BID ADDENDUM NO. 3

PROJECT: EDISON TECHNICAL SCHOOL
PHASE 2 – CONSTRUCTION PACKAGE
655 COLFAX STREET
ROCHESTER, NY 14606

S.E.D. PROJECT 26-16-00-01-0-111-032
D.W.T. NO. 26-16-00-01-7-999-020

DATE: December 22, 2017

FROM: LaBella Associates, DPC
300 State Street
Rochester, New York 14614

Include this Addendum as part of the Contract Documents. It supplements portions of the original specifications/project manual and drawings, the extent of which shall remain, except as revised herein:

BY:

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CLARIFICATION

3.1) An additional, optional Walk-Through will be held on 12/27/2017 at 9:00am. All parties interested in attending shall meet in the library at Edison Tech, located at 655 Colfax Street, Rochester, New York.

RFI RESPONSES

3.2) Pre-Bid RFI Question #9
   a. Please confirm owner is removing any equipment or furniture not indicated on the drawings.
      i. **RESPONSE:**
         The owner is responsible for removing furniture and equipment, in the construction areas, prior to the start of construction.
   b. Per 3/S503, is it the intent to drill through the tensioned slab vertically to set the 1/2" dia. Drain pipe? Is this drain by contract #300?
      i. **RESPONSE:**
         1. REMOVE vapor barrier, ½" diameter drain pipe and associated notes from Section 3 on drawing S503.
         2. Slab penetrations less than 9 inches in diameter are the responsibility of the contract performing the work. Slab penetrations 9 inches and greater are the responsibility of the General Contractor.

3.3) Pre-Bid RFI Question #10
   a. *Per S111-112, "slab capacity is estimated at 100 pounds per square foot. Contractor shall perform an individual assessment with a licenced engineer to verify structural capacity for construction means and methods."*

   Does each contract (300, 400, 500, 600) need to perform its own assessment for all the contractors? Furthermore, what type of assessment needs to be performed to satisfy the BCC and LaBella that the slab capacity can be maintained while performing work outlined by the contract documents?
   i. **RESPONSE:**
      The General contractor is responsible for assessing the capacity of the existing structural slab as it pertains to their work and any shoring required to meet their means and methods for installation. All other contractors shall work within the capacity of the existing structure. An acceptable means of assessment of the structural slab shall be to provide a plan showing travel paths and required shoring, if required, including structural calculations, signed and sealed by a NYS licensed engineer.
3.4) Pre-Bid RFI Question #11
   a. Openings IST6.1 and IST6.2 have no hardware scheduled. Are they keeping existing hardware?
      i. **RESPONSE:**
         Refer to attached drawing A611 for revised door hardware sets in the door schedule.

3.5) Pre-Bid RFI Question #12
   a. Can the work in the crawlspace be performed during school hours when school is in session?
      i. **RESPONSE:**
         Yes, work may be performed in the crawl space during school hours. However, noise must be kept at a minimum as not to disrupt ongoing education. If activities become disruptive, a top work order will be issued.

3.6) Pre-Bid RFI Question #13
   a. Hardware set no. 09 makes no sense with the overhead doors on the door schedule. Please advise.
      i. **RESPONSE:**
         Refer to attached drawing A611 for revised door hardware sets in the door schedule.

3.7) Pre-Bid RFI Question #14
   a. The room finish tag for room 1A14A indicates WB - Wall Base (cove rubber or vinyl) where the flooring is sealed concrete. All other concrete floors have no base. Is this WB tag intentional?
      i. **RESPONSE:**
         REMOVE wall base from room 1A14A. Rooms with sealed concrete floors do not receive a wall base. CMU partitions should be painted to the floor.

3.8) Pre-Bid RFI Question #15
   a. Are we applying new face brick material to existing CMU backup per elevation 3/A301 from column line 6 to 8? Floor plan does not indicate any new work at this location other than new OH Doors and man door. Demolition drawings only show the removal of the existing doors, no mention of face brick removal.
      i. **RESPONSE:**
         There is no face brick work between column lines 6 and 8, the exterior wall system is to remain. Replace only four (4) overhead doors (1A14.2, 1A14.3, 1A14.4, 1A14.5) and one (1) man door (1A14.1).
3.9) Pre-Bid RFI Question #16
   a. What is the vertical reinforcing spacing for the various masonry wall types?
      i. RESPONSE:
         ADD general masonry note CM12 to drawing S00. Note CM12 shall read:
         1. “All exterior CMU walls shall be reinforced in accordance with the minimum reinforcing provisions of the American Concrete Association (ACI) publication 530 or latest edition. Unless noted otherwise on plans, the minimum vertical reinforcement shall be:
            a. 8” BLOCK: #5 BARS, MAX. SPACING = 32” O.C.”

CHANGES TO THE SPECIFICATIONS

3.10) Table of Contents
   a. REVISE page count for specification section 08 17 43 to read as, “10 pages” in lieu of “9 pages”.

3.11) Specification Section 08 17 43 – FRP Doors & Frames
   a. REPLACE Section 08 17 43 with attached section 08 17 43.

3.12) Specification Section 08 71 00 – Finish Hardware
   a. ADD hardware set 29
      1 EA CONT. HINGE 224HD 628 IVE
      1 EA DBL. CYL.STORE RM. LOCK L9066T 17L 626 SCH
      2 EA FSIC CORE 23-030 EV29 T 626 SCH
      1 EA WALL STOP WS406/407CVX 626 IVE
      3 EA SILENCER SR64 GRY IVE

3.13) Specification Section 01 12 00 – Multiple Contract Summary
   a. REMOVE paragraph 1.10.C.3-ww “TV Studio Pipe Grid, Tracks, and Curtains” from specification section 011200 Multiple Contract Summary”
   b. ADD Paragraph 1.10.E.3-dd to read as follows: “TV Studio Pipe Grid, Tracks, and Curtains” to specification section 011200 Multiple Contract Summary”

CHANGES TO THE DRAWINGS

3.14) Drawing S503 – Typical Framing and Detail Sections
   a. REMOVE vapor barrier, ½” diameter drain pipe and associated notes from Section 3 on drawing S503.
3.15) **Drawing A611 – Door/Frame Types & Door Schedule**

a. **REPLACE** entire drawing with attached A611.

b. **REMOVE** doors 1A14D and 1A14E from the door schedule (added in Bid Addendum #1).

c. **REVISE** the following door frames from Hollow Metal with painted finish to Aluminum with a factory finish:
   i. 1A3.1
   ii. 1A4.1
   iii. 1A5.1
   iv. 1A8.1
   v. 1A9.1
   vi. 1A10.1
   vii. 1A11.1
   viii. 1A14.1
   ix. 1A14.6
   x. 1A15.1
   xi. 1A26.1

d. **REVISE** door 1A26.1 from hollow metal to FRP.

e. **REVISE** ALL hardware set numbers as shown in the door schedule on the attached A611.

**ATTACHMENTS**

- Specification Section 08 17 43
- Drawing A611
SECTION 081743 - FRP DOORS AND FRAMES

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: Fiberglass Reinforced Polyester (FRP) Flush Doors with Aluminum
   Frames.

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

1.3 REFERENCES

A. References for FRP Sandstone Texture Flush Doors:
   1. ASTM B 209 – Aluminum and Aluminum Alloy Sheet and Plate.
   2. ASTM B 221 – Aluminum Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
   3. ASTM D 256 – Determining Pendulum Impact Resistance of Notched Specimens
      of Plastic.
   6. ASTM D 790 – Flexural Properties of Un-reinforced and Reinforced Plastics and
      Electrical Insulating Materials.
   8. ASTM D 1621 – Compressive Properties of Rigid Cellular Plastics.
  11. ASTM D 2583 – Indentation Hardness of Rigid Plastics by Means of Barcol
      Impreessor.
  12. ASTM D 6670-01 – Standard Practice for Full Scale Chamber Determination of
      Volatile Organic Emissions from Indoor Materials/Products.
  14. AAMA 1503.1 – Thermal Transmittance and Condensation Resistance of
      Windows, Doors and Glazed Wall Sections.
  15. IBC 2603.4.1.7 – Non-Rated Doors with foam plastic insulation.

B. References for Aluminum Framing Only:
1. AAMA/NWWDA 101/I.S. 2 – Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
3. ASTM D2000 – Classification System for Rubber Products in Automotive Applications.

1.4 PERFORMANCE REQUIREMENTS

A. Performance Requirements for FRP Sandstone Texture Flush Doors
1. Provide door assemblies that have been designed and fabricated to comply with specified performance requirements, as demonstrated by testing manufacturer’s corresponding standard systems.
2. Indoor air quality testing per ASTM D 6670-01: GREENGUARD Environmental Institute Certified including GREENGUARD for Children and Schools Certification.
3. Thermal Transmission, Exterior Doors, U-Value, AAMA 1503.1: Maximum of 0.29 BTU/hr x sf x degrees F.
6. Tensile Adhesion, Foam Core, Nominal Value, ASTM D 1623: 45.3 psi.
7. Thermal and Humid Aging, Nominal Value, 158 Degrees F and 100 Percent Humidity for 14 days, ASTM D 2126: Minus 5.14 percent volume change.
8. Water Resistance: for a single door 3'-0" x 7'-0", test specimen shall be tested in accordance with ASTM E 331 at pressure differential of 7.50 psf. Door shall not have water leakage.
9. Air Infiltration: For a single door 3'-0" x 7'-0", test specimen shall be tested in accordance with ASTM E 283 at pressure differential of 6.24 psf. Door shall not exceed 0.20 cfm per square foot perimeter crack.
10. Surface Burning Characteristics, FRP Doors and Panels, Exterior Faces, SANDSTONE texture Faces ASTM E 84:
   a. Flame Spread: Maximum of 200, Class C.
   b. Smoke Developed: Maximum of 450, Class C.
11. Surface Burning Characteristics, FRP Doors and Panels, Interior Faces, SANDSTONE texture on Interior Faces of FRP Exterior Panels and Both Faces of FRP Interior Panels, ASTM E 84:
   b. Smoke Developed: Maximum of 450.
12. Swinging Door Cycle Test, Doors and Frames, ASNI A250.4: Minimum of 25,000,000 cycles.

B. Performance Requirements for Thermally Broken-Aluminum-Framed Storefronts:
1. General: Provide storefront framing systems that comply with specified design and performance requirements, based on testing of current products.
2. Thermal Movement: Design framing systems to provide for expansion and contraction of component materials.

   a. Air infiltration, ASTM E 283, 6.24 psf (50 mph): Less than 0.01 cfm/ft².
   b. Water Resistance, ASTM E 331: 15.0 psf.
   c. Overall Design Pressure, ASTM E 330: 100.0 psf, positive and negative.
   d. Structural Test Pressure, ASTM E 330: 150.0 psf, positive and negative.
   e. Forced Entry Resistance, ASTM F 588: Grade 10.

4. Thermal Performance:
   b. Thermal Transmittance U value, AAMA 1503-09: 0.33 Btu/hr-ft²-F

5. Indoor Air Quality Testing per ASTM D 6670-01: GREENGUARD Environmental Institute Certified including GREENGUARD for Children and Schools Certification.

1.5 SUBMITTALS

A. Product Data: Submit manufacturer's product data, including description of materials, components, fabrication, finishes, and installation.

B. Shop Drawings: Submit manufacturer's shop drawings, including ELEVATIONS, SECTIONS and DETAILS; indicating dimensions, tolerances, materials, fabrication, doors, panels, framing, hardware schedule, and finish.

C. Samples:
   1. Door: Submit manufacturer's sample of Door showing face sheets, core, framing, and finish.
   2. Color: Submit manufacturer's samples of standard colors of Doors and Frames.

D. Test Reports: Submit certified test reports from qualified independent testing agency indicating doors comply with specified performance requirements.

E. Manufacturer's Project References: Submit list of successfully completed projects including project name and location, name of architect, and type and quantity of doors manufactured.

F. Maintenance Manual: Submit manufacturer's maintenance and cleaning instructions for Doors, including maintenance and operating instructions for hardware.

G. Warranty: Submit manufacturer's warranty as described in this specification.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications:
   1. Continuously engaged in manufacturing of doors of similar type to that specified, with minimum of twenty five (25) years successful experience.
2. Single Source Responsibility: FRP Door, immediate door frame, sidelites and transoms shall be components from same manufacturer.
3. Evidence of compliant and documented quality management system.
4. GREENGUARD Certification: GEI Certified including GREENGUARD for Children and Schools Certification.
5. Recycled Aluminum: All aluminum extrusions for doors and frames to be 100% reprocessed 6063-T5 alloy recovered from industrial process.

1.7 DELIVERY, STORAGE, AND HANDLING
A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying opening door mark and manufacturer.
B. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
C. Handling: Protect materials and finish from damage during handling and installation.

1.8 PROJECT CONDITIONS
A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

1.9 WARRANTY
A. Warrant FRP Doors, Frames, and Factory Installation of Hardware against failure in materials and workmanship, including excessive deflection, faulty operation, defects in hardware installation, and deterioration of finish or construction in excess of normal weathering.
B. Warranty Period: Ten (10) years starting at Substantial Completion. In addition, limited lifetime warranty covering: failure of corner joinery, core deterioration, delamination or bubbling of door skin.
C. Factory Applied Hardware: The workmanship and materials involved with the installation of hardware by the door manufacturer is guaranteed to be free of defect for 10 (10 years from the date of shipment).
PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of design: Special-Lite, Inc., Decatur, Michigan, or approved products meeting project specifications from the following manufacturers:
   1. Oldcastle Glass Engineered Products (Vistawall), Warwick, Rhode Island
   2. Ceco Doors, Milan, Tennesee

2.2 FRP FLUSH DOORS

A. Model: SL-20 Sandstone Texture Flush Door

B. Construction:
   2. Stiles and Rails: Aluminum Alloy 6063-T5, minimum of 2-5/16 inch depth.
   4. Provide joinery of 3/8 inch diameter full width tie rods through extruded splines top and bottom as standard tubular shaped stiles and rails reinforced to accept hardware as specified.
   5. Securing Internal Door Extrusions: 3/16 inch angle blocks and locking hex nuts for joinery. Welds, glue or other methods are not acceptable.
   6. Furnish extruded stiles and rails with integral door edge (reglets) to accept face sheets on all four sides. Lock face sheets into place to permit flush appearance. Door edge and internal frame to be one extrusion.
   7. Door Edge: Screw applied or snap on edge caps or other face sheet capture methods are not acceptable. No visible fasteners unless required for hardware attachment.
   8. Extrude top and bottom rail legs for interlocking continuous weather bar.
   9. Meeting Stiles: Pile brush weather seals. Extrude meeting stile to include integral pocket to accept pile brush weather seals.
   10. Concealed Adjustable Door Bottom: Supply concealed SL-301 internal adjustable door bottom with dual brushes.
   12. Glue: Use of glue to bond sheet to core or extrusions is not acceptable.
   13. Hardware Reinforcement: provide minimum 1/8” solid aluminum for all hardware attachment points. For door closers provide minimum 1/8” reinforcement on inside and outside faces of doors to accommodate possible through bolt attachment.

C. Face Sheet for FRP SANDSTONE TEXTURE Flush Doors:
   1. Material: Exterior Grade Engineered Sandstone Texture FRP face, 0.120 inch thickness. Interior Grade FRP Face Sheets are not acceptable.
   3. Color: as selected by architect.
4. Interior FRP faces to be Class A rated SANDSTONE Texture FRP of 0.090 thickness with minimum 0.032 aluminum backer sheet between FRP and foam core as required to meet 2603.4.

D. Core:
   1. Material: Poured in place polyurethane foam.
   2. Density: Minimum of 5 pounds per cubic foot.
   3. Foam Core “R” Value: Minimum of 9.1
   4. Use of glues to secure core is not acceptable.

E. Cutouts:
   1. Manufacture doors with cutouts for required vision lites, louvers, and panels.
   2. Factory install vision lites, louvers, and panels.

F. Hardware:
   1. Pre-machine Doors in accordance with templates from specified hardware schedule.

2.3 COMPONENTS

A. Aluminum Members:
   1. Extrusions: ASTM B221.
   2. Sheet and Plate: ASTM B 209.
   3. Alloy and Temper: As required by manufacturer for strength, corrosion resistance, application of required finish, and control of color.

B. Components: Door and Frame components from same manufacturer.

C. Fasteners:
   1. Material: Aluminum, 18-8 stainless steel or other non-corrosive metal.
   2. Compatibility: Compatible with items to be fastened.
   3. Exposed Fasteners: Screws with finish matching items to be fastened.

2.4 FABRICATION

A. Sizes and Profiles: Required sizes for door and frame units, and profile requirements shall be as indicated.

B. Coordination of Fabrication: Field measure before fabrication and show recorded measurements on shop drawings.

C. Assembly:
   1. Complete cutting, fitting, forming, drilling, and chemically welding of FRP before assembly.
   2. Remove burrs from cut edges.
D. Welding: Welding of doors or frames is not acceptable.

E. Fit:
   1. Maintain continuity of line and accurate relation of planes and angles.
   2. Secure attachments and support at mechanical joints with hairline fit at contacting members.

2.5 ALUMINUM FRAMING AND STOREFRONT SYSTEMS

A. Doors and Frames to be supplied by single source.

B. Model: SL-600TB aluminum-framed storefront system.

C. Framing:
   1. Size: 2 inches by 6 inches, thermally broken. As indicated on drawings.
   2. Materials: Aluminum extrusions made from prime-equivalent billet that is produced from 100% reprocessed 606-T6 alloy recovered from industrial processes, ASTM B 221.
   3. Jambs, Mullions, Sills, Horizontal Intermediates, and Headers: 0.080-inch wall thickness.
   4. Lock Jambs, Hinge Jambs, and Door Headers: 0.125-inch wall thickness.

D. Thermally Break: Fiberglass pultrusion thermal strut and pocket filler.

E. Doors: As specified in this section.

2.6 ALUMINUM FRAMING AND STOREFRONT CONSTRUCTION

A. Thermally Broken Storefront Framing:
   1. Size and Type: As indicated on the Drawings.
   2. Materials: Aluminum extrusions made from prime-equivalent billet that is produced from 100% reprocessed 6063-T6 alloy recovered from industrial processes, 0.125-inch minimum wall thickness tube. Fiberglass pultruded thermal strut 2 ½” wide by 3/6” thick.
   3. Perimeter Frame Members:
      a. Storefront frame with thermally broken pocket filler.
      b. Factory fabricated by frame manufacturer.
      c. Open-back framing is not acceptable.
   4. Applied Door Stops: 0.625-inch high, with screws and weatherstripping. Door stop shall incorporate pressure gasketing for weather seal. Counterpunch fastener holes in door stop to preserve full metal thickness under fastener head. Minimum ½” aluminum bar reinforcement under doorstop for required hardware attachments.
   5. Caulking: Caulk joints before assembling frame members.
   6. Joints:
a. Secure joints with fasteners.
b. Provide hairline butt joint appearance.
c. Shear block construction only, no screw spline allowed.

7. Hardware:
   a. Pre-machine and reinforce frame members for hardware in accordance with manufacturer's standards and hardware schedule.
   b. Factory install hardware.

8. Anchors:
   a. Anchors appropriate for wall conditions to anchor framing to wall materials.
   b. Door Jamb and Header Mounting Holes: Maximum of 24-inch centers.
   c. Secure head and sill members of transom, side lites, and similar conditions.

9. Side Lites:
   a. Factory pre-assembled side lites to greatest extent possible.
   b. Mark frame assemblies according to location.

10. Removable Mullion: As indicated on drawings.

11. Fasteners:
    a. Material: Aluminum, 18-8 stainless steel, or other noncorrosive metal.
    b. Compatibility: Compatible with items to be fastened.
    c. Exposed Fasteners: Screws with finish matching items to be fastened.


2.7 HARDWARE

   A. Pre-machine doors in accordance with templates from specified hardware manufacturers and hardware schedule.

   B. Factory installed hardware and warrant attachment, see warranties.

   C. Fasteners: Attach all hardware by drill & tap method using machine screws. Self-drilling or tapping fasteners shall not be used to attach hardware to doors or frames.

   D. Hardware Schedule: See hardware specification.

2.8 VISION LITES

   A. Glazing: 1" insulated glass Type G-1A (or Alternate: Type G-1, dual glazed).

   B. Lites in Exterior Doors: Allow for thermal expansion.

   C. Rectangular Lites:
      1. Size: As indicated on drawings.
2. Factory glazed with screw applied aluminum stops anodized to match perimeter Door rails.

2.9 ALUMINUM FINISHES

A. Painted: Manufacturers two-coat Kynar finish, custom color as selected by architect.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive doors. Notify Architect of conditions that would adversely affect installation or subsequent use. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 PREPARATION

A. Ensure openings to receive frames are plumb, level, square, and in tolerance.

3.3 INSTALLATION

A. Install Doors in accordance with manufacturer's instructions.

B. Install Doors plumb, level, square, true to line, and without warp or rack.

C. Anchor frames securely in place.

D. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by Architect.

E. Set thresholds in bed of mastic and back seal.

F. Install exterior Doors to be weather-tight in closed position.

G. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.

H. Remove and replace damaged components that cannot be successfully repaired as determined by Architect.
3.4 FIELD QUALITY CONTROL
   A. Manufacturer's Field Services: Manufacturer's representative shall provide technical assistance and guidance for installation of Doors.

3.5 ADJUSTING
   A. Adjust Doors, hinges, and locksets for smooth operation without binding.

3.6 CLEANING
   A. Clean Doors promptly after installation in accordance with manufacturer's instructions.
   B. Do not use harsh cleaning materials or methods that damage finish.

3.7 PROTECTION
   A. Protect installed doors to ensure that, except for normal weathering, Doors shall be without damage or deterioration at time of Substantial Completion.

END OF SECTION