SS&L
www.sslarch.com / Seay Seay & Litchfield, P.C. / 334.263.5162
architecture . interiors . planning . graphics

Date: **9 January 2023**

To: **Major Jeff Farmer**

Subject: **ADDENDUM NO. 2**

David Donovan

Digitally signed by David Donovan
DN: cn=David Donovan, o=SS&L, ou=SS&L, email=ddonovan@sslarch.com, c=US
Date: 2023.01.13 10:38:42 -06'00'

Project: **A NEW SECURITY & SERVICES TRAINING FACILITY**

Job #: **ANG# BRKR009063 / SSL# 12072**

From: **David Donovan**

The plans and Specifications for the New Security & Services Training Facility, dated March 2022 are amended as follows. (Where there are conflicts between the plans and specifications and the addendum, this addendum shall govern).

Item No. 1: Delete paragraph 2.01 (A) of specification section 22 0513.13 – Commercial Showers and replace it with the below:

A. Individual Tiled Showers:
   1. Type SH-1: Center Drain Terrazzo Shower Base with the following characteristics:
      a. Terrazzo shower base with 1¼" flanges on three sides for recess installation in dimensions indicated on the drawings.
      b. Base will be manufactured of tan and white marble chips cast in white Portland cement to produce a compressive strength of not less than 3,000 PSI, seven days after casting.
      c. Terrazzo surface will be ground, polished, and the entire unit sealed to resist stains and moisture after any air holes and/or pits are grouted.
      d. Base will be reinforced with 16-gauge wire.
      e. Shoulder will be not less than 2½" inside
      f. Integrally cast flange to be galvanized-bonderized steel and extend not less than one inch (1") above shoulder on three sides for installation.
      g. Drain body will be brass, cast integral, and will provide for a non-caulked connection not less than one inch deep to a two-inch pipe. Provide removable type stainless steel strainer plate.
   2. Type SH-1A: Fully Accessible Center Drain Terrazzo Shower Base with the following characteristics:
      a. Terrazzo shower base with 1¼" flanges on three sides for recess installation.

b. Provide base in dimensions required to meet all ADA standards for accessible shower enclosures with consideration of installation of wall substrate, wall tile, waterproofing systems indicated on the drawings, and shower shoulder dimensions.
c. Provide barrier free compliant threshold on entrance side of shower base.
d. Integrally cast flange to be galvanized-bonderized steel and extend not less than one inch (1") above shoulder on three sides for installation.
e. Drain body will be brass, cast integral, and will provide for a non-caulked connection not less than one inch deep to a two-inch pipe. Provide removable type stainless steel strainer plate.
f. Base will be manufactured of tan and white marble chips cast in white Portland cement to produce a compressive strength of not less than 3,000 PSI, seven days after casting.
g. Terrazzo surface will be ground, polished, and the entire unit sealed to resist stains and moisture after any air holes and/or pits are grouted.
h. Base will be reinforced with 16-gauge wire.

Item No. 2: Refer to specifications. Delete the following specification sections and replace them with the attached specification sections with a revised date of 9 January 2023. Revisions have been noted with strikethroughs for delete requirements and bold italicized text for new requirements.

1. 01 2300 – Bid Options
2. 05 3100 – Steel Decking
3. 10 2800 – Toilet Bath & Laundry Accessories

Item No. 3: Refer to specifications. Add the attached, and below listed, specification sections to the project manual.

1. 32 3113 Chain Link Fencing
2. 32 3313 – Site Bicycle Racks

Item No. 4: Refer to civil drawings. Delete the following drawing sheets and replace them with the attached drawing sheets with a revised date of 10 January 2023. Revisions are noted with revision cloud.

1. C2.1 Site Demolition Plan (Base Bid)
2. C2.1A – Site Demolition Plan (Bid Option)
3. C3.1 – Site Layout Plan (Base Bid)
4. C3.1A – Site Layout Plan (Bid Option)
5. C4.1 – Site Grading and Drainage Plan (Base Bid)
6. C4.1A – Site Grading and Drainage Plan (Bid Option)
7. C5.1 – Site Utilities Plan (Base Bid)
8. C5.1A – Site Utilities Plan (Bid Option)
9. C7.1 – Pavement Joint Layout (Base Bid)

10. C10.1 – Site Details
11. C11.1 – Site Details

Item No. 5: Refer to civil drawings. Add the attached drawing sheet C7.1A – Pavement Joint Layout - (Bid Option) dated 6 January 2023.

Item No. 6: Refer to landscape drawings. Delete the following drawing sheets and replace them with the attached drawing sheets with a revised date of 6 January 2023. Revisions are noted with revision cloud.

1. L1.0 – Landscape Site Plan (Base Bid)
2. L1.0A – Landscape Site Plan (Bid Option)
3. L1.1 – Landscape Details

Item No. 7: Refer to life safety drawings. Delete the following drawing sheets and replace them with the attached drawing sheets with a revised date of 6 January 2023. Revisions are noted with revision cloud.

1. LS2.0 – Life Safety Plan (Base Bid)
2. LS3.0 – Life Safety Plan (Bid Option)

Item No. 8: Refer to architectural drawings. Delete the following drawing sheets and replace them with the attached drawing sheets with a revised date of 6 January 2023. Revisions are noted with revision cloud.

1. A2.1 – First Floor Plan (Base Bid)
2. A2.1A – First Floor Plan (Bid Option)
3. A2.2 – Dimensioned Floor Plan
4. A2.3 – Roof Plan (Base Bid)
5. A2.3A – Roof Plan (Bid Option)
6. A2.4 – Wall Type Plan
7. A3.1 – Finish Schedule
8. A3.2 – Door Schedules
9. A3.3 – Curtain Wall & Window Details
10. A3.4 – Interior Storefront
11. A3.5 – Curtain Wall & Store Front – Base Bid
12. A3.5A – Curtain Wall & Store Front – Bid Option
13. A4.1 – Elevations (Base Bid)
14. A4.1A – Elevations (Bid Option)
15. A5.1 – Building Section
16. A5.2 – Wall Sections
17. A5.3 – Wall Sections
18. A5.4 – Wall Sections
19. A5.5 – Wall Sections
20. A5.6 – Wall Sections
21. A5.7 – Wall Sections
22. A6.1 – Latrine 118 & 119 Plans & Elevations (Base Bid)
23. A6.2 – Latrine 118 & 119 Plans & Elevations (Bid Option)

24. A6.3 – Enlarged Floor Plans & Interior Elevations (Base Bid)
25. A6.4 – Enlarged Floor Plans & Interior Elevations (Bid Option)
26. A6.5 – Enlarged Floor Plans & Interior Elevations (Base Bid)
27. A6.6 – Enlarged Floor Plans & Interior Elevations (Bid Option)
28. A6.7 – Enlarged Floor Plans & Interior Elevations
29. A7.1 – Multipurpose Room Interior Elevations & Details (Bid Option#2)
30. A7.2 - Multipurpose Room Details
31. A7.4 – Cabinet Elevations
32. A7.5 – Cabinet Details
33. A8.1 - Reflected Ceiling Plan (Base Bid)
34. A8.1A – Bid Option 1 Partial Floor Plan and Reflected Ceiling Plan
35. A8.1B - Reflected Ceiling Plan (Bid Option 2)
36. A9.1 – Floor Pattern Plan Base Bid
37. A9.1A – Floor Pattern Plan – Bid Option

Item No. 9: Refer to structural drawings. Delete the following drawing sheets and replace them with the attached drawing sheets with a revised date of 6 January 2023. Revisions are noted with revision cloud.

1. S0.1 – General Notes / Schedules / Typical Details
2. S1.1 – First Floor and Foundation Plan – (Base Bid)
3. S1.1A – First Floor and Foundation Plan – (Bid Option)
4. S1.2 – Mezzanine Framing Plan
5. S1.3 – Roof Framing Plan (Base Bid)
6. S1.3A – Roof Framing Plan – (Bid Option)
7. S2.1 – Sections and Details
8. S2.2 – Sections and Details
9. S2.3 – Sections and Details
10. S2.4 – Sections and Details
11. S2.5 – Sections and Details

Item No. 10: Refer to mechanical drawings. Delete the following drawing sheets and replace them with the attached drawing sheets with a revised date of 6 January 2023. Revisions are noted with revision cloud.

1. M1.1 – HVAC Legend, Notes, and Schedules
2. M1.3 – HVAC Schedules and Details
3. M3.1 – HVAC Plans – Base Bid
4. M3.2 – HVAC Plans – Bid Option #1
5. M3.3 – HVAC Plans – Bid Option #2
6. M4.1 – HVAC Chilled Water Piping Plans – Base Bid
7. M4.2 – HVAC Chilled Water Piping Plans – Bid Option #1
8. M4.3 – HVAC Chilled Water Piping Plans – Bid Option #2
9. M5.1 – HVAC Hot Water Piping Plans – Base Bid
10. M5.2 – HVAC Hot Water Piping Plans – Bid Option #1
11. M5.3 – HVAC Hot Water Piping Plans – Bid Option #2

12. M5.4 – HVAC Chilled Water Piping Riser Diagram – Base Bid
13. M5.5 – HVAC Chilled Water Piping Riser Diagram – Bid Option #1
14. M5.6 – HVAC Chilled Water Piping Riser Diagram – Bid Option #2
15. M5.7 – HVAC Hot Water Piping Riser Diagram – Base Bid
16. M5.7 – HVAC Hot Water Piping Riser Diagram – Base Bid
17. M5.8 – HVAC Hot Water Piping Riser Diagram – Bid Option #1
18. M5.9 – HVAC Hot Water Piping Riser Diagram – Bid Option #2

Item No. 11: Refer to plumbing drawings. Delete the following drawing sheets and replace them with the attached drawing sheets with a revised date of 6 January 2023. Revisions are noted with revision cloud.

1. P1.1 – Plumbing Schedules, Legend, and Notes
2. P2.1 – First Floor Waste & Condensate Plumbing Plan
3. P3.1 – First Floor Water & Gas Plumbing Plan
4. P5.1 – Waste & Gas Riser Diagrams
5. P5.2 – Water Plumbing Riser Diagram
6. P5.3 – Water Plumbing Riser Diagram

Item No. 12: Refer to fire protection drawings. Delete the following drawing sheets and replace them with the attached drawing sheets with a revised date of 6 January 2023. Revisions are noted with revision cloud.

1. SP1.1 – Fire Sprinkler Plumbing Legend, Notes, and Details.
2. SP2.1 – Fire Sprinkler Plumbing Plans

Item No. 13: Refer to electrical drawings. Delete the following drawing sheets and replace them with the attached drawing sheets with a revised date of 10 January 2023. Revisions are noted with revision cloud.

1. E1.1 – Symbols, Notes, and Lighting Fixture Schedule.
2. E2.1 – Electrical Demolition Site Plan
3. E2.3 – Panelboard Schedules
4. E2.4 – Panelboard Schedules
5. E3.1 – Base Bid First Floor Lighting Plan and Mezzanine Lighting Plan
6. E4.1 – Base Bid First Floor Power Plan and Mezzanine Power and Auxiliaries Plan
7. E5.1 – Base Bid First Floor Auxiliaries Plan
8. E6.1 – Bid Option 2 Lighting, Power, and Auxiliaries Plans
9. E7.1 – Electrical Details

Item No. 14: Refer to specification section 28 3111. Replace all references to 640-characte LCD display with “160-character” display.

End of Addendum #2

This page intentionally left blank

SECTION 012300 - BID OPTIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Description of Bid Options.

B. Procedures for pricing Bid Options

1.02 ACCEPTANCE OF BID OPTIONS

A. Bid Options quoted on Bid Forms will be reviewed and accepted or rejected at the Government's option in accordance with the requirements of the Government's Solicitation and applicable requiremens of the Federal Acquisitions Register. Accepted Bid Options will be identified in the Construction Contract.

B. Coordinate related work and modify surrounding work to integrate the Work of each Bid Option.

1.03 SUMMARY

A. Definition: A Bid Option is an amount proposed by Bidders and stated on the Bid Form for certain construction activities defined in the Bidding Requirements that may be added to the Base Bid amount if the the Government decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents. The Base Bid is all items shown on the the Contract Documents except items to be added back by below schedule of Bid Options.

B. Coordination: Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Bid Option is complete and fully integrated into the project.

C. Schedule: A "Schedule of Bid Options" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each Alternate Bid Item.

D. Include as part of each Bid Option, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the Bid Option.

1.04 SCHEDULE OF BID OPTIONS

A. **Bid Option #1: Construct MultiPurpose Room Shell & Revised Structural Systems:**

1. Bid option shall include all plant, labor, and materials for the following:

   a. Construction of the exterior building envelope and partial fit out of rooms 108, 108b, 109a, 109b

   b. Alternate roof configuration, roof bearing conditions, and alternate exterior elevations at rooms 103, 129, 133a, 137, 143, and 147.

   c. Alternate structural roof framing of rooms 103, 104a, 104b , 105, and 106

2. Construction of the exterior building envelope at rooms 108, 108b, 109a, 109b, and 109C shall be as indicated in the drawings noted as "Bid Option". Work included in this portion of bid option #1 shall include, but is not limited to, the following:

   a. Construction of concrete foundations and floor slab in these areas as indcated on the bid option drawings (approximately 2,966 additional square feet).

   b. Construction of new load bearing CMU wall assemblies with brick veneer cladding and cast stone accents in these areas as indicated on the bid option drawings.

      1) The metal furring indicated for wall types A and B on drawing 2 & 5 on sheet A2.4 is not included in this bid option. If this option is awarded, the load bearing CMU walls will be exposed in these rooms. Painting of exposed CMU surfaces in these rooms is also not required as part of this bid option.

      2) Additionally, carpet tile flooring, acoustical ceiling systems, wood trim, and acoustical wall treatments are also not included within this bid option.

      3) If this bid option is awarded and bid option #2 is not awarded, the finished interior of rooms 108/109 will consist of exposed concrete floors, unpainted CMU walls, unpainted structural steel trusses and roof purlins, and exposed roof decking materials (both metal and tongue and groove wood decking).

c. Installation of UFC 4-010-01 compliant curtain wall systems within these areas as indicated on the bid option drawings and as specified in sections 08 4113 and 08 4413.

d. Construction of roof assemblies in these areas consisting of custom fabricated steel trusses, HSS section roof purlins, roof decking (both metal and tongue & groove wood), rigid insulation, self adhered roof underlayment, and standing seam metal roof systems as indicated on the bid option drawings.

1) The "HHS 8x8x1/4 Low" structural steel members in these rooms is not included in the scope of this bid option. These members are included within bid option #2.

2) Refer also to drawing sheet A8.1A.

e. Installation of HVAC equipment and systems to service these areas as indicated on the base bid mechanical drawings.

f. Installation of lighting and fire alarm systems in these areas as indicated on the base bid electrical drawings.

g. Installation of site grading, drainage, utilities, and paving indicated the bid option civil drawings to accomodate the enlarged facility footprint.

3. Also included in the scope of this bid option is all plant, labor, and materials required to raise the roof bearing conditions and install alternate framing and roof configuration in rooms 103, 129, 133a, 137, 143, and 147.

a. If this option is awarded, the Contractor shall provide the roof plan configuration indicated on drawing sheet A2.3A and the structural framing indicated on the bid option roof framing plan in order to provide the exterior elevations indicated on drawing sheet A4.1A. Included in this bid option will be additional roof flashings, additional CMU wall assemblies, additional brick veneer, larger curtain wall assemblies, and alterations to the reflected ceiling plan as indicated on the bid option drawings.

b. If the bid option is not awarded, the base bid shall consist of a consistent 12'-0" high CMU bearing height with roof configuration indicated on drawing sheet A2.3 and structural roof framing indicated on base bid roof framing plan.

1) Note that the roof bearing condition will be consistent at 12'-0" in all areas except rooms 101, 102, and 107. As part of the base bid, the Contractor shall provide the varying bearing heights indicated as required to provide the exterior elevations inidcated on drawing 3/A4.1.

4. Also included within the scope of this bid option is the bid option roof framing in rooms 103, 104a, 104b , 105, and 106 as indicated on the bid option structural drawings.

   a. If awarded, this bid option shall include the custom fabricated steel trusses, HSS section roof purlins, and metal decking indicated on the bid option roof framing plan.

   b. All exposed structural systems (trusses, purlins, and decking) and other exposed building systems (plumbing, fire protection, HVAC, electrical, etc...) in room 103 shall remain exposed and be painted in accordance with specification section 09 9123 within both the base bid and bid option #1.

5. If the bid option is not awarded, the Base bid shall include the following:

   a. Construction of the approximately 19,150 square foot facility as associated site work indicated on the base bid drawings.

   b. Standard exterior CMU bearing height of 12'-0" with cold formed metal truss roof framing system as indicated on the base bid drawings.

      1) Note the one custom fabricated steel truss and HSS roof purlins in room 111 will be included in the base bid to facilitate the potential construction of rooms 108/109 at a later date under a separate construction contract. Contractor to also install tongue and groove wood decking extending approximately 10'-3" to the North and South sides of the roof ridge line in room 111. Tongue and groove wood decking shall be continuous from the CMU wall separating room 111 from rooms 115 and 116 to the edge of the base bid roof overhang depicted on A2.3. Structural steel members and tongue and groove wood decking will be concealed above the acoustical tile ceiling in room 111 as part of the base bid.

      2) The 12'-0" bearing height will be consistent in all areas except for rooms 101, 102, and 107. As part of the base bid, the Contractor shall provide the varying bearing heights indicated as required to provide the exterior elevations inidcated on drawing 3/A4.1.

c. Room 103, 104a, 104b, 105, and 106 will be framed using cold formed metal trusses as inidcated on the base bid roof framing plans. Metal trusses will be exposed in room 103. All exposed structural systems (trusses and decking) and other exposed building systems (plumbing, fire protection, HVAC, electrical, etc...) in room 103 shall be painted in accordance with specification section 09 9123

B. **Bid Option No. 2: Fit Out MultiPurpose Room:**

1. This Bid Option shall include all plant, labor, and material for the interior fit out of rooms 108, 108b, 109a, 109b, and 109c. The work of this bid options shall include all work indicated bid option drawings that is not covered by bid option #1 or bid option #7. Work of this bid option shall include, but is not limited to, the following scope of work:

   a. Installation of metal stud furring and gypsum wall assemblies at wall type A and B indicated on drawing 2/A2.4 within rooms 108, 108b, 109a, 109b, and 109c.

   b. Installation of acoustical tile ceiling assemblies, metal stud framing/gypsum board ceiling treatment, and decorative wood ceiling panels and trim indicated on drawing sheet A8.1B.

   c. Installation of decorative wood trim and acoustical wall paneling systems as indicated on drawing sheets A7.1 and A7.2.

   d. Painting of all exposed gypsum wall assemblies, gypsum ceiling assemblies, and decorative wood wall/ceiling elements in accordance with project specifications.

   e. Installation of glass in-fill panels between web members of the structural steel truss systems as indicated on drawing 5/A7.2.

   f. Installation of full mechanical and electrical fit out of rooms 108, 108b, 109a, 109b, and 109c indicated on the bid option mechanical and electrical drawings.

   g. Installation of "HHS 8x8x1/4 Low" structural steel members indicated on the bid option structural drawings. These HSS members are required to support the moveable wall systems (see bid option #7 below). However the HSS members shall be included within the scope of bid option #2 to facilitate easy installation of moveable wall panels by the Government at a later date if bid option #7 is not awarded.

2. Also included in the scope of this bid option is the installation of decorative wood trim and acoustical wall panels within rooms 102 and 107 as depicted on drawings 9, 10, 11, 12, 13, and 14 on sheet A7.2

3. If this bid option is not awarded, the base bid shall included the Multipurpose Room Shell of rooms 108, 108b , 109a, 109b, and 109c described within bid option #1, above. If this bid option is not awarded, the base bid in rooms 102 and 107 shall consist of painted sheetrock walls.

C. **Bid Option No. 3: South Parking Lot:**

1. This Bid Option shall include all plant, labor, and material for the construction of the asphalt paved parking area to the South and West of the facility as indicated to be part of bid option #3 on the drawings. This bid option shall include, but is not limited to, the following scope of work :

   a. ***Demolition of building 202 as indicated on drawing sheet C2.1A. Added by Addendum No. 1.***

   b. Installation of new asphalt pavement areas as indicated to be part of bid option #3 on the civl drawings.

   c. Milling and overlay of existing asphalt pavements as indicated to be part of bid option #3 on the civil drawings

   d. Additional cement concrete sidewalks as indicated to be part of bid option #3 on the civil drawings.

   e. Associated site grading and subgrade preparation in accordance with applicable project specifications and as indicated on the bid option site grading plan.

   f. Installation of parking lot lighting as indicated on the bid option electrical drawings.

2. If this bid option is not awarded, the base bid shall consist of ~~milling and overlay of existing asphalt paved areas~~***modifications to the existing parking lot (Modified by Addendum No. 2)*** and installation of cement concrete sidewalks as depicted on the base bid civil drawings. Also included in the base bid will be a concrete retaining wall (reference 6/L.1. and civil drawings) and minor site grading along the North and East ends of the parking area as indicated on the base bid civil drawings.

D. **Bid Option No. 4: Security Forces Parking Lot:**

1. This Bid Option shall include all plant, labor, and material for the construction of a new asphalt paved parking area along the South side of "B" street as indicated to be part of bid option #4 on the civil drawings. This bid option shall include, but is not limited to, the following scope of work :

    a. Installation of new asphalt pavement areas as indicated to be part of bid option #4 on the civl drawings.

    b. New concrete curb and gutter at new parking area as indicated to be part of bid option #4 on the civl drawings.

    c. Additional cement concrete sidewalks as indicated to be part of bid option #4 on the civil drawings.

    d. Associated site grading and subgrade preparation in accordance with applicable project specifications and as indicated on the bid option site grading plan.

2. If this bid option is not awarded, the existing curb and gutter along the South side of "B" street will remain without change and no parking areas will be provided in this area of the site.

E. **Bid Option No. 5: Mechanical Screen Wall:**

1. This Bid Option shall include all plant, labor, and material to install a landscape screen wall to conceal mechanical and electrical equipment near the Northwestern corner of the facility. This bid option shall include, but is not limited to, the following scope of work :

    a. Installation of a CMU wall with brick cladding and cast stone coping on all sides of the mechanical courtyard as indicated on drawings 1 and 2 on sheet L1.1. Refer to landscaping and civil drawings for height of wall.

    b. Installation of chain link fencing covering the top of mechanical courtyard as indicated on drawings 1 and 2 on sheet L1.1.

    c. Installation of decorative metal gate as indicated on drawings 2, 3, and 4 on sheet L1.1.

2. If this bid option is not awarded, the base bid shall consist of the lower height CMU/Brick veneer retaining wall with painted steel guardrail depicted on drawing 5/L1.1. Gate depcited on sheet L1.1 will not be required as part of the base bid.

F. **Bid Option No. 6: Upgrade Finish Package:**

1. This Bid Option shall include all plant, labor, and material to provide the upgrade interior finish package indicated on the drawings. This bid option shall include, but is not limited to, the following scope of work :

    a. Installation of carpet tile in lieu of luxury vinyl tile in various areas of the building as indicated on the finish schedule on drawing sheet A3.1.

    b. Installation of hard tile floor finishes in lieu of sealed concrete in various areas of the building as indicated on the finish schedule on drawing sheet A3.1.

    c. Increased extents of hard tile wall applications in restrooms as indicated on drawing sheets A3.1, A6.2, A6.4, A6.6, and A6.7.

2. Base bid and Bid Option finishes shall be installed in strict accordance with manufacturer's recommendations and all project specification requirements.

3. If this bid option is not awarded, the base bid shall consist of installation of floor finishes indicated in the "Base Bid Floor Finish" column of the finish schedule and extents of hard tile wall applications in restrooms as indicated on A6.1, A6.3, A6.5, and A6.7.

G. **Bid Option No. 7 (Additive): Movable Wall Systems:**

1. This Bid Option shall include all plant, labor, and material for the following:

    a. Installation of movable wall systems as shown on the drawings and specified in specification section 10 2223 "Moveable Wall Systems" in Multipurpose Room 109.

    b. If this bid option is not awarded, moveable wall systems will not be installed. The "HSS 8x8x1/4 Low" structural steel members indicated on the bid option structural drawings are intended to support the moveable wall systems included within bid option #7. If bid option #2 is awarded, the Contractor shall furnish, install, and paint all "HSS 8x8x1/4 Low" structural steel members indicated on the bid option structural drawings. If bid option #2 is not awarded, the HSS 8x8x1/4 Low structural steel member will be omitted.

    c. If bid option #2 is awarded, the Contractor coordinate with Contracting Officer on site to ensure interior trim and finishes are coordinated to allow for future installation of moveable wall systems.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

This page intentionally left blank

SECTION 053100 - STEEL DECKING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Roof deck.

B. Floor deck.

C. Supplementary framing for openings up to and including 18 inches (450 mm).

D. Bearing plates and angles.

E. Materials included in this section shall meet the requirements for LEED for New Construction points for the following Sections:

1. MR Credit 4 - Recycled Content
2. MR Credit 5 - Regional Materials
3. EQ Credit 4.2 - Low Emitting Materials.
4. The contractor is expected to understand the LEE requirements for these sections and include all applicable overhead in their base bid for the necessary documentation to achieve the above listed credits.

1.02 RELATED REQUIREMENTS

A. Section 01 3414.01 - LEED Credit Summary

B. Section 01 6000 - Product Requirements

C. Section 01 7419 - Construction Waste Management and Disposal

D. Section 033000 - Cast-in-Place Concrete: Concrete topping over metal deck.

E. Section 04 2000 - Unit Masonry Assemblies: Placement of anchors for bearing plates embedded in unit masonry assemblies.

F. Section 051200 - Structural Steel Framing: Support framing for openings larger than 18 inches (450 mm) and shear stud connectors.

G. Section 052100 - Steel Joist Framing: Support framing for openings larger than 18 inches (450 mm) and shear stud connectors.

H. Section 055000 - Metal Fabrications: Steel angle concrete stops at deck edges.

1.03 REFERENCE STANDARDS

A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel 2019.

B. ASTM A108 - Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished 2018.

C. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.

D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

E. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable 2021.

F. AWS D1.1/D1.1M - Structural Welding Code - Steel 2020.

G. AWS D1.3/D1.3M - Structural Welding Code - Sheet Steel 2018.

H. SDI (DM) - Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks 2007.

I. UL (FRD) - Fire Resistance Directory Current Edition.

1.04 SUBMITTALS

A. See Section 01 3001 - Submittals for submittal procedures.

B. Shop Drawings: Indicate deck plan, support locations, projections, openings, reinforcement, pertinent details, and accessories.

C. Product Data: Provide deck profile characteristics, dimensions, structural properties, and finishes.

D. Certificates: Certify that products furnished meet or exceed specified requirements.

E. Submit manufacturer's installation instructions.

F. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within the previous 12 months.

G. Sustainability Submittals, Product data for LEED Compliance:

1. Submit documentation for harvesting and manufacturing locations of all steel decking intended for use on the project as may be required for proper documentation of MR Credit 5.

2. Provide documentation for pre and post-consumer recycled content for all steel decking intended for use as may be required for proper documentation of MR Credit 4. For products having recycled content, documentation indicating percentages by weight of postconsumer and pre-consumer recycled content.

   a. Include statement indicating costs (sell price for each product having recycled content)

   b. Include total weight of products provided

1.05 QUALITY ASSURANCE

A. Design deck layout, spans, fastening, and joints in accordance with manufacturers written recommendations in and for the the State in which the Project is located for project conditions.

B. Installer Qualifications: Company specializing in performing the work of this Section with minimum 5 years of experience.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Cut plastic wrap to encourage ventilation.

B. Separate sheets and store deck on dry wood sleepers; slope for positive drainage.

1.07 LEED REQUIREMENTS

A. Recycled Materials: Steel deck products provided under this specification must meet or exceed the following recycled content thresholds. Submit product data substantiating recycled content as outlined in part 1.04 above.

   1. Minimum Post Consumer Recycled Content = 58%

   2. Minimum Pre-Consumer Recycled Content = 8%

B. Regional Materials: All steel products provided under this specification must be extracted, harvested, and manufactured within 500 miles of the project site. Submit product data substantiating extraction, harvesting, and manufacturing locations as outlined in part 1.04 above. Products not meeting this requirement will not be considered.

PART 2 PRODUCTS

2.01 STEEL DECK

A. All Deck Types: Select and design metal deck in accordance with SDI Design Manual.

1. Calculate to structural working stress design and structural properties specified.
2. Maximum Vertical Deflection of Floor Deck: 1/360 of span.
3. Maximum Vertical Deflection of Roof Deck: 1/240 of span.
4. Maximum Vertical Deflection of Form Deck: 1/360 of span.

B. Roof Deck: Non-composite type, fluted steel sheet:

1. Galvanized Steel Sheet: ASTM A 653/A 653M, Structural Steel (SS) Grade 33/230, with G90/Z275 galvanized coating.
2. Structural Properties:
   a. See structural drawings.
3. Minimum Metal Thickness, Excluding Finish: As noted on drawings.
4. Nominal Height: 1-1/2 inch (38 mm).
5. Profile: Fluted; SDI WR.
6. Side Joints: Lock seam or nested
7. End Joints: Lapped, welded.

C. Non-Composite Floor Form Deck: Fluted steel sheet :

1. Galvanized Steel Sheet: ASTM A653/A653M, Structural Steel (SS) Grade 33/230, with G90/Z275 galvanized coating.
2. Structural Properties:
   a. Section modulus: as noted on drawings.
3. Span Design: Double.
4. ~~Minimum Base Metal Thickness: 26 gage, 26 inch (0.455 mm).~~ ***Minimum Base Metal Thickness: 28 gage, 0.013 inch, 0.321mm. (Modified by Addendum No. 2)***
5. Nominal Height: See drawings

6. Side Joints: Lock seam or nested

7. End Joints: Lapped, welded.

D. Metal Form Deck: Corrugated sheet steel, with provision for ventilation of concrete:

1. Galvanized Steel Sheet: ASTM A653/A653M, Structural Steel (SS) Grade 33/230, with G90/Z275 galvanized coating.

   a. Grade as required to meet performance criteria.

2. Primer: Shop coat of manufacturer's standard primer paint over cleaned and phosphatized substrate.

3. Formed Sheet Width: 24 inch (600 mm).

4. Side Joints: Lapped, welded.

5. End Joints: Lapped, welded.

2.02 ACCESSORY MATERIALS

A. Bearing Plates and Angles: ASTM A36/A36M steelunfinished.

B. Stud Shear Connectors: Made from ASTM A 108 Grade 1015 bars.

C. Welding Materials: AWS D1.1/D1.1M.

D. Fasteners: Galvanized hardened steel, self tapping.

E. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction, and applicable requirements of LEED EQ Credit 4.2 - Low Emitting Materials.

F. Flute Closures: Closed cell foam rubber, 1 inch (25 mm) thick; profiled to fit tight to the deck.

2.03 FABRICATED DECK ACCESSORIES

A. Sheet Metal Deck Accessories: Metal closure strips, wet concrete stops, and cover plates, 22 gage (0.8 mm) thick sheet steel for roof and 20 gage for floor; of profile and size as indicated; finished same as deck.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions prior to beginning work.

3.02 INSTALLATION

A. Erect metal deck in accordance with SDI Design Manual and manufacturer's instructions. Align and level.

B. On concrete and masonry surfaces provide minimum 4 inch (100 mm) bearing.

C. On steel supports provide minimum 2 inch bearing.

D. Fasten deck to steel support members at ends and intermediate supports at 12 inches (300 mm) on center maximum, parallel with the deck flute and at each transverse flute using methods specified.

1. Welding: Use fusion welds through weld washers.

2. Place and secure special deep fluted sections for integral concrete bridging.

E. Clinch lock seam side laps, where applicable..

F. At mechanically fastened male/female side laps fasten at 24 inches (600 mm) on center maximum.

G. At welded male/female side laps weld at 18 inches (450 mm) on center maximum.

H. Weld deck in accordance with AWS D1.3/D1.3M.

I. At deck openings from 6 inches (150 mm) to 10 inches (254 mm) in size, provide 2 x 2 x 1/4 inch (50 x 50 x 6 mm) steel angle reinforcement. Place angles perpendicular to flutes; extend minimum two flutes beyond each side of opening and fusion weld to deck at each flute.

1. See structural drawings for openings larger than 10 inches.

J. Where deck (other than cellular deck electrical raceway) changes direction, install 6 inch (150 mm) minimum wide sheet steel cover plates, of same thickness as deck. Fusion weld 12 inches (300 mm) on center maximum.

K. At floor edges, install concrete stops upturned to top surface of slab, to contain wet concrete. Provide stops of sufficient strength to remain stationary without distortion.

L. At openings between deck and walls, columns, and openings, provide sheet steel closures and angle flashings to close openings.

M. Close openings above walls and partitions perpendicular to deck flutes with single row of foam cell closures.

N. Position roof drain pans with flange bearing on top surface of deck. Fusion weld at each deck flute.

O. Weld stud shear connectors through steel deck to structural members below.

P. Immediately after welding deck and other metal components in position, coat welds, burned areas, and damaged surface coating, with touch-up primer.

END OF SECTION

This page intentionally left blank

SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Commercial toilet accessories.

B. Accessories for toilet rooms and utility rooms.

C. Grab bars.

1.02 RELATED REQUIREMENTS

A. Section 093000 - Tiling: Ceramic washroom accessories.

B. Section 10 2113 - Stainless Steel Toilet Compartments

1.03 REFERENCE STANDARDS

A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.

B. ASTM A269/A269M - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service 2015a (Reapproved 2019).

C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

D. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar 2015.

E. ASTM B456 - Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium 2017.

F. GSA CID A-A-3002 - Mirrors, Glass; U.S. General Services Administration; 1996.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the work with the placement of internal wall reinforcement, concealed ceiling supports, and reinforcement of toilet partitions to receive anchor attachments.

1.05 SUBMITTALS

A. See Section 01 3001 - Submittals for Submittal procedures.

B. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.

C. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

PART 2 PRODUCTS

2.01 MATERIALS

A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.

1. Grind welded joints smooth.

2. Fabricate units made of metal sheet of seamless sheets, with flat surfaces.

B. Keys: Provide keys for each accessory to the Contracting Officer Representative; master key lockable accessories.

C. Stainless Steel Sheet: ASTM A666, Type 304.

D. Stainless Steel Tubing: ASTM A269/A269M, Grade TP304 or TP316.

E. Galvanized Sheet Steel: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G90/Z275 coating.

F. Adhesive: Two component epoxy type, waterproof.

G. Fasteners, Screws, and Bolts: Hot dip galvanized; tamper-proof; security type.

H. Expansion Shields: Fiber, lead, or rubber as recommended by accessory manufacturer for component and substrate.

2.02 FINISHES

A. Stainless Steel: Satin finish, unless otherwise noted.

B. Chrome/Nickel Plating: ASTM B456, SC 2, polished finish, unless otherwise noted.

C. Baked Enamel: Pretreat to clean condition, apply one coat primer and minimum two coats epoxy baked enamel.

2.03 TOILET ACCESSORIES:

A. Towel Dispenser/ Waste Receptacle:

1. Cabinet — 18-8, type-304, heavy-gauge stainless steel. All-welded construction.

2. Door: 18-8, type-304, 18-gauge (1.2mm) stainless steel with satin finish. 9/16" (14mm) 90° return for maximum rigidity. Secured to cabinet with a concealed, full-length, stainless steel piano-hinge. Equipped with a stainless steel cable door-swing limiter and two tumbler locks.

3. Paper Towel Dispenser — 18-8, type-304, 22-gauge (0.8mm) stainless steel with satin finish. Rounded towel tray has hemmed opening to dispense paper towel without tearing. Capacity: 600 C-fold or 800 multifold paper towels.

4. Waste Container — Leak-proof rigid molded plastic. Removable for servicing. Capacity: 3.8-gal. (14.4-L).

5. Paper towel dispenser is adjustable to dispense C-fold, multifold, or singlefold paper towels without use of additional adapters or towel trays. To service waste receptacle, unlock door with key provided and remove waste container. Cable door-swing limiter prevents damage to washroom accessories and walls

B. Toilet Paper Holder:

1. 6" Wide x 2-3/4" High x 4-1/4" Deep

2. Holds two rolls up to 4-1/2" diameter

3. Heavy gauge chrome-plated steel with bright polished finish.

4. 18 guage mounting bracket

5. Equipped with vandal resistant self-locking mechanisms and four heavy-duty brake springs.

C. Electric Hand Dryer:

1. Electrical Characteristics:

   a. Voltage: 120V

   b. Stanby Power Consumption: 0.5W

   c. 1,000W digital brushless motor

   d. Motor Switching Rate: 5,500 per second

   e. Motor Speed 83,000 rpm

2. ADA Compliant Low Profile Configuration projecting less than 4" from face of wall.

3. Polycarbonate Fascia Construction:

4. Antibacterial Sprayed Nickel Coating Finish

5. Sealed HEPA filter constructed of glass fiber and fleece prelayer. Filter capable of removing 99.7% of bacteria, as small as 0.3 microns, including both bacteria and viruses.

6. Operation:

   a. Touch free capacitive sensor activation

   b. 12 second Hand dry time measurement based on NSF Proteocol P.335)

   c. Sound Power Leve: 79dB(A)

   d. Airspeed at Aperture: 420 mph

7. Manufacturer's 5 year parts and labor warranty.

D. L Shaped Grab Bar.

1. Grab Bar — 18-8, type-304, 18-gauge (1.2mm) stainless steel tubing with satin-finish. 1-1/4" (32mm) outside diameter. Ends are heliarc welded to concealed mounting flanges. Clearance between the grab bar and wall is 1-1/2" (38mm).

2. Concealed Mounting Flanges — 18-8, type-304, 11-gauge (3.2mm) thick, stainless steel plate; end flanges 2" x 3-1/8" (50 x 80mm) with holes for attachment to wall. Intermediate flanges 2-5/8" x 3-1/8" (65 x 80mm) wide x 3-1/8" (80mm) diameter.

3. Snap Flange Covers — 18-8, type-304, 22-gauge (0.8mm) drawn stainless steel with satin-finish. 3-1/4" (85mm) diameter x 5/8" (16mm) deep. Each cover snaps over mounting flange to conceal mounting screws.

4. Strength - Bobrick grab bars that provide 1-1/2" (38mm) clearance from wall can support loads in excess of 900 pounds (408kg) if properly installed. Other grab bar configurations can support loads in excess of 250 pounds (113kg) if properly installed, complying with accessible design (including ADAAG in the U.S.A.) for structural strength.

E. 18” Grab Bar:

1. Grab Bar — 18-8 S, type-304, 18-gauge (1.2mm) stainless steel tubing with satin-finish. 1-1/2" (38mm) outside diameter. Ends are heliarc welded to flanges.

2. Clearance between the grab bar and wall is 1-1/2" (38mm).

3. Concealed Mounting Flanges — 18-8 S, type-304, 11-gauge (3.2mm) thick, stainless steel plate; end flanges 2" x 3-1/8" (50 x 80mm) with holes for attachment to wall. Intermediate flanges 2-5/8" x 3-1/8" (65 x 80mm) wide x 3-1/8" (80mm) diameter.

4. Snap Flange Covers — 18-8 S, type-304, 22-gauge (0.8mm) drawn stainless steel with satin-finish. 3-1/4" (85mm) diameter x 1/2" (13mm) deep. Each cover snaps over mounting flange to conceal mounting screws.

5. Strength - capable of supporting loads in excess of 900 lbs (408 kg).

F. 42" Grab Bar:

1. Grab Bar — 18-8 S, type-304, 18-gauge (1.2mm) stainless steel tubing with satin-finish. 1-1/2" (38mm) outside diameter. Ends are heliarc welded to flanges.

2. Clearance between the grab bar and wall is 1-1/2" (38mm).

3. Concealed Mounting Flanges — 18-8 S, type-304, 11-gauge (3.2mm) thick, stainless steel plate; end flanges 2" x 3-1/8" (50 x 80mm) with holes for attachment to wall. Intermediate flanges 2-5/8" x 3-1/8" (65 x 80mm) wide x 3-1/8" (80mm) diameter.

4. Snap Flange Covers — 18-8 S, type-304, 22-gauge (0.8mm) drawn stainless steel with satin-finish. 3-1/4" (85mm) diameter x 1/2" (13mm) deep. Each cover snaps over mounting flange to conceal mounting screws.

5. Strength - capable of supporting loads in excess of 900 lbs (408 kg).

G. 36” Grab Bar:

1. Grab Bar — 18-8 S, type-304, 18-gauge (1.2mm) stainless steel tubing with satin-finish. 1-1/2" (38mm) outside diameter. Ends are heliarc welded to flanges.

2. Clearance between the grab bar and wall is 1-1/2" (38mm).

3. Concealed Mounting Flanges — 18-8 S, type-304, 11-gauge (3.2mm) thick, stainless steel plate; end flanges 2" x 3-1/8" (50 x 80mm) with holes for attachment to wall. Intermediate flanges 2-5/8" x 3-1/8" (65 x 80mm) wide x 3-1/8" (80mm) diameter.

4. Snap Flange Covers — 18-8 S, type-304, 22-gauge (0.8mm) drawn stainless steel with satin-finish. 3-1/4" (85mm) diameter x 1/2" (13mm) deep. Each cover snaps over mounting flange to conceal mounting screws.

5. Strength - capable of supporting loads in excess of 900 lbs (408 kg).

H. Utility shelf / mop holder. One per each Janitors Closet.

1. Mounting Base and Shelf — 18-8, type-304, 18-gauge (1.2mm) stainless steel with satin finish. All-welded construction. Shelf is 8" (205mm) deep with 3/4" (19mm) return edge on all three sides. Front edge is hemmed for safety.

2. Shelf Support Brackets — 18-8, type-304, 16-gauge (1.6mm) stainless steel with satin finish. Welded to mounting base and shelf.

3. Mop/Broom Holders — Spring-loaded rubber cams with anti-slip coating. Plated steel retainers.

4. Hooks — 18-8, type-304, 12-gauge (2.8mm) stainless steel with satin finish. Each hook attached to mounting strip with two rivets.

I. Shower Curtain & Accessories:

1. Curtain Rod:

a. Curtain Rod — 18-8, Type-304, 20-gauge (1.0mm) stainless steel tubing with satin finish. 1" (25mm) outside diameter. Available in lengths 36" (915mm) up to 72" (1830mm).

b. Flanges — 18-8, Type-304, 20-gauge (1.0mm) stainless steel with satin finish. Drawn, one-piece, seamless construction.

2. Shower Curtain:

a. Opaque, matte white vinyl 0.008" (0.2mm) thick, containing antibacterial and flame-retardant agents. Nickel-plated brass grommets along top, one every 6" (150mm). Bottom and sides are hemmed.

3. Curtain Hooks:

a. 18-8, Type-304, 0.09" (2mm) diameter stainless steel.

b. Provide hook quantity as required to install shower curtain.

J. Robe Hook & Bumper:

1. Hook and Base — Solid cast aluminum with matte finish

2. Bumper — Hard rubber secured with drive-screw. Protects wall or partition surfaces.

3. Provide one at each in-swinging toilet partition door application.

K. Mirror:

1. Size: 18" x 36"

2. Frame — 18-8, heavy-gauge stainless steel, 3/4" x 3/4" (19 x 19mm) angle with satin finish. One-piece, roll-formed construction forms continuous integral stiffener on all sides. Bevel design on front of angle holds frame tightly against mirror. Corners of mirror frame are heliarc welded, ground and polish smooth. Galvanized steel back is fastened to frame with concealed screws and equipped with integral horizontal hanging brackets near the top and bottom of the mirror for hanging the mirror and to prevent the mirror from pulling away from the wall. Locking devices secure mirror to concealed wall hanger.

3. Mirror — No. 1 quality, 1/4" (6mm) select float glass (standard glass): selected for silvering, electrolytically copper-plated by the galvanic process, and guaranteed for 15 years against silver spoilage. All edges protected by plastic filler strips; back is protected by full-size, shock-absorbing, water-resistant, nonabrasive, 3/16" (5mm) thick polyethylene padding.

4. Concealed Wall Hanger — Galvanized steel construction. Incorporates upper and lower support members, which engage lower backplate louvers to keep bottom of mirror against wall

L. Mirror 24' x 72"

1. Size: 24" x 72"

2. Frame — 18-8, heavy-gauge stainless steel, 3/4" x 3/4" (19 x 19mm) angle with satin finish. One-piece, roll-formed construction forms continuous integral stiffener on all sides. Bevel design on front of angle holds frame tightly against mirror. Corners of mirror frame are heliarc welded, ground and polish smooth. Galvanized steel back is fastened to frame with concealed screws and equipped with integral horizontal hanging brackets near the top and bottom of the mirror for hanging the mirror and to prevent the mirror from pulling away from the wall. Locking devices secure mirror to concealed wall hanger.

3. Mirror — No. 1 quality, 1/4" (6mm) select float glass (standard glass): selected for silvering, electrolytically copper-plated by the galvanic process, and guaranteed for 15 years against silver spoilage. All edges protected by plastic filler strips; back is protected by full-size, shock-absorbing, water-resistant, nonabrasive, 3/16" (5mm) thick polyethylene padding.

4. Concealed Wall Hanger — Galvanized steel construction. Incorporates upper and lower support members, which engage lower backplate louvers to keep bottom of mirror against wall

M. Hat & Coat Hook:

1. Flange and Support Arm — 18-8, type-304, 22-gauge (0.8mm) stainless steel. Concealed, 16-gauge (1.6mm) stainless steel mounting bracket. All-welded construction. Secured to wall plate with a stainless steel setscrew.

2. Concealed Wall Plate — 18-8, type-304, 16-gauge (1.6mm) stainless steel.

3. Cap — 18-8, type-304, 10-gauge (3.6mm) stainless steel. Welded to the support arm.

N. ***~~Omitted~~ Wall Mounted Soap Dispenser (Modified by Addendum No. 2):***

1. ***Container — Body is 18-8, Type-304, 20-gauge (1.0mm) stainless steel with satin-finish. Drawn, one-piece, seamless construction. Front has same degree of arc as other washroom accessories. Radius on corners and edges complement other accessories. Back plate is 22-gauge (0.8mm) stainless steel with 20-gauge (1.0mm) stainless steel mounting bracket attached. Container body and back plate are epoxy-sealed to prevent warping and leakage. Concealed wall plate is 20-gauge (1.0mm) stainless steel. Equipped with a plastic soap refill-indicator window and a locked, hinged stainless steel lid for top filling. Capacity: 40-fl oz (1.2-L)***

2. ***Valve — Black molded plastic push button. Soap head-holding mushroom valve. Stainless steel spring. U-packing seal and duckbill. Antibacterial-soap-resistant plastic cylinder.***

O. Folding shower seat:

1. Provide seat width as required by all applicable codes.

2. Seat — One-piece, 5/16" (8mm) thick, solidly fused plastic laminate with matte-finish melamine surfaces, ivory-colored face sheets, and black phenolic-resin core that are integrally bonded — cannot delaminate. Integral slots for water drainage. Secured to frame with stainless steel carriage bolts and acorn nuts.

3. Frame — 18-8, type-304, stainless steel with satin finish. 16-gauge (1.6mm), 1-1/4" (30mm) square tubing and 18 -gauge (1.2mm), 1" (25mm) diameter seamless tubing

4. Mounting Flanges (2) — 18-8, type-304, 3/16" (5mm) thick stainless steel with satin finish. 3" (75mm) diameter with three mounting screw holes.

5. Baseplate — 18-8, type-304, heavy-gauge stainless steel.

6. Spring — 17-7, type-301, 24-gauge (0.6mm) stainless steel. Spot-welded to baseplate.

7. Guide Bracket — 18-8, type-304, 16-gauge (1.6mm) stainless steel with satin finish.

8. Operation - Shower seat can be folded up against the wall when not in use. The spring at the top of baseplate locks seat into upright position until released by pulling the top of seat away from wall. Support system with guide bracket allows varying mounting heights and leaves floor clear for easier cleaning. Nonporous solid phenolic seat has slots to permit water to drain, does not splinter or require oiling, and will not support growth of bacteria. Slotless round-head carriage bolts and acorn nuts provide additional safety to user. Bobrick shower seats, when properly installed, have sufficient strength to support 500 lbs., (227 kg) complying with accessible design guidelines (including ADAAG in the U.S.A.).

P. ADA Insulation Kit

1. Impact resistant, stain resistant, antimicrobial vinyl plumbing piping cover kit.

2. Complies with ASME A112.18.9-2001, ADA Article 4.19.4 (606.5), and CABO/ANSI 4.20.4

3. Burning Characteristics: Self extinguishing 0 sec (ATB) mm (AEB), per ASTM D-635

4. Bacteria/Fungus Resistance: ASTM G21 and G22 - 0 growth result.

Provide concealed wood blocking for all toilet accessories to be installed in metal stud wall assemblies. Where toilet accessories are the located in CMU walls, comply with manufacturer's recommendations. Coordinate and provide filled CMU cells where applicable. Mount and locate per ADA. Coordinate with all other trades.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify exact location of accessories for installation.

3.02 INSTALLATION

A. Install accessories in accordance with manufacturers' instructions in locations indicated on drawings.

B. Install plumb and level, securely and rigidly anchored to substrate.

C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.

END OF SECTION

SECTION 323113 - CHAIN LINK FENCING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Fence framework, fabric, and accessories.

B. Excavation for post bases; concrete foundation for posts.

C. Materials included in this section shall meet the requirements for LEED for New Construction points for the following Sections:

1. MR Credit 4 - Recycled Content

2. MR Credit 5 - Regional Materials

3. The contractor is expected to understand the LEED requirements for these sections and include all applicable overhead in their base bid for the necessary documentation to achieve the above listed credits.

1.02 RELATED REQUIREMENTS

A. Section 01 3414.01 - LEED Credit Summary

B. Section 033000 - Cast-in-Place Concrete: Concrete anchorage for posts.

1.03 REFERENCE STANDARDS

A. ASTM A121 - Standard Specification for Metallic-Coated Carbon Steel Barbed Wire 2022.

B. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.

C. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2016a.

D. ASTM A392 - Standard Specification for Zinc-Coated Steel Chain-Link Fence Fabric 2011a (Reapproved 2022).

E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2022.

F. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete 2022a.

G. ASTM F567 - Standard Practice for Installation of Chain-Link Fence 2014a (Reapproved 2019).

H. ASTM F1043 - Standard Specification for Strength and Protective Coatings on Steel Industrial Fence Framework 2018.

I. ASTM F1083 - Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures 2018 (Reapproved 2022).

J. ASTM F1665 - Standard Specification for Poly(Vinyl Chloride) (PVC) and Other Conforming Organic Polymer-Coated Steel Barbed Wire Used with Chain-Link Fence 2008 (Reapproved 2022).

K. CLFMI CLF 2445 - Product Manual - Drawings 2012.

1.04 SUBMITTALS

A. Section 01 3001 - Submittals

B. Product Data: Provide data on fabric, posts, accessories, fittings and hardware.

C. Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, and schedule of components.

D. Manufacturer's Installation Instructions: Indicate installation requirements , post foundation anchor bolt templates,

E. Project Record Documents: Accurately record actual locations of property perimeter posts relative to property lines and easements.

F. Sustainability Submittals, Product data for LEED Compliance:

1. Provide documentation for pre and post-consumer recycled content for all steel decking intended for use as may be required for proper documentation of MR Credit 4. For products having recycled content, documentation indicating percentages by weight of postconsumer and pre-consumer recycled content.

   a. Include statement indicating costs (sell price for each product having recycled content)

   b. Include total weight of products provided

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.

PART 2 PRODUCTS

2.01 MATERIALS AND COMPONENTS

A. Posts, Rails, and Frames: ASTM F 1083 Schedule 40 hot-dipped galvanized steel pipe, welded construction, minimum yield strenght of 30 ksi (205 MPa).

B. Wire Fabric: ASTM A 392 zinc coated steel chain link fabric.

C. Concrete: Type specified in Section 03 3000.

2.02 COMPONENTS

A. Line Posts: 2.38 inch (60 mm) diameter.

B. Corner and Terminal Posts: 3.5 inch (89 mm).

C. Top and Brace Rail: 1.66 inch (42 mm) diameter, plain end, sleeve coupled.

D. Fabric: 2 inch (51 mm) diamond mesh interwoven wire, 6 gage, 0.1620 inch (4.12 mm) thick, top selvage knuckle end closed, bottom selvage twisted tight.

E. Tension Wire: 6 gage, 0.1620 inch (4.12 mm) thick steel, single strand.

2.03 ACCESSORIES

2.04 FINISHES

A. Components (Other than Fabric): Galvanized in accordance with ASTM A123/A123M, at 1.7 oz/sq ft (530 g/sq m).

B. Hardware: Hot-dip galvanized to weight required by ASTM A153/A153M.

C. Accessories: Same finish as framing.

D. Color(s): To be selected by the Government from manufacturer's full range.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install framework, fabric, accessories and gates in accordance with ASTM F 567.

B. Place fabric on outside of posts and rails.

C. Set intermediate posts plumb , in concrete footings with top of footing 2 inches above finish grade. Slope top of concrete for water runoff.

D. Line Post Footing Depth Below Finish Grade: ASTM F 567.

E. Corner, Gate and Terminal Post Footing Depth Below Finish Grade: ASTM F 567.

F. Brace each gate and corner post to adjacent line post with horizontal center brace rail and diagonal truss rods. Install brace rail one bay from end and gate posts.

G. Provide top rail through line post tops and splice with 6 inch (150 mm) long rail sleeves.

H. Install center brace rail on corner gate leaves.

I. Do not stretch fabric until concrete foundation has cured 28 days.

J. Stretch fabric between terminal posts or at intervals of 100 feet (30 m) maximum, whichever is less.

K. Position bottom of fabric 2 inches (50 mm) above finished grade.

L. Fasten fabric to top rail, line posts, braces, and bottom tension wire with tie wire at maximum 15 inches (380 mm) on centers.

M. Attach fabric to end, corner, and gate posts with tension bars and tension bar clips.

N. Install bottom tension wire stretched taut between terminal posts.

O. Install support arms sloped inward and attach barbed wire; tension and secure.

P. Install gate with fabric and barbed wire overhang to match fence. Install hardware.

3.02 TOLERANCES

A. Maximum Variation From Plumb: 1/4 inch (6 mm).

B. Maximum Offset From True Position: 1 inch (25 mm).

END OF SECTION

SECTION 323313 - SITE BICYCLE RACKS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Exterior bicycle racks.

B. Materials and products provided under this specification section shall achieve LEED for New Construction points for the following credits:

1. SS Credit 4.2: Alternative Transportation: Bicycle Storage & Changing
2. MR Credit 4.1 & 4.2: Recycled Content
3. MR Credit 5.1 & 5.2: Regional Materials
4. The contractor is expected to understand the LEED documentation requirements for these credits and include all applicable overhead in their base bid the necessary documentation to achieve the above listed credits.

1.02 RELATED REQUIREMENTS

A. Section 033000 - Cast-in-Place Concrete: Mounting surface for bicycle racks.

B. Section 055000 - Metal Fabrications: Custom metal outdoor furnishings.

C. Section 321313 - Concrete Paving: Mounting surface for bicycle racks.

1.03 REFERENCE STANDARDS

A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel 2019.

B. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless 2022.

C. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes 2021a.

D. ASTM C33/C33M - Standard Specification for Concrete Aggregates 2018.

E. ASTM C150/C150M - Standard Specification for Portland Cement 2022.

F. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete 2010a (Reapproved 2016).

G. ASTM C330/C330M - Standard Specification for Lightweight Aggregates for Structural Concrete 2017a.

1.04 SUBMITTALS

A. See Section 01 3001 - Submittals for submittal procedures:

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.

2. Storage and handling requirements and recommendations.

3. Installation methods.

C. Shop Drawings: Indicate size, shape, and dimensions, including clearances from adjacent walls, doors, and obstructions.

D. Selection Samples: For each finish product specified, color chips representing manufacturer's full range of available colors and patterns.

E. Sustainability Submittals. Submit the following documentation as required for LEED compliance:

1. SS Credit 4.2: Alternative Transportation: Bicycle Storage & Changing:

a. Submit manufacturer’s product data outlining compliance with SS Credit 4.2 requirements.

2. MR Credit 4.1: Recycled Content:

a. Indicate recycled content; indicate percentage of pre-consumer and post-consumer recycled content per unit of product installed on site.

3. MR Credit 5.1 & 5.2: Regional Materials:

a. Indicate location of manufacturing facility; indicate distance between manufacturing facility and the project site.

b. Indicate location of extraction, harvesting, and recover; indicate distance between extraction, harvesting, and recovery and the project site

1.05 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Handle racks with sufficient care to prevent scratches and other damage to the finish.

PART 2 PRODUCTS

2.01 BICYCLE RACKS

A. Exterior Bicycle Racks: Device allows user-provided lock to simultaneously secure one wheel and part of the frame on each bicycle parked or racked.

1. Style: Inverted horseshoe rack formed by one u-shaped bend of round pipe.
2. Overall Installed Height: 38 inches (965 mm).
3. Overall Width: 24 inches (610 mm).
4. Horizontal Bar: Manufacturer's standard flat 3 inch (76.2 mm) wide by 1/4 inch (6 mm) thick steel plate installed between uprights with bottom edge 18 inches (457 mm) above grade.
5. Capacity: eight bicycles.
6. Mounting, Ground: In-ground anchor.
7. Finish: Powder coat, maintenance-free and weather-resistant.
8. Color: As selected by the Government from manufacturer's standard range.
9. Accessories: In-ground grout cover.

B. Materials:

1. Pipe: Carbon steel, ASTM A53/A53M, Schedule 40.
2. Tube: Carbon steel, ASTM A500/A500M.

2.02 ACCESSORIES

A. Anchors, Fasteners, Fittings, and Hardware: Manufacturer's standard, corrosion-resistant-coated or noncorrodible materials; commercial quality; tamperproof, vandal and theft resistant; concealed, recessed, and capped or plugged. Provide as required for bicycle rack assembly, mounting, and secure attachment.

B. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.

C. Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer for exterior applications.

2.03 FABRICATION

A. Metal Components: Form to required shapes and sizes with true, consistent curves, lines, and angles. Separate metals from dissimilar materials to prevent electrolytic action.

B. Welded Connections: Weld connections continuously. Weld solid members with full-length, full-penetration welds and hollow members with full-circumference welds. At exposed connections, finish surfaces smooth and blended so no roughness or unevenness shows after finishing and welded surface matches contours of adjoining surfaces.

C. Pipes and Tubes: Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain cylindrical cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of handrail and railing components.

D. Baseplates: 2-1/2 by 6-1/2 inch (190 mm) square baseplates of 3/8 inch (10mm) thick steel in accordance with ASTM A 36, with two 5/8 inch (15 mm) diameter mounting holes on each base plate, spaced equidistant between the upright pipe and edge of the baseplate.

E. Steel and Iron Components: Color coated. Bare metal steel or iron components are not permitted.

F. Factory Assembly: Assemble components in the factory to the greatest extent possible to minimize field assembly.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine surfaces to receive bicycle racks.

B. If substrate preparation is the responsibility of another installer, notify the Government of unsatisfactory conditions before proceeding.

C. Do not begin installation until unsatisfactory conditions are corrected.

3.02 PREPARATION

A. Ensure surfaces to receive bicycle racks are clean, flat, and level.

3.03 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install level, plumb, square, and correctly located as indicated on drawings.

C. In-Ground Anchor Installation:

1. Prepare holes in size according to manufacturer’s instructions.
2. Place anchoring bolts through the holes in pipe.
3. Lower rack into holes, ensuring the bottom of lower bends are at least 1-1/2 inch (38 mm) from the ground.
4. Place concrete.
5. Level rack before concrete sets.
6. Support until dry.

3.04 INSTALLATION TOLERANCES

A. Install bicycle racks to comply with the following maximum tolerances:

1. Location: Plus or minus 1/2 inch.
2. Height: Plus or minus 1/4 inch.
3. Alignment of Adjacent Units: Plus or minus 1/2 inch in ten feet; 1 inch over total length.
4. Plumb: Plus or minus 1/4 inch.
5. Level: Plus or minus 1/4 inch.

3.05 CLEANING

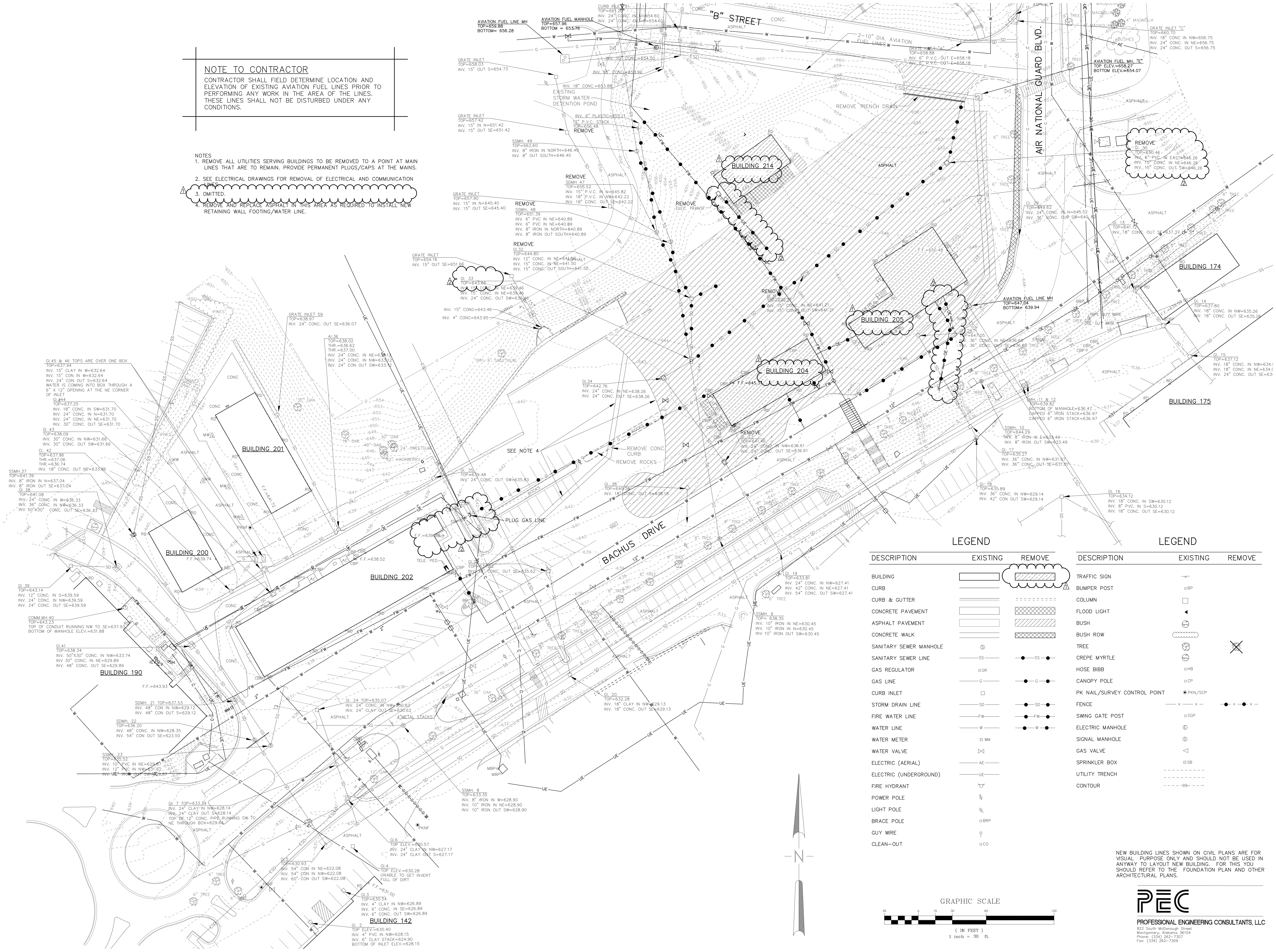
A. Clean installed work to like-new condition. Do not use cleaning materials or methods that could damage finish.

3.06 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

END OF SECTION



NOTE TO CONTRACTOR

CONTRACTOR SHALL FIELD DETERMINE LOCATION AND ELEVATION OF EXISTING AVIATION FUEL LINES PRIOR TO PERFORMING ANY WORK IN THE AREA OF THE LINES. THESE LINES SHALL NOT BE DISTURBED UNDER ANY CONDITIONS.

NOTES

1. REMOVE ALL UTILITIES SERVING BUILDINGS TO BE REMOVED TO A POINT AT MAIN LINES THAT ARE TO REMAIN. PROVIDE PERMANENT PLUGS/CAPS AT THE MAINS.
2. SEE ELECTRICAL DRAWINGS FOR REMOVAL OF ELECTRICAL AND COMMUNICATION LINES.
3. OMITTED. (1)
4. REMOVE AND REPLACE ASPHALT IN THIS AREA AS REQUIRED TO INSTALL NEW RETAINING WALL FOOTING/WATER LINE.

LEGEND

DESCRIPTION	EXISTING	REMOVE
BUILDING		
CURB		
CURB & GUTTER		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
CONCRETE WALK		
SANITARY SEWER MANHOLE		
SANITARY SEWER LINE	—SS—	—●—SS—●—
GAS REGULATOR	○GR	
GAS LINE	—G—	—●—G—●—
CURB INLET		
STORM DRAIN LINE	—SD—	—●—SD—●—
FIRE WATER LINE	—FW—	—●—FW—●—
WATER LINE	—W—	—●—W—●—
WATER METER	WM	
WATER VALVE		
ELECTRIC (AERIAL)	—AE—	
ELECTRIC (UNDERGROUND)	—UE—	
FIRE HYDRANT		
POWER POLE		
LIGHT POLE		
BRACE POLE	○BRP	
GUY WIRE		
CLEAN-OUT	○CO	

LEGEND

DESCRIPTION	EXISTING	REMOVE
TRAFFIC SIGN		
BUMPER POST	○BP	
COLUMN		
FLOOD LIGHT		
BUSH		
BUSH ROW		
TREE		
CREPE MYRTLE		
HOSE BIBB	○HB	
CANOPY POLE	○CP	
PK NAIL/SURVEY CONTROL POINT	PKN/SCP	
FENCE	— x — x —	—●— x —●— x —
SWING GATE POST	○SGP	
ELECTRIC MANHOLE		
SIGNAL MANHOLE		
GAS VALVE		
SPRINKLER BOX	SB	
UTILITY TRENCH		
CONTOUR	-99-	

NEW BUILDING LINES SHOWN ON CIVIL PLANS ARE FOR VISUAL PURPOSE ONLY AND SHOULD NOT BE USED IN ANYWAY TO LAYOUT NEW BUILDING. FOR THIS YOU SHOULD REFER TO THE FOUNDATION PLAN AND OTHER ARCHITECTURAL PLANS.

PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #1	4/20/22
2	ADD #2	1/6/23

Job Number 12072

Date MARCH 2022

Drawn By SBG

Checked By SBG

Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title

Site Demolition Plan (BASE BID)

Sheet Number

C2.1

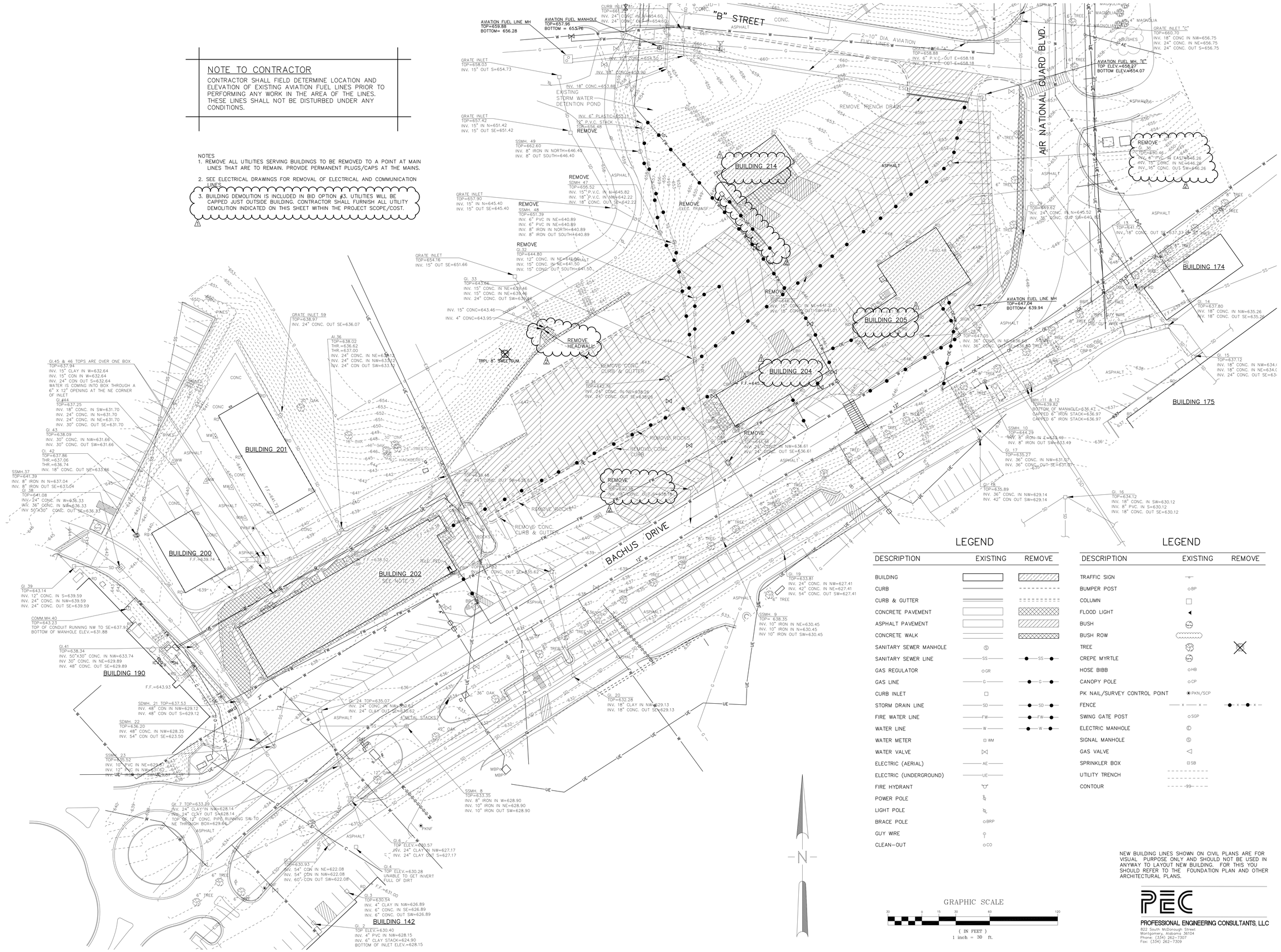
ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOSELY
3/10/22

NOTE TO CONTRACTOR

CONTRACTOR SHALL FIELD DETERMINE LOCATION AND ELEVATION OF EXISTING AVIATION FUEL LINES PRIOR TO PERFORMING ANY WORK IN THE AREA OF THE LINES. THESE LINES SHALL NOT BE DISTURBED UNDER ANY CONDITIONS.

NOTES

1. REMOVE ALL UTILITIES SERVING BUILDINGS TO BE REMOVED TO A POINT AT MAIN LINES THAT ARE TO REMAIN. PROVIDE PERMANENT PLUGS/CAPS AT THE MAINS.
2. SEE ELECTRICAL DRAWINGS FOR REMOVAL OF ELECTRICAL AND COMMUNICATION LINES.
3. BUILDING DEMOLITION IS INCLUDED IN BID OPTION #3. UTILITIES WILL BE CAPPED JUST OUTSIDE BUILDING. CONTRACTOR SHALL FURNISH ALL UTILITY DEMOLITION INDICATED ON THIS SHEET WITHIN THE PROJECT SCOPE/COST.



LEGEND

DESCRIPTION	EXISTING	REMOVE
BUILDING		
CURB		
CURB & GUTTER		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
CONCRETE WALK		
SANITARY SEWER MANHOLE	Ⓢ	
SANITARY SEWER LINE	SS	SS
GAS REGULATOR	GR	
GAS LINE	G	G
CURB INLET		
STORM DRAIN LINE	SD	SD
FIRE WATER LINE	FW	FW
WATER LINE	W	W
WATER METER	WM	
WATER VALVE		
ELECTRIC (AERIAL)	AE	
ELECTRIC (UNDERGROUND)	UE	
FIRE HYDRANT		
POWER POLE		
LIGHT POLE		
BRACE POLE	BRP	
GUY WIRE		
CLEAN-OUT	CO	

LEGEND

DESCRIPTION	EXISTING	REMOVE
TRAFFIC SIGN		
BUMPER POST	BP	
COLUMN		
FLOOD LIGHT		
BUSH		
BUSH ROW		
TREE		
CREPE MYRTLE		
HOSE BIBB	HB	
CANOPY POLE	CP	
PK NAIL/SURVEY CONTROL POINT	PKN/SCP	
FENCE	x x	x x
SWING GATE POST	SGP	
ELECTRIC MANHOLE		
SIGNAL MANHOLE		
GAS VALVE		
SPRINKLER BOX	SB	
UTILITY TRENCH		
CONTOUR	99	

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NEW BUILDING LINES SHOWN ON CIVIL PLANS ARE FOR VISUAL PURPOSE ONLY AND SHOULD NOT BE USED IN ANYWAY TO LAYOUT NEW BUILDING. FOR THIS YOU SHOULD REFER TO THE FOUNDATION PLAN AND OTHER ARCHITECTURAL PLANS.

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #1	4/20/22
2	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By: SBG

Checked By: SBG

Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

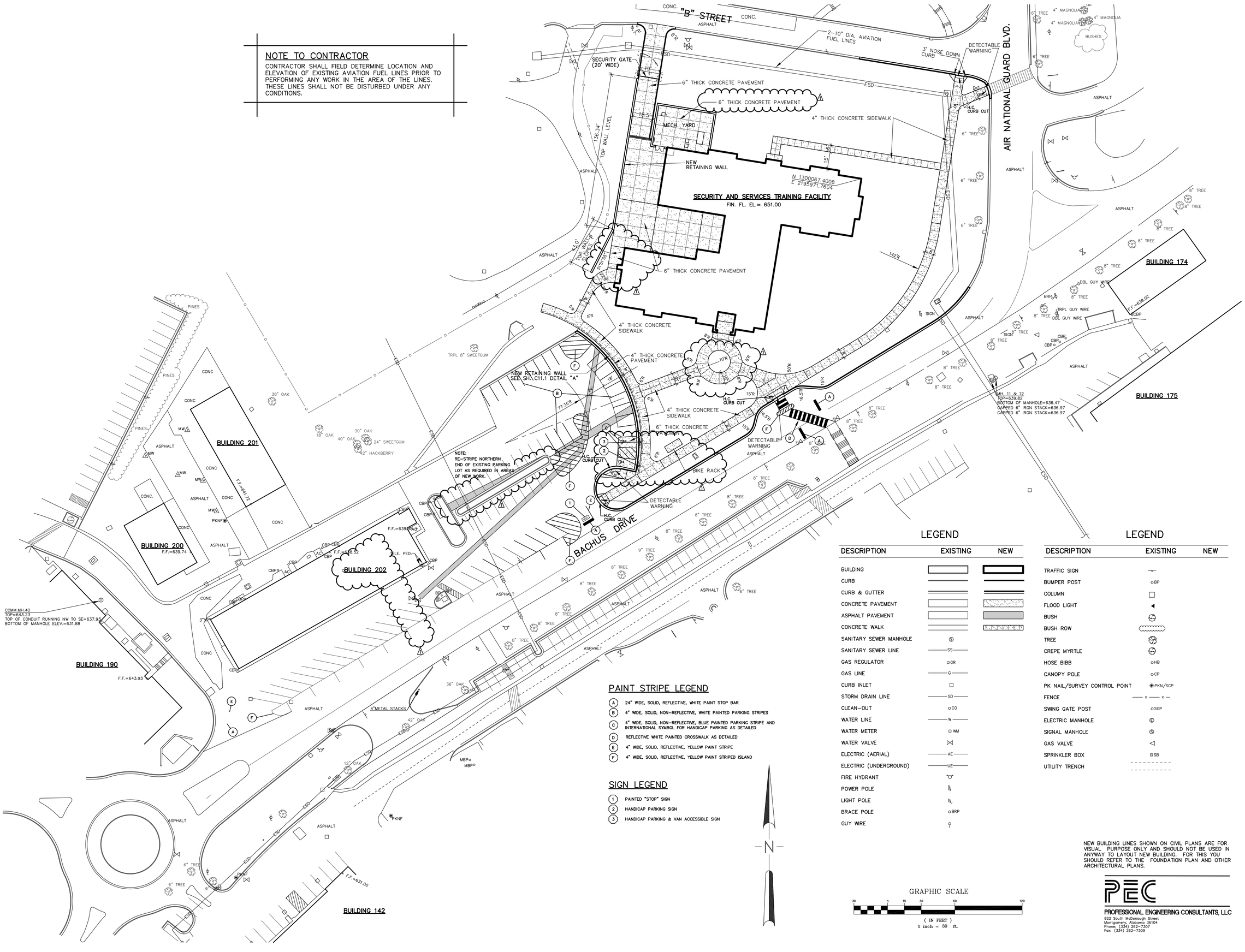
Sheet Title
Site Demolition Plan (Bid Option)

Sheet Number
C2.1A

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOSELEY
3/10/22

NOTE TO CONTRACTOR

CONTRACTOR SHALL FIELD DETERMINE LOCATION AND ELEVATION OF EXISTING AVIATION FUEL LINES PRIOR TO PERFORMING ANY WORK IN THE AREA OF THE LINES. THESE LINES SHALL NOT BE DISTURBED UNDER ANY CONDITIONS.



PAINT STRIPE LEGEND

- (A) 24" WIDE, SOLID, REFLECTIVE, WHITE PAINT STOP BAR
- (B) 4" WIDE, SOLID, NON-REFLECTIVE, WHITE PAINTED PARKING STRIPES
- (C) 4" WIDE, SOLID, NON-REFLECTIVE, BLUE PAINTED PARKING STRIPE AND INTERNATIONAL SYMBOL FOR HANDICAP PARKING AS DETAILED
- (D) REFLECTIVE WHITE PAINTED CROSSWALK AS DETAILED
- (E) 4" WIDE, SOLID, REFLECTIVE, YELLOW PAINT STRIPE
- (F) 4" WIDE, SOLID, REFLECTIVE, YELLOW PAINT STRIPED ISLAND

SIGN LEGEND

- (1) PAINTED "STOP" SIGN
- (2) HANDICAP PARKING SIGN
- (3) HANDICAP PARKING & VAN ACCESSIBLE SIGN

LEGEND

DESCRIPTION	EXISTING	NEW
BUILDING		
CURB		
CURB & GUTTER		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
CONCRETE WALK		
SANITARY SEWER MANHOLE	Ⓢ	
SANITARY SEWER LINE	SS	
GAS REGULATOR	GR	
GAS LINE	G	
CURB INLET		
STORM DRAIN LINE	SD	
CLEAN-OUT	CO	
WATER LINE	W	
WATER METER	WM	
WATER VALVE		
ELECTRIC (AERIAL)	AE	
ELECTRIC (UNDERGROUND)	UE	
FIRE HYDRANT		
POWER POLE		
LIGHT POLE		
BRACE POLE	BRP	
GUY WIRE		

LEGEND

DESCRIPTION	EXISTING	NEW
TRAFFIC SIGN		
BUMPER POST	BP	
COLUMN		
FLOOD LIGHT		
BUSH		
BUSH ROW		
TREE		
CREPE MYRTLE		
HOSE BIBB	HB	
CANOPY POLE	CP	
PK NAIL/SURVEY CONTROL POINT	PKN/SCP	
FENCE	x x	
SWING GATE POST	SGP	
ELECTRIC MANHOLE	Ⓔ	
SIGNAL MANHOLE	Ⓢ	
GAS VALVE		
SPRINKLER BOX	SB	
UTILITY TRENCH		

NEW BUILDING LINES SHOWN ON CIVIL PLANS ARE FOR VISUAL PURPOSE ONLY AND SHOULD NOT BE USED IN ANYWAY TO LAYOUT NEW BUILDING. FOR THIS YOU SHOULD REFER TO THE FOUNDATION PLAN AND OTHER ARCHITECTURAL PLANS.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 265. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By: SBG

Checked By: SBG

Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

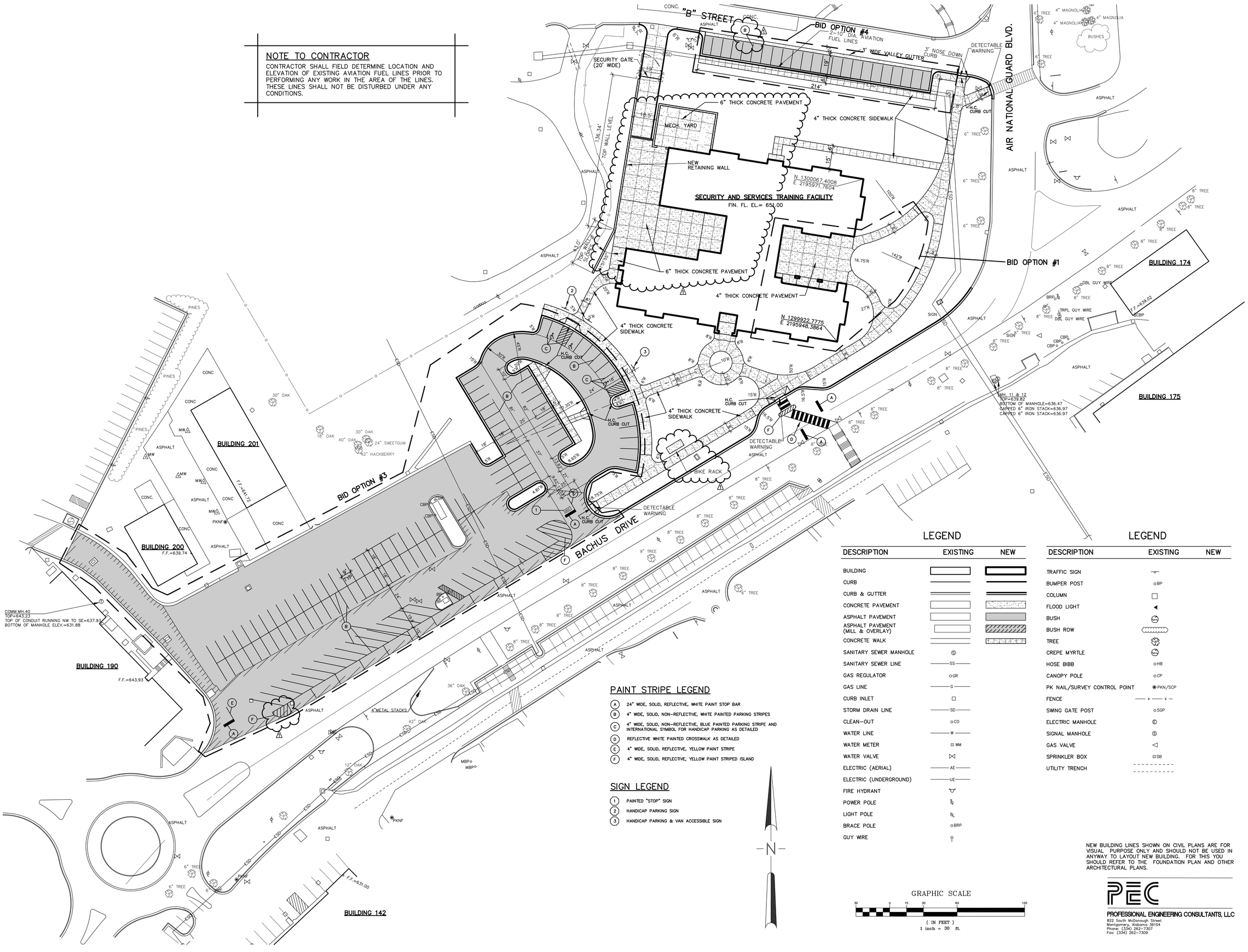
Sheet Title
Site Layout Plan
(Base Bid)

Sheet Number
C3.1

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOSELEY
3/10/22

NOTE TO CONTRACTOR

CONTRACTOR SHALL FIELD DETERMINE LOCATION AND ELEVATION OF EXISTING AVIATION FUEL LINES PRIOR TO PERFORMING ANY WORK IN THE AREA OF THE LINES. THESE LINES SHALL NOT BE DISTURBED UNDER ANY CONDITIONS.



PAINT STRIPE LEGEND

- (A) 24" WIDE, SOLID, REFLECTIVE, WHITE PAINT STOP BAR
- (B) 4" WIDE, SOLID, NON-REFLECTIVE, WHITE PAINTED PARKING STRIPES
- (C) 4" WIDE, SOLID, NON-REFLECTIVE, BLUE PAINTED PARKING STRIPE AND INTERNATIONAL SYMBOL FOR HANDICAP PARKING AS DETAILED
- (D) REFLECTIVE WHITE PAINTED CROSSWALK AS DETAILED
- (E) 4" WIDE, SOLID, REFLECTIVE, YELLOW PAINT STRIPE
- (F) 4" WIDE, SOLID, REFLECTIVE, YELLOW PAINT STRIPED ISLAND

SIGN LEGEND

- (1) PAINTED "STOP" SIGN
- (2) HANDICAP PARKING SIGN
- (3) HANDICAP PARKING & VAN ACCESSIBLE SIGN

LEGEND

DESCRIPTION	EXISTING	NEW
BUILDING		
CURB		
CURB & GUTTER		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
ASPHALT PAVEMENT (MILL & OVERLAY)		
CONCRETE WALK		
SANITARY SEWER MANHOLE	Ⓢ	
SANITARY SEWER LINE	SS	
GAS REGULATOR	GR	
GAS LINE	G	
CURB INLET		
STORM DRAIN LINE	SD	
CLEAN-OUT	CO	
WATER LINE	W	
WATER METER	WM	
WATER VALVE		
ELECTRIC (AERIAL)	AE	
ELECTRIC (UNDERGROUND)	UE	
FIRE HYDRANT		
POWER POLE		
LIGHT POLE		
BRACE POLE	BRP	
GUY WIRE		

LEGEND

DESCRIPTION	EXISTING
TRAFFIC SIGN	
BUMPER POST	BP
COLUMN	
FLOOD LIGHT	
BUSH	
BUSH ROW	
TREE	
CREPE MYRTLE	
HOSE BIBB	HB
CANOPY POLE	CP
PK NAIL/SURVEY CONTROL POINT	PKN/SCP
FENCE	x
SWING GATE POST	SGP
ELECTRIC MANHOLE	Ⓔ
SIGNAL MANHOLE	Ⓢ
GAS VALVE	
SPRINKLER BOX	SB
UTILITY TRENCH	

NEW BUILDING LINES SHOWN ON CIVIL PLANS ARE FOR VISUAL PURPOSE ONLY AND SHOULD NOT BE USED IN ANYWAY TO LAYOUT NEW BUILDING. FOR THIS YOU SHOULD REFER TO THE FOUNDATION PLAN AND OTHER ARCHITECTURAL PLANS.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 265. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072
Date: MARCH 2022
Drawn By: SBG
Checked By: SBG
Project Title:

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: Site Layout Plan (Bid Option)

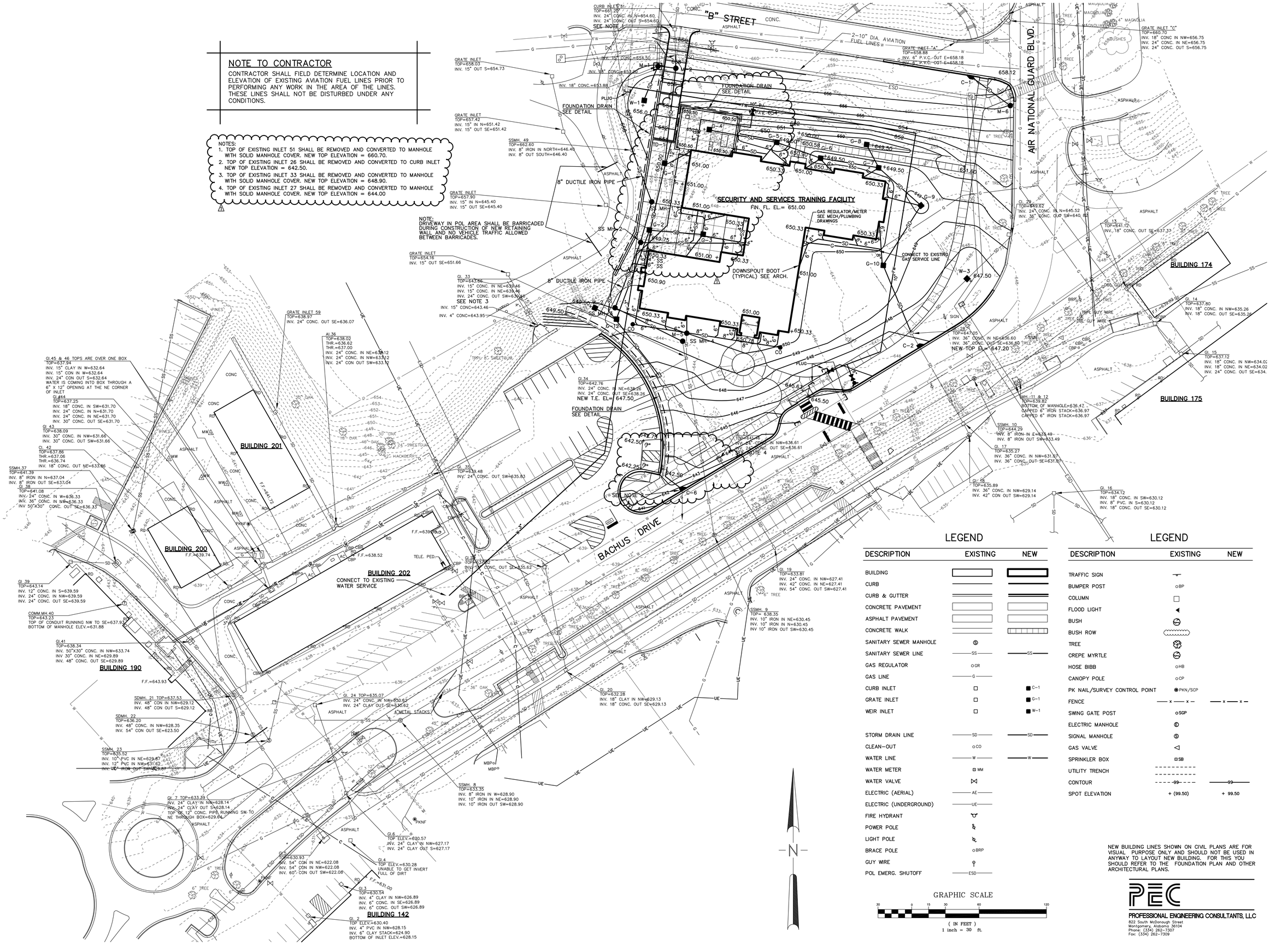
Sheet Number: C3.1A

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOSELEY
3/10/22

NOTE TO CONTRACTOR

CONTRACTOR SHALL FIELD DETERMINE LOCATION AND ELEVATION OF EXISTING AVIATION FUEL LINES PRIOR TO PERFORMING ANY WORK IN THE AREA OF THE LINES. THESE LINES SHALL NOT BE DISTURBED UNDER ANY CONDITIONS.

NOTES:
1. TOP OF EXISTING INLET 51 SHALL BE REMOVED AND CONVERTED TO MANHOLE WITH SOLID MANHOLE COVER. NEW TOP ELEVATION = 660.70.
2. TOP OF EXISTING INLET 26 SHALL BE REMOVED AND CONVERTED TO CURB INLET NEW TOP ELEVATION = 642.50.
3. TOP OF EXISTING INLET 33 SHALL BE REMOVED AND CONVERTED TO MANHOLE WITH SOLID MANHOLE COVER. NEW TOP ELEVATION = 648.90.
4. TOP OF EXISTING INLET 27 SHALL BE REMOVED AND CONVERTED TO MANHOLE WITH SOLID MANHOLE COVER. NEW TOP ELEVATION = 644.00



LEGEND

DESCRIPTION	EXISTING	NEW
BUILDING		
CURB		
CURB & GUTTER		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
CONCRETE WALK		
SANITARY SEWER MANHOLE	S	
SANITARY SEWER LINE	SS	SS
GAS REGULATOR	GR	
GAS LINE	G	
CURB INLET		C-1
GRATE INLET		G-1
WEIR INLET		W-1
STORM DRAIN LINE	SD	SD
CLEAN-OUT	CO	
WATER LINE	W	W
WATER METER	WM	
WATER VALVE		
ELECTRIC (AERIAL)	AE	
ELECTRIC (UNDERGROUND)	UE	
FIRE HYDRANT		
POWER POLE		
LIGHT POLE		
BRACE POLE	BRP	
GUY WIRE		
POL EMERG. SHUTOFF	ESD	

LEGEND

DESCRIPTION	EXISTING	NEW
TRAFFIC SIGN		
BUMPER POST	BP	
COLUMN		
FLOOD LIGHT		
BUSH		
BUSH ROW		
TREE		
CREPE MYRTLE		
HOSE BIBB	HB	
CANOPY POLE	CP	
PK NAIL/SURVEY CONTROL POINT	PKN/SCP	
FENCE	x x	x x
SWING GATE POST	SGP	
ELECTRIC MANHOLE		
SIGNAL MANHOLE		
GAS VALVE		
SPRINKLER BOX	SB	
UTILITY TRENCH		
CONTOUR	99	99
SPOT ELEVATION	+ (99.50)	+ 99.50

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NEW BUILDING LINES SHOWN ON CIVIL PLANS ARE FOR VISUAL PURPOSE ONLY AND SHOULD NOT BE USED IN ANYWAY TO LAYOUT NEW BUILDING. FOR THIS YOU SHOULD REFER TO THE FOUNDATION PLAN AND OTHER ARCHITECTURAL PLANS.

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 265. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072
Date: MARCH 2022
Drawn By: SBG
Checked By: SBG
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Site Grading and Drainage Plan (BASE BID)

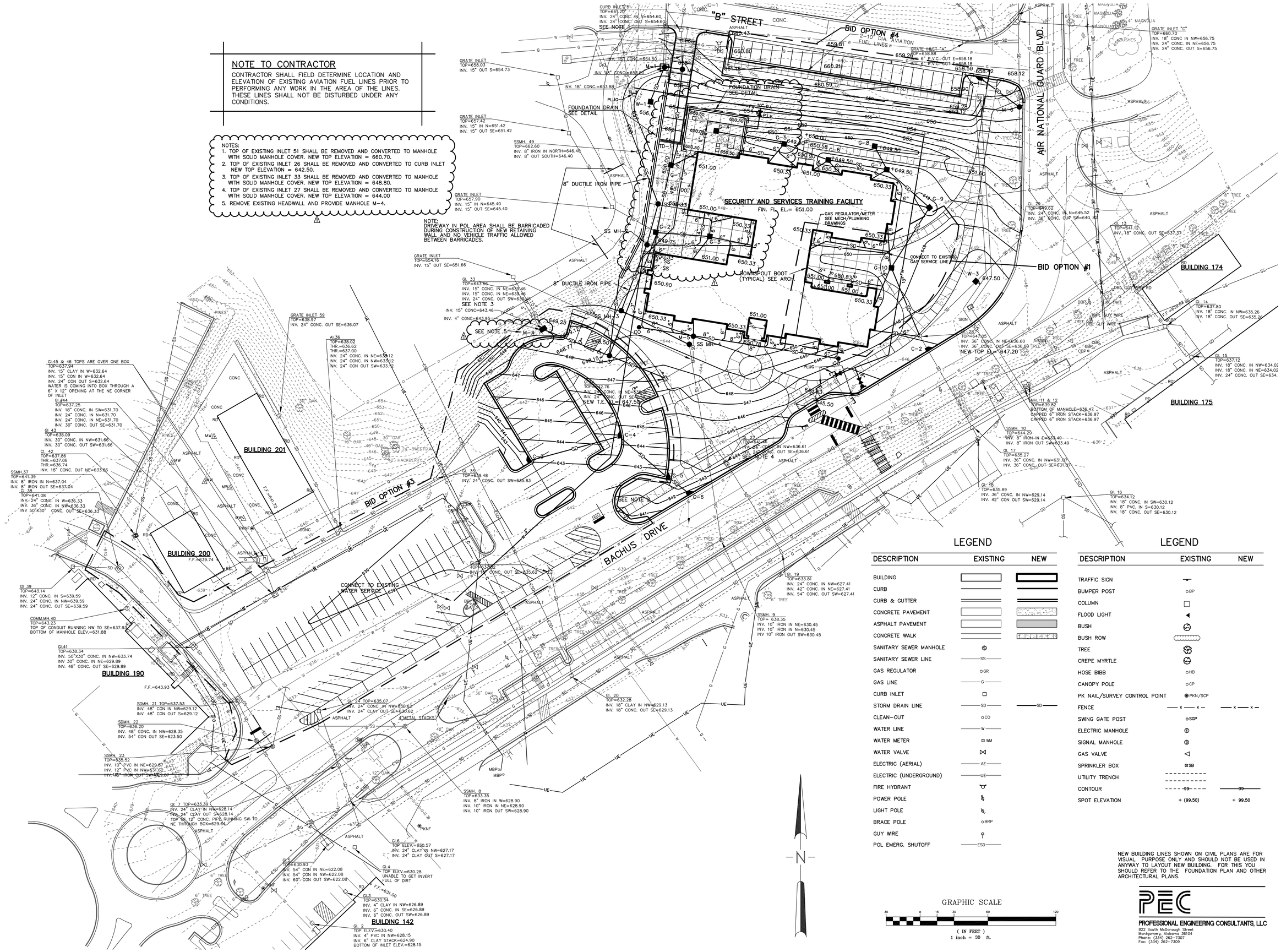
Sheet Number
C4.1

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOSELEY
3/10/22

NOTE TO CONTRACTOR

CONTRACTOR SHALL FIELD DETERMINE LOCATION AND ELEVATION OF EXISTING AVIATION FUEL LINES PRIOR TO PERFORMING ANY WORK IN THE AREA OF THE LINES. THESE LINES SHALL NOT BE DISTURBED UNDER ANY CONDITIONS.

NOTES:
1. TOP OF EXISTING INLET 51 SHALL BE REMOVED AND CONVERTED TO MANHOLE WITH SOLID MANHOLE COVER. NEW TOP ELEVATION = 660.70.
2. TOP OF EXISTING INLET 26 SHALL BE REMOVED AND CONVERTED TO CURB INLET NEW TOP ELEVATION = 642.50.
3. TOP OF EXISTING INLET 33 SHALL BE REMOVED AND CONVERTED TO MANHOLE WITH SOLID MANHOLE COVER. NEW TOP ELEVATION = 648.80.
4. TOP OF EXISTING INLET 27 SHALL BE REMOVED AND CONVERTED TO MANHOLE WITH SOLID MANHOLE COVER. NEW TOP ELEVATION = 644.00
5. REMOVE EXISTING HEADWALL AND PROVIDE MANHOLE M-4.



LEGEND

DESCRIPTION	EXISTING	NEW
BUILDING		
CURB		
CURB & GUTTER		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
CONCRETE WALK		
SANITARY SEWER MANHOLE		
SANITARY SEWER LINE	SS	
GAS REGULATOR	GR	
GAS LINE	G	
CURB INLET		
STORM DRAIN LINE	SD	SD
CLEAN-OUT	CO	
WATER LINE	W	
WATER METER	WM	
WATER VALVE		
ELECTRIC (AERIAL)	AE	
ELECTRIC (UNDERGROUND)	UE	
FIRE HYDRANT		
POWER POLE		
LIGHT POLE		
BRACE POLE	BRP	
GUY WIRE		
POL EMERG. SHUTOFF	ESD	

LEGEND

DESCRIPTION	EXISTING	NEW
TRAFFIC SIGN		
BUMPER POST	BP	
COLUMN		
FLOOD LIGHT		
BUSH		
BUSH ROW		
TREE		
CREPE MYRTLE		
HOSE BIBB	HB	
CANOPY POLE	CP	
PK NAIL/SURVEY CONTROL POINT	PKN/SCP	
FENCE	x x x	x x x
SWING GATE POST	SGP	
ELECTRIC MANHOLE		
SIGNAL MANHOLE		
GAS VALVE		
SPRINKLER BOX	SB	
UTILITY TRENCH		
CONTOUR	99	99
SPOT ELEVATION	+ (99.50)	+ 99.50

NEW BUILDING LINES SHOWN ON CIVIL PLANS ARE FOR VISUAL PURPOSE ONLY AND SHOULD NOT BE USED IN ANYWAY TO LAYOUT NEW BUILDING. FOR THIS YOU SHOULD REFER TO THE FOUNDATION PLAN AND OTHER ARCHITECTURAL PLANS.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 265. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: AUGUST 2021

Drawn By: SBG

Checked By: SBG

Project Title:
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

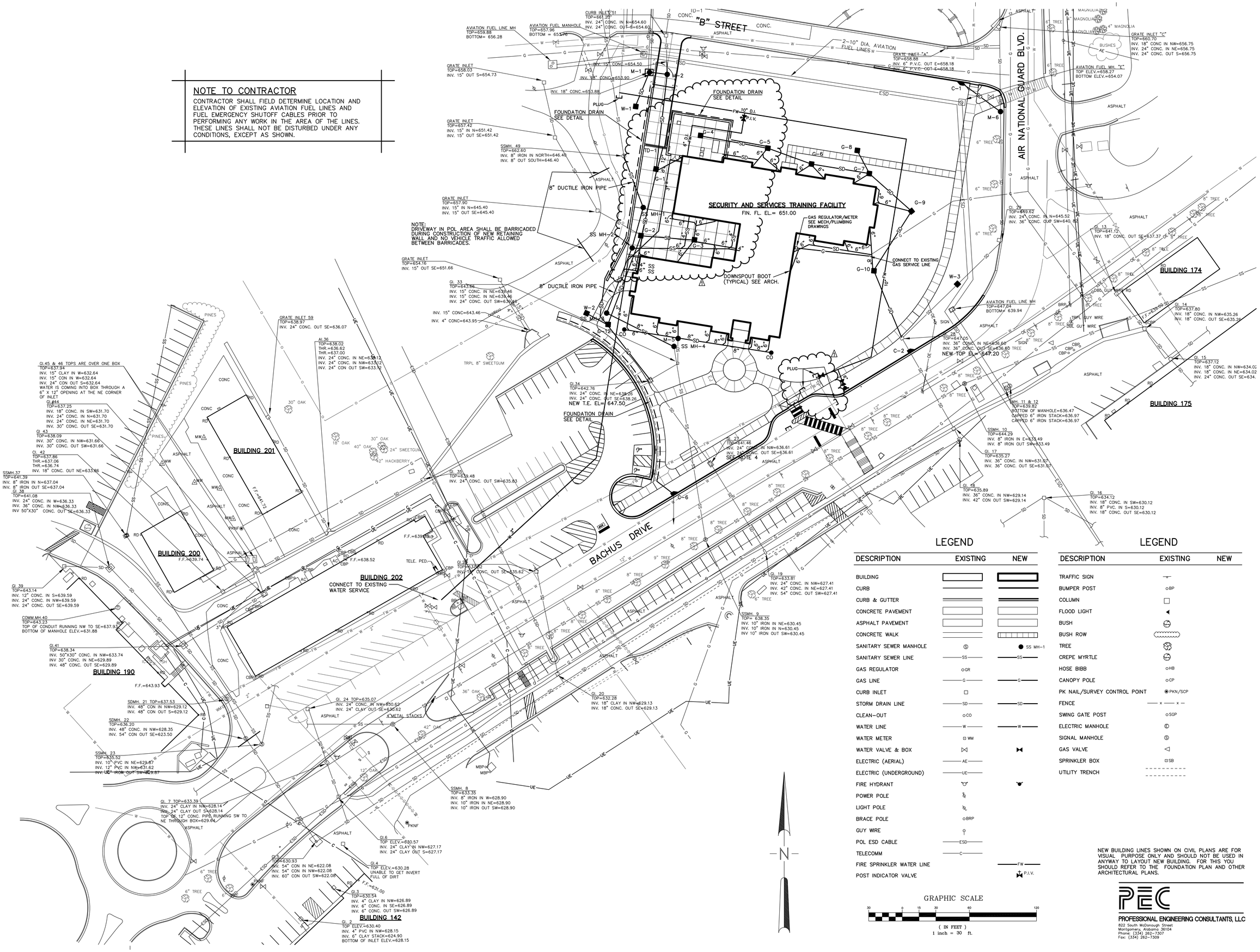
Sheet Title:
Site Grading and Drainage Plan (Bid Option)

Sheet Number:
C4.1A

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOELLER
3/10/22

NOTE TO CONTRACTOR

CONTRACTOR SHALL FIELD DETERMINE LOCATION AND ELEVATION OF EXISTING AVIATION FUEL LINES AND FUEL EMERGENCY SHUTOFF CABLES PRIOR TO PERFORMING ANY WORK IN THE AREA OF THE LINES. THESE LINES SHALL NOT BE DISTURBED UNDER ANY CONDITIONS, EXCEPT AS SHOWN.



LEGEND

DESCRIPTION	EXISTING	NEW
BUILDING		
CURB		
CURB & GUTTER		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
CONCRETE WALK		
SANITARY SEWER MANHOLE	Ⓢ	● SS MH-1
SANITARY SEWER LINE	—SS—	—SS—
GAS REGULATOR	○GR	
GAS LINE	—G—	—G—
CURB INLET	□	
STORM DRAIN LINE	—SD—	—SD—
CLEAN-OUT	○CO	
WATER LINE	—W—	—W—
WATER METER	⊡ WM	
WATER VALVE & BOX	⋈	⋈
ELECTRIC (AERIAL)	—AE—	
ELECTRIC (UNDERGROUND)	—UE—	
FIRE HYDRANT		
POWER POLE		
LIGHT POLE		
BRACE POLE	○BRP	
GUY WIRE		
POL ESD CABLE	—ESD—	
TELECOMM	—C—	
FIRE SPRINKLER WATER LINE		—FW—
POST INDICATOR VALVE		P.I.V.

LEGEND

DESCRIPTION	EXISTING	NEW
TRAFFIC SIGN		
BUMPER POST	○BP	
COLUMN	□	
FLOOD LIGHT	◄	
BUSH		
BUSH ROW		
TREE		
CREPE MYRTLE		
HOSE BIBB	○HB	
CANOPY POLE	○CP	
PK NAIL/SURVEY CONTROL POINT	◉PKN/SCP	
FENCE	—x—x—	
SWING GATE POST	○SGP	
ELECTRIC MANHOLE	Ⓔ	
SIGNAL MANHOLE	Ⓢ	
GAS VALVE	◁	
SPRINKLER BOX	⊡SB	
UTILITY TRENCH		

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NEW BUILDING LINES SHOWN ON CIVIL PLANS ARE FOR VISUAL PURPOSE ONLY AND SHOULD NOT BE USED IN ANYWAY TO LAYOUT NEW BUILDING. FOR THIS YOU SHOULD REFER TO THE FOUNDATION PLAN AND OTHER ARCHITECTURAL PLANS.

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOSELEY
3/10/22

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 265.3162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072
Date: MARCH 2022
Drawn By: SBG
Checked By: SBG
Project Title:

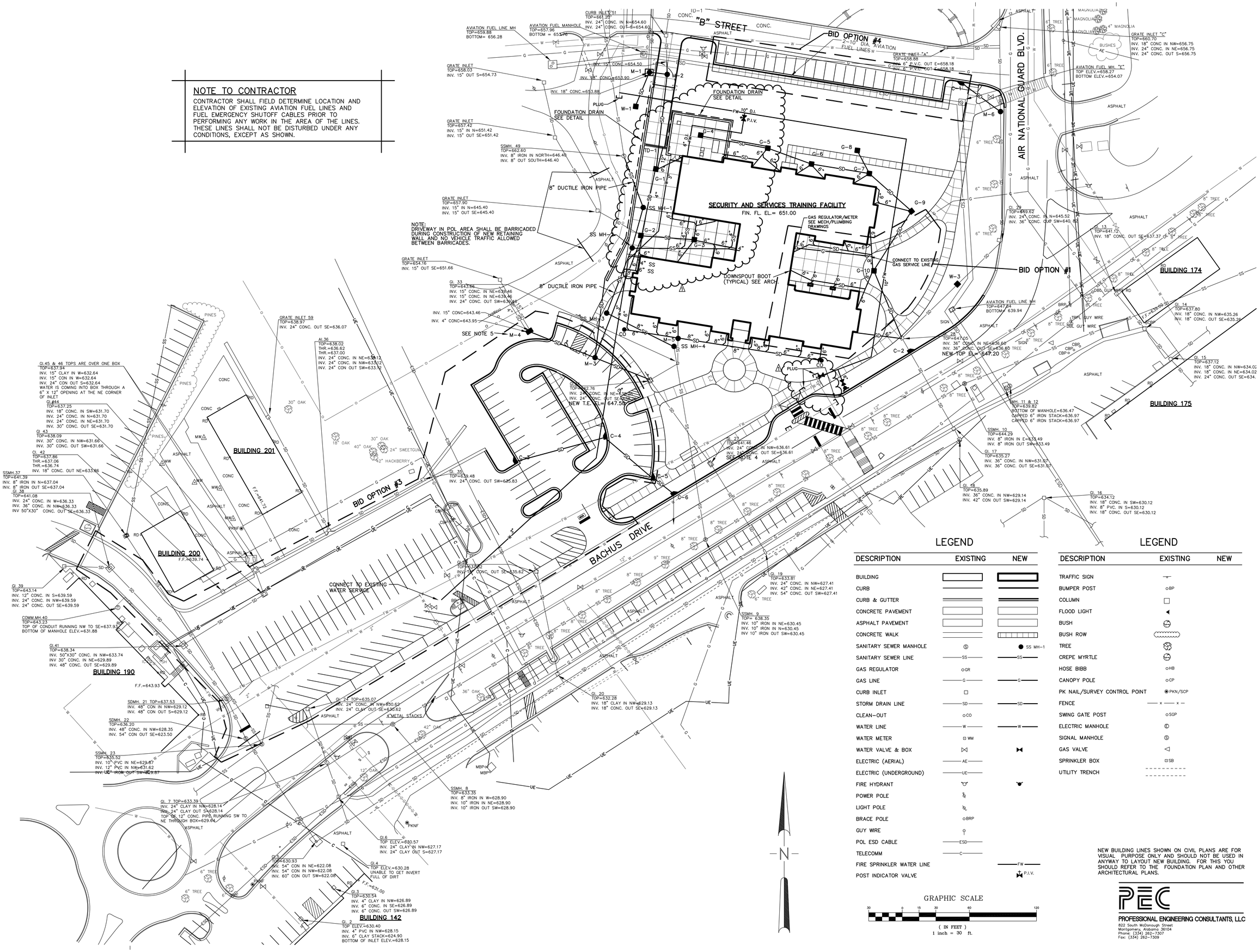
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: Site Utilities Plan (BASE BID)

Sheet Number: C5.1

NOTE TO CONTRACTOR

CONTRACTOR SHALL FIELD DETERMINE LOCATION AND ELEVATION OF EXISTING AVIATION FUEL LINES AND FUEL EMERGENCY SHUTOFF CABLES PRIOR TO PERFORMING ANY WORK IN THE AREA OF THE LINES. THESE LINES SHALL NOT BE DISTURBED UNDER ANY CONDITIONS, EXCEPT AS SHOWN.



LEGEND

DESCRIPTION	EXISTING	NEW
BUILDING		
CURB		
CURB & GUTTER		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
CONCRETE WALK		
SANITARY SEWER MANHOLE	Ⓢ	SS MH-1
SANITARY SEWER LINE	SS	SS
GAS REGULATOR	GR	
GAS LINE	G	G
CURB INLET		
STORM DRAIN LINE	SD	SD
CLEAN-OUT	CO	
WATER LINE	W	W
WATER METER	WM	
WATER VALVE & BOX		
ELECTRIC (AERIAL)	AE	
ELECTRIC (UNDERGROUND)	UE	
FIRE HYDRANT		
POWER POLE		
LIGHT POLE		
BRACE POLE	BRP	
GUY WIRE		
POL ESD CABLE	ESD	
TELECOMM	C	
FIRE SPRINKLER WATER LINE		FW
POST INDICATOR VALVE		P.I.V.

LEGEND

DESCRIPTION	EXISTING
TRAFFIC SIGN	
BUMPER POST	BP
COLUMN	
FLOOD LIGHT	
BUSH	
BUSH ROW	
TREE	
CREPE MYRTLE	
HOSE BIBB	HB
CANOPY POLE	CP
PK NAIL/SURVEY CONTROL POINT	PKN/SCP
FENCE	x x
SWING GATE POST	SGP
ELECTRIC MANHOLE	Ⓔ
SIGNAL MANHOLE	Ⓢ
GAS VALVE	
SPRINKLER BOX	SB
UTILITY TRENCH	

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NEW BUILDING LINES SHOWN ON CIVIL PLANS ARE FOR VISUAL PURPOSE ONLY AND SHOULD NOT BE USED IN ANYWAY TO LAY'OUT NEW BUILDING. FOR THIS YOU SHOULD REFER TO THE FOUNDATION PLAN AND OTHER ARCHITECTURAL PLANS.

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 265. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: AUGUST 2021

Drawn By: SBG

Checked By: SBG

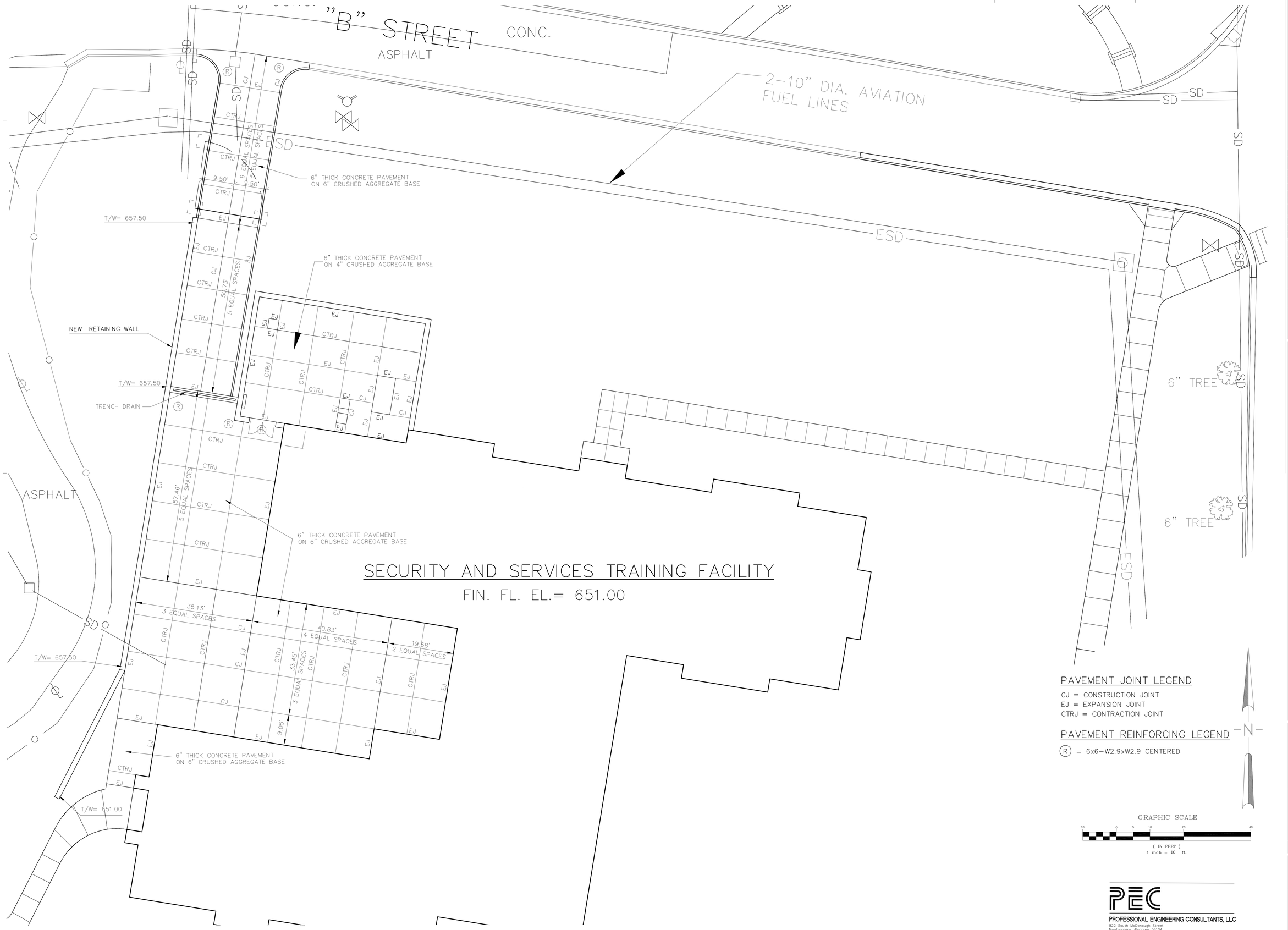
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Site Utilities Plan
(Bid Option)

Sheet Number
C5.1A

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOSELEY
3/10/22



PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

S S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072
Date: MARCH 2022
Drawn By: SBG
Checked By: SBG
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Pavement Joint Layout (Base Bid)

Sheet Number
C7.1

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MODESITT
3/10/22

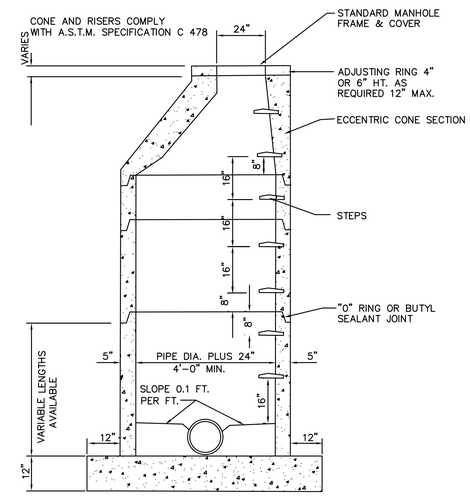
STORM DRAINAGE PIPE AND STRUCTURE SCHEDULE (BASE BID)

STRUCTURE FROM	STRUCTURE TO	PIPES PIPE LGTH. FT.	PIPES DIA. IN.	PIPES SLOPE %	PIPES INVERT ELEV. UP STREAM	PIPES INVERT ELEV. DOWN STREAM	STRUCTURES NO.	STRUCTURES TYPE STURCTURE	STRUCTURES TOP ELEV.	REMARKS
W-1	M-1	32	15	1.00	653.32	653.00	W-1	WEIR INLET	656.83	
M-1	M-2	15	24	1.00	653.00	652.85	M-1	MANHOLE	658.00	
EX 24" PIPE	M-2	12	24	1.00	654.50	654.38	M-2	MANHOLE	657.40	VERIFY EXISTING PIPE ELEVATION PRIOR TO SETTING DISCHARGE ELEVATION (M-2)
M-2	G-1	87	24	1.84	645.50	643.90	G-1	GRATE INLET	650.00	
TD-1	G-1	22	12	9.00	649.00	647.00	TD-1	TRENCH DRAIN	651.00	
G-1	G-2	58	24	1.16	643.67	643.00	G-2	GRATE INLET	649.75	
G-3	G-2	45	15	1.00	646.00	645.55	G-3	GRATE INLET	650.00	
G-2	G-12	82	24	1.00	642.22	641.40	G-12	GRATE INLET	649.50	
W-2	G-12	20	15	1.00	646.00	645.80	W-2	WEIR INLET	650.33	
G-12	EX. G.I. 34	60	24	1.00	641.40	640.80	EX. G.I. 34	GRATE INLET	647.50	RAISE TOP FROM 642.76 TO 647.50
							M-5	MANHOLE	650.00	TO BE CONSTRUCTED ON EXIST. PIPE CALCULATED INV. EL. EXISTING PIPE =640.30
C-1	M-6	43	18	5.47	655.35	653.00	C-1	CURB INLET	658.85	VERIFY EXISTING PIPE ELEVATION AT M-6 PRIOR TO SETTING SLOPE FROM C-1 TO M-6/ PRIOR TO ESTABLISHING UPSTREAM ELEVATION ON M-6
							M-6	MANHOLE	657.00	TO BE CONSTRUCTED ON EXIST. PIPE CALCULATED INV. EL. EXISTING PIPE =652.30
G-4	G-5	61	12	1.00	647.50	646.89	G-4	GRATE INLET	650.00	
G-5	G-6	40	18	1.00	646.50	646.10	G-5	GRATE INLET	649.50	
G-6	G-7	50	18	1.00	646.10	645.60	G-6	GRATE INLET	649.50	
G-8	G-7	22	18	1.00	646.50	646.28	G-7	GRATE INLET	649.50	
G-7	G-9	49	18	1.00	645.60	645.11	G-8	GRATE INLET	649.50	
G-9	G-10	61	18	1.00	645.11	644.47	G-9	GRATE INLET	649.50	
G-10	EX. G.I. 28	64	18	1.00	644.47	643.86	G-10	GRATE INLET	649.50	
							C-2	CURB INLET	646.60	TO BE CONSTRUCTED ON EXIST. 36" PIPE CALCULATED INV. EL. EXISTING PIPE =635.72±
							C-6	CURB INLET	641.39±	TO BE CONSTRUCTED ON EXIST. 18" PIPE APPROX. INV. EL. EXISTING PIPE =638.18
							W-3	WEIR INLET	650.08	TO BE CONSTRUCTED ON EXIST. 36" PIPE CALCULATED INV. EL. EXISTING PIPE =638.95±

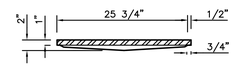
NOTES:
1. PIPE LENGTHS SHOWN IN SCHEDULES ARE HORIZONTAL DISTANCES.
2. PIPES FROM BUILDING DOWNSPOUTS TO DRAINAGE SYSTEM ARE NOT SHOWN IN SCHEDULES. SEE GRADING PLANS FOR PIPE SIZES AND LENGTHS. PIPES SHALL SLOPE AT MINIMUM 1.0%.

STORM DRAINAGE PIPE AND STRUCTURE SCHEDULE (ALTERNATE)

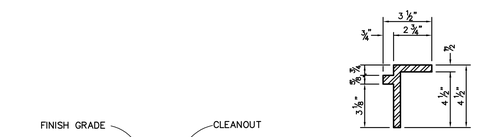
STRUCTURE FROM	STRUCTURE TO	PIPES PIPE LGTH. FT.	PIPES DIA. IN.	PIPES SLOPE %	PIPES INVERT ELEV. UP STREAM	PIPES INVERT ELEV. DOWN STREAM	STRUCTURES NO.	STRUCTURES TYPE STURCTURE	STRUCTURES TOP ELEV.	REMARKS
W-1	M-1	32	15	1.00	653.32	653.00	W-1	WEIR INLET	656.83	
M-1	M-2	15	24	1.00	653.00	652.85	M-1	MANHOLE	658.00	
EX 24" PIPE	M-2	12	24	1.00	654.50	654.38	M-2	MANHOLE	657.40	VERIFY EXISTING PIPE ELEVATION PRIOR TO SETTING DISCHARGE ELEVATION (M-2)
M-2	G-1	87	24	1.84	645.50	643.90	G-1	GRATE INLET	650.00	
TD-1	G-1	22	12	9.00	649.00	647.00	TD-1	TRENCH DRAIN	651.00	
G-1	G-2	58	24	1.16	643.67	643.00	G-2	GRATE INLET	649.75	
G-3	G-2	45	15	1.00	646.00	645.55	G-3	GRATE INLET	650.00	
G-2	M-3	117	24	1.00	642.22	641.05	M-3	MANHOLE	648.00	
M-4	M-3	62	18	1.00	643.00	642.38	M-4	MANHOLE	649.50	
M-3	EX. G.I. 34	52	24	3.85	641.00	639.00	EX. G.I. 34	GRATE INLET	647.50	RAISE TOP FROM 642.76 TO 647.50
							M-5	MANHOLE	650.00	TO BE CONSTRUCTED ON EXIST. PIPE CALCULATED INV. EL. EXISTING PIPE =640.30
C-1	M-6	43	18	5.47	655.35	653.00	C-1	CURB INLET	658.85	VERIFY EXISTING PIPE ELEVATION AT M-6 PRIOR TO SETTING SLOPE FROM C-1 TO M-6/ PRIOR TO ESTABLISHING UPSTREAM ELEVATION ON M-6
							M-6	MANHOLE	657.00	TO BE CONSTRUCTED ON EXIST. PIPE CALCULATED INV. EL. EXISTING PIPE =652.30
G-4	G-5	61	12	1.00	647.50	646.89	G-4	GRATE INLET	650.00	
G-5	G-6	40	18	1.00	646.50	646.10	G-5	GRATE INLET	649.50	
G-6	G-7	50	18	1.00	646.10	645.60	G-6	GRATE INLET	649.50	
G-8	G-7	22	18	1.00	646.50	646.28	G-7	GRATE INLET	649.50	
G-7	G-9	49	18	1.00	645.60	645.11	G-8	GRATE INLET	649.50	
G-9	G-10	61	18	1.00	645.11	644.47	G-9	GRATE INLET	649.50	
G-10	EX. G.I. 28	64	18	1.00	644.47	643.86	G-10	GRATE INLET	649.50	
							C-2	CURB INLET	646.60	TO BE CONSTRUCTED ON EXIST. 36" PIPE CALCULATED INV. EL. EXISTING PIPE =635.72±
							C-3	CURB INLET	643.50	
C-3	C-4	81	18	1.00	640.00	639.19	C-4	CURB INLET	645.00	
C-4	C-5	54	18	1.00	639.19	638.65	C-5	CURB INLET	643.15	
C-5	C-6	22	18	1.00	638.65	638.43	C-6	CURB INLET	641.39±	TO BE CONSTRUCTED ON EXIST. 18" PIPE APPROX. INV. EL. EXISTING PIPE =638.18
							W-3	WEIR INLET	650.08	TO BE CONSTRUCTED ON EXIST. 36" PIPE CALCULATED INV. EL. EXISTING PIPE =638.95±



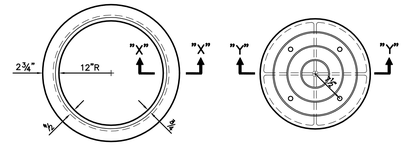
PRECAST CONCRETE MANHOLE
NTS



SECTION "B-B"

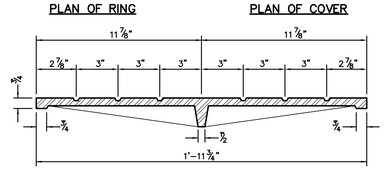


SECTION "X"-"X"



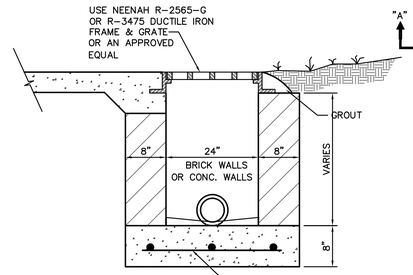
PLAN OF RING

PLAN OF COVER

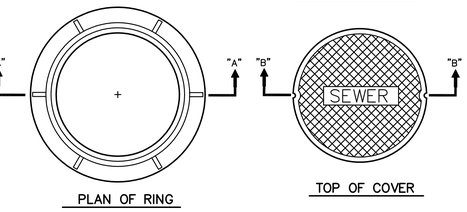


SECTION "Y"-"Y"

LIGHT DUTY MANHOLE FRAME & COVER
NTS

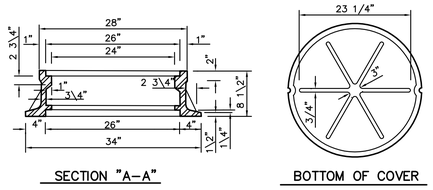


GRATE INLET
NTS



PLAN OF RING

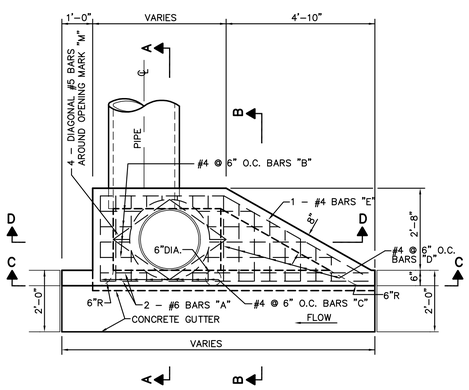
TOP OF COVER



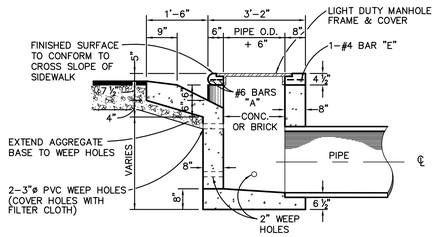
SECTION "A-A"

BOTTOM OF COVER

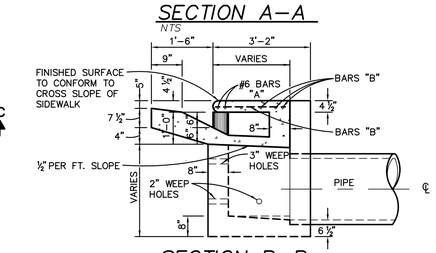
STANDARD MANHOLE COVER & RING
NTS



PLAN
NTS

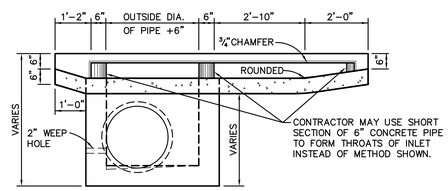


SECTION A-A
NTS

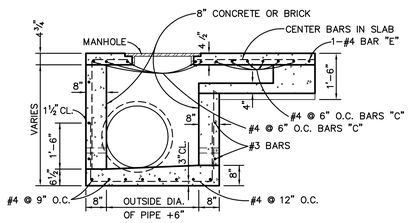


SECTION B-B
NTS

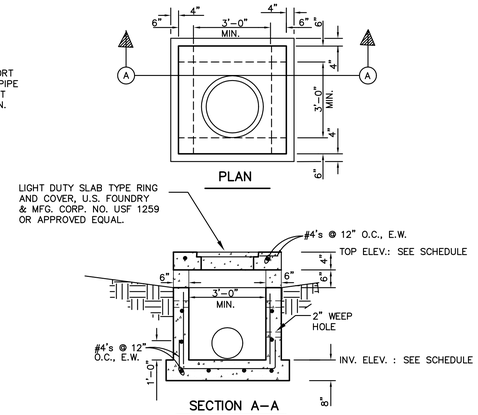
TYPE 'S' CURB INLET DETAILS



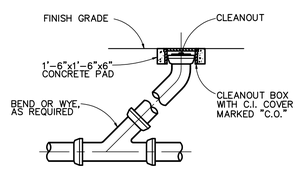
SECTION C-C
NTS



SECTION D-D
NTS



WEIR INLET DETAIL
NTS



TYPICAL CLEANOUT DETAIL
NTS

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOSELEY
3/10/22

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 265.3162 | WWW.SSLARCH.COM

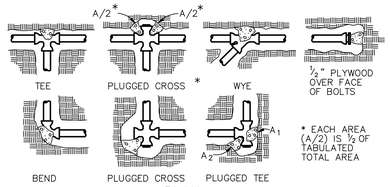
Rev.	Description	Date
1	ADD #2	1/6/2023

Job Number 12072
Date MARCH 2022
Drawn By SBG
Checked By SBG
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Site Details

Sheet Number
C10.1



* EACH AREA (A/2) IS ½ OF TABULATED TOTAL AREA

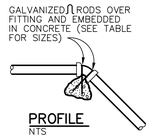
PLAN
NTS

BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)							
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED RUN		BEND ANGLE		
			A1	A2	45°	22½°	11¼°
4	1.0	1.4	1.9	1.4	1.0	—	—
6	2.1	3.0	4.3	3.0	1.6	1.0	—
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2
12	8.5	12.0	17.0	12.0	6.6	3.4	1.7
14	11.5	16.3	23.0	16.3	8.9	4.6	2.3
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0
18	19.0	27.0	38.0	27.0	14.6	7.6	3.8
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8

VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)			
FITTING SIZE	BEND ANGLE		
	45°	22½°	11¼°
4	1.1	0.4	0.2
6	2.7	1.0	0.4
8	4.0	1.5	0.6
10	6.0	2.3	0.9
12	8.5	3.2	1.3
14	11.5	4.3	1.8
16	14.8	5.6	2.3

* SEE NOTE 5.

FITTING SIZE	ROD SIZE	EMBEDDMENT
12" AND LESS	#6	30"
14"–16"	#8	36"

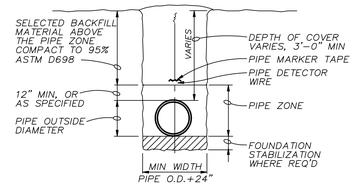


PROFILE
NTS

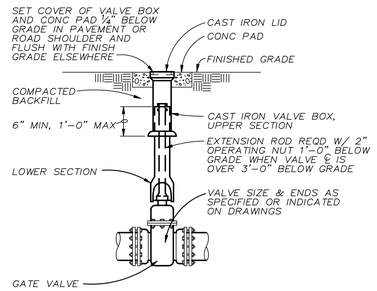
THRUST BLOCK NOTES

1. KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
2. CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
3. REQUIRED VOLUMES OR BEARING AREAS AT FITTINGS SHALL BE AS INDICATED BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
4. THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE = 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESS./150) × (TABLE VALUE).
5. BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR $(13.33)(P'/S'_b)$, WHERE: P' =ACTUAL TEST PRESSURE, PSIG
   S' =ACTUAL SOIL BEARING PRESSURE, PSF.
6. THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
7. BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD
8. BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ FT.
9. VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE.
10. TEST PRESSURES ARE SHOWN IN THE PIPING SCHEDULE.
11. ALLOWABLE SOIL BEARING STRESS IS 2000 LBS/SQ FT.
12. ALL DETAILS TO BE IN ACCORDANCE WITH THE WATER WORKS AND SANITARY SEWER BOARD'S STANDARD SPECIFICATIONS.

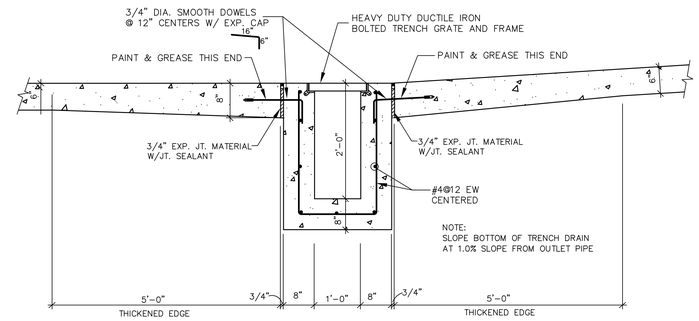
THRUST BLOCK NOTES AND DETAILS
NTS



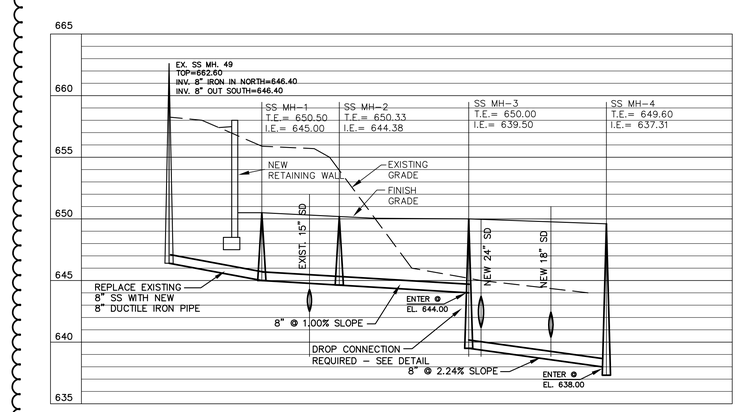
TYPICAL TRENCH
N.T.S.



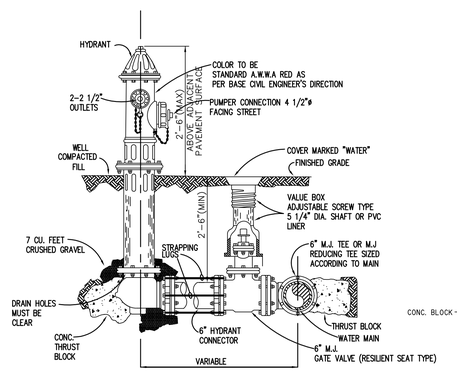
BURIED GATE VALVE BOX SETTING
N.T.S.



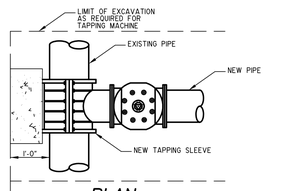
TRENCH DRAIN DETAIL
SCALE: 3/4" = 1'–0"



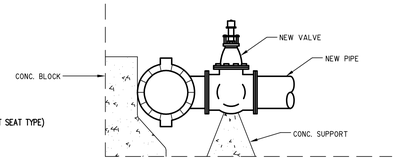
SANITARY SEWER PROFILE – EX. SSMH 49 TO NEW SS MH–4
SCALES HORIZONTAL: 1"=30'
VERTICAL: 1"=5'



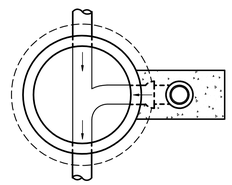
FIRE HYDRANT DETAIL
NTS



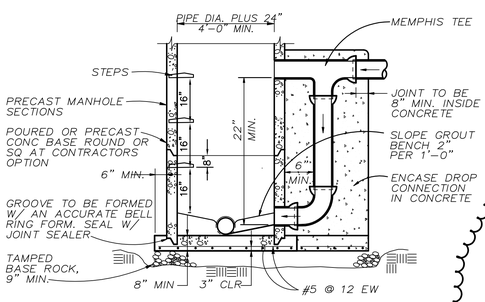
PLAN



ELEVATION
TAPPING SLEEVE & VALVE INSTALLATION DETAIL
NO SCALE

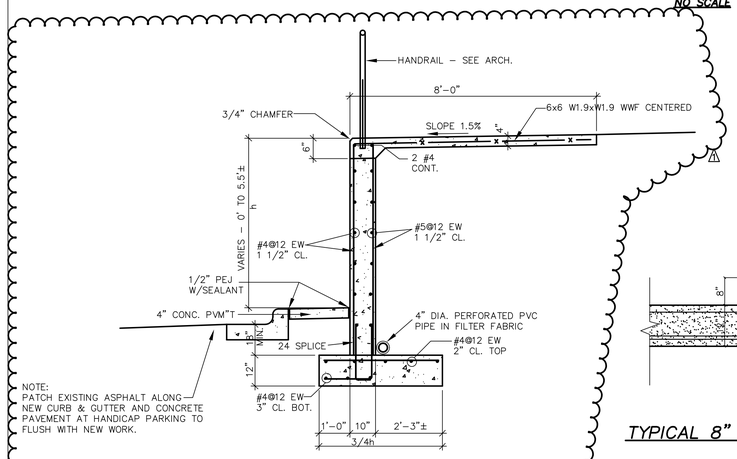


PLAN

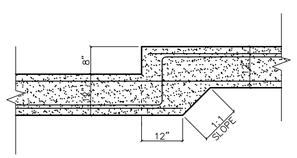


MANHOLE BASE SECTION

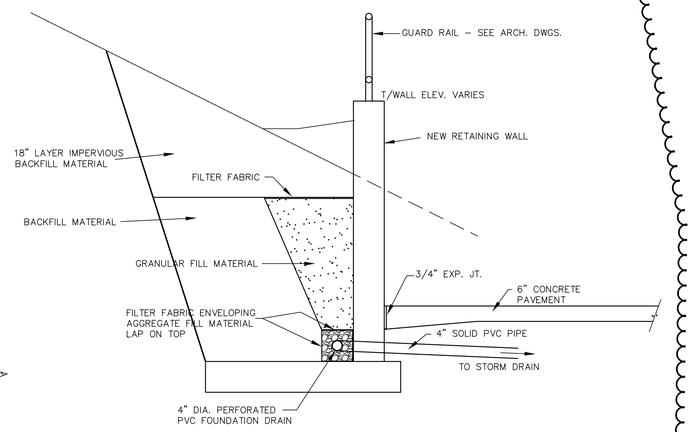
DROP MANHOLE DETAIL
NTS



RETAINING WALL DETAIL "A"
NTS



TYPICAL 8" FOOTING STEP



SECTION THRU RETAINING WALL
SCALE: 1/2"=1'–0"

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 265.3162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/2023

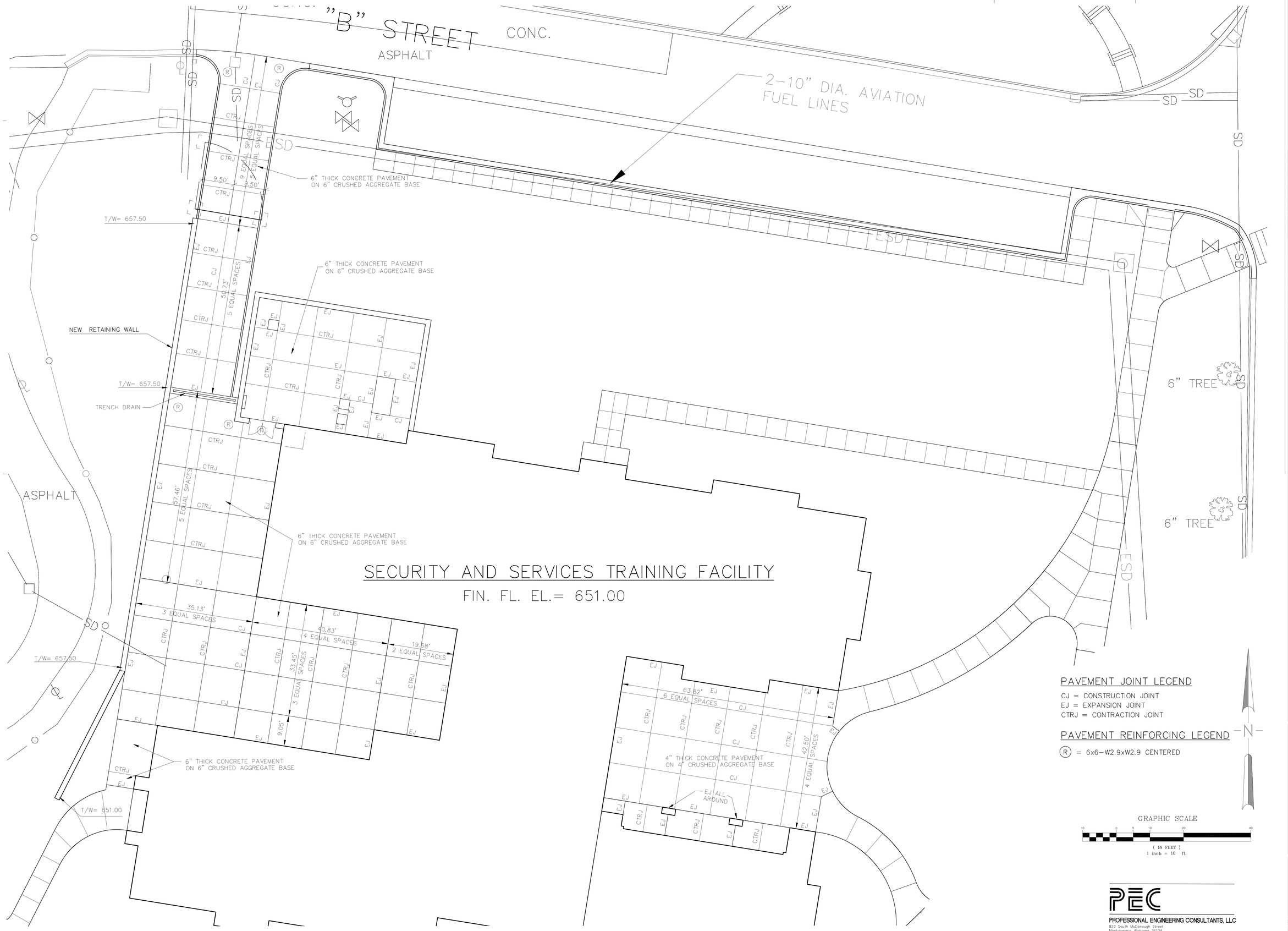
Job Number: 12072
Date: MARCH 2022
Drawn By: SBG
Checked By: SBG
Project Title:

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: Site Details

Sheet Number: C11.1

ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. MOSLEY
3/10/22



PAVEMENT JOINT LEGEND

CJ = CONSTRUCTION JOINT
EJ = EXPANSION JOINT
CTRJ = CONTRACTION JOINT

PAVEMENT REINFORCING LEGEND

(R) = 6x6-W2.9xW2.9 CENTERED

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 262-7307
Fax: (334) 262-7309

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

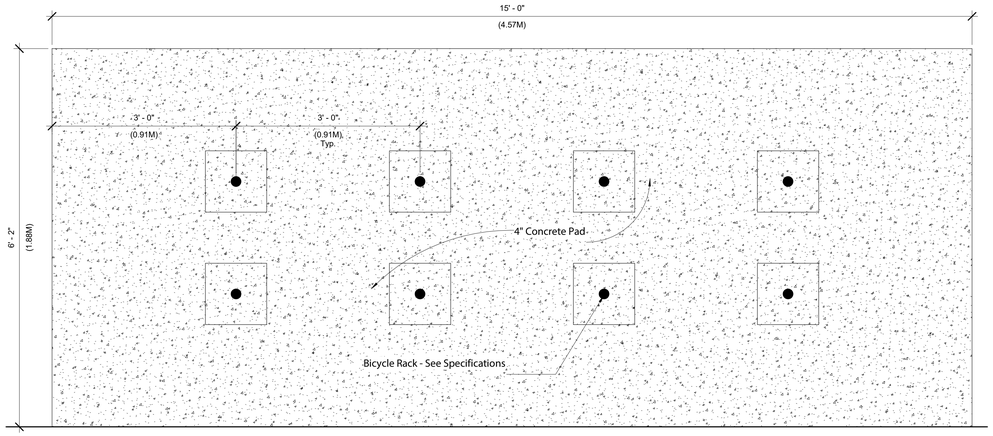
Job Number: 12072
Date: MARCH 2022
Drawn By: SBG
Checked By: SBG
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

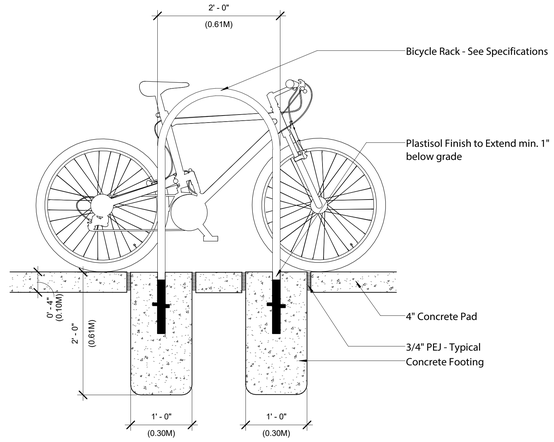
Sheet Title
Pavement Joint Layout (Bid Option)

Sheet Number
C7.1A

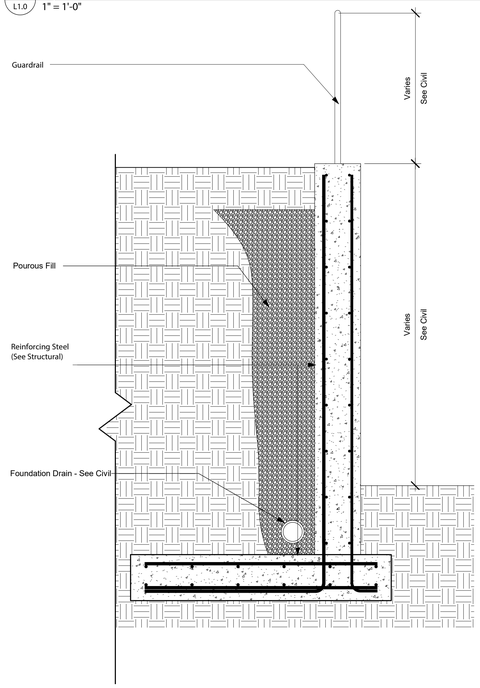
ALABAMA LICENSED No. 5935 PROFESSIONAL ENGINEER PATRICK A. NOSEDA
3/10/22



2 L1.0 Bicylce Plan Details
1" = 1'-0"



3 L1.0 Bicycle Rack Section
1" = 1'-0"



4 L1.0 Retaining Wall Detail
3/4" = 1'-0"

Landscaping Notes:

1. Plants shall be adjusted on the site to avoid conflicts with underground utilities, surface drainage ways, and exterior lighting standards. Adjustment shall be approved prior to planting.
2. Plant mix for all plantings shall be as detailed in specifications.
3. Plant materials shall be nursery-grown, root-pruned, stock conformed to ANSI Z.60.1 standards of nursery stock.
4. Inspections at place of growth shall not impair the right of rejection at site.
5. Remove all soil and vegetation to a depth of 9" in areas to receive shrubs or ground covers and replace with soil mix.
6. Do not injure root systems of existing trees.
7. Verify exact number and locations of all plantings with architect.
8. If any existing plantings or trees are disturbed, distressed, or die - contractor to replace by matching existing plants.
9. Landscaper note existing solid conditions in geotechnical report in specifications and make site visit to become familiar with existing soil conditions.
10. Landscaper to verify existing grades. Consult with architect before installation of any trees, shrubs, or ground covers.
11. Contractor to sod all areas disturbed by construction activities in addition to that shown in drawings.
12. Provide river rock mulch at all planting areas unless specifically noted otherwise.

Tree Protection Notes:

1. Protect trees and shrubs designated to remain with 6' ht. chain link fence.
2. Erect fencing before starting any other construction activities on site.
3. Protected areas may not be used for storage of materials or equipment, parking or wash-off areas.
4. Do not trench or fill within fenced ares without architect's on-site review and approval.
5. Fences shall remain in place until completion of the project, unless approved by the architect
6. Mow areas within tree protection fencing every other week during the growing season (March - November).

Site Plan Legend
1/8" = 1'-0"

EXISTING GRASS

NEW EMERALD ZOYSIA SEED

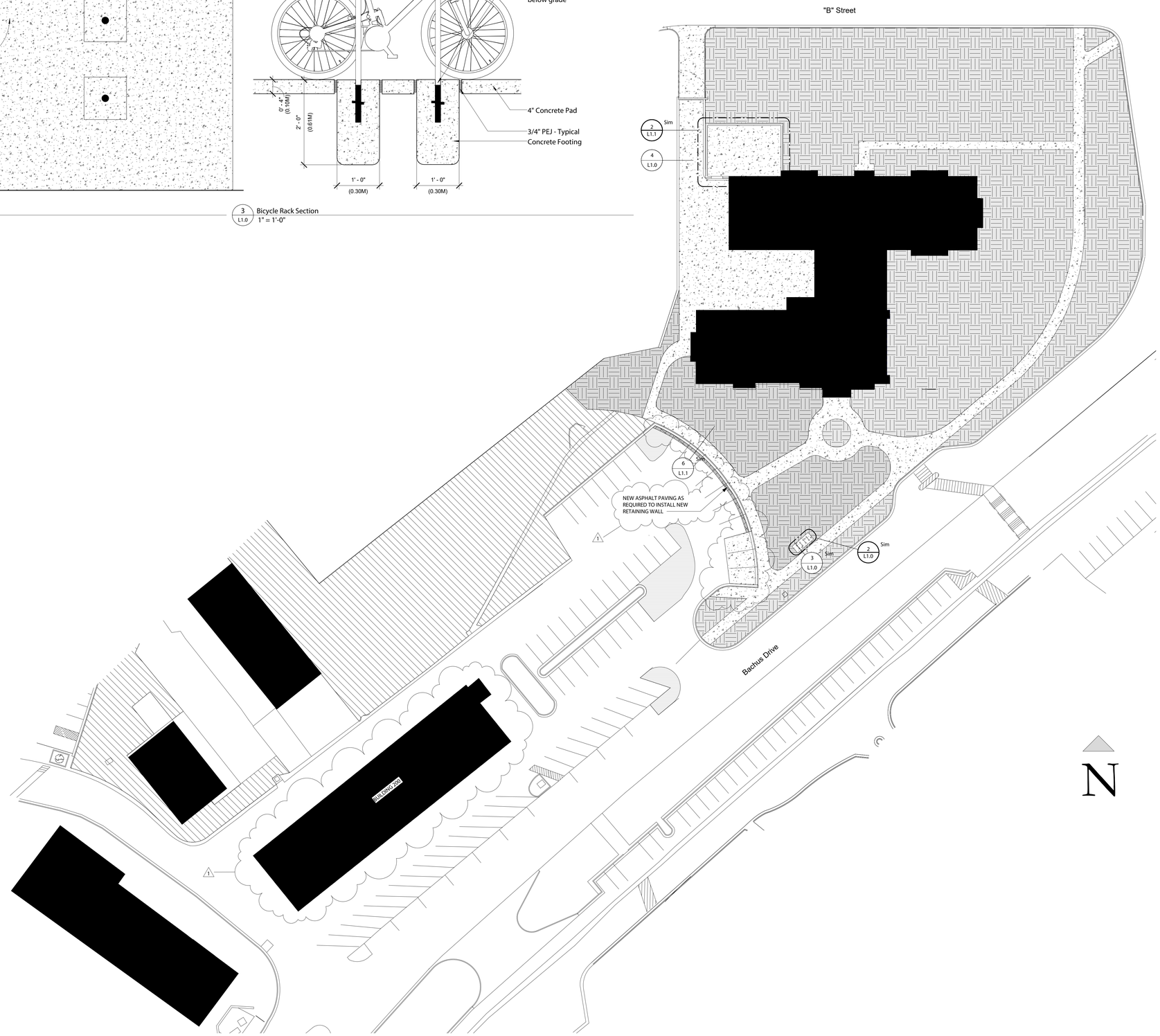
NEW CONCRETE CURB & GUTTER - SEE CIVIL

EXISITNG ASPHALT PAVING - SEE CIVIL

NEW CONCRETE WALKWAYS - SEE CIVIL

ASPHALT PAVING - SEE CIVIL

1



1 L1.0 Landscape Site Plan (Base Bid)
1" = 30'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
113 South Court St. Montgomery, AL 36104
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

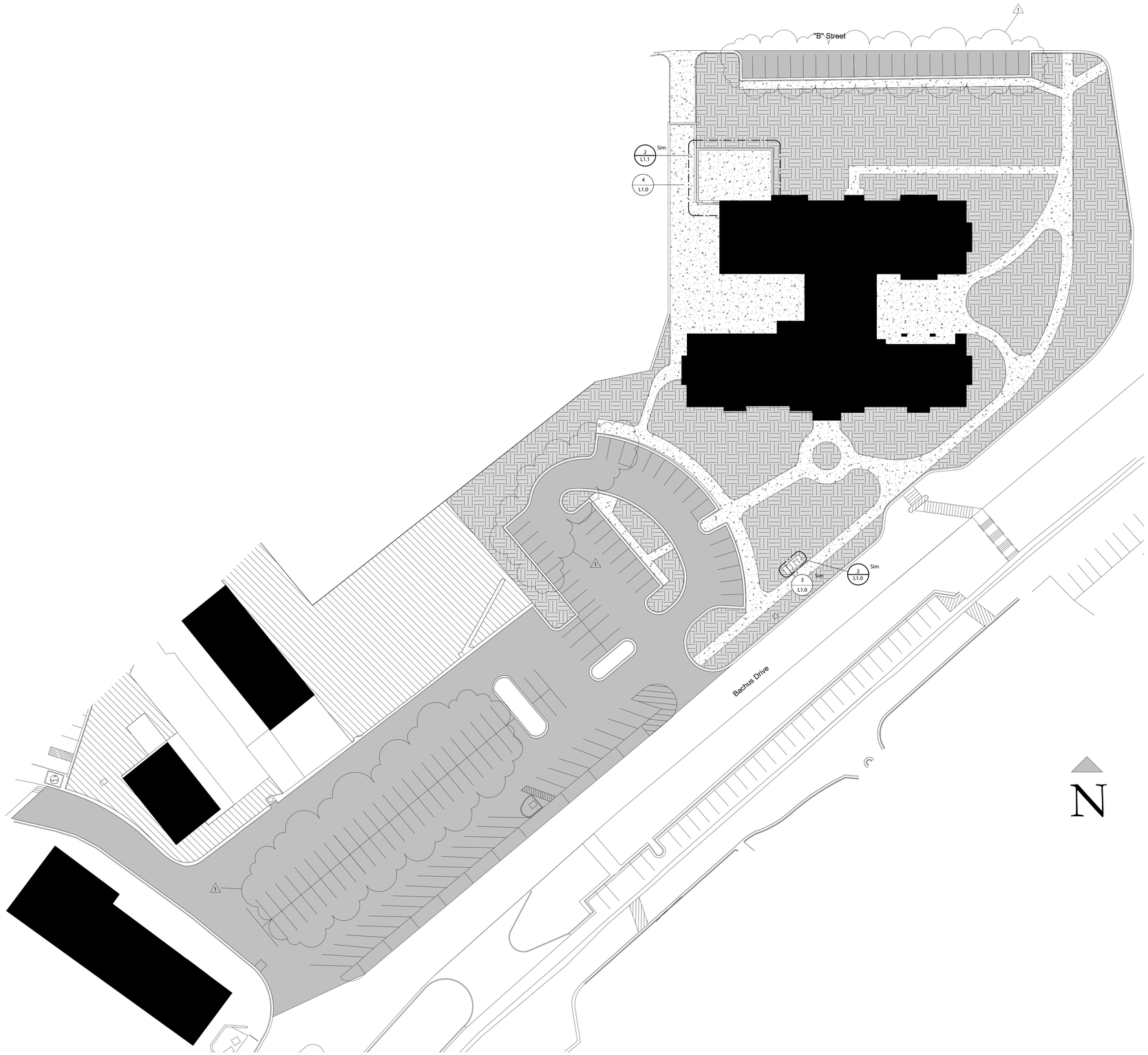
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Landscape Site Plan (Base Bid)

Sheet Number
L1.0

STATE OF ALABAMA
MONTGOMERY
Jim R. Ivey, Jr.
3-24
Gerald A. O'Neal
4043
Stuart S. Cramer
6041
ALABAMA
REGISTERED ARCHITECTS



EXISTING GRASS

NEW EMERALD ZOYSIA SEED

NEW CONCRETE CURB & GUTTER - SEE CIVIL

EXISITNG ASPHALT PAVING - SEE CIVIL

NEW CONCRETE WALKWAYS - SEE CIVIL

ASPHALT PAVING - SEE CIVIL

Site Plan Legend
1/8" = 1'-0"

1 / L1.0A Landscape Site Plan (Bid Option)
1" = 30'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Cobern Avenue | Birmingham, AL 35205
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

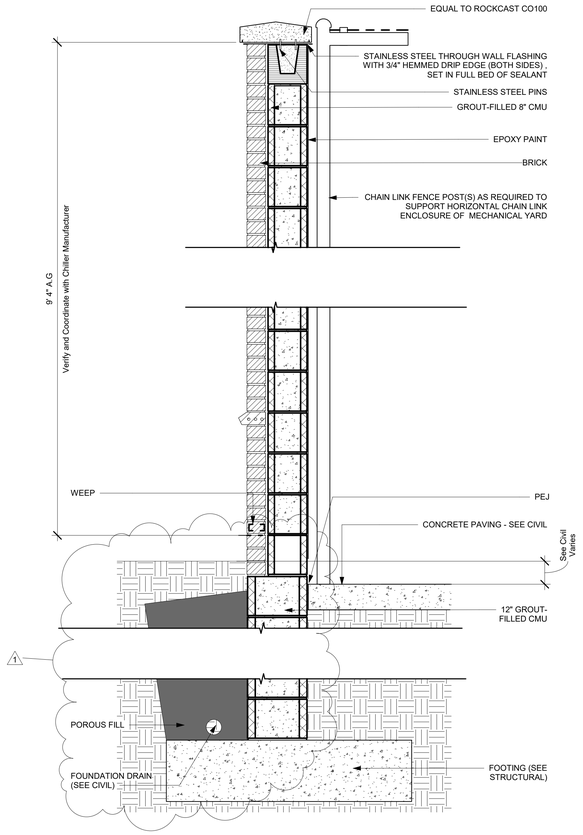
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

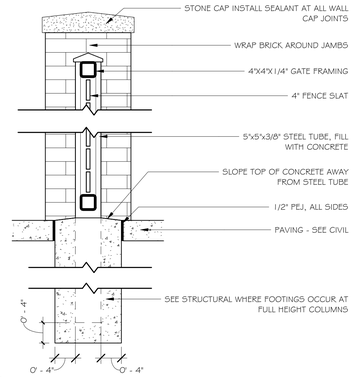
Sheet Title
Landscape Plan (Bid Option)

Sheet Number
L1.0A

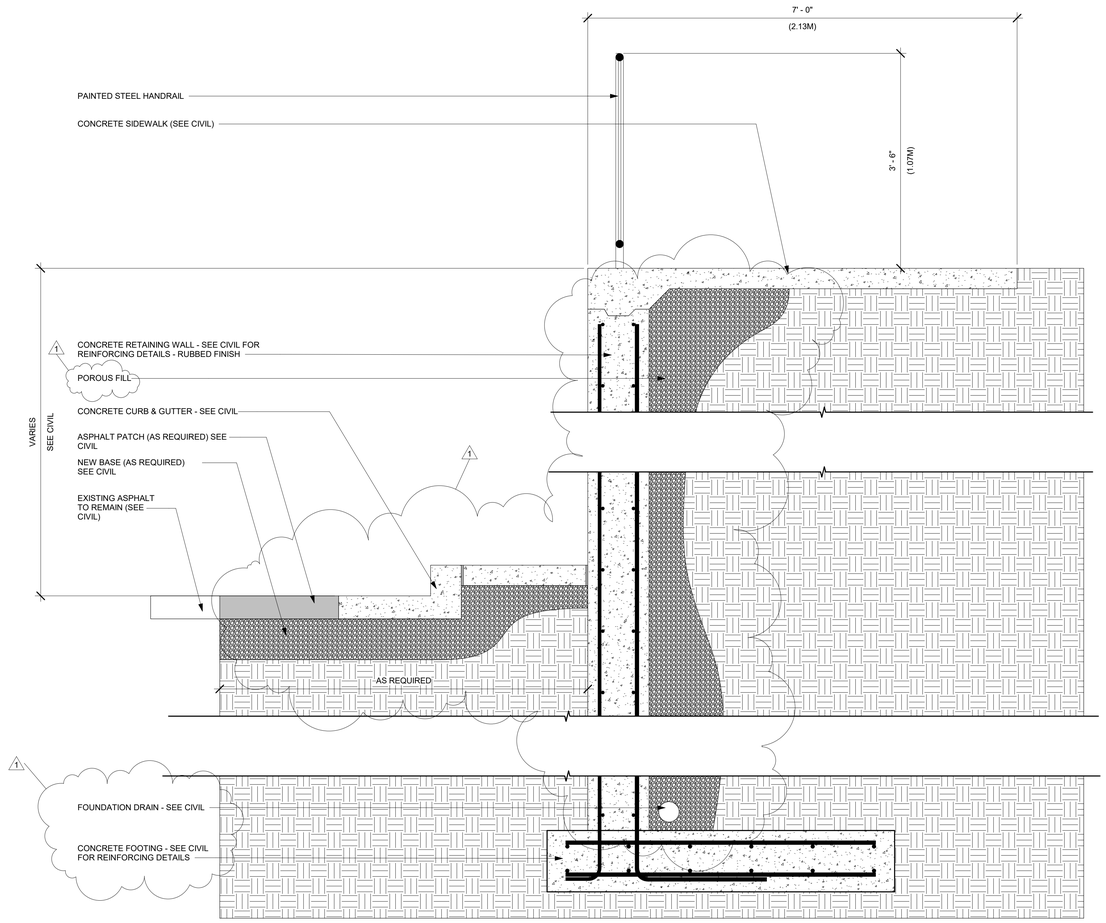
STATE OF ALABAMA
MONTGOMERY
Dale R. Smith
1265
Gregory A. O'Neal
4043
Wesley D. Conner
4244
ALABAMA
REGISTERED ARCHITECTS



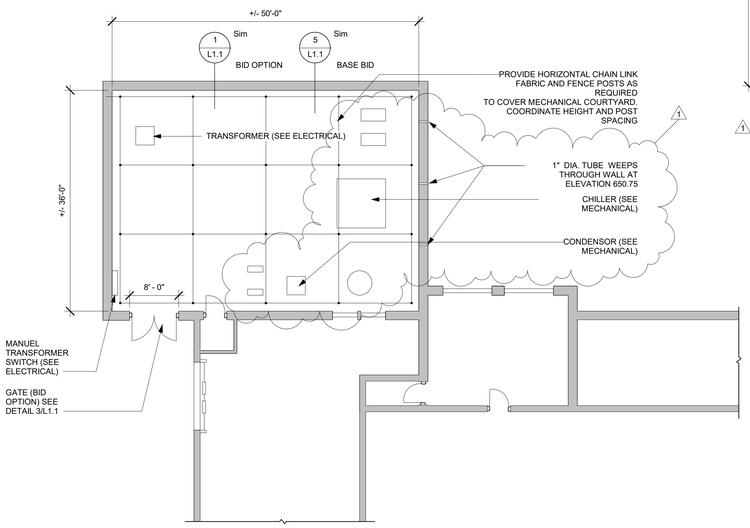
1 L1.1 Mechanical Screen Wall (Bid Option)
1" = 1'-0"



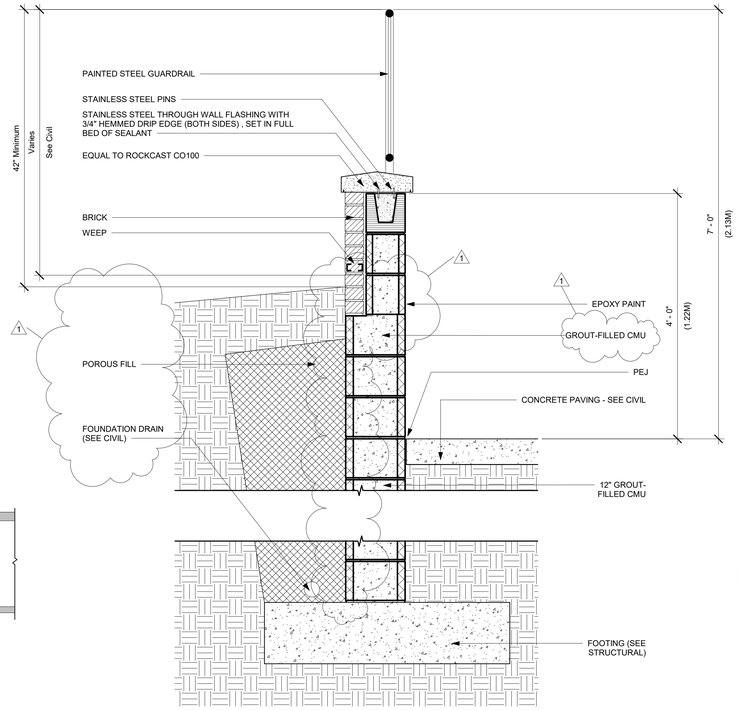
4 L1.1 GATE SECTION (BID OPTION)
1" = 1'-0"



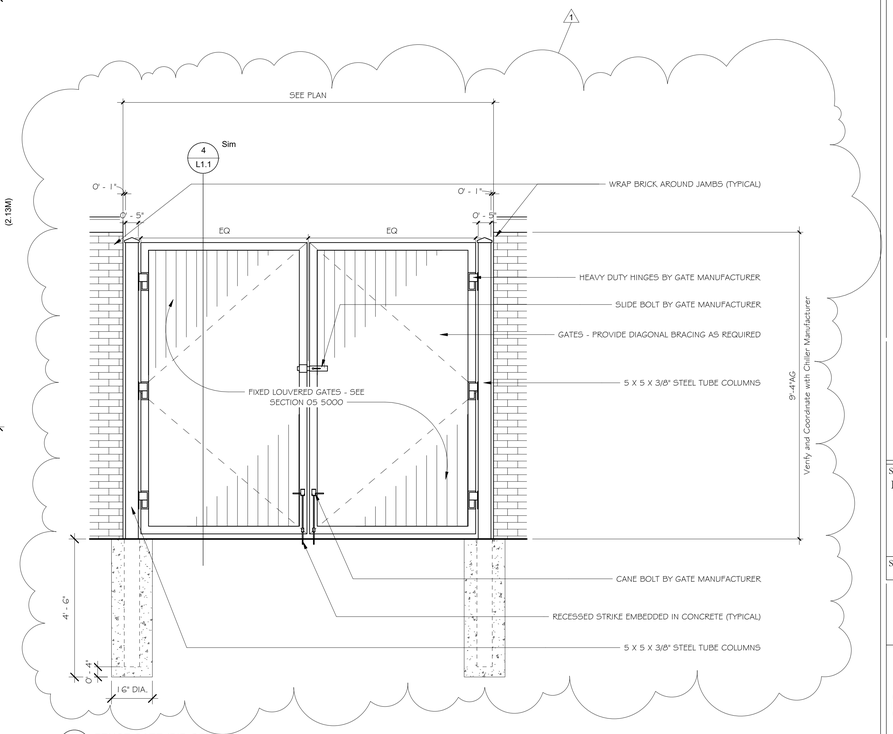
6 L1.1 Landscape Section (Base Bid)
1" = 1'-0"



2 L1.1 MECH/ELECTRICAL COURT LAYOUT
1" = 10'-0"



5 L1.1 Mechanical Screen Wall (Base Bid)
1" = 1'-0"



3 L1.1 FENCE GATE (BID OPTION)
1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Gordon Hartman Blvd. Birmingham, AL 35204
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Landscape Details

Sheet Number
L1.1

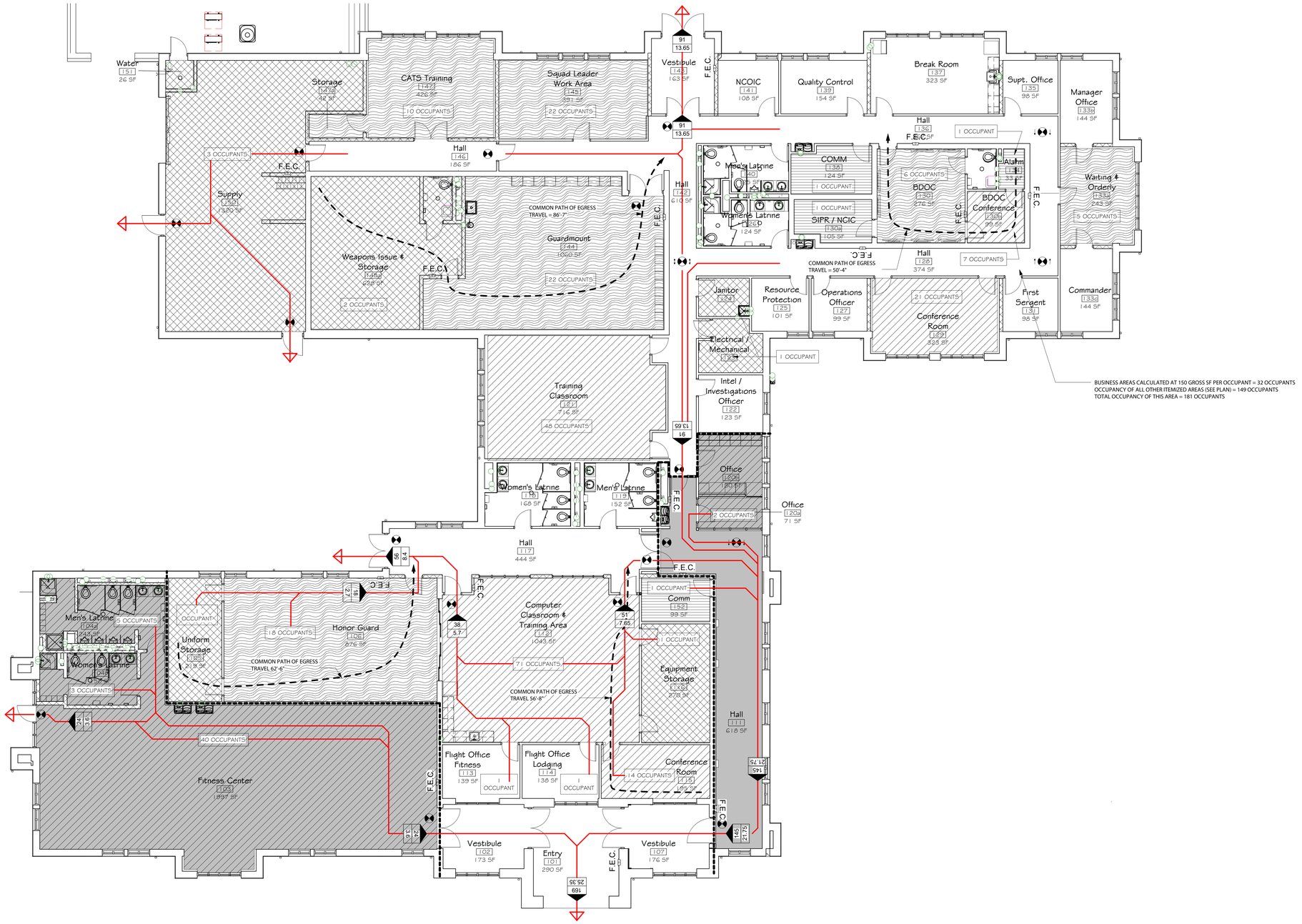
STATE OF ALABAMA
MONTGOMERY
Ann B. Snap, Jr.
1040
Gregory A. O'Neal
4043
Wesley H. Clemer
4244
ALABAMA
REGISTERED ARCHITECTS

SYMBOLS LEGEND:

- Exterior Walls - See Wall Type Plan
- Interior Walls - See Wall Type Plan
- Door/Frame - See Door Schedule
- ROOM NAME 101 — Room Marker
- EWC — ELECTRIC WATER COOLER - SEE PLUMBING
- FEB — FIRE EXTINGUISHER BRACKET (UL RATED 4A:80B:C - SEE SPECIFICATION SECTION 10 4400)
- 1 HOUR FIRE RATING (UL U906 / UL U419)
- EMERGENCY EXIT SIGNAGE
- EWS — EMERGENCY EYE WASH STATION
- 8 / 3.2 — OCCUPANT LOAD / REQUIRED EGRESS COMPONENT WIDTH
- EXIT TRAVEL PATH

OCCUPANCY TYPE LEGEND:

- IBC GROUP (A-3) ASSEMBLY — 7 NET SF PER OCCUPANT PER NFPA 101 — LOW HAZARD PER NFPA 101
- IBC GROUP (A-3) ASSEMBLY — 50 NET SF PER OCCUPANT PER NFPA 101 — LOW HAZARD PER NFPA 101
- IBC GROUP (B) BUSINESS — 15 NET SF PER OCCUPANT PER UFC 3-600-01 — LOW HAZARD PER NFPA 101
- IBC GROUP (B) BUSINESS — 50 NET SF PER OCCUPANT PER NFPA 101 — LOW HAZARD PER NFPA 101
- IBC GROUP (B) BUSINESS — 150 GROSS SF PER OCCUPANT PER NPFA 101 — LOW HAZARD PER NFPA 101
- IBC GROUP (B) BUSINESS — 300 GROSS SF PER OCCUPANT UFC 3-600-01 — LOW HAZARD PER NFPA 101
- IBC GROUP (B) BUSINESS — 500 GROSS SF PER OCCUPANT PER NPFA 101 (STORAGE) / UFC 3-600-01 (MECHANICAL/ELECTRICAL) — LOW HAZARD PER NFPA 101



1 / LS2.0 LIFE SAFETY PLAN (Base Bid)
1/8" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street, Montgomery, AL 36104
Tel. 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number: 12072
Date: MARCH 2022
Drawn By: JJ, NB, DCD, JBW
Checked By: DCD
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: Life Safety Plan (Base Bid)

Sheet Number: LS2.0

STATE OF ALABAMA — MONTGOMERY — ALABAMA REGISTERED ARCHITECTS

SYMBOLS LEGEND:

Exterior Walls - See Wall Type Plan

Interior Walls - See Wall Type Plan

Door/Frame - See Door Schedule

ROOM NAME
101
Room Marker

EWC — ELECTRIC WATER COOLER - SEE PLUMBING

FEB — FIRE EXTINGUISHER BRACKET
(UL RATED 4A:80B:C - SEE SPECIFICATION SECTION 10 4400)

1 HOUR FIRE RATING (UL U906 / UL U419)

EMERGENCY EXIT SIGNAGE

EWS — EMERGENCY EYE WASH STATION

8 / 3.2 — OCCUPANT LOAD / REQUIRED EGRESS COMPONENT WIDTH

EXIT TRAVEL PATH

OCCUPANCY TYPE LEGEND:

IBC GROUP (A-3) ASSEMBLY
7 NET SF PER OCCUPANT PER NFPA 101
LOW HAZARD PER NFPA 101

IBC GROUP (A-3) ASSEMBLY
50 NET SF PER OCCUPANT PER NFPA 101
LOW HAZARD PER NFPA 101

1

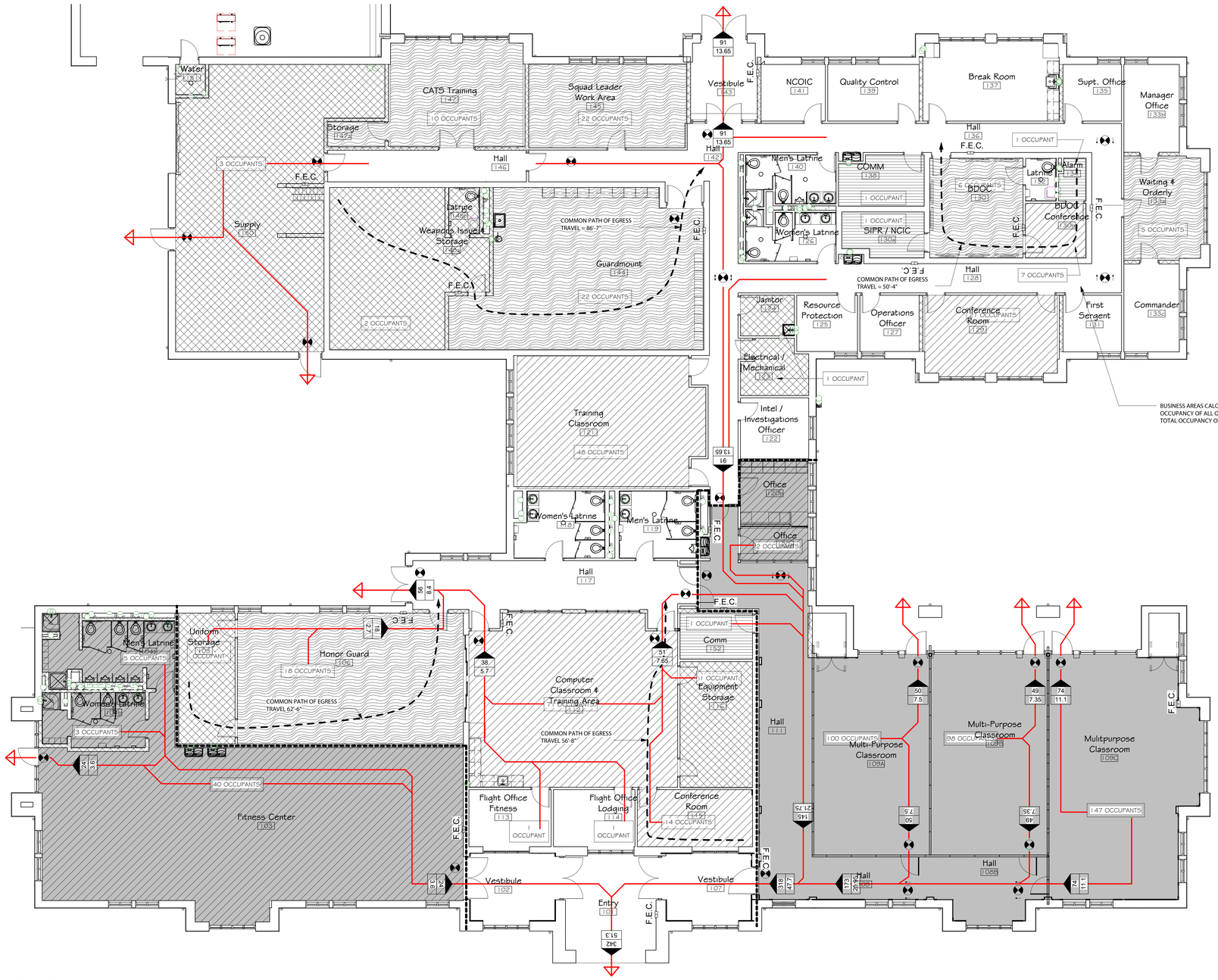
IBC GROUP (B) BUSINESS
15 NET SF PER OCCUPANT PER UFC 3-600-01
LOW HAZARD PER NFPA 101

IBC GROUP (B) BUSINESS
50 NET SF PER OCCUPANT PER NFPA 101
LOW HAZARD PER NFPA 101

IBC GROUP (B) BUSINESS
150 GROSS SF PER OCCUPANT PER NPFA 101
LOW HAZARD PER NFPA 101

IBC GROUP (B) BUSINESS
300 GROSS SF PER OCCUPANT UFC 3-600-01
LOW HAZARD PER NFPA 101

IBC GROUP (B) BUSINESS
500 GROSS SF PER OCCUPANT PER NPFA 101 (STORAGE) / UFC 3-600-01 (MECHANICAL/ELECTRICAL)
LOW HAZARD PER NFPA 101



BUSINESS AREAS CALCULATED AT 150 GROSS SF PER OCCUPANT = 32 OCCUPANTS
OCCUPANCY OF ALL OTHER ITEMIZED AREAS (SEE PLAN) = 149 OCCUPANTS
TOTAL OCCUPANCY OF THIS AREA = 181 OCCUPANTS

1 / LS3.0 LIFE SAFETY PLAN
1/8" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Square | Montgomery, AL 36104
Tel 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

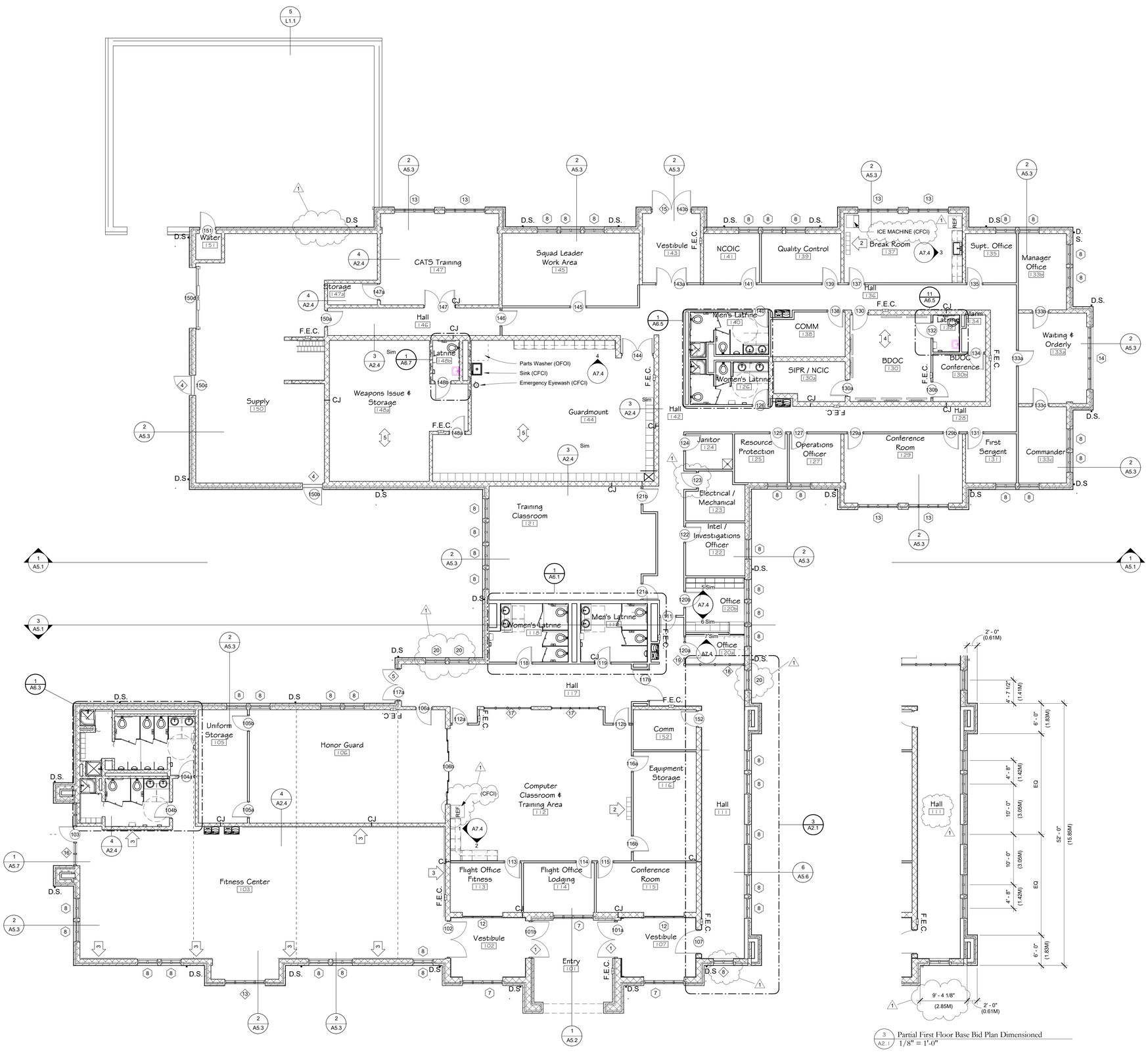
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
First Floor Life Safety Plan (Bid Option)

Sheet Number
LS3.0

STATE OF ALABAMA
MONTGOMERY
Joe R. Sims, Jr. 3456
Timothy A. O'Neal 4043
Wesley R. Clower 4244
ALABAMA
REGISTERED ARCHITECTS

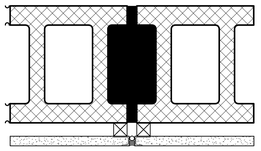


1 A2.1 First Floor Plan (Base Bid)
1/8" = 1'-0"

Legend:

- Exterior Walls - See Wall Type Plan
- Interior Walls - See Wall Type Plan
- Door/Frame - See Door Schedule
- Elevation Marker (1 Ref / A101 / 1 Ref)
- Room Marker (ROOM NAME 101)
- Detail Callout/ Section Tag (SIM 1 A101)
- Window/Curtain Wall/Storefront Tag - See Curtain Wall & Storefront Schedules
- Door Tag - See Door Schedule
- D.S. Downspout - See Typical Downspout Boot Detail & Civil Drawings
- CJ Interior CMU Control Joint - See 2A2.1. See Elevations for Locations of Exterior Control Joints

See Structural Detail for Additional Requirements



2 A2.1 Interior Masonry Control Joint Detail
3" = 1'-0"

3 A2.1 Partial First Floor Base Bid Plan Dimensioned
1/8" = 1'-0"

1. OMITTED
2. CONTRACTOR FURNISHED RECYCLING RECEPTACLES. SEE SPECIFICATION SECTION 10 8500
3. CONTRACTOR FURNISHED MIRRORS - SEE SPECIFICATION SECTION 08 8000. 6'-0" HIGH-TYPICAL.
4. SEAL CMU WALL TO METAL DECK IN ROOMS 130, 130A, 130B, 132, AND 134. SEE DETAIL 4/A2.4A.
5. SEAL CMU WALL TO METAL DECK AND INSTALL GYPSUM BOARD/ METAL STUD FRAMING EXTENDING TO ROOF DECK ABOVE. SEE 4/A2.4A.

0' 4' 8' 16' 32'

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street, Montgomery, AL 36104
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

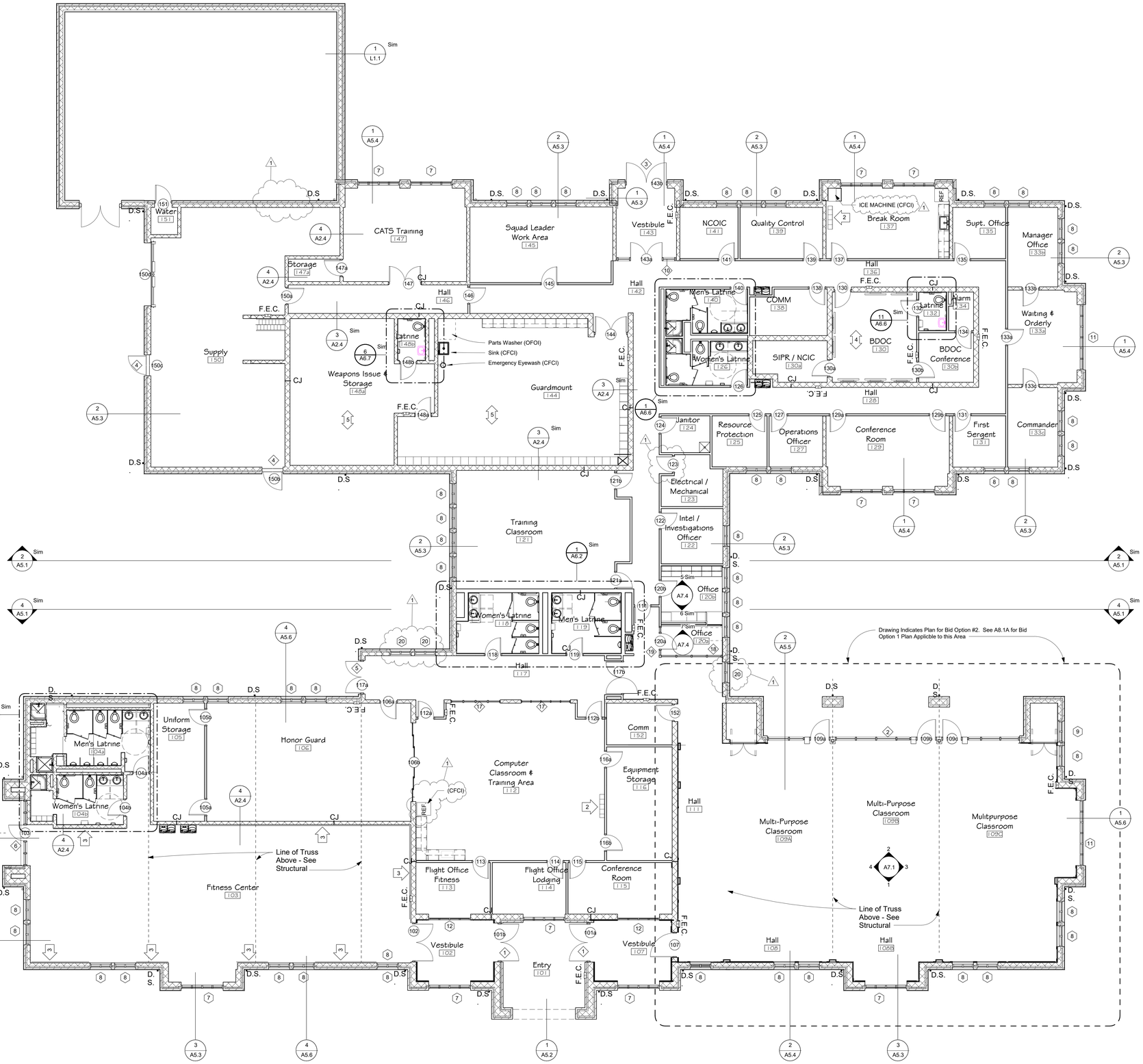
Job Number: 12072
Date: MARCH 2022
Drawn By: JJ, NB, DCD, JBW
Checked By: DCD
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: First Floor Plan (Base Bid)

Sheet Number: A2.1

STATE OF ALABAMA MONTGOMERY
Jim R. Sorg, Jr. 1046
Gregory A. O'Neal 4043
Wesley S. Clemo 6204
ALABAMA REGISTERED ARCHITECTS



1 A2.1A First Floor Plan (Bid Option)
1/8" = 1'-0"

Legend:

- Exterior Walls - See Wall Type Plan
- Interior Walls - See Wall Type Plan
- Door/Frame - See Door Schedule
- Elevation Marker
- ROOM NAME 101 — Room Marker
- Detail Callout/ Section Tag
- Window/Curtain Wall/Storefront Tag - See Curtain Wall & Storefront Schedules
- Door Tag - See Door Schedule
- D.S. — Downspout - See Typical Downspout Boot Detail & Civil Drawings
- CJ — Interior CMU Control Joint - See 2A2.1. See Elevations for Locations of Exterior Control Joints

1. OMITTED
2. CONTRACTOR FURNISHED RECYCLING RECEPTACLES. SEE SPECIFICATION SECTION 10 8500
3. CONTRACTOR FURNISHED MIRRORS - SEE SPECIFICATION SECTION 08 8000. 6'-0" HIGH-TYPICAL.
4. SEAL CMU WALL TO METAL DECK IN ROOMS 130, 130A, 130B, 132, AND 134. SEE DETAIL 4/A2.4A.
5. SEAL CMU WALL TO METAL DECK AND INSTALL GYPSUM BOARD/ METAL STUD FRAMING EXTENDING TO ROOF DECK ABOVE. SEE 4/A2.4A.

0' 4' 8' 16' 32'

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number: 12072
Date: MARCH 2022
Drawn By: JJ, NB, DCD, JBW
Checked By: DCD
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: First Floor Plan (Bid Option)

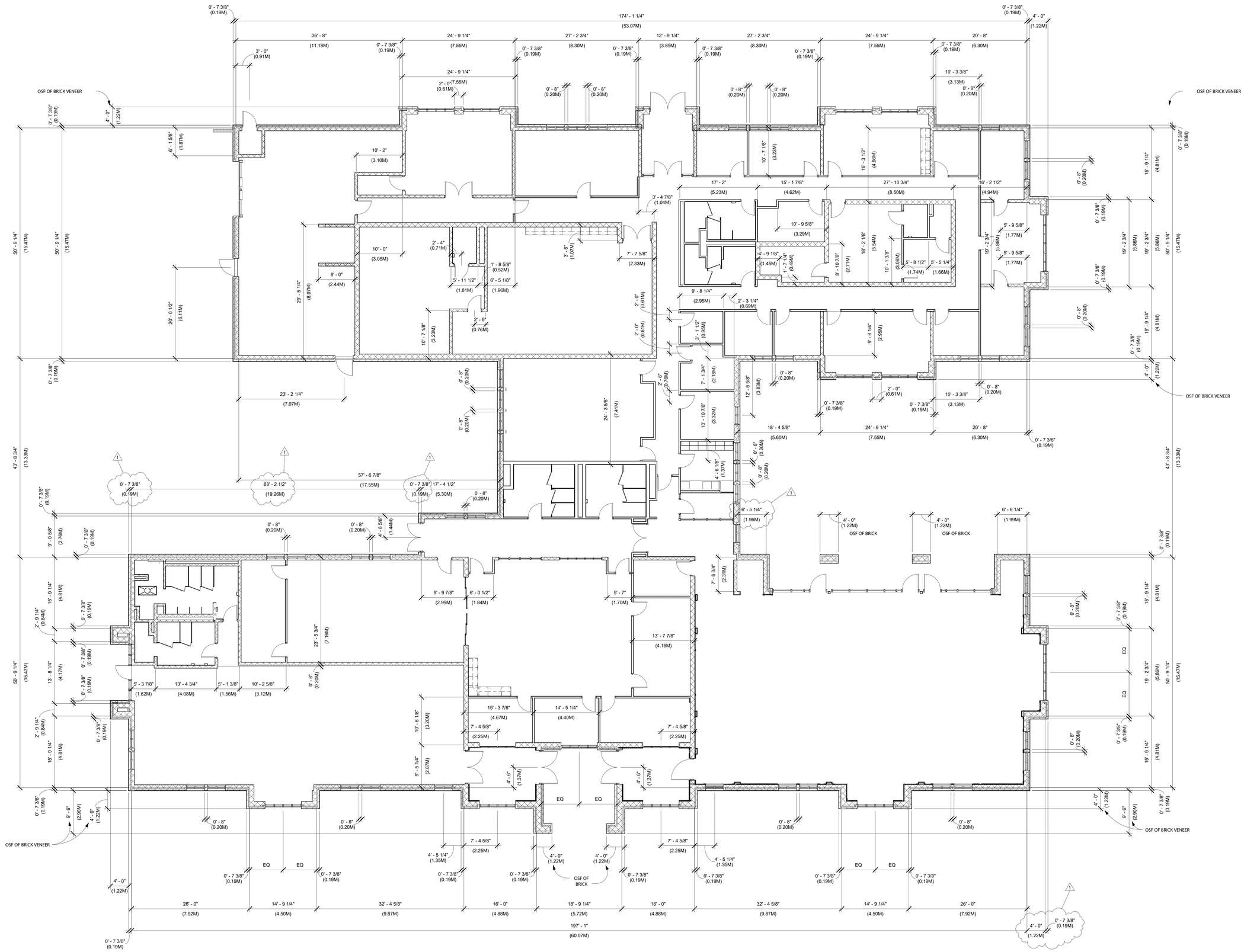
Sheet Number: A2.1A

STATE OF ALABAMA MONTGOMERY ALABAMA REGISTERED ARCHITECTS
Jim R. Seay, Jr. 1016
Gregory A. O'Neal 4047
Wesley L. Chase 6041

SOFT METRIC DIMENSIONS ARE PROVIDED FOR THE OWNER'S INFORMATION & USE ONLY. FOR THE PURPOSES OF CONSTRUCTION, THE CONTRACTOR SHALL USE THE LISTED ENGLISH DIMENSION. IF DISCREPANCIES EXIST WITH THE METRIC & ENGLISH UNITS, THE ENGLISH UNITS SHALL SUPERCEDE. TYPICAL ON ALL DRAWINGS.

ALL INTERIOR PARTITION DIMENSIONS ARE TAKEN TO THE CENTER LINE OF WALL UNLESS NOTED OTHERWISE. ALL EXTERIOR WALL DIMENSIONS ARE TAKE TO THE OUTSIDE (EXTERIOR) FACE OF THE CONCRETE MASONRY UNIT UNLESS NOTED OTHERWISE.

GENERAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL DIMENSIONS. NOTIFY CONTRACTING OFFICER OF ANY DISCREPANCIES NOTED PRIOR TO PROCEEDING.



1 Dimensioned Floor Plan
A2.2 1/8" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Square | Montgomery, AL 36104
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

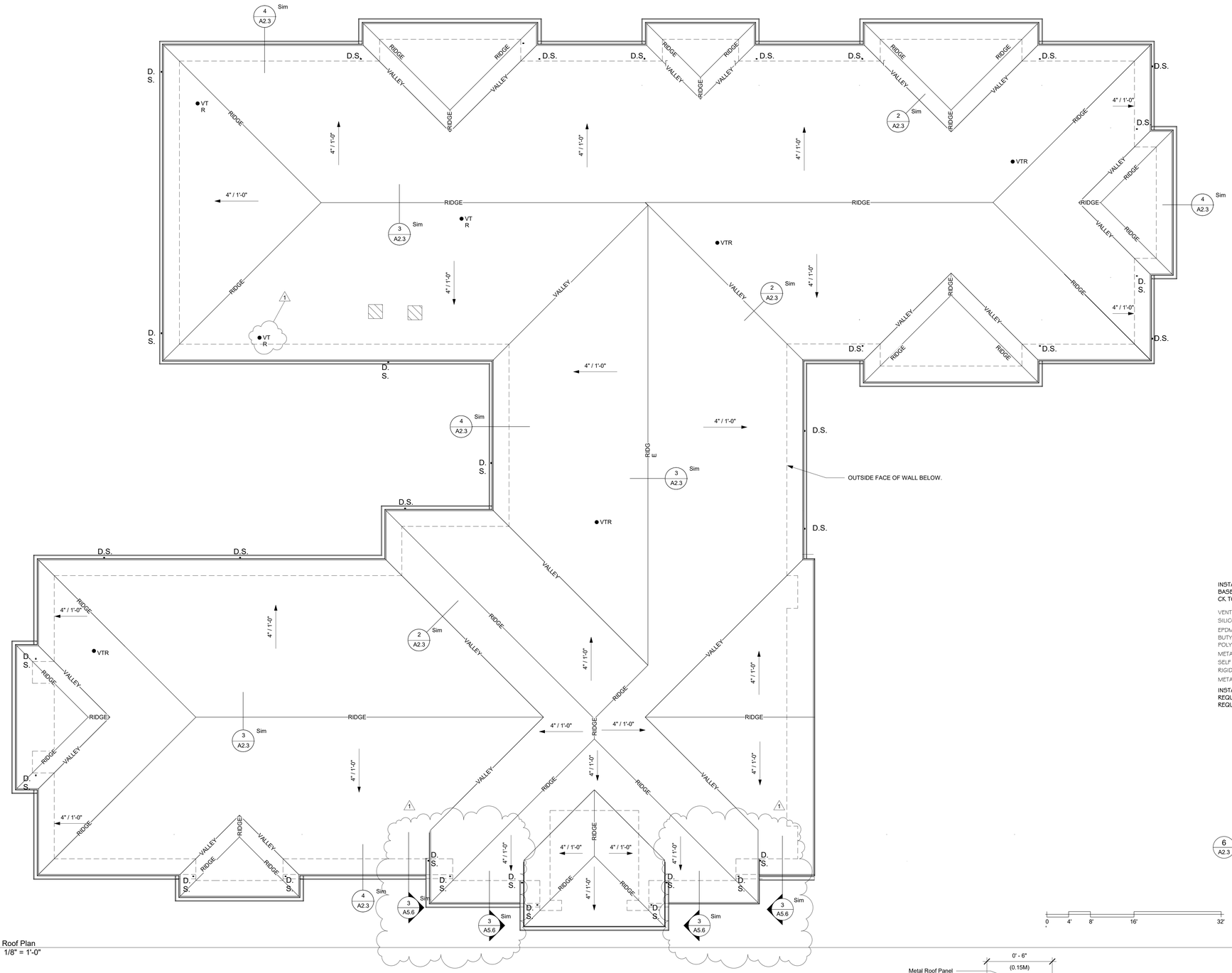
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

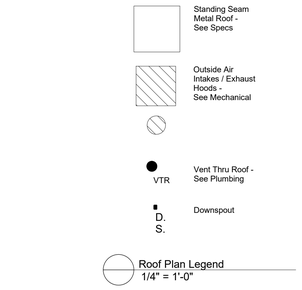
Sheet Title
Dimensioned Floor Plan

Sheet Number
A2.2

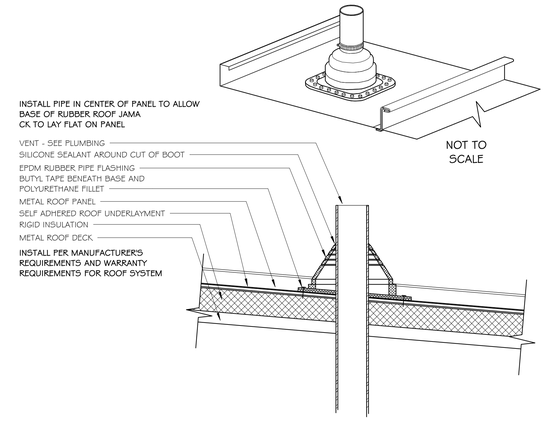
STATE OF ALABAMA
MONTGOMERY
Jon R. Estep, Jr.
1846
Gregory A. O'Neal
4043
Wesley S. Carter
4244
ALABAMA
REGISTERED ARCHITECTS



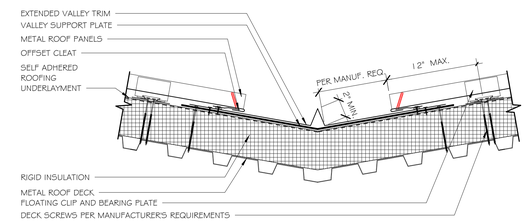
1 A2.3 Roof Plan
1/8" = 1'-0"



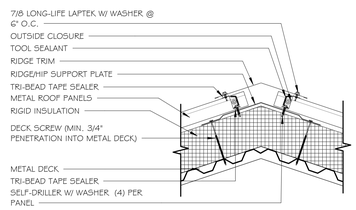
Roof Plan Legend
1/4" = 1'-0"



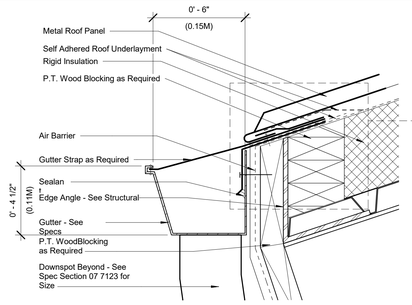
6 A2.3 Plumbing Vent Detail
1 1/2" = 1'-0"



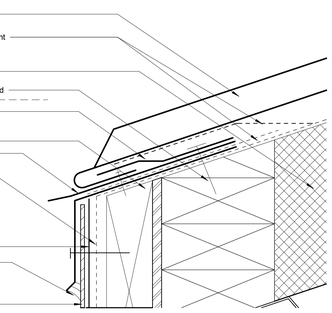
2 A2.3 Valley Detail
1 1/2" = 1'-0"



3 A2.3 Ridge Detail
1 1/2" = 1'-0"



4 A2.3 gutter detail
3" = 1'-0"



5 A2.3 gutter flashing detail
6" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Square, Montgomery, AL 36104
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

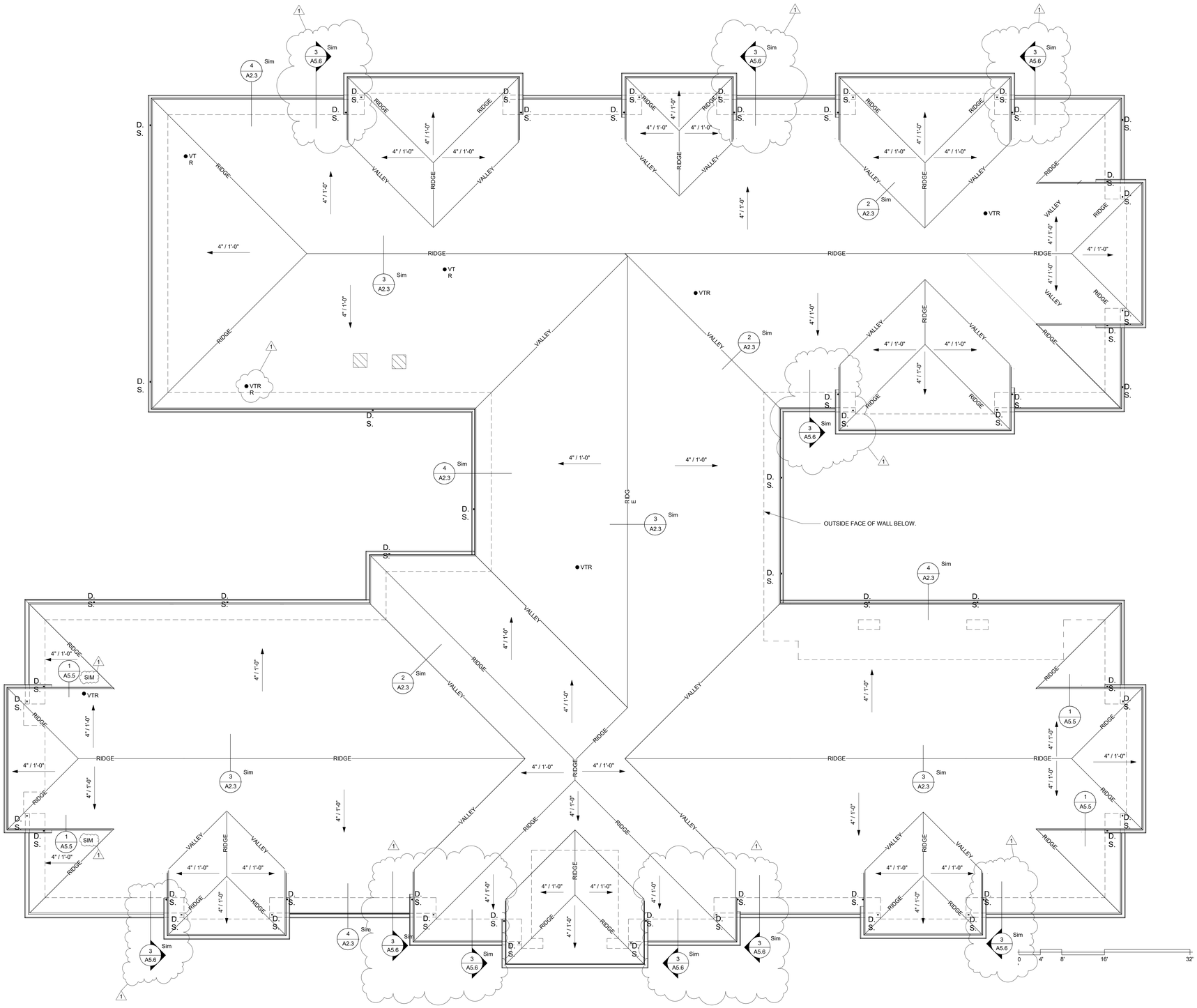
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Roof Plan (Base Bid)

Sheet Number
A2.3

STATE OF ALABAMA
MONTGOMERY
Jim R. Sorrell, Jr. 1066
Gregory A. O'Neal 6043
Gregory S. Cramer 6384
ALABAMA REGISTERED ARCHITECTS



Standing Seam Metal Roof - See Specs

Outside Air Intakes / Exhaust Hoods - See Mechanical

VTR Vent Thru Roof - See Plumbing

D. S. Downspout

Roof Plan Legend
1/4" = 1'-0"

1 A2.3A Roof Plan(Bid Option)
1/8" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Square | Montgomery, AL 36104
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

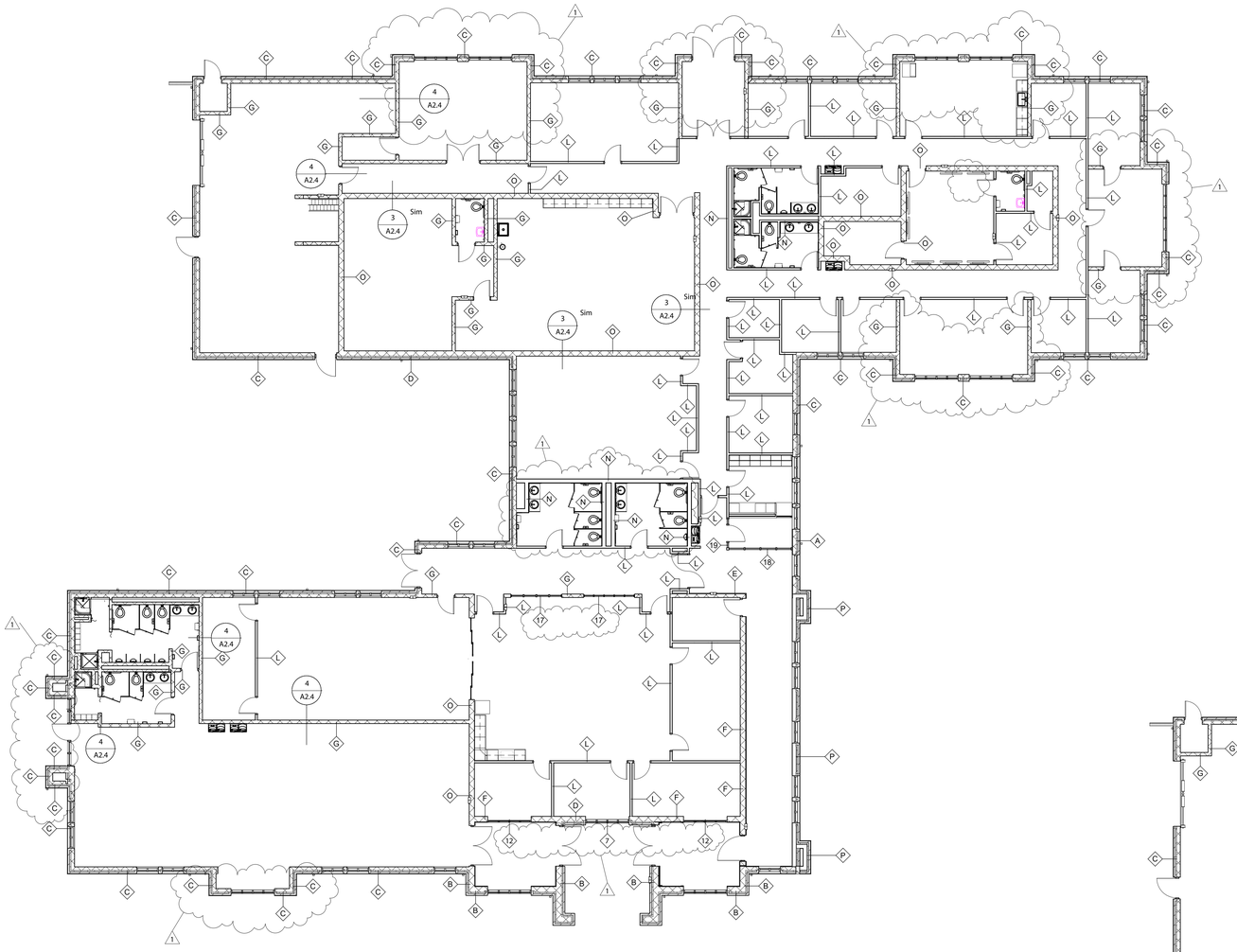
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

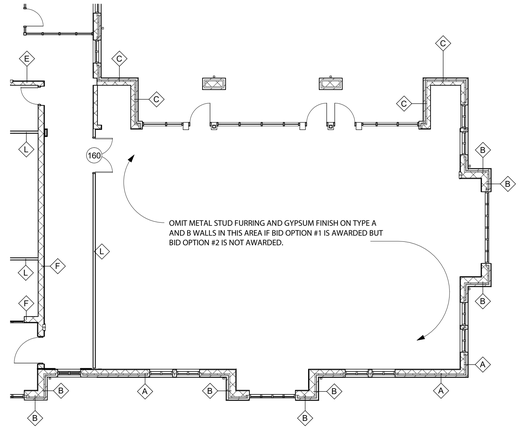
Sheet Title
Roof Plan (Bid Option)

Sheet Number
A2.3A

STATE OF ALABAMA
MONTGOMERY
Jim R. Lowe, Jr.
1666
Gregory A. O'Neal
4043
Wesley D. Clemo
6244
ALABAMA
REGISTERED ARCHITECTS



1 A2.4 Wall Type Plan - Base Bid
3/32" = 1'-0"



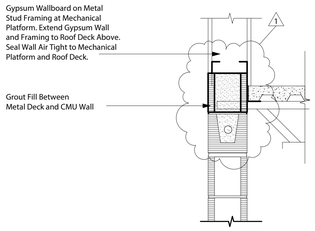
5 A2.4 Wall Type Plan - Bid Option #1
3/32" = 1'-0"

Wall Schedule			
Type Mark	Description	Comments	Minimum NIC Rating
A	5/8" GWB, 7/8" Metal Channel, 8" CMU, Airspace, Brick Veneer		
B	5/8" GWB, 7/8" Metal Channel, 12" CMU, Airspace, Brick Veneer	See Finish Schedule for Locations where this wall type is scheduled to receive wall tile. See A7.1 for locations/configurations of wood trim and acoustical panels on Type A walls in Multipurpose Room	
C	8" CMU, Airspace, Brick Veneer		
D	12" CMU, Airspace, Brick Veneer		
E	8" CMU, 7/8" Metal Channel, 5/8" GWB	See Finish Schedule for Locations where this wall type is scheduled to receive wall tile. See A7.1 for locations/configurations of wood trim and acoustical panels on Type A walls in Multipurpose Room	
F	12" CMU, 7/8" Metal Channel, 5/8" GWB		
G	8" CMU		45
H	4" CMU, Airspace, 4" CMU		
I	5/8" GWB, 7/8" Metal Channel, 12" CMU, 7/8" Metal Channel, 5/8" GWB	See A7.1 for locations/configurations of wood trim and acoustical panels on Type I walls in Multipurpose Room	
L	5/8" GWB, 3-5/8" Metal Stud, 5/8" GWB		
M	5/8" GWB, 5-5/8" Metal Stud, 5/8" GWB	See Finish Schedule for Locations where this wall type is scheduled to receive wall tile.	
N	5/8" GWB, 3-5/8" Metal Stud		
O	12" CMU		45
P	5/8" GWB, 7/8" Metal Channel, 8" Metal Stud, Airspace, Brick Veneer		

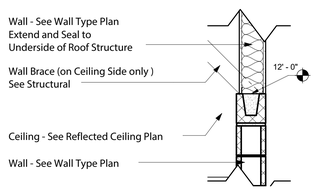
SEE LS-1 FOR LOCATIONS OF FIRE RATED WALL ASSEMBLIES NOT SHOWN ON THIS SHEET

Wall Type Legend:

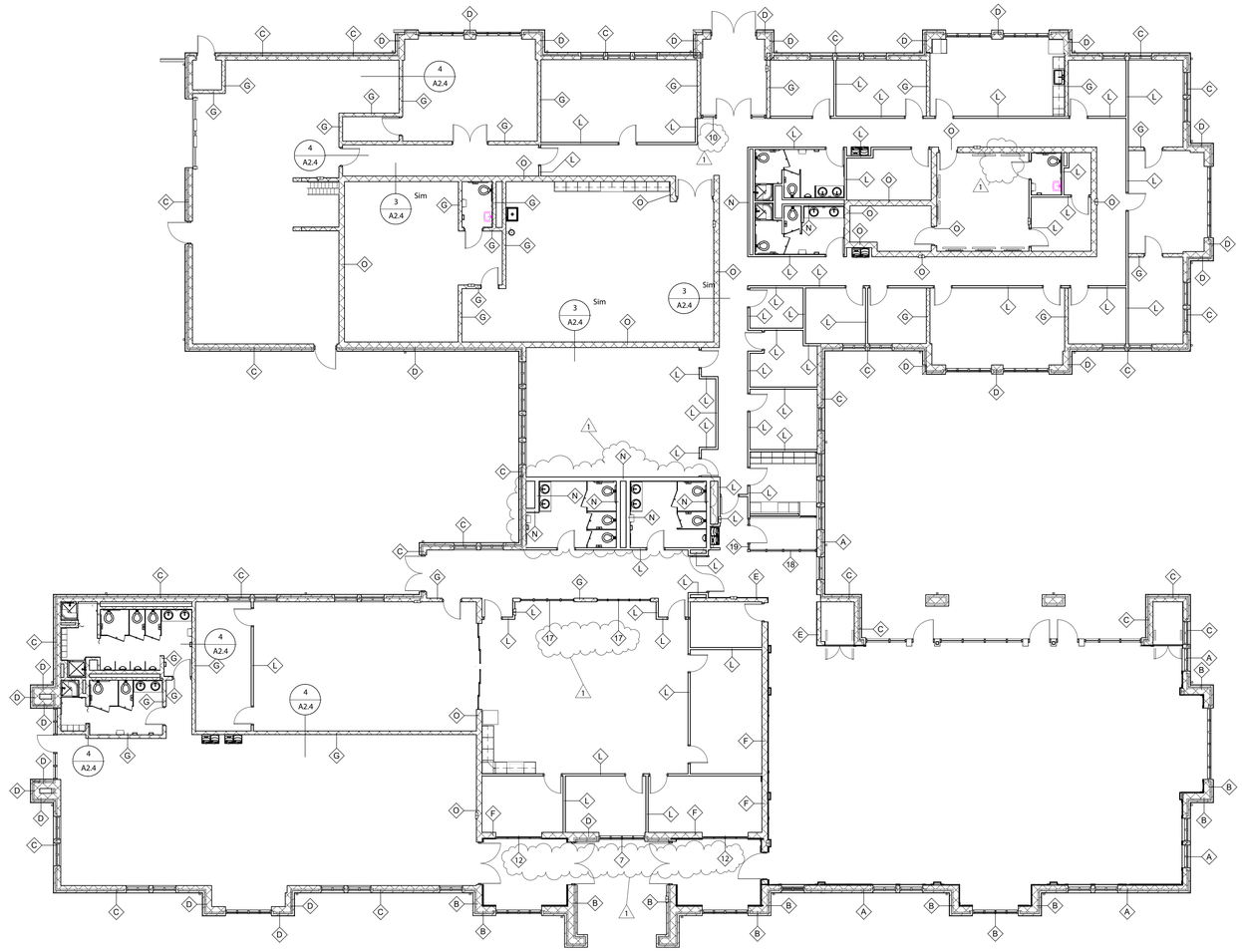
- Wall Type A
- Wall Type B
- Wall Type C
- Wall Type D
- Wall Type E
- Wall Type F
- Wall Type G
- Wall Type H
- Wall Type I
- Wall Type J
- Wall Type K
- Wall Type L
- Wall Type M
- Wall Type N
- Wall Type O
- Wall Type P



3 A2.4 Gypsum Wallboard Detail
1" = 1'-0"



4 A2.4 Wall Transition Detail
3/4" = 1'-0"



2 A2.4 Wall Type Plan - Bid Option #2
3/32" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street, Montgomery, AL 36104
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Wall Type Plan

Sheet Number
A2.4

STATE OF ALABAMA
MONTGOMERY
Jim R. Lowe, Jr.
1666
Gregory A. O'Neal
4042
Wesley D. Clower
6204
ALABAMA
REGISTERED ARCHITECTS

FINISH SCHEDULE - BASE BID & BID OPTION #6

NO.	ROOM NAME	FLOOR FINISH: BASE BID FLOOR FINISH	FLOOR FINISH: BID OPTION FLOOR FINISH	BASE FINISH: BASE BID	BASE FINISH: BID OPTION	WALL FINISH BASE BID: NORTH	WALL FINISH BASE BID: EAST	WALL FINISH BASE BID: SOUTH	WALL FINISH BASE BID: WEST	WALL FINISH BID OPTION: NORTH	WALL FINISH BID OPTION: EAST	WALL FINISH BID OPTION: SOUTH	WALL FINISH BID OPTION: WEST	CEILING FINISH	DOORS: FINISH	DOORS: CASING & TRIM	WINDOW: SHADE (OPTION)	WINDOW: SILL	MILLWORK CASEWORK: UPPER	MILLWORK CASEWORK: LOWER	MILLWORK: COUNTER TOP	TOILET PARTITIONS	NOTES
Equipment Platform																							
201	EQUIPMENT PLATFORM	SC	SC	NA	NA	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	Exposed									
Level 1																							
101	Entry	SC	SC	NA	NA	BRICK	BRICK	BRICK	BRICK	BRICK	BRICK	BRICK	BRICK	Metal Soffit	ALUMINUM	ALUMINUM							
102	Vestibule	VCT 1, WM 1	HT 1, WM 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
103	Fitness Center	SC	RBF	RUBBER	RUBBER	PNT 5	PNT 5	PNT 5	PNT 5	PNT 5	PNT 5	PNT 5	PNT 5	Exposed / PNT 2 / PNT 4	ST 1	PNT 2							PAINT ALL EXPOSED STRUCURE AND MEP ITEMS IN CEILING OF THIS SPAE PNT 4. IF BID OPTION IS ACCEPTED, PAINT EXPOSED TRUSSES AND PURLINS PNT 2.
104a	Men's Latrine	SC	HT-2	RUBBER	HT-2	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1	HT-1	HT-1	HT-1	ACT 2	ST 1	PNT 2				PL1	SS1	STAINLESS	REFER TO ELEVATIONS FOR EXTENT OF TILE INCLUDED IN BASE BID
104b	Women's Latrine	SC	HT-2	RUBBER	HT-2	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1	HT-1	HT-1	HT-1	ACT 2	ST 1	PNT 2				PL1	SS1	STAINLESS	REFER TO ELEVATIONS FOR EXTENT OF TILE INCLUDED IN BASE BID
105	Uniform Storage	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
106	Honor Guard	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
107	Vestibule	VCT 1, WM 1	HT 1, WM 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 3	ST 1	PNT 2	WS 1						
111	Hall	VCT 1	CPT 1, CPT 2	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1**	PNT 1**	PNT 1**	PNT 1**	ACT 1**	ST 1	PNT 2	WS 1						**IF BID OPTION #2 IS AWARDED, PROVIDE ACT 3 / WOOD / GWB CEILING ASSEMBLIES AS INDICATED ON A8.1B. PROVIDE WOOD TRIM AND ACOUSTICAL BAFFELS AS INDICATED ON A7.1, PNT 1 ON TRIM AROUND ACOUSTIAL BAFFELS. PNT2 ON ALL CROWN MOULDING AND EXPOSED TRUSSES AND PURLINS.
112	Computer Classroom & Training Area	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2				PL1	SS1		
113	Flight Office Fitness	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
114	Flight Office Lodging	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
115	Conference Room	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
116	Equipment Storage	SC	SC	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
117	Hall	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
118	Women's Latrine	HT-2	HT-2	HT-2	HT-2	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1	HT-1	HT-1	HT-1	ACT 2	ST 1	PNT 2				PL1	SS1	STAINLESS	REFER TO ELEVATIONS FOR EXTENT OF TILE INCLUDED IN BASE BID
119	Men's Latrine	HT-2	HT-2	HT-2	HT-2	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1	HT-1	HT-1	HT-1	ACT 2	ST 1	PNT 2				PL1	SS1	STAINLESS	REFER TO ELEVATIONS FOR EXTENT OF TILE INCLUDED IN BASE BID
120a	Office	VCT 1	CPT 2	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						SEE A7.4 FOR DESK MATERIALS
120b	Office	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1			PL1	SS1		SEE A7.4 FOR DESK MATERIALS
121	Training Classroom	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
122	Intel / Investigations Officer	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
123	Electrical / Mechanical	SC	SC	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
124	Janitor	SC	SC	RUBBER	RUBBER	FRP / PNT 1	FRP / PNT 1	FRP / PNT 1	FRP / PNT 1	FRP / PNT 1	FRP / PNT 1	FRP / PNT 1	FRP / PNT 1	ACT 3	ST 1	PNT 2							PROVIDE FRP PANELS TO 8'-0" AFF AND PNT-1 ABOVE ON WALLS
125	Resource Protection	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
126	Women's Latrine	HT-2	HT-2	HT-2	HT-2	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT 1	HT 1	HT 1	HT 1	ACT 2	ST 1	PNT 2				PL1	SS1	STAINLESS	REFER TO ELEVATIONS FOR EXTENT OF TILE INCLUDED IN BASE BID
127	Operations Officer	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
128	Hall	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
129	Conference Room	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
130	BDOC	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
130a	SIPR / NCIC	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
130b	BDOC Conference	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
131	First Sergent	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
132	Latrine	HT-2	HT-2	HT-2	HT-2	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT 1	HT 1	HT 1	HT 1	ACT 2	ST 1	PNT 2							REFER TO ELEVATIONS FOR EXTENT OF TILE INCLUDED IN BASE BID
133a	Waiting & Orderly	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
133b	Manager Office	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
133c	Commander	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
134	Alarm	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
135	Supt. Office	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
136	Hall	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
137	Break Room	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1			PL1	SS1		
138	COMM	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
139	Quality Control	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
140	Men's Latrine	HT-2	HT-2	HT-2	HT-2	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1, HT-2, PNT 3	HT-1	HT-1	HT-1	HT-1	ACT 2	ST 1	PNT 2				PL1	SS1	STAINLESS	REFER TO ELEVATIONS FOR EXTENT OF TILE INCLUDED IN BASE BID
141	NCOIC	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
142	Hall	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
143	Vestibule	VCT 1, WM 1	VCT 1, WM 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
144	Guardmount	SC	SC	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
145	Squad Leader Work Area	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
146	Hall	VCT 1	VCT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
147	CATS Training	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2	WS 1						
147a	Storage	VCT 1	CPT 1	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	ST 1	PNT 2							
148a	Weapons Issue & Storage	SC	SC	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT 1	PNT 2	PNT 2							
148b	Latrine	SC	HT-2	RUBBER	HT-2	PNT 3	PNT 3	PNT 3	PNT 3	HT-1	HT-1	HT-1	HT-1	ACT 2	PNT 2	PNT 2							REFER TO ELEVATIONS FOR EXTENT OF TILE INCLUDED IN BASE BID
150	Supply	SC	SC	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	Exposed / PNT 4	PNT 2	PNT 2							PAINT ALL EXPOSED STRUCTURAL AND MEP ITEMS IN CEILING OF THIS SPACE.
151	Water	SC	SC	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	Exposed	PNT 2	PNT 2							
152	Comm	SC	SC	RUBBER	RUBBER	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	PNT 1	ACT1	ST 1	PNT 2							

PARTIAL FINISH SCHEDULE - BID OPTION #2

NO.	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH: NORTH	WALL FINISH: EAST	WALL FINISH: SOUTH	WALL FINISH: WEST	CEILING FINISH	DOORS: FINISH	DOORS: CASING & TRIM	WINDOW: SHADE	WINDOW: SILL	MILLWORK CASEWORK: UPPER	MILLWORK CASEWORK: LOWER	MILLWORK: COUNTER TOP	TOILET PARTITIONS	NOTES
Level 1																	
108	Hall	CPT 1, CPT 2	Wood	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	ACT 3 / GWB / Wood / PNT1 **	ST 1	PNT 2	WS 1						**See Reflected Ceiling Plan * Interior Elevations, PNT 1 ON TRIM AROUND ACCOUSTICAL BAFFELS, PNT 2 ON ALL CROWN MOULDING AND EXPOSED TRUSSES AND PURLINS.
108B	Hall	CPT 1, CPT 2	Wood	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	ACT 3 / GWB / Wood / PNT1 **	ST 1	PNT 2	WS 1						**See Reflected Ceiling Plan * Interior Elevations, PNT 1 ON TRIM AROUND ACCOUSTICAL BAFFELS, PNT 2 ON ALL CROWN MOULDING AND EXPOSED TRUSSES AND PURLINS.
109A	Multi-Purpose Classroom	CPT 1, CPT 2	Wood	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	ACT 3 / GWB / Wood / PNT1 **	ST 1	PNT 2	WS 1						**See Reflected Ceiling Plan * Interior Elevations, PNT 1 ON TRIM AROUND ACCOUSTICAL BAFFELS, PNT 2 ON ALL CROWN MOULDING AND EXPOSED TRUSSES AND PURLINS.
109B	Multi-Purpose Classroom	CPT 1, CPT 2	Wood	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	ACT 3 / GWB / Wood / PNT1 **	ST 1	PNT 2	WS 1						**See Reflected Ceiling Plan * Interior Elevations, PNT 1 ON TRIM AROUND ACCOUSTICAL BAFFELS, PNT 2 ON ALL CROWN MOULDING AND EXPOSED TRUSSES AND PURLINS.
109C	Mulitpurpose Classroom	CPT 1, CPT 2	Wood	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	PNT 1, AC 1 *	ACT 3 / GWB / Wood / PNT1 **	ST 1	PNT 2	WS 1						**See Reflected Ceiling Plan * Interior Elevations, PNT 1 ON TRIM AROUND ACCOUSTICAL BAFFELS, PNT 2 ON ALL CROWN MOULDING AND EXPOSED TRUSSES AND PURLINS.

FINISH SCHEDULE LEGEND

RUBBER FLOORING

RBF: Manufacturer: Tarkett
Product: Replay Multi-Functional and Sports Rubber Sheet COMT-XX
Color: 524 - Chromatic
Roll Size: 4' wide

CARPET

CPT1: Manufacturer: Shaw Contract
Style: Memory Tile
Color: Nestle
Size: 24" x 24"
Install Method: Monolithic

CPT2: Manufacturer: Shaw Contract
Style: Memory Tile
Color: Warmth
Size: 24" x 24"
Install Method: Monolithic

PLASTIC LAMINATE

PL1: Manufacturer: Formica
Color: Noir Cedar 1547-PG

PL2: Manufacturer: Formica
Color: Deco Metal, M4516 Steel Textile

PAINT

PNT1: Manufacturer: Sherwin Williams
Color: Agreeable Gray SW7029

PNT2: Manufacturer: Sherwin Williams
Color: Urbane Bronze SW7048

PNT3: Manufacturer: Sherwin Williams
Color: Dovetail SW7018

PNT4: Manufacturer: Sherwin Williams
Color: Requisite Gray SW7023

PNT5: Manufacturer: Sherwin Williams
Color: Foggy Day SW6235

VINYL COMPOSITION TILE FLOORING

VCT1: Manufacturer: Armstrong
Style: Premium Excelon Raffia Stream
Color: Rain 55901
Size: 12" x 24"
Install Pattern: Ashlar

VCT2: Manufacturer: Armstrong
Style: Premium Excelon Raffia Stream
Color: Dark Sky 55923
Size: 12" x 24"
Install Pattern: Ashlar

TILE SLAB

TS1: Manufacturer: Dekton
Color: Sogne
Sheet Size: As required to cover each application in a single sheet with no seams. Field Verify and Coordiante.

CONCRETE

SC: Sealed Concrete
See Spec Section: 09 9123

WALK OFF MAT - SEE SPECIFICATION 12 4813

WM1: Manufacturer: Pawling Corp.
Style: EM-650
Rigid Back Nylon Capet Inserts: 519 Near Black

FABRIC ON ROOM PARTITIONS

FB1: Manufacturer: Hyrex Industries
Color: Insight, Newsprint 106-11

RUBBER BASE

RB1: Manufacturer: Roppe
Color: P178 Pewter

DOOR STAIN/ WOOD STAIN TO MATCH

ST1: Manufacturer: Oshkosh
Type: SWB
Color: Chestnut 1550

WINDOW SHADES

WS1: Manufacturer: Mecho
Type: ThernoVeil
Color: 1516 Eggshell
Openess: 3%

Provide blackout shade, where required, in addition to shade indicated above. Refer to specification section12 2115 for blackout shade requirements

TILE

HT1: Manufacturer: Daltile
Style: Exquisite
Color: Ivory EQ10
Size: 12 x 24
Install Pattern: 1/3 Ashlar

HT2: Manufacturer: Daltile
Style: Chord
Color: Canon Gray
Size: 12 x 24
Install Pattern: 1/3 Ashlar

GROUT: Manufacturer: Laticrete
Color: Dusty Grey 60

FELT ACCOUSTICAL PANEL

AC1: Manufacturer: Frasch
Color: Steel 9mm

SOLID SURFACE

SS1: Manufacturer: Corian
Color: Carbon Concrete

SS2: HANDRYERS
Manufacturer: Corian Solid Surface
Color: Cameo White
Edge Finish: Square

FIBERGLASS REINFORCED PANELING

FRP: Refer to Specification Section 06 8316

EXPOSED, TRANSPARENT WOOD

WOOD: If Bid Option #2 is awarded, exposed tongue and groove wood decking in rooms 108, 109, and 111 is intended to receive transparent finish. Refer to specification section 06 1500 for decking and 09 9123 for finish.

ACOUSTIC CEILING

ACT1: Manufacturer: Armstrong
Style: Cirrus
Size: 24" x 24" x 7/8"
Suspension System: Type 11
Edge: Square
See specification section 09 5100

ACT2: Manufacturer: Armstrong
Style: Clean Room VL
Size: 24" x 24" x 7/8"
Suspension System: Type 11
Edge: Square
See specification section 09 5100

ACT3: Manufacturer: Armstrong
Style: Ultima
Size: 24" x 24" x 7/8"
Suspension System: Type 1
Edge: Beveled Tegular
See specification section 09 5100

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number: 12072
Date: MARCH 2022
Drawn By: JJ, NB, DCD, JBW
Checked By: DCD

Project Title: A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: Finish Schedule

Sheet Number: A3.1

STATE OF ALABAMA
MONTGOMERY
Jim H. Seay, Jr. 1846
Gregory A. O'Neal 6043
Wesley E. Orner 6244
ALABAMA
REGISTERED ARCHITECTS

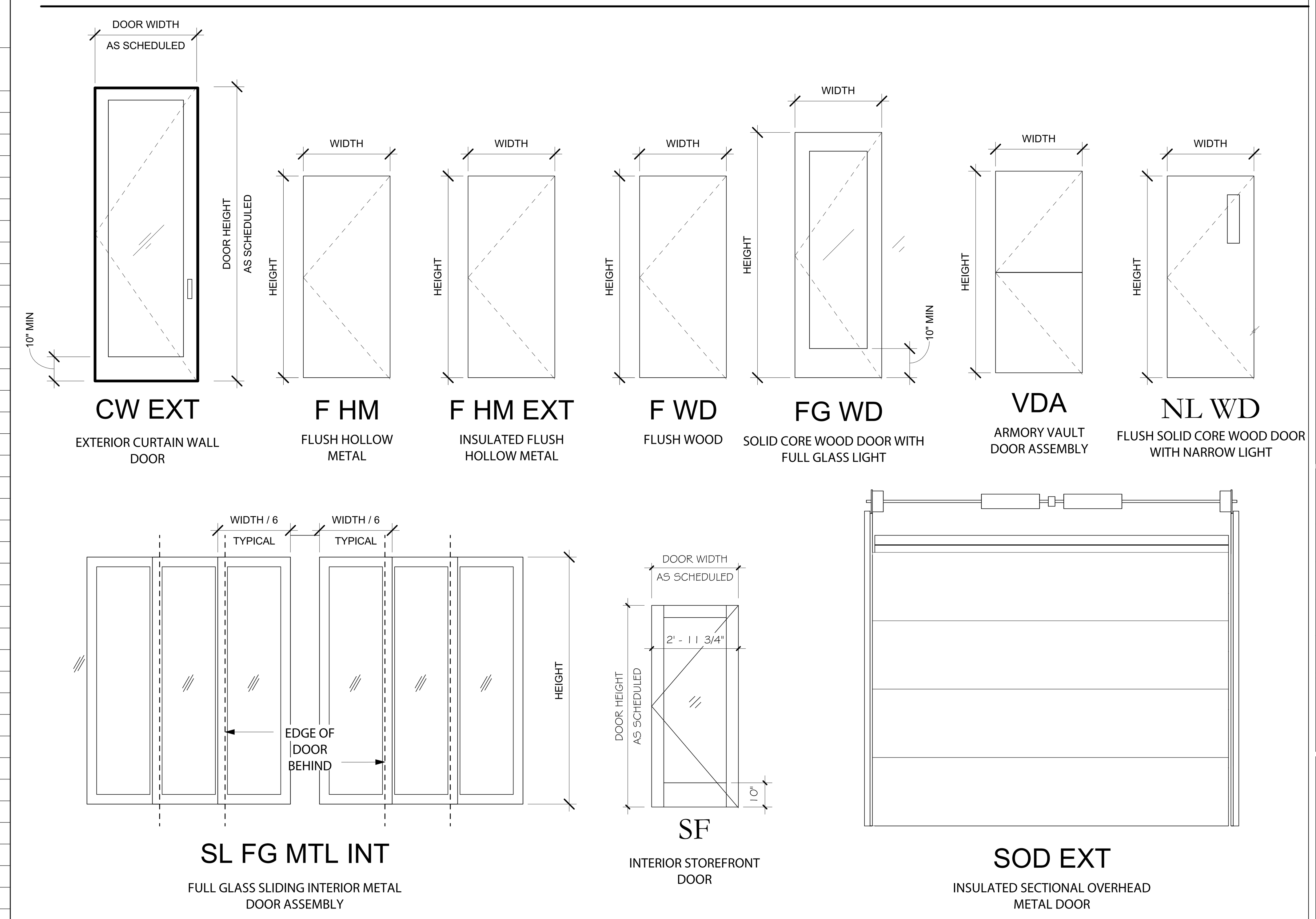
Door, Opening & Frame Schedule - BASE BID

Door No.	Width	Height	Thickness	Door Type	Frame Type	Glazing Type	Head Detail	Jamb Detail	Sill Detail	Notes	Fire Resistance Rating	SIGNAGE TYPE
Level 1												
101a	7' - 0"	10' - 0"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE			
101b	7' - 0"	10' - 0"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE			
102	7' - 0"	9' - 8"	0' - 1 3/4"	FG WD	HM F1	S-3	5/A3.4	5/A3.4 SIM	15/A3.3 SIM		45 Min.	A, C
103	3' - 0"	10' - 0"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE			
104a	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		3/A3.6	3/A3.6 SIM.				D
104b	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		3/A3.6	3/A3.6 SIM.				D
105a	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				B, C
105b	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				B, C
106a	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	3/A3.6	3/A3.6 SIM.				A, C
106b	15' - 0"	8' - 6"	0' - 1 3/4"	SL FG MTL INT	SL FG MTL INT	S-1	8/A3.6	9/A3.6				
107	4' - 5 3/4"	9' - 8"	0' - 1 3/4"	FG WD	MH F1	S-3	5/A3.4	5/A3.4 SIM	15/A3.3 SIM	If Bid Option #2 is awarded, coordinate Opening with Interior Trim - See Interior Elevations/Details	45 Min.	A, C
111	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.			45 Min.	A, B
112a	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				A, C
112b	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				A, C
113	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	1/A3.6	1/A3.6 SIM.				C
114	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	1/A3.6	1/A3.6 SIM.				C
115	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				C
116a	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				C
116b	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				C
117a	6' - 0"	8' - 0"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE			A
117b	6' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-3	1/A3.6	1/A3.6 SIM.			45 Min.	A, A
118	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				D
119	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				D
120a	3' - 0"	7' - 9 1/2"	0' - 1 3/4"	SF	SEE OPENING SCHEDULE	S-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE			C
120b	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-3	1/A3.6	1/A3.6 SIM.			45 Min.	C
121a	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				C
121b	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				C
122	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	1/A3.6	1/A3.6 SIM.				C
123	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				C
124	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				C
125	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	1/A3.6	1/A3.6 SIM.				C
126	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				D
127	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	1/A3.6	1/A3.6 SIM.				C
129a	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				C
129b	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				C
130	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		3/A3.6	3/A3.6 SIM.				C
130a	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		3/A3.6	3/A3.6 SIM.				C
130b	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				C
131	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	1/A3.6	1/A3.6 SIM.				C
132	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				D
133a	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				C
133b	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	3/A3.6	3/A3.6 SIM.				C
133c	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	3/A3.6	3/A3.6 SIM.				C
134	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				C
135	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	1/A3.6	1/A3.6 SIM.				C
137	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				C
138	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				C
139	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	1/A3.6	1/A3.6 SIM.				C
140	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.				D
141	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-2	1/A3.6	1/A3.6 SIM.				C
143a	6' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.		SEE ALTERNATE DOOR SCHEDULE FOR CHANGES TO THIS OPENING IF BID OPTION #2 IS AWARDED		A
143b	7' - 7"	10' - 0"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE			A
144	6' - 0"	7' - 0"	0' - 1 3/4"	F HM	MH F2		3/A3.6	3/A3.6 SIM.				A, C
145	3' - 0"	7' - 0"	0' - 1 3/4"	FG WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				C
146	3' - 0"	7' - 0"	0' - 1 3/4"	NL WD	MH F2	S-1	1/A3.6	1/A3.6 SIM.				A, B
147	6' - 0"	7' - 0"	0' - 1 3/4"	F HM	MH F2		3/A3.6	3/A3.6 SIM.				C
147a	3' - 0"	7' - 0"	0' - 1 3/4"	F HM	MH F2		3/A3.6	3/A3.6 SIM.				C
148a	3' - 0"	7' - 0"	0' - 1 3/4"	VDA	VDA F		3/A3.6 SIM.	3/A3.6 SIM.				C
148b	3' - 0"	7' - 0"	0' - 1 3/4"	F HM	MH F2		3/A3.6	3/A3.6 SIM.				D
150a	3' - 0"	7' - 0"	0' - 1 3/4"	F HM EXT	MH F2		3/A3.6	3/A3.6 SIM.				A, B, C
150b	3' - 7"	7' - 9 1/2"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE			A
150c	3' - 7"	7' - 9 1/2"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE			A
150d	12' - 0"	10' - 0"	0' - 3"	SOD EXT	SOD F		6/A3.4	8/A3.4	7/A3.4			
151	3' - 0"	7' - 0"	0' - 1 3/4"	F HM EXT	MH F2		2/A3.3 SIM.	9/A3.3 SIM.	10/A3.3 SIM.			C
152	3' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		2/A3.6	2/A3.6 SIM.			45 Min.	C

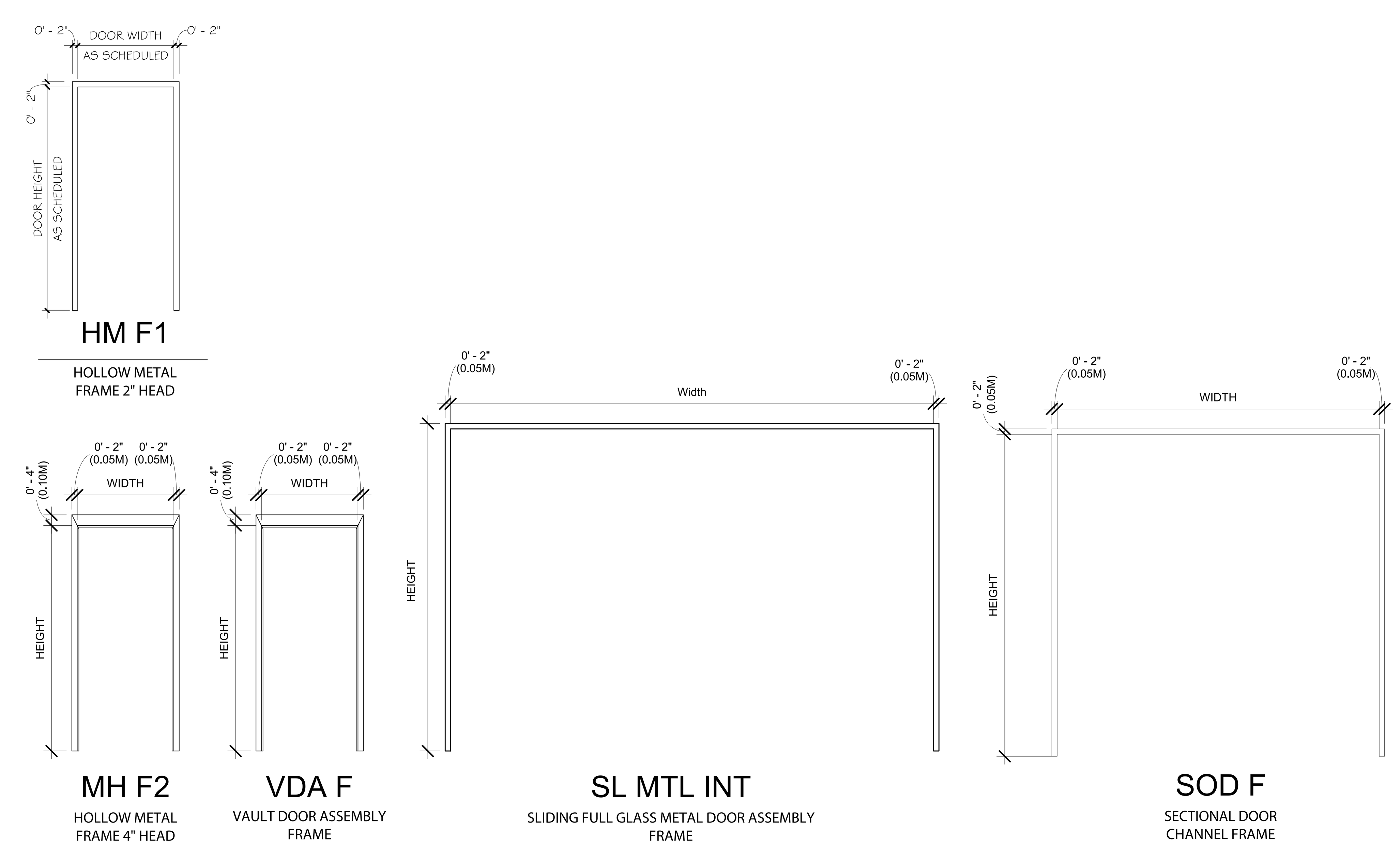
Door, Opening & Frame Schedule ALTERNATE

Door No.	Width	Height	Thickness	Door Type	Frame Type	Glazing Type	Head Detail	Jamb Detail	Sill Detail	Notes	Fire Resistance Rating	SIGNAGE TYPE
Level 1												
109a	3' - 6"	10' - 0"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	PROVIDE IF BID OPTION #2 IS AWARDED		
109b	3' - 6"	10' - 0"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	PROVIDE IF BID OPTION #2 IS AWARDED		
109c	3' - 6"	10' - 0"	0' - 2"	CW EXT	SEE OPENING SCHEDULE	IG-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	PROVIDE IF BID OPTION #2 IS AWARDED		
143a	6' - 0"	7' - 0"	0' - 1 3/4"	SF	SEE OPENING SCHEDULE	S-1	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	SEE OPENING SCHEDULE	IF BID OPTION #2 IS AWARDED, PROVIDE THIS OPENING IN LIEU OF OPENING 143A IN THE BASE BID DOOR SCHEDULE		
160	6' - 0"	7' - 0"	0' - 1 3/4"	F WD	MH F2		1/A3.6	1/A3.6 SIM.		PROVIDE IF BID OPTION #1 IS AWARDED. OPENING IS OMITTED IN BASE BID AND IF BOTH BID OPTION #1 AND #2 ARE AWARDED		A, B ,C

DOOR LEGEND:

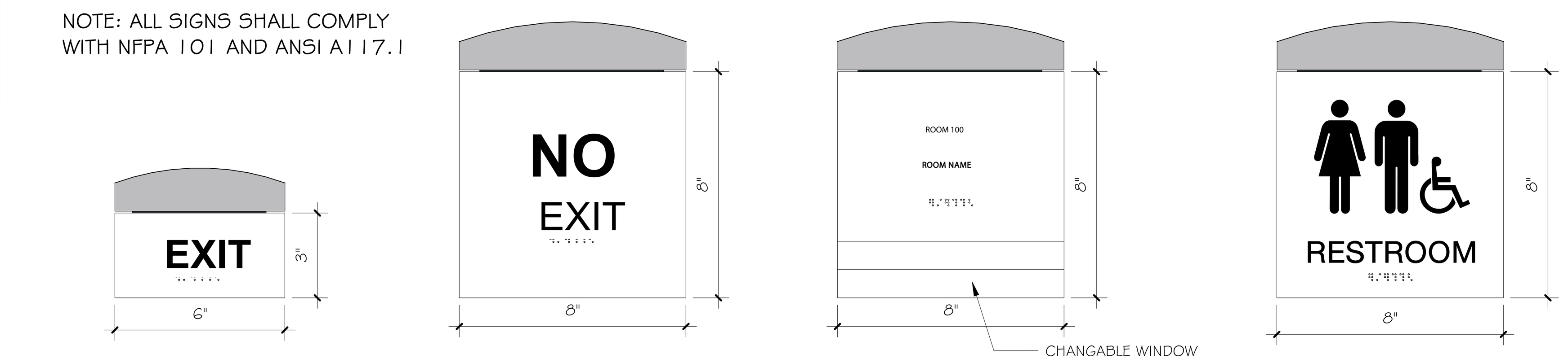


FRAME LEGEND:



SIGNAGE SCHEDULE

NOTE: ALL SIGNS SHALL COMPLY WITH NFPA 101 AND ANSI A117.1



SIGN TYPE: **A**
WAYFINDING ID MOUNTED ADJACENT TO DOOR

SIGN TYPE: **B**
ROOM ID MOUNTED ADJACENT TO DOOR

SIGN TYPE: **C**
ROOM ID MOUNTED ADJACENT TO DOOR

SIGN TYPE: **D**
RESTROOM ID MOUNTED ADJACENT TO DOOR

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

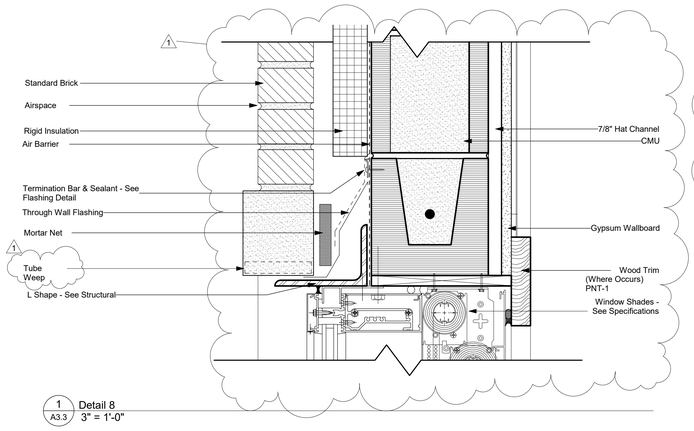
Job Number: 12072
Date: MARCH 2022
Drawn By: JJ, NB, DCD, JBW
Checked By: DCD

Project Title: A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

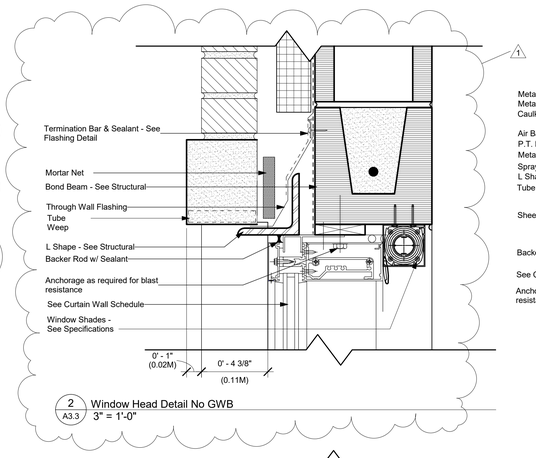
Sheet Title: Door Schedules

Sheet Number: A3.2

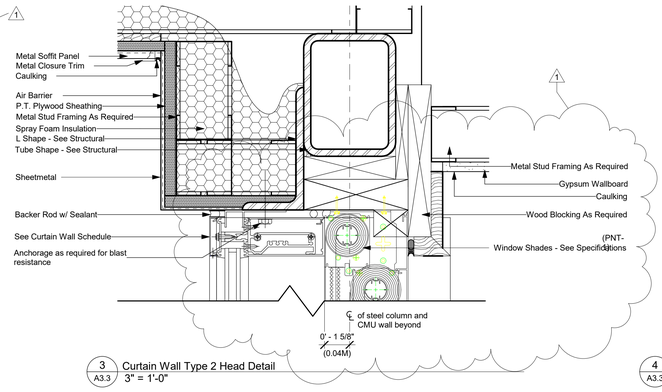
STATE OF ALABAMA – MONTGOMERY – Jim H. Seay, Jr. 1846 – Gregory A. O'Neal 6043 – Wesley R. Osmer 6244 – ALABAMA – REGISTERED ARCHITECTS



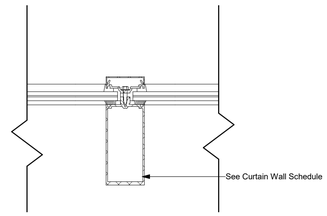
1 A3.3 Detail 8
3" = 1'-0"



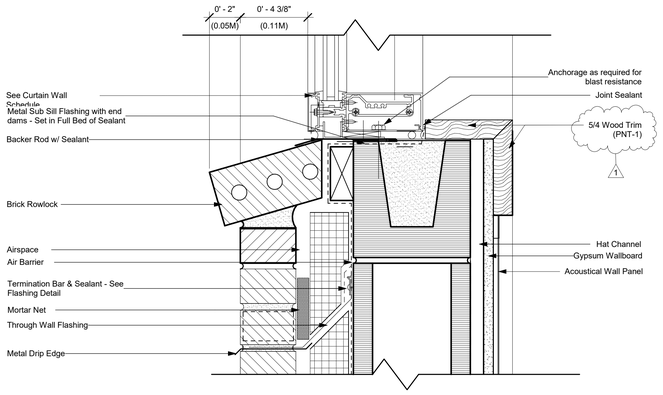
2 A3.3 Window Head Detail No GWB
3" = 1'-0"



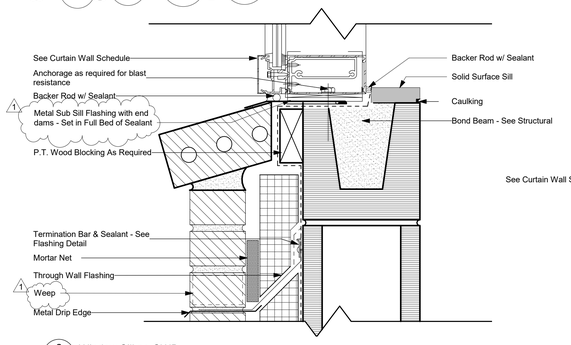
3 A3.3 Curtain Wall Type 2 Head Detail
3" = 1'-0"



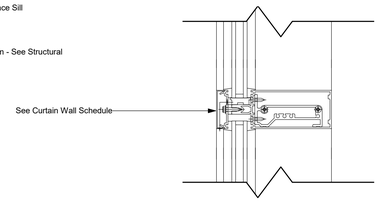
4 A3.3 Vertical Mullion Detail
3" = 1'-0"



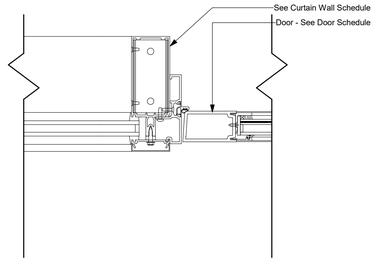
5 A3.3 Detail 7
3" = 1'-0"



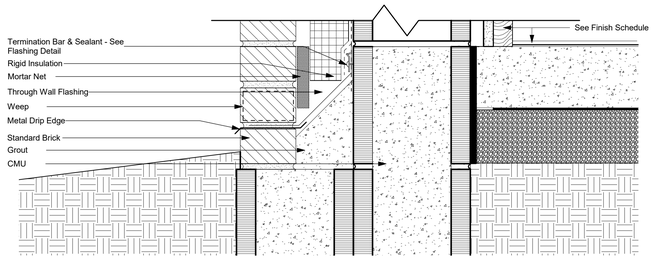
6 A3.3 Window Sill no GWB
3" = 1'-0"



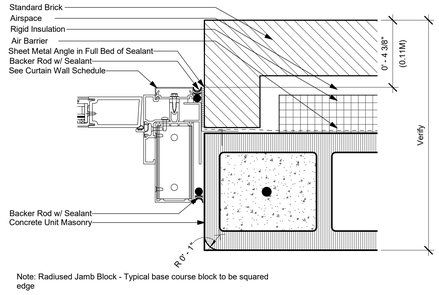
7 A3.3 Curtain Wall Horizontal Mulltion Detail
3" = 1'-0"



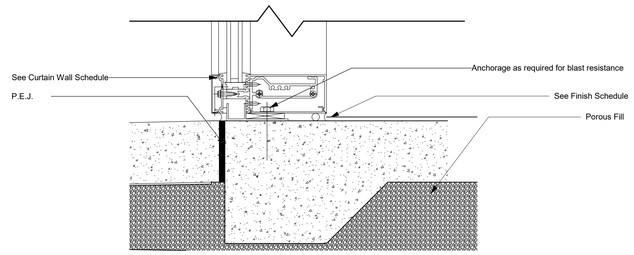
8 A3.3 Curtain Wall Door Jamb at Window
3" = 1'-0"



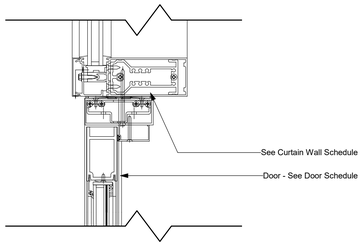
9 A3.3 Jamb without GWB
3" = 1'-0"



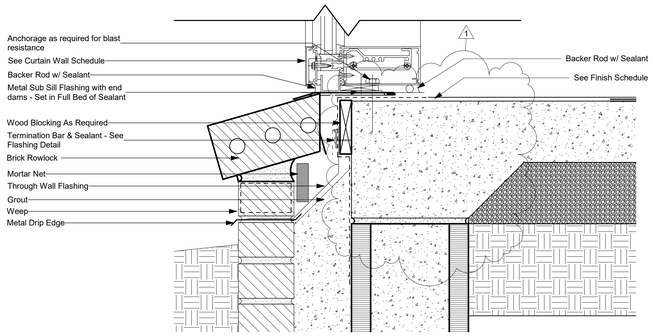
Note: Radiused Jamb Block - Typical base course block to be squared edge



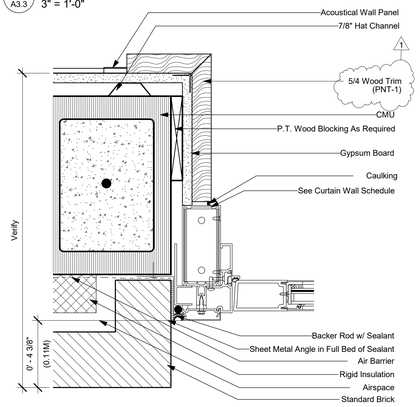
10 A3.3 Curtain Wall Sill at Grade
3" = 1'-0"



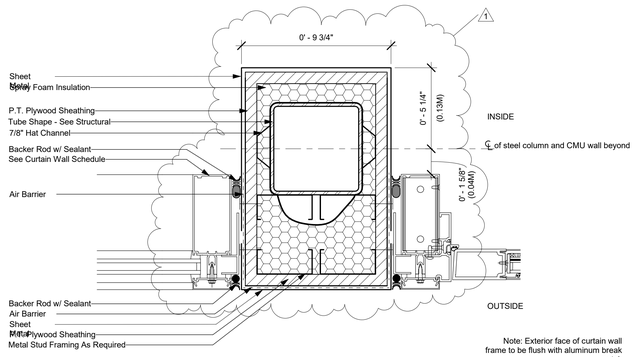
11 A3.3 Curtain Wall Door Head at Transom
3" = 1'-0"



12 A3.3 Detail 6
3" = 1'-0"

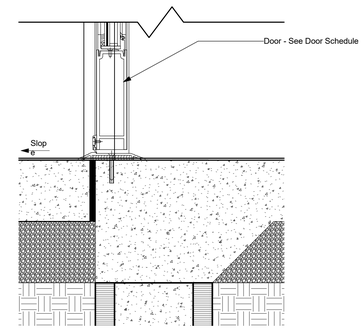


13 A3.3 Curtain Wall Door Jamb Detail
3" = 1'-0"



Note: Exterior face of curtain wall frame to be flush with aluminum break metal.

14 A3.3 Door Jamb at steel column
3" = 1'-0"



15 A3.3 Curtain Wall Door Sill
3" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade, Birmingham, AL 35205
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

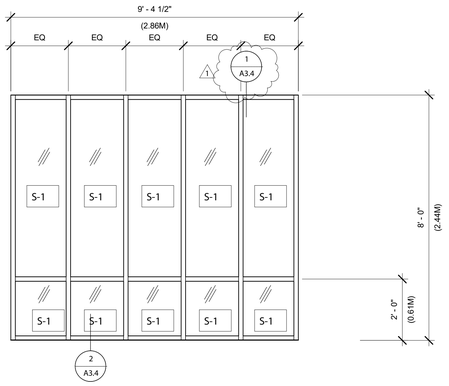
Checked By
DCD

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Curtain Wall & Window Details

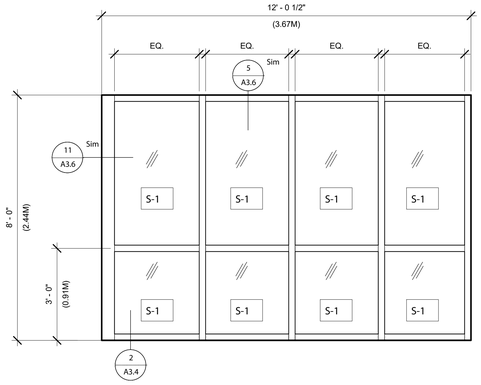
Sheet Number
A3.3

STATE OF ALABAMA
MONTGOMERY
Jim S. Seay, Jr.
1206
Gregory A. O'Neal
4043
Wesley S. Clarke
6204
ALABAMA
REGISTERED ARCHITECTS



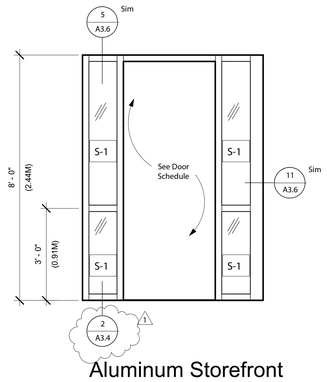
Aluminum Storefront Type 17

17



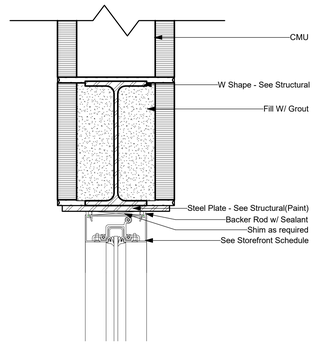
Aluminum Storefront Type 18

18

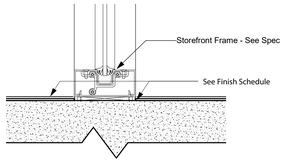


Aluminum Storefront Type 19

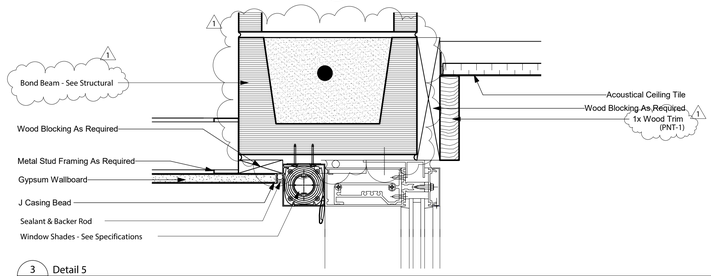
19



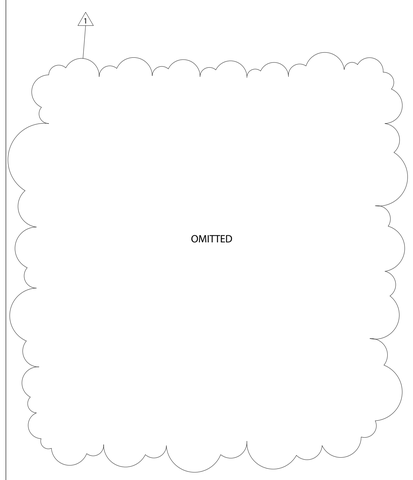
1 A3.4 Detail 1
3" = 1'-0"

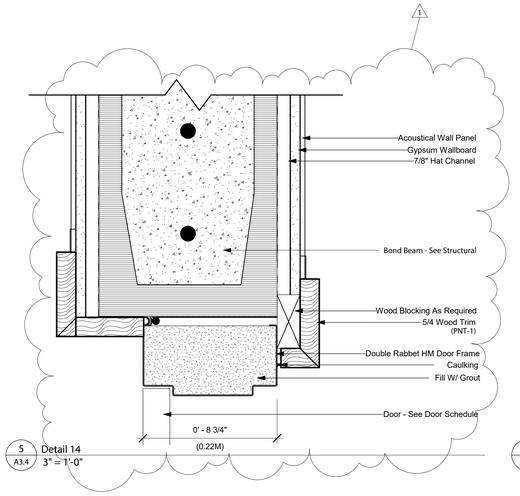


2 A3.4 Sill Detail
3" = 1'-0"

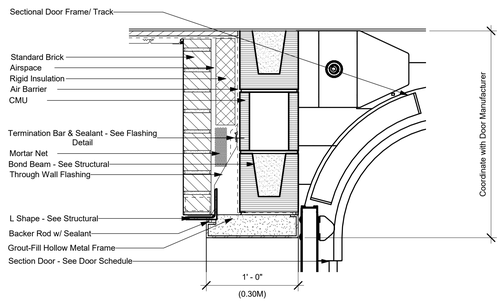


3 A3.4 Detail 5
3" = 1'-0"

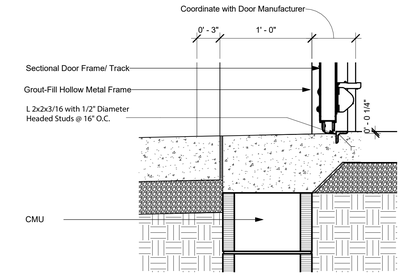




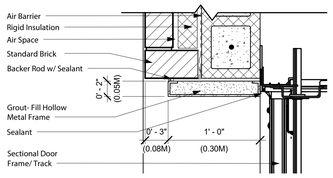
5 A3.4 Detail 14
3" = 1'-0"



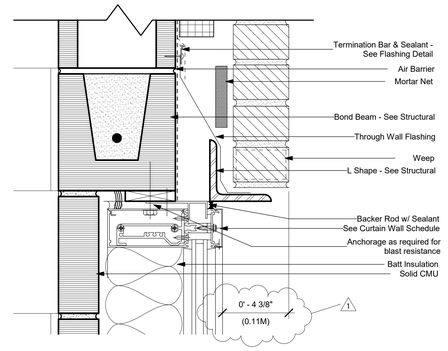
6 A3.4 Sectional Door Head Detail
1 1/2" = 1'-0"



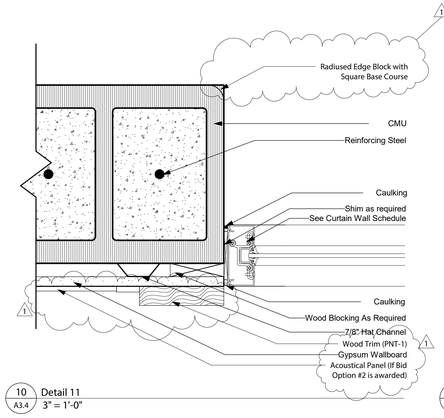
7 A3.4 Sectional Door Sill Detail
1 1/2" = 1'-0"



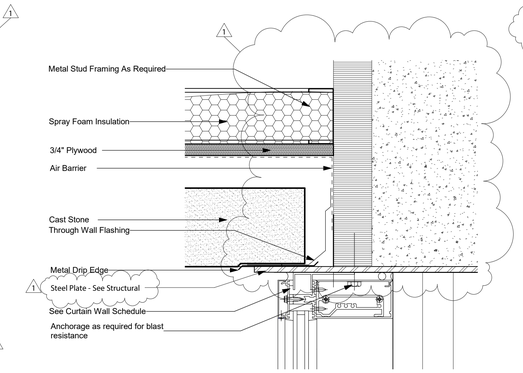
8 A3.4 Sectional Door Jamb Detail
1 1/2" = 1'-0"



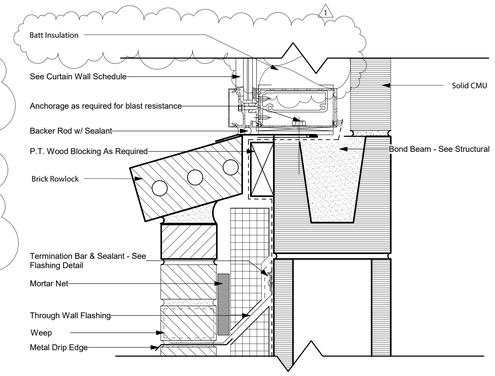
9 A3.4 Spandrel Window Head
3" = 1'-0"



10 A3.4 Detail 11
3" = 1'-0"



11 A3.4 Fitness Entry Head Detail
3" = 1'-0"



12 A3.4 Spandrel Window Sill
3" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade Birmingham, AL 35204
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

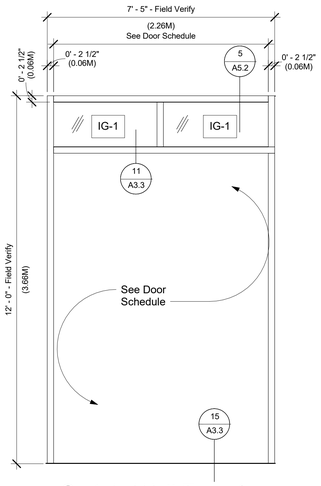
Project Title

A New Security & Services
Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Interior Store front

Sheet Number
A3.4

STATE OF ALABAMA
MONTGOMERY
Jim E. Seay, Jr.
1206
Gregory A. O'Neal
4043
Wesley S. Clarke
6204
ALABAMA
REGISTERED ARCHITECTS



Curtain Wall Type 1

1

SEE BID OPTION SCHEDULE FOR OPENING #2

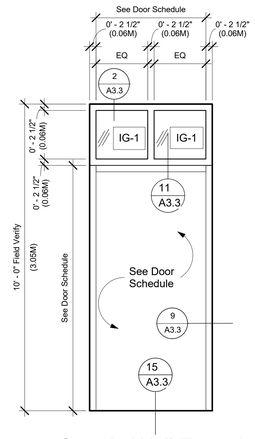
Curtain Wall Type 2

2

SEE BID OPTION SCHEDULE FOR OPENING #3

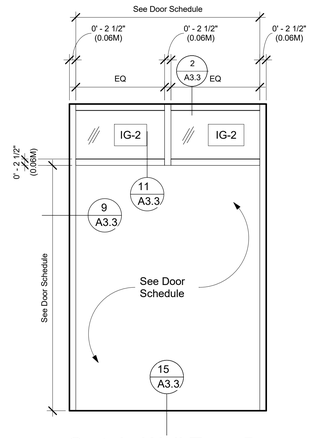
Curtain Wall Type 3

3



Curtain Wall Type 4

4



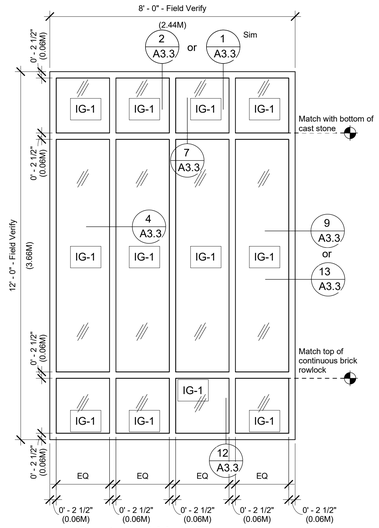
Curtain Wall Type 5

5

SEE BID OPTION SCHEDULE FOR OPENING #6

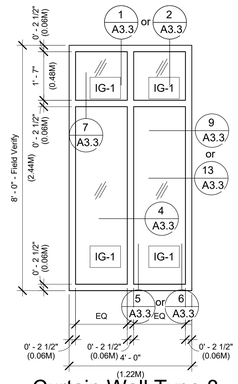
Curtain Wall Type 6

6



Curtain Wall Type 7

7



Curtain Wall Type 8

8

SEE BID OPTION SCHEDULE FOR OPENING #9

Curtain Wall Type 9

9

SEE BID OPTION SCHEDULE FOR OPENING #10

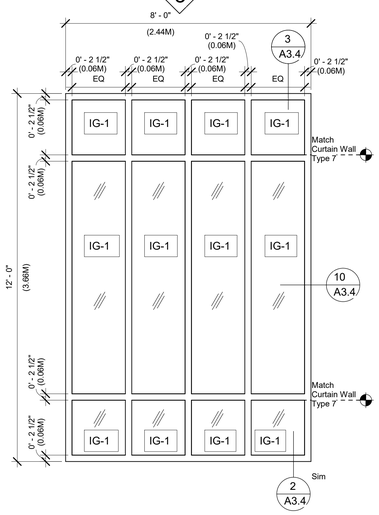
Curtain Wall Type 10

10

SEE BID OPTION SCHEDULE FOR OPENING #11

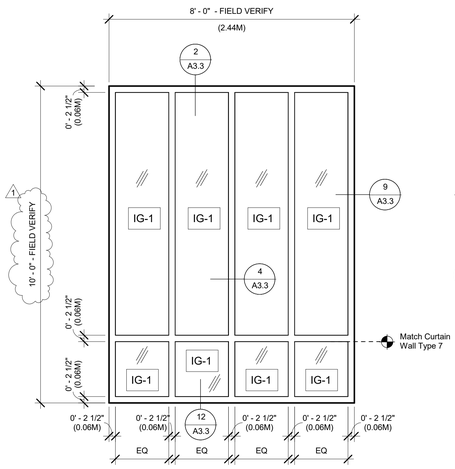
Curtain Wall Type 11

11



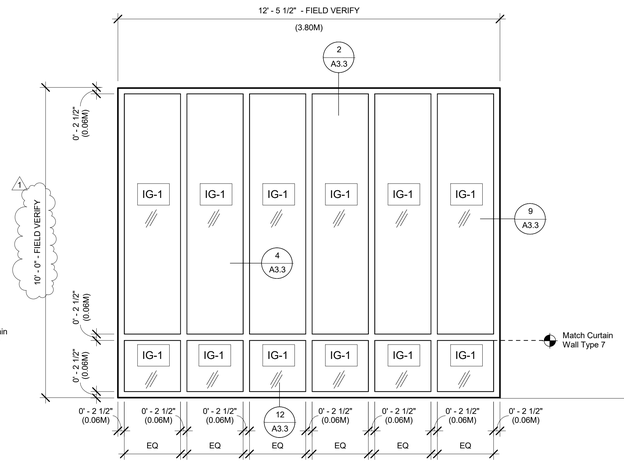
Curtain Wall Type 12

12



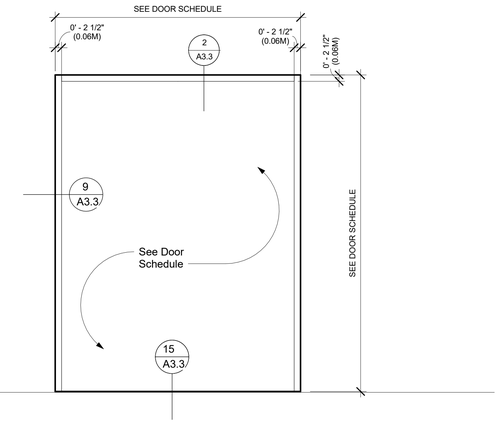
Curtain Wall Type 13

13



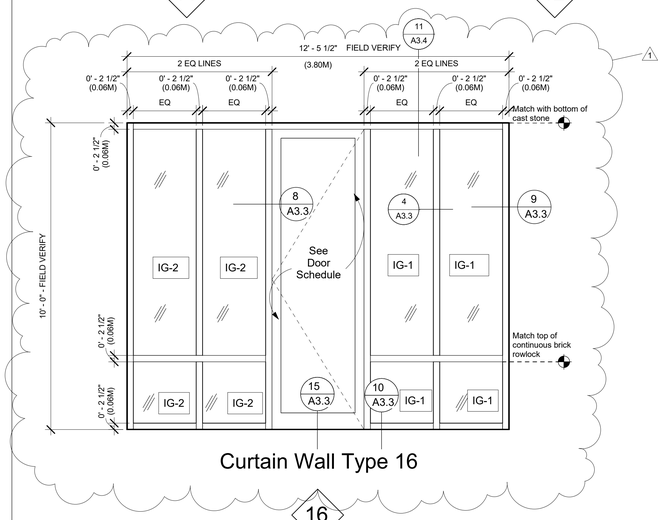
Curtain Wall Type 14

14



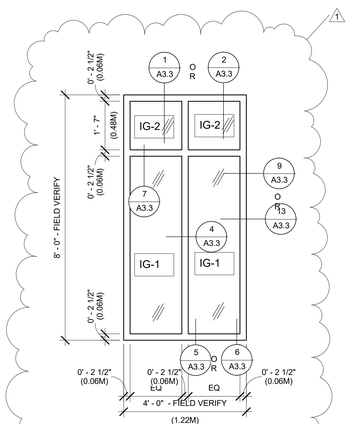
Curtain Wall Type 15

15



Curtain Wall Type 16

16



Curtain Wall Type 20

20

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade, Birmingham, AL 35205
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

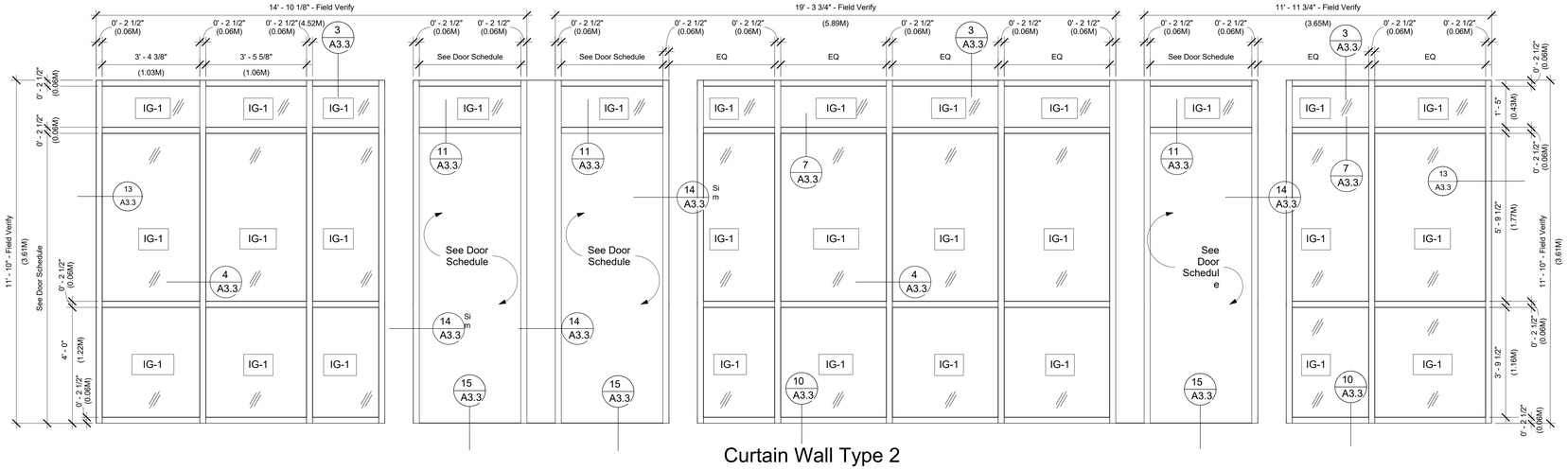
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Curtain Wall & Store Front - Base Bid

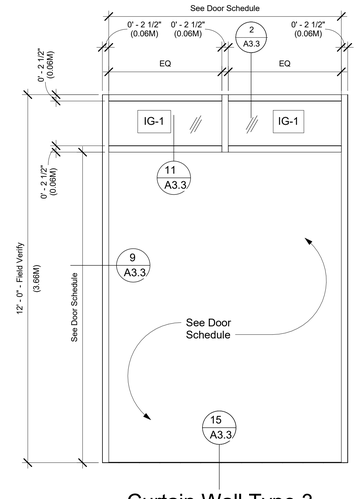
Sheet Number
A3.5

STATE OF ALABAMA
MONTGOMERY
Jim R. Lowe, Jr. 1046
Gregory A. O'Neal 4043
Wesley S. Clemer 4244
ALABAMA
REGISTERED ARCHITECTS



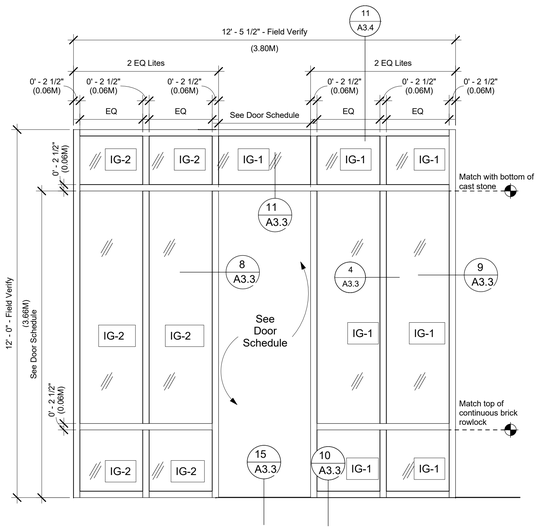
Curtain Wall Type 2

2



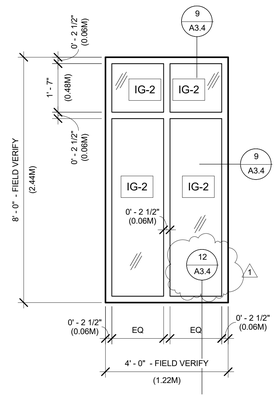
Curtain Wall Type 3

3



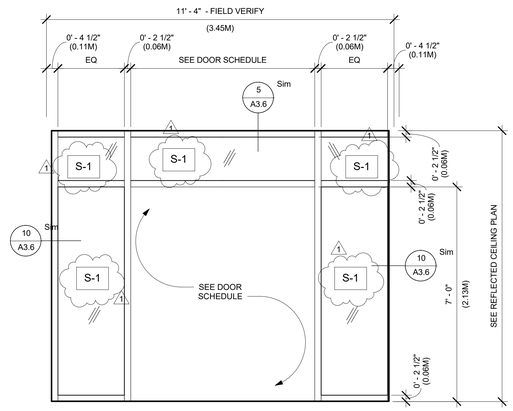
Curtain Wall Type 6

6



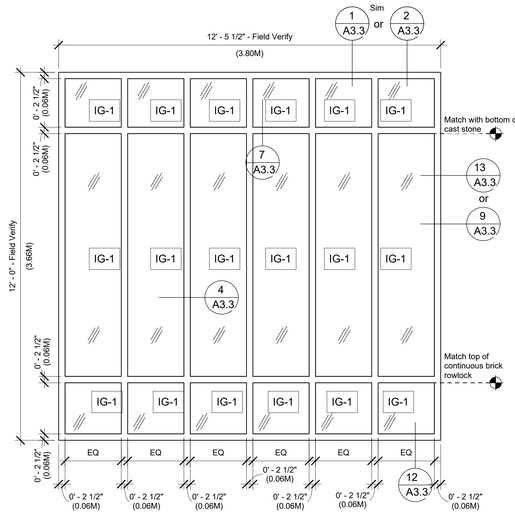
Curtain Wall Type 9

9



Curtain Wall Type 10

10



Curtain Wall Type 11

11

S|S&L
ARCHITECTURE & INTERIOR DESIGN
113 South Court Street, Montgomery, AL 36104
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

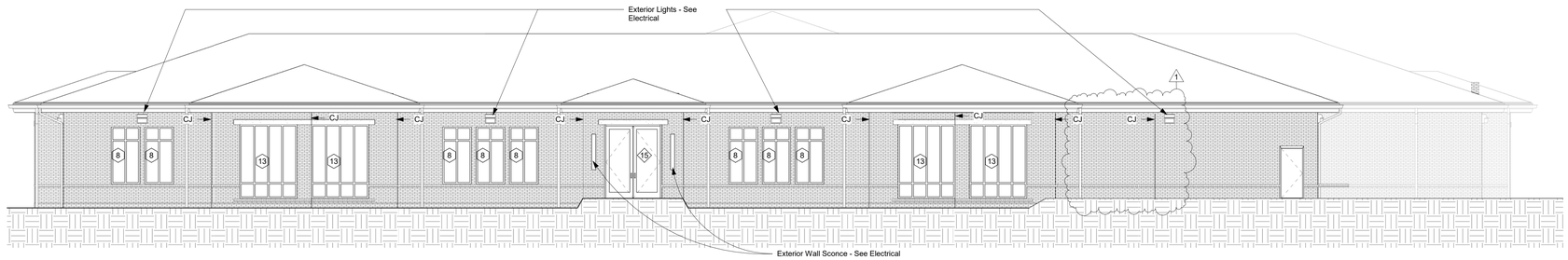
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

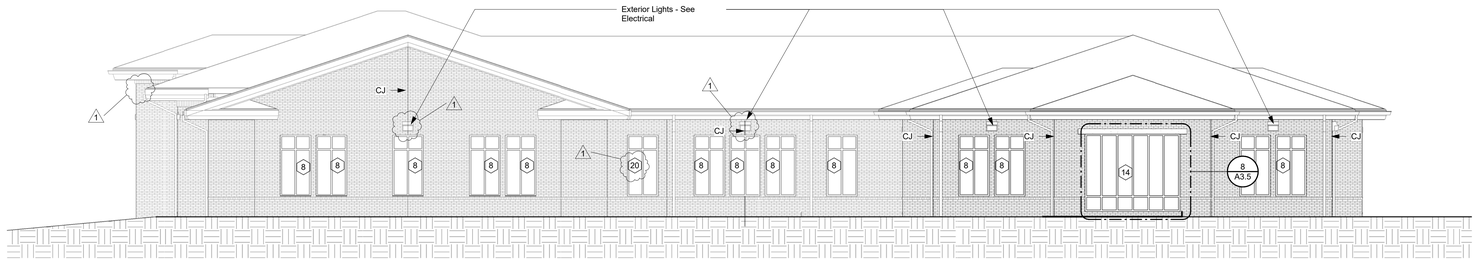
Sheet Title
Curtain Wall & Store Front - Bid Option

Sheet Number
A3.5A

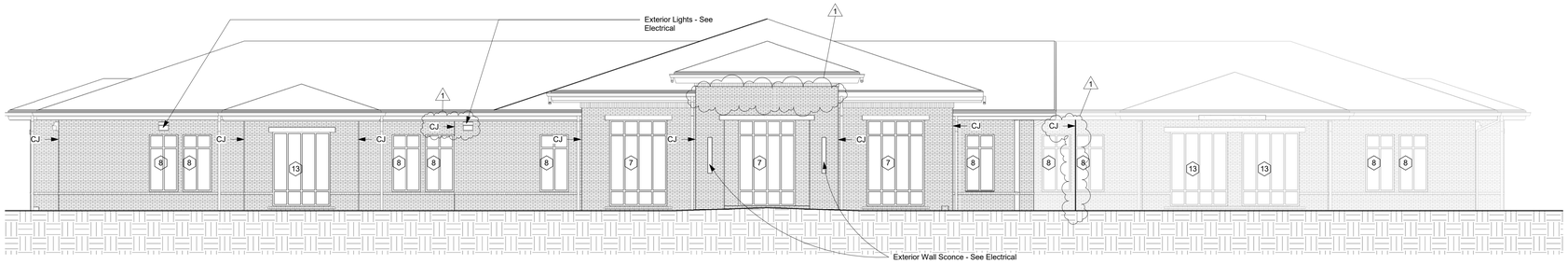
STATE OF ALABAMA
MONTGOMERY
Jim B. Sorrell, Jr.
1976
Gregory A. O'Neal
6043
Jeremy S. Cramer
6394
ALABAMA
REGISTERED ARCHITECTS



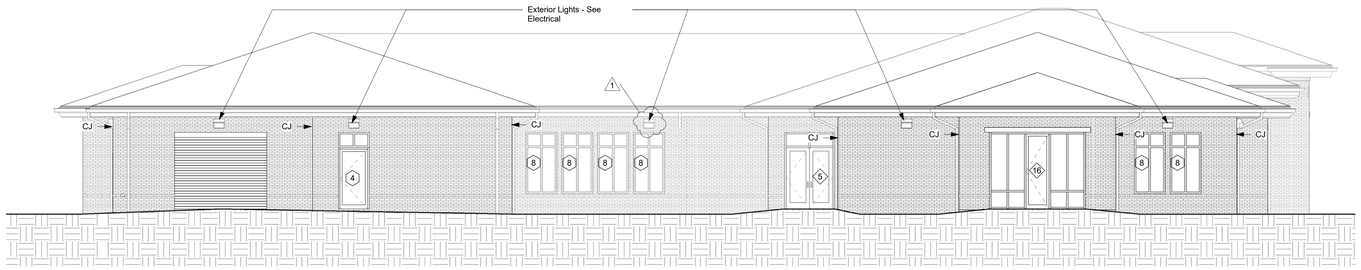
1 A4.1 North Elevation (Base Bid)
1/8" = 1'-0"



2 A4.1 East Elevation (Base Bid)
1/8" = 1'-0"



3 A4.1 South Elevation (Base Bid)
1/8" = 1'-0"



4 A4.1 West Elevation (Base Bid)
1/8" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
113 South Court Street, Florence, AL 35630
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

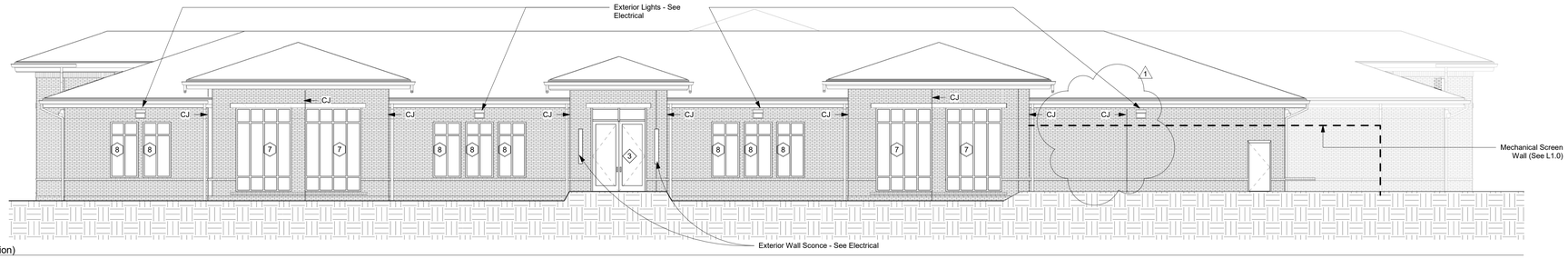
Checked By
DCD

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

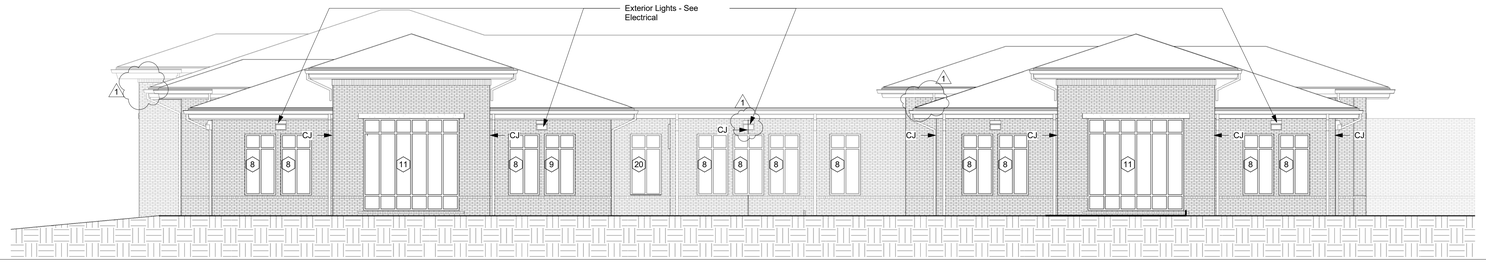
Sheet Title
Elevations (Base Bid)

Sheet Number
A4.1

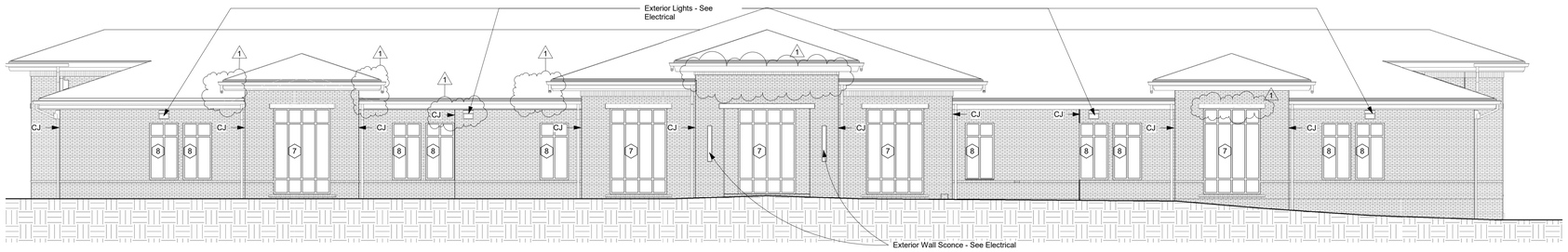
STATE OF ALABAMA
MONTGOMERY
Jim S. Snorp, Jr.
1295
Gregory A. O'Neal
4043
Wesley S. Clarner
6244
ALABAMA
REGISTERED ARCHITECTS



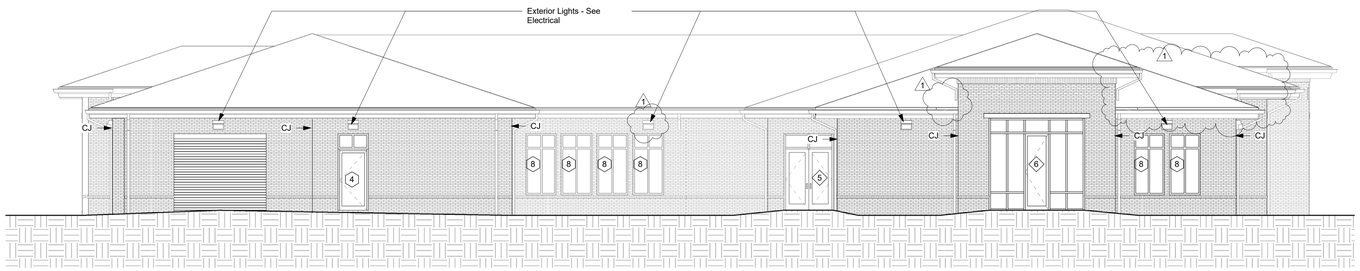
1 A4.1A North Elevation (Bid Option)
1/8" = 1'-0"



2 A4.1A East Elevation (Bid Option)
1/8" = 1'-0"

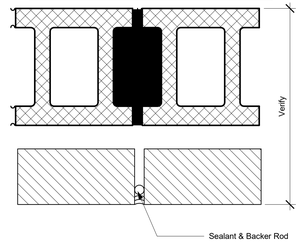


3 A4.1A South Elevation (Bid Option)
1/8" = 1'-0"



4 A4.1A West Elevation (Bid Option)
1/8" = 1'-0"

See Structural Detail for Additional Requirements



8 A4.1A Masonry Control Joint Detail
3" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Cresent Highway | Hoover, AL 35244
Tel: 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

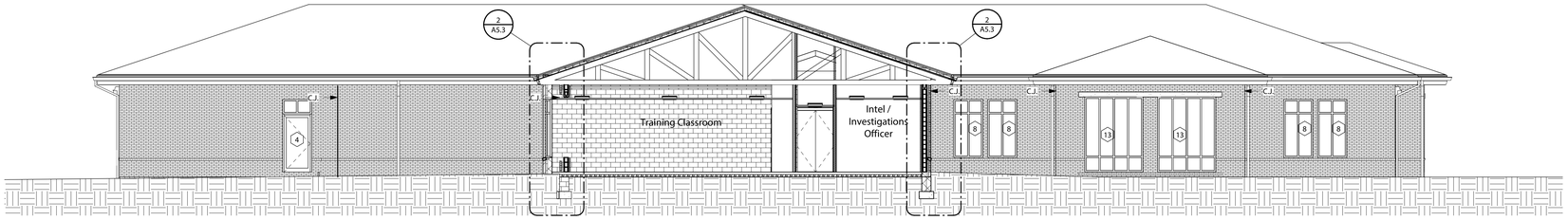
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

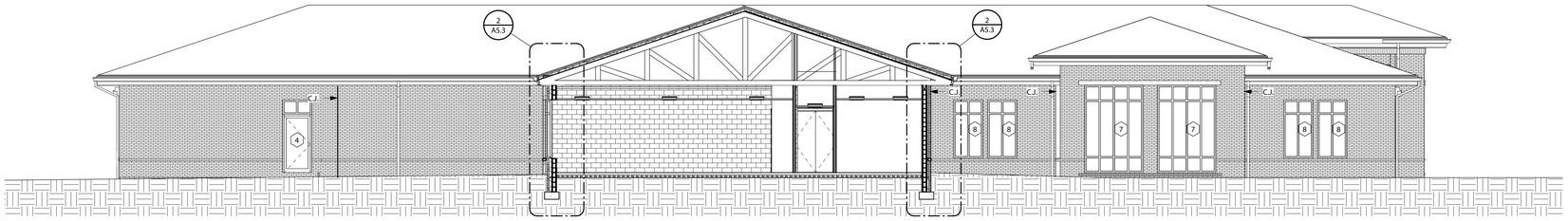
Sheet Title
Elevations (Bid Option)

Sheet Number
A4.1A

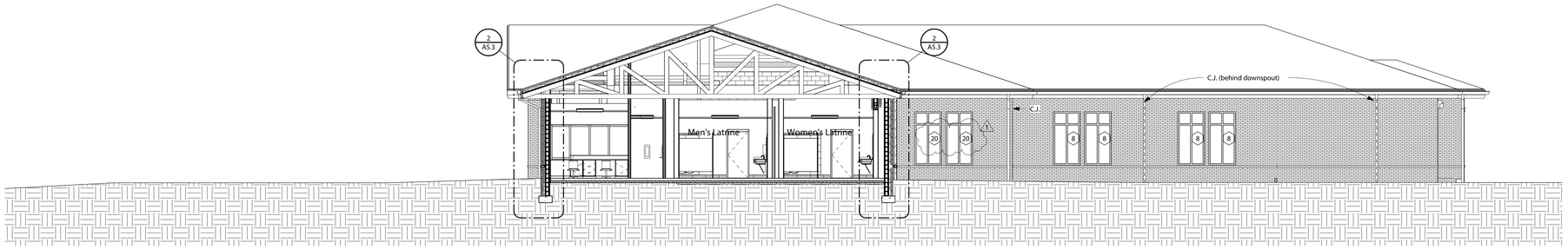
STATE OF ALABAMA
MONTGOMERY
Jim R. Sorrell, Jr.
3262
Gregory A. O'Neal
4043
Wesley S. Conner
4264
ALABAMA
REGISTERED ARCHITECTS



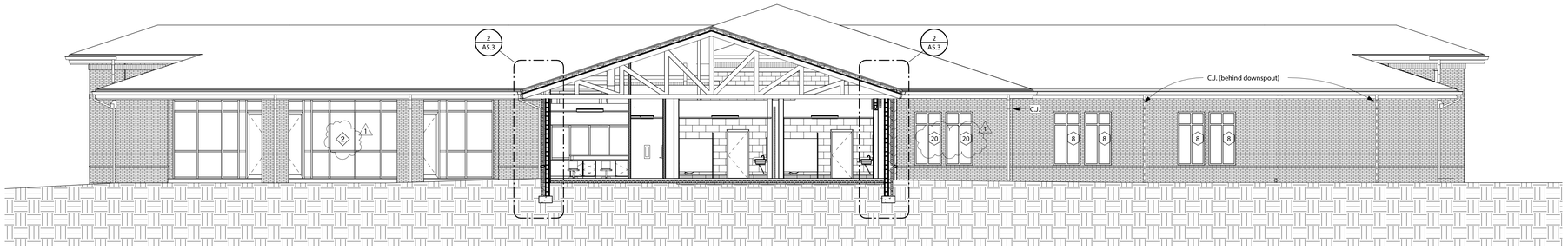
1 / A5.1 North Building Section Cut (Base Bid)
1/8" = 1'-0"



2 / A5.1 North Building Section Cut (Bid Option)
1/8" = 1'-0"



3 / A5.1 South Building Section Cut (Base Bid)
1/8" = 1'-0"



4 / A5.1 South Building Section Cut (Bid Option)
1/8" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court St. Montgomery, AL 36104
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

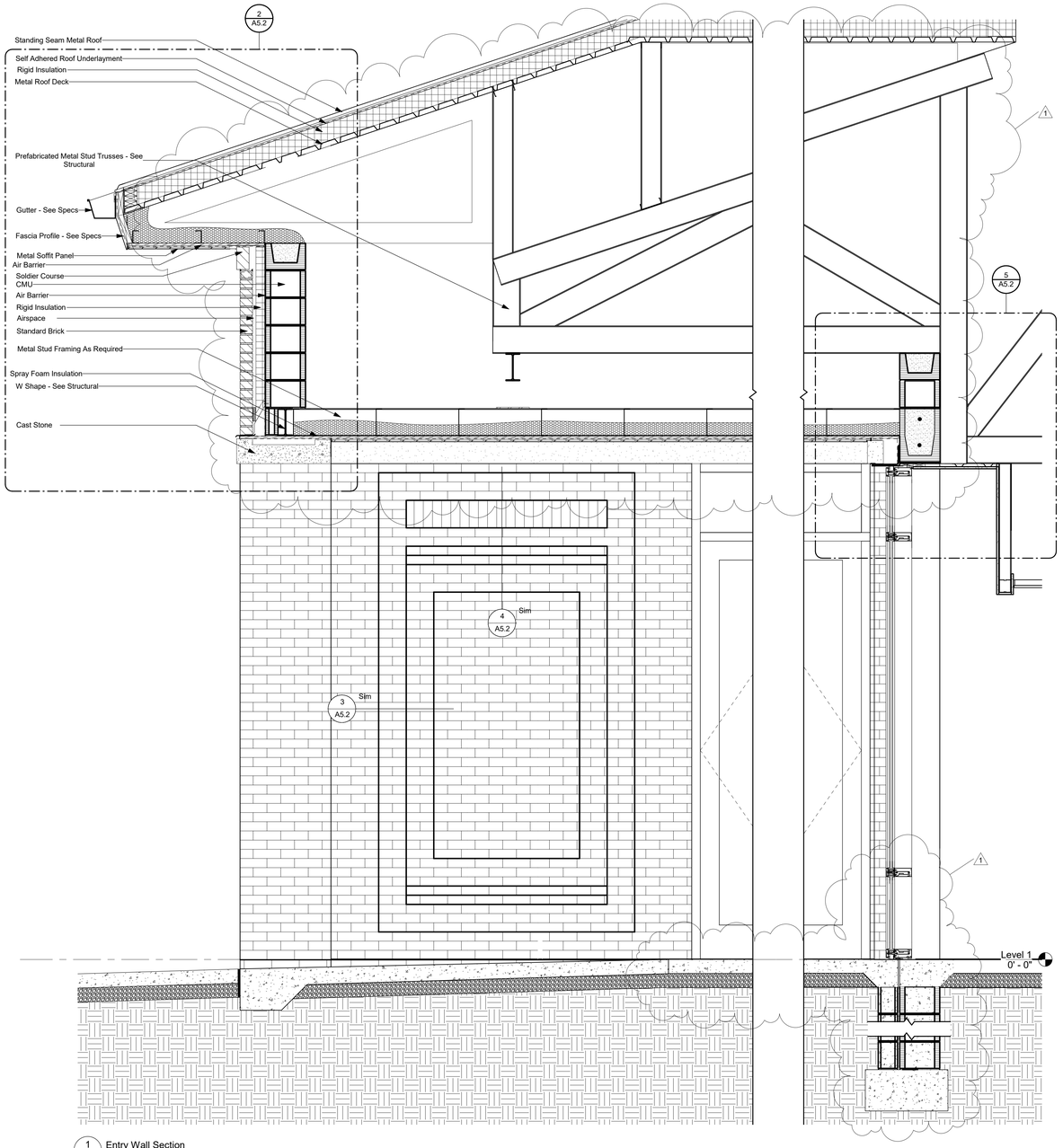
Project Title

A New Security & Services
Training Facility
117th Air Refueling Wing
Birmingham, AL

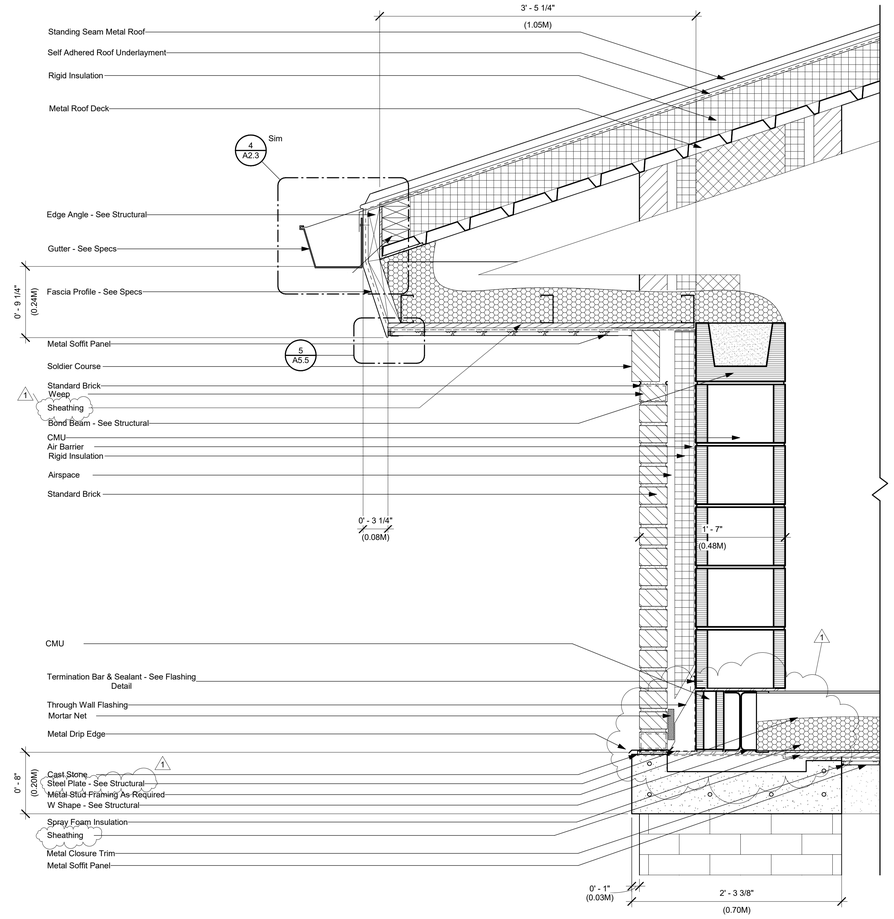
Sheet Title
Building Sections

Sheet Number
A5.1

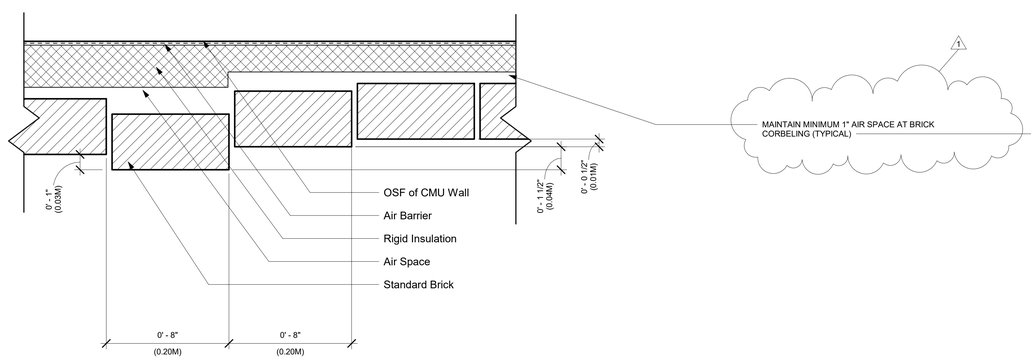
STATE OF ALABAMA
MONTGOMERY
Jim B. Sealy, Jr.
3-06
Gregory A. O'Neal
6043
Wesley S. Comer
6294
ALABAMA
REGISTERED ARCHITECTS



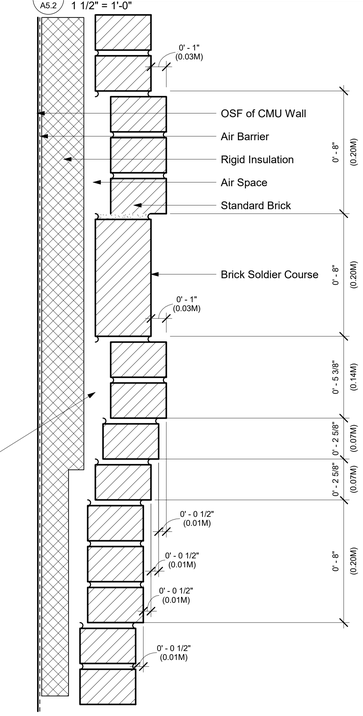
1 A5.2 Entry Wall Section
3/4" = 1'-0"



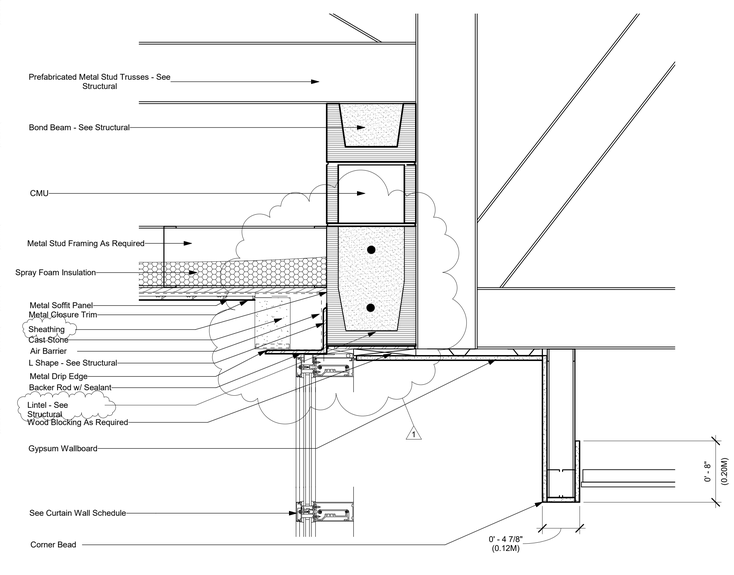
2 A5.2 Entry Detail 1
1 1/2" = 1'-0"



3 A5.2 Brick Recess Horizontal Detail
3" = 1'-0"



4 A5.2 Brick Recess Detail
3" = 1'-0"



5 A5.2 Entry Detail 2
1 1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Gordon Avenue, Hoover, AL 35216
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

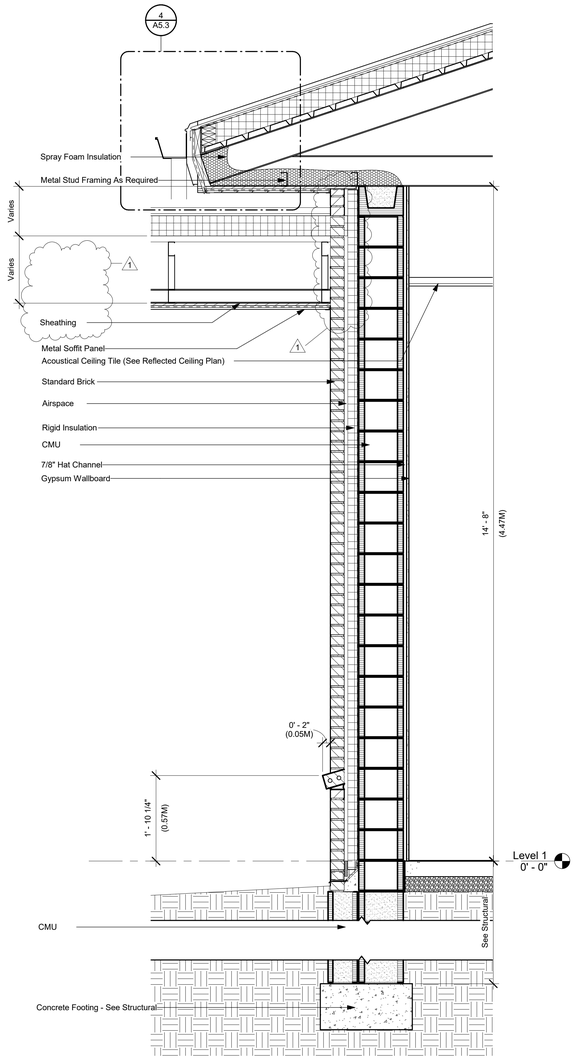
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

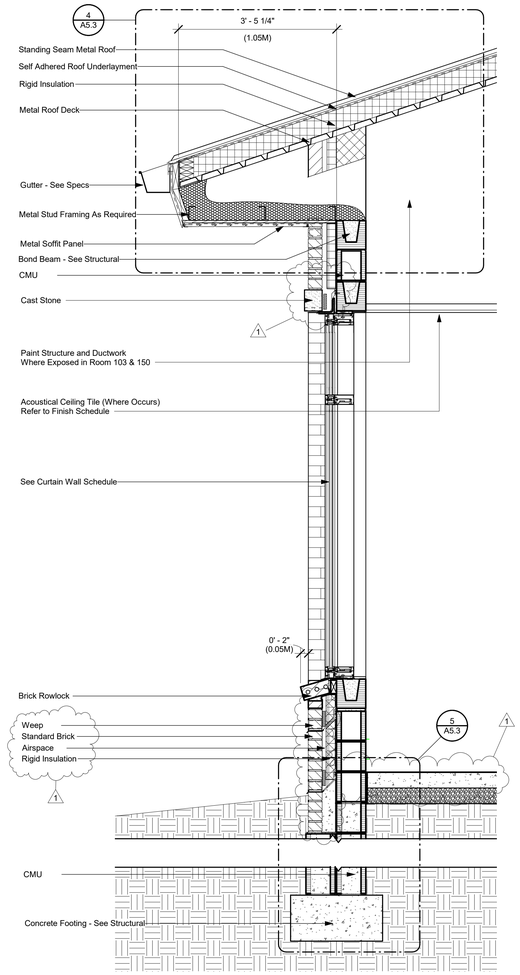
Sheet Title
Wall Sections

Sheet Number
A5.2

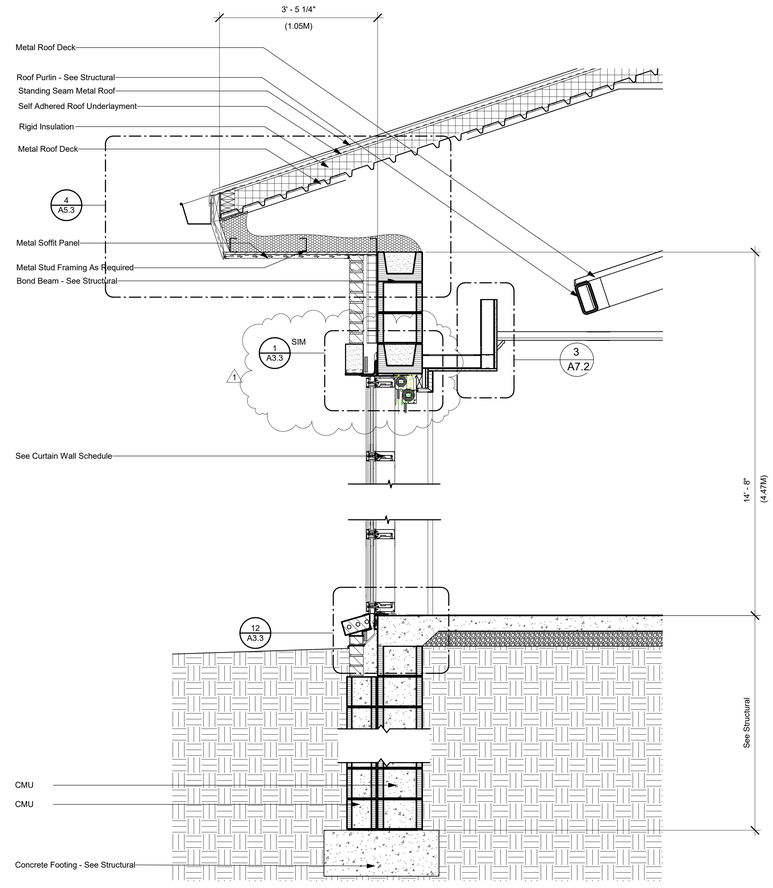
STATE OF ALABAMA
MONTGOMERY
Jim E. Seay, Jr.
1206
Gregory A. O'Neal
4043
Wesley S. Clarke
4244
ALABAMA
REGISTERED ARCHITECTS



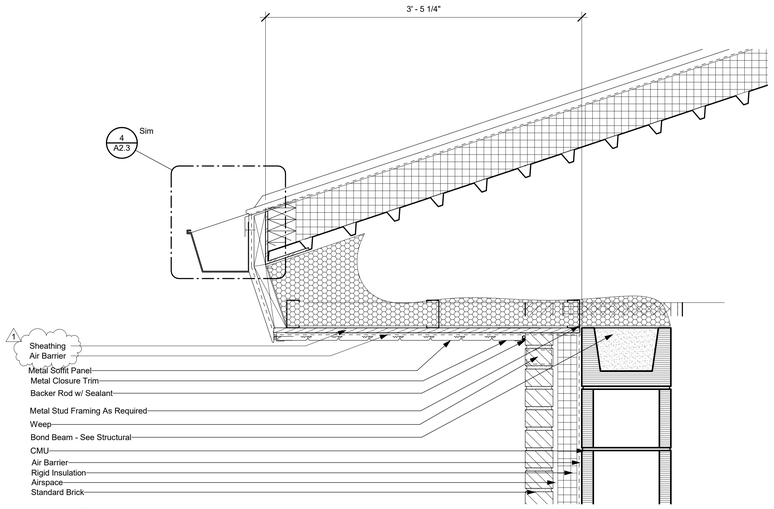
1 A5.3 Typical Wall Section at Roof Transition (Bid Option)
3/4" = 1'-0"



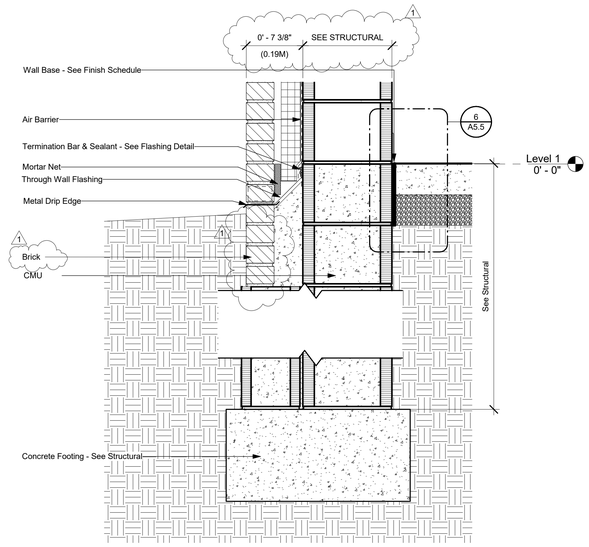
2 A5.3 Typical Wall Section at Window
3/4" = 1'-0"



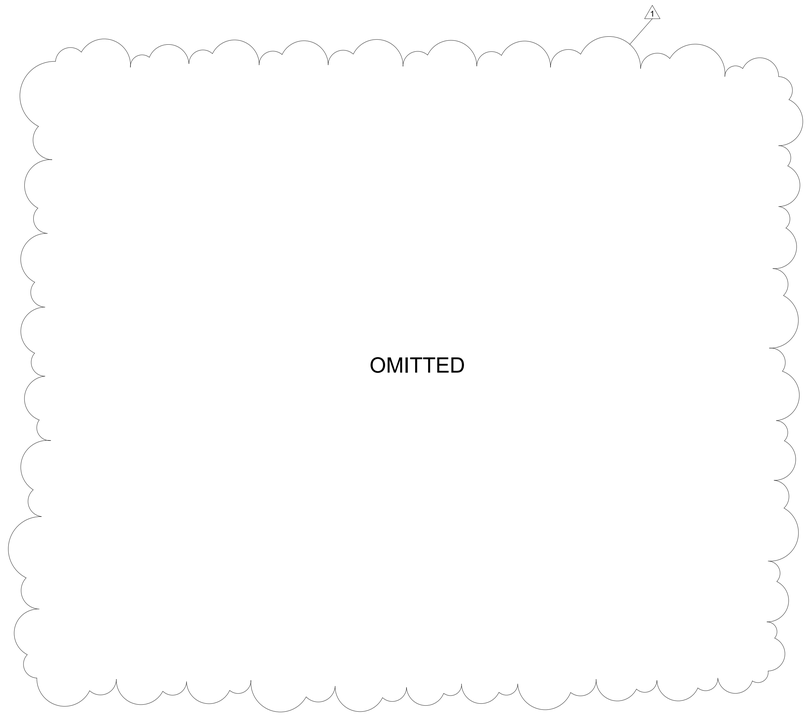
3 A5.3 Wall Section at Multipurpose Room Bump Out (Bid Option)
3/4" = 1'-0"



4 A5.3 Roof Eave Detail
1 1/2" = 1'-0"



5 A5.3 Wall Base Detail
1 1/2" = 1'-0"



S|S&L
ARCHITECTURE & INTERIOR DESIGN
113 South Conway, Birmingham, AL 35209
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

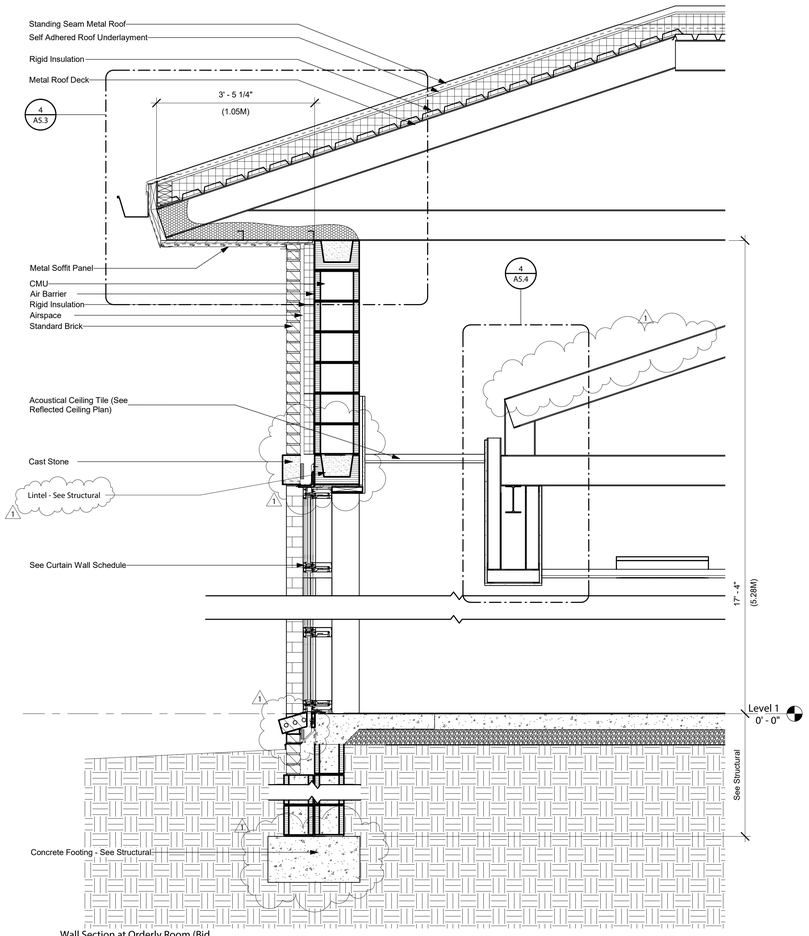
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

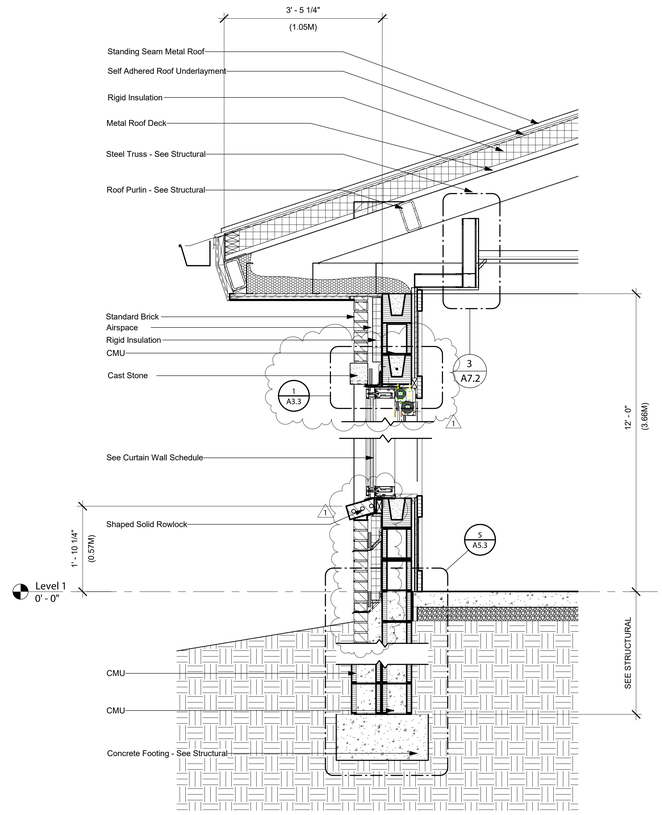
Sheet Title
Wall Sections

Sheet Number
A5.3

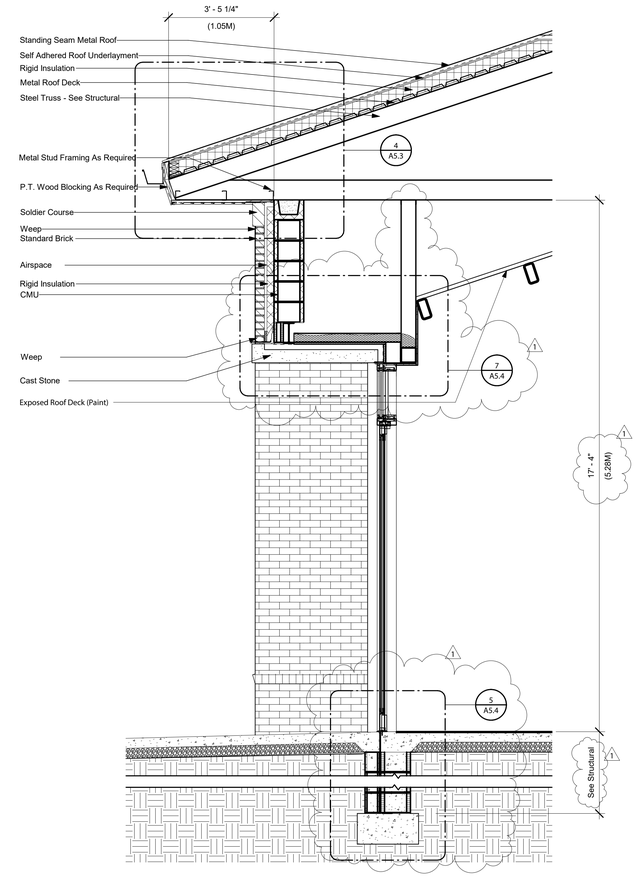
STATE OF ALABAMA
MONTGOMERY
Jim R. Ivey, Jr.
1046
Gregory A. O'Neal
4043
Wesley S. Clower
4244
ALABAMA
REGISTERED ARCHITECTS



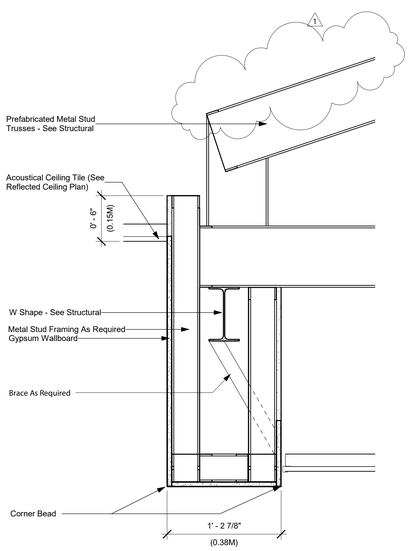
1 A5.4 Wall Section at Orderly Room (Bid Option)
3/4" = 1'-0"



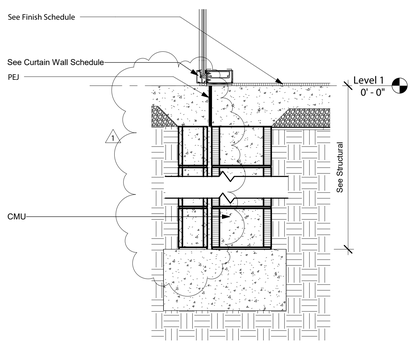
2 A5.4 Detail wall section South side window (Bid Option)
3/4" = 1'-0"



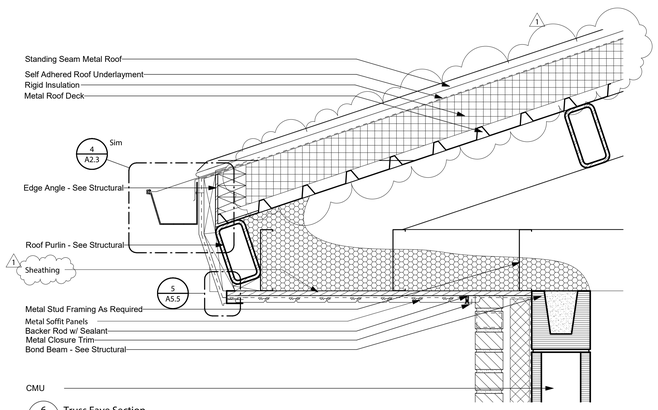
3 A5.4 Wall Section at West Fitness Center Entrance (Bid Option)
1/2" = 1'-0"



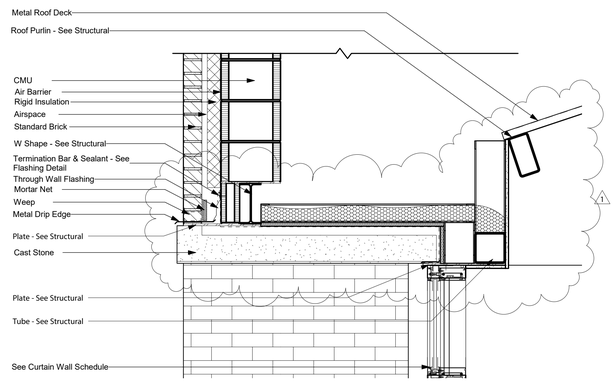
4 A5.4 Bulkhead Detail at Orderly Room
1 1/2" = 1'-0"



5 A5.4 Typical Foundation Wall Below Curtain Wall
1" = 1'-0"



6 A5.4 Truss Eave Section
1 1/2" = 1'-0"



7 A5.4 Detail Above West Fitness Center Entrance (Bid Option)
1" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Square, Montgomery, AL 36104
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

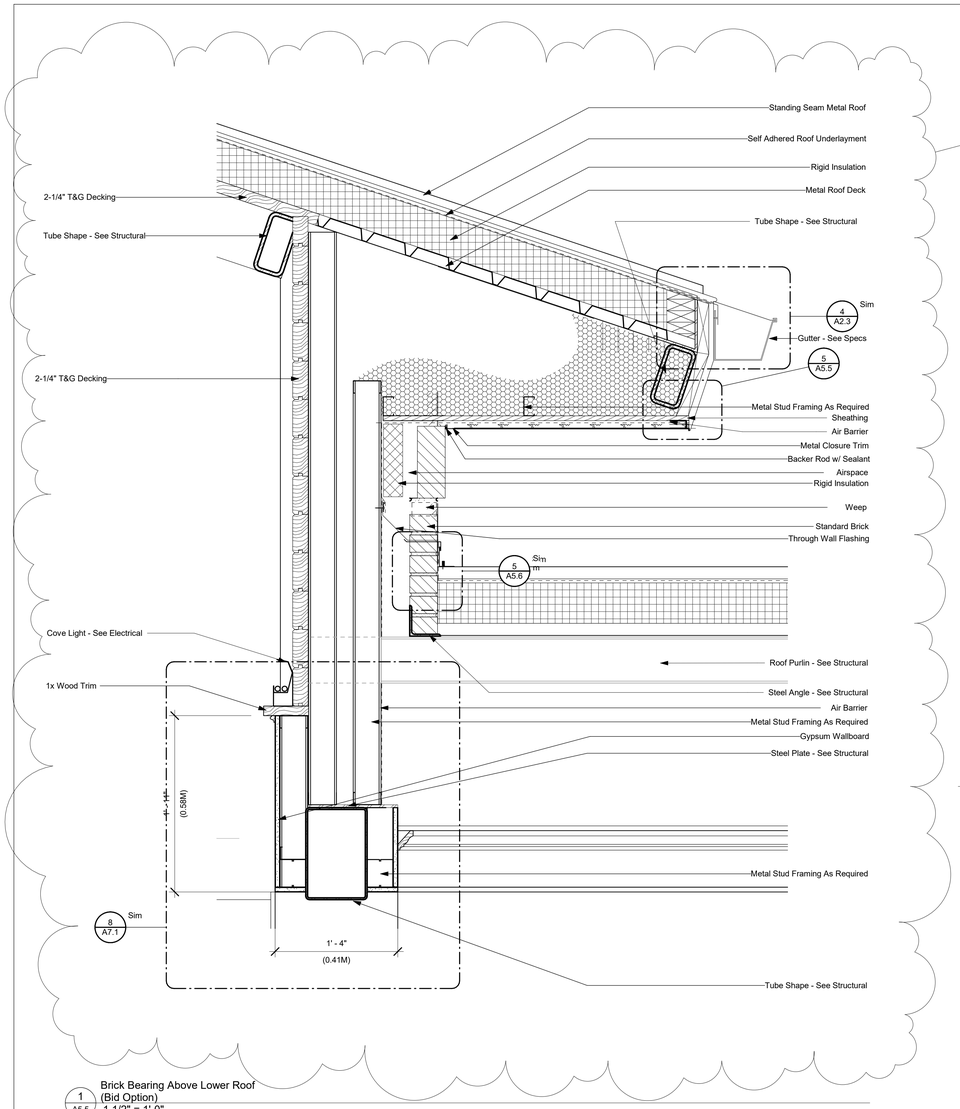
Checked By
DCD

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

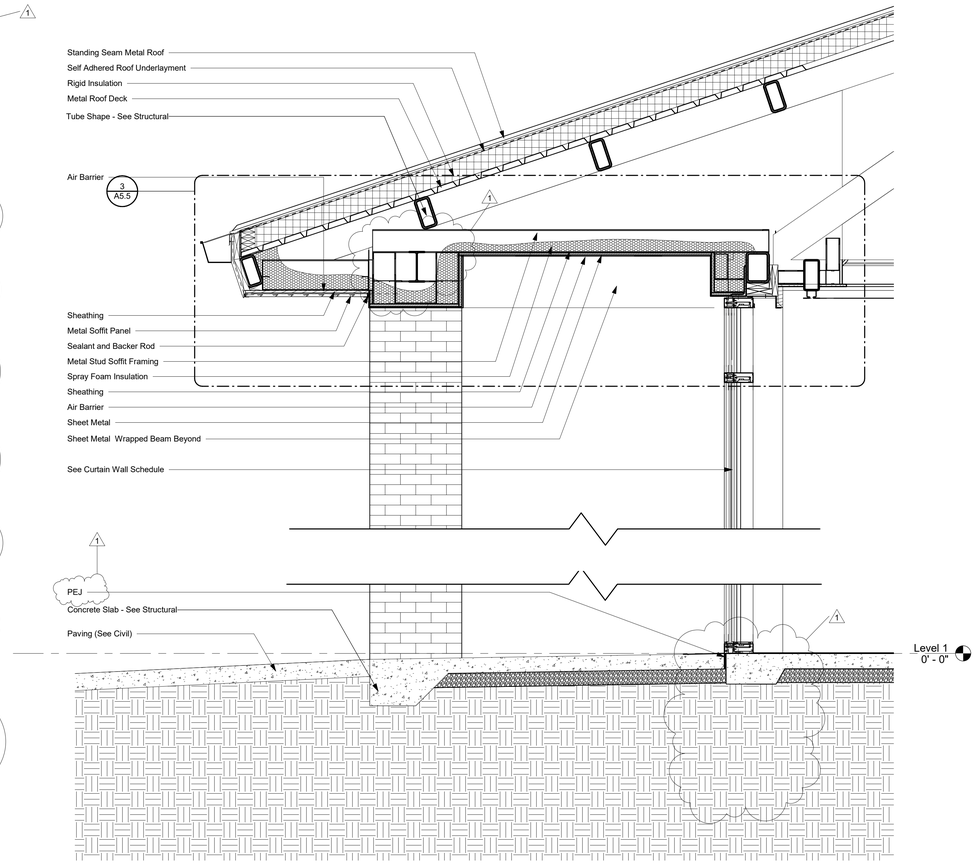
Sheet Title
Wall Sections

Sheet Number
A5.4

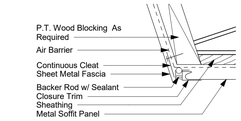
STATE OF ALABAMA
MONTGOMERY
Jim B. Seay, Jr.
1004
Gregory A. O'Neal
4047
Wesley L. Chase
6041
ALABAMA
REGISTERED ARCHITECTS



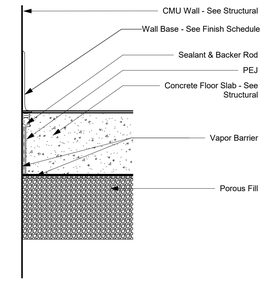
1 A5.5 Brick Bearing Above Lower Roof (Bid Option)
1 1/2" = 1'-0"



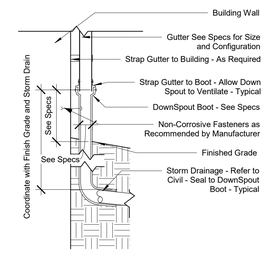
2 A5.5 Curtain Wall Multipurpose Room (Bid Option)
3/4" = 1'-0"



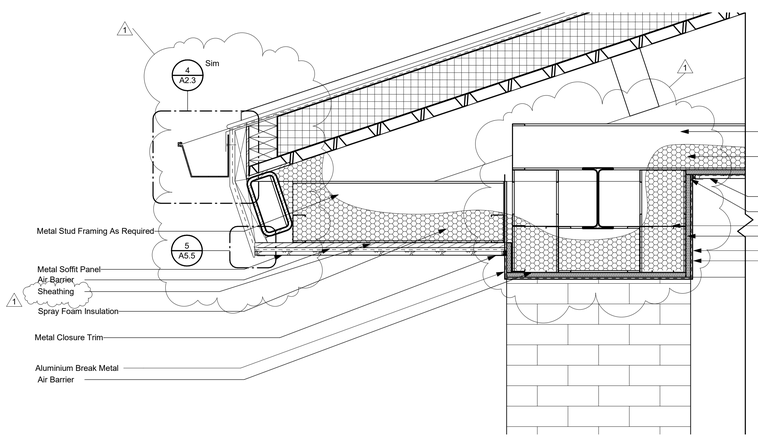
5 A5.5 Typical Fascia Detail
3" = 1'-0"



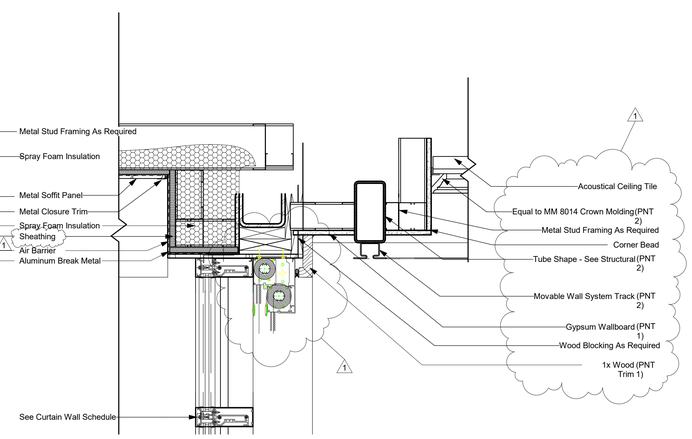
6 A5.5 Floor Vapor Proofing
3" = 1'-0"



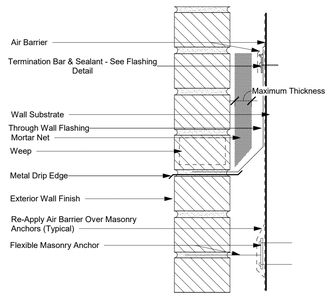
7 A5.5 Typical Downspout Boot Detail
3" = 1'-0"



3 A5.5 Multipurpose Room Eave and Head Detail (Bid Option)
1 1/2" = 1'-0"



4 A5.5 Detail Omitted
1 1/2" = 1'-0"



8 A5.5 Typical Flashing Detail
3" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Conger Street, Birmingham, AL 35205
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

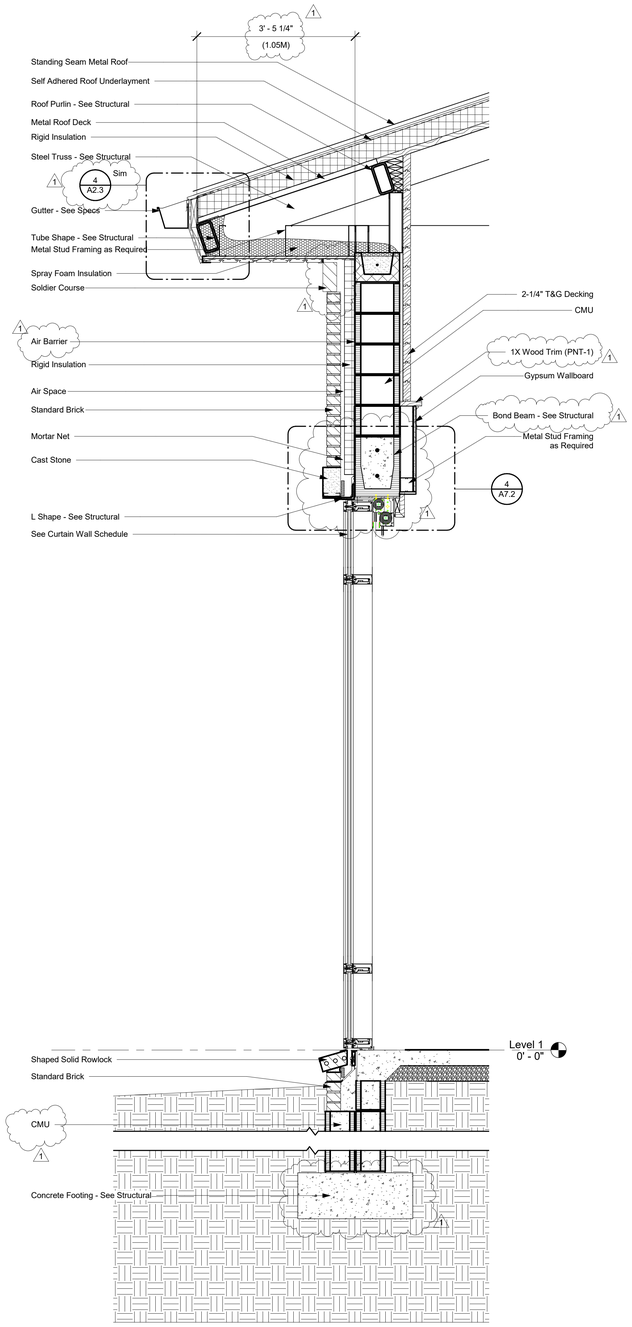
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

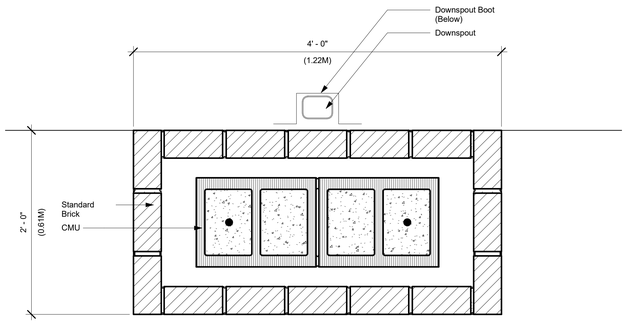
Sheet Title
Wall Sections

Sheet Number
A5.5

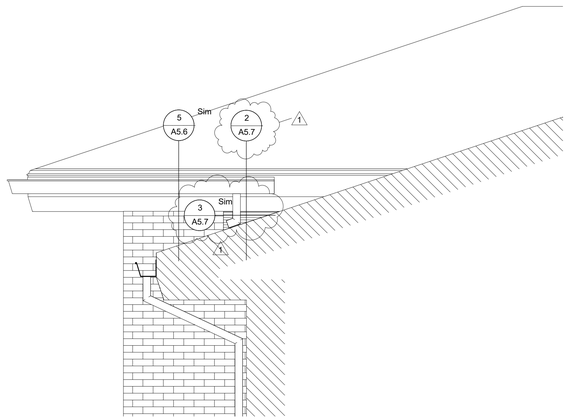
STATE OF ALABAMA
MONTGOMERY
Jim B. Seay, Jr.
1004
Gregory A. O'Neal
4043
Wesley L. Chase
6045
ALABAMA
REGISTERED ARCHITECTS



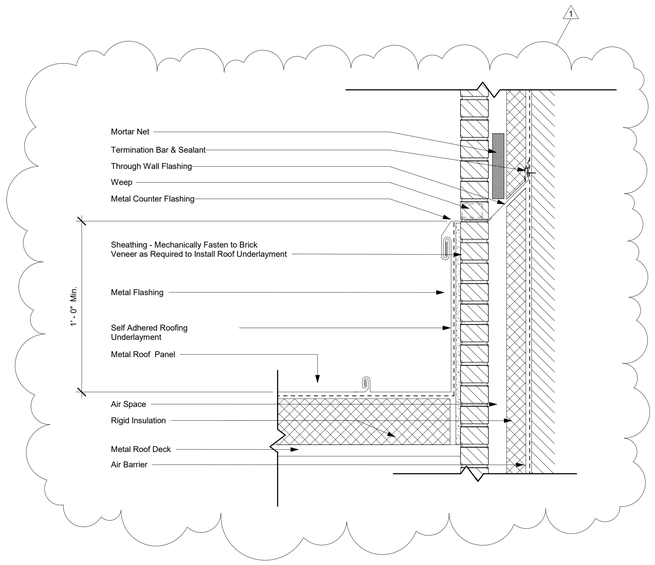
1 A5.6 Wall Section at Multipurpose Room (Bid Option)
3/4" = 1'-0"



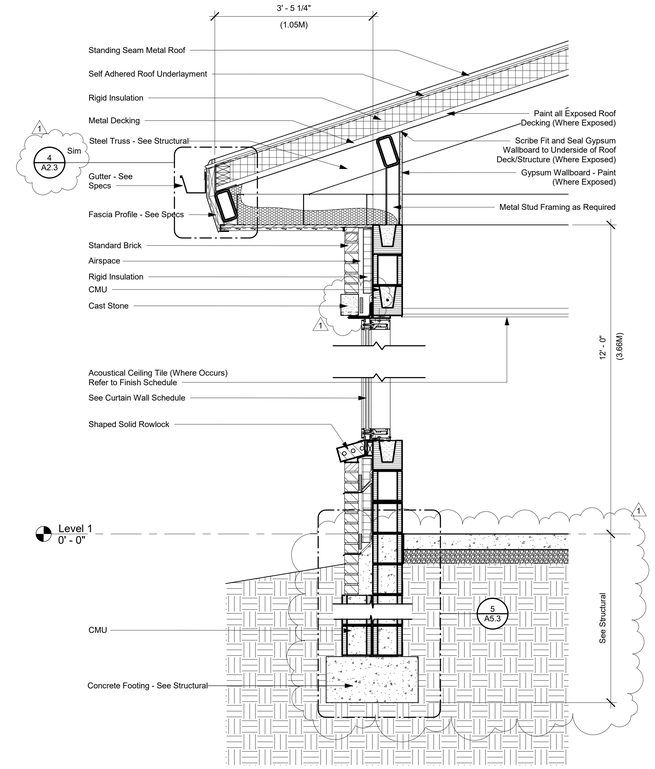
2 A5.6 Plan Detail (Bid Option)
1 1/2" = 1'-0"



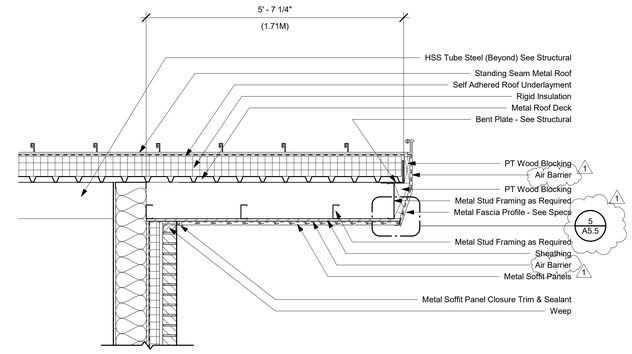
3 A5.6 Roof Detail (Bid Option)
1/2" = 1'-0"

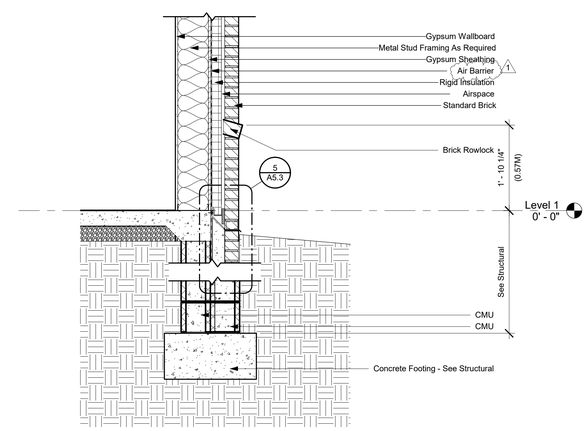


5 A5.6 Roof to Wall Transition Detail
1 1/2" = 1'-0"



4 A5.6 Detail Wall Section South Side Window
3/4" = 1'-0"





6 A5.6 Base Bid Exterior Elevation at Hall (Base Bid)
3/4" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Cobern, Vestavia Hills, AL 35204
Tel. 334.963.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

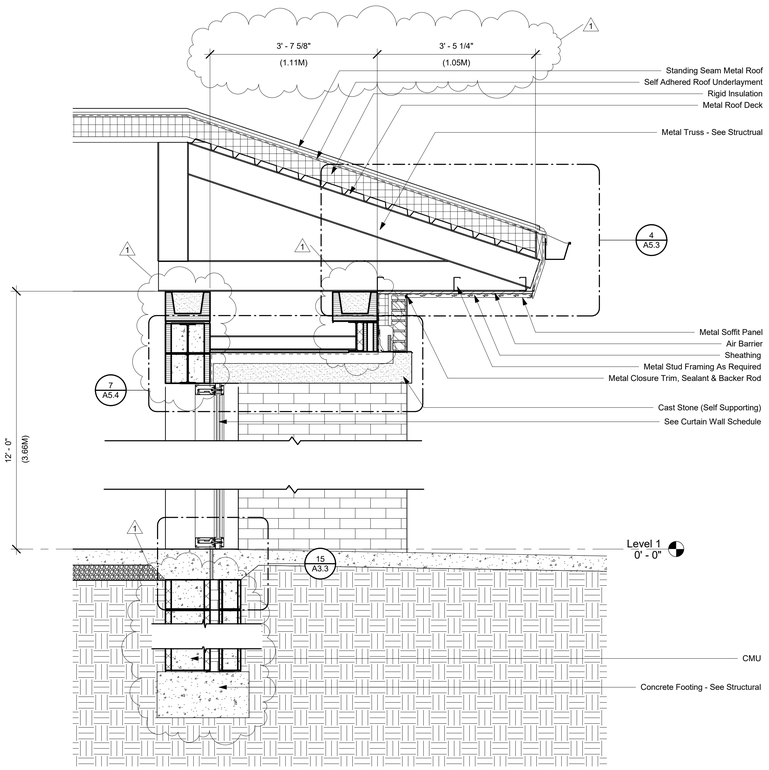
Project Title

A New Security & Services
Training Facility
117th Air Refueling Wing
Birmingham, AL

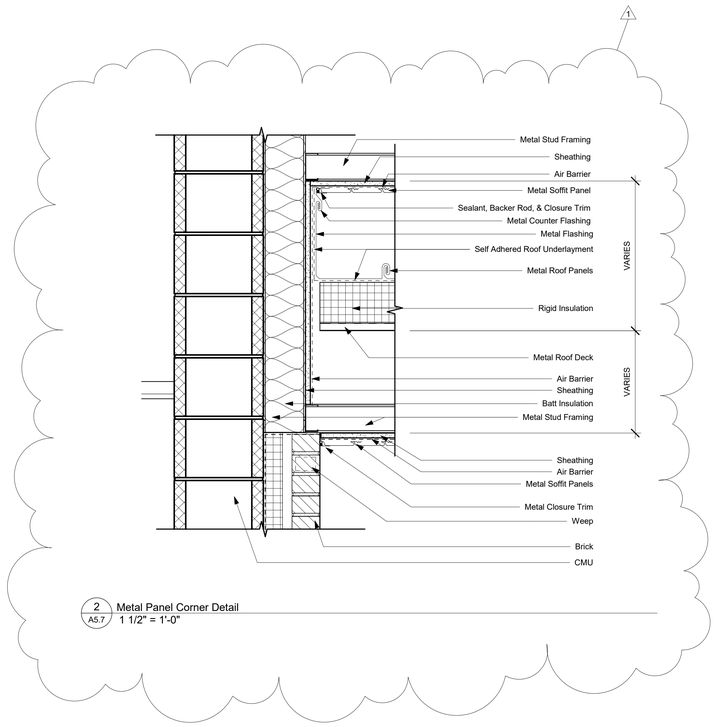
Sheet Title
Wall Sections

Sheet Number
A5.6

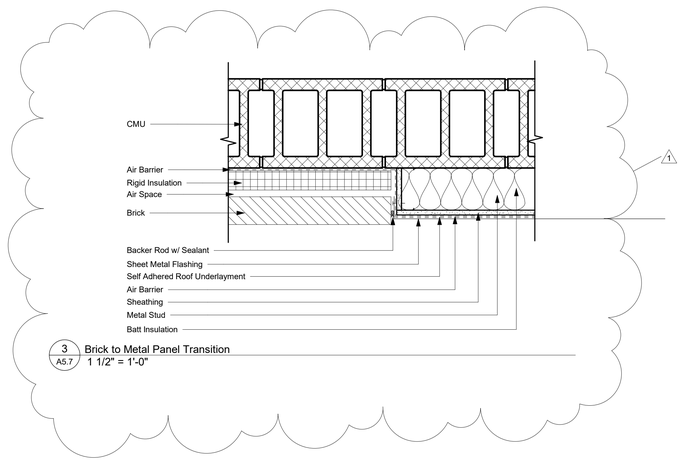
STATE OF ALABAMA
MONTGOMERY
Jim E. Seay, Jr.
1295
Gregory A. O'Neal
4043
Wesley S. Clemer
6244
ALABAMA
REGISTERED ARCHITECTS



1 / A5.7 Fitness Center Entrance Section (Base Bid)
3/4" = 1'-0"



2 / A5.7 Metal Panel Corner Detail
1 1/2" = 1'-0"



3 / A5.7 Brick to Metal Panel Transition
1 1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Greensboro Avenue, Tuscaloosa, AL 35404
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

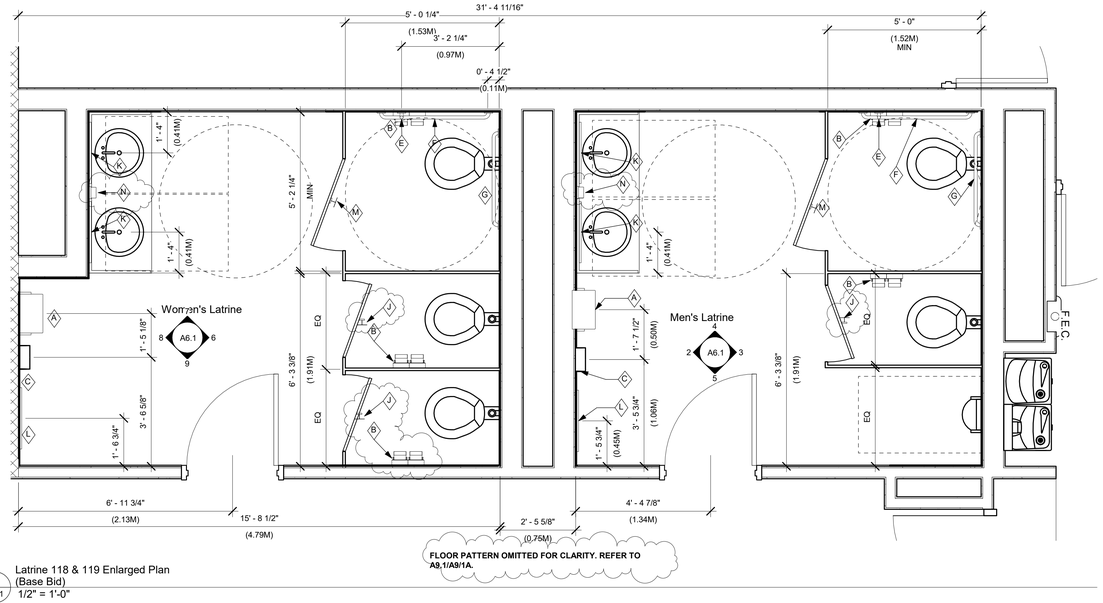
Project Title

A New Security & Services
Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Wall Sections

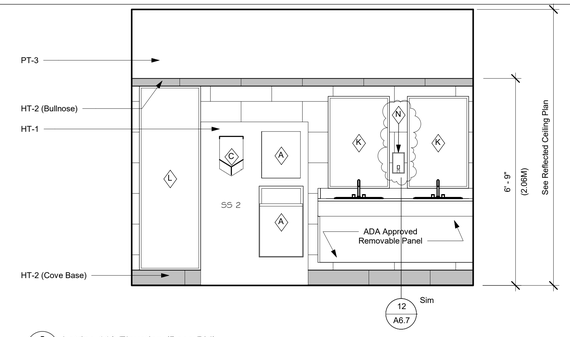
Sheet Number
A5.7

STATE OF ALABAMA
MONTGOMERY
Jim R. Seay, Jr.
1295
Gregory A. O'Neal
4043
Wesley S. Clemer
6244
ALABAMA
REGISTERED ARCHITECTS

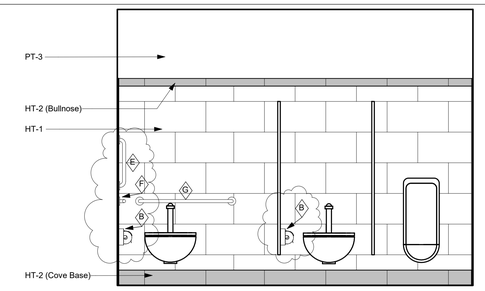


FLOOR PATTERN OMITTED FOR CLARITY. REFER TO A9.1/A9/1A.

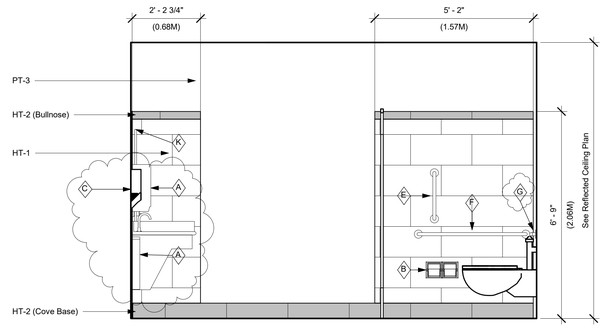
1 A6.1 Latrine 118 & 119 Enlarged Plan (Base Bid)
1/2" = 1'-0"



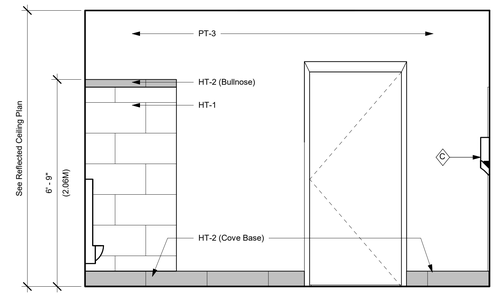
2 A6.1 Latrine 119 Elevation (Base Bid)
1/2" = 1'-0"



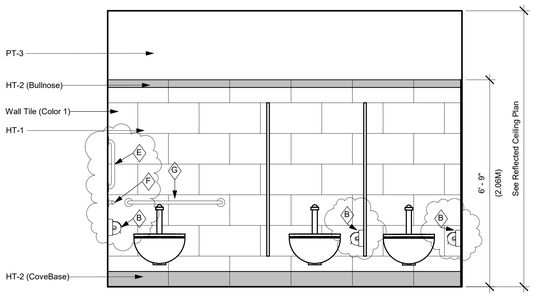
3 A6.1 Latrine 119 Elevation 2 (Base Bid)
1/2" = 1'-0"



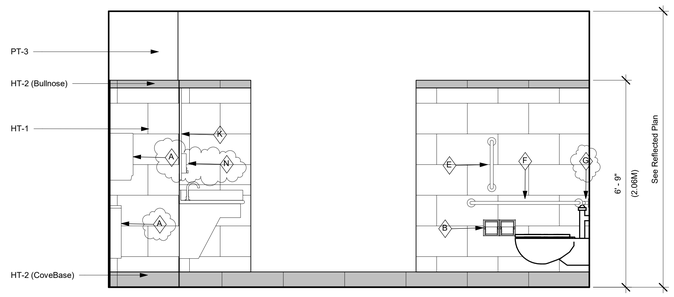
4 A6.1 Latrine 119 Elevation 3 (Base Bid)
1/2" = 1'-0"



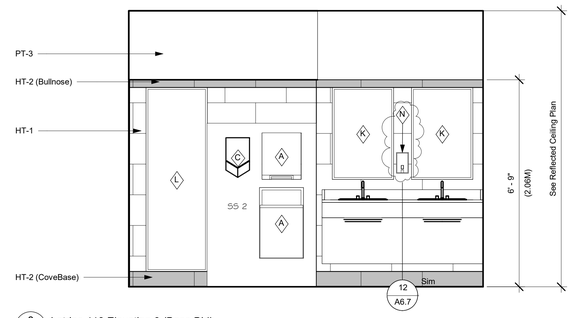
5 A6.1 Latrine 119 Elevation 4 (Base Bid)
1/2" = 1'-0"



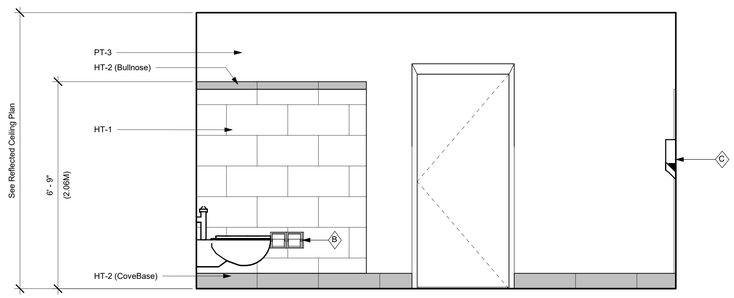
6 A6.1 Latrine 118 Elevation 1 (Base Bid)
1/2" = 1'-0"



7 A6.1 Latrine 118 Elevation 2 (Base Bid)
1/2" = 1'-0"



8 A6.1 Latrine 118 Elevation 3 (Base Bid)
1/2" = 1'-0"



9 A6.1 Latrine 118 Elevation 4 (Base Bid)
1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Court Square, Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

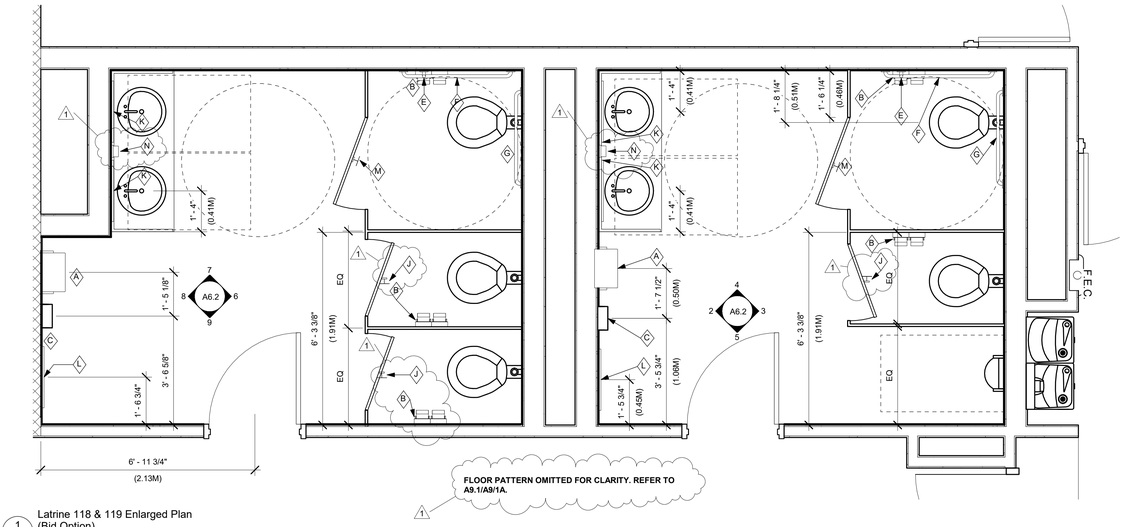
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

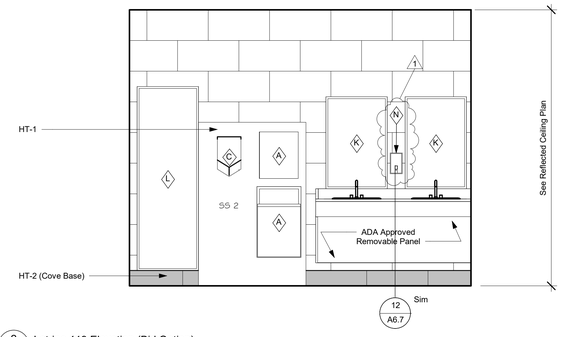
Sheet Title
Latrine 118 & 119 Plans & Elevations (Base Bid)

Sheet Number
A6.1

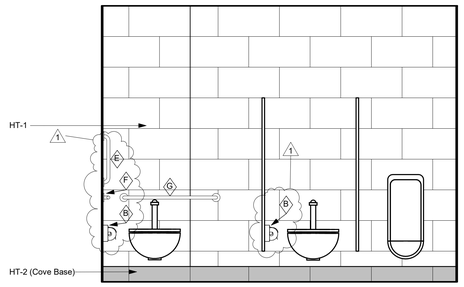
STATE OF ALABAMA
MONTGOMERY
Joe R. Sims, Jr.
1042
Gregory A. O'Neal
4043
Wesley S. Turner
4201
ALABAMA
REGISTERED ARCHITECTS



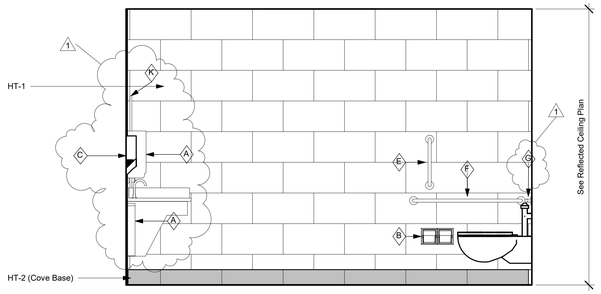
1 A6.2 Latrine 118 & 119 Enlarged Plan (Bid Option)
1/2" = 1'-0"



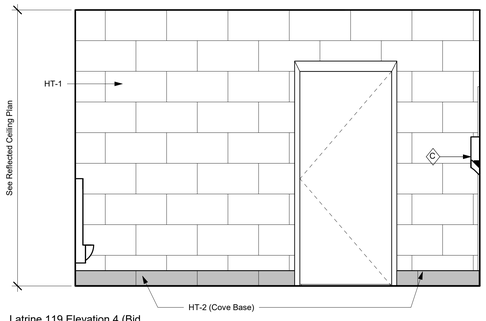
2 A6.2 Latrine 119 Elevation (Bid Option)
1/2" = 1'-0"



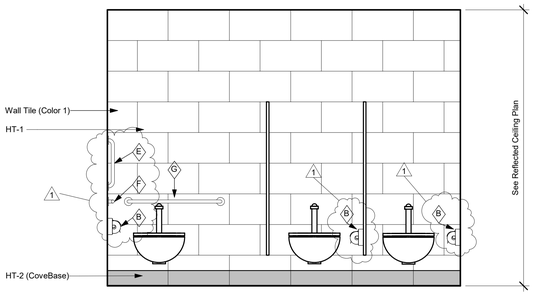
3 A6.2 Latrine 119 Elevation 2 (Bid Option)
1/2" = 1'-0"



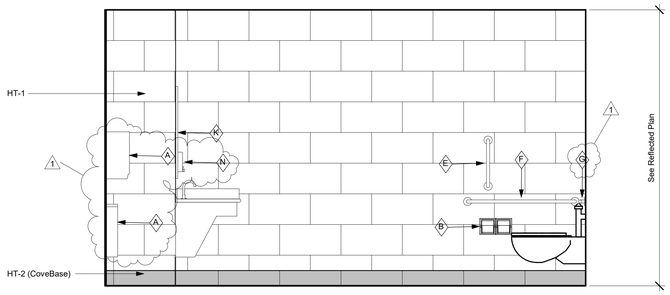
4 A6.2 Latrine 119 Elevation 3 (Bid Option)
1/2" = 1'-0"



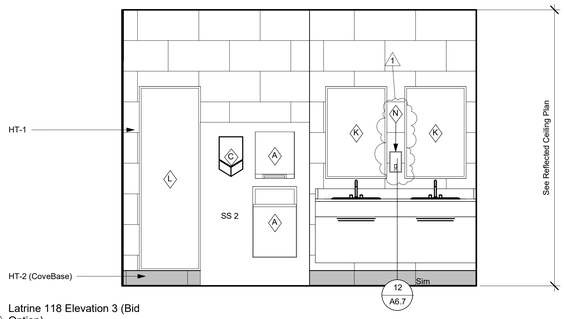
5 A6.2 Latrine 119 Elevation 4 (Bid Option)
1/2" = 1'-0"



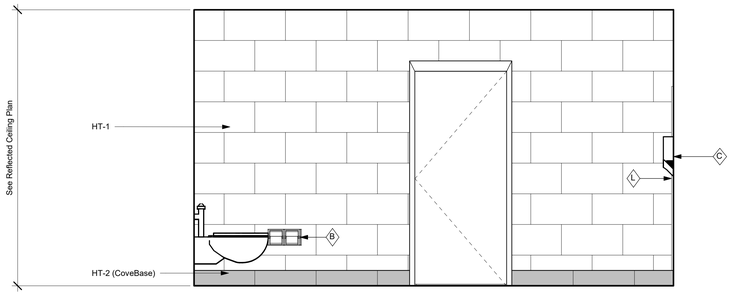
6 A6.2 Latrine 118 Elevation 1 (Bid Option)
1/2" = 1'-0"



7 A6.2 Latrine 118 Elevation 2 (Bid Option)
1/2" = 1'-0"



8 A6.2 Latrine 118 Elevation 3 (Bid Option)
1/2" = 1'-0"



9 A6.2 Latrine 118 Elevation 4 (Bid Option)
1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
113 South Court Street | Montgomery, AL 36104
Tel 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

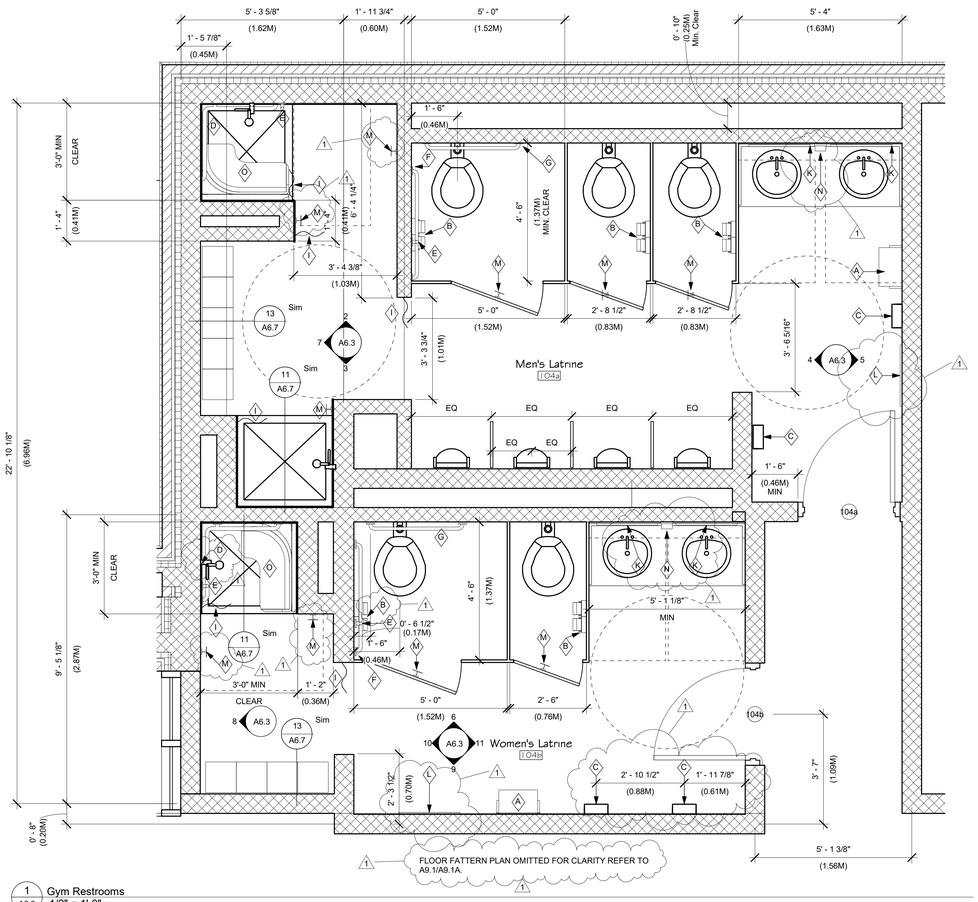
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

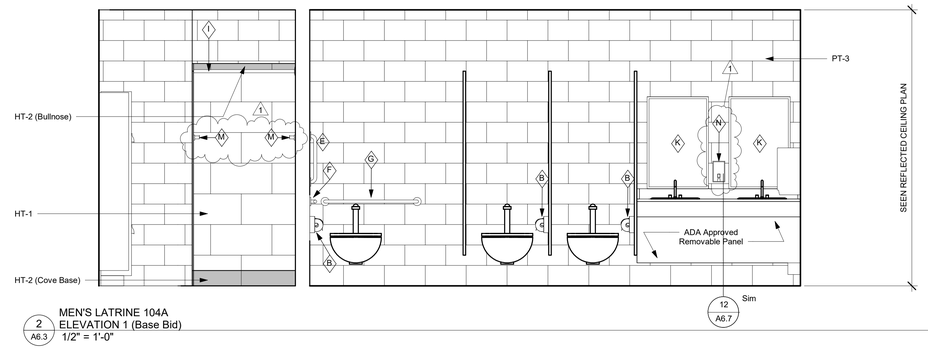
Sheet Title
Latrine 118 & 119 Plans & Elevations (Bid Option)

Sheet Number
A6.2

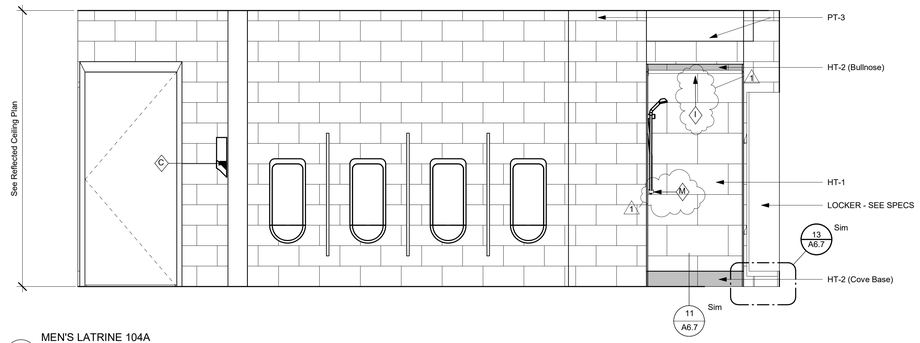
STATE OF ALABAMA
MONTGOMERY
Ike R. Smith, Jr.
1042
Gregory A. O'Neal
4043
Wesley S. Conner
4209
ALABAMA
REGISTERED ARCHITECTS



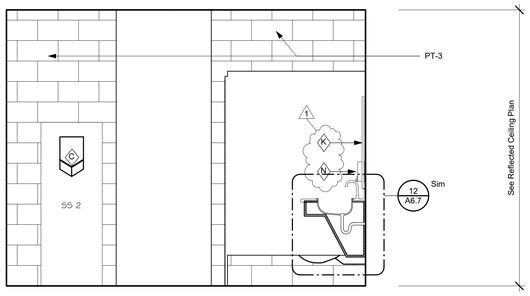
1 A6.3 Gym Restrooms
1/2" = 1'-0"



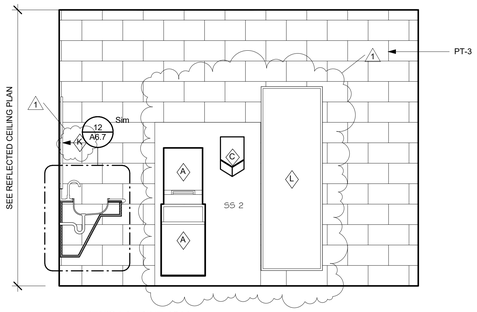
2 A6.3 MEN'S LATRINE 104A
ELEVATION 1 (Base Bid)
1/2" = 1'-0"



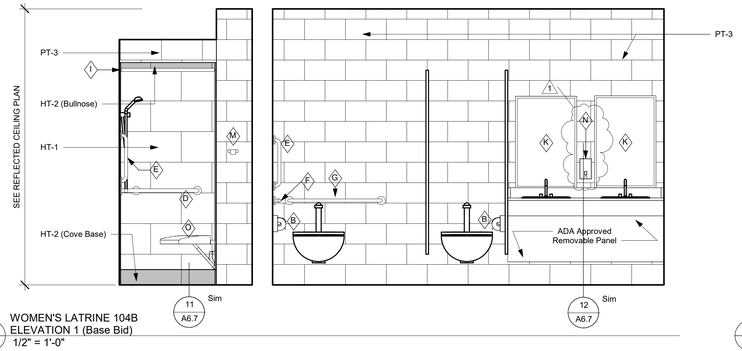
3 A6.3 MEN'S LATRINE 104A
ELEVATION 2 (Base Bid)
1/2" = 1'-0"



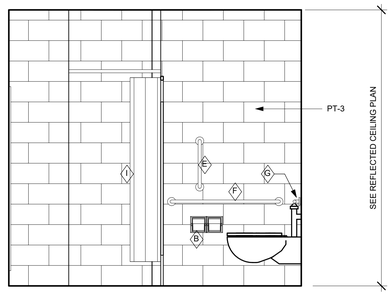
4 A6.3 MEN'S LATRINE 104A
ELEVATION 3 (Base Bid)
1/2" = 1'-0"



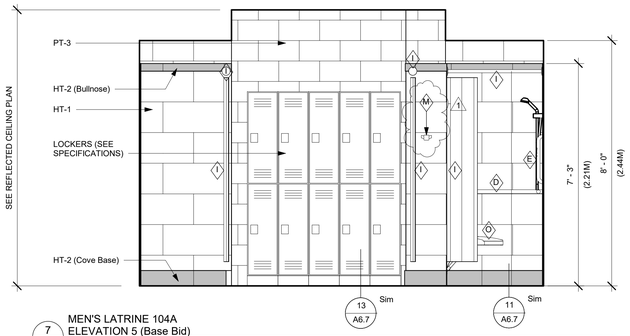
5 A6.3 MEN'S LATRINE 104A
ELEVATION 4 (Base Bid)
1/2" = 1'-0"



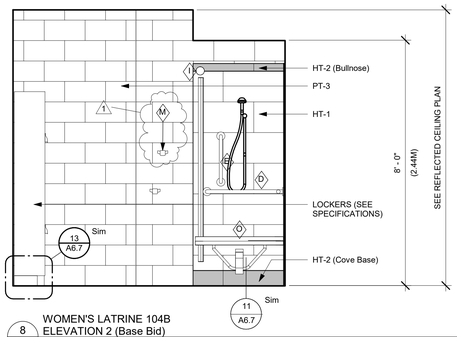
6 A6.3 WOMEN'S LATRINE 104B
ELEVATION 1 (Base Bid)
1/2" = 1'-0"



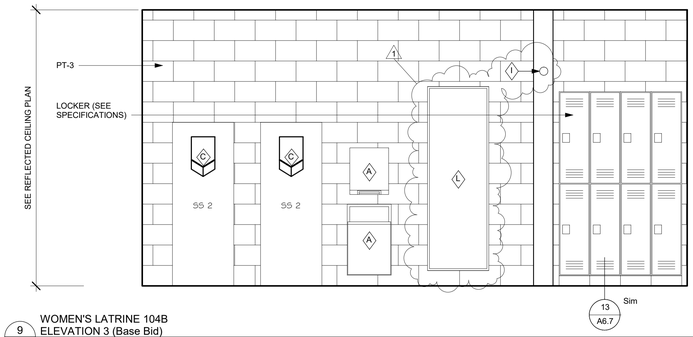
10 A6.3 WOMEN'S LATRINE 104B
ELEVATION 4 (Base Bid)
1/2" = 1'-0"



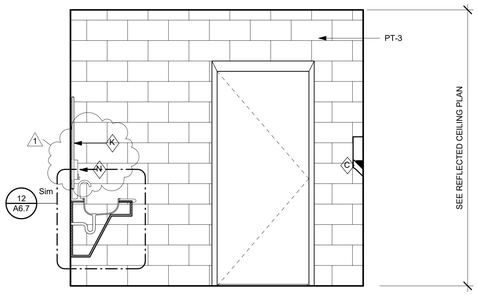
7 A6.3 MEN'S LATRINE 104A
ELEVATION 5 (Base Bid)
1/2" = 1'-0"



8 A6.3 WOMEN'S LATRINE 104B
ELEVATION 2 (Base Bid)
1/2" = 1'-0"



9 A6.3 WOMEN'S LATRINE 104B
ELEVATION 3 (Base Bid)
1/2" = 1'-0"



11 A6.3 WOMEN'S LATRINE 104B
ELEVATION 5 (Base Bid)
1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Caroline Street, Birmingham, AL 35205
Tel: 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

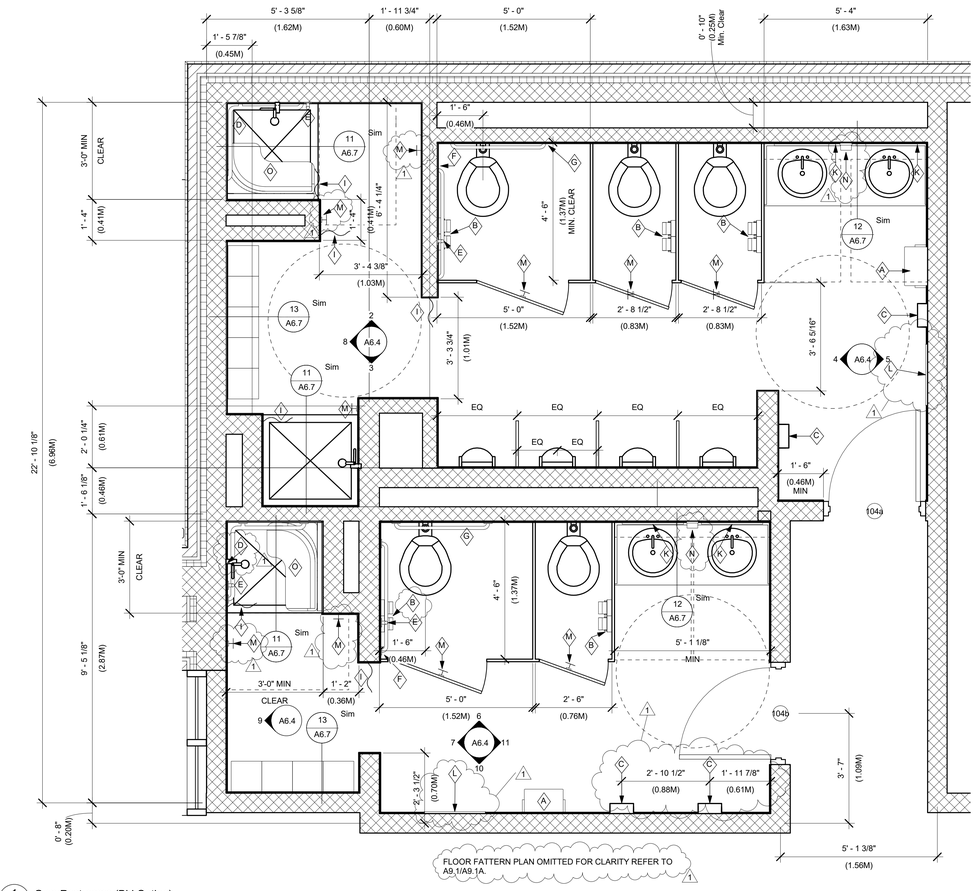
Checked By
DCD

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

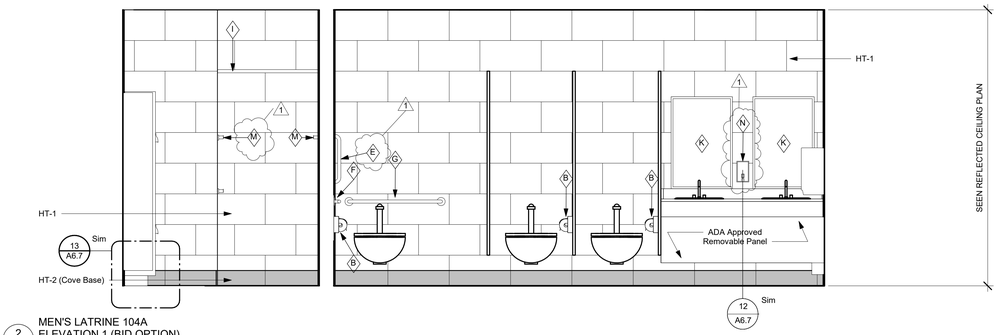
Sheet Title
Enlarged Floor Plans & Interior Elevations (Base Bid)

Sheet Number
A6.3

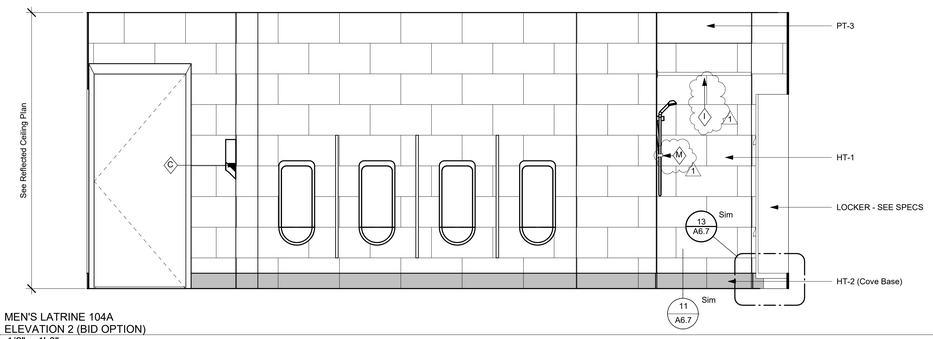
STATE OF ALABAMA
MONTGOMERY
Dale B. Smith 1686
Gregory A. O'Neal 4043
Stanley D. Cramer 4244
ALABAMA
REGISTERED ARCHITECTS



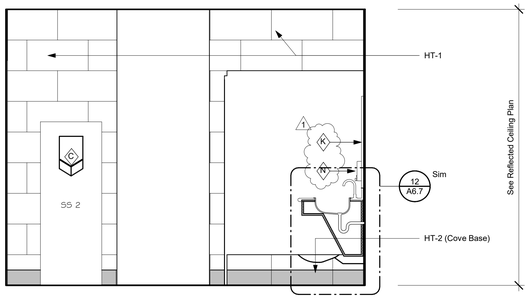
1 A6.4 Gym Restrooms (Bid Option)
1/2" = 1'-0"



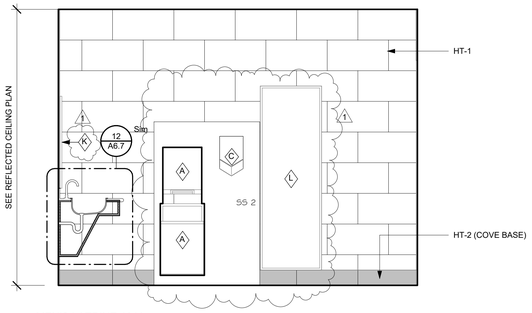
2 A6.4 MEN'S LATRINE 104A
ELEVATION 1 (BID OPTION)
1/2" = 1'-0"



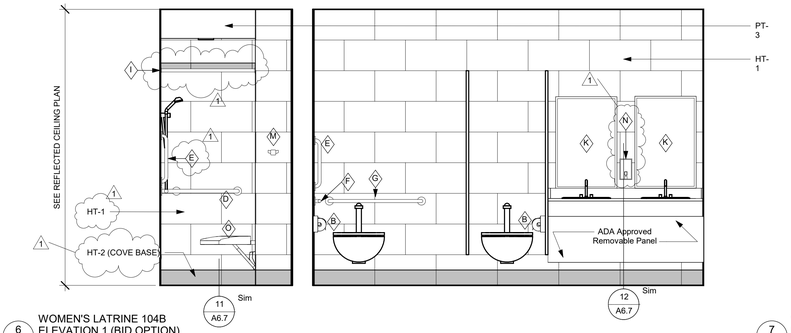
3 A6.4 MEN'S LATRINE 104A
ELEVATION 2 (BID OPTION)
1/2" = 1'-0"



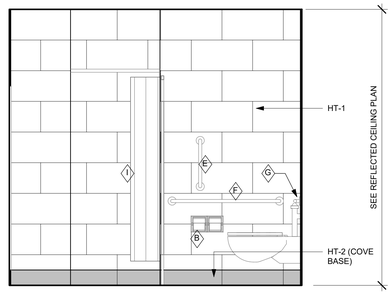
4 A6.4 MEN'S LATRINE 104A
ELEVATION 3 (BID OPTION)
1/2" = 1'-0"



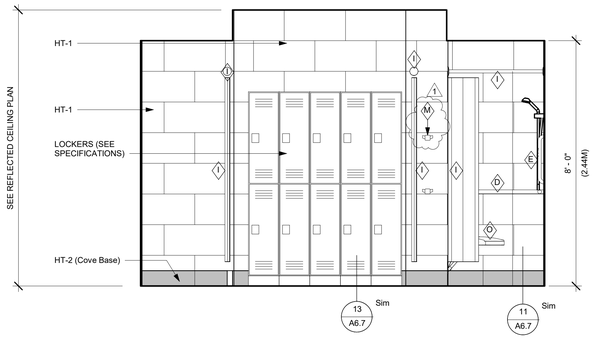
5 A6.4 MEN'S LATRINE 104A
ELEVATION 4 (BID OPTION)
1/2" = 1'-0"



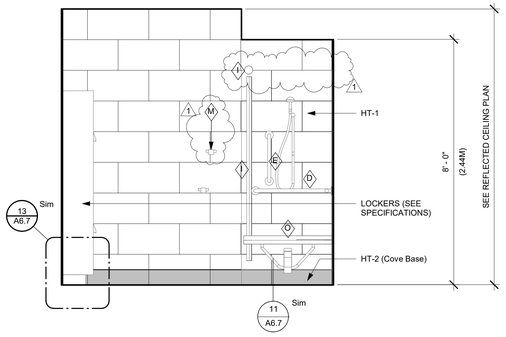
6 A6.4 WOMEN'S LATRINE 104B
ELEVATION 1 (BID OPTION)
1/2" = 1'-0"



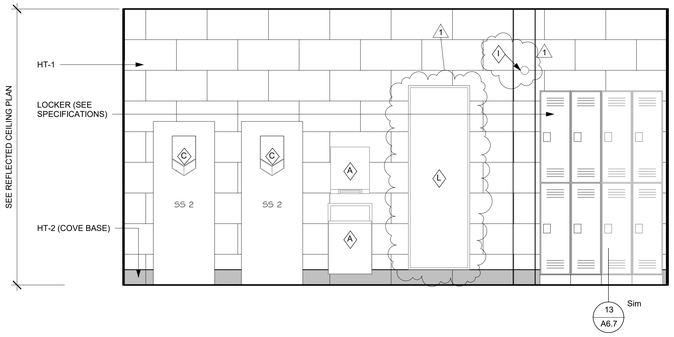
7 A6.4 WOMEN'S LATRINE 104B
ELEVATION 4 (Base Bid) Copy 1
1/2" = 1'-0"



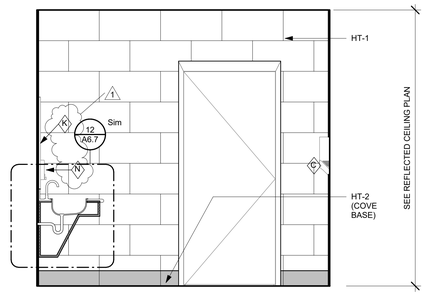
8 A6.4 MEN'S LATRINE 104A
ELEVATION 5 (BID OPTION)
1/2" = 1'-0"



9 A6.4 WOMEN'S LATRINE 104B
ELEVATION 2 (BID OPTION)
1/2" = 1'-0"



10 A6.4 WOMEN'S LATRINE 104B
ELEVATION 3 (BID OPTION)
1/2" = 1'-0"



11 A6.4 WOMEN'S LATRINE 104B
ELEVATION 5 (BID OPTION)
1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Cotton Street, Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

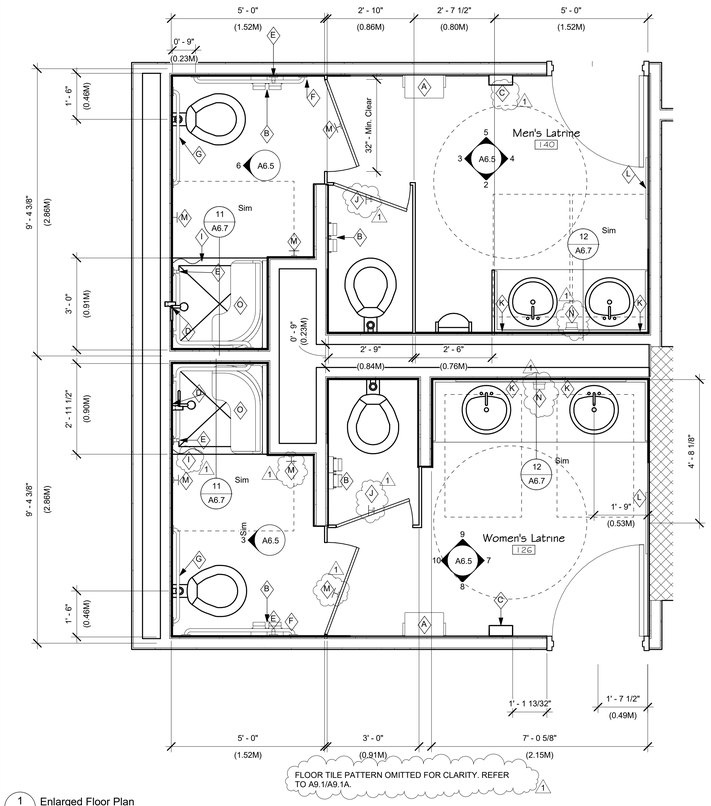
Checked By
DCD

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

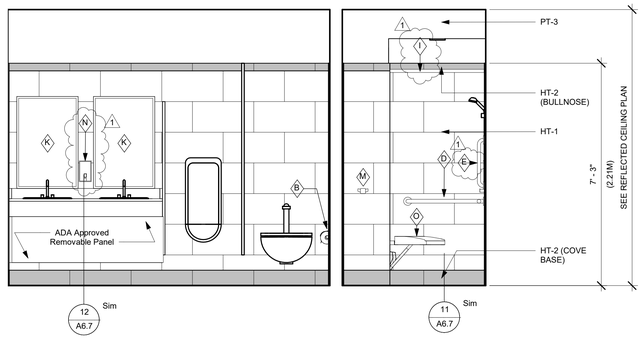
Sheet Title
Enlarged Floor Plans & Interior Elevations (Bid Option)

Sheet Number
A6.4

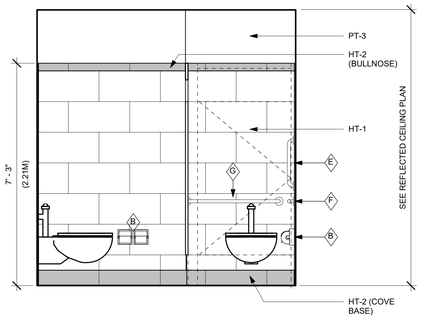
STATE OF ALABAMA
MONTGOMERY
Dan R. Smith #
1006
Gregory A. O'Neal
4043
Stanley D. Cramer
4244
ALABAMA
REGISTERED ARCHITECTS



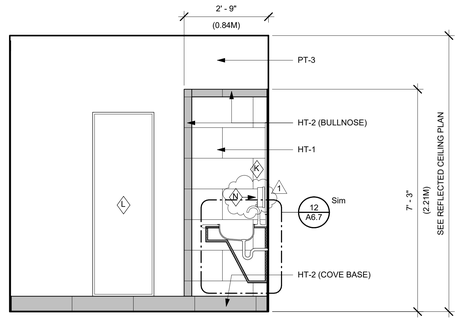
1 A6.5 Enlarged Floor Plan
1/2" = 1'-0"



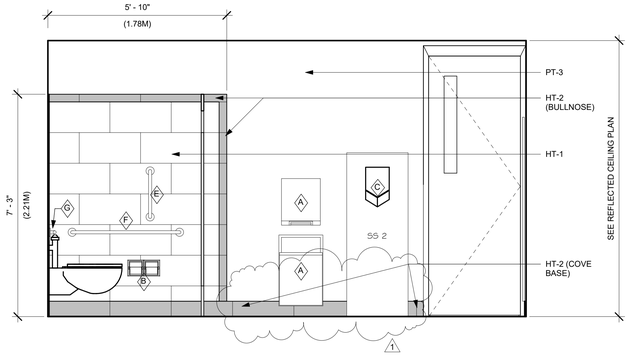
2 A6.5 Men's Latrine 140 Elevation 1
(BASE BID)
1/2" = 1'-0"



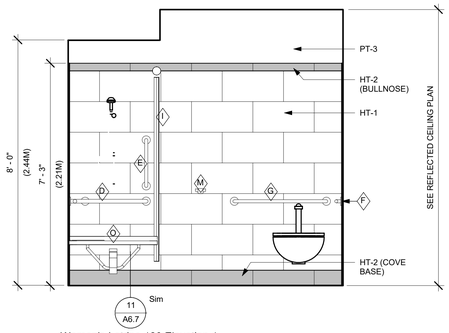
3 A6.5 Men's Latrine 140 Elevation 2
(BASE BID)
1/2" = 1'-0"



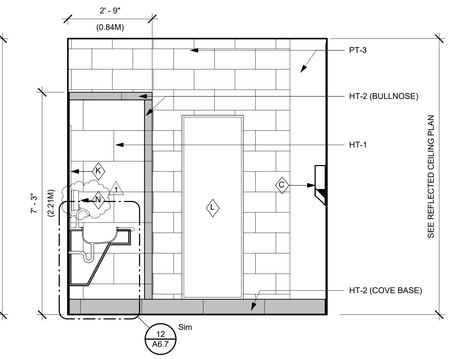
4 A6.5 Men's Latrine 140 Elevation 3
(BASE BID)
1/2" = 1'-0"



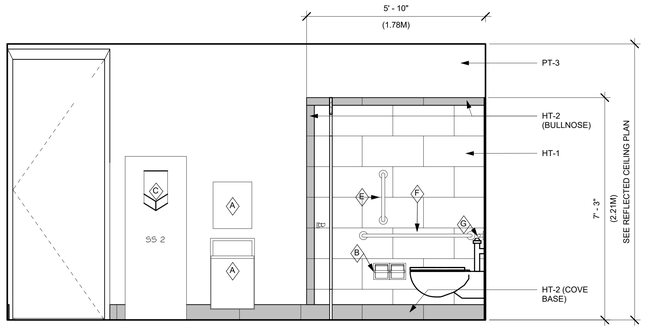
5 A6.5 Men's Latrine 140 Elevation 4
(BASE BID)
1/2" = 1'-0"



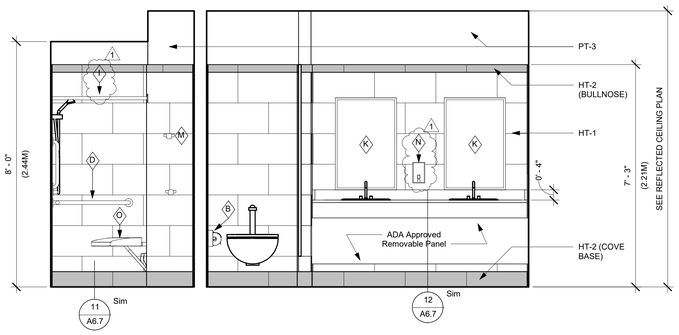
6 A6.5 Women's Latrine 126 Elevation 1
(BASE BID)
1/2" = 1'-0"



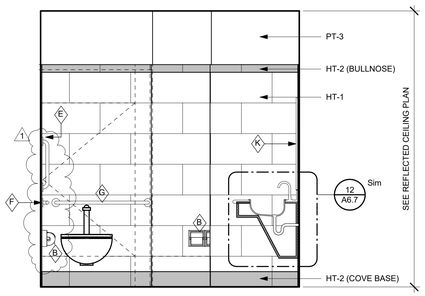
7 A6.5 Women's Latrine 126 Elevation 2
(BASE BID)
1/2" = 1'-0"



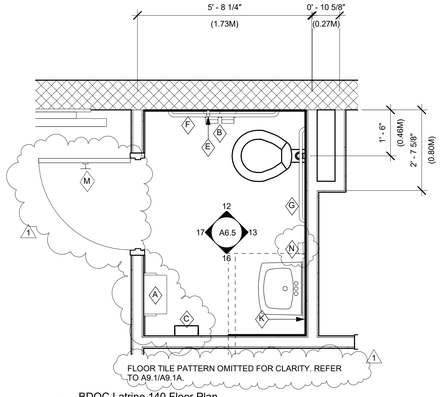
8 A6.5 Women's Latrine 126 Elevation 3
(BASE BID)
1/2" = 1'-0"



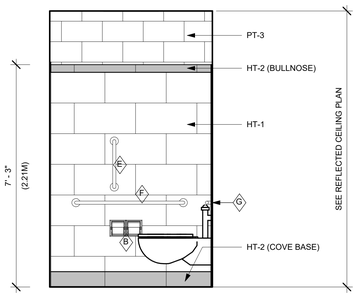
9 A6.5 Women's Latrine 126 Elevation 4
(BASE BID)
1/2" = 1'-0"



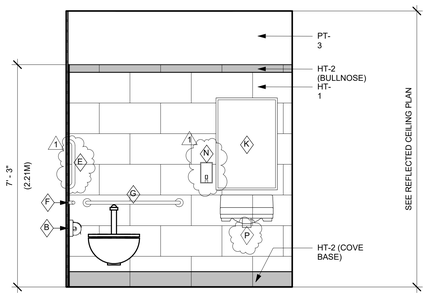
10 A6.5 Women's Latrine 126 Elevation 5
(BASE BID)
1/2" = 1'-0"



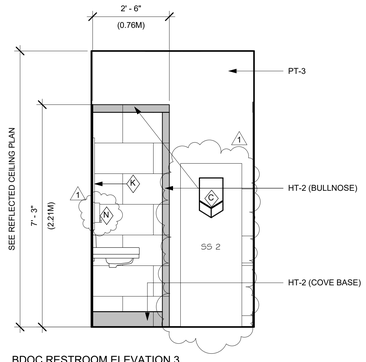
11 A6.5 BDOC Latrine 140 Floor Plan
(BASE BID)
1/2" = 1'-0"



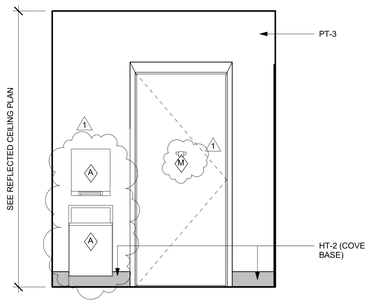
12 A6.5 BDOC RESTROOM ELEVATION 1
(BASE BID)
1/2" = 1'-0"



13 A6.5 BDOC RESTROOM ELEVATION 2
(BASE BID)
1/2" = 1'-0"



16 A6.5 BDOC RESTROOM ELEVATION 3
(BASE BID)
1/2" = 1'-0"



17 A6.5 BDOC RESTROOM ELEVATION 4
(BASE BID)
1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 Second Avenue, Birmingham, AL 35203
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

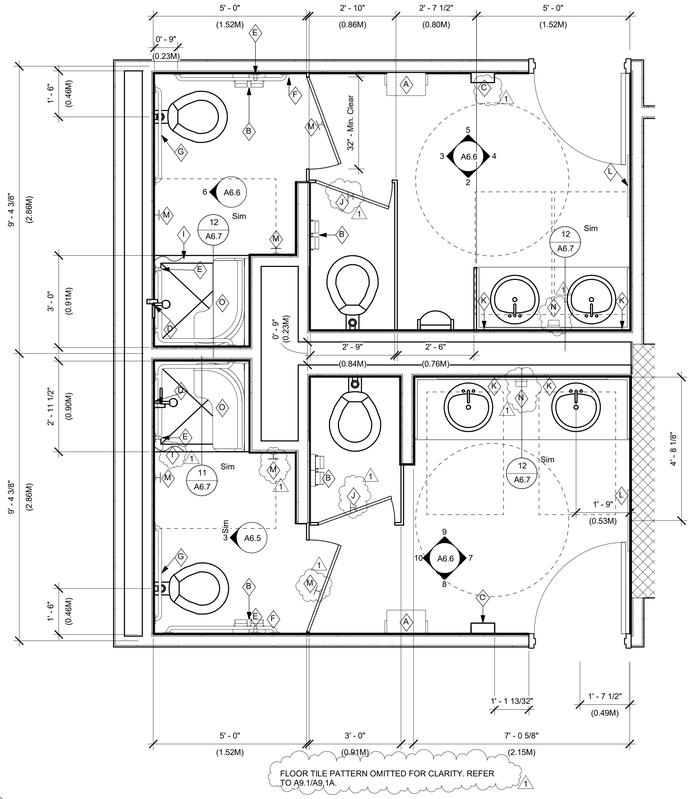
Checked By
DCD

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

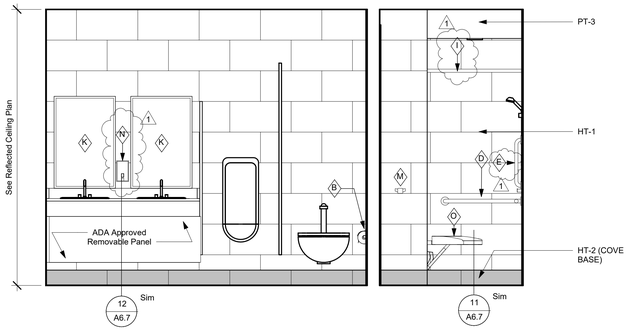
Sheet Title
Enlarged Floor Plans & Interior Elevations (BASE BID)

Sheet Number
A6.5

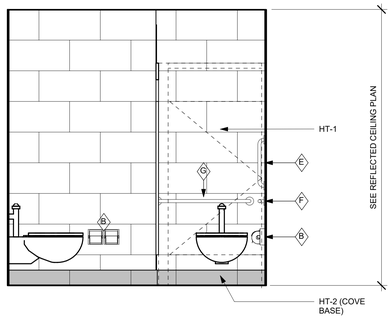
STATE OF ALABAMA
MONTGOMERY
Jim E. Seay, Jr.
1046
Gregory A. O'Neal
4043
Wesley R. Clemer
4244
ALABAMA
REGISTERED ARCHITECTS



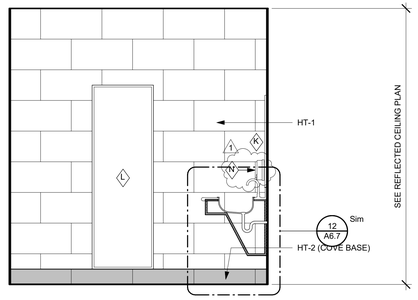
1 A6.6 Enlarged Floor Plan Copy 1
1/2" = 1'-0"



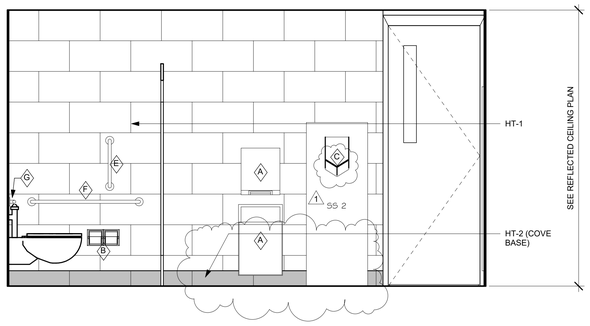
2 A6.6 Men's Latrine 140 Elevation 1 (BID OPTION)
1/2" = 1'-0"



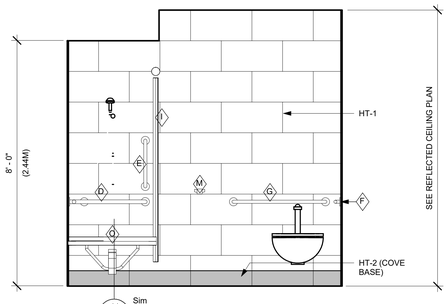
3 A6.6 Men's Latrine 140 Elevation 2 (BID OPTION)
1/2" = 1'-0"



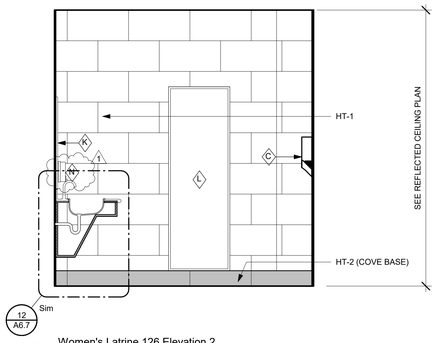
4 A6.6 Men's Latrine 140 Elevation 3 (BID OPTION)
1/2" = 1'-0"



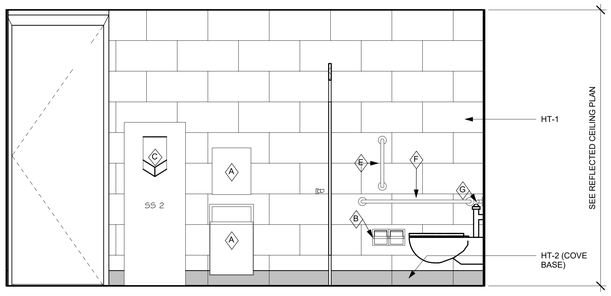
5 A6.6 Men's Latrine 140 Elevation 4 (BID OPTION)
1/2" = 1'-0"



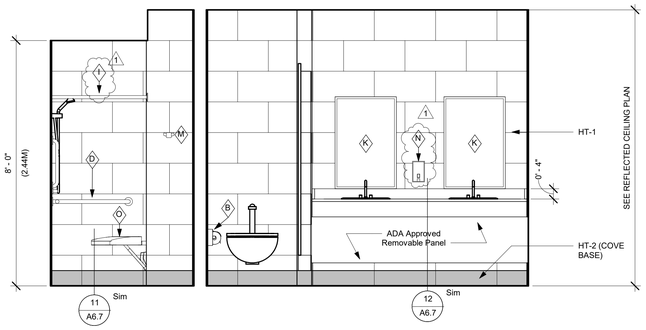
6 A6.6 Women's Latrine 126 Elevation 1 (BID OPTION)
1/2" = 1'-0"



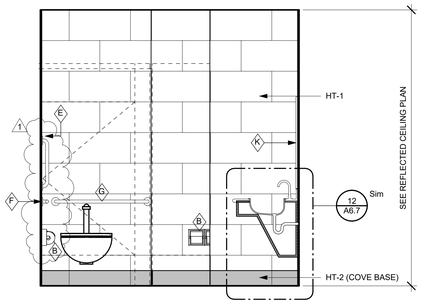
7 A6.6 Women's Latrine 126 Elevation 2 (BID OPTION)
1/2" = 1'-0"



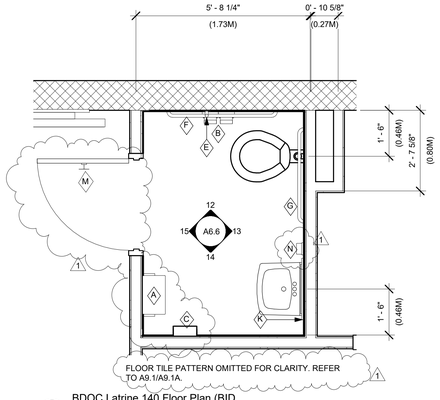
8 A6.6 Women's Latrine 126 Elevation 3 (BID OPTION)
1/2" = 1'-0"



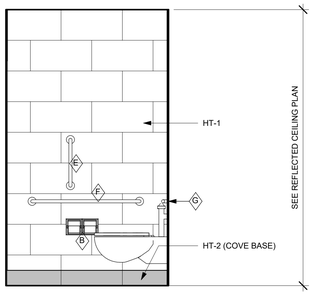
9 A6.6 Women's Latrine 126 Elevation 4 (BID OPTION)
1/2" = 1'-0"



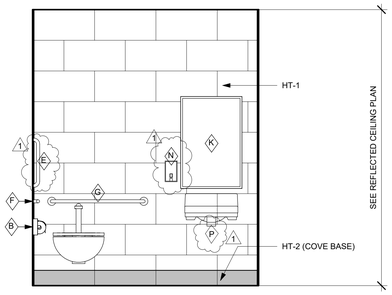
10 A6.6 Women's Latrine 126 Elevation 5 (BID OPTION)
1/2" = 1'-0"



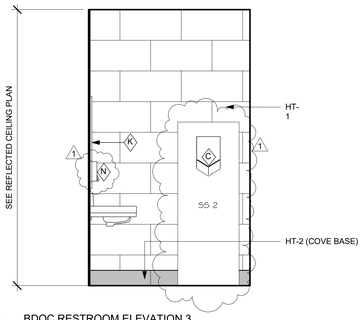
11 A6.6 BDOC Latrine 140 Floor Plan (BID OPTION)
1/2" = 1'-0"



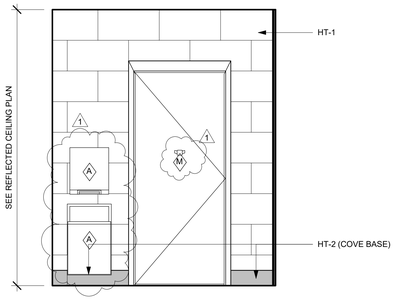
12 A6.6 BDOC RESTROOM ELEVATION 1 (BID OPTION)
1/2" = 1'-0"



13 A6.6 BDOC RESTROOM ELEVATION 2 (BID OPTION)
1/2" = 1'-0"



14 A6.6 BDOC RESTROOM ELEVATION 3 (BID OPTION)
1/2" = 1'-0"



15 A6.6 BDOC RESTROOM ELEVATION 4 (BID OPTION)
1/2" = 1'-0"

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade, Birmingham, AL 35205
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

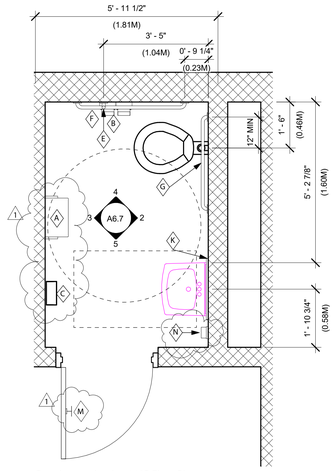
Checked By
DCD

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

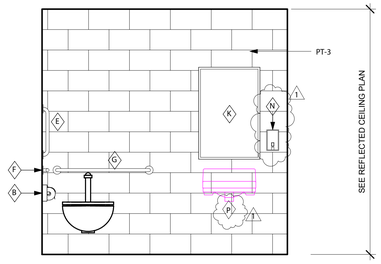
Sheet Title
Enlarged Floor Plans & Interior Elevations (BID OPTION)

Sheet Number
A6.6

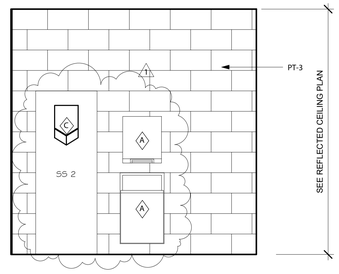
STATE OF ALABAMA
MONTGOMERY
Jim R. Ivey, Jr.
1295
Gregory A. O'Neal
4043
Wesley S. Clarke
1244
ALABAMA
REGISTERED ARCHITECTS



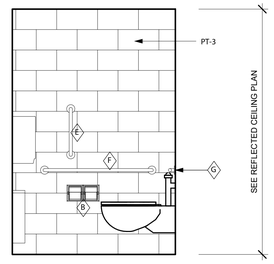
1 A6.7 Guardmount Latrine 148B Floor Plan (BASE BID)
1/2" = 1'-0"



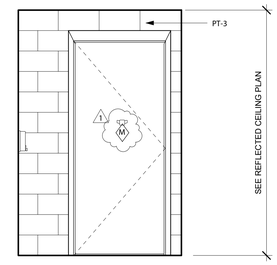
2 A6.7 GUARDMOUNT LATRINE 148B ELEVATION 1 (BASE BID)
1/2" = 1'-0"



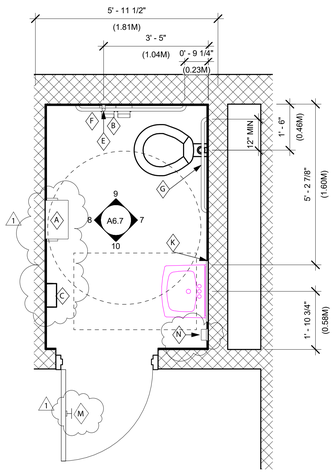
3 A6.7 GUARDMOUNT LATRINE 148B ELEVATION 2 (BASE BID)
1/2" = 1'-0"



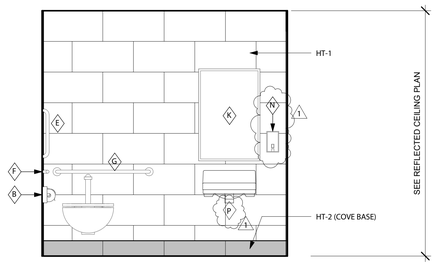
4 A6.7 GUARDMOUNT LATRINE 148B ELEVATION 3(BASE BID)
1/2" = 1'-0"



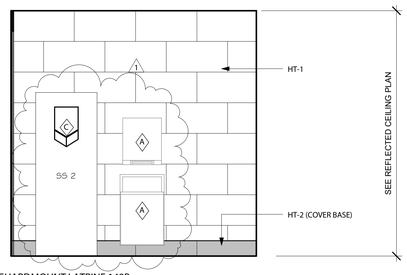
5 A6.7 GUARDMOUNT LATRINE 148B ELEVATION 4 (BASE BID)
1/2" = 1'-0"



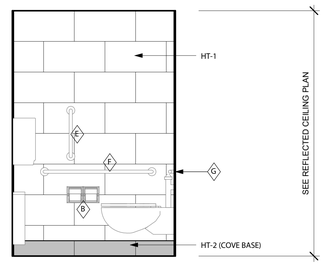
6 A6.7 Guardmount Latrine 148B Floor Plan (BID OPTION)
1/2" = 1'-0"



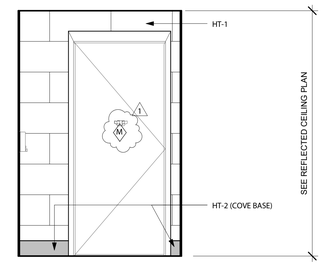
7 A6.7 GUARDMOUNT LATRINE 148B ELEVATION 1 (BID OPTION)
1/2" = 1'-0"



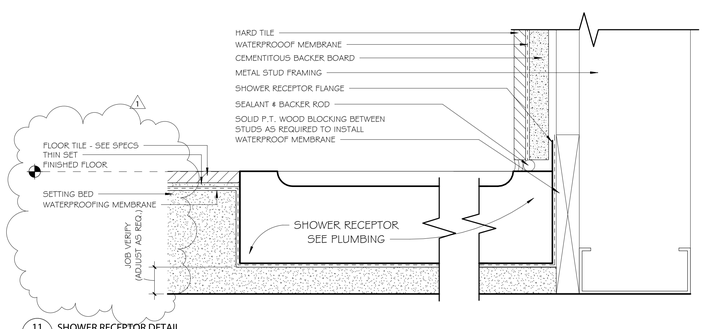
8 A6.7 GUARDMOUNT LATRINE 148B ELEVATION 2 (BID OPTION)
1/2" = 1'-0"



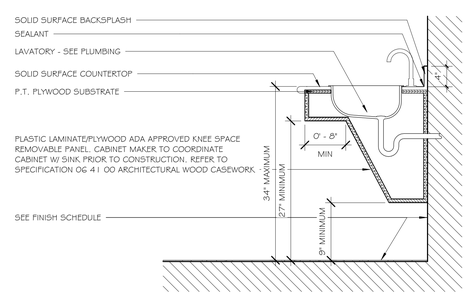
9 A6.7 GUARDMOUNT LATRINE 148B ELEVATION 3(BID OPTION)
1/2" = 1'-0"



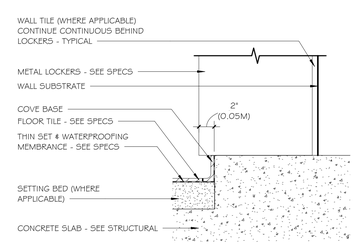
10 A6.7 GUARDMOUNT LATRINE 148B ELEVATION 4 (BID OPTION)
1/2" = 1'-0"



11 A6.7 SHOWER RECEPTOR DETAIL
6" = 1'-0"



12 A6.7 ADA SINK DETAIL
1" = 1'-0"



13 A6.7 LOCKER BASE DETAIL
1 1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

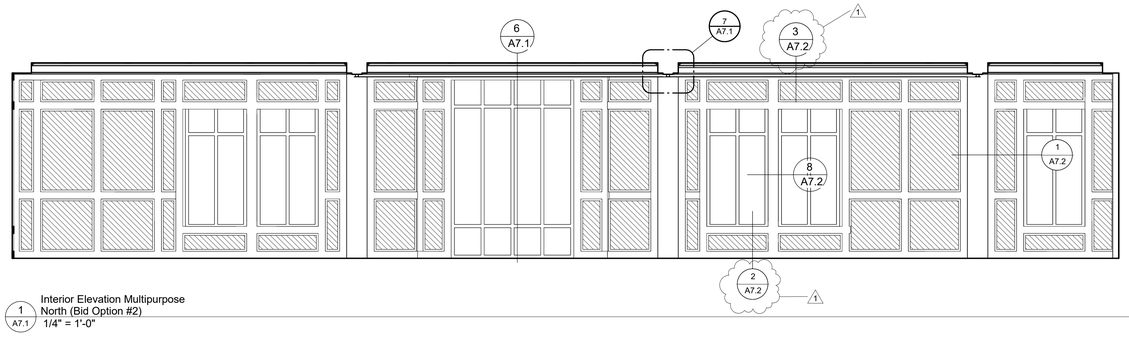
Checked By
DCD

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

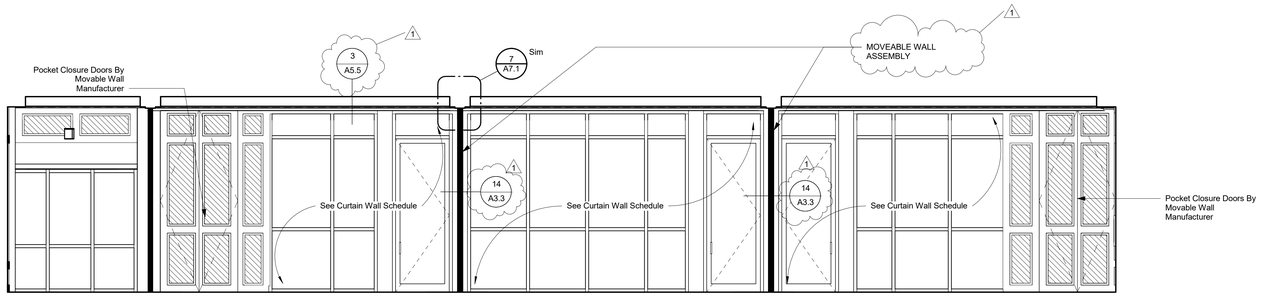
Sheet Title
Enlarged Floor Plans & Interior Elevations

Sheet Number
A6.7

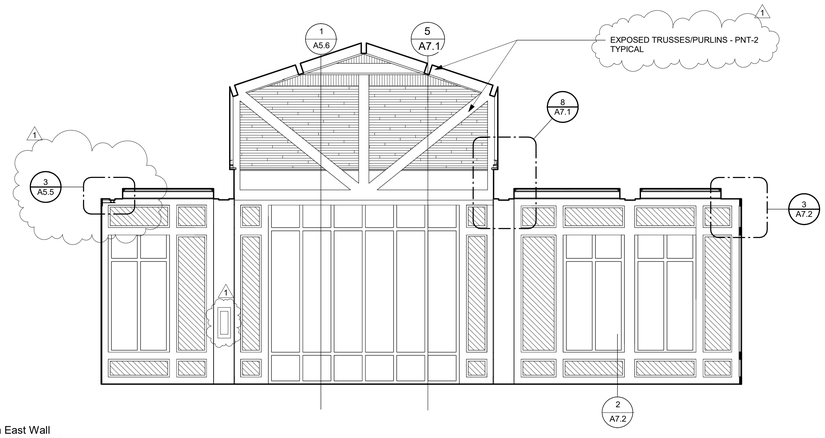
STATE OF ALABAMA
MONTGOMERY
Stephen E. Sanders
1686
Gregory A. O'Neal
4043
Stanley D. Cramer
4244
ALABAMA
REGISTERED ARCHITECTS



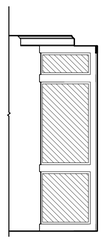
1 A7.1 Interior Elevation Multipurpose North (Bid Option #2)
1/4" = 1'-0"



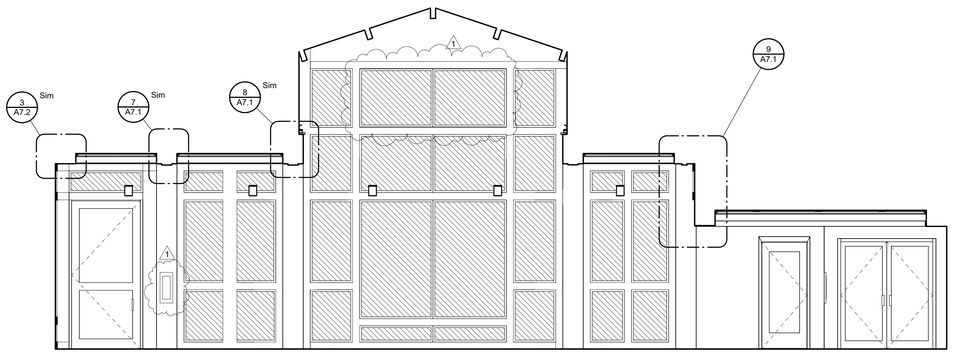
2 A7.1 Multipurpose Room North Interior Elevation (Bid Option #2)
1/4" = 1'-0"



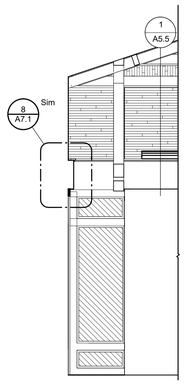
3 A7.1 Multipurpose Room East Wall Interior Elevation (Bid Option #2)
1/4" = 1'-0"



6 A7.1 Multipurpose Room South Nook Elevation
1/4" = 1'-0"



4 A7.1 Multipurpose Room West Wall Interior Elevation (Bid Option #2)
1/4" = 1'-0"

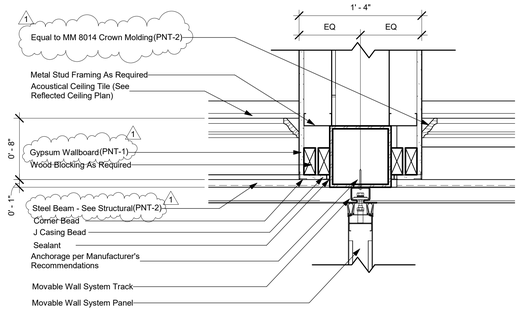


5 A7.1 Interior Elevation East Nook Wall
1/4" = 1'-0"

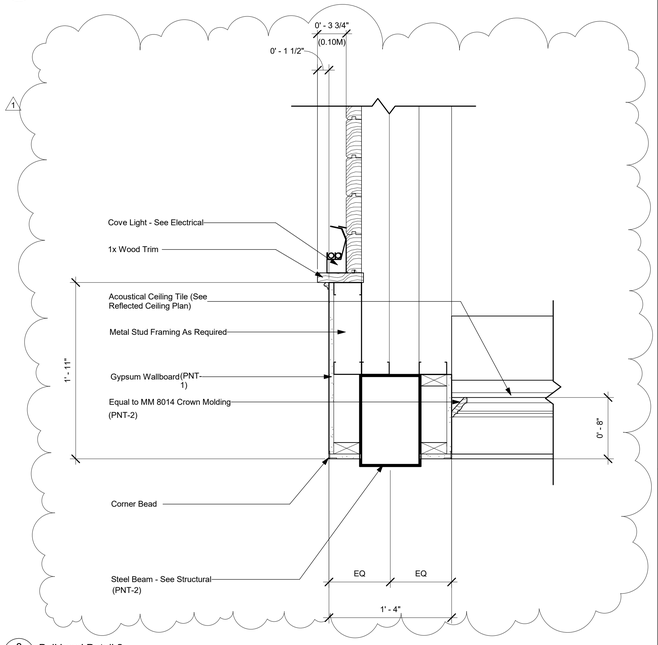
Legend:

Denotes Acoustical Wall Panels - See Specifciations

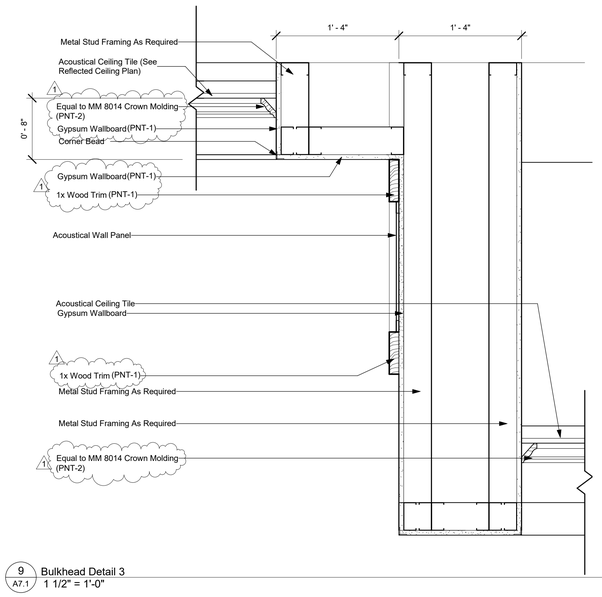
Denotes Tongue & Groove Wood Decking for Roof Deck and Wall Applications



7 A7.1 Bulkhead Detail
1 1/2" = 1'-0"



8 A7.1 Bulkhead Detail 2
1 1/2" = 1'-0"



9 A7.1 Bulkhead Detail 3
1 1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Court Street, Montgomery, AL 36104
Tel: 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

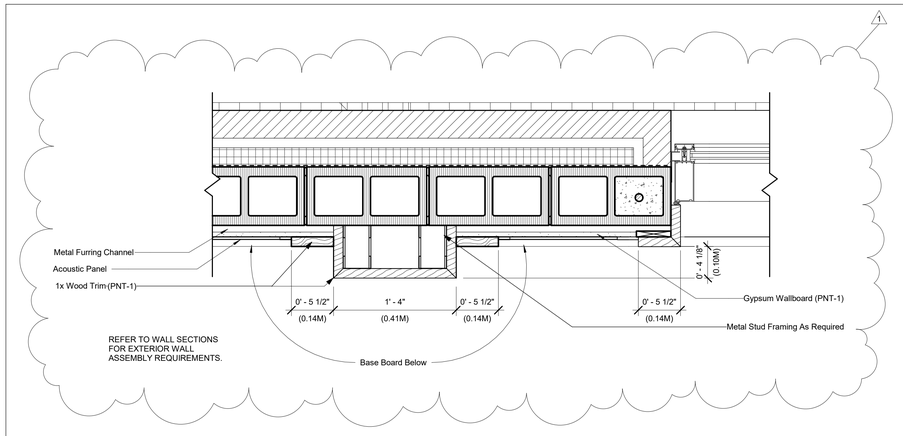
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

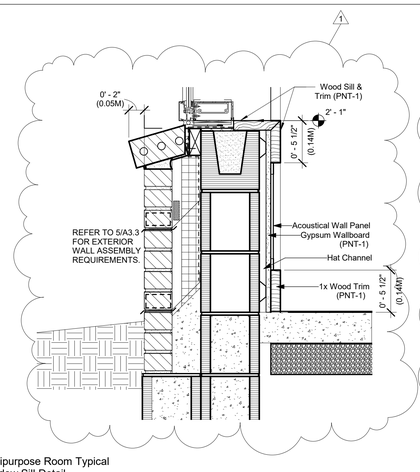
Sheet Title
Multipurpose Room Interior Elevations & Details (Bid Option #2)

Sheet Number
A7.1

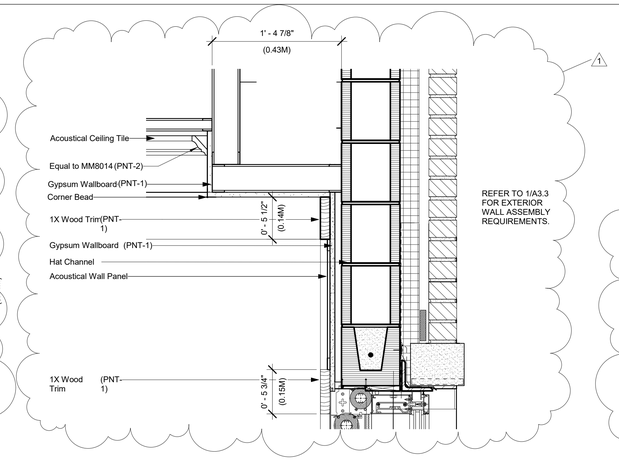
STATE OF ALABAMA
MONTGOMERY
Jon H. Sorey, Jr.
3-06
George L. O'Neal
4-03
Stacey S. Clemer
6-04
ALABAMA
REGISTERED ARCHITECTS



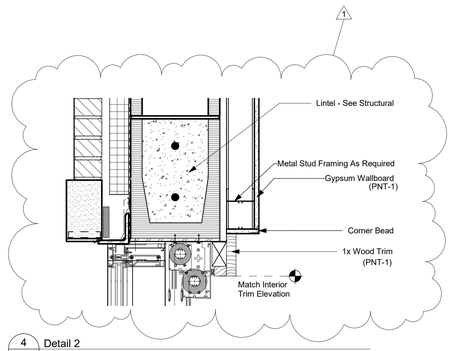
1 A7.2 Multipurpose Room Pilaster Detail
1 1/2" = 1'-0"



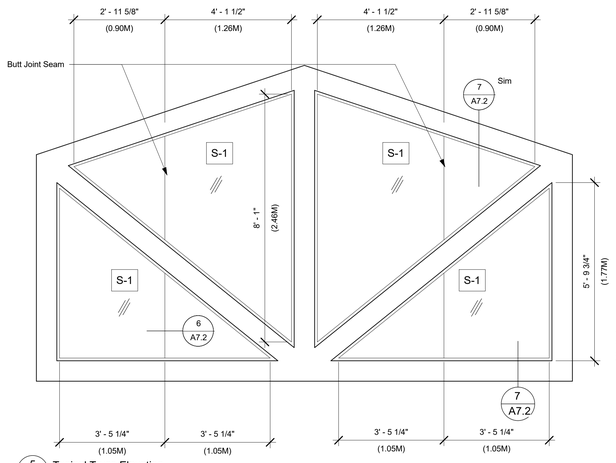
2 A7.2 Multipurpose Room Typical Window Sill Detail
1 1/2" = 1'-0"



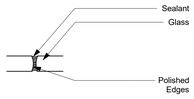
3 A7.2 Multipurpose Room Soffit Detail
1 1/2" = 1'-0"



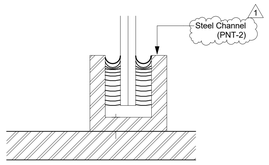
4 A7.2 Detail 2
1 1/2" = 1'-0"



5 A7.2 Typical Truss Elevation
1/2" = 1'-0"

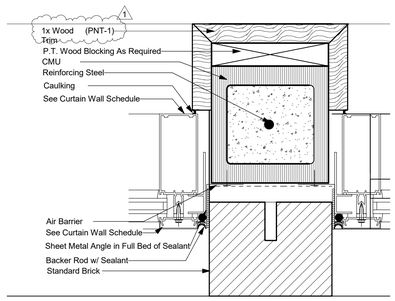


6 A7.2 Butt Joint Glass Detail
12" = 1'-0"



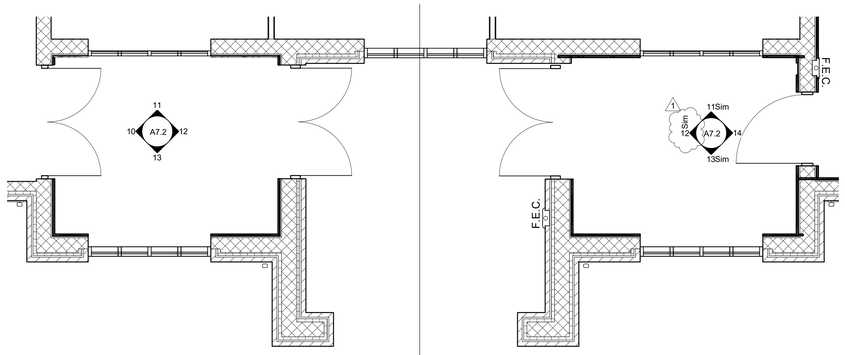
Note: Coordinate channel width/depth with glass install. Channel to be as small as possible.

7 A7.2 Truss Glass Attachment Detail
12" = 1'-0"

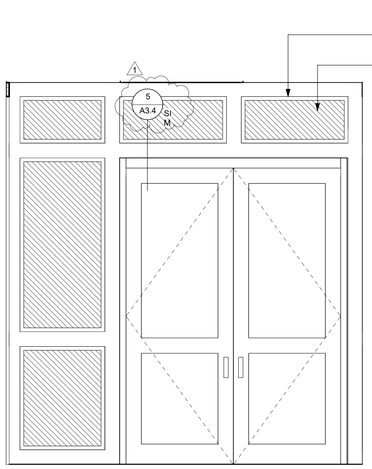


Note: See 13A3.3 for GWB detail

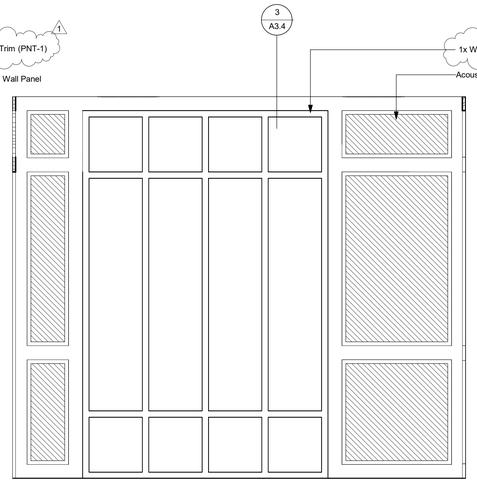
8 A7.2 Back to Back Window Jamb Detail
3" = 1'-0"



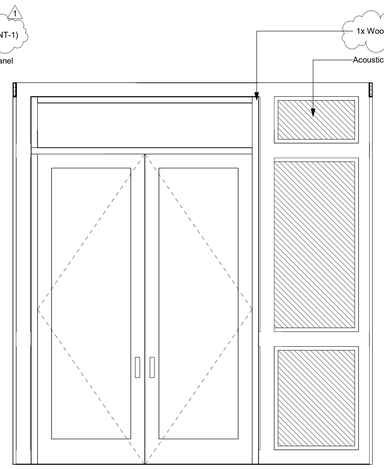
9 A7.2 Enlarged Entry Vestibule Plan (Bid Option #2)
1/4" = 1'-0"



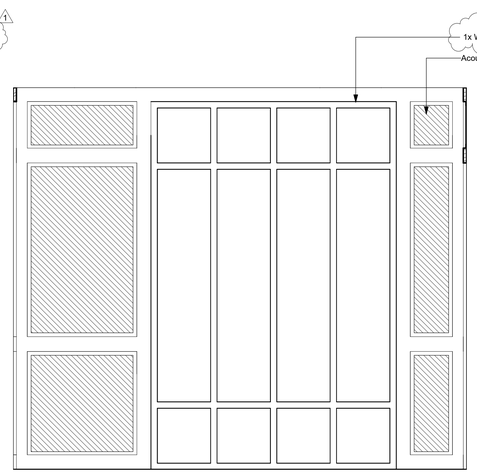
10 A7.2 Entry Vestible 1
1/2" = 1'-0"



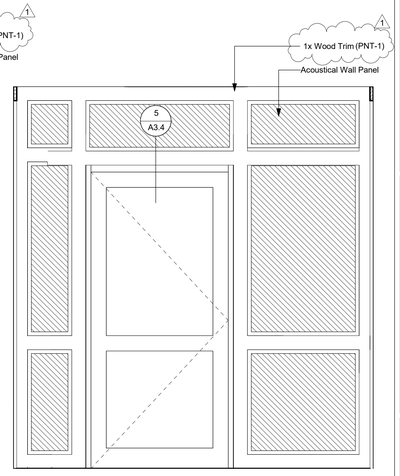
11 A7.2 Entry Vestibule 2
1/2" = 1'-0"



12 A7.2 Entry Vestibule 3
1/2" = 1'-0"



13 A7.2 Entry Vestibule 4
1/2" = 1'-0"



14 A7.2 Entry Vestibule 5
1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 Second Avenue North, Birmingham, AL 35203
Tel. 334. 323. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

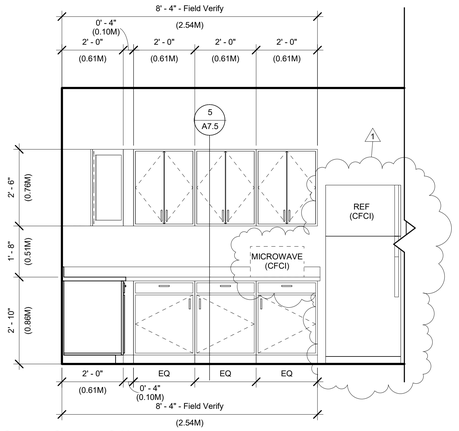
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

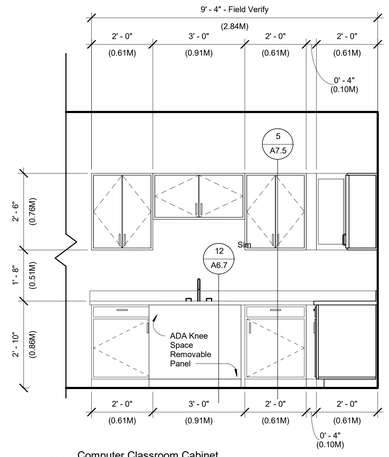
Sheet Title
Multipurpose Room Details

Sheet Number
A7.2

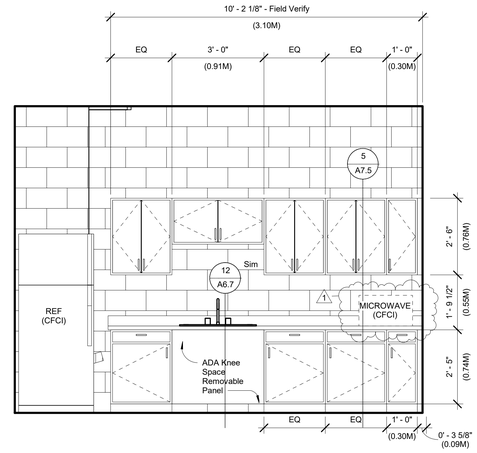
STATE OF ALABAMA
MONTGOMERY
Jon E. Earnest, Jr.
1006
Gregory A. O'Neal
4043
Wesley S. Clarke
1244
ALABAMA
REGISTERED ARCHITECTS



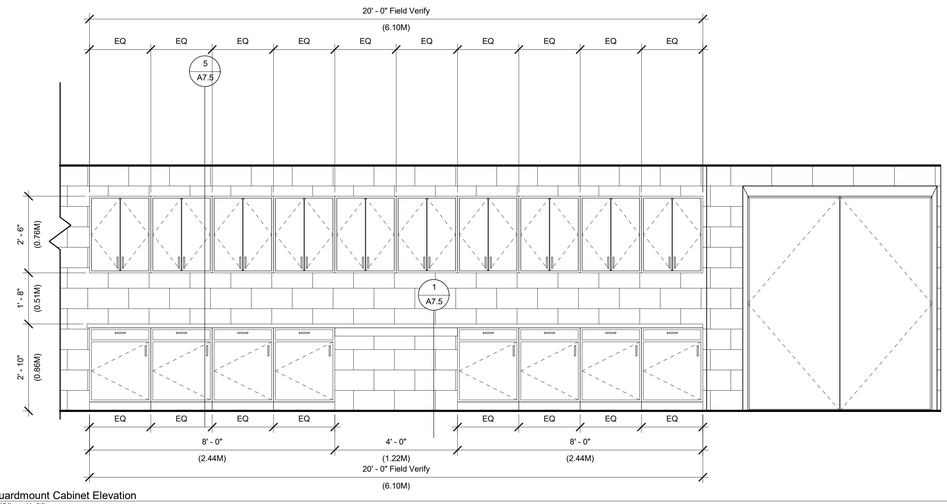
1 A7.4 Computer Classroom Cabinet Elevation 1
1/2" = 1'-0"



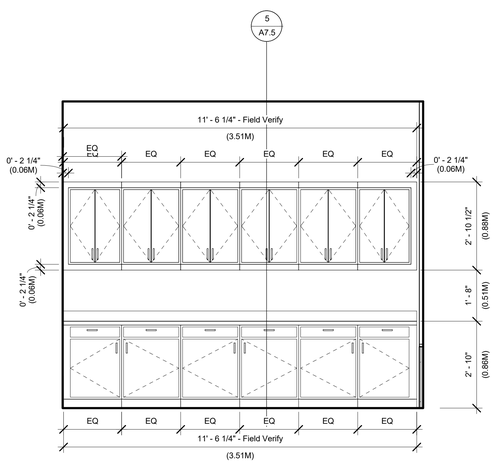
2 A7.4 Computer Classroom Cabinet Elevation 2
1/2" = 1'-0"



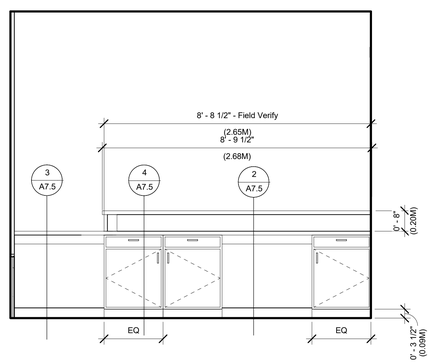
3 A7.4 Break Room Cabinet Elevation
1/2" = 1'-0"



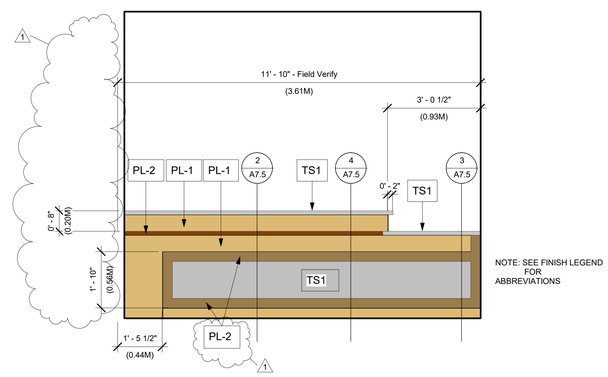
4 A7.4 Guardmount Cabinet Elevation
1/2" = 1'-0"



5 A7.4 Badging Cabinet Elevation 1
1/2" = 1'-0"



6 A7.4 Badging Cabinet Elevation 2
1/2" = 1'-0"



7 A7.4 Badging Cabinet Elevation 3
1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
113 South Court Street | Montgomery, AL 36104
Tel 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

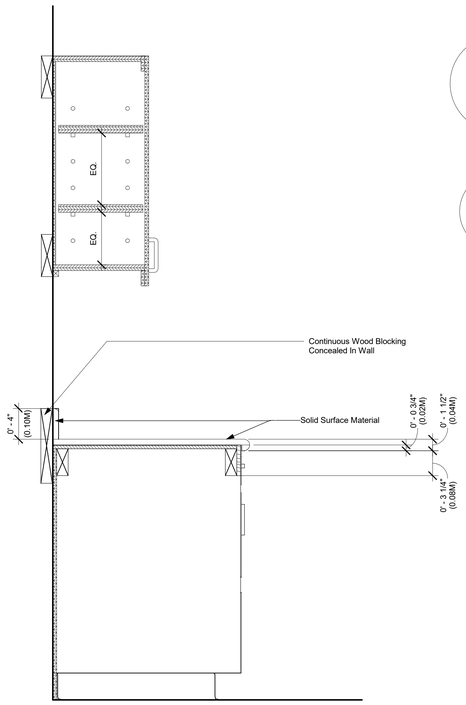
Project Title

A New Security & Services
Training Facility
117th Air Refueling Wing
Birmingham, AL

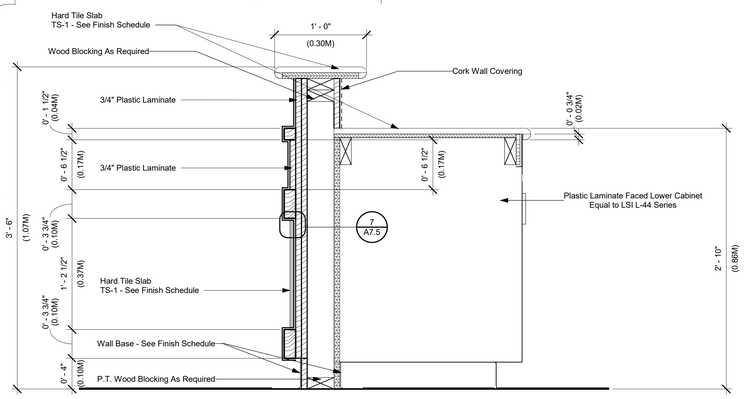
Sheet Title
Cabinet Elevations

Sheet Number
A7.4

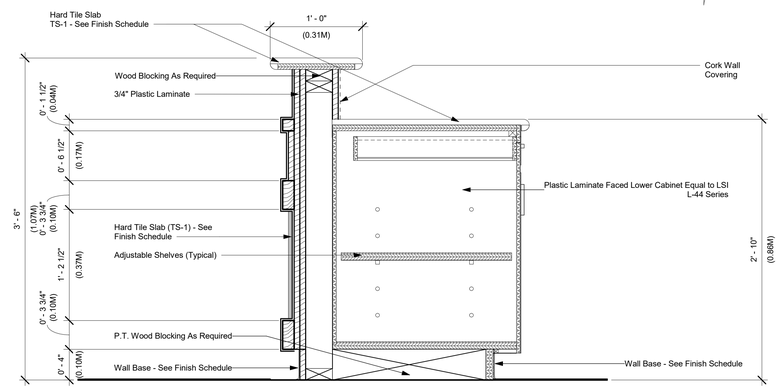
STATE OF ALABAMA
MONTGOMERY
Jim R. Sorrer, Jr.
3896
Gregory A. O'Neal
4043
Wesley S. Clarke
4244
ALABAMA
REGISTERED ARCHITECTS



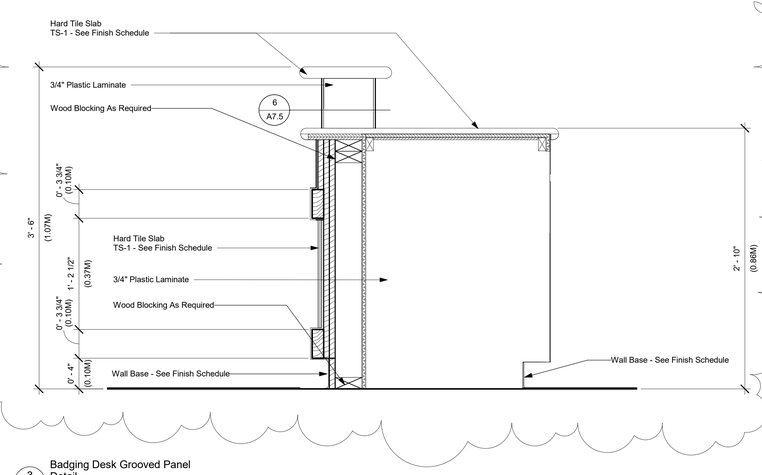
1 A7.5 Cabinet Detail Through Knee Space
1 1/2" = 1'-0"



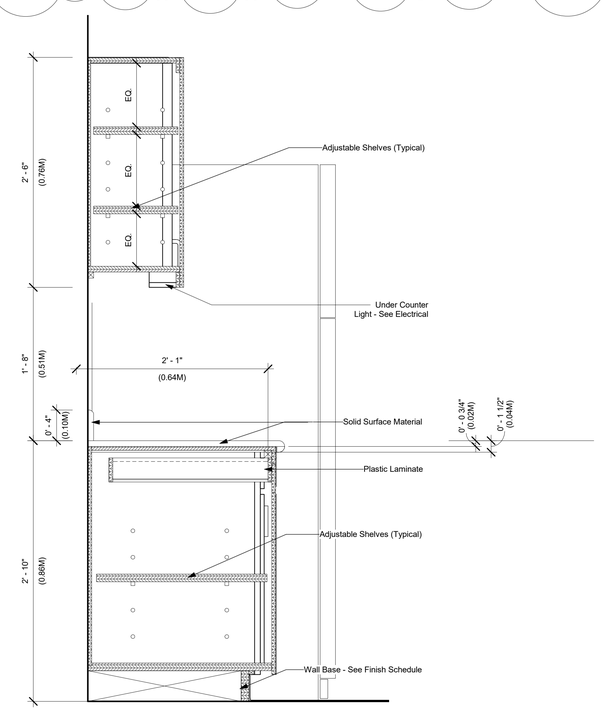
2 A7.5 Badging Desk High Counter Detail
1 1/2" = 1'-0"



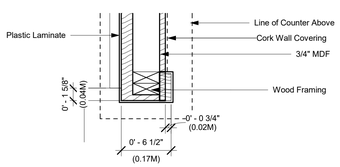
4 A7.5 Badging Deks Low Counter Detail
1 1/2" = 1'-0"



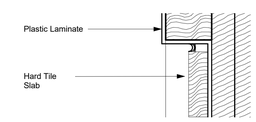
3 A7.5 Badging Desk Grooved Panel Detail
1 1/2" = 1'-0"



5 A7.5 Detail 19
1 1/2" = 1'-0"



6 A7.5 Edge Termination Detail
1 1/2" = 1'-0"



7 A7.5 Glass Panel Hardware Detail
6" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Monroe St. Montgomery, AL 36104
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

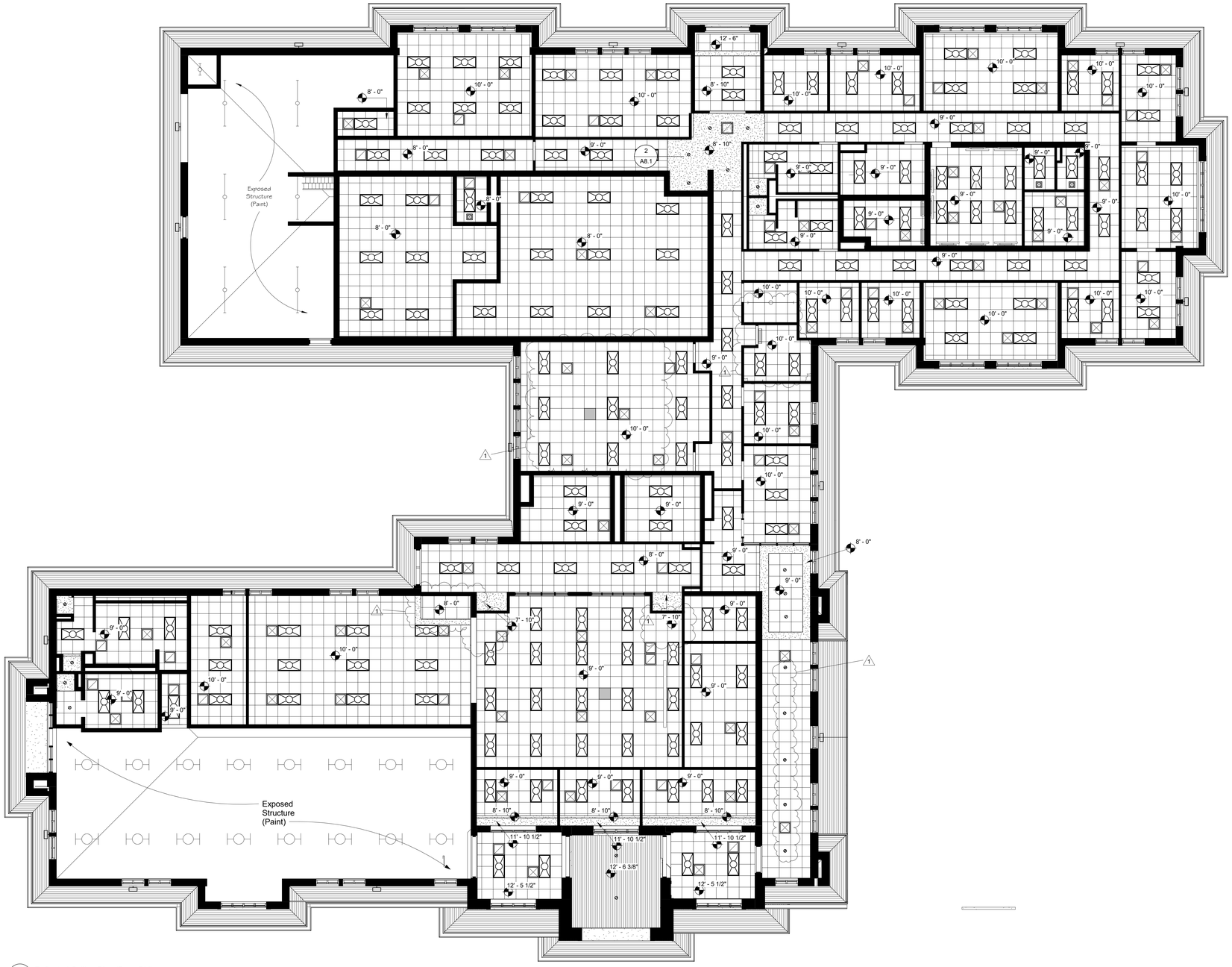
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Cabinet Details

Sheet Number
A7.5

STATE OF ALABAMA
MONTGOMERY
Dale E. Smith
1006
Gregory A. O'Neal
4043
Wesley D. Conner
6294
ALABAMA
REGISTERED ARCHITECTS



1 A8.1 Reflected Ceiling Plan (Base Bid)
1/8" = 1'-0"

Acoustical Tile Ceiling

Gypsum Board Ceiling

Metal Soffit Panels

Tongue and Groove Wood Decking

Cast Stone

1 A101 Detail Tag

Return Air (See Mechanical)

Supply Air (See Mechanical)

Recessed Flourescent Fixture (See Electrical)

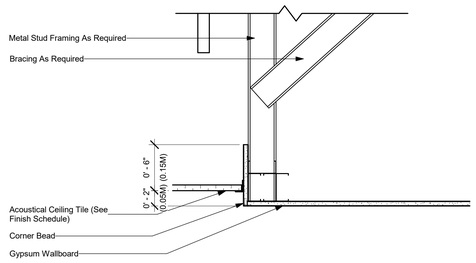
Surface Mounted Flourescent Fixture (See Electrical)

Recessed Can Light (See Electrical)

Retractable Projector Mount (See Specification Section 11 5223)

Roll Down Screen (See Specification Section 11 5213)

Ceiling Legend
1/4" = 1'-0"



2 A8.1 Ceiling Joint Detail
1 1/2" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court St. Montgomery, AL 36104
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

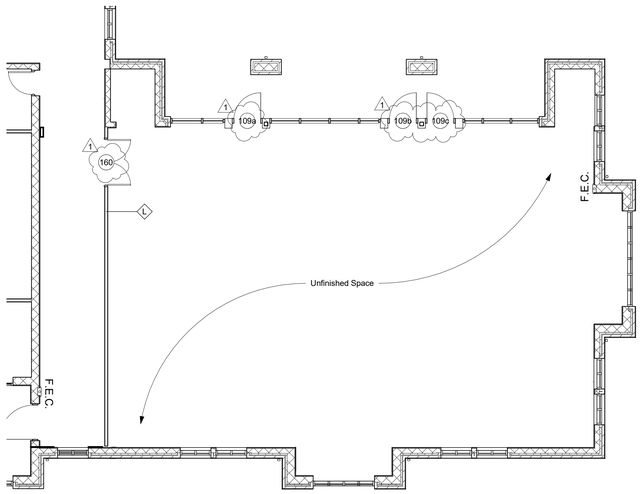
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

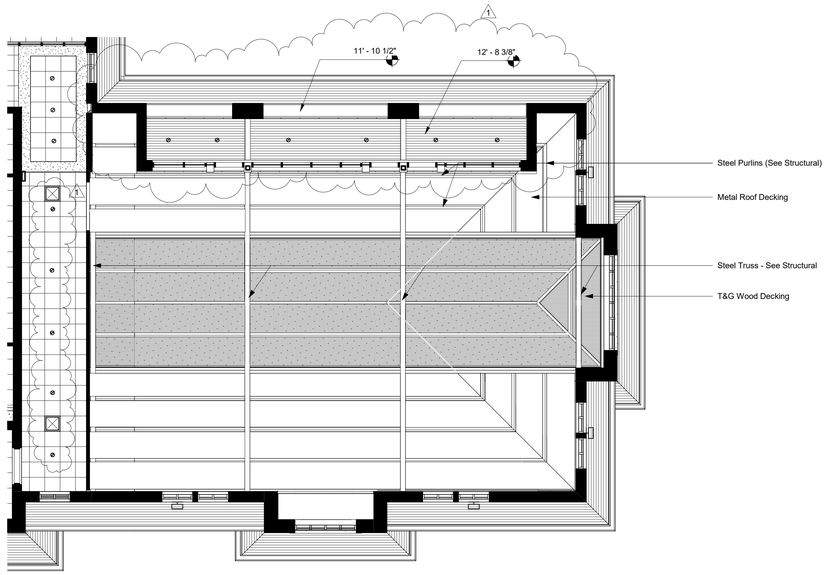
Sheet Title
Reflected Ceiling Plan (Base Bid)

Sheet Number
A8.1

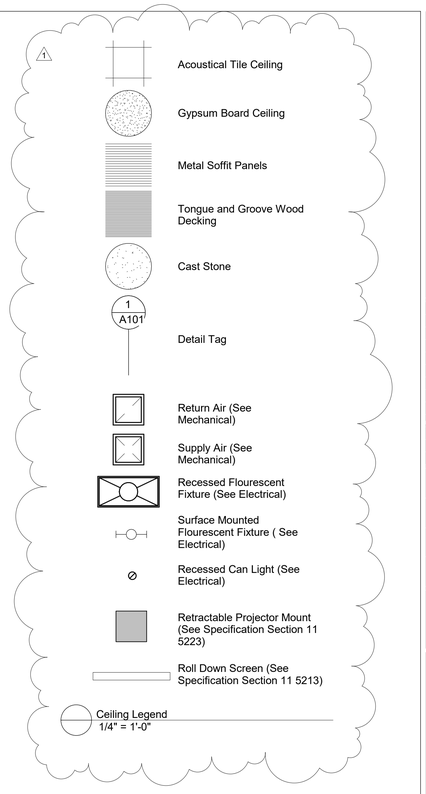
STATE OF ALABAMA
MONTGOMERY
Dale E. Smith, Jr.
1006
Gregory A. O'Neal
4043
Bradley S. Carter
4244
ALABAMA
REGISTERED ARCHITECTS



1 A8.1A Partial Floor Plan (Bid Option #1)
1/8" = 1'-0"



2 A8.1A Partial Reflected Ceiling Plan (Bid Option 1)
1/8" = 1'-0"



Ceiling Legend
1/4" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court St. Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

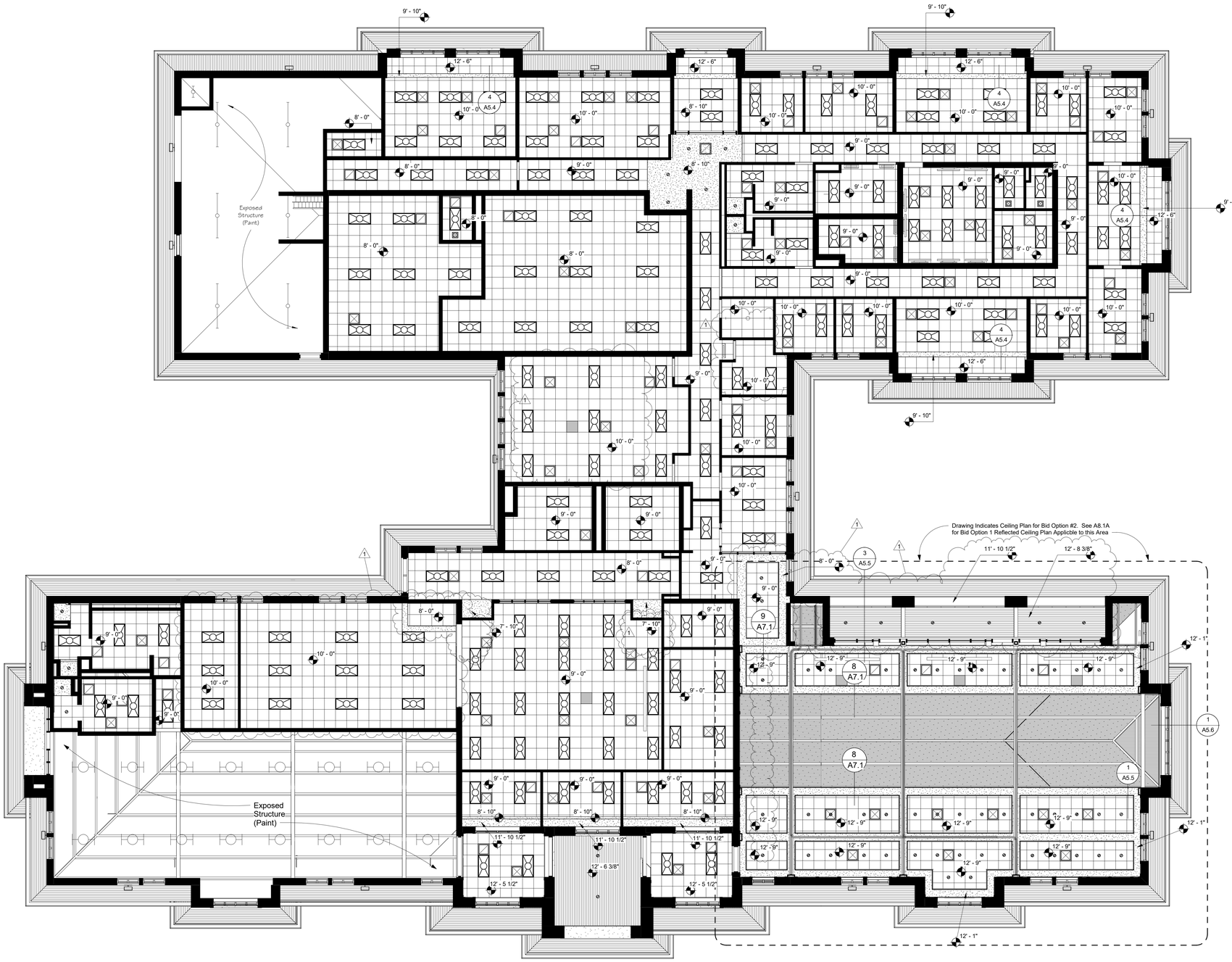
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Bid Option 1 Partial Floor Plan and Reflected Ceiling Plan

Sheet Number
A8.1A

STATE OF ALABAMA
MONTGOMERY
Jim R. Sasser, Jr.
1000
Gregory A. O'Neal
6043
Wesley D. Crowe
6384
ALABAMA
REGISTERED ARCHITECTS



1 A8.1B Reflected Ceiling Plan (Bid Option)
1/8" = 1'-0"

Acoustical Tile Ceiling

Gypsum Board Ceiling

Metal Soffit Panels

Tongue and Groove Wood Decking

Cast Stone

1 A101 Detail Tag

Return Air (See Mechanical)

Supply Air (See Mechanical)

Recessed Flourescent Fixture (See Electrical)

Surface Mounted Flourescent Fixture (See Electrical)

Recessed Can Light (See Electrical)

Retractable Projector Mount (See Specification Section 11 5223)

Roll Down Screen (See Specification Section 11 5213)

Ceiling Legend
1/4" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Coosa | Montgomery, AL 36104
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

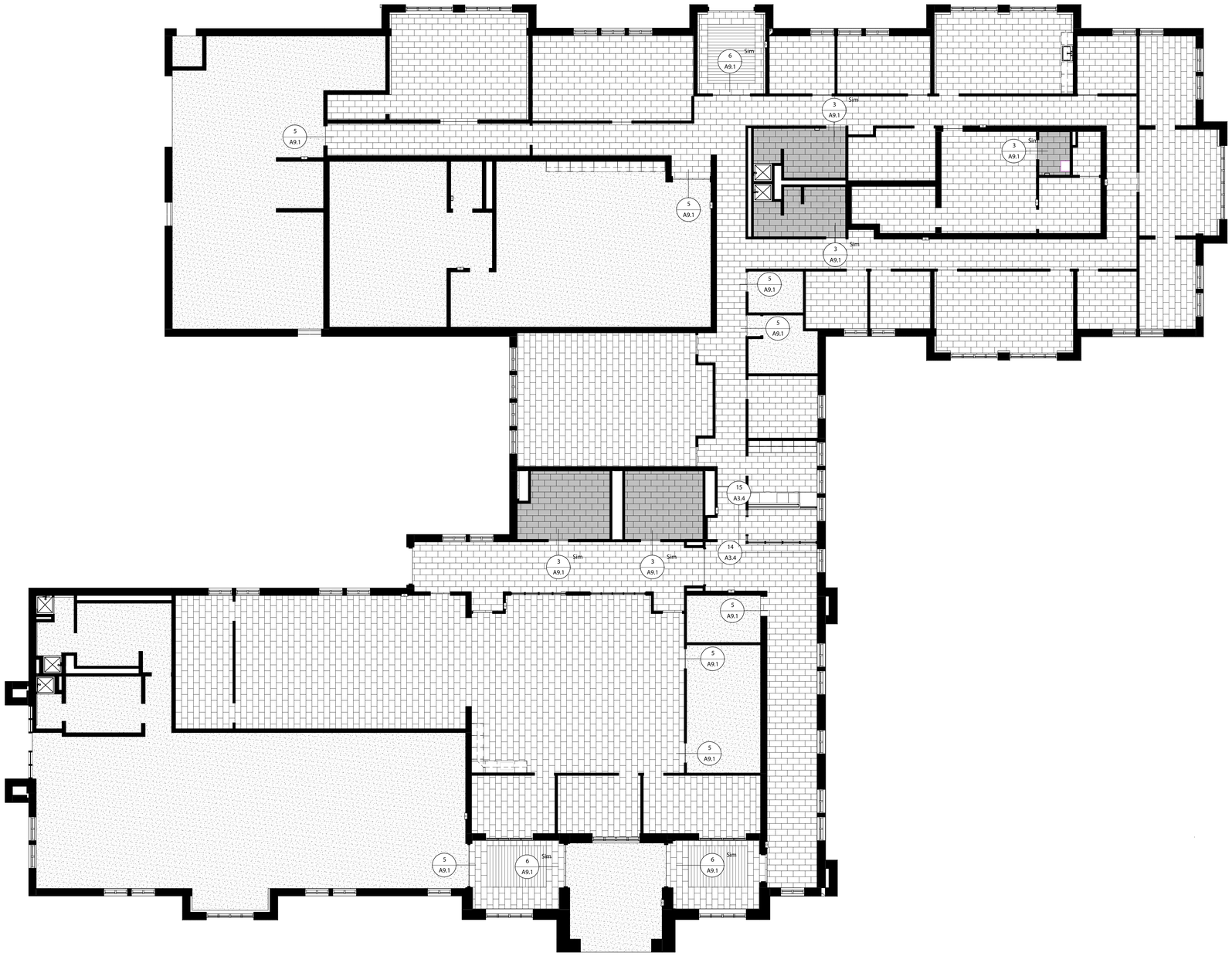
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Reflected Ceiling Plan (Bid Option 2)

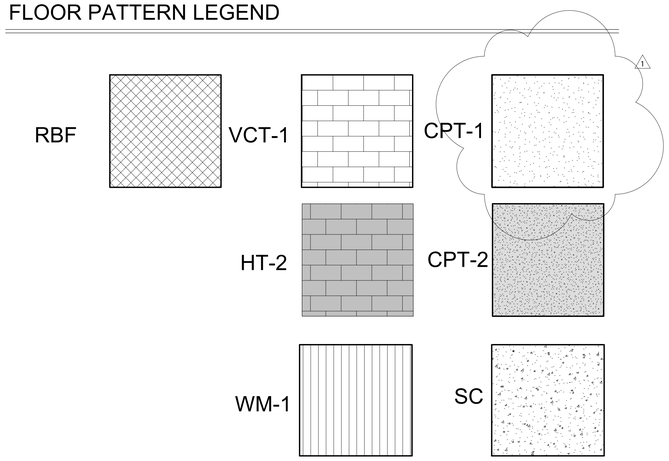
Sheet Number
A8.1B

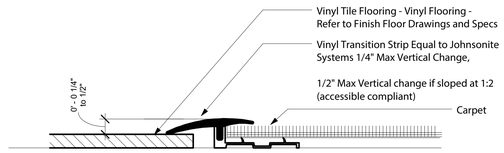
STATE OF ALABAMA
MONTGOMERY
Jim S. Seay, Jr.
1295
Gregory A. O'Neal
4043
Wesley S. Clemer
6244
ALABAMA
REGISTERED ARCHITECTS



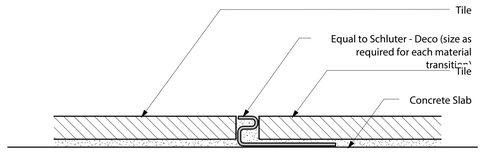
1 A9.1 Floor Pattern Plan (Base Bid)
1/8" = 1'-0"

FLOOR PATTERN LEGEND

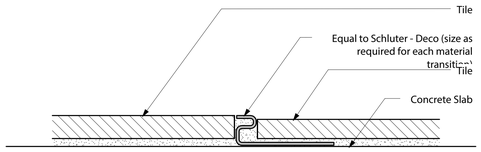




2 A9.1 VCT to Carpet Transition
12" = 1'-0"

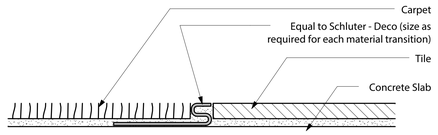


Note: Same Height Transitions From Tile to Tile

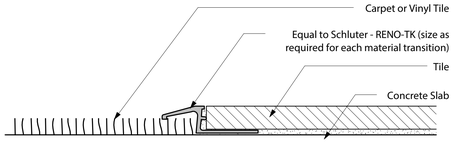


Note: Different Height Transitions From Tile to Tile

3 A9.1 Tile to Tile Transitions
12" = 1'-0"

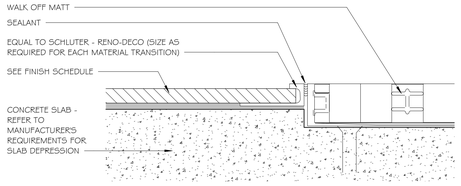


Note: Same Height Transitions From Carpet to Tile

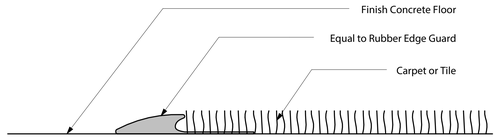


Note: Different Height Transitions From Carpet to Tile

4 A9.1 Carpet to Tile Transitions
12" = 1'-0"



6 A9.1 WALK OFF MAT DETAIL
12" = 1'-0"



Note: Transitions From Concrete to Carpet or Tile

5 A9.1 Concrete to Carpet or Tile
12" = 1'-0"

SS&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Court St. Montgomery, AL 36104
Tel 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

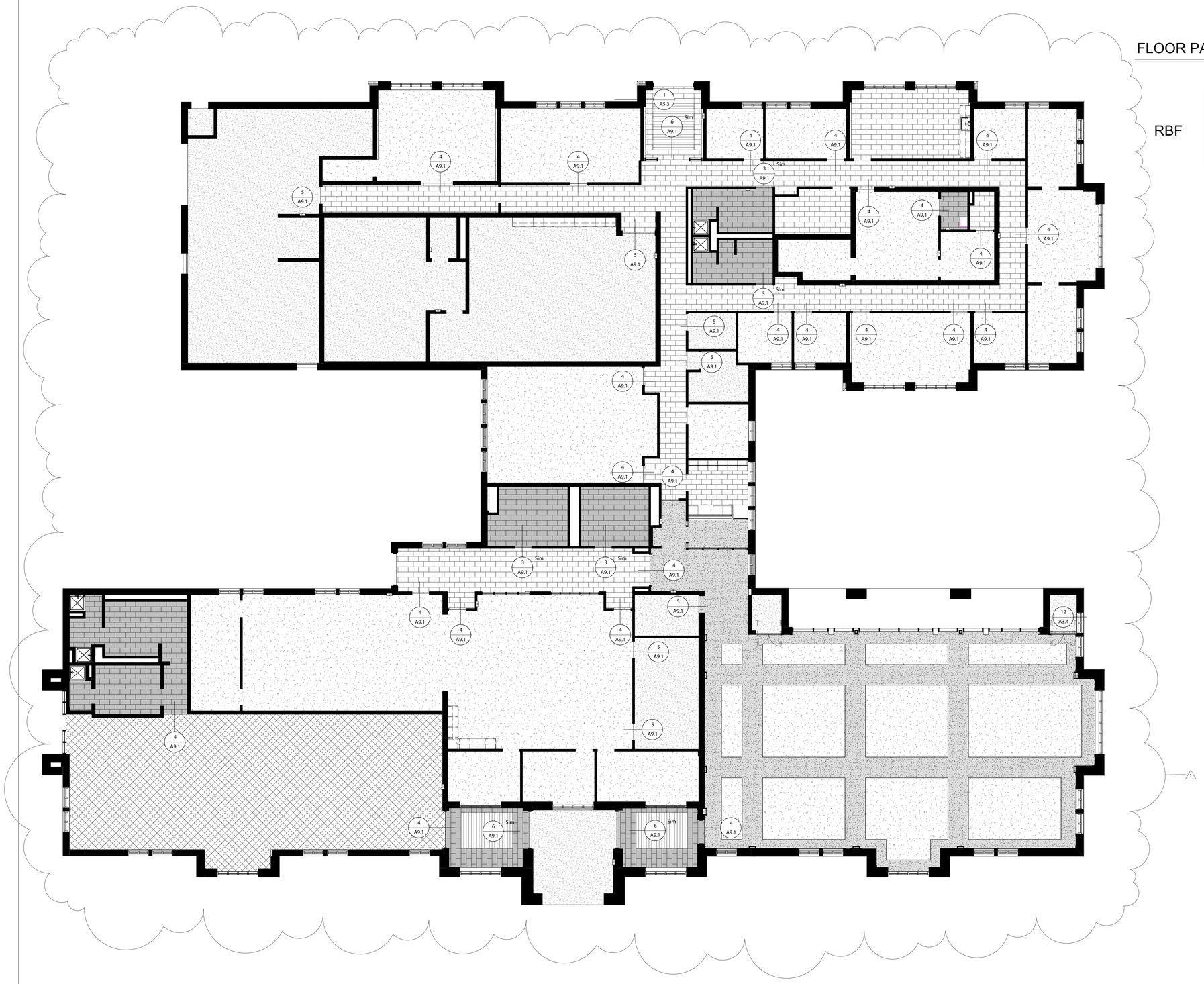
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

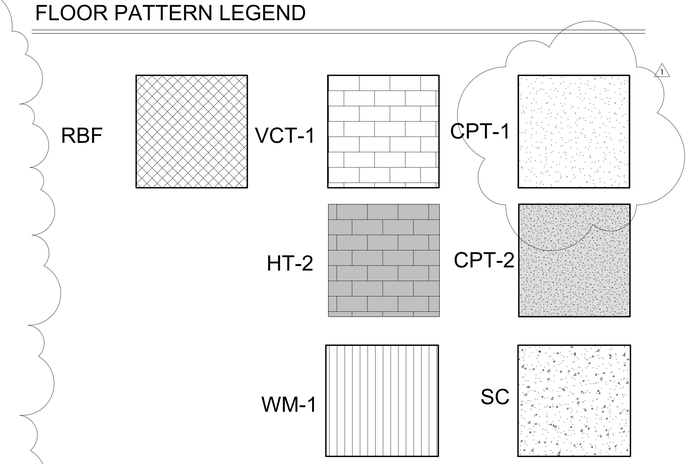
Sheet Title
Floor Pattern Plan Base Bid

Sheet Number
A9.1

STATE OF ALABAMA
MONTGOMERY
Jim R. Ivey, Jr.
1006
Gregory A. O'Neal
4043
Wesley R. Clemer
4244
ALABAMA
REGISTERED ARCHITECTS



FLOOR PATTERN LEGEND



1 A9.1A Floor Pattern Plan (Bid Option)
1/8" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
113 South Court Street | Florence, AL 35630
Tel 334.765.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Addenda #2	1/06/23

Job Number
12072

Date
MARCH 2022

Drawn By
JJ, NB, DCD, JBW

Checked By
DCD

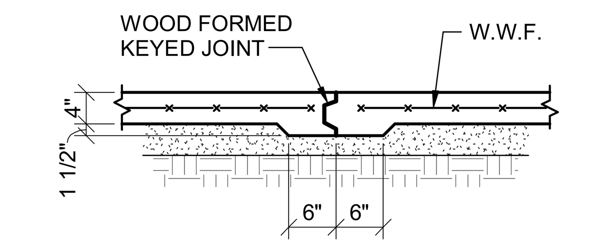
Project Title

A New Security & Services
Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
Floor Pattern Plan -
Bid Option

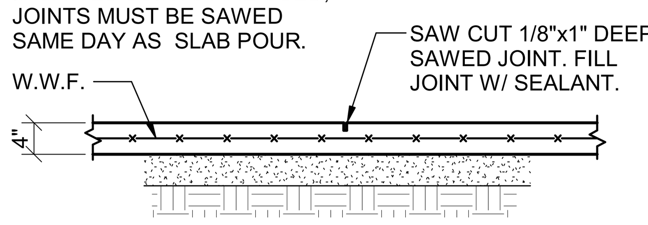
Sheet Number
A9.1A

STATE OF ALABAMA
MONTGOMERY
Jim R. Lamp, Jr.
1046
Gregory A. O'Neal
4043
Wesley S. Carter
4244
ALABAMA
REGISTERED ARCHITECTS

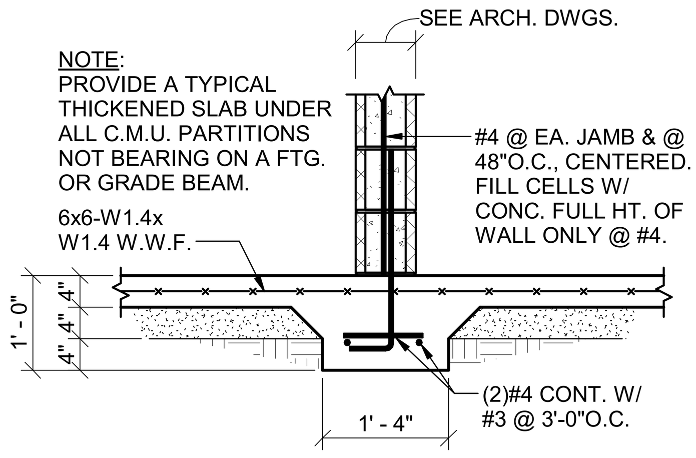


TYPICAL SLAB CONSTRUCTION JOINT DETAIL-(C.J.)

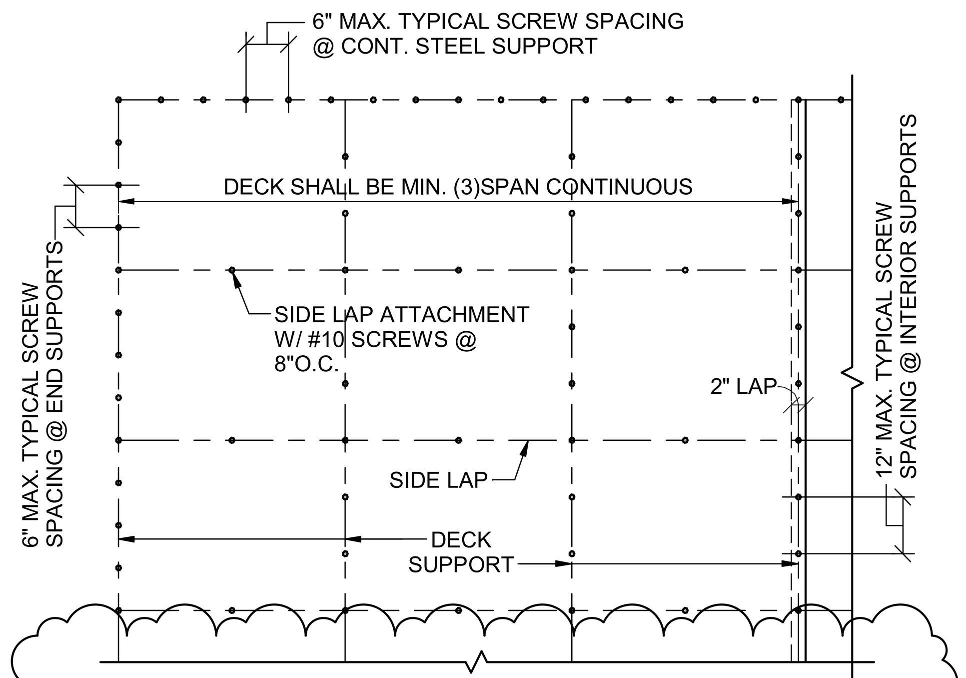
NOTE:
IF SAWED JOINTS ARE USED, JOINTS MUST BE SAWED SAME DAY AS SLAB POUR.



ALTERNATE SLAB CONSTRUCTION JOINT DETAIL (SAWED JOINT)

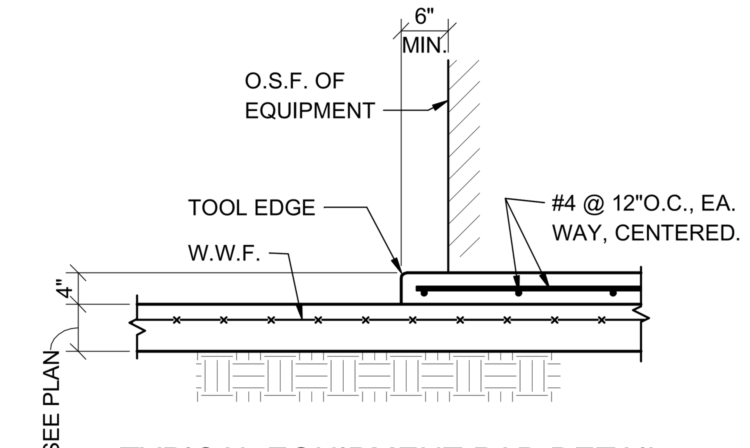


TYPICAL THICKENED SLAB DETAIL

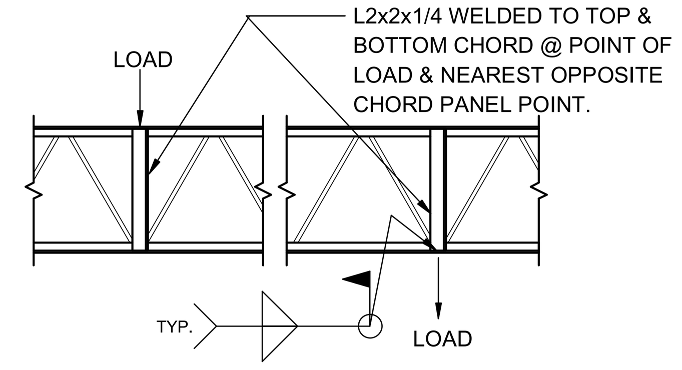


NOTE:
ALL SCREWS @ CONT. SUPPORTS SHALL BE #12 SELF-DRILLING SELF-TAPPING SCREWS. PROVIDE (2)#10 SCREWS @ EA. SUPPORT WHERE 2x TONGUE & GROOVE DECKING OCCURS.

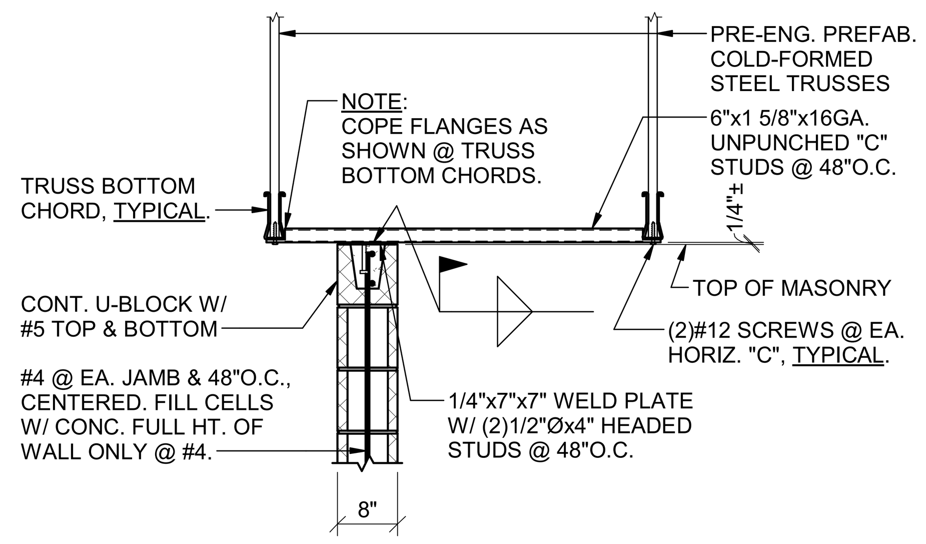
TYPICAL ROOF DECK FASTENING REQUIREMENTS
NO SCALE



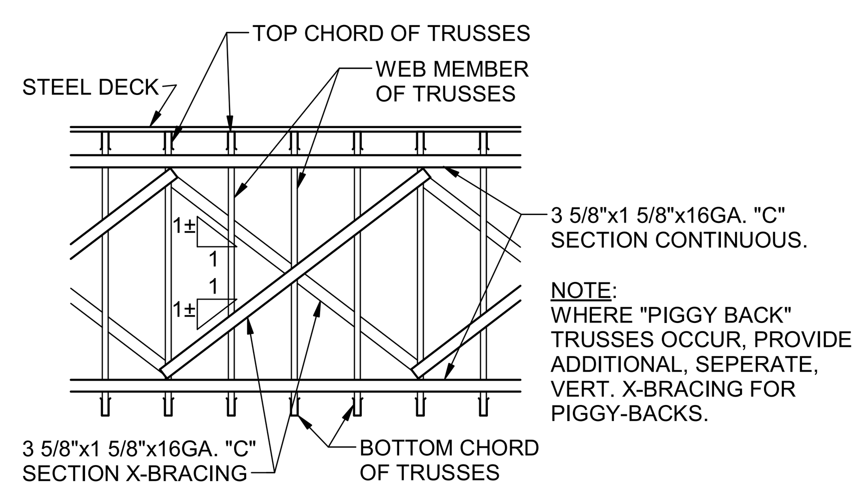
TYPICAL EQUIPMENT PAD DETAIL



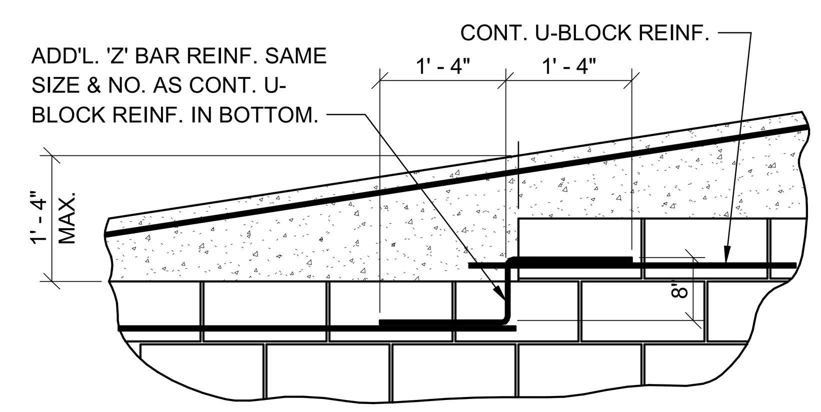
TYPICAL JOIST WHERE LOAD IS ADDED OTHER THAN AT PANEL POINT



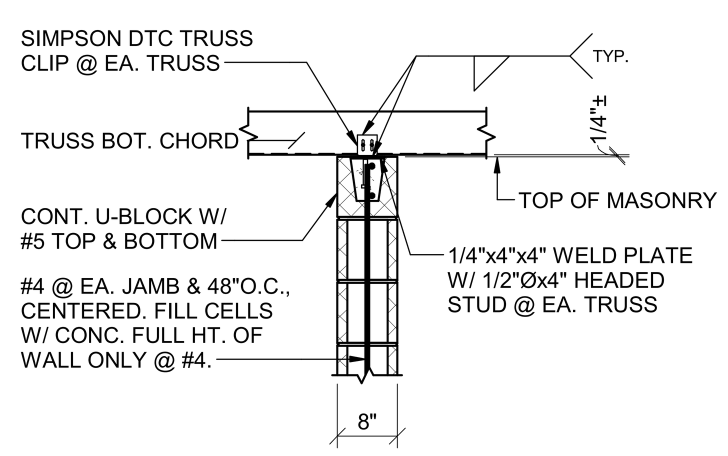
WALL PARALLEL TO TRUSSES



TYPICAL 'X'-BRACING DETAIL

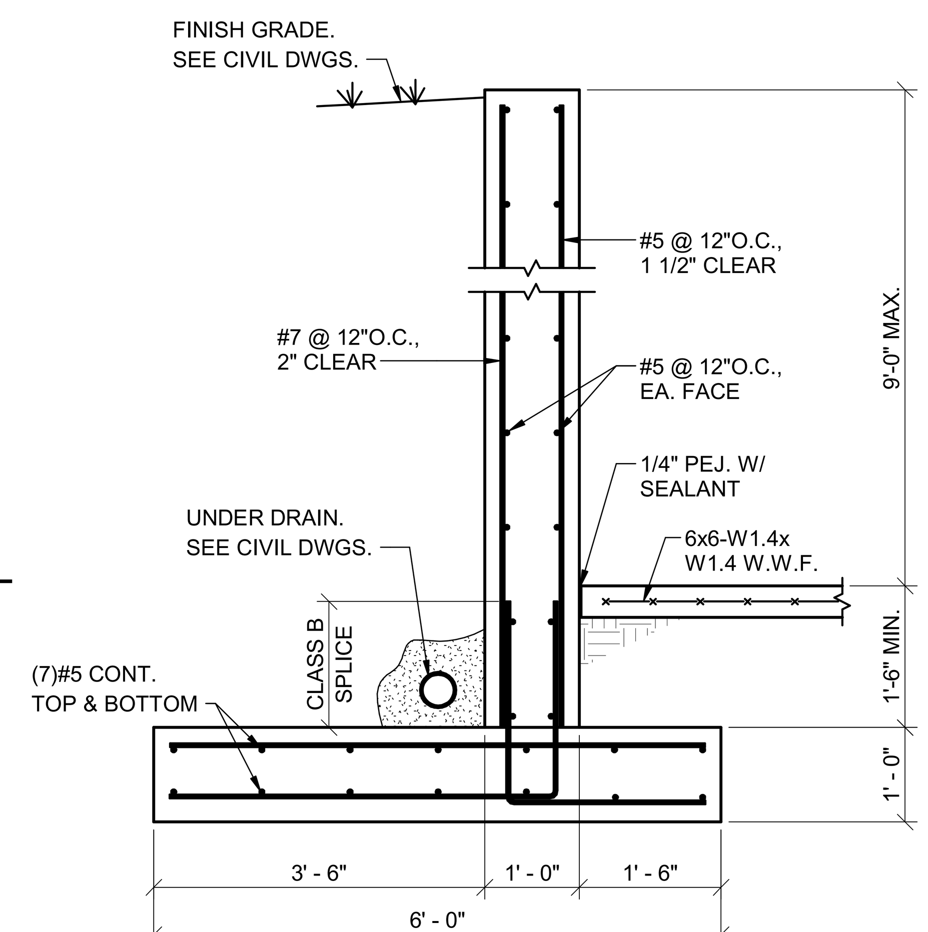


TYPICAL U-BLOCK STEP DETAIL



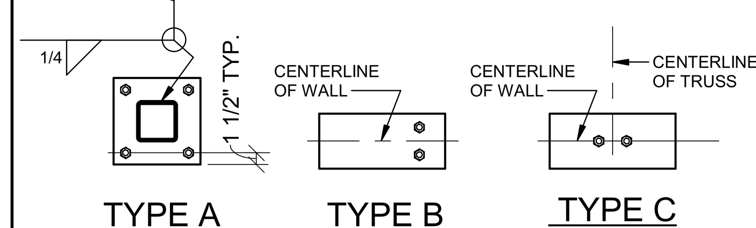
WALL PERPENDICULAR TO TRUSSES

TYPICAL NON-BEARING C.M.U. WALL ANCHORAGE DETAIL AT COLD-FORMED STEEL TRUSSES

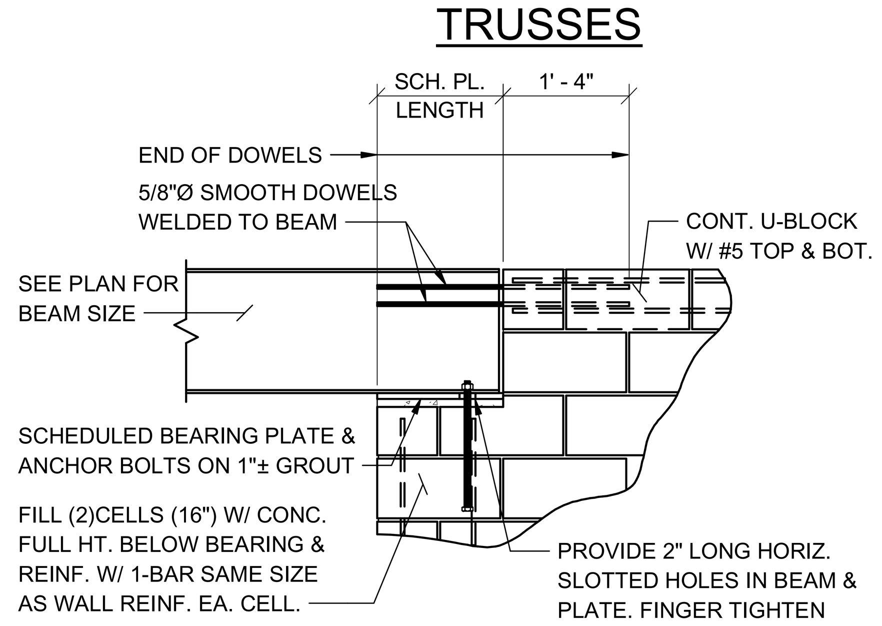


TYPICAL RETAINING WALL SECTION
(SEE CIVIL DWGS. FOR LOCATION)

BEARING & BASE PLATE SCHEDULE			
MARK	PLATE SIZE	PLATE TYPE	ANCHOR BOLT NO. & SIZE
BP-1	3/4"x10"x10"	A	(4)3/4"Øx16" HEADED
BP-2	3/4"x11"x16"	B	(2)3/4"Øx14" HEADED
BP-3	3/4"x7"x16"	B	(2)3/4"Øx14" HEADED
BP-4	1 1/4"x7"x16"	B & C	(2)3/4"Øx14" HEADED

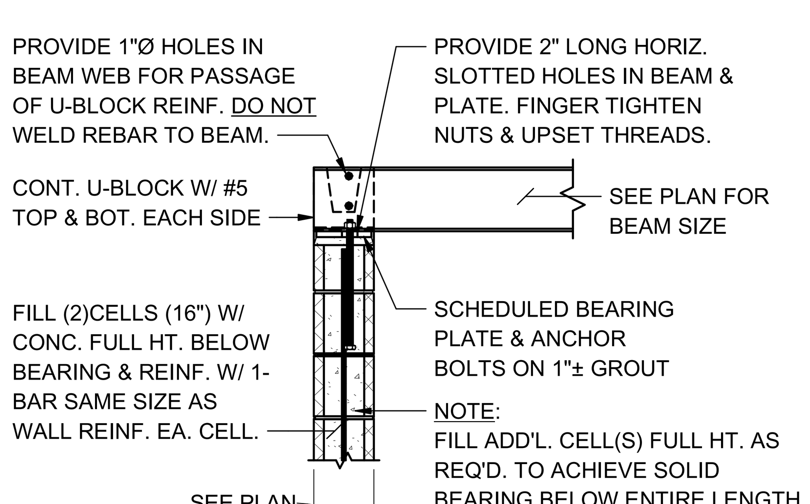


BASE PLATE TYPES



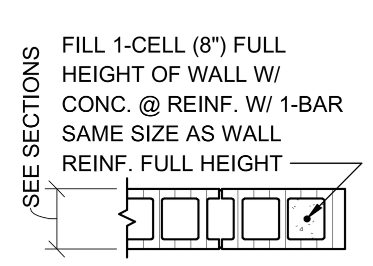
TYPICAL BEAM BEARING ON C.M.U. WALL DETAIL (PARALLEL)

Footing Schedule				
Type Mark	Length	Width	Depth	Reinforcing
A	4' - 0"	4' - 0"	1' - 0"	(5)#4 EA. WAY T.&B.

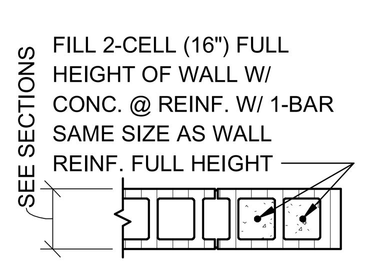


TYPICAL BEAM BEARING ON C.M.U. WALL DETAIL (PERPENDICULAR)

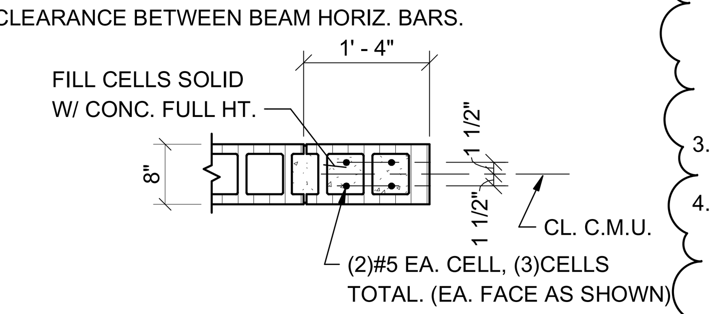
NOTE:
ALL JAMB REINF. SHALL BE CONT. THRU LINTEL. MAINTAIN 3" VERT. BAR SPACING WHERE LINTEL HORIZ. REINF. PASSES BETWEEN VERT. BARS. MAINTAIN 1" CLEARANCE BETWEEN BEAM HORIZ. BARS.



JAMB AT LINTELS BEARING 8"



JAMB AT LINTELS BEARING 16"

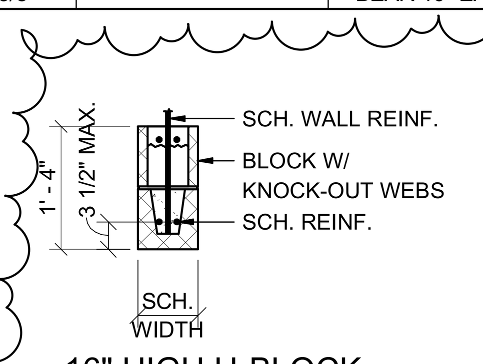


TYPICAL JAMB CONDITION @ CONC. BEAM LINTELS

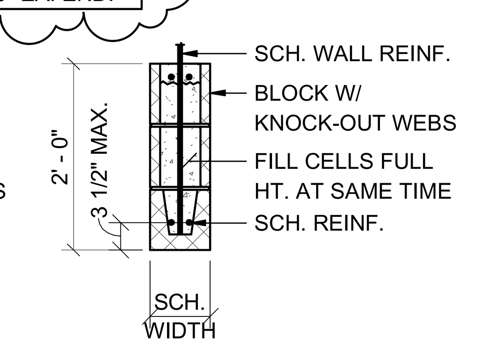
TYPICAL JAMB REINFORCING DETAILS
(UNLESS NOTED OTHERWISE ON DRAWINGS)

Lintel Schedule					
Mark or Location	Max. Span	Type	Size	Reinforcing	Remarks
8"C.M.U.	3'-4"	U-BLOCK	8x8	#5 TOP & BOTTOM	8" HIGH U-BLOCK
8"C.M.U.	6'-4"	U-BLOCK	8x16	(2)#5 TOP & BOTTOM	16" HIGH U-BLOCK
8"C.M.U.	8'-8"	U-BLOCK	8x24	(2)#5 TOP & BOTTOM	24" HIGH U-BLOCK
8"C.M.U.	13'-4"	REINF. CONC. BEAM	7 5/8x16	(2)#5 TOP & BOTTOM W/ #3 @ 6"O.C.	SEE NOTE 4
12"C.M.U.	3'-4"	U-BLOCK	12x8	(2)#5 TOP & BOTTOM	8" HIGH U-BLOCK
12"C.M.U.	8'-0"	U-BLOCK	12x16	(2)#5 TOP & BOTTOM	16" HIGH U-BLOCK
BRICK	6'-4"	STEEL ANGLE	L6x4x5/16		BEAR 8" EA. END
BRICK	10'-0"	STEEL ANGLE	L7x4x3/8		BEAR 16" EA. END.

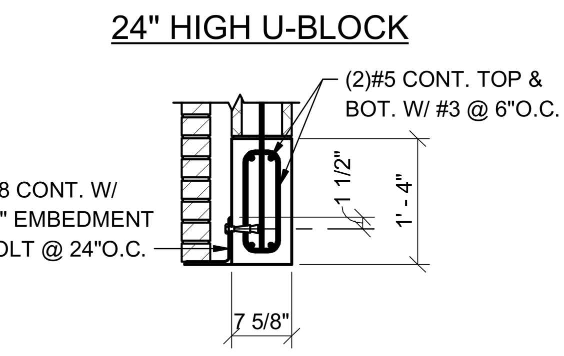
NOTES:
1. BEAR 8" HIGH U-BLOCKS 8" EACH END & 16" & 24" HIGH U-BLOCKS 16" EACH END.
2. FILL CELLS W/ CONCRETE FULL HEIGHT @ U-BLOCK BEARING FOR ENTIRE LENGTH OF BEARING & REINFORCE EACH CELL W/ BAR SAME SIZE AS WALL REINFORCING. VERTICAL REINFORCING SHALL BE CONTINUOUS THRU LINTEL @ BEARING.
3. FILL CELLS OF U-BLOCK LINTEL TO FULL HEIGHT IN ONE POUR.
4. BEAR CONC. BEAMS 16" EA. END. USE REINF. BAR EA. FACE (8"O.C. = 4 BARS TOTAL EA. JAMB). SEE TYP. JAMB CONDITION @ CONC. BEAM LINTELS THIS SHEET.



16" HIGH U-BLOCK



24" HIGH U-BLOCK



16" DEEP CONC. LINTEL

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 = 2500 PSF.THE TESTING AGENCY SHALL VERIFY THAT THE SOILS ARE CAPABLE OF SUSTAINING 2500 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 = 3000 PSI AND A MAXIMUM WATER-CEMENT RATIO OF 0.53. ALL CONCRETE FOR EXTERIOR APPLICATIONS SHALL CONTAIN ENTRAINED AIR. SEE SPECS FOR ADDITIONAL INFORMATION.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 OR ASTM A1064.
4. UNLESS NOTED OTHERWISE PROTECTIVE COVERING OF REINFORCEMENT SHALL BE AS FOLLOWS (SEE DETAILS) : FOOTINGS AND GRADE BEAMS 3" CLEAR BOTTOM AND SIDES, 1 1/2" CLEAR TOP. CONCRETE SLABS 3/4" CLEAR. WALLS 1 1/2" CLEAR SIDES. BEAMS 1 1/2" CLEAR TO STIRRUPS. FORMED CONCRETE COLUMNS 1 1/2" CLEAR TO TIES.
5. LAP ALL CONCRETE WALL VERTICAL REINFORCING AND CONCRETE BEAM HORIZONTAL REINFORCING WITH CLASS B LAP SPLICES. LAP ALL OTHER CONTINUOUS BARS WITH CLASS A SPLICES UNLESS NOTED OTHERWISE.
6. PLACING PLANS AND DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST "A.C.I. DETAILING MANUAL".
7. STEEL FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR THE ARCHITECT AND/OR ENGINEER'S REVIEW.
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 SH0P 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).
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.

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 CALCULATIONS 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 16 GAGE. TRUSS WEB MEMBERS SHALL BE A MINIMUM OF 18 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 CALCULATIONS 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.

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 2018) (ICC)

DESIGN LIVE LOADS:
ROOF.........20 PSF.
MEZZANINE....150 PSF
RISK CATEGORY (PER IBC 2018/ASCE 7-16)..........III
WIND.......INTERNATIONAL BUILDING CODE (PER ASCE 7-16)
ULTIMATE DESIGN WIND SPEED (Vult).........120 MPH
NOMINAL DESIGN WIND SPEED (Vasd)..........93 MPH
WIND EXPOSURE............................C
INTERNAL PRESSURE COEFFICIENTS............+/-0.18
SEISMIC....INTERNATIONAL BUILDING CODE (PER ASCE 7-16)
SEISMIC IMPORTANCE FACTOR.................Ie=1.25
MAPPED SPECTRAL ACCELERATION (SHORT-TERM).Ss=0.3
MAPPED SPECTRAL ACCELERATION (1-SECOND)...S1=0.102
SITE CLASS...............................D
SHORT-PERIOD SPECTRAL RESPONSE ACCEL......Sds=0.312g
1-SECOND SPECTRAL RESPONSE ACCEL..........Sd1=0.163g
SEISMIC DESIGN CATEGORY...................C
SEISMIC FORCE-RESISTING SYSTEM............INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
DESIGN BASE SHEAR (ULTIMATE)..............135k
SEISMIC RESPONSE COEFFICIENT..............Cs=0.114
RESPONSE MODIFICATION FACTOR..............R=3.5
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. (IN TABLE BELOW, ZONE 2 INCLUDES ZONES 2e, 2n, & 2r. ZONE 3 INCLUDES ZONES 3e & 3r.)

ROOF:TRIBUTARY AREA A = 10 SF
ZONE 1: -49.7 PSF/31.3 PSF
ZONE 2: -86.5 PSF/31.3 PSF
ZONE 3: -128.0 PSF/31.3 PSF
ROOF:TRIBUTARY AREA A = 100 SF
ZONE 1: -45.1PSF/22.1PSF
ZONE 2: -63.5PSF/22.1PSF
ZONE 3: -100.4PSF/22.1PSF
WALL:TRIBUTARY AREA A = 10 SF
ZONE 4: -58.9PSF/54.3PSF
ZONE 5: -72.7PSF/54.3PSF
WALL:TRIBUTARY AREA A = 50 SF
ZONE 4: -53.3PSF/48.7PSF
ZONE 5: -61.4PSF/48.7PSF
WALL:TRIBUTARY AREA A = 100 SF
ZONE 4: -50.8PSF/46.2PSF
ZONE 5: -56.5PSF/46.2PSF
CORNER ZONE =5 FT

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

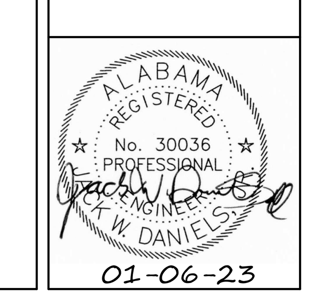
SEISMIC REQUIREMENTS FOR SPECIAL INSPECTIONS:
1. THE FOLLOWING STRUCTURAL COMPONENTS ARE DESIGNATED AS SEISMIC SYSTEMS AND/OR PART OF THE SEISMIC-FORCE-RESISTING SYSTEM OF THE BUILDING AND ARE SUBJECT TO THE REQUIREMENTS OF SECTIONS 1705.12 AND 1705.13 OF IBC 2018 AND PROJECT SPECIFICATIONS:
SHEAR WALLS (INCL. ANCHORAGE TO FOUNDATION)
THESE SPECIFIC COMPONENTS ARE IN ADDTION TO ALL GENERAL COMPONENTS LISTED IN SECTIONS 1705.12 AND 1705.13 OF IBC 2018 AND ARE SUBJECT TO ALL SPECIAL INSPECTIONS AND TESTING AS REQUIRED BY CHAPTER 17 OF IBC 2018, 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.

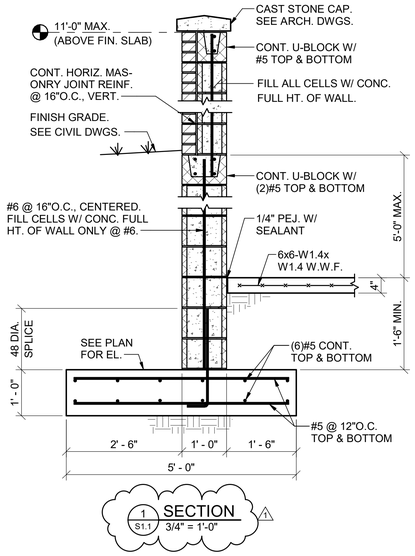
WIND REQUIREMENTS FOR SPECIAL INSPECTIONS:
1. THE FOLLOWING STRUCTURAL COMPONENTS ARE DESIGNATED AS WIND SYSTEMS AND/OR PART OF THE MAIN WINDFORCE-RESISTING SYSTEM OF THE BUILDING AND ARE SUBJECT TO THE REQUIREMENTS OF SECTION 1705.11 OF IBC 2018 AND PROJECT SPECIFICATIONS:
ROOF DIAPHRAGM SYSTEM AND ATTACHMENT
LOAD-BEARING CMU (SHEAR) WALLS
JOIST CONNECTIONS TO SHEAR WALLS
SHEAR WALL ANCHORAGE TO FOUNDATION
THESE SPECIFIC COMPONENTS ARE IN ADDTION TO ALL GENERAL COMPONENTS LISTED IN SECTION 1705.11 OF IBC 2018 AND ARE SUBJECT TO ALL SPECIAL INSPECTIONS AND TESTING AS REQUIRED BY CHAPTER 17 OF IBC 2018, 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.

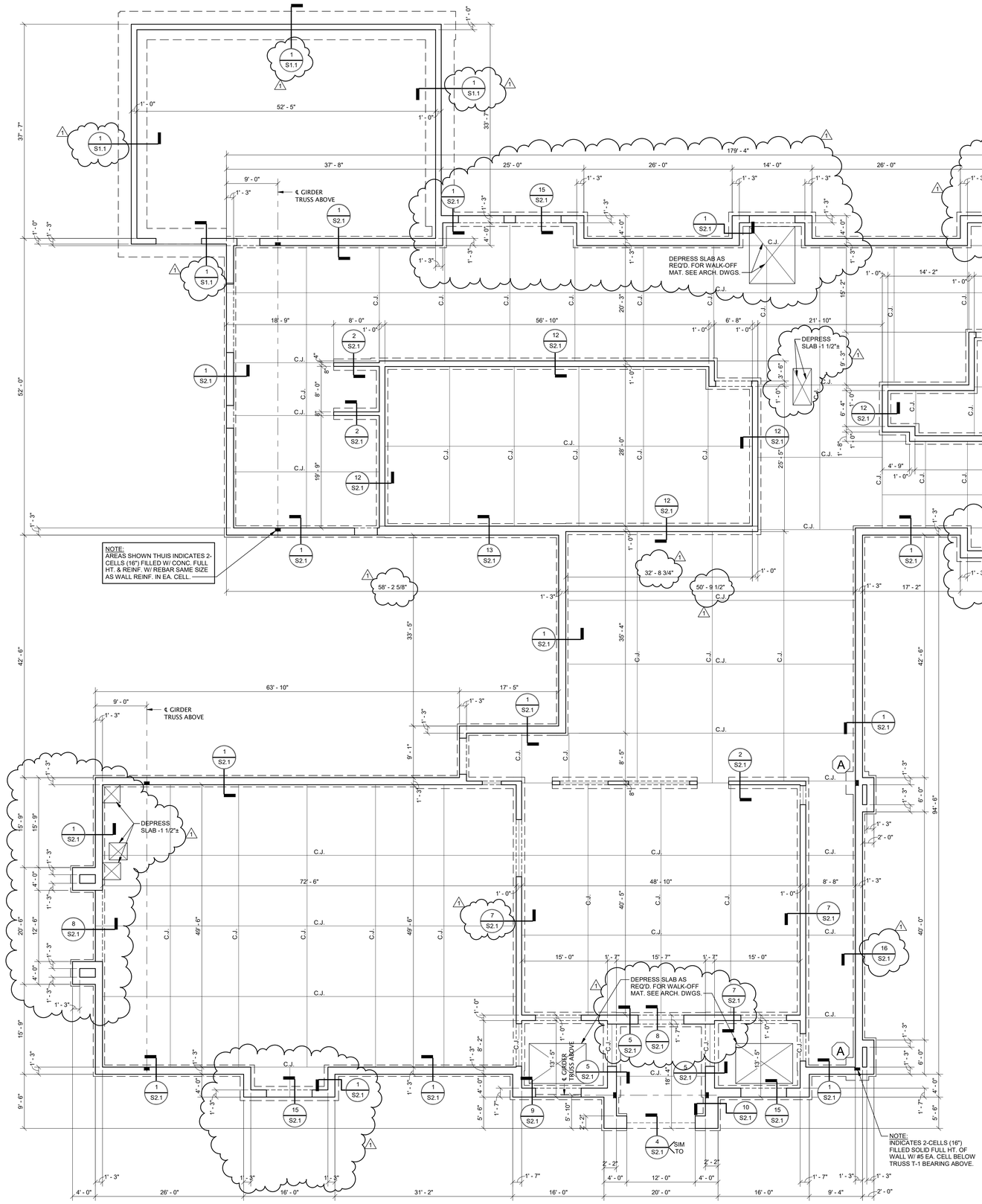
SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

Job Number: 12072
Date: 03/16/2022
Drawn By
Checked By
Project Title: A New Security & Services Training Facility 117th Air Refueling Wing Birmingham, Alabama
Sheet Title: General Notes / Schedules / Typical Details
Sheet Number: S0.1







FIRST FLOOR AND FOUNDATION PLAN - BASE BID

1/8" = 1'-0"

FLOOR CONSTRUCTION

4" THICK CONCRETE SLAB W/ 6x6-W1.4x W1.4 W.W.F. OVER VAPOR BARRIER OVER 4" POUROUS FILL.
FINISH FLOOR EL.=+0'-0"

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

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

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Greensboro Avenue, Tuscaloosa, AL 35401
Tel. 334. 203. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

Job Number: 12072

Date: 03/16/2022

Drawn By

Checked By

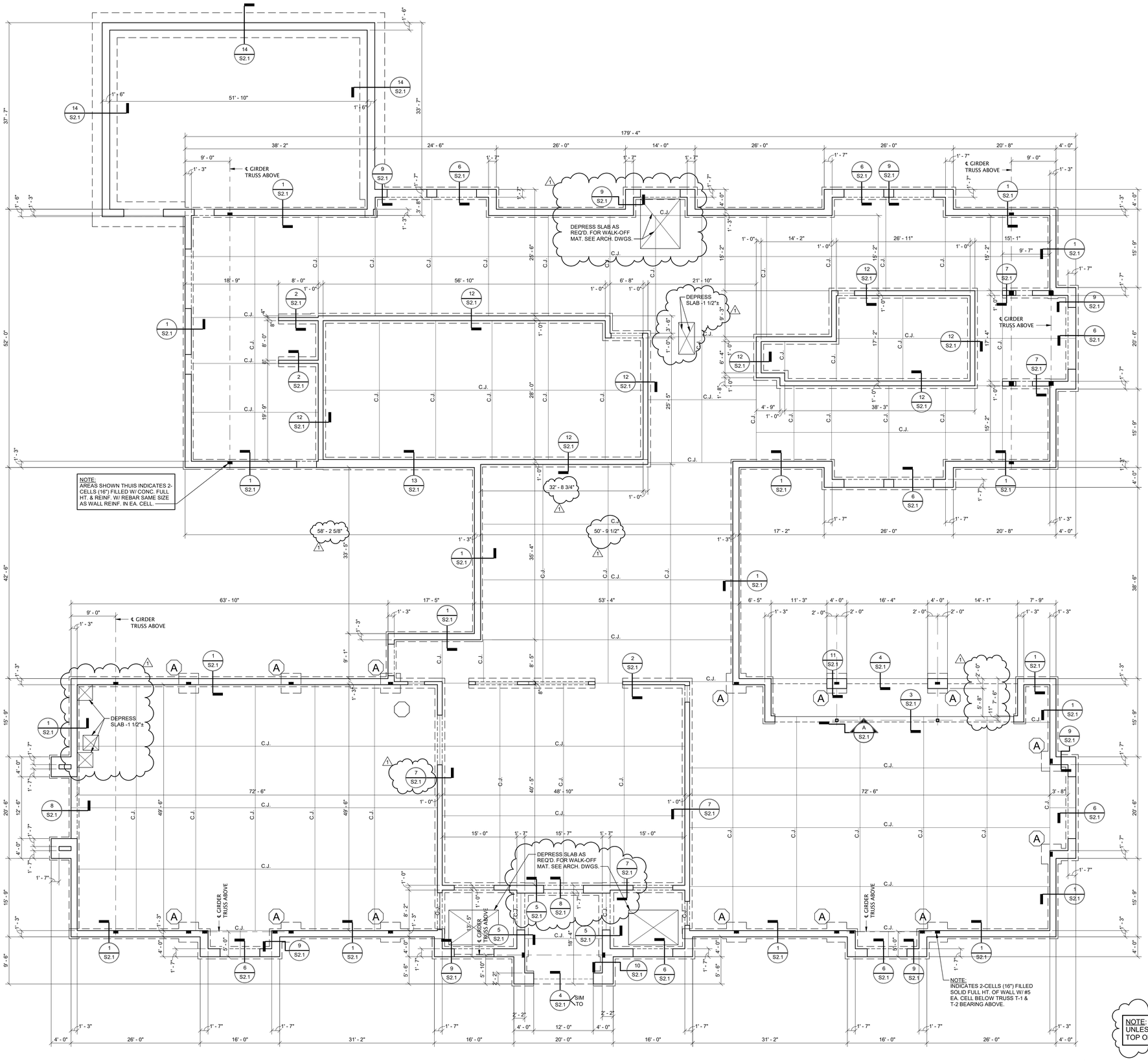
Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, Alabama

Sheet Title: First Floor and Foundation Plan - (Base Bid)

Sheet Number: S1.1

ALABAMA REGISTERED PROFESSIONAL No. 30036 ENGINEER K. W. DANIELSON

01-06-23



FIRST FLOOR AND FOUNDATION PLAN - BID OPTION

1/8" = 1'-0"

FLOOR CONSTRUCTION

4" THICK CONCRETE SLAB W/ 6x6-W1.4x W1.4 W.W.F. OVER VAPOR BARRIER OVER 4" POUROUS FILL. FINISH FLOOR EL.=+0'-0"

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

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

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Governor's Drive, Huntsville, AL 35805
Tel. 334.303.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

Job Number: 12072

Date: 03/16/2022

Drawn By:

Checked By:

Project Title:

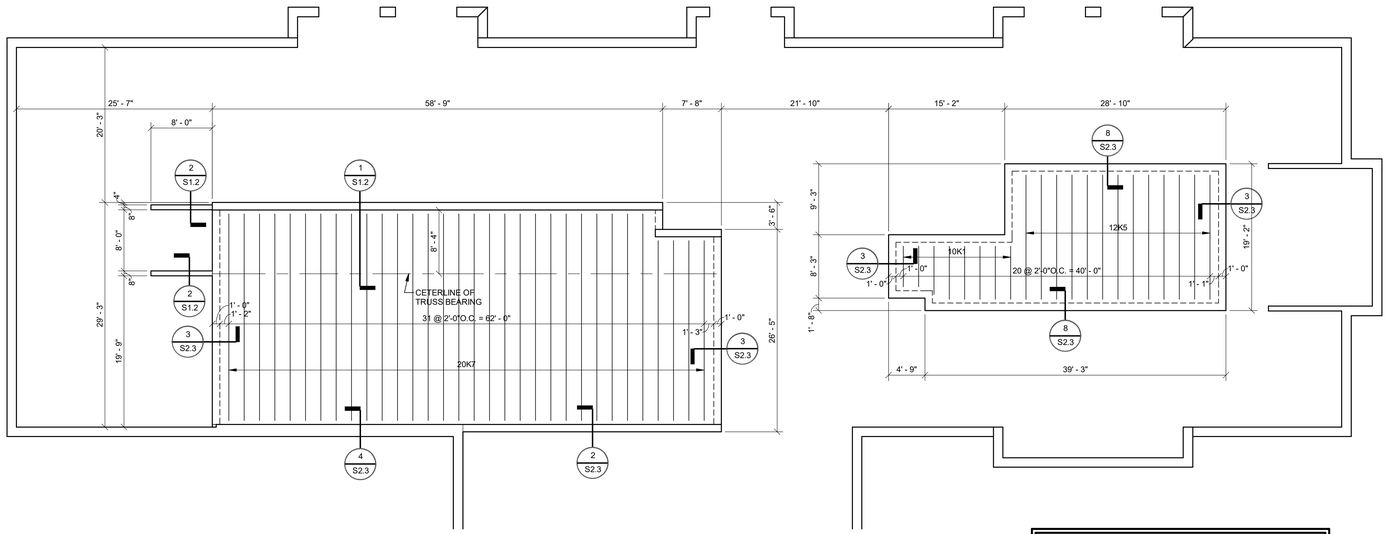
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, Alabama

Sheet Title: First Floor and Foundation Plan - (Bid Option)

Sheet Number: S1.1A

ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER J. W. DANIELS

01-06-23



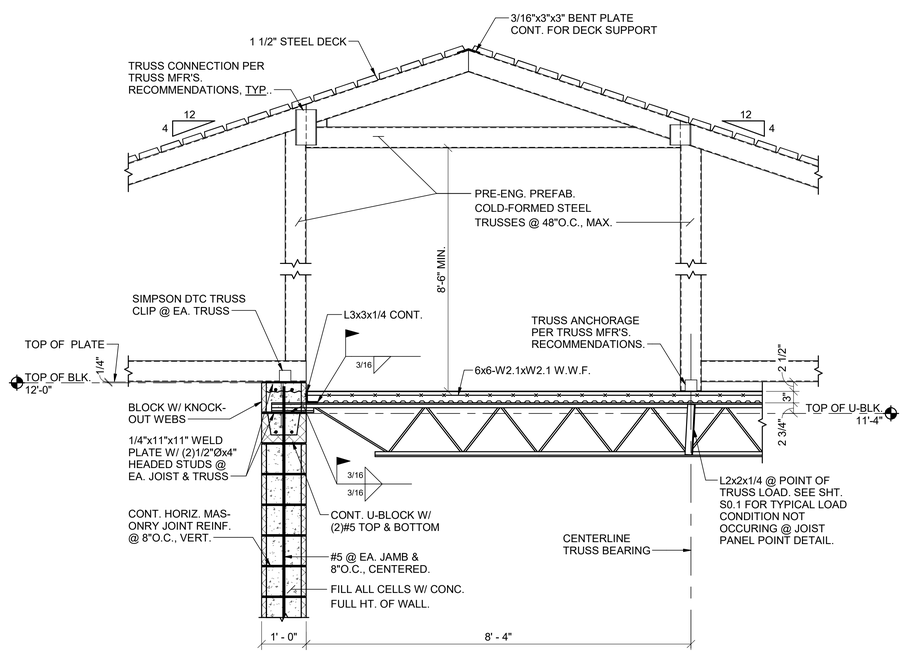
Mezzanine & Structural Ceiling Framing Plan

1/8" = 1'-0"

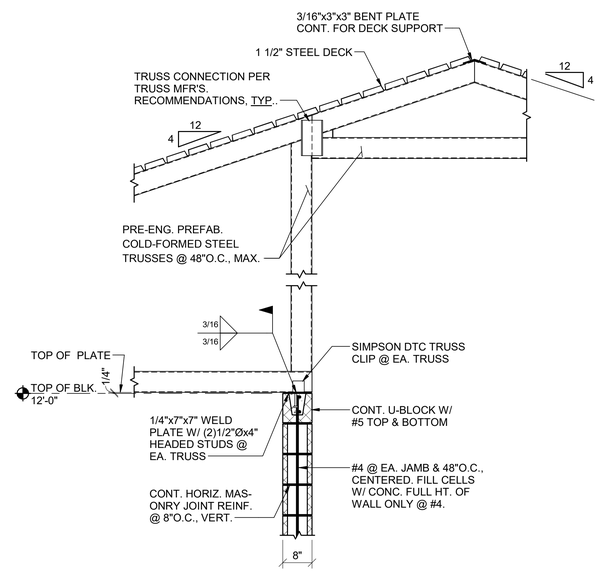
MECHANICAL MEZZANINE FLOOR & CEILING CONSTRUCTION

3" THICK NORMAL WEIGHT CONCRETE SLAB W/ 6x6-W2.1xW2.1 W.W.F. 3/4" CLEAR TOP, OVER STANDARD GALVANIZED, 28 GAGE STEEL FORM DECK W/ THE FOLLOWING SECTION PROPERTIES:

$S_+=0.036$ IN.^{3} $S_-=0.037$ IN.^{3} $I=0.011$ IN.^{4}



1 S1.2 **SECTION** 3/4" = 1'-0"



2 S1.2 **SECTION** 3/4" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Governor's Drive, Huntsville, AL 35805
Tel 334.303.5102 | WWW.SSLARCH.COM

Rev.	Description	Date

Job Number: 12072

Date: 03/16/2022

Drawn By:

Checked By:

Project Title:

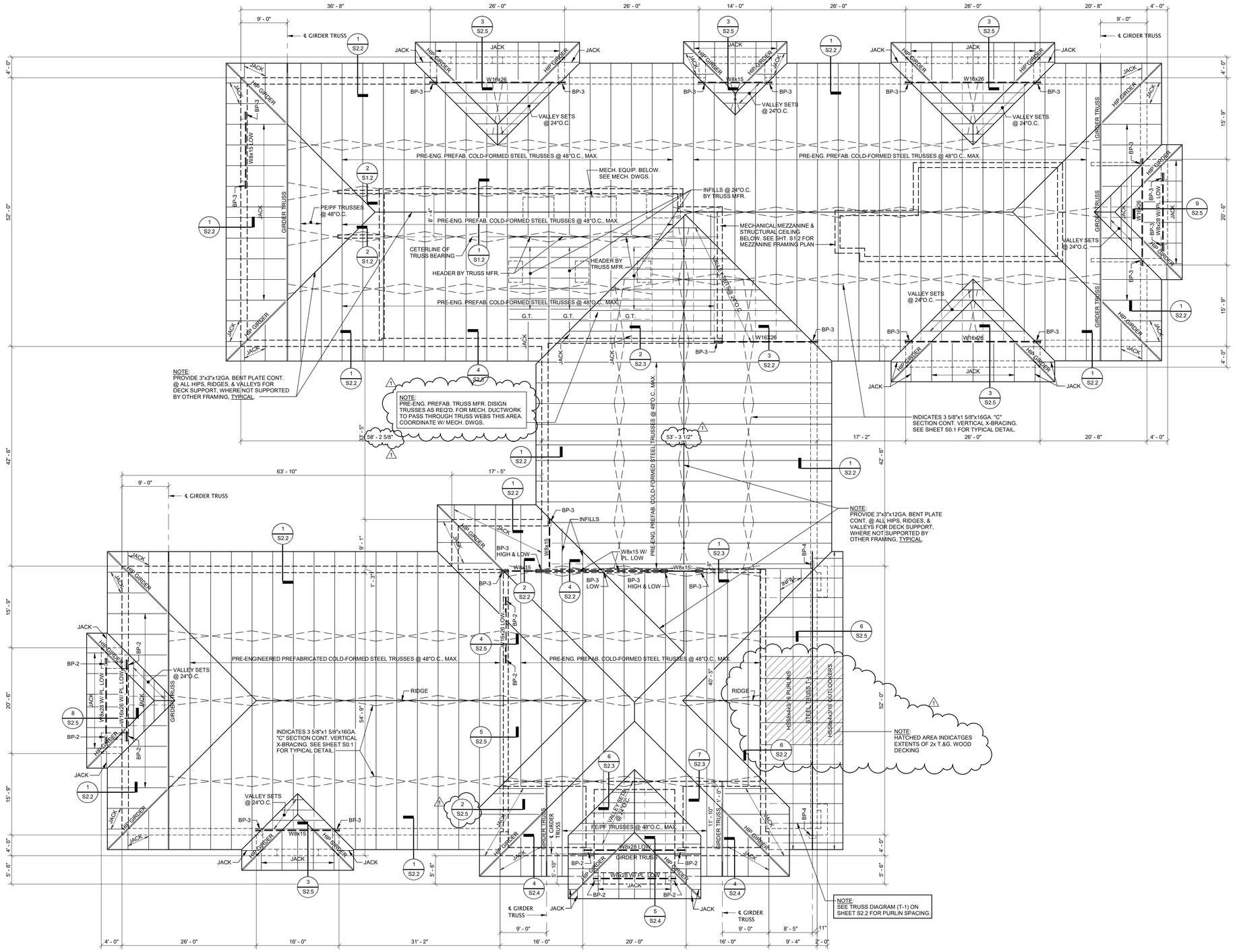
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, Alabama

Sheet Title: Mezzanine Framing Plan

Sheet Number: S1.2

ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER T. W. DANIELS

01-06-23



ROOF FRAMING PLAN - BASE BID

1/8" = 1'-0"

ROOF CONSTRUCTION

1 1/2" DEEP, 22 GAGE, WIDE RIB STEEL DECK W/ THE MINIMUM SECTION PROPERTIES PER FOOT OF WIDTH:

$S=0.19\ IN.^3$ $I=0.16\ IN.^4$

OR 2x TONGUE & GROOVE WOOD DECKING OVER PRE-ENGINEERED PREFABRICATED COLD-FORMED STEEL TRUSSES @ 48"O.C., MAX. OR HSS PURLINS. SEE TRUSS DIAGRAMS ON SHEET S2.2 FOR PURLIN SPACING.

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Cortez St. Birmingham, AL 35204
Tel. 334. 303. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

Job Number: 12072

Date: 03/16/2022

Drawn By

Checked By

Project Title

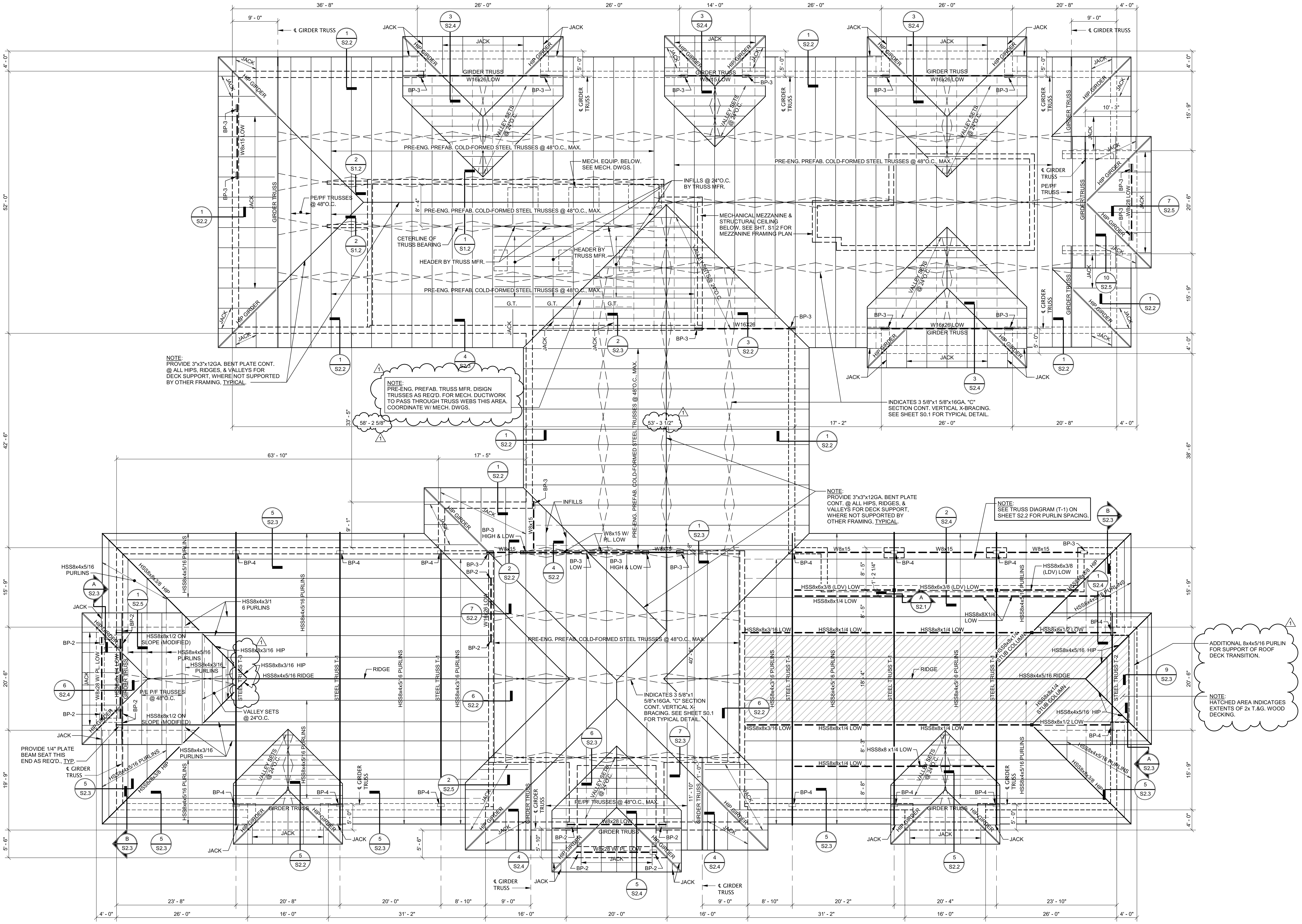
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, Alabama

Sheet Title: Roof Framing Plan - (Base Bid)

Sheet Number: S1.3

ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER JACK W. DANIELS

01-06-23



ROOF FRAMING PLAN - BID OPTION

1/8" = 1'-0"

ROOF CONSTRUCTION

1 1/2" DEEP, 22 GAGE, WIDE RIB STEEL DECK W/ THE MINIMUM SECTION PROPERTIES PER FOOT OF WIDTH:
S=0.19 IN.³ I=0.16 IN.⁴
OR 2x TONGUE & GROOVE WOOD DECKING OVER PRE-ENGINEERED PREFABRICATED COLD-FORMED STEEL TRUSSES @ 48"O.C., MAX. OR HSS PURLINS. SEE TRUSS DIAGRAMS ON SHEET S2.2 FOR PURLIN SPACING.

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

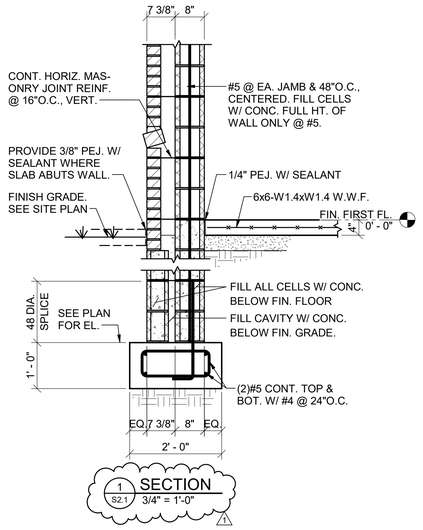
Job Number 12072
Date 03/16/2022
Drawn By
Checked By
Project Title

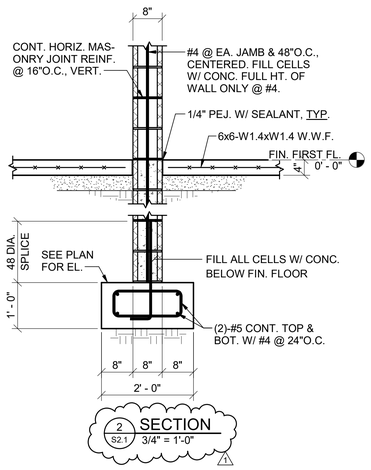
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, Alabama

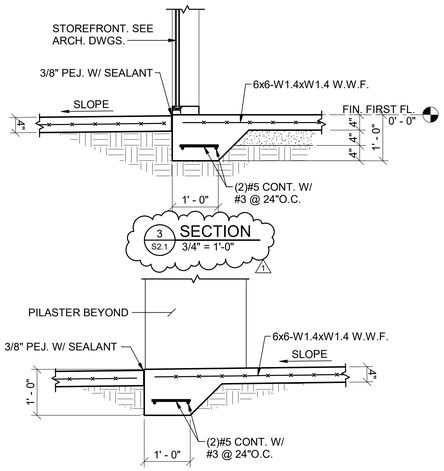
Sheet Title
Roof Framing Plan - (Bid Option)

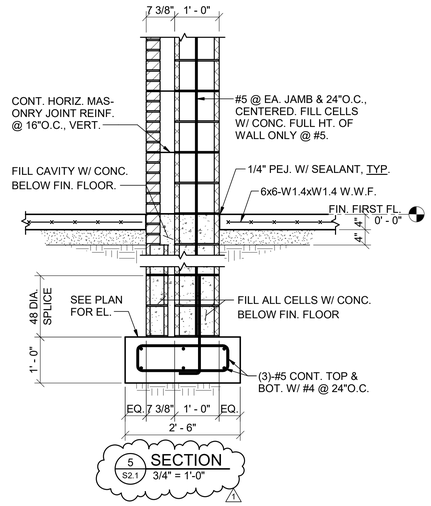
Sheet Number
S1.3A

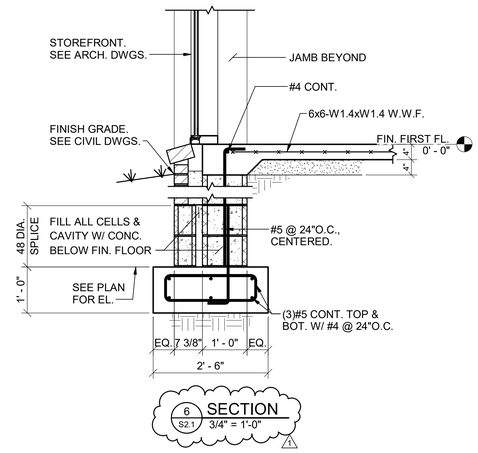
ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER K. W. DANIELS
01-06-23

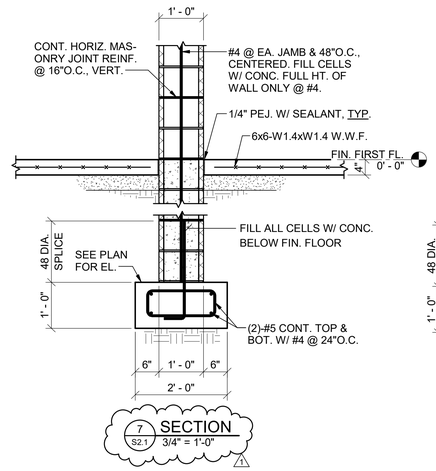


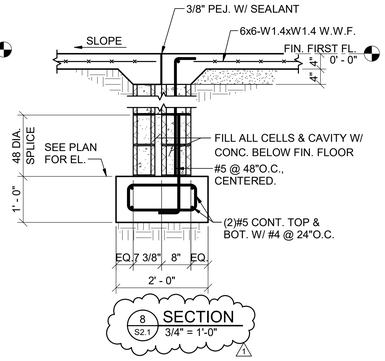


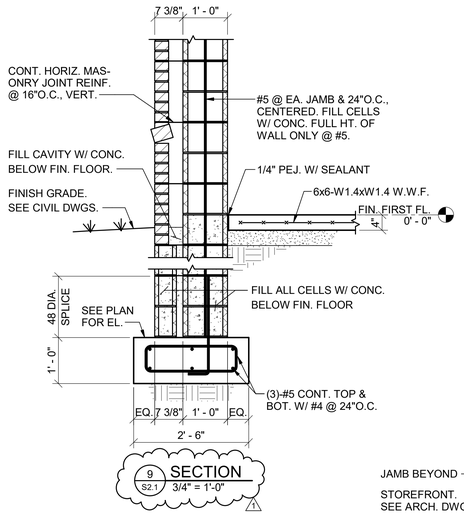


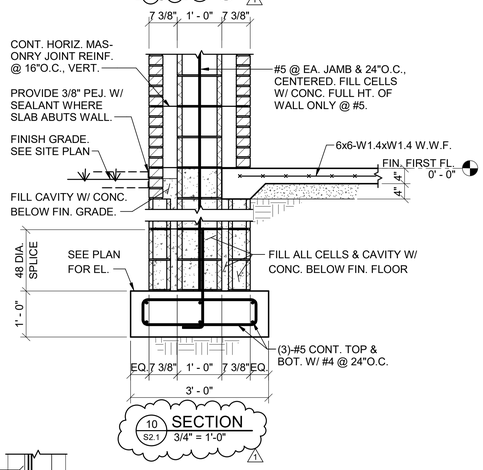


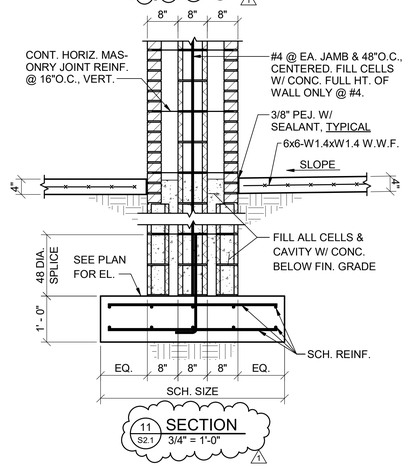


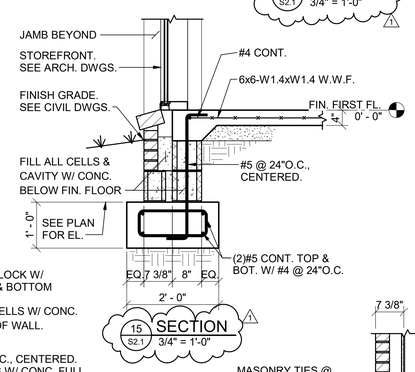


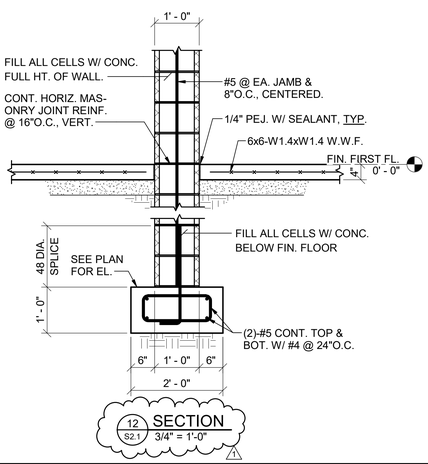


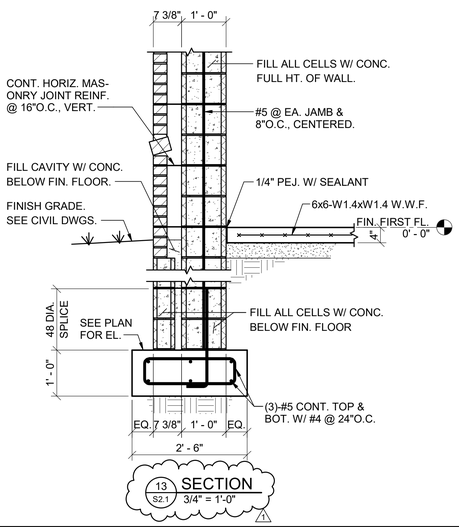


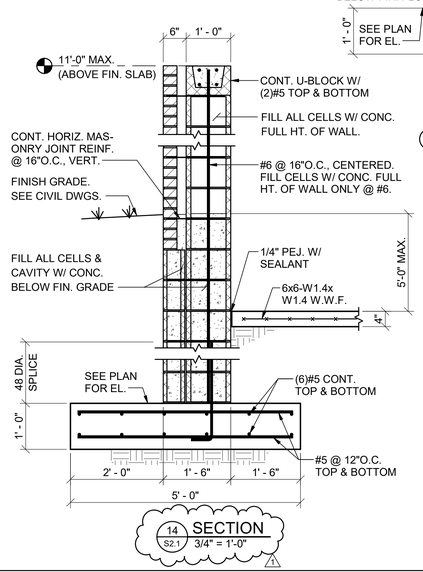


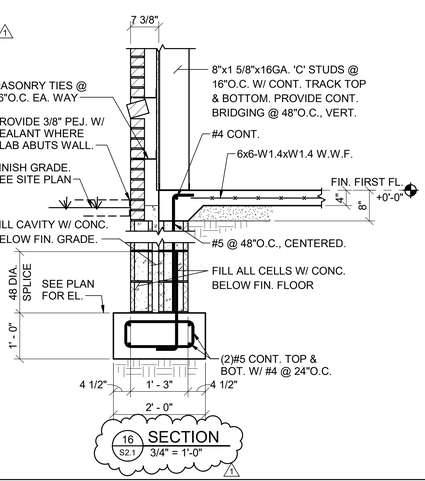


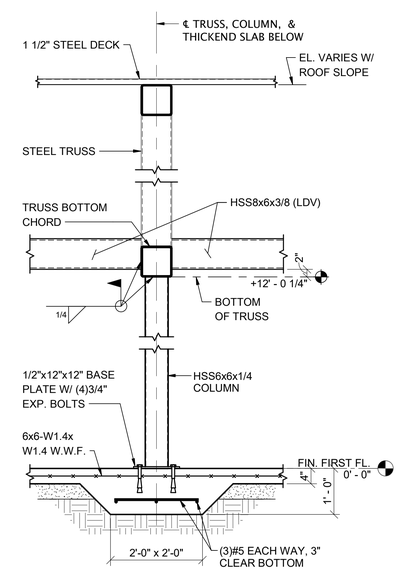












S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Caroline Street | Birmingham, AL 35205
Tel. 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

Job Number: 12072

Date: 03/16/2022

Drawn By

Checked By

Project Title

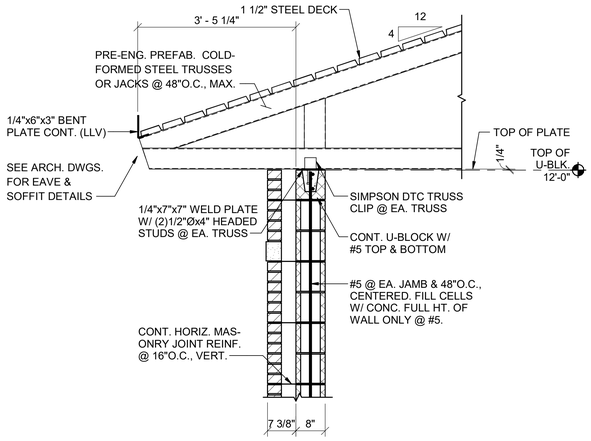
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, Alabama

Sheet Title: Sections and Details

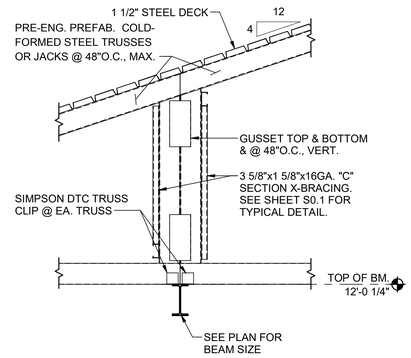
Sheet Number: S2.1

ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER K. W. DANIELS

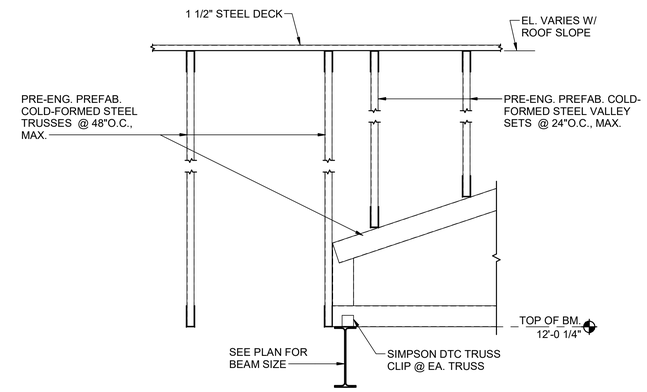
01-06-23



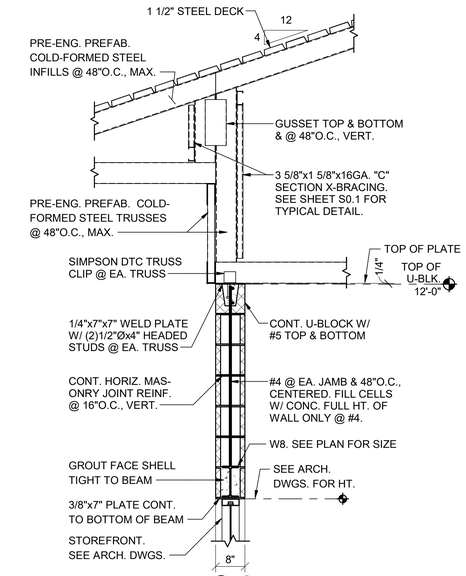
1 S2.2 SECTION 3/4" = 1'-0"



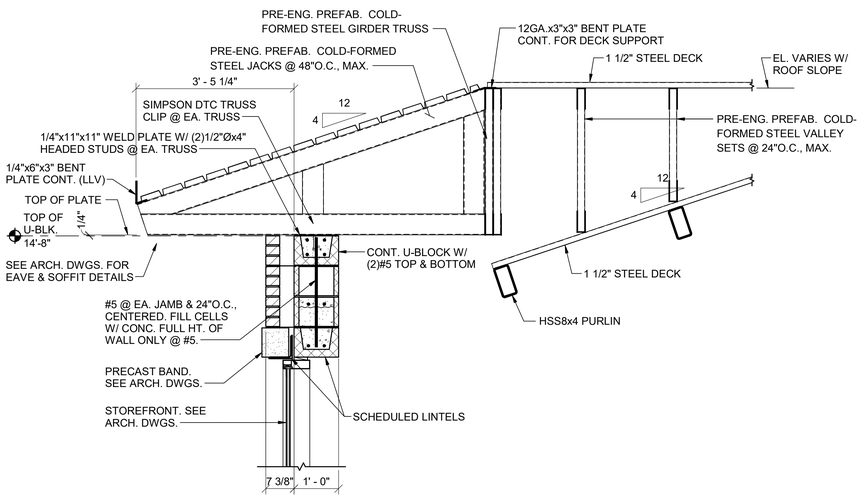
2 S2.2 SECTION 3/4" = 1'-0"



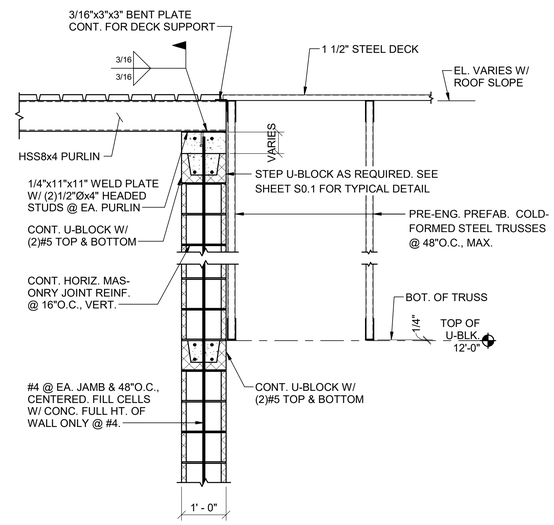
3 S2.2 SECTION 3/4" = 1'-0"



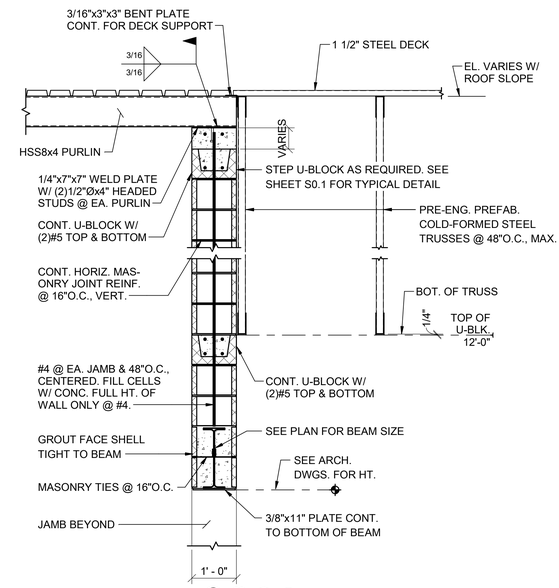
4 S2.2 SECTION 3/4" = 1'-0"



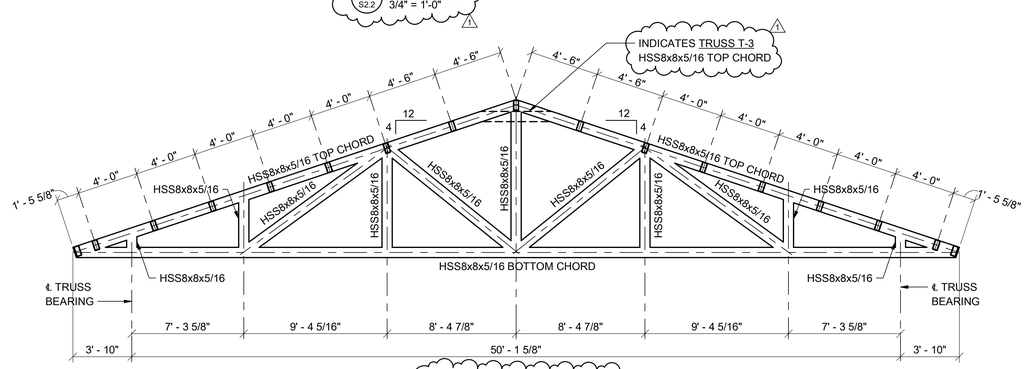
5 S2.2 SECTION 3/4" = 1'-0"



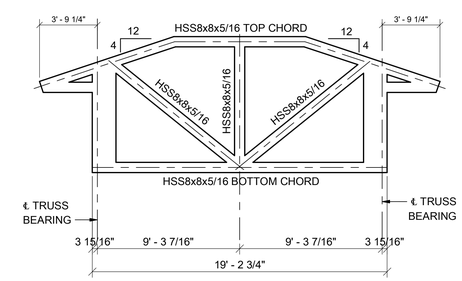
6 S2.2 SECTION 3/4" = 1'-0"



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



TRUSS T-1 & TRUSS T-3



TRUSS T-2

TRUSS DIAGRAMS

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Gordon Avenue, Birmingham, AL 35205
Tel. 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

Job Number: 12072

Date: 03/16/2022

Drawn By

Checked By

Project Title

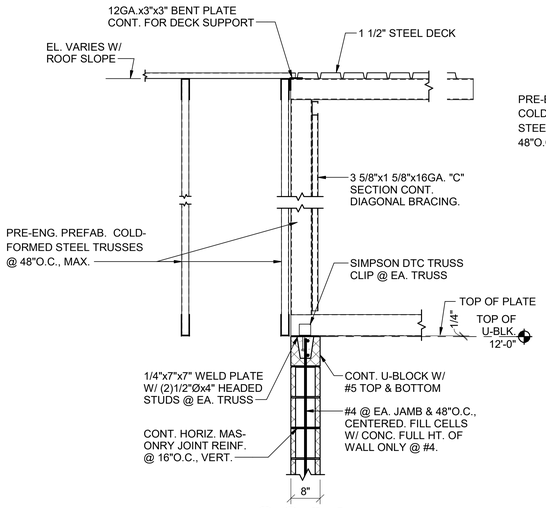
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, Alabama

Sheet Title: Sections and Details

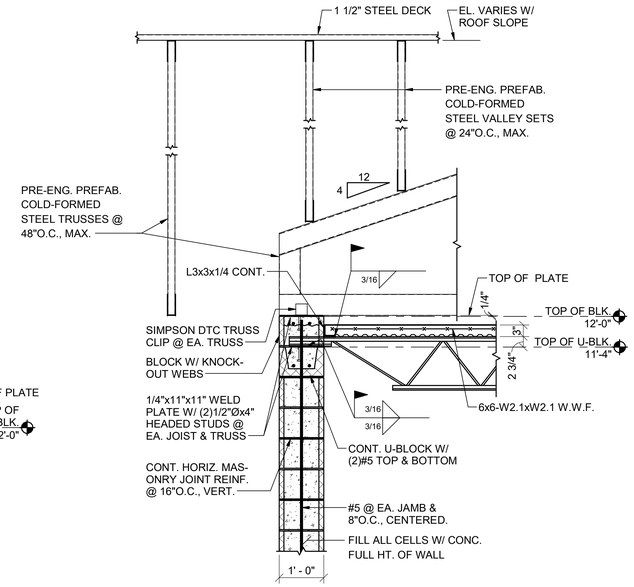
Sheet Number: S2.2

ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER T. W. DANIELS

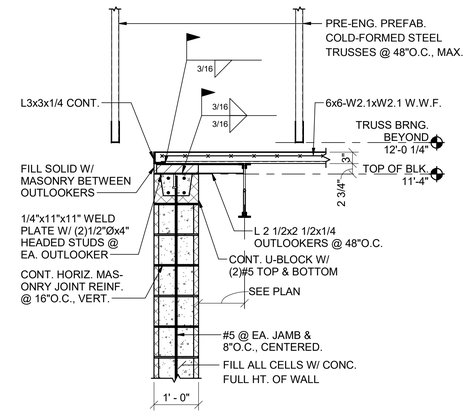
01-06-23



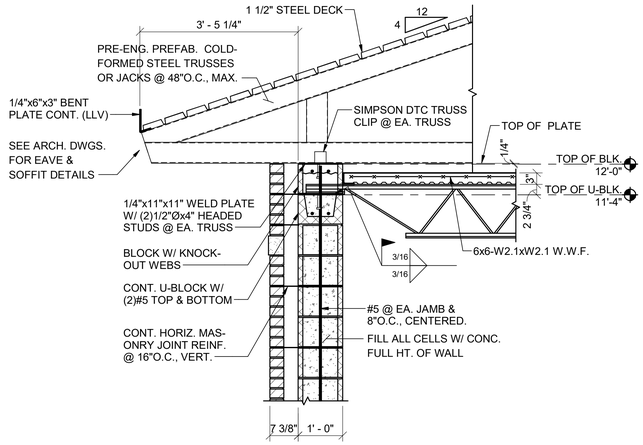
1 SECTION S2.3 3/4" = 1'-0"



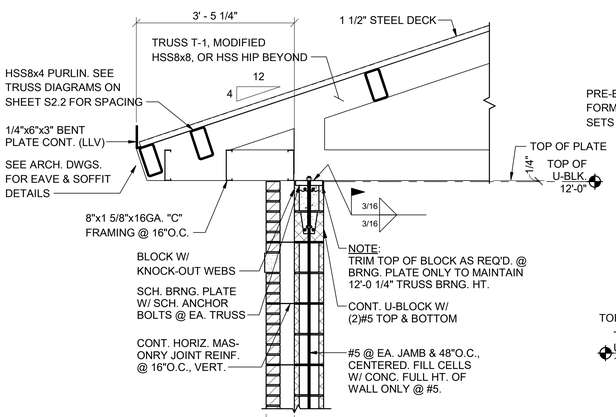
2 SECTION S2.3 3/4" = 1'-0"



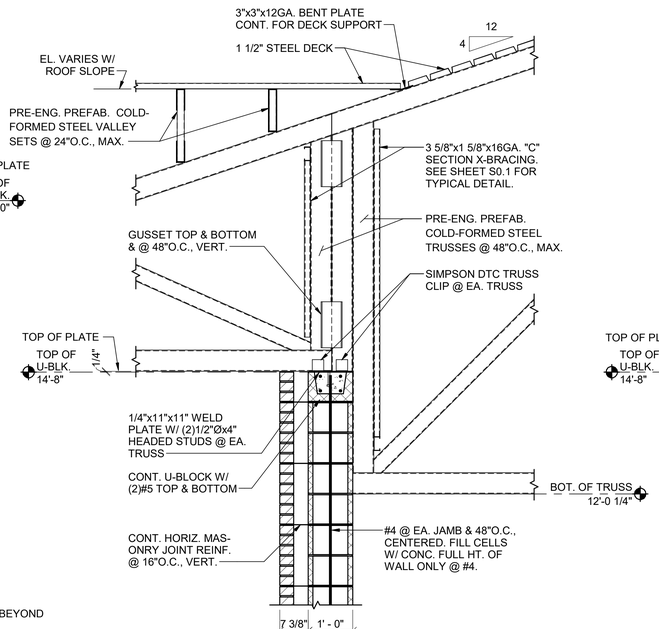
3 SECTION S2.3 3/4" = 1'-0"



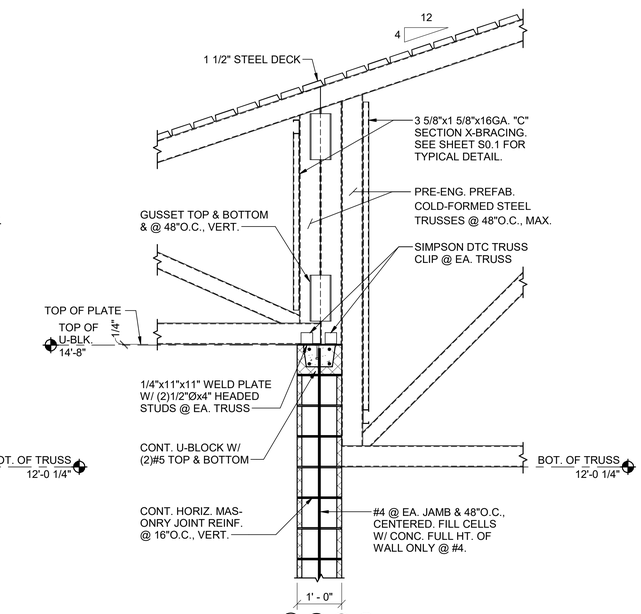
4 SECTION S2.3 3/4" = 1'-0"



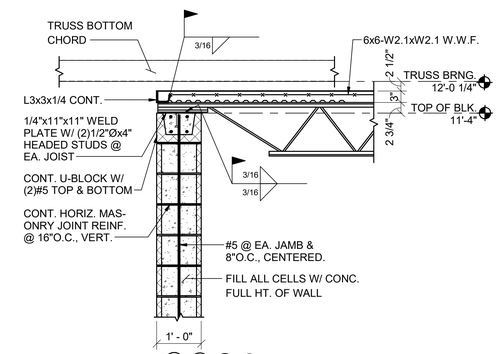
5 SECTION S2.3 3/4" = 1'-0"



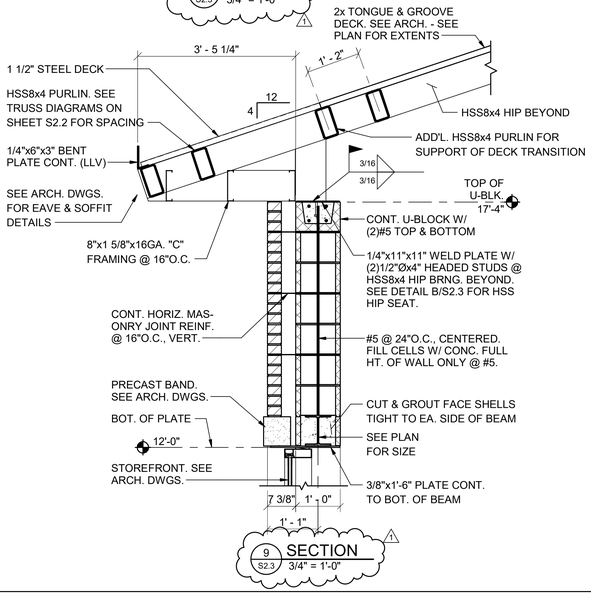
6 SECTION S2.3 3/4" = 1'-0"



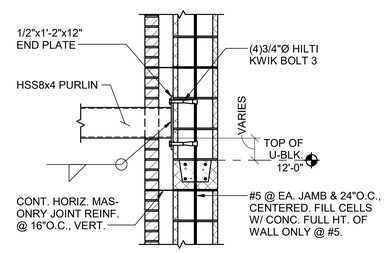
7 SECTION S2.3 3/4" = 1'-0"



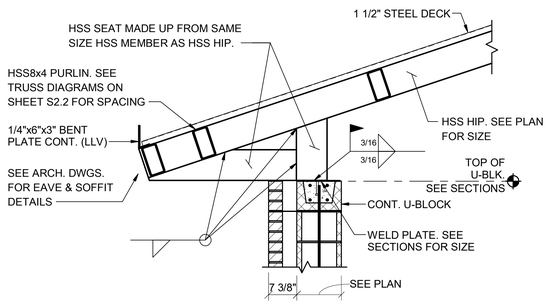
8 SECTION S2.3 3/4" = 1'-0"



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



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



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

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade, Birmingham, AL 35205
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

Job Number: 12072

Date: 03/16/2022

Drawn By

Checked By

Project Title

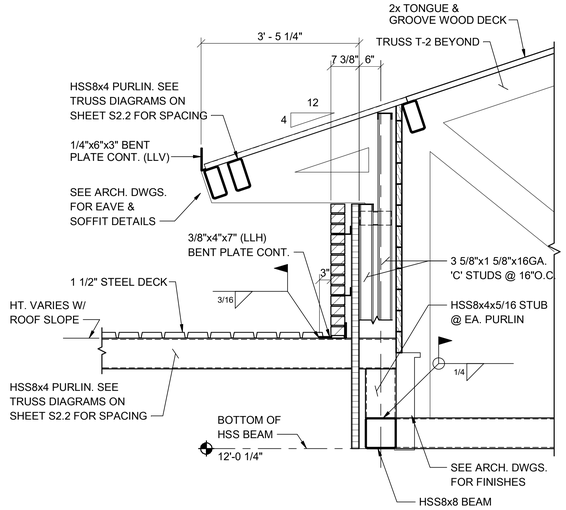
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, Alabama

Sheet Title: Sections and Details

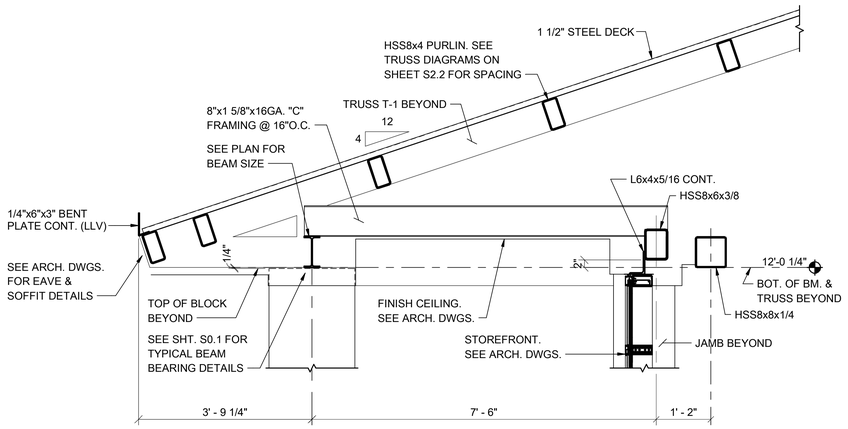
Sheet Number: S2.3

ALABAMA REGISTERED No. 30036 PROFESSIONAL ENGINEER K. W. DANIELSON

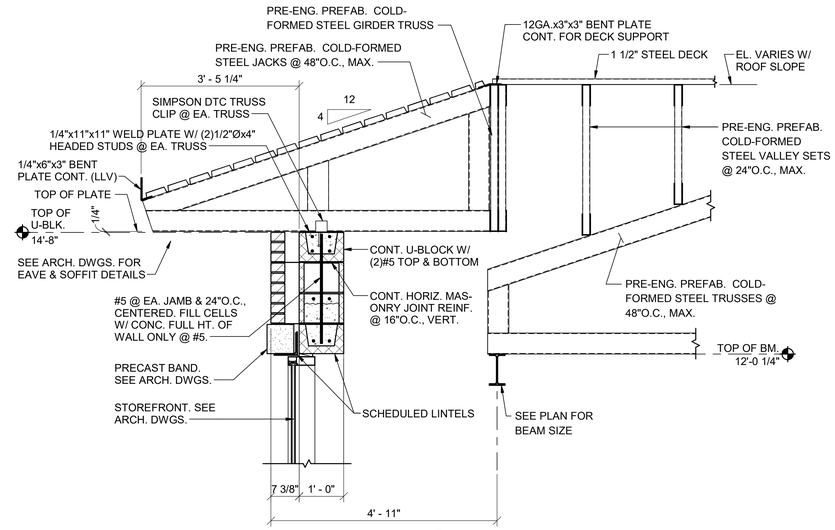
01-06-23



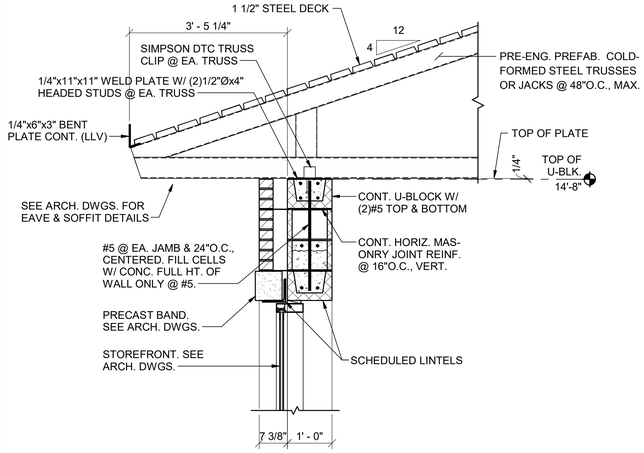
1 S2.4 SECTION
3/4" = 1'-0"



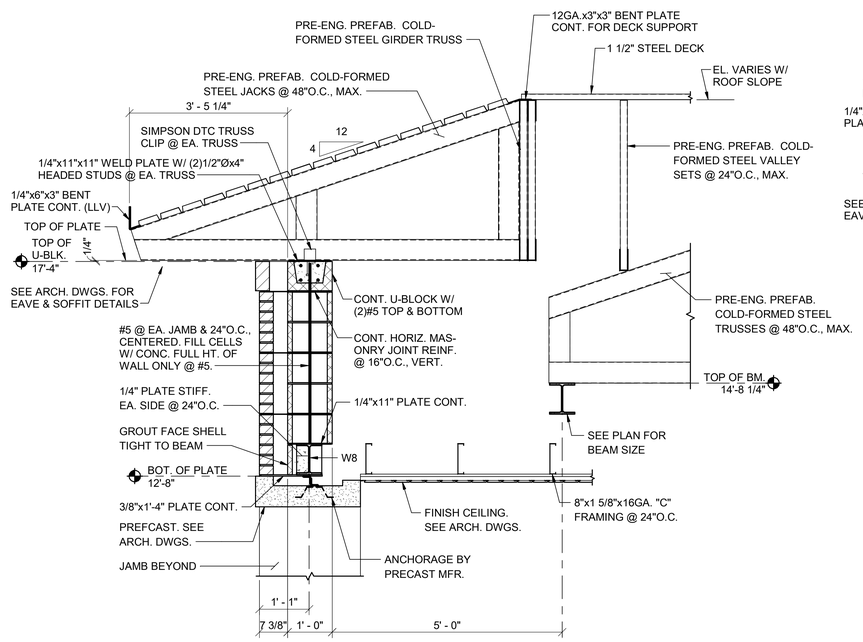
2 S2.4 SECTION
3/4" = 1'-0"



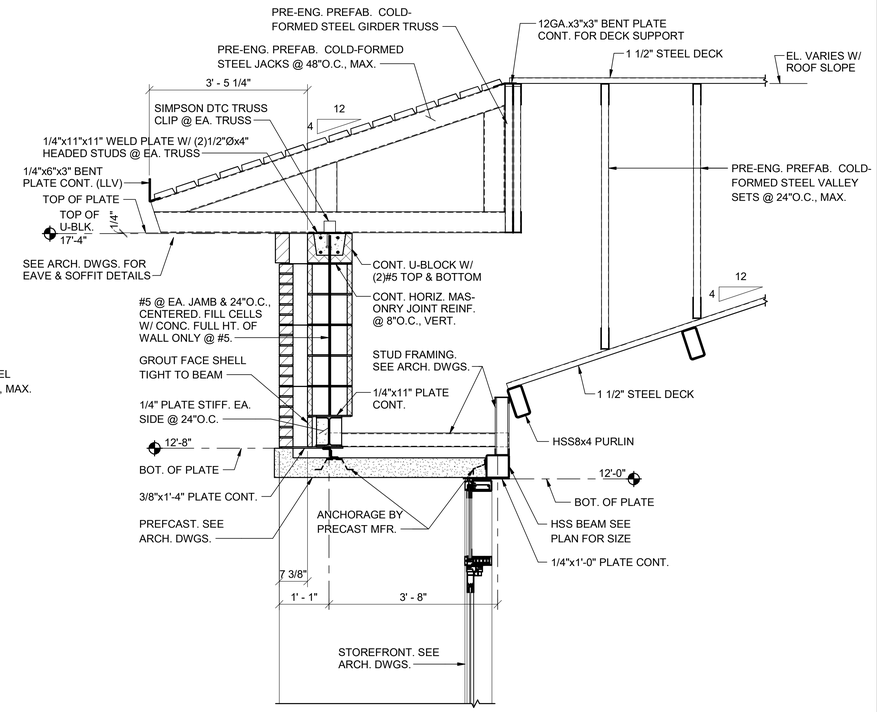
3 S2.4 SECTION
3/4" = 1'-0"



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



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



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

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade Parkway, Birmingham, AL 35205
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

Job Number: 12072

Date: 03/16/2022

Drawn By

Checked By

Project Title

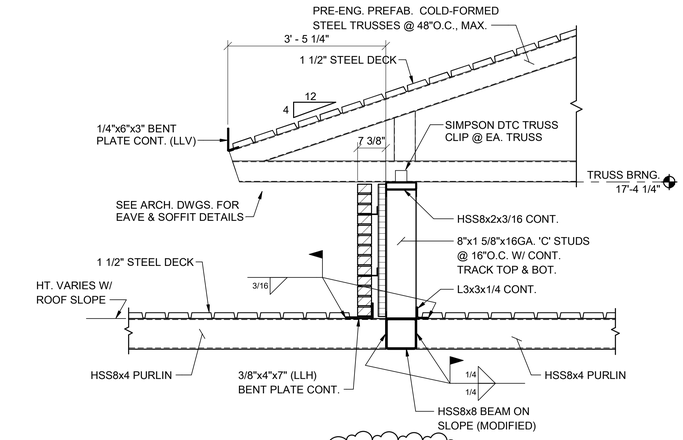
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, Alabama

Sheet Title: Sections and Details

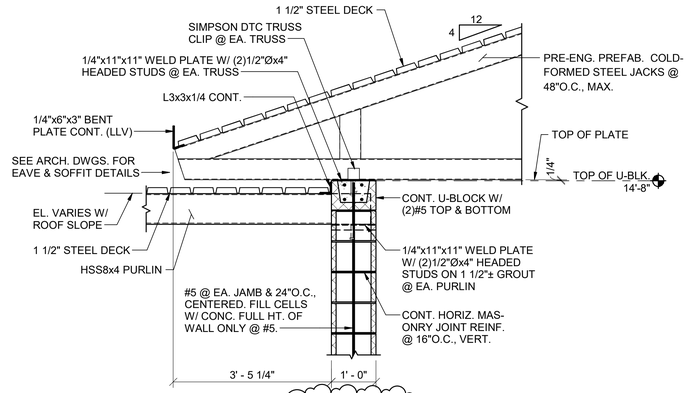
Sheet Number: S2.4

ALABAMA REGISTERED PROFESSIONAL ENGINEER No. 30036 JACK W. DANIEL

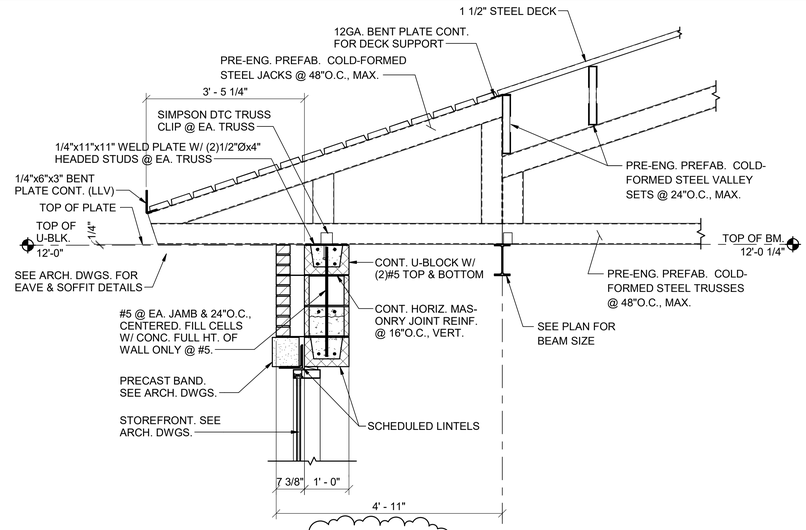
01-06-23



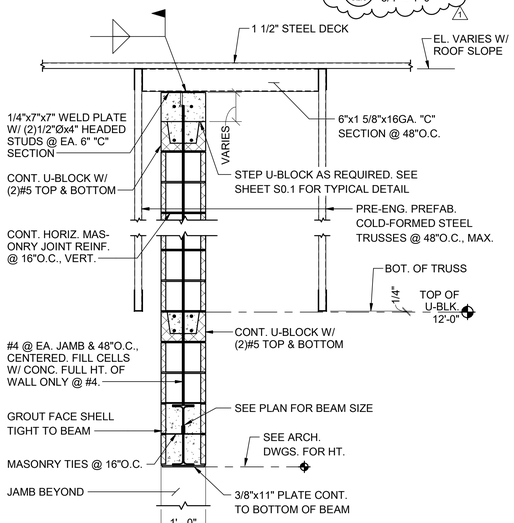
1 SECTION S2.5 3/4" = 1'-0"



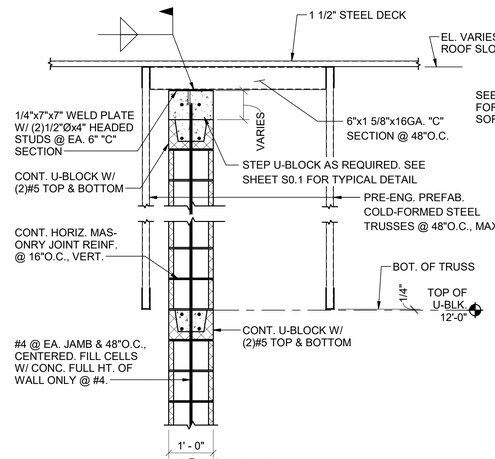
2 SECTION S2.5 3/4" = 1'-0"



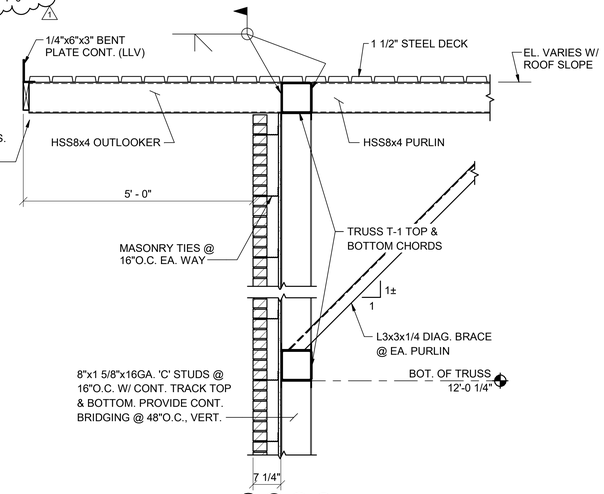
3 SECTION S2.5 3/4" = 1'-0"



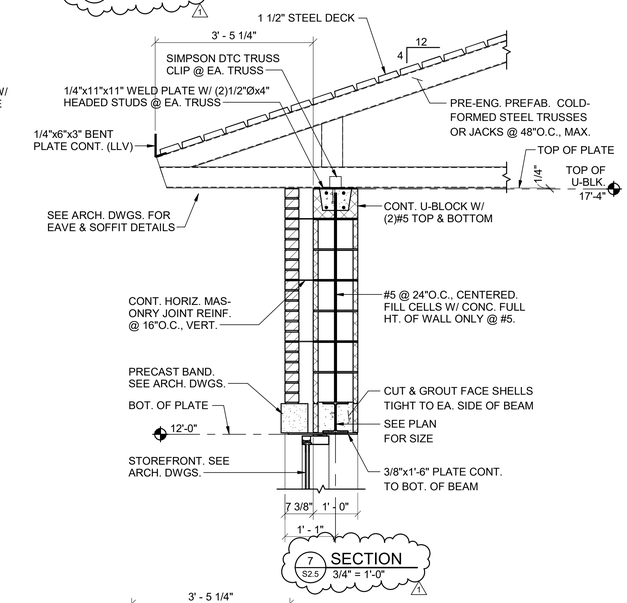
4 SECTION S2.5 3/4" = 1'-0"



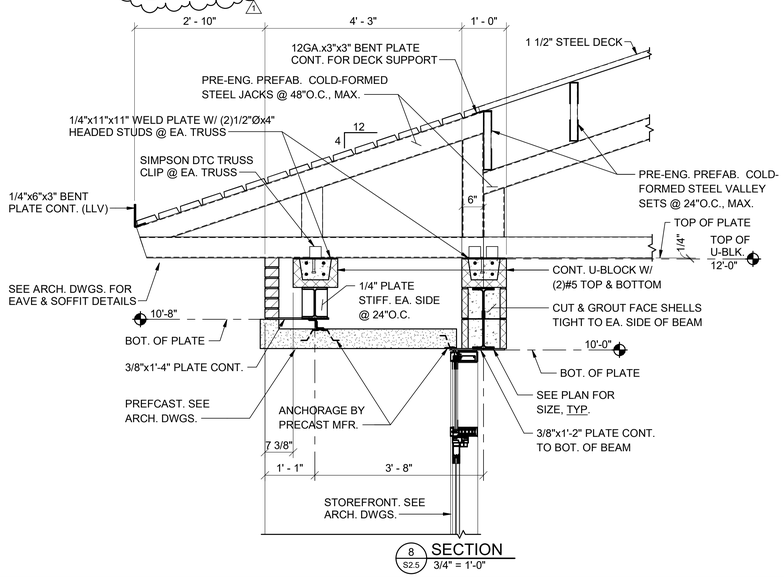
5 SECTION S2.5 3/4" = 1'-0"



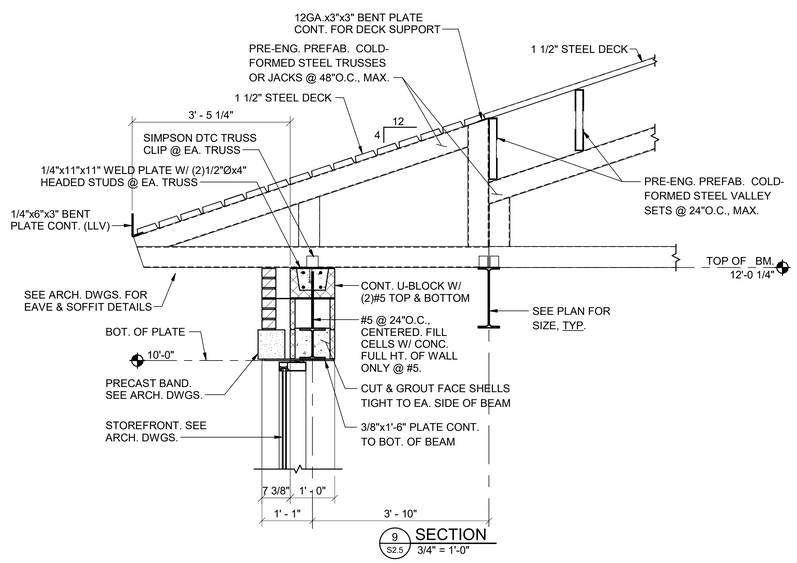
6 SECTION S2.5 3/4" = 1'-0"



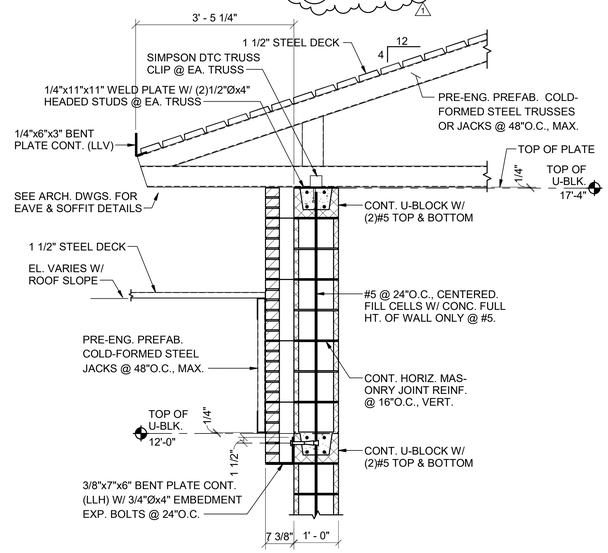
7 SECTION S2.5 3/4" = 1'-0"



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



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



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

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 Shades Crest Road, Vestavia Hills, AL 35216
Tel. 334.303.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	Add. #2	01-06-23

Job Number: 12072

Date: 03/16/2022

Drawn By

Checked By

Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, Alabama

Sheet Title: Sections and Details

Sheet Number: S2.5

ALABAMA REGISTERED PROFESSIONAL ENGINEER No. 30036 JACK W. DANIELS

01-06-23

HVAC LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CEILING DIFFUSER – SUPPLY RECTANGULAR WITH ROUND NECK 4–WAY THROW UNLESS OTHERWISE INDICATED		MANUAL VOLUME DAMPER OPPOSED BLADE		STANDARD 90° RADIUS ELBOW
	CEILING DIFFUSER – RETURN RECTANGULAR WITH SQUARE NECK	M	LOW LEAKAGE MOTORIZED VOLUME DAMPER		STANDARD 45° RADIUS ELBOW
	SIDEWALL DIFFUSER – SUPPLY WITH MULTI–VANE DEFLECTOR	SD	SMOKE DETECTOR FOR FAN SHUT–DOWN		90° VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
	SIDEWALL DIFFUSER – RETURN WITH 30° FIXED DEFLECTION		HORIZONTAL MOUNTED FIRE DAMPER		45° VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
XX–X XXX CFM	DIFFUSER TAG REFERENCE SCHEDULE FOR SIZING		VERTICAL MOUNTED FIRE DAMPER		VANED TEE (PROVIDE ALL SQUARE OR RECTANGULAR TEE'S WITH VANES EVEN IF SYMBOL IS MISSING)
12"X12"	NEW RECTANGULAR DUCT WIDTH X DEPTH	T	THERMOSTAT LOCATION		STANDARD DUCT SIZE TRANSITION
10"ø	NEW ROUND DUCT DIAMETER	H	HUMIDISTAT LOCATION		STANDARD SQUARE TO ROUND TRANSITION
	ACCESS DOORS VERTICAL OR HORIZONTAL	M	CARBON MONOXIDE SENSOR LOCATION	— CD —	HVAC CONDENSATE DRAIN PIPING
R —	DUCT RISE IN DIRECTION OF ARROW	C	CARBON DIOXIDE SENSOR LOCATION	— R —	HVAC REFRIGERANT LINE
— D	DUCT DROP IN DIRECTION OF ARROW		ELECTRIC UNIT HEATER WALL MOUNTED (RECESSED)		

BASE BID PUMP SCHEDULE

1

MARK NO.	SERVICE	TYPE	GPM	TOTAL HEAD FT. WG.	MAXIMUM H.P.	MINIMUM EFFICIENCY	VOLTAGE	MANUFACTURER (OR APPROVED EQUAL)	MODEL NO.	NOTES
CWP 1	CHILLED WATER	FRAME MOUNTED	190	60	5	76%	208–3–60	TACO	FI–2510C	SEE BELOW
CWP 2	CHILLED WATER	FRAME MOUNTED	190	60	5	76%	208–3–60	TACO	FI–2510C	SEE BELOW
HWP 1	HOT WATER	FRAME MOUNTED	60	50	1.5	55%	208–3–60	TACO	FI–1507	SEE BELOW
HWP 2	HOT WATER	FRAME MOUNTED	60	50	1.5	55%	208–3–60	TACO	FI–1507	SEE BELOW
BP 1	BOILER	VERTICAL IN–LINE	60	30	0.75	63%	208–3–60	TACO	1635	SEE BELOW
BP 2	BOILER	VERTICAL IN–LINE	60	30	0.75	63%	208–3–60	TACO	1635	SEE BELOW

(1) FACTORY MOUNTING FRAME TO BE PROVIDED, DOUBLE SUCTION DIFFUSER.

(2) EACH PUMP SYSTEM SHALL INCLUDE VARIABLE SPEED PUMPING COMPLETE WITH ALL CONTROLS AND INTERFACE TO BUILDING AUTOMATION SYSTEM. ELECTRONIC VARIABLE SPEED CONTROLS SHALL BE BY BELL AND GOSSETT, ABS, OR AN APPROVED EQUAL. SYSTEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS FOR A VARIABLE SPEED INSTALLATION. FULL COORDINATION WITH THE EQUIPMENT SUPPLIER IS REQUIRED. THE VARIABLE SPEED DRIVE SYSTEM SHALL REQUIRE ONLY SINGLE POINT ELECTRICAL SERVICE AND SHALL INCLUDE A FACTORY DISCONNECT.

(3) CWP–1 AND CWP–2 SHALL BE LEAD/LAG AND ROTATE LEAD PUMP WEEKLY.

(4) HWP–1 AND HWP–2 SHALL BE LEAD/LAG AND ROTATE LEAD PUMP WEEKLY.

(5) BP–1 AND BP–2 ARE MOUNTED AT OUTDOOR BOILER. FURNISH AND INSTALL IN WEATHERPROOF HOUSING.

(6) ALL EXPOSED EXTERIOR PIPING SHALL BE HEAT TRACED.

APPROVED EQUALS: BELL AND GOSSETT, ARMSTRONG, AURORA, GRUNDFOS, AND PACO

HVAC NOTES

(1) ALL DIMENSIONS SHOWN ARE NET INTERNAL.

(2) INSTALL OPPOSED BLADE BALANCING DAMPERS IN ALL NEW DIFFUSERS AND GRILLES.

(3) THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE HVAC SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, APPURTENANCES, AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL REQUIREMENTS OF THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH. ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE HVAC SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE CONTRACT. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.

(4) COORDINATE DUCTWORK AND PIPING WITH STRUCTURAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS AS REQUIRED TO CLEAR STRUCTURAL MEMBERS, ETC. COORDINATE WITH OTHER TRADES WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

(5) REFER TO ARCHITECTURAL CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES; COORDINATE EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS WITH ARCHITECTURAL AND INTERIOR REFLECTED CEILING PLANS AND LIGHTING FIXTURES. FOR PARTICULAR ITEMS NOT SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN, PREPARE A DRAWING AND PRESENT IT TO THE ARCHITECT FOR REVIEW AND/OR APPROVAL.

(6) COORDINATE ALL ROOF AND SLAB PENETRATIONS WITH THE STRUCTURAL ENGINEER. TRANSITIONS RECTANGULAR DUCTWORK ON THE BOTTOM AND THE SIDES. MAINTAIN DUCTWORK LEVEL AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE.

(7) THE HVAC CONTRACTOR IS TO REVIEW THE ENTIRE SET OF PLANS FOR COORDINATION WITH OTHER TRADES. SHOP DRAWINGS WITH ALL TRADES COORDINATED WILL BE REQUIRED.

(8) THE HVAC CONTRACTOR SHALL REVIEW THE ARCHITECTURAL PLANS FOR FINAL LOCATIONS OF ALL RATED WALLS, CEILINGS, FLOORS, ETC. THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL FIRE OR FIRE/SMOKE DAMPERS IN ALL RATED LOCATIONS WHETHER SHOWN ON THE MECHANICAL PLANS OR NOT.

(9) CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.

(10) ALL THREE PHASE EQUIPMENT SHALL BE EQUIPPED WITH PHASE LOSS PROTECTION.

(11) ALL MOTOR STARTERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR.

(12) CONTRACTOR TO COORDINATE ALL CEILING TYPES WITH DIFFUSERS. ALL DIFFUSERS IN GYPSUM CEILING SHALL INCLUDE PLASTER FRAME.

(13) ALL DISTRIBUTION DEVICES SHALL HAVE FACE OPERABLE DAMPERS. ALL DIFFUSER RUNOUTS SHALL INCLUDE SPIN–IN WITH DAMPER IN ROUND DUCTS.

(14) INSULATE TOP SIDE/BACK OF ALL DIFFUSERS/GRILLES, ETC.

(15) CONDENSATE DRAIN LINES RUNNING HORIZONTALLY SHALL BE SLOPED 1/4" PER FOOT DOWN IN THE DIRECTION OF FLOW AS INDICATED.

(16) ALL 3/4" AND 1" CONDENSATE DRAIN TRAPS SHALL BE EZ–TRAP OR APPROVED EQUAL WITH FLOAT SWITCH.

(17) INSTALL AUXILIARY DRAIN PAN UNDER ALL UNITS MOUNTED IN ATTIC, ABOVE CEILINGS, ETC. INSTALL WET SWITCH FOR UNIT SHUT DOWN IN AUXILIARY DRAIN PAN – DIVERSITECH "WET SWITCH" CONDENSATE DETECTION SWITCH OR APPROVED EQUAL.

(18) REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING. IF CONDENSATE DRAINS ARE NOT SHOWN ON THE PLUMBING PLANS, ALL CONDENSATE DRAINS SHALL BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR.

(19) VERIFY WITH THE ARCHITECTURAL DRAWINGS, SIZE, LOCATION, AND MOUNTING HEIGHT OF ALL LOUVERS. VERIFY COLOR AND FINISH WITH OWNER.

(20) ALL THERMOSTATS TO BE MOUNTED 4'–0" A.F.F. TO HIGHEST OPERABLE CONTROL UNLESS OTHERWISE INDICATED.

(21) PAINT ALL EXTERIOR EXPOSED ARMAFLEX INSULATION FOR UV PROTECTION.

(22) ALL REFRIGERANT LINES SHALL BE SIZED/APPROVED BY THE EQUIPMENT VENDOR/COMPRESSOR MANUFACTURER. ALL REFRIGERANT LINES SHALL BE INSTALLED USING INSULATED LINE CLAMPS.

(23) INSULATE HOT GAS REHEAT REFRIGERANT PIPING. INTERIOR PIPING SHALL BE INSULATED WITH 1" FLEXIBLE ELASTOMERIC AND SHALL INCLUDE VAPOR BARRIER. EXTERIOR PIPING SHALL BE INSULATED WITH 2" GLASS FIBER OR 1" FLEXIBLE ELASTOMERIC AND SHALL INCLUDE VAPOR BARRIER. GLASS FIBER INSULATION SHALL INCLUDE FIELD–APPLIED ALUMINUM JACKET.

(24) PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES, REGISTERS, AND DIFFUSERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.

(25) FLEXIBLE DUCT (SUPPLY RUNOUTS ONLY) SHALL NOT EXCEED 6'–0" IN LENGTH.

(26) DUCTWORK SHALL BE INSULATED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:
RECTANGULAR SUPPLY: 1–1/2" EXTERNAL
ROUND SUPPLY: 1–1/2" EXTERNAL
FLEXIBLE SUPPLY: 1" PRE INSULATED
RECTANGULAR RETURN: 1–1/2" EXTERNAL
OSA/EXHAUST: 1–1/2" EXTERNAL

(27) DUCTWORK SHALL BE GALVANIZED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS.

(28) LABEL ALL DUCTS WITH TYPE (SUPPLY, RETURN, ETC.) AND ARROWS INDICATING DIRECTION OF AIR FLOW. LABELS SHALL BE EVERY SIX FEET AND AT EACH CHANGE OF DIRECTION (T'S, ELBOWS, ETC.)

(29) ROUND DUCT SHALL BE INSULATED WITH DUCT WRAP EQUAL TO CERTAINTEED SOFT TOUCH DUCT WRAP WITH FSK VAPOR RETARDER FACING TYPE 75 WITH MINIMUM INSTALLED R–VALUE 4.2. ROUND DUCTS LOCATED WITHIN THE ATTIC SHALL BE INSULATED WITH DUCT WRAP EQUAL TO CERTAINTEED SOFT TOUCH DUCT WRAP WITH FSK VAPOR RETARDER FACING TYPE 100 WITH MINIMUM INSTALLED R–VALUE 6.0

(30) ALL OPEN ENDED DUCT SHALL BE CAPPED WITH 1/2"X1/2" WIRE MESH.

(31) THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL A SMOKE DETECTOR FOR FIRE SHUT DOWN IN ALL UNITS 2000 CFM AND ABOVE AND IN ALL UNITS SERVING EXIT ACCESS CORRIDORS REGARDLESS OF SIZE.

(32) ALL DAMPERS INTERLOCKED WITH CARBON DIOXIDE SENSOR SHALL BE 24 VOLT MODULATING MOTORIZED DAMPER. DAMPER SHALL INCLUDE STEP DOWN TRANSFORMER 120V/24V.

(33) WARRANTIES SHALL BEGIN AT FINAL ACCEPTANCE. ALL COMPRESSORS SHALL INCLUDE MIN. OF FIVE YEAR WARRANTY. ONE YEAR WARRANTY FOR LABOR, PARTS, UNITS, ETC. IS REQUIRED FOR ALL EQUIPMENT. ADDITIONALLY CONTRACTOR IS RESPONSIBLE FOR ALL PREVENTATIVE MAINTENANCE AND ROUTINE SERVICE ON INSTALLED EQUIPMENT FOR THE ONE YEAR WARRANTY PERIOD IN ORDER TO MAINTAIN ALL FACTORY/MANUFACTURER WARRANTIES.

(34) INSTALL ANGLE COVER OVER CONDENSATE LINES, REFRIGERANT LINES, ETC. THAT CROSS MEZZANINE FLOOR WHERE TRIPPING MIGHT BE A HAZARD. PRIME AND PAINT ANGLE COVER SAFETY YELLOW COLOR.

(35) CONTRACTOR SHALL ANCHOR OUTDOOR UNITS TO CONCRETE PAD IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION, WIND LOAD REQUIREMENTS, AND AS PER PLANS/SPECIFICATIONS. COORDINATE CONCRETE PAD SIZE, UNIT CLEARANCES, ETC. WITH STRUCTURAL AND ARCHITECTURAL PLANS, FRAMING, ETC.

(36) THE CONTRACTOR SHALL INSTALL ANY CURB–MOUNTED EQUIPMENT IN SUCH A WAY THAT NO WATER LEAKAGE IS INTRODUCED INTO THE BUILDING.

(37) INSTALL SECURITY BAR GRATE IN ALL OPENINGS 6"x6" OR GREATER AT SECURE AREAS. REFERENCE HVAC PLANS FOR REQUIRED LOCATIONS AND SECURITY BAR GRATE DETAIL ON SHEET M2.3 FOR ADDITIONAL INFORMATION. 1

(38) ALL COLOR/FINISH SELECTIONS SHALL BE MADE BY OWNER/ARCHITECT.

(39) EXHAUST FAN CONTROL RELAYS SHALL BE WIRED TO THE NORMALLY CLOSED CONTACTS TO ALLOW THE FANS TO OPERATE IN THE EVENT THAT THE DDC CONTROLS ARE OFFLINE. EXHAUST FANS SHALL BE CONTROLLED BY THE BUILDING SCHEDULE.

(40) COORDINATE DDC CONTROLLER TERMINAL ASSIGNMENTS WITH AANG DDC STANDARDS AND PRACTICES.

BASE BID AIR / DIRT SEPARATOR SCHEDULE

MARK NO.	SYSTEM	SIZE	GPM	MAX. PD (FT.)	TYPE	MANUFACTURER (OR APPROVED EQUAL)	MODEL NO.	NOTES
AS 1	HVAC WATER	4"	190	1.0	TANK – HIGH VELOCITY (AIR/DIRT)	SPIROTHERM	SPIROVENT VDN400	SEE BELOW
AS 2	HVAC WATER	2–1/2"	60	1.0	TANK – HIGH VELOCITY (AIR/DIRT)	SPIROTHERM	SPIROVENT VDN250	SEE BELOW

(1) ASME CERTIFIED

(2) AIR/DIRT SEPARATOR WITH REMOVABLE HEAD.

BASE BID EXPANSION TANK SCHEDULE

MARK NO.	SYSTEM	TANK VOLUME (GAL)	SHIPPING WEIGHT (LBS)	CHARGE PRESSURE PSI	DIAMETER (IN.)	HEIGHT (IN.)	MANUFACTURER (OR APPROVED EQUAL)	MODEL NO.	NOTES
ET 1	HVAC WATER	79	320	125	20	57–3/4	TACO	CA300–125	SEE BELOW
ET 2	HVAC WATER	37	195	125	20	40–1/8	TACO	CA–140–125	SEE BELOW

(1) ASME CERTIFIED

CODES AND STANDARDS

- 2015 INTERNATIONAL PLUMBING CODE
- 2015 INTERNATIONAL MECHANICAL CODE
- 2015 INTERNATIONAL FUEL GAS CODE
- 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
- ASHRAE 90.1-2013 ENERGY STANDARD

HVAC DRAWING INDEX

SHEET NO.	SHEET TITLE
M1.1	HVAC LEGEND, NOTES, AND SCHEDULES
M1.2	HVAC SCHEDULES
M1.3	HVAC SCHEDULES AND DETAILS
M1.4	HVAC SCHEDULES AND DETAILS
M2.1	HVAC DETAILS
M2.2	HVAC DETAILS
M2.3	HVAC DETAILS
M2.4	HVAC DETAILS
M2.5	HVAC DETAILS
M2.6	HVAC DETAILS AND COMPLIANCE CALCULATIONS
M2.7	HVAC DETAILS AND COMPLIANCE CALCULATIONS
M3.1	HVAC PLANS – BASE BID
M3.2	HVAC PLANS – BID OPTION #1
M3.3	HVAC PLANS – BID OPTION #2
M4.1	HVAC CHILLED WATER PIPING PLANS – BASE BID
M4.2	HVAC CHILLED WATER PIPING PLANS – BID OPTION #1
M4.3	HVAC CHILLED WATER PIPING PLANS – BID OPTION #2
M5.1	HVAC HOT WATER PIPING PLANS – BASE BID
M5.2	HVAC HOT WATER PIPING PLANS – BID OPTION #1
M5.3	HVAC HOT WATER PIPING PLANS – BID OPTION #2
M5.4	HVAC CHILLED WATER PIPING RISER DIAGRAM – BASE BID
M5.5	HVAC CHILLED WATER PIPING RISER DIAGRAM – BID OPTION #1
M5.6	HVAC CHILLED WATER PIPING RISER DIAGRAM – BID OPTION #2
M5.7	HVAC HOT WATER PIPING RISER DIAGRAM – BASE BID
M5.8	HVAC HOT WATER PIPING RISER DIAGRAM – BID OPTION #1
M5.9	HVAC HOT WATER PIPING RISER DIAGRAM – BID OPTION #2

BASE BID / BID OPTION #2 INTAKE VENT SCHEDULE

MARK NO.	CFM	THROAT AREA S.F.	P.D.	MATERIAL	MANUFACTURER (OR APPROVED EQUAL)	MODEL NO.	NOTES
IV 1	3,000 (BASE BID) 5,100 (BID OPTION #2)	9.968	0.05	SPUN ALUMINUM	LOREN COOK	PR–42	SEE BELOW

(1) INTAKE VENT TO INCLUDE FACTORY ROOF CURB. COORDINATE ALL ROOF CURBS WITH THE ROOFING CONTRACTOR. PRIME AND PAINT ROOF CURB TO MATCH ROOF.

(2) INTAKE VENT TO INCLUDE FACTORY MOTORIZED DAMPER, MANUAL DAMPER, AND BIRDSCREEN.

APPROVED EQUALS: CARNES, GREENHECK, AND PENN

BASE BID / BID OPTION #2 RELIEF VENT SCHEDULE

MARK NO.	CFM	THROAT AREA S.F.	P.D.	MATERIAL	MANUFACTURER (OR APPROVED EQUAL)	MODEL NO.	NOTES
RV 1	2,800 (BASE BID) 4,800 (BID OPTION #2)	9.968	0.05	SPUN ALUMINUM	LOREN COOK	PR–42	SEE BELOW

(1) RELIEF VENT TO INCLUDE FACTORY ROOF CURB. COORDINATE ALL ROOF CURBS WITH THE ROOFING CONTRACTOR. PRIME AND PAINT ROOF CURB TO MATCH ROOF.

(2) RELIEF VENT TO INCLUDE FACTORY BACKDRAFT DAMPER AND BIRDSCREEN.

APPROVED EQUALS: CARNES, GREENHECK, AND PENN

HVAC LEGEND, NOTES, AND SCHEDULES

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820–9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 21125

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072
Date: MARCH 2022
Drawn By: JH
Checked By: RDW

Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL.

Sheet Title: HVAC LEGEND, NOTES, AND SCHEDULES

Sheet Number: M1.1

STATE OF ALABAMA REGISTERED PROFESSIONAL ENGINEER No.14192 RANDALL D. WHORTON
03–15–2022

BASE BID
DUCTLESS AIR CONDITIONING EQUIPMENT SCHEDULE (WALL MOUNT)

MARK NO.	NOMINAL FAN CFM	COOLING CAPACITY					MANUFACTURER (OR APPROVED EQUAL)	INDOOR UNIT DATA					OUTDOOR UNIT DATA						APPROXIMATE REFRIG. PIPING SIZE		NOTES
		SENS. CAP. MBH	TOTAL CAP. MBH	COND. E.A.T.	EVAP. E.W.B. TEMP	MIN. SEER		VOLTAGE	MODEL NO.	FAN MOTOR FLA	MCA	UNIT WEIGHT (LBS.)	VOLTAGE	MODEL NO.	COMPRESSOR RLA	MCA	MOCP	UNIT WEIGHT (LBS.)	GAS (IN. O.D.)	LIQUID (IN. O.D.)	
DAC 1	450	13.1	18.0	95	80/67	19.8	MITSUBISHI	208/230-1-60	PKA-A18LA	0.19	1	28	208/230-1-60	PUY-A18NKA7	7	11	28	99	1/2	1/4	SEE BELOW
DAC 2	450	13.1	18.0	95	80/67	19.8	MITSUBISHI	208/230-1-60	PKA-A18LA	0.19	1	28	208/230-1-60	PUY-A18NKA7	7	11	28	99	1/2	1/4	SEE BELOW

1. UNIT TO INCLUDE A WALL MOUNTED 7-DAY PROGRAMMABLE AUTOMATIC CHANGEOVER THERMOSTAT WITH SUB-BASE AND LOCKING COVER. THERMOSTAT SHALL BE FACTORY MA REMOTE CONTROLLER MODEL PAR-40MAAU.
2. INDOOR UNIT TO BE WALL MOUNTED WITH FACTORY CONDENSATE PUMP AND SHALL INCLUDE LINE SET/CONDENSATE PUMP ENCLOSURE KIT (CONDENSATE PUMP APPROVED EQUALS: LITTLE GIANT EC-1K AND ASPEN/AIRTEC MINI AND MAXI LIME).
3. INDOOR UNIT TO RECEIVE POWER FROM OUTDOOR UNITS THROUGH FIELD-SUPPLIED INTERCONNECTED WIRING.
4. UNIT TO INCLUDE LOW AMBIENT CONTROLS TO 0°F.
5. REFRIGERANT R-410A (VERIFY FINAL REFRIGERANT PIPING SIZE AND LENGTH WITH MANUFACTURER).
6. ALL INDOOR UNITS TO BE MOUNTED AS HIGH AS POSSIBLE.
7. UNIT SHALL BE COMPLETELY INTERFACED TO THE BUILDING AUTOMATION SYSTEM.
8. ADDITIONAL REFRIGERANT CHARGE IS NEEDED DEPENDING ON THE SIZE AND LENGTH OF EXTENDED PIPING. COORDINATE WITH EQUIPMENT MANUFACTURER.
9. CONTRACTOR'S VENDOR SHALL PROVIDE REFRIGERANT LINE FINAL SIZES, LENGTHS, ETC. PER MANUFACTURER'S RECOMMENDATION. SUBMITTAL DRAWINGS SHALL INCLUDE CONTROLS, LINE SIZES, ETC. CONTRACTOR SHALL COORDINATE SIZES SHOWN ON PLANS WITH ACTUAL EQUIPMENT QUOTED PRIOR TO BIDDING.
10. FURNISH AND INSTALL PRE-INSULATED REFRIGERANT LINE SETS.
11. REFRIGERANT PIPING SHALL BE LABELED TO MATCH ASSOCIATED INDOOR AND OUTDOOR UNIT.
12. ALL EXPOSED INTERIOR RFFRIGERANT PIPING SHALL BE ROUTED IN SCHEDULE 40 PVC. PRIME AND PAINT TO MATCH ADJACENT SURFACES. VERIFY PAINT COLOR WITH OWNER/ARCHITECT.
13. USE INSULATED REFRIGERANT PIPING CLAMPS WHERE REFRIGERANT PIPING IS INSULATED.
14. UNIT SHALL BE ASHRAE 90.1-2013 COMPLIANT.

APPROVED EQUALS: FRIEDRICH AND FUJITSU

BASE BID
AIR COOLED CHILLER SCHEDULE

MARK NO.	NOMINAL TONS	MIN. NOMINAL TONS	REFRIGERANT	TOTAL KW	VOLTAGE	EVAPORATOR					CONDENSER		MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	NOTES
						EER	ENTERING WATER (°F)	LEAVING WATER (°F)	GPM	MAX PD (FT.)	ENTERING AIR (°F)	CFM			
ACC 1	76.8	76	R-134A	83.46	460-3-60	22.1	55°	44°	166.8	10'	95°	60,038	SMARDT	AE028.1BG06. F4AEBA.A004AA.010	SEE BELOW

CHILLER OPTIONS

1. MINIMUM LOAD CONTROL.
2. FULL UNIT ARCHITECTURAL LOUVERS.
3. VICTAULIC CONNECTION.
4. FREEZE PROTECTION.
5. SINGLE POINT POWER.
6. FLOW SWITCH.
7. CIRCUIT BREAKER.
8. REFRIGERANT ISOLATION VALVES.
9. SECURITY GRILLE PACKAGE.
10. LOW AMBIENT HEAD PRESSURE CONTROL.
11. OIL-FREE CENTRIFUGAL TECHNOLOGY.
12. OIL-FREE CENTRIFUGAL DANFOSS TURBOCOR COMPRESSOR.
13. UNIT DIMENSIONS: 94.5" W X 92" L X 99" H.
14. UNIT EMPTY WEIGHT: 5,745 LBS.
15. UNIT OPERATING WEIGHT: 6,385 LBS.
16. UNIT SHALL BE ASHRAE 90.1-2013 COMPLIANT.
17. ALL EXTERIOR EXPOSED PIPING SHALL BE HEAT TRACED.

CHILLER ELECTRICAL

1. ACC-1: MCA = 135 A, MOCP = 233 A
2. CONTROL CIRCUIT: 120-1-60
3. ELECTRIC HEAT TRACE: 115-1-60

CHILLER CONTROLS

1. UNIT SHALL BE COMPLETELY INTERFACED TO THE BUILDING AUTOMATION SYSTEM.

BUFFER TANK (BT-1)

1. BUFFER TANK (BT-1) SHALL BE 500 GALLON EQUAL TO TACO MODEL BTH500F4-125N AND SHALL INCLUDE INSULATION AND ALUMINUM JACKET FOR OUTDOOR INSTALLATION. BUFFER TANK SHALL BE HEAT TRACED WITH ELECTRIC CABLE.

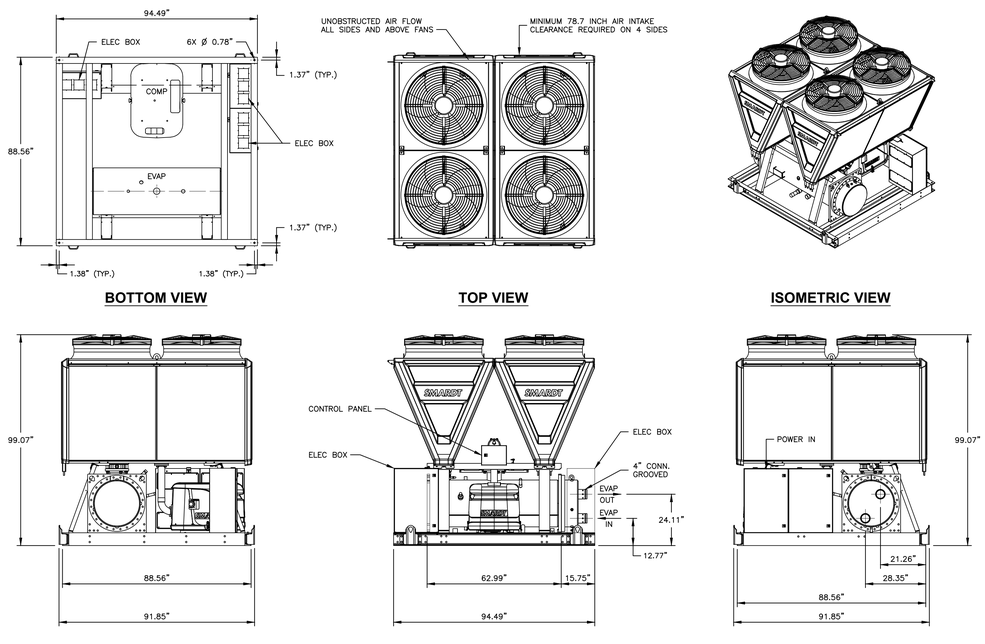
APPROVED EQUALS: DUNHAM-BUSH

PROVIDE AND INSTALL MANUFACTURER'S STANDARD CHILLER ENCLOSURE LOUVER KIT TO MEET UFC 4-010-01 (BASE BID ONLY).

1

SEE BASE BID AIR COOLED CHILLER SCHEDULE (ACC-1) FOR ADDITIONAL INFORMATION.

AIR COOLED CHILLER ACC-1 (BASE BID)



BOTTOM VIEW | TOP VIEW | ISOMETRIC VIEW

SIDE VIEW | ELEVATION VIEW | SIDE VIEW

AIR COOLED CHILLER DETAILS (ACC-1)

NOT TO SCALE

BASE BID
OUTDOOR BOILER SCHEDULE

MARK NO.	TYPE	WORKING PRESSURE PSIG	NATURAL GAS INPUT (MBH)	NATURAL GAS OUTPUT (MBH)	WATER CONNECTION	GAS CONNECTION	VOLTAGE	MODEL NO. DATA		UNIT SHIPPING WEIGHT (LBS)	NOTES
								MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.		
B 1	HOT WATER	160	999	962	2-1/2"	1-1/4"	120-1-60	LOCHINVAR	KBX1000-0	580	SEE BELOW
B 2	HOT WATER	160	999	962	2-1/2"	1-1/4"	120-1-60	LOCHINVAR	KBX1000-0	580	SEE BELOW

1. EACH BOILER TO INCLUDE ELECTRONIC IGNITION MODULE (3-TRY).
2. BOILER TO BE NATURAL GAS.
3. BOILER DIMENSIONS: 24"W X 45"H X 62"D
4. BOILER TO INCLUDE FACTORY OUTDOOR INSTALLATION KIT.
5. TURN DOWN: 10:1
6. AHRI THERMAL EFFICIENCY: 96%
7. BOILER TO INCLUDE BMS GATEWAY TO BACNET – FACTORY MOUNTED.
8. BOILER TO INCLUDE FACTORY SMART TOUCH.
9. BOILER TO INCLUDE ALARM WITH 4" BELL WITH SILENCE AND RESET SWITCHES.
10. BOILER TO INCLUDE FACTORY ALARM ON ANY FAILURE.
11. BOILER TO INCLUDE FACTORY LOW WATER CUT-OFF WITH MANUAL RESET.
12. BOILER TO INCLUDE STAINLESS STEEL VENT TERMINATING MINIMUM 36" ABOVE TOP OF UNIT. VENTING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. VENT SHALL BE TERMINATED WITH RAIN CAP IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
13. BOILER TO INCLUDE HIGH LIMIT, AUTO RESET, 200°F.
14. BOILER TO INCLUDE LOW GAS PRESSURE SWITCH, MANUAL RESET.
15. BOILER TO INCLUDE HIGH GAS PRESSURE SWITCH, MANUAL RESET.
16. BOILER TO INCLUDE EMERGENCY SHUT-DOWN SWITCH.
17. BOILER TO INCLUDE CONDENSATE NEUTRALIZATION KIT.
18. CONDENSATE TRAP, DRAIN LINES, ETC. SHALL BE HEAT TRACED. 115-1-60 OUTLET IS REQUIRED FOR HEAT TRACE. REFERENCE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
19. CONTRACTOR SHALL ARRANGE FOR THE STATE OF ALABAMA BOILER AND PRESSURE VESSEL SAFETY DIVISION INSPECTOR TO VISIT THE JOB SITE TO INSPECT THE BOILER INSTALLATION. THE CONTRACTOR SHALL FURNISH A WRITTEN REPORT OF HIS FINDINGS AND COMPLY WITH ALL COMMENTS.
20. ALL EXTERIOR EXPOSED PIPING SHALL BE HEAT TRACED.

APPROVED EQUALS: LAARS AND RAYPACK

BASE BID
CEILING MOUNTED ELECTRIC HEATER SCHEDULE

MARK NO.	NOMINAL CFM	VOLTAGE	K.W.	BTU/HR (000)	AMPS	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	UNIT WEIGHT (LBS)	NOTES
CEH 1	300	208-1-60	2.0	6.8	9.6	BERKO	FFCH-548	27	SEE BELOW

1. UNIT TO INCLUDE A RECESS MOUNTING ENCLOSURE.
2. UNIT TO INCLUDE AUTOMATIC THERMAL CUTOUT AND POWER DISCONNECT.
3. UNIT TO INCLUDE AN INTEGRAL THERMOSTAT.

APPROVED EQUALS: INDEECO, MARKEL, QMARK, AND RAYWALL

BASE BID
WALL MOUNTED ELECTRIC HEATER SCHEDULE

MARK NO.	NOMINAL CFM	VOLTAGE	WATTS	BTU/HR	AMPS	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	UNIT WEIGHT (LBS)	NOTES
WEH 1	100	208-1-60	1500	5,120	7.2	BERKO	FRC4024	25	SEE BELOW

1. UNIT TO INCLUDE BUILT-IN TAMPER-PROOF THERMOSTAT.
2. UNIT TO INCLUDE FACTORY DISCONNECT SWITCH – MOUNTED BEHIND FRONT GRID PANEL.
3. UNIT TO INCLUDE THERMAL CUTOUT.
4. UNIT TO INCLUDE SEMI-RECESSED MOUNTING FRAME.
5. UNIT TO BE MOUNTED AT 16" AFF.

APPROVED EQUALS: INDEECO, MARKEL, QMARK, AND RAYWALL

HVAC SCHEDULES AND DETAILS

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 Second Avenue North, Birmingham, AL 35203-3704
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

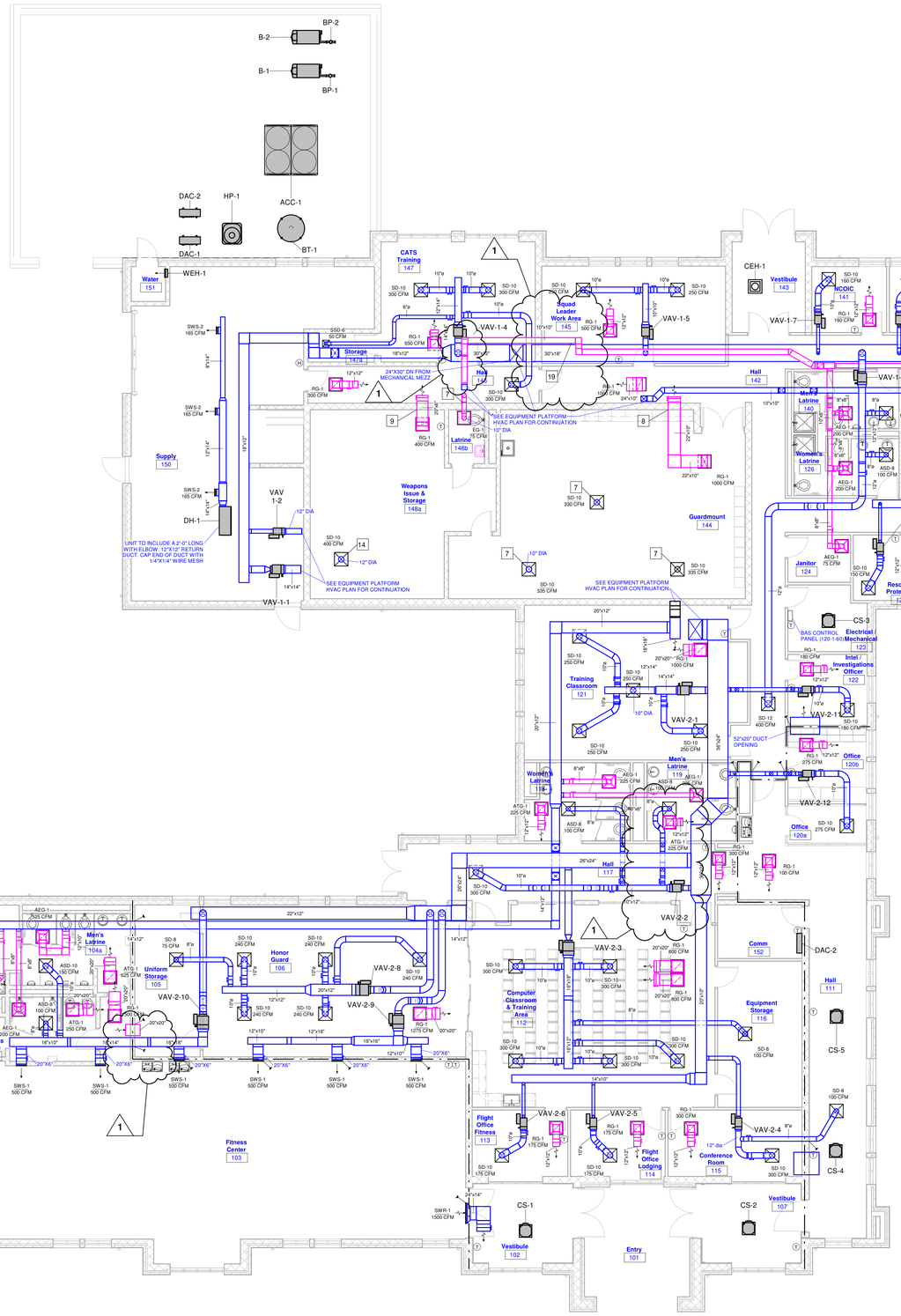
Job Number: 12072
Date: MARCH 2022
Drawn By: JH
Checked By: RDW
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: HVAC SCHEDULES AND DETAILS

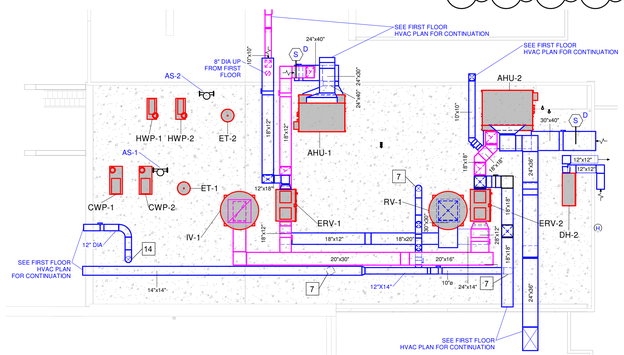
Sheet Number: M1.3

RANDALL D. WHORTON, P.E. No. 14192 PROFESSIONAL ENGINEER ALABAMA
03-15-2022



FIRST FLOOR HVAC PLANS - BASE BID

1/8" = 1'-0"



EQUIPMENT PLATFORM HVAC PLAN - BASE BID

1/8" = 1'-0"

HVAC PLANS - BASE BID

1/8" = 1'-0"

0' 4' 8' 16'

DIFFUSER SCHEDULE

Tag	Size	Type	Neck Size	Model Number	Manufacturer	Notes
SSD-6	12"X12"	SUPPLY	6"Ø	TDC	TITUS	
SD-8	24"X24"	SUPPLY	8"Ø	TDC	TITUS	
SD-10	24"X24"	SUPPLY	10"Ø	TDC	TITUS	
ASD-6	24"X24"	SUPPLY	6"Ø	TDC-AA	TITUS	ALUMINUM
ASD-8	24"X24"	SUPPLY	8"Ø	TDC-AA	TITUS	ALUMINUM
ASD-10	24"X24"	SUPPLY	10"Ø	TDC-AA	TITUS	ALUMINUM
SWS-1	20"X6"	SUPPLY		272RL	TITUS	
SWS-2	12"X6"	SUPPLY		272RL	TITUS	
SW-188	18"X8"	SUPPLY		272RL	TITUS	
DSD-1	24"X24"	SUPPLY	10"Ø	TDCA	TITUS	
RG-1	24"X24"	RETURN	22"X22"	8RF	TITUS	1" FILTER
SWR-1	36"X8"	RETURN		33RLF	TITUS	1" FILTER
ATG-1	24"X24"	RETURN	22"X22"	8F	TITUS	ALUMINUM
AEG-1	24"X24"	EXHAUST	22"X22"	8F	TITUS	ALUMINUM
AEG-2	12"X12"	EXHAUST	11"X11"	8F	TITUS	ALUMINUM
SD-1	24"X24"	SUPPLY	10"Ø	TDC	TITUS	
EG-1	24"X24"	EXHAUST	22"X22"	8F	TITUS	ALUMINUM
SD-12	24"X24"	SUPPLY	12"Ø	TDC	TITUS	

FURNISH AND INSTALL AN INSULATION BLANKET ON THE BACK OF ALL DIFFUSERS AND GRILLES

GENERAL NOTES:

1. ALL DIFFUSERS/GRILLE RUNOUTS SHALL INCLUDE SPIN-IN WITH DAMPER.
2. ALL OUTSIDE AIR RUNOUTS, EXHAUST, ETC. AND BRANCH DUCTS SHALL INCLUDE SPIN-IN WITH DAMPER
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. TEST AND BALANCE IS REQUIRED FOR ALL UNITS, DUCT, GRILLES, ETC. SHOWN ON PLANS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL LOUVERS SHALL HAVE A PLENUM BOX. PLENUM BOX SHALL BE SIZED TO MATCH LOUVER DIMENSIONS. PLENUM BOX SHALL BE 2'-0" DEEP.
6. MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING OF REFRIGERANT LINES AND DUCTWORK WITH ALL OTHER TRADES.
7. 10"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
8. 22"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
9. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
10. 14"X14" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
11. 6"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
12. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
13. 8"X8" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
14. 12"X12" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
15. ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.
16. FOR VAV INLET DUCT SIZE REFERENCE VAV BOX SCHEDULE
17. DH-2 TO INCLUDE A 12"X12" SUPPLY DUCT WITH ELBOW AND A 12"X12" RETURN DUCT WITH ELBOW. OPENINGS TO BE 3'-0" MINIMUM BETWEEN RETURN AND SUPPLY. CAP OPEN END OF DUCTS WITH 1/4"X1/4" WIRE MESH. MOUNT UNIT MOST FAVORABLE TO DUCT RETURN PLENUM.
18. ALL EXTERIOR EXPOSED HYDRONIC PIPING SHALL BE HEAT TRACED. 115-1-60 OUTLET IS REQUIRED.
19. RUN DUCT IN TRUSS WEB AREA ABOVE 12'-0" AFF

FIRE WALL LEGEND

1 HOUR WALL —— · —— · —— · ——

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1119 South Green Street, Huntsville, AL 35805
Tel: 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

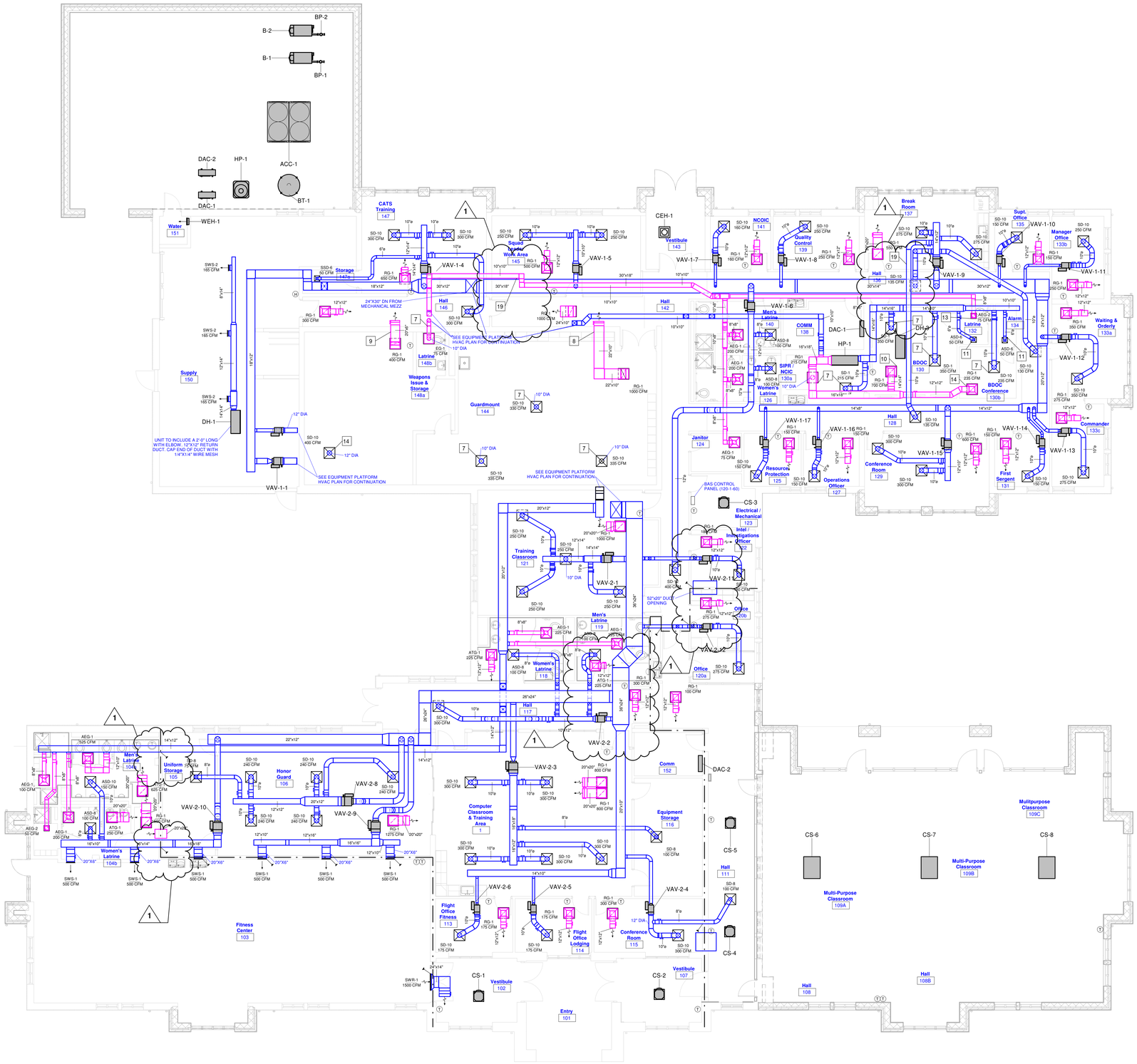
Checked By

Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL

Sheet Title: HVAC PLANS - BASE BID

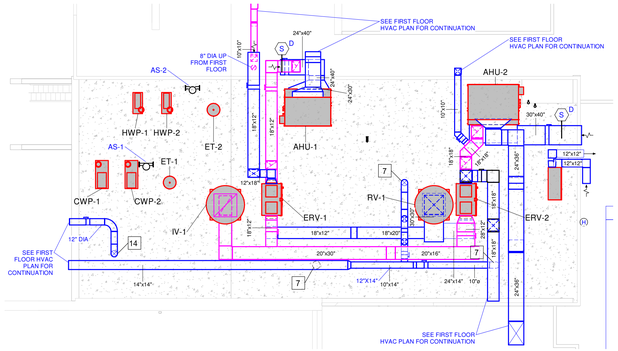
Sheet Number: M3.1

STATE OF ALABAMA, REGISTERED PROFESSIONAL ENGINEER, RANDALL D. WHORTON, 03-15-2022



FIRST FLOOR HVAC PLANS - BID OPTION #1

1/8" = 1'-0"



EQUIPMENT PLATFORM HVAC PLAN - BID OPTION #1

1/8" = 1'-0"

GENERAL NOTES:

1. ALL DIFFUSERS/GRILLE RUNOUTS SHALL INCLUDE SPIN-IN WITH DAMPER.
2. ALL OUTSIDE AIR RUNOUTS, EXHAUST, ETC. AND BRANCH DUCTS SHALL INCLUDE SPIN-IN WITH DAMPER
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. TEST AND BALANCE IS REQUIRED FOR ALL UNITS, DUCT, GRILLES, ETC. SHOWN ON PLANS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL LOUVERS SHALL HAVE A PLENUM BOX. PLENUM BOX SHALL BE SIZED TO MATCH LOUVER DIMENSIONS. PLENUM BOX SHALL BE 2'-0" DEEP.
6. MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING OF REFRIGERANT LINES AND DUCTWORK WITH ALL OTHER TRADES.
7. 10"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
8. 22"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
9. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
10. 14"X14" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
11. 6"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
12. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
13. 8"X8" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
14. 12"X12" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
15. ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.
16. FOR VAV INLET DUCT SIZE REFERENCE VAV BOX SCHEDULE
17. DH-2 TO INCLUDE A 12"X12" SUPPLY DUCT WITH ELBOW AND A 12"X12" RETURN DUCT WITH ELBOW. OPENINGS TO BE 3'-0" MINIMUM BETWEEN RETURN AND SUPPLY. CAP OPEN END OF DUCTS WITH 1/4"X1/4" WIRE MESH. MOUNT NUMBER OF DUCTS AS SHOWN ON PLAN.
18. ALL EXTERIOR EXPOSED HYDRONIC PIPING SHALL BE HEAT TRACED. 115-1-60 OUTLET IS REQUIRED.
19. RUN DUCT IN TRUSS WEB AREA ABOVE 12'-0" AFF

FIRE WALL LEGEND

1 HOUR WALL

HVAC PLANS - BID OPTION #1

1/8" = 1'-0"

0' 4' 8' 16'

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Caldwell Avenue, Birmingham, AL 35205
Tel: 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

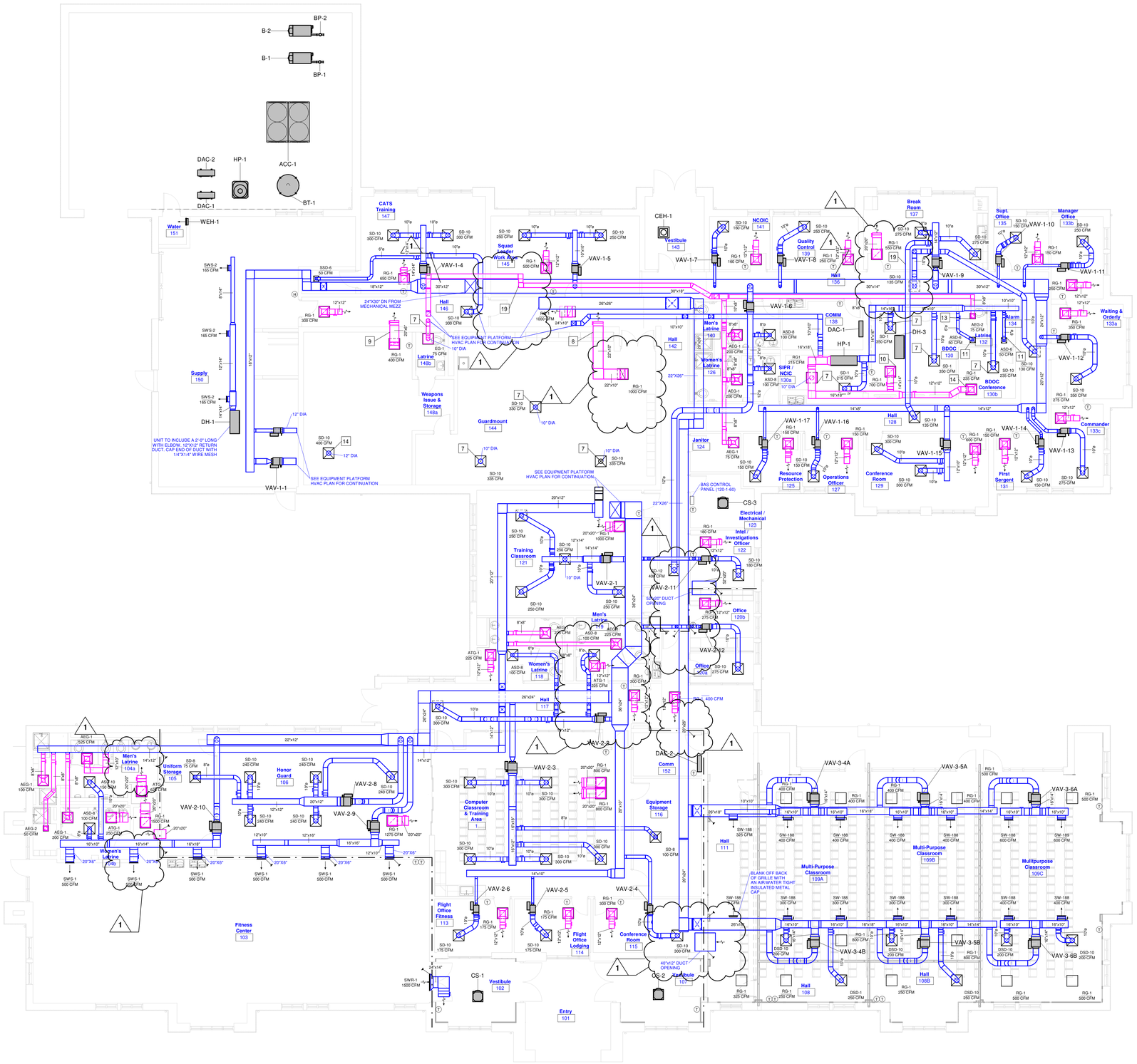
Checked By

Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL

Sheet Title: HVAC PLANS - BID OPTION #1

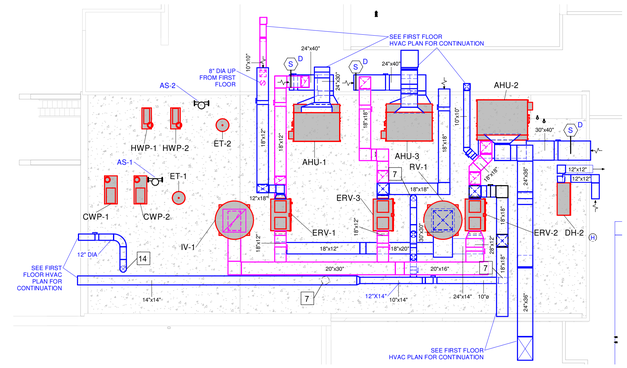
Sheet Number: M3.2

STATE OF ALABAMA, REG. NO. 14192, PROFESSIONAL ENGINEER, RANDALL D. WHORTON, 03-15-2022



FIRST FLOOR HVAC PLANS - BID OPTION #2

1/8" = 1'-0"



EQUIPMENT PLATFORM HVAC PLAN - BID OPTION #2

1/8" = 1'-0"

GENERAL NOTES:

1. ALL DIFFUSERS/GRILLE RUNOUTS SHALL INCLUDE SPIN-IN WITH DAMPER.
2. ALL OUTSIDE AIR RUNOUTS, EXHAUST, ETC. AND BRANCH DUCTS SHALL INCLUDE SPIN-IN WITH DAMPER
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. TEST AND BALANCE IS REQUIRED FOR ALL UNITS, DUCT, GRILLES, ETC. SHOWN ON PLANS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL LOUVERS SHALL HAVE A PLENUM BOX. PLENUM BOX SHALL BE SIZED TO MATCH LOUVER DIMENSIONS. PLENUM BOX SHALL BE 2'-0" DEEP.
6. MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING OF REFRIGERANT LINES AND DUCTWORK WITH ALL OTHER TRADES.
7. 10"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
8. 22"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
9. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
10. 14"X14" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
11. 6"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
12. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
13. 8"X8" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
14. 12"X12" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
15. ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.
16. FOR VAV INLET DUCT SIZE REFERENCE VAV BOX SCHEDULE
17. DH-2 TO INCLUDE A 12"X12" SUPPLY DUCT WITH ELBOW AND A 12"X12" RETURN DUCT WITH ELBOW. OPENINGS TO BE 2'-0" MINIMUM BETWEEN RETURN AND SUPPLY. CAP OPEN END OF DUCTS WITH 14"X14" WIRE MESH. MOUNT SUPPLY DUCT ABOVE CEILING. RETURN DUCT IN PLENUM.
18. ALL EXTERIOR EXPOSED HYDRONIC PIPING SHALL BE HEAT TRACED. 115-1-60 OUTLET IS REQUIRED.
19. RUN DUCT IN TRUSS WEB AREA ABOVE 12'-0" AFF

FIRE WALL LEGEND

1 HOUR WALL — · — · — · —

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 21125

HVAC PLANS - BID OPTION #2

1/8" = 1'-0"

0' 4' 8' 16'

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Square, Montgomery, AL 36104
Tel: 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

Checked By

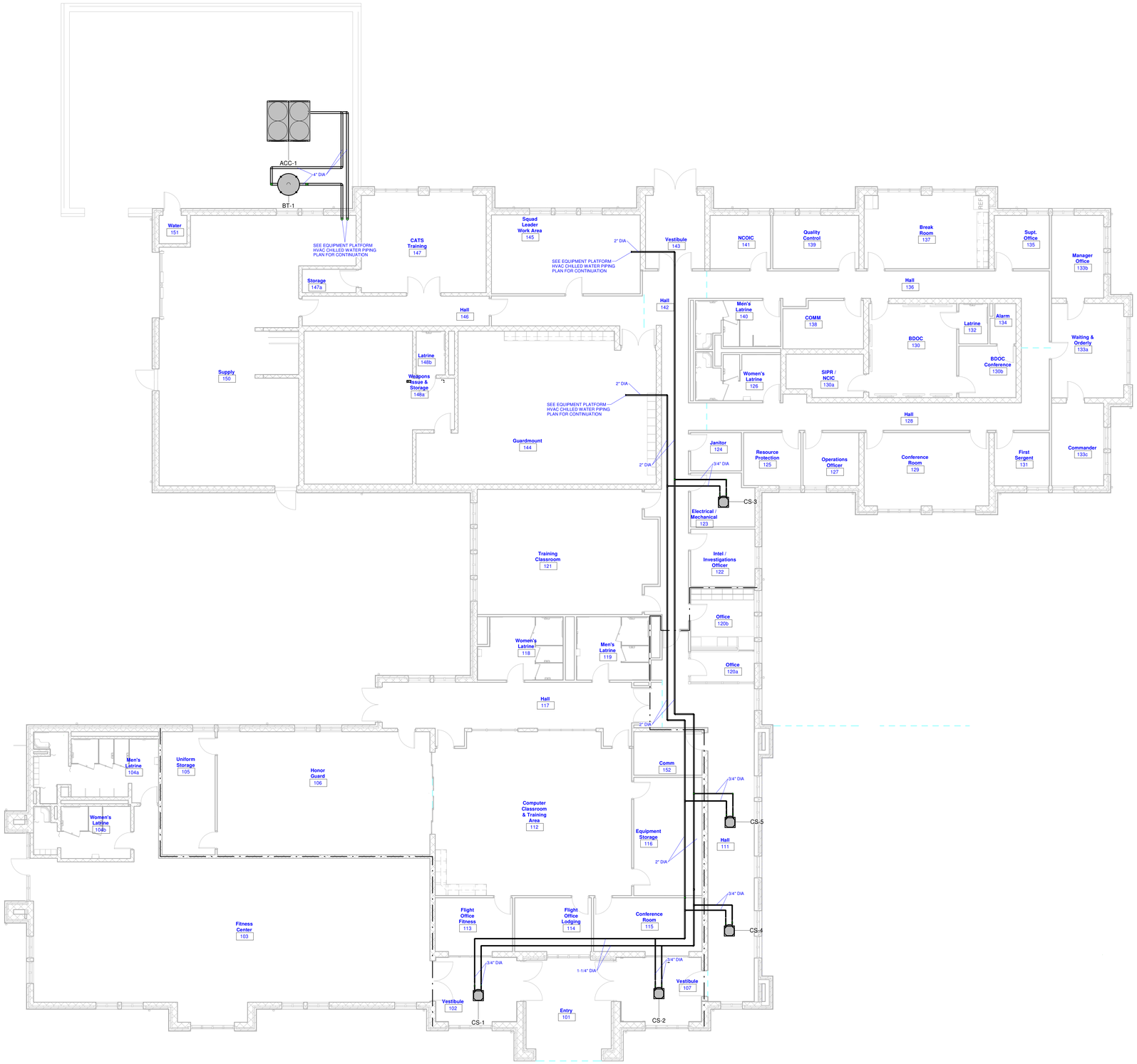
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: HVAC PLANS - BID OPTION #2

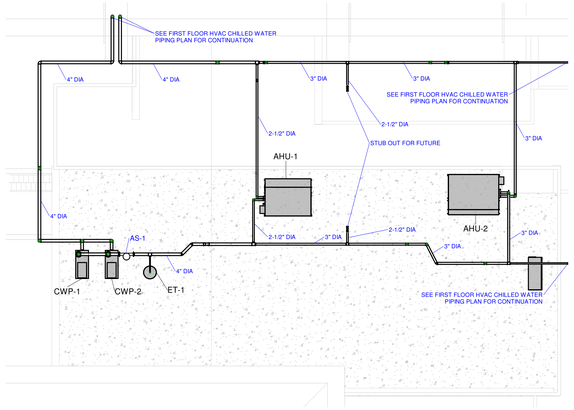
Sheet Number: M3.3

STATE OF ALABAMA
RANDALL WHORTON
No. 14192
PROFESSIONAL ENGINEER
03-15-2022



FIRST FLOOR HVAC CHILLED WATER PIPING PLAN - BASE BID

1/8" = 1'-0"



EQUIPMENT PLATFORM CHILLED WATER PIPING PLAN - BASE BID

1/8" = 1'-0"

GENERAL NOTES:

1. ALL DIFFUSERS/GRILLE RUNOUTS SHALL INCLUDE SPIN-IN WITH DAMPER.
2. ALL OUTSIDE AIR RUNOUTS, EXHAUST, ETC. AND BRANCH DUCTS SHALL INCLUDE SPIN-IN WITH DAMPER
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. TEST AND BALANCE IS REQUIRED FOR ALL UNITS, DUCT, GRILLES, ETC. SHOWN ON PLANS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL LOUVERS SHALL HAVE A PLENUM BOX. PLENUM BOX SHALL BE SIZED TO MATCH LOUVER DIMENSIONS. PLENUM BOX SHALL BE 2'-0" DEEP.
6. MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING OF REFRIGERANT LINES AND DUCTWORK WITH ALL OTHER TRADES.
7. 10"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
8. 22"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
9. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
10. 14"X14" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
11. 6"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
12. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
13. 8"X8" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
14. 12"X12" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
15. ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.
16. FOR VAV INLET DUCT SIZE REFERENCE VAV BOX SCHEDULE
17. DH-2 TO INCLUDE A 12"X12" SUPPLY DUCT WITH ELBOW AND A 12"X12" RETURN DUCT WITH ELBOW. OPENINGS TO BE 2" MINIMUM AND TIGHTEN REFRIGERANT SUPPLY AND OPEN ANSI TYPE DUCTS WITH 1/4" ANTI-BIRD SCREEN. MOUNT PLUMBING TO MORE CENTER RETURN AIR PLENUM.
18. ALL EXTERIOR EXPOSED HYDRONIC PIPING SHALL BE HEAT TRACED. 115-1-60 OUTLET IS REQUIRED.
19. RUN DUCT IN TRUSS WEB AREA ABOVE 12'-0" AFF

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE ROUTING OF ALL HOT/CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

FIRE WALL LEGEND

1 HOUR WALL

HVAC CHILLED WATER PIPING PLANS - BASE BID

1/8" = 1'-0"

0' 4' 8' 16'

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
115 South Court Street, Florence, AL 35630
Tel 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

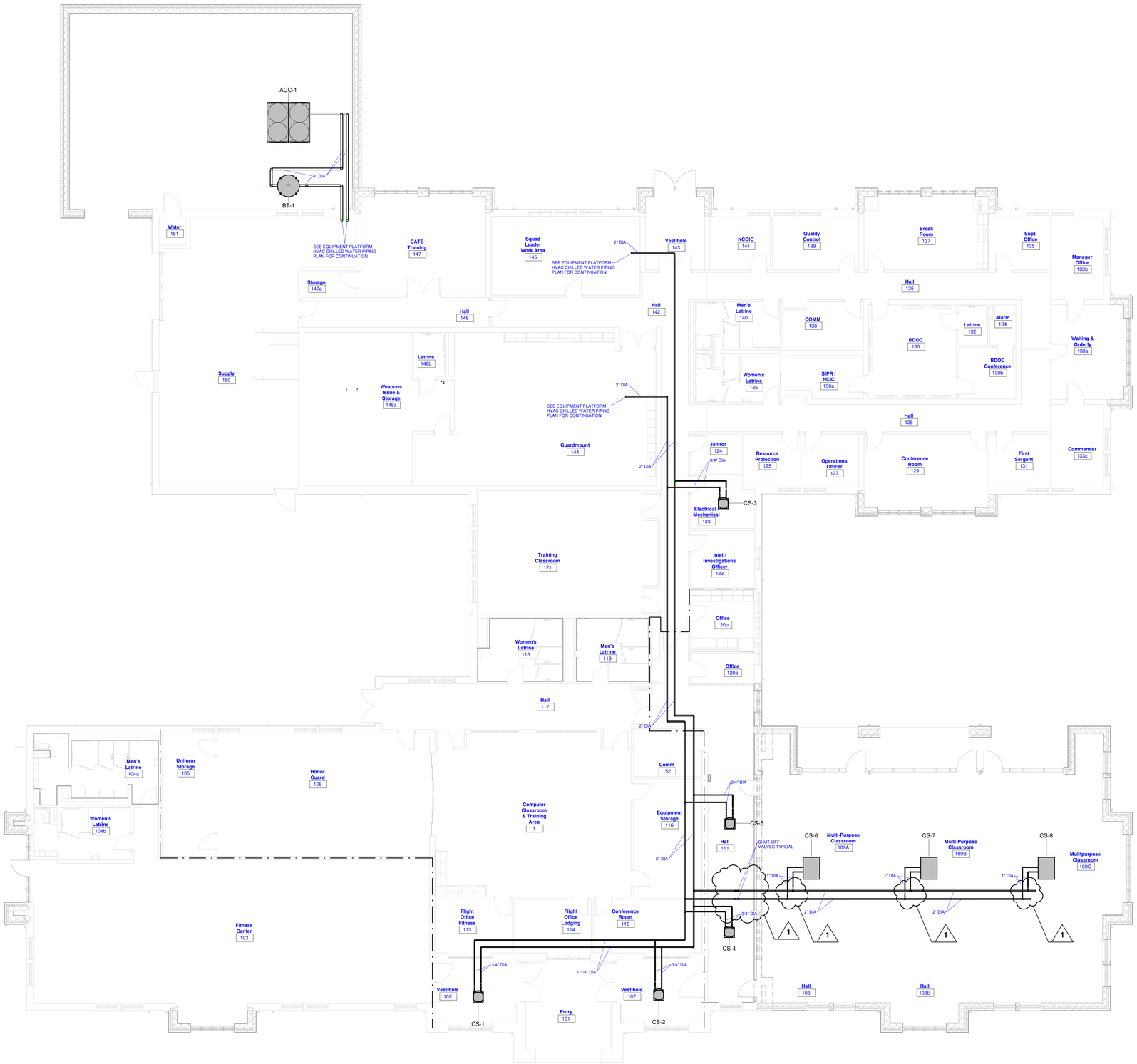
Job Number: 12072
Date: MARCH 2022
Drawn By
Checked By
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: HVAC CHILLED WATER PIPING PLANS - BASE BID

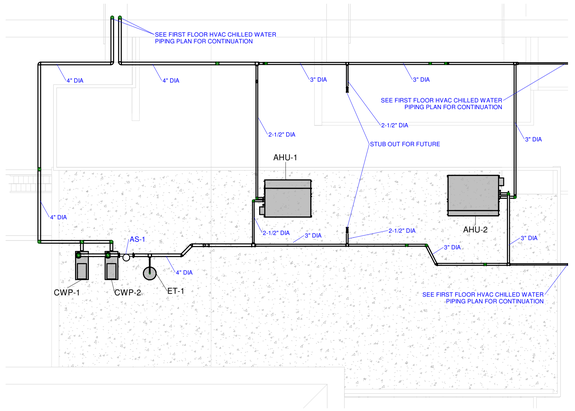
Sheet Number: M4.1

STATE OF ALABAMA LICENSED PROFESSIONAL ENGINEER No.14192 RANDALL WHORTON
03-15-2022



FIRST FLOOR HVAC CHILLED WATER PIPING PLAN - BID OPTION #1

1/8" = 1'-0"



EQUIPMENT PLATFORM CHILLED WATER PIPING PLAN - BID OPTION #1

1/8" = 1'-0"

GENERAL NOTES:

1. ALL DIFFUSERS/GRILLE RUNOUTS SHALL INCLUDE SPIN-IN WITH DAMPER.
2. ALL OUTSIDE AIR RUNOUTS, EXHAUST, ETC. AND BRANCH DUCTS SHALL INCLUDE SPIN-IN WITH DAMPER
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. TEST AND BALANCE IS REQUIRED FOR ALL UNITS, DUCT, GRILLES, ETC. SHOWN ON PLANS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL LOUVERS SHALL HAVE A PLENUM BOX. PLENUM BOX SHALL BE SIZED TO MATCH LOUVER DIMENSIONS. PLENUM BOX SHALL BE 2'-0" DEEP.
6. MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING OF REFRIGERANT LINES AND DUCTWORK WITH ALL OTHER TRADES.
7. 10"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
8. 22"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
9. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
10. 14"X14" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
11. 6"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
12. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
13. 8"X8" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
14. 12"X12" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
15. ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.
16. FOR VAV INLET DUCT SIZE REFERENCE VAV BOX SCHEDULE
17. DH-2 TO INCLUDE A 12"X12" SUPPLY DUCT WITH ELBOW AND A 12"X12" RETURN DUCT WITH ELBOW. OPENINGS TO BE 2'-0" MINIMUM BETWEEN RETURN AND SUPPLY. CAP OPEN END OF DUCTS WITH 14"X14" WIRE MESH. MOUNT HUMIDISTAT ABOVE CEILING IN RETURN AIR PLENUM.
18. ALL EXTERIOR EXPOSED HYDRONIC PIPING SHALL BE HEAT TRACED. TTS-1-60 DUCT IS REQUIRED.
19. RUN DUCT IN TRUSS WEB AREA ABOVE 12'-0" AFF

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE ROUTING OF HOT/CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

FIRE WALL LEGEND

1 HOUR WALL

HVAC CHILLED WATER PIPING PLANS - BID OPTION #1

1/8" = 1'-0"

0' 4' 8' 16'

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Court Street, Montgomery, AL 36104
Tel 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

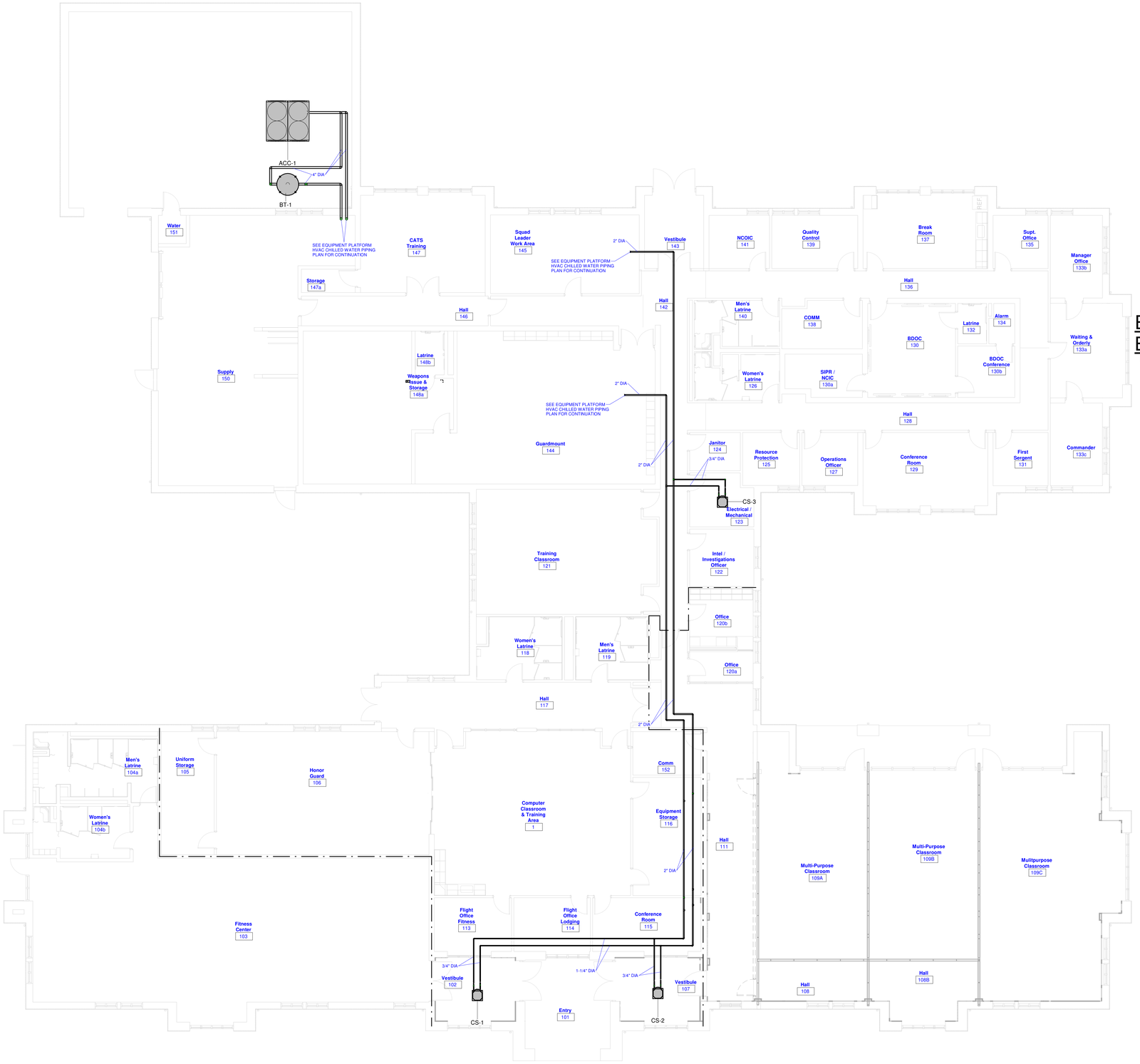
Job Number: 12072
Date: MARCH 2022
Drawn By
Checked By
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: HVAC CHILLED WATER PIPING PLANS - BID OPTION #1

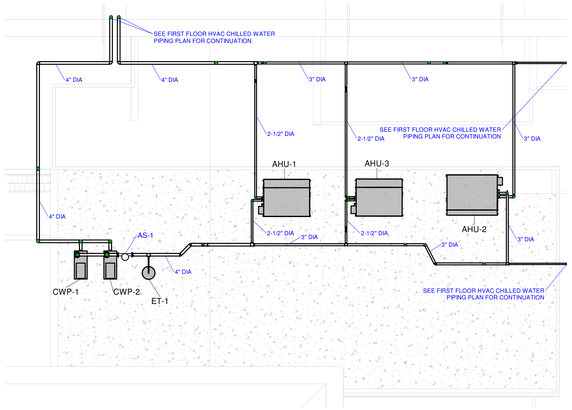
Sheet Number: M4.2

STATE OF ALABAMA REGISTERED PROFESSIONAL ENGINEER No. 14192 RANDALL D. WHORTON
03-15-2022



FIRST FLOOR HVAC CHILLED WATER PIPING PLAN - BID OPTION #2

1/8" = 1'-0"



EQUIPMENT PLATFORM CHILLED WATER PIPING PLAN - BID OPTION #2

1/8" = 1'-0"

GENERAL NOTES:

1. ALL DIFFUSERS/GRILLE RUNOUTS SHALL INCLUDE SPIN-IN WITH DAMPER.
2. ALL OUTSIDE AIR RUNOUTS, EXHAUST, ETC. AND BRANCH DUCTS SHALL INCLUDE SPIN-IN WITH DAMPER
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. TEST AND BALANCE IS REQUIRED FOR ALL UNITS, DUCT, GRILLES, ETC. SHOWN ON PLANS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL LOUVERS SHALL HAVE A PLENUM BOX. PLENUM BOX SHALL BE SIZED TO MATCH LOUVER DIMENSIONS. PLENUM BOX SHALL BE 2'-0" DEEP.
6. MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING OF REFRIGERANT LINES AND DUCTWORK WITH ALL OTHER TRADES.
7. 10"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
8. 22"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
9. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
10. 14"X14" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
11. 6"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
12. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
13. 8"X8" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
14. 12"X12" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
15. ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.
16. FOR VAV INLET DUCT SIZE REFERENCE VAV BOX SCHEDULE
17. DH-2 TO INCLUDE A 12"X12" SUPPLY DUCT WITH ELBOW AND A 12"X12" RETURN DUCT WITH ELBOW. OPENINGS TO BE 3'-0" MINIMUM BETWEEN RETURN AND SUPPLY. CAP OPEN END OF DUCTS WITH 1/4"X1/4" WIRE MESH. MOUNT HUMIDSTAT ABOVE CEILING IN RETURN AIR PLENUM.
18. MECHANICAL CONTRACTOR TO PROVIDE HYDRONIC PIPING SYSTEM FOR HEAT TRACING (15-1/8" DIA.) IS REQUIRED
19. RUN DUCT IN TRUSS WEB AREA ABOVE 12'-0" AFF

1

FIRE WALL LEGEND

1 HOUR WALL —— · —— · —— · ——

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE ROUTING OF HVAC HOT/CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

1

HVAC CHILLED WATER PIPING PLANS - BID OPTION #2

1/8" = 1'-0"

0' 4' 8' 16'

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Caroline Street, Birmingham, AL 35205
Tel. 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

Checked By

Project Title

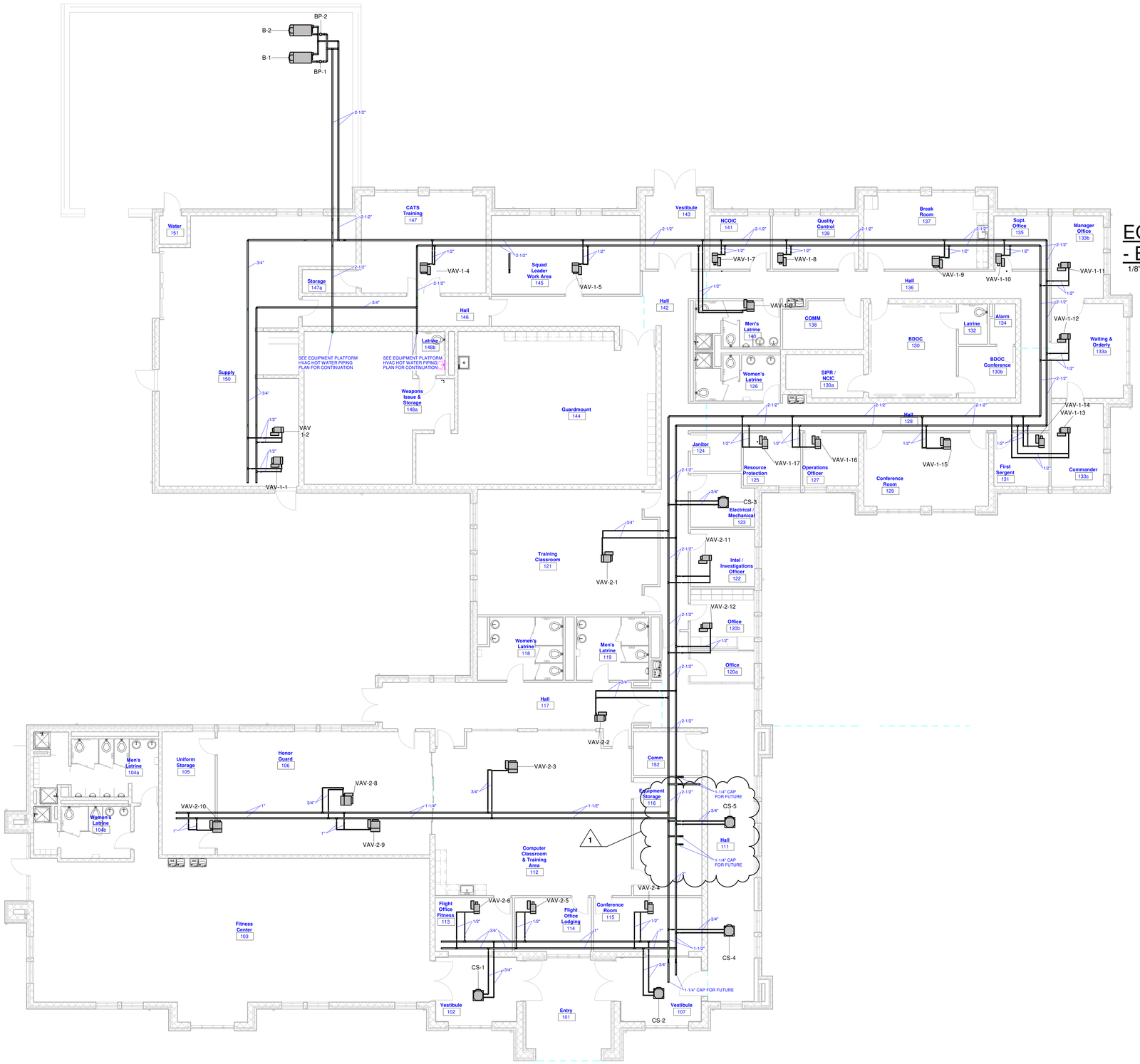
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: HVAC CHILLED WATER PIPING PLANS - BID OPTION #2

Sheet Number: M4.3

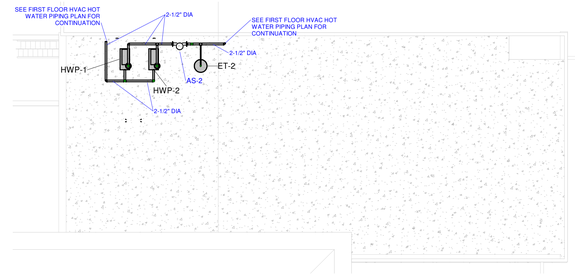
STATE OF ALABAMA · No. 14192 · PROFESSIONAL ENGINEER · RANDALL D. WHORTON · BIRMINGHAM

03-15-2022



FIRST FLOOR HVAC HOT WATER PIPING PLAN -BASE BID

1/8" = 1'-0"



EQUIPMENT PLATFORM HVAC HOT WATER PIPING PLAN - BASE BID

1/8" = 1'-0"

GENERAL NOTES:

1. ALL DIFFUSERS/GRILLE RUNOUTS SHALL INCLUDE SPIN-IN WITH DAMPER.
2. ALL OUTSIDE AIR RUNOUTS, EXHAUST, ETC. AND BRANCH DUCTS SHALL INCLUDE SPIN-IN WITH DAMPER
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. TEST AND BALANCE IS REQUIRED FOR ALL UNITS, DUCT, GRILLES, ETC. SHOWN ON PLANS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL LOUVERS SHALL HAVE A PLENUM BOX. PLENUM BOX SHALL BE SIZED TO MATCH LOUVER DIMENSIONS. PLENUM BOX SHALL BE 2'-0" DEEP.
6. MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING OF REFRIGERANT LINES AND DUCTWORK WITH ALL OTHER TRADES.
7. 10"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
8. 22"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
9. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
10. 14"X14" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
11. 6"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
12. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
13. 8"X8" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
14. 12"X12" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
15. ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.
16. FOR VAV INLET DUCT SIZE REFERENCE VAV BOX SCHEDULE
17. DH-2 TO INCLUDE A 12"X12" SUPPLY DUCT WITH ELBOW AND A 12"X12" RETURN DUCT WITH ELBOW. OPENINGS TO BE 3'-0" MINIMUM BETWEEN RETURN AND SUPPLY. CAP OPEN END OF DUCTS WITH 1/4"X1/4" WIRE MESH. MOUNT HUMIDISTAT ABOVE CEILING IN RETURN AIR PLENUM
18. ALL INTERIOR EXTERIOR HYDRONIC PIPING SHALL BE HEAT TRACED (15-1-60 AMPS) AS REQUIRED
19. RUN DUCT IN TRUSS WEB AREA ABOVE 12'-0" AFF

FIRE WALL LEGEND

1 HOUR WALL —— · —— · —— · ——

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE ROUTING OF HVAC DUCTWORK, GRILLES, AND PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

HVAC HOT WATER PIPING PLANS - BASE BID

1/8" = 1'-0"

0' 4' 8' 16'

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Caroline Street, Birmingham, AL 35205
Tel. 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By:

Checked By:

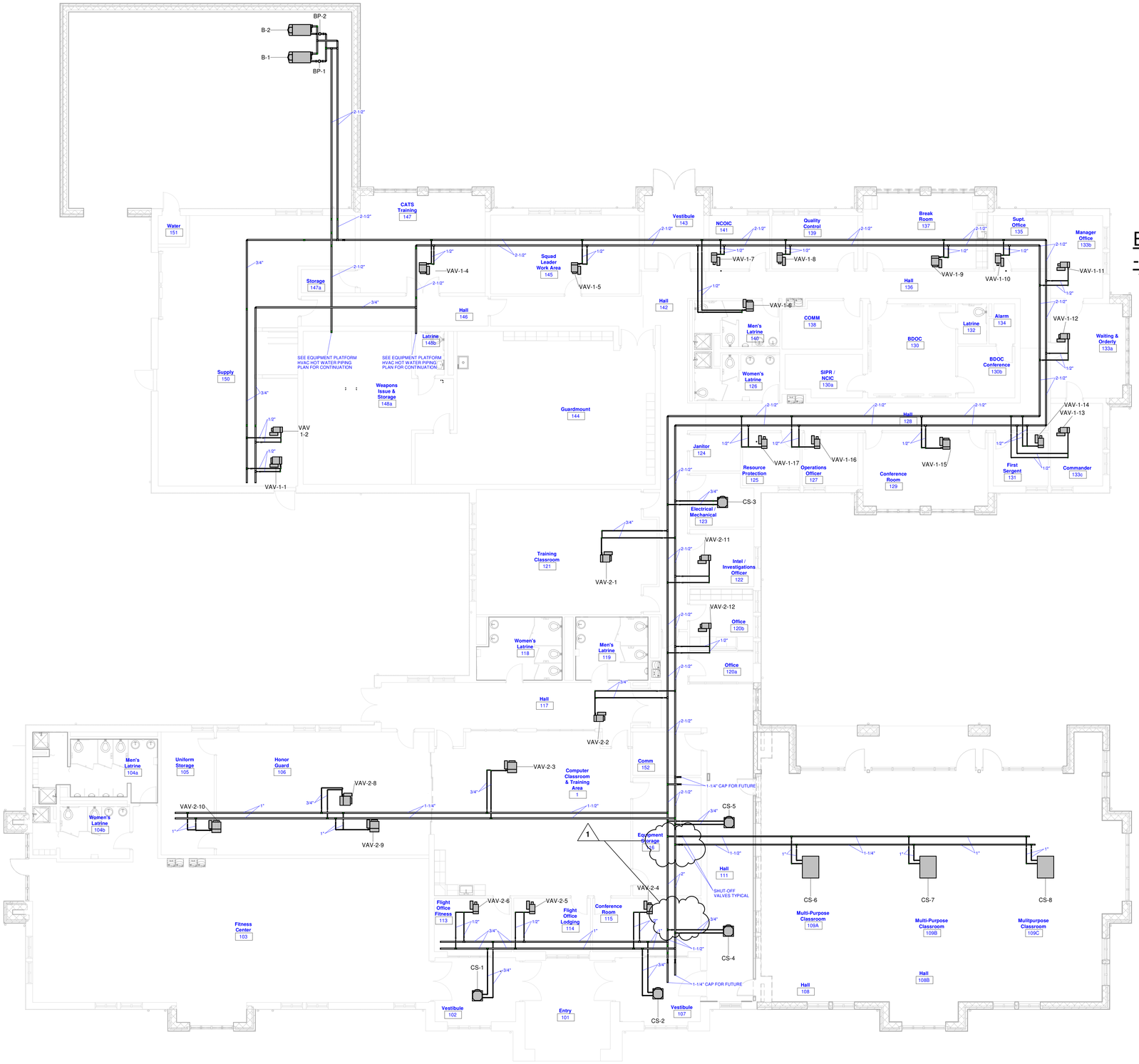
Project Title:

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: HVAC HOT WATER PIPING PLANS - BASE BID

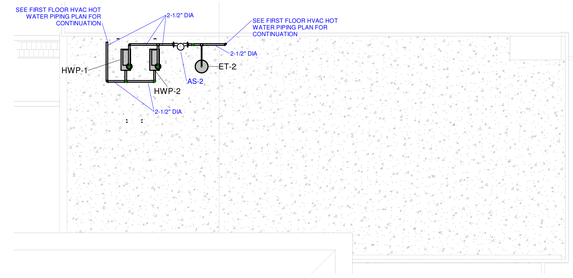
Sheet Number: M5.1

Randall Whorton
No. 14192
PROFESSIONAL ENGINEER
STATE OF ALABAMA
03-15-2022



FIRST FLOOR HVAC HOT WATER PIPING PLAN - BID OPTION #1

1/8" = 1'-0"



EQUIPMENT PLATFORM HVAC HOT WATER PIPING PLAN - BID OPTION #1

1/8" = 1'-0"

GENERAL NOTES:

1. ALL DIFFUSERS/GRILLE RUNOUTS SHALL INCLUDE SPIN-IN WITH DAMPER.
2. ALL OUTSIDE AIR RUNOUTS, EXHAUST, ETC. AND BRANCH DUCTS SHALL INCLUDE SPIN-IN WITH DAMPER
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. TEST AND BALANCE IS REQUIRED FOR ALL UNITS, DUCT, GRILLES, ETC. SHOWN ON PLANS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL LOUVERS SHALL HAVE A PLENUM BOX. PLENUM BOX SHALL BE SIZED TO MATCH LOUVER DIMENSIONS. PLENUM BOX SHALL BE 2'-0" DEEP.
6. MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING OF REFRIGERANT LINES AND DUCTWORK WITH ALL OTHER TRADES.
7. 10"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
8. 22"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
9. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
10. 14"X14" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
11. 6"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
12. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
13. 8"X8" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
14. 12"X12" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
15. ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.
16. FOR VAV INLET DUCT SIZE REFERENCE VAV BOX SCHEDULE
17. DH-2 TO INCLUDE A 12"X12" SUPPLY DUCT WITH ELBOW AND A 12"X12" RETURN DUCT WITH ELBOW. OPENINGS TO BE 3'-0" MINIMUM BETWEEN RETURN AND SUPPLY. CAP OPEN END OF DUCTS WITH 1/4"X1/4" WIRE MESH. MOUNT THERMOSTAT AND SENSING BULB ON RETURN AIR DUCTS.
18. ALL EXTERIOR EXPOSED HYDRONIC PIPING SHALL BE HEAT TRACED. 115-1-60 OUTLET IS REQUIRED.
19. RUN DUCT IN TRUSS WEB AREA ABOVE 12'-0" AFF

FIRE WALL LEGEND

1 HOUR WALL —— · —— · —— · ——

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. COORDINATE ROUTING OF HVAC HOT WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

HVAC HOT WATER PIPING PLANS - BID OPTION #1

1/8" = 1'-0"

0' 4' 8' 16'

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Governor's Drive, Huntsville, AL 35804
Tel. 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

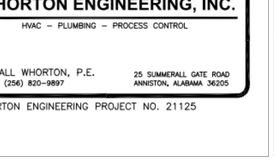
Drawn By

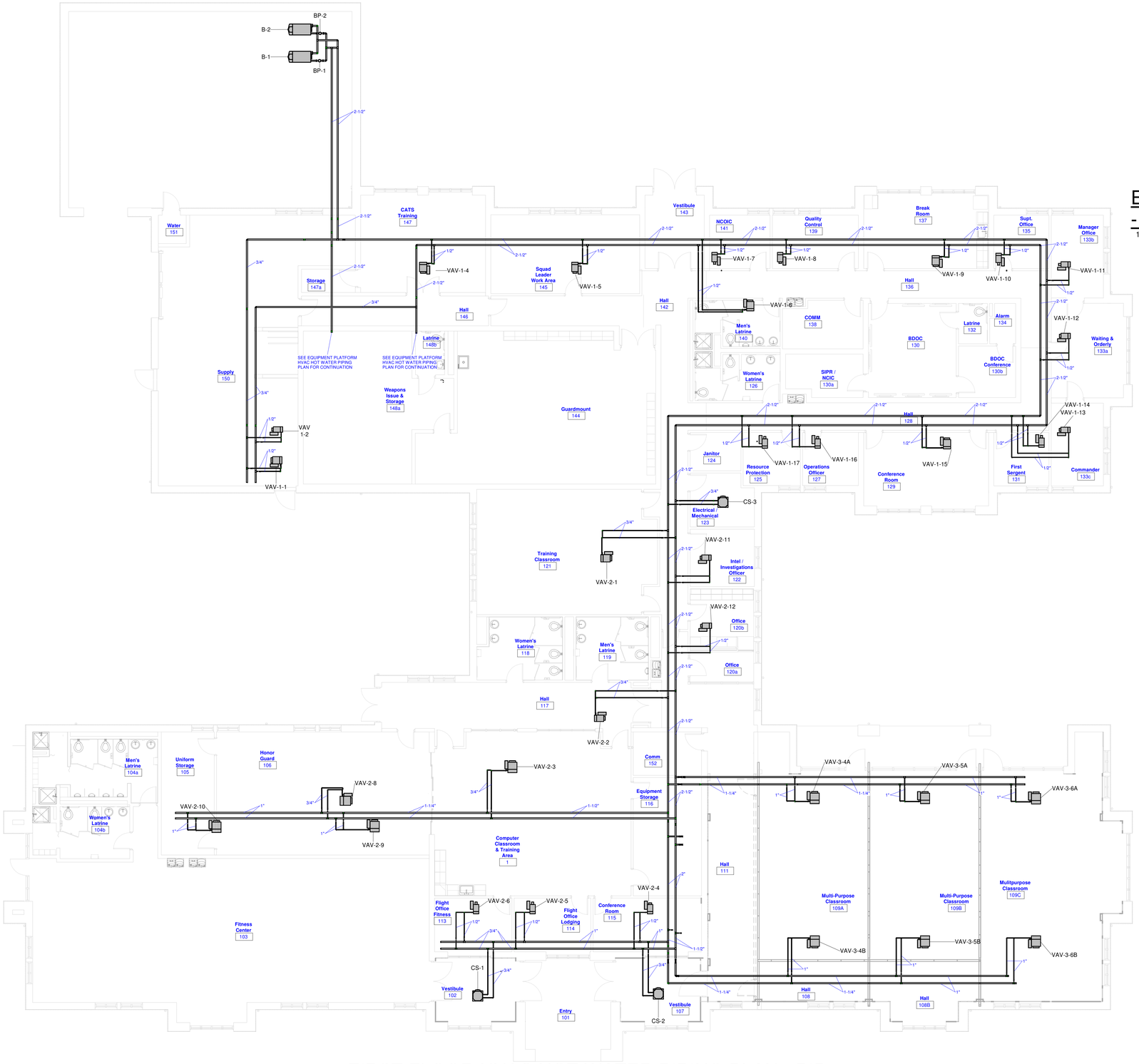
Checked By

Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL

Sheet Title: HVAC HOT WATER PIPING PLANS - BID OPTION #1

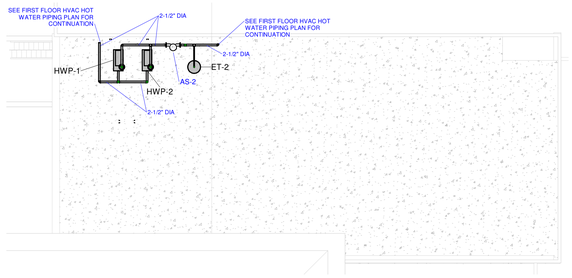
Sheet Number: M5.2





FIRST FLOOR HVAC HOT WATER PIPING PLAN - BID OPTION #2

1/8" = 1'-0"



EQUIPMENT PLATFORM HVAC HOT WATER PIPING PLAN - BID OPTION #2

1/8" = 1'-0"

GENERAL NOTES:

1. ALL DIFFUSERS/GRILLE RUNOUTS SHALL INCLUDE SPIN-IN WITH DAMPER.
2. ALL OUTSIDE AIR RUNOUTS, EXHAUST, ETC. AND BRANCH DUCTS SHALL INCLUDE SPIN-IN WITH DAMPER
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. TEST AND BALANCE IS REQUIRED FOR ALL UNITS, DUCT, GRILLES, ETC. SHOWN ON PLANS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL LOUVERS SHALL HAVE A PLENUM BOX. PLENUM BOX SHALL BE SIZED TO MATCH LOUVER DIMENSIONS. PLENUM BOX SHALL BE 2'-0" DEEP.
6. MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING OF REFRIGERANT LINES AND DUCTWORK WITH ALL OTHER TRADES.
7. 10"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
8. 22"X10" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
9. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
10. 14"X14" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
11. 6"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
12. 20"X6" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
13. 8"X8" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
14. 12"X12" TITUS SECURITY BAR, MODEL SG-BG-SLV OR APPROVED EQUAL.
15. ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.
16. FOR VAV INLET DUCT SIZE REFERENCE VAV BOX SCHEDULE
17. DH-2 TO INCLUDE A 12"X12" SUPPLY DUCT WITH ELBOW AND A 12"X12" RETURN DUCT WITH ELBOW. OPENINGS TO BE 3'-0" MINIMUM BETWEEN RETURN AND SUPPLY. CAP OPEN END OF DUCTS WITH 14"X14" WIRE MESH. MOUNT DUAL DIFFUSER ABOVE CEILING RETURN PLENUM.
18. ALL EXTERIOR EXPOSED HYDRONIC PIPING SHALL BE HEAT TRACED. 115-1-60 OUTLET IS REQUIRED.
19. RUN DUCT IN TRUSS WEB AREA ABOVE 12'-0" AFF

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE ROUTING OF HVAC HOT/CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

HVAC HOT WATER PIPING PLANS - BID OPTION #2

1/8" = 1'-0"

0' 4' 8' 16'

FIRE WALL LEGEND

1 HOUR WALL

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
115 South Court Street, Montgomery, AL 36104
Tel 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

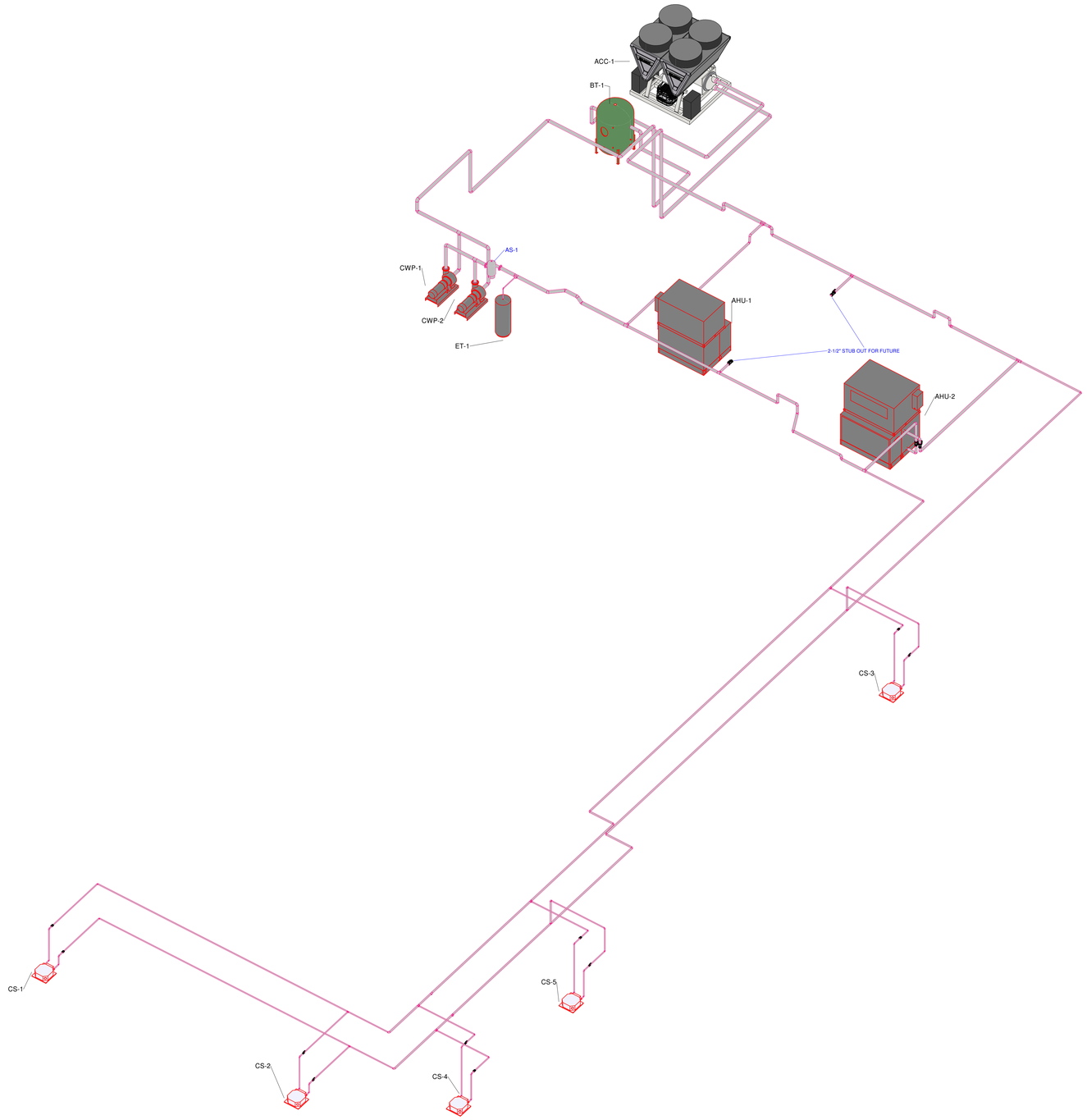
Checked By

Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL

Sheet Title: HVAC HOT WATER PIPING PLANS - BID OPTION #2

Sheet Number: M5.3

STATE OF ALABAMA LICENSED PROFESSIONAL ENGINEER No. 14192 RANDALL D. WHORTON 03-15-2022



HVAC CHILLED WATER PIPING RISER DIAGRAM - BASE BID

1

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE ROUTING OF HVAC HOT/CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
115 South Greene Street, Huntsville, AL 35804
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number
12072

Date
MARCH 2022

Drawn By

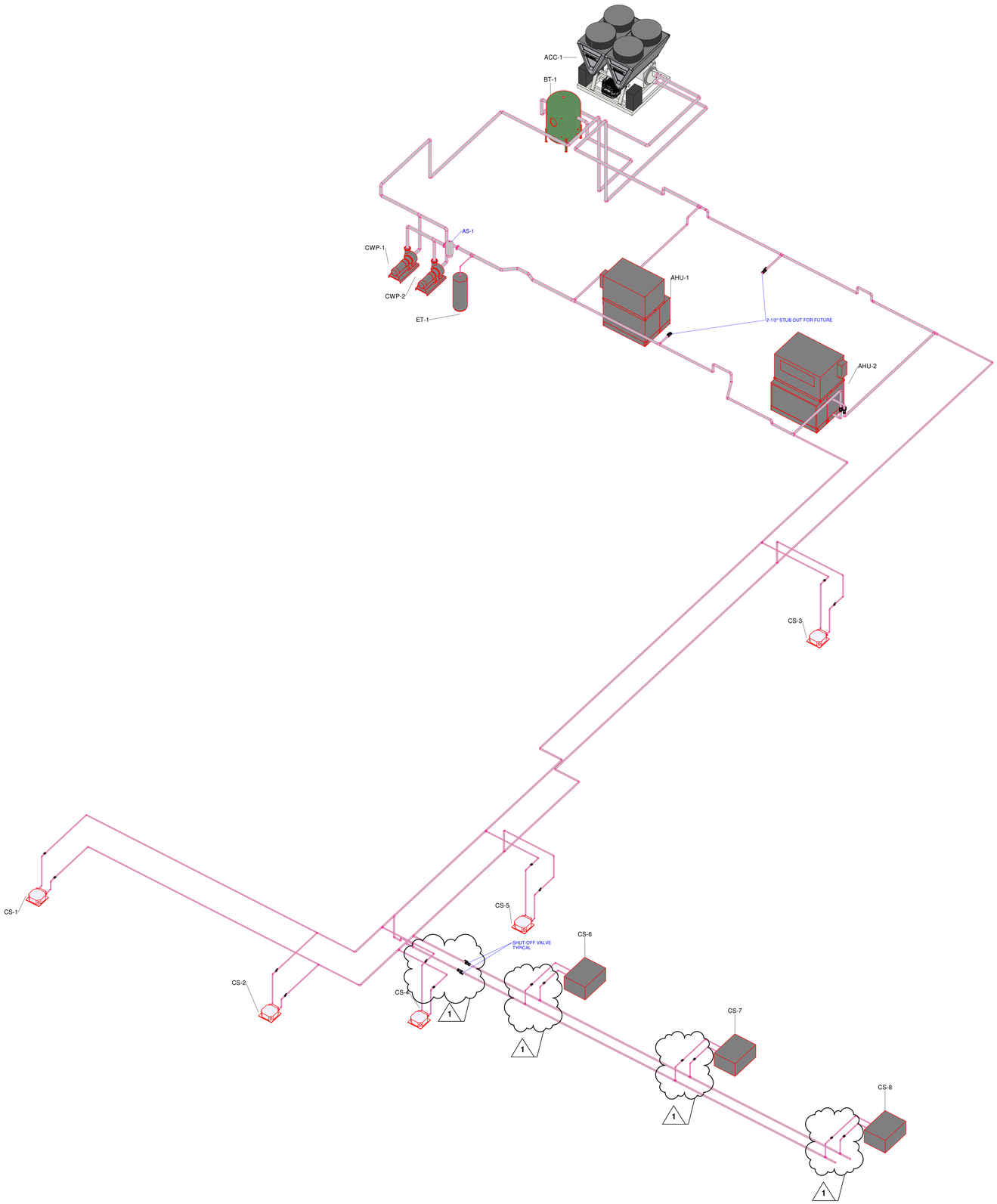
Checked By

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
HVAC CHILLED WATER PIPING RISER DIAGRAM - BASE BID

Sheet Number
M5.4

STATE OF ALABAMA
No. 14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON
03-15-2022



HVAC CHILLED WATER PIPING RISER DIAGRAM - BID OPTION #1

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE PIPING OF HVAC HOT/CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
113 South Greene Street | Huntsville, AL 35804
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

Checked By

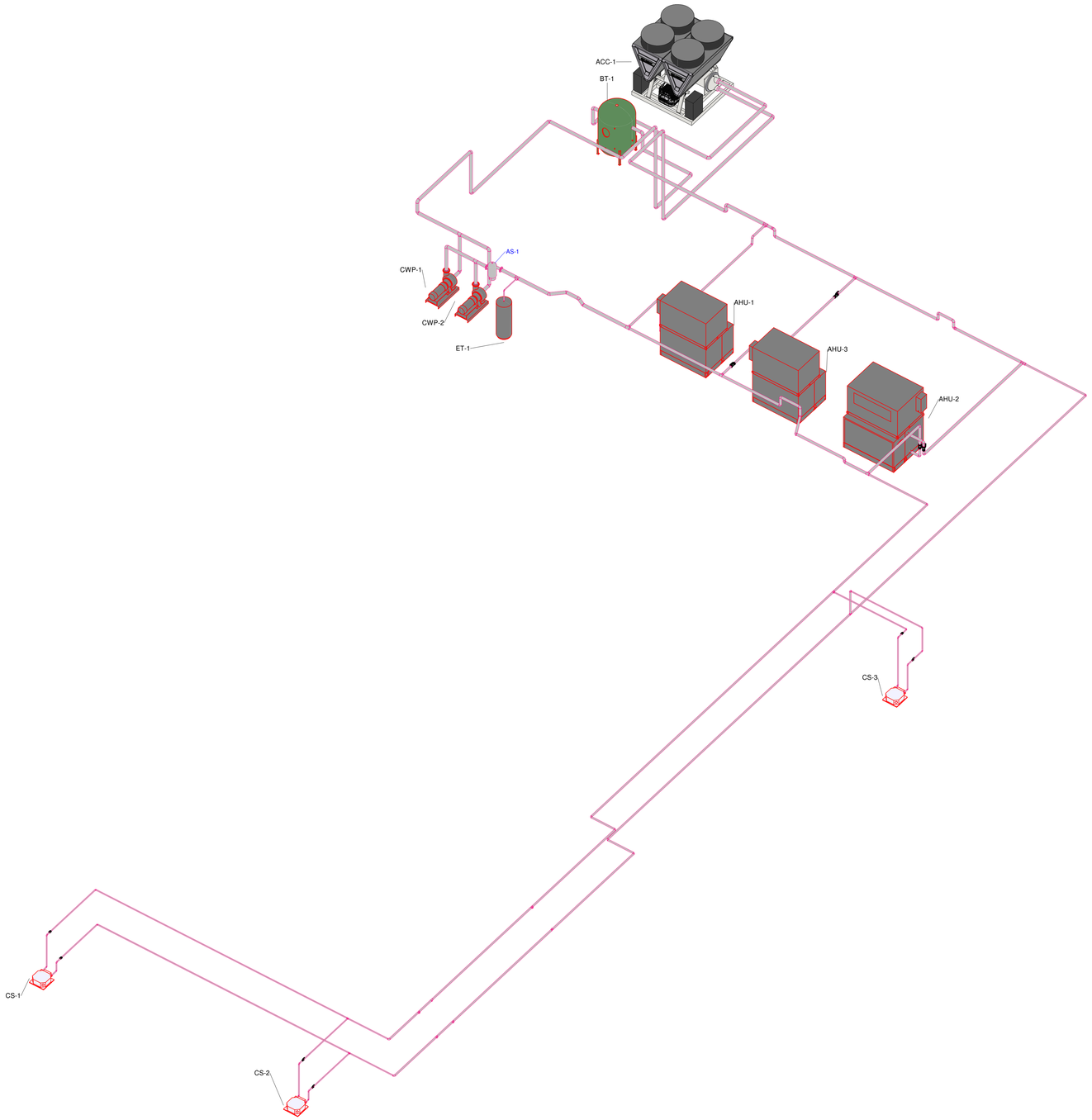
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: HVAC CHILLED WATER PIPING RISER DIAGRAM - BID OPTION #1

Sheet Number: M5.5

STATE OF ALABAMA
No. 14192
PROFESSIONAL ENGINEER
RANDALL WHORTON
03-15-2022



HVAC CHILLED WATER PIPING RISER DIAGRAM - BID OPTION #2

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE ROUTING OF HVAC HOT AND CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade Parkway, Birmingham, AL 35204
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

Checked By

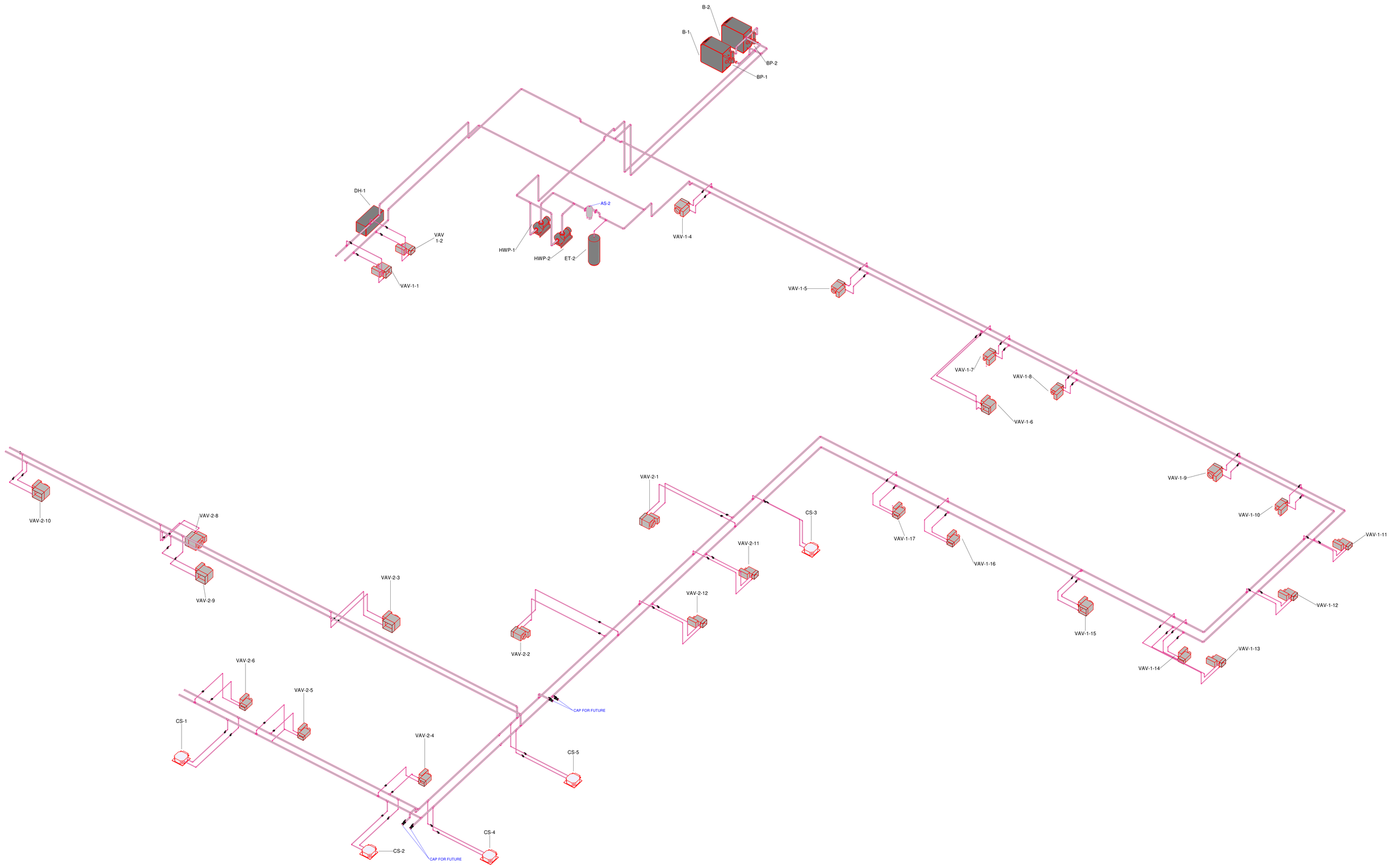
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: HVAC CHILLED WATER PIPING RISER DIAGRAM - BID OPTION #2

Sheet Number: M5.6

STATE OF ALABAMA
No. 14192
PROFESSIONAL
RANDALL D. WHORTON
ENGINEER
03-15-2022



HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE ROUTING OF HVAC HOT/CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

1

HVAC HOT WATER PIPING RISER DIAGRAM - BASE BID

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade Parkway, Birmingham, AL 35204
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number
12072

Date
MARCH 2022

Drawn By

Checked By

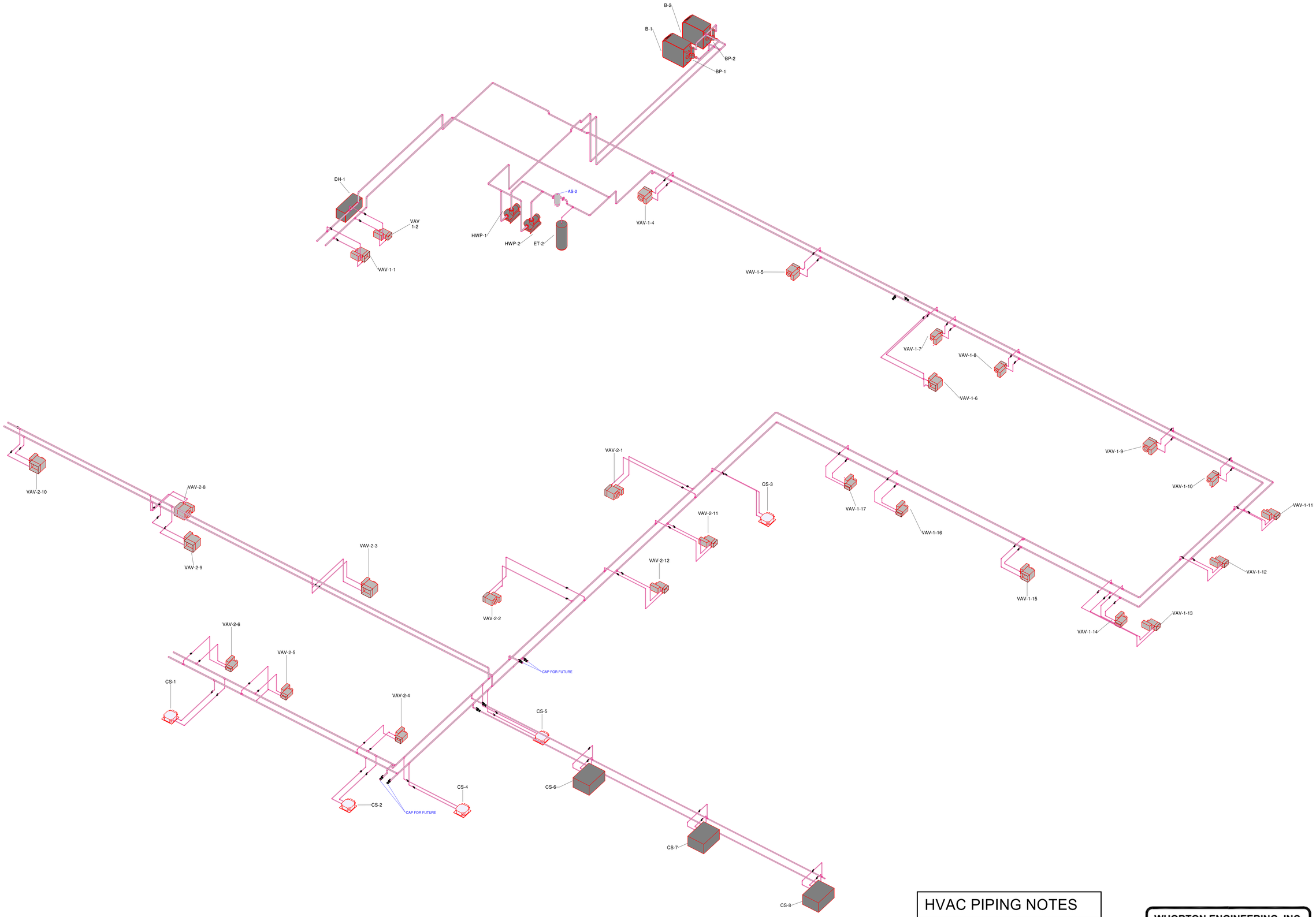
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
HVAC HOT WATER PIPING RISER DIAGRAM - BASE BID

Sheet Number
M5.7

STATE OF ALABAMA
RANDALL D. WHORTON
No. 14192
PROFESSIONAL ENGINEER
03-15-2022



HVAC HOT WATER PIPING RISER DIAGRAM - BID OPTION #1

HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR COORDINATE ROUTING
4. CONTRACTOR SHALL COORDINATE ROUTING OF HVAC HOT/CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

1

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 21125

S|S&L

ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade Montgomery, AL 36104
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number
12072

Date
MARCH 2022

Drawn By

Checked By

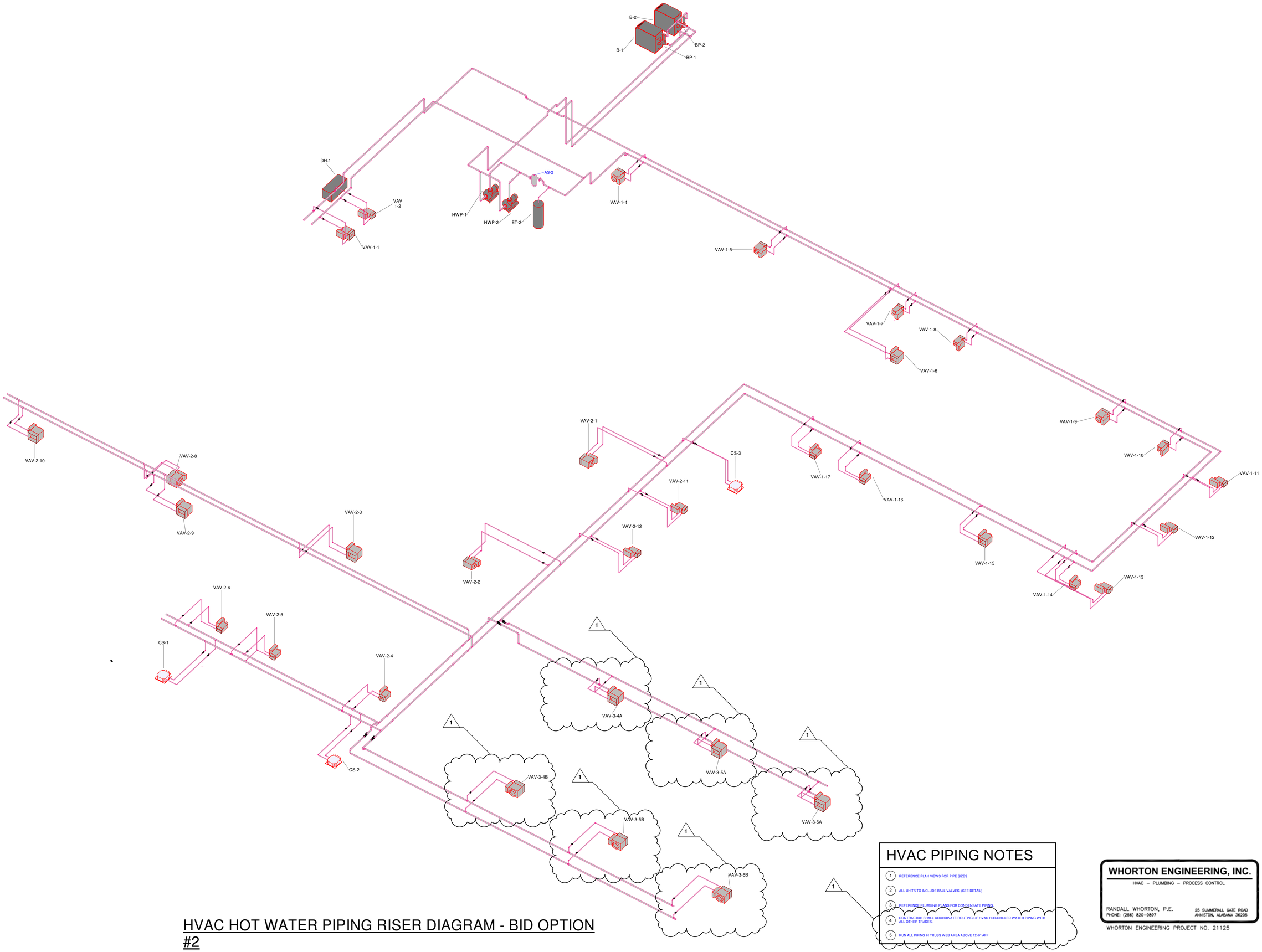
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
HVAC HOT WATER PIPING RISER DIAGRAM - BID OPTION #1

Sheet Number
M5.8

Randall Whorton
STATE OF ALABAMA
No. 14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON
03-15-2022



HVAC PIPING NOTES

1. REFERENCE PLAN VIEWS FOR PIPE SIZES
2. ALL UNITS TO INCLUDE BALL VALVES. (SEE DETAIL)
3. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING.
4. CONTRACTOR SHALL COORDINATE ROUTING OF HVAC HOT/CHILLED WATER PIPING WITH ALL OTHER TRADES.
5. RUN ALL PIPING IN TRUSS WEB AREA ABOVE 12'-0" AFF

HVAC HOT WATER PIPING RISER DIAGRAM - BID OPTION #2

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1135 South Cobb Drive | Marietta, GA 30060
Tel 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number
12072

Date
MARCH 2022

Drawn By

Checked By

Project Title
A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
HVAC HOT WATER PIPING RISER DIAGRAM - BID OPTION #2

Sheet Number
M5.9

STATE OF ALABAMA
Randall Whorton No. 14192
PROFESSIONAL ENGINEER
RANDALL D. WHORTON
03-15-2022

PLUMBING NOTES

1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE PLUMBING SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, ACCESSORIES, AND CONTROLS COMPLETELY COORDINATED WITH ALL TRADES. ALL REQUIREMENTS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED TO. ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, LOCAL AUTHORITIES, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE OWNER. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
2. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, HVAC, AND ELECTRICAL TRADES. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC.
3. FIELD VERIFY EXACT SIZE, MATERIAL, AND LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING WORK.
4. VERIFY LOCATION OF ALL FIXTURES WITH ARCHITECTURAL PLANS.
5. VERIFY ALL FIXTURE MOUNTING HEIGHTS WITH ENGINEER AND ARCHITECT.
6. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL DRAWINGS. SET SLEEVES IN FLOORS/WALLS AND ATTACHMENTS FOR HANGERS AS CONSTRUCTION PROGRESSES. ALL PENETRATIONS MUST BE SEALED AND HELD AS TIGHT TO COLUMNS OR WALLS AS POSSIBLE.
7. PROVIDE 12"X12" ACCESS PANEL FOR SHOCK ABSORBERS AND ALL VALVES LOCATED ABOVE NON-ACCESSIBLE CEILINGS AND INSIDE PIPE CHASES. EXACT LOCATION MUST BE COORDINATED WITH ARCHITECTURAL AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
8. ALL PIPING SHALL BE CONCEALED INSIDE WALLS, WITHIN PIPE CHASES, OR ABOVE CEILINGS. HOLD ALL PIPING ABOVE CEILING AS HIGH AS POSSIBLE.
9. COORDINATE ALL UNDERGROUND PIPING WITH GRADE BEAMS, WALL FOOTINGS, AND OTHER STRUCTURAL CONDITIONS.
10. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL EQUIPMENT INDICATED ON DRAWINGS FINAL CONNECTION SHALL INCLUDE ANY ADAPTORS, NIPPLES, SHUT-OFF VALVES, PRV'S, SHOCK ABSORBERS, BACKFLOW PREVENTION DEVICES, REGULATORS, ETC.
11. ALL STRUCTURAL PENETRATIONS (SLEEVES, BLOCK OUTS, ETC.) ARE TO BE LOCATED AND COORDINATED IN THE FIELD BY THE CONTRACTOR IN RELATION TO THE REQUIREMENTS OF FINAL EQUIPMENT AND FIXTURES SELECTED.
12. CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL DOMESTIC WATER AND SANITARY SEWERS, UNLESS OTHERWISE NOTED.
13. ALL PLUMBING COMPONENTS TO BE LEAD-FREE.
14. ENCASE ALL WASTE/WATER PIPING, VALVES, WATER HEATER, OR ANY OTHER ASSOCIATED PLUMBING EQUIPMENT BELOW WALL HUNG LAVATORY, WITH TRUEBRO LAV-SHIELD (OR APPROVED EQUAL). THIS APPLIES TO ALL ADA LAVS, LAVS WITH MIXING VALVES MOUNTED BELOW LAV, AND ALL LAVS THAT INCLUDE INSTANTANEOUS ELECTRIC WATER HEATERS MOUNTED BELOW LAVS. LAV GUARD SHALL INCLUDE STAINLESS STEEL TAMPER RESISTANT SCREWS. LAV-SHIELD SHALL BE ORDERED TO MATCH SPECIFIED/APPROVED LAVATORY.
15. HORIZONTAL DRAINAGE PIPING OF 2-1/2" DIAMETER OR LESS SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/4" PER FOOT. PIPING 3" AND LARGER SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/8" PER FOOT.
16. SET FLOOR DRAIN ELEVATION DEPRESSED BELOW FINISHED SLAB ELEVATION AS LISTED BELOW TO PROVIDE PROPER FLOOR SLOPE TO DRAIN:
    5 FOOT DRAIN RADIUS : 1/2" DEPRESSION
    10 FOOT DRAIN RADIUS : 3/4" DEPRESSION
    15 FOOT DRAIN RADIUS : 1" DEPRESSION
    20 FOOT DRAIN RADIUS : 1-1/4" DEPRESSION
    25 FOOT DRAIN RADIUS ; 1-1/2" DEPRESSION
17. ALL TRAP ARMS, P-TRAPS, ETC. EXPOSED UNDER LAVATORIES SHALL BE 18. GA. CHROME PLATED.
18. ABOVE GROUND DRAINAGE AND VENT PIPING LOCATED WITHIN FIRE RATED WALLS SHALL BE COPPER PIPE IN ACCORDANCE WITH STANDARDS ASTM B42 AND B302 OR CAST IRON PIPE IN ACCORDANCE WITH STANDARDS ASTM A 74; ASTM A 888; CISPI 301. COORDINATE WITH ARCHITECTURAL LIFE SAFETY PLANS FOR EXACT LOCATION OF ALL FIRE WALLS.
19. ALL CONDENSATE DRAIN PIPING LOCATED WITHIN RETURN AIR PLENUM, SHALL BE TYPE "L" COPPER. ALL COPPER PIPING MUST BE INSULATED WITH 1/2" ARMAFLEX OR APPROVED EQUAL. PIPING CAN ALSO BE SCHEDULE 40 CPVC. ALL CONDENSATE DRAIN PIPING THAT IS NOT LOCATED WITHIN RETURN AIR PLENUM MAY BE SCHEDULE 40 PVC WITH 1/2" ARMAFLEX INSULATION (OR APPROVED EQUAL). INSULATION SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. COORDINATE WITH HVAC PLAN FOR REQUIREMENT AND LOCATION OF AIR PLENUM(S).
20. INSTALL ANGLE COVER OVER CONDENSATE LINES, SPRINKLER LINES, ETC. THAT CROSS MEZZANINE/MECH ROOM FLOOR WHERE TRIPPING MIGHT BE A HAZARD. PRIME AND PAINT ANGLE COVER SAFETY YELLOW COLOR.
21. VERIFY ORIENTATION OF FLUSHING MECHANISM ON TOILET/URINAL WITH ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.
22. PROVIDE WATER PRESSURE REDUCING/REGULATING VALVE ON MAIN SERVICE WHEN MAIN PRESSURE EXCEEDS 75 PSI AT ANY TIME OF DAY. COORDINATE WITH LOCAL UTILITY.
23. PROVIDE REDUCED PRESSURE BACKFLOW PREVENTER AT ALL CONNECTIONS TO MECHANICAL EQUIPMENT. KITCHEN AND LAUNDRY EQUIPMENT, ETC., AS REQUIRED BY CODE AND BY LOCAL AUTHORITY. CONTRACTOR IS TO VERIFY WITH THE LOCAL AUTHORITY THE TYPE OF BACKFLOW PREVENTION DEVICE REQUIRED FOR ALL APPLICATIONS PRIOR TO INSTALLATION.
24. ALL OVERHEAD WATER PIPING SHALL BE INSTALLED BELOW CEILING INSULATION.
25. INSTALL BACKFLOW PREVENTION IN ACCORDANCE WITH CITY AND STATE REQUIREMENTS. INSTALL ON MAIN DOMESTIC WATER SERVICE TO THE BUILDING.
26. CONTRACTOR SHALL INSTALL WATER HAMMER ARRESTER EQUAL TO ZURN SERIES 1700 AT EACH PLUMBING GROUP.
27. CONTRACTOR TO FURNISH AND INSTALL ANTI-SIPHON VALVE ON EACH WATER HEATER.
28. CONTRACTOR SHALL FURNISH AND INSTALL BALL VALVES FOR WATER SHUT-OFF AT FIXTURE GROUPINGS.
29. ALL STOPS/SUPPLIES SHALL BE CHROME PLATED BRASS.
30. ALL GAS PIPING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH NFPA 54, INTERNATIONAL FUEL GAS CODE.
31. ALL EXPOSED INTERIOR OR EXTERIOR GAS LINES ARE TO BE PAINTED BY THE PLUMBING CONTRACTOR WITH ONE COAT OF LATEX PAINT. INTERIOR COLOR TO MATCH WALL. EXTERIOR COLOR TO BE SELECTED BY ARCHITECT.
32. PROVIDE INSULATING UNION BETWEEN ABOVE AND BELOW GROUND GAS PIPING.

PLUMBING EQUIPMENT SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	NOTES
WC-1	WATER CLOSET WALL HUNG HE MANUAL FLUSH	ZURN MODEL NO. Z5615-BWL OR APPROVED EQUAL	WALL	15" TO RIM	4"	2"	1 1/4"	–	WHITE ELONGATED VITREOUS CHINA, ZURN Z1209-N(L/R)4/ND4 WALL HANGER SUPPORT (SEE PLAN FOR R/L HAND OFFSET OR SINGLE/DOUBLE INLET), WHITE OPEN FRONT SOLID PLASTIC SEAT, BOLT CAPS 12" ROUGH-IN, ZURN Z6000AV-ONE MANUAL HIGH EFFICIENCY FLUSH VALVE
WC-1A	WATER CLOSET WALL HUNG ADA HE MANUAL FLUSH	ZURN MODEL NO. Z5615-BWL OR APPROVED EQUAL	WALL	16-1/8" TO RIM	4"	2"	1 1/4"	–	WHITE ELONGATED VITREOUS CHINA, ZURN Z1209-N(L/R)4 WALL HANGER SUPPORT (SEE PLAN FOR R/L HAND OFFSET), WHITE OPEN FRONT SOLID PLASTIC SEAT, BOLT CAPS 12" ROUGH-IN, ZURN Z6000AV-ONE MANUAL HIGH EFFICIENCY FLUSH VALVE
WC-2	WATER CLOSET WALL HUNG ADA HE MANUAL FLUSH	ZURN MODEL NO. Z5615-BWL OR APPROVED EQUAL	WALL	16-1/8" TO RIM	4"	2"	1 1/4"	–	WHITE ELONGATED VITREOUS CHINA, ZURN Z1209-ND(L/R)4 DOUBLE WALL HANGER SUPPORT (SEE PLAN FOR R/L HAND OFFSET), WHITE OPEN FRONT SOLID PLASTIC SEAT, BOLT CAPS 12" ROUGH-IN, ZURN Z6000AV-ONE MANUAL HIGH EFFICIENCY FLUSH VALVE
U-1	URINAL HE MANUAL FLUSH	ZURN MODEL NO. Z5758.207.00 OR APPROVED EQUAL	WALL	24" TO LIP	2"	1-1/4"	3/4"	–	WHITE VITREOUS CHINA, ZURN Z5758.207.00 HE MANUAL OPERATED FV, BOLT CAPS, WALL HANGER, 1/8 GAL. VERSION
U-1A	URINAL ADA HE MANUAL FLUSH	ZURN MODEL NO. Z5798 OR APPROVED EQUAL	WALL	17" TO LIP	2"	1-1/4"	3/4"	–	WHITE VITREOUS CHINA, ZURN Z5758.207.00 HE MANUAL OPERATED FV, BOLT CAPS, WALL HANGER, 1/8 GAL. VERSION
L-1	LAVATORY, ADA 20"X17" SENSOR HARDWIRED	ZURN MODEL NO. Z5114 OR APPROVED EQUAL	CABINET	–	1-1/4"	1-1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, OPEN GRID STRAINER, SLOAN MODEL NO. ETF-610 HARDWIRED SENSOR FAUCET, W/ 0.5 GPM AERATOR, 4" TRIM PLATE, P-TRAP W/ CLEANOUT, SUPPLIES W/ STOPS
L-1A	LAVATORY, ADA 20"X18" SENSOR HARDWIRED	ZURN MODEL NO. Z5344 OR APPROVED EQUAL	WALL	34" TO LIP	1-1/4"	1-1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, OPEN GRID STRAINER, SLOAN MODEL NO. ETF-610 HARDWIRED SENSOR FAUCET, W/ 0.5 GPM AERATOR, 4" TRIM PLATE, P-TRAP W/ CLEANOUT; CONCEALED ARM CARRIER; SUPPLIES W/ STOPS
SS-1	SERVICE SINK	FIAT MODEL NO. MSB-2424 OR APPROVED EQUAL	FLOOR	SEE DETAIL	3"	2"	1/2"	1/2"	MOLDED-STONE, DELTA NO. 28T8183, 3" IPS STRAINER, POLISHED CHROME FAUCET WITH VACUUM BREAKER, HOSE/ WALL BRACKET, MOP HANGER
LT-1	LAUNDRY TUB	FIAT MODEL NO. SF-1F TUF-TUB OR APPROVED EQUAL	FLOOR	–	1-1/2"	1-1/2"	1/2"	1/2"	DELTA MODEL NO. 28C2383 FAUCET WITH VACUUM BREAKER, P-TRAP WITH CLEANOUT, FIAT MODEL A-2 OVERFLOW PIPE
S-1	STAINLESS SINK SINGLE COMPARTMENT	JUST MODEL NO. SL-ADA-2219-A-GR OR APPROVED EQUAL	CABINET	–	1-1/2"	1-1/4"	1/2"	1/2"	JUST MODEL NO. J-35 STRAINER, DELTA MODEL NO. 100LF-HDF (1.5 GPM) FAUCET, SUPPLIES WITH STOPS, P-TRAP WITH CLEANOUT, 4-1/2" DEEP BOWL
SH-1	SHOWER BUILT-IN	BUILT-IN OR APPROVED EQUAL	FLOOR	–	2"	2"	1/2"	1/2"	DELTA MODEL T13291 VALVE W/ DELTA NO. RP38357 SHOWER HEAD ZURN MODEL ZN-415 5" DIA. NICKEL BRONZE SHOWER DRAIN APPROVED EQUAL : FLORESTONE 200 SHOWER BASE
SH-1A	SHOWER BUILT-IN, ADA	BUILT-IN OR APPROVED EQUAL	FLOOR	–	2"	2"	1/2"	1/2"	DELTA MODEL T17TH335 WITH PRESSURE BALANCED MULTI CHOICE MIXING VALVE; ZURN MODEL ZN-415 5" DIA. NICKEL BRONZE SHOWER DRAIN APPROVED EQUAL : FLORESTONE 400 BARRIER FREE SHOWER BASE
EW-1	EMERGENCY EYEWASH/ FACEWASH, ADA	HAWS NO. 7260BT-7270BT OR APPROVED EQUAL	WALL	36" TO RIM	1-1/4"	1-1/4"	1/2"	1/2"	BARRIER FREE, MV-3 POWERS MODEL ES150 EMERGENCY TEMPERING VALVE, FACTORY SET AT 85°F, FACTORY TRAP, SIGNAGE.

EQUALS BY ELJER, KOHLER, TOTO, AND AMERICAN STANDARD WILL BE ACCEPTED.

1

PLUMBING SPECIALITY SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	MIXED WATER SIZE	NOTES
FD-1	FLOOR DRAIN	ZURN MODEL NO. ZN-415B-P OR APPROVED EQUAL	FLOOR	–	4"	2"	–	–	–	5" DIA. NICKEL BRONZE ADJUSTABLE TOP PROSET SYSTEM INC. TG34IP RETROFIT TRAP GUARD
HD-1	HUB DRAIN	PROSET MODEL SYSTEM INC. MODEL NO. TG34IP OR APPROVED EQUAL	FLOOR	–	4"	2"	–	–	–	STUB TO 1" A.F.F.
HD-2	HUB DRAIN	PROSET MODEL SYSTEM INC. MODEL NO. TG34IP OR APPROVED EQUAL	FLOOR	–	2"	2"	–	–	–	STUB UP IN BASE CABINET
WH-1	WALL HYDRANT	WOODFORD MODEL NO. B65 OR APPROVED EQUAL	WALL	18" TO 24"	–	–	3/4"	–	–	FREEZELESS, ANTI-SIPHON, LOCKING BOX
WB-1	ICEMAKER WALLBOX	OATEY MODEL NO. 38574 OR APPROVED EQUAL	WALL	36" A.F.F.	–	–	1/2"	–	–	1/4 TURN BRASS BALL VALVE – COPPER SWEAT – STANDARD PACK WITH 6' STAINLESS STEEL HOSE
F.C.O.	FLOOR CLEANOUT	ZURN MODEL NO. ZN-1400-2 OR APPROVED EQUAL	FLOOR	–	4"	–	–	–	–	6" DIA. ADJUSTABLE NICKEL BRONZE TOP
W.C.O.	WALL CLEANOUT	ZURN MODEL NO. Z-1441 OR APPROVED EQUAL	WALL	–	4"	–	–	–	–	7" DIA. STAINLESS STEEL COVER
AD-1	ACCESS DOOR 8" X 8"	ELMDOR MODEL NO. SLK OR APPROVED EQUAL	WALL	VERIFY WITH ARCH.	–	–	–	–	–	AUTOMATIC SPRING DOOR CLOSER. STAINLESS STEEL CONSTRUCTION INSTALL MIXING VALVE BEHIND DOOR
W.H.A.	WATER HAMMER ARRESTOR	ZURN SERIES 1700 OR APPROVED EQUAL	–	–	–	–	VARIES	VARIES	–	

EQUALS BY JAY R SMITH, ZURN, OATEY, OR JONES WILL BE ACCEPTED

ELECTRIC WATER COOLER SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	NOTES
EWC-1	ELECTRIC WATER COOLER, ADA SPLIT LEVEL	ELKAY MODEL NO. EZSTL8WSLK OR APPROVED EQUAL	WALL	34-1/2" TO NOZ. CENTER	1-1/4"	1-1/4"	1/2"	ADA MOUNTED AT 34.5" AFF TO NOZZLE CENTERLINE, STAINLESS STEEL W/ TRIM BEZEL, WITH BOTTLE FILLING STATION, FILTER, MOUNTING KIT

GAS WATER HEATER SCHEDULE

MARK NO.	MODEL NO.	BTU INPUT	RECOVERY GPH @ 100° RISE	GAS CONN SIZE	WIDTH SIZE	DEPTH SIZE	HEIGHT SIZE	WATER CONN SIZE	APPROX SHIP WEIGHT
GWH-1	RHEEM NO. HE119-199 OR APP'V EQUAL.	199,000	230	3/4"	27"	36"	73"	2"	405

PLUMBING DRAWING INDEX

SHEET NO.	SHEET TITLE
P1.1	PLUMBING SCHEDULES, LEGEND, AND NOTES
P1.2	PLUMBING DETAILS
P2.1	FIRST FLOOR WASTE & CONDENSATE PLUMBING PLAN
P3.1	FIRST FLOOR WATER & GAS PLUMBING PLAN
P4.1	MECHANICAL PLATFORM PLUMBING PLAN
P5.1	WASTE & GAS PLUMBING RISER DIAGRAMS
P5.2	WATER PLUMBING RISER DIAGRAMS

MIXING VALVE SCHEDULE

MARK NO.	MANUFACTURER'S MODEL NO.	TEMPERATURE (°F)	INLET	OUTLET
MV-1	POWERS SERIES LFLM495	SET AT 90°-110°	1/2"	1/2"
MV-2	POWERS SERIES LFLM496	SET AT 90°-110°	3/4"	3/4"
MV-3	POWERS MODEL ES150	FACTORY SET 80°	1/2"	1/2"

NOTES:
1. UNLESS OTHERWISE NOTED, MIXING VALVES SHALL CONFORM TO ASSE 1070 AND ASSE 1017
2. EMERGENCY EYEWASH THERMOSTATIC MIXING VALVES SHALL CONFORM TO ASSE 1071

CIRCULATOR PUMP SCHEDULE

MARK NO.	TYPE	GPM	TOTAL HEAD FT. W.G.	MAXIMUM H.P.	MINIMUM EFFICIENCY	ELECTRICAL	DESIGN MFGR.	DESIGN MFGR. MODEL NO.
CP-1	IN-LINE CENTRIF.	0-11	0-4.5	1/40	–	120-1-60	TACO	006e3LC
CP-2	IN-LINE CENTRIF.	0-11	0-4.5	1/40	–	120-1-60	TACO	006e3LC

NOTES:
(1) SmartPlus-e HOT WATER RECIRCULATION PUMP WITH SmartPlug CONTROLS FOR DOMESTIC WATER
(2) 1" BRONZE SWEAT
(3) 6 FT. CORD

PLUMBING LEGEND

Symbol	Description	Symbol	Description
SS	SANITARY SEWER		FLOOR DRAIN
CD	CONDENSATE DRAIN		HUB DRAIN
CW	COLD WATER		HOT WATER RETURN PUMP
110°	110° HOT WATER	SV	BALL VALVE
140°	140° HOT WATER		BALL VALVE IN PLASTIC METER BOX W/CAST IRON LID
140°HWR	140° HOT WATER RETURN		GAS COCK
V	VENT		CHECK VALVE
NG	NATURAL GAS		THREE WAY VALVE
VTR	VENT THRU ROOF	AAV	AIR ADMITTANCE VALVE (SBCCI APPROVED)

CODES AND STANDARDS

- **2015 INTERNATIONAL PLUMBING CODE**
- **2015 INTERNATIONAL MECHANICAL CODE**
- **2015 INTERNATIONAL FUEL GAS CODE**
- **2015 INTERNATIONAL FIRE CODE**
- **2010 ADA STANDARDS FOR ACCESSIBLE DESIGN**

PVC PIPE HANGER SPACING GUIDE

PVC PIPE SUPPORTS - SCHEDULE 40

MAXIMUM SUPPORT SPACING (FEET)

NPS (INCHES)	OPERATING TEMPERATURE (°F)		
	60	100	140
1/2	4.5	4	2.5
3/4	5	4	2.5
1	5.5	4.5	2.5
1-1/4	5.5	5	3
1-1/2	6	5	3
2	6	5	3
3	7	6	3.5
4	7.5	6.5	4
6	8.5	7.5	4.5
8	9	8	4.5

NOTE: PLASTIC PIPE SUPPORTS SHALL BE AS NOTED ABOVE UNLESS MANUFACTURER'S RECOMMENDATION IS MORE STRINGENT FOR THE APPLICATION.

PLUMBING SCHEDULES, LEGEND, AND NOTES

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By: TMW

Checked By: RDW

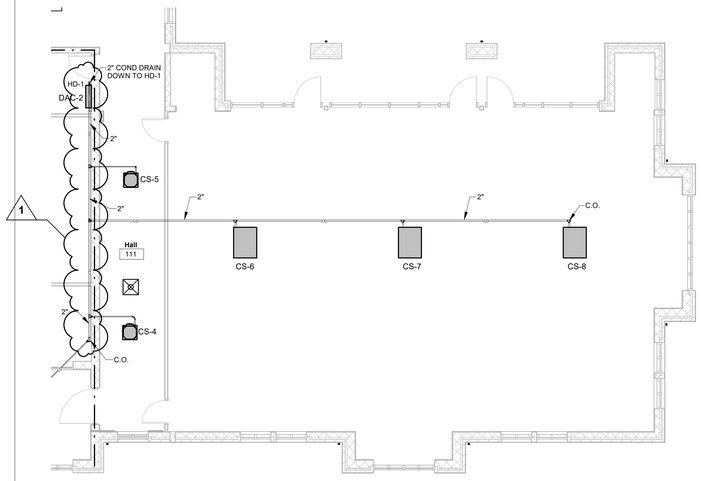
Project Title: A New Security & Services Training Facility 117th Air Refueling Wing Birmingham, AL

Sheet Title: PLUMBING SCHEDULES, LEGEND, AND NOTES

Sheet Number: P1.1

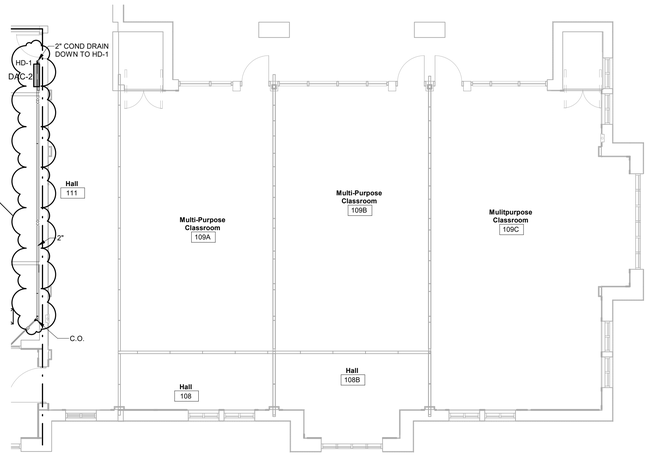
ALABAMA REGISTERED PROFESSIONAL ENGINEER No.14192 RANDALL D. WHORTON

03-15-2022



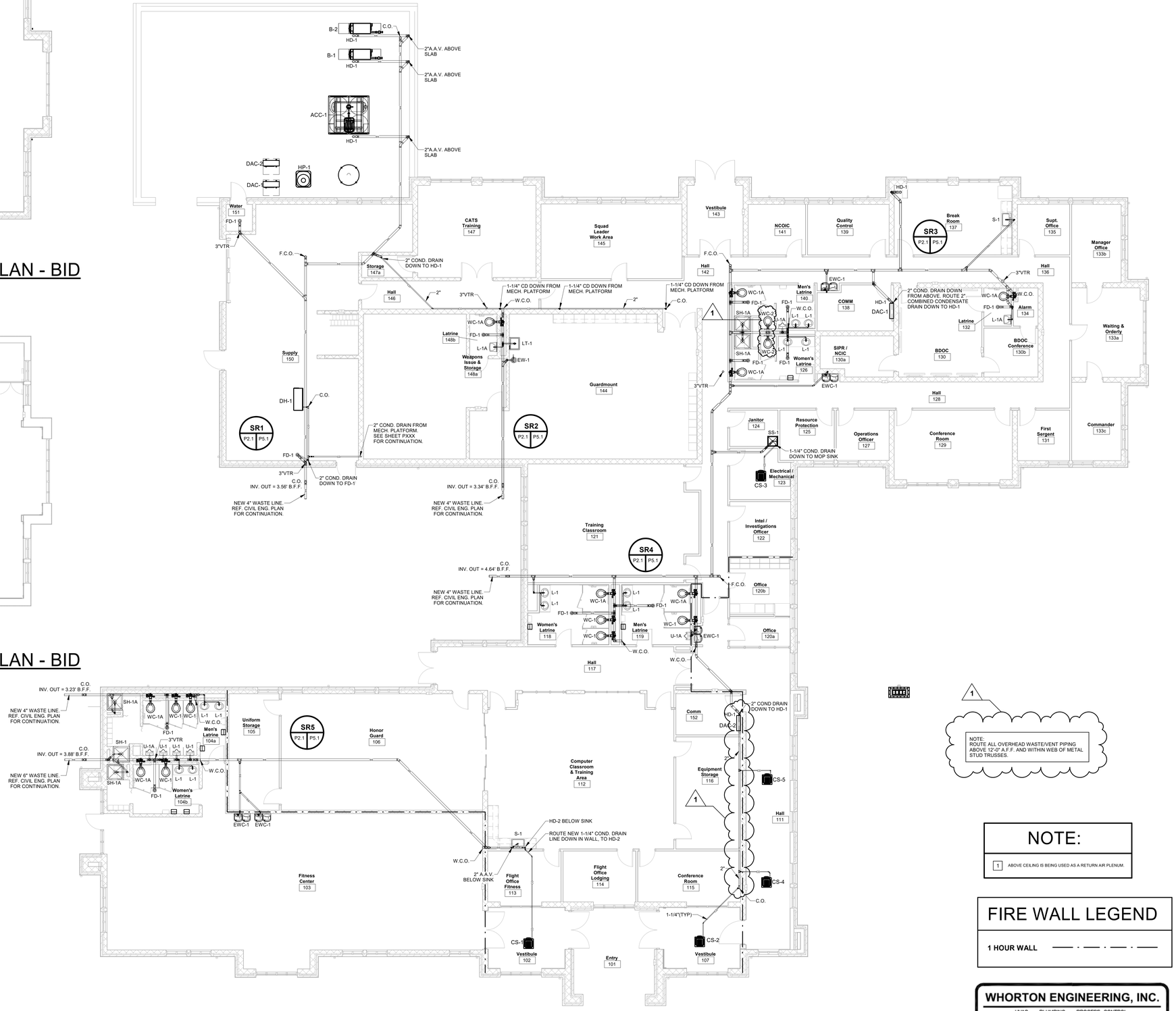
FIRST FLOOR CONDENSATE PLUMBING PLAN - BID OPTION #1

1/8" = 1'-0"



FIRST FLOOR CONDENSATE PLUMBING PLAN - BID OPTION #2

1/8" = 1'-0"



FIRST FLOOR WASTE & CONDENSATE PLUMBING PLAN

1/8" = 1'-0"

0' 4' 8' 16'

NOTE:
ROUTE ALL OVERHEAD WASTE/VENT PIPING ABOVE 12'-0" A.F.F. AND WITHIN WEB OF METAL STUD TRUSSES.

NOTE:

1 ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.

FIRE WALL LEGEND

1 HOUR WALL

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Governors Drive, Huntsville, AL 35804
Tel. 334.263.5162 | WWW.SSLARCH.COM

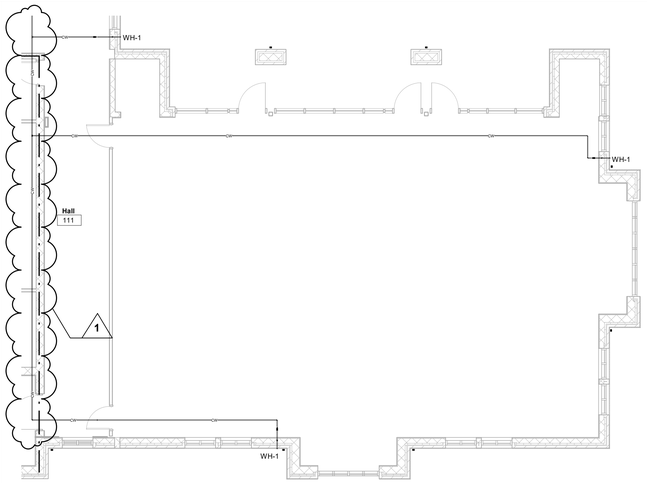
Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072
Date: MARCH 2022
Drawn By
Checked By
Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL

Sheet Title: FIRST FLOOR WASTE & CONDENSATE PLUMBING PLAN

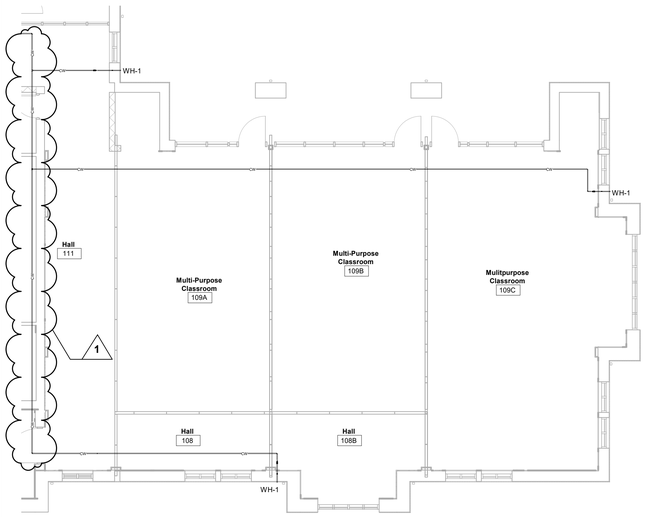
Sheet Number: P2.1

Randall Whorton No.14192 PROFESSIONAL ENGINEER STATE OF ALABAMA RANDALL D. WHORTON 03-15-2022



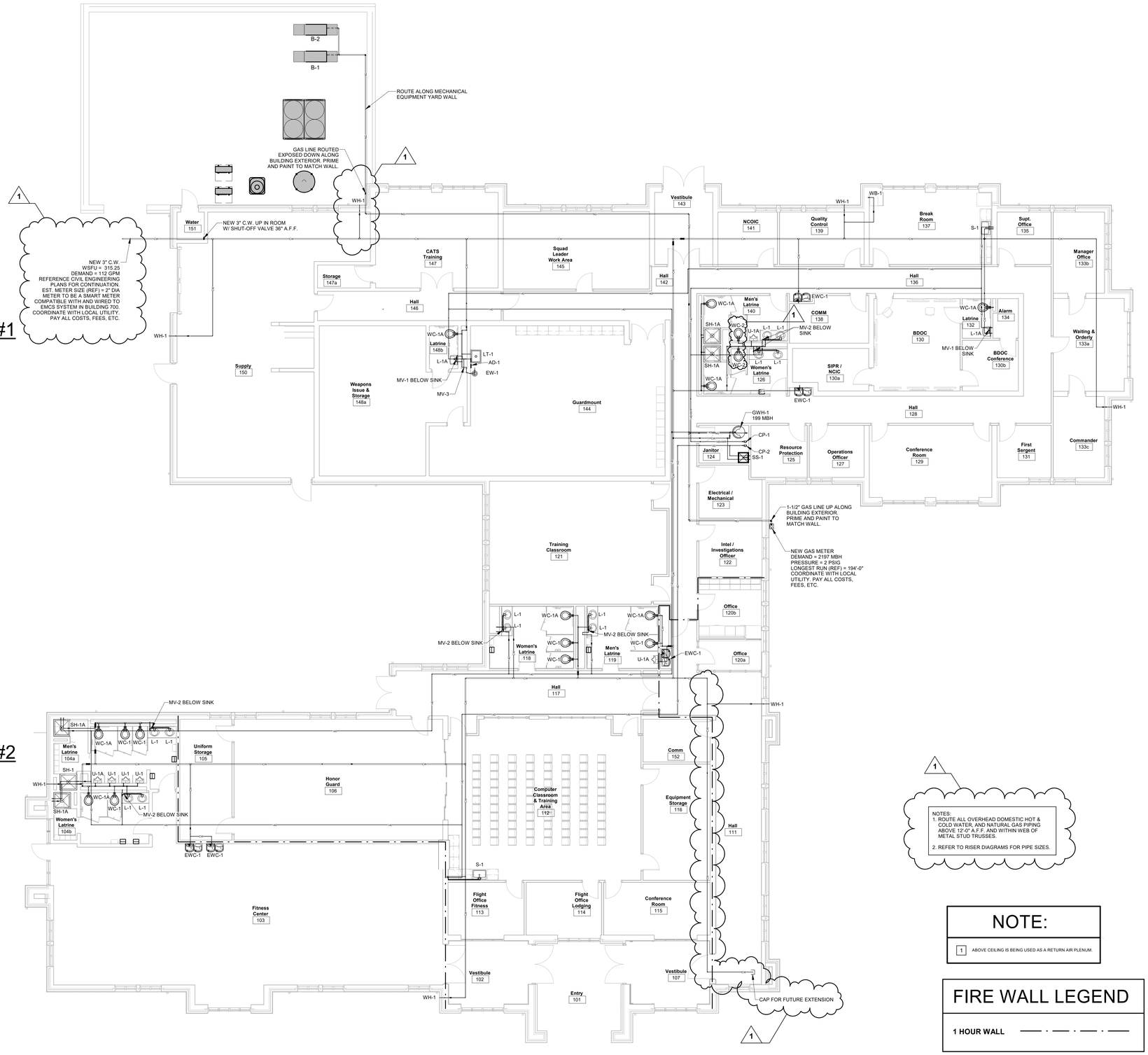
FIRST FLOOR WATER PLUMBING PLAN - BID OPTION #1

1/8" = 1'-0"



FIRST FLOOR WATER PLUMBING PLAN - BID OPTION #2

1/8" = 1'-0"



FIRST FLOOR WATER & GAS PLUMBING PLAN

1/8" = 1'-0"

NOTES:
1. ROUTE ALL OVERHEAD DOMESTIC HOT & COLD WATER, AND NATURAL GAS PIPING ABOVE 12'-0" A.F.F. AND WITHIN WEB OF METAL STUD TRUSSES.
2. REFER TO RISER DIAGRAMS FOR PIPE SIZES.

NOTE:

1 ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.

FIRE WALL LEGEND

1 HOUR WALL

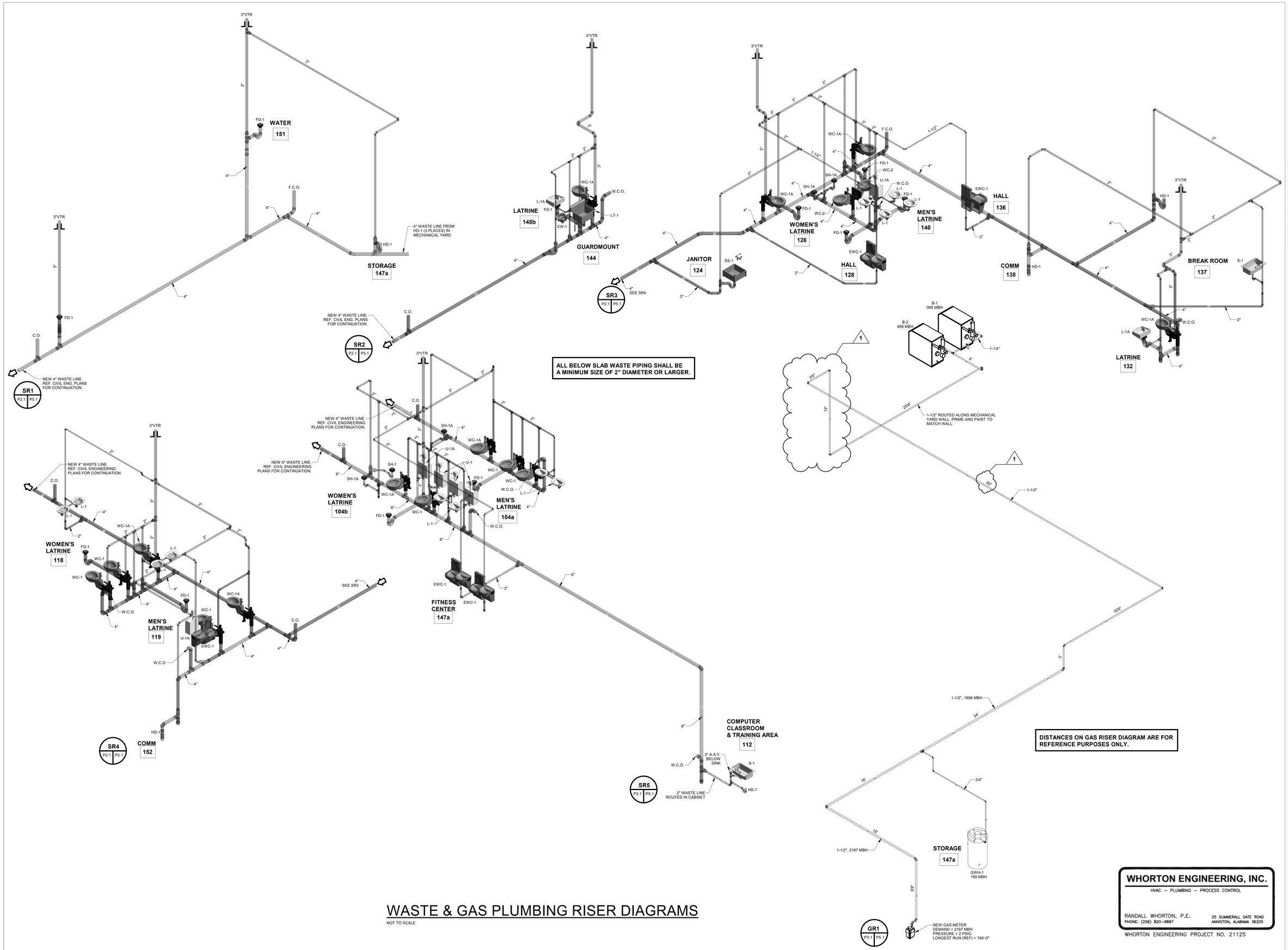
WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Governors Drive, Huntsville, AL 35801-1104
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072
Date: MARCH 2022
Drawn By
Checked By
Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL
Sheet Title: FIRST FLOOR WATER & GAS PLUMBING PLAN
Sheet Number: P3.1

STATE OF ALABAMA, RANDALL B. WHORTON, REG. NO. 21192, PROFESSIONAL ENGINEER
03-15-2022



WASTE & GAS PLUMBING RISER DIAGRAMS

NOT TO SCALE

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Governors Drive, Huntsville, AL 35804
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

Checked By

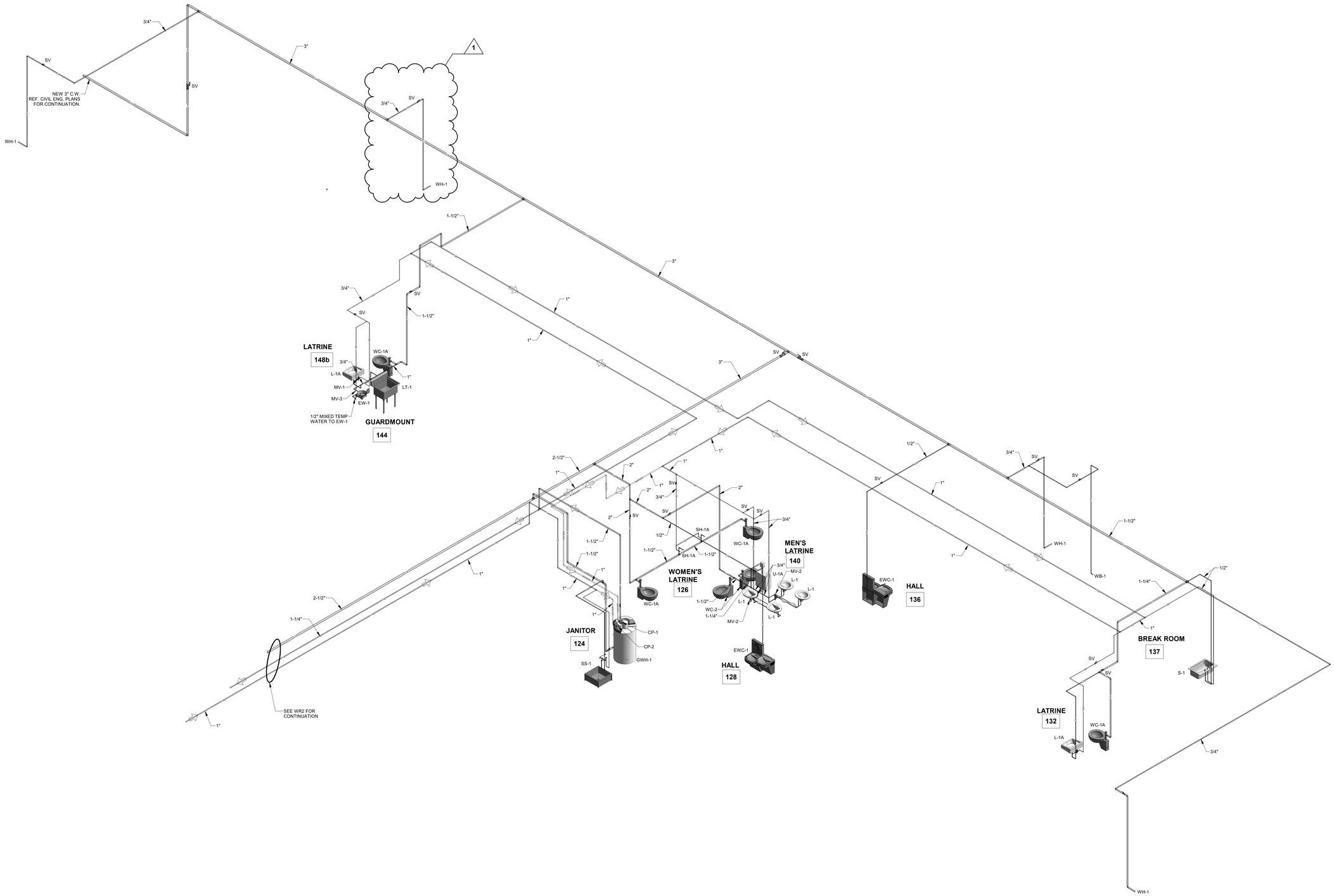
Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL

Sheet Title: WASTE & GAS RISER DIAGRAMS

Sheet Number: P5.1

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

STATE OF ALABAMA — Randall D. Whorton — No. 14192 — PROFESSIONAL ENGINEER — 03-15-2022



WR1 P3.1 P5.2

WATER PLUMBING RISER DIAGRAM

NOT TO SCALE

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 21125

S|S&L

ARCHITECTURE & INTERIOR DESIGN
115 South Greene Street, Huntsville, AL 35804
Tel. 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number
12072

Date
MARCH 2022

Drawn By

Checked By

Project Title

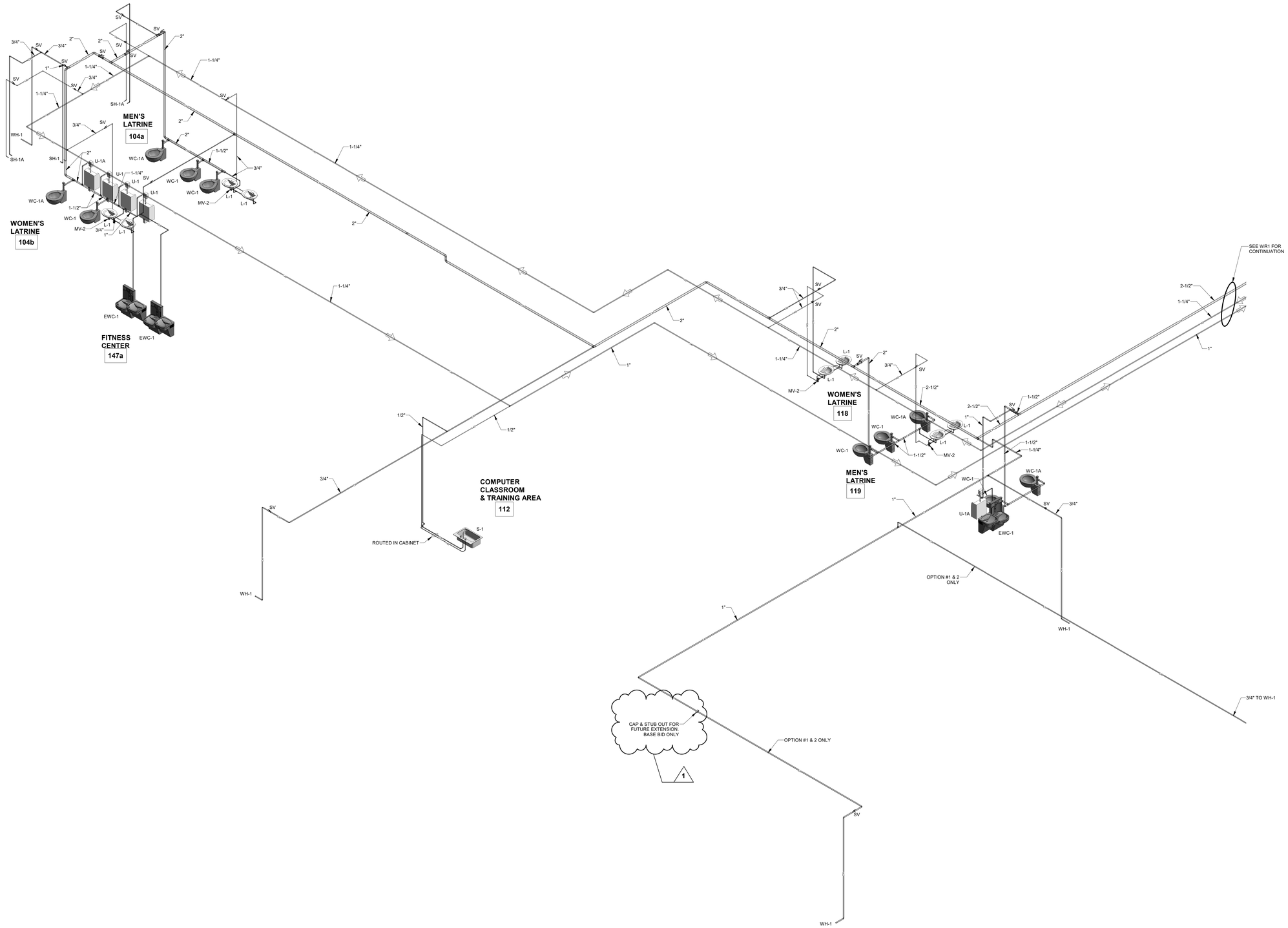
A New Security & Services
Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
WATER PLUMBING
RISER DIAGRAM

Sheet Number

P5.2

ALABAMA LICENSED PROFESSIONAL ENGINEER
RANDALL D. WHORTON
No. 14190
03-15-2022



WR2 P3.1 P5.3

WATER PLUMBING RISER DIAGRAM

NOT TO SCALE

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Governors Drive, Huntsville, AL 35804
Tel. 334.263.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

Checked By

Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: WATER PLUMBING RISER DIAGRAM

Sheet Number: P5.3

STATE OF ALABAMA
RANDALL D. WHORTON
No. 14192
PROFESSIONAL ENGINEER
03-15-2022

FIRE SERVICE RISER DIAGRAM

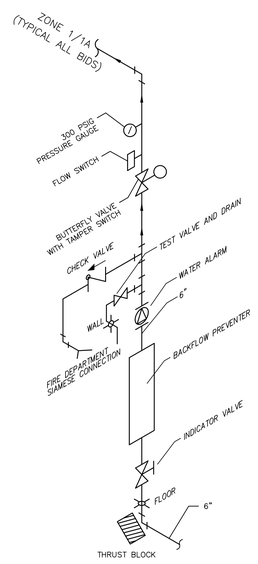


TABLE 9-3 UFC 3-600-1

SPRINKLER DESIGN DEMAND AND MINIMUM K-FACTOR

HAZARD CLASSIFICATION		(GPM / FT^2) / FT^2 [MINIMUM K FACTOR]							
		CEILING HEIGHT UP TO 30 FT		CEILING HEIGHT > 30 - 45 FT		CEILING HEIGHT > 45 - 60 FT		CEILING HEIGHT > 60 - 100 FT	
		WET	DRY	WET	DRY	WET	DRY	WET	DRY
LIGHT	DESIGN	0.1 / 1500	0.1 / 1500	0.2 / 2500	0.2 / 3500	0.2 / 2500	0.2 / 3500	12 @ 7 PSI	NA
	K-FACTOR	5.6	5.6	11.2	11.2	11.2	11.2	25.2	NA
ORDINARY	DESIGN	0.2 / 2500	0.2 / 3500	0.2 / 2500	0.2 / 3500	0.2 / 2500	0.2 / 3500	12 @ 7 PSI	NA
	K-FACTOR	8.0	8.0	11.2	11.2	11.2	11.2	25.2	NA
EXTRA	DESIGN	0.3 / 2500	0.3 / 3500	0.3 / 3600	0.3 / 4600	0.5 / 3000	0.5 / 4000	12 @ 7 PSI	NA
	K-FACTOR	11.2	11.2	11.2	11.2	11.2	11.2	25.2	NA

NOTE: FOR CEILING HEIGHTS > 60 FEET, THE DESIGN DEMAND IS BASED ON THE NUMBER OF SPRINKLERS AT AN END SPRINKLER PRESSURE (I.E. 12 SPRINKLERS AT 7 PSI END PRESSURE).

TABLE 9-4 UFC 3-600-1

HOSE STREAM DEMAND AND DURATION

HAZARD CATEGORY	HOSE DEMAND , GPM		DURATION (MIN)
	CEILINGS 60 FT OR LESS	CEILINGS GREATER THAN 60 FT	
LIGHT	250	500	60
ORDINARY	250	500	60
EXTRA	500	500	90

FIRE SPRINKLER ZONE LEGEND

ZONE NO.	AREA DISCRIPTION	SYSTEM TYPE	ZONE COVERAGE (SQFT)	ZONE HATCH PATTERN
1	LEVEL ONE & MECHANICAL PLATFORMS	WET PIPE	21,750	
1A	COVERED AREAS SERVED BY ZONE 1 DRY SIDEWALL HEADS	WET PIPE	250	
1 - #1	LEVEL ONE & MECHANICAL PLATFORMS (BASE BID) + SHELL SPACE (OPTION #1)	WET PIPE	24,850	
1A - #1	COVERED AREAS SERVED BY ZONE 1 - #1 DRY SIDEWALL HEADS (OPTION #1)	WET PIPE	625	
1 - #2	LEVEL ONE & MECHANICAL PLATFORMS (BASE BID) + MULTIPURPOSE (OPTION #2)	WET PIPE	24,850	
1A - #2	COVERED AREAS SERVED BY ZONE 1 - #2 DRY SIDEWALL HEADS (OPTION #2)	WET PIPE	625	

FIRE SPRINKLER LEGEND

—— FP ——	NEW FIRE PROTECTION PIPING
FDV	FIRE DEPARTMENT VALVE
—— CV ——	CONTROL VALVE
————	SPRINKLER ZONE DIVISION

FIRE SPRINKLER DRAWING INDEX

SHEET NO.	SHEET TITLE
SP1.1	FIRE SPRINKLER PLUMBING LEGEND, NOTES AND DETAILS
SP2.1	FIRE SPRINKLER PLUMBING PLANS

FIRE SPRINKLER SYSTEM NOTES

1. THE FIRE PROTECTION SYSTEM IS SHOWN IN SCHEMATIC FORM ONLY. THE SUCCESSFUL FIRE PROTECTION VENDOR SHALL LOCATE AND SIZE ALL SPRINKLER HEADS, FIRE DEPARTMENT CONNECTIONS, STANDPIPE SYSTEMS, PIPING, ETC. IN COMPLETE ACCORDANCE WITH NFPA 13 AND THE 2015 INTERNATIONAL BUILDING CODE AND LOCAL REQUIREMENTS.
2. SYSTEM DESIGN TO BE IN ACCORDANCE WITH WRITTEN SPECIFICATIONS. ALL HYDRAULIC CALCULATIONS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL.
3. ALL PIPING SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID PLUMBING AND HVAC INSTALLATIONS. FAILURE TO COORDINATE WORK WILL RESULT IN REWORK AT CONTRACTOR'S EXPENSE. MAINTAIN MINIMUM STAIR WELL EGRESS CLEARANCE.
4. RUN ALL PIPING ABOVE 12'-0" AFF AND IN WEB OF TRUSS UP TO CONNECTION TO HEAD. PROVIDE FLEXIBLE HOSE CONNECTION TO HEAD. DO NOT EXCEED MAXIMUM LENGTH OF FLEXIBLE HOSE PER ALL APPLICABLE CODES/STANDARDS.
5. INSTALL ALL EXPOSED PIPING AS HIGH AS POSSIBLE.
6. ROUTE ALL EXPOSED PIPING IN CHASES WHERE POSSIBLE.
7. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, HVAC AND ELECTRICAL TRADES, PLUMBING. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC..
8. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL DRAWINGS. SET SLEEVES IN FLOORS AND WALLS AND ATTACHMENTS FOR HANGERS AS CONSTRUCTION PROGRESSES. ALL PENETRATIONS MUST BE SEALED AND HELD AS TIGHT TO COLUMNS OR WALLS AS POSSIBLE.
9. ALL PIPING SHALL BE CONCEALED INSIDE WALLS AND IN PIPE CHASES OR ABOVE CEILINGS. HOLD ALL PIPING ABOVE CEILING AS HIGH AS POSSIBLE.
10. ALL STRUCTURAL PENETRATIONS (SLEEVES, BLOCKOUTS, ETC.) ARE TO BE LOCATED AND COORDINATED IN THE FIELD BY THE CONTRACTOR IN RELATION TO THE REQUIREMENTS OF FINAL EQUIPMENT AND FIXTURES SELECTED.
11. FIELD VERIFY EXACT SIZE, MATERIAL, AND LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING WORK.
12. ALL WET PIPING TO BE ROUTED BELOW CEILING INSULATION.
13. SPRINKLER SYSTEMS MUST BE DESIGNED USING THE AREA/DENSITY METHOD OF NFPA 13, EXCEPT THAT THE DESIGN DENSITY, DESIGN AREA, HOSE STREAM ALLOWANCE AND DURATION OF SUPPLY REQUIREMENTS MUST BE IN ACCORDANCE WITH TABLES 9–3 & 9–4 UFC 3–600–1.
14. DESIGN AREAS IN TABLES 9–3 & 9–4 OF UFC 3–600–1 MUST BE INCREASED BY 30 PERCENT FOR SLOPED CEILINGS THAT EXCEED A PITCH OF ONE IN SIX, AS REQUIRED BY NFPA 13.
15. WHEN NRTL LISTED QUICK–RESPONSE SPRINKLERS ARE USED THROUGHOUT THE SYSTEM, THE DESIGN AREA IN TABLES 9–3 & 9–4 OF UFC 3–600–1 MAY BE REDUCED BY THE PERCENTAGE ALLOWED BY NFPA 13 FOR USING QUICK RESPONSE SPRINKLERS WITHOUT REVISING THE DENSITY IN TABLES 9–3 & 9–4.
16. COVERAGE PER SPRINKLER MUST BE IN ACCORDANCE WITH NFPA 13, EXCEPT THAT IT MUST NOT EXCEED 225 SQFT FOR LIGHT HAZARD OCCUPANCIES OR 130 SQFT FOR ORDINARY HAZARD.
17. PROVIDE TEST CONNECTION DOWNSTREAM OF ALL BACKFLOW PREVENTION VALVES FOR FLOW TESTS AT SYSTEM DEMAND.

QFPE REQUIREMENTS

1. THE CONTRACTOR SHALL EMPLOY A QUALIFIED FIRE PROTECTION ENGINEER (QFPE) MEETING THE REQUIREMENTS OF UFC 3–600–01.
2. THE QFPE SHALL REVIEW, SIGN, AND CERTIFY ALL FIRE PROTECTION AND LIFE SAFETY SYSTEMS INCLUDING, BUT NOT LIMITED TO, FIRE ALARM, MASS NOTIFICATION, AND SPRINKLER SYSTEMS INCLUDED WITHIN THE PROPOSED PROJECT.
3. ALL SHOP DRAWINGS/ CALCULATIONS/ MATERIAL SUBMITTALS FOR APPLICABLE LIFE SAFETY SYSTEMS MUST BE REVIEWED AND STAMPED BY THE CONTRACTOR QFPE IN ACCORDANCE WITH SECTION 9–6.3 OF UFC 3–600–01.
4. WATERFLOW TESTING SHALL BE PERFORMED UNDER THE DIRECTION OF THE CONTRACTOR'S QFPE IN ACCORDANCE WITH SECTION 9–6.4 OF UFC 3–600–01. WATERFLOW TESTING SHALL BE PERFORMED BY THE CONTRACTOR IN ORDER TO DEVELOPE REQUIRED HYDRAULIC CALCULATIONS. USE OF WATERFLOW TESTING PERFORMED BY THE ARCHITECT DURING DESIGN CANNOT BE UTILIZED BY THE CONTRACTOR FOR PREPARATION OF PROJECT SUBMITTALS.
5. DURING CONSTRUCTION THE CONTRACTOR'S QFPE MUST VISIT THE SITE IN INTERVALS/QUATITIES REQUIRED TO CERTIFY THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE PROJECT REQUIREMENTS. AT A MINIMUM, THE QFPE SHALL ATTEND/WITNESS THE ABOVE CEILING INSPECTION AND ATTEND/WITNESS FINAL ACCEPTANCE TESTING FOR AL FIRE PROTECTION AND LIFE SAFETY SYSTEMS. ADDITIONAL SITE INSPECTIONS ARE AT THE DISCRETION OF THE CONTRACTOR'S QFPE. THE CONTRACTOR'S QFPE SHALL CERTIFY, IN WRITINGS, THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH PROJECT REQUIREMENTS. THE CONTRACTOR'S QFPR CERTIFICATION SHALL BE IN WRITING, ON COMPANY LETTERHEAD, AND INCLUDE THE QFPE'S REGISTRATION STAMP.

FIRE SPRINKLER PLUMBING LEGEND, NOTES, AND DETAILS

NOT TO SCALE

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820–9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 Second Avenue | Birmingham, AL 35203
Tel. 334.363.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

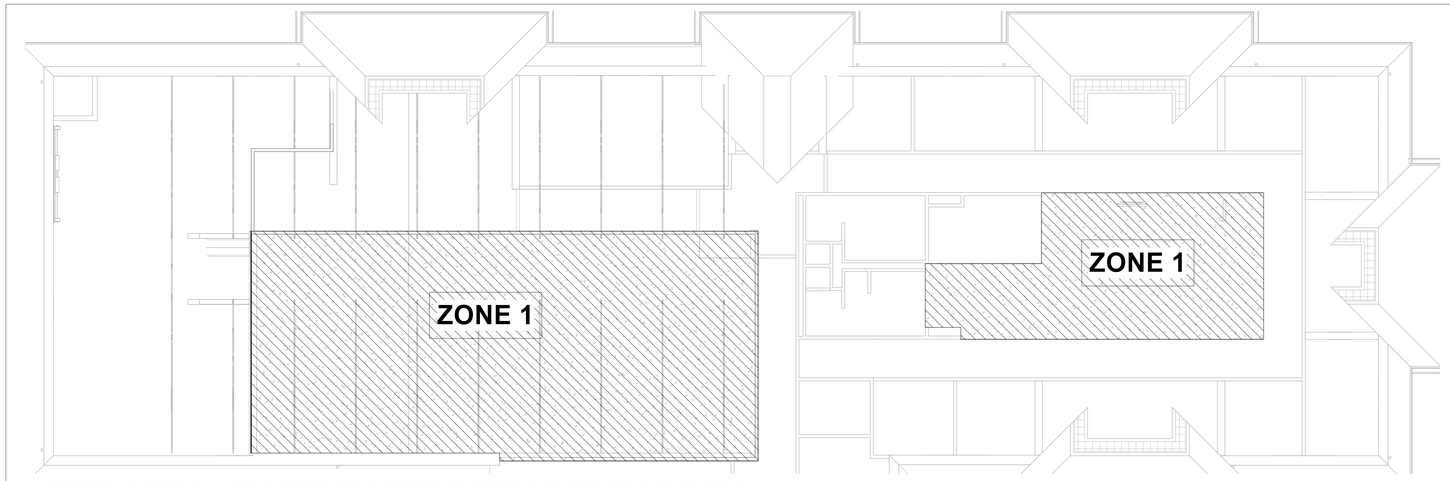
Job Number: 12072
Date: MARCH 2022
Drawn By: TMW
Checked By: RDW
Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: FIRE SPRINKLER PLUMBING LEGEND, NOTES, AND DETAILS

Sheet Number: SP1.1

03–15–2022

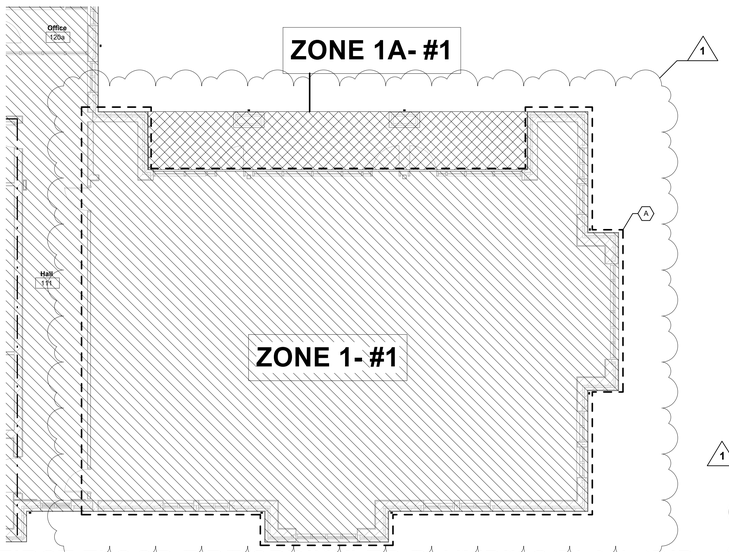


MECHANICAL PLATFORM FIRE SPRINKLER PLUMBING PLAN

1/8" = 1'-0"

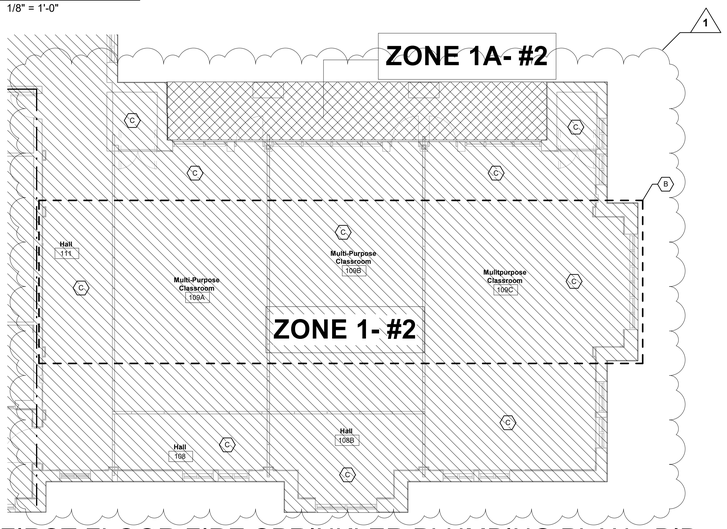
NOTE:

1 ABOVE CEILING IS BEING USED AS A RETURN AIR PLENUM.



FIRST FLOOR FIRE SPRINKLER PLUMBING PLAN - BID OPTION #1

1/8" = 1'-0"



FIRST FLOOR FIRE SPRINKLER PLUMBING PLAN - BID OPTION #2

1/8" = 1'-0"

SPRINKLER INSTALLATION NOTES:

- (A) PROVIDE EXPOSED SPRINKLER PIPING AND UPRIGHT PENDANT HEADS IN LOCATIONS/QUANTITIES REQUIRED TO MEET ALL APPLICABLE CODES AND STANDARDS.
- (B) PROVIDE CONCEALED SIDEWALL HEADS IN THIS AREA. EXPOSED PIPING/ SPRINKLER HEADS WILL NOT BE ACCEPTED.
- (C) PROVIDE SPRINLER HEAD QUANTITIES AND LOCATIONS AS REQUIRED FOR ADEQUATE COVERAGE OF ALL POSSIBLE ROOM CONFIGURATIONS - SEE A7.3.

1

NOTE:
ROUTE ALL OVERHEAD SPRINKLER PIPING ABOVE 12'-0" A.F.F. AND WITHIN WEB OF METAL STUD TRUSSES UP TO CONNECTION TO SPRINKLER HEAD.

FIRST FLOOR FIRE SPRINKLER PLUMBING PLAN

1/8" = 1'-0"

0' 4' 8' 16'

FIRE WALL LEGEND	
1 HOUR WALL	— · — · — · —

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 21125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colony | Warrior, AL 35180
Tel. 334.205.5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADD #2	1/6/23

Job Number: 12072

Date: MARCH 2022

Drawn By

Checked By

Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL

Sheet Title: FIRE SPRINKLER PLUMBING PLANS

Sheet Number: SP2.1

STATE OF ALABAMA, RANDALL WHORTON, No. 14192, PROFESSIONAL ENGINEER, 03-15-2022

ELECTRICAL SYMBOLS

- CEILING OUTLET – RECESSED LED FIXTURE. HATCHING INDICATES FIXTURE WITH EMERGENCY BATTERY PACK
- CEILING OUTLET – LED DOWNLIGHT.
- CEILING OUTLET – SURFACE LED FIXTURE.
- CEILING OUTLET – LED FIXTURE.
- WALL OUTLET – LED BRACKET TYPE.
- WALL OUTLET – LED BRACKET TYPE.
- WALL OUTLET – EMERGENCY FIXTURE.
- WALL OUTLET – DUPLEX OUTLET, 20A, 125V, GROUNDED, HUBBELL #5362 – GREY. ("PL" INDICATES PLUGLOAD CONTROLLED RECEPTACLE THAT SHALL BE HUBBELL 5362C1 WHERE 1/2 OF EACH DEVICE IS CONTROLLED.) ("PL2" INDICATES ENTIRE DEVICE IS CONTROLLED.)
- WALL OUTLET – DOUBLE DUPLEX OUTLET, 20A, 125V, GROUNDED HUBBELL #5362 – GREY.
- WALL OUTLET – GFCI DOUBLE DUPLEX OUTLET, 20A, 125V, GROUNDED HUBBELL #5362 – GREY.
- WALL OUTLET – GFCI DUPLEX OUTLET, 20A, 125V, GROUNDED, WEATHERPROOF, HUBBELL #GF-5362-GY – GREY WITH #S-26 PLATE. ("WP" DENOTES WEATHERPROOF)
- WALL OUTLET – DUPLEX OUTLET, MOUNTED 6" ABOVE COUNTER.
- WALL OUTLET – DOUBLE DUPLEX, MOUNTED 6" ABOVE COUNTER.
- WALL OUTLET – GFCI DUPLEX OUTLET, MOUNTED 6" ABOVE COUNTER.
- WALL OUTLET – SINGLE OUTLET, 20A, 250V, 3W. VERIFY NEMA CONFIGURATION WITH ACTUAL EQUIPMENT.
- FLOOR OUTLET – COMBINATION POWER/COMMUNICATIONS OUTLET. WIREMOLD #881 WITH #RP4CTCBS DUAL SERVICE BRASS COVER PLATE OR EQUAL WITH ALL NECESSARY HARDWARE. VERIFY LOCATION WITH ARCHITECT. CONTRACTOR SHALL STUB (1)-1" C. FROM FLOOR OUTLET TO THE CABLE TRAY FOR TELECOMMUNICATIONS CABLES. CONTRACTOR SHALL VERIFY FLOOR FINISH AND PROVIDE PROPER FLOOR OUTLET COVER FOR THE FLOOR FINISH BEING PROVIDED.
- A2 — FLOOR OUTLET – COMBINATION POWER/COMMUNICATIONS OUTLET. WIREMOLD #RPNFB WITH #RPAV3CTCBS DUAL SERVICE BRASS COVER PLATE OR EQUAL WITH ALL NECESSARY HARDWARE. VERIFY LOCATION WITH ARCHITECT. CONTRACTOR SHALL STUB (2)-2" C. FROM FLOOR OUTLET TO THE CABLE TRAY FOR TELECOMMUNICATIONS CABLES. CONTRACTOR SHALL VERIFY FLOOR FINISH AND PROVIDE PROPER FLOOR OUTLET COVER FOR THE FLOOR FINISH BEING PROVIDED.
- F — FLOOR OUTLET – POWER OUTLET. WIREMOLD #881 WITH #895 SINGLE SERVICE BRASS COVER PLATE OR EQUAL WITH ALL NECESSARY HARDWARE. VERIFY LOCATION WITH ARCHITECT. CONTRACTOR SHALL VERIFY FLOOR FINISH AND PROVIDE PROPER FLOOR OUTLET COVER FOR THE FLOOR FINISH BEING PROVIDED.
- FLOOR OUTLET – CONDUIT STUB UP.
- J — CEILING OUTLET – JUNCTION BOX.
- J — WALL OUTLET – JUNCTION BOX WITH FLEXIBLE CONNECTION TO EQUIPMENT.("HD" INDICATES HAND DRYER POWER)
- $ — SWITCH OUTLET – AC TYPE, SINGLE POLE, 20A, 120/277V, HUBBELL #1221 – GREY.("N" DENOTES NARROW)
- $^2 — SWITCH OUTLET – AC TYPE, TWO POLE, 20A, 120/277V, HUBBELL #1222 – GREY.
- $^3 — SWITCH OUTLET – AC TYPE, THREE WAY, 20A, 120/277V, HUBBELL #1223 – GREY.
- $^4 — SWITCH OUTLET – AC TYPE, FOUR WAY, 20A, 120/277V, HUBBELL #1224 – GREY.
- $^M — SWITCH MANUAL MOTOR STARTER, SINGLE POLE WITH OVERLOAD PROTECTION.
- $^TS — SWITCH OUTLET/TIMER – TIME SWITCH WITH ON/OFF BUTTON. WATT STOPPER TS-400-G OR EQUAL..
- $LVDX — SWITCH OUTLET – LOW VOLTAGE DIMMER SWITCH. nLIGHT nPODM-DX OR EQUAL
- $^LV1N — SWITCH OUTLET – ON/OFF LOW VOLTAGE SWITCH. nLIGHT nPODM OR EQUAL.
- $^LV4S — SWITCH OUTLET – FOUR SCENE LOW VOLTAGE SWITCH WITH DIMMING. nLIGHT nPODM-4S-DX OR EQUAL.
- $^ES2 — LIGHTING CONTROL SYSTEM – ON/OFF ENTRY STATION. ACUITY CAT#FCS RB-4B-WH OR PRIOR APPROVED EQUAL. VERIFY FINISH WITH ARCHITECT. INSTALL LOW VOLTAGE CABLING AND POWER SUPPLIES AS REQUIRED BY MANUFACTURER.
- $^ES3 — LIGHTING CONTROL SYSTEM – ON/OFF ENTRY STATION. ACUITY CAT#FCS RB-7B-WH OR PRIOR APPROVED EQUAL. VERIFY FINISH WITH ARCHITECT. INSTALL LOW VOLTAGE CABLING AND POWER SUPPLIES AS REQUIRED BY MANUFACTURER.
- $^ES4 — LIGHTING CONTROL SYSTEM – DIMMING ENTRY STATION. ACUITY CAT#FCS RB-7B-WH OR PRIOR APPROVED EQUAL. VERIFY FINISH WITH ARCHITECT. INSTALL LOW VOLTAGE CABLING AND POWER SUPPLIES AS REQUIRED BY MANUFACTURER.
- FRESCO — LIGHTING CONTROL SYSTEM – FRESCO TOUCHSCREEN. ACUITY CAT#FCS-7TSN-DWH OR PRIOR APPROVED EQUAL. VERIFY WITH WITH ARCHITECT. PROVIDE POWER SUPPLIES AND CABLING REQUIRED.
- S1 — CEILING SENSOR – DUAL TECHNOLOGY CEILING SENSOR. nLIGHT nCM PDT SERIES OR EQUAL.
- S2 — CEILING/WALL SENSOR – DUAL TECHNOLOGY CEILING SENSOR. SENSOR SWITCH CM PDT SERIES WTH POWER PACK OR EQUAL.
- S3 — CEILING SENSOR – DUAL TECHNOLOGY CEILING SENSOR. nLIGHT nCM PDT 10 SERIES OR EQUAL.
- PP — POWER PACK – POWER PACK MOUNTED ABOVE CEILING FOR 24VDC SENSORS. WATT STOPPER OR EQUAL.
- LIGHTING PANEL – SEE SPECIFICATIONS AND SCHEDULE.
- POWER PANELS – SEE SPECIFICATIONS AND SCHEDULE.
- BRANCH CIRCUIT CONCEALED IN WALL OR CEILING.
- BRANCH CIRCUIT CONCEALED IN FLOOR OR GROUND.
- HOMERUN TO PANELBOARD – ANY CIRCUIT WITHOUT FURTHER DESIGNATION 2 # 12 & 1 # 12(G) – 3/4" CONDUIT. 3 # 12 & 1 # 12(G) – 3/4" CONDUIT. 4 # 12 & 1 # 12(G) – 3/4" CONDUIT.
- E — EMPTY CONDUIT – (1)-1".
- BRANCH CIRCUIT EXPOSED.
- LV — LOW VOLTAGE WIRING.
- CONDUIT RUN DOWN WALLS, CONCEALED
- CONDUIT RUN UP WALLS, CONCEALED
- U.O.N. — UNLESS OTHERWISE NOTED.
- 5 — MOTOR SHOWN 5hp (TYPICAL) OR 40 A — 40 AMPS (TYPICAL).
- f — EXHAUST FAN MOTOR – FRACTIONAL HORSEPOWER.
- MAGNETIC MOTOR STARTER.
- NON-FUSED DISCONNECT SWITCH. (RT – RAINTIGHT).
- FUSED DISCONNECT SWITCH. (RT – RAINTIGHT).
- T.B.B. — TELEPHONE BACKBOARD – 4' X 8' X 3/4" – 2 COATS OF GREY ENAMEL BOTH SIDES. COVER ALL WALLS IN TELECOMMUNICATIONS ROOMS. (OR AS NOTED).
- T — THERMOSTAT – WALL OUTLET 54" AFF OR AS DIRECTED BY MECHANICAL DRAWINGS. RUN EMPTY 3/4" CONDUIT TO UNIT.

- EX. — EXISTING ELECTRICAL EQUIPMENT TO REMAIN.
- A.F.F. — ABOVE FINISHED FLOOR.
- A.F.G. — ABOVE FINISHED GRADE.
- B.F.C. — BELOW FINISHED CEILING.
- VER. — VERIFY LOCATION.
- N.E.C. — NATIONAL ELECTRICAL CODE.
- NL — INDICATES UNSWITCHED NIGHTLIGHT.
- FIRE ALARM – SMOKE DETECTOR – SEE SPEC.
- FIRE ALARM – DUCT DETECTOR – SEE SPEC.
- FIRE ALARM – MAGNETIC DOOR HOLDER – SEE SPEC.
- H — FIRE ALARM – HEAT DETECTOR – SEE SPEC.
- F — FIRE ALARM – MANUAL PULL STATION – SEE SPEC.
- S — FIRE ALARM/MASS NOTIFICATION – CEILING MOUNTED SPEAKER – SEE SPEC.("WP" INDICATES WEATHERPROOF)
- S — FIRE ALARM/MASS NOTIFICATION – WALL MOUNTED SPEAKER – SEE SPEC.("WP" INDICATES WEATHERPROOF)
- F — FIRE ALARM – CLEAR STROBE LIGHT – SEE SPEC.
- M — MASS NOTIFICATION – BLUE STROBE – SEE SPEC.
- F — FIRE ALARM/MASS NOTIFICATION – CEILING MOUNTED CLEAR STROBE LIGHT – SEE SPEC.("WP" INDICATES WEATHERPROOF)
- M — FIRE ALARM/MASS NOTIFICATION – CEILING MOUNTED BLUE STROBE LIGHT – SEE SPEC.("WP" INDICATES WEATHERPROOF)
- FS — FIRE ALARM – SPRINKLER FLOW SWITCH CONNECTION.
- TS — FIRE ALARM – SPRINKLER TAMPER SWITCH CONNECTION.
- FACP — FIRE ALARM CONTROL PANEL/MASS NOTIFICATION – SEE SPEC.
- LOC — FIRE ALARM/MASS NOTIFICATION – LOCAL OPERATING CONSOLE – SEE SPEC.
- TELEPHONE OUTLET – 1" CONDUIT TO CABLE TRAY AND BONDED TO CABLE TRAY.("W" INDICATES WALL MOUNTED AT 54" AFF.) INSTALL PLENUM RATED CABLES AS INDICATED.
- DATA OUTLET – 1" CONDUIT TO CABLE TRAY AND BONDED TO CABLE TRAY. INSTALL PLENUM RATED CABLES AS INDICATED.
- DATA/TELEPHONE OUTLET – 1" CONDUIT TO CABLE TRAY AND BONDED TO CABLE TRAY. INSTALL PLENUM RATED CABLES AS INDICATED.
- DATA/COAX OUTLET – 1" CONDUIT TO CABLE TRAY AND BONDED TO CABLE TRAY. INSTALL PLENUM RATED CABLES AS INDICATED.
- DATA OUTLET – SAME AS ABOVE EXCEPT INSTALL 6" ABOVE COUNTER.
- DATA/TELEPHONE OUTLET – SAME AS ABOVE EXCEPT INSTALL 6" ABOVE COUNTER.
- TV — CATV OUTLET – 3/4" CONDUIT TO ABOVE LAY-IN CEILING. INSTALL RG6 CABLE FROM OUTLET TO TBB-2. INSTALL CATV FACEPLATE AND TERMINATE. PROVIDE AND INSTALL BLONDER TONGUE AMPS AND SPLITTERS AS NECESSARY.
- S — PAGING SYSTEM – CEILING MOUNTED SPEAKER. CLARITY PTEC S-525. "SM" INDICATES SURFACE MOUNT ON THE BOTTOM OF TRUSS. COORDINATE CABLING WITH OWNER. SPEAKER CABLING SHALL BE ROUTED TO SSA LOCATION IN TELECOM 138. COIL UP 20' OF SLACK FOR OWNER TO TERMINATE. COORDINATE MODEL WITH OWNER TO ENSURE COMPATIBILITY WITH OWNER'S SYSTEM.
- S — PAGING SYSTEM – WALL MOUNTED SPEAKER. CLARITY PTEC S-525. COORDINATE CABLING WITH OWNER. SPEAKER CABLING SHALL BE ROUTED TO SSA LOCATION IN TELECOM 138. COIL UP 20' OF SLACK FOR OWNER TO TERMINATE. COORDINATE MODEL WITH OWNER TO ENSURE COMPATIBILITY WITH OWNER'S SYSTEM.
- H — PAGING SYSTEM – HORN/SPEAKER. CLARITY SX15-T-GY.
- VC — PAGING OUTLET – VOLUME CONTROL. COORDINATE MODEL WITH OWNER TO ENSURE COMPATIBILITY WITH OWNER'S SYSTEM.
- IDS — INTRUSION DETECTION SYSTEM. PROVIDE AND INSTALL AN IDS SYSTEM BY ADVANTOR FOR WEAPONS STORAGE. VERIFY ALL CONDUIT AND POWER REQUIREMENTS WITH ADVANTOR. ALL ADVANTOR SYSTEMS SHALL BE PROVIDED AND INSTALLED AS PART OF THIS CONTRACT.
- PIR — IDS SYSTEM. PASSIVE INFRARED MOTION SENSOR BY ADVANTOR. COORDINATE REQUIREMENTS WITH ADVANTOR SYSTEMS CORPORATION. ALL ADVANTOR SYSTEMS SHALL BE PROVIDED AND INSTALLED AS PART OF THIS CONTRACT.
- BMS — IDS SYSTEM. BALANCED MAGNETIC SWITCH BY ADVANTOR. COORDINATE REQUIREMENTS WITH ADVANTOR SYSTEMS CORPORATION. ALL ADVANTOR SYSTEMS SHALL BE PROVIDED AND INSTALLED AS PART OF THIS CONTRACT.
- ITK — IDS SYSTEM. KEYPAD BY ADVANTOR. COORDINATE REQUIREMENTS WITH ADVANTOR SYSTEMS CORPORATION. ALL ADVANTOR SYSTEMS SHALL BE PROVIDED AND INSTALLED AS PART OF THIS CONTRACT.
- DUR — IDS SYSTEM. DURRESS ALARM BY ADVANTOR. COORDINATE REQUIREMENTS WITH ADVANTOR SYSTEMS CORPORATION. ALL ADVANTOR SYSTEMS SHALL BE PROVIDED AND INSTALLED AS PART OF THIS CONTRACT.
- WALL OUTLET – 4" SQUARE CAST BOX FOR PUSHBUTTON. PUSHBUTTON PROVIDED & INSTALLED BY OTHERS. ROUTE 3/4" CONDUIT FROM BOX TO DATA ENCLOSURE. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE JUNCTION BOX, CONDUIT AND CONDUCTORS FOR THE MUSHROOM MEDICAL ALERT PUSHBUTTON SWITCHES.
- CR — CARD READER. PROVIDE JUNCTION BOX AND 3/4" CONDUIT STUBBED OUT ABOVE CEILING AS REQUIRED.

GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL ORDINANCES. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS.
2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH ALL DETAILS OF THE WORK AND ALL EXISTING FIELD CONDITIONS.
3. CONTRACTOR SHALL PROVIDE A COMPLETE ELECTRICAL INSTALLATION INCLUDING ALL WORK CUSTOMARILY INCLUDED EVEN IF NOT SPECIFICALLY CALLED OUT.
4. THE ELECTRICAL CONTRACTOR SHALL CAREFULLY COORDINATE HIS WORK WITH OTHER CONTRACTORS THROUGH THE GENERAL CONTRACTOR FOR SPACE REQUIREMENTS, ETC.
5. CONTRACTOR SHALL VERIFY ALL MECHANICAL EQUIPMENT NAMEPLATE DATA BEFORE ANY WORK IS DONE AND MAKE ANY ADJUSTMENTS IN BREAKER AND WIRE SIZE AS MAY BE REQUIRED.
6. SHOULD THE CONTRACTOR FIND DISCREPANCIES OR OMISSIONS IN THE CONTRACT DOCUMENTS OR BE IN DOUBT AS TO INTENT, HE SHALL IMMEDIATELY OBTAIN CLARIFICATION FROM THE ARCHITECT OR ENGINEER.
7. THE ELECTRICAL DRAWINGS ARE SCHEMATIC AND ARE NOT INTENDED TO SHOW THE EXACT LOCATION OF CONDUIT, OUTLETS, ETC.. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS AND SHALL FIT HIS WORK TO CONFORM WITH THE BUILDING CONSTRUCTION AND WITH THE OTHER TRADES.
8. MOUNTING HEIGHTS OF ALL WALL OUTLETS SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:
   - WALL SWITCHES............................4'-0"
   - RECEPTACLES................................1'-6"
   - FIRE ALARM PULL STATION............4'-0"
   - FIRE ALARM HORN/STROBE...........6'-8"
   - TELEPHONE OUTLET........................1'-6"
   - DATA OUTLET..................................1'-6"
   - CATV OUTLET..................................1'-6"
9. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT HEIGHT OF ALL COUNTER TOPS AND BACKSPLASHES ON CASEWORK SHOP DRAWINGS AND CHANGE SPECIFIED MOUNTING HEIGHT OF WALL OUTLETS AS REQUIRED SO THAT BOTTOM OF OUTLET BOX IS 2" ABOVE TOP OF BACKSPLASH OR IF NO BACKSPLASH IS USED, 4" ABOVE COUNTERTOP.
10. ALL OUTLET BOXES MOUNTED BACK-TO-BACK IN WALLS SHALL HAVE FIREPROOF SOUND INSULATING MATERIAL INSTALLED BETWEEN THE BOXES TO PREVENT SOUND TRANSMISSION FROM ONE ROOM TO ANOTHER.
11. VERIFY ALL DOOR SWINGS WITH THE ARCHITECT BEFORE ROUGHING IN LIGHT SWITCHES.
12. CONTRACTOR SHALL CHECK ALL LIGHT FIXTURES FOR EXACT MOUNTING TYPE AND SPACE REQUIRED PRIOR TO ROUGH-IN.
13. BRANCH CIRCUITS SHALL BE #12 AWG AND 3/4" CONDUIT MINIMUM. CONDUCTORS SHALL BE 98% CONDUCTIVITY COPPER. SEE SPECIFICATIONS FOR INSULATION TYPE.
14. ALL CONDUITS CROSSING EXPANSION JOINTS SHALL HAVE EXPANSION TYPE FITTINGS.
15. VERIFY EXACT LOCATION OF ALL MOTORS AND EQUIPMENT BEFORE ROUGHING IN.
16. SUPPORT OF ALL LIGHTING FIXTURES SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. SEE SPECIFICATIONS FOR SUPPORTING METHODS.
17. COORDINATE SERVICES WITH POWER AND COMMUNICATION COMPANIES. REMOVE OR RELOCATE ALL POWER AND COMMUNICATIONS CIRCUITS ABOVE OR BELOW GRADE THAT WOULD OBSTRUCT CONSTRUCTION OF THE PROJECT OR CONFLICT IN ANY MANNER WITH COMPLETION OF THE PROJECT OR ANY CODE PERTAINING THERETO. IF UTILITY COMPANY REQUIREMENTS ARE AT A VARIANCE WITH THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACT PRICE SHALL INCLUDE THE ADDITIONAL COST.
18. THIS CONTRACTOR SHALL INSTALL EQUIPMENT GROUNDS THROUGHOUT THIS PROJECT, USING GREEN INSULATED CONDUCTORS. USE OF CONDUIT AS THE ONLY GROUND CONDUCTOR WILL NOT BE ALLOWED. SIZE GROUND CONDUCTORS PER N.E.C..
19. ALL UTILITY FEES ASSOCIATED WITH THIS PROJECT SHALL BE INCLUDED IN BID. IF THESE FEES CANNOT BE OBTAINED FROM THE UTILITY PRIOR TO BID, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY.
20. CONTRACTOR SHALL FIELD MARK ALL ELECTRICAL EQUIPMENT WITH ARC-FLASH WARNING LABELS PER NEC 110.16.
21. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS AND MANUALS THAT PROVIDE INSTRUCTION ABOUT OPERATION AND MAINTENANCE OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE.
22. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF ELECTRICAL EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO SUBMITTING AND ORDERING EQUIPMENT.
23. VERIFY EXACT LOCATION AND EXACT MOUNTING HEIGHT OF ALL ELECTRICAL EQUIPMENT AND ELECTRICAL CONNECTIONS WITH THE ARCHITECT AND THE OWNER PRIOR TO ROUGH-IN.(INCLUDING DEVICES FOR TV, PROJECTOR, PROJECTOR SCREEN AND SWITCH FOR PROJECTOR.)
24. CONTRACTOR SHALL INSTALL SURGE PROTECTION DEVICE ON THE FACP, EXTERIOR ANTENNAS, EXTERIOR FIRE ALARM HORN/STROBES, ETC.
25. CONTRACTOR SHALL TIE NEW FACP INTO EXISTING CENTRAL STATION WITH A MONACO TRANSCEIVER AS REQUIRED.

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NO.	LAMPS			MOUNTING HEIGHT	TYPE MOUNTING	RECESS DEPTH	REMARKS
			NO.	WATTS	TYPE				
A10	LITHONIA	2BLT-60L-ADP-120-EZ1-LP850-N100-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A11	LITHONIA	2BLT-60L-ADP-120-EZ1-LP850-N100-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A12	LITHONIA	2BLT-48L-ADP-120-EZ1-LP850-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A13	LITHONIA	2BLT-48L-ADP-120-EZ1-LP850-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A14	LITHONIA	2BLT-48L-ADP-120-EZ1-LP850-N100-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A15	LITHONIA	2BLT-48L-ADP-120-EZ1-LP850-N100-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A16	LITHONIA	BLWP4-85L-ADP-120-EZ1-LP850-N100-EL14L-GMF	FURNISHED WITH FIXTURE			+12' BASE BID/+14' BID OPTION	PENDANT		SEE NOTES 3 & 5
A17	LITHONIA	BLWP4-85L-ADP-120-EZ1-LP850-N100-GMF	FURNISHED WITH FIXTURE			+12' BASE BID/+14' BID OPTION	PENDANT		SEE NOTES 3 & 5
A18	LITHONIA	2BLT4-72L-ADP-120-EZ1-LP850-N100-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A19	LITHONIA	2BLT4-72L-ADP-120-EZ1-LP850-N100-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A20	LITHONIA	2BLT4-72L-ADP-120-EZ1-LP850-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A21	LITHONIA	2BLT4-72L-ADP-120-EZ1-LP850-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A22	LITHONIA	2BLT4-60L-ADP-120-EZ1-LP850-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
A23	LITHONIA	2BLT4-60L-ADP-120-EZ1-LP850-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 3
D12	LITHONIA	TZ1D-L96-10000LM-FST-MVOLT-80CRI-WH	FURNISHED WITH FIXTURE			+13' 6" A.F.F.	PENDANT		SEE NOTES 3 & 5
D13	LITHONIA	TZ1D-L96-10000LM-FST-MVOLT-80CRI-2E7W-WH	FURNISHED WITH FIXTURE			+13' 6" A.F.F.	PENDANT		SEE NOTES 3 & 5
D15	LITHONIA	ZL1D-L48-5000LM-FST-120-50K-80CRI-WH	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 3
D16	LITHONIA	ZL1D-L48-5000LM-FST-120-50K-80CRI-E7W-WH	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 3
F2	LITHONIA	UCEL-48IN-30K-90CRI-WH	FURNISHED WITH FIXTURE			UNDER CABINET	SURFACE		SEE NOTE 3
F3	LITHONIA	UCEL-24IN-30K-90CRI-WH	FURNISHED WITH FIXTURE			UNDER CABINET	SURFACE		SEE NOTE 3
F5	ECLIPSE	AS-XL-HR-PGC-(LED 20W)-5K-120-WH-FUS	FURNISHED WITH FIXTURE			ABOVE MIRROR	SURFACE		SEE NOTE 3
G4	LITHONIA	ICO-40/20-6AR-LSS-70D-120-EZ1-SF-TRW-NP80EZ	FURNISHED WITH FIXTURE			CEILING	RECESSED	8-7/8"	SEE NOTE 3
G5	LITHONIA	ICO-40/20-6AR-LSS-70D-120-EZ1-SF-TRW-NP80EZ-ELR	FURNISHED WITH FIXTURE			CEILING	RECESSED	8-7/8"	SEE NOTE 3
G6	LITHONIA	ICO-40/20-6AR-LSS-70D-120-EZ1-SF-TRW	FURNISHED WITH FIXTURE			CEILING	RECESSED	8-7/8"	SEE NOTE 3
G7	LITHONIA	ICO-40/20-6AR-LSS-70D-120-EZ1-SF-TRW-ELR	FURNISHED WITH FIXTURE			CEILING	RECESSED	8-7/8"	SEE NOTE 3
G8	LITHONIA	EVO6SH-50-10-DFF-SOL-120-EZ1-SF	FURNISHED WITH FIXTURE			CEILING	RECESSED	7-1/2"	SEE NOTE 3
G9	LITHONIA	ICO-40/30-6AR-LSS-70D-120-EZ1-SF-TRW	FURNISHED WITH FIXTURE			CEILING	RECESSED	8-7/8"	SEE NOTE 3
G10	LITHONIA	ICO-40/30-6AR-LSS-70D-120-EZ1-SF-TRW-ELR	FURNISHED WITH FIXTURE			CEILING	RECESSED	8-7/8"	SEE NOTE 3
L4	LITHONIA	WST-LED-P2-50K-VF-120-SF-E7W	FURNISHED WITH FIXTURE			+11' A.F.F.(UON)	SURFACE		SEE NOTES 3 & 4
L5	LITHONIA	WST-LED-P2-50K-VF-120-SF	FURNISHED WITH FIXTURE			+11' A.F.F.	SURFACE		SEE NOTES 3 & 4
P6	LITHONIA	DSX0-LED-P1-50K-TFTM-208-SPA-DF	FURNISHED WITH FIXTURE			+25' A.F.F.	SURFACE		SEE NOTES 1, 3 & 4
P7	LITHONIA	DSX0-LED-P1-50K-TFTM-208-SPA-DF(QTY OF 2)	FURNISHED WITH FIXTURE			+25' A.F.F.	SURFACE		SEE NOTES 2, 3 & 4
S	VISA LIGHITNG	OW5201-L40K(H)-MVOLT-BRNZ	FURNISHED WITH FIXTURE			+9' A.F.F.(UON)	SURFACE		SEE NOTES 3, 4 & 7
T	ALIGHT	ANGW4-SEH1-INT-36-LONG-AL1A4-40K-90CRI-MVOLT-N100-SGW	FURNISHED WITH FIXTURE			COVE	SURFACE		SEE NOTES 3 & 4
T1	ALIGHT	ANGW4-SEH1-INT-12-LONG-AL1A4-40K-90 CRI-MVOLT-N100-SGW	FURNISHED WITH FIXTURE			COVE	SURFACE		SEE NOTES 3 & 4
X	LITHONIA	LES-R-120-ELN	FURNISHED WITH FIXTURE			ABOVE DOOR/CEILING	SURFACE		SEE NOTE 3

NOTES:

1. PROVIDE WITH SSS-30-5G-DM19AS-DDB-BC POLE
2. PROVIDE WITH SSS-30-5G-DM28AS-DDB-BC POLE
3. EQUAL FIXTURE BY COLUMBIA AND DAYBRITE WILL BE ACCEPTABLE.
4. VERIFY FINISH WITH ARCHITECT.
5. FIXTURE SHALL BE HUNG WITH AIRCRAFT CABLE AS REQUIRED.
6. ALL LIGHT FIXTURES SHALL CARRY A MINIMUM 10 YEAR MANUFACTURER'S WARRANTY.
7. PROVIDE FIXTURE WITH A 1400 LUMEN REMOTE EMERGENCY BATTERY PACK.

ALABAMA REGISTERED No. 22753 PROFESSIONAL ENGINEER STANLEY J. McCARTER

3-16-22

McCARTER ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335
878 AVALON LANE
ANNISTON, AL 36207
M.E. JOB #2125

SS&L
ARCHITECTURE & INTERIOR DESIGN
Montgomery | Dothan | WWW.SSLARCH.COM
(M) 334. 263. 5162 | (D) 334. 791. 5248

Rev.	Description	Date
1	ADDENDUM	1-10-23

Job Number: 12072

Date: MARCH 2022

Drawn By: MWS

Checked By: SJM

Project Title: A New Security & Services Training Facility, 117th Air Refueling Wing, Birmingham, AL

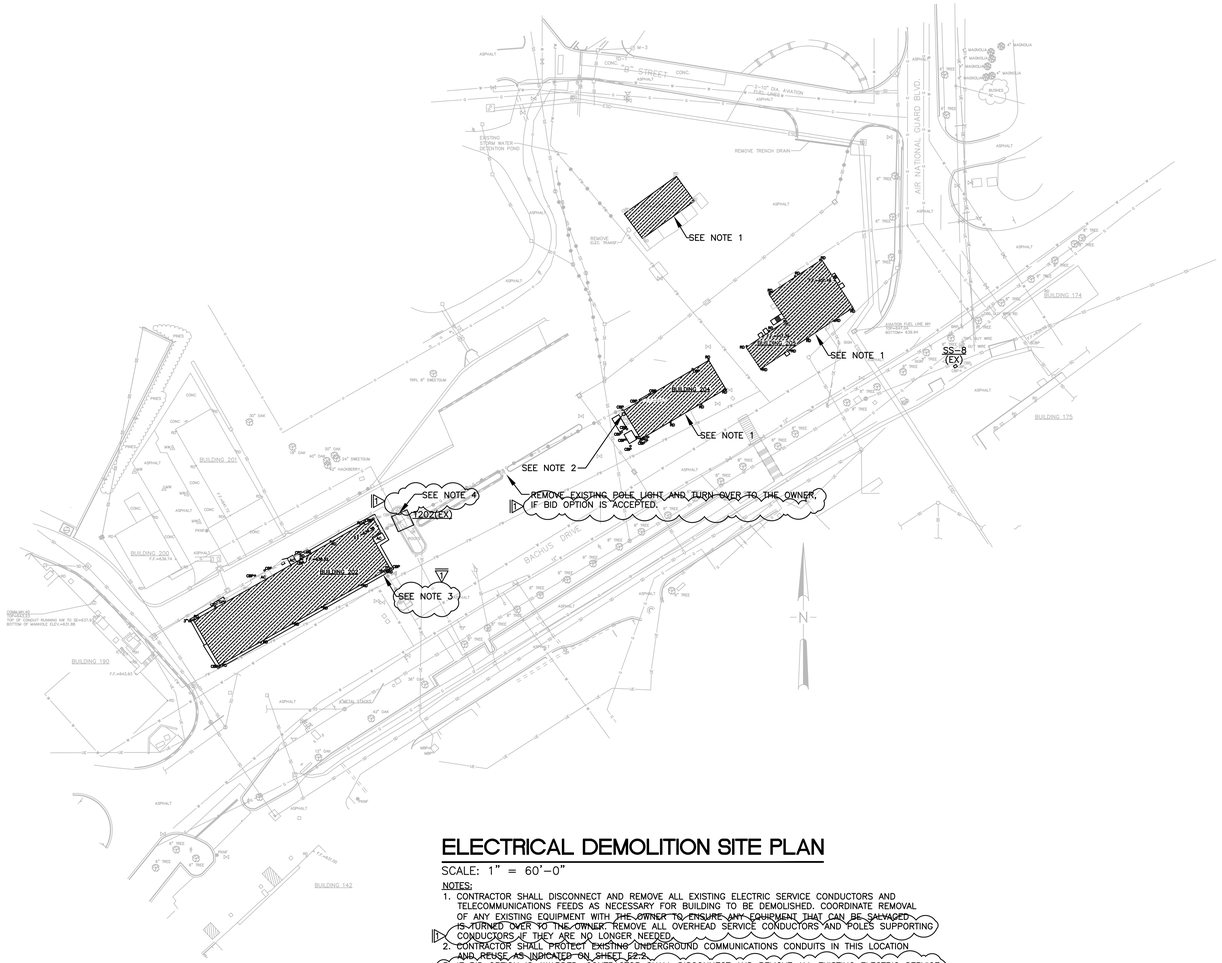
Sheet Title: SYMBOLS, NOTES AND LIGHTING FIXTURE SCHEDULE

Sheet Number: E1.1

STATE OF ALABAMA MONTGOMERY Jim H. Seay, Jr. 1846 Gregory A. O'Neal 6043 Wesley E. Osmer 6244 ALABAMA REGISTERED ARCHITECTS

DEMOLITION NOTES

1. DISCONNECT ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
2. PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION.
3. REMOVE ELECTRICAL EQUIPMENT NOT REQUIRED TO REMAIN IN SERVICE. RECONNECT EXISTING CIRCUITS TO OTHER SOURCES OF SUPPLY.
4. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY.
5. WHEN A CIRCUIT IS INTERRUPTED BY REMOVAL OF A DEVICE OR FIXTURE FROM THAT CIRCUIT, INSTALL WIRE, CONDUIT, AND ACCESSORIES TO RESTORE SERVICE TO REMAINING DEVICES AND FIXTURES ON THAT CIRCUIT.
6. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE.
7. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK.



ELECTRICAL DEMOLITION SITE PLAN

SCALE: 1" = 60'-0"

NOTES:

1. CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING ELECTRIC SERVICE CONDUCTORS AND TELECOMMUNICATIONS FEEDS AS NECESSARY FOR BUILDING TO BE DEMOLISHED. COORDINATE REMOVAL OF ANY EXISTING EQUIPMENT WITH ~~THE OWNER TO ENSURE ANY EQUIPMENT THAT CAN BE SALVAGED IS TURNED OVER TO THE OWNER.~~ REMOVE ALL OVERHEAD SERVICE CONDUCTORS AND POLES SUPPORTING CONDUCTORS IF THEY ARE NO LONGER NEEDED.
2. CONTRACTOR SHALL PROTECT EXISTING UNDERGROUND COMMUNICATIONS CONDUITS IN THIS LOCATION AND REUSE AS INDICATED ON SHEET E2.2.
3. IF BID OPTION IS AWARDED, CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING ELECTRIC SERVICE CONDUCTORS AND TELECOMMUNICATIONS FEEDS AS NECESSARY FOR BUILDING TO BE DEMOLISHED. COORDINATE REMOVAL OF ANY EXISTING EQUIPMENT WITH THE OWNER TO ENSURE ANY EQUIPMENT THAT CAN BE SALVAGED IS TURNED OVER TO THE OWNER.
4. EXISTING TRANSFORMER T202 SHALL REMAIN IN PLACE EVEN IF THE BID OPTION TO DEMOLISH BUILDING 202 IS TAKEN. REMOVE ALL SECONDARY CONDUCTORS AS REQUIRED.

STATE OF ALABAMA
STANLEY J. McCARTER
No. 22753
PROFESSIONAL ENGINEER
3-16-22

McCARTER ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335
878 AVALON LANE
ANNISTON, AL 36207
M.E. JOB #2125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
Montgomery | Dothan | Birmingham
(M) 334. 263. 5162 | (D) 334. 791. 5255
WWW.SSLCO.COM

Rev.	Description	Date
1	ADDENDUM	1-10-23

Job Number: 12072

Date: MARCH 2022

Drawn By: MWS

Checked By: SJM

Project Title

A New Security & Services Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title: ELECTRICAL DEMOLITION SITE PLAN

Sheet Number: E2.1

STATE OF ALABAMA
MONTGOMERY
Jim H. Sorg, Jr. 1996
Gregory A. O'Neal 2003
Wesley S. Clower 2014
ALABAMA
REGISTERED ARCHITECTS

Branch Panel: MPA

Location: Electrical/Mechanical 123 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 42,000
Supply From: | **Phases:** 3 | **Mains Type:** MB
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 1000 A
Enclosure: Indoor | | **MCB Rating:** 1000 A

Notes:
SEE PANELBOARD NOTES 1,2, 4 AND 5

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	DPEM(ELECTRICAL 123)	225 A	3	10211 VA	17080 VA					3	225 A	RPA(ELECTRICAL 116)	2
3	--	--	--			13013 VA	14900 VA			--	--	--	4
5	--	--	--					17633 VA	14480 VA	--	--	--	6
7	RPB(STORAGE 116)	150 A	3	12000 VA	16765 VA					3	225 A	PPB(MEZZANINE)	8
9	--	--	--			12800 VA	17057 VA			--	--	--	10
11	--	--	--					11480 VA	15473 VA	--	--	--	12
13	ACC-1(MECH. YARD)	500 A	3	29930 VA	8238 VA					3	150 A	LPA(ELECTRICAL 116)	14
15	--	--	--			29930 VA	5019 VA			--	--	--	16
17	--	--	--					29930 VA	4831 VA	--	--	--	18
19	PPA(123)	100 A	3	5696 VA	0 VA					3	225 A	Spare	20
21	--	--	--			4360 VA	0 VA			--	--	--	22
23	--	--	--					5270 VA	0 VA	--	--	--	24
25	TVSS	30 A	3	0 VA	0 VA					--	--	Space(100/3)	26
27	--	--	--			0 VA	0 VA			--	--	-	28
29	--	--	--					0 VA	0 VA	--	--	-	30
31	Space(100/3)	--	--	0 VA	0 VA					--	--	Space(100/3)	32
33	-	--	--			0 VA	0 VA			--	--	-	34
35	-	--	--					0 VA	0 VA	--	--	-	36
37	Space(100/3)	--	--	0 VA	0 VA					--	--	Space(100/3)	38
39	-	--	--			0 VA	0 VA			--	--	-	40
41	-	--	--					0 VA	0 VA	--	--	-	42
			Total Load:	99920 VA		97079 VA		99097 VA					
			Total Amps:	835 A		809 A		828 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	17825 VA	100.00%	17825 VA		
Receptacle	82600 VA	56.05%	46300 VA	**Total Conn. Load:**	296096 VA
Heating	136560 VA	100.00%	136560 VA	**Total Est. Demand:**	261300 VA
Heating-1ph	14744 VA	100.00%	14744 VA	**Total Conn.:**	822 A
Cooling-3ph	0 VA	0.00%	0 VA	**Total Est. Demand:**	725 A
Cooling	6880 VA	100.00%	6880 VA		
WATER HEATING	90 VA	100.00%	90 VA		
Motor	11054 VA	113.60%	12558 VA		
Other	25080 VA	100.00%	25080 VA		
Lighting-Exterior	1263 VA	100.00%	1263 VA		

Notes:

Branch Panel: DPEM

Location: Electrical/Mechanical 123 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 42,000
Supply From: MPA | **Phases:** 3 | **Mains Type:** MB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 225 A
Enclosure: Type 1 | | **MCB Rating:**

Notes:
SEE PANELBOARD NOTES 3 AND 4

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LPEM(ELECTRICAL 116)	150 A	3	5372 VA	962 VA					2	25 A	DAC-1(OD & ID)(MECH....	2
3	--	--	--			7620 VA	962 VA			--	--	--	4
5	--	--	--					12240 VA	962 VA	2	25 A	DAC-2(OD & ID)(MECH....	6
7	HP-1(ID)(130A)	35 A	3	2915 VA	962 VA					--	--	--	8
9	--	--	--			2915 VA	1516 VA			2	30 A	HP-1(OD)(MECH. YARD)	10
11	--	--	--					2915 VA	1516 VA	--	--	--	12
13	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	14
15	Spare	20 A	1			0 VA	0 VA			1	20 A	Spare	16
17	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	18
19	Space	--	--	0 VA	0 VA					--	--	Space	20
21	Space	--	--			0 VA	0 VA			--	--	Space	22
23	Space	--	--					0 VA	0 VA	--	--	Space	24
25	Space	--	--	0 VA	0 VA					--	--	Space	26
27	Space	--	--			0 VA	0 VA			--	--	Space	28
29	Space	--	--					0 VA	0 VA	--	--	Space	30
31	Space	--	--	0 VA	0 VA					--	--	Space	32
33	Space	--	--			0 VA	0 VA			--	--	Space	34
35	Space	--	--					0 VA	0 VA	--	--	Space	36
37	Space	--	--	0 VA	0 VA					--	--	Space	38
39	Space	--	--			0 VA	0 VA			--	--	Space	40
41	Space	--	--					0 VA	0 VA	--	--	Space	42
			Total Load:	10211 VA		13013 VA		17633 VA					
			Total Amps:	85 A		112 A		151 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	708 VA	100.00%	708 VA		
Receptacle	10520 VA	97.53%	10260 VA	**Total Conn. Load:**	40857 VA
Heating	8745 VA	100.00%	8745 VA	**Total Est. Demand:**	40597 VA
Heating-1ph	1584 VA	100.00%	1584 VA	**Total Conn.:**	113 A
Cooling-3ph	0 VA	0.00%	0 VA	**Total Est. Demand:**	113 A
Cooling	6880 VA	100.00%	6880 VA		
WATER HEATING	0 VA	0.00%	0 VA		
Motor	0 VA	0.00%	0 VA		
Other	12420 VA	100.00%	12420 VA		
Lighting-Exterior	0 VA	0.00%	0 VA		

Notes:

PANELBOARD NOTES:
1. PANEL SHALLL BE SERVICE ENTRANCE RATED.
2. PANEL SHALL BE EQUIPPED WITH BUILT-IN SURGE PROTECTION, CAPABLE OF WITHSTANDING A TRANSIENT SURGE OF 160,000 AMPS.
3. PANEL SHALL BE EQUIPPED WITH BUILT-IN SURGE PROTECTION, CAPABLE OF WITHSTANDING A TRANSIENT SURGE OF 100,000 AMPS.
4. PANEL SHALL BE FULLY RATED AND SHALL HAVE A HINGED FRONT TRIM.
5. I-LINE PANELBOARD SHALL HAVE MICARTA LABELS BESIDE EACH BREAKER, INDICATING LOAD SERVED.
6. PANELBOARD SHALL HAVE A TWO SECTION PANEL.

Branch Panel: LPA

Location: Electrical/Mechanical 123 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 42,000
Supply From: MPA | **Phases:** 3 | **Mains Type:** MLO
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 150 A
Enclosure: Type 1 | | **MCB Rating:**

Notes:
SEE PANELBOARD NOTES 3 AND 4

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lighting(122-124,142)	20 A	1	1059 VA	1037 VA					1	20 A	Lighting(111,116-119,120A,...	2
3	Lighting(102,112-115)	20 A	1			1340 VA	955 VA			1	20 A	Lighting(104A,104B,105,106)	4
5	Lighting(103)	20 A	1					1194 VA	825 VA	1	20 A	Lighting(150,151)	6
7	Lighting(142,144,146,147A,...	20 A	1	1152 VA	1598 VA					1	20 A	Lighting(125,127,129,131,13...	8
9	Lighting(126,140,142)	20 A	1			1022 VA	674 VA			1	20 A	Lighting(143,145,147)	10
11	Lighting(109A)	20 A	1					1154 VA	1487 VA	1	20 A	Lighting(109B,109C)	12
13	Lighting(109A)	20 A	1	1258 VA	921 VA					1	20 A	Lighting C-1(OUTSIDE)	14
15	SITE LTS C-2(PARKING LO...	20 A	2			95 VA	76 VA			2	20 A	SITE LTS C-1(PARKING LO...	16
17	--	--	--					95 VA	76 VA	--	--	--	18
19	TIME CLOCK(123)	20 A	1	200 VA	1013 VA					1	20 A	Lighting(109B)	20
21	Lighting(109C)	20 A	1			857 VA	0 VA			1	20 A	Spare	22
23	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	24
25	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	26
27	Spare	20 A	1			0 VA	0 VA			--	--	Space	28
29	Space	--	--					0 VA	0 VA	--	--	Space	30
31	Space	--	--	0 VA	0 VA					--	--	Space	32
33	Space	--	--			0 VA	0 VA			--	--	Space	34
35	Space	--	--					0 VA	0 VA	--	--	Space	36
37	Space	--	--	0 VA	0 VA					--	--	Space	38
39	Space	--	--			0 VA	0 VA			--	--	Space	40
41	Space	--	--					0 VA	0 VA	--	--	Space	42
			Total Load:	8238 VA		5019 VA		4831 VA					
			Total Amps:	69 A		42 A		40 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	16625 VA	100.00%	16625 VA		
Receptacle	0 VA	0.00%	0 VA	**Total Conn. Load:**	18088 VA
Heating	0 VA	0.00%	0 VA	**Total Est. Demand:**	18088 VA
Heating-1ph	0 VA	0.00%	0 VA	**Total Conn.:**	50 A
Cooling-3ph	0 VA	0.00%	0 VA	**Total Est. Demand:**	50 A
Cooling	0 VA	0.00%	0 VA		
WATER HEATING	0 VA	0.00%	0 VA		
Motor	0 VA	0.00%	0 VA		
Other	200 VA	100.00%	200 VA		
Lighting-Exterior	1263 VA	100.00%	1263 VA		

Notes:

Branch Panel: LPEM

Location: Mechanical/Electrcal 123 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 42,000
Supply From: DPEM | **Phases:** 3 | **Mains Type:** MLO
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 150 A
Enclosure: Type 1 | | **MCB Rating:**

Notes:
SEE PANELBOARD NOTES 3 AND 4

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lighting(130,130A,130B,132...	20 A	1	612 VA	1000 VA					1	20 A	Receptacles(130B,142)	2
3	Receptacles(130,130B,132,...	20 A	1			1020 VA	1000 VA			1	20 A	Receptacle(130)	4
5	Receptacles(130,130A)	20 A	1					1000 VA	600 VA	1	20 A	Receptacles(130A)	6
7	Receptacles(138)	20 A	1	560 VA	400 VA					1	20 A	Receptacles(138)	8
9	Receptacles(138)	20 A	1			400 VA	600 VA			1	20 A	Receptacles(138)	10
11	IDS(STORAGE 148A)	20 A	1					1200 VA	2800 VA	1	30 A	IDS ANNUNCIATOR(134)	12
13	IDF(138)	20 A	1	200 VA	1000 VA					1	20 A	Receptacle(130)	14
15	CCTV RACK(130A)	30 A	1			2400 VA	200 VA			1	20 A	MDF	16
17	Receptacle(130)	20 A	1					1000 VA	2400 VA	1	30 A	ASN RACK(130A)	18
19	FACP(151)	20 A	1	200 VA	200 VA					1	20 A	MDF(152)	20
21	Receptacle(152)	20 A	1			400 VA	400 VA			1	20 A	Receptacle(152)	22
23	Receptacle(152)	20 A	1					560 VA	96 VA	1	20 A	Lighting(152)	24
25	SSA(138)	20 A	1	200 VA	1000 VA					3	20 A	FURNITURE(130)	26
27	BAS(138)	20 A	1			200 VA	1000 VA			--	--	--	28
29	DH-3(130)	20 A	1					1584 VA	1000 VA	--	--	--	30
31	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	32
33	Spare	20 A	1			0 VA	0 VA			1	20 A	Spare	34
35	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	36
37	Space	--	--	0 VA	0 VA					--	--	Space	38
39	Space	--	--			0 VA	0 VA			--	--	Space	40
41	Space	--	--					0 VA	0 VA	--	--	Space	42
			Total Load:	5372 VA		7620 VA		12240 VA					
			Total Amps:	45 A		66 A		105 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	708 VA	100.00%	708 VA		
Receptacle	10520 VA	97.53%	10260 VA	**Total Conn. Load:**	25232 VA
Heating	0 VA	0.00%	0 VA	**Total Est. Demand:**	24972 VA
Heating-1ph	1584 VA	100.00%	1584 VA	**Total Conn.:**	70 A
Cooling-3ph	0 VA	0.00%	0 VA	**Total Est. Demand:**	69 A
Cooling	0 VA	0.00%	0 VA		
WATER HEATING	0 VA	0.00%	0 VA		
Motor	0 VA	0.00%	0 VA		
Other	12420 VA	100.00%	12420 VA		
Lighting-Exterior	0 VA	0.00%	0 VA		

Notes:

3-16-22

McCARTER ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335 878 AVALON LANE ANNISTON, AL 36207
M.E. JOB #2125

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADDENDUM	1-10-23

Job Number: 12072
Date: MARCH 2022
Drawn By: MWS
Checked By: SJM

Project Title:
A NEW SECURITY & SERVICES
Training Facility
11th Refueling Wing
Birmingham, AL

Sheet Title: PANELBOARD SCHEDULES

Sheet Number: E2.3

Branch Panel: RPB

Location: Equipment Storage 116 | **Supply From:** MPA | **Mounting:** SURFACE | **Enclosure:** Type 1
Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4
A.I.C. Rating: 14,000 | **Mains Type:** MLO | **Mains Rating:** 150 A | **MCB Rating:**

Notes:
SEE PANELBOARD NOTES 3, 4 AND 6

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	FLOOR OUTLETS(109A)	20 A	1	800 VA	800 VA					1	20 A	FLOOR OUTLETS(109B)	2
3	FLOOR OUTLETS(109C)	20 A	1			800 VA	800 VA			1	20 A	FLOOR OUTLETS(109A)	4
5	FLOOR OUTLETS(109B)	20 A	1					800 VA	800 VA	1	20 A	FLOOR OUTLETS(109C)	6
7	Receptacles(11,112,116,117)	20 A	1	1200 VA	800 VA					1	20 A	Receptacles(101,107,115)	8
9	Receptacles(115,116)	20 A	1			800 VA	1400 VA			1	20 A	Receptacles(112)	10
11	Receptacles(114)	20 A	1					800 VA	1200 VA	1	20 A	Receptacles(106,112)	12
13	Receptacles(112,117)	20 A	1	1000 VA	800 VA					1	20 A	Receptacles(103,106)	14
15	Receptacles(105,106)	20 A	1			1200 VA	1200 VA			1	20 A	Receptacles(103,105,106)	16
17	Receptacles(103,104A,104B,1...	20 A	1					1080 VA	1000 VA	1	20 A	Receptacles(103)	18
19	Receptacles(103)	20 A	1	1200 VA	1000 VA					1	20 A	Receptacles(103)	20
21	EWC(111)	20 A	1			600 VA	600 VA			1	20 A	EWC(111)	22
23	EWC(103)	20 A	1					600 VA	600 VA	1	20 A	EWC(103)	24
25	EWC(103)	20 A	1	600 VA	600 VA					1	20 A	EWC(103)	26
27	ELLIPTICAL(103)	20 A	1			800 VA	400 VA			1	20 A	ELLIPTICAL(103)	28
29	Treadmill(103)	20 A	1					200 VA	200 VA	1	20 A	Treadmill(103)	30
31	Treadmill(103)	20 A	1	200 VA	800 VA					1	20 A	RECEPTS(109C)	32
33	Receptacles(109A,111,116)	20 A	1			1200 VA	1000 VA			1	20 A	Receptacles(107,108,11)	34
35	Receptacles(109A,109B,109C)	20 A	1					600 VA	1200 VA	1	20 A	Receptacles(113)	36
37	FLOOR OUTLETS(112)	20 A	1	1000 VA	1200 VA					1	20 A	HAND DRYER (104b)	38
39	FRIG(112)	20 A	1			800 VA	1200 VA			1	20 A	HAND DRYER (104b)	40
41	HAND DRYER (104a)	20 A	1					1200 VA	1200 VA	1	20 A	HAND DRYER (104a)	42
43	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	44
45	Spare	20 A	1			0 VA	0 VA			1	20 A	Spare	46
47	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	48
49	Space	--	--	0 VA	0 VA					--	--	Space	50
51	Space	--	--			0 VA	0 VA			--	--	Space	52
53	Space	--	--					0 VA	0 VA	--	--	Space	54
55	Space	--	--	0 VA	0 VA					--	--	Space	56
57	Space	--	--			0 VA	0 VA			--	--	Space	58
59	Space	--	--					0 VA	0 VA	--	--	Space	60
61	Space	--	--	0 VA	0 VA					--	--	Space	62
63	Space	--	--			0 VA	0 VA			--	--	Space	64
65	Space	--	--					0 VA	0 VA	--	--	Space	66
67	Space	--	--	0 VA	0 VA					--	--	Space	68
69	Space	--	--			0 VA	0 VA			--	--	Space	70
71	Space	--	--					0 VA	0 VA	--	--	Space	72
73	Space	--	--	0 VA	0 VA					--	--	Space	74
75	Space	--	--			0 VA	0 VA			--	--	Space	76
77	Space	--	--					0 VA	0 VA	--	--	Space	78
79	Space	--	--	0 VA	0 VA					--	--	Space	80
81	Space	--	--			0 VA	0 VA			--	--	Space	82
83	Space	--	--					0 VA	0 VA	--	--	Space	84
			Total Load:	12000 VA		12800 VA		11480 VA					
			Total Amps:	101 A		107 A		96 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	4880 VA	100.00%	4880 VA		
Power	0 VA	0.00%	0 VA	**Total Conn. Load:**	36280 VA
Receptacle	31400 VA	65.92%	20700 VA	**Total Est. Demand:**	25580 VA
				Total Conn.:	101 A
				Total Est. Demand:	71 A

Notes:

Branch Panel: RPA

Location: Electrical/Mechanical 123 | **Supply From:** MPA | **Mounting:** SURFACE | **Enclosure:** Type 1
Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4
A.I.C. Rating: 42,000 | **Mains Type:** MLO | **Mains Rating:** 225 A | **MCB Rating:**

Notes:
SEE PANELBOARD NOTES 3, 4 AND 6

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacles(120A,120B)	20 A	1	1200 VA	800 VA					1	20 A	Receptacles(120B)	2
3	Receptacles(122,142)	20 A	1			1000 VA	800 VA			1	20 A	Receptacles(123,124)	4
5	Receptacles(118,119,121)	20 A	1					1080 VA	200 VA	1	20 A	Receptacles(121,144)	6
7	Receptacles(121,144)	20 A	1	1000 VA	800 VA					1	20 A	Receptacles(121,144)	8
9	Receptacles(126,142,144)	20 A	1			880 VA	800 VA			1	20 A	Receptacles(125,142)	10
11	Receptacles(127)	20 A	1					600 VA	800 VA	1	20 A	Receptacles(129)	12
13	Receptacles(131)	20 A	1	600 VA	800 VA					1	20 A	Receptacles(133C)	14
15	Receptacles(133A,133C)	20 A	1			1000 VA	600 VA			1	20 A	Receptacles(133A)	16
17	Receptacles(133B)	20 A	1					1200 VA	800 VA	1	20 A	Receptacles(135,142)	18
19	Receptacles(137)	20 A	1	600 VA	1440 VA					1	20 A	REFRIGERATOR(137)	20
21	Receptacles(137)	20 A	1			800 VA	1000 VA			1	20 A	Receptacles(139,142)	22
23	Receptacles(142,145)	20 A	1					1200 VA	1200 VA	1	20 A	Receptacles(141-143)	24
25	Receptacles(145)	20 A	1	600 VA	1000 VA					1	20 A	Receptacles(144)	26
27	Receptacles(144,146,148B)	20 A	1			820 VA	1000 VA			1	20 A	Receptacles(146,147,147A)	28
29	RECEPTACLES(148A,150)	20 A	1					1000 VA	800 VA	1	20 A	Receptacles(150)	30
31	Receptacles(150)	20 A	1	1000 VA	1000 VA					1	20 A	Receptacles(144,148A)	32
33	EWC(142)	20 A	1			600 VA	1200 VA			1	20 A	Receptacles(147A,151)	34
35	EWC(142)	20 A	1					600 VA	600 VA	1	20 A	EWC(142)	36
37	ICE MAKER(137)	20 A	1	1440 VA	600 VA					1	20 A	EWC(142)	38
39	COFFEE MAKER(137)	20 A	1			1000 VA	1000 VA			1	20 A	MW(137)	40
41	Receptacle(147)	20 A	1					1200 VA	800 VA	1	20 A	Receptacle(129,142)	42
43	FLOOR OUTLETS(121)	20 A	1	800 VA	1000 VA					1	20 A	Parts Washer(144)	44
45	HAND DYER (118)	20 A	1			1200 VA	1200 VA			1	20 A	HAND DYER (119)	46
47	HAND DYER (148b)	20 A	1					1200 VA	1200 VA	1	20 A	HAND DRYER(126)	48
49	HAND DRYER(140)	20 A	1	1200 VA	1200 VA					1	20 A	HAND DRYER (132)	50
51	Spare	20 A	1			0 VA	0 VA			1	20 A	Spare	52
53	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	54
55	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	56
57	Space	--	--			0 VA	0 VA			--	--	Space	58
59	Space	--	--					0 VA	0 VA	--	--	Space	60
61	Space	--	--	0 VA	0 VA					--	--	Space	62
63	Space	--	--			0 VA	0 VA			--	--	Space	64
65	Space	--	--					0 VA	0 VA	--	--	Space	66
67	Space	--	--	0 VA	0 VA					--	--	Space	68
69	Space	--	--			0 VA	0 VA			--	--	Space	70
71	Space	--	--					0 VA	0 VA	--	--	Space	72
73	Space	--	--	0 VA	0 VA					--	--	Space	74
75	Space	--	--			0 VA	0 VA			--	--	Space	76
77	Space	--	--					0 VA	0 VA	--	--	Space	78
79	Space	--	--	0 VA	0 VA					--	--	Space	80
81	Space	--	--			0 VA	0 VA			--	--	Space	82
83	Space	--	--					0 VA	0 VA	--	--	Space	84
			Total Load:	17080 VA		14900 VA		14480 VA					
			Total Amps:	143 A		125 A		121 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	7380 VA	100.00%	7380 VA		
Power	0 VA	0.00%	0 VA	**Total Conn. Load:**	46460 VA
Receptacle	39080 VA	62.79%	24540 VA	**Total Est. Demand:**	31920 VA
				Total Conn.:	129 A
				Total Est. Demand:	89 A

Notes:

PANELBOARD NOTES:
1. PANEL SHALLL BE SERVICE ENTRANCE RATED.
2. PANEL SHALL BE EQUIPPED WITH BUILT-IN SURGE PROTECTION, CAPABLE OF WITHSTANDING A TRANSIENT SURGE OF 160,000 AMPS.
3. PANEL SHALL BE EQUIPPED WITH BUILT-IN SURGE PROTECTION, CAPABLE OF WITHSTANDING A TRANSIENT SURGE OF 100,000 AMPS.
4. PANEL SHALL BE FULLY RATED AND SHALL HAVE A HINGED FRONT TRIM.
5. I-LINE PANELBOARD SHALL HAVE MICARTA LABELS BESIDE EACH BREAKER, INDICATING LOAD SERVED.
6. PANELBOARD SHALL HAVE A TWO SECTION PANEL.

Branch Panel: PPA

Location: Electrical/Mechanical 123 | **Supply From:** MPA | **Mounting:** SURFACE | **Enclosure:** Type 1
Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4
A.I.C. Rating: 42,000 | **Mains Type:** MLO | **Mains Rating:** 100 A | **MCB Rating:**

Notes:
SEE PANELBOARD NOTES 3 AND 4

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	GWH-1(124)	15 A	1	90 VA	70 VA					1	15 A	CP-1(124)	2
3	CP-2(124)	15 A	1			70 VA	750 VA			2	15 A	WEH-1(151)	4
5	CEH-1(143)	15 A	2					1000 VA	750 VA	--	--	--	6
7	--	--	--	1000 VA	1584 VA					1	20 A	DH-1(150)	8
9	ACC CNTRL CKT(MECH. YD)	15 A	1			200 VA	400 VA			1	20 A	HEAT TRACING(MECH....	10
11	B-1(MECH. YARD)	15 A	1					792 VA	792 VA	1	15 A	B-2(MECH. YARD)	12
13	BP-1(MECH. YARD)	15 A	3	420 VA	420 VA					3	15 A	BP-2(MECH. YARD)	14
15	--	--	--			420 VA	420 VA			--	--	--	16
17	--	--	--					420 VA	420 VA	--	--	--	18
19	CS-6(109A)	15 A	1	1056 VA	1056 VA					1	15 A	CS-7(109B)	20
21	CS-8(109C)	15 A	1			1056 VA	1044 VA			1	15 A	CS-1,2,4(102,107,111)	22
23	CS-3,5(111,123)	15 A	1					696 VA	400 VA	1	20 A	HEAT TRACING(MECH....	24
25	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	26
27	Spare	20 A	1			0 VA	0 VA			1	20 A	Spare	28
29	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	30
31	Space	--	--	0 VA	0 VA					--	--	Space	32
33	Space	--	--			0 VA	0 VA			--	--	Space	34
35	Space	--	--					0 VA	0 VA	--	--	Space	36
37	Space	--	--	0 VA	0 VA					--	--	Space	38
39	Space	--	--			0 VA	0 VA			--	--	Space	40
41	Space	--	--					0 VA	0 VA	--	--	Space	42
			Total Load:	5696 VA		4360 VA		5270 VA					
			Total Amps:	49 A		36 A		45 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	0 VA	0.00%	0 VA		
Receptacle	800 VA	100.00%	800 VA	**Total Conn. Load:**	15326 VA
Heating	0 VA	0.00%	0 VA	**Total Est. Demand:**	15641 VA
Heating-1ph	11576 VA	100.00%	11576 VA	**Total Conn.:**	43 A
Cooling-3ph	0 VA	0.00%	0 VA	**Total Est. Demand:**	43 A
Cooling	0 VA	0.00%	0 VA		
WATER HEATING	90 VA	100.00%	90 VA		
Motor	2660 VA	111.84%	2975 VA		
Other	200 VA	100.00%	200 VA		
Lighting-Exterior	0 VA	0.00%	0 VA		

Notes:

Branch Panel: PPB

Location: Mezzanine | **Supply From:** MPA | **Mounting:** Surface | **Enclosure:** Type 1
Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4
A.I.C. Rating: 22,000 | **Mains Type:** MLO | **Mains Rating:** 225 A | **MCB Rating:**

Notes:
SEE PANELBOARD NOTES 3 AND 4

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacles-(MEZZANINE)	20 A	1	800 VA	492 VA					1	20 A	Lighting-(MEZZANINE)	2
3	HWP-1(MEZZANINE)	15 A	3			793 VA	0 VA			3	15 A	HWP-2(MEZZANINE)	4
5	--	--	--					793 VA	0 VA	--	--	--	6
7	--	--	--	793 VA	0 VA					--	--	--	8
9	CWP-1(MEZZANINE)	40 A	3			2005 VA	0 VA			3	40 A	CWP-2(MEZZANINE)	10
11	--	--	--					2005 VA	0 VA	--	--	--	12
13	--	--	--	2005 VA	0 VA					--	--	--	14
15	ERV-1(MEZZANINE)	15 A	3			552 VA	793 VA			3	15 A	ERV-2(MEZZANINE)	16
17	--	--	--					552 VA	793 VA	--	--	--	18
19	--	--	--	552 VA	793 VA					--	--	--	20
21	ERV-3(MEZZANINE)	15 A	3			901 VA	3625 VA			3	70 A	AHU-2(MEZZANINE)	22
23	--	--	--					901 VA	3625 VA	--	--	--	24
25	--	--	--	901 VA	3625 VA					--	--	--	26
27	AHU-1(MEZZANINE)	70 A	3			3402 VA	1584 VA			1	20 A	DH-2(MEZZANINE)	28
29	--	--	--					3402 VA	0 VA	1	20 A	Spare	30
31	--	--	--	3402 VA	0 VA					1	20 A	Spare	32
33	AHU-3(MEZZANINE)	70 A	3			3402 VA	0 VA			1	20 A	Spare	34
35	--	--	--					3402 VA	0 VA	1	20 A	Spare	36
37	--	--	--	3402 VA	0 VA					--	--	Space	38
39	Spare	20 A	1			0 VA	0 VA			--	--	Space	40
41	Spare	20 A	1					0 VA	0 VA	--	--	Space	42
			Total Load:	16765 VA		17057 VA		15473 VA					
			Total Amps:	141 A		144 A		129 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	492 VA	100.00%	492 VA		
Receptacle	800 VA	100.00%	800 VA	**Total Conn. Load:**	49295 VA
Heating	38025 VA	100.00%	38025 VA	**Total Est. Demand:**	50799 VA
Heating-1ph	1584 VA	100.00%	1584 VA	**Total Conn.:**	137 A
Cooling-3ph	0 VA	0.00%	0 VA	**Total Est. Demand:**	141 A
Cooling	0 VA	0.00%	0 VA		
WATER HEATING	0 VA	0.00%	0 VA		
Motor	8394 VA	117.91%	9898 VA		
Other	0 VA	0.00%	0 VA		
Lighting-Exterior	0 VA	0.00%	0 VA		

Notes:

SS&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Street | Montgomery, AL 36104
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADDENDUM	1-10-23

Job Number: 12072
Date: MARCH 2022
Drawn By: MWS
Checked By: SJM

Project Title
A NEW SECURITY & SERVICES
Training Facility
11th Refueling Wing
Birmingham, AL

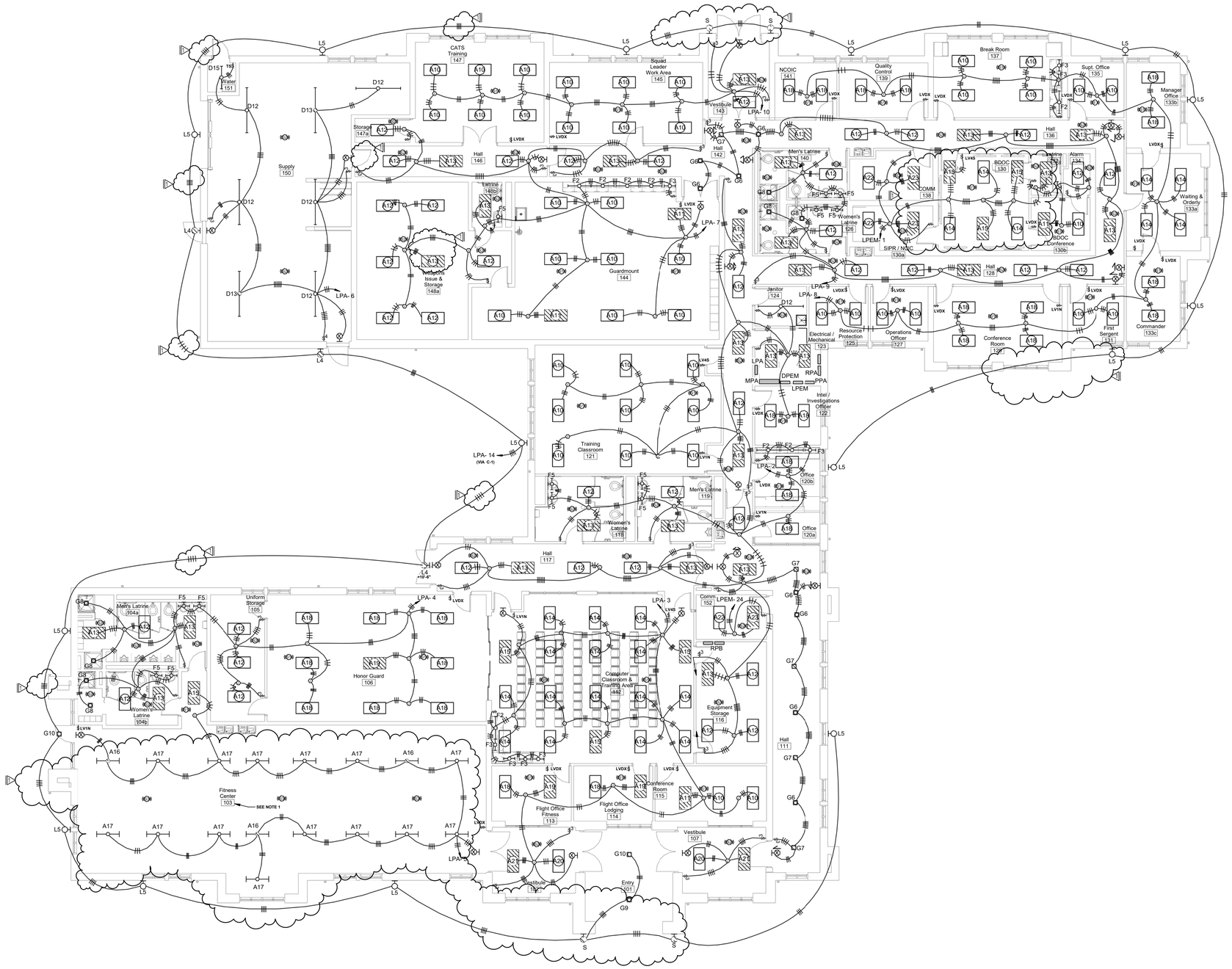
Sheet Title
PANELBOARD SCHEDULES CONTINUED

Sheet Number
E2.4

3-16-22

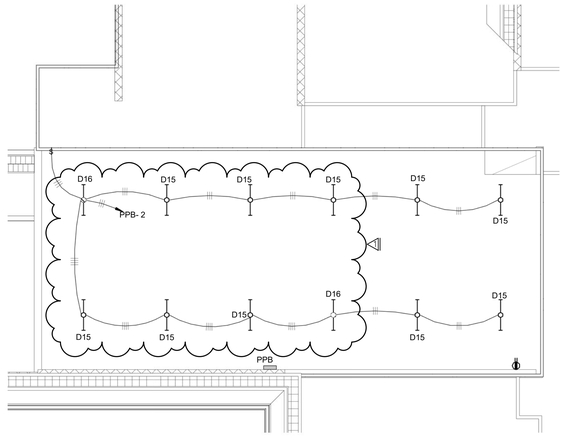
McCARTER ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335 878 AVALON LANE ANNISTON, AL 36207
M.E. JOB #2125

NOTE:
ALL 120 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A
3% VOLTAGE DROP OR LESS:
LESS THAN 75 FEET.....#12 AWG
BETWEEN 76' AND 125'.....#10 AWG
BETWEEN 126' AND 190'....#8 AWG



1 BASE BID FIRST FLOOR LIGHTING PLAN
1/8" = 1'-0"

NOTES:
1. CONTRACTOR SHALL ROUTE ALL CONDUIT IN NEAT AND ORDERLY MANNER IN THIS ROOM.
2. CONTRACTOR SHALL ROUTE SPARE CONDUIT FROM ALL PANELS AS NECESSARY TO ABOVE THE LAY-IN CEILING OF HALL 111 FOR LIGHTING AND POWER CIRCUITS, FIRE ALARM, ETC. FOR BASE BID AND BID OPTION 1.



2 MEZZANINE LIGHTING PLAN
1/8" = 1'-0"

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Square | Montgomery, AL 36104
Tel. 334.263.5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADDENDUM	1-10-23

Job Number: 12072
Date: MARCH 2022
Drawn By: MWS
Checked By: SJM
Project Title

A NEW SECURITY & SERVICES
Training Facility
11th Refueling Wing
Birmingham, AL

Sheet Title
BASE BID FIRST FLOOR LIGHTING PLAN AND MEZZANINE LIGHTING PLAN

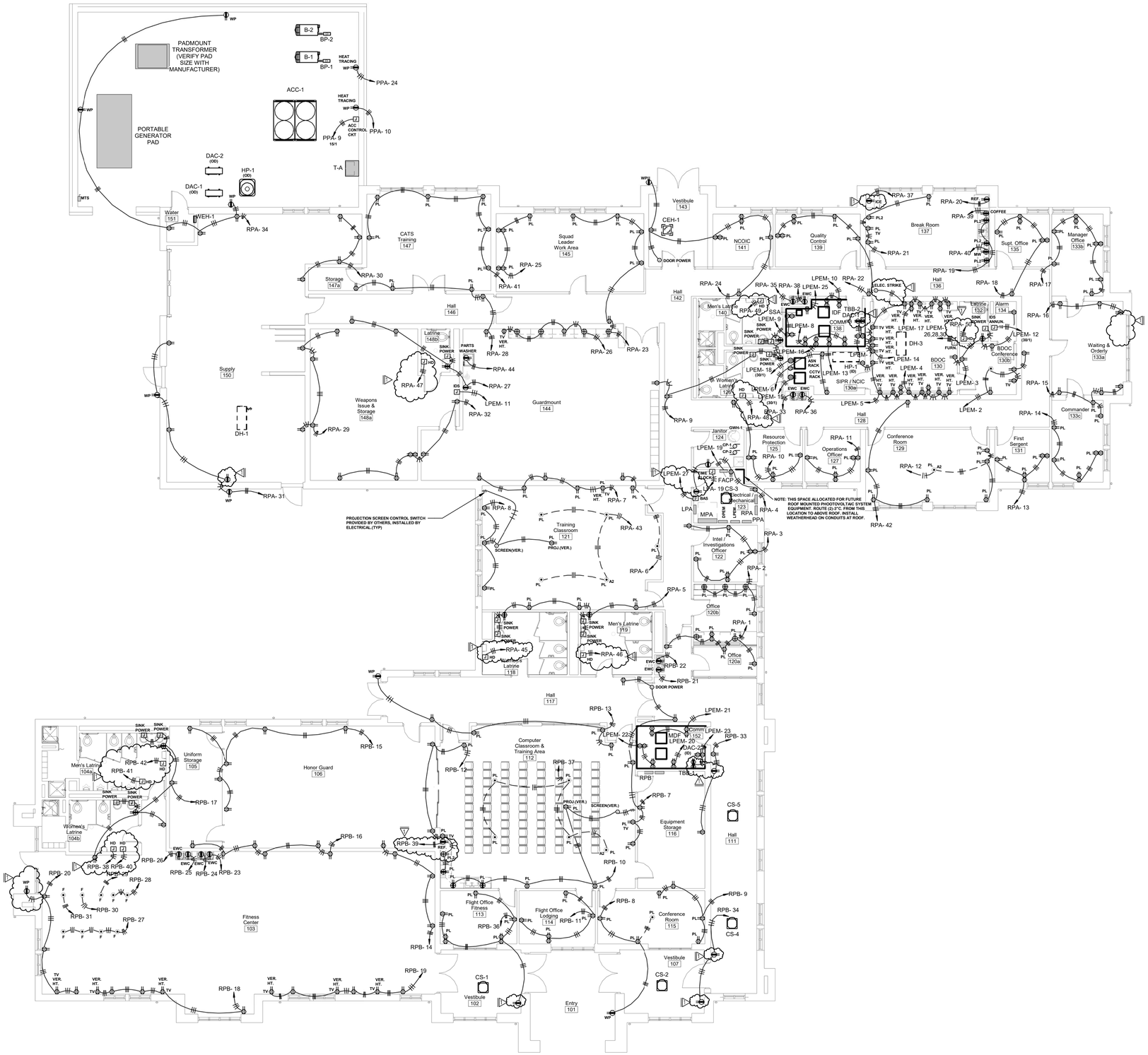
Sheet Number
E3.1

STATE OF ALABAMA
MONTGOMERY
Ben R. Sandy, Jr.
1966
Gregory A. O'Neal
2010
Stanley J. McCarter
2010
ALABAMA
REGISTERED ARCHITECTS

STATE OF ALABAMA
STANLEY J. MCCARTER
No. 32753
PROFESSIONAL ENGINEER
3-16-22

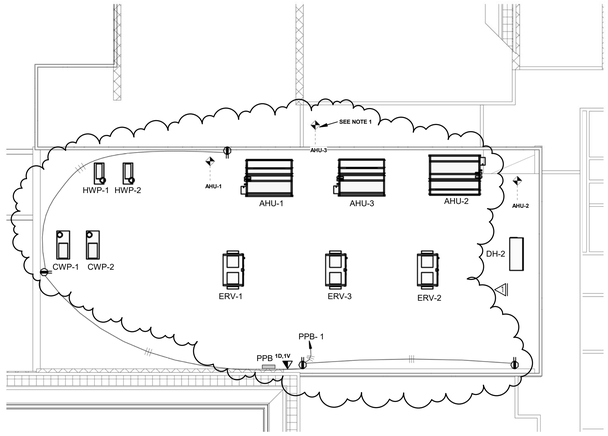
McCARTER ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335 878 AVALON LANE
ANNISTON, AL 36207
M.E. JOB #2125

NOTE:
ALL 120 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A
3% VOLTAGE DROP OR LESS:
LESS THAN 75' FEET.....#12 AWG
BETWEEN 76' AND 125'.....#10 AWG
BETWEEN 126' AND 190'.....#8 AWG



1 BASE BID FIRST FLOOR POWER PLAN
1/8" = 1'-0"

NOTES:
1. CONTRACTOR SHALL ROUTE SPARE CONDUIT FROM ALL PANELS AS NECESSARY TO ABOVE THE LAY-IN CEILING OF HALL 111 FOR LIGHTING AND POWER CIRCUITS, FIRE ALARM, ETC. FOR BASE BID AND BID OPTION 1.



2 MEZZANINE POWER AND AUXILIARIES PLAN
1/8" = 1'-0"

NOTES:
1. THE DUCT DETECTOR FOR AHU-3 SHALL BE INSTALLED IN BID OPTION 2.

MECHANICAL EQUIPMENT CIRCUIT SCHEDULE

UNIT ID	CIRCUIT NUMBER	BREAKER SIZE	WIRE SIZE	GROUND SIZE	CONDUIT SIZE	DISCONNECT TYPE	ROOM #
ACC-1	MPA-13,15,17	500/3	SEE SINGLE LINE DIAGRAM			400/3, F, RT(480V)	MECH. YARD
DAC-1(OD)(ID)*	DPEM-2,4	25/2	2 #10	#10	1/2"	30/2, F, RT	MECH. YARD
DAC-2(OD)(ID)*	DPEM-6,8	25/2	2 #10	#10	1/2"	30/2, F, RT	MECH. YARD
HP-1(OD)	DPEM-10,12	30/2	2 #8	#8	3/4"	30/2, F, RT	MECH. YARD
HP-1(ID)	DPEM-7,9,11	35/3	3 #8	#10	3/4"	60/3, NF	130A
VEH-1	PPA-4,6	15/2	2 #12	#12	1/2"	NONE	151
CEH-1	PPA-5,7	15/2	2 #12	#12	1/2"	NONE	143
DH-1	PPA-8	20/1	2 #8	#8	3/4"	TS	150
DH-2	PPB-28	20/1	2 #12	#12	1/2"	TS	MEZZANINE
DH-3	LPEM-29	20/1	2 #10	#10	1/2"	TS	130
GWH-1	PPA-1	15/1	2 #12	#12	1/2"	TS	124
CP-1	PPA-2	15/1	2 #12	#12	1/2"	TS	124
CP-2	PPA-3	15/1	2 #12	#12	1/2"	TS	124
BP-1	PPA-13,15,17	15/3	3 #12	#12	1/2"	30/3, F, RT	MECH. YARD
BP-2	PPA-14,16,18	15/3	3 #12	#12	1/2"	30/3, F, RT	MECH. YARD
HWP-1	PPB-3,5,7	15/3	3 #12	#12	1/2"	NONE	MEZZANINE
HWP-2	PPB-4,6,8	15/3	3 #12	#12	1/2"	NONE	MEZZANINE
CWP-1	PPB-9,11,13	40/3	3 #8	#10	3/4"	NONE	MEZZANINE
CWP-2	PPB-10,12,14	40/3	3 #8	#10	3/4"	NONE	MEZZANINE
B-1	PPA-11	15/1	2 #10	#10	1/2"	TS(WP)	MECH. YARD
B-2	PPA-12	15/1	2 #10	#10	1/2"	TS(WP)	MECH. YARD
ERV-1	PPB-15,17,19	15/3	3 #12	#12	1/2"	NONE	MEZZANINE
ERV-2	PPB-16,18,20	15/3	3 #12	#12	1/2"	NONE	MEZZANINE
ERV-3(BID OPTION 2)	PPB-21,23,25	15/3	3 #12	#12	1/2"	NONE	MEZZANINE
AHU-1	PPB-27,29,31	70/3	3 #8	#8	1"	NONE	MEZZANINE
AHU-2	PPB-22,24,26	70/3	3 #8	#8	1"	NONE	MEZZANINE
AHU-3(BID OPTION 2)	PPB-33,35,37	70/3	3 #8	#8	1"	NONE	MEZZANINE
CS-1,2,4	PPA-22	15/1	2 #10	#10	1/2"	TS(EACH)	102,107,111
CS-3,5	PPA-23	15/1	2 #12	#12	1/2"	TS(EACH)	111,123
CS-6(BID OPTION 1 ONLY)	PPA-19	15/1	2 #10	#10	1/2"	TS	109A
CS-7(BID OPTION 1 ONLY)	PPA-20	15/1	2 #10	#10	1/2"	TS	109B
CS-8(BID OPTION 1 ONLY)	PPA-21	15/1	2 #10	#10	1/2"	TS	109C

NF - NONFUSED
F - FUSED (FUSE PER MANUFACTURERS RECOMMENDATIONS)
RT - RAINTIGHT
TS - TOGGLE SWITCH ("WP" INDICATES WEATHERPROOF)
MRS - MOTOR RATED SWITCH
S/T - SHUNT TRIP BREAKER
DPTS - DOUBLE POLE TOGGLE SWITCH
NOTE: MAINTAIN CODE REQUIRED CLEARANCES FOR DISCONNECTS.
* CIRCUIT DAC(ID) FROM DAC(OD). PROVIDE A 20A DPTS DISCONNECT FOR DAC(ID). CIRCUIT INDOOR UNIT WITH 2 #12 & 1 #12(G) THHN IN 1/2"C.

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Colonnade, Birmingham, AL 35204
Tel. 334. 263. 5162 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADDENDUM	1-10-23

Job Number: 12072
Date: MARCH 2022
Drawn By: MWS
Checked By: SJM
Project Title

A NEW SECURITY & SERVICES Training Facility
11th Refueling Wing
Birmingham, AL

Sheet Title
BASE BID FIRST FLOOR POWER PLAN AND MEZZANINE POWER AND AUXILIARIES PLAN

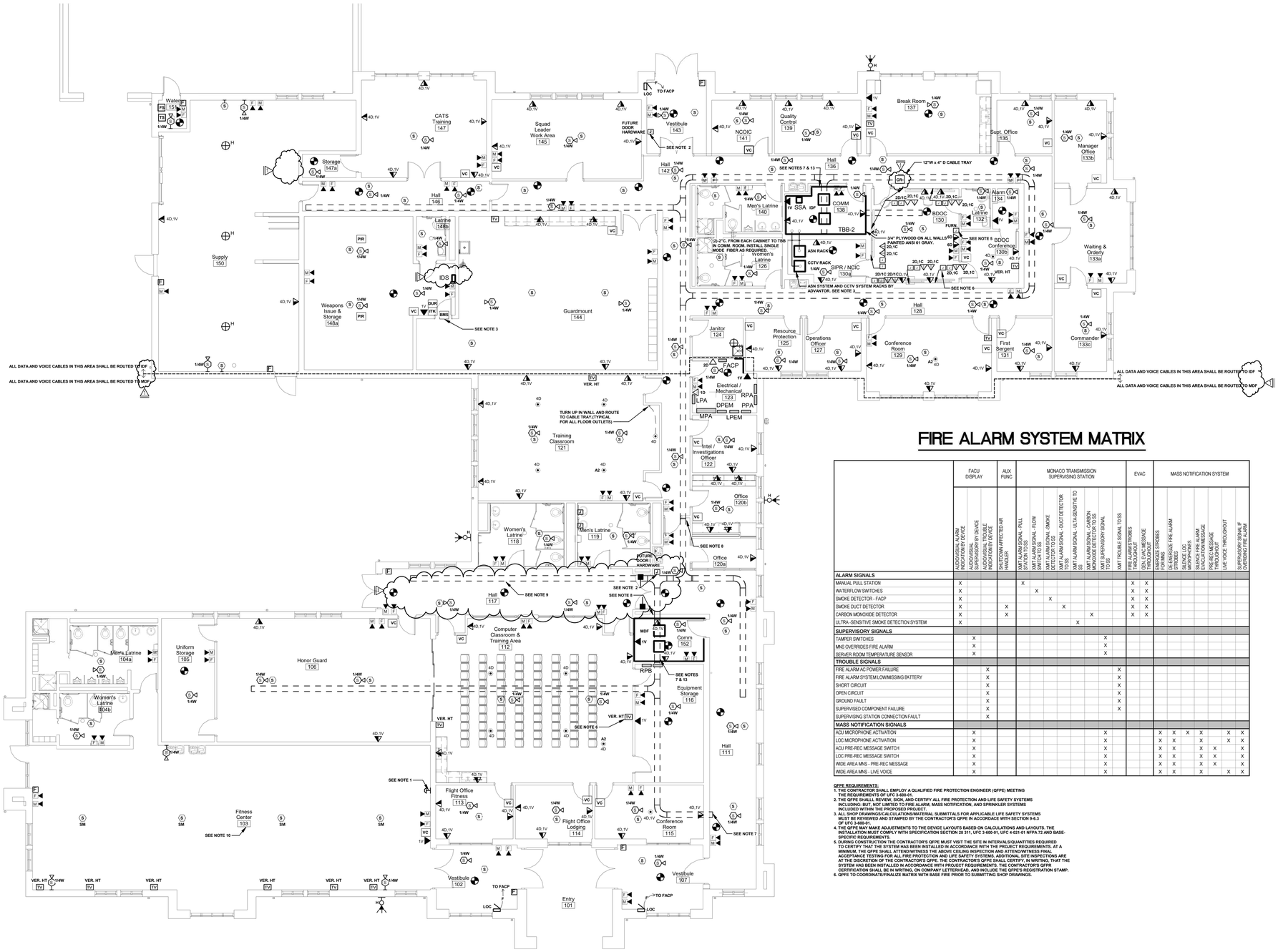
Sheet Number
E4.1

STATE OF ALABAMA
REGISTERED PROFESSIONAL ENGINEER
No. 32753
STANLEY J. McCARTER
3-16-22

McCARTER ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335 878 AVALON LANE ANNISTON, AL 36207

M.E. JOB #2125

STATE OF ALABAMA
MONTGOMERY
Jim S. Snap, Jr. 1962
Gregory A. O'Neal 4545
Wesley S. Cimino 4564
ALABAMA
REGISTERED ARCHITECTS



FIRE ALARM SYSTEM MATRIX

	FACU DISPLAY				AUX FUNC	MONACO TRANSMISSION SUPERVISING STATION								EVAC		MASS NOTIFICATION SYSTEM						
	AUDIO/VISUAL ALARM INDICATION BY DEVICE	AUDIO/VISUAL SUPERVISORY BY DEVICE	AUDIO/VISUAL TROUBLE INDICATION BY DEVICE		SHUTDOWN AFFECTED AIR HANDLER	XMIT ALARM SIGNAL - PULL STATION TO SS	XMIT ALARM SIGNAL - FLOW SWITCH TO SS	XMIT ALARM SIGNAL - SMOKE DETECTOR TO SS	XMIT ALARM SIGNAL - DUCT DETECTOR TO SS	XMIT ALARM SIGNAL - ULTA-SENSITIVE TO SS	XMIT ALARM SIGNAL - CARBON MONOXIDE DETECTOR TO SS	XMIT SUPERVISORY SIGNAL TO SS	XMIT TROUBLE SIGNAL TO SS	FIRE ALARM STROBES THROUGHOUT	FIRE ALARM HORN/STROBE THROUGHOUT	ENERGIZE STROBES ON FIRE ALARM	ENERGIZE FIRE ALARM STROBES	ENERGIZE LOC MICROPHONES	SILENCE FIRE ALARM	SILENCE ALL ALARMS	PRE-REC MESSAGE THROUGHOUT	LIVE VOICE THROUGHOUT	SUPERVISORY SIGNAL IF OVERRIDING FIRE ALARM
ALARM SIGNALS																						
MANUAL PULL STATION	X					X								X	X							
WATERFLOW SWITCHES	X						X							X	X							
SMOKE DETECTOR - FACP	X							X						X	X							
SMOKE DUCT DETECTOR	X				X				X					X	X							
CARBON MONOXIDE DETECTOR	X				X						X			X	X							
ULTRA -SENSITIVE SMOKE DETECTION SYSTEM	X									X												
SUPERVISORY SIGNALS																						
TAMPER SWITCHES		X										X										
MNS OVERIDES FIRE ALARM		X										X										
SERVER ROOM TEMPERATURE SENSOR		X										X										
TROUBLE SIGNALS																						
FIRE ALARM AC POWER FAILURE			X										X									
FIRE ALARM SYSTEM LOW/MISSING BATTERY			X										X									
SHORT CIRCUIT			X										X									
OPEN CIRCUIT			X										X									
GROUND FAULT			X										X									
SUPERVISED COMPONENT FAILURE			X										X									
SUPERVISING STATION CONNECTION FAULT			X																			
MASS NOTIFICATION SIGNALS																						
ACU MICROPHONE ACTIVATION		X										X				X	X	X	X		X	X
LOC MICROPHONE ACTIVATION		X										X				X	X		X		X	X
ACU PRE-REC MESSAGE SWITCH		X										X				X	X		X	X		X
LOC PRE-REC MESSAGE SWITCH		X										X				X	X		X	X		X
WIDE AREA MNS - PRE-REC MESSAGE		X										X				X	X		X	X		X
WIDE AREA MNS - LIVE VOICE		X										X				X	X		X		X	X

QFPE REQUIREMENTS:

1. THE CONTRACTOR SHALL EMPLOY A QUALIFIED FIRE PROTECTION ENGINEER (QFPE) MEETING THE REQUIREMENTS OF UFC 3-600-01.
2. THE QFPE SHALL REVIEW, SIGN, AND CERTIFY ALL FIRE PROTECTION AND LIFE SAFETY SYSTEMS INCLUDING: BUT, NOT LIMITED TO FIRE ALARM, MASS NOTIFICATION, AND SPRINKLER SYSTEMS INCLUDED WITHIN THE PROPOSED PROJECT.
3. ALL SHOP DRAWINGS/CALCULATIONS/MATERIAL SUBMITTALS FOR APPLICABLE LIFE SAFETY SYSTEMS MUST BE REVIEWED AND STAMPED BY THE CONTRACTOR'S QFPE IN ACCORDACE WITH SECTION 9-6.3 OF UFC 3-600-01.
4. THE QFPE MAY MAKE ADJUSTMENTS TO THE DEVICE LAYOUTS BASED ON CALCULATIONS AND LAYOUTS. THE FINAL DESIGN MUST COMPLY WITH SPECIFICATION SECTION 26 311, UFC 4-021-01 NFPA 72 AND BASE-SPECIFIC REQUIREMENTS.
5. DURING CONSTRUCTION THE CONTRACTOR'S QFPE MUST VISIT THE SITE IN INTERVALS/QUANTITIES REQUIRED TO CERTIFY THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE PROJECT REQUIREMENTS. AT A MINIMUM, THE QFPE SHALL ATTEND/WITNESS THE ABOVE CEILING INSPECTION AND ATTEND/WITNESS FINAL ACCEPTANCE TESTING FOR ALL FIRE PROTECTION AND LIFE SAFETY SYSTEMS. ADDITIONAL SITE INSPECTIONS ARE AT THE DISCRETION OF THE CONTRACTOR'S QFPE. THE CONTRACTOR'S QFPE SHALL CERTIFY, IN WRITING, THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH PROJECT REQUIREMENTS. THE CONTRACTOR'S QFPR CERTIFICATION SHALL BE IN WRITING, ON COMPANY LETTERHEAD, AND INCLUDE THE QFPE'S REGISTRATION STAMP.
6. QFPE TO COORDINATE/FINALIZE MATRIX WITH BASE FIRE PRIOR TO SUBMITTING SHOP DRAWINGS.

1 BASE BID FIRST FLOOR AUXILIARIES PLAN
1/8" = 1'-0"

NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL A BLUE MUSHROOM STYLE LATCHING PUSHBUTTON FOR AN EMERGENCY MEDICAL ALERT. THE PUSHBUTTON SHALL PROVIDE A SIGNAL TO THE FIRE ALARM SYSTEM AS PER UFC 4-740-02,3-6.4.9.
2. JUNCTION BOX WITH CONDUIT STUBBED UP ABOVE CEILING FOR FUTURE DOOR CONTROL.
3. CONTRACTOR SHALL COORDINATE ALL ASN/CCTV AND IDS SYSTEMS WITH MIKE OLLIVIER AT AT ADVANTOR SYSTEM CORPORATION, 1-800-438-6415. ALL ASN/CCTV AND IDS SYSTEMS SHALL BE INCLUDED IN CONTRACTORS BID. CONTRACTOR SHALL PROVIDE AND INSTALL FULLY FUNCTIONING IDS AND ASN/CCTV SYSTEM AS REQUIRED.
4. NOT USED.
5. PROVIDE (4)-3"C. FROM JUNCTION BOX TO ABOVE LAY-IN CEILING FOR OWNER PROVIDED FURNITURE.
6. JUNCTION BOXES FOR TV'S SHALL HAVE A 2-1/2"C. STUBBED ABOVE LAY-IN CEILING(TYP.)
7. CABLES SHALL TRANSITION FROM CABLE TRAY TO LADDER RACK THROUGH 3"C. SLEEVES IN THE CEILING. PROVIDE QUANTITY OF SLEEVES AS NECESSARY.
8. PROVIDE AND INSTALL STI EZ-PATH FOR ROUTING CABLES THROUGH FIRE WALLS.
9. 12" WIDE X 4" DEEP BACKET STYLE CABLE TRAY INSTALLED ABOVE THE CEILING FOR VOICE AND DATA CABLES. WIREMOLD WB SERIES OR EQUAL WITH ALL NECESSARY FITTINGS AND ATTACHMENTS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR AND G.C. (TYP)
10. CONTRACTOR SHALL ROUTE ALL CONDUIT IN A NEAT AND ORDERLY MANNER IN THIS ROOM DUE TO THE EXPOSED STRUCTURE.
11. CONTRACTOR SHALL ROUTE SPARE CONDUIT FROM ALL PANELS AS NECESSARY TO ABOVE THE LAY-IN CEILING OF HALL 111 FOR LIGHTING AND POWER CIRCUITS, FIRE ALARM, ETC FOR BASE BID AND BID OPTION 1.
12. CONTRACTOR SHALL COLOR CODE CONDUITS FOR AUXILIARIES SYSTEMS AS REQUIRED. COORDINATE COLOR CODING WITH THE OWNER.
13. LADDER RACK ABOVE TELECOMMUNICATIONS RACK.
14. CONTRACTOR SHALL INSTALL TWO AND THREE FOUR INCHES OFF THE WALL AS REQUIRED BY OWNER.
15. CONTRACTOR SHALL PROVIDE A FIRE ALARM CONTROL RELAY FOR SHUTTING THE PAGING SYSTEM DOWN IN THE EVENT OF A FIRE ALARM/MASS NOTIFICATION EVENT.

STANLEY J. McCARTER
PROFESSIONAL ENGINEER
No. 32753
ALABAMA
REGISTERED
3-16-22

McCARTER ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335 878 AVALON LANE
ANNISTON, AL 36207
M.E. JOB #2125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
1115 South Court Square, Montgomery, AL 36104
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADDENDUM	1-10-23

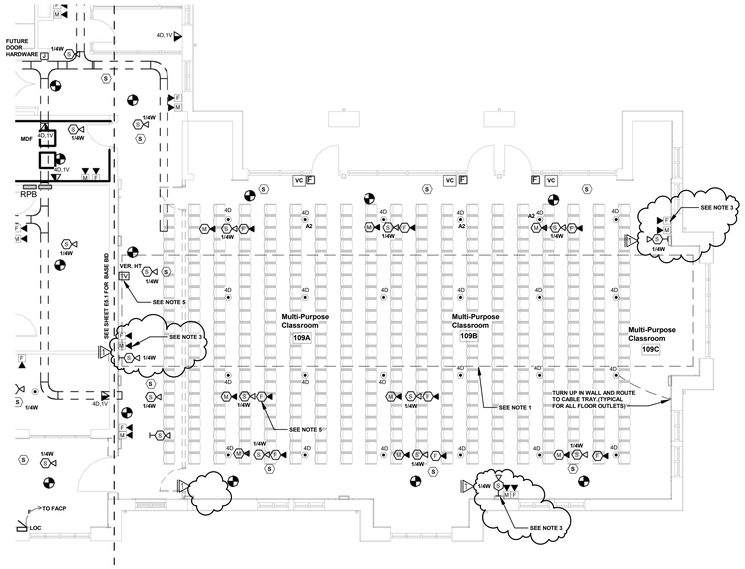
Job Number: 12072
Date: MARCH 2022
Drawn By: MWS
Checked By: SJM
Project Title

A NEW SECURITY & SERVICES
Training Facility
11th Refueling Wing
Birmingham, AL

Sheet Title
BASE BID FIRST FLOOR AUXILIARIES PLAN

Sheet Number
E5.1

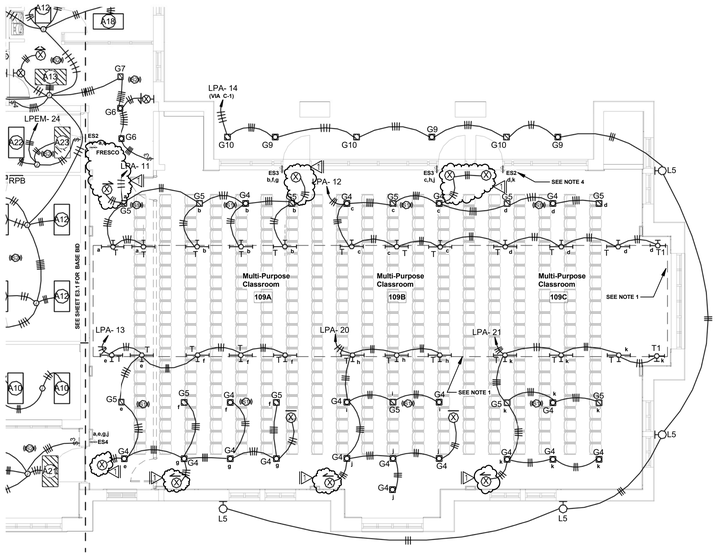
STATE OF ALABAMA
MONTGOMERY
Ben R. Snorp, Jr. 7562
Gregory A. O'Neal 4125
Wayne A. Cramer 4541
ALABAMA
REGISTERED ARCHITECTS



3 BID OPTION 2 FIRST FLOOR AUXILIARIES PLAN
1/8" = 1'-0"

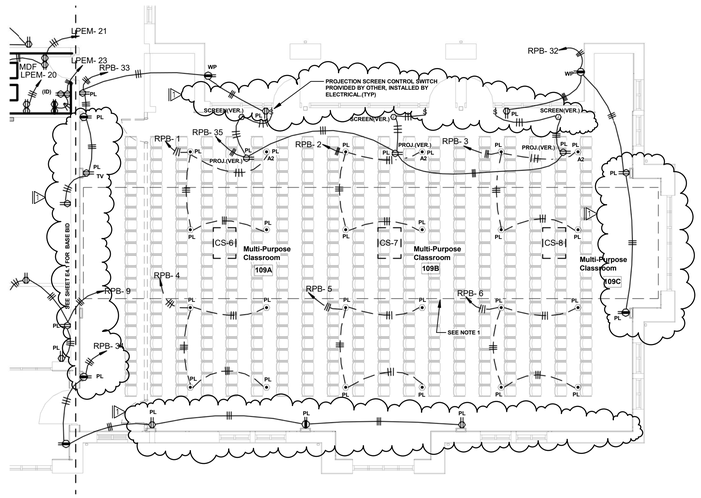
NOTES:
1. CONTRACTOR SHALL NOT INSTALL EXPOSED CONDUIT OR JUNCTION BOXES IN THE EXPOSED TRUSS AREA IN THIS ROOM.
2. FLOOR OUTLETS ON THIS PLAN SHALL BE ROUGHED-IN IN BID OPTION 1 AND SHALL INCLUDE COVERS.
3. ALL OPTION 1 OF THE FIRE ALARM DEVICES SHALL BE INSTALLED AS SHOWN IN THE MULTIPURPOSE ROOM, EXCLUDING THE CEILING MOUNTED NOTIFICATION DEVICES SINCE THE CEILING WILL NOT BE INSTALLED IN BID OPTION 1. THE CONTRACTOR SHALL INSTALL THE WALL MOUNTED NOTIFICATION DEVICES ONLY IN BID OPTION 1 SINCE THEY CAN NOT BE CEILING MOUNTED.
4. JUNCTION BOXES FOR TV'S SHALL HAVE A 2-1/2" STUBBED ABOVE LAY-IN CEILING.
5. NOTE THAT FIRE ALARM/AUDIO NOTIFICATION DEVICE LOCATIONS SHALL TAKE INTO ACCOUNT THAT THERE ARE MULTIPLE PARTITION WALL CONFIGURATIONS AS INDICATED ON SHEET A7.3. COORDINATE PLACEMENT OF ALL DEVICES IN MULTIPURPOSE 109 WITH THE ARCHITECT.
6. ALL WALL MOUNTED DEVICES, OTHER THAN FIRE ALARM DEVICES, IN THE MULTIPLE PURPOSE ROOM SHALL BE ROUGHED-IN IN FOR BID OPTION 1. ALL FIRE ALARM DEVICES SHALL BE INSTALLED IN BID OPTION 1 EXCEPT AS NOTED IN NOTE 3 ABOVE.
7. CONTRACTOR SHALL COLOR CODE CONDUITS FOR AUXILIARIES SYSTEMS AS REQUIRED. COORDINATE COLOR CODING WITH THE OWNER.

NOTE:
ALL 120 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A
3% VOLTAGE DROP OR LESS:
LESS THAN 75 FEET.....#12 AWG
BETWEEN 76' AND 125'.....#10 AWG
BETWEEN 126' AND 190'....#8 AWG



1 BID OPTION 2 FIRST FLOOR LIGHTING PLAN
1/8" = 1'-0"

NOTES:
1. CONTRACTOR SHALL NOT INSTALL EXPOSED CONDUIT OR JUNCTION BOXES IN THE EXPOSED TRUSS AREA IN THIS ROOM.
2. IF BID OPTION ONE IS TAKEN, PROVIDE AND INSTALL (3) -D12 AND (3)-D13 LIGHT FIXTURES IN THE UNFINISHED MULTIPURPOSE CLASSROOM AS REQUIRED. INSTALL TWO (2) THREE -WAY SWITCH AS NECESSARY TO CONTROL THE FIXTURES IN THE UNFINISHED SPACE. CIRCUIT THE FIXTURES TO LPA-2.(VER.)
3. ALL WALL MOUNTED DEVICES IN THE MULTIPURPOSE CLASSROOM SHALL BE ROUGHED IN FOR BID OPTION 1.
4. THE LOWER CASE LETTERS BESIDE THE SWITCH "d,k" INDICATES LIGHTING CONTROL ZONE.(TYP)
5. ALL EXTERIOR LIGHTING SHOWN ON THIS PLAN SHALL BE INSTALLED IN BID ITEM 1.



2 BID OPTION 2 FIRST FLOOR POWER PLAN
1/8" = 1'-0"

NOTES:
1. CONTRACTOR SHALL NOT INSTALL EXPOSED CONDUIT OR JUNCTION BOXES IN THE EXPOSED TRUSS AREA IN THIS ROOM.
2. FLOOR OUTLETS ON THIS PLAN SHALL BE ROUGHED-IN IN BID OPTION 1 AND SHALL INCLUDE FLOOR OUTLET COVERS.
3. ALL WALL MOUNTED DEVICES IN THE MULTIPURPOSE ROOM SHALL BE INSTALLED COMPLETELY FOR BID OPTION 1 INCLUDING CONDUIT, WIRE, ETC.

S|S&L
ARCHITECTURE & INTERIOR DESIGN
113 South Court Street | Florence, AL 35630
Tel. 334. 263. 5102 | WWW.SSLARCH.COM

Rev.	Description	Date
1	ADDENDUM	1-10-23

Job Number: 12072
Date: MARCH 2022
Drawn By: Author
Checked By: Checker
Project Title

A NEW SECURITY & SERVICES
Training Facility
11th Refueling Wing
Birmingham, AL

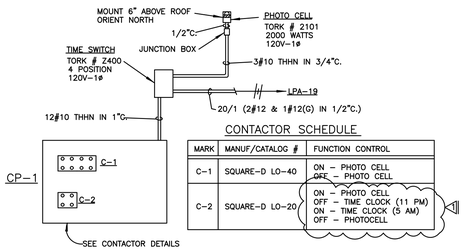
Sheet Title
BID OPTION 2 LIGHTING, POWER AND AUXILIARIES PLANS

Sheet Number
E6.1

STATE OF ALABAMA REGISTERED ENGINEER No. 22753 PROFESSIONAL ENGINEER NANCY J. MCCARTER
3-16-22

McCARTER ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335 878 AVALON LANE ANNISTON, AL 36207
M.E. JOB #2125

STATE OF ALABAMA MONTGOMERY Joe H. Sorey, Jr. 1966 Gregory A. O'Neal 2015 Wesley E. Carter 2004 ALABAMA REGISTERED ARCHITECTS



CONTACTOR SCHEDULE

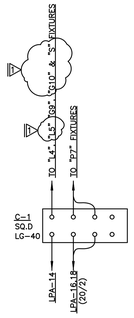
MARK	MANUF/CATALOG #	FUNCTION CONTROL
C–1	SQUARE–D LO–40	ON – PHOTO CELL OFF – PHOTO CELL
C–2	SQUARE–D LO–20	ON – PHOTO CELL OFF – TIME CLOCK (11 PM) ON – TIME CLOCK (5 AM) OFF – PHOTOCELL

CONTACTOR PANEL DETAIL (CP-1)

N.T.S.

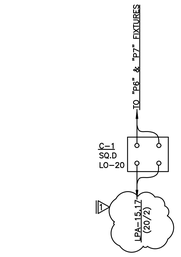
NOTES:

1. WIRE CONTACTORS TO TIME SWITCH TO ACHIEVE THE ABOVE CONTROL
2. ALL LEADS INTO THIS PANEL SHALL BE LONG ENOUGH TO REACH ANY TERMINAL ON ANY CONTACTOR, EXCESS CONDUCTORS SHALL BE LACED & ARRANGED NEATLY IN PANEL
3. LEAVE ROOM IN CONTACTOR PANEL (CP–1) FOR THE ADDITION OF ANOTHER FUTURE CONTACTOR
4. INSTALL SURFACE MOUNTED HOFFMAN BOX WITH 24"x24"x6" DEEP WITH HINGED COVER AND WOOD BACKING
5. CIRCUITS ON CONTACTOR C–2 SHALL GO OFF AT 11 P.M. AND BACK ON AT 5 AM WITH PHOTOCELL TURNING CONTACTOR OFF AT DAYBREAK. COORDINATE WITH OWNER.



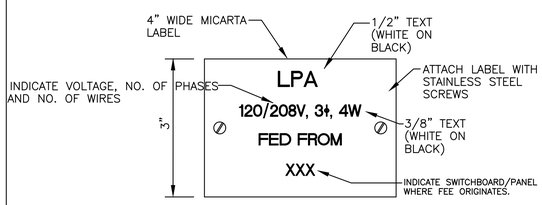
CONTACTOR (C-1) DETAIL

N.T.S.



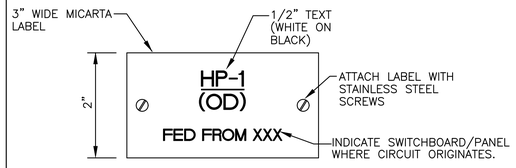
CONTACTOR (C-2) DETAIL

N.T.S.



PANEL LABEL DETAIL

N.T.S. (TYPICAL)

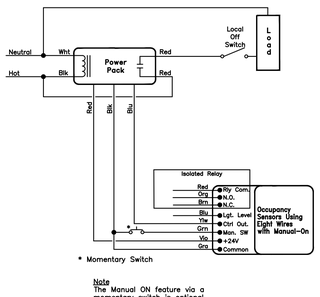


EQUIPMENT LABEL DETAIL

N.T.S. (TYPICAL)

NOTES:

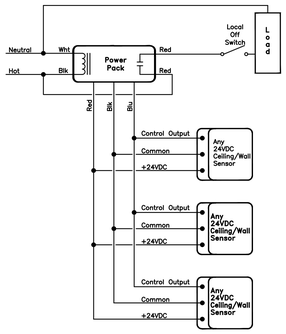
1. INSTALL LABEL ON ALL DISCONNECTING MEANS FOR EACH PIECE OF EQUIPMENT.



Note
The Manual ON feature via a momentary switch is optional. Refer to the installation instruction for additional information.

OCCUPANCY SENSOR WIRING DETAIL

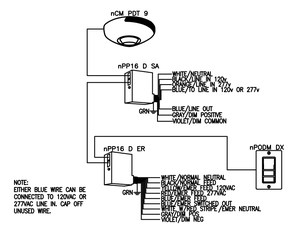
N.T.S.



Note:
Maximum number of sensors per power pack depends on the model of sensor. See the product data sheet to determine the specific current consumption of each sensor.

OCCUPANCY SENSOR DIAGRAM FOR MULTIPLE SENSORS ON ONE POWER PACK

N.T.S.

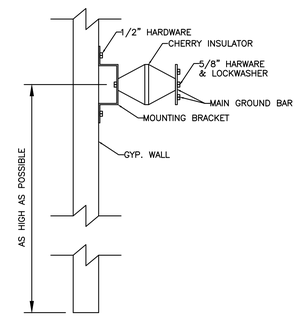


DIMMING OCCUPANCY SENSOR WITH MANUAL ON/AUTOMATIC OFF W/ EMERGENCY DETAIL

N.T.S.

NOTES:

1. ALL CATALOG NUMBERS INDICATED ARE ACUITY nLIGHT PRODUCTS.

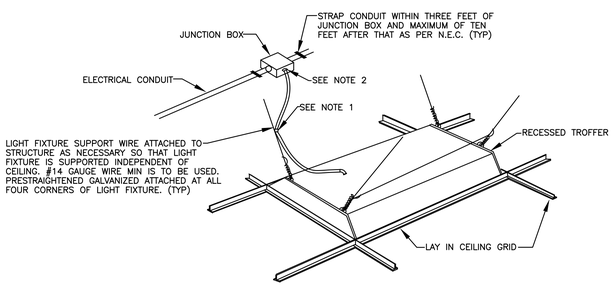


TMGB GROUND BAR MOUNTING DETAIL

N.T.S.

NOTES:

1. ALL HOLES SHALL BE COUNTERSUNK 1/16".
2. BAR STOCK SHALL BE 1/4" THICK COPPER.
3. BAR IS TINNED .0003" TYP. (.0002" MIN.) THICK.
4. COORDINATE EXACT LOCATION WITH TELECOMM CONTRACTOR.

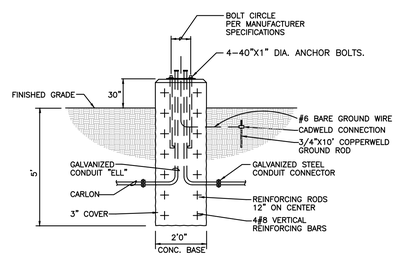


LAY-IN LIGHT FIXTURE SUPPORT DETAIL

N.T.S.

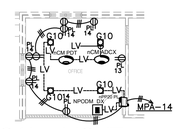
NOTES:

1. CONTRACTOR SHALL ATTACH FLEXIBLE CONDUIT WITH APRROVED STRAP OR HANGER PER THE SPECIFICATIONS. (TYP)
2. FLEXIBLE CONNECTION TO LIGHT FIXTURE. ATTACH TO STRUCTURE TO PREVENT FLEXIBLE CONDUIT FROM RESTING ON CEILING. ENSURE FLEXIBLE CONDUIT IS NO LONGER THAN SIX FEET FROM LIGHT FIXTURE TO JUNCTION BOX.



POLE BASE DETAIL

N.T.S. ("P6" & "P7" FIXTURES)

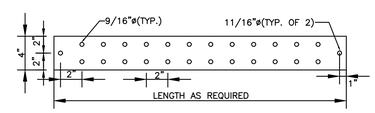


TYPICAL nLIGHT LIGHTING CONTROL DETAIL

SCALE: 1/8" = 1'–0"

NOTES:

1. NOTE THAT ONLY CONTROL WIRING FOR LIGHTING IS INDICATED, BUT CONTRACTOR SHALL UTILIZE THE LIGHTING CIRCUIT INDICATED IN EACH ROOM FOR 120V CIRCUIT TO FIXTURES.
2. ALL CLASSROOMS, OFFICES, ETC. WITH DIMMING SHALL BE SIMILAR. nLIGHT MODULES SHALL BE PROVIDED IN EACH FIXTURE AS IS INDICATED ON THE LIGHTING FIXTURE SCHEDULE.
3. "LV" INDICATES CAT. 5 CABLE ON THIS DETAIL.
4. CONTRACTOR SHALL PROVIDE AND INSTALL ALL PLUGLOAD POWER PACKS AS REQUIRED FOR EACH ROOM.

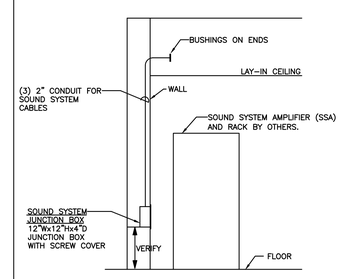


TMGB GROUND BAR DETAIL

N.T.S.

NOTES:

1. ALL HOLES SHALL BE COUNTERSUNK 1/16".
2. BAR STOCK SHALL BE 1/4" THICK COPPER.
3. BAR IS TINNED .0003" TYP. (.0002" MIN.) THICK.
4. LABEL BUS BARS WITH PERMANENT ENGRAVED NAMEPLATE.



SSA DETAIL

N.T.S.

COMMUNICATIONS CABLING LEGEND

20	DATA OUTLET, NUMBER AS NECESSARY (2 CAT. 6 DATA CABLES PULLED TO JUNCTION BOX AND TERMINATED ONTO JACKS IN A STAINLESS STEEL FACEPLATE. LEAVE 12" SLACK ON CABLE. ROUTE DATA CABLE TO MDF OR IDF AND TERMINATE.
20,1V	DATA/VOICE OUTLET, NUMBER AS NECESSARY (2 CAT. 6 DATA CABLES AND 1 CAT. 6 VOICE CABLE PULLED TO JUNCTION BOX AND TERMINATED ONTO JACKS IN A STAINLESS STEEL FACEPLATE. LEAVE 12" SLACK ON CABLE. ROUTE DATA CABLE TO MDF OR IDF AND TERMINATE. ROUTE VOICE CABLE TO 110 BLOCKS AND TERMINATE.
20,1C	DATA/COAX OUTLET, NUMBER AS NECESSARY (2 CAT. 6 DATA CABLES AND 1 RG6 CABLE CABLE PULLED TO JUNCTION BOX AND TERMINATED ONTO JACKS IN A STAINLESS STEEL FACEPLATE. LEAVE 12" SLACK ON CABLE. ROUTE DATA CABLE TO MDF OR IDF AND TERMINATE. ROUTE RG6 CABLE TO CCTV RACK AND TERMINATE.

OUTLET NUMBER:	ROOM NUMBER:
1A	101
MDF/IDF NAME:	PANEL #/PORT #
MDF	1/1

DATA CABLE LABEL DETAIL

N.T.S.

NOTES:

1. LABEL ALL CABLES AT EACH END.
2. EXACT LABEL METHOD SHALL BE COORDINATED WITH, AND APPROVED BY THE ENGINEER AND OWNER PRIOR TO PURCHASE AND INSTALLATION.

STATE OF ALABAMA
REGISTERED
MS. 22753
PROFESSIONAL
ENGINEER
DANIEL J. McCARTER
3-16-22

McCARTER
ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335
878 AVALON LANE
ANNISTON, AL 36207
M.E. JOB #2125

S|S&L
ARCHITECTURE & INTERIOR DESIGN
Montgomery, Dothan & Anniston, Alabama
(M) 334.263.5162 (D) 334.794.1556
WWW.SSANDL.COM

Rev.	Description	Date
1	ADDENDUM	1-10-23

Job Number
12072

Date
MARCH 2022

Drawn By
MWS

Checked By
SJM

Project Title

A New Security & Services
Training Facility
117th Air Refueling Wing
Birmingham, AL

Sheet Title
ELECTRICAL
DETAILS

Sheet Number
E7.1

STATE OF ALABAMA
MONTGOMERY
Jim R. Seay, Jr.
1840
Gregory A. O'Neal
4045
Wesley E. Clemer
4344
ALABAMA
REGISTERED ARCHITECTS