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INDIAN RIVER SCHOOL DISTRICT
Howard T. Ennis School – New Building
BID NO. IRD19004-HTES

ADDENDUM NO. 5 09 October 2020
ARCHITECT'S PROJECT NO: 17004

Indian River School District,
Howard T. Ennis School
26351 Patriots Way, Georgetown, DE 19947

Fearn-Clendaniel Architects, Inc.
6 Larch Avenue Suite 398, Wilmington, Delaware, 19804
Phone: (302) 998-7615

BIDS DUE: **2:00 p.m. on October 15, 2020**

LOCATION: **Indian River School District Administrative Offices**
31 Hosier Street, Selbyville, DE 19975

1.0 NOTICE TO ALL BIDDERS:

1.1. Bidders are hereby notified that this Addendum shall be and hereby becomes part of their Contract Documents, and shall be attached to the Project Manual for this project.

1.2. The following items are intended to revise and clarify the Contract Documents, and shall be included by the Bidder in their proposal.

1.3. Bidders shall verify that their sub-bidders are in full receipt of the information contained herein. Bidders shall acknowledge receipt of each addendum on their Bid Form.

2.0 CLARIFICATIONS:

2.1 All addenda will be emailed to plan holders of documents provided directly by F-C Architects.

2.2 Substitution Request Responses:

2.3 Light Fixture Substitution request is as follows:
Approved Fixtures: Types A, E1, M3, M4, X1, X2, X3, Y, Z, FF4, GG, KK, PP11, PP16, RR15, SF
Rejected Fixtures: All other fixture types (B1, B1-OPT2, B1E, B1E-OPT2, B1EE, B2, B2-OPT2, B2E, B2E-OPT2, B2EE, B2EE-OPT2, B3, B3-OPT2, CH4, CH6, CH8, CS6, D1, D2, D3, E2, H1, H3, N-OPT1, N-OPT2, N-OPT3, R, S, VB6, VB8, VB12, VB14, W3, W4, CC, DD, HHS6, HHS12, HHS18, JJ12-OPT1, JJ12-OPT2, KK13-OPT1, JJ13-OPT2, MM4, NN)

2.4 Rockfon Ceiling Systems, Spec Section 095113 2.2A & 2.4, as an approved equal to Basis of Design, is rejected.

2.5 Draper Inc. Window Shades, Spec Section 122400, as an approved equal to Basis of Design, is accepted.

2.6 The bid form, page 2, has been revised to include an allowance for any unforeseen conditions requiring utilization of well points with associated pump equipment for dewatering. See section 5 of this addenda for specification revisions.

2.7 **For clarity, the complete bid form is attached with added allowance and question clarification to Alternate 6. Replace the bid form with the attached revised bid form.**

3.0 QUESTIONS:

3.1 **Q:** Should the site sanitary sewerage utility specifications be separated from plumbing specifications (currently all in plumbing, Specification Section 221313)?

A: Spec Section 221313 shall be used for exterior sanitary sewer work and Section 334100 be used for exterior storm sewer work. Section 221313 includes only exterior items, both gravity and pressurized sanitary sewer pipelines and related work. Section 334100 includes storm sewer lines.

3.2 **Q:** There is a peninsula counter w/ center leg support shown in Life Skills LS101 on Sheet A61-01A. There are no further details shown regarding this counter on the enlarged millwork plans, elevations and sections. Please provide details for the peninsula counter.

A: See re-issued Sheet A62-07.

3.3 **Q:** Can the lighting for the natatorium be broken out as an alternate on the project to help keep competitive bidding for the lighting package since there are very few manufacturers that can provide an equal to the specified basis of design light fixture type N?

A: Natatorium lighting will not be broken out as an Alternate on the project. Lighting package is not required to be submitted from a sole representative. Total Bid for lighting can be a combination of multiple package that covers the entire building.

3.4 **Q:** There are several doors shown on Door Schedule, Sheet A40-01, that are noted as door types requiring glass, but do not have a glazing type listed (i.e. Door ME200.1 is Door Type D3, with no glazing type designated.)

A: Doors ME200.1, CN101.5 shall have G02 Glazing Type. Doors G 301 & N101.2 shall have G01 Glazing Type.

3.5 **Q:** There is no spec on termite control. Is any required?

A: Yes, see attached added Specification Section 313116 Termite Control.

3.6 **Q:** Could an assembly for the EPDM roof systems be provided for the roof areas and labeled on the roof plan? There are some details showing 3" insulation with coverboard, specs call for a 7" base layer of insulation with no cover board, another details shows R-35 EPS, another detail shows nail board insulation, and the canopies state tapered insulation but doesn't provide a max or min thickness. Thermal insulation spec calls out all the above insulations also, but not very detailed.

A: See Item 3.42, Addendum 4. All roofs, as shown on Details on Sheets A30-01 through A30-10 shall have 7" base layer of insulation with coverboard. The only exception, is at roof canopies: 7" base layer of insulation with coverboard is required at canopies where a vestibule is located below. The remaining portion of the canopy, which is exposed on all sides by exterior environment shall only have tapered insulation to properly direct water to roof drain. Please reference Drawings A11-02 and A11-03 for partial roof plans, which show details and sections throughout to verify various roof conditions.

3.7 **Q:** Foodservice Equipment spec calls for PVC or Aluminum conduits for "beverage lines" (114000 1.6 B) and "refrigeration lines" (11400 1.6 G) to be Work By the Construction Trade. Is either necessary for this project? Don't see any beverage dispensing equipment listed and the condensing units are on the roof immediately above the evaporators.

A: Beverage lines and refrigeration lines are not required on this project.

3.8 **Q:** Project Manual Table of Contents lists specification section 260546 (Common Pedestals) and 269017 (Water System Control Panel CP-1) but these sections are not in the project manual. Please clarify.

A: Specification Section 260546 is not required. Delete section 260546 from Table of Contents. Section 269017 was a typo and should read, 260917 - Water System Control Panel CP-1. Add attached section 260917 - Water System Control Panel CP-1 that was missing from the documents.

3.9 **Q:** On Sheet A82-01 two different quartz materials are noted (QTZ-1 & QTZ-2). Only reference to QTZ-1 can be located on the drawings. QTZ-2 is noted for "millwork – Admin station", but admin desk on A62-02 only indicates QTZ-1. Advise where QTZ-2 is used/required?

A: Caesarstone is not being used on this project. Only the Cambria material will be used on this project. On the Finish Material Legend, remove the material QTZ-1. Modify Finish Material Legend, QTZ-2 shall be changed to QTZ-1.

3.10 **Q:** Specification 224000.1.3A & B, Lavatories: Both labels for the lavatories indicate they are to be wall hung. However, Locker Rooms N105 and N106 appear to have drop-in lavatories. Reference A61-01B plan view, A62-05/detail 24 and A62-06/detail 7, as well as P20-02. Please clarify.

A: See Gipe Associates Addendum 5 Changes Sheet

3.11 **Q:** Specification 224000.2.7A4 & 5, Showers: Shower receptors are said to be 60" x 32" with drain lengths as indicated on the Architectural drawing set. Many of the shower receptors appear to be approximately 32" x 32", and I can find no detail showing the proposed trench drains. Reference P20-02 as an example of plan size difference. Please clarify.

A: See Gipe Associates Addendum 5 Changes Sheet

3.12 **Q:** Please confirm that the abbreviation B.O.D. stands for bottom of datum.

A: B.O.D. abbreviation stands for Bottom Of Deck Elevation.

3.13 **Q:** Please provide clearer details for the post ups, post downs and hanger columns. The details provided appear to be typical details. It would be helpful for bidding purposes if elevations of these items were also provided.

A: Yes, details 3 & 6/S30-02 are typical details for post up and cantilever/hanger conditions. Detail 5/S20-02 covers the condition at the posts-up in the screen walls. We feel that these details, coupled with the top of steel elevations noted on many of the beams and bottom of deck elevations noted on the plans, provide sufficient information for fabrication and construction of the project.

3.14 **Q:** Item 10 of the Sequence of Construction references concrete bedding for the outfall pipe however this is not shown on the plans or is a detail provided. If this is required, please provide a detail for the concrete bedding and clarify if the concrete bedding is required for the entire length of the outfall pipe.

A: A concrete cradle is required for the outfall pipe, extending from the outlet structure through the pond embankment. It is not required for the entire length of pipe outfall, but should extend minimum 45 linear feet. Concrete cradle detail is added to Sheet C-07 (attached) and limits shown in the pond cross section and plan view. See attached Sheet C-07 for reference.

3.15 **Q:** Due to the lack of availability in this area of clay which will meet the design specifications, can a PVC or Bentonite Matting liner be an acceptable substitution?

A: Yes, however, dewatering will still be required to install the liner. The contractor can propose either, and Geo-Tech Consultant can review for approval. There are locally available products including, Bentofix NSL, Thermal Lock Geosynthetic Clay Liners. Also, if a PVC liner is considered, hydrostatic relief valves should be included in the liner construction (this helps to keep liner from locally bubbling up after construction).

3.16 **Q:** Section 116623, paragraph 2.3.F.6 specifies two different controls for the electric basketball goal height adjuster; key-switch and wireless remote control. Drawing EP11-01D, Note #10 indicates the operations of the electric winch and electric height adjusters is to be by key-switch. Can you please confirm that key-switch operation is to be provided for the electric height adjuster?

A: Provide both Key switch operation and wireless as specified.

3.17 **Q:** Section 116623, paragraph 2.4 specifies that safety pads are to be provided in gymnasium G300; however Drawing A81-01D, general note #22 indicates that wall pads are to be provided in de-escalation room 109 & 306. Are safety pads to be provided elsewhere besides rooms G300, 109, and 306? Please advise.

A: No.

3.18 **Q:** Section 116623, paragraph 2.4.E.4 specifies that wall pads are to cover the walls of the gymnasium 300 in its entirety. On drawing A11-01D, are wall pads to cover the following gymnasium doors; G301, G302, and G303?

A: No.

3.19 **Q:** Drawing A81-01D, general note #22 indicates that wall pads are to be provided in the two de-escalation rooms; 109 & 306. Are these wall pads to follow the same specifications as the wall pads in section 116623, paragraph 2.4? If wall pads are to be provided in rooms 109 & 306, please indicate this in section 116623, paragraph 2.4

A: Yes, wall pads are to follow the same specifications.

3.20 **Q:** Drawing A81-01D, general note #22 indicates that wall pads are to be provided at the perimeter of the two de-escalation rooms; 109 & 306. Are the interior side doors of these rooms to receive wall padding as well?

A: Yes, provide cut-outs for handle and vision panel.

3.21 **Q:** Please clarify, Alternates 1 thru 3, are they intended to be add alternates? The base bid description is a bit confusing: "Base Bid: Includes scope of work for all **parking drives and lots indicated on drawings**." Does this mean the South, East & North lots are to be included in the base bid then deducted in the alternate? Does the area where the parking lot would/will be just leave the area graded and seeded?

A: See Item 3.22, Addendum 4. Alternates are not a part of the Base Bid scope, and thus Alternates 1 thru 3 are Add-alternates. If Alternate is not accepted, area shall be graded and seeded.

3.22 **Q:** Can there be a clarification on the connection from the downspouts to the 6" SDR 26?

A: See Specification Section 055000, Metal Downspout Boots.

3.23 **Q:** Need clarification regarding countertops for this project.
Spec 123623, page 3, 2.1, E – indicates Edge Treatment as indicated on dwgs – Dwgs indicate a chamfered wood edge.
Spec 123623.13, page 3, 2.1, E, 1 – indicates 3mm pvc edging
Which countertop edge treatment is required?
If wood, what species?

A: All plastic laminate countertops shall have a hardwood chamfered edge as shown in the details. Species should be maple, stained to match PL-1 "Fusion Maple" laminate.

3.24 **Q:** Please reference drawing A82-01. Finish CT-4 is specified as "Daltile Color Wheel Collection Classic Mustard Q012 4-1/4" x 4 ¼". However, we note that no color finish named Mustard Q102 exists for this product line. Was this finish meant to be Daltile Color Wheel Collection Mustard 1012 4-1/4" x 4 ¼"? Please confirm or clarify.

A: Yes, Daltile Color Wheel Collection Mustard 1012 4 ¼" x 4 ¼" is correct for CT-4. Finish Material Legend shall be updated.

3.25 **Q:** Please reference drawing A82-01. Finish CT-5 is specified as "Daltile Color Wheel Collection Classic Plum Crazy Q178 4-1/4" x 4 ¼". However, we note that no color finish named Plum Crazy Q178 exists for this product line. Was this finish meant to be Daltile Color Wheel Collection Plum Crazy 1178 4-1/4" x 4 ¼"? Please confirm or clarify.

A: Yes, Daltile Color Wheel Collection Plumb Crazy 1178 4 ¼" x 4 ¼" is correct for CT-5. Finish Material Legend shall be updated.

3.26 **Q:** Please reference drawing A82-01. Finish CT-7 is specified as "Daltile Color Wheel Collection Classic Key Lime Q098 4-1/4" x 4 ¼". However, we note that no color finish named Key Lime Q098 exists for this product line. Was this finish meant to be Daltile Color Wheel Collection Key Lime 1098 4-1/4" x 4 ¼"? Please confirm or clarify.

A: Yes, Daltile Color Wheel Collection Key Lime 1098 4 ¼" x 4 ¼" is correct for CT-7. Finish Material Legend shall be updated.

3.27 **Q:** Can you please provide the ceiling height of Locker Room LS104? It does not appear to be present in the RCP.

A: Locker Room LS104 Ceiling Height is 10'0", as noted on Sheet A71-01A.

3.28 **Q:** We are having a hard time finding what accent wall tile color goes in each bathroom. We note that some bathrooms list what accent they are to receive, while some do not. It is also hard to distinguish which bathrooms are student vs staff vs etc. Can you please clarify what accent goes in each bathroom/lockers?

A: The accent wall tile is noted on the A81-series drawings on the finish room tag. The top-right box, of the tag, indicates the main color and the accent color tile for each room. The following are not noted and shall be updated:
Toilet Room 304.1 Finish Room Tag shall read CT-1/6.
Toilet Room LS100.1 Finish Room Tag shall read CT-1/4.
Toilet Room 316.1 Finish Room Tag shall read CT-1/7.
Toilet Room TR100.1 does not get an accent tile.

3.29 **Q:** Clarification to Addendum 3, Item 3.33.

A: Requirement for the integration, of the Ennis School, into the School District Niagra Supervisor, is not required.

3.30 **Q:** Per the specification revisions and responses referred to section 075323 EPDM Roofing in Addendum #4, it appears the 120 mph Manufacturer's warranty is required

for the project, please confirm? With the 120 mph warranty, the Coverboard stated in section 072100 for the Roofing Coverboard is not acceptable, a 5/8" Gypsum coverboard will be required, ie Dens Deck Prime / SecureRock, please confirm the coverboard material to be provided?

A: Revise as follows: Specification Section 072100; 2.2: delete paragraph B. and sub-paragraphs 1. And 2. Section 072100; 2.2: revise paragraph C. to read: "C. Gypsum Wall/Deck Cover board, Glass-Mat reinforced (coverboard installed over roof insulation board, on parapet enclosures/overhangs, canopies with surfaces in contact with roofing membrane and where noted): ASTM C 1177/1177M.

3.31 **Q:** Specification Section 072100 Thermal Insulation – Paragraph 2.3 A. states 5/8" CDX fire-retardant treated plywood, over 4.5 inches of Polyisocyanurate… But paragraph 2.3 A. 1. States the thickness is to be 5.5 inches, R-value 30.50… Please clarify what thickness is required for the polyisocyanurate insulation or the total thickness of the composite nail base insulation? (note: if the insulation thickness is greater than 4.5", two layers of polyisocyanurate insulation will be required to meet the total thickness, two layers is recommended to reduce thermal bridging)

A: Panel must achieve a minimum R-value of 30.50. 5.5" is total thickness of Basis of design product to achieve a 30.50 R-value.

3.32 **Q:** Specification Section 074293 Soffit Panels – Paragraph 2.2 B. 2. A & d state 22 ga. Material, and Color Silversmith, Pac-Clad only offers Silversmith in .040 aluminum, but the color Silver is available in 22 ga. Please advise which color / gauge is to be provided?

A: change color from Silversmith (Mica) to Silver.

3.33 **Q:** Specification Section 074113.16 Standing-Seam Metal Roof Panels – Paragraph 2.1H. States FM Global Listing, the specified Basis of Design panel system can only meet this requirement when installed over 16 gauge open framing, and a watertight warranty is not available for open framing construction. Please clarify if we are to meet the FM requirement or the 20-year weather tightness warranty?

A: Must meet 20-year weather tightness warranty. Revise as follows: specification section 074113.16; 2.1: Delete paragraph H.

3.34 **Q:** Specification Section 075323 EPDM Roofing – Paragraph 2.2 3. States Exposed Face Color: White, but with a 7" base layer of polyisocyanurate insulation to be installed, there will be no loss or gain in Energy Efficiency with a white or black membrane face color. The white EPDM is considerably more expensive than black and will have no overall benefit to the building. Can black EPDM be used in lieu of white EPDM?

A: Black EPDM is acceptable.

3.35 **Q:** Please verify that the we are not to include any cost related to the exterior/buried gas line.

A: Exterior/buried gas line is shown on Civil drawings for reference purposes. The supplier is responsible to install the service up to the meter.

3.36 **Q:** Specification does not clearly define locations subject to physical damage for conduit requirements. Please define areas such as mechanical rooms and electrical rooms.

A: Locations considered subject to physical damage include mechanical/electrical rooms from floor slab to bottom of equipment or 8'-0" AFF (whichever is lower), stubs through floor slabs, at free-standing equipment, and on the roof/building exterior. For examples, see Details 1, 2, 4, and 5 on Contract Drawing E30-11.

3.37 **Q:** 230900-59 indicates "all temperature control and interlock wiring shall be installed in conduit unless otherwise noted on the plans" . I do not see any indication on the plans. However, 260533-15, H & I seem to indicate plenum rated cable is acceptable above accessible ceilings. Is plenum rated cable ran open in accessible ceilings and in Roof Top Units acceptable?

A: Yes, plenum rated cabling is acceptable above accessible ceilings per 260533-3.3.H and 3.3.I Cabling shall be supported with j-hooks and bridle rings.

3.38 **Q:** Please specify what material is to be used for the numerous fascia panels, labeled "E02" on the exterior elevations – i.e. style, steel or aluminum, thickness and color. There is no mention of the fascia panels in Wall Panel section 074213.13, or Roof Specialties Section 077100.

A: Fascia panels vary in size per detail and shall be Formed wall sheet metal fabrications specified section 076200; 2.2; D.

- Revise the following text to section 076200; 2.2; D.; immediately after "Metallic-coated Steel Sheet:" add text" (at all E02 Metal Fascia Panels indicated on exterior elevation drawings)".
- Color selection as specified from full range. Intent is to match Fascia Cover specified in section 077100.

3.39 **Q:** Please confirm that metal wall panel "MP4" listed in the Elevation Keynotes is not used on this project. Could not locate in the elevations or in section 074213.13.

A: Metal Wall Panel MP4 is not used on this project.

3.40 **Q:** Please clarify Addendum 4, Item 3.23 answer:

a. The alternate parking prices should include only the asphalt paving sections: graded aggregate base course and asphalt?

b. All curbs shown on the drawings are to be a part of the base bid?

A: Alternate parking prices should include asphalt paving sections, graded aggregate base course, asphalt and associated curbing. All other work including grading, drainage, compaction, conduit to lighting in base bid and conduit to stub-up locations for alternate lighting shall be covered in base bid.

3.41 **Q:** Please clarify the following regarding floor finishes:

a. Corridor H202 on Sheet A81-01E shows flooring pattern below gym. Does this pattern continue to Sheet A81-01C below Music 204, 204.1 and Office 205?

b. Material Finish Legend (Sheet A82-01) states accent tile in K-5 classrooms is RT5, however, Sheet A81-01D graphic does not include RT5 in the accent legend.

c. Material Finish Legend (Sheet A82-01) states accent tile in PreK classrooms is RT4, however, Sheet A81-01E graphic shows it is RT7.

d. Material Finish Legend (Sheet A82-01) states accent tile in 6-8 classrooms is RT6, however, Sheet A81-01B graphic shows it is RT5.

e. Material Finish Legend (Sheet A82-01) states accent tile in 9-12 classrooms is RT7, however, Sheet A81-01A graphic shows it is RT-4.

A: a.If the area in question is Corridor H203, the flooring does continue as shown on Drawing A81-01C and A80-01.

b. Provide RT-6

c. Provide RT-7

d. Provide RT-5

e. Provide RT-4

3.42 **Q:** Section 122400 Window Roller Shades, part 2.2.A.2 clarify fabric openness factor.

A: Openness factors are listed for the various window treatment fabrics in the Finish Materials Legend on Sheet A82-01.

3.43 **Q:** Clarify locations for WT-3 Window Treatments.

A: GC to verify all locations on project. WT-3 are used in the Cafeteria, see Detail 11/A22-01.

3.44 **Q:** Clarify the section of work responsible for the site sign, including the laminated acrylic polycarbonate sign face, and dimensional letters. Section 101419 Dimensional Letter Signage Part 2.1 dimensional character specified locations does not include the site sign.

A: See specification section 101423 - Panel Signage. Contractor will be responsible for provide all trades associated with site sign.

3.45 **Q:** Clarify the locations for Hang-Tight Rail System with Cork Tack Strip as specified under Section 101100, Part 2.2.C.

A: System shall be used above all Markerboards on project. This system may be integral with Markerboard System, if so, Hang-Tight Rail System not used on this project.

3.46 **Q:** Provide the locations for porcelain enamel dry marker boards as specified under Section 101100, Park 2.2.A.

A: GC to verify all locations on project. Dry Marker Board located in Thrift Shop 120.

3.47 **Q:** Provide clarifications to 105113 Metal Lockers Specifications:
a. Part 2.1.A Student locker width 9" conflicts with Finish Schedule LKR-1.
b. Part 2.1.A.4 Student locker two-tier configuration conflicts with Classroom locker elevations showing single-tier.
c. Part 2.2.B Factory assembled conflicts with Part 2.2.D welded to body.
d. par 2.2.B G60/Z180 coating. Clarify if all lockers to have galvanized coating.
e. Part 2.2.K Built-in Lock Boxes. Please clarify this requirement.

A: a. Provide 12" wide student lockers
b. Follow the elevations
c. Provide fully welded lockers per Par 2.2.D.
d. Lockers are not required to have a galvanized coating. Lockers in wet environments are HDPE and specified separately.
e. This refers to the recessed pocket in the door that houses the operating handle and combination lock; See 2.2.E.2.

3.48 **Q:** Thrift Shop 120 custom millwork display type cabinet (Arch Dwg A62-07) indicates G12 glass. G12 is 1" thick one way vision, low E, insulated glass. Is this really the desire glass for this type of unit?

A: No. Glass shall be G02.

3.49 **Q:** Alternate No. 6 describes the memorial path as being hardscaping pavers, but the landscaping and civil drawings do not show the path being pavers. Instead, it is shown as concrete. Please clarify.

A: BID FORM: ALTERNATE No. 6: Decorative Hardscaping Memorial Path: Item 2, Shall read: "Alternate: Provide Decorative Hardscaping Concrete Path and associated and landscaping to create a Memorial Path adjacent the front entry drive where indicated."

3.50 **Q:** Several subcontractors have requested that the bid deadline be extended.

A: Please see Addendum 4, Item 3.27.

3.51 **Q:** Glass railings are called out for at the training stair (Detail 6/A51-01). Steel subcontractors have contacted the approved manufacturers listed in Specification Section 055213 (Pipe and Tube Railings). Responses from these manufacturers have ranged from "this is not something we supply" to "the closest system is the Circa System" or "Beacon Viva Railings" or "Solo System." Please advise

A: See attached added spec section 055215 - Stainless Steel Railing Systems for training stair guard/railing system.

3.52 **Q:** Will any of the flooring require waterjet cutting?

A: Floor materials and patterns are indicated on the drawings; means and methods of installation are the responsibility of the contractor.

3.53 **Q:** Can you please confirm the A28 scope of work includes Section 281100 Access Control & Intercom and Section 281000 Intrusion Detection Systems only. Please also confirm B28 will include video surveillance, structured wiring, PA and Clocks.

A: Package Breakdown

a. 27A includes pathways for Structured Cabling, Network Equipment, Classroom AV Systems, Specialized AV Systems and Public Address & Clocks

b. 27B will include cabling and equipment for Structured Cabling, Network Equipment, Classroom AV Systems, Specialized AV Systems and Public Address & Clocks

c. 28A includes complete Access Control and Intrusion Detection pathways and systems. c.1. It also includes Pathways for Video Surveillance

d. 28B will include Video Surveillance cabling and equipment.

3.54 **Q:** Section 281100 – 8 F. Main Entry Door Video Intercoms lists seven parts. Aiphone IX-MV is listed as the master intercom system and Aiphone IS-DF-HID is listed as the intercom door station. These are two different Aiphone intercom series and do not work with each other. Please confirm you want the IX series video intercom system.

A: The AIPHONE IX system is correct.

a. IS-DF-HID is incorrect and should be the IX-DXF (no card reader) or IX-DVF-P (card reader)

4.0 CHANGES TO THE DRAWINGS:

4.1 Sheet A62-07, Re-issued, see attached. See Item 3.2 and 3.48.

4.2 Sheet A40-01, See Item 3.4.

4.3 Sheet A82-01, See Items 3.9, 3.24, 3.25, 3.26, 3.41.

4.4 See A61 & A62 Series Drawings, Casework countertop clarifications. See Item 3.23.

4.5 See A20-Series Drawings, Partial Exterior Elevations. See Item 3.39.

4.6 See A81-Series Drawings, Partial Finish Plans. See item 3.28.

5.0 CHANGES TO THE PROJECT MANUAL:

5.1 Section 000110 - Table of Contents: Specification Section "269017 Water System Control Panel CP-1" was mislabeled in Specification Table of Contents. It shall read, "260917 Water System Control Panel CP-1"

5.2 Section 000110 - Table of Contents: Delete sections 078123 – Intumescent Painting, section 085113 – Aluminum Windows, and section 260546 - Commercial Pedestals.

5.3 Section 004113 – Bid Form – Add Allowance No. 5 to read:" ALLOWANCE No. 5: Include an Allowance equal to Seventy-five thousand dollars ($75,000.00) for costs associated with any unforeseen conditions requiring utilization of well points with associated pump equipment for dewatering. I/We have reviewed and familiarized

ourselves with the requirements contained in Specification Section 012100 Allowances."

5.4 Section 004113 – Bid Form- ALTERNATE No. 6: Decorative Hardscaping Memorial Path: Item 2, Shall read: "Alternate: Provide Decorative Hardscaping Concrete Path and associated and landscaping to create a Memorial Path adjacent the front entry drive where indicated."

5.5 Section 012100 – Allowances – Add "E. ALLOWANCE No. 5: Include an Allowance equal to Seventy-five thousand dollars ($75,000.00) for costs associated with any unforeseen conditions requiring utilization of well points with associated pump equipment for dewatering.

5.6 Add specification section 260917 - Water System Control Panel CP-1.

5.7 Add specification section 313116 – Termite Control.

5.8 Section 072100 – Thermal Insulation; 2.2: delete paragraph B. and sub-paragraphs 1. And 2.

5.9 Section 072100 – Thermal Insulation; 2.2: revise paragraph C. to read: "C. Gypsum Wall/Deck Cover board, Glass-Mat reinforced (coverboard installed over roof insulation board, on parapet enclosures/overhangs, canopies with surfaces in contact with roofing membrane and where noted): ASTM C 1177/1177M.

5.10 Section 074113.16 - Standing-Seam Metal Roof Panels; 2.1: Delete paragraph H.

5.11 Section 074293 - Soffit Panels; 2.2; B.; 2.; d. change Color to "Silver".

5.12 Section 075323 - Ethylene-Propylene-Diene-Monomer (EPDM) Roofing; 2.2; A.; 3.; exposed face color to be changed to "Black".

5.13 Section 076200 - Sheet Metal Flashing and Trim; 2.1; delete paragraph C.

5.14 Section 076200 - Sheet Metal Flashing and Trim; 2.2; D.; immediately after "Metallic-coated Steel Sheet:" add text" (at all E02 Metal Fascia Panels indicated on exterior elevation drawings)".

5.15 Add specification section 055215 - Stainless Steel Railing Systems.

5.16 Section 105113 - Metal Lockers; 2.1; A.; 1. change width to read "12."

- 2.1; A.; 4. change configuration to read "Per drawing elevations."
- 2.2; B.; in Lockers: paragraph, delete "Factory assembled," and "with G60/Z180 coating,"

5.17 Section 281100 - Access Control System; refer to item 3.54 above.

END OF ADDENDUM NO. 5

Gipe Associates, Inc.
CONSULTING ENGINEERS

W.O. #:19006
Easton Office

Date: October 9, 2020

Re: **HOWARD T. ENNIS SCHOOL – NEW BUILDING**
Selbyville, Delaware
GAI#: 19006 / FCA#:17004

ADDENDUM NO. 5

The addendum forms a part of the Contract Documents and modifies the original bidding documents dated 09/02/20, as noted below.

CHANGES TO THE SPECIFICATIONS:

1. Section 224000 Plumbing Fixtures
    a. ADD Paragraph "*2.18 Counter Mounted Lavatories*".

2. Section 224000 Plumbing Fixtures - – 2.7 Showers – Tubs:
    a. CHANGE Paragraph A-4.b to read "*Shower Base Size: Per Architectural Drawings*".
    b. DELETE Paragraph A-5 Trench Drains in its entirety.

CHANGES TO THE DRAWINGS:

1. Sheet EM11-01B: Update note 3 to read "(3) 12 AWG PHASE AND (1) 12 AWG GROUNDING CONDUCTOR IN ¾" CONDUIT."
2. Sheet E50-03: Update circuit breaker size in Panelboard H1C1, circuits 13/15/17 from 30A to 20A and load from 3.7kVA/PH to 2.9kVA/PH.
3. Sheet E50-15: Revise AIC ratings for transfer switch ATS-E and ATS-S on Transfer Switch Schedule to 42kAIC.
4. Sheet E50-15: Revise amperes for transfer switch ATS-S on Transfer Switch Schedule to 400.
5. Sheet E50-15: Revise dimensions and weights for transfer switch ATS-S on Transfer Switch Schedule to 67"H, 24"W, 20.2"D, 403 lbs.
6. Sheet E50-15: Revise mounting for transfer switch ATS-S on Transfer Switch Schedule to wall-mounted.
7. Sheet E50-16: Add Lithonia VRTL to approved equals for type "A" on Interior Lighting Fixture Schedule.
8. Sheet E50-16: Add Axis Plano to approved equals for type "J" on Interior Lighting Fixture Schedule.
9. Sheet E50-17: Add Solera Delta Rail to approved equals for type "N" on Interior Lighting Fixture Schedule.
10. Sheet E50-17: Add Metalux GR22 to approved equals for type "T1" on Interior Lighting Fixture Schedule.
11. Sheet E50-17: Delete Axis Sculpt from approved equals for types "W3" and "W4" on Interior Lighting Fixture Schedule.
12. Sheet E50-18: Delete JLC Tech T-Bar LED from approved equals for types "JJ12" and "JJ13" on Interior Lighting Fixture Schedule.
13. Sheet E50-18: Add Axis Lighting and BKL Chiaro to approved equals for types "JJ12" and "JJ13" on Interior Lighting Fixture Schedule.
14. Sheet E50-18: Add Lucifer Fraxion 3 Slim Adjustable to approved equals for type "NN" on the Interior Lighting Fixture Schedule.
15. Sheet E50-19: Add Lumenpulse Lumenfacade and Insight Medley Exterior to approved equals for type "SF" on the Exterior Lighting Fixture Schedule.
16. Sheet M11-01B: Decrease Dust Collector intake duct size from 10" diameter to 8" diameter.

17. Sheet M50-01: Update Energy Recovery Ventilator Schedule minimum airflow rate from 30% to 50% of the design flow rate.
18. Sheet M50-02: Update Dust Collector DC-1 schedule from 10.0 HP to 7.5 HP and 2,450 CFM to 1,450 CFM.
19. Sheet P20-02: Change counter mounted lavatory designation.
20. Sheet P50-01: Add Lavatory fixture P-2A in Domestic Fixture Schedule

Attachments: M11-01B, M50-01, M50-02, P20-02, P50-01, Spec Section 2.18 of 224000.

END OF ADDENDUM NO. 5

K-Value ' 1.17.

E. Insulation thickness to be minimum 2 inch.

F. Where lav. Guards are provided insulation may be omitted.

2.17. FIXTURE STOPS/SUPPLIES

A. For all lavatories/sinks stops and supplies shall be Chicago Faucets No. 1017-CR43829, Angle Stop Fitting with Supply Tube and Loose Key, Chrome plated solid brass construction. 2-1/4" Metal tee handles with tapered square. Slow compression check cartridge that shall open and close 360º for fine adjustment, valves shall close with water pressure, furnish with square tapered stem. ½" NPT female thread inlet 3/8" O.D. female compression outlet. Slip wall flange. 3/8" O.D. x 12" bullnose flexible supply riser. ECAST construction with less than 0.25% lead content by weighted average. This product shall be tested and certified to industry standards: ASME A112.18.1/CSA B125.1, Certified to NSF/ANSI 61, Section 9 by CSA, California Health and Safety Code 116875 (AB1953-2006), Vermont Bill S. 152, and NSF/ANSI 372 Low Lead Content.

2.18. **COUNTER-MOUNTED LAVATORIES**

A. LAV-2A Counter Mounted, Deck Mounted Manual Faucet, Handicapped

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

   a. Kohler Model K-2196-4 Pennington
   b. American Standard Aquilyn
   c. Crane
   d. Zurn

2. Fixture:

   a. Material: Vitreous china
   b. Type: Counter Mounted
   c. Rim Mounting Height: A.D.A. Compliant
   d. Nominal Size: 20-1/4"L x 17-1/2"W, Oval
   e. Faucet-Hole Punching: Three Holes, 4-inch centers
   f. Faucet-Hole Location: Top
   g. Color: White

3. Faucet:

   a. Chicago Faucet 802-VE39VP317ABCP, Sloan, American Standard
   b. Deck Mounted
   c. Wrist Blade Handles
   d. Low-Flow Outlet
   e. Polished Chrome Finish
   f. 4-inch Spout
   g. Unit shall operate in either direction at less than 5 lbs. push at 80 psi water

pressure.

h. Certification to comply with ADA shall be furnished

4. Strainer:

a. Chicago Faucet Model 327A, American Standard
b. 1-1/4-inch tailpiece
c. Non-removable brass strainer
d. Grid strainer waste
e. Chrome plated finished.

5. P-Trap:

a. Cast Brass 1-1/4-inch "P" trap

6. Stops:

a. Chicago Faucet Model l005-ABCP valve stops.
b. 3/8-inch loose key cap
c. Removable tee handle
d. Wall flange
e. Chrome plated finished.

7. Thermostatic Mixing Valves:

a. Provide and install below fixture.
b. See Part 2 “Thermostatic Mixing Valves”.

8. Insulation:

a. See this section

PART 3. EXECUTION

3.1. GENERAL INSTALLATION REQUIREMENTS

A. Install all equipment in accordance with manufacturer's instructions.

B. Setting heights of lavatories, drinking fountains, etc., shall be as directed prior to installation and shall be coordinated with Architectural Contract Documents.

C. Install floor mounted fixtures only after finished floor has been installed.

D. Provide rubber concussion washers between vitreous china fixtures and supporting brackets.

E. Protect chromium plated trim from corrosive solutions used to clean tile work.

F. Provide white, silicone caulking where fixtures come in contact with walls and floors.

INDIAN RIVER SCHOOL DISTRICT
HOWARD T. ENNIS SCHOOL
PATRIOTS WAY, GEORGETOWN, DE 19947
Bid No. IRD19004-HTES

BID FORM

For Bids Due: **October 15, 2020 @ 2:00 PM**

To: Indian River School District
District Administrative Offices
31 Hosier Street
Selbyville, DE 19975

Name of Bidder: _____

Delaware Business License No.: _____ **Taxpayer ID No.:** _____
"(A copy of a Bidders Delaware Business License must be attached to this form.)"

(Other License Nos.): _____

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

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

$_____
($)

ALLOWANCE ACKNOWLEDGEMENTS

ALLOWANCE No. 1: Include a Lump Sum Allowance equal to Five hundred thousand dollars ($500,000.00) for costs associated with any unforeseen or concealed conditions and / or Owner requested revisions during the construction period. Upon Owner/Architect approval, a Credit or Add Change Order will be applied to the Allowance. I/We have reviewed and familiarized ourselves with the requirements contained in Specification Section 012100 Allowances.

Acknowledged by: _____

ALLOWANCE No. 2: Lump Sum Allowance – Short Circuit Analysis Gear Revisions

1. Include the sum of Twenty thousand dollars ($20,000.00) for electrical gear revisions resulting from the short circuit analysis specified in Section 260573 "Electrical Systems Analysis".
2. This allowance includes material cost, receiving, handling, installation, and Contractor overhead and profit. I/We have reviewed and familiarized ourselves with the requirements contained in Specification Section 012100 Allowances.

Acknowledged by: _____

ALLOWANCE No. 3: Lump Sum Allowance – Future Greenhouse Electrical Service

1. Include the sum of Thirty thousand dollars ($30,000.00) for providing electrical power from the building's electrical power supply system to the future greenhouse, including power distribution equipment and equipment and/or device connections within the greenhouse.
2. This allowance includes material cost, receiving, handling, installation, and Contractor overhead and profit. I/We have reviewed and familiarized ourselves with the requirements contained in Specification Section 012100 Allowances.

Acknowledged by: _____

ALLOWANCE No. 4: Lump Sum Allowance – Future Pole Barn Electrical Service

1. Include the sum of Thirty thousand dollars ($30,000.00) for providing electrical power from the building's electrical power supply system to the future pole barn, including power distribution equipment and equipment and/or device connections within the pole barn.
2. This allowance includes material cost, receiving, handling, installation, and Contractor overhead and profit. I/We have reviewed and familiarized ourselves with the requirements contained in Specification Section 012100 Allowances.

Acknowledged by: _____

ALLOWANCE No. 5: Include an Allowance equal to Seventy-five thousand dollars ($75,000.00) for costs associated with any unforeseen conditions requiring utilization of well points with associated pump equipment for dewatering. I/We have reviewed and familiarized ourselves with the requirements contained in Specification Section 012100 Allowances.

Acknowledged by: _____

ALTERNATES

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

ALTERNATE No. 1: Additional Parking Lot (South Lot):

1. Base Bid: Includes scope of work for all parking drives and lots indicated on drawings.
2. Alternate: Work associated with this Alternate includes the construction of a new parking lot containing 72 parking spaces, drives and associated lighting located at the Southern portion of the site.

Add/Deduct: _____

($)

ALTERNATE No. 2: Additional Parking Lot (East Lot):

1. Base Bid: Includes scope of work for all parking drives and lots indicated on drawings.
2. Alternate: Work associated with this Alternate includes the construction of a new parking lot containing 42 parking spaces, drives and associated lighting located at the Eastern portion of the site.

Add/Deduct: _____

($)

ALTERNATE No. 3: Additional Parking Lot (North Lot):

1. Base Bid: Includes scope of work for all parking drives and lots indicated on drawings.
2. Alternate: Work associated with this Alternate include the construction of a new bus parking lot containing 35 bus parking spaces, 44 car parking spaces, drives and associated lighting located at the Northern portion of the site.

Add/Deduct: _____

($)

ALTERNATE No. 4: Detached Front Entry Canopy:

1. Base Bid: Provide no Detached Front Entry Canopy.
2. Alternate: Provide a detached entry canopy extending from the building front entry canopy to and along the bus unloading/loading walkway.

Add/Deduct: _____

($)

ALTERNATE No. 5: Decorative Hardscaping adjacent the Cafeteria and Gymnasium:

1. Base Bid: Provide Cafeteria and Gymnasium exterior concrete egress walkways and slabs as indicated.
2. Alternate: In lieu of concrete, provide Decorative Hardscaping Pavers where indicated adjacent the Cafeteria and Gymnasium.

Add/Deduct: _____

($)

ALTERNATE No. 6: Decorative Hardscaping Memorial Path:

1. Base Bid: Provide no Decorative Hardscaping Memorial Path.
2. Alternate: **Provide Decorative Landscaped Memorial Garden consisting of a circular concrete walkway connecting to base bid sidewalks and associated and landscaping to create a Memorial Garden adjacent the front entry drive where indicated.**

Add/Deduct: _____

($)

ALTERNATE No. 7: Remove Classrooms 312, 313, 314, 315 and associated toilets and reduce/revise Hallway H303:

1. Base Bid: Provide classrooms 312, 313, 314, 315, associated toilets and hallway H303 as documented in the base bid documents.
2. Alternate: Revise base bid to Remove Classrooms 312, 313, 314, 315 and associated toilets and reduce/revise Hallway H303 as indicated on drawing ALT9 A01and all associated Engineering disciplines.

Add/Deduct: _____

($)

ALTERNATE No. 8: Wellhouse Roofing - Material Revision:

1. Base Bid: Provide Standing Seam Metal Roofing System on specified nailable composite insulation as indicated on drawings and specifications.
2. Alternate: Replace the Standing Seam Metal Roofing system with an Asphalt Shingle Roofing System on specified nailable composite insulation. See specification section 073113 - Asphalt Shingles.

Add/Deduct: _____

($)

ALTERNATE No. 9: Lightning Protection System:

1. Base Bid: Do not furnish and install lightning protection system per Specification Section 264113 “Lightning Protection System”.
2. Alternate: Furnish and install lightning protection system per Specification Section 264113 “Lightning Protection System”.

Add/Deduct: _____

($)

ALTERNATE No. 10: Disconnect Switch Enclosure Ratings:

1. Base Bid: Provide NEMA 3R enclosures for disconnect switches located in damp/wet exterior locations per Specification Section 262816 “Disconnect Switches & Circuit Breakers”.
2. Alternate: Provide NEMA 4X stainless steel enclosures for disconnect switches located in damp/wet exterior locations per Specification Section 262816 “Disconnect Switches & Circuit Breakers”.

Add/Deduct: _____

($)

ALTERNATE No. 11: Square D Company Electrical Gear:

1. Base Bid: Provide transformers, switchboards, panelboards, disconnect switches, motor controllers per Specification Sections 262200"Transformers", 262413 "Switchboards", 262416 "Panelboards", 262816 "Disconnect Switches & Circuit Breakers", and 262913 "Motor Controllers" by any of the listed manufacturers.
2. Alternate: Provide transformers, switchboards, panelboards, disconnect switches, motor controllers per Specification Sections 262200 "Transformers", 262413 "Switchboards", 262416 "Panelboards", 262816 "Disconnect Switches & Circuit Breakers", and 262913 "Motor Controllers" by Square D Company. If Square D Company is the low cost, the alternate value shall be zero ($0) dollars.

Add/Deduct: _____

($)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

		ADD	DEDUCT
A.	Unit Price No. 1 - Structural Fill (DelDot Type G):	$ _____	$ _____
	1. Description: Additional quantity required of less than **500** cubic yards, with work performed according to Division 312000 Section "Earthwork."		
	2. Unit of Measurement: Cubic Yard (c.y.)		
B.	Unit Price No. 2 - Structural Fill (DelDot Type G):	$ _____	$ _____
	1. Description: Additional quantity required of more than 500 cubic yards, with work performed according to Division 312000 Section "Earthwork."		
	2. Unit of Measurement: Cubic Yard (c.y.)		
C.	Unit Price No. 3 - Cut:	$ _____	$ _____
	1. Description: Removal from site of less than 500 cubic yards according to Division 312000 Section "Earthwork."		
	2. Unit of Measurement: Cubic Yard (c.y.)		
D.	Unit Price No. 4 - Cut:	$ _____	$ _____
	1. Description: Removal from site of more than 500 cubic yards according to Division 312000 Section "Earthwork."		
	2. Unit of Measurement: Cubic Yard (c.y.)		
E.	Unit Price No. 5– Silt Fence:	$ _____	$ _____
	1. Description: Additional quantity of silt fence material and installation.		
	2. Unit of Measurement: Linear Foot (l.f.)		
F.	Unit Price No. 6 Geogrid Reinforcement	$ _____	$ _____
	1. Description: Placement of Tensar BX1100 geogrid reinforcement material and installation per section 2.03 of the Earthwork specification.		
	2. Unit of Measurement: Square Yard (s.y.)		

INDIAN RIVER SCHOOL DISTRICT
HOWARD T. ENNIS SCHOOL
PATRIOTS WAY, GEORGETOWN, DE 19947
Bid No. IRD19004-HTES

BID FORM

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

This bid shall remain valid and cannot be withdrawn for thirty (30) days from the date of opening of bids (60 days for School Districts and Department of Education), and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid.

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

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

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _____ calendar days of the Notice to Proceed.

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

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

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

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

_____
(State of Corporation)

Business Address: _____
_____
_____
_____

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

(SEAL)

_____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Affidavit of Employee Drug Testing Program
Bid Security
(Others as Required by Project Manuals)

BID FORM

SUBCONTRACTOR LIST

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

Subcontractor Category	Subcontractor	Address (City & State)	Subcontractors tax payer ID # or Delaware Business license #
1. Sitework			
A.			
B.			
C.			
2. Concrete			
A.			
B.			
C.			
3. Masonry			
A.			
B.			
C.			

4.	**Structural Steel**			
	A.			
	B.			
	C.			
5.	**Low Slope Roofing**			
	A.			
	B.			
	C.			
6.	**23. Exterior Siding**			
	A.			
	B.			
	C.			
7.	**Doors/Frames/ Hardware Installer**			
	A.			
	B.			
	C.			
8.	**Window Installer**			
	A.			
	B.			
	C.			

9. Metal Stud/Drywall			
A.			
B.			
C.			
10. Painting			
A.			
B.			
C.			
11. Resilient/Carpet Floors			
A.			
B.			
C.			
12. Acoustical Ceilings			
A.			
B.			
C.			
13. Institutional Casework Installer			
A.			
B.			
C.			

14. Security Systems Installer			
A.			
B.			
C.			
15. Fire Alarm Installer			
A.			
B.			
C.			
16. Plumbing			
A.			
B.			
C.			
17. Sprinklers			
A.			
B.			
C.			
18. HVAC			
A.			
B.			
C.			

19. DDC Controls			
A.			
B.			
C.			
20. Electrical			
A.			
B.			
C.			

INDIAN RIVER SCHOOL DISTRICT
HOWARD T. ENNIS SCHOOL
PATRIOTS WAY, GEORGETOWN, DE 19947
Bid No. IRD19004-HTES

BID FORM

NON-COLLUSION STATEMENT

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

All the terms and conditions of Architect Project No. 17004, IRSD Bid No. IRD19004-HTES have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

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

My Commission expires _____. NOTARY PUBLIC _____.

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

INDIAN RIVER SCHOOL DISTRICT
HOWARD T. ENNIS SCHOOL
PATRIOTS WAY, GEORGETOWN, DE 19947
Bid No. IRD19004-HTES

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

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

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

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

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

My Commission expires _____. NOTARY PUBLIC _____.

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

INDIAN RIVER SCHOOL DISTRICT
HOWARD T. ENNIS SCHOOL
PATRIOTS WAY, GEORGETOWN, DE 19947
Bid No. IRD19004-HTES

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

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

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

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

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

My Commission expires _____. NOTARY PUBLIC _____.

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

INDIAN RIVER SCHOOL DISTRICT
HOWARD T. ENNIS SCHOOL
PATRIOTS WAY, GEORGETOWN, DE 19947
Bid No. IRD19004-HTES

AFFIDAVIT OF
CRAFT TRAINING COMPLIANCE

We, the contractor, hereby certify that we and all applicable subcontractors will abide by the contractor and subcontractor craft training requirements outlined below for the duration of the contract. Craft training must be provided by a contractor and/or subcontractor for each craft on a project for which there are Delaware Department of Labor approved and registered training programs. A list of crafts for which there are approved and registered training programs is maintained by the Delaware Department of Labor and can be found at https://det.delawareworks.com/apprenticeship/documents/Apprenticeship Occupation List for 29Del6962 Compliance.pdf
If you have questions regarding craft training programs, please submit them in writing to the Delaware Department of Labor at: apprenticeship@delaware.gov. The Craft Training Compliance Affidavit must be submitted prior to contract execution. In addition to this Affidavit, all information pertaining to craft training for subcontractors must also be submitted prior to contract execution. Information to be provided is the craft, company name, registration number (indicate DE, US DOL or identify other state) or that craft training requirements do not apply and the reason.

In accordance with Title 29, Chapter 69, Section 6962(d)(13) of the Delaware Code, contractors and subcontractors must provide craft training for journeyman and apprentice levels if **all** of the following apply:

A. A project meets the prevailing wage requirement under Title 29, Chapter 69, Section 6960 of the Delaware Code.
B. The contractor employs 10 or more total employees.
C. The project is not a federal highway project

Failure to provide required craft training on the project may subject the successful contractor and/or subcontractor(s) to penalties as outlined in Title 29, Chapter 69, Section 6962(d)(13) of the Delaware Code.

Craft(s) _____

Contractor Name: _____

Contractor Address: _____

_____

_____

Contractor Program Registration Number(s) _____
On this line also indicate whether DE, Other State (identify) or US Registration Number

Or

☐ **Craft Training requirements are not applicable because:** _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

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

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED TO BE CONSIDERED.

SECTION 05 52 15 - STAINLESS STEEL RAILING SYSTEMS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Pre-engineered Stainless Steel Railing System.

B. Related Sections include the following:
   1. Division 01 Section “Construction Waste Management”
   2. Division 05 Section, "Metal Fabrications"

1.3 Definitions

A. Terms and definitions from ASTM E985 and ISO/TC 59 for railing related items apply to this section.

1.4 System Performance Requirements

A. Railings shall meet or exceed the requirements of all applicable building codes.
   1. Handrails and guards shall be able to resist a single concentrated load of 200lbs applied in any direction at any point along the top, and to transfer this load through the supports to the structure

B. Railings shall have high strength stainless steel in order to comply with 1.41 with adequate safety margin.

C. All internal members shall be stainless steel, nylon or wood to eliminate the possibility of rust.

D. Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.5 SUBMITTALS

A. Shop drawings detailing fabrication and erection of railing system indicated. Include plans, elevations, sections, and details of fabrications and their connections. Show anchorage and accessory items. Provide templates for anchors and bolts specified for installation under other Sections.

B. Structural computations or test data/evaluations, material properties, PE (professional engineering) calculations signed/sealed in the State of the project, and other information needed to ensure satisfactory structural compliance to applicable building codes to be supplied by the manufacture, based on final fabrication drawings and documents.

1.6 QUALITY ASSURANCE

A. Fabricator Qualifications: Firm experienced in producing metal fabrications similar to those indicated for this Project with a record of successful in-service performance, and with sufficient production capacity to produce required units without delaying the Work.

B. Welding Standards: Comply with applicable provisions of AWS D1.1 "Structural Welding Code--Steel," AWS D1.2 "Structural Welding Code--Aluminum," and AWS D1.3 "Structural Welding Code--Sheet Steel."
   1. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.

1.7 PROJECT CONDITIONS

A. Field Measurements: Check actual locations of walls and other construction to which metal fabrications must fit by accurate field measurements before fabrication. Show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
   1. Where field measurements cannot be made without delaying the Work, guarantee dimensions and proceed with fabricating products without field measurements. Coordinate construction to ensure that actual dimensions correspond to guaranteed dimensions. Allow for trimming and fitting.

PART 2 PRODUCTS

2.1 Acceptable Manufacturers: (Training stair Guard/railing system)

A. HDI Railing Systems, basis of design or approved equal.
   1. Circum Series

B. Viva Railings
   1. Circa Series

C. P+P Artec, Inc.
   1. Modesto Series

2.2 Materials for Guardrails and Handrail System

A. All rails and other tubular components shall be constructed using the following:
   1. Stainless steel grade UNS 1.4305, type 304; surface to be 240 grain/grit finish; tubes 1-1/2” (38mm) outside diameter by 5/64” (2 mm) wall thickness. Stainless steel handrails and top rails shall be mechanically fastened with hidden connections. A saddle type connection and/or welding at the handrails and top rails will not be acceptable.

B. All posts and other components shall be constructed using the following:
   1. Stainless steel grade UNS 1.4305, type 304, surface to be 240 grain/grit finish; tubes 1.9" diameter by 0.14" wall thickness.
   2. Stainless steel grade UNS 1.4305, type 304, surface to be 240 grain/grit finish for end caps at top of posts.
   3. Hardware for handrail attachment to match finish of posts.
   4. Stainless steel grade UNS 1.4305, type 304, surface to be 240 grain/grit (#6) finish for post fastening base plate

C. Fastening bolts to be stainless steel or other high strength material as determined by engineering requirements.

D. Mechanically Fastened Through Bolted "Spider Clamp" Panel Holders to accommodate panel thickness 3/8" (10mm) to ½" (13mm) or greater as specified; connected to post with through bolt connection with panel holder heights adjustable; vertical distance between panel holders must be less than or equal to 25-5/8" (600 mm).

2.3 Glass products, glazing and infill materials

A. Tempered glass: Provide fully tempered safety glass with polished edges and dubbed (blunt) corners complying with ASTM C1048. Kind FT (fully tempered), condition A (un-coated). Types 1 (transparent glass, flat), quality Q3 (glazing select), class, thickness and manufacturing process as indicated below.

B. Clear glass: Class 1 clear

C. Allowable thickness 3/8" (9 mm) to 1/2" (13 mm) to be noted on final shop drawings.

D. Manufacturing process: Manufacture fully tempered glass by horizontal (roller hearth) process with roll wave distortion parallel with bottom edge of glass as installed.

2.4 Stainless steel infill rails

A. Stainless steel infill rods, max. 9 ea.with guardrail height 42". Infill rails to be 3/8" O.D. solid stainless steel. Other infill rod O.D. to be indicated. Brushed finish #6 polished radially. Clamping knobs and fixtures to be stainless steel finished to match. Horizontal infill rails on approx. 4" centers, gaps between rods and adjacent posts to be equalized depending on required rail length and site conditions (not to exceed 4") .

2.5 Stainless steel picket rails

A. Stainless steel solid vertical picket rails 3/8" (9mm) supported by upper and lower rails 5/8" (15mm * 2mm). Picket rails on approx. 4" centers, gaps between pickets and adjacent posts to be equalized depending on required rail length and site conditions (not to exceed 4") .

B. Brushed finish #6 on vertical picket is to be lengthwise (vertically oriented), upper and lower supports to be polished radially. Clamping knobs and fixtures to be stainless steel finished to match.

2.6 Fasteners

A. Anchors shall be fabricated from stainless steel or other materials as determined by engineering requirements with capability to sustain, without failure, load imposed within a safety factor of 4, as determined by testing per ASTM E488.

2.7 Fabrication

A. Fabricate railing system for compliance with structural requirements of applicable code.

B. Pre-assemble railings prior to shipping to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for re-assembly and for coordination with shop drawings.

C. Stainless steel tubing cuts shall be square, without burrs and where exposed, rounded to produce smooth rigid and hairline joints.

PART 3 EXECUTION

3.1 CONSTRUCTION WASTE MANAGEMENT

A. The contractor, subcontractors, and their personnel shall follow the procedures and practices for waste separation, collection and transport as defined in the contractor’s “Waste Management Plan” as required by Division 01 Section "Construction Waste Management."

3.2 PREPARATION

A. Coordinate and furnish anchorages, setting drawings, diagrams, templates, instructions, and directions for installing anchorages, including concrete inserts, sleeves, anchor bolts, and miscellaneous items having integral anchors that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to Project site.

3.3 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of ornamental formed metal.
1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.4 INSTALLATION, GENERAL

A. Installation shall be by a qualified, authorized representative of the manufacturer.

B. Installation must be in accordance with standard or non-standard, yet applicable details (instructions) included on installation/shop drawings.

C. Install components plumb and in-line, accurately fitted, free from distortion or defects and securely anchored to structure.

D. Provide anchors, plates, angles, etc., necessary for connecting railings to structure.

E. Any and all field welding shall be by a certified welder.

3.5 Erection tolerances

A. Maximum variation from plumb shall be 1/4".

B. Maximum offset from true alignment for every 50-foot of railing shall be 1/4", non-accumulative.

3.6 Cleaning and Protection

A. Remove manufacturer's protective coverings from exposed surfaces after installation.

B. Railings shall be cleaned, including infill panels, by contractor to the satisfaction of the owner..

C. Wipe with moistened cloth only. Do not use cleaning agents with abrasive or acid/alkaline content.

3.7 Correction of deficiencies

A. All deficiencies in work and/or items not meeting specified requirements shall be corrected in order to meet specification requirements at no additional cost to owner.

3.8 PROTECTION

A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.

B. Restore finishes damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in field to shop; make required alterations and refinish entire unit, or provide new units.

END OF SECTION 05 52 15

SPECIFICATIONS

SECTION 260917 – WATER SUPPLY AND TREATMENT PLANT CONTROL PANEL (CP-1)

PART 1 – GENERAL

1.1 DESCRIPTION

A. The water supply and treatment plant control panel CP-1 monitors and controls the water supply wells and potable water supply pumps to maintain treated water storage volumes and potable system water pressure.

B. Contractor shall perform all work in the installation the equipment complete with conduits for all control, monitoring, status and alarms required.

PART 2 - PRODUCTS

2.1 CONTROL PANEL CP-1

A. Refer to specification section 260916 for general control panel construction requirements.

B. Additional Requirements

1. CP-1 shall be provided with a 120VAC circuit breaker appropriately sized for the panel's loads. It shall also be provided with 24VDC power supplies and fused terminal blocks as needed to power any and all field instruments.

2. Prove a DIN rail mounted UPS for protection of the PLC and OIT. The PLC shall control the pumps during transitions from utility to generator power and the reverse in such a way that there is always a delay between pump starts.

C. Contractor will supply a PCP, which will include a Programmable Logic Controller (PLC) and Operator Interface Terminal (OIT).

1. The PLC shall be Modicon M340 or equal by Siemens or Allen-Bradley. It shall be programmed in Relay Ladder Logic. The program shall be fully documented and annotated and a printed copy shall be submitted for review. An approved copy of the program printout shall be included in the O&M manual. The configuration file shall be delivered to the Owner on durable media and shall not be password protected.

2. Furnish all necessary PLC modules and accessories to provide the required functionality.

3. The OIT shall have a minimum size diagonally measured 10" color screen and have the ability to log data to an SD card or similar storage device with a capacity of 32GB or more. Screen prints, annotated with operational description shall be submitted for review. An approved copy of the annotated screen prints and operational description shall be included in the O&M manual. The configuration file shall be delivered to the Owner on durable media and shall not be password protected.

SPECIFICATIONS

2.2 AUTODIALER

A. The dialer shall be a solid state component capable of dialing from one to eight phone numbers, each up to 16 digits in length. Phone numbers are to be entered via the system's keyboard. Standard pulse dialing or touch tone DTMF dialing shall be selectable at the keyboard. The system shall sense up to eight (8) alarm conditions at the site. Upon detection of any of the alarm conditions the unit shall commence dialing the first of eight user selected phone numbers and deliver a message describing the alarm condition. This message shall be delivered in an electronic synthesized voice, using a user programmable speech vocabulary of no less than 230 words permanently stored in the unit. The message will identify the site and describe the alarm(s) selected by the user. The unit will continue to call the phone numbers in succession until acknowledged by calling the unit back or by depressing a touch-tone key. Once acknowledged, the unit shall enter a programmable intercall delay to allow the alarm condition to be corrected before beginning notification again. All communications shall utilize standard telephone lines. No leased or dedicated lines shall be required. The automatic dialer shall be a Verbatim automatic dialing remote monitoring system as furnished by RACO Manufacturing and Engineering Company, or equal.

PART 3 - EXECUTION

3.1 INSTALLATION

A. The Contractor shall install all communication/signal wires and conduits for CP-1 and the Autodialer. All wires are to be tested and labeled per the I/O list. Contractor shall perform all required corrective measures in trouble shooting defective wiring and field installed devices.

B. The work includes all labor, materials, equipment and services necessary for, and incidental to, the complete a satisfactory installation.

3.2 INPUT/OUTPUT SIGNALS.

Item	Description	Type of IO	Quantity	Comment
1	Supply or Well Pump HOA in Auto Position	DI	4	Local Selector Switch
2	Supply or Well Pump Run	DO	4	Signal to Starter Relay
3	Supply or Well Pump Running	DI	4	Signal from Starter Relay
4	Supply or Well Pump Thermal Overload Tripped	DI	4	Signal from Starter Relay
5	Supply or Well Pump Selector Switch in Alternate Position.	DI	2	Local Selector Switch
6	Supply or Well Pump 1 Selection Switch in Lead Position.	DI	2	Local Selector Switch

SPECIFICATIONS

Item	Description	Type of IO	Quantity	Comment
7	Supply or Well Pump 2 Selection Switch in Lead Position.	DI	2	Local Selector Switch
8	Supply or Well Pump Fail	DO	4	Signal to Autodialer
9	High or Low System Pressure	DO	1	Signal to Autodialer
10	High or Low Tank Level	DO	1	Signal to Autodialer
11	Chlorine and pH Analyzer	AI	1	Device provides loop power, display residual chlorine concentration (mg/l) and pH on Main Screen
12	Treated and Finished Water Flow	AI	2	Devices provide loop power, display instantaneous flow rate (gpm) and totalized flow (gallons) on Main Screen.
13	System Pressure (Finished Water)	AI	1	CP-1 to provide loop power for this instrument, display system pressure (psi) on Main Screen.
14	Tank Level	AI	1	CP-1 to provide loop power for this instrument, display tank level (feet) on Main Screen.

3.3 FUNCTIONAL DESCRIPTION

A. The function of CP-1 is to provide operational control and monitoring of the two (2) well pumps and two (2) water supply pumps (lead and lag).

B. CP-1 shall monitor system pressure by a pressure transducer located on the hydropenumatic tank as the primary control for operating the water supply pumps. CP-1 shall monitor stored water level by a level sensor located in the potable water storage tank as the primary control for the water supply wells. Thresholds set by operator (shown in quotes) shall be adjustable within a minimum plus or minus 5 units of stated nominal values or values provided by the Engineer unless otherwise indicated. The pressure transducer and level sensors shall provide 4-20mA DC signals proportional to the system discharge pressure and tank level. CP-1 shall control the lead and lag supply and well pumps in the following fashion:

1. If the current system pressure falls below the “Lead Supply Pump On” threshold, nominally set for 60 psig for more than 2 seconds (adjustable between 0 and 5 seconds as “Pump Transition Delay”):

   a. Start the lead water supply pump

2. If the current system pressure falls below the “Lag Supply Pump On” threshold, nominally set for 52 psig for more than 2 seconds (adjustable between 0 and 5 seconds as “Pump Transition Delay”):

   a. Start the lag water supply pump.

3. If the current system pressure rises to the “Lag Supply Pump Stop” threshold, nominally set for 68 psig:

   a. Stop the lag water supply pump.

4. If the current system pressure rises to the “Lead Supply Pump Stop” threshold, nominally set 80 psi:

   a. Stop the lead water supply pump.

5. If the storage tank level falls below the “Start Lead Well Pump” threshold nominally set for 12.0 feet for more than 2 seconds (adjustable between 0 and 5 seconds as “Pump Transition Delay”):

   a. Start the lead well pump

6. If the storage tank level falls below the “Start Lag Well Pump” threshold, nominally set for 11.0 feet for more than 2 seconds (adjustable between 0 and 5 seconds as “Pump Transition Delay”):

   a. Start the lag well pump.

7. If the storage tank level rises to the “Stop Lag Well Pump” threshold, nominally set for 13.5 feet:

   a. Stop the lag well pump.

8. If the storage tank level rises to the “Stop Lead Well Pump” threshold, nominally set for 14.0 feet:

   a. Stop the lead well pump.

9. Thresholds shall be user adjustable within plus or minus 5 units of the nominal values

C. Lead/Lag - the sequence of all pumps shall be selectable to alternate or operate in a dedicated sequence

   1. Under alternation the pumps shall index accordingly, i.e. lead becomes lag, lag becomes lead. Maximum time between alternation will be enforced in the event of continuous operation – the lead pump will be stopped and changed to lead, the lag pump will be promoted to lead and started if not already running.. This maximum time shall be adjustable between 12 and 36 hours and nominally set for 24 hours.

   2. Under dedicated sequence the pumps will be assigned for lead or lag operation.

D. Pump override shutdown and alarm conditions consist of the following:

   1. If the “Tank Level” falls to the “Stop Supply Pump” threshold, stop all water supply pumps. This alarm will be latched and must be reset by the operator – so that the condition must be investigated.

   2. If the “Tank Level” reaches the “High Water Level Alarm” threshold, stop all well pumps and set the associated alarm flag to the Autodialer. This alarm will be latched and must be reset by the operator – so that the condition must be investigated.

3. If the "Tank Level" falls to the "Low Water Level Alarm " threshold set the associated alarm flag to the Autodialer. This alarm will be latched and must be reset by the operator – so that the condition must be investigated.

4. If the “System Pressure” reaches the “High System Pressure” threshold, stop all water supply pumps and set the associated alarm flag to the Autodialer. This alarm will be latched and must be reset by the operator – so that the condition must be investigated.

5. If the “System Pressure” reaches the “Low System Pressure” threshold, set the associated alarm flag to the Autodialer. This alarm will be latched and must be reset by the operator – so that the condition must be investigated.

E. Other monitoring and control functions consist of the following:

1. Provide a Main Screen for display of indicated operating information and selectable access to other required screens.

2. Provide a setpoint screen for operator adjustment of all threshold values

3. Maintain elapsed running time record of all pumps and display on main screen.

4. Maintain a record of the number of starts for all pumps and display on main screen.

5. Provide trends for “System Pressure”, “Tank Level”, “Treated Water Flow”, Finished Water Flow”, “Residual Chlorine Level” and “pH”. Provide a separate screen for each trend.

6. Provide an alarm condition indication on the main screen. Provide a separate screen for detailed alarm information, alarm reset and alarm history.

3.3 TESTING AND STARTUP REQUIREMENTS

A. Factory Acceptance Testing (FAT)

1. Submit a test plan for quality inspection and simulated testing of the PCP two weeks before the planned date of the FAT.

2. The Owner and Engineer must approve the test plan.

3. The Owner or the Engineer reserves the right to witness the FAT.

4. Document the testing, record any discrepancies and correct the discrepancies before shipment.

B. Site Acceptance Testing and Commissioning

1. Submit a test plan for installation inspection and full functional testing of the PCP two weeks before the planned date of the Site Acceptance Test (SAT). Testing shall include:
   a. Full functional testing of all described functions under utility and generator power.
   b. Operation during power source transitions.

c. Interoperability with the Autodialer – receipt of signals and proper functioning of the Autodialer.

2. The Owner and Engineer must approve the test plan.

3. Testing may only occur after successful completion of the electrical equipment testing outlined in Division 26 and application of the Arc Flash labels.

4. The Owner and/or the Engineer will witness testing.

5. Document the testing, record any discrepancies and correct all discrepancies before final acceptance.

END OF SECTION 260917

SECTION 313116 - TERMITE CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Soil treatment.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include material descriptions, product data and installation instructions.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Product Certificates: For each type of termite control product.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: A specialist who is licensed according to regulations of authorities having jurisdiction to apply termite control treatment and products in jurisdiction where Project is located and who employs workers trained and approved by manufacturer to install manufacturer's products.

1.6 FIELD CONDITIONS

A. Soil Treatment:

1. Environmental Limitations: To ensure penetration, do not treat soil that is water saturated or frozen. Do not treat soil while precipitation is occurring. Comply with requirements of the EPA-Registered Label and requirements of authorities having jurisdiction.

2. Related Work: Coordinate soil treatment application with excavating, filling, grading, and concreting operations. Treat soil under footings, grade beams, and ground-supported slabs before construction.

1.7 WARRANTY

A. Soil Treatment Special Warranty: Manufacturer's standard form, signed by Applicator and Contractor, certifying that termite control work consisting of applied soil termiticide treatment will prevent infestation of subterranean termites. If subterranean termite activity or damage is discovered during warranty period, re-treat soil and repair or replace damage caused by termite infestation.

1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain termite control products from a single manufacturer.

2.2 SOIL TREATMENT

A. Termiticide: EPA-Registered termiticide acceptable to authorities having jurisdiction, in an aqueous solution formulated to prevent termite infestation.

1. Service Life of Treatment: Soil treatment termiticide that is effective for not less than five years against infestation of subterranean termites.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for moisture content of soil per termiticide label, interfaces with earthwork, slab and foundation work, landscaping, utility installation, and other conditions affecting performance of termite control.

B. Proceed with application only after unsatisfactory conditions have been corrected.

3.2 APPLYING SOIL TREATMENT

A. Application: Mix soil treatment termiticide solution to a uniform consistency. Distribute treatment uniformly. Apply treatment at the product's EPA-Registered Label volume and rate for maximum specified concentration of termiticide to the following so that a continuous

horizontal and vertical termiticidal barrier or treated zone is established around and under building construction.

B. Post warning signs in areas of application.

C. Reapply soil treatment solution to areas disturbed by subsequent excavation, grading, landscaping, or other construction activities following application.

3.3 PROTECTION

A. Avoid disturbance of treated soil after application. Keep off treated areas until completely dry.

B. Protect termiticide solution dispersed in treated soils and fills from being diluted by exposure to water spillage or weather until ground-supported slabs are installed. Use waterproof barrier according to EPA-Registered Label instructions.

END OF SECTION 313116