TOWN *of*
WAKE FOREST

REQUEST FOR BIDS

Burlington Mills Road Landscape Restoration

Bid # 10569

Sealed *Bids* **to be received until**
Thursday, December 17, 2015 at 3:00PM

Pre-Bid Conference
Thursday, December 3, 2015 at 1:30PM

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NOTICE TO BIDDERS

Sealed *bids* will be received by the Town of Wake Forest, North Carolina, 301 S. Brooks Street, Engineering Department (3rd Floor), Wake Forest, NC 27587-2901 until ***Thursday, December 17, 2015 at 3PM*** for the following:

Bid # 10569

Burlington Mills Road Landscape Restoration

Immediately following the bid receipt deadline, all bids will be publically opened and read in the Ground Floor Meeting Room A-B at Town Hall, 301 S. Brooks Street, Wake Forest, NC 27587-2901.

A pre-bid conference will be held on ***Thursday, December 3, 2015 at 1:30PM*** at Town Hall, 301 S. Brooks Street, Wake Forest, NC 27587 in the Ground Floor Meeting Room A-B. All prospective bidders are required to attend.

Hard copies of the bid documents may be obtained by contacting Dodge Data & Analytics at www.construction.com or 800.393.6343. Choose "order hardcopy plans" and enter the requested information. Bid documents may also be viewed at the Town of Wake Forest Engineering Department, 301 S. Brooks Street, 3rd Floor, Wake Forest, NC 27587 (Monday through Friday from 8:00AM. until 3:00PM). An electronic version of the bid documents will be available for viewing on the Town's website, www.wakeforestnc.gov.

The Town of Wake Forest reserves the right to reject any or all *bids* and to make the award as deemed in the best interest of the Town of Wake Forest.

Instruction to Bidders

1. SUBMITTAL

All *bids* must be submitted by ***Thursday, December 17, 2015 at 3PM*** to Holly Miller, Assistant Town Engineer, 301 S. Brooks Street, Engineering Department – 3rd Floor, Wake Forest, NC 27587. All *bids* must be submitted in a sealed envelope marked: *Bid # 10569 – Burlington Mills Road Landscape Restoration*

2. USE OF CONTRACT DOCUMENTS

These Bidding Documents are to be used only for the purpose of understanding this bid and consideration toward submitting a proposal. They may not be used for any other purpose.

3. SPECIFICATIONS

The Specifications are intended to describe the complete project including all materials, processes, equipment, etc. Bidders are expected to carefully examine the Contract Documents, visit the site of the proposed construction, and determine the availability of materials and method required, in order to become thoroughly familiar with the project, the requirements, and to include the cost thereof in the proposal. Bidders shall contact the Project Coordinator at least five (5) days prior to the bid date for clarification of any item not fully understood.

4. BIDDER'S QUALIFICATIONS

For projects exceeding $30,000, consideration will be given only to Contractors who submit evidence that they are properly licensed as required by Chapter 87 of the North Carolina Licensed General Statutes to bid and perform the work described herein as the general contractor. In addition, the Owner may make such other investigations as he deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish the Owner all such information and data for this purpose as the Owner may request.

Those submitting bids shall be registered with the North Carolina Landscape Contractors Registration Board, and have been actively and directly engaged in landscape installations of similar scope, size and complexity, and provide proof of five (5) or more successful installations in the past two years. Documentation shall include scope of work, budget, and current contact information for Client.

The Owner reserves the right to consider as unqualified to do the work of general construction any Bidder who does not habitually perform with his own forces a minimum of fifty percent (50%) of the work involved in construction of the improvements embraced in this contract.

Awarded contractor shall be authorized to conduct business in the state of North Carolina as found by checking the Secretary of State records and/or Register of Deeds office, indicating proper registration and active status. This is a condition of executing the contract.

5. FAMILIARITY WITH LAWS

It is assumed that the Bidders are familiar with local, state and federal laws, rules, ordinances, and regulations that may in any manner affect those engaged or employed in the work, or the

materials or equipment used in or upon the work, or in any way affects the conduct of the work. No plea for misunderstanding or ignorance on the part of the Contractor will in any way serve to modify the provisions of this contract.

The Contractor agrees that in carrying out this contract he will comply with all applicable Federal, state and local laws, specifically including, without limitation, the Occupational Safety and Health Act of 1970 and Section 1324A, the Immigration Reform and Control Act.

6. AMERICAN WITH DISABILITIES ACT (ADA)

The Contractor shall comply with the provisions of the Americans with Disabilities Act (ADA) (www.ADA.gov) as amended from time to time and all rules and regulations promulgated thereunder. The contractor hereby agrees to indemnify the Owner from and against all claims, suits, damages, costs, losses and expenses in any manner arising out of or connected with the failure of the contractor, its subcontractors, agents, successors, assigns, officers or employees to comply with the provisions of the ADA or rules and regulations promulgated thereunder.

7. Minority Participation

The Town of Wake Forest's minority participation goal is **10%** of the bid amount.

8. ADDENDA

No oral interpretation will be made to any Bidder as to the meaning of the Bidding Documents. Questions and requests for such interpretation shall be made in writing to the Project Coordinator listed. Any Addenda will be provided to known interested parties, but it shall be the Bidder's responsibility to make inquiry as to any Addenda issued. All such Addenda shall become part of the Contract and all Bidders shall be bound by such Addenda whether or not received or acknowledged.

9. UNBALANCED BIDS

The Contractor shall not submit a bid containing any unbalanced bid prices. Any unit or lump sum bid price that does not reflect reasonable actual costs that the Contractor anticipates for the performance of the item(s) in question along with a reasonable proportional share of the Contractor's anticipated profit, overhead cost, and other indirect costs is an unbalanced bid price. Any bid containing unbalanced bid prices may be deemed non-responsive and rejected.

10. COLLUSIVE AGREEMENTS

Each bidder submitting a bid shall execute and attach the Non-Collusion Affidavit of Prime Bidder affidavit attesting that he has not entered into a collusive agreement with any other person, firm or corporation in regard to any bid submitted.

11. BID Bond

5% of bid amount required for this project

12. PERFORMANCE AND PAYMENT BOND

100% of bid amount required for this project.

13. PREPARATION OF BID

The Town's bid forms must be used when provided – submit one original. Bidders shall label their bid proposal with business name, bid name and bid date, then seal their bid proposal inside an envelope. If mailing a bid proposal, provide a sealed envelope within the postal envelope.

14. ITEMS REQUIRED TO BE EXECUTED WITH THE BID

Failure to execute the following with the bid is considered a non-responsive bid and the bid will not be considered:

_____ Bid Form with bid price(s) written or typed

_____ Signatures on Forms and notarized where noted

_____ Non-Collusion Affidavit of Prime Bidder

_____ Addendums (if issued)

15. RECEIPT AND OPENING OF BIDS

Each Bid is to be submitted in a sealed envelope and plainly marked with the project name, bid number, and bid opening time. If mailed, the sealed envelope containing the Bid is to be enclosed in another envelope to avoid it being opened before the advertised time. Bids received prior to the advertised bid opening will be securely kept as sealed. Bids received after the advertised bid opening will be returned to the Bidder unopened.

16. WITHDRAWAL OF BIDS

Bids may be withdrawn by written request prior to or within seventy-two hours (72) after the opening of bids by contacting the bidding officer. To withdraw an opened bid, proof must be given of a mathematical error or omission as opposed to judgment or interpretation error.

17. MINIMUM NUMBER OF BIDS (FORMAL CONTRACTS ONLY)

North Carolina General Statute 143-129 and 143-132 prohibits the awarding of a formal contract unless at least three (3) competitive bids are received from reputable and qualified contractors. Therefore, if fewer than three (3) such bids are received, they will not be opened but returned to the contractors; and the project may be re advertised. The Town's formal limit is $500,000.

18. ALTERNATIVE BIDS

No alternative bids will be considered unless alternative bids are specifically requested.

19. AWARD OF CONTRACT; REJECTION OF BIDS

The Owner reserves the right to hold bids for a period of sixty (60) days for the purpose of reviewing the bids and investigating the qualifications of the Bidders. The Owner reserves the right to reject any bid if by evidence or investigation, the Owner is not satisfied that such Bidder is properly qualified to carry out the obligations of the contract and to complete the work herein. The Owner intends to award a contract to the lowest responsive, responsible bidder, complying with the conditions of the bidding documents. The owner reserves the right to award a contract that is in its best interest.

20. BID PROTEST PROCEDURE

Prospective bidders or suppliers who feel disadvantaged by the solicitation must submit a written protest within five (5) calendar days prior to the opening of proposals. Actual bidders or subcontractors who are aggrieved by the award of a contract must submit a written protest within five (5) days of the Town announcing its intent to award. The protest must be addressed to the Purchasing Manager, Town of Wake Forest, who will make the final determination after consulting with counsel.

21. EXECUTION OF AGREEMENT

The successful Bidder is required to submit any requested documents and execute a Contract within ten (10) days after notification of award. Failure to do so constitutes a default and the Owner may elect to award to the next lowest bidder or re-advertise the bid. All bids shall be valid for ninety (90) days from date of receipt by the Town.

22. LIQUIDATED DAMAGES

The liquidated damages for this contract are One Thousand Dollars (1,000.00) per calendar day.

23. INSURANCE REQUIRMENTS

A. Workers' Compensation: Insurance covering all employees meeting Statutory limits in compliance with the applicable state and federal laws. The coverage must include employer's liability with a minimum limit of $1,000,000 for each accident.

B. Commercial General Liability: Coverage shall have minimum limits of $1,000,000 per occurrence, general aggregate, products/completed operations aggregate, personal and advertising injury. This shall include premises and operations, independent contractors, products and completed operations, broad form property damage, XCU coverage and contractual liability. The coverage shall be written on an occurrence basis. This limit should apply on a per project or per location aggregate basis. The Town of Wake Forest shall be listed as an additional insured, under this coverage.

C. Business Auto Liability: Coverage shall have a minimum limit of $500,000 per occurrence, combined single limit for bodily injury liability and property damage liability. This shall include owned vehicles, hired vehicles and non-owned vehicles.

D. Umbrella/Excess Liability: At the option of the contractor, the limits of the primary general liability, auto liability and employers' liability may be less than stipulated herein, with an excess policy providing the additional limits needed. This form of coverage must be approved by the municipality and will only be acceptable when both the primary and excess policies include the coverage and endorsements required herein.

E. Professional Liability: Coverage shall have a minimum limit of $1,000,000 per occurrence, unless a higher limit is required by the Town. This coverage is only required for contracts that include professional services.

F. Special Requirements

1. Current, valid insurance policies meeting the requirements herein identified shall be maintained to be considered an "eligible contractor". Renewal certificates shall be sent to the Town 30 days prior to any expiration date. There shall also be a 30 day notification to the Town in the event of cancellation or modification of any stipulated insurance coverage. Certificates of insurance meeting the required insurance provisions shall be forwarded to the Town of Wake Forest. Wording on the certificate, which states that no liability shall be imposed upon the company for failure to provide such notice, is not acceptable.

2. It shall be the responsibility of the contractor to insure that all subcontractors comply with the same insurance requirements that he is required to meet.

3. The Town of Wake Forest shall be listed as certificate holder on the certificate of insurance.

24. INDEMNIFICATION

The contractor agrees to protect, defend, indemnify and hold the Town of Wake Forest and its officers, employees, and agents free and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees or other expenses or liabilities of every kind and character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings, or causes of action of every kind and character in connection with or arising directly or indirectly out of this agreement and/or the performance hereof and caused by the negligence of the contractors. The contractor further agrees to investigate, handle, respond to, provide defense for, and defend any such claims, etc., at his sole expense and agrees to bear all other costs and expenses related thereto, even if (claims, etc.) is groundless, false or fraudulent.

25. MATERIALS

The name of a certain brand, make, manufacturer or definite specification is to denote the quality standard of the article desired and not to restrict competitive bidding. It is set forth and conveyed to prospective bidders the general style, type, character and quality of the article desired. Bidders, however, may submit to the Project Coordinator evidence that proposed substitutions are fully up to standards specified and obtain his approval before placing orders.

26. ERRORS, OMISSIONS, AND DEVIATIONS

The Contractor is responsible for all errors, omissions, and deviations from the Contract requirements.

27. OSHA COMPLIANCE PLAN/POLICY

Contractor hereby acknowledges that it has reviewed and agrees to abide by all OSHA safety regulations and Town of Wake Forest safety regulations. Contractor may be required to submit a copy of the company's current written OSHA Compliance Plan/Policy within 48 hours of request. If requested, no field work shall take place until the plan has been submitted and reviewed by the Town's Safety Officer.

28. NON-COLLUSION and ANTI-DISCRIMINATION

Bidder certifies that this proposal is made in good faith and without collusion or in connection with any other person bidding on the same work, nor will any official or employee of the Town of Wake Forest be admitted to share any part of this contract should an award be made to the undersigned. Bidder further certifies that in connection with the performance of this contract not to discriminate against any employee or applicant for employment because of race, creed, color, religion, national origin, gender, age, political affiliation or handicap.

29. TAXES

FEDERAL: The Town of Wake Forest is exempt from and will not pay Federal Excise or Transportation taxes. STATE: Applicable North Carolina Sales and Use Taxes shall not be shown on bids, but shall be added to invoices as a separate item. The Town is not tax exempt.

NORTH CAROLINA SALES TAX

The Owner may apply for a refund of all sales and/or use taxes paid in North Carolina by the Contractor on purchases of items which are annexed to, affixed to, or in some manner become a part of any building or structure being erected, altered or repaired under Contract with the Owner; and these taxes shall not be included in the bid amounts or the Contract sum. The Contractor shall include and pay all other taxes imposed by governmental authorities which are applicable to the work.

The Contractor will be reimbursed for applicable sales and/or use taxes he has paid in North Carolina based on the following. **The Contractor should apply for reimbursement by itemizing and completing a notarized sales and use tax report form and submitting it with each pay request. Failure to submit this form will result in the invoice not being paid.** The contractor will be required to complete a sales and use tax report affidavit in order to receive the last payment of the project.

30. PAYMENT

N.C.G.S. 143-134.1 prohibits retainage on public projects that cost less than $100,000.00 in total. Prior to final payment, the Contractor will be required to submit any forms, warranties, etc that the Owner requires. The payment of the final amount due the Contractor shall release the Owner from any and all claims or liabilities on account of the work performed and the materials furnished upon the work. The payment terms shall be Net 30 days.

31. ETHICS POLICY / CODE OF CONDUCT

The Town of Wake Forest has established guidelines for ethical standards of conduct in that Town *representatives should maintain high standards of personal integrity, truthfulness, honesty, and fairness* in carrying out public duties; avoid any improprieties in their roles as public servants including the appearance of impropriety; and never use their position or power for improper gain. In establishing an ethics policy, the Town of Wake Forest desires to protect the public against decisions that are affected by undue influence, conflicts of interest, or any other violation of these policies as well as promote and strengthen the confidence of the public in their governing body.

32. E-VERIFY

The Contractor shall comply with the requirements of Article 2 of Chapter 64 of the General Statutes. Further, if the Contractor utilizes a subcontractor, the Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the General Statutes.

33. HUBSCO REPORTING

All building construction and repair projects ($30,000 & Over) require a minority participation report to be submitted to the State of NC Department of Administration HUB Office. Any information that is requested from the contractor must be provided before the last invoice will be paid.

PROPOSAL FORM

Burlington Mills Road Landscape Restoration

The undersigned bidder affirms and declares that he has carefully examined all bidding documents and Instructions to Bidders which are acknowledged to be a part of this proposal, and agrees to provide all labor, materials, equipment, supervision, permits; abide by all local, state and federal laws, rules, regulations, and ordinances applicable to perform the work listed in the specifications and scope of work for the following sum to wit:

TOTAL BASE BID – Lump Sum

_____ Dollars $_____

Construction Duration from NTP _____

Address technical questions about the project to the Project Engineer:

Written questions received up to 5 days prior to bid opening will receive a proper response.

ITEM 1- Scope of Project

Furnish and construct improvements as specified herein and shown in the Construction Drawings dated June 24, 2015 for the Burlington Mills Road Restoration.

ITEM 2- Addendums

All addendums must be acknowledged in order for the proposal to be considered.

Addendum #1 _____

Addendum #2 _____

Addendum#3 _____

The Town of Wake Forest intends to award a contract to the overall lowest responsible, responsive bidder taking into consideration quality, performance, and the time specified in this bid. The Town of Wake Forest reserves the right to reject or all proposals and to make the award as deemed in the best interest of the Town of Wake Forest.

All bidders MUST complete and submit with their bid the enclosed Non-Collusion Affidavit of Prime Bidder.

SIGNATURE PAGE

The undersigned certifies that they have read and understood all the provided bidding documents, the project specifications, and agree to the terms and conditions stated herein.

This bid must be signed by a responsible official of the bidding organization and notarized.

_____ **(SEAL)**

Date

_____

Company

_____	_____
Authorized Signature	Federal Identification #
_____	_____
Printed Name and Title	Email Address
_____	_____
Street Mailing Address	City, State, Zip Code
_____	_____
Contactor's NC License No.	Telephone Number

On this day of _____, 20___, before me _____(name) appeared and, being duly sworn, did execute the foregoing proposal, and did so state that he/she was properly authorized by_____(name of company) to execute the proposal and did so on his/her free act and deed.

Notary Public _____ My Commission Expires _____(SEAL)

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

attach to bid (required)

State of _____)

County of _____)

Project: Burlington Mills Road Landscape Restoration

_____, being first duly sworn, deposes and says that:

1. He is (owner, partner, officer, representative or agent) of _____ _____, the Bidder that has submitted the attached Bid;
2. He is fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such Bid;
3. Such Bid is genuine and is not a collusive or sham Bid;
4. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this Affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bids of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Town of Wake Forest or any person interested in the proposed Contract; and
5. The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees or parties in interest, including this Affiant.

_____ _____

Name Title

Subscribed and Sworn to before me this _____ Day of _____, 20_____

Notary Public: _____ (Seal)

My Commission Expires:_____

IDENTIFICATION OF MINORITY BUSINESS PARTICIPATION

Project: Burlington Mills Road Landscape Restoration

I, _____
(Name of Bidder)

do hereby certify that on this project, we ***intend to*** use the following M/WBE firms as construction subcontractors, vendors, suppliers, or providers of professional services.

Minority Firm Name and Address	Minority Category*	Phone Number	Type of Work

* Minority Categories: Black or African American (B), Hispanic (H), Asian American (A), American Indian (I), Female (F), and Socially and Economically Disadvantaged (D).

The total value of M/WBE firms contracting is proposed to be $_____

The total percentage of MBE firms contracting is proposed to be _____%

The total percentage of WBE firms contracting is proposed to be _____%

Identification of HUB Certified/ Minority Business Participation

I,_____,(Name of Bidder)

do hereby certify that on this project, we will use the following HUB Certified/ minority business as construction subcontractors, vendors, suppliers or providers of professional services.

Firm Name, Address and Phone #	Work Type	Minority Category	**HUB Certified (Y / N)

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**),Female (**F**) Socially and Economically Disadvantaged (**D**)

** HUB Certification with the state HUB Office required to be counted toward state participation goals.

The total value of minority business contracting will be ($)_____.

Town of Wake Forest -AFFIDAVIT A – Listing of Good Faith Efforts

County of _____

(Name of Bidder)

Affidavit of_____

I have made a good faith effort to comply under the following areas checked:
Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

- ❑ **1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- ❑ **2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- ❑ **3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- ❑ **4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- ❑ **5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- ❑ **6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- ❑ **7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- ❑ **8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- ❑ **9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- ❑ **10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date:_____ Name of Authorized Officer:_____

Signature:_____

Title:_____

SEAL

***State of*_____*, County of*_____**

Subscribed and sworn to before me this _____day of _____20____

***Notary Public*_____**

***My commission expires*_____**

SEAL

Town of Wake Forest --AFFIDAVIT B-- Intent to Perform Contract

With Own Workforce.

County of _____

Affidavit of_____
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the *Burlington Mills Road Landscape Restoration* contract.

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date:_____ Name of Authorized Officer:_____

Signature:_____

Title:_____

SEAL

***State of*_____*, County of*_____**

Subscribed and sworn to before me this _____day of _____20____

***Notary Public*_____**

***My commission expires*_____**

SEAL

TOWN OF WAKE FOREST,NC
CERTIFICATE FOR NORTH CAROLINA SALES TAX

Project or Contract Number:_____ **Date:**_____

Contractor:_____ **Period Covered:**_____

Invoice Date	Invoice Number	Name of Vendor	Item Cost	State Tax	County Tax	Extra Tax	Total Invoice	County Paid
							-	
							-	
							-	

ALLOWABLE CHANGES TO TOWN OF WAKE FOREST STANDARD SPECIFICATIONS
(Rev. 03.27.2014)

List of Standard Specifications. Available for download from the Town's website.

http://www.wakeforestnc.gov/manual-of-specifications-standards-design.aspx

Section 00825 Product Substitutions

Section 02200 Earthwork

Section 02210 Utility Trenching, Backfilling and Compaction

Section 02400 Concrete Pavement, Curb & Gutter, Drives, Sidewalks

Section 02500 Base Course

Section 02600 Paving

Section 02700 Storm Drainage

1. No exceptions taken.

SUBSURFACE INFORMATION SP (Kimley-Horn)

Subsurface information is not available on any portions of this project.

LOCATING EXISTING UNDERGROUND UTILITIES SP (Kimley-Horn)

Identify excavation locations by means of pre-marking with white paint, flags, or stakes or provide a specific written description of the location in the locate request.

MAINTENANCE OF THE PROJECT SP (Kimley-Horn)

The Contractor will not be directly compensated for any maintenance operations necessary as this work is considered incidental to the work covered by the various contract items.

COOPERATION BETWEEN CONTRACTORS SP (Kimley-Horn)

The Contractor on this project shall cooperate with the Contractor or City of Raleigh Public Utilities staff working within or adjacent to the limits of this project to the extent that the work can be carried out to the advantage of all concerned.

TWELVE MONTH GUARANTEE SP (Kimley-Horn)

(A) The Contractor shall guarantee materials and workmanship against latent and patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve months following the date of final acceptance of the work for maintenance and shall replace such defective materials and workmanship without cost to the Town. The Contractor will not be responsible for damage due to faulty design, normal wear and tear, for negligence on the part of the Town, and/or for use in excess of the design.

(B) Where items of equipment or material carry a manufacturer's guarantee for any period in excess of twelve months, then the manufacturer's guarantee shall apply for that particular piece of equipment or material. The Town's first remedy shall be through the manufacturer although the Contractor is responsible for invoking the warranted repair work with the manufacturer. The Contractor's responsibility shall be limited to the term of the manufacturer's guarantee. The Town would be afforded the same warranty as provided by the Manufacturer.

This guarantee provision shall be invoked only for major components of work in which the Contractor would be wholly responsible for under the terms of the contract. Examples would include pavement structures, bridge components, and sign structures. This provision will not be used as a mechanism to force the Contractor to return to the project to make repairs or perform additional work that the Town would normally compensate the Contractor for. In addition, routine maintenance activities (i.e. mowing grass, debris removal, ruts in earth shoulders,) are not parts of this guarantee.

Appropriate provisions of the payment and/or performance bonds shall cover this guarantee for the project.

DELIVERY AND ACCEPTANCE OF MATERIALS SP (Kimley-Horn)

The Contractor shall coordinate with the project inspector to schedule delivery times of materials. The project inspector shall verify and accept all material delivered to the project. The Town reserves the right to refuse payment of all associated materials delivered to the project site without the project inspector present.

Acceptance of the materials to the project site by the project inspector does not guarantee acceptance or approval of use of the materials on the project.

DRUG FREE WORKPLACE SP (Kimley-Horn)

The Contractor shall provide and maintain a drug free workplace, including certification, in accordance with the Federal Drug Free Workplace Act of 1988 (40 CFR Part 32).

SUBMITTALS AND SHOP DRAWINGS SP (Kimley-Horn)

The Contractor shall submit shop drawings for construction materials to the Engineer and / or Landscape Architect for review of acceptance and compliance with the contract documents prior to use of any material on the project site. Submittals shall be in electronic format (Adobe Acrobat or PDF) along with a transmittal. Physical or material submittals shall include a minimum of three (3) samples for review. All submittals shall reference the applicable section number or other unique tracking number. The Engineer and / or Landscape Architect shall have twenty-one (21) calendar days to complete the review. Upon review, notification will be provided to the Town and the Contractor of acceptance, corrections needed, or rejection of the materials. In the event the submittal is rejected, the Contractor will be notified and will be required to revise and resubmit. No separate payment will be made for this work, and all associated costs will be considered incidental to other items in the contract.

REQUEST FOR INFORMATION (RFI) PROCEDURES SP (Kimley-Horn)

The Contractor shall submit all requests for information to the Engineer and / or Landscape Architect in writing. Submittals shall be in electronic format (Adobe Acrobat or MS Word). All RFIs shall be identified by the Contractor with a unique number for tracking purposes. The Engineer and / or Landscape Architect shall have twenty-one (21) calendar days to respond.

VIDEOTAPE AND PHOTOGRAPHS OF PROJECT SITE SP (Kimley-Horn)

The Contractor shall video the project site in its entirety before construction begins, with an emphasis on properties adjoining the project, pavement conditions, stormwater features, trees, and fencing. Provide appropriate narrations and descriptions of the property and physical features for orientation. The Contractor shall provide two (2) copies of the project video and any digital photography taken to the Town for documentation of the existing site. No separate payment will be made for this work, and all associated costs will be considered incidental to other items in the contract.

RECORD DRAWINGS SP (Kimley-Horn)

The Contractor shall provide a field survey of the as-built improvements performed by a Professional Land Surveyor registered with the State of North Carolina to the Town. The survey shall be provided both electronically (AutoCAD DWG) and signed mylar original (24” x 36”) plan sheet.

Identification and location of site improvements shall conform to the recommended standards of the North Carolina Licensing Board for Professional Engineers and Land Surveyors. The following minimum information shall be included:

a. Limits: The subject property as defined by the Contract Documents.

b. Control: Vertical control shall be based on the benchmarks established onsite. Baselines shall be established in such a manner as to accurately locate spot elevations in a fifty foot (50') minimum grid pattern. All top and toe of slopes, centerline of draws and ditches shall be located.

c. Improvements: All planimetric information shall be tied to the established grid. Contours shall be drawn at one foot (1') intervals with spot elevations for all high and low points. Additionally, locate and identify the following improvements:

- Curbing, curb ramps, sidewalks, pathways, and all paving.
- Curb cuts, and access driveways.
- Storm drainage features (including pipe sizes, materials, and invert elevations)
- Structures (including bridges, anchor slabs, gangways, and docks)

Final payment will not be released until the Record Drawings have been submitted and accepted by the Engineer. No additional compensation will be provided for costs associated with this work as it is considered incidental to other work being performed under the contract.

INTENT OF DOCUMENTS SP (Kimley-Horn)

The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. It is not intended, however, that materials or work not covered by or properly inferable from any heading, branch, class or trade of the Specifications shall be supplied unless distinctly so noted on the drawings. Materials or work described in words which so applied have a well-known technical or trade meaning shall be held to refer to such recognized standards.

CONTRACTOR'S UNDERSTANDING SP (Kimley-Horn)

It is understood and agreed that the Contractor has, by careful examination satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way effect the work under this contract. No verbal agreement or conversation with any officer, agent or employee of the Town, either before or after the execution of the contract shall affect or modify any terms or obligations herein contained.

SUPERINTENDENCE BY CONTRACTOR SP (Kimley-Horn)

Except where the Contractor is an individual and gives his personal superintendence to the work, the Contractor shall provide a competent superintendent, satisfactory to the Town of Wake Forest on the work at all times during working hours with full authority to act for him. The Contractor shall also provide an adequate staff for the proper coordination and prosecution of the work.

MATERIALS, APPLIANCES AND EMPLOYEES SP (Kimley-Horn)

Unless otherwise specified, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work.

Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among his employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

ROYALTIES AND PATENTS

SP (Kimley-Horn)

The Contractor shall pay all royalties and patent fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Town harmless from loss on account thereof, except that the Town shall be responsible for such loss when a particular process or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has information that the process or article specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Town.

INSPECTION OF THE WORK

SP (Kimley-Horn)

The Town and its representatives shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide facilities for such access and for inspection.

If the specifications, the Town's instructions, laws, or ordinances or any public authority require any work to be specially tested or approved, the Contractor shall give the Town timely notice of its readiness for inspection. Inspections by the Town shall be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Town, it must, if required by the Town, be uncovered for examination at the Contractor's expense.

CONFORMITY WITH PLANS AND SPECIFICATIONS

SP (Kimley-Horn)

All work performed and all materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown on the plans, or indicated in the specifications.

In the event the Town finds the materials or the finished product in which the materials are used not within reasonably close conformity with the plans and specifications but that reasonably acceptable work has been produced, he will then make a determination if the work is to be accepted and remain in place. If the Town agrees that the work is to be accepted, he will have the authority to make such adjustment in contract price as he deems warranted based upon sound engineering judgment and the final estimate will be paid accordingly.

In the event the Town finds the materials or the finished product in which the materials are used or the work performed are not in reasonably close conformity with the plans and specifications and have resulted in an inferior or unsatisfactory product, the work or materials shall be removed and replaced or otherwise corrected by the Contractor at no cost to the Town.

TOWN’S RIGHT TO DO WORK

SP (Kimley-Horn)

If the Contractor should neglect to prosecute the work promptly or fail to perform any provisions of the contract, the Town, after 24 hours written notice to the Contractor, may without prejudice to any other remedy he may have,

make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

CORRECTION OF NON-CONFORMING WORK SP (Kimley-Horn)

Before issuing final payment, the Contractor shall promptly remove from the premises all materials condemned by the Town as failing to conform with the contract, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the contract and without expense to the Town and shall bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement.

PAYMENTS TO CONTRACTOR SP (Kimley-Horn)

The Town shall pay the Contractor as outlined before for the duration of the project.

Partial Payments

a. Partial payment will be based upon progress estimates prepared by the Town once each month on the date established by the Town.

b. Each payment request must be accompanied by a Sales Tax Report.

c. Monthly or partial payments made by the Town of Wake Forest to the Contractor are monies advanced for the purpose of assisting the Contractor to expedite the work of construction. The Contractor shall be responsible for the care and protection of all materials and work upon which payments have been made until final acceptance of such work and materials by the Town of Wake Forest. Such payments shall not constitute a waiver of the right of the Town of Wake Forest to require the fulfillment of all terms of the contract and the delivery of all improvements embraced in this contract complete and satisfactory to the Town of Wake Forest in all details.

Final Payment

a. After final inspection, record survey and acceptance by the Town of all work under the contract, the Contractor shall prepare his requisition for final payment which shall be the sum of the Bid unit Prices multiplied by the quantities actually issued or this sum adjusted by approved change orders less prior payments. Final payment request must be accompanied by the Final Payment Affidavit and Sales Tax Report.

b. The Town before paying the final estimate may require the Contractor to furnish releases or receipts from all subcontractors having performed any work and all persons having supplied materials, equipment and services to the Contractor, if the Town deems the same necessary in order to protect its interest. The Town of Wake Forest, however, may, if it deems such action advisable, make payment in part or in full to the Contractor without requiring the furnishing of such releases or receipts and any payments so made shall in no way impair the obligations of any surety or sureties furnished under the contract.

c. Each vendor is required to sign and submit the Sales Tax Payment Affidavit prior to last payment being made. The Sales Tax Payment Affidavit will be provided at the completion of the project.

d. Withholding of any amount due the Town of Wake Forest as "Liquidated Damages", shall be deducted from payments due to the Contractor.

TOWN'S RIGHT TO TERMINATE CONTRACT

SP (Kimley-Horn)

If the Contractor should be adjudged as bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of insolvency, or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to Subcontractors or for material or labor, or persistently discharged laws, ordinances or the instructions of the Town, or otherwise be guilty of a substantial violation of any provision of the contract, then the Town, upon the certificate that sufficient cause exists to justify such action, may without prejudice to any other right or remedy and after giving the Contractor seven days written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools, appliances, there and finish the work by whatever method it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed the unpaid balance, the Contractor shall pay the difference to the Town. The expense incurred by the owner as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Town.

CARE OF WORK

SP (Kimley-Horn)

The Contractor shall take reasonable and customary efforts to protect life and property during the construction of the project.

a. The Contractor shall be responsible for all damages to person or property that occur as a result of his fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the Town of Wake Forest.

b. In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorization is authorized to act at his discretion to prevent such threatened loss or injury and he shall so act. He shall likewise act if instructed to do so by the Town of Wake Forest. Any compensation claimed by the Contractor on account of such emergency work will be determined by the Town of Wake Forest as provided in "CHANGES IN WORK" under GENERAL CONDITIONS.

c. The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc., and he shall at his own expense completely repair any damage thereto caused by his operations.

d. The Contractor shall shore up, brace, underpin, secure, and protect as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be in any way affected by the excavations or other operations connected with the construction of the improvements embraced in this contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property owner or other party before the commencement of any work. The Contractor shall indemnify and save harmless the Town of Wake Forest from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the Town of Wake Forest may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.

e. Any claim for damage arising under this contract shall be made in writing to the party liable within reasonable time of the first observance of such damage.

SAFETY AND ACCIDENT PREVENTION

SP (Kimley-Horn)

The Contractor shall exercise proper precautions at all times for the protection of persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of his prosecution of the work. The Contractor shall abide by all applicable safety standards and regulations contained in the Occupational Safety and Health Act, for the construction industry and any other applicable Laws.

a. All excavation and trenching work shall conform to OSHA requirements under 29 CFR Part 1926 Subpart P and any other applicable requirements.

b. The Contractor shall have an employee who is a designated competent person as described under OSHA regulations, 29 CFR Part 1926 Subpart P. The person shall be capable of identifying existing or predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

c. The Contractor shall provide and maintain safety equipment as outlined under OSHA 29 CFR Part 1926 Subpart P and other applicable safety provisions, which include trench boxes, ladders, shoring, barricades, warning vests, gas monitors, meter for hazardous atmospheres and other necessary safety equipment to protect the employees and the job site.

d. All Contractors' personnel, all subcontractors and their personnel, and any material suppliers and their personnel shall wear a reflective vest or outer garment conforming to the requirements of MUTCD at all times while on the project.

Records

The Contractor shall maintain an accurate record of all cases of death, occupational diseases, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the contract. The Contractor shall promptly furnish the Town of Wake Forest with reports concerning these matters.

Indemnity

The Contractor shall indemnify and save harmless the Town of Wake Forest from any claims for damages resulting from personal injury and/or death suffered or alleged to have been suffered by any person as a result of any work conducted under this contract.

SANITARY FACILITIES

SP (Kimley-Horn)

The Contractor shall furnish, install, and maintain ample sanitary facilities for the workers. As the needs arise, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by the sanitary codes of the State and Town of Wake Forest. Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing and governing health regulations.

LIENS

SP (Kimley-Horn)

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, shall deliver to the Town a complete release of all liens arising out of the contract, or receipts in full in lien thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all labor and materials for which a lien could be filed but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Town, to indemnify the Town against any lien. If any

lien remains unsatisfied after all payments are made, the Contractor, shall refund to the Town all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

A copy of the Affidavit is included with the Payment Bond Contract and shall be submitted with the contractor's request for final payment.

ASSIGNMENT SP (Kimley-Horn)

Neither party to the contract shall assign the contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him hereunder, without previous written consent of the Town Board of the Town of Wake Forest.

SEPARATE CONTRACTS SP (Kimley-Horn)

The Town reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with others.

SUBCONTRACTED WORK AND SUBCONTRACTORS SP (Kimley-Horn)

The Contractor shall provide the following documentation:

a. The Contractor shall be capable of performing work amounting to at least 50% of the total cost of the Contract, using his own equipment and personnel. Documentation of staff and equipment shall be made available to the Town or Engineer upon request. Unless otherwise stated elsewhere in the contract or approval by the Town of Wake Forest, the Contractor shall not subcontract more than 35% of the work stipulated in this contract.

b. The Contractor shall, as soon as practicable after the signing of the contract, notify the Town in writing of the names of subcontractors proposed for the work and shall not employ any subcontractors that the Town may within a reasonable time object to as incompetent or unfit. The Contractor agrees that he is as fully responsible to the Town for the acts and omissions of his subcontractor and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him. Nothing in the Contract Documents shall create any contractual relation between any subcontractor and the Town.

c. The Contractor shall obtain approval of subcontractors as well as any change in subcontractors during the work on the contract from the Town. A period of seven (7) days minimum is required for the approval of a subcontractor.

SURVEY POINTS AND INSTRUCTIONS SP (Kimley-Horn)

The Contractor shall provide reasonable and necessary opportunities and facilities for setting points and making measurements. He shall not proceed until he has made timely demand upon the Town for, and has received from him, such points and instructions as may be necessary as the work progresses. The work shall be done in strict conformity with such points and instructions.

The Contractor shall carefully preserve bench marks, reference points and stakes, and in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

STATUS OF TOWN AUTHORIZED REPRESENTATIVE SP (Kimley-Horn)

The Town Authorized Representative shall have general supervision and direction of the work. He has authority to stop the work wherever such stoppage may be necessary to insure proper execution of the contract. He shall also have authority to reject all work and materials which do not conform to the contract, to direct the application of force to any portion of the work, as in his judgment is required, and to order the force increased or diminished, and to decide questions which arise in the execution of the work.

TOWN AUTHORIZE REPRESENTATIVE'S DECISION SP (Kimley-Horn)

The Town Authorized Representative shall, within a reasonable time after their presentation to him, make decisions in writing on all claims of the Town or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents. All such decisions of the Town Authorized Representative shall be final.

LANDS FOR WORK SP (Kimley-Horn)

The Town shall provide the lands upon which the work under this contract is to be done, except that the Contractor shall provide land required for the erection of temporary construction facilities and storage of his materials, together with right of access to same. Additional lay down area, permits and repair outside of land disturbances and not included in the plans are the responsibility of the contractor, including but not limited to fees and violations.

CLEANING UP SP (Kimley-Horn)

The Contractor shall, as directed by the Town or Authorized Representative, remove from the Town's property and from all other public and private property, at his own expense, all temporary structures, rubbish and waste materials (includes concrete, masonry, and timber) resulting from his own operations.

ACCESS TO PROPERTY SP (Kimley-Horn)

The Contractor shall, where necessary, provide and maintain access to and from existing utility infrastructure by CenturyLink and City of Raleigh Public Utilities Department (CoRPUD), and existing bridge by North Carolina Department of Transportation (NCDOT) as necessary for inspections or emergency repairs. No public access will be allowed during construction of the project.

SAFEGUARDS SP (Kimley-Horn)

The Contractor shall provide, erect and maintain adequate barricades, warning signs, and lights at all excavations, closures, detours and points of danger per OSHA and MUTCD standards.

MEASUREMENT OF QUANTITIES

SP (Kimley-Horn)

The quantities of work will be computed by the Contractor and supplied to the Town or Authorized Representative. The quantities of work performed, supplied by the Contractor, will be verified by the Town or Authorized Representative on the basis of measurements taken by him or his assistants, and these measurements shall be final and binding. The specifications shall designate the manner in which the measurements of the various types of work shall be measured.

The quantities of work performed shall be recorded each day, and provided to the Town or Authorized Representative upon request. Contractor shall maintain detailed reports throughout the project and be able to supply the reports, upon request by the Town or the Town's representatives.

CONSTRUCTION WASTE DISPOSAL

SP (Kimley-Horn)

Disposal of all waste material from construction sites shall be made in strict accordance with all State, County and Town ordinances pertaining to disposal of construction waste. It shall be the responsibility of the Contractor to secure the necessary permits and provide all information required to secure said permits. The Contractor shall designate the disposal site prior to beginning construction and in the event waste material is to be disposed of on private property a letter from the property owner shall be furnished to the Town or Authorized Representative granting the Contractor or his agent such permission and listing the requirements made by the property owner or the Contractor, if any. Burning or burying of construction debris onsite is strictly prohibited. The Contractor shall use designated concrete washout area for excess concrete cleanup.

EMERGENCY WORK CREW

SP (Kimley-Horn)

The Contractor and / or it's subcontractor shall provide and emergency work plan to make repairs, clean-up, and other work necessary to handle an emergency in connection with the contract during non-working hours (including weekends and holidays). This plan shall include names, addresses, and phone numbers of at least two responsible members identified with their roles. All members shall reside within one hour of the project site. A copy of this plan shall be submitted to the Engineer and Town for review and approval prior to beginning any work. In the event members of emergency plan are unavailable during an actual emergency situation, the Town shall have the right to have the work performed by the quickest means available and the Contractor shall be back-charged at a rate of two times (2xs) the total cost to the Town.

CONSTRUCTION WATER

SP (Kimley-Horn)

The Contractor shall be responsible for securing adequate construction water for the project site.

a. All construction water usage must be metered and will be billed to the Contractor. The Contractor must contact the City of Raleigh, Public Utilities Department, Meter Services Division (919-250-2737) to make the applicable arrangements for billing the water usage. The Contractor may provide his own meter or if available upon advance notice to the Public Utilities Department, a numbers changed to meter will be provided. If the Contractor provides his own meter it must meet City of Raleigh standards for the meter and include a backflow device.

b. Construction water for all Town of Wake Forest contract projects shall be billed by the City of Raleigh, Public Utilities Department.

c. Contractors must furnish the following information for water usage.

- Meter location and project name.
- Address where applicable and responsible party name.
- Duration of use and frequency of meter reading.

d. Contractors are to reference the City of Raleigh, Public Utilities Handbook, Part 10, entitled Construction Specifications for Water and Sewer Mains, for additional regulations applicable to construction water usage.

BLASTING SP (Kimley-Horn)

Prohibited.

DUST CONTROL SP (Kimley-Horn)

The Contractor shall, as directed by the Town or Authorized Representative provide adequate equipment and use other available means to control the dust during the term of this contract. Failure on the part of the Contractor to correct dust control problems as directed will result in the Town or Authorized Representative notifying the Contractor to comply with the contract provisions. In the event that the Contractor fails to begin such remedial action within 24 hours after receipt of such notice, the Town or Authorized Representative may proceed to have the work performed with other forces. The actual cost of the work so performed along with a 20% administrative fee will be deducted from monies due to the Contractor on his contract. Under adverse conditions, the Town or Authorized Representative may choose to suspend the Contractor's operations on the project until all dust control problems have been completed to his satisfaction. Such suspension will not justify an extension of contract time.

OFF-SITE SEDIMENT CONTROL SP (Kimley-Horn)

The Contractor shall provide adequate equipment and use other available means to control off-site sediment on immediately adjacent road surfaces. Any excess sediment, or mud, tracked from the project site shall be cleaned up immediately.

PRE-CONSTRUCTION CONFERENCE SP (Kimley-Horn)

A Pre-Construction Conference will be scheduled as soon as practical after the award of the Contract. The Contractor will be expected to attend the conference along with any anticipated major subcontractors and major material suppliers. A proposed progress schedule in a form satisfactory to the Engineer and a statement of the anticipated monthly progress payments showing the percent of progress each month shall be provided to the Town. The Contractor shall also provide at least two (2) local telephone numbers which may be used to contact the Contractor or his authorized representative in the event of an emergency after normal business hours. Upon receipt of the required documentation, a Notice to Proceed will be issued by the Engineer.

The Contractor is also required to have the prospective Field Superintendent attend the conference. Should the Field Superintendent change after the Pre-Construction Conference no work shall be allowed to proceed until a site meeting with the Engineer and the new Field Superintendent is completed.

CONSTRUCTION PROGRESS SCHEDULE AND MONTHLY MEETING SP (Kimley-Horn)

The Contractor shall provide, at the pre-construction conference, a completed progress schedule. The schedule shall be kept up to date and presented with each month's billing information and shall be made available at the monthly progress meetings and at other times as may be deemed necessary by the Town or Authorized Representative or his representative. The Contractor will be represented at Monthly Progress meetings during the construction of this project. The meetings will be held at the project site or in the Town offices, as determined by the Town.

PERSONNEL PARKING SP (Kimley-Horn)

All personnel involved with construction operations shall not park their personal vehicles within the right of way of the project limits for the duration of the construction project. This includes on-street parking with the adjacent residential neighborhood, Caddell Woods. The Contractor shall furnish a parking area that is located off the project limits. The Contractor shall be responsible for daily transportation of all employees to and from the provided parking area and the project site.

There will be no direct payment for the work covered by this provision. Payment at the contract unit prices for the various items in the contract will be full compensation for all work covered by this provision.

COORDINATION WITH UTILITY COMPANIES SP (Kimley-Horn)

Utilities as shown on the plans are intended to represent general locations only. It shall be the responsibility of the Contractor, prior to construction, to contact appropriate utility owners and precisely locate utilities that could be affected by the proposed construction. If the utility belongs to the Town, the Contractor shall dig sample holes to uncover the utility. The digging of sample holes shall be coordinated with the Engineer who will determine the number of such holes and will schedule the Town to locate utility vertical and horizontal locations. There is no line item to pay for digging work. Work is considered incidental to other pay items.

The Contractor shall be responsible for repair of any damage to the utility as well as any other damage may be caused due to the disturbance of the Utility. The Contractor will not be permitted to submit any claims for delays caused by utility relocation and proposed utility construction.

The Contractor shall be responsible for coordinating concurrent construction directly with utility owner representatives. Coordination efforts and concurrent construction conflicts will be addressed and discussed during the pre-construction meeting. The Town at the time of pre-construction conference will provide names, addresses and telephone numbers of public and private utility owner representatives.

All underground utilities may have not been identified. The Contractor has to call NC One Call to identify underground utilities before starting any digging and/or excavation operation.

The Contractor shall be responsible for field verifying heights and locations of power lines and will be required to maintain the distance from the power lines in accordance with local, State and Federal Safety regulations.

POWER LINE CLEARANCE SP (OSHA)

Sections 1407-1411 Power Lines, Occupational Safely & Health Administration, US Department of Labor

DANGER HIGH VOLTAGE: Electrocutions caused by a crane, load, or load line contacting a power line have caused numerous fatalities. To prevent such accidents in the future, the standard contains detailed, systematic procedures that employers must follow when operating cranes near power lines. These procedures are designed to 1) prevent equipment from making electrical contact with power lines; and 2) protect workers in the event that such contact occurs.

NOTE: Special rules apply to work covered by 29 CFR, Subpart V, Power Transmission and Distribution. This Guide does not cover Subpart V work.

THE FIRST STEP — COULD THE CRANE GET CLOSER THAN 20 FEET TO A POWER LINE?
Keeping a safe distance from power lines is the key to preventing power line accidents. Therefore, the first step you must take when planning to operate a crane on a site where a power line is present is to identify the crane's work zone and use that work zone to determine how close it could come to the power line. If you determine that no part of the crane, load, or load line could get closer than 20 feet to a power line, no further precautions are required. If the Initial plan for the crane's use changes during the project, you must reevaluate whether the equipment could get closer than 20 feet to the power line. **[Note:** If the line's voltage is over 350,000 volts, a 50-foot, rather than 20-foot, minimum clearance must be maintained. This Guide assumes that the voltage is less than 350,000 volts and uses the 20-foot clearance distanced There are two ways to identify the work zone and use it to determine whether the equipment could get closer than 20 feet to the power line. First, if the equipment (crane, load, load line, or rigging) could not get closer than 20 feet to the line even if the crane is operated at its maximum working radius, the 20-foot requirement is satisfied. Alternatively, you may establish a work zone by establishing boundaries (using flags or a device such as a range limit device or range control warning device) that are more than 20 feet from the power line and prohibiting the operator from operating the equipment past those boundaries.

ALTERNATIVE TO 20-FOOT CLEARANCE (TABLE A): If you know the line's voltage, you may use the minimum clearance distance in Table A in lieu of 20 feet. Table A provides:

Table A - Minimum Clearance Distances	
Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet)
up to 50	10
over 50 to 200	15
over 200 to 350	20
over 350 to 500	25
over 500 to 750	35
over 750 to 1,000	45
over 1,000	(as established by the utility owner/ operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution)
Note: The value that follows "to" is up to and includes that value. For example, over 50 to 200 means up to and including 200kV.	

One way to determine the line's voltage is to ask the line's owner or operator. The utility must respond to such a voltage inquiry within two working days.

If you use Table A to determine the minimum clearance distance, you must determine whether any part of the crane, load, or load line could get closer than the Table A distance to a power line if the equipment is operated up to its maximum working radius in the work zone.

If you determine that part of the crane, load, or load line could come closer to the power line than the required minimum clearance distance (either 20 feet or the Table A clearance), you must either **deenergize and ground** the line or take specified steps to **maintain the required minimum clearance distance.** These options will *now* be discussed.

DEENERGIZE AND GROUND: Deenergizing and visibly grounding the line will protect against electrocution and avoid the need for additional precautions. However, the employer must rely on the power line's owner or operator to take these steps, and utilities are generally unwilling to deenergize their lines because doing so will cut off service to their customers. As a result, this precaution will usually not be available, **You must assume that all power lines are energized unless the utility owner/operator confirms that the power line has been and continues to be deenergized and the line is visibly grounded at the worksite.**

STEPS YOU MUST TAKE TO MAINTAIN THE REQUIRED MINIMUM CLEARANCE DISTANCE: You must take **all of** the following steps.

- Conduct a planning meeting with the crane operator and the other workers who will be in the area of the equipment or load to review the location of the power line(s), and the steps that will be implemented to prevent encroachment/electrocution.
- If tag lines are used, they must be non-conductive.
- Erect and maintain an elevated warning line, barricade, or line of signs equipped with flags or similar high-visibility markings at the minimum clearance distance. If the operator cannot see the elevated warning line, a dedicated spotter must be used to signal the operator that the crane is passing the marked line.

In addition, you must use at least **one** of the following precautions:

- A dedicated spotter (a worker whose only duty is to observe the clearance between the equipment and the line) who is in continuous contact with the operator.
- A proximity alarm set to give the operator sufficient warning to prevent encroachment.
- A device that automatically warns the operator when to stop movement, such as a range control warning device. Such a device must be set to give the operator sufficient warning to prevent encroachment.
- A device that automatically limits the crane's range of movement, set to prevent encroachment.
- An insulating link/device installed between the end of the load line and the load.

If you use a dedicated spotter, the dedicated spotter must be able to judge the distance between the equipment and the line and inform the operator if the equipment is getting too close to the line. Therefore, the spotter must:

- Be equipped with a visual aid (such as a clearly visible line painted on the ground or a clearly visible line of stanchions) to assist in identifying the minimum clearance distance.
- Be positioned to effectively gauge the clearance distance.
- Where necessary, use equipment that enables the spotter to communicate directly with the operator.
- Give timely information to the operator so that the required clearance distance can be maintained.
- Be trained to be able to perform his/her duties effectively.

OPERATION BELOW POWER LINES GENERALLY PROHIBITED: No part of the equipment, load line, or load (including rigging and lifting accessories) is allowed below a power line unless:

- the employer has confirmed that the utility owner/operator has deenergized and visibly grounded the power line at the worksite, **or**
- the highest point of the equipment's boom, even if completely extended and vertical, will be more than the required minimum distance from the power line.

EMPLOYEE TRAINING: If the equipment contacts a power line, death or injury may be avoided if the workers in and on the crane know and understand the steps they can take to protect themselves. In general, the crane operator and any other person on the crane will be safe as long as they remain on the crane. The greatest danger is faced by a person who simultaneously touches both the crane and the ground, but a person who is near, but not touching, the crane can also suffer electric shock. To ensure that employees have the information they need to protect themselves, you must train each operator and crew member assigned to work with the equipment on how to avoid electrocution in the event the equipment contacts a power line. Such training must include:

- Information regarding the danger of electrocution, if a person simultaneously touches the equipment and the ground.
- The importance to the operator's safety of remaining inside the cab except where there is an imminent danger of fire, explosion, or other emergency that necessitates leaving the cab.
- The safest means of evacuating from equipment that may be energized.
- The danger of the potentially energized zone around the equipment (step potential).
- The need for crew in the area to avoid approaching or touching the equipment and the load.
- Safe clearance distance from power lines.
- The limitations of an insulating link/device, proximity alarm, and range control (and similar) device, if used.
- How to properly ground equipment and the limitations of grounding.

ASSEMBLING A CRANE NEAR A **POWER LINE:** The precautions described above for crane operations must also be taken when assembling or disassembling a crane near a power line. Under no circumstances may a crane be assembled or disassembled beneath an energized power line.

PRECAUTIONS FOR MOVING EQUIPMENT: A crane traveling with a load must comply with the minimum clearance distance and associated precautions listed above. If the crane is traveling with no load, the following clearance distances must be maintained.

Table T – Minimum Clearance Distances While Traveling With No Load	
Voltage (nominal, kV, alternating current)	While Traveling – Minimum clearance distance (feet)
up to 0.75	4
over .75 to 50	6
over 50 to 345	10
over 345 to 750	16
over 750 to 1,000	20
over 1,000	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution)

In determining whether the equipment will maintain the required clearance distance, you must take into account the effects of speed and terrain on the equipment's movement (including movement of the boom/mast). In addition, if any part of the equipment can get closer than 20 feet to the line, you must use a dedicated spotter to observe the clearance and signal the operator in order to keep the required minimum clearance.

LIMITED EXCEPTION TO MANDATORY MINIMUM CLEARANCE

In some circumstances, it is impossible to perform a required lift while staying the required minimum distance from a power line. The standard provides a limited exception for such circumstances that allows operations closer than the minimum distance. However, it requires additional precautions due to the extreme danger of operating so close to a power line.

Before using this exception, you must determine that specific work required to complete the project cannot be performed while maintaining the Table A clearance. In making this determination, you must consider whether an alternative method of performing the lift, such as repositioning the crane or the load, will enable you to maintain the required minimum distance. If you have decided that it is absolutely necessary to operate closer than the required minimum distance, you must consult the utility that owns or operates the line to determine whether it is feasible to deenergize and ground or relocate the line. Only if deenergizing/grounding or relocation is not feasible may you operate closer than the Table A distance to an energized line. In such a case, you must take the following precautions to protect workers:

FIRST: DETERMINE AN ABSOLUTE MINIMUM CLEARANCE: You must have the power line owner/operator or a registered professional engineer who is a qualified person with respect to electrical power transmission and distribution determine the minimum clearance distance that must be maintained to prevent electrical contact in light of the on-site conditions. The factors that must be considered in making this determination include, but are not limited to: conditions affecting atmospheric conductivity; time necessary to bring the equipment, load line, and load (including rigging and lifting accessories) to a complete stop; wind conditions; degree of sway in the power line; lighting conditions; and other conditions affecting the ability to prevent electrical contact.

SECOND: HOLD A PLANNING MEETING: You must hold a planning meeting with the utility owner/operator (or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution) to determine the procedures that will be followed to prevent electrical contact and electrocution.

THIRD: USE PROTECTIVE PROCEDURES: The procedures required by the standard and any additional procedures developed at the planning meeting must be followed. The following procedures are required by the standard and **must be followed without exception:**

- If the power line is equipped with a device that automatically reenergizes the circuit in the event of a power line contact, before the work begins, the automatic reclosing feature of the circuit interrupting device must be made inoperative if the design of the device permits.
- A dedicated spotter who is in continuous contact with the operator must be used to ensure that the equipment does not breach the minimum clearance. The requirements for a dedicated spotter are discussed above.
- An elevated warning line, or barricade (not attached to the crane), in view of the operator (either directly or through video equipment), equipped with flags or similar high-visibility markings, must be erected.
- An insulating link/device must be installed at a point between the end of the load line (or below) and the load. (NOTE: certain safety procedures or devices may be substituted for a Nationally Recognized Testing Laboratory-approved insulating link during an interim time period. Refer to section 1926.1410(d)(4)(iv) and (v) of the standard for details)
- All employees who may come in contact with the equipment, the load line, or the load (except operators located on the equipment) must be insulated or guarded from the equipment, the load line, and the load by wearing insulating gloves rated for the voltage involved or using another effective means of insulating them from the equipment.
- Nonconductive rigging must be used.

- If the equipment is equipped with a device that automatically limits range of movement, it must be used and set to prevent any part of the equipment, load line, or load (including rigging and lifting accessories) from breaching the minimum approach distance.
- Any tag line that is used must be of the nonconductive type.
- Barricades forming a perimeter at least 10 feet away from the equipment must be erected to prevent unauthorized personnel from entering the work area. In areas where obstacles prevent the barricade from being at least 10 feet away, the barricade must be as far from the equipment as feasible.
- Workers other than the operator must be prohibited from touching the load line above the insulating link/device and crane. The operator is excluded from this requirement because, while on the equipment, the operator is, in effect, touching the load line above the insulating link/device. However, if the operator is remotely operating the equipment from the ground, he/she must use either wireless controls that isolate the operator from the equipment or insulating mats that insulate the operator from the ground.
- Only personnel essential to the operation are permitted in the area of the crane and load.
- The equipment must be properly grounded.
- Insulating line hose or cover-up must be installed by the utility owner/operator except where such devices are unavailable for the line voltages involved.
- Each operator and crew member assigned to work with the equipment must be trained in the topics listed earlier in this section.

FOURTH: APPOINT A PROJECT DIRECTOR: You, along with the utility owner/operator (or registered professional engineer) and all other employers involved in the work, must identify one person who will direct the implementation of the procedures. That person must have the authority to stop work at any time to ensure safety.

FIFTH: RECONSIDER YOUR PLAN IF A PROBLEM ARISES: The danger of operating a crane close to a power line cannot be overemphasized. Procedures that may appear adequate at the beginning of a job may not be adequate in practice. For example, If electricity arcs from the line to the equipment, whatever precautions are being taken are not sufficient. Therefore, if there is any indication that the procedures being followed are inadequate to protect workers, you must safely stop operations and either develop new, more protective procedures or have the utility owner/operator de-energize and visibly ground or relocate the power line before resuming work.

PERMANENT SOIL REINFORCEMENT MATTING

PSP (Kimley-Horn)

DESCRIPTION

This item consists of furnishing and placing Permanent Soil Reinforcement Matting, of the type specified, over previously prepared areas as directed.

QUALITY ASSURANCE

The Contractor shall provide a permanent erosion control reinforcement mat constructed of synthetic or a combination of synthetic and coconut fibers evenly distributed throughout the mat between a bottom UV stabilized netting and a heavy duty UV stabilized top net. The matting shall be stitched together with UV stabilized polypropylene thread to from a permanent three-dimensional structure. The matting shall have the following minimum physical properties:

Property	Test Method	Value	Unit
Light Penetration	ASTM D6567	9	%
Thickness	ASTM D6525	0.4	Inch
Mass Per Unit Area	ASTM D6566	0.55	lb /sy
Tensile Strength	ASTM D6818	385	lb /ft
Elongation (Maximum)	ASTM D6818	49	%
Resiliency	ASTM D1777	>70	%
UV Stability*	ASTM D4355	>80	%
Porosity	ECTC Guidelines	>85	%
Maximum Permissible Shear Stress (Vegetated)	Performance Bench Test	>8	lb / ft2
Maximum Allowable Velocity (Vegetated	Performance Bench Test	>16	ft / s

*ASTM D1682 Tensile Strength and % strength retention of material after 1000 hours of exposure.

SUBMITTALS

The Contractor shall submit Letters of Certification from the manufacturer demonstrating:

1. Chemical and physical properties of the Permanent Soil Reinforcing Matting
2. Conformance of the Permanent Soil Reinforcing Matting with this special provision

MEASUREMENT & PAYMENT

The quantity of ***Permanent Soil Reinforcing Matting*** will be paid for per square foot of ***Permanent Soil Reinforcing Matting*** placed and accepted. The unit price will include all materials, shipping, and all other incidentals required to complete the installation.

Payment will be made under:

Pay Item	Pay Unit
Permanent Soil Reinforcing Matting	Square Foot

EXTERIOR PLANTING

PSP (Kimley-Horn)

DESCRIPTION

Exterior planting (also referred to as “plant material”) shall be installed at the locations in the project site as designated on the plans and in accordance with the details provided.

RELATED SECTIONS

1. Topsoil
2. Soil Amendments

QUALITY ASSURANCE

The Contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified. Those submitting bids shall be registered with the North Carolina Landscape Contractors Registration Board, and have been actively and directly engaged in landscape installations of similar scope, size and complexity, and provide proof of five (5) or more successful installations in the past two years. Documentation shall include scope of work, budget, and current contact information for Client.

Plant names indicated comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed must conform to genus and species as accepted by the nursery trade. Provide stock true to botanical name and legibly tagged.

Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock". A plant shall be dimensioned as it stands in its natural position.

Exterior planting shall be performed only by experienced workmen familiar with planting procedures and under the supervision of a qualified supervisor on the site at all times.

The contractor shall submit sources for all plant materials and digital photographs for approval by project landscape architect prior to procurement.

DELIVERY, STORAGE, & HANDLING

Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in original undamaged packages and containers until ready for installation to protect against damage, weather, vandalism, and theft.

Bulk materials delivery schedule and location shall be coordinated with general contractor prior to arrival. Do not dump or store bulk materials near structures, utilities, walkways or other paved areas, or on existing turfgrass areas. Each delivery shall be accompanied with the appropriate certificates. The contractor shall provide erosion control measures to displacement of materials, discharge of soil-bearing water runoff, and airborne particulate from reaching adjacent properties, bodies of water, or walkways.

Plant material shall not be pruned prior to delivery. Protect bark, branches, and root systems from sun scale, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling. Handle planting stock by root ball.

Schedule plant material delivery only after preparations for planting have been completed, and install immediately. Any planting delayed more than (6) six hours after delivery shall require plant material to be stored in a temporary holding area for care. Plant material shall be set or heeled in their appropriate aspect (sun, filtered sun, or shade) and protected for damage by severe weather, machinery, or other construction activities. Set balled and burlapped (B&B) stock into shallow planting pits, brace as necessary to prevent falling over, and cover rootball wth soil, peat moss, sawdust, or other acceptable material. Do not remove container-grown stock from containers until time of

planting. Irrigate with either a temporary irrigation system or hand water with a fine-mist spray to thoroughly water rootball. Apply water as often as necessary to maintain root system in a moist, but not overly-web condition.

Project Conditions

1. Field Measurements

   a. Verify actual grade elevations, service and utility locations, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.

2. Interruption of Existing Services or Utilities

   a. Do not interrupt services or utilities to facilities occupied by Owner or other unless permitted under the following conditions and then only after arranging to provide temporary services or utilities according to the requirements indicated:

      (1) Notify Owner's Representative no fewer than two days in advance of proposed interruption of each utility or service.

      (2) Do not proceed with interruption of services or utilities without Owner's written permission.

3. Planting restrictions

   a. Plant during one of the following periods. If circumstances require planting outside the approved planting periods, written approval must be obtained from the Town. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.

      (1) Spring Planting: March, 1 to June, 15

      (2) Fall Planting: September, 1 to November, 30

4. Weather Limitations

   a. Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.

5. Coordination with Turf Areas (Lawns): Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless otherwise indicated.

   a. When planting trees, shrubs and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

Materials

1. Fertilizer

   a. Granular, 100% organic or palletized

      (1) Top-dress fertilizer shall be complete fertilizer with 50% of the nitrogen to be derived from natural organic sources or urea form. Available phosphoric acid shall be from superphosphate, bone or tankage. Potash will be derived from muriate of potash containing 60% potash.

      (2) Tree and shrub planting fertilizer shall consist of 20-20-5 delivered by water soluble tablet.

2. Topsoil

   a. See “Topsoil” Special Provision

3. Soil Amendments

   a. See “Soil Amendments Special Provision

4. Mulch

   a. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:

      (1) Type: Shredded Pine Bark Mulch and shall contain no extraneous material

5. Plant Material

All plant material shall comply with ANSI Z60.1, American Standard for Nursery Stock, current edition, published by American Association of Nurserymen.

   a. Provide nursery grown plants typical of their species or variety, with normal, densely developed branches and vigorous, fibrous root systems. Provide only solid, healthy, vigorous plants free from defects, disfiguring knots, sunscald injuries, and frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, fire ants, and all forms of infestation. Al plants shall have a fully developed form without voids and open spaces. ALL PLANTS SHALL BE NURSERY GROWN AND NOT FIELD COLLECTED.

   b. B & B Stock: Dig balled and burlap plants with firm, natural balls of earth, of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock". Cracked, mushroomed, or “manufactured”, (including the addition of soil inside burlap to meet specifications), rootballs are not acceptable.

      (1) Matched Specimens: Plants indicated on plans to be matched specimens shall have similar shape and form during installation. Any plants not meeting the standards of the matching plant material will be rejected.

   c. Container Grown Stock: Grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole. No plants shall be loose in the container. Container stock shall not be pot bound. Plants planted in rows shall be matched in form and shall meet the requirements for spread and height as indicated in the plant list. The measurements for height shall be taken from the ground level to the average height of the top branches of the plant, and not the longest branch. Single stemmed or thin plants will not be accepted. Side branches shall be generous, well twigged, and the plant as a whole well bushed to the ground. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

6. Landscape Materials

   a. Drainage Gravel

      (1) Washed, sound crushed stone or gravel complying with ASTM D 448 for Size No. 57.

   b. Planter Filter Fabric

      (2) Nonwoven geotextile manufactured for separation applications and made polypropylene, polyolefin or polyester fibers or combination of them.

7. Water

a. Potable

Performance

1. Examination

a. Examine substrate surfaces to receive plant material and associated work and conditions under which work will be installed. Verify that no foreign of deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area. Do not proceed until unsatisfactory conditions have been corrected in a manner acceptable to the contractor. Starting of work within a particular area will be construed as acceptance of surface conditions.

2. Preparation

a. Utilities: Notify utility companies of planting schedule and have existing utilities field located prior to excavation. Notify Town of potential conflicts.

b. Layout: Stake plants as indicated on the drawings. Obtain approval of Town or Project Landscape Architect prior to any installation of plant material. If obstructions are encountered, do not proceed with planting operations until alternate plant locations have been selected and approved.

c. Existing Plant Materials: Protect all existing plant materials from damage. Contractor will be responsible to replace or, if feasible, repair (by pruning according to the written instructions of a qualified arborist) any damages at his cost. Replacement values will be determined by the Town Staff through previously utilized methodologies.

d. Amendments of Planting Mixture: The contractor shall obtain a NC Department of Agriculture soils test for all areas to be planted and incorporate soil amendments into the top six inches of the planting mixture soil the recommended adjustments as per the test. After incorporation of the amendments the contractor shall remove all stones and clods over one inch in diameter, roots, weeds and other extraneous materials. The contractor shall bring all amended soil areas to finished grade.

e. Excavation:

(1) Tree Pits: Excavate tree pits with "rough," sides as indicated in plans. Provide pits at least 24" greater than the diameter of the root system. Depth of pit shall accommodate the root system, contractor to loosen encircling roots from the soil so that they may extend outward from the ball, (both container and B&B material). In general the depth of the hole shall be 2-3” less than the depth of the root ball. Scarify the sides of the pit. Avoid creating smooth or "glazed" sides of the pit. Dispose of any unsuitable subsoil removed from excavations. The bottom of the hole shall be flat and firm to prevent settling; do not dig or scarify.

(2) Shrubs/Groundcover: Excavate as necessary for planting after preparation of planting mix described below.

f. Drainage: Test each tree planting pit for adequate percolation. If subsoil conditions indicate retention of water in planting areas, or if seepage or other evidence indicating presence of underground water exists, notify Town before backfilling. Fill excavations with water and allow percolating out before setting trees and shrubs.

g. Preparation of Planting Pit:

(1) Trees: Backfill only with approved planting mixture. Should any "non-soil" materials be encountered (i.e. Building materials, construction debris, solid waste) or any other deleterious matter, those materials shall be totally removed and replaced with approved topsoil.

(2) Shrubs/Groundcover: Excavate as necessary to remove all existing weeds, grass, and roots. Roto-till beds to depth of 6", add 3" of soil amendments and Roto-till again. Rake beds to create a smooth level planting area. Apply pre-emergent to meet manufacturer recommendations prior to planting and mulching of the entire plant bed area.

3. Installation

a. Set plant material in the planting pit 2-3" above grade, sloping surrounding soil to meet the outside edge of the rootball. Use large equipment as needed to properly set trees in pits. Do not bend trunk or use trunk as lever to move tree in pit. ANY OPERATIONS OBSERVED USING THESE METHODS WOULD CAUSE IMMEDIATE REJECTION OF THAT PLANT MATERIAL. Set plants upright, plumb and faced to give the best appearance or relationship to each other or adjacent structure. No filling will be permitted around trunks or stems. Root flare should be visible. Backfill the pit with planting mixture. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.

b. After balled and burlap plants are set, hand water planting soil mixture around bases of balls and fill all voids. Remove all burlap, ropes and wires from the rootballs

c. Moisten shrub/groundcover areas prior to setting plants. Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 36" of the trunks of trees within planting bed.

d. Water trees, plants, and ground cover beds within the first 24 hours of initial planting.

e. Insure that trunk flare is AT FINISH GRADE of the root ball at the time of delivery. Maximum buried trunk flare that will be acceptable is 2". Anything greater than 2" will be reason for rejection. Remove soil to expose root flare.

4. Mulching: Mulch tree planting pits and shrub beds with required mulching material, 3" deep, as shown on drawings immediately after planting thoroughly water mulched areas. After watering, rake mulch to provide a uniform, finished surface. Keep mulch 6" away from tree trunk flare

5. Pruning:

a. Prune branches of deciduous stock after planting only to cut back broken branches. Proportion shall, in all cases, be subject to approval. Prune evergreens only to remove broken or damaged branches or if considered necessary to enhance survivability of B & B stock.

b. Multiple Leader Plants: Prune evergreens only to remove broken or damaged branches or if considered necessary to enhance survivability of B & B Stock.

6. Stake Plants: Staking shall be completed immediately after planting. Plants shall stand plumb after staking. Only stake trees that are deemed top heavy. The contractor shall remove when required so as to not girdle trees with staking and wires.

a. The contractor shall use nylon webbing or plastic landscape lockchain for staking. The use of wire and rubber hose will not be accepted.

7. Fertilizing Application: The contractor shall apply fertilizer to the surface of planting beds, at a rate of one pound per caliper of trees and one pound per square yard of shrub bed.

8. Watering: The contractor shall water all plant material through the warranty period.

   a. Apply water by hand held hose at low pressure to avoid erosion and injury to plant material.

   b. Tree watering bags are an acceptable alternative method for watering trees in lieu of repeated filling of saucer.

   c. Sufficient watering for woody ornamental, groundcovers, and ornamental grasses may be achieved by applying two (2) slow consecutive passes over the entire landscape bed.

   d. Rainfall may supersede weekly watering in the event a minimum of two (2) inches of rain is received and documented for the actual project area. The Contractor is responsible for maintaining adequate, uniform soil moisture to establish healthy and attractive plant material.

   e. A rain gauge shall be installed on the project site in a secure area that is indicative of the landscape. The Contractor is responsible for maintaining a weekly log of actual rainfall received. These logs shall be submitted to the Town and Project Landscape Architect on a quarterly basis for review and approval.

9. Clean-up: Upon completion of planting, the contractor shall clean up all debris on the site and remove any unused materials along with any remaining topsoil from the site. This clean up includes planting areas, lawn areas, rights-of-way adjacent to the site, and buffer areas.

10. Final Acceptance

   a. Planted areas will be inspected at the contractor's request upon completion of installation and a "punch list" will be prepared including items necessary to receive final acceptance. Inspection shall be by the Town, and Project Landscape Architect. Inspection to determine final acceptance of planted areas will be made upon contractor's request. Provide notification at least 10 working days before requested inspection date. Planted areas will be accepted provided all requirements have been complied with and plant materials are alive and in a healthy, vigorous condition.

   b. Upon acceptance (as confirmed in writing by the Project Landscape Architect or Town) of the landscape operations, the contractor's one-year warranty and maintenance period shall begin.

WARRANTY

The Contractor shall provide a one year warranty against defects in materials or workmanship with the exterior planting. The Contractor shall make regular site visits to the project area and provide written documentation to the Town and Project Landscape Architect of any detrimental maintenance practices or other acts which may void the Exterior Planting warranty. Failure to document any of these conditions during their occurrence shall be deemed as acceptance. This warranty period shall begin at substantial completion. The terms of the warranty are subject to the following:

1. Failures include, but are not limited to, the following:

   a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by the Town, or incidents that are beyond Contractor's control.

   b. Lack of water.

   c. Structural failures including plantings falling or blowing over.

2. Include the following remedial actions as a minimum:

   a. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.

b. Replace plants that are more than 25% dead or in an unhealthy condition at end of warranty period

c. A limit of one replacement of each plant will be required except for losses or replacements due to failure to comply with requirements.

d. Provide extended warranty for period equal to original warranty period, for replaced plant material.

3. The Town will notify the Contractor in writing of plants to be replaced. Replacement dates shall be established by mutual agreement between the Town and the Contractor.

4. The Contractor shall be responsible for maintenance of plant material included in this special provision until substantial completion.

MEASUREMENT & PAYMENT

The quantity of ***Exterior Plantings*** will be paid for per each ***Exterior Plantings*** placed and accepted. Mulch as described in this special provision will be paid for at the contract unit price per cubic yard of Mulch furnished and installed. Centipede Grass as described in this special provision will be paid for at the contract unit price per square foot of Centipede Grass furnished and installed. The unit price will include all materials, shipping, excavation, and all other incidentals required to complete the installation.

Payment will be made under:

Pay Item	Pay Unit
Mulch	Cubic Yard
Landscape Boulders	Each
Overcup Oak, Quercu lyrata	Each
Glossy Abelia, Abelia x grandiflora ‘Canyon Creek’	Each
Butterfly Bush, Buddleja davidii ‘Ellen’s Blue’	Each
Winterberry, Ilex x verticillata ‘Apollo’	Each
Emily Bruner Holly, Ilex x ‘Emily Bruner’	Each
Winter Red Holly, Ilex verticillata ‘Winter Red’	Each
Virginia Willow, Itea virginica	Each
Pink Muhley Grass, Muhlenbergia capillaris	Each
Otto Luykens Laurel, Prunus lauroceasus ‘Otto Luyken’	Each
Centipede Grass (sod), Eremochloa ophiuroides ‘Tif Blair’	Square Foot
Tall Fescue Grass (seed), Festuca arundinacea ‘Rebel IV’	Square Foot

TOPSOIL

PSP (Kimley-Horn)

DESCRIPTION

The contractor shall furnish topsoil from off-site sources in quantities sufficient to complete the requirements as specified herein.

QUALITY ASSURANCE

The Contractor shall provide Topsoils that are fertile, sandy loam, and shall be a natural surface soil obtained from well-drainage areas. Material shall free of subsoils, slag, cinders, stones, lumps of soil, sticks, roots, trash, clay clods, or other extraneous materials larger than 1 1/2 inches in diameter or length. Contractor shall ensure that these soils are free of organic litter or noxious weeds including, but not limited to, Quackgrass, Johnson grass, nutsedge, or poison ivy.. Proposed topsoil materials shall be subject to approval prior to installation, by the Project Landscape Architect.

1. Analysis

The Contractor shall submit for approval prior to installation the following: Proposed topsoil sample and analysis to include soil type, pH organic content, and critical nutrient composition (nitrogen, phosphorus, potassium).

Topsoil characteristics:

Topsoil acidity range shall be between 5.0 and 7.0 inclusive.

Mechanical soil analysis by Sieve Size & Percent Passing:

a. (1) inch mesh, 99 to 100 percent

b. (1/4) inch mesh, 97 o 99 percent

c. No. 100 mesh, 40 to 60 percent

d. No. 200 mesh, 20 to 40 percent

DELIVERY, STORAGE, & HANDLING

Materials shall be stored in neatly onsite until ready for installation to protect against weather, erosion, and contamination.

1. Preparation

The contractor shall inspect subgrade for proper elevation, gradient, and compaction prior to topsoil installation. Notify project Landscape Architect in writing if project site conditions are unsatisfactory, installation will constitute acceptance of project conditions and responsibility for required performance.

2. Installation

Topsoil shall not be handled or installed in a frozen or muddy condition. Materials shall be placed in maximum 6” lifts for all landscaped areas, including sodded lawn areas shown on the project plans and used as planting soil mix for holes dug for trees and large shrubs. The contractor shall clean the jobsite of excess materials and construction debris resulting from the installation.

MEASUREMENT & PAYMENT

The quantity of ***Topsoil*** will be paid for at the contract unit price per cubic yard of ***Topsoil*** furnished and installed. The unit price will include all materials, shipping, excavation, and all other incidentals required to complete the installation.

Payment will be made under:

Pay Item	Pay Unit
Topsoil	Cubic Yard

SOIL AMENDMENTS

PSP (Kimley-Horn)

DESCRIPTION

The Contractor shall furnish soil amendments from off-site sources in quantities sufficient to complete the requirements as specified herein.

1. Inorganic Soil Amendments:

    a. Lime: Agricultural grade dolomitic lime mineral soil conditioner.

    b. Sulfur: Granular, biodegradable, and containing a minimum of 90 percent sulfur, with a minimum of 99 percent passing through No. 6 sieve and a maximum of 10 percent passing through No. 40 sieve.

    c. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.

    d. Aluminum Sulfate: Commercial grade, unadulterated.

    e. Perlite: Horticultural perlite, soil amendment grade.

    f. Gypsum is used to supply calcium-deficient soils, improve soil structure, and unlock or make available other nutrients to plant roots. It is also used to reclaim highly alkaline sodic soils by replacing sodium with calcium. Sodium is washed away by leaching the soil.

    g. Sand: Clean, washed, natural or manufactured, and free of toxic materials.

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 1/2-inch sieve; soluble salt content of 500 ppm; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:

        (1) Composted fine Pine Bark (particle size 1” maximum)

    b. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

MEASUREMENT & PAYMENT

The quantity of ***Soil Amendments*** will be paid for at the contract unit price per cubic yard of ***Soil Amendments*** furnished and installed. The unit price will include all materials, shipping, excavation, and all other incidentals required to complete the installation.

Payment will be made under:

Pay Item	Pay Unit
Soil Amendments	Cubic Yard

TREE WATERING BAGS

PSP (Kimley-Horn)

DESCRIPTION

The Contractor shall furnish and install Tree Watering Bags for all planted trees in the project site as designated on the plans.

Tree Watering Bags shall be green polyethylene with nylon webbing.

Each planted tree shall receive a minimum of two (2) tree watering bags immediately following installation.

DELIVERY, STORAGE, & HANDLING

Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in original undamaged packages and containers until ready for installation to protect against damage, weather, vandalism, and theft.

Install Tree Watering Bags per manufacturer's recommendations.

The Contractor shall be responsible for maintaining the Tree Watering Bags and keeping them continuously full of water throughout the duration of the project construction and plant warranty. Tree Watering Bags shall become Town property at such time.

MEASUREMENT & PAYMENT

The quantity of ***Tree Watering Bags*** will be paid for per each ***Tree Watering Bags*** placed and accepted. The unit price will include all materials, shipping, and all other incidentals required to complete the installation.

Payment will be made under:

Pay Item	Pay Unit
Tree Watering Bags.	Each

EXTERIOR PLANTING MAINTENANCE

PSP (Kimley-Horn)

DESCRIPTION

The Contractor shall furnish Exterior Planting Maintenance for all plant material installed in the project site as designated on the plans.

Maintenance shall extend the duration of the Exterior Planting warranty period.

RELATED SECTIONS

1. Exterior Planting

SUBMITTALS

The Contractor shall submit a detailed maintenance schedule with fourteen (14) days of notification of award.

The Contractor shall submit quarterly maintenance field reports to the Town and Project Landscape Architect documenting all actual field work, including any chemical applications, soil probe results, hand watering activities, and rainfall collected.

DELIVERY, STORAGE, & HANDLING

No materials shall be stored on the project site.

Exterior Planting Maintenance Performance shall include, but not be limited to, the following industry standards for maintaining an ornamental landscape:

1. Turfgrass Maintenance:
    a. Mow turfgrass on a routine interval during growing season such that no more than one-third (1/3) of the total blade is not removed during any single mowing.
    b. Edge along all curbing, driveways, and sidewalks every other mowing.
    c. Edge all landscape bedlines every mowing.
2. Woody Ornamental Pruning
    a. All woody ornamentals shall be pruned at least once following the particular plants growing season.
    b. All pruning shall adhere to ANSI A300, Standards for Tree Care.
    c. “Stump pruning” or severely pruning crape myrtles or other woody ornamentals to remove all branches greater than one-half (1/2) inch in diameter is strictly prohibited and will be cause for plant rejection and subject to the Contractor replacing.
    d. Periodic pruning of suckers and low growing or hanging branches shall be performed as needed.
    e. Mechanical sheering of woody ornamentals is prohibited. The Contractor shall hand prune to maintain a natural appearance or form. Only evergreen hedges previously approved by the Project Landscape Architect may be sheered.
3. Mulching
    a. Mulch shall be re-applied twice annually in early summer and late fall to maintain three (3) inches of cover.
4. Weed Control

a. Landscape beds shall be weeded during regular maintenance to prevent weed contamination.

b. Turfgrass areas shall be treated and maintained to prevent noxious weed contamination.

4. Chemical Applications

a. Pre- and Post-Emergent herbicides, pesticides, and fungicides shall be applied to ensure plant material vitality and proactively maintain the project site's landscape appearance. All chemicals shall be applied by a licensed applicator in the State of North Carolina.

b. Fertilizer shall be applied to ensure plant material vitality and proactively maintain the project site's landscape appearance. All chemicals shall be applied by a licensed applicator in the State of North Carolina.

5. Clean-up

a. Prior to mowing, remove all trash and debris from the project site.

b. Remove any broken or damaged limbs that have fallen to the ground from the project area.

c. Rake and remove excess turfgrass clippings. DO NOT blow turfgrass clippings into landscape beds or into road. Keep all pavement areas, including gravel areas, clean of debris and in a neat appearance.

MEASUREMENT & PAYMENT

The ***Exterior Planting Maintenance*** will be paid for at the contract lump sum price. Such price will include all labor, materials, and all other incidentals required to complete the installation.

The Contractor shall invoice the Town quarterly for the Exterior Planting Maintenance at the following schedule of values:

Quarter 1: 20% of the Exterior Planting Maintenance Lump Sum unit price

Quarter 2: 30% of the Exterior Planting Maintenance Lump Sum unit price

Quarter 3: 30% of the Exterior Planting Maintenance Lump Sum unit price

Quarter 4: 20% of the Exterior Planting Maintenance Lump Sum unit price

Payment will be made under:

Pay Item	Pay Unit
Exterior Planting Maintenance	Lump Sum

APPENDIX A, Geotechnical Report

No Geotechnical investigations or reports are available for the Project.

APPENDIX B, BID FORM

Town of Wake Forest; Burlington Mills Road Landscape Renovation

November 16, 2015

Name of Bidder: _____

PAY ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL
	SITE WORK				
1	MOBILIZATION	LS	1		
2	EROSION CONTROL: TEMPORARY SILT FENCING	LF	470		
3	EROSION CONTROL: STONE	TON	2		
4	EROSION CONTROL: INLET PROTECTION	LF	40		
5	SUPPLEMENTARY CLEARING & GRUBBING	AC	0.36		
6	FINE GRADING	LS	1		
7	SURVEY LAYOUT	LS	1		
8	RETRO FIT EXISTING MH INTO DI	EA	1		
	SITE ELEMENTS / HARDSCAPE				
9	GEOTEXTILE UNDERNEATH DRIVEWAY PAVING	SY	252		
10	COMPACTED NO. 57 STONE PAVING (6")	TON	166		
11	16' WIDE STEEL VEHICULAR GATE	EA	1		
	WAYFINDING				
12	REGULATORY SIGNAGE	EA	6		
	LANDSCAPE				
13	OVERCUP OAK	EA	8		
14	GLOSSY ABELIA	EA	29		
15	BUTTERFLY BUSH	EA	9		
16	APOLLO WINTERBERRY HOLLY	EA	1		
17	EMILY BRUNER HOLLY	EA	7		
18	WINTER RED WINTERBERRY HOLLY	EA	8		
19	VIRGINIA WILLOW	EA	38		
20	PINK MUHLY GRASS	EA	51		
21	OTTO LUYKENS LAUREL	EA	67		
22	LANDSCAPE BOULDERS	EA	21		
23	TIF BLAIR CENTIPEDE GRASS - SOD	SF	3300		
24	TALL FESCUE GRASS - SEED	SF	6700		
25	TOPSOIL	CY	35		
26	SOIL AMENDMENTS	CY	11		

APPENDIX B, BID FORM

Town of Wake Forest; Burlington Mills Road Landscape Renovation

November 16, 2015

Name of Bidder: _____

PAY ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL
27	MULCH (DOUBLE-SHREDDED, 3" DEPTH)	CY	35		
	TOTAL				