

ADDENDUM NO. 5

November 14, 2025

Colonial School District
John G. Leach School
Bid Package A

The bid due date remains unchanged.

Bids are due on Wednesday, November 19, 2025 @ 3:30 PM

At the Main Office of Gunning Bedford Middle School, 801 Cox Neck Road, New Castle, DE 19720

The last day for questions is Wednesday, November 12, 2025.

NOTICE: Attach this addendum to the project manual for this project. It modifies and becomes a part of the contract documents. Work or materials not specifically mentioned herein are to be described in the main body of the specifications and as shown in the drawings. Bidders shall acknowledge receipt of this addendum on the space provided on the Bid Form. Failure to do so may subject the bidder to disqualification.

The contract documents for the above referenced project, dated 15 October 2025, are amended as follows:

GENERAL CLARIFICATIONS:

1. Bid Documents may be viewed and downloaded at EDiS' FTP site. To obtain access to the FTP site, please submit your request via email to Crystal Watson, cwatson@ediscompany.com.
2. Physical copies of bids will be received at the Main Office of the Gunning Bedford Middle School, 801 Cox Neck Road, New Castle, DE 19720 until **3:30 PM local time on Wednesday, November 19, 2025**. The outer envelope should clearly indicate: "**COLONIAL SCHOOL DISTRICT – JOHN G LEACH SCHOOL – BID PACK A-_____ SEALED BID – DO NOT OPEN**". Bids may be hand delivered or mailed/shipped. Electronic bids will not be accepted. Bidder assumes full responsibility for timely delivery at location designated for receipt of bids. Any bids received after the stated time will be returned unopened.
3. Above ceiling finish at Pool Suite (all rooms and spaces illustrated in drawing 1/A-420)
 - a. All exposed and above ceiling structural steel elements, columns, beam, miscellaneous metal work, roof deck, light gauge framing and similar items are to be prepared, primed and painted.
 - b. All exposed and above ceiling fire protection, plumbing, mechanical, electrical, low voltage, data cabling infrastructure that is not factory finished is to be prepared, primed and painted.
 - c. Suspension cables, unistrut and similar support items are to be prepared, primed and painted.
 - d. Basis-of-design paint system for metal items shall be as follows:
 - i. Clean and prepare surface in accordance with finish manufacturer recommendations, including, but not limited to solvent cleaning per SSPC-SP1.
 - ii. (1) coat SW Pro-Industrial Pro-Cryl Primer, B66-1300.



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- iii. (2) coats SW Metalatex Semi-Gloss B42-100 (deep grey tint)
- e. Basis-of-design paint system for plastic items shall be as follows:
 - i. Clean and prepare surface in accordance with finish manufacturer recommendations.
 - ii. (1) coat SW Pro-Industrial Pro-Cryl Primer, B66-1300.
 - iii. (2) coats SW Polane 8910 Polyurethane Enamel CC-D34 (deep grey tint)
- 4. Roof screen was deleted in Addendum 4.
- 5. Any/all references on drawings and specifications to “weather barrier” refers to the product specified in section 07 27 00 – Air Barriers.
- 6. For clarification of termination of air barrier at base of wall, see attached sketches 3A/A-308 for base bid condition and 3B/A-308 for alternate condition.
- 7. Roof Separation Walls
 - a. Elements highlighted in green below are roof area separation walls consisting of two wood framed knee-walls, flashed to roof membrane and capped with control/expansion joint cover as specified in 07 71 00, paragraph 2.02.C.



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8. Drawing G-001, General Note 41 indicates that (5) defibrillators are to be provided.
9. Drawing G-001, General Note 42 indicates that (13) medical kits are to be provided.
10. Bid Drop Off Opening Sketch is attached for your use
11. Site Logistics Plan

QUESTIONS AND ANSWERS:

1. See the attached list of RFI's received, and responses.

MODIFICATIONS TO SPECIFICATIONS:

1. **SECTION 000110 – TABLE OF CONTENTS**
 - a. DELETE this section in its entirety and INSERT revised section, annotated Addendum No. 5 and dated 11/14/25.
2. **SECTION 004100 – BID FORMS**
 - a. DELETE the bid form for A-13: METAL STUDS & DRYWALL and REPLACE with the revised bid form dated 11/14/25, attached to this Addendum 5.
 - b. DELETE the bid form for A-16: ACOUSTICAL CEILINGS and REPLACE with the revised bid form dated 11/14/25, attached to this Addendum 5.
3. **SECTION 005200 – AGREEMENT**
 - a. ADD the following documents to this section:
AIA Document A132-2019 Exhibit A – Insurance and Bonds
AIA Document A132-2019 Exhibit B – Determination of the Cost of the Work
4. **SECTION 006216 – CERTIFICATE OF INSURANCE**
 - a. DELETE this section in its entirety and INSERT revised section, annotated Addendum No. 5 and dated 11/14/25.
5. **SECTION 011100 - SUMMARY OF WORK**
 - a. DELETE this section in its entirety and INSERT revised section, annotated Addendum No. 5 and dated 11/14/25.



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Bid Package A

6. SECTION 012300 – ALTERNATES

- a. DELETE this section in its entirety and INSERT revised section, annotated Addendum No. 5 and dated 11/14/25.

7. SECTION 015113 - TEMPORARY ELECTRICITY

- a. DELETE this section in its entirety and INSERT revised section, annotated Addendum No. 5 and dated 11/14/25.

8. SECTION 071113 – BITUMINOUS DAMPPROOFING applies as follows:

- a. Dampproofing is to be applied at building foundations.

Spec section not reissued at this time.

9. SECTION 071200 – BUILT-UP BITUMINOUS WATERPROOFING applies as follows:

- a. Waterproofing is to be applied at retaining wall.

Spec section not reissued at this time.

10. SECTION 072100 – THERMAL INSULATION

- a. Deleted paragraph 2.01.A Base Bid.

11. SECTION 072700 – AIR BARRIERS

- a. Deleted paragraph 2.01.A Base Bid.
- b. Deleted paragraph 2.01.B Bid Alternate.
- c. In alternate to replace spray foam cavity insulation with mineral fiber insulation, the air barrier is to be applied to the substrate material (CMU or sheathing, depending on location.)
- d. Air barrier is to be applied to sheathing behind metal wall panels at canopy.

12. SECTION 074213 – METAL WALL PANELS

- a. Revised paragraph 2.01.A to read as follows:

A. Metal Wall Panel and Metal Soffit Panel Basis of Design: IMETCO, Innovative Metals Company, Inc.

- b. Deleted paragraph 2.01.B. Metal Ceiling Panel Basis of Design.

Spec section not reissued at this time.

13. SECTION 075300 – ELASTOMERIC MEMBRANE ROOFING

- a. Revised paragraph 2.04.A to indicate reinforced EPDM as follows:



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A - Membrane: Ethylene-propylene-diene-terpolymer (EPDM); internally reinforced with fabric or scrim; complying with minimum properties of ASTM D4637/D4637M, Type II (reinforced).

Spec section not reissued at this time.

14. SECTION 080671 – DOOR HARDWARE SCHEDULE

- a. Revised hardware sets

15. SECTION 093000 - TILING

- a. Deleted paragraph 2.01.B – Ceramic Mosaic Tile.
- b. Revised paragraph 2.01.C to Basis-of-Design: Daltile, Color Wheel Linear” as follows:
 - C. Glazed Wall Tile: ANSI A137.1, standard grade.
 - 1. Moisture Absorption: < 20% percent as tested in accordance with ASTM C373.
 - 2. Breaking Strength: 120 - 130 lbs as tested in accordance with ASTM C648.
 - 3. Scratch Hardness: 4.0 - 6.0 when tested in accordance with ASTM MOHS.
 - 4. Chemical Resistance: Resistant when tested in accordance with ASTM C650.
 - 5. Size: 4 by 16 inch, nominal.
 - 6. Edges: Cushioned.
 - 7. Surface Finish: High gloss.
 - 8. Color(s): (4) Four colors to be selected by Architect from manufacturer's standard range.
 - 9. Basis of Design: Daltile, Color Wheel Linear, 4 inch by 16 inch.
- c. Deleted paragraph 2.01.D – Cove Base Glazed Wall Tile.
- d. Revised paragraph 2.02.A to indicated anodized aluminum trim as follows:
 - A. Non-Ceramic Trim: Anodized Aluminum, style and dimensions to suit application, as indicated on drawings for setting using tile mortar or adhesive.

Spec section not reissued at this time

16. SECTION 096800 - CARPETING

- a. Revised designations for two carpet types as follows:

2.02 CARPET

- A. Carpet Tile CPT-1: Office Carpet.
- B. Carpet Tile CPT-2: Walk-Off Mat.

Spec section not reissued at this time.

17. SECTION 102641 -BALLISTICS RESISTANT PANELS

- a. Added in entirety

18. SECTION 104300 – EMERGENCY AID SPECIALTIES

- a. Added in entirety



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19. SECTION 113013 – RESIDENTIAL APPLIANCES

- a. Revised paragraph 2.01.G Dishwasher, EQ-8 as follows:

G. Dishwasher, EQ-8: Undercounter.

1. Controls: Solid state electronic.
2. Wash Levels: Three (3).
3. Features: Include rinse aid dispenser, adjustable upper rack, adjustable lower rack, and towel bar handle.
4. Finish: Stainless steel, color as indicated.
5. Basis-of-Design: GE, GDT226SSISS.
6. Manufacturers:
 - a. Frigidaire Home Products: www.frigidaire.com/#sle.
 - b. GE Appliances: www.geappliances.com/#sle.
 - c. Whirlpool Corp: www.whirlpool.com/#sle.
 - d. Substitutions: See Section 01 60 00 - Product Requirements.

Spec section not reissued at this time.

20. SECTION 237413 – PACKAGED OUTDOOR CENTRAL STATION AIR HANDLING UNITS

- a. Paragraph 2.07, B – Delete reference to marine coating for coils. Standard coils are acceptable for this application.

Spec section not reissued at this time.

21. SECTION 263213 – ENGINE GENERATORS

- a. See attached reissued specification.

22. SECTION 263600 – TRANSFER SWITCHES

- a. Manufacturer basis of design revised in 2.01.A and 2.02.E(1).

23. SECTION 281500 – INTEGRATED ACCESS CONTROL HARDWARE DEVICES

- a. Revised specification section

24. SECTION 283100 – FIRE DETECTION AND ALARM

- a. Add Notifier by Honeywell as an acceptable manufacturer.

Spec section not reissued at this time.

MODIFICATIONS TO DRAWINGS:1. C-102 EXISTING CONDITIONS PLAN

- a. Removal of proposed sewer depiction on existing conditions plan.

2. C-402 SANITARY SEWER PLAN

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- a. Removal of two existing sewer pipes used for design from proposed sewer pipe table.

3. C-500 STORM DRAIN PROFILE

- a. Switch to Type B cover on DelDOT inlets from Type A in structure schedule.

4. C-502 STORM DRAIN DETAILS

- a. Switch 2x3 grate detail to 2x3 curb inlet structure detail.

5. A-110A FIRST FLOOR REFLECTED CEILING PLAN – AREA A – SKETCH FOR SOFFIT DEDUCT [A-110A DOES NOT EXIST]

- a. Added drawing to illustrate scope of soffits to be deducted under bid alternate.
- b. Corridors A, C, D, F, G, I, K, N, AND P
 - i. Soffits are deleted. Ceiling grid and lights are shifted.
- c. Rooms V01, 106, 108, 117, 118, 120, 123, 135, 137, 138, 140, 144, 146, 159, 160, 165, 169, 170, and 171.
 - i. Soffits deleted over casework. Ceiling grids and lights are shifted.
- d. Where soffits are deleted, overhead cabinets are to be extended to underside of ceiling grid with valance by casework manufacturer.
- e. Bus Canopy lighting shifted.

6. A-111A FIRST FLOOR REFLECTED CEILING PLAN – AREA B – SKETCH FOR SOFFIT DEDUCT [A-111A DOES NOT EXIST]

- a. Added drawing to illustrate scope of soffits to be deducted under bid alternate.
- b. Corridors A, C, D, F, G, I, K, N, AND P
 - i. Soffits are deleted. Ceiling grid and lights are shifted.
- c. Rooms V01, 106, 108, 117, 118, 120, 123, 135, 137, 138, 140, 144, 146, 159, 160, 165, 169, 170, and 171.
 - i. Soffits deleted over casework. Ceiling grids and lights are shifted.
- d. Where soffits are deleted, overhead cabinets are to be extended to underside of ceiling grid with valance by casework manufacturer.
- e. Bus Canopy lighting shifted.

7. A-306 TYPICAL WALL SECTIONS

- a. Revised vestibule sections 3 and 4 to show transom window and metal ceiling.

8. A-307 TYPICAL WALL SECTIONS

- a. Added 4 for roof framing, roof material, and soffit over rooms 157A, 157D and door 157.



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9. A-309 BUS CANOPY SECTIONS AND DETAILS

- a. Revised sheet in its entirety.

10. A-404 ENLARGED PLAN AND INTERIOR ELEVATIONS – TYP. CLASSROOM STAR

- a. Revised elevation 2/A-404 to show tackboards and whiteboards.

11. A-406 ENLARGED PLAN AND INTERIOR ELEVATIONS – POOL

- a. Added detail 8 showing dimensions and basis-of-design part numbers for suspended metal ceiling elements at pool.
- b. Revised elevation 5 to match new detail 8.
- c. Added note for ceiling in elevation 4.

12. A-503 TYPICAL ROOF DETAILS

- a. Revised notes to indicate EPDM roof system.
- b. Revised alternating tread stair detail.

13. A-504 TYPICAL ROOF DETAILS

- a. Revised notes to indicate EPDM roof system.

14. A-601 DOOR SCHEDULE, DOOR AND FRAME TYPES

- a. Revised hardware sets to match revised spec section 08 06 71 – Door Hardware Schedule.

15. A-411 thru A-415 INTERIOR ELEVATIONS – CORRIDOR

- a. Removed notes referencing ground face block. No ground face block will be used on the project.

Drawing not reissued at this time.

16. A-601 DOOR SCHEDULE, DOOR AND FRAME TYPES

- a. Revised select door hardware sets.

17. A-700 ROOM FINISH SCHEDULE

- a. Revised wall finish designations in the Finish Schedule to add PT-9, PT-10 and PT-11, to delete ground face block and glazed block, and to change description of WWP-1 as shown below.



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WALL

PT-1	FIELD COLOR
PT-2	ACCENT COLOR AT GYM 157
PT-3	ACCENT COLOR AT GYM 157
PT-4	ACCENT COLOR AT POOL 155
PT-5	ACCENT COLOR AT POOL 155
PT-6	ACCENT COLOR AT POOL 155
PT-7	ACCENT COLOR AT CAFETERIA 127
PT-8	FIELD COLOR AT SENSORY ROOM
PT-9	DIRECTIONAL STRIPE AT CORRIDORS
PT-10	DIRECTIONAL STRIPE AT CORRIDORS
PT-11	DIRECTIONAL STRIPE AT CORRIDORS
CWT-1	4" X 16" CERAMIC WALL TILE
WP-1	WALL PANEL INPRO PALLADIUM
WWP-1	SOUND-ABSORBING WOOD WALL PANEL

Drawing not reissued at this time.

18. A-851 EXTERIOR WALL MOCK-UP

- a. Issuing new sheet.

19. P-000 PLUMBING COVER SHEET

- a. Revise fixture P-21 as follows:

Manufacturer and Model Number:

Freedom Showers #APF3838BF4P, 38-5/8" w x 37-7/16" d x 78-7/8" h ADA 4-piece transfer shower kit with accessories, or approved equal.

Component Specifications:

Provide #APF3838BF4P, #APFHHGBLSG handheld shower kit with glide bar, #APFMVLS pressure balancing mixing valve, #APFDR 4" brass drain & strainer, #APFSSLR-320225PWS 32"x22-1/2" ADA folding shower seat, 15" rear-wall grab bar, 28" side-wall grab bar, 18" vertical grab bar.

- b. Revise fixture B-22 as follows:

Manufacturer and Model Number:

Field-built shower.

Component Specifications:



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Provide #APF3838BF4P, #APFHHGBLSG handheld shower kit with glide bar, #APFMVLS pressure balancing mixing valve, #APFDR 4" brass drain & strainer, #APFSSLR-320225PWS 32"x22-1/2" ADA folding shower seat, 15" rear-wall grab bar, 28" side-wall grab bar, 18" vertical grab bar.

Drawing not reissued at this time.

20. M-103 MECHANICAL PLAN – AREA C

- a. Damper added to return ductwork in room 173 storage.
- b. Return CFM values adjusted.

21. M-106 MECHANICAL ROOF PLAN

- a. RTU-1 tag added.
- b. AHU-1 ductwork tagged.

22. M-500 MECHANICAL SCHEDULES

- a. VRF heat pump schedule note updated.

23. E-000 ELECTRICAL COVER SHEET

- a. Added light fixture types A23, L1, L2, L3, and L4 to the Lighting Fixture Schedule.
- b. Removed unused fixture types from the Lighting Fixture Schedule.
- c. Revised description of fixture type A13.
- d. Revised fixture Q4-2 mount, model, and remarks.
- e. Revised and added Access Control devices.
- f. Added Intrusion Detection Devices.
- g. Added rodent barriers to generator and ATS notes.

24. E-100 ELECTRICAL SITE PLAN

- a. Revised pull box name to manhole for electrical incoming service feed. Added manhole notes.
- b. Added (2) WM1 fixtures by electrical equipment.
- c. Added note about service equipment pad.
- d. Added L4 light fixtures for Leach sign and revised conduit routing.
- e. Revised notes for surveillance camera infrastructure conduits. Added weatherproof receptacles mounted on pole.

25. E-101 ELECTRICAL POWER PLAN – AREA A

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Bid Package A

- a. Added harmonic filter in Mech/Elec room. Revised location of the gear and electrical panels.
- b. Revised all access control and door hardware with new access control devices.
- c. Revised circuits for door hardware.
- d. Added general note in regard to power supplies and control boxes for access control.
- e. Revised general note about Pool Equipment room.
- f. Added VFD's with key note. Added key note E-6 to Electrical Notes.

26. E-102 ELECTRICAL POWER PLAN – AREA B

- a. Revised all access control and door hardware with new access control devices.
- b. Revised circuits for door hardware.
- c. Added (2) dedicated duplex receptacles at IDF-1A.
- d. Added general note in regard to power supplies and control boxes for access control.
- e. Added (2) duplex receptacles in Staff Lounge 129.

27. E-103 ELECTRICAL POWER PLAN – AREA C

- a. Revised all access control and door hardware with new access control devices.
- b. Revised circuits for door hardware.
- c. Added (2) dedicated duplex receptacles at IDF-2A and MDF.
- d. Added general note in regard to power supplies and control boxes for access control.
- e. Added (2) duplex receptacles for IFP screens with note.
- f. Added (2) duplex receptacles in Admin Office 100.
- g. Added duplex receptacle in Therapy Treatment 103, Speech Team 103D, PT Team 103E, and OT team 103F.

28. E-104 ELECTRICAL POWER PLAN – AREA D

- a. Revised all access control and door hardware with new access control devices.
- b. Revised circuits for door hardware.
- c. Added general note in regard to power supplies and control boxes for access control.
- d. Added a duplex receptacle in Art/Media 123 and Art Storage 123A.

29. E-109 ELECTRICAL LIGHTING PLAN – AREA A

- a. Revised WPK fixture to a WM1 fixture.
- b. Added (2) WM1 fixtures on the north wall.
- c. Tagged motion sensors and added notes for suspending them in 2/E-109.
- d. Revised exit signs and their locations.
- e. Added downlight fixtures and revised layout in Gymnasium and Star Transitional rooms.



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30. E-110 ELECTRICAL LIGHTING PLAN – AREA B

- a. Filled in lighting fixture gap to increase the total fixture length. Removed tag for small fixture section and revised tag for full length of the entire fixture in Corridor K.
- b. Revised fixture type, quantity, and location of light fixtures in Kitchen 128.
- c. Revised fixture locations and added (8) new light fixtures in Cafeteria 127.
- d. Revised WPK fixture to a WM1 fixture.
- e. Revised exit signs and their locations.

31. E-111 ELECTRICAL LIGHTING PLAN – AREA C

- a. Revised fixture type, quantity, and location of light fixtures in Vocat Kitchen 161.
- b. Revised WPK fixtures to WM1 fixtures and revised a couple of their locations.
- c. Removed photocell, added LMRC 211 device, and tagged Storage 173.
- d. Revised fixture quantities and locations in Star Transitional rooms.
- e. Removed RH fixture in Vest V01.
- f. Revised exit signs and their locations.
- g. Revised fixture alignment in Corridor G, OT Team 103F, and Therapy Treatment 103.
- h. Added a light fixture in small closet, in main vestibule, and outside of vestibule.

32. E-112 ELECTRICAL LIGHTING PLAN – AREA D

- a. Revised WPK fixtures to WM1 fixtures.
- b. Revised exit signs and their locations.
- c. Removed RH fixture outside of vestibule.
- d. Realigned light fixtures to grid in various spaces.

33. E-113 ELECTRICAL PLAN – BUS CANOPY AND CALLOUTS

- a. Revised quantity and alignment of bus canopy fixtures.
- b. Revised fixture layouts and added (2) new light fixtures in Cafeteria.

34. E-114 ELECTRICAL FIRE ALARM PLAN – AREA A

- a. Added note in pool area.

35. E-501 ELECTRICAL DETAILS

- a. Added generator pad details.
- b. Revised Typical Door Wiring Diagram.



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Bid Package A

36. E-502 ELECTRICAL DETAILS

- a. Removed transformer pad details.

37. E-600 ELECTRICAL SINGLE LINE DIAGRAM

- a. Revised Panel PHS circuit breaker, wire, and conduit size.
- b. Indicated wire and conduit sizes between SWBD-2 and MDP.

38. E-601 ELECTRICAL PANEL SCHEDULES

- a. Added spare circuit breakers for all panels.

39. E-602 ELECTRICAL PANEL SCHEDULES

- a. Added spare circuit breakers for all panels.
- b. Revised circuit breakers based on plan changes.

40. E-603 ELECTRICAL PANEL SCHEDULES

- a. Added spare circuit breakers for all panels.
- b. Revised circuit breakers based on plan changes.

41. E-604 ELECTRICAL PANEL SCHEDULES

- a. Added spare circuit breakers for all panels.
- b. Revised circuit breakers based on plan changes.

42. T-000 TELECOM COVER SHEET

- a. Revised surveillance camera symbols and descriptions.
- b. Added video surveillance system specifications.

43. T-100 TELECOMMUNICATION SITE PLAN

- a. Revised pull box to specify dimensions.

44. T-101 TELECOMMUNICATIONS PLAN – AREA A&B

- a. Revised surveillance camera symbols, locations, and quantities, along with VS outlet revisions.

45. T-102 TELECOMMUNICATIONS PLAN – AREA C&D

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- a. Revised surveillance camera symbols, locations, and quantities, along with VS outlet revisions.

46. T-501 TELECOMMUNICATION DETAILS

- a. Swapped text referencing the incorrect outlets.

LIST OF ATTACHMENTS:

AIA Document A132-2019 Exhibit A – Insurance and Bonds

AIA Document A132-2019 Exhibit B – Determination of the Cost of the Work

Site Logistics Plan

Bid Drop Off Sketch

Bidding RFI Log, dated 11/17/2025

Section 000110 Table of Contents

Section 004100 Bid Forms for Contracts A-13 and A-16

Section 006216 Certificate of Insurance

Section 011100 Summary of Work

Section 012300 Alternates

Section 015113 Temporary Electricity

Section 072100 Thermal Insulation

Section 072700 Air Barriers

Section 080671 Door Hardware Schedule

Section 102641 Ballistics Resistant Panels

Section 104300 Emergency Aid Specialties

Section 263213 Engine Generators

Section 263600 Transfer Switches

Section 281000 Access Control

Section 281500 Intergrated Access Control Hardware Devices

Drawing A110 ALT First Floor Reflected Ceiling Plan - Area A

Drawing A111 ALT First Floor Reflected Ceiling Plan – Area B

Drawing A306 & A307 Typical Wall Sections

Drawing A309 Bus Canopy Sections and Details

Drawing A404 Enlarged Plan and Interior Elevations – TYP Classroom Star

Drawing A406 Enlarged Plan and Interior Elevations – Pool

Drawing A503 & A504 Typical Roof Details



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Drawing A601 Door Schedule Door and Frame Types

Drawing A851 Exterior Wall Mock-Up

Drawing C102 Existing Conditions Plan

Drawing C402 Sanitary Sewer Plan

Drawing C500 Storm Drain Profile

Drawing C502 Storm Drain Details

Drawing E000

Drawings E100-E104

Drawings E109-E114

Drawings E501-E502

Drawings E600-E604

Drawing M103 Mechanical HVAC Plan – Area C

Drawing M106 Mechanical Roof Plan

Drawing M500 Mechanical Schedules

Drawing P000 Plumbing Cover Sheet

Drawing T000

Drawings T100-T102

Drawing T500

Sketch 3A Air Barrier Base Detail – Spray Insulation

Sketch 3B Air Barrier Base Detail – Mineral Wood Insulation

End of Addendum No. 5

SECTION 000110 - TABLE OF CONTENTS

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Division 0 - Procurement and Contract Requirements

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003132	Geotechnical Data
004100	Bid Forms
005200	Agreement Forms
005413	Supplement to Agreement Between Owner and Contractor A132-2019 (ADDENDUM 4)
005414	Supplement to A132-2019-Exhibit A – Insurance and Bonds (ADDENDUM 4)
006113	Performance and Payment Bond Forms
006216	Certificate of Insurance
007200	General Conditions
007300	Supplementary General Conditions (ADDENDUM 4)
007343	Wage Rate Requirements
008114	Drug Testing Program & Forms
008115	Affidavit of Craft Training

Division 1 - General Requirements

011100	Summary of Work - Work Covered by Contract Documents
012100	Allowances
012200	Unit Prices
012300	Alternates
012500	Substitution Procedures (ADDENDUM #3)
012600	Change Order Procedures
012613	Contractor Compensation
012900	Payment Procedures
013113	Project Coordination Meetings
013119	Preinstallation Meetings
013125	Web-Based Project Management System
013216	Construction Progress Schedule
013219	Submittals Register
013226	Contractor Daily Reports
013300	Submittal Procedures
013523	Safety Program

013700 BIM Project Execution Plan (ADDENDUM #3)

014216 Definitions
014339 Mock-up Requirements
014500 Quality Control
015113 Temporary Electricity
015123 Temporary Heating, Cooling, and Ventilating
015200 Construction Facilities & Temporary Controls

016116 Volatile Organic Compound (VOC) Content Restrictions (ADDENDUM #3)

016200 Material and Equipment
017123 Field Engineering
017329 Cutting and Patching
017700 Contract Closeout
017900 Demonstration and Training

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DIVISION 3 – CONCRETE

03 10 00 – CONCRETE FORMING AND ACCESSORIES
03 20 00 – CONCRETE REINFORCING
03 30 00 – CAST-IN-PLACE CONCRETE

DIVISION 4 – MASONRY

04 05 11 – MASONRY MORTARING AND GROUTING
04 20 00 – UNIT MASONRY
04 72 00 – CAST STONE MASONRY

DIVISION 5 – METALS

05 12 00 – STRUCTURAL STEEL FRAMING
05 21 00 – STEEL JOIST FRAMING
05 31 00 – STEEL DECKING
05 40 00 – COLD-FORMED METAL FRAMING
05 50 00 – METAL FABRICATIONS
05 51 00 – METAL STAIRS
05 51 33 – METAL LADDERS
05 52 13 – PIPE AND TUBE RAILINGS

DIVISION 6 – WOOD, PLASTICS, AND COMPOSITES

06 10 00 – ROUGH CARPENTRY
06 20 00 – FINISH CARPENTRY
06 41 00 – ARCHITECTURAL WOOD CASEWORK

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

07 11 13 – BITUMINOUS DAMPPROOFING

07 12 00 – BUILT-UP BITUMINOUS WATERPROOFING (ADDENDUM 4)

- 07 21 00 – THERMAL INSULATION
- 07 21 19 – FOAMED-IN-PLACE INSULATION
- 07 25 00 – WEATHER BARRIERS
- 07 27 00 – AIR BARRIERS**
- 07 42 13 – METAL WALL PANELS
- 07 53 00 – ELASTOMERIC MEMBRANE ROOFING
- 07 62 00 – SHEET METAL FLASHING AND TRIM
- 07 71 00 – ROOF SPECIALTIES
- 07 71 23 – MANUFACTURED GUTTERS AND DOWNSPOUTS
- 07 72 00 – ROOF ACCESSORIES
- 07 84 00 – FIRESTOPPING
- 07 92 00 – JOINT SEALANTS

DIVISION 8 – OPENINGS

- 08 06 71 – DOOR HARDWARE SCHEDULE
- 08 11 13 – HOLLOW METAL DOORS AND FRAMES
- 08 14 16 – FLUSH WOOD DOORS
- 08 16 13 – FIBERGLASS DOORS
- 08 31 00 – ACCESS DOORS AND PANELS
- 08 33 23 – OVERHEAD COILING DOORS
- 08 34 00 – SURFACE-MOUNTED SLIDING DOOR SYSTEM
- 08 42 29 – AUTOMATIC ENTRANCES
- 08 43 13 – ALUMINUM-FRAMED STOREFRONTS
- 08 56 53 – SECURITY WINDOWS
- 08 63 00 – METAL-FRAMED SKYLIGHTS
- 08 71 00 – DOOR HARDWARE
- 08 80 00 – GLAZING

DIVISION 9 – FINISHES

- 09 05 61 – COMMON WORK RESULTS FOR FLOORING PREPARATION
- 09 21 16 – GYPSUM BOARD ASSEMBLIES
- 09 30 00 – TILING
- 09 51 00 – ACOUSTICAL CEILINGS
- 09 54 23 – LINEAR METAL CEILINGS
- 09 65 00 – RESILIENT FLOORING
- 09 65 66 – RESILIENT ATHLETIC FLOORING
- 09 67 00 – FLUID-APPLIED FLOORING
- 09 68 00 – CARPETING
- 09 84 30 – SOUND-ABSORBING WALL AND CEILING UNITS
- 09 90 00 – PAINTS AND COATINGS

DIVISION 10 – SPECIALTIES

- 10 11 00 – VISUAL DISPLAY UNITS

10 14 00 – SIGNAGE
10 14 19 – DIMENSIONAL LETTER SIGNAGE
10 21 13.19 – PLASTIC TOILET COMPARTMENTS
10 21 23 – CUBICLE CURTAINS AND TRACK
10 22 39.13 – FOLDING GLASS-PANEL PARTITIONS
10 26 00 – WALL AND DOOR PROTECTION
10 28 00 – TOILET, BATH, AND LAUNDRY ACCESSORIES
10 44 00 – FIRE PROTECTION SPECIALTIES
10 51 26 – PLASTIC LOCKERS
10 56 13 – METAL STORAGE SHELVING
10 73 16.13 – METAL CANOPIES
10 75 00 – FLAGPOLES

DIVISION 11 – EQUIPMENT

11 13 13 – LOADING DOCK BUMPERS
11 21 00 – COMMERCIAL APPLIANCES
11 30 13 – RESIDENTIAL APPLIANCES
11 40 00 – FOODSERVICE EQUIPMENT
11 66 23 – GYMNASIUM EQUIPMENT
11 72 00 – EXAMINATION AND TREATMENT EQUIPMENT
11 73 11 – PATIENT LIFTS

DIVISION 12 – FURNISHINGS

12 24 00 – WINDOW SHADES
12 35 53.23 – SOLID-PLASTIC LABORATORY CASEWORK
12 36 00 – COUNTERTOPS
12 36 23.13 – BALLISTIC RATED COUNTERTOPS

DIVISION 13 – SPECIAL CONSTRUCTION

13 11 00 – SUMMARY OF THE SWIMMING POOL WORK
13 11 13 – SWIMMING POOL SHOTCRETE
13 11 26 – EXPOSED AGGREGATE POOL FINISH (ENHANCED PLASTER)
13 11 29 – CERAMIC TILE SWIMMING POOL FINISH
13 11 40 – POOL TRENCH DRAIN
13 11 41 – SKIMMER RECIRCULATION SYSTEM
13 11 46 – SWIMMING POOL ACCESSORIES
13 15 10 – SWIMMING POOL CAULKING AND SEALANTS
13 15 90 – SWIMMING POOL HEATER
13 34 13 – GLAZED STRUCTURES

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DIVISION 21 – FIRE SUPPRESSION

21 05 00 – COMMON WORK RESULTS FOR FIRE SUPPRESSION
21 05 33 – HEAT TRACING FOR FIRE SUPPRESSION PIPING
21 05 53 – IDENTIFICATION FOR FIRE SUPPRESSION PIPING AND EQUIPMENT
21 07 19 – FIRE SUPPRESSION PIPING INSULATION
21 13 00 – FIRE SUPPRESSION SPRINKLERS

DIVISION 22 – PLUMBING

22 05 16 – EXPANSION FITTINGS AND LOOPS FOR PLUMBING PIPING
22 05 19 – METERS AND GAGES FOR PLUMBING PIPING
22 05 48 – VIBRATION AND SEISMIC CONTROLS FOR PLUMBING PIPING AND EQUIPMENT
22 05 53 – IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT
22 07 16 – PLUMBING EQUIPMENT INSULATION
22 07 19 – PLUMBING PIPING INSULATION
22 10 05 – PLUMBING PIPING
22 10 06 – PLUMBING PIPING SPECIALTIES
22 30 00 – PLUMBING EQUIPMENT (ADDENDUM 4)
22 40 00 – PLUMBING FIXTURES
22 51 13 – SWIMMING POOL PIPING
22 51 16 – SWIMMING POOL PUMPS
22 51 19 – SWIMMING POOL WATER TREATMENT EQUIPMENT

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

23 05 13 – MOTOR REQUIREMENTS FOR HVAC AND PLUMBING EQUIPMENT
23 05 16 – EXPANSION FITTINGS AND LOOPS FOR HVAC PIPING
23 05 48 – VIBRATION AND SEISMIC CONTROL FOR EQUIPMENT
23 05 53 – IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT
23 05 93 – TESTING, ADJUSTING, AND BALANCING FOR HVAC
23 07 13 – DUCT INSULATION
23 07 19 – HVAC PIPING INSULATION
23 09 13 – INSTRUMENTATION AND CONTROL DEVICES FOR HVAC
23 09 23 – DIRECT-DIGITAL CONTROL SYSTEMS FOR HVAC
23 09 93 – SEQUENCE OF OPERATIONS FOR HVAC CONTROLS
23 21 13 – HYDRONIC PIPING
23 23 00 – REFRIGERANT PIPING
23 31 00 – HVAC DUCTS AND CASINGS
23 33 00 – AIR DUCT ACCESSORIES
23 34 23 – HVAC POWER VENTILATORS
23 36 00 – AIR TERMINAL UNITS
23 37 00 – AIR OUTLETS AND INLETS
23 38 13 – COMMERCIAL-KITCHEN HOODS
23 55 33 – FUEL-FIRED UNIT HEATERS
23 74 13 – PACKAGED OUTDOOR CENTRAL-STATION AIR-HANDLING UNITS

23 74 33 – DEDICATED OUTDOOR AIR UNITS
23 81 01 – TERMINAL HEAT TRANSFER UNITS
23 81 27 – SMALL SPLIT-SYSTEM HEATING AND COOLING
23 81 29 – VARIABLE REFRIGERANT VOLUME (VRV, VRF) HVAC SYSTEM
23 84 19 – INDOOR POOL HUMIDIFICATION UNITS

DIVISION 26 – ELECTRICAL

26 05 19 – LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
26 05 26 – GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS
26 05 29 – HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
26 05 34 – CONDUIT
26 05 35 – SURFACE RACEWAYS
26 05 37 – BOXES
26 05 53 – IDENTIFICATION FOR ELECTRICAL SYSTEMS
26 05 73 – OVERCURRENT PROTECTIVE DEVICE COORDINATION STUDY
26 09 19 – ENCLOSED CONTACTORS
26 09 23 – LIGHTING CONTROL DEVICES
26 12 00 – MEDIUM-VOLTAGE TRANSFORMERS
26 22 00 – LOW-VOLTAGE TRANSFORMERS
26 24 13 – SWITCHBOARDS
26 24 16 – PANELBOARDS
26 27 17 – EQUIPMENT WIRING
26 27 26 – WIRING DEVICES
26 28 13 – FUSES
26 28 17 – ENCLOSED CIRCUIT BREAKERS
26 28 18 – ENCLOSED SWITCHES
26 29 13 – ENCLOSED CONTROLLERS
26 29 23 – VARIABLE-FREQUENCY MOTOR CONTROLLERS
26 32 13 – ENGINE GENERATORS
26 36 00 – TRANSFER SWITCHES
26 43 00 – SURGE PROTECTIVE DEVICES
26 51 00 – INTERIOR LIGHTING
25 56 00 – EXTERIOR LIGHTING

DIVISION 27 – COMMUNICATIONS

27 10 05 – STRUCTURE CABLING FOR VOICE AND DATA – INSIDE-PLANT
27 51 17 – PUBLIC ADDRESS SYSTEMS
27 53 13 – WIRELESS CLOCK SYSTEM

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

28 15 00 – INTEGRATED ACCESS CONTROL HARDWARE DEVICES
28 31 00 – FIRE DETECTION AND ALARM
28 31 11 – BUILDING INTRUSION DETECTION (ADDENDUM 4)

DIVISION 31 – EARTHWORK

31 20 00 – EARTH MOVING

31 31 16 – TERMITE CONTROL

DIVISION 32 – BASES, BALLASTS, AND PAVING

32 12 16 – ASPHALT PAVING

32 13 13 – CONCRETE PAVING

32 13 73 – CONCRETE PAVING JOINT SEALANTS

32 17 23 – PAVEMENT MARKINGS

32 17 26 – TACTILE WARNING SURFACING

32 31 13 – CHAIN LINK FENCE AND GATES

32 31 19 – DECORATIVE METAL FENCES AND GATES

DIVISION 33 – UTILITIES

33 11 13 – FACILITY WATER DISTRIBUTION PIPING

33 31 13 – FACILITY SANITARY SEWERS

33 42 00 – STORMWATER CONVEYANCE

33 46 00 – SUBDRAINAGE

33 71 19 – ELECTRICAL UNDERGROUND DUCTS, DUCTBANKS, AND MANHOLES

END OF SECTION

Contract A-13: Metal Studs & Drywall

BID FORM

For Bids Due: _____ To: Colonial School District
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____

(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: () _____ - _____ Fax No.: () _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

\$ _____ (\$ _____)

ALTERNATES

Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

~~Alternate No. 7: Modify Selected Interior Partitions from Masonry to Drywall (ADDENDUM 5)~~

~~Add/Deduct _____ (\$ _____)~~

~~Alternate No. 8: Reduce Additional Drywall Soffits (ADDENDUM 5)~~

~~Add/Deduct _____ (\$ _____)~~

Alternate No. 16: Ballistic Resistant Panels (ADDENDUM 5)

Add/Deduct _____ (\$ _____)

UNIT PRICES Not Applicable

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work ~~within _____ calendar days of the Notice to Proceed.~~ **per the preliminary construction schedule in specification section 013216, ADDENDUM 4**

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

(State of Corporation)

Business Address: _____

Witness: _____ By: _____
(SEAL) (Authorized Signature)

(Title)
Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License
(Others as Required by Project Manuals)

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

<u>Subcontractor Category</u>	<u>Subcontractor</u>	<u>Address (City & State)</u>	<u>Subcontractors tax-payer ID # or Delaware Business license #</u>
1. <u>Metal Stud Framing</u>	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of Contract A-13 : Metal Studs & Drywall have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE
(TYPED): _____

AUTHORIZED REPRESENTATIVE
(SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____ of
_____ in the County of _____ and State of _____ as
Principal, and _____ of _____ in the County of _____
_____ and State of _____ as Surety, legally authorized to do business in the State of Delaware
("State"), are held and firmly unto the Colonial School District in the sum of _____ Dollars
(S_____), or percent not to exceed _____
Dollars (S_____) of amount of bid on Contract No. _____ to be paid to the Colonial
School District for the use and benefit of the Colonial School District for which payment well and truly to be made, we do
bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the
whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the
Colonial School District a certain proposal to enter into this contract for the furnishing of certain material and/or services
within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this
Contract as may be required by the terms of this Contract and approved by the Colonial School District this Contract to be
entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said
proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____ seal and dated this ____ day of _____ in the year of our Lord two thousand
and _____ (20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

Name of Bidder (Organization)

Corporate Seal	By: _____ Authorized Signature
Attest _____	_____ Title
	_____ Name of Surety
Witness _____	_____ Title

CONSENT OF SURETY

DATE _____

To: Colonial School District
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

(Surety Company's Address)

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

(Contractor)

(Address)

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

**AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS**

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract A-16 : Acoustical Ceilings

BID FORM

For Bids Due: _____ To: Colonial School District
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____

(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: () _____ - _____ Fax No.: () _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

\$ _____ (\$ _____)

ALTERNATES

Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 8: ~~Reduce~~ Additional Drywall Soffits **(ADDENDUM 5)**

Add/Deduct _____ (\$ _____)

UNIT PRICES Not Applicable

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _____ calendar days of the Notice to Proceed. **per the preliminary construction schedule in specification section 013216. ADDENDUM 4**

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

(State of Corporation)

Business Address: _____

Witness: _____ By: _____
(SEAL) (Authorized Signature)

(Title)
Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License
(Others as Required by Project Manuals)

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder’s listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor’s full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert “not applicable”, “N/A”, “self” or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

<u>Subcontractor Category</u>	<u>Subcontractor</u>	<u>Address (City & State)</u>	<u>Subcontractors tax-payer ID # or Delaware Business license #</u>
1. <u>Acoustical Ceilings</u>			
2. _____			
3. _____			
4. _____			
5. _____			

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of Contract A-16 : Acoustical Ceilings have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE
(TYPED): _____

AUTHORIZED REPRESENTATIVE
(SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____ of
_____ in the County of _____ and State of _____ as
Principal, and _____ of _____ in the County of _____
_____ and State of _____ as Surety, legally authorized to do business in the State of Delaware
("State"), are held and firmly unto the Colonial School District in the sum of _____ Dollars
(S_____), or percent not to exceed _____
Dollars (S_____) of amount of bid on Contract No. _____ to be paid to the Colonial
School District for the use and benefit of the Colonial School District for which payment well and truly to be made, we do
bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the
whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the
Colonial School District a certain proposal to enter into this contract for the furnishing of certain material and/or services
within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this
Contract as may be required by the terms of this Contract and approved by the Colonial School District this Contract to be
entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said
proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____ seal and dated this ____ day of _____ in the year of our Lord two thousand
and _____ (20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

Name of Bidder (Organization)

Corporate Seal	By: _____ Authorized Signature
Attest _____	_____ Title
Witness _____	_____ Name of Surety
	_____ Title

CONSENT OF SURETY

DATE _____

To: Colonial School District
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

(Surety Company's Address)

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

(Contractor)

(Address)

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

**AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS**

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

DRAFT AIA® Document A132® – 2019

Exhibit A

Insurance and Bonds

This Insurance and Bonds Exhibit is part of the Agreement, between the Owner and the Contractor, dated the « » day of « » in the year « »
(In words, indicate day, month, and year.)

for the following PROJECT:
(Name and location or address)

«CSD Leach School»
« »

THE OWNER:
(Name, legal status, and address)

« »
« »

THE CONTRACTOR:
(Name, legal status, and address)

« »
« »

TABLE OF ARTICLES

- A.1 GENERAL
- A.2 OWNER'S INSURANCE
- A.3 CONTRACTOR'S INSURANCE AND BONDS
- A.4 SPECIAL TERMS AND CONDITIONS

ARTICLE A.1 GENERAL

The Owner and Contractor shall purchase and maintain insurance, and provide bonds, as set forth in this Exhibit. As used in this Exhibit, the term General Conditions refers to AIA Document A232™–2019, General Conditions of the Contract for Construction.

ARTICLE A.2 OWNER'S INSURANCE

§ A.2.1 General

Prior to commencement of the Work, the Owner shall secure the insurance, and provide evidence of the coverage, required under this Article A.2 and, upon the Contractor's request, provide a copy of the property insurance policy or policies required by Section A.2.3. The copy of the policy or policies provided shall contain all applicable conditions, definitions, exclusions, and endorsements.

§ A.2.2 Liability Insurance

The Owner shall be responsible for purchasing and maintaining the Owner's usual general liability insurance.

§ A.2.3 Required Property Insurance

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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document is intended to be used in conjunction with AIA Document A232™–2019, General Conditions of the Contract for Construction. Article 11 of A232™–2019 contains additional insurance provisions

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§ A.2.3.1 Unless this obligation is placed on the Contractor pursuant to Section A.3.3.2.1, the Owner shall purchase and maintain, from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located, property insurance written on a builder's risk "all-risks" completed value or equivalent policy form and sufficient to cover the total value of the entire Project on a replacement cost basis. The Owner's property insurance coverage shall be no less than the amount of the initial Contract Sum, plus the value of subsequent Modifications and labor performed and materials or equipment supplied by others. The property insurance shall be maintained until Substantial Completion and thereafter as provided in Section A.2.3.1.3, unless otherwise provided in the Contract Documents or otherwise agreed in writing by the parties to this Agreement. This insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors in the Project as insureds. This insurance shall include the interests of mortgagees as loss payees.

§ A.2.3.1.1 Causes of Loss. The insurance required by this Section A.2.3.1 shall provide coverage for direct physical loss or damage, and shall not exclude the risks of fire, explosion, theft, vandalism, malicious mischief, collapse, earthquake, flood, or windstorm. The insurance shall also provide coverage for ensuing loss or resulting damage from error, omission, or deficiency in construction methods, design, specifications, workmanship, or materials. Sub-limits, if any, are as follows:

(Indicate below the cause of loss and any applicable sub-limit.)

Causes of Loss	Sub-Limit

§ A.2.3.1.2 Specific Required Coverages. The insurance required by this Section A.2.3.1 shall provide coverage for loss or damage to false work and other temporary structures, and to building systems from testing and startup. The insurance shall also cover debris removal, including demolition occasioned by enforcement of any applicable legal requirements, and reasonable compensation for the Architect's, Construction Manager's, and Contractor's services and expenses required as a result of such insured loss, including claim preparation expenses. Sub-limits, if any, are as follows:

(Indicate below type of coverage and any applicable sub-limit for specific required coverages.)

Coverage	Sub-Limit

§ A.2.3.1.3 Unless the parties agree otherwise, upon Substantial Completion, the Owner shall continue the insurance required by Section A.2.3.1 or, if necessary, replace the insurance policy required under Section A.2.3.1 with property insurance written for the total value of the Project that shall remain in effect until expiration of the period for correction of the Work set forth in Section 12.2.2 of the General Conditions.

§ A.2.3.1.4 Deductibles and Self-Insured Retentions. If the insurance required by this Section A.2.3 is subject to deductibles or self-insured retentions, the Owner shall be responsible for all loss not covered because of such deductibles or retentions.

§ A.2.3.2 Occupancy or Use Prior to Substantial Completion. The Owner's occupancy or use of any completed or partially completed portion of the Work prior to Substantial Completion shall not commence until the insurance company or companies providing the insurance under Section A.2.3.1 have consented in writing to the continuance of coverage. The Owner and the Contractor shall take no action with respect to partial occupancy or use that would cause cancellation, lapse, or reduction of insurance, unless they agree otherwise in writing.

§ A.2.3.3 Insurance for Existing Structures

If the Work involves remodeling an existing structure or constructing an addition to an existing structure, the Owner shall purchase and maintain, until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, "all-risks" property insurance, on a replacement cost basis, protecting the existing structure against direct physical loss or damage from the causes of loss identified in Section A.2.3.1, notwithstanding the undertaking of the Work. The Owner shall be responsible for all co-insurance penalties.

§ A.2.4 Optional Extended Property Insurance.

The Owner shall purchase and maintain the insurance selected and described below.

(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. For each type of insurance selected, indicate applicable limits of coverage or other conditions in the fill point below the selected item.)

- [☐] **§ A.2.4.1 Loss of Use, Business Interruption, and Delay in Completion Insurance**, to reimburse the Owner for loss of use of the Owner's property, or the inability to conduct normal operations due to a covered cause of loss.

☐ ☐

- [☐] **§ A.2.4.2 Ordinance or Law Insurance**, for the reasonable and necessary costs to satisfy the minimum requirements of the enforcement of any law or ordinance regulating the demolition, construction, repair, replacement or use of the Project.

☐ ☐

- [☐] **§ A.2.4.3 Expediting Cost Insurance**, for the reasonable and necessary costs for the temporary repair of damage to insured property, and to expedite the permanent repair or replacement of the damaged property.

☐ ☐

- [☐] **§ A.2.4.4 Extra Expense Insurance**, to provide reimbursement of the reasonable and necessary excess costs incurred during the period of restoration or repair of the damaged property that are over and above the total costs that would normally have been incurred during the same period of time had no loss or damage occurred.

☐ ☐

- [☐] **§ A.2.4.5 Civil Authority Insurance**, for losses or costs arising from an order of a civil authority prohibiting access to the Project, provided such order is the direct result of physical damage covered under the required property insurance.

☐ ☐

- [☐] **§ A.2.4.6 Ingress/Egress Insurance**, for loss due to the necessary interruption of the insured's business due to physical prevention of ingress to, or egress from, the Project as a direct result of physical damage.

☐ ☐

- [☐] **§ A.2.4.7 Soft Costs Insurance**, to reimburse the Owner for costs due to the delay of completion of the Work, arising out of physical loss or damage covered by the required property insurance: including construction loan fees; leasing and marketing expenses; additional fees, including those of architects, engineers, consultants, attorneys and accountants, needed for the completion of the construction, repairs, or reconstruction; and carrying costs such as property taxes, building permits, additional interest on loans, realty taxes, and insurance premiums over and above normal expenses.

☐ ☐

§ A.2.5 Other Optional Insurance.

The Owner shall purchase and maintain the insurance selected below.

(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance.)

- [☐] **§ A.2.5.1 Cyber Security Insurance** for loss to the Owner due to data security and privacy breach,

including costs of investigating a potential or actual breach of confidential or private information.
(Indicate applicable limits of coverage or other conditions in the fill point below.)

« »

[« »] **§ A.2.5.2 Other Insurance**

(List below any other insurance coverage to be provided by the Owner and any applicable limits.)

Coverage

Limits

ARTICLE A.3 CONTRACTOR'S INSURANCE AND BONDS

§ A.3.1 General

§ A.3.1.1 Certificates of Insurance. The Contractor shall provide certificates of insurance acceptable to the Owner evidencing compliance with the requirements in this Article A.3 at the following times: (1) prior to commencement of the Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Owner's written request. An additional certificate evidencing continuation of commercial liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the periods required by Section A.3.2.1 and Section A.3.3.1. The certificates will show the Owner as an additional insured on the Contractor's Commercial General Liability and excess or umbrella liability policy or policies.

§ A.3.1.2 Deductibles and Self-Insured Retentions. The Contractor shall disclose to the Owner any deductible or self-insured retentions applicable to any insurance required to be provided by the Contractor.

§ A.3.1.3 Additional Insured Obligations. To the fullest extent permitted by law, the Contractor shall cause the commercial general liability coverage to include (1) the Owner, the Architect and the Architect's consultants, and the Construction Manager and the Construction Manager's consultants, as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's consultants, and the Construction Manager and the Construction Manager's consultants, CG 20 32 07 04.

§ A.3.2 Contractor's Required Insurance Coverage

§ A.3.2.1 The Contractor shall purchase and maintain the following types and limits of insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:

(If the Contractor is required to maintain insurance for a duration other than the expiration of the period for correction of Work, state the duration.)

« »

§ A.3.2.2 Commercial General Liability

§ A.3.2.2.1 Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than « » (\$ « ») each occurrence, « » (\$ « ») general aggregate, and « » (\$ « ») aggregate for products-completed operations hazard, providing coverage for claims including

- .1 damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;
- .2 personal injury and advertising injury;
- .3 damages because of physical damage to or destruction of tangible property, including the loss of use of such property;
- .4 bodily injury or property damage arising out of completed operations; and
- .5 the Contractor's indemnity obligations under Section 3.18 of the General Conditions.

§ A.3.2.2.2 The Contractor's Commercial General Liability policy under this Section A.3.2.2 shall not contain an exclusion or restriction of coverage for the following:

- .1 Claims by one insured against another insured, if the exclusion or restriction is based solely on the fact that the claimant is an insured, and there would otherwise be coverage for the claim.
- .2 Claims for property damage to the Contractor's Work arising out of the products-completed operations hazard where the damaged Work or the Work out of which the damage arises was performed by a Subcontractor.
- .3 Claims for bodily injury other than to employees of the insured.
- .4 Claims for indemnity under Section 3.18 of the General Conditions arising out of injury to employees of the insured.
- .5 Claims or loss excluded under a prior work endorsement or other similar exclusionary language.
- .6 Claims or loss due to physical damage under a prior injury endorsement or similar exclusionary language.
- .7 Claims related to residential, multi-family, or other habitational projects, if the Work is to be performed on such a project.
- .8 Claims related to roofing, if the Work involves roofing.
- .9 Claims related to exterior insulation finish systems (EIFS), synthetic stucco or similar exterior coatings or surfaces, if the Work involves such coatings or surfaces.
- .10 Claims related to earth subsidence or movement, where the Work involves such hazards.
- .11 Claims related to explosion, collapse and underground hazards, where the Work involves such hazards.

§ A.3.2.3 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than « » (\$ « ») per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles along with any other statutorily required automobile coverage.

§ A.3.2.4 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella insurance policies result in the same or greater coverage as the coverages required under Section A.3.2.2 and A.3.2.3, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ A.3.2.5 Workers' Compensation at statutory limits.

§ A.3.2.6 Employers' Liability with policy limits not less than « » (\$ « ») each accident, « » (\$ « ») each employee, and « » (\$ « ») policy limit.

§ A.3.2.7 Jones Act, and the Longshore & Harbor Workers' Compensation Act, as required, if the Work involves hazards arising from work on or near navigable waterways, including vessels and docks

§ A.3.2.8 If the Contractor is required to furnish professional services as part of the Work, the Contractor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

§ A.3.2.9 If the Work involves the transport, dissemination, use, or release of pollutants, the Contractor shall procure Pollution Liability insurance, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

§ A.3.2.10 Coverage under Sections A.3.2.8 and A.3.2.9 may be procured through a Combined Professional Liability and Pollution Liability insurance policy, with combined policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

§ A.3.2.11 Insurance for maritime liability risks associated with the operation of a vessel, if the Work requires such activities, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

§ A.3.2.12 Insurance for the use or operation of manned or unmanned aircraft, if the Work requires such activities, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

§ A.3.3 Contractor's Other Insurance Coverage

§ A.3.3.1 Insurance selected and described in this Section A.3.3 shall be purchased from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:

(If the Contractor is required to maintain any of the types of insurance selected below for a duration other than the expiration of the period for correction of Work, state the duration.)

« »

§ A.3.3.2 The Contractor shall purchase and maintain the following types and limits of insurance in accordance with Section A.3.3.1.

(Select the types of insurance the Contractor is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. Where policy limits are provided, include the policy limit in the appropriate fill point.)

- [« »] § A.3.3.2.1 If there is only one Contractor performing the Work on the Project, property insurance of the same type and scope satisfying the requirements identified in Section A.2.3, which, if selected in this section A.3.3.2.1, relieves the Owner of the responsibility to purchase and maintain such insurance except insurance required by Section A.2.3.1.3 and Section A.2.3.3. The Contractor shall comply with all obligations of the Owner under Section A.2.3 except to the extent provided below. The Contractor shall disclose to the Owner the amount of any deductible, and the Owner shall be responsible for losses within the deductible. Upon request, the Contractor shall provide the Owner with a copy of the property insurance policy or policies required. The Owner shall adjust and settle the loss with the insurer and be the trustee of the proceeds of the property insurance in accordance with Article 11 of the General Conditions unless otherwise set forth below:

(Where the Contractor's obligation to provide property insurance differs from the Owner's obligations as described under Section A.2.3, indicate such differences in the space below. Additionally, if a party other than the Owner will be responsible for adjusting and settling a loss with the insurer and acting as the trustee of the proceeds of property insurance in accordance with Article 11 of the General Conditions, indicate the responsible party below.)

« »

- [« »] § A.3.3.2.2 Railroad Protective Liability Insurance, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate, for Work within fifty (50) feet of railroad property.

- [« »] § A.3.3.2.3 Asbestos Abatement Liability Insurance, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate, for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos-containing materials.

- [« »] § A.3.3.2.4 Insurance for physical damage to property while it is in storage and in transit to the construction site on an "all-risks" completed value form.

- [« »] § A.3.3.2.5 Property insurance on an "all-risks" completed value form, covering property owned by the Contractor and used on the Project, including scaffolding and other equipment.

- [« »] § A.3.3.2.6 Other Insurance

(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)

Coverage

Limits

§ A.3.4 Performance Bond and Payment Bond

The Contractor shall provide surety bonds, from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located, as follows:

(Specify type and penal sum of bonds.)

Type	Penal Sum (\$0.00)
Payment Bond	<< >>
Performance Bond	

Payment and Performance Bonds shall be AIA Document A312™, Payment Bond and Performance Bond, or contain provisions identical to AIA Document A312™, current as of the date of this Agreement.

ARTICLE A.4 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Insurance and Bonds Exhibit, if any, are as follows:

<< >>

DRAFT AIA® Document A132® – 2019

Exhibit B

Determination of the Cost of the Work

for the following Project:

(Name, location, and brief description)

«CSD Leach School»

« »
« »

THE OWNER:

(Name, legal status, address, and other information)

« »« »
« »
« »
« »

THE CONTRACTOR:

(Name, legal status, address, and other information)

« »« »
« »
« »
« »

THE CONSTRUCTION MANAGER:

(Name, legal status, address, and other information)

« »« »
« »
« »
« »

THE ARCHITECT:

(Name, legal status, address, and other information)

« »« »
« »
« »
« »

ARTICLE B.1 CONTROL ESTIMATE

§ B.1.1 Where the Contract Sum is based on the Cost of the Work, plus the Contractor's Fee without a Guaranteed Maximum Price pursuant to Section 4.1 of the Agreement, the Contractor shall prepare and submit to the Construction Manager, within 14 days of executing this Agreement, a written Control Estimate, for the Owner's review and acceptance. The Control Estimate shall include the estimated Cost of the Work plus the Contractor's Fee. The Control Estimate shall be used to monitor actual costs and the timely performance of the Work. The Contractor shall update the Control Estimate with each Application for Payment as needed to reflect Changes in the Work.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document is intended to be used in conjunction with AIA Documents A232™-2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition; B132™-2019, Standard Form of Agreement Between Owner and Architect, Construction Manager as Adviser Edition; and C132™-2019, Standard Form of Agreement Between Owner and Construction Manager as Adviser. AIA Document A232™-2019 is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

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§ B.1.2 The Control Estimate shall include

- .1 the documents enumerated in Article 1 of the Agreement, including all Modifications thereto;
- .2 a list of the assumptions made by the Contractor in the preparation of the Control Estimate, including assumptions under B.1.4, to supplement the information provided by the Owner and contained in the Contract Documents;
- .3 a statement of the estimated Cost of the Work organized by trade categories or systems and the Contractor's Fee;
- .4 schedules, upon which the Control Estimate is based, indicating proposed Subcontractors, activity sequences and durations, milestone dates for receipt and approval of pertinent information, schedule of shop drawings and samples, procurement and delivery of materials or equipment, and the Owner's occupancy requirements; and
- .5 contingencies for further development of design and construction as required by Section B.1.4.

§ B.1.3 The Contractor shall meet with the Owner and Construction Manager to review the Control Estimate. In the event that the Owner or Construction Manager discovers any inconsistencies or inaccuracies in the information presented, they shall promptly notify the Contractor, who shall make appropriate adjustments to the Control Estimate. When the Control Estimate is acceptable to the Owner, the Owner shall acknowledge it in writing. The Owner's acceptance of the Control Estimate does not imply that the Control Estimate constitutes a Guaranteed Maximum Price.

§ B.1.4 To the extent that the Contract Documents are anticipated to require further development, the Contractor shall provide in the Control Estimate for such further development consistent with the Contract Documents and reasonably inferable therefrom. Such further development does not include changes in scope, systems, kinds and quality of materials, finishes or equipment, all of which, if required, shall be incorporated in a revised Control Estimate by mutual agreement of the parties.

§ B.1.5 The Contractor shall develop and implement a detailed system of cost control that will provide the Owner and Construction Manager with timely information as to the anticipated total Cost of the Work. The cost control system shall compare the Control Estimate with the actual cost for activities in progress and estimates for uncompleted tasks and proposed changes. This information shall be reported to the Owner in writing, through the Construction Manager, no later than the Contractor's first Application for Payment and shall be revised and submitted with each Application for Payment.

§ B.1.6 The Owner shall authorize preparation of revisions to the Contract Documents that incorporate the agreed-upon assumptions contained in the Control Estimate. The Owner shall promptly furnish such revised Contract Documents to the Contractor. The Contractor shall notify the Owner, Architect, and Construction Manager of any inconsistencies between the Control Estimate and the revised Contract Documents.

ARTICLE B.2 COSTS TO BE REIMBURSED

§ B.2.1 Cost of the Work

§ B.2.1.1 The term Cost of the Work shall mean costs necessarily incurred by the Contractor in the proper performance of the Work. The Cost of the Work shall include only the items set forth in this Article B.2.

§ B.2.1.2 Where, pursuant to the Contract Documents, any cost is subject to the Owner's prior approval, the Contractor shall obtain such approval in writing prior to incurring the cost.

§ B.2.1.3 Costs shall be at rates not higher than the standard paid at the place of the Project, except with prior approval of the Owner.

§ B.2.2 Labor Costs

§ B.2.2.1 Wages or salaries of construction workers directly employed by the Contractor to perform the construction of the Work at the site or, with the Owner's prior approval, at off-site workshops.

§ B.2.2.2 Wages or salaries of the Contractor's supervisory and administrative personnel when stationed at the site and performing Work, with the Owner's prior approval.

§ B.2.2.2.1 Wages or salaries of the Contractor's supervisory and administrative personnel when performing Work and stationed at a location other than the site, but only for that portion of time required for the Work, and limited to the personnel and activities listed below:

(Identify the personnel, type of activity and, if applicable, any agreed upon percentage of time to be devoted to the Work.)

« »

§ B.2.2.3 Wages or salaries of the Contractor's supervisory or administrative personnel engaged at factories or workshops, or while traveling, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of their time required for the Work.

§ B.2.2.4 Costs paid or incurred by the Contractor, as required by law or collective bargaining agreements, for taxes, insurance, contributions, assessments, and benefits and, for personnel not covered by collective bargaining agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Sections B.2.2.1 through B.2.2.3.

§ B.2.2.5 If agreed rates for labor costs, in lieu of actual costs, are provided in this Agreement, the rates shall remain unchanged throughout the duration of this Agreement, unless the parties execute a Modification.

§ B.2.3 Subcontract Costs

Payments made by the Contractor to Subcontractors in accordance with the requirements of the subcontracts and this Agreement.

§ B.2.4 Costs of Materials and Equipment Incorporated in the Completed Construction

§ B.2.4.1 Costs, including transportation and storage at the site, of materials and equipment incorporated, or to be incorporated, in the completed construction.

§ B.2.4.2 Costs of materials described in the preceding Section B.2.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, if any, shall become the Owner's property at the completion of the Work or, at the Owner's option, shall be sold by the Contractor. Any amounts realized from such sales shall be credited to the Owner as a deduction from the Cost of the Work.

§ B.2.5 Costs of Other Materials and Equipment, Temporary Facilities and Related Items

§ B.2.5.1 Costs of transportation, storage, installation, dismantling, maintenance, and removal of materials, supplies, temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by the Contractor at the site and fully consumed in the performance of the Work. Costs of materials, supplies, temporary facilities, machinery, equipment, and tools that are not fully consumed, shall be based on the cost or value of the item at the time it is first used on the Project site less the value of the item when it is no longer used at the Project site. Costs for items not fully consumed by the Contractor shall mean fair market value.

§ B.2.5.2 Rental charges for temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by the Contractor at the site and the costs of transportation, installation, dismantling, minor repairs, and removal of such temporary facilities, machinery, equipment, and hand tools. Rates and quantities of equipment owned by the Contractor, or a related party as defined in Section B.2.8, shall be subject to the Owner's prior approval. The total rental cost of any such equipment may not exceed the purchase price of any comparable item.

§ B.2.5.3 Costs of removal of debris from the site of the Work and its proper and legal disposal.

§ B.2.5.4 Costs of the Contractor's site office, including general office equipment and supplies.

§ B.2.5.5 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, subject to the Owner's prior approval.

§ B.2.6 Miscellaneous Costs

§ B.2.6.1 Premiums for that portion of insurance and bonds required by the Contract Documents that can be directly attributed to this Contract.

§ B.2.6.1.1 Costs for self-insurance, for either full or partial amounts of the coverages required by the Contract Documents, with the Owner's prior approval.

§ B.2.6.1.2 Costs for insurance through a captive insurer owned or controlled by the Contractor, with the Owner's prior approval.

§ B.2.6.2 Sales, use, or similar taxes, imposed by a governmental authority, that are related to the Work and for which the Contractor is liable.

§ B.2.6.3 Fees and assessments for the building permit, and for other permits, licenses, and inspections, for which the Contractor is required by the Contract Documents to pay.

§ B.2.6.4 Fees of laboratories for tests required by the Contract Documents; except those related to defective or nonconforming Work for which reimbursement is excluded under Article 13 of AIA Document A232™-2019, or by other provisions of the Contract Documents, and which do not fall within the scope of Section B.2.7.3.

§ B.2.6.5 Royalties and license fees paid for the use of a particular design, process, or product, required by the Contract Documents.

§ B.2.6.5.1 The cost of defending suits or claims for infringement of patent rights arising from requirements of the Contract Documents, payments made in accordance with legal judgments against the Contractor resulting from such suits or claims, and payments of settlements made with the Owner's consent, unless the Contractor had reason to believe that the required design, process, or product was an infringement of a copyright or a patent, and the Contractor failed to promptly furnish such information to the Architect, as required by Article 3 of AIA Document A232™-2019. The costs of legal defenses, judgments, and settlements, shall not be included in the Cost of the Work used to calculate the Contractor's Fee or subject to the Guaranteed Maximum Price.

§ B.2.6.6 Costs for communications services, electronic equipment, and software, directly related to the Work and located at the site, with the Owner's prior approval.

§ B.2.6.7 Costs of document reproductions and delivery charges.

§ B.2.6.8 Deposits lost for causes other than the Contractor's negligence or failure to fulfill a specific responsibility in the Contract Documents.

§ B.2.6.9 Legal, mediation, and arbitration costs, including attorneys' fees, other than those arising from disputes between the Owner and Contractor, reasonably incurred by the Contractor after the execution of this Agreement in the performance of the Work and with the Owner's prior approval, which shall not be unreasonably withheld.

§ B.2.6.10 Expenses incurred in accordance with the Contractor's standard written personnel policy for relocation and temporary living allowances of the Contractor's personnel required for the Work, with the Owner's prior approval.

§ B.2.6.11 That portion of the reasonable expenses of the Contractor's supervisory or administrative personnel incurred while traveling in discharge of duties connected with the Work.

§ B.2.7 Other Costs and Emergencies

§ B.2.7.1 Other costs incurred in the performance of the Work, with the Owner's prior approval.

§ B.2.7.2 Costs incurred in taking action to prevent threatened damage, injury, or loss, in case of an emergency affecting the safety of persons and property as provided in article 10 of AIA Document A232-2019.

§ B.2.7.3 Costs of repairing or correcting damaged or nonconforming Work executed by the Contractor, Subcontractors, or suppliers, provided that such damaged or nonconforming Work was not caused by negligence of, or

failure to fulfill a specific responsibility by, the Contractor, and only to the extent that the cost of repair or correction is not recovered by the Contractor from insurance, sureties, Subcontractors, suppliers, or others.

§ B.2.8 Related Party Transactions

§ B.2.8.1 For purposes of this Section B.2.8, the term “related party” shall mean (1) a parent, subsidiary, affiliate, or other entity having common ownership of, or sharing common management with, the Contractor; (2) any entity in which any stockholder in, or management employee of, the Contractor holds an equity interest in excess of ten percent in the aggregate; (3) any entity which has the right to control the business or affairs of the Contractor; or (4) any person, or any member of the immediate family of any person, who has the right to control the business or affairs of the Contractor.

§ B.2.8.2 If any of the costs to be reimbursed arise from a transaction between the Contractor and a related party, the Contractor shall notify the Owner and the Construction Manager of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If the Owner, after such notification, authorizes the proposed transaction in writing, then the cost incurred shall be included as a cost to be reimbursed, and the Contractor shall procure the Work, equipment, goods, or service, from the related party, as a Subcontractor, according to the terms of Article B.5. If the Owner fails to authorize the transaction in writing, the Contractor shall procure the Work, equipment, goods, or service from some person or entity other than a related party according to the terms of Article B.5.

ARTICLE B.3 COSTS NOT TO BE REIMBURSED

§ B.3.1 The Cost of the Work shall not include the items listed below:

- .1 Salaries and other compensation of the Contractor’s personnel stationed at the Contractor’s principal office or offices other than the site office, except as specifically provided in Section B.2.2.2;
- .2 Bonuses, profit sharing, incentive compensation, and any other discretionary payments, paid to anyone hired by the Contractor or paid to any Subcontractor or vendor, unless the Owner has provided prior approval;
- .3 Expenses of the Contractor’s principal office and offices other than the site office;
- .4 Overhead and general expenses, except as may be expressly included in Article B.2;
- .5 The Contractor’s capital expenses, including interest on the Contractor’s capital employed for the Work;
- .6 Except as provided in Section B.2.7.3 of this Agreement, costs due to the negligence of, or failure to fulfill a specific responsibility of the Contract by, the Contractor, Subcontractors, and suppliers, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable;
- .7 Any cost not specifically and expressly described in Article B.2; and
- .8 Where a Guaranteed Maximum Price is part of the Agreement, costs, other than costs included in Change Orders approved by the Owner, that would cause the Guaranteed Maximum Price to be exceeded.

ARTICLE B.4 DISCOUNTS, REBATES AND REFUNDS

§ B.4.1 Cash discounts obtained on payments made by the Contractor shall accrue to the Owner if (1) before making the payment, the Contractor included the amount to be paid, less such discount, in an Application for Payment and received payment from the Owner, or (2) the Owner has deposited funds with the Contractor with which to make payments; otherwise, cash discounts shall accrue to the Contractor. Trade discounts, rebates, refunds, and amounts received from sales of surplus materials, and equipment shall accrue to the Owner, and the Contractor shall make provisions so that they can be obtained.

§ B.4.2 Amounts that accrue to the Owner in accordance with Section B.4.1 shall be credited to the Owner as a deduction from the Cost of the Work.

ARTICLE B.5 SUBCONTRACTS AND OTHER AGREEMENTS

§ B.5.1 Those portions of the Work that the Contractor does not customarily perform with the Contractor’s own personnel shall be performed under subcontracts or other appropriate agreements with the Contractor. The Owner may designate specific persons from whom, or entities from which, the Contractor shall obtain bids. The Contractor shall obtain bids from Subcontractors, and from suppliers of materials or equipment fabricated especially for the Work, who are qualified to perform that portion of the Work in accordance with the requirements of the Contract Documents. The Contractor shall deliver such bids to the Construction Manager, Architect, and Owner, with an indication as to which

bids the Contractor intends to accept. The Owner then has the right to review the Contractor's list of proposed subcontractors and suppliers and, in consultation with the Construction Manager and Architect, object to any subcontractor or supplier. Any advice of the Construction Manager or Architect, or approval or objection by the Owner, shall not relieve the Contractor of its responsibility to perform the Work in accordance with the Contract Documents. The Contractor shall not be required to contract with anyone to whom the Contractor has reasonable objection.

§ B.5.2 When a Contractor has provided a Guaranteed Maximum Price, and a specific subcontractor or supplier (1) is recommended to the Owner by the Contractor; (2) is qualified to perform that portion of the Work; and (3) has submitted a bid that conforms to the requirements of the Contract Documents without reservations or exceptions, but the Owner requires that another bid be accepted, then the Contractor may require that a Change Order be issued to adjust the Guaranteed Maximum Price by the difference between the bid of the person or entity recommended to the Owner by the Contractor and the amount of the subcontract or other agreement actually signed with the person or entity designated by the Owner.

§ B.5.3 Subcontracts or other agreements shall conform to the applicable payment provisions of this Agreement, and shall not be awarded on the basis of cost plus a fee without the Owner's prior written approval. If a subcontract is awarded on the basis of cost-plus a fee, the Contractor shall provide in the subcontract for the Owner to receive the same audit rights with regard to the Subcontractor as the Owner receives with regard to the Contractor in Article B.6, below.

§ B.5.4 Where the Contract Sum is based upon the Cost of the Work Plus a Fee without a Guaranteed Maximum Price, the Contractor shall prepare, for the Construction Manager and Architect's review and the Owner's acceptance, a procurement schedule for items that must be ordered well in advance of construction. The Contractor shall expedite and coordinate the ordering and delivery of materials that must be ordered well in advance of construction. If the Owner agrees to procure any items prior to the Owner's approval of the Control Estimate, the Owner shall procure the items on terms and conditions acceptable to the Contractor. Upon the Owner's approval of the Control Estimate, the Owner shall assign all contracts for these items to the Contractor and the Contractor shall thereafter accept responsibility for them.

ARTICLE B.6 ACCOUNTING RECORDS

§ B.6.1 The Contractor shall keep full and detailed records and accounts related to the Cost of the Work, and exercise such controls as may be necessary for proper financial management under this Contract and to substantiate all costs incurred. The accounting and control systems shall be satisfactory to the Owner and the Construction Manager. The Owner and the Owner's auditors shall, during regular business hours and upon reasonable notice, be afforded access to, and shall be permitted to audit and copy, the Contractor's records and accounts, including complete documentation supporting accounting entries, books, job cost reports, correspondence, instructions, drawings, receipts, subcontracts, Subcontractor's proposals, Subcontractor's invoices, purchase orders, vouchers, memoranda, and other data relating to this Contract. The Contractor shall preserve these records, for a period of three years after final payment, or for such longer period as may be required by law.

§ B.6.2 When the Contractor believes that all the Work required by the Agreement has been fully performed, the Contractor shall deliver to the Owner, through the Construction Manager, a final accounting of the Cost of the Work.

§ B.6.3 Within 30 days after the Owner's receipt of the Contractor's final accounting for the Cost of the Work, the Owner shall conduct an audit of the Cost of the Work or notify the Construction Manager and Architect that it will not conduct an audit.

§ B.6.3.1 If the Owner conducts an audit of the Cost of the Work, the Owner shall, within 10 days after completion of the audit, submit a written report based upon the auditor's findings to the Construction Manager and Architect.

§ B.6.3.2 Within seven days after receipt of the written report described in Section B.6.3.1, or receipt of notice that the Owner will not conduct an audit, and provided that the other conditions of Section 5.2 of the Agreement have been met, the Architect will either issue to the Owner, through the Construction Manager, a final Certificate for Payment, with a copy to the Contractor, or notify the Contractor, Construction Manager, and Owner, in writing, of the Architect's reasons for withholding a certificate as provided in Article 9 of AIA Document A232-2019. The time periods stated in this Section B.6.3.2 supersede those stated in Article 9 of AIA Document A232-2019. Neither the

Architect, nor the Construction Manager, is responsible for verifying the accuracy of the Contractor's final accounting.

§ B.6.3.3 If the Owner's auditors' report concludes that the Cost of the Work, as substantiated by the Contractor's final accounting, is less than claimed by the Contractor, the Contractor shall be entitled to request mediation of the disputed amount without seeking an initial decision pursuant to Article 15 of AIA Document A232-2019. A request for mediation shall be made by the Contractor within 30 days after the Contractor's receipt of a copy of the final Certificate for Payment. Failure to request mediation within this 30-day period shall result in the substantiated amount reported by the Owner's auditors becoming binding on the Contractor. Pending a final resolution of the disputed amount, the Owner shall pay the Contractor the amount certified in the final Certificate for Payment.

§ B.6.4 If, subsequent to final payment, and at the Owner's request, the Contractor incurs costs, described in Article B.2, and not excluded by Article B.3, to correct defective or nonconforming Work, the Owner shall reimburse the Contractor for such costs and the Contractor's Fee applicable thereto, on the same basis as if such costs had been incurred prior to final payment, but not in excess of the Guaranteed Maximum Price, if any. If adjustments to the Contract Sum are provided for in Section 4.6 of the Agreement, the amount of those adjustments shall be recalculated, taking into account any reimbursements made pursuant to this Section B.6.4 in determining the net amount to be paid by the Owner to the Contractor.

SECTION 006216 – CERTIFICATE OF INSURANCE

In conjunction with Insurance Requirements AIA General Conditions, Article 11, the Contractor shall be bound by the following limits of liability insurance (for Contracts under this Bid Pac). The Contractor shall use the standard "ACCORD" for titled "Certificate of Insurance" in submitting his liability insurance limits. The required limits to be inserted in accordance with the sample "ACCORD" form in this section:

GENERAL NOTES

1. Other Insurance
 - A. Contractor shall carry any necessary insurance required to cover Owned and Rental equipment that may be necessary for them to use in the performance of the Work.
2. Contractor shall have the following additional items added to his required "ACCORD" form Certificate of Insurance:
 - A. Name and Address of Insured (Contractor).
 - B. Description of Operations/Locations -
3. Added Insured – Colonial School District & EDiS Company
4. Certificate Holder – Colonial School District

Contractors shall note that although not a part of AIA Document A232 - 2019 Edition, these additional articles apply as noted to this Project.

A sample certificate is bound into the Project Manual immediately following this Document.

END OF SECTION

ACORD	CERTIFICATE OF LIABILITY INSURANCE	Date (MM/DD/YYYY)
THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.		
IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).		
PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	PRODUCER CUSTOMER ID #:	
	INSURER(S) AFFORDING COVERAGE	
INSURED	INSURER A:	
	INSURER B:	
	INSURER C:	
	INSURER D:	

COVERAGES		CERTIFICATE NUMBER:		REVISION NUMBER:					
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.									
INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
X	GENERAL LIABILITY	X	X	XXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH OCCURRENCE	\$1,000,000	
	☒ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$100,000	
	☐ CLAIMS-MADE						MED EXP (Any one person)	\$10,000	
	☐ ☒ OCCUR						PERSONAL & ADV INJURY	\$1,000,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$3,000,000	
	☐ POLICY ☒ PROJECT ☐ LOC						PRODUCTS – COMPIOP AGG	\$3,000,000	
X	AUTOMOBILE LIABILITY	X	X	XXXXXXX	XX/XX/XXXX	XX/XX/XXXX	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000	
	☒ ANY AUTO						BODILY INJURY (Per person)		
	☐ ALL OWNED AUTOS						BODILY INJURY (Per accident)		
	☐ SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident)		
	☒ HIRED AUTOS								
☒ NON-OWNED AUTOS									
X	☒ UMBRELLA LIAB	☒ OCCUR	X	X	XXXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH OCCURRENCE	\$5,000,000
	☐ EXCESS LIAB	☐ CLAIMS-MADE						AGGREGATE	\$5,000,000
	☐ DEDUCTIBLE							EACH OCCURRENCE	
	☐ RETENTION \$							AGGREGATE	
X	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		X	XXXXXXXX	XX/XX/XXXX	XX/XX/XXXX	☒ WC STATUTORY LIMITS	OTH-ER	
	ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER / MEMBER EXCLUDED? If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. EACH ACCIDENT		\$500,000
							E.L. DISEASE - EACH EMPLOYEE		\$500,000
							E.L. DISEASE - POLICY LIMIT		\$500,000
X	POLLUTION LIABILITY (For Hazardous material, site excavation/utility, and building envelope subcontractors)	X	X	XXXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH CLAIM		\$1,000,000
	☒ CLAIMS MADE FORM						POLICY AGGREGATE		\$3,000,000
X	PROFESSIONAL LIABILITY (for all Design and Professional Service subcontractors)			XXXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH CLAIM		\$1,000,000
	☒ CLAIMS MADE FORM						POLICY AGGREGATE		\$3,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Project: CSD John G. Leach School

Added Insured: StudioJAED, EDiS Company, as well as any other party as required by contract are listed as additional insureds under all policies (except Workers Compensation and Professional Liability) for all work performed by the named insured. The General Liability and Umbrella/Excess Liability aggregate shall apply on a per-project basis and all policies shall be primary and non-contributing with respects to any insurance maintained by the additional insureds. Umbrella policy follows form as respects to Additional Insured status on the CGL, Employers Liability and Automobile Liability policies. A waiver of subrogation applies in favor of the additional insureds under all policies.

Asbestos Abatement Contractor's Pollution/Professional coverage must include coverage for Asbestos Abatement.

➡ In addition to the above language, please provide the General Liability, On-going and Completed Operations Additional Insured endorsements with all required additional insureds listed in the Schedule box (if not a blanket policy), the Primary and Non-Contributory Endorsements, and the Waiver of Subrogation endorsements for all policies with all required additional insured entities listed (if not a blanket policy). Provide evidence of no EIFS exclusions, if within scope of work. ⬅

CERTIFICATE HOLDER	CANCELLATION
Colonial School District 318 Basin Road New Castle, DE 19720	SHOULD ANY OF THE ABOVE-DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

Professional Liability and Pollution Insurance Requirements			
Contract Number	Contract Name	Professional Liability Insurance	Pollution Insurance
Contract A-01:	Sitework	Y	Y
Contract A-02:	Landscaping	N	Y
Contract A-03:	Concrete	N	Y
Contract A-04:	Masonry	N	Y
Contract A-05:	Structural Steel & Miscellaneous Metals	Y	Y
Contract A-06:	Carpentry & General Works	N	Y
Contract A-07:	Roofing	Y	Y
Contract A-08:	Waterproofing	Y	Y
Contract A-09:	Exterior Metal Panels	Y	N
Contract A-10:	Joint Sealants	N	Y
Contract A-11:	Hollow Metal and Finish Hardware	N	N
Contract A-12:	Glass and Glazing	Y	Y
Contract A-13:	Metal Studs and Drywall	Y	Y
Contract A-14:	Casework and Millwork	Y	Y
Contract A-15:	Ceramic Tile	N	N
Contract A-16:	Acoustical Ceilings	N	N
Contract A-17:	Paint and VWC	N	Y
Contract A-18:	Flooring	N	N
Contract A-19:	Fluid Applied Flooring	N	Y
Contract A-20:	Kitchen Equipment	N	N
Contract A-21:	Swimming Pools	Y	Y
Contract A-22:	Fire Protection	Y	Y
Contract A-23:	Plumbing	Y	Y
Contract A-24:	Mechanical	Y	Y
Contract A-25:	Building Management Systems	Y	N
Contract A-26:	Electrical	N	Y
Contract A-27:	Special Systems	Y	N
Contract A-28:	Structured Cabling	Y	N
Contract A-29:	Testing Adjusting and Balancing	Y	N

SECTION 011100 - SUMMARY OF WORK

1. RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Sections, apply to work of this Section.

2. CONTRACTS

- A. The work will be performed under separate prime contracts managed by the Construction Manager.

3. ALTERATIONS & COORDINATION

- A. Contractor shall be responsible to coordinate their work with the work of others, including, but not limited to, the preparation of general coordination drawings, diagrams and schedules, and control of site utilization, from the beginning of activity, through project close-out and warranty periods.

4. KNOWLEDGE OF CONTRACT REQUIREMENTS

- A. The Contractor and his Subcontractors, Sub-subcontractors and material men shall consult in detail the Contract Documents for instructions and requirements pertaining to the Work, and at his and their cost, shall provide all labor, materials, equipment and services necessary to furnish, install and complete the work in strict conformance with all provisions thereof.
- B. The Contractor will be held to have examined the site of the Work prior to submitting his proposal and informed himself, his Subcontractors, Sub-subcontractors and material men of all existing conditions affecting the execution of the Work.
- C. The Contractor will be held to have examined the Contract Documents and modifications thereto, as they may affect subdivisions of the Work and informed himself, his Subcontractors, Sub-subcontractors and material men of all conditions thereof affecting the execution of the Work.
- D. The Scope of Work for the Contract is not necessarily limited to the description of each section of the Specifications and the illustrations shown on the Drawings. Include all minor items not expressly indicated in the Contract Documents, or as might be found necessary as a result of field conditions, in order to complete the Work as it is intended, without any gaps between the various subdivisions of work.
- E. The Contractor will be held to be thoroughly familiar with all conditions affecting labor in the area of the Project including, but not limited to, Unions, incentive pay, procurements, living, parking and commuting conditions and to have informed his Subcontractors and Sub-subcontractors thereof.

5. CONTRACT DOCUMENTS INFORMATION

- A. The Contract Documents are prepared in accordance with available information as to existing conditions and locations. If, during construction, conditions are revealed at variance with the Contract Documents, notify the Construction Manager immediately, but no more than three (3) days from the day the variance is first known. Failure to give timely notice shall operate to waive any claim Contractor might otherwise have for an adjustment to Contract Time or Sum as a consequence of such variance.
- B. The Specifications determine the kinds and methods of installation of the various materials, the drawings establish the quantities, dimensions and details of materials, the schedules on the drawings give the location, type and extent of the materials.
- C. Dimensions given on the drawings govern scale measurements and large scale drawings govern small scale drawings, except as to anything omitted unless such omission is expressly noted on the large scale drawings.
- D. The techniques or methods of specifying to record requirements varies throughout text, and may include “prescriptive”, “open generic/descriptive”, “compliance with standards”, “performance”, “proprietary”, or a combination of these. The methods used for specifying one unit of work has no bearing on requirements for another unit of work.
- E. Whenever a material, article or piece of equipment is referred to in the singular number in the Contract Documents, it shall be the same as referring to it in the plural. As many such materials, articles or pieces of equipment shall be provided as are required to complete the Work.
- F. Whenever a material, article or piece of equipment is specified by reference to a governmental trade association of similar standard, it shall comply with the requirements of the latest publication thereof and amendments thereto in effect on the bid date.
- G. In addition to the requirements of the Contract Documents, Contractor’s work shall also comply with applicable standards of the construction industry and those industry standards are made a part of Contract Documents by reference, as if copied directly into Contract Documents, or as if published copies were bound herein.
- H. Where compliance with two (2) or more industry standards, contract requirements, or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, then the most stringent requirements, which are generally recognized to be also the most costly, is intended and will be enforced, unless specifically detailed language written into the Contract Documents clearly indicates that a less stringent requirement is to be fulfilled. Refer apparently equal but different requirements, and uncertainties as to which level of quality is more stringent, to Architect for decision before proceeding.
- I. Reference standards referenced directly in Contract Documents or by governing regulations have precedence over non-reference standards which are recognized in industry for applicability of

work.

- J. Contractor's bid is based on the complete set of Contract Documents including documents not specifically issued as part of the bid pack but referenced in same.

6. SCOPE OF WORK/GENERAL INFORMATION

- A. A Scope of Work for each contract to be awarded on the project follows in this section. When a Contract has been awarded to a Contractor, the successful Contractor will be listed after the title of the Contract. When no Contract has yet been awarded, no Contractor's name will be listed. Previous Scopes of Work include addendum changes.
- B. Contractor is responsible for performing the work listed in the Summary of Work for his contract. Contractor is also responsible for knowing the work that has been assigned to preceding contracts. No additional compensation or extension of time will be allowed a Contractor due to his ignorance of the work assigned to his Contract or to other contracts which may affect his work. The Contractor is responsible, however, for all items which are covered in the Specifications and Drawings relating to their Contract if not specifically mentioned in the Summary of Work.
- C. The Construction Manager will provide on-site a source for temporary electric, temporary water and portable sanitation facilities only. It is each Contractor's responsibility to make the necessary connections, including all material for temporary electric and water. Please note that utility charges for office trailers will be the responsibility of the individual Contractors.
- D. A dumpster will be provided on site for free use by Contractors to dispose of non-hazardous, common, work-related refuse. Clean-up is the responsibility of each Contractor. Clean up shall be performed on a daily basis. Contractors not complying will be advised in writing and back charged for all costs associated with the cleanup of their work.
- E. Contractors are reminded that there are limited storage areas available on site. Off-site storage will be the responsibility of each individual Contractor.
- F. Office trailer permits off site will be the responsibility of each individual Contractor. On site Contractor's field offices, one (1) per Contractor, if required, will be located as directed by the Construction Manager.
- G. Contractor will be prepared to discuss and submit a detailed project schedule seven (7) days after receipt of Notice to Proceed and to begin its submittal process. The Project Schedule is an integral part of this contract. Certain construction sequences and priorities must take place in order to meet the target dates. Concentrated work periods will occur and each Contractor is responsible to staff the project as required by the current Construction Schedule or as directed by the Construction Manager. Contractor will cooperate with the Construction Manager in planning and meeting the required sequences of work and Project Schedule as periodically updated by the Construction Manager.

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- H. All bids must include insurance limits in accordance with Article 11 of the Section 007300 SUPPLEMENTARY CONDITIONS.
 - I. Hoisting, scaffolding and material handling is the responsibility of each Contractor, unless otherwise noted.
 - J. Contractor will be responsible for layout of its own work. The Construction Manager will provide benchmark and layout of the building line.
 - K. Contractor will be responsible to keep clean public roadways soiled by construction traffic on a daily basis. If cleaning is not done, the Construction Manager may perform the cleaning on an overtime basis and backcharge the Contractor responsible.
 - L. Contractor Scopes of Work and Schedule are interrelated. Familiarity with each is required.
 - M. The Construction Manager will provide testing services for soil, concrete and steel. Other testing as required by the Contract Documents will be in accordance with the technical specifications and/or the individual scope of work. Refer to Specification Section 004500 - QUALITY CONTROL.
 - N. Safety is the responsibility of each individual Contractor. The project will be governed under the guidelines of OSHA.
 - O. Inter-Contractor shop drawing distribution will be performed by the Construction Manager. Contractor is individually responsible for either coordinating his work with these distributed drawings or notifying the Construction Manager, in writing, of any discrepancies.
 - P. Coordination with other trades will be required. The Contractor will be required to attend periodic coordination meetings with other trades where requirements, conflicts and coordination issues will be discussed and resolved. Attendance when requested will be mandatory. If inter-Contractor coordination is not satisfactorily performed, the conflicting Contractors shall mutually share the cost to relocate and/or reinstall their work.
 - Q. Contractor shall submit a schedule of values to the Construction Manager prior to the submission of their first invoice for approval
 - R. Contractor is expected to review and coordinate its Work with the complete set of Contract Documents, including all items noted as by his trade whether or not shown on that particular set of drawings. Documents are available at the site for review.
 - S. Contractor is responsible for obtaining all necessary permits required for his work, including street permits. Unless otherwise noted, building permit shall be secured by the Construction Manager. Any subcontractor who will be restricting access to street, right of way or adjacent property must notify the Construction Manager 48 hours in advance.

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- T. Contractor's License: Submit a copy of all business licenses required by local and state agencies.
- U. Contractor shall absorb, without additional compensation, any and all costs of working beyond normal hours to maintain job progress in accordance with the current construction schedule.
- V. No asbestos or PCB's in or on any material or equipment will be accepted or allowed on this project. All hazardous materials will be treated in accordance with all State and Federal regulations.
- W. Daily cleanup of the work is the responsibility of each individual Contractor which includes broom cleaning of their debris as required. Contractor will be individually back charged by the Construction Manager for clean up not satisfactorily performed by the Contractor.
- X. In the event asbestos is uncovered, the Contractor shall notify the Construction Manager of the areas requiring removal of asbestos. The Construction Manager shall then coordinate the removal with the Owner.
- Y. The Safety Cable System shall not be altered or removed without a written request submitted to the Project Manager with a copy to the Field Manager. It shall be the responsibility of each and every Contractor that is removing or altering the Safety Cable System to maintain the fall protection safety provided by the safety cable and not leave the area unprotected. Each and every Contractor shall be responsible to re-install the Safety Cable System immediately after work is completed. Each and every Contractor shall be responsible to re-install the Safety Cable System in accordance to OSHA standards.
- Z. Normal work hours for this project are from 7:00 a.m. to 3:30 p.m. Any work to be performed outside of these hours must receive prior approval from the Construction Manager. Requests to work beyond normal work hours shall be submitted at least 48 hours prior.
- AA. Contractor is responsible for having a competent project superintendent/foreman on-site during all work performed under its contract.
- AB. In the event the Contractor has non-English speaking employees or subcontractors on the project, they shall have a superintendent or foreman on site, at all times, who speaks English and can communicate with Contractor's employees. Should the Contractor fail to meet this requirement, at any time, Construction Manager may direct all Work to stop until the proper supervision is on site. The Contractor will be responsible for maintaining the project work schedule and make up at its own expense, any delay to the Schedule resulting from the work stoppage.
- AC. Punch List Procedures: Contractor shall be given a copy of the punch list with his appropriate work identified. Contractor shall have nine (9) calendar work days to complete its punch list work. On the 10th day or as determined by the Construction Manager, the Construction Manager shall employ other contractors, as required, to complete any incomplete punch list work and retain from the appropriate Contractors retainage all costs incurred.

AD. Contractor shall provide the necessary safety barricades and railings required to complete their work and comply with all OSHA, local code and contract specifications.

AE. **Prohibition of Using Photographs on EDiS Projects:** The Contractor and all associated subcontractors agrees to not issue any news release or advertising pertaining to the Work or the Project, including references to the Project on the Contractor's/subcontractor website or other social media outlets, without obtaining EDiS' prior written approval, in each instance. The Contractor, for itself, its employees, vendors and subcontractors, agrees to not use the name of the Owner, the Project, EDiS or any photographs, videos, or other images of the Project in connection with any of Contractor's business promotion activities, advertising, website, social media outlets, or operations, without EDiS' prior written approval in each instance.

AF. Where there is a discrepancy in scope assignment between contract documents, the order of precedence will be as follows: Summary of Work, design drawings, design specifications.
(ADDENDUM 4)

CONTRACT NO. A-01 - SITEWORK

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 3	Concrete
Section 107500	Flagpoles
Division 22	Plumbing
Division 26	Electrical
Division 31	Earthwork
Division 32	Bases, Ballasts, and Paving
Division 33	Utilities

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide sitework, storm, sanitary and water utilities, concrete and asphalt paving, striping, curbs, walks, signage, exterior concrete steps and ramps, and topsoil/seedling. Exterior slabs and pads shown on the structural plans will be provided by Contract A-03 : Concrete.
 - a. This Contractor shall include in the Base Bid the cost of remobilization, cleaning and tack coating the asphalt base course in order to install the asphalt top coat.
2. Furnish and install all site signage. This includes all traffic, pedestrian and building related signage not mounted on buildings, including fire lane curbing and signage.
3. Provide fire supply piping including fire hydrants and loop. Color code fire hydrants as required by the local jurisdiction based upon water pressure. Provide fire lane striping including painting of adjacent curbs as required by local jurisdiction having authority.
4. Provide site amenities (decorative and steel pipe bollards, bike racks, flagpoles (including bases), manual and automatic gates (including associated gate hardware), benches, etc.). Include excavation and concrete to support these amenities as shown in the project documents and required by manufacturer's instructions.
5. Provide fencing (chain link and ornamental) including gate hardware, and post and cable fencing. Provide louvered gates at the mechanical yard.
6. Provide removal of mock-up wall at Construction Manager's request. Mock-up wall to be disposed of to dumpster supplied by CM.
7. Provide perimeter stormwater drains at all buildings (including within 5' of the building perimeter). Provide downspout adaptors and coordinate with roofer for the correct downspout

size.

8. Provide underground infiltration areas (stormtech system) including flexstorm inserts in all upstream structures with open grates.
9. ~~Furnish and install and maintain concrete wash out areas for other subcontractors and their suppliers for project duration.~~ **Provide, an include all cost, for concrete wash out dumpsters for this contract scopes of work. Concrete dumpsters to include liner to prevent runoff. Include immediate clean-up of all runoff. Concrete wash out station to be dumpster type, include liner. Relocate as required by EDiS.** Remove this item at conclusion of project and complete as indicated on finished drawings. **(ADDENDUM 4)**
10. Furnish and install wash station, labor to wash tires, clean and drain the area as required before vehicles leave the site daily. Clean tires and tracks of all vehicles before leaving the construction site. Wash station will be utilized by other contractors and will be removed by this contractor only when directed by EDiS. Furnish and install Non-freeze Hose Bib, water line, valve box & drainpipe to daylight or plug for the contractor tire wash areas, and for building construction.
11. Provide a temporary water means for other trades to utilize. Include all costs associated with metering from local utilities as well as valves and hoses for contractors to utilize. **Include at (3) locations: (1) truck wash station, (1) masonry mix station, (1) general use.** The Construction Manager will not provide this service. Location is TBD by EDiS. **(ADDENDUM 4)**
12. Provide an allocation, included in base bid, to provide, maintain and remove upon construction manager direction, 2,000' of stoned roadway, 10'-0" wide. Road shall consist of fabric, 10" of #3 stone for the length of the road and the means to compact it. Allocation to include removal of temporary stone road from site upon request from construction manager.
13. Provide an allocation, included in base bid, to provide, maintain and remove upon construction manager direction, a total of 5 temporary crane pads; each a 40'x 40' stoned area. Pads shall consist of fabric, 10" of #3 stone for the area of the pad, and the means to compact it. Allocation to include removal of temporary stone pads from site upon request from construction manager.
14. This Contractor shall provide ~~and maintain~~ all temporary access roads as detailed in Contract Documents, until completion of project. ~~Include snow removal.~~ **Maintenance and snow removal will be covered by the allowance on T&M basis (ADDENDUM 4)**
15. Furnish, install and remove temporary orange construction fencing as required by Construction Manager (including 1,000 linear feet in base bid).
16. Furnish, install, maintain and remove temporary chain link site fencing (include 1,000' in base bid), temporary walks as shown on the site plan. Include driven posts in lawn areas and weighted supports in paved areas. Maintain this work until Substantial Completion.
17. Furnish, install, maintain and remove sediment control system including sediment control plan. Maintain sediment control until substantial completion established by DNREC or another

authority having jurisdiction.

18. Provide, maintain, and remove stabilized site entrances.
19. This Contractor shall visit the site of the proposed work, fully acquaint and familiarize themselves with the conditions as they exist and the character of the operations to be carried out under the proposed Contract, and make such investigation as they may see fit so that they shall fully understand the facilities, physical conditions and restrictions affecting the work under the Contract. Claims for additional compensation and/or extensions of time because of Contractor's failure to familiarize themselves with all conditions which might affect the work shall not be allowed.
20. Street openings made for the shutting off or tapping of utility lines or for any other purpose shall be backfilled, tamped and the surfaces restored in accordance with the requirement of applicable local codes or to match existing; whichever is greater.
21. Provide removal of asphalt paving and excavation of a test pit in outside lane of Delaware Route 7 to locate and determine depth of existing water line. This contractor is to provide access to water company contractors for possible relocation of water line if required. Include all traffic control and safety devices required.
22. Clearing, grubbing and removal of trees, roots and stumps.
23. Topsoil stripping and stockpiling on site. Respread topsoil from the established topsoil stockpiles. Provide temporary stabilization grass seeding at all areas following the completion of construction activities and as required by sequence of construction.
24. Rock excavation work is defined as work consisting of "bedrock and ledgerock removal for structures and trenches that cannot be accomplished without either blasting or using rippers. This work also consists of the use or disposal of such excavated material and backfilling the excavation with suitable material" per DelDOT Standard Specifications dated August 2001.
25. Rock excavation and backfilling for structures and trenches is defined as work consisting of "bedrock and ledgerock removal for structures and trenches that cannot be accomplished without either blasting or using rippers. This work also consists of the use or disposal of such excavated material and backfilling the excavation with suitable material" per DelDOT Standard Specifications dated August 2001.
26. Contractors should carefully review the soil borings as they relate to the extent of rubble to be removed and other man made obstructions. Saw cutting and removal of sidewalks, curbs, etc. in the performance of work is this Contractor's responsibility. Rock excavation (if applicable) will be paid for on a unit price basis.
27. Rough grading for area defined on site drawings for building, lawn areas, bituminous roads, parking and walkways. Preparation of subgrade for building slabs, walks and pavements.

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28. Sitework contractor is to provide rough grading for area defined on site drawings for building, lawn areas, bituminous roads, parking and walkways. Preparation of subgrade for slabs, walks, and pavements. The Sitework Contractor to extend the bulk excavation outside building plan in order to facilitate foundation construction and maintain safety requirements. Written acceptance of the building pad condition will be provided by the concrete contractor before foundation work proceeds. The Concrete Contractor will be responsible for laying out all concrete work as shown on the structural and architectural drawings. Once the Concrete Contractor has accepted this work it will be the responsibility of the Concrete Contractor to maintain and dewater the building pad and all excavations until the concrete work is complete and backfilled. The Concrete Contractor and Sitework Contractor are to coordinate this procedure so that there are no additional costs to the Owner for additional excavation or concrete. Spoils left after backfilling of foundations is complete are to be left outside the building perimeter by the concrete contractor and gathered by the sitework contractor and spread on site.
29. Proof rolling of limit of excavation.
30. ~~Furnish, install and maintain select fill under slab.~~ (ADDENDUM 5)
31. Provide a certified construction reviewer (CCR) to perform inspections and provide written reports; signed and sealed by a professional engineer.
32. All utilities shall be brought to within +/- 5 feet of the building line by this Contractor. Sitework contractor will bring domestic and fire mains to within 5' of building prior to foundation installation. Sitework contractor will return to extend domestic and fire lines into building to 1' above slab following foundation installation. Sitework contractor will flush water lines following completion of pipe into building.
33. Provide all DelDOT permits related to work for this project. Include all required traffic control plans and drawings.
34. Backfilling as detailed below is the responsibility of this Contractor. Soil types shall be in accordance with Del Dot standard specifications.
35. It is the intent to use on site material and not imported fill. The use of this on site material shall conform with the compaction requirements as specified on Civil drawings and in specification Division 31. If on site material does not meet these requirements, a unit price for imported fill will be used.
36. This is not a balanced site. 20,000 cy of the excess soils will be stockpiled on-site for removal by others. ~~provided to the upcoming William Penn High School project. This Contract A-01 is to include loading trucks supplied by site contractor at the high school project only (no transport required by this Contract A-01).~~ Contract A-01 is to provide removal of all remaining excess soils from site. **Any variance (over/under) of soils beyond the 20,000 cy will be reimbursed at contract unit rates. (ADDENDUM 3)**

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37. Provide all dewatering of excavations until final acceptance. (~~Provide dewatering for perimeter waterproofer.~~ (ADDENDUM 3))
 38. Provide perimeter protection of all excavated areas until suitably backfilled.
 39. Utilize directional drilling methods where indicated on project documents.
 40. Provide all traffic control measures, including flagger, signage, barricades, etc. Secure all permits for work completed within public right-of-way(s). Include demo and removal of all existing structures as noted on project documents.
 41. Include demo and removal of all existing structures as noted on project documents.
 42. Provide street cleaning of mud etc. on a daily basis while on site. Provide this service every (2) weeks (ADDENDUM 3) when this sitework contractor is not working on site.
 43. Include all costs for temporary barricades, arrows, pedestrian protection, flagmen, etc. required to complete the work.
 44. Site utilities to courtyards, including irrigation lines as part of this contract (ADDENDUM 3).
 45. Base bid shall include all standard dewatering measures; utilizing trenches, crocks, stone and portable pumping measures. This contractor to provide these measures as required to perform their work. Well pointing if necessary will be handled as a negotiated cost by the Owner.
 46. ASPHALT CEMENT COST ADJUSTMENT
 - a. Payments to the Contractor shall be adjusted to reflect increase or decreases in the Delaware Posted Asphalt Cement Price when compared to the Project Asphalt Cement Base Price, as defined in these Special Provisions.
 - b. The Delaware Posted Asphalt Cement Price will be issued monthly by the Department and will be the industry price for Asphalt Cement, F.O.B. Philadelphia, Pennsylvania.
 - c. All deviations of the Delaware Posted Asphalt Cement Price from the Project Asphalt Cement Base Price are eligible for cost adjustment. No minimum increases or decreases or corresponding percentages are required to qualify for cost adjustment.
 - d. Actual quantity of asphalt cement qualifying for any Asphalt Cement Cost Adjustment will be computed on the basis of weight tickets and asphalt percentage from the approved job mix formula.
 - e. For Recycled Hot-Mix the asphalt percentage eligible for cost adjustment shall be only the new asphalt cement added to the mix.
 - f. The Asphalt cement cost adjustment will be calculated on grade PG 64-22 asphalt regardless of the actual grade of asphalt used. The Project Asphalt Cement Base Price for the project will be based on the August 1st price posted on DelDOT's website.
 - g. If the Contractor exceeds the authorized allotted completion time, the price of asphalt cement on the last authorized allotted work day, shall be the prices used for cost adjustment. However, if the industry posted price for asphalt cement goes down, the asphalt cement cost shall be adjusted downward accordingly.

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47. Provide all site survey and layout of this contract work from a licensed surveyor. This work includes, but not limited to, accomplishing cuts and fills, locating utilities, layout of roads and walkways, and establishing site boundaries. Benchmarks and control points will be established by the CM. **Provide all as-builts required by AHJ's. (ADDENDUM 3)**
48. Before ANY excavation work is to commence, the Contractor/Excavator shall contact the utility companies or utility owners and advise them of the proposed work and ask them to mark the location of the underground utility installations. This notification shall be done within established or customary local response times. If the work is on private property and the utility company will not mark out the utilities, the Contractor/Excavator will hire a private locating service to mark the utilities. Once the utilities are located and marked, the Contractor/Excavator will excavate by hand or use a vacuum truck to expose the utilities and record the exact location and elevation of the utilities. The Contractor/Excavator must submit the Excavation Permit to EDiS Company verifying their assurance of communication with the utility companies or utility owners. The Contractor/Excavator must follow State, Local, and Federal Guidelines prior to proceeding with excavations. The Contractor/Excavator will have these marks restored as long as there is work to perform. Once the Contractor has installed new utilities, they will provide to EDiS Company an as-built drawing, within 7 days, showing the exact location and elevation of the utilities. The installing Contractor will be responsible for locating and marking these utilities for other contractors that may have work in the same area. Provide As-built drawings. Maintain an updated red-lined set on-site, available to EDiS upon request.
49. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of **\$1,000,000** per occurrence and **\$3,000,000** aggregate. **(ADDENDUM 5)**
50. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
51. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
52. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
53. Contractor must provide additional crews as needed to maintain the project schedule.
54. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
- a. Even if this contract is not shown to have responsibilities in the BIM execution and coordination, this contract is to include providing a representative at a minimum of six (6) BIM Coordination meetings.
 - b. The sitework contractor is to provide BIM coordination drawings from the invert of pipes

leaving the building (coordinated with the MEP BIM Design) to the first precast enclosure (manhole, catch basin, etc.)

55. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
56. Provide pricing for all alternates as described in Section 012300-Alternates.
- a. Contractor is to guarantee all alternate pricing for 60 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
57. Provide a \$50,000 allocation to be used at the discretion of the Construction Manager.
58. Sitework contractor is responsible for removal and disposal of any minor rock excavation as part of this contract. Major rock excavation will be paid for on a unit price basis. Major rock excavation is defined as a solid mineral material that cannot be removed by a Caterpillar 225 with a $\frac{3}{4}$ cubic yard bucket or boulders in excess of 1 c.y. volume. Boulders may be disposed of on site as directed by the Construction Manager. (ADDENDUM 3)
59. Provide all concrete paving in Courtyards. (ADDENDUM 3)
60. Provide concrete turndown slabs at building entrances. (ADDENDUM 3)
61. Provide Playground Equipment, Outdoor Fitness Equipment, and Site Furnishings as part of Alternates 2A and 3A. (ADDENDUM 3)

CONTRACT NO. A-02 - LANDSCAPING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 3	Concrete
Division 22	Plumbing
Division 26	Electrical
Division 31	Earthwork
Division 32	Bases, Ballasts, and Paving
Division 33	Utilities

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Fertilize topsoil prior to permanent seeding as specified in the geotechnical reports and civil drawings. Topsoil to be spread by Contract A-01 : Sitework. Prior to seeding, this contractor is responsible to have the topsoil tested and to supply and install amenities (fertilizer, lime, etc) as required by the test report. Provide permanent stabilization grass seeding at all areas following the completion of construction activities. This contractor is responsible for all weeding, watering, fertilization, and grass cutting to ensure 100% grass growth in the entirety of these areas until permanent certificate of occupancy is approved.
2. Provide all plant material and all associated work including, but not limited to, staking, watering, weeding, etc.
3. Planting soil mix in beds and topsoil to be provided by the Sitework Subcontractor. Provide all additional soil mix required to set plant materials and final grading.
4. Provide filter fabric, weed, check and mulch.
5. Provide all sod.
6. Provide specified warranties.
7. Provide As-built drawings. Maintain an updated red-lined set on-site, available to EDiS upon request.
8. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
9. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM

and 3:30 PM.

10. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
11. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
12. Contractor must provide additional crews as needed to maintain the project schedule.
13. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
14. Provide a \$5,000 allocation to be used at the discretion of the Construction Manager.

CONTRACT NO. A-03 - CONCRETE

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 3	Concrete
Section 055000	Metal Fabrications
Section 072100	Thermal Insulation
Division 31	Earthwork

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide concrete footings, foundation walls, piers, wall footings, grade beams, slabs on grade, slabs on deck, and all reinforcing steel and welded wire reinforcement.
 - a. Include excavation and backfill.
 - b. Provide concrete infill slab inside the walk-in freezers and refrigerators after freezers and refrigerators have been set in place. Also provide Concrete Fill in the space between the freezers and refrigerator and the surrounding concrete. Coordinate requirements with the Food Service contractor. (ADDENDUM 3)
 - c. Provide concrete footers and piers at exterior brick columns and monumental signage including excavation and backfill after masonry foundation walls are complete.
2. Provide exterior concrete slabs and turndown slabs shown on the structural plans.
3. Provide pipe and backfill for perimeter foundation drains.
4. Provide concrete foundation for Mock up wall as required. Include excavation if required.
5. ~~Set pour stop 2' outside the perimeter of pool, including all pool plumbing and drainage systems.~~ Include separate mobilization to complete the SOG to finish to the pool assembly. (ADDENDUM 3)
6. Provide concrete slab-on-grade in Pool 155 to outside perimeter of pool (deck) drain as shown/dimensioned on Sheet AP101. (ADDENDUM 3)
7. Provide concrete work at monumental sign. Include excavation, concrete footers and piers, and backfill after mason completes below grade masonry installation.
8. Provide concrete stairs on grade and thickened slabs within the building perimeter. Include all excavation and grading necessary to complete this work.

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9. Provide thickened slab footings at all interior CMU walls as required in the Structural Drawings sheet notes.
 - ~~10. Provide excavation, installation, and backfill for the concrete foundations and reinforcing steel associated with the exterior masonry walls at the building entrances.(ADDENDUM 3)~~
 - ~~11. Provide all precast concrete elements within the building. (ADDENDUM 3)~~
 12. Provide all form work, concrete, reinforcement, excavation, etc. required to complete this work.
 13. This Subcontractor will be responsible for laying out all concrete work as shown on the structural and architectural drawings. Coordination of drawings may be required.
 14. This Contractor to furnish and install reinforcing steel, admixtures, curing compound, sealers as required in the Contract Documents.
 15. Provide Perimeter insulation at foundation walls.
 16. Provide dewatering for ~~perimeter foundation~~waterproofer. (ADDENDUM 3)
 17. Underslab vapor barrier, insulation, reglets, waterstops, control and construction joints (including required caulking at control and construction joints).
 18. Placement of related items furnished under other Specification Sections.
 19. Anchor bolts and leveling plates to be installed by this Contractor and furnished by the Structural Steel contractor. Installation within required tolerances. Anchor bolt assemblies to be placed with templates only. Contractor shall supply certified anchor bolt as-built drawings to steel erector for coordination prior to steel placement. Concrete Contractor is responsible to adjust or replace any anchor bolts found to be outside of specified tolerances.
 20. All blockouts and embedments required by plans and specifications.
 21. This Subcontractor to install sleeves in concrete walls furnished by the contractor providing the utility.
 22. This Contractor is responsible for grouting all structural steel base or leveling plates.
 23. This contractor shall include all hot and cold concrete weather materials and practices. This includes, but is not limited to frost protection, hot/cold water additives and admixtures and pumping as required. This Contractor is also responsible for the premiums associated with any added costs for hot water, heated aggregate and all admixtures for cold or hot weather concrete practices.

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24. Coordinate the “Notch” in the concrete slabs to allow for a future Contractor to easily install expansion joint details. Provide depressed slabs where shown for future floor finishes.
 25. Provide concrete fill at steel pan stair treads, landings and associated items.
 26. Provide dewatering after acceptance from Sitework Contractor ~~until re-acceptance by the Sitework Contractor.~~ (ADDENDUM 3)
 27. Provide caulking at Concrete slab control joints, expansion joints, isolation joints, and perimeter slab joints. Provide primers, bond breakers, and joint backers. Clean, prime, and prepare surfaces before application of caulks and sealants in accordance with specifications and manufacturer’s recommendations.
 28. Concrete Contractor will be responsible for laying out all concrete work as shown on the structural and architectural drawings. The sitework contractor is to provide a flat, compacted surface at subgrade prior to the start of foundation layout and installation. Written acceptance of the building pad condition will be provided by the concrete contractor before foundation work proceeds. Once the Concrete Contractor has accepted this work it will be the responsibility of the Concrete Contractor to maintain and dewater the building pad and all excavations until the concrete work is complete and backfilled. The Concrete contractor is to provide access to foundation excavations to the Masonry and waterproofing Contractors for foundation work. Concrete contractor owns dewatering during masonry and waterproofing work and backfill after foundation masonry work is complete. The Concrete Contractor, Masonry Contractor, Roofer, and sitework Contractor are to coordinate this procedure so that there are no additional costs to the Owner for additional excavation or concrete. Spoils left after backfilling of foundations is complete are to be left outside the building perimeter by the concrete contractor and gathered by the sitework contractor and spread on site.
 29. Before ANY excavation work is to commence, the Contractor/Excavator shall contact the utility companies or utility owners and advise them of the proposed work and ask them to mark the location of the underground utility installations. This notification shall be done within established or customary local response times. If the work is on private property and the utility company will not mark out the utilities, the Contractor/Excavator will hire a private locating service to mark the utilities. Once the utilities are located and marked, the Contractor/Excavator will excavate by hand or use a vacuum truck to expose the utilities and record the exact location and elevation of the utilities. The Contractor/Excavator must submit the Excavation Permit to EDiS Company verifying their assurance of communication with the utility companies or utility owners. The Contractor/Excavator must follow State, Local, and Federal Guidelines prior to proceeding with excavations. The Contractor/Excavator will have these marks restored as long as there is work to perform. Once the Contractor has installed new utilities, they will provide to EDiS Company an as-built drawing, within 7 days, showing the exact location and elevation of the utilities. The installing Contractor will be responsible for locating and marking these utilities for other contractors that may have work in the same area.

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30. This contractor is to regrade building subgrade following backfilling of foundation excavation. Building Pad subgrade is to be brought to compaction requirements specified in the project documents. All spoils are to be pushed outside of the building perimeter and will be collected and spread on site by the sitework contractor.
 31. This Contractor is responsible for excavating all stairs and ramps as shown on drawings. This Contractor is also responsible for the backfill of these areas.
 32. Provide and maintain perimeter fall protection at excavated area per OSHA standards.
 33. Equipment bases and foundations shall be the responsibility of the Contractor providing the equipment. This contractor to provide an exterior turn-down slab (5' x 6' x 6") for the new incoming gas service. Final location to be directed by the construction manager.
 34. Asphalt concrete paving and portland cement concrete paving, sidewalks and curbs shall be provided by others.
 35. Prepare concrete SOG at vestibules to proper elevations for walk off mat.
 36. This Contractor shall include the finishing of concrete slabs around floor penetrations throughout all slab areas. These penetrations will consist of electrical boxes, stubbed conduits, mechanical piping and electrical and technology conduit stubs, etc
 37. This Contractor shall also include all work included in finishing the concrete floors to all floor drains and or trench drains. Include all sloping and beveling to create a positive flow to the drains.
 38. Provide all means of transporting concrete including, but not limited to: pump trucks, cranes, ramps, chutes, buggies.
 39. All concrete testing will be completed by the Construction Manager, however, it will be the responsibility of this Contractor to furnish all samples.
 40. Provide off site disposal of all unsuitable excavated materials.
 41. This Contractor shall provide written documentation by a third party testing agency that all concrete slabs are within the tolerance required by the contract documents. Testing and analysis to be paid for by this Contractor.
 42. Provide specified sloping for floor drains/trenches in kitchen, showers, as detailed (Drains to be furnished by Mechanical Contractor.)
 43. This Contractor shall include a minimum of ten additional out of sequence remobilizations for concrete slab installation.
 44. Contractor must provide additional crews as needed to maintain the project schedule.

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45. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
 46. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 47. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
 48. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 49. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 - a. Even if this contract is not shown to have responsibilities in the BIM execution and coordination, this contract is to include providing a representative at a minimum of six (6) BIM Coordination meetings.
 50. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
 51. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 60 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
 52. Provide a \$30,000 allocation to be used at the discretion of the Construction Manager.
 53. **Provide, and include all cost, for concrete wash out dumpsters for this contract scopes of work. Concrete dumpsters to include liner to prevent runoff. Include immediate clean-up of all runoff. Relocate as required by EDiS. Remove this item at conclusion of project. (ADDENDUM 4)**
 54. **Provide all concrete at loading dock slab and stairs. (ADDENDUM 5)**
 55. **Provide the complete concrete slab at transformer/generator. Match design at loading dock slab. (ADDENDUM 5)**

CONTRACT NO. A-04- MASONRY

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 4	Masonry
Section 055000	Metal Fabrications
Section 071113	Bituminous Damp proofing (ADDENDUM 5)
Section 072100	Thermal Insulation
Section 072119	Foamed-In-Place Insulation
Section 072500	Weather Barriers
Section 072700	Air Barriers (ADDENDUM 5)
Section 076200	Sheet Metal Flashing & Trim
Section 078400	Firestopping
Section 079200	Joint Sealants

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide CMU, Brick veneer, ground and split face masonry units, glazed block, Calcium Silicate Manufactured Stone masonry, cast stone masonry, stone masonry veneer, reinforcing, accessories and related work
2. Provide foundation masonry (waterproofing by Contract A-08). Include dewatering for waterproofer.
3. Install sleeves in masonry walls (foundation and above ground) furnished by the contractor providing the utility.
4. Provide CMU, brick, decorative block, and capstone for new exterior walls at the building entrances, courtyard terrace walls and piers, loading dock, etc.
5. Provide masonry work at monumental sign. Excavation, concrete footers and piers, and backfill by Concrete Contractor.
6. Caulking of masonry to masonry and to dissimilar materials is to be by Contract A-10 : Joint Sealants. Clean, prime, and prepare surfaces before application of caulks and sealants in accordance with specifications and manufacturer's recommendations. Fire and Acoustical Sealants for masonry walls is to be by this Contract: A-04.
7. Provide spray polyurethane foam insulating air barrier (including fluid-applied air barriers) applied at all locations (vertical and horizontal) behind vertical brick and stone

surfaces and over CMU back-up and exterior sheathing board. This includes all exterior sheathing, whether behind masonry or not, include spray insulation termination angles as needed for the spray foam insulation installation. Include DC-315 thermal barrier product where required. Provide intumescent coating on top of the spray insulation as detailed on various wall types. **Contractor to sequence installation and protection of intumescent coating with masonry façade installation to avoid damage or delays due to weather.** (ADDENDUM #3) (ADDENDUM#5)

8. Provide steel angle support at top of masonry walls per details as shown in the architectural or structural plans whichever is more stringent.
9. Integral masonry flashings, expansion joints, insulation and other related items as required.
10. Provide 2-hour fire rated expansion joints for masonry-to-masonry .
11. Provide Mock up as required. Concrete foundation to be provided by Contract A-03: Concrete
12. Grouting of door frames at masonry openings. 2nd Floor and above stair tower door frames will be installed after CMU stair towers are erected and 2nd floor slabs are poured. Masonry contractor to include grouting of these frames after stair tower masonry walls are erected.
13. Provide weather protection and temporary material considerations for Hot/Cold weather installations as required to perform the work and maintain the project schedule. This contractor is responsible for temporary enclosures at mixing station and work areas to continue work through winter conditions. Any materials and or heating equipment for areas or materials will be provided by this contractor and billed against the allocation set below. All associated labor is to be provided by this contract under base bid.
14. Scaffolding as required to complete the work.
15. Dewatering of work areas.
16. Layout of the work including responsibility for all elevations and dimensions as they affect other Subcontractor's work.
17. Provide masonry or steel lintels either required by this Contract or install loose lintels furnished by others. This shall include attaching the loose lintels to the structure with bolts, fasteners, welding, etc. This Contractor will review the mechanical, plumbing and electrical drawings to determine the quantity and location of lintels that will be required where these utilities pass through masonry walls. This Contractor will coordinate with the Mechanical, Plumbing and Electrical Contractors to establish the layout and elevations before installing lintels.
18. Fill at hollow concrete masonry units. Grout all below grade masonry.

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19. Setting of reinforcing steel in block walls.
 20. Provide Cementitious parging.
 - ~~21. Provide Bituminous Damp proofing (ADDENDUM 5)~~
 - ~~22. Provide Silicone waterproofing. (ADDENDUM 5)~~
 23. Provide Cast stone/limestone work.
 24. Provide temporary protection for final wash down/cleaning of masonry. Provide final cleaning of masonry provided under this contract after completion of erection and after permission is given. Cleaning will be to the satisfaction of CSD/EDiS Company. Protect work of other Bid Categories from contact with cleaner.
 25. Provide cleaning of masonry exterior back-up walls in advance of waterproofing installation by Contract A-10. Prepare masonry substrate for waterproofing installation including filling cracks, removing fins, and removing excess mortar.
 - 26. Include all cost, including toothing, for a temporary opening (10' wide x 10' height) within the exterior wall along column line 1 (C.L.-1), between column lines M.5 (C.L.-M.5) and L.2 (C.L.-L.2). Include a masonry lintel or steel member, and design, to support this temporary opening. In-fill this wall section at the completion of pool construction as directed by EDiS. (ADDENDUM 3)**
 27. Flashing Summary:
 - a. Provide all thru-wall and cavity flashing within masonry walls no matter the substrate: by the Masonry Contractor.
 - b. 2-piece receiver flashing to be installed in masonry walls shall be supplied by the Roofing Contractor to the mason for installation.
 - c. Roofing contractor to provide flashing between termination of metal wall panels and EPDM roofing.
 28. Cutting, fitting and building into masonry work, embedments provided by others.
 29. Provide all acoustical sealants, fire safing fire stopping, and fire continuous sealant at top and bottom of masonry walls as shown on the Partition Types drawings. Also include steel penetrations through masonry walls.
 30. Furnish and install all masonry veneer anchors where required.
 31. Bond beams including reinforcing and fill.
 32. This contractor will be responsible for providing their own dumpster and masonry debris disposal off site.

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33. Provide potable water for masonry work from a mobile source.
 34. Provide portable generators for temporary power needed for the performance of work.
 35. Contractor must provide additional crews as needed to maintain the project schedule.
 36. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate.
(ADDENDUM 5)
 37. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 38. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
 39. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 40. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 - a. Even if this contract is not shown to have responsibilities in the BIM execution and coordination, this contract is to include providing a representative at a minimum of six (6) BIM Coordination meetings.
 41. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
 42. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 60 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
 43. Provide a \$30,000 allocation to be used at the discretion of the Construction Manager.
 44. Provide all mortar, grout, ladders, weeps, in-wall flashing, mortar nets, anchors, brick ties, lintels.
 45. **Provide, and include all cost, for concrete wash out dumpsters for this contract scopes of work. Concrete dumpsters to include liner to prevent runoff. Include immediate clean-up of all runoff. Relocate as required by EDiS. Remove this item at conclusion of project. (ADDENDUM 4)**

CONTRACT NO. A-05 - STRUCTURAL STEEL & MISCELLANEOUS METALS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 051200	Structural Steel
Section 052100	Steel Joists
Section 053100	Steel Deck
Section 055000	Metal Fabrications
Section 055100	Metal Stairs
Section 055133	Metal Ladders
Section 055213	Pipe and Tube Railings

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide structural steel, trusses, joists and metal floor and roof decking. Provide acoustical decking and associated insulation.
 - a. Coordinate pour stop locations with BIM Design. This contractor to receive as-builts of the installed foundations to coordinate final locations of the pour stop prior to shop installation.
2. Provide stairs, loose lintels, handrails, railings, steel ladders and accessories.
3. Furnish loose steel lintels, angles, plates, anchor bolts, leveling plates, and embedded items to the Concrete and Masonry contractors. Supply loose steel lintels to the mason for the mock-up wall if required.
4. Field check all anchor bolts prior to beginning erection.
5. Remove, modify, and replace the plywood covers installed by the Carpentry Contractor at all diamonds during the erection of steel as required to meet OSHA requirements.
6. Miscellaneous rough hardware, iron shapes, framing and support angles.
7. Provide masonry or precast anchors welded to steel columns and beams. This Contractor shall fabricate, weld and install all reinforcing anchors that connect the structural steel to the masonry systems whether they are field welds or shop welds. Provide all shop fabrication, field installation and field welding regardless of the weld symbols. Conditions that require in field welding and assembly are the responsibility of this Contractor. Field coordination with

the masonry installer will be this Contractor's responsibility.

8. Provide Pipe bollards.
9. Provide Stair nosings.
10. Provide Gratings.
11. Provide Roof screens, supports and grillage.
12. Provide Overhead door frames.
13. Provide Toilet partition supports. Provide restroom sink supports.
14. Provide Ships ladders.
- ~~15. Provide decorative metal railings. Include associated glass. (ADDENDUM 5)~~
16. Galvanizing, as required.
17. Provide Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items.
- ~~18. Provide all dunnage steel assemblies. (ADDENDUM 5)~~
19. Provide all support steel framing for roof mounted equipment.
20. Provide steel framing at all openings in concrete slabs. Include framing at all MEP chase and duct penetrations, including where not indicated on structural drawings.
- ~~21. Provide all steel framing at the Aquarium feature within the Lobby. Reference sheet A-512. (ADDENDUM 3)~~
22. Field touch-up paint.
23. No electrical power for welders will be provided.
24. Verify field dimensions.
25. Roof sump pans and related work.
26. Framing out for openings (roof drains, mechanical openings, access hatches, skylight, stairs, etc.). Assume opening frames will be field installed. All openings greater than 12 inches shall be reinforced with angle framing according to details on the structural drawings.
27. Prime paint systems, galvanizing, and related finishing of steel items, including touch up.

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- a. Coordinate steel priming with spray fireproofing requirements. Do not prime steel that is scheduled to receive spray fireproofing.
 28. Masonry or precast anchors welded to steel columns and beams.
 29. Supply and install shear studs.
 30. Furnish, install, maintain and remove perimeter safety steel cables at all floor and roof levels to conform with all OSHA standards for all trades. Provide safety steel cables at mechanical and electrical chases, stair openings, atriums, etc. This Contractor shall include the maintenance portion of the perimeter cables. Costs to maintain the perimeter cables shall be taken from the allocation listed below and will be allocated by the Construction Manager on a time and material basis. All remaining allocation shall be returned to the Owner at completion.
 31. The Steel Contractor will own all connections to masonry whether they are field welds or shop welds. Conditions that require in field welding and assembly are the responsibility of this Contractor. Field coordination with the masonry installer will be this Contractor's responsibility.
 32. All steel testing will be the responsibility of the Construction Manager, however, this Subcontractor will cooperate with the testing agency in the inspection at the fabrication shop and in the field.
 33. Layout, installation and alignment of attachments at the slab edge condition.
 34. Provide data and submittal information related to the Scope of this Contract signed and sealed by a Professional Engineer as required by the Contract Documents.
 35. This Contractor shall include all necessary staging, rigging, matting and remobilizations to accommodate this erection sequence.
 36. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
 37. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 38. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
 39. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be incorporated into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

40. Contractor must provide additional crews as needed to maintain the project schedule.
41. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 - a. Even if this contract is not shown to have responsibilities in the BIM execution and coordination, this contract is to include providing a representative at a minimum of six (6) BIM Coordination meetings.
42. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
43. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 60 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
44. Provide a \$25,000 allocation to be used at the discretion of the Construction Manager.
- ~~45. Provide all support steel, cold formed members, and bracing per detail 18/S 303 to support patient lift systems by others. Coordinate installations with ceilings and general carpentry contractors. (ADDENDUM 4) (ADDENDUM 5)~~

CONTRACT NO. A-06 - CARPENTRY AND GENERAL WORK

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 061000	Rough Carpentry
Section 062000	Finish Carpentry
Section 077100	
Section 080671	Door Hardware Schedule
Section 081113	Hollow Metal Doors and Frames
Section 081416	Flush Wood Doors
Section 081613	Fiberglass Doors
Section 083323	Overhead Coiling Doors
Section 087100	Door Hardware
Section 101100	Visual Display Units
Section 101400	Signage
Section 101419	Dimensional Letter Signage
Section 102113.19	Plastic Toilet Compartments
Section 102123	Cubicle Curtains and Track
Section 102239	Folding Glass-Panel Partitions
Section 102600	Wall and Door Protection
Section 102800	Toilet, Bath, and Laundry Accessories
Section 104400	Fire Protection Specialties
Section 105126	Plastic Lockers
Section 105613	Metal Storage Shelving
Section 107316.13	Metal Canopies
Section 111313	Loading Dock Bumpers
Section 113013	Residential Appliances
~~Section 116623~~	~~Gymnasium Equipment(ADDENDUM 4)~~
Section 117200	Examination And Treatment Equipment
Section 117311	Patient Lifts
Section 122400	Window Shades

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide labor and materials to perform the work related to all carpentry and general work.
2. All rough carpentry related to the exterior skin of the building including wood nailers and blocking. This Contract A-06 : Carpentry is to provide wood blocking at the exterior walls including wood nailers and blocking for windows, doors, louvers, sills, and other openings. This contract to also provide all blocking integral to the roof and wall assemblies (including but

not limited to roof parapet blocking, roof blocking, roof curbs blocking, blocking at the mansards, and blocking at curbs). Plywood sheathing at exterior walls is to be provided by Contract A-13 : Metal Studs & Drywall.

- a. This contractor to coordinate with roof design and provide sufficient wood blocking to meet designed thickness of roof and insulation based upon required slopes. No additional funds will be provided for additional blocking based upon roof thickness.
3. All rough carpentry related to the interior of the building including blocking, wood nailers, etc. for the installation of fire extinguishers, railings, doors, windows, toilet accessories, cabinets, toilet partitions, casework, millwork, markerboards/tackboards, televisions/monitors, gym equipment, etc. including fire treating, as required. Include whether or not shown on project documents.
4. Install hollow metal, acoustical metal doors, integrated door opening assemblies, **fiberglass doors**, and wood doors, frames, vision panels, and finish hardware (Including receipt of doors, frames, and hardware at the curb side) Contract A-11 : Doors Frames Hardware Supply will be furnishing the doors, frames, and hardware. Install Key Control Cabinet. **(ADDENDUM 3)**
5. Provide Knox boxes to be installed at the building entrances where required by local fire department.
6. Install finish hardware at hollow metal, integrated door opening assemblies, acoustical metal doors, **fiberglass doors**, , and wood doors. Hardware to be supplied by Contract A-11: Doors Frames Hardware Supply will and installed by this Contract A-06. This Contract A-06 is responsible for coordinating door hardware with their work to ensure each opening is properly prepped for hardware being supplied by Contract A-11 : Doors Frames Hardware Supply. All low voltage wiring within the doors and frames is to be installed by this contract A-06. Conduits and raceways within walls by the electrical contractors. Electrical contractor to install power supply and make final power connections. Final connections of low-voltage wiring to hardware to be provided by special systems contractor. **(ADDENDUM 3)**
7. This contractor to accept curbside delivery and perform and document an inventory of all doors frames and hardware. Doors, frames, and hardware are to be stored in a locked classroom designated by the construction manager. This contract A-06 is to advise immediately on any missing or damaged materials in the inventory.
8. Install hold open closers with fire alarm interface: Power wiring by Electrical Contractor. Fire alarm ties in by Electrical Contractor.
9. Coordinate card reader requirements with electrical hardware.
10. Provide overhead coiling doors and coiling grills.
11. Provide exterior metal canopies. Include delegated-design.
12. Keying coordination for all lock sets (Hollow Metal, Wood Doors, Overhead Doors & Grilles,

Aluminum Entrances). Replace all construction cylinders with permanent cylinders. Install key control cabinet and organize keys according to this key control system.

13. Coordinate electrical requirements with any automatic door operations (include overhead). Provide low-voltage wiring required for overhead doors and grilles and automatic door operations.

14. Provide field assistance to Electrical and Glazing Contractors.

15. All field trimming required to adjust to existing conditions.

~~16. Provide coat hooks, as specified in Section 062000, mounted on 1x10 (nominal) poplar backboard with beveled edges, painted to match adjacent surfaces.(ADDENDUM 5.)~~

~~17. Provide adjustable shelving (shelves, brackets, standards).(ADDENDUM 5.)~~

18. Install smart televisions and brackets provided by owner.

~~19. Provide Architectural Louvers and grilles.(Addendum 3.)~~

20. Provide Residential appliances, include all hardware for complete connection to utilities.

21. Provide gymnasium wall padding and hardware (gymnasium equipment). Provide cutouts for all wall mounted devices.

~~22. Provide CFRC decorative columns and cornices. Provide caulking of CFRC column covers cornices to adjoining materials. Provide primers, bond breakers, and joint backers. Clean, prime, and prepare surfaces before application of caulks and sealants in accordance with specifications and manufacturer's recommendations. (ADDENDUM 4)~~

~~23. Provide architectural metal column covers. (ADDENDUM 5.)~~

~~24. Provide exterior PVC railings. (ADDENDUM 5)~~

~~25. Provide new vertical wheelchair lifts complete. Electric service and disconnect switch for the lifts are the responsibility of the Electrical Contractor. All other control wiring, as specified, will be the responsibility of this Contractor.(ADDENDUM 4)~~

26. Provide Lift Equipment in Restrooms and Nurses Areas.

27. Provide all examination and treatment equipment.

28. Provide all cubicle curtain and track assemblies.

29. Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items.

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30. Provide plywood covers on at all diamonds where steel columns are to be installed. These covers shall be installed immediately following the placement of concrete slabs on grade. Remove and dispose of plywood covers following installation of concrete within the diamonds.
 31. Provide temporary wood safety barricades including toe-kicks at all floor and roof openings.
 32. **Include all cost for a temporary door at an opening (10' wide x 10' height) within the exterior wall along column line 1 (C.L.-1), between column lines M.5 (C.L.-M.5) and L.2 (C.L.-L.2). Doors to be lockable, insulated, and weather resistant. Include coordination with the masonry contractor. Demo this temporary assembly as directed by EDiS.**
 33. Provide and maintain temporary wood railing and handrail at stairs. Provide wood infill of stair and landing pans.
 34. Provide an exterior located temporary scaffold-stair system to provide access to all floors and the roof from grade. Scaffold is to be raised above the roof parapet with an extended landing to provide safe access and egress to the roof. Roof landing is to be installed utilizing screw jacks to allow the support to be modified during roof installation. Bottom floor of scaffold is to be provided with 8' tall plywood walls around the perimeter and a plywood door with hinges and a hasp for locking. Access is to be maintained until contractor is directed to remove by EDiS. Provide additional similar scaffolding on top of the roof to access all roof elevations. Include removal at the request of EDiS.
 35. Provide screening around perimeter of all floors above ground level for falling object protection. Screening shall be erected from the walking/working surface or toe-board to the top of a guardrail system's top rail, for a distance sufficient to protect employees below. The material shall be designed and manufactured with a specialized double-strand configuration, as well as an ultraviolet protective coating. It shall be designed to withstand wind, rain, sun, and other potentially hazardous environmental conditions, and shall be compliant with all applicable OSHA 1926 Subpart M regulations. The netting shall have a Reinforced border with a Flame Retardant coating, UV resistant, orange in color and a minimum of 48 inches (4') in height. Openings in netting shall not exceed ¼ inch.
 36. Provide wood safety barricades to extend top of roof parapets to OSHA required height during construction. Coordinate removal and replacement of wood safety barricades with metal wall cap installation.
 37. Provide wood blocking as needed in the mock-up wall installation (1 mock-up wall per bid package for a total of 2 mock-up walls to be constructed).
 38. Demolish and remove all temporary installations (excluding mock-up wall installation by Sitework contractor).
 39. This Subcontractor shall at a minimum provided, maintained, and inspected for the length of the project, one temporary fire extinguisher for each 3,000 sq. ft of the protected building area.

Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet. In multistory buildings, at least one fire extinguisher shall be located adjacent to stairway. Fire extinguishers shall be at least 10lb, Multi-Purpose (ABC) dry chemical, UL labeled, with a rating of 3a:40bc.

40. Provide temporary weather protection in all window and door openings at the exterior walls. Protection is to consist of wood blocking and reinforced poly with 8' tall plywood at first floor levels. Provide wood barricades with plywood door and locking hasp at all first floor door openings.
41. Provide wood blocking as needed in the mock-up wall installation.
42. Provide all specialties listed within this contract.
43. Provide all wood wall panel and acoustic wood wall panel system assemblies. Include all accessories, hardware, trim, furring strips, mineral wool, etc.
44. Provide White boards, Markerboards (including glass markerboards), Chalk boards, tack boards, and tack strips. Provide tackable wall panels. Include any blocking required on the face of the wall to maintain a level mounting surface with the tile wainscot.
45. ~~Provide Display cases. (ADDENDUM 5.)~~
46. ~~Provide Projection screens. Electric service is the responsibility of the Electrical Contractor. All other control wiring, as specified, will be the responsibility of this Contractor. (ADDENDUM 5.)~~
47. Provide Lockers. Coordinate base requirements with Contract A-03 : Concrete. Provide locker room benches.
48. Provide dock bumpers ~~and loading dock equipment. (ADDENDUM 5.)~~
49. ~~Provide wardrobe and closet specialties. Wall mounted hooks to be provided by the carpentry contractor. (ADDENDUM 5.)~~
50. Provide Fire extinguishers, cabinets and accessories.
51. ~~Provide fire blanket cabinets. (ADDENDUM 5.)~~
52. Provide operable partitions, folding partitions and cubicle curtains. Coordinate any structural requirements with the structural steel and carpentry contractors. Provide all supplementary steel as needed to hang partitions from structural support steel, provided by the Structural Steel Contractor. It is assumed, no additional steel will be required below structural support steel. If so, it will be provided by this contractor.
53. Provide Signage (interior and exterior). ~~Provide plaques. (ADDENDUM 5.)~~

54. Provide Toilet partitions. Coordinate any structural requirements with the structural steel contractor. Include any blocking required on the face of the wall to maintain a level mounting surface with the tile wainscot.
55. Provide Toilet and bath accessories.
56. Provide all classroom accessories: tackboards, whiteboards, paper towels, soap dispensers.
57. Provide Mirrors (both framed and frameless). Include any blocking required on the face of the wall to maintain a level mounting surface with the tile wainscot. (ADDENDUM 5)
58. Provide hand dryers, including the stainless steel panels beneath each hand dryer.
59. Provide wall and corner protection. Including FRP Paneling.
60. Provide defibrillators and cabinets. A total of 5 are required. (ADDENDUM 5)
- ~~61. Provide goggle cabinets as specified in Section 104400.~~
62. All materials provided under this contract are to be stored by this contractor until delivery is requested. Material to be delivered to the site and off loaded by this contractor's forces. Deliveries to correspond to the construction schedule. Provide 48 hour notice prior to delivery.
63. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
64. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
65. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
66. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
67. Contractor must provide additional crews as needed to maintain the project schedule.
68. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 - a. Even if this contract is not shown to have responsibilities in the BIM execution and coordination, this contract is to include providing a representative at a minimum of six (6) BIM Coordination meetings.

69. BIM Coordination: This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
70. Provide pricing for all alternates as described in Section 012300-Alternates.
- a. Contractor is to guarantee all alternate pricing for 60 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
71. Provide a \$50,000 allocation to be used at the discretion of the Construction Manager.
- 72. Provide patient lift systems and support assemblies Coordinate installations with ceilings and structural steel contractors. (ADDENDUM 4)**
- 73. Provide all window shades. (ADDENDUM 4)**
- 74. Provide field Mock up as required. (ADDENDUM 4)**
- 75. Provide the complete exterior signage assembly ("Monumental sign") referenced on A-811. Include all framing, metal top plate, sealants, weather barriers, sheathing, pin letters, stucco. Foundations, masonry, cast stone, electric, and lighting are by others. (ADDENDUM 4)**
- 76. Provide (13) medical kits. (ADDENDUM 5)**
- 77. Provide wood framed knee-wall assemblies at roof separation walls. Include insulation. (ADDENDUM 5)**

CONTRACT NO. A-07 – ROOFING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
~~Section 074113~~	~~Metal Roof Panels~~ (ADDENDUM 3)
Section 075300	Elastomeric Membrane Roofing
~~Section 075419~~	~~Polyvinyl Chloride Roofing~~ (ADDENDUM 3)
Section 076200	Sheet Metal Flashing and Trim
Section 077100	Roof Specialties
Section 077123	Manufactured Gutters and Downspouts
Section 077200	Roof Accessories
Section 078400	Firestopping
Section 079200	Joint Sealants

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all roofing systems, including rigid and tapered insulation and all related accessories.
2. Provide standing seam roofing system.
3. This Subcontractor shall carefully review the edge of roof details to determine if the roof can be placed before the exterior wall assembly is complete. This Subcontractor shall include all costs associated with returning to the jobsite to complete the roof perimeter after wall assembly is complete.
4. Caulking related to roofing, flashing and roof accessories.
5. Provide waterproof seals around lightning protection system as required by roof manufacturer requirements. If locations of lightning protection conduits are not clearly shown on the roof plan, include an allowance to seal one penetration for every 1000 sf of roof area.
6. Roof drains and associated plumbing shall be provided by the Plumbing Subcontractor. Flashing of the roof drains shall be by the Roofing Subcontractor. Openings for the roof drains in the roofing materials shall be cut by the Roofing Subcontractor. Openings in the metal deck shall be cut by others.
7. Provide all metal copings, fascias, and caps.
8. Provide all roof hatches, including associated roof curbs. Include all associated railings and gates. (ADDENDUM 5)

9. Provide Walk pads.
10. Provide Metal drip edges.
11. Provide Gravel stops.
12. Provide flashing and associated work at Roof curbs provided by others to maintain watertightness and roof warranty.
13. Provide expansion joints that are integral to the roof.
14. Provide all Gutters, down spouts, scuppers, and splash pans.
15. Wood blocking shall be provided by others.
16. Provide Flashing and sheet metal.
17. Complete waterproofing of all penetrations by others. This includes the following at minimum: boots, witches hats, flashing details, pitch pockets, sealants.
18. Flashing Summary:
 - a. Provide all thru-wall and cavity flashing within masonry walls no matter the substrate: by the Masonry Contractor.
 - b. 2-piece receiver flashing to be installed in masonry walls shall be supplied by the Roofing Contractor to the mason for installation.
 - c. Roofing contractor to provide flashing between termination of metal wall panels and EPDM roofing.
19. Contractor must provide additional crews as needed to maintain the project schedule.
20. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
21. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
22. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
23. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

24. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.

25. Provide pricing for all alternates as described in Section 012300-Alternates.

Contractor is to guarantee all alternate pricing for 60 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.

26. Provide a \$20,000 allocation to be used as the discretion of the Construction Manager.

27. Provide field Mock up as required. (ADDENDUM 4)

28. Provide all roof guardrail systems (ADDENDUM 5)

CONTRACT NO. A-08 – WATERPROOFING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 071113	Bituminous Dampproofing
Section 071200	Built-Up Bituminous Waterproofing (ADDENDUM 4)
Section 072500	Weather Barriers
Section 079200	Joint Sealants

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide Foundation waterproofing and Bituminous Dampproofing. Provide waterproofing at all foundations walls (including at inner courtyards). Include costs to install foundation waterproofing in two visits. First visit to install waterproofing up to slab elevation, second visit to return to install remaining waterproofing up wall above slab-on-grade after exterior wall framing and sheathing is installed.
2. Provide fluid applied vapor barrier and water resistive barrier on outside face of exterior walls applied at all locations where shown (vertical and horizontal) behind vertical brick, metal, and stone surfaces and over CMU back-up and exterior sheathing board. This includes all exterior sheathing. Include termination angles as needed for the insulation installation.
3. Contractor must provide additional crews as needed to maintain the project schedule.
4. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
5. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
6. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
7. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

8. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 60 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
9. Provide a \$5,000 allocation to be used at the discretion of the Construction Manager.
- 10. Provide field Mock up as required. (ADDENDUM 4)**

CONTRACT NO. A-09 - EXTERIOR METAL PANELS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 054000	Cold-Formed Metal Framing
Section 072100	Thermal Insulation
Section 074213	Metal Wall Panels
Section 076200	Sheet Metal Flashing and Trim
Section 078400	Firestopping
Section 079200	Joint Sealants

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide metal wall panels and zee furring channels and include all necessary anchoring devices.
2. Provide metal wall panels at underside of entrance canopies. Include any supplemental framing, zee furring channels and include all necessary anchoring devices. Include metal wall flashing where metal panels meet the exterior wall.
3. Coordinate penetrations through metal wall panels with other contractors and cut and seal metal panels around penetrations to provide a finished look as part of the metal wall panel system.
4. Provide Flashing of panels integral with the panel system.
5. Provide Caulking of panels integral to the panel system. Caulking at the perimeter of the metal wall panel system and adjoining materials to be provided by Contract A-10 : Joint Sealants.
6. Miscellaneous metal items necessary to support panels other than required structural steel.
7. Furnish anchorage items for embedding into other construction for support of panels.
8. Touch up of all welding.
9. Provide Galvanized, epoxy or stainless steel, etc. anchors as specified.
10. Provide metal fascias related to the panel system. Copings at the top of the roof parapet to be provided by Contract A-07 : Roofing.
11. Provide Waterproofing and insulation integral to the panel system.

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12. This Subcontractor shall coordinate his shop drawings with the Window Subcontractor's shop drawings.
 13. Verification of field dimensions is the responsibility of this Subcontractor.
 14. Contractor must provide additional crews as needed to maintain the project schedule.
 15. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
 16. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 17. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
 18. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 19. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 20. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
 21. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
 11. Provide a \$10,000 allocation to be used at the discretion of the Construction Manager.
 12. Provide coordinated mock-up system.

CONTRACT NO. 10 – JOINT SEALANTS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 07 84 00	Firestopping
Section 079200	Joint Sealants

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all joint sealants throughout the project
2. Provide caulking or sealants at the following locations, both interior and exterior, as shown on the drawings or as described in the specifications:
 - a. Masonry (i.e. brick, block, stone, cast stone, pre-cast concrete) to adjoining materials
 - b. Masonry to masonry
 - c. Hollow metal frames to adjoining materials including at base of door frames to floor. (ADDENDUM 5)
 - d. Interior aesthetic caulk bead of exterior windows to adjacent materials (drywall, sills, etc.). Perimeter of all interior windows and storefronts, to adjoining materials.
 - e. Concrete slab control joints, expansion joints, isolation joints, and perimeter slab joints (ADDENDUM 4)
 - f. Exposed non-fire rated drywall to adjoining materials
 - g. Vented painted metal soffit to adjoining materials (ADDENDUM 5)
 - h. Metal Wall Panels to adjoining materials.
 - i. Column covers to adjoining materials
 - j. Ceramic Tile Walls and floors to adjoining materials.
3. Examine the areas and conditions where joint sealers are to be installed and correct any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions are corrected to permit proper installation of the work.
4. Provide primers, bond breakers, and joint backers. Clean, prime, and prepare surfaces before application of caulks and sealants in accordance with specifications and manufacturer's recommendations.
5. Provide mock-ups. Provide adhesion test for exterior caulk.
6. Provide caulking required for mock-up wall construction.

7. Provide custom colors of caulks and sealants
8. The following caulking or sealants are furnished and installed by others:
 - a. Fire and acoustical sealants associated with drywall partitions will be by the Metal Studs & Drywall Contractors
 - b. Fire and acoustical sealants associated with masonry partitions will be by the Masonry Contractors
 - c. Fire and acoustical sealants associated with mechanical, electrical, plumbing, fire protection, and communications systems is by the Contractor who made the penetration.
 - d. Caulking and sealants associated with roofing
 - e. Caulking of mechanical, electrical or plumbing fixtures and equipment will be by the Contractor installing the fixture or equipment
 - f. Caulking of casework and trim by installer
 - g. Caulking or sealants integral/within windows, storefronts, curtain walls.
 - h. Caulking of joints in ceramic tile walls and flooring will be by the installer
 - i. Caulking or sealants between all exterior windows, storefronts, and curtainwalls and adjacent surfaces.
9. Protection of adjacent surfaces.
10. Clean up.
11. Attic stock.
12. Contractor must provide additional crews as needed to maintain the project schedule.
13. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
14. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
15. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
16. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be incorporated into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
17. Contractor must provide additional crews as needed to maintain the project schedule.

18. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
19. Provide \$5,000 allowance to be used at the discretion of the Construction Manager.

20. Provide field Mock up as required. (ADDENDUM 4)

21. Provide sealant between the top of ceramic tile base or wainscot to adjacent drywall finish. Sealant between ceramic tile and ceramic tile will be provided by the Ceramic Tile contractor. (ADDENDUM 4)

CONTRACT NO. A-11 - DOORS, FRAMES, AND HARDWARE SUPPLY

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 081113	Hollow Metal Doors and Frames
Section 081416	Flush Wood Doors
Section 081613	Fiberglass Doors ADDENDUM 5)
Section 080671	Door Hardware Schedule
Section 087100	Door Hardware
Section 088000	Glazing

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Furnish only **all** hollow metal, integrated door opening assemblies, acoustical metal doors, and wood doors, frames, vision panels, **hollow metal window frames**, finish hardware **(ADDENDUM 5)**
2. Do not include supply of aluminum entrances. Supply finish hardware for all entrances (hollow metal, wood, and sound control). FRP and aluminum entrance hardware will be supplied by Contract A-12 : Glass & Glazing. Turn over all other hardware to Contract A-06 : Carpentry & General Works on site for installation in hollow metal and wood entrances.
3. Supply Automatic Door Operators as specified in the hardware schedule.
4. Supply hold open closers with fire alarm interface: Power wiring by Electrical Contractor. Fire alarm ties in by Electrical Contractor.
5. Keying. All lock sets, including aluminum and FRP. Provide Owner with copy of pin schedule. Provide key control cabinet as specified.
 - a. Provide new cylinders for overhead doors, coiling doors, and sliding fire doors keyed to master system.
5. Construction cylinders.
6. All material to be stored by this Subcontractor until delivery is requested. Material to be delivered to the site and off loaded by others.
7. Deliveries to correspond to the construction schedule.

8. Provide field assistance to Electrical, Special Systems, Glazing, and Carpentry Contractors.
9. Coordinate electrical requirements with any automatic door operations.
10. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
11. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
12. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
13. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages."
18. Provide a \$5,000 allocation to be used at the discretion of the Construction Manager.
19. Furnish all fiberglass doors and frames. (ADDENDUM 5)

CONTRACT NO. A-12 – GLASS AND GLAZING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 076200	Sheet Metal Flashing & Trim
Section 079200	Joint Sealants
Section 080671	Door Hardware Schedule
~~Section 081613~~	~~Fiberglass Doors (ADDENDUM 3)~~
Section 083400	Surface Mounted Sliding Door System
Section 084229	Automatic Entrances
Section 084313	Aluminum-Framed Storefronts
Section 085653	Security Windows
Section 086300	Metal Framed Skylights
Section 087100	Door Hardware
Section 088000	Glazing
~~Section 102239.13~~	~~Folding Glass Panel Partitions~~

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide windows, curtain wall, FRP, storefront, glass and glazing systems.
 - a. Provide perimeter trim at windows and storefronts with receiver piece for perimeter caulk bead (minimum 3/8" deep). If not included in factory supplied trim, include frame extenders to provide this receiver for caulk.
2. Provide manual aluminum door systems and handling.
3. ~~Provide all folding glass panel partition systems.~~
4. Provide automatic aluminum door systems and associated hardware including automatic door operators.
5. Provide Aluminum Doors, frames, and hardware. Include Construction Cores. Final Keying for Aluminum doors will be supplied by Contract A-11 : Doors/Frames/Hardware Supply and installed by this Contract A-12. This Contract A-12 is responsible for coordinating door hardware with their Aluminum entrances to ensure each opening is properly prepped for hardware. All low voltage wiring within the aluminum doors and frames is to be installed by this Contract A-12. Conduits and raceways within walls by the electrical contractors. Electrical contractor to install power supply and make final power connections. Final connections of low-voltage wiring to hardware to be provided by special systems contractor.

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6. Provide Glazed Interior Wall and Door Assemblies including hardware.
 7. Provide spandrel panels and associated insulation behind the panels.
 8. Provide all glass and glazing at the interior and exterior of the building.

9. Provide all skylights and curbs. (ADDENDUM 3.)

10. Provide Interior door, partition, vision panel and window glass.
11. Provide safety and security films where indicated.
12. Provide all applied window graphics.
13. Provide Caulking related to interior glazing.
14. Supply Automatic Door Operators as specified in the hardware schedule.
15. Provide all sealants integral to windows, storefronts, and curtain wall systems. This contract A-12 : Glass and Glazing is to provide all sealants (primary and secondary) between all exterior windows, storefronts, and curtainwalls and adjacent surfaces prior to installation and finishing of interior drywall. The aesthetic bead of caulk from the inside face of exterior windows, storefront, and curtainwalls A-10 : Joint Sealants. The sealants must be smoke, fire or sound rated depending on the adjacent wall construction.

Sealants between all interior set windows and storefronts and adjacent materials is to be provided by Contract A-10 : Joint Sealants.

16. Do not provide interior hollow metal or hardware. These items will be provided by others.
17. Coordinate glass types with partition and door fire ratings. Contact Construction Manager with any discrepancies.
18. Provide windows for mock-up wall including flashing and accessories required to provide a complete installation
19. Provide Custom break metal trim and infill.
20. Hoisting/scaffolding related to the work of this Contract.
21. Coordinate edge of slab tolerances and field verify all rough openings.
22. Provide delegated design, data and submittal information related to the Scope of this Contract signed and sealed by a Professional Engineer as required by the Contract Documents.
23. Contractor must provide additional crews as needed to maintain the project schedule.

24. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
25. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
26. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
27. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
28. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
29. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
30. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages."
34. Provide a \$15,000 allocation to be used at the discretion of the Construction Manager.

CONTRACT NO. A-13 – METAL STUDS AND DRYWALL

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 054000	Cold-Formed Metal Framing
~~Section 054400~~	~~Cold Formed Metal Trusses~~ (ADDENDUM 3)
Section 061000	Rough Carpentry
Section 072100	Thermal Insulation
Section 072500	Weather Barriers
Section 078400	Firestopping
Section 079200	Joint Sealants
Section 083100	Access Doors and Panels
Section 092116	Gypsum Board Assemblies
Division 21	Fire Protection
Division 22	Plumbing
Division 23	Mechanical
Division 26	Electrical

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide metal studs, insulation, gypsum wallboard, exterior sheathing (plywood, densglass, asphalt fest, Tyvek, etc), taping, spackling, plaster and stucco.
 - a. Contractor is to include providing and finishing moisture resistant drywall at the top of all interior walls prior to roof completion to allow for installation of ductwork.
2. Provide all metal stud and cold-formed metal stud walls, partitions, ceilings, parapets, soffits, headers, etc.
3. Provide all acrylic modified finish and vapor barrier systems at exterior walls and soffits.
4. Provide all metal stud framing required to back up EIFS, brick, etc.
5. Provide all bullet-resistant panel assemblies.
6. Provide all cold formed steel truss assemblies. Include delegated design.
7. Provide Engineered shop and installation drawings.
8. Provide structural stud assembly for the exterior skin of the building.

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9. Frame openings in stud walls for all duct penetrations. Utilize the coordinated BIM model and/or approved duct shop drawings.
 10. Provide metal furring. Zee furring channels supporting the metal wall panels is to be provided by Contract A-09.
 11. Provide structural metal stud back-up wall for the mock-up wall.
 12. Provide air barrier, water resistive barrier, and insulation on outside face of exterior walls where spray polyurethane foam insulating air barrier is not indicated.
 13. Provide water resistive barrier sheet on exterior walls under exterior cladding where indicated.
 14. Steel stud construction related to the roof parapet construction and roof screens.
 15. Steel stud construction related to framing out for openings in exterior walls.
 16. Provide secondary support framing.
 17. Clips, anchors, supports and other accessories that interface between steel framing and steel studding.
 18. Provide Wall sheathing (densglass & Plywood), asphalt felts and Tyvek on structural steel studs.
 19. Provide Batt insulation, both thermal and acoustical and related work.
 20. Provide the complete "TYPICAL PARTITION HEAD TERMINATION DETAIL(S)" assemblies shown on A-501.
 21. Provide the complete "1HR RATED CELING @ LAUNDRY ROOM (153B, 155A)" detail shown on A-501.
 22. Provide Plaster and stucco systems.
 23. Include molded shapes.
 24. Provide cementitious backer board for the wall tile installations.
 25. Caulking of exposed non-fire rated drywall to adjoining materials to be provided by Contract A-10 : Joint Sealants.
 26. Provide all acoustical sealants, smoke sealants, firesafing fire stopping, and fire continuous sealant at top and bottom of drywall walls as shown on the Partition Types drawings. Also include steel penetrations through drywall walls. Include fire taping and sealing at perimeter edge and as shown on the Drawings. Provide fire resistant joint systems at floors and walls.

Provide fire barrier at perimeter of slabs-on-deck where they meet either exterior wall systems or curtainwall systems.

27. Provide Exterior Insulated Finish System (EIFS) including all exterior metal studding, insulation, gypsum board, Tyvek, and reglets/trim as shown on drawings.
 - a. Provide EIFS as field applied or panelized.
 - b. Caulking of the following:
 - i. EIFS to EIFS
 - ii. EIFS to Masonry
 - iii. EIFS to Aluminum
 - c. Provide Flashing required at EIFS system.
 - d. Rough blocking built into panelized EIFS is the responsibility of the EIFS Contractor.
 - e. Anchors for supporting EIFS panels.
 - f. Hoisting and scaffolding as required.
 - g. Provide scoring, beads and joints as required and as detailed on the contract documents.
28. Provide exterior PVC trim. Ensure all installations are completed per manufacturer specifications. All trim is to be screwed and capped, no nailing of PVC trim allowed. Provide of exterior PVC trim to adjoining materials. Provide primers, bond breakers, and joint backers. Clean, prime, and prepare surfaces before application of caulks and sealants in accordance with specifications and manufacturer's recommendations.
29. Install Access panels furnished by others.
30. Include filling of all interior hollow metal door frames in drywall where required.
31. Include fire taping and sealing at perimeter edge and as shown on the Drawings.
32. Provide fire resistant joint systems at floors and walls. Include fire barrier between perimeter of floor slabs and exterior assembly.
33. Provide All Corner Guards where integral to the drywall wall assembly.
34. Provide all expansion systems (excluding those integral to the roof assembly which will be provided by Contract A-07 : Roofing). 2-hour fire rated expansion joints for masonry-to-masonry as seen on is to be provided by Contract A-04 : Masonry.
35. Provide Adjustable Partition Closure: Gordon Inc. Window Mate Series 40 Plus
36. Scaffolding and lifts for this work.
37. No power for welding equipment will be provided.
38. Comebacks and out-of-sequence work may be required and as such should be included.

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39. Include all necessary field measurements.
 40. Include point-up of gypsum walls and ceilings following first coat of finish paint.
 41. Include two (2) passes per floor to “touch-up” mechanical penetrations to ensure ratings required. The first pass will be required prior to ceiling grid installation and the second pass will be required prior to final inspection for Certificate of Occupancy.
 42. Include costs to return to rooms following drywall installation and finishing on walls to install and finish drywall at window jambs, heads, sills after storefront, window, curtainwall installation is complete.
 43. Bidders are advised to pay particular attention to top of wall conditions, fire and smoke safing of slabs and acoustical sealants.
 44. Contractor must provide additional crews as needed to maintain the project schedule.
 45. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
 46. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 47. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
 48. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 49. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 50. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
 51. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 180 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
 52. Provide a \$30,000 allocation to be used at the discretion of the Construction Manager.
 - 53. Provide all support steel, cold-formed members, and bracing per detail 18/S-303 to support**

patient lift systems by others. Coordinate installations with ceilings and general carpentry contractors. (ADDENDUM 5)

CONTRACT NO. A-14 - CASEWORK AND MILLWORK

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 062000	Finish Carpentry
Section 064100	Architectural Wood Casework
Section 079200	Joint Sealants
Section 098430	Sound-Absorbing Wall and Ceiling Units
Section 123553.23	Solid-Plastic Laboratory Casework
Section 123600	Countertops
Section 123623.13	Ballistic Rated Countertops (ADDENDUM 3)

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide labor and materials to perform the work related to all casework and millwork.
2. Provide All field trimming required to adjust to existing conditions.
3. Provide All millwork, casework and trim. Including specialty casework.
4. Coordinate power and data requirements and locations with the electrical contractor for locations and sizes of holes needed.
5. Provide P-Lam adjustable shelving on metal brackets (shelves, brackets, standards).
6. Provide all sills and aprons (stools).
7. Provide plywood, wood trim, quartz paneling, wood veneer paneling, and plastic laminate veneer paneling. (ADDENDUM 5.)
8. Provide all countertops and backsplashes.
9. Provide Metal legs supporting countertops.
10. Provide Concealed Countertop Bracket wherever shown. Coordinate installation in wall prior to drywall installation.
11. Coordinate cutting holes in casework with other trades.
12. Coordinate blocking requirements with Contract A-06 : Carpentry & General Works.

13. Provide joint sealers integral to casework/millwork and to dissimilar materials.
14. Contractor must provide additional crews as needed to maintain the project schedule.
15. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
16. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
17. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
18. BIM Coordination: This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
19. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
21. Provide a \$5,000 allocation to be used at the discretion of the Construction Manager.
22. Provide all sound-absorbing wood grille wall and ceiling panel systems. Include all references to "wood wall", "wood wall panel", "acoustic wood wall panel", (ADDENDUM 5)

CONTRACT NO. A-15- CERAMIC TILE

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 079200	Joint Sealers
Section 093000	Ceramic Tiling

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide ceramic tile, porcelain tile, marble tile and thresholds.
2. Provide Porcelain pavers, etc.
3. Provide Setting beds.
4. Provide crack suppression membrane for this tile installation.
5. Provide expansion joints and sealants as required per manufacturers' installation instructions.
6. Provide waterproofing and anti-fracture membrane at all tile locations as specified by the project documents.
7. Provide tile border around mirrors, switches/receptacles, specialties, etc that are located half in and half out of wainscot height.
8. Provide metal trim pieces (schluter strips, etc.) integral to the tile installations. Size Schluter strips according to the tile thickness to ensure no sharp edges of tile are not visible/touchable.
9. Provide metal strips installed as part of the tile installation.
10. Provide vapor retarding sealer prior to tile application.
11. Grout.
12. Provide grout sealant according to manufacturer's directions.
13. Cutting and fitting around work installed by others.
14. Patching and leveling. The cost of this work will be taken out of the contract allocation.

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15. Provide cleaning, waxing and protection. Protection will be with reinforced kraft paper, cardboard, or masonite. Provide protection of finished products until acceptance by Construction Manager.
 16. Attic stock.
 17. Contractor must provide additional crews as needed to maintain the project schedule.
 18. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 19. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
 20. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 21. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
 21. Provide a \$15,000 allocation to be used at the discretion of the Construction Manager.
 22. **Provide all sealants within ceramic tile assemblies. Sealants at top of ceramic tile base or wainscot to drywall is by the Joint Sealants contractor. (ADDENDUM 4)**

CONTRACT NO. A-16 - ACOUSTICAL CEILINGS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 072100	Thermal Insulation
Section 074213	Metal Wall Panel (ADDENDUM 5)
Section 083100	Access Doors and Panels
Section 095100	Acoustical Ceilings
Section 095423	Linear Metal Ceilings
Section 098430	Sound-Absorbing Wall and Ceiling Units

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide acoustical panel ceilings, suspension system and hangers.
2. Provide all suspended ceiling systems.
3. Provide all linear metal ceiling systems.
4. Acoustical lay in insulation blankets above ceiling where required by Specifications or Drawings.
5. Supplemental suspension hangers at large ducts above ceilings and at openings for lighting fixtures.
6. Continuous acoustical sealant on back of vertical leg before installing moldings where required by the project documents.
7. Furnish and install hold down clips where required by governing regulations for fire resistant ratings.
8. Provide acoustical wall treatments, sound absorbing wall units, and fabric covered acoustical panels
9. Provide Expansion joints integral to ceiling systems. Include per manufacturer requirements, even where not shown indicated on project documents.
10. Reflected ceiling layout, including field verification of existing conditions. Inform the Construction Manager if existing conditions differ from Drawings and Specifications.
11. This Subcontractor shall cut openings in ceilings for sprinkler heads, lights, mechanical diffusers

and grilles, etc.

12. Attic stock.
13. Contractor must provide additional crews as needed to maintain the project schedule.
14. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
15. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDis will not be responsible for any lost tools, materials or equipment.
16. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
17. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
18. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
19. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
18. Provide a \$15,000 allocation to be used at the discretion of the Construction Manager.

CONTRACT NO. A-17 - PAINT AND WALLCOVERINGS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 079200	Joint Sealants
Section 099000	Paints and Coatings
Division 22	Plumbing
Division 23	Mechanical
Division 26	Electrical

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all painting and vinyl or fabric wall covering (all walls and ceilings indicated on the finish schedule).
2. Provide all wall coverings and “applied wall graphics”.
3. Paint all exposed block work and concrete work as shown on the room finish schedule and required by the specifications. Include cleaning and prep of these surfaces prior to painting.
4. Prime, stain or seal all wood trim and doors.
5. Clean, Prime, and Seal exposed concrete slabs where shown.
6. Paint Steel Lintels above doors and windows both interior and exterior.
7. Paint exposed piping, ductwork, and equipment (sprinkler, plumbing, electrical) in accordance with the Drawings and Specifications. Include exterior coating for exposed piping and ductwork on roof and in Utility Yard.
8. Paint exposed ceilings and structures in accordance with the Drawings and Specifications.
9. Provide supplementary ventilation as required in enclosed spaces.
10. Paint all hollow metal frames and doors as shown on the door schedule. Paint all hollow metal window frames. Include light sanding of all hollow metal frames, as needed, prior to painting. Include caulking of all door frames to adjacent surfaces included flooring. (ADDENDUM 5)
11. Paint metal stairs and railings.

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12. Provide labeling of fire rated walls as required by IBC as stated below:
 - a. Where there is an accessible concealed floor, floor-ceiling or attic space, 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 stenciling in the concealed space. Such identification shall:
 - i. Be located within 15 feet (4572 mm) of the end of each wall and at intervals not exceeding 30 feet (9144 mm) measured horizontally along the wall or partition.
 - ii. Include lettering not less than 3 inches (76 mm) in height with a minimum 3/8-inch (9.5 mm) stroke in a contrasting color incorporating the suggested wording, "FIRE AND/OR SMOKE BARRIER—PROTECT ALL OPENINGS".
 13. Prefinished items will not be painted by this Subcontractor, unless otherwise noted.
 14. Paint all semi-exposed wood blocking as indicated on the drawings.
 15. Provide all wall mounted way finding stripes.
 16. Protection of adjacent surfaces.
 17. Minor patching prior to application of finishes.
 18. Clean up.
 19. Attic stock.
 20. Final coat of paint is to be installed after ceilings are installed, if directed by Construction Manager.
 21. Contractor must provide additional crews as needed to maintain the project schedule.
 22. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 23. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
 24. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 25. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt

of all bid packages.

30. Provide a \$30,000 allocation to be used at the discretion of the Construction Manager.

31. Prep, prime, and paint all exposed and above ceiling structural steel elements, columns, beam, miscellaneous metal work, roof deck, light gauge framing, suspension cables, unistrut, and similar items. Prep, prime, and paint all exposed and above ceiling fire protection, plumbing, mechanical, electrical, low voltage, data cabling infrastructure that is not factory finished.
(ADDENDUM 5)

CONTRACT NO. A-18 – FLOORING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 090561	Common Work Results Flooring Prep
Section 096500	Resilient Flooring
Section 096566	Resilient Athletic Flooring
Section 096800	Carpeting
Section 124813	Entrance Floor Mats and Frames

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide flooring in accordance with the finish schedule and specifications.
2. Prepare subfloor for finished flooring including leveling and patching. Base bid shall include all flashing patching and surface preparation required to perform the work of this Contractor.
3. Provide all resilient flooring and base systems.
4. Provide all resilient athletic flooring (RAF) and base systems. **Include all graphics, game lines , and logos. (ADDENDUM 4)**
5. Provide all carpeting.
6. Provide vinyl, rubber, and resilient bases as detailed on the finish schedule and plans. This includes the toe kicks at casework.
7. Provide all transitions and reducer strips at edges of flooring.
8. Provide cleaning, waxing, and protection. Protection will be with reinforced kraft paper, cardboard, or Masonite
9. Provide all walk-off-mats (WOM).
10. Provide rubber and vinyl stair treads and risers. Provide rubber and vinyl nosings. Provide rubber tiles at landings. Include Schluter metal trim.
11. Seaming diagrams.

12. Attic stock.
13. Contractor must provide additional crews as needed to maintain the project schedule.
14. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
15. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
16. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
17. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
17. Provide a \$15,000 allocation to be used at the discretion of the Construction Manager.

CONTRACT NO. A-19 : FLUID-APPLIED FLOORING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 3	Concrete
Section 079200	Joint Sealants
Section 090561	Common Work Results Flooring Prep
Section 096700	Fluid-Applied Flooring

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide fluid-applied flooring and integral base.
2. Provide mock-ups as required by plans and specifications.
3. Provide vapor retarding sealer prior to resinous floor application, as required by specifications or manufacturer's installation instructions.
4. Cutting and fitting around work installed by others.
5. Patching and leveling.
6. Provide cleaning, waxing and protection. Protection will be with reinforced kraft paper, cardboard, or Masonite. Provide protection of finished products until acceptance by Construction Manager.
7. Provide crack suppression membrane for this epoxy installation as required by the project documents.
8. Include all control joints and expansion joints per manufacturer requirements and project details.
9. Provide metal strips installed as part of the epoxy installation.
10. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
11. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

12. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
13. Contractor must provide additional crews as needed to maintain the project schedule.
14. Provide pricing for all alternates as described in Section 012300-Alternates.
15. Provide \$5,000 allowance to be used at the discretion of the Construction Manager.

CONTRACT NO. A 20 – WINDOW TREATMENTS

~~A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:~~

~~• Technical Specification sections:~~

~~Division 0~~	~~Bidding and Contract Requirements~~
~~Division 1~~	~~General Requirements~~
~~Section 061000~~	~~Rough Carpentry~~
~~Section 062000~~	~~Finish Carpentry~~
~~Section 122400~~	~~Window Shades~~

~~This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:~~

- ~~1. Provide Window treatments.~~
- ~~2. Provide window shades and accessories. Include mock up per project specifications.~~
- ~~3. Coordinate blocking requirements with carpentry contractors.~~
- ~~4. Verification of field dimensions is the responsibility of this Contractor.~~
- ~~5. Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items.~~
- ~~6. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.~~
- ~~7. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.~~
- ~~8. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.~~
- ~~9. Contractor must provide additional crews as needed to maintain the project schedule.~~
- ~~10. Provide pricing for all alternates as described in Section 012300 Alternates.~~

~~11. Provide \$5,000 allowance to be used at the discretion of the Construction Manager.~~
CONTRACT NO. A-20 : KITCHEN EQUIPMENT

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 078400	Fire Stopping
Section 079200	Joint Sealers
Section 112100	Commercial Appliances
Section 114000	Foodservice Equipment
Division 21	Fire Protection
Division 22	Plumbing
Division 23	HVAC
Division 26	Electrical

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide food service equipment.
2. Provide all commercial appliances, including in Vocational Kitchen 161.
3. All final connections shall be made by the Electrical and Mechanical Contractors. Provide coordination with Special Systems, Electrical and Mechanical contractor to prevent any additional cost to the Owner.
4. Provide the labor, equipment and materials to uncrate, assemble, install in place, level & plumb and completely install all food service equipment with exception of electrical and plumbing installations which will be completed by others.
5. Any discrepancies between the Drawings, Specifications and site conditions or ambiguities in the documents shall immediately be reported to the Construction Manager in writing. Inconsistencies shall be corrected in writing or by reissuing the drawings. If the Contract Documents disagree with the quality or quantity of work required, the better quality or greater quantity shall be supplied unless otherwise instructed in writing by the Construction Manager. Any work performed by the Contractor at locations in question after his discovery of discrepancies, inconsistencies, ambiguities, or errors, without securing resolution, shall be at the Contractor's risk.
6. This Contractor shall verify all measurements at the site and assume full responsibility for their correctness before proceeding with his work. No extra compensation will be allowed because of differences between site conditions and those indicated on the drawings.

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7. Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer and shall be protected from damage until acceptance. Prefinished products which are damaged before or after installation shall be replaced with new and perfect materials. Materials finished after installation which are damaged shall be refinished or replaced as the Construction Manager may direct. No additional charge will be honored by the Construction Manager for repair or replacement of finished materials.
 8. Should this Contractor feel that the Contract Documents call for work which he cannot guarantee, he shall so state, in writing, prior to bidding. Proceeding with any operation shall be construed as acceptance of all guarantee conditions.
 9. Secure certificates of inspection and occupancy required by authorities having jurisdiction. Deliver copies of certificates to the Construction Manager prior to filing application for final payment.
 10. It is this Contractor's responsibility to make certain statutes, building codes, and regulations including those of the appropriate health agencies having jurisdiction over this type of facility are met.
 11. Provide protection of all equipment during and after installation has been completed.
 12. Provide coordinated shop drawings that indicate all MEP requirements and accurately reflect the actual conditions and spacing of the area.
 13. Provide specified warranties.
 14. All foodservice components consist of those items identified in Section 114000 and the "FS" Series drawings that identify the Food Service items. All items are to be included in the base bid of this contract to completely provide all systems in their entirety. This contractor shall pay particular attention to the "Standard Details" section of typical drawings within Specification section 114000.
 15. Welding of materials must comply with all specified acceptable means.
 16. Any items furnished as part of this Scope of Work that require mechanical or electrical rough ins or services that are different from those shown on the Contract Drawings shall be so noted at the time of bid. Failure to do so shall make this Contractor liable for costs of any changes required by same.
 17. Provide all caulking and sealants for proper installation and in accordance with public health regulations. Provide fire stopping of any penetrations created through smoke and fire partitions.
 18. Provide startup, testing and demonstrate all equipment installed under this category of work. Provide proposed schedule, including names and telephone numbers of attending

- representatives at least (3) three weeks in advance of demonstration.
19. Obtain approvals and permits and coordinate inspections and testing with governing local and state agencies.
 20. Provide licensed electrician to make all interconnections within equipment furnished by this contractor. This includes, but is not limited to, power and control wiring interconnecting the kitchen hoods and make-up air units provided by the mechanical contractors.
 21. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 22. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
 23. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be incorporated into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 24. Contractor must provide additional crews as needed to maintain the project schedule.
 25. Provide pricing for all alternates as described in Section 012300-Alternates.
 26. Provide \$10,000 allowance to be used at the discretion of the Construction Manager.

CONTRACT NO. A-21 : POOL EQUIPMENT

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 3	Concrete
Section 13 11 00	Summary Of The Swimming Pool Work
Section 13 11 13	Swimming Pool Shotcrete
Section 13 11 26	Exposed Aggregate Pool Finish (Enhanced Plaster)
Section 13 11 29	Ceramic Tile Swimming Pool Finish
Section 13 11 40	Pool Trench Drain
Section 13 11 41	Skimmer Recirculation System
Section 13 11 46	Swimming Pool Accessories
Section 13 15 10	Swimming Pool Caulking And Sealants
Section 13 15 90	Swimming Pool Heater
~~Section 13 34 13~~	~~Clazed Structures (ADDENDUM 4)~~
Division 22	Plumbing
Division 23	HVAC
Division 26	Electrical
Division 31	Earthwork

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Furnish and install a complete swimming pool, as shown and/or specified, including but not limited to, general pool construction, structure, recirculation system, **suction and return piping systems**, filtration system, water chemistry system, waterproofing membrane, finish on the interior of the pool, stainless steel perimeter pool recirculation system and piping, mechanical and deck equipment, filtration system, ~~deck drain/gutter system around entire perimeter of pool~~—water treating, chemical feeding, testing, pool fittings, safety equipment, lights, cleaning equipment, painted pool water depth indicators, skimmer, mechanical piping systems, heater, supervision, start-up and operator training. The listing of the above items is not exhaustive, but is representative of the types of materials that the Subcontractor is expected to provide. **(ADDENDUM 3)**
 - a. Concrete contractor is to provide slabs-on-grade in Pool room to outside perimeter of deck drain (by plumber). All work, **including concrete**, within the perimeter of the deck drain is to be provided by this Contract A-22. **(ADDENDUM 3)**,
2. Provide excavation for swimming pool installation and associated equipment/piping.
3. Dewatering as required to install the complete pool system.

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4. Equipment bases and housekeeping pads.
 5. Provide the new pool chair lift (not refurbish existing).
 6. Provide all pool deck equipment and pool safety equipment.
 7. Provide all sealants.
 8. Start-up of pool system, monitoring, testing, and controlling the quality of water until acceptance and turn over by general contractor and owner.
 9. Final cleaning, vacuuming of pool water and pool area at the direction of the general contractor.
 10. Obtain approvals and permits and coordinate inspections and testing with governing local and state agencies.
 11. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 12. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
 13. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 14. Contractor must provide additional crews as needed to maintain the project schedule.
 15. Provide pricing for all alternates as described in Section 012300-Alternates.
 16. Provide a \$10,000 allowance to be used at the discretion of the Construction Manager.
 17. **All piping by this contractor will extend into the pool equipment room/filter room and connect to equipment. Include connection to utilities by others. (ADDENDUM 3)**
 18. **Provide all railings, grab rails, drains, controllers, wiring, pool ladders, ceramic tile, skimmers, drains. (ADDENDUM 4)**

CONTRACT NO. A-22 - FIRE PROTECTION

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 3	Concrete
Section 078400	Firestopping
Section 079200	Joint Sealers
Section 21 05 00	Common Work Results For Fire Suppression
Section 21 05 53	Identification For Fire Suppression Piping And Equipment
Section 21 07 19	Fire Suppression Piping Insulation
Section 21 13 00	Fire Suppression Sprinklers (ADDENDUM 3)
Division 28	Electronic Safety and Security
Division 31	Earthwork

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide piping, fittings, couplings, valves and sprinkler heads.
2. All pipe and equipment supports are to be tied to the building steel structure. No drilling into floor slabs or roof decking will be permitted.
3. Excavation and backfill related to fire protection work as detailed below is the responsibility of this Subcontractor. Soil types shall be in accordance with Del Dot standard specifications.
4. Before ANY excavation work is to commence, the Contractor/Excavator shall contact the utility companies or utility owners and advise them of the proposed work and ask them to mark the location of the underground utility installations. This notification shall be done within established or customary local response times. If the work is on private property and the utility company will not mark out the utilities, the Contractor/Excavator will hire a private locating service to mark the utilities. Once the utilities are located and marked, the Contractor/Excavator will excavate by hand or use a vacuum truck to expose the utilities and record the exact location and elevation of the utilities. The Contractor/Excavator must submit the Excavation Permit to EDiS Company verifying their assurance of communication with the utility companies or utility owners. The Contractor/Excavator must follow State, Local, and Federal Guidelines prior to proceeding with excavations. The Contractor/Excavator will have these marks restored as long as there is work to perform. Once the Contractor has installed new utilities, they will provide to EDiS Company an as-built drawing, within 7 days, showing the exact location and elevation of the utilities. The installing Contractor will be responsible for locating and marking these utilities for other contractors that may have work in the same area.

Provide As-built drawings. Maintain an updated red-lined set on-site, available to EDiS upon request.

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6. Provide Concrete equipment pads, curbs and thrust blocks for fire protection work.
7. Testing and inspections.
8. Cutting and patching.
9. Provide fire stopping.
10. Provide Design.
11. Flow and tamper switches to be supplied by this Subcontractor and wired by the Electrical Subcontractor. It is this contractor's responsibility to provide flow and tamper switches to meet applicable State and local codes.
12. Provide Fire pump, controller and related work. Wiring of pump and controller to be by the Electrical Subcontractor.
13. Provide preaction suppression system, controller, jockey pumps, flow meter and related work. Wiring of pump and controller to be by the Electrical Contractor.
14. Provide Meter, if required, and all applicable fees.
15. Provide backflow preventor as part of new incoming fire service.
16. Provide Pipe identification.
17. Sitework contractor will extend fire main from +/- 5 feet outside building to 1' above finish slab. Fire protection contractor is to make connection to fire main inside of the building.
18. The Concrete Contractor shall furnish, install and maintain stone fill under slab. The Sitework Contractor shall leave the building pad site at subgrade to within acceptable tolerances in preparation to receive stone fill. The Mechanical, Plumbing, Fire Protection, and Electrical Contractors shall complete their work under the slab on grade and shall be responsible to return the pad to the subgrade elevation left by the Sitework Contractor. The Concrete Contractor shall then adjust the select material to final subgrade, fine grade the slab and place the vapor barrier and stone fill.
19. Roof curbs, pipe, hoods and vent equipment & supports are to be supplied by contractor in which the units, piping, etc. are being supplied. The openings for the curbs in the roofing materials shall be cut by the Roofing Contractor. Openings in the metal deck shall be cut by the contractor in which the units are being provided. The roofing contractor shall provide all flashing and sealing of the curbs. Any wood blocking required will be provided by Carpentry & General Works Contractor.

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20. This Subcontractor to coordinate the need for and compatibility of his system to the emergency generator, supplied by others.
 21. Provide the necessary coordination with trade to avoid interferences with other work and make corrections at no extra charge.
 22. Contractor must provide additional crews as needed to maintain the project schedule.
 23. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
 24. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 25. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
 26. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 27. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 28. BIM Coordination: This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
 29. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages
 30. Provide a \$10,000 allocation to be used at the discretion of the Construction Manager.

CONTRACT NO. A-23 - PLUMBING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 3	Concrete
Section 078400	Firestopping
Section 079200	Joint Sealers
Section 083100	Access Doors and Panels
Division 22	Plumbing
Division 23	Heating, Ventilating and Air Conditioning
Division 26	Electrical
Division 31	Earthwork

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete plumbing system, including but not limited to: domestic hot and cold water, hot water recirc, condensate piping, drain, waste, and vents, complete as indicated on the Drawings and in the Specifications. Include HVAC condensate piping as shown on Mechanical piping plans.
2. Provide the complete grease interceptor system and associated piping. Include deadman concrete blocks.
3. Provide the following piping systems for the pool:
 - i. perimeter "Deck Drain" piping system (as noted on "AP" drawings) and connection to building sanitary drainage system.
 - ~~ii. "Suction" and "Return" perimeter piping loops. Include flanged fittings where pipe branches will extend to pool for connection by the pool contractor. (ADDENDUM 3)~~
 - ~~iii. All piping by this contractor will extend into the pool equipment room/filter room, and stub 12" above finished floor elevation. (ADDENDUM 3)~~
4. All pipe and equipment supports are to be tied to the building steel structure. No drilling into roof decking will be permitted.
5. Provide all domestic roof hydrants.
6. Provide all floor drains, floor sinks, and cleanouts. Include protection until completion of finished flooring.

7. Excavation and backfill for underground plumbing work as detailed below is the responsibility of this Contractor. Soil types shall be in accordance with Del Dot standard specifications. Refer to Division 31 and 33 of the specifications.
8. Backfilling of all scope within this contract is the responsibility of this Contractor. Soil types shall be in accordance with project documents.
9. Before ANY excavation work is to commence, the Contractor/Excavator shall contact the utility companies or utility owners and advise them of the proposed work and ask them to mark the location of the underground utility installations. This notification shall be done within established or customary local response times. If the work is on private property and the utility company will not mark out the utilities, the Contractor/Excavator will hire a private locating service to mark the utilities. Once the utilities are located and marked, the Contractor/Excavator will excavate by hand or use a vacuum truck to expose the utilities and record the exact location and elevation of the utilities. The Contractor/Excavator must submit the Excavation Permit to EDiS Company verifying their assurance of communication with the utility companies or utility owners. The Contractor/Excavator must follow State, Local, and Federal Guidelines prior to proceeding with excavations. The Contractor/Excavator will have these marks restored as long as there is work to perform. Once the Contractor has installed new utilities, they will provide to EDiS Company an as-built drawing, within 7 days, showing the exact location and elevation of the utilities. The installing Contractor will be responsible for locating and marking these utilities for other contractors that may have work in the same area.
10. Provide all Equipment bases and housekeeping pads related to plumbing equipment.
11. Permits/meters.
12. Permits and inspections. Costs for the permits are the responsibility of this contractor. Applying, corresponding, and receiving the permits is to be performed by this subcontractor. Costs for a meter (if required) and inspections are to be paid for by this subcontractor.
13. Provide Pipe and equipment insulation and labeling.
14. Penetrations through wall, floors, etc. including cutting, patching and fire stopping.
15. Provide all caulking and sealants for proper installation of plumbing equipment.
16. Coordinate with the Testing and balancing Contractor.
17. Provide daily Clean up.
18. All guarantees and warranties to begin at the substantial completion of the entire project.

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- Maintain equipment prior to substantial completion.
19. Hoisting, rigging and scaffolding. Scaffolding to access the ceiling above the auditorium will be provided by the metal studs and drywall contractor and available to this contractor for use.
 20. Coordination with Building Management Systems Contractor.
 21. Provide Roof drains, all associated primary and secondary piping, and accessories.
 22. Provide Natural Gas Piping work associated with the emergency generator.
 23. Provide Gas piping, meter and pressure regulator valves.
 24. Provide plumbing fixtures.
 25. Sitework contractor will extend domestic and fire mains from +/- 5 feet outside building to 1' above finish slab. Plumbing contractor is to make connection to domestic main inside of the building.
 26. The Concrete Contractor shall furnish, install and maintain stone fill under slab. The Sitework Contractor shall leave the building pad site at subgrade to within acceptable tolerances in preparation to receive stone fill. The Mechanical, Plumbing, Fire Protection, and Electrical Contractors shall complete their work under the slab on grade and shall be responsible to return the pad to the subgrade elevation left by the Sitework Contractor. The Concrete Contractor shall then adjust the select material to final subgrade, fine grade the slab and place the vapor barrier and stone fill. Concrete foundations will be installed prior to the start of the underground plumbing installation; plumbing contractor is responsible for excavation for installation of their pipes around concrete foundations and preventing cave-ins during installation of their underground piping. The plumbing contractor is to adjust underground plumbing locations based upon actual locations of concrete foundations.
 27. Install Owner prepurchased equipment, if applicable.
 28. Furnish Access panels where required to access plumbing. Installation of access panels to be provided by metal studs & drywall contractor.
 29. Provide final tie-ins for residential and commercial appliances being supplied by the owner.
 30. Provide flushing, cleaning, and sterilization of pipe as specified.
 31. Provide As-built drawings. Maintain an updated red-lined set on-site, available to EDiS upon request.
 32. Contractor must provide additional crews as needed to maintain the project schedule.

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33. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
 34. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 35. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
 36. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 37. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 38. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
 39. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
 40. Provide a \$25,000 allocation to be used at the discretion of the Construction Manager.
 41. **Include insulation of all piping as required. (ADDENDUM 4)**
 42. **Provide all condensate splash blocks (ADDENDUM 4)**
 43. **All gas piping to be yellow per project documents. (ADDENDUM 4)**
 44. **Provide 8x4x6 water service tee within MECH Room 152. (ADDENDUM 5)**

CONTRACT NO. A-24 - MECHANICAL

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 3	Concrete
Section 078400	Firestopping
Section 079200	Joint Sealers
Section 083100	Access Doors and Panels
Division 22	Plumbing
Division 23	HVAC
Division 26	Electrical
Division 31	Earthwork

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete mechanical and piping system as indicated on the Drawings and in the Specifications. Condensate piping and natural gas piping is to be provided by Contract B-58 : Plumbing. Provide all mechanical equipment and associated curbs.
2. All pipe and equipment supports are to be tied to the building steel structure. No drilling into roof decking will be permitted.
3. Division 26 of the specifications should be reviewed as it relates to the power wiring and other requirements for HVAC equipment including the coordination of furnishing and installing motor starters as provided in the specifications.
4. This Contractor shall be responsible to designate an individual within his organization, intimately familiar with this project and assigned on site, to act as the System Start-up Coordinator. This individual must be pre-approved by the Construction Manager. This individual's responsibilities shall include, but not be limited to, coordinating the start-up of all mechanical equipment, including the coordination between the Electrical Contractor, the Controls Contractor, and all testing, adjusting and balancing work. This individual shall report on a weekly basis, in written form, to the Construction Manager. These reports shall include a summary of current conditions including manufacturers' start-ups, systems' deficiencies noted to date and the remediation of same, coordination issues between trades, system interfacing and forecasting, as necessary to project the completion of each individual system within the building.
5. Excavation and backfill for underground mechanical work as detailed below is the responsibility of this Contractor. Soil types shall be in accordance with Del Dot standard

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- specifications. Refer to Division 31 and 33 of the specifications.
6. Backfilling is the responsibility of this Contractor. Soil types shall be in accordance with project documents.
 7. Before ANY excavation work is to commence, the Contractor/Excavator shall contact the utility companies or utility owners and advise them of the proposed work and ask them to mark the location of the underground utility installations. This notification shall be done within established or customary local response times. If the work is on private property and the utility company will not mark out the utilities, the Contractor/Excavator will hire a private locating service to mark the utilities. Once the utilities are located and marked, the Contractor/Excavator will excavate by hand or use a vacuum truck to expose the utilities and record the exact location and elevation of the utilities. The Contractor/Excavator must submit the Excavation Permit to EDiS Company verifying their assurance of communication with the utility companies or utility owners. The Contractor/Excavator must follow State, Local, and Federal Guidelines prior to proceeding with excavations. The Contractor/Excavator will have these marks restored as long as there is work to perform. Once the Contractor has installed new utilities, they will provide to EDiS Company an as-built drawing, within 7 days, showing the exact location and elevation of the utilities. The installing Contractor will be responsible for locating and marking these utilities for other contractors that may have work in the same area.
 8. Provide all Equipment bases and housekeeping pads related to HVAC equipment.
 9. Supply all VFD's (not integral to equipment) to electrical contractor for installation.
 10. Permits and inspections. Costs for the permits are the responsibility of this contractor. Applying, corresponding, and receiving the permits is to be performed by this subcontractor. Costs for a meter (if required) and inspections are to be paid for by this subcontractor.
 11. Provide field layout of all wall penetrations to facilitate framing wall openings by masonry and carpentry subcontractors. This must be performed following wall layout by the masonry and carpentry subcontractors.
 12. Provide Pipe and duct insulation.
 13. Provide all tagging and labels.
 14. Provide Penetrations through wall, floors, etc. including cutting, patching and fire stopping.
 15. Provide all caulking and sealants for proper installation of mechanical equipment.
 16. Coordinate with the Testing and balancing Contractor.
 17. Daily Clean up.

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18. All guarantees and warranties to begin at the substantial completion of the entire project. Maintain equipment prior to substantial completion. Mechanical equipment is to be utilized for building conditioning following completion of drywall installation and finishing to maintain operating building conditions during finish installation. This contractor is to provide gap warranties to extend the equipment warranty through this period in addition to the warranty period required by the specifications.
 19. Hoisting, rigging and scaffolding. Scaffolding to access the ceiling above the auditorium will be provided by the metal studs and drywall contractor and available to this contractor for use.
 20. Coordination with Building Management Systems Contractor.
 21. Provide final tie-ins for residential and commercial appliances being supplied by the owner.
 22. Provide Ductwork, flex duct, grilles and diffusers. Duct detectors are to be furnished by the Special Systems contractor and installed by this contract.
 23. Provide all louvers and vents related to HVAC operations. Coordinate louver size, location and type of louver with architectural drawings.
 24. The Concrete Contractor shall furnish, install and maintain stone fill under slab. The Sitework Contractor shall leave the building pad site at subgrade to within acceptable tolerances in preparation to receive stone fill. The Mechanical, Plumbing, Fire Protection, and Electrical Contractors shall complete their work under the slab on grade and shall be responsible to return the pad to the subgrade elevation left by the Sitework Contractor. The Concrete Contractor shall then adjust the select material to final subgrade, fine grade the slab and place the vapor barrier and stone fill.
 25. Provide temporary heat and ventilation design, installation, maintenance and removal. Refer to Division 1, Specification Section 015123 - TEMPORARY HEATING, COOLING, & VENTILATION, for specific scope. This contractor will furnish, install, and maintain the temporary heating equipment. Temporary heating equipment will be provided under base bid. Temporary heating fuel consumption associated with the temporary heating will be charged against the allocation below. All unused portions of the allocation will be returned at the end of the project.
 26. Roof curbs, pipe, hoods and vent equipment & supports are to be supplied by contractor in which the units, piping, etc. are being supplied. The openings for the curbs in the roofing materials shall be cut by the Roofing Contractor. Openings in the metal deck shall be cut by the contractor in which the units are being provided. The roofing contractor shall provide all flashing and sealing of the curbs. Any wood blocking required will be provided by Carpentry & General Works Contractor.
 27. Install Owner prepurchased equipment, if applicable.

- Furnish Access panels where required to access mechanical equipment. Installation of access panels to be provided by metal studs & drywall contractor.
28. This contractor to perform multiple duct leakage tests as coordinated with EDiS to align with schedule. Testing will not wait for complete installation of all duct.
 29. Provide As-built drawings. Maintain an updated red-lined set on-site, available to EDiS upon request.
 30. Contractor must provide additional crews as needed to maintain the project schedule.
 31. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
 32. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 33. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
 34. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 35. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 36. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
 37. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
 38. Provide a \$35,000 allocation to be used at the discretion of the Construction Manager.
 39. Provide a \$50,000 allocation for fuel for temporary heating systems.
 40. **Include insulation of all piping and duct as required. (ADDENDUM 4)**
 41. **The following equipment are by the electrical contractor: electric baseboard heaters, unit heaters, cabinet unit heaters, radiant ceiling panels. (ADDENDUM 4)**

CONTRACT NO. A-25 – BUILDING MANAGEMENT SYSTEMS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 033000	Cast-in-Place Concrete
Section 078400	Firestopping
Section 083100	Access Doors and Panels
Division 21	Fire Suppression
Division 22	Plumbing
Division 23	Mechanical
Section 230913	Instrumentation and Controls Devices for HVAC
Section 230923	Direct-Digital Control Systems for HVAC
Section 230993	Sequence of Operations for HVAC Controls (ADDENDUM 3)
Division 26	Electrical
Section 312000	Earth Moving
Section 312319	Dewatering

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Automatic Temperature Controls for equipment whose main purpose include all items in the Automatic Temperature Control Scope. Provided, however, that the controls do not directly switch the power lines to the equipment; the wiring of such controls to remain the responsibility under the electrical contract.
2. Provide conduits, boxes and pull strings for equipment, controls, devices and wiring associated with the work in this contract.
3. Provide Environmental controls.
4. Provide Ventilation controls.
5. Provide Cooling controls.
6. Provide Humidification controls.
7. Provide HVAC Refrigeration controls.
8. Motorized dampers when not specified as part of factory packaged equipment supplied to job site for distribution and installation by others.

9. Provide both reading and remote gauges, transmitters and recorders for automatic temperature controls.
10. Provide building centralization controls including but not limited to centralized temperature, humidity, pressure and flow indication and recorders, centralization of air conditioning, heating, ventilation, humidification and refrigeration equipment operation. Provide integration of all equipment as required by the Construction Documents.
11. Provide building life safety control and equipment safety control including: fire alarm, fan shut downs, operators and controls for motorized smoke dampers, operators and controls for motorized fire dampers, firestats, freeze protection thermostats, shut down safety devices forming part of automatic temperature control.
12. Permit as required for work under this subcontract scope.
13. Provide Inspections as required under this subcontract scope.
14. Provide Electrical thermostats intended for automatic temperature controls complete with subbases or adapter plates to mount on standard electrical box.
15. Remote reading gauges, transmitters and recorders for automatic temperature control.
16. Supply access doors and frames for all access to Building Management System components or equipment that require routine or periodic maintenance. Installation of access doors and frames provided by the Metal Stud & Drywall Contractor.
17. Provide control wiring and/or air piping required for all automatic temperature controls supplied under the subcontract scope.
18. Provide wiring for remote thermostats and remote prewired auxiliary control panels for packaged equipment.
19. Provide magnetic starter coil and relay coils intended for automatic temperature controls, including interlocking between starters and/or relays when controlled automatically.
20. Exclude direct reading temperature and pressure gauges connected directly to non-potable water systems.
21. Exclude motorized dampers when specified as integral part of packaged equipment.
22. Exclude automatic temperature controls when specified as integral part of packaged equipment.
23. Exclude flow measuring and control devices.
24. Exclude direct reading temperature and pressure gauges connected directly to refrigeration

systems.

25. Exclude filter gauges directly connected to duct systems.
26. Electrical wiring for thermostats and controls which directly switch the power line to the equipment (directly shall mean not through magnetic coil) is by the Electrical Contractor.
27. Power wiring is by the Electrical Contractor.
28. Control power supply outlets are by the Electrical Contractor.
29. Exclude fire alarm, fan shut-down, relays and wiring by Section 28 07 21.
30. Provide transmitters for ATC.
31. Start, test and demonstrate all equipment installed under this category of work. Provide proposed schedule, including names and telephone numbers of attending representatives at least (3) three weeks in advance of demonstration.
32. Submissions will be reviewed once and any resubmittals will be reviewed once. Any other submittals will be billed to the contractor at the Engineers standard rates. Please thoroughly review all submissions prior to forwarding to avoid these costs.
33. Contractor must provide additional crews as needed to maintain the project schedule.
34. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
35. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
36. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
37. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
38. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
39. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all

bid packages.

40. Provide a \$5,000 allocation to be used at the discretion of the Construction Manager.

CONTRACT NO. A-26 – ELECTRICAL

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 033000	Cast-In-Place Concrete
Section 078400	Firestopping
Section 079200	Joint Sealants
Section 083100	Access Doors and Panels
Section 087100	Door Hardware
Section 210533	Heat Tracing for Fire Suppression Piping
Division 21	Fire Suppression
Division 23	Mechanical/HVAC
Division 26	Electrical
Division 27	Communications
Division 28	Electrical Safety and Security
Section 337119	ELEC Underground Ducts, Ductbanks, and Manholes

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete electrical system as indicated on the drawings, schedules and in the specifications.
2. Divisions 22 and 23 of the specifications should be reviewed as it relates to the power wiring and other requirements for Plumbing and HVAC equipment including the coordination of furnishing and installing motor starters and controllers as detailed in the Specifications and on the Drawings.
3. Excavation and backfill for underground electrical work as required below is the responsibility of this Subcontractor. Soil types shall be in accordance with Del Dot standard specifications.
4. Before ANY excavation work is to commence, the Contractor/Excavator shall contact the utility companies or utility owners and advise them of the proposed work and ask them to mark the location of the underground utility installations. This notification shall be done within established or customary local response times. If the work is on private property and the utility company will not mark out the utilities, the Contractor/Excavator will hire a private locating service to mark the utilities. Once the utilities are located and marked, the Contractor/Excavator will excavate by hand or use a vacuum truck to expose the utilities and record the exact location and elevation of the utilities. The Contractor/Excavator must submit the Excavation Permit to EDiS Company verifying their assurance of communication with the utility companies or utility

owners. The Contractor/Excavator must follow State, Local, and Federal Guidelines prior to proceeding with excavations. The Contractor/Excavator will have these marks restored as long as there is work to perform. Once the Contractor has installed new utilities, they will provide to EDiS Company an as-built drawing, within 7 days, showing the exact location and elevation of the utilities. The installing Contractor will be responsible for locating and marking these utilities for other contractors that may have work in the same area.

5. Utilize directional drilling methods where indicated on project documents.
6. Provide temporary power connections (and removal) to temporary heat installations by others. Assume (4) different points of connection, providing 240V/30A to each.
7. This contractor shall provide temporary transformers as required to provide electrical power generation until permanent service is installed by Delmarva power. Include all permits, cabling, switch gear, panels, breakers etc. to provide a complete temporary power system capable of supplying the electrical loads required for the project. This contractor to coordinate and arrange for temporary power from the source, Delmarva Power. Include boring across route 7 to provide temporary power feeds from existing power lines and additional 2" conduit for data by service provider.
8. Provide temporary power for meter bank with transformer including **(10)** individual electric meters with disconnects for contractors trailers. Provide (2) to EDiS trailer located within east lot, remainder to be located within the north contractors lot. Coordinate all work with Delmarva Power.
9. Power Centers (waterproof) for miscellaneous tools and equipment used in the construction work shall be provided with a minimum of four 20-amp, 120 volt grounding type outlets. Each outlet shall be provided with ground fault detecting circuit breaker protection. The distance between each receptacle location shall not exceed 50 feet.
10. Construction areas, ramps, runways, corridors, offices, shops, and storage areas shall be lighted to not less than the minimum illumination intensities at five (5) foot candles and any additional OSHA Temporary lighting and receptacles exposed to wet or damp locations must be weatherproof. Adequate lighting for safe working conditions and the exterior of the structure shall be provided and maintained on a 24 hour per day basis throughout the building. Voltage of each lighting component must be able to accommodate lighting requirements.
11. Provide Temporary electric and lighting installation, maintenance and removal. Refer to Division 1, specification section 015113 - TEMPORARY ELECTRIC, for specific scope. Provide temporary exterior lighting per specification section 015113 - TEMPORARY ELECTRIC.
12. Include all primary service work, including all utility company related costs/fees for this work and all underground conduit for primary electric service and voice/data service. Include all primary cabling feeding the school from the street service to on-site transformer. Primary voice/data cabling to terminate within the MDF closet per site plan drawings. All fees assessed by the utility provider to initiate new service are to be excluded, and will be charged to the

Owner. (ADDENDUM 5)

13. Provide concrete for duct banks, light standards, above ground conduit encasement, equipment bases and any other concrete work specifically related to the electrical work. Include requirements of the State and local codes for concrete encasement.
14. Provide underground conduit/cabling/wiring to all locations within courtyards.
15. Provide site electric feeding all exterior lighting connected to the building. Provide all underground conduit to site lighting fixtures for data and low voltage cabling for security and communications.
16. Receive, install, and power all VFD's supplied by the mechanical contractor.

~~17. Provide electric vehicle charging stations. (ADDENDUM 4)~~

18. Provide rough in and final connection and related work for equipment provided under other contracts (i.e. elevators, HVAC, sprinkler, motorized doors, etc.)
19. Provide conduits, raceways, and pull strings for low-voltage wiring at doors receiving electronic or security hardware, including associated electronic card readers. Low voltage wiring from the controller to hardware shall be provided by the installing doors and frames contractors. Electrical contractor to install power supply and make final power connections. Final connections of low-voltage wiring to hardware to be provided by special systems contractor. Magnetic Door Hold-Opens are to be furnished by the Doors, Frames, Hardware Contractor to this Contract for installation including power. The special systems contractor will make final connections for the relay to the fire alarm.
20. Provide power circuits to all systems installed by the Special Systems Contractor including, but not necessarily limited to the following: Wireless Clock System, Intercom/Public Address System, Fire Alarm System, Sound Reinforcement Systems, Access Control System, CCTV System.
21. Provide power circuits for electrified hold open hardware. Hold open hardware will be supplied by Doors, Frames, and Hardware Contractor, installed by this contractor. Fire alarm wiring, terminations, and programming by Special Systems Contractor. Special Systems Contractor shall provide low-voltage power to door hold open hardware.
22. Provide conduit, pull strings, and boxes to above accessible ceilings with pull strings for complete audio and audiovisual systems.
23. Provide all heat tracing.
24. Provide bonding of all pool equipment per "AP" drawing notes.
25. Provide grounding of equipment, racks, building columns and interior spaces as required.

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26. Provide all electric baseboard heaters, unit heaters, cabinet unit heaters. Include all disconnects, relays, sensors.
 27. Provide boxes, pathways, and pull strings to above accessible ceilings for low voltage cables provided by the Special Services and Structure Cable Contractors.
 28. Provide Pull strings, Conduit, and boxes for voice/data boxes to above accessible ceilings.
 29. Provide all Equipment bases and housekeeping pads related to Electrical equipment.
 30. Include generator and transformer pads.
 31. Provide final tie-ins for residential and commercial appliances.
 32. The Concrete Contractor shall furnish, install and maintain stone fill under slab. The Sitework Contractor shall leave the building pad site at subgrade to within acceptable tolerances in preparation to receive stone fill. The Mechanical and Electrical Contractors shall complete their work under the slab on grade and shall be responsible to return the pad to the subgrade elevation left by the Sitework Contractor. The Concrete Contractor shall then adjust the select material to final subgrade, fine grade the slab and place the vapor barrier and stone fill.
 33. Provide proper coordination with Painting Contractor to ensure that exposed boxes, raceways, and conduit are painted simultaneous to adjacent construction. Any costs that arise from out of sequence painting of exposed boxes, raceways, and conduits will be the responsibility of this Contractor. Provide conduit and boxes for all systems (electric, low-voltage, A/V, network cabling, fire alarm, security, etc) in open ceiling areas.
 34. Provide and coordinate permits, testing, and inspections.
 35. Provide penetrations through walls, floors, etc. including cutting, patching and fire safing.
 36. Testing.
 37. Clean up.
 38. Provide hoisting, rigging and scaffolding.
 39. Provide fully coordinated shop drawings with MEP Trades within 8 weeks from award of project.
 40. Submissions will be reviewed once and any resubmittals will be reviewed once. Any other submittals will be billed to the contractor at the Engineers standard rates. Please thoroughly review all submissions prior to forwarding to avoid these costs.
 41. All guarantees and warranties to begin at the substantial completion of the entire project. Maintain equipment prior to substantial completion

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42. Provide As-built drawings. Maintain an updated red-lined set on-site, available to EDiS upon request.
 43. Contractor must provide additional crews as needed to maintain the project schedule.
 44. In addition to the insurance specified in Section 006216, this contractor will provide Pollution Insurance, with limits of \$1,000,000 per occurrence and \$3,000,000 aggregate. (ADDENDUM 5)
 45. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
 46. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.
 47. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
 48. Provide BIM services as detailed in spec section 013700 BIM Execution Plan.
 49. BIM Coordination : This contractor will include \$700 in their bid proposal to pay for the licensing agreement with Revizto for BIM Coordination of all trades.
 50. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.
 51. Provide a \$35,000 allocation to be used at the discretion of the Construction Manager.
 52. **Provide all ladder racks and conduits as shown on telecom details. (ADDENDUM 3)**
 53. **Provide all radiant ceiling panels ("RCP"). Include all disconnects, temperature sensors, and relays. (ADDENDUM 4)**
 54. **Provide all power, controls, lighting, and LED signage at the exterior sign referenced on A-811. (ADDENDUM 4)**
 55. **Include a \$150,000 ALLOWANCE to provide for all primary electrical/voice/data infrastructure from the existing utility pole to site pull boxes. (ADDENDUM 5)**
 56. Contractor shall provide, within their base bid, all primary electric service work including all underground conduit and cabling for primary electric service from the pull box to on-site transformer as indicated on drawing E-100. Contractor shall provide, within their base bid, all primary voice/data cabling and conduit from the pull box to terminate within the MDF closet as indicated on drawing T-100. Contractor shall provide, within their base bid, (1) pull box for power and (1) pull box for voice/data. Primary service work from utility pole on the east side of

SR-7 into the pull boxes(s) including directional drilling, all underground conduit and cabling for primary electric service and voice/data service will be provided utilizing allowance referenced in A-26 - Electrical Scope of Work item #55. All fees assessed by the utility provider to initiate new service are to be excluded, and will be charged to the Owner. (ADDENDUM 5)

CONTRACT NO. A-27 : SPECIAL SYSTEMS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 078400	Firestopping
Section 079200	Joint Sealants
Section 083113	Access Doors and Frames
Section 087100	Door Hardware
Section 114000	Food Service Equipment
Section 210505	Fire Suppression System Piping, Fittings & Valves
Section 211000	Water Based Fire Suppression System – Fire Pump
Section 211003	Water Based Fire Suppression System - Sprinklers
Section 270500	Telecommunications Pathways and Spaces
Section 271005	Structured Cabling for Voice and Data – Inside-Plant
Section 275117	Public Address Systems
Section 275313	Wireless Clock System
Section 281000	Access Control (ADDENDUM 4)
Section 281500	Integrated Access Control Hardware Devices
Section 283100	Fire Detection and Alarm
Section 283111	Building Intrusion Detection (ADDENDUM 4)

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide intercom/public address system. Structured Cable Contractor will provide all network cabling including wiring, devices, and terminations at the source (MDF/IDF patch panel) and at the communication port (jack).
2. Provide complete fire alarm system is to be provided by this contractor including all equipment, cable, and accessories. Water flow devices are supplied and installed by the Fire Protection Contractor and wired by this Contractor. Include tie-in to fire sprinkler flow and tamper switch. Fire alarm wiring, terminations, and programming of electrified hold open hardware by Special Systems Contractor. Low voltage power to electrified hold open hardware by Special Systems Contractor. Hold open hardware provided by Carpentry and General Work Contractor.
3. Provide complete intrusion system.

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4. Provide access control and security management system. This Contractor to expand the existing district access system to cover this entire building as indicated. Provide coordination with door and frame installation for a complete system. The contractor responsible for supplying the doors, frames, and hardware shall provide all wiring and accessories from the power supply (or junction box) to the door hardware. The contractor responsible for installation of doors and hardware shall provide terminations from door hardware to door whip, from door whip to power transfer, and from frame whip to power transfer. Frame whip shall be secured and protected by the door, frame, and hardware contractor(s) for the direct access of the Special Systems Contractor. Termination of the frame whip to the power supply (or junction box) shall be provided by the Special Systems Contractor. Power supply shall be furnished by the door, frame, and hardware contractor(s) and installed by the Special Systems Contractor. The Special Systems Contractor shall provide low-voltage wire from the card reader to the access controller, from the status switch (door contact) to the access controller, from access controller to the power supply (or junction box), and from power supply (or junction box) to power supply (or junction box) as necessary. The Electrical Contractor is responsible for providing 120v circuits to all power supplies and/or transformers as indicated in the documents. The Electrical Contractor shall provide conduits, device boxes, raceways, and pull strings for low-voltage wiring at doors receiving electronic, security, or access control hardware. Electrical contractor shall provide a junction box above each door scheduled to receive a card reader and a pathway & pull string. A mock-up shall be field installed and coordinated by all related Contractors for review prior to commencing work.
 5. Provide a complete CCTV - Network Digital Video Management System. Owner shall provide server.
 6. Provide all patch cords from communication port (jack) to each device included in this Contractor's scope. Patch cords at source (MDF/IDF) from patch panel to network switch provided by owner.
 7. Provide coordination of the work of this contract with the Electrical and Structured Cable Contractor, including final equipment locations. This contractor must coordinate with Electrical Contractor as indicated on the drawings and as specified. The Electrical Contractor shall provide all device boxes, conduit and pull strings to circuits for special systems as indicated and also to provide 120 Volt circuits for all Special Systems. This Contractor will be responsible for providing independent support systems, as indicated in the specifications, for all cable and wiring installed by this Contractor in locations where pathways and raceways are not required by the documents.
 8. Interactive screens/displays and mounting brackets will be supplied by Owner and mounted by the Carpentry & General Works Contractor. The Carpentry and General Works Contractor will coordinate blocking with mounting hardware and install all necessary clips and blocking to the wall for hanging. Audio/visual interface and/or controls by Special Systems Contractor.
 9. Hardware for permanent exterior gates will be provided by the Sitework Contractor. Access control hardware/software and fire alarm integrations of gate hardware, including terminations, cabling, etc. will be provided by the Special Systems Contractor. The Electrical Contractors shall

provide all pathways & electrical requirements to support installation.

10. Provide access doors and frames for all access to Special Systems components or equipment that require routine or periodic maintenance. Installation of access doors and frames provided by the Metal Stud & Drywall Contractor.
11. Provide penetrations through walls, floors, etc., including cutting, patching and fire safing.
12. Provide testing for 800 MHZ emergency radio system and provide report for submission to building code officials.
13. Furnish and deliver all duct detectors.
14. Provide all design and coordination necessary to provide complete systems.
15. Provide and coordinate for inspections and testing.
16. Provide fire resistive sealants for the work of this contract.
17. Provide pricing for all alternates as described in Section 012300-Alternates.
18. Submissions will be reviewed once and any resubmittals will be reviewed once. Any other submittals will be billed to the contractor at the Engineers standard rates. Please thoroughly review all submissions prior to forwarding to avoid these costs.
19. Provide video documentation of training on systems.
20. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
21. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
22. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be incorporated into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
23. Contractor must provide additional crews as needed to maintain the project schedule.
24. Provide pricing for all alternates as described in Section 012300-Alternates.
25. Provide a \$10,000 allocation to be used at the discretion of the Construction Manager.

CONTRACT NO. A-28: STRUCTURED CABLE

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 078400	Firestopping
Section 079200	Joint Sealants
Section 083100	Access Doors and Frames
Section 087100	Door Hardware
Section 114000	Foodservice Equipment
Section 211300	Fire Suppression Sprinklers
Section 271005	Structure Cabling For Voice And Data – Inside-Plant
Section 281000	Access Control (ADDENDUM 4)
Section 283111	Building Intrusion Detection (ADDENDUM 4)

Section 281500 Integrated Access Control Hardware Devices

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all network cabling including wiring, devices, and terminations to communication devices identified in plans and referenced on **"Communications Outlet Configuration"**. Two (2) terminations should be provided (1) at the source (MDF/IDF patch panel) and (1) at the communication port (jack) in all instances. **(ADDENDUM 4)**
2. Provide all network cabling including wiring, devices, and terminations for devices provided by the Special Systems Contractor, specifically to devices identified in plans ~~and referenced on "Communications Outlet Configuration" chart.~~ Two (2) terminations should be provided (1) at the source (MDF/IDF patch panel) and (1) at the communication port (jack) in all instances. Structured Cable Contractor will provide cable installation for the following Special Systems Contractor installed systems: **(ADDENDUM 4)**
 - a. Telephone system and voicemail system.
 - b. CCTV - Network Digital Video Management System.
 - c. Access Control (ADDENDUM 4)**
 - d. Building Intrusion Detection (ADDENDUM 4)**
3. The Structured Cable Contractor will provide ONLY network interface (data drops) installation for the following Special Systems Contractor installed systems:
 - a. Fire alarm system

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- b. Intercom/public address system
 - c. **Building Intrusion Detection system (ADDENDUM 4)**
 - d. Access Control
4. Structured Cable Contractor will install communication wiring from the access control panels to the source (MDF/IDF patch panel) including terminations on both ends. Location of access control panels to be coordinated with the documents, the Special Systems Contractor and the Construction Manager prior to installation.
 5. Structured Cable Contractor will install communication wiring from the intrusion control headend to the source (MDF/IDF patch panel) including terminations on both ends. This communication wiring shall include (1) dedicated POTS line from the MDF room to the intrusion control dialer. Location of intrusion control headend to be coordinated with the documents, the Special Systems Contractor and the Construction Manager prior to installation.
 6. Structured Cable Contractor will install communication wiring from the Fire Alarm Control Panel (FACP) to the source (MDF/IDF patch panel) including terminations on both ends. This communication wiring shall include (2) dedicated POTS line from the MDF room to the FACP dialer(s). Location of FACP to be coordinated with the documents, the Special Systems Contractor and the Construction Manager prior to installation.
 7. Structured Cable Contractor will install communication wiring from the intercom/public address amplifiers to the source (MDF/IDF patch panel) including terminations on both ends. Location of amplifiers to be coordinated with the documents, the Special Systems Contractor and the Construction Manager prior to installation. Contractor should assume one amplifier located in each MDF/IDF.
 8. Structured Cable Contractor will install communication wiring from the Building Management System headend to the source (MDF/IDF patch panel). Location of Building Management System headend to be coordinated with the documents, the Mechanical Contractor, and the Construction Manager prior to installation.
 9. Structured Cable Contractor will install all network cable within the kitchen and kitchen hood identified on the Kitchen Equipment Drawings. Final location of network drops to be coordinated with the documents, the Kitchen Equipment Contractor, and the Construction Manager prior to installation.
 10. Structured Cable Contractor will install communication wiring from the food management systems to the POS devices, menu display boards, and temperature monitoring systems, including terminations on both ends. Final location of the food management systems to be coordinated with the documents and the Construction Manager prior to installation.
 11. Provide all wireless access points. Patch cords from device to communication port (jack) provided by this Contractor.
 12. Provide coordination of the work of this contract with the Electrical and Special Systems

Contractor, including final equipment locations. This contractor must coordinate with Electrical Contractor as indicated on the drawings and as specified. The Electrical Contractor shall provide all device boxes, conduit and pull strings to circuits for special systems as indicated. This Contractor will be responsible for providing independent support systems, as indicated in the specifications, for all cable and wiring installed by this Contractor in locations where pathways and raceways are not required by the documents. This Contractor shall provide all additional boxes and conduits where required to make a complete system.

13. Perform certification testing of all cables and provide full close-out documentation.
14. Provide access doors and frames for all access to Structured Cable components or equipment that require routine or periodic maintenance. Installation of access doors and frames provided by the Metal Stud & Drywall Contractor.
15. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
16. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.
17. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be incorporated into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
18. Contractor must provide additional crews as needed to maintain the project schedule.
19. Provide pricing for all alternates as described in Section 012300-Alternates.
20. Provide a \$5,000 allocation, included in base bid, to be used at the discretion of the Construction Manager.

CONTRACT NO. A-29 - TESTING & BALANCING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

- Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 230593	Testing, Adjusting, and Balancing for HVAC

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide water and air testing and balancing.
2. Contractor shall prepare, at a minimum, a preliminary balance report for the building permit Final Inspection.
3. Submissions will be reviewed once and any resubmittals will be reviewed once. Any other submittals will be billed to the contractor at the Engineers standard rates. Please thoroughly review all submissions prior to forwarding to avoid these costs.
4. Provide complete signed and sealed testing report prior to substantial completion and final inspection as required by the building permit.
5. This contractor has been allotted 30 days to complete all work and provide final, sealed balancing report by the Construction Manager. This contractor will need to work closely with the Construction Manager and all MEP trades to sequence work so that the completion of the balancing is completed in a manner that does not delay acceptance from New Castle County or CSD.
6. Provide confirmation of duct testing completed by Mechanical Contractor.
7. This contractor must provide all lifts or scaffold means to access all elements
8. Provide circulating water system test.
9. Contractor must provide additional crews as needed to maintain the project schedule.
10. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.
11. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

12. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.
13. Provide pricing for all alternates as described in Section 012300-Alternates.
 - a. Contractor is to guarantee all alternate pricing for 90 days following submission of a bid proposal. Decisions regarding alternate selection is to be made following receipt of all bid packages.

END OF SECTION

SECTION 012300 - ALTERNATES

1. GENERAL PROVISIONS

- A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.
- B. Refer to provisions in AIA Document A232 – 2019 Edition, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, CONSTRUCTION MANAGER AS ADVISOR EDITION, for requirements in addition to those specified in Division 1.
- C. For work being constructed under separate prime contracts, provisions of this Section apply to each contract being bid.

2. BASE BID

- A. The Base Bid shall consist of all Work shown or specified in the Contract Documents, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids (if any are required to be stated in the bid).
- B. The Base Bid shall include all work in any Subtractive Alternates specified herein.

3. ALTERNATES

- A. State in the Bid Form, where applicable, the amount to be added to or deducted from the amount of the Base Bid for each Alternate specified.
- B. See Section 002113 - INSTRUCTIONS TO BIDDERS for related information.
- C. The description of Alternates contained herein is in summary form. Detailed requirements for materials and execution shall be as specified in other sections and as shown on drawings.

Alternate No. 1: Provide Additional Walking Surfaces in the Rear Walking Path Area

- 1. State in the Bid Form the amount to be modified to the Base Bid amount to provide additional walking paths as delineated on Sheet C-111A.
- 2. Note that the Base Bid includes providing less area of walking paths in the rear area as delineated on Sheet C-111.

Alternate No. 2: Provide EPDM Playing Surfaces and Concrete Basketball Court at Rear Walking Path Area

- 1. State in the Bid Form the amount to be modified to the Base Bid amount to provide EPDM Playing Surfaces and Concrete Basketball Court at Rear Walking Path Area as shown on Sheet C-111A.

2. Note that the Base Bid includes providing grass in between the walking path areas as shown on Sheet C-111.

Alternate No. 2A: Provide Playground Equipment, Outdoor Fitness Equipment, and Site Furnishings at Rear Walking Path Area

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide Playground Equipment, Outdoor Fitness Equipment, and Site Furnishings as shown in the rear walking path areas on Sheets C-111A/113A/113B/113C.
2. Note that the Base Bid does not include any of the above scope in the rear walking path areas as shown on Sheet C-111.
(ADDENDUM 3)

Alternate No. 3: Provide Synthetic Play Surface in Courtyard #3

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide "Synthetic Turf Play Surface" in Courtyard #3 as shown on Sheet C-111A.
2. Note that the Base Bid includes providing poured EPDM play surface as shown on Sheet C-111. Base bid and alternate should both include providing drainage as delineated on Sheet C-111.

Alternate No. 3A: Provide Playground Equipment, Outdoor Fitness Equipment, and Site Furnishings at Courtyard #2 and #3

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide Playground Equipment, Outdoor Fitness Equipment, and Site Furnishings within Courtyards #2 and #3 as shown on Sheets C-111A/113A/113B/113C.
2. Note that the Base Bid does not include any of the above scope in the Courtyards #2 and #3 as shown on Sheet C-111.
(ADDENDUM 3)

Alternate No. 3B: Provide Site Furnishings at Courtyard #1

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide Site Furnishings within Courtyard #1 as shown on Sheets C-111A/113A/113B/113C.
2. Note that the Base Bid does not include any of the above scope in the Courtyards #1 as shown on Sheet C-111.
(ADDENDUM 4)

Alternate No. 4: Eliminate east parking area.

1. State in the Bid Form the amount to be modified to the Base Bid amount to eliminate the west parking area (concrete curbs/island, asphalt paving, striping), extending the east grasses and concrete curb to border the "FIRE LANE". Storm drain piping and structures are to be installed as shown under both the base bid and alternate.
2. Note that the Base Bid includes providing the west parking lot including concrete curbs/island, asphalt paving, striping, Lighting.

~~Alternate No. 5: Provide Pergola in Courtyard #3~~

- ~~1. State in the Bid Form the amount to be modified to the Base Bid amount to provide the Pergola in Courtyard #3 as detailed.~~
- ~~2. Note that the Base Bid includes providing anchoring in the building wall and concrete foundations for the future installation of a pergola in this location.~~
(ADDENDUM 4)

Alternate No. 6: Face Brick Alternate Product

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide Bowerston Santa Fe Smooth Modular bricks in lieu of the base bid selection.
2. Note that the Base Bid includes providing Belden Modular Commodore Full Smooth, 20-09 bricks.

~~Alternate No. 7: Modify Selected Interior Partitions from Masonry to Drywall~~

- ~~1. State in the Bid Form the amount to be modified to the Base Bid amount to replace selected interior masonry partitions to full height drywall partitions.~~
- ~~2. Note that the Base Bid includes providing masonry partitions as shown on the base bid documents.~~
(ADDENDUM 4)

Alternate No. 8: ~~Reduce Additional~~ Drywall Soffits

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide ceilings and soffits in the classrooms and corridors as shown on the reflected ceiling drawings A-110 and A-111. **(ADDENDUM 5)**
2. Note that the Base Bid includes all ceilings and soffits per drawings A-110A and A-111A. ~~providing valances above the casework and continuing the acoustical ceiling to the walls and lighting as shown on the base bid drawings.~~ **(ADDENDUM 5)**

Alternate No. 9: Add Vocational Kitchen Equipment

1. State in the Bid Form the amount to be modified to the Base Bid amount to supply and install the vocational kitchen equipment shown in the Vocational Kitchen.

Added costs are to include final tie-in to new equipment by the mechanical, electrical, and controls contractors.

2. Note that the Base Bid includes providing MEP rough-ins throughout the vocational kitchen space.

Alternate No. 10: Add Greenhouse in Courtyard #2

1. State in the Bid Form the amount to be modified to the Base Bid amount to supply and install the greenhouse as detailed on Sheet A-850. Masonry contractor is to provide masonry walls above grade. Plumbing, electrical, and mechanical contractors to include costs for final connections to Greenhouse Equipment.
2. Note that the Base Bid includes providing concrete footers, masonry foundations to grade (no rebar is to extend above grade, epoxy anchors will be utilized in the future), concrete slabs, and MEP rough-ins within the courtyard as detailed in the base bid drawings. Stone for the drainage trenches is to be provided by Contract A-03 : Concrete.

Alternate No. 11: Excess Soils Export

1. State in the Bid Form the amount to be modified to the Base Bid amount to export all excess soils to a location selected by the sitework contractor.
2. Note that the Base Bid includes the export stockpile of 20,000 cy of excess soils on-site for removal by others. to the upcoming William Penn High School project. Contract A-01 : Sitework is to include loading trucks supplied by site contractor at the high school project only (no transport required by this Contract A-01). Any additional loading stockpiling of soils beyond the 20,000 cy stated is to be handled on a unit cost basis. Contract A-01 : Sitework is to provide removal of all remaining excess soils from site. (ADDENDUM 5)

Alternate No. 12: Mineral Fiber Board Insulation over Weather Barrier

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide mineral fiber board insulation over weather air barrier on exterior walls under exterior cladding as an alternate to the specified closed-cell spray foam with intumescent coating. (ADDENDUM 5)
2. Note that the Base Bid includes closed-cell spray foam with intumescent coating on exterior walls under exterior cladding. (ADDENDUM 4)

Alternate No. 13: Automatic Entrances Ballistic Rating

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide "ballistic protection up to a level 1 rating" as an alternate to "ballistic protection up to a level 3".
2. Note that the Base Bid includes ballistic protection up to a level 1 rating at Automatic Entrances.

(ADDENDUM 4)

Alternate No. 14: Automatic Entrances Bullet Resistant Glazing Rating

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide “glazing for sliding automatic entrances; UL Level 1 Bullet Resistant Glazing Material” as an alternate to “glazing for sliding automatic entrances; UL Level 3 BALULN25 Glazing Material” (per spec 084229).
2. Note that the Base Bid includes “glazing for sliding automatic entrances; UL Level 3 BALULN25 Glazing Material” (per 084229).

(ADDENDUM 4)

Alternate No. 15: Security Windows Bullet-Resistant Glazing Material

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide Bullet Resistant Level 3 (1-1/4” LP 1250 Laminated) glazing material as an alternate to Bullet Resistant Level 1 (3/4” LP 750 Laminated) glazing material at security windows (per 085653).
2. Note that the Base Bid includes Bullet Resistant Level 1 (3/4” LP 750 Laminated) glazing material at security windows (per 085653).

(ADDENDUM 4)

Alternate No. 16: Ballistic Resistant Panels

1. State in the Bid Form the amount to be modified to the Base Bid amount to provide Ballistics Resistance Rating: Listed and labeled as tested in accordance with UL 752 Level 3 (super-power handgun) threat rating.
2. Note that the Base Bid includes Bullet Resistance Rating: Listed and labeled as tested in accordance with UL 752 Level 1 (medium-power handgun) threat rating.

(ADDENDUM 5)

END OF SECTION

SECTION 015113 - TEMPORARY ELECTRICITY

1. GENERAL

A. RELATED WORK SPECIFIED ELSEWHERE

1. Electrical Basic Materials and Methods, Division 26.

B. DESCRIPTION OF SYSTEM

1. Power Source: existing utility pole as noted on the "Utility Plan".
 - a. Suppliers: *Delmarva*
 - b. The Construction Manager or Electrical Contractor shall provide 277/480 volt, three phase, 60 cycle power service to the site. The temporary electrical power distribution system shall be sufficient to accommodate temporary lighting, and construction operations, including the use of power tools, and start-up of specified building equipment which must be tested started or placed into use prior to completion of the permanent electrical power distribution system.
 - c. The Electrical Contractor will make all arrangements for bringing the power supply to the site and for installation of appropriate temporary transformers to provide for the power supply in 1.B.1.b, above.
 - d. The source will be adequate to service temporary electrical needs of the proposed construction.
2. Electrical Service
 - a. The Electrical Contractor will bring a source of temporary power to the building pad following construction of the building foundations and slabs. Each Contractor is responsible for providing their own temporary power source and associated fuel until the temporary electrical service is installed.
 - b. Prior to issuance of the Notice to Proceed for the electrical contract, the Construction Manager will be responsible for providing temporary electrical service as provided in 1.B.2.c, below. After issuance of the Notice to Proceed for the electrical contract, the Electrical Contractor shall become responsible for maintaining all electrical power supply and service facilities installed by the Construction Manager. The Electrical Contractor shall also, from that date forward, be responsible for providing and maintaining temporary electrical service to the site as provided in 1.B.2.c, below.
 - c. A meter farm will be setup near the trailer lot for each Contractor to connect to. Each Contractor will be responsible to pay for all costs associated with providing electrical

service from the meter farm/power source to their respective office trailer, temporary storage facilities or temporary construction buildings as appropriate. Each Contractor will be responsible to setup service with the utility company, provide a meter, and pay for their electrical supply costs.

- d. The Electrical Contractor as provided in 1.B.2.b, above, shall install temporary electric service for items below, throughout the construction period.

- (1) Power Centers for miscellaneous tools and equipment used in the construction work shall be provided with a minimum of eight 20-amp, 120-volt grounding type outlets. Each outlet shall be provided with ground fault circuit interruptor (GFCI) protection. Maximum 20-amp circuit breakers with four (4) receptacles per circuit breaker. The Power Centers shall be NEMA weatherproof enclosures and will be located on each level of construction, spaced so that the entire area of construction can be reached by power tools on a single extension cord of 50' maximum length.
- (2) Construction areas, ramps, runways, corridors, offices, shops, and storage areas shall be lit to not less than the minimum illumination intensities of ten (10) foot candles measured at the floor level, and any additional OSHA requirements. Adequate lighting to include weatherproof and waterproof fixtures for safe working conditions and the exterior of the structure shall be provided and maintained on a 24-hour per day basis throughout the building. A minimum of one (1) lamp per room. Voltage of each lighting component must be able to accommodate lighting requirements.
- (3) Temporary Exterior lighting shall be provided and maintained on a 24-hour per day basis. Exterior lighting is to be located at each exterior entrances to the building (stairtowers, main entrance, rear entrance, etc.).
- (4) Provide temporary generators to maintain power and lighting to the site when the electrical system is being transitioned from temporary to permanent.
- (5) Power for testing and checking equipment must be supplied.

3. Capacity

- a. All electrical power supply and service lines installed shall be of adequate capacity for construction use by all trades during the construction period at the locations necessary.
- b. The Electrical Contractor shall notify the Power Company if unusually heavy loads, such as welding units, are anticipated.

4. Power Costs

- a. The Construction Manager will pay all costs of temporary electrical power used during construction excluding power for subcontractor trailers to be paid on an individual basis.

-
- b. The Owner will pay all costs of power used in the permanent wiring.
- C. REQUIREMENTS AND REGULATORY AGENCIES
- 1. The Electrical Contractor will obtain permits as required by local governmental authorities.
 - 2. The temporary electrical service shall comply with National Electrical Code, Current Edition and applicable local codes and utility regulations.
- D. USE OF PERMANENT SYSTEM
- 1. The Electrical Contractor shall regulate any part of the permanent electrical system which is used for construction purposes to prevent interference with safety and orderly progress of the Work.
 - 2. Contractors shall leave permanent electrical services in a condition as good as new and clean.
 - 3. If the permanent electrical system is used for electrical power, each Contractor will be responsible for providing ground fault circuit interruption (GFCI) devices for plugging in any of their tools or equipment.
2. PRODUCTS
- A. MATERIALS
- 1. General
 - a. The materials may be new or used, but must be adequate in capacity for the purposes intended and must not create unsafe conditions or violate the requirements of applicable codes.
 - 2. Conductors
 - a. Use wire, cable, or busses of appropriate type, sized in accordance with the National Electrical Code for the applied loads.
 - b. Use only UL labeled wire and devices.
- B. EQUIPMENT
- 1. Provide appropriate enclosures for the environment in which used in compliance with NEMA standards.
 - 2. The Electrical Contractor will provide temporary transformers as may be required to support the incoming electrical service. Coordinate with the utility company.

3. Electrical Outlets: Provide properly configured NEMA polarized outlets to prevent insertion of volt plugs into higher voltage outlets, Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light, for connection of power tools, equipment, and GFI breakers. Electrical panels must be NEMA weatherproof enclosures.
4. Electrical Power Cords: Provide grounded extension cords; use “hard-service” cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress.
5. Electrical Welding Outlets: These will not be provided. Each Trade Contractor will be responsible for their own welding power.
6. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.

3. EXECUTION

A. GENERAL

1. Install all work with a neat and orderly appearance.
2. Make structurally sound throughout.
3. The Electrical Contractor shall provide and pay for maintenance, servicing, operations, and supervision of temporary electrical distribution system. Maintain to give continuous service and to provide safe working conditions.
4. The Electrical Contractor shall maintain and operate the permanent electrical distribution system until time of final acceptance and transfer of operation to the Owner’s personnel.
5. The Electrical Contractor will provide power for temporary heaters furnished and installed by the Mechanical Contractor.
6. The Electrical Contractor will provide 24-hour temporary power to any heat trace (installed by others) on temporary water and/or fire lines.
7. Limit lighting installations to intensities which will accommodate normal access and workmanship requirements. If more lighting is needed to install finishes, drywall, painting, etc. the Trade Contractor requiring higher intensity lighting will provide supplementary plug in temporary lighting as needed where their work is being performed.
8. The Electrical Contractor shall maintain and operate the permanent lighting system until time of final acceptance and transfer of operation to the Owner’s personnel.

9. Provide dusk to dawn security lights on poles as shown on the Construction Site Logistics Plan or as required to illuminate building perimeter.
10. The Electrical Contractor shall replace bulbs that are burned out or substantially dimmed by use.
11. Modify temporary power and light installation as job progress requires.

B. INSTALLATION

1. Locate so that interference with storage areas, traffic areas and work under other Contracts is avoided.

C. REMOVAL

1. As permanent power distribution system is accepted as substantially complete, either entire system or usable portion thereof, the Electrical Contractor shall make provisions for temporary use thereof and remove unused portions of the temporary power distribution system.
2. As permanent lighting system is substantially complete for each level or usable portion thereof, the Electrical Contractor shall make provisions for temporary use thereof and remove unused portions of temporary lighting system.
3. Remove all temporary equipment and materials completely upon completion of construction.
4. Repair all damage caused by the installation and restore it to satisfactory condition.

END OF SECTION

SECTION 07 21 00
THERMAL INSULATION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Board insulation at perimeter foundation wall and underside of floor slabs.
- B. Batt insulation for filling perimeter window and door shim spaces and crevices in exterior wall and roof.
- C. Batt insulation for cavity wall construction.
- D. Acoustic Batt insulation. See Section 09 21 16 Gypsum Board Assemblies.

1.02 RELATED REQUIREMENTS

- A. Section 06 10 00 - Rough Carpentry: Supporting construction for batt insulation.

1.03 REFERENCE STANDARDS

- A. ASTM C240 - Standard Test Methods for Testing Cellular Glass Insulation Block; 2021.
- B. ASTM C518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus; 2010.
- C. ASTM C552 - Standard Specification for Cellular Glass Thermal Insulation; 2017, with Editorial Revision (2018).
- D. ASTM C553 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications; 2013 (Reapproved 2019).
- E. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation; 2019.
- F. ASTM C612 - Standard Specification for Mineral Fiber Block and Board Thermal Insulation; 2014 (Reapproved 2019).
- G. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2012.
- H. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2019.
- I. ASTM D2842 - Standard Test Method for Water Absorption of Rigid Cellular Plastics; 2006.
- J. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.
- K. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials; 2016.
- L. ASTM E136 - Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750°C; 2019a.
- M. NFPA 255 - Standard Method of Test of Surface Burning Characteristics of Building Materials; National Fire Protection Association; 2006.
- N. UL 723 - Standard for Test for Surface Burning Characteristics of Building Materials; Underwriters Laboratories Inc.; Current Edition, Including All Revisions.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.
- C. Manufacturer's Installation Instructions: Include information on special environmental conditions required for installation and installation techniques.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.05 MOCK-UP

- A. Products of this section are to be included in full exterior wall construction mock-up panel as indicated on the drawings.
 - 1. Wall construction mock-up shall be utilized to confirm material and color selections.
 - 2. Wall construction mock-up shall demonstrate construction detail and quality and shall serve as benchmark for construction.
 - 3. Wall construction mock-up shall remain in place throughout construction of the building envelope and shall only be removed upon direction from the A/E.
 - 4. Locate mock-up where directed by Architect/Engineer.

1.06 FIELD CONDITIONS

- A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

1.07 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with not less than ten years of documented experience.
- B. Insulating Firm's Qualifications: Company specializing in the type of work required.
 - 1. Minimum of five years of experience.

1.08 SEQUENCING

- A. Sequence work to ensure fireproofing, firestop, and vapor retarder materials are in place before beginning work of this section.

PART 2 PRODUCTS

2.01 APPLICATIONS

- A. Insulation Under Concrete Slabs: Extruded polystyrene board.
- B. Insulation at Perimeter of Foundation: Extruded polystyrene board.
- C. Insulation in Metal Framed Walls: Batt insulation with integral vapor retarder.

2.02 FOAM BOARD INSULATION MATERIALS

- A. Extruded Polystyrene Board Insulation: ASTM C 578, Type IV; Extruded polystyrene board with natural skin surfaces; with the following characteristics:
 - 1. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
 - 2. Flame Spread Index: 75 or less, when tested in accordance with ASTM E84.
 - 3. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
 - 4. Board Size: 48 x 96 inch or 24 X 96 inch.
 - 5. Board Thickness: 2 inches,
 - 6. Board Edges: Square, Shiplap or Tongue and groove.
 - 7. Compressive Resistance: 25 psi and 40 psi.
 - 8. Board Density: 1.8 lb/cu ft.
 - 9. Water Absorption, maximum: 0.1 percent, volume.
- B. Manufacturers:
 - 1. Dow Chemical Co(Design Basis):
 - a. Cavity Wall - "Cavity Mate Plus", type IV
 - b. Foundation and slabs - "Styrofoam Highload 40" type VI.
 - 2. Owens Corning Corp.
 - a. Cavity Wall -- "Foamular 250", type IV
 - b. Foundation and Slabs - "Foamular 400 SE", type VI.
 - 3. Pactiv Building Products
 - a. Cavity Wall - "Green Board Score Board", type IV
 - b. Foundation and Slabs - Type VI.
- C. Substitutions: See Section 01 60 00 - Product Requirements.

2.03 MINERAL FIBER BOARD INSULATION MATERIALS

- A. Mineral Wool Block, Board, or Blanket Thermal Insulation: Complying with ASTM C612 or ASTM C553.
 - 1. Where indicated, provide fiberglass reinforced polypropylene facing on one side; with flame spread index of 25 or less, when tested in accordance with ASTM E84.
 - 2. Flame Spread Index: 0 (zero), when tested in accordance with ASTM E84.
 - 3. Smoke Developed Index: 0 (zero), when tested in accordance with ASTM E84.
 - 4. Board Size: 16 by 48 inches.
 - 5. Board Thickness at Metal Framed Construction: 2 inches.
 - a. Thermal Resistance: Minimum R-value of 7.5.
 - 6. Board Thickness at Concrete Masonry Unit Construction: 2-1/2 inches.
 - a. Thermal Resistance: Minimum R-value of 9.5.
 - 7. Thermal Resistance: R-value of 4.2 per inch at 75 degrees F, minimum, when tested in accordance with ASTM C518.
 - 8. Products:
 - a. Johns Manville; CladStone 60 Water & Fire Block Insulation: www.jm.com/#sle.
 - b. ROCKWOOL; CAVITYROCK: www.rockwool.com/#sle.
 - c. Thermafiber, Inc: www.thermafiber.com/#sle.
 - 9. Substitutions: See Section 01 60 00 - Product Requirements.

2.04 BATT INSULATION MATERIALS

- A. Batt Insulation: ASTM C 665; preformed batt; friction fit, conforming to the following:
 - 1. Material: Rock or slag fiber, or glass fiber.
 - 2. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
 - 3. Smoke Developed Index: 50 or less, when tested in accordance with ASTM E84.
 - 4. Combustibility: Non-combustible, when tested in accordance with ASTM E136.
 - 5. Formaldehyde Content: Zero.
 - 6. Thermal Resistance: In accordance with drawings.
 - 7. Thickness: Varies.
 - 8. Facing: Aluminum foil, flame spread 25 rated; one side.
 - 9. Manufacturers:
 - a. CertainTeed Corporation: www.certainteed.com/#sle.
 - b. Johns Manville Corporation: www.jm.com/#sle.
 - c. Owens Corning Corp: www.owenscorning.com.
 - 10. Substitutions: See Section 01 60 00 - Product Requirements.

2.05 ACCESSORIES

- A. Tape: Bright aluminum; Polythylene or Polyester self-adhering type, mesh reinforced, 2 inch wide.
- B. Support for Cladding and Continuous Insulation: Thermal clips.
 - 1. Thermally-broken clips that provide attachment support for girts, angles, channels, and other cladding support framing.
 - 2. Fasteners: As recommended by clip manufacturer.
- C. Support for Cladding and Continuous Insulation: Continuous thermal Z-girts.
 - 1. Fiberglass reinforced plastic (FRP) girts that provide cladding attachment support for brick veneer and metal wall panels.
 - 2. Fasteners: As recommended by clip manufacturer.
- D. Adhesive: Type recommended by insulation manufacturer for application and in compliance with Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation and adhesive.

- B. Verify substrate surfaces are flat, free of irregularities or materials or substances that may impede adhesive bond.

3.02 BOARD INSTALLATION AT FOUNDATION PERIMETER

- A. Adhere a 6 inch wide strip of polyethylene sheet over construction, control, and expansion joints with double beads of adhesive each side of joint.
 - 1. Tape seal joints.
 - 2. Extend sheet full height of joint.
- B. Apply adhesive to back of boards:
 - 1. Three continuous beads per board length.
 - 2. Full bed 1/8 inch thick.
- C. Install boards horizontally on foundation perimeter.
 - 1. Place boards to maximize adhesive contact.
 - 2. Install in running bond pattern.
 - 3. Butt edges and ends tightly to adjacent boards and to protrusions.
- D. Extend boards over expansion joints, unbonded to foundation on one side of joint.
- E. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

3.03 BOARD INSTALLATION USING CLADDING AND CONTINUOUS INSULATION SUPPORTS

- A. Install supports in accordance with manufacturer's installation instructions.
- B. Install supports in compliance with system orientation, sizes, and locations as indicated on drawings and in accordance with approved shop drawings.
- C. Install supports to fill in exterior wall spaces without gaps or voids in insulation.
- D. Trim insulation neatly to fit spaces and provide a continuous thermal layer.

3.04 BOARD INSTALLATION UNDER CONCRETE SLABS

- A. Place insulation under slabs on grade after base for slab has been compacted.
- B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.
- C. Prevent insulation from being displaced or damaged while placing vapor retarder and placing slab.

3.05 BATT INSTALLATION

- A. Install insulation and vapor retarder in accordance with manufacturer's instructions.
- B. Install in exterior cavities at window, door, wall and roof spaces without gaps or voids. Do not compress insulation.
- C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.
- E. Install with factory applied vapor retarder membrane facing warm side of building spaces. Lap ends and side flanges of membrane over framing members.
- F. Staple or nail facing flanges in place at maximum 6 inches on center.
- G. Tape seal butt ends, lapped flanges, and tears or cuts in membrane.

3.06 PROTECTION

- A. Do not permit installed insulation to be damaged prior to its concealment.

END OF SECTION

SECTION 07 27 00
AIR BARRIERS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Air barriers.

1.02 DEFINITIONS

- A. Air Barrier: Airtight barrier made of material that is virtually air impermeable but water vapor permeable, both to amount as specified, with sealed seams and sealed joints to adjacent surfaces.

1.03 REFERENCE STANDARDS

- A. ASTM E2178 - Standard Test Method for Air Permeance of Building Materials; 2013.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on material characteristics, performance criteria, and limitations.
- C. Shop Drawings: Provide drawings of special joint conditions.
- D. Manufacturer's Installation Instructions: Indicate preparation, installation methods, and storage and handling criteria.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing the work of this section with minimum ten years documented experience.
- B. Installer Manufacturer: Company specializing in performing the work of this section with minimum twenty years documented experience.
- C. Manufacturer Qualification: Use evaluated materials from a single manufacturer regularly engaged in air barrier material manufacture, and use secondary materials approved in writing by primary material manufacturer.

1.06 MOCK-UPS

- A. Products of this section are to be included in full exterior wall construction mock-up panel as indicated on the drawings.
 - 1. Wall construction mock-up shall be utilized to confirm material and color selections.
 - 2. Wall construction mock-up shall demonstrate construction detail and quality and shall serve as benchmark for construction.
 - 3. Wall construction mock-up shall remain in place throughout construction of the building envelope and shall only be removed upon direction from the A/E.
 - 4. Locate mock-up where directed by Architect/Engineer.

1.07 FIELD CONDITIONS

- A. Maintain temperature and humidity recommended by materials manufacturers before, during, and after installation.

PART 2 PRODUCTS

2.01 AIR BARRIER MATERIALS (AIR IMPERMEABLE AND WATER VAPOR PERMEABLE)

- A. Air Barrier, Fluid Applied: Vapor permeable, elastomeric waterproofing.
 - 1. Air Barrier Membrane:
 - a. Fluid-applied vapor-permeable membrane of synthetic polymer, fire retardant composition for use as an air and water resistive barrier in exterior walls.
 - 1) Monolithic, fully-adhered membrane and accessory products installed as a continuous air and water resistive barrier assembly over substrates of the Project's opaque walls.

- 2) Provide air and water tight coverage over these conditions:
 - (a) Joints between building materials such as sheathing joints, mortar joints and dissimilar materials.
 - (b) Joints around windows, curtain walls, louvers, door frames and other service openings
 - (c) Junctions between walls and floors, between walls at building corners and between walls, roofs and ceilings.
 - (d) Mechanical and electrical penetrations
 - (e) Termination at footing, roof deck and existing construction
 - (f) Junction to air & water barrier in roof, below grade or other adjacent systems
- b. Dry Film Thickness (DFT): 40 mil, minimum.
- c. Air Permeance: 0.004 cfm/sq ft, maximum, when tested in accordance with ASTM E2178.
- d. Water Vapor Permeance: Not less than 5 perms, when tested in accordance with ASTM E96/E96M using Procedure B - Water Method, at 73.4 degrees F.
- e. Flame Spread and Smoke Development, ASTM E84: Class A.
- f. NFPA 285: Complies with various assemblies.
- g. Mold and Fungus Resistant, ASTM D3273, ASTM D3274, ASTM D5590: Pass.
- h. Sealants, Tapes and Accessories: As recommended by coating manufacturer.
- i. Products:
 - 1) Carlisle Coatings and Waterproofing, Inc; Fire Resist Barritech-VP: www.carlisleccw.com/#sle.
 - 2) Tremco Commercial Sealants & Waterproofing; ExoAir 230: www.tremcosealants.com/#sle.
 - 3) Tremco Commercial Sealants & Waterproofing; ExoAir 230LT: www.tremcosealants.com/#sle.
 - 4) W. R. Meadows, Inc; Air-Shield LMP: www.wrmeadows.com/#sle.
 - 5) Substitutions: See Section 01 60 00 - Product Requirements.

2.02 ACCESSORIES

- A. Sealants, Tapes, and Accessories for Sealing Air Barrier and Adjacent Substrates: As indicated or in compliance with air barrier manufacturer's installation instructions.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and conditions are ready for work of this section.
- B. Where existing conditions are responsibility of another installer, notify Architect of unsatisfactory conditions.
- C. Do not proceed with this work until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Remove projections, protruding fasteners, and loose or foreign matter that might interfere with proper installation.
- B. Clean and prime substrate surfaces to receive adhesives and sealants in accordance with manufacturer's installation instructions.

3.03 INSTALLATION

- A. Install materials in accordance with manufacturer's installation instructions.
- B. Air Barriers: Install continuous airtight barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces.
- C. Apply sealants and adhesives within recommended temperature range in accordance with manufacturer's installation instructions.
- D. Fluid-Applied Coatings or Membranes:

1. Prepare substrate in accordance with manufacturer's installation instructions; treat joints in substrate and between dissimilar materials as indicated.
 2. Where exterior masonry veneer is being installed, install masonry anchors before installing air barrier over masonry; provide airtight seal around anchors.
 3. Apply bead or trowel coat of mastic sealant with minimum thickness of 1/4 inch along coating seams, rough cuts, and as recommended by manufacturer.
 4. Use flashing to seal to adjacent construction and to bridge joints in coating substrate.
- E. Openings and Penetrations in Exterior Air Barriers:
1. Install flashing over sills, covering entire sill frame member, extending at least 5 inches onto air barrier and at least 6 inches up jambs; mechanically fasten stretched edges.
 2. At openings with frames having nailing flanges, seal head and jamb flanges using a continuous bead of sealant compressed by flange and cover flanges with sealing tape at least 4 inches wide; do not seal sill flange.
 3. At openings with nonflanged frames, seal air barrier to each side of framing at opening using flashing at least 9 inches wide, and covering entire depth of framing.
 4. At head of openings, install flashing under air barrier extending at least 2 inches beyond face of jambs; seal air barrier to flashing.
 5. At interior face of openings, seal gap between window/door frame and rough framing, using joint sealant over backer rod.
 6. Service and Other Penetrations: Form flashing around penetrating item and seal to air barrier surface.

3.04 PROTECTION

- A. Do not leave materials exposed to weather longer than recommended by manufacturer.

END OF SECTION

SECTION 080671

DOOR HARDWARE SCHEDULE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section references specification sections relating to commercial door hardware for the following:
 - 1. Swinging doors.
 - 2. Sliding Doors.
 - 3. Other doors to the extent indicated.
- B. Commercial door hardware includes, but is not necessarily limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical and access control door hardware.
 - 3. Electromechanical and access control door hardware power supplies, back-ups and surge protection.
 - 4. Automatic operators.
 - 5. Cylinders specified for doors in other sections.
- C. Related Sections:
 - 1. Division 08 Section "Door Hardware".
 - 2. Division 28 Section "Access Control Hardware Devices".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC - International Building Code.
 - 3. NFPA 70 - National Electrical Code.
 - 4. NFPA 80 - Fire Doors and Windows.
 - 5. NFPA 101 - Life Safety Code.
 - 6. NFPA 105 - Installation of Smoke Door Assemblies.
 - 7. State Building Codes, Local Amendments.
- E. Standards: Reference Related Sections for requirements regarding compliance with applicable industry standards.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - 1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 - 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
 - 3. Content: Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 - 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Keying Schedule: Prepared under the supervision of the Owner, separate schedule detailing final keying instructions for locksets and cylinders in writing. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner to approve submitted keying schedule prior to the ordering of permanent cylinders.
- D. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals. The manual to include the name, address, and contact information of the manufacturers providing the hardware and their nearest service representatives. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.

- F. Warranties and Maintenance: Special warranties and maintenance agreements specified in the Related Sections.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.5 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

1.6 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. Refer to "PART 3 – EXECUTION" for required specification sections.

PART 3 - EXECUTION

3.1 DOOR HARDWARE SETS

- A. The door hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
 - 1. Quantities listed are for each pair of doors, or for each single door.
 - 2. The supplier is responsible for handing and sizing all products.

3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
 4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.
- B. Products listed in the hardware sets shall be supplied by and in accordance with the requirements described in the specification section as noted for each item.
1. Section 08 71 00 – Door Hardware.
 2. Section 28 15 00 – Access Control Hardware Devices.
- C. Manufacturer's Abbreviations:
1. MK - McKinney
 2. PE - Pemko
 3. SA - SARGENT
 4. SU - Securitron
 5. RO - Rockwood
 6. AD - Adams Rite
 7. SR - Securitech
 8. RS - RITE Slide
 9. HS - HES
 10. RF - Rixson
 11. NO - Norton
 12. OT - Other
 13. MC - Medeco
 14. AK - Alarm Controls

Hardware Sets

Set: 1.0A

Doors: V01A, V01D

1 Core	6300	US15	SA	087100
2 Mortise Cylinder	60 42	US32D	SA	087100

Notes: Remainder of hardware by door manufacturer.

Electronic Operation: Motion detector allows free egress at all times. Request to exit button allows free egress at all times. Doors are push to enable breakaway in event of emergency. Card reader engages automatic operator allowing entry. Entry by motion detector when exterior access is enabled by remote station or timer. Emergency entry by key.

Set: 1.0B

Doors: V01B, V01C

2 Core	6300	US15	SA	087100
2 Mortise Cylinder	60 42	US32D	SA	087100
1 Card Reader	BY SECURITY		OT	

Notes: Remainder of hardware by door manufacturer.

Electronic Operation: Motion detector allows free egress at all times. Request to exit button allows free egress at all times. Doors are push to enable breakaway in event of emergency. Card reader engages automatic operator allowing entry. Entry by motion detector when exterior access is enabled by remote station or timer. Emergency entry by key.

Set: 2.0A

Doors: 157.1

2 Continuous Hinge	CFM__SLI-HD1 SER12 - DOOR HEIGHT	PE	087100	⚡
1 Concealed Vert Rod Exit	56-SN200-MDPE8610 P106 x 862 – By Security	US32D	SA 281500	⚡
1 Core	6300	US15	SA 087100	
1 Concealed Vert Rod Exit, Exit Only	55 MDPE8610 EO	US32D	SA 087100	
2 Conc Overhead Stop	6-X36	630	RF 087100	
2 Surface Closer	J7500 (brackets and drop plate as required)	689	NO 087100	
2 Kick Plate	K1050 10" high BEV CSK	US32D	RO 087100	
1 Astragal	S771BL LAR		PE 087100	
1 Gasketing	S88BL (Head & Jambs)		PE 087100	
1 Rain Guard	346C		PE 087100	
2 Sweep	3452CNB		PE 087100	
1 Threshold	272A MSES25SS		PE 087100	
3 Door Harness	QC-C__ - LENGTH TO SUIT	MK	087100	⚡
2 Frame Harness	QC-C1500P	MK	087100	⚡
2 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME	OT		
1 Power Supply	BY SECURITY	SU		⚡

Notes: Perimeter/meeting stile seals by frame/door supplier.

Electronic Operation: Valid card or key retracts latchbolt. Free egress at all times. Exit device at active leaf and inactive leaf retracts latch bolt allowing free egress at all times. In case of power loss, door remains locked and latched.

Security vendor to coordinate quantity and amperage of power supplies.

Set: 2.0B

Doors: 155.1

2 Continuous Hinge	CFM__SLI-HD1 SER12 - DOOR HEIGHT	PE 087100	⚡
1 Core	6300	US15 SA 087100	
1 Concealed Vert Rod Exit, Exit Only	55 ADPE8610 EO	US32D SA 087100	
1 Concealed Vert Rod Exit	64 56-SN200-ADPE8610 P106 x 862 – By Security	US32D SA 281500	⚡
2 Conc Overhead Stop	6-X36	630 RF 087100	
2 Surface Closer	J7500 (brackets and drop plate as required)	689 NO 087100	
2 Kick Plate	K1050 10" high BEV CSK	US32D RO 087100	
1 Weatherstrip	BY DOOR SUPPLIER	OT	
1 Rain Guard	346C	PE 087100	
2 Sweep	3452CNB	PE 087100	
1 Threshold	272A MSES25SS	PE 087100	
2 Door Harness	QC-C__ - LENGTH TO SUIT	MK 087100	⚡
2 Frame Harness	QC-C1500P	MK 087100	⚡
2 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME	OT	
1 Power Supply	BY SECURITY	SU	⚡

Notes: Perimeter/meeting stile seals by frame/door supplier.

Electronic Operation: Valid card or key retracts latchbolt. Free egress at all times. Exit device at active leaf and inactive leaf retracts latch bolt allowing free egress at all times. In case of power loss, door remains locked and latched.

Security vendor to coordinate quantity and amperage of power supplies.

Set: 3.0

Doors: CY1A, CY1B, CY2A, CY2B, CY3A, CY3B, CY3C

1 Continuous Hinge	CFM__SLI-HD1 SER12 - DOOR HEIGHT	PE	087100	⚡
1 Continuous Hinge	CFM__SLI-HD1 - DOOR HEIGHT	PE	087100	
1 Automatic Flush Bolt set (metal/wood as required)	2842/ 2942	US26D	RO 087100	
1 Core	6300	US15	SA 087100	
1 Storeroom Lock (electric latch retraction)	RX 56 64 8204 LNL	US26D	SA 087100	⚡
2 Conc Overhead Stop	6-X36	630	RF 087100	
1 Automatic Opener (pair)	D6021-36 D	689	NO 087100	⚡
2 Kick Plate	K1050 10" high BEV CSK	US32D	RO 087100	
1 Wiring Diagram	WD-SYSPK (Elevations and Point to Point)	SA	087100	
1 Astragal	297AS	PE	087100	
1 Gasketing	S88BL (Head & Jambs)	PE	087100	
2 Sweep	307APK	PE	087100	
1 Threshold	272A MSES25SS	PE	087100	
1 ElectroLynx Harness (frame)	QC-C1500P	MK	087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)	MK	087100	⚡
1 Door Harness	QC-C___ - LENGTH TO SUIT	MK	087100	⚡
1 Frame Harness	QC-C1500P	MK	087100	⚡
1 Card Reader	BY SECURITY	OT		
1 Door Switch	501	NO	087100	⚡
1 Switch Post	500 (with hardwired switch)	689	NO 087100	⚡
2 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME	OT		
1 Power Supply	BY SECURITY	SU		⚡

Notes: Operation: Card reader retracts latch at active leaf and activates automatic door switch plate allowing access. Pushing door switch plate activates operators in sequence when using "C" cable. First active leaf and then inactive leaf. Operators to close in sequence of inactive then active door.

Key unlocks trim at both leaves.

Lever retracts latch bolt allowing free egress at all times. Pushing door switch plate activates operators in sequence when using "C" cable. First active leaf and then inactive leaf. Operators to close in sequence of inactive then active door.

Security vendor to coordinate quantity and amperage of power supplies.

Occupancy of 49 or less for each courtyard.

Set: 4.0

Doors: CY2C

1 Continuous Hinge	CFM__SLI-HD1 SER12 - DOOR HEIGHT	PE	087100	⚡
1 Core	6300	US15	SA 087100	
1 Access Control Mort Lock	63 SN200-82271-24V LNL – By Security	US26D	SA 281500	⚡
1 Conc Overhead Stop	6-X36	630	RF 087100	
1 Surface Closer	7500 (brackets and drop plate as required)	689	NO 087100	
1 Kick Plate	K1050 10" high BEV CSK	US32D	RO 087100	
1 Astragal	297AS		PE 087100	
1 Gasketing	S88BL (Head & Jambs)		PE 087100	
1 Sweep	307APK		PE 087100	
1 Threshold	272A MSES25SS		PE 087100	
1 ElectroLynx Harness (frame)	QC-C1500P		MK 087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK 087100	⚡
1 Power Supply	BY SECURITY		SU	⚡

Notes: Presenting authorized credential to integral card reader will unlock trim allowing access. Free egress by lever. Emergency access by key.
 Security Vendor to coordinate quantity and amperage of power supplies.

Set: 5.0

Doors: V02B, V03B, V04B, V05B, V06B

2 Continuous Hinge	CFM__SLI-HD1 SER12 - DOOR HEIGHT	PE 087100	⚡
1 Core	6300	US15 SA 087100	
1 Concealed Vert Rod Exit, Exit Only	55 56 ADPE8610 EO	US32D SA 087100	⚡
1 Concealed Vert Rod Exit, Nightlatch	55 56 64 ADPE8610 P106 x 862	US32D SA 087100	⚡
2 Conc Overhead Stop	6-X36	630 RF 087100	
1 Automatic Opener (pair)	D6021-36 D	689 NO 087100	⚡
1 Astragal	297AS	PE 087100	
1 Gasketing	5110BL	PE 087100	
2 Sweep	3452CNB	PE 087100	
2 Door Harness	QC-C__ - LENGTH TO SUIT	MK 087100	⚡
2 Frame Harness	QC-C1500P	MK 087100	⚡
2 Door Switch	501	NO 087100	⚡
2 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME	OT	
1 Power Supply	BY SECURITY	SU	⚡

Notes: Presenting authorized credential card reader by security will retract latches and activate operator switch allowing access. Pushing switch will activate operator.
Pushing inside wall switch will retract latches and activate operator allowing egress. Free egress by exit device. Emergency access by key.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 6.0

Doors: [V03A](#), [V04A](#), [V05A](#)

2 Continuous Hinge	CFM__SLI-HD1 SER12 - DOOR HEIGHT	PE 087100	⚡
1 Core	6300	US15 SA 087100	
1 Concealed Vert Rod Exit, Exit Only	55 56 ADPE8610 EO	US32D SA 087100	⚡
1 Concealed Vert Rod Exit, Nightlatch	55 56 64 ADPE8610 P106 x 862	US32D SA 087100	⚡
2 Conc Overhead Stop	6-X36	630 RF 087100	
1 Automatic Opener (pair)	D6021-36 D	689 NO 087100	⚡
1 Astragal	297AS	PE 087100	
1 Rain Guard	346C	PE 087100	
1 Gasketing	5110BL	PE 087100	
2 Sweep	3452CNB	PE 087100	
1 Threshold	272A MSES25SS	PE 087100	
2 Door Harness	QC-C__ - LENGTH TO SUIT	MK 087100	⚡
2 Frame Harness	QC-C1500P	MK 087100	⚡
2 Door Switch	501	NO 087100	⚡
2 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME	OT	
1 Power Supply	BY SECURITY	SU	⚡

Notes: Presenting authorized credential card reader by security will retract latches and activate operator switch allowing access. Pushing switch will activate operator.
Pushing inside wall switch will retract latches and activate operator allowing egress. Free egress by exit device. Emergency access by key.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 6.1

Doors: **V02A, V06A**

2 Continuous Hinge	CFM__SLI-HD1 SER12 - DOOR HEIGHT	PE	087100	⚡
1 Core	6300	US15	SA 087100	
1 Concealed Vert Rod Exit, Exit Only	55 56 ADPE8610 EO	US32D	SA 087100	⚡
1 Concealed Vert Rod Exit, Nightlatch	55 56 64 ADPE8610 P106 x 862	US32D	SA 087100	⚡
2 Conc Overhead Stop	6-X36	630	RF 087100	
1 Automatic Opener (pair)	D6021-36 D	689	NO 087100	⚡
1 Astragal	297AS		PE 087100	
1 Rain Guard	346C		PE 087100	
1 Gasketing	5110BL		PE 087100	
2 Sweep	3452CNB		PE 087100	
1 Threshold	272A MSES25SS		PE 087100	
1 Door Harness	QC-C__ - LENGTH TO SUIT	MK	087100	⚡
1 Frame Harness	QC-C1500P	MK	087100	⚡
1 Door Switch	501		NO 087100	⚡
1 Switch Post	500 (with hardwired switch)	689	NO 087100	⚡
1 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME		OT	
1 Power Supply	BY SECURITY		SU	⚡

Notes: Presenting authorized credential card reader by security will retract latches and activate operator switch allowing access. Pushing switch will activate operator.
Pushing inside wall switch will retract latches and activate operator allowing egress. Free egress by exit device. Emergency access by key.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 7.0

Doors: 127.1

1 Continuous Hinge	CFM__SLI-HD1 SER12 - DOOR HEIGHT	PE	087100	⚡
1 Core	6300	US15	SA 087100	
1 Rim Exit Device	64 56-SN200-PE8804 862 – By Security	US32D	SA 281500	⚡
1 Surface Closer	CPS7500 DA (brackets and drop plate as required)	689	NO 087100	
1 Rain Guard	346C	PE	087100	
1 Sweep	3452CNB	PE	087100	
1 Threshold	272A MSES25SS	PE	087100	
1 Door Harness	QC-C__ - LENGTH TO SUIT	MK	087100	⚡
1 Frame Harness	QC-C1500P	MK	087100	⚡
1 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME	OT		
1 Power Supply	BY SECURITY	SU		⚡

Notes: Perimeter seals by frame supplier.

Electronic Operation: Valid card or key retracts latchbolt. Free egress at all times. In case of power loss, door remains locked and latched.

Security vendor to coordinate quantity and amperage of power supplies.

Set: 8.0

Doors: GH01

3 Core	6300	US15	SA 087100
1 Mortise Cylinder	60 42	US32D	SA 087100

Notes: Remainder door, frame and hardware by greenhouse manufacturer.

Set: 9.0

Doors: 128.1, 152.1, 153.1

1 Continuous Hinge	CFM__SLI-HD1 SER12 - DOOR HEIGHT	PE	087100	⚡
1 Continuous Hinge	CFM__SLI-HD1 - DOOR HEIGHT	PE	087100	
2 Flush Bolt	555 (Metal)/ 557 (Wood)	US26D	RO	087100
1 Dust Proof Strike	570	US26D	RO	087100
1 Core	6300	US15	SA	087100
1 Card Reader Lock	64 SN200-82271-24V LNL – By Security	US26D	SA	281500 ⚡
2 Surface Closer	CPS7500T (brackets and drop plate as required)	689	NO	087100
2 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1 Astragal	305SSE	PE	087100	
1 Gasketing	S88BL (Head & Jambs)	PE	087100	
2 Sweep	307APK	PE	087100	
1 Threshold	272A MSES25SS	PE	087100	
1 Door Harness	QC-C__ - LENGTH TO SUIT	MK	087100	⚡
1 Frame Harness	QC-C1500P	MK	087100	⚡
1 Power Supply	BY SECURITY	SU		⚡

Notes: Operation: Card reader retracts latchbolt at active leaf allowing access. Key outside retracts latchbolt allowing access. Lever inside retracts latchbolt allowing egress at all times.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 10.0

Doors: 127

4 Electric Hinge, Hvy Wt	T4A3786-QC12	US26D	MK	087100	⚡
2 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100	
1 Core	6300	US15	SA	087100	
1 Surface Vert Rod Exit, Exit Only	55 PE8710 EO NB	US32D	SA	087100	
1 Surface Vertical Rod Exit Device	NB 64 56-SN200-PE8706 WEL – By Security	US32D	SA	281500	⚡
2 Surface Closer	CPS7500T (brackets and drop plate as required)	689	NO	087100	
2 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100	
1 Wiring Diagram	WD-SYSPK (Elevations and Point to Point)		SA	087100	
1 Astragal	S771BL LAR		PE	087100	
1 Gasketing	S88BL (Head & Jambs)		PE	087100	
2 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
2 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
2 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME		OT		
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Operation: Card reader unlocks active leaf exit device allowing access. Exit device at active leaf and inactive leaf retracts latch bolt allowing free egress at all times. Key outside unlocks trim. Security vendor to coordinate quantity and amperage of power supplies.

Set: 11.1

Doors: 157

2 Electric Hinge, Hvy Wt	T4A3786-QC12	US26D	MK	087100	⚡
4 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100	
1 Core	6300	US15	SA	087100	
1 Surface Vert Rod Exit, Dummy	55 56 PE8710 WEL NB	US32D	SA	087100	⚡
1 Surface Vertical Rod Exit Device	NB 64 56-SN200-PE8706 WEL – By Security	US32D	SA	281500	⚡
2 Surface Closer	J7500 (brackets and drop plate as required)	689	NO	087100	
2 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100	
2 Electromagnetic Holder	980M	689	RF	087100	⚡
1 Astragal	S771BL LAR		PE	087100	
1 Gasketing	S88BL (Head & Jambs)		PE	087100	
2 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
2 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
2 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME		OT		
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Presenting authorized credential to integrated card reader unlocks exit device allowing access.
exit device allows egress at all times. Pushing rail activates rex switch.
Security system unlocks exit devices during school hours and relocks exit devices after hours.
Lockdown by security system would lock exit devices and lockout card reader.
Fire alarm activation closes doors.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 11.2

Doors: 155

2 Electric Hinge, Hvy Wt	T4A3786-QC12	US26D	MK	087100	⚡
4 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100	
1 Core	6300	US15	SA	087100	
1 Concealed Vert Rod Exit, Exit Only	NB 55 56 64 (AD/MD)PE8610 EO	US32D	SA	087100	⚡
1 Concealed Vert Rod Exit	NB 64 56-SN200-(AD/MD)PE8606 WEL – By Security	US32D	SA	281500	⚡
2 Surface Closer	J7500 (brackets and drop plate as required)	689	NO	087100	
2 Electromagnetic Holder	980M	689	RF	087100	⚡
1 Weatherstrip	BY DOOR SUPPLIER		OT		
2 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
2 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
2 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME		OT		
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Presenting authorized credential to integrated card reader unlocks exit device allowing access.
exit device allows egress at all times. Pushing rail activates rex switch.
Security system unlocks exit devices during school hours and relocks exit devices after hours.
Lockdown by security system would lock exit devices and lockout card reader.
Fire alarm activation closes doors.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 12.0

Doors: **K01, P01**

2 Electric Hinge, Hvy Wt	T4A3786-QC12	US26D	MK	087100	⚡
4 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100	
1 Core	6300	US15	SA	087100	
1 Concealed Vert Rod Exit, Exit Only	NB 55 56 64 (AD/MD)PE8610 EO	US32D	SA	087100	⚡
1 Concealed Vert Rod Exit	NB 64 56-SN200-(AD/MD)PE8606 WEL – By Security	US32D	SA	281500	⚡
2 Surface Closer	(PR) 7500 (Reg or PA) (brackets and drop plate as required)	689	NO	087100	
2 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100	
2 Electromagnetic Holder	980M	689	RF	087100	⚡
1 Astragal	S771BL LAR		PE	087100	
1 Gasketing	S88BL (Head & Jambs)		PE	087100	
2 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
2 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
2 Door Contact Switch	BY SECURITY - PREP DOOR/FRAME		OT		
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Operation: Door normal held open by electromagnetic holder. Upon remote release and upon fire alarm, electromagnetic disengages and door closes and latches. Exit devices at each leaf retract latchbolt allowing egress. Card reader retracts latchbolt allowing entry. Key unlocks leaver allowing entry. Security vendor to coordinate quantity and amperage of power supplies.

Set: 13.0

Doors: 152

1 Electric Hinge, Hvy Wt	T4A3786-QC12	US26D	MK	087100	⚡
5 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100	
2 Flush Bolt	555 (Metal)/ 557 (Wood)	US26D	RO	087100	
1 Dust Proof Strike	570	US26D	RO	087100	
1 Core	6300	US15	SA	087100	
1 Access Control Mort Lock	63 SN200-82271-24V LNL – By Security	US26D	SA	281500	⚡
2 Surface Closer	7500 (brackets and drop plate as required)	689	NO	087100	
2 Kick Plate	K1050 10" BEV CSK	US32D	RO	087100	
1 Astragal	S771BL LAR		PE	087100	
1 Gasketing	S88BL (Head & Jambs)		PE	087100	
1 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Operation: Card reader retracts latchbolt allowing access. Key outside retracts latchbolt allowing access. Lever inside at active leaf allows egress at all times.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 14.0

Doors: 106, 108, 117, 118, 120, 135, 137, 138, 140, 144, 146, 159, 160, 170, 171

1 Electric Hinge	TA2714-QC12	US26D	MK	087100	⚡
2 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100	
1 Core	6300	US15	SA	087100	
1 Access Control Mort Lock	64 PHR SN200-82281-24V LNL – By Security	US26D	SA	281500	⚡
1 Kick Plate	K1050 10" BEV CSK	US32D	RO	087100	
1 Wall Stop	409	US32D	RO	087100	
3 Silencer	608 (or) 609		RO	087100	
1 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Operation: Door locked at all times. Lever inside retracts latch bolt and dead bolt allowing free egress at all times. Thumb-turn inside projects and retracts dead bolt. Key outside retracts latch bolt and dead bolt allowing access. Card reader unlocks latch bolt only. Card reader allows access only when dead bolt is retracted.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 15.0

Doors: 103H, 103J, 177

1 Electric Hinge	TA2714-QC12	US26D	MK	087100	⚡
2 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100	
1 Core	6300	US15	SA	087100	
1 Access Control Mort Lock	63 SN200-82271-24V LNL – By Security	US26D	SA	281500	⚡
1 Surface Closer	CPS7500 (brackets and drop plate as required)	689	NO	087100	
1 Kick Plate	K1050 10" BEV CSK	US32D	RO	087100	
1 Gasketing	S88BL (Head & Jambs)		PE	087100	
1 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Operation: Lever inside retracts latchbolt allowing egress at all times. Card reader unlocks electric trim allowing access. Key outside retracts latch bolt.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 16.1

Doors: 101, 111, 115, 121, 122, 123, 123B, 124, 125, 129, 141, 143, 161, 165, 166, 168, 169

1 Electric Hinge	TA2714-QC12	US26D	MK	087100	⚡
2 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100	
1 Core	6300	US15	SA	087100	
1 Access Control Mort Lock	63 SN200-82271-24V LNL – By Security	US26D	SA	281500	⚡
1 Surface Closer	R7500 (or) PR7500 (brackets and drop plate as required)	689	NO	087100	
1 Kick Plate	K1050 10" BEV CSK	US32D	RO	087100	
1 Wall Stop	409	US32D	RO	087100	
1 Gasketing	S88BL (Head & Jambs)		PE	087100	
1 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: peration: Lever inside retracts latchbolt allowing egress at all times. Card reader unlocks electric trim allowing access. Key outside retracts latch bolt.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 16.2

Doors: 101B, 102B, 158A, 158B

3 Electric Hinge	TA2714-QC12	US26D	MK	087100	⚡
3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100	
1 Core	6300	US15	SA	087100	
1 Access Control Mort Lock	63 SN200-82271-24V LNL – By Security	US26D	SA	281500	⚡
1 Surface Closer	R7500 (or) PR7500 (brackets and drop plate as required)	689	NO	087100	
1 Kick Plate	K1050 10" BEV CSK	US32D	RO	087100	
1 Wall Stop	409	US32D	RO	087100	
3 Silencer	608 (or) 609		RO	087100	
1 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Operation: Lever inside retracts latchbolt allowing egress at all times. Card reader unlocks electric trim allowing access. Key outside retracts latch bolt.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 17.0

Doors: 129B, 155B

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100	
1 Storeroom/Closet Lock	63 8204 LNL	US26D	SA	087100	
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100	
3 Silencer	608		RO	087100	

Set: 18.0

Doors: 110, 112, 116, 124, 126, 130, 133, 142, 149, 151, 156, 164, 173, 175

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100	
1 Storeroom/Closet Lock	63 8204 LNL	US26D	SA	087100	
1 Surface Closer	7500 (brackets and drop plate as required)	689	NO	087100	
1 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100	
1 Wall Stop	409	US32D	RO	087100	
3 Silencer	608		RO	087100	

Set: 19.0

Doors: 113, 132, 150, 163

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
1 Timeout Lock	47PL33 3 point		SR	
1 Surface Closer	7500 (brackets and drop plate as required)	689	NO	087100
1 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1 Wall Stop	409	US32D	RO	087100
1 Gasketing	S88BL (Head & Jambs)		PE	087100

Notes: Time out lock requires supervision to maintain locking of latches.

Set: 19.1

Doors: 103K, 165B

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
1 Storeroom/Closet Lock	63 8204 LNL	US26D	SA	087100
1 Surface Closer	CPS7500 (brackets and drop plate as required)	689	NO	087100
1 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
3 Silencer	608		RO	087100

Set: 20.0

Doors: 101E, 101F, 101G, 102A, 103A, 103B, 103C, 103D, 103E, 103F, 128A, 153, 177A

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
1 Office/Entry Lock	WBS 63 8205 LNL	US26D	SA	087100
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100
1 Gasketing	S88BL (Head & Jambs)		PE	087100

Set: 21.0

Doors: 100A, 153B

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
1 Passage Latch	8215 LNL	US26D	SA	087100
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100
1 Gasketing	S88BL (Head & Jambs)		PE	087100

Set: 22.0

Doors: 103G, 157B

6 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
2 Flush Bolt	555 (Metal)/ 557 (Wood)	US26D	RO	087100
1 Dust Proof Strike	570	US26D	RO	087100
1 Classroom Lock	63 8237 LNL	US26D	SA	087100
1 Surf Overhead Stop	10-X36 5258	689	RF	087100
1 Surface Closer	7500 (brackets and drop plate as required)	689	NO	087100
2 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
2 Silencer	608		RO	087100

Set: 23.0

Doors: 127A, 155E, 157A

6 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
2 Flush Bolt	555 (Metal)/ 557 (Wood)	US26D	RO	087100
1 Dust Proof Strike	570	US26D	RO	087100
1 Classroom Lock	63 8237 LNL	US26D	SA	087100
2 Surf Overhead Stop	10-X36 5258	689	RF	087100
2 Surface Closer	CPS7500 (brackets and drop plate as required)	689	NO	087100
2 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
2 Silencer	608		RO	087100

Set: 24.0

Doors: 121B, 123A, 128B, 155A

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
1 Classroom Lock	63 8237 LNL	US26D	SA	087100
1 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100
3 Silencer	608		RO	087100

Set: 25.0

Doors: 127B, 127C

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100
1 Classroom Lock	63 8237 LNL	US26D	SA	087100
1 Surface Closer	(PR) 7500 (Reg or PA) (brackets and drop plate as required)	689	NO	087100
1 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1 Wall Stop	409	US32D	RO	087100
3 Silencer	608		RO	087100

Set: 26.0

Doors: 100C

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
1 Dormitory/Exit Lock (Deadbolt & Indicator)	V01 WBS 64 8225 LNL	US26D	SA	087100
1 Surface Closer	7500 (brackets and drop plate as required)	689	NO	087100
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100
3 Silencer	608		RO	087100

Notes: Operation: Lever inside retracts latch bolt and dead bolt allowing free egress at all times. Thumb-turn inside locks and unlocks outside trim and projects and retracts dead bolt. Key outside unlocks trim and retracts and projects deadbolt allowing access. Indicator inside shows position of dead bolt; "LOCKED" or "UNLOCKED." Outside does not include indicator.

Set: 27.0

Doors: 153C

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100
1 Classroom Security Intruder Lock	63 8238 LNL	US26D	SA	087100
1 Surface Closer	7500 (brackets and drop plate as required)	689	NO	087100
1 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100
1 Gasketing	S88BL (Head & Jambs)		PE	087100

Set: 28.0

Doors: 114, 162, 176

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
1 Core	6300	US15	SA	087100
1 Dormitory/Exit Lock (Deadbolt & double Indicator)	V21 WBS 64 8225 LNL	US26D	SA	087100
1 Surface Closer	R7500 (or) PR7500 (brackets and drop plate as required)	689	NO	087100
2 Kick Plate	K1050 10" BEV CSK	US32D	RO	087100
1 Kick Plate	K1050 6" CSK BEV	US32D	RO	087100
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100
1 Gasketing	S88BL (Head & Jambs)		PE	087100

Set: 29.0

Doors: 102C, 121A, 128C, 129A, 153A

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	087100
1 Privacy Lock	V21 8265 LNL	US26D	SA	087100
1 Kick Plate	K1050 10" BEV CSK	US32D	RO	087100
1 Kick Plate	K1050 6" CSK BEV	US32D	RO	087100
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100
3 Silencer	608 (or) 609		RO	087100

Set: 30.0

Doors: 104, 105, 147, 148, 172, 172A

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100
1 Classroom Lock	63 8237 LNL	US26D	SA	087100
1 Surface Closer	R7500 (or) PR7500 (brackets and drop plate as required)	689	NO	087100
1 Kick Plate	K1050 10" BEV CSK	US32D	RO	087100
1 Wall Stop	409	US32D	RO	087100
1 Gasketing	S88BL (Head & Jambs)		PE	087100

Set: 31.0

Doors: 100

1 Electric Hinge, Hvy Wt	T4A3786-QC12	US26D	MK	087100	⚡
2 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100	
1 Core	6300	US15	SA	087100	
1 Card Reader Lock	64 SN200-82271-24V LNL – By Security	US26D	SA	281500	⚡
1 Surface Closer	7500 (brackets and drop plate as required)	689	NO	087100	
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100	
1 Gasketing	S88BL (Head & Jambs)		PE	087100	
1 Sweep	307APK		PE	087100	
1 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
1 Pushbutton	PB		SU	087100	⚡
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Operation: Lever inside retracts latchbolt allowing egress at all times. Card reader or push button at desk unlocks electric trim allowing access. Key outside retracts latch bolt. Security vendor to coordinate quantity and amperage of power supplies.

Set: 32.0

Doors: 100B

1 Electric Hinge, Hvy Wt	T4A3786-QC12	US26D	MK	087100	⚡
2 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100	
1 Fail Secure Electric Lock	63 8271-24V LNL (modified inside trim rigid, outside trim electric fail secure)	US26D	SA	087100	⚡
1 Electric Strike	1600-CS-LM 2004M 2005M	630	HS	087100	⚡
1 Surface Closer	7500 (brackets and drop plate as required)	689	NO	087100	
1 Kick Plate	K1050 10" high BEV CSK	US32D	RO	087100	
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100	
3 Silencer	608		RO	087100	
2 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Card reader by others. During normal school hours corridor trim is unlocked electrically. Reception trim is always locked. Electric strike is operated by card reader or push button at reception desk. After school hours the corridor trim is locked electrically and access or egress is by card reader which unlocks electric strike. Emergency access or egress is by key.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 33.0

Doors: 101A, 131, 167

1 Electric Hinge, Hvy Wt	T4A3786-QC12	US26D	MK	087100	⚡
2 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	087100	
1 Access Control Mort Lock	63 SN200-82271-24V LNL – By Security	US26D	SA	281500	⚡
1 Surface Closer	7500 (brackets and drop plate as required)	689	NO	087100	
1 Wall/ Floor Stop	RM861 / RM850	US32D	RO	087100	
1 Gasketing	S88BL (Head & Jambs)		PE	087100	
1 ElectroLynx Harness (frame)	QC-C1500P		MK	087100	⚡
1 ElectroLynx Harness (door)	QC-C*** (Length / Type as Required)		MK	087100	⚡
1 Power Supply	BY SECURITY		SU	087100	⚡

Notes: Operation: Lever inside retracts latchbolt allowing egress at all times. Card reader unlocks electric trim allowing access. Key outside retracts latch bolt.
Security vendor to coordinate quantity and amperage of power supplies.

Set: 34.0

Doors: 107A, 107B, 117B, 119A, 119B, 136, 136A, 139, 139A, 145, 145A

1 Core	6300	US15	SA	087100
1 Classroom Lock	S9670 202	630	RS	083473
1 Mortise Cylinder	60 42	US32D	SA	087100

Notes: Remainder of hardware supplied by Rite Slide door manufacturer.
Surface sliding system to be determined.

Set: 35.0

Doors: 106A, 108A, 117A, 118A, 120A, 135A, 137A, 138A, 140A, 144A, 146A, 159A, 159B, 170A, 170B

1 Core	6300	US15	SA	087100
1 Privacy Lock	S5340 S460PI	630	RS	081473
1 Mortise Cylinder	60 42	US32D	SA	087100

Notes: Remainder of hardware supplied by Rite Slide door manufacturer.

Set: 36.0

1 SET NOT USED	SET NOT USED	OT
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Set: 37.0

Doors: 127D

1 Hardware	BY DOOR SUPPLIER	OT
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Set: 38.0

Doors: ZMISC

1 Wiring Diagram	WD-SYSPK (Elevations and Point to Point)	SA	087100	
1 Test Unit	WT1	SA	281500	⚡
1 Repair Kit	QC-R001	MK	087100	⚡
1 Crimp Tool	QC-R003	MK	087100	⚡
1 Key Management	T21-EA-100117	MC	087100	⚡

END OF SECTION

SECTION 10 26 41
BALLISTICS RESISTANT PANELS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Laminated fiberglass ballistics-resistant panels.

1.02 RELATED REQUIREMENTS

- A. Section 09 21 16 - Gypsum Board Assemblies: Metal framing to receive ballistics-resistant panels.

1.03 REFERENCE STANDARDS

- A. UL 752 - Standard for Bullet-Resisting Equipment; Current Edition, Including All Revisions.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's current data sheets on each product to be used.
- C. Certificates: Submit printed data to indicate compliance with following requirements.
 - 1. UL Listing verification and UL 752 Current Test Results as provided by Underwriters Laboratories.
- D. Manufacturer's Instructions: Indicate preparation and installation.
- E. Warranty Documentation: Manufacturer warranty; ensure that forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging bearing the brand name, manufacturer's identification, and required UL and NIJ certification labels until ready for installation.
- B. Handle material with care to prevent damage. Stack panels flat, store inside under cover off the ground in a dry location, and protect from other construction activities.

1.07 FIELD CONDITIONS

- A. Install products under environmental conditions (temperature, humidity, and ventilation) recommended by manufacturer.

1.08 WARRANTY

- A. Manufacturer Warranty: Provide ten year manufacturer warranty for materials and workmanship against defects commencing on the Date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Laminated Glass Fiber Ballistics-Resistant Panels:
 - 1. ArmorCore by Waco Composites: www.armorcore.com/#sle.
 - 2. Armortex: www.armortex.com/#sle.
 - 3. Insulgard Security Products: www.insulgard.com/#sle.
 - 4. Total Security Solutions: www.tssbulletproof.com/#sle.
 - 5. U.S. Bullet Proofing; USFA Fiberglass Wall Armor: www.usbulletproofing.com/#sle.
 - 6. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 LAMINATED FIBER BALLISTICS-RESISTANT PANELS

- A. General:

1. Laminated fiber ballistics-resistant panels to be non-ricochet type. When struck by a bullet or projectile, the panels to delaminate in such a way that absorbs the energy, stops the projectile, and prevents ricochet or spalling.
- B. Performance Requirements:
 1. **Base Bid:** Ballistics Resistance Rating: Listed and labeled as tested in accordance with UL 752 Level 3 (super-power handgun) threat rating.
 2. **Alternate:** Ballistics Resistance Rating: Listed and labeled as tested in accordance with UL 752 Level 1 (medium-power handgun) threat rating.
- C. Laminated Fiber Panels:
 1. Material: Multiple layers of fiberglass woven roving bonded together with resin and compressed into flat rigid sheets.
 2. Panel Size: Maximum size to limit number of seams.
 3. Panel Thickness: Minimum thickness required for selected UL 752 threat level.
 4. Panel Weight: Minimum weight required for selected UL 752 threat level.
 5. Attachment Method: Mechanical fasteners.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions: Verify that substrates have been properly prepared.

3.02 PREPARATION

- A. Clean surfaces thoroughly prior to installation of this work.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

- A. Install panels in accordance with manufacturer's instructions and shop drawings and in proper relationship with adjacent construction.
- B. Reinforce panel joints with a minimum 4 inch wide back-up layer of ballistics-resistant material, centered on panel joints.

3.04 PROTECTION

- A. Protect installed panels from subsequent construction operations.

END OF SECTION

SECTION 10 43 00
EMERGENCY AID SPECIALTIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Automated external defibrillators (AEDs).
- B. Automated external defibrillator (AED) cabinets.

1.02 DEFINITIONS

- A. Automated External Defibrillator (AED): A Food and Drug Administration (FDA)-approved portable device, which automatically analyzes the heart rhythm and recognizes the presence of ventricular fibrillation and/or tachycardia. If defibrillation is warranted, the AED automatically charges and prompts (visual and/or audio) the operator to deliver an electrical shock.

1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide AED operational features, color and finish, anchorage details, and installation instructions.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- D. Maintenance Data: Include test schedules and recertification requirements.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Automated External Defibrillators (AEDs):
 - 1. Philips Medical Systems: www.usa.philips.com/#sle.
 - 2. Stryker Corporation; _____: www.stryker.com/#sle.
 - 3. Stryker Corporation: www.stryker.com/#sle.
 - 4. ZOLL Medical Corporation: www.zoll.com/#sle.
 - 5. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 AUTOMATED EXTERNAL DEFIBRILLATORS (AEDS) AND CABINETS

- A. Automated External Defibrillators (AEDs) - General: FDA approval required.
 - 1. Basis-of-Design: Philips Medical Systems, Philips HeartStart OnSite AED with Slim Carry Case and Semi-Recessed Defibrillator Cabinet.

2.03 MEDICAL KIT - FIRST AID KIT

- A. Medical Kit - 25-person, OSHA first aid kit.
 - 1. Basis-of-Design: ACME 91139, American Red Cross First Aid Kit.
 - 2. Standard: OSHA Requirement 1920.151b.
 - 3. Size: 25-person.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify rough openings for cabinet are correctly sized and located.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install cabinets plumb and level in wall openings, 48 inches maximum from finished floor to cabinet handle.
- C. Secure rigidly in place.
- D. Place AEDs in cabinets.
- E. Wall Signs:
 - 1. Location: Where shown.
 - 2. Apply on walls after field painting is completed and has been accepted.

3.03 ADJUSTING AND CLEANING

- A. Remove temporary protective coverings and strippable films, if any, as cabinets are installed unless otherwise indicated in manufacturer's written installation instructions.
- B. Adjust cabinet doors to operate smoothly without binding. Verify that alarms and integral locking devices operate properly.
- C. On completion of cabinet installation, clean interior and exterior surfaces as recommended by manufacturer.
- D. Touch up marred finishes. Replace cabinets that cannot be restored to factory-finished appearance. Use materials and procedures recommended by cabinet manufacturer.

END OF SECTION

SECTION 26 32 13
ENGINE GENERATORS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Packaged engine generator system and associated components and accessories:
 - 1. Engine and engine accessory equipment.
 - 2. Alternator (generator).
 - 3. Generator set control system.
 - 4. Generator set enclosure.
- B. Packaged engine generator set.
- C. Exhaust silencer, emissions controls, and fittings.
- D. Remote control panel.
- E. Battery and charger.
- F. Sound enclosure.

1.02 REFERENCE STANDARDS

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2010.
- B. NECA/EGSA 404 - Standard for Installing Generator Sets; 2014.
- C. NEMA MG 1 - Motors and Generators; 2014.
- D. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); National Electrical Manufacturers Association; 2008.
- E. NFPA 30 - Flammable and Combustible Liquids Code; 2018.
- F. NFPA 37 - Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines; 2021.
- G. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- H. NFPA 99 - Health Care Facilities Code; 2015.
- I. NFPA 110 - Standard for Emergency and Standby Power Systems; 2022.
- J. UL 1236 - Battery Chargers for Charging Engine-Starter Batteries; Current Edition, Including All Revisions.
- K. UL 2200 - Stationary Engine Generator Assemblies; Current Edition, Including All Revisions.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate compatibility of generator sets to be installed with work provided under other sections or by others.
 - a. Transfer Switches: See Section 26 36 00 - Transfer Switches.
 - 2. Coordinate the work with other trades to avoid placement of ductwork, piping, equipment or other potential obstructions within the spaces dedicated for engine generator system.
 - 3. Coordinate arrangement of equipment with the dimensions and clearance requirements of the actual equipment to be installed.
 - 4. Coordinate the work to provide electrical circuits suitable for the power requirements of the actual auxiliary equipment and accessories to be installed.
 - 5. Notify Architect of any conflicts with or deviations from the contract documents. Obtain direction before proceeding with work.
- B. Preinstallation Meeting: Convene one week before starting work of this section; require attendance of all affected installers.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for each product, including ratings, configurations, dimensions, finishes, weights, service condition requirements, and installed features. Include alternator starting capabilities, engine fuel consumption rates, and cooling, combustion air, and exhaust requirements.
 - 1. Include generator set sound level test data.
 - 2. Include characteristic trip curves for overcurrent protective devices upon request.
 - 3. Include alternator thermal damage curve upon request.
- C. Shop Drawings: Include dimensioned plan views and sections indicating locations of system components, required clearances, and field connection locations. Include system interconnection schematic diagrams showing all factory and field connections.
- D. Evidence of qualifications for installer.
- E. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and operation of product.
- F. Manufacturer's factory emissions certification.
- G. Manufacturer's certification that products meet or exceed specified requirements.
- H. Source quality control test reports.
- I. Provide NFPA 110 required documentation from manufacturer where requested by authorities having jurisdiction, including but not limited to:
 - 1. Certified prototype tests.
 - 2. Torsional vibration compatibility certification.
 - 3. NFPA 110 compliance certification.
 - 4. Certified rated load test at rated power factor.
- J. Manufacturer's detailed field testing procedures.
- K. Field quality control test reports.
- L. Operation and Maintenance Data: Include detailed information on system operation, equipment programming and setup, replacement parts, and recommended maintenance procedures and intervals.
 - 1. Include contact information for entity that will be providing contract maintenance and trouble call-back service.
- M. Executed Warranty: Submit documentation of final executed warranty completed in Owner's name and registered with manufacturer.
- N. Maintenance contracts.
- O. Project Record Documents: Record actual locations of system components, installed circuiting arrangements and routing, and final equipment settings.
- P. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 01 60 00 - Product Requirements, for additional provisions.
 - 2. Extra Fuses: One of each type and size.
 - 3. Extra Filter Elements: One of each type, including fuel, oil and air.
- Q. Shop Drawings: Indicate electrical characteristics and connection requirements. Show plan and elevation views with overall and interconnection point dimensions, fuel consumption rate curves at various loads, ventilation and combustion air requirements, electrical diagrams including schematic and interconnection diagrams. Provide generator damage curve and protective relay(breaker) curves.
- R. Product Data: Provide data showing dimensions, weights, ratings, interconnection points, and internal wiring diagrams for engine, generator, control panel, battery, battery rack, battery charger, exhaust silencer, vibration isolators, day tank, and remote radiator.
- S. Test Reports: Indicate results of performance testing.

- T. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.
- U. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- V. Manufacturer's Field Reports: Indicate procedures and findings.
- W. Operation Data: Include instructions for normal operation.
- X. Maintenance Data: Include instructions for routine maintenance requirements, service manuals for engine and day tank, oil sampling and analysis for engine wear, and emergency maintenance procedures.
- Y. Maintenance Materials and Tools: Furnish the following for Owner's use in maintenance of project.
 - 1. Extra Filter Elements: One of each type, including fuel, oil and air.
 - 2. Tools: One set of tools required for preventative maintenance of the engine generator system. Package tools in adequately sized metal tool box.

1.05 QUALITY ASSURANCE

- A. Comply with the following:
 - 1. NFPA 70 (National Electrical Code).
 - 2. NFPA 110 (Standard for Emergency and Standby Power Systems); meet requirements for Level 1 system.
 - 3. NFPA 37 (Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines).
- B. Maintain at the project site a copy of each referenced document that prescribes execution requirements.
- C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- D. Installer Qualifications: Company specializing in performing the work of this section with minimum three years documented experience with engine generator systems of similar size, type, and complexity; manufacturer's authorized installer.
- E. Maintenance Contractor Qualifications: Same entity as installer or different entity with specified qualifications.
- F. Products: Listed, classified, and labeled by Underwriter's Laboratories Inc. (UL) or testing firm acceptable to authorities having jurisdiction as suitable for the purpose indicated.
- G. Conform to requirements of NFPA 70.
 - 1. Maintain one copy of each document on site.
- H. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience with service facilities within 100 miles of Project.
- I. Supplier Qualifications: Authorized distributor of specified manufacturer with minimum three years documented experience.
- J. Products: Furnish products listed and classified by Underwriters Laboratories as suitable for purpose specified and indicated.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store generator sets in accordance with manufacturer's instructions and NECA/EGSA 404.
- B. Store in a clean, dry space. Maintain factory wrapping or provide an additional heavy canvas or heavy plastic cover to protect units from dirt, water, construction debris, and traffic.
- C. Handle carefully in accordance with manufacturer's instructions to avoid damage to generator set components, enclosure, and finish.

1.07 FIELD CONDITIONS

- A. Maintain field conditions within manufacturer's required service conditions during and after installation.

1.08 WARRANTY & SERVICE CONTRACTS

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Provide minimum five year manufacturer warranty covering full parts and labor repair or replacement due to defective materials or workmanship.
- C. Provide 2 year service contract for manufacturer's recommended maintenance.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Packaged Engine Generator Set - Basis of Design: Generac Power Systems.
- B. Other Acceptable Manufacturers:
 - 1. Cummins; www.cummins.com.
 - 2. Caterpillar; www.cat.com.
- C. Packaged Engine Generator Set:
 - 1. Caterpillar Inc: www.cat.com/power-generation.
 - 2. Cummins Power Generation Inc: www.cumminspower.com/#sle.
 - 3. Generac Power Systems: www.generac.com/industrial/#sle.
- D. Substitutions: See Section 01 60 00 - Product Requirements.
- E. Products other than basis of design are subject to compliance with specified requirements and prior approval of Engineer. By using products other than basis of design, Contractor accepts responsibility for costs associated with any necessary modifications to related work, including any design fees.
- F. Source Limitations: Furnish engine generator sets and associated components and accessories produced by a single manufacturer and obtained from a single supplier.
- G. Substitutions: See Section 01 60 00 - Product Requirements. Submit substitution request at least 10 days prior to bid opening. Substitution request shall include entire submittal package with explicit notations from vendor identifying all deviations from basis of design. Failure to comply will result in disqualification of substitution request.

2.02 PACKAGED ENGINE GENERATOR SYSTEM

- A. Provide new engine generator system consisting of all required equipment, sensors, conduit, boxes, wiring, piping, supports, accessories, system programming, etc. as necessary for a complete operating system that provides the functional intent indicated.
- B. Provide products listed, classified, and labeled as suitable for the purpose intended.
- C. System Description:
 - 1. Application: Emergency/standby.
 - 2. Configuration: Single packaged engine generator set operated independently (not in parallel).
 - 3. Power Rating: As indicated on drawings.
- D. Packaged Engine Generator Set:
 - 1. Type: Gaseous (spark ignition).
 - 2. Basis of Design: Generac SG750.
 - 3. Power Rating: As indicated on drawings, standby, . Max alternator tempt. 125 deg centigrade.
 - 4. Voltage: as indicated.
 - 5. Main Line Circuit Breaker Number One:
 - a. Type: Thermal magnetic with solid state trip unit capable of protecting generator from low level faults.

- b. Trip Rating: Select according to generator set rating.
- E. Generator Set General Requirements:
 - 1. Prototype tested in accordance with NFPA 110 for Level 1 systems.
 - 2. Factory-assembled, with components mounted on suitable base.
 - 3. List and label engine generator assembly as complying with UL 2200.
 - 4. Power Factor: Unless otherwise indicated, specified power ratings are at 0.8 power factor for three phase voltages and 1.0 power factor for single phase voltages.
 - 5. Provide suitable guards to protect personnel from accidental contact with rotating parts, hot piping, and other potential sources of injury.
 - 6. Main Line Circuit Breakers: Provide factory-installed line side connections with suitable lugs for load side connections.
- F. Service Conditions: Provide engine generator system and associated components suitable for operation under the service conditions at the installed location.
 - 1. Altitude: 1000 feet.
 - 2. Ambient Temperature: Between 20 and 104 degrees F.
- G. Starting and Load Acceptance Requirements:
 - 1. Cranking Method: Cycle cranking complying with NFPA 110 (15 second crank period, followed by 15 second rest period, with cranking limiter time-out after 3 cycles), unless otherwise required.
 - 2. Cranking Limiter Time-Out: If generator set fails to start after specified cranking period, indicate overcrank alarm condition and lock-out generator set from further cranking until manually reset.
 - 3. Start Time: Capable of starting and achieving conditions necessary for load acceptance within 10 seconds (NFPA 110, Type 10).
 - 4. Maximum Load Step: Supports 100 percent of rated load in one step.
 - a. Maximum Voltage Deviation with Load Step: 35 percent.
 - b. Maximum Frequency Deviation with Load Step: 5 percent.
- H. Exhaust Emissions Requirements:
 - 1. Comply with federal (EPA), state, and local regulations applicable at the time of commissioning; include factory emissions certification with submittals.
 - 2. Do not make modifications affecting generator set factory emissions certification without approval of manufacturer and Engineer. Where such modifications are made, provide field emissions testing as necessary for certification.
- I. Sound Level Requirements:
 - 1. Do not exceed 74.0 dBA when measured at 7 meters from generator set in free field (no sound barriers) while operating at full load; include manufacturer's sound data with submittals.
- J. Interface with building automation system BACNet.
- K. Interface with Existing Work: connection with existing electrical distribution system of building and the new automatic transfer switch.
- L. Description: NFPA 110, engine generator system to provide source of power for Level 1 applications .

2.03 ENGINE AND ENGINE ACCESSORY EQUIPMENT

- A. Provide engine with adequate horsepower to achieve specified power output at rated speed, accounting for alternator efficiency and parasitic loads.
- B. Engine Fuel System - Gaseous (Spark Ignition):
 - 1. Fuel Source: Natural gas.
 - 2. Engine Fuel Connections: Provide suitable, approved flexible fuel lines for coupling engine to fuel source.
 - 3. Provide components/features indicated and as necessary for operation and/or required by applicable codes, including but not limited to:

- a. Carburetor.
 - b. Gas pressure regulators.
 - c. Fuel shutoff control valves.
 - d. Low gas pressure switches.
- C. Engine Starting System:
1. System Type: Electric, with DC solenoid-activated starting motor(s).
 2. Battery(s):
 - a. Battery Type: Lead-acid.
 - b. Battery Capacity: Size according to manufacturer's recommendations for achieving starting and load acceptance requirements under worst case ambient temperature; capable of providing cranking through three complete periods of cranking limiter time-outs without recharging.
 - c. Provide battery rack, cables, and connectors suitable for the supplied battery(s); size battery cables according to manufacturer's recommendations for cable length to be installed.
 3. Battery-Charging Alternator: Engine-driven, with integral solid-state voltage regulation.
 4. Battery Charger:
 - a. Provide dual rate battery charger with automatic float and equalize charging modes and minimum rating of 10 amps; suitable for maintaining the supplied battery(s) at full charge without manual intervention.
 - b. Capable of returning supplied battery(s) from fully discharged to fully charged condition within 24 hours, as required by NFPA 110 for Level 1 applications while carrying normal loads.
 - c. Recognized as complying with UL 1236.
 - d. Furnished with integral overcurrent protection; current limited to protect charger during engine cranking; reverse polarity protection.
 - e. Provide integral DC output ammeter and voltmeter with five percent accuracy.
 - f. Provide alarm output contacts as necessary for alarm indications.
- D. Engine Speed Control System (Governor):
1. Single Engine Generator Sets (Not Operated in Parallel): Provide electronic isochronous governor for controlling engine speed/alternator frequency.
 2. Frequency Regulation, Electronic Isochronous Governor: No change in frequency from no load to full load; plus/minus 0.25 percent at steady state.
- E. Engine Lubrication System:
1. System Type: Full pressure, with engine-driven, positive displacement lubrication oil pump, replaceable full-flow oil filter(s), and dip-stick for oil level indication. Provide oil cooler where recommended by manufacturer.
- F. Engine Cooling System:
1. System Type: Closed-loop, liquid-cooled, with unit-mounted radiator/fan and engine-driven coolant pump; suitable for providing adequate cooling while operating at full load under worst case ambient temperature.
 2. Fan Guard: Provide suitable guard to protect personnel from accidental contact with fan.
 3. Coolant Heater: Provide thermostatically controlled coolant heater to improve starting under cold ambient conditions; size according to manufacturer's recommendations for achieving starting and load acceptance requirements under worst case ambient temperature.
- G. Engine Air Intake and Exhaust System:
1. Air Intake Filtration: Provide engine-mounted, replaceable, dry element filter.
 2. Engine Exhaust Connection: Provide suitable, approved flexible connector for coupling engine to exhaust system.
 3. Exhaust Silencer: Provide critical grade or better exhaust silencer with sound attenuation not less than basis of design; select according to manufacturer's recommendations to meet sound performance requirements, where specified.

- H. Type: Water-cooled inline or V-type, four stroke cycle, electric ignition internal combustion engine.
- I. Rating: Sufficient to operate under 10 percent overload for one hour in an ambient of 90 degrees F at elevation of 1000 feet.
- J. Fuel System: Natural gas. Include manufacturer's approved regulator for pressure reduction from supply pressure.
- K. Engine speed: 1800 rpm.
- L. Governor: Isochronous type to maintain engine speed within 0.5 percent, steady state, and 5 percent, no load to full load, with recovery to steady state within 2 seconds following sudden load changes. Equip governor with means for manual operation and adjustment.
- M. Safety Devices: Engine shutdown on high water temperature, low oil pressure, overspeed, and engine overcrank. Limits as selected by manufacturer.
- N. Engine Starting: DC starting system with positive engagement, number and voltage of starter motors in accordance with manufacturer's instructions. Include remote starting control circuit, with MANUAL-OFF-REMOTE selector switch on engine-generator control panel.
- O. Engine Jacket Heater: Thermal circulation type water heater with integral thermostatic control, sized to maintain engine jacket water at 90 degrees F, and suitable for operation on ____ volt indicated on the drawings.
- P. Radiator: Radiator using glycol coolant, with blower type fan, sized to maintain safe engine temperature in ambient temperature of 110 degrees F. Radiator air flow restriction 0.5 inches of water maximum.
- Q. Engine Accessories: Lube oil filter, intake air filter, lube oil cooler, fuel transfer pump, fuel priming pump, gear-driven water pump. Include fuel pressure gage, water temperature gage, and lube oil pressure gage on engine/generator control panel.
- R. Mounting: Provide unit with suitable spring-type vibration isolators and mount on structural steel base.

2.04 ALTERNATOR (GENERATOR)

- A. Alternator: 4-pole, 1800 rpm (60 Hz output) revolving field, synchronous generator complying with NEMA MG 1; connected to engine with flexible coupling; voltage output configuration as indicated, with reconnectable leads for 3 phase alternators.
- B. Exciter:
 - 1. Exciter Type: Brushless; provide permanent magnet generator (PMG) excitation system; self-excited (shunt) systems are not permitted.
- C. PMG Excitation Short-Circuit Current Support: Capable of sustaining 300 percent of rated output current for 10 seconds.
 - 1. Voltage Regulation (with PMG excitation): Plus/minus 0.5 percent for any constant load from no load to full load.
- D. Temperature Rise: Comply with UL 2200.
- E. Insulation System: NEMA MG 1, Class H; suitable for 105 deg Centigrade alternator temperature rise.
- F. Enclosure: NEMA MG 1, drip-proof.
- G. Total Harmonic Distortion: Not greater than five percent.

2.05 GENERATOR SET CONTROL SYSTEM

- A. Provide microprocessor-based control system for automatic control, local and remote monitoring, and protection of generator set. Include sensors, wiring, and connections necessary for functions/indications specified.
- B. Control Panel:
 - 1. Control Panel Mounting: Unit-mounted unless otherwise indicated; vibration isolated.

2. Generator Set Control Functions:
 - a. Automatic Mode: Initiates generator set start/shutdown upon receiving corresponding signal from remote device (e.g. automatic transfer switch).
 - b. Manual Mode: Initiates generator set start/shutdown upon direction from operator.
 - c. Reset Mode: Clears all faults, allowing generator set restart after a shutdown.
 - d. Emergency Stop: Immediately shuts down generator set (without time delay) and prevents automatic restarting until manually reset.
 - e. Cycle Cranking: Programmable crank time, rest time, and number of cycles.
 - f. Time Delay: Programmable for shutdown (engine cooldown) and start (engine warmup).
 - g. Voltage Adjustment: Adjustable through range of plus/minus 5 percent.
3. Generator Set Status Indications:
 - a. Voltage (Volts AC): Line-to-line, line-to-neutral for each phase.
 - b. Current (Amps): For each phase.
 - c. Frequency (Hz).
 - d. Real power (W/kW).
 - e. Reactive power (VAR/kVAR).
 - f. Apparent power (VA/kVA).
 - g. Power factor.
 - h. Duty Level: Actual load as percentage of rated power.
 - i. Engine speed (RPM).
 - j. Battery voltage (Volts DC).
 - k. Engine oil pressure.
 - l. Engine coolant temperature.
 - m. Engine run time.
 - n. Generator powering load (position signal from transfer switch).
4. Generator Set Protection and Warning/Shutdown Indications:
 - a. Comply with NFPA 110; configurable for NFPA 110 Level 1. including but not limited to the following protections/indications:
 - 1) Overcrank (shutdown).
 - 2) Low coolant temperature (warning).
 - 3) High coolant temperature (warning).
 - 4) High coolant temperature (shutdown).
 - 5) Low oil pressure (warning).
 - 6) Low oil pressure (shutdown).
 - 7) Overspeed (shutdown).
 - 8) Low coolant level (warning/shutdown).
 - 9) Generator control not in automatic mode (warning).
 - 10) High battery voltage (warning).
 - 11) Low cranking voltage (warning).
 - 12) Low battery voltage (warning).
 - 13) Battery charger failure (warning).
 - b. In addition to NFPA 110 requirements, provide the following protections/indications:
 - 1) High AC voltage (shutdown).
 - 2) Low AC voltage (shutdown).
 - 3) High frequency (shutdown).
 - 4) Low frequency (shutdown).
 - 5) Overcurrent (shutdown).
 - c. Provide contacts for local and remote common alarm.
 - d. Provide lamp test function that illuminates all indicator lamps.
5. Other Control Panel Features:
 - a. Event log.
 - b. Communications Capability: Compatible with system indicated. Provide all accessories necessary for proper interface.

- c. Remote monitoring capability via PC.
- C. Remote Annunciator: Provide (1) and locate as directed by owner.
 - 1. Remote Annunciator Mounting: Wall-mounted; Provide flush-mounted annunciator for finished areas and surface-mounted annunciator for non-finished areas unless otherwise indicated in NEMA 1 metal enclosure.
 - 2. Generator Set Status Indications:
 - a. Generator powering load (via position signal from transfer switch).
 - b. Communication functional.
 - 3. Generator Set Warning/Shutdown Indications:
 - a. Comply with NFPA 110 for Level 1 systems including but not limited to the following indications:
 - 1) Overcrank (shutdown).
 - 2) Low coolant temperature (warning).
 - 3) High coolant temperature (warning).
 - 4) High coolant temperature (shutdown).
 - 5) Low oil pressure (warning).
 - 6) Low oil pressure (shutdown).
 - 7) Overspeed (shutdown).
 - 8) Low coolant level (warning/shutdown).
 - 9) Generator control not in automatic mode (warning).
 - 10) High battery voltage (warning).
 - 11) Low cranking voltage (warning).
 - 12) Low battery voltage (warning).
 - 13) Battery charger failure (warning).
 - b. Provide audible alarm with silence function.
 - c. Provide lamp test function that illuminates all indicator lamps.
- D. Remote Emergency Stop: Provide approved red, mushroom style remote emergency stop button where indicated or required by authorities having jurisdiction.

2.06 GENERATOR SET ENCLOSURE

- A. Enclosure Type: Sound attenuating, weather protective (where indicated to be located outside the building).
- B. Enclosure Material: Panels made of 14 gauge, low carbon, hot rolled ASTM A569 steel construction, posts made of 12 gauge, low carbon, hot rolled ASTM A569 steel..
- C. Hardware Material: Stainless steel.
- D. Color: Manufacturer's standard.
- E. Access Doors: Lockable, with all locks keyed alike.
- F. Openings: Designed to prevent bird/rodent entry.
- G. External Drains: Extend oil and coolant drain lines to exterior of enclosure for maintenance service.
- H. Sound Attenuating Enclosures: Line enclosure with non-hydroscopic, self-extinguishing sound-attenuating material.
- I. Exhaust Silencers: Where exhaust silencers are mounted within enclosure in main engine compartment, insulate silencer to minimize heat dissipation as necessary for operation at rated load under worst case ambient temperature.
- J. Enclosure Space Heater: Provide thermostatically controlled enclosure space heater to prevent condensation and improve starting under cold ambient conditions; size according to manufacturer's recommendations for achieving starting and load acceptance requirements under worst case ambient temperature.

2.07 SOURCE QUALITY CONTROL

- A. See Section 01 40 00 - Quality Requirements, for additional requirements.

- B. Perform production tests on generator sets at factory to verify operation and performance characteristics prior to shipment. Include certified test report with submittals.
- C. Generator Set production testing to include, at a minimum:
 - 1. Operation at rated load and rated power factor.
 - 2. Single step load pick-up.
 - 3. Transient and steady state voltage and frequency performance.
 - 4. Operation of safety shutdowns.

2.08 ACCESSORIES

- A. Exhaust Silencer: Critical type silencer, with muffler companion flanges and flexible stainless steel exhaust fitting, sized in accordance with engine manufacturer's instructions.
- B. Batteries: Heavy duty, natural gas starting type lead-acid storage batteries, 1100 amps min. at -18 deg C to 0 deg C ampere-hours minimum capacity. Match battery voltage to starting system. Include necessary cables and clamps.
- C. Battery Tray: Treated for electrolyte resistance, constructed to contain spillage.
- D. Battery Charger: Current limiting type designed to float at 2.17 volts per cell and equalize at 2.33 volts per cell. Include overload protection, full wave rectifier, DC voltmeter and ammeter, and 120 volts AC fused input. Provide wall-mounted enclosure to meet NEMA 250, Type 1 requirements.
- E. Line Circuit Breaker: Molded case circuit breaker on generator output with integral thermal and instantaneous magnetic trip in each pole, sized in accordance with NFPA 70; UL listed. Include battery-voltage operated shunt trip, connected to open circuit breaker on engine failure. Unit mount in enclosure to meet NEMA 250, Type 1 requirements.
- F. Engine-Generator Control Panel: NEMA 250, Type 1 generator mounted control panel enclosure with engine and generator controls and indicators. Include provision for padlock and the following equipment and features:
 - 1. Frequency Meter: 45-65 Hz. range, 3.5 inch dial.
 - 2. AC Output Voltmeter: 3.5 inch dial, 2 percent accuracy, with phase selector switch.
 - 3. AC Output Ammeter: 3.5 inch dial, 2 percent accuracy, with phase selector switch.
 - 4. Output voltage adjustment.
 - 5. Push-to-test indicator lamps, one each for low oil pressure, high water temperature, overspeed, and overcrank.
 - 6. Engine start/stop selector switch.
 - 7. Engine running time meter.
 - 8. Oil pressure gage.
 - 9. Water temperature gage.
 - 10. Auxiliary Relay: 3PDT, operates when engine runs, with contact terminals prewired to terminal strip.
 - 11. Additional visual indicators and alarms as required by NFPA 110.
 - 12. Remote Alarm Contacts: Pre-wire SPDT contacts to terminal strip for remote alarm functions required by NFPA 110.
- G. Remote Annunciator Panel: Flush mounted panel with brushed stainless steel. Provide audible and visible indicators and alarms required by NFPA 110.
- H. Emissions controls: Catalyst based, meeting State of Maryland Department of Natural Resources and Environmental Controls standards for stand-by generators.
- I. Sound Enclosure: Lift based steel construction with hinged doors. Acoustic insulation meeting UL94HF1 flammability classification and repels moisture absorption. Maximum sound level shall be @ 74.0 dB at 7 meters in an open field at full load.

PART 3 EXECUTION

4.01 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that the ratings and configurations of generator sets and auxiliary equipment are consistent with the indicated requirements.
- C. Verify that rough-ins for field connections are in the proper locations.
- D. Verify that mounting surfaces are ready to receive equipment.
- E. Verify that conditions are satisfactory for installation prior to starting work.

4.02 INSTALLATION

- A. Perform work in a neat and workmanlike manner in accordance with NECA 1.
- B. Install products in accordance with manufacturer's instructions.
- C. Install generator sets and associated accessories in accordance with NECA/EGSA 404.
- D. Arrange equipment to provide minimum clearances and required maintenance access.
- E. Unless otherwise indicated, mount generator set on properly sized, minimum 6 inch high concrete pad constructed in accordance with Section 03 30 00.
- F. Provide required support and attachment in accordance with Section 26 05 29 Hangers and Supports For Electrical Systems.
- G. Provide required vibration isolation and/or seismic controls in accordance with Section 26 05 48.
- H. Use manufacturer's recommended oil and coolant, suitable for the worst case ambient temperatures.
- I. Provide natural gas piping in accordance with Section 23 11 23.
- J. Provide engine exhaust piping where not factory installed.
 - 1. Include piping expansion joints, piping insulation, thimble, condensation trap/drain, rain cap, hangers/supports, etc. as indicated or as required.
 - 2. Do not exceed manufacturer's maximum back pressure requirements.
- K. Do not insulate piping for engine components restricted by manufacturer.
- L. Install exhaust silencer where not factory installed.
- M. Provide grounding and bonding in accordance with Section 26 05 26 - Grounding and Bonding For Electrical Systems.
- N. Identify system wiring and components in accordance with Section 26 05 53 - Identifications For Electrical Systems.

4.03 FIELD QUALITY CONTROL

- A. See Section 01 40 00 - Quality Requirements, for additional requirements.
- B. Provide services of a manufacturer's authorized representative to prepare and start systems and perform inspection and testing. Include manufacturer's detailed testing procedures and field reports with submittals.
- C. Notify Owner and Architect at least two weeks prior to scheduled inspections and tests.
- D. Notify authorities having jurisdiction and comply with their requirements for scheduling inspections and tests and for observation by their personnel.
- E. Provide all equipment, tools, and supplies required to accomplish inspection and testing, including load bank and fuel.
- F. Preliminary inspection and testing to include, at a minimum:
 - 1. Inspect each system component for damage and defects.

2. Verify tightness of mechanical and electrical connections are according to manufacturer's recommended torque settings.
3. Check for proper oil and coolant levels.
- G. Prepare and start system in accordance with manufacturer's instructions.
- H. Perform acceptance test in accordance with NFPA 110.
- I. Inspection and testing to include, at a minimum:
 1. Verify compliance with starting and load acceptance requirements.
 2. Verify voltage and frequency; make required adjustments as necessary.
 3. Verify phase sequence.
 4. Verify control system operation, including safety shutdowns.
 5. Verify operation of auxiliary equipment and accessories (e.g. battery charger, heaters, etc.).
 6. Perform load tests using load bank at 100 percent full load for minimum of 4.
- J. Provide field emissions testing where necessary for certification.
- K. Sound Level Tests: Measure sound levels for compliance with specified requirements. Identify and report ambient noise conditions.
- L. Correct defective work, adjust for proper operation, and retest until entire system complies with Contract Documents.
- M. Submit detailed reports indicating inspection and testing results and corrective actions taken.
- N. Provide full load test utilizing portable test bank for four hours minimum. Simulate power failure including operation of transfer switch, automatic starting cycle, and automatic shutdown and return to normal.
- O. Test alarm and shutdown circuits by simulating conditions.

4.04 ADJUSTING

- A. Adjust generator output voltage and engine speed.

4.05 CLEANING

- A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

4.06 CLOSEOUT ACTIVITIES

- A. See Section 01 78 00 - Closeout Submittals, for closeout submittals.
- B. See Section 01 79 00 - Demonstration and Training, for additional requirements.
- C. Demonstration: Demonstrate proper operation of system to Owner, and correct deficiencies or make adjustments as directed.
- D. Training: Train Owner's personnel on operation, adjustment, and maintenance of system.
 1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
 2. Provide minimum of four hours of training.
 3. Instructor: Manufacturer's authorized representative.
 4. Location: At project site.
- E. After successful acceptance test and just prior to Substantial Completion, replace air, oil, and fuel filters.

4.07 PROTECTION

- A. Protect installed engine generator system from subsequent construction operations.

4.08 MAINTENANCE

- A. See Section 01 70 00 - Execution And Closeout Requirements, for additional requirements relating to maintenance service.

- B. Maintain an on-site log listing the date and time of each inspection and call-back visit, the condition of the system, nature of the trouble, correction performed, and parts replaced.
- C. Provide a separate maintenance contract for specified maintenance service.
- D. Provide service and maintenance of engine generator for two years from Date of Substantial Completion.

END OF SECTION

SECTION 26 36 00
TRANSFER SWITCHES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Transfer switches for low-voltage (600 V and less) applications and associated accessories:
 - 1. Automatic transfer switches.
 - 2. Remote annunciators.

1.02 REFERENCE STANDARDS

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2010.
- B. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2014.
- C. NEMA ICS 10 Part 1 - Industrial Control and Systems Part 1: Electromechanical AC Transfer Switch Equipment; 2020.
- D. NETA ATS - Acceptance Testing Specifications for Electrical Power Equipment and Systems; 2013.
- E. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- F. NFPA 110 - Standard for Emergency and Standby Power Systems; 2022.
- G. UL 1008 - Transfer Switch Equipment; Current Edition, Including All Revisions.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate compatibility of transfer switches to be installed with work provided under other sections or by others.
 - 2. Coordinate the work with other trades to avoid placement of ductwork, piping, equipment, or other potential obstructions within the dedicated equipment spaces and working clearances required by NFPA 70.
 - 3. Coordinate arrangement of equipment with the dimensions and clearance requirements of the actual equipment to be installed.
 - 4. Coordinate the work with placement of supports, anchors, etc. required for mounting.
 - 5. Notify Architect of any conflicts with or deviations from the contract documents. Obtain direction before proceeding with work.
- B. Preinstallation Meeting: Convene one week before starting work of this section; require attendance of all affected installers.
- C. Where work of this section involves interruption of existing electrical service, arrange service interruption with Owner.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for each product, including ratings, configurations, dimensions, finishes, weights, service condition requirements, and installed features.
 - 1. Where applicable, include characteristic trip curves for overcurrent protective devices upon request.
- C. Shop Drawings: Include dimensioned plan views and sections indicating locations of system components, required clearances, and field connection locations. Include system interconnection schematic diagrams showing all factory and field connections.
- D. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and operation of product.
- E. Manufacturer's certification that products meet or exceed specified requirements.

- F. Source quality control test reports.
- G. Manufacturer's detailed field testing procedures.
- H. Field quality control test reports.
- I. Operation and Maintenance Data: Include detailed information on system operation, equipment programming and setup, replacement parts, and recommended maintenance procedures and intervals.
 - 1. Include contact information for entity that will be providing contract maintenance and trouble call-back service.
- J. Executed Warranty: Submit documentation of final executed warranty completed in Owner's name and registered with manufacturer.
- K. Maintenance contracts.
- L. Project Record Documents: Record actual locations of system components, installed circuiting arrangements and routing, and final equipment settings.
- M. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 01 60 00 - Product Requirements, for additional provisions.
- N. Product Data: Provide catalog sheets showing voltage, switch size, ratings and size of switching and overcurrent protective devices, operating logic, short circuit ratings, dimensions, and enclosure details.
- O. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- P. Operation Data: Instructions for operating equipment under emergency conditions when engine generator is running.
- Q. Maintenance Data: Routine preventative maintenance and lubrication schedule. List special tools, maintenance materials, and replacement parts.

1.05 QUALITY ASSURANCE

- A. Comply with the following:
 - 1. NFPA 70 (National Electrical Code).
 - 2. NFPA 110 (Standard for Emergency and Standby Power Systems); meet requirements for system Level specified in Section 26 32 13.
- B. Maintain at the project site a copy of each referenced document that prescribes execution requirements.
- C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
 - 1. Authorized service facilities located within 200 miles of project site.
- D. Installer Qualifications: Company specializing in performing the work of this section with minimum three years documented experience with power transfer systems of similar size, type, and complexity; manufacturer's authorized installer.
- E. Maintenance Contractor Qualifications: Same entity as installer or different entity with specified qualifications.
- F. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.
- G. Conform to requirements of NFPA 70.
- H. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience and with service facilities within 100 miles of Project.

- I. Supplier Qualifications: Authorized distributor of specified manufacturer with minimum three years documented experience.
- J. Products: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store transfer switches in accordance with manufacturer's instructions.
- B. Store in a clean, dry space. Maintain factory wrapping or provide an additional heavy canvas or heavy plastic cover to protect units from dirt, water, construction debris, and traffic.
- C. Handle carefully in accordance with manufacturer's instructions to avoid damage to transfer switch components, enclosure, and finish.

1.07 FIELD CONDITIONS

- A. Maintain field conditions within manufacturer's required service conditions during and after installation.

1.08 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Provide minimum two year manufacturer warranty covering repair or replacement due to defective materials or workmanship.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Transfer Switches - Basis of Design: ASCO power technologies 7000 series..
- B. Eaton Corporation; Cutler-Hammer Products: www.eaton.com.
- C. Substitutions: See Section 01 60 00 - Product Requirements.
- D. Products other than basis of design are subject to compliance with specified requirements and prior approval of Engineer. By using products other than basis of design, Contractor accepts responsibility for costs associated with any necessary modifications to related work, including any design fees.
- E. Source Limitations: Furnish transfer switches and accessories produced by a single manufacturer and obtained from a single supplier.

2.02 TRANSFER SWITCHES

- A. Provide complete power transfer system consisting of all required equipment, conduit, boxes, wiring, supports, accessories, system programming, etc. as necessary for a complete operating system that provides the functional intent indicated.
- B. Provide products listed, classified, and labeled as suitable for the purpose intended.
- C. Applications:
 - 1. Utilize open transition transfer unless otherwise indicated or required.
- D. Construction Type: Either "contactor type" (open contact) or "breaker type" (enclosed contact) transfer switches complying with specified requirements are acceptable.
- E. Automatic Transfer Switch:
 - 1. Basis of Design: ASCO transfer switches 7000 series, .
- F. Comply with NEMA ICS 10 Part 1, and list and label as complying with UL 1008 for the classification of the intended application (e.g. emergency, optional standby).
- G. Do not use double throw safety switches or other equipment not specifically designed for power transfer applications and listed as transfer switch equipment.
- H. Load Classification: Classified for total system load (any combination of motor, electric discharge lamp, resistive, and tungsten lamp loads with tungsten lamp loads not exceeding 30 percent of the continuous current rating) unless otherwise indicated or required.

- I. Switching Methods:
 - 1. Open Transition:
 - a. Provide break-before-make transfer without a neutral position that is not connected to either source, and with interlocks to prevent simultaneous connection of the load to both sources.
 - 2. Obtain control power for transfer operation from line side of source to which the load is to be transferred.
- J. Service Conditions: Provide transfer switches suitable for continuous operation at indicated ratings under the service conditions at the installed location.
 - 1. Altitude: 1000 feet.
 - 2. Ambient Temperature: Between 0 degrees F and 104 degrees F.
- K. Enclosures:
 - 1. Environment Type per NEMA 250: Unless otherwise indicated, as specified for the following installation locations:
 - a. Indoor Clean, Dry Locations: Type 1 or Type 12.
 - b. Outdoor Locations: Type 3R or Type 4.
 - 2. Provide lockable door(s) for outdoor locations.
 - 3. Finish: Manufacturer's standard unless otherwise indicated.
- L. Short Circuit Current Rating:
 - 1. Withstand and Closing Rating: Provide transfer switches, when protected by the supply side overcurrent protective devices to be installed, with listed withstand and closing rating not less than the available fault current at the installed location as indicated on the drawings.
- M. Automatic Transfer Switches:
 - 1. Description: Transfer switches with automatically initiated transfer between sources; electrically operated and mechanically held.
 - 2. Control Functions:
 - a. Automatic mode.
 - b. Test Mode: Simulates failure of primary/normal source.
 - c. Voltage and Frequency Sensing:
 - 1) Undervoltage sensing for each phase of primary/normal source; adjustable dropout/pickup settings.
 - 2) Undervoltage sensing for alternate/emergency source; adjustable dropout/pickup settings.
 - 3) Underfrequency sensing for alternate/emergency source; adjustable dropout/pickup settings.
 - d. Outputs:
 - 1) Contacts for engine start/shutdown (except where direct generator communication interface is provided).
 - 2) Auxiliary contacts; one set(s) for each switch position.
 - e. Adjustable Time Delays:
 - 1) Engine generator start time delay; delays engine start signal to override momentary primary/normal source failures.
 - 2) Transfer to alternate/emergency source time delay.
 - 3) Retransfer to primary/normal source time delay.
 - 4) Engine generator cooldown time delay; delays engine shutdown following retransfer to primary/normal source to permit generator to run unloaded for cooldown period.
 - f. In-Phase Monitor (Open Transition Transfer Switches): Monitors phase angle difference between sources for initiating in-phase transfer.
 - g. Engine Exerciser: Provides programmable scheduled exercising of engine generator selectable with or without transfer to load; provides memory retention during power outage.

3. Status Indications:
 - a. Connected to alternate/emergency source.
 - b. Connected to primary/normal source.
 - c. Alternate/emergency source available.
 4. Automatic Sequence of Operations:
 - a. Upon failure of primary/normal source for a programmable time period (engine generator start time delay), initiate starting of engine generator where applicable.
 - b. When alternate/emergency source is available, transfer load to alternate/emergency source after programmable time delay.
 - c. When primary/normal source has been restored, retransfer to primary/normal source after a programmable time delay. Bypass time delay if alternate/emergency source fails and primary/normal source is available.
 - d. Where applicable, initiate shutdown of engine generator after programmable engine cooldown time delay.
- N. Remote Annunciators:
1. Remote Annunciator Mounting: Wall-mounted; Provide flush-mounted annunciator for finished areas and surface-mounted annunciator for non-finished areas unless otherwise indicated.
 2. Transfer Switch Status Indications:
 - a. Connected to alternate/emergency source.
 - b. Connected to primary/normal source.
 - c. Alternate/emergency source available.
 - d. Primary/normal source available.
- O. Interface with Other Work:
1. Interface with engine generators as specified in Section 26 32 13.
 - 2.

2.03 SOURCE QUALITY CONTROL

- A. See Section 01 40 00 - Quality Requirements, for additional requirements.
- B. Perform production tests on transfer switches at factory to verify operation and performance characteristics prior to shipment. Include certified test report with submittals.

2.04 AUTOMATIC TRANSFER SWITCH

- A. Description: NEMA ICS 10, automatic transfer switch 400 amp, 3 pole, in NEMA1 enclosure.
- B. Configuration: Electrically operated, mechanically held transfer switch.
- C. Interrupting Capacity: 42000 amp minimum ,rms .

2.05 SERVICE CONDITIONS

- A. Service Conditions: NEMA ICS 10.
- B. Temperature: 105 deg F.
- C. Altitude: 3,300 feet.

2.06 COMPONENTS

- A. Indicating Lights: Mount in cover of enclosure to indicate NORMAL SOURCE AVAILABLE.
- B. Test Switch: Mount in cover of enclosure to simulate failure of normal source.
- C. Return to Normal Switch: Mount in cover of enclosure to initiate manual transfer from alternate source to normal source.
- D. Transfer Switch Auxiliary Contacts: 1 normally open; 1 normally closed.
- E. Normal Source Monitor: Monitor each line of normal source voltage and frequency; initiate transfer when voltage drops below 85 percent or frequency varies more than 3 percent from rated nominal value.

- F. Alternate Source Monitor: Monitor alternate source voltage and frequency; inhibit transfer when voltage is below 85 percent or frequency varies more than 3 percent from rated nominal value.
- G. In-Phase Monitor: Inhibit transfer until source and load are within zero electrical degrees.
- H. Switched Neutral: Overlapping contacts.
- I. Enclosure: ICS 10, Type 1, finished with manufacturer's standard gray enamel.

2.07 AUTOMATIC SEQUENCE OF OPERATION

- A. Initiate Time Delay to Start Alternate Source Engine Generator: Upon initiation by normal source monitor.
- B. Time Delay To Start Alternate Source Engine Generator: 0 to 6 seconds, adjustable.
- C. Initiate Transfer Load to Alternate Source: Upon initiation by normal source monitor and permission by alternate source monitor.
- D. Time Delay Before Transfer to Alternate Power Source: 0 to 60 seconds, adjustable.
- E. Initiate Retransfer Load to Normal Source: Upon permission by normal source monitor.
- F. Time Delay Before Transfer to Normal Power: 0 to 60 seconds, adjustable; bypass time delay in event of alternate source failure.
- G. Time Delay Before Engine Shut Down: 0 to 1 minutes, adjustable, of unloaded operation.
- H. Engine Exerciser: Start engine every 15days run for 30 minutes before shutting down. Bypass exerciser control if normal source fails during exercising period.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as shown on the drawings.
- B. Verify that the ratings and configurations of transfer switches are consistent with the indicated requirements.
- C. Verify that rough-ins for field connections are in the proper locations.
- D. Verify that surface is suitable for transfer switch installation.

3.02 PREPARATION

- A. Provide 4" housekeeping pads.

3.03 INSTALLATION

- A. Perform work in a neat and workmanlike manner in accordance with NECA 1.
- B. Install in accordance with manufacturer's instructions.
- C. Arrange equipment to provide minimum clearances and required maintenance access.
- D. Install transfer switches plumb and level.
- E. Unless otherwise indicated, mount floor-mounted transfer switches on properly sized 4 inch high concrete pad constructed in accordance with Section 03 30 00.
- F. Provide grounding and bonding in accordance with Section 26 05 26.
- G. Identify transfer switches in accordance with Section 26 05 53.
- H. Provide engraved plastic nameplates under the provisions of Section 26 0553.

3.04 FIELD QUALITY CONTROL

- A. See Section 01 40 00 - Quality Requirements, for additional requirements.
- B. Provide services of a manufacturer's authorized representative to observe installation and assist in inspection and testing. Include manufacturer's detailed testing procedures and field reports with submittals.
- C. Prepare and start system in accordance with manufacturer's instructions.
- D. Automatic Transfer Switches:

1. Inspect and test in accordance with NETA ATS, except Section 4.
2. Perform inspections and tests listed in NETA ATS, Section 7.22.3. The control wiring insulation-resistance tests listed as optional are not required.
 - a. Disconnect surge protective devices (SPDs) prior to performing any high potential testing. Replace SPDs damaged by performing high potential testing with SPDs connected.
- E. Provide additional inspection and testing as required for completion of associated engine generator testing as specified in Section 26 32 13.
- F. Correct defective work, adjust for proper operation, and retest until entire system complies with contract documents.
- G. Submit detailed reports indicating inspection and testing results and corrective actions taken.
- H. Provide the services of the manufacturer's technical representative to check out transfer switch connections and operation and place in service.
- I. Perform field inspection and testing in accordance with Section [].
- J. Inspect and test in accordance with NETA STD ATS, except Section 4.
- K. Perform inspections and tests listed in NETA STD ATS, Section 7.22.3.

3.05 CLEANING

- A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

3.06 CLOSEOUT ACTIVITIES

- A. See Section 01 78 00 - Closeout Submittals, for closeout submittals.
- B. See Section 01 79 00 - Demonstration and Training, for additional requirements.
- C. Demonstration: Demonstrate proper operation of transfer switches to Owner, and correct deficiencies or make adjustments as directed.
- D. Training: Train Owner's personnel on operation, adjustment, and maintenance of transfer switches.
 1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
- E. Demonstrate operation of transfer switch in bypass, normal, and emergency modes.

3.07 PROTECTION

- A. Protect installed transfer switches from subsequent construction operations.

3.08 MAINTENANCE

- A. See Section 01 70 00 - Execution Requirements, for additional requirements relating to maintenance service.
- B. Provide to Owner a proposal as an alternate to the base bid, a separate maintenance contract for the service and maintenance of transfer switches for two years from date of Substantial Completion; Include a complete description of preventive maintenance, systematic examination, adjustment, inspection, and testing, with a detailed schedule.
- C. Conduct site visit at least once every three months to perform inspection, testing, and preventive maintenance. Submit report to Owner indicating maintenance performed along with evaluations and recommendations.
- D. Provide trouble call-back service upon notification by Owner:
 1. Provide on-site response within 4 hours of notification.
 2. Include allowance for call-back service during normal working hours at no extra cost to Owner.
 3. Owner will pay for call-back service outside of normal working hours on an hourly basis, based on actual time spent at site and not including travel time; include hourly rate and definition of normal working hours in maintenance contract.

- E. Maintain an on-site log listing the date and time of each inspection and call-back visit, the condition of the system, nature of the trouble, correction performed, and parts replaced.
- F. Provide a separate maintenance contract for specified maintenance service.
- G. Provide service and maintenance of transfer switches for 2 years from Date of Substantial Completion.

END OF SECTION

SECTION 281500

INTEGRATED ACCESS CONTROL HARDWARE DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes access control door hardware for the following:
 - 1. Swinging doors.
 - 2. Other doors to the extent indicated.
- B. Section includes, but is not necessarily limited to, the following for the integrated access control security and site management system:
 - 1. Electrified and Integrated Access Control Card Key Door Hardware
- C. Related Sections include the following:
 - 1. Division 08 Section "Door Schedule".
 - 2. Division 08 Section "Door Hardware Schedule".
 - 3. Division 08 Section "Hollow Metal Doors and Frames."
 - 4. Division 08 Section "Flush Wood Doors".
 - 5. Division 08 Section "Fiberglass Doors",
 - 6. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
 - 7. Division 08 Section "Automatic Entrances".
 - 8. Division 08 Section "Door Hardware".
 - 9. Division 26 Section "Electrical" for connections to electrical power system and for low voltage wiring work.
 - 10. Division 27 Section "Communications" for connections to the LAN.
 - 11. Division 28 Section "Access Control" for access control devices and equipment installed at door openings and provided as part of a security and site management system.
 - 12. Division 28 Section "Intrusion Detection" for detection devices installed at door openings and provided as part of an intrusion detection system.
 - 13. Division 28 Section "Video Surveillance" for motion detection and video camera devices and equipment installed at door openings and provided as part of a security and site management system.
 - 14. Division 28 Section "Fire Detection and Alarm" for connections to building fire alarm system.
- D. References:
 - 1. ANSI A117.1 (1998) - Accessible and Usable Buildings and Facilities.
 - 2. IBC - International Building Code

3. NFPA 70 (2002) - National Electrical Code.
4. NFPA 80 (1999) - Fire Doors and Windows.
5. NFPA 101 (2006) - Life Safety Code.
6. UL 294 - Access Control Systems.
7. UL 1076 - Proprietary Burglar Alarm Units and Systems.

E. Products installed, but not provided under this Section include the following. Coordination to remain a requirement of this Section.

1. Security or High Security keyed cylinders, including provisions for temporary construction keying, for mechanical override at access control locking hardware to be furnished under Division 8 Section "Door Hardware".

1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. System Operational Descriptions: Complete system operational narratives for the integrated access-controlled openings defining the owner's prescribed requirements for the opening functionality. Narratives include, but are not limited to, the following situations: normal secured/unsecured state of door; authorized access; authorized egress; unauthorized access; unauthorized egress; fire alarm and loss of power conditions, and interfaces with other building control systems.
- C. Shop Drawings: Details of electrified integrated locking hardware and access control firmware, indicating the following:
1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication and control of the access control system electrified hardware and firmware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
 - a. Elevation diagram of each unique access-controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
 - b. Complete (risers, point-to-point) access control system block wiring diagrams.
 2. Electrical Coordination: Coordinate with related Electrical Sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Proof of Certification: Upon request provide a copy of manufacturer(s) official certification or accreditation document indicating proof of status as a qualified and authorized provider of the primary access control components.
- E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete access control and site management installation in quantity as required in Division 01, Closeout Submittals. The manual to include the name, address, and telephone number of the supplier/integrator providing the installation and the nearest service representatives for each item of equipment included in the system. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.

1. As-Built Drawings: During system installation, the Contractor to maintain a separate hard copy set of drawings, elevation diagrams, and wiring diagrams of the access control system to be used for record drawings. This set to be kept up to date by the Contractor with all changes and additions to the access control system accurately recorded.

- F. Warranties and Maintenance: Special warranties and maintenance agreements specified in this Section.

1.4 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum of five (5) years of documented experience in providing access control and security systems equipment and software similar to that indicated for this Project and that have a proven record of successful in-service performance.

1. Software and access control systems components to have been previously and thoroughly tested together with proven installations similar in size and functionality to the design requirements indicated for this Project.
2. Basis of design for this specification is ASSA Abloy / Sargent Manufacturing. Alternative accepted manufacturers are listed in Part II.

- B. Supplier Qualifications: Supplier/Dealers, verifiably authorized and in good standing with the primary product manufacturers, with a minimum of three (3) years of experience supplying integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance.

1. ASSA ABLOY access control products are required to be supplied only through designated "Authorized Channel Partners."

- C. System Integrator Qualifications: Systems Integrators, verifiably factory trained and certified by the primary product manufacturers, with a minimum of three (3) years documented experience installing complete integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance. Qualifications include, but are not necessarily limited, to the following:

1. References: Provide a list of references for similar projects including contact name, phone number, name and type of project.
2. Professional Staffing: Firms to have a dedicated access control systems integration department with full time, experienced professionals on staff experienced in providing on site consulting services for both electrified door hardware and integrated access control systems installations.
3. Factory Training: Installation and service technicians are to be competent factory trained and certified personnel capable of maintaining the system.
4. Service Center: Firms to have a service center capable of providing training, in-stock parts, and emergency maintenance and repairs at the Project site with 24-hour/7-days a week maximum response time.

- D. Installer Qualifications: Certified technicians, verifiably authorized with the primary product manufacturers for installation of IP-Enabled, Wireless, and Power-over-Ethernet Access Control products in accordance with documented instructions and NFPA 80.

1. ASSA ABLOY access control products are required to be installed only through designated "Preferred Installers."
- E. Source Limitations: Obtain the access control door hardware, system firmware and application software specified in this Section from a single source, qualified supplier/integrator unless otherwise indicated.
1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third-party source will not be accepted.
 2. Provide integrated access control door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- F. Regulatory Requirements: Comply with NFPA 70, NFPA 80, NFPA 101 and ANSI A117.1 requirements and guidelines as directed in the model building code including, but not limited to, the following:
1. Comply with NFPA 70 "National Electrical Code", including electrical components, devices, and accessories listed and labeled as defined in Article 100 by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
 2. Where indicated to comply with accessibility requirements, comply with Americans with Disabilities Act (ADA), "Accessibility Guidelines for Buildings and Facilities (ADAAG)," ANSI A117.1.
 3. Comply with NFPA 101 "Life Safety Code" for doors in a means of egress.
 4. Comply with NFPA 80 "Fire Doors and Windows" for fire labeled opening assemblies.
 5. The installed access control system shall conform to all local jurisdiction requirements.
- G. Keying Conference: Reference Division 8 Section "Door Hardware".
- H. Pre-Submittal Conference: Conduct conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier/Dealer, Systems Integrator, and Contractor to review proper methods and procedures for receiving, handling, and installing the access control system hardware. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedules.
1. Inspect and discuss Division 26 electrical roughing-in and similar preparatory work performed by other trades.
 2. Review and verify sequence of operation descriptions for each unique access-controlled opening.
 3. Review and finalize construction schedule and verify availability of materials.
 4. Review the required inspecting, testing, commissioning, and demonstration procedures.
- 1.5 DELIVERY, STORAGE, AND HANDLING
- A. Do not store electronic access control hardware, software or related accessories at Project site without prior authorization.
1. Access control firmware and software: Where approved and directed, inventory upon receipt and store electronic access control equipment in a secure, temperature and humidity-controlled environment in original manufacturer's sealed containers.
- B. Tag each item or package separately with identification related to the final Access Control Door Schedule, and include basic installation instructions with each item or package.

- C. Deliver permanent keys, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner established at the "Pre-Submittal Conference".

1.6 COORDINATION

- A. Coordinate quantity and arrangement of assemblies with ceiling space configuration and with components occupying ceiling space, including structural members, pipes, air-distribution components, raceways, cable trays, recessed lighting fixtures, and other items.
- B. Access Control System Electrical Coordination: Coordinate the layout and installation of scheduled electrified door hardware, and related access control equipment, with required connections to source power junction boxes, power supplies, detection and monitoring hardware and fire alarm system.
 - 1. Door Hardware Interface: The card key access control system to interface and be connected to electronic door control hardware (electromechanical locks, electric strikes, magnetic locks, door position switches, other monitoring contacts, and related auxiliary control devices) as described under Division 8 "Door Hardware". Coordinate the installation and configuration of specified door hardware being monitored or controlled with the controls, software and access control hardware specified in this Section.
- C. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing electrified door hardware and access control system components. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing access control system hardware to comply with indicated requirements.
- D. Door and Frame Preparation: Related Division 08 Sections (Steel, Aluminum and Wood) doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article will not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and are in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of the installed access control system hardware and software that fails in materials or workmanship, including all related parts and labor, within specified warranty period after final testing and acceptance by the Owner. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of the hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: Two years from date of Substantial Completion, unless otherwise indicated.

- D. Special Warranty Periods (Electrified Access Control Door Hardware):
 - 1. Two years for Electrified, Wiegand Output, and IP-Enabled Access Control Door Hardware.
- E. Maintenance Support and Extended Service Agreement: Submit for Owner's consideration an optional extended Service Agreement for the installed access control system, including support for software related issues. The extended Service Agreement is considered elective and is without manufacturer's requirement stipulating mandatory coverage for owner and/or vendor system support.
 - 1. A published copy of this agreement to be included with the submittal package
 - 2. Support for the installed access control system components is provided through the vendor under a 24 hour technical assistance program.
 - 3. Access control and management system components are to be available on a one-day turn around time frame from the manufacturer.
 - 4. Primary systems manufacturer to offer and provide remote modem or internet access for direct factory support to the vendor. The factory level support to include diagnostics and troubleshooting support on systems related issues at no additional cost to the owner.
- F. Access Control Software Upgrades: Version upgrades and "fix" releases to the access control system software are available at no extra charge as long as the version of software provided under this specification remains the current manufacturer's version or for up to (2) years after a new version release.
 - 1. Major access control software revisions that provide new functionality to the product provided free of charge for up to one (1) year from the date of substantial completion.
 - 2. Access control system software is to be upgradable as may be required or as necessary, to expand and manage the owner's site or sites. Upgrades are to be offered at a published flat fee for the primary system software, with single license modules included in the primary fee structure. System upgrades offered at a costing structure based upon the original number of licensed modules issued, or on those to be purchased at a future date, are not allowed.
 - 3. As part of the submittal package, provide a list of available software upgrades and/or expansions modules. List to identify related costs for upgrades, or expansions to the original system, up to the next qualifying operational level.

1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of the installed access control system hardware and components.
- B. Maintenance Service: Beginning at Substantial Completion, and running concurrent with the specified warranty period, provide continuous (6) months full maintenance by skilled employees of the Systems Integrator. Include repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door opening operation. Provide parts and supplies as used in the manufacture and installation of original products.

1.9 SCOPE OF WORK

- A. On-Line Electronic Access Control System: Furnish and install at the indicated locations the specified electrified and integrated door hardware and access control firmware and software for

a completely operational access control and security site management system. System includes, but is not necessarily limited, to the following:

1. Electrified integrated card reader locks and exit hardware, permanent and temporary override cylinders, network control processors, reader controller panels, I/O monitor/control interfaces, door position switches, remote card readers, keypads, and display terminals, access cards and credentials, system application software, special tools, operating manuals, and required cabling and accessories as detailed below and listed in the Access Control Hardware Sets at the end of Part 3.
 - a. Provide the appropriate number of reader controller panels and I/O monitoring/control expansion interfaces as needed to handle the number of card readers, locking devices, door status devices, and identified alarm inputs specified in this section, and as shown on the security drawings.
 - b. Provide manufacturer approved integrated card reader locks, exit hardware, and remote mounted card readers, keypads, and display terminals that are functionally compatible with the specified access control equipment interfaces.
2. Access control system equipment to be installed in an enclosure box compatible with the specified components. This enclosure to include, but is not necessarily limited to, the network control processor, expansion boards, I/O monitor/control interface panels, power supplies, terminal strips, wire ducts, keyed lock cylinder, integrated outlet for A/C power, and standoffs.
 - a. Enclosure box to be located in the designated IT/Telecom room(s) with connection to local area network for communication back to the central server host.
3. Owner to provide the following:
 - a. Central server host computer, client workstations, and hardware peripherals to be from an approved, major line computer manufacturer. Specific information detailing compliance with system requirements to be included in the project submittal package as specified.
 - b. Owner will be responsible for ensuring that each computer hardware component includes the required interfaces, and peripherals that will be necessary to allow the system to operate as described within this specification and as indicated on the drawings.
 - c. Power Sourcing and Network Switches: Quantity as required to accommodate installed access control devices.
 - d. Network Control Processor Connections:
 - 1) Contractor provided: LAN/Ethernet communication ports (jacks) and network interface cards as needed, CAT5e cabling from network router/switch to network control processor, outlet and cover plates and/or patch cables required for network connection within each designated IT/Telecom room.
 - 2) Required static IP addresses.
4. Installation, final configuration and commissioning of electrified door and access control system hardware, communication firmware, power supplies and related accessories.
5. System application software including installation, programming, and end user training of the access control system demonstrating operating, repair, and maintenance procedures. Include no fewer than 8 hours of on-site central server training for designated personnel (facilities maintenance, security, IT, administration) by a factory certified representative.

6. Provide manufacturer required power controllers, interface boards, and programming that may be required for approved electric latch retraction exit devices supplied under Division 08 Section "Door Hardware."
7. Electrical contractor, Division 26, to provide the following:
 - a. Source power wiring (120VAC) as required for the electrified locking and access control hardware, equipment, accessories and power supplies. This includes quad outlets as required on a dedicated circuit in the designated IT/Telecom room(s) and the related conduit, stub-in, junction boxes and connectors required for the source power delivery and connections.
 - b. Provide required conduit, stub-in, junction and back boxes for both the electrified locking hardware and access control equipment at each of the access controlled or monitored openings per plan drawings and specs. Supply and install conduit between each of the aforementioned devices and between the electrical junction boxes, power supplies and access control equipment located on or above the door opening.
 - 1) At wall mounted remote readers, provide conduit on the secured side of the door, 36" from the finish floor and 6" from the edge of the frame, to the related power supplies and access control equipment.
 - 2) At electrical hardware power transfers provide conduit on the secured side of the opening from the power transfer, thru-wire hinge, or serviceable panel location on the frame jamb to the related power supplies and access control equipment.
 - c. Electrical Contractor to provide all 120VAC cabling connections and terminations from the electrical junction boxes to these electrical devices.
8. Access Control System Integrator to provide the following:
 - a. Low voltage wiring (12/24VDC) and communication cabling (RS-232/RS-485) from network control processors to reader controllers, I/O monitor/control interface panels, electrified and integrated locking hardware, remote card readers, keypads, or display terminals, monitoring and signaling switches, and power supplies. Work includes related connectors, final terminations, and hook-ups required for a complete and functional access-controlled opening in accordance with applicable codes and specified system operational narratives.
9. Full and seamless integration of the site intrusion alarm service if applicable, with the installed site access control system software.
10. Final connections to fire alarm system, if required, by electrical and fire alarm system contractors.
11. Provide permits, submittals and approvals required by the authority having jurisdiction, prior to commencing with work.
12. Provide manufacturer required power controllers, interface boards, and programming that may be required for approved electric latch retraction exit devices supplied under Division 08 Section "Door Hardware."
13. Electrical contractor (Division 26) to provide the following:
 - a. Provide required conduit, stub-in, junction and back boxes for both the electrified locking hardware and access control equipment at each of the access controlled or monitored openings per plan drawings and specs. Supply and install conduit between each of the aforementioned devices and between the electrical junction

boxes, power supplies and access control equipment located on or above the door opening.

- 1) At off-line remote readers, provide conduit on the secured side of the door, 36" from the finish floor and 6" from the edge of the frame, to the related power supplies and access control equipment.
- 2) At electrified hardware power transfers provide conduit on the secured side of the opening from the power transfer, thru-wire hinge, or serviceable panel location on the frame jamb to the related power supplies and access control equipment.

- b. Electrical Contractor to provide all 120VAC cabling connections and terminations from the electrical junction boxes to these electrical devices.

14. Access Control System Supplier to provide the following:

- a. Low voltage wiring (12/24VDC) for the electrified locking hardware, remote card readers, monitoring and signaling switches, and power supplies. Work includes related connectors, final terminations and hook-ups required for a complete and functional access-controlled opening in accordance with applicable codes and specified system operational narratives.

15. Typical System Requirements (Owner Provided): Central server host computer, client workstations, and hardware peripherals to be from an approved, major line computer manufacturer. Specific information detailing compliance with system requirements to be included in the project submittal package as specified.

PART 2 - PRODUCTS

2.1 INTEGRATED WIRED OUTPUT ACCESS CONTROL, MULTI-CLASS READER

- A. Integrated Wired Output Multi-Class Mortise Locks: Wiegand or Open Supervised Device Protocol (OSDP) output ANSI A156.13, Grade 1, mortise lockset with integrated card reader with or without keypad option, request-to-exit signaling, door position status switch, and latchbolt monitoring in one complete unit. Hard wired, solenoid driven locking/unlocking control of the lever handle trim, 3/4" deadlocking anti-friction latch, and 1" case-hardened steel deadbolt. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.

1. Open architecture, hard wired platform supports centralized control of locking units with new or existing Wiegand or OSDP compatible access control systems. Latchbolt monitoring and door position switch act in conjunction to report door-in-frame (DPS) and door latched (door closed and latched) conditions.
2. Integrated reader supports the following credentials:
 - a. 125kHz proximity credentials: HID, AWID, Indala, and EM4102.
 - b. 13.56 MHz proximity credentials: HID Secure Identity Object™ (SIO) on iCLASS Seos, HID iCLASS, HID iCLASS SE/SR, MIFARE Classic, DESFire EV1 and EV2.
 - c. 2.4 GHz credentials: Secure Identity Object™ (SIO) on Mobile IDs (Bluetooth Smart)
 - d. ISO14443A/B (PIV-compatible Transparent FASC-N read) available with pivCLASS variant.
 - e. NFC-enabled mobile phones
 - f. PIN code only or PIN + credential with keypad option.

3. 12VDC external power supply required for reader and lock, with optional 24VDC lock solenoid. Fail safe or fail secure options.
 4. Energy Efficient Design: Provide lock bodies which have a holding current draw of 500mA maximum and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
 5. Support end-of-line resistors contained within the lock case.
 6. Installation requires only one cable run from the lock to the access control panel without requirements for additional proprietary lock panel interface boards or modules.
 7. Installation to include manufacturer's access control panel interface board or module where required for Wiegand or OSDP output protocol.
 8. Manufacturers:
 - a. Corbin Russwin (RU) - ML2000 SN Series.
 - b. Sargent Manufacturing (SA) - SN200/SN210 8200 Series.
 - c. Schlage (SC)- AD400 Series.
- B. Integrated Wired Output Multi-Class Exit Hardware: Wiegand output ANSI 156.3 Grade 1 rim, mortise, and vertical rod exit device hardware with integrated card reader with or without keypad option, latchbolt and touchbar monitoring, and request-to-exit signaling, in one complete unit. Hard wired, solenoid driven locking/unlocking control of the lever handle exit trim with 3/4" throw latch bolt. U.L listed and labeled for either panic or "fire exit hardware" for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.
1. Open architecture, hard wired platform supports centralized control of locking units with new or existing Wiegand or OSDP compatible access control systems. Inside push bar (request-to-exit) signaling and door position (open/closed status) monitoring (via separately connected DPS).
 2. Integrated reader supports the following credentials:
 - a. 125kHz proximity credentials: HID, AWID, Indala, and EM4102.
 - b. 13.56 MHz proximity credentials: HID Secure Identity Object™ (SIO) on iCLASS Seos, HID iCLASS, HID iCLASS SE/SR, MIFARE Classic, DESFire EV1 and EV2.
 - c. 2.4 GHz credentials: Secure Identity Object™ (SIO) on Mobile IDs (Bluetooth Smart)
 - d. ISO14443A/B (PIV-compatible Transparent FASC-N read) available with pivCLASS variant
 - e. NFC-enabled mobile phones
 - f. PIN code only or PIN + credential with keypad option
 3. 12VDC external power supply required for reader. 24VDC required for solenoid operated exit trim. Fail safe or fail secure options.
 4. Installation requires only one cable run from the exit hardware to the access control panel without requirements for additional proprietary lock panel interface boards or modules.
 5. Competitor Alternates Allowed Option: Installation to include manufacturer's access control panel interface board or module where required for Wiegand or OSDP output protocol.
 6. Manufacturers:
 - a. Corbin Russwin (RU) - ED5000 SN Series.
 - b. Sargent Manufacturing (SA) - SN200/SN210 80 Series.
 - c. Von Duprin (VD)

2.2 CABLES AND WIRING

- A. Comply with Division 27 Section "Conductors and Cables for Electronic Safety and Security."
- B. Data Line Supervision: System to include alarm initiation capability in response to opening, closing, shorting, or grounding of data transmission lines.
- C. Install appropriate number of conductor pairs, in the wire gage (AWG) recommended by manufacturer, corresponding to the electronic locking functions specified, amperage drawn and distances covered between the power supplies, power transfer devices, electrified hardware and access control equipment. Composite/banana cable shall be utilized from each designated access control door to applicable controller or expansion board. All doors shall be home run.

2.3 ACCESS CONTROL HARDWARE FINISHES

- A. Standard: Comply with BHMA A156.18.
- B. Protect mechanical finishes on exposed surfaces from damage by applying temporary protective coverings before shipping.
- C. Where specified, finishes on integrated card key locksets or exit hardware to incorporate an FDA recognized antimicrobial coating (i.e., MicroShield™) listed for use on equipment as a suppressant to the growth and spread of a broad range of bacteria, algae, fungus, mold and mildew.
- D. BHMA Designations: Comply with base material and finish as specified.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance of the installed access control system.
- B. Examine roughing-in for electrical source power to verify actual locations of wiring connections before electrified and integrated access control door hardware installation.
- C. Examine roughing-in for LAN and control cable conduit systems to PCs, controllers, card readers, and other cable-connected devices to verify actual locations of conduit and back boxes before device installation.
- D. Notify architect of any discrepancies or conflicts between the specifications, drawings and scheduled access controlled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

- A. Doors and frames at scheduled access controlled openings to be properly prepared to receive specified electrified and access control hardware and connections without additional in-field modifications.

3.3 INSTALLATION

- A. Install each item of electronic integrated door hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
- B. Mounting Heights: Mount electronic integrated door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
 - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
- C. Boxed Power Supplies: Verify locations.
 - 1. Configuration: Provide the least number of power supplies required to adequately serve doors with access control hardware and equipment.
- D. Final connect the system control switches (integrated card key locking hardware, remote readers, keypads, display terminals, biometrics), and monitoring, and signaling equipment to the related Controller devices at each opening to properly operate the electrified door and access control hardware according to system operational narratives.
- E. Retrofitting: Install each door hardware and access control item to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- F. System Application Software: Install, and test application(s) software and databases for the complete and proper operation of systems involved. Assign software license(s) to Owner.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
 - 1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

- B. Commissioning and Testing Schedule: Prior to final acceptance of the access control system installation, the following testing and documentation to be performed and provided to the Owner.
1. Inspection: Verify that units and controls are properly installed, connected, and labeled and that interconnecting wires and terminals are identified.
 2. Pre-testing: Program and adjust the system and pretest all components, wiring, and functions to verify they conform to specified requirements. Provide testing reports indicating devices tested, pass/fail status, and actions taken to resolve problem(s) on failed tests.
 3. Acceptance Test Schedule: Correct deficiencies identified by tests and observations and retest until specified requirements are met.
 4. Provide "as designed" drawings showing each device and wiring connection and electronic enclosure legends indicating cabling in and out.
 5. Provide a complete set of operating instructions for access control hardware devices and a complete software user manual. The documentation includes module reference guides for each electronic enclosure.

3.5 ADJUSTING

- A. Adjust and check each operating item of integrated access control door hardware, and each door opening to ensure proper secured operation and function of every unit. Replace units that cannot be adjusted to operate as intended.

3.6 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by access control system installation.
- B. Clean operating items as necessary to restore proper finish and provide final protection and maintain conditions that ensure access control door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

- A. Engage an authorized systems manufacturer representative to train Owner's maintenance personnel to adjust, operate, and maintain electronic integrated door hardware and the access control system.

3.8 ACCESS CONTROL HARDWARE SETS

- A. The access control system hardware sets listed below represent the design intent and direction of the owner, architect, and security consultant (as applicable). They are intended as a guideline only and should not be considered a detailed opening schedule. Discrepancies, conflicting, and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
- B. The supplier is responsible for handing and sizing all products and providing the correct option for the appropriate door type and material where more than one is presented in the hardware sets. Quantities listed are for each pair of doors, or for each single door.

- C. Refer to Section 080671, Door Hardware Sets, for hardware sets.

END OF SECTION



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RFI #	Date	Submitted By	Question	Response	Addendum	Responder (Company)
1	10/23/2025	Advantech	Is Security Instrument Corporation the only contractor option for access control? (see sheet E-000)	No. Revised spec will be issued PBG	5	JAED
2	10/24/2025	Primex	Is Primex OneVue System an approved alternate to the specifcied wireless master clock system	Not approved	4	JAED
3	10/27/2025	EDiS	provide construction details for Lobby skylight	Set curb on 18" manufactured insulated curb flashed to roof similar to detail 1/A-503. Finish inside of curb with painted, 1/2" gwb. Provide blocking at exposed end or roof deck an finish with painted, 1/2" GWB. PBG	5	JAED
4	10/27/2025	EDiS	provide architectural and structural details for the "roof top screen", referenced on 4/A-204	Roof screen will be deleted in upcoming addendum. PBG 10/31/25	5	JAED
5	10/27/2025	EDiS	Reference 1&5/A-411, provide construction details for wall graphics shown on Lobby wood wall panels	Graphic is to be painted 1/8" aluminum plate mounted on 3" long stand-off pins. Vector graphics will be provided after bid. PBG	4	JAED
6	10/27/2025	EDiS	Foundation Drain: reference 8/A-308 foundation drain shown, not shown on plumbing drawings. Is this required? If required is this the only location?	Foundation drain is only required at loading dock retaining wall. Install for full length of wall at retaining side. PBG 10/31/25	4	JAED
7	10/27/2025	Brandwine Contractors, Inc.	Confirm site light fixtures types/spec "L1" and "L2" @ Monumental Signage. Noted as "LED Signage" on A-811.	LED component has been deleted from project. Provide L1 and L2 fixtures as shown on drawings. PBG	5	JAED
8	10/27/2025	Brandwine Contractors, Inc.	Confirm location/size of gymnasium wall pads (reference spec 116623)	No pads are required. Delete specification 11 66 23 in its entirety. PBG	4	JAED
9	10/27/2025	Brandwine Contractors, Inc.	Confirm scope of "examination and treatment equipment", reference spec 117200	See drawings GC002 and GC003, Equipment Location Plans, issued in Addendum 4. PBG	4	JAED
10	10/27/2025	Brandwine Contractors, Inc.	confirm the following for all wall mounted televisions: location, mounting hardware	Provide blocking for four interactive panels at Lobby 001 on angled wall adjacent to Speech Team 103D. Provide blocking for six additional wall monitors in building. Locations to be determined. PBG	5	JAED
11	10/27/2025	EDiS	Patient Lift Ceiling Support Members: confirm bearing/attachment detail for CF C.J.'s (reference S-102A, 18/S-303)	Lift manufacturer will provide design/build information for attaching track to CF C.J.s. Assume 16" long solid wood blocking at each web, full height of web, at each attachment point. Assume thru-bolts at 16" o.c. Provide bridging of like size CF C.J.s where attachment points on curved call between joists. PBG 10/31/25	4	JAED
12	10/27/2025	A&H Metals	Entrance Canopy (bus): provide complete construction details and specs	See revised section 07 42 13 and new drawing A-309 issued in Addendum 4. PBG	4	JAED
13	10/27/2025	A&H Metals	Metal Wall Panels: confirm location of "TYPE-3" panels, reference spec 074213	See revised section 07 42 13 and new drawing A-309 issued in Addendum 4. PBG	4	JAED
14	10/27/2025	A&H Metals	Metal Wall Panels: confirm panel type at select "B1" window locations, reference 3/A-201, 4/A-204.	See revised section 07 42 13 issued in Addendum 4 PBG	4	JAED
15	10/27/2025	Richard E. Pierson Construction Co., Inc.	There is listed under the site contractor summary of work, item 54, to provide services for BIM based on spec 013700 BIM Execution plan. Please provide this spec as it become available.	See Bid Addendum #3	3	EDiS
16	10/27/2025	Richard E. Pierson Construction Co., Inc.	Is the playground equipment/Exercise equipment part of the site contractors scope. Item 4, of the Summary of work, Provide site amenities, doesn't mention those two things.	Yes, see Bid Addendum #3 (alternates)	3	EDiS
17	10/27/2025	Joseph Rizzo and Sons, Inc	Could you please help me find which partitions are related to alternate #7? I did not see anything in the drawings or spec section noting or describing which partitions would be changed to studs.	This is a request for alternate pricing to run all interior masonry walls to full height	4	EDiS



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RFI #	Date	Submitted By	Question	Response	Addendum	Responder (Company)
18	10/27/2025	Joseph Rizzo and Sons, Inc	In contract A-04, scope item #2 says that the foundation waterproofing is by contract A-08 however scope item 21 says that the mason owns dampproofing. Is contract A-04 to pick up the foundation dampproofing or is that the responsibility of contract A-08?	Foundation damp proofing is the responsibility of contractor A-08 Waterproofing.	5	EDIS
19	10/27/2025	Joseph Rizzo and Sons, Inc	In contract A-04, scope item #8 calls for the mason to provide steel angle support at the top of masonry walls. Please clarify that the highlighted item below is what is being referenced and if it is, this item should be picked up by the steel contractor as the mason's work must already be completed before the installation of this non-masonry item.	this scope item will remain within contract A-04 (Masonry)	4	JAED
20	10/28/2025	Joseph Rizzo and Sons, Inc	Entrance Canopy Brick Columns: provide construction details	See revised drawing A-309 issued in Addendum 5. PBG	5	JAED
21	10/28/2025	EDIS	Metal Panels: confirm metal panel selections. The schedule/legend on A-200 series dwgs does not match spec 074213	See revised section 07 42 13 and revised elevation drawings issued in Addendum 4. PBG	4	JAED
22	10/28/2025	Brandwine Contractors, Inc.	Prefabricated Metal Canopies: confirm width/depth dimensions, dwg A-203 notes 3'-0" x 7'-0". Dwg A-104 references roofing notes 12 (7'-3" wide) and 12A (6'-8" wide), some canopies are not tagged on this sheet.	See Roof Key Note Legend on revised sheet A-104 Roof Plan, issued in Addendum 4. PBG	4	JAED
23	10/28/2025	Brandwine Contractors, Inc.	Drawing A-418 indicates dock bumpers 10" high x 6" thick x 111" long typical at (4) locations. Specifications call for molded rubber 18" high x 6" thick x 10" wide. None of the listed manufacturers produce a molded rubber dock bumper 111" long. Please clarify what is required here.	Revise note on drawing 3/A-418 to indicate (5) dock bumpers at 6" x 12" x 96". See revised section 11 13 13 issued in Addendum 4. PBG	4	JAED
24	10/28/2025	Brandwine Contractors, Inc.	Section 113013 Residential Appliances list dishwasher Eq-8 as a GE JTS3000SNSS. This appears to be a incorrect model number as that comes up as a wall over. Please confirm corrected model number.	Revise EQ-9 to GE GDT226SSISS. PBG	5	JAED
25	10/28/2025	Narissa Building Company	Cafeteria Ceiling (4/A-420): confirm ceiling construction/type within curved areas.	See revised section 09 51 00 issued in Addendum 3 PBG	3	JAED
26	10/28/2025	Narissa Building Company	ACT-1: Spec 095100 notes ACT-1 is "square" edge, drawings note "beveled tegular edge". Please confirm selection.	Beveled tegular is correct. See revised section 09 51 00 issued in Addendum 3 PBG	3	JAED
27	10/28/2025	Narissa Building Company	Reference A-420/2, 3, 5, 6 & A-421/1: Confirm ceiling transition detail where edge of the drywall meets ACT	See detail 5/A-111. PBG	4	JAED
28	10/28/2025	Narissa Building Company	A-420/1. Please provide details for the gray rectangular shaped objects on the RCP within the pool area (Pool 155).	See detail 8/A-406 issued in Addendum 5 PBG	5	JAED
29	10/28/2025	Narissa Building Company	A-421/1. Please provide the radius of the curves in the drywall soffit for quoting and ordering curved track. Also is the exposed vertical face of this aluminum trim or drywall or something else?	Radii dimensions will be provided at a later date.	5	JAED
30	10/28/2025	Narissa Building Company	A-421/2. Is there axiom trim on the edge of the ACT-1 within the gymnasium? Please provide details	Provide 6" Axiom edge at Gym Provide 4" Axiom edge at Cafeteria, and Lobby. PBG	5	JAED
31	10/28/2025	Narissa Building Company	A-306/4. Which contract owns the acrylic modified finish system soffit over vapor barrier and 5/8" exterior sheathing?	This is included in Contract A-13.	4	EDIS
32	10/28/2025	Ralph G. Degli Obizzi & Sons, LLC	Specs note PVC sanitary piping above grade, and PVC storm piping above and below grade. Please confirm if PVC sanitary piping below grade is acceptable.	Owner has elected to allow PVC sanitary piping below grade.	4	JAED
33	10/28/2025	Ralph G. Degli Obizzi & Sons, LLC	please provide a gas riser diagram including valves.	Added.	4	EDIS
34	10/28/2025	Ralph G. Degli Obizzi & Sons, LLC	DRAWING M-106 CALLS OUT FOR HEAT TRACE ON CONDENSATE PIPING AT AHU-1. IT ONLY SHOWS THIS ON ONE UNIT. ARE WE TO ASSUME EVERY UNIT NEEDS HEAT TRACE ON THE CONDENSATE? SHOULD THIS BE CARRIED BY THE ELECTRICAL CONTRACTOR?	Only the pool unit.	4	EDIS
35	10/28/2025	Ralph G. Degli Obizzi & Sons, LLC	Should there be 140 degree hot water feeding kitchen appliances?	No. Kitchen will utilize chemical sanitizing, not hot water	5	JAED
36	10/28/2025	Ralph G. Degli Obizzi & Sons, LLC	Which contractor owns the 8x4x6 mechanical tee to split the domestic and fire aamin in room 152?	By plumbing contract.	5	EDIS
37	10/28/2025	Diamond Mechanical, Inc.	[Reference spec 221005] Please confirm if it is accpetable to install PVC piping for underground sewer within building.	Owner has elected to allow PVC sanitary piping below grade.	5	JAED
38	10/28/2025	Griffith Roofing & Waterproofing	confirm is foundation is to receive waterproofing (per detail 1/A-304, or damproofing (per 3/A-308); spec 071113 references dampproofing	Building foundation shall receive damproofing as indicated in section 071113. Retaining wall shall receive waterproofing as indicated in section 071200 issued in Addendum 4. PBG	4	JAED



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RFI #	Date	Submitted By	Question	Response	Addendum	Responder (Company)
39	10/28/2025	Nickle Electrical	On addendum 2, it states on pages 1 and 3 that the Bid is due by 3:30pm, however on page 7 it states the Bid is due by 3pm. Please clarify which time frame is correct.	Bids are due on 11/19/25 @ 3:30PM	3	EDIS
40	10/28/2025	Nickle Electrical	The Bid form for A-26 states we are supposed to have a signed Affidavit of Craft Training Compliance form attached with our Bid; however, we weren't provided with the proper document, please advise.	See Bid Addendum #3	3	EDIS
41	10/28/2025	Nickle Electrical	Light fixtures "L1", "L2", and "L3" (shown on E-100 around the sign and flagpole) are not shown on the fixture schedule. Please provide information.	L1: VistaPro / 1052-KM-XX-MF-30-B-MV-010-XX L2: VistaPro / 1052-KM-XX-NS-30-A-MV-010-XX L3: Vista / 1185-B-NS-35-C-MV-CX-ND-B34-T05 All or approved equal.	5	JAED
42	10/28/2025	Nickle Electrical	Light fixtures "WPK" and "RH" are not shown on the fixture schedule. Please provide information.	WPK fixtures shall all be replaced with WM1 fixtures. If any RH fixtures exist on the plans, they shall not be provided and shall be removed from the project.	5	JAED
43	10/28/2025	Nickle Electrical	The following lighting fixtures are shown on the fixture schedule but do not appear on the lighting drawings: "D17", "F1-A", P1-24". Please verify locations/quantities.	These fixtures will not be on the plans and shall be removed from the project.	5	JAED
44	10/28/2025	Nickle Electrical	Please provide part numbers for the following lighting controls (Not shown on the Electrical Cover Sheet): LMIN, LMBC and LMRC-211	Please reference the Lighting Control Riser Diagram drawings for more information on all devices and connections.	5	JAED
45	10/28/2025	Nickle Electrical	Is EMT acceptable in lieu of GRC in masonry walls?	EMT is acceptable in masonry walls.	5	JAED
46	10/28/2025	Nickle Electrical	Drawing E-600 does not show feeder requirements for SWBD-2 to MSB.	Provide 5 sets of 4#300KCMIL + 4/OG + 4/OIG - 4"C	5	JAED
47	10/28/2025	Nickle Electrical	Which bid package is responsible for furnishing the interactive adjustable mounts noted on E-501, Detail 5?	no longer shown on E-501, see 10/31/25 drawing revision	3	Jaed
49	10/29/2025	EDIS	Update drawing list to include all alternate drawing sheets	Provided 11/13 am PBG	5	JAED
51	10/29/2025	EDIS	Confirm concrete turndown slabs required at building entrances.	Turn-down slab edges at building entrances. Provide 1/2" x 12" dowels at 24" o.c. between edge of floor slab and edge of landing slab at doors. PBG	5	JAED
52	10/29/2025	Tri-State The Roofers	[reference A-104/A-501, spec 075300/2.4] Roofing: drawings note PVC membrane, specs note black EPDM - please confirm selection	Provide EPDM membrane as indicated in section 07 53 00, issued in Addendum 4. PBG	5	JAED
53	10/29/2025	Tri-State The Roofers	[reference A-501] Roofing: A-501 notes 6" thick "R-30" roofing insulation, R-30 insulation is 5.2" thick. Please confirm insulation requirement	Base insulation shall be two layers as required to achieve minimum R-30, 5.2-inches. PBG.	5	JAED
54	10/29/2025	Tri-State The Roofers	[reference A-501] Roofing: Please clarify which layers of insulation should be mechanically attached to the roof deck and which layers should be adhered: 1/2" gypsum substrate board, air & vapor barrier, base insulation, taper insulation, 1/2" HD board	All fastened. See revised section 07 53 00, issued in Addendum 4. PBG	5	JAED
55	10/29/2025	Tri-State The Roofers	Roofing: Please confirm that all wood blocking and sheathing is not part of the roofing package.	Contract A-07 owns complete roof assembly above the metal decking including all sheathing and coverboards.	5	EDIS
56	10/29/2025	Tri-State The Roofers	advise if ELEVATE is an approved alternate roofing manufacturer (PVC or EPDM)	Yes PBG	4	Jaed
57	10/29/2025	Borsello Masonry Inc.	Confirm if the 2-1/2" spray foam insulation is to be included on the masonry bid	Yes	4	EDIS
58	10/29/2025	Modern Controls	Are space CO2 sensors and monitoring required? If so, please provide quantities and locations of CO2 sensors and what equipment they are associated with.	Quantity verification of sensors needed to complete the sequence of operation are the responsibility of the contractor. CO2 sensors, where required, shall be located within the space adjacent to the space temperature sensor.	5	JAED
59	10/29/2025	Modern Controls	Are space humidity sensors and monitoring required? If so, please provide quantities and locations of humidity sensors and what equipment they are associated with.	Quantity verification of sensors needed to complete the sequence of operation are the responsibility of the contractor. Humidity sensors, where required, shall be located within the space adjacent to the space temperature sensor.	5	JAED



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60	10/29/2025	Modern Controls	Are building static pressure sensors and monitoring required? If so, please provide quantities and locations of building static pressure sensors and what equipment they are associated with.	Quantity verification of sensors needed to complete the sequence of operation are the responsibility of the contractor. Static pressure sensors, where required, shall be located within the space adjacent to the space temperature sensor.	5	JAED
61	10/29/2025	Modern Controls	Can the mechanical plans be updated with labeled zone temperatures and what equipment they are associated with? It seems there are more zone sensors than equipment.	Will review sensor quantity and update drawings as required.	5	JAED
62	10/29/2025	Modern Controls	Please confirm mounting heights for zone temperature sensors.	See drawing G-002 for device mounting heights.	4	
63	10/29/2025	Modern Controls	Please confirm flat plate zone temperature sensors are required for the following equipment: o Radiant Ceiling Panels RCP-1 to 25 o Electric Baseboard Heaters EBB-1 to 6 o Unit Heaters UH-1 to 3 o Cabinet Unit Heaters CUH-1 o Variable Refrigerant Flow (VRF) Fan Coil Units serving common areas such as corridors, restrooms, locker rooms, etc. o Exhaust Fans EF-1, 6, and 7	correct	4	Jaed
64	10/29/2025	Modern Controls	Is the following equipment being provided with manufacturer BACnet interfaces to be integrated into the BAS: o Pool Dehumidification Unit AHU-1 o Packaged Rooftop Heat Pump Units with Energy Recovery RTU-1 & 2 o Dedicated Outdoor Air System with Energy Recovery DOAS-1 to 3 o Kitchen Make Up Air and Hood Exhaust MAU-1 and EF-4 (interface with kitchen hood controls with BACnet interface) o Kitchen Dedicated Outdoor Air System and Hood Exhaust DOAS-4 and EF-5 (interface with kitchen hood controls with BACnet interface) o Wall Mounted Ductless Split Heat Pumps WSS-1A to 1D	Pool dehumidification unit and DOAS systems will be provided with factory-provided BACnet controllers. All other equipment noted should be provided with controllers by the BAS contractor.	5	JAED
65	10/29/2025	Modern Controls	Please confirm if the following utilities are being provided with manufacturer BACnet interfaces to be integrated into the BAS or if the BAS contractor is required to field install meters: o Building electric meter o Building water meter	Interfaces to be provided by BAS.	5	JAED
66	10/29/2025	Modern Controls	Are the domestic water system/domestic hot water heaters to be monitored on the BAS?	No	4	JAED
67	10/29/2025	Modern Controls	Is the grease trap to be monitored on the BAS? If yes, please confirm quantity and who is responsible for providing and installing the monitoring sensor?	Yes. Monitoring device provided by grease interceptor vendor. Output to be read by BAS	5	JAED
68	10/29/2025	Modern Controls	Is there any requirement for gas monitoring – such as chlorine – in the pool mechanical room and exhaust fan EF-1?	No.	4	JAED
69	10/29/2025	Modern Controls	Is the lighting system to be monitored on the BAS?	No	4	JAED
70	10/29/2025	Greggo and Ferrara	Section 008115 for the Craft Training Program Affidavit is not included in the bid documents, please provide	See Bid Addendum #3	3	
71	10/29/2025	Brandwine Contractors, Inc.	Is Platinum Visual Solutions an approved alternate manufacturer for visual display units (spec 101100)	This is an acceptable product.	5	JAED
72	10/30/2025	Greggo and Ferrara	Civil CAD files requested to verify volume calculations	The requested CAD files will not be available for bidding purposes.	5	JAED
73	10/30/2025	Superior Electric	When reviewing A-26 scope of work, it states on line 17 to provide electric vehicle charging stations. These are not shown on the drawings or in the specs. Please advise if this project will contain electric vehicle charging.	Deleted in ADDENDUM 4	5	EDIS
74	10/30/2025	Narissa Building Company	please verify the ballistic panels are only going on column line "C" between Column line #6 & 7	The wall in that location is required to be ballistic rated. Provide base price for level 3 ballistic resistance. Provide alternate price for level 1 ballistic resistance. PBG	5	JAED
75	10/30/2025	Tri-State Carpet	Admin Office 100 - Finish Print (A-702) shows Quartz Tile while the Finish Schedule (A-700) shows Carpet Tile. Which one does it get?	Provide materials as indicated on Finish Plans. PBG	4	
76	10/30/2025	Tri-State Carpet	Laundry 130 - Finish Print (A-701) shows Epoxy flooring while the Finish Schedule (A-700) shows Quartz Tile. Which one does it get?	Provide materials as indicated on Finish Plans. PBG	4	



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RFI #	Date	Submitted By	Question	Response	Addendum	Responder (Company)
77	10/30/2025	Tri-State Carpet	IDF - Finish Print (A-701) shows Quartz Tile while the Finish Schedule (A-700) shows Epoxy. Which one does it get?	Provide materials as indicated on Finish Plans. PBG	4	
78	10/30/2025	Tri-State Carpet	Please verify that the painted lines on RAF-1 is to be done by a trade other than the flooring subcontract.	"game lines and logos" are included in Contract A18	4	
79	10/30/2025	Tri-State Carpet	confirm flooring/base for Storage 173	Provide materials as indicated on Finish Plans. PBG	4	JAED
80	10/30/2025	Brandwine Contractors, Inc.	A-06 Carpentry bid form list pergola in courtyard #3 as alternate #6. Alternate section lists the pergola as alternate #5.	Pergola is DELETED	5	EDIS
81	10/30/2025	Brandwine Contractors, Inc.	There are no specifications, drawings, or details on the alternate pergola that we can find.	Pergola is DELETED	4	EDIS
82	10/30/2025	Brandwine Contractors, Inc.	There are no specifications on the greenhouse and we do not see it listed in anyone's scope. Is the actual greenhouse being provided by the owner?	See section 13 34 13. Greenhouse is a design/build specification. Greenhouse is to be bid as an alternate price. PBG	4	JAED
83	10/30/2025	Brandwine Contractors, Inc.	We do not see any drawings showing which partitions are to be changed for masonry to drywall that we can find.	See revised wall tags on drawings A-102 and A-103 issued in Addendum 3.[PBG]; ALTERNATE #7 was deleted in Addendum 4	5	JAED, EDIS
84	10/30/2025	Brandwine Contractors, Inc.	Under section 117311 Patient Lifts paragraph 2.03 calls for a 650 lb capacity. The basis of design, Savaria M-Series Essential does not comes in a 650 lb option. They have 286 lbs, 440 lbs, or 600 lbs. The next step up is the M-series Bariatric with a 800 lb. Capacity. Please clarify which is required for proper pricing.	Provide 600 lb capacity or greater. PBG	5	JAED
85	10/30/2025	Richard E. Pierson Construction Co., Inc	The craft training program is required according to the bid documents. Section 008115 of the spec appears to be missing. Please provide this document.	See Bid Addendum #3	3	EDIS
86	10/30/2025	Eastern States	Are there drawings that calls out the fence layouts?	See Civil drawings for fence scope. In addition, provide 14' high by 50' long chain link fence with privacy slats at generator enclosure. Include 10' high by 10' wide double-swinging gate with 4' high chain link closure panel over top of gate. PBG	5	JAED
87	10/30/2025	Corrado American	1. SOW 2. Furnish and install all site signage. This includes all traffic, pedestrian and building related signage not mounted on buildings, including fire lane curbing and signage. Please clarify these are only traffic signs and not monument building entrance signs etc.	Contract A-01 (Sitework) does not include "Monumental Signage"	4	EDIS
88	10/30/2025	Corrado American	2. Please provide number of times we will be required to clean out the concrete washout or provide dumpsters and how many times we will be required to relocate by EDIS Per below SOW item # 9. "9. Furnish and install and maintain concrete wash out areas for other subcontractors and their suppliers for project duration. Concrete wash out station to be dumpster type, include liner. Relocate as required by EDIS. Remove this item at conclusion of project and complete as indicated on finished drawings."	these scope items have been clarified within ADDEDUM 4	5	EDIS
89	10/30/2025	Corrado American	3. Please provide the location(s) and quantity for the hose bibs. Please provide length. We will only provide hose once and not duration of project, Correct? "11. Provide a temporary water means for other trades to utilize. Include all costs associated with metering from local utilities as well as valves and hoses for contractors to utilize. The Construction Manager will not provide this service. Location is TBD by EDIS."	(1) truck wash, (1) masonry mix station, (1) general use	4	EDIS
90	10/30/2025	Corrado American	4. How do we quantify SOW item 14? Can allowance for this set by EDIS be required so we are bidding same items? "14. This Contractor shall provide and maintain all temporary access roads as detailed in contract documents, until completion of project. Include snow removal."	Item #14 will be revised in Addendum 4 to include maintenance and snow removal on T&M	4	EDIS



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91	10/30/2025	Corrado American	5. SOW 36 below; How many trucks will be supplied by WPHS site contractor? If WPHS site contractor decides they do not need 20,000 CYs will we be required to remove material offsite? Will we be compensated for testing and dump fees at that time? 36. This is not a balanced site. 20,000 cy of the excess soils will be provided to the upcoming William Penn High School project. This Contract A-01 is to include loading trucks supplied by site contractor at the high school project only (no transport required by this Contract A-01). Contract A-01 is to provide removal of all remaining excess soils from site.200 Marsh Lane, New Castle, DE	This Contractor will stockpile 20,000 yds on-site for removal by others. Soil testing is not anticipated to be required. See addendum 5.	5	EDIS
92	10/30/2025	Corrado American	6. 37. Provide all dewatering of excavations until final acceptance. Provide dewatering for perimeter waterproofer. Site contractor is not responsible for back fill of footings, concrete contractor is and Item 16 in concrete package covers dewatering for water proofer. Please clarify this is the responsibility of the concrete package. Site contractor responsible for dewatering of his work only.	Dewatering of building foundations excavation by concrete contractor.	4	EDIS
93	10/30/2025	Corrado American	7. SOW 30. Furnish, install and maintain select fill under slab. Are we to provide imported select fill or onsite fill per SOW 35?	Utilize on-site fill where compaction requirements can be met. Utilize imported fill only where on-site fill cannot be utilized.	4	EDIS
94	10/30/2025	Corrado American	8. SOW 44. Site utilities to courtyards, including irrigation lines as part of this contract. Please provide a plan for irrigation if required by this contract. Landscape plans and utility plans show no layout for irrigation or areas to be irrigated.	No irrigation requirements per design documents, see Addendum #3 for clarification to the Summary of Work.	3	EDIS
95	10/30/2025	Corrado American	9. SOW 42. Provide street cleaning of mud etc. on a daily basis throughout the entirety of the project including when this sitework contractor is not working on site. Please provide project schedule so we can calculate how many days needed to provide a crew onsite for mud cleanup. An allowance or each contractor responsible for their own cleanup may be better alternative.	See bid Addendum #3 for clarification.	3	EDIS
96	10/30/2025	Corrado American	10. SOW 5. Provide fencing (chain link and ornamental) including gate hardware, and post and cable fencing. Provide louvered gates at the mechanical yard. C-105 shows fence around playground on west side of building. A-001 shows fence at same location but layout does not match. No other fence is shown. Which plan do we use?	Fencing, and all site work, shall be as indicated on civil drawings. Drawing A-001 is diagrammatic only. PBG	4	J
97	10/30/2025	Corrado American	11. Are the Ameristar fence details for playground?	Yes. PBG	5	JAED
98	10/30/2025	Corrado American	12. SOW 4. Provide site amenities (decorative and steel pipe bollards, bike racks, flagpoles (including bases), manual and automatic gates (including associated gate hardware), benches, etc.). Include excavation and concrete to support these amenities as shown in the project documents and required by manufacturer's instructions. Please provide plans showing locations of the above items in SOW 4.	Bollards: See response to question 223. Bike Rack: See detail on C-113. (7) units identified next to front entrance on C-202. Flag Poles: Two shown on C-202. Decorative Metal Gates: (3) decorative metal gates shown on C-202. Provide push bar from inside. Provide lever locking hardware at outside. Provide perforated metal screening to prevent activation of push bar from outside. Chain Link Gates: See response to question 86 for chain link gate. Automatic Gates: None. Site Amenities: Se C-111A. PBG	5	JAED
99	10/30/2025	Corrado American	13. Playground equipment is not by Sitework contract, correct?	See Bid Addendum #3	3	EDIS
100	10/30/2025	Corrado American	14. Playground surfacing is not by sitework contract, correct?	This scope is included within contract A-01 (Sitework). Also see "Alternates" pricing.	4	EDIS
101	10/31/2025	Diamond Mechanical, Inc.	confirm scope included in the plumbing contract for the following: scupper, downspout, boot	by roofing and sitework contractors	4	EDIS
102	10/31/2025	Nickle Electrical	Which Utility Transformer pad detail should be used, detail #7 on E500 or detail #2 on drawing E502?		5	JAED
103	10/31/2025	Nickle Electrical	2. Please provide a generator concrete pad detail.	Generator concrete pad detail will be provided in Addendum 5.	5	JAED
104	10/31/2025	Nickle Electrical	3. Please provide the location of the Harmonic Filter?	The Harmonic Filter will go in the Mech/Elec room on the same wall as the SWBDs. See Addendum 5.	5	JAED



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105	10/31/2025	Nickle Electrical	4. Please confirm secondary power service needs to be concrete encased under the building pad.	The feeds from the secondary side of the utility transformer do not need to be encased in concrete as long as they are underground for the entire run from the transformer to SWBD-1.	4	JAED
106	10/31/2025	Nickle Electrical	5. Please provide an allowance for scope item #7 in contract A-26 summary of work.	This item will remain unchanged	5	EDIS
107	10/31/2025	Nickle Electrical	6. Please provide an allowance for Utility Fees associated with scope item #12 in contract A-26 summary of work.	Fees referenced Contract A-26 - Electrical, scope of work #12 shall exclude fees assessed by the Power Utility to the property owner to initiate the new service.	5	EDIS
108	10/31/2025	Nickle Electrical	7. Please provide the location of EV Chargers noted on scope item #17 in A-26 summary of work.	No EV charges included in this project. PBG; This scope item will be deleted in Addendum #4	4	JAED
109	10/31/2025	Nickle Electrical	8. Please provide a power circuit for heat trace noted on scope item #23 in A-26 summary of work.	See E-200 Electrical Roof Plan - next to AHU-1.	5	JAED
110	10/31/2025	Nickle Electrical	9. Please clarify scope item #26 in A-26 summary of work. Mechanical contractors normally provide baseboard, unit and cabinet unit heaters.	this scope will remain in Contract A-26	4	EDIS
111	10/31/2025	Nickle Electrical	10. In Addendum #2, it states we are to provide 3 copies of our Bid, please clarify if any originals are needed as well. If so, will we need to provide 1 original and 2 copies or 1 original and 3 copies, etc.	One (1) original with two (2) photocopies will satisfy the requirement for (3) copies.	5	EDIS
112	10/31/2025	Joseph Rizzo and Sons, Inc	Will special shape brick and block be required in this project where walls are made at odd angles? If so, please have the architect provide the locations where these special shapes would apply and also provide shape drawings for these locations.	Provide 135 degree inside corner and outside corner concrete masonry units and brick. Provide 4x4x12 nominal brick for building. Provide 4x4x8 nominal brick for bus canopy piers. See revised section 04 20 00 issued in addendum 4. PBG	4	JAED
113	10/31/2025	J&B Caulkers Inc.	1.)The concrete saw joints are showing to be caulked as per detail 4 on S-301. Should all saw joints caulk or only those in exposed Sealed Concrete floors	Seal exposed concrete joints only. PBG	5	JAED
114	10/31/2025	J&B Caulkers Inc.	2.)Note 4 on detail 5 on S-301 calls for Semi-Rigid in the saw joints. This product is typically used in warehouses with high forklift traffic. Will Semi-Rigid be required at the saw joints?	Provide traffic grade urethane sealant at sawcut joints. PBG	5	JAED
115	10/31/2025	J&B Caulkers Inc.	3.)Please clarify Line J adjoining materials - "Ceramic Tile Walls and floors to adjoining materials".	Provide sealant between the top of ceramic tile base or wainscot to adjacent drywall finish. Sealant between ceramic tile and ceramic tile will be provided by the Ceramic Tile contractor. (ADDENDUM 4)	5	JAED
116	10/31/2025	J&B Caulkers Inc.	4.)Please clarify line H adjoining materials. IS the intent Vertical joints metal panel to masonry?	caulk metal panel vertical joints to adjoining façade materials by contract A-10	5	EDIS
117	10/31/2025	J&B Caulkers Inc.	5.)Please clarify Line G - "Vented painted metal soffit to adjoining materials"	this item is deleted in Addendum 5	5	JAED
118	10/31/2025	J&B Caulkers Inc.	6.)Please clarify line F. ("Exposed non-fire rated drywall to adjoining materials") Is the intent exposed drywall to masonry?	caulk exposed drywall to any adjoining materials	5	JAED
120	10/31/2025	Narissa Building Company	provide sections, details and type of steel (Size and gage) to be used for the sub framing on the under side of the canopy Listed on DWG S-202 Detail #8, 9, 12 (reference detail)	See drawing A0309 issued in Addendum 4. PBG	4	JAED
121	10/31/2025	Joseph Rizzo and Sons, Inc	provide details for the highlighted green parapets in the attached drawing? We need to know the materials they are made of. Also if the finish height is not already noted then we will need that as well.	These are roof area separation walls. No masonry. PBG	5	JAED
122	10/31/2025	Joseph Rizzo and Sons, Inc	Alternate #10 is noted to add Greenhouse in Courtyard #2. Is this a completely separate greenhouse to the one in Courtyard #1 or was there a typo and the title to the alternate should read "Add Greenhouse in Courtyard #1"? If this is a completely different greenhouse than the one that is to be constructed in Courtyard #1, is it to use the same dimensions and details as the one in Courtyard #1?	The only greenhouse is in Courtyard 1. PBG	4	JAED
123	10/31/2025	Kent Construction	Listed on bid form for A-06 carpentry notes alternate #6 provide pergola in courtyard #3. Are there specs for this pergola? And where may they be found?	Pergola is deleted. PBG	4	JAED



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124	10/31/2025	Kent Construction	Which contract is to carry the window shades? Contract A-06 on the technical specification section sheet mentions section 122400. But the window shades are not listed in the scope of work for contract A-06.	This is included in Contract A-06. The scope will be further detailed within the Summary of Work document in Addendum #4	4	EDIS
125	10/31/2025	Kent Construction	Contract A-06 item 21 says to provide gymnasium wall padding. When looking at the drawing A-405 interior elevation there are none shown. Please advise where the wall padding is to be installed.	There is not gym wall padding. Section 116623 is deleted in its entirety. PBG	4	JAED
126	10/31/2025	Kent Construction	Roof key note #3 on drawing A104 references flashing details on 10/A502 there is no 10 on A502. Please advise.	See detail 10/A-503. PBG	5	JAED
127	10/31/2025	Kent Construction	Roof key note #3 on drawing A104 references flashing details on 10/A502 there is no 10 on A502. Please advise.	See detail 10/A-503 PBG	5	JAED
128	10/31/2025	Kent Construction	Is there any details showing the metal framed skylight and how they are attached to the roofing system?	Set curb on 18" manufactured insulated curb flashed to roof similar to detail 1/A-503. PBG	5	JAED
129	11/3/2022	Joseph Rizzo and Sons, Inc	Confirm basis of design for the ground face CMU or glazed CMU noted on the finish schedule on drawing A-700.	There is no ground face CMU or glazed CMU. See revised section 04 20 00 issued in addendum 3 and addendum 4 PBG	5	JAED
130	11/3/2025	Superior Electric	Please advise if the feeders for panels PH1D, PH1E, and PHS are the correct size. It currently shows them all being fed with 4#600 + 1#4/0G; however, the panels only range from 100A to 225A MLO.	Panels PH1B, PH1D, PH1E, and PHS indicate 400A feeds per Single Line Diagram. All "PH" panels (480/277V) will be analyzed to possibly reduce the feeder/panel sizes. Please own matching breaker and panel sizes per Single Line Diagram. Panel PHS may be reduced to a 100A panel with a 100A MCB and 4#3 + 1#8G - 1 1/2" C wiring.	5	JAED
131	11/3/2025	Superior Electric	Please advise if this project will require a lightning protection system.	The project does not require a lightning protection system.	4	JAED
132	11/3/2022	Joseph Rizzo and Sons, Inc	The brick size shown in the drawings is Utility Size (3-5/8" x 3-5/8" x 11-5/8"), however the specs and alternate 6 both call for modular (3-5/8" x 2-1/4" x 7-5/8") size brick. Please have the architect clarify what the correct brick size is for both the base bid and alternate brick.	Provide 4x4x12 nominal brick for building. Provide 4x4x8 nominal brick for bus canopy piers. See revised section 04 20 00 issued in addendum 4. PBG	4	JAED
133	11/3/2025	L. Wilson Masonry, Inc.	Is there a spec for the Ground Face Block GFB-1, and Glazed Block GLB-1/2/3?	There is no ground face CMU or glazed CMU. See revised section 04 20 00 issued in addendum 3 and addendum 4 PBG	5	JAED
136	11/4/2025	Kent Construction	Is contract A-07 roofing responsible for all plywood sheathing and cover boards on roof.	Contract A-07 owns complete roof assembly above the metal decking including all sheathing and coverboards.	5	EDIS
137	11/4/2025	Kent Construction	Can "danback(s)" (by ClarkDietrich) be used for interior blocking.	Yes PBG	4	JAED
138	11/4/2025	Kent Construction	Please provide details about the acoustic wood panels. None found in specs or on plans need to know color, type of wood, basis of design etc.	See section 09 84 30 PBG	4	JAED
139	11/4/2025	East Coast Plumbing & HVAC	RTU-1,2 - Please consider adding Valent to the list of pre-approved equivalent manufacturers listed in Specification Section 23 74 13, Packaged Outdoor Central-Station Air-Handling Units indicated in paragraph 2.01-A	Owner has denied request.	4	JAED
140	11/4/2025	East Coast Plumbing & HVAC	DOAS-1,2,3,4 - Please consider adding Valent to the list of pre-approved equivalent manufacturers listed in Specification Section 23 74 33, Dedicated Outdoor Air Units indicated in paragraph 2.01-A	Owner has denied request.	4	JAED
141	11/4/2025	Mason Building Group, Inc.	For wall types that show impact resistant drywall do we figure full height or 8' AFF?	Full height. PBG	5	JAED
142	11/4/2025	Mason Building Group, Inc.	Please clarify where exterior wall types are located.	See building sections PBG	4	JAED
143	11/4/2025	Mason Building Group, Inc.	What ceilings are required for the exterior vestibule & canopy?	See revised spec 07 42 13 issued in addendum 4.	5	JAED
144	11/4/2025	Mason Building Group, Inc.	Alternate #7 What partition type or types are to be modified?	See revised wall tags on drawings A-100 and A-101 issued in Addendum 3. PBG	5	JAED



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145	11/4/2025	Mason Building Group, Inc.	Alternate #8 Please define the intent of "reduce drywall soffits".	Base bid includes valances above casework and acoustical ceilings(no drywall soffits). Alternate is to provide drywall soffits as shown in the drawings. Reference 012300 Alternates.	5	EDIS
146	11/4/2025	Narissa Building Company	The parapet wall on the architectural DWG (Typical Wall Section)does not show kickers, however structural DWG S-202 (Typical Section Detail) shows kickers. Please confirm requirement.	Provide kickers as indicated on structural drawings. Provide plywood sheathing at kickers as specified in section 06 10 00.	4	JAED
147	11/4/2025	Nickle Electrical	Please provide a size for the pull boxes shown on drawing T-100 for the technology service.	PBG	5	JAED
148	11/4/2025	Nickle Electrical	Please provide a size for the pull box shown for the utility service on drawing E-100.	2'x2'x2'. This shall be revised in Addendum 5.	5	JAED
149	11/4/2025	Narissa Building Company	Linear Metal Ceilings: Is infill required for NRC? Is there perforation? What the radius of the arc will be for the hills and valleys?	4'x6'x4'. This shall be revised in Addendum 5.	5	JAED
150	11/5/2025	EDIS	confirm concrete footings to be 3,000 psi	See spec section 095423 for basis-of-design and NRC requirements	4	JAED
151	11/5/2025	Main Line Commercial Pools	Section 131129-2.02 calls for waterproofing membrane under the trim tile. Is this necessary as the pool is NOT fully tiled?	Provide 4,000 psi concrete for footings.	5	JAED
152	11/5/2025	Main Line Commercial Pools	Can the pool contractor use Laticrete setting bed in lieu of Ardex materials? We would propose 3701 setting bed and 254 Platinum thin set?	PBG	4	JAED
153	11/5/2025	Main Line Commercial Pools	011100-72-1: Calls for stainless steel perimeter which is not shown on the AQ plans. Please confirm no SS gutter is required?	Laticrete is acceptable.	5	JAED
154	11/5/2025	Main Line Commercial Pools	011100-72-1: Please confirm the perimeter deck drain is supplied and installed by A-23 Plumber	No stainless steel gutters are used in this pool.	5	JAED
155	11/5/2025	Main Line Commercial Pools	011100-72-1: Please explain 011100-72-1 a. – "all work within the perimeter of the deck drains is to be by this Contract A-22"? Does this mean the pool contractor is to furnish and install the concrete pool deck between the deck drains and pool perimeter coping? If so, do we own a finish on top of the concrete deck?	PBG	4	EDIS
156	11/5/2025	Main Line Commercial Pools	Please confirm all pools spoils can be dumped local to the pool and removed by others?	perimeter deck drain by plumbing contractor (A-23)	4	EDIS
157	11/5/2025	Main Line Commercial Pools	Who is responsible for electrical bonding /grounding the pool?	yes, concrete (and finish) within perimeter deck drain by the pool contractor (A-21).	4	EDIS
158	11/5/2025	Joseph Rizzo and Sons, Inc	Is American Art Stone an acceptable alternate manufacturer for the cast stone?	Work by electrical contractor with oversight provided by pool contractor to ensure all necessary items to be connected to the bonding loop are properly connected.	4	EDIS
159	11/5/2025	Joseph Rizzo and Sons, Inc	Is Arban Precast Stone LTD an acceptable alternate manufacturer for the cast stone?	PBG	5	JAED
160	11/5/2025	Joseph Rizzo and Sons, Inc	Is Cast Stone Systems Inc an acceptable alternate manufacturer for the cast stone?	Yes. PBG	5	JAED
161	11/5/2025	Joseph Rizzo and Sons, Inc	Is Reading Rock, Inc. an acceptable alternate manufacturer for the cast stone?	Yes. PBG	5	JAED
163	11/5/2025	Filec Electrical Services LLC	Is it acceptable to boreshot the primary conduits under the existing roadway for the electrical?	This is not acceptable. Any/all conduits running below pavement shall be in a duct bank.	5	JAED
164	11/5/2025	Filec Electrical Services LLC	Is the concrete pad for the generator and transformer to be (1)equipment pad or individual pads? If they are individual, can a detail be provided.	Provide (1) equipment pad for all of the equipment in the service area - Transformer, ATS, and Generator. This is shown on E-100 and will be clarified with a note via Addendum 5. Area within Electrical Enclosure, around pads, is to be 6" #57 stone on geotextile filter fabric on compacted grade.	5	JAED
165	11/5/2025	Filec Electrical Services LLC	What is the size of the pull box for the primary conduits?	4'x6'x4'. This shall be revised in Addendum 5.	5	JAED
166	11/5/2025	Nickle Electrical	Prevailing wage rates weren't included in spec section 007343. Please provide.	Added in Addendum 3.	5	EDIS
167	11/5/2025	Creative Flooring Contractors, Inc.	Can Pollution Insurance be excluded for Flooring contractors?	Contract A-18 Flooring will be required to provide Pollution Insurance as defined in the project manual.	5	EDIS
168	11/5/2025	Corporate Interior, Inc.	Can you confirm rooms 128 A, B, C, get epoxy flooring and RB-1 as the base?	All epoxy floor areas are to have 8" epoxy base with extruded aluminum cap.	5	JAED



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169	11/5/2025	Corporate Interior, Inc.	Does the stairway in room 157 B get rubber stair tread and riser? Finish plans doesn't show any other stairs, are there other stairs that get threads?	Yes. Stairs at 157B are to get rubber treads and risers. Only stair location is at Room 157B. PBG	5	JAED
170	11/5/2025	Corporate Interior, Inc.	Is the game line and logo painting part of the Flooring Contract or Painting Contract?	by flooring contractor	4	EDIS
171	11/5/2025	Corporate Interior, Inc.	What size wall base does the customer want, specs say 4" drawings say 6"?	Provide 6" base. PBG	5	JAED
172	11/5/2025	Corporate Interior, Inc.	Is Roppe Multi-Use vinyl sheet flooring an approved alternate product in the Gym 157 and 157A?	Will need full product data for review and large sample (4'x4', min.) for owner review and testing. PBG	4	JAED
173	11/6/2025	East Coast Plumbing & HVAC	Please provide BIM execution plan, spec section 013700, as mentioned in the scope of work.	see Addendum #3	3	EDIS
174	11/6/2025	East Coast Plumbing & HVAC	Spec page 221005-6, section 2.02, states all sanitary piping below grade should be cast iron. Please confirm if PVC is acceptable below grade?	PVC has now been approved for use by Owner.	4	JAED
175	11/6/2025	East Coast Plumbing & HVAC	Spec page 221005-7, section 2.06, states all domestic water to be Uponor. Please confirm if Propress copper is acceptable for domestic water?	No. Owner has requested Uponor.	5	JAED
176	11/6/2025	East Coast Plumbing & HVAC	Please provide a piping spec for the condensate drain piping.	Listed in 23 21 13.	4	EDIS
177	11/6/2025	East Coast Plumbing & HVAC	Please provide a piping spec for grease waste piping.	Grease waste piping is standard underground sanitary waste piping.	5	JAED
178	11/6/2025	Flooring Solutions, Inc.	SOW for Contract NO. A-18 - Flooring - Includes Technical Section 124813 Entrance Floor Mats and Frame specification, the walk off mats on the design drawing show a carpet tile, please clarify. If these are to be entrance mats, please provide a spec section.	Section 12 48 13 is deleted. walk-off carpet tile is included in Flooring contract A-18	4	EDIS
179	11/6/2025	Flooring Solutions, Inc.	Dwg A700 Room Finish Schedule: Finish Legend QT-1 thru 4 -12" size disagrees with Resilient Flooring specification 09 65 00 page 2 specifies 24"x24". Please clarify.	Provide 24" x 24" per section 09 65 00. PBG	5	JAED
180	11/6/2025	Flooring Solutions, Inc.	Dwg A700 Room Finish Schedule: Finish Legend CWT-1 4 x 14 ceramic wall tile size disagrees with Tiling specification 09 30 00 page 3 D / 2 specifying a 4 1/4" x 4 1/4" tile. Please clarify	CWT-1 shall be 4"x16" glazed wall tile. Finish legend is revised and spec is revised in Addendum 5. PBG	5	JAED
181	11/6/2025	Flooring Solutions, Inc.	Dwg A700 Room Finish Schedule: Finish Legend Base RB-1 & RB-2 - 6" High disagrees with Resilient Flooring specification 09 65 00 page 3 specifying a 4" high wall base and three (3) colors. Please clarify.	Provide 6" base. PBG	5	JAED
182	11/6/2025	Flooring Solutions, Inc.	Dwg A700 Room Finish Schedule: Toilets Room 101C, 104, 105, 114, 121A, 147, 148, 155D, 172, 172A - Notes "Half Height of CWT-1 to 5'-0" AFF" disagrees with Drawing A-410 Toilet Wall Elevations. Please clarify.	Elevations govern for wall tile height. Note on finish schedule revised to read "See Elevations for extent of PT-1, CWT-1" PBG - Drawing not reissued at this time.	5	JAED
183	11/6/2025	Flooring Solutions, Inc.	Dwg A700 Room Finish Schedule: Please verify Carpeting Speciation 09 68 00 page 2 CT-1 is to be interpreted as CPT-1 on drawing A700.	Correct. Spec designation changed to match drawing. PBG	5	JAED
184	11/6/2025	Flooring Solutions, Inc.	Dwg A700 Room Finish Schedule: Please verify Carpeting Speciation 09 68 00 page 2 CT-2 is to be interpreted as WOM-1 on drawing A700.	Correct. Spec designation changed to match drawing. PBG	5	JAED
185	11/6/2025	Flooring Solutions, Inc.	Dwg A-410 Toilet Enlarged Toilet Room Plans and Elevations # 17 & #21 show a tile pattern and only one tile is specified in this area. Please clarify.	Four colors will be used on the project. PBG	5	JAED
186	11/6/2025	Flooring Solutions, Inc.	Dwg A701 Finish Plan Area A and Dwg A-409 / 1 - Vocational Independent Living Toilet 165A. Please provide a Shower Floor Tile specification or advise if this is to be a preformed shower pan.	Shower walls and pan will be Freedom Showers APF-3838BF4P. PBG	5	JAED
187	11/6/2025	Flooring Solutions, Inc.	Dwg A701 Finish Plan Area A - Pool Bathroom 155D - Provide Shower Floor specification.	Shower floor is to be a continuation	5	JAED
188	11/6/2025	Flooring Solutions, Inc.	Tiling Speciation 09 30 00 page 3 - 2.02 - Trim and Accessories. A. Provide Schluter profiles & finishes to be used.	Provide Schluter -SCHIENE or equal product at exposed edge at tile and epoxy. Provide Schluter -UADEC or equal product at outside corners at tile. Finish: Anodized aluminum. Height: Flush to face of tile and epoxy. PBG	5	JAED
189	11/6/2025	Flooring Solutions, Inc.	Tiling Speciation 09 30 00 page 3 2.02 - Trim and Accessories. B. Thresholds no locations found in design drawings. Please clarify.	Paragraph 2.02.B is deleted. PBG	5	JAED



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190	11/6/2025	Mason Building Group, Inc.	On RCP drawings, ACT-2 is depicted as 2x4, but on spec its called out as 2x2. What should be provided?	Provide 2x2 tile as indicated in spec and as shown on the reflected ceiling plan. PBG	5	JAED
191	11/6/2025	Mason Building Group, Inc.	What is being depicted in the cafeteria, it is not called out but it looks like (ACT-4) acoustical felt ceiling cloud system?	Ceiling at center of cafeteria is ACT-4 as defined in section 09 51 00 issued in Addendum 3. Height" 14'-6" PBG	5	JAED
192	11/6/2025	Mason Building Group, Inc.	Should axiom be provided on the perimeter of the tile on the Lobby and gymnasium RCP, if so what size?	See response to question 30.	5	JAED
193	11/6/2025	Joseph Rizzo and Sons, Inc	Could you please remove the scope items 21 and 22 regarding bituminous dampproofing and waterproofing from the masonry scope as they are both cover under contract A-08-Waterproofing?	Scope items 21 and 22 are removed per Addendum 5.	5	EDIS
194	11/6/2025	Joseph Rizzo and Sons, Inc	(reference 4 & 5 on A-811) provide construction details for the portion of the monument sign that includes graphics	See 7/A-811 PBG	5	JAED
195	11/6/2025	Kent Construction	How many lineal feet of the loading dock need's to have dock bumpers? And how much space between the bumpers is allowable.	See response to question 23. PBG	5	JAED
196	11/6/2025	Reybold	Sitework scope of work :For the deduct alternate, what proposed grades should we hold in the western parking lot area to be deleted?	Assume grades will remain unchanged.	5	Site Studios
197	11/6/2025	Reybold	Is there a project schedule with durations so we can quantify items like street sweeping, snow removal, CCR inspections for the project?	See spec section 013216.	5	EDIS
198	11/6/2025	Reybold	Sitework scope of work item #5 lists post and cable fencing and louvered gates at the mechanical yard. Where are these on the drawings?	See response to question 86 PBG	5	JAED
199	11/6/2025	Reybold	Sitework scope of work item #16 is for 1,000' of temporary chain link site fencing. Are any vehicle or man gates to be included in this item?	Provide lockable main gate for vehicle access.	5	EDIS
200	11/6/2025	Reybold	Sitework scope of work item #28 states the sitework contractor is to handle excess spoils left outside the building perimeter by the concrete contractor. Since this is an export site is there an estimated quantity of excess spoils that can be provided for all bidders to bid by?	20,000 cubic yards.	5	EDIS
201	11/6/2025	Reybold	Sitework scope of work item #35 states the intent is to use onsite material and not imported fill. Scope of work item #30 states to furnish, install, and maintain select fill under slab. Which is correct?	See revised SOW A-01 per addendum 5.	5	EDIS
202	11/6/2025	Reybold	Sitework scope of work item #36 refers to the William Penn High School project. When is this project expected to start?	No start date can be provided.	5	EDIS
203	11/6/2025	Reybold	Sitework scope of work item #37 states the sitework contractor is to provide dewatering for the perimeter waterproofer. Scope of work item #28 states the concrete contractor will dewater their footing excavations until backfilling is complete. Since the perimeter waterproofing occurs before the backfilling of footings and foundation walls, wouldn't it make more sense for the concrete contractor to dewater for the perimeter waterproofer?	Reference addendum 3 for scope revision.	5	EDIS
204	11/6/2025	Reybold	Sitework scope of work item #44 refers to utilities to the courtyards including irrigation lines. There are no irrigation lines shown on the drawings. Are there any drawings depicting the irrigation lines for the courtyard?	There is no irrigration include in the project. PBG	5	JAED
205	11/6/2025	Reybold	Please clarify if the following items are part of the sitework scope of work. a. Poured in place EPDM play surfaces. b. Interior courtyard concrete pavement c. Playground equipment d. Site lighting, pole bases, transformer pads. e. Any work associated with the generator enclosure	a) Yes, also see alternates and bid form. b) Yes, see addendum 3. c) Yes, also see alternates and bid form. d) By electrical contractor e) Transformer housekeeping pad is by electrical contractor, the overall transformer/generator slab is by sitework.	5	EDIS
206	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] Scope item #3 indicates to provide Acrylic modified finish @ exterior walls & soffits. I only saw this mentioned in a wall section cut. Can you advise where these areas are located?	There is not acrylic modified finish included in the project. PBG	5	JAED
207	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #5 Bullet resistant panels. The interior lobby entrance calls for bullet resistant panels above the sliding doors. Are these needed above 8'? Are these panels located anywhere else in the project?	Provide panels to ceiling height. See response to question 284. PBG	5	JAED
208	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #6 Provide cold for steel truss assemblies. Where are these located on this project?	There are no structrual trusses included in the project. PBG	5	JAED
209	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #13 There is no definitive callout for exterior wall types on the drawings. Where would this need to be picked up?	See Materials Legend on revised elevations issued in Addendum 4. PBG	5	JAED



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210	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #14 Where would steel stud construction be indicated for roof screens?	Roof screens have been deleted from the project. PBG	5	JAED
211	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #15 Please indicate where the stud framing related to exterior openings are located.	This is a general scope item not intended for specific locations.	5	EDiS
212	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #22 Please indicate where the plaster & stucco systems are located.	There are not plaster & stucco systems included in the project. PBG	5	JAED
213	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #23 Please define what molded shapes are to be included.	See response to question 112. PBG	5	JAED
214	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #26,#31,#32 Where is the fire barrier between perimeter & floor slabs located?	There are no perimeter fire barriers included in the project. PBG	5	JAED
215	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #27 Please indicate where the EIFS system is located.	There is no EIFS included in the project. PBG	5	JAED
216	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #28 Please indicate where the PVC trim is located.	There is no PVC trim included in the project. PBG	5	JAED
217	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #33 Please indicate where the corner guards integral to the drywall are located.	Provide corner guards inside Suite 121, suite 165, suite 169. PBG	5	JAED
218	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #34 Please indicate where any expansion joints are located in drywall systems.	None required. PBG	5	JAED
219	11/6/2025	Mason Building Group, Inc.	[reference A-13 Metal Studs & Drywall] #35 Please indicate where any partition meets a window mullion and would require the mullion mate system.	As shown on plan, no partitions meet window mullions. PBG	5	JAED
220	11/6/2025	Mason Building Group, Inc.	Please provide an estimate numbers of times to relocate the concrete washout system. This is to keep all bidders on a level playing field.	See addendum # 4.	5	EDiS
221	11/7/2025	Richard E. Pierson Construction Co., Inc.	Please provide an estimated amount of time for snow removal. This is to keep all bidders on a level playing field.	See addendum # 4.	5	EDiS
222	11/7/2025	Richard E. Pierson Construction Co., Inc.	Please provide a detail for the louvered gates at mechanical yard for the site contractor per scope item 5.	Gate at mechanical yard is to be chain link. See response to question 252. PBG	5	JAED
223	11/7/2025	Richard E. Pierson Construction Co., Inc.	Please provide the location of the decorative and steel pipe bollards for the site contractor per scope item 4.	Provide breakout price for bollards at depressed sidewalk along East and West sides of building. Bollards shall be 6" diameter concrete filled steel post set in 30" sono-tube footing with Ideal Shield, Skyline decorative cover. Set posts at approximately 9' o.c., 42 bollards total.	5	JAED
224	11/7/2025	Richard E. Pierson Construction Co., Inc.	Is the site contractor responsible for the installation of the exterior school sign detailed on page A-811 of the architectural drawings?	No. Only final grading at monument sign to be provided by sitework contractor.	5	EDiS
225	11/7/2025	Richard E. Pierson Construction Co., Inc.	Is the site contractor responsible for the loading dock concrete and the associated stairs?	The loading dock concrete and associated stairs are the responsibility of contract A-03 concrete per addendum 5.	5	EDiS
226	11/7/2025	EDiS	Reference Signage on A-811: is the "LED SIGNAGE" intended to be programmable? If so please confirm location of controller and data pathways/infrastructure.	LED Signage has been deleted from the project. Sign graphics are to be 1/4" thick, solid aluminum cut pin mounted with paint finish. PBG	5	JAED
227	11/7/2025	Reybold	Is there a section thickness for the poured in place EPDM play surface?	EPDM Profile is shown on Sheet C-113.	5	Site Studios
228	11/7/2025	Corrado American	2. Please provide a schedule, milestones or completion date. SOW 42. Please provide construction start date and completion or schedule to quantify how many times we must clean roads every two weeks. Or provide an allowance amount to work against.	Milestone schedule can be found in spec section 013216	5	EDiS
229	11/7/2025	Corrado American	3. Are there liquidated damages on this project?	Reference bid documents for owner requirements.	5	EDiS



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230	11/7/2025	Corrado American	4. Will the excess material going to William Penn project include topsoil?	Topsoil will be utilized on site as needed.	5	EDIS
231	11/7/2025	Corrado American	5. Base bid requires us to remove all excess soil to Wm. Penn HS or an offsite facility. The alternate 11 is to remove 20,000 CYs to offsite facility in lieu of Wm. Penn HS. Can we place the excess material on the berm area north of the parking lot?	No.	5	EDIS
232	11/7/2025	Corrado American	6. Are there any soil borings available on the offsite sanitary sewer?	No PBG	5	JAED
233	11/7/2025	Corrado American	7. If no soil borings are available, will we be compensated for well pointing if needed after the bid?	See spec section 011100.	5	EDIS
234	11/7/2025	Corrado American	8. The 16" water line is to be relocated at the crossing with the SS boring. Are there valves on the 16" water to isolate that section to lower pipe?	Relocation of the 16" water main will be performed by the utility owner.	5	Site Studios
235	11/7/2025	Corrado American	The infiltration basin is to be seeded. Do we place topsoil on bottom?	Topsoil is required and should be compacted to 4" in accordance with the topsoiling specification. This must be factored into the final grade establishment.	5	Site Studios
236	11/7/2025	Corrado American	Furnish, install, maintain and remove temporary chain link site fencing (include 1,000' in base bid), temporary walks as shown on the site plan. Include driven posts in lawn areas and weighted supports in paved areas. Maintain this work until Substantial Completion. Please provide the plan # that shows the temporary walks and fence.	See addendum #5.	5	EDIS
237	11/7/2025	Corrado American	Please provide a detail for the louvered gate at the mechanical yard.	Gate at mechanical yard is to be chain link. See response to question 252. PBG	5	JAED
238	11/7/2025	SEALING CONCEPTS, LLC	They are not showing any masonry control joint locations. How would you like to bid that?	See revised elevations issued in Addendum 4. PBG	5	JAED
239	11/7/2025	Narissa Building Company	[reference A-13 Metal Studs & Drywall] "Contractor is to include providing and finishing moisture resistant drywall at the top of all interior walls prior to roof completion" to allow for installation of ductwork. Please confirm it is moisture resistant drywall and not Densglass sheathing for item #1	Confirmed, moisture resistant drywall.	5	EDIS
240	11/7/2025	Narissa Building Company	[reference A-13 Metal Studs & Drywall] Can you please point me where on the drawings calls for Stucco System, EIFS & PVC Trim on Line item #27 & 28 From Scope of work.	There is not stucco, EIFS, PVC trim in the project. PBG	5	JAED
241	11/7/2025	Narissa Building Company	[reference A-13 Metal Studs & Drywall] "Provide All Corner Guards where integral to the drywall wall assembly" Line Item #33 is listed in Contract A-6 and Contract A-13. Please clarify which contract is responsible for this work.	Surface mounted corner gaurds by contract A-06 carpentry and general works. Corner guards integral to drywall by contract A-13 metal studs and drywall.	5	EDIS
242	11/7/2025	Narissa Building Company	[reference A-13 Metal Studs & Drywall] Per Drawing A-111 Canopy between column line A & B and Column Line 4 & 11. Please confirm Ceiling is MTL-1	Canopy soffit shall be MTL-1: Concealed Fastener - Closed Joint Metal Soffit Panels as indicated in spec 07 42 13 issued in Addendum 4. PBG	5	JAED
243	11/7/2025	Maccari Companies, Inc.	confirm exterior wall finish type along south elevation near grade. Elevation detail 1/A203 appears to conflict with section detail 4/A303, 2/A305	Brick to 8" min. below grade. PBG	5	JAED
244	11/7/2025	Ralph G. Degli Obizzi & Sons, LLC	should Hushcore "Unitary TM Top Mounted" condenser fan shrouds be provided for the DOAS units as well, or are they required only for the roofotp units?	DOAS and RTUs shall be provided with manufacturer low-sound kits for all condenser fan sections.	5	JAED
245	11/7/2025	Ralph G. Degli Obizzi & Sons, LLC	Should salt-corrosion-resistant coatings be applied to the condenser coils of the DOAS units and VRF outdoor units, in addition to those on the RTUs?	Delete marine coating requirement for RTUs.	5	JAED
246	11/7/2025	Ralph G. Degli Obizzi & Sons, LLC	advise if TRANE is an acceptable alternate manufacturer for DOAS-1/2/3/4	Owner has denied request.	5	JAED
247	11/8/2025	Tri-State The Roofers	confirm if Englert is an approved manufacturer of the standing seam metal roof system	Standing seam metal roof is deleted from project. PBG	5	JAED
248	11/9/2025	Tri-State The Roofers	confirm if Elevate (UNA-CLAD) is an approved manufacturer of the standing seam metal roof system	Standing seam metal roof is deleted from project. PBG	5	JAED
249	11/10/2025	Narissa Building Company	In addendum 3 alternate section (pdf page 136) it says modify selected interior partitions from masonry to drywall. I am trying to be sure about what the selected partitions are. Is it that we use the original plans for the base bid and then have an alternate price for all the walls in revision clouds in the addendum 3 drawings or is there a list of selected partitions somewhere?	This alternate is deleted in Addendum #4	5	EDIS
250	11/10/2025	Narissa Building Company	Is 11/12/25 the last day for questions?	Yes	5	EDIS



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251	11/10/2025	Continental Electric Services, LLC	ED1U, A14 Columbia (Current) NBT-14-35-L048-G-A12125F-ED1U, A16 Prescolite (Current) LFR-6RD-30L-409-XW-DM1/LFR-6RD-T-XW-XX-CL-LFR-6RD-H, A17 Prescolite (Current) LTR-4RD-H-SL-15L-DM1/LTR-4RD-T-SL-35K9-XW-XX, A17B Prescolite (Current) LTR-4RD-H-SL-10L-DM1/LTR-4RD-T-SL-35K9-XW-XX, A21 Columbia (Current) NBT22-35-L044-G-A12125F-ED1U, A22 Columbia (Current) NBT22-35-L044-G-A12125F-ED1U, A22A Columbia (Current) NBT22-35-L031-G-A12125F-ED1U, B17 Prescolite (Current) LTC-6RD-PX-20L-30K9-WD-DM1-XX, D17 Prescolite (Current) LTC-6RD-PX-35L-30K9-WD-DM1-XX, D2 Columbia (Current) CLH1-LSCS-EDU-MD, D3 SPI Lighting EIP12354-(2)108W-120-277V-3500K-DF_80-DF_DIM1-STM*-, D4 Columbia (Current) MPS4-35HL-CW-ED1U, D8 Columbia (Current) MPS8-35ML-CW-ED1U, F1-A Lightnet USA, Inc. LIQUID LINE 1.5" CURVE, F1-B Lightnet USA, Inc. LIQUID LINE 1.5" CURVE L1-4 Coronet, Inc. SI-4-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-8 Coronet, Inc. SI-8-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-20 Coronet, Inc. SI-20-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-32 Coronet, Inc. SI-32-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-36 Coronet, Inc. SI-36-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-40 Coronet, Inc. SI-40-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-44 Coronet, Inc. SI-44-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-60 Coronet, Inc. SI-60-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-64 Coronet, Inc. SI-64-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-76 Coronet, Inc. SI-76-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-84 Coronet, Inc. SI-84-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, L1-88 Coronet, Inc. SI-88-35-LOW-UNV-DB.1%-X-XX-SD-NA-NA-NA, M4 Pinnacle Architectural Lighting EX3-WET-N-830K 4-IND-S-U-FSD-1-0-W, P1-24 Coronet, Inc. LS4.UPDN-24'-35-LOW-LOW-UNV-DB-X-PS-X-FL-FL-NA-NA-XX, F5 STERNBERG LIGHTING PT-SL660-24L-30-T4-MDL014-CA, P2 Beacon Products (Current) VP-1-160L-75-3K7-2-UNV-A-XX-BC P2 POLE Beacon Products (Current) RSAB-S-20-40B-1-B3-XX, P3 Beacon Products (Current) VP-1-160L-75-3K7-3-UNV-A-XX-BC P3 POLE Beacon Products (Current) RSAB-S-20-40B-1-B3-XX, P4 Beacon Products (Current) VP-1-160L-75-3K7-4-UNV-A-XX-BC P4- POLE Beacon Products (Current) RSAB-S-20-40B-1-B3-XX, P4-2 Beacon Products (Current) (2)VP-1-160L-75-3K7-2-UNV-A-XX-BC P4-2 POLE Beacon Products (Current) RSAB-S-20-40B-2-B3-XX, P4H Beacon Products (Current) VP-1-160L-75-3K7-4-UNV-A-XX-BC P4H-POLE Beacon Products (Current) RSAB-S-20-40B-1-B3-XX, Q4-1 Coronet, Inc. LS2.UPDN-4-35-MED-MED-UNV-DB-X-WM-FL-FL-NA-NA-STD, Q4-2 Coronet, Inc. LS2-4-35-MED-UNV-DB-X-ACXX-FL-NA-NA-STD-EX Compass Life Safety (Current)	Substitutions shall be provided via submittals and reviewed for approval.	5	JAED
252	11/10/2025	Eastern States	[Sitework contract] confirm location of chain link and ornamental fence referenced within the Summary of Work, Sitework contract (A-01) item #5.	See civil drawings for location of ornamental fence. In addition, provide 14' high by 50' long chain link fence with privacy slats at generator enclosure. Include 10' high by 10' wide double-swinging gate with 4' high chain link closure panel over top of gate. PBG	5	JAED
253	11/10/2025	Advantech	Access Control System: Per Drawings it shows control boxes above each door with network controllers – please confirm the doors should be wired back to centrally located control boxes in the IDF and MDF.	Confirmed - these doors will be wired back to centrally located control boxes in the IDF's and MDF. This will be noted in Addendum 5.	5	JAED
254	11/10/2025	Advantech	Per the drawings it shows power supplies over each access control door with 120VAC power being brought to those power supplies – please confirm these electronic locks should be controlled by a centrally located power supply	The electronic locks will be controlled by centrally located power supplies in the IDF's and MDF. This will be noted in Addendum 5.	5	JAED
255	11/10/2025	Advantech	Per the door hardware specification 08 06 71 it shows the integrated electrified hardware to be provided by the division 8 contractor. Please confirm division 8 shall provide and carpenter to install. This typically falls under the security contract as each of the readers need to be licensed and connected to the PACS (Physical Access Control System).	Confirmed - the specifications for this shall be updated in Addendum 5.	5	JAED
256	11/10/2025	Advantech	Video Surveillance System: Per the Summary of Work Section for Special Systems bullet #5 says "Provide a complete CCTV – Network Digital Video Management System. Owner shall provide server." There is currently no bid specification or direction on what cameras shall be provided and installed. Please confirm what is required.	The surveillance cameras are indicated on the drawings.	5	JAED
257	11/10/2025	Advantech	Intrusion Detection System: Per the Summary of Work Section for Special Systems it says provide complete intrusion detection system. There is currently no bid specification or direction on what should be provided and installed. Please confirm what is required.	Intrusion detection devices shall be specified and indicated on plans in Addendum 5.	5	JAED
258	11/10/2025	Advantech	Structured Cabling: Per the Summary of Work Section for Structured Cabling it says provide all Wireless Access Points however on the drawings it states WAPS provided by owner. Please confirm who is to provide the wireless access points.	Wireless access points are owner provided and contractor installed.	5	JAED
259	11/10/2025	Advantech	Fire alarm System: Is Notifier an approved substitute for the fire alarm system?	Notifier can be an approved equal substitute.	5	JAED



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260	11/10/2025	Ralph G. Degli Obizzi & Sons, LLC	The note on A-850 instructs the plumbing, electric and mechanical contractor to include costs for final connections to the Greenhouse vendor -supplied equipment. Based on the current documentation: The greenhouse vendor is supplying the electric heater; the mechanical contractor is Responsibility is to receive and install. Are there any other hooks ups for Mechanical? There are no plumbing items shown on the drawings. Please confirm this is correct?	(1) 3/4" gas (for gas heater) - dwg P-102 Fire protection design/build - dwg FP101 (1) 3/4" domestic water - dwg P-109 (1) 3/3" elec - dwgs E-103, E-603, circuit PL1M-21 (1) 1-1/2" elec - dwgs E-107, E-603, circuit PL1M-22 (1) 1" low voltage - dwg T-102 PBG	5	JAED
261	11/10/2025	Ralph G. Degli Obizzi & Sons, LLC	Please confirm the statement below is correct with regards to the Vocational Kitchen add alternate: Base Bid: • Mechanical, Electrical, and Plumbing (MEP) contractors are to completely rough-in all underground and above-ground services to support a fully complete kitchen installation as shown on the contract drawings. • This includes all piping, conduit, wiring, and ductwork necessary to serve the kitchen layout indicated in the base bid documents. Add Alternate: • Under this alternate, the Kitchen Equipment Vendor will furnish (supply) the kitchen equipment. • The MEP contractors are responsible for providing and completing all final connections (hookups) to the vendor-furnished equipment	Correct.	5	EDIS
262	11/10/2025	Creative Flooring Contractors, Inc.	The revised bid form includes the statement "per preliminary construction schedule in specification section 013216. Addendum 4" I don't see this section in Addendum 4, so I just want to confirm that this is the schedule in the bidding documents (Addendum 2)	Confirmed. See spec section 013216 in addendum 2.	5	EDIS
263	11/10/2025	P&C Roofing Inc.	provide spec for standing seam metal roof system	Metal roof has been deleted from project. PBG	5	JAED
264	11/10/2025	Sealing Concepts, LLC	Neither interior nor exterior masonry control joints are not shown on project drawings, please confirm requirement	See revised elevations issued in Addendum 4. PBG	5	JAED
265	11/10/2025	Mason Building Group, Inc.	4" spray foam is shown on (4) A-306 is in ceiling. I do not see spray foam on scope of work. Please let me know how to proceed.	Item has been deleted from section 4/A-306. No spray foam is to be provided inside the building envelope. PBG	5	JAED
266	11/10/2025	Mason Building Group, Inc.	Acoustical lay in insulation blankets above the ceiling are on the scope of work but not depicted. Should this be included?	Project includes no lay-in insulation on top of ceilings. PBG	5	JAED
267	11/10/2025	Mason Building Group, Inc.	Is the clerestory in the lobby structural? Where does ACT-1 football panels attach above the clerestory?	Provide unistrut system to support leaf-shape suspended panels. PBG	5	JAED
268	11/10/2025	Mason Building Group, Inc.	Armstrong World Serpentina Waves: per spec Size and Configuration should be indicated on drawings but is not indicated on drawings.	See drawing issued in Addendum 5. PBG	5	JAED
269	11/10/2025	A&H Metals, Inc.	[Reference Structural Steel & Misc Metals A-05] In the scope of work it lists decorative railings including glass rails that I do not locate on any of the drawings. Can you please advise where these are located? Also there is a scope item for a roof screen that we cannot locate.	There are no glass rails included in the project. PBG	5	JAED
270	11/10/2025	BCI	Hausmann Industries has advised that the Hi-Lo Extra Long Trainers Table 44718 is no longer manufactured, please confirm product selection. This is spec section 117200	Selection indicated in 117200, paragraph 2.01.A.7 is correct. PBG	5	JAED
271	11/10/2025	Creative Flooring Contractors, Inc.	Please provide details of flooring logo / graphic in Gymnasium 157. Specifically colors, dimensions & sizes	Scale will be generally as indicated on drawings. Colors, dimensions and sizes will be provided during construction phase. Allow 5 colors. PBG	5	JAED
272	11/10/2025	Creative Flooring Contractors, Inc.	Please confirm that the semi-circles / arcs in the transitional classrooms (A-404) are the same radii as provided details on A-401, A-402 & A-403. The detail on A-404 does not show the radius dimensions.	At A-404 radius of half circle at side walls is 10'-6-1/2". Radius at semi-circle at corridor wall is 12'-0-3/4" PBG	5	JAED



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273	11/10/2025	Reybold	13. Please clarify what design services the site contractor is to provide that would necessitate the requirement for professional liability insurance.	Professional liability is not limited to design. For example, the Contract A-01- Sitework Scope of Work item #47 requires work from a professional land surveyor.	5	EDIS
274	11/10/2025	J&B Caulkers Inc.	Caulking of the hm door frames is currently under both the Joint Sealants and Painting scope. Please confirm which trade is responsible for caulking the hm door frames exterior, interior, and to the floor.	See scope revisions in addendum #5.	5	EDIS
275	11/10/2025	J&B Caulkers Inc.	Details WS4 & WS9 on A 607 show no caulking required at the horizontal bed joint where the cast stone sits on the brick. Detail 8 on A308 shows this joint caulked. Does the bed joint where the cast stone sits on the masonry caulk?	Bed joint to be mortar. Head joints to be mortar, raked back 3/4", and finished with backer rod and sealant. PBG	5	JAED
276	11/10/2025	J&B Caulkers Inc.	Please confirm the Metal Wall panel contract is responsible for sealing where their flashing sits on the masonry 2 on A308.	Contract A-09 - Exterior Metal Panels will be responsible for providing a complete system. Sealant joint is not required between metal panel system and closure metal/sill trim unless a required component of the complete system provided by A-09 Exterior Metal Panels.	5	EDIS
277	11/10/2025	J&B Caulkers Inc.	Which contract is responsible for caulking at the fiberglass door frames?	same scope assignment as HM door frames	5	EDIS
278	11/10/2025	J&B Caulkers Inc.	The elevations and the door schedule show the Courtyard frames such CY18 as hollow metal. The interior elevations on A414 show them as aluminum storefronts. Which is correct?	Courtyard door frames are hollow metal. PBG	5	JAED
279	11/11/2025	Narissa Building Company	confirm MTL-2 (Serpentina Waves) is scheduled ove the pool	Correct. PBG	5	JAED
280	11/11/2025	Narissa Building Company	confim irregular shaped ceiling type in Cafeteria	See response to question 191. PBG	5	JAED
281	11/11/2025	Narissa Building Company	MTL-1 under the bus canopy I am not seeing under the ACT specifications and the Linear Metal specifications says delete in it's entirety contents have been moved to ACT	See spec 074213 and A-111	5	EDIS
282	11/11/2025	Narissa Building Company	What is MTL-1? And can you confirm that this belongs to the contract that owns the ACT?	See spec 074213 and A-111	5	EDIS
283	11/11/2025	Narissa Building Company	RFI#146 response (page 455 of Addendum #4) says use plywood at parapet wall kickers; A-308/4 says Non-Porous Gypsum Sheathing. confirm which one to use.	Provide kickers as indicated on structural drawings. Provide plywood sheathing at kickers as specified in section 06 10 00. PBG	5	JAED
284	11/11/2025	Narissa Building Company	confirm that the ballistic panels are only on column line C between Column Lines 6 & 7	Ballistic panels are to be provided at stud wall on line C between lines 6 & 7 and at framing around columns C/6.4 and B.5/6.4. PBG	5	JAED
285	11/11/2025	R.C. Fabricators	Natatorium Steel Coatings: Per the Structural Drawings, all steel in this area needs to be Galvanized. Please confirm no special blasting surface prep and/or additional coatings is required by Steel contractor.	All steel items above the pool suite are to be prepared, primed and painted in the field. PBG	5	JAED
286	11/11/2025	R.C. Fabricators	[Reference Structural Steel & Misc Metals A-05] Summary of Work item #11: confirm location of "roof screens, supports and grillage"	Roof screens have been deleted from project. PBG	5	JAED
287	11/11/2025	R.C. Fabricators	[Reference Structural Steel & Misc Metals A-05] Summary of Work item #15: confirm if glass rails exist	There are no glass railings on the project. PBG	5	JAED
288	11/11/2025	R.C. Fabricators	[Reference Structural Steel & Misc Metals A-05] Summary of Work item #18: confirm if dunnage steel assemblies exist	There is no dunnage included in the project. PBG	5	JAED
289	11/11/2025	R.C. Fabricators	[Reference Structural Steel & Misc Metals A-05] Summary of Work item #45: Provide all support steel, cold formed members, and bracing per detail 18/S-303 to support patient lift systems by others. Coordinate installations with ceilings and general carpentry (Added in Addendum 4) There is no structural steel called out in this detail nor on the roof plans where the note is called out, this should not be by the Steel Contractor as all of this material is cold formed metal framing and is to be installed when the steel scope had been completed long before drop ceilings. Steel contract would own roof framing as shown on Structural Plans. Please consider removing this from steel scope and putting into general carpentry package or CFMF subcontractor.	This is reassigned to contract A-13 metal stud and drywall.	5	EDIS
290	11/11/2025	Tri-State The Roofers	If EPDM is the selected membrane, should the membrane be reinforced or non reinforced? *Both are referenced in the spec book.	Provide reinforced EPDM membrane. PBG	5	JAED



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291	11/11/2025	Tri-State The Roofers	Please clarify which layers of insulation should be mechanically attached to the roof deck and which layers should be adhered. - ½" dens deck prime: substrate board - Base insulation: R30 - Taper insulation - ½" HD board: Coverboard *Both methods are referenced in the spec book	Roof system is to be mechanically fastened. Manufacturer may determine method of attachment to meet performance requirements indicated in the specification. Systems letter is a required submittal in the specification. PBG	5	JAED
292	11/11/2025	Tri-State The Roofers	Should the roof membrane be mechanically fastened or adhered? *Both methods are referenced in the spec book	Roof system is to be mechanically fastened. Manufacturer may determine method of attachment to meet performance requirements indicated in the specification. Systems letter is a required submittal in the specification. PBG	5	JAED
293	11/11/2025	Tri-State The Roofers	Addendum 4, sheet A104 (overall roof plan) removes the metal roof for a flat roof that reflects the rest of the school. However the cross references were not part of the addendum. Therefore should it be assumed that there will be a parapet wall around the perimeter of the roof and scupper box conductor heads and over flows should be added with each downspout?	See drawing A-309 issued in Addendum 5. Provide scuppers through parapet with downspouts. PBG	5	JAED
294	11/11/2025	Master Interiors	confirm MTL-1 Ceiling are to be by Contract A-16. Also please provide a spec for MTL-1 ceilings I see MTL-2 in the updated specs but do not see a spec for MTL-1.	see spec 074213 and A-111	5	JAED
295	11/11/2025	11400 LLC	Per note E-23 on FS201 and note E-7 on E-102 calls for the EC to provide signal wiring from the hood control panel to the exhaust fan. Please confirm this wiring is by the EC and not the food service contractor.	See SOW A-20 item 20.	5	EDIS
296	11/11/2025	11400 LLC	Contract A-20 Kitchen Equipment item 2 calls to provide commercial appliances, including in Vocational Kitchen 161. Items EQ-1, EQ-2 and EQ-4 from the 112100 Commercial Appliance specifications do not seem to be located in room 161. Equipment schedule on drawing A-100 calls for a quantity of (2) for each item but we have only located (1) EQ-4 unit per detail 47/A-410. Please verify quantity and location of items EQ-1, EQ-2 and EQ-4.	See drawings GC002 and GC003 for locations and quantities. two each of EQ-1, EQ-2, EQ-4. PBG	5	JAED
297	11/11/2025	Modular Concepts	1. Provide a casework/millwork elevation for work in room 177.	Item shown in room 177 is furniture. No casework in room 177. PBG	5	JAED
298	11/11/2025	Modular Concepts	2. Verify casework shown in room 130 should use elevation 27/A409.	Yes. Elevation for casework at Laundry 130 is to be similar to 27/A-409, adjusted to suit width of room. PBG	5	JAED
299	11/11/2025	Modular Concepts	3. What specification section/contract package owns the furnishing and installation of the stainless steel counter and deal tray at WS8/A607?	Spec section 085653, contract A-12 Glass and Glazing.	5	EDIS
300	11/11/2025	Modular Concepts	4. A-14 SOW, items #7 lists quartz paneling. Please verify there is no quartz paneling required per plans.	There is not quartz paneling in the project. PBG	5	JAED
301	11/11/2025	Modular Concepts	5. Alternate #8 – Please identify where the added soffits are required.	See drawings issued in Addendum 5 for alternate to delete soffits. PBG	5	JAED
302	11/11/2025	Modular Concepts	6. WWP-1 – Wood Veneer Hub – Slat Panel – Please provide a style/color selection as the cost varies greatly between the available varieties.	Wood panels shall be as specified in section 09 84 30 issued in Addendum 2. See revised finish designations for sheet A-700 issued in Addendum 5. PBG	5	JAED
303	11/11/2025	Modular Concepts	7. 064100, 2.09, D, b. – Verify all casework core can be particleboard. Combining different wood core materials is not an option.	If you cannot mix cores, all cores shall be plywood. PBG	5	JAED
304	11/11/2025	Modular Concepts	8. 064100, 2.09, D, 8, a. – Verify interior of open cabinets should have VGS interiors matching exterior cabinet color, not TFM as listed. General Casework Note #10/A507 indicates VGS is required.	Inside of casework that is Visible from outside shall be VGS to match casework exterior. Inside of casework that is behind doors shall be TFM. PBG	5	JAED
305	11/11/2025	Modular Concepts	9. Elevate casework added in Addendum #3 for rooms 169, 170 & 171.	See drawings A-404 and A-409 issued in Addendum 3. PBG	5	JAED
306	11/11/2025	Modular Concepts	10. What contract package owns the wood veneer hub wall panels in Lobby 001?	Contract A-14 owns the wood veneer hub wall panels.	5	EDIS



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307	11/11/2025	Radius Systems	Is Radius Systems, LLC (Automated Logic Controls) as an approved BAS contractor, utilizing a Tridium front-end (user interface)	No. Owner has not approved	5	JAED
308	11/11/2025	Detwiler Roofing	drawings and contract summary indicate a PVC roof system but the specifications indicate EPDM.	Roof system is to be Mechanically fastened EPDM as indicated in the specification. PBG	5	JAED
309	11/11/2025	Detwiler Roofing	Which contract is responsible for the Metal Canopies in spec section 10 73 16.13?	See CONTRACT NO. A-06 - CARPENTRY AND GENERAL WORK	5	EDIS
310	11/11/2025	Detwiler Roofing	The specification 07 53 00 paragraph 3.04 B indicates fastening the cover board. Detail 9 on A 503 indicates adhering the cover board. Confirm method of attachment.	Roof system is to be mechanically fastened. Manufacturer may determine method of attachment to meet performance requirements indicated in the specification. Systems letter is a required submittal in the specification. PBG	5	JAED
311	11/11/2025	Mumford & Miller Concrete, Inc.	Section 6, Detailing Requirements of All Participants, of the BIM Project Execution Plan does not mention concrete contract A-3. Please confirm BIM is not required for the concrete contract.	BIM is required for contract A-03 per spec 013700.	5	EDIS
312	11/12/2025	Mumford & Miller Concrete, Inc.	The details on drawing C-113 show Ameristar Montage Majestic 2/3 rail commercial STEEL fence. However, specification section 32 31 19 state to use 6'-0 O.C aluminum. Shall all permanent fence and gates be commercial steel or aluminum?	Provide Ameristar Montage Majestic steel in accordance with the detail.	5	Site Studios
313	11/12/2025	Mumford & Miller Concrete, Inc.	Site plan drawing C-104 shows two double gates and one single gate at the playground area. Please provide the widths for these three gates.	Single Gate at Sidewalk: 3'-6" wide. Double Gate at Sidewalk : (2) at 3'-6" wide with center post. Double Gate at Grass: (2) at 3'-6" wide. PBG	5	JAED
314	11/12/2025	Mumford & Miller Concrete, Inc.	The details on drawing C-113 show a "DOUBLE RING Adornment Option". Shall we include these rings in our bid proposal?	No. Rings are not required. PBG	5	JAED
315	11/12/2025	Narissa Building Company	Where in the drawings do I find the acoustical wall treatments, sound absorbing wall units and fabric covered acoustical panels that are mentioned in item 8 of the contract 16 scope?	Acoustical wall treatment is specified in section 09 84 30. Scope shown on 1&5/A-411 and 3&4/A-412. PBG	5	JAED
316	11/12/2025	Cassidy Painting, Inc.	There is a conflict with verbiage here. Alt 8 says it is to reduce drywall soffits (see above). #1 of alt 8 says to provide additional drywall soffits in classrooms and corridors. Which is it? Is alt 8 to 'Reduce' or 'Add' drywall soffits? Problem is alt 8 doesn't point us to any specific print to do this. We don't know where to find the drywall soffits they want us to change for alt 8. Point us to the prints we are to use that gives us the detail to reduce or add soffits for alt 8. Are we showing the alternate as a reduction of soffits or additional soffits?	Soffits is a deduct alternate. See drawings issued in Addendum 5. PBG	5	JAED
317	11/12/2025	A-Del Construction	Is there a logistics plan that shows the temporary fence and temporary water?	See addendum 5.	5	EDIS
318	11/12/2025	A-Del Construction	Scope #16 mentions a Temporary walkway. Is there a logistics plan showing this?	See addendum 5.	5	EDIS
319	11/12/2025	A-Del Construction	Along the northside entrance of the school, is that sidewalk to be 4" or 6"?	See C-112. Sidewalk shall be 4" concrete with a 4" base.	5	JAED
320	11/12/2025	A-Del Construction	Can you quantify the spoils to be generated by the foundation installation, the pool installation, and any other spoils from other contractors that the site contractor will be responsible for?	No.	5	EDIS
321	11/12/2025	A-Del Construction	Where are the sanitary pipe runs SS-769590 & SS-777175 located?	The referenced pipes are existing sanitary pipes that are connected to the tie-in manhole. These pipes were used for design purposes and should be ignored.	5	Site Studios
322	11/12/2025	A-Del Construction	Will Viola provide and install the concrete meter vault?	No. Veolia will install the tap and extend a line to a valve at the property line. Concrete meter vault to be furnished and installed by the site contractor.	5	Site Studios



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323	11/12/2025	A-Del Construction	Is the intent of alternate #11 to build the berm shown on C-105A with the excess 14,000 CY, and the base bid is to build the berm shown on C-105 & C-106 & dispose of the 14,000 CY? Or is it vice versa?	Note that the Base Bid includes the export of 20,000 cy of excess soils to the upcoming William Penn High School project. Contract A-01 : Sitework is to include loading trucks supplied by site contractor at the high school project only (no transport required by this Contract A-01). Any additional loading of soils beyond the 20,000 cy stated is to be handled on a unit cost basis. Contract A-01 : Sitework is to provide removal of all remaining excess soils from site.	5	EDIS
324	11/12/2025	Superior Electric	Addendum #4 added to the A-26 scope of work to "provide all power, controls, lighting, and LED signage at exterior sign". Please clarify extent of work associated with this additional scope. Will the A-26 contractor be responsible for furnishing the custom "John G Leach School" signage and lettering?	LED sign has been deleted. Provide power to ground mounted lights. PBG	5	JAED
325	11/12/2025	Reybold	14. Are there any details about the gated playground area and if any equipment is required for the same?	No equipment there at this time. PBG	5	JAED
326	11/12/2025	Reybold	15. Drawing C-113A has a detail of Epic Plastics Benda Board Landscape Edging. Where is this material located on the site drawings?	See note 3 on the Typical Synthetic Turf Profile on Sheet C-113A. Benda Board is required where artificial turf abuts concrete, grass, or poured EPDM surface.	5	Site Studios
327	11/12/2025	Nickle Electrical	On the Invitation to bid regarding the bid bond requested, the Owner/Obligee is Colonial School District, their address is 318 E Basin Rd, however in Addendum 4 the Consent of Surety for Bid Pack A-26 Electrical that is to be submitted with the bid states, Colonial School District's address is 701 East Basin Rd, which is actually The Wallin School address. Please clarify which address is to be used on both the bid bond and the consent of surety.	Both addresses noted are home to Colonial School District Administration. For simplicity bidders should address to the Colonial School District at 318 E Basin Rd, New Castle, DE 19720.	5	EDIS
328	11/12/2025	Nickle Electrical	Addendum 4 added Scope Item 54 to Bid Package #26A regarding signage and refers to Drawing A 811. Drawing A-811 appears to be signage but has no electrical/lighting shown. The electrical site plan (E-100) does not show any circuitry for exterior signage. Please clarify requirements for 26A on this scope item.	See drawing E-100 for electrical requirements to monument sign at street. PBG	5	JAED
329	11/12/2025	Narissa Building Company	Which contract is responsible for the air and water resistive barrier. Contract #13 Or Contract #8. Also, which contract is responsible for the insulation on the outside of the exterior wall. If Contract #13 is responsible for the insulation on the outside of the exterior wall, please point me on the location of this insulation.	Contract A-08 is responsible for the air and water resistive barrier.	5	EDIS
330	11/12/2025	Mason Building Group, Inc.	Please clarify if an acrylic modified finish system is to be provided per detail 4/ A-306 for the ceiling outside V01 or should this be MTL-1 per the Addendum #4 drawings?	Acrylic modified finish is deleted from the project. PBG	5	JAED
331	11/12/2025	Old World Tileworks	1) What is the wall tile finish on this project? We need a manufacturer, product line and size. The finish legend calls out a Daltile 4x14 Ceramic Tile (CWT-1). The tile spec references 4x4 ceramic tile and 2x2 mosaic tile. The elevations show 4x16 tiles in multiple colors. Please clarify the basis of the design product.	See response to question 180.	5	JAED
332	11/12/2025	Old World Tileworks	2) The tile spec and tile scope of work reference floor tile. There are also floor tile transition details. However, we see no ceramic or porcelain tile specified in any room. Please confirm there is no ceramic or porcelain floor tile on this project.	There is not ceramic or porcelain floor tile in the project. PBG	5	JAED
333	11/12/2025	Old World Tileworks	3) What is the transition detail between wall tile and epoxy base at restrooms? If any Schluter trim is required, please specify a product line and finish.	Schluter trim as indicated in response to question 188. PBG	5	JAED
334	11/12/2025	Old World Tileworks	4) The finish schedule calls for wall tile at restrooms to a height of 5'-0" AFF. However, the wall tile elevations are showing all kinds of different heights (7'-2", 6'-8", 5'-2", full height, etc). Which heights are correct?	See response to question 182. PBG	5	JAED
335	11/12/2025	Old World Tileworks	5) Can you please specify a Schluter product and finish the cap of the wall tile in restrooms?	See response to question 188. PBG	5	JAED
336	11/12/2025	Mason Building Group, Inc.	101100: Visual Display Boards (There are No VDB shown in the Star Transitional Rooms, please confirm)	Yes, all STAR classrooms are to receive tackboards and whiteboards as shown on revised sheet A-404 issued in Addendum 5. PBG	5	JAED
337	11/12/2025	Mason Building Group, Inc.	102600: Wall Protection (there are no corner guards shown on the drawings, please confirm there are no CG's)	See response to question 217. PBG	5	JAED



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338	11/12/2025	Mason Building Group, Inc.	102800: Toilet Accessories (the following items were listed on the schedule, but Not Shown. T15 Baby changing tables & T21 Hand dryers)	At rooms 104, 105, 172, and 172A, in addition to accessories shown on the drawings, at each room, provide the following: (2) T1 paper towel dispensers (3) T2 soap dispensers (1) T15 diaper changing station PBG	5	JAED
339	11/12/2025	Mason Building Group, Inc.	105613: Metal Shelving (None Shown on the drawings)	There is not metal shelving in this project. PBG	5	JAED
340	11/12/2025	Assurance Media	Is there to be any high pair count copper backbone tie cable installed between the MDF and each of the two IDF's?	No	5	JAED
341	11/12/2025	Assurance Media	Please confirm if this Contractor is to Provide the WAPs or the owner is providing the WAPs. Multiple places on the Drawing state owner supplied.	WAPs are owner provided and contractor installed.	5	JAED
342	11/12/2025	Ventresca Bros., Inc.	The window shade count on the floor plan is different than the equipment schedule. The equipment schedule on A-100 shows (70) RS1. Plans A-110 and A-111 show (63) RS1, (3) RS2, and (1) RS3. Please clarify.	See revised drawings GC002 and GC003 issued in Addendum 4. Contractor is responsible for count. PBG	5	JAED
343	11/12/2025	Ventresca Bros., Inc.	2/A-405 shows "LEACH IS LIMITLESS" on the wall. Is this painted or is it signage? If it's signage, please provide details.	Letters are paint. PBG	5	JAED
344	11/12/2025	Ventresca Bros., Inc.	2/A-407 shows "Roll up door with applied graphics". Spec 083323 doesn't include any information about graphics. What is this and who is providing it?	Vinyl graphic applied to slats. See SOW A-17. PB	5	EDIS
345	11/12/2025	Ventresca Bros., Inc.	The Toilet Accessory schedule on A-409 shows items T5 and T25 which are shower thresholds. Are these by the plumber, flooring, or the carpentry contract? Also, please provide model information.	T5 and T25 are to be provided by A-06 Carpentry & General Works; length/model to be coordinated with shower fixture in accordance with manufacturers installation instructions.	5	EDIS
346	11/12/2025	Ventresca Bros., Inc.	The Toilet Accessory schedule on A-409 shows items T13 - "S.S. Shelf 8" deep x 24" wide, location?". This item doesn't appear on any of the drawings. Please advise.	Delete item T13. PBG	5	JAED
347	11/12/2025	Ventresca Bros., Inc.	The Room Finish Schedule on A-700 shows wall protection WP-1 on the south wall of Corridor B, and the east wall of Corridor C. Please confirm that this is a mistake, and the WP-1 note can be deleted in these two locations. If it's not a mistake, please clarify where the WP-1 goes.	Wall protection is deleted from these area. PBG	5	JAED
348	11/12/2025	Ventresca Bros., Inc.	4/A-204 shows "JOHN G LEACH SCHOOL", are these aluminum letters? If so, what size?	1/4" thick aluminum letters, 1'-9" high. PBG	5	JAED
349	11/12/2025	Ventresca Bros., Inc.	4 and 5 on A-811 show a heart/star logo. Is this part of the carpentry contract? If so, is the logo made from aluminum?	See response to question 226. PBG	5	JAED
350	11/12/2025	Ventresca Bros., Inc.	Please clarify the Alternates associated with the carpentry bid form: #5 - Pergola. 012300 calls this Alternate #6, not #5. Also, the pergola is not shown or detailed on the drawings. The only reference I could find is on S102A, which says "manuf. Pergola - ref. Arch" near column line intersection 10.1/F.7, but I don't see anything on the architectural drawings. Should this alternate be deleted? If not, please provide proper plans and details of the pergola.	Pergola has been deleted from this project.	5	EDIS
351	11/12/2025	Ventresca Bros., Inc.	Please clarify the Alternates associated with the carpentry bid form: #7 - Modify interior partitions. Which partitions are being modified? Are you just looking for the carpentry contract to provide additional in-wall blocking for walls that are changing from masonry to drywall?	See revised wall tags on plans issued in Addendum 3. PBG	5	JAED
352	11/12/2025	Ventresca Bros., Inc.	Please clarify the Alternates associated with the carpentry bid form: #8- Reduce drywall soffits. I don't believe this will affect the carpentry contract. Please clarify.	See alternates spec section 012300.	5	EDIS
353	11/12/2025	Ventresca Bros., Inc.	Scope item 1 in A-12 Glass and Glazing states "Provide windows, curtain wall, FRP, storefront, glass and glazing systems". The technical specification list in A-12 deleted 081613 Fiberglass Doors. Is the intent that contract A-11 is furnishing the FRP openings and A-06 is installing them, or is A-12 providing the FRP openings? Please clarify.	See Addendum 5. Contract A-11 is to provide all fiberglass doors and frames.	5	EDIS
354	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 16 - Coat hooks on 1x10 backboard. I don't see this on the drawings, can this item be deleted? If not, please provide locations, quantities, and sizes.	There are no coat hooks in the project. PBG	5	JAED
355	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 17 - Adjustable shelving. I don't see this on the drawings, can this item be deleted? If not, please provide locations, quantities, and sizes.	There is no adjustable shelving in the project. PBG	5	JAED



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356	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 18 - Install TVs and brackets. I don't see this on the drawings, can this item be deleted? If not, please provide locations, quantities, and sizes.	See response to question 10. PBG	5	JAED
357	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 21 - Gym wall pads. I don't see this on the drawings, can this item be deleted? If not, please provide locations, quantities, and sizes.	There are no gym pads in the project. PBG	5	JAED
358	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 22 - GFRC column covers. I don't see this on the drawings, can this item be deleted? If not, please provide locations, quantities, and sizes.	There are no GFRC column covers in the project. PBG	5	JAED
359	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 23 - Metal column covers. I don't see this on the drawings, can this item be deleted? If not, please provide locations, quantities, and sizes.	There are no metal column covers in the project. PBG	5	JAED
360	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 24 - PVC railings. I don't see this on the drawings, can this item be deleted? If not, please provide locations and details.	There are no PVC railings in the project. PBG	5	JAED
361	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 25 - Vertical wheelchair lifts. I don't see this on the drawings, can this item be deleted? If not, please provide locations, quantities, and sizes.	There are no wheelchair lifts in the project. PBG	5	JAED
362	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 27 - Examination and treatment equipment. I don't see this on the drawings, can this item be deleted? If not, please provide locations, quantities, and sizes.	See spec 11 72 00 and drawings GC002 and GC003 issued in Addendum 4. PBG	5	JAED
363	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 33 - This item is blank. Please confirm it can be deleted.	See addendum 4.	5	EDIS
364	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 35 - Temporary scaffold system. Please provide a plan showing exactly where you would like scaffolding. Also, please provide the time duration you would like us to include.	6 month duration. Location will be determined during the construction phase.	5	EDIS
365	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work] :36 - Screening around perimeter of all floors above ground level. This is a one story building. Please provide a plan showing the location and type of screening you would like us to include, if any.	See addendum 4.	5	EDIS
366	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 44 - Wood and acoustic wood panels. I see wood panels in the lobby, but I don't see any acoustic wood panels. Please confirm that there are no acoustic wood panels.	See response to question 315. PBG	5	JAED
367	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 45 - Display boards. There are references to glass markerboards, chalk boards, and tack strips. None of these items are on the drawings, please confirm that these items can be deleted.	See spec 10 11 00 and typical classroom elevations. PBG	5	JAED
368	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 46 - Display cases. There are no display cases shown on the drawings, please confirm that this item can be deleted.	There are no display cases in the project. PBG	5	JAED
369	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 47 - Projection screens. There are no projection screens shown on the drawings, please confirm that this item can be deleted.	There are no projection screens in the project. PBG	5	JAED
370	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 49 - Dock bumpers and loading dock equipment. I see the dock bumpers, but I don't know what is meant by "loading dock equipment". Please confirm that this can be deleted.	Dock bumpers are the only loading dock equipment in the project. PBG	5	JAED
371	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 50 - Wardrobe and closet specialties. I don't see these on the drawings, please clarify or confirm that this item can be deleted.	There are no wardrobe and closet specialties in the project. PBG	5	JAED
372	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 52 - Fire blanket cabinets. There are no fire blanket cabinets shown on the drawings. Please confirm that this item can be deleted.	There are no fire blanket cabinets in the project. PBG	5	JAED
373	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 54 - Signage and plaques. There are no plaques shown on the drawings. Please confirm that "plaques" can be deleted.	There are not plaques in the project. PBG	5	JAED
374	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 58 - Mirrors (framed and frameless). There are no frameless mirrors shown on the drawings. Please confirm that "frameless" can be deleted.	There are no frameless mirrors in the project. PBG	5	JAED
375	11/12/2025	Ventresca Bros., Inc.	[reference contract A-06 Carpentry and General Work]: 60 - Wall and corner protection. There are references to wall protection on the drawings, but not corner guards. Please confirm that "corner protection" can be deleted.	See response to question 217. PBG	5	JAED
376	11/12/2025	Diamond Materials	The sewer extension through the adjacent lot shows up on the existing conditions plan (C-102). It the run already in place and we are to tie into manhole MH-797496? Are we to remove the existing run and replace it to MH-EXPS? Or is the existing plan wrong and none of the offsite sewer is run?	There is no sewer in the existing condition. Sewer will be extended to an existing manhole near the Wrangle Hill Road pump station.	5	Site Studios
377	11/12/2025	Diamond Materials	Is the grease trap on the back side of the building in the sitework contract or the plumbing contract?	See summary of work A-23.	5	EDIS
378	11/12/2025	Diamond Materials	Are the playground and Synthetic play surface alternates mandatory pricings items or can we leave those blank?	Yes.	5	EDIS



CSD Leach School

RFI #	Date	Submitted By	Question	Response	Addendum	Responder (Company)
379	11/12/2025	Diamond Materials	In multiple locations on the stormwater structure schedule it calls for nyloplast drain basins with 2'x3' grate against 6" curb. Can you provide a detail of how the curb and surrounding concrete have to be tied in?	For this scenerio use Nyoplast 2 x 3 curb inlet structure.	5	Site Studios
380	11/12/2025	Diamond Materials	Multiple inlets on the structure schedule call for a type A hood and are against the curbline. Can you confirm they are Type A and not Type B?	Inlets are intended to be Type B.	5	Site Studios
381	11/12/2025	Diamond Materials	Whose contract does the ornamental fence, benches, trash cans, shade clothes, landscape edging, and synthetic turf fall under. Sitework or landscaping?	Ornamental fence, benches, trash cans, shade clothes, landscape edging, and synthetic turf are the responsibility of contract A-01 sitework.	5	EDIS
382	11/12/2025	MID-ATLANTIC STEEL, LLC	Sections 1 & 10/S202: Q1. Sections call out DBL L2x2 kicker. Please confirm kickers are to be 2 angles and not a single angle.	Kickers are to be two angles. PBG	5	JAED
383	11/12/2025	MID-ATLANTIC STEEL, LLC	Sections 1 & 10/S202: Q2. What is the spacing of the kickers? Every joist, every other joist, 1/3 points of spandrel beam?	Kickers at every joist. PBG	5	JAED
384	11/12/2025	MID-ATLANTIC STEEL, LLC	Sections 2 & 11/S202: Q1. Sections call out DBL L2x2 kicker. Please confirm kickers are to be 2 angles and not a single angle.	Kickers are to be two angles. PBG	5	JAED
385	11/12/2025	MID-ATLANTIC STEEL, LLC	Sections 2 & 11/S202: Q2. What is the spacing of the kickers?	16" o.c. as shown on the details. PBG	5	JAED
386	11/12/2025	MID-ATLANTIC STEEL, LLC	Roof Framing Notes (All roof plans): Q1. Note 5 says to provide 3 rows of interior bolted diagonal joist bridging. Note 6 says to design and provide bridging per SJI. Please clarify bridging requirement as not all joist would require 3 rows of bridging per SJI. Some will only require 1 or 2 rows, and the 44LH joist at the high roof would require 4 rows per SJI. Additionally, per SJI none of the bridging would need to be bolted except for one row at the 44LH joist.	Design and provide bridging per SJI. Design to uplift loads listed on sheet S-001 (not as indicated in note 6). PBG	5	JAED
387	11/12/2025	MID-ATLANTIC STEEL, LLC	Roof Framing Notes (All roof plans): Q2. Note 8 says to provide L4x4x1/4 at entire deck edge. Reference details. The majority of the roof sections/details (2, 4, 5, 10, 11, 19, 20/S202) do not indicate L4x4, nor would it be required at these sections due to the roof edge condition. Please clarify if we are to include L4x4 at all deck edges per Note 8 or follow sections/details given on S202.	Angle may be omitted where edge of deck is set directly on steel beam. PBG	5	JAED
388	11/12/2025	Corporate Interiors, Inc.	GWT-1 is specified as American Olean 4.25" x 4.25" (it doesn't come in that size, size is 4" x 4") and the drawings reference a 4" x 14" wall tile from Daltile. Can you clarify which tile has been chosen?	Specification is revised in narrative issued in Addendum 5. Basis-of-Design" Daltile Color Wheel Linear 4" x 16". PBG	5	JAED
389	11/12/2025	Advantech	Door 110 Storage shows access control on the electronic drawings Sheet E-104 but is located in hardware set 18.0 which has no electrified access control. Please confirm what hardware set this door belongs in.	Access control and door hardware specifications shall be updated in Addendum 5.	5	JAED
390	11/12/2025	Advantech	•Door 125 Training shows access control on the electronic drawings Sheet E-102 but is located in hardware set 20.0 which has no electrified access control. Please confirm what hardware set this door belongs in.	Access control and door hardware specifications shall be updated in Addendum 5.	5	JAED
391	11/12/2025	Advantech	•Door 130 Laundry is in hardware set 33.0 with SN200 lock but doesn't show access control on the Electronic drawings E-102. Please confirm if this door is getting access control or should belong in another hardware set.	Access control and door hardware specifications shall be updated in Addendum 5.	5	JAED
392	11/12/2025	Advantech	•Door 131 IDF shows access control on electronic drawings Sheet E-102 but is located in hardware set 18.0 which has no electrified access control. Please confirm what hardware set this door belongs in.	Access control and door hardware specifications shall be updated in Addendum 5.	5	JAED
393	11/12/2025	Advantech	•Door V05A shows access control on the electronic drawings Sheet E-101 but is not located in a hardware set. Please confirm what hardware set this door belongs in.	Access control and door hardware specifications shall be updated in Addendum 5.	5	JAED
394	11/12/2025	Advantech	We are anticipating a video surveillance specification. Will a technical specification be issued for this scope?	Yes, this will be issued	5	JAED
395	11/12/2025	Advantech	Related to the fire alarm system requirements: •Is Notifier an approved substitute? •FP101 states "Provide wet pipe fire suppression system" Are smoke detectors required? •Devices in the pool area are currently not shown as weather proof. Please confirm these devices should be weatherproof devices	Notifier is an acceptable approved equal substitute. Smoke detectors are required in certain spaces per code. These devices shall be weatherproof.	5	JAED