



Architects | Engineers | Constructors

# **PROJECT MANUAL**

**UNIVERSITY OF SOUTH CAROLINA**

**USC SALKEHATCHIE  
ALLENDALE ENTRANCE SIGN CONSTRUCTION**

Burton's Ferry Highway (Hwy 301)  
Allendale, South Carolina

PROJECT NUMBER: CP00400055

June 5, 2014

BES Inc. Project Number: 2014.015.00

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# SE-311 Invitation for Minor Construction Quotes

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

PROJECT NAME: \_\_\_\_\_

PROJECT NUMBER: \_\_\_\_\_ PROJECT LOCATION: \_\_\_\_\_

BID SECURITY REQUIRED? Yes  No

PERFORMANCE BOND REQUIRED? Yes  No

PAYMENT BOND REQUIRED? Yes  No  CONSTRUCTION COST RANGE: \_\_\_\_\_

DESCRIPTION OF PROJECT:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A/E CONTACT:  
A/E NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_ Fax: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

PLANS ON FILE AT: AGC: \_\_\_\_\_  
DODGE: \_\_\_\_\_  
OTHER: \_\_\_\_\_

PLANS MAY BE OBTAINED FROM: \_\_\_\_\_

PLAN DEPOSIT AMOUNT: \_\_\_\_\_ IS DEPOSIT REFUNDABLE? Yes  No

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

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_ PLACE: \_\_\_\_\_

AGENCY: \_\_\_\_\_

NAME AND TITLE OF AGENCY COORDINATOR: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_ Fax: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

IFQ CLOSING DATE: \_\_\_\_\_ TIME: \_\_\_\_\_ LOCATION: \_\_\_\_\_

IFQ DELIVERY ADDRESSES:

HAND-DELIVERY:

MAIL SERVICE:

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: \_\_\_\_\_  
(Agency Name)

FOR PROJECT: \_\_\_\_\_  
(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 \_\_\_\_\_ 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: \_\_\_\_\_

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. Fraternalization 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 Contractors 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.
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 (1) 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 up to \$1,000.00 daily 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. 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 6' 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 3" layer of mulch shall be placed over the tree protection area to maintain moisture in the root zone if USC Arborist determines that construction may decrease amount of moisture needed to sustain health of tree(s).
15. Contractor shall water trees and other landscape material as directed by USC Arborist until site is returned to Owner.
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 on a regular basis (as determined by USC Project Manager), a construction entry road consisting of 10' X 16' oak logging mats placed 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 at Contractor's expense before final payment is made.

## **Contractor Vehicle Requirements on Campus**

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 be authorized by USC Grounds Department and USC Project Manager. 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 Afixed@. Parking spaces are restricted to work vehicles only; no personal vehicles.

Project Name: USC SALKEHATCHIE ALLENDALE ENTRANCE SIGN CONSTRUCTION

Project Number: CP00400055

University of South Carolina

**CONTRACTOR'S ONE YEAR GUARANTEE**

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

WE \_\_\_\_\_  
as General 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 01 10 00 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY OF WORK

- A. Project:
  - 1. USC Allendale Entrance Sign Construction.
- B. Owner:
  - 1. The University of South Carolina
  - 2. Dwight Cathcart, Project Manager
  - 3. 743 Greene St., Columbia, SC 29208
- C. Architect:
  - 1. BES, Inc.
  - 2. Brian Coffman, Project Manager
  - 3. 2712 Bull St., Beaufort, SC 29902
- D. The Work consists of the full demolition of an existing brick monument sign wall and concrete foundation. Existing palm trees shall be protected during demolition and new construction. New work will include concrete foundations, brick and cast-stone wall construction, reinforcing, and metal letter signage.

1.2 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price as described in the Standard Form of Agreement

1.3 WORK RESTRICTIONS

- A. Work shall be completed in accordance with all local, regional, and/or state regulatory agencies and permit.
- B. Work shall be conducted adjacent to SC Highway 301 in Allendale, SC.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 10 00

## SECTION 01 20 00 - PRICE AND PAYMENT PROCEDURES

### PART 1 - GENERAL

#### 1.1 ALTERNATES

- A. An alternate is an amount proposed by bidder for certain work that may be added to or deducted from the Base Bid amount if Owner accepts the Alternate. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate the Alternate into the Work. No other adjustments are made to the Contract Sum.
- B. Indicate on the Bid Form amounts to be deducted from or added to the Contract Sum for the following alternates:
  - 1. Alternate Number 1:
    - a. Provide reduction to the project scope by not providing the construction of the brick and cast-stone construction to complete the brick column and associated reinforced concrete footing, as indicated on the Drawings.

#### 1.2 CONTRACT MODIFICATION PROCEDURES

- A. On Owner's approval of a proposal from Contractor **on AIA Document G709**, Client will issue a Change Order **on OSE-480 Form**, for all changes to the Contract Sum or the Contract Time.
- B. When Owner and Contractor disagree on the terms of a proposal, Architect may issue a Construction Change Directive **on AIA Document G714**, instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order. Construction Change Directive will contain a description of the change and designate the method to be followed to determine changes to the Contract Sum or the Contract Time.

#### 1.3 PAYMENT PROCEDURES

- A. Submit a Schedule of Values at least **10** days before the initial Application for Payment. Break down the Contract Sum into at least one line item for each Specification Section in the Project Manual table of contents. Coordinate the Schedule of Values with Contractor's Construction Schedule.
  - 1. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
  - 2. Provide separate line items in the Schedule of Values for initial cost of materials and for total installed value of that part of the Work.
- B. Submit **3** copies of each application for payment **on AIA Document G702/703**, according to the schedule established in Owner/Contractor Agreement.

1. With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
2. Submit final Application for Payment after completion of Project closeout procedures with release of liens and supporting documentation.
  - a. Include consent of surety to final payment **on AIA Document G707** and insurance certificates.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 20 00

## SECTION 01 30 00 - ADMINISTRATIVE REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 PROJECT MANAGEMENT AND COORDINATION

- A. Coordinate construction to ensure efficient and orderly installation of each part of the Work.
- B. Schedule and conduct progress meetings at Project site at **biweekly** intervals. Notify Owner and Architect of meeting dates and times. Require attendance of each subcontractor or other entity concerned with current progress or involved with planning or coordination of future activities.
  - 1. **Record** minutes and distribute to everyone concerned, including Owner and Architect.

#### 1.2 SUBMITTAL PROCEDURES

- A. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 1. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
  - 2. Submit **three** copies of each submittal. Architect will return one copy.
  - 3. Architect will **return submittals, without review**, received from sources other than Contractor.
- B. Place a permanent label or title block on each submittal for identification. Provide a space approximately **6 by 8 inches (150 by 200 mm)** on label or beside title block to record Contractor's review and approval markings and action taken by Architect. Include the following information on the label:
  - 1. Project name.
  - 2. Date.
  - 3. Name and address of Contractor.
  - 4. Name and address of subcontractor or supplier.
  - 5. Number and title of appropriate Specification Section.
- C. Identify deviations from the Contract Documents on submittals.
- D. Contractor's Construction Schedule Submittal Procedure: Submit **two** copies of schedule within 7 days after date established for Commencement of the Work.

## PART 2 - PRODUCTS

### 2.1 ACTION SUBMITTALS

- A. Product Data: Mark each copy to show applicable products and options. Include the following:
1. Manufacturer's written recommendations, product specifications, and installation instructions.
  2. Printed performance curves and operational range diagrams.
  3. Testing by recognized testing agency.
  4. Compliance with specified standards and requirements.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data. Submit on sheets at least **8-1/2 by 11 inches (215 by 280 mm)** but no larger than **30 by 42 inches (762 by 1067 mm)**. Include the following:
1. Dimensions and identification of products.
  2. Fabrication and installation drawings and roughing-in and setting diagrams.
  3. Notation of coordination requirements.
  4. Notation of dimensions established by field measurement.
- C. Samples: Submit Samples for review of kind, color, pattern, and texture and for a comparison of these characteristics between submittal and actual component as delivered and installed. Include name of manufacturer and product name on label.
1. If variation is inherent in material or product, submit at least **three** sets of paired units that show variations.

### 2.2 INFORMATION SUBMITTALS

- A. Qualification Data: Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- B. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

### 2.3 DELEGATED DESIGN

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit **three** copies of a statement, signed and sealed by the responsible design

professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

#### 2.4 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type schedule within 7 days of date established for **the Notice of Award**.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

### PART 3 - EXECUTION

#### 3.1 SUBMITTAL REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Architect will review each action submittal, make marks to indicate corrections or modifications required, stamp and mark as appropriate to indicate action taken, and return copies less those retained.

#### 3.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Distribute copies of approved schedule to Owner, Architect, subcontractors, testing and inspecting agencies, and parties identified by Contractor with a need-to-know schedule responsibility. When revisions are made, distribute updated schedules to the same parties.
- B. Updating: At **monthly** intervals, update schedule to reflect actual construction progress and activities. Issue schedule **one week** before each regularly scheduled progress meeting.
  1. As the Work progresses, indicate Actual Completion percentage for each activity.

END OF SECTION 01 30 00

## SECTION 01 40 00 - QUALITY REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
1. Testing and inspecting services are specified in other Sections of these Specifications or are required by authorities having jurisdiction and shall be performed by independent testing agencies.
  2. Where quality-control services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these services.
  3. Contractor is responsible for scheduling times for tests, inspections, and obtaining samples and notifying testing agency.
  4. Retesting and Reinspecting: Contractor shall pay for additional testing and inspecting required as a result of tests and inspections indicating noncompliance with requirements.
- B. Submittals: Testing agency shall submit a certified written report of each test and inspection to Contractor, **Owner**, Architect, and to authorities having jurisdiction when they so direct. Reports of each inspection, test, or similar service shall include the following:
1. Name, address, and telephone number of testing agency.
  2. Project title and number.
  3. Date of issue.
  4. Dates and locations of samples and tests or inspections.
  5. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
  6. Names of individuals making tests and inspections.
  7. Description of the Work and test and inspection method.
  8. Complete test or inspection data, test and inspection results, an interpretation of test results, and comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  9. Recommendations on retesting and reinspecting.
  10. Name and signature of laboratory inspector.
- C. Testing Agency Qualifications: An independent agency with the experience and capability to conduct testing and inspecting indicated; and where required by authorities having jurisdiction, that is acceptable to authorities.
- D. Testing Agency Responsibilities: Testing agency shall cooperate with Architect and Contractor in performing its duties and shall provide qualified personnel to perform inspections and tests.
1. Agency shall promptly notify Architect and Contractor of irregularities or deficiencies in the Work observed during performance of its services.

2. Agency shall not release, revoke, alter, or increase requirements of the Contract Documents nor approve or accept any portion of the Work.
  3. Agency shall not perform any duties of Contractor.
- E. Auxiliary Services: Cooperate with testing agencies and provide auxiliary services as requested, including the following:
1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of materials for testing, and assistance in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Security and protection for samples and for testing and inspecting equipment.
- F. Special Tests and Inspections: Conducted by a qualified **special inspector** as required by authorities having jurisdiction, as indicated in individual Specification Sections.
- G. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 40 00



## SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Use Charges: Cost or use charges for temporary facilities shall be included in the Contract Sum.
- B. Use **water and electric power** shall be the responsibility of the Contractor
- C. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

### PART 2 - PRODUCTS (Not Applicable)

### PART 3 - EXECUTION

#### 3.1 TEMPORARY UTILITIES

- A. General: Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for type, number, location, operation, and maintenance of fixtures and facilities.
- C. Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.

#### 3.2 TEMPORARY SUPPORT FACILITIES

- A. Provide field offices, storage and fabrication sheds, and other support facilities as necessary for construction operations.
- B. Provide waste-collection containers in sizes adequate to handle waste from construction operations. Collect waste daily and, when containers are full, legally dispose of waste off-site. Comply with requirements of authorities having jurisdiction.

#### 3.3 TEMPORARY SECURITY AND PROTECTION FACILITIES

- A. Provide temporary environmental protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that

minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

- B. Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction.

### 3.4 TERMINATION AND REMOVAL

- A. Remove temporary facilities and controls no later than Substantial Completion.

END OF SECTION 01 50 00

## SECTION 01 60 00 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- B. Product Substitutions: Substitutions include changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor after award of the Contract.
  - 1. Submit **three** copies of each request for product substitution.
  - 2. Submit requests within 14 days after **the Notice to Proceed**.
  - 3. Do not submit unapproved substitutions on Shop Drawings or other submittals.
  - 4. Identify product to be replaced and show compliance with requirements for substitutions. Include a detailed comparison of significant qualities of proposed substitution with those of the Work specified, a list of changes needed to other parts of the Work required to accommodate proposed substitution, and any proposed changes in the Contract Sum or the Contract Time should the substitution be accepted.
  - 5. Architect will review the proposed substitution and notify Contractor of its acceptance or rejection **by Change Order**.
- C. Comparable Product Requests:
  - 1. Submit **three** copies of each request for comparable product. Do not submit unapproved products on Shop Drawings or other submittals.
  - 2. Identify product to be replaced and show compliance with requirements for comparable product requests. Include a detailed comparison of significant qualities of proposed substitution with those of the Work specified.
  - 3. Architect will review the proposed product and notify Contractor of its acceptance or rejection.
- D. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
  - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  - 2. Deliver products to Project site in manufacturer's original sealed container or packaging, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  - 3. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  - 4. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.

- E. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

## PART 2 - PRODUCTS

### 2.1 PRODUCT OPTIONS

- A. Provide products that comply with the Contract Documents, are undamaged, and are new at the time of installation.
  - 1. Provide products complete with accessories, trim, finish, and other devices and components needed for a complete installation and the intended use and effect.
  - 2. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
- B. Product Selection Procedures:
  - 1. Where Specifications name a single product or manufacturer, provide the item indicated that complies with requirements.
  - 2. Where Specifications include a list of names of products or manufacturers, provide one of the items indicated that complies with requirements.
  - 3. Where Specifications include a list of names of products or manufacturers, accompanied by the term "available products" or "available manufacturers," provide one of the named items that complies with requirements. Comply with provisions for "comparable product requests" for consideration of an unnamed product.
  - 4. Where Specifications name a product as the "basis-of-design" and include a list of manufacturers, provide the named product. Comply with provisions for "comparable product requests" for consideration of an unnamed product by the other named manufacturers.
  - 5. Where Specifications name a single product as the "basis-of-design" and no other manufacturers are named, provide the named product. Comply with provisions for "comparable product requests" for consideration of an unnamed product by another manufacturer.
- C. Unless otherwise indicated, Architect will select color, pattern, and texture of each product from manufacturer's full range of options that includes both standard and premium items.

## PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 60 00

## SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 CLOSEOUT SUBMITTALS

- A. Record Drawings: Maintain a set of prints of the Contract Drawings as Record Drawings. Mark to show actual installation where installation varies from that shown originally.
  - 1. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
- B. Operation and Maintenance Data: Submit **one copy** of manual. Organize data into three-ring binders with identification on front and spine of each binder, and envelopes for folded drawings. Include the following:
  - 1. Manufacturer's maintenance documentation.
  - 2. Copies of warranties.

### PART 2 - PRODUCTS (Not Applicable)

### PART 3 - EXECUTION

#### 3.1 EXAMINATION AND PREPARATION

- A. Examine substrates and conditions for compliance with manufacturer's written requirements including, but not limited to, surfaces that are sound, level, plumb, smooth, clean, and free of deleterious substances; substrates within installation tolerances; and application conditions within environmental limits. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to property boundaries and existing benchmarks.
- C. Take field measurements as required to fit the Work properly. Where fabricated products are to be fitted to other construction, verify dimensions by field measurement before fabrication and, when possible, allow for fitting and trimming during installation.

#### 3.2 INSTALLATION

- A. Comply with manufacturer's written instructions for installation. Anchor each product securely in place, accurately located and aligned with other portions of the Work. Clean exposed surfaces and protect from damage.
- B. Clean Project site and work areas daily, including common areas.

### 3.3 FINAL CLEANING

- A. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion:
1. Remove labels that are not permanent.
  2. Clean exposed finishes to a dust-free condition, free of stains, films, and foreign substances.
  3. Clean Project site, yard, and grounds, in areas disturbed by construction activities. Sweep paved areas; remove stains, spills, and foreign deposits. Rake grounds to a smooth, even-textured surface.

### 3.4 CLOSEOUT PROCEDURES

- A. Substantial Completion: Before requesting Substantial Completion inspection, complete the following:
1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  2. Advise Owner of pending insurance changeover requirements.
  3. Submit specific warranties, maintenance service agreements, and similar documents.
  4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  5. Submit Record Drawings **and Specifications**, operation and maintenance manuals, **property surveys**, and similar final record information.
  6. Remove temporary facilities and controls.
  7. Complete final cleaning requirements.
- B. Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will proceed with inspection or advise Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will advise Contractor of items that must be completed or corrected before certificate will be issued.
- C. Request inspection for Final Completion, once the following are complete:
1. Submit a copy of Substantial Completion inspection list stating that each item has been completed or otherwise resolved for acceptance.
- D. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- E. Submit a written request for final inspection for acceptance. On receipt of request, Architect will proceed with inspection or advise Contractor of unfulfilled requirements. Architect will prepare final Certificate for Payment after inspection or will advise Contractor of items that must be completed or corrected before certificate will be issued.

END OF SECTION 01 70 00

SECTION 02 41 19 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Comply with EPA regulations and hauling and disposal regulations of authorities having jurisdiction.
- B. It is not expected that hazardous materials will be encountered in the Work. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 DEMOLITION

- A. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent facilities to remain.
- B. Promptly remove demolished materials from Owner's property and legally dispose of them. Do not burn demolished materials.

END OF SECTION 02 41 19

## SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Submittals: **Concrete mix designs.**
- B. Ready-Mixed Concrete Producer Qualifications: ASTM C 94/C 94M.
- C. Comply with ACI 301, "Specification for Structural Concrete"; ACI 117, "Specifications for Tolerances for Concrete Construction and Materials"; and CRSI's "Manual of Standard Practice."

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Reinforcing Bars: ASTM A 615/A 615M, **Grade 60**, deformed.
- B. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
- C. Portland Cement: ASTM C 150, Type I or II.
- D. Fly Ash: ASTM C 618, Type C or F.
- E. Aggregates: ASTM C 33, uniformly graded.
- F. Air-Entraining Admixture: ASTM C 260.
- G. Chemical Admixtures: ASTM C 494, **water reducing and accelerating and/or water reducing and retarding.** Do not use calcium chloride or admixtures containing calcium chloride.
- H. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

#### 2.2 MIXES

- A. Comply with ACI 301 requirements for concrete mixtures.
- B. Normal-Weight Concrete: Prepare design mixes, proportioned according to ACI 301, as follows:
  - 1. Minimum Compressive Strength: **3000 psi (20.7 MPa)** at 28 days.



2. Maximum Water-Cementitious Materials Ratio: **0.50**.
  3. Slump Limit: **5 inches (125 mm)** for concrete with verified slump of **2 to 4 inches (50 to 100 mm)** before adding high-range water-reducing admixture or plasticizing admixture, plus or minus **1 inch (25 mm)**.
  4. Air Content: Maintain within range permitted by ACI 301.
- C. Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M and ASTM C 1116.
1. When air temperature is above **90 deg F (32 deg C)**, reduce mixing and delivery time to 60 minutes.

### PART 3 - EXECUTION

#### 3.1 CONCRETING

- A. Construct formwork according to ACI 301 and maintain tolerances and surface irregularities within ACI 347R limits of Class A, **1/8 inch (3.2 mm)** for concrete exposed to view and Class C, **1/2 inch (13 mm)** for other concrete surfaces.
- B. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- C. Place concrete in a continuous operation and consolidate using mechanical vibrating equipment.
- D. Protect concrete from physical damage, premature drying, and reduced strength due to hot or cold weather during mixing, placing, and curing.
- E. Formed Surface Finish: Smooth-formed finish for concrete exposed to view, coated, or covered by waterproofing or other direct-applied material; rough-formed finish elsewhere.
- F. Cure formed surfaces by moist curing for at least seven days.
- G. Protect concrete from damage. Repair surface defects in formed concrete and slabs.

END OF SECTION 03 30 00

## SECTION 04 20 00 - UNIT MASONRY

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

##### A. Submittals:

1. Samples for **face brick and colored mortar**.
2. Material Certificates: For each type of product indicated. Include statements of material properties indicating compliance with requirements.

##### B. Comply with ACI 530.1/ASCE 6/TMS 602.

### PART 2 - PRODUCTS

#### 2.1 MASONRY UNITS

##### A. Face Brick: **ASTM C 216**, Grade **SW**, Type **FBS**.

##### 1. Products:

- a. Carolina Ceramics Brick Company, [www.carolinaceramics.com](http://www.carolinaceramics.com); Product: Provincial Collection - Calendonia
- b. Hanson Brick, [www.hansonbrick.com](http://www.hansonbrick.com); Product: Old English Rustic Rose

2. Size: **3-1/2 inches (89 mm)** wide by **2-1/4 inches (57 mm)** high by **7-1/2 inches (190 mm)** long or **3-5/8 inches (92 mm)** wide by **2-1/4 inches (57 mm)** high by **7-5/8 inches (194 mm)** long.
3. Solid brick with exposed surfaces finished for ends of wall and caps.
4. Special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.

#### 2.2 MORTAR AND GROUT

##### A. Mortar: **ASTM C 270**, proportion specification.

1. Masonry Cement: Argos USA Corp; [www.argos-us.com](http://www.argos-us.com)
2. Color: Savannah Ivory, or color to match Cast Stone Masonry per Spec Section 04 72 00
3. Do not use calcium chloride in mortar.
4. For masonry below grade or in contact with earth, use Type **S**.
5. For reinforced masonry, use Type **S**.

##### B. Grout: **ASTM C 476** with a slump of **8 to 11 inches (200 to 280 mm)**.

## 2.3 REINFORCEMENT, TIES, AND ANCHORS

- A. Steel Reinforcing Bars: ASTM A 615/A 615M, **Grade 60**.
- B. Joint Reinforcement: **ASTM A 951**.
  - 1. Coating: **Hot-dip galvanized**.
  - 2. Wire Diameter: **W1.7 or 0.148 inch (3.8 mm)**.
  - 3. Provide either ladder design or truss design.

## 2.4 MISCELLANEOUS MASONRY ACCESSORIES

- A. Proprietary Acidic Masonry Cleaner: Product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Cut masonry units with saw. Install with cut surfaces and, where possible, cut edges concealed.
- B. Mix units for exposed unit masonry from several pallets or cubes as they are placed to produce uniform blend of colors and textures.
- C. Stopping and Resuming Work: Rack back units; do not tooth.
- D. Tool exposed joints slightly concave when thumbprint hard, unless otherwise indicated.
- E. Keep cavities clean of mortar droppings and other materials during construction.

### 3.2 CLEANING

- A. Clean masonry as work progresses. Remove mortar fins and smears before tooling joints.
- B. Final Cleaning: After mortar is thoroughly cured, clean exposed masonry.
  - 1. Wet wall surfaces with water before applying acidic cleaner, then remove cleaner promptly by rinsing thoroughly with clear water.
  - 2. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.

END OF SECTION 04 20 00

## SECTION 04 72 00 - CAST STONE MASONRY

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Submittals:
  - 1. **Product Data**
  - 2. **Shop Drawings**
  - 3. Samples: For cast stone.
- B. Manufacturer Qualifications: A producing member of the Cast Stone Institute.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURER

- A. Lucas Concrete Products, [www.lucasconcrete.com](http://www.lucasconcrete.com) (Basis of Design)
- B. Continental Cast Stone, [www.continentalcaststone.com](http://www.continentalcaststone.com)
- C. Approved Equal

#### 2.2 CAST STONE UNITS

- A. Provide cast stone units complying with ASTM C 1364 using the **vibrant dry tamp or wet-cast** method.
  - 1. Provide units that are resistant to freezing and thawing.
  - 2. Slope exposed horizontal surfaces 1:12, unless otherwise indicated.
- B. Colors and Textures: As selected, to match mortar color. 'Limestone' or approved equal

#### 2.3 ACCESSORIES

- A. Anchors and Dowels: **Type 304 stainless steel.**
- B. Proprietary Acidic Cleaner: **Product expressly approved for intended use by cleaner manufacturer and manufacturer of cast stone units.**
- C. Mortar: **ASTM C 270**, proportion specification.
  - 1. For setting mortar, use Type S.
  - 2. For pointing mortar, use Type S.
  - 3. Pigmented Mortar: Use colored cement product to match Cast Stone Unit.

## PART 3 - EXECUTION

### 3.1 SETTING CAST STONE

- A. Install cast stone units to comply with requirements in Division 04 Section "Unit Masonry."
- B. Set units in full bed of mortar with full head joints, unless otherwise indicated.
  - 1. Fill dowel holes and anchor slots with mortar.
  - 2. Fill collar joints solid as units are set.
- C. Rake out joints for pointing with mortar to depths of not less than **3/4 inch (19 mm)**.
- D. Point mortar joints by placing mortar in layers not greater than **3/8 inch (10 mm)** thick. Compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.
- E. Tool exposed joints slightly concave when thumbprint hard, unless otherwise indicated.

### 3.2 CLEANING

- A. In-Progress Cleaning: Clean cast stone as work progresses. Remove mortar fins and smears before tooling joints. Remove excess sealant immediately.
- B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed cast stone to comply with requirements in Division 04 Section "Unit Masonry."

END OF SECTION 04 72 00

SECTION 10 14 00 - SIGNAGE

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data, Shop Drawings, and Samples.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Brass Plate: 1/4 inch thick

2.2 SIGNS

- A. Dimensional Characters: **Cutout brass plate** characters.
  - 1. **Finish and Color:** Brushed brass, as **indicated**.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Locate signs where indicated. Install signs level, plumb, and at heights indicated, with sign surfaces free from distortion and other defects in appearance.
- B. Dimensional Characters: Mount characters **at 1 inch projection distance from wall surface**.
- C. Fasten to masonry structure with epoxy cement as per manufacturer's written instructions.

END OF SECTION 10 14 00