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ADDENDUM #02

Project Name: Central County Fire & Rescue – HQ, Training, Maintenance
Project Number: 23121
Date: October 17, 2025

PLEASE NOTE

The following clarifications, deletions, additions, and supplemental instructions have been incorporated into the Project Manual, Construction Drawings and represent a portion of said Construction Documents.

In the event of a conflict between this Addendum, Project Manual and/or Construction Drawings, ***this Addendum shall supersede*** *all previous instructions, pertaining to said items.*

CLARIFICATIONS and REQUESTS FOR INFORMATION

1. Clarification Item: Based on code review comments from the city, the maintenance facility must be protected by a fire sprinkler system per 903.2.9.1. See revised drawings pertaining to this modification.

2. Does the owner have permanent utilities on site available for use for construction?
   a. **Response: No, the owner has utilities for their existing facility, but the Contractor will have to set up temporary utilities including a construction meters with the Utility companies and pay for their own temporary utilities.**

3. Piles & Caissons – For the training tower, can you share the actual dead and live loads at each column and wall?
   a. **Response: See attached drawing S321.**

4. Roofing – Specifications: 075400, Line 2.04 Parapet sheathing. 5/8" Type X Fire Resistant glass-mat gypsum boards is in our scope of work. Usually, it is a part of the Wall enclosure, that includes the trade that installs the Bat insulation between the studs and immediately close the back of the perimeter roof side wall. This way the bat insulation is not exposed to weather conditions (rain, moisture). It is not typical for the roofing trade to do that part of the wall detail. Please clarify.
   a. **Response: The reference to 5/8" Type X Fire Resistant glass-mat gypsum board sheathing has been removed from the revised Section 07 54 00 Thermoplastic Membrane Roofing issued with this addendum. Drawings and specifications are calling for 5/8" coverboard for this detail.**

5. Roofing – Specifications: 075400, Line 2.01 Manufacturers, indicates Fleece Backed TPO with all Manufacturers, which contradicts with Line 2.03 Membrane roofing Material and materials that indicates NON fleece backed TPO 60 mil. Which type of TPO to go with, TPO 115mil Fleece Backed or TPO 60 mil? Please clarify.
    a. **Response: Section 07 54 00 Thermoplastic Membrane Roofing issued with this addendum is modified to include standard backed TPO rather than fleece-backed TPO.**

6. Bid Form has a line-item cost for each package, can you add a line-item cost for all three packages, this may contain a discounted price?
    a. **Response: The intent is to have one general contractor construct all 3 bid packages at the same time. This would be a result of the adding the totals of all 3 bid package amounts. Should there be an additional savings, we have added a line-item for an Additional Discount should all 3 bid packages be awarded initially.**

7. Piles & Caissons – Looks like 2-3' of new fill will be needed to get to FFE. Will this material be cohesive or granular, and will it be compacted? Usually, we disregard the settlement caused by this new fill in our calculations as it occurs prior to pouring the footings or slab, should we on this one?
    a. **Response: Engineered fill may be granular or cohesive. Engineered fill shall meet the required material specifications and compaction specifications provided in the geotechnical report and project drawings/specifications. Any settlement induced by new fill should be considered in the ground improvement design.**

8. Item #26 in Addendum #1 states the GC is responsible for the tap and connection fees. Wouldn't this be a reimbursable like the building permits? Should be coming from the City of St. Peters so is probably included in the permit cost.
    a. **Response: Tap and connection fees WILL be reimbursed by the owner similar to the permit fees. Contractor will be reimbursed via change order for the cost of the tap/connection fees only with no overhead costs, special handling fees, etc. Contractor is to provide receipt from AHJ for reimbursement.**

9. Does there need to be voice operability for the fire alarm system going in the HQ building? Specifications are calling for voice, but the drawings show non-voice.
    a. **Response: A voice-operability fire alarm system is not required.**

10. Is there a designated location for the annunciator in the HQ building? Is there a designated knox box location?
    a. **Response: The annunciator panel is shown on sheet E141 keyed note 30 in Corridor 136. Knox box located at entry door per keyed note.**

11. General: Would the owner take bid package 2 or bid package 3 and not take bid package 1 in any scenario?
    a. **Response: No, the owner will select bid package 1 in all scenarios. They may choose to do 1+2 or 1+3 or 1+2+3 or just 1.**

12. Maintenance Building: Please clarify soffit finish and by whom on D4/A252 & C5/A251.
    a. **Response: metal soffit panel by PEMB**

13. Maintenance Building: On C1/A221, only two downspouts are shown for entire East Elevation. Please confirm this is adequate for roof size.
    a. **Response: Add (1) 6”x6” downspout. See attached Sheet A221**

14. Maintenance Building: A3/A232 calls for 5/8 drywall above 8’ aff. B1/A243 labels this as “EXPO”, as does A1/A242. Description of “EXPO” on I201 seems incorrect. Please clarify.
    a. **Response: Above the 8’-0” metal panel is 5/8” gyp board, paint P1. See revised sheets A242, A243**

15. Maintenance Building: Who is providing car lifts?
    a. **Response: Owner furnished contractor install.**

16. Maintenance Building: A261 “door schedule” references wrong details for head and jambs. Please clarify.
    a. **Response: See attached revised sheet A261.**

17. Maintenance Building: Sheet I201 lists LP1, unable to find in specs. Please provide details: gauge, exposed fastener, etc.
    a. **Response: See revised spec section 13 34 19**

18. Maintenance Building: Detail A4/A232 includes 074213.B02 at wall panels and reads, “See specification for Construction”. Unable to find any construction details in this spec. Please provide cut showing how to attach liner panels to 16” vertical studs.
    a. **Response: See revised spec section 13 34 19**

19. Maintenance Building: Please confirm drywall not needed behind interior wall panels for fire rating.
    a. **Response: Drywall is not needed behind the 8’-0” high metal wall panels**

20. 230900 - Building Automation System – I don’t see any vendors listed. Is it open to anyone? Is there a BAS system in this project?
    a. **Response: Yes, there is a BAS system and it is open to anyone.**

21. On sheet I101, Note 22 states that the countertop next to the coiling door is to be SS with stainless steel shelves underneath. Please confirm that the countertop is to be SS. Also, if it is to be SS please confirm that it will receive an apron at the sink.
    a. **Response: Quartz SDS1 counter, shelves and supports to be stainless. Note 22 states to include stainless apron at sink location.**

22. On sheet A142, elevation C1, the separating wall calls for 2 (two) recessed motion paper towel dispensers. These dispensers are to be recessed 4”, and will interfere with one another, as the separating wall is only 3-5/8” thick.
    a. **Response: Use the following product number for a surface mounted device. Georgia Pacific with Enmotion 59488A Black**

23. Please provide a Hardware Schedule for the openings in the maintenance building, training tower, and pavilion.
    a. **Response: See new spec section**

24. Within spec section 10 82 13 a basis of design is called out for the rooftop equipment screens. Also, on sheet S001, within the division 1 – General Requirements – Section I7 calls for the rooftop equipment screen walls to be prefab. Is a substitution allowed in this instance?
    a. **Response: The roof screen is being built into the roof system. Spec section 10 82 13 is being removed from the spec book.**

25. On the interior finish schedule, within the FRP section, it calls for FRP within a Laundry room. What room is considered to be the laundry room?
    a. **Response: Janitor / 102. Disregard "Laundry".**

26. E141 Keynote 28, shows 3 data cabinets in room 137 but note details on E004 state 2. Please clarify how many Feathershark furnished data racks are to be installed in room 137.
    a. **Response: Feathershark is to provide 2 data racks. The 3rd rack is shown for future expansion. We show power for 3 racks to include future expansion if needed.**

27. E141 keyed notes state to run composite cable to access control doors. Notes on E004 states in one spot to run 18/4 to each door and in another spot to run cat6 to each door. Please clarify the type of cable needed at the access control doors and the location the cable is to be routed too.
    a. **Response: 18/4 cable should be run to the door strikes, Cat6 cable should be run to the door readers. Both cables will need to be pulled to each door with a strike and a reader.**

28. On E141, the speakers have lines drawn between speakers and then to the volume control. This indicates that the speakers are to be daisy chained (analog) and then connected to the volume control. E004 states that all speakers and mics need Cat6 homerun to AV rack. Please clarify if each speaker is to be home run to the AV rack or daisy chained together to the volume control. Please clarify the type of cable for the speakers.
    a. **Response: The speakers in the Training / Board Room require Cat6 cables that homerun to the AV Rack located in Storage 02 (108). The Training Room system runs the speakers over a Cat6 connection. For the speakers in the Offices that would run Radio/Station Alerting, those speakers require standard speaker (analog) cabling that should route Speaker in the Office -> Volume Control in the Office -> Main Amp in the IT Closet (137).**

29. What cable needs to be ran to the roof for the starlink satellite?
    a. **Response: The Starlink Satellite has a proprietary Cat6 Cable. It is built directly into the satellite. The included cable is 15m in length. Any additional cabling for the Satellite would be Cat6.**

30. E004 states “Uplink from HQ to Maintenance will need 2 x Fiber Cabling”. Section 280513 4 of 12 of the specs states to install 24 strand MM fiber (there is no optical fiber spec called out in division 27). Please confirm they are requesting 48 strands of MM fiber connecting HQ to maintenance?
    a. **Response: We only need 6 strands of MM Fiber between Maintenance and HQ to run the Network in the maintenance building. "2 x Fiber Cabling" was referring to at least 4 strands to run a Main Connection and a Backup. It appears that a 6-strand cable is the minimum that is available.**

31. Are you willing to waive the AWI certification program requirements for this project?
    a. **Response: Fabricate and install architectural woodwork in accordance with the current Architectural Woodwork Institute (AWI) Standards for Premium Grade construction. Certification by an AWI-certified shop is not required, but the work shall meet or exceed AWI quality standards for materials, fabrication, finishing, and installation.**

32. In reviewing the specifications for the Central County Fire project, we discovered that this job requires fabricators to be a part of the AWI certification program. While StoneTree is not a part of the program we meet/exceed all standards set out by AWI. Is this something that the owner/architect is willing to waive?
    a. **Response: Fabricate and install architectural woodwork in accordance with the current Architectural Woodwork Institute (AWI) Standards for Premium Grade construction. Certification by an AWI-certified shop is not required, but the work shall meet or exceed AWI quality standards for materials, fabrication, finishing, and installation.**

33. Can you clarify if there’s an expected order or sequence in which the Owner will select the buildings to move forward with? Addendum 01 mentioned a combined bid, but since the Owner may choose any combination of one, two, or all three buildings, we want to be sure we structure our general conditions appropriately.
    a. **Response: Per the Instructions to bidders 2.02-B, Packages will be awarded as a single contract to ONE General Contractor. The final scope of work will depend on the cost of each bid package and the combination of such. The owner may elect to do bid package 1 OR 1 & 2 OR 1 & 3 OR 1,2 & 3. We won’t know until the bids are submitted.**

34. If BP 2 Maintenance Building and/or BP 3 Training Tower are not awarded, how should we finish the site in those areas? We understand utilities and pavement are to be extended to within 5 feet of the proposed maintenance bldg. and training tower, but please clarify.
    a. What finish or surface is expected (dirt, rock, turf, concrete, etc.)?
       Response: Pavement for these area are to be concrete pavement as detail on C8.0
    b. Would you like to include ground improvement and/or soil remediation in these areas as part of BP 1? It will be more cost-effective to leave these areas "pad ready" for future development while we are onsite performing earthwork and ground improvements for the Headquarters building.
    a. Response: Include ground improvement and/or soil remediation in these areas as part of BP 1.

35. Which bid package should we use as the basis for the Builder's Risk Alternate discussed in addendum 01? The cost of Builder's Risk coverage will vary depending on the final contract amount.
    a. Response: Reference updated Bid Form and Alternates spec sections for clarification of how this should be submitted.

36. There is a specification section 034500 Precast Architectural Concrete. Where is that shown on the drawings?
    a. Response: Delete section in its entirety.

37. Sheet S321 has a note on the sloped edges in the trench that says we need to add a 4" topping slab with a rough surface and exposed large aggregate. Is that what the precast architectural concrete specification is for? How is that supposed to be attached?
    a. Response: The concrete trench will have some rough surfaces. Work with the owner on design. The precast concrete was removed from the project.

38. Specification section 13 34 19-4-G calls for the primer to meet SSPC20. However, this is a very caustic and requires special certification procedures from the EPA to apply and cannot be shop applied, So please change the primer to meet the industry standard SSPC-15.
    a. Response: The specification have been updated to SSPC-15. Exterior metal paint colors are now listed on Sheet A300.

39. Section 07 42 13 Metal Wall Panels per paragraph 2.01 indicates the basis of design as the Morin Integrity Series X-12. See the attached data sheet which indicates the width as 12". On sheet A121 in the exterior building material legend it indicates MTL-03 as the Fabral Silhouette HCF Series 16-4C. See the attached data sheet which indicates the width as 16". Paragraph 2.02 indicates the panel to be 12" wide. Please confirm if a 12" width or 16" width is required. If a 16" width is required is the Morin Integrity X-16 acceptable? See the attached data sheet.
    a. Response: Morin Integrity X-16 profile is acceptable. Color MUST BE BRIGHT SILVERS66, SILVERSMITH S15

40. Section 07 42 13 Metal Wall Panels per paragraph 1.08 indicates to provide a 2-year warranty covering water tightness. The formed metal wall panels are detailed as a rainscreen system with a cavity that is drained and back vented. The system will not be weather tight. Please indicate this paragraph is error.
    a. **Response: Remove "water tightness" from paragraph 1.08**

41. Section 07 42 13.23 Metal Composite Material Wall Panels per paragraph 1.08 indicates to provide a 2-year warranty covering water tightness. The metal composite material wall panels are detailed as a rainscreen system with a cavity that is drained and back vented. The system will not be weather tight. Please indicate this paragraph is error.
    a. **Response: Remove "water tightness" from paragraph 1.08**

42. Sheet A121 & A221 indicate MTL-02 McElroy Metals Silver Metallic. These are the only references to this type of material in all the drawings. Please indicate where this color is located, what it is referring to or if it is in error.
    a. **Response: MLT-02 McElroy Metals Silver Metallic is for the miscellany metal and flashing**

43. Sheet A221 in the keyed notes depict note 3 which indicates a concealed fastened metal wall panel as MTL-03. Sheet A121 in the keyed notes indicate this in note 2 as well. Section 07 42 13 Metal Wall Panels describe the type of panel. Section 13 34 19 specify the type of wall panel to be used on the Maintenance building per paragraph 2.08 which state to use the product indicated on the drawings. Please confirm the intent is to use the same identical panel specified in section 07 42 13 Metal Wall Panels to ensure a color match to the headquarters building.
    a. **Response: Headquarters, Maintenance, and dumpster encloser have the MTL-03. Headquarters and Maintenance have the same panels as 07 42 13**

44. Sheet A212 show the reflected ceiling plan for the maintenance building which does not show any type of soffit panels at the perimeter. Furthermore, the sectional cuts and details do not depict any type of soffit panels but do show a solid line. Section 13 34 19 per paragraph 2.08 indicate the soffit panels as minimum .0239 thick, flat profile, and perforated for ventilation. Please provide a basis of design for the soffit panels at the maintenance building.
    a. **Response: Revised wall sections call out metal soffit panels by PEMB**

45. Sheet A232 depicts wall section for the maintenance building, Detail A4 indicates the plan note 07 42 13.B02 on the interior side of the wall. This note indicates a 8' 0" high metal panel partition at the vehicle bay which states to see specifications for construction. Section 07 42 13 only specifies one type of panel that is shown on the exterior side of the walls. Is the intent to use the same type of panel on the interior side of walls since there are no other types specific in section 07 42 13 or is it the intent to use a liner panel as specified in section 13 34 19 per paragraph 2.08. If this is the intent, please provide a basis of design.
    a. **Response: See revised spec section 13 34 19**

46. So this project has 4 door schedules. But only one hardware spec that only shows hardware groups for the first door schedule. The other 3 door schedules note hardware sets that start with “M”, “TR”, & “P” which do not match opening type or description to the hardware spec provided. So we will need hardware set info for the other door schedule openings to proceed further with estimating.
    a. **Response: The missing door hardware sections are included in this addendum.**

47. There appears to be a discrepancy between the 114000’s and elevations on FS3.0. Item #16 (Front Counter): The 114000’s call for 14-gauge stainless steel 12” deep tray slide to cap low wall at approximately 2’-10” A.F.F. with 18-gauge stainless steel cabinet base construction. However, the elevation on FS300 does not show a tray slide or a cabinet base. Please verify how this item should be quoted. Is a tray slide needed? Is a cabinet base needed?
    a. **Response: The intent of the spec is to have a cabinet base construction for the counter. It will give them a little more storage space. The intent was also to drop down the counter at the pass thru window creating a tray slide that would be supported off the low wall at approx. 2'-10" high.**

48. Is there a list of approved fabrication and install vendors for training tower?
    a. **Response: No, The training tower is to be constructed as designed per the construction documents.**

49. Is there any chance that the bid date might move back?
    a. **Response: No, the Bids are due October 29 at 3pm per specifications.**

50. Is the Unit Price #15 for additional training tower anchor point to include what is shown in detail 4/S332 Pipe Anchor? Foundation Note #18 on S321 says to include 20 additional anchor points per 7/S341 or 8/S342. Please clarify intent for unit price and if we should include 20 additional anchor points beyond what is shown on the drawings in Bid Package 03.
    a. **Response: Yes. Supply 20 extra anchors to be located by the owner.**

51. Spec 01 50 00 1.07 B. calls for 8’ high temporary chain-link fencing around the construction site. Is 6’ high chain-link acceptable?
    a. **Response: 6’ high chain-link fencing around the construction site is acceptable.**

52. Spec 01 50 00 1.12 – is a project sign required? If so, please provide size and any relevant information. I didn’t see a typical detail on the drawings.
    a. **Response: Provide an 8’ x 8’ job sign on 4x4 posts/structure. Sign Design will be worked out once General Contractor is selected.**

53. AS002 shows several benches. Are benches Owner or Contractor furnished?
        a. If Contractor furnished, is a spec available.
        b. Are the benches part of alternate 01 and 02?
    a. **Response: The benches are OFOI**

54. Can you clarify finishes for the training tower? I see that the railings, handrails, and stringers are painted yellow or black depending on the keyed note and the conex boxes are grey with a marine grade paint per the shipping container specs, but are there any other finish requirements?
    a. **Response: See attached Sheet A300 for painting information.**

55. Do the self-supporting telephone towers connected to the training tower require a footing? Nothing shown on S321.
    a. **Response: Yes, they require a frost depth footing at each location.**

56. Is the dumpster enclosure near the maintenance building to be included in BP1 or BP2?
    a. **Response: Dumpster by maintenance building is apart of BP2**

57. Can the design team provide the bearing pressure distribution drawings for the unfactored live load and dead load over the mat of the Training Tower?
    a. **Response: See structural sheet S321 – FDN Plan & 2nd Level Framing Plan**

58. At the Curtainwall CW1, there are steel columns in between each section of Curtainwall. Do these get wrapped with Break metal? On A151 it looks like there might be something there, but it's not called out, please advise.
    a. **Response: The steal column will be wrapped by break metal to match the storefront material.**

59. The specs for the aluminum storefront Doors calls for Medium Stile doors but the elevations on A161 for FG3 & FG4 show both wide stile and medium stile doors. Please advise.
    a. **Response: Follow sheet A161 for FG3 and FG4**

60. Can you please clarify if all five (5) pages of section 00 41 01 Supplemental Bid Information are to be submitted with the bid form or within 24 hours following receipt of the bids to the owner.
    a. **Response: Noted in the Bid Form and Supplemental Bid Information documents - Section 00 41 01 Supplemental Bid Information is to be submitted within 24 hours of the bid date and time. This would include all pages of the Supplemental Bid Information section.**

61. What size aluminum thickness and color is the dimensional logo supposed to be?
    a. **Response: These signs will be manufactured by owner's sign vendor. See key note 34 on sheet A121.**

62. Signage - Are there any ADA room signs (bathrooms, office numbers/names) required for this project? Any external handicap parking signs on u-channel posts that are needed for the parking lot?
    a. **Response: Interior building signs will be by owner under a separate package. Exterior parking lot signs are to be part of this bid package 1 and are indicated on the civil drawings.**

63. Visual Display Boards - In the drawings on the marker board diagram (overall board measuring 84"W x 48"H), there is a divider on the left side (roughly measuring 23"W x 48"H); is this left section meant to be a cork bulletin board or is it just a divider on the marker board to create two sections (remaining as the same material)?
    a. **Response: Yes see Interior Finish Schedule Sheet I102 Specialty Finish, SPF1, SPF2, SPF5. Locations refer to Sheet I101.**

64. Visual Display Boards - Will you require marker trays along the frame of the QTY:2 marker boards?
    a. **Response: Visual Display Boards by Owner as part of the Furniture Package. This will be addressed outside of this bid package**

65. Visual Display Boards - Will you require the QTY:2 marker boards to be magnetic receptive?
    b. **Response: Visual Display Boards by Owner as part of the Furniture Package. This will be addressed outside of this bid package**

66. Flooring - Does anything go on the stairs?
    a. **Response: Stairs up to and on the Mezzanine see Sheet I101/E1, Keynote 16 Paint finish on stairs.**

67. Flooring - Lobby 101 shows both TRZ4 and CP3, If TRZ4 where does the CP3 go?
    a. **Response: Lobby/Waiting 101 Omit carpet CP3 Entirely.**

68. Casework - Is the owner willing to waive AWI certifications for casework?
    a. **Response: We require to build to AWI Standards, Quality to be Custom Grade. Certification forms or stickers not required. AWI Member Shop is not required.**

69. PEMB - I see they are calling out IECC 2021 prescriptive methods for Metal Building walls of R-13 + R-13ci along with gypsum board sheathing. Can the sheathing be removed and the rigid insulation replaced with an R-30 Simple Saver System (U-0.052) to meet IECC by U-Factor per IECC 2021 Table C402.1.4 Climate Zone 4? This would save some material costs and a fair bit of labor and be a more typical PEMB wall type.
    a. **Response: Design the PEMB as detailed in the current documents. Owner may review this in a Post Bid session.**

70. Can you confirm if the double wall fuel tank is OFOI/OFCI/CFCI?
    a. **Response: Double Wall Fuel Tank will be OFOI**

71. Can you confirm if the exterior benches are OFOI/OFCI/CFCI?
    a. **Response: Exterior Benches are OFOI**

72. Can you confirm the exterior monitors are OFOI/OFCI/CFCI?
    a. **Response: Monitors are OFCI**

73. Can you provide more information on the video wall and what the contractor is to provide there?
    a. **Response: FeatherShark will be supplying monitors**

PRODUCT SUBSTITUTIONS

1. Specification Section 13 34 19 – Pre Engineered Building.
   a. **Response: This Product Substitution request is approved. Reference attached Substitution Request Form, Red Dot Buildings.**

2. Division 10 (Specialties) or Division 13 (Special Construction) – Canopies – Prefabricated Metal Systems – Manufacturer Tudelü, Inc.
   a. **Response: This Product Substitution request is not approved.**

3. Specification Section 07 54 00 – TPO Membrane Roofing – Manufacturer – Johns Manville.
   a. **Response: This Product Substitution request is not approved. Please resubmit with fleeceback.**

4. Specification Section 07 25 00 – Fluid Applied Weather Barrier – Manufacturer SOPREMA, Inc.
   a. **Response: This Product Substitution request is not approved. Provide comparison that is equal or greater.**

5. Specification Section 10 82 13 – Rooftop Equipment Screens – Manufacturer ModWerks.
   a. **Response: This Product Substitution request is not approved.**

6. Specification Section 13 34 19 – Metal Building Systems.
   a. **Response: This Product Substitution request is approved. Reference attached Substitution Request Form, Ceco Building Systems.**

7. Specification Section 07 54 00 – Thermoplastic Membrane Roofing – Manufacturer – IB Roof Systems.
   a. **Response: This Product Substitution request is not approved. Provide comparison that is equal or greater.**

8. Specification Section 13 34 19 – Pre Engineered Building – Manufacturer – Alliance Steel, Inc.
   a. **Response: This Product Substitution request is not approved.**

9. Specification Section 07 42 13 – Metal Wall Panels
   a. **Response: This Product Substitution request is approved. Reference attached Substitution Request Form, Central States.**

PROJECT MANUAL

2. Section 00 01 10 – Table of Contents.
   a. **Revision column updated.**
   b. **Reference attached Revised Section.**

3. Section 00 41 00 – Bid Form
    a. **Line items have been added for alternate bid items concerning builder's risk insurance.**
    b. **Reference attached Revised Section.**

4. Section 01 23 00 – Alternates
    a. **Line items have been added for alternate bid items concerning builder's risk insurance.**
    b. **Reference attached Revised Section.**

5. Section 03 45 00 – Precast Architectural Concrete
    a. **Delete section in its entirety.**

6. Section 06 73 00 – Composite Decking
    a. **This specification section has been added.**
    b. **Reference attached New Section.**

7. Section 07 54 00 – Thermoplastic Membrane Roofing
    c. **Changes in this addendum include: Reference Standards, Manufacturers, Parapet Sheathing is deleted, Cover Boards, and Insulation.**
    d. **Reference attached Revised Section.**

8. Section 08 71 00 – Door Hardware – Headquarters
    a. **No changes to the section. Clarifying that this section is specific to the Headquarters building.**
    b. **Reference attached Revised Section.**

9. Section 08 71 01 – Door Hardware – Maintenance Bldg
    a. **Reference attached New Section.**

10. Section 08 71 02 – Door Hardware – Training Tower
    a. **Reference attached New Section.**

11. Section 08 71 03 – Door Hardware – Pavilion
    a. **Reference attached New Section.**

12. Section 10 82 13 – Rooftop Equipment Screens
    a. **Delete section in its entirety.**

13. Section 11 29 34 – Shipping Containers
    a. **06 73 00 – Composite Decking has been added to the Related Requirements.**
    b. **Reference attached Revised Section.**

14. Section 13 34 19 – Metal Building Systems
    a. **2.04 G, change primer to SSPC-15.**
    b. **Changes and additions to 2.08 C Liner.**
    c. **Reference attached Revised Section.**

CONSTRUCTION DRAWINGS

GENERAL:

1. G001 – Sheet Index
    a. **Changed title for Sheet A300 to Training Tower 3D & Paint. Sched.**
    b. **Reference attached Revised Sheet.**

CIVIL:

1. Sheet C5.0 – Site
    a. **Add storm drain for new downspout.**
    b. **Reference attached Revised Sheet.**

LANDSCAPING:

1. ***No documents issued within this Addendum.***

ARCHITECTURAL:

1. Sheet AS002 – Architectural Site Details
    a. **Added D6 calling out paint colors for training tower anchors per A6.**
    b. **Reference attached Revised Sheet.**

2. Sheet A115 – Covered Patio
    a. **Keynote Roof plan CP Note 8, modified note to clarify paint system & color.**
    b. **Keynote RCP CP added note 34 to clarify paint system & colors.**
    c. **Reference attached Revised Sheet.**

3. Sheet A116 – Covered Patio
    a. **Keynote 21, modified note to clarify paint system & colors.**
    b. **Keynote 35, added note to clarify paint system & colors.**
    c. **Reference attached Revised Sheet.**

4. **Sheet A142 – Enlarged Plans & Elev.**
    a. **Changed T4 Geargia Pacific model number to 59488A**
    b. **Reference attached Revised Sheet.**

5. Sheet A213 – Roof Plan
    a. **Added an additional keynote 1 for an additional downspout.**
    b. **Reference attached Revised Sheet.**

6. Sheet A221 – Exterior Elevations
    a. **C1 - Added an additional keynote 2 for an additional downspout.**
    b. **Reference attached Revised Sheet.**

7. Sheet A232 – Wall Sections
    a. **Added keynote calling out metal soffit.**
    b. **Added keynote calling out continuous C channel.**
    c. **Reference attached Revised Sheet.**

8. Sheet A233 – Wall Sections
    a. **Added keynote calling out metal soffit.**
    b. **Reference attached Revised Sheet.**

9. Sheet A234 – Wall Sections
    a. **Added keynote calling out metal soffit.**
    b. **Reference attached Revised Sheet.**

10. Sheet A424 – Interior Elevations
    a. **Added keynote calling out paint.**
    b. **Reference attached Revised Sheet.**

11. Sheet A243 – Interior Elevations
    a. **Added keynote calling out paint.**
    b. **Reference attached Revised Sheet.**

12. Sheet A251 – Details
    a. **Added keynote calling out metal soffit.**
    b. **Added keynote calling out continuous C channel.**
    c. **Reference attached Revised Sheet.**

13. Sheet A252 – Details
    a. **Added keynote calling out metal soffit.**
    b. **Reference attached Revised Sheet.**

14. Sheet A253 – Details
    a. **Added keynote calling out metal soffit.**
    b. **Reference attached Revised Sheet.**

15. Sheet A300 – Training Tower 3D
    a. **Added paint colors.**
    b. **Reference attached Revised Sheet.**

16. Sheet A311 – Floor Plans
    a. **A4 - Added new keynote 48 calling out Trex deck on konix box roofs.**
    b. **Reference attached Revised Sheet.**

17. Sheet A312 – Floor Plans
    a. **A1, A4 - Added new keynote 48 calling out Trex deck on konix box roofs.**
    b. **Reference attached Revised Sheet.**

18. Sheet A313 – Floor Plans
    a. **A1, A5 - Added new keynote 48 calling out Trex deck on konix box roofs.**
    b. **E5 – added text note**
    c. **Reference attached Revised Sheet.**

19. Sheet A321 – Exterior Elevations
    a. **A1, A4 - Added new keynote 26 calling out Trex deck on konix box roofs.**
    b. **Reference attached Revised Sheet.**

20. Sheet A322 – Exterior Elevations
    a. **A1 - Added new keynote 26 calling out Trex deck on konix box roofs.**
    b. **Reference attached Revised Sheet.**

21. Sheet A323 – Exterior Elevations
    a. **Added new keynote 26 calling out Trex deck on konix box roofs.**
    b. **Added new note 27 calling out paint color for two specific tie-offs**
    c. **Reference attached Revised Sheet.**

22. Sheet A341 – Interior Elevations
    a. **A1, B5, D5 - Added new keynote 25 calling out Trex deck on konix box roofs.**
    b. **Reference attached Revised Sheet.**

23. Sheet A342 – Interior Elevations
    a. **A4, A5, B4, B6, D1, D4, D6 - Added new keynote 25 calling out Trex deck on konix box roofs.**
    b. **Reference attached Revised Sheet.**

STRUCTURAL:

1. Sheet S321 – FDN Plan & 2nd Level Framing Plan
    a. **Foundation Loads added per Clarification question above.**
    b. **Reference attached Revised Sheet.**

MECHANICAL:

1. No documents issued within this Addendum.

PLUMBING:

1. No documents issued within this Addendum.

FIRE PROTECTION:

1. ***No documents issued within this Addendum.***

ELECTRICAL:

1. Sheet E005 – Electrical Schedules and One-Line
    a. **Added a Z fixture to the light fixture schedule.**
    b. **Reference attached Revised Sheet.**

2. Sheet E006 – Partial Electrical Site Plan – Area A
    a. **Modified keyed note 15.**
    b. **Reference attached Revised Sheet.**

3. Sheet E131 – HQ Lighting Plan
    a. **Added new Z light fixtures to the patio canopy and removed the P fixtures.**
    b. **Moved light switches from behind door in Conference 111.**
    c. **Reference attached Revised Sheet.**

4. Sheet E141 – HQ Auxiliary Plan
    a. **Modified keyed note 22 and added a 2" conduit out of IT Closet.**
    b. **Reference attached Revised Sheet.**

5. Sheet E221 – Maintenance Power Plan
    a. **Added another 8' ceiling fan to small bay area.**
    b. **Upsized the 8' ceiling fans to 12' in the large bay areas.**
    c. **Modified keyed note 4 and added keyed note 19.**
    d. **Reference attached Revised Sheet.**

6. Sheet E241 – Maint. Auxiliary Plan
    a. **Added fire alarm components.**
    b. **Modified keyed note 9.**
    c. **Added keyed notes 11, 12 & 13.**
    d. **Reference attached Revised Sheet.**

END OF ADDENDUM #02

CSI Form 1.5C

SUBSTITUTION REQUEST
(During the Bid Period)

Project: Central County Fire-Maintenance Bldg.

Substitution Request Number:

From: Red Dot Buildings

To: Archimages

Date: 09/29/25

Attn: Roy Mangan

A/E Project Number: 23121

Re: Pre Engineered Metal Building

Contract For:

Specification Title: 133419 Pre Engineered Building

Description:

Section: 13 34 19 Page:

Article/Paragraph:

Proposed Substitution: Request Red Dot Buildings to be approved as PEMB Manufacturer

Manufacturer: Red Dot Buildings Address: Athens,Texas Phone: 800.657.2234

Trade Name: Red Dot Buildings Model No.: N/A

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Cooper Reeve

Signed by: Cooper Reeve

Firm: Red Dot Buildings

Address: 1209 W Corsicana Street

Athens, Texas 75751

Telephone: 800.657.2234

A/E's REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: Date:

Supporting Data Attached: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

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110 South Union Street, Suite 100, Alexandria, VA 22314

Form Version: June 2004
CSI Form 1.5C

This is not an official CSI Construction Contract Administration (CCA) Form. Please use CSI's official CCA Forms if required by your project needs.

SUBSTITUTION REQUEST
(During the Bidding/Negotiating Phase)

CSI

PROJECT: Central County Fire and Rescue

SUBSTITUTION REQUEST NUMBER: 1

TO: Nicole Luedloff

FROM: Tom Drake / Frcise

DATE: 10/10/25

A/E PROJECT NUMBER: 23121

RE: Metal Building Manufacturer

CONTRACT FOR:

SPECIFICATION TITLE: Metal Building Systems

DESCRIPTION: Metal Building manufacturers

SECTION: 13 34 19

PAGE: 3

ARTICLE/PARAGRAPH: 2.01

PROPOSED SUBSTITUTION: Ceco Building Systems

MANUFACTURER: Cornerstone

ADDRESS: Washington

PHONE: (816) 648-4106

TRADE NAME: Ceco Building Systems

MODEL NO.:

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.
Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

SUBMITTED BY: Tom Drake

SIGNED BY: Tom Drake

FIRM: Frcise Construction Co.

ADDRESS: 17 Rockland Rd. Old Monroe, MO 63369

TELEPHONE: 636-706-8985

A/E's REVIEW AND RECOMMENDATION:

- ☐ Approve Substitution—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
- ☐ Approve Substitution as noted—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
- ☐ Reject Substitution—Use specified materials.
- ☐ Substitution Request received too late—Use specified materials.

SIGNED BY: DATE:

SUPPORTING DATA ATTACHED: ☐ Drawings ☑ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

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SUBSTITUTION REQUEST
(During the Bidding/Negotiating Phase)

CSI

PROJECT: Central County

SUBSTITUTION REQUEST NUMBER:

FROM: Freise Construction

TO: Nicole & Chris

DATE: 10-17-2025

A/E PROJECT NUMBER:

RE:

CONTRACT FOR:

SPECIFICATION TITLE: Metal Wall Panels

DESCRIPTION: Interior Liner Panel

SECTION:

PAGE:

ARTICLE/PARAGRAPH: Missing in Spec

PROPOSED SUBSTITUTION: R-LOC 26 gauge

MANUFACTURER: Central States

ADDRESS: St. Peters MO

PHONE:

TRADE NAME:

MODEL NO.: R-LOC

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.
Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

SUBMITTED BY: Carl Wilmes

SIGNED BY: Carl Wilmes

FIRM: Freise Construction

ADDRESS: 17 Rockamp Road OLD MONROE MO 63369

TELEPHONE: 636-661-5176

A/E's REVIEW AND RECOMMENDATION:

- ☐ Approve Substitution—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
- ☐ Approve Substitution as noted—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
- ☐ Reject Substitution—Use specified materials.
- ☐ Substitution Request received too late—Use specified materials.

SIGNED BY: DATE:

SUPPORTING DATA ATTACHED: ☐ Drawings ☒ Product Data ☐ Samples ☒ Tests ☐ Reports ☐

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R-Loc™

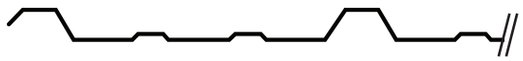
Commercial Roof and Wall Panel

Strong and *durable*, for today's commercial market

Commonly referred to as PBR-panel, this 26-gauge commercial panel is an outstanding choice for any project that requires commercial-grade performance. R-Loc is designed to maximize the potential of your structure, specifically the steel frame.

With the added purlin bearing leg, R-Loc provides easier installation and a more pleasing appearance.

- Industry standard configuration allows maximum purlin spacing for a cost-effective building.
- Ideal for low-pitch commercial roofs.
- Matching trims and accessories are available.



RECOMMENDED ½:12 PITCH AND ABOVE	26 GAUGE	36" OVERALL COVERAGE	1¼" MAXIMUM RIB HEIGHT

CENTRAL® STATES MANUFACTURING, INC.
METAL BUILDING COMPONENTS

CENTRALSTATESCO.COM

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Galvalume® is a registered trademark of BIEC International, Inc.
CE FLYR_RLOC_240412

Choose CentralGuard® for the best protection and a lifetime warranty.

CentralGuard is our specific combination of everything that goes into making the highest-quality metal panels. Available on our Prime panels, the CentralGuard name is a guarantee that you have the best protection and a lifetime paint warranty.

Choose CentralGuard for the perfect balance of fade protection, rust blocking, and dent resistance.

	THRIFTY	OUR BEST SELLER! **PRIME** CentralGuard
FADE PROTECTION		
Paint Warranty	20-YEAR	LIFETIME
Paint Thickness	THIN .70 mil	THICK 1.0 mil
Fade Warranty	–	30-YEAR
Fade Protection	✓	✓
RUST BLOCKING		
Advanced Rust Blocking	–	✓
Perforation Warranty	–	50-YEAR
Substrate Thickness	1.12 mil	1.60 mil
DENT RESISTANCE		
Advanced Dent Resistance	–	✓✓
Steel Thickness	THIN	THICK
Steel Gauge	26 ga.	26 ga.
INSTALLATION		
Purlin Bearing Leg	–	✓

Find more information at
centralstatesco.com

MINIMUM SPECIFICATIONS
FOR PRIME PAINTED PANELS

GAUGE
26 ga. | 24 ga.*

STEEL THICKNESS
26 ga. 0.0185" | 24 ga. 0.023"

PAINT THICKNESS
Top coat paint: .70 mil
Top coat primer: .30 mil
Bottom coat backer: .35 mil
Bottom coat primer: .35 mil

TOTAL THICKNESS
26 ga. 0.0202" | 24 ga. 0.0247"

RUST PROTECTANT SUBSTRATE
Galvalume® AZ50

STEEL STRENGTH
80,000 PSI (26 ga.) | 50,000 PSI (24 ga.)

PAINT SYSTEM
SMP

WARRANTY
Lifetime limited paint adhesion
30-yr. chalk and fade
50-yr. Galvalume perforation

TESTING & APPROVALS

TESTING

AISI S907	Diaphragm Shear Cantilever Test, 26 ga.
ASTM-E455	Diaphragm Shear Standard Test, 26 ga.
ASTM-E1592	Structural Test for Roof Systems Over Open Purlin, 26 ga.
ASTM-E1592	Structural Test for Roof Systems Over Solid Decking, 26 ga.
ASTM-E1646	Water Leakage Test of Exterior Metal Roof Panel, 26 ga.
FM4471	Foot Traffic Resistance Test, 26 ga.

APPROVALS

UL2218	UL Approval, Impact Resistance, Class 4
UL580	UL Approval, Uplift Resistance, Class 90
UL790	UL Approval, Fire Resistance, Class A
RC-424	Texas Windstorm Approval, 26 ga. min. Over Steel Purlins
RC-576	Texas Windstorm Approval, 26 ga. min. Over Plywood Deck, OSB Deck, or Wood Purlins
FL14024	Florida Approval, Wall Panel 26 ga. min. Over Steel Purlins (NON-HVHZ)
FL14016	Florida Approval, Roof Panel 26 ga. min. Over Steel Purlins (NON-HVHZ)
FL14026	Florida Approval, Roof Panel 26 ga. min. Over 15/32" Plywood (NON-HVHZ)

* 24 ga. available in Polar and Galvalume, acrylic-coated bare in select plants

UL Product iQ™

TGFU.R18026 - ROOFING SYSTEMS

Roofing Systems

See General Information for Roofing Systems

CENTRAL STATES MFG INC R18026
302 JANE PL
LOWELL, AR 72745-0919 USA
Formed steel panels, designated "M-Loc", "R-Loc" (Min 26 MSG), "Panel-Loc", "Panel-Loc Plus", "Horizon-Loc", "CD 2000", (Min 29 MSG). Coated steel panels (surfacing) identified as "Central Seam Plus", "Central Snap", "Central-Loc" (Min. 26 MSG) or "Central Span". One or more layers of GAF Corp. "VersaShield Underlayment", mechanically fastened, may be used in lieu of the Barrier Board in all combustible Classifications.

OTHER SYSTEMS

Class A

1. **Deck:** C-15/32 **Incline:** Unlimited **Impact:** 4
Barrier Board (required on C-15/32 decks, optional on NC decks): — 1/4 in. min G-P Gypsum DensDeck®, 1/4 in. min United States Gypsum Co. SECUROCK® Glass-Mat Roof Board (Type SGMRX), National Gypsum "DEXcell Glass Mat Roof Board" or "DEXcell FV Glass Mat Roof Board".
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory.
Surfacing: — Steel roofing panels, mechanically fastened.

2. **Deck:** C-15/32 **Incline:** Unlimited **Impact:** Class 4
Barrier Board: — 1/4 in. min. G-P Gypsum DensDeck® with all joints staggered a min of 6 in. from the plywood joints.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or GCP Applied Technologies Inc. "Ice and Water Shield".
Surfacing: — Coated Steel roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.

3. **Deck:** NC **Incline:** Unlimited **Impact:** Class 4
Barrier Board: — 1/4 in. min. G-P Gypsum DensDeck®, 1/4 in. min United States Gypsum Co. SECUROCK® Glass-Mat Roof Board (Type SGMRX), National Gypsum "DEXcell Glass Mat Roof Board" or "DEXcell FV Glass Mat Roof Board". Or 7/16 OSB or 5/8 in. plywood over polyisocyanurate insulation board or polyisocyanurate composite boad, any thickness.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or GCP Applied Technologies Inc. "Ice and Water Shield".
Surfacing: — Coated Steel roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.

4. **Deck:** NC **Incline:** Unlimited **Impact:** Class 4
Insulation: — Polyisocyanurate, glass fiber, perlite or wood fiber, any thickness.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or GCP Applied Technologies Inc. "Ice and Water Shield".
Surfacing: — Coated Steel roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.

5. **Deck:** NC **Incline:** Unlimited **Impact:** Class 4
Insulation: — None required, however any UL Classified insulations may be used over open purlin spans. Any combination and any total thickness of insulation may be used.
Surfacing: — Coated Steel roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.

Class C

1. **Deck:** C-15/32 **Incline:** Unlimited **Impact:** 4
Surfacing: — Steel roofing panels, mechanically fastened.

2. **Deck:** C-15/32 **Incline:** Unlimited **Impact:** Class 4
Surfacing: — Coated Steel roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.

Last Updated on 2017-07-31

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Black | Burnished Slate | Charcoal | Gray | Polar | Brilliant

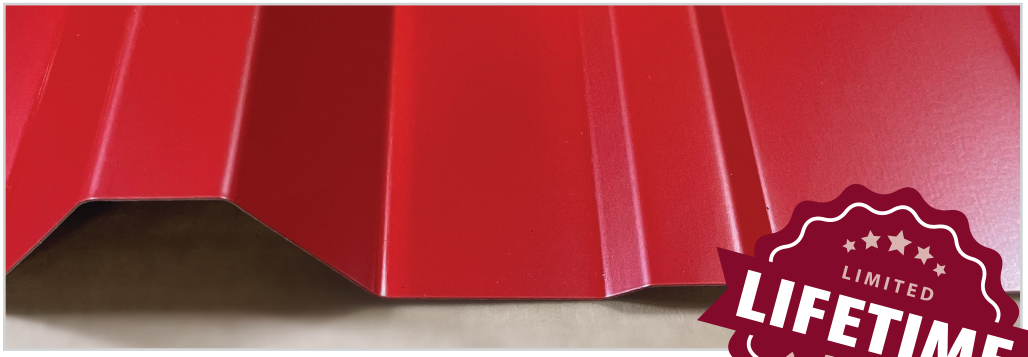
Fern
Hunter
Colony
Crimson
Rustic
Burgundy
Gallery
Hawaiian
Light Stone
Desert
Tan
Brown

CENTRALGUARD®

Choose CentralGuard® for the best protection and a lifetime warranty.

Commercial
Color Selection Tool

M-Loc®
R-Loc®
7.2 ***



CENTRAL® STATES MANUFACTURING, INC.
METAL BUILDING COMPONENTS

centralstatesco.com

SHERWIN-WILLIAMS Coil Coatings

*For Premium and Textured colors, we recomend all materials be ordered together as paint color may vary order to order.
**R-Loc in Pewter is only available in Texas with standard lead times, but may be available in some other regions with extended lead times.
***7.2 Panels are available with standard lead times from Cedar Hill, TX and extended lead times from Seguin, TX, Lowell, AR, and Jasper, AL.
†Copper Metallic panels must be installed in the same direction. See directional arrows or stickers provided on your panels. Color variation between orders is normal and not cause for rejection.
‡Weathering and appearance variation, including color, sheen,and spangle, is common in non-painted materials and is not a cause for rejection. For consistent appearance, choose a paint-finished product.

Colors on this chart are close representations of actual metal color, limited by printing and viewing conditions. Color matching optimized for outdoor viewing. Customers should view an actual material sample before making a final color selection.

Contact your sales representative for accurate pricing.

*PREMIUM COLOR
Copper Metallic†
Fluropon® 70% PVDF
PRIME

**Pewter

Clear acrylic coating
Galvalume®‡

CHRT_COM47L_250212

Choose CentralGuard® for the best protection and a Lifetime Warranty.

CentralGuard is our specific combination of everything that goes into making the highest-quality metal panels. Available on our Prime panels, the CentralGuard name guarantees that you have the best protection and a lifetime paint warranty.

Choose Prime for the perfect balance of fade protection, rust blocking, and dent resistance. Upgrade to Ultra for projects that demand the ultimate dent resistance.

	THRIFTY	OUR BEST SELLER! PRIME CentralGuard	ULTIMATE DENT RESISTANCE ULTRA CentralGuard
FADE PROTECTION			
Paint Warranty	20-YEAR	LIFETIME	LIFETIME
Paint Thickness	THIN .70 mil	THICKER 1.0 mil	THICKER 1.0 mil
Fade Protection	✓	✓	✓
RUST BLOCKING			
Advanced Rust Blocking	–	✓	✓
Perforation Warranty	–	50-YEAR	50-YEAR
Substrate Thickness	1.12 mil	1.60 mil	1.60 mil
DENT RESISTANCE			
Advanced Dent Resistance	–	✓✓	✓✓
Steel Thickness	THIN	THICK	THICKEST
Steel Gauge	26 ga.	26 ga.	24 ga. / 22 ga.††
INSTALLATION			
Purlin Bearing Leg	–	✓	✓
COLOR AVAILABILITY			
**R-Loc	Brown, Charcoal, Gray, Hunter, Light Stone, Polar, Rustic, Tan	All colors	Galvalume, Polar
M-Loc	Brown, Charcoal, Gray, Hunter, Light Stone, Polar, Rustic, Tan	All colors	Galvalume, Polar
***7.2 - 36" coverage	–	Brilliant, Charcoal, Galvalume	Galvalume, Polar
***7.2 - 28.8" coverage	–	All colors	Galvalume

R-Loc®

M-Loc®

*****7.2 (36" Coverage)**

*****7.2 (28.8" Coverage)**

CENTRAL® STATES MANUFACTURING, INC.
METAL BUILDING COMPONENTS

** R-Loc in Pewter is only available in Texas with standard lead times, but may available in some other regions with extended lead times.
***7.2 Panels are available with standard lead times from Cedar Hill, TX and extended lead times from Seguin, TX, Lowell, AR, and Jasper, AL.
†† 22 ga. available as an option for some commercial panels with a longer lead time.

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Fluropon® is a registered trademark of The Sherwin Williams Company.

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08 80 00	Glazing		Archimages

DIVISION 09	FINISHES	REVISION	AUTHOR
09 05 61	Common Work Results for Flooring Preparation		Archimages
09 21 16	Gypsum Board Assemblies		Archimages
09 30 00	Tiling		Archimages
09 51 00	Acoustical Ceilings		Archimages
09 51 10	Blade Linear Acoustical Ceilings		Archimages
09 54 26	Linear Wood Ceilings		Archimages
09 65 00	Resilient Flooring		Archimages
09 66 23	Resinous Matrix Terrazzo Flooring		Archimages
09 67 00	Fluid-Applied Flooring		Archimages

09 68 13	Tile Carpeting		Archimages
09 72 00	Wall Coverings		Archimages
09 72 12	Custom Vinyl Wall and Glass Appliques		Archimages
09 84 13	Acoustical Treatment		Archimages
09 84 14	Acoustic Stretched-Fabric Wall and Ceiling Systems		Archimages
09 91 13	Exterior Painting		Archimages
09 91 23	Interior Painting		Archimages

DIVISION 10	SPECIALTIES	REVISION	AUTHOR
10 14 19	Dimensional Letter Signage		Archimages
10 21 13.17	Phenolic Toilet Compartments		Archimages
10 22 39	Folding Panel Partitions		Archimages
10 26 010	Wall Protection		Archimages
10 28 00	Toilet, Bath, and Laundry Accessories		Archimages
10 41 12	Fire Department Key Box		Archimages
10 44 00	Fire Protection Specialties		Archimages
10 51 13	Metal Lockers		Archimages
10 71 13.44	Hybrid Aluminum Sunscreens		Archimages
10 73 16.13	Metal Canopies		Archimages
10 75 00	Flag Poles		Archimages

DIVISION 11	EQUIPMENT	REVISION	AUTHOR
11 29 34	Shipping Containers	Add #2	Archimages
11 40 00	Kitchen Equipment		DGGI
11 52 13	Projection Screens		Archimages
11 81 29	Facility Fall Protection		Archimages

DIVISION 12	FURNISHINGS	REVISION	AUTHOR
12 24 00	Window Shades		Archimages
12 36 00	Countertops		Archimages

DIVISION 13	SPECIAL CONSTRUCTION	REVISION	AUTHOR
13 34 19	Metal Building Systems	Add #2	Archimages

DIVISION 21	FIRE PROTECTION	REVISION	AUTHOR
21 05 00	Common Work Results for Fire Protection		H&S
21 05 49	Fire Protection Systems Supports, Bracing and Seismic Restraints		H&S
21 06 00	Hangers and Supports		H&S
21 14 00	Fire Protection Meters and Gages		H&S
21 32 60	Standpipe And Sprinkler Systems		H&S

DIVISION 22	PLUMBING	REVISION	AUTHOR
22 05 00	Basic Mechanical Materials and Methods		H&S
22 05 49	Plumbing Systems Supports, Bracing and Seismic Restraints		H&S
22 06 00	Plumbing Hangers and Supports		H&S
22 08 40	Plumbing Pipe Insulation		H&S
22 11 00	Plumbing Valves		H&S
22 14 00	Plumbing Meters and Gages		H&S
22 21 10	General Service Compressed Air Piping		H&S
22 25 10	General Service Compressed Air Equipment		H&S
22 41 10	Water Distribution Piping		H&S
22 42 00	Drainage And Vent Piping		H&S
22 43 00	Plumbing Specialties		H&S
22 44 00	Plumbing Fixtures		H&S
22 44 10	Sump Pumps		H&S
22 44 50	Plumbing Equipment		H&S

DIVISION 23	HEATING, VENTILATING and AIR CONDITIONING (HVAC)	REVISION	AUTHOR
23 00 00	Mechanical General Requirements		H&S
23 00 50	Basic Mechanical Materials and Methods		H&S
23 05 13	Motors		H&S
23 05 29	Hangers And Pipe Supports		H&S
23 05 48	Mechanical Systems Vibration Control		H&S
23 05 49	Mechanical Supports, Bracing and Seismic Requirements		H&S
23 07 00	Duct Insulation		H&S
23 08 00	Commissioning	Add #1	H&S
23 09 90	HVAC Instrumentation and Controls		H&S
23 11 23	Facility Natural Gas Piping		H&S
23 23 00	Refrigerant Piping		H&S
23 31 13	Metal Ducts		H&S
23 33 00	Duct Accessories		H&S
23 34 23	HVAC Fans and Power Ventilators		H&S
23 36 00	Air Terminal Units		H&S

23 37 13	Diffusers, Registers, Grilles, and Louvers		H&S
23 37 23	HVAC Gravity Ventilators		H&S
23 55 23	Fuel-Fired Radiant Heaters		H&S
237413	Rooftop Air-Conditioners		H&S
23 81 26	Split-System Air Conditioners		H&S
23 82 39	Wall And Ceiling Unit Heaters		H&S

DIVISION 26	ELECTRICAL	REVISION	AUTHOR
26 00 00	Electrical General Requirements		H&S
26 00 50	Basic Electrical Materials and Methods		H&S
26 05 19	Low-Voltage Electrical Power Conductors and Cables		H&S
26 05 26	Grounding And Bonding for Electrical Systems		H&S
26 05 29	Hangers And Supports for Electrical Systems		H&S
26 05 33.13	Conduits For Electrical Systems		H&S
26 05 44	Sleeves And Sleeve Seals for Electrical Raceways and Cabling		H&S
26 05 48	Vibration And Seismic Control for Electrical Systems		H&S
26 05 53	Identification For Electrical Systems		H&S
26 05 73	Overcurrent Protective Device Arc-Flash Study		H&S
26 09 23	Lighting Control Devices		H&S
26 24 16	Panelboards		H&S
26 27 13	Electricity Metering		H&S
26 27 26	Wiring Devices		H&S
26 32 13	Engine Generators		H&S
26 36 00	Transfer Switches		H&S
26 41 13	Lightning Protection for Structures		H&S
26 43 13	Surge Protection for Low- Voltage Electrical Power Circuits		H&S
26 51 00	Interior Lighting		H&S
26 56 00	Exterior Lighting		H&S
26 90 00	Electrical Commissioning		H&S

DIVISION 27	COMMUNICATIONS	REVISION	AUTHOR
27 05 28	Pathways For Communications Systems		H&S
27 05 44	Sleeves and Sleeve Seals for Communications Pathways and Cabling		H&S
27 15 00	Communications Horizontal Cabling		H&S
27 40 00	Audio, Video, Security and Access Control Systems		H&S

DIVISION 28	ELECTRONIC SAFETY and SECURITY	REVISION	AUTHOR
28 05 13	Conductors and Cables for Electronic Safety and Security		H&S
28 05 28	Pathways For Electronic Safety and Security		H&S
28 05 44	Sleeves And Sleeve Seals for Electronic Safety and Security Pathways and Cabling		H&S
28 31 11	Digital, Addressable Voice Fire Alarm System		H&S

DIVISION 31	EARTHWORK	REVISION	AUTHOR
31 00 00	Earthwork		CEDC
31 10 00	Site Clearing		CEDC
31 23 16	Excavation		CEDC
31 23 16.13	Trenching		CEDC
31 23 23	Fill		CEDC

DIVISION 32	EXTERIOR IMPROVEMENTS	REVISION	AUTHOR
32 11 23	Aggregate Base Courses		CEDC
32 12 16	Asphalt Paving		CEDC
32 13 13	Concrete Paving		CEDC
32 17 23.13	Painted Pavement Markings		CEDC
32 31 13	Chain Link Fences and Gates		CEDC

DIVISION 33	UTILITIES	REVISION	AUTHOR
33 11 16	Site Water Utility Distribution Piping		CEDC
33 13 00	Disinfecting of Water Utility Distribution		CEDC
33 31 00	Site Sanitary Sewerage Piping		CEDC
33 41 00	Site Storm Utility Drainage Piping		CEDC
33 46 00	Subdrainage		CEDC

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SECTION 00 41 00
BID FORM

This Bid Proposal Form must be completed and received by Central County Fire And Rescue no later than 3:00 P.M. October 29, 2025 their sealed bid response in person to the Owner at 1220 Cave Springs Blvd. St. Peters, MO 63376 . Faxed or emailed bids will not be accepted.

The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

Below is a contact for the BIDDER submitting this bid, who will be responsible for any questions that may arise during bid review and who may also be contacted to discuss the acceptance or rejection of this bid:

BIDDER Company Name: _____

BIDDER Contact Person Name: _____

Address: _____

City/State/Zip: _____

Phone Number: _____

Email Address: _____

BIDDER Accepts all of the terms and conditions of the “Invitation to Bid” and the “Instructions to Bidders”, including without limitation those dealing with the disposition of Bid security.

STIPULATED SUM BID FORM

Name of Project: 23121 Central County Fire And Rescue Headquarters, Training, Maintenance

Date: _____

Proposal from: _____

(Hereinafter called Bidder), a corporation organized and existing under the laws of the state of _____, a partnership, or an individual doing business as _____ (cross out inapplicable).

TO Central County Fire And Rescue
1220 Cave Springs Blvd. St. Peters, MO 63376

The Bidder, in compliance with the Invitation for Bid for the project, and having carefully examined the Bidding Documents as set forth in the Project Manual, which documents are made a part hereof, as well as the site and all conditions surrounding and affecting the work, agrees to furnish all labor, materials, and supplies necessary to perform all the work in accordance with said documents and within the time and at the prices states below.

All applicable Federal and State of Missouri Taxes have been excluded from our bid amoutns.

Bidder agrees to furnish all labor, tools, equipment, and materials required to perform all work indicated in the Bid Documents for the project named 23121 Central County Fire And Rescue Headquarters, Training, Maintenance County Fire And Rescue Headquarters, Training, Maintenance for the following lump sum amounts.

Bidder hereby states that the time required to perform all work indicated in the Bid Documents (and any accepted alternates) and work necessary to complete the project per the project per the duration proposed on this Bid Form is acceptable. Liquidated Damages shall be assessed for delays to Substantial Completion and are further described in the bidding and contract requirements.

Bidders shall propose a contractual duration to achieve Substantial Completion, per AIA A201-2017 Section 9.8, for each bid package in the blank space below. Proposed duration will be utilized as criteria for selection of General Contractor.

BID PACKAGES: Complete the following bid package items on this form. Bids will not be accepted if these items are not provided at the time of bid.

BID PACKAGE 1: All Work for the Headquarters Building and project sitework, as described in Section 00 21 13 Instructions to Bidders.

1	Performance Assurance Bonds	$
2	Allowance: Inspection & Testing Services	$25,000.00
3	Allowance: Unforseen Existing Conditions	$100,000.00
4	Remaining Scope of Work	$
5	Total Bid Package 1	$
6	Complete all work related to the project to achieve Substantial Completion within	_____Calendar Days

BID PACKAGE 2: All Work for the Maintenance Building, as described in Section 00 21 13 Instructions to Bidders.

7	Performance Assurance Bonds	$
8	Remaining Scope of Work	$
9	Total Bid Package 2	$
10	Complete all work related to the project to achieve Substantial Completion within	_____ **Additional** Calendar Days

BID PACKAGE 3: All Work for the Training Tower, as described in Section 00 21 13 Instructions to Bidders.

11	Performance Assurance Bonds	$
12	Remaining Scope of Work	$
13	Total Bid Package 3	$
14	Complete all work related to the project to achieve Substantial Completion within	_____ **Additional** Calendar Days

COMBINED BID PACKAGES 1, 2 & 3:

15	Discount applied for combination of all 3 bid packages.	$

ALTERNATES: Complete the following alternate bid items on this form. Bids will not be accepted if these alternates are not provided at the time of bid. Alternate bid items are futher described in Section 01 23 00 Alternates.

Alternate No. One - Covered Patio:

Add $_____

Alternate No. Two - Training Patio Cover:

Add $_____

Alternate No. Three - Additional Irrigation:

Add $_____

Alternate No. Four - Concrete Trench Structure:

Add $_____

Alternate No. Five - Trench Structure Roof:

Add $_____

Alternate No. Six - Builder's Risk Insurance for Bid Package 1.

Add $_____

Alternate No. Seven - Builder's Risk Insurance for Bid Packages 1 and 2.

Add $_____

Alternate No. Eight - Builder's Risk Insurance for Bid Package 1, 2 and 3.

Add $_____

BID FORM SUPPLEMENTS

The following Supplements are attached to this Bid Form and are considered an integral part of the same:

Document 00 41 10 – Contractor's Affidavit for Public Construction Projects
Document 00 41 20 – Non-Collusion Affidavit

We agree to submit the following Supplements to Bid Forms, within twenty-four (24) hours of the Bid date and time:

Document 00 41 01 – Supplemental Bid Information

BID DOCUMENTS

A. Bidder acknowledges receipt of the following Documents and Addenda:
   1. Drawings and Specifications
   2. Addenda
      a. Addendum No. _____ Dated _____
      b. Addendum No. _____ Dated _____
      c. Addendum No. _____ Dated _____
      d. Addendum No. _____ Dated _____
      e. Addendum No. _____ Dated _____

MISC BID REQUIREMENTS

A. This offer shall be open to acceptance and is irrevocable for Sixty (60) Business days from Bid closing date.

B. The undersigned understands that the Owner reserves the right to reject any or all bids or subcontractors.

C. The undersigned further agrees to indemnify and save the Owner from and against all losses, judgments of every nature and description made, brought, or recovered against the Owner by reason of any act or omission of the undersigned, his agents, subcontractors, or employees in the execution of the work or in guarding the same.

D. The undersigned hereby declares that this Stipulated Sum Bid is based solely upon the materials and equipment described in the bidding documents (including Addenda), and that no substitutions are contemplated.

E. The Bidder declares that he/she has had an opportunity to examine the site of the work and he/she has examined the bidding Documents therefore, and that he/she has carefully prepared his/her Bid upon the basis thereof and that he/she has carefully examined and checked this Bid and the materials, equipment and labor required thereunder, the cost thereof, and the figures therefore, and hereby states that the amount or amounts set forth in this Bid is, or are, correct and that no mistake or error has occurred in this bid.

F. See next page for signatures.

IF A CORPORATION

Name of Corporation _____ Signature of Officer _____

Name and Title of Officer _____

Incorporated under the laws of the State of _____ (print)

Licensed to do business in Missouri (check one) [ ] Yes [ ] No

Address for Communications _____

(Seal if bid is by a corporation) _____

IF A PARTNERSHIP State name and address of all partners. Each partner shall execute the Bid Form under their respective seals. Attach a copy of the Partnership / Joint Venture agreement to the Bid Form.

Name of Partnership _____ Signature of Authorized Partner _____

Name and Title _____

IF INDIVIDUAL

Name of Firm (if any) _____ Signature of Individual _____

Address for Communications _____ Name of Individual (print)

IF BIDDING AS A JOINT VENTURE List all parties, and indicate which party will be designated as the 'Lead'. Each party of the Joint Venture shall execute the Bid Form under their respective seals. Attach a copy of the Partnership / Joint Venture agreement to the Bid Form.

_____ _____

_____ _____

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SECTION 01 23 00
ALTERNATES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Description of Alternates.

B. Procedures for pricing Alternates.

C. Documentation of changes to Contract Sum and Contract Time.

1.02 RELATED REQUIREMENTS

A. Document 00 21 13 - Instructions to Bidders: Instructions for preparation of pricing for Alternates.

B. Document 00 43 23 - Alternates Form: List of Alternates as supplement to Bid Form.

C. Document 00 52 00 - Agreement Form: Incorporating monetary value of accepted Alternates.

1.03 DEFINITIONS

A. Alternate: An amount proposed by Bidders and stated within Bid Form for certain Work, as defined in the Bidding Requirements, that may be added to or deducted from the Base Bid amount, should Owner decide to accept a corresponding change, either in amount of construction to be completed, or in products, materials, equipment, systems, or installation methods described within the Contract Documents.

1. Alternates described in this Section shall form part of the Work, only if enumerated within said Agreement.
2. The cost or credit of each Alternate is the net addition to or deduction from the Contract Sum, as required to incorporate said Alternate into Work. No other adjustments shall be made to the Contract Sum.

1.04 PROCEDURES

A. Coordination: Revise, adjust, coordinate any and all affected General Construction, Architectural, Structural, Fire Protection, Plumbing, Heating, Ventilating and Air Conditioning, Air Distribution, Building Automation Systems, Electrical, Communications, Electronic Safety and Security, Earthwork, Exterior Improvements and Utilities Scopes of Work, required to completely integrate said Work of Alternates into this particular Project.

1. Include as part of each Alternate, miscellaneous devices, accessory objects and all similar items incidental to, or required for, a complete installation, whether or not indicated as part of said Alternate.
2. Pricing for each alternate is to result in and provide a complete installation which is usable to the Owner for its intended purpose.

B. Notification: Immediately following Award of the Contract, notify each party involved, in writing, of the status of each Alternate. Indicate if Alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated Revisions to Alternates.

C. Execute accepted Alternates under same conditions as all other Work of Contract.

D. Unless otherwise directed, complete all Work described within Alternates, with no increase in Subcontract Time.

E. This section includes non-technical descriptions of Alternates. Reference specific sections of Specifications and Drawings for technical descriptions of Alternates.

F. Owner reserves right to award none, any one or more in any order, or all Alternates in combination with Work covered by Base Bid.

G. Owner reserves right to determine low bid as Base Bid alone, or sum of Base Bid and any combination of Alternates.

H. Each Alternate shall include all Work required for a complete and finished Scope of Work.

I. Alternates are additive or deductive to the Base Bid. Provide costs in appropriate spaces delineated within Bid Form.

J. Submit Bids for Base Bid and all Alternates listed within Bid Form. Failure to quote an amount, or insertion of the words "no bid," "none" or words with a similar meaning, shall be considered as not completing the proposal and may constitute disqualification of entire Bid, upon Owner's discretion. When there is no change in Base Bid, due to using an Alternate, insert the words "No Change". The words "No Change" shall be interpreted to mean that said Work described within the Alternate, shall be completed at no adjustment or change in cost to Base Bid.

K. Base Bid and Alternates are exclusive within their Scope of Work. There is no overlap between or among Base Bid and Alternates. The cost of any item of Work shall be included only once, within Base Bid or Alternates.

L. Schedule: A schedule of Alternates is included at the end of this Section. Specification Sections referenced within schedule contain requirements for materials necessary to achieve said Work delineated within each Alternate.

1.05 ACCEPTANCE OF ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.

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

1.06 DEFINITIONS

A. Alternate: An amount proposed by Bidders and stated within Bid Form for certain Work, as defined in the Bidding Requirements, that may be added to or deducted from the Base Bid amount, should Owner decide to accept a corresponding change, either in amount of construction to be completed, or in products, materials, equipment, systems, or installation methods described within the Contract Documents.

1. 1. Alternates described in this Section shall form part of the Work, only if enumerated within said Agreement.
2. 2. The cost or credit of each Alternate is the net addition to or deduction from the Contract Sum, as required to incorporate said Alternate into Work. No other adjustments shall be made to the Contract Sum.

1.07 SCHEDULE OF ALTERNATES

A. Pricing for each base bid and alternate is to result in and provide a complete installation which is usable to the Owner for its intended purpose.

1. Drawing references below are provided for bidder convenience. These are not intended to be all-inclusive of all drawings and/or specifications that effect the scope of the bid or alternate bid item. Bidders must consider the entirety of the drawings and specifications of all design disciplines when calculation this pricing.

B. Alternate No. One - Covered Patio:

1. Base Bid Item: Run utilities related to the Covered Patio to approximately five-feet from the Covered Patio and terminate. Electrical stubs will include empty conduit. Plant the area of the Covered Patio with grass turf.
   Alternate Alternate Item: Add the Covered Patio as indicated on Drawings A115, A116,and other drawings, along with all related Work. This includes, but may not be limited to: the free-standing covered patio structure and foundation, installation of (2) televisions, gas heaters, lighting, and ceiling fans.

C. Alternate No. Two - Training Patio Cover:

1. Base Bid Item: In the location of the Training Patio Structure, provide paving as indicated but no patio structure or related Work.
2. Alternate Item: Provide a Training Patio Structure adjacent to Warm Room 139. Work includes, but is not limited to the free-standing patio structure, gas ceiling heater, ceiling fans, and lighting.

D. Alternate No. Three - Additional Irrigation:
   1. Base Bid Item: Provide irrigation as indicated on the drawings. Provide sleeves under the parking lot and drive before pouring pavement.
   2. Alternate Item: Provide irrigation to green area between parking lot and adjacent roads (Didion Drive, Mid Rivers Mall Drive, and Ecology Drive). Refer to attached site sheet for limits of irrigation extension. The shaded area indicates the extension of the irrigation system.

E. Alternate No. Four - Concrete Trench Structure:
   1. Base Bid Item: Provide paving as indicated for the area adjacent to the trench structure
   2. Alternate Item: Provide cast-in-place concrete trench training structure as indicated on Drawings A311, A351, and A352. Work includes excavation, forming, reinforcing, and concrete placement as shown.

F. Alternate No. Five - Trench Struture Roof:
   1. Base Bid Item: No roof or roof structure over the Concrete Trench Sturcture described in Alternate No. Four is provided.
   2. Alternate Item: Provide large shed roof over Training Tower trench structure as indicated on Drawings. Refer to Shees A315, A321, and A322 and related drawings. Work includes structural framing, roof deck, roofing system, and all accessories necessary for complete installation.

G. Alternate No. Six - Builder's Risk Insurance for Bid Package 1:
   1. Base Bid Item: No Buildre's Risk Insurance is provided by the Bidder.
   2. Alternate Item: Provide Builder's Risk Insurance for the Work of Bid Package 1.

H. Alternate No. Seven - Builder's Risk Insurance for Bid Package 1 and 2:
   1. Base Bid Item: No Buildre's Risk Insurance is provided by the Bidder.
   2. Alternate Item: Provide Builder's Risk Insurance for the Work of Bid Package 1 and 2

I. Alternate No. Eight - Builder's Risk Insurance for Bid Package 1, 2 and 3:
   1. Base Bid Item: No Buildre's Risk Insurance is provided by the Bidder.
   2. Alternate Item: Provide Builder's Risk Insurance for the Work of Bid Package 1, 2 and 3.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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SECTION 06 73 00
COMPOSITE DECKING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Plastic composite decking.

1.02 RELATED REQUIREMENTS

A. Sectrion 11 29 34 Shipping Containers.

1.03 REFERENCE STANDARDS

A. ANSI/ACMA/PIC (CSP) - Code of Standard Practice, Industry Guidelines for Fabrication and Installation of Pultruded FRP Structures; 2011 (Reapproved 2012).

B. ASTM A436 - Standard Specification for Austenitic Gray Iron Castings; 1984 (Reapproved 2020).

C. ASTM D7032 - Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails; 2021.

D. ASTM F593 - Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs; 2022.

E. ASTM F594 - Standard Specification for Stainless Steel Nuts; 2024.

F. ICC (IBC) - International Building Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.04 ADMINSTRATIVE REQUIREMENTS

A. See Section 01 70 00 - Execution and Closeout Requirements for additional requirements relating to preinstallation meetings.

B. Coordination: Coordinate installation of anchorages installed by others.

1.05 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements for submittal procedures.

B. Product Data: Manufacturer's published product literature:
   1. Include sizes and profiles; structural design data.

C. Shop Drawings - Plastic Composite Decking: For each system; indicate:

D. Shop Drawings: Indicate overall layout, direction of decking, and enlarged details of fastening systems.
   1. Details: Include framed openings.

E. Samples: Submit two samples, 12 inches long, indicating specified texture and finish of drcking.
   1. Submit 3 physical samples of each type of fastener to be used.

F. Manufacturer's Instructions: Manufacturer's published installation instructions.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications:
   1. Experience: Company specializing in manufacturing products specified in this section, with at least five years of documented experience.

B. Installer Qualifications: Company specializing in installing work of type specified in this section, and with at least five years of documented experience and approved by manufacturer.

C. Documents at Project Site: Maintain at project site one copy of manufacturer's installation instructions and installation drawings.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to project site in original, unbroken packages, or bundles bearing label of manufacturer and component identification markings.

B. Store materials under cover and elevated above grade.

C. Package and label adhesives separately; store in dry, indoor facility.

D. Store adhesives at minimum ambient temperature of 70 degrees F and maximum 85 degrees F, in ventilated area, and as required by manufacturer's instructions.

E. Protect decking units from damage including cracking or chipping.

1.08 WARRANTY

A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

B. Manufacturer Warranty: Provide manufacturer's standard limited warranty for products. Complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.01 PLASTIC COMPOSITE DECKING

A. Manufacturers:
   1. Trex Company, Inc; Trex Select Decking: www.trex.com/#sle.
      a. 1- inch square edged boards.
   2. Substitutions: See Section 01 60 00 - Product Requirements.

B. Plastic Composite Decking: Extruded thermoplastic composite decking boards; for exterior applications where ICC (IBC) permits combustible construction; complying with ASTM D7032.

2.02 ACCESSORIES:

A. Deck Fasteners: Flat head or casing head through fasteners system with retaining nut.

B. Stainless Steel Fasteners:
   1. Bolts: ASTM F593.
   2. Nuts: ASTM F594.
   3. Washers: Provide washers of materials compatible with stainless steel grades of bolts and nuts; comply with size requirements of ASTM A436.

C. Adhesives: Structural grade adhesives as recommended by manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION - GENERAL

A. Verify dimensions, tolerances, and interfaces with related work; verify location of supporting assemblies.

B. Examine field conditions to confirm that building lines, grades, and elevations will allow proper installation of decking.

C. Verify support work has been constructed to allow accurate placement and alignment of anchor bolts and other connections to supporting assemblies.

D. Verify substrates to determine that conditions are acceptable for installation of decking in accordance with manufacturer's written instructions.

3.02 INSTALLATION - GENERAL

A. Coordinate installation requirements with Section 11 29 34 Shipping Containers.
   1. Run decking lenghtwise of the container.
   2. Select length of decking product to minimize end joints.
   3. Stagger end joints.

3.03 INSTALLATION - PLASTIC COMPOSITE DECKING

A. Install decking in accordance with manufacturer's published instructions, subject to conditions of its evaluation report.

3.04 TOLERANCES

A. Install decking complying with installation tolerances indicated in ANSI/ACMA/PIC (CSP).

3.05 CLEANING - FRP COMPOSITE DECKING

A. Clean FRP composite decking complying with cleaning recommendations in ANSI/ACMA/PIC (CSP) and manufacturer's literature.

3.06 PROTECTION

A. Protect installed decking from subsequent construction operations.

END OF SECTION

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SECTION 07 54 00
THERMOPLASTIC MEMBRANE ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Mechanically attached and adhered system with TPO membrane.

B. Insulation, flat and tapered.

C. Cover boards.

D. Flashings.

E. Roofing cant strips, stack boots, roofing expansion joints, and walkway pads.

1.02 REFERENCE STANDARDS

A. ASTM C1177/C1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; 2024.

B. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2025.

C. ASTM D6878/D6878M - Standard Specification for Thermoplastic Polyolefin-Based Sheet Roofing; 2021.

D. ASTM E1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces; 2024.

E. NRCA (RM) - The NRCA Roofing Manual; 2025.

F. UL (FRD) - Fire Resistance Directory; Current Edition.

1.03 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.
   1. Review preparation and installation procedures and coordinating and scheduling required with related work.
   2. Review proper installation of materials and necessary requirements to achieve product warranty.
   3. Notify Architect minimum 10 calendar days in advance of meeting.

1.04 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
   1. Provide membrane manufacturer's detailed printed data, as required to delineate all components of roofing system, including, but not limited to, rigid insulation board, fasteners and any related accessories. Comply with all specified requirements, membrane manufacturer's requirements and any recommendations for system type specified. Include detailed data for all products used in conjunction with roofing membrane.

C. Shop Drawings: Submit drawings that indicate joint or termination detail conditions, conditions of interface with other materials, and paver layout.
   1. Provide Manufacturer's standard details coordinated and revised, as required for this particular Project, all relevant conditions, flashings, base tie ins, roof edges, terminations, expansion joints, penetrations and drains.

D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

E. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.

F. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and supplementary instructions given.

G. Manufacturer's qualification statement.

H. Installer's qualification statement.

I. Warranty Documentation:
   1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
   2. Submit installer's written verification that installation complies with warranty conditions for waterproof membrane.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum ten years of documented experience.

B. Installer Qualifications: Company specializing in performing work of this section with at least five years of documented experience.

C. Written approval of the installation firm from the Manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's original containers, dry and undamaged, with seals and labels intact, unless otherwise indicated.

B. Store materials in weather protected environment, clear of ground and moisture.

C. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.

D. Protect foam insulation from direct exposure to sunlight.

1.07 FIELD CONDITIONS

A. Do not apply roofing membrane during unsuitable weather.

B. Do not apply roofing membrane when ambient temperature is above or below the range recommended by the membrane Manufacturer.

C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

E. Schedule applications so that no partially completed sections of roof are left exposed at end of workday.

1.08 WARRANTY

A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

B. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
   1. Warranty Term: 20 years.
   2. For repair and replacement include costs of both material and labor in warranty.
   3. Exceptions are not Permitted:

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Thermoplastic Polyolefin (TPO) Membrane Roofing Materials (Regular Backing):
   1. Carlisle SynTec Systems; Sure-Weld TPO: www.carlisle-syntec.com/#sle.
   2. Elevate; UltraPly TPO Membrane: www.holcimelevate.com/#sle.
   3. GAF; EverGuard TPO 60 mil : www.gaf.com/#sle.
   4. Mule-Hide Products Co, Inc; Standard TPO: www.mulehide.com/#sle.
   5. Versico Roofing Systems; VersiWeld TPO: www.versico.com/#sle.
   6. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 ROOFING - UNBALLASTED APPLICATIONS

A. Thermoplastic Membrane Roofing: One ply membrane, fully adhered, over insulation.

B. Roofing Assembly Requirements:
   1. Solar Reflectance Index (SRI): 78, minimum, calculated in accordance with ASTM E1980.
      a. Field applied coating may not be used to achieve specified SRI.
   2. Roof Covering External Fire Resistance Classification: UL (FRD) Class A.
   3. Insulation Thermal Resistance (R-Value): As indicated on the drawings.

C. Acceptable Insulation Types - Constant Thickness Application:
   1. Minimum 2 layers of polyisocyanurate board.

D. Acceptable Insulation Types - Tapered Application: Any of types specified.
   1. Tapered polyisocyanurate, perlite, or extruded polystyrene board.

2.03 MEMBRANE ROOFING AND ASSOCIATED MATERIALS

A. Membrane Roofing Materials:
   1. TPO: Thermoplastic polyolefin (TPO) complying with ASTM D6878/D6878M, sheet contains reinforcing fabrics or scrims.
      a. Thickness: 60 mil, 0.060 inch, minimum.
   2. Color: White.

B. Seaming Materials: As recommended by membrane manufacturer.

C. Flexible Flashing Material: Same material as membrane.

2.04 COVER BOARDS

A. Cover Boards: Glass-mat faced gypsum panels complying with ASTM C1177/C1177M.
   1. Thickness: 5/8 inch, Type X, fire-resistant.
   2. Products:
      a. Georgia-Pacific; DensDeck: www.densdeck.com/#sle.
      b. Gold Bond Building Products, LLC provided by National Gypsum Company; DEXcell Glass Mat Roof Board: www.goldbondbuilding.com/#sle.

2.05 INSULATION

A. Polyisocyanurate (ISO) Board Insulation: Rigid cellular foam, complying with ASTM C1289.
   1. Classifications:
      a. Type II: Faced with either cellulosic facers or glass fiber mat facers on both major surfaces of the core foam.
         1) Class 2 - Faced with coated glass fiber mat facers on both major surfaces of the core foam.
         2) Compressive Strength: Classes 1-2-3, Grade 2, 20 psi (138 kPa), minimum.
         3) Thermal Resistance, R-value: At 1-1/2 inches thick; Class 1, Grades 1-2-3, 8.4 (1.48), minimum, at 75 degrees F.
   2. Board Size: 48 by 96 inches.
   3. Minimum two layers.
   4. Thickness: As required to provide R-Value indicated on the drawings.
   5. Board Edges: Square.

2.06 ACCESSORIES

A. Roofing Expansion Joint Flashing: Sheet butyl.

B. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.

C. Cant Strips: Wood; pressure preservative treated.

D. Insulation Joint Tape: Glass fiber reinforced type as recommended by insulation manufacturer, compatible with roofing materials; 6 inches wide; self adhering.

E. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.

F. Membrane Adhesive: As recommended by membrane manufacturer.

G. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.

H. Thinners and Cleaners: As recommended by adhesive manufacturer, compatible with membrane.

I. Insulation Adhesive: As recommended by insulation manufacturer.

J. Sealants: As recommended by membrane manufacturer.

K. Walkway Pads: Suitable for maintenance traffic, contrasting color or otherwise visually distinctive from roof membrane.
   1. Composition: Rubber with mineral granule surface.
   2. Surface Color: White.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces and site conditions are ready to receive work.

B. Verify deck is supported and secure.

C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.

D. Verify deck surfaces are dry and free of snow or ice.

E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

F. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.

3.02 PREPARATION

A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.

B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.

3.03 INSTALLATION, GENERAL

A. Perform work in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.

B. Do not apply roofing membrane during cold or wet weather conditions.

C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.

D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

F. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

G. Install roofing and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition and to not void warranty for existing roofing system.

3.04 INSTALLATION - INSULATION, UNDER MEMBRANE

A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.

C. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.

D. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
   1. Fill gaps exceeding 1/4 inch (6 mm) with insulation.

E. Attachment of Insulation:
   1. Mechanically fasten first layer of insulation to deck in accordance with roofing manufacturer's instructions.
      a. Mechanically Fastened Insulation: Install first layer of insulation and secure to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
      b. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
   2. Embed second layer of insulation into full bed of adhesive in accordance with roofing and insulation manufacturers' instructions.
      a. Set each subsequent layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

F. Cover Boards: Adhere cover boards in adhesive in full contact, in accordance with roofing manufacturer's instructions.
   1. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction. Loosely butt cover boards together.
   2. Adhere cover boards to resist uplift pressure at corners, perimeter, and field of roof.

G. Lay subsequent layers of insulation with joints staggered minimum 6 inches from joints of preceding layer.

H. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.

I. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.

J. Tape joints of insulation in accordance with roofing and insulation manufacturers' instructions.

K. Do not install more insulation than can be covered with membrane in same day.

3.05 INSTALLATION - MEMBRANE

A. Adhere roofing over area to receive roofing according to roofing system manufacturer's written instructions. Unroll roofing and allow to relax before retaining.

B. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.

C. Accurately align roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.

D. Shingle joints on sloped substrate in direction of drainage.

E. Adhered Application: Apply adhesive to substrate at no less than the rate per square foot recommended by membrane manufacturer.
   1. Bonding Adhesive: Apply to substrate and underside of roofing at rate required by manufacturer, and allow to partially dry before installing roofing. Do not apply to splice area of roofing.
   2. Apply roofing with side laps shingled with slope of roof deck where possible.

F. Overlap edges and ends and seal seams by contact adhesive, minimum 3 inches. Seal permanently waterproof. Apply uniform bead of sealant to joint edge.

G. Seams: Clean seam areas, overlap roofing, and hot-air weld side and end laps of roofing and sheet flashings according to manufacturer's written instructions, to ensure a watertight seam installation.
   1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet.
   2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.
   3. Repair tears, voids, and lapped seams in roofing that do not comply with requirements.

H. At intersections with vertical surfaces:
   1. Extend membrane over cant strips and up a minimum of 4 inches onto vertical surfaces.
   2. Fully adhere flexible flashing over membrane and up to nailing strips.

I. Around roof penetrations, seal flanges and flashings with flexible flashing.

J. Spread sealant bed over deck-drain flange at roof drains and securely seal roofing in place with clamping ring.

K. Coordinate installation of roof drains and sumps and related flashings.

3.06 BASE FLASHING INSTALLATION

A. A.Install sheet flashings and preformed flashing accessories and adhere to substrates according to roofing system manufacturer's written instructions.

B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply to seam area of flashing.

C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.

D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.

E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.07 WALKWAY INSTALLATION

A. Flexible Walkways: Install walkway products in locations indicated. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

3.08 FIELD QUALITY CONTROL

A. See Section 01 40 00 - Quality Requirements for additional requirements.

B. Provide daily on-site attendance of roofing and insulation manufacturer's representative during installation of this work.

C. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.

D. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.

E. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.09 CLEANING

A. See Section 01 70 00 - Execution and Closeout Requirements for additional requirements.

B. Remove markings from finished surfaces.
   1. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

C. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and comply with their documented instructions.

D. Repair or replace defaced or damaged finishes caused by work of this section.

3.10 PROTECTION

A. Protect installed roofing and flashings from construction operations.

B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION

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SECTION 087100 - DOOR HARDWARE – HEADQUARTERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Sliding doors.
3. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Automatic operators.
4. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.
2. Division 08 Section “Flush Wood Doors”.
3. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.
4. Division 08 Section “Automatic Door Operators”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
8. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
3. Content: Include the following information:

    a. Type, style, function, size, label, hand, and finish of each door hardware item.
    b. Manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    e. Explanation of abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for door hardware.
    g. Door and frame sizes and materials.
    h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

    a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    b. Complete (risers, point-to-point) access control system block wiring diagrams.
    c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

1.4 CLOSEOUT SUBMITTALS

A. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

B. Project Record Documents: Provide record documentation of as-built door hardware sets in digital format (.pdf, .docx, .xlsx, .csv) and as required in Division 01, Project Record Documents.

1.5 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this

Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.

G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

I. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

1.6 DELIVERY, STORAGE AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.7 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.8 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

4. Electrical component defects and failures within the systems operation.

C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 BUTT HINGES

A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for all out-swinging lockable doors.

5. Manufacturers:

a. Ives (IV) - 5BB Series, 5-knuckle.
b. McKinney (MK) - TA/T4A Series, 5-knuckle.
c. dormakaba BEST (ST) - F/FBB Series, 5-knuckle.

2.2 CONTINUOUS HINGES

A. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:.

    a. Hager Companies (HA).
    b. Pemko (PE).
    c. Select Hinges (SL).

2.3 SLIDING AND FOLDING HARDWARE

A. Sliding and Folding Door Hardware: Hardware is to be of type and design as specified and should conform with ANSI/BHMA A156.14.

1. Provide sliding door hardware as follows:

    a. Sliding Bi-Passing Pocket Door Hardware: Provide complete sets consisting of track, hangers, stops, bumpers, floor channel, guides, and accessories indicated.

2. Manufacturers:

    a. Hafele Manufacturing (HF).
    b. Johnson Hardware (JO).
    c. Pemko (PE).

2.4 POWER TRANSFER DEVICES

A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

    a. Architectural Builders Hardware (AH) - PT1000-EZ Series.
    b. Pemko (PE) - EL-CEPT Series.
    c. Securitron (SU) - EL-CEPT Series.

B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified

hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:

    a. McKinney (MK) - Electrical Connecting Kit: QC-R001.
    b. McKinney (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

    a. McKinney (MK) - QC-C Series.
    b. Schlage (SC) - Connect.
    c. dormakaba BEST (ST) - WH Series.

2.5 DOOR OPERATING TRIM

A. Flush Bolts and Surface Bolts: Provide products conforming to ANSI/BHMA A156.3 and A156.16, Grade 1.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
2. Furnish dust proof strikes for bottom bolts.
3. Surface bolts to be minimum 8” in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
5. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Door Controls International (DC).
    c. Rockwood (RO).

B. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Pulls, where applicable, shall be provided with a 10” clearance from the finished floor on the push side to accommodate wheelchair accessibility.

5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
6. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

2.6 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

1. Manufacturers:

    a. Corbin Russwin Hardware (RU).
    b. Sargent Manufacturing (SA).

B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:

1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.
5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Manufacturer’s Standard.

C. Large Format Interchangeable Cores: Provide removable cores (LFIC) as specified, core insert, removable by use of a special key, and for use with only the core manufacturer's cylinder and door hardware.

D. Patented Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed cylinders employing a utility patented and restricted keyway requiring the use of a patented key. Cylinders are to be protected from unauthorized manufacture and distribution by manufacturer’s United States patents. Cylinders are to be factory keyed with owner having the ability for on-site original key cutting.

1. Patented key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
2. Manufacturers:

    a. Corbin Russwin (RU) - Access 3 AP.
    b. Sargent (SA) - Degree DG1.

E. Keying System: Each type of lock and cylinders to be factory keyed.

1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. New System: Key locks to a new key system as directed by the Owner.

F. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).

G. Construction Keying: Provide construction master keyed cylinders.

H. Construction Keying: Provide temporary keyed construction cores.

I. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.7 KEY CONTROL

A. Key Control Software: Provide software that offers solutions for master key system design and management, key, key ring, and item issuance, cylinder and core pinning, personal records and inventories and building, door, and floor plans. Software shall come with the option for additional services that provide custom data integration, on-site and virtual training, consulting, technical support, and custom development.

1. Key Control: System shall manage all master key systems, keys, key rings, key holders and key requests. It shall provide total key control showing outstanding keys, overdue keys (with automatic notifications), key symbols, bittings, keyways, etc. and the ability to include all systems (multiple key manufacturers supported) and buildings in one database.
2. Master Keying: Software shall provide a comprehensive master key system generator compatible with multiplex systems (key sections, keyways, angles) along with a core pinning calculator. Master keying feature shall have automatic configurable key numbering and connection with key cutting machines.
3. Facility Management: Software shall reference every building, floor, and door of your facilities while identifying the operating keys of every door and generate control reports.
4. Available options shall include.

    a. Web Interface: Web portal option for key requests and approvals. Web users shall have restricted access, according to their privileges.
    b. Mobile Application for Key Deliveries: Display the list of keys issued, key policy, and capture the signature in the field.

5. Manufacturers:

a. Medeco (MC) - Simple K.

B. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:

a. Lund Equipment (LU).
b. MMF Industries (MM).
c. Telkee (TK).

2.8 MORTISE LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all functions and features as specified herein.

1. Provide locksets with functions and features as follows:

a. Heavy duty 12-gauge wrought steel case.
b. Stainless steel 3/4" one-piece anti-friction reversible latchbolt with a one-piece hardened stainless steel 1” projection deadbolt.
c. Where required by code, provide knurling or abrasive coating on all levers leading to hazardous areas.
d. Meets UL and CUL Standard 10C Positive Pressure, Fire Test of Door Assemblies with levers that meet A117.1 Accessibility Code.
e. Meets UL Certification Directory ZHLL.R21744 for products used in windstorm rated assemblies.
f. Extended cycle test: Locks to have been cycle tested in ordinance with ANSI/BHMA 156.13 requirements to 16 million cycles or greater.
g. Status indicators inside, outside, or on both sides of doors as specified; available with wording for “locked/unlocked”, “vacant/occupied” or custom wording options. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status.
h. Ten-year limited warranty for mechanical functions.

2. Manufacturers:

a. Corbin Russwin Hardware (RU) - ML2000 Series.
b. Sargent Manufacturing (SA) - 8200 Series.

2.1 INTEGRATED WIRED OUTPUT LOCKING DEVICES - MULTI-CLASS READER

A. Integrated Wired Output Multi-Class Mortise Locks: Wiegand or Open Supervised Device Protocol (OSDP) output ANSI A156.13, Grade 1, mortise lockset with integrated card reader with or without keypad option, request-to-exit signaling, door position status switch, and latchbolt monitoring in one complete unit. Hard wired, solenoid driven locking/unlocking control of the lever handle trim, 3/4" deadlocking anti-friction latch, and 1" case-hardened steel deadbolt. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.

1. Open architecture, hard wired platform supports centralized control of locking units with new or existing Wiegand or OSDP compatible access control systems. Latchbolt monitoring and door position switch act in conjunction to report door-in-frame (DPS) and door latched (door closed and latched) conditions.
2. Integrated reader supports the following credentials:

    a. 125kHz proximity credentials: HID, AWID, Indala, and EM4102.
    b. 13.56 MHz proximity credentials: HID Secure Identity Object™ (SIO) on iCLASS Seos, HID iCLASS, HID iCLASS SE/SR, MIFARE Classic, DESFire EV1 and EV2.
    c. 2.4 GHz credentials: Secure Identity Object™ (SIO) on Mobile IDs (Bluetooth Smart)
    d. ISO14443A/B (PIV-compatible Transparent FASC-N read) available with pivCLASS variant
    e. NFC-enabled mobile phones
    f. PIN code only or PIN + credential with keypad option.

3. 12VDC external power supply required for reader and lock, with optional 24VDC lock solenoid. Fail safe or fail secure options.
4. Energy Efficient Design: Provide lock bodies which have a holding current draw of 500mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
5. Support end-of-line resistors contained within the lock case.
6. Installation requires only one cable run from the lock to the access control panel without requirements for additional proprietary lock panel interface boards or modules.
7. Installation to include manufacturer's access control panel interface board or module where required for Wiegand or OSDP output protocol.
8. Manufacturers:

    a. Corbin Russwin (RU) - ML2000 SN Series.
    b. Sargent Manufacturing (SA) - SN200/SN210 8200 Series.

2.2 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.3 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. Exit devices shall have a five-year warranty.
2. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
3. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.
4. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
5. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

    a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
    b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.

9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
10. Rail Sizing: Provide exit device rails factory sized for proper door width application.
11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed exit devices. Listed manufacturers shall meet all functions and features as specified herein.

1. Provide exit devices with functions and features as follows:

    a. Where required by code, provide knurling or abrasive coating on all levers leading to hazardous areas.
    b. Meets UL and CUL Standard 10C Positive Pressure, Fire Test of Door Assemblies with levers that meet A117.1 Accessibility Code.
    c. No catch points: addition of applied deflectors or other added components are not allowed.
    d. No visible plastic.
    e. Heavy duty end caps with flush and overlapping options made of stainless steel, brass, or bronze with architectural finishes.
    f. Constructed of all stainless steel.
    g. Stainless steel pullman type latch with deadlock feature.
    h. Narrow or wide style exterior trim as specified in the hardware sets.
    i. Center case adjustability on concealed vertical rod exit devices; single operation with hex key individually adjusts top or bottom latches. No retainer screws or clips required to maintain adjustment.
    j. Ten-year limited warranty for mechanical features.

2. Electromechanical exit devices shall have the following functions and features:

    a. Universal Molex plug-in connectors that have standardized color-coded wiring and are field configurable in fail safe or fail secure and operate from 12vdc to 24vdc regulated.
    b. Wire routing for all non-access control electromechanical functions and EcoFlex trim to be contained within the carrier of the device eliminating the need for cavities in doors to be drilled. Include a protective film so that wires don't get damaged if the rail needs to be removed.
    c. EcoFlex or equivalent technology that reduces energy consumption up to 92% as certified by GreenCircle.
    d. Options to be available for request-to-exit or enter signaling, latchbolt and touchbar monitoring.
    e. Field configurable electrified trim to fail-safe or fail-secure that operates from 12-24VDC.

3. Manufacturers:

    a. Corbin Russwin Hardware (RU) - PED4000 / PED5000 Series.
    b. Sargent Manufacturing (SA) - PE80 Series.

2.4 INTEGRATED WIRED OUTPUT EXIT DEVICES - MULTI-CLASS READER

A. Integrated Wired Output Multi-Class Exit Hardware: Wiegand output ANSI 156.3 Grade 1 rim, mortise, and vertical rod exit device hardware with integrated card reader with or without keypad option, latchbolt and touchbar monitoring, and request-to-exit signaling, in one complete unit. Hard wired, solenoid driven locking/unlocking control of the lever handle exit trim with 3/4" throw latch bolt. U.L listed and labeled for either panic or "fire exit hardware" for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.

1. Open architecture, hard wired platform supports centralized control of locking units with new or existing Wiegand or OSDP compatible access control systems. Inside push bar (request-to-exit) signaling and door position (open/closed status) monitoring (via separately connected DPS).
2. Integrated reader supports the following credentials:

    a. 125kHz proximity credentials: HID, AWID, Indala, and EM4102.
    b. 13.56 MHz proximity credentials: HID Secure Identity Object™ (SIO) on iCLASS Seos, HID iCLASS, HID iCLASS SE/SR, MIFARE Classic, DESFire EV1 and EV2.
    c. 2.4 GHz credentials: Secure Identity Object™ (SIO) on Mobile IDs (Bluetooth Smart)
    d. ISO14443A/B (PIV-compatible Transparent FASC-N read) available with pivCLASS variant
    e. NFC-enabled mobile phones
    f. PIN code only or PIN + credential with keypad option

3. 12VDC external power supply required for reader. 24VDC required for solenoid operated exit trim. Fail safe or fail secure options.
4. Installation requires only one cable run from the exit hardware to the access control panel without requirements for additional proprietary lock panel interface boards or modules.
5. Competitor Alternates Allowed Option: Installation to include manufacturer's access control panel interface board or module where required for Wiegand or OSDP output protocol.
6. Manufacturers:

    a. Corbin Russwin (RU) - ED5000 SN Series.
    b. Sargent Manufacturing (SA) - SN200/SN210 80 Series.

2.5 SURFACE DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.

2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Heavy duty surface mounted door closers shall have a 30-year warranty.

2. Manufacturers:

a. Corbin Russwin Hardware (RU) - DC6000 Series.
b. Norton Rixson (NO) - 7500 Series.
c. Sargent Manufacturing (SA) - 351 Series.

2.6 ELECTROMECHANICAL DOOR OPERATORS

A. Electromechanical Door Operators (High Traffic): Provide ANSI/BHMA A156.19 Certified Products Directory (CPD) listed low energy operators that are UL325/991 and UL10C certified and comply with requirements for the Americans with Disabilities Act (ADA). Operators shall accommodate openings up to 250 pounds and 48” wide.

1. Provide operators with features as follows:

a. Non-handed with push and pull side mounting.
b. Activation by push button, hands-free or radio frequency devices.
c. Adjustable opening force and closing power.
d. Two-year limited warranty.
e. Wi-Fi interface where the operator is a secure, password protected WiFi hot spot with no connection to building’s IT required.
1) Simple setup with no app required.
2) View status and make adjustments without removing the cover.
3) Built-in logic to support single use restroom applications with no external relay boards, logic modules, position switches required.

f. Mounting backplate to simplify and speed up installation.
g. Integration with access control systems.

2. Operators shall have the following functionality:

a. Adjustable Hold Open: Amount of time a door will stay in the full open position after an activation.
b. Blow Open for Smoke Ventilation: Door opens when signal is received from alarm system allowing air or smoke to flow through opening. Door will stay open until signal from alarm system is stopped.
c. Emergency Interface Relay: Door closes and ignores any activation input until signal is discontinued.
d. Infinite Hold Open: Door will hold open at set position until power is turned off.
e. Latch Assist: At closed position, after an activation, the door is pulled in. After the door has closed, the door is pulled in to assist with latch release/engagement.
f. Obstruction Detection: Door closes if it hits an obstruction while opening; door will reverse to open position if it hits an obstruction while closing. Door will stop once it hits an obstruction and will rest against the obstruction until removed.
g. Open Delay: Delays operator opening for locking hardware.
h. Outside Wall Switch Disable: When contact is closed, outside wall switch is disabled.
i. Power Assist: Senses the door is being opened manually and applies small amount of power to assist the user in opening the door with force less than 5 lbs. The door opens only as far as it is moved manually, then closes once released.
j. Power Close: Additional force to assist door closing between 7° and 2°.
k. Presence Detector Input: Input for external sensor to detect presence at door open or close position only.
l. Push & Go: As the door is manually opened, the operator "senses" movement and opens door to the full-open position.
m. Selector Mode Switch: Off disables the signal inputs unless Blow Open is activated, on activates the signal inputs, hold open activates the unit (unless Blow Closed is activated) to the hold open position.
n. Vestibule Delay: When the wall switch is pressed, first door in vestibule will open. Second door will open once vestibule door delay has expired. Delay is adjustable.
o. Executive Mode Feature: When the door receives an activation signal it opens and remains open until either a second signal is received, or the door is manually moved in closing direction.

3. Manufacturers:

a. ASSA ABLOY Entrance Systems (BE) - SW200 Series.
b. Horton Automatics (HO) - S4100LE Series.
c. Norton Rixson (NO) - 6300 Series.

2.7 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:

    a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

2.8 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

    a. Norton Rixson (RF).

b. Rockwood (RO).
c. Sargent Manufacturing (SA).

2.9 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko (PE).
2. Reese Enterprises, Inc. (RE).
3. Zero (ZE).

2.10 ELECTRONIC ACCESSORIES

A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.

1. Manufacturers:

a. Sargent Manufacturing (SA) - 3280 Series.
b. Securitron (SU) - DPS Series.

B. Switching Power Supplies: Provide the least number of power supplies at the appropriate amperage level sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.

1. Power supplies shall meet all functions and features as specified herein.

a. UL listed dual voltage 12 or 24 VDC field selectable continuous output.
b. Tolerates brownout or overvoltage input ± 15% of nominal voltage.
c. Thermal shutdown protection with auto restart.
d. Circuit breaker protection against overcurrent and reverse battery faults.
e. Integrated battery charging circuit to prevent overvoltage on locking devices.
f. Available with a single relay fire trigger or individually triggered relayed outputs.
g. Monitoring options as specified.

2. Manufacturers:

a. Altronix (AS) - Maximal 3.
b. Life Safety Power (LP).
c. Securitron (SU) - AQD Series.

2.11 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.12 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Push Plates and Door Pulls: When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.

E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.5 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.6 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.7 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.
3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

B. Manufacturer’s Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. SU - Securitron
4. RO - Rockwood
5. SA - SARGENT

6. AD - Adams Rite
7. RF - Rixson
8. NO - Norton
9. OT - Other

Hardware Sets

Set: HQ 1.0

Doors: 136A

2	Continuous Hinge	CFM_SLF-HD1 PT x Length Required		PE	087100
2	Electric Power Transfer	EL-CEPT	630	SU	087100
1	Narrow CVR Exit Device w/Pull (NL, RX, ELR, Cyl. Dogging)	DG164 16 55 56 ADPE8410 P106 x 863	US32D	SA	087100
1	Narrow CVR Exit Device w/Pull (EO, RX, Cyl. Dogging)	16 55 ADPE8410 863	US32D	SA	087100
3	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
2	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
2	Drop Plate	351D (as required)	EN	SA	087100
2	Blade Stop Spacer Kit	581-1 or 2 (as required)	EN	SA	087100
2	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100
1	Card Reader/Keypad	Provided by Security Supplier			
2	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
2	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
2	Position Switch	DPS-MW-BK/GY/WH (as required)		SU	087100
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Perimeter and meeting stile gasket by door / frame manufacturer.

Operation:
• Doors are normally closed and latched. Active leaf has Night Latch Function, Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation and correct digital code entered in the keypad, releasing the exit latch at the active leaf to allow authorized entry and then relocking.
• Manual egress is always available by pressing either exit device push bar of the pair. Request to exit

switch in the exit device push bar will signal an authorized egress to that access control system.
• Door position switches at each leaf will signal the doors OPEN/CLOSED status to the access control panel.
• The exit devices are fail secure and will remain latched on activation of fire alarm or in the absence of power.

Set: HQ 2.0

Doors: 100

2	Continuous Hinge	CFM_SLF-HD1 x Length Required		PE	087100
2	Storefront Panic Device - Full Height Pull	PDU8500-3 04	US32D	RO	087100
3	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	LFIC Mortise Cylinder Housing	Size and Cam as required	US32D	SA	087100
1	Electric Strike Kit (Double Electric Strike)	ESK-9200 LM	US32D	RO	087100
1	SMART Pac Bridge Rectifier	2005M3		HS	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Drop Plate	351D (as required)	EN	SA	087100
1	Blade Stop Spacer Kit	581-1 or 2 (as required)	EN	SA	087100
1	Automatic Opener	6331	689	NO	087100
2	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100
1	Card Reader/Keypad	Provided by Security Supplier			
2	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
2	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
2	Door Switch	505		NO	087100
2	Position Switch	DPS-MW-BK/GY/WH (as required)		SU	087100
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Perimeter and meeting stile gasket by door / frame manufacturer.

Operation:
During Normal Business Hours:
• Electric Strike is electronically held (Free) to allow Push/Pull operation.
• When the actuator button on either side of the opening is pressed the auto operator will open the active leaf door of the pair.
• Manual entry or egress is always available by pushing or pulling either door of the pair.

• The Electric Strike is fail secure and will latch in the absence of power.
• Door position switches at each leaf will signal the doors OPEN/CLOSED status to the access control panel.

After Normal Business Hours:
• Doors are normally closed and latched. Exit Devices have Night Latch Function, (Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation and correct digital code entered in the keypad, releasing the electric strike and activating the exterior (Pull Side) auto operator actuator switch to allow authorized entry and then relocking.
• Pressing the auto operator actuator switch (after an authorized card read), will initiate the auto operator to open the active leaf door for assisted entry.
• Assisted egress by pressing the auto operator actuator switch to release the electric strike and initiate the auto operator to open the door for assisted egress.
• Manual egress is always available by pressing either exit device push bar of the pair. Latch Bolt Monitor in the electric strike will signal an authorized egress to that access control system.
• Door position switches at each leaf will signal the doors OPEN/CLOSED status to the access control panel.
• The electric strike is fail secure and will remain fixed/locked on activation of fire alarm or in the absence of power.

Set: HQ 3.0

Doors: 105A, 109A, 139A, 139B

1	Continuous Hinge	CFM_SLF-HD1 PT x Length Required		PE	087100
1	Electric Power Transfer	EL-CEPT	630	SU	087100
1	Narrow Rim Exit Device w/Pull (NL, RX, ELR, Cyl. Dogging)	DG164 16 55 56 PE8504 863	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Drop Plate	351D (as required)	EN	SA	087100
1	Blade Stop Spacer Kit	581-1 or 2 (as required)	EN	SA	087100
1	Rain Guard	346C x Width of Frame Head		PE	087100
1	Gasketing	Provided By Door/Frame Supplier		OT	
1	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100
1	Card Reader/Keypad	Provided by Security Supplier			
1	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
1	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
1	Position Switch	DPS-MW-BK/GY/WH (as required)		SU	087100

1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Perimeter gasket by door / frame manufacturer.

Operation:
• Door is normally closed and latched. Exit Device has Night Latch Function, Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation and correct digital code entered in the keypad, releasing the exit latch to allow authorized entry and then relocking.
• Manual egress is always available by pressing the exit device push bar. Request to exit switch in the exit device push bar will signal an authorized egress to that access control system.
• Door position switch will signal the doors OPEN/CLOSED status to the access control panel.
• The exit device is fail secure and will remain latched on activation of fire alarm or in the absence of power.

Set: HQ 3.1

Doors: 107A

1	Continuous Hinge	CFM_SLF-HD1 x Length Required		PE	087100
1	Narrow Rim Exit Device w/Pull (NL, Cyl. Dogging)	DG164 16 PE8504 863	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Drop Plate	351D (as required)	EN	SA	087100
1	Blade Stop Spacer Kit	581-1 or 2 (as required)	EN	SA	087100
1	Rain Guard	346C x Width of Frame Head		PE	087100
1	Gasketing	Provided By Door/Frame Supplier		OT	
1	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100

Notes: Perimeter gasket by door / frame manufacturer.

Set: HQ 4.0

Doors: 145

6	Hinge, Full Mortise, Hvy Wt	T4A3386 (NRP and size as required)	US32D	MK	087100
1	Electric Power Transfer	EL-CEPT	630	SU	087100
1	Self Latching Flush Bolt Set	2845 / 2945 (as required)	US26D	RO	087100
1	Dust Proof Strike	570	US26D	RO	087100
1	Access Control Mort Lock (CR/KP, Fail Sec., RX, DPS)	DG164 IDP SN200-82271-24V (CR/KP Tech as Required) LNL	US26D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
2	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
2	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
2	Astragal	29324CNB x Door Height		PE	087100
1	Perimeter Gasketing	303AS (Head & Jambs)		PE	087100
1	Rain Guard	346C x Width of Frame Head		PE	087100
2	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100
1	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
1	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
1	Position Switch	DPS-MW-BK/GY/WH (as required)		SU	087100
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Operation:
• Doors are normally closed and latched. Active leaf has Storeroom Function Lockset, Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation and correct digital code entered in the keypad (Card Reader and Keypad are integrated in the lockset escutcheon), releasing the lockset lever at the active leaf to allow authorized entry and then relocking.
• Manual egress is always available by turning the interior lockset lever on the active leaf. Request to exit switch integrated in the lockset will signal an authorized egress to that access control system.
• Door position switches at each leaf will signal the doors OPEN/CLOSED status to the access control panel.
• The electrified lockset is fail secure and will remain locked on activation of fire alarm or in the absence of power.

Set: HQ 5.0

Doors: 111

1	Continuous Hinge	CFM_SLF-HD1 PT x Length		PE	087100

		Required			
1	Electric Power Transfer	EL-CEPT	630	SU	087100
1	Mortise Lock	2190 1-1/8" BS 1 628 2-Elect Ext Trim 03-Square	US32D	AD	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	LFIC Mortise Cylinder Housing	Size and Cam as required	US32D	SA	087100
1	Surf Overhead Stop	10-X36 (Size as Required)	630	RF	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Drop Plate	351D (as required)	EN	SA	087100
1	Card Reader	By Security Supplier		OT	
1	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
1	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
1	Position Switch	DPS-MW-BK/GY/WH (as required)		SU	087100
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Perimeter gasket by door / frame manufacturer.

Operation:
• Door is normally closed and latched. Lockset has Storeroom Function, (Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation, releasing the lockset lever on the secure side to to allow authorized entry and then relocking.
• Manual egress is always available by turning the lockset lever on the unsecure side.
• Door position switch will signal the doors OPEN/CLOSED status to the access control panel.
• The lockset is fail secure and will remain locked on activation of fire alarm or in the absence of power.

Set: HQ 6.0

Doors: 101

2	Continuous Hinge	CFM_SLF-HD1 x Length Required		PE	087100
1	Storefront Panic Device - Full Height Pull	PDU8500-3 04	US32D	RO	087100
3	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	LFIC Mortise Cylinder Housing	Size and Cam as required	US32D	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Drop Plate	351D (as required)	EN	SA	087100
1	Blade Stop Spacer Kit	581-1 or 2 (as required)	EN	SA	087100

1	Automatic Opener	6331	689	NO	087100
2	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100
1	Card Reader/Keypad	Provided by Security Supplier			
2	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
2	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
2	Door Switch	505		NO	087100
2	Position Switch	DPS-MW-BK/GY/WH (as required)		SU	087100
1	Audio / Visual Intercom System	Audio / Visual Intercom System w/Remote Release Button - By Access Control		OT	
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Perimeter and meeting stile gasket by door / frame manufacturer.

Operation:
• Doors are normally closed and latched. Exit Devices have Night Latch Function, (Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation and correct digital code entered in the keypad, releasing the electric strike and activating the exterior (Pull Side) auto operator actuator switch to allow authorized entry and then relocking.
• Pressing the auto operator actuator switch (after an authorized card read), will initiate the auto operator to open the active leaf door for assisted entry.
• Alternate Access after audio/visual verification by pressing the remote release button integrated in the Intercom system, releasing the electric strike and activating the auto operator to open the door allowing authorized entry when pressed and then relocking
when released.
• Assisted egress by pressing the auto operator actuator switch to release the electric strike and initiate the auto operator to open the door for assisted egress.
• Manual egress is always available by pressing either exit device push bar of the pair. Latch Bolt Monitor in the electric strike will signal an authorized egress to that access control system.
• Door position switches at each leaf will signal the doors OPEN/CLOSED status to the access control panel.
• The electric strike is fail secure and will remain fixed/locked on activation of fire alarm or in the absence of power.

Set: HQ 7.0

Doors: 133A

1	Continuous Hinge	CFM_SLF-HD1 PT x Length Required		PE	087100

1	Electric Power Transfer	EL-CEPT	630	SU	087100
1	Narrow Rim Exit Device w/Pull (NL, RX, ELR, Cyl. Dogging)	DG164 16 55 56 PE8504 863	US32D	SA	087100
2	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Drop Plate	351D (as required)	EN	SA	087100
1	Blade Stop Spacer Kit	581-1 or 2 (as required)	EN	SA	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Gasketing	Provided By Door/Frame Supplier		OT	
1	Card Reader	By Security Supplier		OT	
1	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
1	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
1	Position Switch	DPS-MW-BK/GY/WH (as required)		SU	087100
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Perimeter gasket by door / frame manufacturer.

Operation:
• Door is normally closed and latched. Exit Device has Night Latch Function, Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation and correct digital code entered in the keypad, releasing the exit latch to allow authorized entry and then relocking.
• Manual egress is always available by pressing the exit device push bar. Request to exit switch in the exit device push bar will signal an authorized egress to that access control system.
• Door position switch will signal the doors OPEN/CLOSED status to the access control panel.
• The exit device is fail secure and will remain latched on activation of fire alarm or in the absence of power.

Set: HQ 8.0

Doors: 112

1	Continuous Hinge	CFM_SLF-HD1 x Length Required		PE	087100
1	Office/Entry Lock	DG164 8205 LNL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Drop Plate	351D (as required)	EN	SA	087100

1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Gasketing	Provided By Door/Frame Supplier		OT	

Notes: Perimeter gasket by door / frame manufacturer.
Minimum 5" Lock Stile to Accommodate Lockset

Set: HQ 9.0

Doors: 107, 109

1	Continuous Hinge	CFM_SLF-HD1 x Length Required		PE	087100
1	Narrow Rim Exit Device (CLRM, Cyl. Dogging)	DG164 16 PE8513 NEL	US32D	SA	087100
2	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Drop Plate	351D (as required)	EN	SA	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Gasketing	Provided By Door/Frame Supplier		OT	

Notes: Sound Gaskets by Door/Frame Manufacturer

Set: HQ 10.0

Doors: 136

2	Continuous Hinge	CFM_SLF-HD1 x Length Required		PE	087100
2	Narrow CVR Exit Device (PASS)	ADPE8415 NEL	US32D	SA	087100
2	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
2	Drop Plate	351D (as required)	EN	SA	087100
2	Blade Stop Spacer Kit	581-1 or 2 (as required)	EN	SA	087100
1	Gasketing	Provided By Door/Frame Supplier		OT	

Notes: Perimeter and meeting stile gasket by door / frame manufacturer.

Set: HQ 11.0

Doors: 122

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Electric Power Transfer	EL-CEPT	630	SU	087100

1	Rim Exit Device (AC Trim-Fail Sec., RX, Cyl. Dogging)	DG164 16 SN200-PE8874 (CR Tech as Required) WEL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
3	Silencer	608		RO	087100
1	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
1	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
1	Position Switch	DPS-MW-BK/GY/WH (as required)		SU	087100
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Perimeter gasket by door / frame manufacturer.

Operation:
• Door is normally closed and latched. Exit Device has Night Latch Function, Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation at reader integrated in exit device trim, releasing the exit trim lever to allow authorized entry and then relocking.
• Manual egress is always available by pressing the exit device push bar. Request to exit switch in the exit device push bar will signal an authorized egress to that access control system.
• Door position switch will signal the doors OPEN/CLOSED status to the access control panel.
• The exit device trim is fail secure and will remain locked on activation of fire alarm or in the absence of power.

Set: HQ 12.0

Doors: 142

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Rim Exit Device (STRM, Cyl. Dogging)	DG164 16 PE8804 WEL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
3	Silencer	608		RO	087100

Set: HQ 13.0

Doors: 105

8	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
2	CVR Exit Device (CLRM, Cyl. Dogging)	DG164 16 MDPE8613 WEL	US32D	SA	087100
4	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
2	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
2	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
2	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
2	Acoustic Astragal	303CS x Door Height		PE	087100
1	Acoustic Perimeter Gasketing	312CR (Head & Jambs)		PE	087100
1	Acoustic Perimeter Gasketing	S44BL 20'		PE	087100
1	Acoustic Corner Pads	ACP112BL/2		PE	087100
2	Acoustic Auto Door Bottom	STC4131CPK x Door Width		PE	087100
1	Acoustic Threshold	2008APK MSES25SS x Length Required)	q	PE	087100
2	Silencer	608		RO	087100

Notes: Mount Sound Seals Prior to mounting closers to ensure continuous perimeter seals

Set: HQ 14.0

Doors: 117, 117A, 125, 130, 135, 137

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Electric Power Transfer	EL-CEPT	630	SU	087100
1	Access Control Mort Lock (CR, Fail Sec., RX, DPS)	DG164 IDP SN200-82271-24V (CR Tech as Required) LNL	US26D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Silencer	608		RO	087100
1	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
1	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100

1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Operation:
• Door is normally closed and locked. Lockset is Storeroom Function, (Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation (Card Reader is integrated in the lockset escutcheon), releasing the lockset lever to allow authorized entry and then relocking.
• Manual egress is always available by turning the interior lockset lever. Request to exit switch integrated in the lockset will signal an authorized egress to that access control system.
• Door position switch will signal the doors OPEN/CLOSED status to the access control panel.
• The electrified lockset is fail secure and will remain locked on activation of fire alarm or in the absence of power.

Set: HQ 15.0

Doors: 144

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Electric Power Transfer	EL-CEPT	630	SU	087100
1	Access Control Mort Lock (CR, Fail Sec., RX, DPS)	DG164 IDP SN200-82271-24V (CR Tech as Required) LNL	US26D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
3	Silencer	608		RO	087100
1	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
1	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Operation:
• Door is normally closed and locked. Lockset is Storeroom Function, (Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation (Card Reader is integrated in the lockset escutcheon), releasing the lockset lever to allow authorized entry and then relocking.
• Manual egress is always available by turning the interior lockset lever. Request to exit switch integrated in the lockset will signal an authorized egress to that access control system.
• Door position switch will signal the doors OPEN/CLOSED status to the access control panel.
• The electrified lockset is fail secure and will remain locked on activation of fire alarm or in the absence of power.

Set: HQ 16.0

Doors: 124, 126, 127, 128, 131, 132, 134

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Electric Power Transfer	EL-CEPT	630	SU	087100
1	Access Control Mort Lock (CR, Fail Sec., RX, DPS)	DG164 IDP SN200-82271-24V (CR Tech as Required) LNL	US26D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surf Overhead Stop	10-X36 (Size as Required)	630	RF	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Silencer	608		RO	087100
1	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
1	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Operation:
• Door is normally closed and locked. Lockset is Storeroom Function, (Key retracts latch, door is locked when key is removed)
• Access by valid credential presentation (Card Reader is integrated in the lockset escutcheon), releasing the lockset lever to allow authorized entry and then relocking.
• Manual egress is always available by turning the interior lockset lever. Request to exit switch integrated in the lockset will signal an authorized egress to that access control system.
• Door position switch will signal the doors OPEN/CLOSED status to the access control panel.
• The electrified lockset is fail secure and will remain locked on activation of fire alarm or in the absence of power.

Set: HQ 17.0

3	Hinge, Full Mortise	TA2714 (NRP and size as required)	US26D	MK	087100
1	Storeroom/Closet Lock	DG164 8204 LNL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100

3	Silencer	608		RO	087100

Set: HQ 18.0

Doors: 143

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Passage Latch	8215 LNL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
3	Silencer	608		RO	087100

Set: HQ 19.0

Doors: 111A

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Passage Latch	8215 LNL	US32D	SA	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Silencer	608		RO	087100

Set: HQ 20.0

Doors: 139

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Classroom Lock	DG164 8237 LNL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Silencer	608		RO	087100

Set: HQ 21.0

Doors: 110

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Classroom Lock	DG164 8237 LNL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core -	US15	SA	087100

	Keyed as directed by Owner			
1	Surface Closer	351 UH	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
3	Silencer	608		RO	087100

Set: HQ 22.0

Doors: 140, 141

3	Hinge, Full Mortise	TA2714 (NRP and size as required)	US26D	MK	087100
1	Privacy Lock w/OCC IND	V21 8265 LNL	US32D	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Silencer	608		RO	087100
1	Coat Hook	RM801	US26D	RO	087100

Set: HQ 23.0

Doors: 120, 121

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Privacy Lock w/OCC IND	V21 8265 LNL	US32D	SA	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
3	Silencer	608		RO	087100
1	Coat Hook	RM801	US26D	RO	087100

Set: HQ 24.0

Doors: 114, 115

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Push Plate	70C-RKW	US32D	RO	087100
1	Pull Plate	BF 110x70C	US32D	RO	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Silencer	608		RO	087100

Set: HQ 25.0

Doors: 125A, 126A, 127A, 128A, 131A, 132A, 134A

1	Bi-Pass Sliding Door Hdwe	HBP200A (Size as Required)		PE	087100
2	Flush Pull	95B	US26D	RO	087100

Set: HQ 26.0

Doors: 117B, 139C

1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	LFIC Mortise Cylinder Housing	Size and Cam as required	US32D	SA	087100
1		All Hardware Provided By Door Supplier			

Set: HQ 27.0

Doors: 106, 108

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Passage Latch	8215 LNL	US32D	SA	087100
1	Surface Closer	351 UH	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
3	Silencer	608		RO	087100

Set: HQ 28.0

Doors: 129

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Passage Latch	8215 LNL	US32D	SA	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
3	Silencer	608		RO	087100

END OF SECTION 087100

SECTION 08 71 01 - DOOR HARDWARE – MAINTENANCE BUILDING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Sliding doors.
3. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.
2. Division 08 Section “Flush Wood Doors”.
3. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.

2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
3. Content: Include the following information:

    a. Type, style, function, size, label, hand, and finish of each door hardware item.
    b. Manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    e. Explanation of abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for door hardware.
    g. Door and frame sizes and materials.
    h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
b. Complete (risers, point-to-point) access control system block wiring diagrams.
c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

1.4 CLOSEOUT SUBMITTALS

A. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

B. Project Record Documents: Provide record documentation of as-built door hardware sets in digital format (.pdf, .docx, .xlsx, .csv) and as required in Division 01, Project Record Documents.

1.5 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that

indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.

G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

I. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

1.6 DELIVERY, STORAGE AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.7 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.8 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 BUTT HINGES

A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for all out-swinging lockable doors.

5. Manufacturers:

a. Ives (IV) - 5BB Series, 5-knuckle.
b. McKinney (MK) - TA/T4A Series, 5-knuckle.
c. dormakaba BEST (ST) - F/FBB Series, 5-knuckle.

2.2 POWER TRANSFER DEVICES

A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

    a. Architectural Builders Hardware (AH) - PT1000-EZ Series.
    b. Pemko (PE) - EL-CEPT Series.
    c. Securitron (SU) - EL-CEPT Series.

B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:

    a. McKinney (MK) - Electrical Connecting Kit: QC-R001.
    b. McKinney (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

    a. McKinney (MK) - QC-C Series.
    b. Schlage (SC) - Connect.
    c. dormakaba BEST (ST) - WH Series.

2.3 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Pulls, where applicable, shall be provided with a 10” clearance from the finished floor on the push side to accommodate wheelchair accessibility.
5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
6. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

2.4 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

1. Manufacturers:

    a. Corbin Russwin Hardware (RU).
    b. Sargent Manufacturing (SA).

B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:

1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.
5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Manufacturer’s Standard.

C. Large Format Interchangeable Cores: Provide removable cores (LFIC) as specified, core insert, removable by use of a special key, and for use with only the core manufacturer's cylinder and door hardware.

D. Patented Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed cylinders employing a utility patented and restricted keyway requiring the use of a patented key. Cylinders are to be protected from unauthorized manufacture and distribution by manufacturer’s United States patents. Cylinders are to be factory keyed with owner having the ability for on-site original key cutting.

1. Patented key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
2. Manufacturers:

    a. Corbin Russwin (RU) - Access 3 AP.
    b. Sargent (SA) - Degree DG1.

E. Keying System: Each type of lock and cylinders to be factory keyed.

1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. New System: Key locks to a new key system as directed by the Owner.

F. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).
4. Construction Control Keys (where required): Two (2).
5. Permanent Control Keys (where required): Two (2).

G. Construction Keying: Provide construction master keyed cylinders.

H. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.5 MORTISE LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all functions and features as specified herein.

1. Manufacturers:

a. Corbin Russwin Hardware (RU) - ML2000 Series.
b. Sargent Manufacturing (SA) - 8200 Series.

2.1 INTEGRATED WIRED OUTPUT LOCKING DEVICES - MULTI-CLASS READER

A. Integrated Wired Output Multi-Class Mortise Locks: Wiegand or Open Supervised Device Protocol (OSDP) output ANSI A156.13, Grade 1, mortise lockset with integrated card reader with or without keypad option, request-to-exit signaling, door position status switch, and latchbolt monitoring in one complete unit. Hard wired, solenoid driven locking/unlocking control of the lever handle trim, 3/4" deadlocking anti-friction latch, and 1" case-hardened steel deadbolt. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.

1. Open architecture, hard wired platform supports centralized control of locking units with new or existing Wiegand or OSDP compatible access control systems. Latchbolt monitoring and door position switch act in conjunction to report door-in-frame (DPS) and door latched (door closed and latched) conditions.
2. Integrated reader supports the following credentials:

a. 125kHz proximity credentials: HID, AWID, Indala, and EM4102.
b. 13.56 MHz proximity credentials: HID Secure Identity Object™ (SIO) on iCLASS Seos, HID iCLASS, HID iCLASS SE/SR, MIFARE Classic, DESFire EV1 and EV2.
c. 2.4 GHz credentials: Secure Identity Object™ (SIO) on Mobile IDs (Bluetooth Smart)

d. ISO14443A/B (PIV-compatible Transparent FASC-N read) available with pivCLASS variant
e. NFC-enabled mobile phones
f. PIN code only or PIN + credential with keypad option.

3. 12VDC external power supply required for reader and lock, with optional 24VDC lock solenoid. Fail safe or fail secure options.
4. Energy Efficient Design: Provide lock bodies which have a holding current draw of 500mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
5. Support end-of-line resistors contained within the lock case.
6. Installation requires only one cable run from the lock to the access control panel without requirements for additional proprietary lock panel interface boards or modules.
7. Installation to include manufacturer's access control panel interface board or module where required for Wiegand or OSDP output protocol.
8. Manufacturers:

a. Corbin Russwin (RU) - ML2000 SN Series.
b. Sargent Manufacturing (SA) - SN200/SN210 8200 Series.

2.2 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.3 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. Exit devices shall have a five-year warranty.

2. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
3. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
4. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
5. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

    a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
    b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
10. Rail Sizing: Provide exit device rails factory sized for proper door width application.
11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed exit devices. Listed manufacturers shall meet all functions and features as specified herein.

1. Provide exit devices with functions and features as follows:

    a. Where required by code, provide knurling or abrasive coating on all levers leading to hazardous areas.
    b. Meets UL and CUL Standard 10C Positive Pressure, Fire Test of Door Assemblies with levers that meet A117.1 Accessibility Code.
    c. No catch points: addition of applied deflectors or other added components are not allowed.
    d. No visible plastic.
    e. Heavy duty end caps with flush and overlapping options made of stainless steel, brass, or bronze with architectural finishes.
    f. Constructed of all stainless steel.
    g. Stainless steel pullman type latch with deadlock feature.
    h. Narrow or wide style exterior trim as specified in the hardware sets.

i. Center case adjustability on concealed vertical rod exit devices; single operation with hex key individually adjusts top or bottom latches. No retainer screws or clips required to maintain adjustment.
j. Ten-year limited warranty for mechanical features.

2. Manufacturers:

a. Corbin Russwin Hardware (RU) - PED4000 / PED5000 Series.
b. Sargent Manufacturing (SA) - PE80 Series.

2.4 SURFACE DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Heavy duty surface mounted door closers shall have a 30-year warranty.

2. Manufacturers:

a. Corbin Russwin Hardware (RU) - DC6000 Series.
b. Norton Rixson (NO) - 7500 Series.
c. Sargent Manufacturing (SA) - 351 Series.

2.5 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:

    a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

2.6 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

2.7 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and

provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko (PE).
2. Reese Enterprises, Inc. (RE).
3. Zero (ZE).

2.8 ELECTRONIC ACCESSORIES

A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.

1. Manufacturers:

a. Sargent Manufacturing (SA) - 3280 Series.
b. Securitron (SU) - DPS Series.

B. Switching Power Supplies: Provide the least number of power supplies at the appropriate amperage level sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.

1. Power supplies shall meet all functions and features as specified herein.

a. UL listed dual voltage 12 or 24 VDC field selectable continuous output.
b. Tolerates brownout or overvoltage input ± 15% of nominal voltage.
c. Thermal shutdown protection with auto restart.
d. Circuit breaker protection against overcurrent and reverse battery faults.
e. Integrated battery charging circuit to prevent overvoltage on locking devices.
f. Available with a single relay fire trigger or individually triggered relayed outputs.
g. Monitoring options as specified.

2. Manufacturers:

a. Altronix (AS) - Maximal 3.
b. Life Safety Power (LP).
c. Securitron (SU) - AQD Series.

2.9 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.10 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Push Plates and Door Pulls: When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.

E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to

operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.5 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.6 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.7 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.
3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

B. Manufacturer’s Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. SA - SARGENT
4. SU - Securitron
5. RO - Rockwood
6. AD - Adams Rite
7. RF - Rixson
8. NO - Norton

9. OT - Other

Hardware Sets

Set: M 1.0

Doors: 100, 107A, 107B, 107F

3	Hinge, Full Mortise, Hvy Wt	T4A3386 (NRP and size as required)	US32D	MK	087100
1	Electric Power Transfer	EL-CEPT	630	SU	087100
1	Access Control Mort Lock (CR/KP, Fail Sec., RX, DPS)	DG164 IDP SN200-82271-24V (CR/KP Tech as Required) LNL	US26D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Perimeter Gasketing	303AS (Head & Jambs)		PE	087100
1	Rain Guard	346C x Width of Frame Head		PE	087100
1	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100
1	ElectroLynx Harness (Door)	QC-Cxxx (Size as Required)		MK	087100
1	ElectroLynx Harness (Frame)	QC-C3000P		MK	087100
1	Power Supply	AQD (Size and Options as required)		SU	087100
1	Wiring Diagram	Elevation and Point to Point as Specified		OT	

Notes: Operation:
• Door is normally closed and latched. lockset is Storeroom Function, Key retracts latch, door is locked when key is removed).
• Access by valid credential presentation and correct digital code entered in the keypad (Card Reader and Keypad are integrated in the lockset escutcheon), releasing the lockset lever to allow authorized entry and then relocking.
• Manual egress is always available by turning the interior lockset lever. Request to exit switch integrated in the lockset will signal an authorized egress to that access control system.
• Door position switch will signal the doors OPEN/CLOSED status to the access control panel.
• The Access Control lockset is fail secure and will remain locked on activation of fire alarm or in the absence of power.

Set: M 2.0

Doors: 101

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Rim Exit Device (STRM, Cyl. Dogging)	DG164 16 PE8804 WEL	US32D	SA	087100
2	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
3	Silencer	608		RO	087100

Set: M 3.0

Doors: 102

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Storeroom/Closet Lock	DG164 8204 LNL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
3	Silencer	608		RO	087100

Set: M 4.0

Doors: 104

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Office/Entry Lock	DG164 8205 LNL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Silencer	608		RO	087100

Set: M 5.0

Doors: 103

3	Hinge, Full Mortise	TA2714 (NRP and size as required)	US26D	MK	087100
1	Passage Latch	8215 LNL	US32D	SA	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Silencer	608		RO	087100

Set: M 6.0

Doors: 105, 106

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Push Plate	70C-RKW	US32D	RO	087100
1	Pull Plate	BF 110x70C	US32D	RO	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Wall or Floor Stop (as Required)	403 (or) 441CU (As Required)	US26D	RO	087100
1	Silencer	608		RO	087100

Set: M 7.0

Doors: 101.1, 107.1, 107.2, 107.3, 107.4, 107.5, 107.6, 107.7, 107.8

1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
1	LFIC Mortise Cylinder Housing	Size and Cam as required	US32D	SA	087100
1		All Hardware Provided By Door Supplier			

END OF SECTION 087100

SECTION 08 71 02 - DOOR HARDWARE – TRAINING TOWER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Sliding doors.
3. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Automatic operators.
4. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.
2. Division 08 Section “Flush Wood Doors”.
3. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.
4. Division 08 Section “Automatic Door Operators”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
8. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
3. Content: Include the following information:

    a. Type, style, function, size, label, hand, and finish of each door hardware item.
    b. Manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    e. Explanation of abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for door hardware.
    g. Door and frame sizes and materials.
    h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

    a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    b. Complete (risers, point-to-point) access control system block wiring diagrams.
    c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

1.4 CLOSEOUT SUBMITTALS

A. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

B. Project Record Documents: Provide record documentation of as-built door hardware sets in digital format (.pdf, .docx, .xlsx, .csv) and as required in Division 01, Project Record Documents.

1.5 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this

Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.

G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

I. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

1.6 DELIVERY, STORAGE AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.7 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.8 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

4. Electrical component defects and failures within the systems operation.

C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 BUTT HINGES

A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for all out-swinging lockable doors.

5. Manufacturers:

a. Ives (IV) - 5BB Series, 5-knuckle.
b. McKinney (MK) - TA/T4A Series, 5-knuckle.
c. dormakaba BEST (ST) - F/FBB Series, 5-knuckle.

2.2 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Pulls, where applicable, shall be provided with a 10” clearance from the finished floor on the push side to accommodate wheelchair accessibility.
5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
6. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

2.3 MORTISE LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all functions and features as specified herein.

1. Provide locksets with functions and features as follows:

    a. Heavy duty 12-gauge wrought steel case.
    b. Stainless steel 3/4" one-piece anti-friction reversible latchbolt with a one-piece hardened stainless steel 1” projection deadbolt.
    c. Where required by code, provide knurling or abrasive coating on all levers leading to hazardous areas.
    d. Meets UL and CUL Standard 10C Positive Pressure, Fire Test of Door Assemblies with levers that meet A117.1 Accessibility Code.
    e. Meets UL Certification Directory ZHLL.R21744 for products used in windstorm rated assemblies.
    f. Extended cycle test: Locks to have been cycle tested in ordinance with ANSI/BHMA 156.13 requirements to 16 million cycles or greater.
    g. Status indicators inside, outside, or on both sides of doors as specified; available with wording for “locked/unlocked”, “vacant/occupied” or custom wording options. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status.
    h. Ten-year limited warranty for mechanical functions.

2. Manufacturers:

a. Corbin Russwin Hardware (RU) - ML2000 Series.
b. Sargent Manufacturing (SA) - 8200 Series.

2.4 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.5 SURFACE DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Heavy duty surface mounted door closers shall have a 30-year warranty.

2. Manufacturers:

   a. Corbin Russwin Hardware (RU) - DC6000 Series.
   b. Norton Rixson (NO) - 7500 Series.
   c. Sargent Manufacturing (SA) - 351 Series.

2.6 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:

   a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:

   a. Burns Manufacturing (BU).
   b. Hiawatha, Inc. (HI).
   c. Rockwood (RO).

2.7 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

a. Burns Manufacturing (BU).
b. Hiawatha, Inc. (HI).
c. Rockwood (RO).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

a. Norton Rixson (RF).
b. Rockwood (RO).
c. Sargent Manufacturing (SA).

2.8 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko (PE).
2. Reese Enterprises, Inc. (RE).
3. Zero (ZE).

2.9 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.10 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Push Plates and Door Pulls: When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.

E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.5 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.6 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.7 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.
3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

B. Manufacturer’s Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. RO - Rockwood
4. SA - SARGENT
5. RF - Rixson

Hardware Sets

Set: TR 1.0

Doors: 101, 102, 103, 206, 207, 209, 301, 303, 405, 406, 501, 503

3	Hinge, Full Mortise, Hvy Wt	T4A3386 (NRP and size as required)	US32D	MK	087100
1	Passage Latch	8215 LNL	US32D	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Perimeter Gasketing	303AS (Head & Jambs)		PE	087100
1	Rain Guard	346C x Width of Frame Head		PE	087100
1	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100

Set: TR 2.0

Doors: 204, 205, 403, 404

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Passage Latch	8215 LNL	US32D	SA	087100
1	Surf Overhead Stop	10-X36 (Size as Required)	630	RF	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Perimeter Gasketing	303AS (Head & Jambs)		PE	087100
1	Rain Guard	346C x Width of Frame Head		PE	087100
1	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100

Set: TR 3.0

Doors: 202, 203

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Passage Latch	8215 LNL	US32D	SA	087100
1	Surf Overhead Stop	10-X36 (Size as Required)	630	RF	087100
1	Surface Closer	351 UO (RA, TJ or PA Mount as Required)	EN	SA	087100
3	Silencer	608		RO	087100

Set: TR 4.0

Doors: 302, 304, 401, 402, 502, 504

3	Hinge, Full Mortise, Hvy Wt	T4A3786 (NRP and size as required)	US26D	MK	087100
1	Passage Latch	8215 LNL	US32D	SA	087100
1	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
1	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1	Silencer	608		RO	087100

END OF SECTION 087100

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SECTION 08 71 03 - DOOR HARDWARE - PAVILLION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Sliding doors.
3. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.
2. Division 08 Section “Flush Wood Doors”.
3. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.

2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
3. Content: Include the following information:

    a. Type, style, function, size, label, hand, and finish of each door hardware item.
    b. Manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    e. Explanation of abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for door hardware.
    g. Door and frame sizes and materials.
    h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
b. Complete (risers, point-to-point) access control system block wiring diagrams.
c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

1.4 CLOSEOUT SUBMITTALS

A. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

B. Project Record Documents: Provide record documentation of as-built door hardware sets in digital format (.pdf, .docx, .xlsx, .csv) and as required in Division 01, Project Record Documents.

1.5 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that

indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.

G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

I. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

1.6 DELIVERY, STORAGE AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.7 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.8 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 BUTT HINGES

A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for all out-swinging lockable doors.

5. Manufacturers:

a. Ives (IV) - 5BB Series, 5-knuckle.
b. McKinney (MK) - TA/T4A Series, 5-knuckle.
c. dormakaba BEST (ST) - F/FBB Series, 5-knuckle.

2.2 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.

2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Pulls, where applicable, shall be provided with a 10” clearance from the finished floor on the push side to accommodate wheelchair accessibility.
5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
6. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

2.3 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

1. Manufacturers:

    a. Corbin Russwin Hardware (RU).
    b. Sargent Manufacturing (SA).

B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:

1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.
5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Manufacturer’s Standard.

C. Large Format Interchangeable Cores: Provide removable cores (LFIC) as specified, core insert, removable by use of a special key, and for use with only the core manufacturer's cylinder and door hardware.

D. Patented Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed cylinders employing a utility patented and restricted keyway requiring the use of a patented key. Cylinders are to be protected from unauthorized manufacture and distribution by manufacturer’s United States patents. Cylinders are to be factory keyed with owner having the ability for on-site original key cutting.

1. Patented key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
2. Manufacturers:

    a. Corbin Russwin (RU) - Access 3 AP.
    b. Sargent (SA) - Degree DG1.

E. Keying System: Each type of lock and cylinders to be factory keyed.

1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. New System: Key locks to a new key system as directed by the Owner.

F. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).
4. Construction Control Keys (where required): Two (2).
5. Permanent Control Keys (where required): Two (2).

G. Construction Keying: Provide construction master keyed cylinders.

H. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.4 MORTISE LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all functions and features as specified herein.

1. Manufacturers:

    a. Corbin Russwin Hardware (RU) - ML2000 Series.
    b. Sargent Manufacturing (SA) - 8200 Series.

2.5 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.6 SURFACE DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Heavy duty surface mounted door closers shall have a 30-year warranty.

2. Manufacturers:

a. Corbin Russwin Hardware (RU) - DC6000 Series.

b. Norton Rixson (NO) - 7500 Series.
c. Sargent Manufacturing (SA) - 351 Series.

2.7 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:

    a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

2.8 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Hiawatha, Inc. (HI).
    c. Rockwood (RO).

2.9 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko (PE).
2. Reese Enterprises, Inc. (RE).
3. Zero (ZE).

2.10 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.11 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Push Plates and Door Pulls: When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.

E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.5 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.6 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.7 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.

3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

B. Manufacturer's Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. SA - SARGENT
4. RO - Rockwood
5. RF - Rixson
6. NO - Norton
7. OT - Other

Hardware Sets

Set: P 1.0

Doors: 100

8	Hinge, Full Mortise, Hvy Wt	T4A3386 (NRP and size as required)	US32D	MK	087100
1	Self Latching Flush Bolt Set	2845 / 2945 (as required)	US26D	RO	087100
1	Dust Proof Strike	570	US26D	RO	087100
1	Storeroom/Closet Lock	DG164 8204 LNL	US32D	SA	087100
1	LFIC Core	Large Format Interchangeable Core - Keyed as directed by Owner	US15	SA	087100
2	Surface Closer	351 CPS (HD Cush STP Arm)	EN	SA	087100
2	Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
2	Astragal	29324CNB x Door Height		PE	087100
1	Perimeter Gasketing	303AS (Head & Jambs)		PE	087100
1	Rain Guard	346C x Width of Frame Head		PE	087100
2	Sweep	3452CNB x Length Required		PE	087100
1	Threshold	273x224AFGT MSES25SS x Length Required		PE	087100

END OF SECTION 087100

SECTION 11 29 34
SHIPPING CONTAINERS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Shipping containers for use in training facility construction.

1.02 RELATED REQUIREMENTS

A. Section 06 73 00 Composite Decking: Decking material for upper deck as indicated on the drawings.

1.03 REFERENCE STANDARDS

A. International Maritime Organization (IMO):: International Convention for Safe Containers (CSC).

B. ISO Standards: ISO 668:2022 - 2020 ISO 668(E) (Amended 2022) Series 1 freight containers-Classification, dimensions and ratings.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate actual dimensions and structure of units with other components of the Work.

1.05 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements for submittal procedures.

B. Product Data: Complete information on units to be used.

C. Shop Drawings: Indicate Detailed dimensions and location of openings and structural modifications.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with minimum 3 years of documented experience.

PART 2 PRODUCTS

2.01 SHIPPING CONTAINERS

A. Description
   1. Standard High Cube Dry Shipping Containers intended for shipping by rail, road, or sea.
      a. Opening Locations: As indicated on the drawings.
      b. Designed and constructed to prevent moisture intrusion.
   2. Nominal dimensions 8-feet wide, 9'-6"-high, 20-feet long and 40-feet long as indicated on the drawings.

B. Weight and Loading capacities:
   1. 20-foot container: Weight 5,071 lbs. Load capacity: 62,016 lbs.
   2. 40-foot container: Weight 8,378 lbs. Load capacity: 63,383 lbs

C. Materials
   1. Walls: 16-14 ga. Corrugated, Cor-Ten Steel, minimum.
      a. Finish: Marine grade paint, color as selected by Architect from Manufacturer's full line.
   2. Corner Posts: 7-3 ga. heavy structural members.
   3. Door Pahels: 14-12 ga.
   4. Roof Panels: 16-14 ga. , corrugated.
   5. Floor: 28 mm marine grade plywood over steel cross members.

D. Fittings: Provide manufacturer's standard meeting IMO and ISO requirements.
   1. Corner posts
   2. Corner castings
   3. Twist lock mechanisms

4. Fork lift pockets
5. Crossmembers
6. Cargo doors

E. Assembly:
1. Factory assemble.
2. Shop fabricate to greatest extent possible.

PART 3 EXECUTION

3.01 INSTALLATION

A. Modify and install containers as indicated on the drawings.

3.02 CLEANING

A. Remove all protective masking from material immediately after installation.

B. Protection:
1. Ensure that the finishes and structure of installed systems are not damaged by subsequent construction activities.
2. If minor damage to finishes occurs, repair damage in accordance with manufacturer's recommendations; provide replacement components if repaired finishes are unacceptable to Architect.

C. Prior to Substantial Completion:
1. Clean finishes in accordance with manufacturer's instructions.

3.03 PROTECTION

A. Protect installed shipping containers from subsequent construction operations.

B. Do not permit traffic over unprotected floor surface.

END OF SECTION

SECTION 13 34 19
METAL BUILDING SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Manufacturer-engineered, shop-fabricated structural steel building frame.

B. Metal wall and roof panels including soffits and gutters and downspouts.

C. Exterior doors, windows, overhead doors, and louvers.

1.02 RELATED REQUIREMENTS

A. Section 05 50 00 - Metal Fabrications.

B. Section 07 21 00 - Thermal Insulation.

C. Section 07 92 00 - Joint Sealants: Sealing joints between accessory components and wall system.

D. Section 08 11 13 - Hollow Metal Doors and Frames.

E. Section 08 36 13 - Sectional Doors.

F. Section 08 43 13 - Aluminum Framed Storefronts

G. Section 08 80 00 - Glazing.

1.03 REFERENCE STANDARDS

A. AISC 360 - Specification for Structural Steel Buildings; 2022, with Errata (2025).

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

C. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.

D. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2023.

E. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing; 2021.

F. ASTM A529/A529M - Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality; 2019.

G. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.

H. ASTM C1107/C1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2020.

I. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength; 2020.

J. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi, 144 ksi, and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength; 2025.

K. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2020.

L. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification; 2021, with Errata (2023).

M. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2025.

N. IAS AC472 - Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems; 2024.

O. MBMA (MBSM) - Metal Building Systems Manual; 2024.

1.04 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data on profiles, component dimensions, fasteners.

C. Shop Drawings: Indicate assembly dimensions, locations of structural members, connections; wall and roof system dimensions, panel layout, general construction details, anchors and methods of anchorage, and installation; framing anchor bolt settings, sizes, locations from datum, and foundation loads; indicate welded connections with AWS A2.4 welding symbols; indicate net weld lengths; provide professional seal and signature.

D. Samples: Submit two samples of precoated metal panels for each color selected, 6 by 6 inch in size illustrating color and texture of finish.

E. Manufacturer's Instructions: Indicate preparation requirements, anchor bolt placement.

F. Erection Drawings: Indicate members by label, assembly sequence, and temporary erection bracing.

G. Designer's Qualification Statement.

H. Manufacturer's Qualification Statement: Provide documentation showing metal building manufacturer is accredited under IAS AC472.

I. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated no more than 12 months before start of scheduled welding work.

J. Project Record Documents: Record actual locations of concealed components and utilities.

1.05 QUALITY ASSURANCE

A. Designer Qualifications: Design structural components, develop shop drawings, and perform shop and site work under direct supervision of a Professional Structural Engineer experienced in design of this type of work.
   1. Design Engineer Qualifications: Licensed in Missouri.
   2. Comply with applicable code for submission of design calculations as required for acquiring permits.
   3. Cooperate with regulatory agency or authorities having jurisdiction (AHJ), and provide data as requested.

B. Perform work in accordance with AISC 360, MBMA (MBSM), and local codes.

C. Manufacturer Qualifications: Company specializing in the manufacture of products similar to those required for this project.
   1. Not less than ten years of documented experience.
   2. Accredited by IAS in accordance with IAS AC472.

D. Erector Qualifications: Company specializing in performing the work of this section with minimum ten years experience.

E. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M and no more than 12 months before start of scheduled welding work.

1.06 WARRANTY

A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

B. Correct defective Work within a five year period after Date of Substantial Completion.

C. Provide 20 year manufacturer warranty for exterior finishes.
   1. Include coverage for exterior pre-finished surfaces to cover pre-finished color coat against chipping, cracking or crazing, blistering, peeling, chalking, or fading. Include coverage for weather tightness of building enclosure elements after installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Metal Buildings Systems:

1. Butler Manufacturing Company: www.butlermfg.com/#sle.
2. Nucor Building Systems: www.nucorbuildingsystems.com/#sle.
3. VP Buildings: www.vp.com/#sle.
4. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 ASSEMBLIES

A. Single span rigid frame.

B. Configuration and Bay Spacing: As indicated on the drawings.

C. Primary Framing: Rigid frame of rafter beams and columns, end wall columns, and wind bracing.

D. Secondary Framing: Purlins, and other items detailed.

E. Wall System: Special systems as indicated on the drawings.

F. Roof System: Preformed metal panels oriented parallel to slope, with sub-girt framing/anchorage assembly, insulation, and liner panels, and accessory components.

G. Roof Slope: As indicated on the drawings.

2.03 PERFORMANCE REQUIREMENTS

A. Structural Performance: Metal building systems to withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to procedures in MBMA's "Metal Building Systems Manual."
   1. Design Loads: As indicated on Drawings
   2. Deflection and Drift Limits:
      a. No greater than the following:
         1) Purlins and Rafters: Vertical deflection of 1/180 of the span.
         2) 2)Girts: Horizontal deflection of 1/90 of the span. When supporting masonry, Horizontal deflection of 1/600 of the span.
   3. Metal Roof Panels: Vertical deflection of 1/90 of the span.
   4. Metal Wall Panels: Horizontal deflection of 1/90 of the span.
   5. Design secondary-framing system to accommodate deflection of primary framing and construction tolerances, and to maintain clearances at openings.
   6. Lateral Drift: Maximum of 1/500 of the building height.

B. Exterior wall system shall be designed for masonry veneer with appropriate stiffness to prohibit cracking due to structural movement.

C. Provide drainage to exterior for water entering or condensation occurring within wall or roof system.

D. Permit movement of components without buckling, failure of joint seals, undue stress on fasteners or other detrimental effects, when subject to temperature range of 140 degrees F.

E. Size and fabricate wall and roof systems free of distortion or defects detrimental to appearance or performance.

2.04 MATERIALS - FRAMING

A. Structural Steel Members: ASTM A36/A36M.

B. Structural Tubing: ASTM A500/A500M Grade B cold-formed.

C. Plate or Bar Stock: ASTM A529/A529M, Grade 50.

D. Anchor Bolts: ASTM F1554, Grade 55, Class 1A, with no preference for protective coating.

E. Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1; galvanized to ASTM A153/A153M.

F. Welding Materials: Perform in accordance with AWS D1.1/D1.1M.

G. Primer: SSPC -15, Metal Building Primer.

H. Grout: ASTM C1107/C1107M; Non-shrink; premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
   1. Minimum Compressive Strength at 48 Hours: 2,000 pounds per square inch.
   2. Minimum Compressive Strength at 28 Days: 7,000 pounds per square inch.

2.05 MATERIALS - WALLS AND ROOF

A. Steel Sheet: Hot-dipped galvanized steel sheet, ASTM A653/A653M, Designation SS (structural steel), Grade 33 (230), with G90/Z275 coating.

B. Insulation types as indicated on the drawings and in applicable Division 07 specification sections.

C. Joint Seal Gaskets: Manufacturer's standard type.

D. Fasteners: Manufacturer's standard type, galvanized to comply with requirements of ASTM A153/A153M, finish to match adjacent surfaces when exterior exposed.

E. Bituminous Paint: Asphaltic type.

F. Trim, Closure Pieces, Caps, Flashings, Gutters, Downspouts, Fascias and Infills: Same material, thickness and finish as exterior sheets; brake formed to required profiles.

2.06 COMPONENTS

A. Doors and Frames: See Section 08 11 13.

B. Overhead Doors: See Section 08 36 13.

2.07 FABRICATION - FRAMING

A. Fabricate members in accordance with AISC 360 for plate, bar, tube, or rolled structural shapes.

B. Anchor Bolts: Formed with bent shank, assembled with template for casting into concrete.

C. Provide framing for skylight openings.

D. Provide wall opening framing for doors, windows, and other accessory components.

2.08 FABRICATION - SIDING AND ROOF PANELS

A. Siding: Product as indicated on the drawings.

B. Roofing: Minimum 0.0239 inch metal thickness, profile as indicated on the drawings, lapped edges fitted with continuous gaskets.

C. Liner: Minimum 0.0239 inch metal thickness, ribbed profile, lapped V edges fitted with continuous gaskets or continuous tape mastic.
   1. Product: BlueScope Panel Rib system or similar.
   2. Verticle ribs, 12-inches on center, 36-inch coverage.
   3. Panel height as indicated on the drawings.
   4. Corner Trim: Provide manufacture's inside and outside corner trim matching wall panel product
   5. Attachment: Manufacturer's recommended fasteners, minimum #12-14 X 1-1/4" at 1'-0" o.c. Increase fastener size and provide standoffs as necessary to accommodate insulation.

D. Soffit Panels: Minimum 0.0239 inch metal thickness, flat profile indicated, perforated for ventilation.

E. Girts/Purlins: Rolled formed structural shape to receive siding, roofing and liner sheet.

F. Internal and External Corners: Same material thickness and finish as adjacent material, profile brake formed to required angles. Back brace mitered internal corners with 0.0239 inch thick sheet.

G. Expansion Joints: Same material and finish as adjacent material where exposed, 0.0239 inch thick, infill type, of profile to suit system.

H. Flashings, Closure Pieces, Fascia: Same material and finish as adjacent material, profile to suit system.

I. Fasteners: To maintain load requirements and weather tight installation, same finish as cladding, non-corrosive type.

2.09 FABRICATION - GUTTERS AND DOWNSPOUTS

A. Fabricate of same material and finish as roofing metal.

B. Form gutters and downspouts and scuppers of profile and size indicated to collect and remove water. Fabricate with connection pieces.

C. Form sections in maximum possible lengths. Hem exposed edges. Allow for expansion at joints.

D. Fabricate support straps of same material and finish as roofing metal, color to match wall panels.

2.10 FINISHES

A. Framing Members: Clean, prepare, and shop prime.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that foundation, floor slab, mechanical and electrical utilities, and placed anchors are in correct position

3.02 ERECTION - FRAMING

A. Erect framing in accordance with AISC 360.

B. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection and installation of permanent bracing. Locate braced bays as indicated.

C. Set column base plates with non-shrink grout to achieve full plate bearing.

D. Do not field cut or alter structural members without approval.

E. After erection, prime welds, abrasions, and surfaces not shop primed.

3.03 ERECTION - ROOF PANELS

A. Install in accordance with manufacturer's instructions.

B. Exercise care when cutting prefinished material to ensure cuttings do not remain on finish surface.

C. Fasten cladding system to structural supports, aligned level and plumb.

D. Locate end laps over supports. End laps minimum 2 inches. Place side laps over bearing.

E. Provide expansion joints where indicated.

F. Use concealed fasteners.

G. Install insulation and vapor retarder utilizing manufacturer's recommended product for attachment.

H. Install sealant and gaskets, providing weather tight installation.

3.04 ERECTION - GUTTERS AND DOWNSPOUTS

A. Rigidly support and secure components. Join lengths with formed seams sealed watertight. Flash and seal gutters to downspouts.

B. Slope gutters minimum 1/4 inch/ft.

3.05 TOLERANCES

A. Framing Members: 1/4 inch from level; 1/8 inch from plumb.

B. Siding and Roofing: 1/8 inch from true position.

END OF SECTION

SHEET INDEX - GENERAL

SHEET NUMBER	SHEET NAME	09/16/2025 - BID / PERMIT
GENERAL		
G000	COVER SHEET	■
G001	SHEET INDEX	■
ARCHITECTURAL		
A001	TYP NOTES, SYMB, & RULES	■
A002	TYPICAL MOUNTING HEIGHTS	■
A003	FRAMING DETAILS	■
A004	PARTITION DETAILS TYP.	■
A005	CEILING & ROOF DETAILS TYP.	■
A006	DETAILS TYP.	■
A007	DUMPSTER ENCLOSURE	■
AS001	ARCHITECTURAL SITE PLAN	■
AS002	ARCHITECTURAL SITE DETAILS	■
STRUCTURAL		
S001	GENERAL NOTES	■
S002	SPECIAL INSPECTIONS	■
S003	TYPICAL DETAILS	■
S004	TYPICAL DETAILS	■
S005	TYPICAL DETAILS	■
S006	TYPICAL DETAILS	■
S007	TYPICAL DETAILS	■
S008	TYPICAL DETAILS	■
MECHANICAL		
M001	MECHANICAL SYMBOLS & ABBRV.	■
M002	MECHANICAL SCHEDULES	■
M003	MECHANICAL SCHEDULES	■
M004	MECHANICAL DETAILS	■
M005	MECHANICAL DETAILS	■
M006	MECHANICAL SEQUENCES	■
PLUMBING		
P001	PLUMBING SYMBOLS AND ABBREV.	■
P002	PLUMBING DETAILS	■
P003	PLUMBING DETAILS	■
P004	PLUMBING SCHEDULES	■
FIRE PROTECTION		
FP001	FIRE PROT. SYMBOLS AND ABBREV.	■
FP002	FIRE PROTECTION DETAILS	■
ELECTRICAL		
E001	ELECTRICAL SYMBOLS & ABBREVIATIONS	■
E002	ELECTRICAL DETAILS	■
E003	ELECTRICAL DETAILS	■
E004	ELECTRICAL SCHEDULES & LV MATRIX	■
E005	ELECTRICAL SCHEDULES & ONE-LINE	■
E006	PARTIAL ELECTRICAL SITE PLAN - AREA A	■
E007	PARTIAL ELECTRICAL SITE PLAN - AREA B	■
CIVIL		
C1.0	TITLE SHEET	■
C2.0	SPECIFICATIONS SHEET	■
C3.0	OVERALL SITE PLAN	■
C4.0	EXISTING CONDITIONS & FACILITIES REMOVAL PLAN	■
C4.1	EXISTING CONDITIONS & FACILITIES REMOVAL PLAN	■
C5.0	SITE & GRADING PLAN	■
C5.1	SITE & GRADING PLAN	■
C6.0	SITE GEOMETRY AND UTILITY PLAN	■
C6.1	SITE GEOMETRY AND UTILITY PLAN	■
C7.0	SEWER PROFILES	■
C7.1	SEWER PROFILES AND HYDRAULIC DATA	■
C8.0	SITE DETAILS	■
C8.1	SITE DETAILS	■
C9.0	BMP PLAN	■
C10.0	DRAINAGE AREA PLAN	■
C11.0	STORM WATER POLLUTION PREVENTION PLAN	■
C11.1	STORM WATER POLLUTION PREVENTION PLAN DETAILS	■
LANDSCAPE		
L1.01	PLAN - WEST	■
L1.02	PLAN - EAST	■
L1.04	SPECIFICATIONS	■
L2.01	DIAGRAM - WEST	■
L2.02	DIAGRAM - EAST	■

SHEET INDEX - HEADQUARTERS

SHEET NUMBER	SHEET NAME	09/16/2025 - BID / PERMIT
ARCHITECTURAL		
A100	HEADQUARTERS 3D	■
A104	LIFE SAFETY PLAN	■
A111	DIMENSION FLOOR PLAN	■
A112	FLOOR PLAN	■
A113	REFLECTED CEILING PLAN	■
A114	ROOF PLAN	■
A115	COVERED PATIO	■
A116	COVERED PATIO	■
A121	EXTERIOR ELEVATIONS	■
A131	BUILDING SECTIONS	■
A132	BUILDING SECTIONS	■
A133	WALL SECTIONS	■
A134	WALL SECTIONS	■
A135	WALL SECTIONS	■
A136	WALL SECTIONS	■
A137	WALL SECTIONS	■
A138	WALL SECTIONS	■
A139	WALL SECTIONS	■
A141	ENLARGED PLANS & ELEV. RECP.	■
A142	ENLARGED PLANS & ELEV. TLT. RMS.	■
A143	INTERIOR ELEVATIONS LOBBY	■
A144	INTERIOR ELEVATIONS GALLERY	■
A145	INTERIOR ELEVATIONS	■
A146	INTERIOR ELEVATIONS	■
A147	INTERIOR ELEVATIONS	■
A151	DETAILS	■
A152	DETAILS	■
A153	DETAILS	■
A154	DETAILS	■
A155	DETAILS	■
A156	DETAILS	■
A157	DETAILS	■
A158	DETAILS	■
A159	DETAILS	■
A160	COLUMN DETAILS	■
A161	DOOR SCHEDULE & DETAILS	■
A162	STOREFRONT ELEVATIONS	■
A163	STOREFRONT DETAILS	■
A164	CASEWORK DETAILS	■
A165	STAIR PLAN/ DETAILS	■
A181	FURNITURE/EQUIPMENT PLAN	■
I101	FINISH FLOOR PLAN	■
I102	FINISH SCHEDULE, FLOORING DETAILS	■
STRUCTURAL		
S111	PLAN DIAGRAMS AND DETAILS	■
S121	FOUNDATION PLAN	■
S122	LOW ROOF FRAMING PLAN	■
S123	HIGH ROOF FRAMING PLAN	■
S131	FOUNDATION SECTIONS & DETAILS	■
S141	FRAMING SECTIONS & DETAILS	■
S142	FRAMING SECTION & DETAILS	■
S151	VERTICAL BRACE ELEVATIONS	■
S152	VERTICAL BRACE DETAILS	■
MECHANICAL		
M121	HQ MECHANICAL PLAN	■
M122	HQ MECHANICAL ROOF PLAN	■
PLUMBING		
P120	HQ PLUMBING UNDERFLOOR PLAN	■
P121	HQ PLUMBING PLAN	■
P122	HQ PLUMBING ROOF PLAN	■
P130	ENLARGED HQ PLUMBING PLAN	■
P141	HQ PLUMBING ISOMETRICS	■
FIRE PROTECTION		
FP121	HQ FIRE PROTECTION PLAN	■
ELECTRICAL		
E121	HQ POWER PLAN	■
E122	HQ EQUIPMENT POWER PLAN	■
E123	HQ EQUIPMENT POWER ROOF PLAN	■
E131	HQ LIGHTING PLAN	■
E141	HQ AUXILIARY PLAN	■
E161	HQ ELECTRICAL PANEL SCHEDULES	■
FOOD SERVICE		
FS1.0	FOODSERVICE EQUIPMENT LAYOUT	■
FS1.1	FOODSERVICE EQUIPMENT SPOT ELECTRICAL PLAN	■
FS1.2	FOODSERVICE EQUIPMENT SPOT PLUMBING PLAN	■
FS2.0	CAPTIVEAIRE DETAILS	■
FS2.1	CAPTIVEAIRE DETAILS	■
FS2.2	CAPTIVEAIRE DETAILS	■
FS2.3	CAPTIVEAIRE DETAILS	■
FS2.4	CAPTIVEAIRE DETAILS	■
FS2.5	CAPTIVEAIRE DETAILS	■
FS2.6	CAPTIVEAIRE DETAILS	■
FS2.7	CAPTIVEAIRE DETAILS	■
FS3.0	FOODSERVICE EQUIPMENT ELEVATION	■

SHEET INDEX - MAINTENANCE FACILITY

SHEET NUMBER	SHEET NAME	09/16/2025 - BID / PERMIT
ARCHITECTURAL		
A200	MAINTENANCE FACILITY 3D	■
A204	LIFE SAFETY PLAN	■
A211	FLOOR PLAN	■
A212	REFLECTED CEILING PLAN	■
A213	ROOF PLAN	■
A221	EXTERIOR ELEVATIONS	■
A231	BUILDING SECTIONS	■
A232	WALL SECTIONS	■
A233	WALL SECTIONS	■
A234	WALL SECTIONS	■
A241	ENLARGED PLANS & ELEVATIONS	■
A242	INTERIOR ELEVATIONS	■
A243	INTERIOR ELEVATIONS	■
A251	DETAILS	■
A252	DETAILS	■
A253	DETAILS	■
A254	DETAILS	■
A255	DETAILS	■
A256	OIL PIT DETAILS	■
A261	DOOR SCHEDULE & DETAILS	■
A262	STAIR PLAN/DETAILS	■
A263	CASEWORK DETAILS	■
A281	FURNITURE/EQUIPMENT PLAN	■
I201	FINISH FLOOR PLAN	■
MECHANICAL		
M221	MAINT. MECHANICAL PLAN	■
M222	MAINT. MECHANICAL ROOF PLAN	■
PLUMBING		
P220	MAINT. PLUMBING UNDERFLOOR PLAN	■
P221	MAINT. PLUMBING PLAN	■
P222	MAINT. PLUMBING ROOF PLAN	■
P230	ENLARGED MAINT. PLUMBING PLAN	■
P241	MAINT. PLUMBING ISOMETRICS	■
ELECTRICAL		
E221	MAINTENANCE POWER PLAN	■
E222	MAINT. EQUIPMENT POWER PLAN	■
E223	MAINT. EQUIPMENT POWER ROOF PLAN	■
E231	MAINT. LIGHTING PLAN	■
E241	MAINT. AUXILIARY PLAN	■
E261	MAINT. PANEL SCHEDULES	■

SHEET INDEX - TRAINING TOWER

SHEET NUMBER	SHEET NAME	09/16/2025 - BID / PERMIT
ARCHITECTURAL		
A300	TRAINING TOWER 3D & PAINT SCHED.	■
A311	FLOOR PLANS	■
A312	FLOOR PLANS	■
A313	FLOOR PLANS	■
A315	ROOF PLAN	■
A321	EXTERIOR ELEVATIONS	■
A322	EXTERIOR ELEVATIONS	■
A323	EXTERIOR ELEVATIONS	■
A341	INTERIOR ELEVATIONS	■
A342	INTERIOR ELEVATIONS	■
A351	ENLARGED PLANS TRENCH	■
A352	TRENCH DETAILS	■
A353	DETAILS	■
A361	DOOR SCHEDULE & WINDOWS	■
A363	STAIR PLAN/DETAILS	■
A364	LADDER DETAILS	■
STRUCTURAL		
S321	FDN PLAN & 2ND LEVEL FRAMING PLAN	■
S322	3RD & 4TH LEVEL FRAMING PLANS	■
S323	5TH & 6TH LEVEL FRAMING PLANS	■
S324	ROOF FRAMING PLAN	■
S331	TRENCH SECTIONS & DETAILS	■
S332	FOUNDATION SECTIONS & DETAILS	■
S341	FRAMING SECTIONS & DETAILS	■
S342	FRAMING SECTIONS & DETAILS	■
PLUMBING		
P320	TOWER UNDERFLOOR PLUMBING PLAN	■
ELECTRICAL		
E321	TOWER ELECTRICAL FIRST FLOOR PLAN	■
E322	TOWER ELECTRICAL THIRD FLOOR PLAN	■
E323	TOWER ELECTRICAL FIFTH FLOOR PLAN	■

SHEET INDEX - PAVILION

SHEET NUMBER	SHEET NAME	09/16/2025 - BID / PERMIT
ARCHITECTURAL		
A400	EXISTING PAVILION 3D	■
A411	FLOOR PLAN	■
A413	REFLECTED CEILING PLAN	■
A421	EXTERIOR ELEVATIONS	■
A431	WALL SECTIONS	■

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CENTRAL COUNTY FIRE &
RESCUE HEADQUARTERS /
TRAINING / MAINTENANCE
360/340 ECOLOGY DRIVE

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

SHEET INDEX

Project No.
23121

Sheet No.
G001

Date
09/16/2025

10/16/2025 11:23:27 AM
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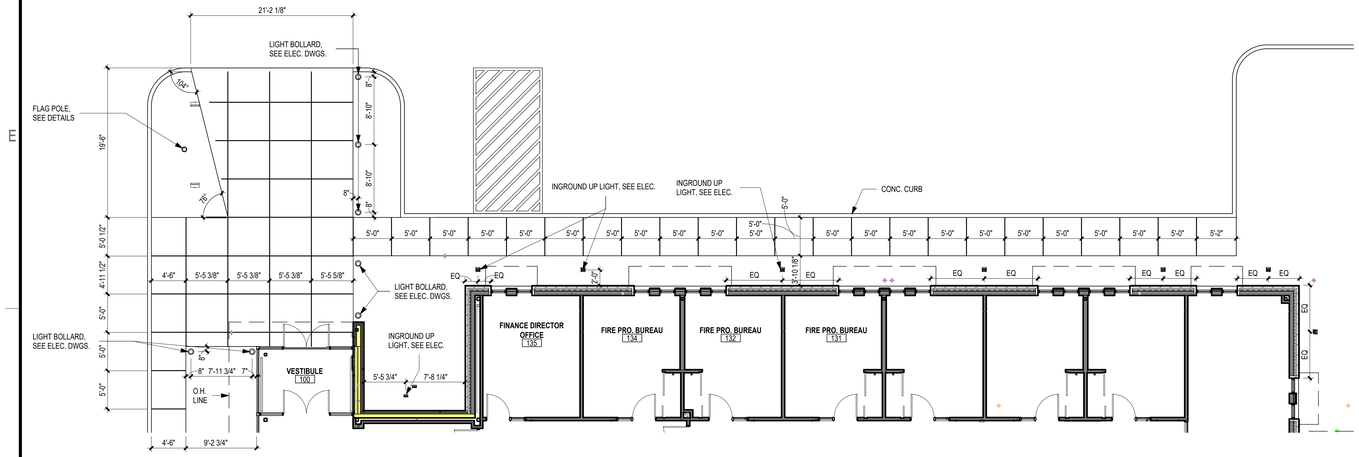
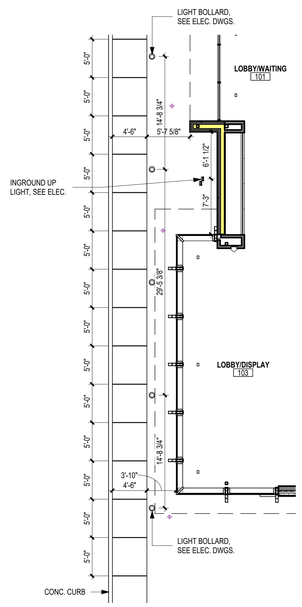
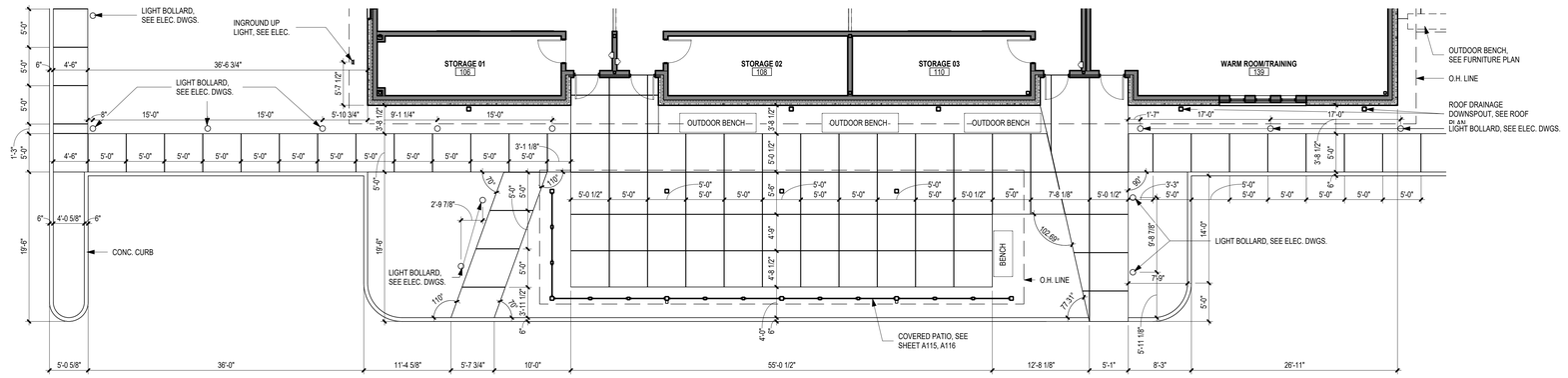


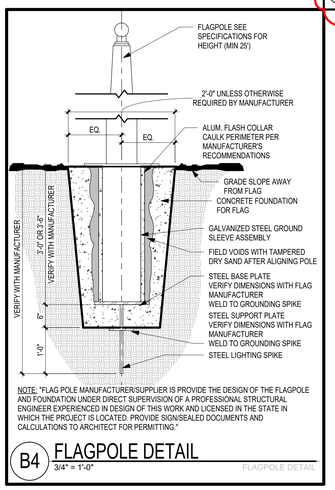
B3 HQ ENLARGED SITE PLAN NORTH ENTRY
1/8" = 1'-0"



B1 HQ ENLARGED SITE PLAN WEST
1/8" = 1'-0"

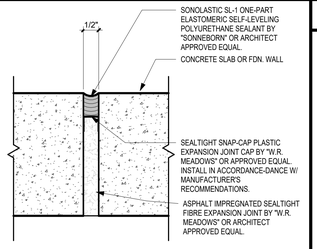


A1 HQ ENGLARGED SITE PLAN SOUTH
1/8" = 1'-0"

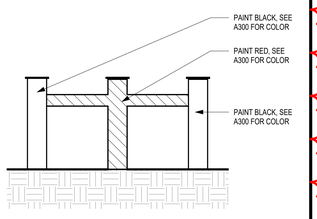


NOTE: "FLAG POLE MANUFACTURER/SUPPLIER IS PROVIDE THE DESIGN OF THE FLAGPOLE AND FOUNDATION UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER EXPERIENCED IN DESIGN OF THIS WORK AND LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. PROVIDE SIGN/SEALED DOCUMENTS AND CALCULATIONS TO ARCHITECT FOR PERMITTING."

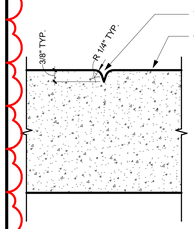
B4 FLAGPOLE DETAIL
3/4" = 1'-0"
FLAGPOLE DETAIL



E6 TYPICAL EXTERIOR EXPANSION JOINT DETAIL (CJ-W-2)
HALF SCALE
03.15.00.03 SM DTL CONC CJ_TWXTR



D6 TRAINING TOWER ANCHOR
3/8" = 1'-0"



D7 TYPICAL EXTERIOR TOOLED CONTROL JOINT DETAIL (CJ-W-1)
HALF SCALE
03.15.00.03 SM DTL CONC CJ_TWXTR

SITE DETAIL GENERAL NOTES

1.) REFERENCE APPLICABLE DIMENSIONED FLOOR PLANS, EQUIPMENT/SYMBOLS, FLOOR PLANS, REFLECTED CEILING PLANS, ROOF PLANS, INTERIOR ELEVATIONS, EXTERIOR BUILDING ELEVATIONS AND STRUCTURAL DRAWINGS FOR SUPPLEMENTAL/ADDITIONAL INFORMATION.

2.) GENERAL CONTRACTOR AND MASON CONTRACTOR TO THOROUGHLY REVIEW THE WALL SECTIONS IN CONJUNCTION WITH INTERIOR ELEVATIONS TO DETERMINE THE LOCATION OF WHERE VARYING CMU TYPES, TEXTURE AND FINISHES ARE TO OCCUR. REFERENCE INTERIOR FINISH SCHEDULE SHEET FOR CMU TYPES.

3.) CMU-1 IS TYPICAL THROUGHOUT UNLESS OTHERWISE INDICATED ON THE WALL SECTIONS AND/OR INTERIOR ELEVATIONS.

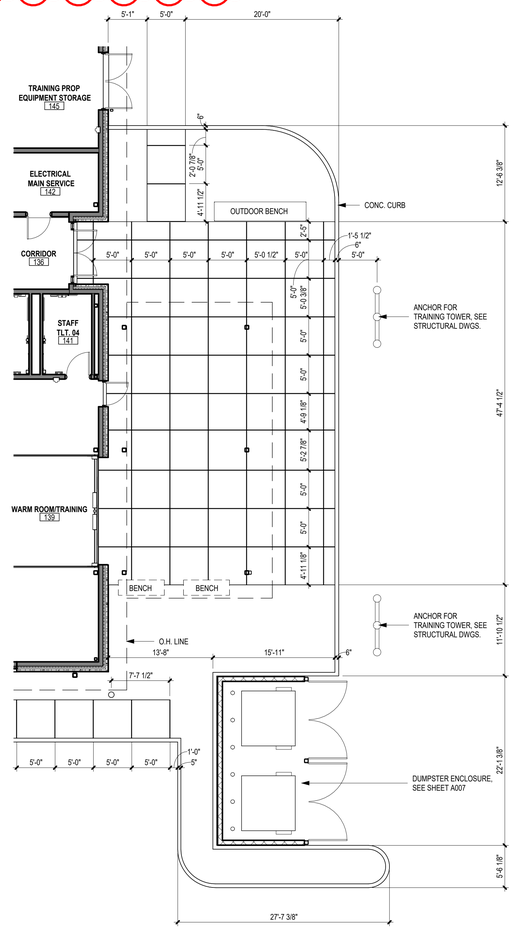
4.) REFER TO STRUCTURAL DRAWINGS FOR CATWALK CONSTRUCTION AND DETAILS WHICH MAY NOT BE INDICATED ON THE ARCHITECTURAL PLANS AND WALL SECTIONS.

5.) GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL FINAL SLAB ON GRADE ELEVATIONS WITH SCHEDULED FINISH FLOOR MATERIALS PRIOR TO CONSTRUCTION.

6.) REFERENCE PLUMBING DRAWINGS FOR PERIMETER FOUNDATION DRAINAGE LOCATIONS AND CRITICAL INVERT ELEVATIONS.

7.) WHERE GUARDRAILS OR HANDRAILS ARE INDICATED REFERENCE DETAILS FOR HANDRAIL/GUARDRAIL TYPES.

8.) WHERE CAST STONE IS INDICATED REFERENCE SHEET A006 FOR CAST STONE PROFILE TYPES. ALL CAST STONE ANCHORS SHALL BE DESIGNED, SPECIFIED AND INDICATED ON SUBMITTAL DOCUMENTATION BY CAST STONE MANUFACTURER.



A6 HQ ENLARGED SITE PLAN EAST
1/8" = 1'-0"

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360/340 ECOLOGY DRIVE
ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

ARCHITECTURAL SITE DETAILS

Project No. 23121
Sheet No. AS002
Date 09/16/2025

10/18/2025 11:23:27 AM
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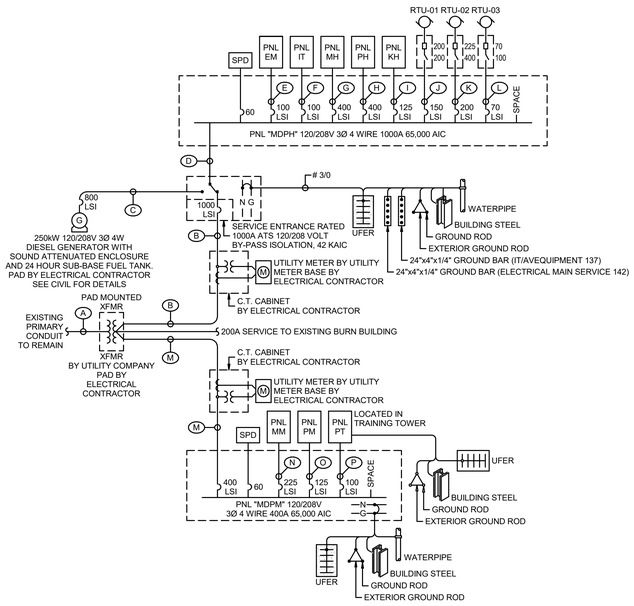
FEEDER SCHEDULE

MARK	CONDUCTOR	CONDUIT	FROM	TO
A	By Utility	Existing	UTILITY	Pad Mounted XFMR
B	3 Sets 4 #400	4" Each Set	Pad Mounted XFMR	1000A ATS
C	2 Sets 4 #600 1 #1/0 G	4" Each Set	1000A ATS	Generator
D	3 Sets 4 #400 1 #2/0 G	4" Each Set	1000A ATS	Panel MDPH
E	4 #3 1 #8 G	1-1/4"	Panel MDPH	Panel EM
F	4 #3 1 #8 G	1-1/4"	Panel MDPH	Panel IT
G	2 Sets 4 #3/0 1 #6 G	2" Each Set	Panel MDPH	Panel MH
H	2 Sets 4 #3/0 1 #6 G	2" Each Set	Panel MDPH	Panel PH
I	4 #1 1 #6 G	1-1/2"	Panel MDPH	Panel KH
J	3 #3/0 1 #6 G	2"	Panel MDPH	RTU-01
K	3 #4/0 1 #4 G	2"	Panel MDPH	RTU-02
L	3 #4 1 #8 G	1"	Panel MDPH	RTU-03
M	2 Sets 4 #3/0	2" Each Set	Pad Mounted XFMR	Panel MDPM
N	4 #4/0 1 #4 G	2-1/2"	Panel MDPM	Panel MM
O	4 #1 1 #6 G	1-1/2"	Panel MDPM	Panel PM
P	4 #3 1 #8 G	1-1/4"	Panel MDPM	Panel PT



ONE-LINE DIAGRAM

SCALE: N.T.S.

LIGHT FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG	APPARENT LOAD	LAMP TYPE	FINISH	MOUNTING	REMARKS
A1	Metalux	24CZ-LD5-45-UNV-L835-CD1-U-EQCL IP	35 VA	LED	White	Recessed	
A1E	Metalux	24CZ-LD5-45-UNV-EL14W-L835-CD1-U-EQCLIP	35 VA	LED	White	Recessed	
A2	Metalux	24CZ-LD5-65-UNV-L835-CD1-U-EQCL IP	49 VA	LED	White	Recessed	
B1	Metalux	24GR-LD5-48-F1-UNV-L835-CD1-U-E QCLIP	37 VA	LED	White	Recessed	
B2	Metalux	24GR-LD5-64-F1-UNV-L835-CD1-U-E QCLIP	48 VA	LED	White	Recessed	
C	Metalux	22CZ-LD5-44-UNV-L835-CD1-U-EQCL IP	33 VA	LED	White	Recessed	
D1	Metalux	22GR-LD5-32-F1-UNV-L835-CD1-U-E QCLIP	30 VA	LED	White	Recessed	
D2	Metalux	22GR-LD5-43-F1-UNV-L835-CD1-U-E QCLIP	40 VA	LED	White	Recessed	
E	Halo	HC415D010 - HM40525835 - 41WDHWF	15 VA	LED	White	Recessed	
EE	Halo	HC415D010EM06 - HM40525835 - 41WDHWF	29 VA	LED	White	Recessed	
F1	Halo	HCSQ410D010 - HM40525835 - 41SQHWF	10 VA	LED	White	Recessed	
F1E	Halo	HCSQ410D010EM06 - HM40525835 - 41SQHWF	10 VA	LED	White	Recessed	
F2	Halo	HCSQ415D010 - HM40525835 - 41SQHWF	15 VA	LED	White	Recessed	
F2E	Halo	HCSQ415D010EM14 - HM40525835 - 41SQHWF	15 VA	LED	White	Recessed	
F3	Halo	HCSQ430D010 - HM40525835 - 41SQHWF	29 VA	LED	White	Recessed	
F3E	Halo	HCSQ430D010EM14 - HM40525835 - 41SQHWF	29 VA	LED	White	Recessed	
G1	Neo-Ray	S125DRP-S1090B835-GYP5F6-1-UDD-F-W	45 VA	LED	White	Recessed	Field measure length to inch length. Varies per location.
G2	Neo-Ray	S125DRP-S1090D835-GYP11F0-1-UD D-F-W	98 VA	LED	White	Recessed	Field measure length to inch length. Varies per location.
H1	Metalux	4SNLED-LD5-44SL-LW-UNV-L835-CD 1	38 VA	LED	White	Surface	
H1E	Metalux	4SNLED-LD5-44SL-LW-UNV-EL14W-L 835-CD1	38 VA	LED	White	Surface	
H2	Metalux	4SNLED-LD5-44SL-LW-UNV-L835-CD 1-AYC-Chain/Set	38 VA	LED	White	Hung	
H2E	Metalux	4SNLED-LD5-44SL-LW-UNV-EL14W-L 835-CD1-AYC-Chain/Set	38 VA	LED	White	Hung	
H3	Metalux	4SNLED-LD5-58SL-LW-UNV-L835-CD 1-AYC-Chain/Set	46 VA	LED	White	Hung	
H3E	Metalux	4SNLED-LD5-58SL-LW-UNV-EL14W-L 835-CD1-AYC-Chain/Set	46 VA	LED	White	Hung	
J	Williams	MX2D - 6'00 - L8/835 - F - AC/D48 - DIM - UNV	40 VA	LED	White	Suspended	
JE	Williams	MX2D - 6'00 - L8/835 - F - AC/D48 - EM/10WLP - DIM - UNV	40 VA	LED	White	Suspended	
K1E	Williams	MX2RG - 4'00 - L8/835 - F - EM/10WLP - DIM - UNV	27 VA	LED	White	Surface	
K3	Williams	MX2RG - 8'00 - L8/835 - F - DIM - UNV	54 VA	LED	White	Surface	
K4	Williams	MX2RG - 20'00 - L8/835 - F - DIM - UNV	134 VA	LED	White	Surface	
K5	Williams	MX2RTL - 6'00 - L8/835 - F - DIM - UNV	40 VA	LED	White	Surface	
K5E	Williams	MX2RTL - 6'00 - L8/835 - F - EM/10WLP - DIM - UNV	40 VA	LED	White	Surface	
L	Williams	MX2UD - 4'00 - L8/835U/L8/823D - G/F - AC/D48 - DIM - UNV	54 VA	LED	White	Suspended	
M1	Williams	PX F - 42 - 31'00 - L17/835 - W - LWALL/RWALL - DIM - UNV	217 VA	LED	White	Surface	Field measure length to inch length. Varies per location.
M2	Williams	PX F - 42 - 26'00 - L17/835 - W - LWALL/RWALL - DIM - UNV	182 VA	LED	White	Surface	Field measure length to inch length. Varies per location.
N	Tech Lighting	700BCMET YS-LED930	25 VA	LED	Satin Nickel	Wall	Mount horizontal above mirrors
O1	Fluxwerx	LN1A0G12BBW1835DF2M	1152 VA	LED	Black	Pendant	See architect for exact specification and mounting height.
O2	Fluxwerx	LN1A0S06BBW1835CF2M	270 VA	LED	Black	Pendant	See architect for exact specification and mounting height.
P	Halo	VT0840L	9 VA	LED		Surface	
Q	Visual Comfort	ESRF0606O 133* 62 935 F B M 1 E F	95 VA	LED	White	Recessed	See architect for exact length
R1	Vode	107-BX 01 8'-0" 8'-0" CC 48" 4R25 AE 1 0 Z SO 359 1 0 BL 0	30 VA	LED	Black	Suspended	
R2	Vode	107-BX 01 12'-0" 12'-0" CC 48" 4R25 AE 1 0 Z SO 359 1 0 BL 0	30 VA	LED	Black	Suspended	
SA	McGraw Edison	GLEON-SA2C-740-U-T3-BK-AHD255-BPC-DIM10-L20-MA1036-BK	113 VA	LED	Black	Pole	Provide with 16' square steel pole.
SA2	McGraw Edison	(2)GLEON-SA2C-740-U-T3-BK-AHD255-BPC-DIM10-L20-MA1037-BK	226 VA	LED	Black	Pole	Provide with 16' square steel pole. 2 Fixtures at 180º.
SA2C	McGraw Edison	(2)GLEON-SA2C-740-U-T3-BK-AHD255-BPC-DIM10-L20-MA1037-BK	226 VA	LED	Black	Pole	Provide with 16' square steel pole. 2 Fixtures at 180º. Provide 1" opening for camera mount at 14'.
SAC	McGraw Edison	GLEON-SA2C-740-U-T3-BK-AHD255-BPC-DIM10-L20-MA1036-BK	226 VA	LED	Black	Pole	Provide with 16' square steel pole. Provide 1" opening for camera mount at 14'.
SB	McGraw Edison	GLEON-SA2C-740-U-T4FT-BK-AHD255-BPC-DIM10-L20-MA1036-BK	113 VA	LED	Black	Pole	Provide with 16' square steel pole.
SC	McGraw-Edison	GWC-SA1C-740-U-T4FT-BK-AHD255-BPC	59 VA	LED	Black	Wall	
SD	Kim Lighting	GEM1/LED 18L 4K UV/BLT	21 VA	LED	Black	Grade	
SDE	Kim Lighting	GEM1/LED 18L 4K UV/BLT EM	21 VA	LED	Black	Grade	
SF	Kim	AFL10-NF-54-3K-35-UV-BL-HDS-SM1 8-BL-208V	63 VA	LED	Black	Ground	
SG	Lumenpulse	LBM-120-40K-M-x-BK-NO-x-x-3FT-BK	28 VA	LED	Black	Yoke	See architect for exact specification and mounting height.
SH	Insight Lighting	PEX-MO-40K-ASUL-SM-48-120-x-MG	28 VA	LED	Metallic Gray	Surface	See architect for exact specification and mounting details.
SJ	Alva Lighting	SLIVER-90-BLK-4000	40 VA	LED	Black	Surface	See architect for exact specification and mounting height.
SK	Luminaire	AEL-12IN-NODIM-15W-30K-120-DP-B KH	15 VA	LED	Black	Surface	
SL	McGraw Edison	IST-SA1E-730-U-T3-BK	58 VA	LED	Black	Column	
T	Portfolio	LD6C159035D010 EUBC10259035 6LBPS1MW LGSKT6IP66	16 VA	LED	White	Recessed	
U	DADO Lighting	HL15-3KL-35-W-SNS-72-WH-in-X-UNV	15 VA	LED	White	Surface	Field measure length to inch length.
V	G&G Industrial Lighting	HLX4-SO-50K-120V	32 VA	LED	White	Surface	
W	LED LINEAR	XOOLINEPRO-24-935-xxxx-x-30-xx-xx -C00-IP40	80 VA	LED		Recessed	Field measure length to inch length.
X	StarLeaf	GVC Set	1 VA	LED	Aluminum	Varies	Faces as per drawings
Z	Lumenwerx	V2SEALSD-EPDO-80CRI-500LMF-35K -8'-UNV-B	42 VA	LED	Black	Surface	See architect for exact specification and mounting height.

⚠2 CONSULTANT ANCHORES & MANUFACTURERS BY UPHOMA, DARBYE, HUBBELL & GOODSPUNT, ARE ACCEPTABLE UPON APPROVAL OF SUBMITTAL PACKET. HOWEVER, ENGINEER.

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
340/360 Ecology Dr, St Peters MO 63376

No.	Date	Revision
2	2025-10-17	ADDENDUM - 02

ELECTRICAL SCHEDULES & ONE-LINE

Project No.
23121

Sheet No.
E005

Date
09/16/2025

STATE OF MISSOURI
THOMAS J. ABBEG
NUMBER PE-2023031394
PROFESSIONAL ENGINEER
10-17-2025

Name: Thomas J. Abbeg
Discipline: Professional Engineer
License No: PE-2023031394
Expiration Date: 12/31/2026

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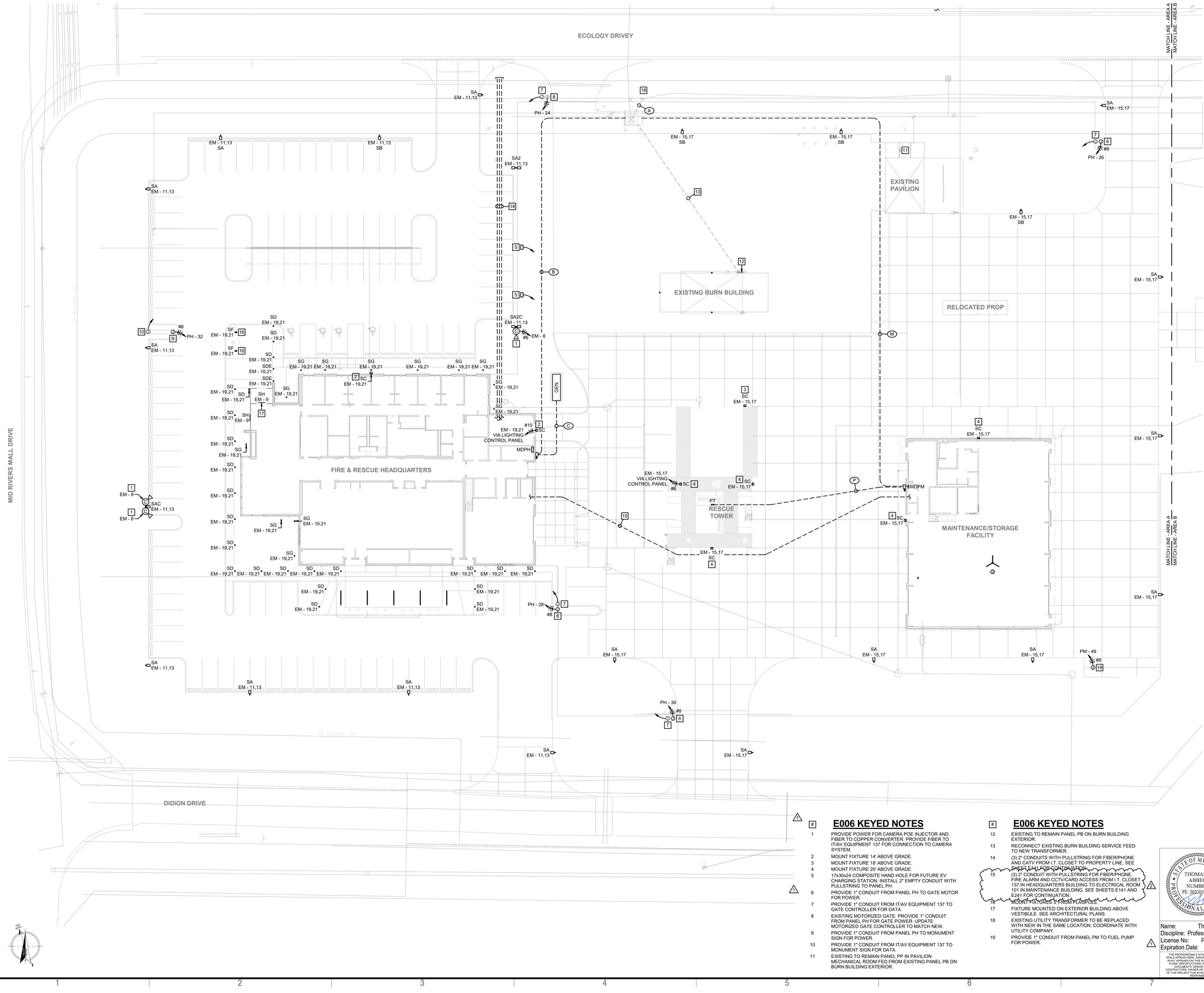

E006 KEYED NOTES

#	
1	PROVIDE POWER FOR CAMERA POE INJECTOR AND FIBER TO COPPER CONVERTER. PROVIDE FIBER TO IT/AV EQUIPMENT 137 FOR CONNECTION TO CAMERA SYSTEM.
2	MOUNT FIXTURE 14' ABOVE GRADE.
3	MOUNT FIXTURE 18' ABOVE GRADE.
4	MOUNT FIXTURE 20' ABOVE GRADE.
5	17x30x24 COMPOSITE HAND HOLE FOR FUTURE EV CHARGING STATION. INSTALL 2" EMPTY CONDUIT WITH PULLSTRING TO PANEL PH.
6	PROVIDE 1" CONDUIT FROM PANEL PH TO GATE MOTOR FOR POWER.
7	PROVIDE 1" CONDUIT FROM IT/AV EQUIPMENT 137 TO GATE CONTROLLER FOR DATA.
8	EXISTING MOTORIZED GATE. PROVIDE 1" CONDUIT FROM PANEL PH FOR GATE POWER. UPDATE MOTORIZED GATE CONTROLLER TO MATCH NEW.
9	PROVIDE 1" CONDUIT FROM PANEL PH TO MONUMENT SIGN FOR POWER.
10	PROVIDE 1" CONDUIT FROM IT/AV EQUIPMENT 137 TO MONUMENT SIGN FOR DATA.
11	EXISTING TO REMAIN PANEL PP IN PAVILION MECHANICAL ROOM FED FROM EXISTING PANEL PB ON BURN BUILDING EXTERIOR.

E006 KEYED NOTES

#	
12	EXISTING TO REMAIN PANEL PB ON BURN BUILDING EXTERIOR.
13	RECONNECT EXISTING BURN BUILDING SERVICE FEED TO NEW TRANSFORMER.
14	(3) 2" CONDUITS WITH PULLSTRING FOR FIBER/PHONE AND CATV FROM I.T. CLOSET TO PROPERTY LINE. SEE SHEET E141 FOR CONTINUATION.
15	(3) 2" CONDUIT WITH PULLSTRING FOR FIBER/PHONE, FIRE ALARM AND CCTV/CARD ACCESS FROM I.T. CLOSET 137 IN HEADQUARTERS BUILDING TO ELECTRICAL ROOM 101 IN MAINTENANCE BUILDING. SEE SHEETS E141 AND E241 FOR CONTINUATION.
16	MOUNT FIXTURES 5' FROM FACPOLE.
17	FIXTURE MOUNTED ON EXTERIOR BUILDING ABOVE VESTIBULE. SEE ARCHITECTURAL PLANS.
18	EXISTING UTILITY TRANSFORMER TO BE REPLACED WITH NEW IN THE SAME LOCATION. COORDINATE WITH UTILITY COMPANY.
19	PROVIDE 1" CONDUIT FROM PANEL PM TO FUEL PUMP FOR POWER.

STATE OF MISSOURI — PROFESSIONAL ENGINEER
THOMAS J. ABBEG
NUMBER PE-2022032384
10-17-2025

Name: Thomas J. Abbeg
Discipline: Professional Engineer
License No: PE-2022032384
Expiration Date: 12/31/2026

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[Consultants]

Proposed:
CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
3403060 Ecology Dr. St Peters MO 63376

No.	Revision	Date
1	ADDENDUM - 01	2025-10-10
2	ADDENDUM - 02	2025-10-17

PARTIAL ELECTRICAL SITE PLAN - AREA A

Project No. 23121

Sheet No. E006

Date 09/16/2025

Proposed:

CENTRAL COUNTY FIRE & RESCUE

10100 MID RIVERS MALL DRIVE
ST. PETERS, MISSOURI

SITE AND GRADING PLAN

No.	Date	Revision
-	2025\01\7	Addendum 02

Project No.
2464

Sheet No.
C5.0

09/16/2025

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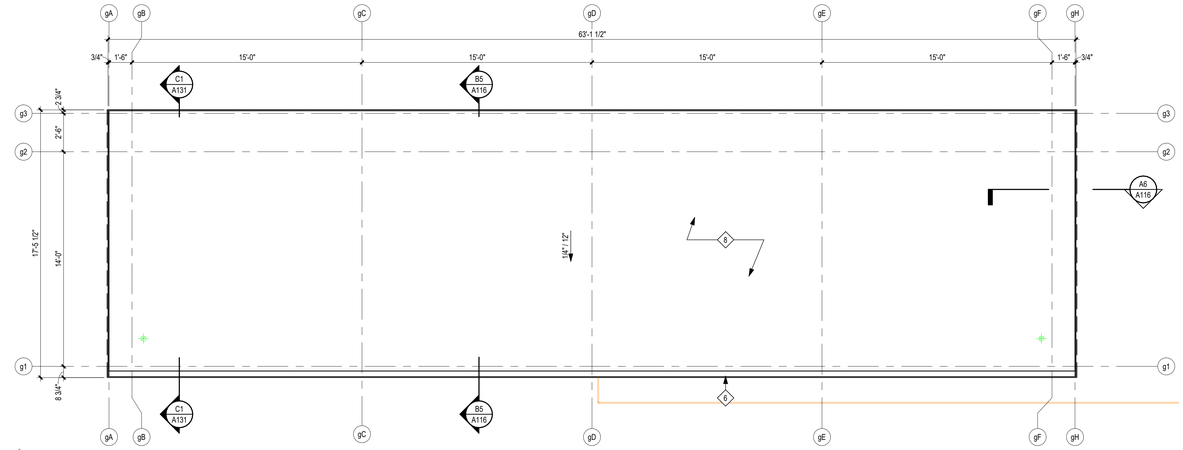
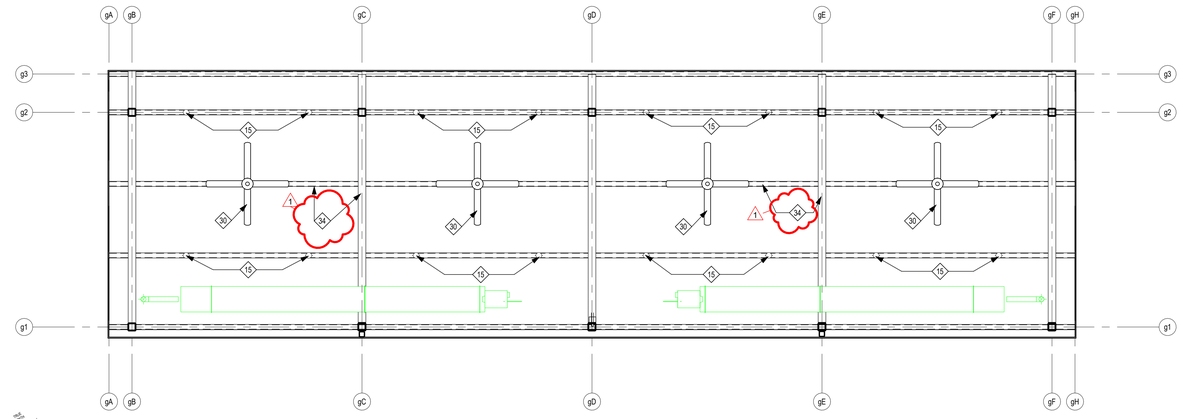


D1 ROOF PLAN - COVERED PATIO
1/4" = 1'-0"



B1 REFLECTED CEILING PLAN - COVERED PATIO
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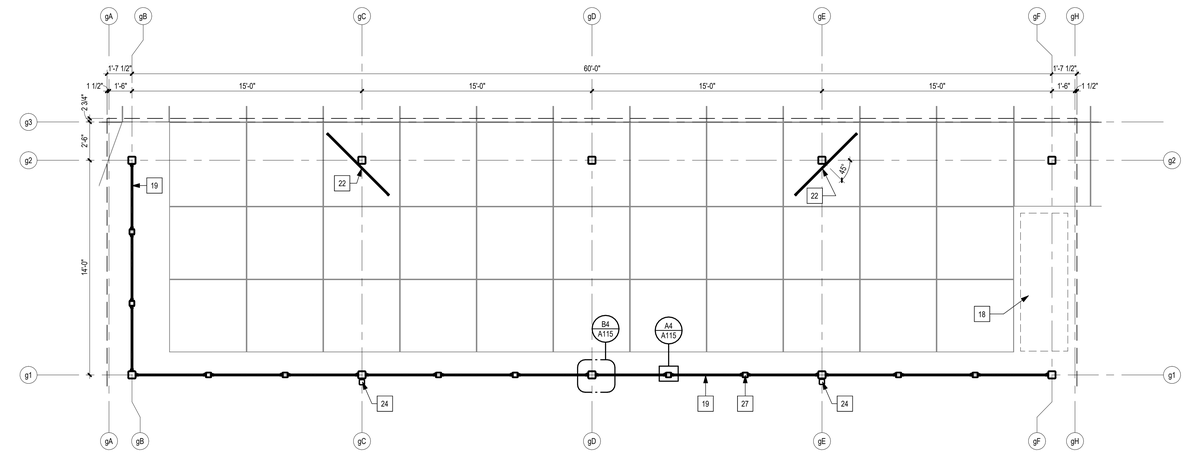
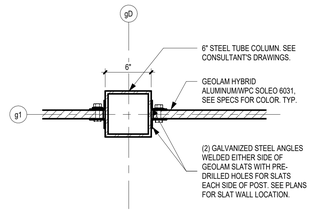
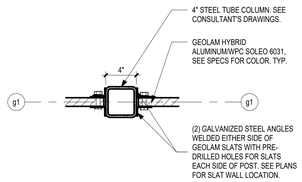


A1 FLOOR PLAN - COVERED PATIO
1/4" = 1'-0"



B4 CANOPY - 6" COLUMN/SLAT DETAIL
1 1/2" = 1'-0"



A4 CANOPY - 4" COLUMN/SLAT DETAIL
1 1/2" = 1'-0"

ROOF DRAINAGE CALCULATIONS

SMALL GUTTER
R = RAINFALL INTENSITY = 4.0" PER HOUR
A = ROOF AREA = 1,069 SF
GPM = R x A x 0.0104 (EQUIATION 11-1)
4.0 x 1,340 x 0.0104 =44 GPM

D = DOWNSPOUT = 2
GPM/D = GPM PER DOWNSPOUT
44/2 = 22 GPM

DOWNSPOUT SIZE = 6" X 6"

KEYED NOTES ROOF PLAN CP

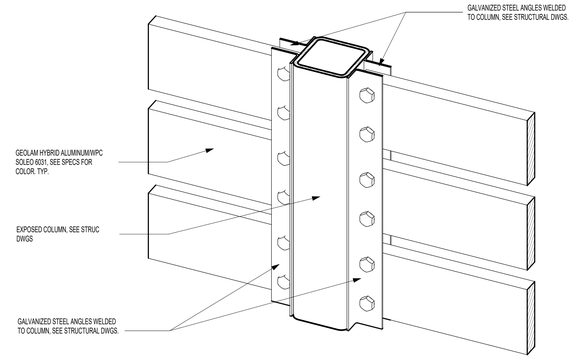
MARK	DESCRIPTION
6	CANOPY GUTTER, SEE APPLICABLE DETAILS.
8	1 1/2" METAL ROOF DECK. SEE STRUCTURAL DWGS. 1 1/2" METAL ROOF DECK SEE ROOF PLAN & STRUCTURAL DWGS. PAINT TOP, SIDES & UNDERSIDE OF CANOPY 1ST COAT: KEM KROMIK UNIVERSAL METAL PRIMER, 2ND & 3RD COAT: S-W SILVER BRITE ALUMINUM B65W811.

KEYED NOTES RCP CP

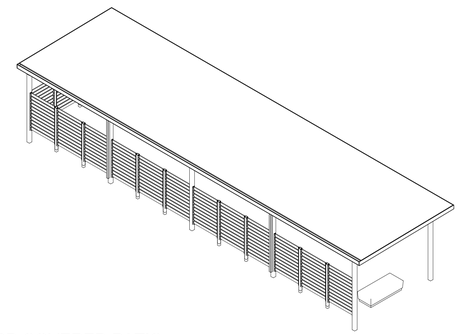
MARK	DESCRIPTION
15	RECESSED SQUARE HALO LIGHT. SEE ELECTRICAL FOR FIXTURE SPECS.
30	CEILING FAN ATTACHED TO STRUCTURE. SEE ELECTRICAL DWGS.
34	PAINT ALL CEILING PERLINS & BEAMS TO MATCH VERTICAL POSTS. TYPICAL

KEYED NOTES FLOOR PLAN CP

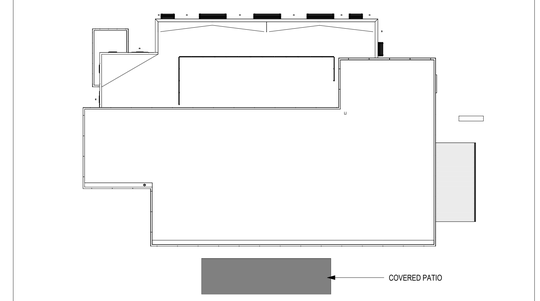
MARK	DESCRIPTION
18	EXTERIOR CONCRETE BENCH, PROVIDED BY FURNITURE VENDOR.
19	GEOLAM HYBRID ALUMINUM/WPC SOLEO 6031, SEE SPECS FOR COLOR. TYP.
22	PROVIDE BLOCKING AT ALL MONITOR LOCATIONS, TYP.
24	ROOF DRAINAGE DOWNSPOUT, SEE ROOF PLAN.
27	EXPOSED COLUMN, SEE STRUCTURAL DWGS.



C6 GEOLAM FENCE 3D



B6 3D COVERED PATIO



KEY PLAN

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CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
360/340 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Revision	Date
1	ADDENDUM - 02	2025 - 10 - 17

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Project No. 23121
Sheet No. A115
Date 09/16/2025

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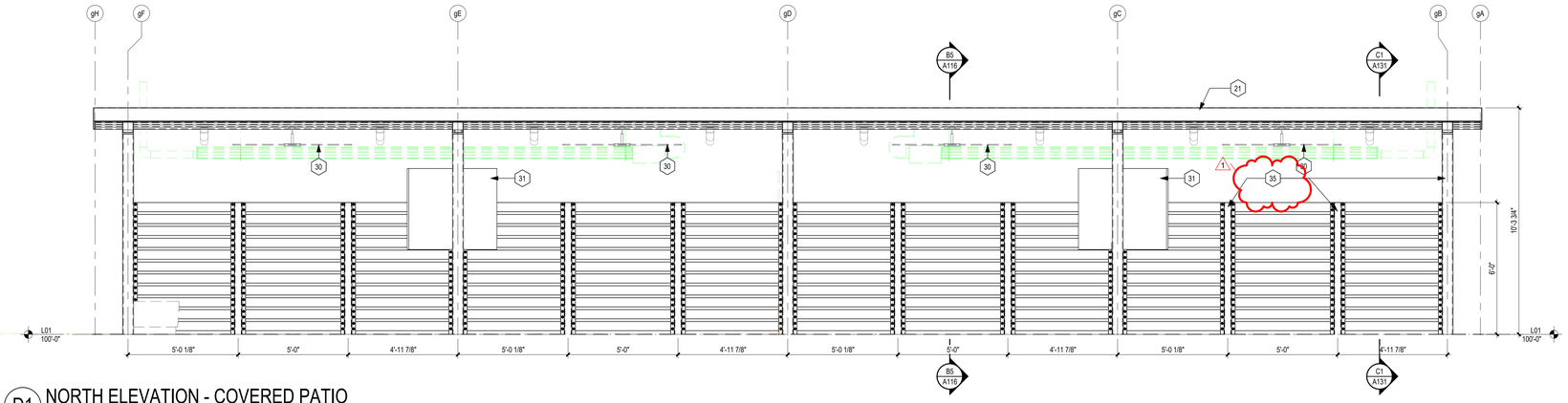
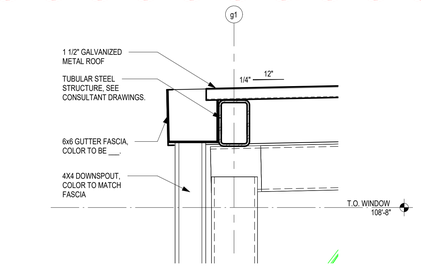
KEYED NOTES EXTERIOR ELEV. CP

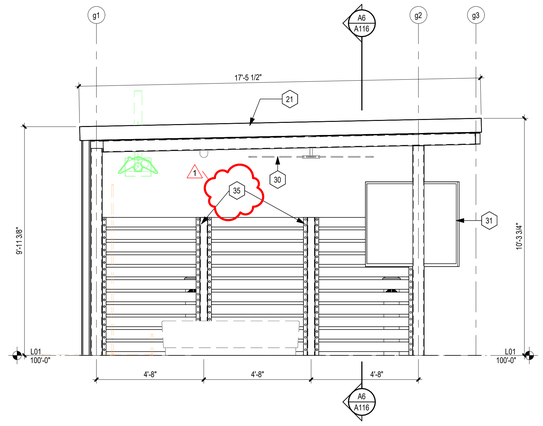
MARK	DESCRIPTION
21	1 1/2" METAL ROOF DECK, SEE ROOF PLAN & STRUCTURAL DWGS. PAINT TOP & UNDERSIDE OF CANOPY 1ST COAT: KEM KROMIK UNIVERSAL METAL PRIMER, 2ND & 3RD COATS: S-W SILVER-BRITE ALUMINUM B58S00011.
30	CEILING FAN ATTACHED TO STRUCTURE. SEE ELECTRICAL DWGS.
31	EXTERIOR MONITOR SECURED WITH CLAMP ATTACHED AROUND COLUMN.
35	EXTERIOR COVERED PATIO ALL VERTICAL METAL COLUMNS/POSTS & EXPOSED METAL & FASTNERS PAINT SEMI/GLOSS FINISH, 1ST COAT: S-W MACROPOXY 646 FAST CURE EPOXY B58 SERIES (7.0-13.5 MILS WET, 5.0-10.0 MILS DRY PER COAT) 2ND COAT: S-W HI-SOLIDS POLYURETHANE SEMI-GLOSS B65-350 SERIES, 3RD COAT: S-W HI-SOLIDS POLYURETHANE SEMI-GLOSS, B65-350 SERIES (4.5-8.0 MILS WET, 3.0-5.0 MILS DRY PER COAT) COLOR: SW7020 BLACK FOX.



D1 NORTH ELEVATION - COVERED PATIO
3/8" = 1'-0"



D6 CANOPY - GUTTER DETAIL
1 1/2" = 1'-0"



B1 EAST ELEVATION - COVERED PATIO
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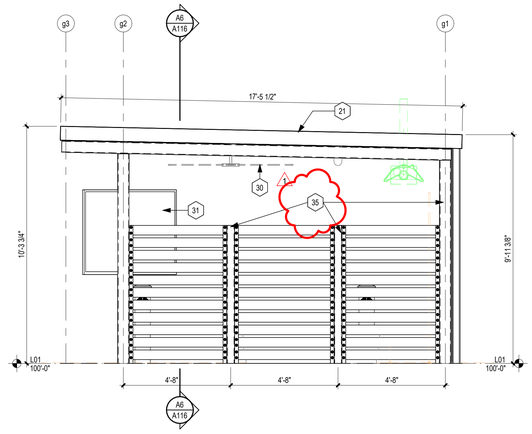

B3 WEST ELEVATION - COVERED PATIO
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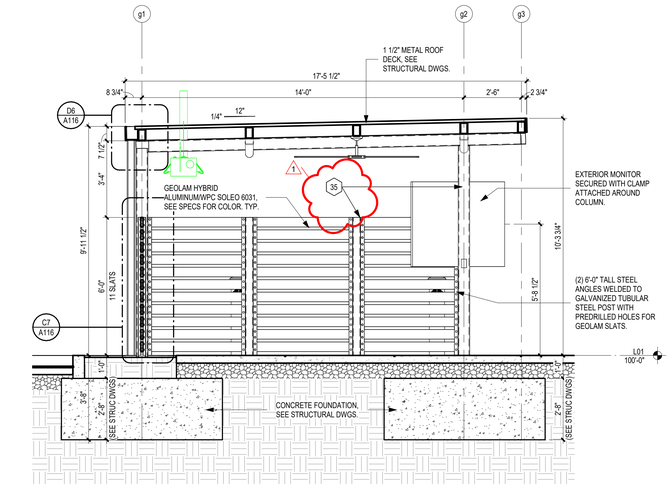
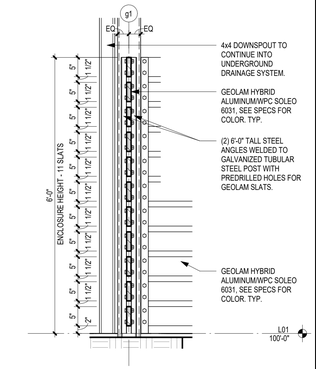
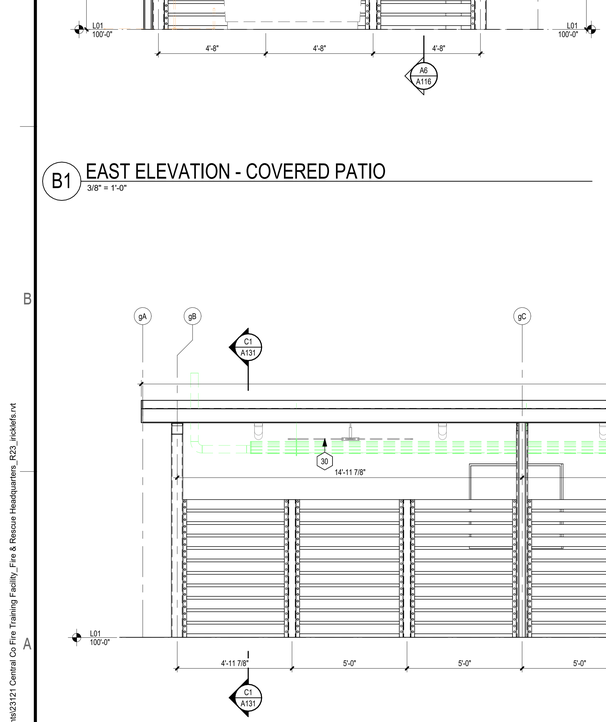


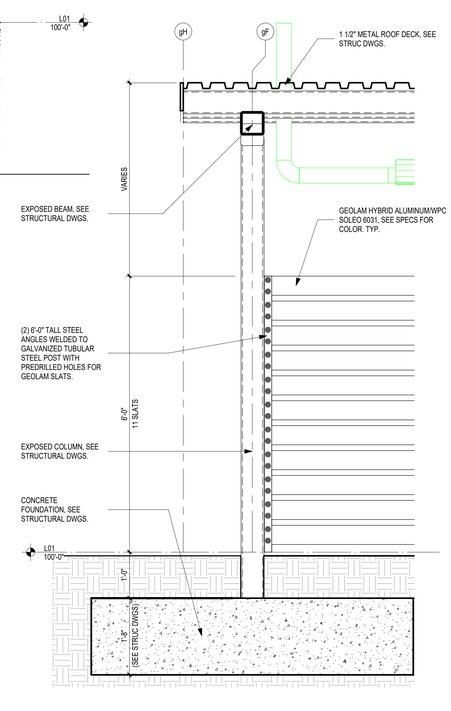
B5 CANOPY - SECTION
3/8" = 1'-0"



C7 SLAT DETAIL
3/4" = 1'-0"



A1 SOUTH ELEVATION - COVERED PATIO
3/8" = 1'-0"



A6 SECTION @ COVERED PATIO
3/4" = 1'-0"

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3600340 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

COVERED PATIO

Project No. 23121

Sheet No. A116

Date 09/16/2025

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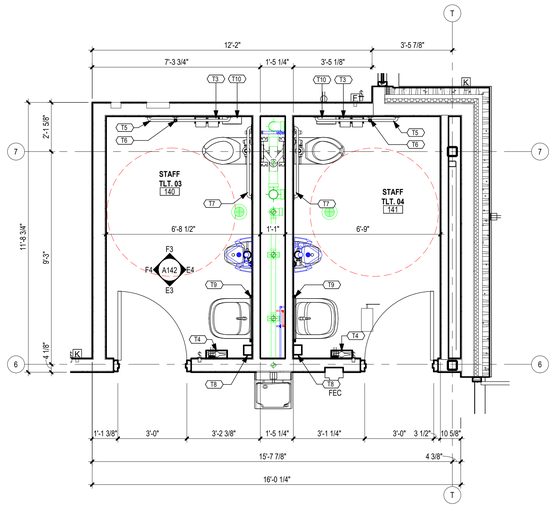
TOILET ACCESSORY SCHEDULE

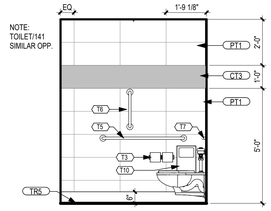
TYPE MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
	TOILET PARTITION	BOBRICK	-
T2	URINAL SCREEN (WALL HUNG)	BOBRICK	-
T3	TOILET TISSUE DISPENSER	HILLYARD	PAP4271/9
T4	RECESSED MOTION PAPER TOWEL DISPENSER	GEORGIA PACIFIC	59488A
T5	42" HORIZONTAL GRAB BAR	BOBRICK	B-6806x42
T6	18" VERTICAL GRAB BAR	BOBRICK	B-6806x18
T7	36" HORIZONTAL GRAB BAR	BOBRICK	B-6806x36
T8	SOAP DISPENSER	BOBRICK	B-2111
T9	24" x 36" MIRROR	BOBRICK	B-165.2436
T10	SANITARY NAPKIN DISPOSAL	BOBRICK	B-270
T11	MOP & BROOM HOLDER	BOBRICK	B-223X36

KEYED NOTES INT. ELEV. RESTROOM

MARK	DESCRIPTION
4	WALL BASE AS SCHEDULED, SEE FINISH SCHEDULE
8	BUILT IN VANITY TOP WITH 25" D SOLID SURFACE COUNTER WITH INTEGRAL SINK, ANGLED PLAS. LAMINATE ADA VANITY CABINET, SEE FINISH SCHEDULE
13	HIGH-LOW DRINKING FOUNTAINS WITH BOTTLE FILLERS, SEE PLUMBING AND ELECTRICAL DWGS.
38	FLOOR MOUNTED OVERHEAD BRACED TOILET PARTITIONS & URINAL SCREENS



E1 ENLARGED PLAN STAFF TLT. 03/04
3/8" = 1'-0"



F3 STAFF TLT. 03/04 140/141
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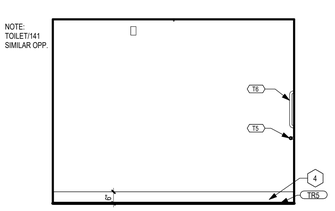
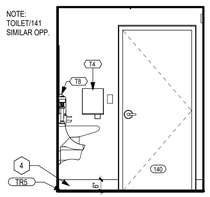


F4 STAFF TLT. 03/04 140/141
3/8" = 1'-0"



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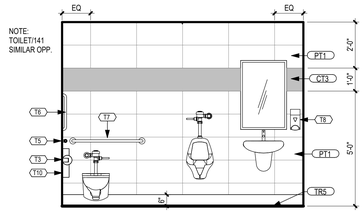
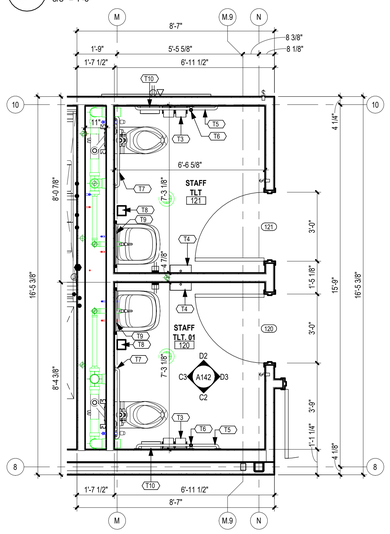
3/8" = 1'-0"



E4 STAFF TLT. 03/04 140/141
3/8" = 1'-0"



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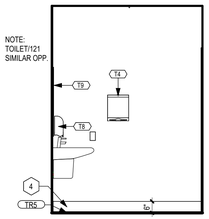

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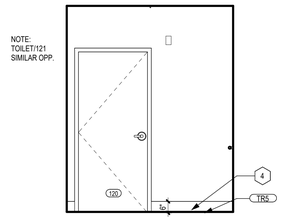

D3 STAFF TLT. 01/02 120/121
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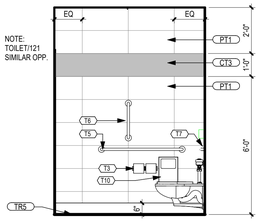

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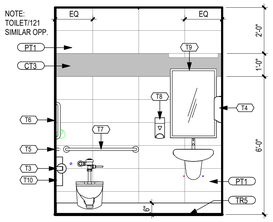

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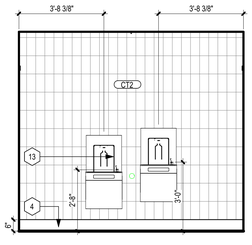

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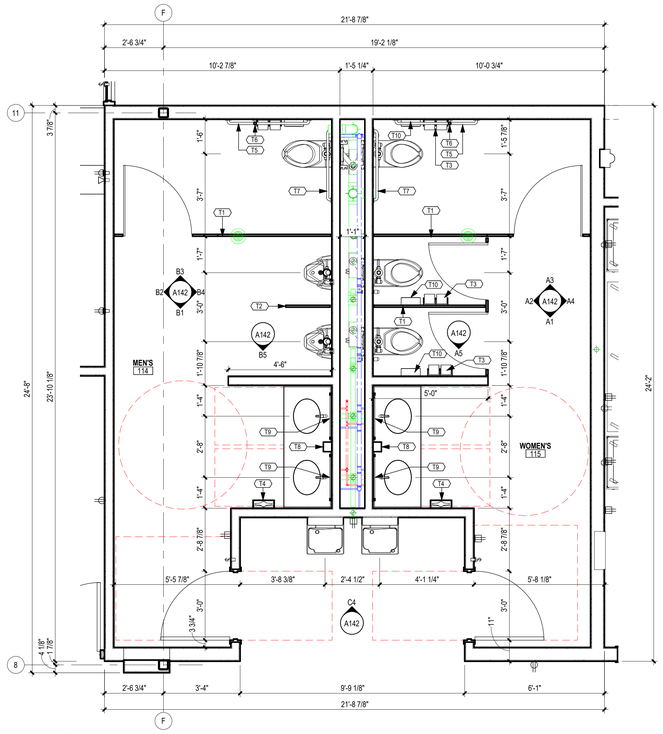

C5 ENLARGED PLAN MEN'S/WOMEN'S 114/115
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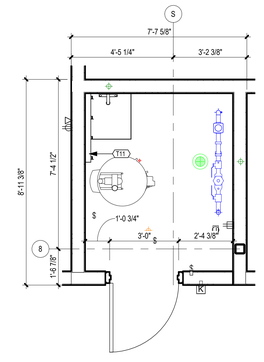

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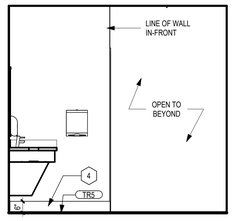

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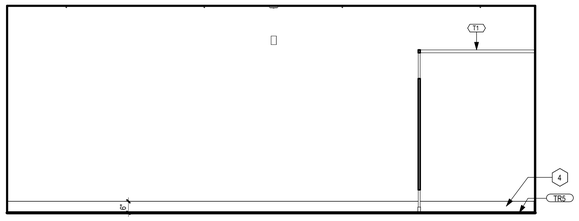

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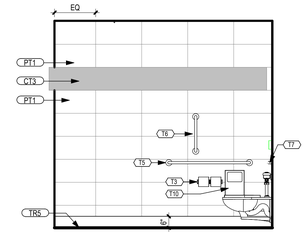

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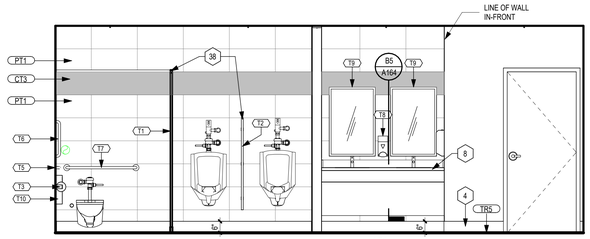

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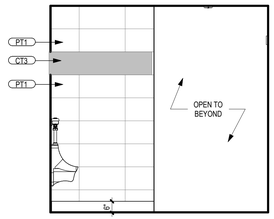

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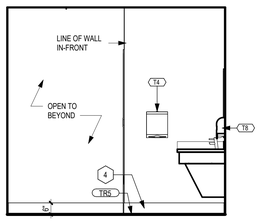

A1 WOMEN'S NORTH 115
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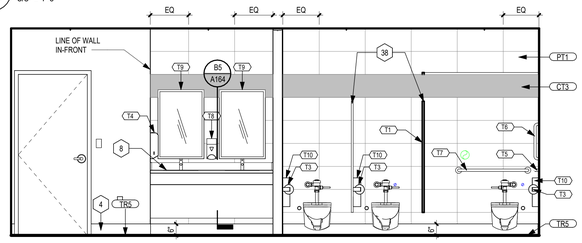

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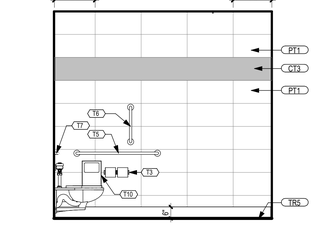

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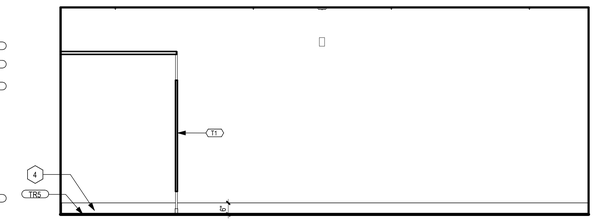

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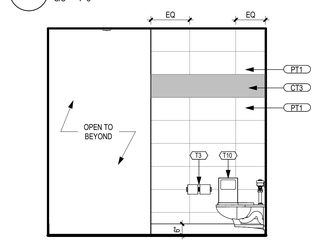

A5 WOMEN'S NORTH 115 (2)
3/8" = 1'-0"

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
380/340 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

ENLARGED PLANS & ELEV. TLT. RMS.

Project No. 23121

Sheet No. A142

Date 09/16/2025

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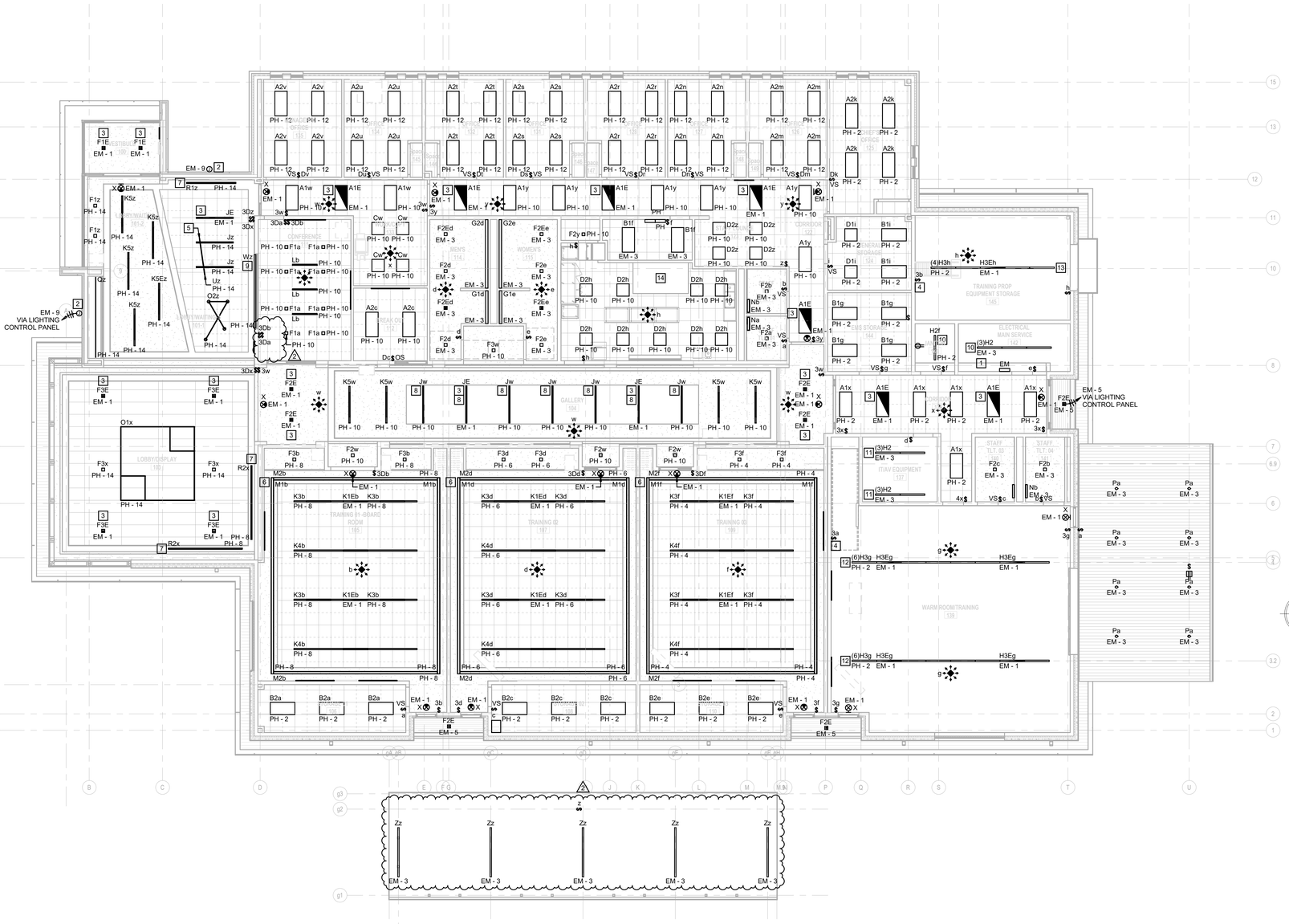
E131 KEYED NOTES

#	
1	LIGHTING CONTROL PANEL.
2	POWER FOR LOGO SIGN. SEE ARCHITECTURAL PLANS FOR MOUNTING DETAILS.
3	FIXTURE CONNECTED AS UNSWITCHED NIGHT LIGHT FIXTURE. FIXTURE SHALL DIM 50% BETWEEN THE HOURS OF 10 PM AND 6 AM. SEE SCHEMATIC.
4	SWITCH FOR CONTROL OF MEZZANINE LIGHTING.
5	MOUNT FIXTURE IN SOFFIT IN RECEPTION DESK. REFER TO ARCHITECTURAL PLANS.
6	MOUNT FIXTURE IN SOFFIT. REFER TO ARCHITECTURAL PLANS.
7	HANG FIXTURE FLUSH AND ANGLED TO CEILING. REFER TO ARCHITECTURAL PLANS.
8	HANG FIXTURE FLUSH, ANGLED TO CEILING AND BETWEEN ARCHITECTURAL CEILING SLATS. REFER TO ARCHITECTURAL PLANS.
9	HANG FIXTURE AT HEAD OF STOREFRONT BETWEEN SHIPLAP AND SF HEAD. REFER TO ARCHITECTURAL PLANS.
10	HANG FIXTURE AT 9' A.F.F..
11	HANG FIXTURE AT 10' A.F.F..
12	HANG FIXTURE AT 14' A.F.F..
13	HANG FIXTURE AT 18' A.F.F..
14	SEE FOODSERVICE DRAWINGS FOR LIGHTING/SWITCH REQUIREMENTS FOR HOOD.



E141 KEYED NOTES

#	
1	INSTALL HDMI OUTLET, DATA OUTLET AND DUPLEX OUTLET IN RECESSED TV BOX SIMILIAR TO P&S TV2MW BOX. INSTALL HDMI CABLE BETWEEN HDMI OUTLETS.
2	INSTALL DATA OUTLET AND DUPLEX OUTLET IN RECESSED TV BOX SIMILIAR TO P&S TV2MW BOX.
3	WIREMOLD RFBA4R30OG FPBTCBK WITH HDMI OUTLET, (2) DUPLEX OUTLETS AND (2) DATA OUTLETS.
4	WIREMOLD RFBA4R30OG FPBTCBK WITH (2) HDMI OUTLETS, (2) DUPLEX OUTLETS AND (2) DATA OUTLETS.
5	WIREMOLD RFBA4R30OG FPBTCBK WITH HDMI OUTLET, (2) DUPLEX OUTLETS AND (4) DATA OUTLETS.
6	WIREMOLD RFBA4R30OG FPBTCBK WITH (2) HDMI OUTLETS, (2) DUPLEX OUTLETS AND (4) DATA OUTLETS.
7	WIREMOLD RFBA4R30OG FPBTCBK WITH (2) DUPLEX OUTLETS AND (2) DATA OUTLETS.
8	WIREMOLD RFBA4R30OG FPBTCBK WITH (4) DUPLEX OUTLETS AND (2) DATA OUTLETS.
9	(2) 1" UNDERGROUND CONDUITS TO FLOOR BOX. INSTALL HDMI CABLE BETWEEN HDMI OUTLETS.
10	1" UNDERGROUND CONDUIT TO FLOOR BOX.
11	DATA OUTLET FOR OWNER SUPPLIED AND INSTALLED ROOM CONTROLLER.
12	DATA OUTLET FOR OWNER SUPPLIED AND CONTRACTOR INSTALLED INTERCOM VIEWER.
13	OWNER SUPPLIED AND CONTRACTOR INSTALLED SPEAKER. REFER TO OWNER FOR EXACT LOCATION.
14	OWNER SUPPLIED AND CONTRACTOR INSTALLED VOLUME CONTROL. REFER TO OWNER FOR EXACT LOCATION.
15	OWNER SUPPLIED AND CONTRACTOR INSTALLED INTERCOM VIEWER. REFER TO OWNER FOR EXACT LOCATION.
16	OWNER SUPPLIED AND CONTRACTOR INSTALLED WIRELESS ACESS POINT.
17	OWNER SUPPLIED AND CONTRACTOR INSTALLED WALL MOUNTED WIRELESS ACESS POINT BEAM TO TRAINING TOWER.
18	OWNER SUPPLIED AND CONTRACTOR INSTALLED KEYPAD. ROUTE COMPOSITE CABLE FROM KEYPAD TO ENTERPRISE ACCESS HUB IN IT/AV EQUIPMENT 137.
19	OWNER SUPPLIED AND CONTRACTOR INSTALLED STARLINK ANTENNA.
20	INSTALL 3/4" FIRE RATED PLYWALL ON WALL. PAINT WHITE EXCEPT FIRE LABEL.
21	(3) 2" CONDUITS WITH PULLSTRING FOR FIBER/PHONE AND CATV FROM I.T. CLOSET TO PROPERTY LINE. SEE SHEET E603 FOR CONTINUATION.
22	(3) 2" CONDUIT WITH PULLSTRING FOR FIBER/PHONE, FIRE ALARM AND CCTV/CARD ACCESS FROM I.T. CLOSET 137 IN HEADQUARTERS BUILDING TO ELECTRICAL ROOM 101 IN MAINTENANCE BUILDING. SEE SHEETS E006 AND E241 FOR CONTINUATION.

E141 KEYED NOTES

#	
23	LEVITON WM1VF-GY VERTICAL Fs WEATHER-PROOF COVER.
24	PROVIDE RTU-01 WITH A DUCT TETECTOR AND REMOTE TEST SWITCH. CONNECT TO FIRE ALARM SYSTEM AS WELL AS RTU-01 CONTROLS FOR AUTOMATIC SHUT DOWN OF SUPPLY AND RETURN.
25	PROVIDE RTU-02 WITH A DUCT TETECTOR AND REMOTE TEST SWITCH. CONNECT TO FIRE ALARM SYSTEM AS WELL AS RTU-02 CONTROLS FOR AUTOMATIC SHUT DOWN OF SUPPLY AND RETURN.
26	PROVIDE RTU-03 WITH A DUCT TETECTOR AND REMOTE TEST SWITCH. CONNECT TO FIRE ALARM SYSTEM AS WELL AS RTU-03 CONTROLS FOR AUTOMATIC SHUT DOWN OF SUPPLY AND RETURN.
27	POST INDICATOR VALVE. SEE CIVIL PLANS FOR EXACT LOCATION.
28	RACK AND CABINET PROVIDED BY FEATHERSHARK AND INSTALLED BY ELECTRICAL CONTRACTOR. UPS PROVIDED AND INSTALLED BY FEATHERSHARK. PATCH PANEL PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
29	COORDINATE HOOD FIRE PROTECTION SYSTEM WITH BUILDING FIRE ALAM SYSTEM.
30	GENERATOR ANNUNCIATOR PANEL.
31	FIRE ALARM ANNUNCIATOR PANEL.
32	OWNER SUPPLIED AND CONTRACTOR INSTALLED MICROPHONE. REFER TO OWNER FOR EXACT LOCATION.
33	OWNER SUPPLIED AND CONTRACTOR INSTALLED CAMERA. REFER TO OWNER FOR EXACT LOCATION.
34	RACK AND CABINET PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. UPS PROVIDED AND INSTALLED BY OWNER. PATCH PANEL PROVIDED AND INSTALLED BY CONTRACTOR.
35	PROVIDE MANUAL PULL STATION FOR ACTIVATION OF KITCHEN HOOD FIRE SUPPRESSION SYSTEM. ACTIVATION OF FIRE SUPPRESSION SYSTEM SHALL ALSO SEND ALARM SIGNAL TO FACP, AUTOMATICALLY SHUT OFF POWER TO COOKING APPLIANCES UNDER HOOD, HOOD LIGHTING, AND HOOD MAKEUP AHU AND AUTOMATICALLY DEACTIVATES SOLENOID TO TURN OFF GAS TO AFFECTED COOKING LINES. EXHAUST FAN CONTINUES TO OPERATE UNLESS REQUIRED BY MANUFACTURER TO RUN FOR PROPER OPERATION. SEE KITCHEN ELECTRICAL DETAILS SHEET FOR FURTHER INFORMATION.

TO AUDIO CONTROLLER IN STORAGE 02.

TO AUDIO CONTROLLER IN STORAGE 02.

ACCESS CONTROL PANEL
FIRE ALARM CONTROL PANEL

ENTERPRISE ACCESS HUB

1 HQ AUXILIARY PLAN
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

2 HQ MEZZANINE AUXILIARY PLAN
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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Expires: 12/31/26

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
340/360 Ecology Dr. St Peters MO 63376

No.	Date	Revision
1	2025-10-10	ADDENDUM - 01
2	2025-10-17	ADDENDUM - 02

HQ AUXILIARY PLAN

Project No. 23121

Sheet No. E141

Date 09/16/2025

STATE OF MISSOURI
THOMAS J. ABBEG
NUMBER PE-2022032384
PROFESSIONAL ENGINEER
10-17-2025

Name: Thomas J. Abbeg
Discipline: Professional Engineer
License No: PE-2022032384
Expiration Date: 12/31/2026

THE PROFESSIONALS WHOSE SIGNATURES AND SEALS APPEAR HERE, ASSUME RESPONSIBILITY FOR WHAT APPEARS ON THIS SHEET ONLY. ALL OTHER PLANS, SPECIFICATIONS, REPORTS, AND OTHER DOCUMENTS PREPARED BY OTHER CONSULTANTS, OWNER OR OTHERS ARE NOT PART OF THE PROJECT FOR WHICH THIS SEAL INDICATES RESPONSIBILITY.

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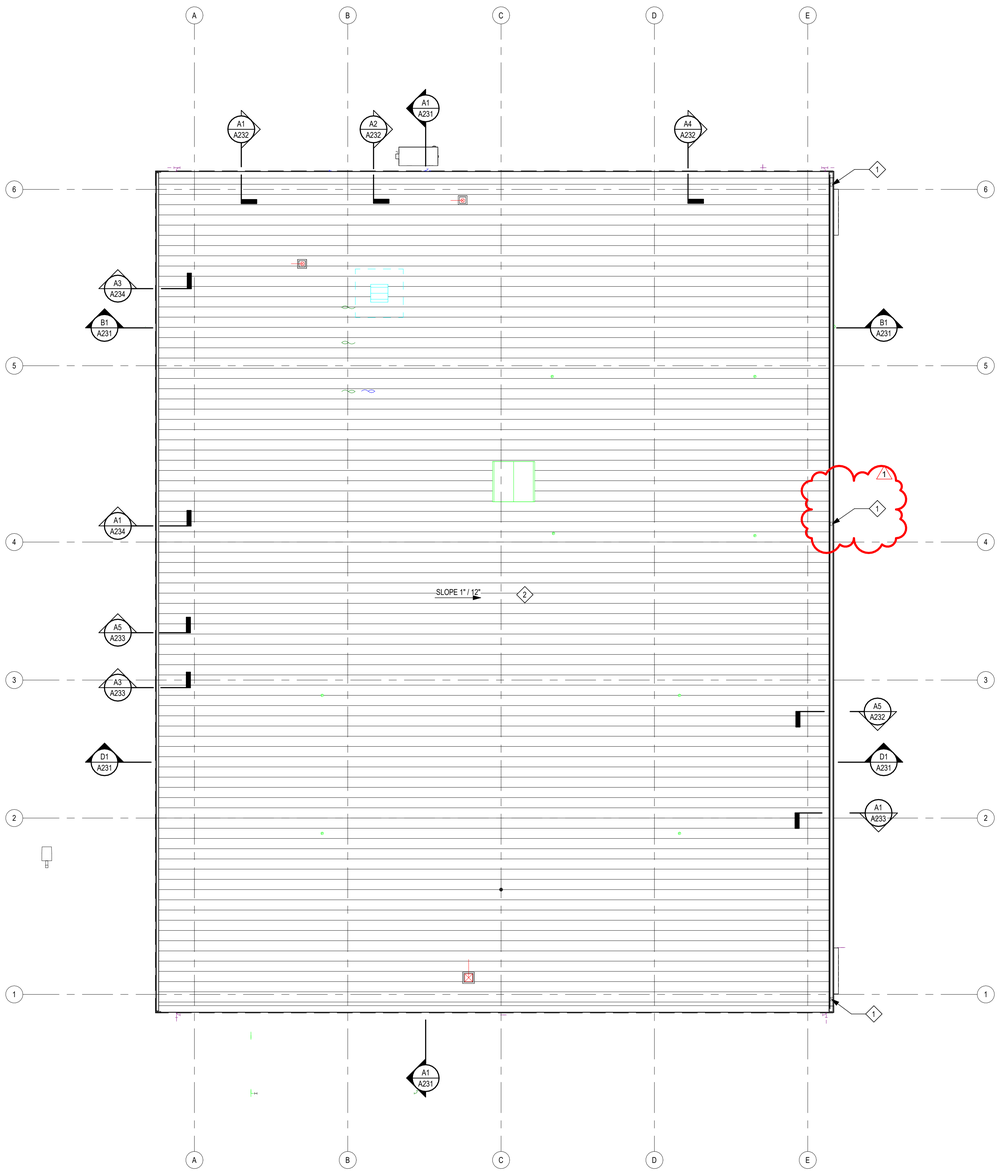

A1 ROOF PLAN
1/8" = 1'-0"

KEYED NOTES ROOF PLAN

MARK	DESCRIPTION
1	ROOF DRAINAGE DOWNSPOUT, SEE DETAILS.
2	METAL STANDING SEAM ROOF BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.

ROOF PLAN GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL PENETRATIONS WITH ALL MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT AND TRADES.
2. CONTRACTOR SHALL COORDINATE LOCATION OF DOWNSPOUTS WITH CIVIL PLANS.
3. IN THE EVENT OF CONFLICT, ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER CIVIL DRAWINGS FOR LOCATION AND QUANTITY OF DOWNSPOUTS.
4. REFER TO STRUCTURAL DRAWINGS FOR MINIMUM ROOF SHEATHING REQUIREMENTS.
5. SEE APPLICABLE UL ASSEMBLIES AS DESCRIBED ELSEWHERE IN THESE DRAWINGS FOR REQUIREMENTS DESCRIBED THEREIN. UL REQUIREMENTS OR DETAILING SHALL TAKE PRECEDENCE SHOULD ANY DISCREPANCIES ARISE.
6. GENERAL CONTRACTOR SHALL ENSURE DESIGN VENTILATION REQUIREMENT DESCRIBED HEREIN TO BE MET IF SUBSTITUTIONS OF MATERIAL TYPES AND QUANTITIES ARE SUBMITTED AND APPROVED BY THE ARCHITECT. GC ASSUMES RESPONSIBILITY FOR TYPE, LOCATION, ARRANGEMENT AND QUANTITIES FOR MEETING THESE REQUIREMENTS.
7. SEE REFLECTED CEILING PLAN FOR EXTENT OF SOFFIT AREAS. GC TO PROVIDE LAYOUT OF SOFFIT AREA FOR INTAKE AIR, SIZED AND EQUALLY DISTRIBUTED PER CALCULATIONS DESCRIBED ELSEWHERE IN THESE DOCUMENTS. PLUMBING AND FIRE PROTECTION SYSTEMS, REQUEST CLARIFICATION FROM ARCHITECT PRIOR TO INSTALLATION.

ROOF DRAINAGE CALCULATIONS

GUTTER
R = RAINFALL INTENSITY = 4.0" PER HOUR
A = ROOF AREA = 9,593 SF
GPM = R x A x 0.0104 (EQUATION 11-1)
4.0 x 9,593 x 0.0104 = 399 GPM

D = DOWNSPOUT = 2
GPM/D = GPM PER DOWNSPOUT
399/2 = 200 GPM

DOWNSPOUT SIZE = 6" X 6"

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360 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

ROOF PLAN

Project No. 23121

Sheet No. A213

Date 09/16/2025

10/17/2025 10:27:24 AM
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SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
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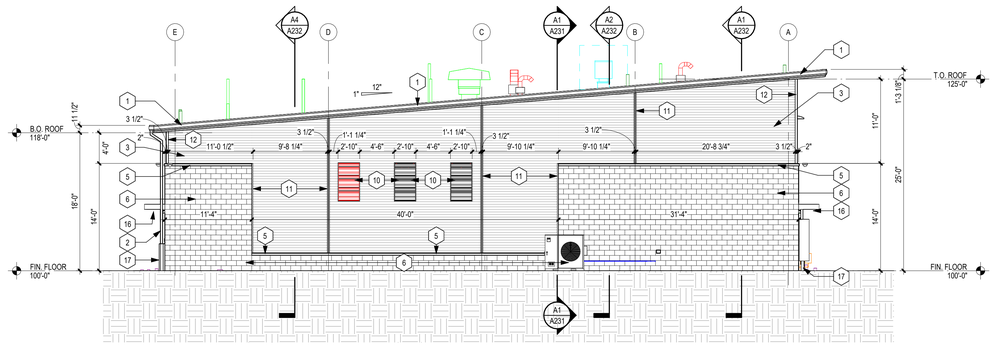
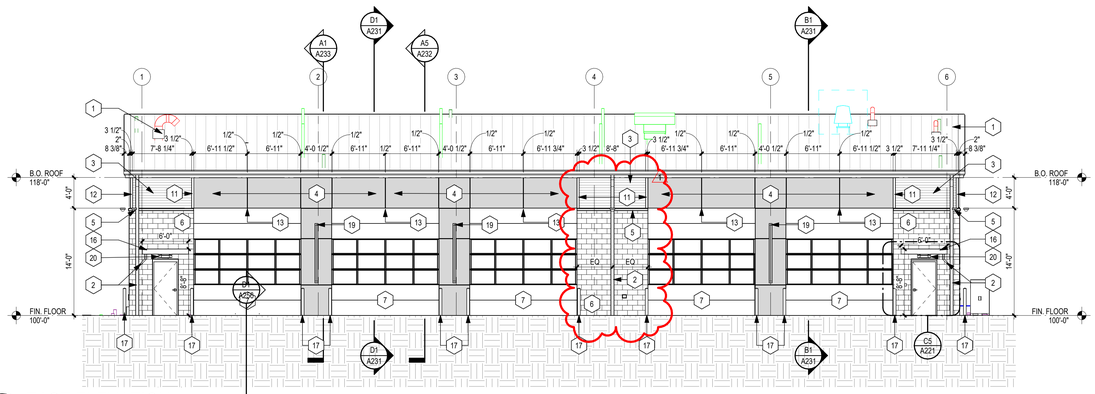
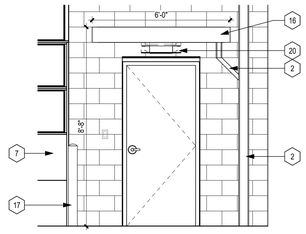


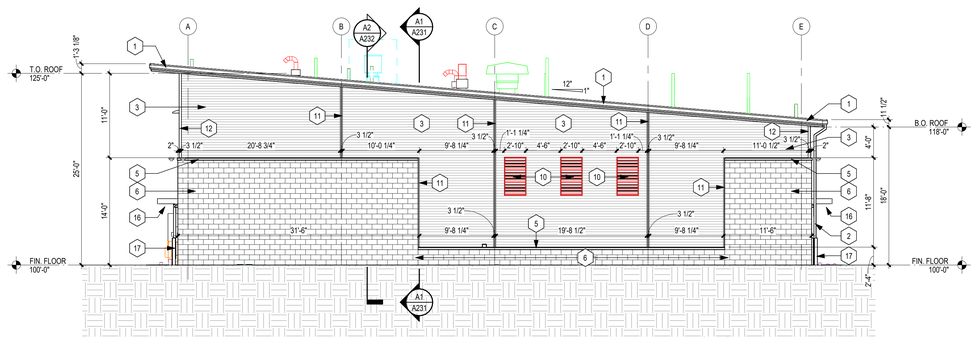
D1 NORTH ELEVATION
1/8" = 1'-0"



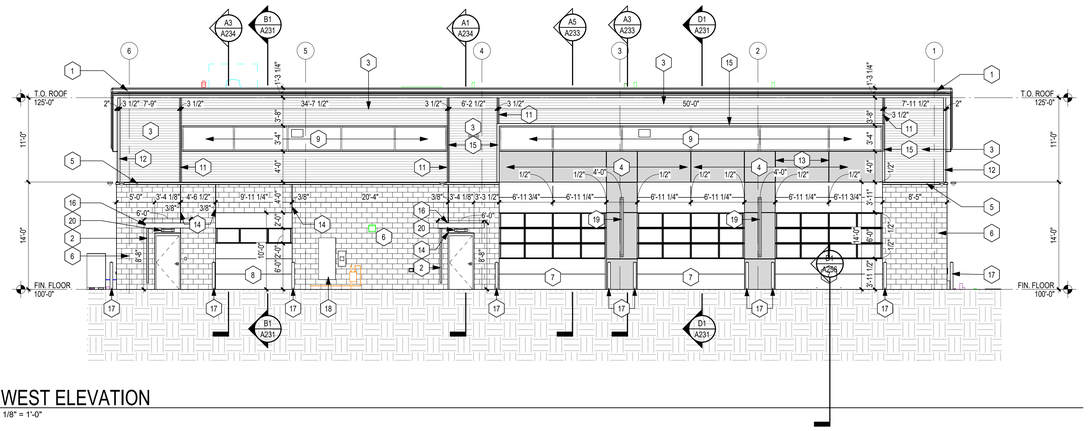
C1 EAST ELEVATION
1/8" = 1'-0"



C5 ENLG. ELEV. @ EAST DOOR
3/8" = 1'-0"



B1 SOUTH ELEVATION
1/8" = 1'-0"



A1 WEST ELEVATION
1/8" = 1'-0"

KEYED NOTES EXTERIOR ELEV.

MARK	DESCRIPTION
1	METAL STANDING SEAM ROOF BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
2	ROOF DRAINAGE DOWNSPOUT, SEE DETAILS.
3	TBD CONCEALED FASTENED METAL WALL PANEL (MTL-03). SEE EXT. BLDG. MTLS. LEGEND.
4	RED MCM PANEL (MCM-01). -SEE EXT. BLDG. MTLS. LEGEND.
5	MIDWEST CAST STONE (STN-01). CUSTOM PROFILE PER DOCUMENTS (SP-3). -SEE EXT. BLDG. MTLS. LEGEND.
6	GRAY SPLIT FACE BLOCK (CMU-01). SEE EXT. BLDG. MTLS. LEGEND.
7	14' GARAGE DOOR WITH GLASS (METALLIC SILVER).
8	10' GARAGE DOOR WITH GLASS (METALLIC SILVER)
9	1" INSULATED GLAZING, CLEAR (SF-01). -SEE EXT. BLDG. MTLS. LEGEND.
10	34" X 60" LOUVER, SEE MECHANICAL DWGS.
11	3 PC. METAL PANEL VERTICAL PANEL JOINT TRIM COLOR TO MATCH WALL PANEL, SEE DETAILS.
12	3 PC. METAL PANEL CORNER VERTICAL PANEL JOINT TRIM COLOR TO MATCH WALL PANEL, SEE DETAILS.
13	MCM REVEAL, SW X 2D (EXP-02)
14	CMU REVEAL (EXP-01), SEE DETAILS.
15	METAL TRIM TO MATCH ADJACENT METAL PANEL WALL.
16	GREY CANOPY, SEE DETAILS.
17	TYP. BOLLARD, SEE DETAILS.
18	ELECTRICAL BOX, SEE ELECTRICAL DRAWINGS FOR MORE DETAILS.
19	WALL LIGHT SCONCE, SEE ELECTRICAL DWGS.
20	WALL PACK LIGHTING FIXTURE BENEATH DOOR CANOPY, SEE ELECTRICAL DWGS.

EXT. BLDG. MTLS. LEGEND

MARK	DESCRIPTION
CMU-01	BEST BLOCK, 4X8X16 NOM. SPLIT-FACE CMU EBONY. MORTAR – SGS 60A, WHITE.
EXP-01	BACKER ROD WITH TRIMCO SEALANT, COLOR GREY TBD.
EXP-02	BACKER ROD WITH TRIMCO SEALANE., COLOR OER RED.
MCM-01	ALPOLIC FR, 4MM MCM PANELS, COLOR OER RED.
MTL-02	MCELROY METALS SILVER METALLIC.
MTL-03	COUNSELED FASTENED METAL WALL PANEL: FABRAL SILHOUETTE HCF SERIES,16-4C, COLOR TBD PROVIDE FOLLOWING COLOR SAMPLES FOR ARCHITECTS APPROVAL (BRIGHT SILVER S66, SILVERSMITH S15).
SF-01	2" X 4 1/2" CLEAR ANODIZED THERMALLY BROKEN ALUMINUM STOREFRONT SYSTEM W/ 1" INSULATED GLAZING VITRO SOLARBAN 60 CLEAR + CLEAR LOW -E COATING.
ST-01	MIDWEST CAST STONE, CUSTOM PROFILE PER DOCUMENTS, COLOR 1A. MORTAR – SGS 60A, WHITE.

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ST. PETERS, MO 63376

No.	Revision	Date
1	2025 - 10 - 17 ADDENDUM - 02	

EXTERIOR ELEVATIONS

Project No. 23121

Sheet No. A221

Date 09/16/2025

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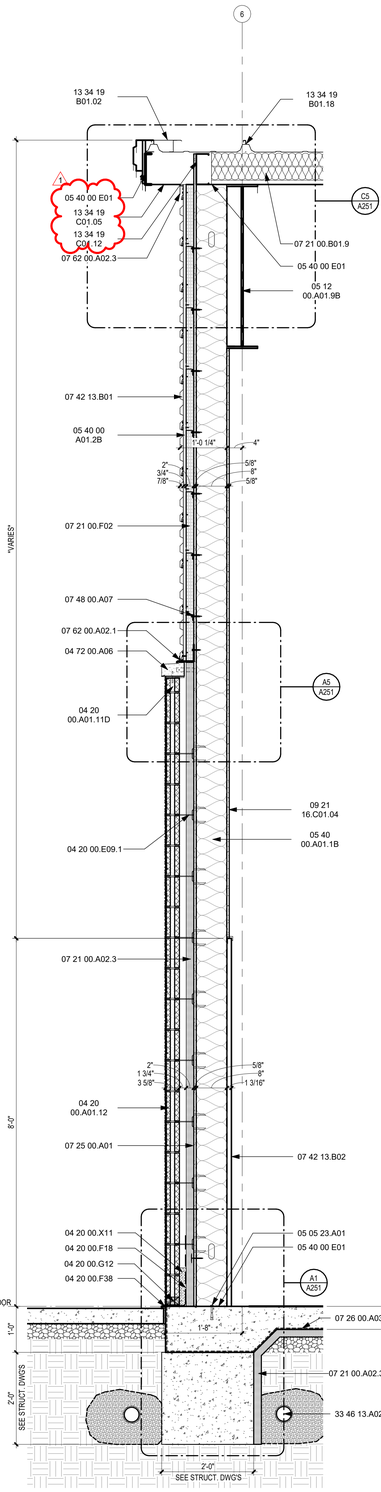

WALL SECTION KEYNOTES

Key Value	Keynote Text
03 30 00.A05.01	CAST-IN-PLACE CONCRETE FOOTING. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.02	CAST-IN-PLACE CONCRETE FOUNDATION WALL. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.09	CAST-IN PLACE CONCRETE FLOOR SLAB. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.10	CAST-IN PLACE CONCRETE FLOOR SLAB OVER 9/16" CORRUGATED METAL DECKING. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.12	CAST-IN PLACE CONCRETE FLOOR SLAB OVER 15 MIL. VAPOR BARRIER OVER 4" (MIN.) COMPACTED GRANULAR BASE. -SEE STRUCTURAL DRAWINGS.
03 30 00.A12.0	1/2" FIBER EXPANSION JOINT FILLER.
04 20 00.A01.3C	8"X8"X16" (NOM). SOLID CONCRETE BLOCK (C.M.U.). -SEE PARTITION TYPE FOR FIRE RATING.
04 20 00.A01.7	CONCRETE BLOCK (C.M.U.) BOND BEAM WITH (2) REBAR. -SEE PARTITION TYPE FOR FIRE RATING.
04 20 00.A01.11D	(CMU-01) 4" X 4" X 16" (NOM) SOLID CONCRETE BLOCK (C.M.U). -SEE PARTITION TYPE FOR FIRE RATING.
04 20 00.A01.12	(CMU-01) 4" X 8" X 16" (NOM.). SPLIT FACE CONCRETE BLOCK (C.M.U.). -SEE PARTITION TYPE FOR FIRE RATING.
04 20 00.E09.1	TWO-PIECE GALV. METAL MASONRY VENEER ANCHOR.
04 20 00.F18	RUBBERIZED ASPHALT FLASHING. INSTALL IN ACCORDANCE W/ MANUFACTURER'S INSTALLATION INSTRUCTIONS.
04 20 00.F38	CONT. STAINLESS STEEL FLASHING/DRIP EDGE.
04 20 00.G12	POLYESTER MESH WEEPS @ 24" O.C.
04 20 00.H01	AIR CAVITY.
04 20 00.X11	CAVITY MORTAR CONTROL MORTAR DIVERTER.
04 20 00.Z01	CONTINUOUS TERMINATION BAR AND SEALANT.
04 43 00.A1	MASONRY ANCHOR SELECTED AND INSTALLED BY MASONRY MANUFACTURE.
04 72 00.A06	ST-01 CAST STONE SILL (SP-3) -REFERENCE EXTERIOR ELEVATIONS AND STONE BANDING PROFILES FOR TYPE AND DIMENSIONS.
05 05 23.A01	3/4" Ø ANCHOR BOLT & 1 1/2" WASHERS @ 48" O.C. MAX (MIN 7" EMBED). MIN (2) BOLTS PER BOARD & WITHIN 12" OF EACH END OR SPLICE.
05 12 00.A01.2	STRUCTURAL STEEL BEAM. -SEE STRUCTURAL DRAWINGS.
05 12 00.A01.4	STRUCTURAL STEEL ANGLE. -SEE STRUCTURAL DRAWINGS.
05 12 00.A01.9B	MTL END/WALL RAFER/BEAM BY MTL BLDG MFR.
05 12 00.A01.12	STRUCTURAL STEEL LINTEL. -SEE STRUCTURAL DRAWINGS.
05 31 00.A01	9/16" CORRUGATED METAL DECKING. -SEE STRUCTURAL DRAWINGS.
05 40 00.A01.2B	3/4" KNIGHT HCI CLADDING ATTACHMENT.
05 40 00 E01	CONTINUOUS METAL STUD "C" RUNNER TRACK.
05 40 00.A01.1A	6" STRUCTURAL COLD-FORMED METAL STUD FRAMING @ 16" O.C. W/ R-19 (MIN.) BATT INSULATION. -SEE STRUCTURAL DRAWINGS.
05 40 00.A01.1B	8" STRUCTURAL COLD-FORMED METAL STUD FRAMING @ 16" O.C. W/ R-25 (MIN.) BATT INSULATION. -SEE STRUCTURAL DRAWINGS.
05 51 00.A01.1	PREFABRICATED STEEL PAN STAIR W/ CONCRETE FILLED TREADS.
05 52 13.A01.02	1 1/4" NOM. DIA. STEEL PIPE WALL MOUNTED HANDRAIL ATTACHED TO WALL W/ MOUNTING BRACKETS @ 8'-0" O.C. (MAX.). NOTE: RETURN HANDRAIL ENDS TO WALL. -SEE APPLICABLE DETAILS.
06 16 43.A02	5/8" EXTERIOR FIBERGLASS MAT FACED GYPSUM WALL BOARD SHEATHING.
07 14 00.A01	SINGLE-COMPONENT FLUID-APPLIED WATERPROOFING MEMBRANE.
07 14 00.A02	DRAINAGE PANEL OVER FLUID APPLIED WATERPROOFING. INSTALL IN ACCORDANCE W/ MANUFACTURER'S STANDARD INSTALLATION PROCEDURES AND DETAILS.
07 14 00.C01	APPROVED CONT. SEALANT AND TERMINATION BAR BY WATERPROOFING MFR.
07 17 13.B03	CONT. "TREMCO" SUPERSTOP BENTONITE WATERSTOP/JOINT SEAL. OR ARCHITECT APPROVED EQUAL. INSTALL IN ACCORDANCE W/ MANUFACTURER'S RECOMMENDATIONS.
07 21 00.A02.3	2" THK. (R-10 MIN.) EXTRUDED POLYSTYRENE (XPS) RIGID BOARD INSULATION.
07 21 00.A02.3A	2" THK (R-8.4 MIN.) EXTRUDED POLYSTYRENE (XPS) RIGID BOARD PERIMETER INSULATION.
07 21 00.B01.9	(2) LAYERS R-13 VINYL FACED FIBERGLASS BATT INSULATION. FIRST LAYER DROPED LOOSE BETWEEN PURLINS. SECOND LAYER SUPPORTED BY FIRST LAYER RUNNING PARALLEL TO PURLINS.
07 21 00.F02	2" THK. MINERAL WOOL FIBER BOARD INSULATION.
07 21 00.G03	5.5" W. CLOSED-CELL POLYETHYLENE FOAM SILL SEALER.
07 25 00.A01	WEATHER BARRIER
07 25 00.I01	SELF-ADHERING RUBBERIZED ASPHALT FLASHING. INSTALL IN ACCORDANCE W/ MANUFACTURER'S INSTALLATION INSTRUCTIONS.
07 26 00.A03	15 MIL. VAPOR RETARDER/BARRIER.
07 42 13.A01	RED METAL COMPOSITE MATERIAL (MCM-01) SHEET. -SEE EXT. BLDG. MTLS. LEGEND.
07 42 13.A05	MCM ANCHOR, CLIPS AND ACCESSORIES.
07 42 13.A17	MCM WALL TERMINATION PANEL.
07 42 13.B01	HORIZONTAL RIBBED (MTL-03) METAL WALL PANEL CONCEALED FASTENED. -REFERENCE EXTERIOR BUILDING MATERIALS LEGEND AND APPLICABLE WALL SECTIONS AND DETAILS.
07 42 13.B02	8'-0" HIGH METAL PANEL PARTITION WALL AT VEHICLE BAY. SEE SPECIFICATIONS FOR CONSTRUCTION.
07 48 00.A07	2" THERMABRACKET-D RAINSCREEN ATTACHMENT BRACKET BY KNIGHTWALL OR ARCHITECT APPROVED EQUAL.
07 54 00.A02.1	TPO MEMBRANE
07 62 00.A02.1	PRE-FINISHED METAL FLASHING AND/OR TRIM FINISH TO MATCH ADJACENT METAL PANEL.
07 62 00.A02.3	PRE-FINISHED AJ3 "J" CHANNEL AND/OR TRIM FINISH TO MATCH ADJACENT METAL PANEL.
07 84 00.A01	FIRE SAFING INSULATION WITH FIRE CAULK BOTH SIDES.
07 90 05.A04.02	3/8" W. BACKER ROD AND SEALANT.
07 90 05.B03	CONT. 3/8" W. SEALANT JOINT. COLOR TO MATCH ADJACENT MATERIAL UNLESS OTHERWISE INDICATED.
08 36 13.B01	OVERHEAD SECTIONAL DOOR. -SEE DOOR SCHEDULE.
09 21 16.C01.04	5/8" THK. PAPER FACED GYPSUM WALL BOARD.
09 21 16.D01	SUSPENDED GYPSUM BOARD CEILING SYSTEM: 5/8" GYPSUM BOARD ATTACHED TO DRYWALL GRID SYSTEM.
13 34 19 B01.01	METAL GUTTER BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
13 34 19 B01.02	METAL TRIM OVERSIZE AND EXPANSION.
13 34 19 B01.18	STANDING SEAM ROOF.
13 34 19 C01.05	METAL SOFFIT BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
13 34 19 C01.07	METAL ROOF PURLIN BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
13 34 19 C01.12	METAL EAVE STRUT BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
32 30 00.A01	4"Ø STD. STEEL PIPE FILLED W/ CONCRETE. PAINT EXPOSED STEEL PIPE AND CONC. CAP YELLOW. -SEE BOLLARD DETAIL.
33 46 13.A02	4" PERFORATED DRAIN PIPE SURROUNDED BY 1" CLEAN CRUSHED ROCK PLACED A MINIMUM OF 6 INCHES IN ALL DIRECTIONS AROUND PIPE, ENCASED IN A MIRAFI 140N SYNTHETIC FILTER FABRIC OR ARCHITECT APPROVED EQUAL. REFERENCE CIVIL AND/OR PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

A1 WALL SECTION NORTH @ FLUIDS ROOM 100
3/4" = 1'-0"

A2 WALL SECTION NORTH @ RESTROOM
3/4" = 1'-0"

A4 WALL SECTION NORTH @ SERVICE BAYS
3/4" = 1'-0"

A5 WALL SECTION EAST @ O.H. DOOR
3/4" = 1'-0"

SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1" = 1'-0" 2" 1" 6" 3" 0
SCALE: 3/4" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 6" 3" 0
SCALE: 3/8" = 1'-0" 4" 2" 8" 4" 0
SCALE: 1/4" = 1'-0" 8" 4" 2" 1" 6" 3" 0
SCALE: 1/8" = 1'-0" 16" 8" 4" 2" 1" 6" 3" 0
SCALE: 3/32" = 1'-0" 24" 16" 8" 4" 2" 1" 6" 3" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 4" 2" 1" 6" 3" 0

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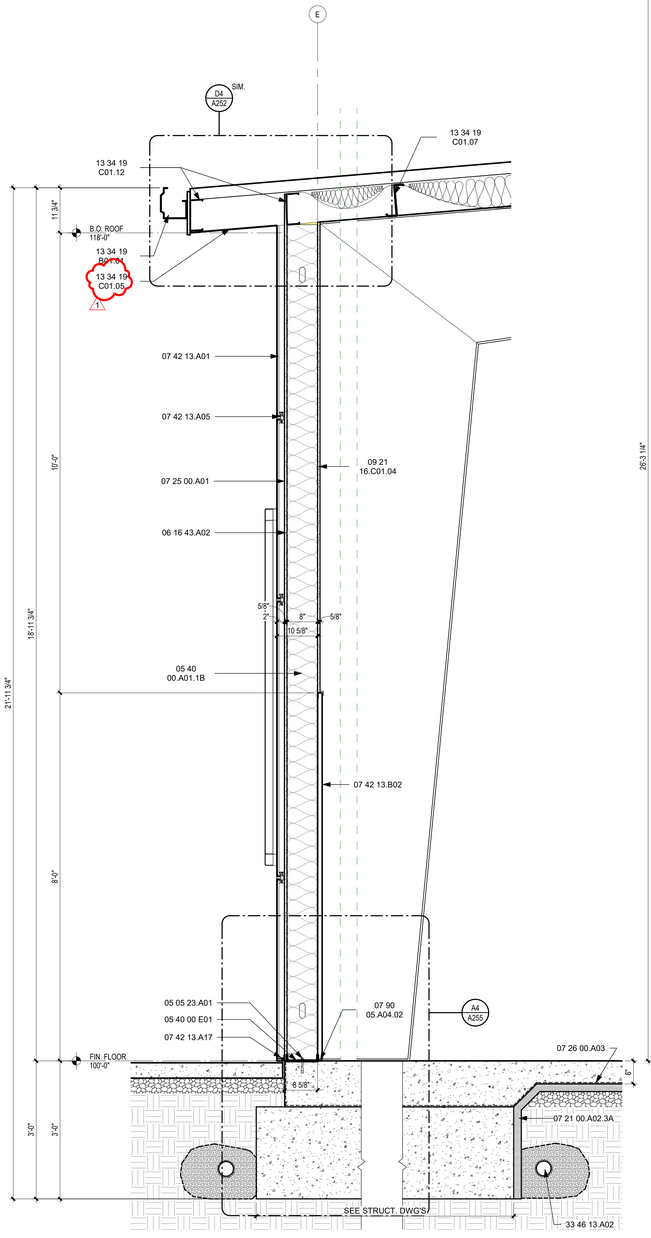
No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

WALL SECTIONS

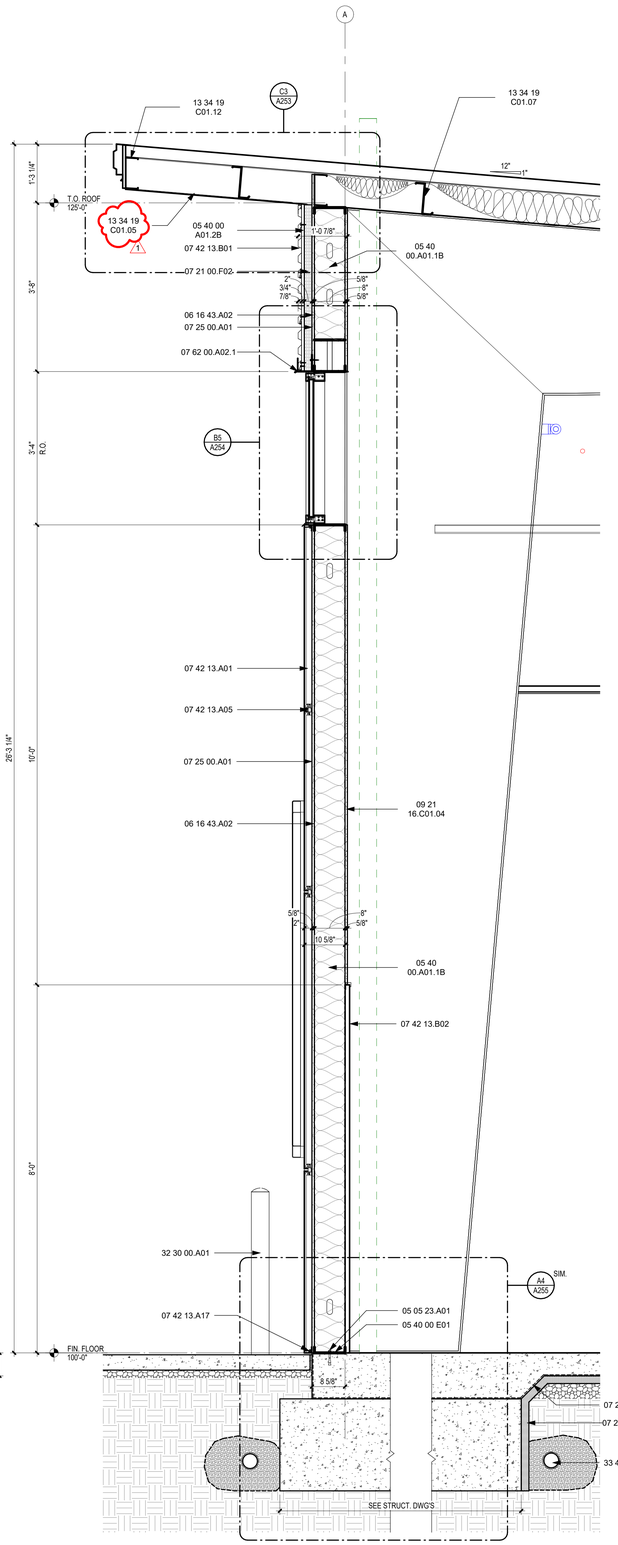
Project No.
23121

Sheet No.
A232

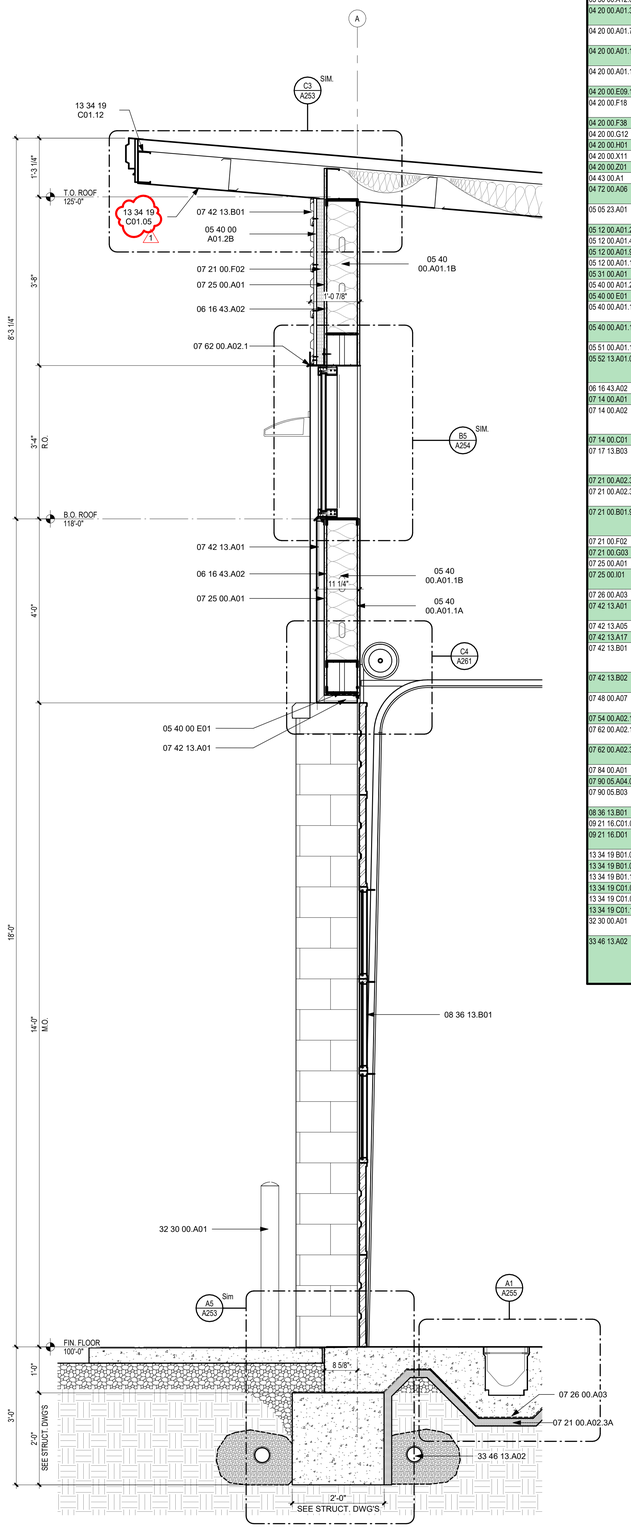
Date
09/16/2025



A1 WALL SECTION EAST @ SERVICE BAYS
3/4" = 1'-0"



A3 WALL SECTION WEST @ SERVICE BAYS
3/4" = 1'-0"



A5 WALL SECTION WEST @ O.H. DOOR
3/4" = 1'-0"

WALL SECTION KEYNOTES

Key Value	Keynote Text
03 30 00.A05.01	CAST-IN-PLACE CONCRETE FOOTING. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.02	CAST-IN-PLACE CONCRETE FOUNDATION WALL. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.09	CAST-IN PLACE CONCRETE FLOOR SLAB. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.10	CAST-IN PLACE CONCRETE FLOOR SLAB OVER 9/16" CORRUGATED METAL DECKING. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.12	CAST-IN PLACE CONCRETE FLOOR SLAB OVER 15 MIL. VAPOR BARRIER OVER 4" (MIN.) COMPACTED GRANULAR BASE. -SEE STRUCTURAL DRAWINGS.
03 30 00.A12.0	1/2" FIBER EXPANSION JOINT FILLER.
04 20 00.A01.3C	8"X8"X16" (NOM). SOLID CONCRETE BLOCK (C.M.U.). -SEE PARTITION TYPE FOR FIRE RATING.
04 20 00.A01.7	CONCRETE BLOCK (C.M.U.) BOND BEAM WITH (2) REBAR. -SEE PARTITION TYPE FOR FIRE RATING.
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04 20 00.F18	RUBBERIZED ASPHALT FLASHING. INSTALL IN ACCORDANCE W/ MANUFACTURER'S INSTALLATION INSTRUCTIONS.
04 20 00.F38	CONT. STAINLESS STEEL FLASHING/DRIP EDGE.
04 20 00.G12	POLYESTER MESH WEEPS @ 24" O.C.
04 20 00.H01	AIR CAVITY.
04 20 00.X11	CAVITY MORTAR CONTROL MORTAR DIVERTER.
04 20 00.Z01	CONTINUOUS TERMINATION BAR AND SEALANT.
04 43 00.A1	MASONRY ANCHOR SELECTED AND INSTALLED BY MASONRY MANUFACTURE.
04 72 00.A06	ST-01 CAST STONE SILL (SP-3) -REFERENCE EXTERIOR ELEVATIONS AND STONE BANDING PROFILES FOR TYPE AND DIMENSIONS.
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05 12 00.A01.2	STRUCTURAL STEEL BEAM. -SEE STRUCTURAL DRAWINGS.
05 12 00.A01.4	STRUCTURAL STEEL ANGLE. -SEE STRUCTURAL DRAWINGS.
05 12 00.A01.9B	MTL ENDWALL RAFER/BEAM BY MTL BLDG MFR.
05 12 00.A01.12	STRUCTURAL STEEL LINTEL. -SEE STRUCTURAL DRAWINGS.
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05 40 00.A01.2B	3/4" KNIGHT HCI CLADDING ATTACHMENT.
05 40 00 E01	CONTINUOUS METAL STUD "C" RUNNER TRACK.
05 40 00.A01.1A	6" STRUCTURAL COLD-FORMED METAL STUD FRAMING @ 16" O.C. W/ R-19 (MIN.) BATT INSULATION. -SEE STRUCTURAL DRAWINGS.
05 40 00.A01.1B	8" STRUCTURAL COLD-FORMED METAL STUD FRAMING @ 16" O.C. W/ R-25 (MIN.) BATT INSULATION. -SEE STRUCTURAL DRAWINGS.
05 51 00.A01.1	PREFABRICATED STEEL PAN STAIR W/ CONCRETE FILLED TREADS.
05 52 13.A01.02	1 1/4" NOM. DIA. STEEL PIPE WALL MOUNTED HANDRAIL ATTACHED TO WALL W/ MOUNTING BRACKETS @ 8'-0" O.C. (MAX.). NOTE: RETURN HANDRAIL ENDS TO WALL. -SEE APPLICABLE DETAILS.
06 16 43.A02	5/8" EXTERIOR FIBERGLASS MAT FACED GYPSUM WALL BOARD SHEATHING.
07 14 00.A01	SINGLE-COMPONENT FLUID-APPLIED WATERPROOFING MEMBRANE.
07 14 00.A02	DRAINAGE PANEL OVER FLUID APPLIED WATERPROOFING. INSTALL IN ACCORDANCE W/ MANUFACTURER'S STANDARD INSTALLATION PROCEDURES AND DETAILS.
07 14 00.C01	APPROVED CONT. SEALANT AND TERMINATION BAR BY WATERPROOFING MFR.
07 17 13.B03	CONT. "TREMCO" SUPERSTOP BENTONITE WATERSTOP/JOINT SEAL, OR ARCHITECT APPROVED EQUAL. INSTALL IN ACCORDANCE W/ MANUFACTURER'S RECOMMENDATIONS.
07 21 00.A02.3	2" THK. (R-10 MIN.) EXTRUDED POLYSTYRENE (XPS) RIGID BOARD INSULATION.
07 21 00.A02.3A	2" THK (R-8.4 MIN.) EXTRUDED POLYSTYRENE (XPS) RIGID BOARD PERIMETER INSULATION.
07 21 00.B01.9	(2) LAYERS R-13 VINYL FACED FIBERGLASS BATT INSULATION. FIRST LAYER DROPED LOOSE BETWEEN PURLINS. SECOND LAYER SUPPORTED BY FIRST LAYER RUNNING PARALLEL TO PURLINS.
07 21 00.F02	2" THK. MINERAL WOOL FIBER BOARD INSULATION.
07 21 00.G03	5.5" W. CLOSED-CELL POLYETHYLENE FOAM SILL SEALER.
07 25 00.A01	WEATHER BARRIER
07 25 00.I01	SELF-ADHERING RUBBERIZED ASPHALT FLASHING. INSTALL IN ACCORDANCE W/ MANUFACTURER'S INSTALLATION INSTRUCTIONS.
07 26 00.A03	15 MIL. VAPOR RETARDER/BARRIER.
07 42 13.A01	RED METAL COMPOSITE MATERIAL (MCM-01) SHEET. -SEE EXT. BLDG. MTLS. LEGEND.
07 42 13.A05	MCM ANCHOR, CLIPS AND ACCESSORIES.
07 42 13.A17	MCM WALL TERMINATION PANEL.
07 42 13.B01	HORIZONTAL RIBBED (MTL-03) METAL WALL PANEL CONCEALED FASTENED. -REFERENCE EXTERIOR BUILDING MATERIALS LEGEND AND APPLICABLE WALL SECTIONS AND DETAILS.
07 42 13.B02	8'-0" HIGH METAL PANEL PARTITION WALL AT VEHICLE BAY. SEE SPECIFICATIONS FOR CONSTRUCTION.
07 48 00.A07	2" THERMABRACKET-D RAINSCREEN ATTACHMENT BRACKET BY KNIGHTWALL OR ARCHITECT APPROVED EQUAL.
07 54 00.A02.1	TPO MEMBRANE.
07 62 00.A02.1	PRE-FINISHED METAL FLASHING AND/OR TRIM FINISH TO MATCH ADJACENT METAL PANEL.
07 62 00.A02.3	PRE-FINISHED AJ3 "J" CHANNEL AND/OR TRIM FINISH TO MATCH ADJACENT METAL PANEL.
07 84 00.A01	FIRE SAFING INSULATION WITH FIRE CAULK BOTH SIDES.
07 90 05.A04.02	3/8" W. BACKER ROD AND SEALANT.
07 90 05.B03	CONT. 3/8" W. SEALANT JOINT. COLOR TO MATCH ADJACENT MATERIAL UNLESS OTHERWISE INDICATED.
08 36 13.B01	OVERHEAD SECTIONAL DOOR. -SEE DOOR SCHEDULE.
09 21 16.C01.04	5/8" THK. PAPER FACED GYPSUM WALL BOARD.
09 21 16.D01	SUSPENDED GYPSUM BOARD CEILING SYSTEM: 5/8" GYPSUM BOARD ATTACHED TO DRYWALL GRID SYSTEM.
13 34 19.B01.01	METAL GUTTER BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
13 34 19.B01.02	GABLE TRIM CLOSURE AND EXTENSION.
13 34 19.B01.18	STANDING SEAM ROOF.
13 34 19.C01.05	METAL SOFFIT BY PRE-ENGINEERED METAL BUILDING MANUFACTURER
13 34 19.C01.07	METAL ROOF PURLIN BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
13 34 19.C01.12	METAL EAVE STRUT BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
32 30 00.A01	4"Ø STD. STEEL PIPE FILLED W/ CONCRETE. PAINT EXPOSED STEEL PIPE AND CONC. CAP YELLOW. -SEE BOLLARD DETAIL.
33 46 13.A02	4" PERFORATED DRAIN PIPE SURROUNDED BY 1" CLEAN CRUSHED ROCK PLACED A MINIMUM OF 6 INCHES IN ALL DIRECTIONS AROUND PIPE. ENCASED IN A MIRAFI 140N SYNTHETIC FILTER FABRIC OR ARCHITECT APPROVED EQUAL. REFERENCE CIVIL AND/OR PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

Roy A. Mangan
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Expires: 12/31/26

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Proposed:
CENTRAL COUNTY FIRE &
RESCUE HEADQUARTERS /
TRAINING / MAINTENANCE
360 ECOLOGY DRIVE
ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

WALL SECTIONS

Project No.
23121

Sheet No.
A233

Date
09/16/2025

10/17/2025 11:12:38 AM
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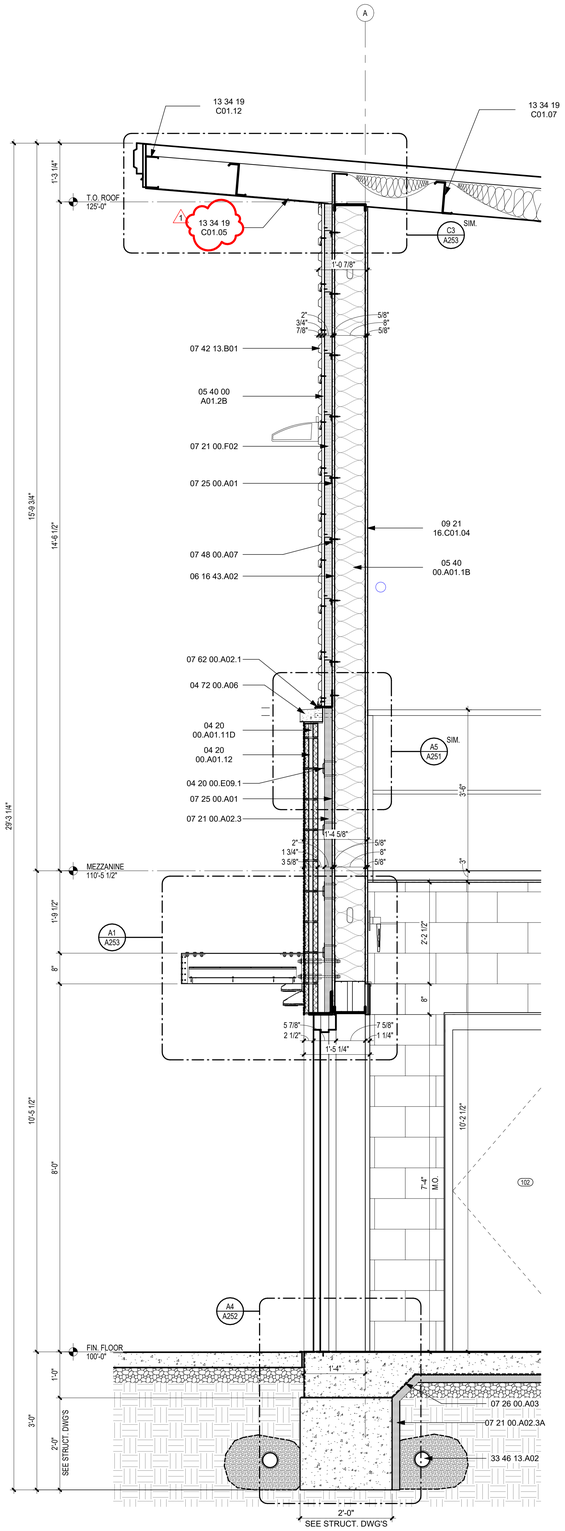
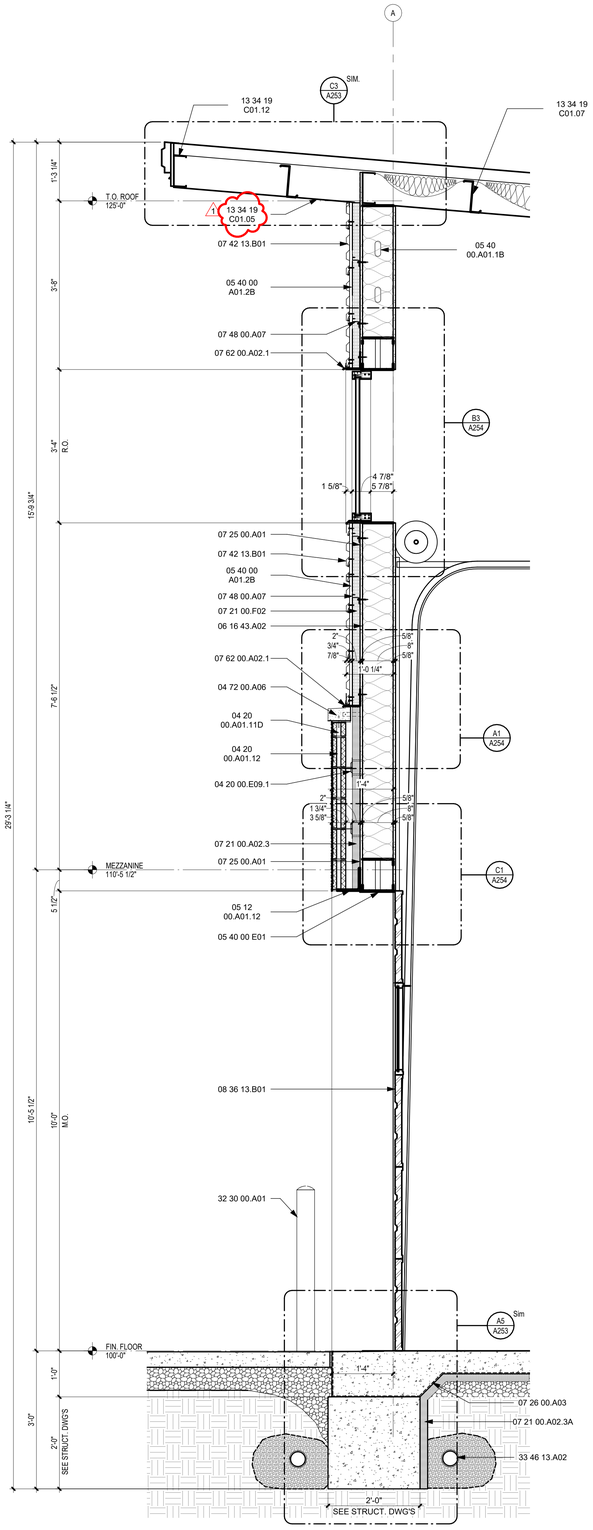


A1 WALL SECTION WEST @ EXT. DOOR
3/4" = 1'-0"



A3 WALL SECTION WEST @ 10' O.H. DOOR
3/4" = 1'-0"

WALL SECTION KEYNOTES

Key Value	Keynote Text
03 30 00.A05.01	CAST-IN-PLACE CONCRETE FOOTING. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.02	CAST-IN-PLACE CONCRETE FOUNDATION WALL. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.09	CAST-IN PLACE CONCRETE FLOOR SLAB. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.10	CAST-IN PLACE CONCRETE FLOOR SLAB OVER 9/16" CORRUGATED METAL DECKING. -SEE STRUCTURAL DRAWINGS.
03 30 00.A05.12	CAST-IN PLACE CONCRETE FLOOR SLAB OVER 15 MIL. VAPOR BARRIER OVER 4" (MIN.) COMPACTED GRANULAR BASE. -SEE STRUCTURAL DRAWINGS.
03 30 00.A12.0	1/2" FIBER EXPANSION JOINT FILLER.
04 20 00.A01.3C	8"X8"X16" (NOM). SOLID CONCRETE BLOCK (C.M.U.). -SEE PARTITION TYPE FOR FIRE RATING.
04 20 00.A01.7	CONCRETE BLOCK (C.M.U.) BOND BEAM WITH (2) REBAR. -SEE PARTITION TYPE FOR FIRE RATING.
04 20 00.A01.11D	(CMU-01) 4" X 4" X 16" (NOM) SOLID CONCRETE BLOCK (C.M.U). -SEE PARTITION TYPE FOR FIRE RATING.
04 20 00.A01.12	(CMU-01) 4" X 8" X 16" (NOM.). SPLIT FACE CONCRETE BLOCK (C.M.U.). -SEE PARTITION TYPE FOR FIRE RATING.
04 20 00.E09.1	TWO-PIECE GALV. METAL MASONRY VENEER ANCHOR.
04 20 00.F18	RUBBERIZED ASPHALT FLASHING. INSTALL IN ACCORDANCE W/ MANUFACTURER'S INSTALLATION INSTRUCTIONS.
04 20 00.F38	CONT. STAINLESS STEEL FLASHING/DRIP EDGE.
04 20 00.G12	POLYESTER MESH WEEPS @ 24" O.C.
04 20 00.H01	AIR CAVITY.
04 20 00.X11	CAVITY MORTAR CONTROL MORTAR DIVERTER.
04 20 00.Z01	CONTINUOUS TERMINATION BAR AND SEALANT.
04 43 00.A1	MASONRY ANCHOR SELECTED AND INSTALLED BY MASONRY MANUFACTURE.
04 72 00.A06	ST-01 CAST STONE SILL (SP-3) -REFERENCE EXTERIOR ELEVATIONS AND STONE BANDING PROFILES FOR TYPE AND DIMENSIONS.
05 05 23.A01	3/4" Ø ANCHOR BOLT & 1 1/2" WASHERS @ 48" O.C. MAX (MIN 7" EMBED). MIN (2) BOLTS PER BOARD & WITHIN 12" OF EACH END OR SPLICE.
05 12 00.A01.2	STRUCTURAL STEEL BEAM. -SEE STRUCTURAL DRAWINGS.
05 12 00.A01.4	STRUCTURAL STEEL ANGLE. -SEE STRUCTURAL DRAWINGS.
05 12 00.A01.9B	MTL ENDWALL RAFER/BEAM BY MTL BLDG MFR.
05 12 00.A01.12	STRUCTURAL STEEL LINTEL. -SEE STRUCTURAL DRAWINGS.
05 31 00.A01	9/16" CORRUGATED METAL DECKING. -SEE STRUCTURAL DRAWINGS.
05 40 00 A01.2B	3/4" KNIGHT HCI CLADDING ATTACHMENT.
05 40 00 E01	CONTINUOUS METAL STUD "C" RUNNER TRACK.
05 40 00.A01.1A	6" STRUCTURAL COLD-FORMED METAL STUD FRAMING @ 16" O.C. W/ R-19 (MIN) BATT INSULATION. -SEE STRUCTURAL DRAWINGS.
05 40 00.A01.1B	8" STRUCTURAL COLD-FORMED METAL STUD FRAMING @ 16" O.C. W/ R-25 (MIN) BATT INSULATION. -SEE STRUCTURAL DRAWINGS.
05 51 00.A01.1	PREFABRICATED STEEL PAN STAIR W/ CONCRETE FILLED TREADS.
05 52 13.A01.02	1 1/4" NOM. DIA. STEEL PIPE WALL MOUNTED HANDRAIL ATTACHED TO WALL W/ MOUNTING BRACKETS @ 8'-0" O.C. (MAX.). NOTE: RETURN HANDRAIL ENDS TO WALL. -SEE APPLICABLE DETAILS.
06 16 43.A02	5/8" EXTERIOR FIBERGLASS MAT FACED GYPSUM WALL BOARD SHEATHING.
07 14 00.A01	SINGLE-COMPONENT FLUID-APPLIED WATERPROOFING MEMBRANE.
07 14 00.A02	DRAINAGE PANEL OVER FLUID APPLIED WATERPROOFING. INSTALL IN ACCORDANCE W/ MANUFACTURER'S STANDARD INSTALLATION PROCEDURES AND DETAILS.
07 14 00.C01	APPROVED CONT. SEALANT AND TERMINATION BAR BY WATERPROOFING MFR.
07 17 13.B03	CONT. "TREMCO" SUPERSTOP BENTONITE WATERSTOP/JOINT SEAL, OR ARCHITECT APPROVED EQUAL. INSTALL IN ACCORDANCE W/ MANUFACTURER'S RECOMMENDATIONS.
07 21 00.A02.3	2" THK. (R-10 MIN.) EXTRUDED POLYSTYRENE (XPS) RIGID BOARD INSULATION.
07 21 00.A02.3A	2" THK (R-8.4 MIN.) EXTRUDED POLYSTYRENE (XPS) RIGID BOARD PERIMETER INSULATION.
07 21 00.B01.9	(2) LAYERS R-13 VINYL FACED FIBERGLASS BATT INSULATION. FIRST LAYER DROPED LOOSE BETWEEN PURLINS. SECOND LAYER SUPPORTED BY FIRST LAYER RUNNING PARALLEL TO PURLINS.
07 21 00.F02	2" THK. MINERAL WOOL FIBER BOARD INSULATION.
07 21 00.G03	5.5" W. CLOSED-CELL POLYETHYLENE FOAM SILL SEALER.
07 25 00.A01	WEATHER BARRIER
07 25 00.I01	SELF-ADHERING RUBBERIZED ASPHALT FLASHING. INSTALL IN ACCORDANCE W/ MANUFACTURER'S INSTALLATION INSTRUCTIONS.
07 26 00.A03	15 MIL. VAPOR RETARDER/BARRIER.
07 42 13.A01	RED METAL COMPOSITE MATERIAL (MCM-01) SHEET. -SEE EXT. BLDG. MTLS. LEGEND.
07 42 13.A05	MCM ANCHOR, CLIPS AND ACCESSORIES.
07 42 13.A17	MCM WALL TERMINATION PANEL.
07 42 13.B01	HORIZONTAL RIBBED (MTL-03) METAL WALL PANEL CONCEALED FASTENED. -REFERENCE EXTERIOR BUILDING MATERIALS LEGEND AND APPLICABLE WALL SECTIONS AND DETAILS.
07 42 13.B02	8'-0" HIGH METAL PANEL PARTITION WALL AT VEHICLE BAY. SEE SPECIFICATIONS FOR CONSTRUCTION.
07 48 00.A07	2" THERMABRACKET-D RAINSCREEN ATTACHMENT BRACKET BY KNIGHTWALL OR ARCHITECT APPROVED EQUAL.
07 54 00.A02.1	TPO MEMBRANE
07 62 00.A02.1	PRE-FINISHED METAL FLASHING AND/OR TRIM FINISH TO MATCH ADJACENT METAL PANEL.
07 62 00.A02.3	PRE-FINISHED AJ3 "J" CHANNEL AND/OR TRIM FINISH TO MATCH ADJACENT METAL PANEL.
07 84 00.A01	FIRE SAFING INSULATION WITH FIRE CAULK BOTH SIDES.
07 90 05.A04.02	3/8" W. BACKER ROD AND SEALANT.
07 90 05.B03	CONT. 3/8" W. SEALANT JOINT. COLOR TO MATCH ADJACENT MATERIAL UNLESS OTHERWISE INDICATED.
08 36 13.B01	OVERHEAD SECTIONAL DOOR. -SEE DOOR SCHEDULE.
09 21 16.C01.04	5/8" THK. PAPER FACED GYPSUM WALL BOARD.
09 21 16.D01	SUSPENDED GYPSUM BOARD CEILING SYSTEM: 5/8" GYPSUM BOARD ATTACHED TO DRYWALL GRID SYSTEM.
13 34 19 B01.01	METAL GUTTER BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
13 34 19 B01.02	GABLE TRIM CLOSURE AND EXTENSION.
13 34 19 B01.18	STANDING SEAM ROOF.
13 34 19 C01.05	METAL SOFFIT BY PRE-ENGINEERED METAL BUILDING MANUFACTURER
13 34 19 C01.07	METAL ROOF PURLIN BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
13 34 19 C01.12	METAL EAVE STRUT BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.
32 30 00.A01	4"Ø STD. STEEL PIPE FILLED W/ CONCRETE. PAINT EXPOSED STEEL PIPE AND CONC. CAP YELLOW. -SEE BOLLARD DETAIL.
33 46 13.A02	4" PERFORATED DRAIN PIPE SURROUNDED BY 1" CLEAN CRUSHED ROCK PLACED A MINIMUM OF 6 INCHES IN ALL DIRECTIONS AROUND PIPE, ENCASED IN A MIRAFI 140N SYNTHETIC FILTER FABRIC OR ARCHITECT APPROVED EQUAL. REFERENCE CIVIL AND/OR PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

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No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

WALL SECTIONS

Project No.
23121

Sheet No.
A234

Date
09/16/2025

10/16/2025 2:04:48 PM
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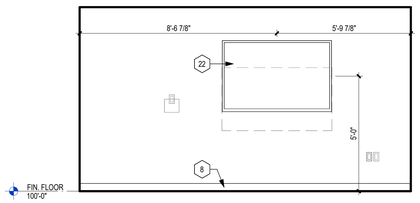
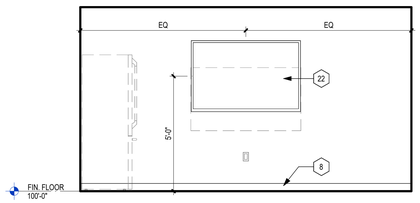
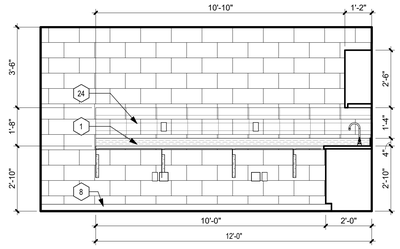


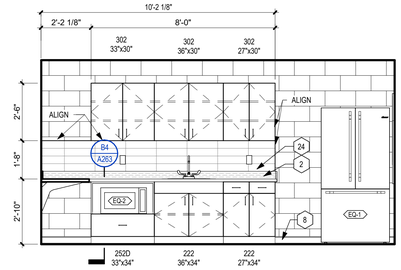
D1 MECHANIC OFFICE 105 EAST
3/8" = 1'-0"



D2 BREAK/RESOURCE WEST 103
3/8" = 1'-0"



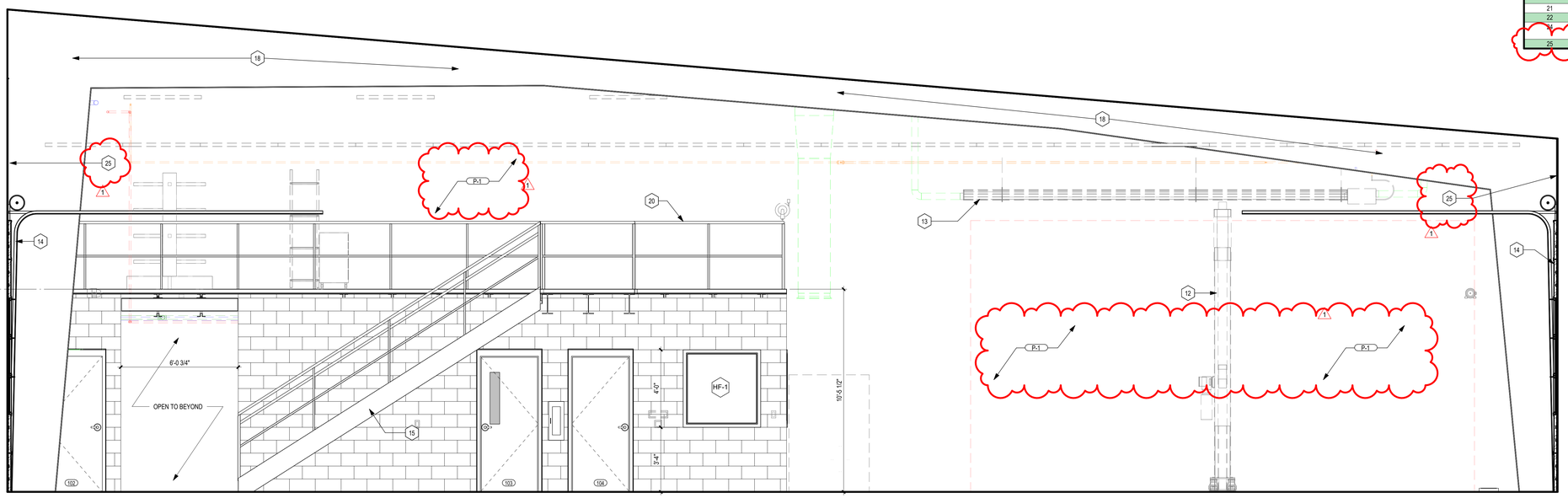
D4 BREAK/RESOURCE EAST 103
3/8" = 1'-0"



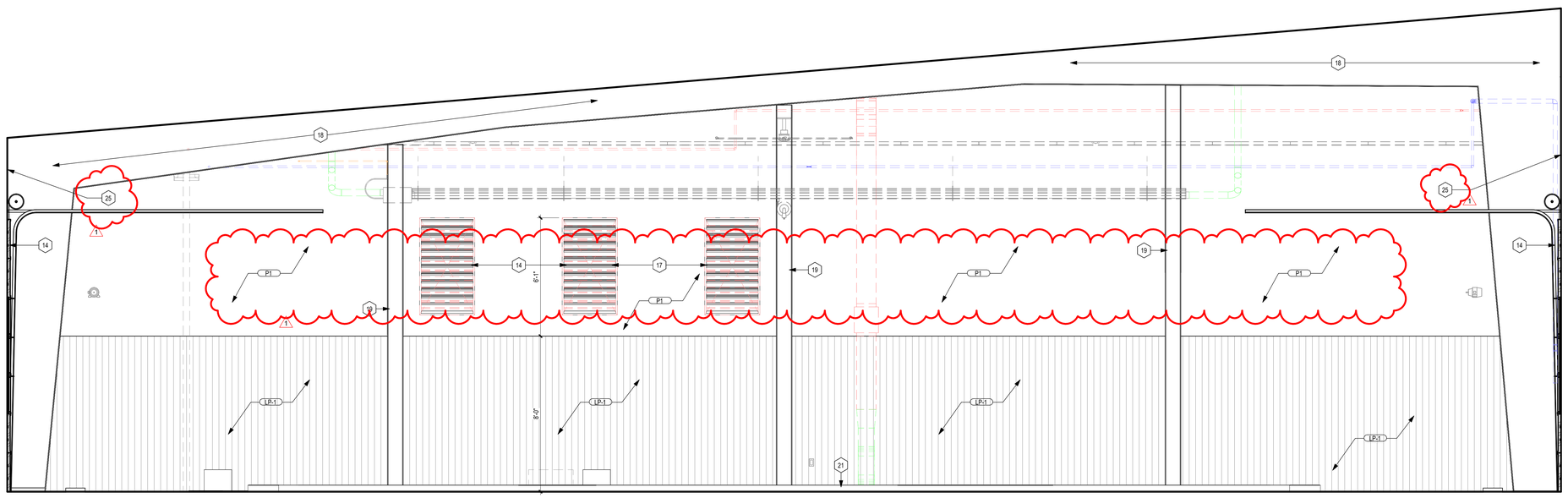
D5 BREAK/RESOURCE SOUTH 103
3/8" = 1'-0"

KEYED NOTES INT. ELEV.

MARK	DESCRIPTION
1	25"D SOLID SURFACE COUNTER, 4"H BACKSPLASH & SIDESPLASHS (LEFT OR RIGHT SIDE, AS REQUIRED) W/ UNDER COUNTER METAL SUPPORT BRACKETS AS INDICATED. -SEE FINISH SCHEDULE.
2	25"D SOLID SURFACE COUNTER, 4"H BACKSPLASH & SIDESPLASHS (LEFT OR RIGHT SIDE, AS REQUIRED) W/ PLASTIC LAMINATE BASE AND WALL CABINETS AS INDICATED - SEE FINISH SCHEDULE
3	TIRE STORAGE RACK, COORDINATE INSTALLATION WITH OWNER-SUPPLIED EQUIPMENT.
4	CLERESTORY STOREFRONT, SEE STOREFRONT ELEVATIONS FOR DETAILS.
6	BUILT IN VANITY TOP WITH 25" D SOLID SURFACE COUNTER WITH INTEGRAL SINK, ANGLED PLAS. LAMINATE ADA VANITY CABINET, SEE FINISH SCHEDULE
7	TOILET PARTITIONS FLOOR MOUNTED OVERHEAD BRACED, SOLID PHENOLIC SEE FINISH SCHEDULE
8	BASE AS SCHEDULED, SEE FINISH SCHEDULE
9	PROVIDE & INSTALL STEEL HEAVY DUTY CORRIDOR STYLE LOCKERS, LYON OR APPROVED, SINGLE TIER, 18"W X 24"D, STAINLESS STEEL RECESSED HANDLE INCLUDE SLOPED TOPS AND CLOSED BASES, NUMBER PLATES, ANCHOR TO FLOOR & WALL, STANDARD POWDERCOAT COLORS, TBD.
10	PROVIDE & INSTALL HARDWOOD LOCKER ROOM BENCH, LYON OR APPROVED EQUAL, MOVEABLE BLACK ALUMINUM TRAPEZOID PEDESTAL BASES
11	PORCELAIN WALL TILE, SEE FINISH SCHEDULE
12	VEHICLE LIFT ROTARY, ALIGN ELECTRICAL SUPPLY WITH EQUIPMENT OUTLET- SEE EQUIPMENT SCHEDULE
13	SUSPENDED HIGH EFFICIENCY REFLECTOR, GAS-FIRED, LOW INTENSITY UNITARY HEATER, MOUNT PER MANUFACTURER'S RECOMMENDATION. -SEE MECHANICAL FOR FIXTURE SPECIFICATIONS.
14	MOTORIZED GARAGE SECTION DOOR AND TRACK. -SEE DOOR SCHEDULE.
15	STAIR TO MEZZANINE, SEE STAIR DETAILS.
16	DRINKING FOUNTAIN WITH BOTTLE FILLER. SEE PLUMBING AND ELECTRICAL DWGS.
17	34" X 60" LOUVER, SEE MECHANICAL DWGS.
18	PEMB STEEL FRAME BY PEMB MFR.
19	DESIGNATED COLUMN FOR PORTAL FRAME BY PEMB MFR.
20	TYPICAL STEEL PIPE RAILING. SEE SHEET A262 FOR DETAIL AND MOUNTING INFORMATION.
21	6" CONCRETE CURB AROUND PIT PERIMETER.
22	65" MONITOR PROVIDE BLOCKING, SEE ELECTRICAL DWGS.
24	TILE BACKSPLASH. ALL DEVICES MOUNT OUT TO FACE OF TILE - ALL PERIMETER EDGES SCHLUTER TRIM TR1 - SEE FINISH SCHEDULE
25	PAINT GYP BOARD ABOVE METAL PANEL (P1)



C1 SERVICE BAYS SOUTH 107
3/8" = 1'-0"



A1 SERVICE BAYS NORTH 107
3/8" = 1'-0"

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No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

INTERIOR ELEVATIONS

Project No.
23121

Sheet No.
A242

Date
09/16/2025

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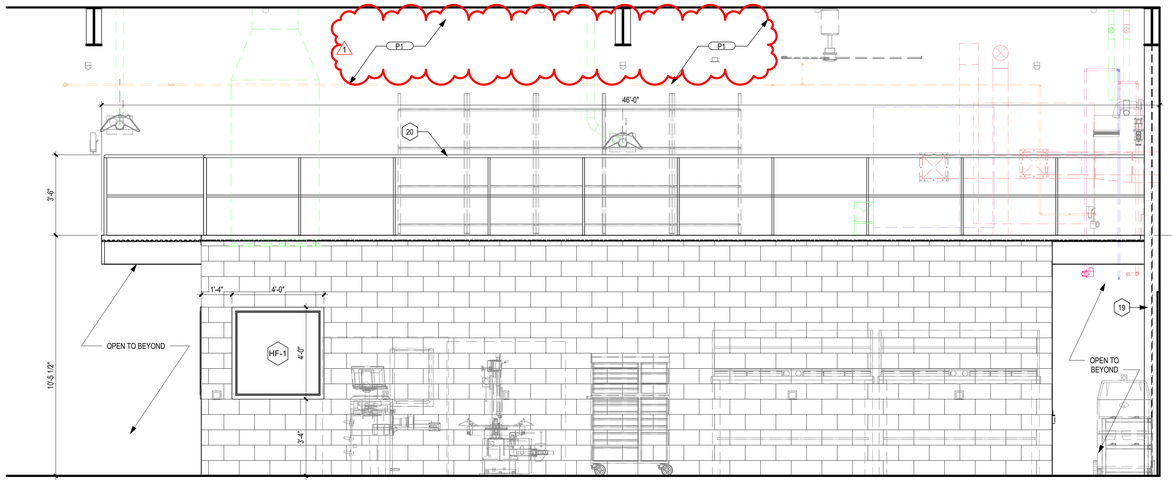
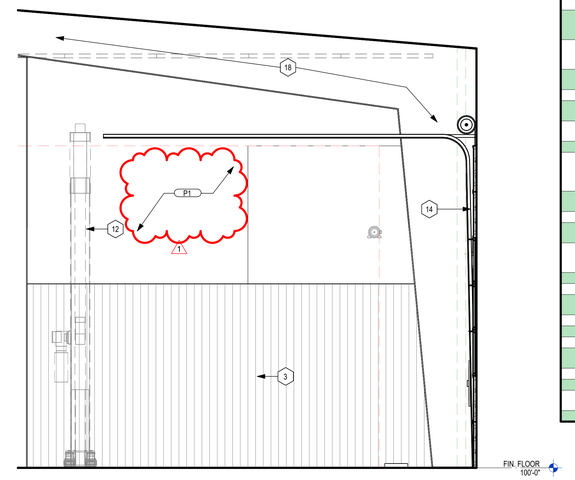


D1 SERVICE BAYS EAST 107
3/8" = 1'-0"



D5 SERVICE BAYS SOUTH 107 2
3/8" = 1'-0"

KEYED NOTES INT. ELEV.

MARK	DESCRIPTION
1	25"D SOLID SURFACE COUNTER, 4"H BACKSPLASH & SIDESPLASHS (LEFT OR RIGHT SIDE, AS REQUIRED) W/ UNDER COUNTER METAL SUPPORT BRACKETS AS INDICATED. -SEE FINISH SCHEDULE.
2	25"D SOLID SURFACE COUNTER, 4"H BACKSPLASH & SIDESPLASHS (LEFT OR RIGHT SIDE, AS REQUIRED) W/ PLASTIC LAMINATE BASE AND WALL CABINETS AS INDICATED - SEE FINISH SCHEDULE
3	TIRE STORAGE RACK, COORDINATE INSTALLATION WITH OWNER-SUPPLIED EQUIPMENT.
4	CLERESTORY STOREFRONT, SEE STOREFRONT ELEVATIONS FOR DETAILS.
6	BUILT IN VANITY TOP WITH 25" D SOLID SURFACE COUNTER WITH INTEGRAL SINK, ANGLED PLAS. LAMINATE ADA VANITY CABINET, SEE FINISH SCHEDULE
7	TOILET PARTITIONS FLOOR MOUNTED OVERHEAD BRACED, SOLID PHENOLIC SEE FINISH SCHEDULE
8	BASE AS SCHEDULED, SEE FINISH SCHEDULE
9	PROVIDE & INSTALL STEEL HEAVY DUTY CORRIDOR STYLE LOCKERS, LYON OR APPROVED, SINGLE TIER, 18"W X 24"D, STAINLESS STEEL RECESSED HANDLE INCLUDE SLOPED TOPS AND CLOSED BASES, NUMBER PLATES, ANCHOR TO FLOOR & WALL, STANDARD POWDERCOAT COLORS, TBD.
10	PROVIDE & INSTALL HARDWOOD LOCKER ROOM BENCH, LYON OR APPROVED EQUAL, MOVEABLE BLACK ALUMINUM TRAPEZOID PEDESTAL BASES
11	PORCELAIN WALL TILE, SEE FINISH SCHEDULE
12	VEHICLE LIFT ROTARY, ALIGN ELECTRICAL SUPPLY WITH EQUIPMENT OUTLET- SEE EQUIPMENT SCHEDULE
13	SUSPENDED HIGH EFFICIENCY REFLECTOR, GAS-FIRED, LOW INTENSITY UNITARY HEATER. MOUNT PER MANUFACTURER'S RECOMMENDATION. -SEE MECHANICAL FOR FIXTURE SPECIFICATIONS.
14	MOTORIZED GARAGE SECTION DOOR AND TRACK. -SEE DOOR SCHEDULE.
15	STAIR TO MEZZANINE, SEE STAIR DETAILS.
16	DRINKING FOUNTAIN WITH BOTTLE FILLER. SEE PLUMBING AND ELECTRICAL DWGS.
17	24" X 60" LOUVER, SEE MECHANICAL DWGS.
18	PEMB STEEL FRAME BY PEMB MFR.
19	DESIGNATED COLUMN FOR PORTAL FRAME BY PEMB MFR.
20	TYPICAL STEEL PIPE RAILING. SEE SHEET A262 FOR DETAIL AND MOUNTING INFORMATION.
21	6" CONCRETE CURB AROUND PIT PERIMETER.
22	65" MONITOR PROVIDE BLOCKING, SEE ELECTRICAL DWGS.
24	TILE BACKSPLASH, ANY DEVICES BRING OUT TO FACE OF TILE , ALL PERIMETER EDGES SCHLUTER TRIM TR1- SEE FINISH SCHEDULE
25	PAINT GYP BOARD ABOVE METAL PANEL (P1)

B1 SERVICE BAYS EAST 107
3/8" = 1'-0"

B5 FLUIDS ROOM 100 WEST
3/8" = 1'-0"

A1 SERVICE BAYS WEST 107
3/8" = 1'-0"

A3 SERVICE BAYS WEST 107
3/8" = 1'-0"

A5 SERVICE BAYS WEST 107
3/8" = 1'-0"

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380 ECOLOGY DRIVE

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

INTERIOR ELEVATIONS

Project No.
23121

Sheet No.
A243

Date
09/16/2025

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

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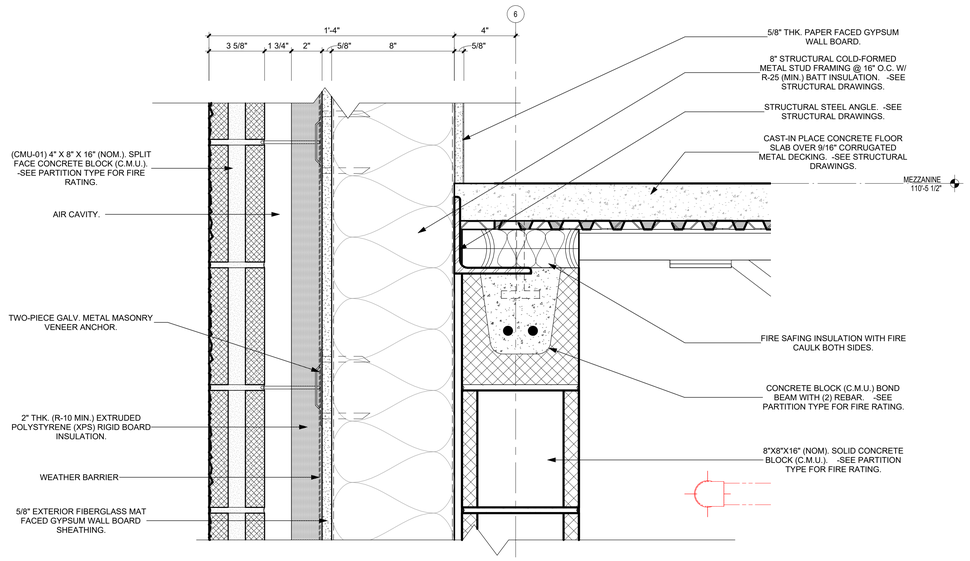
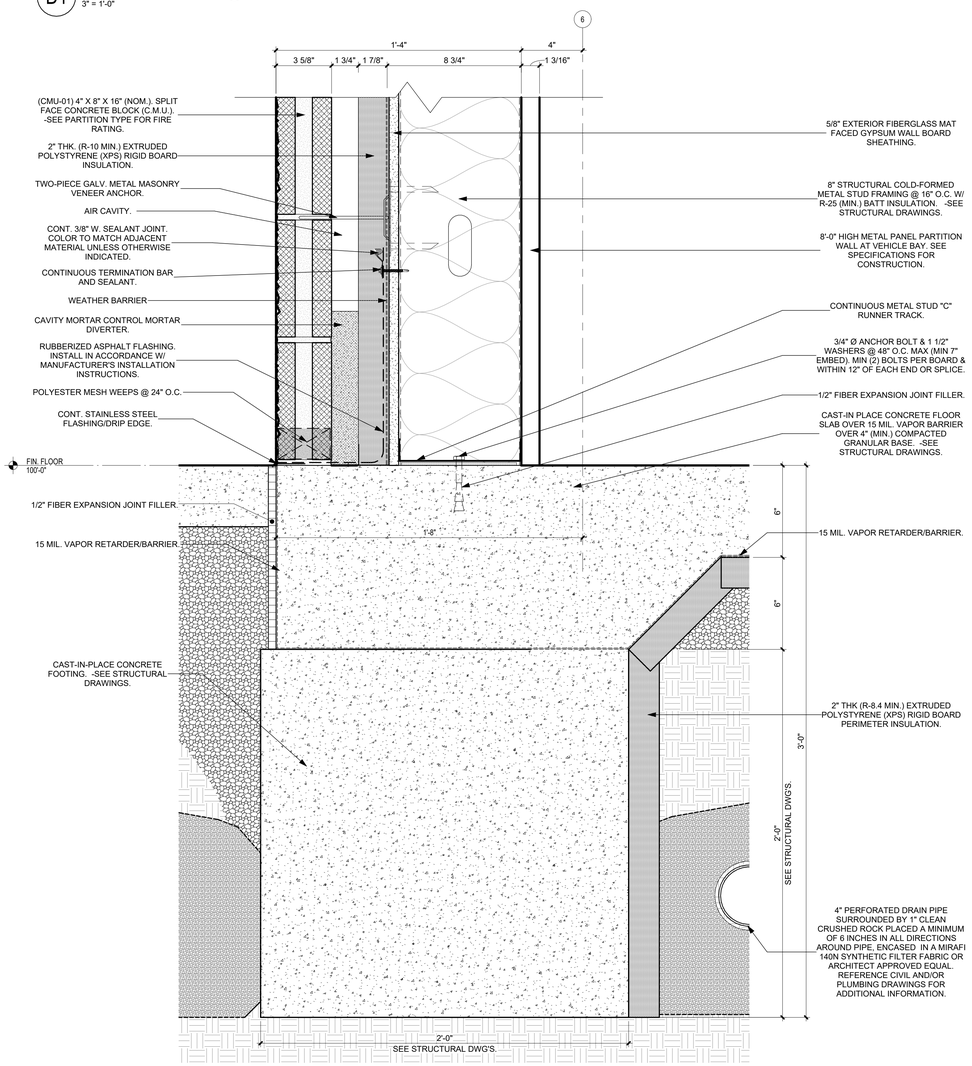
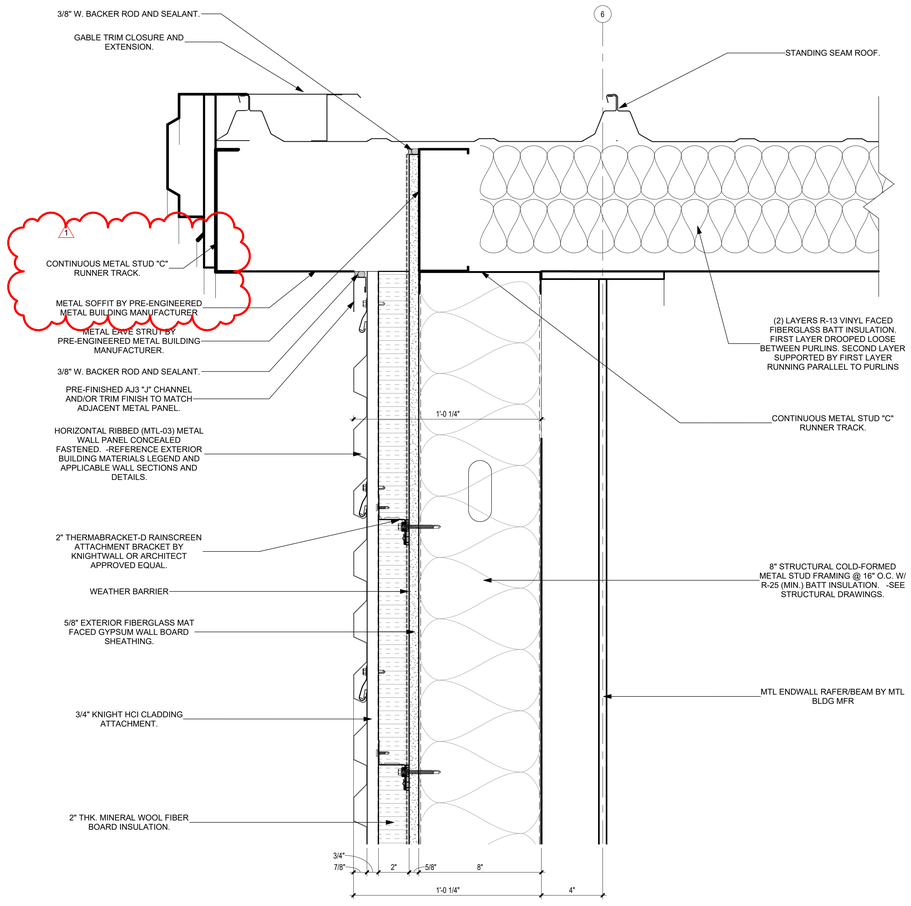


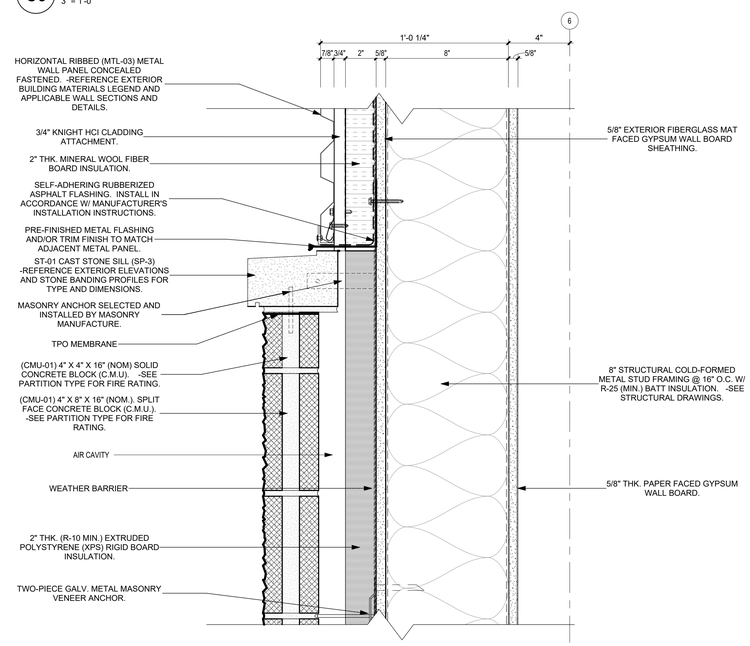
D1 SECTION DETAIL @ RESTROOM WALL
3" = 1'-0"



A1 SECTON DETAIL @ FLUIDS ROOM 100 - LOWER
3" = 1'-0"



C5 SECTION DETAIL @ SERVICE BAYS ROOF
3" = 1'-0"



A5 SECTION DETAIL @ FLUIDS ROOM 100 - UPPER
3" = 1'-0"

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CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
380 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

DETAILS

Project No. 23121
Sheet No. A251
Date 09/16/2025

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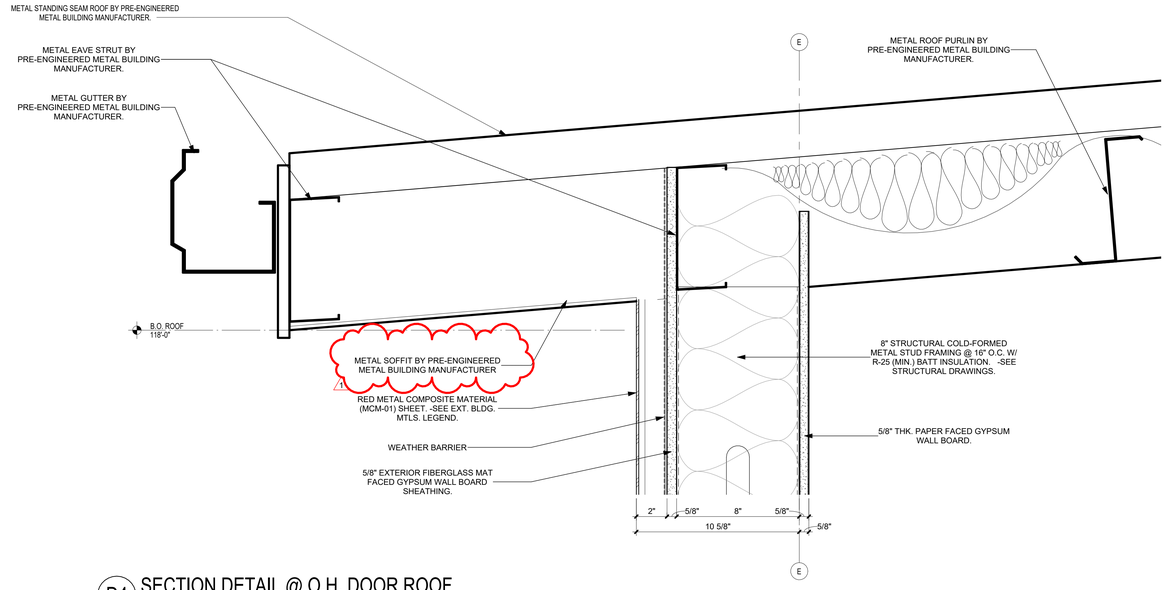
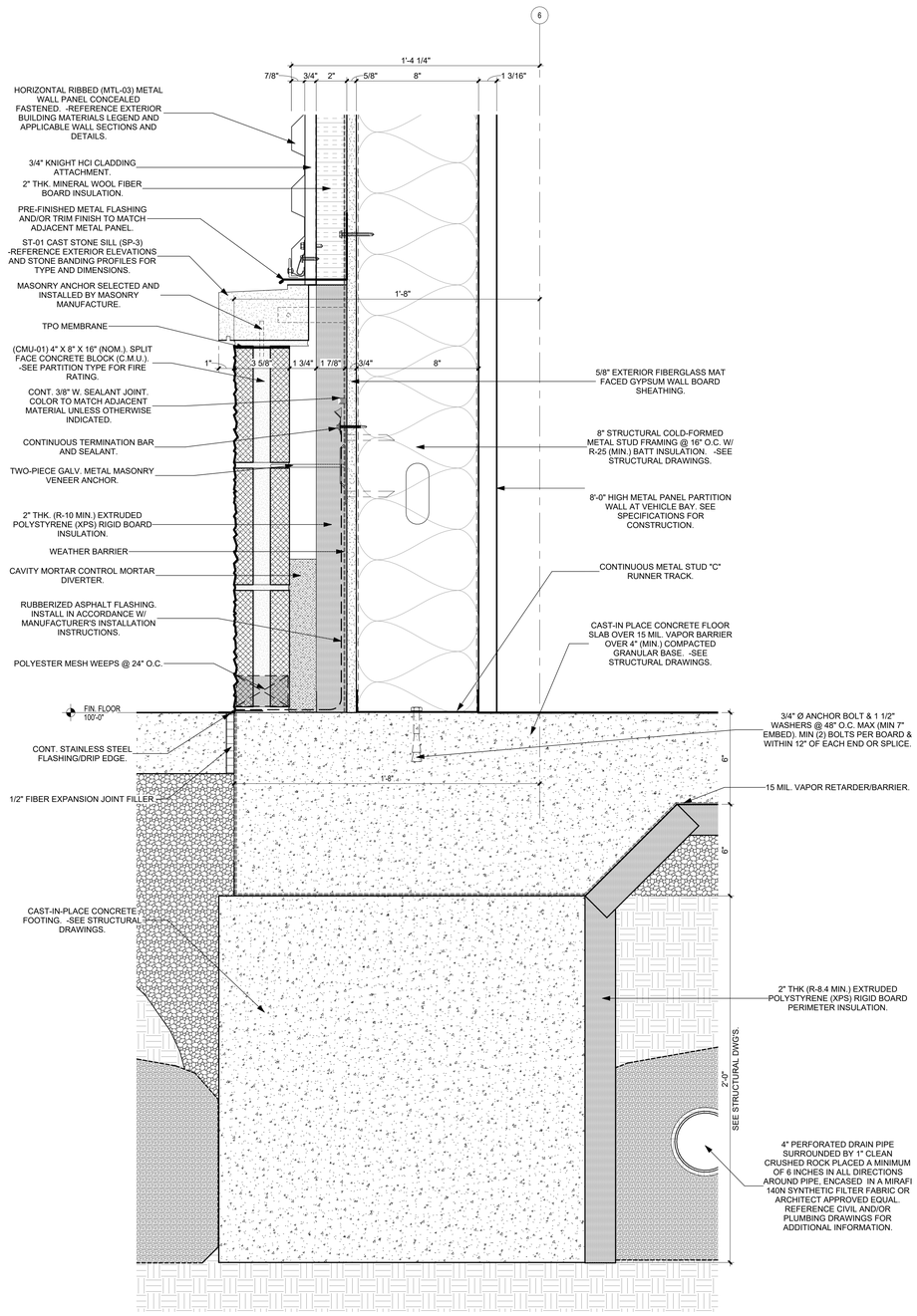


D4 SECTION DETAIL @ O.H. DOOR ROOF
3" = 1'-0"



A1 SECTION DETAIL @ WALL TANSITION CMU TO MTL PANEL.
3" = 1'-0"

A4 SECTION DETAIL @ EXT. DOOR
3" = 1'-0"

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CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
360 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

DETAILS

Project No.
23121

Sheet No.
A252

Date
09/16/2025

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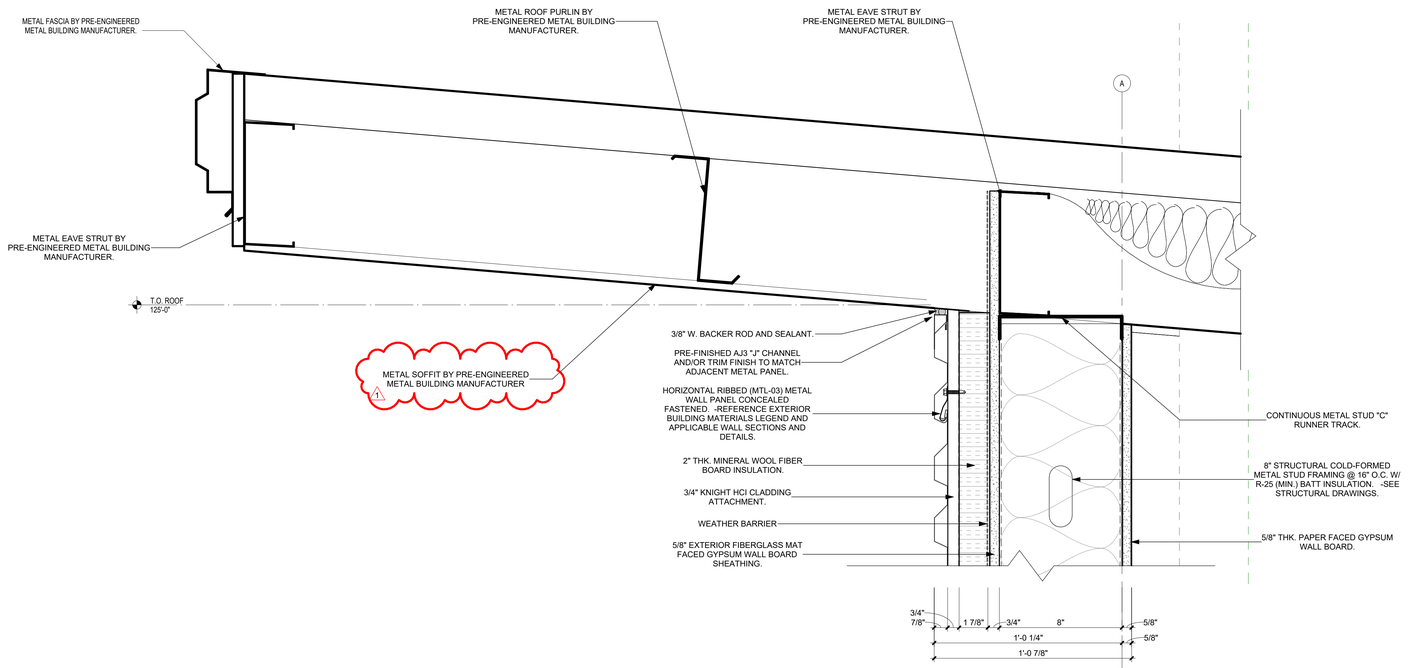
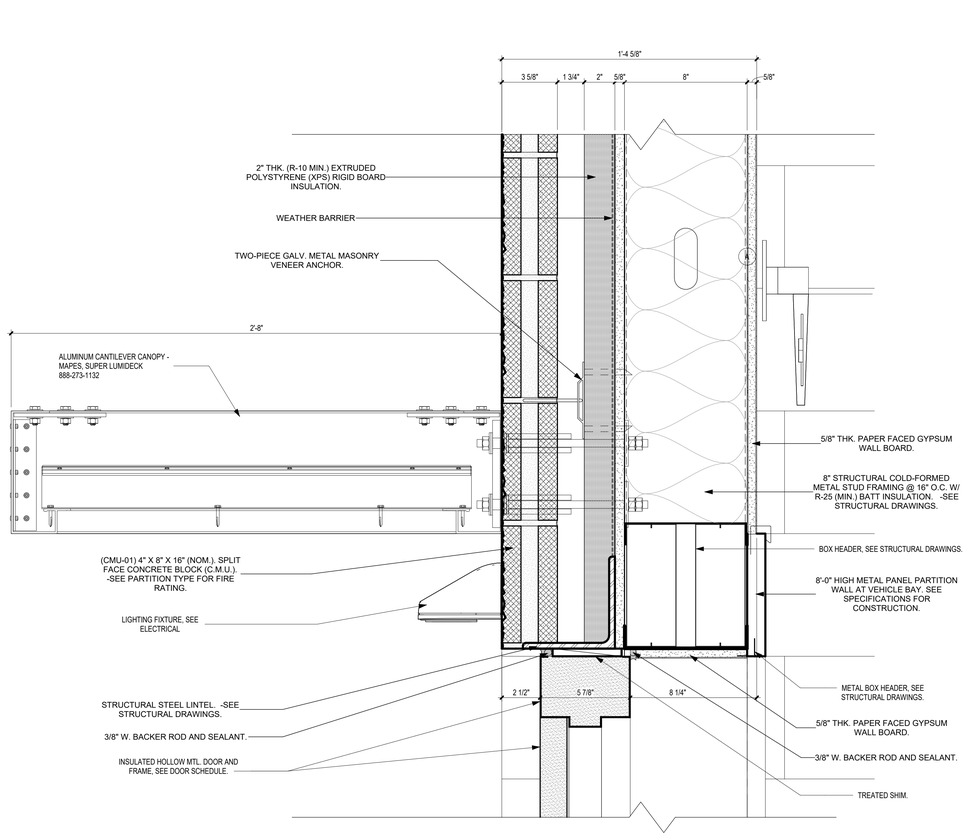
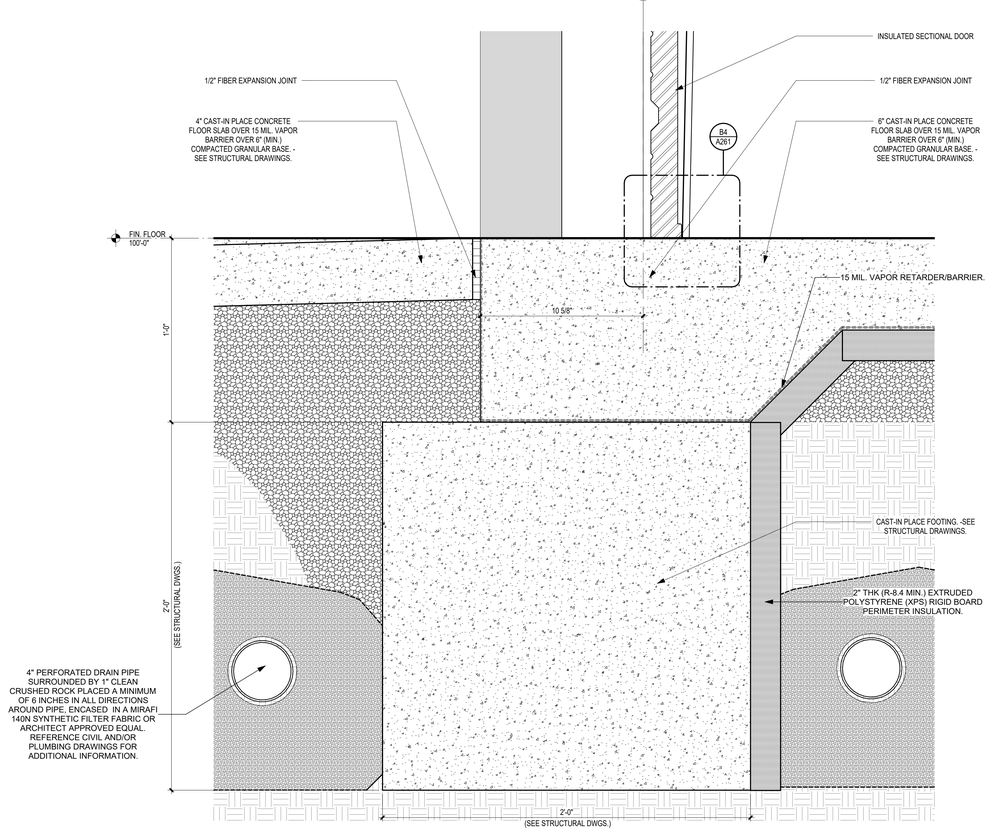


C3 SECTION DETAIL @ O.H. DOOR ROOF
3" = 1'-0"



A1 SECTION DETAIL @ EXT. DOOR HEAD
3" = 1'-0"



A5 SECTION DETAIL @ O.H. DOOR
3" = 1'-0"

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360 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

DETAILS

Project No. 23121

Sheet No. A253

Date 09/16/2025

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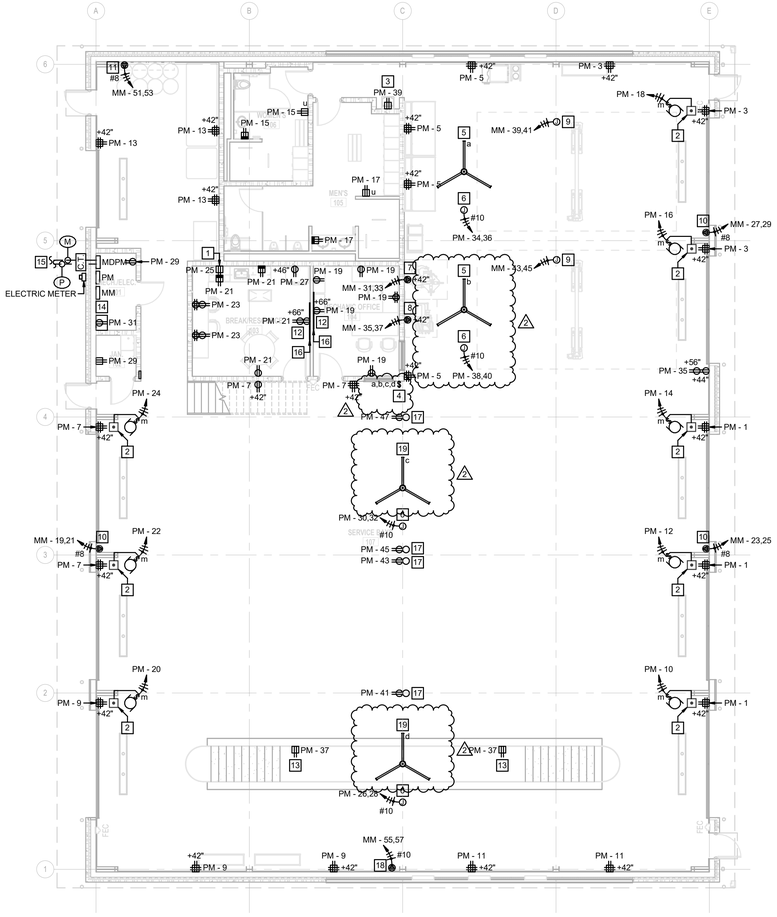
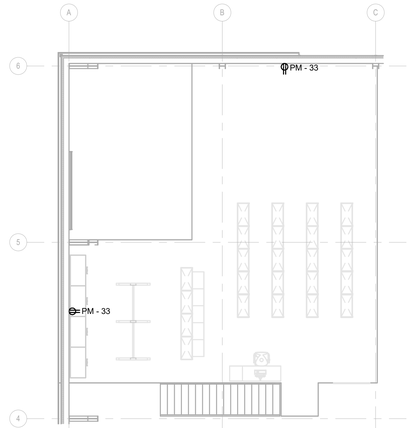
E221 KEYED NOTES

#	
1	OUTLET FOR MICROWAVE. SEE ARCHITECTURAL PLANS FOR LOCATION.
2	OVERHEAD DOOR CONTROLLER SUPPLIED WITH DOOR. INSTALLED BY ELECTRICAL CONTRACTOR +54".
3	ELECTRIC WATER COOLER OUTLET. MOUNT OUTLET TO CONCEAL CORD AND PLUG. FOLLOW MANUFACTURERS RECOMMENDATIONS FOR MOUNTING HEIGHT.
4	RITE HITE FAN COMMANDER 2.0 CONTROLLER FOR APPARATUS BAY FANS. PROGRAM FANS ON SEPARATE ZONES. ONE CONTROLLER FOR 4 FANS.
5	RITE HITE REVOLUTION 75 SERIES 8' DIAMETER, 3'-6" DROP HEIGHT, 208 VOLT SINGLE PHASE, STANDARD FINISH WITH FAN COMMANDER 2.0 CONTROLLER.
6	NEMA L6-30R RECEPTACLE FOR FAN POWER.
7	NEMA L6-20R RECEPTACLE FOR TIRE BALANCER POWER.
8	NEMA L6-20R RECEPTACLE FOR TIRE MACHINE POWER.
9	POWER FOR VEHICLE LIFT. COORDINATE WITH MANUFACTURER.
10	50 AMP. 208 VOLT WELDER RECEPTACLE.
11	50 AMP. 208 VOLT AIR COMPRESSOR RECEPTACLE. AIR COMPRESSOR PROVIDED BY OWNER.
12	SEE AUXILIARY PLAN FOR DESCRIPTION.
13	BOVE PIT FLOOR. ALL CONDUIT IN PIT SHALL BE GALVANIZED RIGID STEEL WITH EXPLOSION PROOF FITTINGS AND BOXES.
14	RACK AND CABINET PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. UPS PROVIDED AND INSTALLED BY OWNER. PATCH PANEL PROVIDED AND INSTALLED BY CONTRACTOR.
15	SEE ELECTRICAL SITE PLAN SHEET E006 FOR CONTINUATION.
16	OWNER SUPPLIED AND CONTRACTOR INSTALLED TV. REFER TO OWNER FOR EXACT LOCATION.
17	PROVIDE AND INSTALL REELCRAFT SERIES L5050 NEMA 5-20R QUAD BOX POWER CORD REEL. SET OUTLET ON CORD REEL 6' A.F.F.. VERIFY FINAL LOCATION WITH OWNER.
18	POWER FOR WASTE OIL FURNACE.. VERIFY FINAL LOCATION WITH OWNER.
19	RITE HITE REVOLUTION 75 SERIES 12' DIAMETER, 3'-6" DROP HEIGHT, 208 VOLT SINGLE PHASE, STANDARD FINISH WITH FAN COMMANDER 2.0 CONTROLLER.



1 MAINTENANCE POWER PLAN
1/8" = 1'-0"

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



2 MAINTENANCE POWER MEZZANINE PLAN
1/8" = 1'-0"

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
340/360 Ecology Dr. St Peters MO 63376

No.	Date	Revision
2	2025-10-17	ADDENDUM - 02

MAINTENANCE POWER PLAN

Project No. 23121

Sheet No. E221

Date 09/16/2025

STATE OF MISSOURI
THOMAS J. ABBEG
NUMBER PE-2022032384
PROFESSIONAL ENGINEER
10-17-2025

Name: Thomas J. Abbeg
Discipline: Professional Engineer
License No: PE-2022032384
Expiration Date: 12/31/2026

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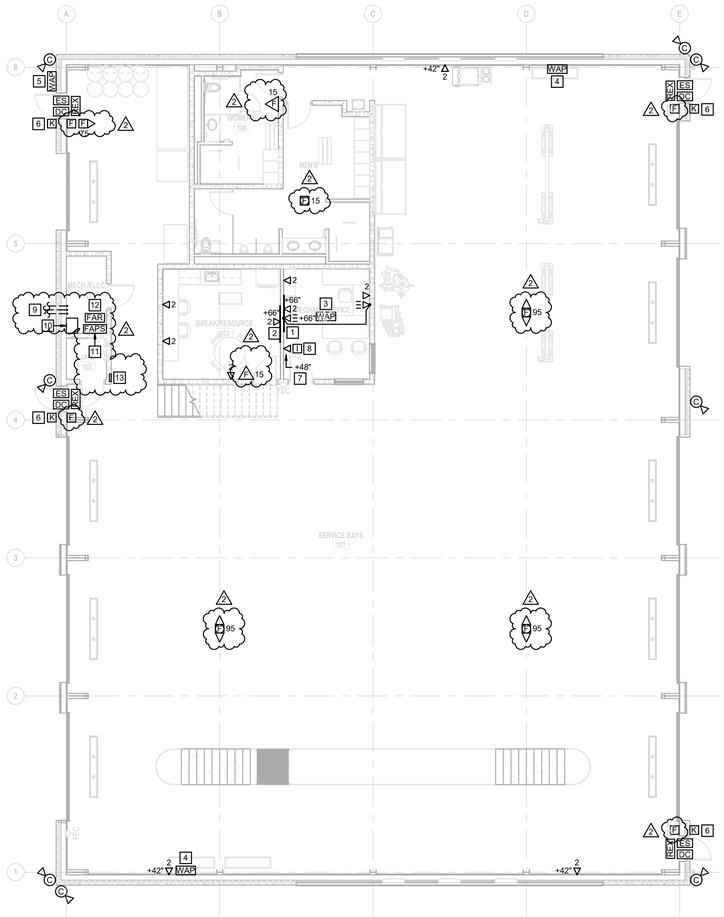
E241 KEYED NOTES

#	
1	INSTALL HDMI OUTLET, DATA OUTLET AND DUPLEX OUTLET IN RECESSED TV BOX SIMILIAR TO P&S TV2MW BOX. INSTALL HDMI CABLE BETWEEN HDMI OUTLETS.
2	INSTALL DATA OUTLET AND DUPLEX OUTLET IN RECESSED TV BOX SIMILIAR TO P&S TV2MW BOX.
3	OWNER SUPPLIED AND CONTRACTOR INSTALLED WIRELESS ACCESS POINT IN OFFICE CEILING.
4	OWNER SUPPLIED AND CONTRACTOR INSTALLED WALL MOUNTED WIRELESS ACCESS POINT.
5	OWNER SUPPLIED AND CONTRACTOR INSTALLED WALL MOUNTED WIRELESS ACCESS POINT BEAM TO TRAINING TOWER.
6	OWNER SUPPLIED AND CONTRACTOR INSTALLED KEYPAD. ROUTE COMPOSITE CABLE FROM KEYPAD TO ENTERPRISE ACCESS HUB IN ELECTRICAL ROOM 101.
7	DATA OUTLET FOR OWNER SUPPLIED AND CONTRACTOR INSTALLED INTERCOM VIEWER.
8	OWNER SUPPLIED AND CONTRACTOR INSTALLED INTERCOM VIEWER.
9	(3) 2" CONDUIT WITH PULLSTRING FOR FIBER/PHONE, FIRE ALARM AND CCTV/CARD ACCESS FROM I.T. CLOSET 137 IN HEADQUARTERS BUILDING TO ELECTRICAL ROOM 101 IN MAINTENANCE BUILDING. SEE SHEETS E006 AND E141 FOR CONTINUATION.
10	RACK AND CABINET PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. UPS PROVIDED AND INSTALLED BY OWNER. PATCH PANEL PROVIDED AND INSTALLED BY CONTRACTOR.
11	FIRE ALARM POWER SUPPLY.
12	FIRE ALARM RELAY. TIE MAINTENANCE BUILDING FIRE ALARM DEVICES INTO HEADQUARDERS BUILDING FIRE ALARM CONTROL PANEL.
13	FIRE ALARM ANNUNCIATOR PANEL.



1 MAINT. AUXILIARY PLAN
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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No.	Date	Revision
2	2025-10-17	ADDENDUM - 02

MAINT. AUXILIARY PLAN

Project No.
23121

Sheet No.
E241

Date
09/16/2025

STATE OF MISSOURI
THOMAS J. ABBEG
NUMBER PE-2022032384
PROFESSIONAL ENGINEER
10-17-2025

Name: Thomas J. Abbeg
Discipline: Professional Engineer
License No: PE-2022032384
Expiration Date: 12/31/2026

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TRAINING TOWER PAINT SCHEDULE
PAINT SEMIGLOSS FINISH,
1ST COAT: S-W MACROPOXY 646 FAST CURE EPOXY B58 SERIES (7.0-13.5 MILS. WET, 5.0-10.0 MILS. DRY PER COAT).
2ND COAT: S-W HI-SOLIDS POLYURETHANE SEMI-GLOSS B65-350 SERIES,
3RD COAT: S-W HI-SOLIDS POLYURETHANE SEMI-GLOSS, B65-350 SERIES (4.5-8.0 MILS WET, 3.0-5.0 MILS DRY PER COAT)

COLOR LOCATIONS SEE KEYNOTES SHEETS A311-313.

PAINT COLORS:
CONEX BOX EXTERIOR INCLUDE MAN DOORS & TUBES: SW7066 GRAY MATTERS
ROUND HANDRAILS, STAIR STRINGERS, LADDER CAGE, SAFETY GATES: SW6911 CONFIDENT YELLOW
LANDING STRUCTURE & SQUARE RAILINGS, COLUMNS, PERLINS, STAIR TREADS: SW7020 BLACK FOX
EXTERIOR ANCHOR POSTS & ANCHOR POINTS: SW6871 POSITIVE RED
CONEX BOX INTERIOR WALLS & CEILING INCLUDE MAN DOORS: SW7005 PURE WHITE
CONEX BOX INTERIOR PLYWOOD FLOOR: SW7066 GRAY MATTERS

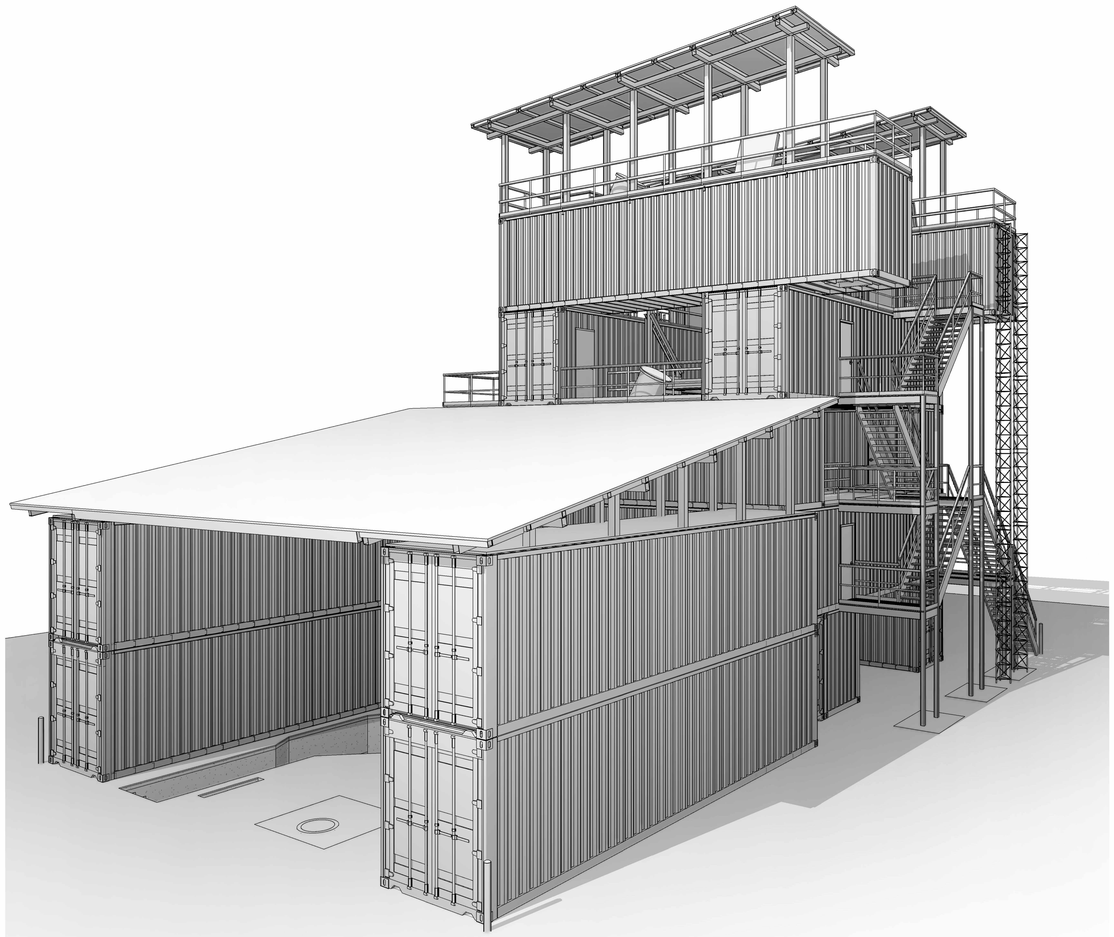
METAL ROOF DECKS: PAINT TOP, SIDES & UNDERSIDE OF CANOPIES 1ST COAT: KEM KROMIK UNIVERSAL METAL PRIMER, 2ND & 3RD COATS: S-W SILVER-BRITE ALUMINUM B59S00011.

CONTACT ARCHITECT FOR COLOR STUDY ILLUSTRATION FOR CLARIFICATION.

1

SHEET INDEX - TRAINING TOWER

SHEET NUMBER	SHEET NAME	09/16/2025- BID / PERMIT
ARCHITECTURAL		
A300	TRAINING TOWER 3D & PAINT SCHED.	■
A311	FLOOR PLANS	■
A312	FLOOR PLANS	■
A313	FLOOR PLANS	■
A315	ROOF PLAN	■
A321	EXTERIOR ELEVATIONS	■
A322	EXTERIOR ELEVATIONS	■
A323	EXTERIOR ELEVATIONS	■
A341	INTERIOR ELEVATIONS	■
A342	INTERIOR ELEVATIONS	■
A351	ENLARGED PLANS TRENCH	■
A352	TRENCH DETAILS	■
A353	DETAILS	■
A361	DOOR SCHEDULE & WINDOWS	■
A363	STAIR PLANDETAILS	■
A364	LADDER DETAILS	■
STRUCTURAL		
S321	FDN PLAN & 2ND LEVEL FRAMING PLAN	■
S322	3RD & 4TH LEVEL FRAMING PLANS	■
S323	5TH & 6TH LEVEL FRAMING PLANS	■
S324	ROOF FRAMING PLAN	■
S331	TRENCH SECTIONS & DETAILS	■
S332	FOUNDATION SECTIONS & DETAILS	■
S341	FRAMING SECTIONS & DETAILS	■
S342	FRAMING SECTIONS & DETAILS	■
PLUMBING		
P320	TOWER UNDERFLOOR PLUMBING PLAN	■
ELECTRICAL		
E321	TOWER ELECTRICAL FIRST FLOOR PLAN	■
E322	TOWER ELECTRICAL THIRD FLOOR PLAN	■
E323	TOWER ELECTRICAL FIFTH FLOOR PLAN	■



A1 TRAINING TOWER 3D NORTHWEST

A4 3D TRAINING TOWER SOUTHEAST

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TRAINING / MAINTENANCE
380 ECOLOGY DRIVE

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

TRAINING TOWER 3D & PAINT SCHED.

Project No.
23121

Sheet No.
A300

Date
09/16/2025

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KEYED NOTES FLOOR PLAN

MARK	DESCRIPTION
1	OPENING THROUGH CONEX BOX(S) TO SIMULATE ELEVATOR SHAFT. SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
2	HATCH OPENING THROUGH CONEX BOX ROOF. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
3	HATCH OPENING THROUGH CONEX BOX FLOOR AND ROOF OF CONEX BOX BENEATH. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
4	HATCH PENETRATING THROUGH CONEX BOX FLOOR. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
5	HATCH PENETRATING THROUGH CONEX BOX FLOOR. (OPEN BELOW) SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
6	3'X3' HATCH PENETRATING THROUGH CONEX BOX FLOOR. (OPEN BELOW) SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
7	ROOF SCUTTLE, SEE ROOFING DETAILS.
8	METAL CLIMBING GRID, SEE ELEVATIONS FOR DIMENSIONS & WELDS.
9	CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
10	LADDER PENETRATING THROUGH HATCH AND CONEX BOX FLOOR, AND ROOF OF CONEX BOX BELOW, SEE APPLICABLE DETAILS.
11	NON-CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
12	CAGED LADDER, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
13	LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
14	RAILING AND 4" HIGH TOE KICK, SEE RAILING TYPES & DETAILS. PAINTED YELLOW
15	SQUARE RAILING AND 4" HIGH TOE KICK, SEE STRUCTURAL. PAINTED BLACK.
16	SELF-CLOSING SAFETY SWING GATE MOUNTED TO RAIL. SEE APPLICABLE DETAILS.
17	LINEAR METAL PIPE PENETRATING THROUGH CONEX BOX WAL. SEE EXTERIOR ELEVATIONS AND DETAILS.
18	ANGLED METAL PIPE PENETRATING THROUGH CONEX BOX ROOF. SEE APPLICABLE DETAILS.
19	36" DIA METAL PIPE THROUGH CONEX BOX WALL HOLDING HDPE PIPE IN PLACE.
20	1 1/2" METAL DECK ROOF, SEE ROOF PLAN & STRUCTURAL DWGS.
21	16' LONG CORRUGATED METAL WALL BETWEEN AND CONNECTED TO CONEX BOXES, COLOR TO MATCH CONEX BOX. SEE ELEVATIONS. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
22	METAL PROTECTION STRIPS, SEE APPLICABLE DETAILS.
23	GALVANIZED STEEL PIPING SUPPORTED BY STRUCTURE, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
24	SELF SUPPORTING/TELEPHONE TOWERS CONNECTED TO CONEX BOX, SEE EXTERIOR ELEVATIONS, APPLICABLE DETAILS & STRUCTURAL DWGS
25	STAIR FROM INSIDE CONEX BOX, SEE APPLICABLE DETAILS.
26	EXTERIOR STAIR TO LANDING, SEE EXTERIOR ELEVATIONS & APPLICABLE DETAILS. STRINGER & HANDRAIL YELLOW, GRATING STAIR TREAD, NO RISERS.
27	METAL GRATE STAIR LANDING WITH TOE KICK AND GUARD RAIL AND OR BEAM, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
28	CONCRETE RAMP, SEE SECTIONS & STRUCTURAL DWGS.
29	TRENCH, SEE STRUCTURAL DRAWINGS AND SHEET A351 FOR DETAILS.
30	LADDER INSIDE TRENCH, SEE DETAILS AND SECTIONS FOR HEIGHTS.
31	1" THK, 4' X 8' PLATE TO COVER PORTION OF TRENCH
32	MANHOLE COVER AND LID, SEE STRUCTURAL DWGS.
33	CAGED LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
34	BOLLARD TYP, SEE DETAILS.
35	WALKTHROUGH OPENING IN CONEX BOX, SEE INTERIOR ELEVATIONS & APPLICABLE DETAILS.
36	WINDOW OPENING, SEE EXTERIOR ELEVATIONS & DETAILS.
37	40' GRAY CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
38	CONEX BOX DOORS TO REMAIN OPERABLE.
39	20' GRAY CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
40	CONCRETE CONTRACTOR TO MEET WITH THE OWNER ON HOW TO ACHIEVE AN IRREGULAR WALL AND EDGES FOR TRAINING RESCUERS IN THIS ALCOVE.
41	CONEX BOX DOORS TO BE SEALED SHUT, SEE DETAILS AND STRUCTURAL DWGS.
42	30" HDPE PIPE CLAMPED TO METAL PIPE AT ENDS SUPPORTED BY RAILING BELOW, SEE STRUCTURAL DWGS.
43	HSS FOR WINDOW WASHER TRAINING, SEE STRUCTURAL.
44	2' TALL CONC FLOOR
45	REMOVABLE 2 1/2" DIA. STEEL POST PAINTED YELLOW TO SUPPORT NETTING. NETTING MANUFACTURE TO COORDINATE WITH ARCHITECT ON HOW NETTING ATTACHES TO THE METAL POST.
46	ONE CONTINUOUS NET. NETTING MANUFACTURE TO COORDINATE WITH ARCHITECT ON HOW NETTING ATTACHES TO THE METAL POST.
47	SLOPED CONCRETE CORNERS SEE STRUCTURAL.
48	1" TREX DECK TO BE MECHANICALLY FASTENED TO 1 1/2" METAL DECK @ CONEX BOX ROOF.

A1 GROUND FLOOR
1/4" = 1'-0"

A4 SECOND FLOOR
1/4" = 1'-0"

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MO Architect License No: A-6661
Expires: 12/31/26

Proposed:
CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
360 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	20025 - 10 - 17	ADDENDUM - 02

FLOOR PLANS

Project No. 23121
Sheet No. A311
Date 09/16/2025

10/17/2025 9:36:12 AM
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KEYED NOTES FLOOR PLAN

MARK	DESCRIPTION
1	OPENING THROUGH CONEX BOX(S) TO SIMULATE ELEVATOR SHAFT. SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
2	HATCH OPENING THROUGH CONEX BOX ROOF. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
3	HATCH OPENING THROUGH CONEX BOX FLOOR AND ROOF OF CONEX BOX BENEATH. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
4	HATCH PENETRATING THROUGH CONEX BOX FLOOR. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
5	HATCH PENETRATING THROUGH CONEX BOX FLOOR. (OPEN BELOW) SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
6	3'X3' HATCH PENETRATING THROUGH CONEX BOX FLOOR. (OPEN BELOW) SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
7	ROOF SCUTTLE, SEE ROOFING DETAILS.
8	METAL CLIMBING GRID, SEE ELEVATIONS FOR DIMENSIONS & WELDS.
9	CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
10	LADDER PENETRATING THROUGH HATCH AND CONEX BOX FLOOR, AND ROOF OF CONEX BOX BELOW, SEE APPLICABLE DETAILS.
11	NON-CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
12	CAGED LADDER, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
13	LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
14	RAILING AND 4" HIGH TOE KICK, SEE RAILING TYPES & DETAILS. PAINTED YELLOW
15	SQUARE RAILING AND 4" HIGH TOE KICK, SEE STRUCTURAL. PAINTED BLACK.
16	SELF-CLOSING SAFETY SWING GATE MOUNTED TO RAIL. SEE APPLICABLE DETAILS.
17	LINEAR METAL PIPE PENETRATING THROUGH CONEX BOX WAL. SEE EXTERIOR ELEVATIONS AND DETAILS.
18	ANGLED METAL PIPE PENETRATING THROUGH CONEX BOX ROOF, SEE APPLICABLE DETAILS.
19	36" DIA METAL PIPE THROUGH CONEX BOX WALL HOLDING HDPE PIPE IN PLACE.
20	1 1/2" METAL DECK ROOF, SEE ROOF PLAN & STRUCTURAL DWGS.
21	16' LONG CORRUGATED METAL WALL BETWEEN AND CONNECTED TO CONEX BOXES, COLOR TO MATCH CONEX BOX. SEE ELEVATIONS, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
22	METAL PROTECTION STRIPS, SEE APPLICABLE DETAILS.
23	GALVANIZED STEEL PIPING SUPPORTED BY STRUCTURE, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
24	SELF SUPPORTING/TELEPHONE TOWERS CONNECTED TO CONEX BOX. SEE EXTERIOR ELEVATIONS, APPLICABLE DETAILS & STRUCTURAL DWGS
25	STAIR FROM INSIDE CONEX BOX, SEE APPLICABLE DETAILS.
26	EXTERIOR STAIR TO LANDING, SEE EXTERIOR ELEVATIONS & APPLICABLE DETAILS. STRINGER & HANDRAIL YELLOW, GRATING STAIR TREAD, NO RISERS.
27	METAL GRATE STAIR LANDING WITH TOE KICK AND GUARD RAIL AND OR BEAM, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
28	CONCRETE RAMP, SEE SECTIONS & STRUCTURAL DWGS.
29	TRENCH, SEE STRUCTURAL DRAWINGS AND SHEET A351 FOR DETAILS.
30	LADDER INSIDE TRENCH, SEE DETAILS AND SECTIONS FOR HEIGHTS.
31	1"-THK, 4' X 8' PLATE TO COVER PORTION OF TRENCH.
32	MANHOLE COVER AND LID, SEE STRUCTURAL DWGS.
33	CAGED LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
34	BOLLARD TYP, SEE DETAILS.
35	WALKTHROUGH OPENING IN CONEX BOX. SEE INTERIOR ELEVATIONS & APPLICABLE DETAILS.
36	WINDOW OPENING, SEE EXTERIOR ELEVATIONS & DETAILS.
37	40' GRAY CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
38	CONEX BOX DOORS TO REMAIN OPERABLE.
39	20' GRAY CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
40	CONCRETE CONTRACTOR TO MEET WITH THE OWNER ON HOW TO ACHIEVE AN IRREGULAR WALL AND EDGES FOR TRAINING RESCUERS IN THIS ALCOVE.
41	CONEX BOX DOORS TO BE SEALED SHUT, SEE DETAILS AND STRUCTURAL DWGS.
42	30" HDPE PIPE CLAMPED TO METAL PIPE AT ENDS SUPPORTED BY RAILING BELOW, SEE STRUCTURAL DWGS.
43	HSS FOR WINDOW WASHER TRAINING, SEE STRUCTURAL.
44	2" TALL CONC FLOOR
45	REMOVABLE 2 1/2" DIA. STEEL POST PAINTED YELLOW TO SUPPORT NETTING. NETTING MANUFACTURE TO COORDINATE WITH ARCHITECT ON HOW NETTING ATTACHES TO THE METAL POST.
46	ONE CONTINUOUS NET. NETTING MANUFACTURE TO COORDINATE WITH ARCHITECT ON HOW NETTING ATTACHES TO THE METAL POST.
47	SLOPED CONCRETE CORNERS, SEE STRUCTURAL.
48	1" TREX DECK TO BE MECHANICALLY FASTENED TO 1 1/2" METAL DECK @ CONEX BOX ROOF.

A1 THIRD FLOOR
1/4" = 1'-0"

A4 FOURTH FLOOR
1/4" = 1'-0"

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360 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	20025 - 10 - 17	ADDENDUM - 02

FLOOR PLANS

Project No. 23121

Sheet No. A312

Date 09/16/2025

10/17/2025 9:36:15 AM
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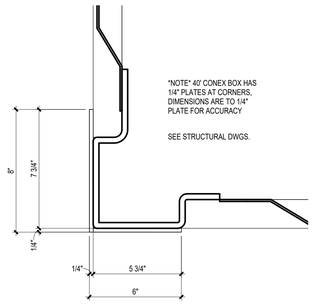
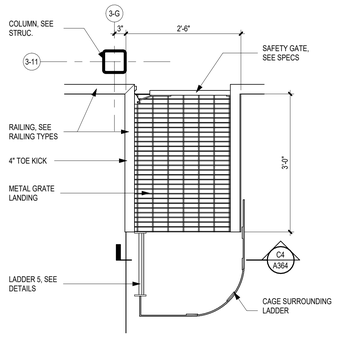
FLOOR PLAN GENERAL NOTES

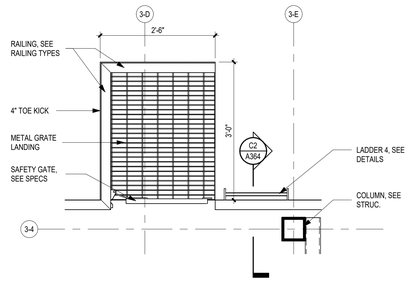
1. REFERENCE GENERAL NOTES FOR ADDITIONAL APPLICABLE INFORMATION.
2. THE GENERAL CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT MAY AFFECT THE WORK PRIOR TO COMMENCING CONSTRUCTION.
3. ALL OVERALL DIMENSIONS ARE TO THE OUTER MOST CORNER OF CONEX BOX.
4. PATCH, LEVEL, AND/OR FEATHER THE EXISTING FLOOR SUCH THAT THE NEW FLOOR IS LEVEL AND ALL TRANSITIONS ARE LEVEL AND SMOOTH.
5. INSTALL REDUCER STRIPS BETWEEN DIFFERENT FLOOR FINISH LEVELS AND FINISHES AS REQUIRED.
6. THE GENERAL CONTRACTOR SHALL INSTALL REQUIRED WALL BLOCKING FOR ALL EQUIPMENT. SEE DRAWINGS FOR EXACT LOCATIONS.
7. UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT SHOWN ON THE DRAWINGS OTHER THAN THE EXISTING IS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
8. ALL ITEMS TO BE RELOCATED AND REUSED ARE TO BE STORED BY THE CONTRACTOR UNTIL REINSTALLATION. PROTECT FROM DAMAGE THROUGHOUT CONSTRUCTION.
9. MAINTAIN ALL NECESSARY COMMUNICATIONS AND FIRE PROTECTION SYSTEMS, EXISTING REQUIRED EXITS, EXIT CORRIDORS, AND ITEMS AFFECTING THE HEALTH AND SAFETY OF ALL OCCUPANTS AT ALL TIMES THROUGHOUT CONSTRUCTION.
10. MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK TO BE DESIGN-BUILD. INTENT OF THIS WORK IS REFLECTED ON THE DRAWINGS. IF SUCH WORK IS OUTSIDE OF THE PROJECT AREA, CONTACT THE OWNER FOR RESTRICTIONS THAT MAY APPLY TO THOSE AREAS AND COORDINATE AND SCHEDULE ALL WORK. PROTECT ADJACENT AREAS, EQUIPMENT, ETC.
11. ALL BLOCKING SHALL BE FIRE TREATED.



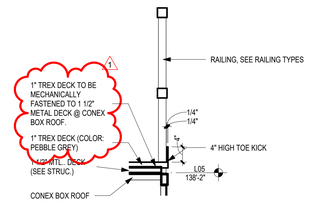
D2 CONEX BOX CORNER - PLAN
3" = 1'-0"



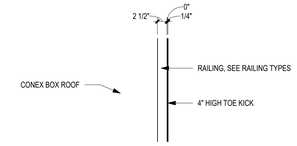
D3 ENLARGED PLAN @ LADDER 5
3/4" = 1'-0"



C3 ENLARGED PLAN @ LADDER 4
3/4" = 1'-0"



E5 SECTION @ CONEX BOX ROOF EDGE
3/4" = 1'-0"



D5 ENLG. PLAN @ CONEX BOX ROOF EDGE
3/4" = 1'-0"

KEYED NOTES FLOOR PLAN

MARK	DESCRIPTION
1	OPENING THROUGH CONEX BOX(S) TO SIMULATE ELEVATOR SHAFT. SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
2	HATCH OPENING THROUGH CONEX BOX ROOF. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
3	HATCH OPENING THROUGH CONEX BOX FLOOR AND ROOF OF CONEX BOX BENEATH. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
4	HATCH PENETRATING THROUGH CONEX BOX FLOOR. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
5	HATCH PENETRATING THROUGH CONEX BOX FLOOR. (OPEN BELOW) SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
6	3'X3' HATCH PENETRATING THROUGH CONEX BOX FLOOR. (OPEN BELOW) SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
7	ROOF SCUTTLE, SEE ROOFING DETAILS.
8	METAL CLIMBING GRID, SEE ELEVATIONS FOR DIMENSIONS & WELDS.
9	CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
10	LADDER PENETRATING THROUGH HATCH AND CONEX BOX FLOOR, AND ROOF OF CONEX BOX BELOW, SEE APPLICABLE DETAILS.
11	NON-CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
12	CAGED LADDER, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
13	LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
14	RAILING AND 4" HIGH TOE KICK, SEE RAILING TYPES & DETAILS. PAINTED YELLOW
15	SQUARE RAILING AND 4" HIGH TOE KICK, SEE STRUCTURAL. PAINTED BLACK.
16	SELF-CLOSING SAFETY SWING GATE MOUNTED TO RAIL. SEE APPLICABLE DETAILS.
17	LINEAR METAL PIPE PENETRATING THROUGH CONEX BOX WAL. SEE EXTERIOR ELEVATIONS AND DETAILS.
18	ANGLED METAL PIPE PENETRATING THROUGH CONEX BOX ROOF, SEE APPLICABLE DETAILS.
19	36" DIA METAL PIPE THROUGH CONEX BOX WALL HOLDING HDPE PIPE IN PLACE.
20	1 1/2" METAL DECK ROOF. SEE ROOF PLAN & STRUCTURAL DWGS.
21	16' LONG CORRUGATED METAL WALL BETWEEN AND CONNECTED TO CONEX BOXES. COLOR TO MATCH CONEX BOX. SEE ELEVATIONS, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
22	METAL PROTECTION STRIPS, SEE APPLICABLE DETAILS.
23	GALVANIZED STEEL PIPING SUPPORTED BY STRUCTURE, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
24	SELF SUPPORTING/TELEPHONE TOWERS CONNECTED TO CONEX BOX. SEE EXTERIOR ELEVATIONS, APPLICABLE DETAILS & STRUCTURAL DWGS
25	STAIR FROM INSIDE CONEX BOX. SEE APPLICABLE DETAILS.
26	EXTERIOR STAIR TO LANDING, SEE EXTERIOR ELEVATIONS & APPLICABLE DETAILS. STRINGER & HANDRAIL YELLOW, GRATING STAIR TREAD, NO RISERS.
27	METAL GRATE STAIR LANDING WITH TOE KICK AND GUARD RAIL AND OR BEAM, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
28	CONCRETE RAMP, SEE SECTIONS & STRUCTURAL DWGS.
29	TRENCH, SEE STRUCTURAL DRAWINGS AND SHEET A351 FOR DETAILS.
30	LADDER INSIDE TRENCH. SEE DETAILS AND SECTIONS FOR HEIGHTS.
31	1" THK, 4' X 8' PLATE TO COVER PORTION OF TRENCH.
32	MANHOLE COVER AND LID, SEE STRUCTURAL DWGS.
33	CAGED LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
34	BOLLARD TYP. SEE DETAILS.
35	WALKTHROUGH OPENING IN CONEX BOX, SEE INTERIOR ELEVATIONS & APPLICABLE DETAILS.
36	WINDOW OPENING, SEE EXTERIOR ELEVATIONS & DETAILS.
37	40' GRAY CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
38	CONEX BOX DOORS TO REMAIN OPERABLE.
39	20' GRAY CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
40	CONCRETE CONTRACTOR TO MEET WITH THE OWNER ON HOW TO ACHIEVE AN IRREGULAR WALL AND EDGES FOR TRAINING RESCUERS IN THIS ALCOVE.
41	CONEX BOX DOORS TO BE SEALED SHUT, SEE DETAILS AND STRUCTURAL DWGS.
42	30" HDPE PIPE CLAMPED TO METAL PIPE AT ENDS SUPPORTED BY RAILING BELOW, SEE STRUCTURAL DWGS.
43	HSS FOR WINDOW WASHER TRAINING, SEE STRUCTURAL.
44	2" TALL CONC FLOOR
45	REMOVABLE 2 1/2" DIA. STEEL POST PAINTED YELLOW TO SUPPORT NETTING. NETTING MANUFACTURE TO COORDINATE WITH ARCHITECT ON HOW NETTING ATTACHES TO THE METAL POST.
46	ONE CONTINUOUS NET. NETTING MANUFACTURE TO COORDINATE WITH ARCHITECT ON HOW NETTING ATTACHES TO THE METAL POST.
47	SLOPED CONCRETE CORNERS, SEE STRUCTURAL.
48	1" TREX DECK TO BE MECHANICALLY FASTENED TO 1 1/2" METAL DECK @ CONEX BOX ROOF.

A1 FIFTH FLOOR
1/4" = 1'-0"

A5 SIXTH FLOOR
1/4" = 1'-0"

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360 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

FLOOR PLANS

Project No. 23121

Sheet No. A313

Date 09/16/2025

10/17/2025 11:22:03 AM
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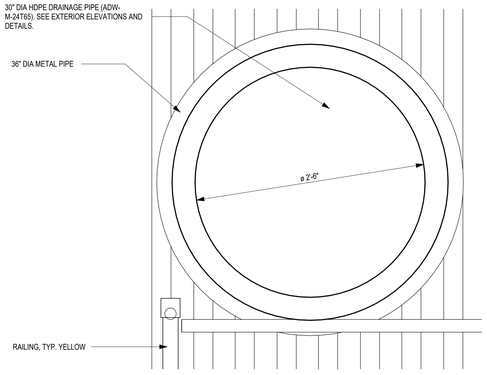
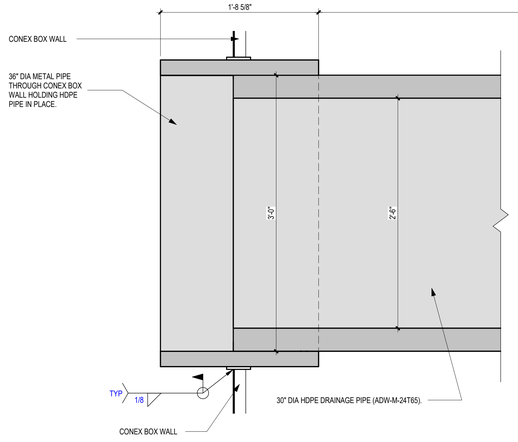
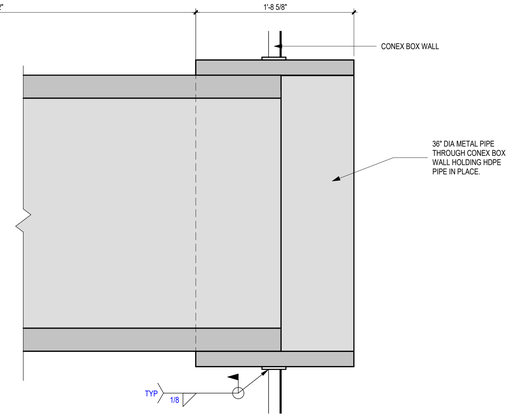






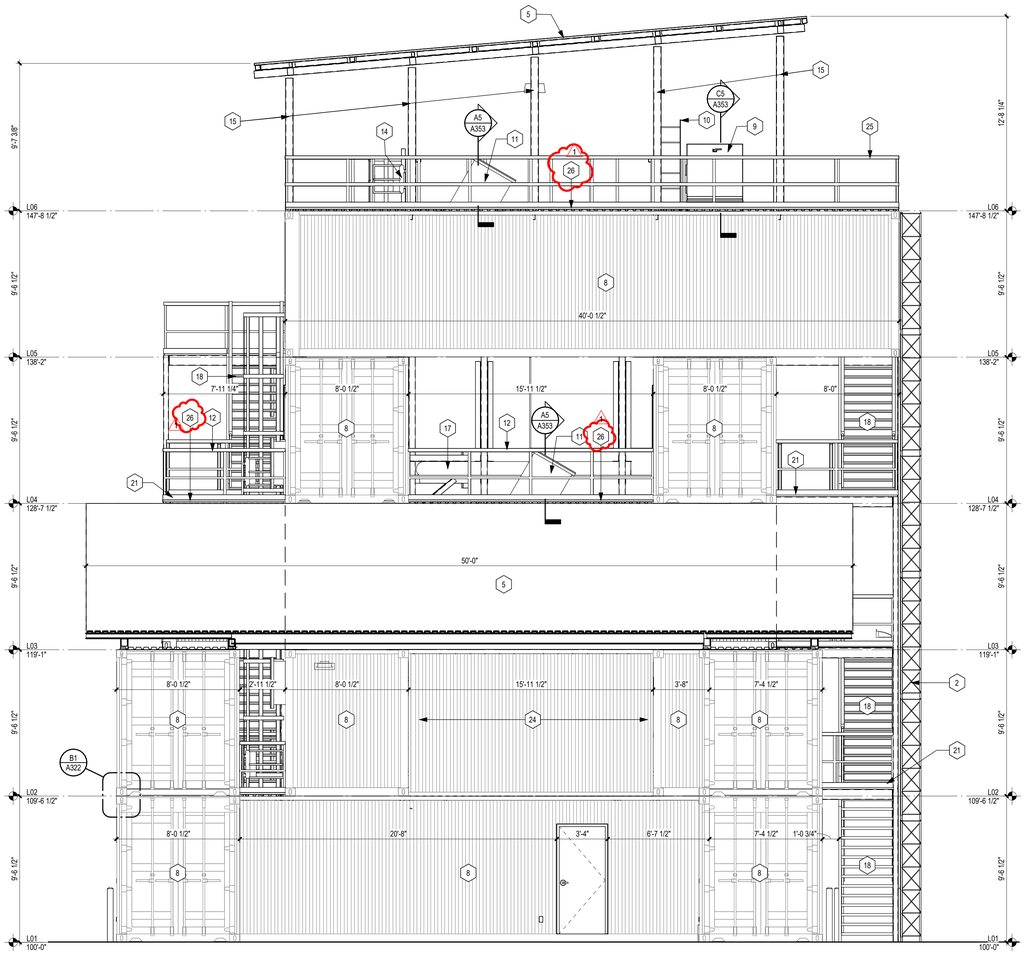
KEYED NOTES EXTERIOR ELEV.

MARK	DESCRIPTION
1	8' x 6' DIAMOND PLATE WELDED TO CONEX BOX.
2	SELF SUPPORTING/TELEPHONE TOWERS CONNECTED TO CONEX BOX, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
3	METAL CLIMBING GRID, SEE ELEVATIONS FOR DIMENSIONS & STRUCTURAL DWGS.
5	1 1/2" METAL DECK ROOF, SEE ROOF PLAN & STRUCTURAL DWGS.
6	LINEAR METAL PIPE PENETRATING THROUGH CONEX BOX WAL. SEE APPLICABLE DETAILS.
8	40' CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
9	ROOF SCUTTLE, SEE ROOFING DETAILS.
10	LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
11	ANGLED METAL PIPE PENETRATING THROUGH CONEX BOX ROOF, SEE APPLICABLE DETAILS.
12	RAILING, SEE FLOOR PLAN FOR RAILING TYPE & COLOR.
13	CAGED LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
14	SELF-CLOSING SAFETY SWING GATE MOUNTED TO RAIL. SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
15	STRUCTURAL COLUMN, SEE STRUCTURAL DWGS.
16	WALL HATCH, SEE DIMENSIONS, SHEET A361 & STRUCTURAL DWGS.
17	GALVANIZED STEEL PIPING SUPPORTED BY STRUCTURE, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
18	EXTERIOR STAIR TO LANDING, SEE STRUCTURAL DWGS & APPLICABLE DETAILS
19	LINEAR CORRUGATED HDPE PENETRATING THROUGH CONEX BOX WAL. SEE EXTERIOR ELEVATIONS AND DETAILS.
20	20' CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
21	METAL GRATE STAIR LANDING WITH TOE KICK AND GUARD RAIL AND OR BEAM, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
22	NON-CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
23	CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
24	16" CORRUGATED METAL WALL BETWEEN AND CONNECTED TO CONEX BOXES, SEE ELEVATIONS. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
25	SQUARE CLOSING AND 4" HIGH TOE KICK, SEE STRUCTURAL.
26	1" TREX DECK TO BE MECHANICALLY FASTENED TO 1 1/2" METAL DECK @ CONEX BOX ROOF.
27	PAINT 2 TIE OFFS RED , SEE A300 FOR PAINT COLOR (NO OTHER BOX CORNER TIE OFFS RED)

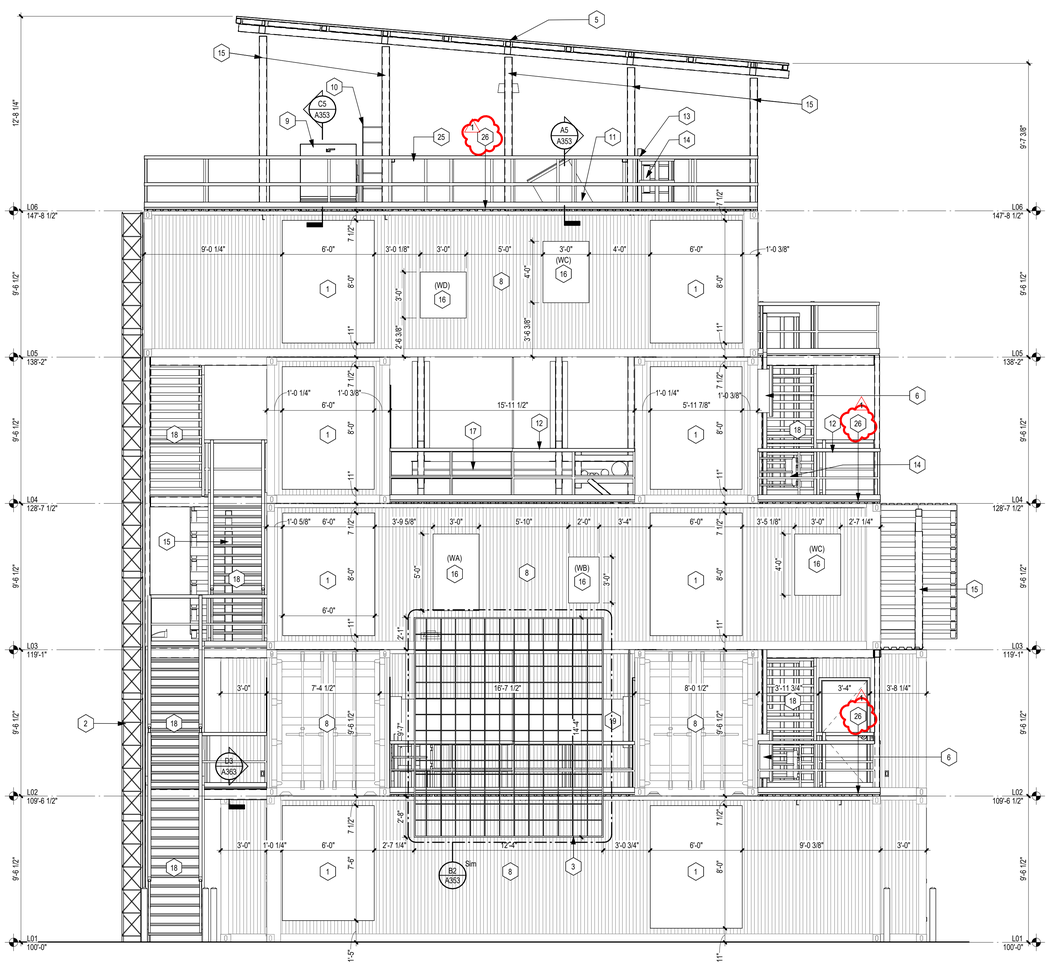
/ 1 /

D1 SECTION NORTH TO SOUTH THROUGH HDPE PIPE
1 1/2" = 1'-0"

D2 SECTION EAST TO WEST THROUGH HDPE PIPE
1 1/2" = 1'-0"



A1 NORTH ELEVATION
1/4" = 1'-0"



A4 SOUTH ELEVATION
1/4" = 1'-0"

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380 ECOLOGY DRIVE
ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

EXTERIOR ELEVATIONS

Project No. 23121

Sheet No. A321

Date 09/16/2025

10/17/2025 9:36:23 AM
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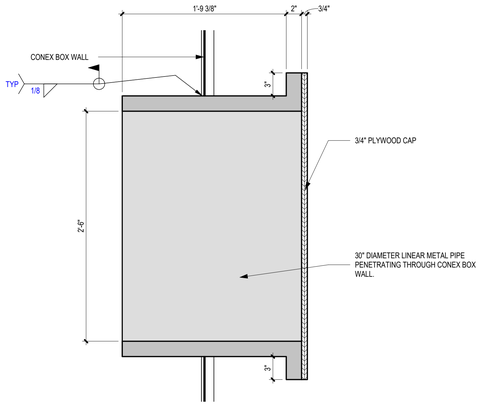
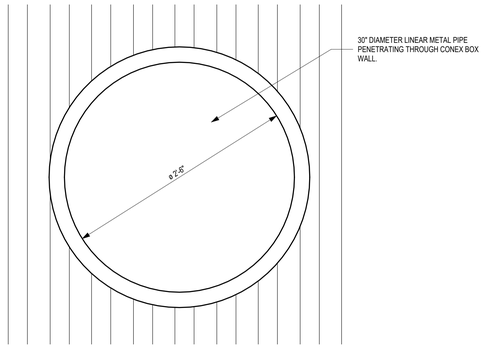
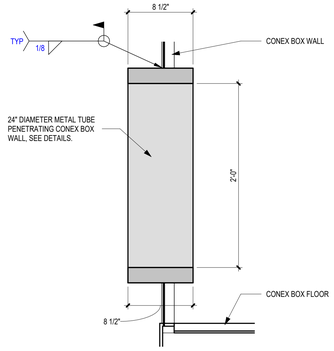


D1 SIDE VIEW TUBE THROUGH CONEX BOX WALL
1 1/2" = 1'-0"



D3 FRONT VIEW TUBE THROUGH CONEX BOX WALL
1 1/2" = 1'-0"



D5 SECOND FLOOR WALL TUBE WITHOUT CAP
1 1/2" = 1'-0"

KEYED NOTES EXTERIOR ELEV.

MARK	DESCRIPTION
1	8' x 8' DIAMOND PLATE WELDED TO CONEX BOX.
2	SELF SUPPORTING/TELEPHONE TOWERS CONNECTED TO CONEX BOX, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
3	METAL CLIMBING GRID, SEE ELEVATIONS FOR DIMENSIONS & STRUCTURAL DWGS.
5	1 1/2" METAL DECK ROOF, SEE ROOF PLAN & STRUCTURAL DWGS.
6	LINEAR METAL PIPE PENETRATING THROUGH CONEX BOX WAL. SEE APPLICABLE DETAILS.
8	40' CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
9	ROOF SCUTTLE, SEE ROOFING DETAILS.
10	LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
11	ANGLED METAL PIPE PENETRATING THROUGH CONEX BOX ROOF, SEE APPLICABLE DETAILS.
12	RAILING, SEE FLOOR PLAN FOR RAILING TYPE & COLOR.
13	CAGED LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
14	SELF-CLOSING SAFETY SWING GATE MOUNTED TO RAIL. SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
15	STRUCTURAL COLUMN, SEE STRUCTURAL DWGS.
16	WALL HATCH, SEE DIMENSIONS, SHEET A361 & STRUCTURAL DWGS.
17	GALVANIZED STEEL PIPING SUPPORTED BY STRUCTURE, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
18	EXTERIOR STAIR TO LANDING, SEE STRUCTURAL DWGS & APPLICABLE DETAILS
19	LINEAR CORRUGATED HDPE PENETRATING THROUGH CONEX BOX WAL. SEE EXTERIOR ELEVATIONS AND DETAILS.
20	20' CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
21	METAL GRATE STAIR LANDING WITH TOE KICK AND GUARD RAIL AND OR BEAM, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
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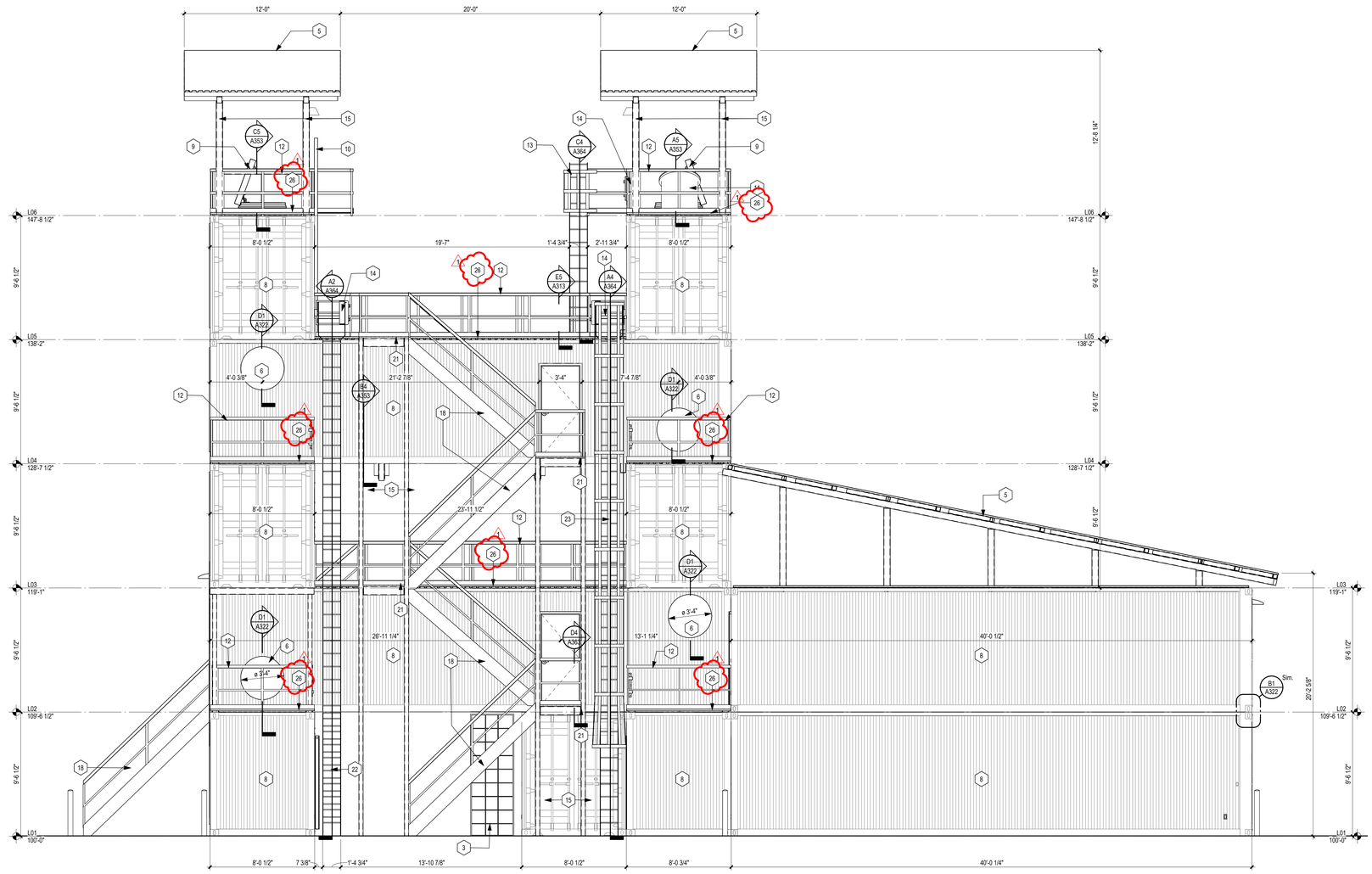
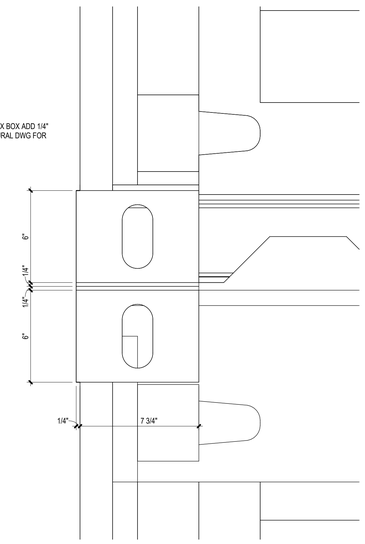
23	CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
24	16" CORRUGATED METAL WALL BETWEEN AND CONNECTED TO CONEX BOXES, SEE ELEVATIONS, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
25	SQUARE RAILING AND 4" HIGH TOE KICK, SEE STRUCTURAL.
26	1" TREX DECK TO BE MECHANICALLY FASTENED TO 1 1/2" METAL DECK @ CONEX BOX ROOF.
27	PAINT 2 TIE OFFS RED , SEE A300 FOR PAINT COLOR (NO OTHER BOX CORNER TIE OFFS RED)



A1 EAST ELEVATION
1/4" = 1'-0"

NOTE: CORNER PLATES ON CONEX BOX ADD 1/4" TO TOTAL LENGTH, SEE STRUCTURAL DWG FOR MORE DETAIL



B1 CONEX BOX CORNER
3" = 1'-0"

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MO Certificate of Authority No. 2001010829
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Proposed:
CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
360 ECOLOGY DRIVE
ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

EXTERIOR ELEVATIONS

Project No.
23121

Sheet No.
A322

Date
09/16/2025

10/17/2025 9:38:25 AM
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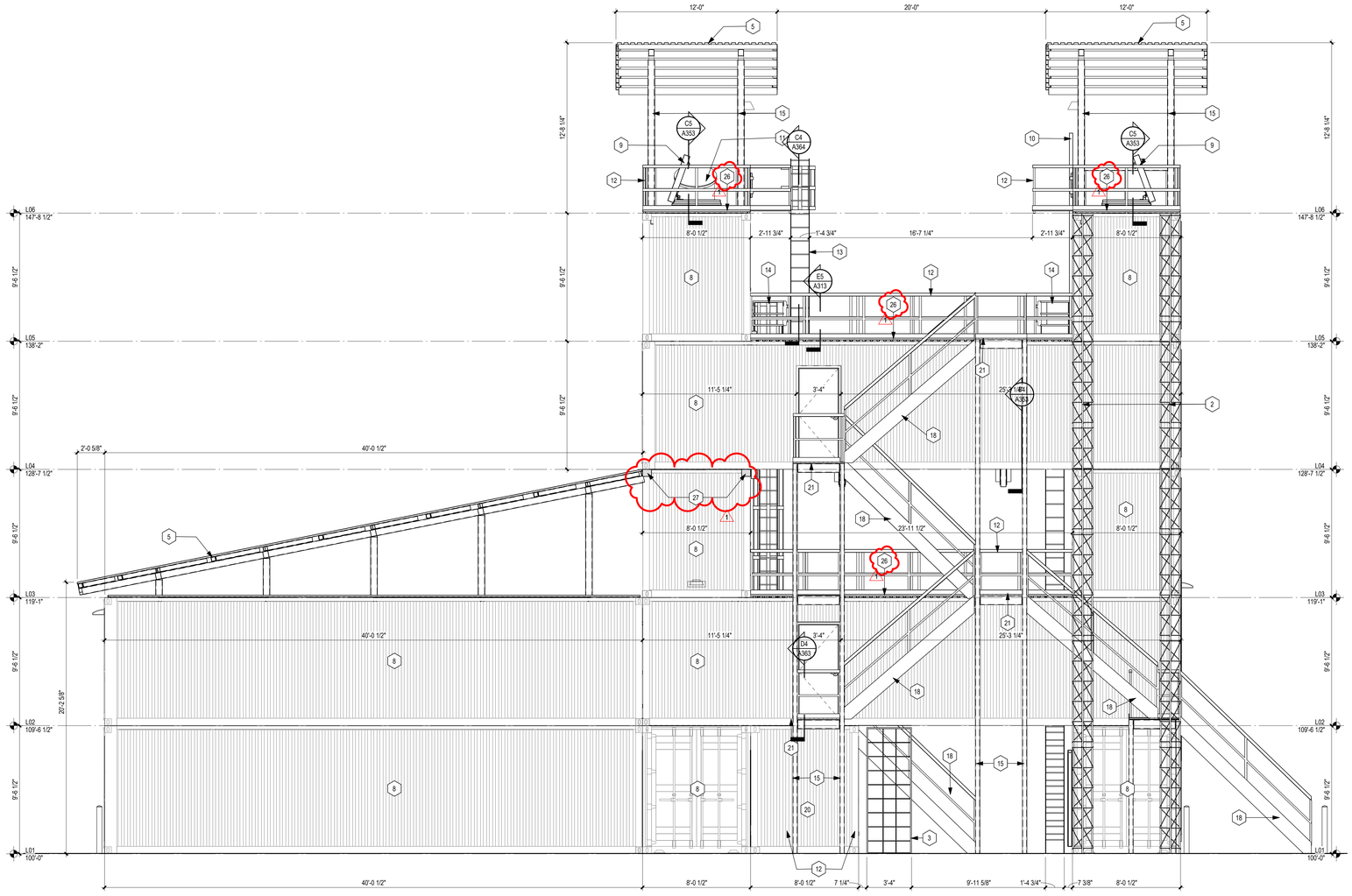
KEYED NOTES EXTERIOR ELEV.

MARK	DESCRIPTION
1	8' x 6' DIAMOND PLATE WELDED TO CONEX BOX.
2	SELF SUPPORTING/TELEPHONE TOWERS CONNECTED TO CONEX BOX, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
3	METAL CLIMBING GRID, SEE ELEVATIONS FOR DIMENSIONS & STRUCTURAL DWGS.
5	1 1/2" METAL DECK ROOF, SEE ROOF PLAN & STRUCTURAL DWGS.
6	LINEAR METAL PIPE PENETRATING THROUGH CONEX BOX WAL. SEE APPLICABLE DETAILS.
8	40' CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
9	ROOF SCUTTLE, SEE ROOFING DETAILS.
10	LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
11	ANGLED METAL PIPE PENETRATING THROUGH CONEX BOX ROOF, SEE APPLICABLE DETAILS.
12	RAILING, SEE FLOOR PLAN FOR RAILING TYPE & COLOR.
13	CAGED LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
14	SELF-CLOSING SAFETY SWING GATE MOUNTED TO RAIL. SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
15	STRUCTURAL COLUMN, SEE STRUCTURAL DWGS.
16	WALL HATCH, SEE DIMENSIONS, SHEET A361 & STRUCTURAL DWGS.
17	GALVANIZED STEEL PIPING SUPPORTED BY STRUCTURE, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
18	EXTERIOR STAIR TO LANDING, SEE STRUCTURAL DWGS & APPLICABLE DETAILS
19	LINEAR CORRUGATED HDPE PENETRATING THROUGH CONEX BOX WAL. SEE EXTERIOR ELEVATIONS AND DETAILS.
20	20' CONEX BOX, SEE STRUCTURAL DRAWINGS & SPECS FOR MORE INFORMATION.
21	METAL GRATE STAIR LANDING WITH TOE KICK AND GUARD RAIL AND OR BEAM, SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
22	NON-CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
23	CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
24	18" CORRUGATED METAL WALL BETWEEN AND CONNECTED TO CONEX BOXES, SEE ELEVATIONS. SEE APPLICABLE DETAILS & STRUCTURAL DWGS.
25	SQUARE RAILING AND 4" HIGH TOE KICK, SEE STRUCTURAL.
26	1" TREX DECK TO BE MECHANICALLY FASTENED TO 1 1/2" METAL DECK @ CONEX BOX ROOF.
27	PAINT 2 TIE OFFS RED , SEE A300 FOR PAINT COLOR (NO OTHER BOX CORNER TIE OFFS RED)

1



A1 WEST ELEVATION
1/4" = 1'-0"

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Proposed:
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360 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

EXTERIOR ELEVATIONS

Project No. 23121

Sheet No. A323

Date 09/16/2025

10/17/2025 9:36:27 AM
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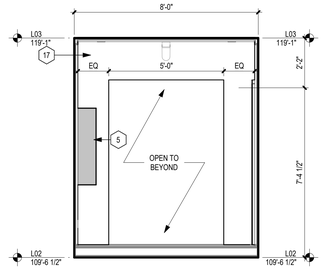
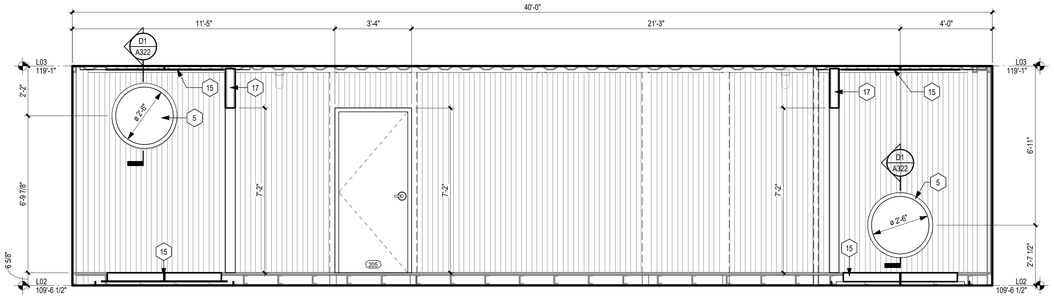
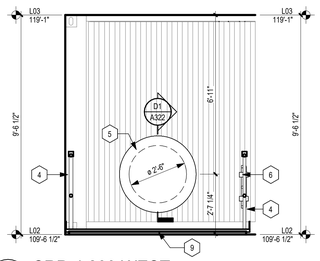


E1 CONEX BOX 205 NORTH
3/8" = 1'-0"

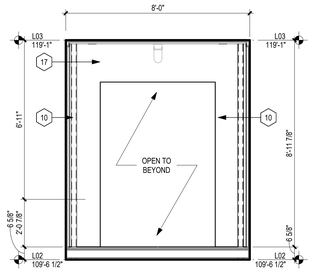


E2 CONEX BOX 205 EAST
3/8" = 1'-0"

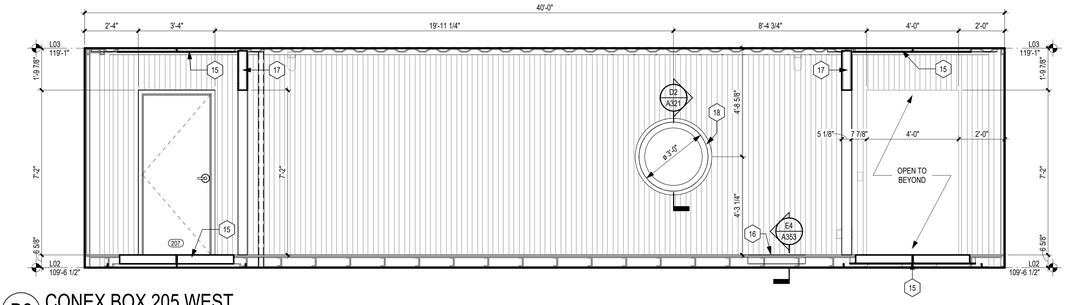


A5 CRP-4 209 WEST
3/8" = 1'-0"

MARK	DESCRIPTION
1	METAL CLIMBING GRID, SEE ELEVATIONS FOR DIMENSIONS & STRUCTURAL DWGS.
2	ANGLED METAL PIPE PENETRATING THROUGH CONEX BOX ROOF WITH CAP ON EXTERIOR SIDE, SEE APPLICABLE DETAILS.
3	1 1/2" METAL DECK ROOF, SEE ROOF PLAN & STRUCTURAL DWGS.
4	RAILING, SEE PLANS FOR TYPE
5	30" Ø STEEL PIPE PENETRATING THROUGH CONEX BOX WALL WITH CAP ON EXTERIOR SIDE. SEE APPLICABLE DETAILS.
6	SELF-CLOSING SAFETY SWING GATE MOUNTED TO RAIL. SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
8	ROOF SCUTTLE, SEE ROOFING DETAILS.
9	TYP. HATCH THROUGH CONEX BOX ROOF. SEE APPLICABLE DETAILS, AND STRUCTURAL DWGS.
10	STRUCTURAL COLUMN, SEE STRUCTURAL DWGS.
11	WALL HATCH, SEE SHEET A361
13	NON-CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
14	CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
15	PENETRATION THROUGH CONEX(S) BOX FLOOR TO SIMULATE ELEVATOR SHAFT, SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
16	TYP. HATCH THROUGH CONEX BOX FLOOR. SEE APPLICABLE DETAILS, AND STRUCTURAL DWGS.
17	3 5/8" MTL STUD W/ 3/4" PLYWOOD ON BOTH SIDES.
18	36" DIA STEEL METAL TO HOLD LINEAR CORRUGATED HDPE. SEE EXTERIOR ELEVATIONS AND DETAILS.
19	4" METAL TOE KICK ABOVE FINISH FLOOR.
20	TYP. HATCH THROUGH CONEX BOX FLOOR. SEE APPLICABLE DETAILS, AND STRUCTURAL DWGS.
21	30" DIA HDPE DRAINAGE PIPE (ADW-M-24T65). SEE EXTERIOR ELEVATIONS AND DETAILS.
22	24" Ø STEEL PIPE PENETRATING THROUGH CONEX BOX WALL, SEE APPLICABLE DETAILS.
23	HSS FOR WINDOW WASHER TRAINING, SEE STRUCTURAL.
24	LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS. FOR MORE DETAILS.
25	1" TREX DECK TO BE MECHANICALLY FASTENED TO 1 1/2" METAL DECK @ CONEX BOX ROOF.



D1 CONEX BOX 205 SOUTH
3/8" = 1'-0"



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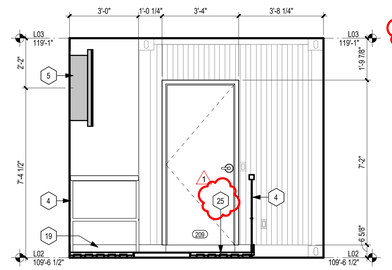
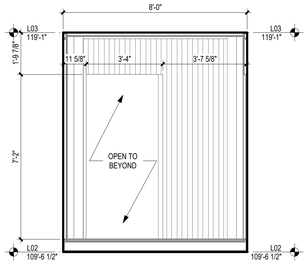
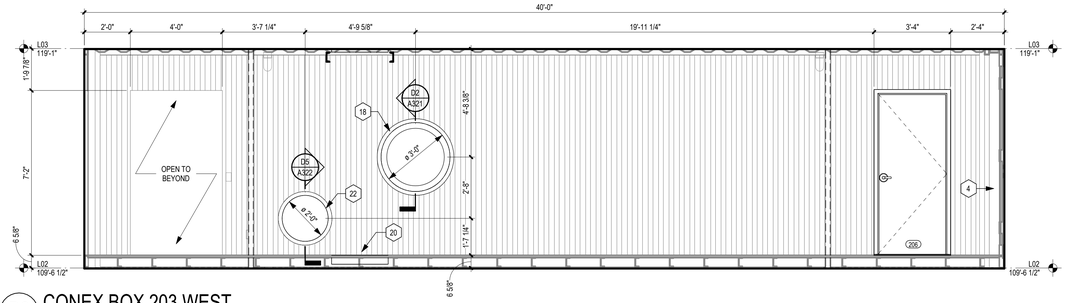
3/8" = 1'-0"



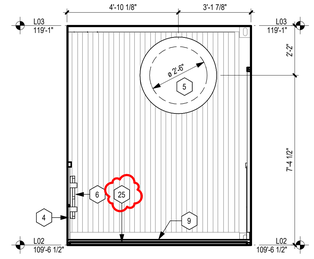
D5 CRP-2 207 NORTH
3/8" = 1'-0"



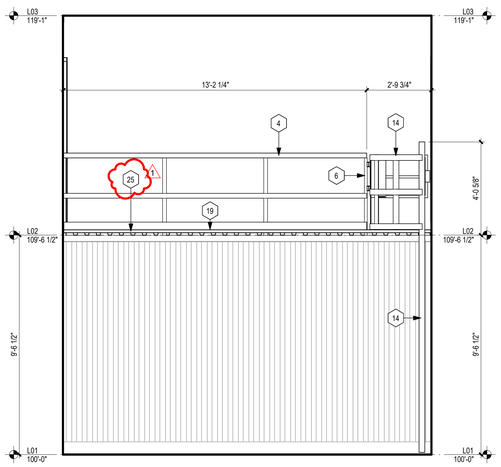
B1 CONEX BOX 203 NORTH
3/8" = 1'-0"



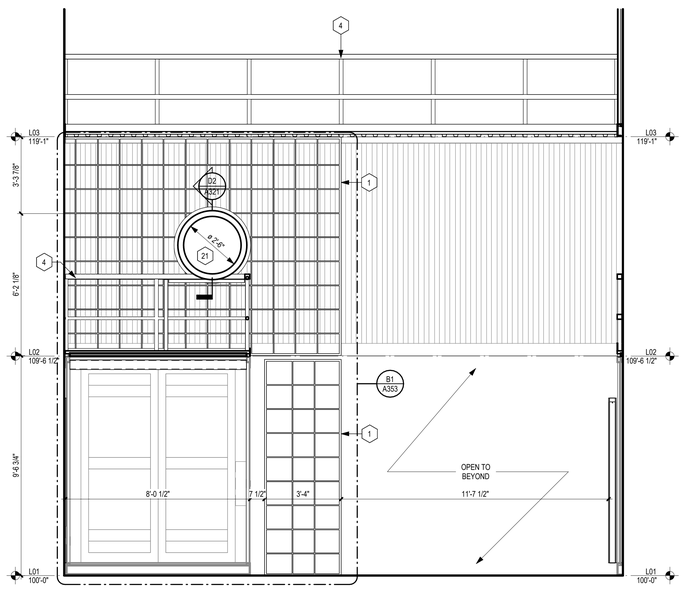
B2 CONEX BOX 203 WEST
3/8" = 1'-0"



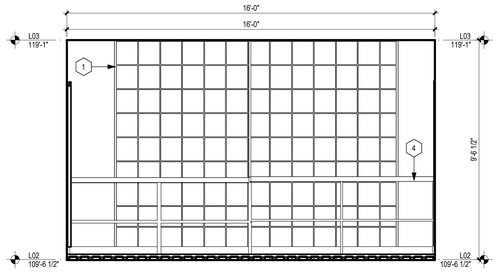
B5 CRP-2 207 WEST
3/8" = 1'-0"



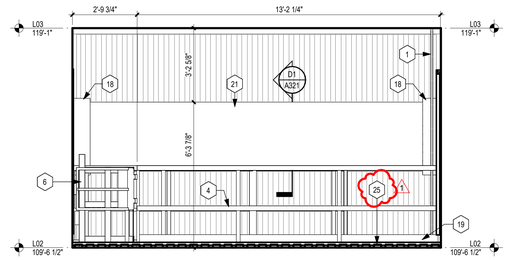
A1 GROUND FLOOR CENTER CAGED LADDER
3/8" = 1'-0"



A3 GROUND FLOOR CENTER CLIMBING GRID
3/8" = 1'-0"



B6 CRP-3 208 SOUTH
3/8" = 1'-0"



A6 CRP-3 208 NORTH
3/8" = 1'-0"

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360 ECOLOGY DRIVE ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

INTERIOR ELEVATIONS

Project No.
23121

Sheet No.
A341

Date
09/16/2025

10/17/2025 9:36:29 AM
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SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

KEYED NOTES INT. ELEV.

MARK	DESCRIPTION
1	METAL CLIMBING GRID, SEE ELEVATIONS FOR DIMENSIONS & STRUCTURAL DWGS.
2	ANGLED METAL PIPE PENETRATING THROUGH CONEX BOX ROOF WITH CAP ON EXTERIOR SIDE, SEE APPLICABLE DETAILS.
3	1 1/2" METAL DECK ROOF, SEE ROOF PLAN & STRUCTURAL DWGS.
4	RAILING, SEE PLANS FOR TYPE
5	30" Ø STEEL PIPE PENETRATING THROUGH CONEX BOX WALL WITH CAP ON EXTERIOR SIDE. SEE APPLICABLE DETAILS.
6	SELF-CLOSING SAFETY SWING GATE MOUNTED TO RAIL. SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
8	ROOF SCUTTLE, SEE ROOFING DETAILS.
9	TYP. HATCH THROUGH CONEX BOX ROOF. SEE APPLICABLE DETAILS, AND STRUCTURAL DWGS.
10	STRUCTURAL COLUMN, SEE STRUCTURAL DWGS.
11	WALL HATCH, SEE SHEET A361
13	NON-CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHTS. SEE APPLICABLE DETAILS & SPECS.
14	CAGED LADDER WITH PERSONAL FALL ARREST SYSTEM, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
15	PENETRATION THROUGH CONEX(S) BOX FLOOR TO SIMULATE ELEVATOR SHAFT, SEE APPLICABLE DETAILS AND STRUCTURAL DWGS.
16	TYP. HATCH THROUGH CONEX BOX FLOOR. SEE APPLICABLE DETAILS, AND STRUCTURAL DWGS.
17	3 5/8" MTL STUD W/ 3/4" PLYWOOD ON BOTH SIDES.
18	36" DIA STEEL METAL TO HOLD LINEAR CORRUGATED HDPE. SEE EXTERIOR ELEVATIONS AND DETAILS.
19	4" METAL TOE KICK ABOVE FINISH FLOOR.
20	TYP. HATCH THROUGH CONEX BOX FLOOR. SEE APPLICABLE DETAILS, AND STRUCTURAL DWGS.
21	30" DIA HDPE DRAINAGE PIPE (ADW-M-24T65). SEE EXTERIOR ELEVATIONS AND DETAILS.
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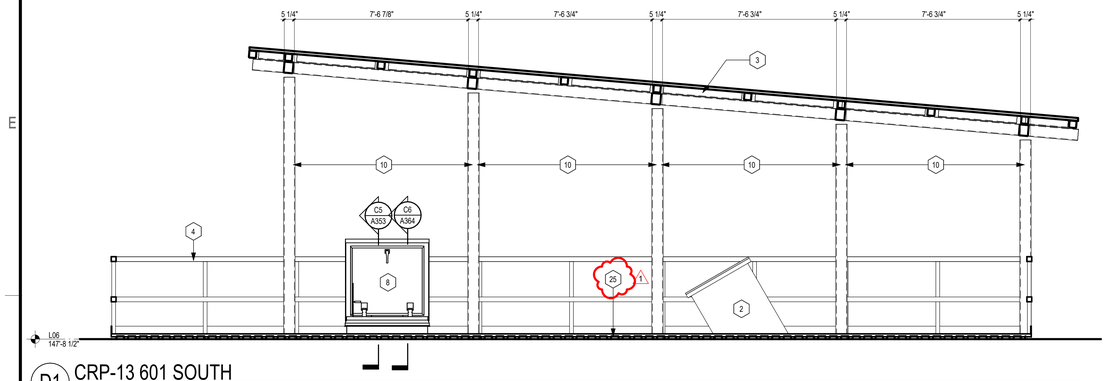
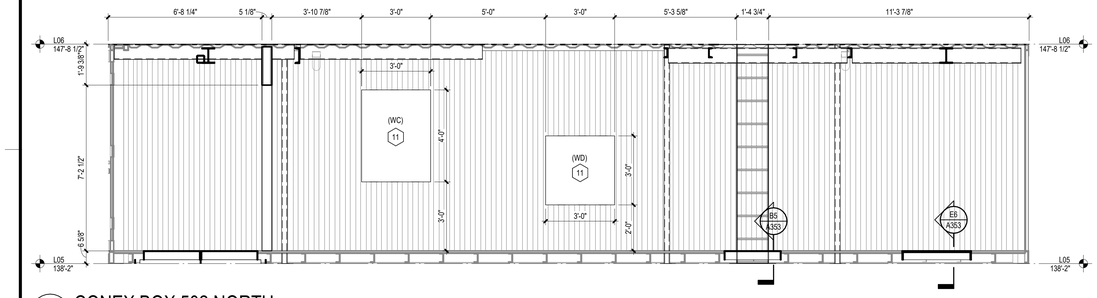
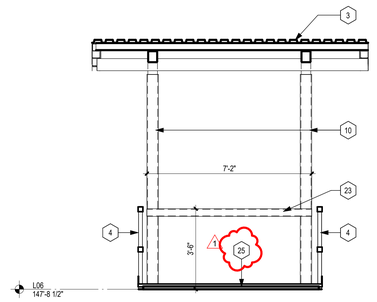
23	HSS FOR WINDOW WASHER TRAINING, SEE STRUCTURAL.
24	LADDER, SEE ELEVATIONS FOR HEIGHT. SEE APPLICABLE DETAILS & SPECS FOR MORE DETAILS.
25	1" TREX DECK TO BE MECHANICALLY FASTENED TO 1 1/2" METAL DECK @ CONEX BOX ROOF.



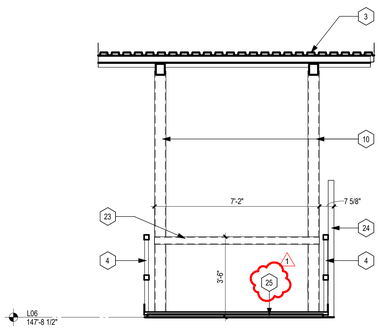
D1 CRP-13 601 SOUTH
3/8" = 1'-0"



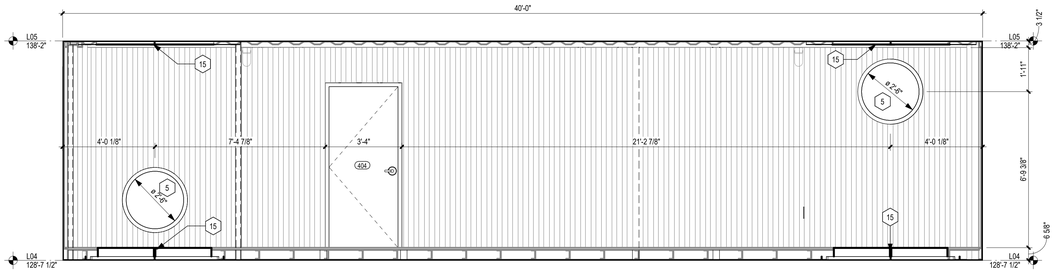
C1 CONEX BOX 502 NORTH
3/8" = 1'-0"



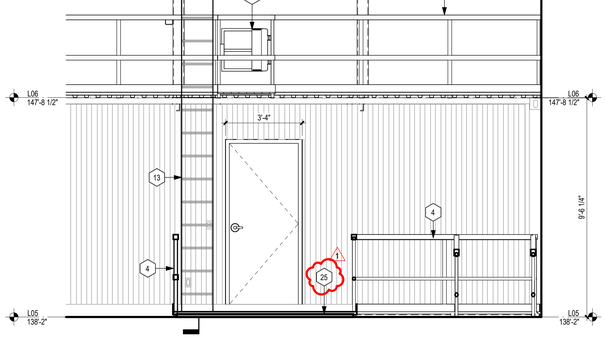
D4 CRP-14 602 EAST
3/8" = 1'-0"



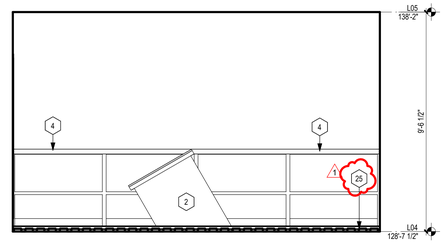
D6 CRP-14 602 WEST
3/8" = 1'-0"



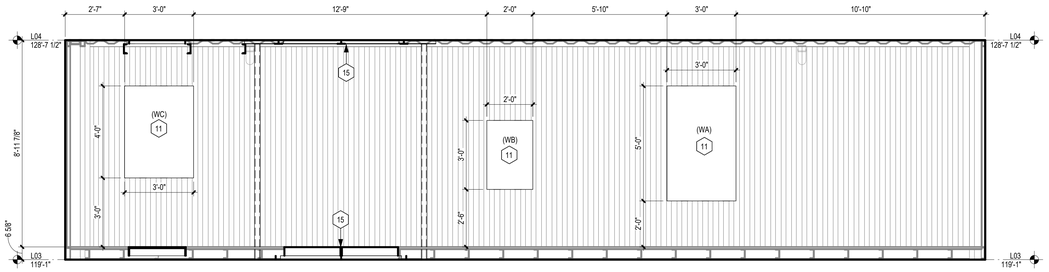
B1 CONEX BOX 402 EAST
3/8" = 1'-0"



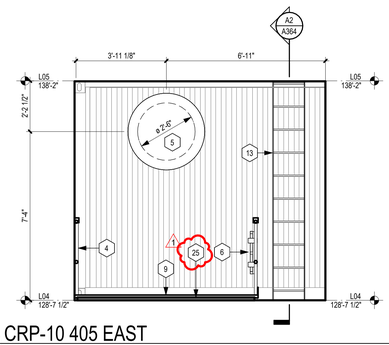
B4 CRP-11 503 NORTH
3/8" = 1'-0"



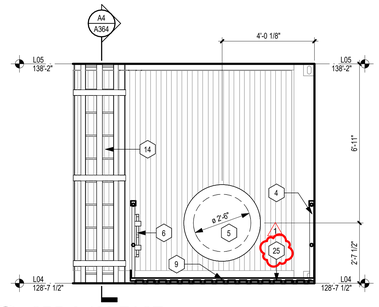
B6 CRP-7 403 SOUTH
3/8" = 1'-0"



A1 CONEX BOX 302 SOUTH
3/8" = 1'-0"



A4 CRP-10 405 EAST
3/8" = 1'-0"



A5 CRP-9 406 EAST
3/8" = 1'-0"

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360 ECOLOGY DRIVE
ST. PETERS, MO 63376

No.	Date	Revision
1	2025 - 10 - 17	ADDENDUM - 02

INTERIOR ELEVATIONS

Project No.
23121

Sheet No.
A342

Date
09/16/2025

10/17/2025 9:38:30 AM
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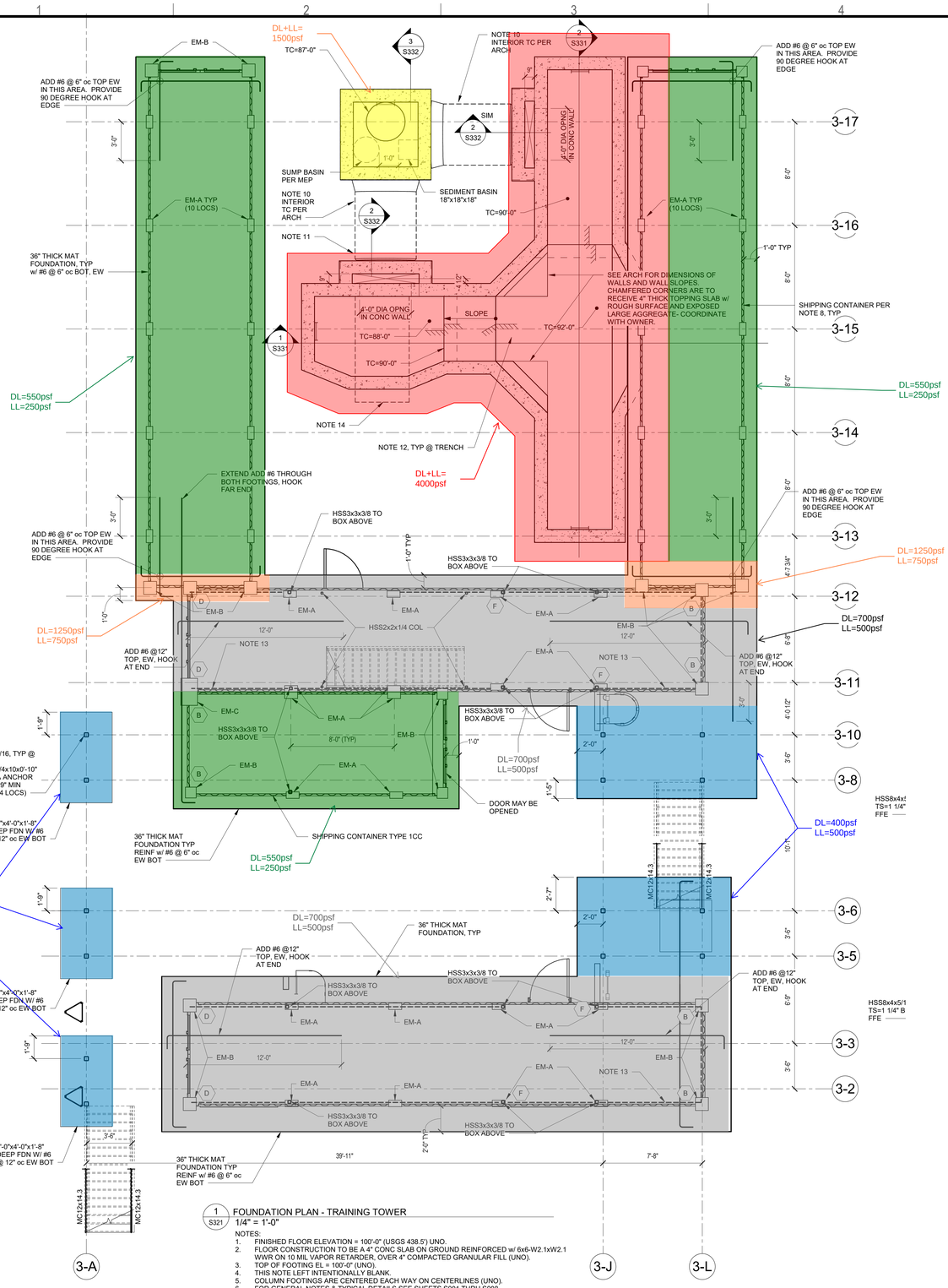

1 S321 FOUNDATION PLAN - TRAINING TOWER
1/4" = 1'-0"

NOTES:

1. FINISHED FLOOR ELEVATION = 100'-0" (USGS 438.5') UNO.
2. FLOOR CONSTRUCTION TO BE A 4" CONC SLAB ON GROUND REINFORCED w/ 6x6-W2.1xW2.1 WWR ON 10 MIL VAPOR RETARDER, OVER 4" COMPACTED GRANULAR FILL (UNO).
3. TOP OF FOOTING EL = 100'-0" (UNO).
4. THIS NOTE LEFT INTENTIONALLY BLANK.
5. COLUMN FOOTINGS ARE CENTERED EACH WAY ON CENTERLINES (UNO).
6. FOR GENERAL NOTES & TYPICAL DETAILS SEE SHEETS S001 THRU S008.
7. SEE DETAILS ON S341 FOR REINFORCEMENT AT DOOR AND WINDOW OPENING LOCATIONS.
8. SHIPPING CONTINER TO MEET TYPE 1AAA SPECIFICATIONS, UNO.
9. "EM- " DENOTES EMBED PLATE TYPE PER DETAIL 1/S332.
10. 48" DIA PREFABRICATED PIPE BY OTHERS. SEE ARCH FOR ELEVATION.
11. SLOT FOR REMOVEABLE BREACH PANEL STEEL FRAME BY OTHERS.
12. AT TRENCH, PROVIDE 5" THICK SLAB ON GROUND WITH #5@12" oc EW, MID-DEPTH. CONTRACTOR TO PROVIDE CHAIRS OR OTHER MEANS OF ENSURING BAR IS PLACED MID-DEPTH.
13. WHERE SHOWN, ADD MIN 20GA OR 1/8" THICK SHEET STEEL, CONNECTED TO CONTAINER WITH 3/8" PUDDLE WELD AT 6" OC AT EDGES AND 12" OC IN FIELD. STOP EITHER SIDE OF ADDED COLUMNS. SEE 9/S341.
14. 1 1/4" THICK STEEL PLATE FOR TEMPORARY SPAN OVER TRENCH. SEE ARCH FOR LAYOUT. MAX 8K WHEEL LOAD, MIN 2'-6" oc.
15. CONTAINER END DOOR TO REMAIN CLOSED UNLESS NOTED.
16. (X) INDICATES ANCHOR POINT PER 8/S342.
17. (X) INDICATES ANCHOR AT EDGE OF OPENING PER 7/S341.
18. BASE BID TO INCLUDE 20 ADDITIONAL ANCHOR POINTS, SIMILAR TO DETAILS 7/S341 OR 8/S342.

CCF&R soil pressures at base of tower KPFF 2025.10.14

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HEADQUARTERS / TRAINING / MAINTENANCE
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No.	Date	Revision

FDN PLAN & 2ND LEVEL FRAMING PLAN

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