# ADDENDUM NO. 2

# **November 4, 2021**

Portage Township School - Bid Package #2 PHS Learning Lab, Elementary Schools Media Centers, and Office Renovation Portage IN, 46368

#### TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated October 8, 2021 by Alliance Architects. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of page ADD 2-1 through ADD 2-3 and Addendum No. 2 from Alliance Architects dated November 1, 2021 and consisting of 5 pages, Specification Section 16 46 10 - Low-Voltage Transformers and 16 drawings.

# A. <u>SPECIFICATION SECTION 01 32 00 - SCHEDULE AND REPORT</u>

#### 1. Replace:

The Guideline Schedule in its entirety with the attached revised Guideline Schedule.

#### B. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

**Under 3.03 Bid Categories make the following adjustments:** 

#### 1. BID CATEGORY NO. 1 - GENERAL TRADES

#### a. Revise:

# Clarification No. 12:

Reference the Guideline Schedule and the Portage Township Schools Calendar for the work associated with the Portage High School Learning Lab, the **Bid Category No. 1, 2, and 3 Contractors** shall include in the base bid working a second shift (3:30PM to 11:00PM) and/or at third shift (11:00PM to 6:00AM) for the duration of the project. No work shall occur during regular school hours for this specific project.

#### b. Add:

#### Clarification No. 13:

Regarding the scope of work at Willowcreek Elementary School for the Special Projects portion, the **Bid Category No. 2 Contractor** shall provide all work associated with the courtyard storm line in its entirety as indicated within the Contract Documents. The **Bid Category No. 1 Contractor** is responsible to provide the new concrete work and including the cast in trench drain as indicated on the Contract Documents.

# 2. <u>BID CATEGORY NO. 2 - PLUMBING/HVAC</u>

#### a. Revise:

#### Clarification No. 10:

Reference the Guideline Schedule and the Portage Township Schools Calendar for the work associated with the Portage High School Learning Lab, the **Bid Category No. 1, 2, and 3 Contractors** shall include in the base bid working a second shift (3:30PM to 11:00PM) and/or at third shift (11:00PM to 6:00AM) for the duration of the project. No work shall occur during regular school hours for this specific project.

#### b. Add:

#### Clarification No. 11:

The **Bid Category No. 2 Contractor** shall provide all work associated with the cleaning of existing underground utilities as indicated for the Special Projects within the Contract Documents.

#### c. Add:

#### Clarification No. 12:

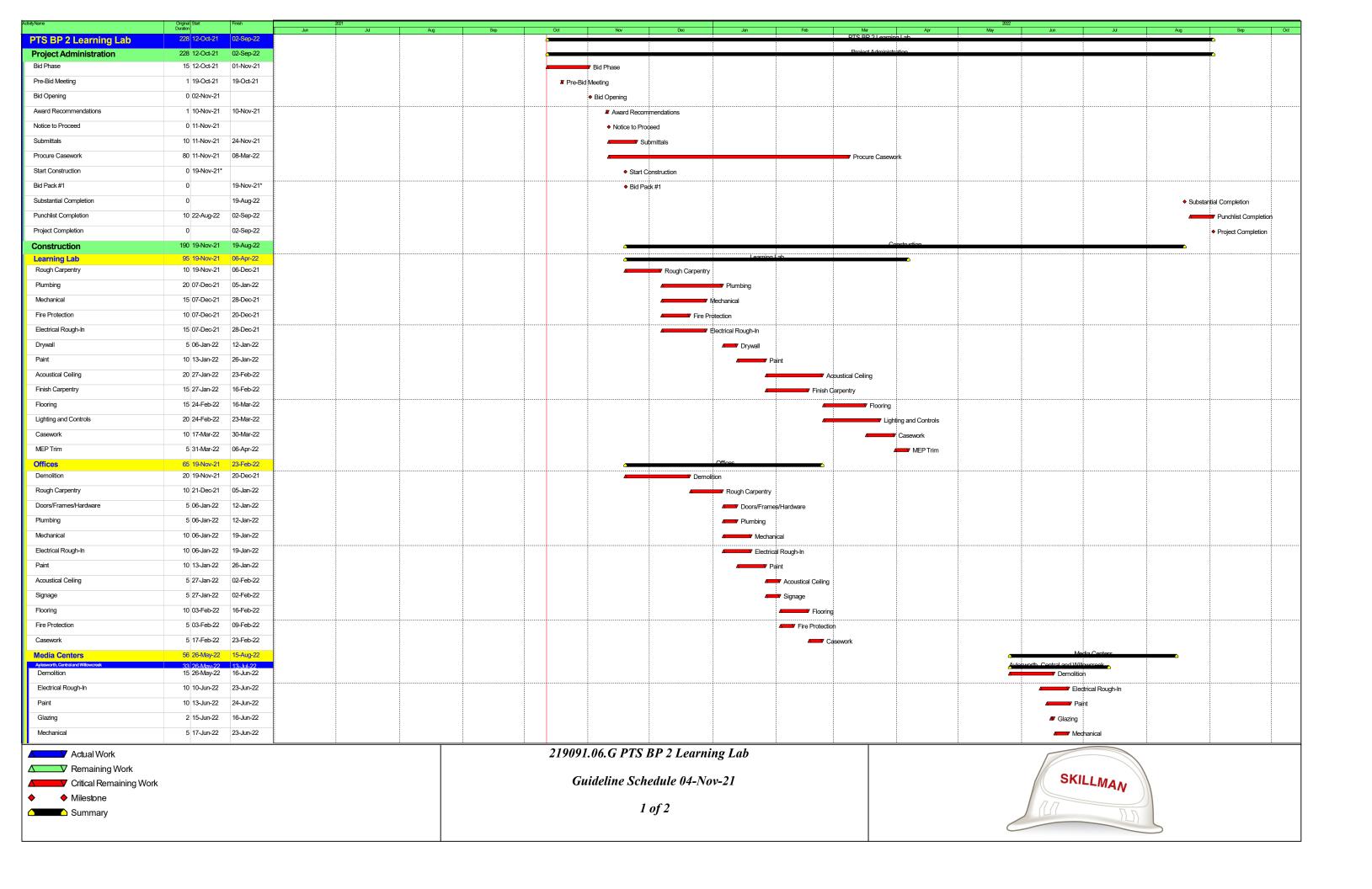
Regarding the scope of work at Willowcreek Elementary School for the Special Projects portion, the **Bid Category No. 2 Contractor** shall provide all work associated with the courtyard storm line in its entirety as indicated within the Contract Documents. The **Bid Category No. 1 Contractor** is responsible to provide the new concrete work and including the cast in trench drain as indicated on the Contract Documents.

## 3. BID CATEGORY NO. 3 - ELECTRICAL

#### a. Revise:

#### Clarification No. 9:

Reference the Guideline Schedule and the Portage Township Schools Calendar for the work associated with the Portage High School Learning Lab, the **Bid**Category No. 1, 2, and 3 Contractors shall include in the base bid working a second shift (3:30PM to 11:00PM) and/or at third shift (11:00PM to 6:00AM) for the duration of the project. No work shall occur during regular school hours for this specific project.



ActivityName	Original Start Duration	Finish	2021 Jun Jul	Aug	Sep	Oct	Nov	Dec Jan	Feb	Mar	2022 Apr May	Jun	Jul	Aug	Sep	Oct
Acoustical Ceilings		01-Jul-22	0.01	, and							740		Acoustical Ceilings	7.00	ОФ	
Fire Protection	5 27-Jun-22	01-Jul-22											Fire Protection			
Lighting and Controls	10 29-Jun-22	13-Jul-22										_	Lighting and	Controls		
Flooring	5 05-Jul-22	11-Jul-22											Flooring			
Window Treatments	2 12-Jul-22	13-Jul-22											■ Window Trea	tments		
MEP Trim	1 12-Jul-22	12-Jul-22											■ MEP Trim			
Crisman, Kyle and Jones	36 03-Jun-22	25-Jul-22										Crisman Kyle	and lones			
Demolition	15 03-Jun-22 5 17-Jun-22											Den				
Electrical Rough-In Paint													trical Rough-In			
	10 20-Jun-22												7 Paint			
Glazing	2 22-Jun-22															ļ
Mechanical	2 24-Jun-22												/lechanical			
Window Treatments	2 24-Jun-22											<b>△</b> ∨	Vindow Treatments			
Masonry		28-Jun-22											Vlasonry			
Acoustical Ceilings	10 05-Jul-22	18-Jul-22											Acoustication	al Ceilings		
Lighting and Controls	5 07-Jul-22	13-Jul-22											Lighting and			ļ
Fire Protection	5 12-Jul-22	18-Jul-22											Fire Prot	ection		
MEP Trim	1 14-Jul-22	14-Jul-22											■ MEP Trim			
Flooring		25-Jul-22											<b>✓</b> Flo	oring		
Fegley, Meyers and Saylor Demolition	41 17- lun-22 10 17-Jun-22	15-Aug-22 30-Jun-22											Demolition			
Electrical Rough-In	5 01-Jul-22	08-Jul-22											Electrical Rough	ln		
Masonry	4 01-Jul-22	07-Jul-22											Masonry			
Mechanical	5 01-Jul-22	08-Jul-22											Mechanical			
Plumbing	5 01-Jul-22	08-Jul-22											Plumbing			
Paint	15 05-Jul-22	25-Jul-22											<b>∧</b> Pai	nt		
Glazing	2 07-Jul-22	08-Jul-22											✓ Glazing			
Lighting and Controls	5 11-Jul-22	15-Jul-22											Lighting and	d Controls		
Acoustical Ceilings	5 26-Jul-22	01-Aug-22												Acoustical Ceilings		
Fire Protection	5 26-Jul-22	01-Aug-22											A	Fire Protection		
Flooring	5 02-Aug-22	08-Aug-22												✓ Flooring		
Window Treatments	1 09-Aug-22	09-Aug-22		<u> </u>					<u> </u>	-				Window Treatmen	nts	-
MEP Trim	1 09-Aug-22	09-Aug-22												<b>ℤ</b> MEP Trim		
Casework	5 09-Aug-22	15-Aug-22												Casework		
	92 12-Apr-22										4	Special Projects				
High School  Masonry Cleaning and Sealing	10 12-Apr-22 5 12-Apr-22	25-Apr-22 18-Apr-22									Masonry Cleaning and Sealing					
Clean Ductwork	5 12-Apr-22										Clean Ductwork					
Clean Storm Piping	5 12-Apr-22										Clean Storm Piping					
Plumbing	5 19-Apr-22										Plumbing					
Willowcreek	25 26-Apr-22	31-May-22							ļ		Willowgrook					ļ
Demolition	5 26-Apr-22										Demolition					
Courtyard Storm Drainage	5 03-May-22										Courtyard Stor	n Drainage				
Plumbing	15 10-May-22										4	Plumbing				
Gym Floors  Demolition	50 10-Jun-22 15 10-Jun-22												Ovm Floors  Demolition			
Rubber Flooring Installation	35 01-Jul-22	19-Aug-22											\	Rubber Fl	looring Installation	
				<u>i                                      </u>	i			i l	1	<u> </u>		<u>i</u>			-	<u>i</u>



219091.06.G PTS BP 2 Learning Lab

Guideline Schedule 04-Nov-21

2 of 2



# ADDENDUM NO. 2



DATE: November 1, 2021

RE: LEARNING LAB, MEDIA CENTERS & OFFICE PROJECT

Portage Township Schools

Portage, Indiana

TO: All Bidders

You are hereby directed to make the following changes in the Project Manual and/or Drawings of the subject job and each item shall become fully a part of the Construction Documents as if originally written and/or shown:

- 1. <u>ADDENDUM NO. 1</u>; <u>ITEM 6.b.</u>: Revise the panel designation in Boiler Room N105 to Panel "1HN2" to match Note 1 in the Proposed Electrical Riser Diagram Notes. Note: Panel "1HN2" is located in Boiler Room N105 (the room where the walk-thru started).
- 2. <u>SPECIFICATIONS</u>; <u>08 81 00 GLAZING</u>; B. <u>Products</u>; 3. <u>Glass Standards</u>; D. <u>Bullet-Resistant Glass</u>; 1) <u>Laminated Polycarbonate Bullet-Resistant Glass Product</u>:
  - a. Add BP750 Smartgard Security Glazing by Advanced Impact Technologies as an acceptable product.
  - b. Add sub-items b) and c) to read as follows:
    - b) <u>Transaction Window</u>: Stainless steel frame with 12" shelf, transaction tray and speak-thru grille; level 1 protection.
      - (1) CR Laurence No. S1EW12S with No. N666 Speak-Thru.
      - (2) Chicago Bullet Proof No. STW-S.
    - c) Fixed Security Window: Stainless steel frame; level 1 protection.
      - (1) CR Laurence No. S1V1S.
      - (2) Chicago Bullet Proof No. SVL-S.
- 3. <u>SPECIFICATIONS</u>; <u>09 24 56 SUSPENDED WOOD CEILINGS</u>; B. <u>Products</u>; 1. <u>Manufacturers</u>: Add Rulon International, Linear Open Wood Ceiling System as an acceptable manufacturer and product. Wood species shall be Maple.
- 4. SPECIFICATIONS; 09 51 00 ACOUSTICAL CEILINGS; C. Execution; 5. Acoustical Tile Ceiling Product Schedule; B. SAT-2; 2) Perimeter Trim: By way of clarification, the perimeter trim is only required in Learning Lab 103.
- 5. **SPECIFICATIONS**; 09 65 00 RESILIENT FLOORING; B. Products; 1. Resilient Flooring; d. Luxury Vinyl Tile (LVT): Revise sub-item 1) to read as follows:
  - 1) Mohawk Group "Hit the Mark":
    - a) 7.25" x 48".
    - b) Color:
      - (1) LVT-1: Jackpot 956.
      - (2) <u>LVT-2</u>: Color selected by Architect.
- 6. **SPECIFICATIONS**; 15 82 00 AIR DUCT ACCESSORIES:
  - a. Section G. Backdraft and Pressure Relief Dampers; 1. Manufacturers; add the following:
    - f. Pottorff
    - g. NCA

- b. Section H. <u>Barometric Relief Dampers</u>; 1. <u>Manufacturers</u>; add the following:
  - f. Pottorff
  - g. NCA
- c. Section I. <u>Manual Volume Dampers</u>; 1. <u>Standard, Steel, Manual Volume Dampers</u>; a. Manufacturers; add the following paragraph:
  - 10) NCA
- d. Section L. Duct Mounted Access Doors; 1. Manufacturers; add the following:
  - d. Pottorff
- 7. **SPECIFICATIONS**; 15 85 50 DIFFUSERS, REGISTERS AND GRILLES:
  - a. Section D. Ceiling Diffusers; 1. Round Ceiling Diffuser; a. Manufacturers; add the following:
    - 4) Krueger
    - 5) Metalaire
  - b. Section D. <u>Ceiling Diffusers</u>; 2. <u>Rectangular and Square Ceiling Diffusers</u>; a. <u>Manufacturers</u>; add the following:
    - 4) Krueger
    - 5) Metalaire
  - c. Section E. Registers and Grilles; 1. Adjustable Bar Register; a. Manufacturers; add the following:
    - 4) Krueger
    - 5) Metalaire
  - d. Section E. Registers and Grilles; 2. Adjustable Bar Grille; a. Manufacturers; add the following:
    - 4) Krueger
    - 5) Metalaire
  - e. Section E. Registers and Grilles; 3. Fixed Face Grille; a. Manufacturers; add the following:
    - 4) Krueger
    - 5) Metalaire
- 8. **SPECIFICATIONS**; 16 46 10 LOW-VOLTAGE TRANSFORMERS: Replace this section in its entirety with the attached section.
- 9. **DRAWINGS**; Sheet No. TITLE T0.0:
  - a. By way of clarification, the Learning Lab sheets that are listed in gray on this sheet and who's sheet number are gray are included in this set for reference only. The work shown on these sheets will have already been completed before the work of this project begins.
  - b. <u>SHEET INDEX</u>: Add sheet OFFICE S1.0 LINTEL PLAN & SCHEDULE after Sheet A9.1. This sheet is included in the set but was missed on the index.

#### 10. **DRAWINGS**; Sheet No. TITLE P0.2; PLUMBING FIXTURE SCHEDULE:

- a. Delete CO-1 and replace with CO-2 equal to Josam Model 58900.
- b. Size of sink S-2 to be 18"x15"x8" (Typ.) And 18"x15"x4.5" at accessible space (northeast sink space).
- c. Size of sink S-3 to be 18"x15"x8".
- d. Reverse faucets indicated for sinks S-2 and S-3. The "928-" model number is for sink S-2 and the "895-" model number is for sink S-3.
- 11. **DRAWINGS**; Sheet No. TITLE E3.0; TRANSFORMER SCHEDULE: Delete Transformers T-1LV3 and T-1LV4. They are not used.
- 12. <u>DRAWINGS</u>; <u>Sheet No. TITLE E6.3</u>: Panel "CRISIS" schedule added, see Addendum Drawing No. OFFICE E6.3, dated 11/1/21.
- 13. <a href="https://doi.org/10.2016/ncb.2016/nc
- 14. <u>DRAWINGS</u>; Sheet No. LAB M1.0: Clarification to Mechanical Plan Note #6; rectangular ductwork in the Learning Lab is to be single wall duct with 1" internal fiberglass duct liner with antimicrobial erosion-resistant coating.
- 15. **DRAWINGS**; Sheet No. LAB E3.0: By way of clarification, the Fire Alarm Control Panel for this area is located in Data 176 within "PHS West", approximately 500' west of door 101A.
- 16. **DRAWINGS**; Sheet No. MEDIA 0.0:
  - a. MOTORIZED WINDOW BLINDS DETAIL 1/0.0: Replace this detail with Addendum Drawing No. MEDIA 0.0A, dated 11/1/21.
  - b. <u>MOTORIZED WINDOW BLINDS DETAIL 2/0.0</u>: Replace this detail with Addendum Drawing No. MEDIA 0.0B, dated 11/1/21.
- 17. **DRAWINGS**; Sheet No. MEDIA 1.3; ELECTRICAL PLAN NOTES; NOTE 6: By way of clarification, Panel 2 is located approximately 30' from the Media Center main door, across the corridor, inside Ventilation Room 19.
- 18. <u>DRAWINGS</u>; <u>Sheet No. MEDIA 2.3</u>; <u>ELECTRICAL PLAN NOTES</u>; <u>NOTE 6.</u>: By way of clarification, the nearest panel is located in Electrical Room 38, inside the Gym and approximately 150' from the Media Center.
- 19. <u>DRAWINGS</u>; <u>Sheet No. MEDIA 3.3</u>; <u>ELECTRICAL PLAN NOTES</u>; <u>NOTE 5</u>: By way of clarification, the nearest panel is located in the small Electrical Closet between the "Speech" and "Reading" rooms shown on drawings.
- 20. DRAWINGS; Sheet No. MEDIA 4.0:
  - a. <u>DEMOLITION PLAN</u>: Revise the Demolition Plan as shown on Addendum Drawing No. MEDIA 4.0A, dated 11/1/21.
  - b. FLOOR PLAN:
    - 1) Revise the note at the window infill on the north wall to reference 12" CMU. The remaining portions of the note shall remain as shown.

- 2) Revise the Floor Plan as shown on Addendum Drawing No. MEDIA 4.0B, dated 11/1/21.
- 21. <u>DRAWINGS</u>; Sheet No. MEDIA 4.1; WEST ELEVATION 4/4.1: Replace this elevation with Addendum Drawing No. MEDIA 4.1A, dated 11/1/21.
- 22. <u>DRAWINGS</u>; <u>Sheet No. MEDIA 4.3</u>; <u>ELECTRICAL PLAN NOTES</u>; <u>NOTE 4</u>: For bidding purposes, assume a distance of 150' from the Media Center for the nearest panel. Contractor to field verify the panel location.
- 23. <u>DRAWINGS</u>; <u>Sheet No. MEDIA 5.3</u>; <u>ELECTRICAL PLAN NOTES</u>; <u>NOTE 6</u>: By way of clarification, Panel P-1 is located approximately 50' northeast, across from the Media Center east door, inside Storage Room 65.
- 24. <u>DRAWINGS</u>; Sheet No. MEDIA 6.3; <u>ELECTRICAL PLAN NOTES</u>; <u>NOTE 6</u>: By way of clarification, Panel P-1 is located approximately 30' east of the Media Center, in Kitchen 105.
- 25. **DRAWINGS**; Sheet No. MEDIA 9.3; ELECTRICAL DEMOLITION PLAN and NOTES: Delete Demo Note 1. The ceiling tiles and grid are to remain at this location.
- 26. **DRAWINGS**; Sheet No. OFFICE D1.0; DEMOLITION PLAN: Revise the dimensions indicating the extent of wall removal as shown on Addendum Drawing No. OFFICE D1.0A, dated 11/1/21.
- 27. **DRAWINGS**; Sheet No. OFFICE C1.0: Replace this sheet in its entirety. Note the expansion of the work shown on the Partial Site Plan as well as revisions to and the addition of several details.
- 28. **DRAWINGS**; Sheet No. OFFICE A1.0; WALL LEGEND:
  - a. WALL TYPE W10:
    - 1) Revise the CMU note to read: "10" CONCRETE MASONRY UNITS UP TO 14'-0" A.F.F. (VERIFY IN FIELD)".
    - 2) Revise the metal stud note to read: "4" METAL STUD W/ ONE LAYER ½" GYP. BOARD (EACH SIDE) AND BATT INSULATION FROM TOP OF CMU TO UNDERSIDE OF DECK ABOVE".
  - b. By way of clarification, 3 5/8" metal studs may <u>not</u> be used where 4" metal studs are indicated in any wall type. Existing wall studs in this area are 4".
- 29. <u>DRAWINGS</u>; <u>Sheet No. OFFICE A6.0</u>; Replace this sheet in its entirety. Note revisions to Door Schedule and addition of Door Type J.
- 30. **DRAWINGS**; Sheet No. OFFICE A7.0:
  - a. Revise ENLARGED PLAN 1/A7.0 as shown on Addendum Drawing No. OFFICE A7.0A, dated 11/1/21.
  - b. Revise ENLARGED PLAN 1/A7.0 as shown on Addendum Drawing No. OFFICE A7.0B, dated 11/1/21.
- 31. **DRAWINGS**; Sheet No. OFFICE A8.0:
  - a. Add INTERIOR ELEVATION 9/A8.0 as shown on Addendum Drawing No. OFFICE A8.0A, dated 11/1/21.
  - b. Revise INTERIOR ELEVATION 1/A8.0 as shown on Addendum Drawing No. OFFICE A8.0B, dated 11/1/21.

- 32. <u>DRAWINGS</u>; Sheet No. OFFICE A9.0: Replace this sheet in its entirety. Note inclusion of soffits at corridor entries to Student Waiting 103 and Hall 123 and addition of Section 2/A9.0 and Detail 3/A9.0.
- 33. <u>DRAWINGS</u>; Sheet No. E1.0: Revise Electrical Power Plan and Electrical Plan Notes for addition of Crisis Room 130 power distribution as shown on Addendum Drawing OFFICE E1.0, dated 11/1/21.
- 34. **DRAWINGS**; Sheet No. OFFICE E2.0:
  - a. <u>ELECTRICAL PLAN NOTES</u>: By way of clarification, Notes 3 and 4 indicate connections to panels in Electrical Rooms EG135 and G134, respectively. These rooms are actually the same room. Electrical G134, which is the room with the main distribution panels for 'PHS WEST' which is approximately 300' west of Door 104.
  - b. Revise Electrical Lighting Plan for addition of Crisis Room 130 lighting distribution as shown on Addendum Drawing OFFICE E2.0, dated 11/1/21.
- 35. **DRAWINGS**; Sheet No. OFFICE E3.0: By way of clarification, the Fire Alarm Control Panel for this area is located in Boiler Room N105, approximately 230' west of door 101A.

#### **END OF ADDENDUM NO. 2**

All bidders must acknowledge receipt of this Addendum in their bid.

#### 16 46 10 - LOW-VOLTAGE TRANSFORMERS

#### A. RELATED DOCUMENTS

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

#### B. SUMMARY

- 1. This Section includes the following types of dry-type transformers rated 600 V and less, with capacities up to 1000 kVA:
  - a. Distribution transformers.

#### C. SUBMITTALS

- 1. Product Data: Include rated nameplate data, capacities, weights, dimensions, minimum clearances, installed devices and features, and performance for each type and size of transformer indicated.
- 2. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
  - a. Wiring Diagrams: Power wiring.
- Source quality-control test reports.
- 4. Field quality-control test reports.
- 5. Operation and Maintenance Data: For transformers to include in emergency, operation, and maintenance manuals.

#### D. **QUALITY ASSURANCE**

- 1. Source Limitations: Obtain each transformer type through one source from a single manufacturer.
- 2. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- 3. Comply with IEEE C57.12.91, "Test Code for Dry-Type Distribution and Power Transformers."

#### E. DELIVERY, STORAGE, AND HANDLING

1. Temporary Heating: Apply temporary heat according to manufacturer's written instructions within the enclosure of each ventilated-type unit, throughout periods during which equipment is not energized and when transformer is not in a space that is continuously under normal control of temperature and humidity.

#### F. <u>COORDINATION</u>

- Coordinate size and location of concrete bases with actual transformer provided. Cast anchorbolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified in Division 03.
- 2. Coordinate installation of wall-mounting and structure-hanging supports with actual transformer provided.

#### G. MANUFACTURERS

- 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Square D; Schneider Electric.
  - b. Eaton Electrical Inc.; Cutler-Hammer Products.
  - c. GE Industrial Systems; Total Lighting Control.
  - d. Siemens Energy and Automation, Inc.

#### H. GENERAL TRANSFORMER REQUIREMENTS

- 1. Description: Factory-assembled and -tested, air-cooled units for 60-Hz service.
- 2. Cores: Grain-oriented, non-aging silicon steel.
- 3. Coils: Continuous windings without splices except for taps.
  - a. Internal Coil Connections: Brazed or pressure type.
  - b. Coil Material: Aluminum.

#### I. <u>DISTRIBUTION TRANSFORMERS</u>

- 1. Comply with NEMA ST 20, and list and label as complying with UL 1561.
- 2. Provide transformers that are constructed to withstand seismic forces specified in Division 16 Section "Vibration and Seismic Controls for Electrical Systems."
- 3. Cores: One leg per phase.
- 4. Enclosure: Ventilated, NEMA 250, Type 2, refer to schedule on drawings.

- a. Core and coil shall be encapsulated within resin compound, sealing out moisture and air.
- 5. Enclosure: Totally enclosed, nonventilated, NEMA 250, Type 3R or Type 4X, stainless steel, refer to schedule on drawings.
  - a. Core and coil shall be encapsulated within resin compound, sealing out moisture and air.
- 6. Transformer Enclosure Finish: Comply with NEMA 250.
  - a. Finish Color: Gray.
- 7. Taps for Transformers Smaller Than 3 kVA: One 5 percent tap above normal full capacity.
- 8. Taps for Transformers 7.5 to 24 kVA: One 5 percent tap above and one 5 percent tap below normal full capacity.
- 9. Taps for Transformers 25 kVA and Larger: Two 2.5 percent taps above and four 2.5 percent taps below normal full capacity.
- 10. Insulation Class: 220 deg C, UL-component-recognized insulation system with a maximum of 80 deg C rise above 40 deg C ambient temperature.
- 11. Energy Efficiency for Transformers Rated 15 kVA and Larger:
  - a. Complying with NEMA TP 1, Class 1 efficiency levels.
  - b. Tested according to NEMA TP 2.
- 12. K-Factor Rating (when noted on drawing schedule): Transformers indicated to be K-factor rated shall comply with UL 1561 requirements for nonsinusoidal load current-handling capability to the degree defined by designated K-factor.
  - a. Unit shall not overheat when carrying full-load current with harmonic distortion corresponding to designated K-factor.
  - b. Indicate value of K-factor on transformer nameplate.
- 13. Electrostatic Shielding (when noted on drawing schedule): Each winding shall have an independent, single, full-width copper electrostatic shield arranged to minimize interwinding capacitance.
  - a. Arrange coil leads and terminal strips to minimize capacitive coupling between input and output terminals.
  - b. Include special terminal for grounding the shield.
  - c. Shield Effectiveness:
    - 1) Capacitance between Primary and Secondary Windings: Not to exceed 33 picofarads over a frequency range of 20 Hz to 1 MHz.
    - 2) Common-Mode Noise Attenuation: Minimum of minus 120 dBA at 0.5 to 1.5 kHz; minimum of minus 65 dBA at 1.5 to 100 kHz.
    - 3) Normal-Mode Noise Attenuation: Minimum of minus 52 dBA at 1.5 to 10 kHz.
- 14. Wall Brackets: Manufacturer's standard brackets.

- 15. Fungus Proofing: Permanent fungicidal treatment for coil and core.
- 16. Low-Sound-Level Requirements: Minimum of 3 dBA less than NEMA ST 20 standard sound levels when factory tested according to IEEE C57.12.91.
- 17. Low-Sound-Level Requirements: Maximum sound levels, when factory tested according to IEEE C57.12.91, as follows:
  - a. 9 kVA and Less:
  - b. 30 to 50 kVA:
  - c. 51 to 150 kVA:
  - d. 151 to 300 kVA:
  - e. 301 to 500 kVA:
  - f. 501 to 750 kVA:
  - g. 751 to 1000 kVA:

#### J. IDENTIFICATION DEVICES

 Nameplates: Engraved, laminated-plastic or metal nameplate for each distribution transformer, mounted with corrosion-resistant screws. Nameplates and label products are specified in Division 16 Section "Identification for Electrical Systems."

#### K. SOURCE QUALITY CONTROL

- 1. Test and inspect transformers according to IEEE C57.12.91.
- 2. Factory Sound-Level Tests: Conduct sound-level tests on equipment for this Project.

#### L. <u>EXAMINATION</u>

- 1. Examine conditions for compliance with enclosure- and ambient-temperature requirements for each transformer.
- 2. Verify that field measurements are as needed to maintain working clearances required by NFPA 70 and manufacturer's written instructions.
- 3. Examine walls, floors, roofs, and concrete bases for suitable mounting conditions where transformers will be installed.
- 4. Verify that ground connections are in place and requirements in Division 16 Section "Grounding and Bonding for Electrical Systems" have been met. Maximum ground resistance shall be 5 ohms at location of transformer.
- 5. Proceed with installation only after unsatisfactory conditions have been corrected.

#### M. INSTALLATION

- 1. Install wall-mounting transformers level and plumb with wall brackets fabricated by transformer manufacturer.
- Construct concrete bases and anchor floor-mounting transformers according to manufacturer's written instructions.

#### N. <u>CONNECTIONS</u>

- 1. Ground equipment according to Division 16 Section "Grounding and Bonding for Electrical Systems."
- Connect wiring according to Division 16 Section "Low-Voltage Electrical Power Conductors and Cables."

#### O. FIELD QUALITY CONTROL

- 1. Perform tests and inspections and prepare test reports.
- 2. Tests and Inspections:
  - a. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
- 3. Remove and replace units that do not pass tests or inspections and retest as specified above.
- 4. Test Labeling: On completion of satisfactory testing of each unit, attach a dated and signed "Satisfactory Test" label to tested component.

#### P. ADJUSTING

- Record transformer secondary voltage at each unit for at least 48 hours of typical occupancy period. Adjust transformer taps to provide optimum voltage conditions at secondary terminals. Optimum is defined as not exceeding nameplate voltage plus 10 percent and not being lower than nameplate voltage minus 3 percent at maximum load conditions. Submit recording and tap settings as test results.
- 2. Output Settings Report: Prepare a written report recording output voltages and tap settings.

#### Q. <u>CLEANING</u>

1. Vacuum dirt and debris; do not use compressed air to assist in cleaning.

END OF SECTION 16 46 10



PANEL: CRISIS

TYPE: P1 MOUNT: SURFACE

VOLTAGE: 208Y/120, 3ø, 4W

MCB: 60A AIC: 10K

**REMARKS:** 

CKT	BREAKER	LOAD DESCRIPTION	PHASE A	PHASE B	PHASE C	LOAD DESCRIPTION	BREAKER	CKT
NO.	SIZE		(KVA)	(KVA)	KVA)		SIZE	NO.
1	20A/1P	REC: TV	0.20					
			0.20			REC: TV	20A/1P	2
3	20A/1P	REC: TV		0.20		DEO: TV	004 45	,
5	20A/1P	REC: TV		0.20	0.20	REC: TV	20A/1P	4
]	2047	NLC. IV			0.20	REC: TV	20A/1P	6
7	20A/1P	REC: TV	0.20		0.20	NEO. 11	1 20/1/11	H
			0.20			REC: TV	20A/1P	8
9	20A/1P	REC: TV		0.20				
				0.40		REC: RM. 130	20A/1P	10
11	20A/1P	REC: RM. 130			0.40	DEO DIA 470	004 45	,,
13	20A/1P	REC: RM. 130	0.40		0.40	REC: RM. 130	20A/1P	12
13	20A/IF	REG. RM. 130	0.40			REC: RM. 130	20A/1P	14
15	20A/1P	LTS: RM. 130	0.10	0.15		1120. 11 100	20/1/11	$\vdash$
	, i						20A/1P	16
17	20A/1P							
							20A/1P	18
19	20A/1P						004 45	
21	20A/1P						20A/1P	20
21	, i						20A/1P	22
23	20A/1P							
							20A/1P	24







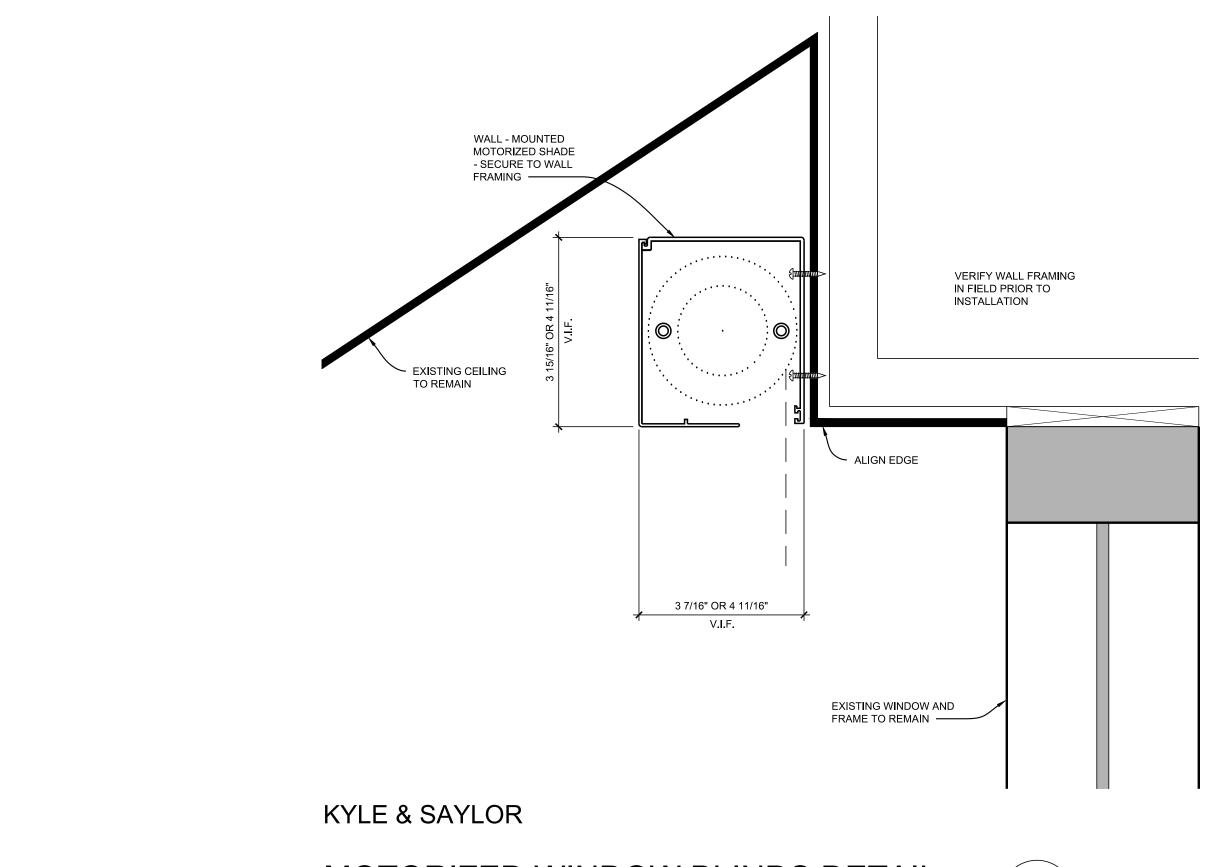
# ADDENDUM #2

PORTAGE TOWNSHIP SCHOOLS LEARNING LAB, MEDIA CENTERS, AND OFFICE PROJECT PORTAGE, INDIANA

11-01-21 DATE: 212562 PROJECT NO.: OFFICE E6.3 CAD NAME:

SHEET NO .:

OFFICE E6.3-11-01-21



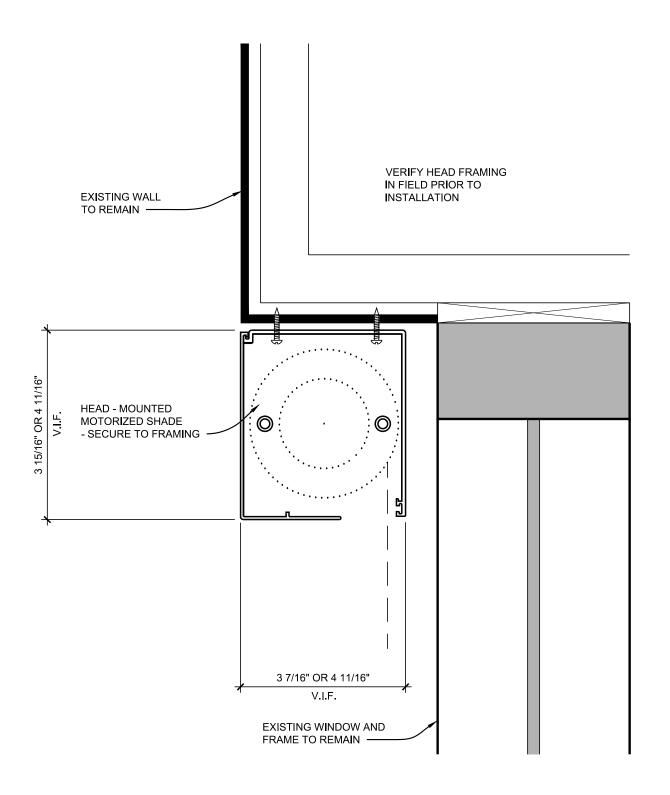
MOTORIZED WINDOW BLINDS DETAIL

NOT TO SCALE

WALL MOUNTED

0.0

ADDENDUM NO. 2	PORTAGE TOWNSHIP SCHOOLS LEARNING LAB, MEDIA CENTERS, OFFICE AND OFFICE PROJECT PORTAGE, INDIANA
	DATE 11/1/21 DRAWING SHT. 0.0
ADDENDUM DRAWING NO. MEDIA 0.0A	ALLIANCE ARCHITECTS 929 Lincolnway East, Suite 200   South Bend, Indiana 46601



AYLESWORTH, MYERS, CENTRAL, FEGELY, & JONES

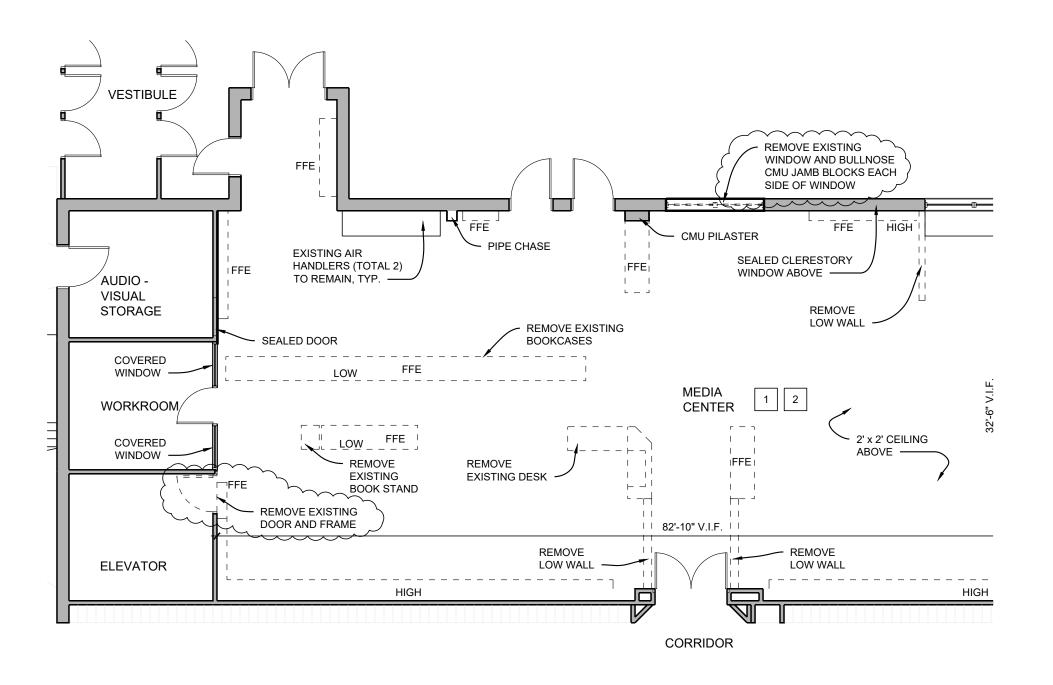
MOTORIZED WINDOW BLINDS DETAIL

NOT TO SCALE

HEAD MOUNTED

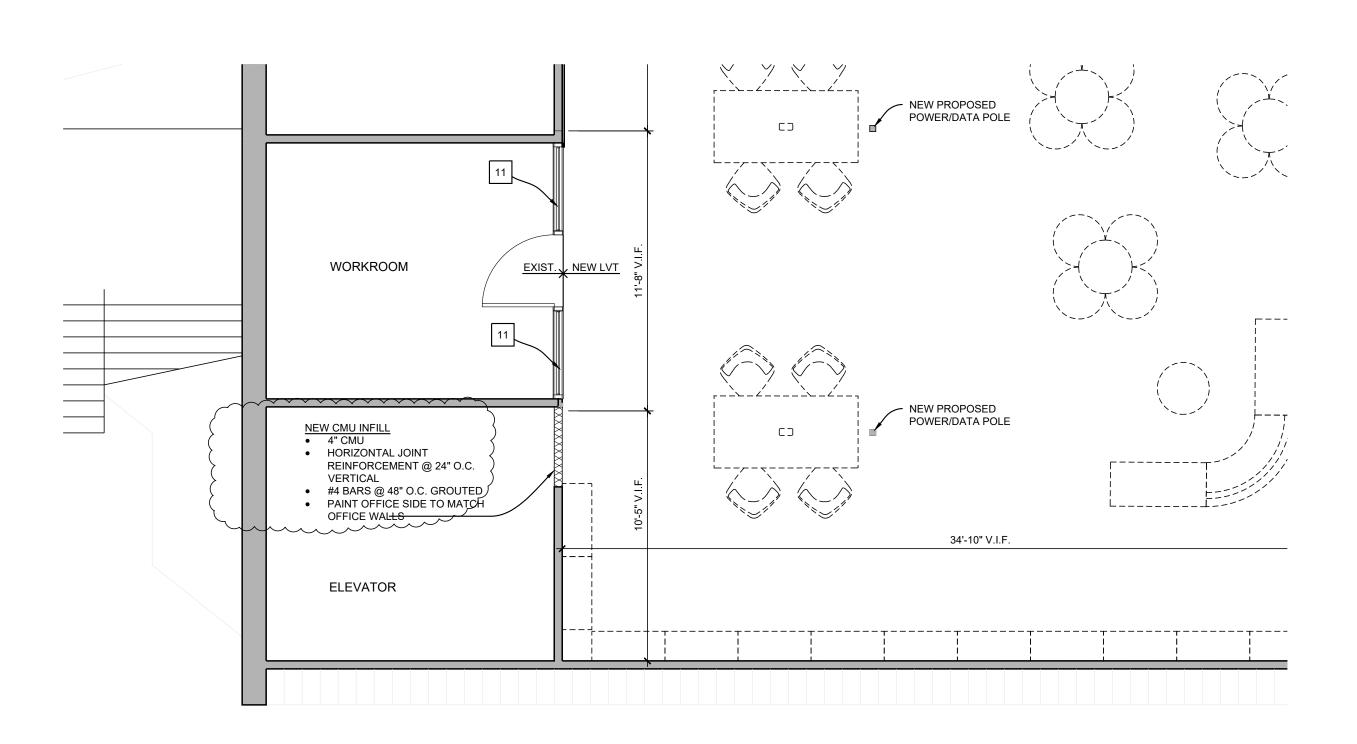
0.0

ADDENDUM NO. 2	PORTAGE TOWNSHIP SCHOOLS LEARNING LAB, MEDIA CENTERS, OFFICE AND OFFICE PROJECT PORTAGE, INDIANA
	DATE 11/1/21 DRAWING SHT. 0.0
ADDENDUM DRAWING NO. MEDIA 0.0B	ALLIANCE ARCHITECTS 929 Lincolnway East, Suite 200   South Bend, Indiana 46601



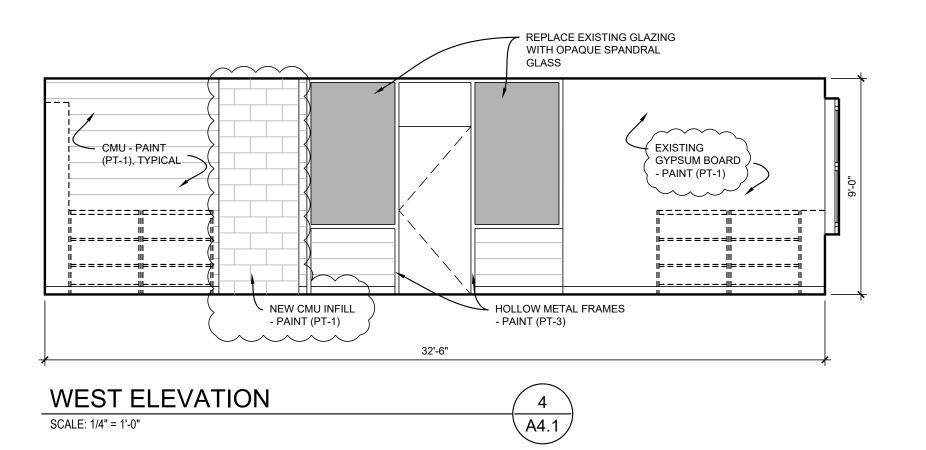


	)FFICE
ADDENDUM NO. 2	PORTAGE TOWNSHIP SCHOOLS LEARNING LAB, MEDIA CENTERS, OFFICE AND OFFICE PROJECT PORTAGE, INDIANA
	DATE 11/1/21 DRAWING SHT. 4.0
ADDENDUM DRAWING NO. MEDIA 4.0A	ALLIANCE ARCHITECTS 929 Lincolnway East, Suite 200   South Bend, Indiana 46601





	TERS, OFFICE
ADDENDUM NO. 2	PORTAGE TOWNSHIP SCHOOLS LEARNING LAB, MEDIA CENTERS, OFFICE AND OFFICE PROJECT PORTAGE, INDIANA
	DATE 11/1/21 DRAWING SHT. 4.0
ADDENDUM DRAWING NO. MEDIA 4.0B	ALLIANCE ARCHITECTS 929 Lincolnway East, Suite 200   South Bend, Indiana 46601



OFFICE

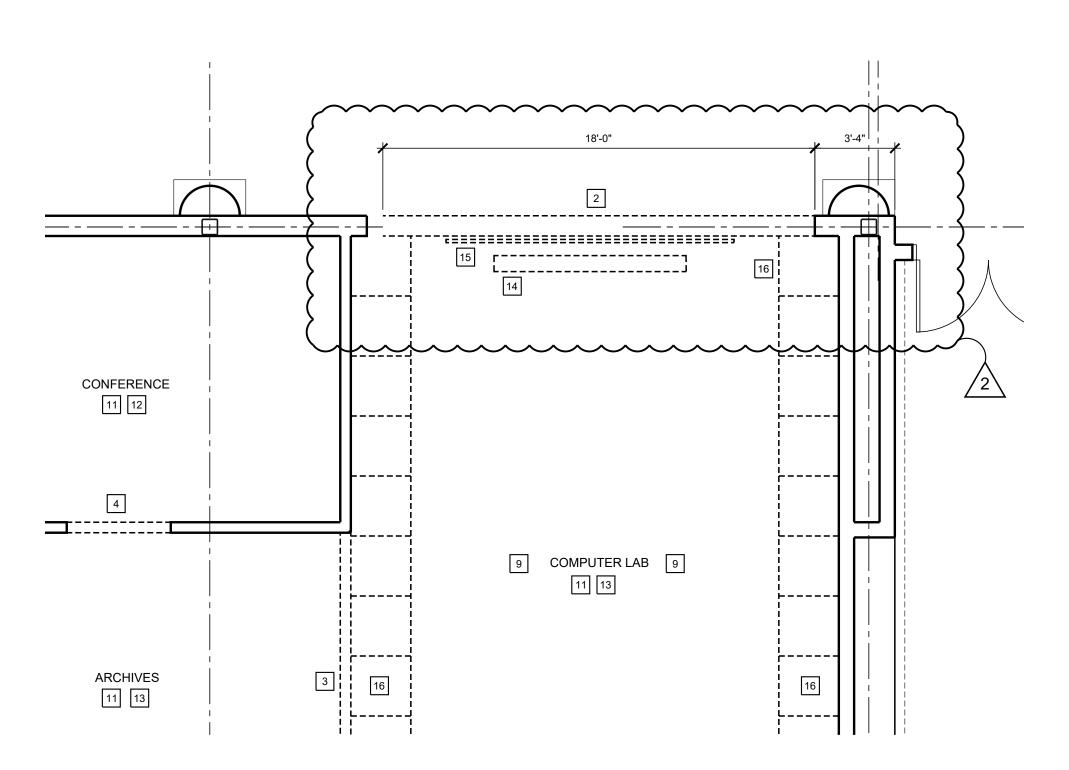
PORTAGE TOWNSHIP SCHOOLS LEARNING LAB, MEDIA CENTERS, AND OFFICE PROJECT PORTAGE, INDIANA

DRAWING SHT.

DATE 11/1/21

ADDENDUM NO. 2

ADDENDUM DRAWING NO. MEDIA 4.1A

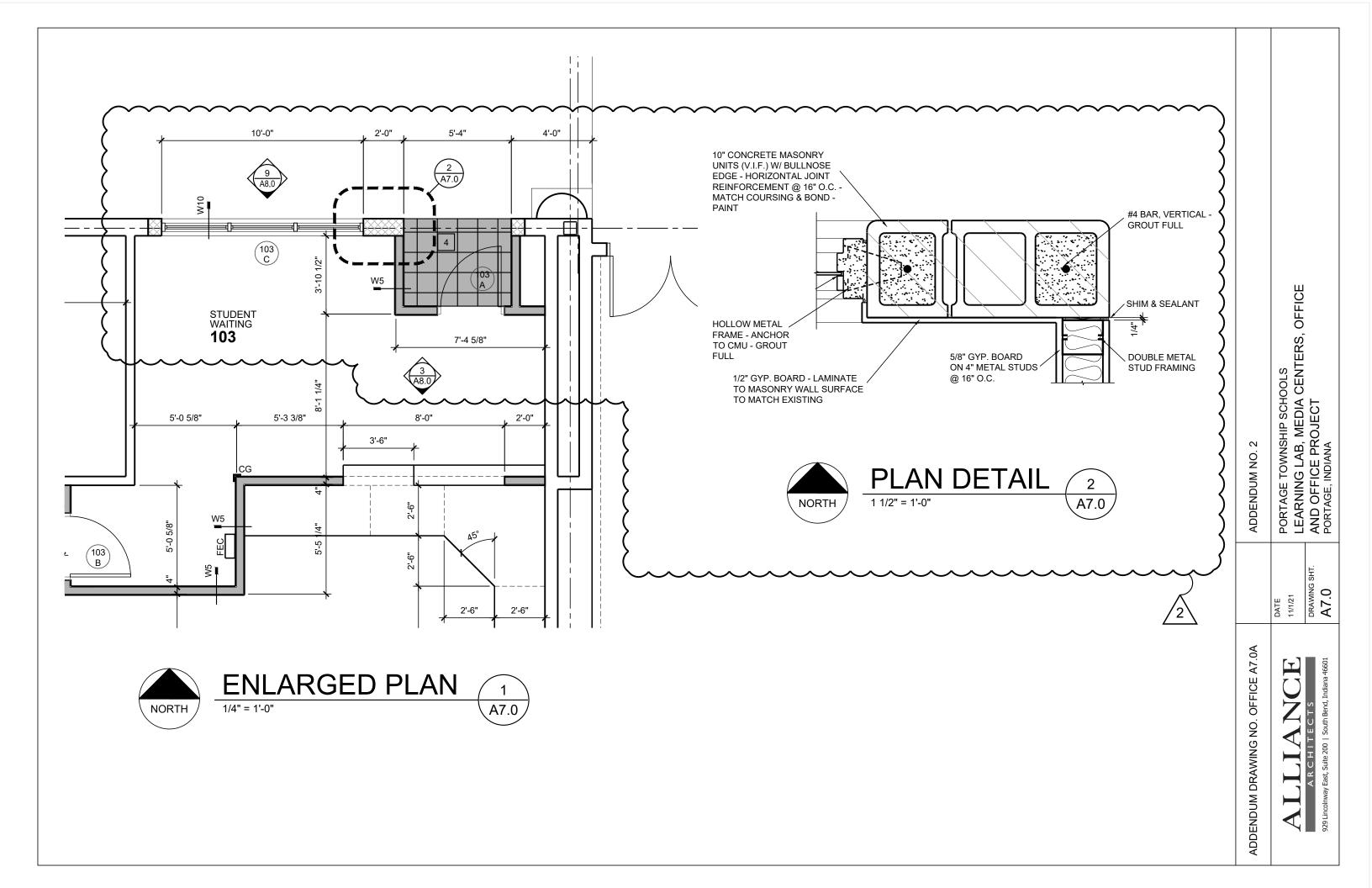


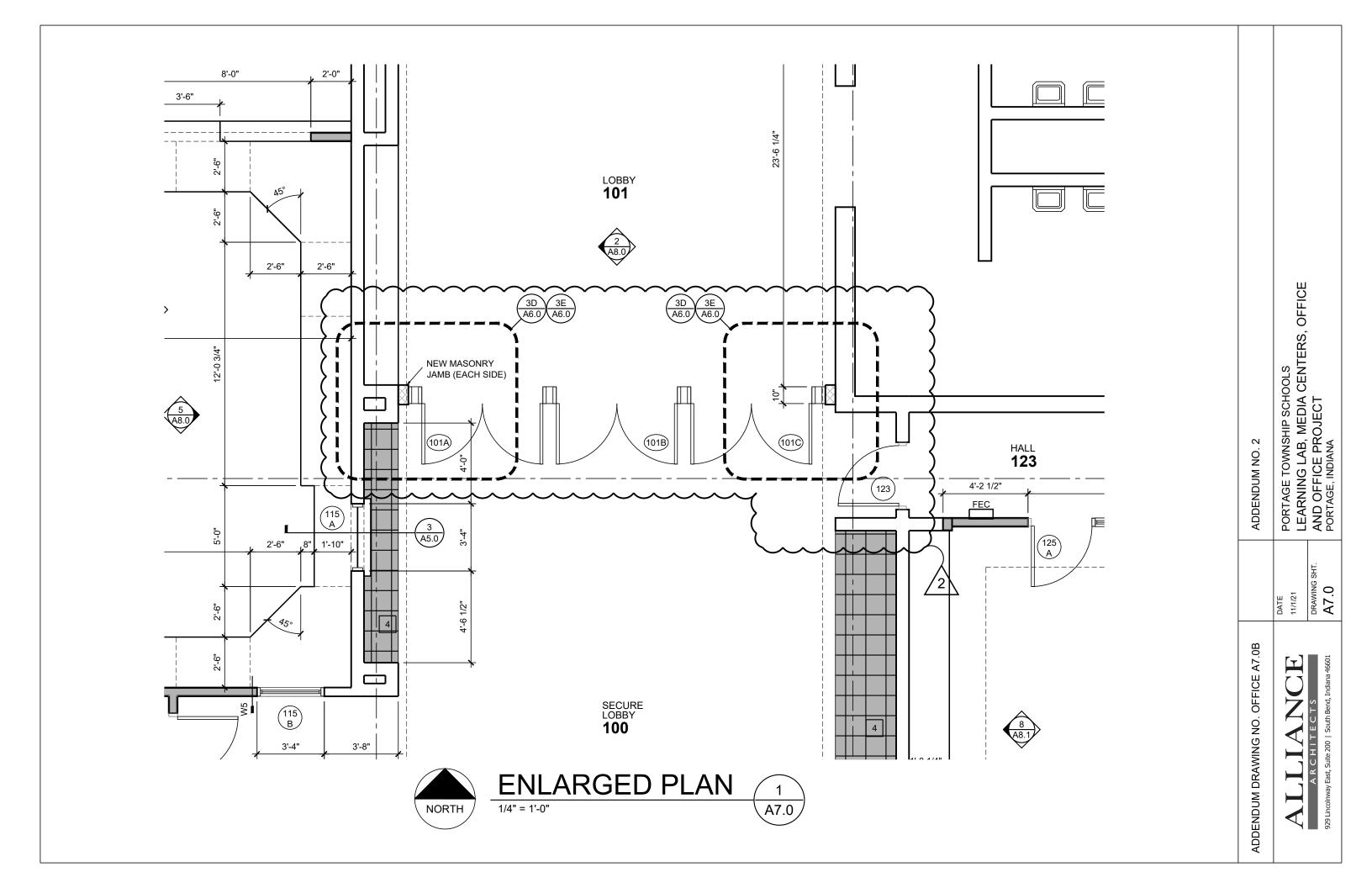


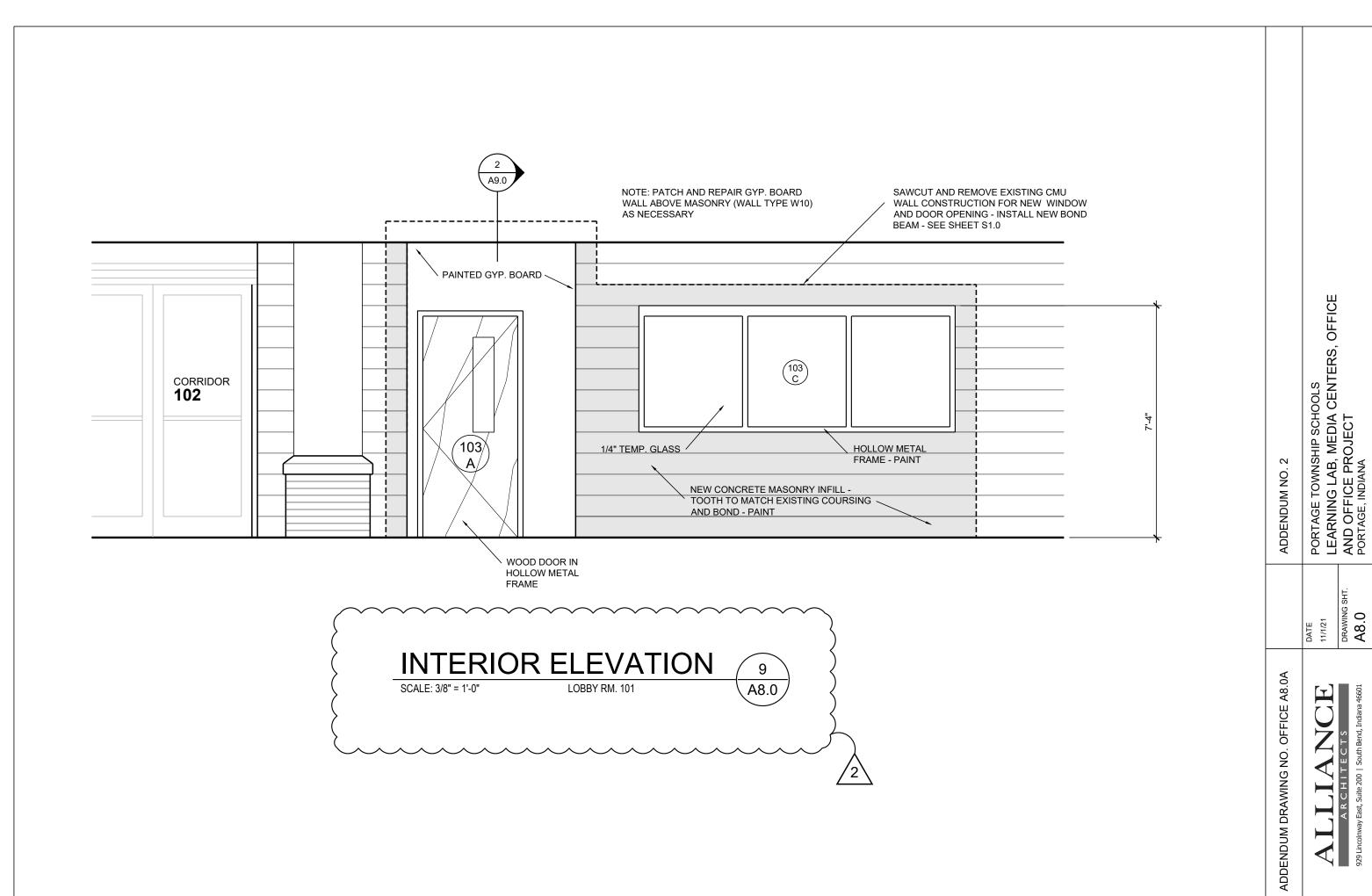
**DEMOLITION PLAN** 

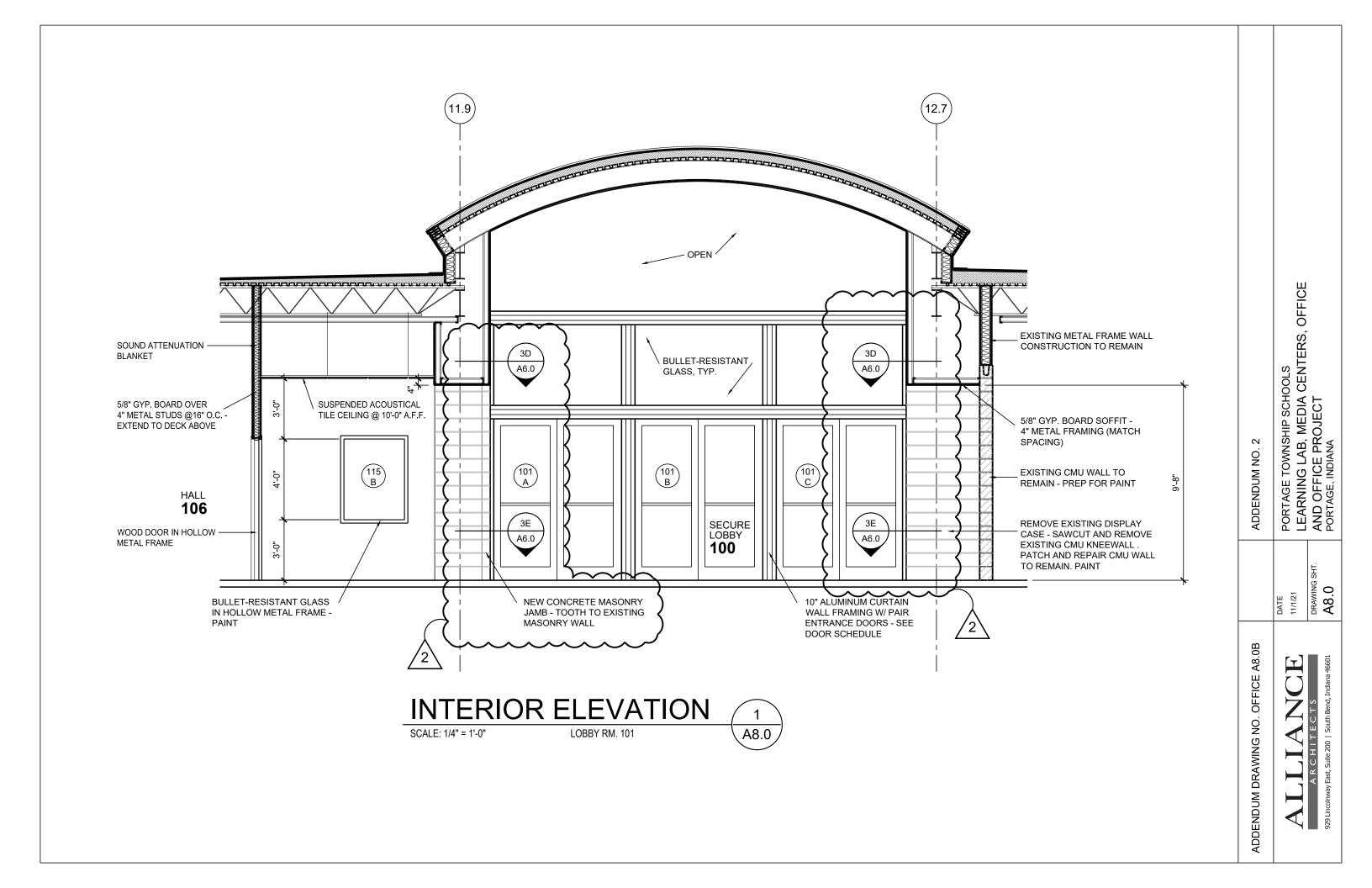
SCALE: 1/4" = 1'-0"

PORTAGE TOWNSHIP SCHOOLS LEARNING LAB, MEDIA CENTERS, OFFICE AND OFFICE PROJECT PORTAGE, INDIANA ADDENDUM NO. 2 DATE 11/1/21 ADDENDUN DRAWING NO. OFFICE D1.0A



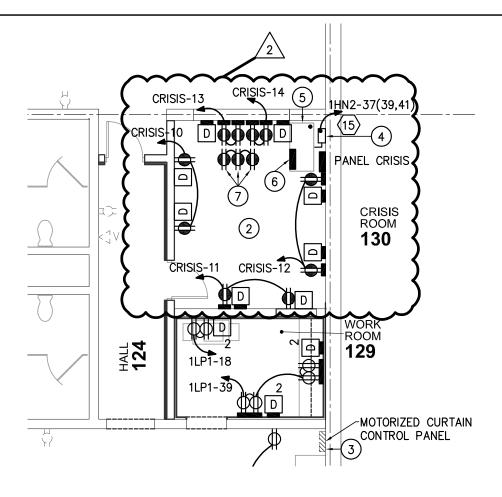






# **ELECTRICAL PLAN NOTES**

- (1) TERMINATE TO EXISTING ROOM POWER CIRCUIT AS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM.
- 2 CONTRACTOR TO COORDINATE ALL EQUIPMENT FINAL LOCATIONS IN CRISIS ROOM-130 WITH CONSTRUCTION MANAGER/OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION FOR A COMPLETE AND FUNCTIONAL SYSTEM.
- MOTORIZED EQUIPMENT CONTROLS PROPOSED LOCATION. CONTRACTOR TO INTERCEPT AND EXTEND EXISTING MOTORIZED CONTROLS TO THE PROPOSED PANEL LOCATION FOR A COMPLETE AND FUNCTIONAL SYSTEM. COORDINATE WITH GENERAL CONTRACTOR AND OWNER REPRESENTATIVE FOR FINAL PANEL LOCATION PRIOR TO RELOCATION /INSTALLATION.
- 4) 60A, 208V, 3-PHASE, DISCONNECT FOR UPS APC SYMMETRA 8KVA RACK MOUNTED UPS SCALABLE TO 8KVA N+1. SEE CRISIS ROOM ONE LINE DIAGRAM ON SHEET E6.2.
- (5) NETSHELTER SV 48U RACK.
- (6) APC SYMETRA LX 8KVA SCALABLE TO 8KVA N+1 RACK MOUNT UPS.
- 9 WALL MOUNTED DUPLEX RECEPTACLE BEHIND VIDEO RACK IN A 3X3 CONFIGURATION. REFER TO ARCHITECTURAL DRAWINGS AND COORDINATE WITH CONSTRUCTION MANAGER PRIOR TO INSTALLATION. A DEDICATED CIRCUIT FOR EVERY DUPLEX RECEPTACLE. CRISIS PANEL CIRCUITS 1 THROUGH 9, REFER TO PANEL SCHEDULE.
- 8) PROVIDE TWO DATA DROPS.







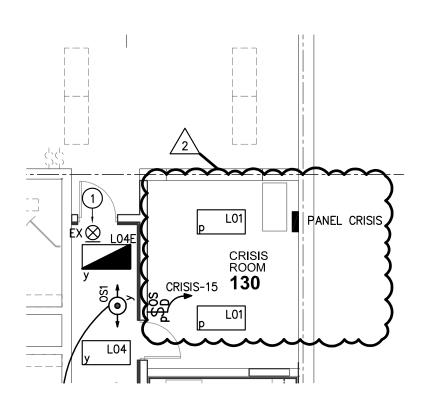
# ADDENDUM #2

PORTAGE TOWNSHIP SCHOOLS LEARNING LAB, MEDIA CENTERS, AND OFFICE PROJECT PORTAGE, INDIANA DATE: 11-01-21
PROJECT NO.: 212562
CAD NAME: OFFICE E1.0

2

CAD NAME: SHEET NO.:

OFFICE E1.0-11-01-21







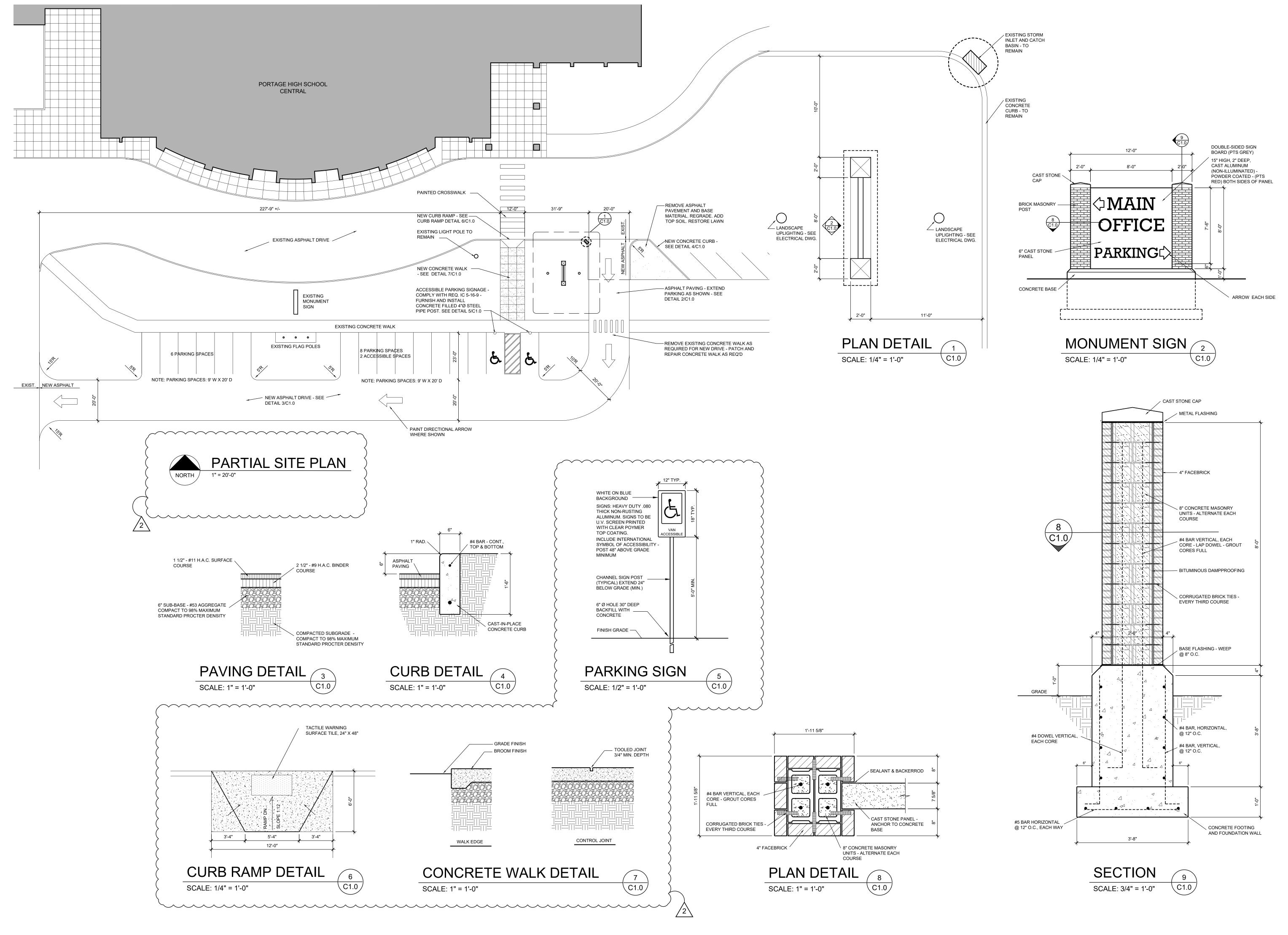


# ADDENDUM #2

PORTAGE TOWNSHIP SCHOOLS LEARNING LAB, MEDIA CENTERS, AND OFFICE PROJECT PORTAGE, INDIANA DATE: 11-01-21
PROJECT NO.: 212562
CAD NAME: OFFICE E2.0

SHEET NO.:

OFFICE E2.0-11-01-21



LILANCE
ARCHITECTS

colnway East, Suite 200 | South Bend, Indiana 46601

SCO ENGINEERING LLC
SOLUTIONS PROVIDED • PROBLEMS SOL VED
6554 Conflittution Dr.
(280) 439-6581 fax
Fort flayne, indiana 46904

NO.
10300040
STATE OF

PORTAGE TOWNSHIP SCHOOLS
LEARNING LAB, MEDIA CENTERS,
AND OFFICE PROJECT
PORTAGE, INDIANA



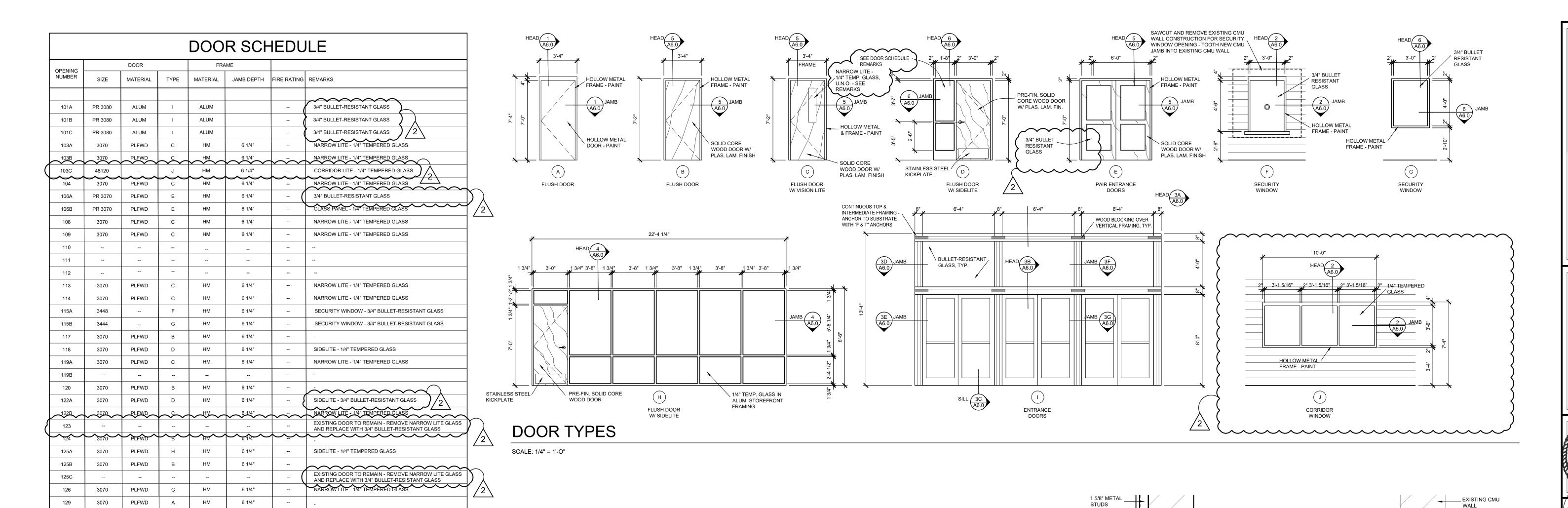
DATE:
10/21/2021

2 11/1/21

© 2021
ALLIANCE ARCHITECTS
ALL RIGHTS RESERVED

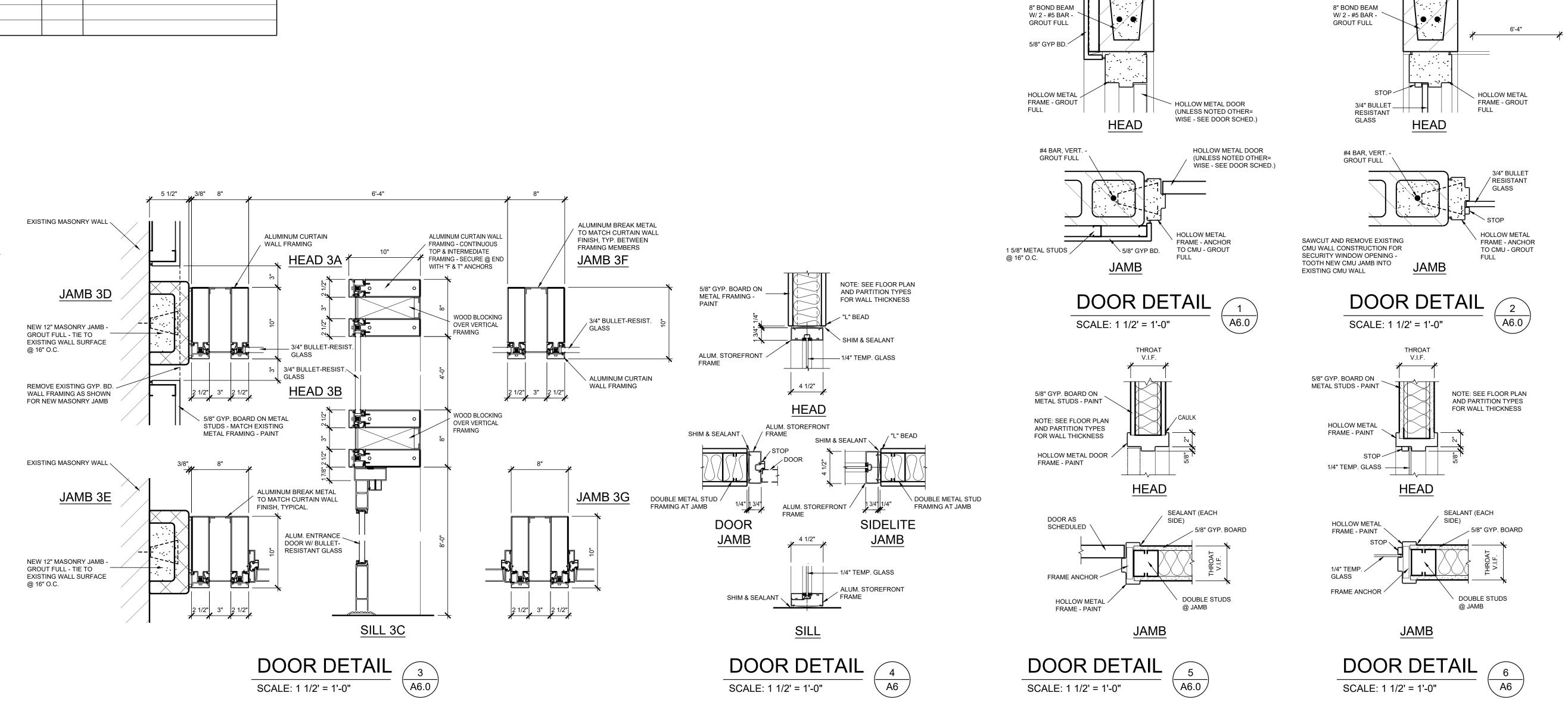
OFFICE
SHEET NO.

C1.0



# DOOR & WDW. NOTES

- 1. DOOR SIZES ARE INDICATED THUS: 21070(2'-10"W. x 7'-0"H). PR INDICATES PAIR OF DOORS. DOOR AND FRAME SIZES SHOWN ARE NOMINAL. APPROVED SHOP DRAWINGS MUST BE DISTRIBUTED BETWEEN TRADES TO COORDINATE AND VERIFY ACTUAL DOOR AND FRAME SIZES.
- DOOR THICKNESS SHALL BE 1 3/4" INCH (UNLESS NOTED OTHERWISE).
- 3. HM INDICATES HOLLOW METAL DOOR OR FRAME. REFER TO SPECIFICATION SECTION 08 12 00. PAINT ALL HM DOORS & FRAMES. GROUT ALL HM FRAMES WHICH ARE INSTALLED IN MASONRY WALLS.
- 4. SCWD INDICATES SOLID CORE WOOD DOOR. REFER TO SPECIFICATION SECTION 08 14 16.
- 5. PLFWD INDICATES PLASTIC LAMINATE FACED WOOD DOOR. REFER TO SPECIFICATION SECTION 08 14 23.
- 6. ALUM. INDICATES ALUMINUM STILE AND RAIL DOOR OR STOREFRONT FRAME. REFER TO SPECIFICATION SECTION 08 41 13.
- 7. OVHD INDICATES ALUMINUM SECTIONAL OVERHEAD DOOR. REFER TO SPECIFICATION SECTION 08 36 13.
- HARDWARE SETS ARE SPECIFIED UNDER SECTION 08 71 00.
- 9. TYPE AND THICKNESS OF GLAZING SHALL BE AS SPECIFIED IN SECTION 08 81 00.
- 10. UL FRAME ANCHORS ARE REQUIRED FOR ALL LABELED OPENINGS.
- 11. FOR PAIRS OF INTERIOR DOORS: STRICTLY MAINTAIN MAXIMUM 1/8 INCH SPACE BETWEEN MEETING EDGES OF DOORS.
- 12. CLOSERS SHALL BE THE LAST HARDWARE ITEMS INSTALLED. CONTRACTOR SHALL VERIFY MAXIMUM DEGREE OF DOOR SWING THAT FIELD CONDITIONS WILL ALLOW AND INSTALL CLOSERS ACCORDINGLY, REGARDLESS OF SWING SHOWN ON DRAWINGS.
- 13. ALL DIMENSIONS INDICATED ARE NOMINAL. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
- 14. REFER TO FLOOR PLANS FOR DIRECTION OF DOOR SWINGS.
- 15. AT EXISTING DOOR FRAMES SCHEDULED TO REMAIN, SAND FRAME SMOOTH, REPAIR DENTS, CHIPS, ETC., PRIOR TO PRIMING AND
- 16. VERIFY EXISTING DOOR AND/OR FRAME SIZE.



@ 16" O.C.

DATE:

10/21/2021

2 11/1/21

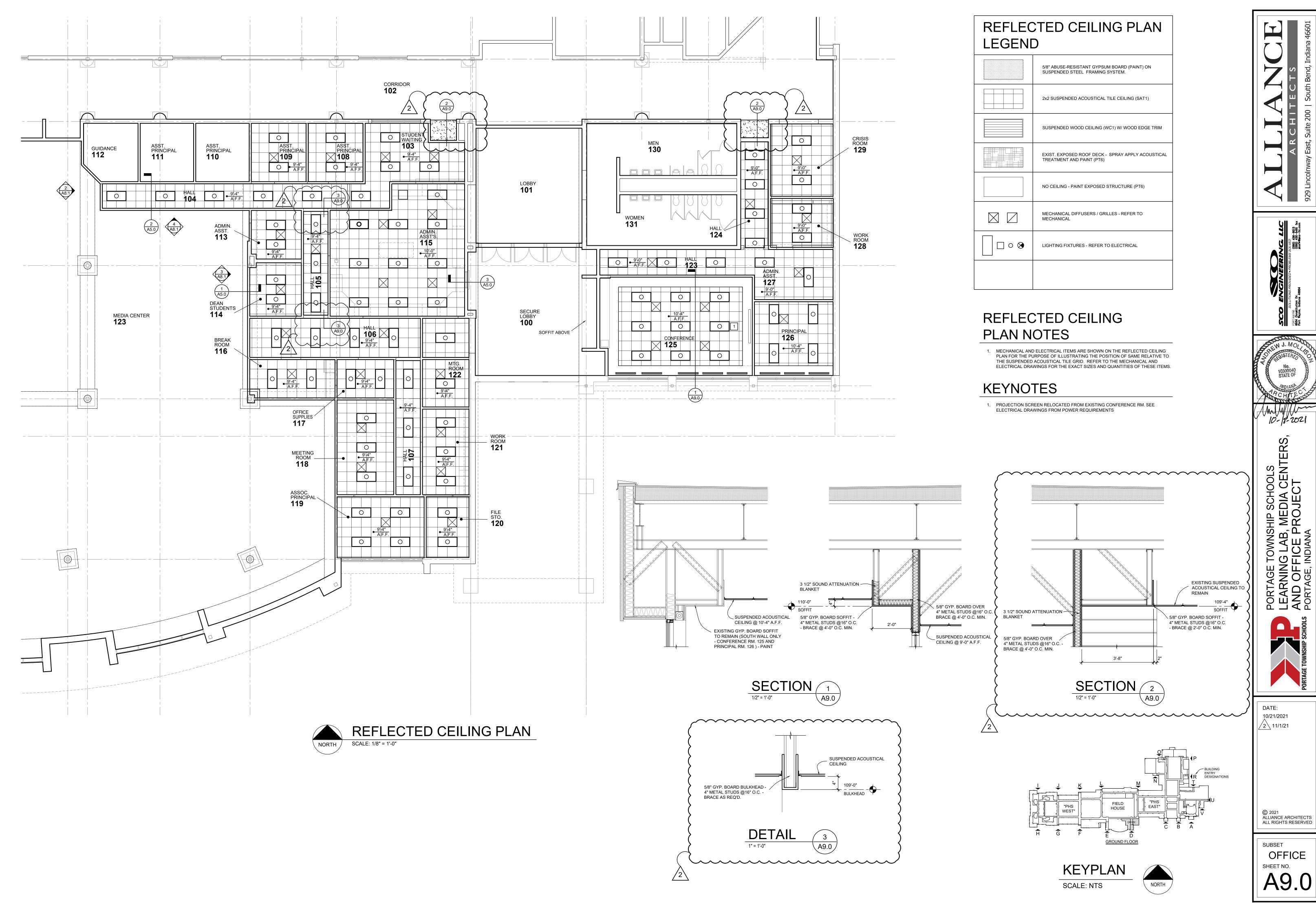
© 2021 ALLIANCE ARCHITECTS

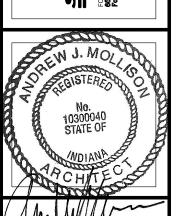
ALL RIGHTS RESERVED

OFFICE

SUBSET

SHEET NO.







OFFICE