

HGTC - IRRIGATION AND LANDSCAPING INSTALLATION BLDG 5000/5100

Horry-Georgetown Technical College

OSE Project No: H59-N335-CB

May 20, 2026

Architect: TruDesign Studio
PO Box 3252
Murrells Inlet, SC 29576

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PROJECT NUMBER: H59-N335-CB

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SE-310 INVITATION FOR DESIGN-BID-BUILD CONSTRUCTION SERVICES

AGENCY: HGTC - Horry-Georgetown Technical College

PROJECT NAME: HGTC - MMF Health Professions Training Complex - Renovations

PROJECT NUMBER: H59-N335-CB CONSTRUCTION COST RANGE: \$200,000 to \$265,000

PROJECT LOCATION: Conway, SC

DESCRIPTION OF PROJECT/SERVICES: *(450 character limit)*

Remove existing landscaping and install new irrigation, sod, and plantings according to architectural drawings.

BID/SUBMITTAL DUE DATE: 06/16/2026 TIME: 10:00 AM NUMBER OF COPIES: 1

PROJECT DELIVERY METHOD: Design-Bid-Build

AGENCY PROJECT COORDINATOR: Kevin Brown

EMAIL: kevin.brown@hgtc.edu TELEPHONE: (843) 349-5354

DOCUMENTS OBTAINED FROM: www.hgtc.edu/purchasing

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BID SECURITY IS REQUIRED IN AN AMOUNT NOT LESS THAN 5% OF THE BASE BID.

PERFORMANCE AND LABOR & MATERIAL PAYMENT BONDS: The successful Contractor will be required to provide Performance and Labor and Material Payment Bonds, each in the amount of 100% of the Contract Price.

DOCUMENT DEPOSIT AMOUNT: \$0.00 IS DEPOSIT REFUNDABLE: Yes No N/A

Bidders must obtain Bidding Documents/Plans from the above listed source(s) to be listed as an official plan holder. Bidders that rely on copies obtained from any other source do so at their own risk. All written communications with official plan holders & bidders will be via email or website posting.

Agency **WILL NOT** accept Bids sent via email.

All questions & correspondence concerning this Invitation shall be addressed to the A/E.

A/E NAME: Trudesign Studio A/E CONTACT: Nick Peters, PLA

EMAIL: npeters@trudesignia.com TELEPHONE: (843) 855-1154

PRE-BID CONFERENCE: Yes No MANDATORY ATTENDANCE: Yes No

PRE-BID DATE: 05/27/2026 TIME: 11:00 AM

PRE-BID PLACE: Conway Campus at 2050 Hwy 501 E, Conway SC 29526 Bldg. 100, Room 122

BID OPENING PLACE: Conway Campus at 2050 Hwy 501 E, Conway, SC 29526 Bldg. 100, Room 122

BID DELIVERY ADDRESSES:

HAND-DELIVERY:

Attn: Dianna Cecala, Procurement Dept

2050 Hwy 501 E, Bldg. 100, Room 120

Conway, SC 29526

MAIL SERVICE:

Attn: Dianna Cecala, Procurement Dept

2050 Hwy 501 E, Bldg. 100, Room 120

Conway, SC 29526

IS PROJECT WITHIN AGENCY CONSTRUCTION CERTIFICATION? Yes No

APPROVED BY: _____

(OSE PROJECT MANAGER)

DATE: _____

DRAFT AIA® Document A310™ - 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

« »« »
« »

SURETY:

(Name, legal status and principal place of business)

« »« »
« »

OWNER:

(Name, legal status and address)

« »« »
« »

BOND AMOUNT: \$ « »

PROJECT:

(Name, location or address, and Project number, if any)

« Horry-Georgetown Technical College »
« 2050 Hwy 501 E »
« Conway, SC 29526 »

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

Signed and sealed this « » day of « », « »

(Witness)

(Witness)

« »

(Contractor as Principal) (Seal)

« »

(Title)

« »

(Surety) (Seal)

« »

(Title)



**SE-330
LUMP SUM BID FORM**

Bidders shall submit bids on only Bid Form SE-330.

BID SUBMITTED BY: _____
(Bidder's Name)

BID SUBMITTED TO: Horry-Georgetown Technical College
(Agency's Name)

FOR: PROJECT NAME: Conway Bldg. 5100 & 5000 Exterior Landscaping
PROJECT NUMBER: H59-N335-CB

OFFER

§ 1. In response to the Invitation for Construction Services and in compliance with the Instructions to Bidders for the above-named Project, the undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with the Agency on the terms included in the Bidding Documents, and to perform all Work as specified or indicated in the Bidding Documents, for the prices and within the time frames indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

§ 2. Pursuant to SC Code § 11-35-3030(1), Bidder has submitted Bid Security in the amount and form required by the Bidding Documents.

§ 3. Bidder acknowledges the receipt of the following Addenda to the Bidding Documents and has incorporated the effects of said Addenda into this Bid:

(Bidder, check all that apply. Note, there may be more boxes than actual addenda. Do not check boxes that do not apply)

ADDENDA: #1 #2 #3 #4 #5

§ 4. Bidder accepts all terms and conditions of the Invitation for Bids, including, without limitation, those dealing with the disposition of Bid Security. Bidder agrees that this Bid, including all Bid Alternates, if any, may not be revoked or withdrawn after the opening of bids, and shall remain open for acceptance for a period of **60** Days following the Bid Date, or for such longer period of time that Bidder may agree to in writing upon request of the Agency.

§ 5. Bidder herewith offers to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fees, permits, licenses and applicable taxes necessary to complete the following items of construction work:

§ 6.1 **BASE BID WORK** *(as indicated in the Bidding Documents and generally described as follows):* Installation of new irrigation system and landscaping services

\$ _____, which sum is hereafter called the Base Bid.

(Bidder to insert Base Bid Amount on line above)

SE-330
LUMP SUM BID FORM

Bidders shall submit bids on only Bid Form SE-330.

§ 6.2 **BID ALTERNATES** as indicated in the Bidding Documents and generally described as follows:

ALTERNATE # 1 (Brief Description): _____

ADD TO or **DEDUCT FROM BASE BID: \$** _____

(Bidder to mark appropriate box to clearly indicate the price adjustment offered for each Alternate)

ALTERNATE # 2 (Brief Description): _____

ADD TO or **DEDUCT FROM BASE BID: \$** _____

(Bidder to mark appropriate box to clearly indicate the price adjustment offered for each Alternate)

ALTERNATE # 3 (Brief Description): _____

ADD TO or **DEDUCT FROM BASE BID: \$** _____

(Bidder to mark appropriate box to clearly indicate the price adjustment offered for each Alternate)

§ 6.3 **UNIT PRICES:**

BIDDER offers for the Agency’s consideration and use, the following **UNIT PRICES**. The **UNIT PRICES** offered by **BIDDER** indicate the amount to be added to or deducted from the **CONTRACT SUM** for each item-unit combination. **UNIT PRICES** include all costs to the Agency, including those for materials, labor, equipment, tools of trades and labor, fees, taxes, insurance, bonding, overhead, profit, etc. The Agency reserves the right to include or not to include any of the following **UNIT PRICES** in the Contract and to negotiate the **UNIT PRICES** with **BIDDER** prior to including in the Contract.

<u>No.</u>	<u>ITEM</u>	<u>UNIT OF MEASURE</u>	<u>ADD</u>	<u>DEDUCT</u>
<u>1.</u>	_____	_____	<u>\$</u> _____	<u>\$</u> _____
<u>2.</u>	_____	_____	<u>\$</u> _____	<u>\$</u> _____
<u>3.</u>	_____	_____	<u>\$</u> _____	<u>\$</u> _____
<u>4.</u>	_____	_____	<u>\$</u> _____	<u>\$</u> _____
<u>5.</u>	_____	_____	<u>\$</u> _____	<u>\$</u> _____
<u>6.</u>	_____	_____	<u>\$</u> _____	<u>\$</u> _____

SE-330
LUMP SUM BID FORM

§ 7. LISTING OF PROPOSED SUBCONTRACTORS PURSUANT TO SECTION 3020(b)(i), CHAPTER 35, TITLE 11 OF THE SOUTH CAROLINA CODE OF LAWS, AS AMENDED
(See Instructions on page BF-2A)

Bidder shall use the below-listed Subcontractors in the performance of the Subcontractor Classification work listed:

(A) LICENSE CLASSIFICATION or SUBCLASSIFICATION ABBREVIATION per SCLLR <i>(Completed by Agency)</i>	(B) NAME of SUBCONTRACTOR and/or PRIME CONTRACTOR <i>(Completed by Bidder)</i>	(C) SUBCONTRACTOR'S and/or PRIME CONTRACTOR'S SC LICENSE NUMBER <i>(Completed by Bidder)</i>
BASE BID		
Electrical (EL)		
Plumbing (PB)		
ALTERNATE #1		
ALTERNATE #2		
ALTERNATE #3		

SE-330 LUMP SUM BID FORM

INSTRUCTIONS FOR SUBCONTRACTOR LISTING

1. Section 7 of the Bid Form sets forth an Agency-developed list of subcontractor license classifications or subclassifications for which Bidder is required to identify the entity (subcontractor(s) and/or prime) Bidder will use to perform this work.
 - a. **Column A:** The Agency enters the appropriate SCLLR abbreviation to identify the subcontractor license classification / subclassification for which the Bidder is required to list either a subcontractor or itself as the entity that will perform the work. Abbreviations of licenses can be found at: <https://lir.sc.gov/clb/PDFFiles/CLBClassificationAbbreviations.pdf>. If the Agency has not identified a subcontractor license classification/subclassification, the Bidder does not list a subcontractor.
 - b. **Columns B and C:** The Bidder identifies the subcontractors, by name and license number, it will use for the work of each license listed by the Agency in Column A. Bidder must identify only the subcontractor(s) who will perform the work and no others. Bidders must make sure that their identification of each subcontractor is clear and unambiguous. A listing that could be any number of different entities may be cause for rejection of the bid as non-responsive. For example, a listing of M&M without additional information may be problematic if there are multiple different licensed contractors in South Carolina whose names start with M&M.
2. **Subcontractor Defined:** For purposes of subcontractor listing, a subcontractor is an entity who will perform work or render service to the prime contractor to or about the construction site pursuant to a contract with the prime contractor. Bidder should not identify sub-subcontractors in the spaces provided on the bid form but only those entities with which Bidder will contract directly. Do not identify material suppliers, manufacturers, and fabricators that will not perform physical work at the site of the project but will only supply materials or equipment to the Bidder or proposed subcontractor(s).
3. **Subcontractor Qualifications:** Bidder must only list subcontractors who possess a South Carolina contractor's license that includes the license classification and/or subclassification identified by the Agency in Column A. The subcontractor license must also be within the appropriate license group for the work (do not list the Group number). If Bidder lists a subcontractor who is not qualified to perform the work, the Bidder will be rejected as non-responsible.
4. **Use of Own forces:** If, under the terms of the Bidding Documents and SC Contractor Licensing laws, Bidder is qualified to perform the work of a listed subcontractor classification or subclassification and Bidder does not intend to subcontract such work but to use Bidder's own employees to perform such work, the Bidder must insert itself in the space provided.
5. **Use of Multiple Subcontractors:**
 - a. If Bidder intends to use multiple subcontractors to perform the work of a single license classification/subclassification, Bidder must insert the name of each subcontractor Bidder will use, preferably separating the name of each by the word **"and"**. If Bidder intends to use both his own employees to perform a part of the work of a single license classification/subclassification and to use one or more subcontractors to perform the remaining work, Bidder must insert itself and each subcontractor, preferably separating them with the word **"and"**. Bidder must use each entity listed for the work of a single license classification/subclassification in the performance of that work.
 - b. **Optional Listing Prohibited:** Bidder may not list multiple subcontractors for a license classification/subclassification in a form that provides the Bidder the option, after bid opening or award, to choose one or more but not all the listed subcontractors to perform the work for which they are listed. A listing, which on its face requires subsequent explanation to determine whether it is an optional listing, is non-responsive. If Bidder intends to use multiple entities to perform the work for a single listing, Bidder must clearly set forth on the bid form such intent. Bidder may accomplish this by simply inserting the word **"and"** between the names of each entity listed. Agency will reject as non-responsive a listing that contains the names of multiple subcontractors separated by a blank space, the word "or", a virgule (that is a /), or any separator that the Agency may reasonably interpret as an optional listing.
6. If Bidder is awarded the contract, Bidder will not be allowed to substitute another entity as subcontractor in place of a subcontractor listed in Section 7 of the Bid except for one or more of the reasons allowed by the SC Code of Laws.
7. Bidder's failure to identify an entity (subcontractor or itself) to perform the work of a subcontractor listed in Column A will render the Bid non-responsive.

SE-330 LUMP SUM BID FORM

§ 8. LIST OF MANUFACTURERS, MATERIAL SUPPLIERS, AND SUBCONTRACTORS OTHER THAN SUBCONTRACTORS LISTED IN SECTION 7 ABOVE (*FOR INFORMATION ONLY*):

Pursuant to instructions in the Invitation for Construction Services, if any, Bidder will provide to Agency upon the Agency's request and within 24 hours of such request, a listing of manufacturers, material suppliers, and subcontractors, other than those listed in Section 7 above, that Bidder intends to use on the project. Bidder acknowledges and agrees that this list is provided for purposes of determining responsibility and not pursuant to the subcontractor listing requirements of SC Code § 11-35-3020(b)(i).

§ 9. TIME OF CONTRACT PERFORMANCE AND LIQUIDATED DAMAGES

a) CONTRACT TIME

Bidder agrees that the Date of Commencement of the Work shall be established in a Notice to Proceed to be issued by the Agency. Bidder agrees to substantially complete the Work within 90 Calendar Days from the Date of Commencement, subject to adjustments as provided in the Contract Documents.

b) LIQUIDATED DAMAGES

Bidder further agrees that from the compensation to be paid, the Agency shall retain as Liquidated Damages the amount of \$ 250.00 for each Calendar Day the actual construction time required to achieve Substantial Completion exceeds the specified or adjusted time for Substantial Completion as provided in the Contract Documents. This amount is intended by the parties as the predetermined measure of compensation for actual damages, not as a penalty for nonperformance.

§ 10. AGREEMENTS

- a) Bidder agrees that this bid is subject to the requirements of the laws of the State of South Carolina.
- b) Bidder agrees that at any time prior to the issuance of the Notice to Proceed for this Project, this Project may be canceled for the convenience of, and without cost to, the State.
- c) Bidder agrees that neither the State of South Carolina nor any of its agencies, employees or agents shall be responsible for any bid preparation costs, or any costs or charges of any type, should all bids be rejected or the Project canceled for any reason prior to the issuance of the Notice to Proceed.

§ 11. ELECTRONIC BID BOND

By signing below, the Principal is affirming that the identified electronic bid bond has been executed and that the Principal and Surety are firmly bound unto the State of South Carolina under the terms and conditions of the AIA Document A310, Bid Bond, referenced in the Bidding Documents.

ELECTRONIC BID BOND NUMBER: _____

SIGNATURE AND TITLE: _____

**SE-330
LUMP SUM BID FORM**

CONTRACTOR'S CLASSIFICATIONS AND SUBCLASSIFICATIONS WITH LIMITATION

SC Contractor's License Number(s): _____

Classification(s) & Limits: _____

Subclassification(s) & Limits: _____

By signing this Bid, the person signing reaffirms all representation and certification made by both the person signing and the Bidder, including without limitation, those appearing in Article 2 of the SCOSE Version of the AIA Document A701, Instructions to Bidders, is expressly incorporated by reference.

BIDDER'S LEGAL NAME: _____

ADDRESS: _____

TELEPHONE: _____

EMAIL: _____

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____

TITLE: _____

SE-355 PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that *(Insert full name or legal title and address of Contractor)*

Name: _____
Address: _____

hereinafter referred to as “Contractor”, and *(Insert full name and address of principal place of business of Surety)*

Name: _____
Address: _____

hereinafter called the “surety”, are jointly and severally held and firmly bound unto *(Insert full name and address of Agency)*

Name: Horry-Georgetown Technical College
Address: 2050 Hwy 501 E
Conway, SC 29526

hereinafter referred to as “Agency”, or its successors or assigns, the sum of _____ (\$ _____), being the sum of the Bond to which payment to be well and truly made, the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____ entered into a contract with Agency to construct

State Project Name: Conway Bldg. 5100 & 5000 Exterior Landscaping

State Project Number: H59-N335-CB

Brief Description of Awarded Work: Installation of new irrigation system and landscaping services

in accordance with Drawings and Specifications prepared by *(Insert full name and address of A/E)*

Name: Trudesign Studio

Address: PO Box 3252

Murrells Inlet, SC 29576

which agreement is by reference made a part hereof, and is hereinafter referred to as the Contract.

IN WITNESS WHEREOF, Surety and Contractor, intending to be legally bound hereby, subject to the terms stated herein, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

DATED this _____ **day of** _____, **2** _____
(shall be no earlier than Date of Contract)

BOND NUMBER _____

CONTRACTOR

By: _____
(Seal)

Print Name: _____

Print Title: _____

Witness: _____

SURETY

By: _____
(Seal)

Print Name: _____

Print Title: _____
(Attach Power of Attorney)

Witness: _____

(Additional Signatures, if any, appear on attached page)

SE-355**PERFORMANCE BOND****NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT:**

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Agency for the full and faithful performance of the contract, which is incorporated herein by reference.
2. If the Contractor performs the contract, the Surety and the Contractor have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.
3. The Surety's obligation under this Bond shall arise after:
 - 3.1 The Agency has notified the Contractor and the Surety at the address described in paragraph 10 below, that the Agency is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If the Agency, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the Agency's right, if any, subsequently to declare a Contractor Default; or
 - 3.2 The Agency has declared a Contractor Default and formally terminated the Contractor's right to complete the Contract.
4. The Surety shall, within 15 days after receipt of notice of the Agency's declaration of a Contractor Default, and at the Surety's sole expense, take one of the following actions:
 - 4.1 Arrange for the Contractor, with consent of the Agency, to perform and complete the Contract; or
 - 4.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Agency for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the Agency and the contractor selected with the Agency's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the Agency the amount of damages as described in paragraph 7 in excess of the Balance of the Contract Sum incurred by the Agency resulting from the Contractor Default; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and:
 - 4.4.1 After investigation, determine the amount for which it may be liable to the Agency and, within 60 days of waiving its rights under this paragraph, tender payment thereof to the Agency; or
 - 4.4.2 Deny liability in whole or in part and notify the Agency, citing the reasons therefore.
5. Provided Surety has proceeded under paragraphs 4.1, 4.2, or 4.3, the Agency shall pay the Balance of the Contract Sum to either:
 - 5.1 Surety in accordance with the terms of the Contract; or
 - 5.2 Another contractor selected pursuant to paragraph 4.3 to perform the Contract.
 - 5.3 The balance of the Contract Sum due either the Surety or another contractor shall be reduced by the amount of damages as described in paragraph 7.
6. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond 15 days after receipt of written notice from the Agency to the Surety demanding that the Surety perform its obligations under this Bond, and the Agency shall be entitled to enforce any remedy available to the Agency.
 - 6.1 If the Surety proceeds as provided in paragraph 4.4 and the Agency refuses the payment tendered or the Surety has denied liability, in whole or in part, then without further notice the Agency shall be entitled to enforce any remedy available to the Agency.
 - 6.2 Any dispute, suit, action or proceeding arising out of or relating to this Bond shall be governed by the Dispute Resolution process defined in the Contract Documents and the laws of the State of South Carolina.
7. After the Agency has terminated the Contractor's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Agency shall be those of the Contractor under the Contract, and the responsibilities of the Agency to the Surety shall those of the Agency under the Contract. To a limit of the amount of this Bond, but subject to commitment by the Agency of the Balance of the Contract Sum to mitigation of costs and damages on the Contract, the Surety is obligated to the Agency without duplication for:
 - 7.1 The responsibilities of the Contractor for correction of defective Work and completion of the Contract; and
 - 7.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and
 - 7.3 Damages awarded pursuant to the Dispute Resolution Provisions of the Contract. Surety may join in any Dispute Resolution proceeding brought under the Contract and shall be bound by the results thereof; and
 - 7.4 Liquidated Damages, or if no Liquidated Damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
8. The Surety shall not be liable to the Agency or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Sum shall not be reduced or set-off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Agency or its heirs, executors, administrators, or successors.
9. The Surety hereby waives notice of any change, including changes of time, to the contract or to related subcontracts, purchase orders and other obligations.
10. Notice to the Surety, the Agency or the Contractor shall be mailed or delivered to the address shown on the signature page.
11. Definitions
 - 11.1 Balance of the Contract Sum: The total amount payable by the Agency to the Contractor under the Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts to be received by the Agency in settlement of insurance or other Claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Contract.
 - 11.2 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform the Contract or otherwise to comply with the terms of the Contract.

SE-357 LABOR & MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that *(Insert full name or legal title and address of Contractor)*

Name: _____
Address: _____

hereinafter referred to as “Contractor”, and *(Insert full name and address of principal place of business of Surety)*

Name: _____
Address: _____

hereinafter called the “surety”, are jointly and severally held and firmly bound unto *(Insert full name and address of Agency)*

Name: Horry-Georgetown Technical College
Address: 2050 Hwy 501 E
Conway, SC 29526

hereinafter referred to as “Agency”, or its successors or assigns, the sum of _____ (\$ _____), being the sum of the Bond to which payment to be well and truly made, the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____ entered into a contract with Agency to construct

State Project Name: Conway Bldg. 5100 & 5000 Exterior Landscaping
State Project Number: H59-N335-CB
Brief Description of Awarded Work: Installation of new irrigation system and landscaping services

in accordance with Drawings and Specifications prepared by *(Insert full name and address of A/E)*

Name: Trudesign Studio
Address: PO Box 3252
Murrells Inlet, SC 29576

which agreement is by reference made a part hereof, and is hereinafter referred to as the Contract.

IN WITNESS WHEREOF, Surety and Contractor, intending to be legally bound hereby, subject to the terms stated herein, do each cause this Labor & Material Payment Bond to be duly executed on its behalf by its authorized officer, agent or representative.

DATED this _____ **day of** _____, **2** _____ **BOND NUMBER** _____
(shall be no earlier than Date of Contract)

CONTRACTOR

By: _____
(Seal)

Print Name: _____

Print Title: _____

Witness: _____

SURETY

By: _____
(Seal)

Print Name: _____

Print Title: _____
(Attach Power of Attorney)

Witness: _____

(Additional Signatures, if any, appear on attached page)

SE-357**LABOR & MATERIAL PAYMENT BOND****NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT:**

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Agency to pay for all labor, materials and equipment required for use in the performance of the Contract, which is incorporated herein by reference.
 2. With respect to the Agency, this obligation shall be null and void if the Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants; and
 - 2.2 Defends, indemnifies and holds harmless the Agency from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract.
 3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
 4. With respect to Claimants, and subject to the provisions of Title 29, Chapter 5 and the provisions of §11-35-3030(2)(c) of the SC Code of Laws, as amended, the Surety's obligation under this Bond shall arise as follows:
 - 4.1 Every person who has furnished labor, material or rental equipment to the Contractor or its subcontractors for the work specified in the Contract, and who has not been paid in full therefore before the expiration of a period of ninety (90) days after the date on which the last of the labor was done or performed by him or material or rental equipment was furnished or supplied by him for which such claim is made, shall have the right to sue on the payment bond for the amount, or the balance thereof, unpaid at the time of institution of such suit and to prosecute such action for the sum or sums justly due him.
 - 4.2 A remote claimant shall have a right of action on the payment bond upon giving written notice by certified or registered mail to the Contractor within ninety (90) days from the date on which such person did or performed the last of the labor or furnished or supplied the last of the material or rental equipment upon which such claim is made.
 - 4.3 Every suit instituted upon a payment bond shall be brought in a court of competent jurisdiction for the county or circuit in which the construction contract was to be performed, but no such suit shall be commenced after the expiration of one year after the day on which the last of the labor was performed or material or rental equipment was supplied by the person bringing suit.
 5. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
 - 5.1 Send an answer to the Claimant, with a copy to the Agency, within sixty (60) days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 5.2 Pay or arrange for payment of any undisputed amounts.
 - 5.3 The Surety's failure to discharge its obligations under this paragraph 5 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a claim. However, if the Surety fails to discharge its obligations under this paragraph 5, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs to recover any sums found to be due and owing to the Claimant.
 6. Amounts owed by the Agency to the Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the Contractor furnishing and the Agency accepting this Bond, they agree that all funds earned by the contractor in the performance of the Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Agency's prior right to use the funds for the completion of the Work.
 7. The Surety shall not be liable to the Agency, Claimants or others for obligations of the Contractor that are unrelated to the Contract. The Agency shall not be liable for payment of any costs or expenses of any claimant under this bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
 8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
 9. Notice to the Surety, the Agency or the Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the Agency or the contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
 10. By the Contractor furnishing and the Agency accepting this Bond, they agree that this Bond has been furnished to comply with the statutory requirements of the South Carolina Code of Laws, as amended, and further, that any provision in this Bond conflicting with said statutory requirements shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
 11. Upon request of any person or entity appearing to be a potential beneficiary of this bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
 12. Any dispute, suit, action or proceeding arising out of or relating to this Bond shall be governed by the laws of the State of South Carolina.
- 13. DEFINITIONS**
- 13.1 Claimant: An individual or entity having a direct contract with the Contractor or with a Subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the Contractor and the Contractor's Subcontractors, and all other items for which a mechanic's lien might otherwise be asserted.
 - 13.2 Remote Claimant: A person having a direct contractual relationship with a subcontractor of the Contractor or subcontractor, but no contractual relationship expressed or implied with the Contractor.
 - 13.3 Contract: The agreement between the Agency and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

SE-380

CHANGE ORDER NO.: _____

CHANGE ORDER TO DESIGN-BID-BUILD CONTRACT

AGENCY: Horry-Georgetown Technical College

PROJECT NAME: Conway Bldg. 5100 & 5000 Exterior Landscaping

PROJECT NUMBER: H59-N335-CB

CONTRACTOR: _____

This Contract is changed as follows: *(Insert description of change in space provided below.)*

ADJUSTMENTS IN THE CONTRACT SUM:

1. Original Contract Sum:		\$
2. Change in Contract Sum by previously approved Change Orders:		
3. Contract Sum prior to this Change Order:		\$ 0.00
4. Amount of this Change Order:		
5. New Contract Sum, including this Change Order:		\$ 0.00

ADJUSTMENTS IN THE CONTRACT TIME:

1. Initial Date for Substantial Completion:		
2. Sum of previously approved increases and decreases in Days:		Days
3. Change in Days for this Change Order:		Days
4. Total Number of Days added to this Contract including this Change Order:	0 Days	
5. New Date for Substantial Completion:		

AGENCY ACCEPTANCE AND CERTIFICATION:

I certify that the Agency has authorized, unencumbered funds available for obligation to this contract.

BY: _____ **Date:** _____
(Signature of Representative)

Print Name of Representative: _____

Change is within Agency Construction Contract Change Order Certification of: \$ _____ Yes No

APPROVED BY: _____ **DATE:** _____
(OSE Project Manager)

SUBMIT THE FOLLOWING TO OSE

1. SE-380, completed and signed by the Agency.
2. SE-380, Page 2, completed and signed by the Contractor, A/E and Agency, with back-up information to support request.

TECHNICAL SPECIFICATIONS

SECTION 328400 – IRRIGATION

PART 1 - GENERAL

1.1 SECTION INCLUDES, BUT NOT LIMITED TO: Provide complete commercial grade irrigation system for the site and building planters, designed, installed, tested and approved, including but not necessarily limited to:

- A. Standard, head to head, matched precipitation, full coverage sprinkler system.
- B. Automatic controllers and remote control valves.
- C. Wells, pumps, water meters, backflow prevention and controls for each respectively.
- D. Connection to approved electrical source.
- E. Subsurface drip irrigation is to be buried 3” to 4” below surface and installed in a grid pattern within planted areas.

1.2 RELATED WORK

- A. 329200 : Turfs and Grasses
- B. 329300 : Plants

1.3 QUALITY ASSURANCE

- A. Work shall be performed by a single firm specializing and experienced (minimum 5 years) in irrigation design and installation.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.
- C. System shall comply with the requirements of authority (ies) have jurisdiction. Contractor shall be responsible for obtaining, paying for, and documenting to the Architect, all required approvals.

1.4. SUBMITTALS

- A. Product Data: Upon acceptance by Architect of system design, submit the following:

1. Materials list of items proposed to be provided under this section.
 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 3. Manufacturer's recommended installation procedures which, when accepted by the Owner, will become the basis for accepting or rejecting actual installation procedures used on the work.
- B. Submit typewritten operations and maintenance instructions for completed system.
- C. Upon completion of the work, furnish the Architect three (3) copies of Inspection Certificate from authority (ies) having jurisdiction, as required.
- D. Submit complete Record Drawings for all aspects of the system.
- 1.5 WARRANTY: Warranty complete irrigation system for one full year from the date of Final Acceptance.

PART 2 - PRODUCTS

2.1 PIPE

- A. Galvanized steel pipe:
1. Comply with ASTM A120 or ASTM A53, galvanized schedule 40, threaded, coupled and hot-dipped galvanized.
 2. Fittings; use 150 lb. rated galvanized malleable iron.
 3. Steel sleeving to be schedule 40 black steel or ductile iron under areas of street traffic.
- B. Plastic Pipe:
1. Use Poly Chloride (PVC) of following ratings: SDR 26, Class 160, 1120 and 1220-SDR 21, Class 200, 1120 and 1220 - schedule 40, all clearly marked by manufacturer the entire length of pipe.
 2. Fittings: Use Schedule-40 PVC bearing the seal of the manufacturer and complying with ASTM D2466.

3. For solvent weld type pipe use a cleaner, primer, and cement complying with ASTM D2466 and pressure tested for leaks prior to final approval.
4. Plastic pipe identification: manufacturer's name pipe, size, and material type material shall be permanently marked full length of pipe.

2.2 VALVES

A. Gate Valves:

1. Valves should provide 200 PSI rating, with female IPS threads, and sized to the attached pipe size.
2. Acceptable manufacturers Hammond, Matco, Conbraco, or approved equal.

B. Quick couple valves:

1. Brass, one-piece construction, with hinged debris cover and double lug insert connection.
2. Provide Owner with quick couple keys and hose adapters as needed.

2.3 SPRINKLER HEADS

- A. Provide the specified sprinkler heads per approved design.
- B. Any substitutions of sprinklers or change in the design of the system must be submitted ten (10) days prior to acceptance of the bid.
- C. Sprinklers must meet manufacturers specifications for spacing and matched precipitation rates.

2.4 DRIP EMITTER HEADS

- A. Sub surface drip irrigation as manufactured by Netafim Corp. and as designed with one pressure compensation emitter on 12" centers and each emitter to discharge .9 gallons per hour.

2.5 BACKFLOW PREVENTION

- A. Backflow device shall be approved by state and local authority(ies) having jurisdiction, and installed per their requirements, as well as per manufacturer's recommendations.
- B. Contractor shall be responsible for determining the required device(s) and for providing a fully compliant, approved installation.

2.6 AUTOMATIC IRRIGATION CONTROLLER

- A. Provide controller(s) per approved design and in compliance with the manufacturer's requirements.
- B. Controller(s) shall be supplied with 110/120 volt AC current and shall have transformer to convert to 24/26 volt AC output.
- C. Controllers installed in exterior conditions shall be in weather resistant boxes and shall have internal transformers.
- D. Substitution of specified control system must be submitted ten (10) days prior to acceptance of bid.
- E. If specified remote control valves may be of battery power type and programmed independent of each other as manufactured by DIG.

2.7 ELECTRIC CONTROL VALVES

- A. Provide valves per approved design and in compliance with the manufacturer's requirements.
- B. Valves to be solenoid type and rated for 24/26 volts as current (unless design specifies battery operated valves). Valves should be sized to have a maximum of 5-PSI loss through the valve, and not necessarily sized to the size of the pipe.
- C. Substitution of valves other than specified must be submitted ten (10) days prior to acceptance of bid.

2.8 BATTERY POWERED CONTROL VALVES (for drip emitter heads)

- A. Provide valves per approved design and in compliance with the manufacturer's requirements.
- B. Battery Powered Control Valves: battery powered, programmable, as manufactured by DIG Corporation, or approved equal.

2.9 VALVE BOXES

- A. All electric valves shall be installed in approved boxes marked irrigation, and sized to provide easy access to solenoid and flow control device.
- B. Boxes to be installed at finish grade and have a snap or other method of securing lid.
- C. Acceptable manufacturers include: Ametek, Carson-Brooks, NDS, or approved equal.

2.10 OTHER MATERIALS

- A. Electrical material shall include:
 - 1. Connection from controller shall be solid strand copper wire with UF, UL, 600 volt rating.
 - 2. Splices shall be made with 3M DBY or other approved splicers.
 - 3. Earth grounding shall be made with 5/8" copper clad rod and connected to earth ground contact of controller.
- B. Provide other materials not specifically described, that are required for a complete, proper and approved installation, as selected by the Contractor, and subject to the approval of the Architect.

PART 3 - EXECUTION

3.1 SITE CONDITIONS

- A. Prior to installation, the site shall be inspected to determine that it is ready for installation of irrigation system.
- B. Any necessary corrections to site shall be performed prior to starting work. Do not start project until unsatisfactory conditions are corrected.
- C. Determine location of underground utilities and perform work in a manner, which shall avoid damage. Utilities not necessarily shown on drawings. Hand excavate adjacent to utility lines. If conflicts between utilities and irrigation system are encountered, notify Architect for direction before installation.

3.2 FIELD MEASUREMENTS

- A. Follow approved design accurately when field staking system.
- B. Actual locations of heads, valves and pipes may vary slightly due to site conditions.
- C. Obtain approval by Owner of stakeout prior to beginning installation.

3.3 TRENCHING AND BACKFILLING

- A. Trenches shall be to depth noted on the approved design, and shall be free of any debris, roots, or other obstructions. Bottoms of trenches shall be level.

- B. Trenches shall be backfilled at the end of each working day.
- C. Backfilling of trenches should be in accordance with earthwork specifications.

3.4 INSTALLATION OF PIPING

- A. Install piping in accordance with the approved design. Field adjustments shall be made only when absolutely necessary to accommodate the site. Sizing of pipe should remain as designed to insure proper flow and pressure loss.
- B. Carefully inspect pipe and fittings before installation to remove all dirt, burrs, and damaged material.
- C. Install PVC pipe so that manufacturer's marking can be inspected.
- D. Make all joints in plastic pipe using solvents as specified.
- E. Snake pipe in bottom of trench from side to side to allow for expansion and contraction.
- F. For metal to plastic connections, use female PVC fittings and use a non-petroleum based pipe dope. (Teflon dope or approved equal.)

3.5 INSTALLATION OF EQUIPMENT

- A. Install control valves in accordance with manufacturer recommendations, and as provided by the approved design. Excavation below each valve shall be 12" below bottom of valve, back-filled with gravel to bottom of valve location prior to installing valve.
- B. Install quick couplers flush with finish grade and minimum of 12" from paved areas and other irrigation components. Excavation below each valve shall be 12" below bottom of valve, back-filled with gravel to bottom of valve location prior to installing valve.
- C. Install sprinkler heads in accordance with manufacturer recommendations and as provided by the approved design.
- D. Install drip emitters in accordance with manufacturer recommendations and as provided by the approved tubing to be staked at intervals of 3' in trench to insure proper depth before backfilling.
- E. Water source connection(s) and Backflow preventer shall be installed, inspected and approved as required by state and local authority(ies) having jurisdiction.

- F. Control wiring shall be installed in the trench with piping and to the side of pipe, not beneath pipe. Provide adequate slack in wire to prevent stretching or stress to connections. Splice with approved 3M DBY splice kits or approved equal.
- G. Keep pavements clean and work areas in orderly condition. Periodically (minimum once per week) remove from site all debris and excess material.

3.6 TESTING AND INSPECTION

- A. Allow for the inspection of piping, wiring, and connections, by the authority(ies) having jurisdiction, and by the Owner, prior to covering trenches.
- B. All main lines and laterals shall be completely flushed prior to the installation of sprinklers.
- C. Provide personnel and necessary equipment for inspection and testing of system. Assure complete and satisfactory operation of the system.
- D. Final Acceptance: Final inspection shall consist of operational walk through with Owner to insure system is adjusted properly and is installed and working in accordance with the approved design. Contractor shall assure that the Owner understands the operation and maintenance of the complete system.

3.7 RECORD DRAWINGS

- A. Following approval of the system, Contractor shall submit a complete Record Drawing of the entire system. Record Drawing shall be prepared by field survey, which shall be certified by a licensed land surveyor. All costs associated with the preparation and certification of the Record Drawings shall be borne entirely by the Contractor.

END OF SECTION – 328400

SECTION 329200 – TURF AND GRASSES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Seeding.
2. Sodding.

1.2 DEFINITIONS

- A. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.
- B. Finish Grade: Elevation of finished surface of planting soil.
- C. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- D. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- E. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- F. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- G. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- H. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

- I. Surface Soil: Whatever soil is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas such as urban environments, the surface soil can be subsoil.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certification of grass seed.
 1. Certification of each seed mixture for turfgrass sod.
- C. Product certificates.

1.4 QUALITY ASSURANCE

- A. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
 1. Pesticide Applicator: State licensed, commercial.
- B. Soil Analysis: For each unamended soil type, furnish soil analysis and a written report by a qualified soil-testing laboratory.
 1. The soil-testing laboratory shall oversee soil sampling.
 2. Report suitability of tested soil for turf growth.
 - a. State recommendations for nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory planting soil suitable for healthy, viable plants.
 - b. Report presence of problem salts, minerals, or heavy metals; if present, provide additional recommendations for corrective action.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.
- B. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver sod in time for planting within 24 hours of harvesting. Protect sod from breakage and drying.

1.6 MAINTENANCE SERVICE

- A. Initial Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable turf is established but for not less than the following periods:

- 1. Sodded Turf: 30 days from date of planting completion.

PART 2 - PRODUCTS

2.1 TURF GRASS SOD

- A. Turfgrass Sod: Certified and Approved sod including limitations on thatch, weeds, diseases, nematodes, and insects], complying with "Specifications for Turfgrass Sod Materials" in TPI's "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture, strongly rooted, and capable of vigorous growth and development when planted.
- B. Turfgrass Species: Sod of grass species as follows:
 - 1. Bermuda 419
- C. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as needed.
- D. Sulfur: Granular, biodegradable, containing a minimum of 90 percent sulfur, and with a minimum of 99 percent passing through.
- E. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
- F. Aluminum Sulfate: Commercial grade, unadulterated.
- G. Perlite: Horticultural perlite, soil amendment grade.
- H. Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through.
- I. Sand: Clean, washed, natural or manufactured, and free of toxic materials.
- J. Diatomaceous Earth: Calcined, 90 percent silica, with approximately 140 percent water absorption capacity by weight.

- K. Zeolites: Mineral clinoptilolite with at least 60 percent water absorption by weight.

2.2 ORGANIC SOIL AMENDMENTS

- A. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1 inch sieve; soluble salt content of 8 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings.
- B. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or of granular texture, with a pH range of 3.4 to 4.8.
- C. Muck Peat: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture, with a pH range of 6 to 7.5, and having a water-absorbing capacity of 1100 to 2000 percent.
- D. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.
- E. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth.

2.3 FERTILIZERS

- A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 4 percent nitrogen and 20 percent phosphoric acid.
- B. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
- C. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - 1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
- D. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 - 1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.

2.4 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Sphagnum Peat Mulch: Partially decomposed sphagnum peat moss, finely divided or of granular texture, and with a pH range of 3.4 to 4.8.
- C. Muck Peat Mulch: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture, with a pH range of 6 to 7.5, and having a water-absorbing capacity of 1100 to 2000 percent.
- D. Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1 inch sieve; soluble salt content of 3 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings.

2.5 PESTICIDES

- A. General: Pesticide, registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

PART 3 - EXECUTION

3.1 TURF AREA PREPARATION

- A. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 6 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Apply fertilizer directly to subgrade before loosening.
 - 2. Thoroughly blend planting soil off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil.
 - 3. Spread planting soil to a depth of 6 inches but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
 - a. Reduce elevation of planting soil to allow for soil thickness of sod.
- B. Unchanged Subgrades: If turf is to be planted in areas unaltered or undisturbed by excavating, grading, or surface-soil stripping operations, prepare surface soil as follows:

1. Remove existing grass, vegetation, and turf. Do not mix into surface soil.
 2. Loosen surface soil to a depth of at least 6 inches. Apply soil amendments and fertilizers according to planting soil mix proportions and mix thoroughly into top 6 inches of soil. Till soil to a homogeneous mixture of fine texture.
 - a. Apply fertilizer directly to surface soil before loosening.
 3. Remove stones larger than 1 inch in any dimension and sticks, roots, trash, and other extraneous matter.
 4. Legally dispose of waste material, including grass, vegetation, and turf, off Owner's property.
- C. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus .5 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future.
- D. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- E. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.2 SODDING

- A. Lay sod within 24 hours of harvesting. Do not lay sod if dormant or if ground is frozen or muddy.
- B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to subgrade or sod during installation. Tamp and roll lightly to ensure contact with subgrade, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
 1. Lay sod across angle of slopes exceeding 1:3.
 2. Anchor sod on slopes exceeding 1:6 with steel staples spaced as recommended by sod manufacturer but not less than 2 anchors per sod strip to prevent slippage.
- C. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1.5 inches below sod.

3.3 TURF MAINTENANCE

- A. Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant

bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.

- B. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain height appropriate for species without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings.
- C. Apply pesticides and other chemical products and biological control agents in accordance with authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

3.4 SATISFACTORY TURF

- A. Turf installations shall meet the following criteria as determined by Architect:
 - 1. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
- B. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.

END OF SECTION 329200

SECTION 329300 - PLANTS

PART 1 GENERAL

1.1 SECTION INCLUDES, BUT NOT LIMITED TO: Plant materials, mulch, and planting accessories.

1.2 RELATED WORK SPECIFIED ELSEWHERE:

A. Section 329400: Irrigation

B. Section 329200: Turfs and Grasses

1.3 QUALITY ASSURANCE

A. Installer's Qualifications: Planting shall be performed by a single firm specializing and experienced (minimum five years) in landscape work.

B. Codes and Standards: Comply with applicable provisions of the following, except as otherwise indicated or specified:

ANSI Z60.1 "American Standard for Nursery Stock."
Standards of the American Association of Nurserymen.
Federal, State and local regulations.

C. Plant names indicated comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticulture Nomenclature. Names of varieties not listed in that publication conform generally with names accepted by the nursery trade.

D. Inspection: Architect may inspect plant materials at place of growth and again on site. Architect reserves the right to tag some or all trees at place of growth; coordinate with Architect to allow sufficient opportunity for Architect to tag material.

E. Topsoil Analysis: Provide and pay for the services of an approved testing agency to perform an analysis of topsoil to be used. Analysis shall include a comprehensive description of topsoil, and a listing of types and quantities of soil amendments required for the successful establishment, growth and health of plant materials.

1.4 SUBMITTALS

- A. Certification: Submit certification of inspection as required by government authorities. Submit manufacturer's or vendor's certified analysis for soil amendments and fertilizer materials, in accordance with methods established by the Association of Official Agricultural Chemists. Submit other data substantiating that materials comply with specified requirements, including certification that plant material species as delivered to the site comply with those specified.
- B. Topsoil Analysis: Submit complete results of analysis.
- C. Planting Schedule: Submit proposed planting schedule, indicating dates for completion of landscape work. Once accepted, revise schedule only as approved in writing by the Architect, after documentation of reasons for delays.
- D. Maintenance Instructions: Prior to expiration of Contractor's maintenance period, submit typewritten instructions recommending procedures to be followed by Owner for maintenance of landscape work for the year following expiration of Contractor's maintenance period.

1.5 DELIVERY, STORAGE AND HANDLING:

- A. Packaged Materials: Delivery packaged materials in original un-opened containers showing weight, name of manufacturer or vendor, and certified analysis. Store in manner to prevent wetting and deterioration.
- B. Trees and Shrubs:
 - 1. Provide freshly dug trees and shrubs. Take all precautions customary in good trade practice in preparing plants for moving. Ship with certificates of inspection required by governing authorities. Do not prune prior to delivery. Do not bend or bind-tie trees or shrubs in such a manner as to damage bark, break branches, or destroy natural shape of plant. Provide protective covering during transport. Do not drop stock.
 - 2. Label each tree and at least one shrub of each variety with securely attached waterproof tags bearing legible designation of botanical name.
 - 3. Deliver trees and shrubs after preparations for planting have been completed. If planting is delayed more than 4 hours after delivery, set trees and shrubs in shade, protect from weather and damage, and keep roots moist by covering with mulch or other material acceptable for retaining moisture. Do not remove container-grown stock from containers until time of planting.

1.6 JOB CONDITIONS:

- A. Utilities: Locate and avoid damage to all underground utilities. Utilities not necessarily shown on Drawings. Hand excavate adjacent to utility lines. If conflicts between utilities and plantings are encountered, notify Architect for direction before planting.
- B. Excavation: When conditions detrimental to plant growth are encountered, such as rubble, adverse drainage conditions, or obstructions, notify Architect for direction before planting.
- C. A complete list of plants, including schedule of sizes, quantities, and other requirements is shown on the Drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the Planting Plans shall govern. Payment shall be based on actual Planting Plan count.

1.7 PLANT GUARANTEE AND REPLACEMENT: Warrant all plant material, for a period of one year after date of Final Completion, against death and /or unsatisfactory growth.

- A. During the warranty period, plants found to be dead shall be immediately removed from site.
- B. Plants found to be dead, or in an unhealthy condition doubtful for survival, at the end of the warranty period, shall be removed from the site.
- C. Make replacements during the first normal planting season following end of guarantee period. After all replacements have been made, Architect will re-inspect planting for acceptance.

PART 2 - PRODUCTS

2.1 TOPSOIL

- A. No topsoil is available from this site. Contractor shall determine the quantity of topsoil needed for this work, and shall provide new topsoil from off-site, local sources, which are naturally well-drained sites where topsoil occurs to a depth of not less than 6". Do not obtain topsoils from bogs or marshes.
- B. Topsoil from off-site sources: Natural, fertile, friable, granular, surface soil, characteristic of productive soils in vicinity, uniform in composition and texture, clean and free from subsoil, clay lumps, brush, weeds, stumps, roots, toxic substances, stones and other debris 1 ½" or more in greatest dimension.

2.2 LIGHTWEIGHT INDOOR PLANTER MIX:

- A. Provide a Planter mix using the four components listed below that will meet the ASTM standards as follows:

Perma Till 5/16" Expanded Slate	55%*
Coarse Sand	30%
Pine Bark Humus	05%
Compost	10%

*Increase or decrease volume to meet weight requirement

2.3 SOIL AMENDMENTS:

- A. Lime: Natural dolomitic limestone containing not less than 85% of total carbonates with a minimum of 30% magnesium carbonates, ground so that not less than 90% passes a 10-mesh sieve and not less than 50% passes a 100-mesh sieve; to be used to pH balance soil, as required.
- B. Aluminum Sulfate: Commercial grade, in dry powder form, to be used to pH balance soil as required, and/or to acidify soil for "acid loving" plants.
- C. Peat Humus: FS Q-P-166 decomposed peat with no identifiable fibers and with pH range suitable for intended use, free of weeds and seeds.
- D. Bonemeal: Commercial, raw, finely ground; 4% nitrogen and 20% phosphoric acid.
- E. Superphosphate: Soluble mixture of treated minerals, 20% available phosphoric acid.
- F. Sand: Clean, washed sand, free of toxic materials.
- G. Vermiculite: Horticultural grade, free of toxic substances.

2.4 PLANTER AND ROOT ZONE COMPONENTS:

- A. Root Zone Sand

1. Grain Size Distribution (ASTM C136-95A)

Sieve Size	% Passing
3/8"	100
#4	95-100
#8	85-97
#16	60-80

#30	10-20
#50	5-15
#100	0-5

B. 3/8" - #8 Perma Till Rotary Kiln Expanded Slate (5/16")

1. Only non-hazardous fuels such as coal or natural gas may be used to process the slate.
2. ASTM C29 Unit Dry Weight loose (48 lb./cf to 55 lb./cf)
3. ASTM C127 Specific Gravity: 1.45 to 1.60, SSD
4. ASTM C330: ASTM Gradation 3/8" - #8 size

3/8" - #8 (5/16")

Sieve Size	% Passing
1/2"	100
3/8"	80-100
#4	5-40
#8	0-20
#16	0-10

5. Absorption (ASTM C127) No more than 12%.
6. The expanded slate must contain **no** clay lumps or any organic impurities.

C. Compost

1. Compost must be derived from poultry or cow manure as the nitrogen source and pine bark as the carbon source. Addition of yard waste to the composting process is not acceptable.
2. The compost must have a minimum thermophilic bioreduction time of four (4) months with aeration management based on temperature monitoring. The compost must be under cover during a minimum curing time of four (4) weeks.
3. Thermophilic temperatures must be sustained at or above 150 degrees Fahrenheit for eight (8) weeks for weed seed and pathogen sterilization.
4. Finished compost must be screened to minus 1/2", protected from and free from any outside contaminants during and after screening and curing.
5. The finished compost must fall below the following limits:

Ammonium (NH ₄ -N)	0 PPM
Magnesium (Mg)	70 PPM
Iron (Fe)	3.8 PPM
Manganese (Mn)	1.0 PPM
Copper (Cu)	.10 PPM
Zinc (Zn)	.15 PPM
Soluble salts	5.50 mmho/cm

PH must fall between 6.0 and 7.0

D. Pine Bark Humus

1. Must be aged and fully decomposed pine bark humus screened to minus ½”.
2. The screened bark humus must fall below the following limits:

Ammonium (NH ₄ -N)	20 PPM
Magnesium (Mg)	5.0 PPM
Iron (Fe)	8.0 PPM
Manganese (Mn)	1.0 PPM
Copper (Cu)	.10 PPM
Zinc (Zn)	.15 PPM
Soluble salts	0.50 mmho/cm
PH must fall between	4.0 and 7.0

E. Foam Filler for planter beds: Expanded polystyrene bead board in chunks approximately 1” square.

2.5 COMMERCIAL FERTILIZER Complete fertilizer, partially organic, neutral, uniform in composition, dry and free flowing. Fertilizer shall contain not less than 10% total nitrogen (of which 50 percent shall be organic), 10% available phosphoric acid, and 10% soluble potash, unless otherwise recommended by soil test.

2.6 PLANTING MULCH: For planting beds and individual plantings: Organic mulch free from deleterious materials and suitable for top dressing of trees, shrubs, ground covers and other plants. Provide aged, shredded cypress or cedar. Use same mulch type throughout entire project.

2.7 PLANT MATERIALS:

A. Quality: Provide trees, shrubs, ground cover plants, and other plants of quantity, genus, species and variety shown or scheduled for landscape work, and complying with recommendations and requirements of ANSI Z60.1. Provide healthy, vigorous

stock, grown in recognized nurseries under climatic conditions similar to those in locality of project, in accordance with good horticultural practice. Plants shall be free of disease, insects, eggs, larvae and defects such as knots, sun-scald, injuries, abrasions, or disfigurements.

- B. Size: Stock furnished shall be at least the minimum size indicated. Larger stock is acceptable at no additional cost, and providing that the larger plants are not cut back to size indicated, and providing root balls meet standards specified for the larger material provided.
- C. Uniformity: Where formal arrangements of trees are shown, select stock for uniform height, spread, and growth habit to assure symmetry in planting.
- D. 'Specimen' Plants: Provide where noted, with a special height, shape or character of growth.
- E. Substitutions: If specified landscape material is not obtainable, submit proof of non-availability, together with proposal for use of material with similar characteristics. Architect reserves the right to make the final determination as to what plants do and do not meet the "similar characteristics" requirement.
- F. Tree and Shrub Root Condition: Provide plants balled and burlapped (B & B), or at Contractor's option, provide container grown stock subject to specified limitations of ANSI Z60.1 for container grown stock, and upon the condition that plants have been cultivated in containers for a minimum of one year. Bare root plants are not acceptable.
- G. Deciduous Trees: Form and branching configuration shall be as recommended by ANSI Z60.1 for species and/or variety specified. Provide single stem trees, except where special forms are shown or listed.

Deciduous Shrubs: Provide shrubs with not less than minimum number of canes required by ANSI Z60.1 for type and height of shrub listed.
- H. Coniferous and Broadleafed Evergreens: Provide evergreens with well-balanced form complying with requirements of ANSI Z60.1 for type and height of plant listed. Dimensions indicate minimum spread for spreading and semi-spreading type evergreens, and height for other types.
- I. Ground Cover: Provide plants established and well-rooted in removable containers or peat pots (PP), and with not less than minimum number and length of runners required by ANSI Z60.1 for pot size listed.
- J. Ornamental Grasses: Provide plants established and well rooted in removable containers.

2.8 MISCELLANEOUS LANDSCAPE MATERIALS

- A. Anti-Desiccant: Emulsion type, film-forming agent, designed to permit transpiration but retard excessive loss of moisture from plants. Mix and apply in accordance with manufacturer's instructions.
- B. Stakes and Guys: Provide nominal 2" x 2" stakes of sound new hardwood, pressure treated softwood, or cypress, free of knot holes and other defects. At Contractor's alternative option, provide galvanized 16-gauge steel posts, painted dark brown or black. Provide wire ties and guys of 2-strand, twisted, pliable, galvanized iron wire not lighter than 12 ga., with zinc-coated turnbuckles. Provide not less than ½" diameter rubber or plastic hose, cut to required lengths and of uniform black color to protect tree trunks from damage by wires.

PART 3 – EXECUTION

3.1 PREPARATION:

- A. Proceed with and complete landscape work as rapidly as portions of site become available. Install materials during normal planting seasons. Planting operations shall not occur when soil is frozen, or saturated, or when temperature extremes or wind conditions make survival of plant material unlikely. Provide continuous maintenance from date of initial planting through end of Contractor's maintenance period(s).
- B. Stake locations of trees and individual shrubs, and outline multiple shrub areas, ground cover beds, and flower beds. Secure acceptance of Owner before starting installation. Make adjustments as required.
- C. Preparation of Planting Soil.
 - 1. Before mixing, clean topsoil of roots, plants, sod, stones, clay lumps, and any extraneous materials harmful or toxic to plant growth.
 - 2. Amend topsoil as required by topsoil analysis, for the specific plants to be planted.
 - 3. Mix amended topsoil with peat humus at rate of five parts topsoil and one part humus, as measured by volume, for all plantings except ground cover and flowerbeds. Ratio for ground cover and flowerbed planting soil shall be three parts topsoil to one part humus, measured by volume.
 - 4. Fertilizer: Mix in fertilizer at rate of one-half pound per cubic yard of planting soil, unless otherwise recommended by the topsoil analysis. Delay mixing of fertilizer, if planting will not follow mixing of planting soil within three days.

5. Soil Acidifier: In addition to requirements of the topsoils analysis, mix aluminum sulfate in planting soil to be used for all plants who's optimum pH growth is less than 6.8. Delay mixing of aluminum sulfate, if planting will not follow mixing of plant soil within three days.
6. Mix planting soil prior to backfilling, and stockpile at site.

D. Mixing and Placing Roof Top Planter Mix:

1. Mechanically mix the materials to provide a uniform distribution of the components. Mixing shall occur off-site.
2. Inadequate Moisture Content: Do not work planting medium when moisture content is low that dust will form in the air. Apply water, if necessary, to bring planting medium to an optimum moisture content for compacting and planting.
3. Do not work planting medium when the moisture content is high enough that excessive compaction will occur. Aerate planting medium until moisture content is uniformly reduced as necessary to achieve optimum compaction.
4. Final Mixing with Stalite Perma Till Expanded Slate
 - a. Saturate the Perma Till Expanded Slate with water and mechanically mix with the soil blend until the slate particles are completely coated.
 - b. To avoid soil separation, do not transport the roof top planter mix by truck more than 100 miles from the construction job site.
 - c. When stockpiling the finished mix, cover the pile with a plastic tarp to prevent drying out or soil separation from rain.
5. Place planter mix over drainage ballast as detailed.

E. Preparation of Ground Cover, Ornamental Grasses, and Flower Beds:

1. Dig beds to not less than depth noted and/or detailed. Dispose of excavated material off-site.
2. Scarify subgrade of bed areas to minimum depth of 4" using a cultimulcher or similar equipment. Remove sticks, roots, rubbish, other extraneous matter, and stones over 1-1/2" in any dimension.
3. Spread planting soil mixture to depth noted and/or detailed; lightly tamp or roll; match adjacent grades.

F. Excavation for Plant Pits and Trenches:

1. Excavate with vertical sides and with bottom slightly raised at center to provide proper drainage. Scarify subsoil in bottom of excavation to a minimum depth of 4".
2. For both balled and burlapped (B & B) and container grown stock, make excavations at least half again as wide as ball or container diameter. Depth to be equal to ball or container depth, plus allowance for compacted planting soil under ball or container, and allowing for settlement.
3. Dispose of excavated material off-site. Do not mix with planting soil or use as back fill.
4. Fill excavations with water and allow to percolate out before beginning planting.

3.2 INSTALLATION

A. Planting Trees and Shrubs:

1. Set plants upright, plumb and faced to give the best appearance or relationship to each other and adjacent structure.
2. Set balled and burlapped (B & B) stock on layer of compacted planting soil mixture as detailed, in center of pit or trench with top of ball at same elevation to slightly above adjacent finished grades. Remove burlap and ropes from collar of balls; retain on sides and bottoms. Remove all wire from around ball. If ball is wrapped in material other than burlap, completely remove material from around and under ball. When set, place planting soil backfill (roof top planter mix for above grade plantings) around base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3-full, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing final layer of backfill.
3. Set container grown stock as specified for balled and burlapped stock, except cut containers on two sides; remove container and set plant so as not to damage root balls. Where plant shows signs of being rootbound, cleanly cut roots.
4. Dish top of backfill to allow for mulching. Provide saucer mound around plant pit to retain water.
5. Prune, thin out and shape plants in accordance with standard horticultural prac-

tice. Prune, but retain required height and spread. Unless otherwise directed by Owner, do not cut tree leaders; remove injured and dead branches. Prune shrubs to retain natural character. Remove and replace excessively or improperly pruned stock.

6. Apply anti-desiccant using power spray to provide an adequate film over trunks, branches, stems, twigs and foliage. If deciduous trees or shrubs are moved in full-leaf, spray with anti-desiccant at nursery before moving and again two weeks after planting.
7. Guy and stake trees immediately after planting. Trees up to 2" caliper shall have two (2) stakes. Trees over 2" caliper shall have three (3) stakes. Multi-stem trees, and coniferous evergreen trees, with heights up to 6' shall have two (2) stakes; multi-stem trees and coniferous evergreen trees over 6' in height shall have three (3) stakes.
8. Mulch immediately after planting. Provide minimum, uniform 4" thickness for individual pits and planting beds. Areas of mass plantings shall be mulched entirely within limits of bed.
9. Plant labels to remain on plants until end of warranty period, at which time they shall be removed.

B. Planting Ground Covers, Ornamental Grasses, and Flowers:

1. Space plants as scheduled, or detailed.
2. Remove plants from containers. Dig holes large enough to allow for spreading roots. Backfill with planting soil (roof top planter mix for above grade plantings). Work soil around roots to eliminate air pockets. Water thoroughly after planting, taking care not to cover crowns with wet soil.
3. Immediately mulch entire ground cover beds and ornamental grass. Minimum thickness of mulch to be 3".

C. Flower Beds: Flower plants only are by others. Contractor shall mulch flower beds with 3" thickness of mulch immediately.

3.3 CLEANUP AND PROTECTION:

- A. During landscape work, keep pavements clean and work area in an orderly condition. Periodically (maximum weekly) remove from site all excess materials, soil, debris, and equipment.

- B. Damage caused to trees, lawns, buildings, street, curbs, walks and other items shall be corrected by whatever means necessary to satisfy the requirements of the Architect, and/or the state, city or county, whichever may have jurisdiction, at no additional cost.
- C. Protect landscape work and materials from damage due to operations by other contractors, trades, and trespassers. Maintain protection during installation and Contractor's maintenance period(s). Treat, repair or replace damaged landscape work as directed by the Architect.

3.4 CONTRACTORS' MAINTENANCE

- A. Begin maintenance immediately after planting.
- B. Maintain trees, shrubs and other plant material continuously, for up to not less than 60 days after Substantial Completion.
- C. Maintain trees, shrubs and other plants by pruning, cultivating, refertilizing, weeding, watering, and treatment for insect (and other pest) infestation, as required for healthy growth. Tighten and repair stake and guy supports, and reset trees and shrubs to proper grades and vertical positions. Restore planting saucers and mulch. Reset trees and shrubs to proper grades and vertical position. Spray as required to keep plants free of insects and disease.

3.5 INSPECTIONS

- A. The Architect will make the following inspections of completed work upon written request by Contractor:
 - 1. Substantial Completion Inspection(s): When all planting and related work is completed. Warranty period shall begin upon acceptance of work by Landscape Architect.
 - 2. Final Completion Inspection(s): When minimum maintenance period has been completed. Acceptance of work by Owner ends Contractor's maintenance period.
 - 3. Warranty Inspection: At end of warranty period(s).
- B. Landscape work may be inspected for acceptance in sections (up to a maximum of two) agreeable to Owner, provided all required work in that section is complete.
- C. Where inspected work is not acceptable, replace or remedy rejected work. Remove rejected plants and materials promptly from site. Continue all requirements of contract until re-inspected and accepted by the Architect. The cost of remedial work, continued maintenance, and additional inspections, required by unacceptable work, shall be borne entirely by Contractor.

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Horry Georgetown Technical College

H59-N335-CB

END OF SECTION – 329300