ADDENDUM NO. 02

January 31, 2022

Perry Township Academic Center 2115 E. Southport Road Indianapolis, IN, 46227

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 January 5, 2022, by Schmidt Associates. 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 Pages ADD 2-1 through ADD 2-3, and attached Schmidt Associates Addendum No. 2, dated January 31, 2022, consisting of 3 pages, RFI Questions and Answers consisting of 2 pages, Preliminary Submittal Data for Vertical Unit Ventilators consisting of 19 pages, and Drawing Sheets: CL501, AF101, A-600, M1B1, M611, PS101, EP1B1, EP1C1, E612 and E613:

BID OPENING

The Bid Opening on Thursday, February 3, 2022, at 2:00 PM (local time) <u>will be a virtual Microsoft</u> <u>Teams Meeting only (no in-person attendance)</u>. Sealed bids are to be delivered/sent to the address indicated in the Notice to Bidders.

Bid Opening Teams Meeting

Join on your computer or mobile app

Click here to join the meeting

Or call in (audio only)

+1 317-762-3960,926325203# United States, Indianapolis

Phone Conference ID: 926 325 203#

Find a local number | Reset PIN

A. SPECIFICATION SECTION 01 12 00 MULTIPLE CONTRACT SUMMARY

1. Paragraph 3.03A Bid Categories

A. <u>Bid Category No. 1- General Trades</u>

1. Delete the following specification section:

Section 01 51 60 Temporary Sanitary Facilities

2. Replace the following clarifications:

- 6. Owner shall designate existing toilet rooms for use by all contractors. Bid Category No. 1 Contractor shall maintain paper goods and soap stock within these existing toilet rooms and clean same at the end of each workday. This Contractor shall ensure that their field personnel and their subcontractor's personnel treat these existing facilities with respect. Any repairs required due to damage during the construction period will be split amongst the four (4) Bid Categories at the Construction Manager's discretion. Sinks in these toilet rooms shall <u>not</u> be used for the cleaning of tools, buckets, brushes, sponges, etc., use the mop sinks located in Janitor's Closets.
- 18. Provide temporary partitions, including secured doors into each space, as indicated on PP-001 Phasing Plan. Include an allowance of \$5,000 for additional interior temporary partitions and floor protection.

3. Add the following clarifications:

- 28. Include a separate \$38,000 allowance for brick/maintenance repairs within your Base Bid.
- 29. The main electrical room panels shall be replaced by Bid Category No. 3 Contractor during Spring Break 2022 (03/28/22 04/10/22).

B. <u>Bid Category No. 2- Mechanical/Plumbing/Fire Protection</u>

1. Add the following clarifications:

- 7. The main electrical room panels shall be replaced by Bid Category No. 3 Contractor during Spring Break 2022 (03/28/22 04/10/22).
- 8. Owner shall designate existing toilet rooms for use by all contractors. Bid Category No. 1 Contractor shall maintain paper goods and soap stock within these existing toilet rooms and clean same at the end of each workday. This Contractor shall ensure that their field personnel and their subcontractor's personnel treat these existing facilities with respect. Any repairs required due to damage during the construction period will be split amongst the four (4) Bid Categories at the Construction Manager's discretion. Sinks in these toilet rooms shall <u>not</u> be used for the cleaning of tools, buckets, brushes, sponges, etc., use the mop sinks located in Janitor's Closets.

C. <u>Bid Category No. 3- Electrical/Technology</u>

1. Add the following clarifications:

- 5. The main electrical room panels shall be replaced by Bid Category No. 3 Contractor during Spring Break 2022 (03/28/22 04/10/22). Provide temporary electric distribution, as required, to maintain the operations of all contractors affected by this outage.
- 6. Owner shall designate existing toilet rooms for use by all contractors. Bid Category No. 1 Contractor shall maintain paper goods and soap stock within these existing toilet rooms and clean same at the end of each workday. This Contractor shall ensure that their field personnel and their subcontractor's personnel treat these existing facilities with respect. Any repairs required due to damage during the construction period will be split amongst the four (4) Bid Categories at the Construction Manager's discretion. Sinks in these toilet rooms shall <u>not</u> be used for the cleaning of tools, buckets, brushes, sponges, etc., use the mop sinks located in Janitor's Closets.

D. Bid Category No. 4- Food Service

1. Add the following clarifications:

2. Owner shall designate existing toilet rooms for use by all contractors. Bid Category No. 1 Contractor shall maintain paper goods and soap stock within these existing toilet rooms and clean same at the end of each workday. This Contractor shall ensure that their field personnel and their subcontractor's personnel treat these existing facilities with respect. Any repairs required due to damage during the construction period will be split amongst the four (4) Bid Categories at the Construction Manager's discretion. Sinks in these toilet rooms shall <u>not</u> be used for the cleaning of tools, buckets, brushes, sponges, etc., use the mop sinks located in Janitor's Closets.

ADDENDUM NO. 2 JANUARY 31, 2022

PREPARED BY SCHMIDT ASSOCIATES FOR:

PERRY ACADEMIC CENTER JWR RENOVATION AND IMPROVEMENTS PERRY TOWNSHIP SCHOOLS

This Addendum consists of 3 Addendum pages and 31 attachment pages totaling 34 pages.

Acknowledge receipt of this Addendum by inserting its number on the Bid Form. Failure to do so may subject the Bid to disqualification. This Addendum is part of the Contract Documents.

Bidder is encouraged to verify with reprographer of record all Addenda issued (do not rely exclusively on third party plan room services).

PART 1 - CHANGES TO PRIOR ADDENDA (NOT APPLICABLE)

PART 2 - CHANGES TO THE PROJECT MANUAL

Modifications described herein shall be incorporated in the Project Manual. All other Work shall remain unchanged.

2.1 DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING(HVAC)

A. Section 235416 "GAS FIRED CONDENSING FURNACES"

1. ADD Paragraph 2.2.C. as follows:

"Honeywell thermostats shall be wi-fi enabled for remote monitoring by Owner via the internet. Provide all hardware and components to connect thermostats to the Owner's WiFi."

B. Section 238224 "VERTICAL UNIT VENTILATORS"

1. ADD Preliminary Submittal Data for Contractor reference to show general intent per the attached.

PART 3 - CHANGES TO THE DRAWINGS

Modifications described herein shall be incorporated in the Drawings. All other Work shall remain unchanged.

ADDENDUM NO. 2

3.1 DRAWING SHEETS: ADDITIONS, DELETIONS AND REPLACEMENTS

DRAWING NO.	INDICATE ACTION: REPLACE (R), ADD (A), DELETE (D)		
C-SERIES DRAWINGS			
CL501	DELETE AND REPLACE		
A-SERIES DRAWINGS			
AF101	DELETE AND REPLACE		
A-600	DELETE AND REPLACE		
M-SERIES DRAWINGS			
M1B1	DELETE AND REPLACE		
M611	DELETE AND REPLACE		
P-SERIES DRAWINGS			
PS101	DELETE AND REPLACE		
E-SERIES DRAWINGS			
EP1B1	DELETE AND REPLACE		
EP1C1	DELETE AND REPLACE		
E612	DELETE AND REPLACE		
E613	DELETE AND REPLACE		

3.2 **A-SERIES DRAWINGS**

A. Drawing Number AD1B1

1. DELETE Note 12 from Office 171.

B. Drawing Number AF1A1

1. ADD Note 22 to the two exterior doors on the west side of Unit A.

C. Drawing Number AF1B1

1. ADD Note 22 to the exterior door of Teacher Training 147.

D. Drawing Number AC1A1

1. ADD Note 16 to Corridor 102, Kitchenette 103, Corridor 104, Corridor 114, Corridor 116 and Corridor 124 as follows:

"16. REFER TO MEP-SERIES DRAWINGS FOR NEW WORK. ALL EXPOSED DUCTWORK, CONDUIT, PIPING, ETC. IS TO BE PAINTED - TYP. OF ALL SPACES."

E. Drawing Number A-400

1. MODIFY Detail 2D to remove the reference to 07 17 00 -WATERPROOFING, BENTONITE.

3.3 **I-SERIES DRAWINGS**

A. Drawing Number I-201

2 ADDENDUM NO. 2

1. MODIFY Note on detail 4D to remove reference to alternate. Acoustic Wall Panels are to be included in the Base Bid.

3.4 E-SERIES DRAWINGS

A. Drawing Number E611

1. ADD Note to Interior and Exterior Lighting Fixture Schedules as follows:

"Approved Equal Manufacturers:

- i. Type F03-12 = Delviro Energy DTL-RECTR4.5 series
- ii. Type F50 = H.E. Williams 6CR-TL series
- iii. Type FH = Acclaim Lighting LN series
- iv.Type FN = MaxLite WP-AD series"

END OF ADDENDUM 2

AVAILABLE PROJECT INFORMATION

The following Contractors' Questions and Answers sheet is being made available to Bidders for informational purposes only and is not a part of the Addendum.

ADDENDUM NO. 2

Perry Township Schools
Perry Academic Center JWR Renovation and Improvements
2021-064.PAC

CONTRACTOR'S QUESTIONS AND ANSWERS – ADDENDUM #2

- 1. Q: Door schedule page A-600 Quite a bit of information for the frames are missing Material, Marks.
 - A: See Addendum #2
- 2. Q: On sheet AD1B1, the existing carpet at Office 171 is scheduled to be removed. On sheet IN1B1, no new interior work is scheduled at Office 171. Please confirm removal and/or replacement of the flooring at Office 171.
 - A: See Addendum #2.
- 3. Q: On sheet AD1B1, the existing carpet at Student Waiting 166 and 167 is scheduled to be removed. On sheet IN1B1, no new interior work is scheduled Student Waiting 166 and 167 at Unit B. A: New flooring finish is indicated for 166 and 167 on IN1B1.
- 4. Q: Elevation 4D on I-201 calls out for an alternate to provide AWP-2 panels at Cafeteria 160 West wall. Please specify what material AWP-2 is.
 - A: See Addendum #2.
- 5. Q: Reference the bentonite waterproofing note at Sect. 2C/A-400. Is bentonite waterproofing required at all sides and bottom of the elevator pit? Do you have a specification section? If required, we assume by Bid Category #1.

 A: See Addendum #2.
- 6. Q: In unit A on print TD1A2 it shows existing speakers and floor boxes with data cables to remain. I just wanted to clarify to be certain because that ends up being around 14 speakers and 130 data cables. Are the speakers and data cabling associated with print T1A2 all existing to remain? If so the Telecomm side will have no work on this print.
 - A: That is correct. The speakers and data cabling in Unit A are existing to remain. There is currently no telecom work in Unit A.
- 7. Q: Reference details 1A and 1B/CL501. May fiber mesh be used in lieu of welded wire mesh for the standard concrete pavements (1A/CL501), similar to the heavy-duty concrete pavement (1B/CL501)? A: See Addendum #2.
- 8. Q: At Entry 101, the existing ceramic tile is scheduled to be removed in accordance with Note 15 on sheet AD1A1. Walk-off carpet is scheduled to be installed in accordance with sheet IN1A1. Is it known if the existing tile is "thick-set" or "thin-set"? Would it be acceptable to leave the tile in place and apply latex or a similar floor preparation material over the tile, installed as approved by the manufacturer, and install the walk-off carpet over the tile?

- A: The setting bed of the existing tile is not known. Due to the elevation difference between the lobby floor and the adjacent floors, the tile should be removed as indicated on the drawings.
- 9. Q: Reference Plan Note 22 at the north entrance at Corridor 165A. This dimensional letter is not depicted on the Overall Floor Plan, sheet AF101. We interpret that this entrance is number "11". Note that there are three existing entrances at the west side of Units A and B that do not depict any entrance numbers. The overhead doors at Unit C have no entrance numbers. Please confirm that this is the designers intent.
 - A: See Addendum #2.
- 10. Q: Per our meeting on site, there are several existing doors and frames that get removed and replaced with a more commercial grade door and frame (i.e. 106, 106A, 107 and 108). There is no material designation for these openings on the Door & Frame Schedule on sheet A-600. Please confirm. Are "knock-down" hollow metal frames acceptable for existing openings? Please confirm. A: See Addendum #2 for frames. See Section 08 11 13 Paragraph 2.2.B.3.C for interior door frame construction.
- 11. Q: If it is the intent to remove the existing door frames, the word "existing" should be removed from the "material" column under "frames". The Door & Frame Schedule Note 1 doesn't always correspond with the word "existing" and is creating confusion for suppliers. The appropriate frame material should be noted for all openings on the schedule. A new frame elevation may need to be added for openings in masonry to work coursing. Are "knock-down" frames acceptable in existing openings? Opening 193.1 is an exterior opening. A wood door is scheduled for this opening. This should be changed to hollow metal.
 - A: See Addendum #2. See Section 08 11 13 Paragraph 2.2.B.3.C for interior door frame construction.
- 12. Q: Print T1A1 shows the main entry getting an AI phone with door release. I don't see anything calling for a card reader or composite cable to the door.
 - 1.) Will this door be new or retrofit?
 - 2.) What type of cable needs ran for the door? A composite cable for complete card access or a control cable to release the lock?
 - 3.) Who is responsible for the rough in?
 - A: This is an existing door and hardware with and existing Aiphone and card reader. The intent is to replace the existing Aiphone in the same location as the existing and tie it in to the existing door controls.





LETTER OF TRANSMITTAL

Consulting Engineers

PRELIMINARY VUV SUBMITTAL. COORDINATE WITH VENDOR.

732 NORTH CAPITOL AVENUE **INDIANAPOLIS, IN 46204**

t .					-	
TO: Skillman C	Corporation		DATE : 1/26	6/2022	D&A#: 21072	
3834 S. E	merson Ave		RE: Perry Township Academic Center			
Indianapo	olis, IN 46203					
ATTN: Kevin G	ujral					
WE ARE SENDIN	IG THE FOLLOW	VING:				
☐ ATTACH	ΞD	☐ PLANS	☐ PRIN	ITS	☐ LETTER	
☐ SPECIFIC	CATIONS		☐ CHA	NGE ORDER	☐ OTHER	
VIA:						
☐ UPS		⊠ MAIL/E-MAIL	☐ DELI	VERED	☐ PICKED UP	
QUANTITY	DATE		DES	CRIPTION		
1	1/12/2022	VUV Pre Purchase				
THESE ARE TRA	NSMITTED AS	CHECKED BELOW:				
☐ FOR APP	ROVAL	☐ FOR YOUR USE		REVIEW	ED AS SUBMITTED	
☐ AS REQU	JESTED	☐ FOR REVIEW & CO	COMMENT REVIEWED AS NOTED			
☐ FOR BIDS	S DUE:	☐ RETURN PRINTS		☐ RETURN	ED FOR CORRECTIONS	
				☐ REJECT	ED/RESUBMIT	
REMARKS:						
CC: 1-D&A Files			SIGNEI	D: Paul Gloyeske		

PROPOSAL FORM

Perry Academic Center VUV Pre-Purchase Perry Township Schools January 4, 2022

Base Proposal:

\$58,950.00

The undersigned agrees to perform the services set forth in this proposal. The undersigned also covenants that he/she is fully empowered to execute and deliver this proposal on behalf of the proposer and that, if accepted by the Perry Township Schools, this proposal shall represent a lawful and binding obligation of the Proposer.

Firm Name Engineeres Ain	Prices Firm Through Order Entry By 2/28/22 Delivery By 8/30/22
Address Sol ECARMEL Daise Suite 6 400	Payment Terms Net 30
City, State and Zip CAMPL, IN, U6032	Delivery Date 18-19 Wks From Production Refease
Phone # 317 - 564 - 4885 Fax#_	317-564-4886
Email Address INDIANAPOLIS E ENGINEERES	Air. Com on henry beiman e engineerchain.
By: (Representative Signature)	(Representative Typewritten Name)

PROVIDE PRELIMINARY SUBMITTALS WITH YOUR QUOTE.

R.E. Dimond and Associates, Inc.

Reviewed and checked only for conformance with design concepts and with information given in the Contract Documents. Approval does not release the Contractor from the responsibility to provide appropriate quantities, field measurements, dimensional stability, installation, anchorage and coordination with other trades, or release the Contractor from responsibility for deviations from the requirements of the Contract Documents, or from responsibility for errors and omissions contained thereon.

ment respensionally for definancing ment and respensional of an
Contract Documents, or from responsibility for errors and
omissions contained thereon.
☐ Reviewed as Submitted
X Reviewed as Noted
☐ Rejected-Correct and Resubmit
☐ See Attached Comment Sheet(s)
By: Mike East (pg)
Date: 1/26/2022
24.61



DIVISION OF AIRTEX MANUFACTURING, INC.

INDIANA SALES

301 East Carmel Dr. Suite G-400, Carmel, IN 46032 Phone (317) 564-4885 Fax (317) 564-4886 indianapolis@engineeredair.com

To:
Project:
Location:

Perry Township Schools Perry Academic Center

Indianapolis, Indiana

From: Date:

Henry Berman January 12, 2022

Page:

1 of 3 plus attachments

Quote # QTC1-48-25HB

Engineered Air is pleased to provide the following scope & pricing for vertical in classroom indirect fired gas heating & air conditioning units (condensing units by others) per contract documents M1B1 dated 12/14/2021, M611 dated 12/14/2021 and specification section 23 82 24 Vertical Unit Ventilator – Pre purchase and as noted below. See unit features below.

The prices in this quotation are based on Engineered Air (EngA) terms and conditions only (attached for reference). Orders based on quotations are subject to our acceptance and price is subject to confirmation at time of order.

Quantity: (4) TAG #'s VUV A,B,C,D

Engineered Air model "RUVG" 1200 Unit Ventilator

Unit Description:

- 16-gauge steel casing, including doors and stamped return inlet louver.
- 1" Closed Cell Insulation except for lined burner section.
- Vertical Top Discharge c/w Duct Connection.
- 12" High 5 sided Insulated & Painted Unit Top Skirt Extension to Ceiling Line (shipped loose-Duct connection openings to be field cut by others).
- Blow Through Unit Configuration.
- 304 Stainless Steel Drain Pan.
- 120/1/60 PSC Direct Drive Motor c/w manual motor speed controller.
- DWDI FC Fan sized per schedule.
- 2" MERV 8 filters + (2) spare sets for each unit (3-sets total shipped loose).
- High Efficiency 81% Indirect Fired Natural Gas Heat Exchanger 2:1 Turndown.
 (7" Gas Inlet Pressure)
- Co-Axial Venting connection, adaptor. Coaxial duct by others
- Split-DX Cooling Coil c/w TXV valve installed on coil (Condensing Unit & Refrigeration Specialties Provided By Others).
- DX Cooling Coil connection to top of unit. (3" stub out top).
- Natural Gas connection to stub out back of unit in piping pocket. Shut off valve and dirt leg by installing contractor.
- DDC Carel Controller c/w Unit Thermostat (Temperature Sensor w/ Night Setback option shipped loose field installed by contractor).
- Fully Modulating Economizer Section.

- Air Foil OA & RA dampers with factory mounted actuators- 2-10 volt-Spring Return.
- Complete Factory Wiring with dedicated raceway.
- Factory mounted non-fused disconnect switch.
- Door Interlock to Main Panel. Factory wired to disconnect power to unit.
- 8" Insulated & painted false back plenum section for O/A Intake. O/A opening field cut by installing contractor.
- Access doors as required with 2 cam locks per panel
- All cabinet sheet metal to be electrostatic powder coated.
- Standard Textured Santex White Finish or Color as selected by Architect from Engineered Air Standard Color Chart.

Warranty

- Standard warranty, 12 months from date of shipping or 18 months from date of startup
- Extended warranty limited parts warranty 5 years from start up.

Start-up Service

- · Factory authorized start-up provided for initial start-up
- Owner training provided as specified
- Incudes (1) one additional site visit for final unit adjustment.

Items shipped loose for contractor installation:

- 2-set of extra filters (3-sets total)
- Unit Thermostat
- (1) Spare 120/1/60 motor
- (1) Spare gas valve
- 12" High 4 sided Insulated Top Skirt Extension

Items specifically excluded from this scope:

- Wiring of Room Sensor
- Unit Installation / Wiring
- Unit Piping
- Unit venting pipe / duct
- Exterior Louver
- Wall Sleeve
- 410A Refrigerant charge
- · Any items not referenced in this scope
- All warranty labor

Clarifications to specifications:

Units provided are 81% per schedule but are not condensing furnaces. Specification called out ANSI standard ANSIZ21.47/CSA 2.3 which does not apply to this type of unit. Engineered Air unit is certified to ANSI Z83.8-2016 • CSA 2.6-2016, Gas unit heaters, gas packaged heaters, gas utility heaters, and gas-fired duct furnaces.

Total Base Price:

Including freight, for Four (4) units Tag # VUV A,B,C and D \$ 58,950.00

- Net 30 Days with Approved Credit
- All Taxes Extra
- Quotation Valid for 30 Days
- Standard Engineered Air Terms and Conditions Attached

<u>Lead Time Guide</u>: Estimated shipping target 18-19 weeks after written project release received at factory. For approval factory submittals with pre-production package 2-3 weeks from order entry. Actual lead times will vary subject to engineering and plant loading, and vendor component availability at time of release.

NOTE:

This Quotation/ Scope Letter (inclusively "Quote") include <u>ONLY</u> the design and manufacture of the goods specifically described and specified herein. The goods conform to Engineered Air ("EngA")'s standard construction methods unless specifically noted to the contrary. Buyer understands that any alteration or deviation from this Quote may alter the price of this Quote. Buyer understands that any purchase orders and/or submittals may not exceed the scope of this Quote. Further, EngA DOES NOT WARRANT OR REPRESENT THAT THE EQUIPMENT COVERED IN THIS SCOPE MEETS ANY OTHER SPECIFICATION, PROCEDURE, LAW, ORDINANCE, CODE OR REGULATION.

I am available to answer any questions regarding this quotation at your convenience.

Respectfully,

Henry Berman Manager Indiana Sales

ENGINEERED AIR GENERAL TERMS AND CONDITIONS

- 5. <u>LIMITED WARRANTY:</u> EA warrants that under normal use and service, the Goods sold pursuant to this Agreement shall be free from defects in material and workmanship for the period of one (1) year from the date of initial startup or eighteen (18) months from the date of shipment, whichever expires sooner. If within this period, Buyer notifies EA in writing of any claimed defect in the Goods, and EA, at its sole discretion, finds that such Goods are not in conformity with this warranty, EA will at its option, either repair the Goods or provide a replacement therefore. Any such repair or replacement shall be at no cost to the Buyer except Buyer shall be responsible for all shipping costs incurred by either party in effecting the repair or replacement of any Goods.
- 6. WARRANTY LIMITATION: Under no circumstances shall EA be liable to, nor indemnify, Buyer or any third parties for any claims, losses, labor, expenses damages (special, indirect, incidental, or consequential) of any kind, resulting from the performance (or lack thereof) of this Agreement or the use of, or inability to use the Goods sold hereunder including, but not limited to, damages for delay, temporary heating/cooling costs, loss of goodwill, loss of profits or loss of use. Furthermore,

THE WARRANTY IN § 5 ABOVE IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESS OR IMPLIED. EA DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE.

- 7. <u>LIMITATION OF LIABILITY:</u> The parties agree that the Buyer's sole remedy under this Agreement shall be limited to the repair or replacement of any defective Goods, or, at EA's option, credit for the original price set forth above. In no circumstance, however, shall any award against EA exceed the original contract price whether awarded through arbitration or litigation.
- 8. <u>CANCELLATIONS:</u> The Contract resulting from this Agreement cannot be cancelled, terminated or modified in whole or in part, nor shall releases be held up by Buyer after the Goods are in process by a factory without respect to whether or not the Order is released, except with EA's consent in writing and then only upon terms and conditions to be agreed upon which shall include protection of EA against all loss direct, indirect, incidental and consequential. EA reserves the right to charge costs if EA, at its sole discretion, allows a cancellation as described above. Buyer agrees to pay any transportation costs associated with its breach of this agreement. In addition, EA reserves the right to, upon EA's option, charge costs to the Buyer for any work done on submittals even if the order is not yet in process at a factory.

- **DELIVERY:** Time is not of the essence of this contract. Expected shipping dates provided by EA are approximate only. Even if a specified time of delivery is requested through EA's express written consent (only as provided herein), time is not made of the essence. EA shall, under no circumstance, be liable for any delay or failure to perform in whole or in part, directly or indirectly resulting from or contributed to by acts of God, war, riot, embargoes, acts of civil or military authorities, national emergencies, insurrection or riots, fires, floods, strikes, work stoppage, accidents, casualties, inability to procure supplies raw materials, delays in transportation, shortage of cars, or other causes beyond EA's control. A specified time of delivery or change in delivery location may only be requested and, approved at EA's sole discretion, if a properly executed Waiver and Release for Delivery at a Requested Time and/or Change of Delivery Destination ("Waiver and Release") is signed by the Buyer, an authorized representative of EA and attached to this Agreement and is thereby integrated for that instance alone. Nothing in the Waiver and Release shall be construed as changing or amending this Agreement that time is not of the essence.
- LOSS OR DAMAGE IN TRANSIT: Delivery shall be made F.O.B. place of shipment. The carrier and Buyer shall assume all responsibility for the Goods (including assuming title and risk of loss) at the place of shipment ("F.O.B. Point"). All shipping and transportation charges shall be the responsibility of the Buyer. In case of loss or damage by the carrier or failure to receive shipment within a reasonable time, Buyer must immediately notify EA and carrier's agent at the destination. This action is necessary in order to preserve rights against the carrier and to substantiate a formal claim against the carrier, however, EA shall not be liable for any damage, loss or expense resulting from anything occurring during, or attributable to transportation. The Buyer shall pay any storage or transportation costs associated with Buyer's refusal to accept the Goods upon delivery. The destination to which the Goods shall be delivered is as stated on the front of this Agreement in the "Ship To:" section (the "Place of Delivery"). The Place of Delivery may only be modified or amended, upon EA's sole discretion, if Buyer agrees in writing to EA's Waiver and Release. A copy of said Release is only valid to change the Place of Delivery if signed by an authorized EA representative and attached to is only valid to change the Place of Delivery if signed by an authorized EA representative and attached to this Agreement and is thereby integrated for that instance alone, otherwise, this Section shall be conclusive and govern this Agreement. Nothing in the Waiver and Release shall be construed as changing or amending this Agreement that delivery of the Goods shall be F.O.B. place of shipment.
- 11. BREACH: Any of the following acts shall constitute a breach of Buyer's obligations hereunder: (a) Default by the Buyer; (b) failure to accept conforming Goods PAGE 2 OF 3

ENGINEERED AIR GENERAL TERMS AND CONDITIONS

supplied hereunder (Goods shall be conclusively deemed conforming if such Goods comply with governing submittals as described in Section 1 & 2 of this Agreement); (c) return of any Goods shipped to Buyer hereunder without the written consent of EA; (d) filing of a voluntary petition in Bankruptcy or any preceding insolvency of Bankruptcy (including reorganization, assignment for the benefit of creditors, or the appointment of a trustee or special master); or (e) any other act by Buyer in violation of any provision of this Agreement. In the event of Breach, EA may, with or without written notice to Buyer, rescind or terminate the Buyer' Purchase Order covered by this Agreement, or any part thereof, without incurring any liability whatsoever, in addition to pursuing any other rights and remedies available to EA at law or equity. Buyer must pay all costs incurred by EA in any action brought by EA to enforce its rights under this Agreement or collect payments, including reasonable attorneys' fees.

- 12. ARBITRATION: Any controversy or claim arising from or relating to this Agreement, or the breach thereof, except as otherwise specifically provided herein, shall be settled by arbitration administered by the American Arbitration Association under its Construction Industry Rules, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. In the event that any party's claim exceeds One Million dollars (\$1,000,000), exclusive of interest and attorneys' fees, the dispute shall be heard and determined by three (3) arbitrators. In this situation, the arbitrators will be selected from a panel having knowledge of the construction industry and at least on one the arbitrators selected will be an attorney. The parties may mutually agree to waive this requirement if done so in writing. The place of any arbitration shall be in Johnson County, Kansas (U.S.A.). If any costs are incurred by EA to force arbitration, the Buyer agrees to pay any such costs. Legal costs associated with any arbitration shall be divided based on the Arbitration Award.
- 13. FORUM SELECTION AND GOVERNING LAW: This Agreement shall be governed by and interpreted in accordance with the laws of the State of Kansas (U.S.A.). The parties acknowledge that this agreement evidences a transaction involving interstate commerce. The United States Arbitration Act shall govern the interpretation, enforcement and proceedings pursuant to the arbitration clause in this agreement. In the event that any judicial litigation is ever initiated arising from or related to this Agreement, the parties agree that such litigation will be brought in Johnson County Kansas District Court (or the encompassing federal court,

if removed) and the parties waive any objection to personal jurisdiction or venue in any forum in said district.

- 14. <u>INDEMNIFICATION</u> FOR INFRINGEMENT: If the Goods to be manufactured are per the Buyer's specifications or plans, Buyer shall indemnify, defend and hold EA harmless from any third party claim of infringement or non-compliance of any nature with any applicable laws or regulations.
- otherwise agreed by EA in writing, Buyer shall keep confidential and not disclose to any third party, any confidential and/or proprietary materials provided by EA in connection with any submittals, scope letters and/or quotations, including, but not limited to any drawings, masters, software, specifications, raw materials, components, data, business information or plans, customer lists or any other customer information ("Confidential Information"). Buyer shall use Confidential Information solely as is necessary for Buyer to properly, operate, maintain or repair the Goods. Buyer shall not, without EA's written consent, directly or indirectly use

Confidential Information or information derived therefrom in performing services or providing goods to any other person or entity. Buyer may not otherwise profit, directly or indirectly, from the use, transfer, or sale of such Confidential Information. EA shall have all remedies allowed by law and equity to enforce this Provision.

- 16. **WAIVER:** Any waiver by EA of default or breach by Buyer shall not be deemed to be a continuing or permanent waiver of such default or any other breach of the provisions contained herein.
- 17. SIGNATURES AND BINDING EFFECT: The parties acknowledge that a signature, if required, may be in the form of facsimile or email confirmation and such shall satisfy the requirement of both a writing and a signature to be binding, otherwise this Agreement shall be binding in accordance with the terms set forth in Section 1 hereof without a signature. Buyer may also accept the Terms and Conditions of this Agreement by signing any EA Credit Application, as described above. Furthermore, the signer or author of an email/facsimile confirmation warrants and represents that such signer has the requisite authority to bind the Buyer to these terms.

DRAWING TRANSMITTAL SHEET



ENGINEERED AIR

JOB NO Preliminary Submittal

DATE January 10, 2022

☑ INDIANAPOLIS SALES OFFICE

301 E. CARMEL DRIVE, SUITE G-400 CARMEL INDIANA 46032 (317) 564-4885

HEAD OFFICE & FACTORY

DESOTO KANSAS

OTHER USA SALES OFFICES

DESOTO, CLEVELAND, RICHMOND, DENVER, HOUSTON, CINCINNATI, KANSAS, CHICAGO, COLUMBUS, DALLAS, ST LOUIS, ORLANDO, OMAHA, PITTSBURGH, AUSTIN, CHARLOTTE, SAN FRANCISCO, PORTLAND, WASHINGTON, SAN DIEGO

CONTRACTOR	R TBD
ADDRESS	3
ENGINEER	RE DIMOND
JOB NAME	PERRY ACADEMIC CENTER
THIS ORDER THESE FOR	R IS SUBJECT TO APPROVAL. MANUFACTURING IS HELD PENDING RETURN OF ONE APPROVED COPY OF MS TO THE INDICATED OFFICE.
THIS ORDER	R IS NOT SUBJECT TO APPROVAL AND IS BEING MANUFACTURED ACCORDING TO THE ATTACHED FORMS.
COPIES ENCLOSED	DESCRIPTION
_	Desline and Code with a Description of the Code with a Descrip
1	Preliminary Submittal Record Tags VUV A, B, C
1	Preliminary Submittal Record Tags VUV D
1	Preliminary Submittal Mechanical Dwg
1	Preliminary Submittal Electrical and Sequence of Operation
1	Installation and Operating Manual
-	
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55	



Enga Engineered Air

SUBMITTAL RECORD

JOB NAME:	PER	RY ACADEMIC C	ENTER	J	ов No: Preli	minary S	Submittal
CUSTOMER:			ENGINEER: RE DIMOND				
EngA MODEL:	RUV	G1200/C		QTY: 3	560 560 760 500 500 500 500 500 500 500 500 500 5		
SHIPPING AND	APPRO	VAL INFORMATION					
MOUNTING Inde	oor Base	Mounted			ACCESS	As Per Drav	ving
SHIPPING WEIGH	T 1100	lb			OPERATIN	G WEIGHT	1000 lb
NO. OF PIECES	2 (Unit +	Back Plenum)					
CSA approval.					U. (1999)		
Insulated outside	de air ple	num c/w back panel					
SUPPLY AIR DA	TA					111111111	
AIR FLOW 1100		FAN SIZE	(1) DD11-10	AT TSP	1.66 in w.c.	RPM	1050
MOTOR SIZE 3/4		TYPE (RPM		ANTINETINE OF THE PARTY OF THE	0.5 in w.c.		0.53 BHP
		manual speed controlle					
Insulated fanbo			r and quion o	ormedi.			
AIR OPENING D	ATA						
AIR OPENII	NG	LOCATION		DAMPER	TYPE		OPERATION
SUPPLY AIR		Тор					
RETURN AIR		Front	See Below	[1]			Modulating
OUTSIDE AIR		Back	See Below				Modulating
E8 287.500		0 Low Leakage Aluminu					
Marian and the same of the sam		0 Thermally Insulated Lo			el Blade		
Damper operator	or is supp	olied and installed by En	gineered Air.	***************************************		Historiae da	
CONSTRUCTION	DATA						
UNIT CABINET		ge satin coat galvanized	sheet metal	c/w 1" closed cell insula	ation on entire unit	casing.	
UNIT FLOOR	16 gaud	ge satin coat galvanized	sheet metal	on entire unit floor.			
EXTERIOR PAINT		statically applied powder			on all exterior curfo	oo including	hook panel
AIRSIDE DOOR						se moldanig	back parier.
AIRSIDE DOOR		ccess doors on front - hir access door on left side					
SERVICE DOOR					with iniger pull tab	5.	The state of the s
SERVICE DOOR	Electric	al and burner access - s	crewed on ar	na lift out.			
ELECTRICAL DA	TA						
POWER SUPP	PLY	MINIMUM CIRCUIT	MPACITY	MAXIMUM FU	SE(D.E.)	MAXIN	UM BREAKER
120 / 1 / 60		14.4 AMPS		20 AMP	S	M-M-44-2-	20 AMPS
See Electrical D	ata Shee	et for details.		A CONTRACTOR OF THE PARTY OF TH			1.0000000000000000000000000000000000000
 Unit mounted no 	n fused	disconnect switch.					
 Unit installed Ca 	rel contr	oller c/w outside air, mix	air, discharg	e air sensors.			
SUPPLY FII TER	SECTIO	ON DATA - Front Loa	ded				1000
		er with MERV 8 rating	uou				
QTY/SIZE 1 - 24		er manificative oracing	***	QTY/SIZE			
TOTAL GROSS AREA 3.33 SQ.FT.			FACE VELOC	ITY 300 FPM			
		ose or mounted in the tr	acks	17.02 12200	000111W		
2 spare sets of fi			uono				



Enga | Engineered air

SUBMITTAL RECORD

JOB NAME: PERRY ACADEMIC CENTER	JOB NO:	Preliminary Submittal
EngA MODEL: RUVG1200/C	QTY: 3 TAG:	VUV - A, B,C
BURNER HEATING DATA - INDIRECT FIRED (RUVG-1200)		
	TERIAL Stainless Steel	FURNACE RUVG-1200
FUEL Natural Gas INLET PRESSURE 7 in wc.	GAS FIELD CONN. 0.75"	FLUE DIA 7 in.
HEAT INPUT 70,000 Btuh HEAT OUTPUT	57000 Btuh	TEMP. RISE 48 °F
Heat exchanger section has 1"(25 mm) 1.5 lb/ft(24 kg/m³) insulation	on with 22 gauge solid liner	The state of the s
Low limit auto bypass; set @ 40°F (4.4°C).		
EngA (2:1) high turndown burner		
Co-axial back wall venting connection		
Beckett Stainless Steel Gas Burner		
Two pass heat exchanger c/w condensate drain connection.		
Dedicated pipe chase for incoming gas pipe.		
DX COIL DATA		
COIL SIZE 22.5 x 27x 4rowx 10FPI	VELOCITY 267 FPM	
CAPACITY 39 MBH	AIR P.D. 0.21 in wc	
ENTERING AIR DB / WB 76.9 / 54.7	LEAVING AIR DB / WB	55.7 / 54.7
SST/SCT		REFRIGERANT TYPE R-410A
DISTRIBUTOR TYPE (1)4-3-4 SUCTION SIZE 7/8 ii	1	QUANTITY 1
DX coil c/w TX valve.	33	
Stainless steel drain pan c/w 7/8" diameter connection terminates	3" above the unit bottom par	el.
SHIPPED LOOSE ITEMS (See filter section for filters and s	oare filters)	
6 - PAD NTC Humidifier and Buzzer (Carel Usa ADPG003000)	(D-1- E'll I' O 1000	
12 - Filter 2 D x 24H x 20W (Merv 8) Pleated Series 400 Std Cap		
2 - Controller PCO5+ Small FB/BMS NO OPTO, USB, Built-In PG	DT (Carel Usa P+500BAA00	JESU)
Insulated 4 -sided top extension (EngA) Wall terminal c/w adjustable concentric vent pipe (EngA)		
6 - Phone Cable 6 wire 150 ft (Engineered Air-satellite Plant EAC	ONN007)	
• Friorie Gable o wife 150 ft (Engineered Air-satellite Plant EAC	ONNOU?)	

Actual coil data when confirmation of actual condenser unit selected



ELECTRICAL DATA

JOB NO: Preliminary Submittal JOB NAME: PERRY ACADEMIC CENTER TAG: VUV A, B,C QTY: 3 EngA MODEL: RUVG1200/C Minimum Circuit Power Terminal Block to Maximum Fuse Maximum Breaker Supply Ampacity Accept (Dual Element) 120/1/60 14.4 amps 14 Awa 20 AMPS 20 AMPS Components Model Minimum Ampacity Conductor Size FLA / LRA Supply Fan Motor **PSC** 3/4 HP 10.2 14 Awg Control Xfmr 1.67 14 Awg UNIT CONTROL PANEL(S) SHORT CIRCUIT CURRENT RATING (SCCR) Short circuit current 5 kA rms symmetrical, 120 V maximum WIRING DRAWING LEGEND APS Air Proving Switch DM Damper Motor NFD Non Fused Disconnect ASF Auto Fan Switch Fan Relay FR OL Thermal Overload **Auxiliary Contact** AUX GND Ground PS Pressure Sensor BM **Burner Motor** GV Gas Valve PV Pilot Gas Valve C Contactor High Limit HL R Relay CCH Compressor Crankcase Heater HPC High Pressure Control RevHL Reverse Airflow High Limit CFC Condenser Fan Control HR Heating Relay TB Terminal Block Compressor Loading Control CLC **IGN** Ignition Control TDF Time Delay Fuse Compressor Protection Module CPM ITP Internal Thermo Protection TDR Time Delay Relay CR Cooling Relay LPC Low Pressure Control TS Temperature Sensor CS Current Sensor M Motor **VFD** Variable Frequency Drive DHSS Draft Hood Spill Switch MV Main Gas Valve XFMR Transformer **UNIT FUNCTION** Disconnect switch 'on' service switch 'on', fire alarm contact closed (jumper if not required) OCCUPIED MODE Unit on/off determined by time clock schedule, or manual override at the T-stat. Time clock in 'occupied' mode Monday to Friday from 7:30 am - 4 pm. Outside air damper opens to 25% minimum position. Blower will delay on and run continuously. The Carel controller will sequence heating, economizer and, 1 stage of mechanical cooling (see note 1) to maintain the required room temperature. Outside air damper reverts to minimum position whenever heating or mechanical cooling is on. The following alarm points will stop the unit operation and requires a manual reset on the controller. - mixed air freeze alarm - sensor failures - room stat off line - high discharge air temperature alarm ZONE RESET OF THE DISCHARGE AIR SET POINT The discharge air setpoint schedule used to control the mixed air damper and the gas burner heat is Zone Temp Discharge air setpoint 74°F 55°F Cooling on @

(Continued on second page)

70°F

Heating on @

DATE: Jan 10.2022

95°F

SUBMITTED BY: HENRY BERMAN / QV.



ELECTRICAL DATA

JOB NAME: PERRY ACADEMIC CENTER ______ JOB NO: Preliminary Submittal

EngA MODEL: RUVG1200/C QTY: 3 TAG: VUV A,B,C

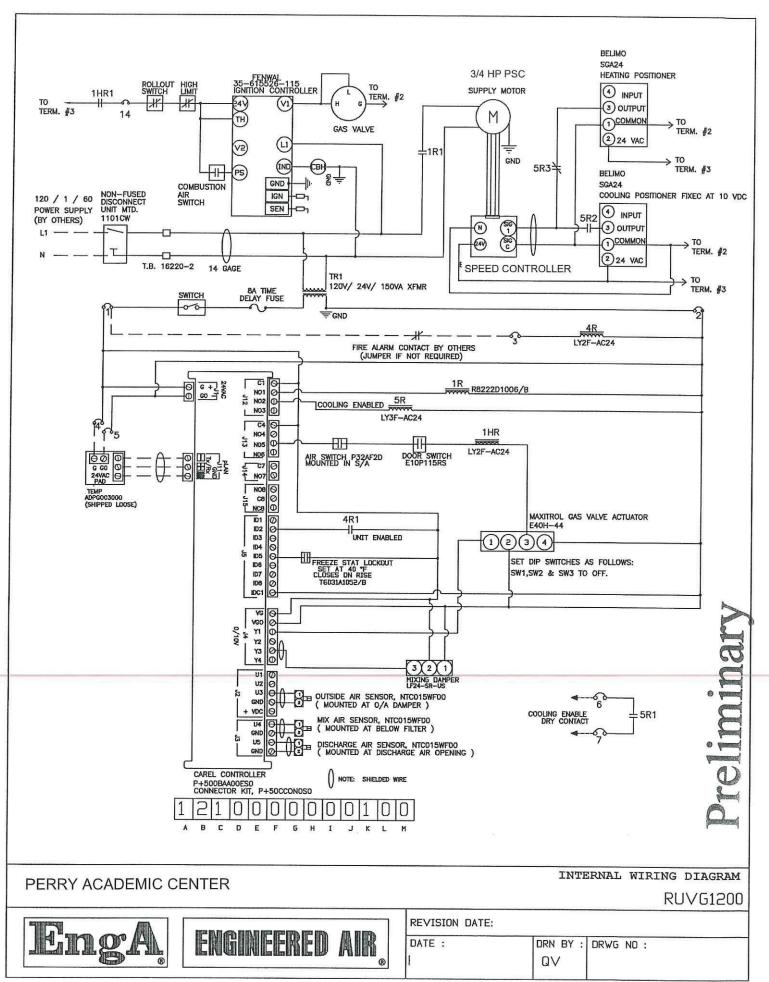
UNIT FUNCTION CONTINUED

ECONOMIZER MODE When in economizer mode the dampers will modulate to maintain the discharge air setpoint with a minimum damper position of 25%. When the mixed air is less than the Mixed Air Low setpoint @ 44°F "Mixed air is Low". If the mixed air temp is less than the mixed air freeze setpoint @ 38°F "Unit is off on mixed air freeze protection" O/A damper closes, fan stops unit is shut down. **HEATING MODE** Heat mode is enabled when the zone temp is less than the heating setpoint @ 70°F occupied and 60°F unoccupied. Heat mode is disabled when the zone temp is greater than the heating set point plus the mode diff 2°F @ 72°F. Blower CFM is adjustable by a unit mounted manual speed controller. Carel controller will enable gas burner via 2-10 VDC signal to maintain the required room temperature. If the discharge air temp is greater than the Discharge Air high limit setpoint @ 120°F, the unit will shut down and display "Unit off on High limit protection" **COOLING MODE** Carel controller will cycle 1 stage of mechanical cooling to maintain the cooling room temperature setpoint. (See note 1) Cooling mode is enabled when the zone temp is greater than the cooling setpoint 74°F occupied and 80°F unoccupied. Cooling mode is disabled when the zone temp is less than the cooling set point minus the mode diff (2) @ 72°F. Blower CFM is fixed at high speed to prevent DX coil from freezing. Mechanical cooling is locked out when ambient is below 50°F. Unit in occupied or unoccupied mode, check room setpoint to room temp, if the room temp is greater than the room setpoint and Cooling Mode Delay setpoint has timed out enable cooling. **UNOCCUPIED MODE** Time clock in 'unoccupied' mode, the outside air damper closes and remains closed. With a call from the thermostat, the blower will delay on and heating or cooling mode will start to satisfy the unoccupied room setpoint. The unoccupied setpoint is +,-10°F from the occupied setpoint.

DATE: Jan 10.2022

Note 1 - Refer to manuals shipped with unit for a more detailed explanation of maintenance, component(s).

SUBMITTED BY: HENRY BERMAN / QV





QTY/SIZE 1 - 24 x 20 x 2"

TOTAL GROSS AREA 3.33 SQ.FT.

· Filters may be shipped loose or mounted in the tracks

Enga engineered air

SUBMITTAL RECORD

JOB NAME:	PERF	RY ACADEMIC CE	ENTER	JOB NO:	Preliminary S	Submittal
CUSTOMER:				ENGINEER:		
EngA MODEL:	RUV	61200/C	QTY:			
SHIPPING AND	APPRO	VAL INFORMATION			•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
MOUNTING Inde	oor Base	Mounted		AC	CESS As Per Drav	ving
SHIPPING WEIGH	T 1100 I	b		OP	ERATING WEIGHT	1000 lb
NO. OF PIECES	2 (Unit + E	Back Plenum)		The state of the s		
CSA approval.						- Hard Hard Control of the Control o
Insulated outside	de air plei	num c/w back panel				
SUPPLY AIR DA	TA					
AIR FLOW 1200	CFM	FAN SIZE	(1) DD11-10AT	TSP 1.66 in w	.c. RPM	1050
MOTOR SIZE 3/4	4 HP	TYPE (RPM)	PSC (1050)	ESP 0.5 in w	v.c. BHP	0.53 BHP
Supply air fan/n	notor c/w	manual speed controller	and quick connect.			
Insulated fanbo	ard and f	an scroll.				

AIR OPENING D		T				
AIR OPENI	NG	LOCATION		DAMPER TYPE		OPERATION
SUPPLY AIR		Top	Car Dalaw Mi	METEROPOLICA PRODUCTION OF THE PROPERTY OF THE		
OUTSIDE AIR		Front	See Below [1] See Below [2]			Modulating
	ries 1000	Low Leakage Aluminur				Modulating
		_	w Leakage Aluminum Air	foil Parallel Blade		
		lied and installed by Eng		, , , , , , , , , , , , , , , , , , , ,		
		maken, and a second	and the second s		The state of the s	
CONSTRUCTION			,			
UNIT CABINET			sheet metal c/w 1" closed		tire unit casing.	
UNIT FLOOR			sheet metal on entire unit		·	
EXTERIOR PAINT	Electros	tatically applied powder	coat white primer (SANTI	EX) color on all exter	ior surface including	back panel.
AIRSIDE DOOR	Filter ac	cess doors on front - hin	ged c/w key operated ca	mlocks with finger pu	ıll tabs.	
	Burner a	access door on left side -	hinged c/w key operated	camlocks with finge	r pull tabs.	The state of the s
SERVICE DOOR	Electrica	al and burner access - so	rewed on and lift out.			
ELECTRICAL DA	TA					
POWER SUPI		MINIMUM CIRCUIT A	MPACITY MAX	IMUM FUSE(D.E.)	MAXIN	IUM BREAKER
120 / 1 / 60		14.4 AMPS		20 AMPS		20 AMPS
See Electrical D	ata Shee	t for details.	- International Control of the Contr		1	
Unit mounted no	on fused o	disconnect switch.				
 Unit installed Ca 	rel contro	oller c/w outside air, mix	air, discharge air sensors			
CUDDLY FU TES	OFOTIO	NI DATA COM	d			
		ON DATA - Front Load	aea		a de la companya de l	
FILIEK IYPE PIE	eated Filte	er with MERV 8 rating				

QTY/SIZE _

FACE VELOCITY 300 FPM



Enga | Engineered air

SUBMITTAL RECORD

JOB NAME: PERRY ACADEMIC CENTER	JOB NO: Preliminary Submittal
EngA MODEL: RUVG1200/C	QTY: 1 TAG: VUV-D
BURNER HEATING DATA - INDIRECT FIRED (RUVG-1200)	
BURNER TYPE RUVG Series HEAT EXCH. MA	TERIAL Stainless Steel FURNACE RUVG-1200
FUEL Natural Gas INLET PRESSURE 7 in wc.	GAS FIELD CONN. 0.75" FLUE DIA 7 in.
HEAT INPUT 70,000 Btuh HEAT OUTPUT	57000 Btuh TEMP.RISE 48 °F
Heat exchanger section has 1"(25 mm) 1.5 lb/ft(24 kg/m³) insulation	on with 22 gauge solid liner
 Low limit auto bypass; set @ 40°F (4.4°C). 	
EngA (2:1) high turndown burner	
Co-axial back wall venting connection	
Beckett Stainless Steel Gas Burner	
Two pass heat exchanger c/w condensate drain connection.	
Dedicated pipe chase for incoming gas pipe.	
DV COU DATA	
DX COIL DATA	
COIL SIZE 25 x 27x 4rowx 12 FPI	VELOCITY 260 FPM
CAPACITY 42 MBH	AIR P.D. 0.23 in wc
ENTERING AIR DB / WB 76.9 / 54.7	LEAVING AIR DB / WB _ 56.0/ 55.4
SST/SCT	REFRIGERANT TYPE R-410A
DISTRIBUTOR TYPE (1)4-3-4 SUCTION SIZE 7/8	in QUANTITY 1
DX coil c/w TX valve.	
Stainless steel drain pan c/w 7/8" diameter connection terminates	3" above the unit bottom panel.
SHIPPED LOOSE ITEMS (See filter section for filters and s	nare filters)
6 - PAD NTC Humidifier and Buzzer (Carel Usa ADPG003000)	paro moro,
12 - Filter 2 D x 24H x 20W (Merv 8) Pleated Series 400 Std Cap	(Dafco Filtration Group 10389)
2 - Controller PCO5+ Small FB/BMS NO OPTO, USB, Built-In PO	D1 (Carel Usa P+500BAA00ES0)
6 - Insulated 4 -sided top extension (EngA)	•
6 - Wall terminal c/w adjustable concentric vent pipe (EngA)	
6 - Phone Cable 6 wire 150 ft (Engineered Air-satellite Plant EAC	CONNOO7)

Actual coil data when confirmation of actual condenser unit selected



ELECTRICAL DATA

JOB NO: Preliminary Submittal JOB NAME: PERRY ACADEMIC CENTER TAG: VUV D QTY: 1 EngA MODEL: RUVG1200/C Power Minimum Circuit Terminal Block to Maximum Fuse Maximum Breaker Supply Ampacity Accept (Dual Element) 120/1/60 14.4 amps 14 Awg 20 AMPS 20 AMPS Minimum Conductor Size Components Model Ampacity FLA / LRA 3/4 HP Supply Fan Motor **PSC** 10.2 14 Awa Control Xfmr 14 Awg 1.67 UNIT CONTROL PANEL(S) SHORT CIRCUIT CURRENT RATING (SCCR) Short circuit current kA rms symmetrical. 120 V maximum WIRING DRAWING LEGEND APS Air Proving Switch DM Damper Motor Non Fused Disconnect Fan Relay ASF Auto Fan Switch FR OL Thermal Overload AUX **Auxiliary Contact** GND Ground PS Pressure Sensor BM Burner Motor GV Gas Valve PV Pilot Gas Valve C Contactor HL High Limit R Relay RevHL Reverse Airflow High Limit CCH Compressor Crankcase Heater **HPC** High Pressure Control Condenser Fan Control CFC HR Heating Relay Terminal Block TB Compressor Loading Control Ignition Control CLC **IGN TDF** Time Delay Fuse Compressor Protection Module CPM ITP Internal Thermo Protection TDR Time Delay Relay CR Cooling Relay LPC Low Pressure Control TS Temperature Sensor Current Sensor CS M Motor **VFD** Variable Frequency Drive DHSS Draft Hood Spill Switch MV Main Gas Valve XFMR Transformer **UNIT FUNCTION** Disconnect switch 'on' service switch 'on', fire alarm contact closed (jumper if not required) OCCUPIED MODE Unit on/off determined by time clock schedule, or manual override at the T-stat. Time clock in 'occupied' mode Monday to Friday from 7:30 am - 4 pm. Outside air damper opens to 25% minimum position. Blower will delay on and run continuously. The Carel controller will sequence heating, economizer and, 1 stage of mechanical cooling (see note 1) to maintain the required room temperature. Outside air damper reverts to minimum position whenever heating or mechanical cooling is on. The following alarm points will stop the unit operation and requires a manual reset on the controller. - mixed air freeze alarm - sensor failures - room stat off line - high discharge air temperature alarm ZONE RESET OF THE DISCHARGE AIR SET POINT The discharge air setpoint schedule used to control the mixed air damper and the gas burner heat is Zone Temp Discharge air setpoint 74°F Cooling on @ 55°F

95°F

DATE: Jan 10.2022

SUBMITTED BY: HENRY BERMAN / QV.

Heating on @

70°F



ELECTRICAL DATA

PERRY ACADEMIC CENTER JOB NAME:

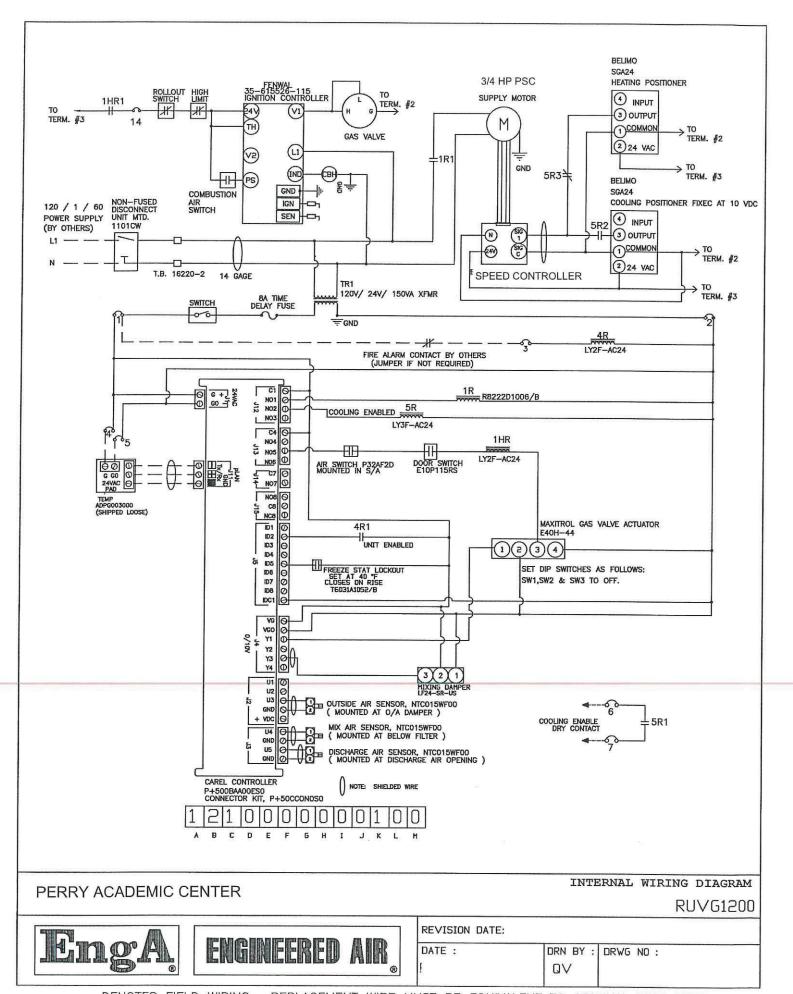
QTY: 1

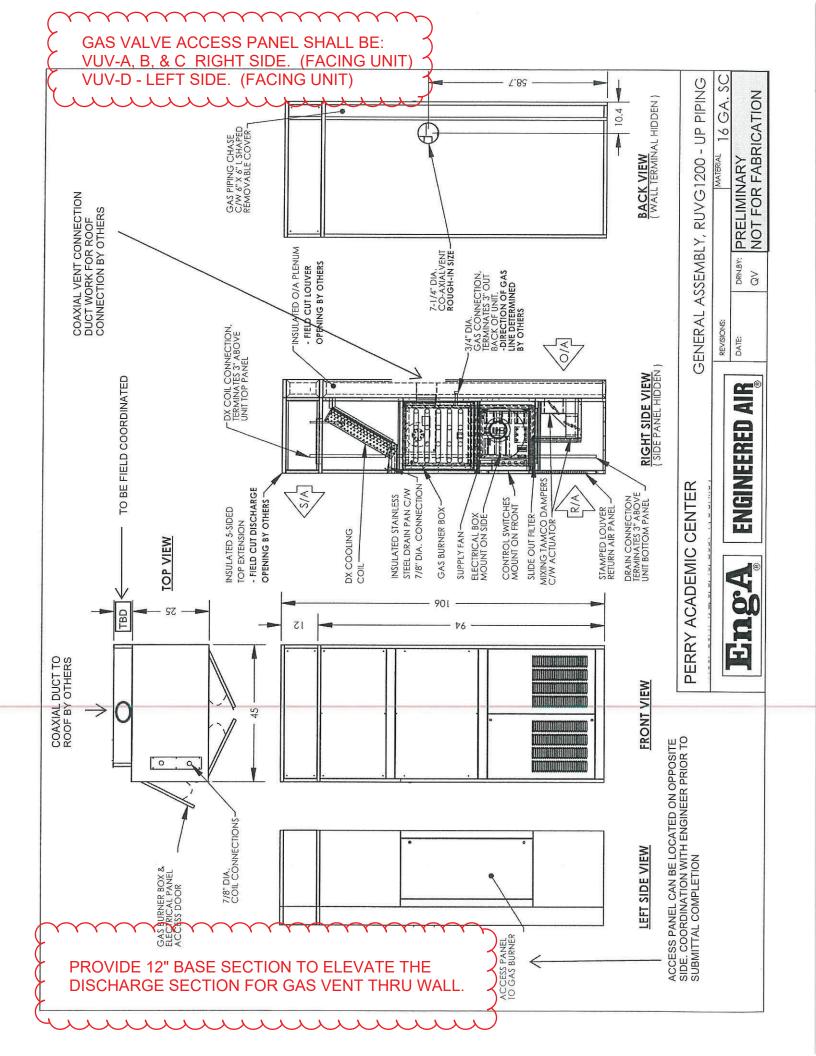
JOB NO: Preliminary Submittal

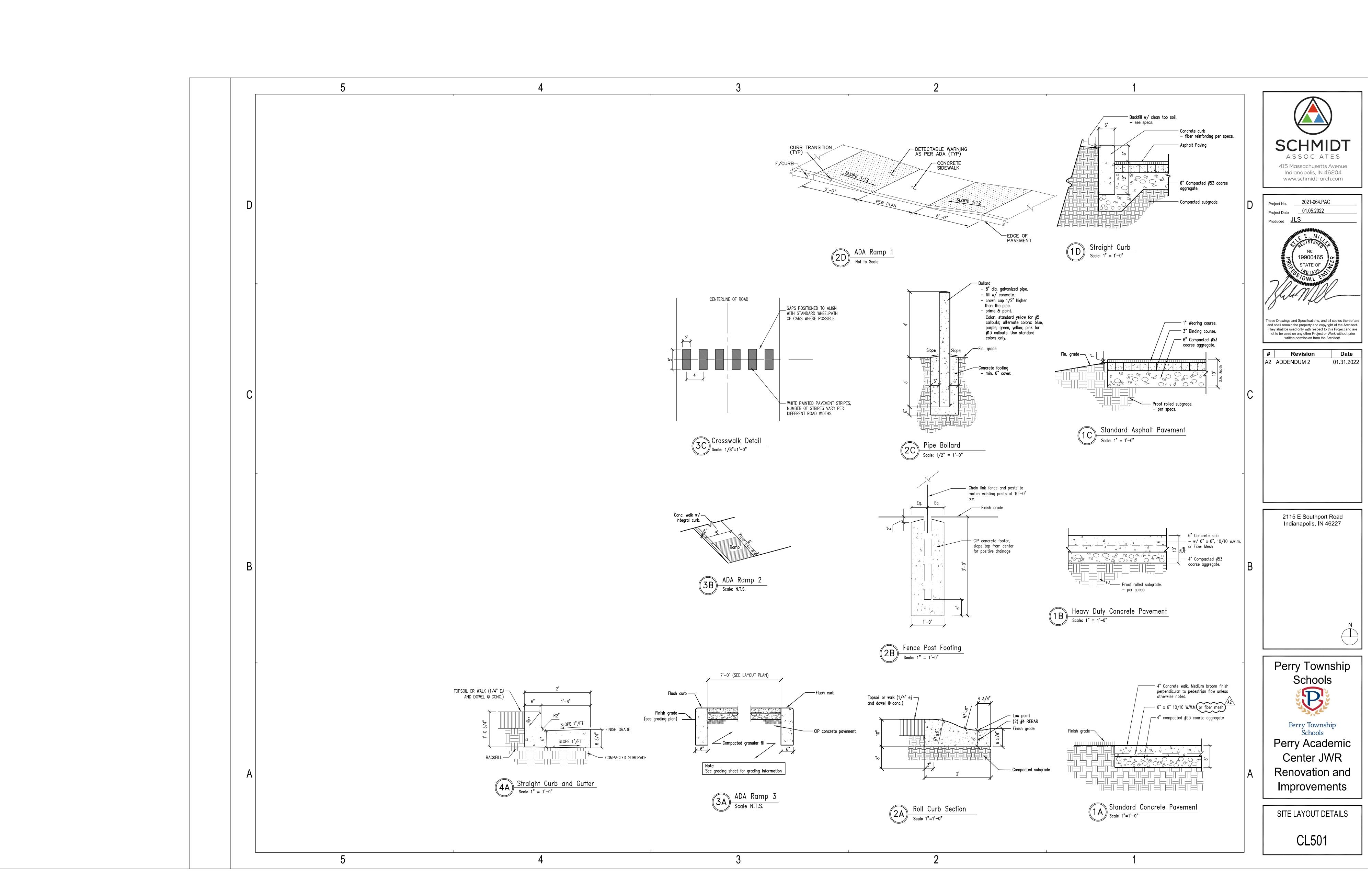
EngA MODEL: RUVG1200/C QTY: 1 TAG: VUV D	
UNIT FUNCTION CONTINUED	100
ECONOMIZER MODE	
When in economizer mode the dampers will modulate to maintain the discharge air setpoint with a minimum of	damper position of
<u>25%.</u>	
When the mixed air is less than the Mixed Air Low setpoint @ 44°F "Mixed air is Low".	
If the mixed air temp is less than the mixed air freeze setpoint @ 38°F	
"Unit is off on mixed air freeze protection" O/A damper closes, fan stops unit is shut down.	
HEATING MODE	
Heat mode is enabled when the zone temp is less than the heating setpoint @ 70°F occupied and 60°F unoc	ccupied. Heat mode is
disabled when the zone temp is greater than the heating set point plus the mode diff 2°F @ 72°F.	Annual Control of the
Blower CFM is adjustable by a unit mounted manual speed controller.	- The second sec
Carel controller will enable gas burner via 2-10 VDC signal to maintain the required room temperature.	
If the discharge air temp is greater than the Discharge Air high limit setpoint @ 120°F, the unit will shut down on High limit protection"	and display "Unit off
COOLING MODE Carel controller will cycle 1 stage of mechanical cooling to maintain the cooling room temperature setpoint. (S	Pop note 1)
Card controller will eyele 1 stage of mechanical cooling to maintain the cooling from temperature serpoint. (C	ee note 1)
Cooling mode is enabled when the zone temp is greater than the cooling setpoint 74°F occupied and 80°F und	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW
Cooling mode is disabled when the zone temp is less than the cooling set point minus the mode diff (2) @ 72° Blower CFM is fixed at high speed to prevent DX coil from freezing.	F.
Mechanical cooling is locked out when ambient is below 50°F.	44.4
Unit in occupied or unoccupied mode, check room setpoint to room temp, if the room temp is greater than the	room setpoint and
Cooling Mode Delay setpoint has timed out enable cooling.	
UNOCCUPIED MODE	
Time clock in 'unoccupied' mode, the outside air damper closes and remains closed. With a call from the therr	
delay on and heating or cooling mode will start to satisfy the unoccupied room setpoint. The unoccupied setpo the occupied setpoint.	oint is +,-10°F from
	•
Note 1 - Refer to manuals shipped with unit for a more detailed explanation of maintenance, component(s).	

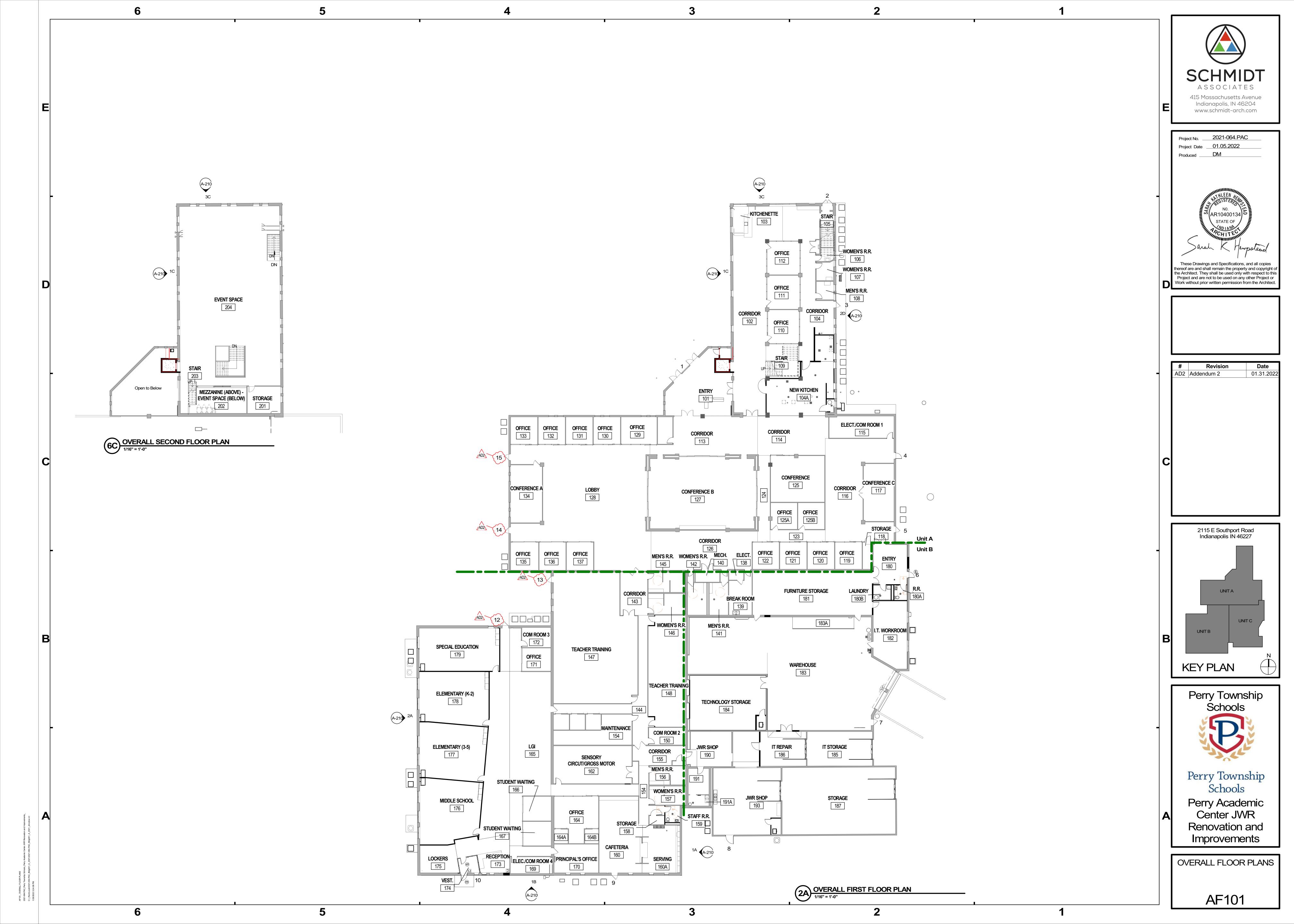
DATE: Jan 10.2022

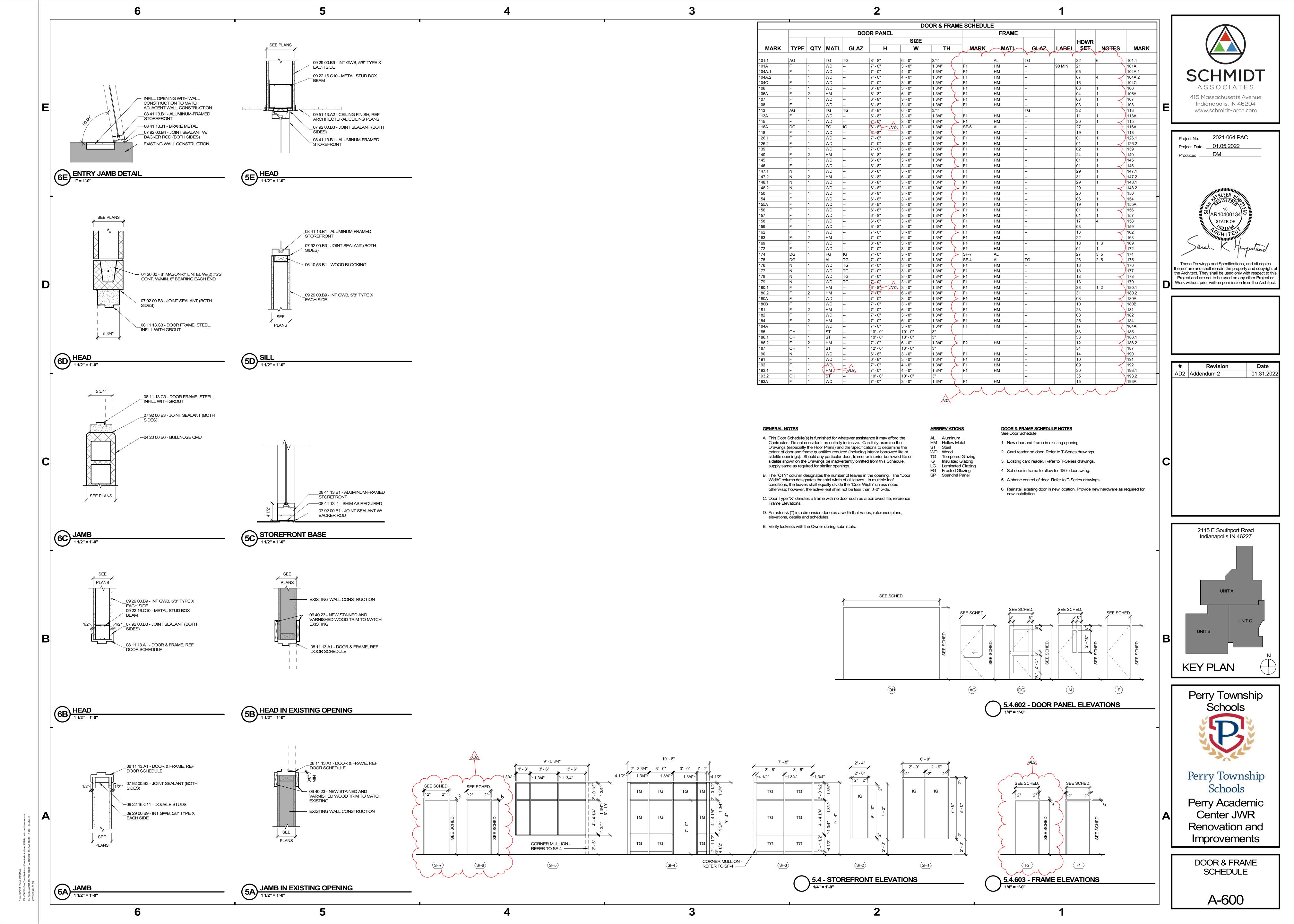
SUBMITTED BY: HENRY BERMAN / QV.

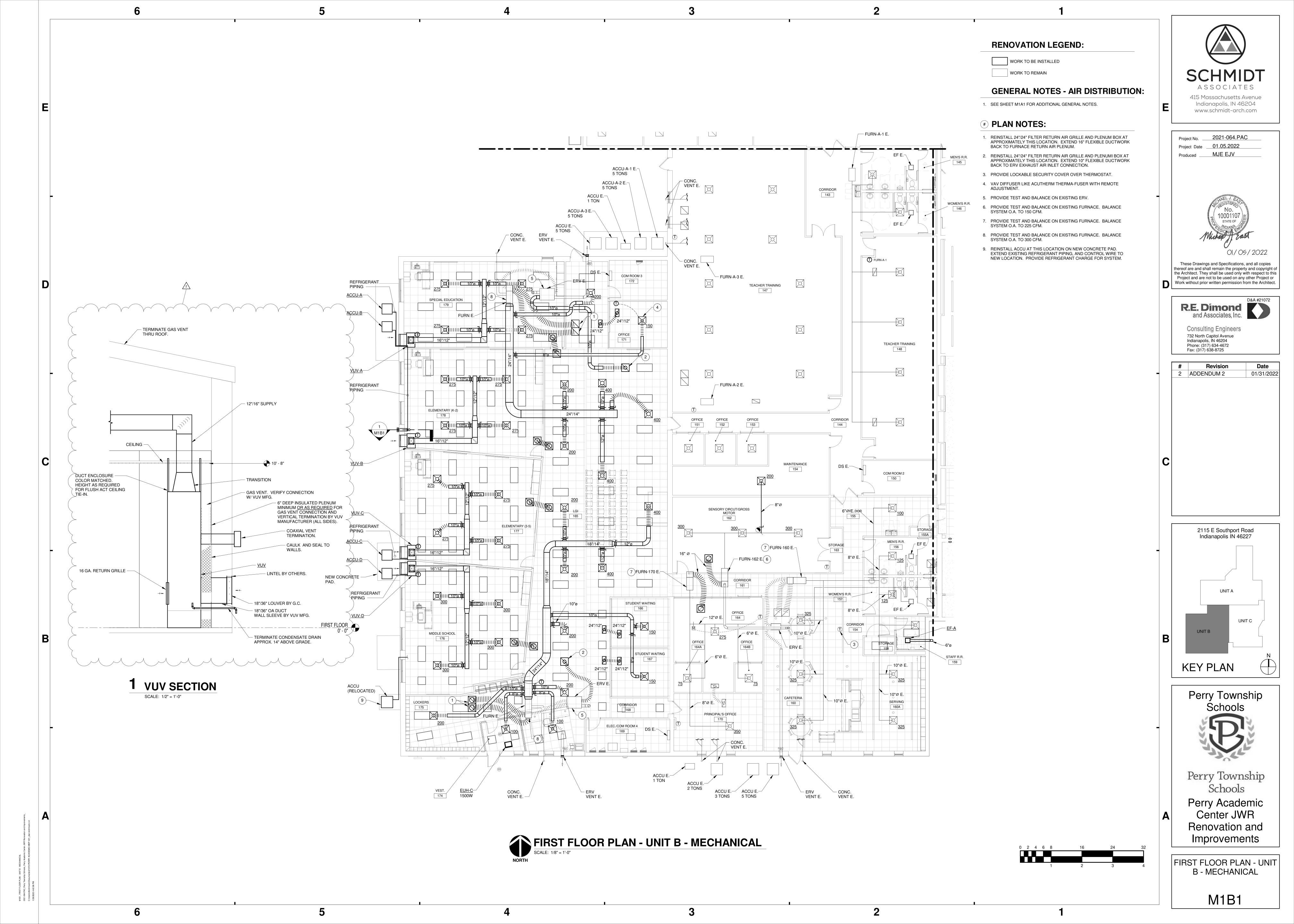


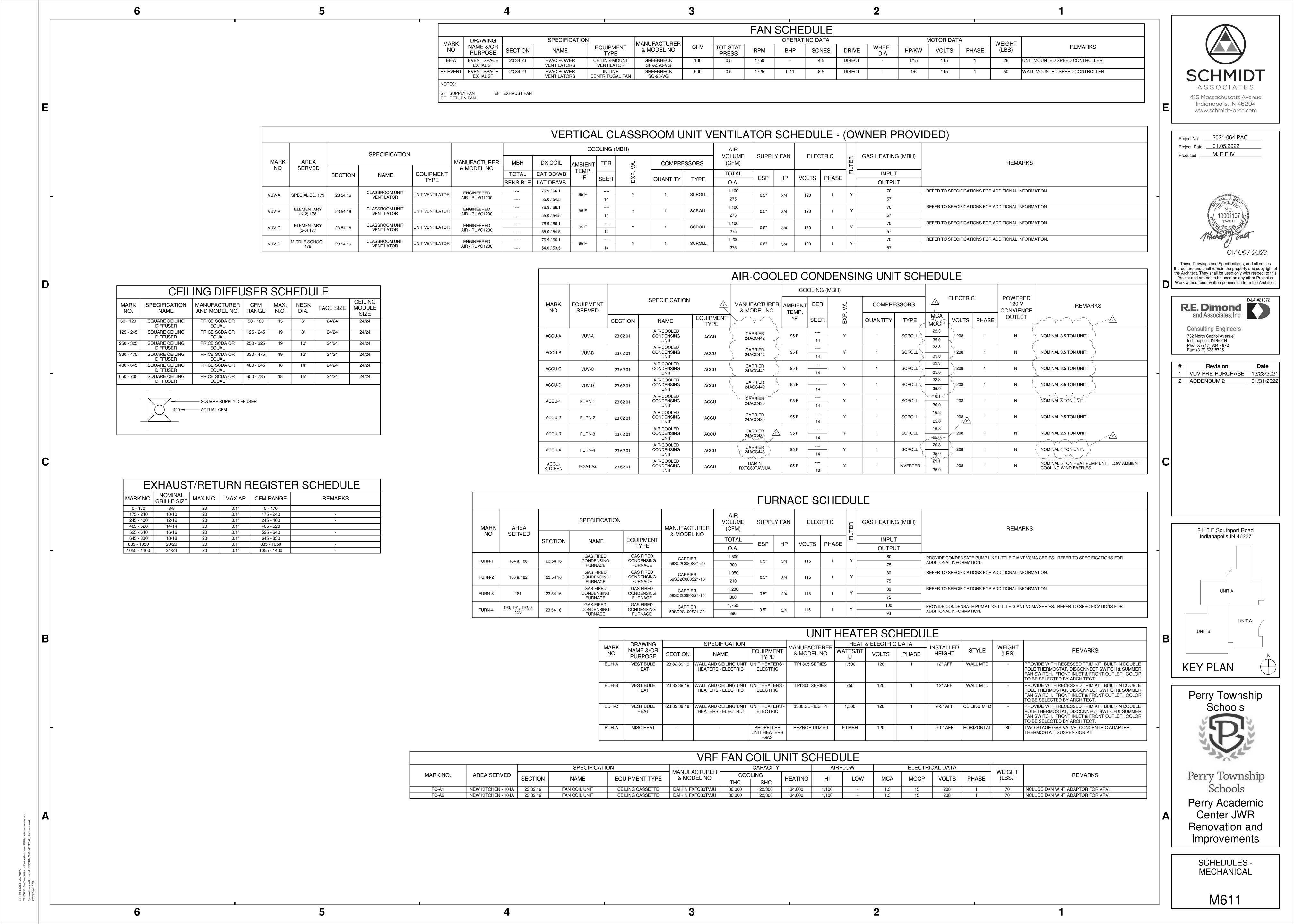


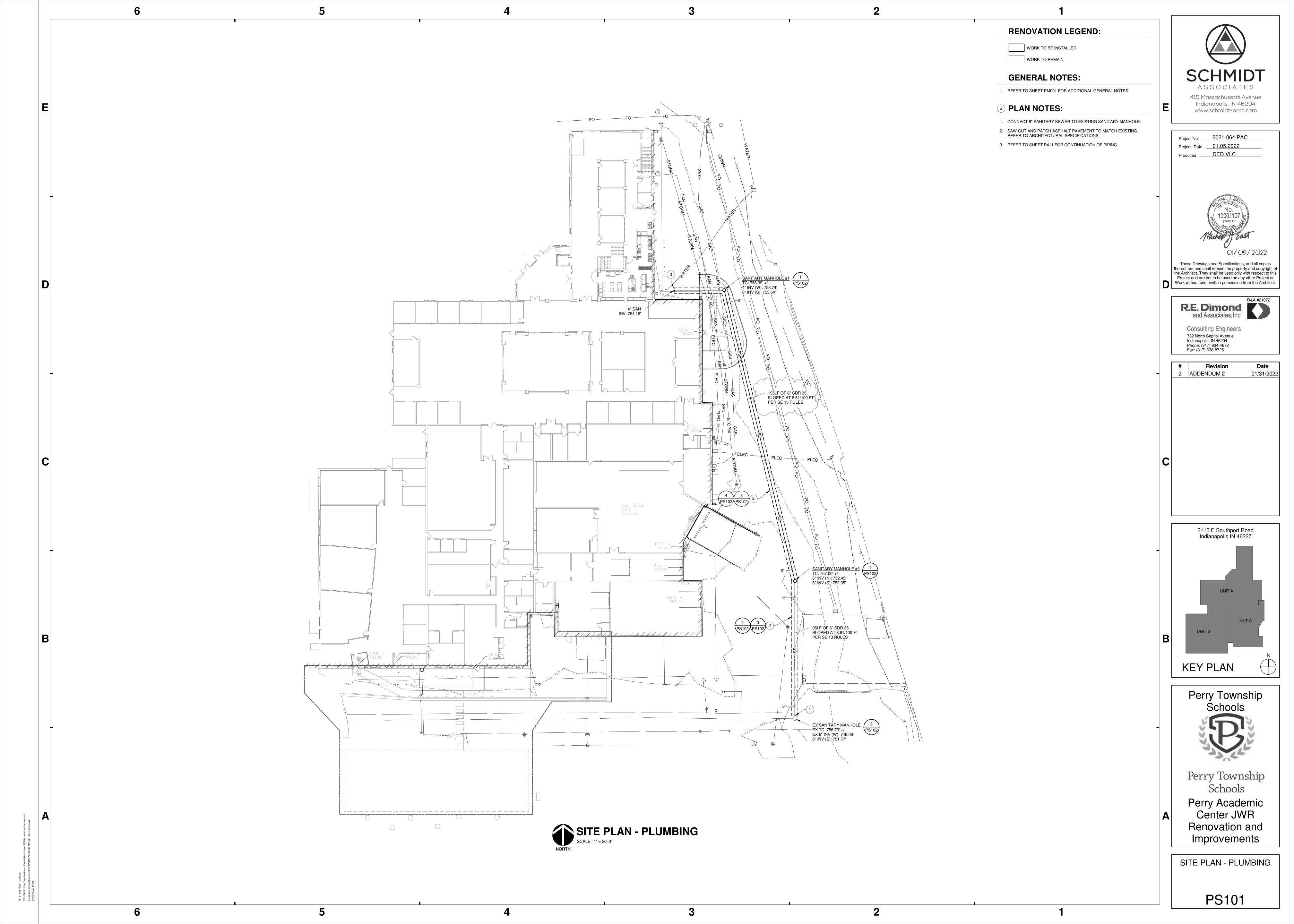


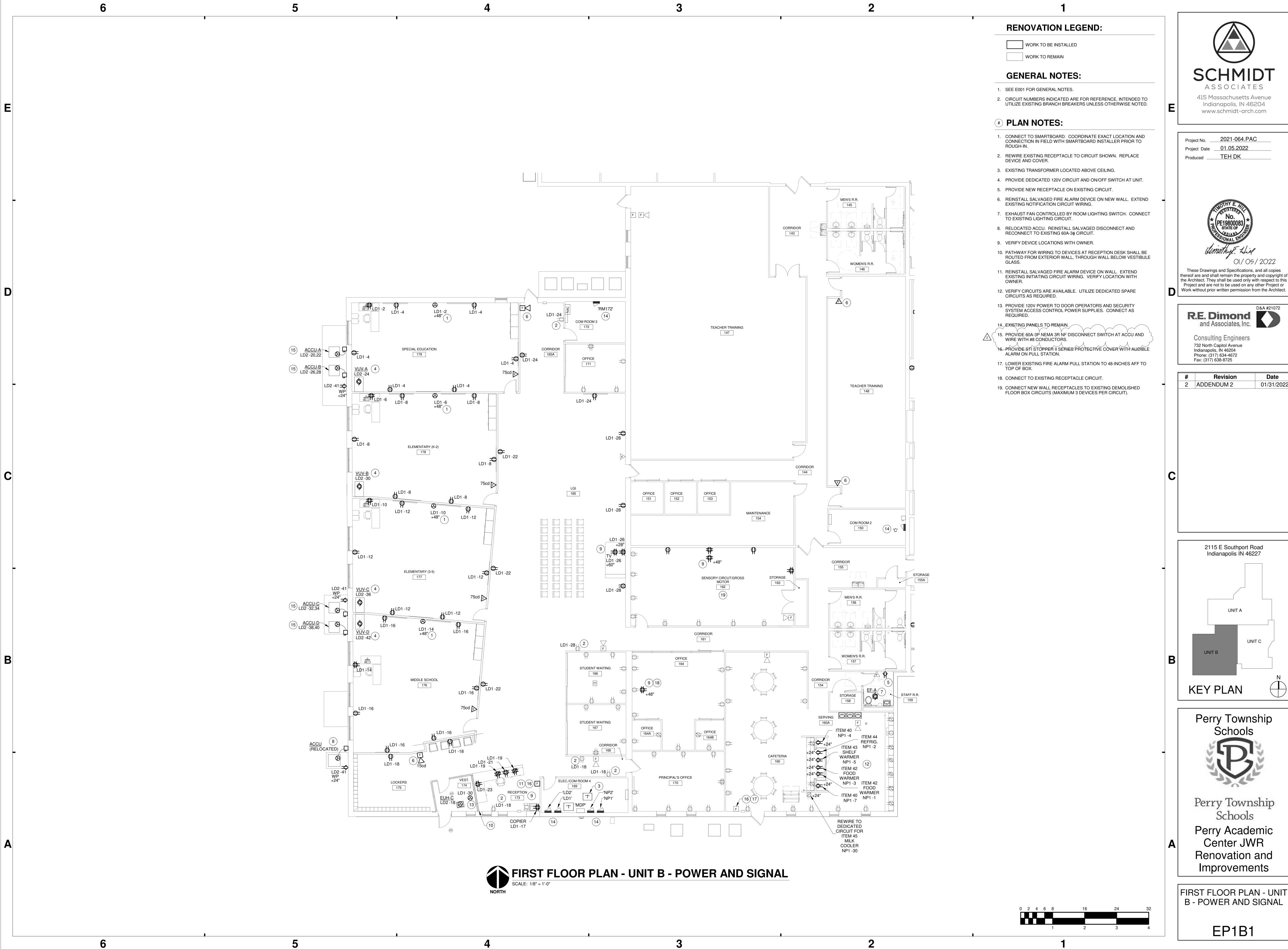




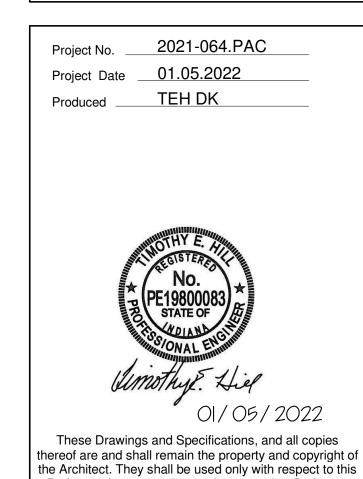






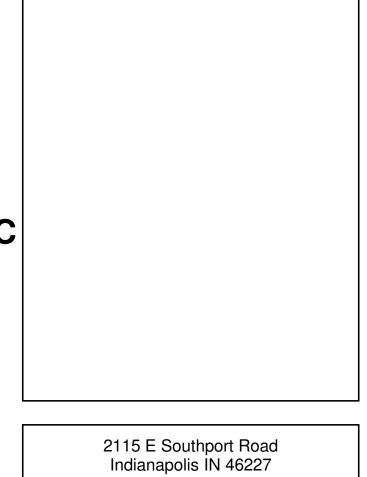


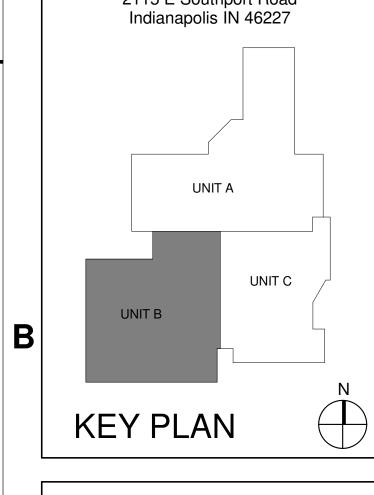






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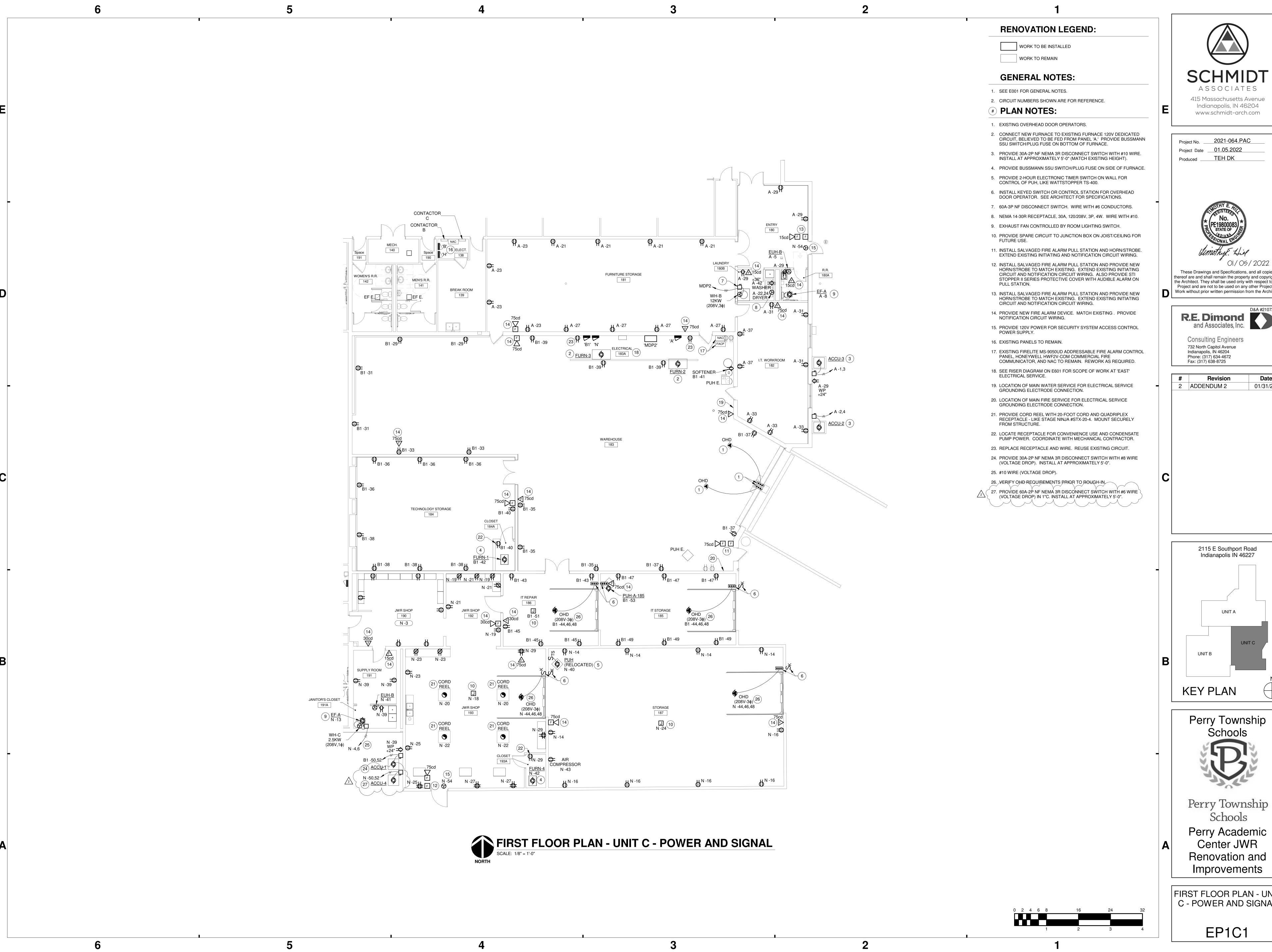




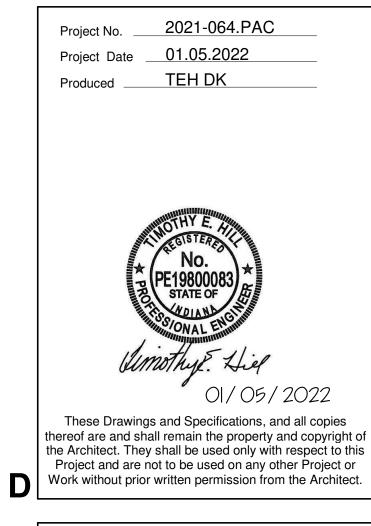


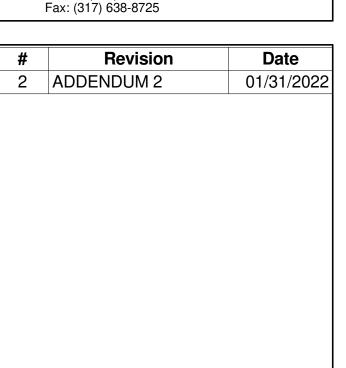
FIRST FLOOR PLAN - UNIT B - POWER AND SIGNAL

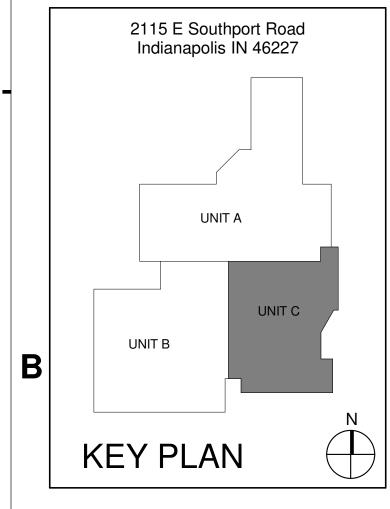
EP1B1

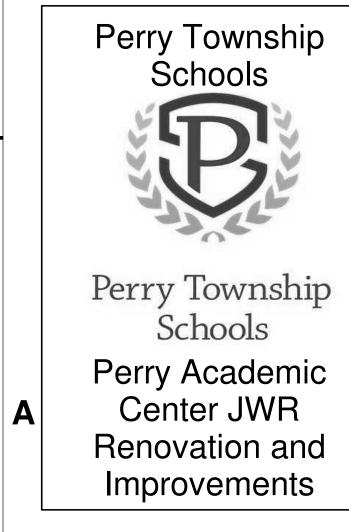












FIRST FLOOR PLAN - UNIT C - POWER AND SIGNAL

EP1C1

