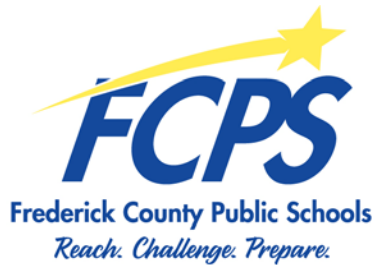


Purchasing Office  
191 South East Street  
Frederick, Maryland 21701  
301-644-5208 phone  
301-644-5213 fax  
[kim.miskell@fcps.org](mailto:kim.miskell@fcps.org)



Kerrie Koopman CPPB, CPPO,  
Purchasing Manager  
**Kim Miskell, CSBO, Assistant Purchasing  
Manager**  
Bill Meekins CPPB, CSBO, CPCP,  
Purchasing Agent  
Shane Ryberg, Purchasing Agent

## ADDENDUM

July 22, 2019

### ADDENDUM # 3

#### **Bid 19C14, Rock Creek School Replacement Project**

**REVISED DUE DATE & TIME: FCPS Main Lobby, Wednesday, August 7, 2019, prior to and time stamped no later than 2:00 P.M.**

This addendum is being issued to provide additions, corrections, clarifications and answers to certain questions raised referencing the original bid packages and any resultant contracts for the above bid.

1. **REVISED QUESTIONS DUE:** Questions due no later than 4:00 P.M., local time, on ~~July 22, 2019~~ **July 25, 2019**. Submit questions in writing to the Kim Miskell, Assistant Purchasing Manager, [kim.miskell@fcps.org](mailto:kim.miskell@fcps.org) with a copy to Brian Staiger, Senior Project Manager, Construction Management, [brian.staiger@fcps.org](mailto:brian.staiger@fcps.org).
2. **REVISED DUE DATE & TIME:**  
Bids for the following packages: 2A Earthwork & Site Demolition; 3A Concrete; 4A Masonry; 5A Structural Steel; 6A General Trades; 7A Roofing; 8A Glass & Aluminum; 9A Drywall; 9B Ceramic Tile; 9C Resilient Flooring; 9D Athletic Flooring; 9E Resinous Flooring; 9F Painting; 11A Food Service Equipment; 13A Therapy Pool; 15A Mechanical; 15B Sprinkler and 16A Electrical will be received and time stamped in the main lobby of Frederick County Public Schools (FCPS) at 191 South East Street, Frederick, MD 21701, prior to and time stamped no later than ~~10:00 a.m. local time, August 1, 2019.~~ **2:00 p.m., local time, August 7, 2019.**
3. This Addendum includes the following attachment(s):
  - a. FCPS Signature Acknowledging Proposal Form (1 page)
  - b. Dustin Construction, Inc. - Addendum #3 (186 pages)

Thank you for your interest in bidding with Frederick County Public Schools and we apologize for any inconvenience this may have caused.

Sincerely,

*Kim Miskell*

Kim Miskell, CSBO,  
Assistant Purchasing Manager

km/ab

pc: Brian Staiger, Senior Project Manager, Construction Management  
John Pickett, Dustin Construction  
Kori Purdum, Proffitt & Associates



**BID 19C14, ROCK CREEK SCHOOL REPLACEMENT PROJECT**  
**SIGNATURE ACKNOWLEDGING PROPOSAL**

**Note: When submitting your bid/proposal, please use this page as a cover sheet for your proposal.**

In compliance with your invitation for bidders, the undersigned proposes to furnish and deliver all labor and materials in accordance with the accompanying specifications and "Instructions and General Conditions" for the price as listed on the enclosed Proposal Sheet(s).

I/We certify that this bid/proposal is made without previous understanding, agreement, or connection with any person, firm, or corporation submitting a bid/proposal for the same goods/services and is, in all respects fair and without collusion or fraud; that none of this company's officers, directors, partners or its employees have been convicted of bribery, attempted bribery, or conspiracy to bribe under the laws of any state or federal government; and that no member of the Board of Education of Frederick County, Administrative or Supervisory Personnel or other employees of the Frederick County Public Schools, has any interest in the bidding company except as follows:

COMPANY: \_\_\_\_\_

dba: \_\_\_\_\_

REGISTERED MARYLAND CONTRACTOR NUMBER: \_\_\_\_\_

FEDERAL IDENTIFICATION: \_\_\_\_\_ DATE: \_\_\_\_\_

The undersigned has familiarized themselves with the conditions affecting the work, the specifications, and is legally authorized to make this proposal on behalf of the Contractor listed above.

NAME (please print): \_\_\_\_\_

SIGNATURE OF ABOVE: \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE # \_\_\_\_\_ FAX # \_\_\_\_\_

E-MAIL ADDRESS (for correspondence): \_\_\_\_\_

E-MAIL ADDRESS (for receiving Purchase Orders): \_\_\_\_\_

**(DO NOT COMPLETE THIS AREA IF YOUR COMPANY IS UNABLE TO RECEIVE  
PURCHASE ORDERS ELECTRONICALLY)**

**ACKNOWLEDGMENT OF ADDENDA (if applicable)**

The above-signed company/firm acknowledges the receipt of the following addenda for the above-referenced solicitation.

Date Received by Proposer/Bidder:

Addendum #1	_____	Addendum #2	_____
Addendum #3	_____	Addendum #4	_____
Addendum #5	_____	Addendum #6	_____
Addendum #7	_____	Addendum #8	_____



Rock Creek School Replacement  
Frederick County Public Schools  
FCPS Bid #19C14



To: All Plan Holders  
Project: Rock Creek School Replacement  
Walkersville, Maryland  
Re: Addendum #3

Ladies and Gentleman:

Enclosed herein, please find Addendum #3, dated 7/18/19.

To the Contract Drawings and Specifications for the referenced project as stated below, as prepared by Proffitt & Associates Architects, PC in conjunction with Dustin Construction Inc., this addendum includes changes and clarifications to the Contract Documents as follows:

Item:	Pages
1. Proffitt & Associates Addendum #3	75
2. Pre-Bid RFI Log	5
3. Pre-Bid RFI Responses	41
4. Revised General Scope R1	16
5. Revised 02A Specific Scope	14
6. Revised 06A Specific Scope	11
7. Revised 08A Specific Scope	5
8. Revised 09F Specific Scope	4
9. Revised Specification Section 002413 Specification Cross Reference	14

Including this cover, Addendum #3 consists of one hundred eighty-six (186) pages. Advise this office at once if any attachments are missing.

Enclosures:  
Addendum #3

cc. Brian Staiger – Frederick County Public Schools  
Kim Miskell – Frederick County Public Schools  
Donna Rosano – Proffitt & Associates  
Kori Matheis – Proffitt & Associates  
Matt Evans – Dustin  
John Pickett – Dustin  
Lloyd Hill – Dustin  
File





### **ADDENDUM NO. 3**

**To Drawings and Specifications for**

**Rock Creek School**

**Replacement Project**

Frederick County Public Schools

Bid #19C14

18 July 2019

#### **INTRODUCTION:**

This Addendum is issued for the purposes of amending the requirements of the drawings and specifications dated July 1, 2019, and is made a part of the Bidding Documents to the same extent as though it was included therein.

#### **PREVIOUS ADDENDA:**

Addendum #01, dated July 9, 2019

Addendum #02, dated July 15, 2019

#### **INDEX:**

- A. SPECIFICATIONS
- B. CIVIL DRAWINGS
- C. STRUCTURAL DRAWINGS
- D. MECHANICAL DRAWINGS
- E. PLUMBING DRAWINGS
- F. ELECTRICAL DRAWINGS

#### **ATTACHMENTS:**

- Revised specification section 22 40 00 – Plumbing Fixtures, dated July 18, 2019
- New specification section 32 30 20 – Courtyard Furnishings, Play Equipment and Shade Structures, dated July 18, 2019
- New specification section 32 30 30 – Courtyard Playground Protective Surfacing, dated July 18, 2019
- Revised drawing C-0 – Cover Sheet, dated July 18, 2019
- Revised drawing C-4D – Grading and Stormwater Management Plan, dated July 18, 2019
- Revised drawing C-4E – Grading and Stormwater Management Plan, dated July 18, 2019
- Revised drawing C-4F – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4G – Storm Drain Profiles, dated July 18, 2019



- Revised drawing C-4K – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4L – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4M – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4N – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4P – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4Q – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4R – USG-1 Details, dated July 18, 2019
- Revised drawing C-4S – USG-1 Details, dated July 18, 2019
- Revised drawing C-4T – USG-1 Details, dated July 18, 2019
- Revised drawing C-4U – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4V – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4W – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4X – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4Y – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4Z – Storm Drain Profiles, dated July 18, 2019
- Revised drawing C-4AA – Storm Drain Profiles, dated July 18, 2019
- Revised drawing S101C – Foundation and First Floor Plan – Area C, dated July 18, 2019
- Revised drawing S205 – Foundation Details, dated July 18, 2019
- Revised drawing M201C – First Floor Plan – Area C, dated July 18, 2019
- Revised drawing M202 – Roof Plan, dated July 18, 2019
- Revised drawing M401 – Add Alternate No. 1 – Park and Rec, dated July 18, 2019
- Revised drawing M705 – VRF System and Miscellaneous Details, dated July 18, 2019
- Revised drawing M901 – Air Handling Unit & Split System Schedule, dated July 18, 2019
- Revised drawing M903 – Unit Heater & Air Device Schedule, dated July 18, 2019
- Revised drawing P200B – Foundation Plan – Area B, dated July 18, 2019
- Revised drawing P302 – Toilet & Locker Room Part Plans, dated July 18, 2019
- Revised drawing P601 – Domestic Water Riser Diagrams, dated July 18, 2019
- Revised drawing P602 – Sanitary & Vent Riser Diagrams, dated July 18, 2019
- Revised drawing P604 – Natural Gas Riser Diagrams, dated July 18, 2019
- Revised drawing E702 – Panelboard Schedules, dated July 18, 2019

## A. SPECIFICATIONS

### 1. SECTION 07 51 13 – BUILT UP ASPHALT ROOFING

**REVISE – REVISE** paragraph 3.13.A.1 – Electronic Leak Detection shall be **ASTM D7877** in lieu of ASTM E7877.

### 2. SECTION 22 40 00 – PLUMBING FIXTURES

**REVISE – REVISE** paragraph 2.2.C.2 - Revise description to: "***Sink faucet, single-hole fixture.*** Coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor."

### 3. SECTION 32 30 20 – COURTYARD FURNISHINGS, PLAY EQUIPMENT AND SHADE STRUCTURES

**ADD – ADD** new section 32 30 20

### 4. SECTION 32 30 30 – COURTYARD PLAYGROUND PROTECTIVE SURFACING

**ADD – ADD** new section 32 30 30



## **B. CIVIL DRAWINGS**

1. **C-0 – COVER SHEET**
2. **C-4D – GRADING AND STORMWATER MANAGEMENT PLAN**

**REVISE** – Revise courtyard drainage and tie into SWM system.

3. **C-4E – GRADING AND STORMWATER MANAGEMENT PLAN**

**REVISE** – Revise courtyard drainage and tie into SWM system.

4. **C-4F – STORM DRAIN PROFILES**

**REVISE** – Revise profile

5. **C-4G – STORM DRAIN PROFILES**

**REVISE** – Revise profile

6. **C-4K – STORM DRAIN PROFILES**

**REVISE** – Revise profile

7. **C-4L – STORM DRAIN PROFILES**

**REVISE** – Revise profile

8. **C-4M – STORM DRAIN PROFILES**

**REVISE** – Revise profile

9. **C-4N – STORM DRAIN PROFILES**

**REVISE** – Revise profile

10. **C-4P – STORM DRAIN PROFILES**

**REVISE** – Revise profile

11. **C-4Q – STORM DRAIN PROFILES**

**REVISE** – Revise profile

12. **C-4R – USG-1 DETAILS**

**REVISE** – Revise all details on page.

13. **C-4S – USG-1 DETAILS**

**REVISE** – Revise all details on page.

14. **C-4T – USG-1 DETAILS**

**REVISE** – Revise all details on page.

15. **C-4U – STORM DRAIN PROFILES**



**REVISE** – Revise profile to include liner specification

16. **C-4V – STORM DRAIN PROFILES**

**REVISE** – Revise profile to include liner specification

17. **C-4W – STORM DRAIN PROFILES**

**REVISE** – Revise profile to include liner specification

18. **C-4X – STORM DRAIN PROFILES**

**REVISE** – Revise profile to include liner specification

19. **C-4Y – STORM DRAIN PROFILES**

**REVISE** – Revise profile to include liner specification

20. **C-4Z – STORM DRAIN PROFILES**

**REVISE** – Revise profile to include liner specification

21. **C-4AA – STORM DRAIN PROFILES**

**REVISE** – Revise typical detail for Microbiorention Facility

**C. STRUCTURAL DRAWINGS**

1. **S101C – FOUNDATION AND FIRST FLOOR PLAN – AREA C**

**REVISE – REVISE** footing detail and wall location for incoming duct bank.

2. **S205 – FOUNDATION DETAILS**

**REVISE – REVISE** details 4 and 5 for footings at incoming duct bank.

**D. MECHANICAL DRAWINGS**

1. **M201C – FIRST FLOOR PLAN – AREA C**

- **ADD** - For domestic hot water generators, combustion air and flue vent ductwork added in Mechanical room 608.
- **ADD** drawing note 53 to read: ***“DOMESTIC HOT WATER GENERATOR. REFER TO PLUMBING DRAWINGS.”***
- **ADD** drawing note 54 to read: ***“4”Ø COMBUSTION AIR DN TO HOT WATER GENERATOR.”***
- **ADD** drawing note 55 to read: ***“4”Ø FLUE VENT DN TO HOT WATER GENERATOR.”***
- **ADD** drawing note 56 to read: ***“4”Ø COMBUSTION AIR AND FLUE VENT UP TO CONCENTRIC VENT THROUGH ROOF TERMINAL. REFER TO DETAIL FOR ADDITIONAL INFORMATION.”***
- **REVISE** - Location of **OAI-5** and associated appurtenances revised to provide clearance from hot water generator flue.

2. **M202 – ROOF PLAN**



- **ADD** - two (2) concentric vent through roof terminals for hot water generators.
  - **ADD** - drawing note 8 to read: ***"HOT WATER GENERATOR CONCENTRIC VENT THROUGH ROOF TERMINAL. REFER TO DETAIL FOR ADDITIONAL INFORMATION."***
  - **CLARIFY** - Location of OAI-5 revised to provide clearance from hot water generator flue.
3. **M401 – ADD ALTERNATE NO. 1 – PARK AND REC**
    - **ADD** - Include return grilled labels in Gym 900.
  4. **M705 – VRF SYSTEM AND MISCELLANEOUS DETAILS**
    - **REVISE** - Revise detail entirely.
  5. **M901 – AIR HANDLING UNIT & SPLIT SYSTEM SCHEDULE**
    - **REVISE** - Revise NG furnace total capacity from 250 MBH to 400 MBH.
  6. **M903 – UNIT HEATER & AIR DEVICE SCHEDULES**
    - **REVISE** - Fan F-30 interlock revised. Fan shall operate continuously to exhaust chemical vapors from the chemical storage room.

## **E. PLUMBING DRAWINGS**

1. **P200B – FOUNDATION PLAN – AREA B**
  - **ADD** - Add sanitary piping serving fixture P6 in room Aquatic 400
  - **ADD** - Add 2" vent piping up serving drain line for TD-A and 3" FD-B in Girls Locker Room 402.
  - **REVISE** - Revise sanitary and vent piping layout for drain lines serving Girls Locker Room 402.
2. **P302 – TOILET & LOCKER ROOM PART PLANS**
  - **ADD** - Add fixture P6 on wall adjacent to Girls Locker Room 402 and associated domestic cold water and vent piping.
  - **ADD** - Add hose bib on wall adjacent to Girls Shower 402A and associated domestic cold water piping.
  - **ADD** - Add hose bib on wall adjacent to Boys Shower 403A and associated domestic cold water piping.
  - **ADD** - Add 2" vent piping down serving drain line for TD-A and 3" FD-B in Girls Locker Room 402.
3. **P601 – DOMESTIC WATER RISER DIAGRAMS**
  - **ADD** - Add hose bibs in boys and girls locker rooms.
  - **ADD** - Add fixture P6 in aquatic 400.
  - **REVISE** - Revise domestic water piping according to the revisions to drawing 302.
4. **P602 – SANITARY & VENT RISER DIAGRAMS**



- **REVISE** - Revise sanitary and vent piping according to the revisions to drawing 302.

5. **P604 – NATURAL GAS RISER DIAGRAMS**

- **REVISE** - Revise NG furnace total capacity from 250 MBH to 400 MBH.
- **REVISE** - Revise natural gas pipe system MBH/CFH references accordingly.

**F. ELECTRICAL DRAWINGS**

1. **E702 – PANELBOARD SCHEDULES**

- **ADD** – Schedule for branch panel RD in response to RFI question.

**- END OF ADDENDUM #3 -**



**SECTION 22 40 00  
PLUMBING FIXTURES**

**PART 1 - GENERAL**

**1.1 SUMMARY**

A. This Section includes the following conventional plumbing fixtures and related components:

1. Lavatory Faucets.
2. Sink Faucets.
3. Showers Faucets.
4. Flushometers.
5. Toilet seats.
6. Protective shielding guards.
7. Fixture supports.
8. Interceptors.
9. Water closets.
10. Urinals.
11. Lavatories.
12. Mop sinks.
13. Commercial sinks.
14. Supply Boxes.
15. Dishwasher air gap fittings.

B. Related Sections include the following:

1. Division 10 Section "Toilet, Bath, and Laundry Accessories."
2. Division 22 Section "Domestic Water Piping Specialties" for backflow preventers, floor drains, and specialty fixtures not included in this Section.
3. Division 22 Section "Water Coolers."

**1.2 DEFINITIONS**

- A. ABS: Acrylonitrile-butadiene-styrene plastic.
- B. Accessible Fixture: Plumbing fixture that can be approached, entered, and used by people with disabilities.
- C. Cast Polymer: Cast-filled-polymer-plastic material. This material includes cultured-marble and solid-surface materials.
- D. Cultured Marble: Cast-filled-polymer-plastic material with surface coating.
- E. Fitting: Device that controls the flow of water into or out of the plumbing fixture. Fittings specified in this Section include supplies and stops, faucets and spouts, shower heads and tub spouts, drains and tailpieces, and traps and waste pipes. Piping and general-duty valves are included where indicated.
- F. FRP: Fiberglass-reinforced plastic.



- G. PMMA: Polymethyl methacrylate (acrylic) plastic.
- H. PVC: Polyvinyl chloride plastic.
- I. Solid Surface: Nonporous, homogeneous, cast-polymer-plastic material with heat-, impact-, scratch-, and stain-resistance qualities.

### 1.3 SUBMITTALS

- A. Product Data: For each type of plumbing fixture indicated. Include selected fixture and trim, fittings, accessories, appliances, appurtenances, equipment, and supports. Indicate materials and finishes, dimensions, construction details, and flow-control rates.
- B. LEED Submittals: Comply with Section 08113.
  - 1. Water efficiency prerequisite 2: Indoor water use reduction
    - a. For water closet and urinal documentation indicating flush rate in gallons per flush (GPF).
      - 1) Include documentation indicating Water Sense Label
    - b. For faucets, aerators, and showerhead, documentation indicating flow rate in gallons per minute (GPM).
  - 2. MR Credit 2: BPDO – Environmental Product Declarations
    - a. For plumbing fixtures, if available: Product specific declaration or industry wide EPD or product specific EPD
  - 3. MR Credit 4: BPDO – Material Ingredients
    - a. For plumbing fixtures, if available: Materials Ingredient Report
- C. Shop Drawings: Diagram power, signal, and control wiring.
- D. Operation and Maintenance Data: For plumbing fixtures to include in emergency, operation, and maintenance manuals.
- E. Warranty: Special warranty specified in this Section.

### 1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain plumbing fixtures, faucets, and other components of each category through one source from a single manufacturer.
  - 1. Exception: If fixtures, faucets, or other components are not available from a single manufacturer, obtain similar products from other manufacturers specified for that category.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Regulatory Requirements: Comply with requirements in ICC A117.1, "Accessible and Usable Buildings and Facilities"; Public Law 90-480, "Architectural Barriers Act"; and Public Law 101-336, "Americans with Disabilities Act"; for plumbing fixtures for people with disabilities.
- D. Regulatory Requirements: Comply with requirements in Public Law 102-486, "Energy Policy Act," about water flow and consumption rates for plumbing fixtures.



- E. NSF Standard: Comply with NSF 61, "Drinking Water System Components--Health Effects," for fixture materials that will be in contact with potable water.
- F. Select combinations of fixtures and trim, faucets, fittings, and other components that are compatible.
- G. Comply with the following applicable standards and other requirements specified for plumbing fixtures:
  - 1. Enameled, cast-iron fixtures: ASME A112.19.1M.
  - 2. Solid-Surface-Material Lavatories and Sinks: ANSI/ICPA SS-1.
  - 3. Stainless-Steel Commercial, Handwash Sinks: NSF 2 construction.
  - 4. Vitreous-China Fixtures: ASME A112.19.2M.
  - 5. Water-Closet, Flush Valve, Tank Trim: ASME A112.19.5.
- H. Comply with the following applicable standards and other requirements specified for lavatory and sink faucets:
  - 1. Backflow Protection Devices for Faucets with Hose-Thread Outlet: ASME.A112.18.3M.
  - 2. Faucets: ASME A112.18.1.
  - 3. Hose-Connection Vacuum Breakers: ASSE 1011.
  - 4. Hose-Coupling Threads: ASME B1.20.7.
  - 5. Integral, Atmospheric Vacuum Breakers: ASSE 1001.
  - 6. NSF Potable-Water Materials: NSF 61.
  - 7. Pipe Threads: ASME B1.20.1.
  - 8. Sensor-Actuated Faucets and Electrical Devices: UL 1951.
  - 9. Supply Fittings: ASME A112.18.1.
  - 10. Brass Waste Fittings: ASME A112.18.2.
- I. Comply with the following applicable standards and other requirements specified for shower faucets:
  - 1. Backflow Protection Devices for Hand-Held Showers: ASME A112.18.3M.
  - 2. Combination, Pressure-Equalizing and Thermostatic-Control Antiscald Faucets: ASSE 1016.
  - 3. Faucets: ASME A112.18.1.
  - 4. Hand-Held Showers: ASSE 1014.
  - 5. High-Temperature-Limit Controls for Thermal-Shock-Preventing Devices: ASTM F 445.
  - 6. Hose Coupling Threads: ASME B1.20.7.
  - 7. Manual-Control Antiscald Faucets: ASTM F 444.
  - 8. Pipe Threads: ASME B1.20.1.
  - 9. Pressure-Equalizing-Control Antiscald Faucets: ASTM F 444 and ASSE 1016.
  - 10. Thermostatic-Control Antiscald Faucets: ASTM F444 and ASSE 1016.
- J. Comply with the following applicable standards and other requirements specified for miscellaneous fittings:
  - 1. Atmospheric Vacuum Breakers: ASSE 1001.
  - 2. Brass and Copper Supplies: ASME A112.18.1.
  - 3. Dishwasher Air-Gap Fittings: ASSE 1021.
  - 4. Manual-Operation Flushometers: ASSE 1037.
  - 5. Plastic Tubular Fittings: ASTM F 409.
  - 6. Brass Waste Fittings: ASME A112.18.2.
  - 7. Sensor-Operation Flushometers: ASSE 1037 and UL 1951.



- K. Comply with the following applicable standards and other requirements specified for miscellaneous components:
1. Disposers: ASSE 1008 and UL 430.
  2. Dishwasher Air Gap Fittings: ASSE 1021.
  3. Flexible Water Connectors: ASME A112.18.6.
  4. Floor Drains: ASME A112.6.3.
  5. Grab Bars: ASTM F 446.
  6. Hose Coupling Threads: ASME B1.20.7.
  7. Off-Floor Fixture Supports: ASME A112.6.1M.
  8. Pipe Threads: ASME B1.20.1.
  9. Plastic Toilet Seats: ANSI Z124.5.
  10. Supply and Drain Protective Shielding Guards: ICC A117.1.

## 1.5 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Faucet Washers and O-Rings: Equal to 10 percent of amount of each type and size installed.
  2. Faucet Cartridges and O-Rings: Equal to 5 percent of amount of each type and size installed.
  3. Flushometer Valve, Repair Kits: Equal to 10 percent of amount of each type installed, but no fewer than 2 of each type.
  4. Provide hinged-top wood or metal box, or individual metal boxes, with separate compartments for each type and size of extra materials listed above.
  5. Toilet Seats: Equal to 5% of amount of each type installed.

## PART 2 - PRODUCTS

### 2.1 LAVATORY FAUCETS

- A. NSF Standard: Comply with NSF/ANSI 61, "Drinking Water System Components - Health Effects," for faucet materials that will be in contact with potable water. Comply with NSF 61, Annex G and NSF 372.
- B. Lavatory Faucets LF-1: Sensor Operated, deck mounted metering solid-brass valve.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Sloan Optima ETF-600 or comparable product by one of the following:
    - a. Delta
    - b. American Standard
    - c. Moen
  2. Description: Lavatory faucet, three-hole fixture. Coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.
    - a. Body Material: Commercial, solid brass.
    - b. Finish: Polished chrome plated.
    - c. Maximum Flow Rate: 0.35 gpm (8.3L/min.), unless otherwise indicated.
    - d. Mixing Valve: MVP Metering Adjustable Cycle Time Closure Cartridge.
    - e. Centers: 4 inches (203 mm).
    - f. Mounting: Deck, concealed.



- g. Inlet(s): NPS 1/2 (DN 15) male shank.
- h. Spout Type: 4-9/16" Centered Integral Cast Brass Spout
- i. Spout Outlet: Aerator.
- j. Operation: Infrared Sensor, Electronic, 12 second duration
- k. Drain: Grid.
- l. Power: Foot mount transformer by Sloan model EL-208

## 2.2 SINK FAUCETS

### A. Sink Faucets, SF-1:

1. Basis of Design Product: Subject to compliance with requirements, provide T&S Brass Model B-0666 faucet or a comparable product by one of the following:
  - a. American Standard
  - b. Delta
  - c. **Moen**
2. Description: Service sink faucet with stops in shanks, vacuum breaker, hose-thread outlet, and pail hook. Include hot-and cold-water indicators; coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.
  - a. Body Material: Commercial, solid brass.
  - b. Finish: Polished chrome plate.
  - c. Maximum Flow Rate: 2.5 gpm (9.5 L/min.), unless otherwise indicated.
  - d. Mixing Valve: Two-lever handle.
  - e. Backflow Protection Device for Hose Outlet: Required.
  - f. Centers: 8 inches (203 mm).
  - g. Mounting: Back/wall, exposed.
  - h. Handle(s): Lever.
  - i. Inlet(s): NPS 1/2 (DN 15) male shank.
  - j. Spout Type: Rigid, solid brass with wall brace.
  - k. Spout Outlet: Hose thread.
  - l. Vacuum Breaker: Required.
  - m. Operation: Compression, manual.
  - n. Drain: Grid.
  - o. Provide 3/8" offset with integral check.

### B. Sink Faucets SF-2: Manual type, two-lever-handle mixing valve.

1. Basis-of-Design Product: Subject to compliance with requirements, provide American Standard Monterrey faucet or comparable product by one of the following:
  - a. Delta
  - b. T&S Brass
  - c. **Moen**
2. Standard: ASME A112.18.1/CSA B125.1.
3. General: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture hole punchings; coordinate outlet with spout and sink receptor.
4. Body Type: Widespread.
5. Body Material: Commercial, solid brass.
6. Finish: Polished chrome-plate.
7. Maximum Flow Rate: 2.0 gpm (8.3 L/min.).
8. Centers: 8 inches (203 mm).
9. Handle(s): 4" Wristblade.
10. Mounting Type: Deck, exposed.



11. Spout Type: 8" Tubular Brass Swivel
12. Swing Restrictor: Required for single compartment sinks.
13. Vacuum Breaker: Not required for hose outlet.
14. Spout Outlet: 0.5 GPM Aerator

C. Sink Faucets SF-3: Sensor operated.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Sloan Optima ETF-700 or comparable product by one of the following:
  - a. Delta
  - b. American Standard
  - c. **Moen**
2. Description: **Sink faucet, single-hole fixture.** Coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.
  - a. Body Material: Commercial, solid brass.
  - b. Finish: Polished chrome plated.
  - c. Maximum Flow Rate: 0.5 gpm (8.3L/min.), unless otherwise indicated.
  - d. Mixing Valve: MVP Metering Adjustable Cycle Time Closure Cartridge.
  - e. Centers: Single Hole.
  - f. Mounting: Deck, concealed.
  - g. Inlet(s): NPS 1/2 (DN 15) male shank.
  - h. Spout Type: 8" Swing Rigid Gooseneck
  - i. Spout Outlet: Aerator.
  - j. Operation: Infrared Sensor, Electronic, 12 second duration
  - k. Drain: Grid.
  - l. Power: Foot mount transformer by Sloan model EL-208

## 2.3 SHOWER FAUCETS

A. Shower Faucets, SF-4 (P9):

1. Basis of Design Product: Subject to compliance with requirements, provide Chicago SH-PB1-11-034, or a comparable product by one of the following:
  - a. Delta Faucet Company.
  - b. Powers; a Watts Industries Co.
  - c. Symmons Industries.
  - d. **Moen**
2. Description: Single-handle thermostatic and pressure-balance valve. Include hot- and cold-water indicators; check stops; and shower head, arm, and flange. Coordinate faucet inlets with supplies and outlet with diverter valve.
  - a. Body Material: Solid brass.
  - b. Finish: Polished chrome plate.
  - c. Maximum Flow Rate: 1.5 gpm, unless otherwise indicated.
  - d. Diverter Valve: Pressure balancing, required..
  - e. Mounting: Concealed.
  - f. Backflow Protection Device for Hand-Held Shower: Required.
  - g. Operation: Noncompression, manual.
  - h. Antiscald Device: Integral with mixing valve.
  - i. Check Stops: Check-valve type, integral with or attached to body; on hot- and cold-water supply connections.
  - j. Supply Connections: NPS 1/2 (DN 15), sweat.
  - k. Shower Head Type: P-9: Overhead and Hand-held with integral slide bar mounted.



- l. Shower Head Material: Metallic with chrome-plated finish.
- m. Spray Pattern: Fixed.
- n. Integral Volume Control: Required.
- o. Shower-Arm Flow-Control Fitting: Not required
- p. Temperature Indicator: Integral with faucet.
- q. Water Sense Labeled.

## 2.4 FLUSHOMETERS

### A. WATER CLOSET flushometer valve, Sensor Operated, Diaphragm Flushometer Valves (FV-1):

1. Manufacturers: Subject to compliance with requirements, provide products by Sloan Royal model 111 SFSM-1.28-HW or comparable product by one of the following:
  - a. American Standard
  - b. Zurn Industries, LLC; Commercial Brass and Fixtures.
2. Standard: ASSE 1037.
3. Minimum Pressure Rating: 125 psig (860 kPa).
4. Features: Include integral check stop and backflow-prevention device.
5. Material: Brass body with corrosion-resistant components.
6. Exposed Flushometer-Valve Finish: Chrome plated.
7. Panel Finish: Chrome plated or stainless steel.
8. Style: Exposed.
9. Consumption: 1.28 gal. per flush.
10. Minimum Inlet: NPS 1 (DN 25).
11. Minimum Outlet: NPS 1-1/4 (DN 32).
12. Power: Hard Wired

### B. URINAL flushometer valve, Sensor Operated, Diaphragm Flushometer Valves (FV-2):

1. Manufacturers: Subject to compliance with requirements, provide products by basis-of-design Sloan Royal model 186 SFSM-0.125-HW or comparable product by the following:
  - a. American Standard
  - b. Zurn Industries, LLC; Commercial Brass and Fixtures.
2. Standard: ASSE 1037.
3. Minimum Pressure Rating: 125 psig (860 kPa).
4. Features: Include integral check stop and backflow-prevention device.
5. Material: Brass body with corrosion-resistant components.
6. Exposed Flushmoeter-Valve Finish: Chrome plated.
7. Panel Finish: Chrome plated.
8. Style: Exposed.
9. Consumption: 0.125 gal. per flush.
10. Minimum Inlet: NPS ¾ (DN 20).
11. Minimum Outlet: NPS-1-1/4 (DN 32).
12. Power: Hard Wired

## 2.5 TOILET SEATS

### A. Toilet Seats (TS-1):

1. Manufacturers: Subject to compliance with requirements, provide products by the following:



- a. Bemis Manufacturing Company. Model 1655SSCT/
  - b. Church Seats Model 9500SSCT
  - c. Olsonite Seat Co.
- 2. Standard: IAPMO/ANSI Z124.5.
  - 3. Material: Plastic.
  - 4. Type: Commercial (Heavy duty).
  - 5. Shape: Elongated rim, open front.
  - 6. Hinge: Self-sustaining, check.
  - 7. Hinge Material: Noncorroding metal.
  - 8. Seat Cover: Not required.
  - 9. Color: White.

## 2.6 PROTECTIVE SHIELDING GUARDS

- A. Protective Shielding Pipe Covers:
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Engineered Brass Co.
    - b. McGuire Manufacturing Co., Inc.
    - c. TRUEBRO, Inc.
  - 2. Description: Manufactured plastic wraps for covering plumbing fixture hot- and cold-water supplies and trap and drain piping. Comply with Americans with Disabilities Act (ADA) requirements.

## 2.7 FIXTURE SUPPORTS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Josam Company.
  - 2. MIFAB Manufacturing Inc.
  - 3. Smith, Jay R. Mfg. Co.
  - 4. Tyler Pipe: Wade Div.
- B. Water Closet Supports:
  - 1. Description: Combination carrier designed for accessible/standard mounting height of wall-mounting, water-closet-type fixture. Include single or double, vertical or horizontal, hub-and-spigot or hubless waste fitting as required for piping arrangement; faceplates; couplings with gaskets; feet; and fixture bolts and hardware matching fixture. Include additional extension coupling, faceplate, and feet for installation in wide pipe space. Provide cast iron closet nipple/coupling.
- C. Urinal Supports:
  - 1. Description: Type I, urinal carrier with fixture support plates and coupling with seal and fixture bolts and hardware matching fixture for wall-mounting, urinal-type fixture. Include steel uprights with feet.
  - 2. Accessible-Fixture Support: Include rectangular steel uprights.
- D. Lavatory Supports:



1. Description: Type II, lavatory carrier with concealed arms and tie rod for wall-mounting, lavatory-type fixture. Include steel uprights with feet.
2. Accessible-Fixture Support: Include rectangular steel uprights.

## 2.8 INTERCEPTORS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. Zurn Plumbing Products Group, model Z-1184.
  2. Josam.
  3. J. R. Smith.
- B. Sediment Interceptors:
  1. Description: Manufactured unit with removable screens or strainer and removable cover; designed to trap and retain waste material.
    - a. Material: carbon-steel body with acid-resistant lining and coating with stainless-steel removable screen bucket.
    - b. Pipe Connections: NPS 2 (DN 50).
    - c. Removable screens must be accessible from the top of the interceptor without the use of any tools.

## 2.9 WATER CLOSETS

- A. Water Closets P1B: Adult ADA, Wall mounted, back outlet, top spud.
  1. Manufacturers: Subject to compliance with requirements, provide products by American Standard model Rapidway or comparable product by one of the following:
    - a. Kohler Co.
    - b. Sloan.
  2. Bowl:
    - a. Standards: ASME A112.19.2/CSA B45.1 and ASME A112.19.5.
    - b. Material: Vitreous china.
    - c. Type: Blowout.
    - d. Style: Flushometer valve.
    - e. Height: 17" handicapped complying with ICC/ANSI A117.1.
    - f. Rim Contour: Elongated.
    - g. Water Consumption: 1.28 gal. per flush.
    - h. Spud Size and Location: NPS 1-1/2 (DN 40); top.
    - i. Color: White.
  1. Flushometer Valve: (FV-1).
  2. Toilet Seat: 9500 SSC.
  3. Support: See "Fixture Supports" article.
  4. Water Sense Labeled.
- B. Water Closets P1A: Adult Standard, Wall mounted, back outlet, top spud.
  1. Manufacturers: Subject to compliance with requirements, provide products by American Standard model Rapidway or comparable product by one of the following:



- a. Kohler Co.
  - b. Sloan.
- 2. Bowl:
  - a. Standards: ASME A112.19.2/CSA B45.1 and ASME A112.19.5.
  - b. Material: Vitreous china.
  - c. Type: Blowout.
  - d. Style: Flushometer valve.
  - e. Height: 15" to top of bowl.
  - f. Rim Contour: Elongated.
  - g. Water Consumption: 1.28 gal. per flush.
  - h. Spud Size and Location: NPS 1-1/2 (DN 40); top.
  - i. Color: White or as selected by Architect.
- 3. Flushometer Valve: (FV-1).
- 4. Toilet Seat: 9500 SSC.
- 5. Support: See "Fixture Supports" article.
- 6. Water Sense Labeled

C. Water Closets P1A: Youth ADA, Wall mounted, back outlet, top spud.

- 1. Manufacturers: Subject to compliance with requirements, provide products by American Standard model Rapidway or comparable product by one of the following:
  - a. Kohler Co.
  - b. Sloan.
- 2. Bowl:
  - a. Standards: ASME A112.19.2/CSA B45.1 and ASME A112.19.5.
  - b. Material: Vitreous china.
  - c. Type: Blowout.
  - d. Style: Flushometer valve.
  - e. Height: 15" to top of bowl.
  - f. Rim Contour: Elongated.
  - g. Water Consumption: 1.28 gal. per flush.
  - h. Spud Size and Location: NPS 1-1/2 (DN 40); top.
  - i. Color: White or as selected by Architect.
- 3. Flushometer Valve: (FV-1).
- 4. Toilet Seat: 9500 SSC.
- 5. Support: See "Fixture Supports" article.
- 6. Water Sense Labeled

## 2.10 URINALS

A. Urinals: Wall hung, back outlet: P2 standard; P2A accessible.

- 1. Manufacturers: Subject to compliance with requirements, provide products by American Standard model Lynbrook or comparable product by the following:
  - a. Kohler Co.
  - b. Sloan.



2. Fixture:
  - a. Standards: ASME A112.19.2/CSA B45.1 and ASME A112.19.5.
  - b. Material: Vitreous china.
  - c. Type: Blowout.
  - d. Strainer or Trapway: Manufacturer's standard strainer with integral trap.
  - e. Water Consumption: 0.125 gal. per flush.
  - f. Spud Size and Location: NPS 1-1/4 (DN 20); top.
  - g. Outlet Size and Location: NPS 2 (DN 50); back.
  - h. Color: White.
3. Flushometer Valve: (FV-2).
4. Support: See "Fixture Supports" article.
5. Water Sense Labeled.

## 2.11 LAVATORIES

- A. Lavatories, P3, P3A: Wheelchair, vitreous china, wall mounted for public restrooms:
  1. Manufacturers: Subject to compliance with requirements, provide products by American Standard Lucerne or comparable products by the following:
    - a. Kohler Co.
    - b. Sloan.
  2. Fixture:
    - a. Standard: ASME A112.19.2/CSA B45.1.
    - b. Type: P3A & P3B shall be Wheelchair (ADA) accessible.
    - c. Nominal Size: Rectangular 20 by 18 inches (686 by 559 mm).
    - d. Faucet-Hole Punching: One hole.
    - e. Faucet-Hole Location: Top.
    - f. Color: White.
    - g. Mounting: Concealed arm carrier.
  3. Faucet: (LF-1).
  4. Support: ASME A112.6.1M, Type II, concealed-arm lavatory carrier with rectangular, steel uprights.

## 2.12 MOP SINK

- A. Mop Sink, P4:
  1. Manufacturers: Basis of Design Product: Subject to Compliance with requirements, provide Crane Plumbing, LLC/Fiat Products, Fiat Model TSB-3003, or a comparable product of one of the following:
    - a. Acorn Engineering Company.
    - b. Stern-Williams Co., Inc.
    - c. Florestone Products Co., Inc.
  2. Description: Flush-to-wall, floor-mounting, precast terrazzo fixture with rim guard.



- a. Shape: Rectangular.
- b. Size: 36 by 24 inches (915mm by 610 mm).
- c. Height: 12 inches (305 mm) with 6" dropped front.
- d. Tiling Flange: On all sides.
- e. Rim Guard: Stainless steel cap on all top surfaces.
- f. Color: Black and white marble chips.
- g. Faucet: Wall-Mounted Chicago Faucet 540-LD897SWXFCP.
- h. Drain: Grid with NPS 3 (DN 80) outlet.
- i. Wall Guards: Heavy gauge stainless steel on all walls.
- j. Mop Hangers: Provide four (4) hangers.
- k. Faucet: SF-1
  - 1) Number required: One
  - 2) Mounting: Wall

## 2.13 SINKS

### A. Classroom Sink (2-Compartment) P5:

1. Basis of Design Product: Subject to compliance with requirements, provide Just UA-ADA-1832-A or a comparable product by one of the following:
  - a. Advance Tabco.
  - b. Elkay Manufacturing Co.
2. Fixture:
  - a. Standard: ASME A112.19.3/CSA B45.4.
  - b. Type: Undermount.
  - c. Number of Compartments: Two.
  - d. Overall Dimensions: 32" x 18"x 5-1/2".
  - e. Metal Thickness: 18 gauge.
  - f. Compartment (Each):
    - 1) Dimensions: 14" x 16" x 5-1/2"
    - 2) Drain: Just J-35, Stainless Steel Grid with NPS 1-1/2 (DN 40) tailpiece and twist drain.
    - 3) Drain Location: Near back of compartment.
  - g. Faucet Hole Punching: 3 hole, back.
3. Faucet: SF-2
  - a. Number Required: One.
  - b. Mounting: ON ledge.
4. Supply Fittings:
  - a. Standard: ASME A112.18.1/CSA B125.1.
  - b. Supplies: Chrome-plated brass threaded stop with inlet connection matching water-supply piping type and size.
    - 1) Operation: Loose key.
    - 2) Risers: NSP 1/2 (DN 15), chrome-plated, soft-copper flexible tube.
5. Waste Fittings:
  - a. Standard: ASME A112.18.2/CSA B125.2.
  - b. Trap(s):
    - 1) Size: NPS 1-1/2 (DN 40).
    - 2) Materials: Chrome-plated two-piece, cast-brass trap and swivel elbow with 0.032-inch (0.83-mm thick brass tube to wall and chrome-plated brass or steel wall flange.
    - 3) Material: Stainless-steel, two-piece trap and swivel elbow with 0.012-inch- (0.30-mm) thick stainless-steel tube to wall; and stainless-steel wall flange.
  - c. Continuous Waste:
    - 1) Size: NPS 1-1/2 (DN 40).
    - 2) Material: Chrome-plated, 0.032-inch (0.83 mm) thick brass tube



B. Classroom Sink (1-Compartment) P5A:

1. Basis of Design Product: Subject to compliance with requirements, provide Just US-ADA-1824-A or a comparable product by one of the following:
  - a. Advance Tabco.
  - b. Elkay Manufacturing Co.
2. Fixture:
  - a. Standard: ASME A112.19.3/CSA B45.4.
  - b. Type: Undermount.
  - c. Number of Compartments: One.
  - d. Overall Dimensions: 24" x 18"x 5-1/2".
  - e. Meal Thickness: 18 gauge.
  - f. Compartment:
    - 1) Dimensions: 22" x 16" x 5-1/2"
    - 2) Drain: Just J-35, Stainless Steel Grid with NPS 1-1/2 (DN 40) tailpiece and twist drain.
    - 3) Drain Location: Near back of compartment.
  - g. Faucet Hole Punching: 3 hole, back.
3. Faucet: SF-2
  - a. Number Required: One.
  - b. Mounting: ON ledge.
4. Supply Fittings:
  - a. Standard: ASME A112.18.1/CSA B125.1.
  - b. Supplies: Chrome-plated brass threaded stop with inlet connection matching water-supply piping type and size.
    - 1) Operation: Loose key.
    - 2) Risers: NSP 1/2 (DN 15), chrome-plated, soft-copper flexible tube.
5. Waste Fittings:
  - a. Standard: ASME A112.18.2/CSA B125.2.
  - b. Trap(s):
    - 1) Size: NPS 1-1/2 (DN 40).
    - 2) Materials: Chrome-plated two-piece, cast-brass trap and swivel elbow with 0.032-inch (0.83-mm thick brass tube to wall and chrome-plated brass or steel wall flange.
    - 3) Material: Stainless-steel, two-piece trap and swivel elbow with 0.012-inch-(0.30-mm) thick stainless-steel tube to wall; and stainless-steel wall flange.
  - c. Continuous Waste:
    - 1) Size: NPS 1-1/2 (DN 40).
    - 2) Material: Chrome-plated, 0.032-inch (0.83 mm) thick brass tube

C. Art Sink (1-Compartment) P5B:

1. Basis of Design Product: Subject to compliance with requirements, provide Just US-ADA-1824-A or a comparable product by one of the following:
  - a. Advance Tabco.
  - b. Elkay Manufacturing Co.
2. Fixture:
  - a. Standard: ASME A112.19.3/CSA B45.4.
  - b. Type: Undermount.
  - c. Number of Compartments: One.
  - d. Overall Dimensions: 24" x 18"x 5-1/2".
  - e. Meal Thickness: 18 gauge.
  - f. Compartment:
    - 1) Dimensions: 22" x 16" x 5-1/2"
    - 2) Drain: Just J-35, Stainless Steel Grid with NPS 1-1/2 (DN 40) tailpiece and twist drain.



- 3) Drain Location: Near back of compartment.
    - g. Faucet Hole Punching: Single hole, back.
  - 3. Faucet: SF-3
    - a. Number Required: One.
    - b. Mounting: ON ledge.
  - 4. Supply Fittings:
    - a. Standard: ASME A112.18.1/CSA B125.1.
    - b. Supplies: Chrome-plated brass threaded stop with inlet connection matching water-supply piping type and size.
      - 1) Operation: Loose key.
      - 2) Risers: NSP 1/2 (DN 15), chrome-plated, soft-copper flexible tube.
  - 5. Waste Fittings:
    - a. Standard: ASME A112.18.2/CSA B125.2.
    - b. Trap(s):
      - 1) Size: NPS 1-1/2 (DN 40).
      - 2) Material: Chrome-plated to trap; Zurn Model Z-1180 top access solids trap with removable stainless steel bucket and chrome-plated brass or steel wall flange.
    - c. Continuous Waste:
      - 1) Size: NPS 1-1/2 (DN 40).
      - 2) Material: Chrome-plated, 0.032-inch (0.83 mm) thick brass tube
- D. Art Cleanup Sink (1-Compartment) P5C:
- 1. Basis of Design Product: Subject to compliance with requirements, provide Just USXDN-1830-A or a comparable product by one of the following:
    - a. Advance Tabco.
    - b. Elkay Manufacturing Co.
  - 2. Fixture:
    - a. Standard: ASME A112.19.3/CSA B45.4.
    - b. Type: Undermount.
    - c. Number of Compartments: One.
    - d. Overall Dimensions: 30" x 18" x 12".
    - e. Meal Thickness: 18 gauge.
    - f. Compartment:
      - 1) Dimensions: 28" x 18" x 12"
      - 2) Drain: Just J-35, Stainless Steel Grid with NPS 1-1/2 (DN 40) tailpiece and twist drain.
      - 3) Drain Location: Near back of compartment.
    - g. Faucet Hole Punching: 3 hole, back.
  - 3. Faucet: SF-2
    - a. Number Required: One.
    - b. Mounting: ON ledge.
  - 4. Supply Fittings:
    - a. Standard: ASME A112.18.1/CSA B125.1.
    - b. Supplies: Chrome-plated brass threaded stop with inlet connection matching water-supply piping type and size.
      - 1) Operation: Loose key.
      - 2) Risers: NSP 1/2 (DN 15), chrome-plated, soft-copper flexible tube.
  - 5. Waste Fittings:
    - a. Standard: ASME A112.18.2/CSA B125.2.
    - b. Trap(s):
      - 1) Size: NPS 1-1/2 (DN 40).
      - 2) Material: Chrome-plated to trap; Zurn Model Z-1180 top access solids trap with removable stainless steel bucket and chrome-plated brass or steel wall flange.



- c. Continuous Waste:
      - 1) Size: NPS 1-1/2 (DN 40).
      - 2) Material: Chrome-plated, 0.032-inch (0.83 mm) thick brass tube
- E. Cleanup Sink (1-Compartment) P5D:
  - 1. Basis of Design Product: Subject to compliance with requirements, provide Just USXDN-1830-A or a comparable product by one of the following:
    - a. Advance Tabco.
    - b. Elkay Manufacturing Co.
  - 2. Fixture:
    - a. Standard: ASME A112.19.3/CSA B45.4.
    - b. Type: Undermount.
    - c. Number of Compartments: One.
    - d. Overall Dimensions: 30" x 18"x 12".
    - e. Meal Thickness: 18 gauge.
    - f. Compartment:
      - 1) Dimensions: 28" x 18" x 12"
      - 2) Drain: Just J-35, Stainless Steel Grid with NPS 1-1/2 (DN 40) tailpiece and twist drain.
      - 3) Drain Location: Near back of compartment.
    - g. Faucet Hole Punching: 3 hole, back.
  - 3. Faucet: SF-2
    - a. Number Required: One.
    - b. Mounting: ON ledge.
  - 4. Supply Fittings:
    - a. Standard: ASME A112.18.1/CSA B125.1.
    - b. Supplies: Chrome-plated brass threaded stop with inlet connection matching water-supply piping type and size.
      - 1) Operation: Loose key.
      - 2) Risers: NSP 1/2 (DN 15), chrome-plated, soft-copper flexible tube.
  - 5. Waste Fittings:
    - a. Standard: ASME A112.18.2/CSA B125.2.
    - b. Trap(s):
      - 1) Size: NPS 1-1/2 (DN 40).
      - 2) Materials: Chrome-plated two-piece, cast-brass trap and swivel elbow with 0.032-inch (0.83-mm thick brass tube to wall and chrome-plated brass or steel wall flange.
      - 3) Material: Stainless-steel, two-piece trap and swivel elbow with 0.012-inch-(0.30-mm) thick stainless-steel tube to wall; and stainless-steel wall flange.
    - c. Continuous Waste:
      - 1) Size: NPS 1-1/2 (DN 40).
      - 2) Material: Chrome-plated, 0.032-inch (0.83 mm) thick brass tube
- F. Utility Sink P-11:
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Just Manufacturing Single Compartment Scullery Sink Model NSFB-124-12/12, or a comparable product by one of the following:
    - a. Elkay.
  - 2. Description: One-compartment, counter-mounting, self rimming, stainless-steel commercial sink fully undercoated to damper sound and prevent condensation.
    - a. Overall Dimensions: 27"W x 27"D x 48"H
    - b. Metal Thickness: 14 gauge, Type 304 (18-8) stainless steel.
    - c. Compartment:
      - 1) Dimensions: 24" x 24" x 12" deep.
      - a) Drain: Grid with NPS 1-1/2 (DN 40) tailpiece.



- b) Location: Center of compartment.
- d. Faucet: SF-1
  - 1) Number required: One
  - 2) Mounting: Wall
- e. Supplies: NPS 1/2 (DN 15) chrome-plated copper with loose-key, angle service stops. Chicago Model 1006-ABCP with supply risers.
- f. Waste Fittings:
  - 1) Standard: ASME A112.18.2/CSA B125.2.
  - 2) Material: NPS 1-1/2 (DN 40) chrome-plated, cast-brass P trap with clean-out; 0.045-inch (1.1-mm) thick tubular brass waste to wall; and wall escutcheons.

## 2.14 SUPPLY BOXES

- A. Cold Water Supply Box – P7:
  - 1. Manufacturers:
    - a. I.P.S. Corp, Model M1B1.
    - b. Oatey.
    - c. Guy Grey.
  - 2. Description: Recessed 304 Steel Box.
    - a. 8"L x 8"W x 4"D clear interior dimensions.
    - b. Vandal Resistant lock with Torx Screwdriver.
    - c. Concealed pivot pins hinge.
- B. Clothes Washer Box – P8:
  - 1. Manufacturers:
    - a. Guy Grey Model BB200TS.
    - b. Oatey.
    - c. I.P.S. Corp.
  - 2. Description: Recessed steel box, epoxy finish
    - a. Two-inch drain.
    - b. One-half inch CW and HW angle valves with hose end thread.
- C. Valve Box:
  - 1. Manufacturers:
    - a. MIFAB Model # MI-VBSS080806-VP or as approved equal.
  - 2. Description: Recessed Steel Box, epoxy finish.
    - a. One-quarter turn chrome valves.

## 2.15 DISH WASHER AIR-GAP FITTINGS

- A. Dishwasher Air-Gap Fittings:
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. B&K Industries, Inc.
    - b. Brass Craft Mfg. Co.; a Subsidiary of Masco Corporation.
    - c. Brasstech Inc.; Newport Brass Div.
    - d. Dearborn Brass; A Div. of Moen, Inc.
    - e. Geberit Manufacturing, Inc.
    - f. JB Products, a Federal Process Corporation Company.
    - g. Sioux Chief Manufacturing Company, Inc.
    - h. Watts brass & Tubular; a Division of Watts Regulator Co.
  - 2. Description: fitting suitable for use with domestic dishwashers and for deck mounting; with plastic body, chrome-plated brass cover; and capacity of at least 5 gpm (0.32 L/s);



and inlet pressure of at least 5 psig (35 kPa) at a temperature of at least 140 deg F (60 deg C). Include 5/8-inch – (16-mm) ID inlet and 7/8-inch (22-mm) ID outlet hose connections.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Examine roughing-in of water supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before plumbing fixture installation.
- B. Examine cabinets, counters, floors, and walls for suitable conditions where fixtures will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### **3.2 INSTALLATION**

- A. Assemble plumbing fixtures, trim, fittings, and other components according to manufacturers' written instructions.
- B. Install off-floor supports, affixed to building substrate, for wall-mounting fixtures.
  - 1. Use carrier supports with waste fitting and seal for back-outlet fixtures.
  - 2. Use carrier supports without waste fitting for fixtures with tubular waste piping.
  - 3. Use chair-type carrier supports with rectangular steel uprights for accessible fixtures.
- C. Install back-outlet, wall-mounting fixtures onto waste fitting seals and attach to supports.
- D. Install floor-mounting fixtures on closet flanges or other attachments to piping or building substrate.
- E. Install wall-mounting fixtures with tubular waste piping attached to supports.
- F. Install counter-mounting fixtures in and attached to casework.
- G. Install fixtures level and plumb according to roughing-in drawings.
- H. Install water-supply piping with stop on each supply to each fixture to be connected to water distribution piping. Attach supplies to supports or substrate within pipe spaces behind fixtures. Install stops in locations where they can be easily reached for operation.
  - 1. Exception: Use ball valves if supply stops are not specified with fixture. Valves are specified in Division 22 Section "General-Duty Valves for Plumbing Piping."
- I. Install trap and tubular waste piping on drain outlet of each fixture to be directly connected to sanitary drainage system.
- J. Install tubular waste piping on drain outlet of each fixture to be indirectly connected to drainage system.



- K. Install flushometer valves for accessible water closets with handle mounted on wide side of compartment. Install other actuators in locations that are easy for people with disabilities to reach.
- L. Install tanks for accessible, tank-type water closets with lever handle mounted on wide side of compartment.
- M. Install toilet seats on water closets.
- N. Install trap-seal liquid in dry urinals.
- O. Install faucet-spout fittings with specified flow rates and patterns in faucet spouts if faucets are not available with required rates and patterns. Include adapters if required.
- P. Install water-supply flow-control fittings with specified flow rates in fixture supplies at stop valves.
- Q. Install faucet flow-control fittings with specified flow rates and patterns in faucet spouts if faucets are not available with required rates and patterns. Include adapters if required.
- R. Install shower flow-control fittings with specified maximum flow rates in shower arms.
- S. Install traps on fixture outlets.
  - 1. Exception: Omit trap on fixtures with integral traps.
  - 2. Exception: Omit trap on indirect wastes, unless otherwise indicated.
- T. Install disposer in outlet of each sink indicated to have disposer. Install switch where indicated or in wall adjacent to sink if location is not indicated.
- U. Install escutcheons at piping wall ceiling penetrations in exposed, finished locations and within cabinets and millwork. Use deep-pattern escutcheons if required to conceal protruding fittings. Escutcheons are specified in Division 22 Section "Escutcheons for Plumbing Piping."
- V. Seal joints between fixtures and walls, floors, and countertops using sanitary-type, one-part, mildew-resistant silicone sealant. Match sealant color to fixture color. Sealants are specified in Division 07 Section "Joint Sealants."
- W. All valves on supplies shall have threaded connections. Compression style valves are prohibited.

### 3.3 CONNECTIONS

- A. Piping installation requirements are specified in other Division 22 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
- C. Ground equipment according to Division 26 Section "Grounding and Bonding for Electrical Systems."
- D. Connect wiring according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."



### 3.4 FIELD QUALITY CONTROL

- A. Verify that installed plumbing fixtures are categories and types specified for locations where installed.
- B. Check that plumbing fixtures are complete with trim, faucets, fittings, and other specified components.
- C. Inspect installed plumbing fixtures for damage. Replace damaged fixtures and components.
- D. Test installed fixtures after water systems are pressurized for proper operation. Replace malfunctioning fixtures and components, then retest. Repeat procedure until units operate properly.
- E. Install fresh batteries in sensor-operated mechanisms.

### 3.5 ADJUSTING

- A. Operate and adjust faucets and controls. Replace damaged and malfunctioning fixtures, fittings, and controls.
- B. Operate and adjust disposers and controls. Replace damaged and malfunctioning units and controls.
- C. Adjust water pressure at faucets and flushometer valves to produce proper flow and stream.
- D. Replace washers and seals of leaking and dripping faucets and stops.
- E. Install fresh batteries in sensor-operated mechanisms.

### 3.6 CLEANING

- A. Clean fixtures, faucets, and other fittings with manufacturers' recommended cleaning methods and materials. Do the following:
  - 1. Remove faucet spouts and strainers, remove sediment and debris, and reinstall strainers and spouts.
  - 2. Remove sediment and debris from drains.
- B. After completing installation of exposed, factory-finished fixtures, faucets, and fittings, inspect exposed finishes and repair damaged finishes.

### 3.7 PROTECTION

- A. Provide protective covering for installed fixtures and fittings.
- B. Do not allow use of plumbing fixtures for temporary facilities unless approved in writing by Owner.

**- END OF SECTION 22 40 00 -**



**SECTION 32 30 20**  
**COURTYARD FURNISHINGS - PLAY EQUIPMENT AND SHADE STRUCTURES**

**PART 1 – GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 RELATED WORK**

- A. Section 32 12 20 "Play Protective Surfacing"
- B. Section 32 30 00 "Site and Street Furnishings"

**1.3 DESCRIPTION OF WORK**

- A. This Section shall be used primarily as a standard of quality for equipment, materials and installation. Actual types of apparatus and materials shall be as noted on the drawings or as directed through the construction submittal/shop drawing process.
- B. Provide and install play equipment, resilient playground surfacing material, pre-engineered shade structures, boulders, planter boxes and as indicated on drawings, complete with all fasteners, supports and related footings, concrete curb, substrates and storm drain facilities.
- C. Provide shop drawings of bridge and "step up" complete with fasteners, supports and related footings, concrete curb, substrates and storm drain facilities
- D. Final color selection shall be confirmed by Owner during Shop Drawing review and shall be from manufacturer's full range of available standard and custom colors.

**1.4 QUALITY ASSURANCE**

- A. Safety Requirements: All playground equipment and layout of the structures, play surface, edging and other site features shall be installed per the manufacturer's specifications and shall comply with the most current versions of the following standards, guidelines, and regulations:
  - 1. US Consumer Product Safety Commission (US CPSC) Guidelines: Handbook for Public Playground Safety.
  - 2. American Society for Testing and Materials F1487, Standard Consumer Safety Performance Specification for Playground Equipment for Public Use.
  - 3. 2010 Americans with Disabilities Act, Standards for Accessible Design.
- B. Play equipment manufacturer(s) shall be ISO 9001/2000 certified and shall show IPEMA certification of compliance for each component that the product conforms with the requirements of ASTM F1487-07ae1.
- C. Installation of all equipment and structures shall be performed by an installer authorized and approved by the Manufacturer.

**1.5 SUBMITTALS**

- A. Product Data: Submit Manufacturer's technical data for materials, including catalog information for major components, anchors, fasteners and other accessories along with information on color and finishes. Provide Manufacturer's standard installation procedures.
  - 1. Submit recycled-content data, designating percentages of post-consumer and pre-consumer recycled material for permanently installed equipment.



- B. Shop Drawings: Submit shop drawings indicating layout of specified components, details for anchoring and fastening of individual components, details of support and foundations, color of each component including fasteners, clamps, etc. and any other fabrication or erection information not fully described by the product literature and/or on the drawings.
  - 1. Shade Structures: In addition to the required submission items above, submit structural design of structural framework and foundation, signed and sealed by a registered engineer. Include wind and snow loading information. Design shall be in conformance with current, local building codes. Submit manufacturer's full range of color options for the frame and fabric.

## **PART 2 – PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Playground Equipment: As manufactured by Playworld, [www.playworld.com](http://www.playworld.com), 800.233.8404, Basis of this specification, or approved equal.
- B. Canopy Shade Structures: CRS Inc., [www.playlsi.com](http://www.playlsi.com), 888-221-1478, 763-972-5200. Basis of this specification, or approved equal.
- C. Pavilion Shade Structure: Poligon, [www.poligon.com](http://www.poligon.com), 616.888.3500. Basis of this specification or approved equal.
- D. Note that any proposed equal manufacturers must submit substitution request will all required back-up documentation, including product data and shop drawings of proposed equipment during the bidding process. If not approved during the bidding process, no alternate manufacturers will be permitted.

### **2.2 WARRANTIES**

Provide Manufacturer's standard warranty on main support components to cover structural failure due to corrosion, deterioration or defects in workmanship.

- A. Playground Equipment
  - 1. 100-Year Limited Warranty on all aluminum posts, stainless steel fasteners, clamps, beams and caps, against structural failure due to corrosion/natural deterioration or manufacturing defects.
  - 2. 15-Year Limited Warranty on all plastic components, all steel components (except 100-year steel posts), coated decks against structural failure due to material or manufacturing defects.
  - 3. 10-Year Limited Warranty on concrete products against structural failure due to natural deterioration or manufacturing defects.
  - 4. 8-Year Limited Warranty on net climbers and climbing cables against defects in materials or manufacturing defects.
  - 5. 3-Year Limited Warranty on all other parts, i.e.: CableCore® products, swing seats and hangers, grills, Wiggle Ladders, Chain Ladders and Swing Chain, all rocking equipment,



gliders, PVC belting material, Seesaws, Wiggle Ring Bridge, etc., against failure due to corrosion/natural deterioration or manufacturing defects.

B. Shade Structures

1. 20-Year Limited Warranty on all steel components against structural failure due to material or manufacturing defects.
2. 10-Year Limited Warranty on fabric and thread against failure from significant fading, deterioration, breakdown, mildew, outdoor heat, cold or discoloration. Should the fabric need to be replaced under the warranty, manufacturer will ship a new fabric at no extra charge for the first six years, thereafter pro-rated at 18% per annum over the last four years.
3. 3-Year Limited Warranty on all other parts against failure due to corrosion/natural deterioration or manufacturing defects.

## 2.2 MATERIALS

A. Playground Equipment (Playworld, Design #P092618-13A by Playground Specialists Inc.)

1. Models: As specified on drawings.
2. Colors: To be selected by Owner.
3. G1 Material - All materials shall have a demonstrated record of durability in the playground or similar outdoor setting. All metals shall be painted, galvanized, or otherwise treated to prevent rust. Black steel is not acceptable.
4. G2 Hardware All required hardware for assembly of the structure shall be included. All fasteners shall be yellow zinc di-chromate plated steel or 18-8 grade stainless steel (300 series). Capped lock nuts, which cover bolts ends, shall be included. Tamper-resistant hardware is utilized on principle clamping mechanisms. Special tools are provided for assembly and maintenance. Clamp connection disassembly and using drive rivets eliminates slippage. Physical locking devices are used on all exposed and accessible connection points, such as lock nuts. A nylon thread-locking patch is applied to certain hardware. Liquid thread- lock is also used to hinder fastener removal.
5. G3 Die Cast Clamps Clamps shall be die cast of high strength 380 aluminum alloy. Tenzalloy (40-E, 315.0) is not acceptable as a load bearing clamp material. Ultimate tensile strength shall be 47 ksi. Die casting operation shall be quality sampled every hour. Clamps shall be provided as hinged assemblies to facilitate structure assembly. Unique s-lap design eliminates all string entanglement points at connection. Single bolt-fastening system with built-in threads to eliminate t-nuts and simplify installation. Clamps are to be permanently fastened to the support post with a drive rivet to eliminate disassembly and slippage. Doublebanded design provides the highest clamping pressure around the entire clamp. Finished with a shot blast and a polyester powder coating. ASTM Specifications: B-85 (see section G7). Two-piece clamps or clamping devices that use a "bolt though" design are not acceptable.
6. G4 Rotationally Molded Plastic Parts Shall be rotationally molded from color-compounded, first quality, linear low density, Exxon CP-812 polyethylene. Dry-blended or molded-in resins are not acceptable. Color-compounded polyethylene is 23 times stronger than dry blended resins providing better-bonded strength with greater surface contact. Compounded color provides superior colorfastness, UV-resistance, and impact resistance with solid color molecules. Polyethylene shall be ultraviolet (UV) stabilized to UV-8 and have anti-static additives. Cross-sectional design shall be .25" (6 mm) nominal thickness, double wall construction. ASTM Specifications: D-1238 (Melt Index), D-1505 (Material Density), D-638 (Tensile



Strength), D-648 (Heat Distortion Temperature) D-790 (Flexural Modulus), D-1693 (Environmental Stress Crack Resistance), D-2565 (Ultraviolet).

7. Sheet Plastic Parts Shall be 3/4" thick, high density polyethylene formulated for UV stability and color retention. Sheet plastic shall be compression molded meeting ASTM D1505 having a density of .933 G/cc. Plastic shall meet ASTM D636 having a tensile strength of 2400 psi. After machining process, all edges shall be free of burrs and/ or sharp edges and points.

8. Tubing: *Steel Tubing*

Tubing shall be cold rolled, electric resistance welded tubing. Tubing shall be triple coated for maximum exterior protection:  
Hot-dipped Flo-Coat® uniform zinc galvanized coating. Chromate conversion coating. Clear polymer coating. Tubing shall have a corrosion resistant zinc-rich paint interior coating.

ASTM Specifications: A-135, A-500, A-513, E-8. 5" outside diameter x 11ga. tubing (Posts) Tensile strength shall be 55,000 psi.

Yield strength shall be 50,000 psi. 1.029" outside diameter x 14 ga. tubing Tensile strength shall be 55,000 psi.

Yield strength shall be 50,000 psi. 1.315" outside diameter x 14 ga. tubing Tensile strength shall be 75,000 psi.

Yield strength shall be 60,000 psi. 2.375" outside diameter x 12 ga. tubing Tensile strength shall be 75,000 psi.

Yield strength shall be 60,000 psi.

*Aluminum Tubing (Posts)*

Shall be extruded 6061-T6 extruded seamless aluminum tubing.

ASTM Specifications: A-315, A-500, A-513, B-221, QQ-A-200/8, E-8. Tubing shall be 5" outside diameter x .125 wall thickness tubing.

Tensile strength shall be 38 ksi. Yield strength shall be 35 ksi.

9. Epoxy/Polyester Primer: Epoxy/Polyester Primer is a powder coating which is electrostatically applied at a thickness of .002"-.005" (2 to 5 mils). It produces a finish having a "tooth", which readily accepts the proceeding coating of Superdurable polyester powder. This primer coating adds an additional level of protection, which is resistant to abrasion, corrosion, and mechanical damage. All components shall be free of excess weld and weld spalls. All edges to be eased by tumbling or other means to eliminate

a sharp edge. After fabrication, all weld joints are thoroughly cleaned using a chipping hammer and wire brush to remove all weld slag from the weld joint. Prior to finishing, components shall be cleaned with a three-stage alkaline bath, and an ECLPS 2400 sealer for adhesion and rust inhibitor during the preparation process.

Components are thoroughly dried before being coated with the Epoxy/Polyester Primer powder, and are set cured at temperatures between 375° and 400° F (190° and 204° C) through an infrared oven prior to being top coated with Superdurable polyester powder finish.

10. Superdurable Polyester Powder Coat Finish: Powder coating is electrostatically applied at a thickness of .002" - .005" (2 to 5 mils). Powder coating produces a highly decorative finish having a hard, smooth surface, which is resistant to abrasion, corrosion, and mechanical damage. All galvanized tubing has a factory-applied clear acrylic polymer coating. All components shall be free of excess weld and weld spalls. After fabrication all weld joints are to thoroughly cleaned using a chipping hammer and wire brush to remove all weld slag from weld joint. Prior to finishing, components shall be cleaned with a three-stage alkaline bath and a ECLPS 2400 sealer for adhesion and rust inhibitor during the preparation process. Components are thoroughly dried before being coated with Superdurable TGIC polyester powder and are cured at temperatures between 375° and 400° F. Epoxy or hybrid paints are not acceptable.



Finish quality conforms to ASTM Specifications: B-117 (Salt Spray Resistance Test), D-2794 (Impact Resistance Test), D-1734 (Mandrel Flexibility Test), D-2247 (Humidity Resistance Test), D-822 (Weatherability Test), D-3363 (Pencil Hardness Test), D-3359-B (Crosshatch Adhesion Test), and D-2454 (Overbake Resistance Test) D-522 (Conical Mandrel), D-523 (Gloss - 60°). Standard durability of polyester powder coatings typically retain 80% of their original gloss after 1 year, and 50% of their original gloss after 18 months of Florida outdoor exposure. Superdurable polyester powder coatings typically retain 90% of their original gloss after 1 year, and 50% of their original gloss after five years of Florida outdoor exposure. Expect superdurable colors to retain 80% of their gloss after 2 years of outdoor exposure. These coatings are also shaded with high grade, light stable pigments and will shift less than 2dE in color after 2 years.

11. G9 Eco-Armor®: Coated application shall be from 45 to 55 mils on the wear surfaces of all coated parts and 30 mils on other surfaces. Prior to coating, components shall be thoroughly cleaned in a hot pressure washer then heated to 450°. The hot part is then dipped into a polyethylene copolymer-based thermoplastic powder until the coating reaches its target thickness. It then goes through a flow oven to even the coating thickness and improve the finish. Since no curing is necessary, the coating's properties and performance are very consistent and uniform.

Environmentally Sensitive - PVC-free and phthalate-free. Coating is made of an ultraviolet stabilized polyethylene (PE) material. Coating meets California, Washington and other state and federal requirements for phthalates and heavy metal content. No dioxins produced if burned. Discarded product and waste production material can be recycled into other products (recycling symbol 2). Contains no volatile organic compounds (VOC's). Taber abrasion tests (ASTM D4060) show that the PE coating abrasion resistance is over 1.7 times the abrasion resistance of PVC. Warranty is the same as PVC coated products.

Durable - extreme cold (to -20° F) cycle testing indicates no cracking or loss of adhesion to the metal substrate. Less porous than PVC, which makes the surface less conducive to growth of mold and collection of ground-in dirt. Easier to clean.

Slip-Resistant - textured finish for enhanced traction. 0.74 coefficient of friction per ASTM1679. ADA considers a 0.5 coefficient of friction or higher to be slip resistant. Coating damage can be repaired easily with the available repair kit. No chemicals or special curing required.

Technical Specifications - skid-resistant, textured, functionalized polyethylene copolymer-based thermoplastic powder coating designed for maximum mechanical performance, impact resistance and UV stability with the following performance properties: Property - Testing Method- Results Flexibility (conical mandrel) - ASTM D 522 - 1/8", no cracks (greater than 32%) Adhesion - ASTM D 4541 - 800 psi Impact Resistance - ASTM D 2794 - greater than 320 in-lbs Gloss - ASTM D 523 - 12 Taber Abrasion - ASTM D 4060 - 26 (mg loss, CS 17 wheel) Tensile Strength - ASTM D 638 - 3482 psi% Elongation - ASTM D 638 - 13% Humidity Resistance - ASTM D 2247 - No blistering or loss of gloss after 1000 hours Salt Spray - ASTM B 117 - 2000 hrs, no significant change in color or gloss QUV - ASTM G 53 - 2000 hrs, no significant change in color or gloss.

12. G10 Coated Decks Coated Decks shall be an all welded assembly fabricated of 12 gauge sheet steel. Deck surface and sides shall be die formed from a single sheet of 12 gauge hot rolled, pickled and oiled flat steel. The deck surface shall have .34 in.



(9mm) diameter perforated holes. The entire weldment shall have a protective coating. (See Eco-Armor.)

13. Installation Instructions Explicit installation instructions shall be provided, which will include a detailed top view and footing drawings plus written instructions to assure proper installation of the equipment. Maintenance guidelines and inspection checklists shall also be provided. The provided installation instructions and maintenance instructions shall be "project" specific containing component information that is part of the playground design. A "generic" package of installation instruction and maintenance instructions is not acceptable.

B. Shade Structures

1. Pavilion as manufactured by Polygon, [www.polygon.com](http://www.polygon.com), or approved equal:
  - a. Pavilion, Model #MSX-26-30, 26'x30'-foot rectangular, 90" clear height at low side, Finish: Metal Roofing 24 Gauge, Galvanize Coated, Kynar 500 Painted. Color to be selected by Owner. Contractor to provide selections
2. Canopy as manufactured by CRS Inc., or approved equal:
  - a. CRS 14' Hawaii Model, 14-foot span. Color to be selected by Owner. Contractor to provide selections



## **PART 3 – EXECUTION**

### **3.1 INSPECTION**

- A. The Contractor is responsible for verification of existing site conditions. The Installer and Owner's Representative shall examine the area and conditions under which the playground equipment and site furnishings will be installed. Do not proceed until all conditions, which would be detrimental to the installation, are corrected.

### **3.2 INSTALLATION**

- A. Install the playground furnishings in accordance with the Manufacturer's recommended procedures and installation sequence. All equipment shall be rigid, straight, plumb and level. Secure all equipment with Manufacturer's fastening devices.
- B. All equipment shall be installed by an experienced and qualified playground equipment installer certified by the equipment manufacturer.
- C. All proposed improvements shall be staked out by the contractor, and approved by the Owner's Representative prior to installation. The Contractor shall also identify and mark the location of all existing utilities prior to excavation. Refer to the plans and shop drawings for the exact configuration of each structure and the placement within the playground.
- D. The Contractor shall strip the top soil, excavate as detailed on the plans, grade the excavated area to a uniform 1-2% slope, remove any rocks (1" and over), debris, roots, vegetation, etc. from the playground area, scarify the exposed subgrade, bring to optimum moisture content, and roll with a sheep foot roller (10 ton only) to 95% of a maximum density, as per ASSHTO T99. If there are areas that cannot be accessed by the roller, a vibrator or hand tamper may be substituted.
- E. All playground equipment and layout of play equipment, play surface, edging and other site features (benches) shall be installed per the manufacturer's specifications and shall comply with the most current versions of the following standards, guidelines and regulations: American Society of Testing and Materials (ASTM), F1487 "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use"; the U.S. Consumer Product Safety Commission's "Handbook for Public Playground Safety"; and the Americans with Disabilities Act, including 36 CFR Part 1191, Playground Areas Final Ruling, Architectural and Transportation Barrier Compliance Board. All play equipment and components must be certified by the International Playground Equipment Manufacturers Association (IPEMA) that they meet all ASTM standards. Safety zones will be indicated on the plans for each project and shall be maintained at all times. Violation of these safety zones will be cause for rejection of the work. The footprint of the equipment ordered shall fit the footprint of the equipment as shown on the plans.
- F. The contractor shall survey and stake the layout of all edging, play equipment, play equipment use zones and other site features in the field prior to construction to ensure that equipment clearances and safety zones are adequate. Layout may be modified slightly during field review. Stakes shall remain in place during construction as guides for the finished work.
- G. Contractor shall erect a temporary chain-link construction fence around the playground area. This fence shall be a minimum 8' height above ground, and shall be closed and locked whenever Contractor leaves the site, for any reason, or for any amount of time. Fence shall be staked (concrete block) at maximum 12' intervals and shall include all the connecting hardware. Fence shall be maintained daily. Contractor will also place "Keep Out - Playground Under Construction" signs as needed around the construction area (minimum 3 per individual area or wherever the fence changes direction).



- H Foundations: All support holes shall be filled with concrete to the full-required depth. The top of the concrete shall be 6" below finished grade. All primary supports shall be temporarily supported until concrete has sufficiently cured.
- I. Fasteners: All in-place bolts shall be cut flush with the nut, and peened and filed. Self-locking nuts or other devices must be provided to prevent nut and bolt assemblies from loosening or coming apart.
- J. Welds: Ensure that all welds are protected with rust inhibiting paint.
- K. Metal Connectors: Secure with pins or spot welding to prevent loosening of the connection.
- L. Shade Structures (Alternate): Installation shall be per manufacturer's requirements and recommendations. Footing construction shall be per approved shop drawings. Structural steel shall be fabricated and erected in accordance with AISC specifications. Shop connections shall be welded by certified welders and per the latest edition of the American Welding Society specifications. All welds shall be performed using a minimum E70 electrodes or gas-metal arc

### 3.3 CLEAN-UP

- A. Remove all debris, excess materials, tools and excess excavation spoils from the project area and dispose of legally. Ensure all play equipment, furnishings and surfacing is clean, and free of dirt, markings and debris.

### 3.4 WASTE MANAGEMENT:

- A. Recycle waste materials in accordance with Division 1 "Construction Waste Management" and Disposal" requirements.

## END OF SECTION



**SECTION 32 30 30**  
**PLAYGROUND PROTECTIVE SURFACING**

**PART 1 GENERAL**

**1.1 SECTION INCLUDES**

- A. Protective surfacing for playground area.

**1.2 RELATED REQUIREMENTS**

- A. Section 32 13 13 Concrete Paving

**1.3 REFERENCE STANDARDS/TESTS**

- A. ASTM F1292 - Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment. Shock Absorbency- When tested in accordance with ASTM F1292-09 (or latest issue) Test Method F355, Procedure C (Metal Headform), the surface shall not impart to the headform upon impact, a peak deceleration exceeding 200 times the acceleration due to gravity (200G's) and shall not exceed 1000 Head Injury Criteria (HIC). Test submittals must clearly state that test was performed over the seam and anchoring system, and on the body of the tile. The drop height(s) used in this test shall be the height(s) as noted on the contract drawings.
- B. ASTM F1292 - Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment. Test for Weathering (Aging)- After being subject to fifty (50) freeze-thaw cycles in accordance with ASTM C67-11, "Freezing and Thawing", and after being subject to 200°F for 7 days in accordance with ASTM D573-04, "Rubber Deterioration in an Air Oven", the same sample shall be re-tested in compliance with ASTM F1292-09 at 72°F only. A peak deceleration reading not exceeding 200G's shall be maintained. HIC testing is not required for re-testing.
- C. ASTM F1487 - Standard Consumer Safety Performance Specification for Playground Equipment for Public Use.
- D. ASTM E303 - Slip Resistance. When using the "British Portable Skid Resistance Tester" in accordance with ASTM E303, the wet-dynamic reading shall not be less than 40.
- D. ASTM E648 - Flammability. When tested in accordance with ASTM E648, "Standard Test Method For Critical Radiant Flux Of Floor Covering Systems Using A Radiant Heat Energy Source", the material shall have a minimum critical radiant flux of 0.22 Watts/cm<sup>2</sup>
- E. CPSC Pub. No. 325 - Handbook for Public Playground Safety; Consumer Products Safety Commission.

**1.4 DEFINITIONS**

- A. Use Zone: The area beneath and immediately adjacent to a play structure or equipment (play event) that is designated for unrestricted circulation around equipment, and on whose surface it is predicted that a user would land when falling from or exiting the equipment.
- B. Critical Fall Height: The maximum fall height at which the protective surfacing meets the requirements of ASTM F1292.
- C. Fall Height: The vertical distance between the finished elevation of the designated play surface and the finished elevation of the protective surfacing beneath it as defined by ASTM F1487.
- D. Protective Surfacing: Resilient ground surfacing. The characteristics of the protective surfacing are based on the fall height of the playground equipment. Changes in either the surfacing or the



fall height, particularly reducing the resilience of the protective surfacing or increasing the fall height, will reduce safety-related performance.

## 1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: For all manufactured surfacing products, provide manufacturer's product data showing materials of construction, compliance with specified standards, installation procedures, and safety limitations.
  - 1. Include IPEMA certifications where required.
- C. Shop Drawings: Detailed scale drawings at  $\frac{1}{4}" = 1'-0"$  scale (unless otherwise specified by Project Manager) showing locations of existing playground equipment and exposed footings, bases, and anchorage points.
  - 1. Clearly identify the exact location of all play equipment, posts, springs, or other support systems.
  - 2. Show locations of underground utilities and storm-drainage system.
  - 3. Show locations of related construction such as walkways and roadways, fences, site furnishings, seatwalls, shade structure support, and plantings.
  - 4. Show actual size of modular tiles, size of transition pieces, size of cut pieces, if any; location of all mechanical anchors, rods or clips; type of adhesive to be used
  - 5. Show measured safety surfacing thickness based on the fall height for each playground equipment item, determined in accordance with ASTM F1487.
  - 6. Show Use Zone perimeters, determined in accordance with ASTM F1487.
  - 7. Show graphics and related colors.
  - 8. Show method of installation and transition to adjacent pavement.
- D. Samples: For approval and prior to installation, the Contractor shall submit two samples of each drop height specified of the safety surface material no larger than one foot by one foot (1' x 1') in size representing color, texture, composition and thickness proposed to be used, the drop height used, and the supporting certified test data showing that the material meets or exceeds the test requirements of this specification. In addition, all anchoring / attachment components and product literature for necessary adhesives which vary from preapproved adhesives shall be submitted for approval.
- E. Installer Qualifications: Installer must be trained and certified by the manufacturer. Installer's certification shall have current date and shall be on manufacturer's letterhead and it shall be submitted to the Construction Manager. The installer must also be experienced installing the specific type of playground safety surfacing. A copy of valid state contractor's license is required. A D-12 Synthetic Product license is mandatory.
- F. Installer shall submit a list of a minimum of five (5) projects completed in the past three (3) years. These projects shall be similar in size, color transition, graphic and degree of difficulty in installation. This submittal shall also include the names of the facility owners, their current telephone numbers and email addresses.
- G. Certification: Statement signed by an official authorized to certify on behalf of the manufacturer of the safety surfacing attesting that the surfacing meets the requirements of ASTM F 1292 for a head-first fall from the highest accessible portion of specified playground equipment.
- H. Material Safety Data sheets (MSDS) must be provided for all materials.
- I. Warrantee Against Shrinkage: The Contractor shall furnish a standard one-year manufacturer's warrantee, enhanced as follows: For three full years, starting from the date of Contract Final inspection, the Manufacturer agrees to reinstall or replace material which shrinks, creating a gap between mats of more than one-half ( $\frac{1}{2}"$ ) inch. Measurement shall be performed in an ambient temperature of 72° F + 5° F.
- J. Manufacturer's Recommended Installation, Maintenance, and Repair Instructions: For manufactured surfacing products, provide manufacturer's recommended maintenance



instructions and list of repair products, including adhesives, graffiti removal, etc. with address and phone number of source of supply.

K. Warranty documents as specified herein.

## 1.6 QUALITY ASSURANCE

- A. Maintain one copy of the latest edition of ASTM F1487 and CPSC Pub. No. 325 at project site.
- B. Manufacturer Qualifications: Company regularly engaged in manufacturing products specified in this section, with not less than five years of experience.
  - 1. Surfacing installed in minimum 10 sites and been in successful service minimum 5 years.
- C. Installer Qualifications: Demonstrated experience installing specific product; provide installer's company name and address, and training and experience documents.

## 1.7 PRE-INSTALLATION MEETING

- A. Coordinate with Section 32 30 20 – Courtyard Furnishings Play Equipment and Shade Structures.
- B. Convene a meeting one week before starting earthwork for playground to discuss coordination between various installers.
  - 1. Require attendance by personnel responsible for grading and installers of playground equipment, protective surfacing, footings, and adjacent work.
  - 2. Include representatives of Contractor and Owner.
  - 3. Notify Architect at least 2 weeks prior to meeting.

## 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, handle, and store protective surfacing to project site in accordance with manufacturer's recommendations.
- B. Store materials in a dry, covered area, elevated above grade.

## 1.9 WARRANTY

- A. Contractor shall submit to the Construction Manager the Manufacturer's warranty to repair or replace components of playground surface system if the failure is attributed to materials or workmanship within a period of FIVE (5) years from the date of acceptance of the work by the Commission.
  - 1. Failures include, but are not limited to, the following:
    - a. Reduction in impact attenuation.
    - b. Deterioration of surface and other materials beyond normal weathering.

# PART 2 PRODUCTS

## 2.1 MATERIALS

- A. Synthetic Turf: Safety surfacing shall be a 2' x 2' waffle-type compression molded virgin rubber mats with abrasion resistant surfacing and ribs underneath which provide an air entrained cushion. Compression molded synthetic rubber mats shall consist of a minimum one-quarter (1/4") inch thick abrasion resistant top membrane with a cushion-course rib system underneath. Material shall not have more than one-sixteenth (1/16") inch surface distortion and shall be of uniform specified color and appearance.
  - 1. Adhesives: Any variation from pre-approved adhesives must be submitted as per "Submittals". The following adhesives have been pre-approved for specific applications:
    - a. "Epoxygrout" 2 Part Epoxy as manufactured by U.S. Epoxy, Patchogue, NY, or approved equal, for plastic or rubber anchor to asphalt applications.



- b. Lord® Cyanoacrylate Adhesive as manufactured by Lord Chemical Products Corp., Cary, NC, or approved equal, for rubber to rubber applications. Cyanoacrylate adhesive is commonly known as “Superglue”, or “Crazy Glue”.
  - c. E-Grip III adhesive or approved equal
- 2. Thickness: Each material shall be of a thickness necessary to meet or exceed the standards and testing requirements as stated in this specification.
- 3. Color: Grass
- 4. Certification: Provide IPEMA certification of ASTM F1292 Critical Fall Height at thickness specified.
- 5. Product: “Playguard Turf Tile 2” as manufactured by Ecore, Inc.
- B. Poured-In-Place Safety Surfacing: Porous thermoplastic aliphatic polyurethane pebblewearing course over encapsulated recycled rubber or composite foam and rubber impact layer.
  - 1. Binder: Two-component aliphatic polyurethane.
  - 2. Thickness: The thickness of the material shall meet or exceed critical fall height requirements for the locations used, as established by the current editions of Publication No. 325, Consumer Product Safety Commission (CPSC) guidelines and American Society for Testing and Materials (ASTM F-1487) standards. The height and the type of the equipment will determine the safety surface thickness. Contractor to install safety surface based on playground equipment manufacturers requirements for each piece of equipment. Minimum resilient safety surface thickness to be 2-1/2”.
  - 3. Color: Five colors as selected from the Manufacturer’s full range of standard and custom colors.
  - 4. Certification: Provide IPEMA certification of ASTM F1292 Critical Fall Height at thickness specified.
  - 5. Product: Any variation from pre-approved surfaces must be submitted as per “Submittals”. The following materials have been pre-approved for specific applications
    - a. “PlaySpec EPDM” as manufactured by Playground Specialist Inc., Thurmont, MD.
    - b. “GT Impax” as manufactured by Game Time, Fort Payne, AL.

### **PART 3 EXECUTION**

#### **3.1 GENERAL**

- A. The safety surfacing shall be installed over a concrete base as shown on the Drawings and in accordance with MDSHA standard specification Section 520. The base shall be sloped to drain per the Drawings to ensure positive drainage. All installation procedures and recommendations of the safety surfacing manufacturer shall be followed.
- B. Contractor shall verify that finished elevations of adjacent areas are as indicated on the drawings, that the appropriate sub-grade elevation has been established for the particular safety surface to be installed, and that the subsurface has been installed in a true, even plane, and sloped to drain as indicated in drawings. Tolerance of concrete subsurface shall be within 1/8 Inch (3.0 mm) in 10 feet (3050 mm). No slope shall exceed 1.5% in any direction. See site plans for grading.
- C. Curing of Concrete: Contractor shall verify that concrete Sub-surface has cured and that all concrete curing compounds and other deleterious substances that might adversely affect adhesion have been removed. Surface shall be clean and dry.
- D. Safety surfacing shall be installed as soon as possible after the play equipment installation is complete. Play equipment shall be enclosed with a temporary 6’ high chainlink fence after installation of equipment until construction of the play area is complete and opened for public



use.

- E. Installation of safety surfacing shall be in accordance with Consumer Product Safety Commission (CPSC) guidelines, manufacturer's installation instructions, and shall comply with ADA.
- F. All safety surfacing shall either be flush with surrounding finish grade, or have a beveled perimeter transition piece along its entire open perimeter to allow for a smooth, easy transition between the surrounding finish grade and the level of the safety surfacing as shown on the Drawings.
- G. The contractor shall provide a supply of each color of surfacing as well as the necessary binding agent to the Construction Manager with clear directions and procedures for repairing the surfacing following the warranty period.

### 3.2 INSTALLATION OF SAFETY SURFACING LAYER

#### A. Synthetic Turf Mats

- 1. Installation must be by mechanical means of each individual tile.
- 2. Adhesives to hold small, cut pieces of mat to pavement surface are unacceptable. Adhesives are only to be used with anchoring devices, transition piece, or caps as described in "Adhesives".
- 3. Shop drawing shall clearly show that every piece is connected by mechanical means.
- 4. The installation shall be vandal resistant and be firmly secured so that it cannot be pulled up from the playground surface.
- 5. Mats shall have either:
  - a. All center tiles secured individually to the playground surface with vandal-resistant anchors, or
  - b. Mechanically locked together to prevent separation or removal of blocks from play area. The perimeter transition pieces shall be secured to the pavement with vandal-resistant anchors or approved adhesives.
- 6. Any anchoring system used shall not create "hard" spots within the surfacing which fails to meet test requirement No. 1 and ASTM 1292. All plugs shall be installed flush with or slightly recessed (1/8" maximum) below the rest of the surfacing; plugs shall not protrude above the surrounding surfacing.
- 7. All mats shall be installed so that they will be hand tight in hot weather. Necessary adjustments shall be made for installation in cool weather.
- 8. Where surfacing may cover a drain opening, the surfacing shall be drilled or slotted in a pattern matching the basin openings to allow for drainage. Where surfacing covers a basin or manhole, the Contractor shall drill six (6) one-quarter (1/4") inch holes at an angle of 45° providing a vent for the basin or manhole.
- 9. The Contractor shall furnish (furnish only, not install) an additional 100 (one hundred) fasteners to match product installed, shall either be rubber anchors with plastic disc and hardware or 6-inch-long rubber plugs or black acetyl joining rods. The color distribution of the additional fasteners shall be determined by the Owner.
- 10. The Contractor shall furnish (furnish only, not install) an additional 5 (five) full tiles to match product installed.

#### B. Poured-in-Place Safety Surfacing

- 1. Install product according to all manufacturer instructions.



2. Do not proceed with playground surfacing installation until all applicable site work, including substrate preparation, fencing, playground equipment installation and other relevant work, has been completed.
3. Installation Supervisor should select the appropriate binder measure for the mixing ratio required by the manufacturer. The mixer operator should then run the mixer unit until the correct mix is achieved - as confirmed by Installation Supervisor's visual inspection.
4. During installation, the mixer operator must ensure that the correct mixing ratios are maintained. It is imperative that binder measures/ratios are regularly checked by weighing and re-calibrated as necessary.
5. Allow basemat to cure for sufficient time so that indentations are not left in the basemat from applicator foot traffic or equipment. Do not allow foot traffic or use of the basemat surface until it is sufficiently cured.
6. Inaccessible areas should be installed by hand using a float.
7. Where a chase is required at the perimeter, the edge detail will also be completed by hand.
8. Before starting installation of the wearing layer, the Installation Supervisor should inspect the condition of the base layer. Any defects discovered should be rectified.
9. Installed depth should be checked regularly by use of a depth gauge – a minimum of one check per 10 square yards installed is recommended.
10. Poured-in-place shall be installed when the weather is at a temperature of 50° F or greater and rising and shall remain at 50° F or greater for at least 7 days after application. No installations can be made when the forecast calls for freezing temperatures, snow or rain. The area must be dry during the entire installation process.
11. The poured-in-place surfacing shall be allowed to fully cure in accordance with Manufacturer's instructions. The surface shall be protected by the Contractor from all traffic during the curing period of 48 to 72 hours or as instructed by the manufacturer. The poured-in-place shall be fully protected during installation and curing, and while unattended and/or from weather and other damage.
12. Installer shall evaluate and approve conditions of substrates and edge restraints prior to placing Poured-in-Place Rubber Safety Surfacing System. The Construction Manager shall inspect and approve the installation of the playground equipment prior to Contractor placing poured-in-place surfacing.
13. Manufacturer's Services: A manufacturer's representative, who is experienced in installation of playground safety surfacing, shall supervise the installation to ensure that the safety surfacing meets all requirements including the impact attenuation requirements as specified herein.

### 3.3 FIELD QUALITY CONTROL

- A. Owner or Owner's representative will inspect playground surfacing after installation to verify that surfacing is of proper type and depth and that playground meets specified design safety and accessibility requirements.
- B. Repair or replace rejected work until compliance is achieved.
- C. Owner reserves the right to make any additional tests it feels necessary, and the Contractor shall furnish material when needed for testing.

### 3.4 CLEANING AND PROTECTION

- A. Restore adjacent existing areas that have been damaged from the construction.



- B. Clean playground equipment of construction materials, dirt, stains, adhesives, filings, and blemishes due to shipment or installation. Clean in accordance with manufacturer's instructions, using cleaning agents as recommended by manufacturer.
- C. Clean playground area of excess construction materials, debris, and waste.
- D. Remove excess and waste material and dispose of off-site in accordance with requirements of authorities having jurisdiction.
- E. Protect installed products until Substantial Completion.

#### **PART 4 MEASUREMENT AND PAYMENT**

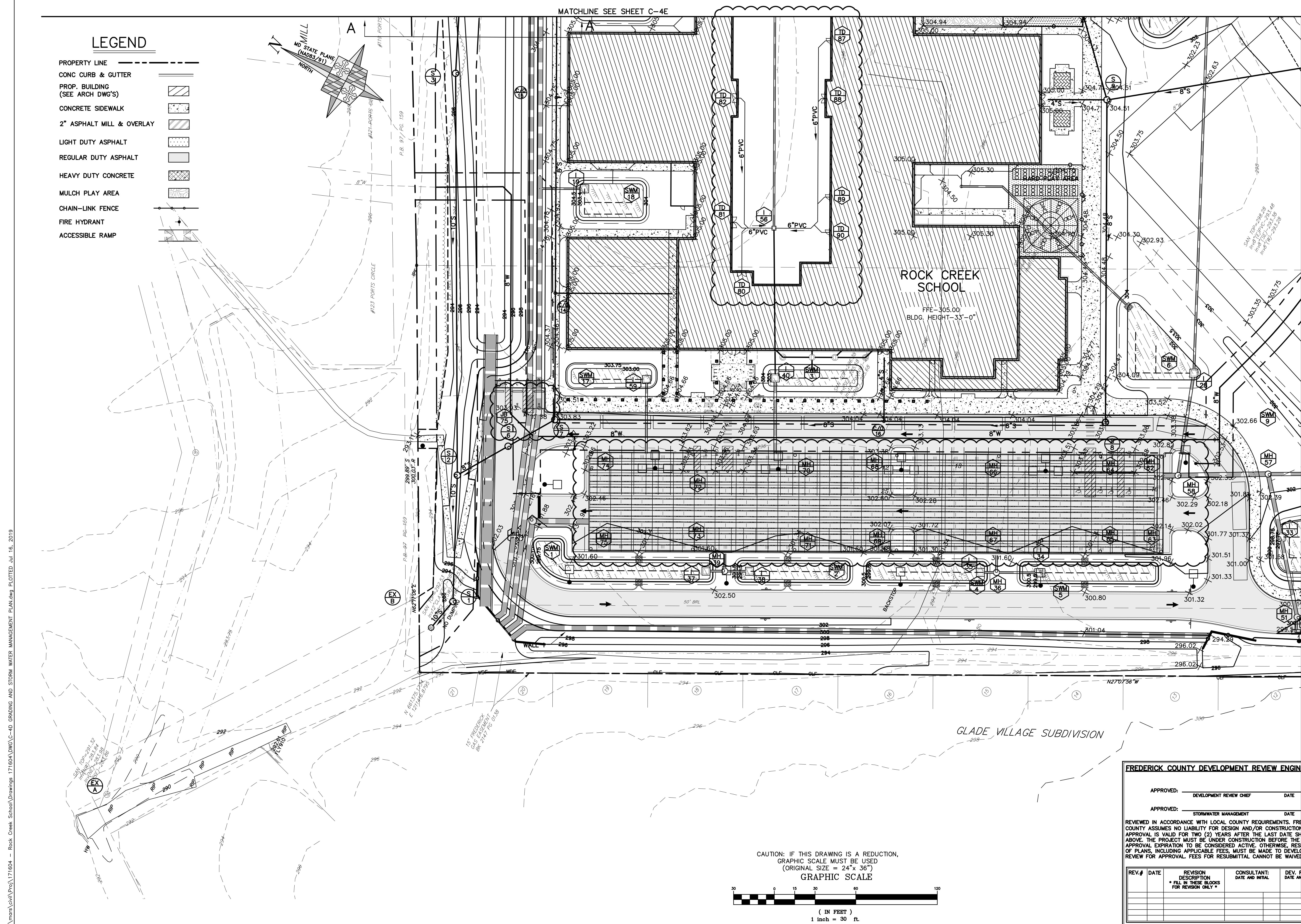
- A. The quantity of SAFETY SURFACING of various types to be paid for under this item shall be the number of SQUARE FEET furnished and installed in accordance with the plans and specifications. No deduction shall be made for cut surfacing removed for cross section of posts.
- B. The price bid shall be the unit price per SQUARE FOOT of each type and shall include the cost of all labor, materials and incidentals necessary to complete the work, in accordance with the plans and specifications.
- C. In addition, the Contractor shall deliver EXTRA MATERIALS as outlined above. No additional payment shall be made for extra materials. Contractor shall include cost in the bid price. Failure to supply EXTRA MATERIALS shall result in the County taking a credit of \$3,000.00 (Three thousand dollars).

**END OF SECTION**

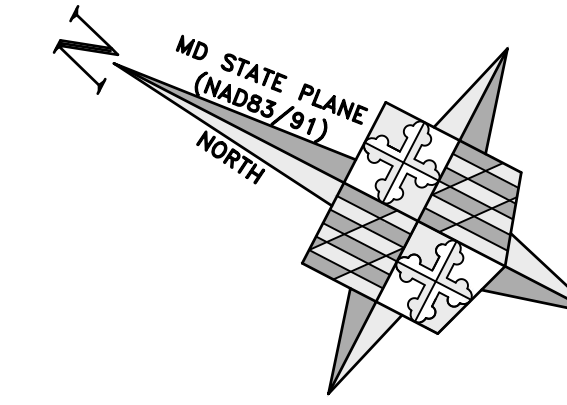
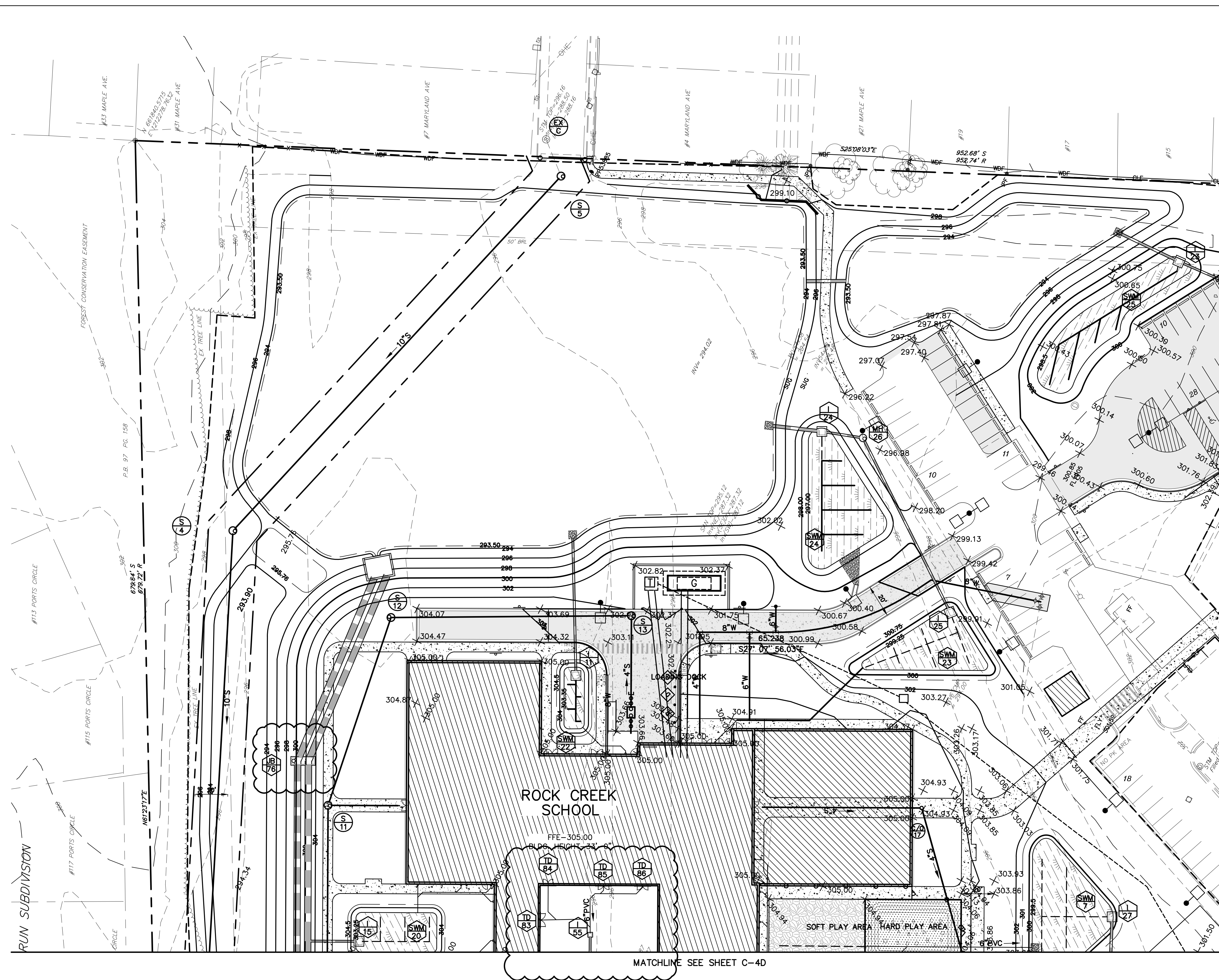












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**NEW FACILITY FOR:  
ROCK CREEK SCHOOL**  
FREDERICK COUNTY PUBLIC SCHOOLS  
55B WEST FREDERICK STREET  
WALKERSVILLE, MARYLAND 21793  
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PROJECT NO.: 2017171.00  
DATE: 07-01-2018

**GRADING AND  
STORM WATER  
MANAGEMENT PLAN**

C-4E

**Proffitt & Assoc.**  
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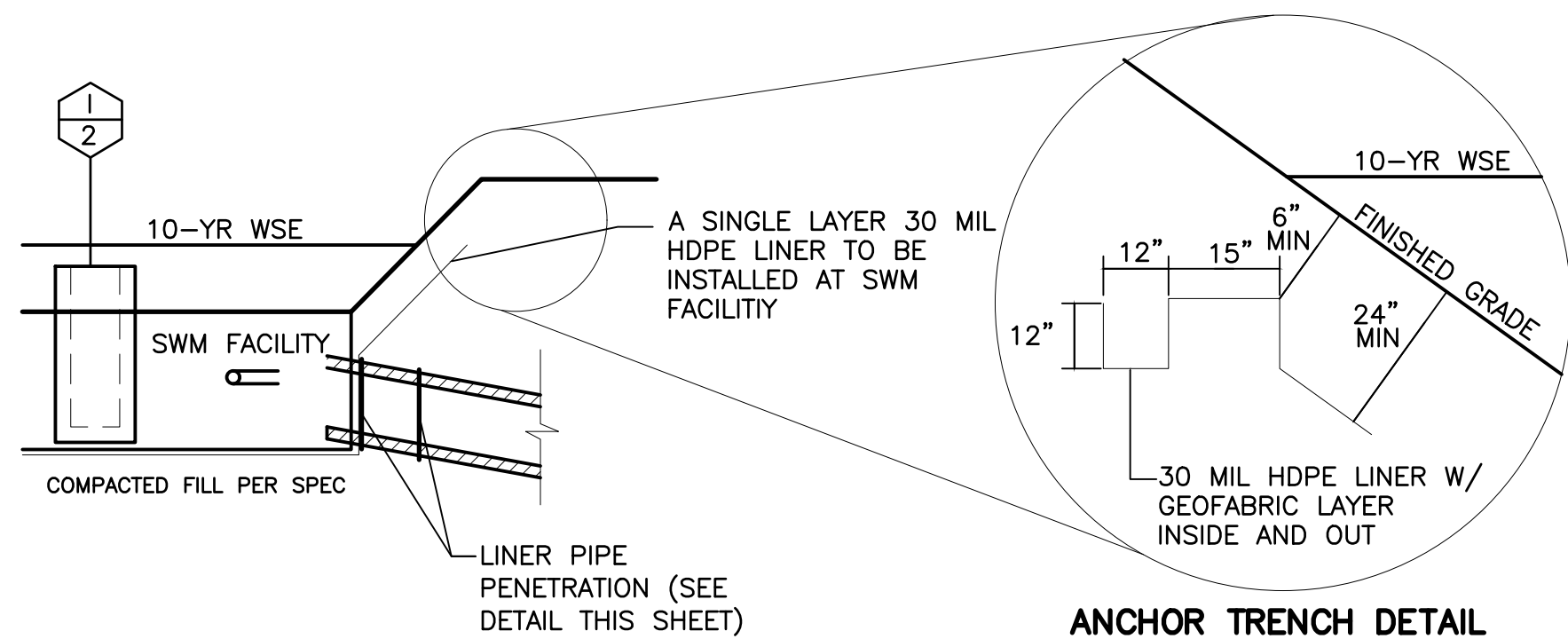
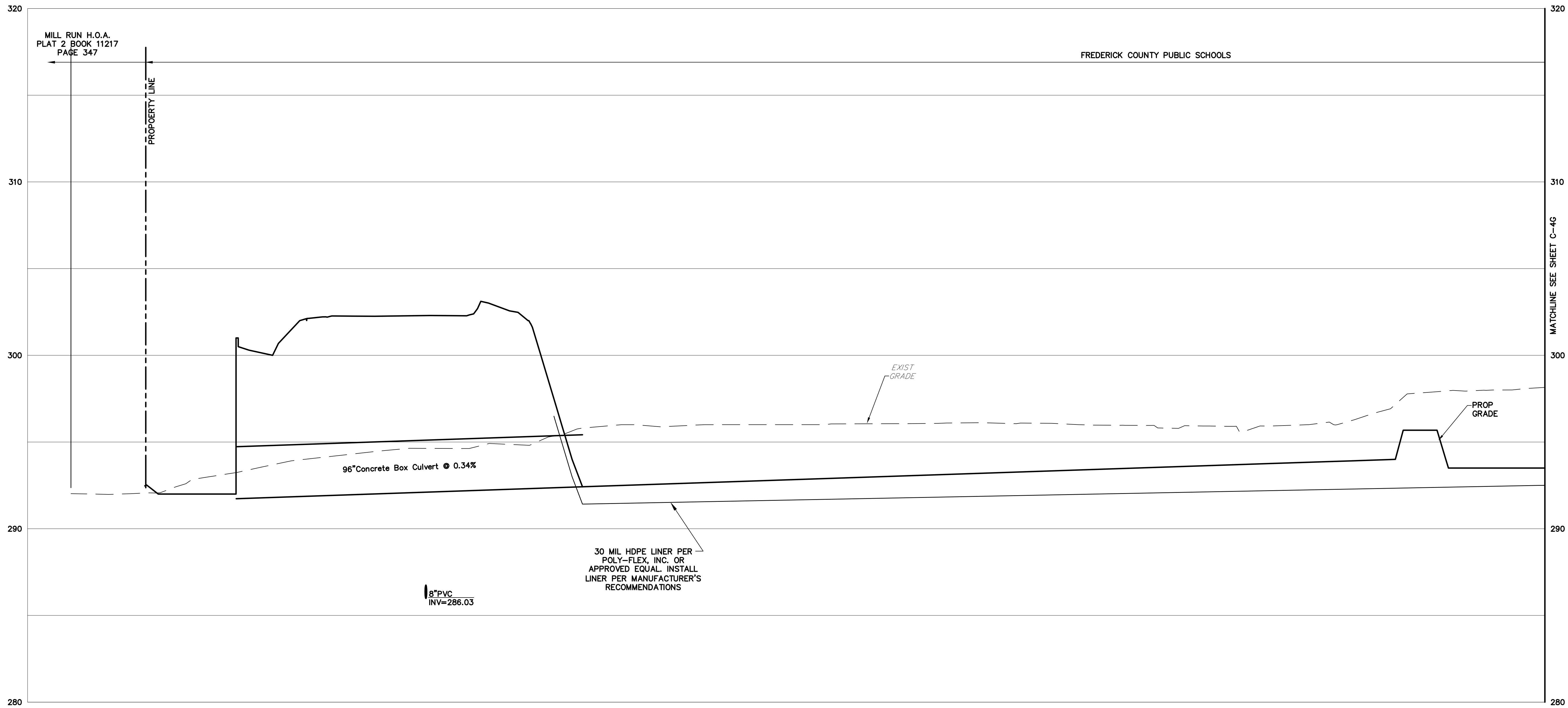
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REV	DATE	DESCRIPTION
	7/18/19	ADDENDUM 3

PROJECT NO.:	2017171.00
DATE:	07-01-2019
<p align="center"><b>GRADING AND STORM WATER MANAGEMENT PLAN</b></p>	

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\\mora\civil\Proj\171604 - Rock Creek School\Drawings\171604\DWG\C-4F STORM DRAIN PROFILES.dwg PLOTTED Jul 16, 2019



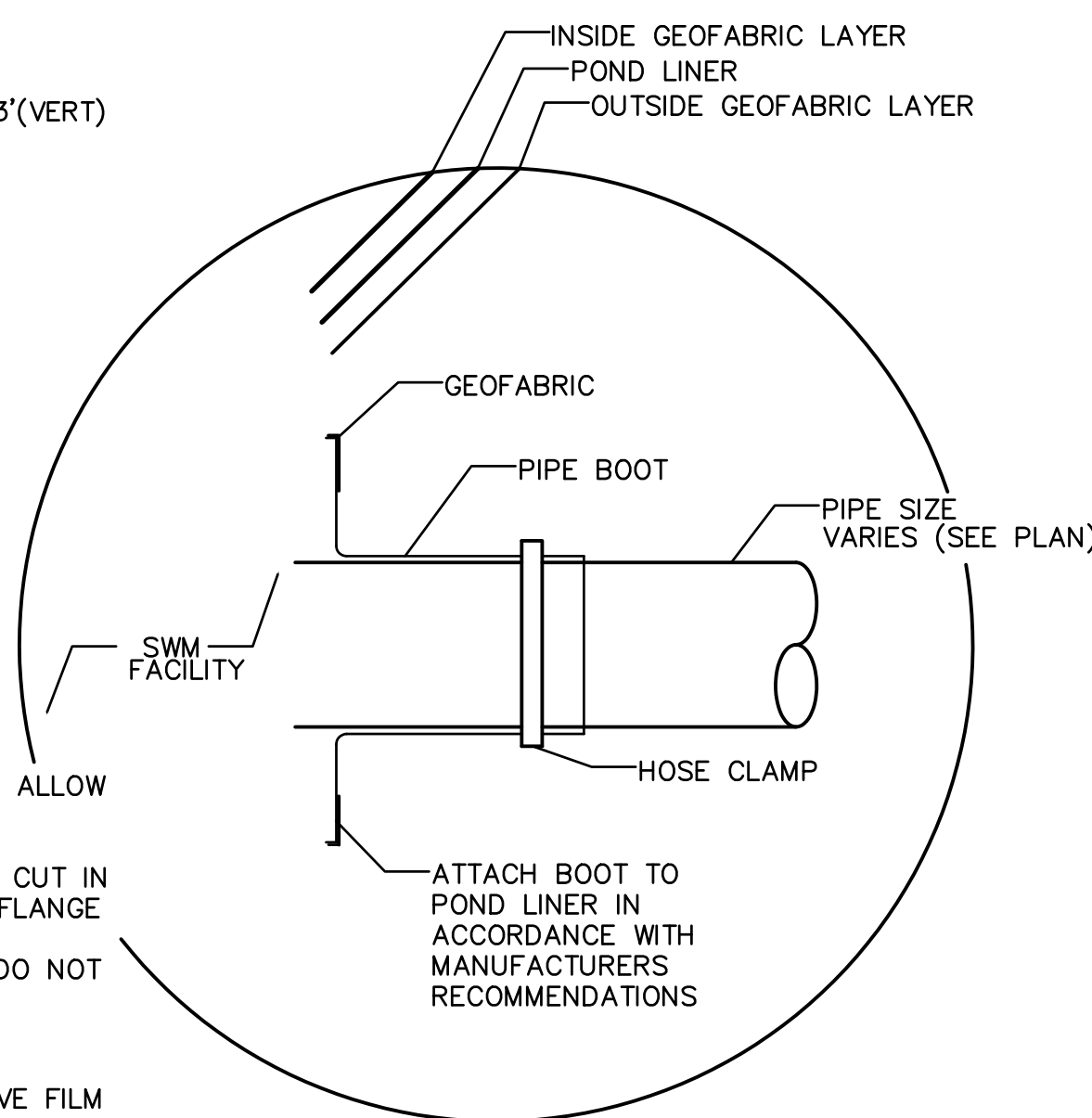
- NOTES:
1. TESTING SHALL BE PERFORMED AS SEAMING WORK PROGRESSES, NOT AT COMPLETION OF ALL FIELD SEAMING. ALL DEFECTS FOUND SHALL BE REPAIRED AND RETESTED.
  2. ALL GENERAL REQUIREMENTS, MATERIAL SPECIFICATIONS AND INSTALLATION PROCEDURES SHALL FOLLOW THE MANUFACTURE SPECIFICATIONS.

**1**  
**C-4F** LINER DETAIL  
NOT TO SCALE

#### TYPICAL PIPE PENETRATION PROCEDURE

1. AFTER INSTALLATION OF POND LINER, CAREFULLY CUT HOLE TO ALLOW PIPE TO SLIDE THROUGH LINER.
2. SLIDE BOOT OVER PIPE.
3. CAREFULLY CUT BOOT FLANGE BASE SO THAT IT EXCEEDS THE CUT IN THE LINER BY 4 TO 6 INCHES IN ALL DIRECTIONS. MAKE THE FLANGE SQUARE.
4. CLEAN LINER AND FLANGE. USE WATER, MEK, XYLENE, ETC. DO NOT USE SOAP.
5. MARK A LINE AROUND FLANGE AND REMOVE BOOT.
6. PLACE 2" WIDE DOUBLE SIDED TAPE ON LINER (BOTTOM VIEW DRAWING). BE SURE TO OVERLAP AT CORNERS BY 1/4". LEAVE FILM LAYER ON TOP OF TAPE. USE A RAG TO FIRMLY PRESS DOWN THE TAPE AND WORK OUT ANY WRINKLES.
7. REMOVE TOP FILM LAYER OF TAPE. REPLACE BOOT AND PRESS DOWN ON TO 2" DOUBLE SIDED TAPE AND WORK OUT WRINKLES.
8. PLACE JOINT WRAP COMPLETELY OVER EDGE OF BOOT, CENTERING ON THE SEAM.
9. PLACE BAND CLAMP ON BOOT RISER APPROXIMATELY 1" FROM TOP OF BOOT. TIGHTEN AND COVER WITH 4" SINGLE SIDED TAPE.

**STORM DRAIN BYPASS**  
SCALE: 1" = 30'(HORIZ) 1" = 3'(VERT)



**2**  
**C-4F** LINER PIPE PENETRATION DETAIL  
NOT TO SCALE

#### FREDERICK COUNTY DEVELOPMENT REVIEW ENGINEERING

APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
DEVELOPMENT REVIEW CHIEF

APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
STORMWATER MANAGEMENT

REVIEWED IN ACCORDANCE WITH LOCAL COUNTY REQUIREMENTS. FREDERICK COUNTY ASSUMES NO LIABILITY FOR DESIGN AND/OR CONSTRUCTION. APPROVAL IS VALID FOR TWO (2) YEARS AFTER THE LAST DATE SHOWN ABOVE. THE PROJECT MUST BE UNDER CONSTRUCTION BEFORE THE APPROVAL EXPIRATION TO BE CONSIDERED ACTIVE. OTHERWISE, RESUBMITTAL OF PLANS, INCLUDING APPLICABLE FEES, MUST BE MADE TO DEVELOPMENT REVIEW FOR APPROVAL. FEES FOR RESUBMITTAL CANNOT BE WAIVED.

REV.#	DATE	REVISION DESCRIPTION * FILL IN THESE BLOCKS FOR REVISION ONLY *	CONSULTANT: DATE AND INITIAL	DEV. REVIEW: DATE AND INITIAL

PROJECT NO.: 2017171.00  
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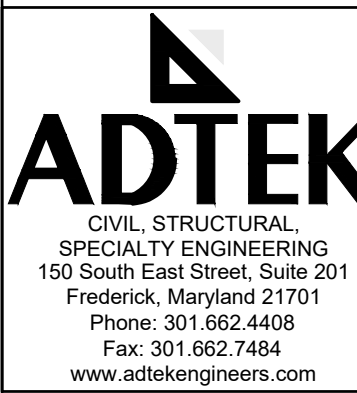
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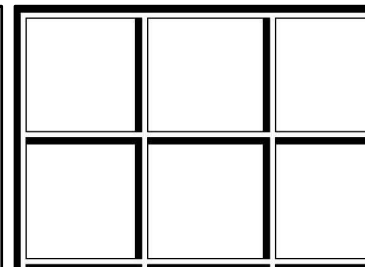
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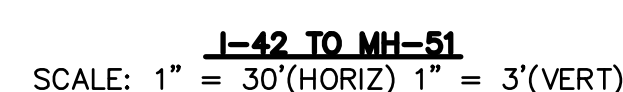
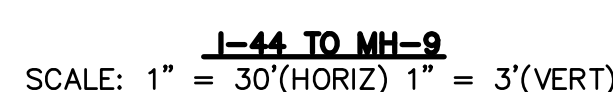
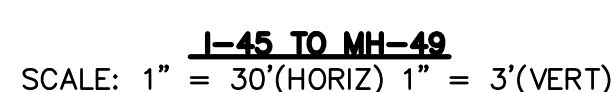
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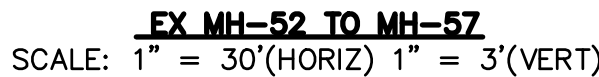
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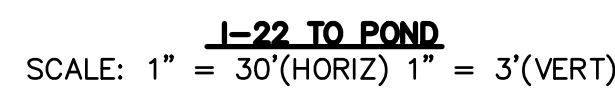
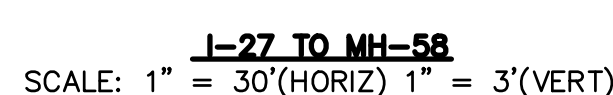
ISSUE	
DATE	DESCRIPTION
18/19	ADDENDUM 3

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PROJECT NO.:	2017171.00
DATE:	07-01-2019
STORM DRAIN PROFILES	

C-4M

[illegible]

NEW FACILITY FOR:  
**ROCK CREEK SCHOOL**  
FREDERICK COUNTY PUBLIC SCHOOLS  
558 WEST FREDERICK STREET  
WALKERSVILLE, MARYLAND 21793

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 EXPIRATION DATE 06-30-2004



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PROJECT NO.:	2017171.0
DATE:	07-01-2017
STORM DRAIN PROFILES	

C-4M

NEW FACILITY FOR:  
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FREDERICK COUNTY PUBLIC SCHOOLS  
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WALKERSVILLE, MARYLAND 21793

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\\mars\civil\Proj\171604 - Rock Creek School\Drawings 171604\DWG\C-4M STORM DRAIN PROFILES.dwg PLOTTED Jul 16, 2019



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PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
STORM DRAIN PROFILES

C-4N

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 EXPIRATION DATE 09 JUN 2021

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NEW FACILITY FOR:  
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LICENSE No. 44054

EXPIRATION DATE 09 JUNE 2021

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NEW FACILITY FOR:  
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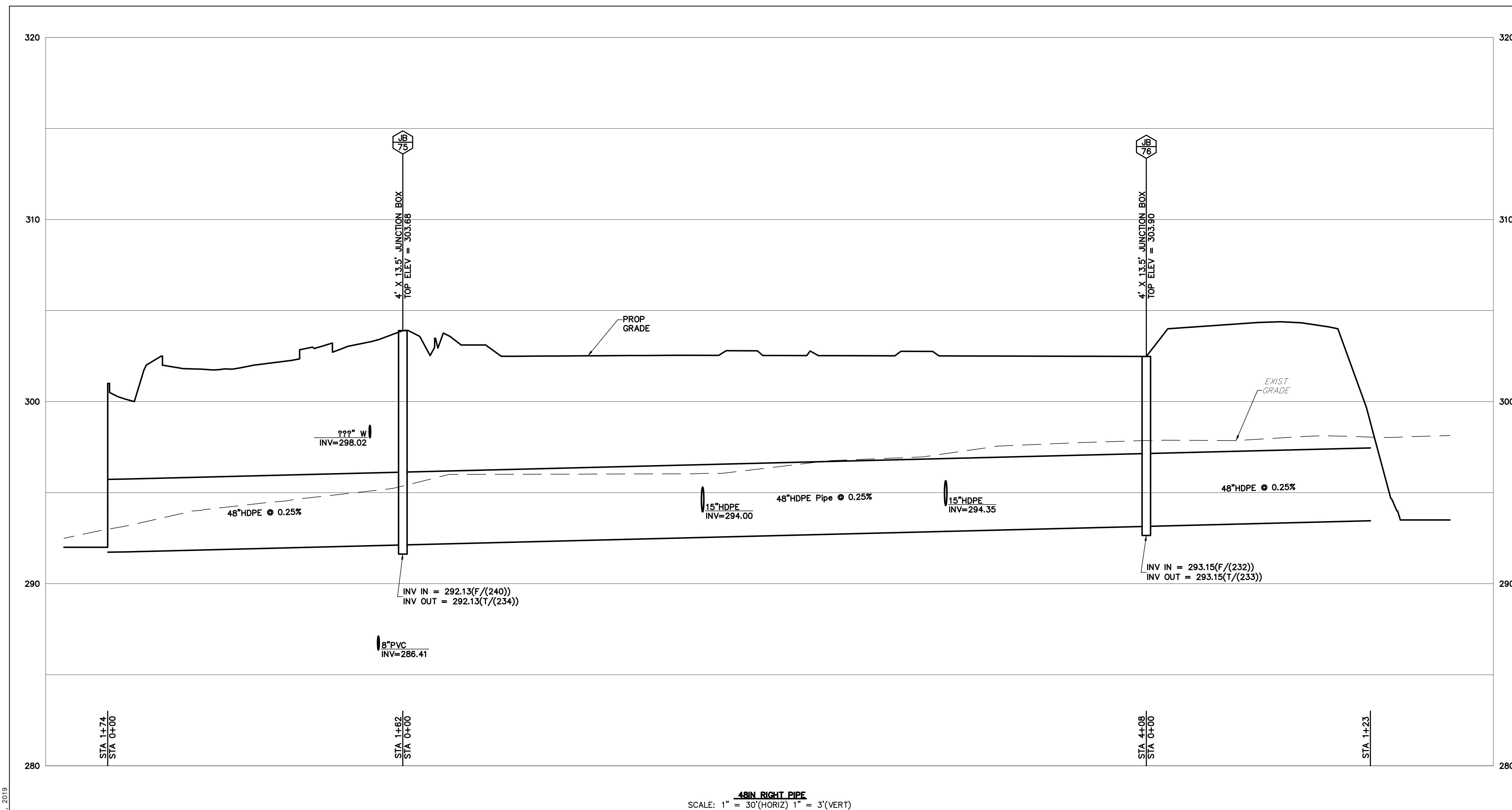
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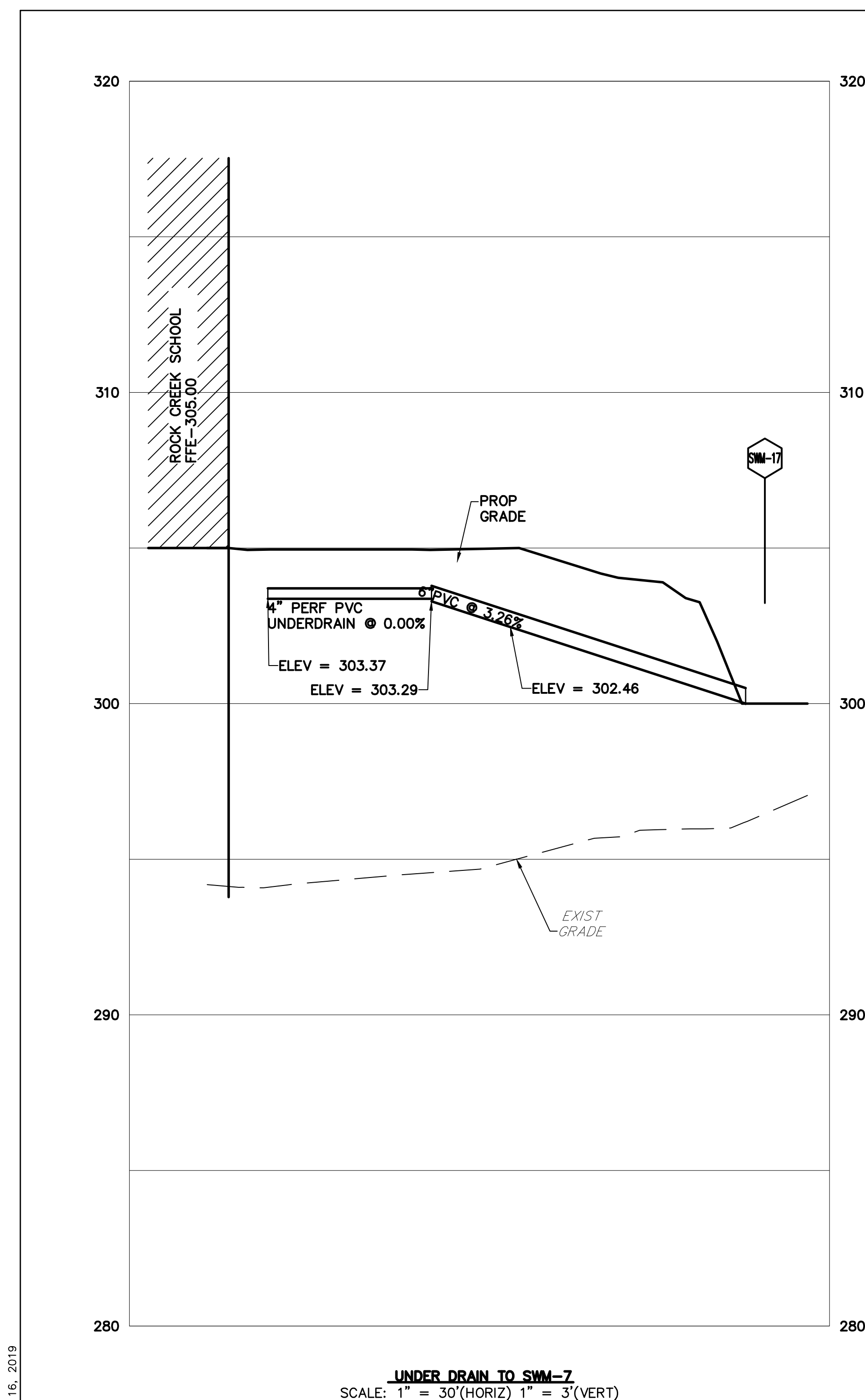
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DATE:	07-01-2019
STORM DRAIN PROFILES	

C-4N

















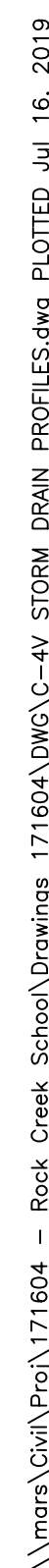












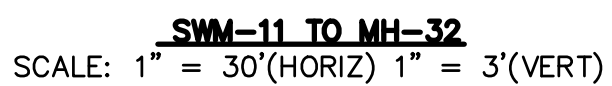
**SWM-8 TO I-33**  
SCALE: 1" = 30'(HORIZ) 1" = 3'(VERT)

C-4V

PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
STORM DRAIN PROFILES

C-4V





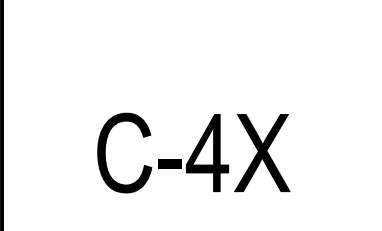
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PROJECT NO.: 2017171  
DATE: 07-01-20  
STORM DRAIN PROFILE

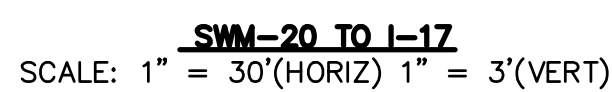
C-4W





<b>FREDERICK COUNTY DEVELOPMENT REVIEW ENGINEERING</b>			
APPROVED:	DEVELOPMENT REVIEW CHIEF	DATE	
APPROVED:	STORMWATER MANAGEMENT	DATE	
<p>REVIEWED IN ACCORDANCE WITH LOCAL COUNTY REQUIREMENTS. FREDERICK COUNTY ASSUMES NO LIABILITY FOR DESIGN AND/OR CONSTRUCTION.</p> <p>APPROVAL IS VALID FOR TWO (2) YEARS AFTER THE LAST DATE SHOWN ABOVE. THE PROJECT MUST BE UNDER CONSTRUCTION BEFORE THE APPROVAL EXPIRATION TO BE CONSIDERED ACTIVE. OTHERWISE, RESUBMITTAL OF PLANS, INCLUDING APPLICABLE FEES, MUST BE MADE TO DEVELOPMENT REVIEW FOR APPROVAL. FEES FOR RESUBMITTAL CANNOT BE WAIVED.</p>			
REV. & DATE	<p>REVISION DESCRIPTION</p> <p>* FILL IN THESE BLOCKS FOR REVISION ONLY</p>	<p>CONSULTANT: DATE AND INITIAL</p>	<p>DEV. REVIEW: DATE AND INITIAL</p>





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JF 2021

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[illegible]

PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
STORM DRAIN PROFILES

C-4Y

PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
STORM DRAIN PROFILES

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LICENSE No. 44054

EXPIRATION DATE 09 JUNE 2021

SEAL

ISSUE		
REV	DATE	DESCRIPTION
	7/18/19	ADDENDUM 3

[illegible]

PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
STORM DRAIN PROFILES

C-4Y





C-4Z



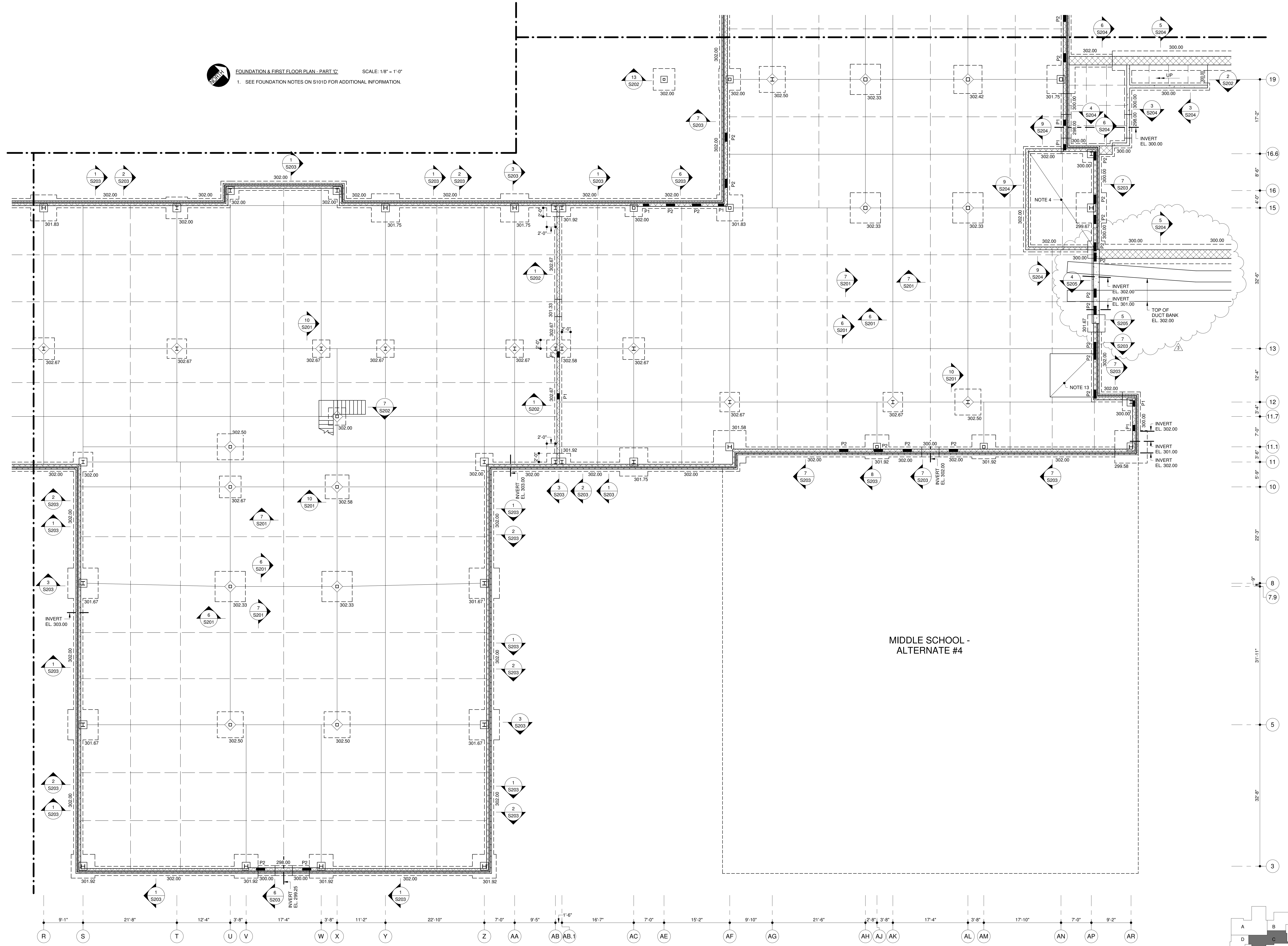






FOUNDATION & FIRST FLOOR PLAN - PART 'C'  
1. SEE FOUNDATION NOTES ON S101D FOR ADDITIONAL INFORMATION.

SCALE: 1/8" = 1'-0"



MIDDLE SCHOOL -  
ALTERNATE #4

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LICENSE No. 33099  
EXPIRATION DATE  
JUNE 30, 2021

SEAL

BID SET  
#19C14  
FCPS BID #19C14

NEW FACILITY FOR  
ROCK CREEK SCHOOL  
FREDERICK COUNTY PUBLIC SCHOOLS  
55B WEST FREDERICK STREET  
WALKERSVILLE, MARYLAND 21793  
EQUIPMENT FOR PROFFITT & ASSOCIATES ARCHITECTS

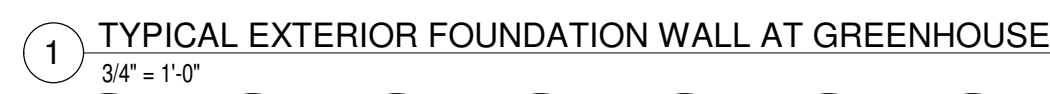
ISSUE

REV	DATE	DESCRIPTION
3	7.18.19	ADDENDUM 03

PROJECT NO.: 2017171.00  
DATE: 07-31-2019  
FOUNDATION AND  
FIRST FLOOR PLAN -  
AREA C

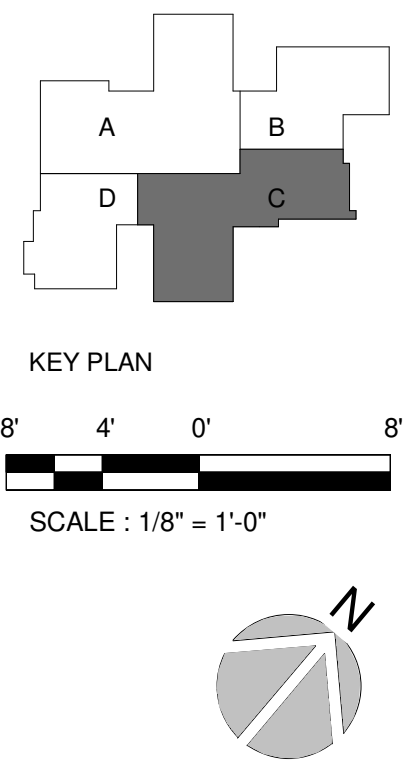
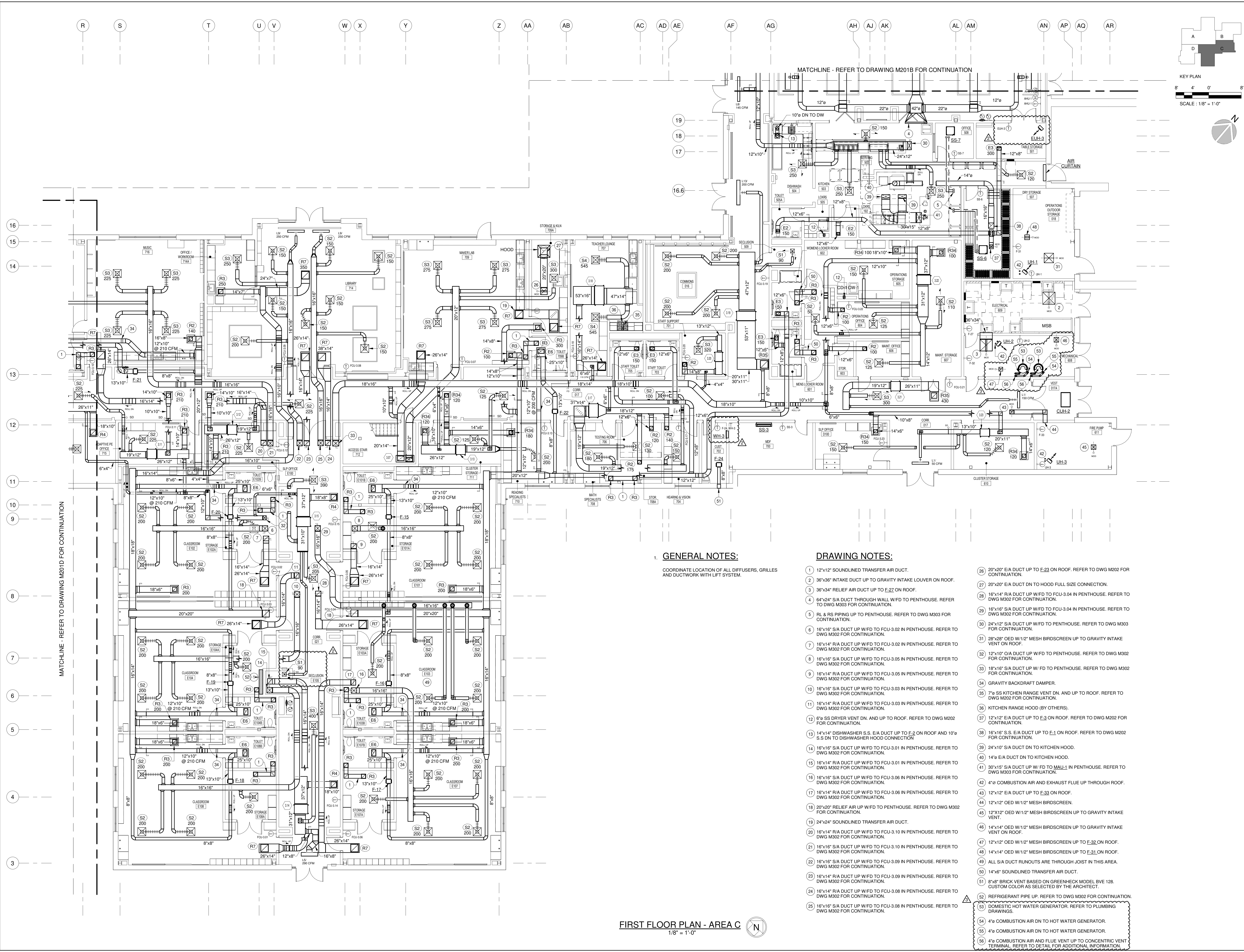
S101C





S205





1. GENERAL NOTES:

COORDINATE LOCATION OF ALL DIFFUSERS, GRILLES AND DUCTWORK WITH LIFT SYSTEM.

DRAWING NOTES:

- 12"x12" SOUNDLINE TRANSFER AIR DUCT.
- 36"x36" INTAKE DUCT UP TO GRAVITY INTAKE LOUVER ON ROOF.
- 36"x34" RELIEF AIR DUCT UP TO E-22 ON ROOF.
- 64"x24" S/A DUCT THROUGH WALL W/FD TO PENTHOUSE. REFER TO DWG M303 FOR CONTINUATION.
- RL & RS PIPING UP TO PENTHOUSE. REFER TO DWG M303 FOR CONTINUATION.
- 16"x16" S/A DUCT UP W/FD TO FCU-3.02 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x14" R/A DUCT UP W/FD TO FCU-3.02 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x16" S/A DUCT UP W/FD TO FCU-3.05 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x14" R/A DUCT UP W/FD TO FCU-3.05 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x16" S/A DUCT UP W/FD TO FCU-3.03 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x14" R/A DUCT UP W/FD TO FCU-3.03 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 6" S DRYER VENT DN. AND UP TO ROOF. REFER TO DWG M202 FOR CONTINUATION.
- 14"x14" DISHWASHER S.S. E/A DUCT UP TO E-2 ON ROOF AND 10" S.S. DN TO DISHWASHER HOOD CONNECTION.
- 16"x16" S/A DUCT UP W/FD TO FCU-3.01 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x14" R/A DUCT UP W/FD TO FCU-3.01 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x16" S/A DUCT UP W/FD TO FCU-3.06 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x14" R/A DUCT UP W/FD TO FCU-3.06 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 20"x20" RELIEF AIR UP W/FD TO PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 24"x24" SOUNDLINE TRANSFER AIR DUCT.
- 16"x14" R/A DUCT UP W/FD TO FCU-3.10 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x16" S/A DUCT UP W/FD TO FCU-3.10 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x14" R/A DUCT UP W/FD TO FCU-3.09 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x16" S/A DUCT UP W/FD TO FCU-3.09 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x14" R/A DUCT UP W/FD TO FCU-3.08 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x16" S/A DUCT UP W/FD TO FCU-3.08 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 20"x20" E/A DUCT UP TO E-23 ON ROOF. REFER TO DWG M202 FOR CONTINUATION.
- 20"x20" E/A DUCT DN TO HOOD FULL SIZE CONNECTION.
- 16"x14" R/A DUCT UP W/FD TO FCU-3.04 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 16"x16" S/A DUCT UP W/FD TO FCU-3.04 IN PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 24"x12" S/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M303 FOR CONTINUATION.
- 28"x28" OED W/1/2" MESH BIRDSCREEN UP TO GRAVITY INTAKE VENT ON ROOF.
- 12"x10" O/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- 18"x16" S/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M302 FOR CONTINUATION.
- GRAVITY BACKDRAFT DAMPER.
- 7" S.S. KITCHEN RANGE VENT DN. AND UP TO ROOF. REFER TO DWG M202 FOR CONTINUATION.
- KITCHEN RANGE HOOD (BY OTHERS).
- 12"x12" E/A DUCT UP TO E-3 ON ROOF. REFER TO DWG M202 FOR CONTINUATION.
- 16"x16" S.S. E/A DUCT UP TO E-1 ON ROOF. REFER TO DWG M202 FOR CONTINUATION.
- 24"x10" S/A DUCT DN TO KITCHEN HOOD.
- 14" S/A DUCT DN TO KITCHEN HOOD.
- 30"x15" S/A DUCT UP W/FD TO MAU-1 IN PENTHOUSE. REFER TO DWG M303 FOR CONTINUATION.
- 4" S COMBUSTION AIR AND EXHAUST FLUE UP THROUGH ROOF.
- 12"x12" E/A DUCT UP TO E-33 ON ROOF.
- 12"x12" OED W/1/2" MESH BIRDSCREEN.
- 12"x12" OED W/1/2" MESH BIRDSCREEN UP TO GRAVITY INTAKE VENT.
- 14"x14" OED W/1/2" MESH BIRDSCREEN UP TO GRAVITY INTAKE VENT ON ROOF.
- 12"x12" OED W/1/2" MESH BIRDSCREEN UP TO E-32 ON ROOF.
- 14"x14" OED W/1/2" MESH BIRDSCREEN UP TO E-31 ON ROOF.
- ALL S/A DUCT RUNOUTS ARE THROUGH JOIST IN THIS AREA.
- 14"x6" SOUNDLINE TRANSFER AIR DUCT.
- 8"x8" BRICK VENT BASED ON GREENHECK MODEL BVE 128. CUSTOM COLOR AS SELECTED BY THE ARCHITECT.
- REFRIGERANT PIPE UP. REFER TO DWG M302 FOR CONTINUATION.
- DOMESTIC HOT WATER GENERATOR. REFER TO PLUMBING DRAWINGS.
- 4" S COMBUSTION AIR DN TO HOT WATER GENERATOR.
- 4" S COMBUSTION AIR DN TO HOT WATER GENERATOR.
- 4" S COMBUSTION AIR AND FLUE VENT UP TO CONCENTRIC VENT TERMINAL. REFER TO DETAIL FOR ADDITIONAL INFORMATION.

FIRST FLOOR PLAN - AREA C  
1/8" = 1'-0"

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EXPIRATION DATE  
06-30-2020

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FCPS BID #19C14

NEW FACILITY FOR:  
ROCK CREEK SCHOOL  
FREDRICK COUNTY PUBLIC SCHOOLS  
55B WEST FREDRICK STREET  
WALKERSVILLE, MARYLAND 21793  
(EXPIRATION DATE: 06/30/2020)

REV	DATE	DESCRIPTION
2	7/11/19	ADDENDUM No. 2
3	7/18/20	ADDENDUM No. 3
19		

ISSUE

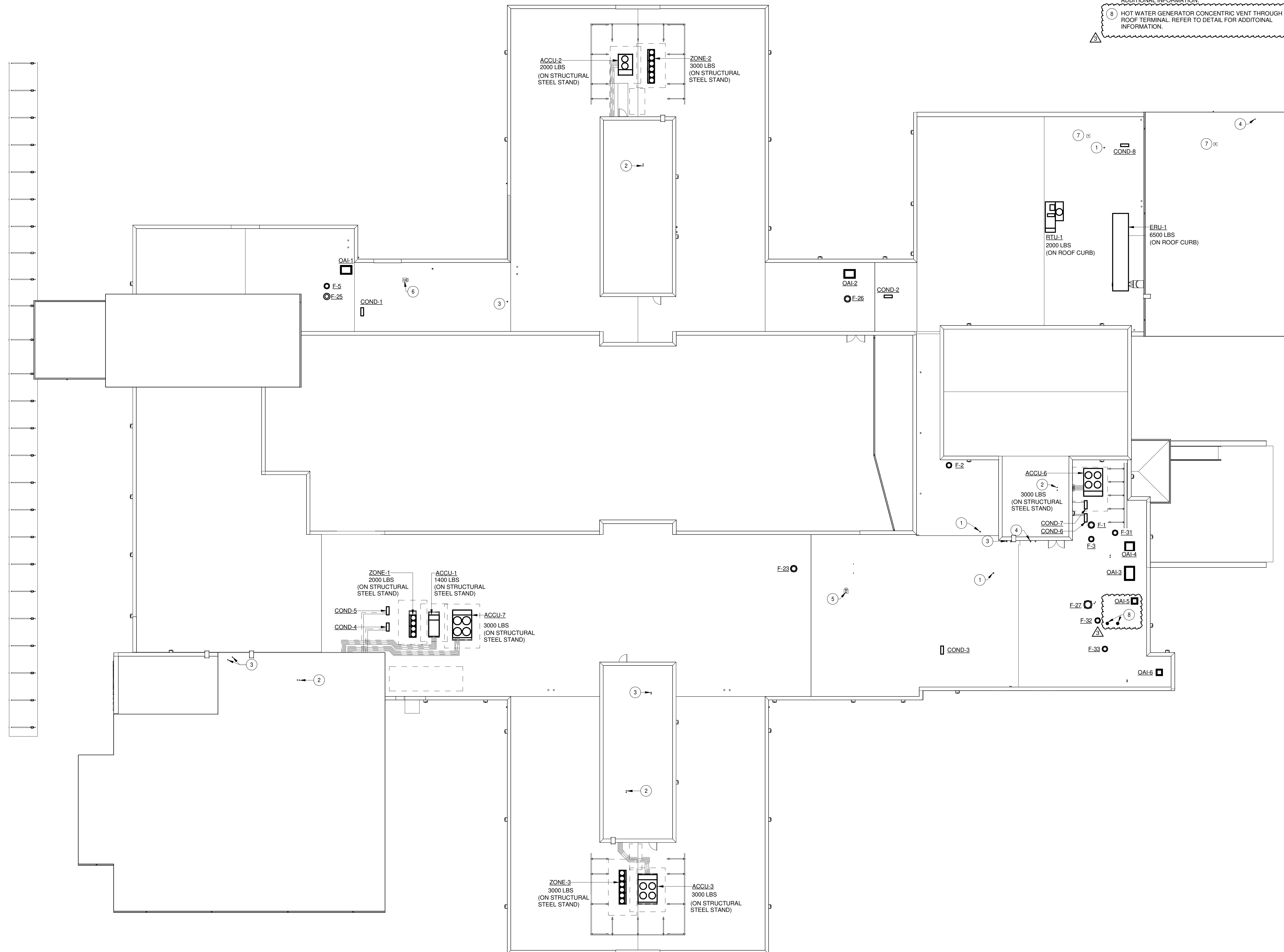
PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
FIRST FLOOR PLAN -  
AREA C

M201C



1. LOCATE ALL FANS AND MECHANICAL EQUIPMENT NO CLOSER THAN 10'-0" FROM EDGE OF ROOF.

- 1 EXHAUST VENT THROUGH ROOF CURB. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 2 AIR HANDLING UNIT FURNACE EXHAUST FLUE AND COMBUSTION INTAKE. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 3 GAS FIRED UNIT HEATER EXHAUST FLUE AND COMBUSTION INTAKE. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 4 POOL HEATER EXHAUST FLUE. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 5 7" S EXHAUST VENT THROUGH CURB WITH BACKDRIFT DAMPER, CAR-LOSS WALL, CAP AND 7" S DN TO FLOOR BELOW. REFER TO DWG M201C FOR CONTINUATION.
- 6 7" S EXHAUST VENT THROUGH CURB WITH BACKDRIFT DAMPER AND SS WALL CAP AND 7" S DN TO FLOOR BELOW. REFER TO DWG M201A AND DETAIL FOR ADDITIONAL INFORMATION.
- 7 4" A DUCT THROUGH CURB WITH BACKDRIFT DAMPER AND WALL. CAR-LOSS WALL, CAP AND 4" A DUCT DN TO FLOOR BELOW. REFER TO DWG M201B AND FOR ADDITIONAL INFORMATION.



**ROOF PLAN**  
1/16" = 1'-0"


**Proffitt & Assoc.**  
ARCHITECTS

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LICENSE NO. 45531

EXPIRATION DATE 06-03-2020

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NEW FACILITY FOR:  
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FREDRICK COUNTY PUBLIC SCHOOLS  
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ISSUE

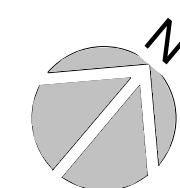
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PROJECT NO.: 2017171.00  
 DATE: 07-01-2019  
**ROOF PLAN**

M202



- ① 12"x12" E/A DUCT UP TO F-38 ON ROOF.
- ② REFRIGERANT PIPING UP THROUGH ROOF TO ACCU-8.
- ③ LOUVER FULL SIZE CONNECTION.



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 EXPIRATION DATE 06-03-2020

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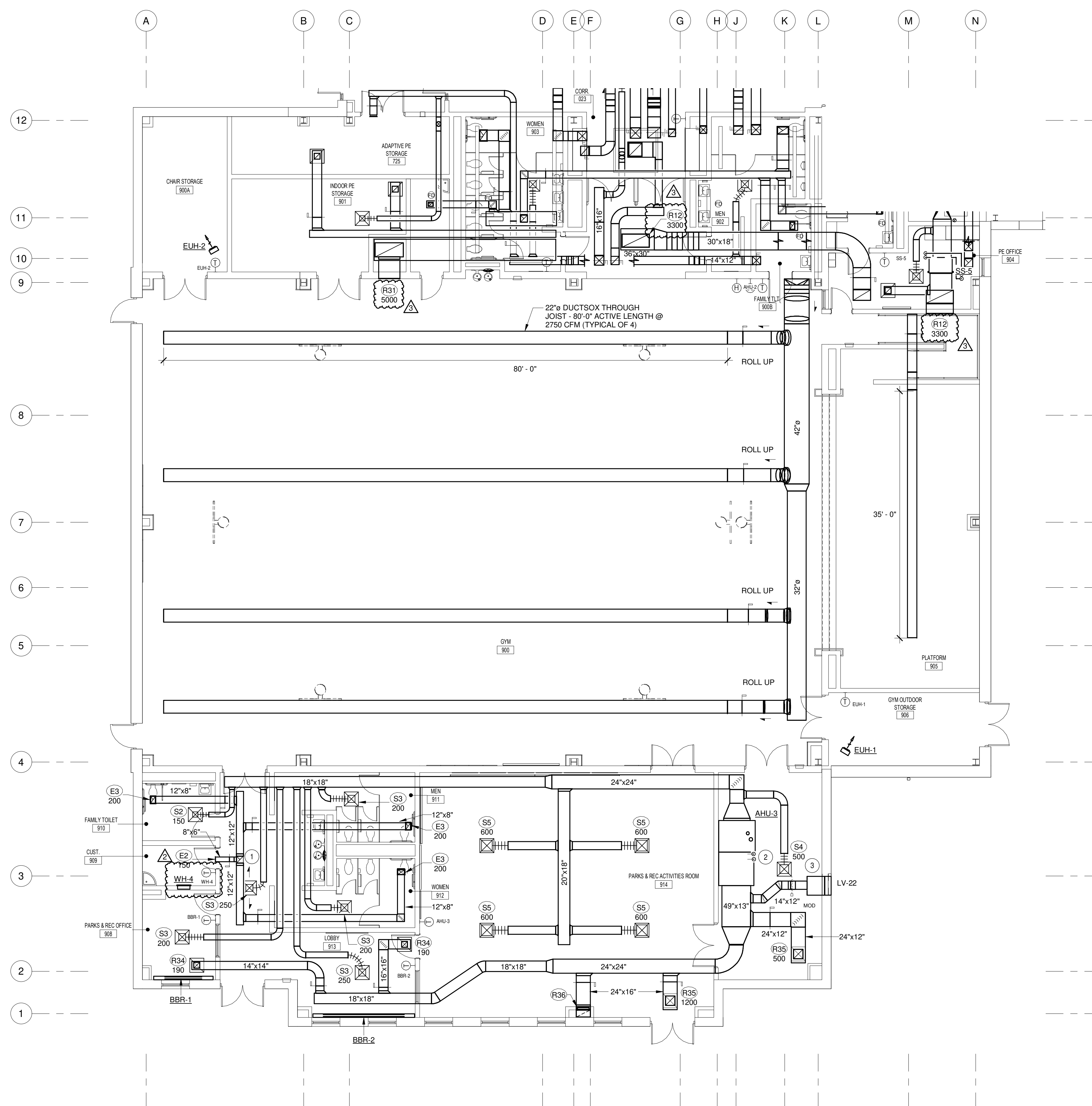
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NEW FACILITY FOR:  
**ROCK CREEK SCHOOL**  
FREDRICK COUNTY PUBLIC SCHOOLS  
55B WEST FREDERICK STREET  
WALKERSVILLE, MARYLAND 21793

[illegible]

PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
ADD ALTERNATE No.  
1 - PARK AND REC

# M401



FIRST FLOOR PLAN - PARK  
AND REC - ADD ALTERNATE

No.1  
1/8" = 1'-0"









AHU N°	SERVICE	LOCATION	SUPPLY FAN						RETURN/RELIEF FAN						COOLING SYSTEM CONDITION										GHRH SYSTEM CONDITIONS						NG FURNACE SYSTEM CONDITIONS						OUTSIDE AIR			ELECTRICAL			WEIGHT (lbs)	EMER. POWER	SYSTEM TYPE	BASED ON AAOB		
			FAN						FAN																																							
			BHP	HP	FAN QTY	FAN TYPE	MAX ESP	RPM	STD. AIR CFM	BHP	HP	FAN QTY	FAN TYPE	MAX ESP	RPM	STD. AIR CFM	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	MAX FACE VEL	MAX A.P.D (IN)	SENS. CAP. (MBH)	TOTAL CAP. (MBH)	EAT DB (°F)	LAT DB (°F)	MAX FACE VEL (FPM)	MAX A.P.D (IN H2O)	TOTAL CAP. (MBH)	PRESSURE (IN H2O)	EAT DB (°F)	LAT DB (°F)	MAX FACE VEL (FPM)	MAX A.P.D (IN H2O)	TOTAL CAP. (MBH)	INPUT (MBH)	OUTPUT (MBH)	MIN CFM	MAX CFM	%	V/o/Hz	MCA					MOCp	
RTU-1	LOCKER ROOMS	ROOF	1.92	2	1	AFPP	1.5	1761	1800	1800	1.40	2	1	AFPP	1.5	1984	1800	1800	79.7	66.8	50.4	50.0	500	0.750	50.0	80.0	50	70	500	0.750	38.0	8	51	138	500	0.750	200	170	1800	1800	100	460/3/60	25	35	2,000	NO	SZVF	RN-00B-3-A-EA99-3LB
AHU-1	CAFETERIA & KITCHEN	MEZZ.	3.10	4	2	AFPP	1.5	1890	2400	8000	2.21	4	2	AFPP	1.5	1723	2400	8000	76.1	66.0	52.7	52.5	500	0.750	180.7	293.5	53	75	500	0.750	192.0	8	50	100	500	0.750	540	432	2400	8000	30	460/3/60	21	25	2,000	NO	SZVF	V3-ERB-3-0-162C-000
AHU-2	GYMNASIUM & STAGE	MEZZ.	10.70	20	1	AFPP	1.5	1278	3600	12000	2.21	15	1	AFPP	1.5	1824	3600	12000	77.0	64.0	52.4	51.8	500	0.750	315.4	421.8	52	70	500	0.750	221.3	8	50	100	500	0.750	650	520	3600	12000	30	460/3/60	50	80	9,500	NO	SZVF	M2-H-022-R-3-A-B-A-C-0
AHU-3	PARC & REC (ADD-ALT-1)	ROOF	2.21	2.3	2	AFPP	1.5	2542	850	4000	-	-	-	-	-	-	-	78.0	65.0	51.0	51.0	500	0.750	103.4	151.9	51	70	500	0.750	82.0	8	70	109	500	0.750	225	180	850	4000	21	460/3/60	6	15	2,000	NO	SZVF	H3-CRB-3-0-162C-BMB	
DOAS-1	OFFICE/ADMIN	MEZZ.	2.47	4	1	AFPP	1.5	1762	3000	3000	1.14	4	1	AFPP	1.5	1363	2400	2400	82.7	71.0	52.5	52.4	500	0.750	87.8	161.4	53	75	500	0.750	73.0	8	48	95	500	0.750	200	153	3000	3000	100	460/3/60	11	15	2,800	NO	DOAS	V3-CRB-3-0-162C-BLA
DOAS-2	CLASSROOMS NORTH	MEZZ.	3.31	4	1	AFPP	1.5	1930	4000	4000	1.23	4	1	AFPP	1.5	1494	4000	4000	84.0	71.4	54.7	54.3	500	0.750	113.0	200.0	55	75	500	0.750	88.0	8	40	86	500	0.750	250	200	4000	4000	100	460/3/60	11	15	2,800	NO	DOAS	V3-CRB-3-0-162C-BLA
DOAS-3	CLASSROOMS SOUTH	MEZZ.	2.52	4	2	AFPP	1.5	1812	5215	5215	3.04	4	1	AFPP	1.5	1972	5215	5215	82.7	71.0	52.0	51.9	500	0.750	145.5	271.4	52	75	500	0.750	124.0	8	48	99	500	0.750	350	300	5215	5215	100	460/3/60	17	20	2,900	NO	DOAS	V3-DRB-3-0-162C-12F
DOAS-4	MIDDLE SCHOOL CLASSROOMS (ADD-ALT-4)	MEZZ.	2.47	4	1	AFPP	1.5	1762	2500	2500	1.14	4	1	AFPP	1.5	1363	2500	2500	82.7	71.0	52.5	52.4	500	0.750	87.8	161.4	53	75	500	0.750	73.0	8	48	95	500	0.750	200	170	2500	2500	100	460/3/60	11	15	2,800	NO	DOAS	V3-CRB-3-0-162C-BLA
DOAS-5	SPECIAL ED CLASSROOMS (ADD-ALT-2)	MEZZ.	2.29	2.3	1	AFPP	1.5	2572	2000	2000	0.99	2.3	1</																																			

<p>2. VAV = VARIABLE AIR VOLUME / CV = CONSTANT VOLUME, SZVF = SINGLE ZONE VARIABLE FLOW</p> <p>3. ESP = EXTERNAL STATIC PRESSURE BASED ON PRESSURE REQUIRED AT AHU DUCT CONNECTION.</p> <p>4. FC = FORWARD CURVED, BIAF = BACKWARD INCLINED AIR FOIL (DOUBLE WIDTH, DOUBLE INLET).</p> <p>5. APFF = AIRFOIL PLENUM FAN (SINGLE WIDTH, SINGLE INLET).</p> <p>6. ALL FANS SHALL BE DIRECT DRIVE TYPE WITH VARIABLE SPEED DRIVE OR ECM TYPE</p> <p>7. PREFILTERS SHALL BE 2" THICK MERV 8 FARR 30/30 OR AS APPROVED EQUAL.</p> <p>8. FINAL FILTERS SHALL BE 4" THICK MERV 13 FARR OPTI-PAC OR AS APPROVED EQUAL.</p>	<p>9. FOR TOTAL STATIC PRESSURE CALCULATIONS USE MEDIAN (CLEAN/DIRTY) FILTER AIR PRESSURE DROPS.</p> <p>10. NG = NATURAL GAS, HGRH = HOT GAS REHEAT</p> <p>11. ALL NATURAL GAS FURNACES SHALL HAVE A MINIMUM OF 12:1 TURNDOWN</p> <p>12. ALL ROOF TOP UNITS ARE TO HAVE KEVED OR TAMPER PROOF LATCHES</p> <p>13. ALL ROOF TOP UNITS SHALL HAVE FULL PIANO HINGES ON ALL ACCESS DOORS</p> <p>14. ALL ROOF TOP UNITS SHALL HAVE FULL PIANO HINGES ON ALL ACCESS DOORS</p> <p>15. ALL UNITS CURBS AND PLENUM CHAMBERS ARE TO BE FULLY INSULATED</p> <p>16. ALL UNITS SHALL HAVE ONLY ONE COMPRESSOR PER CIRCUIT (NO TANDEM COMPRESSORS)</p>	<p>17. ALL UNIT CONDENSATE DRAINS SHALL BE PVC</p> <p>18. SUMMER OUTDOOR AIR DESIGN CONDITIONS: 95°F DB / 78°F WB</p> <p>19. WINTER OUTDOOR AIR DESIGN CONDITIONS: 10°F DB</p> <p>20. ALL UNITS SHALL BE PROVIDED WITH REFRIGERATION CONTROLS AND TERMINAL STRIP FOR FIELD MOUNTED CONTROLS BY THE ATC CONTRACTOR.</p> <p>21. AHU-3 SHALL BE PROVIDED WITH LOW-SOUND FAN OPTION.</p>
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POOL ENERGY RECOVERY UNIT																																																																																						
AHU N°	SERVICE	LOCATION	SUPPLY FAN									PURGE EXHAUST FAN									EXHAUST FAN						COOLING COIL SYSTEM COND.				HGRH COIL SYSTEM COND.				NG FURNACE SYSTEM				POOL HEATING COIL				OUTSIDE AIR			ELECTRICAL				WEIGHT (lbs)	EMER. POWER	SYSTEM TYPE	BASED ON SERESCO																																	
			FAN				RPM					STD. AIR CFM				FAN				RPM					STD. AIR CFM				FAN				RPM		STD. AIR CFM		MAX		COIL		SENS. TOTAL		MAX		COIL		SYSTEM COND.		TOTAL					MAX		FUEL		SYSTEM		EWT (°F)		MAX		FACE VEL		MAX		A.P.D		TOTAL		CAP.		MIN		MAX		CFM		% V/o/hz		MCA		MOCP		
			HP	FAN QTY	FAN TYPE	MAX ESP	MAX	MIN	MAX	HP	FAN QTY	FAN TYPE	MAX ESP	MAX	MIN	MAX	HP	FAN QTY	FAN TYPE	MAX ESP	MAX	MIN	MAX	FACE FPM	COIL (IN)	A.P.D (IN)	CAP. (MBH)	SENS. (MBH)	TOTAL CAP. (MBH)	FACE FPM	COIL (IN)	A.P.D (IN)	TOTAL CAP. (MBH)	MAX FACE VEL	MAX A.P.D (IN)	MAX CAP. (MBH)	EWT (°F)	MAX FACE VEL	MAX A.P.D (IN)	TOTAL CAP. (MBH)	MIN CFM	MAX CFM	%																																											
UR-1	THERAPY POOL	ROOF	3.9	2	AFPF	1.5	2000	6500	6500	2.4	1	AFPF	0.5	2000	4950	4950	2.4	1	AFPF	0.5	2000	3500	3500	500	0.100	84.6	182.9	500	0.100	228.6	500	0.100	400	92	500	0.100	228.6	2000	6500	31	460/3/60	45	60	6,500	NO	PDU	NE-014-PB-X-P6FB5652G2E4ADQ																																							

1. VAV = VARIABLE AIR VOLUME / CV = CONSTANT VOLUME.	6. PREFILTERS SHALL BE 2" THICK MERV 8 FARR 30/30 OR AS APPROVED EQUAL.	11. POOL DEHUMIDIFICATION UNIT SHALL BE SIZED TO DEHUMIDIFY THE SPACE TO 50% RH BASED ON 93°F POOL WATER TEMPERATURE AND 84°F SPACE TEMPERATURE.
2. ESP = EXTERNAL STATIC PRESSURE BASED ON PRESSURE REQUIRED AT AHU DUCT CONNECTION.	7. FINAL FILTERS SHALL BE 4" THICK MERV 13 FARR OPTI-PAC OR AS APPROVED EQUAL.	12. POOL UNIT SHALL HAVE AN INDEPENDENT EVACUATOR EXHAUST DUCT CONNECT. REFER TO POOL DRAWINGS FOR ADDITIONAL INFORMATION.
3. FC = FORWARD CURVED, BIAF = BACKWARD INCLINED AIR FOIL (DOUBLE WIDTH, DOUBLE INLET).	8. FOR TOTAL STATIC PRESSURE CALCULATIONS USE MEDIAN (CLEAN/DIRTY) FILTER AIR PRESSURE DROPS.	13. INSTALL PER THE MANUFACTURER RECOMMENDATIONS.
4. APFF = AIRFOIL PLENUM FAN (SINGLE WIDTH, SINGLE INLET).	9. NG = NATURAL GAS, HGRH = HOT GAS REHEAT.	14. PROVIDE PHASE LOSS PROTECTION.
5. ALL FANS SHALL BE DIRECT DRIVE TYPE WITH VARIABLE SPEED DRIVE.	10. ALL NATURAL GAS BURNERS SHALL HAVE A MINIMUM OF 10:1 TURNDOWN.	

HEAT RECOVERY DEVICE SCHEDULE																										
SERVICES AHU #	MAX A.P.D (IN W.C.)	MAX FACE VELOCITY (FPM)	ELECTRICAL CHARACTERISTIC		ENTHALPY HEAT RECOVERY DEVICE										ENTHALPY HEAT RECOVERY DEVICE										REMARKS	
					SUPPLY					EXHAUST					SUPPLY					EXHAUST						
					DEVICE CFM (ENTERING)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	DEVICE CFM (ENTERING)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	DEVICE CFM (ENTERING)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	DEVICE CFM (ENTERING)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)		
RTU-1	1.00	500	1/20	115/1/60	1800	95	78	79.7	66.8	1800	75	62	88.1	72.8	1800	10	9	51.2	46.5	1800	75	62	32.4	32.3		
AHU-1	1.00	500	1/20	115/1/60	2400	95	78	76.5	66.1	2400	75	65	90.0	75.0	3600	10	9	67.4	55.5	3600	72	58	25.3	24.5		
AHU-2	1.00	500	1/20	115/1/60	3600	95	78	77.1	64.2	3600	76	63	89.5	74.5	3600	10	9	66.6	55.8	3600	70	58	25.8	24.4		
AHU-3	1.00	500	1/20	115/1/60	4000	95	78	78.0	65.0	4000	75	62	88.5	73.7	4000	10	9	70.0	60.0	4000	75	65	38.6	36.3		
DOAS-1	1.00	500	1/20	115/1/60	3000	95	78	82.1	70.3	2400	75	62	87.6	74.4	3000	10	9	48.2	42.5	2400	72	58	32.2	31.3		
DOAS-2	1.00	500	1/20	115/1/60	4000	95	78	84.0	71.4	4000	75	62	88.4	72.6	4000	10	9	40.0	34.0	4000	72	58	38.6	36.3		
DOAS-3	1.00	500	1/20	115/1/60	5215	95	78	83.0	70.8	5215	75	65	86.8	73.5	5215	10	9	45.2	40.5	5215	72	58	34.8	33.3		
DOAS-4 (A)	1.00	500	1/20	115/1/60	2500	95	78	82.7	71.0	2500	75	65	87.3	72.9	2500	10	9	48.0	42.0	2500	72	58	33.9	33.2	ALTERNATE 4	
DOAS-5 (A)	1.00	500	1/20	115/1/60	2000	95	78	82.1	70.3	2000	75	62	87.6	74.4	2000	10	9	48.2	42.5	2000	72	58	32.2	31.3	ALTERNATE 4	

1. DEVICE ENTERING CFM INDICATED IS UPSTREAM OF HEAT RECOVERY DEVICE AND EXCLUDES PURGE VOLUME.
2. PROVIDE VARIABLE SPEED DRIVES FOR ALL ENTHALPY HEAT RECOVERY DEVICES.
3. ALL HEAT RECOVERY WHEELS SHALL UTILIZE A MOLECULAR SIEVE TYPE DESICCANT.

AIR COOLED CONDENSING UNIT SCHEDULE												
UNIT	AREA SERVED	UNIT LOCATION	COOLING CAPACITY (45°)(BTU)	OAT (°F)	ELECTRICAL				WEIGHT (LBS)	EMER. POWER	BASED ON A40N	
					EER/IEER	MCA	MAX FUSE	V/ø/Hz				
ACCU-1	DOAS-1 OFFICE/ADMIN	ROOF	185,200	95	12.7	32	40	460/3/60	2000	NO	CFA-16	
ACCU-2	DOAS-2 CLASSROOMS NORTH	ROOF	229,500	95	12.7	42	50	460/3/60	2000	NO	CFA-20	
ACCU-3	DOAS-3 CLASSROOMS SOUTH	ROOF	361,100	95	12	61	70	460/3/60	3000	NO	CFA-31	
ACCU-4	DOAS-4 MIDDLE SCHOOL CLASSROOM (ADD-ALT-4)	ROOF	185,200	95	12.7	32	40	460/3/60	2000	NO	CFA-16	
ACCU-5	DOAS-5 SPECIAL ED CLASSROOM (ADD-ALT-2)	ROOF	119,700	95	12.7	20	25	460/3/60	1400	NO	CFA-11	
ACCU-6	AHU-1 CAFETERIA & KITCHEN	ROOF	361,100	95	12	61	70	460/3/60	3000	NO	CFA-31	
ACCU-7	AHU-2 GYMNASIUM & STAGE	ROOF	440,600	95	11.5	80	90	460/3/60	3000	NO	CFA-40	
ACCU-8	AHU-3 PARK & REC	ROOF	185,200	95	12.7	32	40	460/3/60	2000	NO	CFA-16	

1. PROVIDE HOT GAS REHEAT FOR ALL UNITS.
2. COORDINATE ALL CAPACITY REQUIREMENTS WITH INDOOR AIR HANDLING UNITS
3. PROVIDE HAIL GUARD FOR ALL UNITS
4. PROVIDE PHASE LOSS PROTECTION
5. ALL UNITS SHALL BE PROVIDED WITH A MINIMUM OF 2 INDEPENDENT REFRIGERATION CIRCUITS
6. ONE CIRCUIT MINIMUM SHALL UTILIZE A VARIABLE SPEED OR VARIABLE CAPACITY COMPRESSOR FOR PART LOAD CONDITIONS
7. INSTALL REFRIGERANT PIPING AND ACCESSORIES PER THE MANUFACTURERS RECOMMENDATIONS
8. COOLING CAPACITIES ARE BASED ON A MAXIMUM OF 45°F SATURATED SUCTION TEMPERATURE

SPLIT SYSTEM SCHEDULE																						
N# (SS-X)	SERVICE	LOCATION		MAX CFM	REFRIGERANT TYPE	COOLING CAPACITY (BTUs)	HEATING CAPACITY (BTUs)	MAX CAPACITY FULL LOAD (TONS)	INDOOR CONDITIONS		OUTDOOR CONDITION S (°F)	ELECTRICAL			INDOOR UNIT TYPE	INDOOR UNIT SIZE (L X W X H)	OUTDOOR UNIT WT (LBS)  MAX OPERATING WT (LBS)	BASED ON DAIKIN				
		EVAPORATOR	CONDENSER						EAT DB (°F)	EAT WB (°F)		V/ø/Hz	IDU MCA	ODU MCA				EMERGENCY POWER	EVAPORATOR	CONDENSER	SPLIT SYSTEM CONDENSING UNIT No.	
1	IDF 304 (COOLING ONLY)	304	ROOF	713	410	18000	0	1.50	80	67	95	208/1/60	0.4	18.3	YES	WALL MOUNTED	11-5/8" X 39" X 10-3/8"	172	FTK18NMVJU	RK18NMVJU	COND-1	
2	IDF 311 (COOLING ONLY)	311	ROOF	713	410	18000	0	1.50	80	67	95	208/1/60	0.4	18.3	YES	WALL MOUNTED	11-5/8" X 39" X 10-3/8"	172	FTK18NMVJU	RK18NMVJU	COND-2	
3	MDF 700 (COOLING ONLY)	700	ROOF	713	410	24000	0	2	80	67	95	208/1/60	0.4	18.3	YES	WALL MOUNTED	11-5/8" X 39" X 10-3/8"	172	FTK24NMVJU	RK24NMVJU	COND-3	
4	MDF 719 (COOLING ONLY)	719	ROOF	713	410	24000	0	2	80	67	95	208/1/60	0.4	18.3	YES	WALL MOUNTED	11-5/8" X 39" X 10-3/8"	172	FTK24NMVJU	RK24NMVJU	COND-4	
5	PE OFFICE 904 (HEATING & COOLING)	904	ROOF	516	410	14400	18000	1.25	80	67	95	208/1/60	0.4	9.7	NO	CONCEALED	9-5/8" X 39-3/8" X 31-1/2"	172	FDWQ15RVJU	RX15RMVJU	COND-5	
6	DRY STORAGE 507(HEATING & COOLING)	18	ROOF	777	410	24000	27000	2	80	67	95	208/1/60	0.7	15.0	NO	CASSETTE	39" X 37" X 12-5/8"	172	FCQ24TAVJU	RXQ24TAVJU	COND-6	
7	OFFICE 508 (HEATING & COOLING)	508	ROOF	399	410	9100	10000	0.75	80	67	95	208/1/60	0.3	9.0	NO	CASSETTE	39" X 10" X 14"	97	FFQ0902VJU	RX09RMVJU	COND-7	
8	AQUATICS OFFICE (HEATING & COOLING)	406	ROOF	427	410	10800	13500	1	80	67	95	208/1/60	0.3	9.1	NO	CASSETTE	39" X 10" X 14"	97	FFQ12Q2VJU	RX12RMVJU	COND-8	

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SEAL	
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NEW FACILITY FOR:  
**ROCK CREEK SCHOOL**  
 FREDERICK COUNTY PUBLIC SCHOOLS  
 558 WEST FREDERICK STREET  
 WALKERSVILLE, MARYLAND 21739  
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PROJECT NO.:	2017171.00
DATE:	07-01-2019
AIR HANDLING UNIT & SPLIT SYSTEM SCHEDULES	

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FAN SCHEDULE														
UNIT F-X	AREA SERVED	INTERLOCK	LOCATION	CHARACTERISTICS								TYPE	BASED ON (GREENHECK)	
				CFM	ESP (IN H2O)	FRPM	DRIVE TYPE	MOTOR		ELECTRICAL				
								HP	TYPE	V/ø/Hz	EMERGENCY POWER			
1	KITCHEN HOOD		AHU-1	STORAGE	1275	0.75	1165	DD	0.29	VG	115/1/60	NO	UPBLAST	CUE-141-VG
2	DISHWASHER HOOD		AHU-1	STORAGE	525	0.50	1151	DD	0.08	VG	115/1/60	NO	UPBLAST	CUE-101-VG
3	TABLE STORAGE, LOCKERS		AHU-1	STORAGE	600	0.50	1179	DD	0.09	VG	115/1/60	NO	POWER ROOF VENTILATOR	G-103-VG
4	GYM TOILET ROOMS		DOAS-1	STORAGE	1350	0.75	1197	DD	0.38	VG	115/1/60	NO	IN-LINE MIXED FLOW	EOD-15-VG
5	HEALTH AREA A		DOAS-1	STORAGE	660	0.75	1294	DD	0.16	VG	115/1/60	NO	POWER ROOF VENTILATOR	G-143HP-VG
6	TOILET 201		DOAS-1	NURSE 202	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
7	TOILET B101B		DOAS-2	STOR. B101A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
8	TOILET B105B		DOAS-2	STOR. B105A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
9	TOILET B107B		DOAS-2	STOR B107A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
10	TOILET B108B		DOAS-2	STOR. B108A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
11	TOILET B106B		DOAS-2	STOR. B106A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
12	TOILET B102B		DOAS-2	STOR. B102A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
13	STUDENT TOILET 315B		DOAS-2	STOR C101	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
14	CUSTODIAL ROOM 312 AREA B		DOAS 3	RM 312	150	0.13	656	DD	22W	VG	115/1/60	NO	CEILING EXHAUST FAN	CSP-A200
15	TOILET E101B		DOAS 3	STOR. E101A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
16	TOILET E103B		DOAS 3	STOR. E103A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
17	TOILET E107B		DOAS 3	STOR. E107A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
18	TOILET E108B		DOAS 3	STOR. E108A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
19	TOILET E104B		DOAS 3	STOR. E104A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
20	TOILET E102B		DOAS 3	STOR. E102A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
21	TOILET 716B		DOAS 3	CORR. 020	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
22	TOILET 709B		DOAS 3	CORR. 017	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
23	KILN		SWITCH	ROOF	900	0.25	721	DD	0.07	VG	115/1/60	NO	UPBLAST	CUE-141-VG
24	CUSTODIAL ROOM 702 AREA C		TSTAT	IN ROOM	150	0.13	656	DD	22W	VG	115/1/60	NO	CEILING EXHAUST FAN	CSP-A200
25	ELECT ROOM 303 AREA A		TSTAT	ROOF	1200	0.38	1066	DD	0.25	ECM	115/1/60	NO	POWER ROOF VENTILATOR	G-133-VG
26	ELECT ROOM 310 AREA B		TSTAT	ROOF	1500	0.38	1014	DD	0.5	ECM	460/3/60	NO	POWER ROOF VENTILATOR	G-143-VG
27	ELECT ROOM 610 AREA C		TSTAT	ROOF	3000	0.38	890	DD	0.75	ECM	460/3/60	NO	POWER ROOF VENTILATOR	G-183-VG
28	ELECT ROOM 722 AREA D		TSTAT	PENTHOUSE D	1200	0.75	2124	DD	0.75	ECM	460/3/60	NO	IN-LINE MIXED FLOW	EOD-9-VG
29	POOL PUMP RM 407		TSTAT	RM 407	500	0.25	1158	DD	0.07	ODP	115/1/60	NO	SIDEWALL PROPELLER	SEI-12-432-VG
30	POOL PUMP RM 408		TSTAT	RM 408	250	0.13	794	DD	0.01	ODP	115/1/60	NO	SIDEWALL PROPELLER	G-090-E
31	OPERATION OUTDOOR STORAGE		TSTAT	PENTHOUSE	1000	0.13	793	DD	0.05	VG	115/1/60	NO	POWER ROOF VENTILATOR	G-133-VG
32	MECHANICAL RM 608		TSTAT	PENTHOUSE	500	0.13	742	DD	0.02	VG	115/1/60	NO	POWER ROOF VENTILATOR	G-103-VG
33	FIRE PUMP RM 611		TSTAT	PENTHOUSE	500	0.38	1063	DD	0.06	VG	115/1/60	NO	POWER ROOF VENTILATOR	G-009-VG
34	PENTHOUSE AREA A		TSTAT	PENTHOUSE	2500	0.13	1160	DD	0.17	ODP	115/1/60	NO	SIDEWALL PROPELLER	SEI-18-424-B6
35	PENTHOUSE AREA B		TSTAT	PENTHOUSE	2500	0.13	1160	DD	0.17	ODP	115/1/60	NO	SIDEWALL PROPELLER	SEI-18-424-B6
36	PENTHOUSE AREA C		TSTAT	PENTHOUSE	2500	0.13	1160	DD	0.17	ODP	115/1/60	NO	SIDEWALL PROPELLER	SEI-18-424-B6
37	PENTHOUSE AREA D		TSTAT	PENTHOUSE	2500	0.13	1160	DD	0.17	ODP	115/1/60	NO	SIDEWALL PROPELLER	SEI-18-424-B6
38	PARKS AND REC (ADD ALT 1)		AHU-3	PENTHOUSE	850	0.25	804	DD	0.06	VG	115/1/60	NO	POWER ROOF VENTILATOR	G-133-VG
39	TOILET 109A		DOAS 5	STOR A109B	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
40	TOILET 112A		DOAS 5	STOR A109B	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
41	TOILET 114		DOAS 5	STOR 110B	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
42	PENTHOUSE AREA A (ADD ALT 2)		TSTAT	PENTHOUSE	2500	0.13	1160	DD	0.17	ODP	115/1/60	NO	SIDEWALL PROPELLER	SEI-18-424-B6
43	TOILET D108B		DOAS 4	STOR. D108A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
44	TOILET D104B		DOAS 4	STOR. D104A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
45	TOILET D102B		DOAS 4	STOR. D102A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
46	TOILET D101B		DOAS 4	STOR. D101A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
47	PERSONAL CARE D105		DOAS 4	SHARED D103	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
48	TOILET D107B		DOAS 4	STOR D107A	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250
49	PENTHOUSE D109 (ADD ALT 4)		TSTAT	PENTHOUSE	2500	0.13	1160	DD	0.17	ODP	115/1/60	NO	SIDEWALL PROPELLER	SEI-18-424-B6
50	OUTDOOR STORAGE 008		TSTAT	IN ROOM	200	0.13	820	DD	43W	VG	115/1/60	NO	CEILING EXHAUST FAN	CSP-A200
51	TOILET 110A		DOAS 5	STOR A110B	220	0.25	1000	DD	67 W	VG	115/1/60	NO	IN LINE CABINET FAN	CSP-A250

- NOTES: 1. TSTAT=THERMOSTAT; HSTAT=HUMIDISTAT; SW=SWITCH; SP=STATIC PRESSURE; TD=WITH 15 MINUTE TIME DELAY  
2. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH FOR ALL EXHAUST FANS, COORDINATING REQUIREMENTS AND INTERLOCKS WITH ELECTRICAL  
3. REFER TO CONTROL DIAGRAMS FOR SPECIFIC SEQUENCES OF OPERATION AND INTERLOCK ARRANGEMENTS  
4. KITCHEN HOOD EXHAUST FANS SHALL COMPLY WITH NFPA 96 REQUIREMENTS  
5. PROVIDE VARIABLE SPEED DRIVES FOR KITCHEN HOOD EXHAUST FANS

ELECTRIC CABINET UNIT HEATER SCHEDULE														
UNIT CUH-X	AREA SERVED	SUPPLY FAN		ELECTRIC COIL CHARACTERISTICS				EMERGENCY POWER	CONFIGURATION			TYPE	BASED ON (BERKO)	
		CFM	RPM	V/ø/Hz	TOTAL CAP. (MBH)	TOTAL CAP. (KW)	AMPS		INLET	DISCHARGE	FLOW			
1	VESTIBULE 025 AREA D	250	1550	277/1/60	17	5	18	NO	FRONT	FRONT	UPFLOW	CEILING MOUNTED	CU HS 935052771 FFNC	
2	VESTIBULE 017A AREA C	250	1550	277/1/60	17	5	18	NO	FRONT	FRONT	UPFLOW	CEILING MOUNTED	CU HS 935052771 FFNC	
3	VESTIBULE 006	250	1550	277/1/60	17	5	18	NO	FRONT	FRONT	UPFLOW	CEILING MOUNTED	CU HS 935052771 FFNC	
4	VESTIBULE 005A	250	1550	277/1/60	17	5	18	NO	FRONT	FRONT	UPFLOW	CEILING MOUNTED	CU HS 935052771 FFNC	

- NOTES: 1. PROVIDE CUSTOM COLOR AS SELECTED BY ARCHITECT  
2. ALL UNITS SHALL BE PROVIDED WITH A DPST DISCONNECT SWITCH.

BASEBOARD RADIATION SCHEDULE											
UNIT BBR-X	AREA SERVED	BTUH/LF	ELECTRIC COIL CHARACTERISTICS			ACTIVE ELEM (FT)	MOUNTING HT. AFF (in)	ENCLOSURE WIDTH. (in)	ENCLOSURE HT. (in)	BASED ON (RUNTAL)	
			V/o/Hz	TOTAL CAP. (BTU)	TOTAL CAP. (WATTS)						
1	PARK & REC OFF 908 (ADD ALT 1)	500	208/1/60	2000	586	4	1 1/2	2 1/4"	10 1/8	EB3-208D	
2	PARK & REC LOBBY 913 (ADD ALT 1)	500	208/1/60	2000	586	4	1 1/2	2 1/4"	10 1/8	EB3-208D	

- NOTES: 1. ACTIVE ELEMENT SHALL BE LOCATED DIRECTLY UNDER WINDOW. PROVIDE END CAPS WHERE ENCLOSURE DOES NOT TERMINATE AT WALL.  
2. MOUNTING HEIGHT IS DISTANCE FROM FLOOR TO THE BOTTOM OF THE ENCLOSURE.  
3. CAPACITY IS BASED ON 65°F ENTERING AIR TEMPERATURE.  
4. PROVIDE ALL END CAPS, ACCESS DOORS, CORNERS, WALL SLEEVES ETC..

GAS FIRED UNIT HEATER SCHEDULE														
UNIT UH-X	AREA SERVED	SUPPLY FAN			ELEC CHAR v/o/Hz	EMERGENCY POWER	NATURAL GAS FURNACE CHARACTERISTICS						TYPE	BASED ON (REZNOR)
		CFM	AMPS	RPM			CAPACITY		VENT CONNECTIONS		EAT (°F)	LAT (°F)		
							INPUT (MBH)	OUTPUT (MBH)	COMBUSTION	EXHAUST				
1	OPERATIONS OUTDOOR STOR. 018	960	3.3	1550	115/1/60	NO	75	62.2	4"ø	4"ø	60	120	HORIZONTAL DISCHARGE	UDAS-75
2	MECH ROOM 608	455	1.9	1550	115/1/60	NO	30	24.6	4"ø	4"ø	60	120	HORIZONTAL DISCHARGE	UDAS-30
3	FIRE PUMP RM 611	455	1.9	1550	115/1/60	NO	30	24.6	4"ø	4"ø	60	120	HORIZONTAL DISCHARGE	UDAS-30
4	PENTHOUSE AREA A	960	3.3	1550	115/1/60	NO	75	62.2	4"ø	4"ø	60	120	HORIZONTAL DISCHARGE	UDAS-75
5	PENTHOUSE AREA B	960	3.3	1550	115/1/60	NO	75	62.2	4"ø	4"ø	60	120	HORIZONTAL DISCHARGE	UDAS-75
6	PENTHOUSE AREA C	960	3.3	1550	115/1/60	NO	75	62.2	4"ø	4"ø	60	120	HORIZONTAL DISCHARGE	UDAS-75
7	PENTHOUSE AREA D	960	3.3	1550	115/1/60	NO	75	62.2	4"ø	4"ø	60	120	HORIZONTAL DISCHARGE	UDAS-75
8	PENTHOUSE A116 (ADD ALT 2)	960	3.3	1550	115/1/60	NO	75	62.2	4"ø	4"ø	60	120	HORIZONTAL DISCHARGE	UDAS-75
9	PENTHOUSE D109 (ADD ALT 4)	960	3.3	1550	115/1/60	NO	75	62.2	4"ø	4"ø	60	120	HORIZONTAL DISCHARGE	UDAS-75

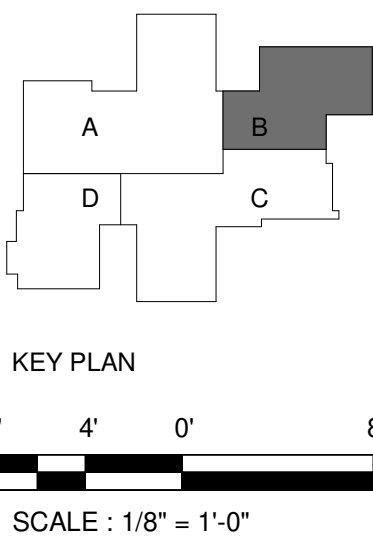
- NOTES: 1. PROVIDE A TOGGLE TYPE DISCONNECT SWITCH FOR ALL UNITS.  
2. PROVIDE CONCENTRIC VENT KIT OPTION FOR ALL UNITS.

GRAVITY INTAKE SCHEDULE									
UNIT OAI-X	AREA SERVED	LOCATION	INTERLOCK	CHARACTERISTICS				ESP (IN H2O)	BASED ON (GREENHECK)
				MAX CFM	FREE AREA (SQFT)	CONNECTION (THROAT)			
1	ELECT RM 303 AREA A	ROOF	F-25	1200	3.11	36x24	0.04	WIH	
2	ELECT RM 3310 AREA B	ROOF	F-26	1500	3.11	36x24	0.04	WIH	
3	ELECT RM 609 AREA C	ROOF	F-27	3000	6.1	48x30	0.04	WIH	
4	OPER. OUTD. STOR. 018 AREA B	ROOF	F-31	1000	2.6	14x14	0.04	WIH	
5	MECHANICAL 608	ROOF	F-32	500	2.3	12x12	0.04	WIH	
6	FIRE PUMP 611	ROOF	F-33	500	2.3	12x12	0.04	WIH	



DRAWING NOTES:

- 1 REFER TO TYPICAL RAIN LEADER DOWNSPOUT BOOT INSTALLATION DETAIL. REFER TO CIVIL DRAWINGS FOR CONTINUATION.



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HUNT VALLEY, MD 21030  
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www.albanengineering.com

I HEREBY CERTIFY THAT THESE  
DRAWINGS WERE PREPARED  
OR APPROVED BY ME AND  
I AM A DULY LICENSED  
ENGINEER UNDER THE LAWS OF THE  
STATE OF MARYLAND.  
LICENSE No. 45531  
EXPIRATION DATE  
06-30-2020

SEAL

BID SET  
FCPS BID #19C14

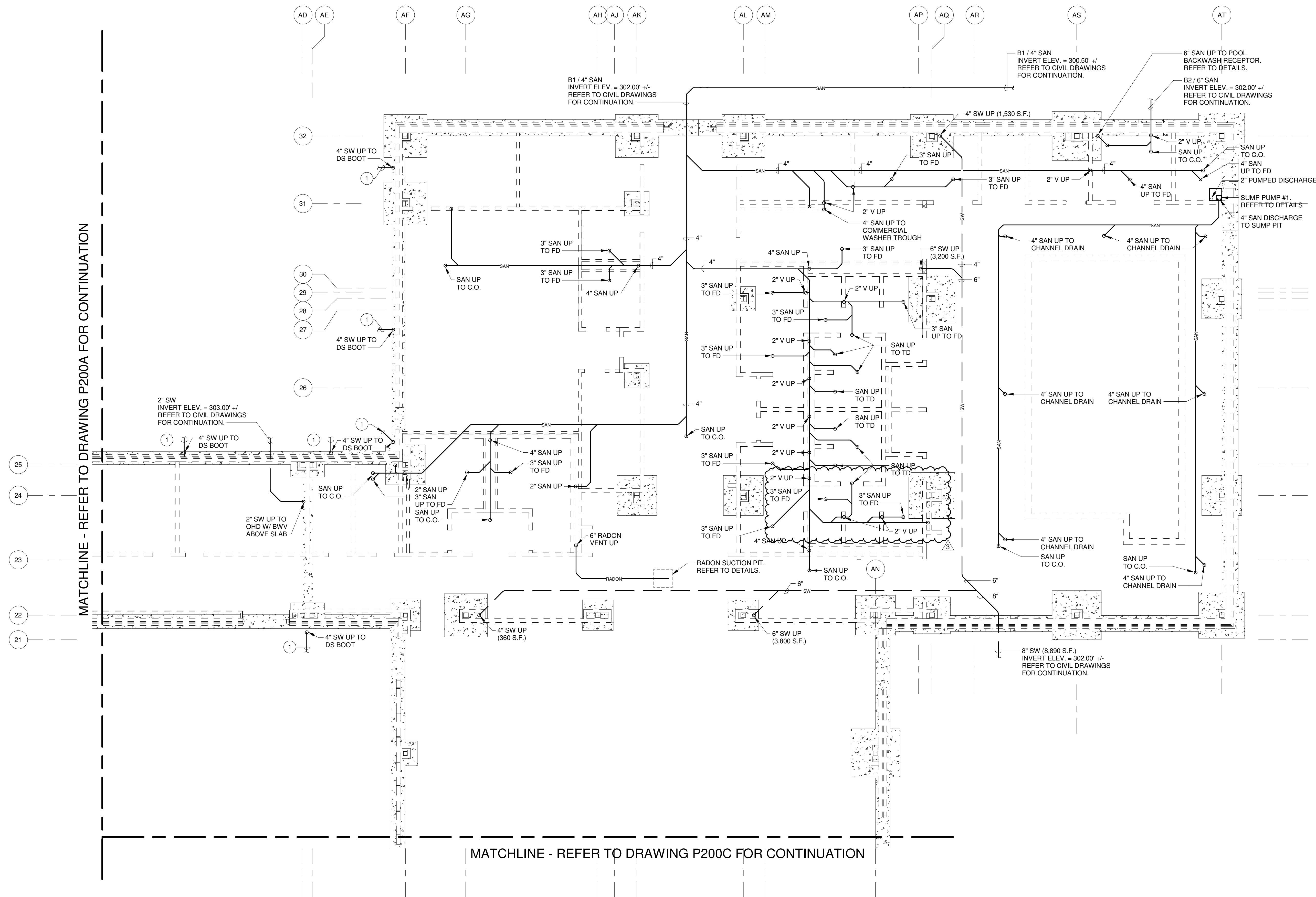
NEW FACILITY FOR:  
ROCK CREEK SCHOOL  
FREDERICK COUNTY PUBLIC SCHOOLS  
55B WEST FREDERICK STREET  
WALKERSVILLE, MARYLAND 21793  
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ISSUE

REV	DATE	DESCRIPTION
3	7/18/19	ADDENDUM No. 3

PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
FOUNDATION PLAN -  
AREA B

P200B



FOUNDATION PLAN - AREA B

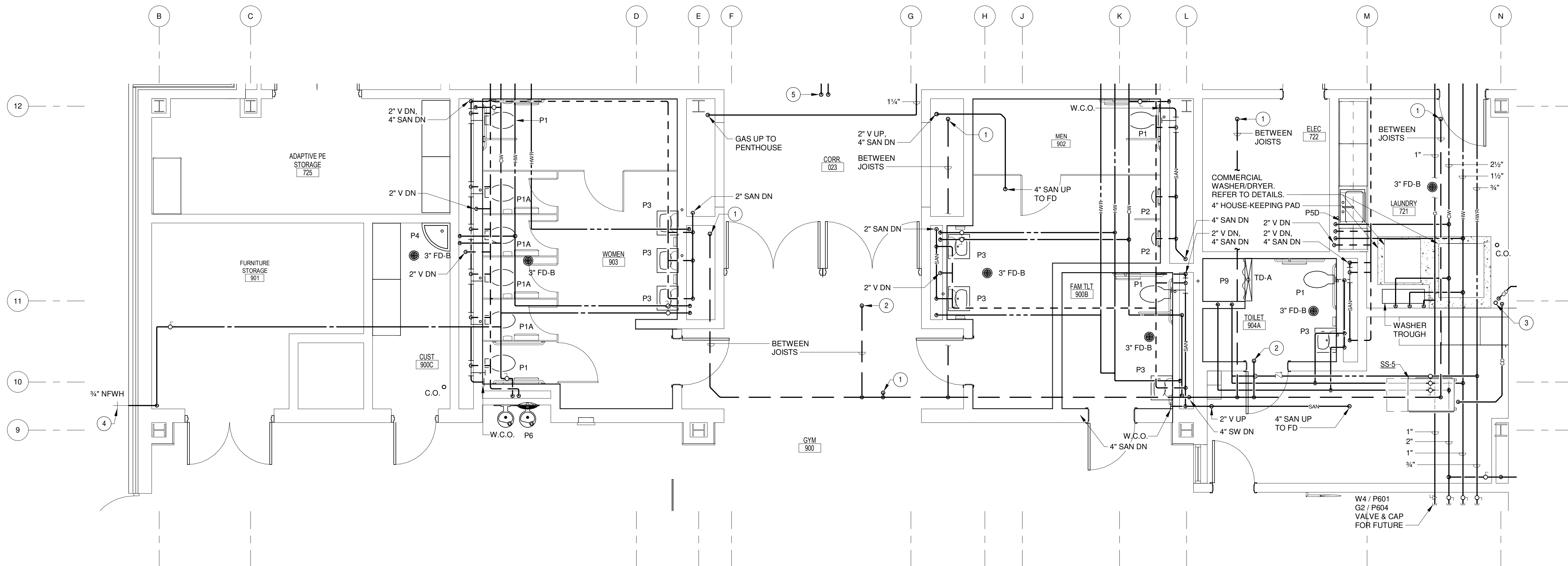
1/8" = 1'-0"



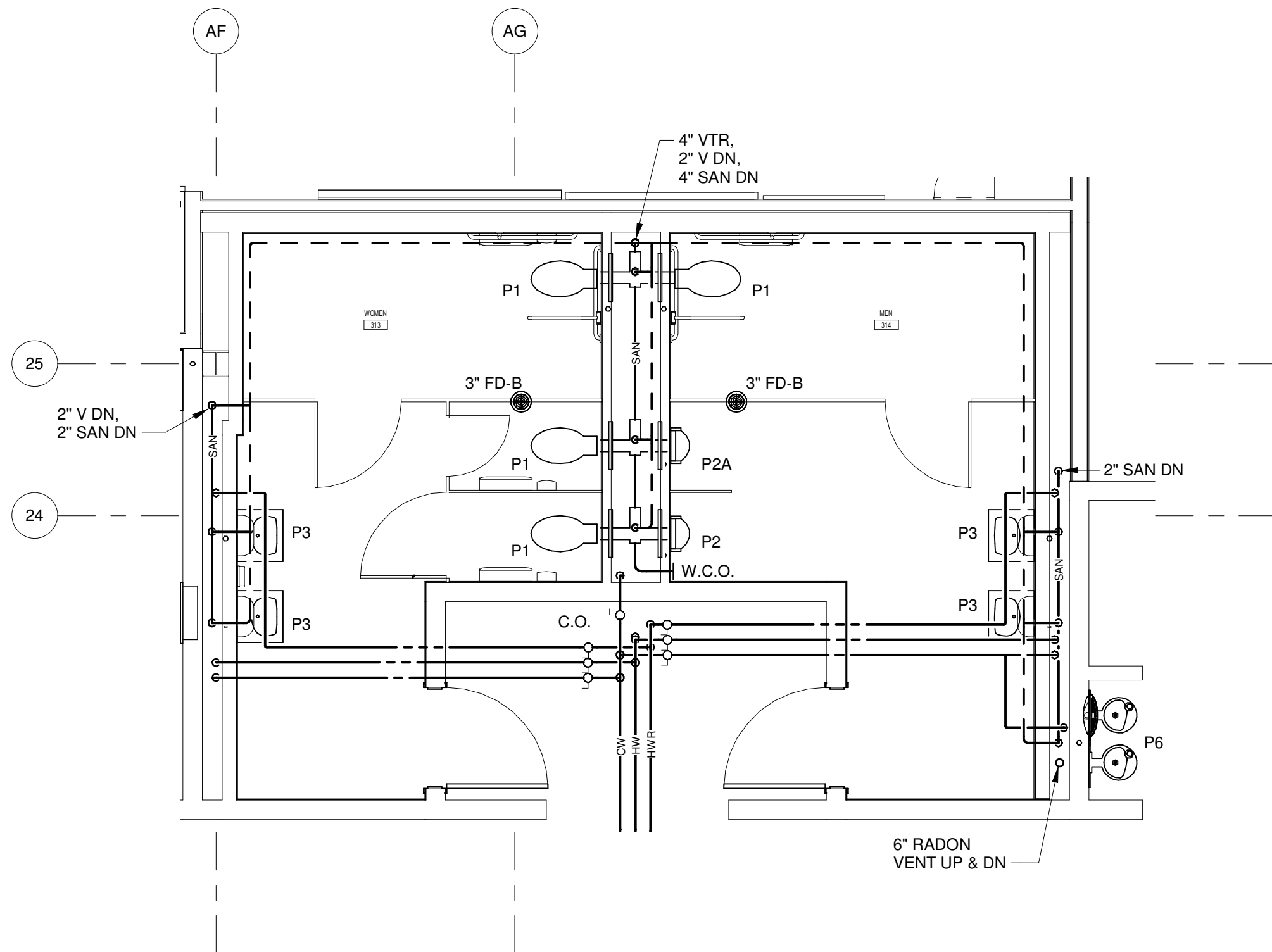


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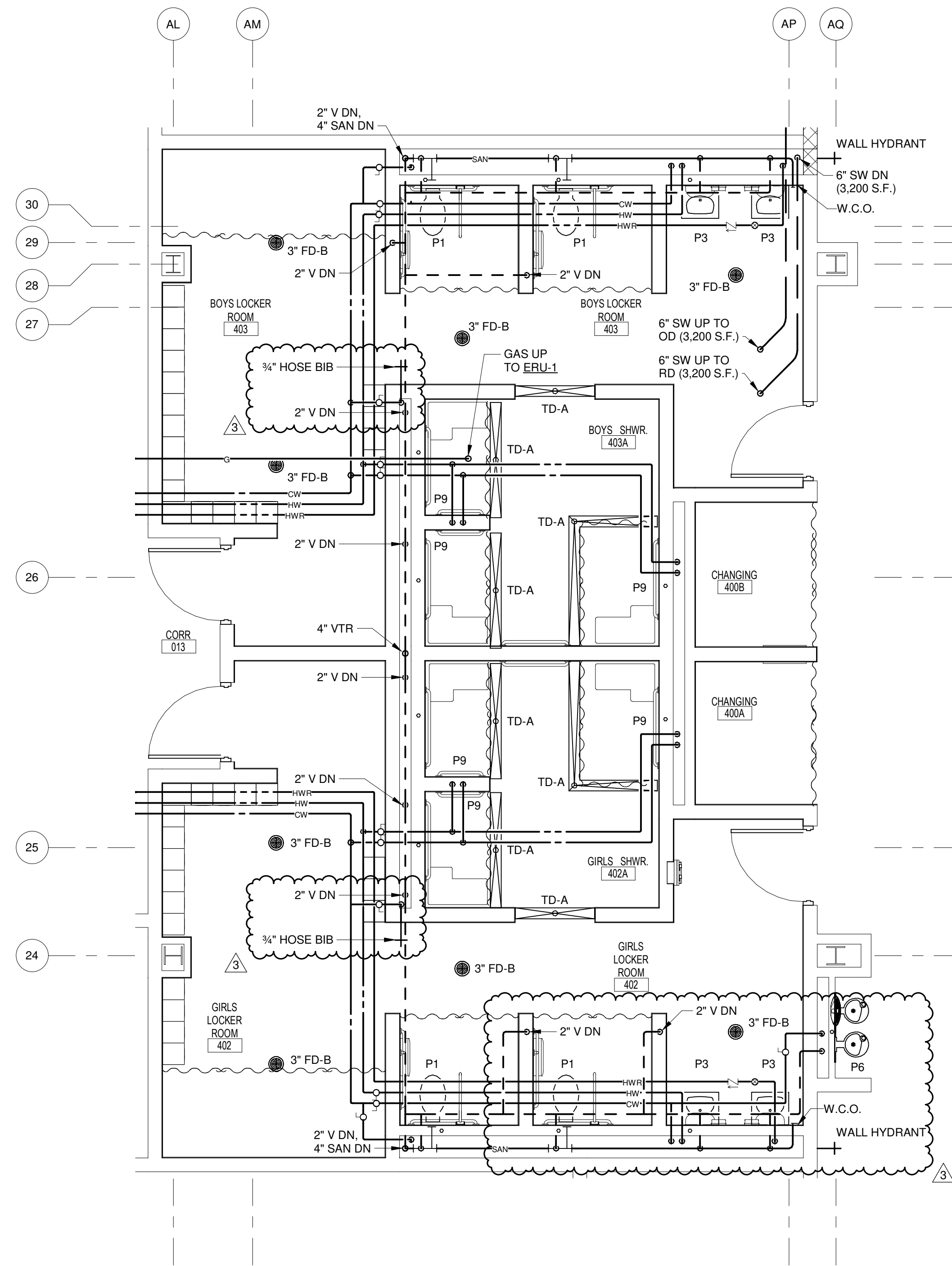
- 2" SW UP TO OPEN HUB DRAIN W/ BWV ABOVE SLAB. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 2" SW UP TO OPEN HUB DRAIN W/ BWV BELOW SLAB. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 2" OPEN HUB DRAIN W/ BWV ABOVE SLAB. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- IF PARK & REC ALTERNATE IS ACCEPTED, EXTEND 3/4" NFWH AND ASSOCIATED PIPING TO EXTERIOR WALL OF CHAIR STORAGE ROOM 900A.
- CW & HW UP TO PENTHOUSE HOT & COLD WALL HYDRANT.



1 PART PLAN - GYM TOILET ROOMS  
1/4" = 1'-0"



2 PART PLAN - WOMEN - 313, MEN - 314  
1/4" = 1'-0"



3 PART PLAN - AQUATIC LOCKER ROOMS  
1/4" = 1'-0"

NEW FACILITY FOR:  
**ROCK CREEK SCHOOL**  
FREDERICK COUNTY PUBLIC SCHOOLS  
55B WEST FREDERICK STREET  
WALKERSVILLE, MARYLAND 21793

REV	DATE	DESCRIPTION
2	7/11/19	Addendum No. 2
3	7/18/19	ADDENDUM No. 3

PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
TOILET & LOCKER  
ROOM PART PLANS

P302

I HEREBY CERTIFY THAT THESE  
DRAWINGS WERE PREPARED  
OR APPROVED BY ME AND  
I AM A DULY LICENSED  
PROFESSIONAL ENGINEER  
UNDER THE LAWS OF THE  
STATE OF MARYLAND.  
LICENSE NO. 4533  
EXPIRATION DATE  
06-30-2020

SEAL

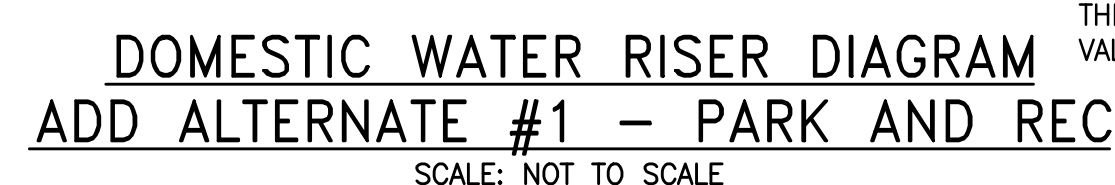
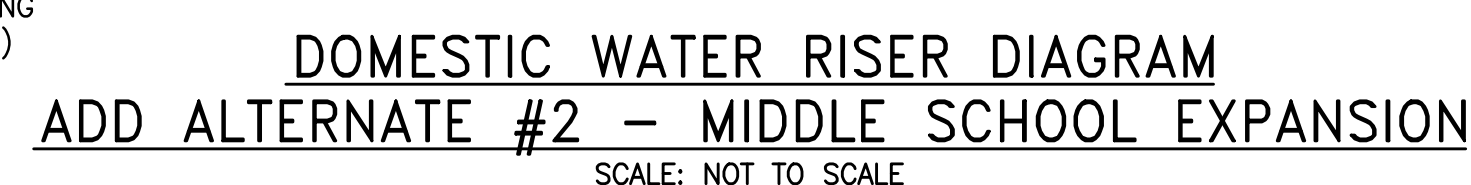
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FOPS BID #19C14

ISSUE

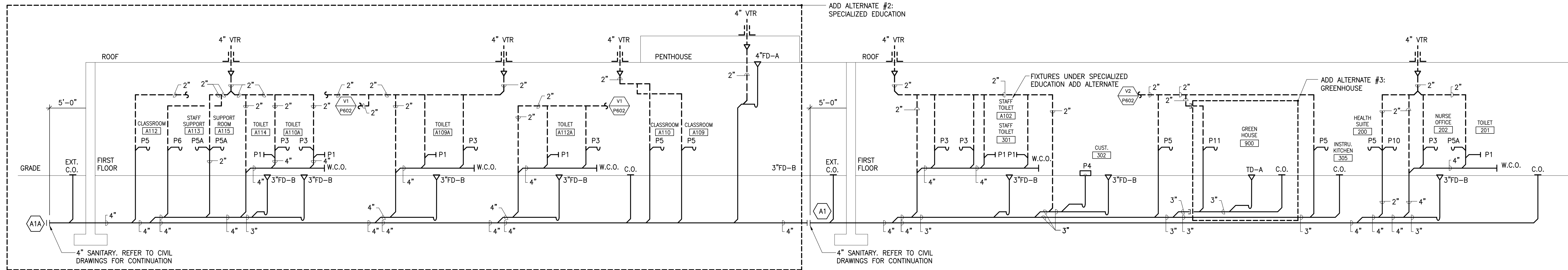
PROJECT NO.: 2017171.00  
DATE: 07-01-2019  
TOILET & LOCKER  
ROOM PART PLANS

P302



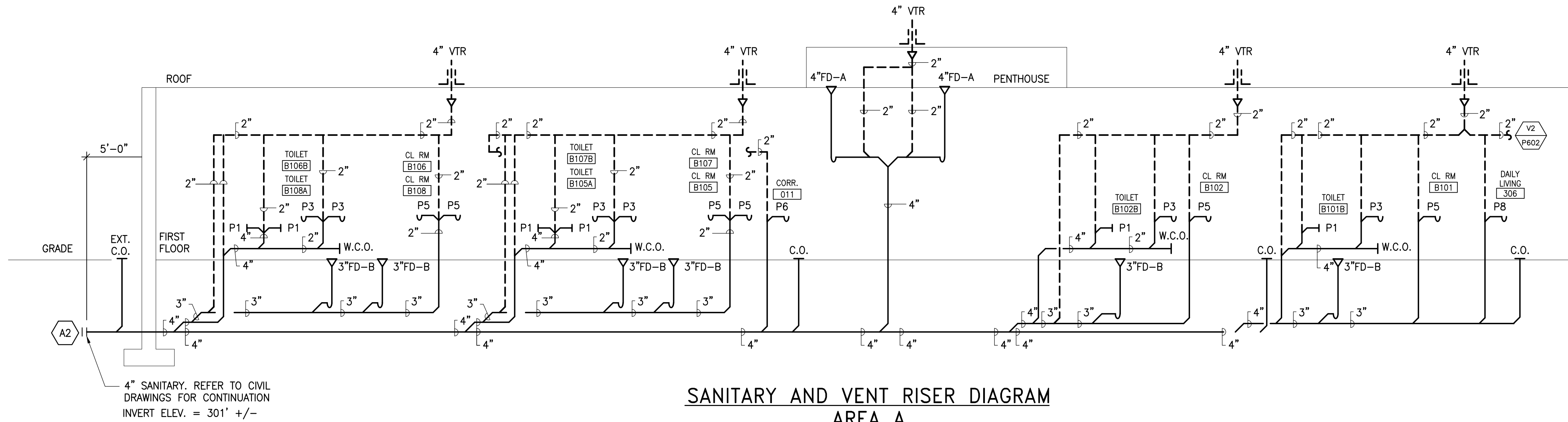






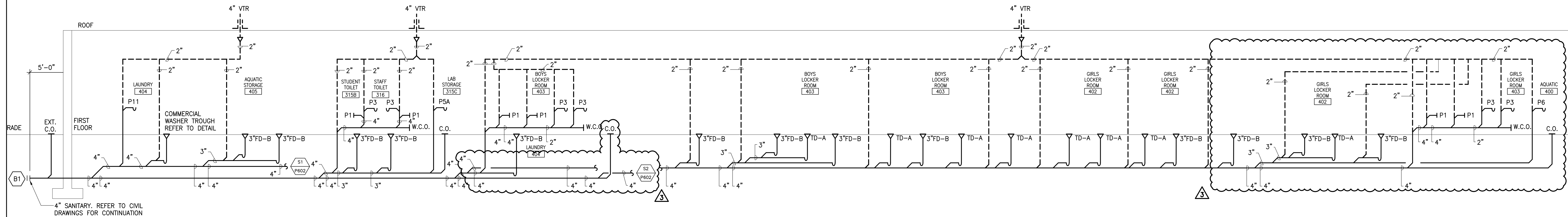
**SANITARY AND VENT RISER DIAGRAM**

**AREA A**  
SCALE: NOT TO SCALE



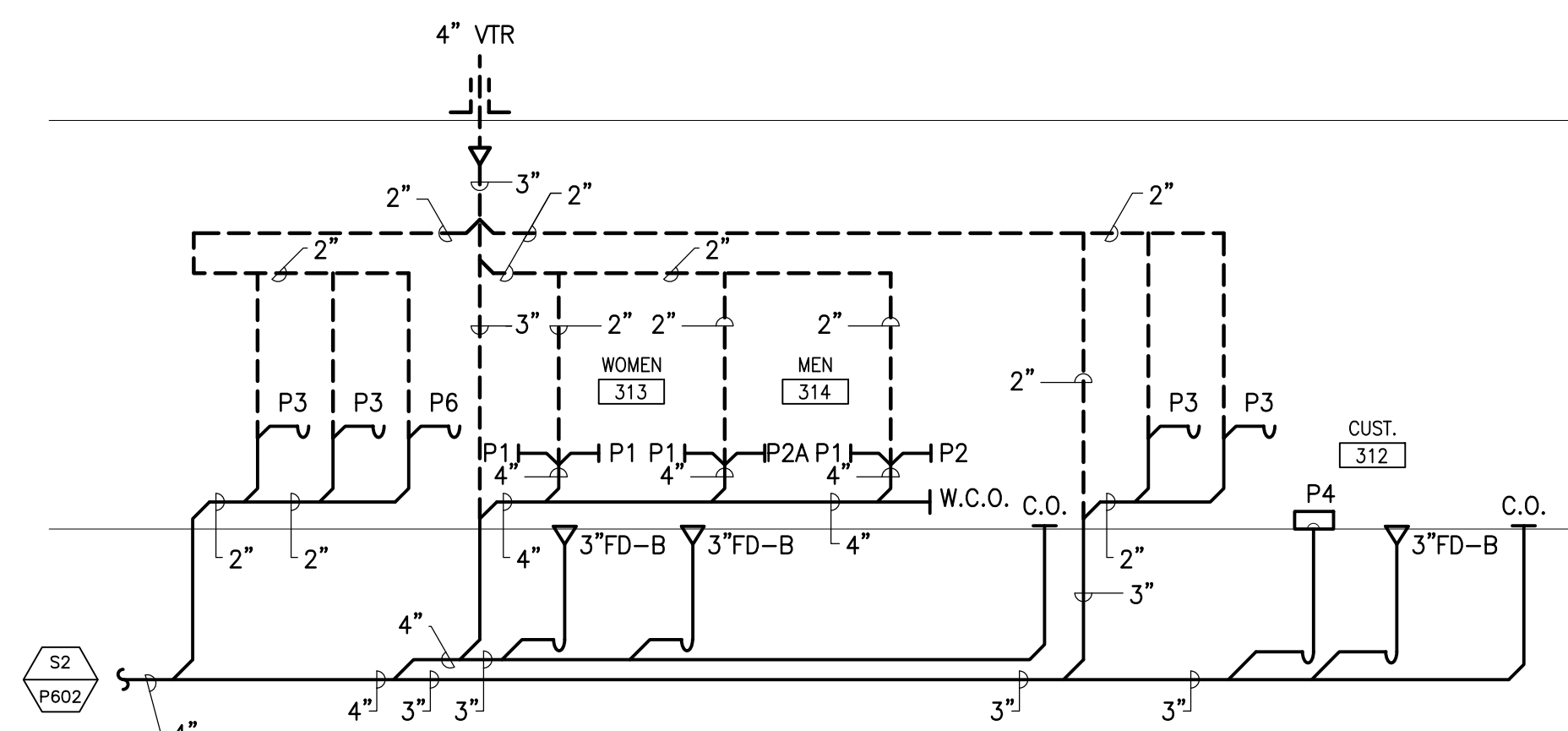
**SANITARY AND VENT RISER DIAGRAM**

**AREA A**  
SCALE: NOT TO SCALE



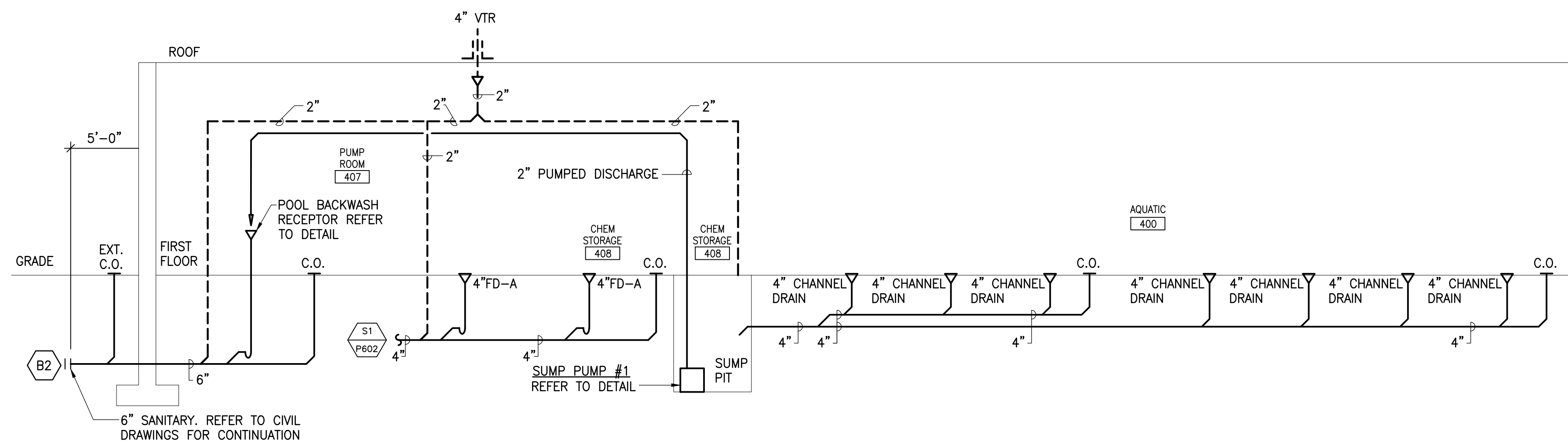
**SANITARY AND VENT RISER DIAGRAM**

**AREA B**  
SCALE: NOT TO SCALE



**SANITARY AND VENT RISER DIAGRAM**

**AREA B - CONTINUED**  
SCALE: NOT TO SCALE



**SANITARY AND VENT RISER DIAGRAM**

**AREA B - AQUATIC**  
SCALE: NOT TO SCALE

REV	DATE	DESCRIPTION
2	7/11/19	ADDENDUM No. 2
3	7/18/19	ADDENDUM No. 3







FUSE Panel: E1LD														
LOCATION: ELECTRICAL 609					VOLTAGE: 480/277 Wye					A.I.C. RATING: 22 kA/IC				
SUPPLY FROM: MSB					PHASE: 3					MAINS RATING: 250 A				
MOUNTING: Surface					WIRES: 4					MCB RATING: 125 A				
										NEUTRAL RATING: 100%				
Notes: *LOCALIZED DAY/LIGHTING ZONE APPLICABLE. ** MEMA dedicated circuit. ***PROVIDE BREAKER AS GFCI TYPE.														
CKT	CIRCUIT	WIRE SIZE	P	CB	A	B	C	CB	P	WIRE SIZE	CIRCUIT	CKT		
E1LD-1	PANELBOARD E1RD (VIA TE1RD)	XFMR SCHEDULE	3	60 A	2.1 kVA	3.0 kVA			20 A	1	(2) #12 + #12GW - 3/4"	LTG. - AREA C/D CLASSRM...	E1LD-2	
E1LD-3	--	--	--	--		1.1 kVA	2.7 kVA			20 A	1	(2) #12 + #12GW - 3/4"	LTG. - CORR.'s 003, 010, 011, 20...	E1LD-4
E1LD-5	--	--	--	--				0.1 kVA	2.5 kVA	20 A	1	(2) #12 + #12GW - 3/4"	LTG. - CORR.'s 012, 013, 015, 017	E1LD-6
E1LD-7	LTG. - MEC/ELEC./MDF/IDF RMs	(2) #12 + #12GW - 3/4"	1	20 A	1.0 kVA	1.3 kVA			20 A	1	(2) #12 + #12GW - 3/4"	LTG. - HEALTH and ADMIN. **	E1LD-8	
E1LD-9	LTG. - STAFF AND PUBLIC REST...	(2) #12 + #12GW - 3/4"	1	20 A			1.2 kVA	2.6 kVA		20 A	1	(2) #12 + #12GW - 3/4"	LTG. - GYM **	E1LD-10
E1LD-11	LTG. - AREA 'D'	(2) #12 + #12GW - 3/4"	1	20 A				1.7 kVA	1.5 kVA	20 A	1	(2) #12 + #12GW - 3/4"	LTG. - GYM **	E1LD-12
E1LD-13	LTG. - AREA A/B CLASSRM....	(2) #12 + #12GW - 3/4"	1	20 A	3.1 kVA	2.8 kVA			20 A	1	(2) #12 + #12GW - 3/4"	LTG. - ALL MECH. PENTHOUSES	E1LD-14	
E1LD-15	LTG. - COMMONS 002, CORR. 009	(2) #12 + #12GW - 3/4"	1	20 A			2.9 kVA	0.5 kVA		20 A	1	(2) #12 + #12GW - 3/4"	LTG. - BUILDING EXIT SIGNAGE	E1LD-16
E1LD-17	LTG. - ENTRY CANOPIES	(2) #12 + #12GW - 3/4"	1	20 A				2.5 kVA	1.8 kVA	20 A	1	(2) #12 + #12GW - 3/4"	LTG. - BUILDING FACADE	E1LD-18
E1LD-19	LTG. - AQUATIC***	(2) #12 + #12GW - 3/4"	1	20 A	2.5 kVA	2.3 kVA			20 A	1	(2) #12 + #12GW - 3/4"	LTG. - DINING**	E1LD-20	
E1LD-21	LTG. - LOCKER ROOMS**	(2) #12 + #12GW - 3/4"	1	20 A			0.9 kVA	2.9 kVA		20 A	1	(2) #12 + #12GW - 3/4"	LTG. - DINING**	E1LD-22
E1LD-23	JOCKEY PUMP - FIRE PUMP 611	(3) #12 + #12GW - 3/4"	3	15 A				1.3 kVA	0.5 kVA	20 A	1	(2) #12 + #12GW - 3/4"	LTG. - BUILDING EXIT SIGNAGE	E1LD-24
E1LD-25	--	--	--	--	--	1.3 kVA	0.0 kVA		--	--	--	--	Space	E1LD-26
E1LD-27	--	--	--	--	--		1.3 kVA	0.0 kVA		--	--	--	Space	E1LD-28
E1LD-29	Spare	--	--	1	20 A			0.0 kVA	0.0 kVA	--	--	--	Space	E1LD-30
E1LD-31	Spare	--	--	1	20 A	0.0 kVA	0.0 kVA		--	--	--	--	Space	E1LD-32
E1LD-33	Spare	--	--	1	20 A		0.0 kVA	0.0 kVA		--	--	--	Space	E1LD-34
E1LD-35	Spare	--	--	1	20 A			0.0 kVA	0.0 kVA	--	--	--	Space	E1LD-36
E1LD-37	Spare	--	--	1	20 A	0.0 kVA	0.1 kVA		30 A	3	(4) #10 + #10GW - 3/4"	SPD - ELECTRICAL 609	E1LD-38	
E1LD-39	LTG. - GYM (ADD ALTERNATE)**	(2) #12 + #12GW - 3/4"	1	20 A			3.2 kVA	0.1 kVA	--	--	--	--	--	E1LD-40
E1LD-41	LTG. - GYM (ADD ALTERNATE)**	(2) #12 + #12GW - 3/4"	1	20 A				2.3 kVA	0.1 kVA	--	--	--	--	E1LD-42
Total Connected Load:			52.7...		19.3 kVA		19.3 kVA		14.1 kVA					
Legend:														
LOAD CLASSIFICATION			CONNECTED LOAD		DEMAND FACTOR		ESTIMATED DEMAND		PANELBOARD TOTALS					
EQUIPMENT -			0.0 kVA		0.00%		0.0 kVA		Total Conn. Load: 52.7 kVA					
REC -			0.0 kVA		0.00%		0.0 kVA		Total Est. Demand: 52.7 kVA					
MECHANICAL -			4.0 kVA		100.00%		4.0 kVA		Total Conn.: 63 A					
LTG. -			28.8 kVA		100.00%		28.8 kVA		Total Est. Demand.: 63 A					

FUSE Panel: E1RD														
LOCATION: ELECTRICAL 609					VOLTAGE: 120/208 Wye					A.I.C. RATING:				
SUPPLY FROM: TE1RD					PHASE: 3					MAINS RATING: 100 A				
MOUNTING: Surface					WIRES: 4					MCB RATING: 100 A				
NEUTRAL RATING: 100%														
Notes:														
CKT	CIRCUIT	WIRE SIZE	P	CB	A	B	C	CB	P	WIRE SIZE	CIRCUIT	CKT		
E1RD-1	FACP - MDF 700	(2) #12 + #12GW - 3/4"	1	20 A	1.0 kVA	1.0 kVA			20 A	1	(2) #12 + #12GW - 3/4"	FACP - MDF 700	E1RD-2	
E1RD-3	FACP - MDF 700	(2) #12 + #12GW - 3/4"	1	20 A		1.0 kVA							E1RD-4	
E1RD-5													E1RD-6	
E1RD-7													E1RD-8	
E1RD-9													E1RD-10	
E1RD-11													E1RD-12	
E1RD-13													E1RD-14	
E1RD-15													E1RD-16	
E1RD-17													E1RD-18	
E1RD-19													E1RD-20	
E1RD-21													E1RD-22	
E1RD-23													E1RD-24	
E1RD-25													E1RD-26	
E1RD-27													E1RD-28	
E1RD-29													E1RD-30	
E1RD-31													E1RD-32	
E1RD-33													E1RD-34	
E1RD-35													E1RD-36	
E1RD-37					0.1 kVA				30 A	3	(4) #10 + #10GW - 3/4"	SPD - ELECTRICAL 609	E1RD-38	
E1RD-39						0.1 kVA			--	--	--	--	E1RD-40	
E1RD-41							0.1 kVA		--	--	--	--	E1RD-42	
Total Connected Load:			3.3 kVA		2.1 kVA		1.1 kVA		0.1 kVA					
Legend:														
LOAD CLASSIFICATION			CONNECTED LOAD		DEMAND FACTOR		ESTIMATED DEMAND		PANELBOARD TOTALS					
EQUIPMENT -			0.0 kVA		0.00%		0.0 kVA		Total Conn. Load: 3.3 kVA					
REC -			0.0 kVA		0.00%		0.0 kVA		Total Est. Demand: 3.3 kVA					
MECHANICAL +			0.0 kVA		0.00%		0.0 kVA		Total Conn.: 9 A					
LTG. -			0.0 kVA		0.00%		0.0 kVA		Total Est. Demand.: 9 A					

Branch Panel: E2LD													
LOCATION: ELECTRICAL 609					VOLTAGE: 480/277 Wye					A.I.C. RATING: 22 KA/IC			
SUPPLY FROM: MSB					PHASE: 3					MAINS RATING: 250 A			
MOUNTING: Surface					WIRES: 4					MCB RATING: 125 A			
NEUTRAL RATING: 100%													
Notes:													
CKT	CIRCUIT	WIRE SIZE	P	CB	A	B	C	CB	P	WIRE SIZE	CIRCUIT	CKT	
E2LD-1	PANELBOARD E2RD (VIA TE2RD)	XFMR SCHEDULE	3	90 A	11.6...	15.0 kVA			150 A	3	XFMR SCHEDULE	PANELBOARD E2RB (VIA TE2RB)	E2LD-2
E2LD-3	--	--	--	--		7.2 kVA	18.3 kVA		--	--	--	--	E2LD-4
E2LD-5	--	--	--	--			9.8 kVA	16.3...	--	--	--	--	E2LD-6
E2LD-7	Spare	--	1	20 A	0.0 kVA	0.0 kVA			20 A	1	--	Spare	E2LD-8
E2LD-9	Spare	--	1	20 A		0.0 kVA	0.0 kVA		20 A	1	--	Spare	E2LD-10
E2LD-11	Spare	--	1	20 A			0.0 kVA	0.0 kVA	20 A	1	--	Spare	E2LD-12
E2LD-13	Spare	--	1	20 A	0.0 kVA	0.0 kVA			20 A	1	--	Spare	E2LD-14
E2LD-15	Spare	--	1	20 A		0.0 kVA	0.0 kVA		20 A	1	--	Spare	E2LD-16
E2LD-17	Spare	--	1	20 A			0.0 kVA	0.0 kVA	20 A	1	--	Spare	E2LD-18
E2LD-19	Space	--	--	--	0.0 kVA	0.0 kVA			--	--	--	Space	E2LD-20
E2LD-21	Space	--	--	--		0.0 kVA	0.0 kVA		--	--	--	Space	E2LD-22
E2LD-23	Space	--	--	--			0.0 kVA	0.0 kVA	--	--	--	Space	E2LD-24
E2LD-25	Space	--	--	--	0.0 kVA	0.1 kVA			30 A	3	(4) #10 + #10GW - 3/4"	SPD - ELECTRICAL 609	E2LD-26
E2LD-27	Space	--	--	--			0.0 kVA	0.1 kVA	--	--	--	--	E2LD-28
E2LD-29	Space	--	--	--			0.0 kVA	0.1 kVA	--	--	--	--	E2LD-30
Total Connected Load:			78.4...	26.7 kVA		25.6 kVA		26.2 kVA					
Legend:													
LOAD CLASSIFICATION			CONNECTED LOAD		DEMAND FACTOR		ESTIMATED DEMAND		PANELBOARD TOTALS				
EQUIPMENT -			4.6 kVA		100.00%		4.6 kVA		Total Conn. Load: 78.4 kVA				
REC -			48.2 kVA		60.37%		29.1 kVA		Total Est. Demand: 59.3 kVA				
MECHANICAL -			11.9 kVA		100.00%		11.9 kVA		Total Conn.: 94 A				
LTG -			0.0 kVA		0.00%		0.0 kVA		Total Est. Demand.: 71 A				





## RFI Summary Log

Grouped by Trade Contractor

Rock Creek Replacement

Project # 148

Dustin Construction, Inc.

RFI #	Subject	Date Submitted	Date Req'd	Date Resp	Days Late
<b>Altimate Electric</b>					
000.PB Wiremold 062		7/17/2019	7/24/2019		
000.PB DAS System 063		7/17/2019	7/24/2019		
<b>BoMark Electric</b>					
000.PB Power Symbol Descriptions 022		7/16/2019	7/23/2019		
000.PB Panel RD 023		7/16/2019	7/23/2019		
<b>CAM Construction</b>					
000.PB Appliance Locations 090		7/18/2019	7/25/2019		
000.PB Casework Substitution Request 091		7/18/2019	7/25/2019		
000.PB Plastic Lockers 092		7/18/2019	7/25/2019		
<b>Canyon Contracting</b>					
000.PB Concrete Site Walls 050		7/17/2019	7/24/2019		
000.PB 03A Scope - Allowance 051		7/17/2019	7/24/2019		
<b>Construction Specialties</b>					
000.PB Construction Specialties Substitution Request 042		7/16/2019	7/23/2019		
<b>Dustin Construction</b>					
000.PB Spray Foam Angle Stop 008		7/11/2019	7/18/2019	7/18/2019	0
000.PB Detailed Scope Assignments 029		7/16/2019	7/23/2019	7/18/2019	-5
000.PB Trade Package Self-Performance 030		7/16/2019	7/23/2019	7/18/2019	-5
000.PB Fire Pump 074		7/18/2019	7/25/2019	7/18/2019	-7
<b>Elite Storage Products</b>					
000.PB Elite Storage Products Substitution Request 009		7/11/2019	7/18/2019		
<b>Glass Industries</b>					
000.PB Glass Type IG-2 010		7/16/2019	7/23/2019	7/18/2019	-5





**RFI Summary Log**  
Grouped by Trade Contractor

RFI #	Subject	Date Submitted	Date Req'd	Date Resp	Days Late
000.PB 011	Scope 08A - Item 18	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 012	Door 020A/1	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 013	Doors 502/1, 502/2	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 014	08A Scope Item 26	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 015	Doors 005A/2 and 006/1	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 016	KAL-2, 3	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 017	Curtain Wall Mullion Caps	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 018	Fire Rated Aluminum/Folding Doors	7/16/2019	7/23/2019		
000.PB 019	Door 406/1	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 020	Curtain Wall Sunshades	7/16/2019	7/23/2019	7/18/2019	-5
<b>Hancock &amp; Albanese</b>					
000.PB 001	Knox Boxes	7/11/2019	7/18/2019	7/11/2019	-7
000.PB 003	Signature Acknowledgement Form	7/11/2019	7/18/2019		
000.PB 005	Residential Appliances	7/11/2019	7/18/2019	7/18/2019	0
000.PB 006	Flag Poles	7/11/2019	7/18/2019	7/18/2019	0
000.PB 024	Builder's Risk Deductible	7/16/2019	7/23/2019		
000.PB 025	Liquidated Damages	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 026	General Scope of Work Item L.3	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 027	General Scope of Work Item M.6	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 028	General Scope of Work Item O.2	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 031	09A Scope Item #21	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 032	Vinyl Wallcoverings	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 033	Terrazzo	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 034	Safety Railing/Cables	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 035	06A Scope Item 14	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 036	06A Scope Item 15	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 037	06A Scope Item 8	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 038	Casework MEP	7/16/2019	7/23/2019	7/18/2019	-5





**RFI Summary Log**  
Grouped by Trade Contractor

RFI #	Subject	Date Submitted	Date Req'd	Date Resp	Days Late
000.PB 039	Greenhouse MEP	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 040	06A Scope Item 17	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 041	06A Scope Item 18	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 043	02A Scope Item 3	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 044	06A Self-Performance	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 045	Corner Guard Locations	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 046	Pegboard	7/16/2019	7/23/2019		
000.PB 047	Wall Coverings	7/16/2019	7/23/2019		
000.PB 048	Curtain in Rooms 402A and 403	7/16/2019	7/23/2019	7/18/2019	-5
000.PB 052	Shower Curtains	7/16/2019	7/23/2019		
000.PB 053	Plan Holders List	7/16/2019	7/23/2019		
000.PB 054	Door Schedule - "AHM"	7/16/2019	7/23/2019		
000.PB 055	Insulation at HM Frames	7/16/2019	7/23/2019		
000.PB 056	Bituminous Coating at HM Frames	7/16/2019	7/23/2019		
000.PB 057	Door 406/1 Material	7/16/2019	7/23/2019	7/17/2019	-6
000.PB 058	Missing HW Sets	7/16/2019	7/23/2019		
000.PB 059	HW Sets A801	7/16/2019	7/23/2019		
000.PB 060	Alt. #2 - Patient Care Equipment	7/16/2019	7/23/2019		
000.PB 061	Curtains at Changing Room	7/16/2019	7/23/2019		
000.PB 066	Patient Care Equipment	7/18/2019	7/25/2019		
000.PB 067	Literature Racks	7/18/2019	7/25/2019		
000.PB 068	Openings 005A/2 and 006/1	7/18/2019	7/25/2019	7/18/2019	-7
000.PB 069	Exercise Equipment	7/18/2019	7/25/2019		
000.PB 078	Bid Date Extension	7/18/2019	7/25/2019		
000.PB 079	Basketball Courts	7/18/2019	7/25/2019		
000.PB 080	Goal Ball Court	7/18/2019	7/25/2019		
000.PB 081	Circulation Desk Cabinet	7/18/2019	7/25/2019		
000.PB 082	Display Tables	7/18/2019	7/25/2019		





**RFI Summary Log**  
Grouped by Trade Contractor

RFI #	Subject	Date Submitted	Date Req'd	Date Resp	Days Late
000.PB 083	STC Rated Doors	7/18/2019	7/25/2019		
000.PB 084	Floor Hatch Specification	7/18/2019	7/25/2019		
000.PB 085	Countertop Edging	7/18/2019	7/25/2019		
000.PB 086	Sill Details	7/18/2019	7/25/2019		
000.PB 087	Solid Surface Integral Bowls	7/18/2019	7/25/2019		
000.PB 088	Wardrobe Closet	7/18/2019	7/25/2019		
000.PB 089	Aluminum-Wrapped Plywood	7/18/2019	7/25/2019		
<b>HP Electronics</b>					
000.PB 075	PA/Intercom Installation	7/18/2019	7/25/2019	7/18/2019	-7
<b>Keller Brothers, Inc.</b>					
000.PB 002	Abacus Sports Substitution Request	7/11/2019	7/18/2019		
<b>Key Systems</b>					
000.PB 064	Temporary Electric Consumption	7/17/2019	7/24/2019		
000.PB 070	SB Bollards	7/18/2019	7/25/2019		
000.PB 071	Electric Vehicle Charging Equipment	7/18/2019	7/25/2019		
000.PB 072	Utility Pump	7/18/2019	7/25/2019		
000.PB 073	Generator Feeder Size	7/18/2019	7/25/2019		
000.PB 076	Access Control	7/18/2019	7/25/2019		
<b>Kinsley Construction</b>					
000.PB 049	Retainage Value	7/16/2019	7/23/2019	7/18/2019	-5
<b>Nevco Sports, LLC</b>					
000.PB 007	Monument Sign Substitution Request	7/11/2019	7/18/2019		
<b>O'Leary Asphalt</b>					
000.PB 065	Striping at Play Area	7/18/2019	7/25/2019		
<b>Paddock Pools</b>					
000.PB 093	Pool Wall Pressure	7/18/2019	7/25/2019		
<b>Panda Windows</b>					
000.PB	Folding Door Substitution Request	7/18/2019	7/25/2019		





**RFI Summary Log**  
Grouped by Trade Contractor

RFI #	Subject	Date Submitted	Date Req'd	Date Resp	Days Late
077					
<b>Scranton Products</b>					
000.PB 004	Scranton Products Substitution Request	7/11/2019	7/18/2019		
<b>Urban N. Zink</b>					
000.PB 021	Geotechnical Report	7/16/2019	7/23/2019	7/18/2019	-5





## Request for Information 000.PB001

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB001**

**Date Submitted: 7/11/2019**

Answer Company	Answered By	Author Company
Dustin Construction, Inc. 2510 Urbana Pike, Suite 201 ljamsville, MD 21754	Matt Evans	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

**Author RFI Number**

Subject	Trade Contractor
Knox Boxes	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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**Question** **Date Required: 7/18/2019**

The drawings show (4) Knox Boxes (2 on page G101 and 2 on page G103), but the scope for the General Trades Package 06A notes to furnish (1) Knox Box (#11 under Miscellaneous Scope Items). Can you confirm which is correct?

**Suggestion**

**Answer** **Date Answered:**

Provide all Knox Boxes as shown on the drawings.





## Request for Information 000.PB005

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB005

Date Submitted: 7/11/2019

Answer Company	Answered By	Author Company
Proffitt and Associates 49 S. Carroll Street Frederick, MD 21701	Donna Rosano	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

Author RFI Number

Subject	Trade Contractor
Residential Appliances	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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Question Date Required: 7/18/2019

There are a few inconsistencies in the drawings in relation to spec section 113013 Residential Appliances:

- 1) The drawings reference two types of washers and dryers that are not listed in the spec section. Please confirm what make and model numbers these washers and dryers should be:
  - a. CW-2, CD-2: Located on A101D in Laundry 721
  - b. CW-3, CD-3: Located on 8/A704 in Laundry 404
- 2) There is a call-out for a CW-4 and CD-4 on the roof on page A102. Please confirm this is either an error or if this is not in reference to appliances.

Suggestion

Answer Date Answered:

Locations for Washer/Dryers:

A101A - In the Daily Living Suite, CW-1 and CD-1

A101B - Laundry Room 404, CW-3 and CD-3

A101C - Lockers 505, CW-4 and CD-4

A101C - Operations Storage 605, CW-1 and CD-1

A101D - Laundry 721, CW-2 and CD-2

1. CW-2, CW-3, CD-2 and CD-3 are commercial grade appliances that are specified in section 11 21 75 - Commercial Laundry and Dry Cleaning Equipment.
2. The tags for CW-4 and CD-4 on the roof are a carryover from the units in Locker 505 and are not additional units.





## Request for Information 000.PB006

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB006**

**Date Submitted: 7/11/2019**

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

Flag Poles

**Trade Contractor**

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/18/2019**

We have found (1) flag pole in the civil plans on page C-3D. Specification 107516, subsection 2.3B notes the exposed heights to be 30 feet and 35 feet, which makes it appear that there may be two flag poles. Please confirm there is only one flag pole as shown on C-3D and which exposed height it should have.

**Suggestion**

**Answer**

**Date Answered:**

There should be one flagpole as shown on the site plan at an exposed height of 30 feet.





## Request for Information 000.PB008

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB008

Date Submitted: 7/11/2019

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

**Author RFI Number**

**Subject**

**Trade Contractor**

Spray Foam Angle Stop

Dustin Construction

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/18/2019

Detail J-1A shows solid wood blocking at the jamb and also references an angle stop for the spray foam. Is an angle stop needed if the wood blocking is installed?

**Suggestion**

**Answer**

Date Answered:

Spray foam is thicker than the wood blocking. The intention of the steel angle is to capture this last thickness of spray foam.





## Request for Information 000.PB010

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB010**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Glass Industries, LLC  
4320 Old Milford Mill Road  
Pikesville, Maryland 21208

**Author RFI Number**

**Subject**

**Trade Contractor**

Glass Type IG-2

Glass Industries

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

In section 088000 glass type IG-2, is the inboard lite to be laminated. The basis of design appears to list (3) lites of glass, but the description below does not.

**Suggestion**

**Answer**

**Date Answered:**

The design intent is to provide triple glazing.





## Request for Information 000.PB011

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB011

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Glass Industries, LLC  
4320 Old Milford Mill Road  
Pikesville, Maryland 21208

**Author RFI Number**

**Subject**

Scope 08A - Item 18

**Trade Contractor**

Glass Industries

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

Page 117 item 18 in specific scope 08A lists some requirements for temporary protection. For bid purposes, are to assume that all openings in the building will require this protection? If not, how many are to be assumed?

**Suggestion**

**Answer**

Date Answered:

The 08A Contractor is responsible for temporary infill of his own openings should his material not be ready for install by the time depicted on the Construction Schedule. The 08A Contractor shall assume all risk with this scope requirement.





## Request for Information 000.PB012

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB012**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Glass Industries, LLC  
4320 Old Milford Mill Road  
Pikesville, Maryland 21208

**Author RFI Number**

**Subject**

Door 020A/1

**Trade Contractor**

Glass Industries

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Is door 020A/1 to be aluminum? It is noted as such on the door schedule but not labeled with a storefront designation on the floor plan.

**Suggestion**

**Answer**

**Date Answered:**

Yes, door 020A/1 shall be aluminum. Frame type is as scheduled AL-1.





## Request for Information 000.PB013

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB013

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Glass Industries, LLC  
4320 Old Milford Mill Road  
Pikesville, Maryland 21208

**Author RFI Number**

**Subject**

Doors 502/1, 502/2

**Trade Contractor**

Glass Industries

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

Please confirm doors 502/1 and 502/2 are not in scope 08A.

**Suggestion**

**Answer**

Date Answered:

Doors 502/1 and 502/2 are Folding Doors per section 083513 - Folding Doors and are by 08A per the Scopes.





## Request for Information 000.PB014

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB014

Date Submitted: 7/16/2019

Answer Company	Answered By	Author Company
Proffitt and Associates 49 S. Carroll Street Frederick, MD 21701	Donna Rosano	Glass Industries, LLC 4320 Old Milford Mill Road Pikesville, Maryland 21208

Author RFI Number

Subject	Trade Contractor
08A Scope Item 26	Glass Industries

Cc:	Company Name	Contact Name	Copies	Notes
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Question Date Required: 7/23/2019

Page 118 item 26 in specific scope 08A notes that steel angles are to be used to span the cavity at storefront heads, jambs, and sills. Please address the following:

- A. It is unclear if this item is detailed at the jambs on sheet A607 (it is not labeled). Should an angle be included here?
- B. The sill details all show blocking. Should we use blocking or is an angle required?
- C. The head details show structural lintels, please confirm this is not in 08A scope.

Suggestion

Answer Date Answered:

- A. Detail has been revised to include wood blocking with an angle stop for the spray foam insulation.
- B. Use wood blocking per details.
- C. Defer to Dustin for Response. [Steel Lintels should be provided by the 05A Steel Contractor and installed 05A if they are welded or installed by 04A if they are loose. Please refer to other scope packages for more information.](#)





## Request for Information 000.PB015

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB015

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Glass Industries, LLC  
4320 Old Milford Mill Road  
Pikesville, Maryland 21208

**Author RFI Number**

**Subject**

Doors 005A/2 and 006/1

**Trade Contractor**

Glass Industries

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

Are doors 005A/2 and 006/1 to be aluminum or hollow metal? On sheet A801 they are listed as aluminum but the frame type is HM-7.

**Suggestion**

**Answer**

Date Answered:

Doors 005A/2 and 006/1 are aluminum. Frame reference should be revised to SF-3 in the Door Schedule on A801 and on the First Floor Plan drawing 1/A801.





## Request for Information 000.PB016

Detailed RFI

Rock Creek Replacement      Project # 148      Dustin Construction, Inc.

**RFI #: 000.PB016**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Glass Industries, LLC  
4320 Old Milford Mill Road  
Pikesville, Maryland 21208

**Author RFI Number**

**Subject**

KAL-2, 3

**Trade Contractor**

Glass Industries

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Are KAL-2-ALT and KAL-3-ALT to be used in lieu of KAL-2 and KAL-3 at alternate #1?

**Suggestion**

**Answer**

**Date Answered:**

That is correct.





## Request for Information 000.PB017

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB017

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Glass Industries, LLC  
4320 Old Milford Mill Road  
Pikesville, Maryland 21208

**Author RFI Number**

**Subject**

**Trade Contractor**

Curtain Wall Mullion Caps

Glass Industries

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

Details 8 and 9 on sheet A607 appear to show curtain wall mullions with extended caps (standard caps are 3/4"). If this is correct, what is the size of the cap? Also, should it only be used at the masonry jambs, or at all verticals? Should it be used at any horizontals?

**Suggestion**

**Answer**

Date Answered:

Cap size should be enough to cover the gap from the masonry to the CMU or stud framing, assume 2 inches.

It should only be used at masonry jambs and horizontals abutting masonry, including sill and head.





## Request for Information 000.PB019

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB019**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Glass Industries, LLC  
4320 Old Milford Mill Road  
Pikesville, Maryland 21208

**Author RFI Number**

**Subject**

Door 406/1

**Trade Contractor**

Glass Industries

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Is door 406/1 to be aluminum or hollow metal? On sheet A602 it is listed as an FRP door in a hollow metal frame but labeled as SF-19.

**Suggestion**

**Answer**

**Date Answered:**

Door 406/1 shall be FRP with an aluminum frame (SF-19).





## Request for Information 000.PB020

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB020**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Glass Industries, LLC  
4320 Old Milford Mill Road  
Pikesville, Maryland 21208

**Author RFI Number**

**Subject**

Curtain Wall Sunshades

**Trade Contractor**

Glass Industries

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Please confirm sunshades are only required at CW2 and CW3.

**Suggestion**

**Answer**

**Date Answered:**

That is correct.





## Request for Information 000.PB021

Detailed RFI

Rock Creek Replacement      Project # 148      Dustin Construction, Inc.

**RFI #: 000.PB021**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Urban N. Zink, Contractor, Inc.  
PO Box S  
Chase, MD 21027

**Author RFI Number**

**Subject**

Geotechnical Report

**Trade Contractor**

Urban N. Zink

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

We are trying to locate the Geotechnical Report for Rock Creek. Could you please advise where it can be located or if it will be in an upcoming addendum?

**Suggestion**

**Answer**

**Date Answered:**

The Geotech report was issued as part of Addendum #2, posted on the FCPS website on July 15th.





## Request for Information 000.PB025

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB025**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

Liquidated Damages

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Spec 002213 - FCPS Supplemental Instructions, para. 21 indicates the Liquidated Damages are \$1,000/day. General Scope of Work for All Trades, item F.6 states the LDs are \$2,500/day. Please clarify

**Suggestion**

**Answer**

**Date Answered:**

Liquidated damages shall be \$1,000/day per Specification Section 002213





## Request for Information 000.PB026

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB026

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

General Scope of Work Item L.3

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

General Scope of Work for All Trades, item L.3 indicates the individual participating in the composite clean-up must a Contractor's full-time employee and not a day laborer. Please reconsider this requirement as it only add costs to the project which the Owner ultimately pays.

**Suggestion**

**Answer**

Date Answered:

Scope item remains as is.





## Request for Information 000.PB027

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB027

Date Submitted: 7/16/2019

Answer Company	Answered By	Author Company
Dustin Construction, Inc. 2510 Urbana Pike, Suite 201 ljamsville, MD 21754	Matt Evans	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

Author RFI Number

Subject	Trade Contractor
General Scope of Work Item M.6	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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Question Date Required: 7/23/2019

General Scope of Work for All Trades, item M.6 indicates the 06A contractor (among others) is required to work 6-day work weeks. General Scope of Work for All Trades, item M.5 requires contractors to work additional crews and/or shifts in order to meet the completion date at the CM's discretion. As we are already required to work 6-day weeks please confirm item M.5 does not apply to 06A.

Suggestion

Answer Date Answered:

Confirmed.





## Request for Information 000.PB028

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB028

Date Submitted: 7/16/2019

Answer Company	Answered By	Author Company
Dustin Construction, Inc. 2510 Urbana Pike, Suite 201 ljamsville, MD 21754	Matt Evans	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

Author RFI Number

Subject	Trade Contractor
General Scope of Work Item O.2	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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Question Date Required: 7/23/2019

General Scope of Work for All Trades, item O.2 indicates the trade contractors are responsible for all cost related to "refinement, detailing and completion of the final design." This appears to be an unreasonable expectation to be placed on the trade contractors to anticipate these additional costs and absorb them at no additional costs the CM/Owner. Please reconsider this requirement.

Suggestion

Answer Date Answered:

Scope item remains as is.





## Request for Information 000.PB029

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB029**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
ljamsville, MD 21754

Matt Evans

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
ljamsville, MD 21754

**Author RFI Number**

**Subject**

**Trade Contractor**

Detailed Scope Assignments

Dustin Construction

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Please provide general details with mark-ups on which trade is responsible for each item for clarification.

**Suggestion**

**Answer**

**Date Answered:**

Please see the Detail Scope Assignments issued in Addendum #2. These are typical conditions meant to be used as guidance however, the verbiage in the Scope Packages shall prevail should there be a discrepancy.





## Request for Information 000.PB030

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB030

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
ljamsville, MD 21754

Matt Evans

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
ljamsville, MD 21754

**Author RFI Number**

**Subject**

**Trade Contractor**

Trade Package Self-Performance

Dustin Construction

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

Are there any requirements for self-performance of certain trade packages?

**Suggestion**

**Answer**

Date Answered:

All Trade Contractors shall review each specific scope in section 002416. Each Trade Package defines the amount of work (by total dollar value) that the Trade Contractor must perform with its own forces. The Owner and CM reserve the right to request further documentation from the Trade Contractor to prove compliance with this requirement.





## Request for Information 000.PB031

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB031

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

09A Scope Item #21

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

09A scope item #21/page 3 calls for this trade contractor to provide metal strapping at all wall mounted items at all metal stud walls. In addition 06A scope item #2/page 1 states the same that 09A is to provide metal strapping. However 06A scope item #3/page 1 says 06A is to provide wood blocking at these same items 09A is to provide strapping for. Please clarify.

**Suggestion**

**Answer**

Date Answered:

Scope items remain as is. CM reserves the right to request a credit from any Trade Contractors where scopes might be covered in more than one trade package.





## Request for Information 000.PB032

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB032**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

Vinyl Wallcoverings

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Spec 097200 – Vinyl Wallcoverings is assigned to 06A. It would seem trade contractor 09F – Painting & Coatings would be a better fit for this work. Please consider reassigning this spec section.

**Suggestion**

**Answer**

**Date Answered:**

097200 - Vinyl Wall Coverings is now part of the 09F Scope.





## Request for Information 000.PB033

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB033

Date Submitted: 7/16/2019

Answer Company	Answered By	Author Company
Dustin Construction, Inc. 2510 Urbana Pike, Suite 201 Ijamsville, MD 21754	Matt Evans	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

Author RFI Number

Subject	Trade Contractor
Terrazzo	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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Question Date Required: 7/23/2019

Spec 096623 – Resinous Matrix Terrazzo is assigned to 06A. It would seem trade contractor 09E – Resinous Flooring would be a better fit for this work being that the scope items on 06A – page 11 all reference the 09E contractor. Please consider reassigning this spec section to 09E.

Suggestion

Answer Date Answered:

Scope assignment remains as is. 06A scope has been revised.





## Request for Information 000.PB034

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB034 Date Submitted: 7/16/2019

Answer Company	Answered By	Author Company
Dustin Construction, Inc. 2510 Urbana Pike, Suite 201 ljamsville, MD 21754	Matt Evans	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

Author RFI Number

Subject	Trade Contractor
Safety Railing/Cables	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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Question Date Required: 7/23/2019

05A scope item #22/page 2 indicates this trade contractor will provide safety rails/cables at slab edges, stairwells roof edges etc. Please confirm the intent of 06A scope item #6 / page 1 is for the 06A contractor to supplement the 05A contractor's safety cabling installation only as required.

Suggestion

Answer Date Answered:

Confirmed.





## Request for Information 000.PB035

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB035**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

06A Scope Item 14

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Regarding 06A – scope item #14/page 3 please confirm that if the storefront door hardware is not installed correctly it is 08A responsibility to make repairs/corrections.

**Suggestion**

**Answer**

**Date Answered:**

Confirmed.





## Request for Information 000.PB036

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB036**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

06A Scope Item 15

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

06A scope item #15/page 3 indicates door hardware must receive "final adjustment" at 6-months after substantial completion and at the end of the (2-year) warranty period. Please clarify what work is intended to be included as part of "final adjustment".

**Suggestion**

**Answer**

**Date Answered:**

Final adjustment should be any and all work required to provide a complete, and properly functioning operation as designed.





## Request for Information 000.PB037

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB037**

**Date Submitted: 7/16/2019**

Answer Company	Answered By	Author Company
Dustin Construction, Inc. 2510 Urbana Pike, Suite 201 Ijamsville, MD 21754	Matt Evans	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

**Author RFI Number**

Subject	Trade Contractor
06A Scope Item 8	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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**Question** **Date Required: 7/23/2019**

Per 06A scope item #8/page 7 – please confirm metal shelving installation must occur after final waxing of the floors.

**Suggestion**

**Answer** **Date Answered:**

Confirmed.





## Request for Information 000.PB038

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB038

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

Casework MEP

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

Please confirm all plumbing and electrical that occurs within the casework/millwork will be by 15A and 16A respectively.

**Suggestion**

**Answer**

Date Answered:

Confirmed. Reference specifications and drawings for more information.





## Request for Information 000.PB039

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB039**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

Greenhouse MEP

**Trade Contractor**

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Regarding 06A – Greenhouse scope Item #1/ page 9, please confirm mechanical, fire protection and electrical that occurs within the Greenhouse is by the respective project trades, 15A, 15B and 16A. Each of these trades has an allowance for this work in their scopes.

**Suggestion**

**Answer**

**Date Answered:**

Greenhouse supplier shall provide all items as required per plans and specifications. Allowances in 15A, 15B & 16A are for additional MEP items or modifications required over and beyond what is currently shown on the Contract Documents.





## Request for Information 000.PB040

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB040

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

06A Scope Item 17

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

Regarding 06A item #17/page 10 please clarify the duration the stair tower will be required.

**Suggestion**

**Answer**

Date Answered:

Figure a minimum 8 weeks.





## Request for Information 000.PB041

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB041**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

06A Scope Item 18

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

Regarding 06A item #18/page 10 are the temporary exit signs to be electrified and if so wouldn't this fall under the 16A scope? Please clarify the work/ sign type required.

**Suggestion**

**Answer**

**Date Answered:**

Provide signs that comply with OSHA/MOSH.





## Request for Information 000.PB043

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB043 Date Submitted: 7/16/2019

Answer Company	Answered By	Author Company
Dustin Construction, Inc. 2510 Urbana Pike, Suite 201 ljamsville, MD 21754	Matt Evans	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

Author RFI Number

Subject	Trade Contractor
02A Scope Item 3	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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Question Date Required: 7/23/2019

02A – Playground Equipment item #3/page 12 states “Aluminum canopies and walkway covers at the Bus Loop shall be by 06A.” Please confirm this work is by 05A per this trade’s scope page 4.

Suggestion

Answer Date Answered:

Confirmed, by 05A





## Request for Information 000.PB044

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB044**

**Date Submitted: 7/16/2019**

Answer Company	Answered By	Author Company
Dustin Construction, Inc. 2510 Urbana Pike, Suite 201 ljamsville, MD 21754	Matt Evans	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

**Author RFI Number**

Subject	Trade Contractor
06A Self-Performance	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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**Question** **Date Required: 7/23/2019**

Please confirm the 06A contractor must perform a minimum of 20% (by costs) of the 06A scope with the contractors' in-house work forces.

**Suggestion**

**Answer** **Date Answered:**

Confirmed





## Request for Information 000.PB045

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB045**

**Date Submitted: 7/16/2019**

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

Corner Guard Locations

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/23/2019**

102600 Wall & Door Protection – Corner Guards (CG-1) and (CG-3) are shown on a few details, but are not called out on the floor or finish floor plans. Corner Guard (CG-2) is not on any drawings or detail. Please advise locations of corner guards so that a count can be determined.

**Suggestion**

**Answer**

**Date Answered:**

Corner guards shall be installed on outside corners of all GWB walls.

CG-1 (PVC, 4') shall be used at all typical locations.

CG-2 (PVC, 4') shall be used at typical locations that are within fire walls.

CG-3 (Stainless Steel, 4') shall be used at Laundry Rooms.





## Request for Information 000.PB048

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB048

Date Submitted: 7/16/2019

**Answer Company**

**Answered By**

**Author Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

Donna Rosano

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

Curtain in Rooms 402A and 403

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

Spec 102800 and 102123: Enlarged Plan 1/A402 notes the L-shaped curtain in rooms 402A and 403 as a "PC-3" curtains by Inpro under the Cubicle Curtain Spec Section, however the detail for "Shower 3" on page A401 calls out a "P" type shower curtain/rod system by Trax Ceiling under the Toilet, Bath and Laundry Accessory Spec Section. Please confirm which type of curtain is needed in this area.

**Suggestion**

**Answer**

Date Answered:

Information on drawings is correct. Accessory P (L-shaped track) should be provided at (2) shower type 3s on the east walls of 402A and 403A. Accessory N (shower rod and hooks) should be provided at (4) shower type 2s on the west walls of 402A and 403A. PC-3 references the privacy curtain, not the track, and should be provided at all showers in 402A and 403A.

Drawing A401, Toilet Accessory Schedule - Add Accessory Description for Item N: Shower curtain rod and hooks.





## Request for Information 000.PB049

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB049

Date Submitted: 7/16/2019

**Answer Company**

Proffitt and Associates  
49 S. Carroll Street  
Frederick, MD 21701

**Answered By**

Donna Rosano

**Author Company**

Kinsley Construction  
3900 E Market Street  
York, PA 17402

**Author RFI Number**

**Subject**

Retainage Value

**Trade Contractor**

Kinsley Construction

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/23/2019

I am having trouble finding the retainage percentage in the contract documents. Would you be able to tell me what that is please? Thanks!

**Suggestion**

**Answer**

Date Answered:

Reference page 5 of the AIA132 document – page 231 of the Div 0 portion under 5.1.4. Progress Payments. 5% until Substantial Completion, then reduced at Owner/CM/Architect discretion after that.





## Request for Information 000.PB057

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB057

Date Submitted: 7/16/2019

Answer Company	Answered By	Author Company
Proffitt and Associates 49 S. Carroll Street Frederick, MD 21701	Donna Rosano	Hancock & Albanese, Inc. 6600 Santa Barbara Road Elkridge, MD 21075

Author RFI Number

Subject	Trade Contractor
Door 406/1 Material	Hancock & Albanese

Cc:	Company Name	Contact Name	Copies	Notes
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Question Date Required: 7/23/2019

Opening 406/1 on A101B is noted as SF-19 which is a storefront frame. However on the Door Schedule (A602) the material for the door and frame respectively is called out as FRP and HM. Please clarify.

Suggestion

Answer Date Answered: 7/17/2019

Duplicate of PB.RFI019. See that response





## Request for Information 000.PB068

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB068**

**Date Submitted: 7/18/2019**

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
Ijamsville, MD 21754

Matt Evans

Hancock & Albanese, Inc.  
6600 Santa Barbara Road  
Elkridge, MD 21075

**Author RFI Number**

**Subject**

**Trade Contractor**

Openings 005A/2 and 006/1

Hancock & Albanese

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/25/2019**

Openings 005A/2 and 006/1 on A801 are called out as HM-7. The Door Schedule on the same sheet notes the frame material as ALUM. Please clarify.

**Suggestion**

**Answer**

**Date Answered: 7/18/2019**

Duplicate of PB.RFI015, refer to that response





## Request for Information 000.PB074

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

**RFI #: 000.PB074**

**Date Submitted: 7/18/2019**

**Answer Company**

**Answered By**

**Author Company**

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
ljamsville, MD 21754

Matt Evans

Dustin Construction, Inc.  
2510 Urbana Pike, Suite 201  
ljamsville, MD 21754

**Author RFI Number**

**Subject**

Fire Pump

**Trade Contractor**

Dustin Construction

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

**Date Required: 7/25/2019**

Should all work related to the fire pump be provided as a part of the add alternate?

**Suggestion**

**Answer**

**Date Answered: 7/18/2019**

All work required to install the fire pump complete should be priced as a part of the add alternate price provided.





## Request for Information 000.PB075

Detailed RFI

Rock Creek Replacement Project # 148 Dustin Construction, Inc.

RFI #: 000.PB075

Date Submitted: 7/18/2019

**Answer Company**

**Answered By**

**Author Company**

Frederick County Public Schools  
191 South East Street  
Frederick, MD 21701-5918

Brian Staiger

HP Electronics  
2300 Sulphur Spring Road  
Baltimore, MD 21227

**Author RFI Number**

**Subject**

PA/Intercom Installation

**Trade Contractor**

HP Electronics

**Cc: Company Name**

**Contact Name**

**Copies**

**Notes**

**Question**

Date Required: 7/25/2019

I was hoping to get some clarification on the school PA/Intercom spec.

Drawing T000 states the contractor shall "Provide and Install a complete Intercom/PA Master Clock System".

Drawing T500 indicates on the rack drawing that all electronics within the Intercom rack "Shall be provide by owner"

**Suggestion**

**Answer**

Date Answered: 7/18/2019

The contractor install of the equipment is correct.



**PART 1 – GENERAL SCOPE OF WORK FOR ALL TRADES**

**A. CONTRACT PACKAGE PROPOSALS:**

1. Proposals in compliance with the Invitation to Bid and Instruction to Bidders will be received for the contract packages included herein.
2. Refer to Document 002413 - Contract Package / Specifications Cross-reference.
3. All contract package proposals must include all items in the package. No exceptions, exclusions, or qualifications are permitted.
4. Contractor shall review the list of unit prices found on the form of proposal, and accepts these rates for potential changes to the work, both adds and deducts, for the duration of the project.
5. Contractor shall be required to carefully review all alternate proposal requests contained within the Contract Documents. Contractor shall provide costs for all work contained in the alternates, associated and/or specifically indicated as part of the Contract Package. Contractor shall be responsible for providing all such work upon acceptance of the alternates by the Owner. Failure to list a price on the alternate proposals will be considered zero cost and does not relieve the contractor from performing the scope of work if the alternate is accepted.
6. Contractors bidding more than one package must submit separate Forms of Proposal for each package.
7. The basis of Trade Contract awards will be made on a best value to the project, considering price, qualifications, MBE (MDOT) participation, LEED requirements, and the acceptance the of contract requirements.

**B. QUESTIONS CONCERNING THE CONTRACT PACKAGE:**

1. All questions concerning the Contract Packages, Form of Proposal and all technical specifications must be brought to the attention of the Construction Manager in writing no later than five (5) business days prior to the bid. All questions shall be emailed to [bids@dustinconstruction.com](mailto:bids@dustinconstruction.com).
2. Work listed in any specification section, which is described, as being in accordance with a related reference section, shall be performed by the Contractor in whose section the work is listed.

**C. CONTRACT PACKAGE INSTRUCTIONS:**

1. This project is being funded over two fiscal years, therefore, upon request, the successful Contractor shall be required to provide two separate costs associated with their Trade Package:
  - a. Costs for all work that takes place between Award and June 30, 2020.
  - b. Costs for all work that takes place on or after July 1, 2020.

This will allow for contracts to be written upon board approval of project. Initial contract will be written for costs expected for first fiscal year, with a locked in change order to follow once funding for second fiscal year becomes available.

2. Contract package specific scope of work instruction sections follow this section and are listed separately by package.
3. The Contractor shall provide all labor, materials, tools, equipment and supervision necessary to complete all of the work required by the Specification Sections designated in Sections 002413 Specifications Cross Reference and 002416 Contract Packages, as being part of the Contract Package for which he is submitting a proposal.



4. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the scope in accordance with the complete set of Contract Documents.
5. The Contract Package instructions are provided to highlight the major portions of the work of each Contract Package and to include supplemental requirements. The Contract Package instructions are not intended to list every portion of the work that is required by the specifications assigned to each Contract Package.
6. The terms Contractor, Trade Contractor, Subcontractor, Supplier, Second Tier Subcontractor, etc. are considered interchangeable when it comes to both the General and Specific scope line items, Contracts and or Purchase Orders.

**D. DUPLICATION OF WORK:**

1. A duplication of any portion(s) of the work in another Contract Package shall not relieve the Contractor of his responsibility to perform all of the work required by his Contract Package instructions. If any such duplication of work is discovered, the Construction Manager or Owner shall decide which contract(s) shall be adjusted to eliminate any such duplication of work.
2. In the event of a conflict between drawings or specified requirements, the Contractor will be responsible to provide the superior quality, quantity, or costlier product and installation as deemed by the Construction Manager, Owner or Architect.

**G. MBE & WORKFORCE DEVELOPMENT REQUIREMENTS**

1. The Project has established Minority Business Enterprise (MBE) participation goals for each Contract Package as listed in the Invitation to Bid. MBE firms must be certified by the Maryland Department of Transportation (MDOT) in order to be counted towards the goals.
2. Contractor shall endeavor to maximize participation by MDOT certified minority firms in its bid. Contractor shall complete and submit all required MBE forms for this project and shall include in its agreements with certified MBE Contractors a requirement to submit these MBE forms to the Owner.
3. Only contractors, vendors or suppliers certified by MDOT (Maryland Department of Transportation) are recognized as certified MBE.
4. In the event MBE participation cannot be achieved, documentation must be provided as described in Division 0.
5. Contractor must provide verification of payment to MBE via canceled check or notarized lien waiver within thirty (30) days of payment from Owner to Contractor if MBE costs were submitted on Contractor's requisition. This verification is to be sent to the Construction Manager no later than the month's following pay application.
6. Contractors are required to furnish copies of executed subcontract or supplier agreements with MBE firms if and when required by Owner.
7. In accordance with Specification Section 012900, Contractor to create on the schedule of values a line called "MBE inclusion". The **mandatory assigned value will be 1% of the total contract value.** This is in addition to the retainage requirements of the contract. Monies will be released as determined by contractor's performance, similar to any other line item in the schedule of values.

**H. WAGE RATES AND SALES TAX**

1. Frederick County Public Schools has issued Prevailing Wage Rates enforced for the duration of this project per Specification Section 004343. Contractor shall pay wages to workers in strict accordance with above mentioned Wage for this Contract. Contractor shall comply with all applicable Labor Standards Provisions



and is also responsible for ensuring that all subsequent tier Contractors comply with the submission on their required payrolls.

All certified payroll reports shall be submitted electronically as required and confirmation receipts are to be faxed to Dustin Construction at 301-810-4345. Any fines incurred for failure to comply and improper or untimely reporting shall be backcharged directly to Contractor.

2. This project is subject to State of Maryland sales tax.

**I. PERMITS, TESTING AND INSPECTIONS**

1. The Owner and or Design Team is to secure the Building and MDE permits only. All other required permits, sub permits, trade permits, approvals, bonds, etc. are the respective Contractor's responsibility.
2. Contractor shall provide full cooperation with all testing agencies, all materials to be tested, and lastly test reports when performing own testing.
3. Owner to provide all inspection and testing as delineated in Specification Section 014000. Any and all other required testing and inspection is the responsibility of the Contractor. Any costs for retesting due to Contractors failure of original tests shall be borne by said Contactor.
4. Contractor shall coordinate with all jurisdictional agencies and inspectors.
5. Contractor shall provide any and all trade certifications, licenses, and sign-offs required to secure any and all approvals, permits, and certifications.
6. Contractor shall perform all work to comply with the rules and the regulations of the governing bodies and state local laws. Contractor shall obtain all required bonds and permits, secure all inspections, and provide all tests and certifications required by code. Contractor shall provide copies of all its permits and inspection certificates to the Construction Manager for their records.
7. Contractor is responsible for providing the required testing and certification through an approved agency for all equipment assemblies that require a UL rating.
8. Provide start up services, testing, turnover and warranty of all materials and equipment, as per specifications. Submit a turnover plan as part of the submittal process indicating the equipment, testing, reporting and witnessing requirements.
9. Contractor shall participate in the commissioning per the specifications.

**F. INSURANCE, BONDS AND RELEASES**

1. The Owner shall procure the Builder's Risk Insurance Policy. The deductible portion shall be paid by the Contractor responsible for any claims against the Builders' Risk Insurance.
2. Unless noted otherwise within the Contract Documents, the following insurance shall be provided by Contractor. All costs associated with required insurances shall be included in the Contractor's cost. Contractor must submit proof of Insurance on a standard ACORD form, for that portion of the insurance which remains the Contractor's, such as off-site, automobile, etc., with additional insureds as required, in accordance with the limits below. Coverage for Additional insured shall include both Ongoing operations and Products and Completed Operations on a Primary and Non-Contributory basis. Waiver of Subrogation shall be provided in favor of the Additional Insureds.

**Workman's Compensation and Employers Liability**

Statutory Limits – Workers Compensation covering all state and local requirements



**SECTION 002416**  
**TRADE CONTRACT PACKAGES**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

Employers Liability Limits  
\$500,000 Each Accident  
\$500,000 Employee for injury by disease  
\$500,000 Aggregate for injury by disease

**Automobile Liability**

\$1,000,000 Per Accident for all Owned, Non-Owned and Hired Autos

**Commercial General Liability**

\$1,000,000 Per occurrence  
\$2,000,000 Aggregate  
\$2,000,000 Products and Completed Operations Aggregate  
\$1,000,000 Personal and Advertising Injury

**Umbrella Liability or Excess Liability**

\$5,000,000 Per occurrence  
\$5,000,000 Aggregate

3. Contractor to include a 100% performance bond and a 100% payment bond from a surety company acceptable to the Construction Manager. Contractor also required to include bid bond per the specifications.
4. Contractor to include with pay applications all required lien releases.
5. Contractor shall comply with all insurance regulations as required by local jurisdictions and the contract documents. Additionally, the Contractor is required to provide insurance certificates for each of his subcontractors and material suppliers who will be onsite. All insurance certificates must be submitted prior to start of work onsite.
6. Date of Substantial Completion is as follows:
  - a. 1/29/2021 New Building
  - b. 4/5/2021 – Site
  - c. 5/17/2021– SWM Project Sign off

Liquidated damages in the amounts stated in the contract documents **(\$1,000/day)<sup>3</sup>** will be assessed in the event a Contractor fails to achieve or contributes to the cause of the failure to not reach any or all Substantial Completion(s) as stipulated.

7. Despite any reference throughout the bid documents to the contrary, a bid bond is required to be in place for a minimum of **180 calendar days** from the time of bid.

**H. SUBMITTALS AND RFI'S**

1. Electronic files may be available for use by Contractor for a fee to be determined by the Architect. Contractor agrees to sign waiver and assumes all liability and understands this is solely for their beneficial use for preparation of shop and coordination drawings. Files most likely will be in REVIT format, any costs associated with conversion of files from REVIT to Contractor's required file type, is to be done at the respective Contractor's time and expense. Failure to provide files in a timely fashion does not relieve this contractor of responsibility of submission time frames dictated here-in. Any delay in construction due to a delay in the submittal and or procurement process will be this contractor's responsibility. Any and all acceleration costs of subsequent trades will be the responsibility of this contractor.
2. Contractor shall provide all required submittals to the Construction Manager within sixty (60) days after issuance of a "Letter of Intent" or the Contract, whichever is issued first or sooner if necessary to avoid delay to work of all other Contractors. Contractor shall use a submittal cover sheet with all applicable required information completed; conforming and in accordance with the intent of the document.
3. No substitutions will be allowed without pre-bid written approval of the Architect and/or Owner, and must be clearly identified as such and conform to Specification Section 016000. Non-conformance submittals which are rejected shall not be cause for schedule delay.



4. Contractor to submit for approval one (1) pdf of all submittals for proper distribution to Architect, Consultants, and Engineers for review. Contractor to submit additional hardcopies to Jurisdiction Having Authority upon request at no additional cost. After submittals are approved for use, Contractor to then scan and return one (1) pdf copy back to the Construction Manager for distribution to other trades for coordination. Contractor acknowledges the design team is allotted a minimum of 14 calendar days for review of submittals and cannot claim delay due to submittal review if reviewed within this allotment. Hard copies of submittals shall be provided upon request.
5. Within seven (7) days of the issuance of the Letter of Intent or Contract, whichever is first, despite any other reference, the Contractor will forward to the Construction Manager the following:
  - a. Safety Program
  - b. Submittal Log
  - c. Submittal Request Log detailing submittals from other trades required by this contractor
  - d. Closeout Log
  - e. List of Attic Stock Requirements
6. RFI's are to be submitted electronically for processing by the construction manager to the design team and owner. Contractor acknowledges the design team is allotted a review time of 7 days and therefore a delayed response is not cause for a delay to the contractor unless over the 7 day review time.

**I. SUSTAINABLE DESIGN REQUIREMENTS (LEED)**

1. Contractor is aware this is a LEED "Silver" project and shall comply in a timely fashion with requests of Construction Manager to properly plan and document this project.
2. All Contractors are responsible for LEED requirements per Specification Sections 017419 and 018113 in addition to LEED requirements listed in individual specification sections pertaining to work installed under their respective contract packages.
3. In accordance with Specification Section 012900, Contractor to create on the schedule of values a line called "LEED." The **mandatory assigned value will be 1% of the total contract value.** This is in addition to the retainage requirements of the contract. Monies will be released as determined by contractor's performance, similar to any other line item in the schedule of values.

**J. SAFETY**

1. Contractor shall be required to conduct his activities in a safe manner and shall be responsible for observing the safety regulations of MOSH, OSHA, and local life safety agencies. Contractor shall comply with applicable laws, ordinances, rules, regulations and orders of governing authorities having jurisdiction including the Construction Manager or Third-Party Inspection service, for the safety of persons and property to protect them from damage, injury or loss, immediately and without recourse to additional cost.
2. The Contractor's personnel, his Subcontractors, and Suppliers' personnel shall at all times demonstrate proper behavior and act in a courteous manner. The Contractor shall remove from the Project or cause to be removed from the Project any such personnel who demonstrate unacceptable behavior (as determined by the Contractor and/or Construction Manager). Removal from the Project shall be permanent.
3. Contractor shall furnish, install, provide, and maintain all traffic control (including flagmen) for this Contractor's work as required by the Contract Documents and/or governing authorities having jurisdiction over them.
4. Contractor shall furnish, install, and maintain all safety and/or warning signs as required for this work and/or per the direction of the authorities having jurisdiction over the work.



5. Contractor shall furnish, install, and maintain all fall protection and barricades, including toe boards, with its scaffolding systems
6. 06A Contractor is to furnish, install, and maintain temporary general use fire extinguishers onsite and in building per MOSH/OSHA requirements for general building protection. All Trades are to provide own fire extinguishers, blankets, and any other provisions for burning, welding, soldering, braising, or any hot/fire work performed by the Contractor in performance of their work in any area as specifically necessary.
7. Contractor is to erect and maintain, as required by conditions and progress of the work, all necessary safeguards for safety and protection, including fences, railings, barricades, lighting, posting of danger signs, caution tape, flagging, and other warnings against hazards. Contractor is to ensure all of its own work forces and subcontractors are equipped and utilizes required Personal Protective Equipment (PPE) to facilitate its scope. Contractor is responsible for initiating, maintaining and supervising all safety precautions and programs in connection with this contract as related to the scope of work being performed. The Contractor shall provide safe access to his work for the Owner, Construction Manager, Architect, Consultants, Testing Agencies, etc. to inspect and test the work.
8. The Contractor shall conduct required Safety Meetings and shall provide a copy of the minutes and attendance list for each meeting to the Construction Manager's Superintendent.
9. In the event the Owner or Construction Manager is cited for MOSH/OSHA violations due to, arising out of, relating to, or in any way attributable to actions or inactions by the Contractor and/or by any of its subcontractors, agents, servants, employees, or representatives, the Contractor shall be liable for and shall be responsible for all losses, costs, expenses and damages incurred by the Owner and/or Construction Manager including, but not limited to:
  - a. Legal Fees;
  - b. Fines and/or penalties assessed;
  - c. Reimbursement for employee costs to attend any related meetings and/or proceedings;
  - d. Reimbursement for incidental costs such as document searches, document production, and document copying;
  - e. Increased insurance premiums
10. In the event that any work on the project is delayed or disrupted because of any MOSH/OSHA directives or citations arising out of, relating to, or in any way attributable to actions or inactions by the Contractor (and/or by any of its Contractors, agents, servants, employees, or representatives), the Contractor shall be liable for and shall be responsible to pay for all losses, costs, expenses and damages incurred by the Owner and/or Construction Manager.
11. If required, Contractors must obtain a Hazardous Materials Permit from Frederick County Department of Permitting Services for any tank, barrel, or container, which contains flammable or hazardous fuel/material. Furthermore, any tank, barrel, or container, which contains flammable or hazardous fuel/material, shall be protected in a manner acceptable to MOSH. This includes, but not limited to, chain-link fencing with posts driven a minimum 2'-6" below grade or 6" steel bollards 8' long driven 3' into the earth 4' on center around perimeter of area. No fuel or any substance may be placed in tanks until condition is reviewed and approved by MOSH or in writing by the Contractor's Safety Officer. Under no circumstance shall any tank, barrel, or container, which contains flammable or hazardous fuel/material, be placed within 10' of any temporary or permanent road.
12. Under no circumstance shall trades be working without clear separation from staff and/or students. Contractor includes any and all costs for each employee undergoing the background check as part of the base bid. Employees which fail to comply with this regulation will be immediately removed from the project.
13. All contractors working with Portland Cement or a Portland Cement based product, are required to provide Eye Wash Station(s) as required by MOSH or OSHA. Contractor to provide multiple stations located as necessary to comply.



14. Perimeter and floor opening protection will be installed and maintained by designated Contractors. If the protection interferes with completion of work, then respective Contractor shall remove and replace the protection in compliance with the CM's Project Safety Plan and all OSHA/MOSH standards. If a Contractor creates a hole, opening, fall or trip hazard, the same Contractor must properly cover, secure and label such hazard.
15. All Contractors shall designate a Safety Officer who is required to have and maintain an OSHA 10-hour certification. This Safety Officer can be the Contractors Foreman as long as the Contractor does not have more than 45 workers on site.

**K. PUNCHLIST, AS-BUILTS, WARRANTIES, O&M'S AND CONTRACT CLOSEOUT**

1. Contractor shall maintain a set of as-built drawings as required by the contract documents. Contractor will also assist the Construction Manager with updating the Construction Manager's field as-built drawings. Contractor understands that as-built drawings will be checked on a monthly basis and will be reviewed as a prerequisite to requisition approval. Contractor shall submit three (3) hard copy sets and (1) pdf copy of final certified as-built drawings within ten (10) days prior to substantial completion to the Construction Manager. Contractor shall provide complete operation and maintenance manuals with spare parts list a minimum of ten (10) days prior to substantial completion to the Construction Manager.
2. All work to complete lists, inspection lists, etc, shall be completed within ten (10) days of issuance to contractor, or sooner as deemed by the project schedule.
3. All punch list work must be completed within twenty (20) calendar days of issuance of such list, distributed via fax, e-mail, or standard mail, whichever format is issued first. In the event the Contractor fails to complete all list items, which pertain to their scope of work, within the twenty (20) day time frame, the Contractor shall reimburse the Construction Manager directly at a rate of five hundred dollars (\$500.00) per calendar day until all applicable punch list items are complete. This is in addition to any other damages clause in the contract. If the Contractor fails to reimburse the Construction Manager directly, within ten (10) days after issuance of the invoice, the Contractor's Surety for the project shall be held liable for compensation and payment to the Construction Manager. The Surety shall issue payment to the Construction Manager within fifteen (15) days of receipt of invoice from the Construction Manager. The issuance of payment and performance bonds to the Contractor by the Surety shall be construed as acceptance of this condition of the contract. In no way does any verbiage or implied conditions of the bond supersede this condition of the contract, nor does enforcement of liquidated damages negate this clause, as liquidated damages are only enforced in regards to a delay to substantial completion; punchlist work occurs after substantial completion.
4. In accordance with Specification Section 012900, Contractor to create on the schedule of values a line called "Punchlist". **The mandatory assigned value will be 1% of the total contract value.** This is in addition to the retainage requirements of the contract. Monies will be released as determined by contractor's performance, similar to any other line item in the schedule of values.
5. Contractor shall furnish and install touch-up paint at all equipment installed by this Contractor.
6. After completion of Commissioning, Contractor shall be responsible for all training and demonstration requirements for all equipment and systems it has installed per the specifications. Contractor includes professional recording of all required training. Media to be provided within seven (7) days of each training session. Either in addition to the training requirements of respective specifications or in the event no training requirements are specified, Contractor to include either an additional or minimum training of 8 hours per system installed, to be used at Owner's discretion. All additional training to be tracked via ticket basis, any unused hours shall be credited back to the Owner.
7. Contractor shall be responsible for replacing and repairing at no cost to the Owner and / or the Construction Manager any work performed by this Contractor that is determined to be unacceptable to the Owner, Construction Manager, and / or applicable inspectors. In said event, the Contractor shall coordinate and prioritize its work as to eliminate impact to the project schedule.



8. Contractor shall guarantee or warranty its work against deficiencies and defects in materials and / or workmanship for two (2) years from the date of substantial completion. Contractor shall furnish all operations manuals, maintenance manuals, cleaning instructions, supplier / manufacturer warranties, and the like for all work performed.
9. Contractor shall participate in Project walk through(s) immediately prior to the expiration of all warranties and/or guarantees provided under the work of this contract. Any deficiencies noted will be corrected by Contractor at no additional cost to the Construction Manager/Owner.
10. Contractor shall provide start up services, turnover, and warranty of all materials and equipment, as per specifications. Contractor shall submit a turnover plan as part of the submittal process indicating the equipment, testing, reporting and witnessing requirements
11. In regards to Project Closeout, Specification Section 017700, Contractor to create on the schedule of values a line called "Closeout Documents and As-Built." The **mandatory assigned value will be 1% of the total contract value.** This is in addition to the retainage requirements of the contract. Monies will be released as determined by contractor's performance, similar to any other line item in the schedule of values.
12. Contractor to include attic stock per the specifications. Contractor to submit list within 7 days of award the required attic stock per the specifications for review and approval by Construction Manager. Any materials originally intended for attic stock, which were used during project completion will be replaced at no charge to the owner within 20 calendar days following substantial completion. All attic stock will be given in full packaging. Where specifications call for a percentage, material will be rounded up to the next full package. Opened material will not be accepted for attic stock.

**L. CLEAN UP**

1. Contractor to create on the schedule of values a line called "Cleanup." The **mandatory assigned value will be 1% of the total contract value.** This is in addition to the retainage requirements of the contract. This is an arbitrary value and not to be construed as the required value of cleanup. Monies will be released as determined by contractor's performance of daily cleanup, similar to any other line item in the schedule of values.
2. The Contractor shall provide daily clean-up and disposal of all trash, debris, and excess material generated by this work and or workers. Contractor includes all required brooms, shovels, employee PPE, etc. Means and Methods shall be as required within the Construction Manager's Waste Management Plan for the Project. Should the Contractor's cleanup be unsatisfactory, the Construction Manager shall perform the work at the Contractor's expense, and deduct said costs from respective contractor's contract. A formal notice to cure is not required for Construction Manager to cleanup on the contractor's behalf.
3. In addition to the requirement of providing daily cleanup of self generated debris from work and or workers, the 04A, 06A, 09A, 15A and 16A contractors are to include 1 man (must be a Contractor full time employee, providing unsupervised day laborer(s) will not suffice) per every 10 men contractor has onsite, with a mandatory minimum of one man if contractor has less than 10 men onsite. This requirement will be utilized for the 04A, 06A, 09A, 15A and 16A contractors to participate in a composite cleanup crew. Composite cleanup days will be every Wednesday from 7am to 2pm. Construction Manager will provide trash carts, dumpsters and sweeping compounds, all other equipment, PPE or otherwise, i.e. brooms, shovels, etc., are to be contractor provided. As contractor is participating in the general cleanup crew requirements as well as performing own daily cleanup, monies per General Scope Item L-1 will be released as any other line item in the schedule of values. It is anticipated that the contractors will have lulls in work onsite and will assist with trash removal from building with both added manpower and equipment. Each week a different trade will take the lead in this effort, as assigned by Construction Manager.
4. Contractor shall be responsible for all street cleaning as necessary for dirt and debris that may be generated by its trucks and / or equipment and including this Contractor's suppliers and subcontractors.



5. When performing cleaning work, use only approved HEPA type vacuum units. No “blowing out” (pressure cleaning) will be allowed.
6. At the start of final cleaning of spaces, contractors requiring access into spaces to perform work, inclusive of punchlist work, will be required to wear “booties” to help protect finished spaces, provided at contractor’s own expense. This will be a zero-tolerance policy, any contractor’s forces which fail to comply will be removed from site and respective Contractor is then responsible for all costs with re-cleaning of room(s) as necessary to Owner satisfaction, inclusive of removal of furniture and furnishing(s) if need be.

**M. SCHEDULE**

1. The Construction Manager has issued with the bid a “Preliminary Schedule” to assist Contractors in evaluating when they can be expected to be onsite and the associated duration to complete their work. After award, the Construction Manager will solicit major trades’ input on the schedule in regards to sequencing and durations. In the event a Contractor wishes for more time, they will be given an opportunity to submit a request on a first come first serve basis, and if the overall schedule allows, duration changes may be accommodated. **Despite any reference to the contrary, the Construction Manager is the sole and final judge of durations necessary to complete the work.** The Construction Manager will then publish a Construction Schedule with input from the Contractors after the bid, which will be the Project’s Baseline Schedule to measure acceptable progress. The Construction Manager will make monthly updates to the Baseline schedule as the job progresses and issue to all trades for their use. If a Contractor fails to maintain scheduled progress, the Construction Manager will issue a notice to cure. In the event the Contractor fails to get back on schedule, or issue a recovery schedule to the Construction Manager within five (5) days, the Construction Manager and or Owner reserves the right to supplement the Contractor’s forces with others and deduct all costs from the Contractor’s contract balance. Only one (1) notice is required to be issued. Contractor acknowledges The Preliminary Schedule is not the Construction Schedule and is subject to revisions at the sole discretion of the Construction Manager.
2. This work shall be performed in accordance with the schedule as updated irrespective of the amount of overtime or level of manpower, equipment, and supervision required. The Contractor shall not be entitled to any damages or other compensation from the Owner or Construction Manager by reason of delay or interruption of its work caused by other Contractors working on the project, weather impact, plan approval and/or permit issuance, or Owner delays, other than a time extension. Incorporated into the project schedule are days for inclement weather based on the last five-year average for the area. Neither the Owner nor Construction Manager will be charged for any incidental stand-by-time by the Contractor, or any of its agents, sub-subcontractors, suppliers, vendors, or deliveries.
3. Contractor shall maintain at all times sufficient manpower levels to meet scheduling requirements and avoid delay to other phases and or trades work. The Construction Manager shall determine whether the Contractor’s manpower level is sufficient to diligently execute the work.
4. Contractor shall be responsible for coordinating his work with the other trades so that conflicts are avoided and that the expeditious progress of the project is not hampered. Any Contractor who believes that a potential conflict may exist shall notify the Construction Manager immediately and follow-up in writing within three (3) days.
5. The Contractor agrees that if, in the good faith judgment of the Construction Manager, the Contract completion date will not be met, the Contractor shall immediately, without any further direction, take any and / or all of the following actions and any other additional actions as otherwise directed by the Construction Manager, necessary to insure timely completion, at no additional cost to the Construction Manager and / or Owner:
  - Increase the Contractor’s resources, equipment and manpower in such quantities and crafts that will insure, in the good faith judgment of the Construction Manager, timely completion of the Contract completion dates.
  - Increase the number of working hours per shift, shifts working per day, working days per week, the amount of construction equipment, and/or any combination thereof, that will insure, in the



good faith judgment of the Construction Manager, timely completion of the Contract completion dates

- Reschedule activities to achieve maximum practical concurrency of accomplishment of activities that will insure, in the good faith judgment of the Construction Manager, timely completion of the Contract completion dates

6. The 02A, 03A, 04A, 05A, 06A, 07A, 09A, 15A, 15B, 16A Contractors shall be required to work Monday through Saturday as part of the base bid costs. All other Contractors must work Monday through Friday, forty (40) hours minimum work week, as part of the base bid. Jobsite hours are as follows:

Monday – Thursday – 6:30am to 4pm

Friday- 6:30am – 3:30pm

Saturday – 6:30am – 3:30pm

Sunday – As required, coordinated no later than Wednesday prior

In the event a trade such as a mason wants to work over the weekend, regardless of losing or not losing hours during the work week, the MEP trades should adjust manpower accordingly during the week to avoid unneeded overtime. This overtime will not be paid by Owner or Construction Manager.

In addition, if any hours for any trade is lost during the typical Monday through Friday work week due to weather, Saturday(s) will be the mandatory makeup day(s) until lost weather hours during the week are made whole. Lost weather is viewed on a per project basis, not a per week or month basis.

7. Contractor is aware of and will comply with all required noise ordinances and levels as prescribed by any and all Authorities Having Jurisdiction (AHJs), including but not limited to the Town of Walkersville, Frederick County, and the State of Maryland.

Decibel (db) levels are measured at the project's property line. In the event a fine is issued for failure to comply, the offending contractor, as determined by Construction Manager, will be backcharged same amount. Contractors which will knowingly exceed these decibel levels must apply for a temporary exemption with the appropriate AHJ.

8. Multiple mobilizations may be required and are included within this Contractor's work as needed.
9. This contractor understands that other contractors may be on site during the work of this contract. Contractor agrees to make every effort to cooperate and coordinate the schedule of the work with that of the other Contractors as to not delay the project. Contractor shall coordinate on a daily basis with other Contractors and Construction Manager to avoid conflicts in installation. Correction or re-installation of work due to lack of coordination will be done at no cost to the Owner or Construction Manager.
10. Notwithstanding any other provision of the Contract Documents, Contractor agrees that in no event shall it make a claim or other demand for any delay, disruption or hindrance to the prosecution of the Work, unless Contractor is subjected to a complete and full work stoppage resulting in a continuous delay, disruption or hindrance in the prosecution of critical path Work of five (5) days or longer due to causes beyond its fault or control, in whole or in part.

**N. PAY APPLICATIONS**

1. The Contractor shall provide a Schedule of Values with a detailed breakdown per building area within 10 days of award. General conditions shall include cost of bond(s), general cleanup, and contract closeout cost stipulations only. All mobilization, material, equipment and installation costs shall be included in each line item.
2. The Owner and Construction Manager shall have the right to access and audit the Contractor's project records and documents as necessary to verify that Contractor has complied with all the terms and conditions of the contract. In the event of a claim by the contractor against the Owner, the Owner and Construction Manager



shall have the right to access and audit all of the Contractor's records, books, estimates, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the claim. All change order cost paid to the Contractor on a cost reimbursable basis shall be subject to audit by the Owner and Construction Manager. Audit of change orders cost may require access to the supporting documentation of the lump sum contract. The Owner shall also have the right to audit all the related records of subcontractors who are paid on a cost reimbursable basis. Contractor shall include a clause to this effect in its contract with subcontractors. Contractor and subcontractors shall preserve all project documents for a period of three (3) years after final acceptance of the project by the Owner.

3. Notwithstanding anything to the contrary elsewhere in the contract documents, the Owner will pay the Contractor cost only (no markup) for materials stored onsite or at an approved offsite location. The Contractor shall provide manufacturer/supplier invoices to validate amounts requested. Stored materials must be onsite or at the approved offsite location at the time the Contractors draft requisition is submitted to the Construction Manager. In addition to supplier invoice(s), bill of sale and insurance certificates must be attached to the draft requisition. Approval of stored materials are also subject to inspection at offsite facility by Owner and/or Construction Manager. Contractor includes all costs related to travel expenses in the event the Owner and/or Construction Manager wish to verify stored materials offsite. Failure to comply with any or all of these requirements will result in the billing of stored materials being rejected
4. Pay applications are due as follows:
  - No later than the 20<sup>th</sup> of each month, projecting to the end of the month, Contractor to submit draft application to Construction Manager via pdf/email.
  - No later than the 25<sup>th</sup> of each month, the Owner, Architect and Construction Manager to review and make comments on draft applications, and return comments via pdf/email back to the Contractor for revision
  - No later than the 28<sup>th</sup> of each month, Contractor to submit final pdf for confirmation by Construction Manager, at which time Construction Manager will advise final hard copy to be sent to main
  - No later than the 30<sup>th</sup> of each month, Contractor to have mail final hard copy to Construction Manager's main office for processing and subsequent payment

**O. POTENTIAL CHANGE ORDERS**

1. Change order rates shall be based upon the wage scale (minimum) as issued as part of the Contract Documents in section 004343-Prevailing Wage Requirements.
2. Contractor is responsible for the review of the complete Contract Documents for their scope of work and coordination with contiguous work. All drawings and specifications must be read in conjunction with each other. Contractor recognizes that the plans and specifications are not necessarily complete, refined or detailed for construction of the Project. Contractor represents it is experienced in the construction of similar projects and realizes that refinement, detailing and final completion of design will occur.  
**Contractor agrees that his Trade Contract Price anticipates and includes the cost for the refinement, detailing, and completion of the final design. Contractor further understands and agrees to no change in the Trade Contract Price is to result therefrom, unless scope of this work is changed due to an Owner change. Contractor further agrees it has included in its price those contingencies, by its expert view and its understanding of similar projects, necessary to provide a complete project as anticipated by the Design guidelines and per all Contract Documents issued.** Additionally, Contractor shall work with Construction Manager and the Designers to assure the work is not altered, modified or transformed from the Design Intent. Contractor agrees that in no event will it seek additional monies or compensation for changes required by the Contract Documents to meet the initial RFP and/ or code requirements, unless the change is Owner initiated and Owner paid.
3. All costs for proposed changes in work must be submitted within fifteen (15) calendar days from the date of written request (letter, meeting minutes, fax, email, etc). In the event the Contractor fails to submit a



complete itemized proposal within the timeframe Contractor will be contractually bound to accept the following:

- I. **Additions** - Contractor will proceed at no cost change or time extension and will perform the work at once or when required in order to avoid any impact to the Project's schedule as directed by the Construction Manager.
- II. **Credits** - The construction Manager will estimate the cost of the credit and the Contractor will be bound to accept a deduct change order for the amount as estimated by the Construction Manager
- III. **T&M** - In the event the Contractor is directed to proceed with extra work on a time and material (T&M) basis, Costs for this work must be submitted as an itemized proposal within ten (10) calendar days from the date the work was actually performed and verified. Any T&M tickets not signed by the Construction Manager or Owner on the date(s) the work was performed will be rejected and any payment denied.
  - a. A complete itemized proposal includes but is not limited to:
  - b. A copy of the document which initiated the change
  - c. Change request format sheets as found in the specifications or as provided by the Construction Manager
  - d. Contractor's itemized breakdown take off
  - e. Subcontractor's itemized breakdown take off (as necessary)
  - f. Rental ticket invoices, material invoices, vendor invoices
  - g. Any other backup as requested by the Construction Manager or Owner.

**P. MISCELLANEOUS SCOPE**

1. CM's field office facilities, telephones and facsimiles are not for Contractor use.
2. Smoking, Vaping and use of tobacco products onsite or within the building shall not be permitted. Smoking/Vaping areas shall be located no closer than 20 ft. from the property line. Compliance shall be in accordance with LEED and the Drug Free School Zone Policy.
3. Contractor agrees to bind every Sub-Contractor and Vendor by the terms of the Contract Documents and this Agreement; however, it shall not be construed as creating any contractual relations between any of the Sub-Contractors or Vendors and the Construction Manager.
4. Contractor shall be required to store material in an area designated and agreed upon by the Construction Manager's Superintendent. Contractor acknowledges specified laydown, staging, etc. areas may have to be adjusted/relocated during the course of construction, Contractor agrees to be in compliance at no additional cost to Construction Manager or the Owner
5. The Contractor will provide full-time, onsite, competent, English speaking supervision and adequate facilities in order to coordinate and supervise the work. The onsite representative is to be authorized to make decisions on the contractor's behalf. The onsite supervisor is not to be utilized to operate equipment. This supervisor is to be a full-time employee of the Contractor. Utilization of a subcontractor or lower tiered subcontractor as the Contractor's representative will not be tolerated. Contractor will be backcharged \$250/day for each day there is lack of competent, English speaking, Contractor full time employed supervision.
6. The Contractor shall attend weekly Foreman's Meetings as scheduled by the Construction Manager. The Meeting Agenda shall include general site issues and detailed discussion of work to be performed for the following two (2) weeks. Failure to attend foreman's meeting will result in a \$250 backcharge for each



unattended meeting starting 2 weeks prior to mobilization through punchlist completion.

7. The Contractor's assigned Project Manager shall attend a Project Manager's Meeting, initially every six to eight weeks, as the job progresses they will be monthly. Agenda to include status of submittals, RFI's, change requests by Owner or Design Team, procurement issues, manpower, inspections, testing, closeout documents, etc. Failure to attend a scheduled Project Manager's Meeting will result in a \$250 backcharge for each unattended meeting starting 2 weeks prior to mobilization through punchlist completion. This is for Project Manager's, not superintendents, foreman, lead foreman etc.
8. The Contractor's assigned Project Manager and onsite supervisor must have the physical capabilities to exit their vehicles and walk the jobsite on a day to day basis. No special accommodations will be made by the Construction Manager.
9. Contractor will provide field reports for its own forces and all of its Subcontractors' to the Construction Manager's field Superintendent on a daily basis. These reports must include at a minimum, manpower (detailed by classification of workers), activities performed (detailed by Area of the building or site), and equipment utilized. This is considered a prerequisite for release of payments to the contractor.
10. The Contractor is advised that surrounding facilities will remain operational throughout the entire duration of the contract. The Contractor shall conduct his operations in such manner to avoid any disruption to the surrounding facilities.
11. The Construction Manager will establish building control lines (one north-south and one east-west) and an elevation benchmark. All Contractors shall provide any additional layout and survey work required for work installed under their respective Contract Packages.
12. Contractor shall perform its own survey of existing conditions and notify the Construction Manager of any discrepancy prior to the start of the Contractor's work. Start of work shall constitute this Contractor's acceptance of the existing conditions.
13. Contractor shall provide all material and labor associated with the fiber work inside of the existing Walkersville Middle School to bring back the conditions to their original condition or better after the 16A Contractor has finished their work. 06A Contractor shall be responsible for any selective demolition work and all other trades are responsible for their respective trade work.
14. Contractor is responsible for providing a complete and operational scope of work in accordance with the Contract Documents and all state, county, and local authority having jurisdiction over the work.
15. Contractor has a full understanding and knowledge of contract documents and takes full responsibility for their implementation and coordination.
16. Contractor is responsible for dewatering any and all excavations created by this Contractor caused by any means including rain water, run-off from perimeter properties, underground water, leeching water, underground streams, and the like. Contractor is responsible for cleaning of substrate which Contractor's work is to be applied to, i.e. cleaning of footings in order to start masonry.
17. If there are Owner, Construction Manager, or other trade furnished items that are to be installed by the Contractor, the Contractor must provide a minimum of forty five (45) day written notice to the Construction Manager prior to the installation date of each item. The Contractor shall be liable for costs associated with delay should this Contractor fail to meet this requirement. This Contractor shall schedule, receive, inspect, inventory, store, rig, and install all items furnished by others that are to be installed by this Contractor. Contractor is responsible at the time of delivery for the verification of these items for correctness, and shall report any discrepancies in writing to the Construction Manager within forty-eight (48) hours. If discrepancies are not reported within that time frame, the Contractor shall be responsible for those items in its charge.



18. Contractor shall schedule all material and equipment deliveries through the Construction Manager. Contractor shall phase, sequence, deliver, and store its materials and equipment in a manner which provides full and continual access for all trades. Contractor to coordinate night work as required keeping continual access to the site with the Construction Manager.
19. Contractor shall be responsible for the site / building in its charge. It shall protect adjacent and its own work and materials from soiling or damage.
20. Contractor shall furnish all access doors and frames in all walls, floors, and ceilings as required for its work under this contract whether they are indicated in the contract documents or not. Contractor shall coordinate the locations of all access doors with the Construction Manager. Installation of all trades access doors is by the 09A Contractor.
21. Contractor includes all fire/smoke stopping, stuffing with rockwool, firecaulking, sound and/or weather sealants etc at all penetrations required for own work. This is to be at both sides of walls, floors, etc., as applicable
22. Contractor is responsible for contacting and coordinating with Miss Utility and or a private utility locating company for locating and marking existing utilities if required to perform this work
23. Contractor to submit a truck route plan within 30 days of notice of award. Strict adherence to approved plan will be enforced. Complaints by the neighborhood will not be tolerated, contractor will be held accountable via backcharge of \$250 per complaint.
24. It is recommended Contractor submit a 3<sup>rd</sup> party detailed preconstruction survey of access, roadways, sidewalks, existing facility, etc prior to mobilization (in the form of video, photos, etc.). In the event it is determined access points and roadways to the site are damaged and must be replaced, all contractors will share in the cost as determined by the Construction Manager if a 3<sup>rd</sup> party preconstruction survey cannot prove otherwise.
25. Contractor includes any and all temporary utilities, i.e. water and power, to perform its work as permanent utilities may not be available for use. Construction Manager will provide temporary toilets for Contractors use.
26. Contractor shall coordinate with all other trades regarding built-in and embedded items required by the Contract Documents
27. Contractor shall furnish and install covering and protection for all equipment provided or installed by this Contractor.
28. Contractor shall provide for all its material deliveries, hoist equipment with operators, hot / cold weather protection (including tenting, heaters, and enclosures), scaffolding, and related items needed for work to proceed expeditiously, and without interruption.
29. Contractor shall furnish and install all waterproofing and counter-flashing of its work when it penetrates the completed roof system, walls, and any other weather barrier surfaces. Any work performed by other contractor's in having to go behind and make this contractor's penetrations weather-tight will be back-charged to this contractor.
30. Contractor shall include material and labor cost increases for the duration of the project. Unless specifically noted otherwise in contractor's specific scope of work, no escalation will be entertained. All material, labor and equipment escalation costs are inclusive with the Trade Contract and therefore have been fully priced according to the baseline completion dates.
31. This project will utilize 3D Building Information Model (BIM). A base model will be provided by the design team, and shall be used to develop a more detailed model for construction purposes. The Construction Manager will hire a third-party BIM Information Manager. The 05A, 09A, 11A, 15A, 15B and 16A Contractors are responsible for the development of a 3D model to BIM LEVEL 300 for all components of work installed under



their respective contract packages. This model will be used as the basis to produce shop drawings and as-builts, as well as for coordination, fabrication, and installation. All models are required to be developed utilizing software that is compatible with Navisworks and Revit. 3D models provided by the Contractors, will be integrated into and coordinated with the base model, by the Construction Manager. The 05A, 09A, 11A, 15A, 15B and 16A Contractors will be required to attend weekly online "GoTo meetings" for the purpose of coordination and conflict resolution. All Contractors are responsible for the timely submission of hard copies of shop drawings for work installed under their contract package. Failure, by a Contractor, to submit a 3D model in a timely manner will result in that Contractor being responsible for any and all costs incurred by others for necessary modifications. Failure to properly coordinate work will be corrected in the field at no additional cost.

32. Contractors are reminded that the project site is a school first and a construction site second. Contractors cannot disrupt instruction and learning at any time. All deliveries must be scheduled through the Construction Manager 48 hours prior to delivery.
33. Every effort has been made by the Construction Manager to correctly make all numerical references. In the event a Specific Scope item incorrectly numerically references another Specific Scope item within own package and or other trade package, and or Specification Section, Contractor includes intent of Specific Scope item as if numerical reference was correct.
34. Contractor includes all provisions and labor necessary to construct all mockups listed throughout the construction documents and specifications.

**Q. SPECIAL CONSIDERATIONS**

1. Strict adherence to all Noise Ordinances. Trucks will not be able to stage prior to normal working hours in accordance with the Ordinance. Please note, backup alarms and idling diesel engine's exceed noise ordinance limitations prior to 7am.
2. Excavation and/or drilling work under this contract is **unclassified to design sub-grade**, and includes but not limited to, excavation and removal of soil, shale, rock, fill, abandoned utilities, abandoned tanks, abandoned wells, abandoned structures, and any and all other subsurface conditions encountered in the contract area **to each respective trade's lowest design elevation in same area**. The Contractor shall make his own soil and subsurface investigations, examination, tests, and exploratory borings of existing subsurface conditions to determine the nature of the soil conditions underlying the project site and thereby assuming all responsibility in excavating for this project without recourse to subsurface information obtained from the engineer, or indirectly from the Owner. The risk of unanticipated soil conditions **from current elevations to this trade's lowest design elevation in same area** is solely the Contractor's. No extra or additional compensation for excavation or claim otherwise will be made or paid under this contract **until added excavations below this trades lowest design elevation in same area are required**. Contractor is responsible for furnishing and placing any import fill material that may be required to complete the work.
3. Specific scopes of work apply to the main building scope as well as any indicated outbuildings located within the sites limit of disturbance and requiring similar work being performed under this contract
4. Minimal parking will be allowed onsite due to space restrictions. It is strongly recommended contractors try to carpool or utilize public transportation as much as possible. Workers personal vehicles will not be permitted to park onsite or adjacent to the building pad. Foreman or Superintendent parking will be restricted to a small designated parking area which is on a first come, first serve basis.
5. Contractor includes cost and filing for Federal Aviation Authority Permit as required. This permit is required for all buildings, structures (permanent and otherwise), equipment, scaffolds, cranes, pumps, etc which are over 39'-11" in height.
6. Daily food trucks will not be permitted on site. Eating within the building footprint will not be tolerated at any time during construction. Contractors are to consume food either off site or within personal vehicles.



All trades are to properly dispose of food trash either offsite or to Construction Manager provided dumpster(s). In the event food trash needs to be collected from the grounds of the site, there will be zero warning to trades and all trades onsite will be backcharged cost plus 15% equally, despite respective quantity of workers onsite for the first offense. Second offense will be cost plus 20%. Third offense will be cost plus 25%, and so on.

**END OF GENERAL SCOPE OF WORK SECTION**



**PART 2 – SPECIFIC SCOPE OF WORK**

1. Contractor has reviewed and understands the Contract Package / Specification Cross Reference listed under Section 002413.
2. Contractor includes General Scope of Work listed under Part 1 of Section 002416.
3. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the Site work in accordance with the complete set of Contract Documents.
4. The Contractor shall perform at least 30% of this Package by cost with the Contractors own, in-house work forces. Subcontracting or brokering more than 70% of the work shall not be permitted.

**Earthwork and Site Demolition Specific Scope:**

1. The 02A Contractor will assume all responsibility for the M.D.E. Storm Water Management discharge permit from notice to proceed to substantial completion as necessary. The Owner will transfer the permit to the 2A Contractor when received. After substantial completion, the 02A Contractor will transfer the permit back to the Owner as necessary.
2. The 02A Contractor shall remove trees, shrubs, grass, and other vegetation, improvements, or obstructions, as required, to permit installation of new construction. Site clearing and grubbing, including removal and disposal, shall be as indicated on the plans. The contractor will acknowledge locations of all protected foliage per the plans and specifications prior to the start of any work, and will be responsible for installation, root pruning, signage, etc and maintenance of this protection while contractor is on the project. This Contractor includes dressing up and stabilization around Construction Manager and Owner trailers and removal and restoration of area at project completion.
3. The 02A Contractor will provide all required fill material in accordance with Contract Documents to bring site to final design elevations. The 02A Contractor shall carefully examine site prior to commencing operations. The site is unclassified. The 2A Contractor will be responsible for all excavation down to design subgrade elevation regardless of material being excavated, including rock, at no cost to the Owner. If material excavated exceeds the optimum moisture content, the 02A Contractor shall dry the material prior to reuse and/or stockpile and spread for reuse in another area. If drying cannot be achieved in a timeframe within schedule constraints or within coordination of work with other trades, the 02A Contractor shall remove and legally dispose of offsite and haul in suitable material as part of base bid cost. In the event the material excavated to design subgrade elevation is found to be unsuitable, the 2A Contractor shall remove and legally dispose of unsuitable material offsite and haul in suitable material as part of base bid cost. Proof roll the area prior to placing fill to verify acceptability of substrate.
4. Despite any reference to the contrary, blasting is not allowed.
5. The 02A Contractor includes demolition and removal of masonry mockup panel(s) and foundation as directed by Construction Manager.
6. The 02A Contractor shall furnish, install, maintain and remove at the direction of the Construction Manager and/or any governing agency all temporary sediment and erosion control measures and devices, and stabilized construction entrances. For all permanent storm water management areas & permanent sediment traps required by the Contract Documents, the 02A Contractor is responsible for bulk excavation, grading, shaping, safety fencing, stabilization, and pipework. At temporary traps, the same scope as permanent applies, and the 02A Contractor has mucking, backfill, fill and compaction, back to subgrade. Permanent landscaping is by the 02A Contractor. The 02A Contractor is also responsible for any and all temporary erosion and sediment control measures as specified in Specification Section 015000.
7. The 02A Contractor is responsible for all snow and ice removal onsite throughout duration of project at all construction areas. Contractor should anticipate normal inclement weather conditions as defined by the 5 year



- average. The 02A Contractor shall grade all ruts on jobsite before any rain/snow events to maintain positive drainage.
8. The 02A Contractor is responsible for all temporary seed required for the site stabilization including maintenance and watering as required per the specifications.
  9. The 02A Contractor is responsible for removal of multiple centrally located spoil stockpiles generated by utilities, footings, walls, electrical excavations, plumbing excavations, pits, etc. provided there will be no design grade / elevation changes from the contract documents.
  10. The 02A Contractor is responsible for own dust control on site until project completion. This is limited to dust control created by the 02A package and various site activities (all vehicles and equipment maneuvering throughout the construction area). The 02A package is not responsible for controlling dust generated from within the building or building pad, or from cutting/mixing operations unless dust is created from a direct operation of the 02A contractor.
  11. The 02A Contractor is to provide watering trucks for wet down of access roads, daily from April through November to eliminate Construction Activity Dust Pollutants for the duration of the project.
  12. The 02A Contractor is responsible for all sheeting and shoring requirements to perform this scope of work if required. Contractor to coordinate final location with Construction Manager, 03A, 04A, and 05A contractors. Contractor is responsible to coordinate design loading of sheeting and shoring with live load operations adjacent to sheeting and shoring to allow all contractors to perform their work. Contractor to include temporary barriers, fences, wire rope railings and angles at all locations for safety reasons. Contractor to include jersey barriers at areas of construction traffic roadways. 02A Contractor shall furnish, install and maintain orange safety fence around the entire perimeter of all storm water management facilities. Orange safety fence shall be installed as required while the work is being performed or as directed by the Construction Manager. Orange fence is in addition to the required perimeter fencing.
  13. The 02A Contractor shall provide for all site demolition shown or implied to include, not limited to, the complete demolition, removal, and disposal of all existing curb & gutter, asphalt paving & sub-base, concrete paving & sub-base, concrete sidewalks, concrete walls, concrete foundations, underground utilities, fences, gates, rails, ball hoops, signs, plants, lights, parking bumpers, backstops, courts, decks, wood ramps, monitoring wells, posts, nets, post footings, field equipment footings, walls (both permanent and temporary), and the like. The 02A Contractor shall be responsible for salvage, protection, storage and relocations of existing site items as indicated and/or specified. All demolished items shall be removed and legally disposed of by this Contractor.
  14. The 02A Contractor understands that the construction entrance(s) may have to be removed, altered, repaired, and / or replaced in order for the permanent storm system, water system, and electrical system to be installed. It shall be the 02A Contractor's responsibility to remove, alter, repair and / or replace and consistently maintain any and all aspects of the construction entrance for these systems to be installed. The 02A Contractor shall coordinate and prioritize its work as to eliminate impact to site access and / or the project schedule.
  15. The 02A Contractor shall establish rough grade to within  $\pm 0.10'$  sub-grade, to include proper compaction and elevations for sidewalks, pavements, drives, curbs, landscape, and / or topsoil areas. Landscape, topsoil and other open areas (excluding ball fields and play areas) to be graded to within  $\pm 0.20'$  of design elevation. The 02A Contractor shall furnish and install the backfill for curbs, gutters, and sidewalks to re-establish rough grade.
  16. The 02A Contractor shall establish rough grade to within  $\pm 0.10'$  sub-grade, to include proper compaction and elevations for building pad for acceptance by 03A Contractor.
  17. The 02A Contractor shall establish rough grade for the installation of the pool Initial grade to be brought within  $\pm 0.10'$  of the pool deck subgrade elevation. After final shop drawings are approved, this contractor is to coordinate with the 13A Contractor for requirements of needed excavation, and this contractor is to perform mass excavation and subsequent backfill of pool installation.



18. Backfilling of all site walls, site foundations, and site slabs are the responsibility of the 02A Contractor.
19. The 02A Contractor shall will be responsible for any damage to existing roads, adjacent surfaces, curb and/or gutter damaged by the 02A operations.
20. The 02A Contractor shall prepare subgrade including furnishing and installing stone as required to tie in new asphalt and or concrete to existing at all required locations.
21. The 02A Contractor shall provide all fine grading and proof rolling as necessary prior to the installation of the sub-base course at asphalt areas.
22. The 02A Contractor shall provide all fine grading and proof rolling as necessary prior to the installation of concrete curb, gutter and flatwork.
23. The 02A Contractor is responsible to protect sub-base for concrete and asphalt work from weather, to ensure construction activities proceed on schedule.
24. The 02A Contractor shall furnish and install all stone under all flatwork concrete. Stone to be installed immediately prior to placement of concrete.
25. The 02A Contractor shall excavate, furnish and install #57 stone under exterior doorways, a minimum of 3' out from door or longer if door leafs are longer than 3', by width of doorway plus 1', by 3' deep. Coordinate isolation of two slabs to align with concrete scoring patterns as practical. Dimensions listed herein are minimum dimensions. Should the Contract Documents show greater dimensions then they shall take precedence.
26. The 02A Contractor shall furnish and place stone subgrade as required to establish proper elevations prior to asphalt paving.
27. The 02A Contractor shall grade all backfill so that water runs away from any structure.
28. The 02A Contractor includes all required termite control as required per the Contract Drawings and Specification Section 313116. The 02A Contractor is also responsible for all pest control as specified in Section 015000.
29. The 02A Contractor shall install and maintain all stabilized trailer/sea cans area and staging areas as indicated on the Site Utilization plan. At the direction of the Construction Manager, the Contractor shall remove and restore areas to a finished condition. In the event that the stabilized trailer staging area is installed at, around, or near any existing or future utilities that may need to be removed, repaired, and / or installed, this Contractor shall remove, adjust, and / or repair sections of these stabilized areas as necessary. The intent is for the 02A Contractor to install the underground SWM area at the West side of the site, under the new parking lot, as soon as possible and then stone, curb and base pave this lot to use as a staging/laydown area. Subsequent to the majority of construction of the new building, this lot will then be cleared and final paved prior to school opening, anticipated in Spring of 2021.
30. The 02A Contactor shall furnish, install, and maintain suitable temporary construction access roads as shown on the Site Utilization plan. Suitable maintenance of the access roads is defined as continual focused effort of turning over of stone, adding stone as needed, to minimize and or eliminate tracking. It is 02A responsibility to add new stone and fabric to achieve this suitable maintenance. The 02A Contractor shall remove the temporary roads and perform all necessary re-grading and restoration upon receipt of direction from the Construction Manager. Roads shall be adequate to support all construction traffic and equipment. The roads at a minimum shall be 20' wide, constructed of stabilizing cloth and 8" of #2 stone. At crane pad locations, assume two (2) locations comprised of 18" of gabion stone, capped with 6" of #2 stone for a total section of 24". Damming of water will not be tolerated. Any temporary piping to allow drainage across roadways or crane pads is considered incidental and part of base bid costs. In the event that the stabilized area is installed at, around, or near any existing or future utilities that may need to be removed, repaired, and/or installed, this Contractor shall remove, adjust, and/or repair sections of these stabilized areas as necessary at no additional cost to Owner or Construction Manager. Asphalt millings and or "crusher run" will not be accepted at any roadways or crane pads.



31. Limits of new building pads shall extend a minimum of ten (10) feet beyond the building footprint where applicable around the entire perimeter of the building. Final grades shall be temporarily adjusted as necessary to meet this requirement. At the direction of the Construction Manager, the Contractor shall re-grade around the perimeter of the building to the final grades required by the Contract Documents inclusive of removal of temporary ring road(s) or parking areas. Backfilling of all building walls, foundations, and slabs shall be the responsibility of the 03A Concrete Contractor unless noted otherwise herein.
32. The 02A Contractor will close or cover all subgrade or excavation at the end of each work day unless exempted by Construction Manager's representative. Any unsuitable conditions caused as a result of contractor's failure to protect exposed subgrades will be remedied at contractor's sole expense and at no cost to the Owner or Construction Manager.
33. The 02A Contractor is responsible for removal of multiple centrally located spoil stockpile generated by all trades onsite, provided there will be no design and or grade and or elevation changes from the contract documents. For informational purposes only, this is anticipated to be approximately 4,500 cy, however this is in no way be interpreted as a stipulated sum, allowance or formal direction of quantity. Contractor is encouraged to perform own takeoff for this work as a full contract document set has been issued for use. Contractor is responsible for removal of any and all excess.
34. The 02A Contractor shall saw cut, remove, and dispose of existing asphalt as directed by Construction Manager. It is the intent to leave as much existing hard surface in place as long as practical.
35. Steel plates or other means need to be utilized to ensure traffic flow in and out of school site at all times as well as when working in public streets to allow continuous traffic flow.
36. The 02A Contractor shall install and maintain all wash rack(s) as directed by the Construction Manager. Contractor shall also be responsible for providing water to the wash rack(s) for respective trades own use. This system is to include water source, power source, pumps and hoses, and other necessary appurtenances. If hydrants are to be used, the 02A Contractor must procure, pay for, and utilize a water meter and backflow preventer. The 02A Contractor includes relocation and removal as necessary and directed by the Construction Manager.
37. During site grading operations, if contaminated soils are encountered, the 02A Contractor is to excavate and centrally locate a contaminated spoil stock pile onsite. The 02A Contractor will then be reimbursed via unit rates in the contract to either transfer suitable material onsite, or if directed, bring in new from offsite. All contaminated soil removal from site shall be by the 02A Contractor and reimbursed at cost per established unit prices in Specification 012200. Contractor acknowledges the difference between contaminated and unsuitable soils.
38. The 02A Contractor is responsible for keeping the streets clean of construction debris, mud, dirt etc. only if caused by this contractor's failure to properly maintain the construction entrance, stoned roadways, access roads, wash rack, etc. Maintenance of roadway debris caused by other contractor's general neglect to properly use the equipment and facilities provided by the 02A Contractor or Construction Manager, will be the respective contractor's debris to clean up and not the responsibility of the 02A Contractor.
39. The 02A Contractor is solely responsible for own fire protection and safety while onsite. This includes but is not limited to signage, barricades, fire extinguishers, covers, etc.
40. The 02A Contractor will engage the services of a private utility locating company and will test pit to further locate existing utilities prior to commencing with work under this contract package.
41. The 02A Contractor shall install and maintain two (2) 4" PVC sleeves under site access road and cap for temporary power/telephone/cable at three locations. This is to be buried a minimum of 3 feet below proposed existing grade or proposed grade whichever is lower.
42. Stockpiling of topsoil onsite by the 02A Contractor will be extremely limited due to space restrictions. In the event there is a limited area available for 02A use, contractor shall strip, screen, stockpile, protect, test, amend and stabilize all topsoil as required by the contract documents and governing jurisdiction having authority requirements.



The 02A Contractor shall re-spread topsoil in all areas provided the topsoil meets project standards as indicated on drawings. Topsoil on ball fields shall be motor graded to within plus/minus 1/10 of a foot of the design elevation. Maximum size of screen shall be ¾" sieve. Topsoil shall be a 4-8-inch layer, lightly compacted to minimum thickness of 4 inches. The 02A Contractor shall supply tested, screened, amended topsoil from offsite if and / or when the onsite quantities are insufficient.

43. The 02A Contractor to test and make all amendments to bring topsoil material within project specifications (topsoil amendments, sand (if required), organic matter, planting soil mix, anti-desiccant, tree paint, herbicide, etc). It is the contractor's responsibility to submit test results to Construction Manager for approval with required recommendations to bring material within project specifications, prior to the start of any topsoil work. This requires the Contractor to hire a third party independent testing agency for testing and soil amendment recommendations.
44. The 02A Contractor shall provide and install all forest conservation requirements to include, but is not limited to, all arborist reports, root and tree pruning, tree protection signs and fencing, deep-root fertilization, crown reduction, watering, vertical mulching, and all other items as required.
45. The 02A Contractor is to maintain grass cutting, tree and shrub trimming, and landscaping, throughout the duration of the construction project within the established LOD.
46. The 02A Contractor is to furnish, install, maintain and remove the temporary fencing as required. In general, the temporary fence shall mimic the Property Line, Limits of Disturbance, as well as Project Phasing. Contractor shall furnish, install, and maintain "No Trespassing" signs on all temporary construction fencing and gates at intervals of no greater than 100'.
47. 02A Contractor shall be required to mobilize and re-mobilize to the site at the Construction Manager's direction as part of base bid cost.

**Site Utilities Specific Scope:**

1. The 02A Contractor includes all bonds for Right of Way Work. Contractor shall comply with all MDOT rules and regulations for the work within Public Right of Way required for work being completed under this package.
2. The 02A Contractor will be responsible for entering into a Public Works Agreement on behalf of the Owner, as necessary. The cost for the work, permits, bonds, any estimates, and other administrative costs are to be included in base bid price inclusive of costs to obtain and install water meter, despite any reference to the contrary. Once in service, monthly service fee for domestic water will be by Construction Manager until turned over to Owner at substantial completion.
3. The 02A Contractor shall furnish and install all storm water management facilities complete.
4. The 02A Contractor shall furnish, install, and maintain all structures, manholes, clean outs, and the like associated with its work as required by the Contract Documents for the entire duration of the project.
5. The 02A Contractor shall furnish, install, and maintain all concrete, reinforcing, rip-rap, stone and filter cloth related to this work for the entire duration of the project.
6. The 02A Contractor shall furnish and install all river rock, and level spreader gravel as indicated.
7. The 02A Contractor shall furnish, install, and maintain all required protection of inlets, structures, and any other erosion and sediment control device that is shown, implied, or required for the entire duration of the project at the Construction Manager's and/or governing agency's direction. The 02A Contractor shall remove and properly dispose of all protection after site is stabilized with approvals of Local Authorities, Owner and Construction Manager.
8. The 02A Contractor shall supply and install all plugs shown or required at all utilities that are removed.



9. The 02A Contractor shall, with the assistance of the CM, coordinate with all public utilities for the removal of the underground existing services. With approval of the Utility Company(s) it is the 02A Contractor's responsibility to either abandon in place (after grouting) or remove from the site as indicated. Cutting, capping, and or filling when abandoning in place as directed by the contract documents, is the responsibility of the 02A Contractor.
10. The 02A Contractor includes steel plates or other means need to be utilized to ensure traffic flow in and out of school site at all times as well as when working in public streets to allow continuous traffic flow. The 02A Contractor includes any and all Maintenance of Traffic as necessary for the work including submission of MOT Plan to the AHJ.
11. The 02A Contractor shall furnish and install a complete storm water drainage system including, but not limited to, all pipes, inlets, manholes, laterals, cleanouts, rip rap, geotextile fabric, observation wells, granite blocks, pipe anchors, gratings, bedding materials, foundations, cut off walls with rip rap outlets, storm trap systems, underdrains at the play areas & other locations as indicated, temporary fence at ponds, storm filters, flow splitters, sand filters, underground quantity control facilities, trash racks, and all related devices as required. The 02A Contractor shall flush the entire storm water drainage system at the direction of the Construction Manager and/or any governing agency, if required. All layout and surveying for this work is the responsibility of the 02A contractor. All as-builts of system must be performed during the course of construction. The 02A Contractor to include costs to perform this service with base bid and include all submission fees. As-builts are to include line and grade.
12. The 02A Contractor is to furnish and install all trench drains and area drains exterior to the building, and to coordinate installation with site concrete and asphalt.
13. The 02A Contractor shall furnish and install all storm work including but not limited to inlets, piping, trench drains etc. at the Courtyard/Outdoor Learning Areas.
14. The 02A Contractor shall furnish and install all micro-bioretenion areas and storm water management areas complete. This includes any and all mulch, seed and plantings.
15. The 02A Contractor shall furnish and install complete sanitary sewer systems in accordance with local codes consisting of all piping, manholes, laterals, cleanouts, and all related devices as required. All layout and surveying for this work is the responsibility of the 02A Contractor. All as-builts of system must be during course of construction. The 02A Contractor to include costs to perform this service with base bid.
16. The 02A Contractor shall furnish and install a complete water system for potable water service and fire protection service outside the building in accordance with local codes consisting of all piping, manholes, laterals, valves, vaults, cleanouts, thrust blocks, hydrants, standpipes and all related fittings as required. The 02A Contractor to coordinate all inspections with Authority Having Jurisdiction (AHJ) during installation prior to backfill. All layout and surveying for this work is the responsibility of the 02A contractor. All as-builts of system must be performed during the course of construction. The 02A Contractor to include costs to perform this service with base bid.
17. The 02A Contractor is responsible to bring both the domestic and fire protection service to a point within 5' of the building exterior as shown. The 15A Contractor is then responsible to bring both services into the building from five feet outside of the building. Once into the building the 15A Contractor is responsible for the pipe, fittings, flanges up to and including the backflow preventer for the sprinkler service. The 15B Contractor will be responsible to begin work at the building side flange of the backflow preventer. The 15A Contractor is responsible for certification of backflow preventer.
18. The 02A Contractor is responsible for protection of utility piping, manholes, manhole covers, cleanouts, drains, trench drains, inlets, etc. being furnished and installed under this package. Protection to be either steel plates or adequate wood dunnage.
19. The 02A Contractor shall furnish and install all outside site utilities systems completely including all testing and proper connection to the appropriate system outside the building. Contractor shall extend its piping from the indicated utility connection to a point five (5) feet from the building line or to a point farther and / or than five (5) feet from the building if it is specifically indicated as such in the contract documents.



20. The 02A Contractor will close or cover all utility excavation at the end of each work day unless exempted by Construction Manager's representative. Any unsuitable conditions caused as a result of contractor's failure to protect trenches or exposed subgrades will be remedied at contractor's sole expense and at no cost to the Owner or Construction Manager.
21. The 02A Contractor shall saw cut, remove, and dispose of existing asphalt to complete work under this package. Contractor shall provide all temporary protection requirements of these areas (steel plates, temporary patch, etc.) as required by the governing authority until the permanent infill can be completed.
22. The 02A Contractor shall provide temporary patching of existing asphalt and or concrete in existing roads and sidewalks as needed for the connection of utilities. The 02A Contractor shall saw cut, remove, and dispose of temporary patches for the utilities when necessary and furnish and install the permanent concrete or asphalt requirements at these location at the time and direction provided by the Construction Manager and approved by AHJ.
23. Prior to commencing with work, the 02A Contractor shall video scope all existing storm and sanitary lines scheduled to remain and report to the Construction Manager if they are clear and in good working condition or if any obstruction is discovered. If an obstruction is encountered, the Contractor will provide specific location to Construction Manager as part of base bid costs. Contractor shall, include in base bid costs to provide jet blast/vacuum services and any other equipment required for removal and disposal of debris and silt. Costs shall be for equipment, labor, disposal, and all incidentals for twenty (20) hours. After 02A work is substantially complete, 02A Contractor will video scope all pipe work including existing to remain piping and, if necessary, remove any obstruction at no cost change as inlet protection and continued maintenance is the 02A Contractor's responsibility during the course of construction.

**Site Concrete & Retaining Wall Specific Scope:**

1. The 02A Contractor shall provide all necessary permits, fees, and coordination with inspections that may be required. This includes wall building permits.
2. The 02A Contractor shall provide all saw cutting, to connect with existing curbing and concrete as required by the Contract Documents.
3. The 02A Contractor shall patch and repair any damage to existing roads, adjacent surfaces, and curb and gutter damaged by the 02A operations.
4. The 02A Contractor shall provide layout and surveying to allow furnishing and installation of all concrete, reinforcing, formwork, excavation, backfilling, fine grading, fill, gravel(including granular backfill where called out), weep holes, water stops, perforated PVC under drains/drain tile at its work (including stone and filter fabric), bio-barriers (where called out), fence sleeves, waterproofing, support chairs, concrete pumping, control joints, expansion joints (zip cap type), expansion filler, welded wire mesh, scoring joints, hot/cold weather protection and the like for all of the following site concrete items:
  - a) curb and gutter
  - b) sidewalks (regular and heavy duty) including all the way up to the face of building / face of door and the like
  - c) turn down slab details with all associated stone
  - d) platforms / stoops
  - e) concrete paving
  - f) integrally colored concrete at Outdoor Learning
  - g) concrete collars at exterior cleanouts in greenspaces
  - h) exterior reinforced concrete pad(s) (not including generator or transformer pads which are by 03A)
  - i) concrete stairs, landings, and pads at the exterior
  - j) concrete at exterior ramps
  - k) mow strip(s) at fencing
  - l) mow strip at building if indicated



- m) concrete site walls, including formliner walls as indicated
  - n) concrete at and installation of exterior site bollards (bollards to be furnished by 05A)
  - o) concrete curbs at dissimilar material such as grass to mulch, planting area to stabilized gravel path, etc.
  - p) concrete storm drain bypass swales
  - q) and any other site concrete item called out within the drawings and specifications unless noted otherwise
5. The 02A Contractor shall seal all exterior concrete called out to be sealed per the contract documents. The 02A Contractor shall provide one additional coat which will be applied just prior to substantial completion as directed by the Construction Manager. In regards to the kitchen health inspection, the 02A Contractor includes sealing of the dumpster pad location per the health inspector's requirements.
6. The 02A Contractor shall install and protect threaded and / or embedded items to prevent bending, deformation and corrosion. The 02A Contractor shall repair or restore all damaged threaded and / or embedded items prior to commencement of installation on these embedded items.
7. The 02A Contractor shall receive, unload, inventory, sign for and accept all embedded items furnished by other Contractors for installation within the 02A Contractor's work. The 02A Contractor shall properly store and protect items furnished by others.
8. The 02A Contractor to protect concrete, CMU, brick and stone walls and / or adjacent finishes from splashing caused by concrete placement. If concrete splashes on walls and / or adjacent finishes, then the 02A Contractor shall be responsible for the removal of the splashed concrete.
9. The 02A Contractor shall furnish and install all moisture retaining covers and curing compounds as required to complete own work.
10. The 02A Contractor includes installation of zip cap expansion joint material, and all associated caulking of own work, inclusive of removing plastic cap and proper preparation prior to application of sealant.
11. The 02A Contractor will provide all winter and summer concrete measures, if necessary, for concrete for this scope of work.
12. The 02A Contractor shall provide and install all curb and gutter "inlet throats" as required.
13. The 02A Contractor includes broom sweep and power washing as necessary within one week prior to substantial completion of all concrete installed under this package.
14. The 02A Contractor shall furnish and install cast in place Tile detectable warning surfaces at all handicap ramps. Color shall be safety yellow if not specified.
15. The 02A Contractor shall furnish and install all segmental retaining walls as required per Specification Section 323223.
16. In the event rail, chainlink or decorative the top of a segmental wall, the 02A contractor is to coordinate and install sleeving requirements as core drilling will not be acceptable in this situation.
17. It is the intent of the CM to curb and base pave the west parking lot of Rock Creek in the Fall of 2019 and utilize it as suitable laydown area for the duration of the project. Contractor to assume replacement of 10% of the curblane and 10% base asphalt repair will be required and is included in base contract work, prior to being able to final pave this area which is anticipated in Spring of 2021. As the new Rock Creek will be occupied NLT than April 2021, this area will also need to be temporarily striped, and redone in a permanent fashion once final paving occurs, all as part of base bid costs.



**Site Asphalt Paving Specific Scope:**

1. The 02A Contractor shall provide all necessary permits, fees, and coordination with inspections that may be required.
2. The 02A Contractor shall clean off all utility covers, curbs, sidewalks, and any other installed items of asphalt products in the paved areas.
3. The 02A Contractor shall furnish and install all asphalt base (binder) courses, tack coats, overlay binder coats, overlay protective membranes, overlay protective membrane strips, asphalt surface courses, bitumastic sealants and/or rubber sealants.
4. The 02A Contractor includes all milling as required.
5. The 02A Contractor shall provide all saw cutting, wedging, and leveling to connect with existing paving as required by the Contract Documents.
6. The 02A Contractor shall patch and repair any damage to existing roads, adjacent surfaces, and curb and gutter damaged by the 02A operations.
7. Construction Manager reserves the right to schedule the installation of the base course of asphalt paving and then the surface course of asphalt paving as two separate construction events.
8. It is the intent of the CM to curb and base pave the west parking lot of Rock Creek in the Fall of 2019 and utilize it as suitable laydown area for the duration of the project. Contractor to assume replacement of 10% of the curblines and 10% base asphalt repair will be required and is included in base contract work, prior to being able to final pave this area which is anticipated in Spring of 2021. As the new Rock Creek will be occupied NLT than April 2021, this area will also need to be temporarily striped, and redone in a permanent fashion once final paving occurs, all as par of base bid costs.
9. Asphalt Binder Escalation: An adjustment will be made to the final Contract Sum if the price of asphalt binder fluctuates from the prevailing price as quoted here to the actual price on the date of placement. The Contract Sum will be adjusted if asphalt binder fluctuation is above 10% or below negative 10%. Only the differential percent change beyond the above noted 10% will be used.

For the purpose of making these calculations, a monthly price index is maintained by the MD State Highway Administration. This index is the average FOB selling price of asphalt binder at the supplier's terminal in the State of Maryland.

Contract price adjustment will be computed monthly by using the following formula:

$$F = (PP - P_b) / P_b$$

Where:

F	=	price increase/decrease of asphalt binder, expressed as a decimal
PP	=	index price of asphalt binder per ton at placement date
P <sub>b</sub>	=	the prevailing index price of asphalt binder per ton in September 2015, as specified by MDSHA.

Contract Price adjustment due to Contractor or Owner when price of asphalt binder does not increase or decrease significantly  
(i.e.:  $-0.10 > F > 0.10$ ) – Zero Dollars

Contract price adjustment is due to Contractor as a cost to Owner when price of asphalt binder increases

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Dustin Construction, Inc.



significantly

(i.e.  $F > 0.10$ ) –  $A = [(F - 0.10) \times T \times Pb] \times \text{Tons}$

Contract price adjustment is due to Owner as a credit to Contractor when price of asphalt binder decreases significantly

(i.e.  $F < -0.10$ ) –  $A = [(F - 0.10) \times T \times Pb] \times \text{Tons}$

Where:

A	=	Addition / Deduction to Contract Sum
F	=	price increase/decrease of asphalt binder, expressed as a decimal
T	=	design target asphalt content as stated in the asphalt manufacturer's mix design for base or surface course expressed as a decimal
Pb	=	the prevailing index price of asphalt binder per ton in June 2019 as specified by MDSHA
Tons	=	ACTUAL Tonnage of Hot Mix Asphalt Base or Surface (Base & Surface Mix cost increase/decrease will be calculated separately using the design target asphalt contents for each per "T" above), as documented by certified, dated, weighted tickets furnished by the asphalt manufacturer.

Please note that the Contract Price Adjustment does NOT include Overhead & Profit markup, which will not be allowed or required on adjustments due the Contractor or Owner. The Contract Price Adjustment also does not include a state sales tax or bond markup, but these markups/markdowns will be allowed/required on both adjustments due the Contractor and Owner.

**Road and Parking Accessories Specific Scope:**

1. The 2A Contractor shall adhere to all Maryland Department of Transportation State Highway Administration's current Standard Specifications for Construction Materials and the ANSI D6.1-1971 Manual on Uniform Traffic Control Devices for Streets and Highways.
2. The 2A Contractor shall adhere to the product delivery, storage, handling, project conditions, products/materials, surface preparation, application, protection, and restoration requirements outlined within the project specifications and drawings.
3. The 2A Contractor shall coordinate and work with the Construction Manager with regard to the Fire Marshall's requirements in regards to fire lane striping, signage and the like.
4. The 2A Contractor shall adhere to the sign location and installation requirements outlined within the project specifications and drawings.
5. The 2A Contractor shall layout and paint all parking lot striping to include, but is not limited to all parking spaces, regular handicapped spaces, van accessible spaces, parahatch areas at handicapped spaces, bus spaces, traffic arrows, center lines, stop bars, hard play surface markings, pedestrian crosswalks etc.
6. The 2A Contractor shall furnish and install all concrete wheel stops and fire lane curbing paint and associated stenciling.
7. The 2A Contractor shall layout and paint all site stenciled markings, including those at the hard play surfaces.
8. The 2A Contractor shall furnish and install all posts and signs for site including but not limited to handicapped signs, van handicapped signs, drug free school zone signs, do not enter signs, student drop off signs, fire lane signs, no parking anytime signs, buses only signs, staff parking signs, high efficiency vehicle signs, one way signs, no U-turn signs, reserved only signs, inclusive of required concrete and or pourable fill ,etc.
9. The 02A Contractor includes any and all thermoplastic markings as required. The 02A Contractor shall provide all traffic control for their work.



10. The 02A Contractor shall perform any existing striping removal as required.
11. It is the intent of the CM to curb and base pave the west parking lot of Rock Creek in the Fall of 2019 and utilize it as suitable laydown area for the duration of the project. Contractor to assume replacement of 10% of the curbline and 10% base asphalt repair will be required and is included in base contract work, prior to being able to final pave this area which is anticipated in Spring of 2021. As the new Rock Creek will be occupied NLT than April 2021, this area will also need to be temporarily striped, and redone in a permanent fashion once final paving occurs, all as part of base bid costs.

**Fencing, Guardrail and Gates Specific Scope:**

1. The 02A Contractor shall provide all necessary permits, fees, and coordination with inspections that may be required.
2. The 02A Contractor shall furnish and install all chain link type site fencing related items to include, but is not limited to, posts, rails, braces, bracing assemblies, galvanizing, powder coating, high performance coatings, bottom tension wire, continuous top rails, continuous bottom rails, continuous mid rails, fabric, terminal posts, line posts, gate posts, hinge posts, terminal & gate post bracing assemblies, stretcher bars, sleeves, non-shrink grout, gates, hardware, accessories, tie wire, grounding, padlocks, knox boxes and/or knox locks, excavation for posts, concrete formwork/sonatubes, concrete for posts, fence line grading, and the like for a complete scope of work.
3. The 02A Contractor shall furnish and install, access gates and / or man gate assemblies to include, but is not limited to, the following locations: play areas, yards, drive lanes, and parking lots.
4. The 02A Contractor shall furnish, provide layout, and installation for the sleeves needed for the fence posts located on top of concrete walls.
5. The 02A Contractor shall furnish and install all vehicular guardrails as indicated.
6. In the event a decorative rail by the 05A contractor is within the top of a segmental wall, the 02A contractor is to coordinate and install sleeving requirements of the 05A contractor
5. The 02A Contractor to include one lock with two keys for each gate; locks to be per specifications. All locks shall be keyed alike.
6. The 02A Contractor to provide warranty for fifteen years for all coated fencing against peeling, cracking and corrosion, if not specified otherwise elsewhere.
7. The 02A Contractor shall furnish and install all timber guardrails per Contract Documents.

**Landscaping Specific Scope:**

1. The 02A Contractor shall provide all necessary permits, fees, and coordination with inspections that may be required.
2. The 02A Contractor includes all bonds for Right of Way Work. Contractor shall comply with all MDOT rules and regulations for the work within Public Right of Way required for work being completed under this package.
3. The 02A Contractor shall layout all landscaping with flagging and receive approval from the landscape architect prior to installation.
4. The 02A Contractor shall provide and install all landscape plantings to include, but not limited to, all guarantees, certificates, submittals, delivery, storage, plants, trees, shrubs, stakes for supporting trees, wires for guying trees, mulch, and the like to complete all landscape plantings shown or as reasonably implied within the drawings and specifications.



5. The 02A Contractor shall furnish water and necessary temporary irrigation equipment as required for healthy plant growth.
6. The 02A Contractor shall provide and install all seeding and sod to include, but is not limited to, guarantees, certificates, submittals, delivery, seed mixtures, sod types, mulch, hydraulic seeding, sod stakes, water, protection, restoration, cleaning, maintenance, turf inspections / reviews by a qualified turf agronomist, and the like to complete all seeding and sod shown or reasonably implied within the drawings and specifications.
7. The 02A Contractor shall excavate for, backfill and furnish and install and set in place all boulders as indicated.
8. The 02A Contractor shall provide and install all forest conservation requirements to include, but is not limited to, all arborist reports, supervision and monitoring, root and tree pruning, tree protection signs and fencing, deep-root fertilization, crown reduction, watering, vertical mulching, wood chip and moisture monitoring, and all other items as required.
9. The 02A Contractor shall provide and install all maintenance requirements to include, but is not limited to, maintaining all plants and turf in a healthy condition. Contractor shall provide for all pruning, cutting, watering, fertilizing, cultivating, weeding, mulching, tightening / repairing of staking, setting plants to proper grades or upright in position, restoration of the planting saucer, and furnishing / applying sprays and other items as necessary to keep the plantings free of insects and disease and in a thriving condition. Maintenance shall begin immediately after each planting is completed and shall continue as required per the project specifications.
10. The 02A Contractor includes all mulching, pretreatment of mulched areas, inclusive of mulch walkways, mulch at planting areas, play areas, raised planter areas, maintenance of mulching etc.
11. The 02A Contractor includes all portable drip irrigation bags, and edging as required.
12. The 02A Contractor shall furnish and install permanent seed and sod with stabilization as required including curlex or erosion control matting at severely sloped areas.
13. The 02A Contractor shall furnish and install all brick pavers per Contract Documents.

**Site Furnishings Specific Scope of Work:**

1. Contractor shall furnish and install all site amenities, to include but limited to bike racks, benches, trash receptacles, etc. inclusive of required accessories. Contractor shall provide all drilling/core drilling, anchoring materials, and the like to complete the installation of the items. Contractor to coordinate, furnish and install foundations required for these items. Concrete for flagpole installation is the responsibility of 06A. All other concrete required for installation of the site furnishings, i.e. sidewalks, footings etc., is by the 02A Contractor.
2. All furnishings are to be installed level, plumb and true and securely anchored or positioned at locations as indicated on drawings.

**Playground Equipment and Surfacing Scope:**

1. The 02A Contractor shall provide all necessary permits, fees, and coordination with inspections that may be required.
2. The 02A Contractor to furnish and install all playground structures, complete with associated layout, surveying, excavation, backfill, grading, shaping of soils, concrete, play components, fasteners, supports, footings, ground cover, edging and all final surfacing etc., located per the drawings and specifications.
3. The 02A Contractor to furnish and install all shade structures, pavilions and canopies at Outdoor Learning. Aluminum canopies and walkway covers at the Bus Loop shall be by ~~06A~~ 05A<sup>3</sup> Contractor.



4. The 02A Contractor to furnish and install underdrain systems with connections to storm sewer system, as well as proper grading of subgrade and installation of concrete borders and edging of play areas for playground surfacing.
5. The 02A Contractor to furnish and install all playground surfacing and subbase as required.
6. The 02A Contractor to furnish and install all synthetic turf as located at Outdoor Learning.
7. The 02A Contractor shall furnish and install all stone subbase at Outdoor Learning per Contract Documents.
8. The 02A Contractor shall furnish and install all raised planters, planter boxes with associated planting media, bridges, pavers, concrete including stamped concrete, boulders, stepping stones, picnic tables, benches, "step up with handrails", etc. at Outdoor Learning.

**Exterior Court Athletic Equipment:**

1. The 02A Contractor to furnish and install all exterior athletic equipment including, but not limited to, basketball hoops per Specification Sections 116823.
2. All foundations for exterior gymnasium equipment are to be installed by the 02A Contractor.
3. The 02A Contractor includes all excavation, backfill and concrete for all equipment being provided by this scope.
4. The 02A Contractor includes coordination with other contractors for placement of all sleeves, inserts, anchors etc. for items furnished and installed under this scope of work.

**Miscellaneous Scope / Scope Coordination with other trades:**

1. All site demolition is by the 02A Contractor.
2. The 02A Contractor shall, with the assistance of the CM, coordinate with all public utilities for the removal of the underground existing services. With approval of the Utility Company(s) it is the 02A Contractor's responsibility to either abandon in place or remove from the site as indicated. Cutting, capping, and or filling when abandoning in place as directed by the contract documents, is the responsibility of the 02A Contractor.
3. The 16A Contractor is responsible to coordinate removal or relocation of all overhead and underground utilities such as power, cable, telephone, data, street lighting, etc. in direct conflict with new entrance ways or final structure. All actual cost of physical removal (as indicated) for both overhead and underground utilities, including conduits, pipes, poles, foundations, etc. are the responsibility of the 02A contractor and is considered base bid.
4. The 02A Contractor shall supply and install all plugs shown or required at all utilities that are removed.
5. At utility trenches, if contaminated soils are encountered, the 02A Contractor is to excavate and centrally locate a contaminated spoil stock pile onsite. The 02A Contractor will then be reimbursed via unit rates in the contract to either transfer suitable material onsite, or if directed, bring in new from offsite. All contaminated soil removal from site shall be reimbursed at cost per established unit prices in Specification 012200 by the 02A Contractor.
6. Concrete, waterproofing of concrete, and below grade insulation at building concrete walls is the responsibility of the 03A Contractor. All stone and drain tile system for the entire building inclusive of excavation and backfill is the responsibility of the 03A contractor. CMU, waterproofing of CMU and below grade insulation at new CMU foundations for the entire building is the responsibility of the 04A Contractor. The 04A Contractor does not excavate or backfill; 03A to excavate and backfill at CMU walls below grade.
7. The 02A Contractor is responsible for fire hydrant flushing. Fire pump testing is the responsibility of the 15B contractor.



8. The 02A Contractor is only responsible for the flushing of the domestic water line to achieve a passing test for chlorination. The 02A contractor is not responsible for a flow test if required by the Fire Marshall; this will be the 15B contractor's responsibility.
9. The 03A package includes any building or site concrete footing, wall, slab, ramp, or stairs, which connect to the building or overhanging structure. Generator(s), transformer/transfer switch pad(s), grease trap and or interceptor pads and/or flotation collar and building concrete retaining walls are part of the 03A Package. All footings and piers for canopies, protective covers, etc. are part of 03A scope of work. All footings and piers required for play areas, site athletic equipment, site furnishings, are by the Contractors installing these items. Any concrete stairs, walls and ramps outside of the building footprint not shown on the building structural plans are by the 02A Contractor, including backfill to proposed subgrade for areas that receive sidewalks and ramps. Sidewalks and mow strips at the exterior building perimeter are included in the 02A package.

**PART 3 – ALTERNATE SCOPE OF WORK**

1. Contractor has reviewed the Alternates scope of work listed elsewhere within the specifications and has included all costs in the event the Owner elects to proceed in whole or in part.
2. Contractor has reviewed the Unit Prices scope of work listed elsewhere within the specifications and has included all costs in the event the Owner elects to proceed in whole or in part.

**PART 4 – ALLOWANCES**

1. In the event a sink hole or other soil related concern is discovered while performing this scope of work, this contractor has included an allowance of \$50,000 to be used at the Owner's for remediation. In the event the cost of this work exceeds this allowance an additive change order will be issued. In the event all monies in this allowance is not exhausted, a deduct change order will be issued for any unused portion.
2. In the event unsuitable soils are discovered while performing this scope of work, this contractor has included an allowance of \$25,000 to be used at the Owner's discretion for remediation. In the event the cost of this work exceeds this allowance an additive change order will be issued. In the event all monies in this allowance is not exhausted, a deduct change order will be issued for any unused portion.
3. In the event contaminated soils are discovered while performing this scope of work, this contractor has included an allowance of \$15,000 to be used at the Owner's discretion for remediation. In the event the cost of this work exceeds this allowance an additive change order will be issued. In the event all monies in this allowance is not exhausted, a deduct change order will be issued for any unused portion.

**END OF 02A SECTION**



**PART 2 – SPECIFIC SCOPE OF WORK**

1. Contractor has reviewed and understands the Contract Package / Specification Cross Reference listed under Section 002413.
2. Contractor includes General Scope of Work listed under Part 1 of Section 002416.
3. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the Site General Trades<sup>3</sup> work in accordance with the complete set of Contract Documents.
4. The Contractor shall perform at least 20% of this Package by cost with the Contractors own, in-house work forces. Subcontracting or brokering more than 80% of the work shall not be permitted.

**General Carpentry, Rough Carpentry Scope:**

1. Contractor shall furnish and install all rough carpentry work as required by the Contract Documents and Specification Section 061053, including but not limited to concealed or temporary wood work, blocking, in-wall blocking, roof blocking, wood furring, grounds, bucks, wood plates, plywood, plywood sheathing, plywood wainscoting, trimming and working of wood or wood fibered materials, nailers, compressible fillers, isolation pads, and all other rough carpentry and accessories including but not limited to anchor bolts, fasteners of any type, glue, adhesive, etc. Contractor shall furnish and install all other general carpentry work and wood blocking required by job conditions.
2. Contractor shall furnish and install all wall concealed and exposed wood blocking for all items furnished by this and other Contract Packages, (Fire Treated (FRT)), as required. Contractor is not responsible for metal strapping in metal stud walls or for any 09A work. 09A Contractor to provide continuous 20-gauge metal strapping (two (2) rows per elevation) at all metal stud walls for cabinets, visual display boards, (i.e., chalk, tack, marker), lockers, handrails, etc. for any item which is surface-mounted.
3. Contractor shall furnish and install solid wood blocking behind all wall hung cabinets, display boards, televisions, etc. even if these items are designated “NIC” or, “future”, or “by others”. This blocking is not required behind base cabinets unless specifically required or shown. This is in addition to any strapping requirements.
4. Contractor shall furnish and install all plywood backing and backboards required for Mechanical, Electrical, Telephone and Data installations, Contractor to assume all walls of each room unless specifically detailed otherwise, 8'-0" high, starting 8" AFF. Contractor to mask off FRT label prior to painting of plywood by painter.
5. Contractor shall infill/cover, maintain, and remove as necessary all stair treads (concrete, steel, or any other material) with wood. Construction Manager will advise when protection may be removed. Any patching required as a result of installation or removal of this protection is the responsibility of 06A Contractor.
6. Contractor shall furnish, install, maintain, and remove all wood safety rails and toe boards at all floors, roof, expansion joints, stairs, slab penetrations, pits, deck edges and openings. Any patching if required to structure due to installation is by 06A. Rails must be wood and in compliance with all MOSH/OSHA standards. Steel safety cables are by 05A.
7. Contractor includes horizontal wood handrail at all openings with sills less than 42" in height which could be a fall hazard per MOSH/OSHA standards. Wood rail to be installed per all MOSH/OSHA standards. Contractor includes removal immediately before opening is filled in with final material such as louver, window, etc.
8. In the event of pending weather, the 06A Contractor is to protect exterior blocking as practical from exposure to weather. 06A Contractor shall be responsible for replacing material if it is deemed unacceptable due to exposure to the elements.
9. 06A is to furnish and install temporary doors at all electric, telephone, data and machine rooms. 06A to include



hinges, hasps, and temporary closer as necessary. Construction Manager to provide lock.

**Expansion Joint Cover Assemblies Scope:**

1. 06A Contractor shall furnish and install all floor and wall expansion joint cover assemblies complete as required by the Contract Documents and Specification Section 079513.13. Expansion joint cover assemblies at drywall or acoustical ceiling locations to be furnished and installed by the 09A package. If caulking is required at 06A assembly in 09A work, 09A is to provide caulk as well. In the event control or expansion joints are not shown but required to control cracking/expansion per manufacturers recommended installation procedure or if specified in Division 9, 09A is to furnish and install these assemblies complete.
2. Contractor includes all coordination with Concrete, Masonry and Steel Contractors for required blockouts. Contractor includes all incidentals with installation inclusive of grout, flash patching, minor chipping and prep work for a complete installation.

**Frames, Doors, and Hardware Scope:**

1. Contractor to furnish and install all FRP, hollow metal frames, borrowed lite frames, wood doors, steel doors, fiberglass doors & aluminum frames, metal sound control door assemblies, and hardware complete per Specification Sections 081113, 081416, 081613, 083473.13, and 087100.
2. Contractor includes storage at offsite location of all doors and hardware as space is extremely limited. Contractor to coordinate with construction manager and other trades for shipment of hollow metal frames. Contractor can assume no less than 3 shipments. No wood doors will be allowed onsite until conditioned air is available and without written approval of construction manager.
3. Contractor to provide (1) 3' x 7' hollow metal frame for installation within masonry mockup panel.
4. With the exception of Automatic Door Operators at Aluminum entrances, which are furnished and installed by 08A, all other electrified hardware is furnished and install by 06A. For further clarity, 06A is to furnish and install automatic door operators per specification section 087100 at hollow metal frames. 06A is to furnish and install magnetic hold opens as indicated with 16A making connection to the fire alarm system. 06A is to furnish and install magnetic locks, with assistance from 16A for required conduit rough-in. The 06A Contractor shall provide controls, power wiring, junction boxes, rectifiers, and transformers and connection with electrified hardwired being provided in their package. The 06A, 08A and 16A Contractor shall coordinate required conduit or pathways being furnished by 16A for 06A or 08A use. The 06A, 08A and 16A contractor to ensure proper power requirements are brought to each location as well as required interaction with security and fire alarm system. With respect to any electrified hardware, it is the 16A contractor's responsibility to bring power to each door location, and install required power pack (furnished by others) at each door location (central locations will not be utilized due to length of run limitations on provided low voltage wiring); actual electrified door hardware is installed by 06A (or 08A at aluminum entrances) then 16A has power wiring and verification of wiring and final connections. 06A and 08A would then have associated respective adjustments. Security card readers are 16A to furnish and install with coordination from both 06A and 08A depending on location.
5. Contractor to include final keying of all cylinders furnished under this scope as well as storefront and overhead doors scope per Owner/CM direction. All hardware is to be shipped with "construction cores", keyed identically for ease of construction and installation as well as controlled access of other trades by Construction Manager. After final cleaning is performed, all construction cores are to be replaced with final keyed cores. Contractor to provide to Construction Manager six (6) complete sets of construction use keys for CM use and distribution as necessary to other trades.
6. 06A Contractor to furnish all required door hardware to the 08A contractor for installation by the 08A contractor for all aluminum doors and frames. This hardware is to be procured, collected, and palletized by the 06A contractor and shipped by the 06A Contractor to the 08A Contractor direct and free of charge. Use of templates will not be permitted when the 08A Contractor is producing final aluminum doors and frames.



7. Contractor shall include all costs to deliver hollow-metal frames in sufficient time to avoid delay to masonry construction. In the event delivery dates are not met, this contractor will be responsible for any and all costs, as well as repair of frames that have to be installed in "toothed" openings if damaged or moved during installation.
8. Contractor shall coordinate with Masonry and Drywall Contractors to ensure timely installation of hollow metal work. 06A Contractor shall install all hollow metal work plumb, level, square, and true to line and shall be responsible for properly bracing, maintaining and repairing the work until the Masonry Contractor's acceptance. The 09A, Drywall Contractor, is to set hollow metal frames in metal stud partitions. Frames are furnished by 06A.
9. Contractor shall review all door and hardware schedules for correctness and compatibility.
10. Contractor to protect wood and fiberglass doors from damage. This, at a minimum, will be 1/4" cardboard on both sides of door from floor to 6' above floor and maintained as necessary until substantial completion. This is to be part of base bid cost.
11. 06A Contractor includes infill of all hollow metal window, side light, borrowed light, etc. openings with plywood supported at 2'-0" OC as necessary as masonry progresses and frames are blocked in on lower floor(s) This is for security as well as weather protection. Removal of this material is by 06A to allow for painting of frames by 09F prior to installation of permanent glass by 08A. If 08A contractor installs glass prior to painting of frame, it will be the 08A contractor's responsibility to remove and reinstall after paint at no charge.
12. Contractor shall allow for a minimum of two coordination meetings with the Owner to determine how the final keying of the building will be performed.
13. Contractor includes final key cabinet furnish and installation, location to be determined by Owner. This is to include complete full setup of key cabinet inclusive of all necessary tagging inside cabinet and stamped on each key provided.
14. Immediately prior to substantial completion, the 06A contractor to verify installation of all hardware provided and installed under this scope of work, as well as verification of proper installation at all aluminum doorways installed by the 08A Contractor to ensure proper installation and function of all hardware. **06A Contractor is responsible for repairs/corrections to hardware installed by 06A Contractor. 08A Contractor is responsible for repairs/corrections to hardware installed by 08A Contractor.**<sup>3</sup>
15. Manufacturer's Representative to review installation of all hardware provided under this package. Each Manufacturer Representative is to make final adjustment on all door hardware, inclusive of all hardware supplied to other Contractors for installation, two weeks prior to substantial completion, at six months later after substantial completion, and at the end of the installation warranty period if need be.
16. Provide 20 additional cylinders and cores keyed to building master key system for gym equipment, overhead doors, and all key switches.
17. As required, at wood, metal and/or fiberglass (FRP) doors, 06A shall furnish doors with metal frame vision kits. 08A Contractor will set glazing and secure glazing in position after painting.

**Coiling Counter Doors scope:**

1. Contractor shall furnish and install all coiling counter doors complete, required by the Contract Documents including access panels as necessary to service equipment per Specification Section 083313.
2. Contractor includes cost of factory-authorized service representative to perform startup and training of owner's personnel.
3. Contractor includes cost of 24 months full maintenance by a skilled employee per specifications in base bid.

**Overhead Coiling Doors scope:**



1. All overhead coiling doors required by the Contract Documents including access panels as necessary to service equipment per Specification Section 083323.
2. The electrical contractor shall provide all power wiring, junction boxes, conduit, as shown on contract documents up to the disconnect. This contractor is to provide any required disconnects, electric motor, remote controls, rectifiers, and transformers as well as provide assistance to electrical contractor for final connection of power. Any conduit, wiring, boxes after the disconnect is the responsibility of this contractor. Contractor to coordinate with Electrical contractor to ensure proper power requirements are brought to each disconnect, as well as required interaction with security and fire alarm system.
3. Contractor includes furnish and installation of electric door operator with means of disconnect, electric motors, limit switches, sensors, control stations, audible and visual signals, etc.
4. Contractor includes cost of factory-authorized service representative to perform startup and training of owner's personnel.
5. Contractor includes cost of 24 months full maintenance by a skilled employee per specifications in base bid.

**Display Cases and Boards Specific Scope of Work:**

1. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the display work in accordance with the complete set of Contract Documents.
2. Contractor shall furnish and install all bulletin boards, display cases, visual display boards, markerboards, tackboards, display strips, trays, aluminum frames and trim, and accessories as required by the Contract Documents and as referenced in Specification Sections 101100 and 101200. For all cork material, contractor to install only after material has acclimated to building conditions for a minimum of 7 days, or as per manufacturers recommendations, whichever is more stringent.
3. Contractor shall provide locks, display rails, end stops, and any other accessory required by the Contract Documents.
4. Contractor shall furnish and install all tackboard panels, glazed sliding doors, shelves, standards and supports, back panels, illumination and all other accessories required by the Contract Documents at display cases.
5. Contractor to caulk or provide fillers a necessary to provide a finished appearance where this Contractor's work abuts other materials.
6. Contractor shall provide daily cleanup of all trash and debris generated by the work and place in dumpster furnished by the Construction Manager. Upon completion of each phase of work in any given area, the Contractor shall leave the area in broom clean condition. Should the Contractor's cleanup be unsatisfactory, the Construction Manager shall perform the work at the Contractor's expense.
7. Contractor to coordinate any electrical requirements for materials being provided under this package with the 16A contractor prior to wall rough in, or any costs to change wall rough in will be at this Contractor's expense.

**Signage Specific Scope:**

1. Contractor to furnish and install all interior signage, panel signage, die-cut vinyl graphics, plaques, exterior and interior stainless-steel letters, signage accessories and the like inclusive of fasteners and or mastics(s) per Specification Sections 101416, 101423, 101463 and 101419.
2. Contractor shall furnish and install all in-wall blocking required for this work, prior to wall close-in by 08A and 09A contractors.



3. Contractor includes all incidental caulking of own work for a complete installation.
4. Contractor shall silicone all sign perimeters to mounting surface to deter student removal.
5. Room identification signage to be mounted at latch side of door, 48" AFF to bottom of sign, and 9" from edge of door frame to center of sign, and to have a clear perimeter sealant. Note, no tactile characters can be less than 48" AFF or more than 60" AFF. In the event a sign is taller than 12", mounting location needs to be confirmed by design team. In the event a sign cannot be mounted as stated, contractor to immediately notify Construction Manager as this is a potential ADA concern.
6. Contractor shall include Life Safety Signs per bid documents.
7. Contractor includes back panel on all signage mounted on glass.
8. Contractor shall furnish and install all 24" tall dimensional characters to say "ROCK CREEK SCHOOL" and include the mounting to the exterior of the building.
9. Contractor shall furnish and install all 12" tall stainless-steel letters to say "55B" and include the mounting to the exterior of the building.
10. Contractor shall furnish and install all 6" tall stainless-steel building address letters/numbers to say "55B" (@RCS) and "55" (@WMS) and include the mounting at the new Rock Creek School site sign and the new Walkersville Middle School site sign respectively as per A407.
11. Contractor shall furnish and install all other dimensional characters, both interior and exterior, as identified in the Contract Documents.
12. Contractor to furnish and install all LED Signboards per Specification Section 101463. Conduit rough in, feeders and disconnect are by 16A, line side wiring to sign by 06A. 06A to coordinate roughin location with 16A.
13. Furnish and Install one (1) Project Construction Sign to be placed at a location determined by Construction Manager. Sign can be obtained from Maryland Correctional Enterprises; Contact: Charles Behnke 410-799-5102.
14. Provide all attic stock as required.
15. All street and or parking signage is provided and installed by the 02A Contractor, with the exception of the Site Project Sign.

**Cubicle Curtains & Track Specific Scope:**

1. Contractor to furnish and install all cubicles complete including but not limited to, track, curtain, track accessories, curtain carriers, exposed fasteners, concealed fasteners, etc. as indicated on the contract documents and Specification Section 102123.
2. Contractor includes field measuring of spaces prior to fabrication.

**Toilet Partitions and Accessories Specific Scope of Work:**

1. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the Toilet Partitions and Accessories work in accordance with the complete set of Contract Documents.
2. Contractor shall furnish and install all toilet, bath and laundry accessories, toilet compartments, urinal screens and wardrobe accessories as required by the Contract Documents including, but not limited to, toilet tissue dispensers, paper towel dispensers<sup>3</sup>, grab bars, mirrors, sanitary napkin disposals, shower seats, robe hooks, shower grab bars, shower curtain rods, shower curtains and hooks, privacy curtains, underlatory guards, chemical dispensing



systems, and mop and broom holders. This includes any accessories required in classrooms, kitchen, or other common areas (i.e., paper towel/soap dispensers) or as indicated. This includes all work indicated per Specification Section 102113.19 and 102800.

3. Contractor shall provide installation for Owner Furnished, Contractor Installed items per Contract Documents, per Specification Section 102800, including, but not limited to all toilet tissue dispensers, liquid soap dispensers, paper towel dispensers.<sup>3</sup>
4. Contractor shall be responsible for field measuring prior to release of materials.
5. Contractor shall coordinate with Construction Manager regarding all locations and mounting heights for toilet accessories. The Contractor's shop drawings shall show specific size and location of all blocking required by the work included in this Contract Package. Contractor shall be responsible for adherence to all ADA and handicapped regulations, with special attention to sheet A401.
6. Contractor includes all incidentals to this work inclusive of caulking for a complete installation
7. Contractor will cut, reinforce and trim toilet partitions if necessary to install items common between two (2) stalls and shown as a thru wall accessory.
8. Contractors shall provide daily cleanup of all trash and debris generated by the work and place in dumpster furnished by the Construction Manager. Upon completion of each phase of work in any given area, the Contractor shall leave the area in broom clean condition. Should the Contractor's cleanup be unsatisfactory, the Construction Manager shall perform the work at the Contractor's expense.
9. Contractor to coordinate with floor and wall finish contractor for installation of fasteners as applicable. Any damaged finishes which occurs during installation of work under this scope, will be the responsibility of this contractor.
10. Contractor responsible for final adjustment of hardware per the specification immediately prior to substantial completion.

**Lockers and Shelving Specific Scope of Work:**

1. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the Lockers and Shelving work per Specification Sections 105113 and 105613, in accordance with the complete set of Contract Documents.
2. Contractor shall furnish and install all solid plastic lockers including staff lockers, corridor lockers, aquatics lockers, locker accessories, continuous piano hinges, handles, identification plates, hooks, final cleaning and lubrication prior to substantial completion, and as required by the Contract Drawings and Specification Section 105126 – Plastic Lockers
3. Contractor shall furnish and install all fixed locker room benches with backs as per Specification Section 105153. Contractor shall coordinate with 03A for locations of thickened slab and floor sleeves if applicable.
4. Contractor to furnish and install all metal storage shelving including but not limited to four post metal storage shelving, inclusive of posts, bracing, solid type shelves, shelf-to-post connectors, bases and tops, and anchors, as required by the Contract Drawings and Specification Section 105613 Metal Storage Shelving.
5. Contractor to submit numbered layout drawing for all lockers, prior to fabrication, and use of ordering locker number plaques for approval, as some lockers may be deleted during this process.
6. Contractor will provide fillers and caulk as required to provide a finished appearance where lockers abut other materials.



7. Contractor shall provide daily cleanup of all trash and debris generated by the work and place in dumpster furnished by the Construction Manager. Upon completion of each phase of work in any given area, the Contractor shall leave the area in broom clean condition. Should the Contractor's cleanup be unsatisfactory, the Construction Manager shall perform the work at the Contractor's expense.
8. Contractor acknowledges no metal shelving will be set until after floor final waxing has occurred and contractor will be working over completely finished floors and spaces during installation, and will perform 100% cleanup to leave space in condition ready for Owner use.

**Projection Screen Specific Scope:**

1. Contractor shall furnish and install all projection screens and accessories as required by the Contract Documents and as referenced in Specification Section 115213.19.
2. Contractor shall include cost to train Owner's personnel in base bid.
3. Contractor will provide all necessary supports, mounting brackets and support hardware for projection screens. Ceiling hung projection screens shall be supported from structural steel above. Support from the ceiling grid will not be permitted. Contractor to advise during structural steel coordination any need for supplemental steel support; in the event this is not coordinated, the need for supplemental steel is then this Contractor's responsibility. In the event structural steel is not immediately above projection screen elevation, Contractor includes beam clamps, all thread, hangers, kendorff etc. to utilize structural steel at above floor or roof level and no additional structural steel will be provided immediately above ceiling elevation.
4. Contractor to coordinate any electrical requirements for materials being provided under this package with the 16A contractor prior to wall rough in, or any costs to change wall rough in will be at this Contractor's expense.
5. All items within this Contract Package, which are specified or required to have electrical service or electrical outlets, shall be furnished with complete integral wiring by this Contractor, for single connection at a junction box or disconnect by the 16A Electrical Contractor.
6. Key switch operation is to be on building master key system.

**Stage Curtains Specific Scope:**

1. Contractor to furnish and install all video studio curtains, stage curtains, and tracks complete per Specification Section 116143.
2. Contractor to include stage curtains, scrims, drops, draw-curtain tracks and curtain rigging, per contract documents.
3. Contractor shall include cost to train Owner's personnel in base bid.
4. Contractor to coordinate any electrical requirements for materials being provided under this package with the 16A contractor prior to wall rough in, or any costs to change wall rough in will be at this contractor's expense.
5. All items within this Contract Package, which are specified or required to have electrical service or electrical outlets, shall be furnished with complete integral wiring by this Contractor, for single connection at a junction box or disconnect by the 16A Electrical Contractor.

**Exercise Equipment, Gymnasium Equipment and Dividers Specific Scope:**

1. Contractor to furnish and install all Exercise Equipment, Gymnasium Equipment and Gymnasium Dividers complete per Specification Sections 116613, 116623 and 116653.
2. Furnish and install all warranties as specified.



3. Contractor to include all pull up bars, climbing walls, dance barres, basketball equipment, volleyball equipment, exercise equipment, and safety pads, per contract documents.
4. Furnish and install basketball equipment by a specified manufacturer, including overhead supported and wall mounted backstops, with the specified backboards, safety devices, safety pads, safety devices, height adjusters, winches, electric operators, goals, and nets.
5. 06A Contractor shall furnish, core drill and install volleyball floor sleeves. Coordinate with 09D Contractor. 09D Contractor to layout and cut to install inserts in floor only.
6. Furnish and install electrically operated, top-roll divider system complete with all accessories as required.
7. This Contractor is responsible for protection of all adjacent finished work and will be responsible to clean, repair or replace any finished material damaged due to work by this trade damaging finished materials.
8. All items within this Contract Package, which are specified or required to have electrical service or electrical outlets, shall be furnished with complete integral wiring, including control wiring, by this Contractor, for single connection at a junction box or disconnect by the 16A Electrical Contractor.
9. Contractor shall include cost to train Owner's personnel in base bid.
10. Key switch operation is to be on the building master key system.

**Patient Care Equipment Specific Scope:**

1. Contractor shall furnish and install all patient care equipment complete per Specification Section 117300.
2. Contractor includes furnishing and installing all ceiling mounted patient lifts, with fixed ceiling tracks, ceiling tracks with transverse rails, lift units, straps, and carry bars as required per the Contract Documents.
3. Contractor includes furnishing and installing all changing tables as required per the Contract Documents.

**Roller Shades Specific Scope:**

1. Contractor to furnish and install all roller shades complete per Specification Section 122413.
2. Contractor to coordinate with HM Frame and Aluminum Frame suppliers for method of attachment.
3. Whether indicated or not, the 06A Contractor will be required to furnish extension wands as necessary to operate shades.
4. Contractor will be responsible for final adjustment, cleaning and touch up immediately prior to substantial completion.
5. Contractor to include own labor and equipment for unloading of deliveries, deliveries which arrive without contractor forces onsite will be immediately denied access to the site.
6. Contractor acknowledges no materials can be released until mandatory preorder conference has occurred. Contractor to schedule conference through Construction Manager.

**Millwork & Casework Scope:**

1. Contractor to furnish and install all millwork, finish carpentry for 062000 – Finish Carpentry, casework for 123216 – Manufactured Plastic-Laminate-Faced Casework and 123550 – Media Center Casework including but not limited to adjustable wood shelving, wood benches (including those in the corridor spaces), associated cabinet hardware and



accessories, interior wood frames and jambs, wood caps at low walls, custom changing table cabinets, workstations, PLAM benches, casework, reception desks, book shelving units, circulation desks, book trucks, display tables, magazine shelving, wood railings, shop finishing, PLAM countertops, solid surface countertops, solid surface sills and aprons, integral bowls in solid surface tops, emergency showers or stations, countertop equipment, pegboards, counter tops, shelves, locks, sinks, fixtures, caulking, fillers and grommets, etc. or as detailed on the construction documents. Any final plumbing related connections are to be by 15A.

2. Contractor will be required to modify casework as necessary to allow for MEP trade rough in, as well as provide cutouts for outlets, switches, devices, sinks and fixtures installed in Casework by others, cutouts are to be field performed.
3. Contractor to include all hardware including keying requirements for all work provided within this scope of work, in accordance with respective specification section. No hardware will be provided by other trades to make this scope of work complete
4. Contractor to provide all glass and glazing required for a complete installation of work provided under this contract. No glass or glazing will be provided by other trades to make this scope of work complete.
5. Contractor is responsible for all hardware necessary to anchor or affix its work in a permanent location.
6. Contractor to protect casework being furnished and installed under this package from damage. Casework protection shall be, at a minimum, 1/4" Masonite blue taped to the countertops. Contractor responsible for replacement of damaged casework and or countertops. This is part of base bid cost.
7. All items within this Contract Package, which are specified or required to have electrical service or electrical outlets, shall be furnished with complete integral wiring by this Contractor, for connection at a junction box by the 16A Electrical Contractor. This requirement does not include receptacles, which may be shown in casework. This Contractor shall provide cutouts for outlets, switches, devices and fixtures installed in Casework by other Trades.

**Greenhouse Specific Scope (Add Alternate #3)**

1. 06A Contractor to furnish and install a complete greenhouse per Specification Section 133413.13 to include but not limited to glazing, structural steel members, ventilation, heating, shading systems, lighting, watering system(s), environmental control system, and benches. The 06A Contractor shall provide a signed and sealed design for the foundation, footings and slab per the Contract Documents. Furnishing and installation of foundations, footings, slabs and masonry will be respective trade contractor if add alternate is accepted.
2. Contractor includes any incidental caulking of this work for a complete installation.
3. Contractor to include own labor and equipment for unloading of deliveries, deliveries which arrive without contractor forces onsite will be immediately denied access to the site.

**Miscellaneous Scope Items for General Trades Package:**

1. ~~Contractor shall furnish and install all wall coverings complete per Specification Section 097200. Contractor to furnish and install all custom vinyl wall graphics and plexi covers as indicated in the Contract Documents.~~<sup>3</sup>
2. Contractor shall furnish and install all wall and door protection, mechanically fastened with tamper resistant screws per Specification Section 102600 and as detailed on drawings.
3. Contractor shall furnish and install all Fire Protection Cabinets and Fire Extinguishers per Specification Sections 104413 and 104416, including all blocking and accessories as required for complete installation.
4. Contractor shall furnish and install all Defibrillator Cabinets per Specification Section 104313.
5. Contractor shall furnish and install all flagpoles and required footings per Specification Section 107300.



6. Contractor shall furnish and install all commercial laundry equipment per Specification Section 112173. Final connections to be made by 15A and 16A contractors as required.
7. Contractor shall furnish and install all loading dock bumpers and accessories per Specification Section 111313.
8. Contractor shall furnish and install all office equipment, including, but not limited to all literature racks and mail sorters as required per Specification Section 112800 Office Equipment.
9. Contractor shall furnish and install all residential appliances, including, but not limited to all electric cooktops, ranges, microwave ovens, exhaust hoods, refrigerator/freezers, icemakers, dishwashers, and clothes washers and dryers as required per Specification Section 113013.
10. Contractor shall furnish all kilns and related accessories complete per Specification Section 119513.
11. Contractor shall furnish a minimum of<sup>3</sup> one knox box, installation is by 04A. Quantities and locations to be as shown on the drawings.<sup>3</sup> Knox Box is to be authorized by local fire marshal prior to release.
12. Contractor shall furnish and install all floor hatches as identified in the Contract Documents.
13. Contractor shall install all wall mounted adjustable arm monitor brackets furnished by the Owner per Contract Documents.
14. 06A is to furnish, install, and maintain fire extinguishers onsite and in building per MOSH/OSHA requirements for general building protection during construction. All Trades are to provide fire extinguishers, blankets, and any other provisions for burning, welding, soldering, braising, or any hot/fire work performed by the Contractor in performance of their work in any area as specifically necessary.
15. 06A Contractor includes in his bid temporary electric power, pumps and sufficient length of hose to discharge water away from the building footprint and continual maintenance for dewatering of all below grade pits. The 03A Contractor to include 4x4 block out, 3' deep in lower level(s) prior to and after pour of slab on grade, excavation for temporary sump pit, pump, power and or generator, hose, labor as needed, demucking, backfill and secondary slab patch when no longer needed. Sump pit to be utilized after rain event(s) to remove water from lower level areas in order for all trades to keep working efficiently. The 03A Contractor includes temporary rails, toe boards, etc. for fall protection at sump pit areas. Once 06A contractor has daily presence onsite, all pumps, hoses, power, and daily maintenance is then the 06A's responsibility until building is dried in and sump can be eliminated and turned back over to 03A for completion of slab. Temporary sump(s) to be located by Construction Manager, but 03A and 06A can assume one location. In the event temporary power is not available to run required pumps, 06A is to then provide generator as required as the 03A Contractor is no longer responsible for this requirement.
16. In addition to the requirement of providing daily cleanup of self-generated debris from work and or workers, the 04A, 06A, 09A, 15A and 16A contractors are to include 1 man per every 15 men contractor has onsite, with a mandatory minimum of one man if contractor has less than 15 men onsite. This requirement will be utilized for contractors to participate in a composite cleanup crew. Composite cleanup days will be every Wednesday from 7am to 2pm. Construction Manager will provide trash carts, dumpsters and sweeping compounds, all other equipment, PPE or otherwise, i.e. brooms, shovels, etc., are to be contractor provided.
17. Provide one (1) 8'-0" wide temporary scaffold stairs with access to roof level for Trade access at perimeter of building (Location TBD by CM).
18. 06A Contractor to furnish, install, and maintain temporary exit signs as necessary in compliance with MOSH/OSHA standards during construction. Signs are to be removed at Construction Manager's direction. Any patching as necessary is to be included as part of base bid cost.

**Resinous Matrix Terrazzo Specific Scope of Work (Add Alternate #6)**



1. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the Resinous Matrix Terrazzo work in accordance with section 096623 and the complete set of Contract Documents.
2. Contractor shall furnish and install all Resinous Matrix Terrazzo at Commons 002 including all divider strips, control joint strips, cleaners, epoxy grouts, sealers and all other accessories, as required by the Contract Documents, as part of the Alternate #6.
3. Contractor to provide floor preparation as necessary to install work under this package.
4. The 03A Contractor is obligated to finish slabs in compliance with Specification Section 033000. ~~09E-06A~~<sup>3</sup> Contractor to include floor prep and flash patching as necessary for their work and installation of material, no exclusion, all costs are part of base bid. Grinding of concrete is not part of this package and is to be assumed by the 03A Contractor provided this contractor gives proper notice of unacceptable conditions two weeks prior the start of work.
5. ~~09E-06A~~<sup>3</sup> Contractor shall provide all layout and survey work necessary to complete their work as required by the Contract Documents.
6. ~~09E 06A~~<sup>3</sup> Contractor shall coordinate with the Construction Manager regarding layout of flooring prior to commencement of the work.
7. ~~09E 06A~~<sup>3</sup> Contractor includes all cleaning, sealing and polishing as required.
8. ~~09E 06A~~<sup>3</sup> Contractor shall provide temporary protection of finished work in place. At a minimum, Contractor shall protect finished flooring with Kraft paper reinforced by nylon strings which is to be taped at all joints. Contractor includes maintenance and replacement as necessary.
9. Contractors shall provide daily cleanup of all trash and debris generated by the work and place in dumpster furnished by the Construction Manager. Upon completion of each phase of work in any given area, the Contractor shall leave the area in broom clean condition. Should the Contractor's cleanup be unsatisfactory, the Construction Manager shall perform the work at the Contractor's expense.
10. ~~09E 06A~~<sup>3</sup> Contractor to caulk or provide trim as necessary where flooring meets other material (i.e., floor drains, equipment pads, boxes, walls).
11. ~~09E 06A~~<sup>3</sup> Contractor to coordinate slab depressions with 03A Concrete Contractor.

**PART 3 – ALTERNATE SCOPE OF WORK**

1. Contractor has reviewed the Alternates scope of work listed elsewhere within the specifications and has included all costs in the event the Owner elects to proceed in whole or in part.

**PART 4 – ALLOWANCES**

1. In addition to the composite clean-up crew requirements listed above, contractor to include an additional 500 general laborer hours to be used at Construction Manager or Owner discretion. Hourly cost to be based on wage scale. Hours are to be tracked on a ticket, in the event the cost exceeds this allowance, an additive change order will be issued based on wage scale, in the event it is less, a deductive change order will be issued.

**END OF 06A SECTION**



**PART 2 – SPECIFIC SCOPE OF WORK**

1. Contractor has reviewed and understands the Contract Package / Specification Cross Reference listed under Section 002413.
2. Contractor includes General Scope of Work listed under Part 1 of Section 002416.
3. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the Site Glass and Aluminum<sup>3</sup> work in accordance with the complete set of Contract Documents.
4. The Contractor shall perform at least 30% of this Package by cost with the Contractors own, in-house work forces. Subcontracting or brokering more than 70% of the work shall not be permitted.

**Glass and Aluminum Scope of Work:**

1. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the Glass and Aluminum work in accordance with the complete set of Contract Documents.
2. Contractor shall furnish and install all glass and aluminum work required by the Contract Documents, including but not limited to, translucent fiberglass sandwich panel assemblies, fire-resistant & fire-protection rated glazing, ballistic-resistant glazing and frames, glazed aluminum curtain wall systems, aluminum windows, aluminum storefronts and entrances (fire rated and non-fire rated), sills, metal covers, metal closure panels, break metal, sunshades, louvers or vents in 08A assemblies, glass, glazing, sealants, flashings for work under this package, interior and exterior caulking of work in this package, insulation around all windows, and all other items required by the Contract Documents to provide a complete interior and exterior window installation. This includes shop drawings signed and sealed by a Structural Engineer registered in the State of Maryland, if required.
3. Contractor shall furnish and install interior and exterior glass and fire-rated glass as required by the Contract Documents. Furnish and install glass for all windows, doors, borrowed lights, storefront framing, curtain walls, as required by the Contract Documents. Furnish and install all glazing sealants and accessories as required. Hollow metal window frames will be furnished and installed by others. Coordinate prep of doors or frames with 06A Contractor.
4. Contractor shall furnish and install all security door and frame assemblies as specified in Specification Section 083453.
5. Contractor shall furnish and install all folding door assemblies as specified in Specification Section 083513.
6. Contractor shall furnish and install all frameless mirrors and associated hardware as required by the Contract Documents. Framed mirrors as specified in section 102800 are by others.
7. Contractor shall furnish and install all decorative glazing assemblies and framing system at Dining area per Contract Documents and Specification Section 088113.
8. Contractor shall coordinate with 03A, 04A, 05A, 06A, 07A and 09A Contractors regarding aluminum window, storefront and curtainwall opening sizes and locations. Note that field measurement will not be possible due to schedule constraints. Contractors must hold rough opening dimensions per 08A's approved shop drawings.
9. As required, at wood, metal, and/or fiberglass (FRP) doors, 06A will furnish doors with metal frame vision kits. 08A Contractor will set glazing and secure glazing in position after painting.
10. Contractor will remove all labels, stickers, marks, caulk splotches, cut gaskets as work progresses and provide touch-up or glass repair, as necessary, and clean exterior of glass while installation progresses. Final cleaning of interior is by others at project substantial completion.



11. Contractor includes all firestopping integral to the material being provided under this package, or to close gaps from slab edges to curtainwalls, windows, glass in both aluminum and hollow metal frames, or storefronts, per Specification Section 078443.
12. Contractor shall include fire-resistive joint assembly where slab meets curtainwall or storefront.
13. Any material required for structural or aesthetic attachment not referenced on the documents but required properly to brace, support work, or provide finished appearance under this package is part of 08A base bid. This includes, but is not limited to, fiberglass, metal, steel, studs, wood, or any other material necessary.
14. The 08A Contractor shall furnish and install all spandrel glazing panels and any metal panels and insulation complete within the curtainwall or storefront systems.
15. The 08A Contractor will furnish and install gauge closure and caulk, if necessary, at interface of 08A work with metal decking.
16. The 08A Contractor will furnish and install aluminum break metal at areas adjacent to 08A work as detailed, typically end of wall condition to storefronts. Support framing, insulation, and plywood are by others. Color unless noted otherwise is to match adjacent aluminum curtainwall/window/storefront.
17. 06A is to furnish, install, and maintain fire extinguishers onsite and in building per MOSH/OSHA requirements for general building protection during construction. All Trades are to provide fire extinguishers, blankets, and any other provisions for burning, welding, soldering, braising, or any hot/fire work performed by the Contractor in performance of their work in any area as specifically necessary.
18. Contractor shall provide 5/8" plywood over 2" thick rigid insulation board as roof protection while working on the roof.
19. 06A Contractor includes infill of all hollow metal window, side light, borrowed light, etc. openings with plywood supported at 2'-0" OC as necessary as masonry progresses and frames are blocked in on lower floor(s). This is for security as well as weather protection. Removal of this material is by 06A to allow for painting of frames by 09F prior to permanent glass by 08A is installed. If 08A contractor installs glass prior to painting of frame, it will be the 08A contractor's responsibility to remove and reinstall after paint at no charge. Temporary plastic for weather protection will be allowed on upper openings only where security is less of a threat.
18. Temporary infill at fixed aluminum storefronts, curtainwalls, and or windows due to lack of aluminum frames is the responsibility of the 08A contractor, infill to be a combination of 4'-0" sheets of 1/4" plexiglass and 1/2" plywood supported at 16" OC which still allows ample natural light into the space for lower floor(s). In the event a doorway is required in a space with a temporary infill, 08A to provide doorway, hinges, closures, and hasp at the direction of the construction manager. Infill to be installed in such a manner to allow for all interior trades to progress with no conflict. Temporary protection is to be installed for security as well as in such a manner to stop wind and precipitation from entering the building.
19. Infill of fixed aluminum storefronts, windows, and or curtainwalls due to lack of glass is the responsibility of 08A contractor to infill with 1/4" plexiglass and 1/2" plywood supported in aluminum framing, which still allows ample natural light into the space until permanent fixed glass is installed at lower floor(s). This is for both security as well as weather protection. In the event a doorway is required in a space with a temporary infill, 08A to provide doorway, hinges, closures, and hasp at the direction of the construction manager. Infill to be installed in such a manner to allow for all interior trades to progress with no conflict. Temporary protection is to be installed for security as well as in such a manner to stop wind and precipitation from entering the building.
20. Any temporary infill maintenance and removal is the responsibility of the installing contractor at the direction of the Construction Manager.
21. Contractor includes provisions for installation of all lighting, fire alarm, exit signs, security wiring, etc. to be



- concealed within curtainwall and or storefront framing. Under no circumstance will exposed wiring or wire mold be acceptable. Blocking or integral framing to support lights, exit signs etc. will be by 06A and 09A.
22. Blocking requirements which are not clearly shown on the construction documents but required for attachment of materials being provided and installed under this contract, are the responsibility of this contractor.
  23. Any material required for structural or aesthetic attachment not referenced on the documents but required to properly brace, support work, or provide finished appearance under this package is part of this contractor's base cost. This includes, but is not limited to, metal, steel, studs, wood or any other material as necessary.
  24. Contractor includes cutting, drilling etc. of metal panels and or aluminum being provided under this contract for other trades to access within these systems.
  25. Contractor includes provisions at curtainwalls and or storefronts and or windows to allow for direct attachment of window shades direct to mullions if head attachment cannot be achieved.
  26. Despite any reference or lack of detail to the contrary, Galvanized angles or heavy gauge flat metal to span potential cavity from masonry backup to finish masonry, stud backup to finish façade etc., is required at head, sill and jambs regardless of aluminum system being utilized and is to be furnished and installed by this Contractor irrespective of manufacturer requirements for anchorage. Contractor to coordinate with 04A to allow for installation prior to air barrier and/or spray foam. This includes attachment method required to both cmu and cold formed metal framing backup, both mechanical fasteners and or welding as indicated.
  27. Any structural attachment for curtainwall provided by this contractor is to have same finish as supported curtainwall.
  28. 08A Contractor to furnish and install all automatic door operators per specification section 087100 at doorways furnished by this contractor. Contractor to include signage for automatic door operators, as specified.
  29. 06A Contractor to furnish all door hardware to the 08A contractor for installation by the 08A contractor for all aluminum doors and frames. This hardware is to be procured, collected, palletized by the 06A contractor and shipped by the 06A contractor to the 08A contractor direct and free of charge. Use of templates will not be permitted when the 08A contractor is producing final aluminum doors and frames.
  30. With the exception of Automatic Door Operators at Aluminum entrances, which are furnished and installed by 08A, all other electrified hardware is furnished and install by 06A. For further clarity, 06A is to furnish and install automatic door operators per specification section 087100 at hollow metal frames. 06A is to furnish and install magnetic hold opens as indicated with 16A making connection to the fire alarm system. 06A is to furnish and install magnetic locks, with assistance from 16A for required conduit rough-in. The 06A Contractor shall provide controls, power wiring, junction boxes, rectifiers, and transformers and connection with electrified hardwired being provided in their package. The 06A, 08A and 16A Contractor shall coordinate required conduit or pathways being furnished by 16A for 06A or 08A use. The 06A, 08A and 16A contractor to ensure proper power requirements are brought to each location as well as required interaction with security and fire alarm system. With respect to any electrified hardware, it is the 16A contractor's responsibility to bring power to each door location, and install required power pack (furnished by others) at each door location (central locations will not be utilized due to length of run limitations on provided low voltage wiring); actual electrified door hardware is installed by 06A (or 08A at aluminum entrances) then 16A has power wiring and verification of wiring and final connections. 06A and 08A would then have associated respective adjustments. Security card readers are 16A to furnish and install with coordination from both 06A and 08A depending on location.
  31. Final adjustment and testing of hardware at aluminum entrances is by the 08A contractor. **Immediately prior to substantial completion, the 06A contractor to verify installation at all aluminum doorways installed by the 08A Contractor to ensure proper installation and function of all hardware. 08A Contractor is responsible for repairs/corrections to hardware installed by 08A Contractor.**<sup>3</sup>



32. Contractor includes all work at mockup panel associated with this package.



**PART 3 – ALTERNATE SCOPE OF WORK**

1. Contractor has reviewed the Alternates scope of work listed elsewhere within the specifications and has included all costs in the event the Owner elects to proceed in whole or in part.

**PART 4 – ALLOWANCES**

1. Allowance: Contractor includes an allowance of \$10,000 to cover costs of labor and materials in connection with damaged aluminum, glass or glazing which cannot be determined to be fault of this or other contractors onsite. In the event any or a portion of this monies is unused, it shall be returned via deduct change order.

**END OF 08A SECTION**



**PART 2 – SPECIFIC SCOPE OF WORK**

1. Contractor has reviewed and understands the Contract Package / Specification Cross Reference listed under Section 002413.
2. Contractor includes General Scope of Work listed under Part 1 of Section 002416.
3. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the Site Paint<sup>3</sup> work in accordance with the complete set of Contract Documents.
4. The Contractor shall perform at least 30% of this Package by cost with the Contractors own, in-house work forces. Subcontracting or brokering more than 70% of the work shall not be permitted.

**Painting and Coatings Specific Scope of Work:**

1. Contractor shall provide all labor, material, equipment, and supervision necessary for and reasonably incidental to the completion of the Painting work in accordance with the complete set of Contract Documents.
2. Contractor shall furnish and install all priming, block filling, exterior and interior finish painting, fire and smoke assembly identification (stenciling), and high-performance coatings as required by the Contract Documents and Specification Sections 099000.
3. Contractor includes minor cleaning and scraping, preparation and staining of all concrete floors which are to be stained. Contractor to assume dark tinted stain despite any reference to the contrary. Two coats minimum, include all surfaces of housekeeping pads.
4. Contractor shall furnish and install all painting and finishing of interior and exterior exposed surfaces including, but not limited to, concrete, masonry, drywall, hollow metal frames and doors, access panels, railings (excluding prefinished or stainless steel), supports, structures, braces, exposed piping, exposed ductwork, exposed structural steel, exposed metal deck, miscellaneous metals, wood work and painted, sealed or coated floors and all others areas as required by the Contract Documents.
5. Contractor shall provide all required surface preparation prior to painting, including minor wipe down.
6. Unless stated otherwise, all coats of block fill, primer and paint are to be back rolled after spray installation.
7. Contractor shall be responsible for all minor touch-up and repainting work caused by installation of adjacent work.
8. Contractor shall paint all exposed mechanical room piping as required by the Contract Documents. Contractor shall paint all exposed piping, steel, deck and all exposed ductwork, as designated.
9. All rust and scale shall be sanded off of hollow metal doors and frames, exposed metal pan stairs, stringers, and bare areas primed by this Contractor.
10. Contractor shall not prime a surface until the previous Contractor has completed his work, and point up.
11. Contractors shall provide daily cleanup of all trash and debris generated by the work and place in dumpster furnished by the Construction Manager with the exception of material deemed as hazardous (i.e., epoxy, paint thinners, high performance coatings, etc.). Contractor must dispose of hazardous material offsite in a legal manner. Upon completion of each phase of work in any given area, the Contractor shall leave the area in broom clean condition. Should the Contractor's cleanup be unsatisfactory, the Construction Manager shall perform the work at the Contractor's expense.
12. Contractor to include proper preparation for painting of all galvanized materials specified to be painted.



13. Contractor shall be responsible for disposing of empty paint, sealer or any other chemical product or container off site in a legal manner.
14. Contractor shall caulk drywall to CMU or concrete for clean end of wall or ceiling condition.
15. Contractor includes caulking of all interior hollow metal, and or aluminum frames, as well as interior side of all exterior hollow metal or aluminum frames. This includes jams and heads.
16. Contractor to furnish and install all primers and special coatings as required at exterior steel columns.
17. Contractor shall reference Specification Section 099000, 210553, 220553 and 230553 for painting requirements. All mechanical/plumbing and electrical work, if required to be painted, is part of this Contractor's scope. This does not include stenciling of mechanical and electrical pipe and duct work.
18. The 15A and 16A Contractors shall provide all stenciling of mechanical piping, ductwork, equipment, conduit, etc. General painting of exposed piping ductwork, equipment, conduit, etc. will be performed by this Contractor.
19. Despite any reference to the contrary, the Contractor will furnish and install two (2) coats of blockfiller/primer to any substrate to receive finish paint.
20. Contractor to include stenciling/labeling of all fire walls, smoke walls, smoke partitions as directed by contract documents and by local jurisdiction.
21. Under no circumstance will contractor paint over fire or UL labels and or ratings, regardless if material or substrate is pre-primed. Labels and ratings are to be taped off by this contractor, or any and all costs to recertify labels or ratings will be at this contractor's expense. Tape to be removed after painting by 09F contractor.
22. Contractor is responsible for any rework as a result of dirt blown into finish, unless notice is given to the Construction Manager 72 hours prior to beginning work that the site is in need of cleaning. Start of work is acceptance of conditions.
23. Contractor to include any masking off of materials as required to properly protect other finished materials. Contractor to protect adjacent finished surfaces. Overspray to be cleaned at this contractor's expense.
24. Contractor to provide protection for all sprinkler heads during painting. Protection to be removed after painting by 09F contractor.
25. All hollow metal which is to be painted, door frames, window frames, doors, etc. are to be sprayed per the specifications. Brush or rolling will not be permitted. Therefore, protection of finished adjacent materials in complete and finished spaces is included and part of this contractor's scope of work.
26. Contractor acknowledges and includes painting of exposed metal deck, minimum 2 coats primer, 2 coats finish.
27. 06A Contractor includes infill of all hollow metal window, side light, borrowed light, etc. openings with plywood supported at 2'-0" OC as necessary as masonry progresses and frames are blocked in on lower floor(s) This is for security as well as weather protection. Removal of this material is by 06A to allow for painting of frames by 09F prior to permanent glass by 08A is installed. If 08A contractor installs glass prior to painting of frame, it will be the 08A contractor's responsibility to remove and reinstall after paint at no charge.
28. **Contractor shall furnish and install all wall coverings complete per Specification Section 097200. Contactor to furnish and install all custom vinyl wall graphics and plexi covers as indicated in the Contract Documents.**<sup>3</sup>

**PART 3 – ALTERNATE SCOPE OF WORK**



1. Contractor has reviewed the Alternates scope of work listed elsewhere within the specifications and has included all costs in the event the Owner elects to proceed in whole or in part.



**PART 4 – ALLOWANCES**

1. There are no allowances with this scope of work.

**END OF 09F SECTION**



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

The following is a listing of Contract Packages for use on the **Frederick County Public School's Rock Creek School**, along with references to the Architect's Specification Sections. Contractors will be responsible for the work contained in the referenced Specification Sections; however, the Contractor's work will not necessarily be limited to the sections referenced. All Contractors shall comply with the requirements of all Sections of **Division 00 Contract Requirements, and Division 01 General Requirements**, in their entirety.

<b>Contract Package</b>	<b>Specification Reference</b>
02A – Earthwork	<div> <div>Division 00</div> <div>In its entirety</div> </div> <div> <div>Division 01</div> <div>In its entirety</div> </div> <div> <div>024119</div> <div>Selective Demolition</div> </div> <div> <div>033000</div> <div>Cast-In-Place Concrete as applicable</div> </div> <div> <div>107516</div> <div>Ground-Set Flagpoles for coordination</div> </div> <div> <div>107316.13</div> <div>Metal Canopies for coordination</div> </div> <div> <div>107326.13</div> <div>Metal Walkway Covers for coordination</div> </div> <div> <div>116823</div> <div>Exterior Court Athletic Equipment</div> </div> <div> <div>Division 13</div> <div>For coordination</div> </div> <div> <div>Division 21</div> <div>For coordination</div> </div> <div> <div>Division 22</div> <div>For coordination</div> </div> <div> <div>Division 23</div> <div>For coordination</div> </div> <div> <div>Division 26</div> <div>For coordination</div> </div> <div> <div>Division 27</div> <div>For coordination</div> </div> <div> <div>Division 28</div> <div>For coordination</div> </div> <div> <div>311000</div> <div>Clearing</div> </div> <div> <div>312000</div> <div>Earth Moving - Civil</div> </div> <div> <div>312005</div> <div>Building Earthwork</div> </div> <div> <div>313116</div> <div>Termite Control</div> </div> <div> <div>315000</div> <div>Excavation Support and Protection</div> </div> <div> <div>321216</div> <div>Hot-Mixed Asphalt Paving</div> </div> <div> <div>321220</div> <div>Road and Parking Accessories</div> </div> <div> <div>321313</div> <div>Concrete Paving</div> </div> <div> <div>321315</div> <div>Concrete Curbing</div> </div> <div> <div>323000</div> <div>Site Furnishings</div> </div> <div> <div>323010</div> <div>Modular Playground Equipment</div> </div> <div> <div><b><u>323020</u></b></div> <div><b><u>Courtyard Furnishings, Play Equipment, &amp; Shade Structures<sup>3</sup></u></b></div> </div> <div> <div><b><u>323030</u></b></div> <div><b><u>Courtyard Playground Protective Surfacing<sup>3</sup></u></b></div> </div> <div> <div>323113</div> <div>Chain Link Fences and Gates</div> </div> <div> <div>323223</div> <div>Segmental Retaining Walls</div> </div> <div> <div>329000</div> <div>Tree Conservation</div> </div> <div> <div>329305</div> <div>Topsoiling, Seeding, and Sodding</div> </div> <div> <div>329500</div> <div>Trees, Shrubs, and Ground Covers</div> </div> <div> <div>331000</div> <div>Utility Standards</div> </div> <div> <div>331005</div> <div>Water Distribution System</div> </div> <div> <div>333000</div> <div>Sanitary Sewerage</div> </div> <div> <div>334100</div> <div>Storm Drainage</div> </div>
03A – Building Concrete	<div> <div>Division 00</div> <div>In its entirety</div> </div> <div> <div>Division 01</div> <div>In its entirety</div> </div> <div> <div>031100</div> <div>Concrete Forming</div> </div> <div> <div>031500</div> <div>Concrete Accessories</div> </div> <div> <div>032000</div> <div>Concrete Reinforcement</div> </div> <div> <div>033000</div> <div>Cast-In-Place Concrete</div> </div> <div> <div>042000</div> <div>Unit Masonry for coordination</div> </div> <div> <div>047200</div> <div>Cast Stone Masonry for coordination</div> </div> <div> <div>047300</div> <div>Manufactured Stone Masonry for coordination</div> </div> <div> <div>051200</div> <div>Structural Steel Framing for coordination</div> </div> <div> <div>054000</div> <div>Cold-Formed Metal Framing for coordination</div> </div> <div> <div>055000</div> <div>Metal Fabrications for coordination</div> </div> <div> <div>071113</div> <div>Bituminous Dampproofing as applicable</div> </div> <div> <div>071326</div> <div>Self Adhering Sheet Waterproofing as applicable</div> </div>



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

071416	Cold-Fluid Applied Waterproofing as applicable
072100	Thermal Insulation as applicable
072600	Vapor Retarders as applicable
078100	Applied Fireproofing for coordination
078413	Penetration Firestopping for coordination
078443	Joint Firestopping for coordination
079200	Joint Sealants for as applicable and for coordination
083113	Access Doors and Frames for coordination
092216	Non-Structural Metal framing for coordination
093000	Tiling for coordination
096513	Resilient Base and Accessories for coordination
096519	Resilient Tile Flooring for coordination
096623	Resinous Matrix Terrazzo for coordination
096700	Athletic Flooring for coordination
096723.01	Epoxy Resinous Flooring for coordination
096723.02	Urethane Resinous Flooring for coordination
099000	Painting and Coating for coordination
105126	Plastic Lockers for coordination
107326.13	Metal Walkway Covers for coordination
114000	Food Service Equipment for coordination
124823	Entrance Floor Grids for coordination
Division 13	For coordination
Division 21	For coordination
Division 22	As applicable and for coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination
Division 31	As applicable and for coordination
Division 32	For coordination
Division 33	For coordination

**Contract Package**  
04A – Masonry

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry
047200	Cast Stone Masonry
047300	Manufactured Stone Masonry
051200	Structural Steel Framing for coordination
052100	Steel Joist Framing for coordination
055000	Metal Fabrications for coordination
061000	Rough Carpentry for coordination
071113	Bituminous Damproofing as applicable
071326	Self Adhering Sheet Waterproofing as applicable
071416	Cold-Fluid Applied Waterproofing as applicable
072100	Thermal Insulation as applicable
072726	Fluid-Applied Membrane Air Barriers
072736	Sprayed Foam Air Barrier
078413	Penetration Firestopping as applicable and for coordination
078443	Joint Firestopping as applicable at masonry and for coordination
079100	Preformed Joint Seals
079200	Joint Sealants as applicable
079219	Acoustical Joint Sealants as applicable and for coordination
079513.13	Interior Expansion Joint Cover Assemblies for coordination
081113	Hollow Metal Doors and Frames for coordination
083313	Coiling Counter Doors for coordination



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

083323	Overhead Coiling Doors for coordination
083453	Security Doors and Frames for coordination
084113	Aluminum-Framed Entrances and Storefronts for coordination
084113.13	Fire-Rated Aluminum-Framed Entrances and Storefronts for coordination
084413	Glazed Aluminum Curtainwalls for coordination
084523	Fiberglass-Sandwich-Panel Assemblies for coordination
089119	Fixed Louvers for coordination
092216	Non Structural Metal Framing for coordination
093000	Tiling for coordination
097200	Wall Coverings for coordination
098433	Modular Metal Sound-Absorbing Wall Panels for coordination
098436	Sound-Absorbing Wall Units for coordination
099000	Painting and Coating for coordination
101100	Visual Display Units for coordination
101200	Display Cases for coordination
102113.19	Plastic Toilet Compartments for coordination
104413	Fire Protection Cabinets for coordination
105126	Plastic Lockers for coordination
107326.13	Metal Walkway Covers for coordination
116653	Gymnasium Dividers for coordination
122413	Roller Window Shades for coordination
123216	Manufactured Casework for coordination
123550	Media Center Casework for coordination
Division 13	For coordination
Division 21	For coordination
Division 22	For coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination
Division 31	For coordination
Division 32	For coordination
Division 33	For coordination

**Contract Package**  
05A – Steel

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete
042000	Unit Masonry for coordination
047200	Cast Stone Masonry for coordination
047300	Manufactured Stone Masonry for coordination
051200	Structural Steel Framing
052100	Steel Joist Framing
053114	Steel Floor Centering
053123	Steel Roof Decking
054000	Cold Formed Metal Framing for coordination
055000	Metal Fabrications
055119	Metal Stairs
055213	Pipe and Tube Railings
061053	Miscellaneous Rough Carpentry for coordination
077100	Roof Specialties for coordination
077129	Manufactured Roof Expansion Joints for coordination
077200	Roof Accessories for coordination
078100	Applied Fireproofing for coordination
078413	Penetration Firestopping for coordination
078443	Joint Firestopping for coordination
079100	Preformed Joint Seals for coordination



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

079200	Joint Sealants as applicable
079219	Acoustical Joint Sealants as applicable and for coordination
079513.13	Interior Expansion Joint Cover Assemblies for coordination
083313	Coiling Counter Doors for coordination
083323	Overhead Coiling Doors for coordination
084113	Aluminum-Framed Entrances and Storefronts for coordination
084113.13	Fire-Rated Aluminum-Framed Entrances and Storefronts for coordination
084413	Glazed Aluminum Curtainwalls for coordination
084523	Fiberglass-Sandwich-Panel Assemblies for coordination
089119	Fixed Louvers for coordination
092216	Non-Structural Metal Framing for coordination
099000	Painting and Coating for coordination
101100	Visual Display Units for coordination
101200	Display Cases for coordination
102113.19	Plastic Toilet Compartments for coordination
104413	Fire Protection Cabinets for coordination
105126	Plastic Lockers for coordination
107326.13	Metal Walkway Covers
115213.19	Rear Projection Screens for coordination
116143	Stage Curtains for coordination
116623	Gymnasium Equipment for coordination
116653	Gymnasium Dividers for coordination
117300	Patient Care Equipment for coordination
Division 13	For coordination
Division 21	For coordination
Division 22	For coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination
Division 31	For coordination
Division 32	For coordination
Division 33	For coordination

**Contract Package**

06A- General Trades Package

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry for coordination
047200	Cast Stone Masonry for coordination
047300	Manufactured Stone Masonry for coordination
051200	Structural Steel Framing for coordination
052100	Steel Joists for coordination
054000	Cold Formed Metal Framing for coordination
055000	Metal Fabrications as applicable and for coordination
061053	Miscellaneous Rough Carpentry
062000	Finish Carpentry
072100	Thermal Insulation as applicable and for coordination
077100	Roof Specialties for coordination
077129	Manufactured Roof Expansion Joints for coordination
078413	Penetration Firestopping as applicable
078443	Joint Firestopping for coordination
079200	Joint Sealants as applicable
079513.13	Interior Expansion Joint Cover Assemblies



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

081113	Hollow Metal Doors and Frames
081416	Flush Wood Doors
081613	Fiberglass Doors
083313	Coiling Counter Doors
083323	Overhead Coiling Doors
083453	Security Doors and Frames as applicable and for coordination
083473.13	Metal Sound Control Door Assemblies
084113	Aluminum-Framed Entrances and Storefronts for coordination
084413	Glazed Aluminum Curtainwalls for coordination
087100	Door Hardware
088000	Glazing for coordination
092216	Non-Structural Metal Framing for coordination
096623	Resinous Matrix Terrazzo (Add Alternate #6)
<del>097200</del>	<del>Wall Coverings<sup>3</sup></del>
101100	Visual Display Units
101200	Display Cases
101416	Plaques
101423	Panel Signage
101463	Electronic Message Signage
102113.19	Plastic Toilet Compartments
102123	Cubicle Curtains and Track
102600	Wall and Door Protection
102800	Toilet, Bath, and Laundry Accessories
104313	Defibrillator Cabinets
104413	Fire Protection Cabinets
104416	Fire Extinguishers
105113	Metal Lockers
105126	Plastic Lockers
105153	Locker Room Benches
105613	Metal Storage Shelving
107516	Ground-Set Flagpoles
111313	Loading Dock Bumpers
112173	Commercial Laundry and Dry Cleaning Equipment
112800	Office Equipment
113013	Residential Appliances
115213.19	Rear Projection Screens
116143	Stage Curtains
116613	Exercise Equipment
116623	Gymnasium Equipment
116653	Gymnasium Dividers
117300	Patient Care Equipment
119513	Kilns
122413	Window Roller Shades Systems
123216	Manufactured Casework
123550	Media Center Casework
123600	Countertops
133413.13	Greenhouses
Division 13	For coordination
Division 21	For coordination
Division 22	For coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination

**Contract Package**  
07A-Roofing

<b>Specification Reference</b>	
Division 00	In its entirety
Division 01	In its entirety
042000	Unit Masonry for coordination



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

052100	Steel Joists for coordination
053123	Steel Decking for coordination
054000	Cold Formed Metal Framing as applicable and for coordination
055000	Metal Fabrications for coordination
061053	Miscellaneous Rough Carpentry for coordination
072100	Thermal Insulation as applicable
072600	Vapor Retarders as applicable
074213.13	Formed Metal Wall Panels
074213.19	Insulated Metal Wall Panels
074293	Soffit Panels
075113	Built-up Asphalt Roofing
076200	Sheet Metal Flashing and Trim
077100	Roof Specialties
077129	Manufactured Roof Expansion Joints
077200	Roof Accessories as applicable and for coordination
079200	Joint Sealants for coordination
092216	Non-Structural Metal Framing for coordination
108213	Exterior Grilles and Screens
Division 21	For coordination
Division 22	For coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination

**Contract Package**  
**08A-Glass and Aluminum**

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry for coordination
047200	Cast Stone Masonry for coordination
047300	Manufactured Stone Masonry for coordination
051200	Structural Steel Framing as applicable and for coordination
052100	Steel Joist Framing for coordination
053123	Steel Roof Decking for coordination
054000	Cold Formed Metal Framing for coordination
061053	Miscellaneous Rough Carpentry for coordination
078413	Penetration Firestopping as applicable
078443	Joint Firestopping as applicable at aluminum
079100	Preformed Joint Seals as applicable
079200	Joint Sealants as applicable
079513.13	Interior Expansion Joint Cover Assemblies for coordination
081113	Hollow Metal Doors and Frames for coordination
081416	Flush Wood Doors for coordination
081613	Fiberglass Doors for coordination
083453	Security Doors and Frames
083513	Folding Doors
084113	Aluminum-Framed Entrances and Storefronts
084113.13	Fire-Rated Aluminum-Framed Entrances and Storefronts
084413	Glazed Aluminum Curtainwalls
084523	Fiberglass-Sandwich-Panel Assemblies
087100	Door Hardware as applicable and for coordination
087113	Automatic Door Operators
088000	Glazing
088113	Decorative Glass Glazing
088300	Mirrors



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

088813	Fire-Resistive Glazing
088856	Ballistics-Resistant Glazing
089119	Fixed Louvers as applicable and for coordination
092216	Non-Structural Metal Framing for coordination
Division 21	For coordination
Division 22	For coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination

**Contract Package**  
**09A-Drywall**

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry for coordination
047200	Cast Stone Masonry for coordination
047300	Manufactured Stone Masonry for coordination
051200	Structural Steel Framing as applicable and for coordination
052100	Steel Joist Framing for coordination
053123	Steel Roof Decking for coordination
054000	Cold Formed Metal Framing
062614	Mineral Profile Paneling
072100	Thermal Insulation as applicable
077129	Manufactured Roof Expansion Joints for coordination
077200	Roof Accessories for coordination
078413	Penetration Firestopping as applicable
078443	Joint Firestopping as applicable at drywall
079200	Joint Sealants as applicable
079219	Acoustical Joint Sealants
081113	Hollow Metal Doors and Frames for coordination
083313	Coiling Counter Doors for coordination
083323	Overhead Coiling Doors for coordination
083453	Security Doors and Frames for coordination
084113	Aluminum-Framed Entrances and Storefronts for coordination
084113.13	Fire-Rated Aluminum-Framed Entrances and Storefronts for coordination
084413	Glazed Aluminum Curtainwalls for coordination
084523	Fiberglass-Sandwich-Panel Assemblies for coordination
089119	Fixed Louvers for coordination
092216	Non-Structural Metal Framing
092900	Gypsum Board
095113	Acoustical Ceilings
097200	Wall Coverings (for coordination)
098433	Modular Metal Sound-Absorbing Wall Panels
098436	Sound-Absorbing Wall Units
099000	Painting and Coating for coordination
101100	Visual Display Units for coordination
101200	Display Cases for coordination
102113.19	Plastic Toilet Compartments for coordination
102123	Cubicle Curtains and Track for coordination
102600	Wall and Door Protection for coordination
102800	Toilet, Bath and Laundry Accessories for coordination
104413	Fire Protection Cabinets for coordination
115213.19	Rear Projection Screens for coordination
116623	Gymnasium Equipment for coordination



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

116653	Gymnasium Dividers for coordination
122413	Window Roller Shade Systems for coordination
Division 13	For coordination
Division 21	For coordination
Division 22	For coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination

**Contract Package**  
**09B- Tiling**

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry for coordination
079200	Joint Sealants as applicable
079513.13	Interior Expansion Joint Cover Assemblies for coordination
092900	Gypsum Board for coordination
093000	Tiling
102800	Toilet, Bath and Laundry Accessories for coordination
104413	Fire Protection Cabinets for coordination
105126	Plastic Lockers for coordination
114000	Food Service Equipment for coordination
Division 13	For coordination

**Contract Package**  
**09C- Resilient Flooring**

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
079200	Joint Sealants as applicable
079513.13	Interior Expansion Joint Cover Assemblies for coordination
096513	Resilient Base and Accessories
096519	Resilient Vinyl Composition Floor Tile
124823	Entrance Floor Grids

**Contract Package**  
**09D- Athletic Flooring**

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
079200	Joint Sealants as applicable
096513	Resilient Base and Accessories as applicable
096566	Resilient Athletic Flooring
096723.01	Epoxy Resinous Flooring for coordination
096766	Fluid Applied Athletic Flooring
116623	Gymnasium Equipment for coordination
116653	Gymnasium Dividers for coordination

**Contract Package**  
**09E- Resinous Flooring**

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast in place Concrete for coordination
042000	Unit Masonry for coordination
079200	Joint Sealants as applicable
079513.13	Interior Expansion Joint Cover Assemblies for coordination
092900	Gypsum Board for coordination
096723.01	Epoxy Resinous Flooring
096723.02	Urethane Resinous Flooring



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

**Contract Package**

09F- Painting & Coatings

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete as applicable and for coordination
042000	Unit Masonry for coordination
051200	Structural Steel Framing for coordination
052100	Steel Joist Framing for coordination
053123	Steel Roof Decking for coordination
055000	Metal Fabrications for coordination
079200	Joint Sealants as applicable
081113	Hollow Metal Doors and Frames for coordination
081416	Flush Wood Doors for coordination
081613	Fiberglass Doors for coordination
092900	Gypsum Board for coordination
<b><u>097200</u></b>	<b><u>Wall Coverings<sup>3</sup></u></b>
099000	Painting and Coating
Division 13	As applicable and for coordination
Division 21	As applicable and for coordination
Division 22	As applicable and for coordination
Division 23	As applicable and for coordination
Division 26	As applicable and for coordination
Division 27	As applicable and for coordination
Division 28	As applicable and for coordination

**Contract Package**

11A – Food Service Equipment

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry for coordination
051200	Structural Steel Framing for coordination
052100	Steel Joist Framing for coordination
053123	Steel Roof Decking for coordination
054000	Cold Formed Metal Framing for coordination
072100	Thermal Insulation as applicable
077200	Roof Accessories as applicable
078413	Penetration Firestopping as applicable
078443	Joint Firestopping as applicable
079200	Joint Sealants as applicable
083313	Coiling Counter Doors for coordination
093000	Tiling for coordination
096723.02	Urethane Resinous Flooring for coordination
114000	Food Service Equipment
211313	Wet Pipe Sprinkler System for coordination
Division 13	For coordination
Division 22	For coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination

**Contract Package**

13A – Pool

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry for coordination
051200	Structural Steel Framing for coordination
052100	Steel Joist Framing for coordination
053123	Steel Roof Decking for coordination
054000	Cold Formed Metal Framing for coordination



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

072100	Thermal Insulation as applicable
079200	Joint Sealants as applicable
131100	Swimming Pool – General
131110	Pool Shell Construction
131120	Recirculation System
131130	Swimming Pool Filtration System
131140	Water Chemistry
131150	Deck Equipment
Division 21	For coordination
Division 22	For coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination
Division 31	As applicable

**Contract Package**  
**15A – Mechanical**

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry for coordination
047200	Cast Stone Masonry for coordination
047300	Manufactured Stone Masonry for coordination
051200	Structural Steel Framing for coordination
052100	Steel Joist Framing for coordination
053123	Steel Roof Decking for coordination
054000	Cold Formed Metal Framing for coordination
055000	Metal Fabrications for coordination
061053	Miscellaneous Rough Carpentry for coordination
072600	Vapor Retarders as applicable and for coordination
072726	Fluid-Applied Membrane Air Barriers for coordination
072736	Sprayed Foam Air Barrier for coordination
074213.13	Formed Metal Wall Panels for coordination
075113	Built-up Asphalt Roofing for coordination
076200	Sheet Metal Flashing and Trim for coordination
077100	Roof Specialties for coordination
077200	Roof Accessories as applicable and for coordination
078413	Penetration Firestopping as applicable
078443	Joint Firestopping as applicable at penetrations
079200	Joint Sealants as applicable
083113	Access Doors and Frames as applicable
089119	Fixed Louvers
093000	Tiling for coordination
096723.01	Epoxy Resinous Flooring for coordination
096723.02	Urethane Resinous Flooring for coordination
102113.19	Plastic Toilet Compartments for coordination
102800	Toilet, Bath and Laundry Accessories for coordination
112173	Commercial Laundry and Dry Cleaning Equipment as applicable and for coordination
113013	Residential Appliances as applicable and for coordination
114000	Food Service Equipment for coordination
116623	Gymnasium Equipment for coordination
116653	Gymnasium Dividers for coordination
119513	Kilns as applicable and for coordination
123216	Manufactured Plastic Laminate Faced Casework for coordination



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

123550	Media Center Casework for coordination
Division 13	As applicable and for coordination
Division 21	As applicable and for coordination
220500	Common Work Results for Plumbing
220513	Common Motor Requirements for Plumbing Equipment
220519	Meters and Gages for Plumbing Piping
220523	General-Duty Valves for Plumbing Piping
220529	Hangers and Supports for Plumbing Piping and Equipment
220533	Heat Tracing for Plumbing Piping
220548	Vibration and Seismic Controls for Plumbing Piping and Equipment
220553	Identification for Plumbing Piping and Equipment
220700	Plumbing Insulation
221116	Domestic Water Piping
221119	Domestic Water Piping Specialties
221316	Sanitary Waste and Vent Piping
221319	Sanitary Waste Piping Specialties
221413	Facility Storm Drainage Piping
221423	Storm Drainage Piping Specialties
221429	Sump Pumps
223400	Fuel-Fired Domestic Water Heaters
224000	Plumbing Fixtures
224500	Emergency Plumbing Fixtures
224700	Water Coolers
226323	Facility Natural Gas Piping
230500	Common Work Results for HVAC
230513	Common Motor Requirements for HVAC Equipment
230529	Hangers and Supports for HVAC Piping and Equipment
230548	Vibration and Seismic Controls for HVAC Piping and Equipment
230553	Identification for HVAC Piping and Equipment
230593	Testing, Adjusting and Balancing for HVAC
230700	HVAC Insulation
230800	Mechanical System Commissioning
230859	Instrumentation and Control System Commissioning
230900	Instrumentation and Control for HVAC
232300	Refrigerant Piping
233113	Metal Ducts
233300	Air Duct Accessories
233423	HVAC Power Ventilators
233713	Diffusers, Registers, and Grilles
233723	HVAC Gravity Ventilators
237333	Outdoor Indirect-Fuel-Fired Heating and Ventilating Units
237413	Packaged Outdoor Central Station Air Handling Units
237433	Dedicated Outdoor Air Units
238126	Split-System Air-Conditioners
238129	Variable-Refrigerant-Flow HVAC Systems
238236	Finned Tube Radiation Heaters
238239.13	Cabinet Unit Heaters
238239.16	Propeller Unit Heaters
Division 26	As applicable and for coordination
260519	Low-Voltage Electrical Power Conductors and Cables
Division 27	For coordination



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

Division 28	As applicable and for coordination
Division 31	As applicable and for coordination
Division 33	As applicable and for coordination

**Contract Package**  
**15B – Sprinkler**

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry for coordination
047200	Cast Stone Masonry for coordination
047300	Manufactured Stone Masonry for coordination
051200	Structural Steel Framing for coordination
052100	Steel Joist Framing for coordination
053123	Steel Roof Decking for coordination
054000	Cold Formed Metal Framing for coordination
055000	Metal Fabrications for coordination
061053	Miscellaneous Rough Carpentry for coordination
072600	Vapor Retarders as applicable and for coordination
072726	Fluid-Applied Membrane Air Barriers for coordination
072736	Sprayed Foam Air Barrier for coordination
074213.13	Formed Metal Wall Panels for coordination
075113	Built-up Asphalt Roofing for coordination
076200	Sheet Metal Flashing and Trim for coordination
077100	Roof Specialties for coordination
078413	Penetration Firestopping as applicable and for coordination
078443	Joint Firestopping as applicable at penetrations
079200	Joint Sealants as applicable
083113	Access Doors and Frames as applicable
083313	Coiling Counter Doors for coordination
083323	Overhead Coiling Doors for coordination
084113	Aluminum-Framed Entrances and Storefronts for coordination
084413	Glazed Aluminum Curtainwalls for coordination
088813	Fire-Resistive Glazing for coordination
101100	Visual Display Units for coordination
101200	Display Cases for coordination
114000	Food Service Equipment for coordination
115213.19	Rear Projection Screens for coordination
116143	Stage Curtains for coordination
116623	Gymnasium Equipment for coordination
116653	Gymnasium Dividers for coordination
Division 13	For coordination
210500	Common Work Results for Fire Suppression
210523	General-Duty Valves for Water-Based Fire Suppression Piping
210553	Identification for Fire Suppression Piping and Equipment
211119	Fire Department Connections
211313	Wet Pipe Sprinkler Systems
213113	Electric-Drive Centrifugal Fire Pumps
213400	Pressure-Maintenance Pumps
213900	Controllers for Fire-Pump Drivers
Division 22	For coordination
Division 23	For coordination
Division 26	For coordination
Division 27	For coordination
Division 28	For coordination



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

**Contract Package**  
16A – Electrical

**Specification Reference**

Division 00	In its entirety
Division 01	In its entirety
033000	Cast-In-Place Concrete for coordination
042000	Unit Masonry for coordination
047200	Cast Stone Masonry for coordination
047300	Manufactured Stone Masonry for coordination
051200	Structural Steel Framing for coordination
052100	Steel Joist Framing for coordination
053123	Steel Roof Decking for coordination
054000	Cold Formed Metal Framing for coordination
055000	Metal Fabrications for coordination
061053	Miscellaneous Rough Carpentry for coordination
072600	Vapor Retarders as applicable and for coordination
072726	Fluid-Applied Membrane Air Barriers for coordination
072736	Sprayed Foam Air Barrier for coordination
074213.13	Formed Metal Wall Panels for coordination
075113	Built-up Asphalt Roofing for coordination
076200	Sheet Metal Flashing and Trim for coordination
077100	Roof Specialties for coordination
077200	Roof Accessories as applicable and for coordination
078413	Penetration Firestopping as applicable
078443	Joint Firestopping as applicable at penetrations
079200	Joint Sealants as applicable
081113	Hollow Metal Doors and Frames for coordination
081416	Flush Wood Doors for coordination
083113	Access Doors and Frames as applicable
083313	Coiling Counter Doors for coordination
084113	Aluminum-Framed Entrances and Storefronts for coordination
084413	Glazed Aluminum Curtainwalls for coordination
087100	Door Hardware for coordination
093000	Tiling for coordination
096723.01	Epoxy Resinous Flooring for coordination
096723.02	Urethane Resinous Flooring for coordination
101100	Visual Display Units for coordination
101200	Display Cases for coordination
102800	Toilet, Bath and Laundry Accessories for coordination
114000	Food Service Equipment for coordination
115213.19	Rear Projection Screens for coordination
116143	Stage Curtains for coordination
116623	Gymnasium Equipment for coordination
116653	Gymnasium Dividers for coordination
123216	Manufactured Plastic Laminate Faced Casework for coordination
123550	Media Center Casework for coordination
Division 13	For coordination
260501	General Electrical Requirements
260519	Low-Voltage Electrical Power Conductors and Cables
260526	Grounding and Bonding for Electrical Systems
260529	Hangers and Supports for Electrical Systems
260533	Raceways and Boxes for Electrical Systems
260543	Underground Ductbanks
260544	Sleeves and Sleeve Seals for Electrical Raceways and Cabling
260548.16	Seismic Controls for Electrical Systems
260553	Identification for Electrical Systems



**SECTION 002413**  
**SPECIFICATION CROSS REFERENCE**

**ROCK CREEK SCHOOL**  
**Frederick County Public Schools**

260573	Overcurrent Protective Device Coordination Study
260574	Overcurrent Protective Device ARC-Flash Study
260800	Electrical System Commissioning
260923	Lighting Control Devices
260926	Lighting Control Panels
262213	Low-Voltage Distribution Transformers
262413	Switchboards
262416	Panelboards
262653	Electric Vehicle Charging Equipment
262726	Wiring Devices
262813	Fuses
262816	Enclosed Switches and Circuit Breakers
262913	Enclosed Controllers
263213.16	Gaseous Emergency Engine Generators
263600	Transfer Switches
264113	Lighting Protection for Structures
264313	Surge Protection for Low-Voltage Electrical Power Circuits
265119	LED Interior Lighting
265613	Lighting Poles and Standards
265619	LED Exterior Lighting
270500	Telecom Pathways and Spaces
271000	Structured Cabling
274100	Audio Visual and Sound Systems
275000	PA and Clock
281000	Access and Intrusion Systems
283111	Digital, Addressable Fire-Alarm System
Division 21	For coordination
Division 22	For coordination
Division 23	For coordination
Division 31	As applicable and for coordination
Division 33	As applicable and for coordination

END OF SECTION