

University of South Carolina- Aiken
Aiken, South Carolina

Project Manual for USC Aiken Pool Repairs

December 5, 2013

TABLE OF CONTENTS

Project Number: H29-I346

Project Name: USC Aiken Pool Repairs

Table of Contents

Invitation for Minor Construction Quotes (SE-311, 2011 Edition)

Quote Form (SE-331, 2011 Edition)

USC Supplemental General Conditions for Construction Projects

Contractor's One Year Guarantee

Specifications:

Section 100000 Swimming Pool Plaster

SE-311

Invitation for Minor Construction Quotes

SCBO NOTES 2, 4 and 5 APPLY TO THIS INVITATION FOR QUOTES

PROJECT NAME: USC Aiken Pool Repairs

PROJECT NUMBER: H29-I346 PROJECT LOCATION: Aiken, SC

BID SECURITY REQUIRED? Yes No

PERFORMANCE BOND REQUIRED? Yes No

PAYMENT BOND REQUIRED? Yes No CONSTRUCTION COST RANGE: <\$50K

DESCRIPTION OF PROJECT:

Refinish the interior swimming pool structure. Work to include, but not limited to, replastering interior pool area, furnish & install new racing lanes, new breakline tiles, re-stencil (repaint) waterline depth markers, etc. See project specifications for more in-depth description and details. Minority and small business participation is encouraged. This project is a 30 calendar day duration. Liquidated Damages in the amount of \$100/calendar day will be charge pass the established completion date. Alternate 1-Exposed Aggregate Plaster in lieu of White Plaster.

A/E NAME: Palmetto Aquatic Designs A/E CONTACT: Chris Childs

ADDRESS: 11 Endicot Way PHONE: 803.729.4308 Fax: _____

CITY: Lugoff, SC 29078 STATE: sc ZIP: 29078 E-MAIL: palmettoaquaticdesigns@gmail.com

PLANS ON FILE AT: AGC: _____

DODGE: _____

OTHER: _____

PLANS MAY BE OBTAINED FROM: http://purchasing.sc.edu (Facilities/Construction Solicitation/Award)

PLAN DEPOSIT AMOUNT: n/a IS DEPOSIT REFUNDABLE? Yes No

PRE-QUOTE CONFERENCE? Yes No MANDATORY ATTENDANCE? Yes No

DATE: 12/17/2013 TIME: 10 am PLACE: USCA, 471 University Pkwy, Maintenance and Supply Building, Aiken, SC

AGENCY: University of South Carolina

NAME AND TITLE OF AGENCY COORDINATOR: Juaquana Brookins, Procurement Specialist II

ADDRESS: 743 Greene St PHONE: 803.777.3596 Fax: 803.77.3596

CITY: Columbia STATE: SC ZIP: 29208 E-MAIL: jbrookin@fmc.sc.edu

IFQ CLOSING DATE: 1/7/2014 TIME: 1pm LOCATION: 743 Greene St, Columbia, SC 29208

IFQ DELIVERY ADDRESSES:

HAND-DELIVERY:
see mail

MAIL SERVICE:

Attn: Juaquana Brookins "Bid Enclosed"
743 Greene Street
Columbia, SC 29208

IS PROJECT WITHIN AGENCY CONSTRUCTION CERTIFICATION? (Agency MUST check one) YES NO

APPROVED BY: _____ (State Engineer) _____ (Date)

SE-331 Quote Form

2011 Edition

Quotes shall be submitted only on SE-331

QUOTE SUBMITTED BY: _____
(Offeror's Name)

QUOTE SUBMITTED TO: University of South Carolina-Aiken
(Agency Name)

FOR PROJECT: H29-I346 USC Aiken Pool Repairs
(Number) (Name)

OFFER

1. In response to the Form SE-311, *Request for Minor Construction Quotes*, and in compliance with the *Instructions to Bidders* for the above-named Project, the undersigned **OFFEROR** proposes and agrees, if this Quote is accepted, to enter into a Contract with the **AGENCY** in the form included in the Solicitation Documents, and to perform all Work as specified or indicated in the Solicitation Documents, for the prices and within the time frames indicated in the Solicitation and in accordance with the other terms and conditions stated.

2. Pursuant to Section 11-32-3030(1) of the SC Code of Laws, as amended, **OFFEROR** has submitted Bid Security as follows in the amount and form required by the Solicitation Documents:

Bid Bond with Power of Attorney Electronic Bid Bond Cashier's Check
(OFFEROR check one, if Bid Security is required)

3. **OFFEROR** acknowledges the receipt of the following Addenda to the Solicitation documents and has incorporated the effects of said Addenda into its Quote:

ADDENDUM No: _____

4. **OFFEROR** agrees that this Quote, including all bid alternates, if any, may not be revoked or withdrawn after the opening of bids, and shall remain open for acceptance for a period of 60 Days following the Quote Date, or for such longer period of time that **OFFEROR** may agree to in writing upon request of the **AGENCY**.

5. **OFFEROR** agrees that from the compensation to be paid, the **AGENCY** shall retain as Liquidated Damages the amount of for each calendar day the actual construction time required to achieve Substantial Completion exceeds the specified or adjusted Contract Time for Substantial Completion, as provided in the Contract Documents.

6. **OFFEROR** herewith submits its offer to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fee, permits, licenses and applicable taxes necessary to complete the following items of construction work:

6.1 BASE BID _____
(enter BASE BID in figures only)

6.2 ALTERNATE NO. 1 _____ to be ADDED/DEDUCTED from BASE BID.
(circle one)

6.3 ALTERNATE NO. 2 _____ to be ADDED/DEDUCTED from BASE BID.
(circle one)

FEIN/SSN: _____

SC Contractor's
License Number: _____

Address: _____

Telephone/Fax _____

E-mail _____

This Quote is hereby submitted on behalf of the Offeror
named above.

BY: _____
(Signature of Offeror's Representative)

(Print or Type Name of Offeror's Representative)

ITS: _____

SE-331

USC SUPPLEMENTAL GENERAL CONDITIONS
FOR CONSTRUCTION PROJECTS

1. Contractor's employees shall take all reasonable means not to interrupt the flow of student traffic in building corridors, lobbies and stairs. All necessary and reasonable safety precautions shall be taken to prevent injury to building occupants while transporting materials and equipment through the building to the work area. Providing safe, accessible, plywood pedestrian ways around construction may be required if a suitable alternative route is not available.
2. Fraternization between Contractor's employees and USC students, faculty or staff is strictly prohibited-zero tolerance!
3. USC will not tolerate rude, abusive or degrading behavior on the job site. Heckling and cat-calling directed toward students, faculty or staff or any other person on USC property is strictly prohibited. Any contractor whose employees violate this requirement will be assessed a fine of up to \$500 per violation.
4. Contractor's employees must adhere to the University's policy of maintaining a drug-free and smoke-free/tobacco free workplace.
5. Contractor must sign a Contractor Key Receipt/Return form before any keys are issued. Keys must be returned immediately upon the completion of the work. The Contractor will bear the cost of any re-keying necessary due to the loss of or failure to return keys.
6. A welding permit must be issued by the University Fire Marshall before any welding can begin inside a building. Project Manager will coordinate.
7. Contractor must notify the University immediately upon the discovery of suspect material such as those potentially containing asbestos or other such hazardous materials. These materials **must not** be disturbed until approved by the USC Project Manager.
8. At the beginning of the project, the USC Project Manager will establish the Contractor's lay-down area. This area will also be used for the Contractor's work vehicles. No personal vehicles will be allowed in this area, or in any areas surrounding the construction site that are not regular or authorized parking lots. Personal vehicles must be parked in the perimeter parking lots. Parking permits can be obtained at the USC Parking Office located in the Pendleton Street parking garage. The lay down area will be clearly identified to the contractor by the PM, with a sketch or drawing provided to Parking. In turn, the contractor will mark off this area with a sign containing the project name, PM name, Contractor name and contact number, and end date. Where this area is subject to foot traffic, protective barriers will be provided as specified by the PM. The area will be maintained in a neat and orderly fashion. Vehicles parked in the lay down area (or designated parking areas) will be clearly marked or display a CPC furnished placard for

identification.

9. Contractor will be responsible for providing its own temporary toilet facilities, unless prior arrangements are made with the USC Project Manager.
10. Use of USC communications facilities (telephones, computers, etc.) by the Contractor is prohibited, unless prior arrangements are made with the USC Project Manager.
11. For all projects over \$100,000, including IDC's, an SE-395, Contractor Performance Evaluation, will be completed by the USC Project Manager and reviewed with the GC at the beginning of the project and a copy given to the GC. At the end of the project the form will be completed and a Construction Performance rating will be established.
12. Contractor is responsible for removal of all debris from the site, and is required to provide the necessary dumpsters which will be emptied at least one times per week. Construction waste must not be placed in University dumpsters. THE CONSTRUCTION SITE MUST BE THOROUGHLY CLEANED WITH ALL TRASH PICKED UP AND PROPERLY DISPOSED OF ON A DAILY BASIS AND THE SITE MUST BE LEFT IN A SAFE AND SANITARY CONDITION EACH DAY. THE UNIVERSITY WILL INSPECT JOB SITES REGULARLY AND WILL FINE ANY CONTRACTOR FOUND TO BE IN VIOLATION OF THIS REQUIREMENT AN AMOUNT OF UP TO \$1,000 PER VIOLATION.
13. **Contractor must provide all O&M manuals, as-built drawings, and training of USC personnel on new equipment, controls, etc. prior to Substantial Completion. Final payment will not be made until this is completed.**
14. The contractor will comply with all regulations set forth by OSHA and SCDHEC. Contractor must also adhere to USC's internal policies and procedures (available by request). As requested, the contractor will submit all Safety Programs and Certificates of Insurance to the University for review.
15. Tree protection fencing is required to protect existing trees and other landscape features to be preserved within a construction area. The limits of this fence will be evaluated for each situation with the consultant, USC Arborist and USC Project Manager. The tree protection fence shall be 5' high chain link fence unless otherwise approved by USC Project Manager. No entry or materials storage will be allowed inside the tree protection zone. A 4" layer of mulch shall be placed over the tree protection area to maintain moisture in the root zone.
16. Where it is necessary to cross walks, tree root zones (i.e., under canopy) or lawns the following measures shall be taken: For single loads up to 9,000 lbs., a 3/4" minimum

plywood base shall be placed over areas impacted. For single loads over 9,000 lbs., two layers of 3/4" plywood is required.

17. For projects requiring heavy loads to cross walks tree root zones or lawns. A construction entry road consisting of 10' X 16' oak logging mates on 12" coarse, chipped, hardwood base. Mulch and logging mats shall be supplemented throughout the project to keep matting structurally functional.
18. Any damage to existing landscaping (including lawn areas) will be remediated before final payment is made.
19. Orange safety fence to be provided by the contractor. (USC Arborist, Kevin Curtis may be contacted at 777-0033 or 315-0319)

Campus Vehicle Expectations

1. All motorized vehicles on the University campus are expected to travel and park on roadways and/or in parking stalls.
2. All motorized vehicle traffic on USC walkways must first receive the Landscape Manager=s authorization. Violators may be subject to fines and penalties.
3. All motorized vehicles that leak or drip liquids are prohibited from traveling or parking on walks or landscaped areas.
4. Contractors, vendors, and delivery personnel are required to obtain prior parking authorization before parking in a designated space. Violators may be subject to fines and/or penalties. See Item 10 below.
5. Drivers of equipment or motor vehicles that damage university hardscape or landscape will be held personally responsible for damages and restoration expense.
6. Vehicle drivers who park on landscape or drives must be able to produce written evidence of need or emergency requiring parking on same.
7. All vehicles parked on landscape, hardscape, or in the process of service delivery, must display adequate safety devices, i.e. flashing lights, cones, signage, etc.
8. All drivers of equipment and vehicles will be respectful of University landscape, equipment, structures, fixtures and signage.
9. All incidents of property damage will be reported to Parking Services or the Work Management Center.
10. Parking on campus is restricted to spaces designated by Parking Services at the beginning

of the project. Once the project manager and contractor agree on how many spaces are needed, the project manager will obtain a placard for each vehicle. This placard must be hung from the mirror of the vehicle, otherwise a ticket will be issued and these tickets cannot be "fixed". Parking spaces are restricted to work vehicles only; no personal vehicles.

Project Name: USC Aiken Pool Repairs

Project Number: H29-I346

University of South Carolina

CONTRACTOR'S ONE YEAR GUARANTEE

STATE OF _____

COUNTY OF _____

WE _____

as Contractor on the above-named project, do hereby guarantee that all work executed under the requirements of the Contract Documents shall be free from defects due to faulty materials and /or workmanship for a period of one (1) year from date of acceptance of the work by the Owner and/or Architect/Engineer; and hereby agree to remedy defects due to faulty materials and/or workmanship, and pay for any damage resulting wherefrom, at no cost to the Owner, provided; however, that the following are excluded from this guarantee;

Defects or failures resulting from abuse by Owner.

Damage caused by fire, tornado, hail, hurricane, acts of God, wars, riots, or civil commotion.

[Name of Contracting Firm]

*By _____

Title _____

*Must be executed by an office of the Contracting Firm.

SWORN TO before me this _____ day of _____, 2____ (seal)

_____ State

My commission expires _____

**SECTION 100000
SWIMMING POOL PLASTER**

PART 1 – GENERAL

1.01 SUMMARY

A. All preparation of swimming pool structure and labor and materials required to provide a white swimming pool plaster (marsite) finish to the pool structure. Furnish and install new racing lane tiles on the swimming pool floor and racing lane targets on the vertical pool walls. Furnish and install a transition point tile band on the swimming pool floor and vertical pool walls at the break line. Re-stencil (repaint) waterline depth markers on the perimeter pool coping as required to meet current South Carolina Department of Health and Environmental Control (SCDHEC) code.

B. Provide water quality analysis and all chemicals required to bring water chemistry into balance upon filling of pool.

C. All work to comply with SCDHEC rules and regulations and as herein specified.

1.02 SUBMITTALS

A. Certificates: Submit certificates attesting that the materials furnished meet the requirements specified herein.

B. Test Report: Submit results of domestic water analysis and calculation of amounts of chemicals required to balance pool water chemistry upon refilling of pool.

C. SCDHEC Change Order: Submit SCDHEC approved change order (Form DHEC 3627-02/2002) to the University of South Carolina (herein referred to as Owner) prior to start of work.

D. Licenses and Insurance: Provide documentation of current and proper professional licensing and insurance to Owner. Minimum insurance coverage limits shall be as required by law or as shown in Paragraph 6.25 of the *Manual for Planning and Execution of State Permanent Improvements - Part II*, whichever is greater, or such other amount as the Owner may request.

1.03 PRODUCT DELIVERY AND STORAGE

A. Delivery: Deliver materials to the project site in the manufacturer's original unopened packages or containers bearing manufacturers' name and brand labels.

B. Storage: Store materials under cover in a manner to prevent damage and contamination and store only the specified materials at the project site. Keep cementitious materials dry until ready to be used and stored off the ground, under cover and away from damp surfaces.

C. Protection: Use all means necessary to protect the swimming pool plaster before, during, and after installation.

D. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner's representative.

1.04 JOB CONDITIONS

A. Apply plaster in swimming pool only when ambient temperature is above 40 degrees Fahrenheit (°F) and below 90 °F, and protect applied plaster from rapid drying by the sun or wind until curing is completed or pool is filled with water. Confirm and comply with all applicable manufacturers installation requirements.

1.05 QUALITY ASSURANCE

A. All work of this section shall be performed or supervised by the swimming pool "Contractor."

B. Qualifications of Workers:

1. The Contractor for this portion of the work shall have been successfully engaged in the respective trade for at least five (5) years immediately prior to commencement of this work, and shall demonstrate to the approval of the Owner's representative that his record of workmanship is satisfactory.

2. For actual construction operations, use only thoroughly trained and experienced workers completely familiar with the materials and methods specified. Plaster installers shall have two (2) years minimum experience in similar pool projects (which the Owner may require written proof thereof) and proper tools to install plaster.

3. Provide at least one (1) person who will be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type(s) of materials being installed, the referenced standards, and the requirements of this work, and who shall direct all work performed.

C. Standards: Swimming pool plaster shall be designed to comply with the published standards of the SCDHEC as they apply to the material and services furnished herein.

D. Start-up:

1. Retain a qualified pool chemistry consultant [Certified Pool Operator (CPO)], familiar with operation and maintenance of aquatic facilities, to supervise and properly balance swimming pool chemistry.

2. Demonstrate to the Owner's representative and appropriate officials (including SCDHEC) that all systems are fully operational and that calcium hardness; total alkalinity, chlorine residual and pH levels are within specified limits.

3. Standards: Contractor shall furnish labor and chemicals as required to condition the water properly to the following specifications:

- a. Calcium Hardness: 150 to 300 ppm
- b. Total Alkalinity: 100 ppm
- c. Chlorine Residual: 1.00-1.50 ppm
- d. pH Factor: 7.2 to 7.4

PART 2 - PRODUCTS

2.01 GENERAL MATERIALS AND REQUIREMENTS

A. Portland Cement: Swimming pool plaster cement shall be Type I white Portland cement conforming to ASTM C150 (Federal White Cement or equivalent).

B. Aggregates for Conventional Pool Plaster Finish Coat: White marble aggregates uniformly graded. Coarse particles shall not exceed 1/16" in size (White Georgia Marble or equivalent).

C. Water: Clean, fresh, from domestic potable source and free from injurious amounts of acid, alkali, and organics.

D. Bonding Agent: Provide a scratch coat bonding system, synthetic bond coating resin. As manufactured by Southern Grouts and Mortars (Bond Kote), or approved equal.

F. Proportions and Mixing:

1. Proportioning: All materials shall be mixed per manufacturer's recommendations for specific application. Materials are specified on a volume basis and shall be measured in approved containers which will ensure that the specified proportions will be controlled and accurately maintained during the progress of the work. Measuring materials with shovels ("shovel count") is not permitted.

2. Conventional White Marble Pool Plaster Finish Coat: Mix per manufacturer's recommendations for specific application. Mix finish in proportion of one part by volume of white Portland cement to not more than two parts by volume of aggregates (specified white marble dust).

3. Mixing: Perform mixing in approved mechanical mixers of the type in which quantity of water can be controlled accurately and uniformly. While mixer is in continuous operation, charge approximately 90% of estimated quantity of water, half of sand, all cement, and the other one half of the sand into mixer in that sequence and mix thoroughly with remainder of water until mixture is uniform in color and consistency. Avoid excess mixing to prevent hasty solution of cement resulting in accelerated set. Discard plaster that has begun to set before it is used; retempering is not allowed. Do not use any caked or lump materials. Completely empty mixer and mixing boxes after each batch is mixed and keep free of old plaster.

2.02 COLOR

A. Swimming pool plaster (marsite) shall be **white** in color.

PART 3 - EXECUTION

3.01 INSTALLATION OF POOL PLASTER

A. Completion of other work-**DO NOT** commence plastering (installation of marsite) of swimming pool until the following conditions have been met:

1. The SCDHEC has approved the pool for plaster (Contractor will be responsible for submission and approval of SCDHEC change order request form (Form DHEC 3627-02/2002) prior to start of swimming pool interior renovation). A copy of the SCDHEC approved change order must be provided to the Owner prior to start of work.

2. All trash and debris have been removed from areas adjacent to the pool.

3. All dust raising construction and/or activities in areas adjacent to the pool are complete or mitigated.

4. The circulation pump is operational.

5. The mechanical system has been flushed sufficiently to remove all dirt and debris from the piping system and the filtration and disinfection systems are ready for operation.

6. A domestic water quality analysis has been submitted to the Owner (at least 1 week prior to filling the pool) and adequate quantities of the chemicals, plus 25% overage for follow-up treatment, are on site and ready for use to balance the pool water chemistry.

7. Obtain written approval from the Owner. The Contractor accepts all liability from damage done to the pool plaster if the pool is plastered before the completion of the above listed items or without the written approval from the Owner.

POOL PLASTER AUTHORIZATION FORM:

The pool at the University of South Carolina – Aiken is hereby approved for the installation of the pool plaster.

Pursuant to the requirements of specification section 100000, paragraph 3.01.

Owner

Date

3.02 SURFACE CONDITIONS

A. Inspection:

1. Verify that swimming pool plaster can be installed in accordance with the original specifications.

2. During interior preparation inspect/investigate areas of pool with current/visible surface staining (steel/rust stains). Make recommendations and take necessary steps during surface preparation to prevent staining from reforming in new plaster surface). Coordinate inspection and resolution with Owner's engineer.

B. Discrepancies:

1. In the event of discrepancy, immediately notify the Owner's representative.
2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.
3. Failure to notify the Owner's representative and give written notice of discrepancies shall constitute acceptance by the Contractor of existing conditions as fit and proper to receive the work.

3.03 PREPARATION OF SURFACES AND BOND COAT

A. Preparation of Plaster Surfaces:

1. Drain all water from pool.
2. Remove the hydrostatic relief valve from the main drains, drill additional relief holes as needed in the floor of the pool. (Note: Additional drain holes, if required, are to be properly filled with hydraulic cement before re-plastering).
3. All loose marble is to be removed. Remove all loose concrete to firm substrate make sufficiently rough to provide a strong mechanical bond. Surfaces shall be roughened by sand blasting, water jetting, shot blasting, scarifying, grinding, chipping or combination thereof. The entire surface of the pool is to be chipped 4" to 6" on center in all directions down to the shell to insure proper bonding to the existing plaster surface (pay special attention to areas of the pool with visible surface staining).
4. Saw cut and chip at the coping line or tile line of the pool to insure proper keying of the new surface.
5. Saw cut and chip around the light fixtures, return lines, racing lane anchors, fixtures, and any other fittings.
6. Clean base surfaces of projections, dust, loose particles, grease, bond breakers, and foreign matter. Surface shall be structurally sound and free of any foreign substances and debris that could reduce or impair adhesion (paying special attention to areas of the pool with visible surface staining).
7. Wash entire concrete pool shell with acidic solution (muriatic acid solution) for additional etching and cleaning. Do not apply plaster directly to the surfaces of masonry or concrete that is coated with any acidic solution compound or similar agent until compound or agent is completely removed by water blasting.
8. Replace damaged wall return fittings and suction grates. Upgrade wall return fittings and suction grates if required by SCHDEC. New suction grates, if required by SCHDEC, will be Virginia Graeme Baker Pool and Safety Act (VGBA) compliant.

B. Removal, Installation, and Preparation of Racing Lane and Transition/Break Line Tile:

1. Remove existing racing lane line and targets/line cross tiles (six total racing lanes with targets/cross tiles) and transition/break line tiles (one total transition/break line) by chipping or other manual and/or mechanical means.

2. If required, brown top so finished tile installation is approximately 3/8" above existing surface. If leveling coat is required, use a brown coat application of one part-cement to three parts clean, washed sand.

3. Install new non-skid black ceramic tile (12" total tile width for all racing lanes, targets/cross tiles (or other width approved by Owner and SCDHEC) and min.4" to max. 6" tile width for transition/break line tile - duplicate existing width at transition/break line (or as required by SCDHEC).

4. Grout tile with white acid resistant grout.

C. Bond Coat:

1. Provide a scratch coat bonding system, synthetic bond coating resin. As manufactured by Southern Grouts and Mortars (Bond Kote), or approved equal.

2. Scrub bond coat onto the prepared concrete surface immediately prior to plastering. Use stiff bristle brush and/or high nap rollers to ensure total coverage and penetration of the bond coat slurry.

3.04 APPLICATION OF PLASTER

A. General:

1. Thoroughly wash entire surface with 2,000 psi high-pressure water immediately prior to plastering. Do not apply plaster over dirt, rust, scale, grease, moisture, scuffed surfaces or conditions otherwise detrimental to the formation of a durable plaster finish. Wet cementitious base surfaces with a fine fog water spray to produce a uniformly moist condition and check screeds, pool equipment, and accessories for correct alignment before plastering is started. Do not apply plaster to base surfaces containing frost.

2. Install temporary coverings as required to protect adjoining surfaces from staining or damage by plastering operations. Protect ceramic tile, decking, perimeter overflow gutters, deck equipment, gratings, fittings and other items by suitable covering or masking. Mask or remove all hardware, hardware accessories, machined surfaces, plates, lighting fixtures and similar items in place not to receive pool plaster. Following completion of plaster for each space or area remove masking. Re-install all removed items utilizing workers skilled in the trades involved after resurfacing is complete.

3. Consult with manufacturer on application to specific surfaces being treated. Follow manufacturer's recommendation for curing or cleaning of cast-in-place concrete or shotcrete surfaces prior to application of plaster. Apply finish plaster to the properly prepared substrate at the minimum thickness required by the manufacturer, but no less than 3/8 inch thickness at any location. Apply finish plaster by hand or machine. If plastering machine is used, control fluidity of plaster to have a slump not exceeding 2-1/2 inches. Do not add additional water to the mix subsequent to determining water content to meet this slump.

4. Into the parging coat of the concrete surfaces; trowel a finish coat of the specified marble plaster to a thickness between 1/4" and 3/8" maximum. Apply plaster with sufficient pressure to provide a good bond on bases. Work plaster to screeds at intervals of from 5 feet to 8 feet on straight surfaces. Apply smooth trowel finish without waves, cracks, trowel marks, ridges, pits, crazing, discoloration, projections, or other imperfections. Float the plaster to a uniform plane and trowel to a smooth, dense, impervious surface using extreme care to avoid stains. Form plaster carefully around curves and angles, well up to screeds. Take special care to prevent sagging and consequent drooping of applications. Produce surfaces free of visible junction marks in finish coat where one day's work adjoins another.

5. Take special care in finishing around pool fittings, making sure to mask off or plug openings so as not to fill such openings with excess plaster. Be certain to completely enclose pool fittings with plaster to insure a leak-proof seal around pipes, finings, lights, anchors, etc.

B. Environmental Conditions: No plastering shall be done under unsuitable conditions of weather or temperature. No plastering shall be done when prevailing temperature is 40 °F or less.

C. Curing:

1. After the plaster has sufficiently dried and before drying has proceeded to a damaging point, cure the plaster by gradually filling the pool with water, preventing all damage to finished plaster surfaces.

2. Flow the water continuously until the pool is filled.

3. When the weather is hot and/or water pressure is low, keep the pool walls damp while the pool is filling. Curing plaster with fine fog water spray applied to finish coat as frequently as required to prevent dry-out of plaster. Keep plaster damp until pool is filled.

D. Patching, Pointing, and Cleaning Up: Upon completion, cut out and patch loose, cracked, damaged, or defective plaster; patches matching existing plaster in texture, color, and finish, flush with adjoining plaster. Perform pointing and patching of surfaces and plasterwork abutting or adjoining any other finish work in a neat and workmanlike manner. If 10 percent or more of the pools plaster finish is found to be defective, the plaster shall be removed and replaced completely from all surfaces. Remove plaster droppings or spattering from all surfaces. Leave plaster surfaces in clean, unblemished condition ready for pool filling. Remove protective coverings from adjoining surfaces. Remove rubbish and debris from the site.

3.05 PRE-FILL SPECIFICATION

A. Contractor shall employ a qualified water testing agency to analyze the domestic water with which the pool will be filled within 1 week of the plaster date, and shall employ a swimming pool experienced water chemistry consultant (CPO) to determine types and quantities of chemicals required to ensure calcium-balanced water immediately upon the completion of water filling. Refer to section 100000, Section 3.01.

B. Replace hydrostatic relief valve.

3.06 FILLING SPECIFICATION

A. Contractor will coordinate with Owner to ensure that the pool is continuously monitored while filling to prevent overflow.

3.07 EQUIPMENT ACTIVATION

A. The contractor will coordinate activation of the filtration mechanical equipment with the Owner upon filling of pool after plaster. Chemicals and other related support items will be supplied by Contractor at start-up.

3.08 CLEAN-UP

A. Upon completion of swimming pool plaster, contractor will remove all materials, equipment and debris occasioned by this work and leave the job site in a clean and presentable condition. Perform all such clean-up to the approval of the Owner's Representative.

PART 4 – INSPECTIONS

4.01 ENGINEER INSPECTIONS

A. The Contractor will coordinate with the Owner's engineer to allow for the engineer to conduct inspections during the renovation.

1. Inspection 1 – During demolition/prepping of the pool interior (inspect areas where steel/rust is leaching through plaster to work with Contractor in determining best approach to minimize future leaching).

2. Inspection 2 – After pool interior is prepared for replastering (ensure interior is properly prepared, SCDHEC mandates upgrades (if any) are made, pool is properly bond coated, etc.).

3. Inspection 3 – After plaster installation (ensure interior renovation is satisfactory prior to SCDHEC final inspection).

4.02 SCDHEC FINAL INSPECTION

A. Contractor will coordinate with the SCDHEC regional office for a final inspection of the swimming pool interior renovation upon completion and obtain written SCDHEC approval/acceptance for the project. A copy of the SCDHEC approval letter must be provided by the Contractor to the Owner upon completion.

PART 5 - WARRANTY

A. The Contractor will provide a minimum two (2) year warranty from the date of application. The Contractor's warranty at a minimum will cover repair of the plaster surface if the following conditions occur: delamination, cracks, spalling, or discoloration of the plaster

UNIVERSITY OF SOUTH CAROLINA 100000-9
USC-Aiken Swimming Pool Remodel
10/01/2013

finish attributed to improper installation. A copy of the warranty must be provided in writing to the Owner upon completion.

END OF SECTION

