ADDENDUM NO. 5 May 18, 2020

ADDENDUM NO. 5

Please attach this Addendum to the Project Manual. The Addendum is hereby made part of the Contract Documents on which the Contract will be based and is issued to modify or correct the Original Contract Documents.

Bid Date: The Bid Date is Tuesday, May 26, 2020

GENERAL:

- A5.0 BID DATE REMAINS TUESDAY, MAY 26, 2020. BID TIME IS REVISED TO BID DELVERY BY 2:00 PM LOCAL TIME. MBE ATTACHMENTS 1A TO BE SUBMITTED NO LATER THAN 2:30 PM LOCAL TIME.
- A5.1 BID LOCATION CHANGE: BIDS WILL BE DELIVERED TO THE JOPPATOWNE HIGH SCHOOL AUDITORIUM (EXTERIOR DOOR). 555 JOPPA FARM ROAD, JOPPATOWNE, MARYLAND 21085
- A5.2 Attached is report of Pre-Bid RFI Questions and responses to date for items PB 34, PB-48-PB-154.

PROJECT MANUAL

- A5.3 Project Manual: 00 83 00 Scope of Work: Make the following Revisions:
 - 1. 2A Package:
 - Item #26 Delete "infield mix ".
 - Item #36 Delete "mow strip". Change "Heavy duty concrete paving at loading dock" to "heavy duty paving at loading dock".
 - Item #38 Delete "to include the temporary parking lot".
 - Item #53 "Delete this item in its entirety".
 - Item #60 "Delete item in its entirety and refer to item #61".
 - Item #61 Change "The 2A Contractor will install the new concrete ramp and adjacent sidewalks".
 - 2. 6A Package:
 - Item #166 Change "6A Contractor shall furnish and install all existing slab infills". To "6A Contractor shall furnish and install all slab infills".
 - 3. 9A Package:
 - Item #35 Delete "9A Contractor to furnish, install and remove 600 lf of temporary walls. Temporary walls will consist of 3 5/8" metal studs 24" O.C. from floor to deck with 5/8" GYP. BD. each side with sound batt insulation."

JOPPATOWNE HIGH SCHOOL LIMITED RENOVATION JOPPATOWNE, MARYLAND

ADDENDUM NO. 5 May 18, 2020

- 4. 15A Package:
- Add "Item #59 "The Owner will be salvaging the burner controls, switchgear breakers, controls, drives, motors, smoke detectors and some fire alarm devices. The 15A Contractor is to remove one chiller and load it on a trailer provided by HCPS."
- A5.4 Project Manual: 07 20 00 Thermal Protection:

Page 4 – Part 2-2.05 A revise Vapor and Air Barrier from 6 mil to 10 mil.

Page 5 – Part 3-3.03A revise 6-mil to 10 mil.

- A5.5 Project Manual: 07 13 00 Sheet Waterproofing: Page 2 Part 1-1.8B Revise Warranty period to two years.
- A5.6 Project Manual: 07 54-23 Thermoplastic Polyolefin Roofing Fully Adhered: Page 4 Part 1-1.12 B Revise maximum wind gust speed from 90 mph to 110 mph.
- A5.7 Project Manual: 08 41 13 Aluminum Framed Entrances and Storefronts: Page 4 Part 2-2.05 A revise Vapor and Air Barrier from 6 mil to 10 mil.

Page 5 – Part 3-3.03A revise 6-mil to 10 mil.

- A5.8 Project Manual: 08 11 13 Hollow Metal Doors and Frames: Page 5 Part 2-2.01 a. Correct (Front Glazed) to (Center Glazed). Correct door model to 500T.
- A5.9 Project Manual: 08 71 00 Door Hardware:

Page 7 – Part 2-2.2 Hanging Devices

A. Hinges, Item 5. Manufacturers.

Add Item d. H.B. Ives.

B. Continuous Geared Hinges, Item 1. Manufacturers Add item d. H.B. Ives.

Pages 7 – Part 2.3 Power Transfer Devices.

A. Electrified Quick Connect Transfer hinges, 1. Manufacturers. Add item d. H.B. Ives.

Page 8 - Part 2.3 Power Transfer Devices.

- B. Concealed Quick Connect Electric Power Transfers, 1. Manufacturers. Add item d. Von Duprin.
- C. Electric Wire Harnesses.

Add Item c. Allegion Connect Brand Products equal to McKinney items a. b. Manufactures. Add item b. Allegion Connect Brand Products equal to McKinney item a.

Pages 8,9 – Part 2.4 Door Operating Trim

- A. Flush Bolts and surface Bolts, 4. Manufacturers. Add item d. H.B. Ives.
- B. Door Push Plates and Pulls. 3. Manufacturers.

Addendum No. 5 May 18, 2020

JOPPATOWNE HIGH SCHOOL LIMITED RENOVATION JOPPATOWNE, MARYLAND

ADDENDUM NO. 5 May 18, 2020

Add item d. H.B. Ives.

Page 9 – Part 2.5 Cylinders and Keying

B. 1. Manufacturers.

Delete items. a, b, c.

Add item a. Schlage Everest/Primus LFIC 6 pin. Restricted Keyway, D Family, Level 9G.

Page 15 - Part 2.12 Surface Mounted Closer Holders.

A. Electromagnetic Door Holders. 1. Manufacturers. Add item d. LCN.

Part 2.13 Architectural Trim.

A. Door Protective Trim. 6. Manufacturers. Add item d. H.B. Ives.

Page 16 - Part 2.14 Door Stops and Holders.

- B. Door Stops and Bumpers. 1. Manufacturers. Add item d. H.B. Ives.
- C. Overhead Door Stops and Holders. 1. Manufacturers. Add item d. Glynn Johnson.

Pages 16,17 - Part 2.15 Architectural Seals. Items A, B, C, D.

F. Manufacturers.

Add item d. Zero.

Page 17 – Part 2.16 Electronic Accessories.

A. Key Switches. 1. Manufactures.

Add item. D. Von Duprin.

- B. Door Position Switches. Add item d. Allegion.
- C. Power Supplies.

Add item b. Von Duprin.

- A5.10 Project Manual: 08 83 00 Mirrors: Refer to drawings A-7.1 and A-7.2 for locations of mirrors in the project.
- A5.11 Project Manual: 233113: Page 8, Part 2.4, paragraph E9: Add sentence: "Applies where indicated on the drawings, plans and details provide double wall ductwork with a perforated inner liner. All ductwork on the roof shall be double wall ductwork with a perforated inner liner".

ADDENDUM NO. 5 May 18, 2020

DRAWING CLARIFICATIONS:

- A5.12 DRAWING D-1.3: Corridor between Main Gym and Auxiliary Gym (C101). Indicated by Demolition Note 3. Remove existing ceiling tile and lights. Ceiling Grid to remain. Ceiling grid should also be demolished.

 Existing Custodial Toilets (E128, E129). Existing metal pan ceiling is to be demolished.
- A5.13 DRAWING A-2.3: Corridor C101: Change note "4" to Note "1". New ceiling grid and tile in the Corridor.

 Toilet Rooms E128 and E129 to be indicated with Note 5. See attached Sketch AD-5 SK-1 for ceiling grid layout.
- A5.14 DRAWING A-6.8. Cafeteria Kitchen Equipment Schedule: Clarification for Alternates: Alternate No. 8 includes Items 1, 2, and 4.
 Alternate No. 9 includes Items 7, 8, 9 and 10.
 All other items are Base Bid.
- A5.15 DRAWINGS A-6.8, P2.05, P2.09: Health Department review of the project requires a handwash sink to be installed in Dishwashing E112. See attached part plans AD-5 SK-3, and AD-SK-4 for location and information for added handwash sink.
- A5.16 DRAWING A-10.3 PROJECT CONTRUCTION SIGN: Correct names as follows: Adrienne A. Jones, Speaker of the House Bill Ferguson, President of the Senate
- A5.17 DRAWING C-03: See attached re-issued C-03 clarifying paving for drives and milling/repaving of existing parking lot.
- A5.18 DRAWING C-0.5: See attached supplemental sketch AD-5 SK-5 for running track repair where 15" RCP crosses existing end of running track.

A5-19 DRAWING E0.22:

- a. Schedule of Panel BDP: Change circuit breakers for Pump #3 (circuit BDP-5) and Pump #4 (circuit BDP-6) from m3 pole, 20 ampere to 3 pole 25 ampere. Change Conduit and Wire designator from 20E to 30E.
- b. Schedule of Switchboard MDP: Change circuits serving Chiller 1 (MDP-3-2) and Chiller 2 (MDP-2-3) from 500 ampere trip to 600 ampere trip. Change Conduit and Wire designator from 500E to 600E.
- c. Schedule of Panel QSDP: Change circuits serving Chiller 1 (QSDP-1) and Chiller 2 (QSDP-2) from 500 ampere trip to 600 ampere trip. Change Conduit and Wire designator from 500E to 600E.
- A5-20 DRAWING E6.02: Schedule of Mechanical Equipment Connections Boiler Room: Change information for Pumps P-3 and P-4 from 480/277 volts, 3 phase, 7.5 HP to 480 volts, 3 phase, 10 HP. Circuit numbers and other information remains the same.

ADDENDUM NO. 5 May 18, 2020

ATTACHMENTS:

Report of Pre-Bid RFI Questions. PB-34, PB-48 through PB-154

AD-5 SK-1 - Part A2.3 Toilet Room Ceiling Plan

AD-5 SK-2 - Part E3.03 Toilet Room Lighting Plan

AD-5 SK-3 – Part A-1.5 Dishwashing E112 – added handwash sink.

AD-5 SK-4 – Part P2.05 and P2.09 – plumbing for added handwash sink.

AD-5 SK-5 – Running Track repair detail.

AD-5 SK-6 – PART M0.21: Air Cooled Chiller schedule has been revised. Total tonnage of chiller has been increased to meet the total connected load of chilled water system.

AD-5 SK-7 - PART M0.22:

- A. Dedicated Outside Air System "DOAS-1" schedule has been revised to include information regarding the Energy Recovery Wheel and Exhaust Fan.
- B. Pump schedule has been revised. Pump capacities has been revised to meet the total connected demands in both the heating water and chilled water systems.
- C. Energy Recovery Wheel specification included for pricing of any Energy Recovery Wheels in project.

AD-5 SK-8 - PART M2.10:

- A. Location of heating water coil in respect to chilled water coil on AHU-1 revised.
- B. Note requiring full width supply air plenum in AHU-1 added.

AD-5 SK-8 – PART P0.32: Revised pipe hanger support notes.

SEPARATE ATTACHMENT:

C-03 SITE IMPROVEMENTS SITE PLAN:

Clarified paving of drives and milling/repaving of existing parking lot.

C-09.1 SITE IMPROVEMENTS SITE DETAILS 1 OF 3:

Corrected Paving Sections, Added Cut-in Details.

End of Addendum No. 5



Request for Information

Summary Log with Answers

Joppatowne High School - Limited Renovation (1908)
Request for Information Summary Log with Answers

555 Joppa Farm Road Joppatowne, MD 21085

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-100	Closed	2A Scope Clarification	05/16/2020	 Scope#60 please clarify what plan or detail shows this retaining wall on the architectural plans? 	05/16/2020	Refer to Addendum #2
PB-101	Closed	2A Scope Clarification	05/16/2020	Scope#59 please clarify what items require night work?	05/16/2020	If needed

ProjectSight Printed on: 5/18/2020 Page 1 of 15

555 Joppa Farm Road Joppatowne, MD 21085

Number	Status	Subject		Question	Date	Answer
3-102	Closed	2A Scope Clarification	On 05/16/2020	Please clarify the limits of utility work for ADD Alternates #1,2,3? For example at what station # or Manhole# do the water and sewer lines stop if Add Alt#1,2,3 are not selected?	Resolved 05/18/2020	SANITARY SEWERS (SAN.) PROFILE 'A': O 0+00.0 (MH-01) - 8+02.0 (MH-06) = Phase 1.6 O 8+02.0 (MH-06) - 11+88.9 (Concession) = Alt. 2 PROFILE 'B': O 0+00.0 (S1) - 2+48.5 (Food Lab) = Phase 1.6 PROFILE 'C': O 0+00.0 (S2) - 0+68.0 (Main School @ Kitchen) = Phase 1.6 PROFILE 'D': O 0+00.0 (Team Rooms Bldg.) - 0+77.5 (MH-08) = Alt. 3 WATER (WTR.) PROFILE 'A': O 0.00.0 (Vault) - 3+83.9 (Main Bldg.) = Phase 1.6 PROFILE 'B': O 0+0.00 (Main Bldg) - 5+83.3 (W3) = Phase 1.6 PROFILE 'C': O 0+00.0 (W1) - 0+74.4 (Horz. '¼" Bend) = Phase 1.6 PROFILE 'C': O 0+00.0 (W2) - 0+41.1 (Ex. Fire Hydrant) = Phase 1.6 PROFILE 'E': O 0+00.0 (W3) - 0+71.5 (Team Rooms Bldg) = Alt. 3 STORM DRAINS (SD) PROFILE 'A': O 0+00.0 (EX. SD 158-MH) - 0+59.3 (EX. SD 150 IN) = Alt. 3 PROFILE 'B': O 0+00.0 (PR. SD ES-01) - 0+64.7 (PR. SD IN-01) = Phase 1.6 PROFILE 'C': O 0+00.0 (PR. SD ES-01) - 0+64.3 (Roofdrain @ Main Bldg) = Phase 1.6 PROFILE 'C': O 0+00.0 (PR. SD EP-02) - 0+87.7 (PR. SD IN-03) = Phase 1.6 PROFILE 'C': O 0+00.0 (PR. SD EP-02) - 0+87.7 (PR. SD IN-03) = Phase 1.6 PROFILE 'E': O 0+00.0 (PR. SD EP-03) - 2+19.9 (Roofdrain @ Main Bldg) PROFILE 'E':

ProjectSight Printed on: 5/18/2020 Page 2 of 15

555 Joppa Farm Road Joppatowne, MD 21085

Number	Status	Subject	Created On	Question	Date Resolved	Answer
			<u>Gii</u>		Resolved	o 0+00.0 (PR. SD EP-04) – 2+39.0 (Cleanout) = Phase 1.6 • PROFILE 'G': o 0+00.0 (PR. Trench Drain) – 1+22.0 (PR. Trench Drain) = Phase 1.6 • PROFILE 'H': o 0+00.0 (EX. SD 048-MH) – 1+89.1 (PR. SD IN-02A) = Phase 1.6 • PROFILE 'K': o 0+00.0 (EX. SD 188-IN) – 0+48.9 (Roofdrain @ Concessions) = Alt. 2
PB-103	Closed	2A Scope Clarification	05/16/2020	The proposed 15" RCP storm line from Inlet-15D to MH-15B per C-05 is shown as a 12" HDPE line on the profile plan C-08.3 . please clarify if this pipe is to be 15" RCP or 12" HDPE?	05/16/2020	The pipe is 12" HDPE.
PB-104	Closed	2A Scope Clarification	05/16/2020	Is the proposed 15" RCP storm line from Inlet-15D to MH-15B part of the base bid or ADD Alt#2?	05/16/2020	Alternate No. 3
PB-105	Closed	2A Scope Clarification	05/16/2020	 Please clarify what is required for the Track repair for the 15" RCP storm that cuts through the trach per Plan C05. Please provide a track repair detail? 	05/16/2020	Sketch attached. The sketch will also be included in Addendum No. 5.
PB-106	Closed	2A Scope Clarification	05/16/2020	 Is 4" DiP acceptable in lieu of 3" DiP for the Water from the building to the concession stand? In our experience 4" DiP is cheaper than 3" DiP 	05/16/2020	4" DiP is acceptable.
PB-107	Closed	2A Scope Clarification	05/16/2020	Please clarify what scope is to do the footer and foundation excavation and backfill for ADD Alt 2 Construction And Installation Of Concessions/restroom Building In Stadium Area?	05/16/2020	Grading and backfill by 2A. Footers by 6A.
PB-108	Closed	2A Scope Clarification	05/16/2020	 per scopoe #36, please clarify where the hvy dty loading dock is located. It appears that the existing loading dock does not get demo'd? Please provide a concrete details showing the depth of hvy dty concrete required? 	05/16/2020	Clarified in the addendum.
PB-109	Closed	2A Scope Clarification	05/16/2020	 Are we responsible for the fence around the chillers? Please provide a detail of what is required. 	05/16/2020	2A Scope
PB-110	Closed	2A Scope Clarification	05/16/2020	Is the MBE requirement % based on the base bid ONLY or also on the ADD alternates?	05/16/2020	Base Bid and alternates.

ProjectSight Printed on: 5/18/2020 Page 3 of 15

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-111	Closed	2A Scope Clarifications	05/16/2020	Is snow removal part of this scope #2A? and for what duration		
PB-112	Closed	2A Scope Clarifications	05/16/2020	Will a construction schedule be provided? What is project start and completion dates?		
PB-113	Closed	Water Meter DiP	05/16/2020	For the water meter. The public side is 8" DiP and the private is 6" DiP. Where does the reduction happen, before or after the vault? What size is the meter and the bypass piping?	05/18/2020	-The reduction is after the vaultMeter size is TBD. Harford County Water & Sewer is in the process of reviewing the Commercial Service Application and will determine required meter size upon completion of the review.
PB-114	Closed	Patching hardscpe requirements	05/16/2020	What is the requirement to patching hardscapes? What cut backs and details require for: Existing parking lot? Existing roadway? Existing asphalt walkways? Concrete sidewalks?	05/18/2020	A) Existing parking lot? 2" Milling to existing pavement. B) Existing roadway? 1 ft of the existing full depth pavement is removed and replaced for a proper joint. C) Existing asphalt walkways? To nearest control joint. D) Concrete sidewalks? To nearest control joint.
PB-115	Closed	SWM Landscape Plan C-20 - Plant Sizes	05/16/2020	SWM Landscaping plan C-20 does not indicate plant sizes. Please provide plant size information	05/18/2020	Grasses = 6" pot Shrubs = 2-3 ft height
PB-116	Closed	Fencing	05/16/2020	• For Scope #43, Is all the 4000' of fence and 5 gates a part of the base bid? If they aren't all in the base bid how much should be in each alternate?	05/16/2020	The fencing should be in the base bid.
PB-117	Closed	Mow Strip	05/16/2020	Scope #36 mention mow strip. Do all permanent fences get mow strip? Please provide a detail for the mow strip	05/16/2020	No mow strip is shown on the plans.
PB-118	Closed	Keystone for Alternate #2	05/16/2020	For the Keystone for Alternate #2 it show drainage behind the wall. It doesn't show the extent of drainage. Does the drainage extend the full length of the wall? Where does the drainage drain to?	05/18/2020	The drainage was modified and there is no roof drain/drainage behind the wall.
PB-119	Closed	Backfill Requirement Clarification	05/16/2020	 Please clarify per typical Wall detail on C10.1 if #57 backfill is required the entire length of the wall. 		
PB-120	Closed	Carpet	05/16/2020	Please confirm if any carpet will be required. The finish schedules call out carpet but there are no specs provided.	05/16/2020	Carpet is in Section 09 68 16 Hybrid Flooring

ProjectSight Printed on: 5/18/2020 Page 4 of 15

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-121	Closed	Roof Warranty - Existing Company Status	05/16/2020	On drawing A-4 under general notes it says Island Contracting holds the roof warranty until 1/2023. It shows that this company is permanently closed. Please confirm.	05/16/2020	Correct the previous contractor is out of business. The roof is a GAF system.
PB-122	Closed	Fume Hood Plumbing Service Construction	05/16/2020	Spec 115313/2.01/I/1 lists fume hood plumbing service construction. Please confirm if services will be required and the frequency.		
PB-123	Closed	Clarification of casework under fume hood	05/16/2020	Spec 115313/2.01/S/1 calls for standard steel fume hood base cabinet construction. Please confirm if casework under fume hoods are to be wood per science furnishing schedule on A-7.12.		
PB-124	Closed	Samples	05/16/2020	Spec 123553.19/2.00/C/1-2 calls for samples required (7) days before quotation deadline. Please confirm that full size casework samples are not required.	05/16/2020	Correct
PB-125	Closed	Locks-Specfication Section 12 35 53	05/16/2020	Spec 123553.19/2.01/G/4 calls for locks where shown. Please confirm as none are shown.		
PB-126	Closed	Label holders & number plates	05/16/2020	Spec 123553.19/2.01/G/14-15 calls for label holders and number plates where shown. Please confirm as none are shown.		
PB-127	Closed	Kemresin top color	05/16/2020	Spec Section 12 35 53- 2.04 Calls out Kemresin tops. I presume they are for the 8 Science classrooms but does not specify a color. Black is standard and is the lowest price. Please confirm if black epoxy is acceptable.	05/16/2020	Black is preferred.
PB-128	Closed	Modular Signage	05/16/2020	SECTION 10 14 29 - MODULAR SIGNAGE provides specs on the signage requirements. I did not need any drawings associated with the signage. Please confirm.	05/16/2020	Correct.
PB-129	Closed	Door Model Clarification	05/16/2020	084113,2.01,A.1.a: Specifies Model 350 door but drawing sheet A-0.5 shows 500T.	05/16/2020	Provide 500T
PB-130	Closed	Trifab VG 451UT glazing	05/16/2020	084113,2.01,A.1.a: Trifab VG 451UT is available as center glazed. It is not front glazed.	05/16/2020	Center Glazed
PB-131	Closed	Site Demo	05/16/2020	Please confirm that demolition shown on the C drawings (particularly that required for alternate 1, as well as any existing paving demolition required for the other outbuilding alternates) is by 2A.		

ProjectSight Printed on: 5/18/2020 Page 5 of 15

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-132	Closed	Partition Type - FACS Gen Food Lab	05/16/2020	In FACS Gen Food Lab Rm 125 please clarify what type of partition is between the kitchen areas? Is it a full height or partial height Type A or A1 wall or is it all millwork?	05/16/2020	Walls between kitchen areas within the Gen Food Lab are low walls. See 2/A2.3 detail where there is vent hood above cooktops.
PB-133	Closed	FRT Wood Blocking for Grab Bars	05/16/2020	Please confirm that we should furnish and install FRT in wall wood blocking for grab bars, toilet partitions, upper cabinets and Interactive Panels only. Tack Boards and White boards do not need blocking?	05/16/2020	Install blocking at Tackboards and White boards as well in new drywall partitions.
PB-134	Closed	Acoustical Panel Ceilings -Kitchen	05/16/2020	3. Acoustical Panel Ceiling Specs call for Kitchen Zone #672 tile in Kitchen/Food Service Area; however, the plans call for Vinyl Faced Gyp panels in these areas. Please clarify which one we should use in our bid.	05/16/2020	Kitchen Zone #672
PB-135	Closed	Acoustical Jamb Moldings	05/16/2020	Per Specification Section 10 22 39/Heading 2.2, B-1 requires "acoustic jamb moldings" per Add. #5. To date we have only seen one addendum, so please provide further details or drawings	05/16/2020	DELETE REFERENCE TO ADD. # 5.
PB-136	Closed	Modernfold Panels	05/16/2020	Per Specification Section 10 22 39/the same paragraph says "provide edge-guards on leading edge". Modernfold Panels are generally provided in a "trimless" configuration and an edge guard on only one edge would seem unsightly. Please confirm that completely trimless panels are acceptable.	05/16/2020	Trimless panels are acceptable.
PB-137	Closed	Operable Partition Elevations	05/16/2020	Per specification section 10 22 30/ Heading 2.2, B-3 mentions work surfaces "as indicated on the base bid wall". Please advise as to where the operable partition elevations are provided.	05/16/2020	There are no work-surfaces on the face of operable partitions. No elevations needed.
PB-138	Closed	STC rating-Operable Partition	05/16/2020	Note 5, Sheet A-1.2 states that the STC Rating of the operable partition is to be a minimum of 45 while Heading 2.2-B calls for STC 50. Please confirm that the project manual takes precedence in this regard.	05/16/2020	STC rating is to be minimum STC-45.
PB-139	Closed	Hazardous waste disposal	05/16/2020	6A Scope items 145 & 155 call for 6A to dispose of hazardous waste. Please confirm that all abatement and hazardous waste disposal is by others as discussed at the pre-bid meeting.	05/16/2020	The asbestos abatement is by Owner. Item 155 will be addressed in addendum.

ProjectSight Printed on: 5/18/2020 Page 6 of 15

555 Joppa Farm Road Joppatowne, MD 21085

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-140	Closed	Final Cleaning	05/16/2020	What contractor is providing final cleaning? 6A Scope item 174 addresses the 6A contractor cleaning all equipment, glass, shelving and limited flooring areas. Please clarify extent of cleaning necessary by 6A.		
PB-141	Closed	Trusses	05/16/2020	Are the trusses to be designed with treated lumber?	05/16/2020	No
PB-142	Closed	Door Schedule Update	05/16/2020	We have received new hollow metal frame elevations (A-0.6) via Addendum # 1 however the Door Schedules have not been updated. The Frame Types need to be denoted on the Door Schedule. The occasional marking on the Floor Plans is not acceptable as they often are not consistent. Please advise when updated Door Schedules will be issued	05/16/2020	A0.6 has not been reissued in any Addenda. All vision panels indicated on A-0.6 are indicated on Floor Plans A-1 series of drawings.
PB-143	Closed	Contact Information-Manufactured Plastic-Laminate Clad Casework	05/16/2020	Per spec section 12 32 16 MANUFACTURED PLASTIC-LAMINATE-CLAD CASEWORK/ Part 2 Products-Item 2.2-, please provide contact information for the following specified Manufacturers, as contact information is not available for these manufacturers: TruBilt System Two and Counterspace Incorporated, Taylor.	05/16/2020	Manufacturers can be found by internet search.
PB-144	Closed	Contact information for Library Furniture	05/16/2020	Per spec section 12 35 53.19 – WOOD LABORATORY CASEWORK AND RELATED PRODUCTS/ item 1.01 Basis of Work, please provide contact information for PSA Library Furniture.	05/16/2020	The company named in the section is PSA Laboratory Furniture and is available with internet search.
PB-145	Closed	Wheelchair Lifts	05/16/2020	Per spec section 14 42 00 WHEELCHAIR LIFTS/Part 2 Products-Item 2.1 Wheelchair Lifts, The National Wheel O Vater Co. is out of business. Please provide an alternative manufacturer.	05/16/2020	Two other manufacturers are listed in the section.

ProjectSight Printed on: 5/18/2020 Page 7 of 15

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-146	Closed	Acceptable - Altenate Manufacturer	05/16/2020	We represent Leonard Peterson Company for wood laboratory casework, and have used their products for multiple school projects in Maryland, including the Robert Poole High School, Calvin Rodwell Elementary/Middle School Replacement, and are currently providing their casework for the Patterson-Claremont High School in Baltimore, MD.Please confirm that Leonard Peterson Company (www.lpco.com) is an acceptable manufacturer for Specification Section 12 35 52.19.	05/16/2020	Answered in previous RFI.
PB-147	Closed	AISC Certification	05/16/2020	The division 5 specifications (metals) states a minimum 5 years and currently holds an AISC certification. PATRIOT Steel Fabrication has been AISC certified going on 2 years. Please confirm if we qualify to bid.	05/16/2020	The section indicates 5 years certification. Less than that is not qualified.
PB-148	Closed	Erector Certification	05/16/2020	Does the erector need to be certified? We are struggling to find a certified erector that is interested in this renovation design.	05/16/2020	Erector Certification is not required.
PB-149	Closed	Science Classroom renovations	05/16/2020	Are all of the science classrooms being fully renovated for new casework and lab equipment?	05/16/2020	Only Rooms A224 and A226 as indicated on the drawings.
PB-150	Closed	Science Classrooms & Prep Room Elevations	05/16/2020	There are only elevations provided for Science classrooms A224 and A226 on sheet A.7.12? Please confirm if elevations will be available for science classrooms and science preps rooms: A213, 213A, 216, 217, 219, 221, 222, 223, and 225	05/16/2020	Only A224 and A226 involve new science casework. All other science rooms note here are existing with no changes to science casework.
PB-151	Closed	Alternate #4 Existing Doors/Frames/Hardware - Confirm-Specify to Remain in base bid	05/16/2020	Alternate #4 - Please confirm/specify - Existing Doors/Frames/Hardware to remain in the base bid, however are we to provide New Hardware as part this alternate?	05/16/2020	Correct. This is replacement of hardware to doors that were installed in 2008/2009. The specific doors for this alternate are indicated on the Door Schedule.
PB-152	Closed	Trim Pieces (Schluter)	05/16/2020	Please confirm who is responsible for installing the trim pieces (the Schulter Schiene. A20 and the FRP bottom trim).		
PB-153	Closed	Existing Terrazzo	05/16/2020	Is the existing terrazzo to be refinished?		
PB-154	Closed	Folding Gate Location	05/16/2020	Please provide the location of the folding gate/s.	05/16/2020	See drawing A-1.4 corridor D102.
PB-38	Closed	Louver to right of Column line C	05/08/2020	See 4/A-3.1: Is this a louver to the right of column line 'C'? New or existing? If new, please provide dimensions and details.	05/08/2020	The louver is existing in the utility space above Auxiliary Gym Storage. No work in this contract related to this louver.

ProjectSight Printed on: 5/18/2020 Page 8 of 15

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-48	Closed	Housekeeping Pads Installation	05/12/2020	Is 16A Contractor responsible for the installation of concrete housekeeping pads (e.g., transformer pads, generator pad, SWBD pad, etc.)?	05/12/2020	The 6A Contractor is responsible for housekeeping pads inside the school.
PB-49	Closed	Removal of Conduit & Wire	05/12/2020	Specification 260000-2.5 states to remove conduit and wire back to source. Is Division 26 responsible for the removal of devices, conduit, and wire? Or is Division 26 only responsible for cutting, capping, and making safe, and removal will be by others?	05/12/2020	The 16A Contractor is responsible
PB-50	Closed	Use of EMT	05/12/2020	May EMT be used in the Boiler where it is located 10ft or more above the finished floor?	05/12/2020	Use of EMT cable 10 feet above finished floor is acceptable.
PB-51	Closed	VFD Cable Clarification	05/12/2020	Is VFD cable Belden part number 13295** required between all motors and VFDs, or may we use copper THHN wire between motors and VFDs? Is Belden VFD cable required between the electrical panel and VFD?	05/12/2020	VFD Cable is required between all VFD's and their associated motor. VFD cable is not required upstream of the VFD.
PB-52	Closed	Temporary Generator	05/12/2020	On drawing E0.11, note 15 states to provide docking station cables with a temporary generator. Is Division 26 responsible for supplying a temporary generator? If so, what size generator, and how long would the temporary generator be needed?	05/12/2020	A temporary generator is not required. The docking station is for connection of a future generator in case of failure of or major maintenance on the permanent generator, as required by Code.
PB-53	Closed	Feed for Panel FHC2A Clarification	05/12/2020	Drawing E0.11 shows panel FHC2A being fed from FHDP, but the line is labeled MDP. Is panel FHC2A fed from MDP or FHDP?	05/12/2020	Panel FHC2A is fed from Panel FHDP-5. Delete reference to MDP.
PB-54	Closed	Demolition and reinstallation of Smart-boards	05/12/2020	Is 16A Contractor responsible for the demolition and re-install of smart boards, projectors, and speakers in classrooms?	05/12/2020	16A Contractor is responsible
PB-55	Closed	Cutting/Patching Existing Floor	05/12/2020	8. Is 16A Contractor responsible for cutting and patching the existing floor to install electrical floor devices?	05/12/2020	16A is responsible
PB-56	Closed	Fire-Rated Plywood	05/12/2020	Which contractor is responsible for the fire-rated plywood that goes in each telecom room?	05/12/2020	6A Contractor
PB-57	Closed	Lightning Protection System Specification	05/12/2020	Specification 260000-2.2 A 10 states to "provide a lighting protection system as described in these specs". I do not see a specification for a lightning protection system. Is a lightning protection system required for this project?	05/12/2020	A Lightning Protection System is not required for this existing building. Delete reference to Lightning Protection System.
				If yes, would the lightning protection system require a ground loop?		

ProjectSight Printed on: 5/18/2020 Page 9 of 15

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-58	Closed	Bollards	05/12/2020	Which Contractor is responsible for Bollards?	05/12/2020	The 6A Contractor is responsible
PB-59	Closed	Grounding Wire Between Telecommunications Ground Bars	05/12/2020	Drawing E0.29 Note 3 states to route 4/0 grounding wire in 1in conduit between IT telecommunications ground bars. Would it be acceptable to run the ground wire exposed above accessible ceilings?	05/12/2020	Response: No.
PB-60	Closed	Floor Trench	05/12/2020	Drawing E2.05 Note 6 states to refer to architectural drawing for floor trench. Architectural drawing A-1.5 shows floor trench but it does not specify what model floor trench is to be installed. Is the 16A contractor responsible for furnishing and installing the floor trench? What model floor trench is to be installed? What contractor is responsible for cutting the concrete where the floor trench is going to be installed?	05/12/2020	Response: Revise Note 6 to read as follows: "Provide a complete, UL listed, dual compartment in floor steel electrical duct system for receptacles and data outlets in layout as shown on the Architectural drawings. Floor duct system shall be Hubbell Underfloor Duct System series 202 or approved equal. Activation kits shall be Hubbell 2 or 3 gang flush floor activation kit with hinged flap covers in either aluminum or brass finish as selected by Architect. Turn duct up wall and into accessible space above ceiling. Terminate with end cap. Provide (2) 1-1/4" nipples with end bushing on data wiring compartment for passable of data cables. Provide all required fittings, accessories, etc. as required for a complete and fully functional system. Provide receptacles as indicated on this drawing and data outlets as indicated on drawing E5.05." 16A Contractor is responsible for furnishing an installing the floor trench including slab cutting and patching.
PB-61	Closed	Scope Clarification	05/13/2020	The 6A scope #11, specifies that the 09A scope will install HMF in metal partitions. However the 9A scope does not reference this at all. Please Clarify.		
PB-62	Closed	Wall Types	05/13/2020	In referencing the wall types, Wall Type A specifically, an STC Rating of 50 has been requested. With the genetic make up of the wall that has been detailed, I cannot achieve a rating of 50. In order to reach the rating requested, Option 1, we would need to use a product specifically designed for sound transfer, which is quadruple the price per square foot, Option 2 use a resilient channel, which is unshown, and would also add depth to the wall, Option 3 lower the STC rating required.	05/13/2020	Wall Type A STC Rating will be minimum STC-45.

ProjectSight Printed on: 5/18/2020 Page 10 of 15

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-63	Closed	Wall Types	05/13/2020	In regards to the ceiling in Media Center A135, and Cafeteria E110, with the areas indicated to get ½" Drywall on a suspension system "#16", can a detail, or cut through be provided for both the ACT to drywall connections, as well the Gyp Board Light Wells "#6"	05/14/2020	Drywall ceiling suspension system option can be Armstrong, USG, or Certainteed standard systems for flat ceilings. Various bulkhead details are provided on A-2.4 The light wells are existing to remain.
PB-64	Closed	Scope Clarification	05/13/2020	Scope item #35 calls for 600LF of temp wall, Scope item #38 calls for 700LF of Temp wall of the same make up. Is this accurate?		
PB-65	Closed	3d Revit Files	05/13/2020	Are there 3d Revit files for the Architectural elements for this project? Or only 2D AutoCAD Files? Are there 3d Revit files for the Existing Structural elements for this project? Or only 2D AutoCAD Files? Are there 3d Revit files for the MEP elements for this project? Or only 2D AutoCAD	05/13/2020	There are only 2D AutoCAD files for Architectural. There PDF copies of original building structural drawings. There are only 2D AutoCAD files of Structural new work. There are only 2D AutoCAD files for MEP.
				Files?		
PB-66	Closed	Building Model	05/13/2020	Who will be providing the building model?	05/13/2020	There is no building model for the project. Appropriate 2D AutoCADD files will be provided as required,
PB-67	Closed	Demo of FOR & FOS line and pumps	05/13/2020	Mechanical demo drawings for the boiler room show a FOR and FOS line and pumps to be removed, where do there run outside the room and is there a fuel tank that needs to be removed?	05/13/2020	There was an underground fuel tank in the drive to the west of the Boiler Room which was removed some time ago. There is not tank to be dealt with in this project.
PB-68	Closed	Existing pipe (After 2009)	05/13/2020	On drawing m1.08 note says all pipe installed after 2009 to remain. How we to determine what are was installed when. Or should we just go by what's marked for demo on drawings?	05/13/2020	The note refers primarily to the Auxiliary Gym and Lower Level Locker Room renovation that was completed in 2009. Refer to Mechanical Demolition Drawings for pipe demolition.
PB-69	Closed	Equipment to be removed	05/13/2020	Can you Verify all equipment pipe and duct work to be removed by abatement contractor?		
PB-70	Closed	Temporary Boiler	05/13/2020	Approximately how long will the temp Boiler need to be in operation.		
PB-71	Closed	Temporary Heat & A/C	05/13/2020	Is temporary heat and AC needed for each of the phases while work is being performed?	05/16/2020	Temporary heat and AC are not needed in each phase while work is being performed but the balance of the school needs to stay up and running during construction.

ProjectSight Printed on: 5/18/2020 Page 11 of 15

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-72	Closed	Steam Line Specification	05/13/2020	There is no spec for the steam line ran out to the temp boiler. I see this is ran next to the underground chill water lines. How would they want this insulated?	05/13/2020	The line should be insulted with 2" calcium silicate and a weatherproof wrap.
PB-73	Closed	Concrete for Chiller in Courtyard	05/13/2020	Is mechanical responsible for concrete for the chiller courtyard?		
PB-74	Closed	Air Cooled Chiller Detail (No strainer shown)	05/13/2020	Detail for the Air cooled chiller does not show a strainer. I'm assuming they plan on using the suction diffueor on the CHW pumps?	05/13/2020	Provide a suction diffuser with an integral strainer.
PB-75	Closed	Equipment to be reclaimed	05/13/2020	What equipment will the county be reclaiming?	05/18/2020	. "The Owner will be salvaging the burner controls, switchgear breakers, controls, drives, motors, smoke detectors and some fire alarm devices. The 15A Contractor is to remove one chiller and load it on a trailer provided by HCPS."
PB-76	Closed	Alternate for Pipe	05/13/2020	As a voluntary alternate, can the heating water for sizes 2.5" and above be ran in steel pipe with weld fittings?	05/16/2020	This was also answered with PB-20. Heating Water Piping larger 2 1/2" and larger may be Schedule 40 Steel. Provide Dielectric fittings at all point where copper and steel are connected.
PB-77	Closed	Rise diagrams-Domestic water & sanitary	05/13/2020	Because we have to use the riser diagrams for pipe sizes, Is there any way we can get clarification on the riser diagrams domestic water and sanitary? It's hard to tell what location you are in, in the riser diagram versus the drawing page . I see the circle letters on each end of the riser diagram but it's not clear if that is the area or just connecting the next riser diagram.	05/13/2020	Room names will be added to the riser diagrams. The riser drawings will be reissued with Addendum No. 4.
PB-78	Closed	Ceilings Clarification -Toilets Rooms E128 & E129	05/16/2020	Toilet room E128 and E129 does not shown any new ceilings. Existing metal ceilings are rusted. Please advise whether ceiling on those two toilets must be replace.		
PB-79	Closed	Corridor C101-Ceiling Grid & Tile	05/16/2020	Ceiling grid and tile on corridor C101 needs to be replaced in its entirety. There is way to much water damage on that ceiling. Please advise how to proceed	05/16/2020	Replace Ceiling Grid and Tile in Corridor C101.
PB-80	Closed	Stud Spacing	05/16/2020	Partition types shown on page A-0 shows metal studs 24" OC. Spec section 092216-3.02-C calls for studs 16" OC. Also, standard metal studs spacing for almost every county property is 16" OC. Please advise whether to follow drawings or specs.	05/16/2020	Stud Spacing will be 16" O.C.

ProjectSight Printed on: 5/18/2020 Page 12 of 15

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-81	Closed	Interior Metal Coating Clarification	05/16/2020	Non-structural metal framing specs 092216-2.03-A&B calls all interior metal to have G60 coating. Standard coating for non-structural metal is G40. Please advise how to proceed.	05/16/2020	G40 Coating is acceptable.
PB-82	Closed	FRP Specification	05/16/2020	Per wall types and floor plants kitchen and food lab will receive FRP panels. Please provide specs.	05/16/2020	FRP Panels will be Pebble Finish, Class III/C, .090" thick by Marlite, Kal-Lite, Crane Composites or Nudo. Installation per manufacturer's guidelines using manufacturer's recommended adhesives. Standard trims.
PB-83	Closed	Temporary Walls	05/16/2020	SOW -9A #35 requires 9A contractor to furnish, install and remove 600 LF of temporary walls, However; Line #38 calls for 700 LF of temporary walls. Please advise which scope line is correct.	05/16/2020	Answered in a prior RFI.
PB-84	Closed	Stud Spacing	05/16/2020	Wall Types A, B, C, and K call for studs spacing at 24"OC. The specs however call for all stud spacing to be at 16"OC. Requesting clarification. Thank you	05/16/2020	Stud spacing will be 16" O.C.
PB-85	Closed	Sidewalk Type Clarification	05/16/2020	Looking through the documents we noticed that the detail used to dictate sidewalk did not match what was shown in the drawings. Are we to assume the grayed areas behind the curb and gutter are concrete sidewalks or are they asphalt paths?.		
PB-86	Closed	Specification Section 12 35 52.19 - Lab Casework - Acceptable Manufacturers	05/16/2020	We represent Leonard Peterson Company for wood laboratory casework, and have used their products for multiple school projects in Maryland, including the Robert Poole High School, Calvin Rodwell Elementary/Middle School Replacement, and are currently providing their casework for the Patterson-Claremont High School in Baltimore, MD. Please confirm that Leonard Peterson Company	05/16/2020	Leonard Peterson Company is an acceptable manufacturer for laboratory casework.
				(www.lpco.com) is an acceptable manufacturer for Specification Section 12 35 52.19.		
PB-87	Closed	Auditorium-Sprinklered-Clarification	05/16/2020	Is the auditorium to be fully sprinkled? Or are we to replace existing which would just include the stage area of the auditorium?	05/16/2020	No to adding sprinkler to the Auditorium (Auditorium remains non-sprinklered.) Yes to replacing sprinkler at the stage.
PB-88	Closed	Bid Date Extension	05/16/2020	Please consider a bid date extension of at least a few days to give us time to digest the forthcoming addendum		

ProjectSight Printed on: 5/18/2020 Page 13 of 15

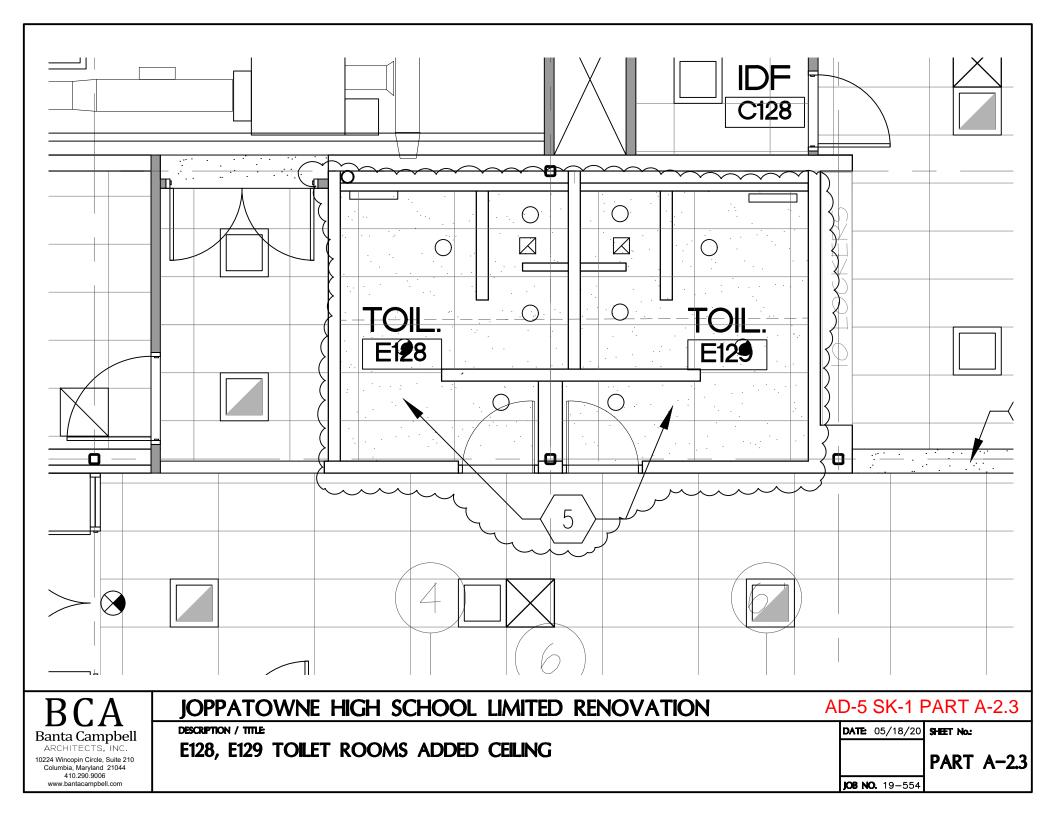
Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-89	Closed	Staging Areas	05/16/2020	Scope #9 – for what duration are we to maintain staging areas?	05/16/2020	For two years.
PB-90	Closed	Scope Clarification - Access Roads	05/16/2020	for the access roads? A) Are these access roads to be asphalt or stone and what thickness? – B) Are these access roads to be removed?	05/16/2020	A.Refer to item #9 in the scope package. B.Refer to item #9 in the scope package. C.Refer to item #9 in the scope package.
				Are these access roads for construction only or for public use		
PB-91	Closed	2A-Scope Clarification	05/16/2020	Scope#25 – please clarify what permits are required?	05/18/2020	If it is required for the installation of the new water service
PB-92	Closed	2A Scope Clarification	05/16/2020	Scope#26 – please clarify what is required for topsoil and infield mix— A) are all green areas to receive topsoil? What depth? B) What areas are to receive infield mix(as the limit of disturbance does not include any baseball diamonds)? The spec does not specify an infield mix- please provide if required?	05/16/2020	Delete Infield Mix
PB-93	Closed	2A - Scope Clarification	05/16/2020	 Scope #38 please clarify what we are responsible for at the play areas? – A) are we to include the masonry wall per detail 3/A-10.4? 	05/16/2020	A. 6A will install the masonry wall. B. 2A will include the fencing.
				B) are we to include the fence per note#12/A-10.3		
PB-94	Closed	2A Scope Clarification	05/16/2020	Per scope#38 please clarify where the temporary parking lot to be installed is located?	05/16/2020	Delete reference to "temporary parking lot"
PB-95	Closed	2A - Scope Clarification	05/16/2020	 scope#40- please clarify what site plantings we are responsible for? The only plant schedule provided is the SWM bio plantings per plan C-20? 	05/16/2020	2A Scope
PB-96	Closed	2A-Scope Clarification	05/16/2020	Scope#46-what project durations is mowing required- such as through Oct. 2022? how many mowings are we to include per month?	05/16/2020	As required
PB-97	Closed	2A-Scope Clarification	05/16/2020	 Scope#49 please clarify if the mechanical scope is responsible for the entire run of 4" PVC sewer pipe from the building to the grease trap approx. 74 If? 	05/16/2020	15A Contractor

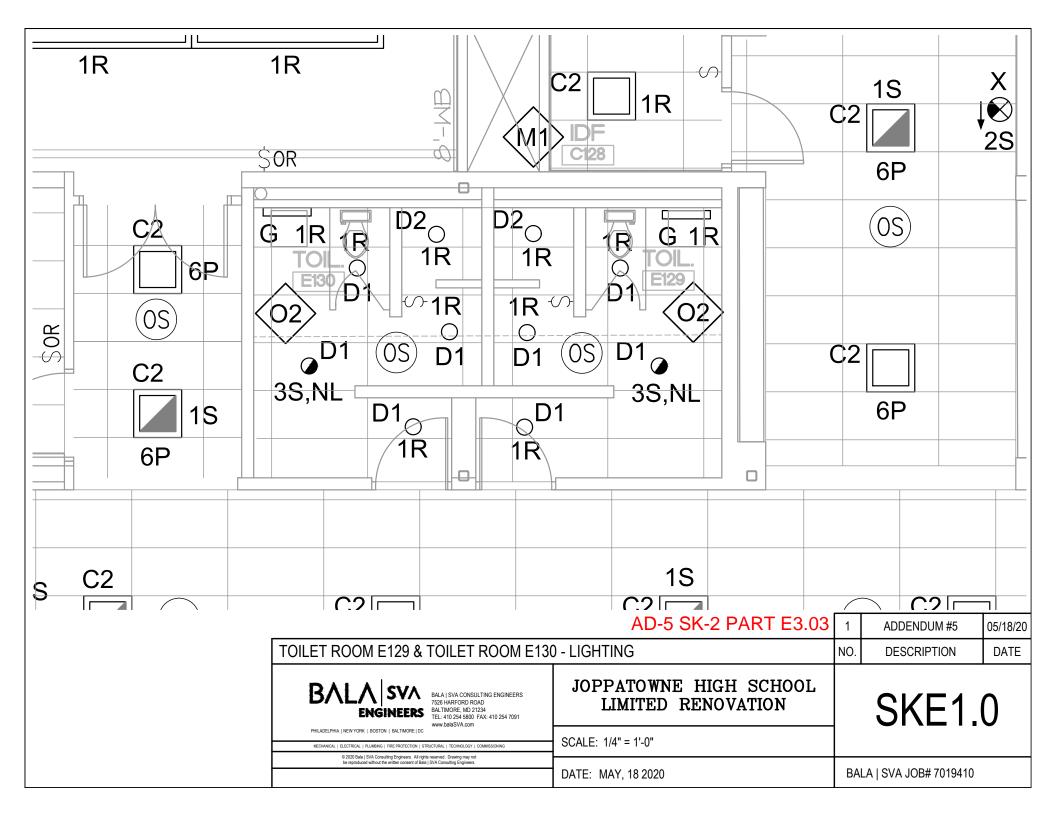
ProjectSight Printed on: 5/18/2020 Page 14 of 15

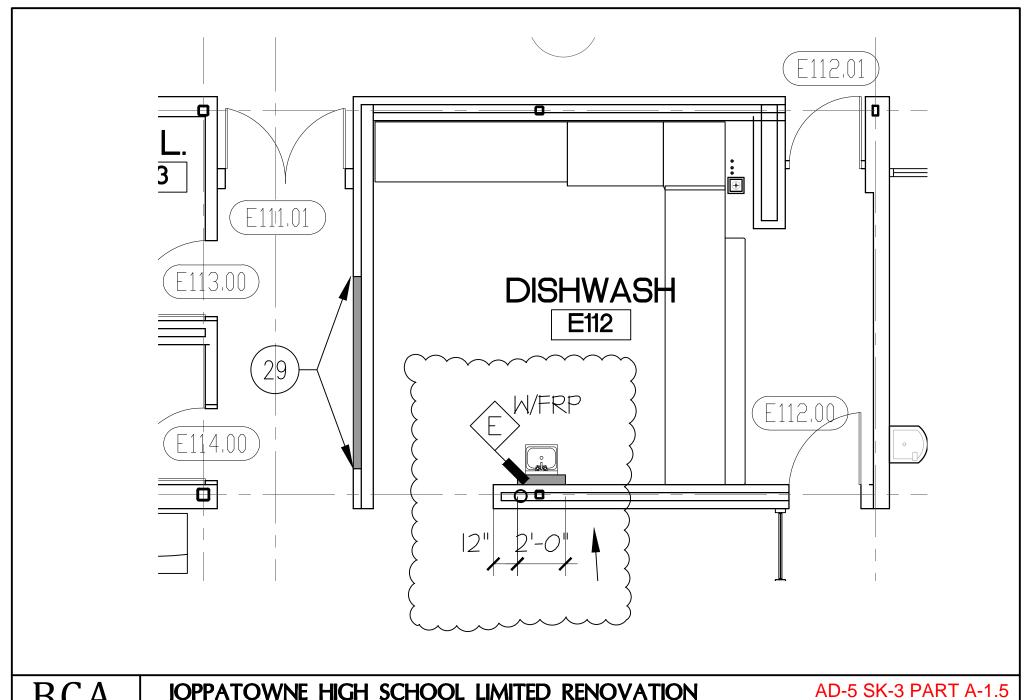
Joppatowne High School - Limited Renovation (1908) Request for Information Summary Log with Answers 555 Joppa Farm Road Joppatowne, MD 21085

Number	Status	Subject	Created On	Question	Date Resolved	Answer
PB-98	Closed	2A Scope Clarification	05/16/2020	Scope#53 please clarify what CADD drawings we are to design and provide?	05/16/2020	Corrected in Addendum
PB-99	Closed	2A Scope Clarification	05/16/2020	Scope#55 please clarify what location we are to relocate the scoreboard?	05/16/2020	Relocation location is indicated on Drawing A10.2.

ProjectSight Printed on: 5/18/2020 Page 15 of 15







Banta Campbell ARCHITECTS, INC.

10224 Wincopin Circle, Suite 210 Columbia, Maryland 21044 410.290.9006 www.bantacampbell.com

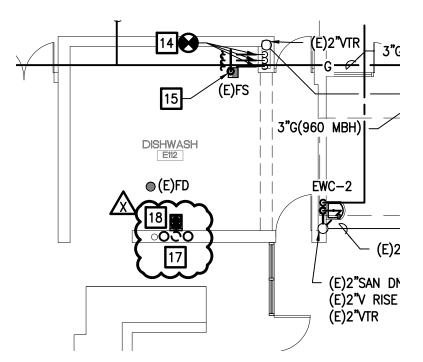
JOPPATOWNE HIGH SCHOOL LIMITED RENOVATION

DESCRIPTION / TITLE: E112 DISHWASH - ADDED HAND WASH SINK

DATE: 05/18/20 SHEET No.:

PART A-1.5

JOB NO. 19-554



ROUGH-INS. CONNECT NEW SANITARY TRAP TO EXISTING ROUGH-IN.

17. 1/2" HOT AND COLD WATER FROM BELOW. 2" SANITARY DOWN, 2"

VENT RISE, 4" VENT THOUGH ROOF. PROVIDE 1-1/2" TRAP FROM HAND SINK.

18. PROVIDE HAND SINK EAGLE HSA-10-FE-B OR EQUAL. PROVIDE ACCESSORIES:

• 606215 - STAINLESS STEEL SKIRT ASSEMBLY

• 326015 - TEMPERATURE ADJUSTMENT VALVE

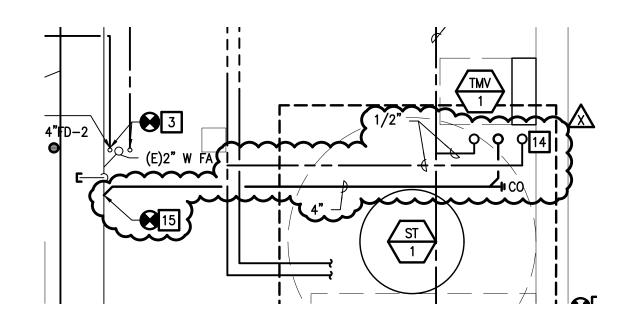
• 326696 - ANTI-SCALD VALVE

• 300791 - NICKEL PLATED TAILPIECE

• 300789 - NICKLE PLATED P-TRAP

• LEFT AND RIGHT SIDE SPLASHES

MAIN LEVEL FLOOR PLAN — AREA E — PLUMBING EXISTING CONDITIONS AND NEW WORK



12. CONNECT NEW 8" NATURAL GAS TO EXISTING NATURAL GAS SUPPLY.
13. CONNECT NEW 3/4" COLD WATER TO EXISTING 3/4" COLD WATER
RISER

14. 1/2" HOT AND COLD WATER UP. 2" SANITARY FROM ABOVE.
15. CONNECT NEW 2" SANITARY TO EXISTING 4" SANITARY.

2 ENLARGED PART PLAN — PLUMBING EXISTING CONDITIONS AND NEW WORK

AD-5 SK-4 PART P2.05 P2.09

BALA CONSULTING ENGINEERS, INC.
443 SOUTH GULPH ROAD
KING OF PRUSSIA, PA 19406
TEL: 610 649 800 FAX: 610 649 8475
WWW.BALA.COM

ENGINEERS MECHANICAL | ELECTRICAL | PLUMBING | FIRE PROTECTION
STRUCTURAL | TECHNOLOGY | COMMISSIONING

JOPPATOWNE HIGH SCHOOL DISHWASH AREA HAND SINK REVISION

 PROJECT NO:
 DRAWN:
 CHECKED:
 DATE:

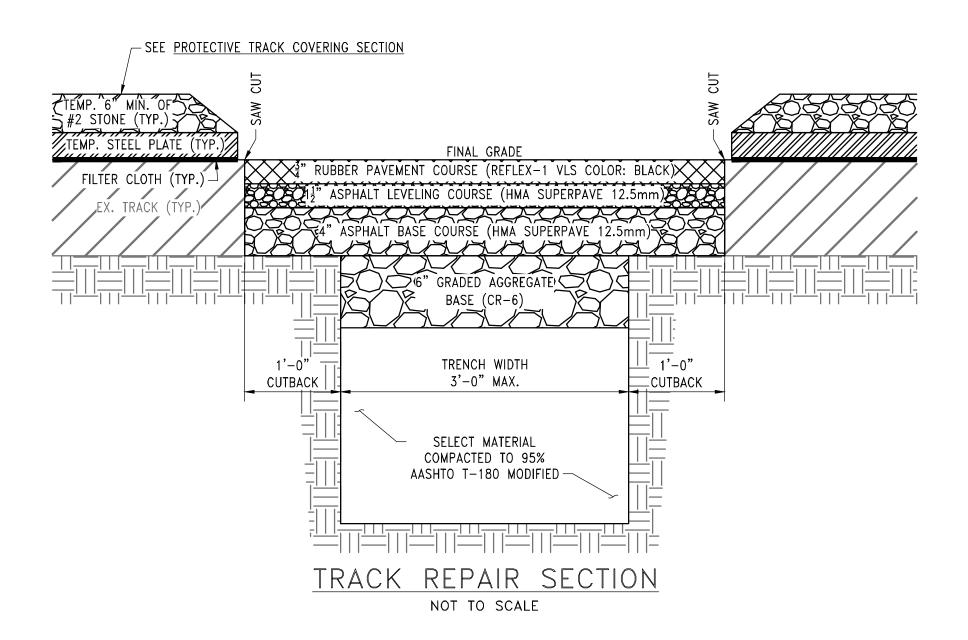
 70-19-410
 JDT
 DCH
 05/15/20

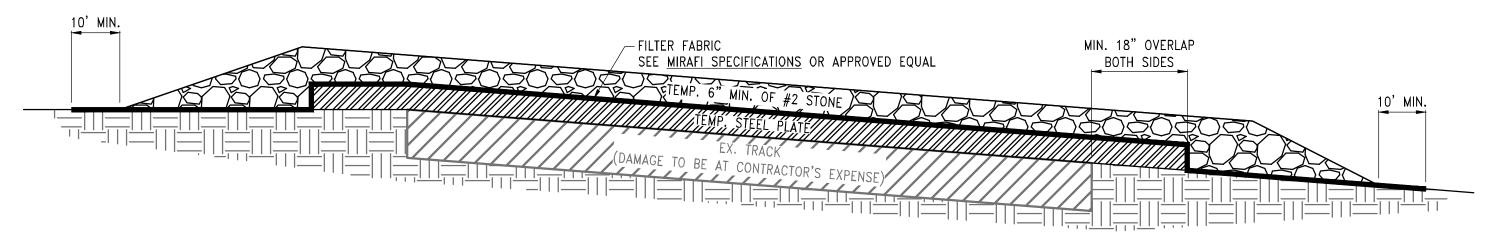
 FROM DRAWING:
 ISSUE DESCRIPTION:

 P2.05&P2.09
 DISHWASH AREA HAND SINK REVISION

 REVISION MARK:
 SKETCH NO:

 SKP-2020-05-15





AIF	R C	COOLE	D CHII	LER.																							СН
UNIT NO)	LOCATION	TYPE	NOMINAL	FLUID	REFRIG		COMPRE	ESSOR			EVAPO	RATOR				CONDE	ENSER		ELECTR	IC CONNE	CTION	MIN	DIMENSIONS	WEIGHT	BASIS OF DESIGN	NOTES
				CAPACITY	CHILLED		NUMBER OF	CONTROL	MIN	CAPACITY	WATER	WATER	EWT	LWT	FLUID	NUMBER	FAN		FAN		MCA	МОСР	EFF				
							COMPRESSORS	PER	NO	RLA	FLOW	FLOW			PD	FANS	RLA		CONTROL								
								COMPRESSOR	CIRCUITS	PER	MINIMUM						MOTOR										
~~	$\uparrow \sim$	\sim	\		\		\sim		\	COMPRESSOR			$\overline{}$	~		\	(EAGU)				~			LX WYAT			
				TONS						AMPS @ 480 V	GPM	GPM	٩F	٥F	FT HD		А	VOLT/PH		VOLT/PH	AMPS	AMPS		IN x IN x IN	LBS		
CH-1	Cl	HILLER YARD	SCREW	225	WATER	R 134A	2	VFD	2	194, 162	217	448	56	44	14.2	14	2.7	120/1	VFD	480/3	449	600	10.45	362x90x96	15,915	TRANE MODEL RTAC	1,2,3,4,5
CH-2	Cł	HILLER YARD	SCREW	225	WATER	R 134A	2	VFD	2	194, 162	217	448	56	44	14.2	14	2.7	120/1	VFD	480/3	449	600	10.45	362x90x96	15,915	TRANE MODEL RTAC	1,2,3,4,5

- 1. PROVIDE UNIT WITH SINGLE POINT ELECTRIC CONNECTION.
- 2. PROVIDE WITH UNIT DISCONNECT SWITCH AND STARTER.
- 3. PROVIDE ELECTRICALLY INSULATED BEARINGS ON VFD DRIVEN MOTORS. PROVIDE SHAFT MOUNTED STATIC DISCHARGE DISAPPATION RING WITH CONDUCTIVE MICROFIBERS (ELECTRO STAIC TECHNOLOGY AEGIS SGR OR APPROVED EQUAL).
- 4. SELECT UNIT BASED UPON 0.0001 FOULING FACTOR.
- 5. PROVIDE UNIT WITH INTEGRAL FLOW SWITCHES MOUNTED WITHIN THE CHILLED WATER LINES.

AD-5 SK-6 PART M0.21

BALA CONSULTING ENGINEERS, INC.
7526 HARFORD ROAD
BALTIMORE, MD 21234
TEL: 610 649 800 FAX: 610 649 8475
WWW.BALA.COM

ENGINEERS MECHANICAL | PLUMBING | FIRE PROTECTION
STRUCTURAL | TECHNOLOGY | COMMISSIONING

JOPPATOWNE HIGH SCHOOL ADDENDUM #5

 PROJECT NO:
 DRAWN:
 CHECKED:
 DATE:

 70-19-410
 KRH
 RSS
 05/18/20

 FROM DRAWING:
 ISSUE DESCRIPTION:

 M0.21
 AIR COOLED CHILLER SCHEDULE

 REVISION MARK:
 SKETCH NO:

 X
 SKM-1-2020-05-18

NOTES:

- UNIT SHALL BE INDOOR TYPE.
- . UNIT SHALL HAVE SINGLE POINT ELECTRIC CONNECTION.
- PROVIDE WITH UNIT DISCONNECT SWITCH
 SUPPLY AIR FAN SHALL BE PLENLIN TYPE
- 4. SUPPLY AIR FAN SHALL BE PLENUM TYPE
- 6. PROVIDE ELECTRICALLY INSULATED BEARINGS ON VFD DRIVEN MOTORS. PROVIDE SHAFT MOUNTED STATIC DISCHARGE DISAPPATION RING WITH CONDUCTIVE MICROFIBERS (ELECTRO STAIC TECHNOLOGY AEGIS SGR OR APPROVED EQUAL)
- 7. THE BRAKEHORSE POWER LISTED IS THE MAXIMUM ALLOWABLE WHICH SHALL INCLUDE ALL DRIVE LOSSES AND UNIT SPECIFIC FAN SYSTEM EFFECTS
 8. LEAVING AIR TEMPERATURES LISTED ARE LEAVING COLL TEMPERATURES.
- 8. LEAVING AIR TEMPERATURES LISTED ARE LEAVING COIL TEMPERATURES.
- PROVIDE WITH OUTDOOR AIRFLOW MEASURING STATION.
- 11. PROVIDE VFD TO CONTROL SPEED OF FANS.

PUM	IP SCHE	DULE														P
UNIT NO	LOCATION	TYPE	SYSTEM SERVED	FLUID	FLUID	FLOW	TOTAL	BHP	HP	RPM	VFD	V/PH	IMPELLER	BASIS OF DESIGN	MODEL	NOT
				TYPE	TEMP.		DYNAMIC				OR		DIAMETER			
							HEAD				STARTER					
~	$\sim\sim$	$\sim\sim$	$\sim\sim$	\sim		GMM		~~	~~	$\overline{}$	\frown	\sim	<u>√</u> 30.	$\sim\sim\sim$		J
P-1	BOILER ROOM	END SUCTION	CHILLERS	WATER	56	1120	40	12.4	15	1200	VFD	480/3	10.75	BELL & GOSSETT SERIES E-1510	6E	1,2,3
P-2	BOILER ROOM	END SUCTION	CHILLERS	WATER	56	1120	40	12.4	15	1200	VFD	480/3	10.75	BELL & GOSSETT SERIES E-1510	6E	1,2,3
P-3	BOILER ROOM	END SUCTION	BOILERS	WATER	140	436	50	5.4	10	1800	VFD	480/3	8	BELL & GOSSETT SERIES E-1510	3BD	1,2,3
	BOILER ROOM	END SUCTION	BOILERS	WATER	140	436	50	5.4	10	1800	VFD	480/3	0	BELL & GOSSETT SERIES E-1510	3BD 1	1,2,3

1. PUMP SHALL BE INDOOR TYPE, WEATHER PROOF CONSTRUCTION.

PROVIDE WITH DISCONNECT SWITCH
 PROVIDE ODP MOTORS.

4. PROVIDE WITH VFD COMPATIBLE MOTOR

5. THE BRAKEHORSE POWER LISTED IS THE MAXIMUM ALLOWABLE WHICH SHALL INCLUDE ALL DRIVE LOSSES

ENERGY RECOVERY WHEEL SPECIFICATION (ENTHALPY):

WHEEL MEDIA: THE ECW OR ENTHALPY WHEEL SHALL BE CONSTRUCTED OF CORRUGATED SYNTHETIC FIBROUS MEDIA, WITH A DESICCANT INTIMATELY BOUND AND UNIFORMLY AND PERMANENTLY DISPERSED THROUGHOUT THE MATRIX STRUCTURE OF THE MEDIA. ROTORS WITH DESICCANTS COATED, BONDED, OR SYNTHESIZED ONTO THE MEDIA ARE NOT ACCEPTABLE DUE TO DELAMINATION OR EROSION OF THE DESICCANT MATERIAL. MEDIA SHALL BE SYNTHETIC TO PROVIDE CORROSION RESISTANCE AND RESISTANCE AGAINST ATTACK FROM LABORATORY CHEMICALS PRESENT IN PHARMACEUTICAL, HOSPITAL, ETC. ENVIRONMENTS AS WELL AS ATTACK FROM EXTERNAL OUTDOOR AIR CONDITIONS.

COATED ALUMINUM IS NOT ACCEPTABLE. FACE FLATNESS OF THE WHEEL SHALL BE MAXIMIZED (+/- 0.032 IN) IN ORDER TO MINIMIZE WEAR ON INNER SEAL SURFACES AND TO MINIMIZE CROSS LEAKAGE. ROTOR SHALL BE CONSTRUCTED OF ALTERNATING LAYERS OF FLAT AND CORRUGATED MEDIA. WHEEL LAYERS SHOULD BE UNIFORM IN CONSTRUCTION FORMING UNIFORM APERTURE SIZES FOR AIR FLOW. WHEEL CONSTRUCTION SHALL BE FLUTED OR FORMED HONEYCOMB GEOMETRY SO AS TO ELIMINATE INTERNAL WHEEL BYPASS. WHEEL LAYERS THAT CAN BE SEPARATED OR SPREAD APART BY AIR FLOW ARE UNACCEPTABLE DUE TO THE POSSIBILITY OF CHANNELING AND PERFORMANCE DEGRADATION. THE MEDIA SHALL BE IN ACCORDANCE WITH NFPA OR UL GUIDELINES. THE MINIMUM ACCEPTABLE PERFORMANCE SHALL BE AS SPECIFIED IN THE DRAWINGS/SUBMITTAL. THE ECW OR ENTHALPY WHEEL SHALL BE ARI CERTIFIED IN ACCORDANCE WITH STANDARD 1060 AND CARRY THE ARI CERTIFICATION STAMP.

DESICCANT MATERIAL: THE DESICCANT MATERIAL SHALL BE A MOLECULAR SIEVE, AND SPECIFICALLY A 4A OR SMALLER MOLECULAR SIEVE TO MINIMIZE CROSS CONTAMINATION.

WHEEL MEDIA SUPPORT SYSTEM: THE WHEEL FRAMES SHALL CONSIST OF EVENLY SPACED GALVANIZED STEEL SPOKES, GALVANIZED STEEL OUTER BAND AND RIGID CENTER HUB. THE WHEEL CONSTRUCTION SHOULD ALLOW FOR POST FABRICATION WHEEL ALIGNMENT.

WHEEL SEALS: THE WHEEL SEALS SHALL BE A CONTACT BRUSH SEAL ON BOTH THE PERIPHERY OF THE WHEEL AND THE FACE. SEALS SHOULD BE EASILY ADJUSTABLE.

WHEEL CASSETTE: CASSETTES SHALL BE FABRICATED OF HEAVY DUTY REINFORCED GALVANIZED STEEL OR WELDED STRUCTURAL BOX TUBING. CASSETTES SHALL HAVE A BUILT IN ADJUSTABLE PURGE SECTION MINIMIZING CROSS CONTAMINATION OF SUPPLY AIR. BEARINGS SHALL BE INBOARD, ZERO MAINTENANCE, PERMANENTLY SEALED ROLLER BEARINGS, OR ALTERNATIVELY, EXTERNAL FLANGED BEARINGS OR PILLOW BLOCK. DRIVE SYSTEMS SHALL CONSIST OF FRACTIONAL HORSEPOWER A.C. DRIVE MOTORS WITH MULTILINK DRIVE BELTS.

TEMPERATURE CONTROL PANEL - VARIABLE SPEED CONTROL SHALL BE ACCOMPLISHED BY THE USE OF AN A/C INVERTER. THE INVERTER SHALL INCLUDE ALL DIGITAL PROGRAMMING WITH A MANUAL SPEED ADJUSTMENT ON THE FRONT OF THE INVERTER. THE DRIVE SYSTEM SHALL ALLOW FOR A TURNDOWN RATIO OF 80:1 (20 RPM TO 1/4 RPM). THE CONTROL SYSTEM SHALL INCLUDE FOUR LINEARIZED THERMISTOR SENSORS AS FOLLOWS: (1) PROPORTIONAL TEMPERATURE CONTROLLER MOUNTED IN THE SUPPLY AIR STREAM. (2) DIFFERENTIAL SUMMER/WINTER CHANGEOVER SENSORS MOUNTED IN THE OUTDOOR AND RETURN AIRSTREAMS. (3) FROST PREVENTION SENSOR LOCATED IN THE EXHAUST AIR STREAM. (4) DIGITAL READOUT OF THE TEMPERATURE READINGS RECORDED BY THESE SENSORS AND CONTROL SET POINTS IS DISPLAYED BY THE CONTROL PANEL.

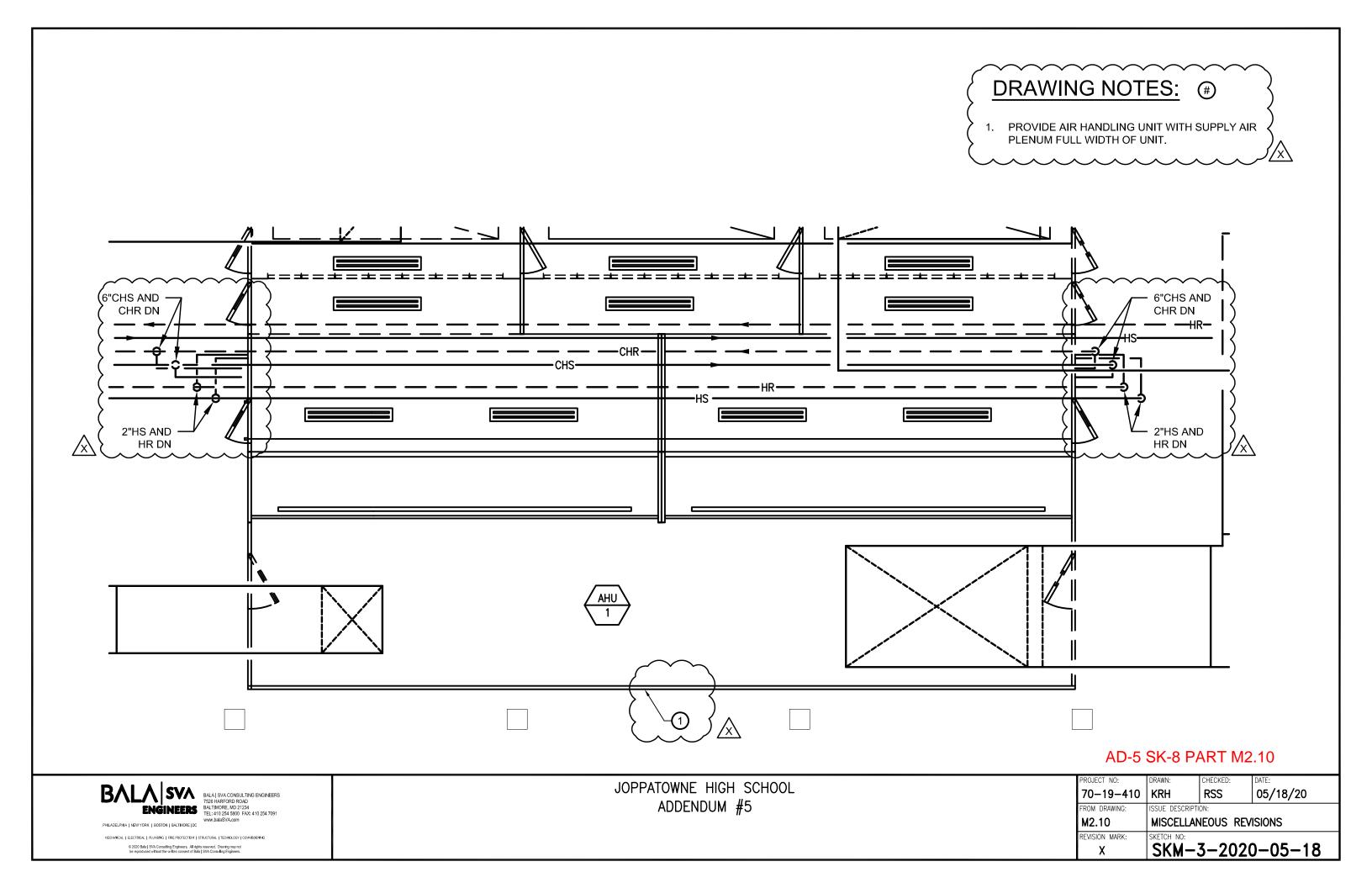
FACTORY STARTUP AND FIELD COMMISSIONING - AFTER THE UNITS ARE INSTALLED, A FINAL FACTORY CHECKOUT AND STARTUP WILL BE COMPLETED TO ENSURE PROPER PURGE ADJUSTMENT, SEAL ADJUSTMENT, CONTROL SETTINGS AND NOTHER KEY OPERATIONAL FUNCTIONS. THIS SERVICE SHALL BE COMPLETED BY TRAINED FACTORY SERVICE PERSONNEL THAT ARE EMPLOYED BY THE MANUFACTURER OF THE TRANSFER MEDIA.

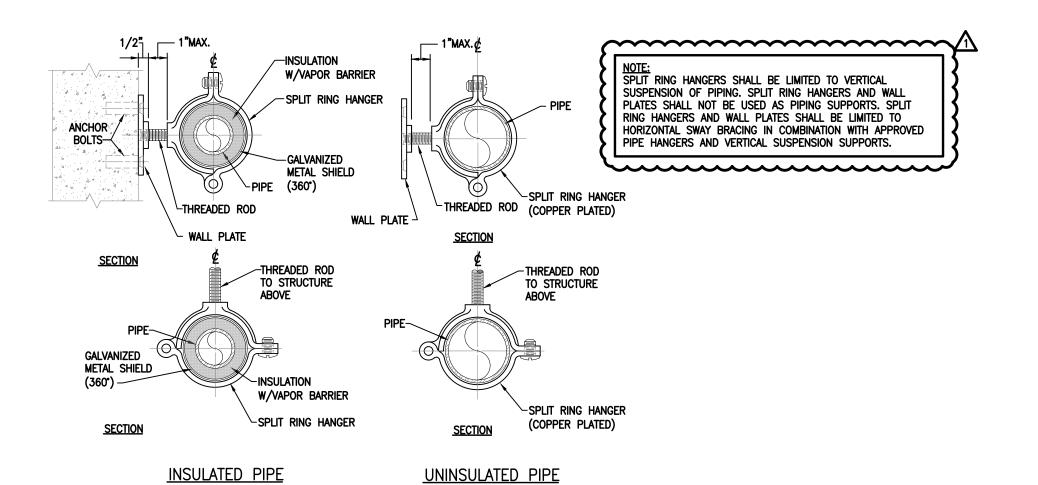
BALLA SVA
ENGINEERS
BALLA SVA CONSULTING ENGINEERS
7520 HARFORD ROAD
BALL MINORE, MD 21234
TEL: 410 254 5900 FAX: 410 254 7091
www.balaSVA.com

MECHANICAL [B.ECTRICA.] PLUMBING | FRE PROTECTION | STRUCTURAL | TEDHNOLOGY | COMMISSIONAG

JOPPATOWNE HIGH SCHOOL ADDENDUM #5

AD-5 SK-7 PART M0.22





PIPE	SUPPO	RT SCHI	EDULE
COPPER TUBING DIA.	ROD DIA.	SUPPORT SPACING	MAXIMUM RECOM. LOAD LBS.
1/2"	3/8"	5'-0"	180
3/4"		5'-0"	180
1"		6'-0"	180
1 1/4"		7'-0"	180
1 1/2"		8'-0"	180
2"	1	8'-0"	180
2 1/2"	1/2"	9'-0"	180
3"	1/2"	10'-0"	180

2 COPPER PIPE SUPPORT DETAIL
P0.32 NOT TO SCALE

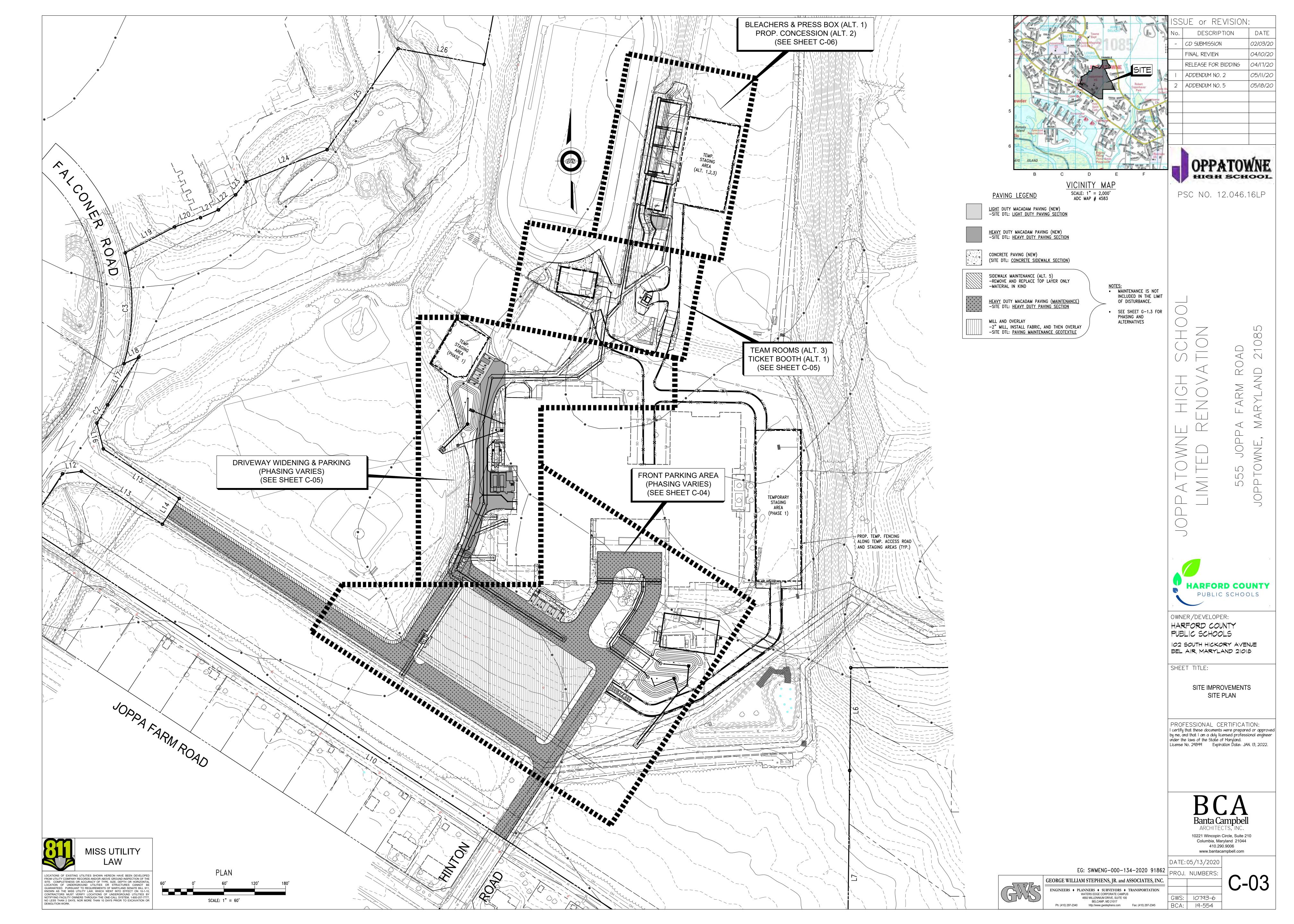
AD-5 SK-9 PART P0.32

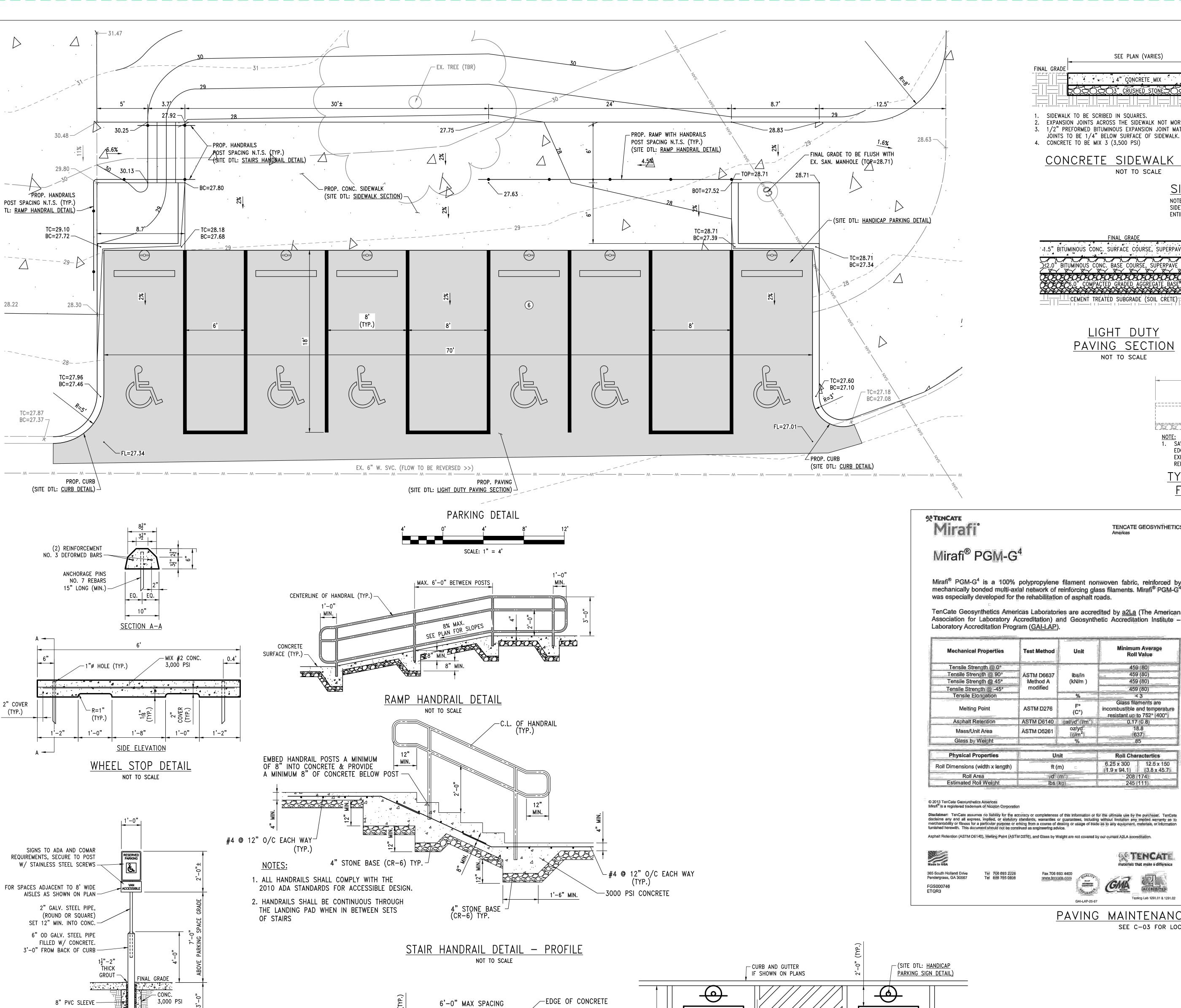
BALA CONSULTING ENGINEERS, INC.
443 SOUTH GUILPH ROAD
KING OF PRUSSIA PA 19406
TEL: 610 649 8000 FAX: 610 649 8475
WWW.BALA.COM

ENGINEERS MECHANICAL | ELECTRICAL | PLUMBING | FIRE PROTECTION
STRUCTURAL | TECHNOLOGY | COMMISSIONING

JOPPATOWNE HIGH SCHOOL SPLIT RING HANGER CLARIFICATION DGS COMMENT RESPONSE

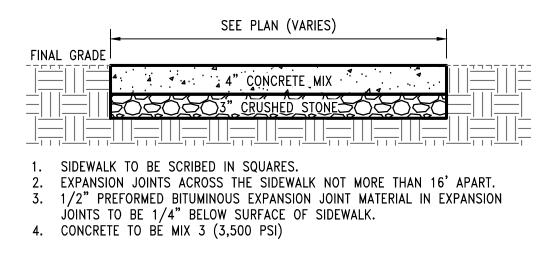
PROJECT NO:	DRAWN:	CHECKED:	DATE:
70-19-410	JDT	DCH	05/18/20
	ISSUE DESCRIPTI		
P0.32	SPLIT RIN	G HANGER	CLARIFICATION
REVISION MARK:	SKETCH NO:		
	CKD_	2020_0)5-18-02





-C.L. OF HANDRAIL

STAIR HANDRAIL DETAIL - PLAN



CURB & GUTTER -COMPACTED CRUSHED STONE BASE —

CONCRETE SIDEWALK SECTION NOT TO SCALE

SIDEWALK AT CURB SECTION NOT TO SCALE

┌─1/2" PREFORMED BITUMINOUS EXPANSION ISSUE or REVISION:

CD SUBMISSION

FINAL REVIEW

ADDENDUM NO. 2

2 ADDENDUM NO. 5

DESCRIPTION

RELEASE FOR BIDDING

HIGH SCHOOL

PSC NO. 12.046.16LP

04/10/20

04/17/20

05/11/20

05/18/20

 ∞

 $\overline{}$

 \triangleleft

ARFORD COUNTY

PUBLIC SCHOOLS

OWNER/DEVELOPER:

HARFORD COUNTY

PUBLIC SCHOOLS

SHEET TITLE:

102 SOUTH HICKORY AVENUE

SITE IMPROVEMENTS

SITE DETAILS 1 OF 3

certify that these documents were prepared or approved

by me, and that I am a duly licensed professional engineer

License No. 29899 Expiration Date: JAN. 13, 2022.

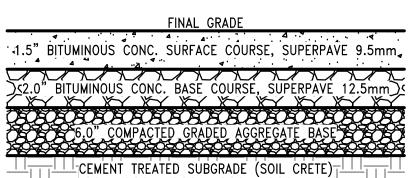
PROFESSIONAL CERTIFICATION:

under the laws of the State of Maryland.

BEL AIR, MARYLAND 21018

 $\overline{}$

SIDEWALK REPLACEMENT NOTE: WHEN REPLACING CONCRETE OR ASPHALT SIDEWALKS, THE EXISTING WALK SHALL BE REMOVED IN ITS ENTIRETY TO THE NEAREST CONTROL JOINT.

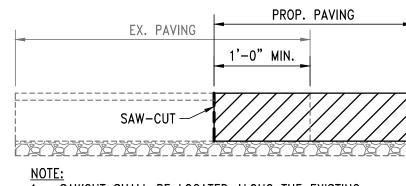


2.0" BITUMINOUS CONC. SURFACE COURSE, SUPERPAVE 9.5mm, SUPERPAVE 19mm (2 COMPACTED LIFTS -CEMENT TREATED SUBGRADE (SOIL CRETE)

LIGHT DUTY PAVING SECTION NOT TO SCALE

TENCATE GEOSYNTHETICS

HEAVY DUTY PAVING SECTION NOT TO SCALE



SAWCUT SHALL BE LOCATED ALONG THE EXISTING EDGELINE SUCH THAT A MINIMUM OF 1 FT. OF THE EXISTING FULL DEPTH PAVING IS REMOVED AND REPLACED FOR A PROPER JOINT.

FULL DEPTH PAVING

NOT TO SCALE

Viscosity @ 135°C

Viscosity @ 165°C Lab Mixing Temp, °C

G*/sin δ (kPa)

G*/sin δ (kPa)

G*-sin δ (kPa)

m-value @ 60 s

Stiffness (MPa) @ 60 s

Testing Laboratory Intertek, Philadelphia

Philadelphia 2016-PHIL-001494-002

Remarks: True Grade: 72.5-25.3

Lab Compaction Temp, *C

RTFOT Mass Change (%)

Certificate of Analysis Supplier name: Bitumar USA, Inc Tel: 410-354-9550 6000 Pennington Ave. Fax: 410-354-9552 Baltimore, MD USA Production Code BIMT-T-Blender-L-03 April 20, 2016 COA Date Specification AASHTO M320 Binder Type Unit of Production Standard report Terminal: Supplier Lab: TEST SPECIFICATION TEST
REQUIREMENTS RESULTS

AASHTO T 228

AASHTO T 228 AASHTO T 48

AASHTO T 316

AASHTO T 316

AASHTO T 315

This material conforms to the specifications set forth in AASHTO M 320 and is a Plain binder.

Joan Feuda

>230°C

Max. 3000 cP

Max. 3000 cP

Min: 156

Min: 146 > 1.00kPa

>2.20 kPa

< 5,000 kPa

< 300 MPa > 0.300

Marie Gagnon

-0.009

0.330

TenCate Geosynthetics Americas Laboratories are accredited by a2La (The American Association for Laboratory Accreditation) and Geosynthetic Accreditation Institute -Unaged Binder Specific Gravity @ 60°F Specific Gravity @ 77°F Flash Point, °C

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value		
Tensile Strength @ 0°			459 (80)		
Tensile Strength @ 90°	ASTM D6637	lbs/in	459 (80)		
Tensile Strength @ 45°	Method A	(kN/m)	459 (80)		
Tensile Strength @ 45°	modified	L	459 (80)		
Tensile Elongation	jj	%	43		
Melting Point	ASTM D276	F° (C°)	Glass filaments are incombustible and temperature resistant up to 752° (400°)		
Asphalt Retention	ASTM D6140	al/ydf (l/m-)	0.17((0.8)		
Mass/Unit Area	ASTM D5261	oz/yd	18.8 (637)		
Glass by Weight		%	85		
Physical Properties	U _I	pit	Roll Charactertics		
Roll Dimensions (width x length)	ft (m) -	6.25 x 300 12.5 x 150 (3.8 x 45.7)		
Roll Area	W/6	(m3)	208 (174)		

Disclaimer: TenCate assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

(SITE DTL:

8'-0"

CONTRACTOR SHALL PROVIDE HANDICAP

PAVEMENT MARKINGS TO MEET EXISTING HANDICAP

PAVEMENT MARKINGS AND ALL ADA REQUIREMENTS.

HANDICAP PARKING DETAIL

NOT TO SCALE

CONTRACTOR SHALL APPLY TWO (2) COATS OF PAINT.

WHEEL STOP DETAIL) -

W TENCALE materials that make a difference

PAVING MAINTENANCE GEOTEXTILE SPECS. SEE C-03 FOR LOCATION OF MAINTENANCE



10221 Wincopin Circle, Suite 210 Columbia, Maryland 21044

www.bantacampbell.com DATE: 05/13/2020 EG: SWMENG-000-134-2020 91862

PROJ. NUMBERS

GEORGE WILLIAM STEPHENS, IR. and ASSOCIATES, INC ENGINEERS ♦ PLANNERS ♦ SURVEYORS ♦ TRANSPORTATION WATERS EDGE CORPORATE CAMPUS 4692 MILLENNIUM DRIVE, SUITE 100 BELCAMP, MD 21017 Ph: (410) 297-2340 http://www.gwstephens.com Fax: (410) 297-2345

GWS: BCA: 19-554

10793-6

410.290.9006

MISS UTILITY OCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF MARYLAND SENATE BILL 911 KNOWN AS THE MISS UTILITY LAW, WHICH WENT INTO EFFECT ON 10-1-10

CONTRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE-CALL SYSTEM, 1-800-257-7777

NO LESS THAN 2 DAYS, NOR MORE THAN 10 DAYS PRIOR TO EXCAVATION OR

NOTE:
STEEL PIPES SHALL BE FULLY
GALVANIZED & PAINTED USING
"RUSTOLEUM" PREMIUM EXTERIOR
LATEX PAINT, SATIN BLACK.

HANDICAP PARKING SIGN DETAIL

NOT TO SCALE