUDS SHALL BE TYPE B SHEAR CONNECTORS (Fu = 65 KSI).
4. STEEL FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR THE ARCHITECT AND/OR ENGINEER'S REVIEW.
5. THE CONTRACTOR SHALL VERIFY ALL SHOP DRAWINGS DIMENSIONS WITH STRUCTURAL AND ARCHITECTURAL PLANS AND DETAILS.
6. BOLTED CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS CONFORMING TO ASTM A325. USE 3/4 INCH DIAMETER MINIMUM. UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE TIGHTENED AS FULLY PRETENSIONED BEARING CONNECTIONS.
7. 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. WHERE DOUBLE ANGLE CONNECTIONS ARE NOT POSSIBLE, FABRICATOR SHALL DESIGN CONNECTION FOR CAPACITY EQUIVALENT TO DBL–ANGLE CONNECTION WITH MAX NO. BOLTS UNLESS DETAILED OTHERWISE.
8. FOR DBL–ANGLE CONNECTIONS, MIN ANGLE THICKNESS SHALL BE 5/16" FOR 3/4 INCH DIAMETER BOLTS AND 3/8" FOR 7/8 INCH DIAMETER BOLTS AND LARGER.
9. UNLESS SHOWN OTHERWISE PROVIDE 1/2 X 7 1/2 X 7 1/2 BEARING PLATES ON 1 INCH GROUT WITH 2–3/4" DIAMETER ANCHOR BOLTS UNDER ALL STEEL BEAMS THAT BEAR ON MASONRY WALLS.
10. OPEN WEB STEEL JOIST SHALL CONFORM TO THE SPECIFICATIONS OF THE AISC AND SJI AND TO THE LATEST OSHA STEEL ERECTION STANDARD.
11. UNLESS SHOWN OTHERWISE PROVIDE BRIDGING, BEARING SEATS, AND STABILIZER PLATES IN ACCORDANCE WITH ABOVE SPECIFICATIONS AND STANDARD.
12. ALL BRIDGING SHALL BE SECURELY ANCHORED AT END OF EACH RUN. WELD TO STEEL BEAM OR ANCHOR TO MASONRY WALL WITH 3/8 " ANCHOR BOLTS.
13. WHERE JOISTS CAN NOT BEAR 2 1/2 INCHES ON STEEL BEAMS, STAGGER LOCATION OF JOISTS TO PROVIDE 2 1/2 INCHES MINIMUM BEARING.
14. ROOF JOISTS AND BRIDGING SHALL BE DESIGNED FOR A NET UPLIFT OF 15 PSF (ASD). SHELTER ROOF JOISTS SHALL HAVE A MINIMUM TOP CHORD THICKNESS OF 1/4".
15. ANY MEMBER CALLED OUT TO BE BENT TO RADIUS SHALL BE FABRICATED OUT OF PLATE WITH EQUIVALENT SECTION PROPERTIES IF BENDING TO RADIUS IS IMPRACTICAL.

PRE–ENGINEERED METAL BUILDING:
1. THE COMPLETE DESIGN OF METAL BUILDING INCLUDING ALL COMPONENTS SHOWN OR NOT SHOWN ON THE DRAWINGS SHALL BE ACCOMPLISHED BY THE BUILDING MANUFACTURER.
2. THE DESIGN SHALL BE MADE BY A REGISTERED ENGINEER, REGISTERED IN THE STATE OF ALABAMA AND HE SHALL AFFIX HIS REGISTRATION NUMBER TO ALL SHOP DRAWINGS AND CALCULATIONS.
3. THE BUILDING AND ALL OF ITS COMPONENTS SHALL BE DESIGNED FOR THE FOLLOWING DEAD AND LIVE LOADS;
   a.) ACTUAL WEIGHT OF STEEL STRUCTURE.
   b.) 10 PSF DEAD (COLLATERAL) LOAD IN ADDITION TO ACTUAL WEIGHT OF STRUCTURE AND ROOFING MATERIALS.
   c.) 20 PSF ROOF LIVE LOAD.
   d.) ANY ADDITIONAL LOADS AND REACTIONS THAT ARE SHOWN ON THE DRAWINGS.
   e.) WIND LOADING AS REQUIRED BY INTERNATIONAL BUILDING CODE.
4. NO LIVE LOAD REDUCTION SHALL BE TAKEN FOR THE DESIGN OF THE RIGID FRAMES.
5. WHERE MEMBER SIZES AND GAGES ARE SHOWN THEY SHALL BE CONSIDERED A MINIMUM SIZE. THE MANUFACTURER SHALL NOT USE SMALLER SIZE OR LIGHTER GAGES, OR OMIT FRAMING WHERE INDICATED. HE SHALL USE ONLY LARGER SIZE AND HEAVIER GAGES IF HIS DESIGN INDICATES THESE ARE REQUIRED TO MEET THE LOADING CRITERIA
6. THE DEFLECTION OF GIRTS SHALL BE LIMITED TO 1/240 OF THE SPAN AND DEFLECTION OF PURLINS SHALL BE LIMITED TO 1/240 OF THE SPAN. DEFLECTION OF RIGID FRAMES SHALL BE LIMITED TO 1/240 OF THE SPAN. DEFLECTIONS SHALL BE BASED ON TOTAL LOAD (DEAD PLUS LIVE LOADS). TOTAL RIGID FRAME DRIFT SHALL BE LIMITED TO H/240, WHERE H IS EQUAL TO THE EAVE HEIGHT.
7. COLUMN BASES SHALL BE DESIGNED AS PINNED CONNECTIONS. MOMENTS AT COLUMN BASE PLATES ARE NOT ACCEPTABLE.
8. LOCATE PORTAL FRAMES ONLY WHERE INDICATED ON PLAN. PORTAL FRAME COLUMNS SHALL BE NESTED TIGHT TO WEB OF RIGID FRAME COLUMN.

COLD–FORMED STEEL TRUSSES:
1. PROVIDE PREFABRICATED, PRE–ENGINEERED, COLD–FORMED STEEL TRUSSES WHERE INDICATED ON PLAN.
2. ALL TRUSSES SHALL BE DESIGNED AND MANUFACTURED TO MEET THE FOLLOWING WORKING LOADS AND CODES.
   MINIMUM LOADS:
   ROOF LIVE LOAD.....20 PSF.
   ROOF DEAD LOAD.....15 PSF.
   CEILING LOAD.....10 PSF.
3. 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.
4. PROVIDE CAMBER IN ALL TRUSSES.
5. ALL TRUSSES SHALL BE SHOP–FABRICATED. FIELD–FABRICATED TRUSSES ARE NOT ACCEPTABLE. THE TOP AND BOTTOM CHORDS SHALL BE FABRICATED FROM SECTIONS THAT ARE SYMMETRICAL ABOUT THE Y–Y AXIS. "C" SECTIONS ARE NOT ACCEPTABLE.
6. ANCHOR ALL TRUSSES TO SUPPORTS WITH GALVANIZED ANCHORS PER MANUFACTURER'S RECOMMENDATIONS UNLESS SHOWN OTHERWISE ON THE STRUCTURAL CONTRACT DRAWINGS. TRUSS MANUFACTURER SHALL INDICATE ON SHOP DRAWINGS THE REQUIRED ANCHORAGE TO RESIST NET UPLIFT.
7. TRUSS TOP AND BOTTOM CHORDS SHALL BE A MINIMUM OF 18 GAGE. TRUSS WEB MEMBERS SHALL BE A MINIMUM OF 20 GAGE.
8. PROVIDE VERTICAL WEB MEMBERS TO ACCOMODATE TRUSS VERTICAL X–BRACING (SEE PLAN FOR LOCATIONS). X–BRACING SHOWN ON CONTRACT DRAWINGS IS IN ADDITION TO ALL BRACING REQUIRED BY TRUSS MFR (SHOWN ON TRUSS SHOP DWGS).
9. BLOCKING BETWEEN TRUSS TOP CHORDS @ HIPS, VALLEYS, & RIDGES MAY BE OMITTED ONLY IF CONT BENT–PLATE (ABOVE BLKG) HAS BEEN DESIGNED AND DETAILED BY COLD–FORMED SUPPLIER TO SERVE AS STRUCTURAL SUPPORT FOR DECK (SPANNING BETWEEN SUPPORTING TRUSSES ASSUMING 35 PSF MIN ROOF LOAD ON BENT–PL).

COLD–FORMED STEEL STUDS:
1. PROVIDE COLD FORMED STEEL STUDS WHERE INDICATED ON THE PLAN. ALL SIZES AND GAGES SHOWN SHALL BE CONSIDERED MINIMUM.
2. LIGHT STEEL GALVANIZED (G–60) METAL STUDS, OF SIZES SHOWN COMPLETE WITH ALL ACCESSORIES REQUIRED. 16 GA AND HEAVIER MEMBERS SHALL MEET ASTM A–1003/A1003M, GRADE D WITH 50 KSI YIELD.
3. PROVIDE SHOP DRAWINGS PREPARED BY COLD FORMED METAL FRAMING MANUFACTURER. SUBMIT FOR APPROVAL SHOWING PLANS, SECTIONS, ELEVATIONS, LAYOUTS, PROFILES, PRODUCT COMPONENTS, AND INDICATING SPACING OF MEMBERS, PROPOSED METHODS OF FRAMING LINTELS, DOORWAY FRAMING, ETC. SHOW CONNECTION DETAILS WITH SCREW TYPE AND LOCATIONS AND ALL OTHER FASTENER REQUIREMENTS. INCLUDE CATALOG DATA ON ALL PRODUCT MATERIAL.
4. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND DESIGN CAL–CULATIONS INCLUDING ALL CONNNECTIONS. DESIGNS SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF ALABAMA.
5. MINIMUM CONNECTION OF THE TRACK TO THE FOUNDATION SHALL BE (2)–0.157IN DIAMETER X 1–1/2" EMBEDMENT HILTI X–U ANCHORS AT EACH STUD. FOLLOW ALL MANUFACTURERS RECOMMENDED EDGE DISTANCES AND SPACING REQUIREMENTS.

BUILDING CANOPIES:
1. THE COMPLETE DESIGN OF THE CANOPIES INCLUDING ALL COMPONENTS SHOWN OR NOT SHOWN ON THE DRAWINGS SHALL BE ACCOMPLISHED BY THE CANOPY MANUFACTURER.
2. THE DESIGN SHALL BE MADE BY A REGISTERED ENGINEER, REGISTERED IN THE STATE OF ALABAMA AND HE SHALL AFFIX HIS REGISTRATION NUMBER TO ALL SHOP DRAWINGS AND CALCULATIONS.

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)
STEEL JOIST INSTITUTE (SJI)
INTERNATIONAL BUILDING CODE (IBC 2021) (ICC)

DESIGN LIVE LOADS:
ROOF.....20 PSF.
RISK CATEGORY (PER IBC 2021/ASCE 7–16).....IV
WIND.....INTERNATIONAL BUILDING CODE (PER ASCE 7–16)
ULTIMATE DESIGN WIND SPEED (Vult).....124 MPH
NOMINAL DESIGN WIND SPEED (Vasd).....97 MPH
WIND EXPOSURE.....C
INTERNAL PRESSURE COEFFICIENTS.....+/–0.18
SEISMIC....INTERNATIONAL BUILDING CODE (PER ASCE 7–16)
SEISMIC IMPORTANCE FACTOR.....Ie=1.5
MAPPED SPECTRAL ACCELERATION (SHORT–TERM).Ss=0.137
MAPPED SPECTRAL ACCELERATION (1–SECOND)...S1=0.076
SITE CLASS.....D
SHORT–PERIOD SPECTRAL RESPONSE ACCEL.....Sds=0.146g
1–SECOND SPECTRAL RESPONSE ACCEL.....Sd1=0.122g
SEISMIC DESIGN CATEGORY.....C
SEISMIC FORCE–RESISTING SYSTEM.....STEEL SYTSEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
DESIGN BASE SHEAR (ULTIMATE).....35k
SEISMIC RESPONSE COEFFICIENT.....Cs=0.142
RESPONSE MODIFICATION FACTOR.....R=3
ANALYSIS PROCEDURE.....ASCE 7 (SECT 12.8)
SNOW.....INTERNATIONAL BUILDING CODE
GROUND SNOW LOAD.....Pg=5 PSF

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

SLOPED ROOF:TRIBUTARY AREA A = 10 SF
ZONE 1: –66 PSF/18 PSF
ZONE 2e: –87 PSF/18 PSF
ZONE 2n: –87 PSF/18 PSF
ZONE 2r: –87 PSF/18 PSF
ZONE 3e: –118 PSF/18 PSF
ZONE 3r: –118 PSF/18 PSF
WALL:TRIBUTARY AREA A = 10 SF
ZONE 4: –45 PSF/41.7 PSF
ZONE 5: –56 PSF/41.7 PSF
CORNER ZONE = 7.6 FT

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

SEISMIC REQUIREMENTS FOR SPECIAL INSPECTIONS:
1. THE FOLLOWING STRUCTURAL COMPONENTS ARE DESIGNATED AS SEISMIC SYSTEMS AND/OR PART OF THE SEISMIC–FORCE–RESISTING SYSTEM OF THE BUILDING AND ARE SUBJECT TO THE REQUIREMENTS OF SECTIONS 1705.13 OF IBC 2021 AND PROJECT SPECIFICATIONS:
   ROD X–BRACING
   PRE–ENG TRUSSES AND TRUSS–COLUMN CONNECTIONS
   SHEAR WALLS (INCL. ANCHORAGE TO FOUNDATION)
   THESE SPECIFIC COMPONENTS ARE IN ADDITION 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.

WIND REQUIREMENTS FOR SPECIAL INSPECTIONS:
1. THE FOLLOWING STRUCTURAL COMPONENTS ARE DESIGNATED AS WIND SYSTEMS AND/OR PART OF THE MAIN WINDFORCE–RESISTING SYSTEM OF THE BUILDING AND ARE SUBJECT TO THE REQUIREMENTS OF SECTION 1705.12 OF IBC 2021 AND PROJECT SPECIFICATIONS:
   ROOF DIAPHRAGM SYSTEM AND ATTACHMENT
   LOAD–BEARING CMU (SHEAR) WALLS
   JOIST CONNECTIONS TO SHEAR WALLS
   SHEAR WALL ANCHORAGE TO FOUNDATION
   THESE SPECIFIC COMPONENTS ARE IN ADDITION TO ALL GENERAL COMPONENTS LISTED IN SECTION 1705.12 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 COMPONENTS AND THEIR ANCHORAGES MAY ALSO BE DESIGNATED AS WIND–RESISTING COMPONENTS. SEE OTHER DISCIPLINE'S DRAWINGS AND SPECIFICATIONS.

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ALABAMA REGISTERED No. 30036 LICENSED PROFESSIONAL ENGINEER WILLIAM DANIELS 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	RAS
Date:	05-17-2023
Scale:	AS NOTED

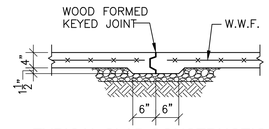
Drawing Title:

GENERAL NOTES AND SCHEDULES

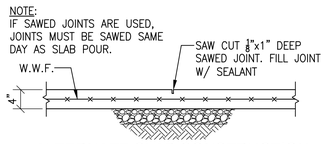
Sheet No:

S0.1

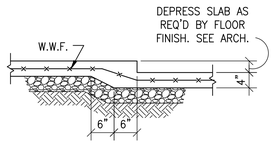
CONFORMANCE DOCUMENTS



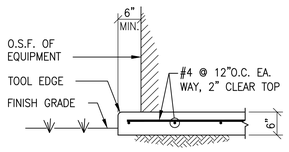
TYPICAL SLAB CONSTRUCTION
JOINT DETAIL-(C.J.)



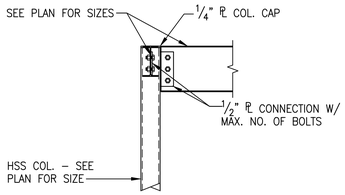
ALTERNATE SLAB CONSTRUCTION
JOINT DETAIL (SAWED JOINT)



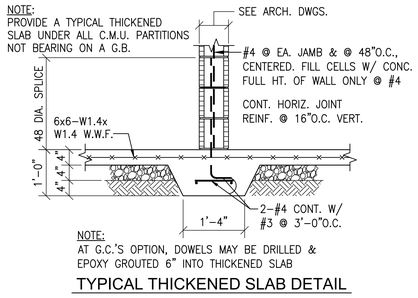
TYPICAL DEPRESSED SLAB DETAIL



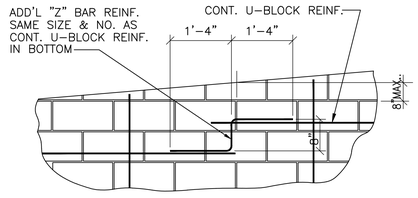
TYPICAL EQUIPMENT PAD DETAIL



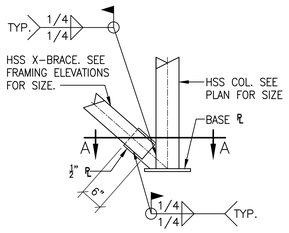
TYPICAL ROOF BEAM-COLUMN CONNECTION DETAIL



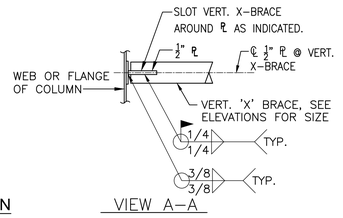
TYPICAL THICKENED SLAB DETAIL



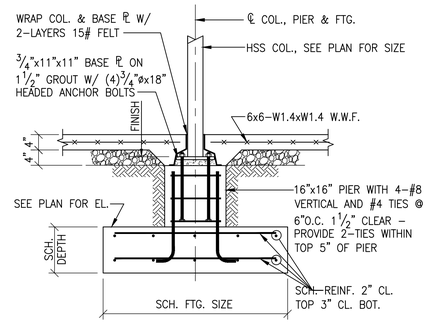
TYPICAL U-BLOCK STEP DETAIL



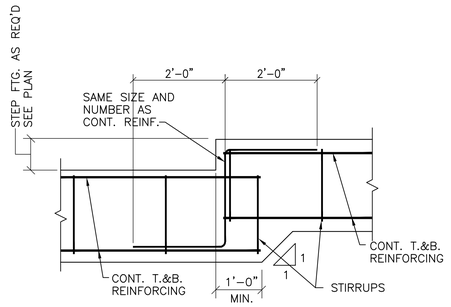
TYPICAL 'X' BRACE CONNECTION
@ COLUMN BASE PLATE



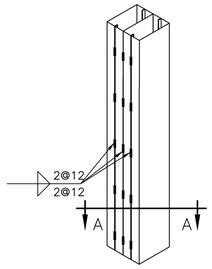
VIEW A–A

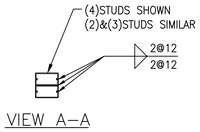


TYPICAL INTERIOR HSS COLUMN, PIER, & FOOTING DETAIL



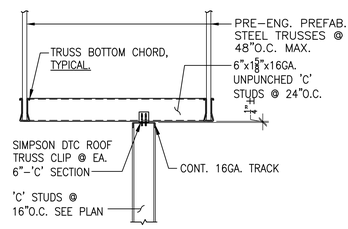
TYPICAL GRADE BEAM STEP DETAIL



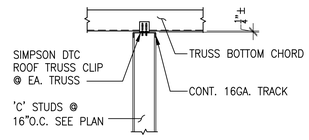


VIEW A–A

TYPICAL BUILT-UP COLD-FORMED STEEL STUD COLUMN DETAIL

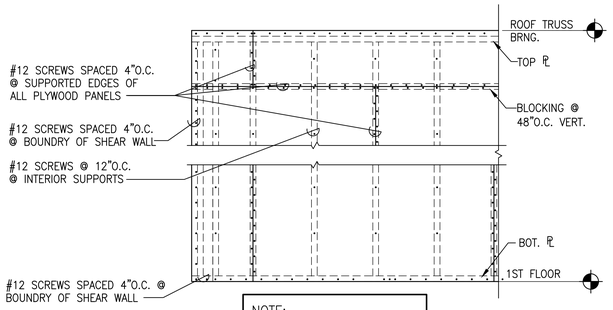


WALL PARALLEL TO TRUSSES



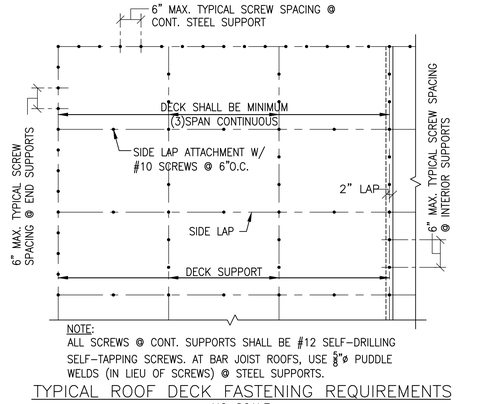
WALL PERPENDICULAR TO TRUSSES

TYPICAL NON-BEARING STEEL STUD
WALL ANCHORAGE DETAIL AT
COLD-FORMED STEEL TRUSSES



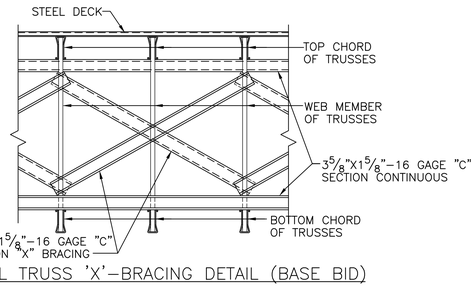
NOTE:
ALL PLYWOOD SHEARWALL PANELS SHALL BE PLACED WITH LONG DIMENSION HORIZONLAL

PLYWOOD SHEAR WALL PANEL CONSTRUCTION



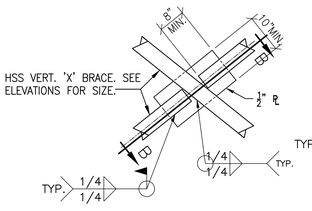
NOTE:
ALL SCREWS @ CONT. SUPPORTS SHALL BE #12 SELF–DRILLING SELF–TAPPING SCREWS. AT BAR JOIST ROOFS, USE ⅝"ø PUDDLE WELDS (IN LIEU OF SCREWS) @ STEEL SUPPORTS.

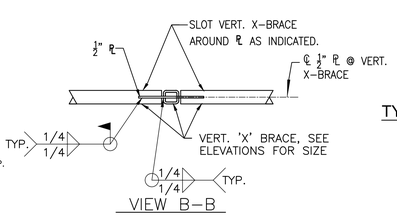
TYPICAL ROOF DECK FASTENING REQUIREMENTS
NO SCALE



TYPICAL TRUSS 'X'–BRACING DETAIL (BASE BID)

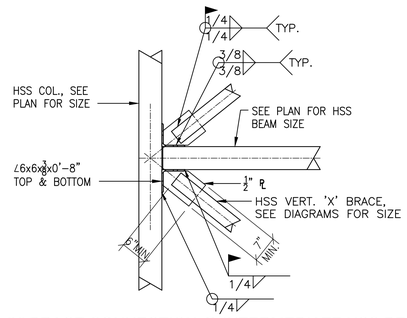
NOTE:
WHERE "PIGGYBACK" TRUSSES OCCUR, PROVIDE ADDITIONAL (SEPARATE) VERTICAL 'X' BRACING FOR "PIGGYBACKS"



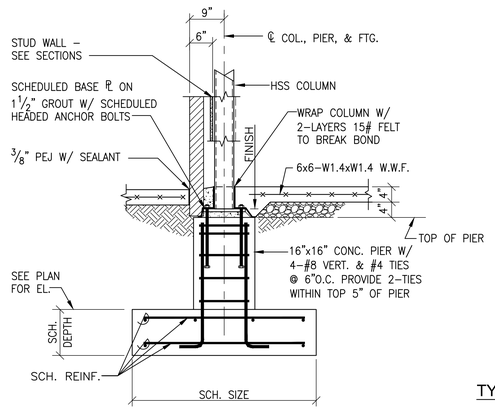


VIEW B–B

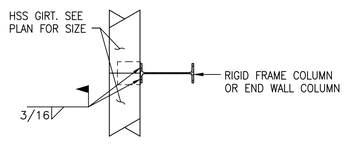
TYPICAL CONNECTION @
INTERSECTION OF 'X' BRACES



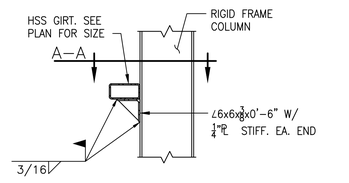
TYPICAL 'X' BRACE CONNECTION @ INTERMEDIATE HSS BEAM
(CONNECTION @ TOP OF COLUMN IS SIMILAR)



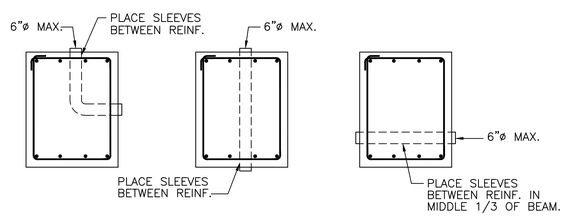
TYPICAL EXTERIOR HSS COLUMN, PIER, & FOOTING DETAIL



VIEW A–A



TYPICAL GIRT TO COLUMN CONNECTION DETAIL
(GIRT FRAMING PERPENDICULAR TO COLUMN FLANGE SIMILAR)



TYPICAL PLUMBING SLEEVE IN GRADE BEAM DETAILS

NOTES:
1. ALL SLEEVES PLACED IN GRADE BEAMS SHALL BE MADE W/ SCHEDULE 40 STEEL PIPE. PROVIDE 3"ø STEEL PIPE SLEEVES @ 2"ø PLUMBING PIPES & 6"ø SLEEVES @ 4"ø PLUMBING PIPES.
2. PLACE PLUMBING PIPE OUTSIDE OF GRADE BEAMS & BELOW GRADE BEAMS WHERE POSSIBLE. ONLY SLEEVE GRADE BEAM WHEN THIS IS NOT POSSIBLE.
3. ALL SLEEVES PENETRATING VERTICALLY THRU TOP OR BOTTOM OF BEAM SHALL REQUIRE APPROVAL FROM BLACKBURN DANIELS O'BARR INC. ALL OTHER PENETRATIONS SHALL BE SUBJECT TO APPROVAL AS DEEMED NECESSARY BY BLACKBURN DANIELS O'BARR.

Barganier
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ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER RICK W. DANIELS 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	RAS
Date:	05-17-2023
Scale:	AS NOTED

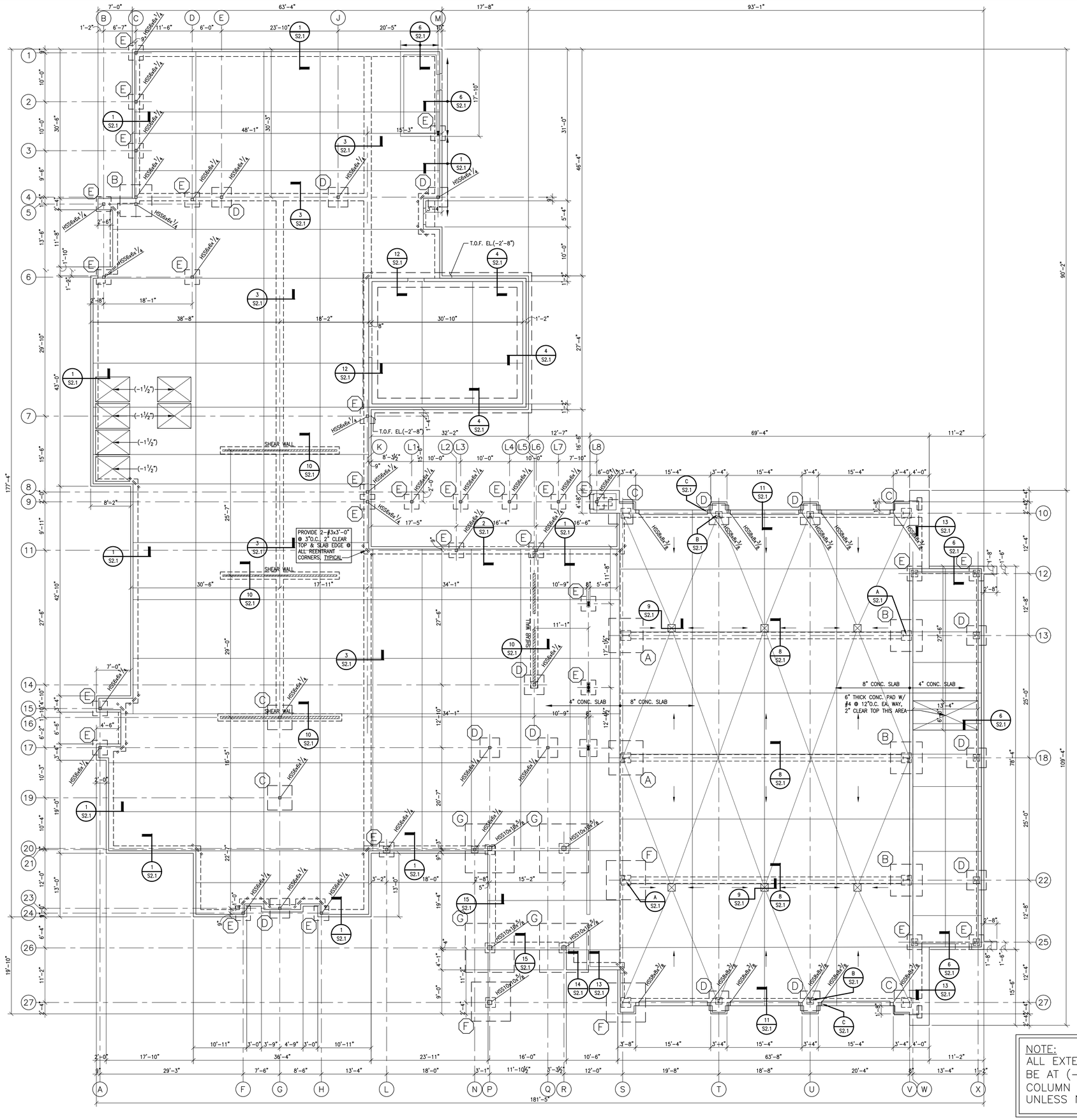
Drawing Title:

TYPICAL DETAILS

Sheet No:

S0.2

CONFORMANCE DOCUMENTS



FLOOR CONSTRUCTION

4" CONCRETE SLAB W/ 6x6–W1.4x W1.4 W.W.F. OVER VAPOR BARRIER OVER 4" POROUS FILL.
FINISH FL. EL. = 0'–0" (ASSUMED)

8" CONCRETE SLAB W/ #4 @ 12"O.C., 2" CLEAR TOP, OVER VAPOR BARRIER OVER 4" POROUS FILL.

FOUNDATION PLAN

SCALE: 1/8"=1'–0"

N

NOTE:
ALL EXTERIOR COLUMN FOOTINGS SHALL BE AT (–2'–8") AND ALL INTERIOR COLUMN FOOTINGS SHALL BE (–2'–0"). UNLESS NOTED OTHERWISE ON PLAN.

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ALABAMA REGISTERED No. 30026 PROFESSIONAL ENGINEER RICKY W. DANIEL
5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023
4	ADDENDUM NO.4	03/09/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	RAS
Date:	05-17-2023
Scale:	AS NOTED

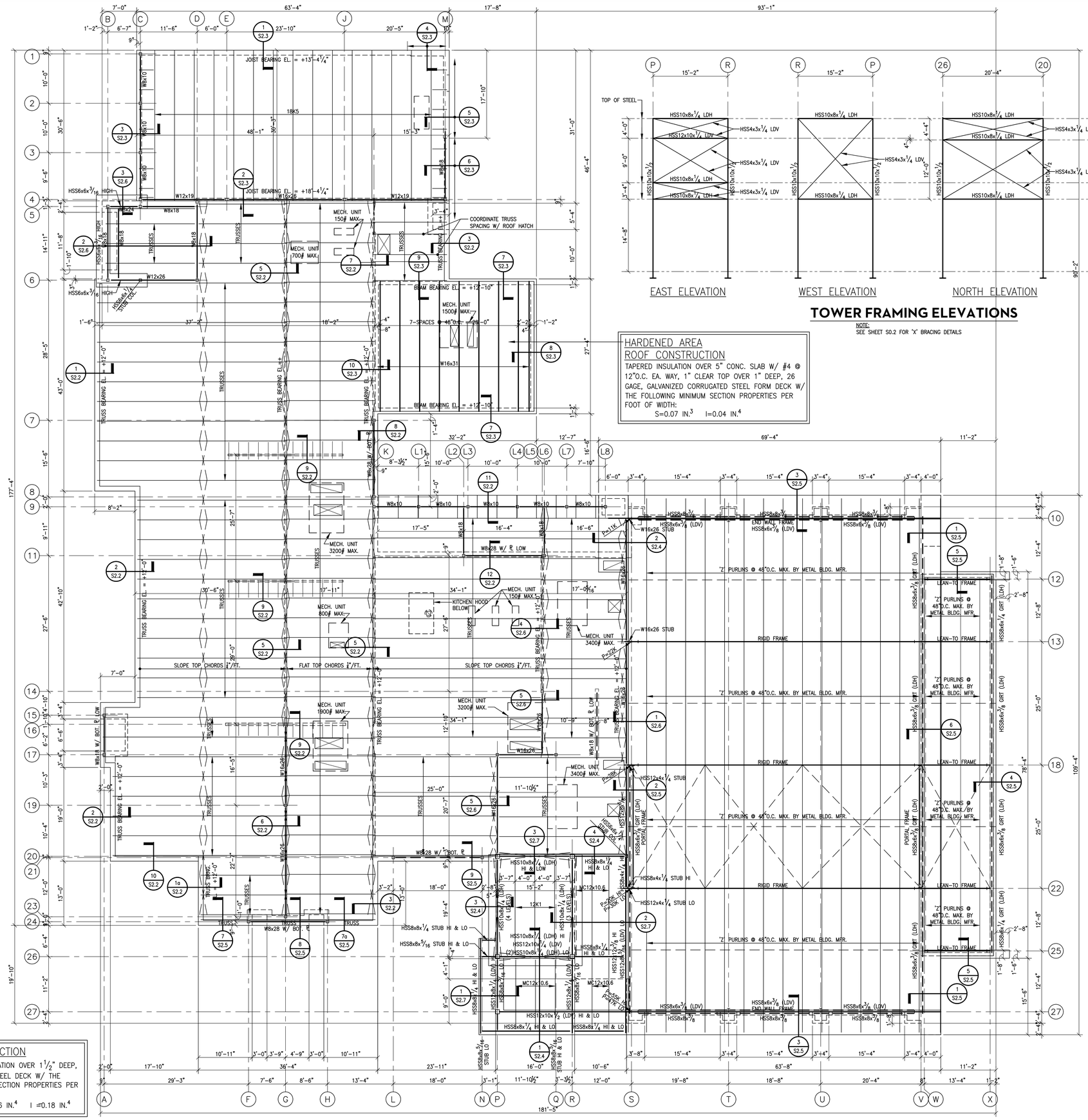
Drawing Title:

FOUNDATION PLAN

Sheet No:

S1.1

CONFORMANCE DOCUMENTS



TOWER FRAMING ELEVATIONS

NOTE:
SEE SHEET S0.2 FOR 'X' BRACING DETAILS

HARDENED AREA ROOF CONSTRUCTION

TAPERED INSULATION OVER 5" CONC. SLAB W/ #4 @ 12"O.C. EA. WAY, 1" CLEAR TOP OVER 1" DEEP, 26 GAGE, GALVANIZED CORRUGATED STEEL FORM DECK W/ THE FOLLOWING MINIMUM SECTION PROPERTIES PER FOOT OF WIDTH:
S=0.07 IN.^{3} I=0.04 IN.^{4}

ROOF CONSTRUCTION

RIGID/TAPERED INSULATION OVER 1 1/2" DEEP, 22 GAGE, WIDE RIB STEEL DECK W/ THE FOLLOWING MINIMUM SECTION PROPERTIES PER FOOT OF WIDTH:
S=0.19 IN.^{3} I=0.16 IN.^{4} I=0.18 IN.^{4}

ROOF FRAMNG PLAN

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

N

TRUCK BAY ROOF CONSTRUCTION

PRE-ENGINEERED METAL BUILDING SYSTEM

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ALABAMA REGISTERED No. 30026 ENGINEER RAY S. DANIELS 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	RAS
Date:	05-17-2023
Scale:	AS NOTED

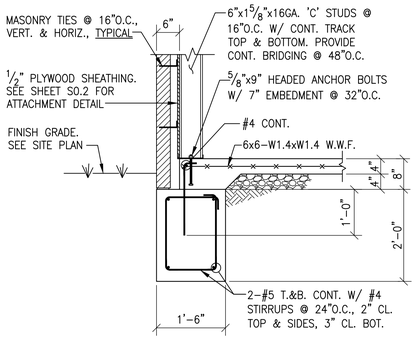
Drawing Title:

ROOF FRAMING PLAN

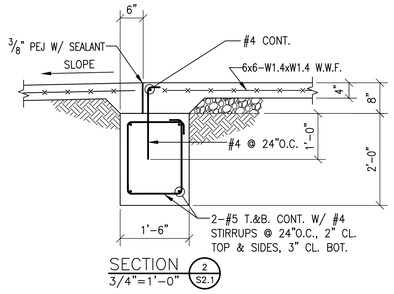
Sheet No:

S1.2

CONFORMANCE DOCUMENTS



SECTION 3/4"=1'–0" (1 S2.1)



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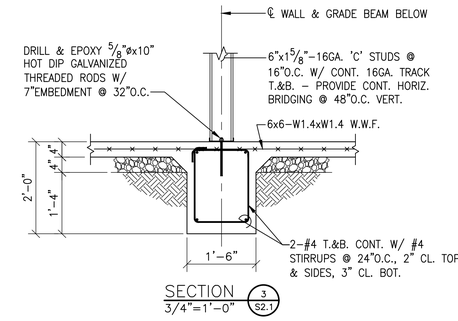

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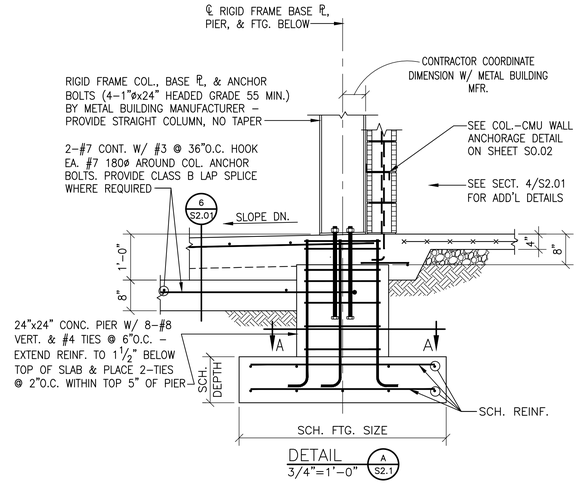

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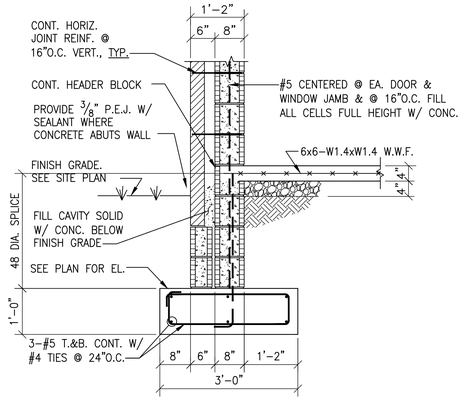

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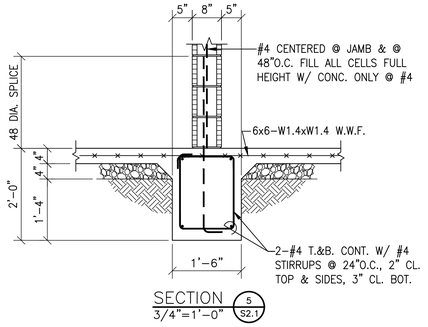

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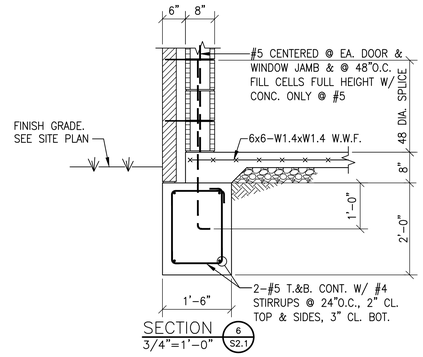

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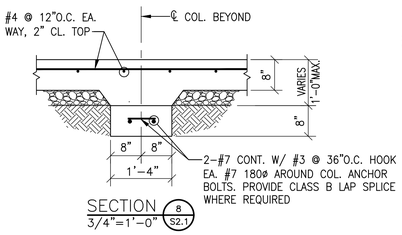

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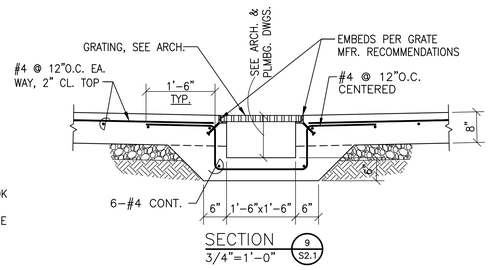

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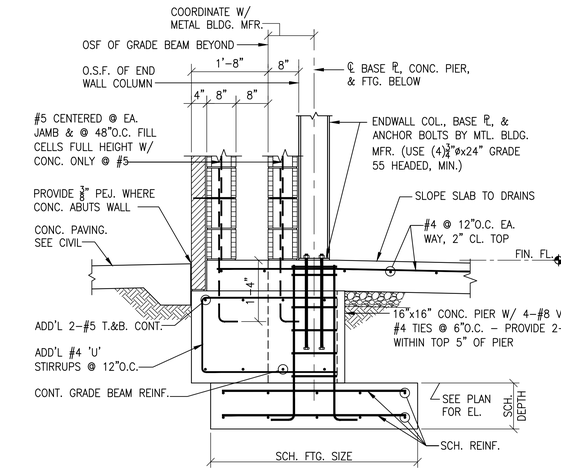
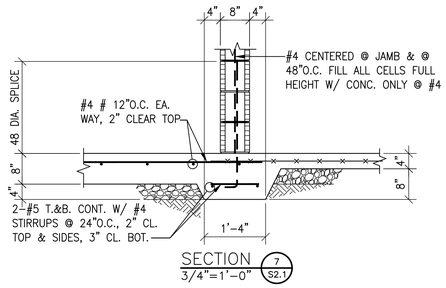


DETAIL 3/4"=1'–0" (B S2.1)



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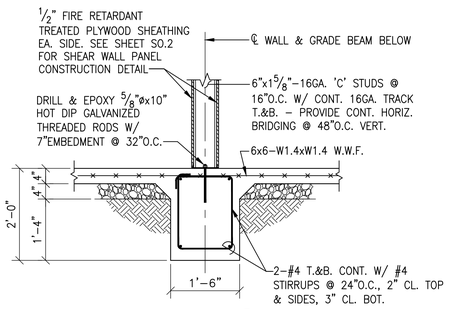

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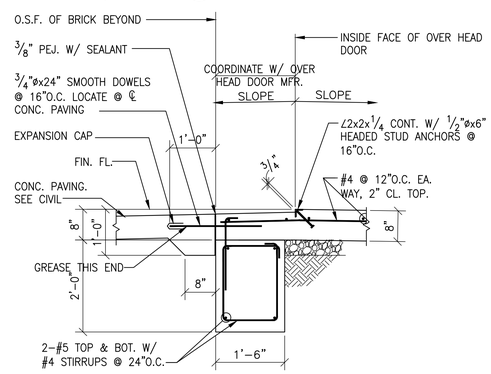

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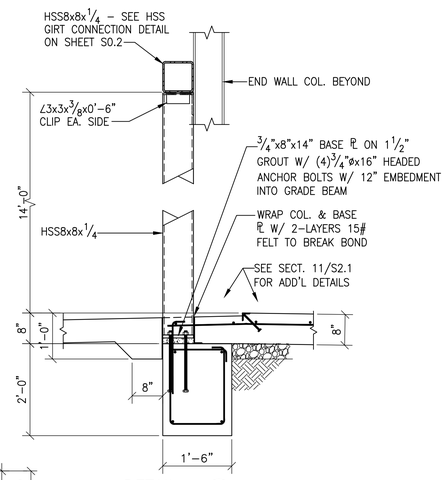
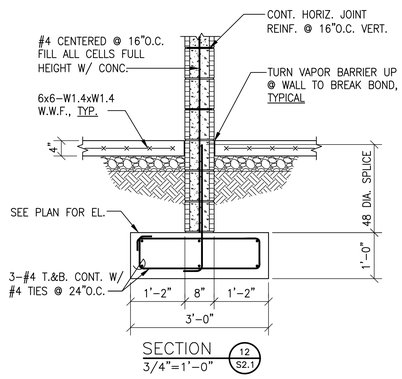


DETAIL 3/4"=1'–0" (C S2.1)



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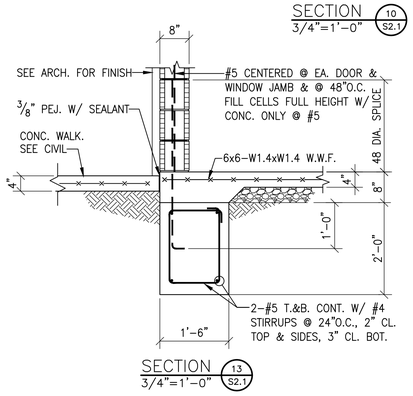

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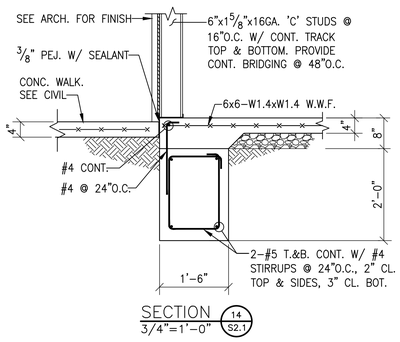

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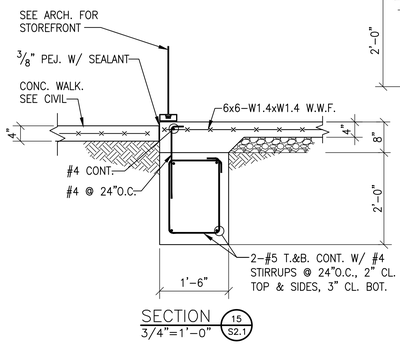

SECTION 3/4"=1'–0" (15 S2.1)

Barganier Davis Williams Architects Associated

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ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER JACK W. DANIELS 5-17-23

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
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4	ADDENDUM NO.4	03/09/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	RAS
Date:	05-17-2023
Scale:	AS NOTED

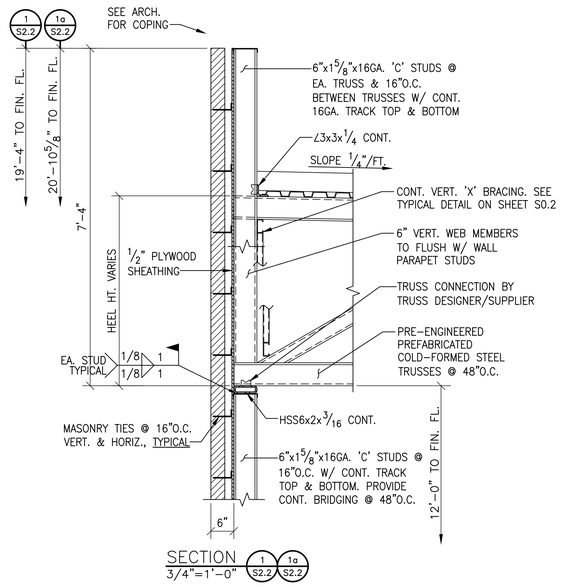
Drawing Title:

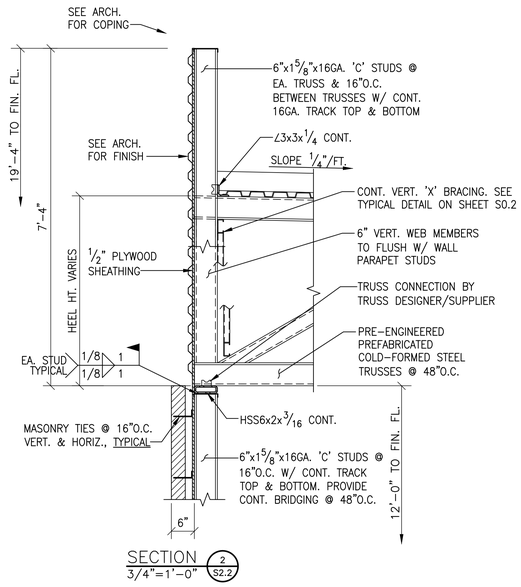
SECTIONS AND DETAILS

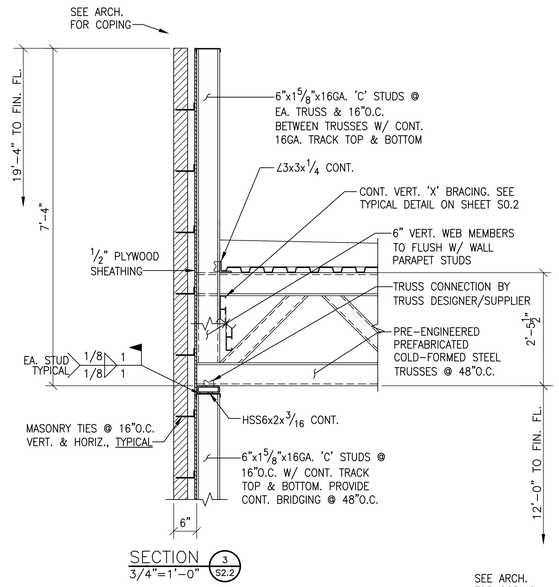
Sheet No:

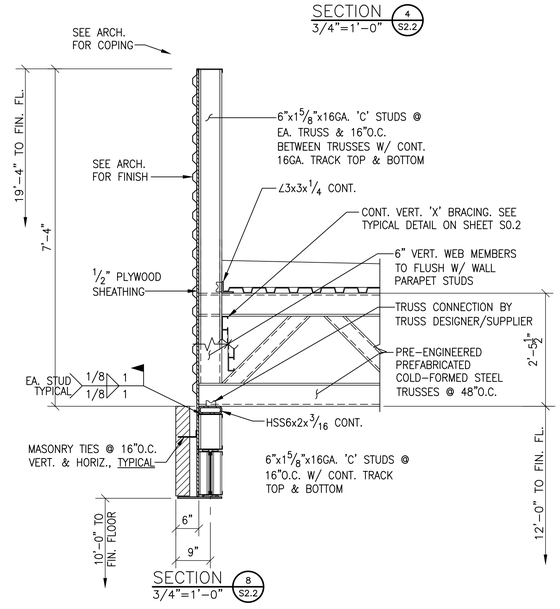
S2.1

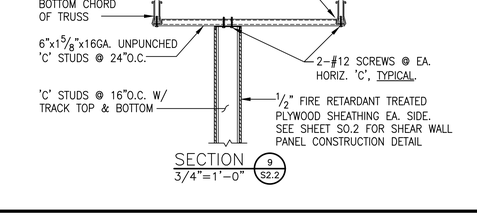
CONFORMANCE DOCUMENTS

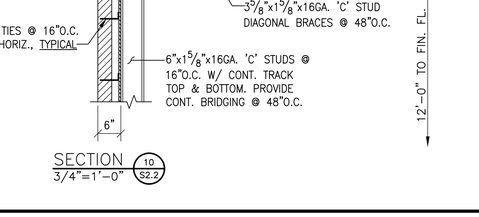


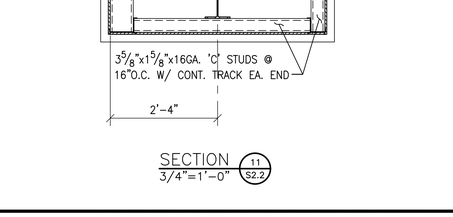


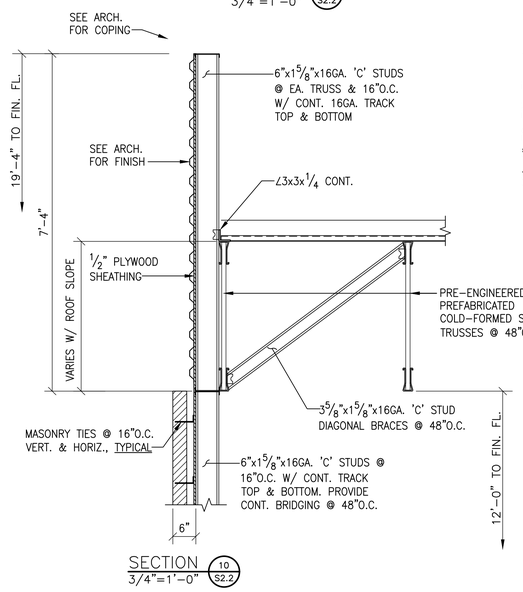


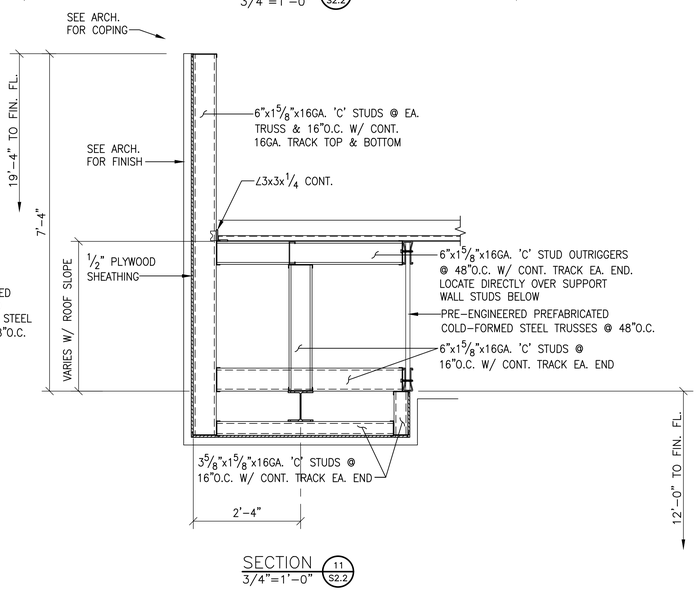


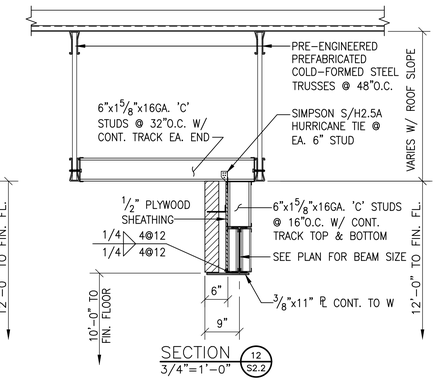












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ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER JACK W. DANIEL 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

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Scale:	AS NOTED

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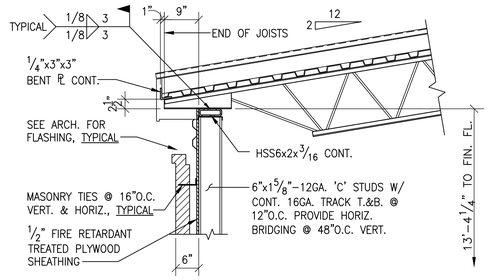
SECTIONS AND DETAILS

Sheet No:

S2.2

CONFORMANCE DOCUMENTS



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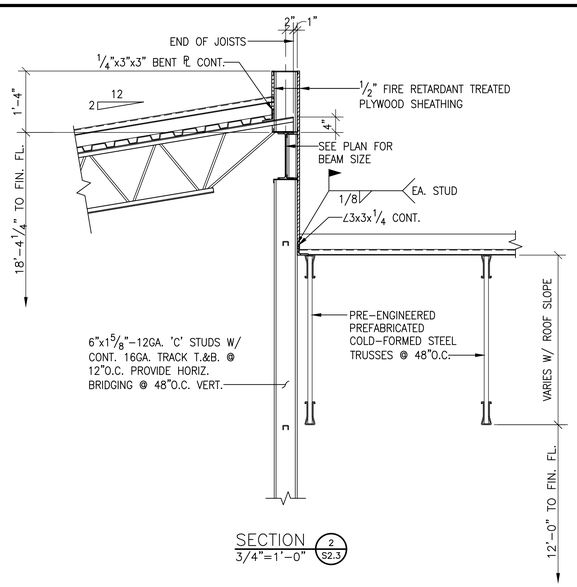

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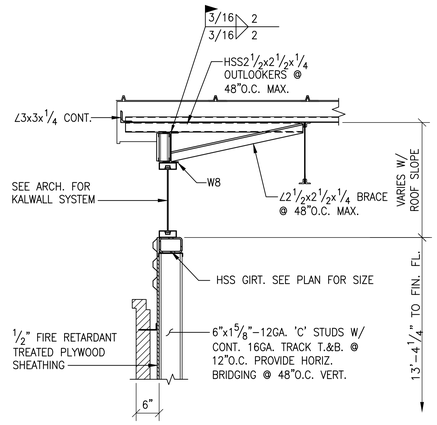

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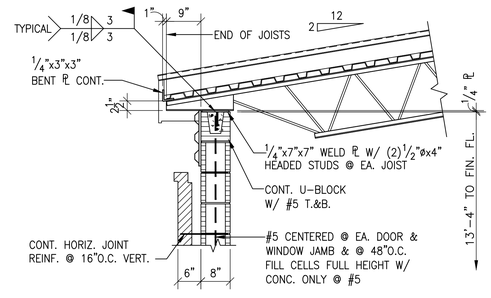
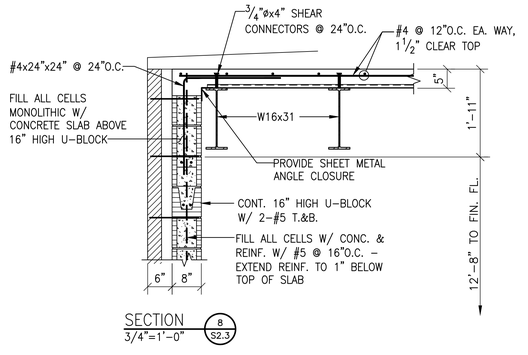


SECTION 4 S2.3
3/4"=1'-0"

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

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

SECTION 7 S2.3
3/4"=1'-0"



SECTION 8 S2.3
3/4"=1'-0"

SECTION 9 S2.3
3/4"=1'-0"

SECTION 10 S2.3
3/4"=1'-0"

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ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER RICK W. DANIEL 5-17-23

NEW FIRE STATION NO. 10
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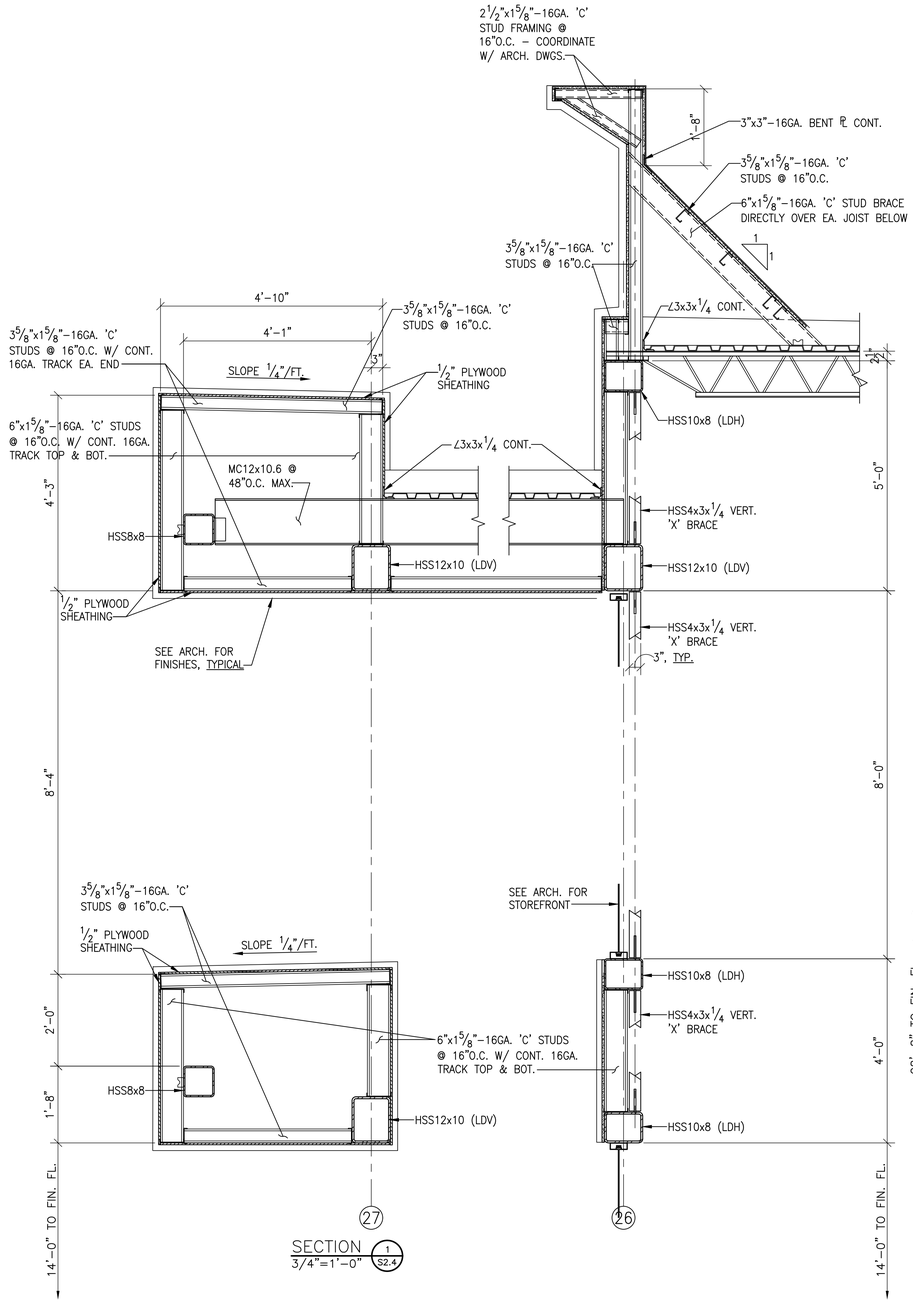
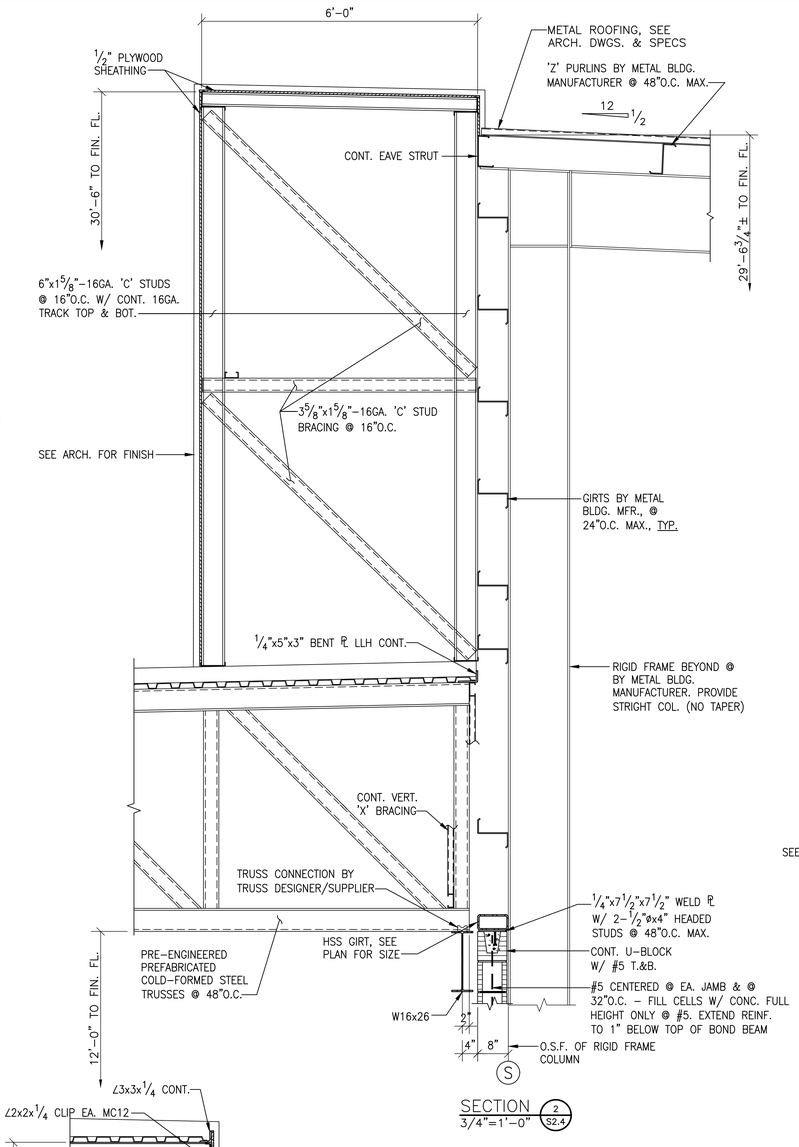
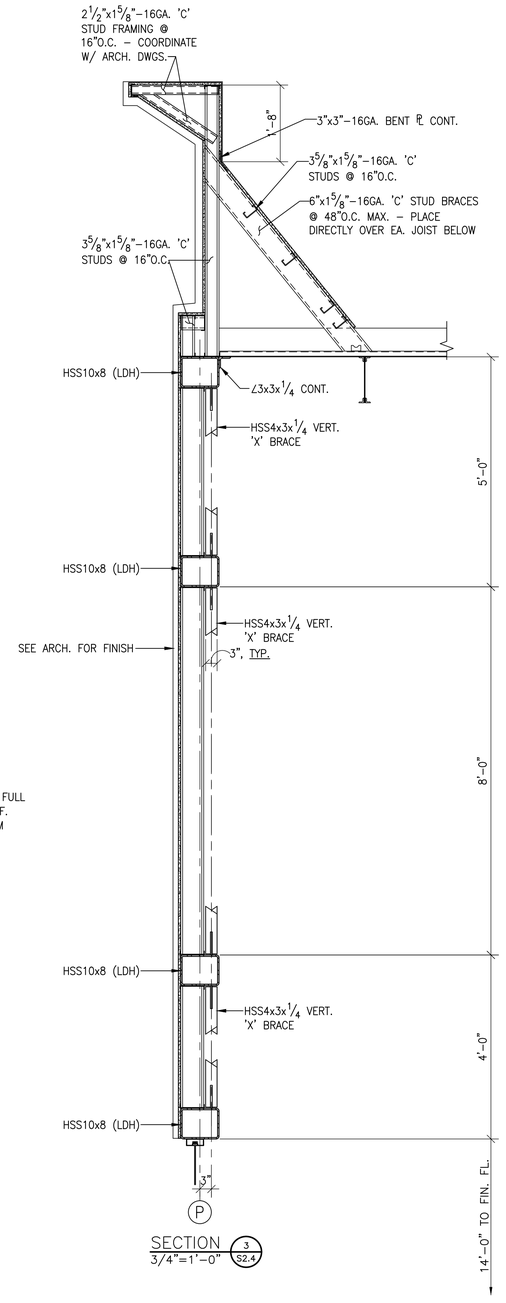
Sheet No:

S2.3

CONFORMANCE DOCUMENTS







Barganier Davis Williams Architects Associated

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ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER JACK W. DANIEL 5-17-23

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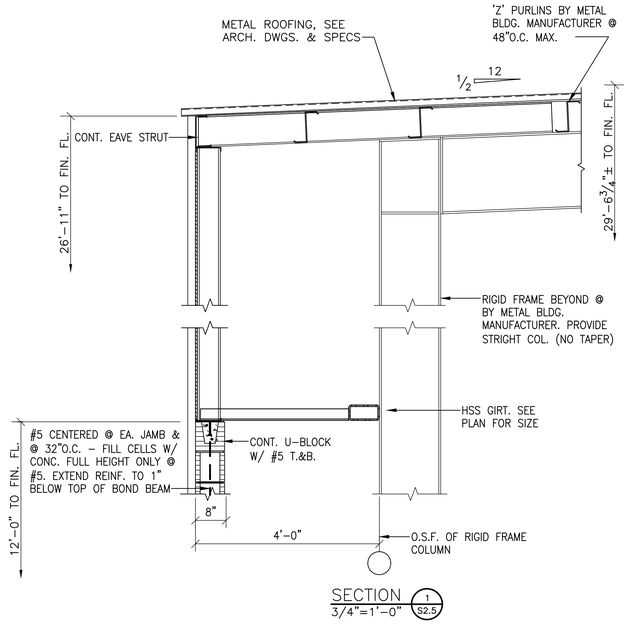
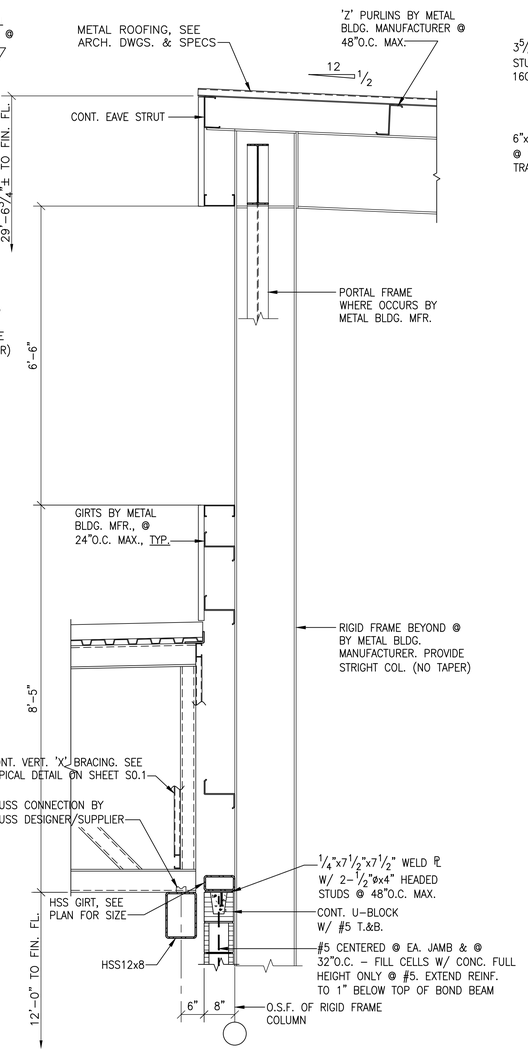
Sheet No:

S2.4

CONFORMANCE DOCUMENTS



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



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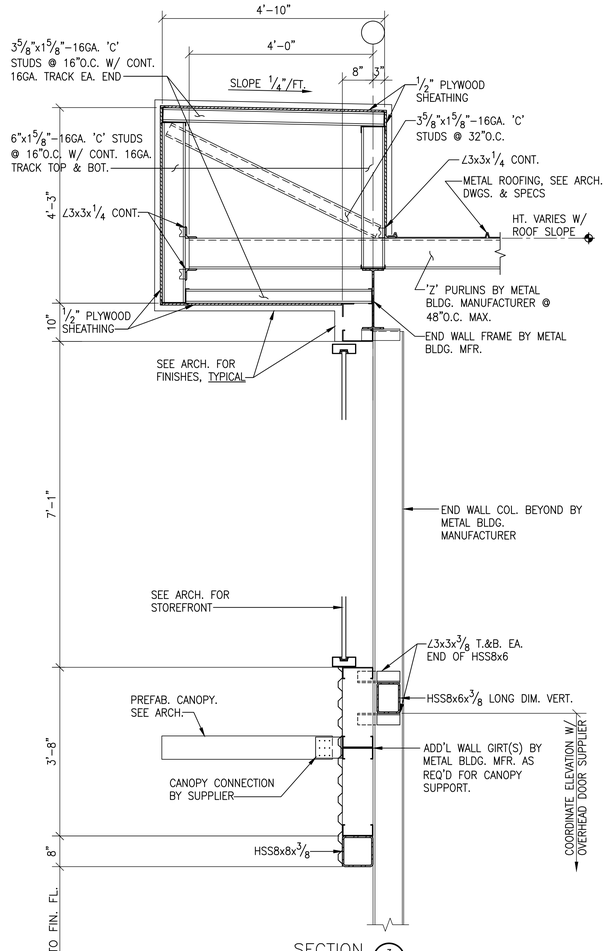

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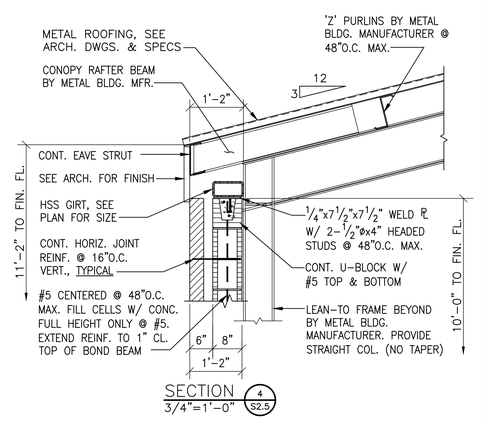
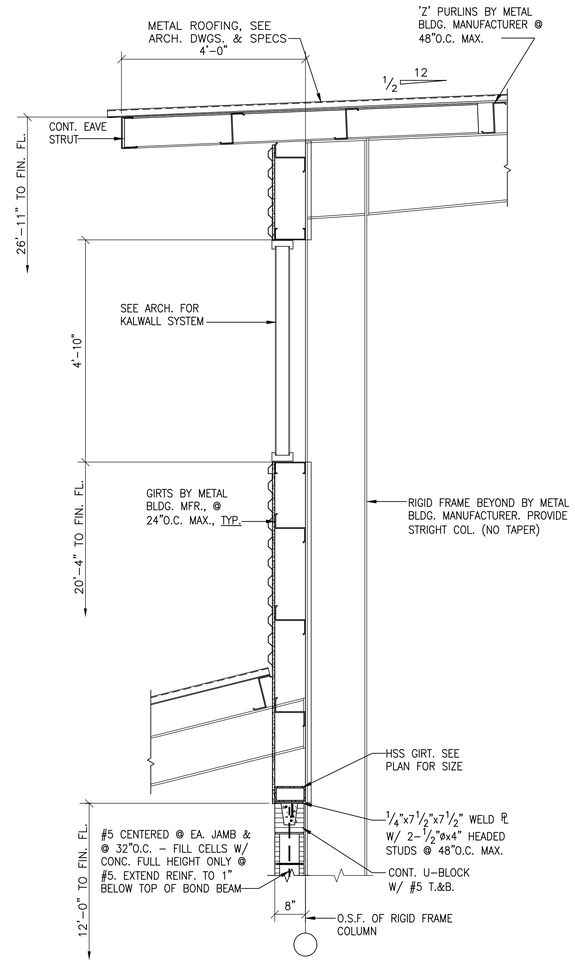
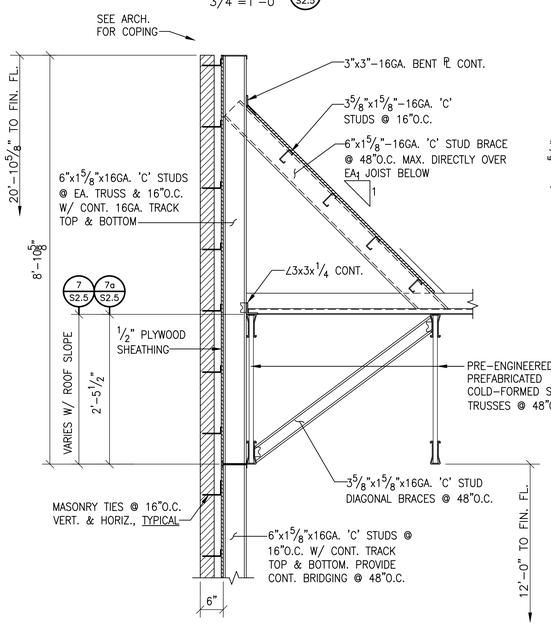


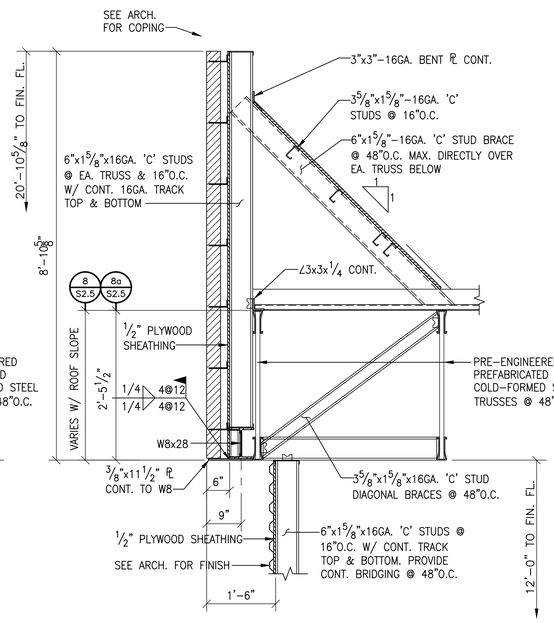
SECTION 3/4"=1'-0" (4 S2.5)



SECTION 3/4"=1'-0" (6 S2.5)



SECTION 3/4"=1'-0" (7 S2.5 7a S2.5)



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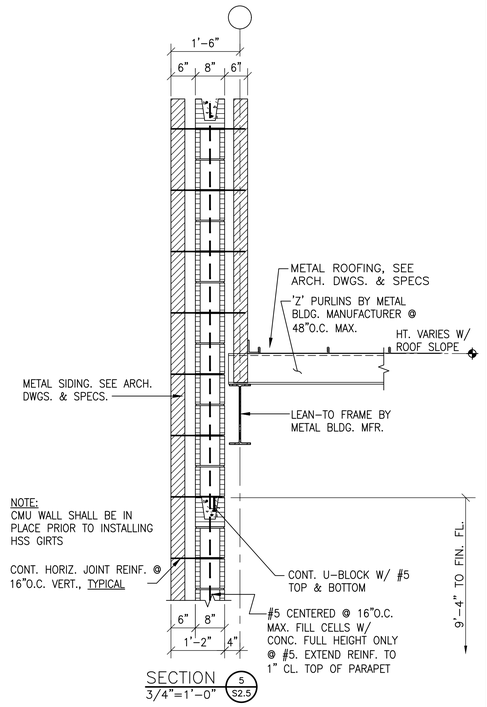

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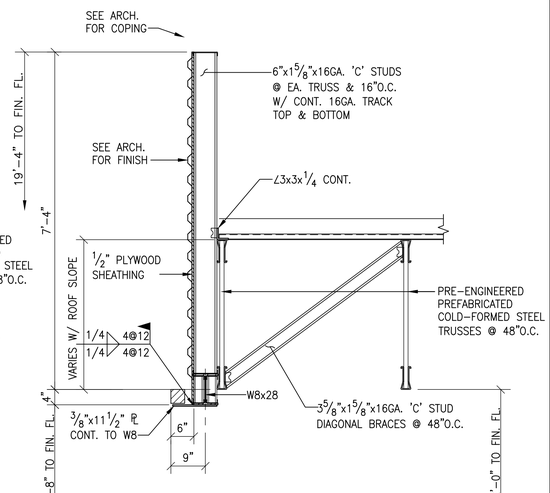

SECTION 3/4"=1'-0" (9 S2.5)

Barganier Davis Williams Architects Associated

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624 South McDonough Street
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ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER RICK W. DANIEL 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	RAS
Date:	05-17-2023
Scale:	AS NOTED

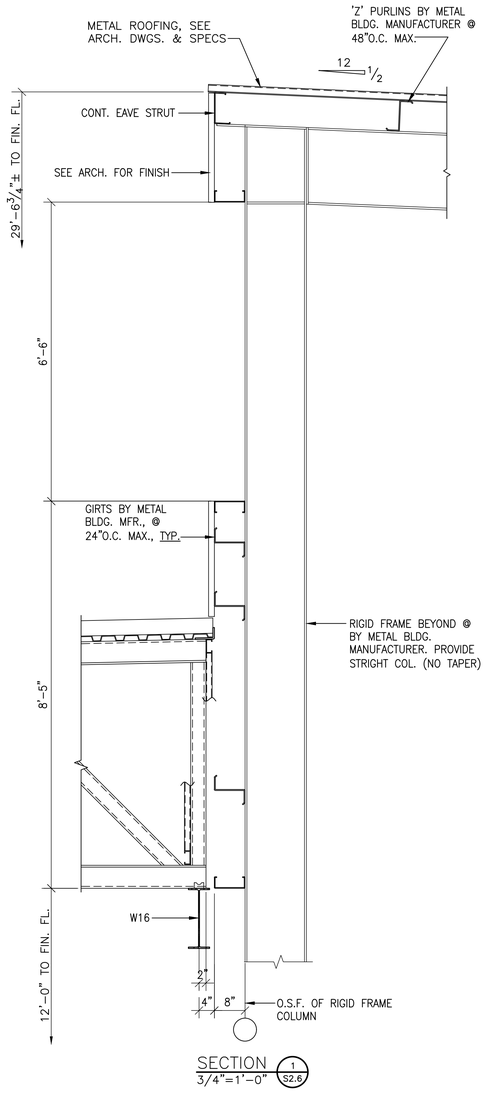
Drawing Title:

SECTIONS AND DETAILS

Sheet No:

S2.5

CONFORMANCE DOCUMENTS



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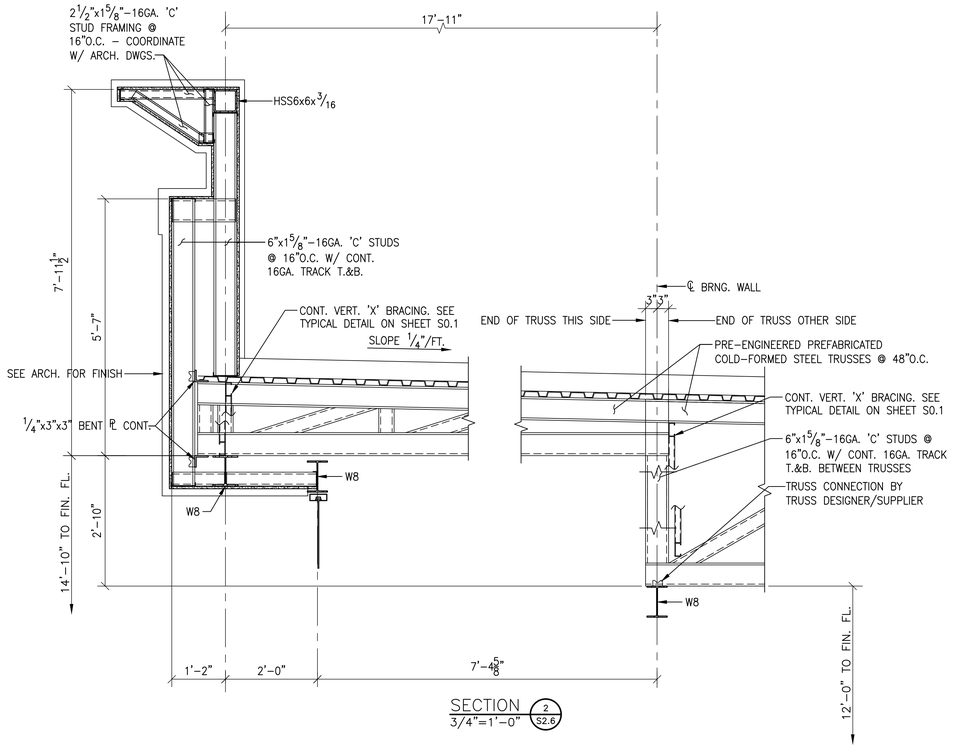

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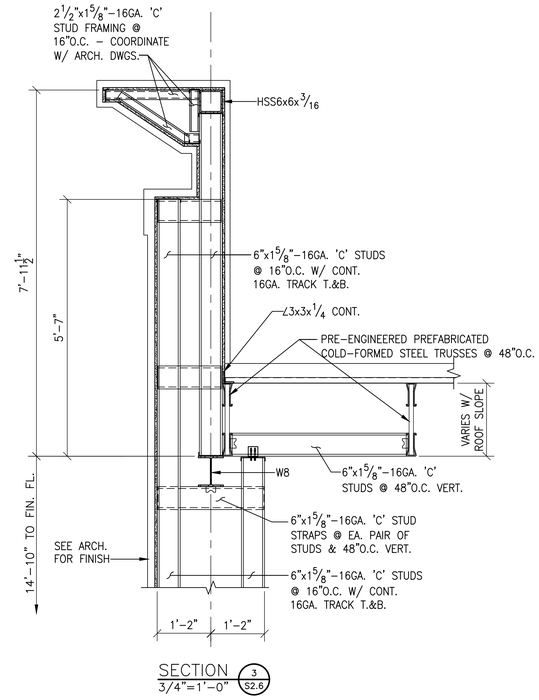

SECTION 3 / S2.6
3/4"=1'-0"

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

SECTION 5 / S2.6
3/4"=1'-0"

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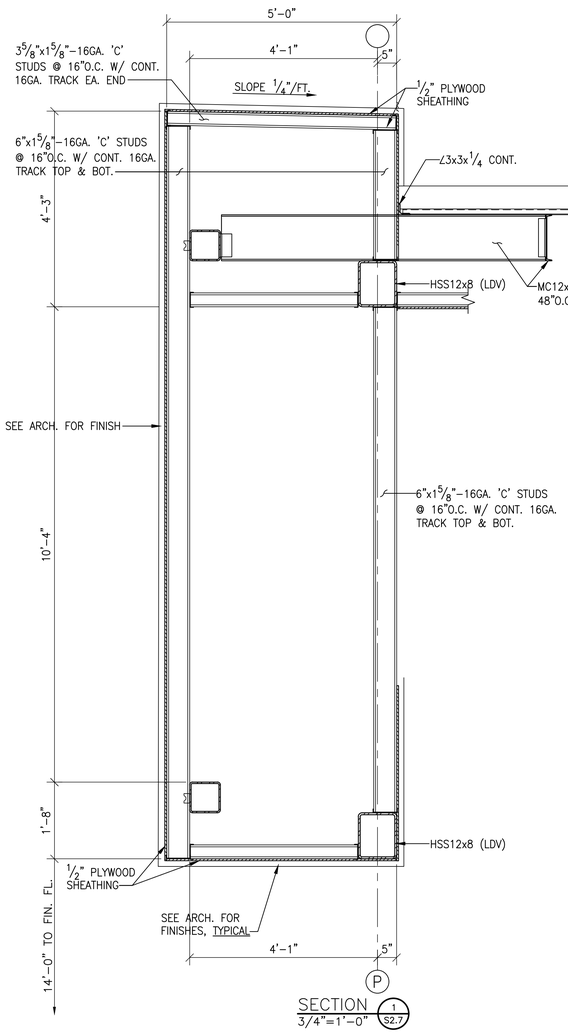
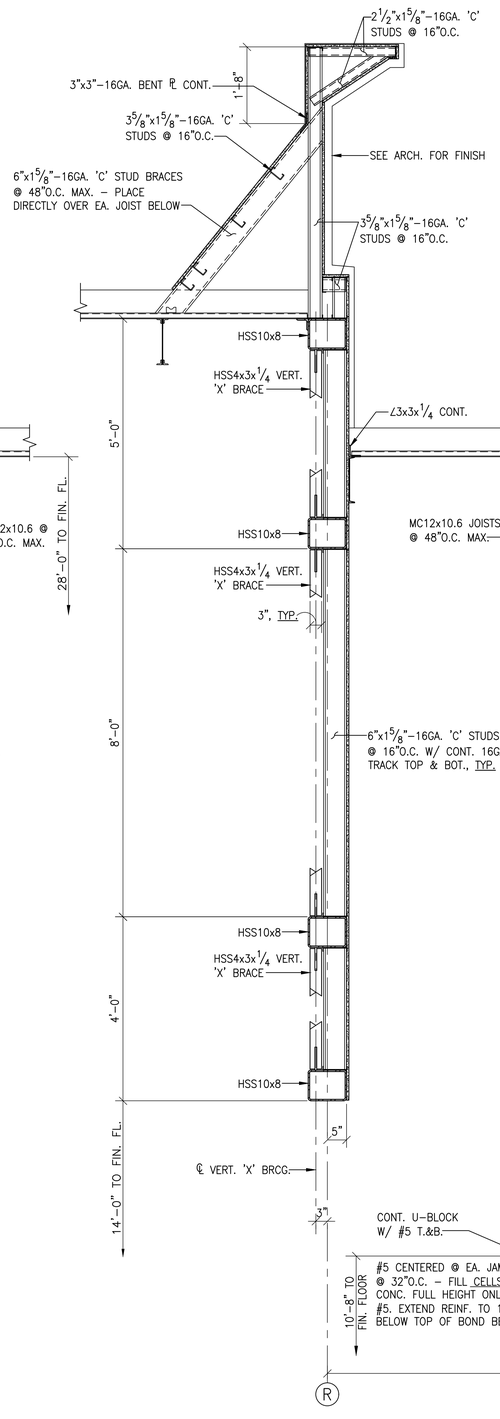
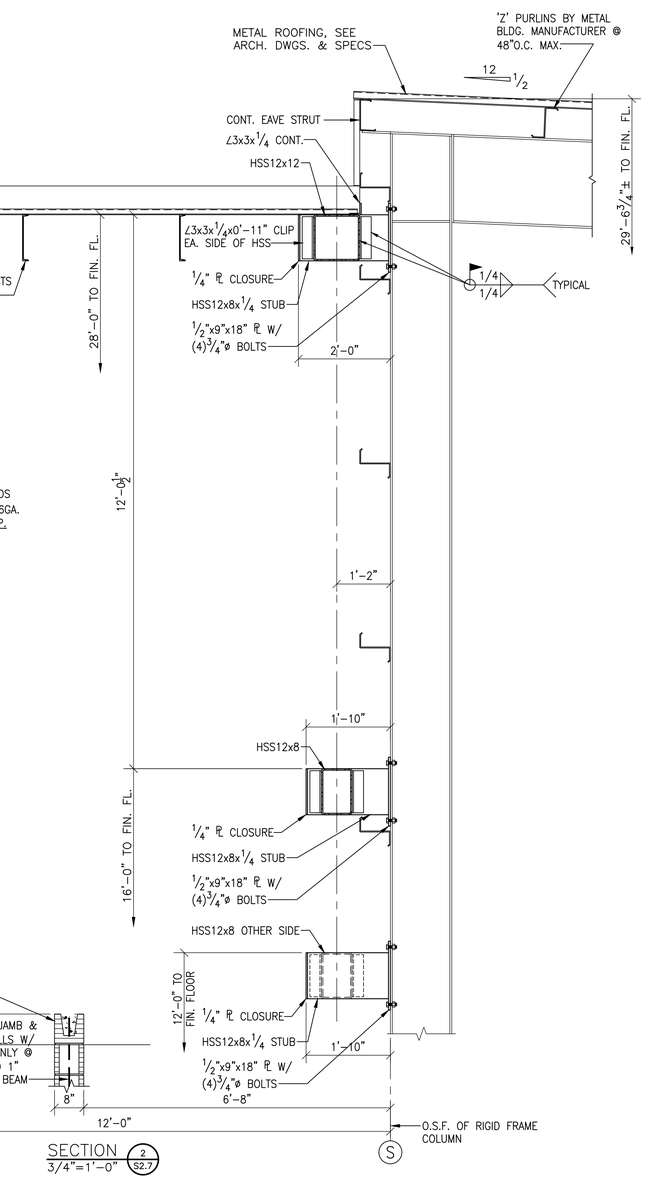
Sheet No:

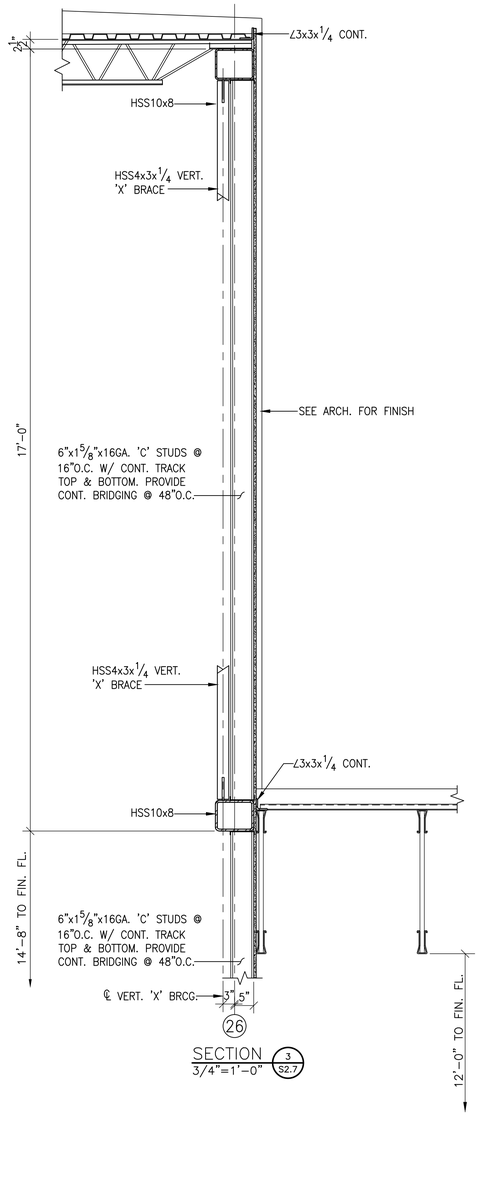
S2.6

CONFORMANCE DOCUMENTS









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Drawing Title:

SECTIONS AND DETAILS

Sheet No:

S2.7

CONFORMANCE DOCUMENTS

PLUMBING FIXTURE SCHEDULE

NO.	FIXTURE	WASTE	C.W.	H.W.	REMARKS
P1	WATER CLOSET	3"	1"	---	FL. MTD. - REG.
P2	ADA WATER CLOSET	3"	1"	---	FL. MTD. - ADA
P3	SINK	1-1/2"	1/2"	1/2"	
P4	ADA LAVATORY **	1 1/4"	1/2"	1/2"	WALL HUNG - SEE ARCH. PLANS FOR MOUNTING HEIGHT
P5	MOP BASIN	3"	1/2"	1/2"	FL. MTD. CORNER TYPE
P6	WASHING MACHINE BOX	2"	1/2"	1/2"	W/ INTEGRAL SHOCK ARRESTER
P7	SHOWER	SD	1/2"	1/2"	ROUGH-IN AND CONN.
P8	ADA SHOWER	SD	1/2"	1/2"	ROUGH-IN AND CONN.
P9	REFRIG. ICE MAKER	---	1/2"	---	ROUGH-IN AND CONN.
P10	DISHWASHER	1/2"	1/2"	---	ROUGH-IN AND CONN.
P11	LAVATORY **	1 1/4"	1/2"	1/2"	MTD. IN COUNTER
P12	SINK	F.S.	1/2"	1/2"	2-COMPARTMENT SINK
P13	SINK	1-1/2"	1/2"	1/2"	1-COMP SINK COUNTER MOUNTED
P14	HI-LO ELECTRIC WATER COOLER	1-1/2"	1/2"	--	
P15	ICE MACHINE	F.S.	1/2"	--	ROUGH-IN AND CONN.
P16	SHOWER	SD	1/2"	1/2"	ROUGH-IN AND CONN.
T.P.	TRAP PRIMER	---	1/2"	---	CONNECT TO FLOOR DRAIN AS SPECIFIED

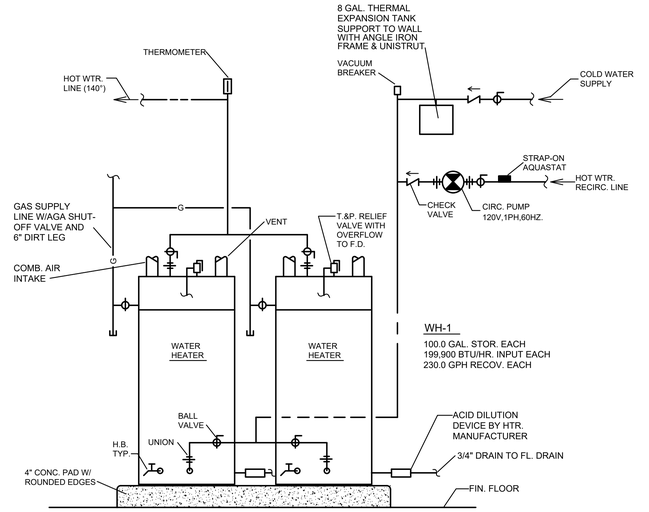
** PROVIDE A WATER TEMPERATURE LIMITING DEVICE EQUAL TO SYMMONS #5-210-CK (ASSE STD. 1070) WITH 1/2" TEMPERED WATER LINE TO FAUCET.

GENERAL PLUMBING NOTES

1. ROUGH IN WATER CLOSET AND URINAL FLUSH VALVE SO THAT THE FLUSH TUBE IS VERTICALLY STRAIGHT.
2. ADA FIXTURES AND INSTALLATION SHALL COMPLY WITH CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
3. FLUSH VALVE HANDLE FOR ALL MANUAL FLUSH WATER CLOSETS SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AS REQUIRED BY CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
4. ROUGH-IN ADA WATER CLOSETS 18" FROM FINISHED WALL TO CENTERLINE OF THE WATER CLOSET. MEASURE FROM FACE OF SHORT SIDE OF THE STALL TO THE FINISHED WALL.
5. PROVIDE A CAST IRON DEEP SEAL P-TRAP FOR EACH FLOOR DRAIN AND HUB DRAIN.
6. ROUTE ALL OVERHEAD WATER PIPING AND WATER PIPING WITHIN NON-MASONRY WALLS WITHIN THE BUILDING INSULATION ENVELOPE.
7. ALL WATER PIPING WITHIN MASONRY WALLS SHALL BE INSULATED AS SPECIFIED.
8. ALL WATER PIPING INSTALLED IN EXTERIOR WALLS SHALL BE LOCATED ON THE INTERIOR SIDE OF THE BUILDING EXTERIOR WALL INSULATION
9. COORDINATE ALL PIPING RUNS WITH THE ELECTRICAL PLANS AND THE ELECTRICAL CONTRACTOR. DO NOT ROUTE ANY PIPING OVER ELECTRICAL PANELS, TRANSFORMERS, SWITCHGEAR, ETC. MAINTAIN CLEARANCES AS REQUIRED BY RESPECTIVE CODES.
10. ALL PIPING AND FITTINGS ROUTED IN/THROUGH RETURN AIR PLENUMS, RETURN AIR PLATFORMS, OR FIRE RATED PARTITIONS AND ENCLOSURES SHALL BE CAST IRON OR PVDF. SEE SPECS.
11. PLUMBING VENTS SHALL TERMINATE A MINIMUM OF 10'-0" DISTANCE FROM ALL HVAC OUTSIDE AIR INTAKES.
12. PROVIDE A READILY ACCESSIBLE CLEANOUT AT OR NEAR THE BASE OF EACH WASTE AND VENT STACK PER INTERNATIONAL PLUMBING CODE AND THE SPECIFICATIONS. LOCATE 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.
13. 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.
14. PROVIDE A BALL VALVE ON EACH SIDE OF EVERY DIELECTRIC UNION TO FACILITATE ITS REMOVAL.
15. TOPS OF ALL OUTSIDE CLEANOUTS SHALL BE FLAT AND BROUGHT TO GRADE AND FINISHED FLUSH IN 12x12x12 CONCRETE PAD.
16. 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.
17. 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.
18. 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.
19. 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.

LEGEND

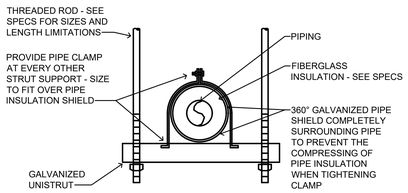
	WASTE PIPE
	VENT PIPE
	COLD WATER PIPE
	HOT WTR. PIPE (125°)
	HOT WTR. RECIRC. PIPE
G	GAS PIPE
S	STORM WATER PIPE
AR	ACID RESIST. WASTE PIPE
AR	ACID RESIST. VENT PIPE
	UNION
	GATE VALVE
	CHECK VALVE
	BALL VALVE
B.V.	BALL VALVE
C.I.	CAST IRON
C.O.	CLEANOUT
D.S.	DOWNSPOUT
FCO	FLOOR CLEANOUT
F.D.	FLOOR DRAIN
M.F.D.	MECH. FLOOR DRAIN
K.F.D.	KITCHEN FLOOR DRAIN
F.S.	FLOOR SINK
G.V.	GATE VALVE
H/C	HANDICAPPED
H.D.	HUB DRAIN
H.B.	HOSE BIBS
W.H.	WALL HYDRANT
R.D.	ROOF DRAIN
T.P.	TRAP PRIMER
V	VENT
VS	VENT STACK
VTR	VENT THRU ROOF
VSTR	VENT STACK THRU ROOF
VSTW	VENT STACK THRU WALL
W&V	WASTE AND VENT
	INDICATES POINT OF CONNECTION TO EXISTING
	INDICATES POINT OF CONNECTION TO OUTSIDE UTILITY. SEE CIVIL DWGS..



WATER HEATER PIPING CONN. DETAIL

NO SCALE

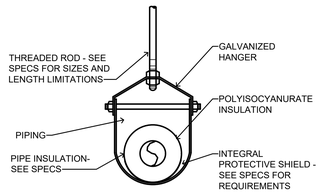
1. PROVIDE ACID DILUTION DEVICE FOR EACH WATER HEATER - SEE SPECS
2. PIPING TO ACID DILUTION DEVICE SHALL BE PVDF. PIPING DOWNSTREAM OF ACID DILUTION DEVICE SHALL BE SCHEDULE 80 PVC. - SEE SPECS
3. DO NOT USE PVC PIPE FOR VENTING/COMBUSTION AIR - SEE SPECS



TYPICAL UNISTRUT HANGER DETAIL

NO SCALE

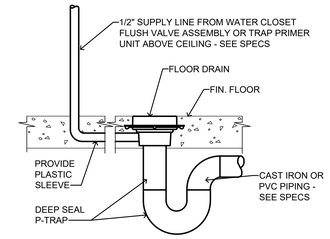
NOTES:
1. HANGER SPACING TO BE AS SPECIFIED.



TYPICAL PIPE HANGER DETAIL

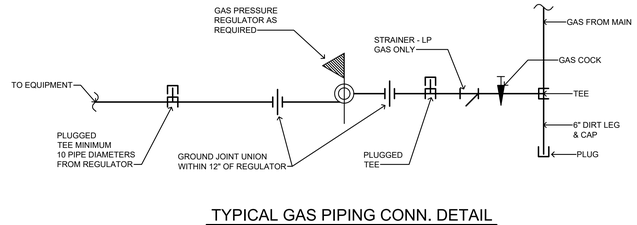
NO SCALE

NOTES:
1. HANGER SPACING TO BE AS SPECIFIED.
2. MANUFACTURER'S SADDLE LABEL WITH LOGO STICKER SHALL BE APPLIED TO EACH SADDLE AND SHALL BE VISIBLE FOR VERIFICATION OF PROPER INSTALLATION.



TRAP PRIMER DETAIL

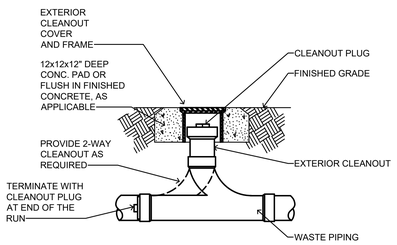
NO SCALE



TYPICAL GAS PIPING CONN. DETAIL

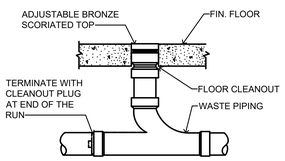
NOT TO SCALE

GAS PIPING SIZED FOR 2PSI - PROVIDE ASSEMBLY AT EACH PIECE OF GAS FIRED EQUIPMENT/APPLIANCE



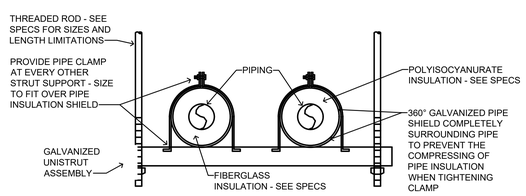
TYP. EXTERIOR CLEANOUT DETAIL

NO SCALE



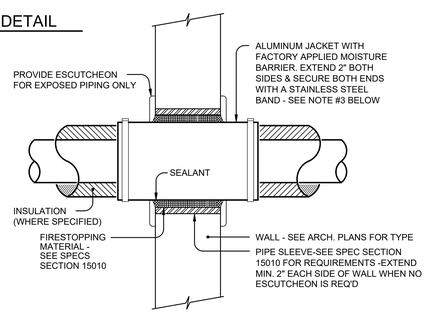
TYP. FLOOR CLEANOUT DETAIL

NO SCALE



TYPICAL MULTIPLE PIPES HANGER DETAIL

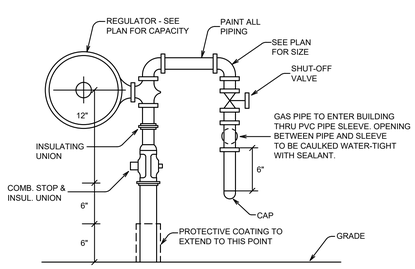
NO SCALE



INTERIOR WALL PIPE PENETRATION DETAIL

NOT TO SCALE

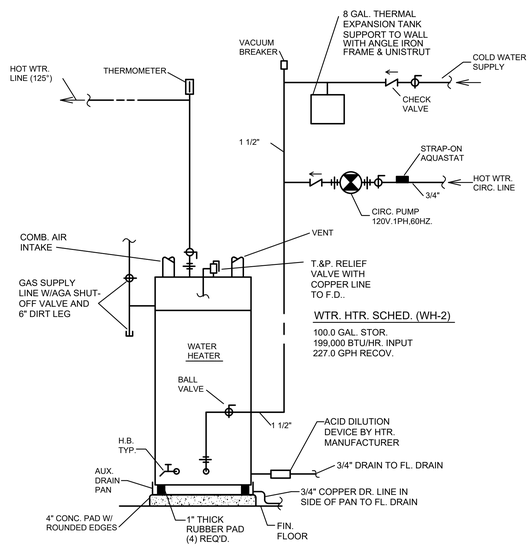
NOTES:
1. DETAIL APPLIES TO ALL PIPING ABOVE AND BELOW THE CEILING.
2. AT GYPSUM BOARD WALLS, PROVIDE MINIMUM 16 GA. GALVANIZED STEEL SLEEVE WITH LOCKING TYPE LONGITUDINAL SEAM
3. OMIT ALUMINUM JACKET IF PIPING IS UNINSULATED.
4. ONLY ONE PIPE PER SLEEVE ALLOWED



GAS PRESSURE REGUATOR DETAIL

NO SCALE

GAS PRESSURE REGULATOR BY PLUMBING CONTRACTOR. UPSTREAM GAS PIPING BY CIVIL CONTRACTOR. SEE CIVIL DRAWINGS.



WATER HEATER PIPING CONN. DETAIL

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3. DO NOT USE PVC PIPE FOR VENTING/COMBUSTION AIR - SEE SPECS

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ALBERT JOSEPH EIRING JR. No. 23369 REGISTERED PROFESSIONAL ENGINEER 05.17.23 ALABAMA

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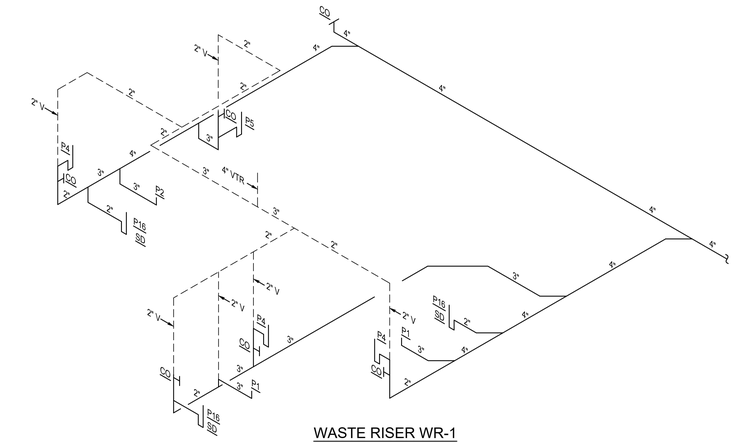
ZEA Project No.	2022-11
Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:
PLBG. SCHEDULES AND DETAILS

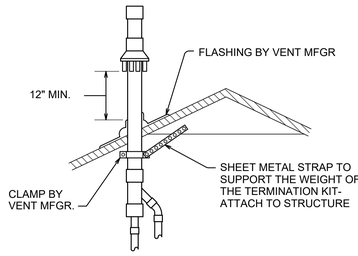
Sheet No:
P1

CONFORMANCE DOCUMENTS

ZGOUVAS, EIRING & ASSOCIATES
CONSULTING ENGINEERS
800 S McDONOUGH STREET
MONTGOMERY, AL. 36104
334.263.4405
ZEA PROJECT NUMBER 22-11



WASTE RISER WR-1

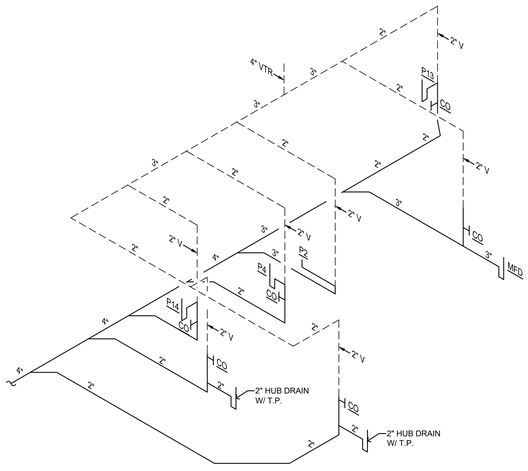


CONDENSING TYPE WATER HEATER VENT DETAIL

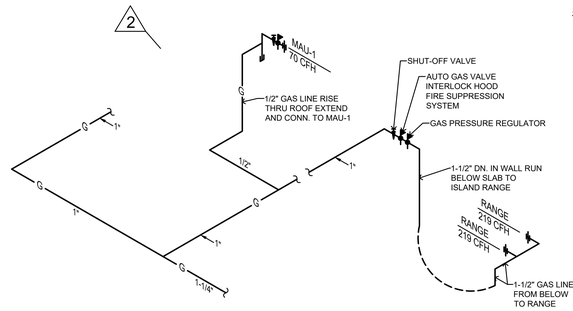
NO SCALE

NOTES:

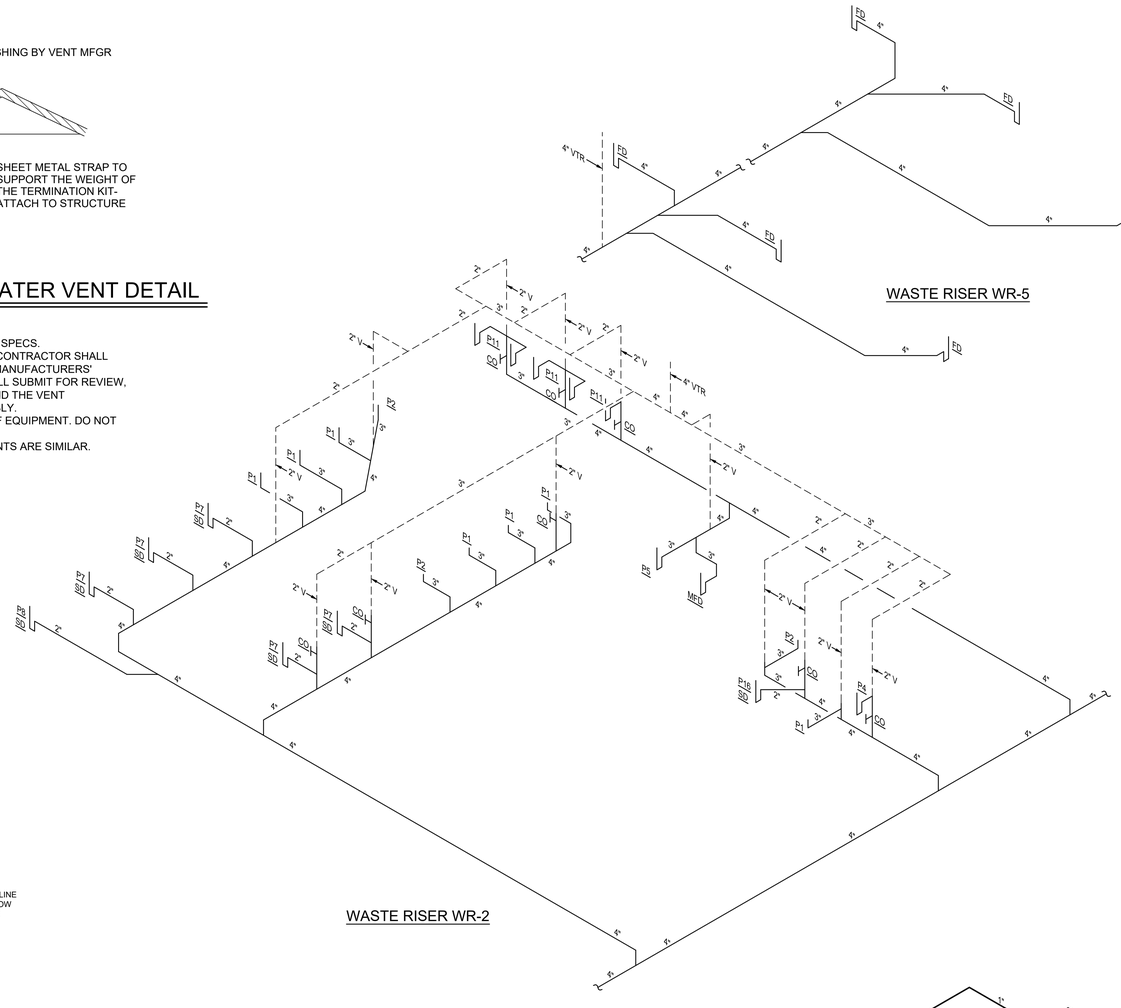
1. THE ENTIRE ASSEMBLY SHALL BE U.L. 1738 LISTED - SEE SPECS.
2. DETAIL SHOWS INTENT FOR THE INSTALLED ASSEMBLY. CONTRACTOR SHALL OBTAIN THE WATER HEATER AND THE VENT ASSEMBLY MANUFACTURERS' REQUIRED INSTALLATION DIAGRAMS. CONTRACTOR SHALL SUBMIT FOR REVIEW, A SHOP DRAWING APPROVED BY THE WATER HEATER AND THE VENT MANUFACTURER BEFORE INSTALLING THE VENT ASSEMBLY.
3. PROVIDE ONE ASSEMBLY FOR EACH GAS FIRED PIECE OF EQUIPMENT. DO NOT COMBINE MULTIPLE VENTS INTO A SINGLE VENT.
4. DETAIL IS FOR A SLOPED ROOF. FLAT ROOF REQUIREMENTS ARE SIMILAR.



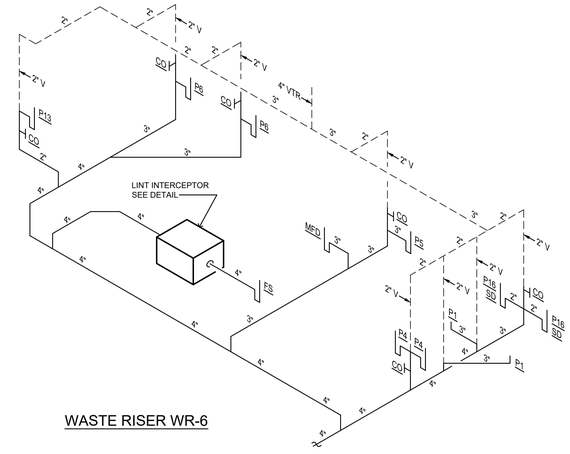
WASTE RISER WR-3



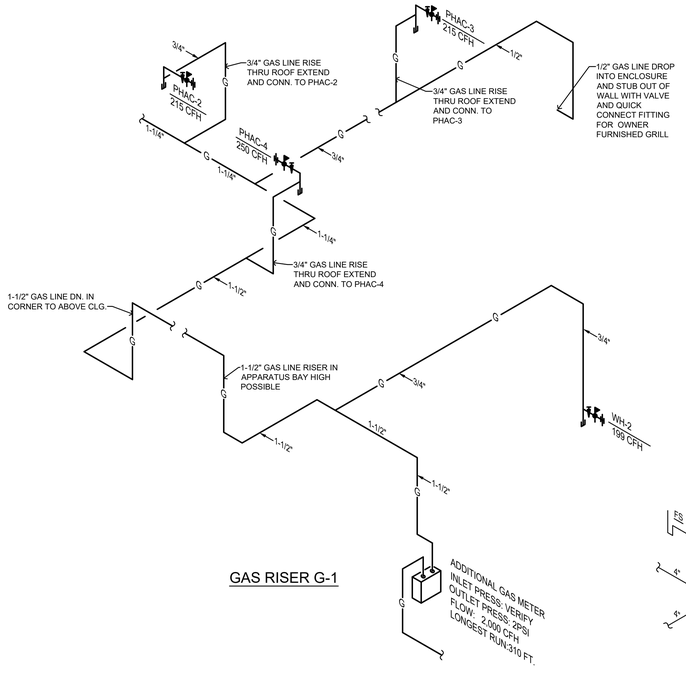
GAS RISER G-2



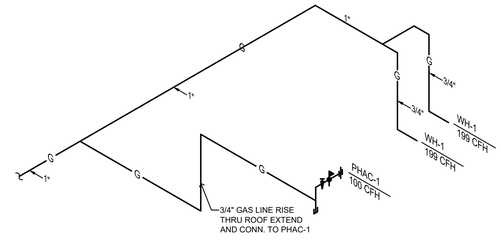
WASTE RISER WR-2



WASTE RISER WR-6



GAS RISER G-1



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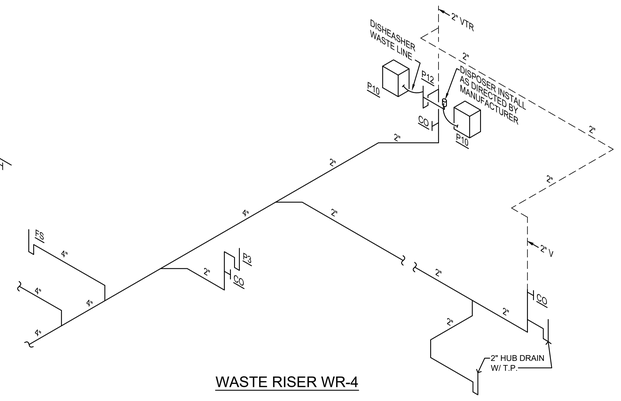

WASTE RISER WR-4

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NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
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2	Conformance Documents	05-17-2023

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BDW Project No.	2021-118
ZEA Project No.	2022-11
Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:

DETAILS AND PLBG. RISERS

Sheet No:

P2

CONFORMANCE DOCUMENTS

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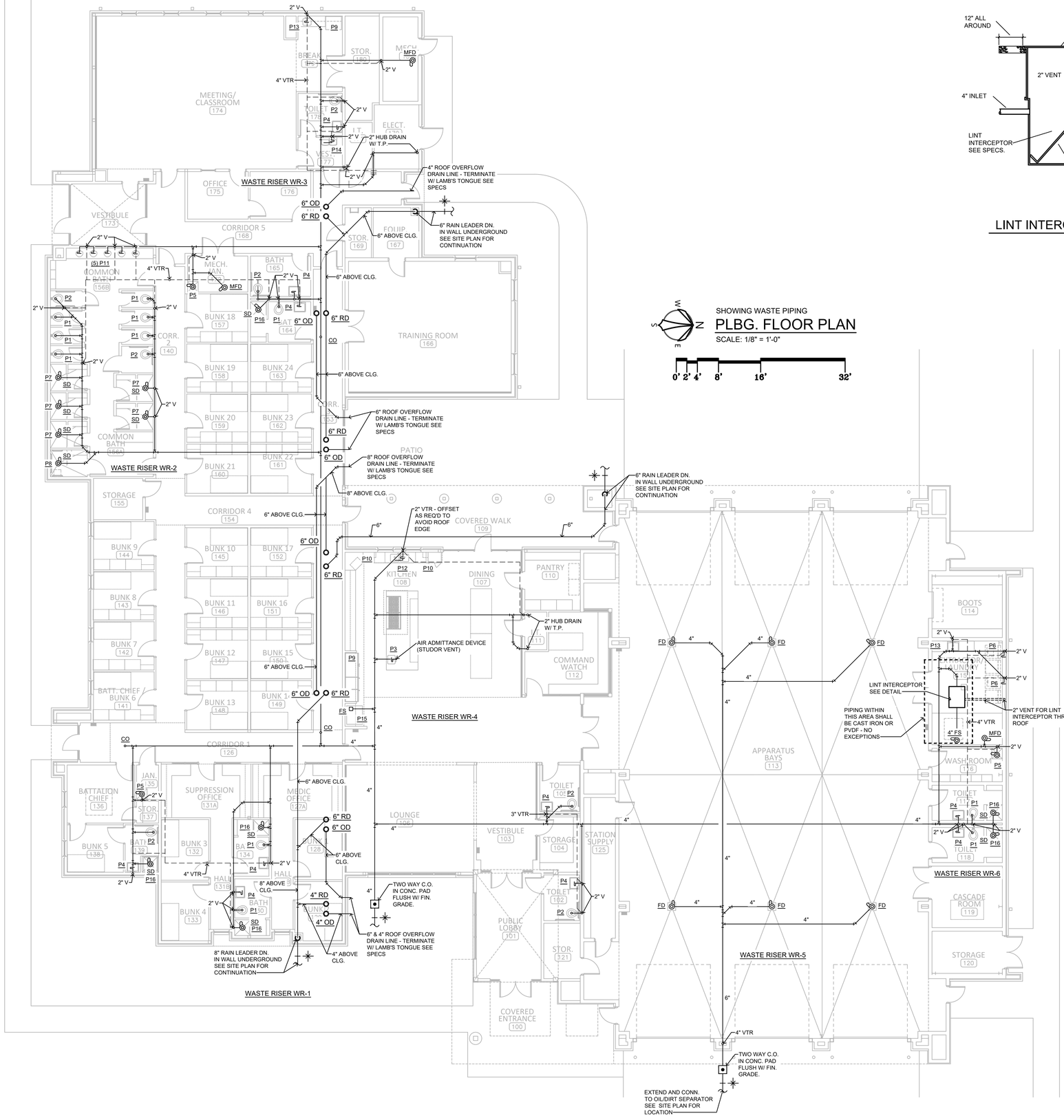
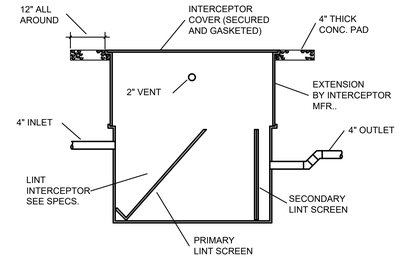
334.263.4406
ZEA PROJECT NUMBER 22-11





LINT INTERCEPTOR DETAIL

SHOWING WASTE PIPING

PLBG. FLOOR PLAN

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

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

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ALABAMA REGISTERED No. 23369 PROFESSIONAL 05.17.23 ENGINEER J. R. EIRING

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Drawing Title:

PLBG. FLOOR PLAN - SHOWING WASTE PIPING

Sheet No:

P3

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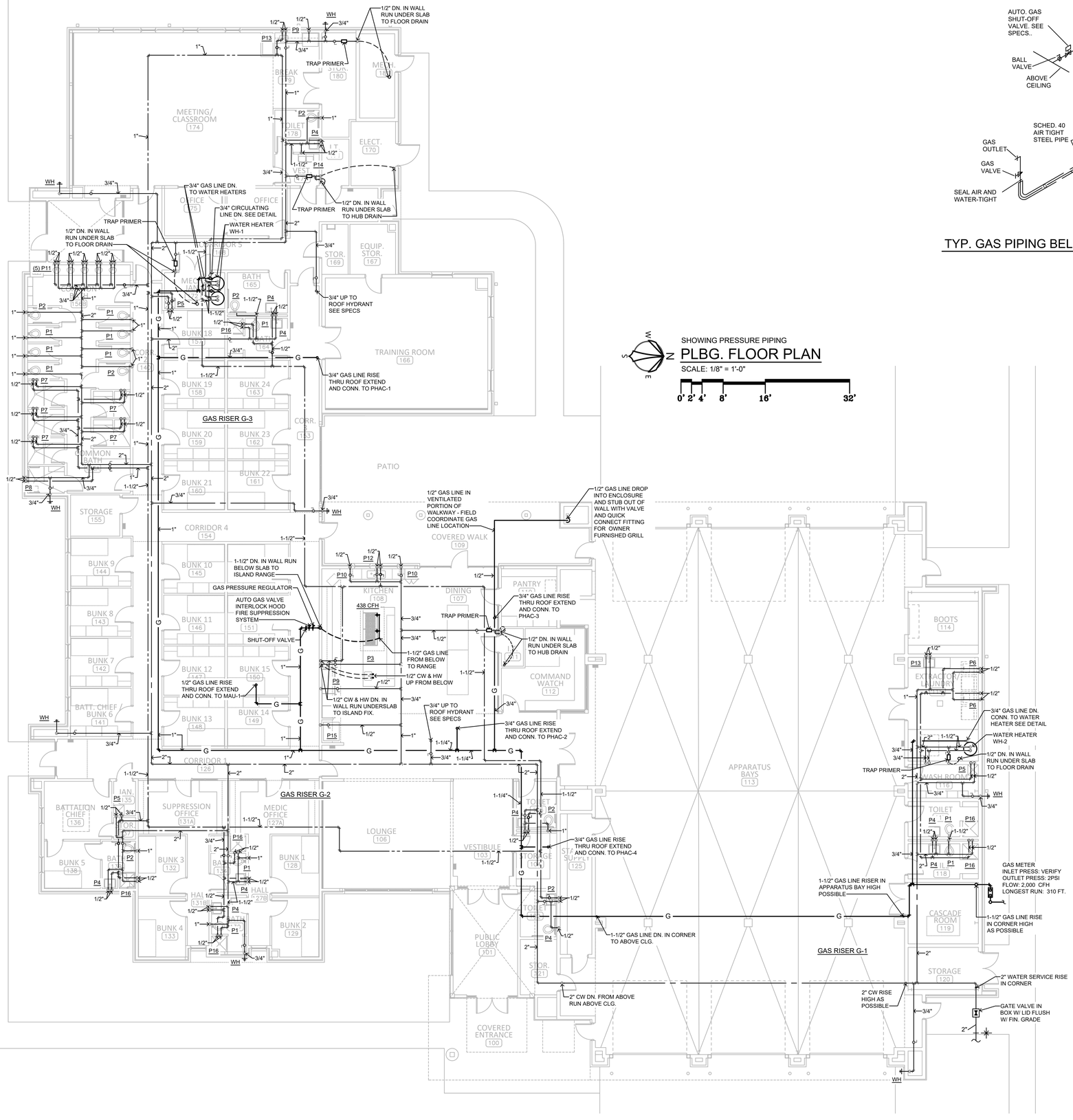

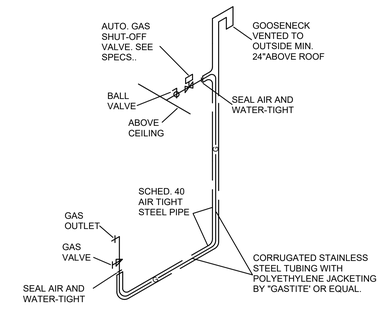

TYP. GAS PIPING BELOW FLOOR DETAIL

SHOWING PRESSURE PIPING

PLBG. FLOOR PLAN

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

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

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PLBG. FLOOR PLAN - SHOWING PRESSURE PIPING

Sheet No:

P4

CONFORMANCE DOCUMENTS

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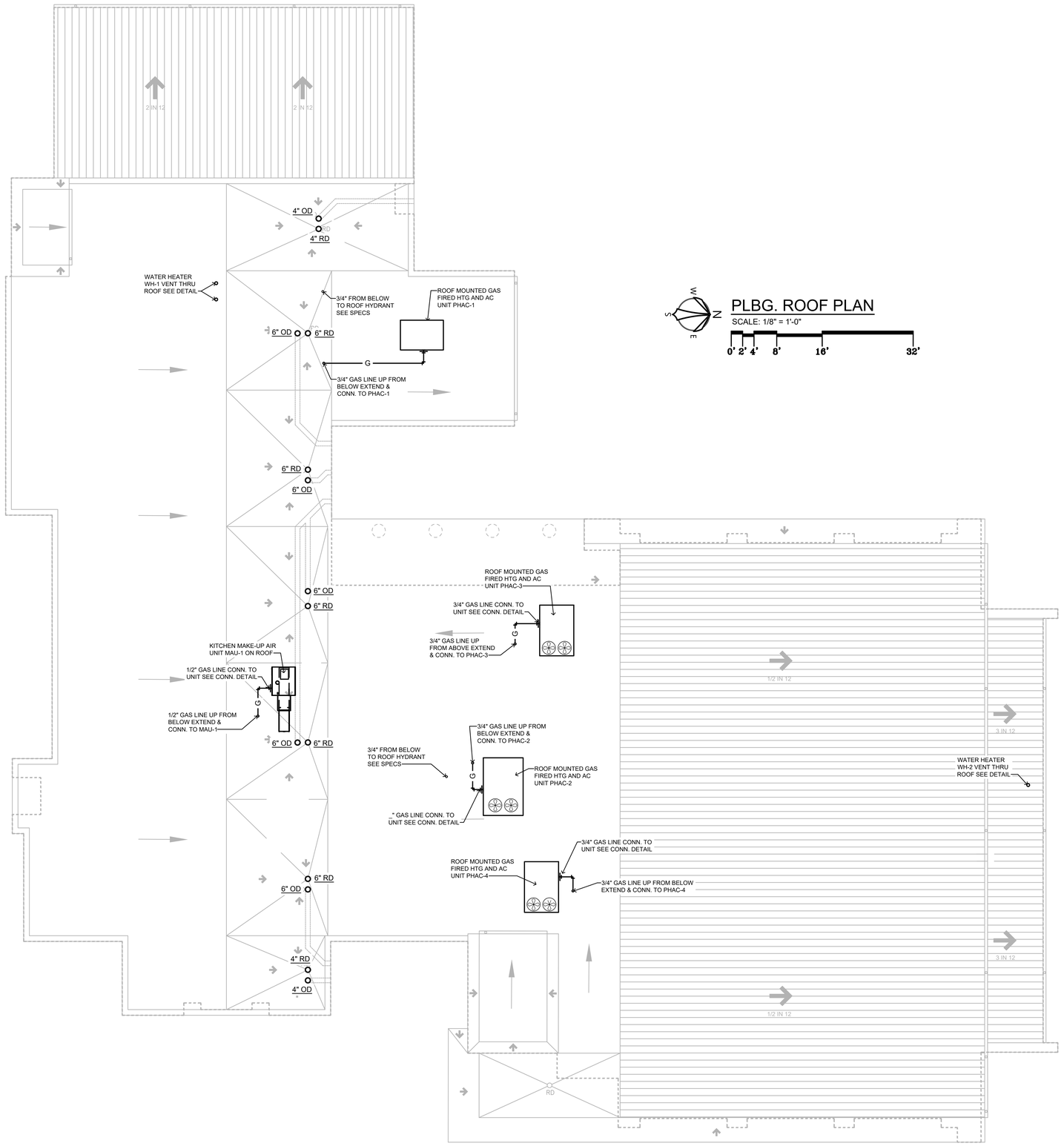

PLBG. ROOF PLAN

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

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

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PLBG. ROOF PLAN

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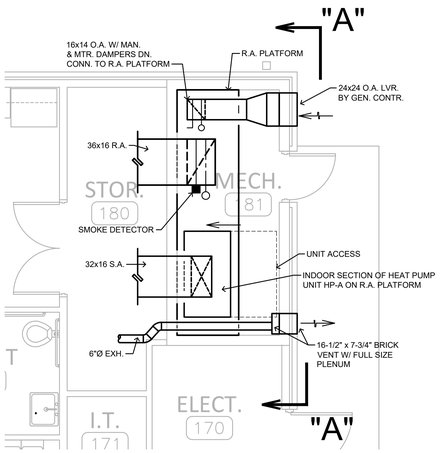

LARGE SCALE MECH. RM. 181

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

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

SECTION "A"

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

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

NOTE:
VERIFY EXACT LOCATION OF LIGHT FIXTURES, SPRINKLER PIPING, STRUCTURAL COMPONENTS IN FIELD. COORDINATE WITH STRUCTURAL, MOUNTING LOCATIONS OF DUCTWORK, TRACKS & SUPPORT PRIOR TO FABRICATION / INSTALLATION OF DUCTWORK & ACCESSORIES.

(A) 16'-0" LONG CONTINUOUS TITUS SERIES CT-PP-Q FLOW BAR W/ 10'-0" ACTIVE SECTION IN CENTER - BLANK OFF REMAINING PORTION W/ 2" THICKNESS INSULATED DUCTBOARD AND SEAL AIR TIGHT - DIFF SHALL BE 75 CFM/FT, MAX. .05" PRESS DROP AND NC 10 (750 CFM)

(B) 12'-0" LONG CONTINUOUS TITUS SERIES CT-PP-Q FLOW BAR W/ 10'-0" ACTIVE SECTION IN CENTER - BLANK OFF REMAINING PORTION W/ 2" THICKNESS INSULATED DUCTBOARD AND SEAL AIR TIGHT - DIFF SHALL BE 50 CFM/FT, MAX. .05" PRESS DROP AND NC 10 (500 CFM)

HVAC FLOOR PLAN

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

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

LEGEND

	ISOLATION / GATE VALVE
	SQUARE HEAD BALANCING VALVE
	COMBINATION BALANCING VALVE AND FLOW METER
	BALL VALVE
	BUTTERFLY VALVE
	CHECK / SWING GATE
B	BAROMETRIC DAMPER
	FACTORY FABRICATED AND INSULATED DOUBLE WALL FLAT OVAL DUCT
	MANUAL VOLUME DAMPER (MVD)
	MOTORIZED DAMPER (MD)
	SMOKE DETECTOR
S	SMOKE DAMPER
CO2	DUCT MOUNTED C02 SENSOR
	DENOTES LOCATION OF VERTICAL ACTION FIRE DAMPER
	DENOTES LOCATION OF HORIZONTAL ACTION FIRE DAMPER
	CEILING DIFFUSER
	RETURN AIR GRILLE/REGISTER EXHAUST AIR GRILLE/REGISTER

4	CEILING DIFFUSER DESIGNATOR
4	RETURN AIR GRILLE/REGISTER
4	EXHAUST AIR GRILLE/REGISTER
1/4	VAV TERMINAL UNIT DESIGNATOR AIR HANDLING UNIT SERVED BY TERMINAL UNIT NUMBER
12x12	DUCT W/ RECTANGULAR SIZE
12x12	DUCT W/ FLAT OVAL SIZE
	RECTANGULAR SUPPLY DUCT TURNING UP
	RECTANGULAR SUPPLY AIR DUCT TURNING DOWN
	RECTANGULAR RETURN AIR OR EXHAUST DUCT TURNING UP
	RECTANGULAR RETURN AIR OR EXHAUST DUCT TURNING DOWN
	RECTANGULAR SUPPLY AIR DUCT FLOOR OR ROOF PENETRATION
	RECTANGULAR RETURN OR EXHAUST AIR DUCT FLOOR OR ROOF PENETRATION
	R.A. TEMPERATURE SENSOR
ATD	AIR TRANSFER DUCT
AD	AUXILIARY DRAIN
T	THERMOSTAT
S	REMOTE TEMPERATURE SENSOR
H	HUMIDISTAT
C	CO2 SENSOR

A.F.F.	ABOVE FINISH FLOOR
C.D.	CEILING DIFFUSER
C.E.R.	CEILING EXHAUST REGISTER
CLG.	CEILING OR COOLING
CONN.	CONNECT OR CONNECTION
F.D.	FIRE DAMPER
G.C.	GENERAL CONTRACTOR
O.A.	OUTSIDE AIR
R.A.	RETURN AIR
S.A.	SUPPLY AIR

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ALABAMA REGISTERED PROFESSIONAL No. 23369 ENGINEER 05.17.23 J. P. EIRING

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Drawing Title:
HVAC FLOOR PLAN

Sheet No:
M1

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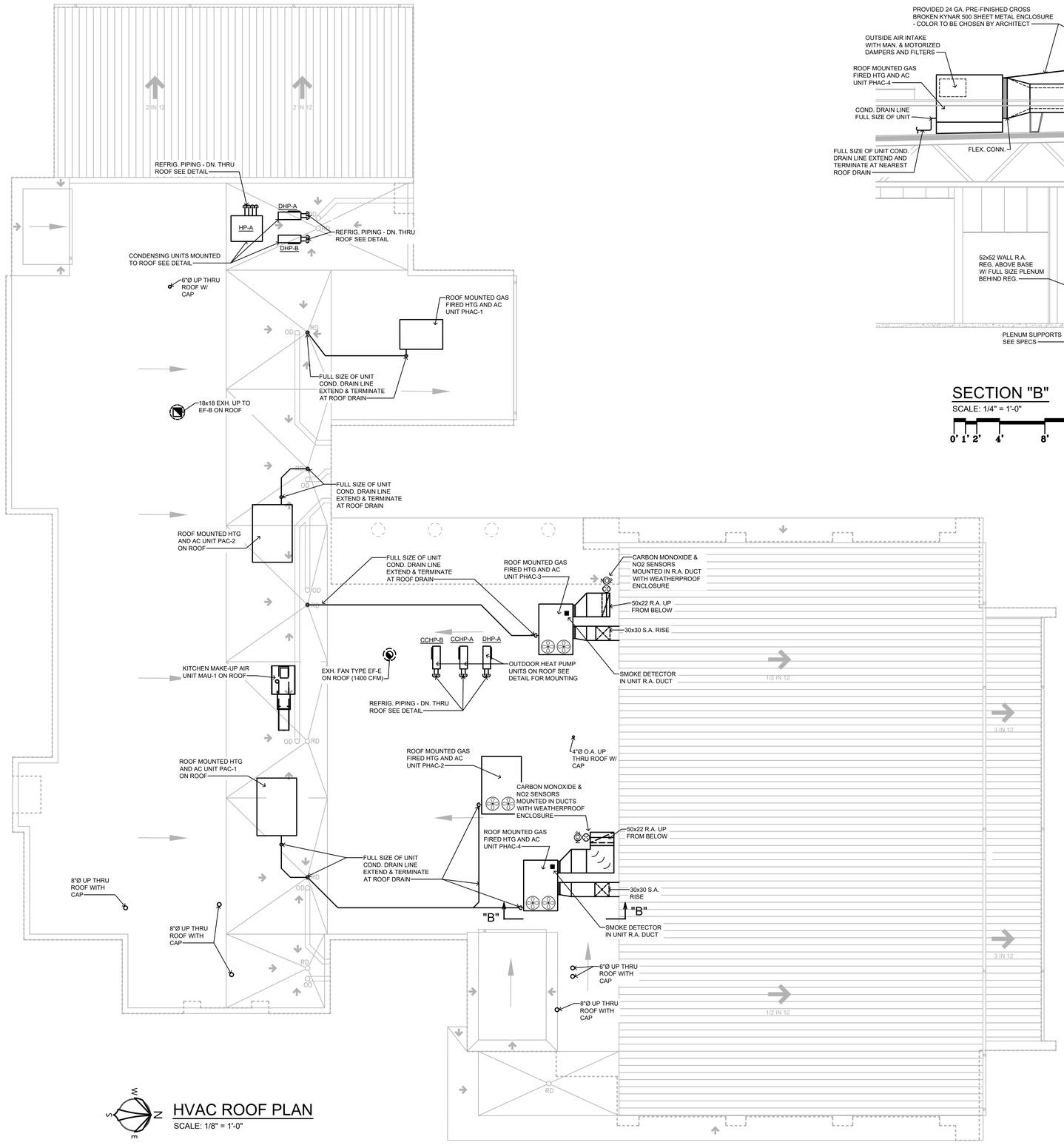
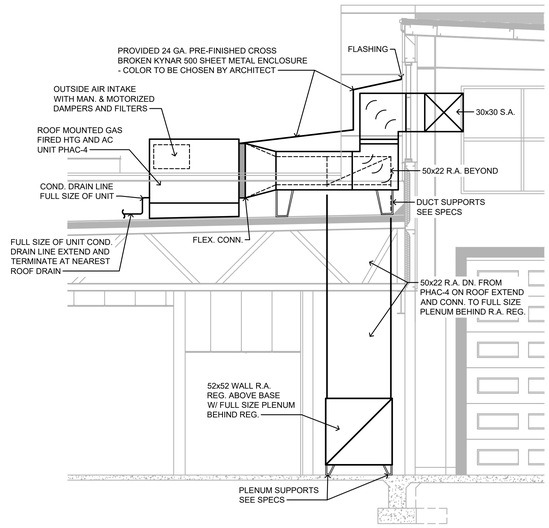
334.263.4406
ZEA PROJECT NUMBER 22-11



HVAC ROOF PLAN

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

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



SECTION "B"

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

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

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M2

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334.263.4406
ZEA PROJECT NUMBER 22-11

PACKAGED ROOFTOP VAV HEATING AND AIR CONDITIONING UNITS (PAC) SCHEDULE (ELECTRIC HEAT)

UNIT TYPE	MINIMUM TOTAL AIR CFM	OUTSIDE AIR CFM			APPROX. EXT. STATIC PRESS.- INCHES OF WATER COL.	FAN MOTOR				MINIMUM COOLING CAPACITY AT A.R.I. CONDITIONS - TOTAL BTU/HR	LOW AMBIENT HEAD PRESSURE CONTROL °F - (COOLING ONLY)	COMPRESSOR MOTOR				CONDENSER SECTION FANS				RESISTANCE HEATER					MIN. EFFICIENCY AT A.R.I. CONDITIONS	APPROX. MCA WITH ELEC. HEAT	APPROX. MOP WITH ELEC. HEAT
		MINIMUM SETPOINT	MAXIMUM SETPOINT CO2	MAXIMUM SETPOINT (ECONOMIZER)		APPROX. H.P.	VOLTS	PHASE	HZ.			APPROX. F.L.A.	VOLTS	PH.	HZ.	APPROX. F.L.A.	VOLTS	PH.	HZ.	K.W.	CONTROL STEPS	VOLTS	PH.	HZ.			
PAC-1	3,200	700	N/A	N/A	1.34	3.1	208	3	60	90,000	45	27.0	208	3	60	4.5	208	1	60	17.0	SCR	208	3	60	11.2 EER	67.0	70.0
PAC-2	5,000	1,200	N/A	N/A	1.28	5.0	208	3	60	150,000	45	45.0	208	3	60	5.5	208	1	60	25.0	SCR	208	3	60	11.0 EER	97.0	100.0

NOTES:
1. ALL INDOOR UNITS SHALL BE FACTORY WIRED FOR SINGLE POINT POWER CONNECTIONS (FAN AND HEATER).
2. SEER RATINGS BASED ON ARI 210/240
3. EER RATINGS BASED ON ARI 340/360
4. ELECTRIC HEATERS SHALL BE PROVIDED WITH SCR CONTROL
6. ALL UNITS SHALL HAVE MINIMUM OF 2-COMPRESSORS OR 2-STAGE COMPRESSOR AS REQUIRED BY ASHRAE 90.1

PACKAGED PAD MOUNTED HEATING & A/C UNITS (PHAC) SCHEDULE (NATURAL GAS HEAT)

UNIT TYPE	PHAC-1	PHAC-2	PHAC-3	PHAC-4
MINIMUM TOTAL AIR CFM	2,000	5,000	6,000	6,000
OUTSIDE AIR CFM SETPOINTS - MIN. / MAX. CO2 / MAX. (ECONOMIZER)	100 / 700 / 2,000	900 / N/A / 5,000	500 / N/A / 6,000	500 / N/A / 6,000
APPROXIMATE EXTERNAL STATIC PRESSURE - IN. WATER COLUMN	0.75	1.18	.92	.94
APPROXIMATE INDOOR FAN MOTOR HP - POWER	1.0 HP - 208V., 3 PH., 60HZ.	5.0 HP - 208V., 3PH., 60HZ.	3.0 HP - 208V., 3PH., 60HZ.	3.0 HP - 208V., 3PH., 60HZ.
MINIMUM TOTAL COOLING CAPACITY AT A.R.I. CONDITIONS-BTU/HR	60,000	150,000	180,000	180,000
MINIMUM CAPACITY REDUCTION - PERCENT OF FULL LOAD	100 - 50 - 0	100 - 50 - 0	100 - 50 - 0	100 - 50 - 0
MINIMUM TOTAL HEATING CAPACITY - BTUH INPUT / OUTPUT	100,000 / 80,000	215,000 / 175,000	250,000 / 200,000	250,000 / 200,000
APPROXIMATE COMPRESSOR MOTOR(S) F.L.A. - POWER	17.0 - 208 V, 3 PH., 60HZ.	44.0 - 208 V, 3 PH., 60HZ.	53.0 - 208 V, 3 PH., 60HZ.	53.0 - 208 V, 3 PH., 60HZ.
APPROXIMATE CONDENSER FAN MOTOR(S) F.L.A. - POWER	3.5 - 208 V., 1 PH., 60HZ.	5.5 - 208 V., 1P H., 60HZ.	6.4 - 208 V., 1P H., 60HZ.	6.4 - 208 V., 1P H., 60HZ.
MINIMUM ENERGY EFFICIENCY RATING AT A.R.I. CONDITIONS	13.0 SEER	10.8 EER	10.8 EER	10.8 EER
APPROXIMATE MCA	26.0	64.0	72.0	72.0
APPROXIMATE MOP	40.0	90.0	90.0	90.0

NOTES:
1. ALL UNITS SHALL BE FACTORY WIRED FOR SINGLE POINT POWER CONNECTIONS (208 VOLT, 3 PHASE, 60 HZ.).
2. SEER RATINGS BASED ON ARI 210/240
3. EER RATINGS BASED ON ARI 340/360
4. EACH UNIT SHALL BE PROVIDED WITH A REFRIGERANT HOT GAS REHEAT COIL COMPLETE WITH REFRIGERANT PIPING, PIPE INSULATION, VALVES, CONTROLS, ETC. REQUIRED FOR HUMIDITY CONTROL - PROVIDE MANUAL REFRIGERANT ISOLATION VALVES FOR HOT GAS AND LIQUID LINES - FURNISH FOR APPROVAL DETAILED REFRIGERANT PIPING CONN. DIAGRAM AND CONTROL WIRING DIAGRAM - PRIOR TO SUBMITTING THE DIAGRAM OBTAIN EQUIPMENT MANUFACTURER'S APPROVAL. SEE SPECS FOR ADDITIONAL REQUIREMENTS
5. HEATER SHALL HAVE MINIMUM 2-1 TURN DOWN AND 80% EFFICIENCY.
6. ALL UNITS SHALL HAVE MINIMUM 2 COMPRESSORS OR 2-STAGE COMPRESSOR AS REQUIRED BY ASHRAE 90.1

SPLIT SYSTEM HEAT PUMP UNITS SCHEDULE

UNIT NUMBER OR TYPE	HP-A
MINIMUM TOTAL AIR CFM	3,000
MINIMUM OUTSIDE AIR SETPOINT/MAX. CO2 SETPOINT/MAX. O.A. (ECONOMIZER) CFM	100 / 575 / N/A
APPROXIMATE EXTERNAL STATIC PRESSURE - IN. WATER COLUMN	1.10
APPROXIMATE INDOOR FAN MOTOR HP-POWER	3.0 HP - 208V., 3 PH., 60HZ.
MINIMUM TOTAL COOLING CAPACITY AT A.R.I. CONDITIONS-BTU/HR	90,000
MINIMUM HEATING CAPACITY (COMPRESSOR ONLY) AT 70°F INDOOR TEMPERATURE AND 22°F OUTDOOR TEMPERATURE-BTU/HR	60,000
MINIMUM AUXILIARY ELECTRIC RESISTANCE HEAT - KW	25.0
NUMBER OF CONTROL STEPS	TWO
POWER	208 V., 3 PH., 60HZ.
APPROXIMATE COMPRESSOR MOTOR(S) F.L.A. - POWER	33.0 - 208 V., 3 PH., 60HZ.
APPROXIMATE OUTDOOR SECTION FAN MOTOR(S) F.L.A. - POWER	3.5 - 208 V., 1 PH., 60HZ.
MINIMUM ENERGY EFFICIENCY RATING AT A.H.R.I. CONDITIONS	11.0
MINIMUM COP	3.3

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 SECTION. UNIT MANUFACTURER SHALL PROVIDE FACTORY INSTALLED RELAYS, TRANSFORMERS, ETC., AS REQUIRED TO OPERATE EQUIPMENT AT POWER REQUIREMENTS SPECIFIED ABOVE.
3. EER RATINGS BASED ON AHRI 340/360
4. COP RATING BASED ON AHRI 340/360 AT 47°F DB/43°F WB
5. UNIT SHALL BE PROVIDED WITH A REFRIGERANT HOT GAS REHEAT COIL COMPLETE WITH REFRIGERANT PIPING, PIPE INSULATION, VALVES, CONTROLS, ETC. REQUIRED FOR HUMIDITY CONTROL - PROVIDE MANUAL REFRIGERANT ISOLATION VALVES FOR HOT GAS AND LIQUID LINES - FURNISH FOR APPROVAL DETAILED REFRIGERANT PIPING CONN. DIAGRAM AND CONTROL WIRING DIAGRAM - PRIOR TO SUBMITTING THE DIAGRAM OBTAIN EQUIPMENT MANUFACTURER'S APPROVAL. SEE SPECS FOR ADDITIONAL REQUIREMENTS
6. UNIT SHALL HAVE MINIMUM OF 2 COMPRESSORS OR 2-STAGE COMPRESSOR AS REQUIRED BY ASHRAE 90.1

WALL MOUNTED DUCTLESS HEAT PUMP UNIT SCHEDULE

UNIT TYPE	DHP-A	DHP-B
MINIMUM TOTAL COOLING CAP. AT A.R.I. CONDITIONS - BTU/HR	9,000	12,000
MINIMUM HEATING CAP. (COMPRESSOR ONLY) AT 70°F INDOOR & 17°F AMBIENT - BTU/HR	6,700	7,600
INDOOR FAN CFM AT HIGH SPEED	230	230
INDOOR UNIT MCA - POWER	1.5A - 208V, 1 PH. , 60 HZ.	1.5A - 208V, 1 PH. , 60 HZ.
OUTDOOR UNIT MCA (COMPRESSOR AND COND. FAN) - POWER	9.0A - 208V, 1 PH., 60 HZ.	9.0A - 208V, 1 PH., 60 HZ.
OUTDOOR UNIT MOP (COMPRESSOR AND COND. FAN) - POWER	15.0A - 208V., - 1PH., 60HZ.	15.0A - 208V., - 1PH., 60HZ.
MINIMUM HSPF AT AHRI 210/240 CONDS.	10.0	10.0
MINIMUM S.E.E.R. AT AHRI 210/240 CONDS	18.0	18.0
BASIS OF DESIGN	MITSUBISHI MSZ / MUZ	MITSUBISHI PKA / PUZ

CEILING CASSETTE TYPE HEAT PUMP UNIT SCHEDULE

UNIT TYPE	CCHP-A	CCHP-B
MINIMUM TOTAL COOLING CAP. AT A.R.I. CONDITIONS - BTU/HR	24,000	9,000
MINIMUM HEATING CAP. (COMPRESSOR ONLY) AT 70°F INDOOR & 17°F AMBIENT - BTU/HR	16,000	8,300
INDOOR FAN CFM AT HIGH SPEED	600	250
OUTSIDE AIR CFM	40	15
INDOOR UNIT MCA - POWER	1.5 - 208V, 1 PH. , 60 HZ.	1.0 - 208V, 1 PH. , 60 HZ.
OUTDOOR UNIT MCA (COMPRESSOR AND COND. FAN) - POWER	18.0A - 208V, 1 PH., 60 HZ.	13.0A - 208V, 1 PH., 60 HZ.
OUTDOOR UNIT MOP	30.0A - 208V., - 1PH., 60HZ.	15.0A - 208V., - 1PH., 60HZ.
MINIMUM HSPF AT AHRI 210/240 CONDS.	8.2	9.6
MINIMUM S.E.E.R. AT AHRI 210/240 CONDS	15.0	15.0

VARIABLE AIR VOLUME TERMINAL UNITS SCHEDULE (ELECTRIC HEAT)

TERMINAL NUMBER	COOLING CFM		MIN. INLET DUCT SIZE - INCHES ROUND	MAXIMUM PRESSURE DROP WITH OPEN DAMPER- INCHES OF WATER COLUMN	APPROXIMATE EXTERNAL STATIC PRESSURE - INCHES OF WATER COLUMN	HEATING COIL CHARACTERISTICS								MAX. NC RATING AT 2.0" STATIC PRESS.	BASIS OF DESIGN
	MAX.	MIN. SET POINT				HEATING CFM	ENTERING AIR TEMP. °F	LEAVING AIR TEMP. °F	MINIMUM HEATING CAPACITY- KW	VOLTS	PH.	HZ	NUMBER OF CONTROL STEPS		
1/1	170	100	5	.20	0.30	140	65	98.8	1.5	208	3	60	SCR	32	TRANE SERIES VCEF
1/2	420	120	6	.20	0.41	300	65	96.6	3.0	208	3	60	SCR	32	TRANE SERIES VCEF
1/3	660	300	10	.20	0.42	530	65	100.8	6.0	208	3	60	SCR	32	TRANE SERIES VCEF
1/4	570	180	10	.20	0.35	450	65	100.1	5.0	208	3	60	SCR	32	TRANE SERIES VCEF
1/5	310	150	6	.20	0.35	310	65	95.6	3.0	208	3	60	SCR	32	TRANE SERIES VCEF
1/6	610	200	10	.20	0.44	500	65	102.9	6.0	208	3	60	SCR	32	TRANE SERIES VCEF
1/7	980	300	12	.20	0.43	700	65	96.6	7.0	208	3	60	SCR	32	TRANE SERIES VCEF
1/8	260	100	5	.20	0.35	190	65	98.2	2.0	208	3	60	SCR	32	TRANE SERIES VCEF
2/1	660	130	8	.20	0.44	500	65	102.3	6.0	208	3	60	SCR	32	TRANE SERIES VCEF
2/2	840	200	10	.20	0.30	500	65	96.6	5.0	208	3	60	SCR	32	TRANE SERIES VCEF
2/3	960	200	10	.20	0.42	600	65	96.6	6.0	208	3	60	SCR	32	TRANE SERIES VCEF
2/4	720	720	12	.20	0.43	720	65	100.1	8.0	208	3	60	SCR	32	TRANE SERIES VCEF
2/5	1,030	250	12	.20	0.40	700	65	96.6	7.0	208	3	60	SCR	32	TRANE SERIES VCEF
2/6	1,040	250	12	.20	0.40	700	65	96.6	7.0	208	3	60	SCR	32	TRANE SERIES VCEF

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
7	10 - 95	6x6	6x6	6x6	20	TITUS TDC
8	95 - 200	9x9	9x9	10x7	20	TITUS TDC
9	205 - 350	12x12	12x12	13x9	20	TITUS TDC

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.

EXHAUST/RETURN AIR REGISTER SCHEDULE

SYMBOL		CFM RANGE	SIZE - IN. x IN.	DESCRIPTION	MAXIMUM NC RATING	BRANCH DUCT SIZE
EXH.	R.A.					
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.

ELECTRIC UNIT HEATER SCHEDULE

HEATER TYPE	DESCRIPTION	AIR QUANTITY- CFM	MINIMUM CAPACITY- KW	FAN HP	FAN MAX. RPM	POWER			NUMBER OF CONTROL STEPS	REMARKS
						VOLTS	PHASE	HERTZ		
EUH-A	RECESSED CLG. MOUNTED	100	2.0	1/25	1550	208	1	60	ONE	
EUH-B	WALL MTD., HORIZ. DISCHARGE, PROP	400	3.3	1/25	1550	208	3	60	ONE	

NOTE:
UNIT TO BE PROVIDED WITH FACTORY INSTALLED SINGLE POINT POWER CONNECTION (FAN AND HEATER)

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ZEA PROJECT NUMBER 22-11

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ALABAMA REGISTERED PROFESSIONAL ENGINEER No. 23369 05.17.23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
ZEA Project No.	2022-11
Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:
HVAC SCHEDULES

Sheet No:
M3

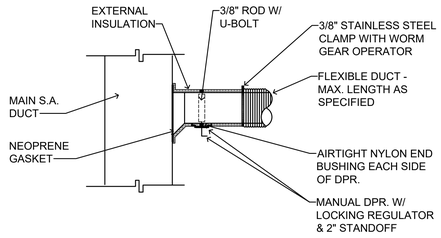
CONFORMANCE DOCUMENTS

FANS SCHEDULE

FAN TYPE	FAN CFM	DESCRIPTION	MINIMUM FAN SIZE INCHES	APPROX. FAN WALL/ ROOF OPENING -INCHES	MAXIMUM FAN SPEED RPM	APPROX. EXT. STATIC PRESS. IN. WTR. COL.	FAN MOTOR				CONTROL INTERLOCK	REMARKS
							MIN. H.P./ WATTS	POWER				
								VOLTS	PH.	HERTZ		
EF-A	70	CEILING MTD., DIRECT DRIVE, CENTRIFUGAL, ECM	8.0	N/A	1,050	0.38	100 W	120	1	60	LIGHTING CIRCUIT	
EF-B	1,880	ROOF MOUNTED, BELT DRIVEN, CENTRIFUGAL	16.5	20x20	1,053	0.82	3/4 HP	120	1	60	PAC-2	
EF-C	500	IN-LINE, DIRECT DRIVE, CENTRIFUGAL, ECM	10.0	N/A	1,050	.30	273 w	120	1	60	WALL SWITCH	
EF-D	160	CEILING MTD., DIRECT DRIVE, CENTRIFUGAL, ECM	8.0	N/A	1,050	0.30	100 W	120	1	60	LIGHTING CIRCUIT	
EF-E	1,400	ROOF MOUNTED, BELT DRIVEN, CENTRIF., UP-BLAST	16.0	20x20	1,248	1.00	3/4 HP	120	1	60	HOOD SWITCH	
EF-F	200	CEILING MTD., DIRECT DRIVE, CENTRIFUGAL, ECM	8.0	N/A	1,050	0.30	100 W	120	1	60	T'STAT	
EF-G	200	CEILING MTD., DIRECT DRIVE, CENTRIFUGAL, ECM	8.0	N/A	1,050	0.30	100 W	120	1	60	LIGHTING CIRCUIT	

PACKAGED MAKE-UP AIR UNIT SCHEDULE (NATURAL GAS HEAT)

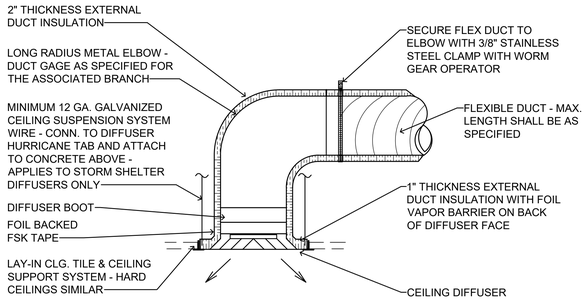
UNIT NUMBER	FAN									MINIMUM HEATING CAPACITY (INPUT / OUTPUT) BTU/HR	REMARKS
	TOTAL AIR CFM	MINIMUM OUTSIDE AIR-CFM	MAXIMUM OUTSIDE AIR-CFM	APPROXIMATE EXTERNAL STATIC PRESS. IN. OF WATER	FAN DRIVE	FAN MOTOR					
						H.P.	VOLTS	PHASE	HERTZ		
MAU-1	1,120	600	1,120	0.75	DIRECT	1.0	208	3	60	70,000 / 56,000	



ROUND BRANCH DUCT TAKE-OFF DETAIL

NOT TO SCALE

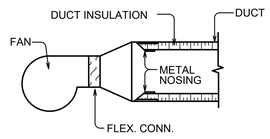
RECTANGULAR RUNOUTS SAME EXCEPT WITH RECTANGULAR DUCT



DIFFUSER BOOT/PLENUM CONNECTION DETAIL

NOT TO SCALE

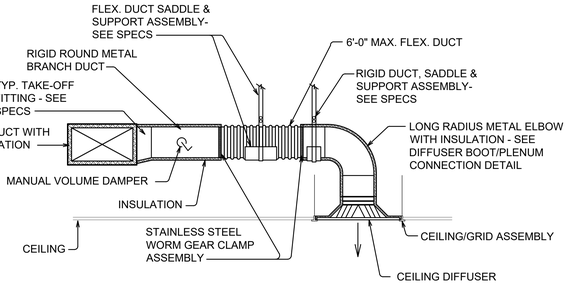
1. DIFFUSERS PANELS SHALL BE INSULATED PRIOR TO INSTALLING INTO THE CEILING GRID
2. DO NOT COVER STAINLESS STEEL BAND AND WORM GEAR OPERATOR UNTIL ENGINEER HAS INSPECTED THE INSTALLATION.



TYPICAL DUCT LINER INTERRUPTION DETAIL

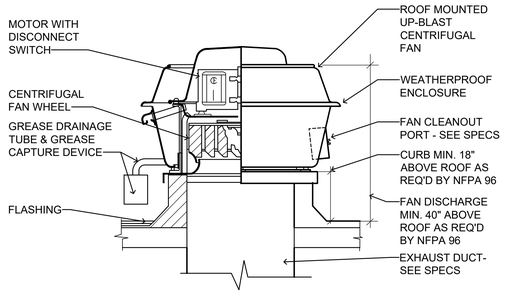
NOT TO SCALE

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



TYPICAL DIFFUSER RUN-OUT CONN.

NOT TO SCALE

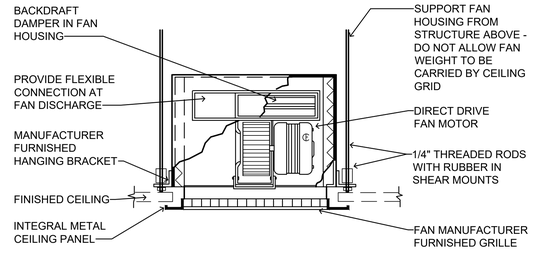


ROOF MOUNTED UP-BLAST CENTRIFUGAL EXHAUST FAN CONNECTION DETAIL

NOT TO SCALE

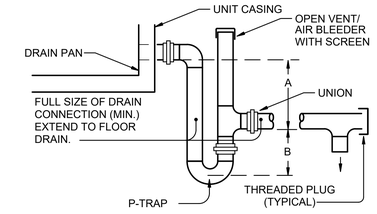
NOTE!

INSTALLATION AND CURB SHALL MEET THE REQUIREMENTS OF NFPA 96 AND ALL APPLICABLE CODES



CEILING MOUNTED EXHAUST FAN CONN. DETAIL

NO SCALE



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

WHERE "X" = AHU STATIC PRESSURE

TYPICAL AIR HANDLING UNIT CONDENSATE DRAIN DETAIL

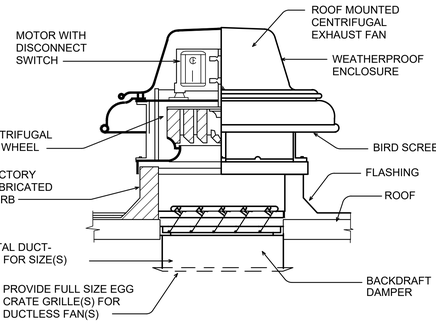
NOT TO SCALE

NOTES:

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

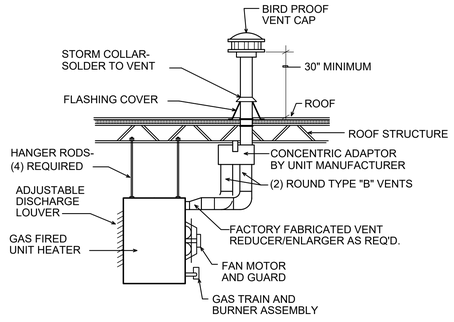
2. CONTRACTOR SHALL RAISE AIR HANDLING UNIT AS REQUIRED TO ALLOW FOR INSTALLATION OF THE DRAIN AS DETAILED ABOVE

3. PROVIDE AN ELECTRIC SWITCH IN THE CONDENSATE DRAIN LINE, THAT CONFORMS TO UL 508, TO SHUT DOWN THE UNIT AND ALARM TO THE BUILDING ENERGY MANAGEMENT SYSTEM OPERATOR CONSOLE SHOULD THE LINE BECOME OBSTRUCTED



ROOF MOUNTED CENTRIFUGAL EXHAUST FAN CONNECTION DETAIL

NOT TO SCALE



GAS FIRED UNIT HEATER DETAIL

NOT TO SCALE

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ALABAMA REGISTERED PROFESSIONAL ENGINEER No. 23369 05.17.23 J. R. EIRING

NEW FIRE STATION NO. 10
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HVAC SCHEDULES AND DETAILS

Sheet No:
M4

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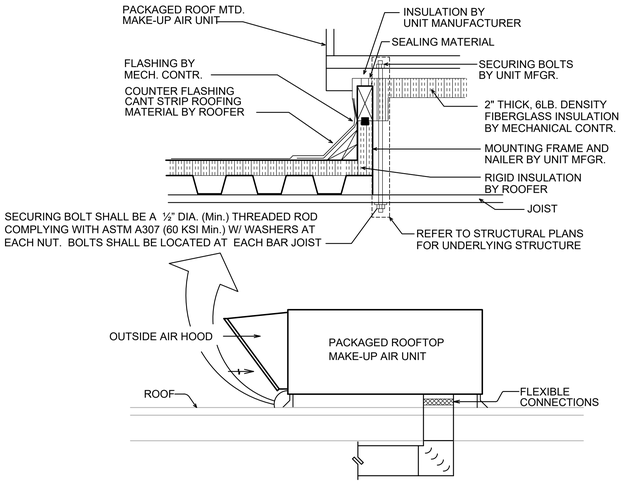
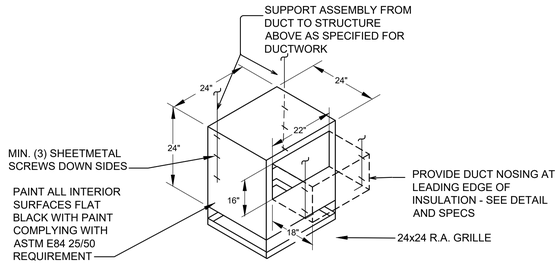


MAKE-UP AIR UNIT MAU-1 CONNECTION DETAIL

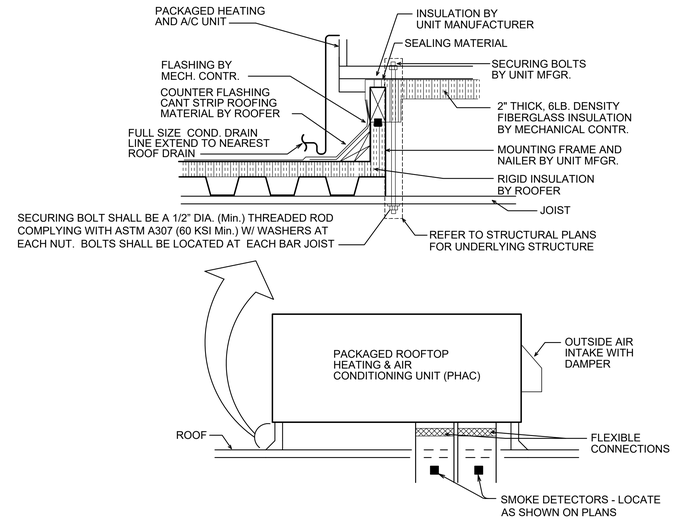
NOT TO SCALE



CEILING RETURN GRILLE SOUND TRAP DETAIL

NO SCALE

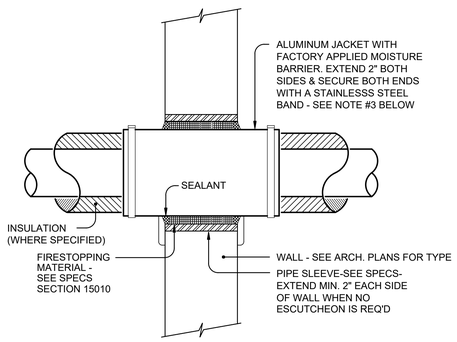
1. DETAIL IS FOR 24x24 GRILLE - MODIFY DIMENSIONS SHOWN FOR ACTUAL GRILLE SIZE SHOWN ON PLANS.
2. PROVIDE ASSEMBLY AT EACH RETURN AIR GRILLE LOCATED IN THE RETURN AIR PLENUM. MODIFY DIMENSIONS AS REQUIRED TO FIT INTO AVAILABLE SPACE.
3. IN LIEU OF ASSEMBLY ABOVE, THE CONTRACTOR MAY SUBSTITUTE A FULL SIZE SHOP ASSEMBLED 90° ELBOW WITH INSULATION AND DIMENSIONS SHOWN
4. ENTIRE ASSEMBLY SHALL BE INSULATED WITH 2" THICKNESS ACOUSTICAL DUCT LINER- SEE SPECS FOR LINER
5. ASSEMBLY IS NOT REQUIRED FOR GRILLES LOCATED IN STORAGE ROOMS OR CORRIDORS
6. ENTIRE ASSEMBLY SHALL BE SHEETMETAL WITH GAUGES SPECIFIED FOR DUCTWORK



PACKAGED ROOFTOP HEATING & AIR CONDITIONING UNIT CONNECTION DETAIL

NOT TO SCALE

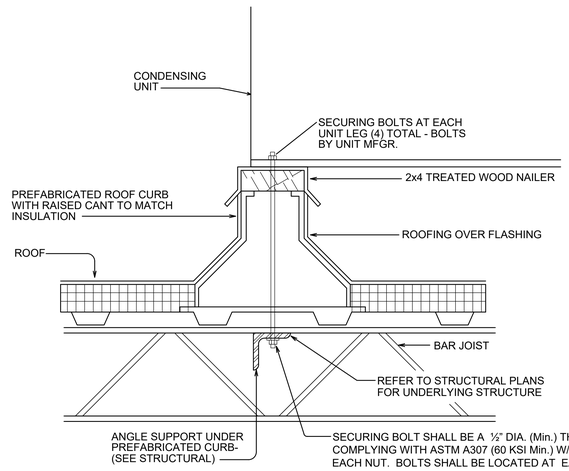
NOTES:
1.) PAC-1 AND PAC-2 UNITS SIMILAR
2.) SEE PLANS FOR SMOKE DETECTOR REQUIREMENTS



INTERIOR WALL REFRIGERANT PIPING PENETRATION DETAIL

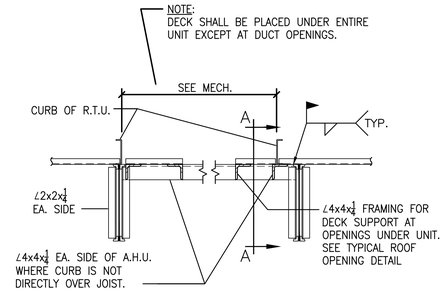
NOT TO SCALE

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

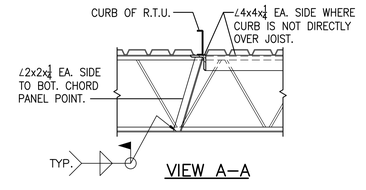


TYPICAL CONDENSING UNITS SUPPORT CURB DETAIL

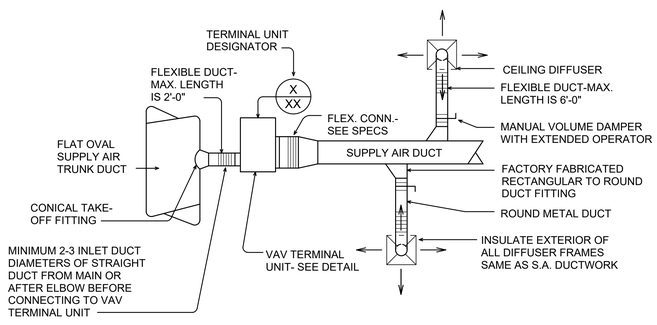
NO SCALE
COORDINATE ALL CURBS WITH ROOFING CONTRACTOR - PROVIDE AS REQUIRED TO MAINTAIN ROOFING WARRANTY



TYPICAL RTU CURB DETAIL

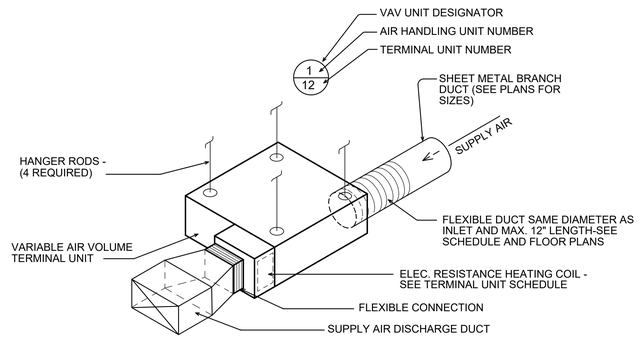


VIEW A–A



TYPICAL VAV DUCT CONNECTION DETAIL

NOT TO SCALE



VARIABLE AIR VOLUME TERMINAL WITH ELEC. HEAT UNIT CONNECTION DETAIL

NOT TO SCALE

NOTE: N.C. RATING SHALL NOT EXCEED THAT SPECIFIED IN THE TERMINAL UNIT SCHEDULE AT JOB OPERATING CONDITIONS. REFER TO ARCHITECTURAL PLANS FOR ROOM FINISHES, etc.

NOTE:

DETAIL ABOVE IS SHOWN TO INDICATE INTENT ON HOW THE ROOFTOP UNITS ARE TO BE ANCHORED - REQUIREMENTS ABOVE ARE BY THE GENERAL CONTRACTOR - REFER TO STRUCTURAL PLANS FOR SPECIFIC REQUIREMENTS

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HVAC DETAILS

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CONFORMANCE DOCUMENTS

ZEA
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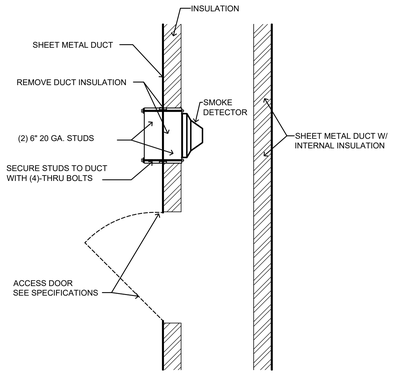
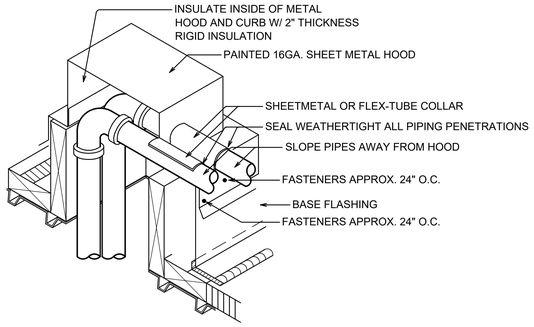


SMOKE DETECTOR MOUNTING DETAIL

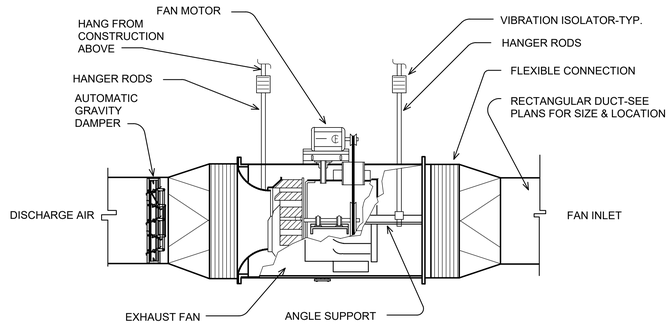
NOT TO SCALE



TYPICAL PIPING ROOF PENETRATION

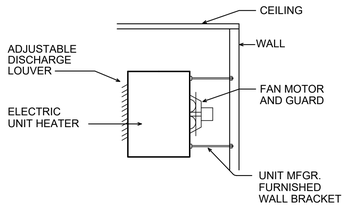
CURB / FLASHING DETAIL

NOT TO SCALE
CONTRACTOR MAY SUBSTITUTE FACTORY FABRICATED ASSEMBLY IN LIEU OF FIELD FABRICATED ASSEMBLY SHOWN PROVIDED THAT IT IS SIMILAR IN CONSTRUCTION



CABINET TYPE IN-LINE EXHAUST FAN DETAIL

NOT TO SCALE



WALL MOUNTED ELECTRIC UNIT HEATER DETAIL

NOT TO SCALE

HP-A OUTDOOR AIR AND EXHAUST CALCULATIONS

	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	# Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
MEETING / CLRM 164	1122	50	57	0.06	68	5	285	441.25	0.8				0	2520	0.175099
BREAK 165	125	25	4	0.06	8	5	20	35	0.8				0	140	0.25
STORAGE 166	130	0	0	0.06	8	0	0	10	0.8				0	100	0.1
TOILET 168										1	70		70	50	0
VEST 167	50	5	1	0.06	3	5	5	10	0.8				0	50	0.2
OFFICE 175	105	5	1	0.06	7	5	5	15	0.8				0	150	0.1
Total			63		87		315								
							Cumulative CFM	511.25							

Max "Zp"	0.25
"Ev"	0.9
"Vou" Total OSA EQ 4-6	511.25
Total Building Occupancy	62
Zone Occupancy	62
"D" from EQ 4-7	1
"Vot" Equation 4-8	568.0556
TOTAL OSA	568.0556

PAC-2 OUTDOOR AIR AND EXHAUST CALCULATIONS

	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	# Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
OFFICE 176	105	5	1	0.06	7	5	5	15	0.8				0	160	0.09375
VESTIBULE 130	165	10	2	0.06	10	5	10	25	0.8				0	840	0.029762
COMMON BATH 173										14	70		980	720	0
CORRIDOR 2,3,4, & 5	1327	0	0	0.06	80	5	0	100	0.8				0	960	0.104167
BUNKS 18,19,20,21,22,23 & 24	780	20	16	0.06	47	5	80	158.75	0.8				0	1120	0.141741
BATH 132 & 133										2	70		140	200	0
Total			19		17		95								
							Cumulative CFM	298.75							

Max "Zp"	0.141741
"Ev"	1
"Vou" Total OSA EQ 4-6	298.75
Total Building Occupancy	19
Zone Occupancy	19
"D" from EQ 4-7	1
"Vot" Equation 4-8	298.75
TOTAL OSA	298.75

PHAC-3/4 OUTDOOR AIR AND EXHAUST CALCULATIONS

	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	# Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
APPARATUS BAYS 113	6110											0.75	4583	11200	0
BOOTS 114	155	25	4	0.06	10	10	40	62.5	0.8				0	400	0.15625
EXTRAXTOR/LAUNDRY 115	265	25	2	0.06	16	10	20	45	0.8				0	400	0.1125
Total			6		10		60								

OUTDOOR AIR AND EXHAUST CALCULATIONS

CASSETTE / DUCTLESS UNITS	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	# Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
PANTRY 107	115	0	0	0.12	14	0	0	17.5	0.8				0	150	0.116667
COMMAND WATCH 109	215	5	2	0.06	13	5	10	28.75	0.8				0	350	0.082143
Total			2		27		10								

PAC-1 OUTDOOR AIR AND EXHAUST CALCULATIONS

	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	# Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
BUNK 1,2,3,4,7,8,9,12,13,14,& 15	1100	20	22	0.06	66	5	110	220	0.8				0	1830	0.120219
BATTALION CHIEF 141	105	20	3	0.06	7	5	15	27.5	0.8				0	180	0.152778
CORRIDOR 1	525	0	0	0.06	32	0	0	40	0.8				0	490	0.081633
BATTALION CHIEF 136	140	5	1	0.06	9	5	5	17.5	0.8				0	180	0.097222
BUNK 5	105	20	3	0.06	7	5	15	27.5	0.8				0	180	0.152778
BATH 139										2	70		140	100	0
SUPPRESSION OFFICE 131A	175	5	1	0.06	11	5	5	20	0.8				0	190	0.105263
MEDIC OFFICE 127A	175	5	1	0.06	11	5	5	20	0.8				0	170	0.117647
TOILETS										2	70		140	200	0
Total			31		114		155								
							Cumulative CFM	372.5							

Max "Zp"	0.152778
"Ev"	0.9
"Vou" Total OSA EQ 4-6	372.5
Total Building Occupancy	31
Zone Occupancy	30
"D" from EQ 4-7	1.033333
"Vot" Equation 4-8	413.8889
TOTAL OSA	413.8889

PHAC-1 OUTDOOR AIR AND EXHAUST CALCULATIONS

	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	# Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
TRAINING ROOM 166	775	35	28	0.12	93	10	280	466.25	0.8				0	1600	0.291406
Total					93		280								
							Cumulative CFM	466.25							

PHAC-2 OUTDOOR AIR AND EXHAUST CALCULATIONS

	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	# Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
KITCHEN 106	622											0.7	436	1709	0
DINING 105	500	70	35	0.18	90	7.5	263	441.25	0.8				0	1670	0.264222
LOUNGE 131	660	0	2	0.06	40	5	10	62.5	0.8				0	750	0.083333
TOILET 109 / 102										1	70		70	100	0
VESTIBULE 103	210	30	7	0.06	13	5	35	60	0.8				0	300	0.2
STORAGE 104	80	0	0	0.12	10	0	0	12.5	0.8				0	100	0.125
PUBLIC LOBBY 101	270	10	3	0.06	17	5	15	40	0.8				0	500	0.08
Total			47		90		323								
							Cumulative CFM	616.25							

Max "Zp"	0.264222
"Ev"	0.8
"Vou" Total OSA EQ 4-6	616.25
Total Building Occupancy	47
Zone Occupancy	47
"D" from EQ 4-7	1
"Vot" Equation 4-8	770.3125
TOTAL OSA	770.3125

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ALABAMA REGISTERED PROFESSIONAL No. 23369 05.17.23 ENGINEER J. R. EIRING

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
ZEA Project No.	2022-11
Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:
HVAC DETAILS, OUTSIDE AIR AND EXHAUST AIR CALCULATIONS

Sheet No:
M6

CONFORMANCE DOCUMENTS

ZGOUVAS, EIRING & ASSOCIATES
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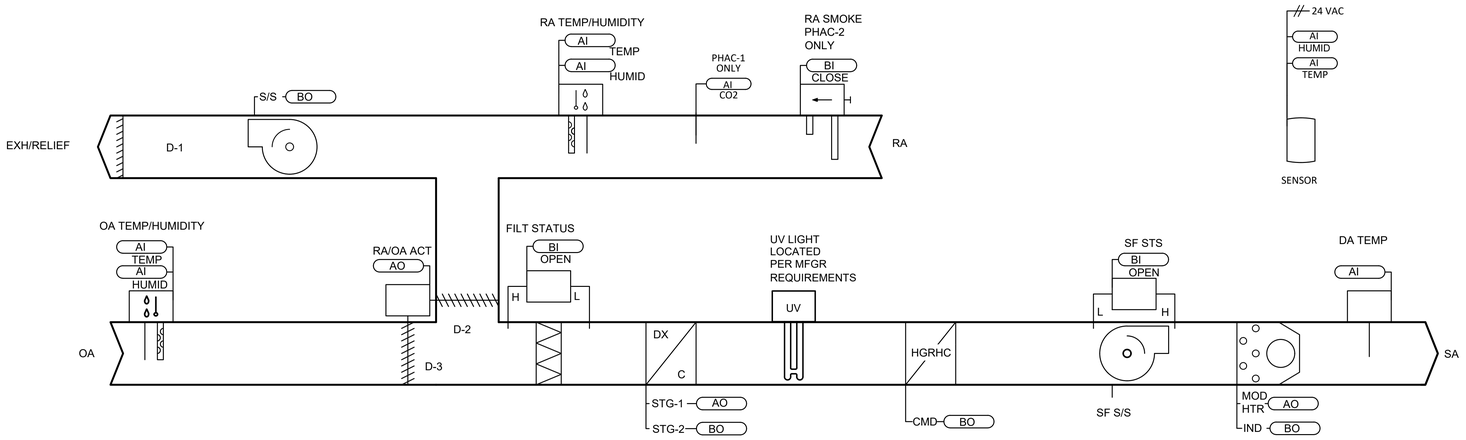
ZEA PROJECT NUMBER 22-11



PACKAGED ROOFTOP UNIT (PHAC-1 and PHAC-2) CONTROL SCHEMATIC

NOT TO SCALE

PACKAGED ROOFTOP HEATING AND AIR CONDITIONING UNITS PHAC-1 AND PHAC-2 SEQUENCE OF OPERATION

Building Automation System Interface:

The Building Automation System (BAS) shall send the controller Occupied Bypass, Occupied Heat / Cool modes. If a BAS is not present, or communication is lost with the BAS the controller shall operate using default modes and setpoints. This facility operates 24/7365.25. No unoccupied requirements are necessary

Occupied Mode:

During occupied periods, the supply fan shall run continuously and the outside air damper shall open to maintain minimum ventilation requirements. The DX cooling shall stage and gas heat shall modulate to maintain the occupied space temperature setpoint. If economizing is enabled the outside air damper shall modulate to maintain the occupied space temperature setpoint.

Optimal Stop:

Not required. The system operates 24/7/365.25

Occupied Bypass:

Not required. The system operates 24/7/365.25

Cooling Mode:

The unit controller shall use the space temperature sensor and space temperature cooling setpoint to calculate the discharge air cooling setpoint and determine when to initiate requests for cooling. Discharge air setpoint shall be maintained by modulating the economizer or staging the DX cooling as required to maintain the discharge air setpoint. Once all economizing requirements have been met, compressor operation will be enabled if the economizer alone cannot meet the demand. Once compressor operation is started, the variable speed compressor will be modulated to maintain the discharge air temperature to the active discharge air cooling setpoint. If the variable speed compressor reaches its maximum speed for stage one, and there is additional demand for cooling, the controller will energize the first fixed speed compressor on circuit two. Once the first fixed speed compressor is energized, the variable compressor speed will be reduced to its minimum speed, then released back to discharge air temperature control. Additional stages will respond in the same manner. Once the active cooling demand has been satisfied, compressors will begin staging down in reverse order from the stage up sequence. Once the unit has staged down all fixed compressors, and there is no longer a demand for the variable speed compressor, the compressor will modulate down to its minimum speed and then will be de-energized, while adhering to all shutdown requirements.

Heating Mode:

The unit controller shall monitor space temperature and space temperature heating setpoint to determine when to initiate requests for heat. When the space temperature drops below the space temperature heating setpoint, the controller shall enable the modulating heat bank at high fire for 60 seconds, then the controller shall modulate the heat bank to the necessary rate to satisfy the space temperature heating setpoint. The supply fan speed shall vary to meet zone heating requirements in conjunction with the heat bank output. Once the space temperature rises above the setpoint, the heating cycle shall be disabled.

Dehumidification:

Factory installed hot gas reheat, as applicable,shall allow application of dehumidification. Dehumidification shall be allowed only when the outside air temperature is above 40.0 deg. F and below 100.0 deg. F. The economizer outside air damper shall drive to minimum position during dehumidification.

On a call for dehumidification shall energize and both compressors shall enable. When the humidity control setpoint is satisfied, the valve shall be de-energized and both compressors shall be disabled. If there is a call for 1st stage cooling while in the dehumidification mode, no action shall take place. If there is a call for 2nd stage cooling, the reheat valve shall be de-energized, and the unit shall revert to the cooling mode. If 2nd stage cooling is satisfied and there is still a call for dehumidification, the hot gas reheat coil valve shall once again be energized.

Economizer Control / Comparative Enthalpy:

The supply air sensor shall measure the dry bulb temperature of the air leaving the evaporator coil while economizing. When economizing is enabled and the unit is operating in the cooling mode, the economizer damper shall modulate between its minimum position and 100% to maintain the space temperature setpoint. Minimum position shall be calculated based on supply fan speed. If the supply air temperature starts to fall below supply air temperature setpoint, the outdoor damper shall be at minimum position. Compressors shall be delayed from operating until the economizer has opened to 100% for 5 minutes.

Comparative Enthalpy:

Outside air enthalpy shall be compared with return air enthalpy point. The economizer shall be enabled when outdoor air enthalpy is less than return air enthalpy - 3.0 BTU/LB. The economizer shall be disabled when outdoor air enthalpy is greater than return air enthalpy.

Demand Control Ventilation (DCV) PHAC-1 Only:

As the supply fan speed command varies between minimum and maximum, the Building Design and DCV Minimum Position Targets shall be calculated linearly between the user selected setpoints based on the instantaneous supply fan speed. The Bldg. Design and DCV Minimum Position Targets will be used to calculate the Active OA Damper Minimum Position Target based on CO2 levels relative to the active Design and DCV CO2 setpoints.

The Design Minimum and DCV Minimum OA Damper Position setpoints shall have a range of 0-100% while the Design Minimum and DCV Minimum OA Damper Position setpoints at Full fan speed shall have a range of 0-50%.

Smoke Detector Shutdown (PHAC-2):

The unit shall shut down in response to a signal from the smoke detector indicating the presence of smoke. A signal shall be sent to the fire alarm panel in the facility. The smoke detectors shall be interlocked to the unit through the dry contacts of the smoke detectors and alarm at the BAS operator console. A manual reset of the smoke detectors shall be required to restart the unit. Upon resetting of the unit smoke detector the unit shall return to its normal, occupied sequence of operation. Prior to bid, coordinate all requirements with the Electrical Contractor, Mechanical Contractor and the Fire Alarm Contractor and provide as required to accomplish the specified sequence of operation.

Filter Status:

A differential pressure switch shall monitor the differential pressure across the filter when the fan is running. If the switch closes for 2 minutes after a request for fan operation a dirty filter alarm shall be annunciated at the BAS.

Condensate Drain Blockage:

Install a UL 508 conforming electronic water level monitoring device in the secondary drain line to automatically shut off the equipment served in the event the primary drain line becomes restricted. Upon detection of an obstruction in the condensate drain line, the unit shall shutdown and an alarm shall be annunciated at the BAS operator console. If the condensate switch is located outside of the unit casing, the sensor shall be provided with a completely weatherproof, easily accessible enclosure.

Building Pressure Control (Relief Air):

After the fan startup delay expires, building static pressure shall be controlled by modulating the outside air damper. As building pressure increases over the building pressure setpoint (adj.), the damper shall modulate closed. If the building pressure falls below the setpoint, the damper shall modulate open. Maintain positive pressure from within the fire station proper into the apparatus bay.

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NEW FIRE STATION NO. 10
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REVISIONS

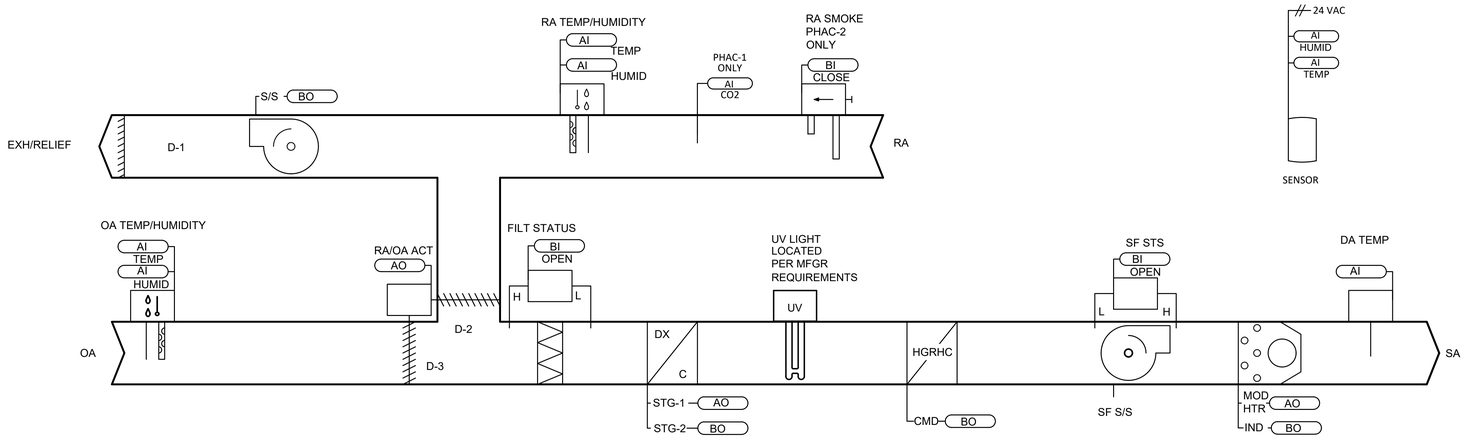
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
ZEA Project No.	2022-11
Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:
HVAC CONTROLS

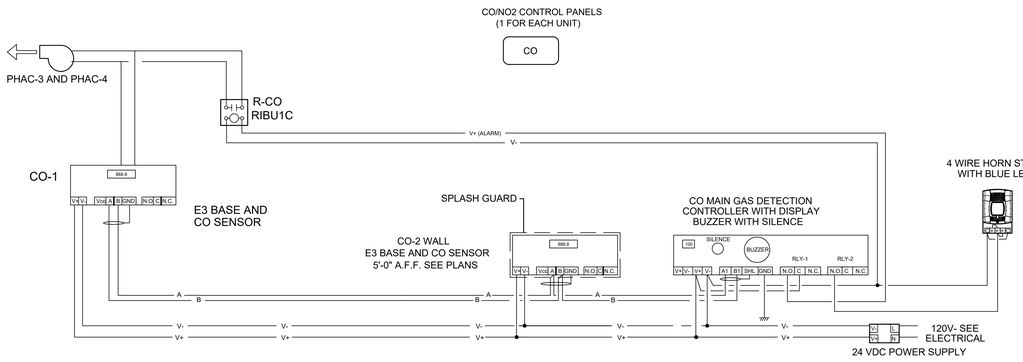
Sheet No:
M7

CONFORMANCE DOCUMENTS



PACKAGED ROOFTOP UNIT (PHAC-3 and PHAC-4) CONTROL SCHEMATIC

NOT TO SCALE



CARBON MONOXIDE SENSORS AND PHAC-3 AND PHAC-4 CONTROLS SCHEMATIC (APPARATUS BAY))
(NITROGEN DIOXIDE CONTROLS SCHEMATIC SIMILAR)

NOTES:

1. SCHEMATIC IS DIAGRAMMATIC AND IS SHOWN FOR GENERAL INFORMATIONAL PURPOSES AND INTENT OF OPERATION. CONTROLS SUBCONTRACTOR SHALL PROVIDE INSTALLATION AS REQUIRED FOR THE ACTUAL CO/NO2 SYSTEM PROVIDED AND AS REQUIRED TO COMPLETE THE SPECIFIED SEQUENCE OF OPERATION

2. REFER TO PLANS AT PHAC-3 AND PHAC-4 FOR LOCATIONS OF SPACE AND RETURN AIR MOUNTED CO AND NO2 DUCT SENSORS

PHAC-3 AND PHAC-4 UNITS AND APPARATUS BAY CARBON MONOXIDE (CO) AND NITROGEN DIOXIDE (NO2) MONITORING SYSTEM SEQUENCE OF OPERATION

BASIC SEQUENCE OF OPERATION SHALL BE AS SPECIFIED FOR PHAC UNITS WITH ADDITIONS SPECIFIED BELOW

UNIT ENABLE:

PHAC-3 AND PHAC-4 ARE PROVIDING CONDITIONED AIR TO THE APPARATUS BAY.

THE BAS SHALL MONITOR ALL CO/NO2 MONITORING POINTS AND ALARMS, ALL OF WHICH SHALL BE SHOWN AT THE BAS OPERATOR CONSOLE. PRIOR TO BID, COORDINATE REQUIREMENTS WITH CO/NO2 MONITORING SYSTEM PROVIDED.

OCCUPIED MODE:
SYSTEM IS OCCUPIED 24/7/365

SYSTEMS SHALL RUN CONTINUOUSLY. HEATING, COOLING AND HUMIDITY SETPOINTS SHALL BE AS SET BY THE INDIVIDUAL UNIT THERMOSTAT/HUMIDISTAT OR THROUGH THE BAS OPERATOR'S CONSOLE. ANYTIME SPACE OR DUCT MOUNTED CO SENSORS OR NO2 SENSORS INDICATE CO LEVELS OR NO2 LEVELS ARE ABOVE MANDATED VALUES, OR UPON THE OPENING OF ANY ROLL UP DOOR IN THE APPARATUS BAY, PHAC-3 AND PHAC-4 SHALL AUTOMATICALLY REVERT TO 100% OUTSIDE AIR/ECONOMIZER MODE AND OPERATE UNTIL LEVELS ARE BELOW EPA AND ASHRAE MANDATED LEVELS, OR ANY ROLLUP DOORS HAVE CLOSED. INITIAL CO LEVEL SETPOINT SHALL BE 20 PPM (PARTS PER MILLION WITH 8 HOUR TIME WEIGHTED AVERAGE). INITIAL NO2 LEVEL SETPOINT SHALL BE 75 PPB (PARTS PER BILLION) FOR 1 HOUR. IF CO AND NO2 SENSORS DETECT LEVELS OF CONCENTRATION HIGHER THAN SPECIFIED, THE CO/NO2 CONTROL PANEL SHALL SEND AN ALARM SIGNAL TO THE BAS OPERATOR CONSOLE.

UPON REDUCTION OF THE CO AND NO2 CONCENTRATION BELOW THE SPECIFIED LIMITS, OR THE CLOSING OF THE ROLLUP DOORS, PHAC-3 AND PHAC-4 SHALL RETURN TO THEIR PREVIOUS OPERATIONAL STATUS.

THE CONTROLS SUB-CONTRACTOR SHALL PROVIDE THE SEQUENCE OF OPERATION ABOVE AS AN ADDITIONAL FAIL SAFE REQUIREMENT SHOULD THE SPECIFIED SEQUENCE BE MODIFIED BY ANY PERSON(S) TO NOT OPERATE CONTINUOUSLY AFTER THE OWNER TAKES POSSESSION OF THE FACILITY. I.E. SHOULD OWNER DISABLE CONTINUOUS OPERATION, ALL OF THE REQUIREMENTS OF THE SEQUENCE AS THEY RELATE TO THE SPACE CO AND NO2 SENSORS SHALL REMAIN IN EFFECT. DO NOT OVERRIDE SENSOR REQUIREMENTS/CONTROLS.

PACKAGED ROOFTOP HEATING AND AIR CONDITIONING UNITS PHAC-3 AND PHAC-4 SEQUENCE OF OPERATION

Building Automation System Interface:

The Building Automation System (BAS) shall send the controller Occupied Bypass, Occupied Heat / Cool modes. If a BAS is not present, or communication is lost with the BAS the controller shall operate using default modes and setpoints. This facility operates 24/7365.25. No unoccupied requirements are necessary

Occupied Mode:

During occupied periods, the supply fan shall run continuously and the outside air damper shall open to maintain minimum ventilation requirements. The DX cooling shall stage and gas heat shall modulate to maintain the occupied space temperature setpoint. If economizing is enabled the outside air damper shall modulate to maintain the occupied space temperature setpoint.

Optimal Stop:

Not required. The system operates 24/7/365.25

Occupied Bypass:

Not required. The system operates 24/7/365.25

Cooling Mode:

The unit controller shall use the space temperature sensor and space temperature cooling setpoint to calculate the discharge air cooling setpoint and determine when to initiate requests for cooling. Discharge air setpoint shall be maintained by modulating the economizer or staging the DX cooling as required to maintain the discharge air setpoint. Once all economizing requirements have been met, compressor operation will be enabled if the economizer alone cannot meet the demand. Once compressor operation is started, the variable speed compressor will be modulated to maintain the discharge air temperature to the active discharge air cooling setpoint. If the variable speed compressor reaches its maximum speed for stage one, and there is additional demand for cooling, the controller will energize the first fixed speed compressor on circuit two. Once the first fixed speed compressor is energized, the variable compressor speed will be reduced to its minimum speed, then released back to discharge air temperature control. Additional stages will respond in the same manner. Once the active cooling demand has been satisfied, compressors will begin staging down in reverse order from the stage up sequence. Once the unit has staged down all fixed compressors, and there is no longer a demand for the variable speed compressor, the compressor will modulate down to its minimum speed and then will be de-energized, while adhering to all shutdown requirements.

Heating Mode:

The unit controller shall monitor space temperature and space temperature heating setpoint to determine when to initiate requests for heat. When the space temperature drops below the space temperature heating setpoint, the controller shall enable the modulating heat bank at high fire for 60 seconds, then the controller shall modulate the heat bank to the necessary rate to satisfy the space temperature heating setpoint. The supply fan speed shall vary to meet zone heating requirements in conjunction with the heat bank output. Once the space temperature rises above the setpoint, the heating cycle shall be disabled.

Dehumidification:

Factory installed hot gas reheat, as applicable,shall allow application of dehumidification. Dehumidification shall be allowed only when the outside air temperature is above 40.0 deg. F and below 100.0 deg. F. The economizer outside air damper shall drive to minimum position during dehumidification.

On a call for dehumidification shall energize and both compressors shall enable. When the humidity control setpoint is satisfied, the valve shall be de-energized and both compressors shall be disabled. If there is a call for 1st stage cooling while in the dehumidification mode, no action shall take place. If there is a call for 2nd stage cooling, the reheat valve shall be de-energized, and the unit shall revert to the cooling mode. If 2nd stage cooling is satisfied and there is still a call for dehumidification, the hot gas reheat coil valve shall once again be energized.

Economizer Control / Comparative Enthalpy:

The supply air sensor shall measure the dry bulb temperature of the air leaving the evaporator coil while economizing. When economizing is enabled and the unit is operating in the cooling mode, the economizer damper shall modulate between its minimum position and 100% to maintain the space temperature setpoint. Minimum position shall be calculated based on supply fan speed. If the supply air temperature starts to fall below supply air temperature setpoint, the outdoor damper shall be at minimum position. Compressors shall be delayed from operating until the economizer has opened to 100% for 5 minutes.

Comparative Enthalpy:

Outside air enthalpy shall be compared with return air enthalpy point. The economizer shall be enabled when outdoor air enthalpy is less than return air enthalpy - 3.0 BTU/LB. The economizer shall be disabled when outdoor air enthalpy is greater than return air enthalpy.

Demand Control Ventilation (DCV) PHAC-1 Only:

As the supply fan speed command varies between minimum and maximum, the Building Design and DCV Minimum Position Targets shall be calculated linearly between the user selected setpoints based on the instantaneous supply fan speed. The Bldg. Design and DCV Minimum Position Targets will be used to calculate the Active OA Damper Minimum Position Target based on CO2 levels relative to the active Design and DCV CO2 setpoints.

The Design Minimum and DCV Minimum OA Damper Position setpoints shall have a range of 0-100% while the Design Minimum and DCV Minimum OA Damper Position setpoints at Full fan speed shall have a range of 0-50%.

Smoke Detector Shutdown (PHAC-2):

The unit shall shut down in response to a signal from the smoke detector indicating the presence of smoke. A signal shall be sent to the fire alarm panel in the facility. The smoke detectors shall be interlocked to the unit through the dry contacts of the smoke detectors and alarm at the BAS operator console. A manual reset of the smoke detectors shall be required to restart the unit. Upon resetting of the unit smoke detector the unit shall return to its normal, occupied sequence of operation. Prior to bid, coordinate all requirements with the Electrical Contractor, Mechanical Contractor and the Fire Alarm Contractor and provide as required to accomplish the specified sequence of operation.

Filter Status:

A differential pressure switch shall monitor the differential pressure across the filter when the fan is running. If the switch closes for 2 minutes after a request for fan operation a dirty filter alarm shall be annunciated at the BAS.

Condensate Drain Blockage:

Install a UL 508 conforming electronic water level monitoring device in the auxiliary drain port to automatically shut off the equipment served in the event the primary drain line becomes restricted. Upon detection of an obstruction in the condensate drain line, the unit shall shutdown and an alarm shall be annunciated at the BAS operator console. If the condensate switch is located outside of the unit casing, the sensor shall be provided with a completely weatherproof, easily accessible enclosure.

Building Pressure Control (Relief Air):

After the fan startup delay expires, building static pressure shall be controlled by modulating the outside air damper. As building pressure increases over the building pressure setpoint (adj.), the damper shall modulate closed. If the building pressure falls below the setpoint, the damper shall modulate open. Maintain positive pressure from within the fire conditioned space to the apparatus bay.

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REVISIONS

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MGM Project No.	SP-5-21
BDW Project No.	2021-118
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Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:
HVAC CONTROLS

Sheet No:
M8

CONFORMANCE DOCUMENTS

PHHAC-1, PHAC-2, PHAC-3 AND PHAC-4 POINTS LIST

PHAC-1 AND PHAC-2 SYSTEM POINTS LIST

SYSTEM POINT DESCRIPTION	POINT TYPE							ALARMS								
	GRAPHIC	HARDWARE INPUT	HARWARE OUTPUT	SOFTWARE POINT	HARDWARE INTERLK	WIRELESS	NETWORK	DEFAULT VALUE	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SERSOR FAIL	COMMUNICATION FAIL	DIAGNOSTICS	NOTES
DISCHARGE AIR TEMPERATURE LOCAL	X	AI							X	X			X		SENSOR FAILURE	
MIXED AIR TEMPERATURE LOCAL	X	AI							X	X			X		SENSOR FAILURE	
													X			
RETURN AIR CO2 LOCAL	X	AI							X			X			CO2 SENSOR FAILURE	
SUPPLY FAN AIR FLOW LOCAL	X	AI														
DIRTY FILTER ALARM OPEN	X	BI										X			DIRTY FILTER	
SUPPLY FAN STATUS OPEN	X	BI														
SUPPLY FAN SPEED COMMAND	X		AO													
SUPPLY FAN START STOP COMMAND	X		BO													
OCCUPIED COOLING SETPOINT (ADJ)				X				74.0 deg. F								
OCCUPIED HEATING SETPOINT (ADJ)				X				70.0 deg. F								
UNOCCUPIED COOLING SETPOINT (ADJ)				X				78.0 deg. F								
UNOCCUPIED HEATING SETPOINT (ADJ)				X				67.0 deg. F								
BAS COMMUNICATION STATE	X			X										X		NOTE 1
MAINTENANCE REQUIRED				X				600 HRS								
UV LIGHTS MAINTENANCE REQUIRED				X				365 DAYS								

GENERAL NOTES

1. DISPLAYED AT THE BAS USER INTERFACE IF PRESENT
2. POINTS SHALL BE AS SHOWN ON SCHEMATIC AND THIS TABLE
3. INCLUDE POINTS AS REQUIRED PER THE SEQUENCE OF OPERATION AND FOR MONITORING OF CO/NO2 SENSORS AND ALL AVAILABLE POINTS FROM CO/NO2 PANELS

PHAC-3 AND PHAC-4 SYSTEM POINTS LIST

SYSTEM POINT DESCRIPTION	POINT TYPE							ALARMS								
	GRAPHIC	HARDWARE INPUT	HARWARE OUTPUT	SOFTWARE POINT	HARDWARE INTERLK	WIRELESS	NETWORK	DEFAULT VALUE	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SERSOR FAIL	COMMUNICATION FAIL	DIAGNOSTICS	NOTES
DISCHARGE AIR TEMPERATURE LOCAL	X	AI							X	X			X		SENSOR FAILURE	
MIXED AIR TEMPERATURE LOCAL	X	AI							X	X			X		SENSOR FAILURE	
													X			
RETURN AIR CO2 LOCAL	X	AI							X			X			CO2 SENSOR FAILURE	
SUPPLY FAN AIR FLOW LOCAL	X	AI														
DIRTY FILTER ALARM OPEN	X	BI										X			DIRTY FILTER	
SUPPLY FAN STATUS OPEN	X	BI														
SUPPLY FAN SPEED COMMAND	X		AO													
SUPPLY FAN START STOP COMMAND	X		BO													
OCCUPIED COOLING SETPOINT (ADJ)				X				74.0 deg. F								
OCCUPIED HEATING SETPOINT (ADJ)				X				70.0 deg. F								
UNOCCUPIED COOLING SETPOINT (ADJ)				X				78.0 deg. F								
UNOCCUPIED HEATING SETPOINT (ADJ)				X				67.0 deg. F								
BAS COMMUNICATION STATE	X			X										X		NOTE 1
MAINTENANCE REQUIRED				X				600 HRS								
UV LIGHTS MAINTENANCE REQUIRED				X				365 DAYS								

GENERAL NOTES

1. DISPLAYED AT THE BAS USER INTERFACE IF PRESENT
2. POINTS SHALL BE AS SHOWN ON SCHEMATIC AND THIS TABLE
3. INCLUDE POINTS AS REQUIRED PER THE SEQUENCE OF OPERATION AND FOR MONITORING OF CO/NO2 SENSORS AND ALL AVAILABLE POINTS FROM CO/NO2 PANELS

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NEW FIRE STATION NO. 10
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ZEA Project No.	2022-11
Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:
HVAC CONTROLS

Sheet No:
M9

CONFORMANCE DOCUMENTS

ZGOUVAS, EIRING & ASSOCIATES
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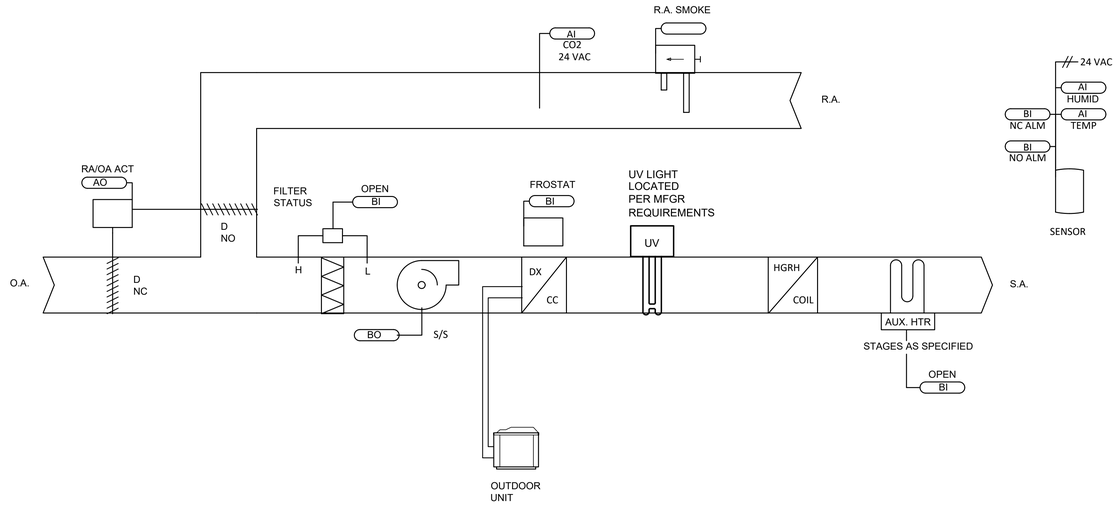

SPLIT SYSTEM HEAT PUMP UNIT WITH DEMAND CONTROL VENTILATION & HOT GAS REHEAT COIL CONTROLS SCHEMATIC (HP-A)

NOT TO SCALE

Split System Heat Pump Unit HP-A With Demand Ventilation & Hot Gas Reheat Coil Sequence of Operation

Building Automation System Interface:

The Building Automation System (BAS) shall send the controller Occupied Bypass, Occupied Heat / Cool modes. If communication is lost with the BAS, the controller shall operate using default modes and Setpoints. The supply air fan shall be started only upon satisfaction of all safeties, upon a call from the BAS or the individual thermostats/sensors override. A differential pressure switch shall monitor the differential pressure across the fan. If the switch does not open within 40 seconds after a request for fan operation a fan failure alarm shall be annunciated at the BAS, the unit shall stop, requiring a manual reset.

Smoke Detector Shutdown:

The unit shall shut down in response to a signal from the smoke detector in the return air ducts indicating the presence of smoke. The smoke detectors shall be interlocked to the unit through the dry contacts of the smoke detector. A manual reset of the smoke detector shall be required to restart the unit. Coordinate the quantity of smoke detectors required with the plans. Smoke detectors are furnished and wired by Division 16. Installation into the duct by the Mechanical Contractor. Coordinate all prior to bid and provide as specified.

Occupied Mode:

During occupied periods, the supply fan shall run, the normally closed (NC) outside air damper and normally open (NO) return air damper(s) shall open to their respective setpoints to provide for their minimum scheduled outside air setpoint. The heat pump DX cooling or heating cycle shall stage to maintain the occupied space temperature setpoint.

Unoccupied Mode:

When the space temperature is below the unoccupied heating setpoint of 60.0 deg. F (adj.) the supply fan shall start, the NC outside air damper shall remain closed, the NO return air damper (as applicable) shall remain open and the DX heating cycle shall be enabled. When the space temperature rises above the unoccupied heating setpoint of 60.0 deg. F (adj.) plus the unoccupied differential of 4.0 deg. F (adj.), the heating cycle shall be disabled, the supply fan shall stop, the NC outside air damper shall remain closed and the NO return air damper (as applicable) shall remain in its NO position.

When the space temperature is above the unoccupied cooling setpoint of 85.0 deg. F (adj.), the supply fan shall start, the NC outside air damper shall remain closed, the NO return air damper (as applicable) shall remain open and the DX cooling cycle shall be enabled. When the space temperature falls below the unoccupied cooling setpoint of 85.0 deg. F (adj.) minus the unoccupied differential of 4.0 deg. F (adj.) the cooling cycle shall be disabled, the supply fan shall stop, the NC outside air damper shall remain closed and the NO return air damper (as applicable) shall remain open.

Optimal Start:

The BAS shall monitor the scheduled occupied time, occupied space setpoints and space temperature to calculate when the optimal start occurs.

Morning Warm-Up Mode:

During optimal start, if the space temperature is below the occupied heating setpoint a morning warm-up mode shall be activated. When morning warm-up is initiated the unit shall enable the heating and supply fan. The NC outside air damper shall remain closed and the NO return air damper shall remain open. When the space temperature reaches the occupied heating setpoint (adj.), the unit shall transition to the occupied mode based on its respective schedule.

Morning Cool-Down/Pre-Cool Mode:

During optimal start, if the space temperature is above the occupied cooling setpoint, the morning cool-down/pre-cool mode shall be activated. When morning cool-down/pre-cool is initiated the unit shall enable the fan and cooling. The NC outside air damper shall remain closed and the NO return air damper (as applicable) shall remain open. When the space temperature reaches the occupied cooling setpoint (adj.), the unit shall transition to the occupied mode based on its respective schedule.

Optimal Stop:

The BAS shall monitor the scheduled unoccupied time, occupied setpoints and space temperature to calculate when the optimal stop occurs. When the optimal stop mode is active the unit controller shall maintain the space temperature to the space temperature offset setpoint.

Occupied Bypass:

The BAS shall monitor the status of the "on" and "cancel" buttons of the space temperature sensor. When an occupied bypass request is received from a space sensor, the unit shall transition from its current occupancy mode to occupied mode and the unit shall maintain the space temperature to the occupied setpoints (adj.).

Cooling Mode:

The unit controller shall use space temperature and space temperature setpoint to determine when to initiate requests for cooling. When the space temperature rises above the setpoint, the unit controller shall stage the DX cooling as required to maintain the space temperature setpoint. The first compressor (as applicable) shall energize after its minimum 3-minute off time has expired. If additional cooling capacity is required the second stage (as applicable) of cooling shall be enabled. Once the space temperature falls below the setpoint the compressors shall be deactivated and system returns to its occupied/unoccupied cooling schedule.

Heating Mode:

The unit controller shall use the space temperature and space temperature setpoint to determine when to initiate requests for heat. When the space temperature drops below the setpoint, the unit controller shall enable DX heating stage or the auxiliary heater when ambient temperature is below 35°F (adj.), to maintain the space temperature setpoint. Once the space temperature rises above the setpoint the compressor(s) or auxiliary electric heating stages shall be disabled.

Dehumidification/Humidity Control:

Factory installed hot gas reheat coil shall allow application of dehumidification.

Dehumidification shall be allowed only when the outside air temperature is above 40.0 deg. F and below 100.0 deg. F. The outside air damper shall drive to between its minimum and maximum scheduled outside air setpoint based on the CO2 readings during dehumidification.

Dual Compressor Units:

On a call for dehumidification, the hot gas reheat coil valve shall energize and both compressors shall enable. When the humidity control setpoint is satisfied, the valve shall be de-energized and both compressors shall be disabled. If there is a call for 1st stage cooling while in the dehumidification mode, no action shall take place. If there is a call for 2nd stage cooling, the hot gas reheat valve shall be de-energized, and the unit shall revert to the cooling mode. If 2nd stage cooling is satisfied and there is still a call for dehumidification, the hot gas reheat coil valve shall once again be energized and modulate as required to maintain space temperature.

CO2 Control/Demand Ventilation (As Applicable):

The duct mounted CO2 sensor shall modulate the motorized outside air and return air damper(s) in sequence to maintain a minimum concentration of 800 PPM (adj.). Upon satisfaction of the CO2 sensor setpoint, the outside air damper shall return to its minimum scheduled outside air setpoint and the the return air damper shall modulate up or down based on the outside air damper requirement

Filter Status:

A differential pressure switch shall monitor the differential pressure across the filter when the fan is running. If the switch closes for 2 minutes after a request for fan operation, a dirty filter alarm shall be annunciated at the BAS.

Condensate Drain Blockage:

Install a UL 508 conforming electronic water level monitoring device in the auxiliary drain port to automatically shut off the equipment served in the event the primary drain line becomes restricted. Upon detection of an obstruction in the condensate drain line, the unit shall shutdown and an alarm shall be annunciated at the BAS operator console. If the condensate switch is located outside of the unit casing, the sensor shall be provided with a completely weatherproof, easily accessible enclosure.

HP-A SYSTEM POINTS LIST

SYSTEM POINT DESCRIPTION	POINT TYPE							ALARMS							
	GRAPHIC	HARDWARE INPUT	HARWARE OUTPUT	SOFTWARE POINT	HARDWARE INTERLK	WIRELESS	NETWORK	DEFAULT VALUE	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SERSOR FAIL	COMMUNICATION FAIL	DIAGNOSTICS	NOTES
DISCHARGE AIR TEMPERATURE LOCAL	X	AI							X	X			X		SENSOR FAILURE	
MIXED AIR TEMPERATURE LOCAL	X	AI							X	X			X		SENSOR FAILURE	
													X			
RETURN AIR CO2 LOCAL	X	AI							X			X			CO2 SENSOR FAILURE	
SUPPLY FAN AIR FLOW LOCAL	X	AI														
DIRTY FILTER ALARM OPEN	X	BI										X			DIRTY FILTER	
SUPPLY FAN STATUS OPEN	X	BI														
SUPPLY FAN SPEED COMMAND	X		AO													
SUPPLY FAN START STOP COMMAND	X		BO													
OCCUPIED COOLING SETPOINT (ADJ)				X				74.0 deg. F								
OCCUPIED HEATING SETPOINT (ADJ)				X				70.0 deg. F								
UNOCCUPIED COOLING SETPOINT (ADJ)				X				78.0 deg. F								
UNOCCUPIED HEATING SETPOINT (ADJ)				X				67.0 deg. F								
BAS COMMUNICATION STATE	X			X										X		NOTE 1
MAINTENANCE REQUIRED				X				600 HRS								
UV LIGHTS MAINTENANCE REQUIRED				X				365 DAYS								
	GENERAL NOTES															
	1. DISPLAYED AT THE BAS USER INTERFACE IF PRESENT															
	2. POINTS SHALL BE AS SHOWN ON SCHEMATIC AND THIS TABLE															

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BDW Project No.	2021-118
ZEA Project No.	2022-11
Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:
HVAC CONTROLS

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M10

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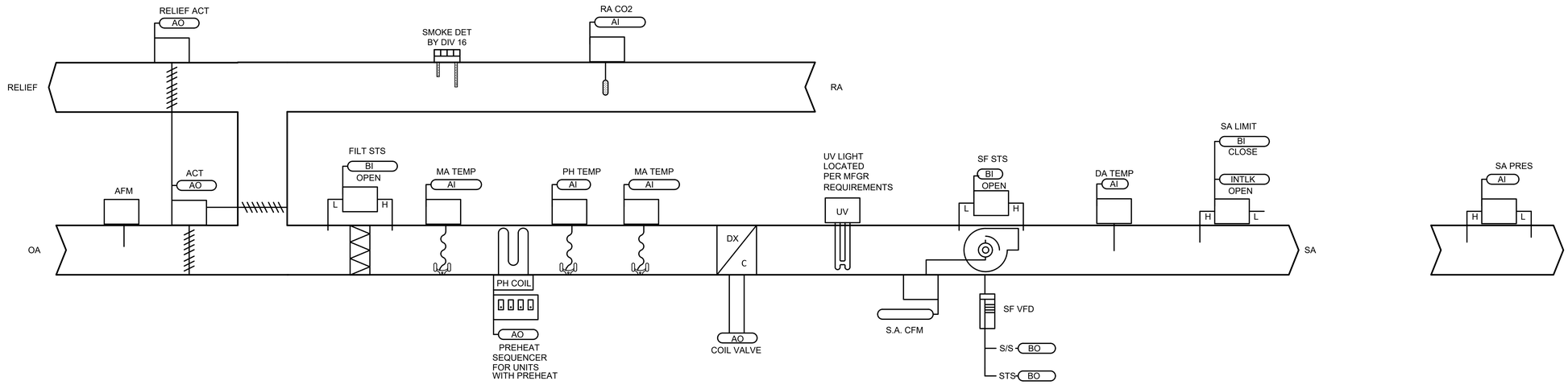

TYPICAL PACKAGED ROOFTOP VAV UNIT HVAC CONTROLS SCHEMATIC (PAC-1 &PAC-2)

NO SCALE

TYPICAL VAV AIR HANDLING UNIT - SYSTEM POINTS LIST

SYSTEM POINT DESCRIPTION	POINT TYPE							ALARMS								
	GRAPHIC	HARDWARE INPUT	HARWARE OUTPUT	SOFTWARE POINT	HARDWARE INTERLK	WIRELESS	NETWORK	DEFAULT VALUE	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SERSOR FAIL	COMMUNICATION FAIL	DIAGNOSTICS	NOTES
DISCHARGE AIR TEMPERATURE LOCAL	X	AI							X	X			X		SENSOR FAILURE	
DUCT STATIC PRESSURE LOCAL	X	AI														
MIXED AIR TEMPERATURE LOCAL	X	AI							X	X			X		SENSOR FAILURE	
PREHEAT LEAVING COIL TEMPERATURE LOCAL	X	AI							X	X			X		SENSOR FAILURE	
RETURN AIR CO2 LOCAL	X	AI							X			X			CO2 SENSOR FAILURE	
SUPPLY FAN AIR FLOW LOCAL	X	AI														
DIRTY FILTER ALARM OPEN	X	BI										X			DIRTY FILTER	
HIGH STATIC ALARM CLOSE	X	BI			X										DUCT STATIC PRESSURE HIGH LIMIT	NOTE 1
LOW LIMIT TEMPERATURE CUTOUT OPEN	X	BI			X						X	X			LOW TEMP DETECT	NOTE 1
SUPPLY FAN STATUS OPEN	X	BI														
REFRIGERANT COIL VALVE COMMAND OUTPUT	X		AO													
MIXED AIR DAMPER	X		AO													
SEQUENCER	X		AO													
SUPPLY FAN SPEED COMMAND	X		AO													
SUPPLY FAN START STOP COMMAND	X		BO													
OCCUPIED COOLING SETPOINT				X				74.0 deg. F								
OCCUPIED HEATING SETPOINT				X				70.0 deg. F								
DISCHARGE AIR TEMPERING SETPOINT				X				55.0 deg. F								
DISCHARGE AIR TEMPERATURE CONTROL POINTS				X												
BAS COMMUNICATION STATE	X			X										X		NOTE 2
MAINTENANCE REQUIRED				X				600 HRS								
UV LIGHTS MAINTENANCE REQUIRED				X				365 DAYS								
HIGH STATIC ALARM CLOSE	X	BI			X										LIGHTS OUT	NOTE 2
UNIVERSAL INPUT(S)		6														
ANALOG OUTPUT(S)			3													
BINARY OUTPUT(S)			3													

GENERAL NOTES

1. DEVICE IS HARDWIRE INTERLOCKED, MANUAL RESET MAY BE REQUIRED
2. DISPLAYED AT THE BAS USER INTERFACE IF PRESENT

TYPICAL VAV PACKAGED ROOFTOP UNIT SEQUENCE OF OPERATION

BUILDING AUTOMATION SYSTEM INTERFACE:

THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED BYPASS, MORNING WARM-UP/PRE-COOL, OCCUPIED/UNOCCUPIED AND HEAT/COOL MODES. THE BAS SHALL ALSO SEND THE DISCHARGE AIR TEMPERATURE SETPOINT AND THE DUCT STATIC PRESSURE SETPOINT. IF A BAS IS NOT PRESENT, OR COMMUNICATION IS LOST WITH THE BAS, THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND SETPOINTS.

OCCUPIED:

DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE OUTSIDE AIR DAMPER SHALL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS. THE CHILLED WATER VALVE SHALL MODULATE AND THE ELECTRIC PREHEAT SHALL STAGE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT. IF ECONOMIZING IS ENABLED, THE OUTSIDE AIR DAMPER SHALL MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT. IF THE DISCHARGE AIR TEMPERATURE SENSOR FAILS, THE CHILLED WATER VALVE SHALL CLOSE AND ELECTRIC HEAT SHALL BE DISABLED UPON SATISFACTION OF EQUIPMENT SAFETIES, AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS.

UNOCCUPIED:

NOT REQUIRED. SPACES ARE OCCUPIED 24/7/365

SUPPLY FAN:

THE FAN SHALL BE OFF IN THE UNOCCUPIED MODE. WHEN THE UNIT CONTROLLER IS IN THE OCCUPIED MODE, THE SUPPLY FAN SHALL OPERATE CONTINUOUSLY AND ITS SPEED SHALL BE MODULATED TO MAINTAIN THE DUCT STATIC PRESSURE SETPOINT. THE DUCT STATIC PRESSURE SETPOINT SHALL BE SENT BY THE BAS AND SHALL BE RESET BETWEEN THE MINIMUM AND MAXIMUM STATIC PRESSURE LIMITS TO MAINTAIN THE CRITICAL ZONE VAV AIR DAMPER IN A POSITION BETWEEN 65% AND 75% OPEN.

IF THE SUPPLY FAN FAILS TO PROVE STATUS FOR 30 SECONDS (ADJ.), THE FAN SHALL BE COMMANDED OFF, THE OUTSIDE AIR DAMPER SHALL CLOSE, CHILLED WATER VALVE SHALL CLOSE, ELECTRIC HEAT SHALL BE DISABLED AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS. A MANUAL RESET SHALL BE REQUIRED TO RESTART THE FAN. A HARDWIRED, HIGH STATIC PRESSURE CUT-OFF SWITCH SHALL BE ELECTRICALLY INTERLOCKED WITH THE VARIABLE SPEED DRIVE. IF THE HIGH STATIC PRESSURE CUT-OFF SWITCH IS TRIPPED THE FAN SHALL STOP, THE OUTSIDE AIR DAMPER SHALL CLOSE, CHILLED WATER VALVE SHALL CLOSE, ELECTRIC HEAT SHALL BE DISABLED AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS. A MANUAL RESET OF THE HIGH STATIC PRESSURE CUT-OFF SWITCH SHALL BE REQUIRED TO RESTART THE FAN.

CO2 / DEMAND CONTROL VENTILATION:

WHEN THE INPUT CO2 CONCENTRATION SETPOINT IN THE RETURN AIR DUCT MAXIMUM SETPOINT OF 700 PPM (ADJ.) IS REACHED, THE OUTSIDE AIR DAMPER AND RETURN AIR DAMPER SHALL MODULATE IN SEQUENCE AND SHALL START TO MODULATE OPEN TO BRING IN MORE FRESH AIR TO REDUCE THE SPACE CO2 LEVEL. THE OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE OPEN/CLOSE IN SMALL INCREMENTS UNTIL THE SPACE CO2 LEVEL IS SATISFIED OR THE OUTSIDE AIR DAMPER REACHES THE FULL OPEN POSITION. IF THE INPUT CO2 CONCENTRATION FALLS, THE OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE TOWARD NORMAL OPERATION. IF THE MIXED AIR TEMPERATURE DROPS BELOW THE MIXED AIR LOW LIMIT SETPOINT, THE SPACE CO2 SENSOR INPUT IS OVERRIDDEN AND MODULATES THE OUTSIDE AIR DAMPER CLOSED AND THE RETURN AIR DAMPER OPEN TO MAINTAIN THE MIXED AIR TEMPERATURE LOW LIMIT SETPOINT. WHEN THE MIXED AIR TEMPERATURE RISES ABOVE THE MIXED AIR LOW LIMIT SETPOINT, CO2 OPERATION IS ONCE AGAIN RESTORED.

MIXED AIR LOW LIMIT:

THE INITIAL DAMPER OPENING RATE SHALL BE LIMITED TO 2% PER MINUTE (ADJ.) UNTIL THE DAMPER HAS REACHED ITS MINIMUM VENTILATION POSITION. THE OUTSIDE AIR DAMPER SHALL MODULATE TO A POSITION LESS THAN THE MINIMUM DAMPER POSITION IF THE MIXED AIR TEMPERATURE DROPS BELOW 50.0 DEG. F (ADJ.). IF THE MIXED AIR TEMPERATURE SENSOR FAILS AN ALARM SHALL BE ANNUNCIATED AT THE BAS OPERATOR CONSOLE AND THE OUTSIDE AIR DAMPER SHALL RETURN TO THE MINIMUM POSITION.

FILTER STATUS:

A DIFFERENTIAL PRESSURE SWITCH SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTER WHEN THE FAN IS RUNNING. IF THE SWITCH CLOSES DURING NORMAL OPERATION A DIRTY FILTER ALARM SHALL BE ANNUNCIATED AT THE BAS.

SMOKE DETECTOR SHUTDOWN:

THE UNIT SHALL SHUT DOWN IN RESPONSE TO A SIGNAL FROM EITHER SMOKE DETECTOR INDICATING THE PRESENCE OF SMOKE. THE SMOKE DETECTORS SHALL BE INTERLOCKED TO THE UNIT THROUGH THE DRY CONTACTS OF THE SMOKE DETECTORS. A MANUAL RESET OF THE SMOKE DETECTORS SHALL BE REQUIRED TO RESTART THE UNIT.

BUILDING PRESSURE CONTROL:

A DIFFERENTIAL PRESSURE TRANSDUCER SHALL ACTIVELY MONITOR THE DIFFERENCE IN PRESSURE BETWEEN THE BUILDING (INDOORS) AND OUTDOORS. IF THE BUILDING PRESSURE INCREASES ABOVE THE DESIRED SETPOINT, THE AHU CONTROLLER SHALL TURN ON THE EXHAUST FAN AND MODULATE THE UNIT EXHAUST FAN VFD TO CONTROL BUILDING PRESSURE AT SETPOINT. IF THE BUILDING PRESSURE DECREASES BELOW THE DESIRED SETPOINT, THE CONTROLLER SHALL TURN OFF THE EXHAUST FAN.

CONDENSATE DRAIN BLOCKAGE:

INSTALL A UL 508 CONFORMING ELECTRONIC WATER LEVEL MONITORING DEVICE IN THE AUXILIARY DRAIN PORT TO AUTOMATICALLY SHUT OFF THE EQUIPMENT SERVED IN THE EVENT THE PRIMARY DRAIN LINE BECOMES RESTRICTED. UPON DETECTION OF AN OBSTRUCTION IN THE CONDENSATE DRAIN LINE, THE UNIT SHALL SHUTDOWN AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS OPERATOR CONSOLE. IF THE CONDENSATE SWITCH IS LOCATED OUTSIDE OF THE UNIT CASING, THE SENSOR SHALL BE PROVIDED WITH A COMPLETELY WEATHERPROOF, EASILY ACCESSIBLE ENCLOSURE.

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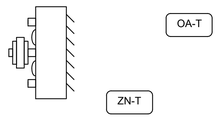


TYP. UNIT HEATERS CONTROL SEQUENCES

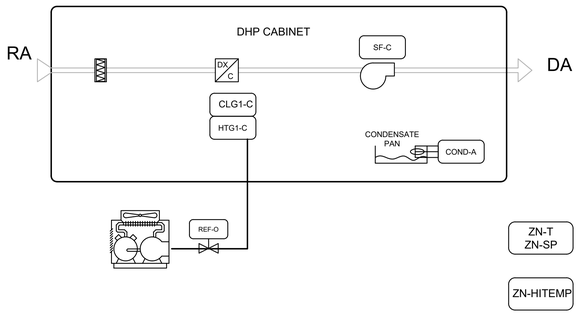
SEQUENCE OF OPERATION:

THE BAS WILL ENERGIZE THE ELECTRIC HEATING ELEMENT WHENEVER THE SPACE TEMPERATURE DROPS BELOW SETPOINT. A SEPARATE OUTSIDE AIR THERMOSTAT SHALL LOCK-OUT THE HEATER WHEN THE OA-T IS AT 68 DEG F ADJUSTABLE. THE UNIT IS SUBJECT TO THE "UNIT HEATER MASTER ENABLE/DISABLE POINT" AND THE OUTSIDE AIR TEMPERATURE (ADJ.)

PROVIDE A SPACE LOW LIMIT SENSOR. SHOULD TEMPERATURE FALL BELOW THE LOW LIMIT SETPOINT OF 50°F (ADJ.) AN ALARM SHALL BE SENT TO THE BAS OPERATORS CONSOLE

UNIT HEATERS CONTROL POINTS

TYPE	NAME	DESCRIPTION	SIGNAL
BO	HTG1-C	HEATING STAGE 1 COMMAND	24VAC MAINTAINED
AI	ZN-SP	ZONE SETPOINT	SAB
AI	ZN-T	ZONE TEMPERATURE	SAB



DHP/CCHP TYPICAL LAYOUT

1. THE ABOVE DRAWING IS REPRESENTATIVE OF A TYPICAL SYSTEM. SEE PLANS FOR QUANTITY AND LOCATION OF INDOOR AND OUTDOOR UNITS

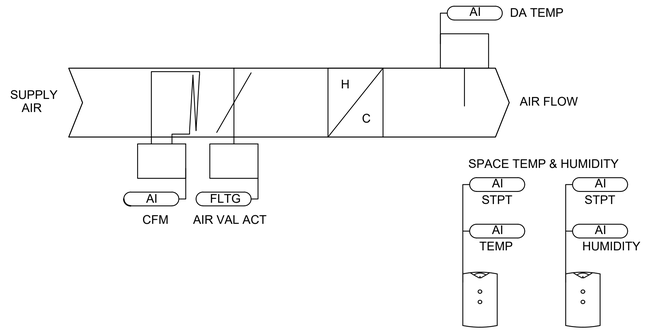
2. CONTROL CONTRACTOR TO PROVIDE AND INSTALL ALL LOW VOLTAGE WIRING FOR SYSTEM OPERATION, INCLUDING COMMUNICATION WIRING BETWEEN INDOOR, OUTDOOR UNITS, VRF ZONE SENSOR AND COMMUNICATION WIRING TO INTERFACE VRF SYSTEM WITH CONTROL SYSTEM.

3. CONTROL CONTRACTOR TO MAP IN ALL AVAILABLE POINTS FROM THE SYSTEM FOR USE BY THE OWNER.

DHP/CCHP TYPICAL SEQUENCE OF OPERATION

THE BAS SHALL MONITOR AND CONTROL THE STATUS OF THE INDOOR UNITS AS WELL AS THEIR ASSOCIATED ZONE TEMPERATURE. IF ANY UNITS GO INTO ALARM AND/OR THEIR ZONE TEMPERATURE EXCEEDS THE SETPOINT FOR MORE THAN FIVE MINUTES THE BAS WILL SEND A ALARM TO THE OPERATOR.

WHEN THE CONDENSATE FLOAT SWITCH IS IN "ALARM", THE COOLING CONTROL SEQUENCE WILL BE DISABLED, THE UNIT(S) WILL BE DISABLED AND AN ALARM SHALL BE SENT TO THE BAS OPERATOR CONSOLE



VAV TERMINAL UNITS WITH ELECTRIC REHEAT CONTROLS SCHEMATIC

NO SCALE

VAV TERMINAL UNITS WITH ELEC REHEAT SEQUENCE OF OPERATION

BUILDING AUTOMATION SYSTEM INTERFACE:

THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED AND UNOCCUPIED COMMANDS. THE BAS MAY ALSO SEND A HEAT/COOL MODE, PRIORITY SHUTDOWN COMMANDS, SPACE TEMPERATURE AND/OR SPACE TEMPERATURE SETPOINT. IF COMMUNICATION IS LOST WITH THE BAS, THE VAV CONTROLLER SHALL OPERATE USING ITS LOCAL SETPOINTS.

OCCUPANCY MODE:

THE OCCUPANCY MODE SHALL BE COMMUNICATED OR HARDWIRED TO THE CONTROLLER VIA A BINARY INPUT. VALID OCCUPANCY MODES FOR THE UNIT SHALL BE:

OCCUPIED:

NORMAL OPERATING MODE FOR OCCUPIED SPACES OR DAYTIME OPERATION. WHEN THE UNIT IS IN THE OCCUPIED MODE THE VAV SHALL MAINTAIN THE SPACE TEMPERATURE AT THE ACTIVE OCCUPIED HEATING OR COOLING SETPOINT. APPLICABLE VENTILATION AND AIRFLOW SETPOINTS SHALL BE ENFORCED. THE OCCUPIED MODE SHALL BE THE DEFAULT MODE OF THE VAV.

UNOCCUPIED:

NO UNOCCUPIED REQUIREMENT. THE FACILITY IS OPERATIONAL 24/7/365.

HEAT/COOL MODE:

THE HEAT/COOL MODE SHALL BE SET BY A COMMUNICATED VALUE OR AUTOMATICALLY BY THE VAV. IN STANDALONE OR AUTO MODE THE VAV SHALL COMPARE THE PRIMARY AIR TEMPERATURE WITH THE CONFIGURED AUTO CHANGEOVER SETPOINT TO DETERMINE IF THE AIR IS "HOT" OR "COLD". HEATING MODE IMPLIES THE PRIMARY AIR TEMPERATURE IS HOT. COOLING MODE IMPLIES THE PRIMARY AIR TEMPERATURE IS COLD.

HEAT/COOL SETPOINT:

THE SPACE TEMPERATURE SETPOINT SHALL BE DETERMINED EITHER BY A LOCAL SETPOINT, THE VAV DEFAULT SETPOINT OR A COMMUNICATED VALUE. THE VAV SHALL USE THE LOCALLY STORED DEFAULT SETPOINTS WHEN NEITHER A LOCAL SETPOINT NOR COMMUNICATED SETPOINT IS PRESENT. IF BOTH A LOCAL SETPOINT AND COMMUNICATED SETPOINT EXIST, THE VAV SHALL USE THE COMMUNICATED VALUE.

COOLING MODE:

WHEN THE UNIT IS IN COOLING MODE, THE VAV CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE AT THE ACTIVE COOLING SETPOINT BY MODULATING THE AIRFLOW BETWEEN THE ACTIVE COOLING MINIMUM AIRFLOW SETPOINT TO THE MAXIMUM COOLING AIRFLOW SETPOINT. THE VAV SHALL USE THE MEASURED SPACE TEMPERATURE AND THE ACTIVE COOLING SETPOINT TO DETERMINE THE REQUESTED COOLING CAPACITY OF THE UNIT. THE OUTPUTS WILL BE CONTROLLED BASED ON THE UNIT CONFIGURATION AND THE REQUESTED COOLING CAPACITY.

HEATING MODE:

WHEN THE UNIT IS IN HEATING MODE, THE VAV CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE AT THE ACTIVE HEATING SETPOINT BY MODULATING THE AIRFLOW BETWEEN THE ACTIVE HEATING MINIMUM AIRFLOW SETPOINT TO THE MAXIMUM HEATING AIRFLOW SETPOINT. THE VAV CONTROLLER SHALL USE THE MEASURED SPACE TEMPERATURE AND THE ACTIVE HEATING SETPOINT TO DETERMINE THE REQUESTED HEATING CAPACITY OF THE UNIT. THE OUTPUTS WILL BE CONTROLLED BASED ON THE UNIT CONFIGURATION AND THE REQUESTED HEATING CAPACITY.

REHEAT CONTROL:

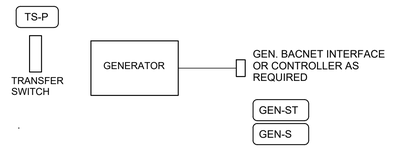
REHEAT WILL ONLY BE ALLOWED WHEN THE PRIMARY AIR TEMPERATURE IS 5.0 DEG. F BELOW THE CONFIGURED REHEAT ENABLE SETPOINT. THE REHEAT SHALL BE ENABLED WHEN THE SPACE TEMPERATURE DROPS BELOW THE ACTIVE HEATING SETPOINT AND THE MINIMUM AIRFLOW REQUIREMENTS ARE MET OR FOR HUMIDITY CONTROL. DURING REHEAT THE VAV SHALL OPERATE AT ITS MINIMUM HEATING AIRFLOW SETPOINT AND ENERGIZE THE HEAT AS FOLLOWS:

PROPORTIONAL ELECTRIC REHEAT:

IF THE SPACE TEMPERATURE IS BELOW THE HEATING SETPOINT THE SCR HEATER SHALL MODULATE AS REQUIRED TO MAINTAIN THE ACTIVE HEATING SETPOINT OR HUMIDITY SETPOINT.

SPACE SENSOR FAILURE:

IF THERE IS A FAULT WITH THE OPERATION OF THE ZONE SENSOR AN ALARM SHALL BE ANNUNCIATED AT THE BAS. SPACE SENSOR FAILURE SHALL CAUSE THE VAV TO DRIVE THE DAMPER TO MINIMUM AIR FLOW IF THE VAV IS IN THE OCCUPIED MODE



EMERGENCY GENERATOR CONTROL SCHEMATIC

TYPE	NAME	DESCRIPTION	SIGNAL
BI	TS-P	TRANSFER SWITCH POSITION	DRY CONTACT MAINTAINED
BI	GEN-ST	GENERATOR STATUS	DRY CONTACT MAINTAINED
BO	GEN-S	GENERATOR COMMAND	DRY CONTACT MAINTAINED

1. BAS SHALL MONITOR ALL POINTS PROVIDED BY THE GENERATOR MFGR. BACNET INTERFACE.

EMERGENCY GENERATOR CONTROL POINTS

Barganier
Davis
Williams
Architects
Associated

bdw

624 South McDonough Street
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phone: 334.834.2038
www.bdwarchitects.com

ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 23369
05.17.23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

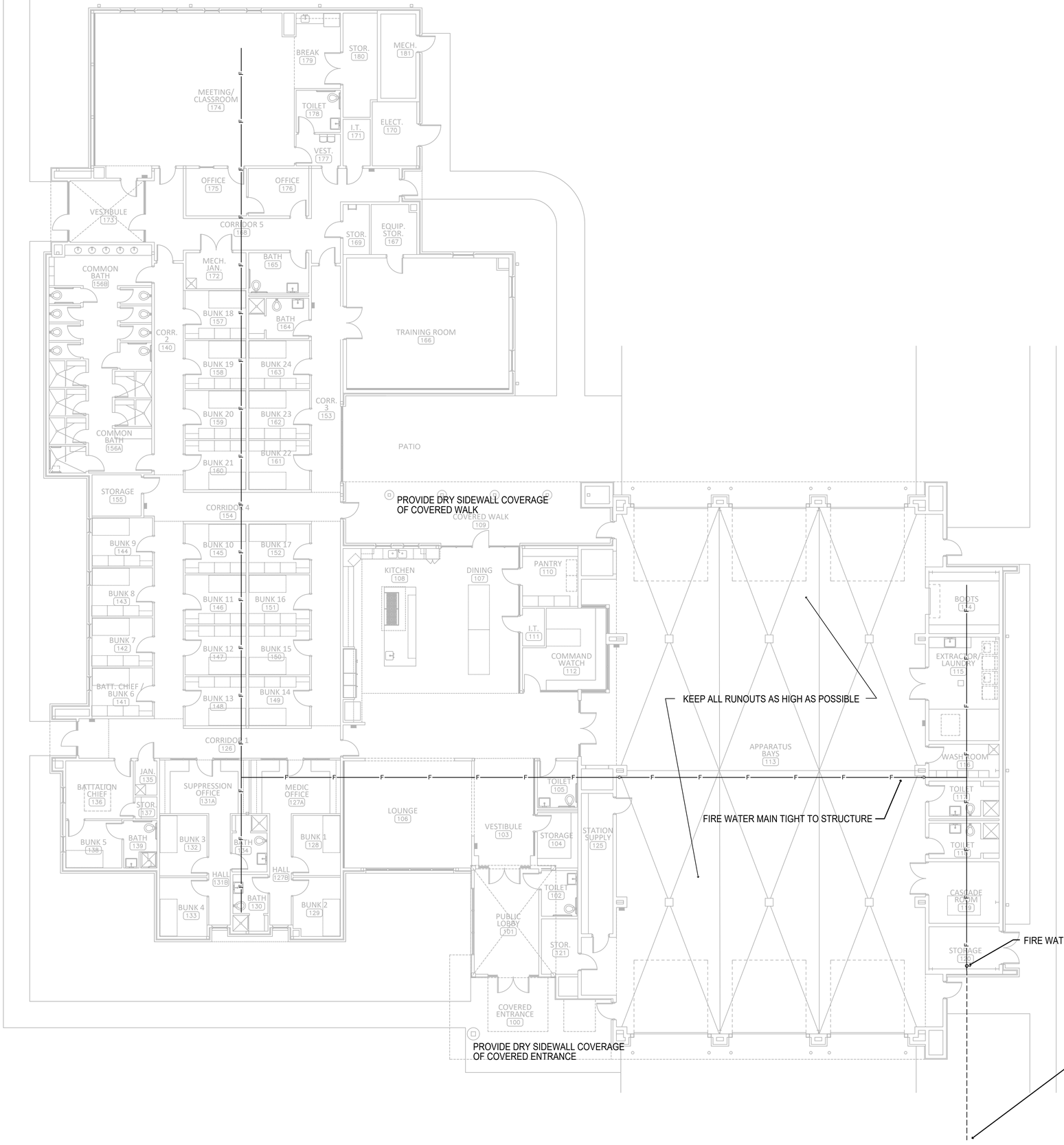
MGM Project No.	SP-5-21
BDW Project No.	2021-118
ZEA Project No.	2022-11
Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:
HVAC CONTROLS

Sheet No:
M12

CONFORMANCE DOCUMENTS

ZGOUVAS, EIRING & ASSOCIATES
CONSULTING ENGINEERS
800 S McDONOUGH STREET
MONTGOMERY, AL. 36104
334.263.4406
ZEA PROJECT NUMBER 22-11



N W E S

FIRE SPRINKLER FLOOR PLAN

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

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

Barganier
Davis
Williams
Architects
Associated

bdw

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phone: 334.834.2038
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ALABAMA REGISTERED PROFESSIONAL No. 23369 05.17.23 ENGINEER J. R. EIRING

NEW FIRE STATION NO. 10

FOR

THE CITY OF MONTGOMERY

SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
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Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:

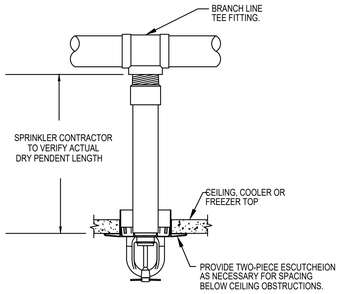
FIRE SPRINKLER FLOOR PLAN

Sheet No:

FP1

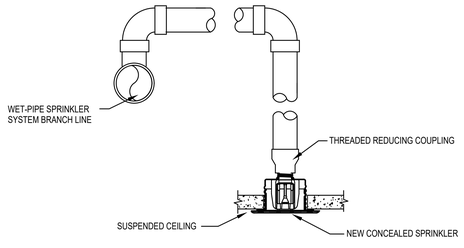
CONFORMANCE DOCUMENTS

ZGOUVAS, EIRING & ASSOCIATES
CONSULTING ENGINEERS
800 S McDONOUGH STREET
MONTGOMERY, AL. 36104
334.263.4406
ZEA PROJECT NUMBER 22-11



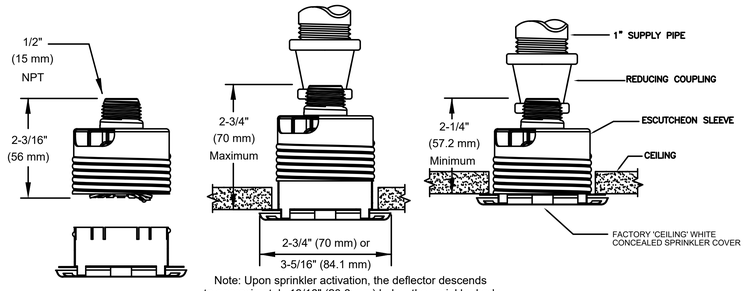
DRY PENDENT SPRINKLER DETAIL

SCALE: NTS



TYPICAL RETURN BEND DETAIL

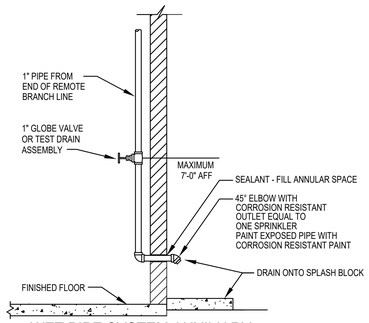
SCALE: NTS



Note: Upon sprinkler activation, the deflector descends to approximately 13/16" (20.6 mm) below the sprinkler body.

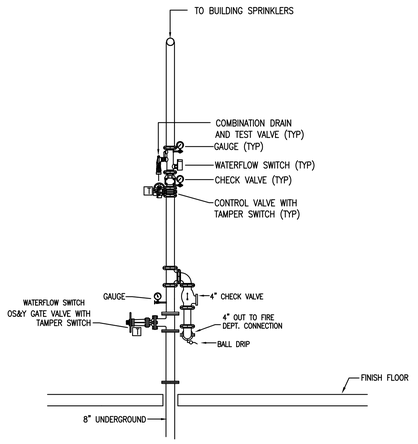
DETAIL FOR CONCEALED SPRINKLER

SCALE: NONE **TYPICAL FOR ALL SPRINKLERS**



WET PIPE SYSTEM AUXILIARY DRAIN/INSPECTOR'S TEST DETAIL

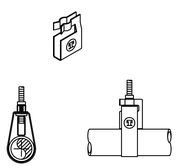
SCALE: NTS



MAIN SPRINKLER RISER SCHEMATIC

SCALE: NONE

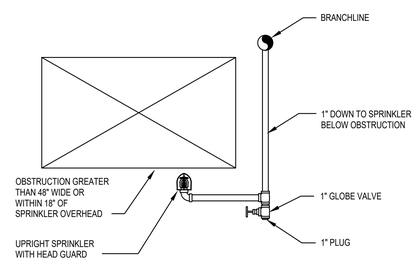
NOTE: SIZES NOT SHOWN TO BE PER CONTRACTOR HYDRAULIC CALCULATIONS
NOTE: INTERCONNECT ALL RISER DRAINS AND DRIPS AND ROUTE THROUGH EXTERIOR WALL TO DISCHARGE AT 12" ABOVE FINISH GRADE – PROVIDE CONCRETE SPLASH BLOCK.



NOTE: SURGE RESTRAINERS ARE TO BE USED ONLY WITH BAND HANGERS TO RESTRAIN THE UPWARD MOVEMENT OF PIPE AS IT OCCURS DURING SPRINKLER HEAD ACTIVATION OR SEISMIC ACTIVITY. INSTALL AT ENDS OF LINES AND AT 30' INTERVALS ON BRANCH LINES.

SURGE RESTRAINERS

SCALE: NTS



SPRINKLER BELOW OBSTRUCTIONS DETAIL

SCALE: NTS

GENERAL NOTES AND SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

FIRE SPRINKLER SYMBOLS

- WET-PIPE SPRINKLER/CLASS I STANDPIPE RISER
- DRY-PIPE SYSTEM SPRINKLER RISER
- 2½" HOSE VALVE IN RECESSED WALL CABINET
- 2½"X2½"X6" FREE-STANDING FIRE DEPARTMENT CONNECTION
- INSPECTOR'S TEST CONNECTION/AUXILIARY DRAIN

PIPING SYMBOLS

- ELBOW UP
- ELBOW DOWN
- VALVE IN DROP
- VALVE IN CENTER DROP
- VALVE IN RISE
- DIRECTION OF FLOW
- DIRECTION OF SLOPE DOWN
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- TEE OUTLET UP
- TEE OUTLET DOWN
- UNION
- STRAINER WITH BLOWDOWN VALVE
- GATE VALVE
- CHECK VALVE
- PRESSURE CONTROL VALVE
- RELIEF VALVE
- PRESSURE GAUGE WITH GAUGE COCK
- TEST PORT
- F — FIRE PROTECTION MAIN
- DM — DRY MAIN

FIRE SPRINKLER GENERAL NOTES

A. PROVIDE COMPLETE WET PIPE FIRE SPRINKLER SYSTEMS FOR THE ENTIRE BUILDING DESIGNED AND INSTALLED IN ACCORDANCE WITH CURRENT EDITIONS OF NFPA 13, NFPA 14, 2015 IFC, AND SPECIFICATIONS.

B. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.

C. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM FINISH SCHEDULE AND ROOM USE. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE LOCATION OF LIGHTING, HVAC SUPPLY AND HVAC RETURN. SPRINKLER CONTRACTOR TO USE ARCHITECTURAL REFLECTED CEILING PLAN AS THE BASE TO PREPARE SPRINKLER HEAD LOCATION FOR SHOP DRAWINGS. FIELD VERIFY AND COORDINATE THE LOCATIONS OF ALL SYSTEM COMPONENTS INCLUDING PIPING, ALARMS, DRAINS, TEST POINTS, ETC. WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL EQUIPMENT WITHIN THE BUILDING.

D. PROVIDE SLEEVES AND WALL PLATES FOR ALL PENETRATIONS THROUGH WALLS OR FLOORS THAT MIGHT INCLUDE DRILLING THROUGH CONCRETE, METAL, SHEETROCK, OR OTHER MATERIALS. FIELD VERIFY APPROXIMATE WALL AND FLOOR PENETRATIONS SHOWN ON THE PLANS. SEAL ALL PENETRATIONS IN RATED SEPARATION TO MEET THE MINIMUM FIRE RATING OF THE WALL OR FLOOR.

E. UTILIZE CURRENT WATER FLOW TEST INFORMATION FOR HYDRAULIC CALCULATIONS. VERIFY SYSTEM DESIGN AND LAYOUT PRIOR TO FABRICATION OR INSTALLATION.

F. THE TOTAL CALCULATED WATER DEMAND FOR EACH OCCUPANCY IS EQUAL TO THE SUM OF THE SPRINKLER SYSTEM DEMAND PLUS THE COMBINED HOSE STREAM ALLOWANCE REQUIRED PER NFPA.

G. COORDINATE THE LOCATION OF RISERS, DRAINS, TEST CONNECTIONS, AND OTHER SPRINKLER SYSTEM COMPONENTS WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL COMPONENTS OF THE BUILDING.

H. CONTRACTOR SHALL HAVE A FIRE PROTECTION ENGINEER HYDRAULICALLY CALCULATE THE SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13. DENSITY AND SPACING REQUIREMENTS PER NFPA. INCREASE THE DESIGN AREA OF SPRINKLER OPERATION BY 30% FOR DRY-PIPE SYSTEMS PER NFPA .

I. PROVIDE CONCEALED SPRINKLERS WITH FACTORY COLOR COVER PLATES FOR AREAS WITH CEILINGS OR CEILING FEATURES. ALL COVER PLATES FOR CONCEALED HEADS TO BE FACTORY FINISHED 'CEILING WHITE'. CENTER SPRINKLERS IN TWO DIRECTIONS FOR CEILING TILE, AND ALIGN SPRINKLERS WHERE POSSIBLE WITH LIGHT FIXTURES IN OTHER CEILINGS. PROVIDE QUICK RESPONSE BRASS UPRIGHT SPRINKLERS IN AREAS EXPOSED TO STRUCTURE, COLOR BY ARCHITECT. CLEAN AND PAINT ALL SPRINKLER PIPING EXPOSED TO VIEW - COLOR AS SELECTED BY ARCHITECT. ALL SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE

J. PROVIDE HANGERS AND SWAY BRACING FOR ALL SPRINKLER AND STANDPIPE PIPING PER NFPA 13.

K. PROVIDE THREADED OR WELDED BLACK SCHEDULE 40 FOR 2" AND SMALLER PIPING, AND GROOVED OR WELDED SCHEDULE 10 FOR 2-1/2" AND LARGER PIPING. PROVIDE GALVANIZED PIPE AND FITTINGS FOR THE DRY-PIPE SPRINKLER SYSTEM.

L. PROVIDE AUXILIARY DRAINAGE FOR ALL TRAPPED SECTIONS OF PIPE. PITCH DRY-PIPE SPRINKLER SYSTEM PIPING PER NFPA 13 GUIDELINES.

M. PROVIDE ACCESS DOORS AND SIGNAGE WHERE ACCESS IS REQUIRED TO CONCEALED SPRINKLER EQUIPMENT, VALVES, AND CONTROLS LOCATED IN WALLS OR ABOVE CEILINGS AS APPROVED BY THE OWNER.

N. EXTREME COORDINATION SHALL BE REQUIRED WITH OTHER TRADES PRIOR TO INSTALLATION AND DURING ALL INSTALLATION OF FIRE PROTECTION SYSTEMS.

O. PROVIDE SEISMIC BRACING PER NFPA 13 FOR ALL SPRINKLER PIPING WHERE REQUIRED BY NFPA/IBC.

P. THESE DOCUMENTS DEPICT PERFORMANCE DESIGN ONLY. PROVIDE COMPLETE DOCUMENTS FOR APPROVAL FROM THE AUTHORITY HAVING JURISDICTION, INCLUDE IN THE DRAWINGS ANY ADDITIONAL EQUIPMENT NECESSARY TO COMPLETE THE INSTALLATION AND COMPLY WITH BASE STANDARDS.

Q. SPRINKLER SYSTEM DESIGNER SHALL COORDINATE WITH STATE AND LOCAL AUTHORITY/FIRE CHIEF.

R. FLOW DATA FOR EXISTING 12" CITY WATER MAIN: FLOW POINT - S. COURT AT HOWARD STREET HYD. #285
CONTRACTOR CAUTION: WATER SUPPLY IS MINIMAL AND MAY REQUIRE REDUCED SPRINKLER SPACING AND INCREASED PIPE SIZING.
CONTRACTOR TO FIELD VERIFY(PROVIDE FLOW TEST) PRIOR TO FINAL DESIGN AND SHALL MAKE ANY REQUIRED ADJUSTMENTS WITH NO COST TO OWNER.

STATIC PRESSURE:	80 PSI
RESIDUAL PRESSURE:	74 PSI
FLOW:	1116 GPM

Barganier Davis Williams Architects Associated

bdw

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ALABAMA REGISTERED PROFESSIONAL No. 23369 05.17.23 ENGINEER J. P. EIRING

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
1	Construction Documents	02-03-2023
2	Conformance Documents	05-17-2023

MGM Project No.	SP-5-21
BDW Project No.	2021-118
ZEA Project No.	2022-11
Drawn By:	C. WARD
Date:	05.17.2023
Scale:	AS NOTED

Drawing Title:
FIRE SPRINKLER NOTES AND DETAILS

Sheet No:
FP2

CONFORMANCE DOCUMENTS

ZGOUVAS, EIRING & ASSOCIATES
CONSULTING ENGINEERS
800 S McDONOUGH STREET
MONTGOMERY, AL. 36104
334.263.4405
ZEA PROJECT NUMBER 22-11

ELECTRICAL LEGEND

CEILING OUTLETS

- A (2) RECESSED 2' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL
- A (2) RECESSED 2' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- A 2 RECESSED 1' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL
- A 2 RECESSED 1' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- A (2) RECESSED 2' X 2' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL
- A (2) RECESSED 2' X 2' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- FS 2 SURFACE OR PENDANT MOUNTED LED STRIP FIXTURE MARK "FS" CIRCUIT No. 2 TYPICAL
- FS 2 SURFACE OR PENDANT MOUNTED LED STRIP FIXTURE MARK "FS" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- RECESSED OR SURFACE MOUNT DOWNLIGHT
- RECESSED OR SURFACE MOUNT DOWNLIGHT "EMERGENCY POWER"
- SURFACE OR PENDANT MOUNTED ROUND FIXTURE
- (J) JUNCTION BOX
- EXIT LIGHT
- EF EXHAUST FAN
- INDUSTRIAL CORD REEL WITH PORTABLE NEMA 5-20R GFI DUPLEX OUTLET BOX EQUAL TO HUBBELL MODEL #HBL45123R20, SUSPEND FROM STRUCTURE ABOVE

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

- S A.C. TYPE, SINGLE POLE, 20 AMP, 120/277 VOLT
- S_3 A.C. TYPE, 3-WAY, 20 AMP, 120/277 VOLT
- S_4 A.C. TYPE, 4-WAY, 20 AMP, 120/277 VOLT
- S_M MOTOR RATED TOGGLE SWITCH DISCONNECT, WITH THERMAL OVERLOADS A.C. TYPE, 20 AMP, 120/277 VOLT
- 30/1 S_M MOTOR RATED TOGGLE SWITCH DISCONNECT, WITH THERMAL OVERLOADS A.C. TYPE, 30 AMP, 120/277 VOLT
- S_T PRESET INTERVAL TIMER SWITCH, HUBBELL TD-300 SERIES OR EQUALS
- PUSH BUTTON, TOGGLE SWITCH, ROTARY SWITCH, ETC., FURNISHED WITH EQUIPMENT BY OTHERS, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR.

LIGHTING CONTROLS

- (OS) CEILING MOUNTED OCCUPANCY SENSOR
- PP POWER PACK FOR OCCUPANCY SENSOR
- AR AUXILIARY RELAY FOR OCCUPANCY SENSOR
- PP AR DOUBLE POLE SINGLE THROW RELAY 120 VAC COIL 2-20A CONTINUOUS CONTACTS, SIMILAR TO LEVITON OSP20-RDO
- L1 ROOM CONTROLLER - 1 ZONE DIMMING
- RC ROOM CONTROLLER - ON/OFF NO DIMMING
- D WALL DIMMER - ON/OFF & 0-10V
- D3 3-WAY WALL DIMMER - ON/OFF & 0-10V
- S_L LOW VOLTAGE SWITCH, 2-BUTTON
- S_{O1} OCCUPANCY SENSOR WALL SWITCH, MULTI-TECHNOLOGY, SELF POWERED, SIMILAR TO LEVITON OSSTMT-MD

*COORDINATE WITH LIGHTING CONTROL DETAILS FOR MORE REQUIREMENTS

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
- (5) MOTOR FURNISHED BY OTHERS AND CONNECTED BY ELECTRICAL CONTRACTOR; '5' INDICATES HORSE POWER RATING
- CIRCUIT BREAKER
- TRANSFER SWITCH
- T TRANSFORMER
- ELECTRIC METER
- GROUNDING ELECTRODE CONNECTION
- (G) GROUND BUS

MISCELLANEOUS EQUIPMENT

- C 6 POLE CONTACTOR-ELECTRICALLY HELD, 120V HOLDING COIL, 20A CONTACTS SEE DETAIL 5/E2.3.
- PC PHOTOCELL. SEE DETAIL 5/E2.3.
- EXTERIOR POLE LIGHT
- WH WATER HEATER
- UH UNIT HEATER
- TC TIMECLOCK
- GA GENERATOR ANNUNCIATOR PANEL
- ATS AUTOMATIC TRANSFER SWITCH
- (J) MD MOTORIZED DAMPER

WALL OUTLETS

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

- WALL MOUNTED EXIT LIGHT
- WALL MOUNTED 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
- W DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE; PROVIDE WEATHERPROOF BOX FOR RECEPTACLE
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER
- G DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT ADJACENT TO CABLE OUTLET; COORDINATE LOCATION WITH CABLE OUTLET PRIOR TO ROUGH-IN
- G QUADRAPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- QUADRAPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- QUADRAPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER UNLESS NOTED OTHERWISE
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 3 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 26" AFF TO C/L FOR DRINKING FOUNTAIN
- 250V LOCKING RECEPTACLE; 2 POLE, 3 WIRE GROUNDED TYPE, NEMA L6-30R; HUBBELL. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- 125V LOCKING RECEPTACLE; 2 POLE, 3 WIRE GROUNDED TYPE, NEMA L5-30R; HUBBELL. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- SINGLE RECEPTACLE - 30 AMP, 250 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 6-30R. MOUNT AS NEEDED FOR DRYER.
- (J) JUNCTION BOX SIZE NOTED OR REQUIRED, WITH BLANK SCREW COVER AND FLEXIBLE CONDUIT CONNECTION
- (P) PHOTOCELL; TORK MODEL 5231 (120V), TWIST RECEPTACLE: TORK 2421.

BRANCH CIRCUITING

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

FIRE ALARM SYSTEM

- FACP FIRE ALARM CONTROL PANEL
- ANN REMOTE ANNUNCIATOR
- NAC NOTIFICATION APPLIANCE CIRCUIT
- F MANUAL PULL STATION
- A ANSUL SYSTEM
- S SPEAKER/STROBE;
- H WP WEATHERPROOF SIGNAL HORN;
- STROBE ONLY
- TS TAMPER SWITCH
- FS FLOW SWITCH
- PS HI/LO PRESSURE SWITCH
- HD AUTOMATIC HEAT DETECTOR; 135 DEGREE/RATE OF RISE TYPE; CEILING MOUNTED
- SD AUTOMATIC SMOKE DETECTOR; CEILING MOUNTED
- SD LA AUTOMATIC SMOKE DETECTOR; CEILING MOUNTED WITH LOCAL ANNUNCIATION,
- CS COMBINATION CARBON MONOXIDE/ SMOKE DETECTOR; CEILING MOUNTED
- DD AUTOMATIC AIR DUCT SMOKE DETECTOR MOUNTED IN MECHANICAL DUCT
- RT REMOTE TEST STATION
- ZC ZONE MODULE, CONTROL TYPE
- ZM ZONE MODULE, MONITOR TYPE
- MAGNETIC DOOR HOLDERS
- — F — SUPERVISED CIRCUITING IN CONDUIT, RACEWAY INSTALLED CONCEALED

COMMUNICATION SYSTEMS

- DATA WALL OUTLET - SEE SHEET E8.1 FOR REQUIREMENTS
- MB DATA WALL OUTLET - SEE SHEET E8.1 FOR REQUIREMENTS
- DATA WALL OUTLET - SEE SHEET E8.1 FOR REQUIREMENTS
- DATA WALL OUTLET - SEE SHEET E8.1 FOR REQUIREMENTS
- DATA WALL OUTLET - SEE SHEET E8.1 FOR REQUIREMENTS
- TV DATA WALL OUTLET - SEE SHEET E8.1 FOR REQUIREMENTS
- DATA WALL OUTLET - SEE SHEET E8.1 FOR REQUIREMENTS
- TBB TELEPHONE BACKBOARD - 3/4" EXTERIOR GRADE PLYWOOD WITH TWO COATS OF INSULATING VARNISH, SIZE AS SHOWN; SEE DETAILS ON SH. #E8.1
- COMMUNICATIONS RACK. SEE DETAILS ON SH. #E8.1.

FLOOR OUTLETS

- RECESSED FLOOR BOX WITH FULL EIGHT GANGS. SIMILAR TO WALKER RFB11 OR PRIOR APPROVED EQUALS. ARCHITECT TO SELECT FINISH.
  PROVIDE WITHIN 2-DUPLEX RECEPTACLES NEMA 5-20R.
  PROVIDE WITHIN 2- 1 1/4" CONDUITS TO CABLE TRAY.
  PROVIDE WITHIN 2- 1 1/4" CONDUITS TO ABOVE ACCESSIBLE CEILING.
  PROVIDE PROTECTIVE COLLAR FOR STUBS.
  COORDINATE EXACT LOCATION WITH ARCH. PRIOR TO ROUGH-IN.

MISCELLANEOUS

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

GENERAL ELECTRICAL NOTES:

1. THE SERVICE VOLTAGE TO THE FACILITY SHALL BE 120V/208V 3PH, 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. BUILDING OWNER MUST RECEIVE RECORD DRAWINGS AND MANUALS THAT PROVIDE INSTRUCTIONS ABOUT THE OPERATION AND MAINTENANCE OF THE BUILDING'S ELECTRICAL DISTRIBUTION SYSTEM.
23. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR OCCUPANCY SENSORS. PROVIDE PROPER NUMBER OF POWER PACKS AND LOCATE POWER PACKS AND OCCUPANCY SENSORS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
24. ALL JUNCTION BOX COVERS ABOVE THE CEILING SHALL BE CLEARLY MARKED WITH WHICH CIRCUITS OR ELECTRICAL SYSTEM THEY CONTAIN.
25. HVAC EQUIPMENT POWER WIRING SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. CONTROL EQUIPMENT AND CONTROL WIRING SHALL BE FURNISHED UNDER DIVISION 15 UNLESS OTHERWISE NOTED. PROVIDE 3/4" CONDUITS WITH PULL WIRE BETWEEN INSIDE AND OUTSIDE UNITS, THERMOSTAT OUTLETS AND UNITS AND/OR MECHANICAL CONTROL PANEL AS APPLICABLE. THERMOSTAT OUTLETS SHALL BE 4" SQUARE OUTLETS, FLUSH MOUNTED WITH SINGLE GANG OR DOUBLE GANG PLASTER RINGS AS DIRECTED BY THE HVAC CONTRACTOR. COORDINATE EXACT LOCATION OF ALL EQUIPMENT, DEVICES, OUTLETS, ETC, WITH THE MECHANICAL DRAWINGS AND DIVISION 15 SPECIFICATIONS. COORDINATE WITH THE HVAC CONTRACTOR FOR EXACT LOCATIONS OF ALL EQUIPMENT.

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ALABAMA REGISTERED Kenneth Ray Gunn, Jr. NO. 26988 PROFESSIONAL ENGINEER 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	ADDENDUM #6	03/24/23
3	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

Drawing Title:

ELECTRICAL LEGEND

Sheet No:

E0.1

CONFORMANCE DRAWINGS

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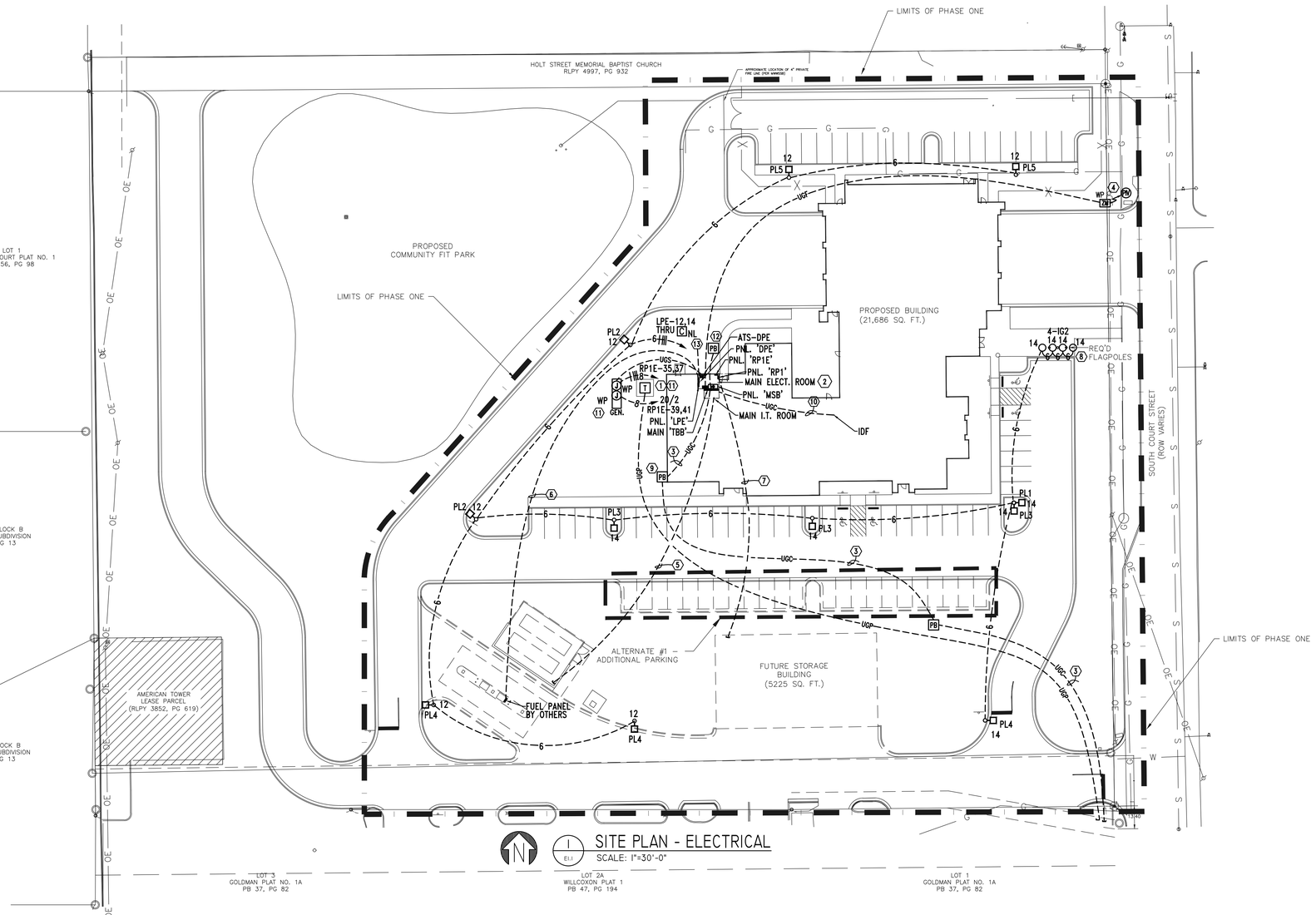
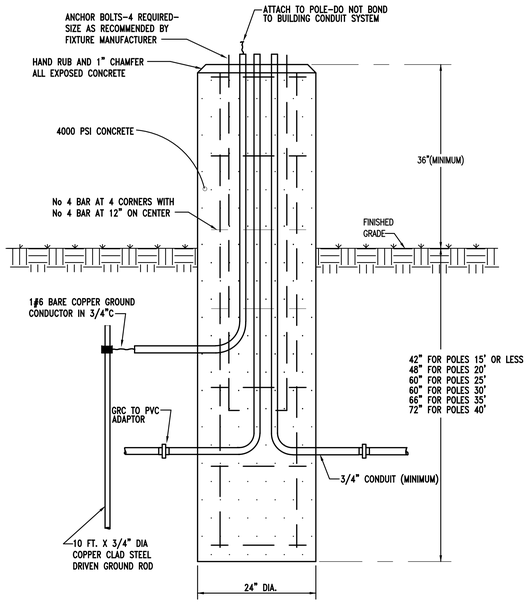


1 E1.1 SITE PLAN - ELECTRICAL
SCALE: 1"=30'-0"



NOTES:

1. CONCRETE SHALL TEST TO BE 4,000 PSI STRENGTH IN 28 DAYS.
2. SEE LIGHT FIXTURE SCHEDULE FOR LIGHTING CONFIGURATION.
3. ALL DIMENSIONS SHALL BE COORDINATED AND COMPLY WITH GEOTECHNICAL REPORT.
4. INSTALLATION SHALL COMPLY WITH MANUFACTURER'S RECOMMENDATIONS IF MORE STRINGET.
5. POLE BASE SHALL BE IN FULL CONTACT WITH THE CONCRETE BASE.
6. PAINT POLE BASES YELLOW BEFORE INSTALLING POLES.

2 E1.1 DETAIL - TYPICAL ELEVATED CONCRETE POLE BASE
NO SCALE

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 2.

GENERAL ELECTRICAL SITE NOTES:

1. ALL SITE ELECTRICAL WORK SHALL COMPLY WITH NEC, STATE, AND LOCAL CODES.
2. CONTRACTOR SHALL PATCH AND REPAIR ALL DAMAGED SURFACES AS A RESULT OF THE DUCTLINE INSTALLATION BACK TO PREVIOUS STATE.
3. ALL CONDUCTIVE PARTS OF ELECTRICAL EQUIPMENT SHALL BE GROUNDED. UNLESS NOTED OTHERWISE, CONNECTIONS BELOW GRADE BELOW GRADE SHALL BE FUSION-WELDED AND ABOVE GRADE FUSION WELDED OR BOLTED SOLDERLESS. ALL GROUND CONDUCTORS SHALL BE COPPER.
4. DUCT LINES SHALL NOT BE LOCATED DIRECTLY UNDER STRUCTURES AND NOT DIRECTLY UNDER OR OVER OTHER SUBSURFACE STRUCTURES, UNLESS SHOWN OR DIRECTED. WHERE DUCT LINES HAVE TO CROSS OTHER UTILITIES, SUCH AS SEWER, WATER, ELECTRICAL, AND COMMUNICATIONS LINES, PROVIDE ADEQUATE SUPPORT ON EACH SIDE OF THE CROSSING TO PREVENT PUTTING ANY DIRECT LOAD ONTO THE OTHER UTILITY LINES.
5. ALL DUCT AND CIRCUIT ROUTING ON DRAWINGS IS SHOWN TYPICAL. CONTRACTOR SHALL PROPOSE FINAL ROUTING BASED ON ACTUAL FIELD DIMENSIONS, CONDITIONS, AND EXISTING UNDERGROUND UTILITIES AND STRUCTURES.
6. CONTRACTOR SHALL STAKE OUT THE ENTIRE UNDERGROUND DUCT SYSTEM AND COORDINATE THE ROUTING AGAINST EXISTING UNDERGROUND UTILITY INFORMATION AND NEW WORK BY THE OTHER TRADES, BEFORE DOING ANY TRENCHING. THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER, OR CONTRACTING OFFICER SHALL GIVE APPROVAL OF ROUTING BEFORE TRENCHING SHALL BEGIN.
7. ALL TRENCHING AND BACKFILL COMPACTION SHALL COMPLY WITH THE GEOTECHNICAL REPORT AND ALL SPECIFICATIONS.
8. ALL DEPTHS INDICATED FOR INSTALLATION ARE MINIMUM. ACTUAL DEPTHS MAY VARY DUE TO TERMINATIONS, TRANSITIONS, EXISTING UTILITIES, ETC. APPROVAL SHALL BE OBTAINED FOR ANY DEPTH LESS THAN INDICATED.
9. ALL CONDUITS STUBBED OUT OF THE FACILITY FOR FUTURE SHALL BE CAPPED AND LOCATION MARKED WITH 2" SQUARE, PAINTED RED, WITH CONDUIT NAME AND SIZE SHOWN IN WHITE. PROVIDE WITH PULLWIRES.
10. PROVIDE PROPER CONCRETE POLE BASE FOR ALL POLE MOUNTED EXTERIOR LIGHTING FIXTURES. SEE DETAIL.
11. ALL UNDERGROUND CONDUITS SHALL BE 36" MINIMUM BELOW GRADE. PRIMARY CONDUIT SHALL BE MINIMUM 48" BELOW GRADE.
12. CONTRACTOR SHALL LABEL ALL CONDUITS ENTERING AND EXITING COMMUNICATIONS PULLBOXES AND BACKBOARDS.
13. ALL ROUTING IS SHOWN DIAGRAMMATIC. VERIFY ACTUAL ROUTING AND FIELD CONDITIONS PRIOR TO BIDS.
14. LOCATIONS OF RISER POLES, AND TRANSFORMERS SHALL BE COORDINATED WITH ALABAMA POWER COMPANY PRIOR TO BIDS. ADJUST FEEDER AND CONDUIT LENGTHS ACCORDINGLY. PAY ALL UTILITY COMPANY FEES. BID ACCORDINGLY.

SHEET NOTES:

1. COORDINATE WITH LOCAL UTILITY COMPANY FOR SPECIFIC LOCATION AND REQUIREMENTS FOR METER AND C.T. CABINET. COORDINATE WITH APC FOR SPECIFIC ROUTING OF CONDUIT PRIOR TO BID. SEE POWER RISER DIAGRAM SHEET E5.2 FOR FURTHER REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED FOR DISTANCE.
2. SEE SINGLE LINE RISER DIAGRAM ON SHEET E5.2 FOR ADDITIONAL INFORMATION ON CONDUIT INSTALLATIONS.
3. COORDINATE WITH COMMUNICATION COMPANY FOR SPECIFIC ROUTING AND TERMINATION POINT OF UNDERGROUND CABLE AND COMMUNICATION CONDUITS. COORDINATE ROUTING PRIOR TO BID. PROVIDE THREE (3) 3" CONDUITS. PROVIDE PULLBOXES AS INDICATED.
4. PROVIDE AND INSTALL ONE (1) 3/4"C FOR THE FIRE ALARM SYSTEM CABLE. FIELD VERIFY ON SITE EXACT LOCATION OF PIV. PROVIDE AND INSTALL FLOW AND TAMPER SWITCHES AS REQUIRED.
5. PROVIDE TWO (2) 1"C. FROM I.T. ROOM TO EXTERIOR OF BUILDING FOR GAS PUMP CONTROLS.
6. PROVIDE 4#1/0, 1#8G., 2"C. FROM PANEL 'DPE' TO PUMP STATION FOR FUEL PANEL. PANEL TO BE PROVIDED BY OTHERS. VERIFY EXACT PANEL LOCATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
7. STUB-OUT TWO (2) 2"C. FROM PANEL 'RP1' TO FUTURE STORAGE BUILDING SITE. CAP FOR FUTURE USE.
8. VERIFY LOCATION OF FLAGPOLES PRIOR TO ROUGH-IN. SPACE FIXTURES EQUALLY BETWEEN POLES.
9. PROVIDE COMMUNICATIONS CONDUIT FROM MDF TO COMMUNICATIONS PULL BOX. SEE COMMUNICATIONS SINGLE LINE DIAGRAM SHEET E8.1.
10. PROVIDE TWO (2) 3" CONDUITS.
11. PROVIDE PROPER CLEARANCES FOR TRANSFORMER AND GENERATOR WHEN INSTALLING EQUIPMENT. ADJUST LOCATIONS AS NEEDED.
12. PROVIDE THREE (3) 4" CONDUITS FROM MDF TO PULLBOX FOR FUTURE RADIO TOWER.
13. PROVIDE TWO (2) 1 1/4" AND TWO (2) 2" CONDUITS STUBBED OUT OF ELECTRICAL ROOM FOR FUTURE RADIO TOWER. DO NOT STUB UP CONDUITS INTO ANY PANEL.

SITE LEGEND

- UGP — UNDERGROUND PRIMARY CONDUITS, MIN BURIAL 48" BELOW GRADE
- UGS — UNDERGROUND SECONDARY CONDUITS
- UGC — UNDERGROUND COMMUNICATIONS CONDUITS
- UGF — UNDERGROUND FIRE ALARM CONDUITS
- — — — UNDERGROUND CONDUIT
- SINGLE LIGHT MOUNTED ON 20'H. POLE
- TWO LIGHTS MOUNTED ON SINGLE 20'H. POLE AT 90°
- IN-GRADE LIGHT FIXTURE
- (J)WP WEATHERPROOF J-BOX
- T PAD MOUNTED TRANSFORMER
- GEN GENERATOR
- PB NEW TELECOMMUNICATIONS PULL BOX, PROVIDE HIGHLINE NO. PHA243624HM2 OR APPROVED EQUAL BY OLDCASTLE OR HUBBELL.

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NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	ADDENDUM #4	03/10/23
3	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

Drawing Title:

ELECTRICAL SITE PLAN

Sheet No:

E1.1

CONFORMANCE DRAWINGS

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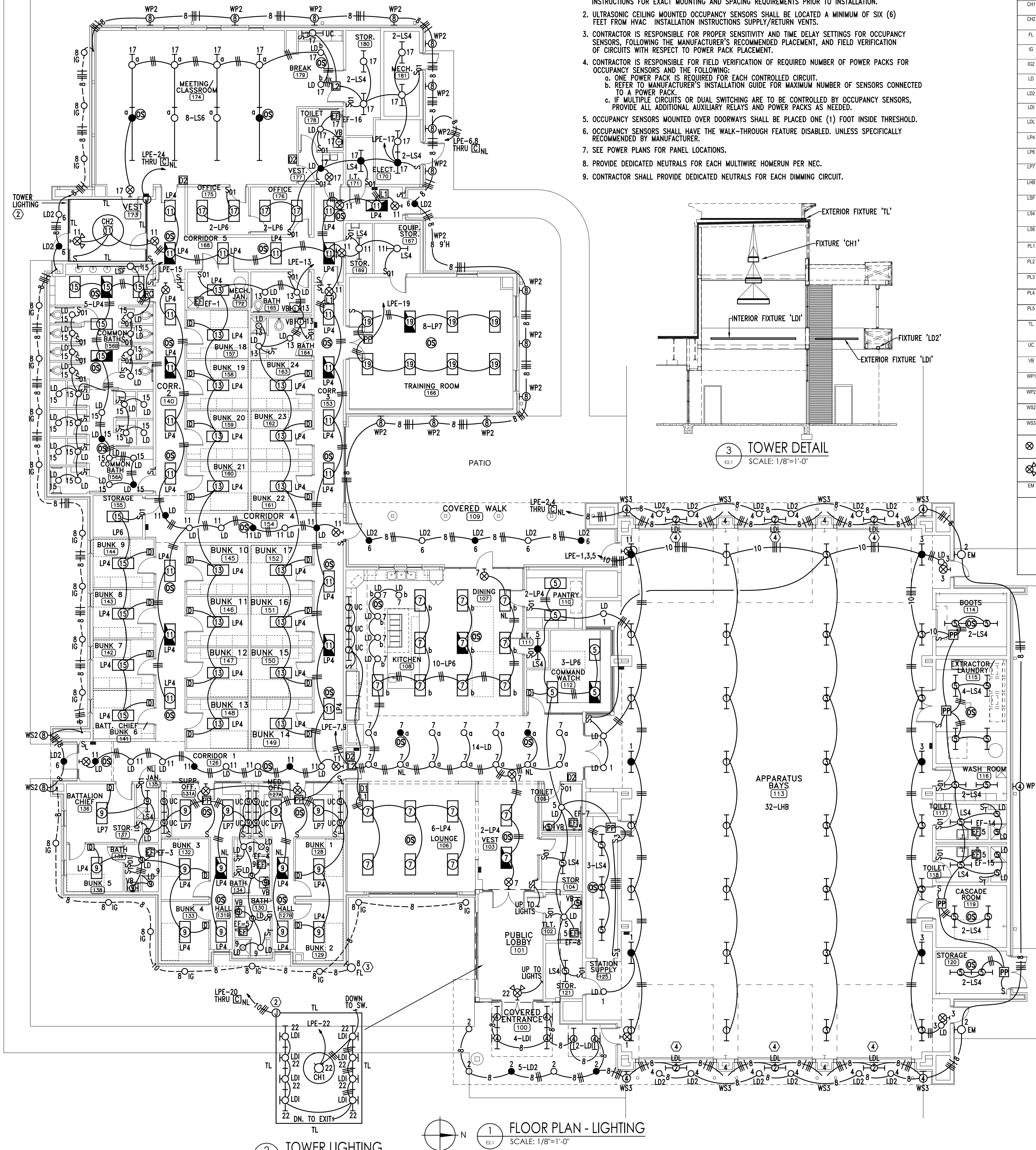


3 E2.1 TOWER DETAIL
SCALE: 1/8"=1'-0"

2 E2.1 TOWER LIGHTING
SCALE: 1/8"=1'-0"

1 E2.1 FLOOR PLAN - LIGHTING
SCALE: 1/8"=1'-0"

GENERAL NOTES:

1. ALL OCCUPANCY SENSORS LOCATIONS ARE APPROXIMATE, REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EXACT MOUNTING AND SPACING REQUIREMENTS PRIOR TO INSTALLATION.
2. ULTRASONIC CEILING MOUNTED OCCUPANCY SENSORS SHALL BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC INSTALLATION INSTRUCTIONS SUPPLY/RETURN VENTS.
3. 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.
4. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS FOR OCCUPANCY SENSORS AND THE FOLLOWING:
   a. ONE POWER PACK IS REQUIRED FOR EACH CONTROLLED CIRCUIT.
   b. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR MAXIMUM NUMBER OF SENSORS CONNECTED TO A POWER PACK.
   c. IF MULTIPLE CIRCUITS OR DUAL SWITCHING ARE TO BE CONTROLLED BY OCCUPANCY SENSORS, PROVIDE ALL ADDITIONAL AUXILIARY RELAYS AND POWER PACKS AS NEEDED.
5. OCCUPANCY SENSORS MOUNTED OVER DOORWAYS SHALL BE PLACED ONE (1) FOOT INSIDE THRESHOLD.
6. OCCUPANCY SENSORS SHALL HAVE THE WALK-THROUGH FEATURE DISABLED. UNLESS SPECIFICALLY RECOMMENDED BY MANUFACTURER.
7. SEE POWER PLANS FOR PANEL LOCATIONS.
8. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
9. CONTRACTOR SHALL PROVIDE DEDICATED NEUTRALS FOR EACH DIMMING CIRCUIT.

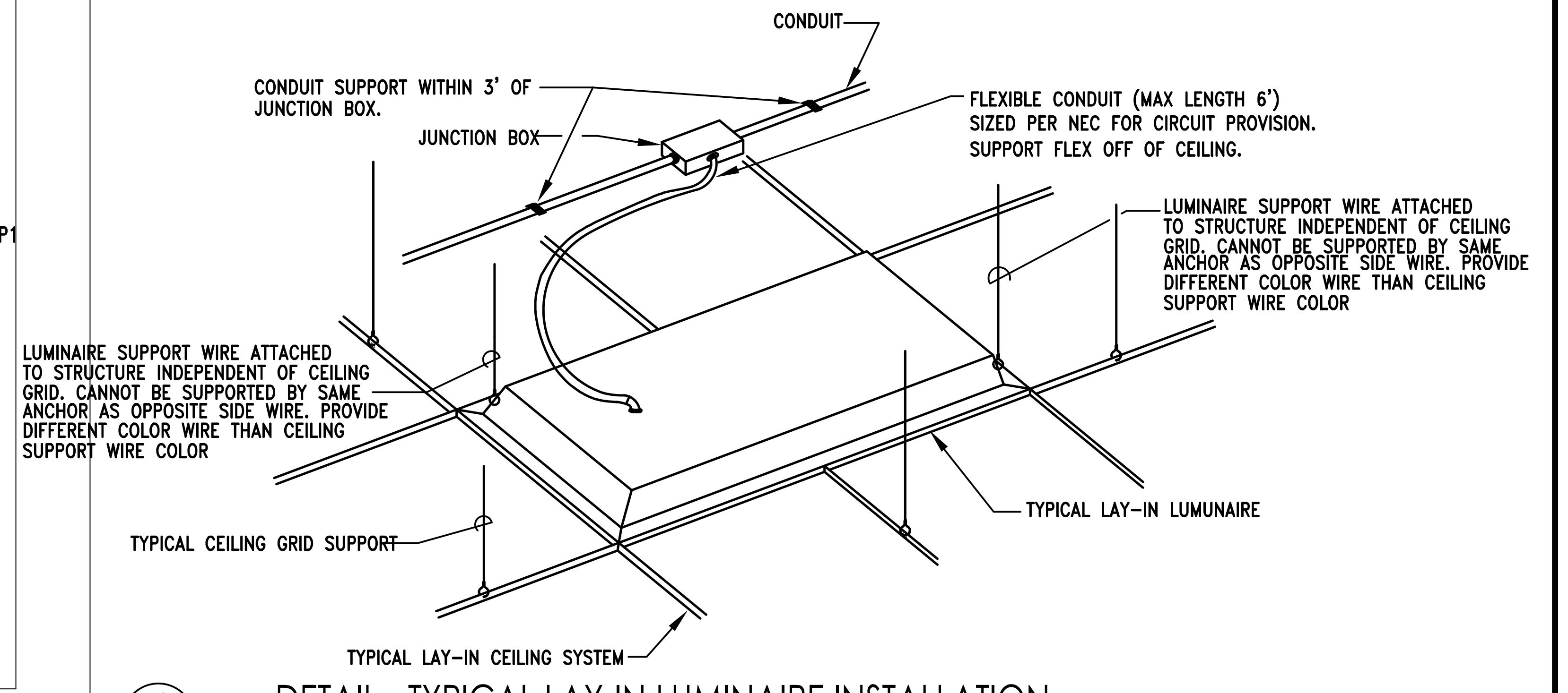
LIGHTING FIXTURE SCHEDULE

TYPE:	MANUFACTURER NUMBER AND EQUALS:	VOLTAGE:	MOUNTING:	LAMP TYPE:	LAMP QUANTITY:	DESCRIPTION:
CH1	SPI NO. AIP158803-AIP11987-L290W-PTXX-120/277-4000K-FB00-OAH(182.0)-MOD OR PRIOR APPROVED EQUALS BY ARCHITECT	MVOLT	PENDANT	LED 290W	30,000 LUMEN	3-TIER ROUND LED PENDANT WITH OPAL POLYCARBONATE DIFFUSERS AND INNER COLOR BANDS AS SELECTED BY ARCHITECT. COORDINATE MOUNTING WITH ARCHITECT
CH2	SPI NO. AIP11997-L113W-UNV-4K-H10-FB00-MIA-MB01 OR PRIOR APPROVED EQUALS BY ARCHITECT	MVOLT	PENDANT	LED 113W	11,500 LUMEN	72 IN ROUND LED PENDANT WITH OPAL POLYCARBONATE DIFFUSER AND INNER COLOR BAND AS SELECTED BY ARCHITECT. COORDINATE MOUNTING WITH ARCHITECT
FL	EATON #NVF2-T4-32L-80W-40K8-UNV-TM OR PRIOR APPROVED EQUALS BY KIM, GARDCO, OR PARKER	MVOLT	ROOF	LED 80W	10,720 LUMEN	FLOODLIGHT FIXTURE. COORDINATE MOUNTING DETAILS AND FINISH WITH ARCHITECT.
IG	LIGMAN #UKI-60781-30W-W-W40-UNV OR PRIOR APPROVED EQUAL BY KIM, GARDCO, OR PARKER	MVOLT	IN-GRADE IN GROUND	LED 30W	3160 LUMEN	SLIGHTLY RAISED, ROUND, INGRADE FIXTURE, WET LOCATION, IMPACT RESISTANT
IG2	LIGMAN #UKI-60771-30W-N-W40-UNV OR PRIOR APPROVED EQUAL BY KIM, GARDCO, OR PARKER	MVOLT	IN-GRADE IN CONCRETE	LED 30W	3160 LUMEN	ROUND, INGRADE FIXTURE, WET LOCATION, IMPACT RESISTANT
LD	HALO #HC6-15-D010-(IEM14 WHERE REQUIRED)-HM60525835-61WDHWF (IEM) OR PRIOR APPROVED EQUAL BY HUBBELL, WILLIAMS, OR PARKER	MVOLT	RECESSED	LED 14.5W	1500 LUMEN	6 INCH, 1500 LUMEN, LED, DOWNLIGHT, 3500K TEMPETURE LAMPS, MINIMUM 80 CRI. WET LOCATION. PROVIDE WITH EMERGENCY BATTERY PACK WHERE REQUIRED.
LD2	HALO #HC6-30-D010-(IEM14 WHERE REQUIRED)-HM63040840-61WDHWF (IEM) OR PRIOR APPROVED EQUAL BY HUBBELL, WILLIAMS, OR PARKER	MVOLT	RECESSED IN SOFFIT	LED 28.6W	3000 LUMEN	6 INCH, 3000 LUMEN, LED, DOWNLIGHT, 4000K TEMPETURE LAMPS, MINIMUM 80 CRI. WET LOCATION. PROVIDE WITH EMERGENCY BATTERY PACK WHERE REQUIRED.
LDI	LUMENWERX #V2SEALW-DI-WET-EPDO/ASIO-SW-80-500/500-40-4FT-UNV-D1-1C-COLOR BY ARCH OR PRIOR APPROVED EQUALS BY PARKER, HUBBELL, OR WILLIAMS	MVOLT	WALL 16' H	LED 41.3	2000 LUMEN UP 2000 LUMEN DOWN	4'-0" LED LINEAR DIRECT/INDIRECT FIXTURE MOUNTED TO SIDE OF BULKHEAD. WET LOCATION RATED. COORDINATE MOUNTING DETAILS WITH ARCHITECT.
LDL	LUMENWERX #V2SEALS-D-WET-ASDO-SW-80-500-40-12FT-UNV-D1-1C-COLOR BY ARCH OR PRIOR APPROVED EQUALS BY PARKER, HUBBELL, OR WILLIAMS	MVOLT	WALL	LED 62.1W	6000 LUMEN	12'-0" LED LINEAR FIXTURE MOUNTED TO BOTTOM OF CANOPY. WET LOCATION RATED. COORDINATE MOUNTING DETAILS WITH ARCHITECT.
LP4	HUBBELL NO. CFP24-41-35-PLD10M (WHERE REQUIRED) OR PRIOR APPROVED EQUAL BY COOPER, WILLIAMS, OR PARKER	MVOLT	RECESSED	LED 40W	4300 LUMEN	2'X4', DIMMABLE, FLAT PANEL FIXTURE. PROVIDE WITH EMERGENCY BATTERY PACK WHERE REQUIRED.
LP6	HUBBELL NO. CFP24-55-35-PLD10M (WHERE REQUIRED) OR PRIOR APPROVED EQUAL BY COOPER, WILLIAMS, OR PARKER	MVOLT	RECESSED	LED 49W	5500 LUMEN	2'X4', DIMMABLE, FLAT PANEL FIXTURE. PROVIDE WITH EMERGENCY BATTERY PACK WHERE REQUIRED.
LP7	HUBBELL NO. CFP24-75-35-PLD10M (WHERE REQUIRED) OR PRIOR APPROVED EQUAL BY COOPER, WILLIAMS, OR PARKER	MVOLT	RECESSED	LED 56W	7500 LUMEN	2'X4', DIMMABLE, FLAT PANEL FIXTURE. PROVIDE WITH EMERGENCY BATTERY PACK WHERE REQUIRED.
LHB	HUBBELL NO. LXEP4-40XL-RFA-EU-XEHC OR PRIOR APPROVED EQUAL BY COOPER, WILLIAMS, OR PARKER	MVOLT	SUSPENDED	LED 91.2W	10,000 LUMEN	4' LED HIGHBAY WITH FROSTED ACRYLIC LENS. SUSPEND FIXTURES EVEN WITH JOIST. PROVIDE WITH EMERGENCY BATTERY PACK WHERE REQUIRED.
LSF	LUMENWERX #VIA2R-D-HLO-FH-SW-80-200-35-12'-UNV-D1-1C-W OR PRIOR APPROVED EQUALS BY PARKER, HUBBELL, OR WILLIAMS	MVOLT	RECESSED	LED 22W	1200 LUMEN	12', 2IN LINEAR SLOT FIXTURE
LS4	HUBBELL NO. LCL-4-35K-ML-E-MVOLT-CSHC OR PRIOR APPROVED EQUAL BY COOPER, WILLIAMS, OR PARKER	MVOLT	SURFACE OR SUSPENDED	LED 42W	5300 LUMEN	SURFACE MOUNTED 4'-0" LED STRIP. CHAIN HANG WHEN SURFACE MOUNT IS NOT POSSIBLE. PROVIDE WITH EMERGENCY BATTERY PACK WHERE REQUIRED.
LS6	VIA3P NO. DHLO-0.5D-SW-80-1200-35-10FT-UNV-D1-1-W OR PRIOR APPROVED EQUALS BY HUBBELL, WILLIAMS, OR EATON	MVOLT	SUSPENDED	LED 126W	12,000 LUMEN	10'-0" LED LINEAR FIXTURE WITH DROP LENSE PROVIDE WITH EMERGENCY BATTERY PACK WHERE REQUIRED.
PL1	EATON #GALN-SA3C-740-U-SLL OR PRIOR APPROVED EQUALS BY KIM, GARDCO, OR PARKER	MVOLT	25' POLE	LED 160W	18,000 LUMEN	AREA POLE LIGHT MOUNTED 30'H ON SQUARE ALUMINUM POLE
PL2	EATON #GALN-SA3C-740-U-SL3 OR PRIOR APPROVED EQUALS BY KIM, GARDCO, OR PARKER	MVOLT	25' POLE	LED 160W	20,800 LUMEN	AREA POLE LIGHT MOUNTED 30'H ON SQUARE ALUMINUM POLE
PL3	EATON #GALN-SA3C-740-U-SL4 OR PRIOR APPROVED EQUALS BY KIM, GARDCO, OR PARKER	MVOLT	25' POLE	LED 160W	20,500 LUMEN	AREA POLE LIGHT MOUNTED 30'H ON SQUARE ALUMINUM POLE
PL4	EATON #GALN-SA3C-740-U-5MQ OR PRIOR APPROVED EQUALS BY KIM, GARDCO, OR PARKER	MVOLT	25' POLE	LED 160W	22,000 LUMEN	AREA POLE LIGHT MOUNTED 30'H ON SQUARE ALUMINUM POLE
PL5	EATON #GALN-SA3C-740-U-5WQ OR PRIOR APPROVED EQUALS BY KIM, GARDCO, OR PARKER	MVOLT	25' POLE	LED 160W	22,000 LUMEN	AREA POLE LIGHT MOUNTED 30'H ON SQUARE ALUMINUM POLE
TL	ACCLAIM #XTC 2 4 1 A&D R V N WITH ART500 OR PRIOR APPROVED EQUALS BY PARKER, HUBBELL, OR WILLIAMS	MVOLT	SURFACE	LED 5W/FT	449 LM/FT	LINEAR LED COLOR CHANGING WALL WASHER WITH DMX CONTROLLER. PROVIDE LENGTH AS SHOWN ON PLANS. PROVIDE ALL CONNECTING AND MOUNTING ACCESSORIES AS REQUIRED FOR A FULLY FUNCTIONAL FIXTURE. WET LOCATION RATED. COORDINATE MOUNTING DETAILS WITH ARCHITECT.
UC	HALO #HU1148D9SP OR PRIOR APPROVED EQUALS BY PARKER, HUBBELL, OR WILLIAMS	MVOLT	SURFACE	LED 21W	1540 LUMEN	4' LINEAR UNDER CABINET FIXTURE
VB	SHAPER #605-25-W-L3/835-UNV-GRM OR PRIOR APPROVED EQUALS BY VISA, SPI, OR PROGRESS	MVOLT	WALL	LED 20W	2000 LUMEN	VANITY WALL BRACKET FIXTURE.
WP1	EATON #GWC-SAID-740-U-T4FT- FINISH BY ARCH OR PRIOR APPROVED EQUALS BY KIM, GARDCO, OR PARKER	MVOLT	WALL 14' TO CENTER	LED 67W	8330 LUMEN	DARK BRONZE EXTERIOR LED LIGHT. UL LISTED FOR WET LOCATIONS.
WP2	RLM #CN1812GV-27L-40K-EX-FJ2-CP104-SP6-FINISH BY ARCH-WLKA OR PRIOR APPROVED EQUALS BY KIM, GARDCO, OR PARKER	MVOLT	WALL 9' H	LED 18W	2700 LUMEN	DECORATIVE EXTERIOR LED LIGHT. UL LISTED FOR WET LOCATIONS.
WS2	VISA #OW1047-L40KL-MVOLT-FINISH BY ARCH OR PRIOR APPROVED EQUALS BY SPI, SHAPER, OR EQUAL	MVOLT	WALL 6' TO CENTER	LED 36W	1100 LUMEN	2'H. EXTERIOR LED HALF CYLINDER WALL SCONCE UL LISTED FOR WET LOCATIONS.
WS3	SPI #AEW9980-L36W-UNV-4K-DFOA-DFVERT-DFLUM-DFINST1-FINISH BY ARCH OR PRIOR APPROVED EQUALS BY VISA, SHAPER, OR EQUAL	MVOLT	WALL 8'-9" TO CENTER	LED 36W	2500 LUMEN	3'H. EXTERIOR LED HALF CYLINDER WALL SCONCE. UL LISTED FOR WET LOCATIONS. PROVIDE WITH EMERGENCY BATTERY PACK WHERE REQUIRED.
⊗	LITHONIA NO. LQM - W - 120 - ELNSD OR PRIOR APPROVED EQUAL BY EMERGI-LITE, MCPHILBEN, OR EXITRONIX	MVOLT	UNIVERSAL	LED	WITH UNIT	THERMOPLASTIC LED EXIT SIGN. PROVIDE WITH NUMBER OF FACES AND DIRECTIONAL ARROWS AS SHOWN ON DRAWINGS. COORDINATE COLOR OF SIGNAGE WITH LOCAL REQUIREMENTS. PROVIDE WITH EMERGENCY BATTERY.
⊗	LITHONIA NO. LHQM - LP06VS - S - W - 3 - HO OR PRIOR APPROVED EQUAL BY EMERGI-LITE, MCPHILBEN, OR EXITRONIX	MVOLT	UNIVERSAL	LED	WITH UNIT	COMBO. THERMOPLASTIC LED EMERGENCY EGRESS / EXIT SIGN. COORDINATE COLOR OF SIGNAGE WITH LOCAL REQUIREMENTS. PROVIDE WITH EMERGENCY BATTERY.
EM	TRITON NO. TRL - ACEM - CL - FINISH BY ARCH OR PRIOR APPROVED EQUALS BY KIM, GARDCO, OR PARKER	MVOLT	WALL	LED	WITH UNIT	EXTERIOR EMERGENCY EGRESS FIXTURE. UL LISTED FOR WET LOCATIONS.

NOTES:
1. ARCHITECT RESERVES THE RIGHT TO SELECT ALL COLORS OR MAKE CUSTOM COLOR DURING SHOP DRAWING REVIEW. BID ACCORDINGLY.
2. COORDINATE MOUNTING OF ALL LUMINAIRES WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION
3. PROVIDE EMERGENCY BATTERY BALLAST FOR ALL EMERGENCY TYPE FIXTURES SHOWN ON PLAN CAPABLE OF 90-MINUTES.
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 3500K 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 GALVANIZED 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.



4 E2.1 DETAIL - TYPICAL LAY-IN LUMINAIRE INSTALLATION
NO SCALE

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.

SHEET NOTES:

① CHANDELIER TO BE SELECTED BY ARCHITECT.
② SEE DETAIL 3 THIS SHEET. COORDINATE LOCATION OF DMX CONTROLLER WITH OWNER.
③ FLOOD LIGHT TO BE MOUNTED ON CORNER OF ROOF TO LIGHT SIGN. COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECT.
④ FIXTURE TO BE MOUNTED TO WALL UNDER CANOPY AT 14'-7"H. TO BOTTOM OF FIXTURE.

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

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KENNETH RAY GUNN JR.
NO. 26988
5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	ADDENDUM #4	03/10/23
3	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

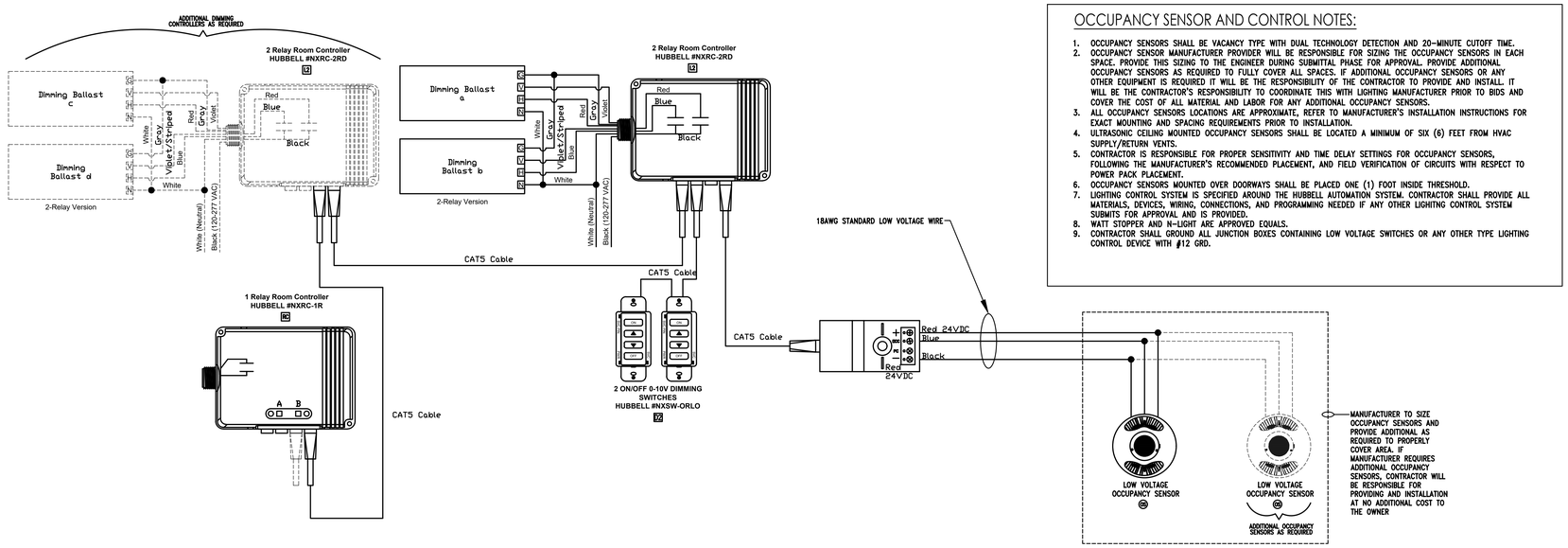
Drawing Title:

LIGHTING PLAN

Sheet No:

E2.1

CONFORMANCE
DRAWINGS



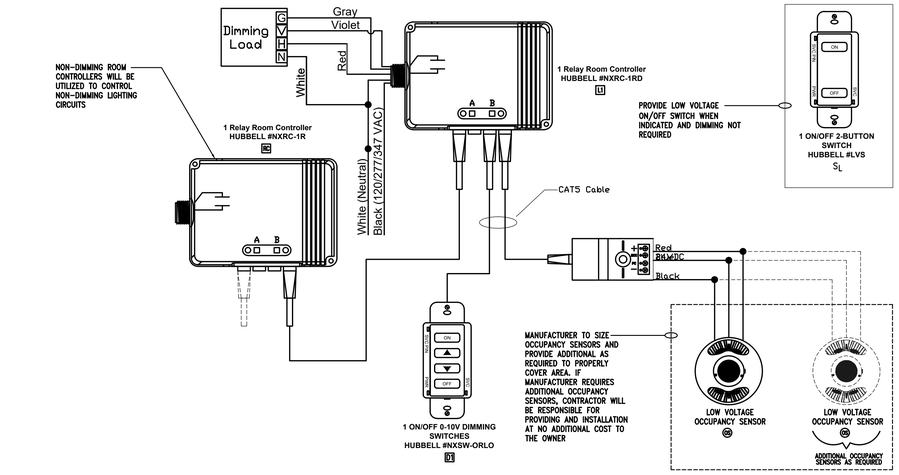
1 E2.2 TYPICAL MULTIPLE OCCUPANCY SENSOR, PHOTOCELL, AND MULTIPLE 0-10V DIMMING ZONES CONTROLLER DETAIL
NO SCALE

OCCUPANCY SENSOR AND CONTROL NOTES:

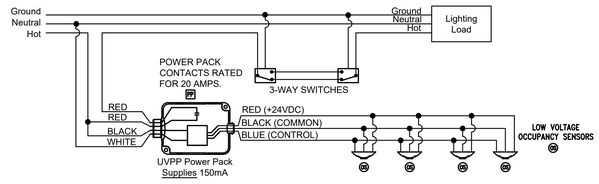
1. OCCUPANCY SENSORS SHALL BE VACANCY TYPE WITH DUAL TECHNOLOGY DETECTION AND 20-MINUTE CUTOFF TIME.
2. OCCUPANCY SENSOR MANUFACTURER PROVIDER WILL BE RESPONSIBLE FOR SIZING THE OCCUPANCY SENSORS IN EACH SPACE. PROVIDE THIS SIZING TO THE ENGINEER DURING SUBMITTAL PHASE FOR APPROVAL. PROVIDE ADDITIONAL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

KEYED NOTES

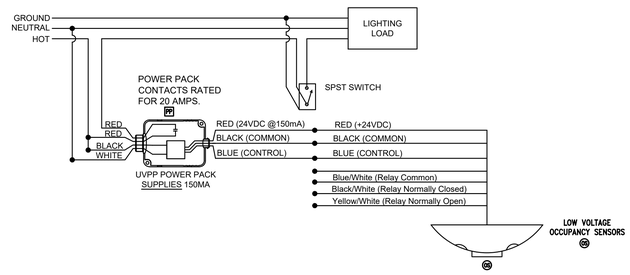
1. POWER SUPPLY – 120V, 1PH, 60HZ
2. TIME SWITCH ENCLOSURE – NEMA 1 UNLESS NOTED OTHERWISE
3. CONTACTOR ENCLOSURE – NEMA 1 UNLESS NOTED OTHERWISE
4. POWER TAP TO PHOTO-CELL IN GRC
5. TURN-LOCK PHOTO-CELL, SEE DETAIL
6. SWITCH LEG RETURN IN GRC
7. POWER TO CONTACTOR COIL
8. LIGHTING CONTACTOR [C]NL AS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



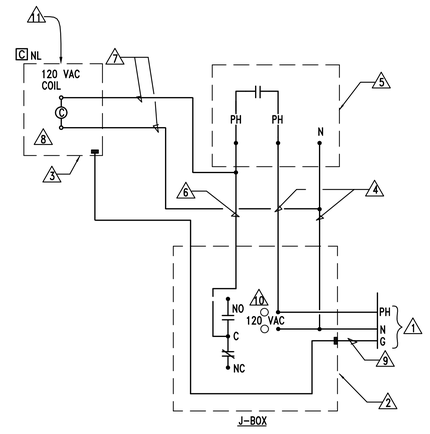
2 E2.2 TYPICAL MULTIPLE OCCUPANCY SENSOR AND SINGLE 0-10V DIMMING SYSTEM CONTROLLER DETAIL
NO SCALE



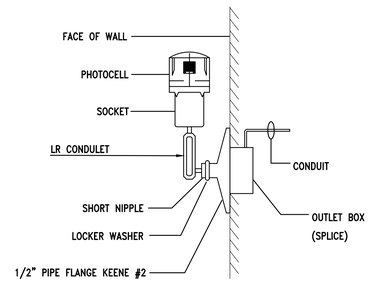
4 E2.2 TYPICAL 3-WAY SWITCHING OCCUPANCY SENSOR WIRING DIAGRAM
NO SCALE



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



5 E2.2 DETAIL - TYP. WIRING OF TIME SWITCH-PHOTO-CELL/CONTACTOR ARRANGEMENT
NOT TO SCALE



NOTES

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

6 E2.2 DETAIL - INSTALLATION OF PHOTO-CELL
NO SCALE

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ALABAMA REGISTERED PROFESSIONAL ENGINEER
No. 26988
5-17-23
KENNETH RAY GUNN, JR.

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

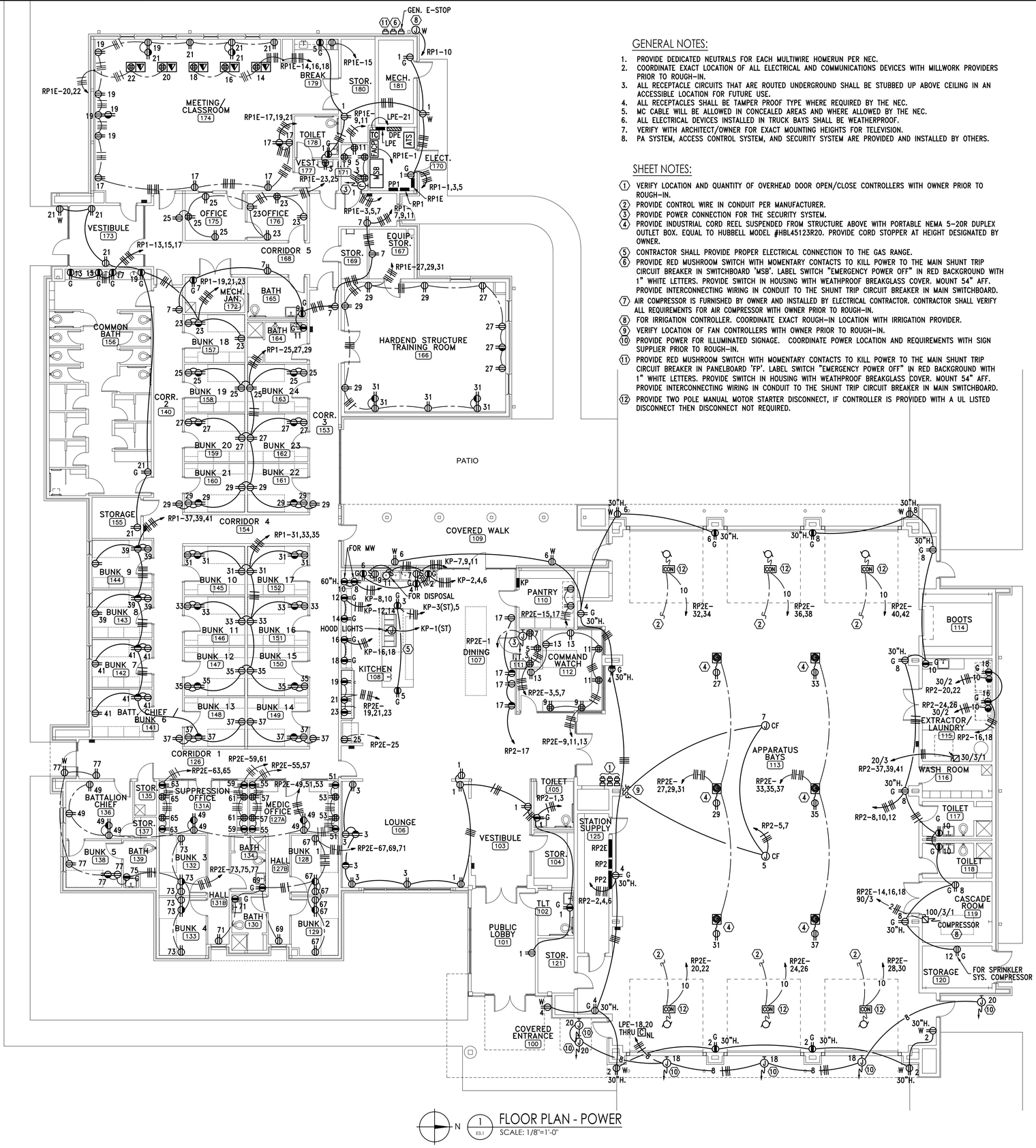
REVISIONS		
No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

Drawing Title:
LIGHTING CONTROL DETAILS

Sheet No:
E2.2

CONFORMANCE DRAWINGS



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 RECEPTACLE CIRCUITS THAT ARE ROUTED UNDERGROUND SHALL BE STUBBED UP ABOVE CEILING IN AN ACCESSIBLE LOCATION FOR FUTURE USE.
4. ALL RECEPTACLES SHALL BE TAMPER PROOF TYPE WHERE REQUIRED BY THE NEC.
5. MC CABLE WILL BE ALLOWED IN CONCEALED AREAS AND WHERE ALLOWED BY THE NEC.
6. ALL ELECTRICAL DEVICES INSTALLED IN TRUCK BAYS SHALL BE WEATHERPROOF.
7. VERIFY WITH ARCHITECT/OWNER FOR EXACT MOUNTING HEIGHTS FOR TELEVISION.
8. PA SYSTEM, ACCESS CONTROL SYSTEM, AND SECURITY SYSTEM ARE PROVIDED AND INSTALLED BY OTHERS.

SHEET NOTES:

1. VERIFY LOCATION AND QUANTITY OF OVERHEAD DOOR OPEN/CLOSE CONTROLLERS WITH OWNER PRIOR TO ROUGH-IN.
2. PROVIDE CONTROL WIRE IN CONDUIT PER MANUFACTURER.
3. PROVIDE POWER CONNECTION FOR THE SECURITY SYSTEM.
4. PROVIDE INDUSTRIAL CORD REEL SUSPENDED FROM STRUCTURE ABOVE WITH PORTABLE NEMA 5-20R DUPLEX OUTLET BOX. EQUAL TO HUBBELL MODEL #HBL45123R20. PROVIDE CORD STOPPER AT HEIGHT DESIGNATED BY OWNER.
5. CONTRACTOR SHALL PROVIDE PROPER ELECTRICAL CONNECTION TO THE GAS RANGE.
6. PROVIDE RED MUSHROOM SWITCH WITH MOMENTARY CONTACTS TO KILL POWER TO THE MAIN SHUNT TRIP CIRCUIT BREAKER IN SWITCHBOARD 'MSB'. LABEL SWITCH "EMERGENCY POWER OFF" IN RED BACKGROUND WITH 1" WHITE LETTERS. PROVIDE SWITCH IN HOUSING WITH WEATHPROOF BREAKGLASS COVER. MOUNT 54" AFF. PROVIDE INTERCONNECTING WIRING IN CONDUIT TO THE SHUNT TRIP CIRCUIT BREAKER IN MAIN SWITCHBOARD.
7. AIR COMPRESSOR IS FURNISHED BY OWNER AND INSTALLED BY ELECTRICAL CONTRACTOR. CONTRACTOR SHALL VERIFY ALL REQUIREMENTS FOR AIR COMPRESSOR WITH OWNER PRIOR TO ROUGH-IN.
8. FOR IRRIGATION CONTROLLER. COORDINATE EXACT ROUGH-IN LOCATION WITH IRRIGATION PROVIDER.
9. VERIFY LOCATION OF FAN CONTROLLERS WITH OWNER PRIOR TO ROUGH-IN.
10. PROVIDE POWER FOR ILLUMINATED SIGNAGE. COORDINATE POWER LOCATION AND REQUIREMENTS WITH SIGN SUPPLIER PRIOR TO ROUGH-IN.
11. PROVIDE RED MUSHROOM SWITCH WITH MOMENTARY CONTACTS TO KILL POWER TO THE MAIN SHUNT TRIP CIRCUIT BREAKER IN PANELBOARD 'FP'. LABEL SWITCH "EMERGENCY POWER OFF" IN RED BACKGROUND WITH 1" WHITE LETTERS. PROVIDE SWITCH IN HOUSING WITH WEATHPROOF BREAKGLASS COVER. MOUNT 54" AFF. PROVIDE INTERCONNECTING WIRING IN CONDUIT TO THE SHUNT TRIP CIRCUIT BREAKER IN MAIN SWITCHBOARD.
12. PROVIDE TWO POLE MANUAL MOTOR STARTER DISCONNECT, IF CONTROLLER IS PROVIDED WITH A UL LISTED DISCONNECT THEN DISCONNECT NOT REQUIRED.

1 FLOOR PLAN - POWER (E3.1)
SCALE: 1/8"=1'-0"

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

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ALABAMA REGISTERED KENNETH RAY GUNN JR. PROFESSIONAL ENGINEER NO. 26988 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	ADDENDUM #6	03/24/23
3	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

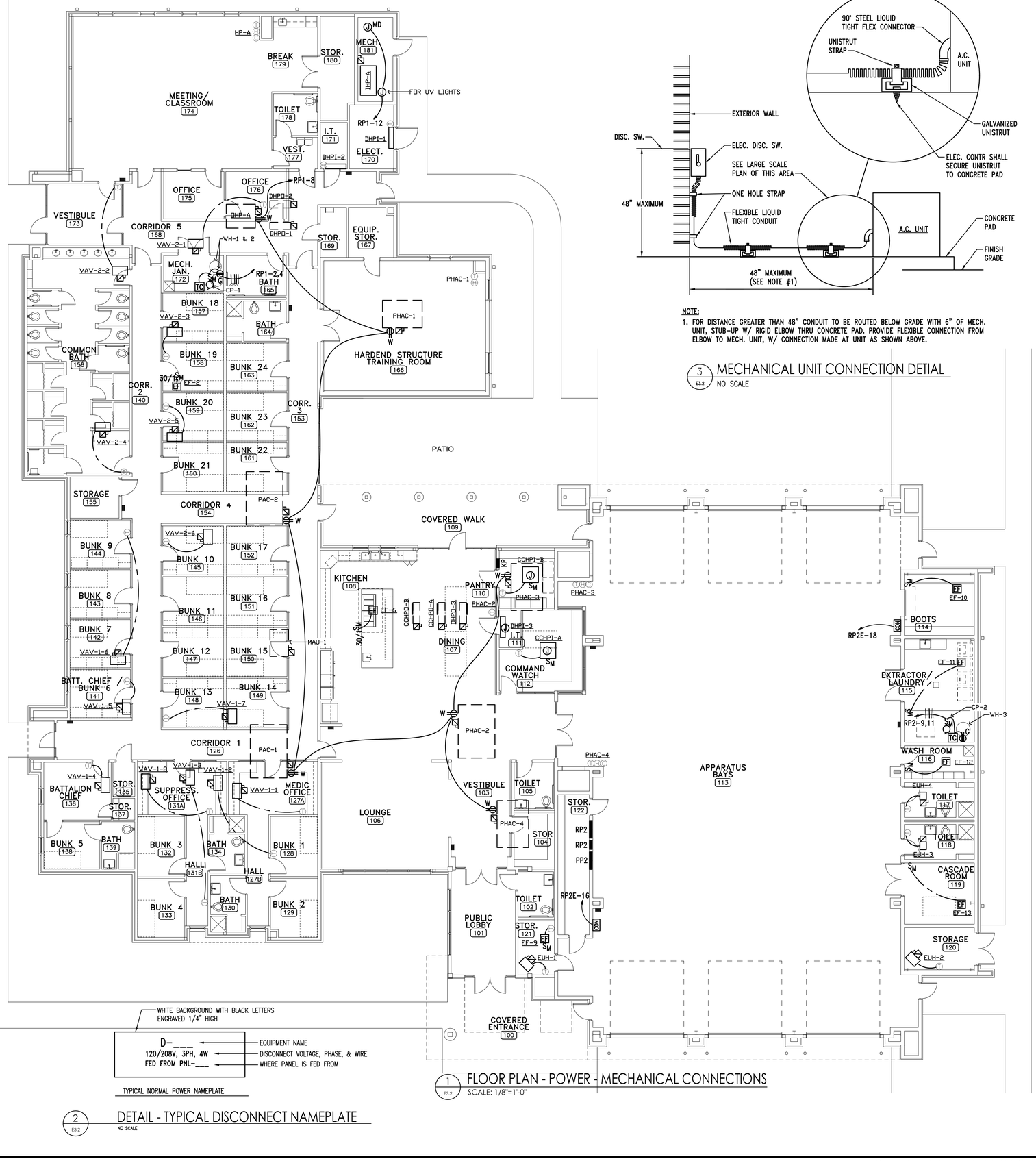
Drawing Title:

POWER PLAN

Sheet No:

E3.1

CONFORMANCE DRAWINGS



1 E3.2 FLOOR PLAN - POWER - MECHANICAL CONNECTIONS
SCALE: 1/8"=1'-0"

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

3 E3.2 MECHANICAL UNIT CONNECTION DETIAL
NO SCALE

TYPICAL NORMAL POWER NAMEPLATE

2 E3.2 DETAIL - TYPICAL DISCONNECT NAMEPLATE
NO SCALE

GENERAL EQUIPMENT SCHEDULE

EQUIPMENT MARK:	EQUIPMENT DESCRIPTION:	VOLTAGE/ PHASE:	ELECTRICAL CHARACTERISTICS: HP	KW	AMPS	DISCONNECT:	FUSE:	HOMERUN:	FEEDER:
CCHPI-A	INDOOR CEIL MINI SPLIT	208/1			1.5	TS		NOTE 8	2#12 & 1#12GRD - 3/4"C
CCHPI-B	INDOOR CEIL MINI SPLIT	208/1			1	TS		NOTE 8	2#12 & 1#12GRD - 3/4"C
CCHPO-A	OUTDOOR MINI SPLIT	208/1			18	30/2/3R	F	PP2-13,15	2#12 & 1#12GRD - 3/4"C
CCHPO-B	OUTDOOR MINI SPLIT	208/1			13	30/2/3R	F	PP2-17,19	2#10 & 1#10GRD - 3/4"C
CP-1	RECIRC. PUMP	120/1				TS		RP1-4	2#12 & 1#12GRD - 3/4"C
CP-2	RECIRC. PUMP	120/1				TS		RP2-11	2#12 & 1#12GRD - 3/4"C
DHPI-1	INDOOR WALL MINI SPLIT	208/1			1.5	TS		NOTE 8	2#12 & 1#12GRD - 3/4"C
DHPI-2	INDOOR WALL MINI SPLIT	208/1			1.5	TS		NOTE 8	2#12 & 1#12GRD - 3/4"C
DHPI-3	INDOOR WALL MINI SPLIT	208/1			1.5	TS		NOTE 8	2#12 & 1#12GRD - 3/4"C
DHPO-1	OUTDOOR MINI SPLIT	208/1			9	30/2/3R	F	PP1-13,15	2#12 & 1#12GRD - 3/4"C
DHPO-2	OUTDOOR MINI SPLIT	208/1			9	30/2/3R	F	PP1-17,19	2#12 & 1#12GRD - 3/4"C
DHPO-3	OUTDOOR MINI SPLIT	208/1			9	30/2/3R	F	PP2-21,23	2#12 & 1#12GRD - 3/4"C
EF-1	EXHAUST FAN	120/1		0.1		TS		NOTE 6	2#12 & 1#12GRD - 3/4"C
EF-2 (NOTE 7)	EXHAUST FAN	120/1	3/4			TS-30A		RP1-6	2#10 & 1#10GRD - 3/4"C
EF-3	EXHAUST FAN	120/1		0.1		TS		NOTE 6	2#12 & 1#12GRD - 3/4"C
EF-4	EXHAUST FAN	120/1		0.1		TS		NOTE 6	2#12 & 1#12GRD - 3/4"C
EF-5	EXHAUST FAN	120/1		0.1		TS		NOTE 6	2#12 & 1#12GRD - 3/4"C
EF-6	HOOD EXHAUST FAN	120/1	3/4			TS-30A		KP-13	2#10 & 1#10GRD - 3/4"C
EF-7	EXHAUST FAN	120/1		0.1		TS		NOTE 6	2#12 & 1#12GRD - 3/4"C
EF-8	EXHAUST FAN	120/1		0.1		TS		NOTE 6	2#12 & 1#12GRD - 3/4"C
EF-9	EXHAUST FAN	120/1		0.273		TS		PP2-58	2#12 & 1#12GRD - 3/4"C
EF-10	EXHAUST FAN	120/1		0.273		TS		PP2-58	2#12 & 1#12GRD - 3/4"C
EF-11	EXHAUST FAN	120/1		0.273		TS		PP2-58	2#12 & 1#12GRD - 3/4"C
EF-12	EXHAUST FAN	120/1		0.1		TS		PP2-58	2#12 & 1#12GRD - 3/4"C
EF-13	EXHAUST FAN	120/1		0.273		TS		PP2-58	2#12 & 1#12GRD - 3/4"C
EF-14	EXHAUST FAN	120/1		0.1		TS		NOTE 6	2#12 & 1#12GRD - 3/4"C
EF-15	EXHAUST FAN	120/1		0.1		TS		NOTE 6	2#12 & 1#12GRD - 3/4"C
EUH-1	ELECT UNIT HEATER	208/3		3.3		30/3/1	F	PP2-43,45,47	3#12 & 1#12GRD - 3/4"C
EUH-2	ELECT UNIT HEATER	208/3		3.3		30/3/1	F	PP2-44,46,48	3#12 & 1#12GRD - 3/4"C
EUH-3	ELECT UNIT HEATER	208/1		3		30/2/1	F	PP2-54,56	2#12 & 1#12GRD - 3/4"C
EUH-4	ELECT UNIT HEATER	208/1		2		30/2/1	F	PP2-53,55	2#12 & 1#12GRD - 3/4"C
IHP-A	INDOOR HEAT PUMP	208/3	3	25		200/3/1	F	PP1-1,3,5	3#1 & 1#6GRD - 2"C
MAU-1	MAKE-UP AIR UNIT	208/3	1			30/3/3R	F	KP-19,21,23	3#12 & 1#12GRD - 3/4"C
OHP-A	OUTDOOR HEAT PUMP	208/3			36.5	60/3/3R	F	PP1-7,9,11	3#6 & 1#10GRD - 1 1/4"C
PAC-1	PKG. VAV HEAT PUMP	208/3	3.1	17	67	100/3/3R	F	PP2-1,3,5	3#4 & 1#8GRD. - 1 1/4"C
PAC-2	PKG. VAV HEAT PUMP	208/3	5	25	97	100/3/3R	F	PP1-8,10,12	3#1 & 1#8GRD. - 2"C
PHAC-1	PKG. HEAT PUMP	208/3	1		26	60/3/3R	F	PP1-2,4,6	3#8 & 1#10GRD - 1"C
PHAC-2	PKG. HEAT PUMP	208/3	5		64	100/3/3R	F	PP2-7,9,11	3#2 & 1#8GRD. - 1 1/2"C
PHAC-3	PKG. HEAT PUMP	208/3	3		72	100/3/3R	F	PP2-2,4,6	3#2 & 1#8GRD. - 1 1/2"C
PHAC-4	PKG. HEAT PUMP	208/3	3		72	100/3/3R	F	PP2-8,10,12	3#2 & 1#8GRD. - 1 1/2"C
VAV-1-1	VAV BOX	208/3		1.5		30/3/1	F	PP2-25,27,29	3#12 & 1#12GRD - 3/4"C
VAV-1-2	VAV BOX	208/3		3		30/3/1	F	PP2-31,33,35	3#12 & 1#12GRD - 3/4"C
VAV-1-3	VAV BOX	208/3		6		30/3/1	F	PP2-37,39,41	3#10 & 1#10GRD - 3/4"C
VAV-1-4	VAV BOX	208/3		5		30/3/1	F	PP2-14,16,18	3#12 & 1#12GRD - 3/4"C
VAV-1-5	VAV BOX	208/3		3		30/3/1	F	PP2-20,22,24	3#12 & 1#12GRD - 3/4"C
VAV-1-6	VAV BOX	208/3		6		30/3/1	F	PP2-26,28,30	3#10 & 1#10GRD - 3/4"C
VAV-1-7	VAV BOX	208/3		7		30/3/1	F	PP2-32,34,36	3#10 & 1#10GRD - 3/4"C
VAV-1-8	VAV BOX	208/3		2		30/3/1	F	PP2-38,40,42	3#12 & 1#12GRD - 3/4"C
VAV-2-1	VAV BOX	208/3		6		30/3/1	F	PP1-25,27,29	3#10 & 1#10GRD - 3/4"C
VAV-2-2	VAV BOX	208/3		5		30/3/1	F	PP1-31,33,35	3#12 & 1#12GRD - 3/4"C
VAV-2-3	VAV BOX	208/3		6		30/3/1	F	PP1-37,39,41	3#10 & 1#10GRD - 3/4"C
VAV-2-4	VAV BOX	208/3		8		30/3/1	F	PP1-26,28,30	3#10 & 1#10GRD - 3/4"C
VAV-2-5	VAV BOX	208/3		7		30/3/1	F	PP1-32,34,36	3#10 & 1#10GRD - 3/4"C
VAV-2-6	VAV BOX	208/3		7		30/3/1	F	PP1-38,40,42	3#10 & 1#10GRD - 3/4"C
WH-1	GAS WATER HEATER	120/1			3	TS		RP1-2	2#12 & 1#12GRD - 3/4"C
WH-2	GAS WATER HEATER	120/1			3	TS		RP1-2	2#12 & 1#12GRD - 3/4"C
WH-3	GAS WATER HEATER	120/1			3	TS		RP2-9	2#12 & 1#12GRD - 3/4"C

NOTES:
1. 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 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. "F" - FUSED
5. "TS" MANUAL MOTOR STARTER WITH THERMAL OVERLOAD ("W" - WEATHERPROOF) ("30-AMP" - 30-AMP RATED)
6. FAN TO BE CIRCUITED WITH ROOM LIGHTS
7. FAN TO BE INTERLOCKED WITH PAC-2.
8. INDOOR UNIT TO BE POWERED FROM OUTDOOR UNIT.

GENERAL 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 (2) THIS SHEET, NO EXCEPTIONS.
7. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
8. COORDINATE WITH GENERAL EQUIPMENT SCHEDULE FOR CIRCUITRY OF ALL EQUIPMENT TAGGED ON THIS SHEET.
9. SEE DETAIL (3) THIS SHEET FOR MECHANICAL UNIT CONNECTION DETAIL.
10. ALL MECHANICAL CONTROLS ARE PROVIDED BY MECH. CONTRACTOR AND INSTALLED BY E.C.

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

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ALABAMA REGISTERED Kenneth Ray Gunn Jr. NO. 26988 PROFESSIONAL ENGINEER 5-17-23

NEW FIRE STATION NO. 10
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REVISIONS

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MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

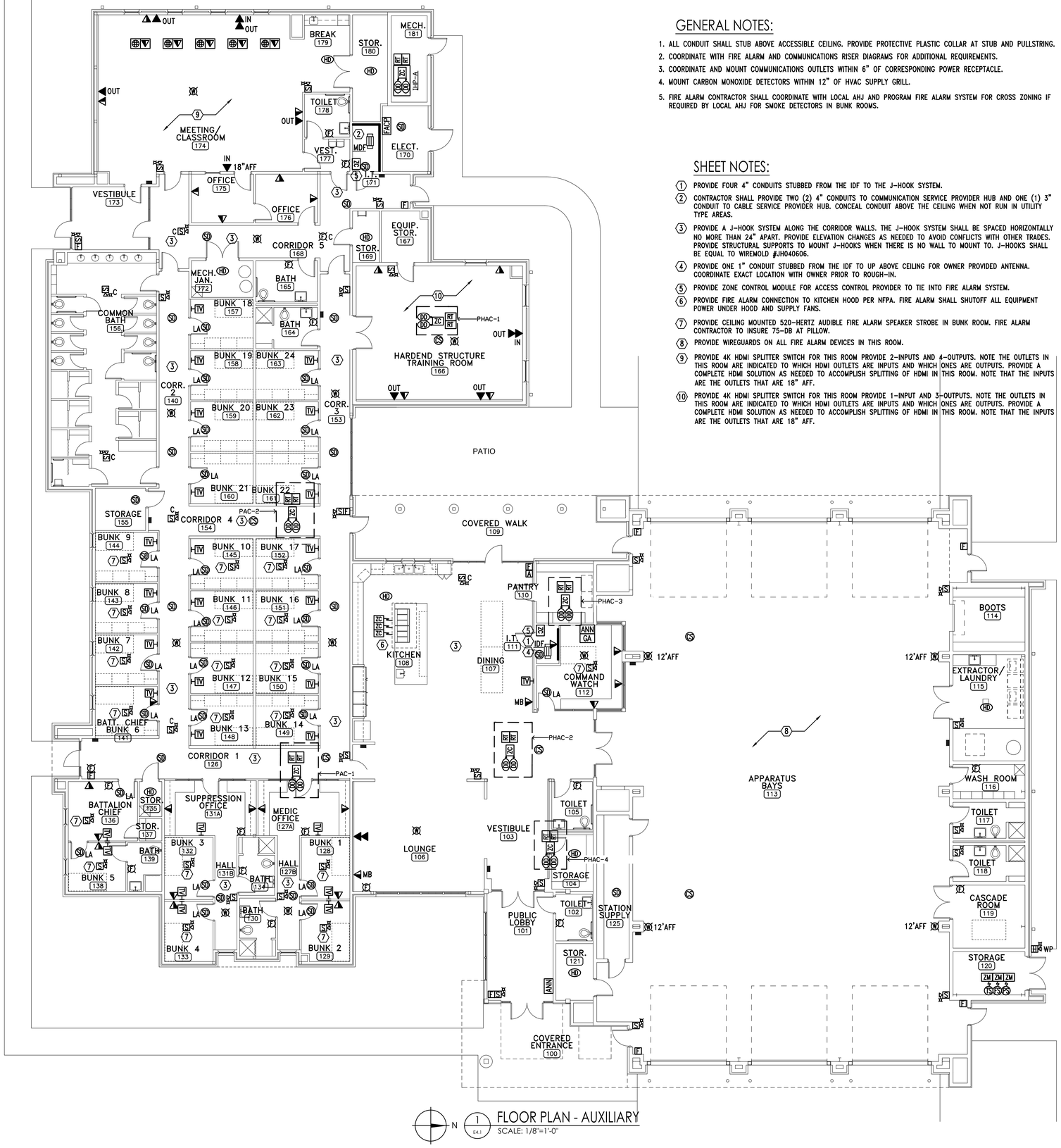
Drawing Title:

POWER PLAN - MECHANICAL CONNECTIONS

Sheet No:

E3.2

CONFORMANCE DRAWINGS



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1 E4.1 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 WITH FIRE ALARM AND COMMUNICATIONS RISER DIAGRAMS FOR ADDITIONAL REQUIREMENTS.
3. COORDINATE AND MOUNT COMMUNICATIONS OUTLETS WITHIN 6" OF CORRESPONDING POWER RECEPTACLE.
4. MOUNT CARBON MONOXIDE DETECTORS WITHIN 12" OF HVAC SUPPLY GRILL.
5. FIRE ALARM CONTRACTOR SHALL COORDINATE WITH LOCAL AHJ AND PROGRAM FIRE ALARM SYSTEM FOR CROSS ZONING IF REQUIRED BY LOCAL AHJ FOR SMOKE DETECTORS IN BUNK ROOMS.

SHEET NOTES:

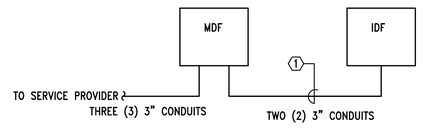
1. PROVIDE FOUR 4" CONDUITS STUBBED FROM THE IDF TO THE J-HOOK SYSTEM.
2. CONTRACTOR SHALL PROVIDE TWO (2) 4" CONDUITS TO COMMUNICATION SERVICE PROVIDER HUB AND ONE (1) 3" CONDUIT TO CABLE SERVICE PROVIDER HUB. CONCEAL CONDUIT ABOVE THE CEILING WHEN NOT RUN IN UTILITY TYPE AREAS.
3. PROVIDE A J-HOOK SYSTEM ALONG THE CORRIDOR WALLS. THE J-HOOK SYSTEM SHALL BE SPACED HORIZONTALLY NO MORE THAN 24" APART. PROVIDE ELEVATION CHANGES AS NEEDED TO AVOID CONFLICTS WITH OTHER TRADES. PROVIDE STRUCTURAL SUPPORTS TO MOUNT J-HOOKS WHEN THERE IS NO WALL TO MOUNT TO. J-HOOKS SHALL BE EQUAL TO WIREMOLD #JH040606.
4. PROVIDE ONE 1" CONDUIT STUBBED FROM THE IDF TO UP ABOVE CEILING FOR OWNER PROVIDED ANTENNA. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
5. PROVIDE ZONE CONTROL MODULE FOR ACCESS CONTROL PROVIDER TO TIE INTO FIRE ALARM SYSTEM.
6. PROVIDE FIRE ALARM CONNECTION TO KITCHEN HOOD PER NFPA. FIRE ALARM SHALL SHUTOFF ALL EQUIPMENT POWER UNDER HOOD AND SUPPLY FANS.
7. PROVIDE CEILING MOUNTED 520-HERTZ AUDIBLE FIRE ALARM SPEAKER STROBE IN BUNK ROOM. FIRE ALARM CONTRACTOR TO INSURE 75-DB AT PILLOW.
8. PROVIDE WIREGUARDS ON ALL FIRE ALARM DEVICES IN THIS ROOM.
9. PROVIDE 4K HDMI SPLITTER SWITCH FOR THIS ROOM PROVIDE 2-INPUTS AND 4-OUTPUTS. NOTE THE OUTLETS IN THIS ROOM ARE INDICATED TO WHICH HDMI OUTLETS ARE INPUTS AND WHICH ONES ARE OUTPUTS. PROVIDE A COMPLETE HDMI SOLUTION AS NEEDED TO ACCOMPLISH SPLITTING OF HDMI IN THIS ROOM. NOTE THAT THE INPUTS ARE THE OUTLETS THAT ARE 18" AFF.
10. PROVIDE 4K HDMI SPLITTER SWITCH FOR THIS ROOM PROVIDE 1-INPUT AND 3-OUTPUTS. NOTE THE OUTLETS IN THIS ROOM ARE INDICATED TO WHICH HDMI OUTLETS ARE INPUTS AND WHICH ONES ARE OUTPUTS. PROVIDE A COMPLETE HDMI SOLUTION AS NEEDED TO ACCOMPLISH SPLITTING OF HDMI IN THIS ROOM. NOTE THAT THE INPUTS ARE THE OUTLETS THAT ARE 18" AFF.

RISER DIAGRAM KEYED NOTES:

1. CONTRACTOR SHALL PROVIDE A 6 STRAND OM1 (62.5/125) MULTIMODE FIBER OPTIC CABLE (OSP) INTERCONNECTING THE MDF TO THE IDF. PROVIDE LC TYPE CONNECTIONS.

COMMUNICATION NOTES:

1. PROVIDE 5/8" STRUT ASSEMBLY AT TOP AND BOTTOM OF TBB TO SUPPORT ALL CONDUITS TERMINATING AT BACKBOARD.
2. TBB SHALL BE 3/4" PLYWOOD EXTERIOR RATED AND CUT TO COVER ALL WALLS OR AS INDICATED. PAINT WITH TWO COATS OF FIRE RETARDENT PAINT. MOUNT 2' AFF.
3. PROVIDE A PLASTIC BUSHING OR PROTECTIVE COLLAR AT EACH CONDUIT TERMINATION, INCLUDING TERMINATIONS ABOVE THE CEILING, AT CABLE TRAY, OR AT TBB.
4. ALL CONDUIT TERMINATIONS SHOULD BE DONE EVENLY AT THE TOP AND BOTTOM OF TBB. TERMINATIONS SHALL BE MADE WITHIN THE FIRST FEW INCHES OF THE TBB.
5. SEAL ALL CONDUITS FROM THE EXTERIOR WITH A SEALING COMPOUND, ONCE ALL CABLING HAS BEEN INSTALLED.
6. PROVIDE GROUND BUS FOR EACH TBB. SEE GROUND BUS INSTALLATION DETAIL.
7. PROVIDE ALL CONDUITS WITH MINIMUM #800 MULE TAPE (PULL TAPE).
8. STENCIL ALL JUNCTION BOX COVERS ABOVE THE CEILING WITH 2" LETTERS THAT READ "COMM".
9. ELECTRICAL CONTRACTOR WILL BE RESPONSIABLE FOR ALL RACEWAYS, CABLE TRAY, CABLING, PATCH PANELS, TERMINATIONS, BACKBOARDS, ETC. SEE RISER DIAGRAM, DETAILS, AND SPECIFICATIONS FOR FURTHER EQUIPMENT REQUIREMENTS.
10. BOND RACK FRAMES, STRUT, CONDUITS, AND LADDER RACK TO THE GROUND BUS WITH MINIMUM SIZE WIRE OF #1/0.



2 E4.1 COMMUNICATIONS RISER DIGRAM
NO SCALE

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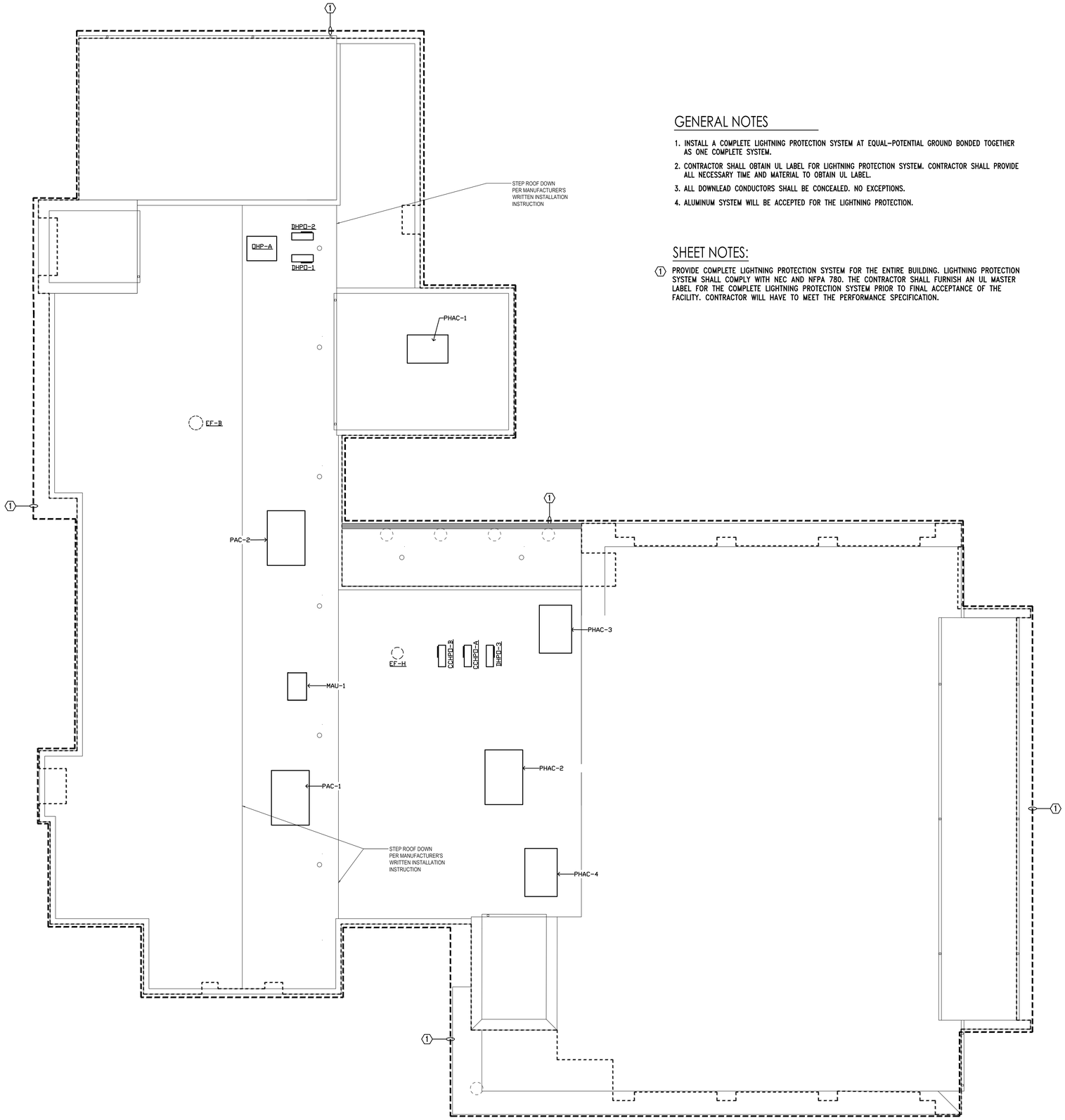
Drawing Title:

AUXILIARY PLAN

Sheet No:

E4.1

CONFORMANCE DRAWINGS



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1 E4.1 ROOF PLAN - LIGHTNING PROTECTION

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

GENERAL NOTES

1. INSTALL A COMPLETE LIGHTNING PROTECTION SYSTEM AT EQUAL-POTENTIAL GROUND BONDED TOGETHER AS ONE COMPLETE SYSTEM.
2. CONTRACTOR SHALL OBTAIN UL LABEL FOR LIGHTNING PROTECTION SYSTEM. CONTRACTOR SHALL PROVIDE ALL NECESSARY TIME AND MATERIAL TO OBTAIN UL LABEL.
3. ALL DOWNLEAD CONDUCTORS SHALL BE CONCEALED. NO EXCEPTIONS.
4. ALUMINUM SYSTEM WILL BE ACCEPTED FOR THE LIGHTNING PROTECTION.

SHEET NOTES:

(1) PROVIDE COMPLETE LIGHTNING PROTECTION SYSTEM FOR THE ENTIRE BUILDING. LIGHTNING PROTECTION SYSTEM SHALL COMPLY WITH NEC AND NFPA 780. THE CONTRACTOR SHALL FURNISH AN UL MASTER LABEL FOR THE COMPLETE LIGHTNING PROTECTION SYSTEM PRIOR TO FINAL ACCEPTANCE OF THE FACILITY. CONTRACTOR WILL HAVE TO MEET THE PERFORMANCE SPECIFICATION.

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8' 0 8 16 FT

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0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

Drawing Title:

LIGHTNING PROTECTION PLAN

Sheet No:

E4.2

CONFORMANCE DRAWINGS

PANEL - MSB

TYPE: 1600A MB SWITCHBOARD | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	CIRCUIT DIRECTORY
SPARE	=====	=====	=====	125		1	2	125		9,180	=====	=====	PANEL KP
	=====	=====	=====			3	4			=====	8,400	=====	
	=====	=====			3	5	6		3	=====	=====	6,200	
BUSSED SPACE		=====	=====	125		7	8	225			=====	=====	SPARE
	=====		=====			9	10			=====	=====	=====	
	=====	=====			3	11	12		3	=====	=====		
PANEL 'RP1'	7,600	=====	=====	225		13	14	225		10,600	=====	=====	PANEL 'RP2'
	=====	7,600	=====			15	16			=====	8,400	=====	
	=====	=====	8,780		3	17	18		3	=====	=====	8,600	
BUSSED SPACE		=====	=====	225		19	20	225			=====	=====	BUSSED SPACE
	=====		=====			21	22			=====		=====	
	=====	=====			3	23	24		3	=====	=====		
PANEL PP1	44,325	=====	=====	600		25	26	600		53,285	=====	=====	PANEL PP2
	=====	43,065	=====			27	28			=====	51,000	=====	
	=====	=====	43,065		3	29	30		3	=====	=====	52,205	
ATS-DPE	62,165	=====	=====	800		31	32	800			=====	=====	BUSSED SPACE
	=====	62,860	=====			33	34			=====		=====	
	=====	=====	63,860		3	35	36		3	=====	=====		
SUB TOTAL (VA)	114,090	113,525	115,705							73,065	67,800	67,005	SUB TOTAL (VA)

TOTAL LOAD PHASE A: 187,155 (VA)
TOTAL LOAD PHASE B: 181,325 (VA)
TOTAL LOAD PHASE C: 182,710 (VA)
TOTAL LOAD: 551,190 (VA) = 1531 AMPS

NOTES:
1. PROVIDE SHUNT TRIP MAIN BREAKER
2. PROVIDE PANEL WITH INTERGRAL TVSS UNIT, 125K PER MODE PROTECTION.
3. PROVIDE NAMEPLATES PER DETAILS 2/E5.2.
4. MAIN BREAKER TO BE RATED AT 100%.
5. SWITCHBOARD TO BE U.L. SERVICE ENTRANCE RATED.

PROVIDE TVSS UNIT THAT IS COMPATIBLE WITH LIGHTNING PROTECTION U.L. MASTER LABEL.

PANEL - PP1

TYPE: 600 AMP MAIN LUG | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	CIRCUIT DIRECTORY
IHP-A	9,655	=====	=====	125		1	2	40		3,120	=====	=====	PHAC-1
	=====	9,655	=====			3	4			=====	3,120	=====	
	=====	=====	9,655		3	5	6		3	=====	=====	3,120	
OHP-A	4,380	=====	=====	50		7	8	100		11,640	=====	=====	PAC-2
	=====	4,380	=====			9	10			=====	11,640	=====	
	=====	=====	4,380		3	11	12		3	=====	=====	11,640	
DHPO-1	1,260	=====	=====	20		13	14	50	1		=====	=====	BUSSED SPACE
	=====	1,260	=====		2	15	16	50	1	=====		=====	BUSSED SPACE
DHPO-2	=====	=====	1,260	20		17	18	50	1	=====	=====		BUSSED SPACE
	1,260	=====	=====		2	19	20	50	1		=====	=====	BUSSED SPACE
BUSSED SPACE	=====		=====	50	1	21	22	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	23	24	50	1	=====	=====		BUSSED SPACE
VAV-2-1	2,000	=====	=====	30		25	26	30		2,670	=====	=====	VAV-2-4
	=====	2,000	=====			27	28			=====	2,670	=====	
	=====	=====	2,000		3	29	30		3	=====	=====	2,670	
VAV-2-2	1,670	=====	=====	20		31	32	30		2,335	=====	=====	VAV-2-5
	=====	1,670	=====			33	34			=====	2,335	=====	
	=====	=====	1,670		3	35	36		3	=====	=====	2,335	
VAV-2-3	2,000	=====	=====	30		37	38	30		2,335	=====	=====	VAV-2-6
	=====	2,000	=====			39	40			=====	2,335	=====	
	=====	=====	2,000		3	41	42		3	=====	=====	2,335	
SUB TOTAL (VA)	22,225	20,965	20,965							22,100	22,100	22,100	SUB TOTAL (VA)

TOTAL LOAD PHASE A: 44,325 (VA)
TOTAL LOAD PHASE B: 43,065 (VA)
TOTAL LOAD PHASE C: 43,065 (VA)
TOTAL LOAD: 130,455 (VA) = 362 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE NAMEPLATE PER DETAIL 1/E5.2.

PANEL - PP2

TYPE: 600 AMP MAIN LUG | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	CIRCUIT DIRECTORY
PAC-1	8,040	=====	=====	70		1	2	90		8,640	=====	=====	PHAC-3
	=====	8,040	=====			3	4			=====	8,640	=====	
	=====	=====	8,040		3	5	6		3	=====	=====	8,640	
PHAC-2	7,680	=====	=====	90		7	8	90		8,640	=====	=====	PHAC-4
	=====	7,680	=====			9	10			=====	8,640	=====	
	=====	=====	7,680		3	11	12		3	=====	=====	8,640	
CCHPO-A	2,340	=====	=====	30		13	14	20		1,670	=====	=====	VAV-1-4
	=====	2,340	=====		2	15	16			=====	1,670	=====	
CCHPO-B	=====	=====	1,680	20		17	18		3	=====	=====	1,670	
	1,680	=====	=====		2	19	20	20		1,000	=====	=====	VAV-1-5
DHPO-3	=====	1,260	=====	20		21	22			=====	1,000	=====	
	=====	=====	1,260		2	23	24		3	=====	=====	1,000	
VAV-1-1	500	=====	=====	20		25	26	30		2,000	=====	=====	VAV-1-6
	=====	500	=====			27	28			=====	2,000	=====	
	=====	=====	500		3	29	30		3	=====	=====	2,000	
VAV-1-2	1,000	=====	=====	20		31	32	30		2,335	=====	=====	VAV-1-7
	=====	1,000	=====			33	34			=====	2,335	=====	
	=====	=====	1,000		3	35	36		3	=====	=====	2,335	
VAV-1-3	2,000	=====	=====	30		37	38	20		670	=====	=====	VAV-1-8
	=====	2,000	=====			39	40			=====	670	=====	
	=====	=====	2,000		3	41	42		3	=====	=====	670	
EUH-1	1,100	=====	=====	20		43	44	20		1,100	=====	=====	EUH-2
	=====	1,100	=====			45	46			=====	1,100	=====	
	=====	=====	1,100		3	47	48		3	=====	=====	1,100	
SPARE		=====	=====	20		49	50	20			=====	=====	SPARE
	=====		=====		2	51	52		2	=====		=====	
EUH-4	=====	=====	1,155	20		53	54	20		=====	=====	1,735	EUH-3
	1,155	=====	=====		2	55	56		2	1,735	=====	=====	
SPARE	=====		=====	20	1	57	58	20	1	=====	1,025	=====	EF'S 9-13
SPARE	=====	=====		20	1	59	60	20	1	=====	=====		SPARE
BUSSED SPACE		=====	=====	50	1	61	62	50	1		=====	=====	BUSSED SPACE
BUSSED SPACE	=====		=====	50	1	63	64	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	65	66	50	1	=====	=====		BUSSED SPACE
BUSSED SPACE		=====	=====	50	1	67	68	50	1		=====	=====	BUSSED SPACE
BUSSED SPACE	=====		=====	50	1	69	70	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	71	72	50	1	=====	=====		BUSSED SPACE
BUSSED SPACE		=====	=====	50	1	73	74	50	1		=====	=====	BUSSED SPACE
BUSSED SPACE	=====		=====	50	1	75	76	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	77	78	50	1	=====	=====		BUSSED SPACE
BUSSED SPACE		=====	=====	50	1	79	80	50	1		=====	=====	BUSSED SPACE
BUSSED SPACE	=====		=====	50	1	81	82	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	83	84	50	1	=====	=====		BUSSED SPACE
SUB TOTAL (VA)	25,495	23,920	24,415							27,790	27,080	27,790	SUB TOTAL (VA)

TOTAL LOAD PHASE A: 53,285 (VA)
TOTAL LOAD PHASE B: 51,000 (VA)
TOTAL LOAD PHASE C: 52,205 (VA)
TOTAL LOAD: 156,490 (VA) = 435 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE NAMEPLATE PER DETAIL 1/E5.2.

PANEL - RP1

TYPE: 225 AMP MAIN LUGS | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	CIRCUIT DIRECTORY
GENERAL REC	600	=====	=====	20	1	1	2	20	1	600	=====	=====	GAS WH-1 & 2 & TC
EWC (NOTE 3)	=====	1,200	=====	20	1	3	4	20	1	=====	600	=====	CP-1
COFFEE	=====	=====	1,800	20	1	5	6	30	1	=====	=====	1,680	EF-2
GENERAL REC	1,200	=====	=====	20	1	7	8	20	1	1,000	=====	=====	ROOF REC
BATH REC	=====	1,200	=====	20	1	9	10	20	1	=====	400	=====	IRRIGATION
BATH REC	=====	=====	1,200	20	1	11	12	20	1	=====	=====	500	UV LTS & DAMPER
BATH REC	1,200	=====	=====	20	1	13	14	20	1		=====	=====	SPARE
BATH REC	=====	1,200	=====	20	1	15	16	20	1	=====		=====	SPARE
BATH REC	=====	=====	1,200	20	1	17	18	20	1	=====	=====		SPARE
GENERAL REC	1,200	=====	=====	20	1	19	20	20	1		=====	=====	SPARE
BATH REC	=====	1,200	=====	20	1	21	22	20	1	=====		=====	SPARE
BUNK REC	=====	=====	600	20	1	23	24	20	1	=====	=====		SPARE
BUNK REC	600	=====	=====	20	1	25	26	50	1		=====	=====	BUSSED SPACE
BUNK REC	=====	600	=====	20	1	27	28	50	1	=====		=====	BUSSED SPACE
BUNK REC	=====	=====	600	20	1	29	30	50	1	=====	=====		BUSSED SPACE
BUNK REC	600	=====	=====	20	1	31	32	50	1		=====	=====	BUSSED SPACE
BUNK REC	=====	600	=====	20	1	33	34	50	1	=====		=====	BUSSED SPACE
BUNK REC	=====	=====	600	20	1	35	36	50	1	=====	=====		BUSSED SPACE
BUNK REC	600	=====	=====	20	1	37	38	50	1		=====	=====	BUSSED SPACE
BUNK REC	=====	600	=====	20	1	39	40	50	1	=====		=====	BUSSED SPACE
BUNK REC	=====	=====	600	20	1	41	42	50	1	=====	=====		BUSSED SPACE
SUB TOTAL (VA)	6,000	6,600	6,600							1,600	1,000	2,180	SUB TOTAL (VA)

TOTAL LOAD PHASE A: 7,600 (VA)
TOTAL LOAD PHASE B: 7,600 (VA)
TOTAL LOAD PHASE C: 8,780 (VA)
TOTAL LOAD: 23,980 (VA) = 67 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE NAMEPLATE PER DETAIL 1/E5.2.
3. PROVIDE GFI TYPE BREAKER.

PANEL - RP2

TYPE: 225 AMP MAIN LUGS | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	CIRCUIT DIRECTORY
GEN REC	1,400	=====	=====	20	1	1	2	20	1	800	=====	=====	GEN REC
LOUNGE REC	=====	1,200	=====	20	1	3	4	20	1	=====	1,000	=====	GEN REC
BIG ASS FAN	=====	=====	1,200	20	1	5	6	20	1	=====	=====	1,000	GEN REC
BIG ASS FAN	1,200	=====	=====	20	1	7	8	20	1	800	=====	=====	GEN REC
GAS WH-3 & TC	=====	600	=====	20	1	9	10	20	1	=====	600	=====	BAY TOILET REC
CP-2	=====	=====	600	20	1	11	12	20	1	=====	=====	800	GEN REC
SPARE		=====	=====	20	1	13	14	20	1		=====	=====	SPARE
SPARE	=====		=====	20	1	15	16	20	1	=====	1,200	=====	WASH MACH
SPARE	=====	=====		20	1	17	18	20	1	=====	=====	1,200	WASH MACH
SPARE		=====	=====	20	1	19	20	30		2,600	=====	=====	DRYER
SPARE	=====		=====	20	1	21	22		2	=====	2,600		
SPARE		=====		20	1	23	24	30			=====	2,600	DRYER
BUSSED SPACE		=====	=====	50	1	25	26		2	2,600	=====	=====	
BUSSED SPACE	=====		=====	50	1	27	28	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	29	30	50	1	=====	=====		BUSSED SPACE
BUSSED SPACE		=====	=====	50	1	31	32	50	1		=====	=====	BUSSED SPACE
BUSSED SPACE	=====		=====	50	1	33	34	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	35	36	50	1	=====	=====		BUSSED SPACE
EXTRACTOR	1,200	=====	=====	20		37	38	50	1		=====	=====	BUSSED SPACE
	=====	1,200	=====			39	40	50	1	=====		=====	BUSSED SPACE
	=====	=====	1,200		3	41	42	50	1	=====	=====		BUSSED SPACE
SUB TOTAL (VA)	3,800	3,000	3,000							6,800	5,400	5,600	SUB TOTAL (VA)

TOTAL LOAD PHASE A: 10,600 (VA)
TOTAL LOAD PHASE B: 8,400 (VA)
TOTAL LOAD PHASE C: 8,600 (VA)
TOTAL LOAD: 27,600 (VA) = 77 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE NAMEPLATE PER DETAIL 1/E5.2.
3. PROVIDE GFI TYPE BREAKER.

PANEL - KP

TYPE: 125A MAIN LUG | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	CIRCUIT DIRECTORY
HOOD LIGHTS (NOTE 4)	300	=====	=====	20	1	1	2	20	1	1,800	=====	=====	COFFEE
ISLAND REC (NOTE 4)	=====	1,200	=====	20	1	3	4	20	1	=====	1,800	=====	KIT REC
ISLAND REC	=====	=====	1,200	20	1	5	6	20	1	=====	=====	1,800	KIT REC
DISHWASHER	1,200	=====	=====	30	1	7	8	20	1	1,800	=====	=====	MICROWAVE (NOTE 3)
DISHWASHER	=====	1,200	=====	30	1	9	10	20	1	=====	1,800	=====	MICROWAVE (NOTE 3)
DISPOSAL	=====	=====	800	20	1	11	12	20	1	=====	=====	1,800	KIT REC
HOOD EF-6	1,680	=====	=====	30	1	13	14	20	1	1,800	=====	=====	KIT REC
SPARE	=====		=====	20	1	15	16	20	1	=====	1,800	=====	KIT REC
SPARE	=====	=====		20	1	17	18	20	1	=====	=====		KIT REC
MAU-1	600	=====	=====	15		19	20	20	1		=====	=====	SPARE
	=====	600	=====			21	22	20	1	=====		=====	SPARE
	=====	=====	600		3	23	24	20	1	=====	=====		SPARE
SPACE WITH BUSSING		=====	=====	50	1	25	26	50	1		=====	=====	SPACE WITH BUSSING
SPACE WITH BUSSING	=====		=====	50	1	27	28	50	1	=====		=====	SPACE WITH BUSSING
SPACE WITH BUSSING	=====	=====		50	1	29	30	50	1	=====	=====		SPACE WITH BUSSING
SPACE WITH BUSSING		=====	=====	50	1	31	32	50	1		=====	=====	SPACE WITH BUSSING
SPACE WITH BUSSING	=====		=====	50	1	33	34	50	1	=====		=====	SPACE WITH BUSSING
SPACE WITH BUSSING	=====	=====		50	1	35	36	50	1	=====	=====		SPACE WITH BUSSING
SPACE WITH BUSSING		=====	=====	50	1	37	38	50	1		=====	=====	SPACE WITH BUSSING
SPACE WITH BUSSING	=====		=====	50	1	39	40	50	1	=====		=====	SPACE WITH BUSSING
SPACE WITH BUSSING	=====	=====		50	1	41	42	50	1	=====	=====		SPACE WITH BUSSING
SUB TOTAL (VA)	3,780	3,000	2,600							5,400	5,400	3,600	SUB TOTAL (VA)

TOTAL LOAD PHASE A: 9,180 (VA)
TOTAL LOAD PHASE B: 8,400 (VA)
TOTAL LOAD PHASE C: 6,200 (VA)
TOTAL LOAD: 23,780 (VA) = 66 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE NAMEPLATE PER DETAIL 1/E5.2.
3. PROVIDE GFI TYPE BREAKER.
4. PROVIDE SHUNT TRIP BREAKER.

PANEL - DPE

TYPE: 800 AMP MAIN BREAKER | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	CIRCUIT DIRECTORY
PANEL 'RP1E'	15,200	=====	=====	225		1	2	225			=====	=====	BUSSED SPACE
	=====	=====	=====			3	4			=====	=====	=====	
	=====	=====	15,800		3	5	6		3	=====	=====		
PANEL 'LPE'	7,240	=====	=====	125		7	8	100		9,600	=====	=====	PANEL 'FP'
	=====	6,240	=====			9	10			=====	9,600	=====	
	=====	=====	7,780		3	11	12		3	=====	=====	9,600	
BUSSED SPACE		=====	=====	125		13	14	125			=====	=====	BUSSED SPACE
	=====		=====			15	16			=====		=====	
	=====	=====			3	17	18		3	=====	=====		
BUSSED SPACE		=====	=====	225		19	20	225			=====	=====	BUSSED SPACE
	=====		=====			21	22			=====		=====	
	=====	=====			3	23	24		3	=====	=====		
BUSSED SPACE		=====	=====	400		25	26	400		28,925	=====	=====	PANEL 'RP2E'
	=====		=====			27	28			=====	27,200	=====	
	=====	=====			3	29	30		3	=====	=====	27,800	
SUB TOTAL (VA)	22,440	23,040	23,580							38,525	36,800	37,400	SUB TOTAL (VA)

TOTAL LOAD PHASE A: 60,965 (VA)
TOTAL LOAD PHASE B: 59,840 (VA)
TOTAL LOAD PHASE C: 60,980 (VA)
TOTAL LOAD: 181,785 (VA) = 505 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE PANEL WITH INTERGRAL TVSS UNIT, 125K PER MODE PROTECTION.
3. PROVIDE NAMEPLATES PER DETAILS 1/E5.2.

PANEL - LPE

TYPE: 125 AMP MAIN LUGS | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	CIRCUIT DIRECTORY
TRUCK BAY LTS	1,700	=====	=====	20	1	1	2	20	1	800	=====	=====	SECURITY LIGHTS
TRUCK BAY LTS	=====	1,650	=====	20	1	3	4	20	1	=====	250	=====	BLDG LIGHTS
STOR/LAUNDRY/TLT. LTS	=====	=====	1,600	20	1	5	6	20	1	=====	=====	250	SECURITY LIGHTS
KIT/LOUNGE/VEST LTS	1,400	=====	=====	20	1	7	8	20	1	400	=====	=====	BLDG LIGHTS
OFFICER'S QTRS LTS	=====	1,340	=====	20	1	9	10	20	1	=====	200	=====	FLAGPOLE LIGHT
CORRIDOR LTS	=====	=====	1,600	20	1	11	12	20	1	=====	=====	800	SITE LIGHTS
BUNK LTS	1,050	=====	=====	20	1	13	14	20	1	960	=====	=====	SITE LIGHTS
BATH/BUNK LTS	=====	1,120	=====	20	1	15	16	20	1	=====	600	=====	IRRIGATION
MEETING LTS	=====	=====	1,730	20	1	17	18	20	1	=====	=====	1,800	BUILDING SIGNAGE
TRAINING LTS	450	=====	=====	20	1	19	20	20	1	480	=====	=====	FRONT TOWER TAPE LIGHT
TIMECLOCK	=====	600	=====	20	1	21	22	20	1	=====	500	=====	FRONT TOWER INT. LIGHTS
SPARE	=====	=====		20	1	23	24	20	1	=====	=====	480	SIDE TOWER TAPE LIGHT
SPARE		=====	=====	20	1	25	26	20	1		=====	=====	SPARE
SPARE	=====	=====	=====	20	1	27	28	20	1	=====		=====	SPARE
SPARE	=====	=====		20	1	29	30	20	1	=====	=====		SPARE
BUSSED SPACE		=====	=====	50	1	31	32	50	1		=====	=====	BUSSED SPACE
BUSSED SPACE	=====		=====	50	1	33	34	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	35	36	50	1	=====	=====		BUSSED SPACE
BUSSED SPACE		=====	=====	50	1	37	38	50	1		=====	=====	BUSSED SPACE
BUSSED SPACE	=====		=====	50	1	39	40	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	41	42	50	1	=====	=====		BUSSED SPACE
SUB TOTAL (VA)	4,600	4,710	4,930							2,640	1,550	3,330	SUB TOTAL (VA)

TOTAL LOAD PHASE A: 7,240 (VA)
TOTAL LOAD PHASE B: 6,260 (VA)
TOTAL LOAD PHASE C: 8,260 (VA)
TOTAL LOAD: 21,760 (VA) = 60 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE NAMEPLATE PER DETAIL 1/E5.2.

PANEL - RP1E

TYPE: 225 AMP MAIN LUGS | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE A	(VA) PER PHASE B	(VA) PER PHASE C	CIRCUIT DIRECTORY
FACP (NOTE 4)	600	=====	=====	20	1	1	2	30		2,800	=====	=====	UPS
SECURITY SYSTEM	=====	600	=====	20	1	3	4		2	=====	2,800	=====	
IT REC	=====	=====	600	20	1	5	6	30			=====	2,800	UPS
IT REC	600	=====	=====	20	1	7	8		2	2,800	=====	=====	
IT REC	=====	600	=====	20	1	9	10	30	1	=====	2,600	=====	UPS
IT REC	=====	=====	600	20	1	11	12	30	1	=====	=====	2,600	UPS
IT REC	600	=====	=====	20	1	13	14	20	1	1,200	=====	=====	FLOOR OUTLET
REFRIG (NOTE 5)	=====	1,800	=====	20	1	15	16	20	1	=====	1,200	=====	FLOOR OUTLET
CLASSROOM REC	=====	=====	1,200	20	1	17	18	20	1	=====	=====	1,200	FLOOR OUTLET
CLASSROOM REC	1,200	=====	=====	20	1	19	20	20	1	1,200	=====	=====	FLOOR OUTLET
CLASSROOM REC	=====	1,200	=====	20	1	21

PANEL - RP2E

TYPE: 400 AMP MAIN LUGS | AIC: 65,000 AMPERES | MOUNTED: SURFACE | VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE

CIRCUIT DIRECTORY	(VA) PER PHASE			AMP	POLE	CIRCUIT NUMBER		AMP	POLE	(VA) PER PHASE			CIRCUIT DIRECTORY
	PHASE A	PHASE B	PHASE C							PHASE A	PHASE B	PHASE C	
SECURITY SYSTEM	600	=====	=====	30		1	2	30		2,800	=====	=====	UPS
IT REC	=====	600	=====		2	3	4		2	=====	2,800	=====	
IT REC	=====	=====	600	30		5	6	30		=====	=====	2,800	UPS
IT REC	600	=====	=====		2	7	8		2	2,800	=====	=====	
COMMAND WATCH REC	=====	600	=====	30		9	10	30	1	=====	2,600	=====	UPS
COMMAND WATCH REC	=====	=====	600		2	11	12	30	1	=====	=====	2,600	UPS
COMMAND WATCH REC	600	=====	=====	20	1	13	14	20	1		=====	=====	SPARE
FREEZER (NOTE 3)	=====	600	=====	20	1	15	16	20	1	=====	600	=====	CONTROL PANEL
FREEZER (NOTE 3)	=====	=====	600	20	1	17	18	20	1	=====	=====	600	CONTROL PANEL
REFRIG (NOTE 3)	600	=====	=====	20	1	19	20	30		2,800	=====	=====	OVERHEAD DOOR
FREEZER (NOTE 3)	=====	600	=====	20	1	21	22		2	=====	2,800	=====	
FREEZER (NOTE 3)	=====	=====	600	20	1	23	24	30		=====	=====	2,800	OVERHEAD DOOR
ICE MACH	1,525	=====	=====	20	1	25	26		2	2,800	=====	=====	
CORD REEL	=====	1,200	=====	20	1	27	28	30		=====	2,800	=====	OVERHEAD DOOR
CORD REEL	=====	=====	1,200	20	1	29	30		2	=====	=====	2,800	
CORD REEL	1,200	=====	=====	20	1	31	32	30		2,800	=====	=====	OVERHEAD DOOR
CORD REEL	=====	1,200	=====	20	1	33	34		2	=====	2,800	=====	
CORD REEL	=====	=====	1,200	20	1	35	36	30		=====	=====	2,800	OVERHEAD DOOR
CORD REEL	1,200	=====	=====	20	1	37	38		2	2,800	=====	=====	
SPARE	=====		=====	20	1	39	40	30		=====	2,800	=====	OVERHEAD DOOR
INTERCOM SYSTEM	=====	=====	600	20	1	41	42		2	=====	=====	2,800	
COMPRESSOR	5,800	=====	=====	90		43	44	20	1		=====	=====	SPARE
	=====	5,800	=====			45	46	20	1	=====		=====	SPARE
	=====	=====	5,800		3	47	48	20	1	=====	=====		SPARE
MEDIC OFF REC	1,200	=====	=====	20	1	49	50	20	1		=====	=====	SPARE
MEDIC OFF REC	=====	1,200	=====	20	1	51	52	20	1	=====		=====	SPARE
MEDIC OFF REC	=====	=====	1,200	20	1	53	54	20	1	=====	=====		SPARE
MEDIC OFF REC	1,200	=====	=====	20	1	55	56	20	1		=====	=====	SPARE
MEDIC OFF REC	=====	1,200	=====	20	1	57	58	20	1	=====		=====	SPARE
SUPP OFF REC	=====	=====	1,200	20	1	59	60	20	1	=====	=====		SPARE
SUPP OFF REC	1,200	=====	=====	50	1	61	62	50	1		=====	=====	BUSSED SPACE
SUPP OFF REC	=====	1,200	=====	50	1	63	64	50	1	=====		=====	BUSSED SPACE
SUPP OFF REC	=====	=====	1,200	50	1	65	66	50	1	=====	=====		BUSSED SPACE
BUNK REC	600	=====	=====	50	1	67	68	50	1		=====	=====	BUSSED SPACE
BATH REC	=====	1,200	=====	50	1	69	70	50	1	=====		=====	BUSSED SPACE
BUNK REC	=====	=====	600	50	1	71	72	50	1	=====	=====		BUSSED SPACE
BUNK REC	600	=====	=====	50	1	73	74	50	1		=====	=====	BUSSED SPACE
BATH REC	=====	1,200	=====	50	1	75	76	50	1	=====		=====	BUSSED SPACE
BATH REC	=====	=====	1,200	50	1	77	78	50	1	=====	=====		BUSSED SPACE
BUSSED SPACE		=====	=====	50	1	79	80	50	1		=====	=====	BUSSED SPACE
BUSSED SPACE	=====		=====	50	1	81	82	50	1	=====		=====	BUSSED SPACE
BUSSED SPACE	=====	=====		50	1	83	84	50	1	=====	=====		BUSSED SPACE
SUB TOTAL (VA)	16,925	16,600	16,600							16,800	17,200	17,200	SUB TOTAL (VA)

TOTAL LOAD PHASE A:	33,725	(VA)	
TOTAL LOAD PHASE B:	33,800	(VA)	
TOTAL LOAD PHASE C:	33,800	(VA)	
TOTAL LOAD:	101,325	(VA) =	281 AMPS

NOTES:
1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.
2. PROVIDE NAMEPLATE PER DETAIL 1/E5.2.
3. PROVIDE GFI TYPE BREAKER.

PANELBOARD NOTES:

1. PANELBOARDS SHALL BE INSTALLED AND ALL CLEARANCES MAINTAINED IN ACCORDANCE WITH THE NEC.
2. ALL PANELBOARDS SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH THAT LISTING.
3. PANELBOARDS SHALL BE FURNISHED COMPLETE WITH THE PROPERLY SIZED ENCLOSURE, INTERNAL HARDWARE, COMPONENTS, SUPPORTING STRUCTURES, ETC., FOR A COMPLETE INSTALLATION.
4. FURNISH EACH PANELBOARD WITH A GROUND BAR BONDED TO THE PANEL ENCLOSURE.
5. THE TERMINATION POINT OF THE FEEDER SERVING EACH ASSEMBLY SHALL BE AT THE NEAREST POINT OF FEEDER ENTRY INTO THE PANEL, SO AS TO MINIMIZE CONDUCTOR FILL IN THE ENCLOSURE. COORDINATE TOP/BOTTOM FEED PANELBOARD PROVISIONS WITH EACH FEEDER INSTALLATION.
6. PROVIDE THE PROPER SIZE AND QUANTITY OF CONDUCTOR TERMINATION POINTS OR LUGS (MULTIPLE LUGS WHEN PARALLEL FEEDERS ARE USED) ON BUSES AND CIRCUIT BREAKERS FOR THE RESPECTIVE SIZE AND NUMBER OF CONDUCTORS INDICATED.
7. ALL FLUSH-MOUNTED PANELBOARDS SHALL BE PROVIDED WITH AT LEAST SIX (6) 3/4" SPARE CONDUITS STUBBED TO ABOVE THE NEAREST ACCESSIBLE CEILING.
8. PANELBOARDS SHALL BE FULLY RATED EXCEPT WHERE GFI BREAKERS ARE REQUIRED IN PANELS RATED OVER 22kAIC.
9. ALL PANELBOARDS SHALL BE CLEARLY MARKED TO COMPLY WITH NEC ARTICLE 110.16 WITH REGARD TO POTENTIAL HAZARDS OF ARC FLASH.
10. ALL PANELBOARDS SHALL BE "DOOR-IN-DOOR" OR "HINGED-FRONT-TRIM" CONSTRUCTION.
11. COMPLY WITH NEC ARTICLE 408.4. PROVIDE A TYPED CIRCUIT DIRECTORY THAT INDICATES WHAT EACH CIRCUIT IS SERVING. FOR LIGHTING AND RECEPTACLE CIRCUITS, INCLUDE THE ROOM NUMBER IN THE CIRCUIT DESCRIPTION ON THE DIRECTORY.
12. EACH PANELBOARD SHALL HAVE A NAMEPLATE AS SHOWN IN DETAIL 1 ON THIS SHEET. ENGINEER WILL NOT PROVIDE FINAL ACCEPTANCE UNTIL THESE NAMEPLATES ARE PROVIDED.
13. MANUFACTURER THAT WILL BE PROVIDING PANELBOARDS ON THIS PROJECT SHALL BE RESPONSIBLE FOR PERFORMING A SHORT CIRCUIT ANALYSIS AND TIME-CURRENT COORDINATION (TCC) STUDY, WHICH DEMONSTRATES THAT THE UPSTREAM OVERCURRENT PROTECTIVE DEVICE NEAREST TO THE FAULT LOCATION WILL OPERATE BEFORE OVERCURRENT PROTECTIVE DEVICES WHICH ARE FURTHER UPSTREAM (I.E. SELECTIVE COORDINATION). INCLUDE COORDINATION STUDY IN THE SHOP DRAWING PACKAGE FOR THE PANELBOARDS FOR REVIEW BY THE ENGINEER OF RECORD. AIC RATINGS MAY BE LOWERED BASED ON STUDY.
14. "POWER EQUIPMENT MANUFACTURERS BIDDING THIS PROJECT SHALL INCLUDE IN THEIR BASE BID PRICE ANY AND ALL EXPEDITED CHARGES AS REQUIRED TO SHIP SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, AND DISCONNECTS TO JOB SITE AS REQUIRED TO MEET PROJECT SCHEDULE. CONTRACTOR AND SUPPLIER SHALL SET THIS TIME PRIOR TO BID ACCORDING PUBLISHED SCHEDULE IN BID DOCUMENTS.

EQUIPMENT NOTE:

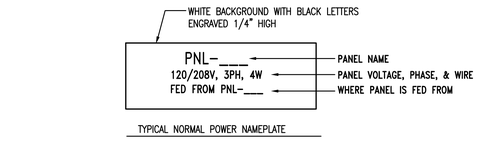
POWER EQUIPMENT MANUFACTURERS BIDDING THIS PROJECT SHALL INCLUDE IN THEIR BASE BID PRICE ANY AND ALL EXPEDITED CHARGES AS REQUIRED TO SHIP SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, AND DISCONNECTS TO JOB SITE AS REQUIRED TO MEET PROJECT SCHEDULE. CONTRACTOR AND SUPPLIER SHALL SET THIS TIME PRIOR TO BID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

POWER RISER DIAGRAM GENERAL 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. SEE POWER PLAN ON SHEET E3.1 FOR INTERIOR ELECTRICAL EQUIPMENT LAYOUT.
4. SEAL ALL CONDUITS FROM THE EXTERIOR WITH A SEALING COMPOUND, ONCE ALL CABLING HAS BEEN INSTALLED. SEE DETAIL 4 ON THIS SHEET.
5. ELECTRICAL CONTRACTOR IS TO PROVIDE ALL MATERIAL AND LABOR TO INSTALL ELECTRICAL EQUIPMENT AS SHOWN.
6. EMERGENCY SYSTEM WIRING SHALL BE IN COMPLIANCE WITH NEC 2011 ARTICLE 700.10.

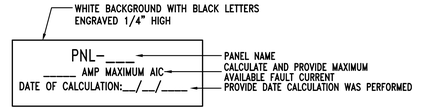
POWER RISER SHEET NOTES:

1. AUTOMATIC TRANSFER SWITCH FOR PANEL 'SE', 208Y/120V, 800A, 4P, 65K AIC, NEMA 3R, SWITCHED NEUTRAL, S.E. RATED. PROVIDE GENERATOR CIRCUIT BREAKER WITH LOCK-OUT PROVISION.
2. 3/4"C TO REMOTE ANNUNCIATOR.
3. PROVIDE FOUR (4) PARALLEL RUNS OF 4#600KCMIL, 4"C. MIN. BURIAL DEPTH OF 36" BELOW GRADE.
4. EMERGENCY MANUAL GENERATOR STOP BUTTON. PROVIDE 3/4"GRC AND WIRING AS REQUIRED PER GENERATOR MANUFACTURER'S REQUIREMENTS. COORDINATE EXACT LOCATION WITH LOCAL FIRE MARSHAL PRIOR TO ROUGHING-IN. PROVIDE SEAL-OFF FITTING AT THIS LOCATION AND AT LOCATION WHERE CONTROLS AND ANNUNCIATOR PANEL ENTER BUILDING AND GENERATOR ENCLOSURE.
5. PROVIDE TWO (2) PARALLEL RUNS OF 5" SCHEDULE 40 PVC CONDUITS WITH PULL WIRE FROM PROPERTY LINE TO PAD-MOUNTED TRANSFORMER PAD. COORDINATE WITH LOCAL UTILITY CO. FOR EXACT ROUTING AND TERMINATION POINT OF PRIMARY CONDUITS PRIOR TO BID. 48" MIN BURIAL DEPTH.
6. PROVIDE TWO (2) PARALLEL RUNS OF 4#3/0, 1#6G., 2 1/2"C.
7. PROVIDE 4#4/0, 1#4 GRD., 2 1/2"C.
8. PROVIDE 4#1, 1#8 GRD., 2"C.
9. PROVIDE 4#1/0, 1#8 GRD., 2"C. MIN. BURIAL DEPTH OF 36" BELOW GRADE.
10. PROVIDE THREE (3) PARALLEL RUNS OF 4#300KCMIL, 1#2/0G., 3 1/2"C.
11. PROVIDE THREE (3) PARALLEL RUNS OF 4#300KCMIL, 1#2/0G., 3 1/2"C. MIN. BURIAL DEPTH OF 36" BELOW GRADE.
12. PROVIDE TWO (2) PARALLEL RUNS OF 4#350KCMIL, 1#1G., 3 1/2"C.
13. PROVIDE SHUNT TRIP SWITCH ON EXTERIOR OF THE BUILDING. SWITCH SHALL BE RED MUSHROOM TYPE WITH MOMENTARY CONTACTS TO KILL POWER TO THE MAIN SHUNT TRIP CIRCUIT BREAKER IN SWITCHBOARD 'MSB'. LABEL SWITCH "EMERGENCY POWER OFF" IN RED BACKGROUND WITH 1" WHITE LETTERS. PROVIDE SWITCH IN HOUSING WITH WEATHPROOF BREAKGLASS COVER. PROVIDE INTERCONNECTING WIRING IN CONDUIT TO THE SHUNT TRIP CIRCUIT BREAKER IN PANEL.
14. PROVIDE SHUNT TRIP SWITCH ON EXTERIOR OF THE BUILDING. SWITCH SHALL BE RED MUSHROOM TYPE WITH MOMENTARY CONTACTS TO KILL POWER TO THE MAIN SHUNT TRIP CIRCUIT BREAKER IN PANELBOARD 'FP'. LABEL SWITCH "EMERGENCY POWER OFF" IN RED BACKGROUND WITH 1" WHITE LETTERS. PROVIDE SWITCH IN HOUSING WITH WEATHPROOF BREAKGLASS COVER. PROVIDE INTERCONNECTING WIRING IN CONDUIT TO THE SHUNT TRIP CIRCUIT BREAKER IN PANEL. VERIFY LOCATION WITH OWNER PRIOR TO BID.



TYPICAL NORMAL POWER NAMEPLATE

1 E5.2 DETAIL - TYPICAL PANELBOARD NAMEPLATE
NO SCALE



TYPICAL SERVICE ENTRANCE FAULT CURRENT NAMEPLATE

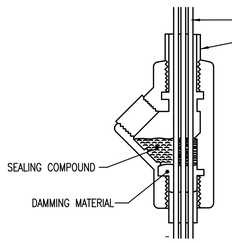
NOTES:
1. CONTRACTOR SHALL CALCULATE AND PROVIDE NAMEPLATE ON THE SERVICE ENTRANCE EQUIPMENT THAT INDICATES THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE CALCUALTION WAS PERFORMED. SEE NAMEPLATE REQUIREMENTS BELOW.

2 E5.2 DETAIL - SERVICE ENTRANCE FAULT CURRENT NAMEPLATE
NO SCALE

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

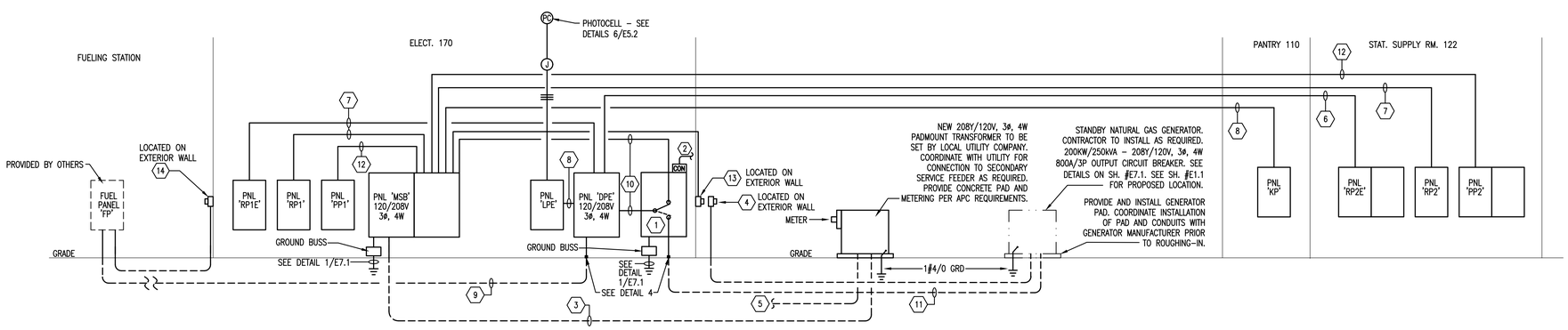
EQUIPMENT TYPE	HEIGHT	WIDTH
INDOOR	4"	6"
OUTDOOR	4"	6"

3 E5.2 ARC FLASH WARNING LABELS
NO SCALE



NOTES:
1. SEALING COMPOUND MUST HAVE A MINIMUM THICKNESS OF NOT LESS THAN THE TRADE SIZE OF CONDUIT IN WHICH IT IS INSTALLED AND IN NO CASE LESS THAN 5/8"(15.875mm).
2. SEALING FITTING AND COMPOUND SHALL BE FURNISHED AS ONE PACKAGE FROM ONE MANUFACTURER WITH A COMPLETE SET OF INSTRUCTIONS.
3. VERTICAL FITTING SHOWN. HORIZONTAL, TEE, ELBOW AND OTHER FITTINGS ARE SIMILAR IN DESIGN.

4 E5.2 DETAIL - TYPICAL SEALING FITTING INSTALLATION
NO SCALE



5 E5.2 POWER RISER DIAGRAM
NO SCALE

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NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS

No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

Drawing Title:

PANELBOARD SCHEDULES , NOTES, & DETAILS

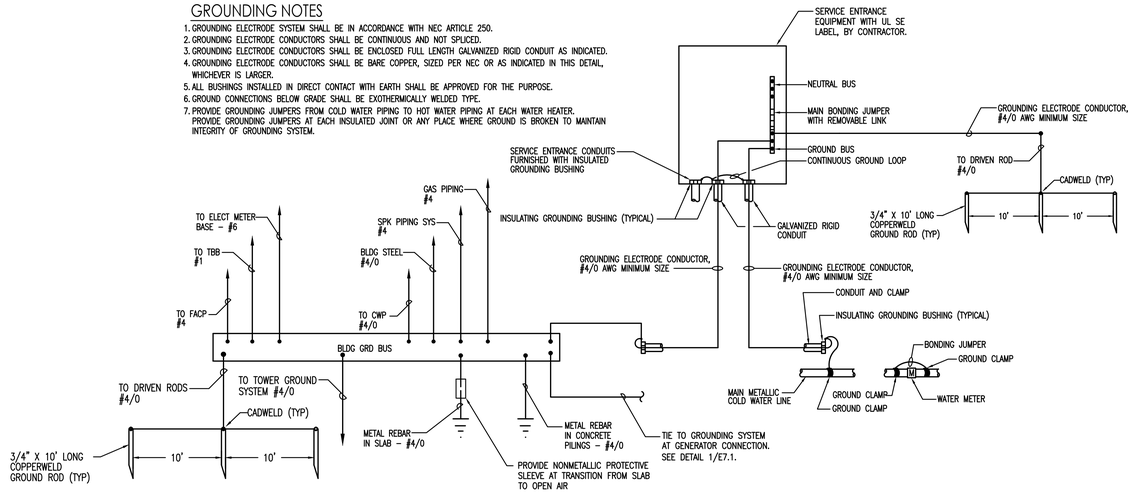
Sheet No:

E5.2

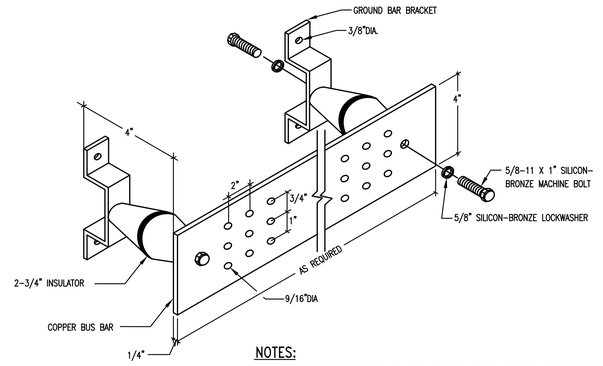
CONFORMANCE DRAWINGS

GROUNDING NOTES

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



2 E6.1 DETAIL - SERVICE ENTRANCE GROUNDING INSTALLATION
NO SCALE



NOTES:

1. ALL GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH THE NEC 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. 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.
4. LENGTH OF BUS BAR SHALL BE AS REQUIRED BY NUMBER OF CONDUCTOR CONNECTIONS PLUS 25% SPARE CAPACITY SPACE OR AS SPECIFIED OTHERWISE.
5. BUS BARS OVER 20" IN LENGTH REQUIRE AT LEAST ONE ADDITIONAL 2-3/4" INSULATOR SUPPORT OR AS SPECIFIED. BUS BARS OVER 152mm WIDE OR MORE REQUIRE INSULATORS AT ALL FOUR CORNERS OR AS REQUIRED.
6. PROVIDE THIS GROUND BUS DIRECTLY BEHIND THE COMPUTER RACK AND PROVIDE GROUND CABLING PER DETAIL 4/E3.3.

2 E6.1 DETAIL - TYPICAL GROUND BUS INSTALLATION
NO SCALE

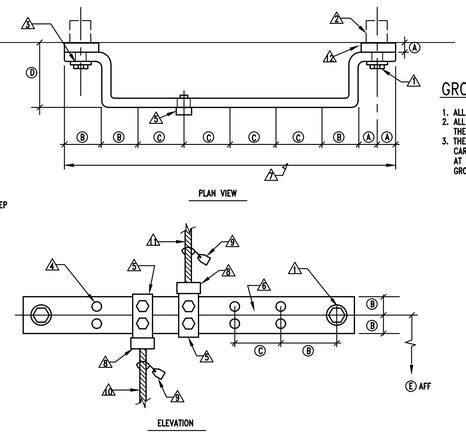
DIMENSION BLOCK		
REF	ENGLISH	SI
A	1"	25.4mm
B	2"	50.8mm
C	2 1/2"	63.5mm
D	3"	76.2mm
E	1'-6"	.4572m

GROUND BUS NOTES

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

KEYED NOTES

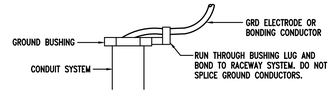
1. 1/2" (12.7mm) X 1 1/2" (38.1mm) SILICON-BRONZE MACHINE BOLT & SILICON-BRONZE WASHER
2. 1/2" (12.7mm) EXPANSION ANCHOR
3. 9/16"ø (14.2875mm) HOLE IN BAR
4. DRILLED DOUBLE CONNECTOR HOLES
5. FLAT, TWO-HOLE CU CABLE CONNECTOR #6 TO #2 (DOUBLE LUGS) #1 TO #4/0 (SINGLE LUGS ONLY)
6. 4" (101.6mm) WIDE,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



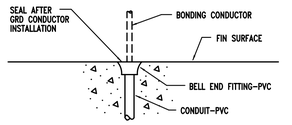
3 E6.1 DETAIL - TYPICAL GROUND BUS INSTALLATION
NO SCALE

GROUNDING AND BONDING INSTALLATION NOTES

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



SURFACE MOUNTED



THROUGH CONCRETE

NOTES

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

4 E6.1 DETAIL - TYPICAL GROUND CONDUCTOR IN CONDUIT SYSTEM
NO SCALE

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ALABAMA REGISTERED Kenneth Ray Gunn Jr. NO. 26988 PROFESSIONAL ENGINEER 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

Drawing Title:

ELECTRICAL GROUNDING DETAILS

Sheet No:

E6.1

CONFORMANCE DRAWINGS

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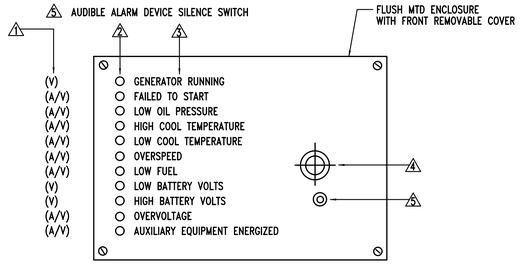
Consulting Engineers
3102 Highway 14
Millbrook, AL 36054
Tel: 334.285.1273
500 Southland Drive Suite 250
Hoover, AL 35226
GA#21-298

STANDBY GENERATOR SYSTEM NOTES

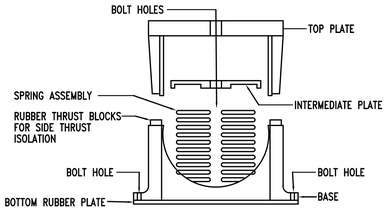
1. STANDBY GENERATOR SYSTEM SHALL CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING:
   a. GENERATOR SETS
   b. NATURAL GAS PIPING SYSTEM FOR GENERATOR
   c. POWER SYSTEM
   d. AUTOMATIC TRANSFER SYSTEM
   e. CONTROLS
   f. STARTING SYSTEM
   g. COOLING SYSTEM
   h. EXHAUST SYSTEM
   i. LUBRICATION SYSTEM
2. INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), NEMA, NESC AND NATIONAL FIRE PROTECTION AGENCY (NFPA).
3. ALL CONDUCTIVE PARTS OF EQUIPMENT, ENCLOSURES, FRAMES, ETC., SHALL BE GROUNDED.
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. WIRING SYSTEMS SHALL BE IN ACCORDANCE WITH NEC AND THE FOLLOWING:
   a. SEE SINGLE LINE DIAGRAM FOR POWER SYSTEM REQUIREMENTS.
   b. CONTROL WIRING SHALL BE INSTALLED IN CONDUITS INDICATED. WIRING TO BE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS FOR THE EQUIPMENT SPECIFIED. COORDINATE WITH SHOP DRAWINGS.
   c. PROVIDE FLEXIBLE CONDUIT CONNECTIONS TO THE GENERATOR SET.

GENERATOR ANNUNCIATOR KEY NOTES

1. COLUMN SHOWN INDICATES TYPE OF MALFUNCTION SIGNAL AT THE REMOTE PANEL (V – VISUAL, A/V – AUDIBLE AND VISUAL).
2. LED LAMP INDICATORS
3. LAMP LEGEND
4. AUDIBLE ALARM DEVICE
5. AUDIBLE ALARM DEVICE SILENCE SWITCH



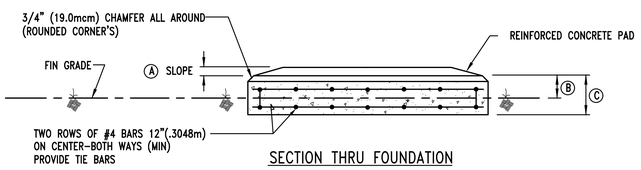
3 / E7.1 DETAIL - REMOTE GENERATOR ANNUNCIATOR PANEL "GA"
NO SCALE



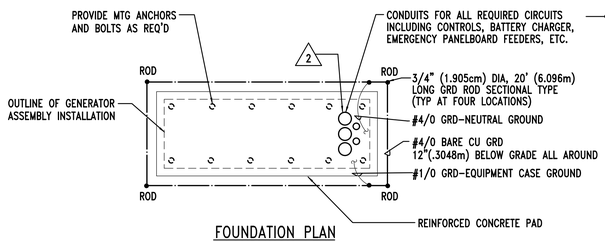
4 / E7.1 DETAIL - TYPICAL VIBRATION ISOLATOR
NO SCALE

GENERATOR KEYED NOTES

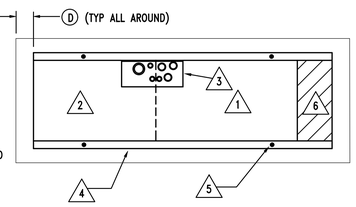
1. RAIN CAP
2. CONDUIT STUB-UPS, SEAL-OFF FITTINGS AND CONVERSIONS TO WEATHERPROOF FLEXIBLE CONNECTIONS TO ELECTRICAL APPARATUS. SEE DETAIL 3 THIS SHEET.
3. VARIOUS CONNECTIONS PER MANUFACTURER'S REQUIREMENTS AND APPLICABLE CODES, INCLUDING NORMAL AND EMERGENCY VENTS AND FUEL LEVEL GAUGE.
4. STEEL RAILS
5. HOLES FOR MOUNTING GENERATOR SKIDS
6. ELECTRICAL STUB-UP AREA. INSTALL EP SEAL-OFF FITTING IN EACH CONDUIT ENTERING THIS SPACE.
7. ELECTRICAL EQUIPMENT (CIRCUIT BREAKER, CONTROL PANEL, ETC.)
8. GENERATOR
9. FLEXIBLE EXHAUST SYSTEM
10. EXHAUST CRITICAL SILENCER
11. NATURAL GAS SYSTEM
12. FAN AND RADIATOR ASSEMBLY



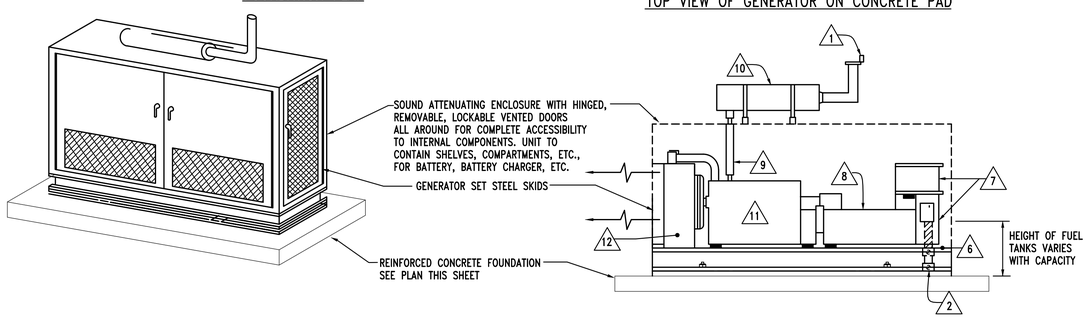
SECTION THRU FOUNDATION



FOUNDATION PLAN



TOP VIEW OF GENERATOR ON CONCRETE PAD

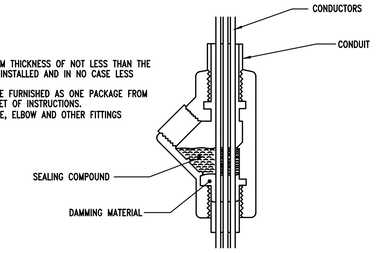


TYPICAL PERSPECTIVE

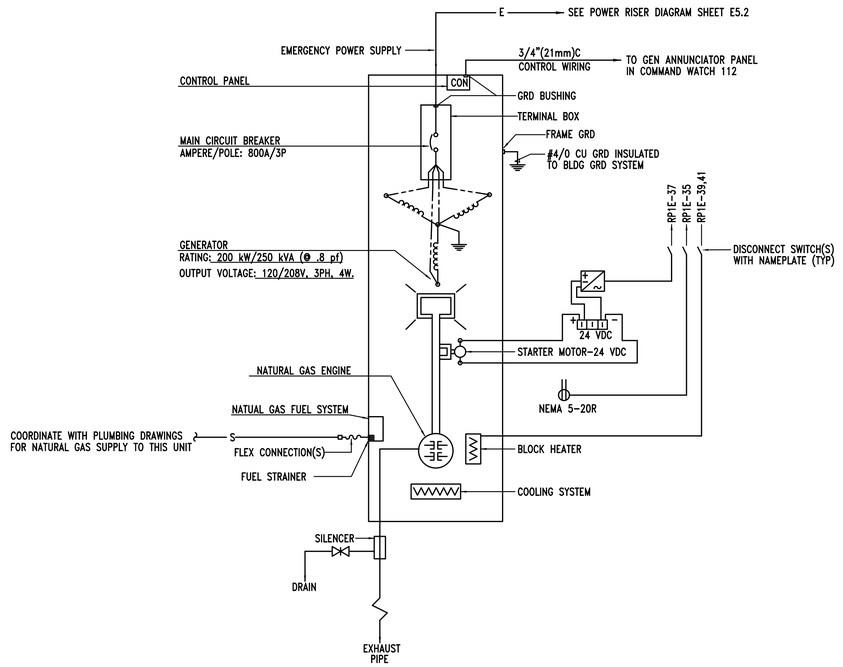
SIDE VIEW – GENERATOR SET INSTALLED ON CONCRETE PAD

1 / E7.1 GENERATOR DETAILS AND ELEVATIONS - TYPICAL GENERATOR SET
NO SCALE

NOTES:
1. SEALING COMPOUND MUST HAVE A MINIMUM THICKNESS OF NOT LESS THAN THE TRADE SIZE OF CONDUIT IN WHICH IT IS INSTALLED AND IN NO CASE LESS THAN 5/8"(15.875mm).
2. SEALING FITTING AND COMPOUND SHALL BE FURNISHED AS ONE PACKAGE FROM ONE MANUFACTURER WITH A COMPLETE SET OF INSTRUCTIONS.
3. VERTICAL FITTING SHOWN. HORIZONTAL, TEE, ELBOW AND OTHER FITTINGS ARE SIMILAR IN DESIGN.



3 / E7.2 DETAIL - TYPICAL SEALING FITTING INSTALLATION
NOT TO SCALE



2 / E7.1 DETAIL - GENERATOR SCHEMATIC
NO SCALE

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ALABAMA REGISTERED Kenneth Ray Gunn Jr. NO. 26988 PROFESSIONAL ENGINEER 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	ADDENDUM #4	03/10/23
3	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

Drawing Title:

GENERATOR DETAILS

Sheet No:

E7.1

CONFORMANCE DRAWINGS

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3102 Highway 14
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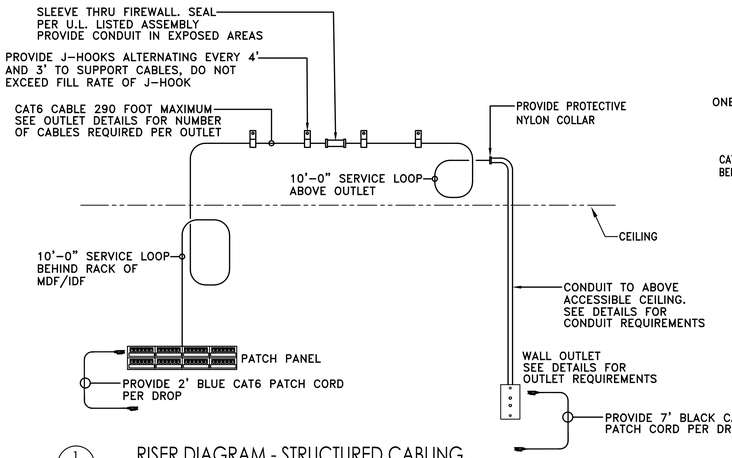
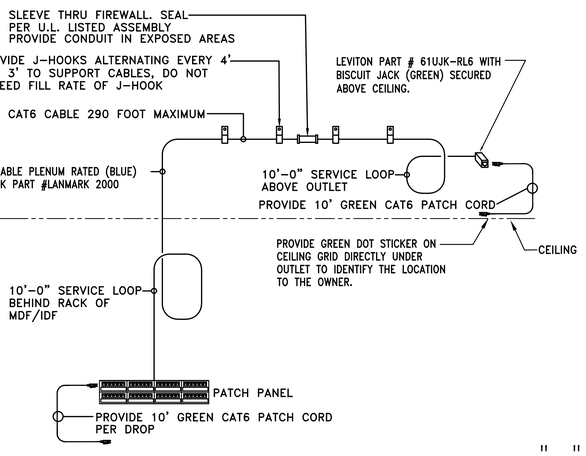
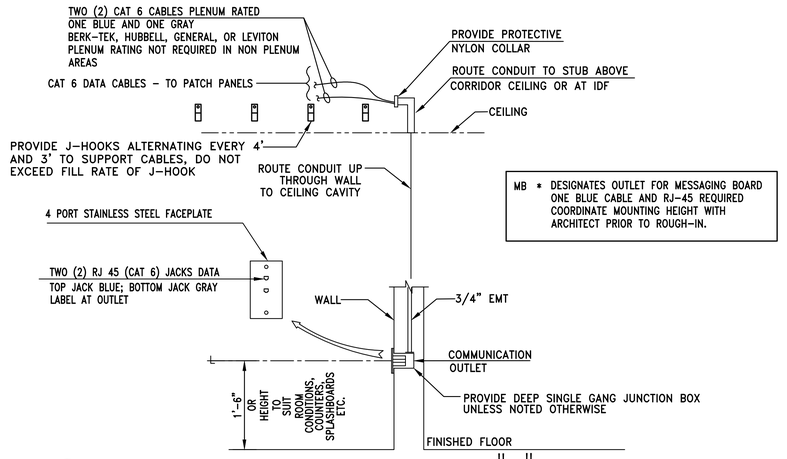
GA#21-298



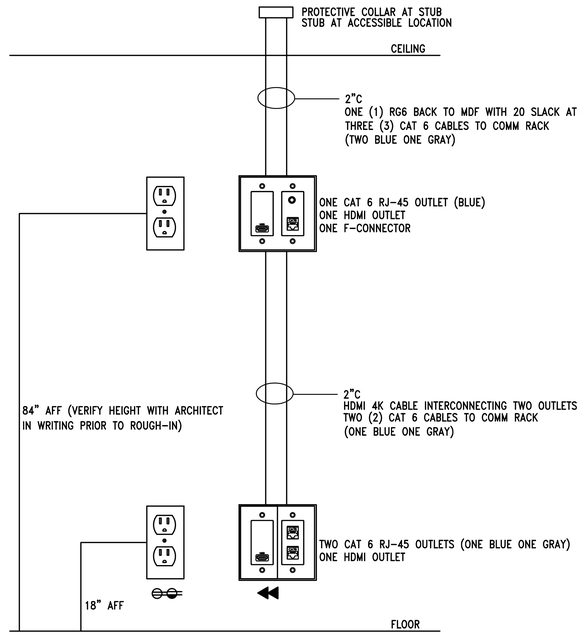
1 E8.1 RISER DIAGRAM - STRUCTURED CABLING
NO SCALE



2 E8.1 DETAIL - TYPICAL WIRELESS ACCESS POINT OUTLET
NO SCALE



3 E8.1 DETAIL - TYPICAL COMMUNICATIONS OUTLET
NO SCALE



4 E8.1 DETAIL - TYPICAL COMMUNICATIONS OUTLET
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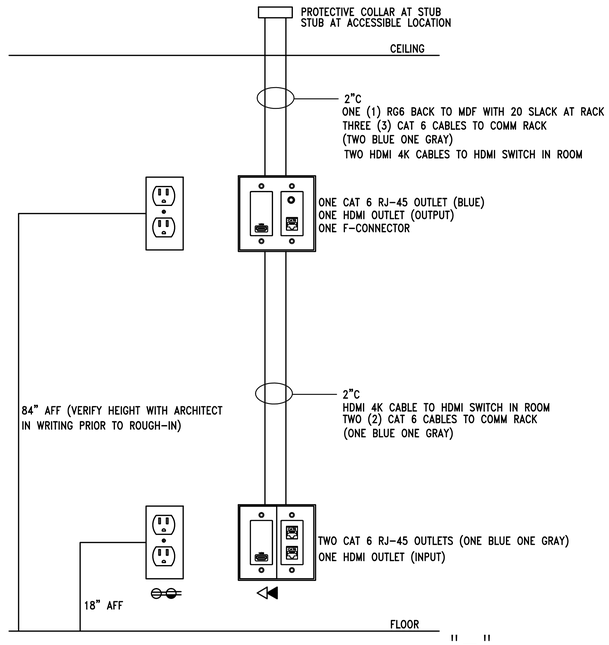
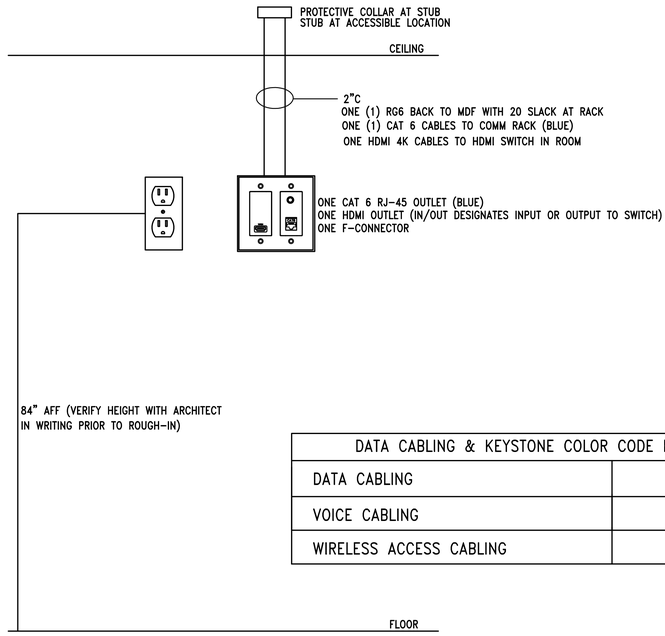
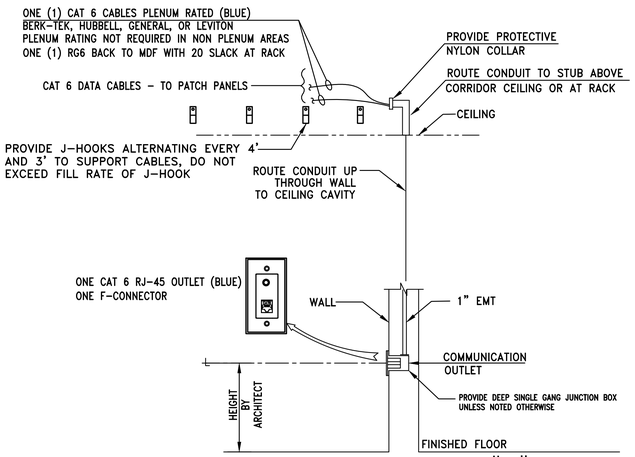


5 E8.1 DETAIL - TYPICAL COMMUNICATIONS OUTLET
NO SCALE



6 E8.1 DETAIL - TYPICAL COMMUNICATIONS OUTLET
NO SCALE

DATA CABLING & KEYSTONE COLOR CODE REQUIREMENT	
DATA CABLING	BLUE
VOICE CABLING	GRAY
WIRELESS ACCESS CABLING	GREEN



7 E8.1 DETAIL - TYPICAL COMMUNICATIONS OUTLET
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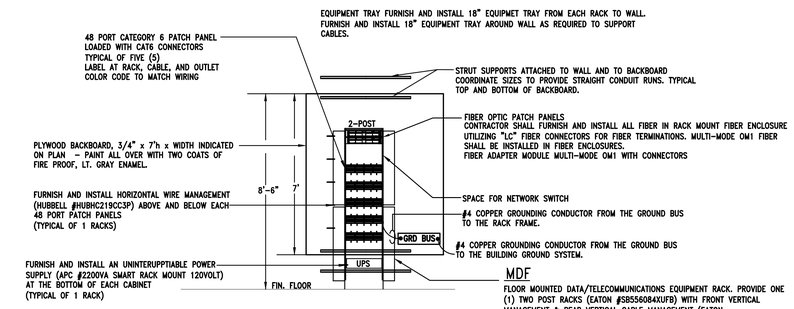
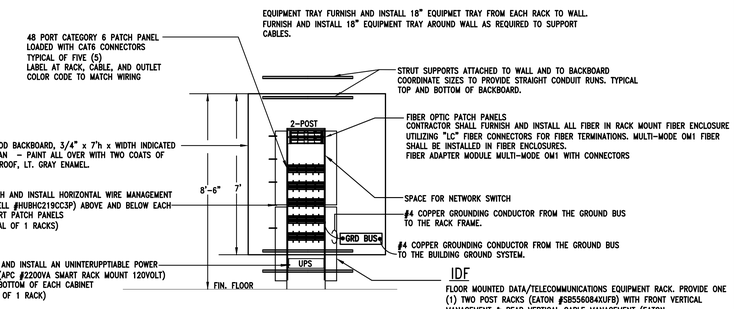


8 E8.1 MDF COMMUNICATIONS RACK ELEVATION
NO SCALE



9 E8.1 IDF COMMUNICATIONS RACK ELEVATION
NO SCALE

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ALABAMA REGISTERED No. 26988 PROFESSIONAL ENGINEER KENNETH RAY GUNN JR. 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

Drawing Title:

ELECTRICAL COMMUNICATION DETAILS

Sheet No:

E8.1

CONFORMANCE DRAWINGS

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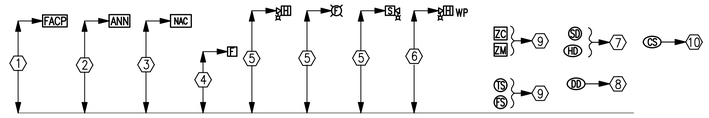
Tel: 334.285.1273
500 Southland Drive Suite 250
Hoover, AL 35226
GA#21-298

FIRE ALARM SYSTEM NOTES:

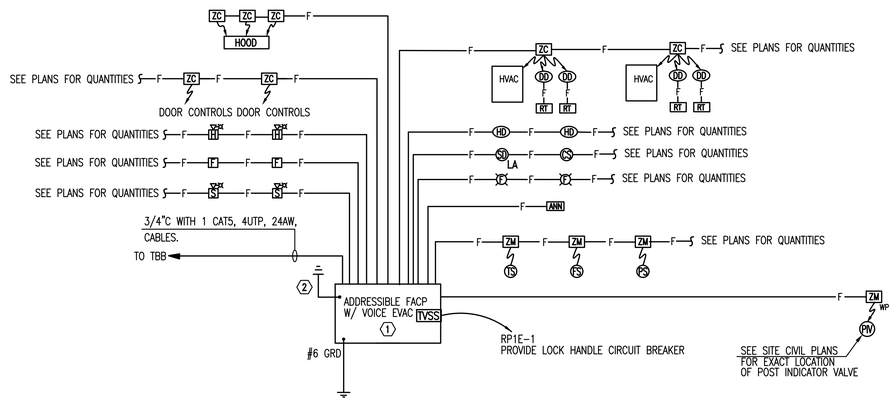
1. THE FIRE ALARM SYSTEM SHALL BE A COMPLETE SUPERVISED DETECTION AND ALARM SYSTEM. PROVIDE PRIMARY POWER CIRCUITS AND ALARM NOTIFICATION AND INITIATING CIRCUITS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
2. INSTALLATION SHALL COMPLY WITH THE ADA, NEC, NFPA, AND UL.
3. ALL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

FIRE ALARM MOUNTING HEIGHTS/INSTRUCTIONS NOTES:

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



2 / E9.1 STANDARD MOUNTING HEIGHTS/INSTRUCTIONS
NO SCALE



1 / E9.1 FIRE ALARM RISER DIAGRAM
NO SCALE

FIRE ALARM RISER DIAGRAM SHEET NOTES:

1. 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.
2. COORDINATE WITH CITY OF MONTGOMERY FIRE DEPARTMENT AND PROVIDE THE PROPER MONITORING DEVICE IN FACP REQUIRED BY THEM FOR MONITORING OF THE FIRE ALARM SYSTEM.

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ALABAMA REGISTERED NO. 26988 PROFESSIONAL ENGINEER KENNETH RAY GUNN, JR. 5-17-23

NEW FIRE STATION NO. 10
FOR
THE CITY OF MONTGOMERY
SOUTH COURT STREET MONTGOMERY, ALABAMA 36104

REVISIONS		
No.	Description	Date
0	ISSUED FOR REVIEW	01/16/23
1	ISSUED FOR BID	02/03/23
2	CONFORMANCE	05/17/23

MGM Project No.	SP-5-21
BDW Project No.	2021-118
Drawn By:	
Date:	11-15-2022
Scale:	AS NOTED

Drawing Title:

FIRE ALARM RISER & DETAILS

Sheet No:

E9.1

CONFORMANCE DRAWINGS

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