

To: All Plan Holders of Record

From: CT Consultants, Inc.

For the Owner

Re: Addendum No. 1

Lake County Executive Airport Terminal

Lake Development Authority

Date: June 17, 2024

This Addendum forms a part of the contract documents and modifies the original bidding documents dated June 2024 and all previous addenda, if any. Acknowledge receipt of this addendum in the space provided in the bid forms. Failure to do so may subject the bidder to disqualification.

#### **OPINION OF PROBABLE CONSTRUCTION COST**

The Opinion of Probable Construction Cost shall be \$3,700,000.00.

#### **BID FORMS**

**Replace** Bid Form, Pages BF.26 to BF.27, with the enclosed Bid Form, Pages BF.26A to BF.27A.

Replace Information for Bidders, Page IB-5, with enclosed Page IB-5-A.

#### **PLANS**

**Added**: Drawing Sheet G0.12: FAA Eligibility Floor Plans: Required by FAA.

**Reissued:** G0.00 **Reissued:** G0.01

**Reissued:** G0.11 Removed storefront door and wing walls at the Meet and Greet area.

**Reissued:** S1.2. Updated steel framing to allow for HVAC floor penetration.

**Reissued:** A1.02 Updated Office 202 closet and door to allow for HVAC floor penetration.

**Reissued:** A1.04 Updated Office 202 closet to allow for HVAC floor penetration.

**Reissued:** A3.01 Added radius dimension to lower roof on 2/A3.01.

**Reissued:** A4.01 Updated 3/A4.01 for HVAC penetration.

Reissued: A6.01 Updated Door Schedule to remove Meet and Greet 201 door and adjusted

202A door.

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#### **SPECIFICATIONS**

Add: Specification section 122413- "Roller Window Shades" in its entirety.

**Add:** Specification section 017326 – "Self Adhering Sheet Waterproofing" in its entirety.

#### PREVAILING WAGES

Per Section 5, Special Provisions – Bidders shall utilize these decisions when compiling their Bid.

- 1. Building Decision No.OH20240084, Modification No. 3, dated 04/05/2024
- 2. Heavy and Highway Decision No. OH20240001, Modification No. 3, dated 04/05/2024

#### **QUESTIONS AND ANSWERS**

1. The geotechnical report in paragraph 3.5 notes the undercutting of the subgrade by 8.5 feet, but in paragraph 3.4 it indicates that all soils meet the required bearing strength. Boring reports B2 and B3 indicate the same soils conditions as B1. Please Clarify if undercutting or soil modifications will be required and to what extent.

Response: See response in Question 21.

2. Will a signage schedule be provided for the project.

Response: No.

3. Note 7.6 on drawing A1.04 states that the ceiling on the high lobby area is the be "prefinished linear metal soffit panels" However, on drawing A311, section 3, Note 5.13, it states that this ceiling is steel roof deck, paint where exposed". If this is determined to be a prefinished ceiling panels, do we paint the exposed trusses, mechanical, etc. below the decking?

Response: Underside of metal decking and all structural steel members, joists are to be painted where exposed.

4. On the finish plan I1.01, there is a floor finish "CONC". There is no finish legend specifying what this is. Is this a concrete floor that is to have a concrete floor sealer applied?

Response: Provide concrete sealer.

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- 5. On the reflected ceiling plans, NOTE 1.3 states "no ceiling, open to underside of structure, painted. (rooms #109 & #110). NOTE 1.2 states "no ceiling, open to above". NOTE 1.2, clearly does not state that these areas are to be painted, however, some of the areas where this note exists, would appear to need painted. Please confirm intent of exposed ceiling painting throughout, (i.e. room #101)
  - Response: Areas indicated as "1.2" are open ceilings that are required to be painted.

    This includes: underside of metal decks, structural members, open web
    joists, stair stringers, etc. Areas marked as "1.3" are also required to be
    painted. These include underside of stair landing and underside of exterior
    canopy, structural steel, metal decking, etc.
- 6. M0.02 Section 2.2 BUILDING AUTOMATION SYSTEM paragraph D states to provide at least 1 graphic for each piece of equipment monitored. Please clarify all equipment that the Owner would like to see on the BAS.

Response: The only equipment intended to be controlled by BAS is the RTU and the VAV boxes.

7. M0.02 Section 2.2 BUILDING AUTOMATION SYSTEM does not list thermographic floor plans. Please confirm if floor plans showing temperature in each zone is required for this project.

Response: Thermographic floor plans are not required to be included in the BAS.

8. The electrical site drawing E1.06 does not provide a location from where the incoming utility service is coming from, and what the total distance on the run is. The site utility drawing C1.04 does show the rough location of the existing utility underground electric, but it does not show where the proposed location for the utility transformer will be located.

Response: See revised drawing E1.06.

9. Can you please confirm where the utility transformer will be located? This will determine how long of a run we need to include for the (2) sets of 500 kcmil in 4" conduit, and how long of a run of empty 4" conduits we need to install for the utility company from the transformer to their existing underground service.

Response: See revised drawing E1.06

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10. There are currently no underground conduits or pathways shown or referenced on the drawings for an incoming tele-data service. Can you please confirm if this project will not need one? If they do intend to include one in this project's scope, can you please provide more information on the pathway needed and its route?

Response: Any underground conduits or pathways required by tele-data will be provided by the Owner.

11. What classification of Davis Bacon is this project?

Response: Lake County Federal Building and Heavy/Highway Rates as indicated in Section 5, Special Provisions.

12. The snow melt cable is drawn as a single run of cable across the roof just below the ice rakes. A single run of cable across the roof will not address the snow load at the edge of the roof and even a properly laid out ice melt system on the roof seams and gutters wouldn't reduce the snow load the way they intend either. The only solution the manufacturer offers to reduce snow load is the RIM-S panel system which has the heating cables embedded in an aluminum panel that sits on top of the roof. The heating cable heats the entire panel which in turn would then completely remove the snow from the edge of the roof. The price difference on the system is pretty substantial. Should we include pricing for the cable system shown in the drawings, a properly laid out heating cable only system, or a system using the RIM-S panel system. The (2) alternate layouts require (6) 20a, 208V circuits. If it can be changed to 30a circuits, this could be done with 4 circuits and would reduce the controllers on the bill of materials.

Response: Delete all references to the snow melt cable system material and installation.

13. Is the Lobby Desk detailed on sheet A4.02 part of the FF&E Budget or part of the Base Bid?

Response: The Lobby Desk is part of the Base Bid.

14. As it relates to the bid form, please confirm that the only DBE form that needs to be submitted with our proposal is Form 1 (BF-15) & that BF-16, 17, 18, 19 & 20 can be submitted within 24 hours of the bid opening.

Response: Form 1 Disadvantaged Business Enterprise (DBE) Utilization must be completed and submitted with the bid. All other documents can (must) be provided no later than 12:00 pm on June 21,2024 to donyager@gaconsultants.org.

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15. Can you confirm that this project is NOT tax exempt and that we are to include all sales tax in our bid?

Response: The project is tax exempt.

16. The Specific Project Requirements, Item 5.1 notes that the successful bidder shall not subcontract work totaling more than 50% of the total contract. Can this provision be waived?

Response: Specification Project Requirement, 5.1 is to be removed. Additionally, Section 80.-1, page GP.33 indicates that FAA requires at least 25 percent of the FAA eligible scope items be completed utilizing the bidder's / contractor's own staff.

17. Sheet P0.02 specification 21 05 00 Common Work Results for Fire Suppression require bidders to perform a flow test prior to bidding. As this is a public project all information should be made available to bidders prior to bid. Please provide flow test information for all bidders to review and incorporate into their proposals.

Response: The plumbing contractor shall include in their bid and allowance to conduct a flow test with the City of Willoughby and report that information to the sprinkler designer of record.

18. Sheets E1.06 and C1.04 do not appear to reflect the full primary and secondary power scope of work nor is the utility transformer location provided. Please coordinate to reflect the full primary and secondary power responsibilities as well as provide the utility transformer location.

Response: See revised drawing E1.06.

19. "Sheet E1.05 shows the snow melt cable drawn as a single run of cable across the roof just below the ice rakes. A single run of cable across the roof will not address the snow load at the edge of the roof and even a properly laid out ice melt system on the roof seams and gutters wouldn't reduce the snow load the way they intend either. The only solution the manufacturer offers to reduce snow load is the RIM-S panel system which has the heating cables imbedded in an aluminum panel that sits on top of the roof. The heating cable heats the entire panel which in turn would then completely remove the snow from the edge of the roof. The price difference on the system is substantial.

Response: Delete all reference to snow melt cable material and installation.

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20. M1.01 shows a duct up to second floor at mechanical room 109. S1.2 floor framing plan does not show opening in second floor for this. Can this be added along with framing details for opening.

Response: See typical opening framing detail on S3-1. Coordinate exact location with Mechanical Contractor.

21. How would you like us to handle the note in section 3.5 of the geotechnical report? The second paragraph states that one bore shows "low-strength" and "not suitable for anticipated loads" soils, and that PSI recommends the soils be removed to a depth of 8.5'. However, one bore is not a sufficient quantity to determine stability. If you would like for us to include this undercut, to what extent are we to go? Are you looking for a 10' x 10' area? 12' x 12'? Please advise.

Response: The location that this is referring to soils boring B1. Until excavation occurs, the extent of the undercutting cannot be EXACTLY determined. Provide the cost for undercutting an area of 12'x 12' at the recommended report depth. If the extent of the low-strength soils extends beyond the previously indicated area, additional removal and cost adjustment will need to occur.

22. Is Alpolic an acceptable manufacturer for the 074213.23 Metal Composite Material Wall Panels.

Response: Provide one of the specified Metal Composite Material Wall panels only.

Substitution or Approved Equals may be considered after award.

23. Is irrigation required? Drawing C1.11, note 5 above the seed chart has "seeding shall include irrigation to establish vegetation during dry or hot weather or on adverse site conditions".

Response: No irrigation is required.

24. Where can the depth of the drilled piers be located in the project documents? We do not see it referenced on drawings or in Geotech report.

Response: Drilled piers are located at the exterior stairs and are to 42 inches in depth minimum.

25. Will a Specification be provided for the drilled piers?

Response: In addition to the response in Question 24, the drilled piers are defined in the drilled pier schedule located on Sheet S-1.1. No additional specification is required.

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- 26. Regarding the Cross Laminated Timber stair treads and Landings shown on A4.03, what species of wood and what finish is to be used?
  - Response: Species: Ash. Stain color as selected by Owner / Architect form manufacturers standard color range.
- 27. Please clarify acceptable BMS manufacturers/ systems, none are indicated on drawing M0.02, spec 23 09 00.
  - Response: Any manufacturer of BAS that meets the performance specifications provided is acceptable for this project. Some examples include; Trane Tracer, Carrier i-VU, and JCI Metasys.
- 28. Where glazed decorative metal railings are called for on the drawings, are those railings governed by spec 05 73 13? The basis of design "CUBE" railing system does not appear to match the intent on the drawings, which show a shoe-type system. Please advise.
  - Response: The glazed decorative metal railings are governed by specification section 057313 and are indicated as "delegated design".
- 29. There are three hatchings shown as alternates on C1.03. What are the base bid conditions for each?
  - Response: All pavement details are provided on sheet C1.08.
- 30. P1.01 notes 4" fire to FDC, coordinate final location with site and civil plans. Civil plan C1.04 does not show location for FDC, can this be provided.
  - Response: Coordinate the final location of the fire department connection (FDC) with the City of Willoughby Fire department. For budgeting purposes, the FDC location shall be within 50 feet of the northwest corner of the Terminal Building.
- 31. Alternate A2 notes to move the RTU from the West to North side of the building. From looking at drawing P1.01 location of water service, there does not appear to be room for the duct to enter building at that elevation. Can you provide a drawing on how this would need to be done?
  - Response: If Alternate No. A2 is accepted by the Owner, the mechanical engineer of record (TEC) will provide the necessary redesign drawings. The cost for their portion of the redesign is \$2,000.00. This is to be included in the total deduct cost of Alternate No. A2.

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32. 10/A5.1 shows blocking at roof edge condition. This condition will be mostly at the curve metal roofing and the 2 x fascia blocking shown will not work due to the curve. Can we use 1 or 2 layers of 3/4" plywood instead of 2 x?

Response: FRT plywood is acceptable at the curved area of the fascia details.

33. Please advise on which certifying entity (County, State, City, Federal. Etc.) that contractors are to refer to for certified DBE firms.

Response: Ohio Unified Certification Program administered by ODOT.

34. Page BF-15 of the bid form states the DBE project goal is 5.3% of the project total. Page FCP.1 of appendix A states goals of 16.1% for minority participation for each trade & 6.9% female participation for each trade. Please advise on what the DBE total project goal is and how it applies to the FAA eligible & non-eligible cost separations. As it relates to DBE project participation, are the subcontracting percentages goals or contracting mandates?

Response: The DBE goal is 5.3%. The 16.1% and 6.9% goals are not DBE goals, they are EEO Affirmative Action Goals that pertain to the contractor's work force. They are not specific project goals. The DBE goal applies only to FAA-eligible items.

35. Under section 80-01 on page GP.33 states that the bidding contractor shall perform at least 25% of the work utilizing their own staff. However, the special projects requirements section 5.1 states a 50% self-performance. Please advise on which percentage is correct and how it applies to the FAA eligible & non-eligible cost separations.

Response: See the response in Question 16.

36. Section 1.11 of spec section 012100AIA states that a testing & inspection allowance be included but there is no value or referenced of this under section 3.3, Schedule of Allowances. Please advise on the allowance amounts that the bidders should include within their proposals.

Response: Delete: Section 1.11 of Specification section 012100.

37. Please advise on whom will procure the builders risk / all risk insurance policy for this project.

Response: The general contactor is responsible for procuring the builders risk / all risk insurance policy.

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38. Please advise on how many hard copies of the bid form are required for submission.

Response: One.

39. Please advise on the project start date, and if is tied to the final grant submission date of 6/24/24.

Response: Projected FAA determination is September 2024. When FAA notifies the Lake Development Authority (LDA) of their determination, potential award would follow thereafter. No official date has been determined.

40. Coded note # 6 on drawing C1.02 states to relocate the existing light pole but no new location of this relocated pole can be found. Please advise.

Response: Relocate approximately 10 feet to the south. Please coordinate with the utility company.

41. Spec section 051213- 1.6 A, B & C are requiring the steel fabricator and erector to be AISC certified, please advise if this certification can be waived.

Response: No.

42. Spec section 051213-1.1. B.2 refers to a 099600 high performance coatings spec, but no such spec section was provided within the bid documents. Please advise.

Response: Painting specifications are described in Specification Section 099100 "Painting".

43. Sections 4/5 on S-3.7 states for the railing manufacturer to design the railing & connection to the structure. However, spec section 057313 makes no reference of a delegated design for this building element. Please advise.

Response: Specification Section 057313, 1.4 (E). Delegated Design Calculations, indicate that this element is delegated design.

44. Keynote 10.6 on drawings A1.01 & A1.02 refers to stainless steel corner guards but no spec section was provided for corner guards. Please provide.

Response: 72 inch x 1 inch x 1inch – 90 degree, 18 ga. Type 304, Satin #4 finish, stainless steel.

45. General note O on A1.01 & A1.02 states to provide window shades at all exterior curtainwalls, no spec section or schedule has been provided for the window shades.

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Response: Added specification section 122413 – "Roller Window Shades".

46. Section 3/A1.03 refers to FRT wood paneling (keynote #9.8) but no reference of this material is found within the Architectural wood spec section #064000. Please advise.

Response: Material referencing FRT wood paneling to be changed to plastic laminate.

47. The aluminum-framed entrance & storefront (spec section 084113) and Glazed Aluminum Curtain walls (spec section 084413) both call for a 2-coat painted & a 3-coat painted system. Please confirm a 2-coat painted system is acceptable.

Response: Both curtain wall and storefront systems are to be a 3- coat paint system.

48. The aluminum-framed entrance & storefront (spec section 084113) and Glazed Aluminum Curtain walls (spec section 084413) do not specify the total required finish warranty for the system. Please advise what the desired finish warranty is.

Response: Special Finish Warranty of 10 years.

49. Please advise if any of the Owner furnished its (TV's, Vending Machines, Appliances, Projector Screens, Etc.) are to be installed by bidder?

Response: Appliances and projector screen is the responsibility of the contractor.

50. Section 70-80 refers to a Construction Safety & Phasing Plan on sheet 2 of the project plans. No such plan was provided within the bid documents, please provide this plan. Also, please advise if there are any additional safety & security responsibility of the contractor during construction.

Response: Delete the reference to Construction Safety & Phasing Plan in Section 70-80. It is not required for the project. The only safety / security requirements are to keep all workers within the construction limits.

51. The finish selection material sheet on I0.01 does not specify manufacturer models, styles of colors. Please advise.

Response: Interior finishes will be selected after the bid opening.

52. Please advise on the desired below grade waterproofing system for the elevator pit.

Response: Refer to added specification section 071326 – "Self-Adhering Sheet Waterproofing.

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- 53. Please advise if it is the responsibility of the general contractor to furnish and install the access control devices or if we are to provide pathways only.
  - Response: If in reference to ADA access controls at main doors, etc...that is the responsibility of the general contractor. If the reference is to private security access to man doors, power is to be provided to a junction box at the door location along with electric strikes. Card reader or FOB systems are provided / installed by the Owner.
- 54. The provided bid form accounts for only two of the four allowances, please update the bid form to reflect the appropriate allowances per spec section 12000.

Response: The bid form will not be modified. Include allowances not indicated on the bid form in the lump sum price.

55. Please clarify which countertops are to be plastic laminate vs. solid surface.

Response: ALL countertops are solid surface.

56. Page BF-11 of the bid form asks for bidding contractors to provide data for the last five years. As a company, we complete hundreds of projects every calendar year, please clarify the number of projects that the bidding contractors should provide as an experience record.

Response: A range of five to ten projects comparable to this one will be sufficient.

57. Please provide a narrative on what scope limitations are in bid alternate A1 as the civil drawings do not provide a clear representation of the alternate limits / inclusions.

Response: Standard duty asphalt pavement is NOT part of Alternate No. A1. It is indicated on the Bid Form in the Part B: FAA Eligible Table and noted as NE1. The reinforced concrete pavement indicated as Alternat No. A1 is located on the west side of the building and hatched in light gray and concrete pattern. Dimensions are located so that areas can be calculated. Details for the pavement are located on Sheet C1.08.

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58. The Standard Contract Provisions, Article XVIII notes that the contractor shall reimburse Owner for any such taxes paid by Owner. Can this be waived as not applicable? There is no way to quantify this.

Response: The project is EXEMPT from sales tax and use taxes. Any "employment" taxes are the responsibility of the contractor. In any event, this provision is not part of the standard contract provisions, it is part of the form of agreement and any changes to it are subjected to the approval of LDA's legal counsel at the time of contract execution.

59. Spec 051213 Architecturally Exposed Structural Steel Framing is in the spec manual, but we do not find any call out on drawings as to where this is applicable to?

Response: All exposed structural steel columns, beams, framing members, open web steel joists.

60. I1.01 notes CPT-2 at North and South vestibules. Should this be CPT-3? Also, the spec manual includes spec 124813 entrance mats and frames, is this applicable for the project?

Response: For the South and East Vestibules, provide Mohawk Doctor II, First Step II, Color as selected by the Owner / Architect.

61. A1.03 and A1.04 reference keynotes 12.3 and 12.4 for window shades but no specification was issued. Can either a spec. or a basis of design be provided.

Response: Specification section 122413 "Roller Window Shades" has been added.

62. M0.01, RTU-1, note 3 states to place RTU on concrete pad. Does this mean the concrete slab (per civil 4" sidewalk) shown in the area or will concrete housekeeping pad be require?

Response: Yes.

ADT:mep

**Enclosures** 

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# PROPOSAL TO LAKE DEVELOPMENT AUTHORITY FOR LAKE COUNTY EXECUTIVE AIRPORT TERMINAL FAA PROJECT NO. 3-39-0090-028-2024

BASE BID ITEMS

REF. NO.	DESCRIPTION – PART A – FAA ELIGIBLE	QTY.	MEASURE UNIT	LABOR	MATERIAL	TOTAL
E1	General Trades: Site	1.00	dWnT	\$	\$	\$
	All work associated with the site: Except Access Drive and Parking Lot Scope					
E2	General Trades: Access Drive	1.00	TUMP		\$	\$
	All work associated with the Access Drive					
E3	General Trades: Building	1.00	TUMP	\$	\$	\$
	All work associated with the Building Construction: Except Elevator and Furniture					
E4	General Trades: Elevator	1.00	TUMP	\$	\$	\$
	All work associated with the Elevator					

Informal Total FAA Eligible: \$\_\_\_\_\_

BASE BID ITEMS

NO.	DESCRIPTION: PART B – FAA NON-ELIGIBLE	QTY.	MEASURE UNIT	LABOR	MATERIAL	TOTAL
NE1 Gene	General Trades: Site	1.00	ТОМР	\$	\$	\$
Allw	All work associated with the Parking Lot					
NE2 Gene	General Trades: Landscaping	1.00	LUMP	\$	\$	\$
Allw	All work associated with the Landscaping					
NE3 Furni	Furniture Allowance	1.00	LUMP	<del></del> \$	\$	\$80,000.00
NE4 Conti	Contingency/Discretionary Allowance	1.00	LUMP		<del></del>	\$50,000.00

Informal Total FAA Non-Eligible: \$\_\_\_\_\_

Informal Total Base Bid = FAA Eligible + FAA Non-Eligible: \$\_\_\_\_

ALTERNATE BID ITEMS

	ALIENNAIE DID HEMS					
REF. NO.	DESCRIPTION: PART B – FAA NON-ELIGIBLE ALTERNATES	QTY.	MEASURE UNIT	LABOR	MATERIAL	TOTAL
A1	ADD ALTERNATE - Concrete Work indicated as A1 on the Site/Civil Drawings.	1.00	LUMP			
A2	DEDUCT ALTERNATE - Relocation of the Ground Mounted Roof Top Unit (RTU) form the West Elevation to the North Elevation Adjacent to the Mechanical Room. Non-Performance of the Masomy Screen Wall and Foundations, Ornamental Security Gate. As part of the Cost, the GC to Obtain/Pay for Main Trunk Redesign, Design Sizing and Reconfiguration from the Engineer of Record directly.	1.00	гомр	(***)	(**)	(**************************************

#### 3. Bid security.

The bidder shall refer to Section 20 of the general provisions for additional bid requirements.

After the bids are opened, and before the Contract is awarded, the Engineer may request detailed information including a general statement of his experience in similar work, a description of his concern with a list of officers, a general summary of the work that he has currently under Contract, his permanent business address, and list of major equipment he proposes to use on this project. These shall be completed within ten (10) days after the date of request.

At this same time, schedules indicating the list of divisions of the work which he plans to do with subcontractors together with the list of divisions of work which he plans to do directly without subcontractors; and the approximate delivery dates of major items of materials or equipment, shall be required.

The AWARD, depending on available funding, will be based upon the lowest responsive total Base Bid.

The successful BIDDER will be required to execute the Contract for construction and return the Contract accompanied by the required Bonds and Insurance Certificates herein described within ten (10) calendar days from the date when NOTICE OF AWARD shall be accompanied by the necessary Agreement and bond forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may at his option consider the BIDDER in default, in which case the BIDDER shall be liable to the OWNER for a penal sum in accordance with Ohio Revised Code Section 153.54.

The OWNER, within ten (10) days of receipt of acceptable Contract Bond, and Agreement signed by the party to whom the contract was awarded, shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may, by written notice, withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

Work shall commence within five (5) calendar days after the date of "Notice to Proceed" and the CONTRACTOR shall fully complete all the work within the time stated and under the conditions enumerated in the Contract Agreement.

The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. Such evidence of competency unless otherwise specified, shall consist of statements covering the BIDDER'S past experience on similar work, a list of equipment that would be available for the work, and the list of key personnel that would be available. In addition, each BIDDER shall, if requested, furnish the OWNER satisfactory evidence of his financial responsibility. Such evidence of financial responsibility shall consist of a confidential statement or report of the BIDDER'S financial resources and liabilities as of the last calendar year or the CONTRACTOR'S last fiscal year. Such statements, or reports, shall be certified by a public accountant. Such statement shall also indicate whether CONTRACTOR'S financial

#### SECTION 071326 - SELF-ADHERING SHEET WATERPROOFING

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Modified bituminous sheet waterproofing.
  - 2. Molded-sheet drainage panels.

#### 1.3 SUBMITTALS

- A. Product Data: Include manufacturer's written instructions for evaluating, preparing, and treating substrate, technical data, and tested physical and performance properties of waterproofing.
- B. Samples: For the following products:
  - 1. 12-by-12-inch (300-by-300-mm) square of waterproofing and flashing sheet.
  - 2. 4-by-4-inch (100-by-100-mm) square of drainage panel.
- C. Warranties: Special warranties specified in this Section.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A firm that is approved or licensed by waterproofing manufacturer for installation of waterproofing required for this Project.
- B. Source Limitations: Obtain waterproofing materials, protection course, and molded-sheet drainage panels] through one source from a single manufacturer.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver liquid materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.

#### 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Apply waterproofing within the range of ambient and substrate temperatures recommended by waterproofing manufacturer. Do not apply waterproofing to a damp or wet substrate.
  - 1. Do not apply waterproofing in snow, rain, fog, or mist.

#### 1.7 WARRANTY

- A. Special Manufacturer's Warranty: Manufacturer's standard form in which manufacturer agrees to replace waterproofing material that does not comply with requirements or that fails to remain watertight within specified warranty period.
  - 1. Warranty Period: Five years from date of Substantial Completion.
  - 2. Warranty includes removing and reinstalling protection board and drainage panels.

#### PART 2 - PRODUCTS

#### 2.1 MODIFIED BITUMINOUS SHEET WATERPROOFING

- A. Modified Bituminous Sheet: Not less than 60-mil- (1.5-mm-) thick, self-adhering sheet consisting of 56 mils (1.4 mm) of rubberized asphalt laminated to a 4-mil- (0.10-mm-) thick, polyethylene film with release liner on adhesive side.
  - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Carlisle Coatings & Waterproofing Inc.; CCW MiraDRI 860/861.
    - b. Grace, W. R. & Co.; Bituthene 3000.
    - c. Henry Company; Blueskin WP 200.
    - d. Meadows, W. R., Inc.; SealTight Mel-Rol.
    - e. Nervastral, Inc.; BITU-MEM.
    - f. Tamko Roofing Products, Inc.; TW-60.

#### 2. Physical Properties:

- a. Tensile Strength: 250 psi (1.7 MPa) minimum; ASTM D 412, Die C, modified.
- b. Ultimate Elongation: 300 percent minimum; ASTM D 412, Die C, modified.
- c. Low-Temperature Flexibility: Pass at minus 20 deg F (minus 29 deg C); ASTM D 1970.
- d. Crack Cycling: Unaffected after 100 cycles of 1/8-inch (3-mm) movement; ASTM C 836.

- e. Puncture Resistance: 40 lbf (180 N) minimum; ASTM E 154.
- f. Hydrostatic-Head Resistance: 150 feet (45 m) minimum; ASTM D 5385.
- g. Water Absorption: 0.15 percent weight-gain maximum after 48-hour immersion at 70 deg F (21 deg C); ASTM D 570.
- h. Vapor Permeance: 0.05 perms (2.9 ng/Pa x s x sq. m); ASTM E 96, Water Method.

#### 2.2 AUXILIARY MATERIALS

- A. General: Furnish auxiliary materials recommended by waterproofing manufacturer for intended use and compatible with sheet waterproofing.
  - 1. Furnish liquid-type auxiliary materials that comply with VOC limits of authorities having jurisdiction.
- B. Primer: Liquid solvent-borne primer recommended for substrate by manufacturer of sheet waterproofing material.
- C. Surface Conditioner: Liquid, waterborne surface conditioner recommended for substrate by manufacturer of sheet waterproofing material.
- D. Liquid Membrane: Elastomeric, two-component liquid, cold fluid applied, trowel grade or low viscosity.
- E. Substrate Patching Membrane: Low-viscosity, two-component, asphalt-modified coating.
- F. Sheet Strips: Self-adhering, rubberized-asphalt sheet strips of same material and thickness as sheet waterproofing.
- G. Mastic, Adhesives, and Tape: Liquid mastic and adhesives, and adhesive tapes recommended by waterproofing manufacturer.
  - 1. Detail Tape: Two-sided, pressure-sensitive, self-adhering reinforced tape, 4-1/2 inches (114 mm) wide, with a tack-free protective adhesive coating on one side and release film on self-adhering side.
  - 2. Detail Strips: 62.5-mil- (1.58-mm-) thick, felt-reinforced self-adhesive strip, 9 inches (229 mm) wide, with release film on adhesive side.
- H. Metal Termination Bars: Aluminum bars, approximately 1 by 1/8 inch (25 by 3 mm) thick, predrilled at 9-inch (229-mm) centers.
- I. Protection Course: Extruded-polystyrene board insulation, unfaced, ASTM C 578, Type X, 1/2 inch (13 mm) thick.

#### 2.3 MOLDED-SHEET DRAINAGE PANELS

A. Nonwoven-Geotextile-Faced, Molded-Sheet Drainage Panel: Manufactured composite subsurface drainage panels consisting of a nonwoven, needle-punched geotextile facing with an apparent opening size not exceeding No. 70 (0.21-mm) sieve laminated to one

side with or without a polymeric film bonded to the other side of a studded, nonbiodegradable, molded-plastic-sheet drainage core, with a vertical flow rate of 9 to 15 gpm per ft. (112 to 188 L/min. per m).

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance.
  - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 SURFACE PREPARATION

- A. Clean, prepare, and treat substrates according to manufacturer's written instructions. Provide clean, dust-free, and dry substrates for waterproofing application.
- B. Mask off adjoining surfaces not receiving waterproofing to prevent spillage and overspray affecting other construction.
- C. Remove grease, oil, bitumen, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.
- D. Remove fins, ridges, mortar, and other projections and fill honeycomb, aggregate pockets, holes, and other voids.
- E. Prepare, fill, prime, and treat joints and cracks in substrates. Remove dust and dirt from joints and cracks according to ASTM D 4258.
  - 1. Install sheet strips and center over treated construction and contraction joints and cracks exceeding a width of 1/16 inch (1.6 mm).
- F. Corners: Prepare, prime, and treat inside and outside corners according to ASTM D 6135.
  - 1. Install membrane strips centered over vertical inside corners. Install 3/4-inch (19-mm) fillets of liquid membrane on horizontal inside corners and as follows:
    - a. At footing-to-wall intersections, extend liquid membrane each direction from corner or install membrane strip centered over corner.

G. Prepare, treat, and seal vertical and horizontal surfaces at terminations and penetrations through waterproofing and at drains and protrusions according to ASTM D 6135.

#### 3.3 MODIFIED BITUMINOUS SHEET WATERPROOFING APPLICATION

- A. Install modified bituminous sheets according to waterproofing manufacturer's written instructions and according to recommendations in ASTM D 6135.
- B. Apply primer to substrates at required rate and allow to dry. Limit priming to areas that will be covered by sheet waterproofing in same day. Reprime areas exposed for more than 24 hours.
- C. Apply and firmly adhere sheets over area to receive waterproofing. Accurately align sheets and maintain uniform 2-1/2-inch- (64-mm-) minimum lap widths and end laps. Overlap and seal seams and stagger end laps to ensure watertight installation.
  - 1. When ambient and substrate temperatures range between 25 and 40 deg F (minus 4 and plus 5 deg C), install self-adhering, modified bituminous sheets produced for low-temperature application. Do not use low-temperature sheets if ambient or substrate temperature is higher than 60 deg F (16 deg C).
- D. Two-Ply Application: Install sheets to form a membrane with lap widths not less than 50 percent of sheet widths to provide a minimum of 2 thicknesses of sheet membrane over areas to receive waterproofing.
- E. Apply continuous sheets over sheet strips bridging substrate cracks, construction, and contraction joints.
- F. Seal exposed edges of sheets at terminations not concealed by metal counterflashings or ending in reglets with mastic.
- G. Install sheet waterproofing and auxiliary materials to tie into adjacent waterproofing.
- H. Repair tears, voids, and lapped seams in waterproofing not complying with requirements. Slit and flatten fishmouths and blisters. Patch with sheet waterproofing extending 6 inches (150 mm) beyond repaired areas in all directions.
- I. Install protection course with butted joints over waterproofing membrane immediately.
  - 1. Molded-sheet drainage panels may be used in place of a separate protection course to vertical applications when approved by waterproofing manufacturer and installed immediately.
- J. Correct deficiencies in or remove sheet waterproofing that does not comply with requirements; repair substrates, reapply waterproofing, and repair sheet flashings.

#### 3.4 MOLDED-SHEET DRAINAGE PANEL INSTALLATION

- A. Place and secure molded-sheet drainage panels, with geotextile facing away from wall or deck substrate, according to manufacturer's written instructions. Use adhesives or mechanical fasteners that do not penetrate waterproofing. Lap edges and ends of geotextile to maintain continuity. Protect installed molded-sheet drainage panels during subsequent construction.
  - 1. For vertical applications, install protection course before installing drainage panels.

#### 3.5 PROTECTION AND CLEANING

- A. Protect installed from damage due to UV light, harmful weather exposures, physical abuse, and other causes.
- B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 071326

#### SECTION 122413AIA - ROLLER WINDOW SHADES

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

#### A. Section Includes:

1. Manually operated roller shades with [single] [double] rollers.

#### B. Related Requirements:

- 1. Section 061000 "Rough Carpentry" for wood blocking and grounds for mounting roller shades and accessories.
- 2. Section 079200 "Joint Sealants" for sealing the perimeters of installation accessories for light-blocking shades with a sealant.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, features, finishes, and operating instructions for roller shades.
- B. Shop Drawings: Show fabrication and installation details for roller shades, including shadeband materials, their orientation to rollers, and their seam and batten locations.
- C. Samples: For each exposed product and for each color and texture specified, 10 inches (250 mm) long.
- D. Samples for Initial Selection: For each type and color of shadeband material.
  - 1. Include Samples of accessories involving color selection.

#### 1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Certificates: For each type of shadeband material.

#### 1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For roller shades to include in maintenance manuals.

#### 1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Roller Shades: Full-size units equal to 5 percent of quantity installed for each size, color, and shadeband material indicated, but no fewer than [two] <Insert number> units.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver roller shades in factory packages, marked with manufacturer, product name, and location of installation using same designations indicated on Drawings.

#### 1.8 FIELD CONDITIONS

- A. Environmental Limitations: Do not install roller shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

A. Source Limitations: Obtain roller shades from single source from single manufacturer.

#### 2.2 MANUALLY OPERATED SHADES WITH SINGLE ROLLERS

- A. Subject to compliance with requirements. Available manufacturers offering products that may be incorporated into the work, but are not limited to the following:
  - 1. Hunter Douglas Contract
  - 2. Insolroll Window Shading Systems
  - 3. Approved Equal
- B. Chain-and-Clutch Operating Mechanisms: With continuous-loop bead chain and clutch that stops shade movement when bead chain is released; permanently adjusted and lubricated.
  - 1. Bead Chains: Manufacturer's standard.
    - a. Loop Length: Full length of roller shade.
    - b. Limit Stops: Provide upper and lower ball stops.
    - c. Chain-Retainer Type: Chain tensioner, jamb mounted.
  - 2. Spring Lift-Assist Mechanisms: Manufacturer's standard for balancing roller shade weight and for lifting heavy roller shades.
    - a. Provide for shadebands that weigh more than 10 lb (4.5 kg) or for shades as recommended by manufacturer, whichever criterion is more stringent.
- C. Rollers: Corrosion-resistant steel or extruded-aluminum tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of shadebands indicated without deflection. Provide with permanently lubricated drive-end assemblies and idle-end assemblies designed to facilitate removal of shadebands for service.
  - 1. Roller Drive-End Location: Right side of interior face of shade.
  - 2. Direction of Shadeband Roll: Regular, from back (exterior face) of roller.
  - 3. Shadeband-to-Roller Attachment: Manufacturer's standard method.
- D. Mounting Hardware: Brackets or endcaps, corrosion resistant and compatible with roller assembly, operating mechanism, installation accessories, and mounting location and conditions indicated.
- E. Roller-Coupling Assemblies: Coordinated with operating mechanism and designed to join up to three inline rollers into a multiband shade that is operated by one roller driveend assembly.
- F. Shadebands:
  - 1. Shadeband Material: Light-filtering fabric.
  - 2. Shadeband Bottom (Hem) Bar: Steel or extruded aluminum.
    - a. Type: Enclosed in sealed pocket of shadeband material.

b. Color and Finish: As selected by Architect from manufacturer's full range.

#### G. Installation Accessories:

- 1. Front Fascia: Aluminum extrusion that conceals front and underside of roller and operating mechanism and attaches to roller endcaps without exposed fasteners.
  - a. Shape: Curved.
  - b. Height: Manufacturer's standard height required to conceal roller and shadeband assembly when shade is fully open, but not less than 4 inches.
- 2. Exposed Headbox: Rectangular, extruded-aluminum enclosure including front fascia, top and back covers, endcaps, and removable bottom closure.
  - a. Height: Manufacturer's standard height required to enclose roller and shadeband assembly when shade is fully open, but not less than 4 inches.

#### 2.3 MANUALLY OPERATED SHADES WITH DOUBLE ROLLERS

- A. Subject to compliance with requirements. Available manufacturers offering products that may be incorporated into the work, but are not limited to the following:
  - 1. Hunter Douglas Contract
  - 2. Insolroll Window Shading Systems
  - 3. Approved Equal
- B. Chain-and-Clutch Operating Mechanisms: With continuous-loop bead chain and clutch that stops shade movement when bead chain is released; permanently adjusted and lubricated.
  - 1. Bead Chains: Manufacturer's standard.
    - a. Loop Length: Full length of roller shade.
    - b. Limit Stops: Provide upper and lower ball stops.
    - c. Chain-Retainer Type: Chain tensioner, jamb mounted.
  - 2. Spring Lift-Assist Mechanisms: Manufacturer's standard for balancing roller shade weight and for lifting heavy roller shades.
    - a. Provide for shadebands that weigh more than 10 lb or for shades as recommended by manufacturer, whichever criterion is more stringent.
- C. Rollers: Corrosion-resistant steel or extruded-aluminum tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of shadebands indicated without deflection. Provide with permanently lubricated drive-end assemblies and idle-end assemblies designed to facilitate removal of shadebands for service.

- 1. Double-Roller Mounting Configuration: Side by side.
- 2. Inside Roller:
  - a. Drive-End Location: Right side of interior face of shade.
  - b. Direction of Shadeband Roll: Regular, from back (exterior face) of roller.

#### 3. Outside Roller:

- a. Drive-End Location: Right side of interior face of shade.
- b. Direction of Shadeband Roll: Regular, from back (exterior face) of roller.
- 4. Shadeband-to-Roller Attachment: Manufacturer's standard method.
- D. Mounting Hardware: Brackets or endcaps, corrosion resistant and compatible with roller mounting configuration, roller assemblies, operating mechanisms, installation accessories, and installation locations and conditions indicated.
- E. Roller-Coupling Assemblies: Coordinated with operating mechanism and designed to join up to three inline rollers into a multiband shade that is operated by one roller driveend assembly.

#### F. Inside Shadebands:

- 1. Shadeband Material: Light-filtering fabric.
- 2. Shadeband Bottom (Hem) Bar: Steel or extruded aluminum.
  - a. Color and Finish: As selected by Architect from manufacturer's full range.

#### G. Outside Shadebands:

- 1. Shadeband Material: Light-blocking fabric.
- 2. Shadeband Bottom (Hem) Bar: Steel or extruded aluminum.
  - a. Color and Finish: As selected by Architect from manufacturer's full range.

#### H. Installation Accessories:

- 1. Front Fascia: Aluminum extrusion that conceals front and underside of roller and operating mechanism and attaches to roller endcaps without exposed fasteners.
  - a. Shape: Curved.
  - b. Height: Manufacturer's standard height required to conceal roller and shadeband assembly when shade is fully open, but not less than 4 inches.
- 2. Exposed Headbox: Rectangular, extruded-aluminum enclosure including front fascia, top and back covers, endcaps, and removable bottom closure.
  - a. Height: Manufacturer's standard height required to enclose roller and shadeband assembly when shade is fully open, but not less than 4 inches.
- 3. Endcap Covers: To cover exposed endcaps.

#### 2.4 SHADEBAND MATERIALS

- A. Shadeband Material Flame-Resistance Rating: Comply with NFPA 701. Testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- B. Light-Filtering Fabric: Woven fabric, stain and fade resistant.
- C. Light-Blocking Fabric: Opaque fabric, stain and fade resistant.

#### 2.5 ROLLER SHADE FABRICATION

- A. Product Safety Standard: Fabricate roller shades to comply with WCMA A 100.1, including requirements for flexible, chain-loop devices; lead content of components; and warning labels.
- B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows, measured at 74 deg F.
  - 1. Between (Inside) Jamb Installation: Width equal to jamb-to-jamb dimension of opening in which shade is installed less 1/4 inch per side or 1/2-inch total, plus or minus 1/8 inch. Length equal to head-to-sill or -floor dimension of opening in which shade is installed less 1/4 inch plus or minus 1/8 inch.
  - 2. Outside of Jamb Installation: Width and length as indicated, with terminations between shades of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.
- C. Shadeband Fabrication: Fabricate shadebands without battens or seams to extent possible, except as follows:
  - 1. Vertical Shades: Where width-to-length ratio of shadeband is equal to or greater than 1:4, provide battens and seams at uniform spacings along shadeband length to ensure shadeband tracking and alignment through its full range of movement without distortion of the material.
  - 2. Railroaded Materials: Railroad material where material roll width is less than the required width of shadeband and where indicated. Provide battens and seams as required by railroaded material to produce shadebands with full roll-width panel(s) plus, if required, one partial roll-width panel located at top of shadeband.

#### **PART 3 - EXECUTION**

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 ROLLER SHADE INSTALLATION

- A. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions.
  - 1. Opaque Shadebands: Located so shadeband is not closer than 2 inches to interior face of glass. Allow clearances for window operation hardware.
- B. Roller Shade Locations: As indicated on Drawings.

#### 3.3 ADJUSTING

A. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

#### 3.4 CLEANING AND PROTECTION

- A. Clean roller shade surfaces, after installation, according to manufacturer's written instructions.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that roller shades are without damage or deterioration at time of Substantial Completion.
- C. Replace damaged roller shades that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.

#### 3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain motor-operated roller shades.

#### END OF SECTION 122413AIA 09/14

# LAKE COUNTY EXECUTIVE AIRPORT TERMINAL

**FOR** 

# CITY OF WILLOUGHBY 1825 LOST NATION ROAD, WILLOUGHBY, OH 44094

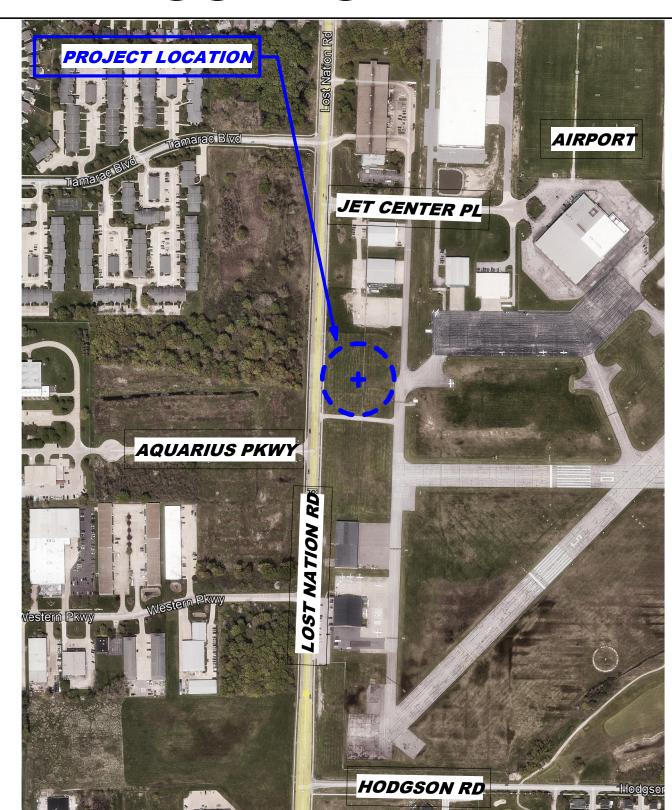
FAA PROJECT NUMBER: 3-39-0090-028-2024

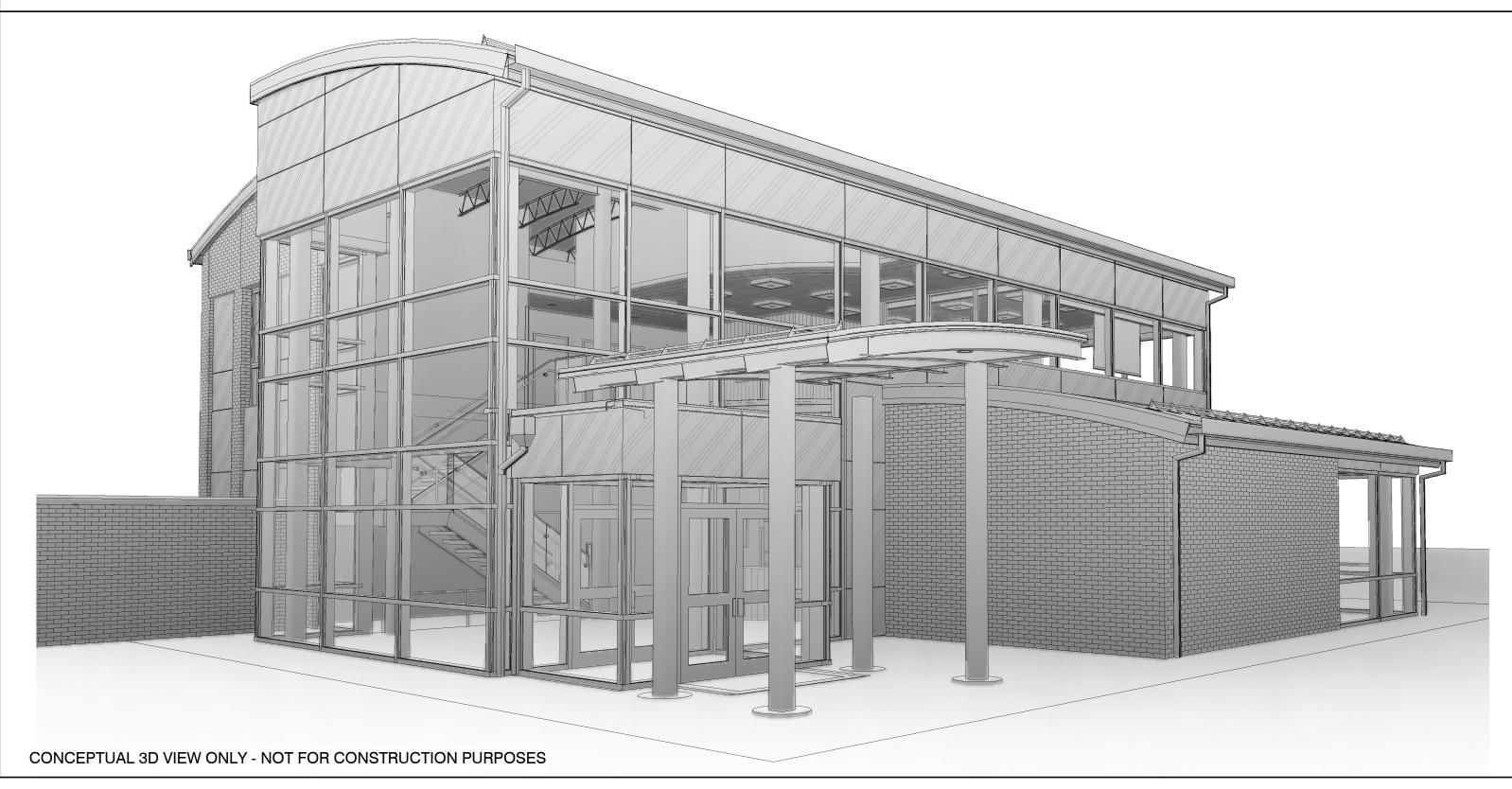
# **VICINITY MAP**

# **LOCATION MAP**

# PROJECT RENDERING







# PROJECT DIRECTORY

# **OWNERS**

# CIVIL, ARCHITECT AND STRUCTURAL ENGINEERING

CT CONSULTANTS, INC.

4420 COOPER ROAD

CINCINNATI, OH 45242

513.791.1700

# MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, AND COMMUNICATION TECHNOLOGY **ENGINEERING**

# **AVIATION CONSULTANT**

LAKE DEVELOPMENT **AUTHORITY** 

LAKE DEVELOPMENT AUTHORITY

105 MAIN STREET SUITE B501

PAINESVILLE, OH 44077

440.357.2290







LAKE COUNTY BOARD OF COMMISSIONERS 105 MAIN STREET, SUITE A513 PAINESVILLE, OH 44077

Commissioner

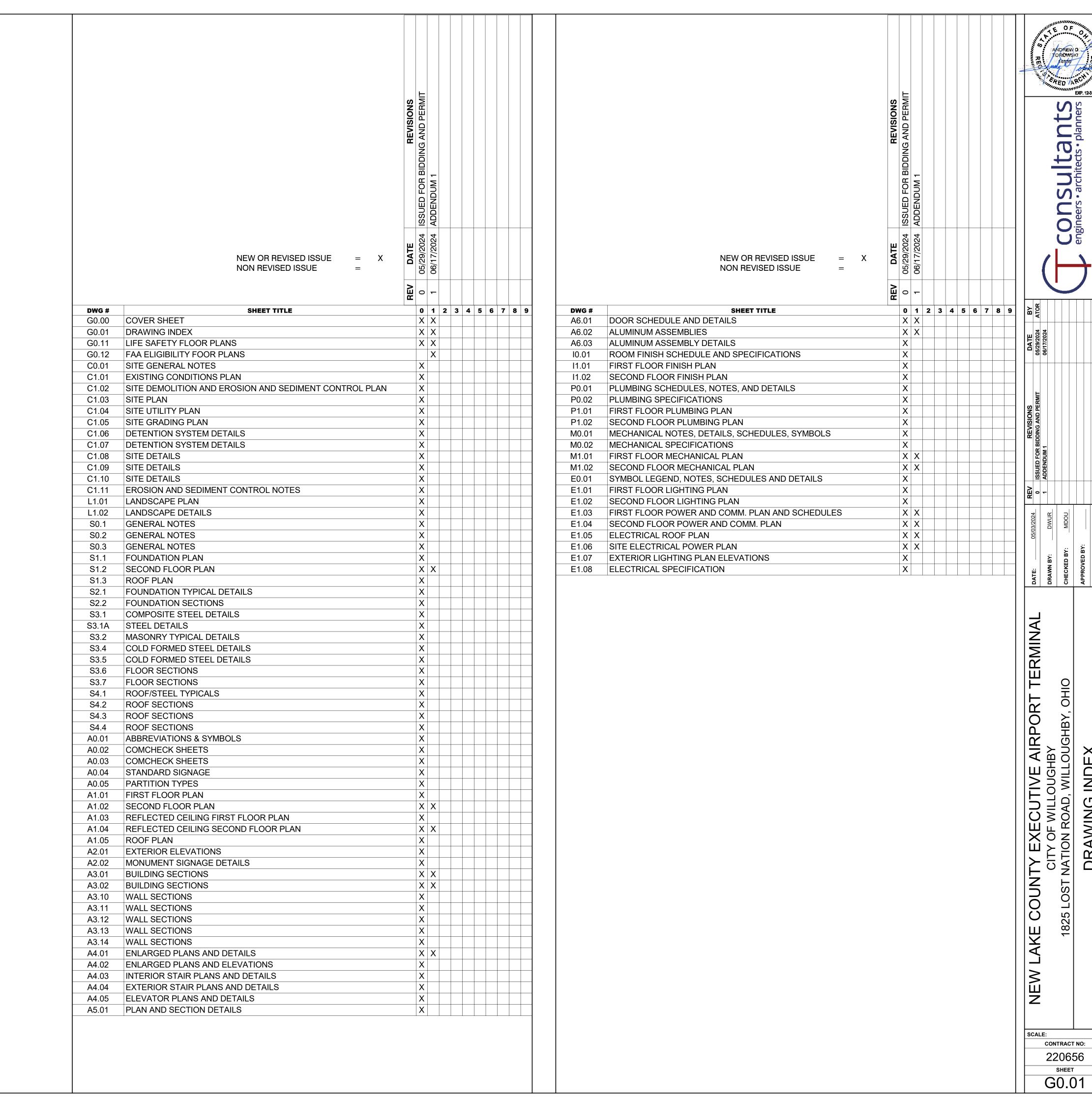
John T. Plecnik John R. Hamercheck Richard J Regovich

TEC INC. ENGINEERING & DESIGN 33851 CURTIS BLVD SUITE 216 EASTLAKE, OH 44095 440.953.8760

GENERAL AVIATION CONSULTANTS. LTD 5813 MONROE STREET STE 246 SYLVANIA, OH 43560 419.887.1720

SCALE: CONTRACT NO: 220656 G0.00

DATE CHEC



CONTRACT NO: SHEET

LAKE COUNTY EXECUTIVE AIRPORT TERMINAL LOST NATION ROAD WILLOUGHBY OH 45144

APPLICABLE CODES 2024 OHIO BUILDING CODE 2024 OHIO FIRE CODE 2024 OHIO MECHANICAL CODE 2024 OHIO PLUMBING CODE

2024 OHIO ENERGY CODE

ICC/ANSI A117.1-2017

NEW TWO-STORY PRIVATE AIRPORT TERMINAL WITH PASSENGER AREAS AND OFFICE SPACES

PROFESSIONAL SERVICE WITH SMALL ASSEMBLY SPACE (STAFF LOUNGE / KITCHENETTE (<750 SF OR 50 PEOPLE) 311.1.1 ACCESSORY STORAGE SPACES ARE LIMITED TO LESS THAN 100 S.F. EACH. CUMULATIVE TOTAL PER FLOOR IS LIMITED TO LESS THAN 10% OF PRINICPAL OCCUPANCY.

CONSTRUCTION TYPE IIB: 0 HOUR STRUCTURE, WALLS & FLOORS, NON-COMBUSTIBLE

903.2.2 AUTOMATIC SPRINKLER SYSTEM REQUIRED. 904 ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS PERMISSIBLE IN SPECIAL USE ROOMS I.E. MACHINE ROOMS

906 PORTABLE FIRE EXTINGUISHERS REQUIRED AND PROVIDED 705.2.3.1 SPRINKLER PROTECTION IS EXTENDED TO OUTSIDE AREAS UNDER ROOF.

705.5 WHERE FIRE SEPARATION DISTANCE TO ANOTHER BUILDING OR PROPERTY IS GREATER THAN OR EQUAL TO 10' AND LESS THAN 30', FIRE-RESISTANCE RATING OF EXTERIOR WALLS IS 0 HOUR. TABLE 705.8 MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF OPENING

PROTECTION 10' TO LESS THAN 15' UNPROTECTED, SPRINKLERED

502 APPROVED ADDRESS IDENTIFICATION REQUIRED. LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING PROPERTY TO FACILITATE EMERGENCY RESPONSE.

ALLOWABLE HEIGHT AND AREA

**TERMINAL** HANGAR S-1 & B TYPE IIB SPRINKLERED ALLOWABLE BUILDING HEIGHT ALLOWABLE NO. OF STORIES 4 STORY 4 STORY 26'/2 STORY ACTUAL HEIGHT

ALLOWABLE BUILDING AREA ACTUAL AREA

52.500 S.F. 3,640 S.F. LARGEST FLOOR TOTAL AREA 5,848 S.F.

> 1ST FLR - 3,640 SF 2ND FLR - 2,208 SF BALCONY – 155 SF

1ST FLR - 22,686 SF 2ND FLR - 6,846 SF COMBINED TOTAL - 35,380 SF

705.3 X 1 WHERE TWO OR MORE BUILDING ARE CONSTRUCTED ON THE SAME PARCEL, THEY SHALL BE CONSIDERED AS PORTIONS OF ONE BUILDING WHERE THE AGGREGATE AREA MEETS THE REQUIREMENTS OF THE MOST RESTRICTIVE USE GROUP AND CONSTRUCTION

RATED ASSEMBLIES

PRIMARY STRUCTURAL FRAME: ROOF CONSTRUCTION & SECONDARY MEMBERS BEARING WALLS NONBEARING WALLS (INTERIOR OR EXTERIOR >30' TO PROP.LINE) 0 HR

G0.11 / 1/8" = 1'-0"

1003.2 CEILING HEIGHT – NOT LESS THAN 7'-6" IN MEANS OF EGRESS 1003.3 PROTRUDING OBJECTS – MINIMUM HEADROOM 80" PROVIDED OVER ANY CIRCULATION PATHS. NO MORE THAN 50% OF THE CEILING AREA OF A MEANS

OF EGRESS SHALL BE REDUCED. HORIZONTAL PROJECTIONS – NO MORE THAN 4" INTO CIRCULATION PATH

EXCEPTION – HANDRAILS ARE PERMITTED TO PROTRUDE NO MORE THAN 4.5" STAIRWAY WIDTH: .3" PER PERSON; PROVIDED: 48" STAIR = 160 PERSON CAPACITY

CORRIDOR WIDTH: .2" PER PERSON; PROVIDED: 65" CORRIDOR = 325 PERSON CAPACITY DOOR WIDTH: .2" PER PERSON, MIN. 36"; PROVIDED: 36" DOOR = 180 PERSON CAPACITY TABLE 1006.2.1 SPACES WITH ONE EXIT OR EXIT ACCESS DORWAY: MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (SPRINKLED): BUSINESS

MAXIMUM OCCUPANT LOAD: 49 1007.1.1 EX.2 REMOTENESS OF EXITS (SPRINKLERED): 1/3 MAX OVERALL DIAGONAL

1009.1 WHERE TWO MEANS OF EGRESS ARE REQUIRED, BOTH SHALL BE ACCESSIBLE MEANS OF EGRESS

1009.3 ACCESSIBLE STAIRWAYS SHALL HAVE CLEAR WIDTH OF 48" BETWEEN HANDRAILS. AN AREA OF REFUGE IS NOT REQUIRED SINCE BUILDING IS FULLY 1010.1.2.1 DOORS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL WHERE SERVING A SPACE CONTAINING 50 OR MORE PERSONS.

1010.2 EGRESS DOORS SHALL BE READILY OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. 1011 STAIRWAY WIDTH AND CAPACITY - MINIMUM REQUIRED WIDTH 44". IF SERVING <50 PERS. MINIMUM REQUIRED WIDTH 36". HEADROOM - NO <80".

1013.1 APPROVED EXIT SIGN REQUIRED ON EXITS AND EXIT ACCESS DOORS. 1014.2 HANDRAILS AT STAIRS SHALL BE MOUNTED AT 34" TO 38" ABOVE THE LINE OF NOSINGS.

1014.6 HANDRAILS SHALL EXTEND HORIZONTALLY A MINIMUM OF 12" BEYOND THE TOP RISER AND CONTINUE TO SLOPE FOR THE DEPTH OF ONE TREAD BEYOND THE BOTTOM RISER. HANDRAIL EXTENSIONS SHALL BE IN THE SAME DIRECTION AS THE FLIGHT OF STAIRS. HANDRAIL ENDS SHALL RETURN TO A WALL, GUARD OR WALKING SURFACE.

1016.2 EGRESS THROUGH ANOTHER SPACE IS PERMITTED WHEN SECOND SPACE IS ACCESSORY TO THE FIRST, WHEN THE SECOND SPACE IS THE SAME OR LESSER HAZARD AS THE FIRST, THERE IS A CLEAR PATH OF EGRESS TRAVEL, AND SECOND SPACE CANNOT BE LOCKED TO PREVENT EGRESS. TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE (SPRINKLED)

1<sup>ST</sup> STORY B 300' 2<sup>ND</sup> STORY B

1019.3X1 FLOOR OPENINGS CONTAINING AN EXIT ACCESS STAIR THAT SERVES OR ATMOSPHERICALLY CONNECTS ONLY TWO STORIES MAY BE

UNENCLOSED. 1020.3 MINIMUM CORRIDOR WIDTH – 44 INCHES

1020.5 DEAD ENDS: 50' MAX IN SPRINKLED BUILDINGS OF B USE OR 2.5 TIMES WIDTH OF CORRIDOR 2406.4.2 ALL GLASS IN DOORS SHALL BE SAFETY GLAZING. ALL GLASS WITHIN 24" HORIZONTALLY OF DOORS AND WITHIN 60" OF FLOORS SHALL BE SAFETY GLAZING. ALL GLAZING PANELS 9 SQUARE FEET OR LARGER IN SIZE WITH BOTTOM EDGE WITHIN 18" OF FLOOR SHALL BE SAFETY GLAZING. SAFETY GLAZING SHALL COMPLY WITH TEST CRITERIA FOR CATEGORY II WHEN TESTED IN ACCORDANCE WITH CPSC 16 CFR PART 1201 AND SHALL BE PERMANENTLY LABELED BY MANUFACTURER.

OCCUPANT LOAD TABLE 1004.5

BUSINESS AREAS 150 S.F./PERS. GROSS AIRPORT TERMINAL

WAITING AREA 15 S.F./PERS. GROSS

ACCESSORY STORAGE/MECH 300 S.F./PERS. GROSS ASSEMBLY (TABLES & CHAIRS) 15 S.F./PERS. NET

TABLE 1004.1.1 NOTE A: AN ASSEMBLY GATHERING SPACE OR CONFERENCE ROOM THAT IS ACCESSORY TO A BUSINESS OCCUPANCY SHALL BE CALCULATED AT 150 S.F. PER PERSON FOR OVERALL OCCUPANT LOAD OF THE FLOOR. THE ASSEMBLY GATHERING SPACE OR CONFERENCE ROOM SHALL BE CALCULATED AT 15 S.F. PER PERSON FOR EGRESS FROM THAT SPACE. CALCULATED OCCUPANCY: 25 PERSONS FIRST FLOOR.

15 PERSONS SECOND FLOOR.

40 PERSONS TOTAL.

**ACCESSIBILITY** 

ICC A117.1-2017 302.1 THE GROUND SURFACE OF AN ACCESSIBLE ROUTE SHALL BE STABLE, FIRM, AND SLIP RESISTANT. A GRAVEL PARKING LOT DOES NOT QUALIFY. POURED CONCRETE, ASPHALT, OR SOME PAVERS CAN QUALIFY.

1104.3.1 EMPLOYEE WORK AREAS SHALL HAVE COMMON USE CIRCULATION PATHS THAT ARE ACCESSIBLE ROUTES.

1104.4 AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH ACCESSIBLE STORY IN MULTILEVEL BUILDINGS. 1104.5 ACCESSIBLE ROUTES SHALL COINCIDE WITH A GENERAL CIRCULATION PATH.

ICC A117.1-2017 403.5 THE CLEAR WIDTH OF ANY INTERIOR ACCESSIBLE ROUTE SHALL BE NOT LESS THAN 36". EXTERIOR MIN. 48" WIDE.

ICC A117.1-2017 307.2 OBJECTS, INCLUDING DRINKING FOUNTAINS, WITH LEADING EDGES BETWEEN 27" & 80" AFF SHALL PROTRUDE 4" MAXIMUM INTO

ICC A117.1-2017 403.5.2 AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH OF LESS THAN 60" SHALL HAVE MINIMUM 60" X 60" PASSING SPACES NO FURTHER APART THAN 200'.

1105.1 60% OF ALL PUBLIC ENTRANCES SHALL BE ACCESSIBLE 1106.1 PROVIDE ONE ACCESSIBLE SPACE FOR EVERY 25 PARKING SPACES, UP TO 100 PARKING SPACES. PLUS PROVIDE ONE ACCESSIBLE SPACE FOR

EVERY 50 PARKING SPACES OVER 100 PARKING SPACES. 1106.6 PROVIDE ONE VAN ACCESSIBLE SPACE FOR EVERY SIX ACCESSIBLE SPACES.

1106.7 ACCESSIBLE PARKING SPACES SHALL BE ON THE SHORTEST ACCESSIBLE ROUTE TO AN ACCESSIBLE BUILDING ENTRANCE. IF THERE ARE MULTIPLE ACCESSIBLE ENTRANCES AND PARKING IS SCATTERED THROUGHOUT THE SITE, THEN ACCESSIBLE SPACES SHALL BE LOCATED PROXIMATE TO ACCESSIBLE ENTRANCES. 1112.1.1PROVIDE SIGNAGE AT ACCESSIBLE PARKING SPACES.

1110.2.4 WHERE WATER CLOSET COMPARTMENTS ARE PROVIDED IN A TOILET ROOM, AT LEAST 5% (NOT LESS THAN ONE) OF THE COMPARTMENTS MUST BE WHEELCHAIR ACCESSIBLE.

1110.2.5 WHERE LAVATORIES ARE PROVIDED IN A TOILET ROOM, AT LEAST 5% (NOT LESS THAN ONE) OF THE LAVATORIES MUST BE ACCESSIBLE. 1110.3 WHERE SINKS ARE PROVIDED, AT LEAST 5% (NOT LESS THAN ONE) SHALL BE ACCESSIBLE. 1110.4 WHERE KITCHENETTES ARE PROVIDED, THEY SHALL BE ACCESSIBLE AND BE ON AN ACCESSIBLE ROUTE.

1110.5 WHERE DRINKING FOUNTAINS ARE REQUIRED, NO FEWER THAN TWO SHALL BE PROVIDED. ONE MEETING REQUIREMENTS FOR PEOPLE WHO USE WHEELCHAIR AND ONE FOR STANDING PERSONS.

1110.2 EACH TOILET ROOM SHALL BE ACCESSIBLE.

1202.1 VENTILATION SHALL BE PROVIDED THROUGH MECHANICAL VENTILATION. 1202.3.2 NO INTERIOR CLASS I VAPOR RETARDERS ARE INSTALLED ON THE CEILING SIDE (ATTIC FLOOR) OF THE UNVENTED ATTIC ASSEMBLY OR ON THE CEILING SIDE OF THE UNVENTED ENCLOSED ROOF FRAMING ASSEMBLY. 1208.2 CEILING HEIGHTS CORRIDORS & OCCUPIABLE SPACES 7'-6" MINIMUM

TOILET ROOMS & STORAGE ROOMS

OFFICE 2,208 S.F.

TOILET FIXTURE REQUIREMENTS 2902.3 EITHER SEPARATE OR COMBINED EMPLOYEE AND PUBLIC TOILET FACILITIES ARE REQUIRED TO BE PROVIDED WITHIN ONE STORY ABOVE OR BELOW THE SPACE REQUIRED TO BE PROVIDED WITH SUCH FACILITIES.

THE PUBLIC SHALL HAVE ACCESS AT ALL TIMES THAT THE BUILDING IS OCCUPIED TO PUBLIC TOILET FACILITIES.

2902.4 PUBLIC TOILET FACILITIES SHALL BE PROVIDED FOR SEPARATE GENDERS. SIGNAGE INDICATING GENDER SHALL BE READILY VISIBLE ADJACENT TO DOOR TO TOILET FACILITY (SEE ALSO ACCESSIBILITY REQUIREMENTS). SINGLE USER TOILET FACILITIES MAY BE PROVIDED AND MAY CONTRIBUTE TO THE TOTAL NUMBER OF REQUIRED PLUMBING FISTURES FOR A BUILDING. SINGLE-USER TOILET FACILITIES SHALL BE IDENTIFIED AS BEING AVAILABLE FOR USE BY ALL GENDERS.

2902.5 DRINKING FOUNTAIN SHALL BE LOCATED WITHIN A TRAVEL DISTANCE OF 500'. 2902.7 SERVICE SINK SHALL BE LOCATED WITHIN A TRAVEL DISTANCE OF 300'.

TABLE 2902.1 MINIMUM REQUIRED PLUMBING FIXTURES

BUSINESS ONE TOILET PER 25 PERSONS FOR THE FIRST 50 PERSONS, ONE PER 50 THEREAFTER. ONE LAVATORY PER 40 PERSONS FOR THE FIRST 80 PERSONS, ONE PER 80 THEREAFTER.

1 SERVICE SINK, 1 SERVICE SINK PROVIDED

REQUIRED 1 DRINKING FOUNTAIN PER 100 PERSONS, 1 DUAL HEIGHT DRINKING FOUNTAIN PROVIDED.

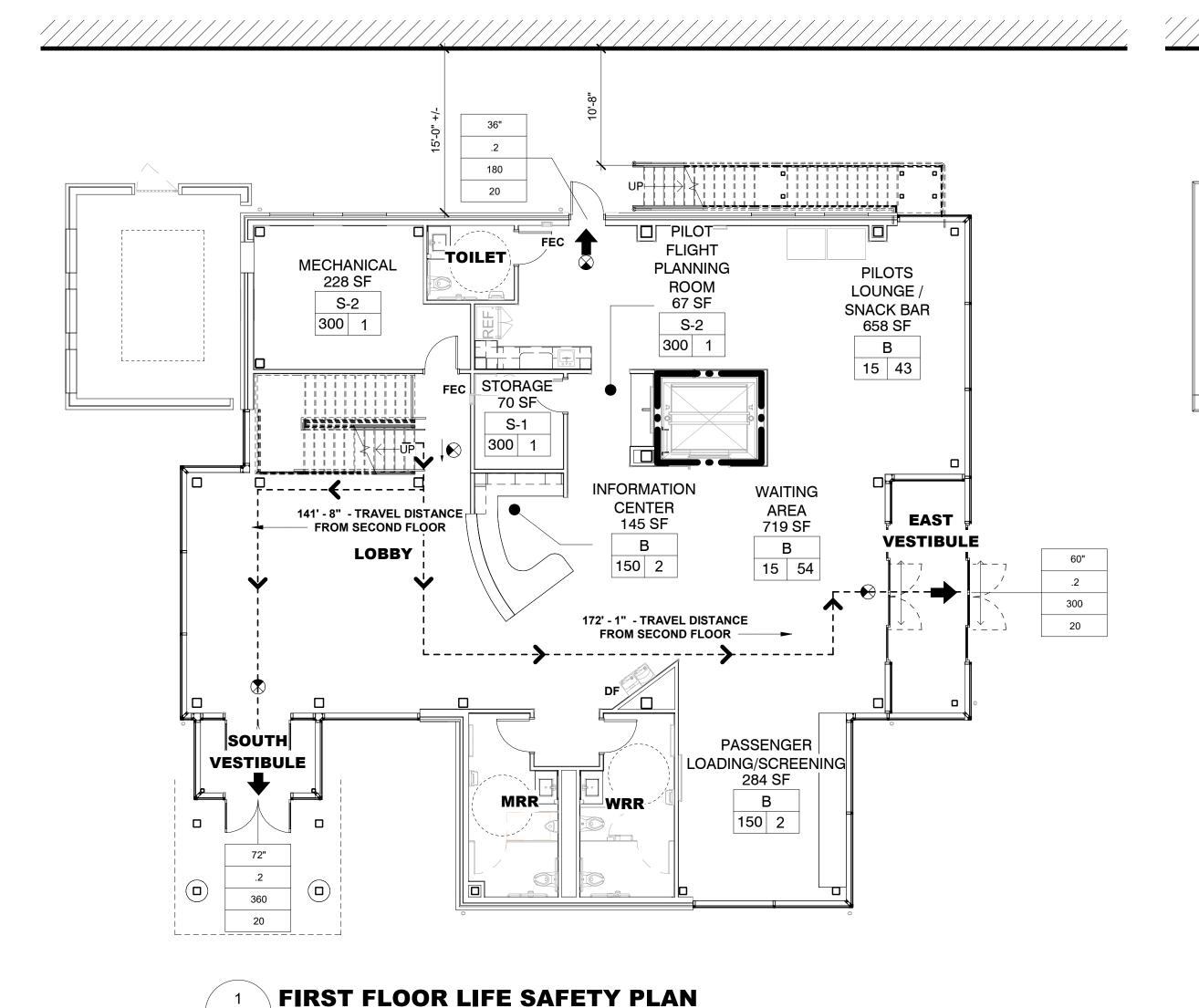
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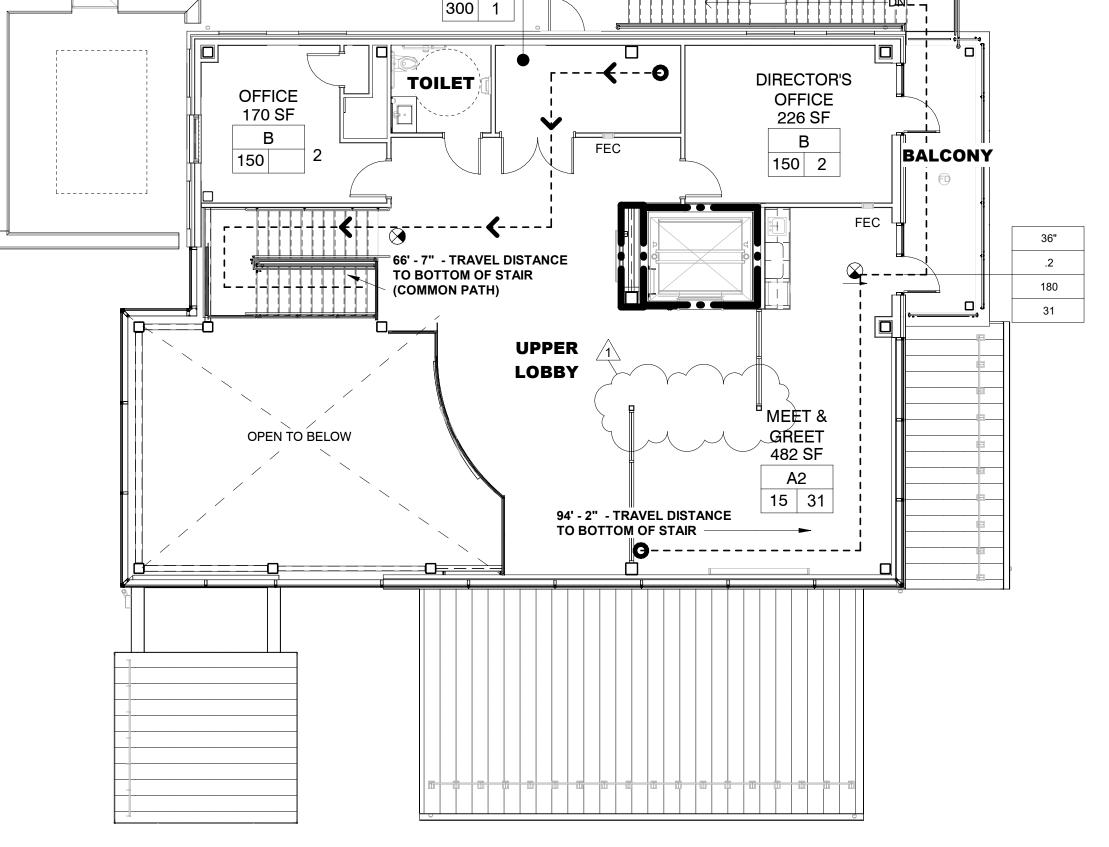
OFFICE 3,640 S.F. 25 PERSONS 1 MALE TOILET, 1 MALE URINAL PROVIDED

> 2 FEMALE TOILETS PROVIDED 1 SINGLE-USER TOILET PROVIDED **3 LAVATORIES PROVIDED**

1 SERVICE SINK PROVIDED 1 DUAL HEIGHT DRINKING FOUNTAIN PROVIDED

15 PERSONS 1 SINGLE-USER TOILET PROVIDED 1 LAVATORIES PROVIDED

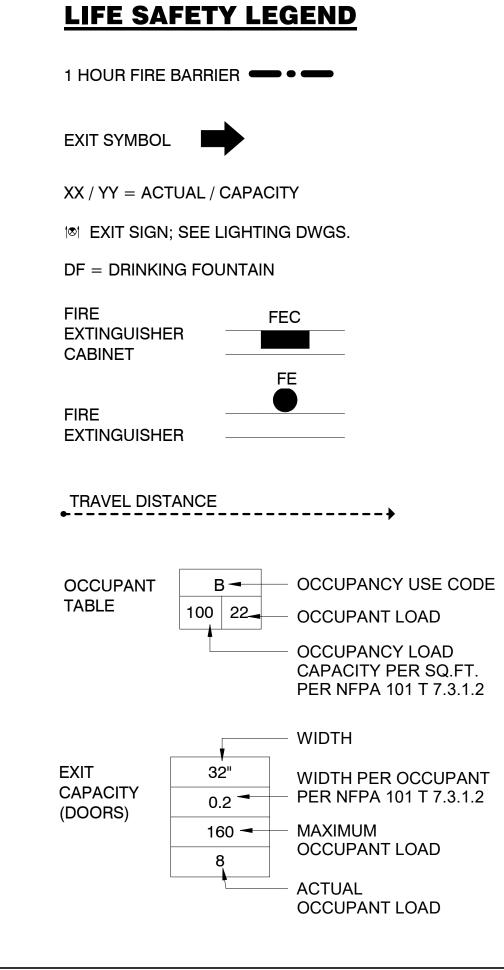




STORAGE 112 SF

S-1





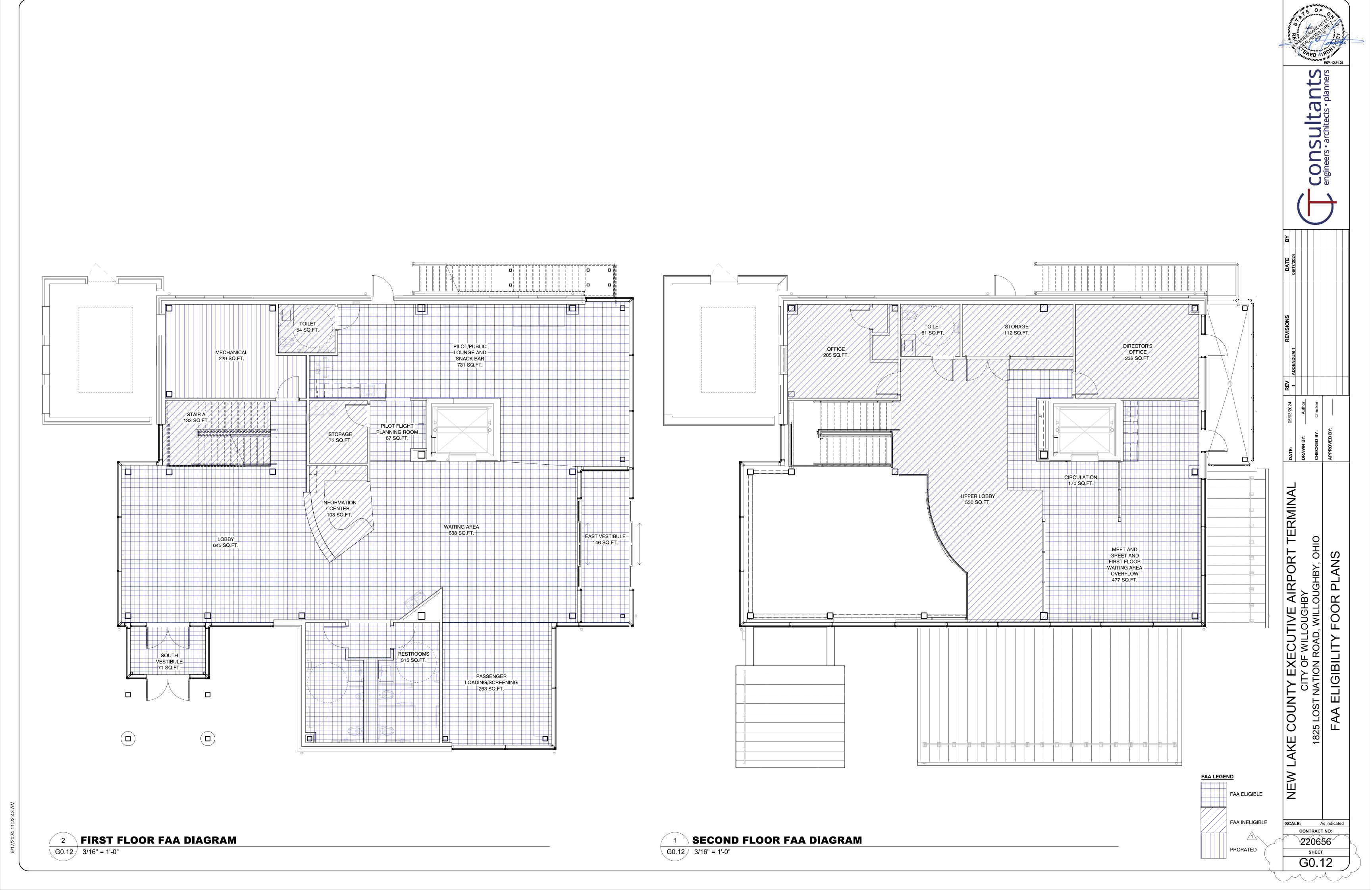
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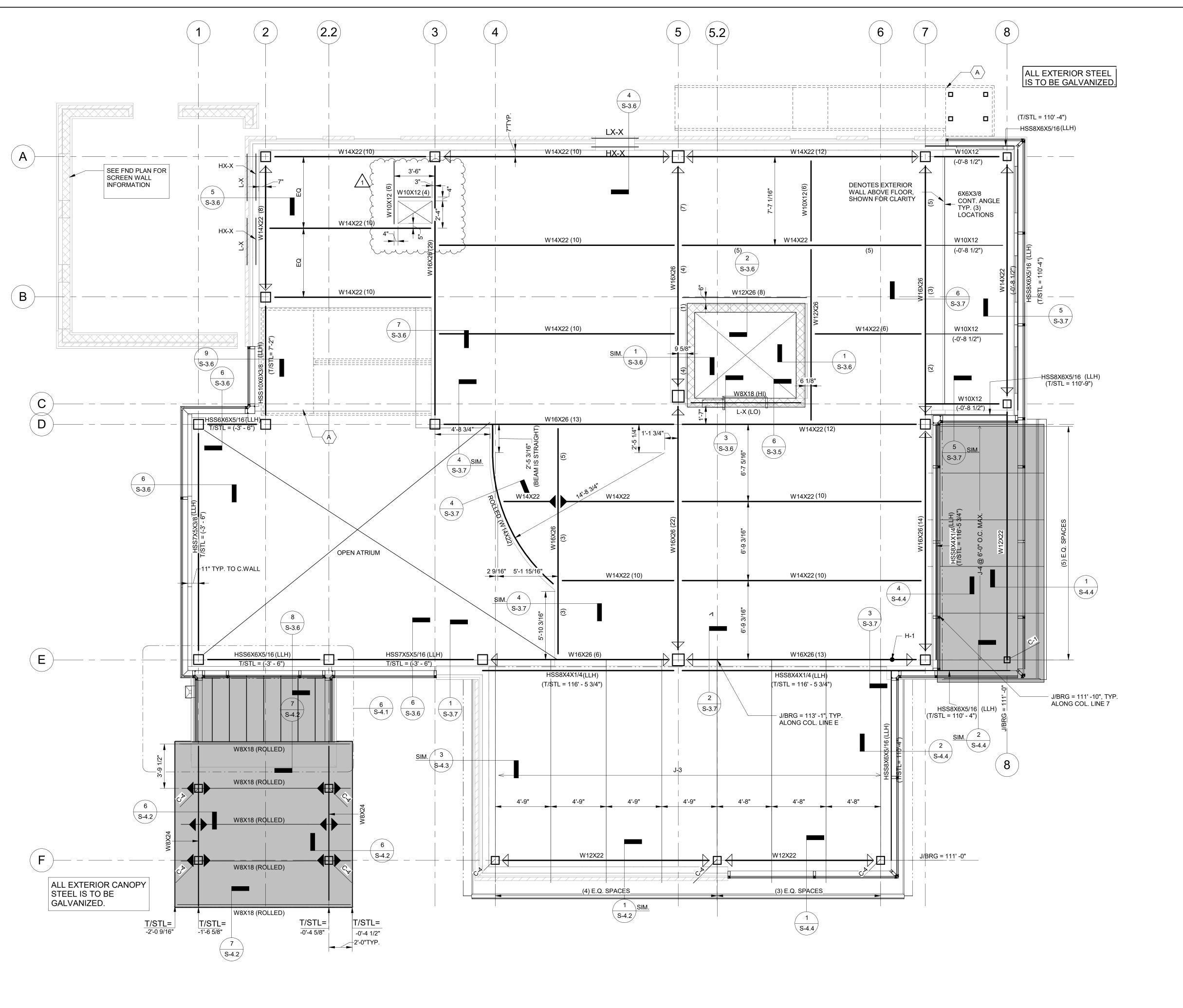
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**PLANS** 

TERMINA





#### 2ND FLOOR COMPOSITE FRAMING PLAN NOTES:

- SEE SHEETS S-0.1, S-0.2, AND S-0.3 FOR GENERAL STRUCTURAL NOTES.
- 2. SEE SHEET S-3.1 FOR TYPICAL DETAILS.
- FLOOR CONSTRUCTION 3" N.WT. CONCRETE (145PCF) ON 3" X
- 20GA COMPOSITE GALVANIZED METAL DECK (6 INCH TOTAL THICKNESS), REINFORCED WITH 6x6 W1.4 x W1.4 WELDED WIRE REINFORCEMENT. DECK IS DESIGNED FOR A 3 SPAN CONDITION. DECK MFG IS RESPONSIBLE FOR FINAL DECK LAYOUT. SHOULD THE DECK LAYOUT BE DONE IN SUCH A WAY THE DECK IS A ONE SPAN OR TWO SPAN CONDITION, DECK MFG SHALL INCREASE DECK GAUGE TO MEET THE LOADING CONDITIONS.
- DENOTES ROOF CONSTRUCTION. REFER TO SHEET S-1.3 FOR MORE INFORMATION.
- TOP OF FLOOR ELEVATION = 114'-0" = TOP OF CONCRETE COMPOSITE FLOOR REFERENCED FROM THE PROJECT
- 6. T/STL INDICATES THE TOP OF STEEL REFERENCED FROM THE PROJECT DATUM U.N.O. TOP OF STEEL EQUALS ELEVATION 113'-6", TYP., UNO. ELEVATIONS NOTED (X'-X") ARE REFERENCED FROM T/STL ELEV. OF 113'-6".
- COMPOSITE FLOOR DESIGN IS LRFD DESIGN AND REACTIONS SHOWN ON PLAN ARE UNFACTORED REACTIONS.
- 8. C-X INDICATES STEEL COLUMN. SEE COLUMN SCHEDULE ON S-1.3.
- 9. HX-X INDICATES LIGHT GAUGE HEADER, SEE SHEET S-3.4 AND S-3.5 FOR HEADER SCHEDULE AND DETAILS. LIGHT GUAGE HEADER TO BE LOCATED AT THE TOP OF THE OPENING.
- 10. L-X INDICATES MISC. ANGLE LINTEL, SEE GENERAL NOTES FOR SIZES BASED ON OPENING SIZE.
- 11. BEAMS SHALL BE EQUALLY SPACED BETWEEN COLUMNS LINES, MAXIMUM SPACING 9'-0" OC, MAX., UNO.
- 12. SEE ARCHITECTURAL DRAWINGS FOR ALL MEASUREMENTS NOT SHOWN. ALL DIMENSIONS SHALL CONFORM TO THE ARCHITECTURAL DRAWINGS.
- 13. COORDINATE LOCATION AND SIZE OF ALL FLOOR PENETRATIONS AND OPENINGS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
- 14. INDIVIDUAL HANGER RODS SUPPORTING MECHANICAL, ELECTRICAL, PLUMBING OR FIRE PROTECTION EQUIPMENTS SHALL BE SPACED IN SUCH A MANNER AS NOT TO IMPOSE A SINGLE POINT LOAD ON ANY STRUCTURAL MEMBER GREATER THAN 100 LBS. OR 5 LBS PER LINEAL FOOT. IF THIS CRITERION IS EXCEEDED, A WRITTEN REQUEST INDICATING THE LOADS WITH CORRESPONDING LOCATIONS SHALL BE SENT TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL.
- 15. CONCRETE MASONRY WALLS SHALL BE 8" WIDE AND REINFORCED VERTICALLY WITH (1) #5 BAR AT 32 INCHES ON CENTER. BARS SHALL BE CENTERED IN THE WALL, U.N.O. SEE GENERAL NOTES AND DETAILS FOR MORE INFORMATION. CONCRETE MASONRY WALLS SHALL BE CENTERED ON FOOTING UNLESS NOTED OTHERWISE.
- 16. PROVIDE POUR STOPS, CELL CLOSURES, ETC. TO CONTAIN CONCRETE DURING PLACEMENT. PROVIDE #4 BARS AT ALL CORNERS WHERE OPENINGS OCCUR.
- 7. DENOTES FLEXIBLE MOMENT CONNECTION. SEE MOMENT CONNECTION DETAILS FOR MORE INFORMATION.
- 18. DENOTES FULL MOMENT CONNECTION. DESIGN MOMENT CONNECTION FOR BEAMS MAXIMUM MOMENT PER AISC MANUAL.
- 19. H-1 DENOTES W8X18 HANGER.

## COMPOSITE FLOOR FRAMING PLAN LEGEND:

1. INDICATES MASONRY WALL.

# FRAMING PLAN CODED NOTES

A PRE-MANUFACTURED STAIRWAY ASSEMBLY, STAIRWAY ASSEMBLY (STRINGER, TREADS, LANDING, HANDRAIL, AND GUARD RRAIL) AND CONNECTION TO THE STRUCTURE SHALL BE DESIGNED BY THE STAIRWAY MANUFACTURER. IDENTIFY ADDITIONAL MODIFICATIONS REQUIRED TO STRUCTURE NEEDED TO SUPPORT STAIRWAY ASSEMBLY REACTIONS, SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATION PACKAGE. CALCULATION PACKAGE, CALCULATION PACKAGE SHALL BE SIGNED AND SEALED BY AN OHIO ENGINEER.

NEW LAKE COUNTY EXECUTIVE AIRPORT
CITY OF WILLOUGHBY
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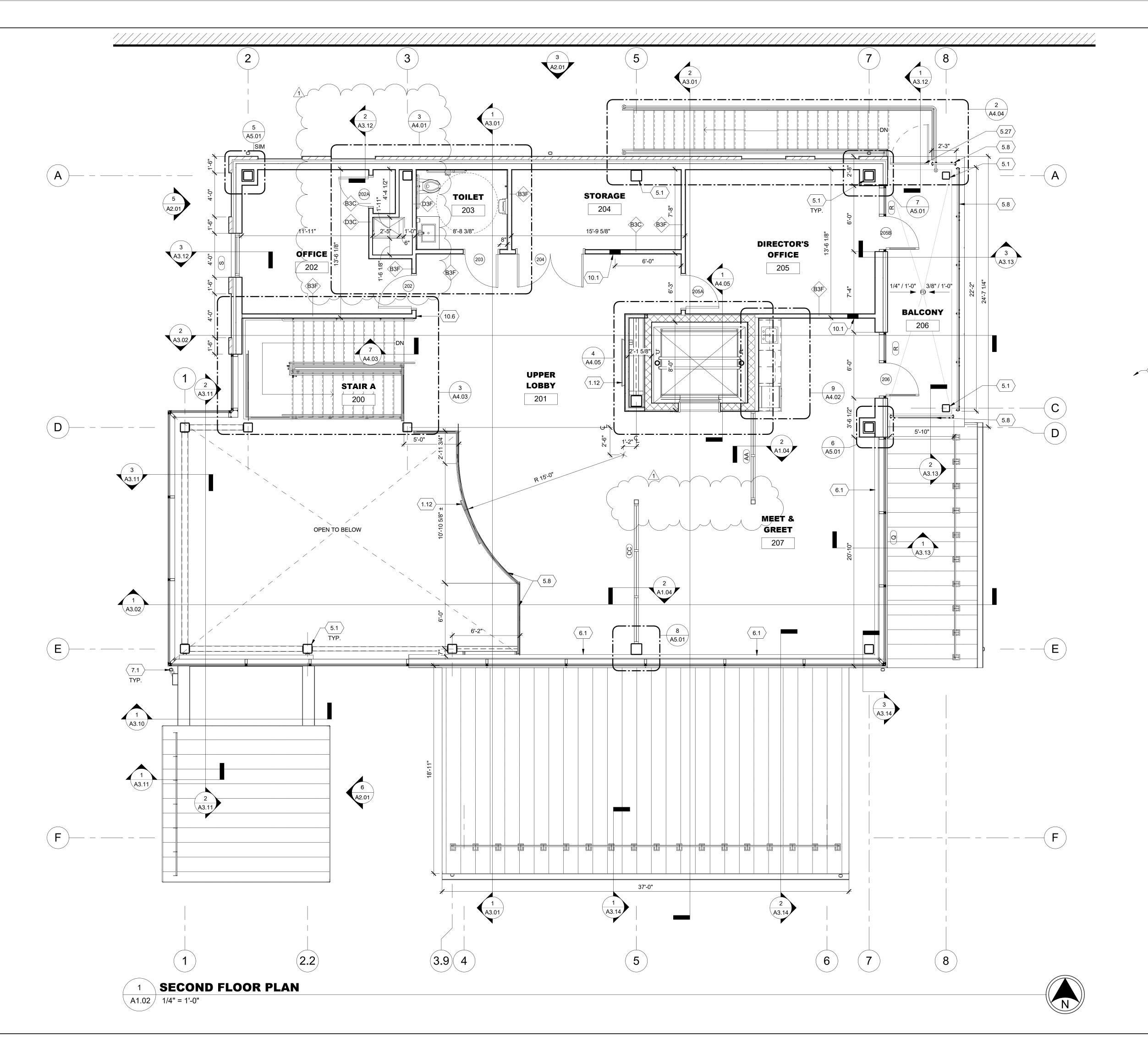
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SCALE: As indicated CONTRACT NO:

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SECOND FLOOR PLAN

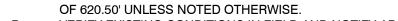
1/4" = 1'-0"



# **GENERAL NOTES**

NOTED OTHERWISE.

FINISH FLOOR ELEVATION OF 100'-0" IS EQUAL TO USGS ELEVATION



VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ARCHITECT OF

ANY DISCREPANCIES. EXTERIOR DIMENSIONS SHOWN ARE TO OUTSIDE FACE OF

FOUNDATION WALL OR ROUGH OPENINGS. TYPICAL UNLESS NOTED

OTHERWISE. INTERIOR DIMENSIONS SHOWN ARE TO FACE OF STUDS, CMU, OR

CONCRETE CONSTRUCTION, UNLESS NOTED OTHERWISE. ALL DOORS INSTALLED IN GYPSUM BOARD PARTITIONS TO BE LOCATED 0'-4" FROM EDGE OF JAMB OF DOOR TO ADJACENT WALL. ALL DOORS INSTALLED IN MASONRY PARTITIONS TO BE LOCATED

PROVIDE BULLNOSE CMU AT EXPOSED DOOR JAMBS AND OPENINGS EXPOSED TO VIEW.

0'-8" FROM EDGE OF JAMB OF DOOR TO ADJACENT WALL. UNLESS

VERIFY SIZE OF PRE-FABRICATED ITEMS SUCH AS FIRE EXTINGUISHER CABINETS, CABINET HEATERS, AND RESTROOM

ACCESSORIES PRIOR TO INSTALLING ADJACENT FRAMING. PROVIDE BLOCKING OR METAL STRAPS IN WALLS AS REQUIRED FOR ATTACHMENT OF SURFACE MOUNTED ITEMS SUCH AS RESTROOM

ACCESSORIES, CASEWORK, AND FIRE EXTINGUISHERS.

PROVIDE SEALANT AT JOINTS BETWEEN ALL DISSIMILAR MATERIALS. PROVIDE GYPSUM BOARD CONTROL JOINTS PER THE SPECIFICATIONS, BUT NOT TO EXCEED 30'-0" ALONG CONTINUOUS

INTERIOR PARTITIONS. PAINT ALL EXPOSED, UNFINISHED EXTERIOR STEEL (DOORS,

FRAMES, LINTELS, BOLLARDS, ETC.). PROVIDE MASONRY CONTROL JOINT (C.J.) AT EACH OPENING OF

INTERIOR WALLS OR AS INDICATED (NOT TO EXCEED 1/3 OF WALL COORDINATE WORK BETWEEN TRADES AND OTHER DISCIPLINES.

CONSTRUCTION DOCUMENTS. SEE CIVIL DRAWINGS FOR EXTENT OF CONCRETE WALKS AND

PROVIDE AND INSTALL WINDOW SHADES AT ALL EXTERIOR CURTAIN WALLS, OR AS OTHERWISE NOTED. REFER TO SCHEDULES FOR

ADDITIONAL ITEMS OF WORK MAY APPEAR ELSEWHERE IN THE

ADDITIONAL INFORMATION.

# **KEYNOTES**

1.12 FLAT PANEL DISPLAY MONITOR BY OWNER.

5.1 STEEL COLUMN. PAINT WHERE EXPOSED. SEE STRUC. DRAWINGS.

5.8 GLAZED DECORATIVE METAL RAILING. 5.27 OPERABLE EMERGENCY EGRESS GATE.

6.1 SOLID SURFACE WINDOWSILL.

7.1 3" X 4" PREFINISHED METAL DOWNSPOUT. CONNECT TO STORM SYSTEM WITH BOOT. SEE CIVIL DRAWINGS.

10.1 SEMI-RECESSED FIRE EXTINGUISHER CABINET WITH MULTIPURPOSE FIRE EXTINGUISHER.

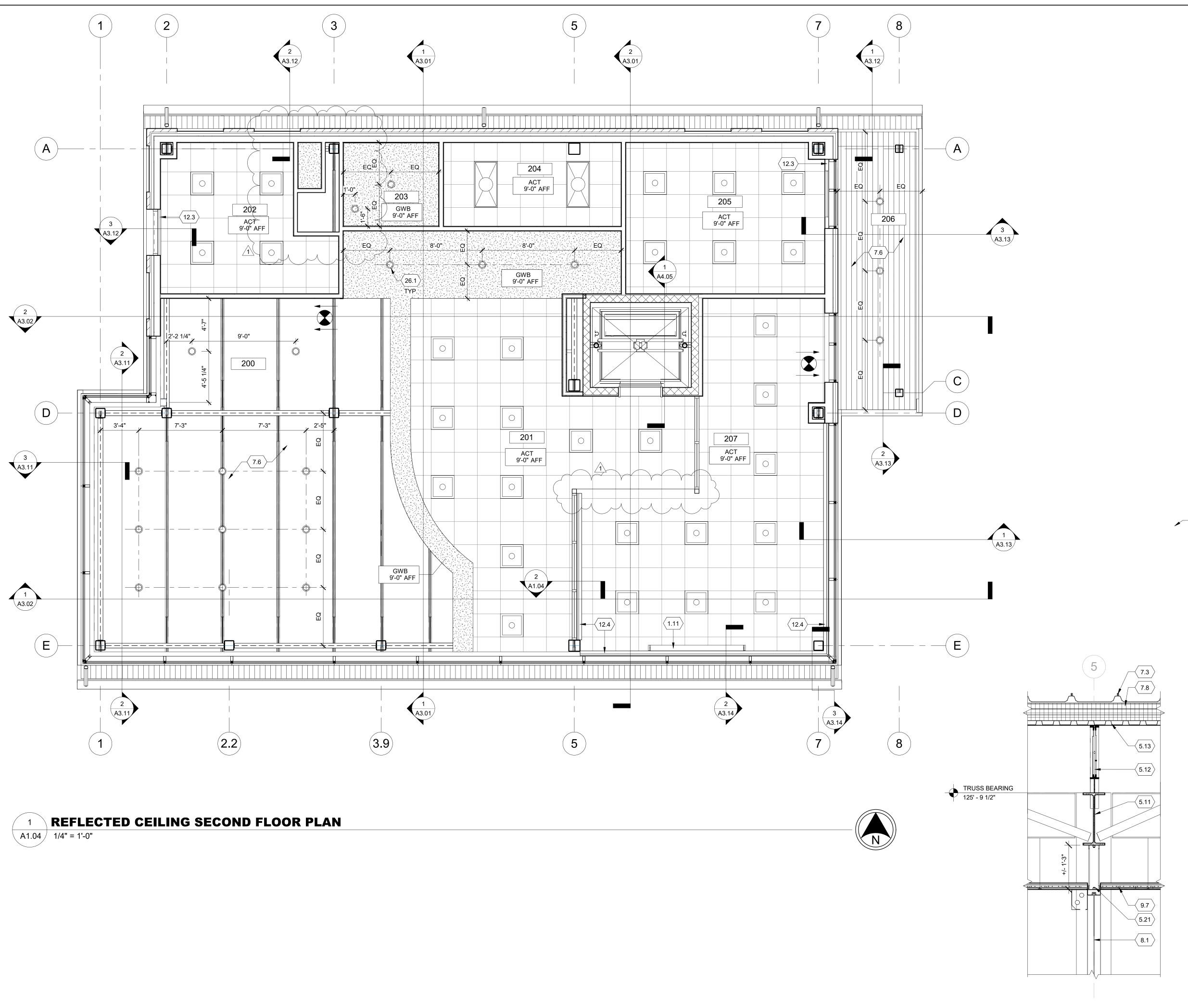
10.6 STAINLESS STEEL CORNER GUARD - 6'-0" HIGH (TYP).

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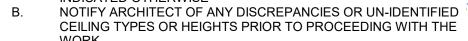
CONTRACT NO: 220656

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**RCP GENERAL NOTES** 

ALL CEILINGS SHALL BE 10'-0" ABOVE FINISH FLOOR UNLESS INDICATED OTHERWISE



CENTER TILE / GRID LAYOUT IN SPACE AS SHOWN ON PLANS UNLESS INDICATED OTHERWISE

- WHERE MINOR DISCREPANCIES OCCUR BETWEEN MECHANICAL OR ELECTRICAL DRAWINGS AND THE ARCHITECTURAL CEILING PLAN, THE ARCHITECTURAL PLAN SHALL GOVERN. IN THE CASE OF MAJOR DISCREPANCIES, THE ARCHITECT SHALL BE NOTIFIED AS SOON AS THE DISCREPANCY IS DISCOVERED PRIOR TO
- PROCEEDING WITH THE WORK. REFER TO SHEET I-SERIES DRAWINGS FOR ALL CEILING FINISHES AND LOCATIONS.
- REFERENCE MECHANICAL AND ELECTRICAL DRAWINGS FOR MOUNTING LOCATIONS OF ITEMS IN SPACES WHERE NO CEILING
- ALL CEILING DEVICES ARE TO BE CENTERED IN THE CEILING TILE
- IN WHICH THEY ARE LOCATED, UNLESS INDICATED OTHERWISE ANY NON-DIMENSIONED LIGHT FIXTURES AND OTHER CEILING DEVICES LOCATED IN GYPSUM BOARD CEILINGS SHALL BE
- DIMENSIONED AND COORDINATED PRIOR TO CONSTRUCTION REFERENCE MEP DRAWINGS AND SPECIFICATIONS FOR ACCESS PANELS IN GYPSUM BOARD CEILINGS NOT INDICATED ON THE
- **CEILING PLANS** REFERENCE ELECTRICAL DRAWINGS FOR EXIT SIGNS NOT
- INDICATED ON THE CEILING PLANS REFERENCE FIRE PROTECTION DRAWINGS FOR SPRINKLER

## HEAD LOCATIONS NOT INDICATED ON THE CEILING PLANS

## **LEGEND**

SEE MECHANICAL, ELECTRICAL, AND FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION.

2'-0" x 2'-0" ACOUSTICAL CEILING TILE. GYPSUM BOARD CEILING, SOFFIT, OR BULKHEAD.

ACOUSTIC ACCENT CANOPY. RECESSED LAY-IN FIXTURE OR DOWNLIGHT (CAN LIGHT).

PENDANT FIXTURE.

EXIT SIGN.

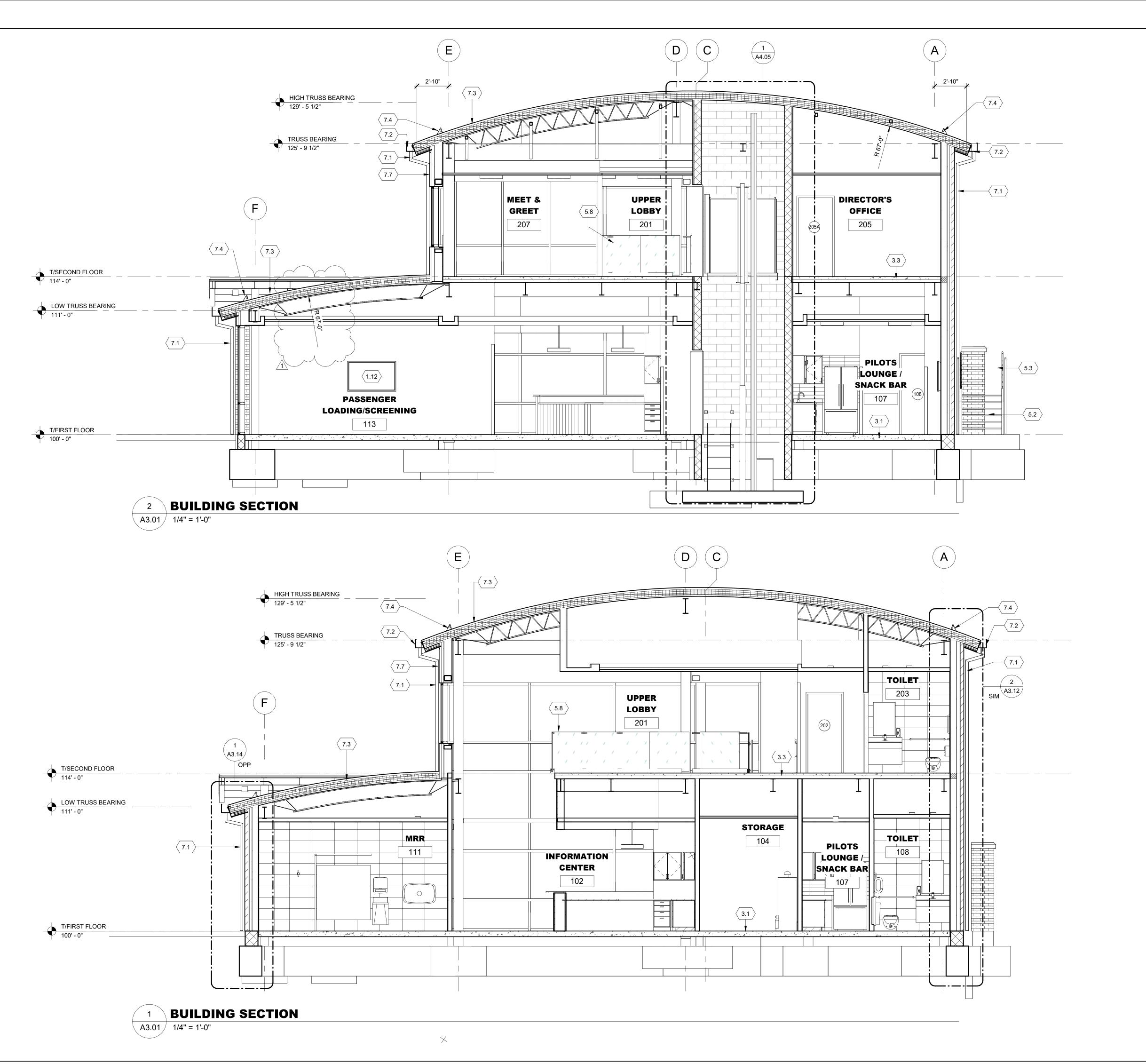
# **KEYNOTES**

- 1.11 ELECTRIC PROJECTION SCREEN BY OWNER.
- 5.11 STEEL BEAM, PAINT WHERE EXPOSED. SEE STRUC. DRAWINGS. 5.12 STEEL ROOF JOIST, PAINT WHERE EXPOSED. SEE STRUC. DRAWINGS.
- 5.13 STEEL ROOF DECK, PAINT WHERE EXPOSED. SEE STRUC.
- DRAWINGS. 5.21 3-5/8" METAL STUD. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL
- INFORMATION. 7.3 STANDING-SEAM METAL ROOF.
- 7.6 PREFINISHED LINEAR METAL SOFFIT PANELS.
- 7.8 6" POLYISOCYANURATE ROOF INSULATION (R-38 MIN.); THREE LAYERS OF 2" WITH SEAMS STAGGERED.
- 8.1 ALUMINUM CURTAIN WALL SYSTEM. SEE ALUMINUM ASSEMBLIES AND DETAILS SHEETS.
- 9.7 ACOUSTICAL CEILING TILE SYSTEM. SEE RCP SHEETS.
- 12.3 MANUAL OPERATED WINDOW ROLLER SHADE. FULL HEIGHT AND WIDTH OF WINDOW.
- 12.4 MANUAL OPERATED, DUAL WINDOW ROLLER SHADE WITH BLACKOUT. FULL HEIGHT AND WIDTH OF WINDOW, AND PROVIDE
- ALUMINUM SIDE AND SILL CHANNELS FOR LIGHT GAP REDUCTION. 26.1 LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.

**WALL SECTION**  $A1.04 \overline{)} 3/4" = 1'-0"$ 

SCALE: As indicated CONTRACT NO: 220656 SHEET

A1.04



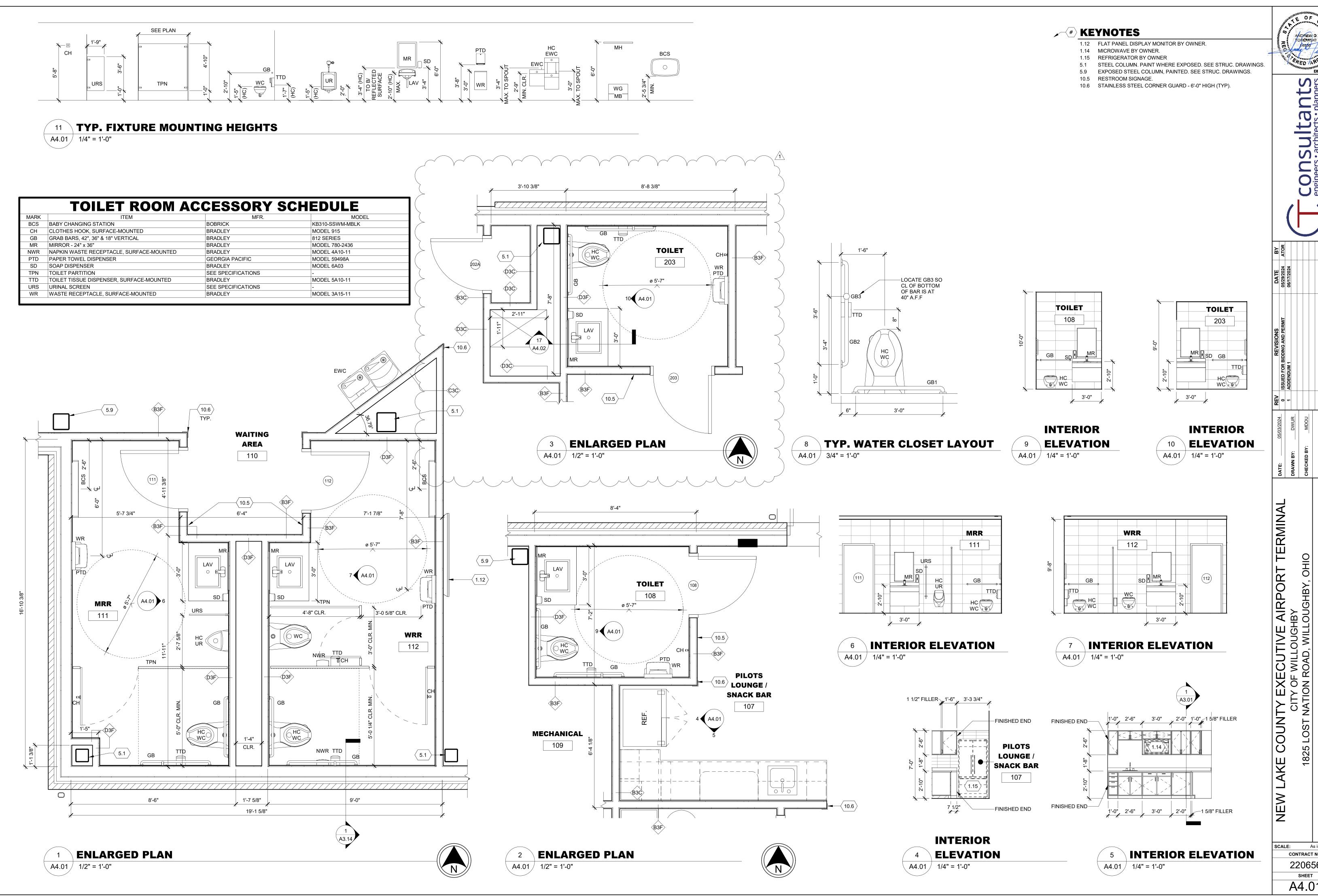
# **KEYNOTES**

- 1.12 FLAT PANEL DISPLAY MONITOR BY OWNER.
- 3.1 CONCRETE SLAB-ON-GRADE OVER GRANULAR BASE AND VAPOR BARRIER. SEE STRUCTURAL DRAWINGS.
- 3.3 CONCRETE SLAB OVER METAL DECK. SEE STRUCTURAL
- DRAWINGS. 5.2 EXTERIOR METAL STAIRS WITH BAR GRATING TREADS. SEE
- DETAILS ON SHEET A4.04. 5.3 1-1/2" DIA., 42" HIGH, STEEL GUARDRAIL WITH HANDRAIL (WHERE
- APPLICABLE). PAINTED.
- 5.8 GLAZED DECORATIVE METAL RAILING. 7.1 3" X 4" PREFINISHED METAL DOWNSPOUT. CONNECT TO STORM
- SYSTEM WITH BOOT. SEE CIVIL DRAWINGS.
- 7.2 9" X 9" PREFINISHED METAL GUTTER. SEE DETAILS.
- 7.3 STANDING-SEAM METAL ROOF. 7.4 SNOW GUARDS.
- 7.7 ALUMINUM COMPOSITE PANEL SYSTEM.

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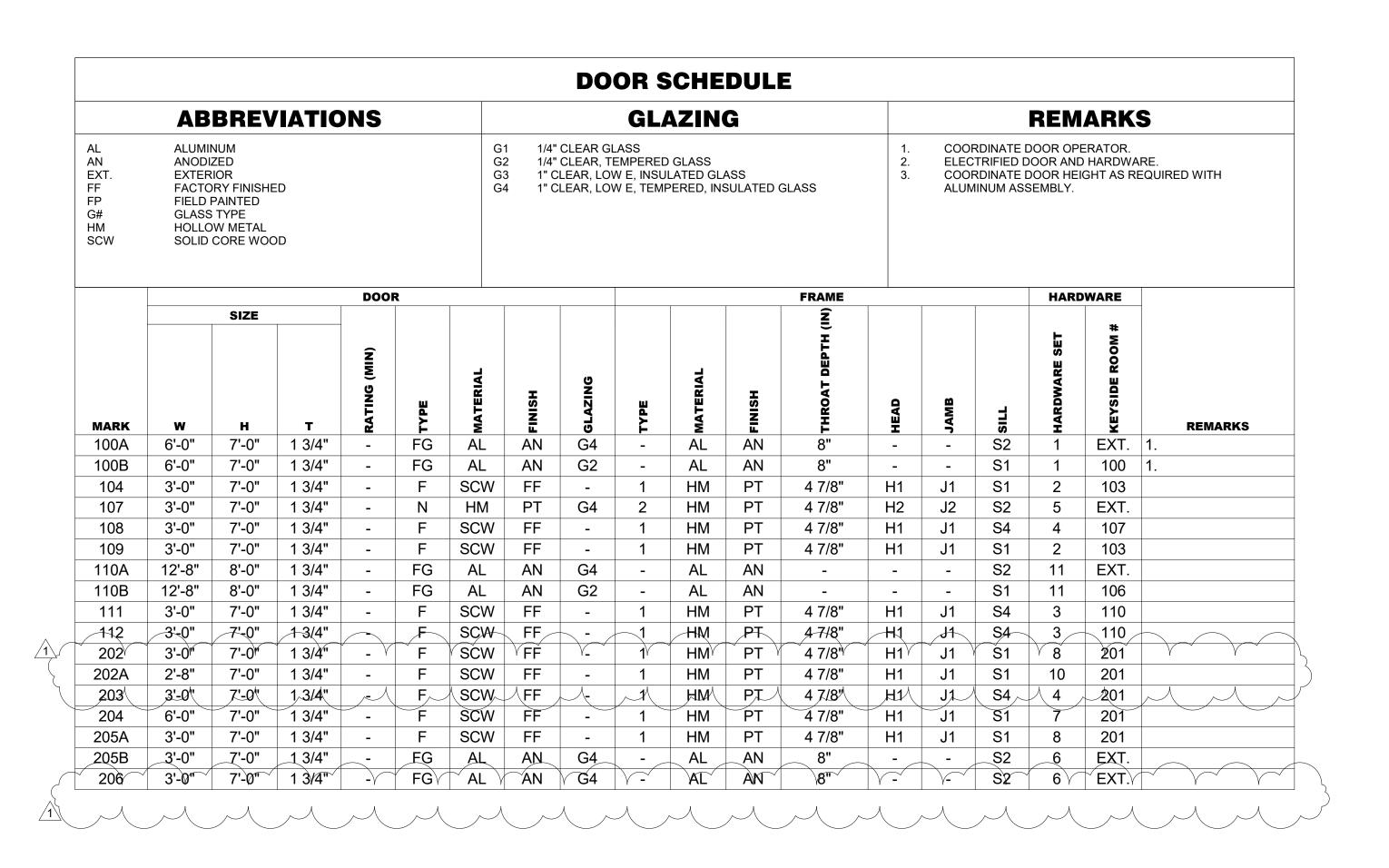
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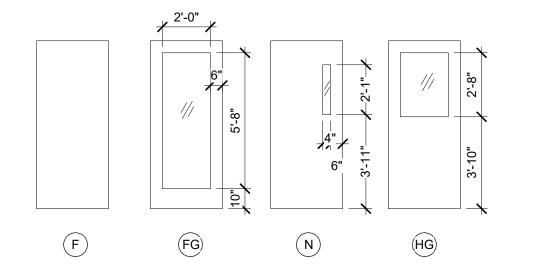
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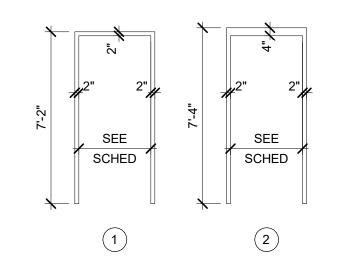
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DETAILS

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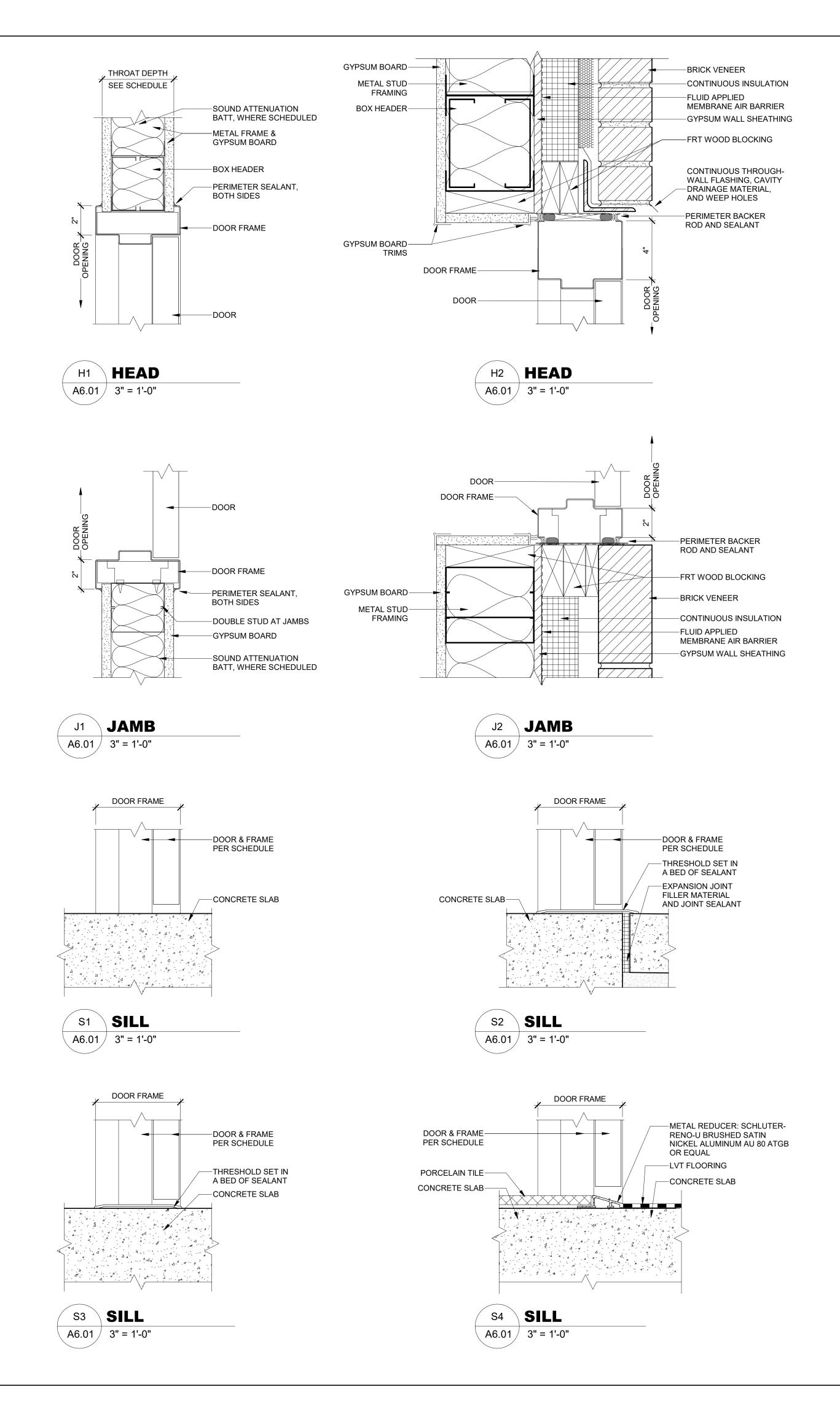






**DOOR TYPES** 

**DOOR FRAMES** 





SCALE: As indicated

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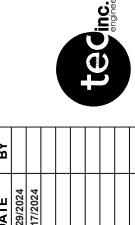


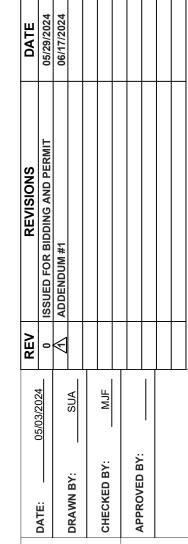


♦ PLAN NOTES

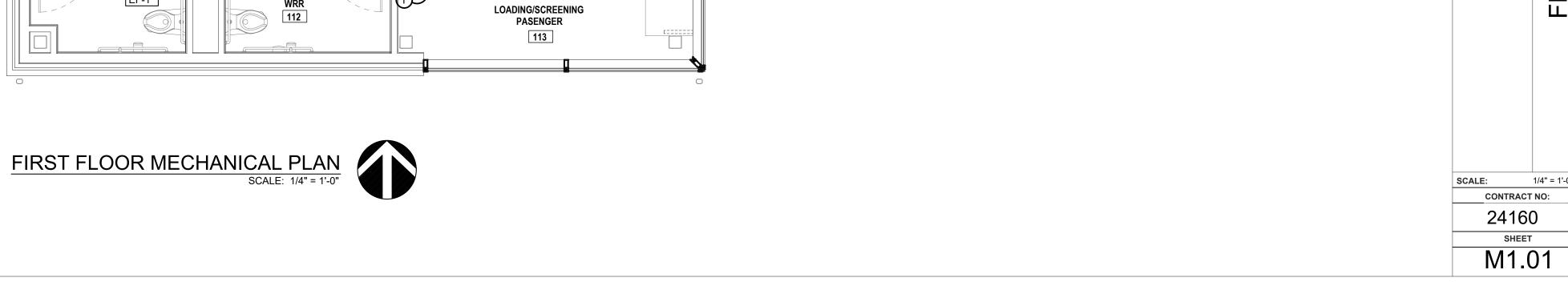
4" EA DUCT THRU CEILING TO ROOF.
 PLENUM RETURN W/ 1/2" MESHSCREEN.

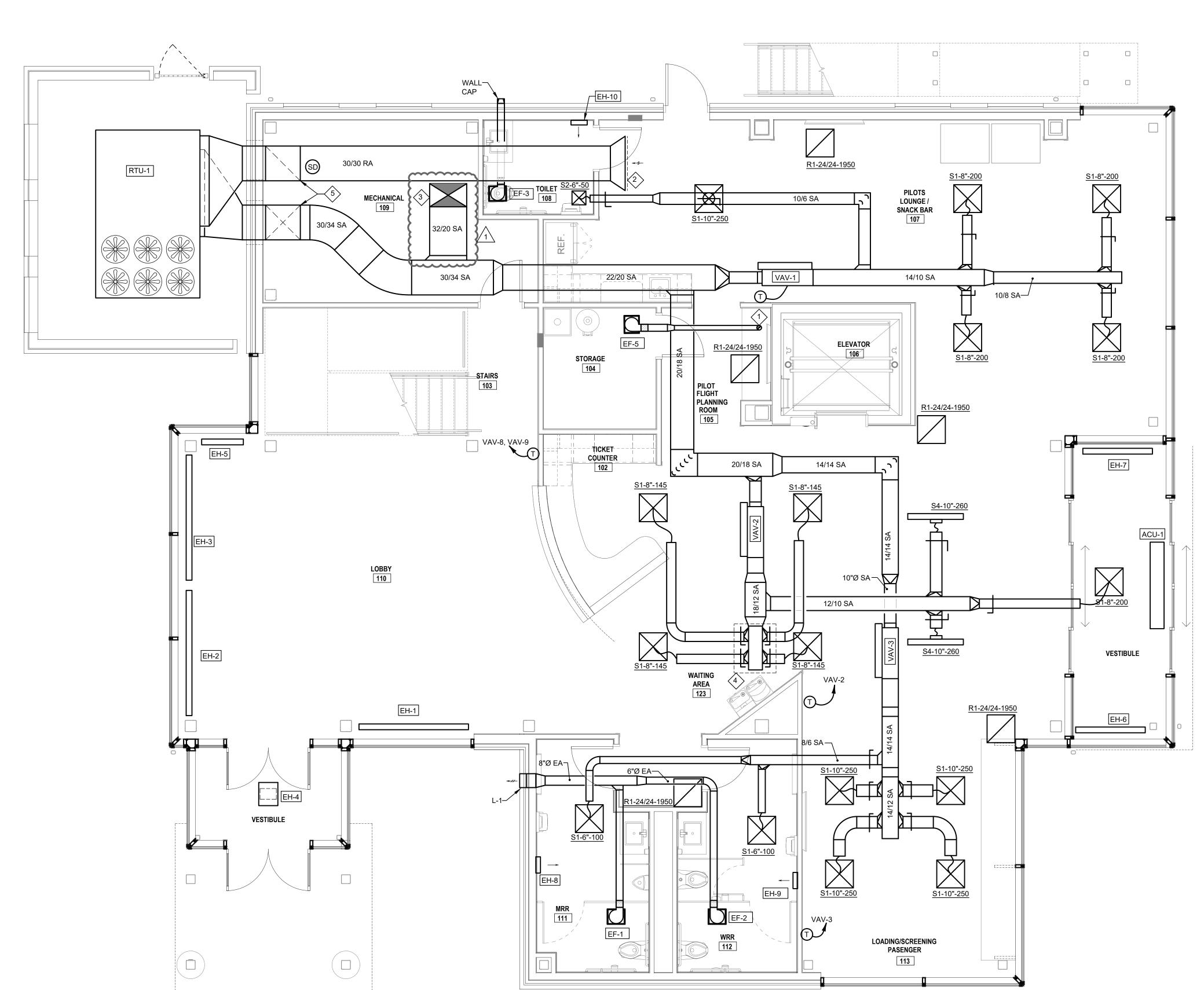
32/20 SA TO SECOND FLOOR.
 42" X 36" ACCESS PANEL.
 ROUTE SA AND RA DUCTS UP TIGHT TO WALL. PROVIDE TURNING VANES AT 90° BENDS.

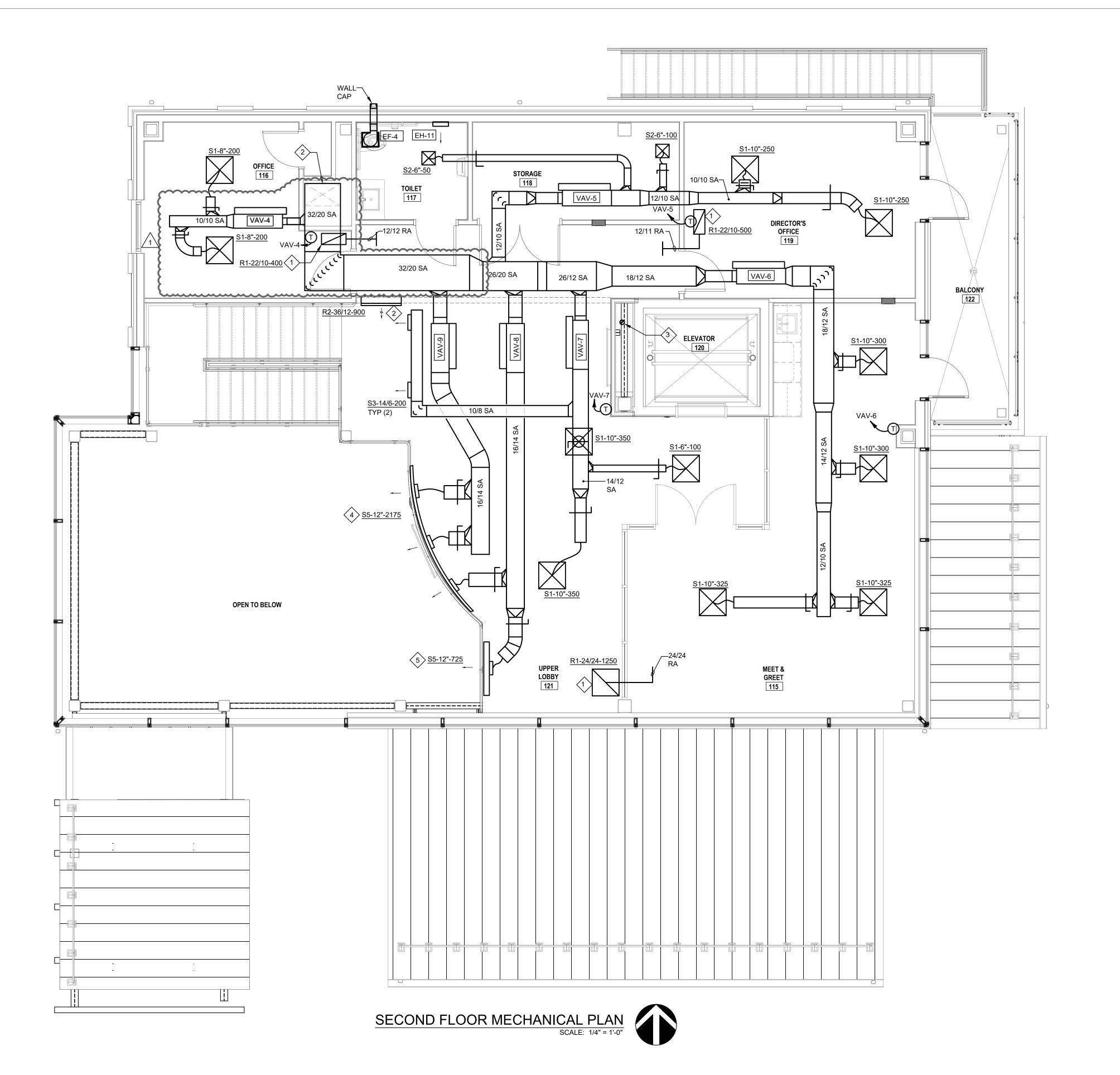




NEW TERMINAL
LAKE COUNTY EAP TERMINAL
1969 Lost Nation Rd., Willoughby, OH 44094
FIRST FLOOR MECHANICAL PLAN









- SINGLE DEFLECTION RETURN GRILLE WITH TRANSFER DUCT.
   32/20 SA DUCT FROM BELOW.
   4" ROUND DUCT FROM FIRST FLOOR UP THROUGH ROOF. TERMINATE WITH WEATHERPROOF CAP.
- 4. COORDINATE CURVED DIFFUSER WITH
  ARCHITECT. VERIFY RADIUS OF CURVATURE AND
  TOTAL LENGTH PRIOR TO ORDERING.

  5. 4' LENGTH DIFFUSER.







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APPROVED BY:				

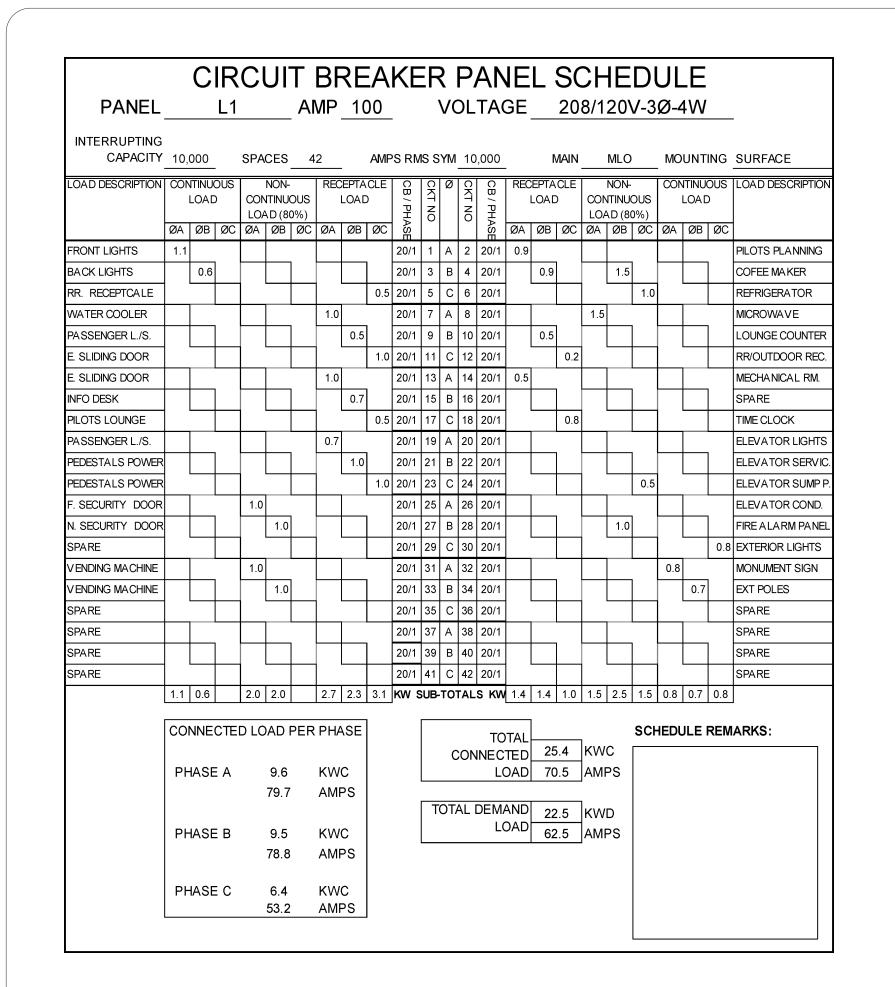
NEW TERMINAL
LAKE COUNTY EAP TERMINAL
1969 Lost Nation Rd., Willoughby, OH 44094
SECOND FLOOR MECHANICAL PLAN

CONTRACT NO:

24160 SHEET

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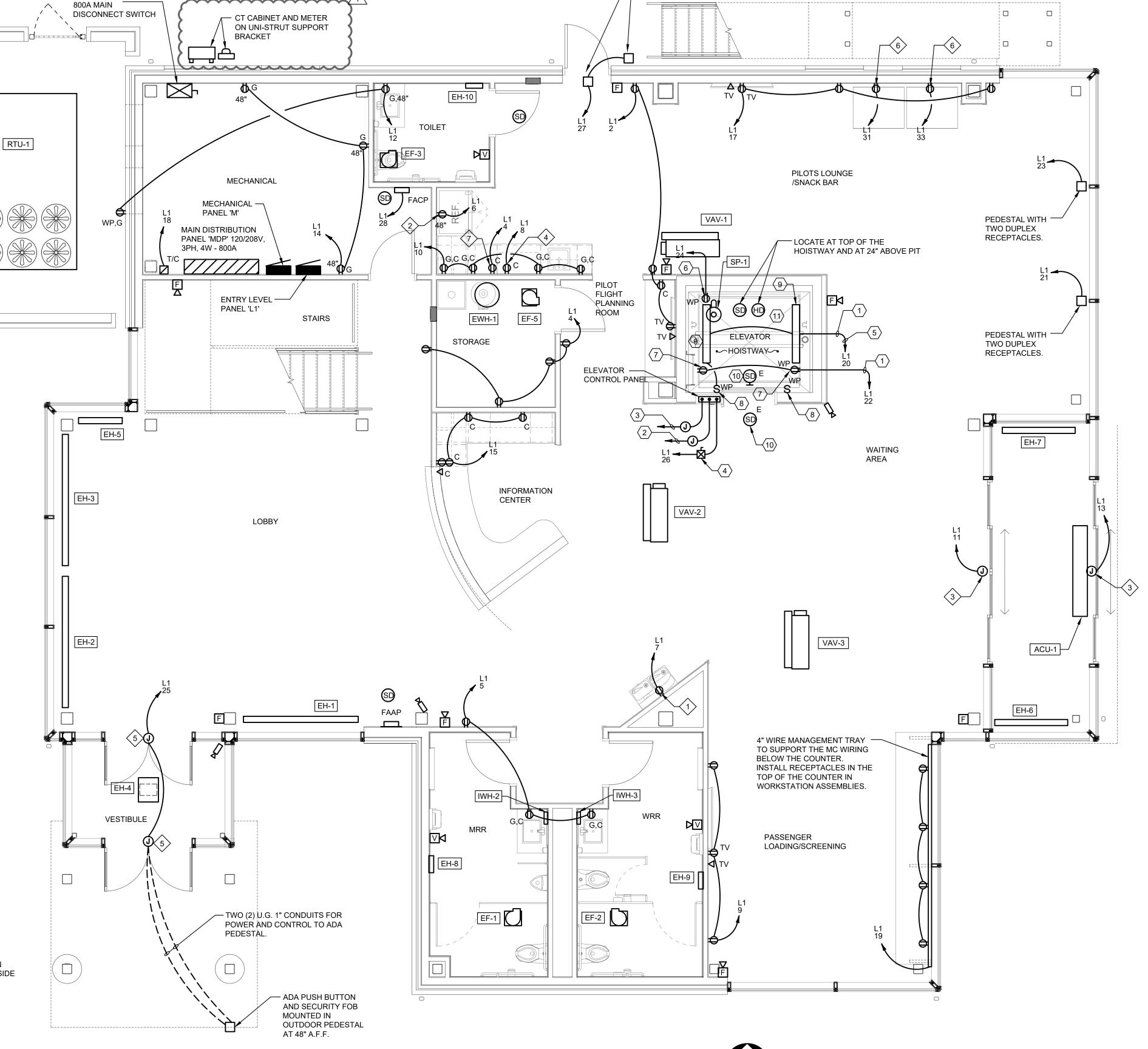
CONDUIT SHALL BE RIGID OR INTERMEDIATE GRADE STEEL IN PIT AND SHAFT 120V WIRING SHALL BE TYPE THWN IDENTIFIED FOR USE IN WET LOCATION.

**ELEVATOR NOTES** 

- (1)4-PAIL UNSHIELDED TWISTED PAIR CABLE, MINIMUM-CATAGORY 3 FROM CONTROLLER TO NEAREST AVAILABLE TELEPHONE SERVICES FOR CAR EMERGENCY PHONE/INTERCOM (ANSI A-17.1 - 211). COORDINATE EXACT LOCATION OF TELEPHONE SERVICES.
- 3. FIRE ALARM SYSTEM WIRING IN CONDUIT (AND COMPONENTS) FOR RECALL CONTROL. SEE FIRE ALARM RISER FOR MORE INFORMATION.
- 4. FUSIBLE DISCONNECT CAPABLE OF BEING LOCKED IN THE "OFF" POSITION FOR 120 VOLT SINGLE PHASE FEED (NEC 620.53). PROVIDE SECOND SWITCH IF SEPARATE HEATING OR AIR CONDITIONING POWER SUPPLY IS PROVIDED (NEC 620.54). PROVIDE DEDICATED 20 AMP, 120 VOLT BRANCH CIRCUIT - LOCATE DISCONNECT IN STORAGE ROOM ON SECOND FLOOR.
- 5. DEDICATED 20 AMP, 120V BRANCH CIRCUIT FOR CAR LIGHTS.
- 6. GFCI DUPLEX RECEPTACLE FOR A PORTABLE SUMP PUMP (120V, 1/2HP)
- 7. WEATHER PROOF GFI DUPLEX RECEPTACLE FOR ELEVATOR SERVICING.
- WEATHERPROOF LIGHT SWITCH LOCATED AT THE PIT ACCESS (ANSI A-17.1 -106).
- 9. WEATHERPROOF LUMEN LED FIXTURE (2) IN PIT AND (2) ABOVE CONTROL PANEL. LIGHTS AND ELEVATOR CEILING TO BE SPECIFIED BY ARCHITECT AND TO BE WIRED TO THE DEDICATED CIRCUIT #20 IN PANEL L1 AS SHOWING ON PLAN.
- 10. SMOKE DETECTOR WITH AUXILIARY CONTACTS FOR ELEVATOR RECALL -LOCATE OUTSIDE EACH ELEVATOR LANDING, AT TOP AND BOTTOM OF THE HOISTWAY (2 FEET ABOVE FLOOR) AND IN THE MACHINE ROOM (ANSI A-17.1 -211.3B).
- 11. NO PIPING, CONDUITS OR DUCTS SHALL BE LOCATED IN THIS AREA, EXCEPT THOSE RELATED TO THE OPERATION OF THE ELEVATOR (ANSI A-17.1 - 102).

# > PLAN NOTES

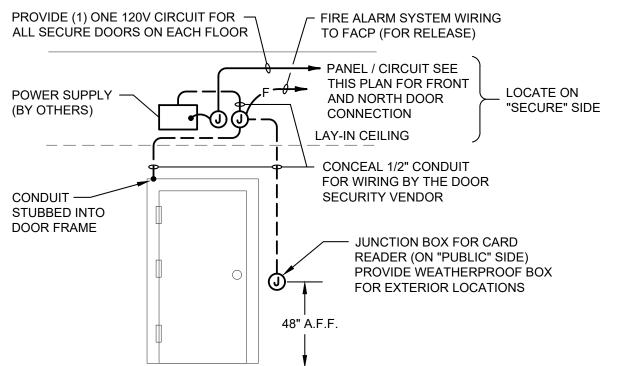
- 1. ADA WATER FOUNTAIN 120V, 1.0KW ASSUMED. WIRE TO DEDICATED 120V, 20A, GFCI RATED CIRCUIT BREAKER INDICATED.
- 2. STANDING REFRIGERATOR 120V, 1.0KW ASSUMED. WIRE TO DEDICATED 120V, 20A GFCI RATED CIRCUIT BREAKER INDICATED.
- 3. SLIDE DOOR 120V, 1.0KW ASSUMED. WIRE TO DEDICATED 120V, 20A CIRCUIT BREAKER INDICATED.
- 4. MICROWAVE 120V, 1.5KW ASSUMED. WIRE TO DEDICATED 120V, 20A GFCI RATED CIRCUIT BREAKER. CONFIRM EXACT LOCATION WITH OWNER BEFORE ROUGH-IN
- 5. MOTOR ASSISTED ADA DOOR 120V, 1.0KW ASSUMED. WIRE TO DEDICATED 120V, 20A CIRCUIT BREAKER INDICATED.
- 6. VENDING MACHINE 120V, 1.0KW ASSUMED. WIRE TO DEDICATED 120V, 20A GFCI RATED CIRCUIT BREAKER INDICATED. VERIFY EXACT LOCATION IN FIELD WITH OWNER BEFORE ROUGH-IN.
- 7. COFFEE MAKER 120V, 1.5KW ASSUMED. WIRE TO 120V, 20A GFCI DEDICATED CIRCUIT BREAKER INDICATED. CONFIRM EXACT LOCATION WITH OWNER BEFORE ROUGH-IN.



FIRST FLOOR POWER PLAN

— SECURITY FOB READER AND DOOR

STRIKE



TYPICAL CARD READER / SECURITY DOOR DETAIL

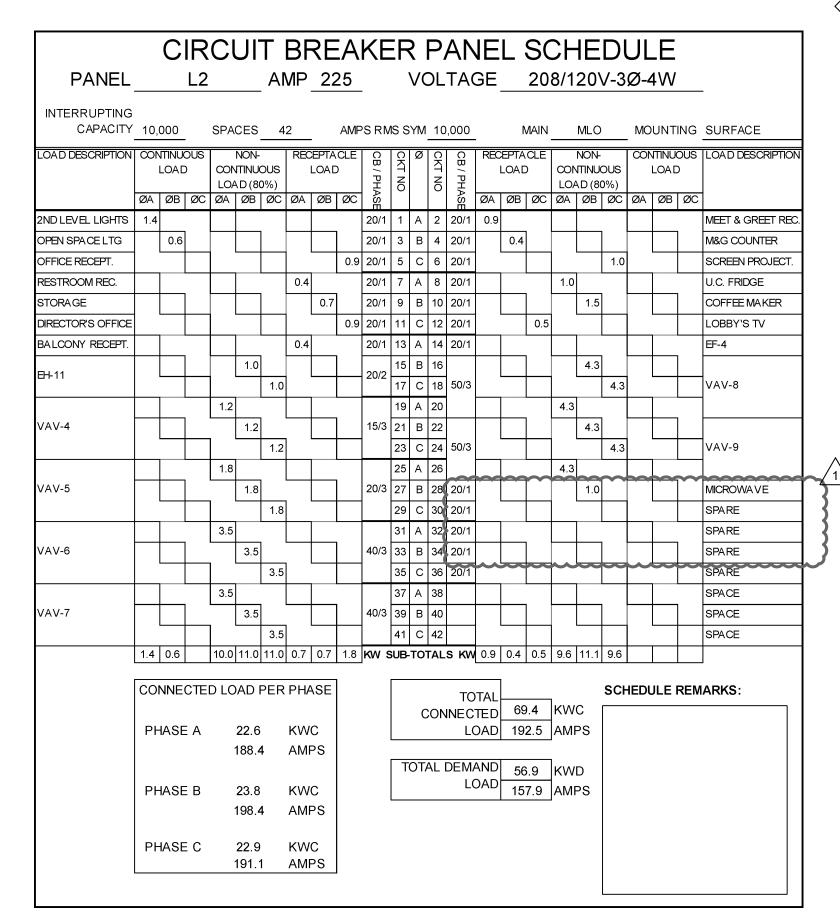
CONTRACT NO: 24160 SHEET E1.03

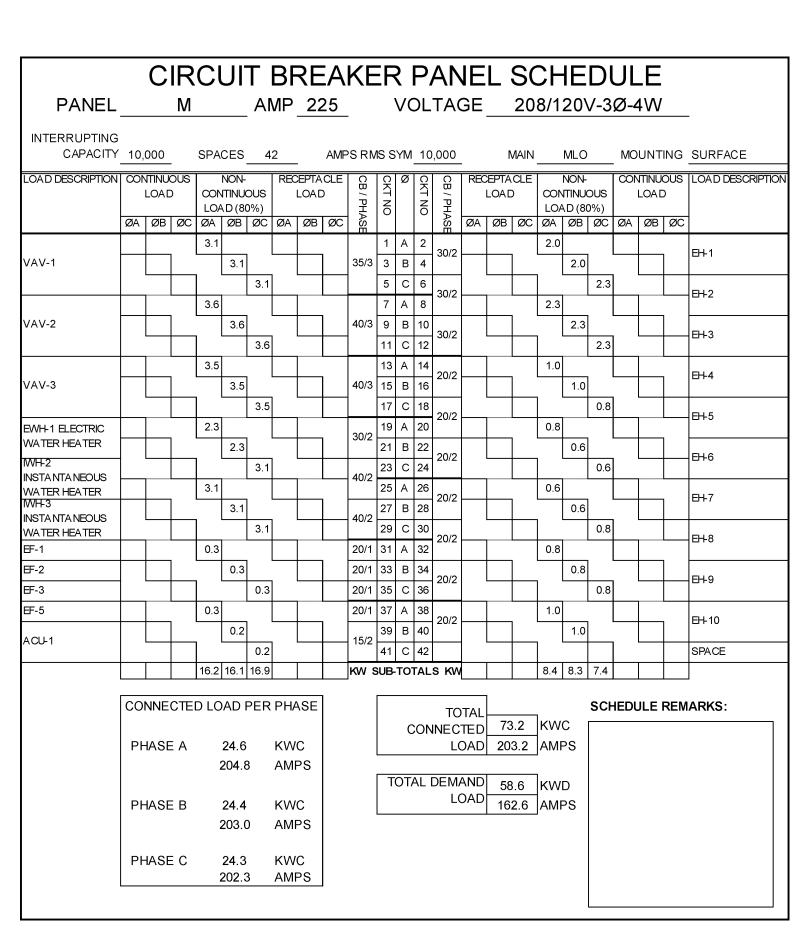
SCALE:

1/4" = 1'-0"

E-59700

NOTE: VERIFY ALL JUNCTION BOX, CONDUIT, AND POWER REQUIREMENTS WITH THE OWNER'S DOOR SECURITY VENDOR BEFORE ROUGH-IN



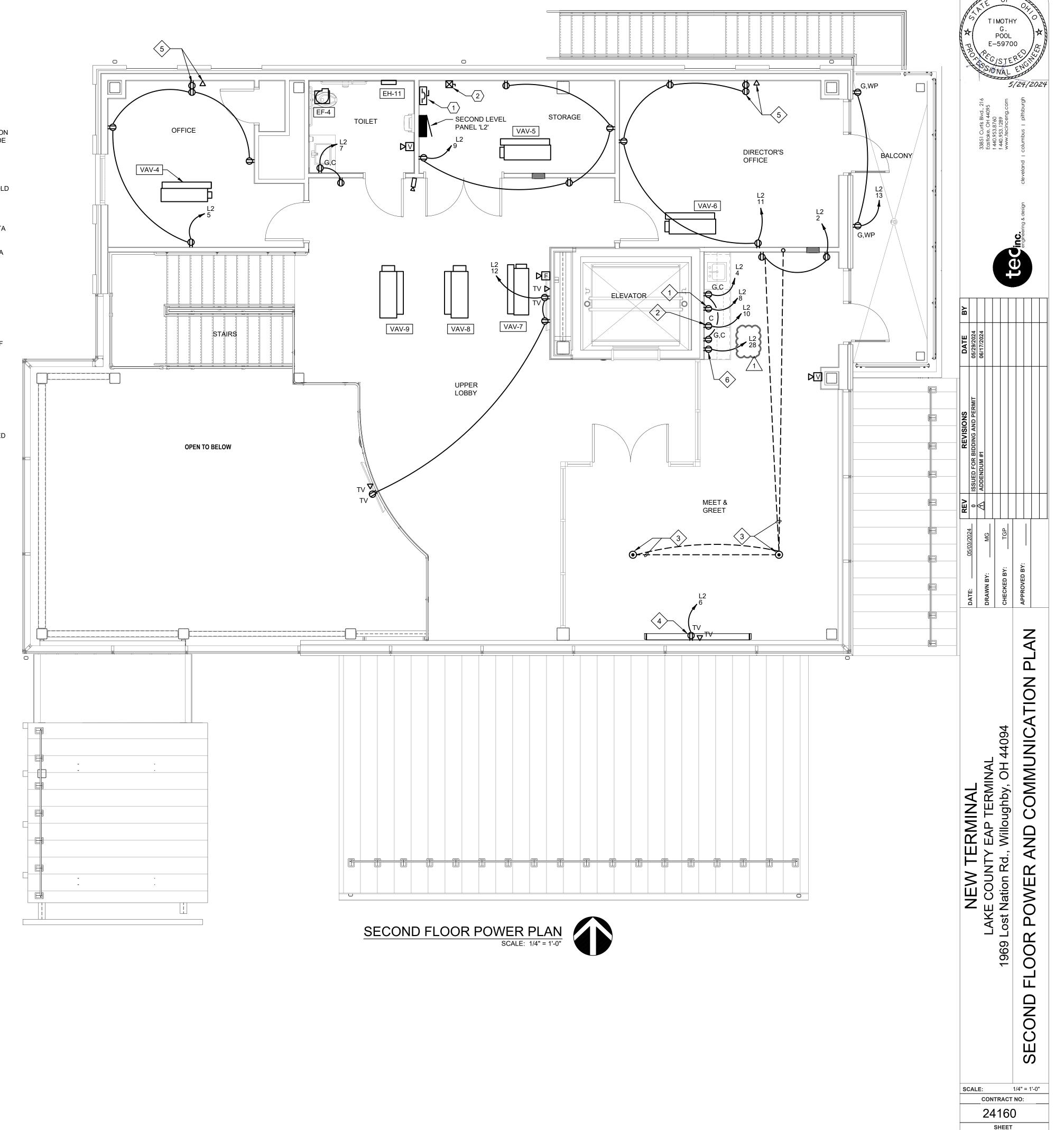


# ♦ PLAN NOTES

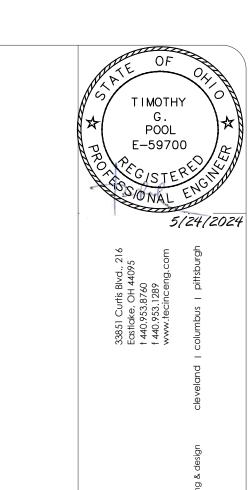
- UNDER COUNTER FRIDGE 120V, 1.0KW ASSUMED. WIRE TO DEDICATED 120V, 20A GFCI RATED CIRCUIT BREAKER INDICATED. CONFIRM EXACT LOCATION WITH OWNER BEFORE ROUGH-IN.
- COFFEE MAKER 120V, 1.5KW ASSUMED. WIRE TO 120V, 20A GFCI DEDICATED CIRCUIT BREAKER INDICATED. CONFIRM EXACT LOCATION WITH OWNER BEFORE ROUGH-IN.
- 3. FLUSH POKE THROUGH FLOOR BOX WITH PROVISIONS FOR POWER AND DATA SERVICES TO FURNITURE FEED. CONFIRM FINAL LOCATION WITH FURNITURE CONNECTION POINT PRIOR TO ROUGH-IN. PROVIDE 1 1/4" CONDUIT WITH PULL WIRE FOR TELECOMMUNICATIONS ACROSS CEILING SPACE OF FIRST FLOOR. PROVIDE ALL PARTS, COVERS, DEVICES AND ACCESSORIES FOR A COMPLETE AND OPERABLE INSTALLATION.
- 4. AUTOMATIC ROLL DOWN SCREEN PROJECTION IN CEILING BULK HOLD 120V, 1.0KW ASSUMED, WIRE TO DEDICATED 120V, 20A CIRCUIT BREAKER INDICATED. CONFIRM EXACT LOCATION WITH OWNER BEFORE ROUGH-IN.
- 5. VERIFY EXACT FURNITURE LOCATION BEFORE INSTALLING THE DATA AND POWER PORTS.
- 6. MICROWAVE 120V, 1.0KW ASSUMED. WIRE TO DEDICATED 120V, 20A GFCI RATED CIRCUIT BREAKER INDICATED. CONFIRM EXACT LOCATION WITH OWNER BEFORE ROUGH-IN.

## **ELEVATOR NOTES**

- EXTERNALLY OPERABLE SHUNT TRIP CIRCUIT BREAKER CAPABLE OF BEING LOCKED IN THE "OFF" POSITION FOR ELEVATOR 3-PHASE POWER FEED (NEC 620.51). PROVIDE WIRING FROM THE FIRE ALARM SYSTEM TO THE CIRCUIT BREAKER FOR SHUNT TRIP ACTIVATION UPON OPERATION OF THE ELEVATOR CONTROL HEAT DETECTORS, UNLESS OTHERWISE DIRECTED BY LOCAL ELEVATOR INSPECTOR (ASME A17.1-102 AND NEC 620.51(B)). ROUTE 120V WIRING THROUGH FIRE ALARM CONTROL PANEL TO MONITOR LOSS OF SHUNT TRIP POWER (TROUBLE ONLY INDICATION). IF BATTERY POWERED LOWERING IS SPECIFIED BY THE ARCHITECT, PROVIDE A NORMALLY CLOSED CONTACT AND WIRING TO ELEVATOR CONTROLLER TO DISCONNECT ADDITIONAL POWER SOURCE (NEC 620.91(C)). ASSUMED 20HP, WIRE TO 100/3 CIRCUIT BREAKER IN MDP. ELECTRICAL CONTRACTOR TO VERIFY IN FIELD THE CORRECT POWER REQUIREMENTS BEFORE ROUGH-IN.
- 2. FUSIBLE DISCONNECT CAPABLE OF BEING LOCKED IN THE "OFF" POSITION FOR 120 VOLT SINGLE PHASE CAB LIGHTING FEED (NEC 620.53). PROVIDE SECOND SWITCH IF SEPARATE HEATING OR AIR CONDITIONING POWER SUPPLY IS PROVIDED (NEC 620.54). PROVIDE DEDICATED 20 AMP, 120 VOLT BRANCH CIRCUIT.



E1.04



THIS DRAWING HAS BEEN REMOVED

FROM THE SET IN ADDENDUM #1.

NEW TERMINAL
LAKE COUNTY EAP TERMINAL
1969 Lost Nation Rd., Willoughby, OH 44094
ELECTRICAL ROOF PLAN

SCALE: CONTRACT NO:

SHEET

E1.05

