ITB 13-01 Renaissance Parks Construction

Addendum III

Dates issued: January 29, 2013

Addendum III reads as follows:

- 1. Is pre-bid mandatory?
 - a. No.
- 2. Will you accept alternates?
 - a. Refer to Exhibit B, Bid Schedule; Attach All material Substitutions with Cost Increase or Reduction (Please include specifications).
- 3. Is Construction Materials Testing to be provided and paid by the owner or the Contractor?
 - a. Owner.
- 4. How will the project be awarded?
 - a. Bid will be awarded on the base bid lump sum as specified in the bid documents before any alternates are considered.
- 5. What is the project budget?
 - a. Estimate \$1-\$2 Million.
- 6. Are the plans available?
 - a. Yes, Addendum II on the City Website.
- 7. What are licensing requirements?
 - a. State of Georgia
- 8. Bond requirements?
 - a. Specified in bid documents.
- 9. Liquidated damages versus 1% penalty on late work, which should apply?
 - a. 1% penalty on late work.
- 10. Will there be additional work going on from different contractors?
 - a. Yes, coordination with contractor's working for John Wieland Homes will be required as indicated on the plans.
- 11. Excess dirt, where will it go?
 - a. As noted on the plans, contractor will haul dirt not needed on site to Brook Run Park and spread at owner's direction.
- 12. Will material substitutions with cost increases or reductions be considered alternates in determining the apparent low bidder?
 - a. No. The apparent low bidder will be determined using the base bid amount. The City reserves the right to negotiate with the lowest base bidder if the project is over or under budget.
- 13. Are there any WBE requirements?
 - a. No.

- 14. Are there any meter fees?
 - a. Permit or meter fees for water and sewer connections will be paid to DeKalb County. Any City of Dunwoody permit and meter fees will be waived.
- 15. SUBMISSION OF BIDS: B. ADD/DEDUCT: Add or deduct amounts indicated on the outside of the envelope are allowed and will be applied to the lump sum amount. Amount shall be clearly stated and should be initialed by an authorized company representative. Meaning?
 - a. This statement applies to any last minute changes to the lump sum base price before bid submittal; this price should not include any material substitutions.
- **16.** Link to the new pages for the plan: https://dunwoodyga.sharefile.com/d/s60924e2ab66450cb
- 17. Fountain:

SECTION 13 12 00 FOUNTAIN

PART 1 - GENERAL

1.1 WORK INCLUDED

The scope of the work included under this Section of the Specifications shall include an Α. architectural fountain as illustrated on the Drawings and specified herein. The General and Supplementary Conditions of the Specifications shall form a part and be included under this Section of the Specifications. The Fountain Subcontractor shall provide all supervision, labor, material, equipment, machinery, plant and any and all other items necessary to complete the ALL OF THE WORK IN SECTIONS 13 11 00 - 13 11 08 IS TO BE THE RESPONSIBILITY OF ONE EXPERIENCED FOUNTAIN SUBCONTRACTOR PRIMARILY ENGAGED IN THE CONSTRUCTION OF ARCHITECTURAL FOUNTAINS. A FOUNTAIN SUBCONTRACTOR SHALL BE CONSIDERED PRIMARILY ENGAGED AS REQUIRED HEREIN IF THE SUBCONTRACTOR DERIVED 50% OF ITS ANNUAL REVENUE FROM PUBLIC-USE FOUNTAIN CONSTRUCTION FOR EACH OF THE LAST FIVE YEARS. SUBCONTRACTOR MUST HAVE ALSO, IN THE LAST FIVE YEARS CONSTRUCTED AT LEAST FIVE (5) COMMERCIALLY DESIGNED MUNICIPAL FOUNTAIN FOUNTAIN. The Fountain Subcontractor shall furnish and install the Fountain structures, finishes, cantilever forming, Fountain mechanical and electrical systems, and all accessories necessary for a complete, functional Fountain system, as herein de- scribed. Work shall include start-up, instruction of Owner's personnel, as-built plans, One year maintenance including seasonal winterization and opening, and warranties as required.

1.2 CODES, RULES, PERMITS, FEES

- A. The fountain shall be constructed in strict accordance with the applicable provisions set forth by authorities having jurisdiction over fountain construction and operation in the City of Dunwoody
- B. The Fountain Subcontractor shall give all necessary notices, obtain all permits, and pay all government sales taxes, fees, and other costs in connection with his work; file all necessary plans, prepare all documents and obtain all necessary approvals of governmental departments having jurisdiction; obtain all required certificates of inspection for his work and deliver same to the Designated Representative before request for acceptance and final payment for the work.
- C. The Fountain Subcontractor shall include in the work any labor, materials, services, apparatus, or drawings in order to comply with all applicable laws, ordinances, rules and regulations, whether or not shown on Drawings and/or specified.
- D. The Contractor shall submit all required documents and materials to all Governmental Departments having jurisdiction for any deferred approval items or substituted materials or products to obtain final approval to installation.

1.3 DESCRIPTION OF WORK

- A. Furnish and perform supervision, coordination, all layout, formwork, excavation, hand trim, disposing off-site of all unused material or debris to complete the Fountain excavation to the dimensions shown on the plans.
- B. Furnish and install complete Fountain structures, including reinforcing steel and cast-in-place or pneumatically placed concrete walls, floors, sump, and center monolith.
- C. Furnish and install Fountain finishes, including waterproof finishes.
- D. Furnish and install complete Fountain mechanical system(s), including, but not limited to, circulation systems, domestic water fill line systems, booster pump and special effects systems, and all pumps, piping, valves, and connections between system(s) and Fountain effects.
- E. Furnish and install complete Fountain electrical system(s) including, but not limited to, underwater lighting systems, water level control systems, timing systems, special effects systems, control circuitry, motor starters, time clocks, bonding, and all conduits, conductors, contactors, and switches between the system(s) and Fountain.
- F. After the initial filling of the Fountain system(s), should any repairs, continuing work, or other Subcontractor responsibility, the Fountain Subcontractor shall be responsible for any subsequent refilling and shall complete the project with the Fountain full of water, complete in every way, and in full operation.

1.4 ASSIGNED RESPONSIBILITIES AND RELATED WORK

- A. It is the intent of this section of the Specifications to clarify Work responsibilities of the trades directly and indirectly involved in construction of the Fountain systems. All labor, equipment, materials and supplies furnished by the Fountain Subcontractor and other Subcontractors shall be as directed by the Owner through his Designated Representative.
- B. THE FOUNTAIN SUBCONTRACTOR SHALL NOT SUBCONTRACT ANY PORTION OF THE FOUNTAIN CONSTRUCTION OR FOUNTAIN EQUIPMENT INSTALLATION TO ANYONE OTHER THAN A SUBSUBCONTRACTOR THAT SATISFIES THE REQUIREMENTS OF SECTION 13 11 00.
- C. References to "Fountain systems" shall include the Fountain, equipment, and accessories.
- D. The Owner will not assume any responsibility for the Fountain system(s) until they have been proved fully operational, complete in every way and accepted by the Designated Representative.

1.5 RESPONSIBILITIES OF THE CONTRACTOR

- A. The Contractor shall grade the Fountain site(s), establish benchmarks, cut and fill as necessary to provide as level an area as possible at Fountain elevation before Fountain layout.
- B. The Contractor shall be responsible for horizontal dimensions and grade elevations accurately from established lines and benchmarks (as indicated on the Drawings) and be responsible for those grades.
- C. The Contractor shall provide adequate temporary light, electric power, heat and ventilation per Federal and State OSHA requirements to construct the Fountain system(s).
- D. The Contractor shall not permit any heavy equipment activity over any area or within five (5) feet of any area under which Fountain piping is buried. There shall be no exceptions to this requirement.
- E. The Contractor shall keep the Fountain excavation(s) and Fountain structure(s) free of construction residue and waste materials of his workmen or Subcontractors, removing said material from the Fountain as required.
- F. The Contractor shall protect the Fountain from damage caused by his construction equipment and /or workmen and Subcontractors.
- G. The Contractor shall provide a representative at time of Fountain start-up to coordinate all trades related to Fountain system(s).
- H. The Contractor shall coordinate the work with Section 01 81 00 "General Commissioning Requirements."
- I. The Contractor shall coordinate the work with Section 01 81 50 "Mechanical Fountain Systems Commissioning Requirements."
- J. The Contractor shall coordinate the work with Section 01 81 60 "Electrical Pool Systems Commissioning Requirements."

1.6 RESPONSIBILITIES OF THE MECHANICAL SUBCONTRACTOR

- A. The Mechanical Subcontractor shall be appropriately licensed provide written notifications to Fountain Subcontractor and contractor when necessary to excavate and backfill within the Fountain construction site.
- B. The Mechanical Subcontractor shall not utilize any Fountain piping trench for installation of any sanitary sewer, storm sewer, domestic water, hot water, chilled water or natural gas line.
- C. The Mechanical Subcontractor shall furnish and install all sanitary sewer piping, including vent stacks (if necessary), for waste, overflow drains and as may be required by code, shown on Drawings, and herein specified.
- D. The Mechanical Subcontractor shall furnish and install all storm sewer piping and site drainage systems as required by code, shown on the Drawings, and herein specified.
- E. The Mechanical Subcontractor shall provide a minimum 75 psi water supply for Fountain construction work within fifty (50) feet of the swimming pool construction site(s).

- F. The Mechanical Subcontractor shall furnish and install reduced pressure backflow protected domestic water lines to P.O.C. within Fountain Controller box as required by code, shown on the Drawings, and herein specified.
- G. The Mechanical Subcontractor shall provide a representative at time of swimming pool startup to coordinate work related to Fountain system(s).
- H. The Contractor shall coordinate the work with Section 01 81 00 "General Commissioning Requirements."
- K. The Contractor shall coordinate the work with Section 01 81 50 "Mechanical Fountain Systems Commissioning Requirements."
- L. The Contractor shall coordinate the work with Section 01 81 60 "Electrical Pool Systems Commissioning Requirements."

1.7 RESPONSIBILITIES OF THE ELECTRICAL SUBCONTRACTOR

- A. The Electrical Subcontractor shall be licensed and shall furnish and in- stall electrical service to Fountain sized to accommodate all necessary Fountain equipment as shown on the Drawings and herein specified.
- B. The Electrical Subcontractor shall furnish any temporary power needed by the Fountain Subcontractor within fifty (50) feet of the Fountain construction site(s).
- C. The Electrical Subcontractor shall furnish and install all conduits, conductors, starters/disconnects, panels, circuits, switches and equipment as required for lighting, ventilation and HVAC equipment within Fountain Mechanical Room as required by code, shown on the Drawings, and herein specified.
- D. The Electrical Subcontractor shall furnish and install all conduits, conductors, panels, circuits, switches and equipment for area lighting as required by code, shown on the Drawings, and herein specified.
- E. All equipment, material and installation shall be as required under Division 16 of the Specifications and shall conform to NEC Article 680 (latest revision), State and Local Codes, and as may be required by all authorities having jurisdiction over Fountain construction.
- F. The Electrical Subcontractor shall provide a representative at time of Fountain start-up to coordinate work related to Fountain system(s).
- G. The Contractor shall coordinate the work with Section 01 81 00 "General Commissioning Requirements."
- H. The Contractor shall coordinate the work with Section 01 81 50 "Mechanical Pool Systems Commissioning Requirements."

I. The Contractor shall coordinate the work with Section 01 81 60 "Electrical Fountain Systems Com- missioning Requirements."

1.8 INTENT

- A. It is the intention of these specifications and Drawings to call for finished work, tested and ready for operation. Wherever the work "provide" is used, it shall mean "furnish and install complete and ready for use."
- B. Minor details not usually shown or specified, but necessary for proper installation and operation, shall be included in the work, the same as if herein specified or shown.

1.9 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by Architect for Subcontractor's use in preparing submittals.
- B. Coordination: Coordinate preparation and processing submittals with performance construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for schedules performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for re-submittals as follows. Time for review shall commence on Architect's receipt of submittal.
 - 1. Initial Review: Allow fifteen (15) days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Architect will advise Contract when a submittal being processed must be delayed for coordination.
 - 2. Concurrent Review: Where concurrent review of submittals by Architect's consultants, Owner, or other parties is required, allow twenty-one (21) days for initial review of each submittal
 - Direct Transmittal to Consultant: Where the Contract Documents indicate that submittals
 may be transmitted directly to Architect's consultants, provide duplicate copy of transmittal to Architect. Submittal will be returned to Architect before being returned to Subcontractor.
 - 4. If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 5. Allow fifteen (15) days for processing each submittal.
 - 6. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- E. Identification: Place a title block on each submittal for identification.

- 1. Indicate name of firm or entity that prepared each submittal on title block.
- 2. Provide a space on title block to record Subcontractor's review and approval markings and action take by Architect.
- 3. Include the following information on title block for processing and recording action taken: (See Attached Sample)
 - a. Project name.
 - b. Date.
 - c. Name and address of Subcontractor.
 - d. Name of Subcontractor.
 - e. Name of Supplier.
 - f. Name of Manufacturer.
 - g. Unique identifier, including revision number.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
 - j. Other necessary identification.

SUMBITTAL FOR:	SUBMITTAL TO:	SUBCONTRACTOR:		
Item Number: Section Number: Section Description: Subcontractor: Supplier: Manufacturer: Product Code: Quantity:				
Subcontractor Certification:	Contractor's Sul	omittal Stamp:		
It is hereby certified that the equipment or material designated in this submittal is proposed to be incorporated in the above named project and is in compliance with the contract drawings and / or specifications and is submitted for approval.				
Certified by:				
Date:				
Job Superintendent: Revisions:				

Architect's Review Stamp and Comments

- F. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract documents on submittal.
- G. On all catalogue or cut sheets identify which model or type is being submitted.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Product data and shop drawings shall be packaged within a three ring binder and colored samples shall be packaged on a heavy cardboard. Transmit each submittal using a transmittal form
 - On an attached separate sheet, prepared on Subcontractor's letterhead, record relevant information, request for data, revisions other than those requested by Architect on previous submittals and deviations from requirements of the Contract documents, including minor variations and limitations. Include the same label information as the related submittal.
 - 2. Include Subcontractor's certification stating that information submitted complies with requires of the Contract Documents.
 - 3. Transmittal Form: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of Subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Remarks.
- I. Distribution: Furnish copies of final submittals to manufacturers, Subcontractors, suppliers, fabricators, installers, authorities having jurisdiction and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals with mark indicating action taken by Architect in connection with construction.

1.10 SUBSTITUTIONS

- A. To obtain approval to use unspecified products, bidders shall submit requests for substitution at least ten (10) days prior to bid date. Requests shall only be considered if they clearly describe the product for which approval is asked, including all data necessary to demonstrate acceptability. All unspecified products and equipment will be considered on an "or equal" basis at the discretion of the Designated Representative. Requests for substitution received after the specified deadline will not be considered. Where a conflict exists between the requirements of the General Conditions / Special Conditions / Division 1 concerning substitutions and the requirements of this Article, this Article (Section 13 11 00, Article 1.10) shall govern.
- B. Where the Fountain Subcontractor proposes to use an item of equipment other than that specified or detailed on the Drawings which requires any redesign of the structure, partitions, foundations, piping, wiring, or any other part of the architectural, mechanical, or electrical layout, all such redesign and all new drawings and detailing required shall be prepared by the Fountain Subcontractor, at his own expense, submitted for review and approval by the Designated Representative prior to bid.
- C. Where such approved deviation requires a different quantity and arrangement of piping, supports and anchors, wiring, conduit, and equipment from that specified or indicated on the Draw-

ings, the Fountain Subcontractor shall furnish and install any such piping, structural sup-ports, controllers, motors, starters, electrical wiring and conduit, and any other additional equipment required by the system, at no additional cost to the Owner.

1.11 SURVEYS AND MEASUREMENTS

A. The Fountain Subcontractor shall base all measurements, both horizontal and vertical, from benchmarks established by the Contractor. All work shall agree with these established lines and levels. The mechanical Drawings do not give exact details as to elevations of piping, exact locations, etc. and do not show all offsets, control lines, pilot lines and other installation details. Verify all measurements at site and check the correctness of same as related to the work.

1.12 DRAWINGS

A. Drawings are diagrammatic and indicate the general arrangement of the systems and work included in the Subcontractor. Drawings are not to be scaled. The architectural drawings and details shall be examined for exact dimensions. Where they are not definitely shown, this information shall be obtained from the Designated Representative.

1.13 FOUNTAIN SUBSUBCONTRACTOR

- A. The Fountain construction work as herein described and specified in Division 13 of the Project Manual shall be the complete responsibility of a qualified and licensed Fountain Subcontractor with extensive experience in Fountain installations.
- B. The Contractor may require the Fountain Subcontractor to furnish to the Contractor performance and payment bonds in the amount of 100% of the Fountain Subcontractor's bid written by a surety Company listed by the U.S. Treasury. The expense of the bond(s), if required, is to be borne by the Subcontractor. The Contractor shall clearly specify the amount and requirements of the bond(s) in the Contractor's written or published request for subbids. The Contractor's written or published request for subbids shall also specify that the bond(s) expense is to be borne by the Subcontractor.
- C. Subcontractor certifies that it meets the qualifications and experience requirements established in Fountain General Conditions, Section 13 11 00, as follows:
 - 1. Subcontractor has derived 50% of its annual revenue from Fountain or recreational aquatics construction for each of the last five (5) years.
 - 2. Subcontractor has, in the last five (5) years, constructed at least five (5) commercially designed municipal and public-use features similar in scope to this project
 - 3. The following list of projects meet the requirements of section (b) above and the contact as reference by the Contractor, the Awarding Authority of their agent or designee.

a.	Owner:	
	Scope of Project:	
	Contact Person:	
	Phone Number:	
	Architect for Project:	

b.	Owner: Scope of Project: Contact Person: Phone Number: Architect for Project:	
C.	Owner: Scope of Project: Contact Person: Phone Number: Architect for Project:	
d.	Owner: Scope of Project: Contact Person: Phone Number: Architect for Project:	
e.	Owner: Scope of Project: Contact Person: Phone Number: Architect for Project:	
	•	

1.14 OPERATING INSTRUCTIONS

A. The Fountain Subcontractor shall determine the proper water management program necessary for maximum operating efficiency and comfort. The Fountain Subcontractor shall provide the services of experienced personnel familiar with this type of Fountain system operation, in conformance with Section 13 11 05 of the Specifications.

1.15 MAINTENANCE MANUALS

- A. The Fountain Subcontractor shall provide six (6) bound sets for delivery to the Designated Representative of instructions for operating and maintaining all systems and equipment included in this Contract. Manufacturer's advertising literature or catalog pictures will not be acceptable for operating and maintenance instructions.
- B. Bound in ring binders shall be all parts lists, periodic maintenance instructions and troubleshooting guidelines for all pool equipment. Detailed seasonal opening and winterizing instructions must be provided.

1.16 SECURE FROM THE OWNER

- A. A complete Owner-furnished filling of the Fountain.
- B. The Owner's assistance, as specified herein, from the time of start-up until final written acceptance of the Fountain system(s).

1.17 WARRANTY

A. The Fountain Subcontractor shall warrant all Fountain structures, finishes and systems against defects in material and workmanship for a period of one year after the date of acceptance by

the Owner. Any repair or replacement required due to defective material or workmanship will be promptly corrected by the Fountain Subcontractor.

PART 2 - PRODUCTS

A. NOT USED

PART 3 - EXECUTION

A. NOT USED

END OF SECTION

SECTION 13 11 01 FOUNTAIN EXCAVATION

END OF SECTION

SECTION 13 11 02 FOUNTAIN CONCRETE

END OF SECTION

SECTION 13 11 06 FOUNTAIN EQUIPMENT

PART 1 – GENERAL

1.1 WORK INCLUDED

A. Fountain equipment items required for this Work as indicated on the Drawings and specified herein.

1.2 QUALITY ASSURANCE

A. Qualifications of Workers:

- 1. The entity performing the work of this Section shall have been successfully engaged in the respective trade for at least five (5) years immediately prior to commencement of the Work.
- 2. For actual construction operations, use only trained and experienced workers with a minimum of three (3) years experience with the materials and methods specified.
- 3. Provide at least one person who shall be present at all times during execution of the work of this Section, with a minimum of five (5) years experience with the type of materials being installed, the referenced standards, and who shall direct all Work performed under this Section.

1.3 SUBMITTALS AND SUBSTITUTIONS

- A. Provide submittals in conformance with the requirements of Section 01 33 00. Requests for substitution shall conform with requirements of Article 1.10.A of Section 13 11 00.
- B. Required submittals include:
 - Fountain Equipment as specified in Articles 2.1 through 2.19 of this Section. C.

Submit proof of qualifications as specified in Article 1.2.A of this Section.

D. The equipment shown on the plans represent the first listed items in the technical specifications. The Contractor shall be responsible for all required field coordination and installation of any approved equal product to provide a fully working and warranted system. The Contractor shall submit detailed shop drawings for any products used other than the first listed specified items. Contractor provided shop drawings shall include details and quality equal to the original plans and construction documents. The Contractor shall provide any and all required engineering including but not limited to structural and anchorage requirements for any proposed equipment other than the first listed specified equipment. The Contractor is responsible to provide a factory certified representative(s) to start-up and provide on-site training for all swimming pool mechanical equipment provided.

1.4 PRODUCT HANDLING

- A. Protection: Use all means necessary to protect Fountain equipment items before, during and after installation and to protect the installed work specified in other Sections.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner's Representative.

PART 2 - PRODUCTS

2.1 SAFETY EQUIPMENT

2.2 MAINTENANCE EQUIPMENT

A. Provide specialized equipment required for maintenance of fountain. Items to include special tools for access hatches, grating removal, etc..., equipment that facilitates and eases cleaning processes unique to this unique fountain installation, and a minimum of one year supply of consumable items that may be applicable including lubricating oil(s), etc...

2.3 FITTINGS

A. Part 1: General

1.1 Section Includes

- A. Prefabricated custom-designed light duty stainless steel bar gratings.
- B. Miscellaneous installation hardware and accessories.

1.2 References

- A. ASTM A-666 Stainless Steel Strip
- B. ASTM A-269 Stainless Steel Tubing
- C. ASTM A-967 Standard for Chemical Passivation for Stainless Steel
- D. ANSI/NAAMM- MBG-531-09 Metal Bar Grating Manual

1.3 Action Submittals

- A. Product Data: The contractor shall submit the manufacturer's catalog pages including load tables, anchor details and standard installation details.
- B. Shop drawings: The contractor shall submit for approval shop drawings for the fabrication and erection of all gratings, based on construction drawings of current issue. Include plans, elevations, and details of sections and connections as required. Show type and location of all fasteners.
 - C. Samples of Grating and Anchorage system shall be submitted for approval.

1.4 Quality Assurance

- A. Manufacturer Qualification: A company specializing in the manufacture of metal bar gratings with not less than 10 years of documented experience.
- B. Fabrication tolerances shall be in accordance with applicable provisions and recommendations of ANSI/NAAMM 531-09 Metal Bar Grating Manual.

Part 2: Grating

2.1 Source Requirements:

Design is based upon use of gratings as manufactured by Hendrick Architectural Products, and terminology used herein may include reference to the specific performance or product of this manufacturer.

2.2 Manufacturers:

Manufacture: Hendrick Architectural Products, Carbondale, PA

email: sales@hendrickarchproducts.com, phone: 877-840-0881, fax: 570-282-1506

2.3 Manufactured Units:

A. Fabrication: Fabricated using Profile Bar wires and U-clip supports from 304 or 316 stainless material. Sections to be supplied in lengths as needed with opening area as required and degree deflection. Corners grates will be mitered and banded. Grating shall include hidden mounting tabs as required.

B. Design Criteria:

- 1. **Loading:** Grating Products shall be designed and manufactured to meet the live load conditions of 300 lbs/ Sq Ft with maximum deflection of 1/8" for the clear spans shown on the drawings. Bearing bar depth shall be as shown on the contract drawings or as recommended by the manufacturer to meet the loading requirements, clear span conditions and maximum deflections specified.
- C. **Materials:** Bearing bars and banding are per ASTM A-666 Stainless Steel Strip Alloy 304 or 316 and Stainless Steel Tube Cross Bars are type ASTM A-269 Stainless Steel Tubing Alloy 304 or 316.
- D. **Fabrication Tolerances** shall be in accordance with ANSI/NAAMM MBG 531-09 Metal Bar Grating Manual.
 - E. Finish: Gratings shall be a matte non-directional finish unless otherwise specified.

2.4 Accessories:

Provide appropriate fasteners for type, grade, and class required for the approved anchorage system.

Part 3: Execution

3.1 Field Verification: Take field measurements prior to preparation of final shop drawings and fabrication where required to ensure proper fitting of the work.

3.2 Installation

- A. Prior to grating installation, contractor shall inspect supports for correct alignment and conditions for proper attachment and support of the gratings. Any inconsistencies between contract drawings and supporting structure deemed detrimental to grating placement shall be reported in writing to the architect or owner's agent prior to placement.
- B. Install grating in accordance with shop drawings and standard installation clearances as recommended by ANSI/NAAMM MBG-531-09 Metal Bar Grating Manual.
- **3.3 Grating Attachment:** Use approved attachment system and fasteners to secure grating to supporting members as shown on plans.

Grating Other

1. Frames and grates for equipment sumps. Main Drain/Gutter Outlet Frame & Grate (18"x18"): by Lawson Aquatics, #MLD-SG-1818 Two (2) total. Lawson Aquatics, Knorr Systems, or approved equal.

Appurtenances

- A. Fountain Underwater Lights: Pentair Intellibrite White LED with stainless steel face rings, 70 watt lamps and LWC. Stainless steel niches, Pentair #78210600 with 1" hubs, or approved equal. Four (4) required. Pentair, Knorr Systems, or approved equal..
- B. Fill System: Niche / wall mounted, mechanical, float activated, auto fill unit with 3/4" supply. PEM, Aqua Play Solutions, Fountain People, or approved equal.

2.4 MECHANICAL SYSTEMS EQUIPMENT

- A. The feature pump controller shall be a by Aqua Play Solutions (770-703-7251) or approved equal. The controller shall be one complete integrated control system capable of:
 - Controlling the feature pump motor automatically through a programmable sequence. Feature pump will be programmable to operate during selected daylight hours
 - b. Controlling the drain pump to operate at programmable intervals.
 - c. Control the lighting to operate at programmable intervals
 - d. Control the incoming fresh water supply at programmable intervals
 - e. The Controller shall be a complete UL 508 listed industrial control system and shall include the following components:
 - 1) NEMA 12 enclosure with full gasket. Custom steel enclosure is to be powder coated
 - 2) PLC pre-programmed with pump specific logic control
 - 3) Control transformer
 - 4) Line reactor
 - 5) Main motor contactor
 - 6) Heavy duty bonding and grounding connections
 - 7) Clear identification label mounted on the interior of the enclosure and identification on exterior of panel

f. PLC

- 1) Programmed settings shall be retained in PLC memory without the use of a battery back-up. The settings and program, in whole or part, may be locked out with the use of an operator-selected password.
- 2) Additional control panels, PLC's or other external devices, shall not be necessary to accomplish complete pump programming and adjustable speed operation of the pump and motor. Standard variable frequency drives that do not incorporate pump control logic and have separate and distinct operational modes shall not be considered equal.

g. <u>Instructions</u>

1) Printed and bound operating, installation and service manual with exploded parts list shall be supplied with the system described herein.

h. Start-Up, Training and Field Service

1) Local factory representation for the products contained herein is mandatory. A site specific/ site local factory-authorized and trained service specialist shall provide system startup and training service. The startup shall include adjustments to the SPCS system and all of its controlling components, calibration and setup of the control system, and instructions to the owner/operator of the system's workings.

i. Warranty

1) A one (1) year limited warranty shall be provided covering all components of the SPCS system specified herein.

2.7 FEATURE AND "DRAIN" PUMP

- A. 'Pump (2 identical) to be submersible, commercial grade, capable of 60 gpm @ 40' TDH. Pumps to be 120 volt single phase.
- B. A stainless steel manifold with 1.5" header and (4) ½" feed lines with throttling valves

END OF SECTION

TO: BIDS WILL BE RECEIVED UNTIL 2:00 P. M. LOCAL TIME ON MONDAY FEBRUARY 4, 2013