

November 5, 2015  
BID SPECIFICATIONS

## LANDSCAPE PLAN FOR THE BON SILENE HOUSE OCEAN SPRINGS, MISSISSIPPI

FOR THE

Department of Marine Resources  
1141 Bayview Avenue  
Biloxi, Mississippi 39530

JOB #2014-30

**BID DATE: Thursday, December 10<sup>th</sup>, 2015  
@ 2:00 PM, LOCAL TIME**



628 Washington Avenue – Suite C  
Ocean Springs, MS 39564



SET NO. \_\_\_\_\_

## **PROJECT DIRECTORY**

**OWNER:** **MISSISSIPPI DEPARTMENT OF MARINE RESOURCES**  
Biloxi, Mississippi

**ARCHITECT:** **ALLRED ARCHITECTURAL GROUP, PA**  
628 Washington Avenue, Suite C  
Ocean Springs, Mississippi 39564  
Office: (228) 762-1975

**Principal:** John Stolarski, AIA  
**Project Manual:** John Stolarski, AIA

[john@allredarchitecturalgroup.com](mailto:john@allredarchitecturalgroup.com)

**NOTE:** All questions regarding this project must be submitted in writing via email to the email address above.

**LANDSCAPE ARCHITECT:** **CHRISTIAN PREUS LANDSCAPE ARCHITECTURE**  
1011 Desoto Street  
Ocean Springs, Mississippi 39564  
Office: (855) 539-5086

**Principal:** Christian Preus, CPLA  
**Production:** Oliver Preus, LEED AP

## INDEX TO SPECIFICATIONS

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### ADVERTISEMENT FOR BIDS

DIVISION 0 BIDDING REQUIREMENTS  
00300 Proposal Form

### DIVISION 1 GENERAL REQUIREMENTS

DIVISION 2 SITE WORK  
02.220 SITE DEMOLITION  
02.370 EROSION & SEDIMENT CONTROL  
02.800 DEMO PRUNING  
02.900 LANDSCAPE PLANTING & SODDING

DIVISION 3 CONCRETE  
NONE IN THESE SPECIFICATIONS

DIVISION 4 MASONRY  
04.200 UNIT MASONRY

DIVISION 5 METAL  
NONE IN THESE SPECIFICATIONS

DIVISION 6 CARPENTRY  
06.100 ROUGH CARPENTRY

DIVISION 7 THERMAL AND MOISTURE PROTECTION  
NONE IN THESE SPECIFICATIONS

DIVISION 8  
NONE IN THESE SPECIFICATIONS

DIVISION 9 FINISHES  
NONE IN THESE SPECIFICATIONS

DIVISION 10 SPECIALTIES  
NONE IN THESE SPECIFICATIONS

DIVISIONS 11 THRU 16  
NONE IN THESE SPECIFICATIONS

ADVERTISEMENT FOR BIDS

Sealed Bids, in duplicate, will be received by The Department of Marine Resources, 1141 Bayview Avenue, Biloxi, Mississippi 2:00 P.M., local time, on Thursday, December 10<sup>th</sup>, 2015 in the Conference Room, Bolton State Office Building, Biloxi, Mississippi at which time and place they will be publicly opened and read for the following project:

LANDSCAPING PLAN FOR THE BON SILENE HOUSE  
OCEAN SPRINGS, MISSISSIPPI

in accordance with plans and specifications prepared by

Allred Architectural Group  
628 Washington Avenue - Suite C  
Ocean Springs, Mississippi 39564

Plans and specifications are now on file and may be examined or obtained from the Office of Allred Architectural Group, 628 Washington Avenue - Suite C, Ocean Springs, Mississippi. Copies may be obtained in Adobe PDF® format for a non-refundable fee of \$50.00 per compact disk. Hard copies of Drawings and Project Manual are available upon request for a non-refundable fee of \$100.00.

Proposals shall be submitted on the blank bid form furnished with the specifications and must be accompanied by bid security in the form of Certified Check, Cashier's Check or acceptable Bid Bond, payable to Mississippi Department of Marine Resources in amount equal to at least five percent (5%) of the base bid; such security to be forfeited as liquidated damages, not penalty, by any bidder who may be awarded the contract but who fails to carry out the terms of the proposal, execute the contract and post performance bond in the form and amount within the time specified. Bids shall not be modified on the exterior of the sealed envelope.

All bids submitted in excess of \$50,000.00 by a prime or subcontractor to do any demolition, erection, building, construction, repair, maintenance or related work, must comply with Section 31-3-21, Mississippi Code of 1972, by having a current Certificate of Responsibility from the State Board of Public Contractors. The current Certificate of Responsibility Number shall be indicated on the exterior of the sealed bid envelope before it can be opened.

In the letting of public contracts in the State of Mississippi, preference shall be given to resident contractors, and a non-resident bidder domiciled in a state having laws granting

preference to local contractors shall be awarded Mississippi public contracts only on the same basis as the non-resident bidder's state awards contracts to Mississippi contractors bidding under similar circumstances; and resident contractors actually domiciled in Mississippi, be they corporate, individuals, or partnerships, are to be granted preference over non-residents in awarding of contracts in the same manner and to the same extent as provided by the laws of the state of domicile of the non-resident.

When a non-resident contractor submits a bid for a public project, he shall attach thereto a copy of his resident state's current law pertaining to such state's treatment of non-resident contractors.

No bid may be withdrawn after the scheduled closing time for a period of sixty (60) days. The Department of Marine Resources reserves the right to reject any or all bids on any or all projects and to waive informalities.

Dates of Publication:

November 5, 2015 and November 12, 2015

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**INSTRUCTIONS TO BIDDERS**  
**SECTION 00100**

**PART 1 - GENERAL**

- 1.01 **QUESTIONS:** Questions should be directed to the Professional. Should a Bidder find discrepancies in, or omissions from, the Drawings or Project Manual, or be in doubt as to their meaning, the Bidder should immediately notify the Professional. The Professional will send written instruction(s) or interpretation(s) to all known holders of the documents. Neither the Owner, nor the Professional, will be responsible for any oral instruction or interpretation.
- 1.02 **BIDDER'S QUALIFICATIONS:**
- A. **Certificate of Responsibility:** The Mississippi State Board of Contractors is responsible for issuing Certificates of Responsibility to Contractors. To be awarded a Contract for public work, Sections 31-3-15 and 31-3-21 of the **Mississippi Code 1972, Annotated** requires a Contractor to have a current Certificate of Responsibility at bid time and during the entire length of the job. The Certificate of Responsibility number issued becomes a significant item in all public bidding.
  - B. **Bid Under \$50,000:** If a Bidder submits a bid not exceeding \$50,000, no Certificate of Responsibility number is required; however, a notation stating the *bid does not exceed \$50,000* must appear on the face of the envelope, or a Certificate of Responsibility number.
  - C. **Bid Over \$50,000:** Each Bidder submitting a bid in excess of \$50,000 must show its Certificate of Responsibility number on the bid and on the face of the envelope containing the bid.
  - D. **Joint Venture Bid:** When multiple Contractors submit a joint venture bid in excess of \$50,000, a *joint venture* Certificate of Responsibility number must be shown on the bid and on the face of the envelope containing the bid. If the Multiple-Contractor joint venture has no *joint venture* Certificate of Responsibility number, each of the Contractors participating in the bid must indicate their individual Certificate of Responsibility numbers on the bid and on the face of the envelope.
- 1.03 **NON-RESIDENT BIDDER:** When a non-resident Bidder (a Contractor whose principal place of business is outside the State of Mississippi) submits a bid for a Mississippi public works project, one of the following is required and shall be submitted with the Proposal Form:
- A. **Copy of Law:** If the non-resident Bidder's state has a resident Bidder preference law, a copy of that law shall be submitted with the Proposal Form.
  - B. **Statement:** If the state has no such law then a statement indicating *the State of (Name of State) has no resident Contractor preference law* shall be submitted with the Proposal Form.
- 1.04 **DISQUALIFICATION OF BIDDER:** A Bidder may be disqualified for any of the following reasons: (see 600.53)
- A. Failure to comply with the bid requirements.
  - B. Bidder is in arrears on existing Contracts with the Owner or another state agency.
  - C. Bidder is, or anticipates being, in litigation or arbitration with the Owner or another state agency.
  - D. Bidder has defaulted on a previous Contract.
- 1.05 **CONDITIONS OF WORK:** Each Bidder must fully inform himself of all conditions relating to the construction of the Project and employment of labor thereon. Failure to do so will not relieve a successful Bidder of obligations to furnish all material and labor necessary to carry out the provisions of the Contract. Insofar as possible, the Bidder must employ methods, or means, which will not cause interruption of, or interference with, the work of any other Bidder, or Contractor.
- 1.06 **EXAMINATION OF SITE:** All Bidders, including the general Contractor and Subcontractors, shall visit the building site, compare the Drawings and Project Manual with any work in place and be informed of all conditions. Failure to visit the site will in no way relieve the successful Bidder from furnishing any materials or performing any work required to complete work in accordance with Drawings and Project Manual without additional cost to the Owner.
- 1.07 **LAWS AND REGULATIONS:** The Bidder's attention is directed to the fact that all applicable Mississippi state laws, rules and regulations of all authorities having jurisdiction over construction of the Project apply to the Contract.

- 1.08 **OBLIGATION OF BIDDER:** At the bid opening, each Bidder will be presumed to have inspected the site, read and become thoroughly familiar with the Drawings and the Project Manual, including all addenda.
- 1.09 **BID DOCUMENT DEPOSIT AND RETURN:** The deposit amount is indicated in the Advertisement for Bids. Upon returning the documents to the Professional within ten (10) days of the bid date and in good condition, all document holders will be refunded one-half (1/2) of the deposit. Further, any general contractor submitting a bid and all mechanical and/or electrical Subcontractors will be refunded one hundred percent (100%) of the deposit on one (1) set and fifty percent (50%) for each additional set. No partial sets of documents will be issued. Selected plan rooms will be issued one (1) set of documents without charge.

## **PART 2 - PROPOSAL FORM**

- 2.01 **METHOD OF BIDDING:** Lump sum, single bids received on a general contract will include general, mechanical and electrical construction and all work shown on Drawings or specified in the Project Manual.
- 2.02 **PROPOSAL FORMS:** The Bidder shall make all proposals on forms provided and shall fill all applicable blank spaces without interlineations or alteration and must not contain recapitulation of the work to be done. No oral or telegraphic proposals will be considered.
- 2.03 **TIME OF COMPLETION:** The Bidder shall agree to commence work on, or before, a date specified in a written *Notice to Proceed* and fully complete the Project within the calendar days indicated on the Proposal Form.
- 2.04 **BASE BID AND ALTERNATES:**
- A. On the Proposal Form, the Bidder shall write out the Base Bid amount in words and include the numerical amount. The written word shall govern.
  - B. The Proposal Form shall contain a brief description of each alternate modifying the scope. The Bidder shall write out the amount in words and include the numerical amount for each alternate. The written word shall govern. Refer to Section 01030 entitled *Alternates* for additional information.
- 2.05 **SUBSTITUTIONS:** No substitutions, qualifications or redefining of the Specification requirements are allowed to be marked on the Proposal Form, unless specifically required by the Bid Documents. Refer to Section 01630 entitled *Substitutions and Product Options* which covers procedures after the award of Contract.
- 2.06 **ADDENDA:** Any addenda to the Drawings or Project Manual issued before or during the time of bidding shall be included in the proposal and become a part of the Contract. The Proposal Form will have ample space to indicate the receipt of addenda. When completing the Proposal Form, the Bidder shall list the Addendum number and the date received in spaces provided.
- 2.07 **BIDDER IDENTIFICATION:**
- A. **Signature:** The Proposal Form shall be signed by any individual authorized to enter into a binding agreement for the Business making the bid proposal.
  - B. **Name of Business:** The name appearing on the Proposal Form should be the complete spelling of bidder's name - exact as recorded at the Secretary of State [<http://www.sos.state.ms.us/busserv/corp/soskb/csearch.asp>] which should be the same as you applied for at the Mississippi State Board of Contractors [<http://www.msdoc.us/Search2.CFM>] (see 2.07, 3.01, 5.01, proposal form)
  - C. **Legal Address:** The address appearing on the Proposal Form should be the same address exact as recorded at the Secretary of State [<http://www.sos.state.ms.us/busserv/corp/soskb/csearch.asp>] which should be the same as you applied for at the Mississippi State Board of Contractors [<http://www.msdoc.us/Search2.CFM>]
  - D. **Certificate of Responsibility Number(s):** The Certificate of Responsibility Number(s) appearing on the Proposal Form should be the same number appearing in the current Mississippi State Board of Contractors Roster.
- 2.08 **BID SECURITY:** The Bid Security shall be in the form of a Bid Bond, or a Certified Check: (modified Dec 2013) (see also 4.07 herein)
- A. **Bid Bond:** The Bidder may submit a Bid Bond by a Surety licensed in Mississippi in the amount of five percent (5%) of the base bid. The Bid Bond shall be duly executed by the Bidder, a Mississippi Licensed Agent for said Surety approved by the Mississippi Insurance Department OR signed by the Surety AND countersigned by a Mississippi Licensed Agent for said Surety approved by the Mississippi Insurance Department.  
[http://www.mid.state.ms.us/licapp/search\\_main.aspx](http://www.mid.state.ms.us/licapp/search_main.aspx) (No standard form is required for the Bid Bond.)

- B. **Certified Check:** The Bidder may submit a certified check made out to the Owner in the amount of five percent (5%) of the base bid. All checks received from Bidders will be returned upon request, unless a Bidder is one (1) of the three (3) apparent low Bidders. The three (3) apparent low Bidder's checks will be held for forty-five (45) days, unless a Contract is awarded and executed in less time.

- 2.09 **POWER OF ATTORNEY:** Each bid security must be accompanied by an appropriate Power of Attorney. No Power of Attorney is necessary with a certified check.

### PART 3 - SUBMITTING THE PROPOSAL FORM

- 3.01 **SUBMITTAL:** A bid must be delivered to the address indicated on the Advertisement for Bids prior to the time and date stated. Only one original of Bid Proposal shall be submitted which should be sealed in an opaque envelope marked, mailed or hand-delivered as follows: (beginning 1/1/09 and for a reasonable time period, a duplicate copy will not disqualify your bid, but the second copy, without comparison, will be destroyed in the bid opening, not read aloud nor used thereafter, in order to prevent inadvertent differences in the duplicate forms): (also see 600.42)

*(In upper left hand corner)*

**Name of Firm** (complete spelling of bidder's name and address – exact as recorded at the Secretary of State which should be the same as you applied for at the Mississippi State Board of Contractors – see 2.07, 3.01, 5.01)

*(Bid shall be addressed and delivered to)*

Owner

*(In lower left hand corner)*

Bid for Project # \_\_\_\_\_

Title \_\_\_\_\_

Using Agency \_\_\_\_\_

Certificate of Responsibility # \_\_\_\_\_ (for over \$50,000.00)

Under \$50,000.00 (add statement)

If the Bid is mailed, the bid envelope shall be placed inside a second envelope to prevent inadvertent premature opening of the Proposal.

- 3.02 **MODIFICATION TO BID:** A bidder may modify the bid prior to the scheduled closing time indicated in the Advertisement for Bids in the following manner:

- A. **Notification on Envelope:** A modification may be written on the outside of the sealed envelope containing the bid.  
B. **Facsimile:** A facsimile (fax) will not be acceptable.

- 3.03 **WITHDRAWAL OF BID:** Any bid may be withdrawn prior to the scheduled time for opening of bids. However, bids may not be withdrawn until forty-five (45) days after bid opening.

### PART 4 - BID OPENING AND AWARD OF CONTRACT

- 4.01 **OPENING OF BIDS:** Bids will be publicly opened shortly after the time stated in the Advertisement for Bids. Bidder representatives are invited; however, attendance is not mandatory.

Closure of agency preventing the opening of bids at the advertised date and time due to Force Majeure Event reasons will result in bids being publicly opened . . . on the next business day that the agency shall be open and at the previously advertised time . . . (added Jan 2015)



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- 4.02 **IRREGULARITIES:** The omission of any information requested on the Proposal Form may be considered as an informality, or irregularity, by the awarding public body when in their opinion the omitted information does not alter the amounts contained in the submitted bid proposal, or place other Bidders at a disadvantage.
- 4.03 **PROTEST:** Any protest must be delivered in writing to the Owner within twenty-four (24) hours after the bid opening.
- 4.04 **ERRORS:** Any claim of error and request for release from bid must be delivered in writing to the Owner within twenty-four (24) hours after the bid opening. The Bidder shall provide sufficient documentation with the written request clearly proving an error was made.
- 4.05 **AWARD OF CONTRACT:** The Owner reserves the right to reject any, or all bids. A Contract will be awarded on the basis of the low base bid, or low combination of base bid and those alternates selected by the Owner in any order determined to be in the best interest of the Using Agency and which produces a total within available funds.
- 4.06 **FAILURE TO ENTER INTO A CONTRACT:** The Bidder shall forfeit the Bid Security to the Owner as liquidated damages for failure, or refusal, to execute and deliver the Contract, Bond and Certificate of Insurance within ten (10) working days after notice of the acceptance of the bid/receipt of Contracts from the Professional. (*"working" days added 11/3/10 (modified Jan 2015)*)
- 4.07 **SECURITY FOR FAITHFUL PERFORMANCE:** (modified Dec 2013) (see also 2.08)  
Simultaneously, with delivery of the executed Contract, the Contractor will furnish a Surety Bond, or Bonds, as security for faithful performance, the payment of all persons performing labor on the project, and furnishing materials in connection with this Contract. The Surety on such Bond, or Bonds, will be a duly authorized surety company satisfactory to the Owner and meeting all of the following requirements:
- A. Licensed at the time of award by the State of Mississippi's Commissioner of Insurance for the purpose of providing surety. . [http://www.mid.state.ms.us/licapp/search\\_main.aspx](http://www.mid.state.ms.us/licapp/search_main.aspx)
  - B. Listed at the time of award in the Department of the Treasury's **Federal Register** as a company holding certificates of authority as acceptable sureties on Federal Bonds, commonly referred to as the Treasury List.
  - C. All Bonds shall be executed on the form provided in the Project Manual under Section 00600 entitled *Contract Bond*.
  - D. The Contract Bond shall be duly executed by the Bidder, a Surety licensed in Mississippi signed by a Mississippi Licensed Agent for said Surety approved by the Mississippi Insurance Department OR signed by the Surety AND countersigned by a Mississippi Licensed Agent for said Surety approved by the Mississippi Insurance Department with the name and address typed, or lettered legibly. (with embossed seal). [http://www.mid.state.ms.us/licapp/search\\_main.aspx](http://www.mid.state.ms.us/licapp/search_main.aspx)
  - E. All Bonds must be accompanied by an appropriate Power of Attorney dated same as Contract Bond.

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## X PART 5 - BIDDER'S CHECKLIST

The following checklist is for the Bidder's assistance only. It is not inclusive and **is not a part of the bid documents**; therefore, this checklist does not have to be included with the Proposal Form when submitting a bid proposal.

**5.01 PROPOSAL FORM:** (only one original proposal form to be submitted) (also see 3.01 and 600.42 of Manual)  
**Base Bid**

- ☐ Write in the amount of the base bid in words and numbers. The written word shall govern.

**Alternates**

- ☐ Write in each alternates amount in words and numbers. The written word shall govern.

**Addenda**

- ☐ Acknowledge the receipt of each addendum by writing in the number of the addendum and the date received.

**Acceptance**

- ☐ Proposal is signed by authorized person  
☐ Name of Business - complete spelling of bidder's name and address - exact as recorded at the Secretary of State [<http://www.sos.state.ms.us/busserv/corp/soskb/csearch.asp>] which should be the same as you applied for at the Mississippi State Board of Contractors [<http://www.msdoc.us/Search2.CFM>] (see 2.07, 3.01, 5.01, proposal form)  
☐ Legal address of the business listed above (at SOS and Contractor's Board)  
☐ Correct Certificate of Responsibility Number(s) as it appears in the current Mississippi State Board of Contractors Roster

**Certificate of Responsibility Number(s) on envelope (see below for on proposal form)**

- ☐ Base Bid is under \$50,000 and no number is required  
☐ Base Bid is under \$50,000 and the statement "bid does not exceed \$50,000" is on the outside of the sealed envelope  
☐ Base Bid is over \$50,000 and number is required  
☐ Joint Venture and *joint venture* number is required  
**OR** ☐ Joint Venture participants' numbers are required

**5.02 BID SECURITY:**

- ☐ Included Bid Bond

- OR** ☐ Included Certified Check

**5.03 POWER OF ATTORNEY:**

- ☐ Included Power of Attorney

**5.04 NON-RESIDENT BIDDER:**

- ☐ Attached a Copy of Non-Resident Bidder's Preference Law

- OR** ☐ Attached a Statement

**5.05 SUB-CONTRACTORS NAME Refer to 1.04 for responsiveness (modified Dec 2013)**

- ☐ List any Mechanical, Plumbing, and/or Electrical Sub-Contractors regardless of cost. \* List name even for under \$50,000  
\* Fire Protection Sprinkler Contractors do not have to be listed  
\* If there is a separate HVAC/Plumbing Sub-Contractor, so notate as mentioned herein  
\* If Mechanical, Plumbing, and/or Electrical Sub-Contractor is performed by the General, be sure the General has a COR for said discipline  
\* If there is no Mechanical, Plumbing, and/or Electrical Sub-Contractor listed, then use of Sub-Contractor to perform such scope will not be permitted.

**5.06 SUB-CONTRACTORS' COR NUMBER Refer to 1.04 for responsiveness (modified Dec 2013)**

- ☐ \* List Certificate of Responsibility Number for any listed Sub-Contractor over \$50,000.00  
\* If under \$50,000 – so notate on the COR line "under \$50,000" (or can still show COR#)

\*\*\* END OF SECTION \*\*\*

**PROPOSAL FORM  
SECTION 00300**

To: Department of Marine Resources  
1141 Bayview Avenue  
Biloxi, MS

Re: Project # 2014-30  
Project Title LANDSCAPING PLAN FOR THE BON SILENE HOUSE  
Location OCEAN SPRINGS, MISSISSIPPI

I propose to complete all work in accordance with the Project Manual and Drawings within \_\_\_\_\_ consecutive calendar days for the sum of: (Professional must specify number of days)

I (or we) do hereby declare that I (or we) have carefully examined the contract documents, including all addenda, prepared by the consultant listed in Item C. of this proposal and I (or we) have a clear understanding of said documents and premises, and hereby propose to provide the necessary tools, machinery, apparatus and other means of construction, and to furnish all labor, materials, and services specified in the contract or called for in the said contract documents for Base Bid, Unit Prices and Alternates, including all taxes necessary for the construction of the projects listed in Item B. of this Proposal. Bidder agrees to perform all the Work described in the Specifications and shown on the Plans for the following Unit Prices:

(NOTE: Bid shall include sales tax and all other applicable taxes and fees.)

**UNIT PRICE WILL GOVERN IN CASE OF DISCREPANCIES.**

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE		EXTENSION	
				DOLLARS	CENTS	DOLLARS	CENTS
<b><u>BASE BID UNIT PRICES:</u></b>							
01505-A	Mobilization	1	LS				
02522-A	Concrete Work for Walk & ADA Parking	47	SY				
02522-B	Limestone Walkway around Garden	95	SY				
02522-C	Limestone Walkway in Garden	90	SY				
02522-D	Limestone Walkway from Parking	65	SY				
02522-E	Limestone Parking in Back	1	LS				
02522-F	Shuttle Turn Around	40	SY				
02800-A	Pruning Live Oaks	1	LS				
02800-B	Erosion Control	1	LS				
02800-C	Drainage in Rose Garden	1	LS				
02800-D	Grading and Site Prep	1	LS				
02810-A	Irrigation – Including temporary system and watering as per plans	1	LS				
02900-A	Rose (variety)	108	EA				

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE		EXTENSION	
				DOLLARS	CENTS	DOLLARS	CENTS
02900-B	Dwarf Palmetto - 3 Gal	66	EA				
02900-C	Shi Shi Camellia - 3 Gal	34	EA				
02900-D	Long Leaf Pine -15 Gal	4	EA				
02900-E	Pine Straw Mulch for Planting Areas	50 Bales	EA				
04200-A	Brick Border	97	EA				
06100-A	1x6 Wood Border for Rose Garden	355	LF				
06100-B	Vertical Timber Sign	1	LS				
06100-C	Wood Trellis Structure - Large	4	EA				
06100-D	Wood Trellis Structure - Small	20	EA				
06100-E	Wooden Bollard	2	EA				
06100-F	24" Ht. Wood Wire Fence	219	LF				
06100-G	48" Ht. Wood Wire Fence	201	LF				
06100-H	Removal of Invasive Species in Wetland area	1	LS				
06100-J	Single Sided Project Construction Sign	1	LS				
TOTAL BASE BID:							

**BASE BID:** (Write in the "TOTAL BASE BID" amount from above in words and numbers. The written word shall govern.)

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

**ALTERNATES:** (Write in the amount of all of the alternates in words and numbers. The written word shall govern.)

**Alternate #1** ( ) Adds ( ) Deducts

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

Description \_\_\_\_\_

**Alternate #2** ( ) Adds ( ) Deducts

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

Description \_\_\_\_\_

**Alternate #3** ( ) Adds ( ) Deducts

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

Description \_\_\_\_\_

Alternate #4 ( ) Adds ( ) Deducts

Dollars (\$\_\_\_\_\_)

Description \_\_\_\_\_

**ADDENDA ACKNOWLEDGMENT:** (date below can be the date Addendum was issued OR the date Addendum was received by Bidder)

No. \_\_\_\_\_ Date \_\_\_\_\_

No. \_\_\_\_\_ Date \_\_\_\_\_

No. \_\_\_\_\_ Date \_\_\_\_\_

No. \_\_\_\_\_ Date \_\_\_\_\_

↑Complete all lines including #1↑

**ACCEPTANCE:**

I certify that I am authorized to enter into a binding contract, if this Proposal is accepted.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Name and Title \_\_\_\_\_

Name of Business \_\_\_\_\_

Complete spelling of bidder's name and address - **exact as recorded at the Secretary of State**

[<http://www.sos.state.ms.us/busserv/corp/soskb/csearch.asp>] which should be the same as you applied for at the

Mississippi State Board of Contractors [<http://www.msbc.us/Search2.CFM>] (see 2.07, 3.01, 5.01) **PLEASE LOOK IT UP at**

**SoS. SoS rules when the 2 are different.**

Address \_\_\_\_\_(mailing)

Address \_\_\_\_\_(physical)

City/State/Zip Code \_\_\_\_\_ County \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_

■ **Bidder's Certificate of Responsibility Numbers(s):** \_\_\_\_\_

■ **MINORITY BUSINESS ENTERPRISE?** Yes \_\_\_\_\_ No \_\_\_\_\_ (to assist with Code 57-1-57)

■ **Attach copy of Non-Resident Bidder's Preference Law (5.04 of Bidder's Checklist)**

■ **Mechanical / Plumbing / Electrical Contractors:** (modified Dec 2013)

Regarding said Divisions of the Specifications of the BoB Standard Form of Agreement Between The Owner and The Contractor

List any Mechanical/Plumbing and/or Electrical Sub-Contractors that will perform work of this contract. COR must be included where sub-contract exceeds \$50,000.00. If no sub-contractor is listed, and such work is within scope of contract, bidder's own COR classification(s) must be sufficient to self-perform any such work. If no sub-contractor is listed, then use of sub-contractor to perform such scope will not be permitted. This is in accordance with 5.05 and 5.06 of the Bidder's Checklist revised below.

Mechanical Contractor: \_\_\_\_\_

Certificate of Responsibility No. \_\_\_\_\_

Plumbing Contractor: \_\_\_\_\_

Certificate of Responsibility No. \_\_\_\_\_

Electrical Contractor: \_\_\_\_\_

Certificate of Responsibility No. \_\_\_\_\_

■ **Mississippi Department of Agriculture & Commerce**

**Bureau of Plant Industry**

Landscape License Number \_\_\_\_\_ MS Code 69-19-1 - 69-19-15

↑Complete for prime landscaping projects

**Division 0**

**June 2011**

**STANDARD FORM OF AGREEMENT BETWEEN  
THE OWNER AND THE CONTRACTOR  
SECTION 00500**

This Agreement made the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ between the Owner,  
Owner

created by \_\_\_\_\_ et seq., **Mississippi Code of 1972, Annotated**, and acting for the State of Mississippi;

and between the Contractor:

Business Name \_\_\_\_\_  
Address \_\_\_\_\_  
City/State/Zip \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

The Contractor is a (check and complete one of the following):

\_\_\_\_\_ ☐ CORPORATION or ☐ LLC solely organized and existing under the laws of the State of  
\_\_\_\_\_ and having its principal office in \_\_\_\_\_,  
\_\_\_\_\_  
(City) (County) (State)

\_\_\_\_\_ PARTNERSHIP of the following (list all partners):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ SOLE PROPRIETORSHIP

For the following Project:  
Landscaping Plan for the Bon Silene House  
Ocean Springs, Mississippi

This Agreement entered into as of the day and year first written above:

OWNER: OWNER

CONTRACTOR:

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name and Title)

\_\_\_\_\_  
(Name and Title)

APPROVED AS TO FORM:

By: \_\_\_\_\_  
(Signature of Attorney)

THE OWNER AND THE CONTRACTOR AGREE AS SET FORTH IN PAGES ONE THROUGH THREE, ARTICLES ONE THROUGH FIVE, AS FOLLOWS:

Division 0

June 2011

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**ARTICLE 1: THE WORK AND CONTRACT DOCUMENTS**  
**THE WORK**

1.1.1 The Contractor will perform all the work required by the Contract Documents for the Project indicated above.

**1.2 THE CONTRACT DOCUMENTS**

1.2.1 The Contract Documents which constitute the entire Agreement between the Owner and the Contractor, are enumerated as follows:

1.2.2 Project Manual dated November 5, 2015.

**BIDDING REQUIREMENTS**

Advertisement for Bids

Instructions to Bidders

Proposal Form

**STANDARD FORM OF AGREEMENT BETWEEN THE OWNER AND THE CONTRACTOR**

**CONTRACT BOND**

**POWER OF ATTORNEY**

**CERTIFICATE OF INSURANCE**

**CONDITIONS OF THE CONTRACT**

General Conditions

Supplementary Conditions

Labor Requirements

Addenda

**SPECIFICATIONS (check the specs listed on the contents and included in the manual)**

\_\_\_ Division One: General Requirements

\_\_\_ Division One Supplements

\_\_\_ Division Two: Site Work

\_\_\_ Division Three: Concrete

\_\_\_ Division Four: Masonry

\_\_\_ Division Five: Metals

\_\_\_ Division Six: Wood and Plastics

\_\_\_ Division Seven: Thermal and Moisture Protection

\_\_\_ Division Eight: Doors and Windows

\_\_\_ Division Nine: Finishes

\_\_\_ Division Ten: Specialties

\_\_\_ Division Eleven: Equipment

\_\_\_ Division Twelve: Furnishings

\_\_\_ Division Thirteen: Special Construction

\_\_\_ Division Fourteen: Conveying Systems

\_\_\_ Division Fifteen: Mechanical

\_\_\_ Division Sixteen: Electrical

\_\_\_ Division Seventeen: Commissioning

**1.2.3 Addenda**

Addendum No. 1, dated \_\_\_\_\_

Addendum No. 2, dated \_\_\_\_\_

Addendum No. 3, dated \_\_\_\_\_

Addendum No. 4, dated \_\_\_\_\_

Addendum No. 5, dated \_\_\_\_\_

**1.2.4 Drawings dated \_\_\_\_\_**

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

Sheets No. \_\_\_\_\_ through \_\_\_\_\_

**1.2.5.1 Other documents, dated**

\_\_\_\_\_  
\_\_\_\_\_

Division 0

June 2011

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## ARTICLE 2: CONTRACT SUM

### 2.1 CONTRACT SUM

- 2.1.1 The Owner will pay the Contractor in current funds for the performance of the work, subject to additions and deductions by Change Order as provided in the Contract Documents, the Contract sum of \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_). The Contract sum is determined as follows:

Base Bid		\$ _____
Modifications ( ) Adds ( ) Deducts		\$ _____
Negotiations		\$ _____
Alternate No. _____ ( ) Adds ( ) Deducts		\$ _____
Alternate No. _____ ( ) Adds ( ) Deducts		\$ _____
Alternate No. _____ ( ) Adds ( ) Deducts		\$ _____
Alternate No. _____ ( ) Adds ( ) Deducts		\$ _____
<b>Total Contract Sum</b>		\$ _____

### 2.2 LIQUIDATED DAMAGES

- 2.2.1 The stipulated liquidated damages described in Paragraph 9.11 of the *Supplementary Conditions* are in the amount of Two Hundred Fifty Dollars (\$250.00) for each calendar day.

## ARTICLE 3: CONTRACT TIME

### 3.1 TIME

- 3.1.1 The work to be performed under this Contract shall be commenced upon the date stated in the *Notice to Proceed*. The work is to be substantially complete, subject to approved Change Orders, no later than \_\_\_\_\_ calendar days from the date stated in the *Notice to Proceed*.

## ARTICLE 4: PAYMENTS AND FINAL PAYMENTS

### 4.1 PROGRESS PAYMENTS

- 4.1.1 Based upon applications for payment submitted to the Professional by the Contractor and *Certificates for Payment* issued by the Professional, the Owner will make progress payments on account of the Contract sum to the Contractor as provided in the Contract Documents.

### 4.2 FINAL PAYMENT

- 4.2.1 Final payment constituting the entire balance of the Contract sum will be paid by the Owner to the Contractor when the work has been completed, the Contract fully performed and a final Certificate for Payment has been issued by the Professional and approved by the Owner.

## ARTICLE 5: MISCELLANEOUS PROVISION

### 5.1 DEFINITION OF TERMS

- 5.1.1 Terms used in this Agreement which are defined in the Conditions of the Contract will have the meanings designated in those Conditions.

### 5.2 CONTRACTOR'S INTEREST IN AGREEMENT

- 5.2.1 The Contractor will not assign, sublet, or transfer the interest in this Contract agreement without the written consent of the Owner. The Owner and Contractor hereby agree to the full performance of the covenants contained herein.

### 5.3 PROFESSIONAL

- 5.3.1 The Professional assigned to this Project is as follows:

Name Allred Architectural Group, PA

Address 628 Washington Avenue - Suite C, Ocean Springs, MS 39564

Telephone (228) 762-1975 Fax Number (228) 769-9545 E-Mail Address [john@allredarchitecturalgroup.com](mailto:john@allredarchitecturalgroup.com)

\*\*\* END OF SECTION \*\*\*



**CONTRACT BOND  
SECTION 00600**

**I. PREAMBLE**

KNOW ALL MEN BY THESE PRESENTS: THAT \_\_\_\_\_,  
Principal, a \_\_\_\_\_, residing at \_\_\_\_\_,  
\_\_\_\_\_, authorized to do business in the State of Mississippi  
under the laws thereof, and \_\_\_\_\_, Surety, a corporation of the State of  
\_\_\_\_\_, authorized to do business in the State of Mississippi under the laws thereof, are held and firmly  
bound unto the Owner of the State of Mississippi, Obligee, hereinafter referred to as "Owner," for the use and benefit of the Owner and those  
claimants and others set forth herein below and described in Sections 31-5-51 and 31-5-3, **Mississippi Code of 1972, Annotated**, as amended,  
in the amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), lawful  
money of the United States, for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors  
and assigns, jointly and severally, firmly by these present.

WHEREAS, Principal has by written agreement dated \_\_\_\_\_, 20\_\_\_\_\_, entered into a Contract with  
the Owner for the following:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
as provided in said Contract and in accordance with the Contract Documents. All of the terms and provisions of the above mentioned Contract,  
drawings, Project Manual, and addenda are by reference made a part hereof and fully incorporated herein, and are hereinafter referred to as  
"the Contract." All of the terms and provisions of Sections 31-5-51, 31-5-3, supra, Section 31-5-53 of the **Mississippi Code of 1972, Annotated**,  
as amended, and all other code sections cited herein are also by reference made a part hereof and fully incorporated herein.

**II. PERFORMANCE BOND**

NOW, THEREFORE, the condition of this Performance Bond is such that if Principal shall promptly and faithfully perform said Contract, then  
this obligation shall be null and void; otherwise, it shall remain in full force and effect, subject however, to the following conditions:

Whenever the Owner has performed its obligation but the Principal has defaulted under the terms of the Contract, or any portion thereof, and  
the Owner has declared the Principal to be in default, the Surety shall promptly:

1. Remedy the default, or
2. Complete the Contract in accordance with its terms and conditions, or
3. Procure the completion of the Contract in accordance with its terms and conditions.

Even if there should be a succession of defaults, the Surety is responsible for completion of the Contract. The Surety shall provide sufficient  
funds to pay the cost of completion of the Contract in its entirety including other costs and damages for which the Surety may be liable  
thereunder, less the balance of the Contract price. The term "balance of the Contract price," as used in this paragraph, shall mean the total  
amount payable by Owner to Principal under the Contract and any Change Orders thereto, less the amount paid by Owner to Principal.

**III. LABOR AND MATERIAL PAYMENT BOND**

NOW, THEREFORE, the condition of this Labor and Material Payment Bond is such that if Principal shall promptly make payments to all  
persons supplying labor or material used in the prosecution of the work under said Contract, then this obligation shall be null and void;  
otherwise, it shall remain in full force and effect; however, the Owner shall not be liable for the payment of any costs or expenses of any suit  
described in Subsection (2) of Section 31-5-51, supra.

#### IV. BOND FOR PAYMENT OF TAXES AND OTHER ASSESSMENTS

NOW THEREFORE, the condition of this Bond for Payment of Taxes and Other Assessments is such that if Principal shall promptly make payment of all taxes, licenses, assignments, contributions, damages, penalties, and interest thereon, when and as the same may lawfully be due the State of Mississippi, or any County, Municipality, Board, Department, Commission, or political subdivision thereof, by reason of and directly connected with the performance of said Contract or any part thereof as provided by Sections 27-65-1, 27-65-21, 27-67-1, and 31-5-3, **Mississippi Code 1972, Annotated**, or any other applicable statute or other authority, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

#### V. GENERAL CONDITIONS

The following conditions apply to all three (3) of the above-mentioned Bonds:

1. The Performance Bond is for an amount equal to the full amount of said Contract.
2. The Labor and Material Payment Bond is for an amount equal to the full amount of said Contract.
3. If any changes are made in the work, or any extensions of time are granted, or any increases in the total dollar amount of the Contract are made, such changes, extensions, increases, or other forbearance on the part of either the Owner or the Principal will not, in any way, release the Principal and Surety, or either of them, from their liability hereunder, or any portion thereof, notice to the Surety of any such change, extension, increase, or forbearance being expressly waived.
4. These Bonds are governed by and shall be construed in accordance with Mississippi law. Any inconsistency with these Bonds and any provision of Mississippi law shall be remedied by deleting the inconsistent portion of these Bonds and leaving the remaining consistent portions in full force and effect.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

SURETY \_\_\_\_\_

(MS Licensed Agent Address)

By: \_\_\_\_\_

(Signature)

(MS Licensed Agent City/State/Zip/Phone)

\_\_\_\_\_  
(Typed Name) Attorney-in-Fact  
(Title)

\_\_\_\_\_  
(Surety Address)

\_\_\_\_\_  
(Surety City/State/Zip/Phone)

COUNTERSIGNED:

MISSISSIPPI LICENSED AGENT COMPANY NAME

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Typed Name) Licensed Mississippi Agent  
(Title)

PRINCIPAL \_\_\_\_\_

By: \_\_\_\_\_

(Signature)

\_\_\_\_\_  
(Typed Name and Title)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City/State/Zip/Phone)

Surety Company, Surety Agent's Name, Address, etc. should be typed and with seal (preferably embossed seal) on Bond and P/A. The P/A should be for the Attorney-in-Fact with seal (preferably embossed seal).

The Contract Bond shall be duly executed by the Bidder AND a MS Licensed Agent said Surety approved by the MS Ins Dept  
OR  
signed by the Surety's Agent AND countersigned by a MS Licensed Agent for said Surety approved by the MS Ins Dept.

Countersignature can be the same as the Attorney-in-Fact when the Attorney-in-Fact is licensed in Mississippi. Countersignature will be different when the Attorney-in-Fact is "not" licensed in Mississippi. P/A will be for the Attorney-in-Fact.

Check the Surety Company AND the Surety Agent  
AND/OR the Countersignature at MS Ins Dept web:  
[http://www.mid.ms.gov/licapp/search\\_main.aspx](http://www.mid.ms.gov/licapp/search_main.aspx)

Easier to locate Agent at MID when name agrees with MID licensed name.)

Divis

**SECTION 00650**

**STANDARD CONSTRUCTION CONTRACT  
CERTIFICATE OF INSURANCE**

This certificate of insurance neither affirmatively nor negatively amends, extends, or alters the coverage afforded by the policies below.

<b>INSURED:</b> (Contractor's Name & Address)				COMPANIES PROVIDING COVERAGE w/ MID Lic or NAIC #		
				<b>A</b>		
				<b>B</b>		
<b>PROJECT:</b> (Number, Name & Location)				<b>C</b>		
				<b>D</b>		
				<b>E</b>		
<b>OWNER:</b> Owner				<b>F</b>		
				<b>G</b>		
				Companies above must be approved by the MS Ins Dept at <a href="http://www.mid.ms.gov/licapp/search_main.aspx">http://www.mid.ms.gov/licapp/search_main.aspx</a> per Code & WComp at <a href="http://www.mwcc.ms.gov/">http://www.mwcc.ms.gov/</a>		
Type Insurance	Co	Policy Number	Policy Period	Coverage and Minimum Amount		
General Liability Commercial General Liability				General Aggregate	\$ 1,000,000	
				Products Comp/Ops (Aggregate)	\$ 1,000,000	
				Personal Injury (Per Occurrence)	\$ 500,000	
				BI & PD (Per Occurrence)	\$ 500,000	
				Fire Damage (Per Fire)	\$ 50,000	
				Medical Expense (Per Person)	\$ 5,000	
Owners/Contractors Protective Liability				General Aggregate	\$ 1,000,000	
				Per Occurrence	\$ 500,000	
Automobile Liability				Bodily Injury/Property Damage Combined Single Limit (Per Occurrence)	\$ 500,000	
				OR	Bodily Injury (Per Person)	\$ 250,000
					Bodily Injury (Per Accident)	\$ 500,000
					Property Damage (Per Occurrence)	\$ 100,000
* Excess Liability (Umbrella on projects over \$500,000)				Aggregate	\$ 1,000,000	
				Per Occurrence	\$ 1,000,000	
Workers' Compensation (As required by Statute) Employers' Liability				Accident (Per Occurrence)	\$ 100,000	
				Disease-Policy Limit	\$ 500,000	
				Disease-Per Employee	\$ 100,000	
Property Insurance (not required when project is demolition ONLY – required for ALL other projects including paving)				OR Builders' Risk Installation Floater	Must be equal to Value of Work	
Other						
<b>Certification:</b> I certify that these policies (subject to their terms, conditions and exclusions) have been (1) issued to the Insured for the coverages and at least the amounts as indicated by companies licensed in Mississippi; (2) countersigned by a Mississippi Licensed Agent; and (3) endorsed to require the company to give thirty (30) days written notice to the Owner prior to cancellation or non-renewal of above.						
<b>Producing Agent:</b> (Name, Address and Telephone)						
				(Signature)		
				(Date)		
				(Name and Title of Authorized Representative) (typed)		
				Agent must be approved by the MS Ins Dept <a href="http://www.mid.ms.gov/licapp/search_main.aspx">http://www.mid.ms.gov/licapp/search_main.aspx</a>		
				<input type="checkbox"/> Check if Mississippi Licensed Agent OR Countersign by Mississippi Licensed Agent		
				MID Lic #		

Division 0

June 2011

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**CERTIFICATE OF INSURANCE INSTRUCTIONS**  
**SECTION 00650**

1. The *Certificate of Insurance* is a tabulation of insurance required for this Project as specified in Article 11 entitled *Insurance and Bonds* in the General Conditions (AIA Document A201, Sixteenth Edition, 2007).
2. The *Certificate of Insurance* must be completed, certified by the original signature of a Mississippi Licensed Insurance Agent and/or countersignature, dated, and bound in each set of the Contract Documents. Insurance Companies providing coverage and Agent and/or Countersignature Agent must be approved by the Mississippi Insurance Department on their web at [http://www.mid.ms.gov/licapp/search\\_main.aspx](http://www.mid.ms.gov/licapp/search_main.aspx). (Agent does not have to be on the MID web "for providers necessarily" – but must be an approved Agent on MID web. Easier to locate Agent at MID when name agrees with MID licensed name.)
3. Indicate Insured, Project, Companies providing coverage, policy numbers and policy periods in the blanks as applicable.
4. If the "OWNERS/CONTRACTORS PROTECTIVE LIABILITY" insurance is part of the Commercial General Liability Insurance Policy, or included by endorsement, indicate the policy number and period of the CGL policy in the "OWNERS/CONTRACTORS PROTECTIVE LIABILITY" blank spaces.
5. Automobile Liability Insurance may be provided which covers Bodily Injury and Property Damage in one (1) Combined Single Limit, or may be provided with separate minimum limits as shown on the Certificate of Insurance and specified in Article 11 of the Supplementary Conditions. The person signing the Certificate of Insurance should show which option the Contractor has selected by marking out the coverage that is not provided under the policies indicated.
6. OTHER INSURANCE (if required) will be indicated by typing in the "OTHER" block and detailed in Article 11 of the Supplementary Conditions.
7. CERTIFICATION wording may not be changed without specific written approval from the Owner.
8. "Riders", Binders, TBA, TBD, or other unsolicited attachments, are not allowed as part of the *Certificate of Insurance* unless specifically requested in writing by the Owner, or specified as part of the requirements for this Project.
9. CAUTION: The *Certificate of Insurance* is intended to be used for all Projects. The Contractor must provide all insurance specified in the Contract Documents for this Project, whether indicated on this form, or not. The Contractor must verify all insurance has been provided as required.
10. In accepting the Insurance Certificate by Owner, it would be helpful if some indication is given when, and if, the Provider is a Surplus Line Carrier, a Broker, or Self Insured (because they may not be on the MID web list referenced herein). (The Owner will have to ask MID (or know) at some point.)
11. The Workers Comp insurance provider must be approved and show up on the Workers Comp web at <http://www.mwcc.state.ms.us> / Services / Proof of Coverage Inquiry / accept / etc. and at the last step – enter the "contractor's name".

Note: Regarding #2 and #11. At the MID web – you enter the Surety Company / Provider / Agent. At the MWWC web – you enter the Vendor's name, then click on the policy number to see the MWWC Ins Provider.

\*\*\* END OF SECTION \*\*\*

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**GENERAL CONDITIONS  
SECTION 00700**

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

- A. **SCOPE:** The **General Conditions of the Contract for Construction**, AIA Document A201, Sixteenth Edition, 2007, Articles 1 through 15 inclusive, is a part of this Contract and is incorporated herein.
- B. **BIDDING COPY:** For the purpose of bidding, Contractors are presumed to be familiar with AIA Document A201, a copy of which may be obtained from the Professional, or examined in the Professional's office.

**\*\*\* END OF SECTION \*\*\***

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**SUMMARY OF WORK  
SECTION 01010**

**1.01 WORK COVERED BY CONTRACT DOCUMENTS**

- A. **Work Covered:** Work covered by the Contract Documents is as shown in drawings and described in words in the Project Manual. The Project Title and location is indicated on the first page of this Project Manual.
- B. **Start of Work:** Work shall be started immediately upon issuance of a *Notice to Proceed*. Prior to this, all Contracts and beginning documents will have been executed and insurance in force.
- C. **Time of Completion:** The completion of this Work is to be on, or before, the time indicated in the *Standard Form of Agreement Between the Owner and the Contractor*.
- D. **Contractor's Duties:**
  - 1. Except as specifically noted, provide and pay for:
    - a. Labor, materials and equipment.
    - b. Tools, construction equipment and machinery.
    - c. Water, heat and utilities required for construction.
    - d. Other facilities and services necessary for proper execution and completion of the Work.
  - 2. Pay legally required sales, consumer, use, payroll, privilege and other taxes.
  - 3. Secure and pay for, as necessary for proper execution and completion of work, and as applicable at the time of the receipt of the bids:
    - a. Permits.
    - b. Government fees.
    - c. Licenses.
  - 4. Give required notices.
  - 5. Comply with codes, ordinances, rules, regulations, orders and other legal requirements of public authorities which bear on performance of work.
  - 6. Promptly submit written notice to Professional of observed variance of Contract Documents from legal requirements. It is not the Contractor's responsibility to make certain that drawings and specifications comply with codes and regulations. Appropriate modifications to Contract Documents will adjust necessary changes. Assume responsibility for work known to be contrary to such requirements, without notice.
  - 7. Enforce strict discipline and good order among employees. Do not employ or work unfit persons, or persons, not skilled in assigned task.
  - 8. Provide a written safety plan.
- E. **Hazardous Materials:** The Prime General Contractor is responsible for the removal and disposal of any hazardous materials encountered in the performance of the Contract requirements. Hazardous Containing Materials [HCM] include, but are not limited to, Asbestos and Lead Paint and should be identified and removed as a part of the Contract. The absence of details does not relieve the Prime General Contractor from the responsibility of removal and disposal; but, a Change Order could be executed in the absence of identified HCM in the documents.
- F. **Subcontractor's List:** The Prime General Contractor will submit to the Owner a list of all Subcontractors, including disciplines and COR #'s, over Fifty Thousand Dollars (\$50,000.00) to be used on the Project prior to contract award by the Owner. Any Sub-Contractor listed must be acceptable to the Owner. Additionally, include any Mechanical, Plumbing, or Electrical Sub-Contractor listed on Proposal Form regardless of amount. (Modified Jan 2015)  
The Prime General Contractor will submit to the Owner within seven (7) days from the Notice to Proceed, a completed *Minority Tracking Form* (attached as Exhibit "A" at the end of Division 1 Section 01900) outlining the use of minority subcontractors that will be used on the project.
- G. **Coordination:** The Prime General Contractor is responsible for the coordination of the total project. All other Prime Contractors and all Subcontractors will cooperate with the Prime General Contractor so as to facilitate the general progress of the Work. Each trade shall afford all other trades every reasonable opportunity for the installation of their work. Refer to Section 01041 entitled *Project Coordination*.

**1.02 CONTRACTS**

- A. **Contracts:** Construct work under a single Prime General Contract. Refer to Section 00500 entitled *Standard Form of Agreement Between the Owner and the Contractor*.

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### 1.03 WORK BY OTHERS

Work by Others shall be described in each appropriate Project Manual section and noted on the Drawings.

### 1.04 OWNER-FURNISHED PRODUCTS

- A. **Products Furnished By Owner:** Products furnished by Owner shall be described in each appropriate Project Manual section and noted on the Drawings.
- B. **Products:** Delivered and unloaded at site.
- C. **Owner's Duties:**
  - 1. Schedule delivery date with Supplier in accordance with construction schedule.
  - 2. Obtain installation drawings and instructions.
  - 3. Submit claims for transportation damages.
  - 4. Arrange Guarantees, Warranties, etc.
- D. **Contractor's Duties:**
  - 1. Designate required delivery date for each product in construction schedule.
  - 2. Promptly inspect delivered products, report missing, damaged, or defective items.
  - 3. Handle at site, including uncrating and storage.
  - 4. Protect from exposure to elements and from damage.
  - 5. Repair or replace damaged items resulting from Contractor's operations.
  - 6. Install and make final connections.

### 1.05 CONTRACTOR'S USE OF PREMISES

- A. Confine operations at site to areas permitted by:
  - 1. Law.
  - 2. Ordinances.
  - 3. Permits.
  - 4. Contract Documents.
  - 5. Owner.
- B. Do not unreasonably encumber site with materials or equipment.
- C. Do not load structure with weight that will endanger structure.
- D. Assume full responsibility for protection and safekeeping of products stored on premises.
- E. Move any stored products which interfere with operations of Owner or other Contractors.
- F. Obtain and pay for use of additional storage or work areas needed for operations.
- G. Limit use of site for work and storage to the area indicated in the drawings.

### 1.06 SUMMARY OF WORK SUPPLEMENT

- A. Refer to Section 01900 entitled *Division One Supplement* for Project specific summary of work requirements.

## ALLOWANCES SECTION 01020

### 1.01 DESCRIPTION

- A. **Related Work Specified Elsewhere:** Sections of Specifications as listed under Schedule of Allowances.
- B. **Allowances for Products:**
  - 1. Purchase products under each allowance as directed by the Professional.
  - 2. Amount of each allowance includes:
    - a. Net cost of product.
    - b. Delivery and unloading at site.
    - c. Applicable taxes.

- 
3. In addition to amounts of allowances, include in bid, for inclusion in Contract sum, Contractor's costs for:
    - a. Handling at site, including uncrating and storage.
    - b. Protection from elements and damage.
    - c. Labor, installation and finishing.
    - d. Other expenses required to complete installation.
    - e. Overhead and profit.
  - C. **Selection of Products:**
    1. **Architect's Duties:** Consult with Contractor in consideration of products and Suppliers; make selections, designate products to be used; and, notify Contractor in writing.
    2. **Contractor's Duties:** Assist Professional in determining qualified Suppliers; obtain proposals from Suppliers when requested by the Professional; and, make appropriate recommendations for consideration of the Professional. Upon notification of selection, enter into Purchase Agreement with designated Supplier.
  - D. **Delivery:** The Contractor is responsible for arranging all delivery and unloading and should promptly inspect products for damage or defects and submit claims for transportation damage.
  - E. **Installation:** Comply with requirements of referenced specification section.
  - F. **Adjustment of Costs:** Should actual purchase cost be more, or less, than the specified allowance amount, the Contract Sum will be adjusted by Change Order equal to the amount of the difference.

1.02 **SCHEDULE OF ALLOWANCES**

- A. No allowances are scheduled for this project.

**SCHEDULE OF VALUES  
SECTION 01025**

1.01 **DESCRIPTION**

- A. **Scope:** Submit a *Schedule of Values* to the Professional at least ten (10) days prior to submitting the first Application for Payment. Upon the Professional's request, the Contractor will provide supportive data substantiating their correctness. Use *Schedule of Values* only as basis for Contractor's Application for Payment.
- B. **Form of Submittal:** Submit Schedule of Values on AIA Document G703, or computer generated form containing similar style, using Table of Contents of these Specifications as basis for format for listing costs of work for sections under Divisions 2-16. Identify each line item with number and title as listed in Table of Contents in these Specifications.
- C. **Preparing Schedule of Values:**
  1. Itemize separate line item cost for each of the following general cost items: Performance and Payment Bonds, field supervision and layout, temporary facilities and controls.
  2. Itemize separate line item cost for work required by each Section of these Specifications. Break down installed cost with overhead and profit.
  3. For each line item which has installed value of more than \$10,000, break down costs to list major products for operations under each item, rounding figures to nearest dollar. Make sum of total costs of all items listed in Schedule equal to total Contract sum.
- D. **Preparing Schedule of Unit Material Values:**
  1. Submit separate Schedule of unit prices for materials to be stored on which progress payments will be made. Make form of submittal parallel to Schedule of Values with each line item identified same as line item in Schedule of Values. Include in unit prices only: cost of material, delivery, unloading at site, and sales tax.
  2. Make sure unit prices multiplied by quantities equal material cost of that item in Schedule of Values.
- E. **Review and Resubmittal:** After Professional's review, if requested, revise and resubmit Schedule of Values in same manner.



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**APPLICATIONS FOR PAYMENT  
SECTION 01027**

**1.01 SCOPE**

- A. This Section describes procedures for preparing and submitting Applications for Payment by the Contractor.

**1.02 APPLICATIONS FOR PAYMENT**

- A. **Format:**
1. Applications for Payments will be prepared on AIA forms G702 - *Application and Certificate for Payment* and G703 - *Continuation Sheet*; or, a computer generated form containing similar data may be used.
- B. **Preparation of Application:**
1. Present required information in typewritten form
  2. Execute certification by signature of authorized officer
  3. Use data from approved *Schedule of Values*. Provide dollar value in each column for each line item for portion of Work performed and for stored products.
  4. List each authorized Change Order as an extension on continuation sheet, listing Change Order number and dollar amount as for an original Item of Work.
  5. Prepare Application for Final Payment as specified in Section 01700 entitled *Contract Closeout*.
- C. **Submittal Procedures**
1. Submit original and one (1) copy of each Application for Payment
  2. Submit an updated construction schedule with each Application for Payment as described in Section 01310 entitled *Progress Schedule* or Section 01311 entitled *Network Analysis Schedules*.
  3. Submit requests for payment at intervals agreed upon by the Professional, Owner and Contractor.
  4. Submit requests to the Professional at agreed upon times, or as may be directed otherwise.
- D. **Substantiating Data:**
1. Submit data justifying dollar amounts in question when such information is needed.
  2. Provide one (1) copy of the data with a cover letter for each submittal.
  3. Indicate the Application number, date and line item number and description.

**CHANGE ORDER PROCEDURES  
SECTION 01028**

**1.01 SCOPE**

- A. This Section describes the procedures for processing Change Orders by the Professional and the Contractor.

**1.02 CHANGE ORDER PROCEDURES**

- A. **Change Proposed by Professional:** The Professional may issue a Proposal Request to the Contractor which includes a detailed description of a proposed change with supplementary or revised Drawings and Specifications and a change in Contract Time for executing the change. The Contractor will prepare and submit an estimate within ten (10) days.
- B. **Change Proposed by Contractor:** The Contractor may propose a change by submitting a request for change to the Professional, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on Work by separate or other Contractors. Document any requested substitutions in accordance with Section 01630 entitled *Substitutions and Product Options*.
- C. **Contractor's Documentation:**
1. Maintain detailed records of Work completed on a time and material basis. Provide full information required for evaluation of proposed changes, and substantiate costs of changes in the Work.
  2. Document each quotation for a change in cost or time with sufficient data allowing evaluation of the quotation.
  3. On request, provide additional data to support computations:
    - a. Quantities of products, labor, and equipment
    - b. Taxes, insurance and bonds
    - c. Overhead and profit
    - d. Justification for any change in Contract Time
    - e. Credit for deletions from Contract, similarly documented

**Division One**

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4. Support each claim for additional costs, and for Work completed on a time and material basis, with additional information:
    - a. Origin and date of claim
    - b. Dates and times work was performed and by whom
    - c. Time records and wage rates paid
    - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
  - D. **Construction Change Directive:** The Professional may issue a document, approved by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. The document will describe changes in the Work, and will designate method of determining any change in Contract Sum or Contract Time. The change in Work will be promptly executed.
  - E. **Format:** The Professional will prepare five (5) originals of the Change Order using the Owner's *Change Order Form*. (see also 700.20)
  - F. **Types of Change Orders:**
    1. **Stipulated Sum Change Order:** Based on Proposal Request and Contractor's fixed price quotation, or Contractor's request for a Change Order as approved by the Professional.
    2. **Unit Price Change Order:** For pre-determined unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under a Construction Change Directive. Changes in Contract Sum or Contract Time will be computed as specified for Time and Material Change Order.
    3. **Time and Material Change Order:** Submit itemized account and supporting data after completion of change, within time limits indicated in the *Standard Form of Agreement Between the Owner and the Contractor*. The Professional will determine the change allowable in Contract Sum and Contract Time as provided in the Contract Documents. The Contractor shall maintain detailed records of Work accomplished on Time and Material basis and shall provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
  - G. **Execution of Change Order:** The Professional will issue Change Orders for signatures of parties as provided in the *Standard Form of Agreement Between the Owner and the Contractor*. Final execution of all Change Orders requires approval by the Owner.
  - H. **Correlation of Contractor Submittals:** The Contract shall promptly revise *Schedule of Values* and the *Application for Payment* forms to record each authorized Change Order as a separate line item and adjust the Contract Sum. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust time for other items of Work affected by the change and resubmit. Promptly enter changes in Project Record Documents.

#### ALTERNATES SECTION 01030

##### 1.01 DESCRIPTION

- A. **Scope:** This section describes the changes to be made under each alternate.
- B. **General:** The referenced Specification sections contain the pertinent requirements for materials and methods to achieve the work described herein. Coordinate related work and modify surrounding work, as required, to complete the Project under each alternate designated in the Contract.

##### 1.02 DESCRIPTION OF ALTERNATES

- A. Refer to Section 01900 entitled *Division One Supplement* for Project specific description of project Alternates.

#### PROJECT COORDINATION SECTION 01041

##### 1.01 DESCRIPTION

- A. **Scope:** To set forth procedures, conditions and responsibility for coordination of the total project.
- B. **Project Coordinator:** The General Contractor will designate one (1) individual as Project Coordinator or Superintendent, as referred to in the General Conditions. Prior to beginning the Work, the name and qualifications will be submitted, in writing, to the Professional. Upon the approval of the Professional and the Owner, the Project Coordinator will remain until the Project is completed and cannot be removed during construction without the written consent of the Owner and the Professional.

#### Division One

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**1.02****DUTIES OF PROJECT COORDINATOR**

- A. **General:**
  - 1. **Coordination:** Coordinate the work of all Subcontractors and Material Suppliers.
  - 2. **Supervision:** Supervise the activities of every phase of work taking place on the Project.
  - 3. **Mechanical/Electrical:** Take special care to coordinate and supervise the work of the plumbing, heating and cooling and electrical Subcontractors.
  - 4. **Communication:** Establish lines of authority and communication at the job site.
  - 5. **Location:** The Project Coordinator must be present on the job all of the time.
  - 6. **Permits:** Assist in obtaining building and special permits required for construction.
- B. **Interpretations of Contract Documents:**
  - 1. **Consultation:** Consult with Architects and Engineers to obtain interpretations.
  - 2. **Assistance:** Assist in resolution of any questions.
  - 3. **Transmission:** Transmit written interpretations to concerned parties.
- C. **Cessation of Work:** Stop all work not in accordance with the requirements of the Contract Documents.
- D. **Division One:** Coordinate and assist in the preparation of all requirements of Division One and specifically as follows:
  - 1. **Cutting and Patching:** Supervise and control all cutting and patching of other trades' work.
  - 2. **Project Meetings:** Schedule and preside at all project meetings.
  - 3. **Construction Schedules:** Prepare and submit all construction schedules; supervise work to monitor compliance with schedules.
  - 4. **Shop Drawings, Product Data and Samples:** Administer the processing of all submittals required by the Project Manual.
  - 5. **Schedule of Values:** Assist in preparation and be knowledgeable of each entry in the Schedule of Values.
  - 6. **Testing:** Coordinate all required testing.
  - 7. **Temporary Facilities and Controls:** Allocate, maintain and monitor all temporary facilities.
  - 8. **Substitutions and Product Options:** Administer the processing of all substitutions.
  - 9. **Project Closeout:** Conduct final inspections and assist in collection and preparation of closeout documents.
  - 10. **Cleaning:** Direct and execute a continuing cleaning program throughout construction, requiring each trade to dispose their own debris.
  - 11. **Project Record Documents:** Maintain up-to-date project record documents.
  - 12. **Safety Measures:** Plan and enforce all safety requirements.
- E. **Changes:** Recommend and assist in the preparation of requests to the Professional for any changes in the Contract.
- F. **Application for Payment:** Assist in the preparation and be knowledgeable of each entry in the Application and Certificate for Payment.

**1.03****SUBCONTRACTOR'S DUTIES**

- A. **General:** The Subcontractor is responsible for coordinating and supervising employees in the work to be accomplished under their part of the Contract.
- B. **Schedules:** Conduct work to assure compliance with construction schedules.
- C. **Suppliers:** Transmit all instructions to Material Suppliers.
- D. **Cooperation:** Cooperate with the Project Coordinator and other Subcontractors.

**1.04****OWNER-PURCHASED PRODUCTS**

- A. **General:** Cooperate, accept delivery, arrange storage and protect Owner-purchased products until installation, or final acceptance.

**CUTTING AND PATCHING  
SECTION 01045**

**1.01****GENERAL DESCRIPTION**

- A. **Scope:** To set forth broad, general conditions covering cutting and patching that applies to everyone and everything on the job.

**Division One**

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- B. Execute cutting including excavating, fitting, or patching of work required to:
    - 1. Make several parts fit properly.
    - 2. Uncover work to provide for installation of ill-timed work.
    - 3. Remove and replace defective work.
    - 4. Remove and replace work not conforming to Contract requirements.
    - 5. Install specified work in existing construction.
  - C. In addition to Contract requirements, upon Professional's written instructions:
    - 1. Uncover work for observation of covered work.
    - 2. Remove samples of installed materials for testing.
    - 3. Remove work to provide alteration of existing work.
  - D. Do not cut or alter work of another Contractor without permission.
  - E. **Payment of Costs:** Costs caused by ill-timed, or defective work, or work not conforming to Contract Documents will be borne by party responsible for ill-timed, defective work, or non-conforming work.

1.02 **MATERIALS/PRODUCTS**

- A. **Materials for Replacement or Work Removed:** Comply with Specifications for type of work to be accomplished.

1.03 **EXECUTION**

- A. **Inspection:** Inspect existing conditions of work, including elements subject to movement, or damage during cutting and patching.
- B. **Preparation Prior to Cutting:** Provide shoring, bracing and support, as required, to maintain structural integrity of the building. Provide protection for other portions of work and protection from the elements.
- C. **Performance:**
  - 1. Execute cutting and demolition by methods which prevent damage to other work and will provide surfaces to receive installation of repairs and new work.
  - 2. Execute excavating and backfilling by methods which prevent damage to other work and prevent settlement.
  - 3. Restore work which has been cut or removed; install new products to provide completed work in accordance with requirements of Contract Documents.
  - 4. Refinish entire surfaces, as necessary, to provide an even finish. Refinish continuous surfaces to the nearest intersection and assemblies entirely.

**PROJECT MEETINGS  
SECTION 01200**

1.01 **DESCRIPTION**

- A. **Contractor's Responsibilities:** The General Contractor will administer all progress meetings which include the following:
  - 1. Prepare agenda
  - 2. Distribute written notice of meetings seven (7) days in advance
  - 3. Make physical arrangements for and presiding at the meetings
  - 4. Record minutes
  - 5. Distribute copies of the minutes to participants within four (4) days
- B. **Pre-Construction Meeting:** The Owner will schedule a pre-construction meeting as soon as possible after the award of Contract and the issuance of a *Notice to Proceed*.
  - 1. **Attendance:**
    - a. Owner
    - b. Professional and Consultants
    - c. General Contractor
    - d. Major Subcontractors, including mechanical and electrical
    - e. Representatives of governmental, or other regulatory agencies
    - f. Commissioning Authority Professional (if Cx on project)

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2. **Minimum Agenda:** (prepared by the General Contractor)
    - a. Distribute and discuss list of major Subcontractors and construction schedule
    - b. Critical work sequencing
    - c. Designation of responsible personnel
    - d. Procedures for maintaining record documents
    - e. Use of premises, including office and storage areas
    - f. Owner's requirements
    - g. Security procedures
    - h. Housekeeping procedures
    - i. Commissioning issues (if Cx on project)
  3. **Utilities:** A written agreement must be reached on how all utilities will be furnished and the rates the Contractor will be charged. This agreement should be resolved at this meeting. Refer to Section 1500 entitled *Construction Facilities and Temporary Controls* of this Project Manual for additional utility requirements.
- C. **Progress Meetings:**
1. The Owner will schedule regular meetings at the time of the pre-construction conference
  2. Hold all meetings as progress of work dictates
  3. **Attendance:**
    - a. Owner
    - b. Professional and Consultants
    - c. General Contractor
    - d. Subcontractors, as pertinent to the agenda
    - e. Commissioning Authority Professional (if Cx on project)
  4. **Minimum Agenda:**
    - a. Review, approve minutes of the previous meeting
    - b. Review work progress since last meeting
    - c. Note field inspections, problems and decisions
    - d. Identify problems which impede planned progress
    - e. Review off-site fabrication problems
    - f. Revise construction schedule, as indicated
    - g. Plan progress during the next work period
    - h. Review proposed changes
    - i. Complete other current business
    - j. Commissioning issues (if Cx on project)
- D. **Commissioning Meetings:** (if Cx on project) The Owner will schedule a commissioning scoping meeting at the pre-construction conference. Regular Commissioning Meetings will coincide with regularly scheduled Progress Meetings until such time that the Commissioning Process requires additional meetings. The Commissioning Authority Professional will chair, facilitate and document Commissioning Meetings.
1. **Attendance:**
    - a. Owner
    - b. Commissioning Authority Professional
    - c. Professional and Consultants
    - d. General Contractor
    - e. Subcontractors, as pertinent to unresolved issues identified in current Issues Log
    - f. Testing, Adjusting and Balancing Contractor
    - g. Using Agency's Building Operator/Physical Plant Representative
  2. **Minimum Agenda:**
    - a. Review, approve minutes of the previous meeting
    - b. Review Issues Log
    - c.

**PROGRESS SCHEDULES  
SECTION 01310**

**1.01 DESCRIPTION**

- A. **Scope:** Provide projected construction schedules for entire work and revise periodically. The following is a minimum requirement and other type schedules are acceptable with Owner's approval. This type of schedule is acceptable for any Project whose initial Contract award amount if **less than** one (1) million dollars (\$1,000,000).

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- B. **Form of Schedules:** Prepare in form of horizontal bar chart.
    - 1. Provide separate horizontal bar column for each trade or operation.
    - 2. Place in order of the Table of Contents of Specifications.
    - 3. Identify each column by major Specification section number.
    - 4. Identify the first work day of each week by horizontal time scale.
    - 5. Scale and space to allow for updating.
  - C. **Contents of Schedule:**
    - 1. Provide complete sequence of construction by activity.
    - 2. Indicate dates for beginning and completion of each stage of construction.
    - 3. Identify work of separate floors, separate phases, or other logically grouped activities.
    - 4. Show projected percentage of completion for each item of work as of first day of month.
  - D. **Updating:**
    - 1. Show all changes occurring since previous submission of updated schedule.
    - 2. Indicate progress of each activity and completion dates.
  - E. **Submittals:**
    - 1. Submit initial schedules to the Professional within fifteen (15) days after date of Notice to Proceed.
    - 2. Submit to Professional periodically updated schedules accurately depicting progress to first day of each month.
    - 3. Submit two (2) copies, one (1) to be retained by the Professional and the other forwarded to the Owner.

#### **SHOP DRAWINGS, PRODUCT DATA AND SAMPLES SECTION 01340**

1.01

#### **DESCRIPTION**

- A. **Scope:** Submit to the Professional shop drawings, product data and samples required by Specification sections. Submit an additional copy of shop drawings, product data and samples related to items/systems identified to be commissioned to the Commissioning Authority Professional to be reviewed concurrently with the Professional. (if Cx on project).
- B. **Shop Drawings:** Original drawings prepared by Contractor, Subcontractor, Supplier, or Distributor which illustrate some portion of the Work; showing fabrication, layout, setting, or erection details.
  - 1. Prepared by a qualified detailer.
  - 2. Identify details by reference to sheet and detail numbers shown on Contract drawings.
  - 3. Minimum sheet size: 8 1/2" x 11"
  - 4. Reproductions for submittals: Opaque diazo prints.
- C. **Product Data:**
  - 1. **Manufacturer's Standard Schematic Drawings:** Modify drawings to delete information which is not applicable to the Project. Supplement standard information to provide additional information applicable to the Project.
  - 2. **Manufacturer's Catalog Sheets, Brochures, Diagrams, Schedules, Performance Charts, Illustrations and Other Standard Descriptive Data:** Clearly mark each copy to identify pertinent materials, products, or models. Show dimensions and clearances required. Show performance characteristics and capacities, wiring diagrams and controls.
- D. **Samples:** Physical examples to illustrate materials, equipment or workmanship and to establish standard by which completed work is judged.
  - 1. **Office Samples:** Of sufficient size and quantity to clearly illustrate functional characteristics of products or material with integrally related parts and attachment devices and full range of color samples. After review, samples remain the property of the Professional until completion of the construction project.
  - 2. **Field Samples and Mock-ups:** Erect on project site at location acceptable to Professional. Construct each sample, or mock-up, completely including work of all trades required in finished work.
- E. **Contractor's Responsibilities:**
  - 1. Review shop drawings, product data and samples prior to submission.
  - 2. Verify field measurements, field construction criteria, catalog numbers and similar data.
  - 3. Coordinate each submittal with requirements of work and of Contract Documents.

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### **Division One**

June 2011

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4. Contractor's responsibility for errors and omissions in submittals is not relieved by the Professional's review of submittals.
  5. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Professional's review of submittals unless Professional gives written acceptance of specific deviations.
  6. Notify Professional in writing at the time of submission of deviations in submittals from requirements of Contract Documents.
  7. Begin no work requiring submittals until the return of submittals bearing Professional's stamp and initials, or signature indicating review.
  8. After Professional's review, distribute copies.
- F. **Submission Requirements:**
1. Schedule submission with ample time before dates reviewed submittals will be needed.
  2. Submit number of copies of shop drawings and product data which Contractor requires for distribution, plus one (1) copy to be retained by the Professional.
  3. Submit number of samples specified in each Specification section.
  4. Accompany submittals with transmittal letter, in duplicate, containing date, Project title and number; Contractor's name and address; the number of each shop drawings, product data and samples submitted; notification of deviations from Contract Documents; and, other pertinent data.
  5. Submittals shall include:
    - a. Date and revision dates.
    - b. Project title and number.
    - c. The names of the Professional, Contractor, Supplier, Manufacturer and separate detailer, when pertinent.
    - d. Identification of product, or material.
    - e. Relation to adjacent structure, or materials.
    - f. Field dimensions clearly identified as such.
    - g. Specification section number.
    - h. Applicable standards such as ASTM number, or federal specifications.
    - i. A blank space (2" x 3") for the Professional's stamp.
    - j. Identification of deviations from Contract Documents.
    - k. Contractor's stamp, initialed or signed, certifying the review of submittal, verification of field measurements and compliance with Contract Documents.
- G. **Resubmission Requirements:**
1. **Shop Drawings:** Revise initial drawings, as required, and resubmit as specified for initial submittal. Indicate on the drawings any changes which have been made other than those required by the Professional.
  2. **Product Data and Samples:** Submit new data and samples, as required, for initial submittal.
- H. **Distribution of Submittals After Review:**
1. Distribute copies of shop drawings and product data which carry Professional's stamp to Contractor's file, job site file, Subcontractor, Supplier and Fabricator.
  2. Distribute samples as directed.
- I. **Professional's Duties:**
1. Review submittals with reasonable promptness.
  2. Review for design concept of Project and information given in Contract Documents.
  3. Review of separate item does not constitute review of an assembly in which item functions.
  4. Affix stamp and initials, or signature, certifying the review of submittal.
  5. Return submittals to Contractor for distribution.

**CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS  
SECTION 01500**

**1.01 DESCRIPTION**

- A. **Scope:** Work required under this section consists of all temporary construction facilities, services and related items to complete the work indicated on the drawings and described in the Project Manual.

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- B. **Standards:**
1. Conform to or exceed all temporary construction requirements stated in the current edition of the **Standard Building Code** [Chapter entitled *Safeguards During Construction*].
  2. Refer to Article 10.1.1 in Section 00700 entitled *General Conditions*.
- C. **Materials:** All materials required by the Work of this section shall be as specified in the respective sections.

1.02

**FACILITIES AND CONTROLS**

- A. **Access:** The Prime General Contractor shall provide an adequate access and/or roads to the site of the structure, if required for the prosecution of work; and, should also provide and maintain at least one (1) temporary, or permanent, access to each working elevation to be permanently occupied.
- B. **Hoisting Facilities:** The Prime General Contractor shall be responsible for providing suitable capacity and hoisting facilities for all people and materials. The use of the hoisting facilities shall be by mutual agreement of the Prime General Contractor and the individual Contractor.
- C. **Field Office and Sheds:** At all times, the Prime General Contractor shall provide and maintain a weatherproof office with telephone, which may also be used by Subcontractors, the Owner and the Professional. Office location will be approved by the Owner. Each general and individual Contractor shall provide suitable watertight/dampproof sheds to house their construction materials.
- D. **Sanitation Facilities:** The Prime General Contractor is responsible for furnishing adequate temporary toilet facilities on the job site.
- E. **Drinking Water:** The Prime General Contractor shall provide at all times sanitary drinking water facilities for all workmen on the job including ice, when required, and paper cups, etc.
- F. **Fire Protection:** The Prime General Contractor shall provide general temporary fire protection. Subcontractors will be responsible for their own.
- G. **Storage:** The Prime General Contractor shall coordinate the allocation of storage areas to the various Subcontractors.
- H. **Temporary Heat:** The Prime General Contractor shall provide heat, fuel and services, as necessary, to protect all work from dampness and cold until final acceptance. If in the late stages of the construction, mechanical and electrical installations will permit, the mechanical and electrical facilities may be used to provide heat and ventilation. However, the Owner is saved harmless of any costs of operation or responsibility as to acceptance of mechanical and/or electrical installations.
- I. **Utilities:** The Prime General Contractor shall make arrangements for and furnish all water, electricity (lighting and power) and other utilities necessary for construction purposes. A written agreement must be reached on how all utilities (water and electricity) will be furnished and the rates the Contractor will be charged. A copy of the final agreement signed by the Contractor and the Institution or Agency must be forwarded to the Owner. If the written agreement is not filed with the Owner, the Contractor and the Institution or Agency waives all rights as to the rates charged. The Owner will then determine all utility rates and assess the charges before final payment is rendered.

**SUBSTITUTIONS AND PRODUCT OPTIONS**  
**SECTION 01630**

1.01

**DESCRIPTION**

- A. **Scope:** To set forth the procedure and conditions for substitutions and to give the product options available to the Contractor.

1.02

**PRODUCTS LIST**

- A. Within thirty (30) days after the Contract has been signed, the Contractor will submit to the Professional five (5) copies of a complete list of all products proposed for installation.
- B. Tabulate the list by Specification sections.



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- C. For products specified under reference standards, include with listing of each product:
    - 1. Name and address of Manufacturer.
    - 2. Trade name.
    - 3. Model, or catalog designation.
    - 4. Manufacturer's data.
    - 5. Performance and test data.
    - 6. Reference standards.

1.03

**CONTRACTOR'S OPTIONS**

- A. For products specified only by reference standards, select any product meeting product standards by any Manufacturer.
- B. For products specified by naming a minimum of three (3) products or Manufacturers, select any product and Manufacturer named.
- C. For product specified by naming one (1) or more products, but indicating the option of selecting equivalent products by stating "or equal" after specified product, Contractor must submit request, as required for substitution, for any product not specifically named.
- D. For products specified by naming only one (1) product and Manufacturer, an equivalent product will always be accepted if it is equal in all respects. The Contractor must submit a request for substitution as set forth in this Section.
- E. For products specified by naming only one (1) product and Manufacturer and stating no substitutions will be accepted, there is no option and no substitutions will be allowed. This option must have written approval by the Owner before bidding.

1.04

**SUBSTITUTIONS**

- A. Professional will not consider requests for substitutions during bidding.
- B. Within thirty (30) days after the Contract has been signed, the Professional will consider formal requests from the Contractor for substitution of products in place of those specified. Submit five (5) copies of the request for substitutions. Include in the request:
  - 1. Complete data substantiating compliance of proposed substitutions with Contract Documents.
  - 2. For products:
    - a. Product identification including Manufacturer's name and address.
    - b. Manufacturer's literature: Product description, performance and test data and reference standards.
    - c. Samples.
    - d. Name and address of similar products on which product was used and date of installation.
  - 3. For construction methods:
    - a. Detailed description of proposed method.
    - b. Drawings illustrating methods.
  - 4. Itemized comparison of proposed substitutions with product or method specified.
  - 5. Data relating to changes in construction schedule.
  - 6. Accurate cost data on proposed substitution in comparison with product or method specified.
- C. In making request for substitution, Contractor represents:
  - 1. Proposed product, or method, has been investigated and determined that it is equal or superior in all respects to that specified.
  - 2. The same guarantee will be provided for substitutions as for product or method specified.
  - 3. Installation of accepted substitutions will be coordinated into the Work, making such changes required of work to be complete in all respects.
  - 4. All claims for additional costs related to substitution which consequently become apparent will be waived.
  - 5. Cost data is complete and includes all related costs under the Contract.
- D. Substitutions will not be considered if:
  - 1. Indicated, or implied, on shop drawings or product data submittals without formal request submitted in accordance with this Section.
  - 2. Acceptance will require substantial revision of Contract Documents.
  - 3. In the Professional's judgment, the product, or material, is not equal.

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**STARTING OF SYSTEMS  
SECTION 01650**

**1.01 DEMONSTRATION AND INSTRUCTIONS**

- A. Demonstrate operation and maintenance of Products to Owner's personnel prior to date of Substantial Completion.
- B. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at designated location.
- D. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

**CONTRACT CLOSEOUT  
SECTION 01700**

**1.01 DESCRIPTION**

- A. **Scope:** The work required in this Section consists of the final inspections and the submission of all closeout documents and related items to complete the Work indicated on the Drawings and described in the Project Manual.

**1.02 FINAL INSPECTIONS**

- A. **Professional's Inspection:** The Contractor shall make written request for a final inspection to the Professional; notice to be given ten (10) days prior to the inspection. A list of any deficiencies, compiled by the Professional, will be corrected by the Contractor. If, in the Professional's judgement, the Project is not ready for a final inspection, the Professional may schedule another inspection
- B. **Owner's Inspection:** After the Professional has ascertained the Project to be ready, an Owner's inspection will be scheduled within ten (10) days thereafter. The Contractor will have ten (10) days after the Owner's acceptance to make any corrections of punch list items and to submit closeout documents.
- C. **Correction of Work Before Final Payment:** The Contractor shall promptly remove from the Owner's premises all materials condemned for failure to conform to the Contract, whether incorporated in the Work or not, and the Contractor shall, at his own expense, replace such condemned materials with those conforming to the requirements of the Contract. Failure to remedy such defects after ten (10) days written notice will allow the Owner to make good such defects and such costs shall be deducted from the balance due the Contractor, or charged to the Contractor in the event no payment is due.

**1.03 CLOSEOUT DOCUMENTS**

Unless otherwise notified, the Contractor shall submit to the Owner through the Professional, three (3) copies of the following before final payment is made:

- A. **Request for Final Payment:** AIA Document G702, current edition, completed in full or a computer generated form having similar data.
- B. **Consent of Surety Company to Final Payment:** AIA Document G707, current edition, completed in full by the Bonding company.
- C. **Power of Attorney:** Closeout documents should be accompanied by an appropriate Power of Attorney.
- D. **Release of Liens and Certification that All Bills Have Been Paid:** AIA Document G706A, current edition, completed in full or a sworn statement and affidavit from the Contractor to the Owner stating that all bills for this job have been paid and that the Owner is released from any and all claims and/or damages.

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- E. **Contractor's Affidavit of Payment of Debts and Claims:** AIA Document G706, current edition, completed in full.
- F. **Guarantee of Work:** Sworn statement that all work is guaranteed against defects in materials and workmanship for one (1) year from date of Owner's acceptance, except where specified for longer periods.
1. Word the Guarantee as follows, or in a similar manner:  
*We hereby guarantee all work performed by us on the above captioned Project to be free from defective materials and workmanship for a period of one (1) year or such longer period of time as may be called for in the Contract Documents for such portions of the Work.*
  2. All guarantees and warranties shall be obtained in the Owner's name.
  3. Within the Guaranty period, if repairs or changes are requested in connection with guaranteed work which, in the opinion of the Owner, are rendered necessary as a result of the use of materials, equipment or workmanship which are inferior, defective or not in accordance with the terms of the Contract, the Contractor shall promptly, upon receipt of notice from and without expense to the Owner, place in satisfactory condition building, site, equipment or contents thereof. The Contractor shall make good any work, materials, equipment or contents of said buildings or site which may be disturbed by fulfilling any such Guaranty.
  4. If, after notice, the Contractor fails to proceed promptly to comply with the terms of the Guaranty, the Owner may have the defects corrected and the Contractor and his Sureties shall be liable for all expense incurred.
  5. All special guarantees applicable to definite parts of the work stipulated in the Project Manual or other documents forming part of the Contract shall be subject to the terms of this paragraph during the first year of the life of such special guaranty.
- G. **Project Record Document:** Furnish all other record documents as set forth in Section 01720 entitled *Project Record Documents*.
- H. **Additional Documents Specified Within the Project Manual:** Provide all additional certificates, warranties, guarantees, bonds or documents as called for in the individual sections of the Project Manual. The Contractor is responsible for examining the Project Manual for these requirements.

## CLEANING SECTION 01710

### 1.01 DESCRIPTION

- A. **Scope:** Maintain premises and public properties from accumulations of waste, debris and rubbish caused by operations. At completion of work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials and clean all sight-exposed surfaces; leave Project clean and ready for occupancy.

### 1.02 PRODUCTS

- A. **Materials:** Use only cleaning materials recommended by Manufacturer of surface to be cleaned. Use cleaning materials only on surfaces recommended by the cleaning materials Manufacturer.

### 1.03 EXECUTION

- A. **During Construction:** Execute cleaning to insure that building, grounds and public properties are maintained free from accumulations of waste materials and rubbish. Wet down dry materials and rubbish to lay dust and prevent blowing dust. At reasonable intervals during progress of work, clean site and public properties and dispose of waste materials, debris and rubbish. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off Owner's property. Vacuum clean interior building areas when ready to receive finish painting and continue vacuum cleaning on an as-needed basis until building is ready for substantial completion or occupancy. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights. Schedule cleaning operations so that dust or other contaminants resulting from cleaning process will not fall on wet or newly painted surfaces.
- B. **Final Cleaning:** Employ experienced workmen, or professional cleaners, for final cleaning. In preparation for substantial completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces and concealed spaces. Remove grease, dust, dirt, stains, labels, fingerprints and other foreign materials from sight-exposed finishes. Repair, patch and touch up marred surfaces to specified finish to match adjacent surfaces. Broom clean paved surfaces; rake clean other surfaces of grounds. Replace air conditioning filters, if units were operated during construction. Clean ducts, blowers and coils if air conditioning units were operated without filters during construction. Maintain cleaning until Project, or respective portions thereof, is occupied by Owner.

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## Division One

June 2011

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**PROJECT RECORD DOCUMENTS  
SECTION 01720**

**1.01 DESCRIPTION**

- A. **Scope:** To set forth the procedure and requirements for keeping project record documents.
- B. **Maintenance Documents:** (modified Dec 2013)
1. Throughout the Contract, maintain one (1) copy of all of the following: Contract Drawings, Project Manual, Addenda, Change Order(s), reviewed shop drawings, reviewed submittals, hardware schedules, field, and laboratory test records, equipment brochures, parts lists, operating instructions and other modifications to the Contract.
  2. Store documents on site apart from documents used for construction.
  3. Maintain documents in clean, dry, legible condition. Do not use record documents for construction purposes.
  4. Make documents available, at all times, for inspection by the Professional, Commissioning Authority Professional, and the Owner.
  5. Keep documents in 8 ½" x 11" loose leaf binders. Clearly label each binder on the spine. Sub-divide with permanently marked tabs of card stock. Provide a main tab for each specification section. Provide sub-tabs for each major piece of equipment or component.
  6. Format for information behind each tabbed piece of equipment/component shall be:
    - a. Contractor/Installer Information: Include address, phone number and contact name. Include emergency service contact information as applicable.
    - b. Manufacturer Information: Include address, phone number and contact name.
    - c. Shop Drawings and Product Data
    - d. Operation and Maintenance Instructions
    - e. Control Drawings
- C. **Recording:**
1. **General:** Mark all modifications in red pencil. Keep record documents current. Do not permanently conceal any work until required information has been recorded.
  2. **Contract Drawings:** Legibly mark to record actual construction.
    - a. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
    - b. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
    - c. Field changes in dimension and detail.
    - d. Changes made by change order(s) or field order(s).
  3. **Project Manual and Addenda:** Legibly mark up each section to record Manufacturer, trade name, catalog number and Supplier of each product and item of equipment actually installed.
  4. **Shop Drawings:** Maintain as record documents. Legibly mark drawings to record changes made after review.
- D. **Submittal:** At completion of Project, deliver two (2) copies of each record document to the Professional, who will transmit both sets to the Institution or Agency. Additionally, provide to Owner updated As-Built Contract Documents in electronic format utilizing electronic format copy of Contract Documents furnished by Professional or by scanning of marked-up contract Documents. (see also 600.57 and 700.40 regarding electronic As-Built Documents) (modified Dec 2013)

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**DIVISION ONE SUPPLEMENT  
SECTION 01900**

**PART 1 - SUMMARY OF WORK SUPPLEMENT**

**1.01 WORK SEQUENCE**

- A. Owner will occupy the building during construction, coordinate with Owner's Representative in scheduling work to vacate the areas as the Contractor requires.
- B. Construct work in stages as follows:
1. N/A
  2. N/A
  3. N/A

**1.02 PARTIAL OWNER OCCUPANCY**

- A. Schedule early completion of designated areas for Owner's usage prior to substantial completion of entire Project.
1. N/A
  2. N/A
  3. N/A
- B. Owner will occupy areas for purpose of N/A
- C. Contractor will provide:
1. Access for Owner's personnel
  2. Public access to site per Owner's direction.
  3. N/A
- D. Prior to occupancy, execute a *Certificate of Substantial Completion* for designated areas.
- E. Upon occupancy, Owner shall provide:
1. N/A
  2. N/A

**PART 2 - ALLOWANCE SUPPLEMENT**

**2.01 SCHEDULE OF ALLOWANCES**

- A. No Allowances are scheduled for this project.

**PART 3 - ALTERNATE SUPPLEMENT**

**3.01 DESCRIPTION OF ALTERNATES**

- A. Alternate Number One: Install Rough Sawn Cedar in lieu of treated pine lumber as indicated in the construction documents
- B. Alternate Number Two: Install Lawn Overflow Parking of the property as indicated in the construction documents.
- C. Alternate Number Three: Improve the Meadow area on the south end of the property as indicated in the construction documents.
- D. Alternate Number Four: Install a crushed stone drip edge around the perimeter of the house as indicated in the construction documents.

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## **PART 4 – PROJECT SEQUENCE**

### **4.01 COORDINATION**

All work involving the public access to the site, (i.e., overflow parking, etc.) must be performed after standard working hours. Standard working hours are from 8 a.m. to 5 p.m., Monday thru Friday.

### **4.02 SEQUENCE** N/A

## **PART 5- RAIN DAYS ALLOWANCE**

### **5.01 As included in Article 8- Time of the General Conditions, weather delays will be allowed as follows:**

#### **A. Rain Days**

1. The contractor shall figure the following number of rain days for each month listed below in his schedule. These are based on a seven year average from data obtained from NOAA.

January - 4 days	February- 3 days	March - 3 days	April - 2 days
May- 3 days	June- 3 days	July- 4 days	August - 2 days
September - 3 days	October - 2 days	November- 3 days	December - 2 days

2. Request for rain days shall not be made unless the number of days per month when the rain precipitation amounting to 1/10" or more exceeds the number of days on the above chart.
3. For an extension of time for rain days to be considered, the Contractor must document that the exterior work was delayed due to inclement weather conditions. In addition, the Contractor shall provide the Professional with independent verification of the quality of days when rainfall exceeded 1/10" during each billing period.

Minority Tracking or Participation Form  
February 2003

This document will serve as a tracking instrument for minority participation in publicly funded construction projects managed by the Owner. This document will aid DFA/BOB in its commitment to encourage minority participation during the bidding process. Your conscientious effort and commitment to help establish good business relations with minority subcontractors, consultants, suppliers, partners and/or joint ventures is greatly appreciated.

**Any responses will be deemed public information and may be incorporated into reporting information compiled by the Owner in the following manner: Contractors that listed minority participation, Contractors that did not list minority participation and Contractors that submitted an incomplete (partially filled-out or blank) form.**

**Division One**

Section 01010 SUMMARY OF WORK

1.01 Work Covered by Contract Documents

F. Subcontractors List

**F.1 The Prime General Contractor will submit to the Owner within seven (7) days from the Notice to Proceed, a completed *Minority Tracking Form* (as follows) outlining the use of minority subcontractors that will be used on the project.**

Minority - A person who is a citizen or lawful permanent resident of the United States and who is the following: **African American, Hispanic American, Asian American, American Indian or Female**

Project Name and Number: \_\_\_\_\_

General Contractor: (Name) \_\_\_\_\_

**Check the Following Appropriate Box**

☐

**There are NO minority participants included in this bid proposal.**

☐

**There are minority participants included in this bid proposal.** The minority participants may be defined as: Subcontractor(s)/Consultant(s)/ Supplier(s) / Partner(s) / Joint Ventures(s).

List minority participants and their discipline/responsibility per the above or per Construction Specification Institution (CSI) sixteen (16) divisions.

Name: \_\_\_\_\_

Division: \_\_\_\_\_

Amount \$ \_\_\_\_\_

Name: \_\_\_\_\_

Division: \_\_\_\_\_

Amount \$ \_\_\_\_\_

Name: \_\_\_\_\_

Division: \_\_\_\_\_

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Amount \$ \_\_\_\_\_

Name: \_\_\_\_\_

Division: \_\_\_\_\_

Amount \$ \_\_\_\_\_

Name: \_\_\_\_\_

Division: \_\_\_\_\_

Amount \$ \_\_\_\_\_

**End of Form**



## SECTION 01.950 - ENVIRONMENTAL PROTECTION

### PART 1 GENERAL

- 1.01 DESCRIPTION: The work covered by this section consists of furnishing all labor, materials and equipment, and performing all work required for the prevention of environmental pollution during, and as a result of, the work required under this contract, except for those measures set forth in other Technical Provisions of these specifications. For the purpose of this specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, and land, and involves noise control, solid waste-management, as well as control of other pollutants.
- 1.02 APPLICABLE REGULATIONS: To prevent and to provide for abatement and control of any environmental pollution arising from the work of the Contractor and his subcontractors in the performance of this contract, they shall comply with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, all applicable provisions of the Corps of Engineers Manual EM-385-1-1, entitled "General Safety Requirements", in effect on the date of solicitation, and the specific requirements stated elsewhere in the contract specifications.

### PART 2 PROTECTION OF LAND RESOURCES

- 2.01 GENERAL: It is intended that the land resources within the project boundaries and outside limits of permanent work performed under this contract be preserved in their present conditions or be restored to a condition, after completion of the work, that will appear to be natural and not detract from the appearance of the project.
- 2.02 DUST CONTROL: The Contractor shall be required to maintain all work areas within or without the project boundaries free from dust which would cause a hazard or nuisance to others. Approved temporary methods of stabilization consisting of sprinkling, chemical treatment, light bituminous treatment or similar methods will be permitted to control dust.

Sprinkling, to be approved, must be repeated at such intervals as to keep all parts of the disturbed areas at least damp at all times, and the Contractor must have sufficient competent equipment on the job to accomplish this if sprinkling is used. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs.

- 2.03 POST-WORK CLEANUP OR OBLITERATION: The Contractor shall obliterate all signs of temporary support facilities such as haul roads, work areas, structures, foundations of temporary structures, or any other vestige of construction as directed by the Architect.

### PART 3 PROTECTION OF WATER RESOURCES

- 3.01 GENERAL: The Contractor shall not pollute harbor waters with fuels, oils, bitumens, calcium chloride, acids or harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, State, County, and Municipal laws concerning water pollution. All work under this contract shall be performed in such a manner that objectionable conditions will not be created in proximity to the project areas.
- 3.02 SPILLAGE: At all times, special measures shall be taken to prevent chemicals, fuels, oils, and greases from entering area waters.
- 3.03 DISPOSAL: Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., shall be subject to the approval of the Engineer. If any waste material is dumped in unauthorized areas, the Contractor shall remove the material and restore the areas to the condition of the adjacent undisturbed area. If necessary, contaminated ground shall be excavated, disposed of as directed by the Engineer and replaced with suitable fill material, compacted, and finished with topsoil.

### PART 4 PROTECTION OF FISH AND WILDLIFE

- 4.01 GENERAL: The Contractor shall at all times perform all work and take such steps required to prevent any significant interference or disturbance to fish and wildlife. The Contractor will not be permitted to alter water flows or otherwise disturb native habitats adjacent to the project area which, in the opinion of the Engineer, are critical to fish or wildlife. Fouling or polluting of water will not be permitted.

PART 5 PROTECTION OF AIR RESOURCES

5.01 GENERAL: All fuel burning equipment shall be properly maintained to prevent violations of State or Federal Air Pollution Standards or interference with inhabitants of the area by causing drastic changes in their accustomed environment. Daily inspections will be made of all fuel-burning equipment. Immediate correction shall be taken if exhaust emissions are found to be excessive.

PART 6 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

6.01 GENERAL: During the life of this contract, the Contractor shall maintain all facilities constructed for pollution control under this contract as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created.

END OF SECTION

## SECTION 02200 - SITE PREPARATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Clear area within and ten (10) feet out from proposed building improvements, unless otherwise indicated.
- B. Strip topsoil under outside slabs.
- C. Related Sections include the following:
  - 1. Division 2 Section "Earthwork"

### PART 2 - PRODUCTS

Not Used

### PART 3 - EXECUTION

#### 3.1 SITE CLEARING

- A. General: Remove vegetation, improvements, or obstructions interfering with installation of new construction.
- B. Existing Topsoil:
  - 1. Strip 6 inches of topsoil from under proposed outside slabs in a manner to prevent intermingling with underlying subsoil or other objectionable material.
  - 2. Topsoil is defined as friable, dark loam surface soil. Satisfactory topsoil is reasonably free of subsoil, clay lumps, stones and other objects over 2" in diameter, and without weeds, roots and other objectionable material.
  - 3. Stockpile satisfactory topsoil in storage piles or where directed. Construct storage piles to freely drain surface water.

C. Clearing and Grubbing:

1. Clear specified areas of shrubs and other vegetation, unless otherwise indicated.
2. Completely remove stumps, roots and other debris protruding through ground surface.

D. Fill depressions caused by clearing and grubbing operations with material specified in Division 2 Section "Earthwork", unless further excavation or earthwork is indicated. Place fill material in horizontal layers not exceeding 6" loose depth and thoroughly compact to a density equal to adjacent original ground.

E. Removal of Improvements:

1. Remove above-grade and below-grade improvements shown to permit construction, and indicated on documents.
2. Abandonment or removal of certain underground pipe or conduits may be shown on mechanical or electrical drawings, and is included under work of those sections. Removal of any abandoned underground piping or conduit interfering with construction is included under this section.

3.2 TREES TO REMAIN

A. Protect all trees to remain as indicated to remain in the drawings. Provide and install temporary fencing around perimeter of tree drip line.

3.3 SITE ITEMS TO REMAIN

A. Protect the existing Mausoleum to remain as indicated in the drawings. Provide and install temporary fencing around perimeter of the area during the course of construction.

3.4 DISPOSAL OF WASTE MATERIALS

A. Burning and burying on Owner's Property: Burning and burying will not be permitted on Owner's property.

B. Removal from Owner's Property: Remove waste materials, from Owner's property and dispose of off site.

END OF SECTION

## SECTION 02220 - SITE DEMOLITION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. The extent of demolition work is shown on Drawings and specified herein.

#### 1.2 DELIVERY, STORAGE, AND HANDLING

##### A. Waste Management and Disposal:

1. All materials shall be promptly disposed of off the site and not allowed to accumulate on the premises. Remove and transport debris in a manner as to prevent spillage on streets and adjacent areas. Local regulations regarding hauling and disposal apply.
2. Burying of any material on site is prohibited.

#### 1.3 PROJECT CONDITIONS

- A. Protection of Existing Improvements and Vegetation:  
Provide protection necessary to prevent damage to lawn areas, sidewalks, trees and other existing improvements to remain in place, and to protect the public from hazardous conditions and unnecessary inconvenience.
- B. Erect fences and barricades around demolition areas before demolition begins and maintain fences until demolition activities are completed.

### PART 2 - PRODUCTS

Not Used

### PART 3 - EXECUTION

#### 3.1 APPLICATION

- A. Perform demolition work in a manner which will prevent danger to workmen, building occupants, and construction to remain.
- B. Remove existing aggregate or granular base course to the top of existing subgrade.

- C. Where no method of removal is specified or indicated on Drawings, Contractor may select and submit a method for Architect's approval.
- D. Care should be taken to avoid damage to the existing house, vegetation and exterior architectural elements to remain.

### 3.2 CLEANING

- A. Clean-up **DAILY** during demolition operations and upon completion completely transport from site all removed materials, rubbish and debris, resulting from these operations.
- B. Thoroughly clean entire site upon completion including all loose paper and other trash and debris. All trash from surround streets and properties which was blown or otherwise transported to the surrounding areas by other means shall be removed by the Contractor and properly disposed of.

END OF SECTION

## SECTION 02300 - EARTHWORK

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. This section is for earthwork beneath the proposed building only. The extent of earthwork is shown on Drawings.

1. Preparation of subgrade for slabs and walks is included as part of this work.
2. Backfilling of trenches within building lines and under outside hard surfaced areas shall conform to the requirements of this section.

B. Related Sections include the following:

1. Division 2 Section "Site Preparation" for topsoil stripping and disposal.
2. Division 3 Section "Cast-In-Place Concrete"

#### 1.2 SUBMITTALS

A. Test Reports: Laboratory will provide reports on the following with copy to Owner, Architect, and Contractor:

1. Test reports on borrow materials, and on site materials to be used in new work.
2. Field density test reports.
3. One optimum moisture-maximum density curve determined in accordance with ASTM D698 for fill material supplied by the Contractor.

#### 1.3 QUALITY ASSURANCE

A. Testing and Inspection Service: Contractor employs and pays for services of a testing laboratory to perform soil testing and inspection service for quality control testing during earthwork operations as approved by Architect.

#### 1.4 PROJECT CONDITIONS

A. Existing Utilities:



1. Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations.
  2. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult Architect immediately for directions. Cooperate with Owner in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of Architect.
  3. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, except when permitted in writing by Architect.
  4. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with Architect for shut-off of services if lines are active.
- B. Use of Explosives: The use of explosives is not permitted.
- C. Protection of Persons and Property:
1. Barricade open excavations occurring as part of this work and post with warning lights.
  2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

#### A. Fill and Backfill:

1. Under Concrete & Crushed Limestone Areas: Approved silty-sand or clayey-sand material, ASTM D2487 Classification SM or SC, obtained from existing borrow pits and free from organic matter, vegetation and debris. Liquid limit shall be less than 25 and plasticity index between 0 and 8. Surplus on site material meeting this specification may be used.

## 2. Other Areas:

- a. Top 4" of areas where grade is changed shall be natural, local, fertile topsoil material free from stones, weeds, large roots, clays and debris, provided under another Section.
- b. Lower portion shall be relocated on site material or its equal free from stones, weeds, large roots and debris, and may include excavated, unsuitable, soil.

B. Unsuitable Soil: Organic soils, and fine grained soils except for Group CL (ASTM D2487).

## PART 3 - EXECUTION

### 3.1 EXCAVATION

- A. Excavation consists of removal and disposal of material encountered when establishing required grade elevations.
- B. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Architect. Unauthorized excavation, as well as remedial work directed by Architect, shall be at Contractor's expense.
  1. Under grade beams indicated to bear on existing soil, fill unauthorized excavation by extending indicated bottom elevation of footing to excavation bottom without altering required top elevation. Lean concrete fill may be used to bring elevations to proper position, when acceptable to Architect.
  2. Elsewhere, backfill and compact unauthorized excavations as specified under paragraph "Compaction", unless otherwise directed by Architect.
  3. When excavation has reached subgrade elevations, notify Architect who will make an inspection of conditions.
  4. If unsuitable bearing materials are encountered at required subgrade elevations, carry excavations deeper and replace excavated materials at the direction of the Architect.

5. Cost of removal of unexpected unsuitable material and its replacement as directed will be paid on basis of Contract Conditions relative to changes in Work.

C. Stability of Excavations:

1. Slope sides of excavations as indicated. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.
2. Maintain sides and slopes of excavation in safe condition until completion of backfilling.

D. Shoring and Bracing:

1. Provide materials for shoring and bracing, such as sheet piling, uprights, stringers and crossbraces, in good serviceable condition.
2. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.

E. Dewatering:

1. Do not allow water to accumulate in excavations. Remove water to prevent caving, softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of subgrades and foundations. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water from excavations.
2. Within limits of work, convey water removed from excavations, and rain water, to collecting or run-off areas. Establish and maintain temporary drainage ditches and other diversions outside excavation limits for each structure. Do not use trench excavation as temporary drainage ditches.

F. Material Storage: Stockpile satisfactory excavated materials near area of work, until required for backfill or fill. Place, grade and shape stockpiles for proper drainage.

1. Locate and retain soil materials away from edge of excavations.

2. Dispose of excess soil material and waste materials as herein specified.

G. Excavation for Retaining Wall and Concrete Walks:

1. Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10', except that slab and pavement subgrade plus tolerance shall be 0.05', and extend a sufficient distance from footings and foundations to permit placing and removal of concrete formwork, installation of services, other construction, and for inspection.

H. Excavation for Trenches:

1. Dig trenches to the uniform width required for particular item to be installed, sufficiently wide to provide ample working room.
2. Excavate trenches to depth indicated or required. Carry depth of trenches for piping to establish indicated flow lines and invert elevations. Beyond building perimeter, keep bottoms of trenches sufficiently below finish grade to avoid freeze-ups.
3. Grade bottoms of trenches as indicated, notching under pipe bells to provide solid bearing for entire body of pipe.
4. Backfill trenches with concrete where trench excavations pass within 18" of column or wall footings and which are carried below bottom of such footings, or which pass under wall footings. Place concrete to level of bottom of adjacent footing.
5. Do not backfill trenches until tests and inspections have been made and backfilling authorized by Architect. Use care in backfilling to avoid damage or displacement of pipe systems.

3.2 COMPACTION

- A. General: Control soil compaction during construction providing minimum percentage of density specified for each area classification.
- B. Percentage of Maximum Density Requirements: Compact soil to not less than the following percentages of maximum density determined in accordance with ASTM D698.

1. Retaining Walls: Compact each layer of backfill or fill material to 95% maximum dry density. Upper 12 inches of existing subgrade shall be well compacted, with no pumping action, prior to placing new material.
2. Lawn or Unpaved Areas: Compact each layer of backfill or fill material to 85% maximum dry density.
3. Walkways: Compact each layer of backfill or fill material to 90% maximum dry density.

C. Moisture Control:

1. Where subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade, or layer of soil material, to prevent free water appearing on surface during or subsequent to compaction operations.
2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.
  - a. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing until moisture content is reduced to a satisfactory value.

3.3 BACKFILL AND FILL

A. General: Place acceptable soil material in layers to required subgrade elevations.

B. Backfill excavations as promptly as work permits.

C. Placement and Compaction:

1. Place backfill and fill materials in layers required for uniform compaction throughout depth, but not more than 8" in loose depth.
2. Before compaction, moisten or aerate each layer as necessary to provide optimum moisture content. Compact each layer to required percentage of maximum dry density for each area classification. Do not place backfill or fill material on surfaces that are frozen or contain frost or ice.

3. Place backfill and fill materials evenly adjacent to structures, to required elevations.

### 3.4 GRADING

- A. General: Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth compacted finished surface within specified tolerances, with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.
- B. Grading: Grade areas to drain to drainage structures and to prevent ponding. Finish surfaces free from irregular surface changes.
  1. Lawn or Unpaved Areas: Finish areas to receive topsoil to within not more than 0.10' above or below required subgrade elevations.
  2. Walks: Shape surface of areas under walks to line, grade and cross section, with finish surface not more than 0.10' above or below required subgrade elevation.
- C. Grading Surface of Fill under Structures: Grade smooth and even, free of voids, compacted as specified for structures, and to required elevation. Provide final grades within a tolerance of 1/2" when tested with a 10' straightedge set at required subgrade elevation.
- D. Compaction: After grading, compact subgrade surfaces to the specified depth and percentage of maximum density for each area classification.

### 3.5 FIELD QUALITY CONTROL

- A. Perform field density tests in accordance with ASTM D1556 (sand cone method), ASTM D2167 (rubber ballon method) with ASTM D2922 (Nuclear method), or other approved method providing equal results, as applicable.
  1. Structure Subgrade: In existing subgrade and in each compacted fill layer, make at least one field density test for each layer."
    - a. If, in the opinion of the Architect, based on testing service reports and inspection, subgrade or fills which have been placed are below specified density, provide additional compaction and testing at no additional expense to Owner.

3.6 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Remove from Owner's Property: Excess excavated materials, and waste materials, including trash and debris, are the property of the Contractor and shall be removed from the Owner's property.

3.7 PROTECTION

A. Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris. Repair and re-establish grades in settled, eroded and rutted areas to specified tolerances.

B. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape and compact to required density prior to further construction.

END OF SECTION

## 02370 - EROSION & SEDIMENT CONTROL

### PART 1 - GENERAL

- 1.1 This work shall consist of supplying the necessary materials and labor and constructing and maintaining, throughout the period of construction, erosion and sediment control structures and devices, as shown on the plans or as directed by the Architect.

### PART 2 - PRODUCTS

- 2.1 Silt fence materials shall be in accordance with Section 234.02, MDOT Specifications.
- 2.2 Triangular silt dikes shall be triangular shaped, having a minimum height of 8 inches at the center with equal sides and a minimum base of 16 inches. The triangular-shaped inner material shall be urethane foam. The outer cover shall be a woven geotextile fabric placed around the inner material and allowed to extend beyond both sides of the triangle a minimum of 2 feet. Staples used to attach the dike to the ground shall be No. 11 gauge wire and be a minimum length of 8 inches.
- 2.3 Straw roll wattles shall be machine-produced "V" straw filled tubes of flexible netting material. The rice-straw shall be certified weed free forage, by a manufacturer whose principle business is wattle manufacturing. The netting shall consist of seamless, high-density polyethylene and ethyl vinyl acetate and contain ultra-violet inhibitors. Straw wattles shall be 8 to 10 inches in diameter. Tying pegs shall be 3/4" by 3/4" soft wood, a minimum of two feet long.
- 2.4 Grass and sod shall be in accordance with Division 2 Section "Lawns and Grasses".
- 2.5 Erosion Control Mat, Type A, shall be excelsior blanket with biodegradable net, as specified in Section 715.09.2 of MDOT Specifications, latest edition.
- 2.6 Erosion Control Mat, Type B, shall be excelsior blanket with nylon geomatrix on one side and plastic mesh on the other. The blanket shall consist of machine produced mat curled wood excelsior of 80 percent, 9 inches or longer fiber length. The curled wood



excelsior shall be stitched to the plastic mesh and nylon geomatrix on minimum 3-inch (3") centers with synthetic yarn. The mat shall be equivalent to Earth-Lock Reinforced Erosion Control Mat as distributed by Erosion Control Systems, Tuscaloosa, Alabama or Erosion Control Mat GT Ctr 1 as distributed by Geotech Systems, Northport, Alabama.

- 2.7 Filter fabric shall be Filter/Drainage fabric as shown on drawings.

### PART 3 - EXECUTION

#### 3.1 General

- A. Implementation of all of the stormwater management and pollution prevention items of construction will be accomplished prior to any other construction activities which disturb ANY existing ground surfaces within the project limits.

#### 3.2 Perimeter Controls

- A. Perimeter Controls shall be constructed of silt fence, straw roll wattles, and/or triangular silt dikes at locations shown on the plans in accordance with the manufacturer's recommendations or as directed by the Architect. The Contractor shall propose the desired material to be used for the Architect's approval 14 days prior to mobilizing onto the project site.

#### 3.3 Check Dams

- A. Check dams shall be constructed of aggregate materials or triangular silt dikes at locations shown on the plans or as directed by the Architect. Triangular silt dikes shall be installed in accordance with the plans, manufacturer's recommendations, all as approved by the Architect.
- B. Check dams shall be no more than 2' in height and the center of the dam shall be at least 6" lower than the outer edges.

- C. The Contractor shall cover the entire drainage way with the check dam and set the height of the outer edges so that run-off will not flow around either end. Heavy duty geotextile fabric shall be placed under all aggregate materials.
- D. Space the check dams so that the top-center of each check dam is the same elevation or lower as the bottom of the check dam is immediately upstream.

### 3.6 Vegetation

- A. The establishment of grass shall be in accordance Division 2 Section "Lawns and Grasses.
- B. Grassing must be started in all areas of drainage excavations for ditches, channels and ponds within 7 days after the existing vegetation is stripped or as otherwise approved by the Architect. Grass on all other areas as indicated on the plans must be established as soon as all underground utilities are installed and final grading can be completed or as otherwise directed by the Architect. No grassing should be done in detention pond bottoms until the completion of the project and any sedimentation is removed.
- C. The cost of any temporary grassing accomplished by the Contractor to prevent erosion shall not be measured or paid for directly but shall be included in the lump sum bid amounts.

### 3.8 Construction Entrance / Exit

- A. Construction entrances /exits shall be constructed of 6" large course aggregate (No. 4 Railroad Ballast) at locations and dimensions shown on the plans and details or as directed by the Architect.

### 3.9 Storm Drain Inlet Protection

- A. All storm drain inlets and inlet pipes within the land disturbance area shall be protected at locations shown on the plans or as directed by the Architect per the details.

- A. The Contractor shall adhere to the approved Stormwater Pollution Prevention Plan, which is available to the Contractor. This Plan requires the monitoring and reporting of on-site erosion and sediment devices.
- B. Monitoring shall occur at least once a week and after any rainfall event of one-half ( $\frac{1}{2}$ ) inch or more. A maintenance report shall be made after each inspection, and these reports will be reproduced by the Contractor if requested by Architect or other Regulatory Agency Representative.
- C. The Contractor shall maintain all erosion and sediment control devices throughout the project. When silt has accumulated against or within stormwater management devices, it shall be removed. When silt fences become ineffective or torn, they shall be replaced. Maintenance shall be performed immediately as necessary to prevent erosion.
- D. When erosion and sediment control devices are no longer needed (i.e., site stabilized, project completed, and grass or vegetation has been established), they shall be removed and shall become the property of the Contractor for reuse or disposal except that riprap used for check dams shall be disposed of on-site as directed by the Architect. Disposal of all materials will be in accordance with all federal, state, and local laws and regulations. The area shall be neatly restored and given a pleasing appearance. All bare areas shall be seeded or sodded as directed by the Architect.

END OF SECTION

SECTION 02800 - DEMOLITION- PRUNING - SITE PREP

PART 1 DEMOLITION - PRUNING - SITE PREP

1.1 SUMMARY

- A. Extent of demolition is shown on Drawings.
- B. Provide all labor, materials and equipment required by or inferred from Drawings and Specifications to complete the Work of the Section.
- C. Provide additional Work and materials required by local authorities at no extra cost to Owner.
- D. Contractor shall provide all permits, applications, licenses and other qualifications to complete work at no additional cost to owner.
- E. Reference Standards: American Society for Testing and Materials, Annual Book of ASTM Standards, latest edition.
- F. Related Sections: 02900

1.2 CONTRACTS

- A. The General Contractor shall be responsible for the demolition of all vegetation, structures, and identified items noted on the plans within the project site.

1.3 CODES AND STANDARDS

- A. Perform Demolition and Replacement Work in compliance with applicable requirements of governing authorities having jurisdiction. County and City regulations supersede these specifications. Notify Landscape Architect in writing of all discrepancies immediately.

1.3 DESCRIPTION

- A. The General Contractor is responsible for removal of piles of existing logs and vegetation found on the project site.
- B. The General Contractor is responsible for tree protection.

1.4 JOB CONDITIONS

- A. Provide erosion control measures. Submit erosion control drawings for approval.
- B. Conduct site clearing operations without interference to vehicle and pedestrian traffic in adjacent areas.

- C. Protect existing site improvements, utilities and benchmarks from damage. Repair or replace if damaged.
- D. Protect all areas to remain undisturbed as identified in the plans.

## 1.5 WARRANTY

- A. All Work for a period of one year, starting on Date of Substantial Completion, against defects in material, equipment; Workmanship and any repair required resulting from negligence or other defects of workmanship, material or equipment.
- B. Repair unsatisfactory conditions promptly at no cost to Owner.
- C. Emergency repairs may be made by Owner without relieving the Contractor of this warranty obligation.
- D. Respond to Owner's request for repair Work within ten days. If not, Owner may proceed with such necessary repairs at Contractor's expense. In addition, Contractor shall be held responsible for replacement of any plant material (tree, shrubs, sod or seed) which becomes damaged or dies due to a lack of water during periods in which irrigation system is inoperable.

## PART 2 EXECUTION

### 2.1 SUMMARY

- A. Provide a competent superintendent and necessary assistants on the job while Work is progress. The Superintendent represents Contractor in all functions and directives given to him by Owner are binding as if given to Contractor in person.
- B. The General Contractor shall provide a competent contractor experienced with transplanting and relocating of camellias. The transplanting contractor must exhibit a minimum of (5) successful large specimen transplanting job references, along with proof of 5-8 years of experience.
- C. During the course of the project, Landscape Architect may make regular site visits and reject any work and materials which do not meet the Standards called for in Contract Documents. Rejected work must be promptly corrected and no time extension will be allowed for this reason.

### 2.2 INSPECTION

- A. Inspect project area prior to start of Work to determine that all site conditions are acceptable for work to begin. Inform Landscape Architect of unsuitable conditions. Do not proceed with installation of any materials if there are unsuitable conditions.

### 2.3 PREPRATION

- A. Flag all existing underground utilities prior to trenching and/or boring operations. Obtain utility locations from Owner and/or General Contractor and Utilize utility locating services when necessary. The Landscape Architect is NOT responsible for the location of or any damage done to utilities.

### 2.4 CLEARING VEGETATION, PRUNING, AND DEBRIS PROCEDURE

- A. The General Contractor is responsible for removal of all unwanted vegetation on the property. This will be identified by the Landscape Architect at the pre-construction meeting.
- B. General Contractor shall notify the Landscape Architect forty-eight (48) hours prior to the clearing contractor beginning work. The Landscape Architect and Architect shall flag all trees that are to be removed prior to removal.
- C. For trees noted for removal, the entire tree stump and surrounding surface shall be removed to the satisfaction of the Landscape Architect.
- D. All areas identified on the plans as to have sod or to be mulched shall be sprayed with an herbicide (Round-up or approved equal) to kill the grassy vegetation in those areas prior to the preparation of the bed or mulched area.
- E. ALL existing Oaks to remain shall be carefully pruned by a certified Arborist to ensure that all dead branches have been removed, and that healthy branches remain. Some trees may need to be pruned in order to not conflict with the proposed structure, or the site's pedestrian or vehicular circulation. The Landscape Architect defaults all pruning recommendations to that of the City of Ocean Spring's Tree Advisory Board. The General Contractor shall contact the City's Arborist prior to any pruning taking place to obtain their recommendations.
- F. All hazards to pedestrians and vehicles resulting from tree pruning shall be safeguarded immediately. If for some reason this cannot be accomplished, the area shall be adequately barricaded and lighted until the hazard can be eliminated. Upon completion of tree pruning, the area shall be left clean and free from all debris resulting from the pruning operation. The limbs and leaves, which have been removed, shall be disposed of at a site secured by the Contractor.
- G. The General Contractor shall be solely responsible for all liability or damage including to but not limited to damage to existing sidewalks, curbs, gutters, and private property and improvements caused by, or connected with the removal operations. All hazards created by limb removal shall continue to remain the responsibility of the General Contractor until such time as the hazard has been eliminated.

## 2.5 DISPOSAL

- A. All cleared timber material shall become property of General Contractor and shall be hauled off site immediately and legally disposed of after obtaining necessary permits. Do not burn cleared material on site. Contractor to obtain all permits required.
- B. Apply commercial grade granular 10-10-10 fertilizer at rate of 5 pounds of Nitrogen per 1000 square feet in all areas with trees to be saved.

## 2.6 EXCAVATION

- A. All excavation is unclassified and includes all materials encountered.
- B. Backfill material shall meet the specifications identified in Section 2900.

## 2.7 CLEAN-UP

- A. During Demolition and pruning operations, keep project site clean and orderly. Upon completion of Demolition and pruning, clear grounds of debris, superfluous materials and all equipment. Remove from site to the satisfaction of Landscape Architect and Owner.

## 2.8 INSPECTION AND ACCEPTANCE

- A. Upon completion of Demolition, notify Landscape Architect and Owner at least three days prior to requested Date of Inspection for approval to make sure everything that was intended to be removed was removed. Once the Landscape Architect has verified that the Demolition phase of the project has been completed to his satisfaction with a written statement, the Contractor shall move forward with the construction phase of the project.

## 2.9 GRADING

- A. The General Contractor is responsible for shooting grades to establish proper elevations as well as calculating fill material needed.
- B. All areas around the structures and paved surfaces are to be graded in such a manner as to create a smooth grade with positive drainage away from the site.
- B. Only careful grading practices shall take place in protected areas. No Grading shall take place in tree root zone areas.
- C. The landscape contractor is to achieve a minimum slope of 2% in amended soil areas.

- D. The General Contractor is responsible for all French drains and setting any drain inlets to finish grade. The location of all of the drain inlets and pipes shown on the plan are approximate and are subject to change (with the approval of the LA).
- E. All proposed finished grades of paved surfaces are to meet flush with adjacent existing finished grades and have a level transition.
- F. The General Contractor shall locate any utilities in the field and be responsible for any damage done to them or any other existing structures on site.
- G. The Contractor is responsible for all permits and adhering to ordinances concerning this work.

PART 3.0 METHOD OF MEASUREMENT

3.1 METHOD OF MEASUREMENT

- A. All items to be shall be quantified per the plans along with a site visit for clear understanding of each task described.

PART 4.0 PAYMENT

4.1 PAYMENT

- A. The Pay Items listed below shall determine the value of extra work or changes in the work, as applicable. They shall be considered complete and shall include all material, equipment, labor, installation costs, overhead and profit. Pay items shall be used uniformly for additions or deductions. The final amount paid for the work done will be the sum of the actual quantities of installed work, as approved in writing by the Owner. Bidder shall verify quantities by his own take-off from the Drawings and notify the Landscape Architect of discrepancies before submitting his Bid.
- B. Payment for items associated with work described in these specifications shall be made in accordance with Pay Item No.

02800-A	Erosion Control	lump sum
02800-B	Drainage in Rose Garden	lump sum
02800-C	Site Prep	lump sum
02800-D	Pruning of Live Oaks @ Rose Garden	lump sum



END OF SECTION 2800

## SECTION 02810 LANDSCAPE IRRIGATION

### SECTION 02810 - LANDSCAPE IRRIGATION

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Extent of underground irrigation system is shown on Drawings and in the schedules.
- B. Provide all labor, materials and equipment required by or inferred from Drawings and Specifications to complete the Work of the Section.
- C. Provide additional Work and materials required by local authorities at no extra cost to Owner.
- D. Contractor shall provide all permits, applications, licenses and other qualifications to complete work at no additional cost to owner.
- E. Reference Standards: American Society for Testing and Materials, Annual Book of ASTM Standards, latest edition.
- F. Related work: Section 02900 - Landscape Planting & Sodding

##### 1.2 CONTRACTS

- A. Irrigation Work to a single firm specializing in irrigation installation, acceptable to Landscape Architect.

##### 1.3 CODES AND STANDARDS

- A. Perform Irrigation Work in compliance with applicable requirements of governing authorities having jurisdiction. County regulations supersede these specifications. Notify Landscape Architect in writing of all discrepancies immediately.

##### 1.4 DO NOT MAKE SUBSTITUTIONS

- A. If Contractor desires to make substitutions of materials, sufficient descriptive literature and material samples must be furnished to establish the material as an equal substitute. In addition, Contractor must state his reasons for desiring substitute materials. Submit this request and information to Landscape Architect.

##### 1.5 APPROVAL AND SELECTION MATERIALS AND WORK

- A. The selection of all materials and execution of all operations required under the Drawings and Specifications is subject to the approval of Owner and Landscape Architect. They have the right to reject any and all materials and any and all Work which, in their opinion, does not meet requirements of the Contract

Documents at any state of operations. Contractor to remove rejected Work and or materials from Project Site and replace promptly.

- B. "As-Built" Drawings: Any changes in layout and/or arrangements of the proposed irrigation system, or any other differences between proposed system and actual installed conditions are to be recorded by Irrigation Contractor in the form of an "As-Built" Drawings are to be clearly and neatly drawn on a mylar sepia base of original design provided by Landscape Architect. Provide Owner and Landscape Architect with a reproducible copy of the "As-Built" Drawings before Work under this Contract will be considered for acceptance. All automatic and manual valves, hose bibs or quick couplers and wire splice shall be shown with actual dimensions to reference points so they may be located easily in the field. Submittal of approved "As-Built" Drawings will preclude any Application for Final Payment by Contractor.
- C. Delivery, Storage and Handling: Deliver material and equipment in such a manner as to not damage parts or decrease the useful life of equipment.
- D. Store materials away from detrimental elements. Coordinate with General Contractor to secure a safe staging area.
- E. Handle, load, unload, stack and transport materials for irrigation system carefully to avoid damage. Handle pipe in accordance with Manufacturer recommendations.

#### 1.6 VERIFY TAP

- A. Test water conditions as they exist immediately down stream from tap: If they do not meet design demands, notify Landscape Architect immediately of existing conditions.
- B. The irrigation system is designed to operate under the following conditions; a minimum of 60 psi of water pressure at tap and at least 45gpm available water supply tap & meter by Irrigation Contractor.
- C. Job Conditions: Insurance on irrigation materials or equipment stored or installed as the responsibility of Irrigation Contractor. Such insurance shall cover fire, theft and vandalism. Should Contractor elect not to provide for such insurance, he will in no way hold Owner responsible for any losses incurred by the aforementioned acts. The Contractor is responsible for all costs incurred in replacing damaged or stolen materials.
- D. Obtain all required permits and pay all required fees, at no additional cost to Owner. Any penalties imposed due to failure to obtain permits or pay fees are the responsibility of the Contractor.

- E. Provide and maintain all passageways, guard fences, warning lights and other protection devices required by local authorities.
- F. Existing site improvements shall be performed in a manner which will avoid possible damage. The Contractor is responsible for any damage of a mechanical nature as well as damage resulting from leaks in irrigation system whether due to negligence or otherwise.
- G. Damages resulting from irrigation installation to Work of other trades must be repaired at the expense of Contractor in a timely fashion.
- H. Make adjustments to system layout as may be required and requested to provide complete coverage at no additional cost to Owner.
- I. Keep project site clean and orderly at all times during construction.

#### 1.7 WARRANTY

- A. All Work for a period of one year, starting on Date of Substantial Completion, against defects in material, equipment, Workmanship and any repair required resulting from leaks or other defects of workmanship, material or equipment.
- B. Repair unsatisfactory conditions promptly at no cost to Owner.
- C. Emergency repairs may be made by Owner without relieving the Contractor of this warranty obligation.
- D. Contractor to repair settling of backfilled trenches occurring during warranty period, including restoration of damaged plantings, paving or improvements resulting from settling of trenches or repair operations.
- E. Respond to Owner's request for repair Work within ten days. If not, Owner may proceed with such necessary repairs at Contractor's expense. In addition, Contractor shall be held responsible for replacement of any plant material (tree, shrubs, sod or seed) which becomes damaged or dies due to a lack of water during periods in which irrigation system is inoperable.

### PART 2 PRODUCTS

#### 2.1 SUMMARY

- A. Specific requirements concerning the various materials and arrangements which are safe to be installed are shown on drawings.

## 2.2 QUALITY AND SIZE

- A. Material specified by name and/or model number in the Specifications, on the site or detailed drawings are used for the purpose of identification of materials and to insure specific use of that material in the construction of the system. No substitutions will be permitted without approval. (See Substitutions).
- B. Plastic pipe for all main lines is schedule 40 PVC while laterals 1 ½" size and over is Class 200 PVC Type 1120 or 1220 as manufactured Cabot, John-Mansville (or approved equal) unless otherwise specified herein or on the drawings. All pipe, 1" size and less, is Class 160.
- C. PVC pipe is to be continuously marked with Manufacturer's identification, type, class and size and installed with these markings on the top of the pipe.
- D. All fittings should be Schedule 40 PVC Type 1, of domestic manufacture and identified as to pressure rating or schedule.
- E. Solvent Weld: Solvent weld for PVC pipe over 20' length must be installed with standard 20' length sections. Unnecessary joints or couplings are not acceptable.
- F. Risers: Provide threaded Schedule 80 PVC risers. All risers above grade to be either dark gray or black PVC pipe.
- G. Electric Wiring: All 110 volt AC wiring to controller must consist of three wires: one black, one white and one ground. Electrical service to be provided by General Contractor unless otherwise directed by Owner.
- H. All splices in controller wiring shall be waterproofed by using Rainbird "Snap-Tite" wire connectors.
- I. All control wiring shall be 24 volt solid wire U>L> approved for direct burial in ground. Minimum wire size: 14 gauge.
- J. All control wiring and wiring connections from controller to valves shall be included in this contract.
- K. Sprinkler Heads: Provide as indicated on the plan. Heads perform to Manufacturer's specifications concerning radius of throw and gallon at given pressure.
- L. Automatic Controller: Is to be installed in the location schematically shown on drawings, but identified by owner's representative in the field. The controller location will be accessible as shown on drawing for maintenance. Provide for the possibility of making minor timing adjustments to the controller in the field.
- M. Provide controller specified on drawing; fully automatic capability as well as manual operation of the system.

- N. Provide controller specified on drawing which operates on a minimum of 110 volts AC power input and is capable of operation of 24 volt AC electric remote control valves, with a reset circuit breaker to protect from overload. Contractor is responsible for connection to 100V AC power to controller.

## 2.3 STATIONS

- A. Each station shall have a time setting knob which can be set for variable timing in increments from 6 to 60 minutes, or set to omit the station from irrigation cycle.

## 2.4 THE CONTROLLER

- A. The irrigation system shall be as specified on the drawings.

## 2.5 WATER METER

- A. Type approved by City where shown on drawing. Size as required to serve the requirements of the system. Verify location with owner's representative in the field.

## 2.6 BACKFLOW PREVENTER

- A. Submit Double Check Assembly Backflow Preventer cut sheets for approval. The backflow preventer is a double check valve assembly type, capable of having a flow rate of 80 gpm, with a pressure loss not to exceed 5 psi and suitable for supply up to 150 psi. The backflow preventer body to be bronze, internal parts stainless steel and check valve assemblies with tight seating rubber. The backflow preventer assembly must include two gauge valves for isolating unit and two ball valve test clocks for testing unit to insure proper operation.

## 2.7 PRESSURE REGULATOR

- A. Provide Wilkins #600 or equal. Install outside of the building for easy access and adjustment.
- B. Mastervalue: Rainbird # electric remote control valve w/brass body and bonnet. Valve shall be wired to open and close with each circuit valve. Size based on mainline.

## 2.8 VALVE BOXES

- A. Ametek 12" rectangular valve box with cover or jumbo mechanical box with cover and Ametek 10" round valve box with cover as indicated on drawings. Place a minimum of 6" depth of gravel under each valve box, meter, pressure regular and backflow preventer box.

## 2.9 SLEEVES

- A. Size and type as indicated on drawings.

## 2.10 HOSE BIBS

- A. Hose bibs shall have an all cast brass or bronze body. Hose bibs to be  $\frac{3}{4}$ " inside diameter and shall be installed below grade in Ametek 12" x 18" valve boxes. The cover over hose bib boxes shall be clearly marked with "non-potable water".

## 2.11 CONTROL VALVES

- A. Provide Rainbird Electric Remote Control Valve (size as indicated on Plan). Valve to conform to Manufacturer's Specifications concerning performance and at a given pressure.

## 2.12 SURGE PROTECTION

- A. Provide General Electric Lightning Arrestor #GL 15 CC B 007 for controllers not equipped with primary surge protection.
- B. Provide secondary surge protection installed on the 24V AC valve control wiring for systems controlling 24V AC solenoid operated valves.
- F. The Irrigation Contractor is responsible for determining whether the above mentioned surge protection equipment is provided for in controller as a "built-in" unit or if it must be supplied and installed separately.

## 2.13 ISOLATION VALVES

- A. Provide all BALL valves for isolation purposes allowing full diameter opening when in full open Position. See Contract Drawings.
- B. Manually operated valves shall be same size as mainline.

## 2.14 AUTOMATIC DRAIN VALVES

- A. Install at low point for each lateral line "Rainbird 16AP" drain valve in gravel sump 12" x 12" in size and with a minimum of 18" of cover over sump. Miscellaneous System Components: Providerisers, reducers, couplings, adapters, fittings as necessary to complete irrigation system.

# PART 3 EXECUTION

## 3.1 SUMMARY

- A. Provide a competent superintendent and necessary assistants on the job while Work is progress. The Superintendent represents Contractor in all functions, and directives given to him by Owner are binding as if given to Contractor in person.
- B. During the installation Landscape Architect may make regular site visits and reject any Work and materials which do not meet the Standards called for in Contract Documents. Rejected work must be

promptly corrected and no time extension will be allowed for this reason.

### 3.2 INSPECTION

- A. Inspect project area prior to start of Work to determine that all site conditions are acceptable for irrigation Work to begin. Inform Landscape Architect of unsuitable conditions. Do not proceed with installation of irrigation system until unsatisfactory conditions have been corrected in a manner acceptable to installer.

### 3.3 PREPARATION

- A. Flag all existing underground utilities prior to trenching and/or boring operations. Obtain utility locations from Owner and/or General Contractor and Utilize utility locating services when necessary.

### 3.4 EXCAVATION

- A. All excavation is unclassified and includes all materials encountered.
- B. Prior to excavation, remove sod, preserve and replace after backfilling is completed.
- C. After excavation and backfilling is completed, regard trenched area consistent with surrounding area and re-establish with 100 percent pure of type grass existing. Maintain as necessary for establishment and survival of grass.
- D. Backfill material to be free from rock, large stones and other unsuitable substances which could damage the pipe or create unusual settling problems. Back fill in 6" layers and tamp after each layer to prevent excessive settling.
- E. Backfill trenches containing plastic pipe when pipe is cool to avoid excessive contraction in cold weather. Such backfilling can be done in early morning hours or pipe may be water cooled prior to backfilling procedures.
- F. Backfill material evenly in lifts not to exceed 6" and compact to 100 percent of maximum density.
- G. Contractor is responsible for establishing compaction in trenches equal to or exceeding overall compaction of paving base.
- H. Minimum depth of cover of all pipe is as follows:
  - ¾" - 1" pipe - minimum depth cover is 12"
  - 1 ½" - 1 ½" pipe - minimum depth cover is 18".

### 3.5 SLEEVING

- A. Location of sleeving shown on plans is schematic. Sleeving installation shall make adjustments necessary to accommodate



existing vegetation, utilities and other existing conditions. Repair of damage to existing utilities, structures or other construction resulting from installation of sleeves is the responsibility of Contractor.

- B. Install PVC sleeves according to detail.

### 3.6 PIPE JOINTS

- A. Flow Manufacturer's Recommendation.
- B. Solvent weld PVC pipe, assemble according to Manufacturer's Recommendations, using appropriate PVC pipe cleaner/primer and solvent cement.
- C. PVC to metal connection, Work metal connection first then use Teflon pipe fitting tape on thread PVC to metal joints. Use only light wrench pressure.
- D. Main line shall be installed according to Manufacturer's Recommendations.

### 3.7 PIPE AND FITTINGS

- A. Install according to Manufacturer's Recommendations including snaking-in of PVC pipe to prevent excessive strain when contracting in cold weather. Solvent weld fittings must conform to Schedule 40 or Schedule 80 PVC dimensions and specifications for solvent weld fittings and as manufactured by Lasco, Inc.

- B. Lateral lines and risers shall be as follows:

Install according to Manufacturer's Recommendations using standard techniques.

Combine lateral lines and main supply lines in common trenches wherever possible with specified minimum depth of coverage over all pipe (see Backfilling).

Install riser such that no excessive movement occurs while sprinkler head is in operation. Height of risers to be in accordance with planned and existing plant material. Height of all risers is subject to approval of Landscape Architect. Exchange of 4" pop-up to 12" high pop-in field by Landscape Architect is incidental.

Plug lines immediately upon installation to minimize infiltration of foreign matter.

Flush lateral lines and risers prior to installation of sprinkler heads.

Above ground risers must be dark gray or black in color.

### 3.8 SPRINKLER HEADS

- A. Low pop-up sprinkler heads shall be installed in such a manner that tip is 1" above finished grade. Where finish grade has not been established, extend a riser a minimum of 12" above existing grade to mark location of head. After finish grade is established, install heads at specified height on trip elbow swing joint, no flex pipe will be accepted.
- B. High pop-up heads: High pop-up shrub heads shall have the finished height determined by Landscape Architect.
- C. Backfill around sprinkler head assembly in such a manner that sprinkler head is stabilized so that no lateral motion is exhibited during operation.
- D. Sprinkler Heads on Risers: Sprinkler heads on risers should be maintained on a schedule 80 PVC riser coupled by a Schedule 40 F.I.P.T. coupling (Lasco #420007) to polyethylene riser first out of lateral fitting. Height of all heads in bed areas to be determined in the field by Landscape Architect. (Riser heights may also be achieved by use of approved pvc extensions of head manufacturer)
- E. Install control wire in orderly fashion, locate in main line trench. Bundle wires together and tape at 10' intervals. Position wires under main line.
- F. Allow for contraction of wires by providing looped slack at directional changes in supply line.
- G. Keep wire splices to a minimum. All splices shall be waterproofed by using "Rainbird Snap-tite" wire connectors. All splice locations to be indicated on "as-built drawings".
- H. Pass Wires under existing or future paving, construction, etc. through PVC sleeves provided by (Irrigation Contractor/General Contractor).
- I. Control Equipment: Install automatic valves and controller according to Manufacturer's Recommendations. Appropriate locations are shown on the drawings.
- J. Valve Boxes: All valves are to be housed in valve boxes. Install according to Manufacturer's recommendations and according to details. Position boxes at a height that will not cause them to interfere with maintenance machinery (e.g., mowers) and such that soil and mulch do not wash into the box. Locate all valve boxes within plant bed areas where ever possible.
- K. Install surge protection equipment on primary (110 VAC) power lines. Connect each surge protect unit to at least on 5/8" diameter by 9' long copper clad grounding electrode driven into the soil to its full depth. Place electrodes no closer than 2' from controller cabinet or any control or power wire. Be consistent in locating ground rods throughout installation with

respect to controller position and not locations on "As-Built" Drawings.

- L. Ground wire between surge protection device and grounding electrode to be single strand bare copper wire at least one size greater than wire supplying power to control unit. Route ground wire away from power and control wires where possible.
- M. When it is necessary to pass through controller cabinet wall, use two #L-70 copper grounding lugs and brass bolt as noted in detailed drawings. Use #WE 5/8" ground rod clamp (single piece and bolt ) to make connection between ground rod a minimum of 10". Cover the top of rod and clamp with a Toro #850-00 cover with lid at grade level.
- N. Balancing and Adjusting: Balance and adjust the various components of system so that overall operation of the system is most efficient. This includes synchronization of controllers, adjustment to pressure regulators, part circle sprinkler heads and individual station adjustments on controllers. The Contractor has the right to call in the Designer or Owner's Representative to aid in balancing and adjustment of system.

### 3.9 OPERATIONAL TESTING

- A. Upon completion of irrigation system and after head installation, test entire system for proper operation. Flush all air from system and check components for proper operation.

### 3.10 "AS-BUILT" DRAWINGS

- A. "As-Built" Drawings are to include locations of all wire splices, valves (automatic and manual) with triangulated measurements to each location as well as any deviations in location of piping and heads as represented by Contract Documents.

### 3.11 OWNER ORIENTATION

- A. Upon completion of Work and final acceptance by Owner and Landscape Architect, Contractor is responsible for orientation of maintenance personnel in the operation, maintenance and repair of system. Furnish copies of all available parts lists, trouble shooting lists and specification sheets to Owner prior to final payment.
- B. Set initial watering schedules and programming on automatic controllers at the direction of Landscape Architect. Changes in schedules and programming and instructions on how to make such changes is the responsibility of Landscape Architect.

### 3.12 WINTERIZING THE SYSTEM

- A. If Owner requires, irrigation piping must be winterized by first blowing system clear of water using compressed air (80 psi minimum) admitted into piping at a quick coupling valve or hose bib located at a higher elevation on the system piping. Activate

individual zones, higher zones first, then proceed successively through the system towards lower elevations. Proceed through all zones twice. The air compressor used to winterize system must have an engine separate from compressor tanks to prevent high temperature air from being injected directly into PVC piping.

### 3.13 CLEAN-UP

- A. During Irrigation Work, keep project site clean and orderly. Upon completion of Work, clear grounds of debris, superfluous materials and all equipment. Remove from site to the satisfaction of Landscape Architect and Owner.

### 3.14 PROTECTION

- A. Protect Irrigation Work and materials from damage due to irrigation operations, operations by other contractors, trades and trespassers. Maintain protection until Date of Substantial completion.
- B. Cover all openings into system as it is being installed to prevent obstructions in pipe and breakage, misuse or disfigurement of equipment.
- C. Contractor is responsible for theft of equipment and material at job site before, during and after installation, until Date of Substantial Completion of the Work in total.

### 3.15 INSPECTION AND ACCEPTANCE

- A. Upon completion of Work, notify Landscape Architect and Owner at least three days prior to requested Date of Inspection for Substantial Completion. Prior to contacting Landscape Architect for the purpose of demonstrating all or any part of the system, thoroughly test the system for proper operation and make adjustments and replace any defective parts prior to inspection for Substantial Completion. Where inspected irrigation Work does not comply with requirements, replace rejected Work promptly, within two weeks of inspection. In unusual circumstances, a longer time period may be granted by Owner. If such replacements are not completed within time specified, Contractor may be considered to be in default of Contract and Owner may use Contract Retainage to hire other Contractors to finish the Work.

## PART 4 ACCEPTANCE AND GUARANTEE

### 4.1 SUMMARY

- A. Substantial Completion: Submit written requests for inspection for Substantial Completion to Landscape Architect at least three calendar days prior to anticipated Date of Inspection and Testing. Substantial Completion cannot be granted and at the same time no further applications for payment shall be approved for more than 85% of contract until there has first been a walk-thru for head coverage at which time a "punch list" will be written consisting of items to be addressed and corrected by

Contractor immediately. Depending on the extent of the Work on the "punch list", the Landscape Architect will determine the job to be Substantially Complete or pending the completion of the "punch list".

- B. Submit record drawings and maintenance manuals to Landscape Architect with written request for inspection.
- G. Review "punch list" Work jointly with Owner and Landscape Architect for Substantial Completion of total (contract) Work. (See "General Conditions", Article No. 9).
- H. Upon satisfactory completion of repairs and replacements and completion of "As-Built" drawings, Landscape Architect and Owner will verify system for Substantial Completion and issue AIA Certificate of Substantial Completion if all items on "punch list" have been completed. If necessary another "punch list" will be written to itemize any deficiencies still existing and will be attached to AIA Certificate. Contractor shall complete all "punch list" items if possible within 30 days while continuing maintenance.

#### 4.2 DATE OF SUBSTANTIAL COMPLETION

- A. Date of Substantial Completion will constitute beginning Date of One-Year Guarantee. This Date also constitutes the beginning of the warranty responsibilities and acceptance by Owner and Landscape Architect.

#### 4.3 GUARANTEE

- A. All Work, products, equipment and materials for one year, beginning at Date of Substantial Completion as per (AIA Certificate of Substantial Completion/written letter of notification).
- B. Make good any damage, loss, destruction or failure. Repairs and replacements shall be done promptly and at no additional cost to Owner.
- C. Repair damage to grade, plants and other Work or property as necessary.
- D. If replacements are not acceptable during or at end of Guarantee Period, Owner may elect either subsequent replacement or credit. Replacement products shall have a similar one-year guarantee from time of replacement.
- E. Guarantee applies to all unacceptable conditions or losses with exception of Master Irrigation Specifications

PART 5.0 METHOD OF MEASUREMENT

5.1 METHOD OF MEASUREMENT

- A. The irrigation system shall be measured per these specifications and plans as a lump sum pay item.

PART 6.0 PAYMENT

6.1 PAYMENT

- A. The Pay Item listed below shall be considered complete and shall include all material, equipment, labor, installation costs, overhead and profit. Bidder shall verify quantities by his own take-off from the Drawings and notify the Landscape Architect of discrepancies before submitting his Bid.
- B. Payment shall be made in accordance with Pay Item No.

END OF SECTION 02810

SECTION 02900 LANDSCAPE PLANTING & SODDING

SECTION 02900 LANDSCAPE PLANTING & SODDING

PART 1 GENERAL

1.1 SUMMARY

- A. Extent of the planting is shown on the drawings and in the schedules.
- B. Provide all labor, materials, and equipment required by or referenced from the drawings and specifications to complete the work of this section.
- C. Verify plant count from plan, and provide and install all plant material on plan unless site conditions prohibit.
- D. All plants shall conform to or surpass minimum quality standards as defined by the American Association of Nurserymen, current edition of American Standards for Nursery Stock published by American Association of Nurserymen, Inc. and in addition shall conform to sizes and descriptions in the plant list.
- E. Related work: Section 02810 - Landscape Irrigation

1.2 SUBSTITUTION

- A. Substitution from the specified plant list will be accepted only when satisfactory evidence in writing is submitted to the Landscape architect, showing that the plant material is not available.
- B. Requests for approval of substitute plant material shall include common and botanical names and the size of substitute material.
- C. Only those substitutions of at least equivalent size and having essential characteristics similar to the originally specified material will be approved. The Landscape Architect will issue acceptance or rejection of substitute plant material in writing.

1.3 APPROVAL AND SELECTION OF MATERIALS AND WORK

- A. The selection of all materials and the execution of all operations required under the Drawings and Specifications are subject to the approval of the Owner and Landscape Architect. They have the right to reject any and all materials and any and all work, which in their opinion, does not meet the requirements of the Contract Documents at any stage of the operations. Remove rejected Work and or materials from Project Site and replace promptly at no additional cost to the Owner.

#### 1.4 QUALITY ASSURANCE

- A. The landscape installer shall be qualified with work resulting in successful plant establishment.
- B. The installer is required to maintain an experienced full-time supervisor on project site when planting is in progress.
- C. Topsoil analysis shall be furnished by Mississippi State University Extension Center (Mailing Address P.O. Drawer "Z", Gulfport, MS 39502-0045) Contact Information Phone 228-865-4227, Fax: 228-868-1470 Email: [harrison@ext.msstate.edu](mailto:harrison@ext.msstate.edu) (or an equal), stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; (sodium absorption ratio;) deleterious material; pH; and mineral and plant-nutrient content of topsoil.
- D. A report of suitability of topsoil shall be furnished for lawn growth stating the recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory topsoil.
- E. The following codes and standards shall be observed:
  - 1. State and Federal laws, including for disease and insect control.
  - 2. Requirements of authorities having jurisdiction.
- F. A Pre-installation Conference shall be conducted 30 days prior to construction. The General contractor shall schedule this meeting to include the landscape contractor, irrigation contractor, Landscape Architect, and any other parties participating in this contract.

#### 1.5 WORKMANSHIP

- A. Install all plant materials neatly.
- B. Make minor adjustments to layout as may be required and requested by Landscape Architect at no additional cost to the Owner.
- C. Coordinate delivery of all plant material with time of installation to prevent any plant material from being stockpiled on site longer than 24 hours.
- D. Deliver materials in such manner as to not damage or decrease the health and vigor of the plant materials. Store materials away from detrimental elements. Coordinate with General Contractor to secure a safe staging area.
- E. Handle, load, unload, and transport materials carefully to avoid damage.
- F. Maintain and protect plant materials as necessary to insure health and vigor.



#### 1.6 GUARANTEE

- A. Guarantee all plant materials and lawn areas for one year from the date of substantial completion. Contractor shall replace plants that fail to grow properly with plants as originally specified at the earliest practical date following plant failure, without additional charges to the Owner.
- B. Replacement materials will be guaranteed for one year from the date of replacement.
- C. The Contractor shall not be responsible for replacing plants that are damaged by abuse or improper maintenance by Owner as reported by Contractor outlined below or by acts of nature occurring after acceptance.
- D. Acts of nature may include, but may not be limited to high winds of hurricane or tornado force, sleet, hail, freezing rain and extreme cold (as determined by the Landscape Architect). Contractor agrees to replace losses due to Acts of Nature at twenty percent (20%) less than the original contract price for the damaged work.

#### 1.7 CONTRACTOR'S PERIODIC INSPECTION

- A. During guarantee period, Contractor shall make periodic inspections of the project to satisfy him that maintenance by the Owner is adequate.
- B. Any methods or products, which he deems not normal or detrimental to good plant growth, shall be reported to the Owner in writing.
- C. Failure to inspect and report shall be interpreted as approval and the Contractor shall be held responsible for any and all replacements.

#### 1.8 SOIL TESTING

- A. Contractor shall have soil tested by suitable laboratory chosen by the Contractor and subject to written approval of the Landscape Architect.
- B. Soil test shall be completed in all planting areas to determine lime and fertilizer requirements. Submit test results to Landscape Architect for approval. Contractor shall adjust pH and fertility based upon results. No addition to or placement of soil is to be done prior to initial soil test report approval.

### PART 2 PRODUCTS

#### 2.1 TOPSOIL

- A. Topsoil shall be fertile, friable, sandy loam and a natural surface soil obtained from well areas reviewed by Landscape

Architect and possessing characteristics of representative soils in the project vicinity that produce heavy growths of crops, grass, or other vegetation.

- B. Topsoil shall be free of subsoil, brush, organic litter, or objectionable weeds, clay, clots, stumps, stones, roots or other material harmful to plant growths or hindrance to planting or maintenance operations. Should regenerative materials be present in the soil, Contractor shall eradicate and remove such growth, both surface and root, which may appear in the imported material within one year following acceptance of the work.
- C. Topsoil shall not be handled in a frozen muddy condition. The acidity range shall be between 5.0 and 7.0 inclusive. The mechanical analysis of the soil shall be as follows:

Sieve Size	Percent Passing
1 inch mesh	99 - 100 percent
1/4 inch mesh	97 - 99 percent
No. 100 mesh	40 - 60 percent
No. 200 mesh	20 - 40 percent

- D. Topsoil, regardless of the source, shall meet all requirements of the paragraph above.
- E. Stockpile material that does not meet the requirements may, at the option of the contractor, be improved by screening and the addition of organic matter and chemical admixtures.

## 2.2 PLANTING SOIL MIXTURE

- A. Provide soil mix amended as per laboratory recommendations. Some more specific descriptions may be given on the drawings for special planting of trees. Basic planting soil mix consists of:
  - 33% topsoil (as described Above)
  - 33% clean sand
  - 33% Approved organic soil mix
- B. The components shall be thoroughly mixed to uniform consistency by hand or machine methods.

## 2.6 TREES

- A. All large deciduous shade trees and ornamental trees are to be field grown from rooted cuttings true to variety and not grafted material. No grafted material will be accepted for the initial installation or as guarantee replacement material.
- B. Orders for Plant Materials - Submit to Landscape Architect within 30 days from date contract is awarded to the Contractor.
- C. Contractor will submit confirmed orders within ten days of tagging. Contractor is responsible for payment of deposits.

## 2.7 ORDERS FOR PLANT MATERIALS

- A. Submit to Landscape Architect within 30 days from date of contract is awarded to General contractor confirmed orders for material from approved growers (listed on plant schedule). Contractor is responsible for payment of deposits required by approved growers.

## 2.8 FERTILIZER

- A. Fertilizer for all trees, plants and ground covers shall be Milorganite delivered to the site in unopened containers.
- B. Fertilize all areas according to the manufacturer's recommended rates in accordance with the monthly maintenance guideline herein.
- C. Cultivate and water beds or pits thoroughly after application.
- D. Adjust fertilizer in accordance with interim soil test reports.

## 2.9 FERTILIZER FOR SOD

- A. Fertilizer for sod shall be Milorganite fertilizer as per manufacturer's recommended rates.
- B. Fertilizer shall be uniform in composition, dry and free flowing, and shall be delivered to the site in the original, unopened container, bearing the Manufacturer's guaranteed analysis. Fertilizer shall not have been exposed to weather prior to delivery to the site. After delivery until used, it shall be completely protected at all times. It shall not be stored in direct contact with the ground.

## 2.10 PLANTS

- A. All plants shall conform to or surpass minimum quality standards as defined by the American Association of Nurserymen (AAN), current edition of American Standard for Nursery Stock, published by the AAN, Inc. and in addition, shall conform to sizes and descriptions in the plant list.

## 2.11 CERTIFICATES OF INSPECTION FOR PLANT MATERIAL

- A. All necessary inspection certificates shall be supplied to the Landscape Architect's representative for each shipment of plant material, as required by law. Certificates showing source of origin shall be filed with Landscape Architect prior to acceptance of the material.

## 2.12 INSPECTION

- A. All plant materials shall be subject to inspection and approval. The Landscape Architect reserves the right to reject any and all plants which fail to meet this specification at any point during

the installation of the job. All rejected materials shall be promptly removed from the site by the Contractor at no additional cost to the owner.

#### 2.13 QUALITY AND SIZE

- A. All plant materials furnished shall be well branched, proportioned width to height, of normal habit, sound, healthy and vigorous in growth. The minimum acceptable sizes of plants shall be measured before pruning with branches in normal position and shall conform to measurements specified. Plants used where symmetry is required shall be matched as closely as possible. Plants shall meet all requirements as listed in the plant list.

#### 2.14 SOURCE OF PLANTS

- A. Plants shall be field nursery, container grown or collected material subject to the requirements of the Specifications.

#### 2.15 FIELD TAGGED PLANTS

- A. All trees are to be located and tagged by the Contractor. The Landscape Architect retains the right to refuse all plant material that does not meet the specifications identified on the drawing.

#### 2.16 INSECTS, PESTS AND PLANT DISEASES

- A. All plants shall be of healthy stock, free from disease, insects, eggs, larvae and parasites of an objectionable or damaging nature.

#### 2.17 SUBSTITUTIONS

- A. Substitution from the specified list will be accepted only when satisfactory evidence in writing is submitted to the Landscape Architect, showing that the plant specified is not available. Requests for approval of substitute material shall include common and botanical names and size of plant material. Only those substitutions of at least equivalent size and having the essential characteristics similar to the originally specified material will be approved. Acceptance or rejection of substitute plant material will be issued in writing by the Landscape Architect.
- B. Balled and burlapped plant materials are to be wrapped with organic wrapping burlap only. Synthetic material will not be accepted. Remove all nursery loading straps once plant material is placed in the pit.
- C. Stakes for supporting trees shall be sound timber, straight, sized as shown in planting details and of sufficient length to adequately support the plant. All visible surfaces shall be painted flat black.

- D. Deadmen or stakes for anchoring guy wires in the ground shall be of size, material and strength adequate to hold guy taut and maintain tree firmly in an upright position(see plan sections).
- E. Wire shall be as shown on plans applicable sections for guying.

#### 2.18 MULCH

- A. Pine straw mulch shall be clean, fresh, free of noxious weed, seed, fire ants, Japanese beetles and/or fringed beetles. On slopes pine straw mulch shall be used.

#### 2.19 EROSION-CONTROL MATERIALS

- A. Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended 6" steel wire staples.
- B. Fiber Mesh: Biodegradable twisted jute or spun-coir mesh, 0.92 lb/sq yd minimum, with 50 to 65% open area. Include manufacturer's recommended 6" steel wire staples.

#### 2.20 SOD

- A. Sod shall be 100% specified grass, free of weeds, freshly dug.

#### 2.21 LIME

- A. Ground dolomitic limestone not less than 85% total carbonates and magnesium, ground so that 50% passes 100-mesh sieve and 90% 20-mesh sieve.

### PART 3 EXECUTION

#### 3.1 LAYOUT OF MAJOR PLANTS

- A. Before commencing planting operations, location of major plants and outlines of areas to be planted shall be marked out on the ground, by the Contractor for approval by the Landscape Architect. Contact the Landscape Architect a minimum of 48 hours in advance of the anticipated review of the layout.

#### 3.2 TIME AND PLANTING

- A. Planting operations shall be during favorable weather in which conditions are neither extremely cold or hot nor to the point that the risk of loss is too great. The Contractor shall inform the Landscape Architect of high risks due to weather.

#### 3.3 PREPARATION OF PLANTING BEDS (See Planting Sections)

- A. Any planting bed that has an existing live oak in it shall not be tilled. Each hole is to be hand dug. No major roots are to be

harmed during the planting. If the tree is harmed, the Contractor will be held responsible.

- B. Grade will be brought to the level of the finished grade by the Contractor. This is to include debris removal and any grading required to bring the landscaping finished grade to the proper level for planting trees, shrubs and ground covers. Contractor shall grade for proper drainage.
- C. Circular plant pits with vertical sides shall be dug by hand or machine methods for planting and transplanting of trees and shrubs.
- D. Shrub pit diameter shall be a minimum of one foot greater than the spread of the root mass.
- E. All transplanted material is to be replanted the same day it is dug or properly healed in and watered regularly to insure life.
- F. Test excavated plant pits to determine if sufficient drainage is present for proper plant survival.
- G. Fill the area between the pits, if the individual pits are arranged in a group, to the required grade with pine bark mulch 3" deep. Plant beds shall be neatly edged and kept free of weeds until the work is accepted.

#### 3.4 EXCAVATION FOR PLANTING GROUND COVERS

- A. Ground cover beds shall be scarified by hand or machine method to a minimum depth of 18". Four inches of pine bark additive and 20 pounds per 1000 square feet of Trident Rootzone humus shall be uniformly incorporated into the soil to the full 18" of minimum depth.

#### 3.5 DRAINAGE TEST FOR TREES

- A. Tree pits shall be filled with water. If percolation is less than 100% within a period of twelve hours, drill an 8" auger to a depth of 2' below the bottom of the pit. Retest the pit. In case drainage is still unsatisfactory, notify the Landscape Architect in writing of the condition before planting the trees. Contractor is fully responsible for the warranty of the trees. If the tree is on a slope, provide a trench filled with stone and a 4" drain pipe to the point of nearest relief.
- B. Drainage Test for Plants and Ground Covers shall be spot tested to insure proper percolation.
- C. Balled and container plants shall be placed firmly upon scarified subgrade and backfilled with planting soil mixture. Remove all wire, cords, and burlap from the top of root ball. Hand tamp carefully around and under ball to fill all voids. Water during back filling. Form saucer from planting soil mixture in order to retain water.

- D. Gently loosen outer roots of container grown plants to encourage outward growth.
- E. Fertilizer shall be thoroughly mixed and soaked into the top 2" of soil for all plant pits.

### 3.6 TREE TRANSPORTATION

- A. The Contractor shall be responsible not only for the safe transportation of the plants to the site but also their condition upon arrival. Trees with abrasions of the bark, sun scalds, fresh cuts, or breaks of limbs which have not completely callused will be rejected. Trees which have been damaged during transit will be replaced by the Contractor at no additional cost. All plant unit costs will reflect all above listed specifications.

### 3.7 TREE TAGS

- A. All plants accepted at the nursery by the Landscape Architect shall be tagged with serialized self locking tags. Trees delivered to the site without these tags or with broken tags will be rejected. The tags shall remain on the trees until the Contractor has been given instructions by the Landscape Architect for removal.

### 3.8 PRUNING DECIDUOUS TREES

- A. Deciduous trees and shrubs shall be pruned only to thin out heavy growth.
- B. Do not top or remove terminal growing point or leader of any plant.

### 3.9 STAKING TREES

- D. Guy trees as shown by plan applicable sections.

### 3.10 PREPARATION OF LAWN AREAS

- A. Grade will be brought to a level of 4" below finished grade by the General Contractor. The landscape contractor will spread 4" of topsoil, fine grading all lawn areas to finish grade. All areas shall have smooth and continual grade between the existing and fixed controls such as walks and curbs. Roll, scarify, rake and level as necessary to obtain true, even and firm lawn surfaces. All finished grades shall meet approval of the Project Engineer before sodden or seeding operations begin.

### 3.11 AREAS TO RECEIVE SOD

- A. Grade will be brought to the level of the finished grade by the Landscape Contractor. The Landscape Contractor will be

responsible for fine grading. This is to include debris removal and any grading required to bring the finished topsoil grade to the proper level for laying sod. Contractor shall fine grade as necessary for uniformity and drainage.

- B. On this grade spread specified fertilizer as per Manufacturer's recommendations and lime at a rate of 50 lbs. per 1000 square feet evenly over all areas to receive grass. A soil test shall be made prior to the beginning of fertilizing and liming and the quantities of the lime and fertilizer shall be adjusted, if necessary, to achieve a pH of 6.0 to 7.0.
- C. Scarify prepared grade to depth of 6 inches, thoroughly incorporating fertilizer and lime into the top 6" of existing soil in all areas to be grassed. Caution shall be exercised to avoid damage to underground utilities. All building debris, vegetation, sticks and stones over 1 inch in any dimension shall be removed and the surface leveled and smoothed.

### 3.12 SODDING OPERATIONS

- A. Delivery of sod shall be scheduled so as to allow laying of sod without delay. No sod shall remain stacked longer than 24 hours. In the event that sod cannot be laid immediately upon delivery, Contractor shall lay sod on as designated site, to be approved by the Landscape Architect. No sod shall overlap and it shall be lightly watered as necessary to keep moist.
- B. Lay sod when bed is not excessively wet or frozen, but when soil is moist for a depth of 4".
- C. Lay sod so that no voids occur. Sod shall be tamped and rolled by hand methods. The completed surface shall be true to finish grade and even and firm at all points.
- D. Do not move heavy objects over areas to be sodded after the soil has been prepared.
- E. A satisfactory stand is defined as a cover of living grass of specified species, after true leaves are formed in which no gaps larger than five (5) inches square occur.
- F. Areas determined by the Landscape Architect to be solid rock will be exempt from this requirement.

### 3.13 REMOVAL OF EXISTING GRASS

- A. The Contractor is to remove existing grass and weeds from all areas for planting and resodding as designated on the plans. The existing stands are to be removed to a maximum depth of 1" so as to not disturb existing tree roots where present in those areas.
- B. Aerate with a tined tiller to break up the upper 3" lightly not to damage tree roots. Pick up solids for discarding and cut cleanly any roots damaged.



- C. Spread a light layer of topsoil not more than 1" in depth over the aerated area and fine grade to meet acceptance by the Landscape Architect. Apply fertilizer and lime to these areas as specified previously under "Areas to receive Sod" or "Preparation of Planting Beds" whichever the case may be.

#### PART 4 CLEAN UP AND PROTECTION

##### 4.1 SUMMARY

- A. Keep Project Site clean and orderly during planting operations.
- B. Clear grounds of debris, superfluous materials and all equipment upon completion of Work. Remove from site to the satisfaction of the Landscape Architect and Owner.
- C. Protect all work and materials from damage due to landscape operations and operations by other contractors, trades and trespassers. Maintain protection until Date of Substantial Completion.
- D. Contractor is responsible for theft of equipment and material at the site before, during and after installation, until Date of Substantial Completion of Work in total.

#### PART 5 LANDSCAPE MAINTENANCE

##### 5.1 SUMMARY

- A. Begin maintenance at commencement of Work of this Section and Continue until Substantial Completion, as part of Work of this section.
- B. Continue maintenance for a Maintenance Period of thirty calendar days after date of Substantial Completion.
- C. Provide labor, materials, equipment and means for proper maintenance of all materials and workmanship.

##### 5.2 SUPERVISION

- A. Submit a written report and conduct joint inspection with Landscape Architect of maintenance program and procedures, at inspection for Substantial Completion.

##### 5.3 MAINTENANCE OF TREES, SHRUBS, SOD, AND SEED

- A. Maintain all plants in a growing, well formed, healthy condition by watering, fertilizing, pruning, weeding, spraying, wrapping, straightening, replacement or by other necessary maintenance operations.

#### 5.4 WATERING

- A. Monitor owner's automatic watering system and schedule for proper watering of all plant material.
- B. Advise Landscape Architect immediately in writing of recommended alterations due to weather or other conditions.
- C. Water landscaped (and sodded) areas not covered by automatic watering system as frequently as necessary to maintain proper moisture level, using the following schedule as a guide:
  - 1. Twice a month during March, April, May
  - 2. Once a week during June, July, August, September
  - 3. Watering as needed from October through February

#### 5.5 FERTILIZING

- A. Apply four (4) times a year to trees, shrubs, ground cover, and sod as per manufacturer's recommended application rate.

#### 5.6 MOWING

- A. Mow grass to a height of 2 to 2.5" when it reaches a height of 3", or as directed by Landscape Architect. Seeded and sodded lawns shall have at least one mowing before receiving Substantial Completion.

#### 5.7 RESODDING

- A. Rework and re-sod areas which fail to show a uniform stand of grass. Perform work with the same kind of sod applied and repeated until all areas are covered with a uniform stand of grass.

#### 5.8 RESEEDING

- A. Rework and seed areas which fail to show a uniform stand of grass. Perform work with the same kind of seed applied and repeated until all areas are covered with a uniform stand of grass.

#### 5.9 SITE ANNUAL PLANTING

- A. Replace annual plantings according to schedule in Drawings. Blooming plants shall be replaced as necessary throughout specified Maintenance Period to maintain blooming condition.

5.10 PRUNING

- A. Remove dead wood as it becomes evident. Remove living portions of plants only at the direction of Landscape Architect.

5.11 WILT-PROOFING

- A. Apply approved anti-desiccant to all evergreen trees during last two weeks in October (except pines).

5.12 SPRAYING

- A. For each spraying combine approved insecticide and fungicide to provide maximum protection for all plant materials. Three sprays annually; in March, May, and August.

5.13 WEEDING

- A. Two applications (Spring and Fall) of chemical pre-emergent spray, approved. Two applications (during growing season) of chemical contact spray (Round-Up, by Monsanto, or approved equal). Two days per month (every two weeks) manual weeding (by hand) during the period from March 1 through September 30; remove all visible weeds.

5.14 MULCHING

- A. Keep planting areas neat and uniformly mulched to specified depth on a continuous basis. In addition to replacing and re spreading mulch as necessitated during the maintenance period completely replenish mulch in all planting areas one time (during the last month of the one-year Guarantee Period or as Directed by the Landscape Architect).

5.15 STRAIGHTENING

- A. Maintain plants in their stable upright position and at the proper grade by straightening and tightening staking and guying apparatus and as approved by the Landscape Architect.

5.16 CLEAN-UP

- A. Keep all planting areas neat, weeded and uniformly mulched on a continuous basis. Clean up adjacent walks and pavement where lettered as a result of maintenance operations, on a continuous basis.
- B. The 30 day maintenance period following Substantial Completion will be considered a lump sum item to be addressed as an item included in the contract.

PART 6.0 ACCEPTANCE AND GUARANTEE

6.1 SUBSTANTIAL COMPLETION

- A. Submit written requests for inspection for Substantial Completion to the Landscape Architect at least three calendar days prior to anticipated date of inspection and testing.
- B. Substantial Completion cannot be granted and at the same time no further applications for payment shall be for more than 85% of the Contract until there has been a walk - thru for planting at which time a "punch list" will be written consisting of items to be addressed and corrected by the Contractor immediately. Depending on the extent of work on the "punch list", the Landscape Architect will determine the job to be "substantially complete" or pending the completion of the "punch list".
- C. Submit Record Drawings and Maintenance manuals to the Landscape Architect with written request for inspection.
- D. Review the "punch list" work jointly with the Owner and Landscape Architect for Substantial Completion of the total (contract) work.
- E. Upon completion of repairs and replacements found necessary at the time of review, the Owner and Landscape Architect will confirm the date of Substantial Completion and issue the written notice of Substantial Completion if all items on the punch list have been completed. If necessary, another punch list will be written to itemize any deficiencies still existing and will be attached to the written notice of substantial completion. The contractor shall complete all "punch list" items if possible within 30 days while continuing maintenance.
- F. The date of Substantial Completion will constitute the beginning date of the One - Year Guarantee. This date also constitutes the beginning of warranty responsibilities and acceptance by the Owner and Landscape Architect.

6.2 GUARANTEE

- A. All work, products, equipment and materials for one year, beginning at the Date of Substantial Completion as per the written notice of Substantial Completion.
- B. Make good any damage, loss, destruction or failure. Repairs and replacements shall be done promptly and at no additional cost to the Owner.
- C. Repair damage to grade, plants, and other work as necessary.
- D. If the replacement is not acceptable during or at the end of the Guarantee Period, the Owner may elect either subsequent

replacement or credit. Replacement products shall have a similar one year guarantee from the time of replacement.

- E. Guarantee applies to all unacceptable conditions or losses with exception of those due to acts of nature, vandalism or Owner neglect, as determined by Landscape Architect. Act of Nature includes, but may not be limited to, high winds of hurricane or tornado force, sleet, hail, freezing rain and extreme cold (as determined by Landscape Architect). Contractor agrees to replace losses due to Acts of Nature at (15%) less than original contract price for the damaged Work.

#### PART 7.0 METHOD OF MEASUREMENT

##### 7.1 METHOD OF MEASUREMENT

- A. Plant material shall comply with these specifications and the plans in which each plant is listed, and will be measured by the number of units of each kind of plant and size specified.
- B. Topsoil, Soil Amendments, Staking & Guying, Tree Wrapping, Mulching, and Watering during the guarantee period shall be considered a subsidiary obligation of the plant material listed below and included in the individual unit cost.
- B. Sod shall comply with these specifications and quantified by the plans. The units of sod shall be measured in square yards.

#### PART 8.0 PAYMENT

##### 8.1 PAYMENT

- A. The Pay Items listed below shall determine the value of extra work or changes in the work, as applicable. They shall be considered complete and shall include all material, equipment, labor, installation costs, overhead and profit. Pay items shall be used uniformly for additions or deductions. The final amount paid for the work done will be the sum of the actual quantities of installed work, as approved in writing by the Owner. Bidder shall verify quantities by his own take-off from the Drawings and notify the Landscape Architect of discrepancies before submitting his Bid.
- B. Payment shall be made in accordance with Pay Item No.

END OF SECTION 02900

## SECTION 04200 - UNIT MASONRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Extent of each type of masonry work is indicated on Drawings and Schedules.

1. Solid Face Brick, in standard size units, and custom shapes, or custom units as indicated.
2. Grout and mortar
3. Masonry accessories.
4. Other items as specified herein or indicated on the Drawings.

#### 1.2 SUBMITTALS

A. Samples: For verification purposes submit the following:

1. Manufacturer's complete and current product data for each different masonry unit, accessory, and other manufactured product indicated, including certifications that each item and type complies with specified requirements.
  - a. Include instructions for handling, storage, installation, and protection.
2. Provide samples for initial selection purposes of the following:
  - a. Exposed masonry, showing full extent of colors and variations anticipated, for each standard and special shape unit.

#### 1.3 QUALITY ASSURANCE

A. Job Mock-Up:

1. The first 10 linear foot area will be considered the "mock-up". Obtain Architect's acceptance of visual qualities of the mock-up before start of masonry work.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver masonry materials to project in undamaged condition.
- B. Store and handle masonry units palleted, off the ground, under cover, and in a dry location to prevent their deterioration or damage due to moisture, temperature changes, contaminants, corrosion, and other causes. If units become wet, do not place until units are in an air-dried condition.
- C. Store cementitious materials off the ground, under cover, and in dry location.
- D. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- E. Store masonry accessories including metal items to prevent corrosion and accumulation of dirt and oil.

#### 1.5 PROJECT CONDITIONS

- A. Stain Prevention:
  - 1. Prevent grout or mortar from staining the face of masonry to be left exposed. Remove immediately grout or mortar in contact with such masonry.
  - 2. Protect installed face brick at ground level from clay staining by maintaining a perimeter **3'-0" wide of straw**, until permanent groundcover is established.
- B. Cold-Weather Construction: When the ambient temperature falls below 40 degrees (4 degrees Celsius) comply with provisions of ACI 530, Specification for Masonry, for cold-weather construction and the following:
  - 1. Do not lay masonry units that are wet or frozen.
  - 2. Remove masonry damaged by freezing conditions.
- C. Hot-Weather Construction: When the ambient temperature exceeds 90 degrees (32 degrees Celsius) comply with provisions of ACI 530, Specification for Masonry, for hot-weather construction.

## PART 2 - PRODUCTS

### 2.1 BRICK MATERIALS

#### A. Face Brick General:

1. Obtain masonry units of each type from one manufacturer, of uniform texture and color.
2. Size: Solid Standard Modular: 3 5/8 inches x 2 1/4 inches x 7 5/8 inches unless otherwise indicated.
3. Assurance: Comply with **ASTM C216, Grade MW, Type FBS. NO EXCEPTIONS.**

#### B. Face Brick Schedule:

##### 1. Brick Type 1:

- a. Size: Modular for 3/8" mortar joint, 3-5/8" x 2-1/4" x 7-5/8"
- b. Face Texture and product shall match existing Rose Garden brick edging to the greatest extent possible.

### 2.2 MORTAR MATERIALS

A. Portland Cement: ASTM C 150, Type I, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.

B. Hydrated Lime: ASTM C207, Type S.

C. Masonry Cement: ASTM C 91.

D. Aggregate for Mortar: ASTM C 144.

E. Aggregate for Grout: ASTM C 404.

#### F. Admixtures:

1. Integral Water-Repellent Mortar Admixture (Brick mortar only): Integral liquid polymeric admixture for mortar added during mixing. Dry-Block Mortar Admixture, an integral water-repellent mortar admixture manufactured by Grace Construction Products.



G. Water: Potable.

## 2.3 MORTAR MIXES

A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.

1. Do not use calcium chloride in mortar or grout.

2. Use portland cement-lime or masonry cement mortar unless otherwise indicated.

B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.

C. Mortar for Concrete Masonry Units: Comply with ASTM C 270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated.

1. For all concrete masonry not exposed to view, use **Type S**.

D. Mortar for Brick and Splitface CMU: Comply with ASTM C 270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated.

1. For all face brick, use **Type N**.

2. Brick Mortar Schedule:

a. Pre-mixed mortar color to match existing adjacent to the greatest extent possible.

## 2.4 ACCESSORIES

A. Miscellaneous Masonry Accessories:

1. Brick Cleaner: Prosoco "Sure Klean 600 Detergent" or approved equal.

a. Manufacturer to confirm in writing that cleaner will not affect texture or color of brick.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Thickness: Build masonry construction to the actual thickness indicated. In most cases plan dimensions indicate nominal thickness and require deducting 3/8 inch to determine actual thickness.
- B. Miter corners of soldier and rowlock courses and bond mitered pieces together with thin set mortar formulated for use with brick in exterior locations.
- C. Layout edging in advance for accurate spacing of sawtooth bond patterns, with uniform joint widths and to properly locate openings, movement-type joints, returns and offsets. Avoid the use of less-than-half size units wherever possible.
  - 1. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces concealed.
- B. Stopping and Resuming Work: not allowed - finish entire wall prior to stopping work.
- C. Remove masonry units disturbed after placement; clean and set in fresh mortar. Do not pound corners at jambs to fit stretcher units which have been set in position. If adjustments are required, remove units, clean off mortar, and reset in fresh mortar.
- D. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.
- E. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. per minute when tested per ASTM C 67. Allow units to absorb water so they are damp but not wet at time of laying.

### 3.2 CONSTRUCTION TOLERANCES

- A. Dimensions and Locations of Elements:
  - 1. For dimensions in cross section or elevation do not vary by more than plus 1/2 inch or minus 1/4 inch.

2. For location of elements in plan do not vary from that indicated by more than plus or minus 1/2 inch.
3. For location of elements in elevation do not vary from that indicated by more than plus or minus 1/4 inch in a story height or 1/2 inch total.

B. Lines and Levels:

1. For conspicuous horizontal lines, such as sills and parapets, do not vary from level by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
2. For vertical lines and surfaces do not vary from plumb by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2 inch maximum.
3. For lines and surfaces do not vary from straight by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2 inch maximum.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.
2. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch or minus 1/4 inch.
3. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch.

### 3.3 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in **sawtooth bond or as indicated in drawings**; do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.

### 3.4 MORTAR BEDDING AND JOINTING

#### A. Batch Control:

1. Measure and batch materials either by volume or weight, such that the required proportions for mortar can be accurately controlled and maintained.

**Measurement of sand exclusively by shovel will not be permitted. Use of a 1 cubic foot "box" is required.**

2. Mix mortar with the maximum amount of water consistent with workability to provide maximum tensile bond strength within the capacity of the mortar.
3. Mix mortar ingredients in a mechanical batch mixer. Do not use mortar which has begun to set, or if more than 2 1/2 hours has elapsed since initial mixing. Retemper mortar during 2 1/2 hour period as required to restore workability.

a. Do not retemper colored mortar.

- B. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

- C. Tool exposed joints slightly **concave** when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

### 3.5 REPAIR

- A. Remove and replace masonry units which are loose, chipped, broken, stained or otherwise damaged, or if units do not match adjoining units as intended. Provide new units to match adjoining units and install in fresh mortar or grout pointed to eliminate evidence of replacement.

- B. Pointing: During the tooling of joints, enlarge any voids or holes, except weep holes, and completely fill with mortar. Point-up all joints at corners, openings and adjacent work to provide a neat, uniform appearance, properly prepared for application of caulking or sealant compounds.

### 3.6 CLEANING OF BRICK

A. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.

B. General:

1. **All cleaning methods are to be verified for compliance by the Architect prior to use.**
2. Apply at low pressure only, with a standard water hose nozzle. Apply using a circular application pattern and maintain an adequate and consistent distance. **PRESSURE WASHERS WILL NOT BE ALLOWED AS A MEANS OF APPLYING.**

C. Pre-Cleaning:

1. Prior to cleaning brickwork, all large mortar droppings should be removed within 24 hours of laying with wood paddles or natural bristle brushes. Cleaning should begin 14 to 21 days with type S, and 21 to 28 days with type N, after laying the brick.

D. Cleaning:

1. Saturation: Thoroughly saturate all masonry with water before applying any cleaning product.
2. Clean:
  - a. Use a cleaning solution and procedure recommended by the brick manufacturer.
  - b. Apply the cleaning solution as recommended. The cleaning solution should remain on the brickwork 3 to 6 minutes before proceeding to the next step. Clean the brick starting at the top and working down, being sure to keep areas below the cleaning area saturated with water.
  - c. Do not allow the cleaning chemicals to dry on the brickwork.
3. Rinse:
  - a. Thoroughly rinse all masonry with water to remove the cleaning compound. It is vital that all chemicals used in cleaning be rinsed out off the brickwork before they dry in place.

- b. Begin at the top of the brickwork and work down using two or three passes. Be certain all "dirty" water is flushed all the way to the ground and does not stay on the masonry.

END OF SECTION

## SECTION 06100 - ROUGH CARPENTRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Rough carpentry includes carpentry work not specified as part of other sections and which is generally not exposed, except as otherwise indicated. Types of work in this Section include rough carpentry for:

- 1. Exposed exterior framing lumber

#### 1.2 REFERENCES

- A. Lumber Standards: Comply with PS 20

#### 1.3 SUBMITTALS

- A. Product data

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Keep materials dry at all times. Protect against exposure to weather and contact with damp or wet surfaces. Stack lumber and provide air circulation within stacks.

#### 1.5 PROJECT CONDITIONS

- A. Fit carpentry work to other work; scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, and similar supports to allow proper attachment of other work.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Maximum Moisture Content: 19 percent
- B. Exposed Exterior Framing: Provide material hand-selected for uniformity of appearance and freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot-holes, shake, splits, torn grain, and wane.
  - 1. Base Bid: Species and Grade: Southern Yellow Pine, No. 2 or better grade; WCLIB, or WWPA.
  - 2. Alternate #1: Species and Grade: Western cedars, No. 1 or better grade; WCLIB, or WWPA.
    - a. Nominal sizes are indicated, except as shown by detail dimension.

- b. Provide actual sizes as required by PS 20, graded in accordance with established grading rules for moisture content specified for each use.
- c. Provide dressed lumber, S4S, unless otherwise indicated.
- d. Provide kiln-dried lumber with 15% maximum moisture content at time of dressing.

## 2.2 ACCESSORIES

1. Fasteners and Anchorages: Provide size, type, material and finish as indicated and as recommended by applicable standards, complying with applicable Federal Specifications for nail, staples, screws, bolts, nuts, washers and anchoring devices.
2. Where rough carpentry work is exposed to weather, provide fasteners and anchorages with a hot-dip zinc coating (ASTM A153).
3. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate.
  - a. Use fasteners with hot-dip zinc coating complying with ASTM A 153 or ASTM F 2329 unless otherwise indicated.
4. Postinstalled Anchors: Stainless-steel anchors with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry assemblies and equal to four times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
  - a. Stainless-steel bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.
5. Galvanized Chicken Wire: provide 75mm chicken wire mesh with 1.20 mm wire with reinforced edges. Provide in roll width to install single roll height and length as indicated in the drawings.

- (1) Install using galvanized steel staples.

## 2.3 WOOD TREATMENT (Base Bid Only)

- A. Comply with applicable standards for the American Wood Preservers Association (AWPA). Each piece shall bear the quality mark of an independent agency or inspection service



certified by these organizations to inspect treated materials.

1. Use wood treated with preservative Ammoniacal Copper Quaternary (ACQ).
  2. Chromated copper arsenate (CCA) or other arsenic containing preservatives will not be accepted.
- B. Preservative Treated (PT) Wood: All wood in contact with ground and concrete, or indicated as "Treated" or preservative treated (such as when in contact with masonry, steel, and other conditions) shall be pressure treated in accordance with AWPB Standards. Retention levels and use categories are as follows:
1. Above Ground: .25 (UC1-3)
  2. Ground Contact: .40 (UC4A)
  3. Ground Contact (Structural): .60 (UC4B)
- C. Where possible, all special cuts and holes should be fabricated before treatment. If cut after treatment, coat surfaces with liberal brushed solution of copper naphthenate containing a minimum of 2 percent metallic copper in solution in accordance with AWPB Standard M4.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

#### A. General Requirements:

1. Discard units of material with defects which might impair quality of work, and units which are too small to use in fabricating work with minimum joints or optimum joint arrangement.
2. Framing lumber and other rough carpentry shall be fitted closely, set accurately to the required lines and levels and shall be secured in place in a rigid and substantial manner.
3. All framing and support members, not indicated or specified, shall be provided as necessary for the proper completion of the work.
4. Spiking, nailing and bolting shall be done in an approved manner; spikes, nails and bolts shall be of the proper size, and care shall be used so as not to split the members. Members shall be drilled accurately for bolting; and for nailing where necessary to avoid splitting. Suitable washers shall be provided under bolt

heads, and nuts and bolts shall be drawn up tight.

5. Provide framing to support all edges of covering material.

B. Wood Nailers, and Blocking:

1. Provide wherever shown and where required for attachment of other work. Form to shapes as shown or required and cut as required for true line and level of work to be attached. Coordinate location with other work involved.
2. Attach to substrates as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise shown. Build into masonry during installation of masonry work.

C. Wood Framing, General:

1. Anchor and nail as shown, as required to properly secure member in place, and to comply with "Recommended Nailing Schedule" of "Manual for House Framing" and other recommendations of National Forest Products Association.

END OF SECTION