

## ADDENDUM #2

**Date:** August 12, 2019  
**City of Brookhaven RFP No.** RFQ 19-315  
**Project Name:** Briarwood Park Pool Project

This addendum supersedes and supplements all portions of the bidding documents and becomes part of the Contract Documents for the above-referenced project.

Failure to acknowledge this addendum in the Bid Form may result in the Bid being deemed non-responsive.

Where any original item is amended, voided, or superseded hereby, the provision of such item not so specifically amended, voided, or superseded shall remain in effect.

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### NARRATIVE:

**This addendum includes project clarifications, reviewed substitutions, and responses to questions received by the Deadline for Questions that were listed as pending on Addendum 1.**

#### Clarifications

1. Addendum 1 included a response to a question about the concrete stairs in the pump pit. Part of the question was about the nosing required for the stairs, however, a response to that item was not included. Contractor shall provide the following for the concrete stair nosing:
  - a. **Provide Anti Slip Step Edge - Fiberglass Reinforced plastic Anti-Slip - 271820 48" x 2.75" x 125" - Yellow as mfr'd by Rustoleum or equal (Cut sheet provided)**

#### Project Drawing Revisions

1. None

#### Project Specification Revisions

1. Remove and replace **SECTION 13 11 25 – POOL VENTRIFUGAL PUMPS**
  - a. *Revised for conflicts between Plans and Specification.*

#### Received Bidder Questions

**NOTE TO BIDDERS: Questions responded to below are those that were listed as Pending in Addendum 1..**

9. Are substitutes for metal roofing allowed? Please see attachment regarding Substitution for Metal Roofing.
  - a. *During bidding, product substitutions will be reviewed based on design intent only. See Note to Bidders under substitution request section of this addendum for additional information.*
21. Is this considered a sales tax-exempt project?
  - a. *No*
29. Will the General Contractor be responsible to include the costs of any tap fees, meter fees, impact fees, permit fees, etc....?
  - a. *See response to Question no. 14 in Addendum 1.*

34. Many of the 2x12 roof rafters are longer than readily available. It is almost impossible to find them longer than 20'. Would an 11 7/8" I-Joist be an acceptable option? Solid rim band could be utilized around the perimeter and all the sections and details should be easily modified to accommodate this.
- The TrusJoist 11 7/8" TJI 110 is an acceptable substitute. Note that the 11 1/4" LVL specified will need to be changed to 11 7/8" LVL so the bottom of the framing still flushes out. Note that some of the specified joist hangers will also need to be updated to accommodate the TJIs, since the TJIs are wider than 2x12s.*
39. On Page 15 of the bid documents, item 6 says to turn in with our bid a bid bond and payment and performance bond. The P and P bonds typically do not get included with the bid, only the bid bond. Please confirm.
- Performance and Payment Bonds are due when the Bid is submitted.*
40. Can you please clarify what type, brand and specific location of kitchen hood you want to see in the concessions area along with the appropriate fire suppression system and mounting location for that hood? Also is there any special exhaust duct, fire wrap, exhaust fan or MAU required for that hood?
- A kitchen hood is not required - therefore all associated items are not required. There is no cooking or food preparation in concession area. Building permit reviews are complete and building is released for construction - no comments were made regarding above items. Note that on Equipment Schedule shown on sheet A8.5, 'Not Used' means Not In Contract.*
42. Is there a color for the retaining walls? The standard pricing color is Grey. Colors like Buff and Taupe are additional.
- Contractor to use manufacturer's standard color pallet, colors to be selected during the submittal process.*
43. There appears to be a discrepancy on the Lower Concrete Retaining Wall at the northern part of the pool deck. Sheet C1.00 states "LOW CONCRETE WALL 78LF/4' HT. MAX." The Grading Plan on Sheet C2.00 appears to show a "MAX. WALL HT. 5.5'" However the same sheet, same plan shows a TW:921.50 and a BW: 915.00. This being a difference of 6.5'. There is also some confusion with what is truly the bottom of wall, is BW bottom of wall or finish ground grade? With that being said, can a wall envelope profile please be provided showing the actual amount of face feet of wall and depth of footing in the ground to better accurately determine cost?
- Maximum wall height for the CIP wall is 6.5 feet to finished grade. The BW elevation is to finished grade, not top of footing. At a minimum, the top of footing is 1' below finished grade. Approximate face feet of wall are 390 ssf, measured from top of wall to top of footing. This does not include the footing itself. Please note that the contractor is responsible for providing shop drawings, stamped by a structural engineer, for review and approval for this wall.*
44. There appears to be a discrepancy on the 70LF of Segmented Retaining Wall. Sheet C1.00 appears to show a Max. Height of 5' high. Sheet C2.00 appears to show a max height of 4.75'. Can a wall profile envelope be provided to better establish an actual square face foot of wall to be installed?
- The Max. height of the 70 LF Segmental Retaining wall is 4.75' to the top of finished grade. The approximate total face feet of the wall are 345 ssf from top of wall to top of gravel bed. Please note that the contractor is responsible for providing shop drawings, stamped by a structural engineer, for review and approval for this wall.*
45. Can a wall profile envelope be provided on the 75LF of Segmented Retaining wall to better establish an actual square face foot of wall to be installed?
- The Max. Height of the 75 LF Segmental Retaining wall is 2.25' to the top of finished grade. The approximate total face feet of the wall are 250 ssf from the top of wall to the top of the gravel bed. Please note that the contractor is responsible for providing shop drawings, stamped by a structural engineer, for review and approval for this wall.*
46. Will Alternative manufactures for the Shades, Shelter, Picnic Tables and Bleachers be considered?
- See response to Addendum 2 – Question 1.*
47. Is there a process for equals to be approved prior to submittal?
- See response to Addendum 2 – Question 1. Note that any items submitted during bidding needed to be submitted prior to the closing of question (August 6, 2019). Any substitution requests made after that time will not be approved.*
49. Will a Knox box be required on the building? If so, what model?
- Building permit reviews are complete and building is released for construction- no comments were made regarding above items. A Knox box is not included in the contract documents.*

50. Will an address be required on the building? If so, can a detail be provided?
  - a. *Building permit review are complete and building permit is ready to be issued, no comments were made regarding the above item. Final address requirements to be coordinated with the owner at the building.*
51. Is there a process for equals to be approved prior to submittal?
  - a. *See response to Addendum 2 – Question 1. Note that any items submitted during bidding needed to submitted prior to the closing of question (August 6, 2019). Any substitution requests made after that time will not be approved.*
52. Can you verify that the building does not require a sprinkler system?
  - a. *Due to building size and occupancy class, the building is not required to be sprinkled per Fire Code. Building permit reviews are complete and the permit is ready to be issued. No comments were made regarding the above item.*
53. Can you verify that the building does not get a fire alarm system?
  - a. *A fire alarm system is not included for this building. Building permit reviews are complete and the permit is ready to be issued. No comments were made regarding the above item.*

Substitution Requests – REVIEWED

*NOTE: Review of proposed substitutions are for design intent only. Final review for conformance to the Contract Documents, including any necessary technical calculations product data, installation drawings and details, etc., will occur with a complete and full submittal review process during construction. **Bidders should be aware that if a reviewed substitution is rejected during the submittal review process the Contractor will be responsible for providing the product used as basis of design or an approved equal at no additional cost to the project.***

1. Fabral Thin Seam Roof Panel for Section 07 41 13 – Metal Roof Panels
2. Machflow Hand Dryers by Saniflow Corp. for Section 10 28 00
3. BabyMedi Diaper Changing Station by Saniflow Corp. for Section 10 28 00

Substitution Requests – DENIED

1. None

Attachments

1. General:
  - a. Cut sheet for Anti Slip Step Edge
2. Plan Sheets:
  - a. None
3. Specification Sections:
  - a. SECTION 13 11 25 – POOL CENTRIFUGAL PUMPS
4. Exhibits:
  - a. None

NOTE: Receipt of this Addendum must be acknowledged on the Bid Form.

**END OF ADDENDUM**

# SAFESTEP™ FIBERGLASS REINFORCED PLASTIC ANTI-SLIP SOLUTIONS



**Instant heavy-duty slip resistance  
for pedestrians, vehicles and forklifts.**

- Virtually indestructible fiberglass reinforced plastic
- Excellent chemical and corrosion resistance
- Extremely durable: lasts longer than tape

**RUST-OLEUM®**

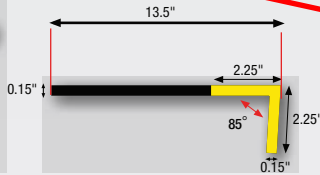
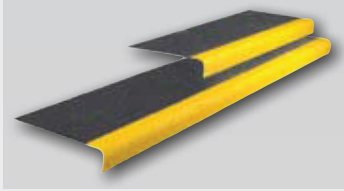


# SAFESTEP™

## FIBERGLASS REINFORCED PLASTIC ANTI-SLIP SOLUTIONS

### Anti-Slip Step Covers

Heavy duty preformed Anti-Slip step cover providing a corrosion resistant surface for damaged, worn or slippery steps. (Glued and screw fixed).



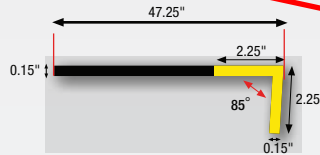
#### Available sizes (width & depth):

271792	32" x 10"	Black/Yellow
271795	36" x 10"	Black/Yellow
271796	48" x 10"	Black/Yellow
271797	59" x 10"	Black/Yellow
271798	32" x 13.5"	Black/Yellow
271799	36" x 13.5"	Black/Yellow
271800	48" x 13.5"	Black/Yellow
271801	59" x 13.5"	Black/Yellow



### Anti-Slip Landing Covers

Highly versatile, heavy duty preformed landing cover. Provides a corrosion resistant surface for damaged or worn areas. (Glued and screw fixed).



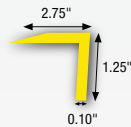
#### Available sizes (width & depth):

271816	47.25" x 47.25"	Black/Yellow
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### Anti-Slip Step Edge

Heavy duty, high visibility, slip-resistant step edges. (Glued and screw fixed).



#### Available sizes (width & depth):

271818	32" x 2.75" x 1.25"	Yellow
271819	36" x 2.75" x 1.25"	Yellow
271820	48" x 2.75" x 1.25"	Yellow
271821	59" x 2.75" x 1.25"	Yellow



### Anti-Slip Sheeting

Heavy duty sheets with a tough anti-slip surface. Highly versatile and long-lasting fiberglass sheets for ramps, walkways, etc. (Glued and screw fixed).



Sheeting is available in 3 colors: Yellow, Black and Gray

#### Available sizes (width & depth):

271810	47" x 47"	Black
271811	47" x 47"	Safety Yellow
271812	47" x 47"	Gray
271813	47" x 96"	Black
271814	47" x 96"	Safety Yellow
271815	47" x 96"	Gray



**SECTION 13 11 25 - POOL CENTRIFUGAL PUMPS**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Pumps
  - 1. Flooded Suction
  - 2. Self-Priming Thermoplastic
  
- B. Pump Accessories
  - 1. Pump Strainers
  - 2. Gauges
  - 3. Flow meters

**1.2 RELATED DOCUMENTS**

- A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

**1.3 REFERENCES**

- A. The following latest edition reference specifications, guides and standards shall become part of this Specification as if herein written. If provisions conflict, the more stringent provisions shall apply.
  - 1. Hydraulic Institute Standards
  - 2. Institute of Electrical and Electronics Engineers Standards (IEEE)
  - 3. National Electrical Manufacturers Association Standards (NEMA)
  - 4. Occupational Safety and Health Administration Rules and Regulations (OSHA)
  - 5. National Sanitary Foundation (NSF)
  - 6. American Society for Testing and Materials Standards (ASTM)
  - 7. American Iron and Steel Institute (AISI)
  - 8. American National Standards Institute (ANSI)
  - 9. ASTM A48 – Standard Specification for Gray Iron Castings
  - 10. ASTM B584 – Standard Specification for Copper Alloy Sand Castings for General Applications
  - 11. AISI 1045
  - 12. ASTM B62 – Standard Specification for Composition Bronze or Ounce Metal Castings

**1.4 DESCRIPTION OF WORK**

- A. The pumping units shall be installed in accordance with the instructions of the manufacturer and as shown on the drawings by the Architect/Engineer.
  
- B. Pump capacity, horsepower, TDH (Total Dynamic Head), speed, suction and discharge diameters, type, and other requirements shall be as shown on the drawings and shall comply with the requirements as specified herein.
  
- C. The General Conditions shall apply to this Section as fully as if repeated herein.

**1.5 QUALITY ASSURANCE**

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- A. To assure a properly integrated and compatible system, the Equipment Manufacturer shall assume full responsibility for the warranty and proper operation of the pumps and/or accessory equipment.
- B. Acceptable Products and Manufacturer: As listed on the contract documents or included herein or, an Engineer approved equal product and manufacturer.
- C. All pumps and strainers shall be NSF50 certified as provided, including required coatings and shall be labeled as such on the serial number identification tag.

**1.6 SUBMITTALS**

- A. Refer to General Requirements and Division 01.
- B. Submit complete motor and pump data together with shop drawings for the driven machine. All material is to be collated in a card stock binder, with pockets for large drawings, and with index. This data shall be prepared by the motor and/or pump manufacturer and shall include:
  - 1. Pump manufacturer and model number, name of motor manufacturer, type of pump and motor with dimensioned drawings.
  - 2. Characteristic curves at full load motor speed showing flow, TDH, efficiency, horsepower, and NPSH required. For all VFD applications include a family of performance curves, separate of the full load motor speed curve, for speeds of 105%, 100%, 89%, 83%, 66%, and 50% of the scheduled RPM.
  - 3. Nominal motor horsepower, speed at full load, frame size, enclosure construction, winding insulation class and treatment, temperature rise at nominal horsepower, service factor, voltage rating (indicate if dual voltage), number of phases, frequency rating, full-load amperes at nominal horsepower for application voltage, starting code letter, or locked rotor KVA or amperes.
  - 4. Complete pump description plus material list including casings, impellers, seals, shaft, bearing frame, motor mounts, guards, base plate, exterior coating type and mill thickness.
  - 5. Installation Instruction and Operation and Maintenance Manuals shall include recommended protection and maintenance required for storage prior to putting pumps in service and may be submitted any time before shipment of the pumps.

**1.7 SUBSTITUTIONS**

- A. Refer to General Requirements and Division 01.

**1.8 DELIVERY, STORAGE, AND HANDLING**

- A. Refer to General Requirements and Division 01.

**1.9 WARRANTIES**

- A. Manufacturer's standard pump warranty. Warranty on mechanical seals covering 100% of the cost on all parts and labor extending over the same time period as the standard pump warranty.
- B. Flooded Suction Pumps
  - 1. Pump failure of any pump component directly attributable to materials and/or workmanship within one (1) year after substantial completion shall be repaired or replaced by the pump manufacturer at no cost to the Owner.
  - 2. Motor failure of any motor component directly attributable to materials and/or workmanship within three (3) years after substantial completion shall be repaired or replaced by the pump manufacturer at no cost to the Owner.

- C. Self-priming, integral strainer pumps shall be provided with a minimum one-year warranty covering failure of any pump/motor/strainer component directly attributable to materials and/or workmanship.

## PART 2 - PRODUCTS

### 2.1 END SUCTION, CENTRIFUGAL PUMPS

#### A. General

- 1. Pump performance shall be optimized with provision of variable speed drives where designated in the drawings.
- 2. Operational Pump Characteristics
  - a. Engineer has the right to reject any pump with a pump curve having a design point operating efficiency more than 5% below the operating efficiency of the scheduled pump provided on the drawings.
- 3. Furnish and install horizontal close-coupled end suction centrifugal pumps as specified on the Contract Drawings or as pre-approved by the Architect/Engineer.

#### B. Materials of Construction:

- 1. Flooded Suction Pumps
  - a. Pump internal materials shall be as follows:
    - 1) Casing – Cast Iron (ASTM A48)
    - 2) Impeller – 316 Stainless Steel
    - 3) Shaft – 316 Stainless Steel
    - 4) Shaft Sleeve – 316 Stainless Steel
  - b. Coating: All internal cast iron wetted parts shall be sandblasted and coated per the coating manufacturer's recommendations with Scotchkote 134 or equal product.
  - c. Casing
    - 1) The casing will be of the end suction design with tangential discharge outlet. For suction piping diameters of 2" or greater, the suction and discharge shall be bolt through flanged connections. Flange connections shall be ANSI 125# rated with NPT gauge tapings.
    - 2) The casing shall have tapped and plugged holes for priming and draining. The casing bore shall be large enough to allow "back pullout" of the impeller without disturbing the casing or suction and discharge piping. The casing shall be supported by casing feet to avoid pipe strain.
  - d. Impeller: The impeller shall be of the enclosed type, vacuum cast in one piece. It shall be finished all over, the exterior being turned and the interior being finished smooth and cleaned of all burrs, trimmings and irregularities. The impeller shall be dynamically balanced. The impeller will be keyed to the shaft, and fastened with 316 stainless steel washers, gasket and cap screw.
  - e. Mechanical Seal: Shaft sealing shall be accomplished by means of a John Crane Type 21 or equal mechanical seal with solid silicone carbide face/primary ring; solid silicone carbide seat/mating ring; 316 stainless drive band, retainer and spring; and Buna-N elastomers.
  - f. Shaft: The impeller shall be direct coupled to the 316SS motor shaft. The motor shaft shall be machined to provide a key way and drilled and tapped to accept the impeller fastener. Stub shafts are not acceptable.
  - g. Shaft Sleeve: The pump shaft shall be fitted with a 316SS shaft sleeve to minimize shaft wear. The sleeve shall be sealed to the impeller hub by an O-ring and shall be positively driven by a pin to the key way. The use of adhesive compounds to fasten the sleeve to the shaft shall not be accepted.



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- h. Vertical 3801 pump shall be provided with a discharge reducing elbow by ASC Pumping Equipment with internal epoxy coating. Refer to schedule for size.
- i. Pump / motor must mount on the same plane and preserve back-pull-out design. 304SS MOTORIZER shall be supplied when pump mounting feet and motor feet do not align.
- j. Pump nameplate shall be engraved via computer on 316SS data plate.
- k. Motor
  - 1) The motor shall be a NEMA-JM configuration motor meeting current NEMA Premium Efficiency Standards and shall be totally enclosed fan cooled (TEFC). NEMA –JP configurations shall only be used on large pumps (Aurora 6x8x13.5 & 8x10x13.5) only.
  - 2) The motor shall have a service factor of a least 1.15. The service factor is reserved for variations in voltage and frequency.
  - 3) Motor must be rated for use with a Variable Frequency Drive and meet the NEMA MG1 Standard, Part 30.
  - 4) Motors shall have 316SS shaft
  - 5) Motors must achieve 15:1 constant torque turndown.
  - 6) Motors shall come equipped with internal shaft grounding brush.
  - 7) Motors Frames 326 and below shall have removable feet to achieve F1, F2, & F0 field convertible conduit box position.
  - 8) Motor Conduit box shall have NPT threaded entry
  - 9) The motor shall have a sufficient horsepower rating to operate the pump at any point on the pump's head capacity curve at full load speed (60 Hz) regardless of selected operating speed without overloading the nameplate horsepower rating of the motor, regardless of service factor. Vendor shall confirm that motor current does not exceed allowable full load amperage at reduced frequency. Vendor shall verify scheduled horsepower meets above requirements. In no case shall the horsepower be less than indicated on the Drawings without specific approval from the Engineer.
  - 10) Electrical requirements including phase, frequency, and voltage are indicated on the Drawings.
- 2. Self-Priming Thermoplastic Pumps
  - a. Pump internal materials shall be as follows:
    - 1) Casing – Thermoplastic Resin
    - 2) Impeller – Thermoplastic Resin
    - 3) Case Wear Ring – Bronze (ASTM B505)
    - 4) Shaft – Hardened Steel (AISI 1045) or Stainless Steel (ASTM A895)
    - 5) Shaft Seal – Ceramic and carbon seal faces, with stainless steel, brass, and Buna N materials in the bellows portion.
  - b. Impeller: The impeller shall be of the enclosed type, molded in one piece. The impeller will be secured to the shaft by means of a stainless-steel key and locking screw into the end of the motor shaft.
  - c. Case Wearing Ring: The pump casing shall be fitted with a diffuser. The diffuser has a bronze case wear ring to minimize abrasive and corrosive wear to the casing. The case wear ring shall be of the radial type, press fitted into the diffuser.
  - d. Shaft: The impeller shall be direct coupled to the motor shaft.
  - e. Shaft Seal: The pump shaft shall be fitted with a shaft seal to minimize shaft wear. The shaft seal shall be Ceramic and carbon seal faces, with stainless steel, brass, and Buna N materials in the bellows portion.
  - f. Motor
    - 1) The motor shall be a premium efficiency motor meeting current NEMA Standards and shall be totally enclosed fan cooled (TEFC).
    - 2) The motor must be rated for use with a Variable Frequency Drive and meet the NEMA MG1 Standard, Part 30.

- 3) The motor shall have a sufficient horsepower rating to operate the pump at any point on the pump's head capacity curve at full load speed (60 Hz) regardless of selected operating speed without overloading the nameplate horsepower rating of the motor, regardless of service factor. Vendor shall confirm that motor current does not exceed allowable full load amperage at reduced frequency. Vendor shall verify scheduled horsepower meets above requirements. In no case shall the horsepower be less than indicated on the Drawings without specific approval from the Engineer.
- 4) Electrical requirements including phase, frequency, and voltage are indicated on the Drawings.
- g. For pumps indicated on the contract documents to be provided with an integral VFD:
  - 1) Drive shall be UL 60730 Compliant.
  - 2) Provide manufacturer's standard control panel and communication cable.
  - 3) Control panel shall include an alarm LED and error message to alert the user of malfunctions.
  - 4) VFD shall include a programmable priming mode with automatic detection of prime for easy start-up and automatic detection of loss of prime.

## **2.2 PUMP ACCESSORIES**

### **A. Pump Strainers**

1. All Horizontal Pumps
  - a. Unless the pump has an integral hair and lint strainer, supply and install strainers equal to those indicated on the Contract Documents.
  - b. Provide each strainer with two strainer baskets.

### **B. Gauges**

1. Provide compound gauges where called for on Drawings and as required by Code.
2. Compound gauges shall be Liquid Filled, 30 Hg to 60 PSI with gauge cock and snubber as manufactured by Weksler, Marsh, Winters or equal.

### **C. Flowmeters**

1. Provide flow meters where called for on the Drawings and as required by Code on main lines and on branch lines of flow ranges indicated.
2. Flowmeters shall be as specified on the contract documents or approved equal.

### **D. Pump Labels**

1. Provide corrosion-resistant, permanent pump labels with contrasting lettering.
2. Label shall include pump ID from contract drawings and a description. (e.g. "P1A Lap Pool Filtration Pump")

## **PART 3 - EXECUTION**

### **3.1 PUMP INSTALLATION**

- A. The pumping units shall be installed in accordance with the instructions of the manufacturer and as shown on the drawings by the Pool Engineer.
- B. Ensure that the pumps and motors are properly supported and aligned with no pipe strain transmitted to the pump casing.
- C. Installation shall include furnishing the required oil and grease for initial operation. The grades of oil and grease shall be in accordance with the manufacturer's recommendations.

- D. Permanently affix pump label to the pump.

**3.2 ACCESSORY INSTALLATION**

- A. Install accessories as shown on the contract documents and in accordance with manufacturer's instructions.
- B. Strainers shall be supported on a concrete housekeeping pad and provided with sufficient space for maintenance.
- C. Gauges shall be positioned to be read adjacent to the pump or from above, where pumps are in a pump pit.
- D. Permanently affix pump label to the pump in an easily visible location.

**3.3 FACTORY TRAINED REPRESENTATIVE**

- A. Provide a factory-trained representative for the purpose of supervising installation, start-up, final field acceptance testing, and providing instruction to the owner's operating personnel in the proper operation and maintenance of the equipment in this section.
- B. Contractor and factory-trained representative shall verify pump flow aligns with the pump curve and calibrate flowmeter as required.

**END OF SECTION 13 11 25**