

Scope of Work

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I. SCOPE OF SOLICITATION

Clemson is seeking bids to furnish all labor and materials for concrete staining on Campus. This will be a one year contract awarded to one vendor with the option to renew for four additional years. Clemson does not guarantee any amount of work as actual needs may vary from year to year.

II. INSTRUCTIONS TO OFFERORS

Regardless of specific requirements below or in this document, Offerors are required to submit their proposal electronically through the Clemson University online bidding system. To do so you must login (registering first) at <https://scquest.ionwave.net/prod/default.aspx?company=clemson>, and follow specific instructions for this solicitation. You should register several days in advance of the bid closing date so you can be approved and login in time to submit a response.

1. INFORMATION FOR OFFERORS TO SUBMIT - In addition to information requested elsewhere in this solicitation, Offerors should submit the following information for purposes of evaluation:
 - A. The successful Offeror shall provide satisfactory evidence of all required insurance coverage and licenses PRIOR TO PERFORMANCE
2. Be sure to see the Event Activities in the online bidding system for details on deadlines for questions.

III. SCOPE OF WORK / SPECIFICATIONS

Stained Concrete

Concrete should be free of other coatings and/or sealers. The floor should be etched to a clean substrate.

Reactive Chemical Concrete Stain

Interior Applications: Concrete substrates must have a moisture vapor emission rate of less than 5 lbs./1000 sq. ft. per 24 hour based on a 72 hour test period according to ASTM F 1869.

New Concrete:

- A. Newly placed concrete to sufficiently cure for concrete to become reactive. Minimum cure time is 14 days.
- B. Interior Applications: Minimum cure time of concrete is 30 to 60 days, or longer if necessary to meet the specified water vapor transmission requirements.
- C. Do not use liquid curing materials. Cure concrete flatwork with new, unwrinkled, non-staining, high quality curing paper complying with ASTM C 171. Do not overlap curing paper.
- D. Cure surfaces using the same method and different sections (pours) chemically stained when concrete is the same age.
- E. Immediately prior to chemically staining, thoroughly clean concrete to remove any contaminants deleterious to subsequent chemical stain application. Sweep surfaces, then pressure wash or scrub using a rotary floor machine with a Mal-Grit Brush. Use suitable, non-acidic, high quality commercial detergents to facilitate cleaning. Rinse surfaces after cleaning until rinse water is completely clean.
Allow floor to dry completely prior to application of concrete stain.
- F. Pressure Washing: Use a pressure washer equipped with a fan tip and rated for a minimum pressure capability of 4000 psi.

Existing Concrete:

- A. Clean concrete surfaces until completely penetrable before receiving the initial application of chemical stain.
- B. Test surfaces to receive stain by spotting with water. Water should immediately darken the substrate and be readily absorbed. If water beads and does not penetrate or only penetrates in some areas, perform additional surface preparation and testing.
- C. On denser concrete floors, contractor is to sand lightly to open up surfaces. Retest and continue surface preparation until water spots immediately darken and uniformly penetrate concrete surfaces.
- D. Cleaning method used depends on the condition of the concrete surface. To remove dirt and other contaminants, detergents and other commercial grade cleaners may be suitable subject to testing.
- E. Pressure washing or scrubbing with a rotary floor machine with a Mal-Grit Brush.
- F. Use a pressure washer equipped with a fan tip and rated for a minimum pressure capability of 4000 psi.
- G. Rinse concrete substrates until rinse water is completely clean.

Scoring:

- A. Score decorative jointing in concrete surfaces 1/8 inch deep with diamond blades. Rinse until water is completely clean.
- B. Single Color Stain Applications: Score after staining.
- C. Multiple Color Stain Applications: Score before staining.

Chemical Stain Application:

- A. Comply with chemical stain manufacturer's printed instructions and current recommendations.
- B. Do not mix the specified chemical stain with highly alkaline chemical stain materials. Doing so will result in a dangerous chemical reaction.
- C. Protect surrounding areas, landscaping, and adjacent surfaces from overspray, runoff, and tracking. Divide surfaces into small work sections using walls, joint lines, or other stationary breaks as natural stopping points.
- D. Apply chemical stains at the coverage rate recommended by the manufacturer and use application equipment according to the chemical stain manufacturer's printed instructions. Note the color of the liquid chemical stain will not be the final color produced on the concrete substrate.
- E. Transfer chemical stain to the substrate by brush or spray and immediately scrub into surface. Reaction time depends on wind conditions, temperatures, and humidity levels.
- F. When multiple coats of one or more colors are required, washing and drying between colors is desirable to evaluate the color prior to the next coat.
- G. Rinsing: After the final coat of chemical stain has remained on the surface for a minimum of four hours, neutralize unreacted chemical stain residue and then remove completely prior to sealing. After neutralization, thoroughly rinse surface with clean water several times to remove soluble salts. While rinsing, lightly abrade surface using a low-speed floor machine and red pad to remove residue and weakened surface material. Runoff may stain the adjacent areas or harm plants. Collect rinse water by wet vacuuming or absorbing with an inert material.
- H. Failure to completely remove all residues prior to sealing the surface will cause appearance defects, adhesion loss or peeling, reduced durability, and possible bonding failure and delamination of sealer.
- I. All stain residue, runoff liquid, and rinse water must be collected and disposed of according to applicable Federal regulations and governing authorities having jurisdiction.

Sealing Application:

- A. Concrete substrate must be completely dry. Test surface for proper pH prior to applying sealer. A pH value of 7 or higher indicates all acid has been neutralized. If the tested pH value is less than 7, repeat neutralization step until the required pH value is achieved.
- B. Conduct a moisture vapor emission test prior to applying any sealer. Refer to the specific sealer's Technical-Data Bulletin for acceptable MVER.
- C. Apply sealer according to the sealer manufacturer's printed instructions at a rate of 300 to 500 square feet per gallon per coat. Maintain a wet edge at all times.
- D. Allow sealer to completely dry before applying additional coats.
- E. Apply second coat of sealer at 90 degrees to the direction of the first coat using the same application method and rates.
- F. Seal horizontal joints in areas subject to pedestrian or vehicular traffic.

Protection:

- A. The General Contractor is responsible for using Temporary Floor Protection throughout the project to safeguard the surface quality of concrete slabs before and after application of decorative finishes or installations of other materials.

- B. All concrete floors that will be not be covered by other materials will be protected throughout the project. The concrete slab must be treated as a finished floor at all times during construction.
- C. Temporary Floor Protection will be removed only while finish work to the concrete is being performed and will be replaced after the final finish has cured sufficiently.
- D. Heavy Duty Seaming Tape. Both products will be installed following the manufacturer's published installation procedures.
- E. **DO NOT APPLY THE HEAVY DUTY SEAMING TAPE TO BARE OR FINISHED FLOORS OR WALL SURFACES AT ANY TIME AS IT WILL PERMANENTLY DAMAGE THE FLOOR.**

General Specifications:

- A. The awarded contractor will be expected to work closely with the Project Manager coordinate scheduling, traffic control/safety precautions, etc. as required for each project. The contractor will provide all labor, supervision, materials, equipment, etc. required to properly complete the work in a safe, clean and timely manner.
- B. Contractor shall be responsible for the supervision and execution of services by its employees. The site must be maintained in a clean and safe condition at all times within reason. The contractor will be solely responsible for any/all tools, supplies, and articles left on the premises at all times.
- C. If University property is damaged, the damage must be repaired within a timely manner dictated by the University's Project Manager. Materials and labor are to be provided by the contractor at no additional cost to the owner. Repairs are to be made at a level which either meets or exceeds the pre-damaged condition and to the quality and craftsmanship which matches its original finished appearance and/or the surrounding area's finished appearance. Repair to damaged property is not confined to buildings and will include grounds and other environmental components on the owner's premises.
- D. Parking permits are required for all vendors who will be parking on campus. Please review the University Parking & Transportation Services website at <http://www.clemson.edu/campus-life/campus-services/parking/parkingpermits/index.html> for rules, regulations and to obtain a Vendor Parking tag. There is a fee associated with the parking permit that will be the responsibility of the awarded Offeror in addition to any citations and fines that are given.
- E. All fees associated with this contract should be included in pricing.