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. 004

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 April 1, 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.

ATTENTION ALL BIDDERS – IMPORTANT NOTICE

1. The Bid DUE DATE: **Tuesday, April 6, 2021**
2. On-line Descope Meetings for successful low bidders, are required and will be held the following day on, **Wednesday, April 7th at 10:00 AM.**
3. The time period for the submittal of questions has expired.
4. The following clarifications and additions are being issued for the specifications and plans:
5. Questions and Answers follow clarifications and additions.

DIVISION 0-1 SPECIFICATIONS

CLARIFICATIONS AND REVISIONS TO PROVISIONS DEALING WITH PROJECT CLEANLINESS AND CONSTRUCTION WASTE MANAGEMENT:

1. GENERAL CONDITIONS: GC-4.15 CLEANING UP:

REVISE GC-4.15.4 to provide that Prime Contractors and their subcontractors will remove their construction waste to locations designated by the General Construction Contractor (GC) and place in dumpsters or other containers provided by the GC for disposal.

2. 01 1000-SUMMARY OF WORK:

ADD 1.4.C.1.a.24 as follows:

General Construction Contractor (GC) is responsible for Construction Waste Management and removal from site for ALL Prime Contractors and documentation for LEED Certification as per Section 015240 CONSTRUCTION WASTE MANAGEMENT.

3. 01 1750 PROJECT CLEANLINESS:

1.1 PROJECT CLEANLINESS

DELETE Paragraphs C, D, E, F, G, H, I

1.2 FINAL CLEANING

DELETE Paragraph D

All other provisions of GC-4.15 CLEANING UP and 01 1750 PROJCT CLEANLINESS shall remain in full force and effect

CLARIFICATIONS AND REVISIONS TO PROVISIONS DEALING WITH ENVIRONMENTAL REMEDIATION:

1. 01 1000 SUMMARY OF WORK

ADD 1.4.C.1.a.25 as follows:

General Construction Contractor (GC) is responsible for all environmental remediation required by Section 01 1135 ASBESTOS ABATEMENT

NOTE: The Scope of the Abatement Specification prepared by Synertech, Incorporated has been revised to include removal of the mastic residue on the concrete floors throughout the project area.

2. SECTION 011135 – SPECIFICATION FOR ASBESTOS ABATEMENT, etc. prepared by Synertech, Incorporated, dated February 18, 2021

The following revisions are made to incorporate the removal of the mastic residue on concrete floors in all areas into the abatement scope of work under friable condition containment, utilizing mechanical methods, such as bead blasting, grinding, or other approved methods that do not damage the concrete or create uneven or rough surfaces. Chemical removal methods will not be permitted. A test section will be prepared for approval prior to production work to demonstrate the suitability of the proposed removal method and the capability of equipment operators.

(a) 1.00 Introduction, Paragraph .02, f:
DELETE the following provision: "mastic residue on floor substrate to remain intact"

REPLACE with following: "mastic residue on the floor substrate to be removed using approved mechanical methods"

(b). Section 1.113-Table of Materials Scheduled for Removal and Demolition:

DELETE Comments that indicate mastic residue is to remain intact.

(c) 16. PREPARATION AND ABATEMENT OF MAJOR/MINOR PROJECT AREAS:

DELETE Paragraph 26 and REPLACE with the following:

(d) 18.00 PREPARATION & ABATEMENT -FLOOR TILE-NON-FRIABLE PRODUCTS

REVISE title to read: PREPARATION & ABATEMENT-FLOOR TILE AND MASTIC RESIDUE

ADD Paragraph .01 (a) as follows:

(a) Removal of the mastic residue on concrete floors in all areas is included in this abatement scope of work
(i) under friable condition containment,
(ii)utilizing mechanical methods, such as bead blasting, grinding, or other approved methods that do not damage the concrete or create uneven or rough surfaces.
(b) Chemical removal methods will not be permitted.
(c)A test section will be prepared for approval prior to production work to demonstrate the suitability of the proposed removal method and the capability of equipment operators

DELETE 12.a

Removal of mastic residue on concrete floor is included in the scope of work of this abatement specification See Section revised 18.00 above.

.

ARCHITECTURAL / STRUCTURAL SPECIFICATIONS

SECTION 035420 – CEMENT-BASED UNDERLAYMENT

1. **ADD** Specification Section 035420 CEMENT-BASED UNDERLAYMENT in its entirety as part of Addendum #4.

SECTION 051200 – STRUCTURAL STEEL FRAMING

1. **REVISE** paragraph 1.8.A to read as follows: “Fabricator Qualifications: A qualified fabricator that participates in the AISC Quality Program **OR** has 5 or more years’ experience in similar sized projects.
2. **REVISE** paragraph 1.8.B to read as follows: “Installer Qualifications: A qualified installer that participates in the AISC Quality Program **OR** has 5 or more years’ experience in similar sized projects.

SECTION 087100 – DOOR HARDWARE

1. **REVISE** Specification Section 087100 as provided in attached DOOR HARDWARE modifications. The changes make modifications to select hardware sets.

SECTION 088100 – FIRE-RATED GLAZING

1. **ADD** the following manufacturer to 2.2.A.(1&2) as an acceptable manufacturer for Fire Glass.
    1. SAFTIFIRST

MECHANICAL SPECIFICATIONS

SECTION 230900 ATC SYSTEMS

1. REPLACE paragraph 1.4 with the following:

1.1 APPROVED CONTROL SYSTEM MANUFACTURERS

A. The following are approved control system manufacturers.
- **1.** Loytec basis of design
- **2.** Metasys (Verasys not allowed)
- **3.** Tracer
  - a. Inclusion on this list does not guarantee acceptance of products or installation. Control systems shall comply with the terms of this specification.
- **4.** The contractor shall use only operator workstation software, controller software, custom application programming language, and controllers from the corresponding manufacturer and product line unless owner approves use of multiple manufacturers.
- **5.** Other products specified herein (such as sensors, valves, dampers, and actuators) need not be manufactured by the above manufacturers.

SECTION 230510 HVAC PIPING AND SPECIALTIES

1. REPLACE paragraph 2.1 with the following:

2.1 CHILLED WATER AND HEATING WATER PIPING, ABOVE GROUND

A. Steel Pipe: ASTM A53, Schedule 40, black.
- 1. Fittings: ASTM b16.3, malleable iron, or ASTM a234, forged steel welding type fittings.
- 2. Joints: threaded, (up to 2") or aws d1.1, welded (over 2" size).
- 3. For piping 2-1/2" and larger, a coupling system will be acceptable for couplings, tees, reducers, elbows, valves and strainers as specified herein. Provide proper gaskets for reducers, elbows, valves, and strainers as specified herein. Provide proper gaskets for system working temperature and pressure. Acceptable manufacturers shall be Victaulic (basis of design) or Gruvlok.
  - a. Victaulic standard fittings will be ASTM A536 ductile iron, ASME A234 forged steel, or ASTM A53 fabricated steel, with factory grooved ends designed to accept Victaulic standard couplings.
  - b. Victaulic standard couplings consist of two ASTM A536 ductile iron housing segments, a pressure-responsive synthetic rubber gasket, grade “E” EPDM for water services to 230°F, secured together with plated steel bolts and nuts.
    - 1) Rigid Type: Housings will be cast with offsetting, angle-pattern bolt pads to provide system rigidity and support and hanging in accordance with ASME B31.1 and B31.9. Victaulic Style 07 Zero-Flex.
    - 2) Flexible Type: Use in locations where vibration attenuation and stress relief are required. Flexible couplings may be used in lieu of flexible connectors at equipment connections. Three couplings shall be placed in close proximity to the source of vibration. Victaulic Style 75 or 77.
  - c. Victaulic flange adapters will be cast ductile iron, ASTM A536, flat faced, for incorporating flanged components with ANSI Class 125, 150 or 300 bolt-hole patterns to a grooved piping system. Victaulic Style 741 or 743.

B. Copper Tubing: ASTM B88, Type L, hard drawn. (Acceptable Alternative)
- 1. FITTINGS: ASME B16.18, CAST BRASS, OR ASME B16.22
  - a. Solder wrought copper.
  - b. Press fitting are allowable for sizes up to and including 3". Copper and copper alloy press fittings shall conform to material requirements of ASME B16.18 or ASME B16.22 and performance criteria of ASME B16.51 and IAPMO PS 117. Sealing

elements for press fittings shall be EPDM. EPDM (Ethylene Propylene Diene Monomer) is a synthetically manufactured and peroxidically cured all purpose elastomer. Sealing elements shall be factory installed or an alternative supplied by fitting manufacturer. Press fittings shall be Viega Propress or approved equal.

2. Joints: solder, lead free, astm b32, 95-5 tin-antimony, or tin and silver, with melting range 430 to 535°f.
3. For piping 2" and larger, a coupling system will be acceptable for couplings, tees, reducers, elbows, valves, and strainers as specified herein. Provide proper gaskets for reducers, elbows, valves, and strainers as specified herein.
   a. Couplings for Copper Grooved Tube:
      1) Mechanical Couplings: 2" to 8" (DN50-DN200) for copper tubing consisting of ductile iron cast housings, complete with a synthetic rubber gasket of a pressure-responsive design, with plated nuts and bolts to secure unit together. Couplings shall be manufactured to connect copper tubing sized tube and fittings. (Flaring of tube and fitting ends to IPS dimensions is not allowed.)
         a) Coupling Housings: Ductile iron conforming to ASTM A-536, Grade 65-45-12, coated with copper colored alkyd enamel. Housings cast with offsetting, angle-pattern bolt pads to provide rigidity.
         b) Coupling Gaskets: Gasket shall be Grade “EHP” EPDM compound with red color code designed for operating temperatures from -30°F to +250°F. reference shall always be made to the latest published Victaulic Selection Guide for Gaskets for proper gasket selection for the intended service.
         c) Victaulic Style 607 (Quick-Vic): Installation ready rigid coupling for direct stab installation without field disassembly.
      2) Flange Adapters for Copper Tubing: 2" - 6" (DN50-DN150) for copper tubing consisting of ASTM A-536, Grade 65-45-12, ductile iron housing, coated with copper colored alkyd enamel. Flange adapters shall be manufactured for engaging directly into copper tubing sized roll grooved copper tube and fittings and bolting directly to ANSI Class 125 cast iron and Class 150 steel flanged components. Victaulic Style 641.
   b. Grooved-End Copper Fittings: Fittings shall be manufactured to copper tubing sizes, with grooves designed to accept grooved end couplings of the same manufacturer. Fittings shall be wrought copper, conforming to ASTM B-75 alloy C12200 or ASTM B-152 alloy C11000 and ANSI B16.22, or bronze sandcasting ANSI B16.18 and UNS-C89836. Victaulic Copper Connection Fittings.
   c. Grooved-End Copper Valves:
      1) Butterfly Valves: 2-1/2" - 6" (DN65-DN150), 300 psi (2065 kPa) maximum pressure rating, with copper tubing sized grooved ends. Cast bronze body to UNS C87850. Aluminum-bronze cast disc conforming to UNS C95500. Bubble tight, dead-end, or bi-directional service, with memory stop for throttling, metering, or balancing service. Disc shall be offset from the stem centerline to allow full 360° seating. Seat shall be pressure responsive Grade “CHP” Fluoroelastomer. Valve may be automated with electric, pneumatic, or hydraulic operators. Victaulic Series 608N.

C. PEX-a Plastic Tubing (Uponor HePEX or equal): ASTM F876, AST F 877. (for piping 3” and smaller)
   1. Fittings (uponor propex or equal): astm f 1960.

ELECTRICAL SPECIFICATIONS

SECTION 262420 Panelboard Schedules

1. Panel OS-LBB, ckt #6: **REPLACE** “Rm B002B” with “Rm B105” in the circuit description.
2. Panel OS-LBB, ckt #22: **ADD** 1P.20A breaker for “Access Control Panel – Rm B105”.
3. Panel OS-LBB, ckt #24: **ADD** 1P.20A breaker for “Intrusion Detection Panel – Rm B002B”.

SECTION 281300 Access Control System Cabling

1. **REPLACE** "speakers" with "access control panels" in paragraph 2.3.A.
2. **REPLACE** paragraph 2.3.C in its entirety with the following:
   C. Install one access control composite cable from the Access Control Panel to each DHP. Provide terminations at control panel and card reader provided by the Owner, and at door contacts, power supply, and request to exit devices (as applicable) provided by the GC as part of the door hardware package. Coordinate installation with the Owner's Access Control Vendor and the GC.

CIVIL DRAWINGS

DRAWING C-500 Utility Plan Addendum #4 (replaces C-500 Utility Plan Addendum #3)

1. **REVISED** SMP-3 6" cast iron storm sewer connection
2. **REMOVAL** of existing summit manhole on Chandler Street.
3. **ADD** Thirty-two (32) L.F. new 18" RCP stormwater conduit W/ 10" vitrified clay sanitary sewer with prefabricated 18"x6" RCP wye connection.
4. **ADD** One (1) 30" pre-cast concrete summit manhole with gray iron frame and cover.

ARCHITECTURAL DRAWINGS

DRAWING PH.2 BUILDING PHASING PLAN

1. **REVISE the following note from Addendum #1 as follows:** "Asbestos abatement of Asbestos Containing Tile (ACT) floors and removal of ceilings shall occur summer 2021 from Notice to Proceed (NTP), anticipated to be June 15, 2021 and be complete August 6, 2021 to allow staff time to prepare for start of school year. **This shall include ALL Asbestos Containing Tile floors throughout the entire existing school AND it shall include the removal of ACT mastic using mechanical means (i.e. bead blasting, grinding or the like mechanical methods, following Major Project asbestos abatement protocol under containment. Once ACT floors and mastic are removed, general contractor shall utilize cement-based underlayment to create floor surface that meets floor level, flatness, and adhesion requirements for new flooring. With new flooring being installed in the existing building during Phase 2, 2A and 3, general contractor shall be required to clean floors as required for installation of new flooring. General contactor shall be aware that flooring abatement occurring summer of 2021 will not include ACT under existing unit ventilators, once unit ventilators are able to be removed in Phases 2, 2A and 3, general contractor will be required to abate these locations following the phasing schedule.**

ELECTRICAL DRAWINGS

DRAWING E0.0 – SYMBOLS

1. **REVISE** 'DHP' symbol description to read as follows: "Door hardware package per specifications. Provide rough-ins, 3/4" conduit to accessible ceiling, and wiring to all equipment shown in the hardware sets/schedules, drawings, and as needed for all associated systems (including, but not limited to, card readers, power supplies, electrified hardware, door contacts and request to exit devices). Door shall operate as described in the notes of the specifications and the project requirements.

DRAWING E5.2 – FIRST FLOOR FIRE ALARM

1. **ADD** one FMI fire alarm addressable module in MDF B105.
2. **ADD** one FRM fire alarm addressable module with Drawing Note #3 tag in MDF B105.
3. **ADD** Drawing Note #3 as follows: "Provide fire alarm relay to disconnect power to magnetic lock upon fire alarm."
4. **ADD** magnetic door holder on each leaf of Stair 2 double door #B114.
5. **ADD** smoke detector in Stair 2 B114.

DRAWING E5.3 – SECOND FLOOR FIRE ALARM

1. **ADD** one FMI fire alarm addressable module in Storage C219.

DRAWING E7.1 – BASEMENT SECURITY

1. **ADD** homerun to branch circuit 'OS-LBB-24' at Intrusion Detection Panels in Office B002B.

DRAWING E7.2 – FIRST FLOOR SECURITY

1. **RELOCATE** card reader, 'DHP', and intercom/camera entrance station from door B100B to door B100A.
2. **ADD** card reader and 'DHP' symbol at Reception door B101E. Connect 'DHP' to branch circuit 'OS-LBB-10'.
3. **ADD** Access Control Panel with homerun to branch circuit 'OS-LBB-22' and C1 data outlet in MDP B105.
4. **ADD** pushbutton with Drawing Note #5 tag at B101 Reception desk.
5. **REVISE** "B100B" to "B100A" in Drawing Note #2.
6. **REVISE** "B101A" to "B101" in Drawing Note #4.
7. **ADD** Drawing Note #5 as follows: "Pushbutton door release for Door B101E."

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: Answer REVISED from Addendum #3. As part of Addendum #3 walls in existing restrooms have been revised in both the demolition plans and floor plans to demo the walls for the chases to allow for access by the plumber during construction. New walls are to be constructed by the general contractor. General Contractor and Plumbing Contractor are to coordinate new plumbing work with new wall construction.

2. Are each of the Prime contractors responsible for the management of their individual LEED requirements?

   Answer: Yes, each contractor is responsible for their individual LEED requirements. The one exception is Construction Waste. The general contractor is responsible for Construction Waste Management for the construction project for all trades and documenting that Construction Waste recycling requirements are met as per Section 015240 Construction Waste Management.

3. Div. 011000 Summary of Work has the following that **must** be quantified to price.
   a. NOTE: The Contractor for General Construction is responsible for providing waste removal of packing and installation materials disposed of by the School District's separate FF & E vendors.

   Answer: The Contractor for General Construction is to provide waste removal of packaging and packing materials of Interactive Panel Boards, installed by others.

4. The Covid Pandemic Crisis has created a very volatile market place as it pertains to construction materials. Some of the structural materials (for example Bar Joists) that this project require have lead times that if purchased today will not be available in time to meet the construction schedule. Please advise.

   Answer: Contractors are to bid project as per contract documents.

5. Your response to our RFI-002 only refers to new openings, what about existing.

   Answer: Refer to Addendum #3 added note to P0.0, M0.0 and E0.0. Plumbing, Mechanical and Electrical Contractors are responsible for their own cutting and patching of the existing walls and installation of sleeves, lintels to allow for their work. **Further CLARIFICATION, each of these contractors is to provide their own sleeves and lintels.**

ATTACHMENTS

This Addendum includes the following attachments:

Architectural Specifications
SECTION 087100 – DOOR HARDWARE Modifications

Civil Drawings
Drawing C-500 Utility Plan (Revised for Addendum #4)

END OF ADDENDUM #004

SECTION 035420 - CEMENT-BASED UNDERLAYMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings, Division 0 - Bidding and Contract Requirements and Division 1 General Requirements apply to this Section.

1.2 SUMMARY

A. This Section includes.

1. Cement-based, polymer-modified, self-leveling underlayment for filling, patching, smoothing, and leveling substrates for interior applications – for installation over concrete slabs.
2. The General Contractor is responsible to provide cement-based underlayment for the repair of floors damaged through identified demolition procedures and as needed to level existing floors after demolition procedures.

B. Related Sections include the following:

1. Division 3 Sections for cast-in-place concrete.
2. Division 9 Sections for Finishes.

1.3 REFERENCES

A. Definitions:

1. Friable: Substrate material easily crumbled or pulverized.

B. Referenced Standards:

1. ASM International (ASTM):

a. ASTM C109/C109M – Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2 in. Cube Specimens).
b. ASTM C136/C136M – Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
c. ASTM C191 – Standard Test Method for Time of Setting of Hydraulic Cement by Vicat Needle.
d. ASTM C348 – Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars.
e. ASTM C1583/C1583M Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overaly Materials by Direct Tension (Pull-off Method).
f. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.

2. South Coast Air Quality Management District (SCAQMD)

a. SCAQMD Rule 1113 Architectural Coatings.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

1. Product characteristics.
2. Performance Criteria.
3. Safety Data Sheets (SDS).

B. Shop Drawings: Plans indicating substrates, locations, and average depths of cement-based underlayment based on survey of substrate conditions.

C. Manufacturer's written instructions, including:

1. Delivery, storage and handling recommendations.
2. Preparation and application recommendations.

D. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.

E. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

F. Installer's Experience: Submit verification of evidence of work similar to the work of this Section.

G. Warranty: Manufacturer's 10 year warranty, from date of substantial completion, covering defects in materials.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer (applicator) who is acceptable to manufacturer, who has completed cement-based underlayment applications similar in material and extent to that required for this Project, and whose work has resulted in construction with a record of successful in-service performance.

B. Mockups: Before installing underlayment, apply mockups to demonstrate qualities of materials and execution. Comply with the following requirements, using materials indicated for the completed Work:

1. Architect will select one area or surface to represent surfaces and conditions for application on each substrate required.
2. Notify Architect seven days in advance of dates and times when mockups will be applied.
3. Obtain Architect's approval of mockups before starting underlayment application.
4. Maintain mockups, during underlayment application and until installation of finish flooring, in an undisturbed condition as a standard for judging the completed Work.
5. Approved mockups may become part of the completed Work if undisturbed when finish flooring is installed.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original packages and containers, with seals unbroken, bearing manufacturer's labels indicating brand name and directions for storage, mixing with other components, and application.

B. Store materials to comply with manufacturer's written instructions to prevent deterioration from moisture or other detrimental effects. Store at recommended temperature and humidity levels.

1. Do not store materials at temperatures lower than 41 degrees F.

C. Apply self-leveling underlayment only when substrate temperature is greater than 41 degrees F.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Comply with manufacturer's written recommendations for substrate temperature and moisture content, ambient temperature and humidity, ventilation, and all conditions affecting underlayment performance.

B. Close areas to traffic during underlayment application and for time period after application recommended in writing by manufacturer.

1.8 COORDINATION

A. Coordinate cement-based underlayment with requirements of finish flooring products, including adhesives, specified in Division 9 Sections.

1. Before installing surface sealers recommended by underlayment manufacturer, if any, verify compatibility with finish flooring installation adhesives.
2. Obtain written verification from finish floor manufacturer representative(s) that cement-based underlayment installations acceptable and may accommodate the finished floor(s) scheduled.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

1. Cement-based, polymer-modified, self-leveling underlayment for installation over concrete slabs.

a. K-15 Self-Leveling Underlayment Concrete; Ardex, Inc.
b. Ultraplan MB; Mapei Corporation.
c. Schönox US; Schönox HPS North America.

2.2 PERFORMANCE REQUIREMENTS

A. Underlayment Type 1:

1. Compressive Strength: To ASTM C109, 4,250 psi at 28 days.

2. Flexural Strength: To ASTM C348, 1,000 psi at 28 days.
3. Foot Traffic: 3 hours.

2.3 PRODUCTS AND MATERIALS

A. Underlayment Type 1:

1. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by underlayment manufacturer.

a. Provide aggregate when recommended in writing by underlayment manufacturer for underlayment thickness required.

2. Water: Potable and at a temperature of not more than 70 deg F.
3. Primer: Product of underlayment manufacturer recommended in writing for substrate, and site conditions.

2.4 CONCRETE SEALER (ADDED Addendum #1)

A. Manufacturers

1. Basis of Design: Provide Bone Dry Products, Inc.; Bone Dry Pro, or approved equal.

B. Performance Requirements

1. Penetrating Concrete Sealer Performance (based on 4,500 psi concrete test slab results):

a. Adhesion at 7 Days, ASTM D 7239: 650 psi
b. Water Vapor Transmission, ASTM E 96: 2.72 lbs. / 1,000 sq. ft. per 24 hours
c. Moisture Vapor Emission Rate, ASTM F 1869: 2.81 lbs. / 1,000 sq. ft. per 24 hours.

C. Material

1. Concrete Sealer:

a. Composition: Water-based silicate penetrating compound.
b. VOC Content: EPA Method 24; Zero VOCs.
c. Finish: Transparent, no sheen.

D. Accessories

1. Surface Preparation: Etch-a-Crete by Bone Dry Products, Inc.
2. Leveling Surface: Concrete-based material, gypsum-based products are not allowed.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, with Installer present, for conditions affecting performance of underlayment including substrate moisture content. Begin underlayment application only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. General: Prepare and clean substrate according to manufacturer's written instructions for substrate indicated. Provide clean, dry, neutral-pH substrate for underlayment application.

1. Mechanically remove friable substrate materials and repair areas to smooth finish using repair compound and methods in accordance with manufacturer’s written recommendations
2. Treat nonmoving substrate cracks to prevent cracks from telegraphing (reflecting) through underlayment according to manufacturer's written recommendations.
3. Fill substrate voids to prevent underlayment from leaking.

B. Concrete Substrates: Mechanically remove laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants that might impair underlayment bond according to manufacturer's written instructions.

C. Adhesion Tests: After substrate preparation, test substrate for adhesion with underlayment according to manufacturer's written instructions.

3.3 APPLICATION

A. General: Mix and apply underlayment components according to manufacturer's written instructions.

1. Coordinate application of components to provide optimum underlayment-to-substrate and intercoat adhesion.
2. At substrate expansion, isolation, and other moving joints, allow joint of same width to continue through underlayment.

B. Apply primer over prepared substrate at manufacturer's recommended spreading rate.

C. Apply underlayment to produce uniform, smooth surface.

D. Prime first layer only after it has reached final set and only when second layer is required. Use primer and methods in accordance with manufacturer’s written recommendations.

E. Apply a final layer without aggregate if required to produce smooth surface. Ensure second layer does not exceed thickness of first layer.

F. Feather edges to match adjacent floor elevations; ensure surfaces are even and level.

G. Cure underlayment according to manufacturer's written instructions. Prevent contamination during application and curing processes.

H. Do not install finish flooring over underlayment until after time period recommended by underlayment manufacturer.

I. Remove and replace underlayment areas that evidence lack of bond with substrate, including areas that emit a "hollow" sound when tapped.

3.4 FIELD QUALITY CONTROL

A. Slump Test: If slump testing is recommended in writing by manufacturer, test underlayment for slump as it is placed for compliance with manufacturer's written recommendations.

B. Field Samples: Take at least three molded-cube samples from each underlayment batch. Test samples according to ASTM C 109 for compliance with compressive-strength requirements. When requested, provide test results to Architect.

3.5 PROTECTION

A. Protect underlayment from concentrated and rolling loads for remainder of construction period.

B. At traffic areas, protect underlayment by placing temporary wood planking over finished underlayment work.

C. Repair or replace adjacent materials damaged by application of underlayment.

END OF SECTION 035420

SECTION 087100 – DOOR HARDWARE Modifications

REVISE as follows:

Hardware Group No. 01A

For use on Door #(s):

A108B B104B B121 B122 C101A

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112HD	628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB	689	VON
2	EA	PANIC HARDWARE	CDSI-98-EO	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX X K510-730 36-083 36-082-037	626	SCH
2	EA	MORTISE CYLINDER	20-061 ICX X K510-730 XQ11-948 36-083 36-082-037	626	SCH
4	EA	FSIC CORE	23-030	626	SCH
1	EA	DOOR PULL	VR910 DT	630	IVE
1	EA	DOOR PULL	VR910 NL	630	IVE
2	EA	OH STOP	90S	630	GLY
2	EA	SURFACE CLOSER	4111 EDA ST-2730	689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	GASKETING	188SBK PSA	BK	ZER
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
1	EA	MEETING STILE	155AA	AA	ZER
1	EA	MEETING STILE	55AA	AA	ZER
1	EA	THRESHOLD	566A-223	A	ZER
~~2~~	~~EA~~	~~DOOR CONTACT~~	~~679-05HM~~	~~BLK~~	~~SCE~~

NOTE:
EXISTING FRAME TO REMAIN
VERIFY EXISTING DOOR AND FRAME PREPS FOR COMPATIBILITY OF SPECIFIED HARDWARE
VERIFY EXISTING LOCK STRIKE PREP AND FURNISH REQUIRED STRIKE TO FIT.
PRIOR TO ORDERING NOTIFY ARCHITECT OF ANY REQUIRED CHANGES

~~(DOOR OPERATION:~~
~~DOOR CONTACT MONITORED BY DIVISION 28)~~

Hardware Group No. 01C

For use on Door #(s):

B122C

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	LD-98-EO W/CYL HOLE-990	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	DOOR PULL	VR910 NL	630	IVE
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	GASKETING	188SBK PSA	BK	ZER
1	EA	THRESHOLD	566A-223	A	ZER
~~1~~	~~EA~~	~~DOOR CONTACT~~	~~679-05HM~~	~~BLK~~	~~SCE~~

~~(DOOR OPERATION:~~
~~DOOR CONTACT MONITORED BY DIVISION 28~~
~~)~~

Hardware Group No. 01D

For use on Door #(s):

C105 C108A

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10 CON	689	VON
1	EA	REMOVABLE MULLION	KR4954 STAB	689	VON
1	EA	PANIC HARDWARE	CDSI-98-EO	626	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-98-NL-OP-110MD 24 VDC	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX X K510-730 36-083 36-082-037	626	SCH
2	EA	MORTISE CYLINDER	20-061 ICX X K510-730 XQ11-948 36-083 36-082-037	626	SCH
4	EA	FSIC CORE	23-030	626	SCH
1	EA	DOOR PULL	VR910 NL	630	IVE
2	EA	OH STOP	100S	630	GLY
2	EA	SURFACE CLOSER	4111 EDA	689	LCN
2	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
2	EA	BLADE STOP SPACER	4110-61	689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
1	EA	THRESHOLD	566A-223	A	ZER
2	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE
1	**EA**	**CARD READER**	**FURNISHED BY OTHERS**		

DOOR OPERATION:
DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CARD CREDENTIAL OR KEY OVERRIDE
FREE EGRESS FROM INSIDE AT ALL TIMES
DOOR CONTACT AND REQUEST TO EXIT MONITORED BY DIVISION 28

Hardware Group No. 01E

For use on Door #(s):

C129A

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10 CON	689	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-98-EO 24 VDC	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	DOOR PULL	VR910 NL	630	IVE
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4111 EDA	689	LCN
1	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
1	EA	BLADE STOP SPACER	4110-61	689	LCN
1	EA	THRESHOLD	566A-223	A	ZER
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE
1	**EA**	**CARD READER**	**FURNISHED BY OTHERS**		

DOOR OPERATION:
DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CARD CREDENTIAL OR KEY OVERRIDE
FREE EGRESS FROM INSIDE AT ALL TIMES
DOOR CONTACT AND REQUEST TO EXIT MONITORED BY DIVISION 28

Hardware Group No. 01F

For use on Door #(s):

B100A

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
~~1~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~	~~628~~	~~IVE~~
1	**EA**	**CONT. HINGE**	**112HD EPT**	**628**	**IVE**
~~1~~	~~EA~~	~~Door Cord~~	~~788-12 LESS WIRES~~	~~626~~	~~SCE~~
1	**EA**	**POWER TRANSFER**	**EPT10 CON**	**689**	**VON**
1	EA	ELEC PANIC HARDWARE	RX-QEL-98-EO 24 VDC	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	DOOR PULL	VR910 NL	630	IVE
1	EA	SURFACE CLOSER	4111 EDA	689	LCN
1	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
1	EA	BLADE STOP SPACER	4110-61	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	GASKETING	188SBK PSA	BK	ZER
1	EA	THRESHOLD	566A-223	A	ZER
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE
1	EA	CARD READER	FURNISHED BY OTHERS		

~~(NOTE:~~
~~EXISTING FRAME TO REMAIN~~
~~VERIFY EXISTING DOOR AND FRAME PREPS FOR COMPATIBILITY OF SPECIFIED HARDWARE PRIOR TO ORDERING NOTIFY ARCHITECT OF ANY REQUIRED CHANGES)~~

DOOR OPERATION:
DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CARD CREDENTIAL, REMOTE RELEASE, OR KEY OVERRIDE
FREE EGRESS FROM INSIDE AT ALL TIMES
DOOR CONTACT AND REQUEST TO EXIT MONITORED BY DIVISION 28

Hardware Group No. 01G

For use on Door #(s):

B100B

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112HD	628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB	689	VON
2	EA	PANIC HARDWARE	CDSI-98-EO	626	VON
1	EA	MORTISE CYLINDER	20-061 ICX X K510-730 36-083 36-082-037	626	SCH
2	EA	MORTISE CYLINDER	20-061 ICX X K510-730 XQ11-948 36-083 36-082-037	626	SCH
3	EA	FSIC CORE	23-030	626	SCH
2	EA	DOOR PULL	VR910 DT	630	IVE
2	EA	SURFACE CLOSER	4111 EDA	689	LCN
2	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
2	EA	BLADE STOP SPACER	4110-61	689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
2	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	GASKETING	188SBK PSA	BK	ZER
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
1	EA	MEETING STILE	155AA	AA	ZER
1	EA	MEETING STILE	55AA	AA	ZER
1	EA	THRESHOLD	566A-223	A	ZER
~~2~~	~~EA~~	~~DOOR CONTACT~~	~~679-05HM~~	~~BLK~~	~~SCE~~

~~(NOTE:~~
~~EXISTING FRAME TO REMAIN~~
~~VERIFY EXISTING DOOR AND FRAME PREPS FOR COMPATIBILITY OF SPECIFIED HARDWARE PRIOR TO ORDERING NOTIFY ARCHITECT OF ANY REQUIRED CHANGES~~
~~)~~

Hardware Group No. 01H

For use on Door #(s):

B100C

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	CDSI-98-EO	626	VON
1	EA	MORTISE CYLINDER	20-061 ICX X K510-730 XQ11-948 36-083 36-082-037	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	DOOR PULL	VR910 DT	630	IVE
1	EA	SURFACE CLOSER	4111 EDA	689	LCN
1	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
1	EA	BLADE STOP SPACER	4110-61	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	THRESHOLD	566A-223	A	ZER
~~1~~	~~EA~~	~~DOOR CONTACT~~	~~679-05HM~~	~~BLK~~	~~SCE~~

~~(NOTE:~~
~~EXISTING FRAME TO REMAIN~~
~~VERIFY EXISTING DOOR AND FRAME PREPS FOR COMPATIBILITY OF SPECIFIED HARDWARE PRIOR TO ORDERING NOTIFY ARCHITECT OF ANY REQUIRED CHANGES~~
~~)~~

Hardware Group No. 01J

For use on Door #(s):

B113 C113B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
~~1~~	~~EA~~	~~CONT. HINGE~~	~~112HD~~	~~628~~	~~IVE~~
1	**EA**	**CONT. HINGE**	**112HD EPT**	**628**	**IVE**
1	**EA**	**POWER TRANSFER**	**EPT10 CON**	**689**	**VON**
~~1~~	~~EA~~	~~PANIC HARDWARE~~	~~CDSI-98-EO~~	~~626~~	~~VON~~
1	**EA**	**ELEC PANIC HARDWARE**	**RX-QEL-98-EO 24 VDC**	**626**	**VON**
1	EA	RIM CYLINDER	20-057	626	SCH
~~1~~	~~EA~~	~~MORTISE CYLINDER~~	~~20-061 ICX X K510-730 XQ11-948 36-083 36-082-037~~	~~626~~	~~SCH~~
1	**EA**	**FSIC CORE**	**23-030**	**626**	**SCH**
1	EA	DOOR PULL	VR910 NL	630	IVE
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4111 EDA	689	LCN
1	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
1	EA	BLADE STOP SPACER	4110-61	689	LCN
1	EA	THRESHOLD	566A-223	A	ZER
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	**EA**	**POWER SUPPLY**	**PS902 900-2RS 120/240 VAC**	**LGR**	**SCE**

DOOR OPERATION:
DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CARD CREDENTIAL OR KEY OVERRIDE
FREE EGRESS FROM INSIDE AT ALL TIMES
DOOR CONTACT AND REQUEST TO EXIT MONITORED BY DIVISION 28 ~~**(DOOR OPERATION: DOOR CONTACT MONITORED BY DIVISION 28)**~~

Hardware Group No. 01K

For use on Door #(s):

C106D

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112HD	628	IVE
2	EA	PANIC HARDWARE	CDSI-9849-EO	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX X K510-730 XQ11-948 36-083 36-082-037	626	SCH
1	EA	DOOR PULL	VR910 NL	630	IVE
2	EA	OH STOP & HOLDER	90H	630	GLY
2	EA	SURFACE CLOSER	4111 EDA ST-2730	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	GASKETING	188SBK PSA	BK	ZER
1	EA	MEETING STILE	155AA	AA	ZER
1	EA	MEETING STILE	55AA	AA	ZER
1	EA	THRESHOLD	566A-223	A	ZER
~~2~~	~~EA~~	~~DOOR CONTACT~~	~~679-05HM~~	~~BLK~~	~~SCE~~

Hardware Group No. 01L

For use on Door #(s):

C100B ~~C105~~ C129B

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112HD	628	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB	689	VON
2	EA	PANIC HARDWARE	CDSI-98-EO	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX X K510-730 36-083 36-082-037	626	SCH
2	EA	MORTISE CYLINDER	20-061 ICX X K510-730 XQ11-948 36-083 36-082-037	626	SCH
4	EA	FSIC CORE	23-030	626	SCH
1	EA	DOOR PULL	VR910 DT	630	IVE
1	EA	DOOR PULL	VR910 NL	630	IVE
2	EA	OH STOP	100S	630	GLY
2	EA	SURFACE CLOSER	4111 EDA	689	LCN
2	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
2	EA	BLADE STOP SPACER	4110-61	689	LCN
1	EA	THRESHOLD	566A-223	A	ZER
~~2~~	~~EA~~	~~DOOR CONTACT~~	~~679-05HM~~	~~BLK~~	~~SCE~~

Hardware Group No. 04C

For use on Door #(s):

A110A

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	VANDL CLASSROOM SEC	ND95TD SPA 10-013 1 1/8" LIP XN12-035	626	SCH
2	EA	FSIC CORE	23-030	626	SCH
1	EA	MOUNTING BRACKET	MB	689	IVE
1	EA	SURFACE CLOSER	4111 EDA	689	LCN
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	870AA-S	AA	ZER
1	EA	DOOR BOTTOM	364AA	AA	ZER

NOTE:
EXISTING DOOR AND FRAME TO REMAIN
VERIFY EXISTING DOOR AND FRAME PREPS FOR COMPATIBILITY OF SPECIFIED HARDWARE PRIOR TO ORDERING NOTIFY ARCHITECT OF ANY REQUIRED CHANGES

~~**(DOOR OPERATION:**~~
~~**DOOR CONTACT MONITORED BY DIVISION 28)**~~

Hardware Group No. 08A

For use on Door #(s):

A107 B103 B202 B210

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	CLASSROOM DEADBOLT	B663T	626	SCH
1	EA	PUSH PLATE	8200 4" X 16" CFC	630	IVE
1	EA	PULL PLATE	8302 10" 4" X 16" CFC	630	IVE
1	EA	SURFACE CLOSER	4011 WMS	689	LCN
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

NOTE:
EXISTING DOOR AND FRAME TO REMAIN
VERIFY EXISTING DOOR AND FRAME PREPS FOR COMPATIBILITY OF SPECIFIED HARDWARE PRIOR TO ORDERING NOTIFY ARCHITECT OF ANY REQUIRED CHANGES
PATCH EXISTING CYLINDRICAL LOCK PREP AND ROUND STRIKE HOLE IN FRAME.

~~**(DOOR OPERATION:**~~
~~**DOOR CONTACT MONITORED BY DIVISION 28)**~~

Hardware Group No. 10A

For use on Door #(s):

B105

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	VANDL STOREROOM LOCK	ND96TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	MAGNETIC LOCK	M450P ATS/LED	628	SCE
1	EA	SURFACE CLOSER	4111 CUSH	689	LCN
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
1	EA	PUSH BUTTON	621ALEX DA 12/24 VDC	630	SCE
1	EA	MOTION SENSOR	SCANII 12/24 VDC	BLK	SCE
1	**EA**	**CARD READER**	**FURNISHED BY OTHERS**		
1	EA	POWER SUPPLY	PS902 900-2RS FA900 120/240 VAC	LGR	SCE

NOTE:
EXISTING DOOR AND FRAME TO REMAIN
VERIFY EXISTING DOOR AND FRAME PREPS FOR COMPATIBILITY OF SPECIFIED HARDWARE PRIOR TO ORDERING NOTIFY ARCHITECT OF ANY REQUIRED CHANGES

DOOR OPERATION:
DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CARD CREDENTIAL
FREE EGRESS FROM INSIDE AT ALL TIMES
APPROACHING DOOR FROM PUSH SIDE WILL RELEASE MAGNET
EMERGENCY DELAYED ACTION PUSH BUTTON ON WALL WILL RELEASE MAGNET FOR MINIMUM OF 30 SECONDS.
MAGNET CONNECTED TO FIRE ALARM FOR IMMEDIATE EMERGENCY RELEASE.
DOOR CONTACT AND REQUEST TO EXIT MONITORED BY DIVISION 28

Hardware Group No. 10B

For use on Door #(s):

B101

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	VANDL CLASSROOM SEC	ND95TD SPA XN12-035	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	ELECTRIC STRIKE	6400 FSE	630	VON
1	EA	SURFACE CLOSER	4111 CUSH	689	LCN
1	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
1	EA	BLADE STOP SPACER	4110-61	689	LCN
1	**EA**	**DESK MOUNT BUTTON**	**660-PB**	**628**	**SCE**
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE
1	EA	CARD READER	FURNISHED BY OTHERS		

DOOR OPERATION:
DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CARD CREDENTIAL, REMOTE UNDER DESK BUTTON, OR KEY OVERRIDE
FREE EGRESS FROM INSIDE AT ALL TIMES
DOOR CONTACT MONITORED BY DIVISION 28
~~**(DOOR OPERATION:**~~
~~**DOOR NORMALLY CLOSED AND LOCKED**~~
~~**ENTRY BY VALID CARD CREDENTIAL OR KEY OVERRIDE**~~
~~**FREE EGRESS FROM INSIDE AT ALL TIMES**~~
~~**DOOR CONTACT MONITORED BY DIVISION 28**~~
~~**)**~~

Hardware Group No. 10C

For use on Door #(s):

B101E

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	CLASSROOM X STORERM	ND70X80TD SPA XN12-006	626	SCH
2	EA	FSIC CORE	23-030	626	SCH
1	EA	ELECTRIC STRIKE	6400 FSE	630	VON
1	EA	SURFACE CLOSER	4111 CUSH	689	LCN
1	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
1	EA	BLADE STOP SPACER	4110-61	689	LCN
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	**EA**	**DESK MOUNT BUTTON**	**660-PB**	**628**	**SCE**
1	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE
1	EA	CARD READER	FURNISHED BY OTHERS		

DOOR OPERATION:
DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CARD CREDENTIAL, REMOTE UNDER DESK PUSH BUTTON, OR KEY OVERRIDE
FREE EGRESS FROM INSIDE AT ALL TIMES
DOOR CONTACT MONITORED BY DIVISION 28
~~**(DOOR OPERATION:**~~
~~**DOOR NORMALLY CLOSED AND LOCKED**~~
~~**ENTRY BY VALID CARD CREDENTIAL OR KEY OVERRIDE**~~
~~**FREE EGRESS FROM INSIDE AT ALL TIMES**~~
~~**DOOR CONTACT MONITORED BY DIVISION 28**~~
~~**)**~~

Hardware Group No. 10D

For use on Door #(s):

B106A

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10 CON	689	VON
1	EA	REMOVABLE MULLION	KR4954 STAB	689	VON
1	EA	PANIC HARDWARE	CDSI-98-EO	626	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-98-EO 24 VDC	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	DOOR PULL	VR910 DT	630	IVE
1	EA	DOOR PULL	VR910 NL	630	IVE
2	EA	OH STOP	100S	630	GLY
2	EA	SURFACE CLOSER	4111 EDA	689	LCN
2	EA	CUSH SHOE SUPPORT	4110-30	689	LCN
2	EA	BLADE STOP SPACER	4110-61	689	LCN
2	EA	KICK PLATE	8400 8" X 2" LDW B-CS	630	IVE
2	EA	SILENCER	SR64	GRY	IVE
2 ~~(1)~~	EA	DOOR CONTACT	679-05HM	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE
1	EA	CARD READER	FURNISHED BY OTHERS		

DOOR OPERATION:
DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CARD CREDENTIAL OR KEY OVERRIDE
FREE EGRESS FROM INSIDE AT ALL TIMES
DOOR CONTACT AND REQUEST TO EXIT MONITORED BY DIVISION 28

Hardware Group No. 10E

For use on Door #(s):

C205

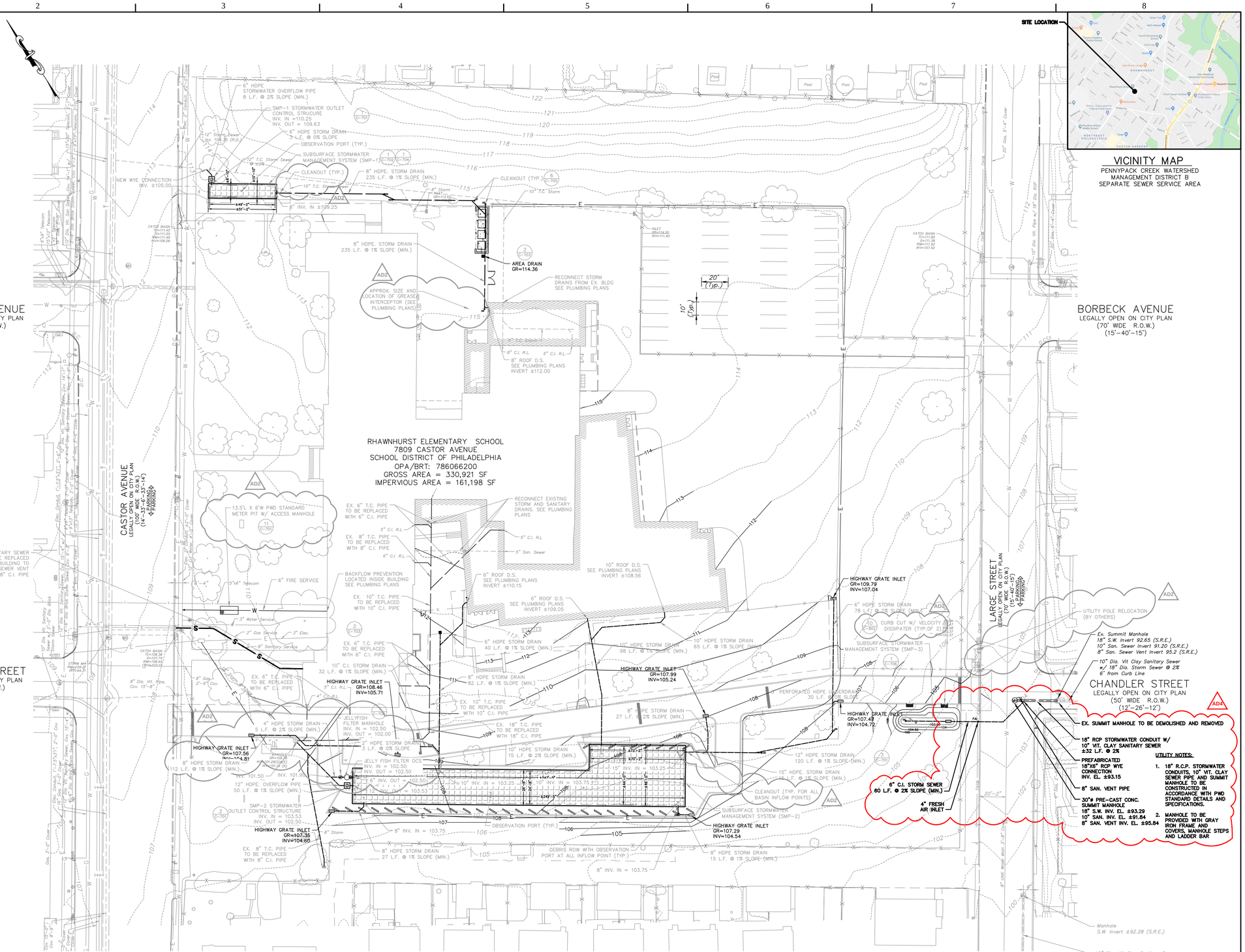
Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	VANDL STOREROOM LOCK	ND96TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	ELECTRIC STRIKE	6400 FSE	630	VON
1	EA	SURFACE CLOSER	4011 WMS	689	LCN
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
1	**EA**	**DOOR CONTACT**	**679-05HM**	**BLK**	**SCE**
1	**EA**	**POWER SUPPLY**	**PS902 900-2RS 120/240 VAC**	**LGR**	**SCE**
~~1~~	~~EA~~	~~POWER SUPPLY~~	~~PS902 900-2RS FA900 120/240 VAC~~	~~LGR~~	~~SCE~~
1	**EA**	**CARD READER**	**FURNISHED BY OTHERS**		

DOOR OPERATION:
DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CARD CREDENTIAL OR KEY OVERRIDE
FREE EGRESS FROM INSIDE AT ALL TIMES
DOOR CONTACT AND REQUEST TO EXIT MONITORED BY DIVISION 28 ~~**(DOOR OPERATION:**~~
~~**DOOR NORMALLY CLOSED AND LOCKED**~~
~~**ENTRY BY VALID CARD CREDENTIAL**~~
~~**FREE EGRESS FROM INSIDE AT ALL TIMES**~~
~~**APPROACHING DOOR FROM PUSH SIDE WILL RELEASE MAGNET**~~
~~**EMERGENCY DELAYED ACTION PUSH BUTTON ON WALL WILL RELEASE MAGNET FOR MINIMUM OF 30 SECONDS.**~~
~~**MAGNET CONNECTED TO FIRE ALARM FOR IMMEDIATE EMERGENCY RELEASE.**~~
~~**DOOR CONTACT AND REQUEST TO EXIT MONITORED BY DIVISION 28)**~~

PROPOSED LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- STORM SEWER
- SANITARY SEWER
- WATER SERVICE
- ORNAMENTAL FENCE (4'H)
- LIMIT OF DISTURBANCE (LOD) & DEP SITE BOUNDARY
- AREA DRAIN
- INLET
- STORM DRAIN CLEAN OUT
- MILL & OVERLAY PAVING
- NEW ASPHALT PAVING (DCIA)
- CONCRETE PAVING
- GRASS AREA
- LANDSCAPING AREA



VICINITY MAP

PENNYPACK CREEK WATERSHED MANAGEMENT DISTRICT B
SEPARATE SEWER SERVICE AREA

SITE LOCATION

CONSTRUCTION NOTES:

1. UNDERGROUND UTILITIES AS SHOWN ARE TAKEN FROM FIELD EVIDENCE AND PLANS AS PROVIDED BY THE VARIOUS UTILITY AUTHORITIES (PA ONE CALL SERIAL NO. 20200023262 AND 20200023268). THE ACCURACY REGARDING UTILITY LOCATION AND/OR DEPTH CANNOT BE GUARANTEED AND ADDITIONAL UNDERGROUND UTILITIES NOT DEPICTED ON THE PLAN MAY EXIST. BEFORE EXCAVATIONS ARE BEGUN, THE PENNSYLVANIA ONE CALL SYSTEM AT 1–800–242–1776 SHALL BE CONTACTED AT LEAST 3–10 DAYS PRIOR TO COMMENCEMENT OF ANY DEMOLITION OR EXCAVATION ACTIVITIES IN ACCORDANCE WITH ALL APPLICABLE LAWS, RULES AND REGULATIONS.
2. CONTRACTOR SHALL PROVIDE PROTECTION OF EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT CONSTRUCTION.
3. DEVELOPER/ OWNER WILL COMPLY WITH ALL PHILADELPHIA REGULATIONS PERTAINING TO PROPER ABANDONMENT AND/ OR REUSE OF WATER SERVICE LINES AND SEWER LATERALS. PROOF OF ABANDONMENT AND/ OR WATER DISCONTINUANCE MUST BE PROVIDED UPON REQUEST.
4. ALL EXISTING SERVICE UTILITIES SHALL BE CUT AND CAPPED AT LIMITS OF PROPOSED BUILDING.
5. CONTRACTOR TO COMPLETE SEWER CONNECTIONS IN ACCORDANCE WITH THE LATEST VERSION OF THE PHILADELPHIA WATER DEPARTMENT SEWER CONNECTION AND REPAIR MANUAL.

PWD WATER UTILITY CONNECTIONS

I.D.	TYPE	SIZE	MATERIAL
(W1)	FIRE SERVICE	6"	DUCTILE IRON

PROTECT YOURSELF

WHAT YOU DON'T KNOW CAN HURT YOU.

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE & 10 WORKING DAYS IN DESIGN STAGE

Pennsylvania One Call System, Inc.
1–800–242–1776

ACT 187

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 187 AND TO CONTACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL: 1–800–242–1776

PHILADELPHIA WATER DEPARTMENT
1101 MARKET STREET, 2nd FLOOR
PHILADELPHIA, PENNSYLVANIA
(215) 685–6270

PHILADELPHIA GAS WORKS
800 W. MONTGOMERY AVENUE, 3RD FLOOR
PHILADELPHIA, PENNSYLVANIA 19122
(215) 684–6796

PECO–CONSTRUCTION DEPARTMENT
2301 MARKET STREET
PHILADELPHIA, PENNSYLVANIA 19103
(215) 731–3264

VERIZON
900 RACE STREET
PHILADELPHIA, PENNSYLVANIA 19107
(215) 351–8947

COMCAST
1351 S. COLUMBUS BOULEVARD
PHILADELPHIA, PENNSYLVANIA 19147
(215) 952–4935

SITE LOCATION:

7809 CASTOR AVENUE
PHILADELPHIA, PA 19152

PROPERTY OWNER:

SCHOOL DISTRICT
OF PHILADELPHIA
440 N BROAD STREET
PHILADELPHIA PA 19130

0 15' 30' 60'
SCALE: 1" = 30'–0"

THE SCHOOL DISTRICT OF PHILADELPHIA
OFFICE OF CAPITAL PROGRAMS
440 NORTH BROAD STREET
PHILADELPHIA, PA 19130 - 4015
(215) 400 - 4730 | (215) 400 - 4731 (fax)
www.philasd.org

SEAL:

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
FRANK ANTHONY FREGA
ENGINEER
NP PE041605R

FRANK ANTHONY FREGA, PE
STATE AND LICENSE NO: PE041605R

ARCHITECT

CRABTREE, ROHRBAUGH & ASSOCIATES
401 E. Winding Hill Road
Mechanicsburg, PA 17055
Phone: 717-458-0272

Email: jstraub@cra-architects.com
emikkelsen@cra-architects.com
Attn: R. Jeffrey Straub, AIA
Elysia Mikkelsen, AIA

CIVIL ENGINEERS

KS Engineers P.C.
35 S. 3rd Street
Philadelphia, PA 19106
Phone: 215-925-0425

Email: sgavula@kseng.com
Attn: Stephen Gavula

MECHANICAL ENGINEER

Moore Engineering Company
3637 Columbia Ave
Lancaster, PA 17603
Phone: 717-285-3141

Email: mkehu@moorengineering.com
Attn: Michael Hunt, PE

ELECTRICAL ENGINEER

Moore Engineering Company
3637 Columbia Ave
Lancaster, PA 17603
Phone: 717-285-3141

Email: andrewn@moorengineering.com
Attn: Andrew Nolt, PE

STRUCTURAL ENGINEERS

ONYX Design and Consulting, LLC
115 South Howard Street
York, PA 17401
Phone: 717-852-1261

Email: bpavelko@onyxstructural.com
Attn: Brittany Pavelko

FOOD SERVICE

McFarland, Kistler
1130 Perry Highway, Suite 115
Pittsburgh, PA 15237
Phone: 412-999-7659

Email: kkistler-mka@comcast.net
Attn: Ken Kistler

3/2/2021

NO.	DATE	REVISION
10		
9		
8		
7		
6		
5		
4		
3	3/31/2021	ADDENDUM #4 (AD4)
2	3/25/2021	ADDENDUM #3 (AD3)
1	3/19/2021	ADDENDUM #2 (AD2)

SCHOOL & LOCATION

RHAWNHURST ELEMENTARY SCHOOL

7809 CASTOR AVENUE,
PHILADELPHIA PA 19152

PROJECT TITLE

ADDITIONS & RENOVATIONS

DRAWING TITLE

UTILITY PLAN

LOCATION NO.		FILE NO.
DRAWN BY KSE		CHECKED BY KSE
B-070	OF	2019 / 20
B-071	OF	2019 / 20
B-072	OF	2019 / 20
B-073	OF	2019 / 20

DRAWING NO.

C-500