THE SCHOOL DISTRICT OF PHILADELPHIA

BOARD OF EDUCATION
Office of Capital Programs
440 North Broad Street, 3rd Floor – Suite 371
Philadelphia, PA 19130

TELEPHONE: (215) 400-4730

Addendum No. 003

Subject: **Rhawnhurst Elementary School- Additions and Renovations**
SDP Contracts No. B-070, B-071, B-072 and B-073 of 2019/20

Location: **Rhawnhurst Elementary School**
7809 Castor Avenue
Philadelphia, Pennsylvania 19152

This Addendum, dated March 30, 2021 shall modify and become part of the Contract Documents for the work of this project. Any items not mentioned herein, or affected by, shall be performed strictly in accordance with the original documents.

BID PROPOSAL FORMS

REPLACE GC BID PROPOSAL FORM with the attached Revised Bid Proposal Form-GC.
It adds a Unit Price Item for Disposal of Contaminated Soils

DIVISION 0-1 SPECIFICATIONS

SECTION 01 1145 - SOILS MANAGEMENT

1. ADD SECTION 01 1145 SOILS MANAGEMENT-Attached

SECTION 015214 – MODULAR CLASSROOM BUILDING

1. **REPLACE** SPECIFICATION SECTION 015214 – MODULAR CLASSROOM BUILDING in its entirety. Page 8 was added to the classroom building detailing additional electrical scope to be provided by the general contractor as part of the modular classroom building.

ARCHITECTURAL SPECIFICATIONS

SECTION 095113 – ACOUSTICAL PANEL CEILINGS

1. **ADD** 2.8.a.3 as follows:

   3.Rockfon LLC, Curvagrid Metal Ceiling System with full range of colors, acoustical characteristics and perforations to match basis of design, 2.8.A.1.

PLUMBING SPECIFICATIONS

SECTION 220010 – PLUMBING GENERAL PROVISIONS

1. Paragraph 1.25 **DELETE** Section 1.25 PLUMBING MATERIAL ALLOWANCES in their entirety.

MECHANICAL SPECIFICATIONS

SECTION 230010 MECHANICAL GENERAL PROVISIONS

1. **REPLACE** paragraphs 1.4.B through 1.4.D with the following:

   b. Conduit, raceways, boxes and fittings for control wiring shall be provided by the MC but must be installed by an electrical contractor licensed per City of Philadelphia requirements. Materials and installation shall be in accordance with applicable Division 26 sections. All wiring shall be plenum rated.

   c. Power wiring from panelboard or similar source through all equipment disconnects to motors or heating equipment shall be furnished and installed by the EC.

   d. Equipment disconnect switches, unless otherwise specified to be supplied by the equipment manufacturer as an integral part of the equipment, shall be furnished and installed by the EC.

2. **REPLACE** the first sentence of paragraph 1.23.A with the following:

   a. This Contractor shall be responsible for all cutting and patching required for demolition or installation of work on this project.

SECTION 230900 ATC SYSTEMS

1. **ADD** Monitoring of Ion levels in each Bi-polar Ionization system.
2. **ADD** An alarm for low ion levels in each Bi-polar Ionization system per manufacturers recommended ion levels.

SECTION 230510 HVAC PIPING AND SPECIALTIES

1. **REPLACE** The first sentence in Paragraph 2.1B with the following:

   b. PEX-a Plastic Tubing (Uponor HePEX or equal): ASTM F876, AST F 877. (for piping 3” and smaller)

ELECTRICAL SPECIFICATIONS

SECTION 260940 Distributed Digital Lighting Control System

1. **ADD** Acuity nLight to the list of alternate manufacturers in paragraph 2.1.B.

SECTION 262420 Panelboard Schedules

1. Panel HDPB, ckt #12: **DELETE** 3P.200A breaker for Panel HPV (Photovoltaic System).
2. Panel HDPB, ckt #13: **DELETE** 2P.600A breaker for Temporary Modular Classrooms.
3. Panel HC1, ckt #41: **ADD** 15A, 1P in Breaker pole and amp descriptions.
4. Panel OS-LBB, ckt #20: **ADD** 1P.30A breaker with notes 3,5, for “Chiller Heat Trace”.

SECTION 2631000 Photovoltaic System

1. **ADD** paragraph 2.3.Q as follows:

    Q. Listings/Certifications:
        1. UL 1741
        2. IEEE 1547

SECTION 265200 Luminaire Schedule

1. **DELETE** Note 8 from Fixture Type CH1.

CIVIL DRAWINGS

DRAWING C-500 Utility Plan

1. **REVISED** SMP-3 6" cast iron storm sewer connection
2. **ADD** Modification of existing summit manhole on Chandler Street.
3. **ADD** Two (2) 30" pre-cast concrete manholes with gray iron frame and covers.
4. **ADD** Sixty-five (65) L.F. new 18" stormwater conduit with wye connection.

ARCHITECTURAL DRAWINGS

DRAWING D1.3 – FIRST FLOOR DEMOLITION PLAN UNITS "A & B"

1. **REPLACE** D1.3 in its entirety as part of Addendum #3. Chase walls are being demoed in B109, B110E, B115A, B116A, B117A and B118A.

DRAWING A1.4 – FIRST FLOOR PLAN UNIT "A" & A4.1 – LARGE SCALE TOILET PLANS

1. **REPLACE** A1.4 AND A4.1 in their entirety as part of Addendum #3. Walls are being demolished and replaced as indicated on the revised drawing to allow for plumbing demolition and replacement in the plumbing chases. These walls include B109, B110E, B115A, B116A, B117A and B118A.General contractor shall coordinate for the new installation of new plumbing and penetrations, sleeves etc. through these walls.

DRAWING I7.9 – OVERALL FIRST FLOOR – FINISH PLAN

1. **ADD** notes for tile accent wall at A107, B103, C124, & C125.

DRAWING I7.10 – OVERALL SECOND FLOOR – FINISH PLAN

1. **ADD** notes for tile accent wall at B202, B210, C203, & C204.

STRUCTURAL DRAWINGS

DRAWING S1.9 – S1.14 – STRUCTURAL DRAWINGS

1. **ADD** the following wording to MASONRY LINTEL PLAN NOTE #1:
    a. Note #1 is for general construction lintels, all mechanical, plumbing, fire protection and electrical sleeves and lintels that need to penetrate NEW walls are to be provided by mechanical, electrical and plumbing contractors for their work as detailed on the MASONRY LINTEL SCHEDULE on S1.9, provided to the general contractor and installed by the general contractor during construction of walls. If mechanical, plumbing and electrical contractor do not coordinate prior to construction of walls with the general contractor they are responsible to cut, install and patch walls for the installation of their sleeves, lintels and work.

MECHANICAL DRAWINGS

DRAWING M0.0 LEGEND, ABBREVIATION AND NOTES

1. **ADD** the following General Note:
    a. All mechanical sleeves and lintels that need to penetrate **NEW** walls are to be provided by mechanical contractor for their work as detailed on the MASONRY LINTEL SCHEDULE on S1.9, provided to the general contractor and installed by the general contractor during construction of walls. If mechanical contractor does not coordinate prior to construction of walls with the general contractor, the contractor is responsible to cut, install and patch walls for the installation of their sleeves, lintels and work.

DRAWING M0.0 – LEGEND, ABBREVATIONS AND NOTES

1. **REPLACE** drawing with the attached.

DRAWING M2.1 – FIRST FLOOR UNITS "A" & "B" HVAC

1. **REPLACE** drawing with the attached.

DRAWING M2.8 – FIRST FLOOR UNIT "C" HVAC PIPING

1. **ADD** a Thermostat in room "Girls C124"

DRAWING M2.9 – SECOND FLOOR UNITS "A" & "B" HVAC PIPING

1. **REPLACE** drawing with the attached.

DRAWING M2.12 – ENLARGED MECHANICAL PLAN

1. **REPLACE** drawing with the attached.

PLUMBING DRAWINGS

DRAWING P0.0 PLUMBING SYMBOLS, NOTES

2. **ADD** the following General Note:
    b. All plumbing sleeves and lintels that need to penetrate **NEW** walls are to be provided by plumbing contractor for their work as detailed on the MASONRY LINTEL SCHEDULE on S1.9, provided to the general contractor and installed by the general contractor during construction of walls. If plumbing contractor does not coordinate prior to construction of walls with the general contractor, the contractor is responsible to cut, install and patch walls for the installation of their sleeves, lintels and work. Plumbing contractor is also responsible for their own cutting and patching of existing walls and installation of sleeves, lintels to allow for their work.

DRAWING P0.2 – SITE PLAN

1. **REVISE** drawing notes 6 and 7 to read as follows:

    6. PLUMBING CONTRACTOR SHALL RUN 4" SANITARY PIPING TO MODULAR BUILDING (FOR EXTENSION BY MODULAR BUILDING CONTRACTOR). COORDINATE EXACT LOCATION AND INVERT OF PIPING WITH ALL OTHER TRADES AND MODULAR BUILDING CONTACTOR. WHEN MODULAR BUILDING IS REMOVED FROM THE SITE IN PHASING PLAN, REMOVE ALL PIPING SERVING MODULAR BUILDING BACK TO THE BRANCH CONNECTION AT THE MAIN AND CAP.

    7. PLUMBING CONTRACTOR SHALL RUN 2" DOMESTIC COLD WATER PIPING TO MODULAR BUILDING (FOR EXTENSION BY MODULAR BUILDING CONTRACTOR). COORDINATE EXACT LOCATION OF PIPING WITH ALL OTHER TRADES AND MODULAR BUILDING CONTRACTOR. WHEN MODULAR BUILDING IS REMOVED FROM THE SITE REMOVE ALL PIPING SERVING MODULAR BUILDING BACK TO THE BRANCH CONNECTION AT THE MAIN AND CAP INCLUDING ALL BRANCH PIPING INSIDE BUILDING.

DRAWING P1.0 – BASEMENT UNIT A & B PLUMBING DEMOLITION

1. **ADD** removal of all existing piping insulation from all existing domestic water piping and prepare piping for replacement insulation.
2. **ADD** removal of all existing domestic water branch piping back to the main and cap all piping that is not being reused in the new plumbing system.

DRAWING P1.1 – BASEMENT UNIT C PLUMBING DEMOLITION

1. **ADD** removal of all existing piping insulation from all existing domestic water piping and prepare piping for replacement insulation.
2. **ADD** removal of all existing domestic water branch piping back to the main and cap all piping that is not being reused in the new plumbing system.

DRAWING P2.0 – BASEMENT UNIT A & B PLUMBING

1. **ADD** new insulation as specified, insulation shall be furnished and installed for all existing domestic water piping.

DRAWING P2.1 – BASEMENT UNIT C PLUMBING

1. **ADD** new insulation as specified, insulation shall be furnished and installed for all existing domestic water piping.

DRAWING P2.5 – SECOND FLOOR UNIT C PLUMBING

1. Refer to exterior wall at Faculty Planning C207 at overflow storm piping. Drawing note at exterior shall be Note 10. **ADD** drawing note 10 to drawing to read as follows:

   10. RUN OVERFLOW PIPING ABOVE CEILING AND TERMINATE OUTSIDE BUILDING AT EXTERIOR WALL WITH OVERLFOW STORM SPOUT OSS-1.

2. Refer to Science Classroom C210. Revise the domestic water piping to the sink on the right to be run in a similar manner as the sanitary piping along the wall at the back of the casework. **DELETE** the vent piping from the sink on the right. **REVISE** the vent piping size to be 2” from the sink on the left.

FIRE PROTECTION DRAWINGS

DRAWING FP1.0 FIRE PROTECTION ZONING PLANS

1. **ADD** the following General Note:
   c. All fire protection sleeves and lintels that need to penetrate **NEW** walls are to be provided by plumbing contractor for their work as detailed on the MASONRY LINTEL SCHEDULE on S1.9, provided to the general contractor and installed by the general contractor during construction of walls. If plumbing contractor does not coordinate prior to construction of walls with the general contractor, the contractor is responsible to cut, install and patch walls for the installation of their sleeves, lintels and work. Plumbing contractor is also responsible for their own cutting and patching of existing walls and installation of sleeves, lintels to allow for their work.

ELECTRICAL DRAWINGS

DRAWING E0.0 SYMBOLS

1. **ADD** the following General Note:
   d. All electrical sleeves and lintels that need to penetrate **NEW** walls are to be provided by electrical contractor for their work as detailed on the MASONRY LINTEL SCHEDULE on S1.9, provided to the general contractor and installed by the general contractor during construction of walls. If electrical contractor does not coordinate prior to construction of walls with the general contractor, the contractor is responsible to cut, install and patch

walls for the installation of their sleeves, lintels and work. Electrical contractor is also responsible for their own cutting and patching of existing walls and installation of sleeves, lintels to allow for their work.

DRAWING E0.2 – SITE PLAN

1. **REPLACE** drawing with the attached.

DRAWING E3.6 – ROOF POWER

1. **REPLACE** drawing with the attached.

DRAWING E5.2 – FIRST FLOOR FIRE ALARM

1. **ADD** one TS (tamper switch) and one FS (flow switch) in Custodial B102.
2. **ADD** two TS (tamper switches) and two FS (flow switches) in Custodial C127.
3. **ADD** weatherproof speaker/strobe with Drawing Note 1 and 2 tags on exterior wall outside of Principal B101B office.
4. **DELETE** FMP fire alarm addressable module from the elevator.
5. **ADD** Drawing Note 2 as follows: Alarm on sprinkler water flow.

DRAWING E5.3 – SECOND FLOOR FIRE ALARM

1. **ADD** one TS (tamper switch) and one FS (flow switch) in pipe chase outside of Boys B202.
2. **ADD** one TS (tamper switch) and one FS (flow switch) in Custodial C201.

DRAWING E8.2 – POWER RISER DIAGRAM

1. **REPLACE** drawing with the attached.

DRAWING E9.3 – ELECTRICAL DETAILS

1. **DELETE** each instance of “and Wireless Network Bridges” from details on this Drawing.

BIDDER QUESTIONS SUBMITTED TO DATE & RESPONSES ARE AS FOLLOWS:

1. **Restrooms B115/C, B116B/C, B117B/C, B118B/C, B110E, B109 require that the behind the wall plumbing risers be removed and replaced, drawing P1.2. The walls are not shown to be removed on drawing D1.3. Who will be responsible for cutting and patching of the wall to permit the plumbing demolition and installation of the new work? This question will apply any locations not specifically mentioned above?**

   Answer: Yes, the plumbing is to bring the new underground water and sanitary connections to the trailer to a single point connection for the modular trailer supplier to connect to under the general construction contract. General and plumbing contractors are required to coordinate these connections. After the trailers are removed from the construction site as part of the phasing, plumbing and electrical contractors will be required remove their lines to the modular and replace soil for site contractor to preform final paving in these areas.

2. **Will the new underground water and sanitary connections to the modular trailers be single point connection?**

   Answer: Yes, the plumbing is to bring the new underground water and sanitary connections to the trailer to a single point connection for the modular trailer supplier to connect to under the general construction contract. General and plumbing contractors are required to coordinate these connections. After the

trailers are removed from the construction site as part of the phasing, plumbing and electrical contractors will be required remove their lines to the modular and replace soil for site contractor to preform final paving in these areas.

3. Does the crawl space extend under the existing kitchen?

Answer: Yes, as per EX1.0 EXISTING BASEMENT FLOOR PLAN the crawl space does extend under the existing kitchen.

4. Will the crawl space extend under the new kitchen addition?

Answer: No as per floor plans and sections the crawl space will not extend under the new kitchen addition.

5. Will temporary lighting be installed in the crawl space?

Answer: This is a contractor means and methods for temporary conditions between the prime contractors. The crawl space currently has lighting as shown on the E1.1 that is being replaced with new lighting. It is assumed that the old lighting will be kept in place until the new lighting is installed and operational, however, this will be a task for the prime contractors to coordinate among each other or provide temporary lighting.

6. Drawing notes referenced on drawing S1.9 thru S1.14, indicate that the Contractor for General Construction is responsible for Masonry Lintels and Masonry Reinforcing for mechanical penetrations.

Please confirm, is the GC likewise responsible for wall openings (penetrations) for mechanical systems going thu the masonry walls?

Answer: ALL contractors are to reference notes added to S1.9 through S1.14 and M0.0, P0.0, FP1.0 and E0.0 that define each contractors responsibilities in both new and existing wall construction.

7. The summary of work for Contract B-070C of 2019/2020 GC: Item 22 indicates that the General Contractor is responsible to make utility connections including water, electrical and IT to the Modular Classroom Building (MCB). Please consider limiting the GC's responsibility to site water services to within 5' outside the MCB building footprint only. It will be more cost effective to have the Electrical Prime provide the service, final connections, IT connections and related disconnections – and the Plumbing Prime all water and sewer connections/disconnections.

Answer: See end of REPLACED Specification Section 015214 – Modular Classroom Building. Electrical and plumbing will bring water, power, IT and sanitary to one location for modular classroom building installer under the General Contractor. Due to exact layout and number of connections that are only known to each MCB fabricator/installer no change can be made to the approach.

Refer to Drawing P0.2 for water and sewer services to the modular classrooms. Refer to E0.2 and E8.2 for electrical (power) service to the modular classrooms. Refer to E0.2 for conduit pathway provided for low-voltage systems from the modular classrooms to the Rhawnhurst ES building (wiring and connections to be provided by the modular contractor).

8. **Please clarify which prime has the scope of providing the security bollards shown on drawing E0.2 note 13 - GC or EC?**

   Answer: The EC shall provide bollards at the padmount transformer as shown on E0.2.

9. **Drawing note 8 on drawing E0.2 does not appear to be shown in plan. Please confirm this note can be ignored.**

   Answer: Chiller heat trace circuit with Note 8 reference added on Drawing E0.2. See ELECTRICAL DRAWINGS revisions above.

10. **Specification section 260940-2.8 specifies (3) different photocells - open loop, closed loop, and dual loop. It is not clear from the specs or drawings which type we are to provide. Please clarify which type are to provide for this project.**

    Answer: Provide open loop photosensors unless otherwise recommended by the lighting controls system manufacturer.

11. **Please confirm the motorized shade scope for the EC only includes install and wiring per detail 8 on E9.1. Please confirm all devices will be furnished by the GC.**

    Answer: Motorized shades, controllers, and switches are furnished by the GC. Shades and shade controllers shall be installed by the GC; control switches shall be installed by the EC. All wiring and raceways shall be provided by the GC.

12. **Specification section 281600-2.1C lists (3) different motion detectors. It is unclear from the specs and drawings which type of motion sensor should be provided in each area. Please indicate which type should be specified for each location.**

    Answer: The Intrusion Detection System manufacturer shall provide the motion sensor type(s) best suited to provide optimal coverage of each space.

13. **Specification section 262817 for the elevator disconnect is mentioned in note 5 on drawing E8.2 and mentioned in spec 260180, but this specification section has not been provided. Please provide this specification or clarify design. Please confirm the elevator disconnect should be a 100A-3P 480V fused safety switch in a NEMA 1 enclosure with 70A fuses.**

    Answer: Specification 262817 elevator disconnect switch is not applicable. Please provide a 3P.100A, 480V fused disconnect switch with auxiliary contact. Assume 70A

fuses for bidding purposes. Final fuse size will be based on approved elevator submittal.

14. **Luminaire Note 8 in specification section 265200 for fixture types CH1 and RD4 states to include ceiling slope adapters, but sloped ceiling locations have not been indicated on the electrical plans. Please indicate the areas where sloped ceiling adapters are required.**

    Answer: Note 8 is not applicable, and will be deleted, for Type CH1 fixtures. Provide sloped ceiling adapters for Type RD4 mounted in curved ceiling clouds in Cafeteria C105.

15. **A fire alarm addressable relay is shown outdoors at the generator on drawing E0.2, but addressable relays are not rated for outdoors. Please confirm it is acceptable to locate this relay inside as close to the generator as possible.**

    Answer: This is acceptable.

16. **The lighting control details on E9.3 include a note at the room controllers to provide cables to wireless network bridges. It is our understanding that the design intent is to have lighting controls that are local/standalone for each room and <u>not</u> networked together. Please confirm our understanding is correct and that we <u>do not</u> need to provide network bridges or head end equipment to control rooms from a computer workstation. If we do need to provide network bridges and headend equipment, please provide details and specs for this design.**

    Answer: Lighting controls for this project are non-networked. Wireless network bridges are not required. References to network bridges will be removed from E9.3 details.

17. **M2.11 - There is supply and return duct on the roof, but no outdoors insulation spec. Please provide if this is lined duct or to be exterior insulated.**

    Answer: Refer to Paragraph 2.3 in specification section 230890 for pre-manufactured exterior ductwork product. This product shall be used for all exterior ductwork.

18. **What is the existing Fire Alarm System at Rhawnhurst?**

    Answer: The main Fire Alarm System is a 120V, 1948 vintage, manual system with bell annunciation; manufacturer unknown. An existing EST FireShield Plus fire alarm panel monitors duct detectors on two air handling units.

19. **We need lighting Fixture Panel Schedule we went through all drawings and can't find.**

    Answer: Luminaire schedules, panelboard schedules and lighting control schedules are found in the specifications as follows:

Specification Section 262420 – Panelboard Schedules
Specification Section 265200 – Luminaire Schedules

ATTACHMENTS

This Addendum includes the following attachments:

Bid Proposal Forms
REVISED BID PROPOSAL FORM-GC

Project Specifications
SECTION 01 1145 SOILS MANAGEMENT
SECTION 015214 – MODULAR CLASSROOM BUILDING

Civil Drawings
Drawing C-500 UTILITY PLAN (Revised for Addendum #3)

Architectural Drawings:

DRAWING D1.3	FIRST FLOOR DEMOLITION PLAN UNITS “A & B”
DRAWING A1.4	FIRST FLOOR PLAN UNIT “B”
DRAWING A4.1	LARGE SCALE TOILET PLANS
DRAWING I7.9	OVERALL FIRST FLOOR – FINISH PLAN
DRAWING I7.10	COLOR SECOND FLOOR – FINISH PLAN

Mechanical Drawings

M0.0 – LEGEND, ABBREVATIONS AND NOTES
M2.1 – FIRST FLOOR UNITS “A” & “B” HVAC
M2.9 – SECOND FLOOR UNITS “A” & “B” HVAC PIPING
M2.12 – ENLARGED MECHANICAL PLAN

Electrical Drawings

DRAWING E0.2	SITE PLAN
DRAWING E3.6	ROOF POWER
DRAWING E8.2	POWER RISER DIAGRAM

END OF ADDENDUM #003

BID PROPOSAL FORM-Revised
MAJOR ADDITION and RENOVATIONS
at
RHAWNHURST ELEMENTARY SCHOOL

Contract No. B-070 C of 2019/2020 General Construction

TO: The School District of Philadelphia — **OWNER**
Board of Education

Office of Capital Programs — **ADDRESS**
The School District of Philadelphia
440 North Broad Street
Third Floor - Suite 371
Philadelphia, PA 19130-4015

FROM: _____ **CONTRACTOR**
_____ **ADDRESS**
_____
_____ **CITY/STATE**
_____ **CONTACT NAME**
_____ **PHONE NO.**

BASE CONTRACT PROPOSAL:

1. Having become completely familiar with the local conditions affecting the cost of Work at the place where Work is to be executed, and having carefully examined the site conditions as they currently exist, and having carefully examined the Bidding and Contract Documents prepared for this project, together with any Addenda to such Bidding and Contract Documents as listed hereinafter, the Undersigned hereby proposes and agrees to provide all labor, materials, plant, equipment, transportation and other facilities as necessary and/or required to execute all of the Work described by the Contract Documents for the above cited Contract for the lump sum consideration of:

_____Dollars ($_____), said amount being hereinafter referred to as the Base Proposal Amount. Base proposal Amount includes Unit Price Items listed below, if applicable.

BID ALTERNATES (Not applicable to this Contract – No Alternates)

UNIT PRICES:

UNIT PRICE NO. 1: EXCAVATION AND DISPOSAL OF CONTAMINATED SOILS

1. Excavation and Disposal of Soils determined to be Contaminated, in accordance with PA DEP Clean Fill Regulations, including all costs of excavation, stockpiling, testing and hauling, in accordance with Section 01 1145 SOILS MANAGEMENT, as directed by the District's Environmental Consultant

2. Unit of Measurement: per ton (T)

3. Payment: Payment to be made for the actual quantities in accordance with Section 01 1600-UNIT PRICES.

4. Estimated Quantity included in Base Bid: 400 TONS

5. Unit Price Calculation (to be included in Base Bid Amount):

400 TONS @ $ _____ per TON =

$ _____ Total*

***This amount included in Base Bid Amount**

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDA:

2. The Undersigned acknowledges receipt of the following Addenda (list by number and date appearing on Addenda):

Addendum No.	Date	Addendum No.	Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

TIME OF COMPLETION:

3. The Undersigned agrees to Substantially Complete all Work under this Contract within the time periods specified in Division 1, General Requirements, Section 00 1300 entitled “Time of Completion, Milestones and Phasing or Sequencing Requirements”.

INSURANCE:

4. All Bidders are instructed to refer to Article GC-11 of the General Conditions. All Contractors or Subcontractors bidding Work on the Project shall include in their bids the costs of Workers Compensation and Employer’s Liability Insurance, Commercial General Liability Insurance, Automobile Liability Insurance, Excess Umbrella Liability Insurance (Commercial Umbrella Liability Insurance) and any other types of insurance identified in Division 1- General Requirements, Section 01200 (or 01 1200) entitled “ Special Insurance Requirements”.

LIQUIDATED DAMAGES:

5. Upon failure by the Contractor to achieve Substantial Completion within the time specified in Article GC-8 of the General Conditions from the Date of Commencement as set forth in the Notice to Proceed, the Contractor shall pay to the School District, as liquidated damages and not as a penalty, the sum of One Thousand Dollars ($1,000.00) per day for each consecutive calendar day of delay until such time as Substantial Completion of the Work is achieved.

6. In addition, the Contractor shall be responsible for and pay for the cost of completion of construction of the Work, as well as for any and all additional charges of the School District, Architect/Engineer, other Project Contractors, and any other Consultants to the School District relating to the Contractor's failure to achieve Substantial Completion on a timely basis, including, but not limited to, delay damages, disruption damages, acceleration costs or expenses, investigative expenses, consulting fees, experts’ fees, and attorneys’ fees.

7. The Contractor and the School District agree that the amounts so fixed herein as liquidated damages are reasonable forecasts of just compensation for the harm that will be caused to the School District by the Contractor's breach.

GENERAL STATEMENT:

8. The Undersigned declares that the person or persons signing this Proposal is/are fully authorized to sign on behalf of the firm listed and to fully bind the firm listed to all the Proposal's conditions and provisions thereof.

9. It is agreed that the Undersigned has complied or will comply with all

requirements of local, state, and federal laws, and that no legal requirement has been or will be violated in making or accepting this Proposal, in awarding the Contract to it and/or in prosecution of the Work.

10. Bid Security in the amount of ten percent (10%) of the Base Bid, plus all additive Alternates Proposal amounts, is attached hereto and made a part hereof, without endorsement, in the sum of _____ Dollars ($_____), which shall become the property of the School District in the event the Contract and Performance Bond and Labor and Materialmen's Bond are not executed within the time set forth, as liquidated damages.

11. The Undersigned further agrees within five (5) calendar days from date of Notice of Acceptance of this Proposal or Contract award, to sign and deliver to the School District, all required copies of the School District/Contractor Agreement, the Performance Bond, the Labor and Materialmen's Bond, and the Maintenance Bond, in the forms included in the Bidding Documents, and the policies of insurance or insurance certificates as required by the General Conditions. In case the undersigned fails or neglects to deliver within the specified time the School District/Contractor Agreement, the Performance Bond, the Labor and Materialmen's Bond, and the Maintenance Bond, and the insurance policies or certificates, all as aforesaid, the undersigned shall be considered as having abandoned the Contract, and the Bid Bond accompanying this Proposal shall be forfeited to the School District by reason of such failure on the part of the undersigned, as liquidated damages and not as a penalty.

12. The Undersigned further agrees that the Bid Security may be retained by the School District and shall remain with the School District until the School District/Contractor Agreement has been signed and delivered to the School District and the Performance Bond, the Labor and Materialmen's Bond, and the Maintenance Bond, and insurance policies or certificates have been made and delivered to the School District.

Respectfully submitted this _____day of _____, 201_.

Individual Proprietorship or Partnership

If Contractor is an individual proprietorship or is a partnership, sign here:

_____
(Trade Name of Firm)

By: _____ By: _____ (SEAL)
(Witness) (Owner or Partner)

Corporation

If Contractor is a corporation, sign here:

_____
(Name of Corporation)

ATTEST:

By: _____ By: _____ (SEAL)
(Secretary or Treasurer) (President or Vice President)

(CORPORATE SEAL)

Signature by anyone other than the President or Vice President and the Secretary or Treasurer of the Corporation must be accompanied by a power of attorney, executed by the proper corporate officers under the corporate seal indicating authority to execute this Bid.

SECTION 01 1145 - SOIL MANAGEMENT

3.1 EXCAVATED SOIL MANAGEMENT

A. The Contractor shall remove, and recycle or dispose of all excess soil. All disposal of regulated soil/fill material shall be by the Contractor in accordance with local, State, and Federal regulations. Regulated material disposal shall be to an Owner-approved recycling method, an approved recycling facility, or an approved non-hazardous landfill. The removal and subsequent recycling or disposal of all excess soil needs to be managed in accordance with the PADEP Management of Fill Policy, effective January 1, 2020

B. The Contractor is responsible for all testing required by the landfill or other site selected for recycling or disposal of excavated soil

C. The excavation activities of known or suspected contaminated soil/fill material will be monitored by the Project Environmental Engineer on a continuous basis to advise the Contractor regarding the segregation of excavated soil. The Project Environmental Engineer is required to be onsite during all excavation activities of known or suspected contaminated soil/fill material.

D. The Contractor shall stage all excavated soil, as advised by the Project Environmental Engineer to be potentially contaminated, on six-mil thick polyethylene plastic, and cover with same, pending analysis and subsequent disposal/recycling. A six- to eight-inch berm shall be placed at the perimeter of the staging area to prevent run-on/run-off.

E. Soil samples shall be collected from the stockpiles by the testing entity selected by the Contractor and samples submitted to a PADEP-certified analytical laboratory for analyses. The Project Environmental Engineer will receive results back from the laboratory on a standard laboratory turnaround basis, typically 10 business days. The Contractor cannot claim a delay while soil samples are being analyzed. Expedited turnaround may be arranged for by the Contractor at no additional cost to the Owner.

F. Soil that meets the definition of a non-hazardous soil as defined within the Resource Conservation Recovery Act, Title 40 of the CFR parts 239 through 259 that cannot be reused on-site, will be sampled and analyzed by the Contractor in order to obtain disposal approval at a landfill or recycling facility. Sampling and analysis of the soil will be at the Contractor's expense at no additional cost to the Owner.

G. The Contractor shall provide a per ton Unit Price to transport and dispose of an estimated 400 tons of soil that does not meet the criteria to be certified as PADEP Clean Fill but meets the definition of a non-hazardous soil as defined within the Resource Conservation Recovery Act, Title 40 of the CFR parts 239 through 259.

H. All excess soil will be recycled or disposed off-site in a manner consistent with all applicable local, State, and Federal regulations. The disposal or recycling facility shall be approved by the Owner before the excess soil is transported off-site. The name of the proposed disposal or recycling facility is to be submitted to the Owner a minimum of 7 days prior to disposal.

I. The Contractor must follow the recommendations concerning handling of excavated excess Soil onsite as presented in PADEP's Management of Fill Policy, dated January 1, 2020.

J. In the event suspected contaminated soil is encountered that is unrelated to the excess soil described, the Contractor will notify the Owner. Following notification, the Owner will provide the

Contractor with the necessary procedures to manage the handling and disposal of the suspected contaminated soil.

3.2 SPECIAL CONDITIONS FOR SOIL MANAGEMENT

A. The following Special Conditions apply to all Work to be conducted in order to complete this project:

1. The Contractor shall make all required notifications and take all necessary precautions to ensure against damage including but not limited to access roads, sidewalks and driveways, utilities and structures. Any damage to such items shall be repaired or replaced by the Contractor at no additional cost to the Owner.

2. The use of burning at the Site for the disposal of refuse and debris will not be permitted.

3. The Contractor will furnish and install all fencing, barricades, warning signs, lights, etc.,wherever necessary to protect the public during work on this project. Fencing, barricades, and other protection devices will remain in place until all tasks associated with the contract are completed.

4. Procedures used to accomplish the Work shall be as specified herein unless submitted to the Project Environmental Engineer for approval prior to project implementation.

5. Any alternative procedures submitted for approval shall provide for safe conduct of Work, careful removal and disposition of materials specified, and protection of property. The procedures submitted shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations.

6. All disposal or recycling shall be by the Contractor in accordance with local, State, and Federal regulations. Excess soil shall be disposed at an Owner-approved recycling facility, or an owner approved landfill. The name of the proposed disposal or recycling facility is to be submitted to the Owner a minimum of 7 days prior to disposal.

7. The Contractor shall install appropriate measures to control surface water run-on to and run-off from the stockpiled excess soil, and from any open excavation. Engineering controls and best-management practices must be utilized to prevent stormwater runoff from the stockpiled soil.

8. The Contractor shall maintain the job site in a neat and orderly condition. This includes the daily removal of rubbish, waste, tools, equipment, and material not required for the Work in progress.

9. The Contractor assumes all liability for soil that is transported off-site and shall indemnify and hold Owner harmless for improper transportation and disposal that is not in accordance with local, State and/or Federal regulations.

3.3 TEST DOCUMENTATION AND REPORTING

A. The Contractor shall document all testing and provide copies to the Owner and authorities having jurisdiction. Test records shall include:

1. Date and time of tests;

2. Name of person performing the tests;

3. Location and depth of samples;

4. Names of any inspectors present;

5. Field observations and field screening procedures;

6. Daily field notes, including photographs;

7. Test procedures followed;

8. Test results;

9. A narrative describing how field tests were completed and sampling locations were chosen.

B. The Contractor shall provide documentation to the Owner for all testing before the excess soil Is transported off-site and with Contract close-out documentation to the Owner. The test documentation shall include, but not be limited to, laboratory analytical reports, laboratory chainof custody, Contractor field notes and daily logs.

C. Laboratory analytical testing shall be completed by a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory.

3.4 DISPOSAL OR RECYCLING DOCUMENTATION

A. The Contractor shall provide the following to the Engineer and Owner upon completion of the Work:

1. Excess excavated soil disposal or recycling documentation;

2. Disposal facility profile sheets or acceptance forms;

3. PADEP Form U (if applicable); Manifests; and, Bills of Lading.

3.5 FUGITIVE EMISSIONS

A. The following additional Special Conditions apply to all Work to be conducted in order to complete this project:

1. The Contractor shall incorporate means to prevent the carryout or track out of soil and other materials from the area where work is being performed onto undisturbed areas of the School property and onto areas of public access, including but not limited to road sand sidewalks.

2. The Contractor shall incorporate appropriate means to prevent fugitive dust emissions resulting from all construction activities, including but not limited to excavation, demolition, soil placement, stockpiling and transportation.

3. The Contractor is solely responsible for preventing the generation of fugitive dust emissions resulting from wind and other natural and man-made forces. The Contractor shall control the speed of vehicles and equipment moving on the site as it relates to safety and the creation of fugitive dust and shall make appropriate use of wind screens and dust suppressants.

4. No liquid dust suppressant other than water shall be used without the specific advanced approval of the School District. Information to be submitted to the School District for approval of any dust suppressant, other than water, shall include the product specification, manufacturer’s

usage instructions, information on environmental impacts associated with usage and approvals or certifications related to appropriate and safe usage for ground application.

5. Any fugitive dust and/or soil materials which leaves the site in an uncontrolled form shall be immediately cleaned up by the Contractor to the satisfaction of the School District. At the discretion of the School District, cleanup may incorporate on-site or off-site environmental sampling, performed by the School District at the Contractor's sole expense.

SECTION 01 5214 – MODULAR CLASSROOM BUILDING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Temporary classrooms.

B. Maintenance and removal.

1.02 UTILITIES

A. Provide temporary electricity connection from local utility.
   1. Owner will pay for electric connection and usage if they are billed directly by the utility.

1.03 SUBMITTALS

A. Product Data: Provide data on profiles, component dimensions, finishes, and specialties.

B. Site Plan: Showing areas for temporary construction and classrooms.

1.04 QUALITY ASSURANCE

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

B. Installer Qualifications: Company specializing in performing work of the type specified and with minimum three years of experience.

PART 2 PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

A. General Contractor shall provide a Modular Classroom Building (MCB) on site as located on Phasing Drawings PH.1, PH.2 and PH.3.

   1. Basis of Design Manufacturer: MOBIEASE MODULAR SPACE, INC.
      a. Contact: Murph Barton
         - Ph: 856-686-9600
         - 856-686-9240 (fax)
         - murph@mobileasemodular.com

   2. Main Classroom Building shall include
      a. Overall Dimensions: approximately 124’-5” long X64’-0”
      b. (8) eight classrooms.
      c. Include separate boys and girls restrooms, each bathroom shall have 5 water closets as shown on PH.3 and 4 sinks
      d. (1) Separate Single Occupancy Toilet.
      e. Ramps and Stairs as required to accommodate modular on site at approximate elevation of 121’-0” on slope of site as located on Phasing Drawings.
      f. Foundation system to accommodate Modular Classroom Building.
      g. Contractor shall be responsible coordinate and to make final electrical, and plumbing connections brought to the MCB as stub up connections.
      h. All work shall be designed to meet applicable building codes for the City of Philadelphia.

   3. MCB shall be designed to meet Specifications provided in following MOBILEASE

PART 3 EXECUTION

3.01 PREPARATION

A. Fill and grade sites for temporary structures to provide drainage away from buildings.

3.02 INSTALLATION

A. Install classroom spaces ready for occupancy for dates as shown on the phasing drawings.

3.03 MAINTENANCE AND CLEANING

A. Maintain approach walks free of mud, water, and snow.

3.04 REMOVAL

A. At completion of use by the school district as shown on the phasing drawings remove buildings, foundations, utility services, and debris. Restore areas to original condition including the removal of all footings and restoration of turf, grasses and pavement restoration.

END OF SECTION

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856-686-9240 (fax)
murph@mobileasemodular.com

MOBILEASE
MODULAR SPACE, INC.

MOBILEASE MODULAR SPACE, INC.
201 Rt. 130
Pedricktown NJ 08067
856-686-9600
murph@mobileasemodular.com

February 19, 2021

SPECIFICATIONS

Modular Building Institute Seal

100 MPH Wind Speed

Occupancy: Educational

Destination: Philadelphia, PA

FRAME:

- Perimeter Type with center C-Channel
- 64' or longer perimeter frame
- I-Beam Size as Required

FLOOR:

- Nylon Impregnated Bottom Board
- 2 x 8 Joists, 16" OC
- ¾" T & G Plywood Decking
- 1/8" Vinyl Composite Block Tile

WALLS & PARTITIONS:

- Wall Height: 8'-6"
- 2 x 4 Wood Studs, 16" OC
- Double Top Plate
- 2 x 6 Wood Studs – Endwalls extended to roof decking
- 2 x 6 Wood Studs – Exterior Walls
- LF Interior Partition Walls (per print)
- Double Mateline Walls
- 5/8" Type X Vinyl Covered Gypsum Wallboard
- Standard Interior Trim Package
- 4" Vinyl Base Cove

MOBILEASE MODULAR SPACE, INC.
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Pedricktown NJ 08067
856-686-9600
murph@mobileasemodular.com February 19, 2021

INTERIOR DOORS:

- Restroom doors Passage/ Lever Hardware with Hydraulic Closer
  With classroom function deadbolt
- 36" x 80" Sol. Core Imp. Oak St. Fr. 20 Min.
  GRADE 2 HARDWARE
- 36" x 80" Sol. Core Imp. Oak St. Fr. 60 Min.
  GRADE 2 HARDWARE (janitor)
- 5" x 20" VIEW BLOCKS FOR CLASSROOM DOORS ONLY
- All door hardware to accept best IC cores

ROOF:

- Ground Snow Load: 30 psf
- Truss Spacing: 24" O.C.
- Transverse – no bottom cord – 24" o.c.
- FR-Deck
- 45 Mil White EPDM with FR
- Ceiling: 2 x 2 Acoustical T-Grid (MC required)
- Mateline Ridgebeam
- Ridgebeam: 4 Layer 24", ¾" Plywood
- 1 Hour Rated Ceiling in Corridor (no dropdown)
  1 HOUR RATED CEILING TO BE SAME HEIGHT AS REST OF BUILDING.
- Attic Ventilation as Required

PLUMBING:

- Multi-station Restroom
- Handicap accessible ½ bath
- Wall mount lavatory with mirror & single lever faucet
- HC water closet with grab bars
- Standard elongated water closet
- SDP standard restroom accessories
- 30 Gal Water Heater
  *** set water heater at 110 degrees***
- Urinal
- Steel modesty partitions
- Steel urinal screen
- Utility sink with legs (PVC)
- Hi/Lo Handicap accessible water cooler
- Type L Copper Supply Lines (per fixture)
  INSTALL PLUMBING IN CEILING, DO NOT USE ZIP TIE'S FOR STAPPING, USE PLUMBER STRAP
- CAST IRON DRAINS

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February 19, 2021

ELECTRICAL:

- 125 Amp Panel (1) Per Classroom, (1) For Common Space
  KEYED LOCKS ON PANELS
- 2 x 2 LED T-GRID FLAT PANEL
  24-FPL1-LED-4000L-DIM 10-MVOLT-50K
- Emergency Lights (dual heads) (as required)
  LED IN ALL RESTROOMS, CLASSROOM & CORRIDOR
- Combo Lighted Exit Sign/Emergency Light with Battery
  LED
- Exterior Remote Heads (Dual Head Type)
  LED
- Empty 2 x 4 J-Box with ¾" Conduit Stub
- Alarm Junction Boxes 2 x 4 with ½" conduit
- Commercial Grade 20 Amp 110v Recepts approx. 12' oc
- GFI Protected Receptacle 20 Amp
- Exterior GFI Receptacle (in-use type) 20 Amp
- Dedicated 110v 20 Amp rec for water cooler
- Heat Tape Receptacle (GFI) 20 Amp
- Occupancy Sensors Intermatic IOS-DOV
- MC Cable Wiring
- Ceiling mount occ sensor with power pack in gang restrooms / classrooms
- L-200 CFM EXHAUST IN STAFF RESTROOMS
- NUVO 65-062 13W LED Wall Pack Fixture with Photocell
- Exhaust fans in Boys and Girls restroom to be on fan controller
  Model 57V winnelec
- Boys and Girls RESTROOMS & CLASSROOM should be on occupancy sensors tied into HOT leg. NO SWITCH
- L-300 cfm broad fan with Model 57V Speed control switch winnelec

See Attached

HVAC:

- 3 Ton Wall Mount Unit with 10kw Heat, heat pump, dehumidification, energy recovery ventilators, humidistat
- CRV Unit on Wall Mount HVAC
- Programmable Thermostats
- LF Fiberglass Supply Duct with Grilles
- Std. Return Air Grilles at Unit Only (No Duct)
  ALL CLASSROOMS
- LF Fiberglass Return Duct with Grills for toilet unit
- LF Plenum Wall
- 10" x 10" Fire Dampers (as required)
- 2 x 2 Supply Grilles for Suspended T-Grid Ceiling
- 2 x 2 Return Grilles for Suspended T-Grid Ceiling
- NO RETURN IN CORRIDOR

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February 19, 2021

EXTERIOR:

- Hi-Rib 29ga Steel Siding with Steel Trim
- 100% House Wrap
- Hi-Rib 29ga Steel Mansard (20" to 24" avg. height)
- 100% 7/16" OSB Sheathing
- Skirting: Hi-rib 29ga St. with 2 x 2 T, Vents (36" avg.)

WINDOWS:

- 36" X 60" vs Lowe E Insulated. This is an egress window.
- Bronze Aluminum Frames
- Bronze Tinted Glass
- Vinyl Mini-Blinds
- Security Screens Over Windows

EXTERIOR DOORS:

- 72" x 80" ST/ST (Panic Ready) with 10"ADA Vision panel & Center Post
  Both sides are active. Center Post is secured with 4 screws and is removable.
- 6" x 32" view block mounted 43" to bottom of view block
- Removable Post, Both Sides Active (ST/ST only)
  Post is secured with 4 screws
- STANDARD CLOSER
- Panic Hardware with Lever handle
  GRADE 1 PANIC

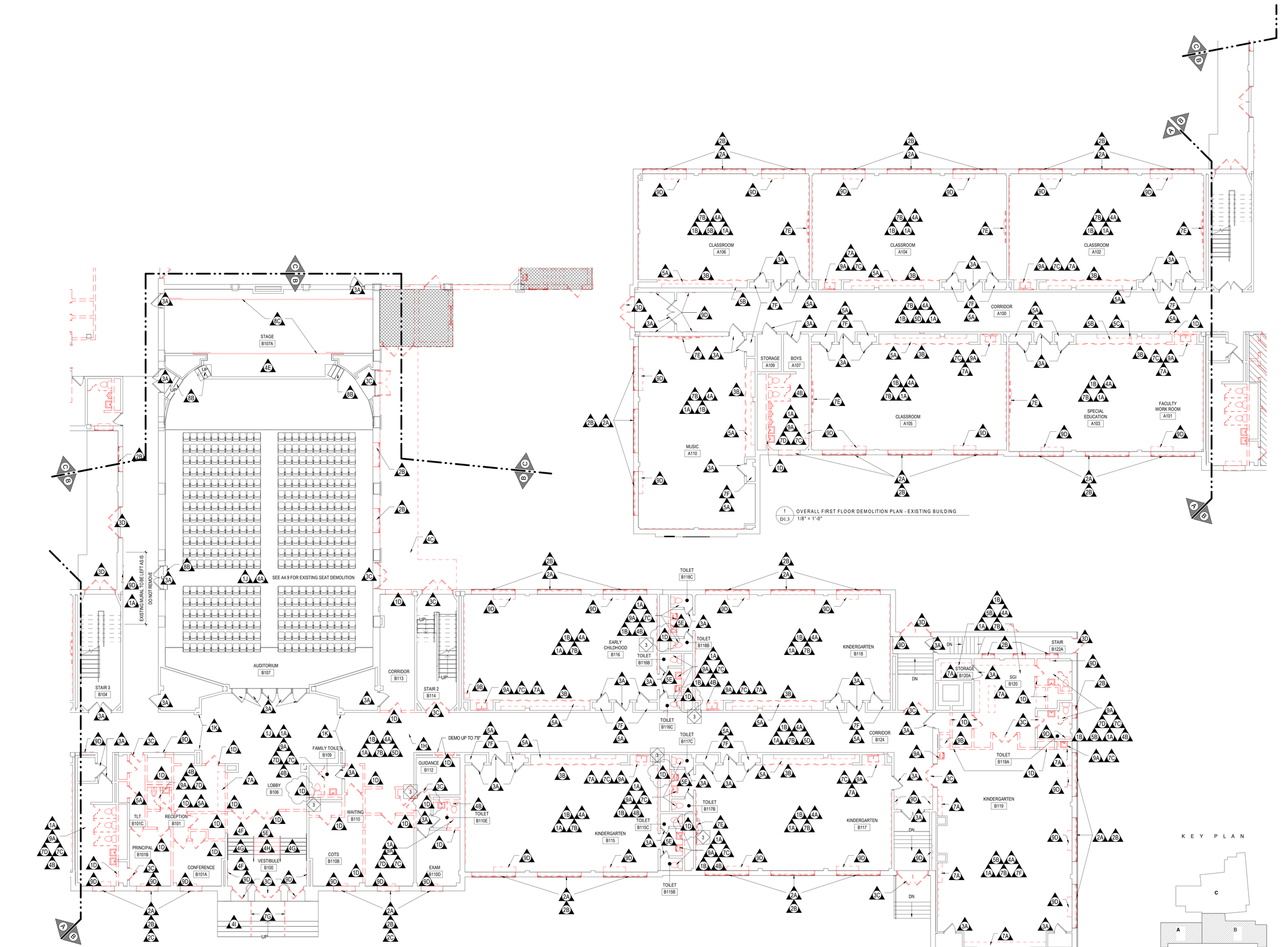
INSULATION:

- Floor – R-30, 10"
- Exterior Wall – R-19
- Roof-R-60
- Interior Partitions – R-11, 3.5"

ELECTRICAL SCOPE (CONTINUED):

- Provide MC Cable feeders and connections from MDP (Provided by EC) to Classroom and Common Area panelboards.
- Provide complete Fire Alarm system in accordance with NFPA and ADA requirements and School District of Philadelphia standards; including cabling and connections to Rhawnhurst ES building Fire Alarm system and programming.
- Provide Telecommunications system including wall mount data rack in Common Area with all required patch panels and cable management, and fiber optic and copper telecommunications cabling connections from modular telecommunications rack to Rhawnhurst ES telecommunications systems.
- Provide Cat-6 data wall outlets (9 per classroom), and lockable wall mount WAP enclosure (1 per classroom) per District standards and associated Cat-6 UTP cabling and all required terminations.
- Provide surveillance cameras per District standards; including Cat-6 UTP cabling, terminations and all cabling/connections required for connection to Rhawnhurst ES surveillance camera system.
- Provide (1) PA system speaker and (1) clock per classroom per District standards and associated wiring and connections to Rhawnhurst ES PA/Clock systems.
- Provide all additional components and accessories required to tie Modular Classroom systems identified above into Rhawnhurst ES building systems.
- Provide all backboxes, raceway, j-hooks, and wiring required for the above. (EC provides empty conduit pathway from Modular Classroom to Rhawnhurst ES basement crawlspace for low voltage systems cabling).
- Provide all system programming and testing required to confirm proper system operation.

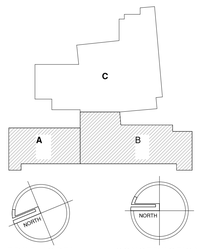
GENERAL NOTE:
Electrical and Plumbing contractor will bring electrical, IT, water and sanitary to one location for the MCB, it is the general contractor's responsibility form this point to make connections as needed throughout the MCB for electrical, water and sanitary. This is due to to the MCB being provided by the general contractor which may facilitate small variations of layouts and connections that are not available to the other prime contractors during bidding.



1 / D1.3 OVERALL FIRST FLOOR DEMOLITION PLAN - EXISTING BUILDING
1/8" = 1'-0"

2 / D1.3 OVERALL FIRST FLOOR DEMOLITION PLAN - EXISTING BUILDING
1/8" = 1'-0"

KEY PLAN



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STATE ARCHITECT LICENSE NO. RA403652

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Attn: Ken Kistler

03/02/2021

NO.	DATE	REVISION
10		
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3	(3)/26/2021	ADDENDUM #3
2	(3)/19/2021	ADDENDUM #2
1	(3)/15/2021	ADDENDUM #1

SCHOOL & LOCATION
RHAWNHURST ELEMENTARY SCHOOL

7809 Castor Ave, Philadelphia, PA 19152

PROJECT TITLE
ADDITIONS & RENOVATIONS

DRAWING TITLE
FIRST FLOOR DEMOLITION PLAN UNITS "A" & "B"

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-070	OF	2019 / 20
B-071	OF	2019 / 20
B-072	OF	2019 / 20
B-073	OF	2019 / 20

DRAWING NO.
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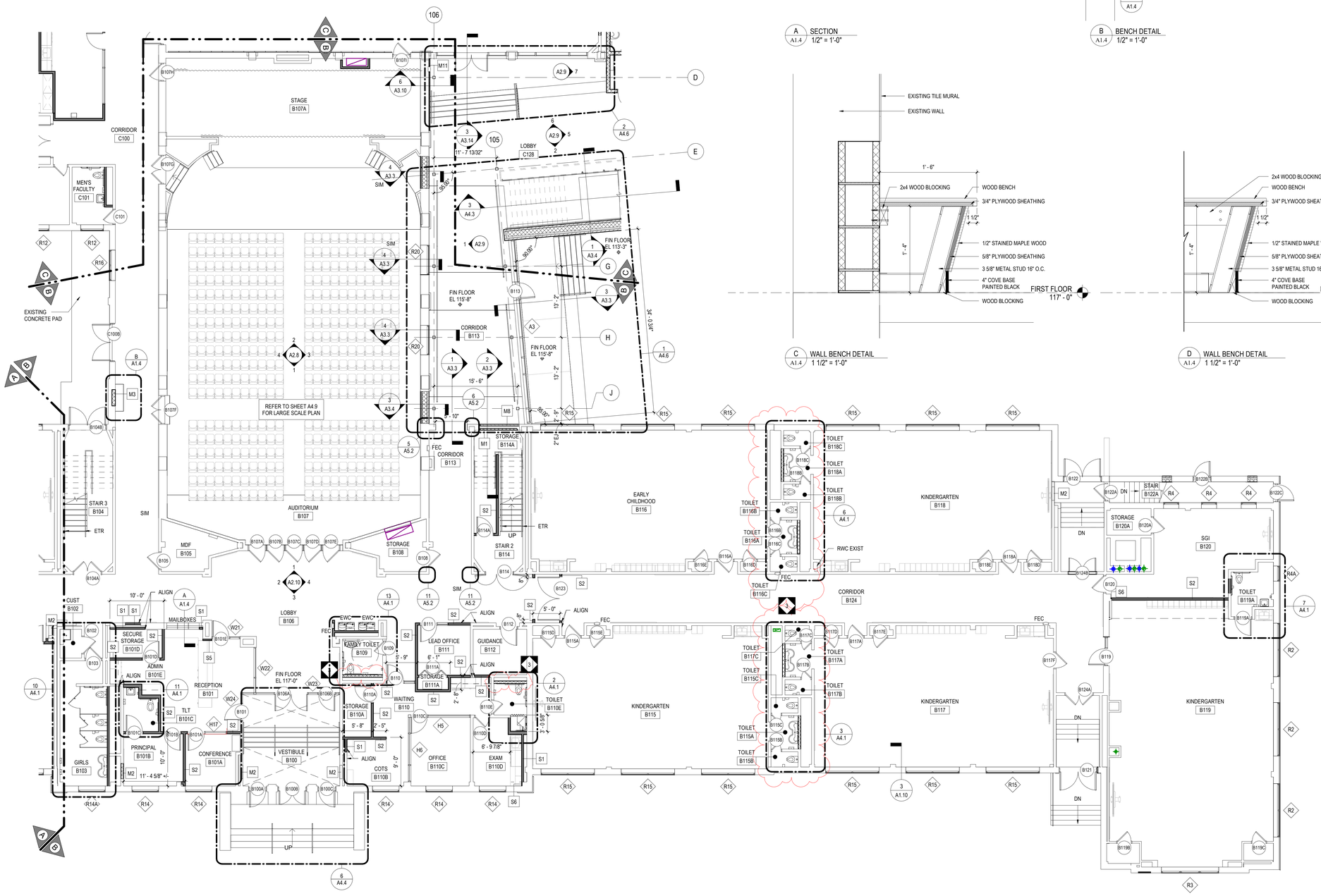
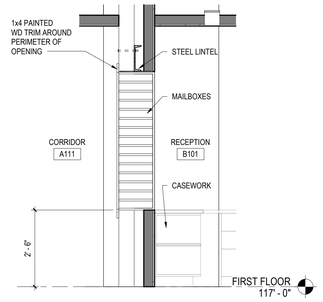
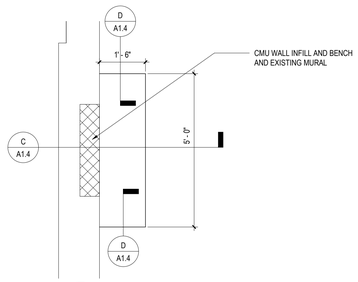


1 / A1.4 FIRST FLOOR PLAN - UNIT "B"
1/8" = 1'-0"

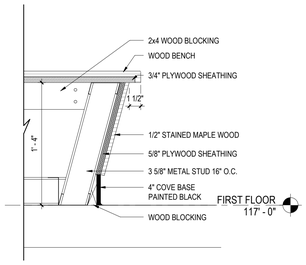


A / A1.4 SECTION
1/2" = 1'-0"



B / A1.4 BENCH DETAIL
1/2" = 1'-0"

C / A1.4 WALL BENCH DETAIL
1 1/2" = 1'-0"



D / A1.4 WALL BENCH DETAIL
1 1/2" = 1'-0"

GENERAL NOTES:

1. ALL DOOR JAMBS SHALL BE LOCATED 4" FROM INSIDE CORNER OF WALL ON HINGE SIDE UNLESS OTHERWISE INDICATED.

2. COORDINATE LOCATION OF MEP EQUIPMENT, DEVICES, OUTLET BOXES, ETC. WITH OTHER EQUIPMENT AND FINISH SCHEDULE PRIOR TO INSTALLATION.

3. ALL EXTERIOR ENTRANCE PADS SHALL BE SLOPED 2% MAX AWAY FROM THE BUILDING TO EDGE OF PAD. REFER TO STRUCTURAL DRAWINGS.

4. UNLESS NOTED OTHERWISE, ALL FLOOR DRAINS SHALL BE SET 1/4" MAX. BELOW F/N FLOOR. DISH F/N. FLOOR MIN. OF 24" RADIUS TO TOP OF FLOOR DRAIN. REFER TO PLUMBING DRAWINGS.

5. UNLESS NOTED OTHERWISE, WHERE DIFFERENT FLOOR ELEVATIONS OCCUR ON OPPOSITE SIDES OF INTERIOR MASONRY WALLS, PROVIDE COLD FLUID APPLIED WATERPROOFING (CFAWP) ON THE BACKFILLED FACE OF WALL. APPLY CFAWP FROM UNDERSIDE OF CONCRETE SLAB TO TOP OF FOOTING BELOW. CFAWP NOT TO INTERFERE WITH INSTALLATION OF CONCRETE SLAB VAPOR BARRIER.

6. GENERAL CONTRACTOR TO PROVIDE ALL EXTERIOR LOUVERS. COORDINATE WITH ENGINEERING DRAWINGS.

7. ALL WALL LAYOUT DIMENSIONS ARE FROM FACE OF STUD & FACE OF CMU UNLESS OTHERWISE NOTED.

8. CONTROL JOINTS DESIGNATES A 3/8" CONTROL JOINT WITH BACKER ROD AND SEALANT. WHERE MULTIPLE RATED WALLS INTERSECT, OR WHERE A CONTROL JOINT OCCURS WITHIN A RATED WALL , THE CONTROL JOINT SHALL BE FIRE RATED TO MATCH THE RATING OF THE WALL. COORDINATE THE LOCATIONS OF ALL CONTROL JOINTS NOT SPECIFICALLY SHOWN ON THE DRAWINGS PER THE REQUIREMENTS OF STRUCTURAL DRAWINGS.

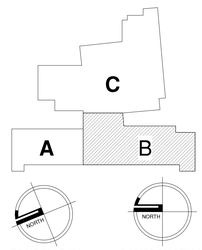
9. FIRE EXTINGUISHER LOCATIONS ARE INDICATED ON THE FLOOR PLANS FOR REFERENCE. REFER TO THE CODE COMPLIANCE DRAWINGS FOR FIRE EXTINGUISHER TYPES.

10. FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING.

11. ALL INTERIOR AND EXTERIOR CONCRETE EQUIPMENT PADS SHALL BE BY GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL COORDINATE CONCRETE PAD SIZE AND LOCATION WITH MEP CONTRACTORS PRIOR TO INSTALLATION OF ANY COMPONENTS.

12. ALL COLUMNS THAT ARE EXPOSED TO VIEW SHALL BE PAINTED.

KEY PLAN



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REGISTERED ARCHITECT COMMONWEALTH OF PENNSYLVANIA R. JEFFREY STRAUB

R. JEFFREY STRAUB, AIA
STATE AND LICENSE NO: RA403652

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03/02/2021

NO.	DATE	REVISION
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3	03/26/2021	ADDENDUM #3
2	03/19/2021	ADDENDUM #2
1	03/15/2021	ADDENDUM #1

SCHOOL & LOCATION
RHAWNHURST ELEMENTARY SCHOOL

7809 Castor Ave, Philadelphia, PA 19152

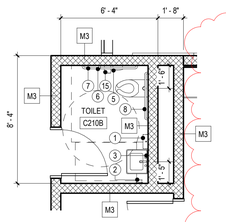
PROJECT TITLE
ADDITIONS & RENOVATIONS

DRAWING TITLE
FIRST FLOOR PLAN UNIT "B"

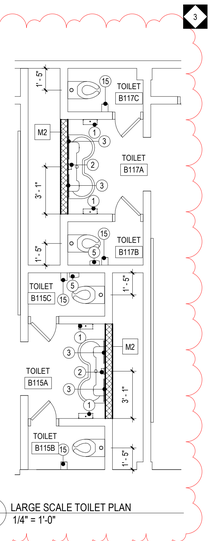
LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-070	OF	2019 / 20
B-071	OF	2019 / 20
B-072	OF	2019 / 20
B-073	OF	2019 / 20

DRAWING NO.
A1.4



1 LARGE SCALE TOILET PLAN
A4.1 1/4" = 1'-0"



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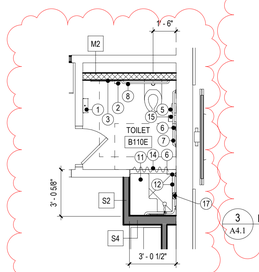

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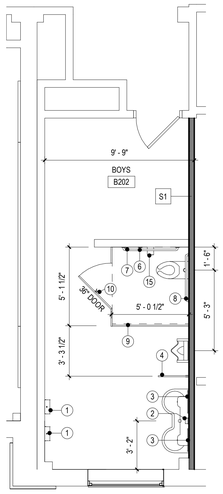

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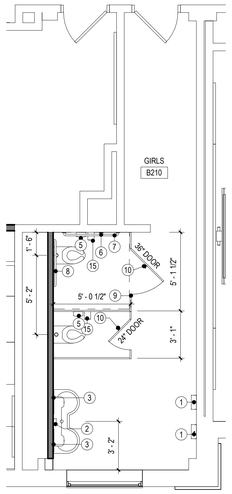

5 LARGE SCALE TOILET PLAN
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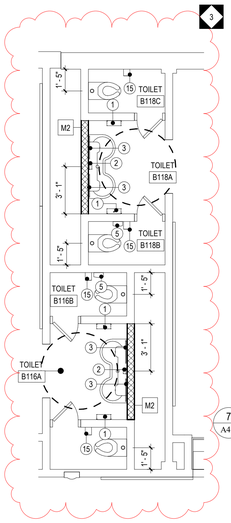

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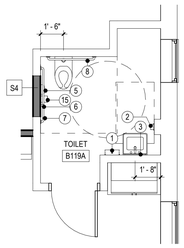

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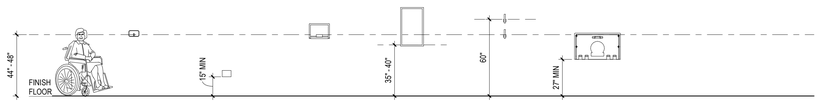
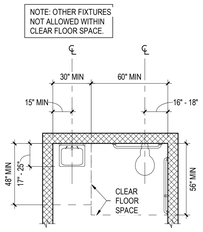
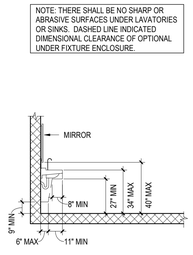


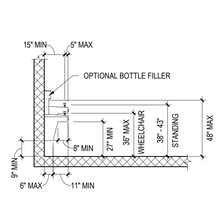
SOAP DISPENSER | FECMININE NAPKIN DISPOSAL | HAND DRYER | MIRROR | COAT HOOK | BABY CHANGING STATION



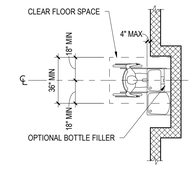
CLEAR FLOOR AT WALL HUNG WATER CLOSET AND LAVATORY



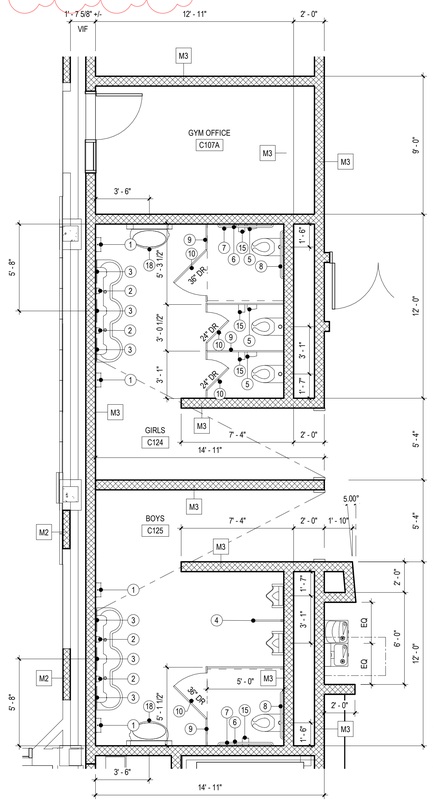
LAVATORY HEIGHT AND LEG CLEARANCE



DRINKING FOUNTAIN HEIGHT AND LEG CLEARANCE



CLEAR FLOOR AT DRINKING FOUNTAIN



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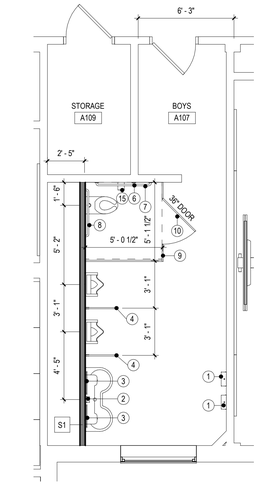

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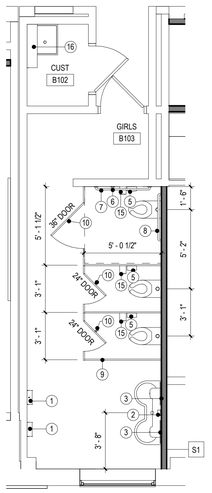
A4.1 1/4" = 1'-0"



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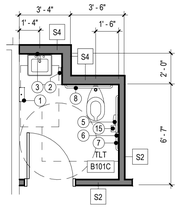
A4.1 1/4" = 1'-0"



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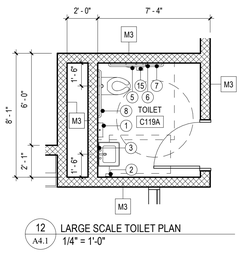
A4.1 1/4" = 1'-0"



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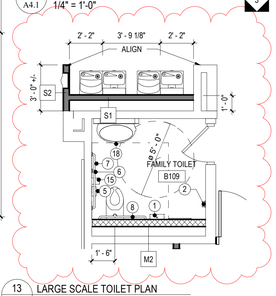
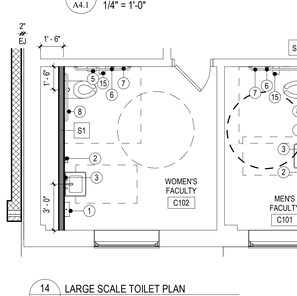
A4.1 1/4" = 1'-0"

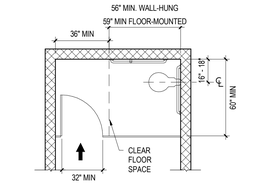


13 LARGE SCALE TOILET PLAN
A4.1 1/4" = 1'-0"

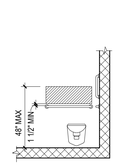


14 LARGE SCALE TOILET PLAN
A4.1 1/4" = 1'-0"

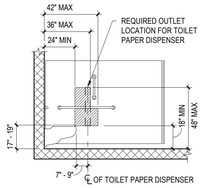
15 LARGE SCALE TOILET PLAN
A4.1 1/4" = 1'-0"



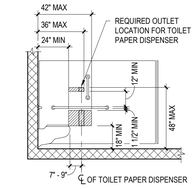
ALTERNATE PLAN FOR WATER CLOSET



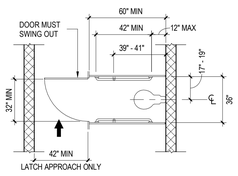
REAR WALL RECESSED DISPENSERS



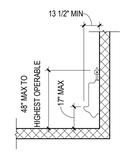
SIDE WALL RECESSED DISPENSERS



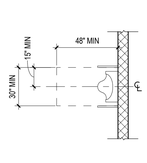
SIDE WALL PROTRUDING DISPENSERS



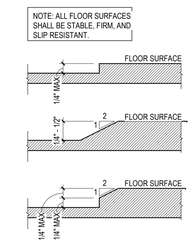
PLAN FOR AMBULATORY ACCESSIBLE TOILET COMPARTMENT



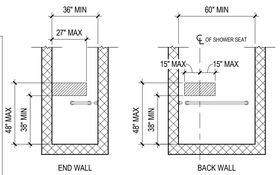
WALL HUNG URINAL CLEARANCES



WALL HUNG URINAL CLEARANCES

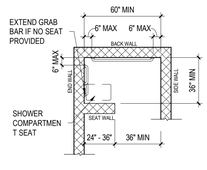


CHANGES IN FLOOR LEVEL

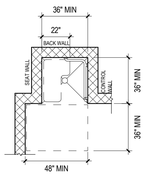


END WALL | BACK WALL

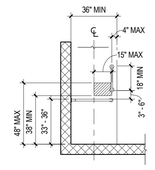
ALTERNATE ROLL-IN SHOWER SIDE & BACK WALL



PLAN FOR ALTERNATE ROLL-IN SHOWER



PLAN FOR TRANSFECR-TYPE SHOWER



CONTROL WALL FOR TRANSFECR-TYPE SHOWER

TOILET ACCESSORY SCHEDULE

No.	DESCRIPTION	MOUNTING	MANUFACTURER	MODEL
1	SURFACE MOUNTED PAPER TOWEL DISPENSER	48" MAX TO OUTLET OF DISPENSER	KIMBERLY - CLARK	29734
2	SURFACE MOUNTED SOAP DISPENSER	PUSH BUTTON @ 44" MAX AFF	KIMBERLY - CLARK	92145
3	MIRROR 18" x 30" w/ SS FRAME	40" AFF TO BOTTOM EDGE OF REFLECTING SURFACE	BOBRICK	B-165 (1830)
4	URINAL SCREEN	AS SPECIFIED	AS SPECIFIED	--
5	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL	15" MIN AFF	BOBRICK	B-270
6	18" GRAB BAR (VERTICAL)	39" MIN - 41" MAX AFF TO BOTTOM OF GRAB BAR	BOBRICK	B-5806 x 18
7	42" GRAB BAR (HORIZONTAL)	33" MIN - 36" MAX AFF TO TOP OF GRIPPING SURFACE	BOBRICK	B-5806 x 42
8	36" GRAB BAR (HORIZONTAL)	33" MIN - 36" MAX AFF TO TOP OF GRIPPING SURFACE	BOBRICK	B-5806 x 36
9	TOILET PARTITION	AS SPECIFIED	AS SPECIFIED	--
10	SURFACE MTD. S.S. COAT HOOK	48" AFF TO TOP	BOBRICK	B-6827
11	FOLDING SHOWER SEAT w/ PADDED CUSHION	18" AFF TO TOP	BOBRICK	B-517, B-518
12	GRAB BAR FOR 36" x 36" SHOWER STALL	36" AFF TO TOP OF GRIPPING SURFACE	BOBRICK	B-6861
13	HAND HELD SHOWER w/ 59" MIN. FLEX HOSE	AS SPECIFIED	-	-
14	S.S. SHOWER ROD, VINYL SHOWER CURTAIN, & S.S. SHOWER CURTAIN HOOKS	COORDINATE WITH SHOWER UNIT	BOBRICK	B-6047, 204-1, 204-2
15	SURFACE MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER	TISSUE ACCESS @ 15" MIN AFF	KIMBERLY - CLARK	09507
16	UTILITY SHELF W/ MOP & BROOM HOLDER & RAG HOOKS	72" AFF TO TOP SHELF	BOBRICK	B-239 x 34
17	SOAP DISH (HEAVY DUTY)	40" AFF TO DISH	BRADLEY CORP	9014
18	BABY CHANGING STATION	34" AFF TO CHANGING SURFACE (DOWN POSITION)	Bradley Corporation	9611

GENERAL NOTES:

1. ACCESSIBLE FIXTURES ARE INDICATED WITH THE REQUIRED CLEAR FLOOR SPACE CLEARANCES FOR ALL ACCESSIBLE ROUTES & MANEUVERING CLEARANCES.
2. PLUMBING FIXTURE ROUGH-IN DIMENSIONS & TOILET PARTITION LAYOUT DIMENSIONS ARE FROM THE WALL FINISH MATERIAL.
3. PROVIDE WOOD BLOCKING IN STUD WALLS FOR ALL TOILET ACCESSORIES.
4. TOILET PARTITION DIMENSIONS ARE TO THE PANEL CENTERLINE UNLESS NOTED OTHERWISE. MINIMUM CLEAR DIMENSIONS MUST BE PROVIDED WHERE NOTED.
5. COORDINATE ALL WALL FINISHES WITH THE ROOM FINISH SCHEDULE.
6. CONTRACTOR TO CONFIRM WITH THE OWNER'S REPRESENTATIVE THE LOCATION OF ALL SURFACE-MOUNTED TOILET ROOM ACCESSORIES PRIOR TO INSTALLATION.
7. URINAL PARTITIONS SHALL BEGIN AT A HEIGHT NO MORE THAN 12" FROM AND EXTEND NOT LESS THAN 60" ABOVE THE FINISHED FLOOR SURFACE. URINAL PARTITIONS SHALL EXTEND FROM THE WALL SURFACE AT EACH SIDE OF THE URINAL A MINIMUM OF 18".
8. ACCESSIBLE LOCKERS ARE INDICATED AS ♿. AT DOUBLE TIER LOCKERS, ONLY THE BOTTOM TIER IS REQUIRED TO BE ACCESSIBLE. FOR FOUR TIER LOCKERS, ONLY THE BOTTOM TWO TIERS ARE REQUIRED TO BE ACCESSIBLE.

ACCESSIBILITY STANDARDS

NOT TO SCALE

THE SCHOOL DISTRICT OF PHILADELPHIA

OFFICE OF CAPITAL PROGRAMS

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03/02/2021

NO.	DATE	REVISION
10		
9		
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4		
3	03/26/2021	ADDENDUM #3
2	03/19/2021	ADDENDUM #2
1	03/15/2021	ADDENDUM #1

SCHOOL & LOCATION
RHAWNHURST ELEMENTARY SCHOOL

7809 Castor Ave, Philadelphia, PA 19152

PROJECT TITLE
ADDITIONS & RENOVATIONS

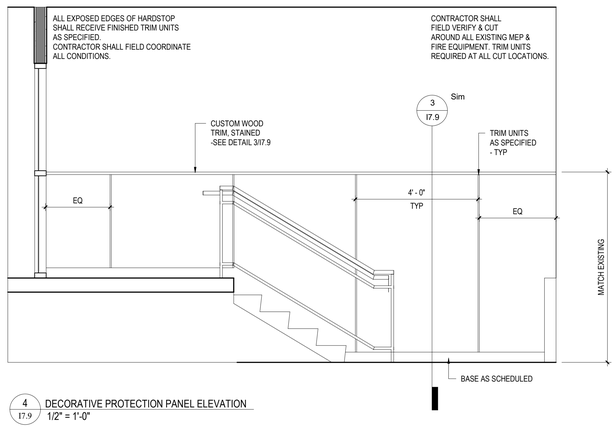
DRAWING TITLE
LARGE SCALE TOILET PLANS

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

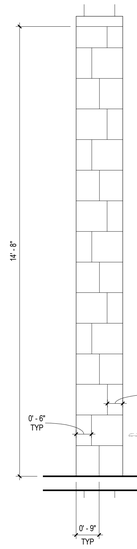
B-070 OF 2019 / 20
B-071 OF 2019 / 20
B-072 OF 2019 / 20
B-073 OF 2019 / 20

DRAWING NO.
A4.1

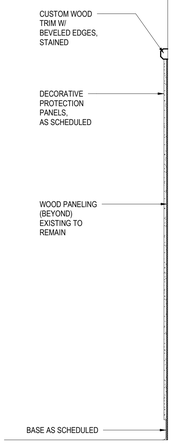
1 17.9 OVERALL FIRST FLOOR FINISH PLAN
1/16" = 1'-0"



4 17.9 DECORATIVE PROTECTION PANEL ELEVATION
1/2" = 1'-0"



2 17.9 TYPICAL PORCELAIN TILE PATTERN AT COLUMNS
1/2" = 1'-0"



3 17.9 DECORATIVE PROTECTION PANEL DETAIL
1" = 1'-0"

FINISH PLAN LEGEND

- = STAIN EXISTING WOOD
- = EXISTING RED BRICK
- = NEW RED BRICK
- = NEW BLUE BRICK
- = NEW YELLOW BRICK
- = TILE
- = DECORATIVE PROTECTION PANEL
- = EXISTING MOSIAC TILE
- = PAINTED ACCENT COLOR, COLOR TBD
- = WALL GRAPHIC - REFER TO ARCHITECTURAL DWG

GENERAL NOTE IN REFERENCE TO ALL FINISH PLAN DRAWINGS

1. DRAWINGS ARE FOR CLARIFICATION OF MATERIAL LOCATIONS. REFER TO ROOM FINISH SCHEDULE, INTERIOR AND ARCHITECTURAL ELEVATIONS/PLANS AND SPECIFIFCATIONS FOR ADDITIONAL INFORMATION.

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OVERALL FIRST FLOOR - FINISH PLAN

LOCATION NO.	FILE NO.
DRAWN BY Author	CHECKED BY Checker

B-070	OF	2019 / 20
B-071	OF	2019 / 20
B-072	OF	2019 / 20
B-073	OF	2019 / 20

DRAWING NO.
17.9

1 / 17.10 OVERALL SECOND FLOOR FINISH PLAN
1/16" = 1'-0"

FINISH PLAN LEGEND
= STAIN EXISTING WOOD
= EXISTING RED BRICK
= NEW RED BRICK
= NEW BLUE BRICK
= NEW YELLOW BRICK
= TILE
= DECORATIVE PROTECTION PANEL
= EXISTING MOSIAC TILE
= PAINTED ACCENT COLOR, COLOR TBD
= WALL GRAPHIC - REFER TO ARCHITECTURAL DWG

GENERAL NOTE IN REFERENCE TO ALL FINISH PLAN DRAWINGS

1. DRAWINGS ARE FOR CLARIFICATION OF MATERIAL LOCATIONS. REFER TO ROOM FINISH SCHEDULE, INTERIOR AND ARCHITECTURAL ELEVATIONS/PLANS AND SPECIFIFCATIONS FOR ADDITIONAL INFORMATION.

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03/02/2021

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3	03/25/12	ADDENDUM #3
2	03/19/12	ADDENDUM #2
1	03/15/12	ADDENDUM #1

SCHOOL & LOCATION
RHAWNHURST ELEMENTARY SCHOOL

7809 Castor Ave, Philadelphia, PA 19152

PROJECT TITLE
ADDITIONS & RENOVATIONS

DRAWING TITLE
OVERALL SECOND FLOOR - FINISH PLAN

LOCATION NO.	FILE NO.
DRAWN BY: Author	CHECKED BY: Checker

B-070 OF 2019 / 20
B-071 OF 2019 / 20
B-072 OF 2019 / 20
B-073 OF 2019 / 20

DRAWING NO.
17.10

MECHANICAL NEW SYMBOL SCHEDULE

- DIFFUSER
- REGISTER
- D — SIDEWALL DIFFUSER
- R — SIDEWALL REGISTER
- L — EXHAUST LOUVER
- L — INTAKE LOUVER
- BALANCING DAMPER
- FIRE DAMPER
- F.D. — ATC MOTORIZED DAMPER
- SQUARE DUCT ELBOW WITH TURNING VANES
- T — THERMOSTAT
- TH — COMBINATION THERMOSTAT-HUMIDISTAT
- H — HUMIDISTAT
- CO2 — CO2 SENSOR
- S — CONTROL SWITCH
- HWS — HOT WATER SUPPLY PIPE
- HWR — HOT WATER RETURN PIPE
- CWS — CHILLED WATER SUPPLY PIPE
- CWR — CHILLED WATER RETURN PIPE
- R — REFRIGERANT PIPING
- CHECK VALVE
- SHUTOFF VALVE
- BALL VALVE
- 3-WAY ATC VALVE
- 2-WAY ATC VALVE
- GATE VALVE
- AIR SEPARATOR
- PRESSURE REDUCING VALVE
- BALANCING VALVE
- RTU — ROOFTOP AIR HANDLING UNIT
- EF — INLINE EXHAUST FAN
- EF — CEILING EXHAUST FAN
- EF — ROOFTOP EXHAUST FAN
- RV — ROUND GRAVITY ROOF VENTILATOR
- RV — RECTANGULAR GRAVITY ROOF VENTILATOR
- FT — FINNED TUBE RADIATION
- POINT OF CONNECTION NEW TO EXISTING

KITCHEN DUCTWORK NOTES:

1. ALL KITCHEN HOOD MAKE-UP AIR DUCTWORK SHALL BE WRAPPED WITH FIBERGLASS INSULATION IN LIEU OF DUCT LINER.
2. DISHWASHER EXHAUST SHALL BE ALL ALUMINUM CONSTRUCTION WITH SEALED JOINTS. DUCTWORK SHALL BE SLOPED BACK TOWARD THE DISHWASHER HOOD CONNECTION.
3. MAINTAIN MINIMUM 6" CLEARANCE AROUND ALL SIDES OF KITCHEN HOOD EXHAUST DUCTWORK.
4. MAINTAIN MINIMUM 10'-0" CLEARANCE BETWEEN INTAKE OF MAKE-UP AIR FANS ON ROOF AND DISCHARGE FROM ANY EXHAUST FAN OR VENT ON ROOF.
5. FIELD VERIFY EXHAUST HOOD CONNECTION SIZES AND LOCATIONS BEFORE FABRICATION OF DUCTWORK.

DEMOLITION NOTES:

1. RESPECTIVE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY DEMOLITION WORK (EVEN IF NOT SHOWN ON THE PLANS) NECESSARY FOR COMPLETION OF PROJECT. THIS INCLUDES REMOVAL OF ANY EQUIPMENT AND MATERIALS THAT WILL NO LONGER BE UTILIZED AFTER COMPLETION OF THIS PROJECT.
2. EQUIPMENT THAT IS REMOVED SHALL BE TURNED OVER TO OWNER. IF OWNER DOES NOT WANT EQUIPMENT, IT SHALL BE DISPOSED OF PROPERLY BY RESPECTIVE CONTRACTOR.

MECHANICAL NOTES:

(THESE NOTES APPLY TO ALL MECHANICAL DRAWINGS)

1. FOR THE HOT WATER AND CHILLED WATER SYSTEMS, THE MECHANICAL CONTRACTOR SHALL [illegible] AT ALL HIGH POINTS IN THE SYSTEM AND AT EACH UNIT AND SHALL PROVIDE DRAINS AT ALL LOW POINTS.
2. ALL REFRIGERATION PIPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
3. ALL REFRIGERANT PIPING SHALL BE PITCHED A MINIMUM OF 1/4" IN 10'-0" IN THE DIRECTION OF THE REFRIGERANT FLOW.
4. ALL UNDERGROUND OR CONCEALED REFRIGERATION LINES SHALL BE INSULATED WITH 1" FOAMGLAS INSULATION BY PITTSBURG-CORNING WITH PITTWRAP PROTECTIVE COVERING. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
5. ALL PIPE PENETRATIONS THROUGH CHASES, WALLS OR FLOORS WHICH ARE FIRE-RATED SHALL BE PROPERLY SEALED TO MAINTAIN FIRE PROTECTION RATING.
6. ALL DUCTS THAT PENETRATE CHASES, WALLS OR FLOORS WHICH ARE FIRE-RATED SHALL BE INSTALLED WITH FIRE DAMPERS IN ACCORDANCE WITH NFPA 90A. THIS APPLIES EVEN IF THEY ARE NOT SPECIFICALLY SHOWN ON THE DRAWINGS.
7. PROVIDE AND INSTALL RADIATION DAMPERS ON ALL DIFFUSERS, REGISTERS AND GRILLES THAT PENETRATE CEILINGS WHICH ARE FIRE-RATED OR PART OF A FIRE-RATED ASSEMBLY.
8. ALL MATERIALS USED IN PLENUM CEILING AREAS SHALL BE PLENUM RATED AND MEET FLAME/SMOKE INDEXES OF 25/50.

GENERAL NOTES:

(THESE NOTES APPLY TO ALL MECHANICAL DRAWINGS)

1. ANY PHYSICAL INSTALLATION MODIFICATIONS DUE TO FIELD CONDITIONS SHALL BE RESOLVED BY THE MECHANICAL CONTRACTOR IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MECHANICAL ENGINEER.
2. THE ENTIRE INSTALLATION SHALL COMPLY WITH ALL CODES, LOCAL, STATE, AND NATIONAL
3. THIS CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS STEEL AND SUPPORTS TO SUSPEND DUCTWORK AND EQUIPMENT.
4. ALL EQUIPMENT SHALL BE INSTALLED WITH VIBRATION ISOLATORS.
5. THIS CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT TO ENSURE A COMPLETE SYSTEM.
6. THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES.
7. THE MECHANICAL CONTRACTOR SHALL SEAL ALL HIS RESPECTIVE WALL AND ROOF PENETRATIONS.
8. ALL ROOF OPENINGS SHALL BE BY MECHANICAL CONTRACTOR. FLASHING SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. COUNTER-FLASHING WILL BE BY THE MECHANICAL CONTRACTOR.
9. THE MECHANICAL CONTRACTOR SHALL PAY FOR ALL FEES AND PERMITS AS NECESSARY TO COMPLETE THE INSTALLATION.
10. CONTRACTOR SHALL INSTALL ALL EQUIPMENT WITH ADEQUATE SERVICE CLEARANCES AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
11. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND PATCHING WALLS AND FLOORS FOR NEW EQUIPMENT AND MATERIALS. PATCH TO MATCH EXISTING.

DUCTWORK NOTES:

(THESE NOTES APPLY TO ALL MECHANICAL DRAWINGS)

1. ALL DUCTWORK SIZES NOTED ARE FREE AREA SIZES.
2. TURNING VANES SHALL BE PROVIDED IN ALL DUCT ELBOWS.
3. PROVIDE ALL DAMPERS, SPLITTERS, AND EXTRACTORS AS REQUIRED FOR PROPER AIR DISTRIBUTION IN GENERAL ACCORDANCE WITH THE STANDARDS OF THE NATIONAL ENVIRONMENTAL BALANCING BUREAU.
4. FURNISH AND INSTALL AS NECESSITATED BY EXISTING CONDITIONS ALL SUPPORT MATERIALS TO INSURE A RIGID INSTALLATION.
5. ALL SUPPLY AND RETURN DUCTWORK EXCEPT DOUBLE WALL SPIRAL ROUND DUCTWORK SHALL BE INTERNALLY LINED IN ACCORDANCE WITH THE SPECIFICATIONS.
6. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING INSTALLATION OF NEW DIFFUSERS AND REGISTERS WITH SUSPENDED CEILING GRID AND LIGHTING FIXTURES TO BE INSTALLED BY THE GENERAL AND ELECTRICAL CONTRACTORS RESPECTIVELY. CEILING DIFFUSERS AND REGISTERS SHALL BE CENTERED IN GRID SYSTEM.
7. LENGTH OF FLEXIBLE DUCT BRANCHES SHALL NOT EXCEED 8' - 0" MAXIMUM. ANY ADDITIONAL LENGTH AS NEEDED FOR INDIVIDUAL CONNECTIONS SHALL BE ACCOMPLISHED WITH ROUND RIGID DUCTWORK.
8. FLEXIBLE DUCT WILL NOT BE ACCEPTABLE FOR EXHAUST FAN INSTALLATIONS.
9. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL FLEXIBLE FABRIC CONNECTIONS BETWEEN DUCTWORK AND FANS IN ORDER TO ISOLATE EQUIPMENT AND PREVENT VIBRATION.

DUCTWORK SIZE NOTE:

(THIS NOTE SHALL APPLY TO ALL MECHANICAL DRAWINGS)

DUCTWORK SIZES AND LOCATIONS ARE APPROXIMATE. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DUCTWORK SIZE REVISIONS AS REQUIRED TO ACCOMMODATE AVAILABLE SPACE. SIZING SHALL BE BASED ON A MAXIMUM .08" PER 100FT. OF STATIC PRESSURE AND A MAXIMUM 1100 FPM AIR VELOCITY. DUCTWORK SYSTEMS SHALL BE SIZED BASED ON AVAILABLE HVAC FAN CAPACITY.

MECHANICAL ABBREVIATIONS

(THESE ABBREVIATIONS APPLY TO ALL DRAWINGS)

DEVICES	
D	DIFFUSER
R	REGISTER
L	LOUVER
FD	FIRE DAMPER
FSD	FIRE/SMOKE DAMPER
SD	SMOKE DAMPER
BD	BALANCING DAMPER
MOD	MOTOR OPERATED DAMPER
ATC	AUTOMATIC TEMPERATURE CONTROL
HYDRONIC	
GPM	GALLONS PER MINUTE
HWS	HEATING HOT WATER SUPPLY
HWR	HEATING HOT WATER RETURN
R	REFRIGERANT PIPING
DESIGN CRITERIA	
PD	PRESSURE DROP
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
SP	STATIC PRESSURE
ESP	EXTERNAL STATIC PRESSURE
TSP	TOTAL STATIC PRESSURE
WB	WET BULB
DB	DRY BULB
AMB	AMBIENT
WPD	WATER PRESSURE DROP
APD	AIR PRESSURE DROP
EWT	ENTERING WATER TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
EAT	ENTERAING AIR TEMPERATURE
LAT	LEAVING AIR TEMPERATURE
PRV	PRESSURE REDUCING VALVE
BBD	BOILER BLOWDOWN
EQUIPMENT	
EF	EXHAUST FAN
AC	AIR CONDITIONER
CU	CONDENSING UNIT
B	BOILER
P	PUMP
C	CONVECTOR
CH	CABINET HEATER
FT	FINNED TUBE RADIATION
BH	BASEBOARD HEATER
UH	UNIT HEATER
ET	EXPANSION TANK
AS	AIR SEPARATOR
FPV	FAN POWERED VARIABLE AIR VOLUME BOX
VAV	VARIABLE AIR VOLUME BOX
MAU	MAKE-UP AIR UNIT

ELECTRICAL	
FLA	FULL LOAD AMPS
MCA	MAXIMUM CURRENT AMPS
MOP	MAXIMUM OVERCURRENT PROTECTION
GA	GAUGE
GENERAL	
TYP	TYPICAL
AFF	ABOVE FINISHED FLOOR
TFB	TO FLOOR BELOW
TFA	TO FLOOR ABOVE
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
AFF	ABOVE FINISHED FLOOR
SA	SUPPLY AIR
RA	RETURN AIR
OA	OUTSIDE AIR
EA	EXHAUST AIR
T.O.	TRANSFER OPENING
OED	OPEN END DUCT
CLG	CEILING
ETR	EXISTING TO REMAIN
EC	ELECTRICAL CONTRACTOR
FPC	FIRE PROTECTION CONTRACTOR
GC	GENERAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR
B.O.D.	BOTTOM OF DUCT
C.O.D.	CENTER OF DUCT

HVAC DEMOLITION SYMBOL SCHEDULE

(ALL TO BE REMOVED EXCEPT WHERE NOTED) (ALL BY H.C.)
(APPLIES TO ALL DWGS.)

- UV — EXISTING UNIT VENT TO REMAIN
- UV — REMOVE EXISTING UNIT VENT
- AH — REMOVE EXISTING AIR HANDLER
- AH — EXISTING AIR HANDLER TO REMAIN
- RV — EXISTING ROOF VENT TO REMAIN
- RV — REMOVE EXISTING ROOF VENT
- EF — EXISTING ROOF VENT TO REMAIN
- EF — REMOVE EXISTING EXHAUST FAN
- AC — REMOVE EXISTING THRU-WALL AIR CONDITIONER
- CH — REMOVE EXISTING CABINET HEATER
- C — REMOVE EXISTING CONVECTOR
- CH — EXISTING CABINET HEATER TO REMAIN
- C — EXISTING CONVECTOR TO REMAIN
- T — REMOVE EXISTING THERMOSTAT
- L — REMOVE EXISTING LOUVER
- R — R — REMOVE EXISTING REGISTER
- L — EXISTING LOUVER TO REMAIN
- R — R — EXISTING REGISTER TO REMAIN
- CU — REMOVE EXISTING CONDENSING UNIT
- D — D — REMOVE EXISTING DIFFUSERS
- D — EXISTING DIFFUSER TO REMAIN
- UH — REMOVE EXISTING UNIT HEATER
- UH — EXISTING UNIT HEATER TO REMAIN
- REMOVE EXISTING DUCTWORK
- EXISTING DUCTWORK TO REMAIN
- EXTENT OF DEMOLITION POINT

NOTES:

1. ENTIRE EXISTING HWS/HWR PIPING SYSTEM TO BE REMOVED. EXCEPT WHERE NOTED.
2. REMOVE ALL EXISTING UNIT VENT WALL LOUVERS. PATCH AS REQUIRED.
3. REMOVE ALL EXISTING DUCTWORK EXCEPT IN AUDITORIUM.
4. MECHANICAL CONTRACTOR SHALL REMOVE ALL HVAC EQUIPMENT SCHEDULED ABOVE UNLESS NOTED OTHERWISE ON PLANS.
5. MECHANICAL CONTRACTOR SHALL REMOVE ALL CONTROLS, PIPING, DUCTWORK, AND LOUVERS ASSOCIATED WITH HVAC EQUIPMENT TO BE REMOVED; EVEN IF NOT SHOWN ON THE PLANS.
6. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL OPENINGS TO MATCH EXISTING WHERE EQUIPMENT IS REMOVED AND NOT REPLACED OR NEW EQUIPMENT SIZE DIFFERS FROM REMOVED EQUIPMENT.
7. DEMOLITION PLANS ARE SCHEMATIC AND NOT INTENDED TO SHOW EXACT LOCATIONS OF EQUIPMENT AND MATERIALS REMOVED. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EQUIPMENT, PIPING, DUCTWORK, CONTROLS, ETC.
8. MECHANICAL CONTRACTOR SHALL REMOVE ALL SUPPORTS, PADS, ETC., ASSOCIATED WITH EQUIPMENT BEING REMOVED.
9. THESE DEMOLITION PLANS WERE PREPARED FROM ON-SITE SURVEYS AND ORIGINAL CONSTRUCTION DOCUMENTS. IN AN EFFORT TO PROVIDE THIS CONTRACTOR WITH THE GENERAL SCOPE OF THE PROJECT, THESE DEMOLITION PLANS WERE PREPARED TO SHOW AND/OR NOTE THE EXISTING CONDITIONS TO THE BEST OF THE ENGINEER'S KNOWLEDGE. IT IS STILL THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO VISIT THE SITE AND INCLUDE IN THE BID ALL OTHER DEMOLITION WORK REQUIRED FOR REMOVAL OF ALL MECHANICAL EQUIPMENT. REFER TO ARCHITECTURAL DRAWINGS FOR THE COMPLETE BUILDING DEMOLITION PLANS. REFER TO ARCHTECTURAL DRAWINGS AND SPECIFICATIONS FOR DEMOLITION PHASING.
10. ALL EXISTING HVAC PIPING SHOWN REMAINING TO BE REUSED SHALL HAVE EXISTNG INSULATION REMOVED AND REPLACED WITH NEW INSULATION. NEW INSULATION THICKNESS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.

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1	3/25/2021	ADDENDUM #3

SCHOOL & LOCATION
RHAWNHURST ELEMENTARY SCHOOL

7809 Castor Ave, Philadelphia, PA 19152

PROJECT TITLE
ADDITIONS & RENOVATIONS

DRAWING TITLE
LEGEND, ABBREVIATIONS AND NOTES

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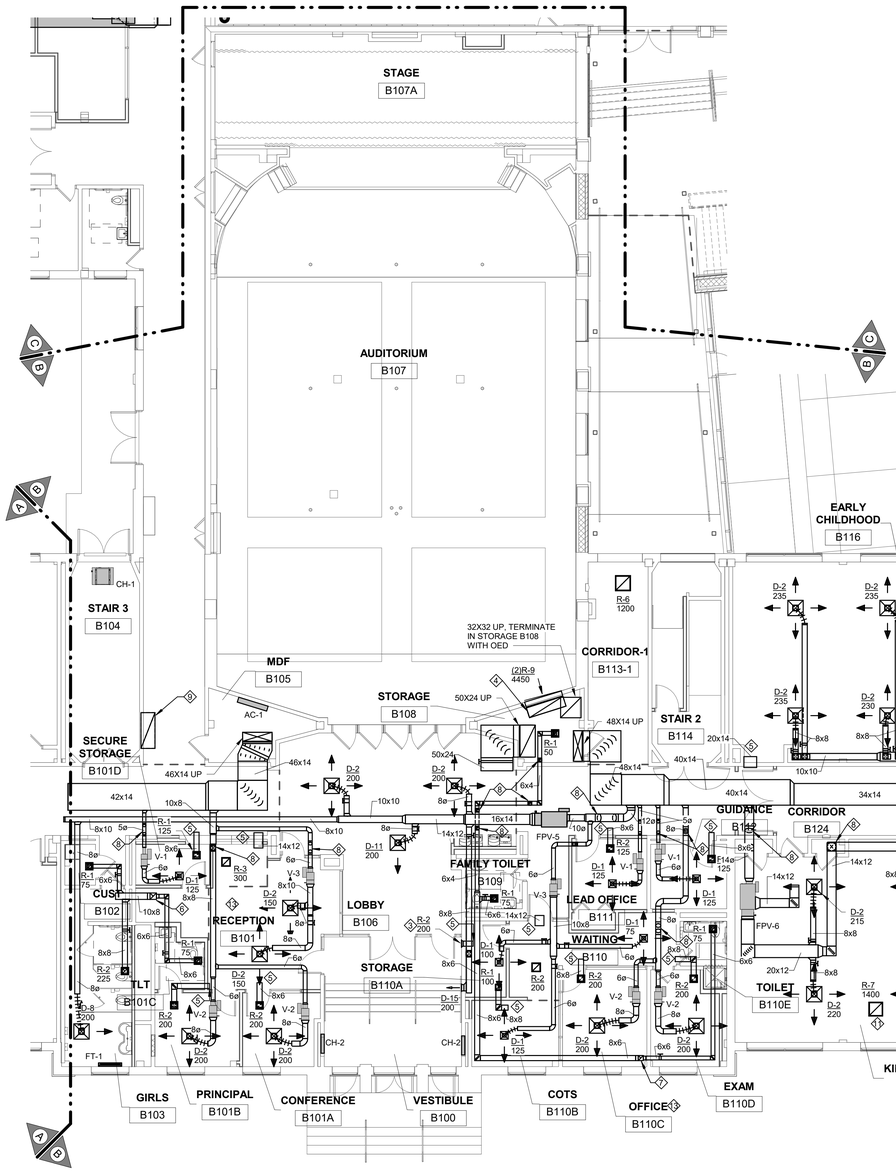
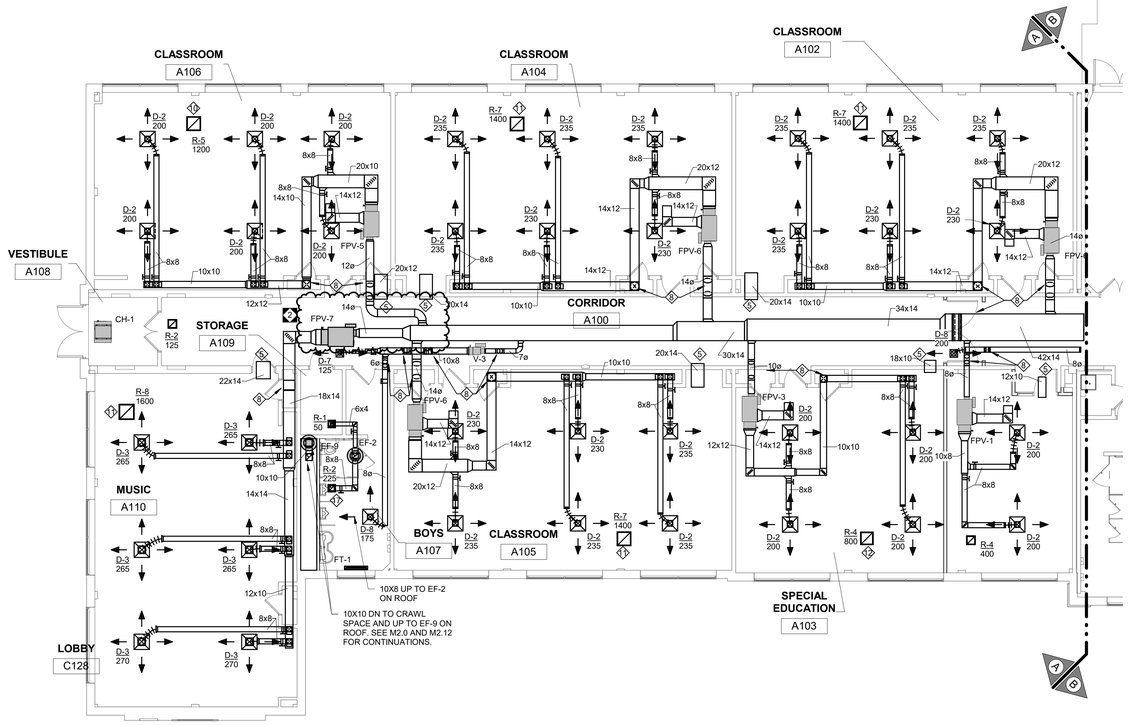


1 M2.1 FIRST FLOOR UNIT "A" - HVAC
1/8" = 1'-0"



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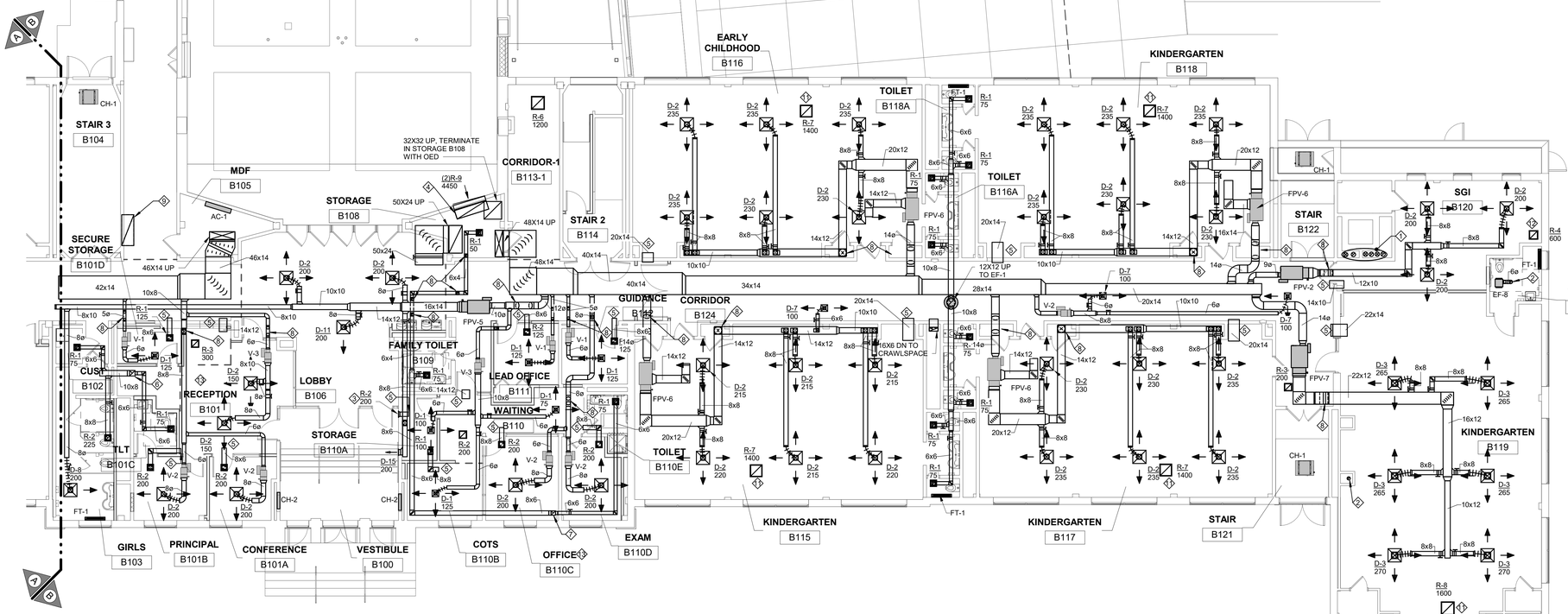


2 M2.1 FIRST FLOOR UNIT "B" - HVAC
1/8" = 1'-0"

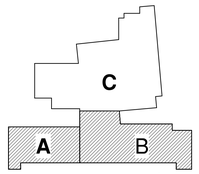
DRAWING NOTES:

1. (3)8"Ø FLUES AND (3)8"Ø INTAKES UP AND DOWN. TERMINATE ABOVE ROOF WITH MANUFACTURER SUPPLIED WEATHER CAPS.
2. 6"Ø UP THROUGH ROOF. TERMINATE WITH GOOSENECK AND BIRD SCREEN.
3. EXTEND 8X8 DUCT FROM WALL MOUNTED RETURN AND CONNECT INTO PLENUM SPACE.
4. PROVIDE ONE R-9 LOW AND ANOTHER R-9 AT 8 FEET AFF. PROVIDE 60x16 PLENUM WITH SOUND LINING ON THE BACK OF R-9. PLENUM SHALL EXTEND UP THREE FEET FROM TOP OF RETURN OPENING.
5. TERMINATE TRANSFER DUCT WITH ACOUSTICAL LINER.
6. 10X10 UP TO SECOND FLOOR, SEE M2.3 FOR CONTINUATION.
7. 8X8 UP TO SECOND FLOOR, SEE M2.3 FOR CONTINUATION.
8. OFFSET DUCT UP/DOWN TO AVOID CONFLICT.
9. 56X22 UP TO SECOND FLOOR. SEE M2.3 FOR CONTINUATION. PROVIDE BALANCING DAMPER IN VERTICAL AND TERMINATE OPEN ENDED ABOVE CEILING. BALANCE TO 9525 CFM.
10. PROVIDE 16" ROUND ACOUSTICAL RETURN BOOT, "TITUS" "FLEXABOOT".
11. PROVIDE 18" ROUND ACOUSTICAL RETURN BOOT, "TITUS" "FLEXABOOT".
12. PROVIDE 14" ROUND ACOUSTICAL RETURN BOOT, "TITUS" "FLEXABOOT".
13. PROVIDE DESKTOP FAN FOR EACH DESK (2) IN THIS SPACE. FAN SHALL BE "HONEYWELL TURBO ON THE GO."

GENERAL NOTES:

1. ALL DUCTWORK, SUPPLY AND RETURN, WITHIN CLASSROOMS AND SGI ROOMS SHALL BE ACOUSTICALLY LINED WITH 2" DUCT LINER.

KEY PLAN



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CONSTRUCTION NORTH

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FIRST FLOOR UNITS "A" & "B" HVAC

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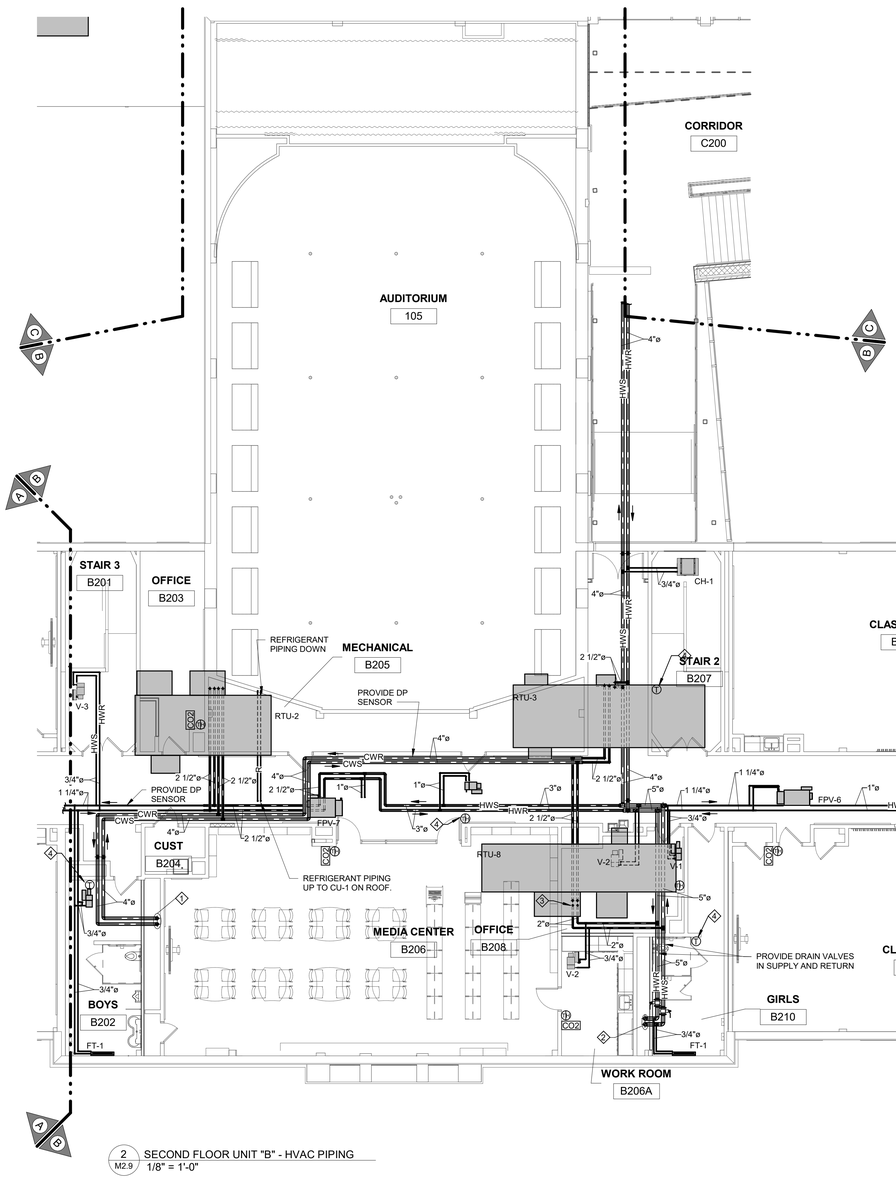
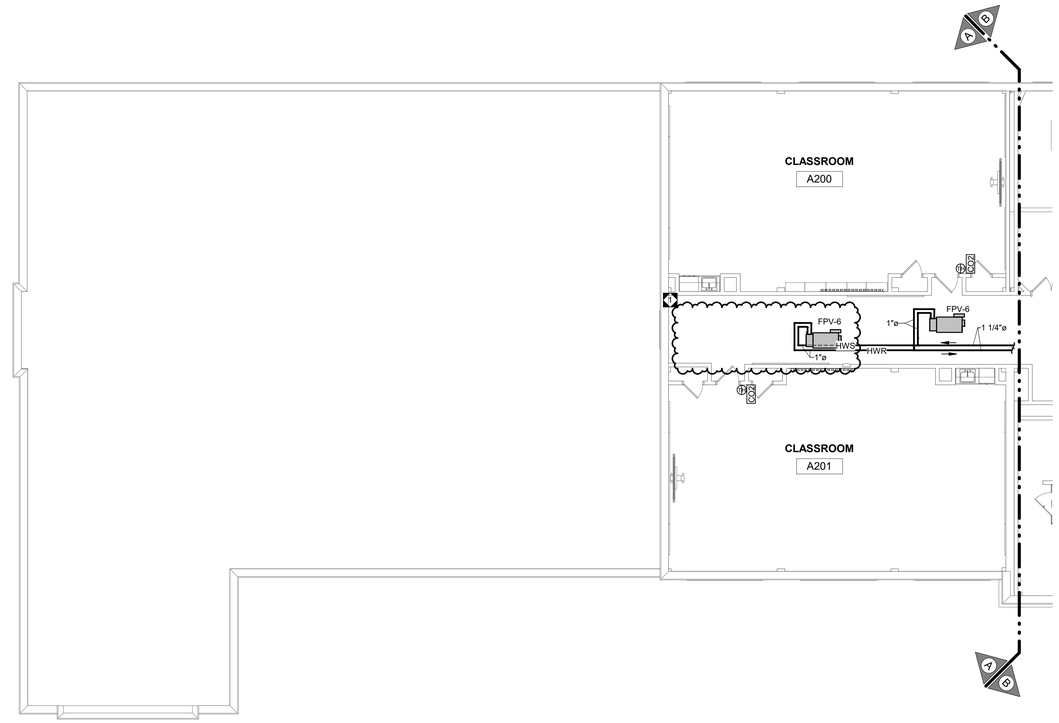
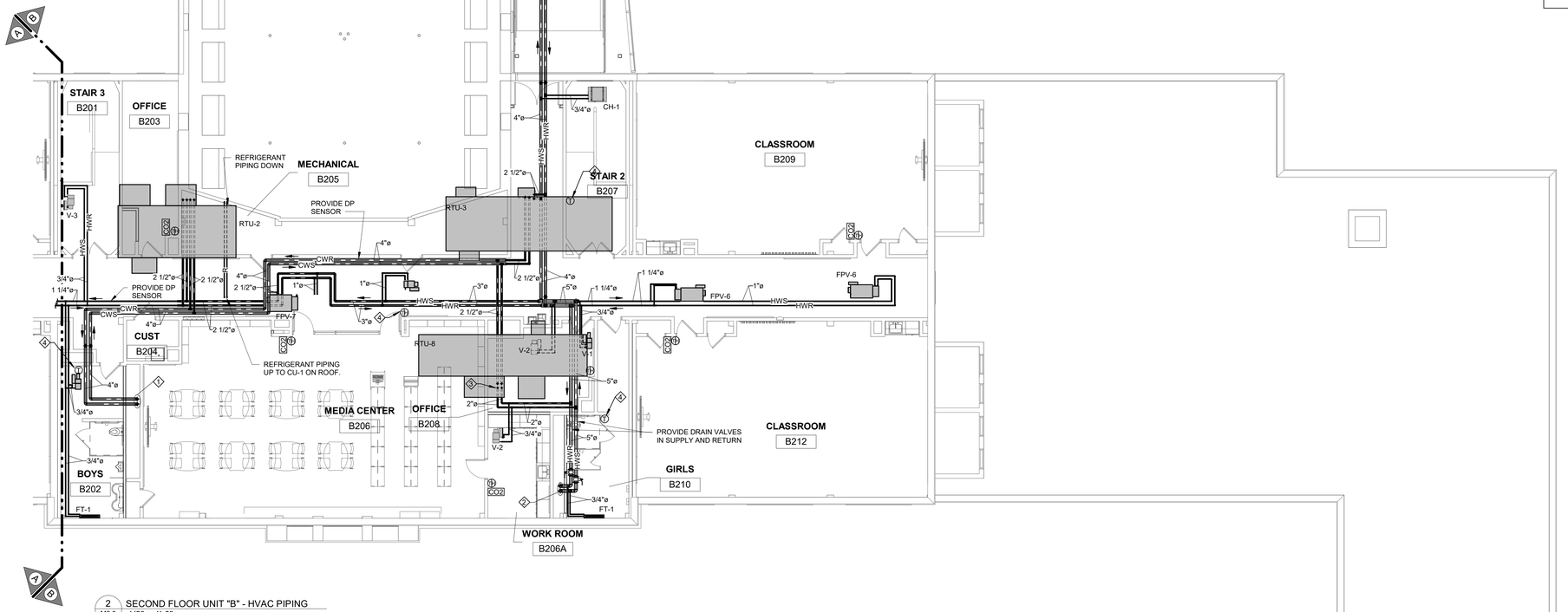
M2.1





1 M2.9 SECOND FLOOR UNIT "A" - HVAC PIPING
1/8" = 1'-0"

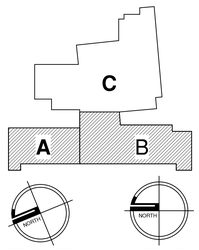


2 M2.9 SECOND FLOOR UNIT "B" - HVAC PIPING
1/8" = 1'-0"

DRAWING NOTES:

1. 4" CWS/CWR PIPING DOWN TO FIRST FLOOR. SEE M2.7 FOR CONTINUATION.
2. 5" HWS/HWR PIPING DOWN TO FIRST FLOOR. SEE M2.7 FOR CONTINUATION.
3. PROVIDE PIPING AND VALVES FOR BOTH (2") PREHEAT COIL AND (1-1/2") REHEAT COIL. REHEAT COIL PIPING NOT SHOWN FOR CLARITY.
4. PROVIDE CLEAR LOCKABLE COVER.

KEY PLAN



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KENNETH LEE KAUFFMAN
STATE AND LICENSE NO: PA 050547-E

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03/02/2021

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1	3/25/2021	ADDENDUM #3

SCHOOL & LOCATION
RHAWNHURST ELEMENTARY SCHOOL

7809 Castor Ave, Philadelphia, PA 19152

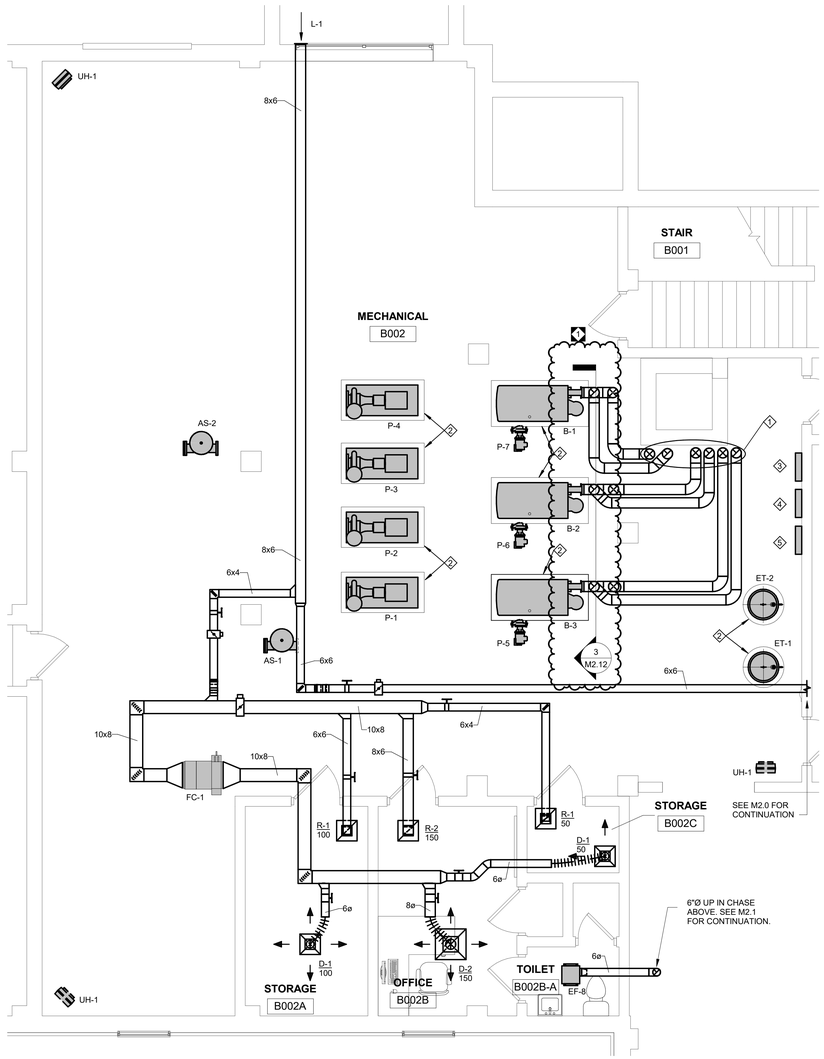
PROJECT TITLE
ADDITIONS & RENOVATIONS

DRAWING TITLE
SECOND FLOOR UNITS "A" & "B" HVAC PIPING

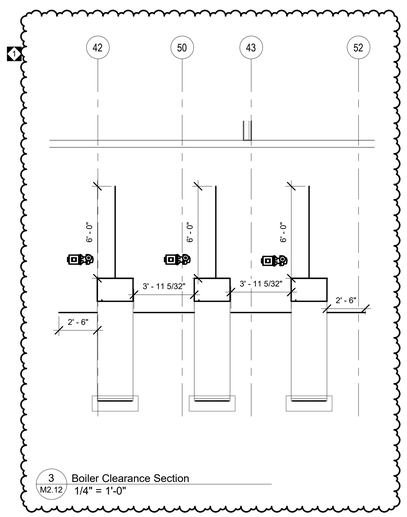
LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-070	OF	2019 / 20
B-071	OF	2019 / 20
B-072	OF	2019 / 20
B-073	OF	2019 / 20

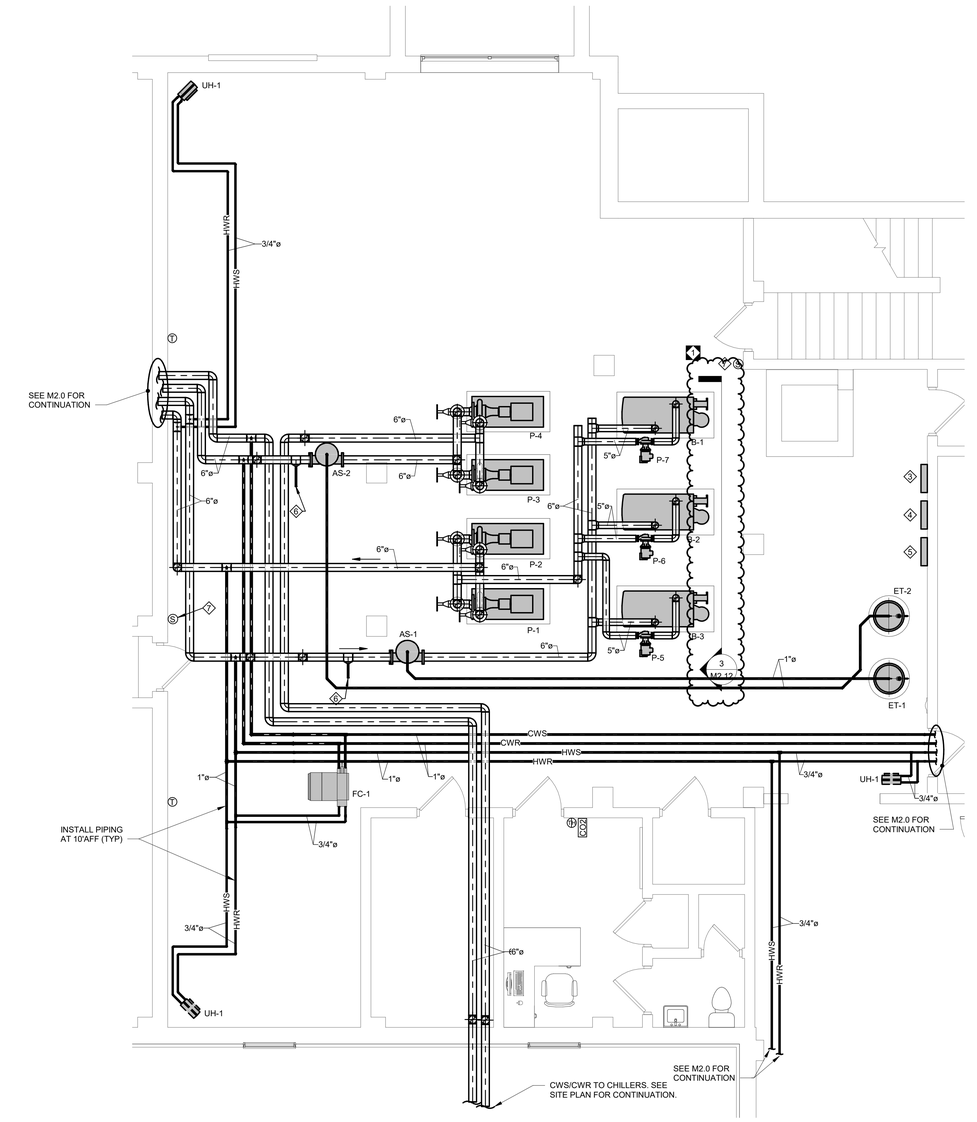
DRAWING NO.
M2.9



1 M2.12 Enlarged Mechanical Room - HVAC
1/4" = 1'-0"



3 M2.12 Boiler Clearance Section
1/4" = 1'-0"



2 M2.12 Enlarged Mechanical Room - Piping
1/4" = 1'-0"

DRAWING NOTES:

1. (3) 8" COMBUSTION AIR AND (3) 8" VENT UP IN CHASE.
2. MC SHALL PROVIDE HOUSEKEEPING PAD PER DETAIL.
3. DDC PANEL
4. BOILER CONTROL PANEL
5. CHILLER CONTROL PANEL
6. PROVIDE 1" MAKE-UP WATER CONNECTION PER DETAIL.
7. PROVIDE EMERGENCY BOILER SHUT OFF SWITCH.

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SCHOOL & LOCATION
RHAWNHURST ELEMENTARY SCHOOL

7809 Castor Ave, Philadelphia, PA 19152

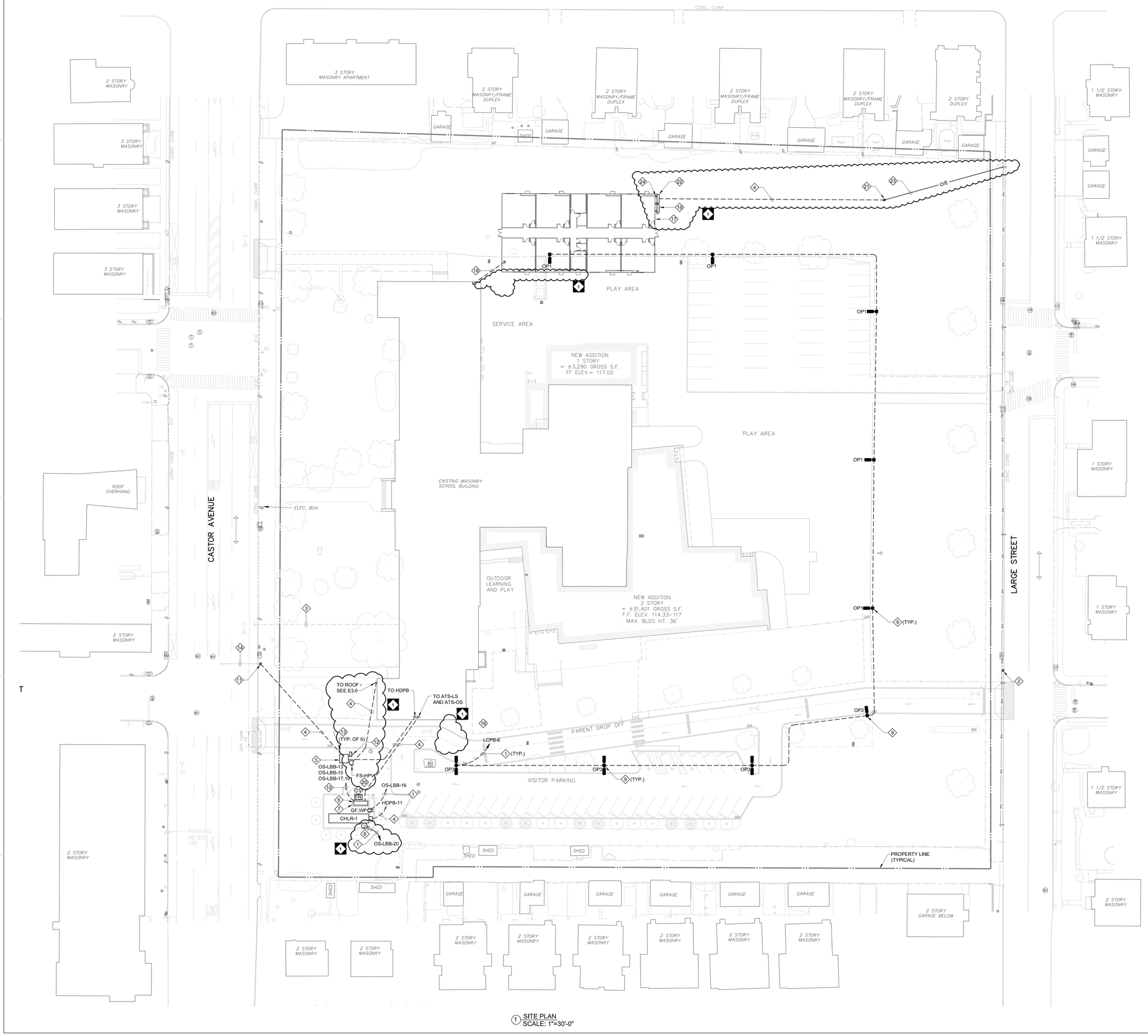
PROJECT TITLE
ADDITIONS & RENOVATIONS

DRAWING TITLE
ENLARGED MECHANICAL ROOM

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-070 OF 2019 / 20
B-071 OF 2019 / 20
B-072 OF 2019 / 20
B-073 OF 2019 / 20

DRAWING NO.
M2.12



1 SITE PLAN
SCALE: 1"=30'-0"

GENERAL NOTES:

1. THE EC SHALL BE RESPONSIBLE FOR TRENCHING, CONCRETE ENCASEMENT AND BACKFILL FOR ALL UNDERGROUND CONDUITS/DUCTBANKS TO THE LIMITS OF SUBGRADE FOR THE STONE BASE OF PAVING. THE GC SHALL DEMOLISH THE EXISTING SURFACE (ASPHALT PAVING OR CONCRETE) AND STONE SUBBASE AND RESTORE THE FINISHED SURFACE AND STONE SUBBASE WITH STANDARD DUTY PAVING.

DRAWING NOTES:

1. 2#8 + 1#8 GRD IN 1" CONDUIT PER DETAIL 1/E9.1.
2. RELOCATED UTILITY POLE BY PECO UTILITY. COORDINATE FINAL POLE LOCATION AND ALL ASSOCIATED WORK WITH PECO UTILITY.
3. EXISTING TELECOMMUNICATIONS SERVICE CABLING AND DUCTBANK.
4. REFER TO POWER RISER DIAGRAM FOR CONDUCTORS AND CONDUITS.
5. PADMOUNT UTILITY COMPANY TRANSFORMER, PROVIDE PRECAST VAULT AND GROUNDING PER UTILITY COMPANY REQUIREMENTS. COORDINATE ALL WORK WITH PECO UTILITY COMPANY.
6. PAD MOUNT GENERATOR G1. SEE POWER RISER DIAGRAM FOR MORE INFORMATION.
7. GC TO PROVIDE GENERATOR PAD PER DETAIL 5/E9.1.
8. CHILLER PIPING HEAT TRACE BY MC. PROVIDE LOCAL DISCONNECT SWITCHES AND PROVIDE ALL WIRING/CONDUIT TO THERMOSTAT AND EQUIPMENT AS REQUIRED BY MANUFACTURER.
9. MOUNT FIXTURE ON POLE BASE PER DETAIL 9/E9.1.
10. PROVIDE 7#10 + 1#10 GRD IN 1-1/2" CONDUIT PER DETAIL 1/E9.1 FOR THE GENERATOR BATTERY CHARGER, BATTERY HEATER AND BLOCK HEATER CIRCUITS.
11. PECO UTILITY TO INSTALL NEW POLE - COORDINATE LOCATION WITH PECO. EXTEND UNDERGROUND CONDUITS UP POLE TO HEIGHT AS REQUIRED BY UTILITY, AND PROVIDE EXCESS CABLE COIL AS REQUIRED FOR EXTENSION AND CONNECTION TO POLE MOUNTED TERMINATION EQUIPMENT BY UTILITY COMPANY. COORDINATE ALL WORK WITH PECO UTILITY.
12. PROVIDE TWO PEDESTAL MOUNTED METER BASES (ONE FOR INCOMING POWER; ONE FOR OUTGOING POWER) PER UTILITY COMPANY REQUIREMENTS. COORDINATE ALL WORK WITH PECO UTILITY COMPANY.
13. PROVIDE BOLLARDS PER UTILITY COMPANY REQUIREMENTS AND DETAIL 6/E9.1.
14. PECO UTILITY TO INSTALL OVERHEAD PRIMARY ELECTRICAL SERVICE CONDUCTORS.
15. PROVIDE FIRE ALARM ADDRESSABLE RELAY WITH WIRING AND CONNECTIONS AS REQUIRED TO MONITOR GENERATOR RUNNING STATUS. PROVIDE WIRING TO FIRE ALARM CONTROL PANEL IN 1" CONDUIT PER DETAIL 1/E9.1.
16. GROUNDING COUNTERPOISE LOCATION.
17. MODULAR CLASSROOMS BY GC. COORDINATE ALL WORK WITH ARCHITECTURAL PHASING PLANS. REMOVE ALL TEMPORARY EQUIPMENT, WIRING, CONDUIT AND APPURTENANCES ASSOCIATED WITH MODULAR CLASSROOM POWER AND LOW VOLTAGE SERVICES WHEN MODULAR CLASSROOMS ARE REMOVED.
18. PROVIDE (2) 3" UNDERGROUND RACEWAYS BETWEEN MODULAR CLASSROOMS AND EXISTING SCHOOL BUILDING CRAWLSPACE. RACEWAYS ARE TO BE USED FOR LOW VOLTAGE INTERFACE SYSTEMS BETWEEN BUILDINGS. COORDINATE FINAL LOCATIONS WITH OWNER AND GC.
19. TEMPORARY MODULAR CLASSROOM DISTRIBUTION EQUIPMENT - REFER TO POWER RISER DIAGRAM ON E8.2.
20. MOUNT DISCONNECT SWITCH ON PEDESTAL EQUIPMENT RACK. PROVIDE PEDESTAL CONSTRUCTED TO SAME REQUIREMENTS AS PECO PEDESTAL MOUNTED METER DETAIL. COORDINATE LOCATION AND INSTALLATION WITH PECO UTILITY. PROVIDE PERMANENTLY MOUNTED LABEL ON SWITCH READING "PHOTOVOLTAIC SYSTEM DISCONNECT."
21. PROVIDE 40' DIRECT BURIED SOUTHERN YELLOW PINE UTILITY POLE WITH ALL CROSS ARMS AND BRACING AS REQUIRED TO SUPPORT PECO UTILITY OVERHEAD SERVICE CONDUCTORS. EXTEND UNDERGROUND CONDUITS UP POLE AND PROVIDE WEATHERHEAD AS REQUIRED BY PECO.
22. PROVIDE PECO UTILITY APPROVED 800A, 120/240V CT CABINET. COORDINATE INSTALLATION WITH PECO.
23. PECO OVERHEAD SERVICE CABLING.
24. PROVIDE (3) 6" X 6" X 10' PRESSURE TREATED POSTS WITH GALVANIZED STEEL UNISTRUT CROSS SUPPORTS AS NEEDED TO MOUNT ALL EQUIPMENT.

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1	03/26/2021	ADDENDUM #3

SCHOOL & LOCATION
RHAWNHURST ELEMENTARY SCHOOL

7809 Castor Ave, Philadelphia, PA 19152

PROJECT TITLE

ADDITIONS & RENOVATIONS

DRAWING TITLE

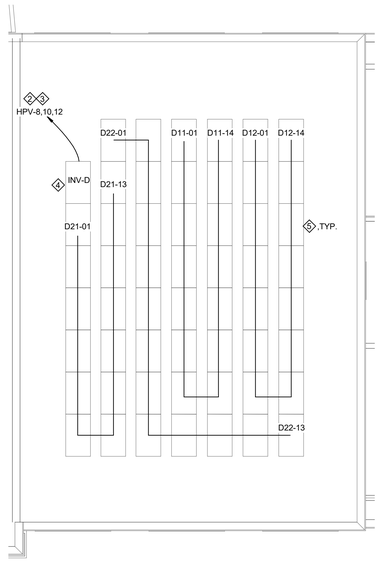
SITE PLAN

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-070	OF	2019 / 20
B-071	OF	2019 / 20
B-072	OF	2019 / 20
B-073	OF	2019 / 20

DRAWING NO.
E0.2

2 / E3.6 PHOTOVOLTAIC STRING LAYOUT 1
1/8" = 1'-0"



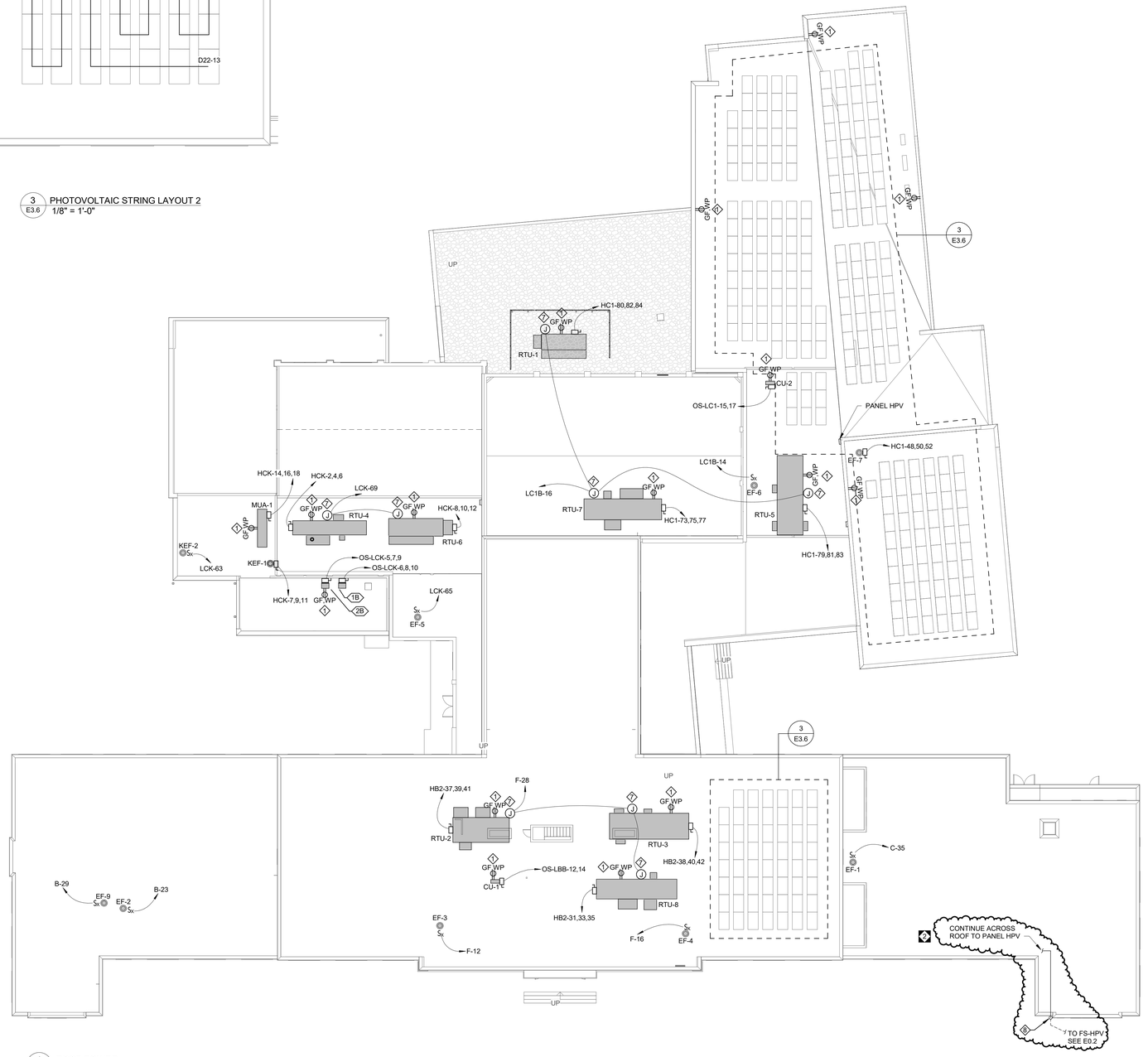
3 / E3.6 PHOTOVOLTAIC STRING LAYOUT 2
1/8" = 1'-0"

GENERAL NOTES:

1. REFER TO VOLTAGE DROP SCHEDULE ON DRAWING E10.4 FOR PHOTOVOLTAIC STRING SIZING.
2. REFER TO PHOTOVOLTAIC SYSTEM INVERTER SCHEDULE ON DRAWING E10.4 FOR INVERTER SIZES.
3. REFER TO PHOTOVOLTAIC PANEL SCHEDULE ON DRAWING E10.4 FOR PHOTOVOLTAIC PANEL RATINGS.
4. PROVIDE ROOFTOP CONDUIT SUPPORTS; SPACING AS REQUIRED BY THE NEC. COOPER B-LINE DURA-BLOK, OR APPROVED EQUAL.

DRAWING NOTES:

1. CONNECT TO 120V BRANCH CIRCUIT SERVING GENERAL PURPOSE RECEPTACLES ON FLOOR BELOW.
2. ROUTE ACROSS ROOF TO PANEL. PROVIDE PULL BOXES AS REQUIRED. USE LIQUID TIGHT FLEXIBLE METAL CONDUIT WHEN CROSSING ROOF/EXPANSION JOINTS.
3. REFER TO VOLTAGE DROP SCHEDULE ON DRAWING E10.4 FOR HOMERUN SIZING OF INVERTERS.
4. PROVIDE ANGLED ROOF INVERTER RACK AND INVERTER SUN SHADE COVER.
5. PROVIDE A BALLASTER FLAT ROOF PHOTOVOLTAIC MODULE MOUNTING SYSTEM.
6. REFER TO POWER RISER FOR WIRING INFORMATION AND SIZING.
7. CONNECT TO BIPOLAR IONIZATION UNIT PROVIDED BY MC.
8. CONTRACTOR SHALL MOUNT CONDUIT TO INSIDE CORNER OF MASONRY TO MINIMIZE VISIBILITY AND PAINT EXPOSED CONDUIT RISER ON FACE OF BUILDING TO MATCH ADJACENT BRICK. FINAL COLOR SELECTION AND PAINT SPECS TO BE COORDINATED WITH THE ARCHITECT.



1 / E3.6 ROOF POWER
1/16" = 1'-0"

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1	3/22/2021	ADDENDUM #2

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DRAWING TITLE
ROOF POWER

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B-070 OF 2019 / 20
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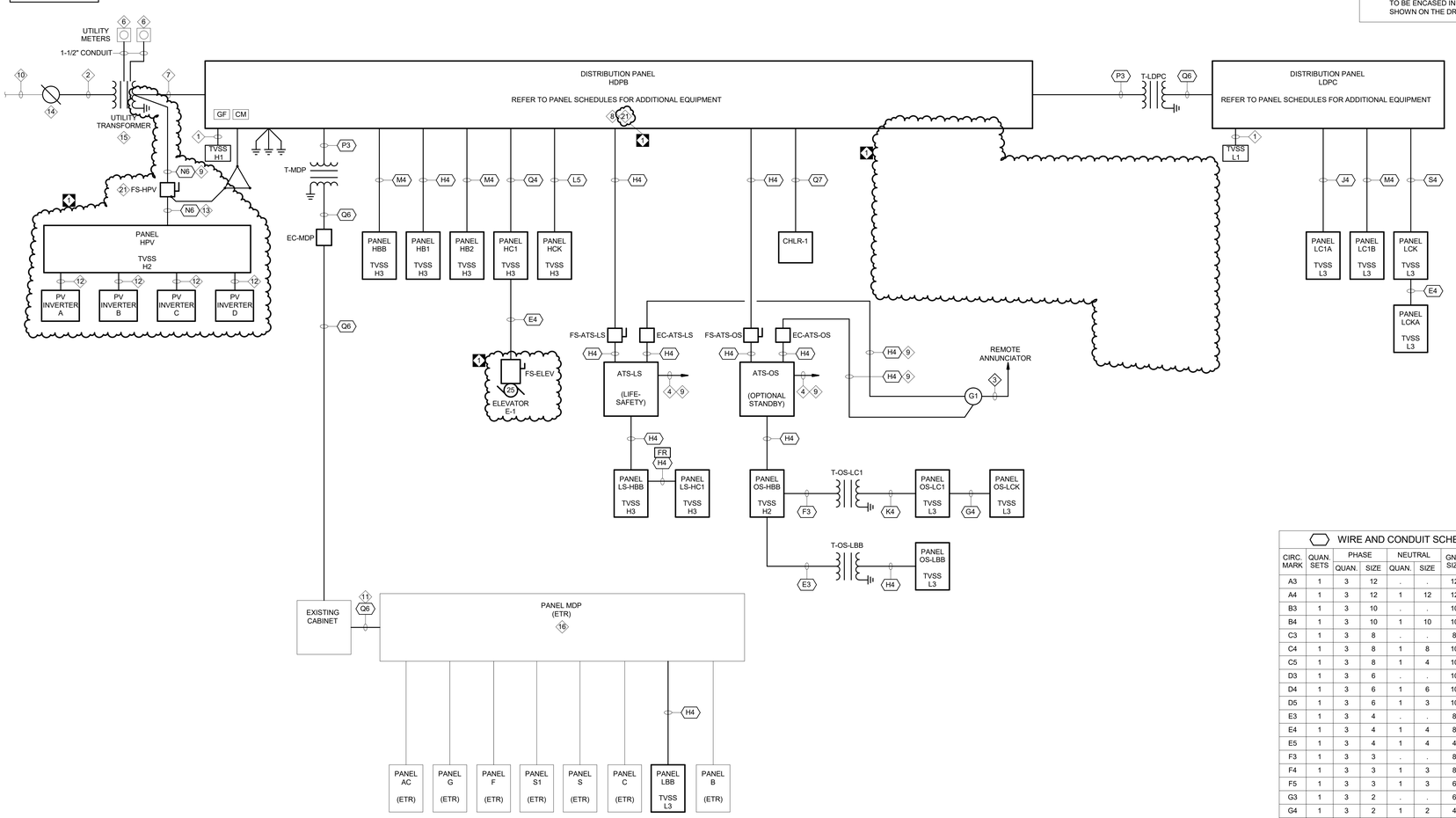
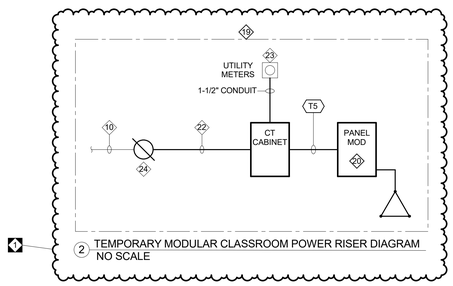
E3.6

PECO W.O. NUMBER: 16741036



1 POWER RISER DIAGRAM - EXISTING/NEW
NO SCALE



2 TEMPORARY MODULAR CLASSROOM POWER RISER DIAGRAM
NO SCALE

GENERAL NOTES:

1. REFER TO SPECIFICATIONS FOR PANELBOARD SCHEDULES.
2. IF THE CONTRACTOR RUNS ANY FEEDER CONDUITS OUTSIDE THE BUILDING, THEY WILL BE REQUIRED TO BE ENCASED IN CONCRETE SIMILAR TO DETAILS SHOWN ON THE DRAWINGS.

NOTES:

1. WIRE & CONDUIT PER PANEL SCHEDULE. VERIFY AND ADJUST BREAKER, WIRE & CONDUIT SIZES TO MATCH RECOMMENDATIONS BY TVSS MANUFACTURER.
2. PROVIDE 3#1/0(35KV) CABLES IN 5" CONDUIT + (1) 5" SPARE WITH CONCRETE ENCASEMENT PER DETAIL 3/E9.1. COORDINATE WITH PECO UTILITY AND PROVIDE MEDIUM VOLTAGE CABLES AND INSTALLATIONS PER THEIR REQUIREMENTS.
3. PROVIDE CONDUCTORS AND CABLES PER MANUFACTURER IN 1" CONDUIT.
4. PROVIDE ALL REQUIRED CONTROL/SIGNAL WIRING AND CONNECTIONS BETWEEN GENERATOR AND ATS IN A DEDICATED CONDUIT WITH NO OTHER WIRING.
5. PROVIDE AUXILIARY CONTACT IN DISCONNECT SWITCH.
6. EC SHALL PROVIDE PEDESTAL MOUNTED METER BASE AND INSTALL CT'S AND VT'S FURNISHED BY THE UTILITY COMPANY. COORDINATE ALL WORK WITH THE UTILITY COMPANY. PROVIDE TELEPHONE LINE IN 3/4" CONDUIT TO BUILDING DEMARC LOCATION IN BOILER ROOM.
7. PROVIDE 3 SETS OF 4#600 KCM EACH IN A 4" CONDUIT + (1) 4" SPARE CONDUITS PER DETAIL 4/E9.1.
8. BUILDING SERVICE ENTRANCE DISCONNECT. PROVIDE SIGN DISPLAYING DESIGNATION ON DISTRIBUTION PANEL PER SPECIFICATIONS.
9. PROVIDE CONCRETE ENCASEMENT SIMILAR TO DETAILS ON DRAWING E9.1.
10. PECO UTILITY TO INSTALL OVERHEAD PRIMARY SERVICE CONDUCTORS.
11. INSTALL FEEDER THRU EXISTING CONDUIT.
12. SEE PHOTOVOLTAIC VOLTAGE DROP CALCULATION SCHEDULE ON E10.4 FOR INVERTER CIRCUIT REQUIREMENTS.
13. FEEDER MAY NOT ENTER THE BUILDING. ROUTE FEEDER ACROSS ROOF FROM PANEL HPV TO FUSED SWITCH FS-HPV.
14. NEW PECO UTILITY POLE. EXTEND UNDERGROUND CONDUITS UP POLE TO HEIGHT AS REQUIRED BY PECO, AND PROVIDE EXCESS CABLE COIL AS REQUIRED FOR FINAL TERMINATIONS BY PECO. COORDINATE ALL WORK WITH PECO UTILITY.
15. PROVIDE PRECAST CONCRETE TRANSFORMER VAULT AND GROUNDING PER UTILITY COMPANY REQUIREMENTS.
16. REMOVE EXISTING NEUTRAL AND GROUND BAR BONDING. RETERMINATE EXISTING NEUTRAL AND GROUND CONDUCTORS AS NEEDED. PROVIDE ADDITIONAL TERMINATING ACCESSORIES AS NEEDED TO KEEP EACH SYSTEM INDEPENDENT. REMOVE EXISTING GROUNDING ELECTRODE CONDUCTORS.
17. PHOTOVOLTAIC SERVICE DISCONNECT. PROVIDE MECHANICALLY FASTENED LAMINATED LABEL WITH IDENTIFICATION INFORMATION PER NEC REQUIREMENTS.
18. PROVIDE PERMANENTLY FASTEN PAD LOCKABLE HASP ACCESSORY FOR EACH BREAKER.
19. PROVIDE TEMPORARY DISTRIBUTION EQUIPMENT AND FEEDERS TO SERVE MODULAR CLASSROOMS. REVISE DISTRIBUTION AS REQUIRED TO SERVE FINAL MODULAR CLASSROOM ELECTRICAL LOADS. REMOVE ALL TEMPORARY EQUIPMENT AND FEEDERS WHEN MODULAR CLASSROOMS ARE REMOVED.
20. PROVIDE NEMA 3R, 240/120V, 1 PHASE, 3 WIRE PANELBOARD WITH 2P.800A MAIN BREAKER AND (9) 2P.125A BRANCH BREAKERS.
21. PROVIDE PERMANENTLY MOUNTED SIGN IDENTIFYING LOCATION OF ADDITIONAL BUILDING SERVICE DISCONNECT.
22. PROVIDE 2 SETS OF 3#600KCM EACH IN A 4" CONDUIT PER DETAIL 2/E9.1.
23. EC SHALL PROVIDE METER BASE AND INSTALL CT'S AND VT'S FURNISHED BY THE UTILITY COMPANY. COORDINATE ALL WORK WITH PECO UTILITY.
24. PROVIDE UTILITY POLE FOR PECO OVERHEAD SERVICE CONNECTIONS.

WIRE AND CONDUIT SCHEDULE

CIRC. MARK	QUAN. SETS	PHASE QUAN.	PHASE SIZE	NEUTRAL QUAN.	NEUTRAL SIZE	GND. SIZE	CONDUIT QUAN.	CONDUIT SIZE
A3	1	3	12	.	.	12	1	3/4"
A4	1	3	12	1	12	12	1	3/4"
B3	1	3	10	.	.	10	1	3/4"
B4	1	3	10	1	10	10	1	3/4"
C3	1	3	8	.	.	8	1	1"
C4	1	3	8	1	8	10	1	3/4"
C5	1	3	8	1	4	10	1	1"
D3	1	3	6	.	.	10	1	1"
D4	1	3	6	1	6	10	1	1"
D5	1	3	6	1	3	10	1	1"
E3	1	3	4	.	.	8	1	1-1/4"
E4	1	3	4	1	4	8	1	1-1/4"
E5	1	3	4	1	4	4	1	1-1/4"
F3	1	3	3	.	.	8	1	1-1/4"
F4	1	3	3	1	3	8	1	1-1/4"
F5	1	3	3	1	3	6	1	1-1/4"
G3	1	3	2	.	.	6	1	1 1/2"
G4	1	3	2	1	2	4	1	1-1/2"
G5	1	3	2	1	2/0	6	1	1-1/2"
H3	1	3	1	.	.	6	1	1-1/2"
H4	1	3	1	1	1	4	1	1-1/2"
H5	1	3	1	1	3/0	6	1	2"
J3	1	3	1/0	.	.	6	1	2"
J4	1	3	1/0	1	1/0	6	1	2"
J5	1	3	1/0	1	1/0	4	1	2"
K3	1	3	2/0	.	.	6	1	2"
K4	1	3	2/0	1	2/0	4	1	2"
K5	1	3	2/0	1	2/0	3	1	2"
L3	1	3	3/0	.	.	6	1	2"
L4	1	3	3/0	1	3/0	6	1	2"
L5	1	3	3/0	1	3/0	3	1	2-1/2"
L6	2	3	3/0	1	3/0	3	2	2-1/2"
M3	1	3	4/0	.	.	4	1	2-1/2"
M4	1	3	4/0	1	4/0	4	1	2-1/2"
M5	1	3	4/0	2	4/0	4	1	2-1/2"
M6	2	3	4/0	.	.	2	2	2-1/2"
N3	1	3	250	.	.	4	1	2-1/2"
N4	1	3	250	1	250	4	1	2-1/2"
N5	2	3	250	.	.	2	2	2-1/2"
N6	1	3	250	1	250	3	1	2-1/2"
P3	1	3	300	.	.	4	1	2-1/2"
P4	1	3	300	1	300	3	1	3"
P5	1	3	300	2	300	4	1	3"
Q3	1	3	350	.	.	4	1	3"
Q4	1	3	350	1	350	1	1	3"
Q5	2	2	350	.	.	1	2	3"
Q6	2	3	350	1	350	2/0	2	3"
Q7	2	3	350	1	350	1	2	3"
Q8	3	3	350	1	350	1/0	3	3"
R3	1	3	400	.	.	3	1	3"
R4	1	3	400	1	400	3	1	3"
R5	1	3	400	2	400	3	1	3-1/2"
R6	3	3	400	.	.	2/0	3	3-1/2"
S3	1	3	500	.	.	3	1	3"
S4	1	3	500	1	500	3	1	3-1/2"
S5	1	3	500	1	500	1	1	4"
T3	1	3	600	.	.	3	1	4"
T4	1	3	600	1	600	1/0	1	4"
T5	2	2	600	1	600	3/0	2	4"
T6	3	3	600	1	600	3/0	3	4"
T7	5	3	600	1	600	3/0	5	4"

SYMBOL SCHEDULE

- SWITCHBOARD — SWITCHBOARD
- PANEL — PANELBOARD, PROVIDE INTEGRAL EQUIPMENT WHEN INDICATED.
- UTILITY CT CABINET — UTILITY CT CABINET
- UTILITY POLE
- UTILITY METER. COORDINATE EXACT LOCATION WITH UTILITY COMPANY REQUIREMENTS
- TRANSFORMER
- MOTOR
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSOR VERIFY AND ADJUST BREAKER, WIRE & CONDUIT SIZES TO MATCH RECOMMENDATIONS BY TVSS MANUFACTURER.
- FUSED DISCONNECT SWITCH
- ENCLOSED CIRCUIT BREAKER
- G — GENERATOR
- ATS-1 — AUTOMATIC TRANSFER SWITCH
- PROVIDE A SEPARATE #3/0 GROUNDING CONDUCTOR TO EACH OF THE FOLLOWING:
  - FOUNDATION FOOTER REBAR
  - UTILITY SIDE OF WATER METER SERVICE
  - BUILDING STEEL
- GROUND CONNECTION PER NEC
- GROUNDING COUNTERPOISE SYSTEM PER SPECIFICATIONS
- WIRE/CONDUIT REFERENCE
- FR — 2-HOUR FIRE RATED CONDUCTORS WITH INCREASED CONDUIT SIZE AS REQUIRED TO MEET A LISTED 2-HOUR RATED INSTALLATION, NEC AND MANUFACTURERS REQUIREMENTS.
- FEEDER CIRCUIT
- GF — GROUND FAULT RELAY. PROVIDE TESTING AS REQUIRED BY THE AHJ.
- CM — CUSTOMER METERING PER SPECIFICATIONS. PROVIDE CATEGORY 6 CABLE TO LOCAL MDF/IDF IN 3/4" CONDUIT.

ENCLOSED CIRCUIT BREAKER SCHEDULE

TYPE/NO.	VOLT CLASS	AMPS	RATING	POLES	NEUTRAL	AIC	TYPE	NEMA ENCLOSURE	NOTES
EC-ATS-LS	600	100	80%	3	SN	35,000	ELECTRONIC TRIP LSI	NEMA 1	18
EC-ATS-OS	600	125	80%	3	SN	35,000	ELECTRONIC TRIP LSI	NEMA 1	18
EC-MDP	240	600	80%	3	SN	25,000	ELECTRONIC TRIP LSI	NEMA 1	

TRANSFORMER SCHEDULE

TYPE/NO.	KVA	TYPE	PRI. VOLTS	SEC. VOLTS	PHASE	WIRES	ENCLOSURE	DEGREE C TEMP RISE	MOUNTING
T-LDPC	150	DRY	480	120/208	3	4	NEMA 1	150°	FLOOR
T-MDP	150	DRY	480	120/208	3	4	NEMA 1	150°	FLOOR
~~T-MOD~~	~~167~~	~~DRY~~	~~480~~	~~120/240~~	~~1~~	~~3~~	~~NEMA 3R~~	~~150°~~	~~FLOOR~~
T-OS-LBB	30	DRY	480	120/208	3	4	NEMA 1	150°	FLOOR
T-OS-LC1	45	DRY	480	120/208	3	4	NEMA 1	150°	FLOOR

FUSED DISCONNECT SCHEDULE

TYPE/NO.	VOLT CLASS	POLES	SIZE AMPS	SIZE FUSE	NEUTRAL	NEMA ENCLOSURE	FUSE CLASS	NOTES
FS-ATS-LS	600	3	100	100	SN	NEMA 1	CLASS J	
FS-ATS-OS	600	3	200	125	SN	NEMA 1	CLASS J	
FS-HPV	600	3	200	200	SN	NEMA 3R	CLASS J	17
FS-ELEV	600	3	100	70	SN	NEMA 1	CLASS J	5

TRANSFER SWITCH SCHEDULE

TYPE/NO.	SIZE AMPS	VOLTAGE SYSTEM	SWITCHED POLES	NEUTRAL	NEMA ENCLOSURE	NOTES
ATS-LS	125	277/480V	3	NON OVERLAP	NEMA 12	
ATS-OS	125	277/480V	3	NON OVERLAP	NEMA 12	

GENERATOR SCHEDULE

TYPE/NO.	NOMINAL KW	SYSTEM VOLTAGE	PHASE	WIRE	ALTERNATOR	ALTERNATOR KW	ALTERNATOR KVA	MAX MOTOR STARTING KVA WITH PMG AT 90% SUSTAINED VOLTAGE	ENGINE	ELECTRONIC TRIP LSI CIRCUIT BREAKERS	ENCLOSURE	FUEL TYPE	BASIS OF DESIGN MODEL NUMBER	NOTES
G1	80	277/480V	3	4	UCD2G	80	100	260	QSB5-G13	3P.100A - ATS-LS 3P.125A - ATS-OS	OUTDOOR	DIESEL	C80D6C	18

THE SCHOOL DISTRICT OF PHILADELPHIA

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03/02/2021

NO.	DATE	REVISION
10		
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1	3/26/2021	ADDENDUM #3

SCHOOL & LOCATION
RHAWNHURST ELEMENTARY SCHOOL

7809 Castor Ave, Philadelphia, PA 19152

PROJECT TITLE
ADDITIONS & RENOVATIONS

DRAWING TITLE
POWER RISER DIAGRAM

LOCATION NO.	FILE NO.
DRAWN BY	CHECKED BY

B-070 OF 2019 / 20
B-071 OF 2019 / 20
B-072 OF 2019 / 20
B-073 OF 2019 / 20

DRAWING NO.
E8.2