

# **INVITATION TO BID**

## **ITB# 2026-23015C CONSTRUCTION FOR TING PARK – OAK HALL GREENWAY CONNECTOR**

**TOHS PROJECT NO. 23-015**

**January 2026**



**MAYOR:**

**MIKE KONDRATICK**

**TOWN CLERK:**

**LINDA MCKINNEY**

**TOWN MANAGER:**

**RANDY HARRINGTON**

**ASST. TOWN MANAGERS:**

**J. SCOTT CHASE**

**DANIEL WEEKS**

**DIRECTOR OF PARKS & REC.:**

**LEEANN PLUMER**

**MANAGER – ENGINEERING:**

**MICHAEL LEONAS**

**PROJECT MANAGER:**

**CHELSEA DAVIS, P.E.**

**ENGINEER OF RECORD:**

**ERIC SPALDING, P.E.**

**(BENESCH)**

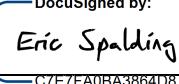
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## CERTIFICATION

I HEREBY CERTIFY THAT THE SPECIFICATIONS CONTAINED HEREIN AND THE ACCOMPANYING PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.

SIGNED, SEALED, AND DATED THIS 15<sup>th</sup> DAY OF January, 2026.



BY   
Eric Spalding, PE  
C7E7FA0BA3864D8

Project Name: Ting Park – Oak Hall Greenway Connector<sup>1</sup>  
Project No.: 23-015

<sup>1</sup> These Bid Docs and corresponding design plans shall refer to the original project name of “Ting Park - Oak Hall Greenway Connector”, but note that Ting Park’s official name has been changed to “North Main Athletic Complex” as of January 3<sup>rd</sup>, 2026. All project and contract documents after the project has been awarded will reflect the updated naming of “North Main Athletic Complex”

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**Project No. 23-015**  
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## **INVITATION TO BID**

TOWN OF HOLLY SPRINGS  
Holly Springs, North Carolina

**ADVERTISEMENT DATE: January 20<sup>th</sup>, 2026**

Sealed bids in response to the ITB# 2026-23015C Construction for Ting Park – Oak Hall Greenway Connector will be received by the Town of Holly Springs until Friday, February 13<sup>th</sup>, 2026, at 2:00 pm and thereafter immediately opened and read publicly in the Town of Holly Springs Town Council Chambers, located on the 2<sup>nd</sup> floor in the Town of Holly Springs Town Hall building, 128 South Main Street, Holly Springs, NC 27540. The project is generally described as follows:

### **DESCRIPTION OF WORK**

The project generally includes approximately 1,050 total feet of greenway construction connecting existing Ting Park trail with Muses Mill Court in Oak Hall neighborhood. The greenway consists of new 10-foot-wide asphalt multi-use path with 2-foot stone shoulders, one (1) fiberglass pedestrian bridge across Little Branch Creek, and all associated clearing, drainage, erosion control, traffic control, signage and other incidental items.

Plans, Specifications, and Contract documents are posted on the Town's website and available for download at <https://www.hollyspringsnc.gov/2456/Bids-Requests-for-Proposals>, and at the electronic Vendor Portal. Furthermore, they have been forwarded to the following electronic plan rooms: PlanScope, Construct Connect, BidClerk, NC Institute of Minority Economic Development, HCA Carolinas, Carolinas Plan Room, Plan Hub, iSqFt, Construction Journal and Dodge Data & Analytics.

**REQUIRED: Plan holders are required to sign up for “Construction Bids” notifications at <https://www.hollyspringsnc.gov/2456/Bids-Requests-for-Proposals> for further project notifications/ addenda.**

The project will be funded by public funds from the Town of Holly Springs, therefore; bidding, contract award and bonding requirements shall conform to NC Statutes for public facilities construction. Minority firms are encouraged to submit proposals.

Award will be made to the lowest, responsive, responsible bidder unless all bids are rejected. The Town of Holly Springs reserves the right to reject any or all bids.

Contractors offering a proposal on this project must be licensed to do the specified type of contracting in the State of North Carolina. The Use of any sub-contractor on this project must be approved by the Engineer. Any bidder that is currently in litigation with the town will be disqualified from bidding.

A **non-mandatory** pre-bid meeting for explanation of the project requirements and discussion of site conditions will be conducted at 10:00 am on Thursday, January 29<sup>th</sup>, 2026, via Microsoft Teams Meetings as shown here (this link will also be available on the Town's website). If the meeting link below does not work, please email Chelsea Davis at the email shown below.

### **Join the meeting now**

Meeting ID: 271 670 607 746 9  
Passcode: 8f9rR2Sr

Respondents shall submit all questions, in writing, to both contacts listed below. When submitting questions, please refer to the solicitation name and number, as well as the page and section, if applicable. The deadline to submit questions is Friday, January 30<sup>th</sup>, 2026, at 2:00 pm.

**Town Project Manager, Chelsea Davis** [chelsea.davis@hollyspringsnc.gov](mailto:chelsea.davis@hollyspringsnc.gov)

**Consultant Project Manager, Eric Spalding** [espalding@benesch.com](mailto:espalding@benesch.com)

Questions submitted after the deadlines do not require a response, though the Town will make reasonable efforts to provide clarification before the response deadline, if possible. Apart from question submissions, respondents should refrain from contacting Town staff prior to the response deadline.

Responses to question submissions and addenda (if applicable) will be posted on the Town of Holly Springs website at <https://www.hollyspringsnc.gov/2456/Bids-Requests-for-Proposals>.

The Town of Holly Springs reserves the right to waive any informality, to reject any and all bids, and to award a contract which, in its judgment, is in the best interest of the Town of Holly Springs.

The BIDDER to whom a contract may be awarded shall fully comply with the requirements of all North Carolina General Statutes governing the practice of general contracting and the procedures for letting of public contracts.

All bids shall include the entire contract document bound as it was presented for bid, with applicable bidding information filled out. Do not remove sections and resubmit. Each proposal shall be accompanied by a certified check or bid bond in the amount of not less than five percent (5%) of the amount of the total of the itemized bid in the form and subject to the conditions provided in the Instruction to Bidders.

**Withdrawal of bid:** A formal bid can be withdrawn without penalty (meaning the bid deposit is not forfeited) at any time before the bid opening. However, after the bids have been opened, a bidder can withdraw his bid without penalty only if the bid price was based on a substantial error or omission that was clerical (not a judgment error), and the bid was submitted in good faith. The bidder must submit a written request to withdraw the bid within 72 hours after the bid opening. The Town will review the request to withdraw and issue a written decision within 5 days. Any bidder who withdraws may not rebid on the project or provide materials, equipment, or labor to a contractor or subcontractor performing on the contract from which the bidder withdrew without the written permission of the Town; a violation of this prohibition is a Class 1 misdemeanor.

Kendra D. Parrish, PE, CFM  
Executive Director Utilities & Infrastructure

## **INSTRUCTIONS TO BIDDERS**

Each proposal shall be submitted in a sealed envelope on the printed form, or exact copies thereof, contained in the Contract Documents. These proposals shall be plainly marked:

### **"ITB #2026-23015C Construction for Ting Park – Oak Hall Greenway Connector"**

The envelope shall also be marked with the **Bidder's name, address, North Carolina contractor license number**, and name and phone number of a contact person. **All bids shall include the entire contract document bound as it was presented for bid, with applicable bidding information filled out. Do not remove section and resubmit.**

The envelope shall show the **date and time of the Bid Opening** in order to guard against premature opening of the Bid.

**Deliver bids to:**      **Attn: Brittany DeVolld**  
**Town Hall - Finance Department Front Desk**  
**Town of Holly Springs**  
**128 S. Main Street**  
**Holly Springs, NC 27540**

Bids submitted by facsimile shall not be accepted.

The Owner may consider non-responsive any Bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all Bids.

Each proposal shall be accompanied by a Bid Bond payable to the Town of Holly Springs for an amount of not less than five percent (5%) of the total amount bid; or in lieu of the Bid Bond, the bidder may offer a certified check in an amount of not less than five percent (5%) of the total amount bid. The Bids and bidder's bond or checks of all bidders may be held for a period of ninety (90) days pending award of the contract. Notification of award of contract shall be evidence of intent to contract and shall extend time for holding the contractor's bid surety for a time mutually agreed between the Town of Holly Springs and the bidder.

Each proposal requires a page providing references to include the company name, address, phone number, e-mail and contact name and position and the type of work completed.

This formal construction contract is subject to the requirements of N.C.G.S. §143-128.2, Minority Business participation. See Section 00905 in the contract documents for further direction.

## **AWARDING CONTRACT**

“The Town of Holly Springs, in accordance with the provisions of *Title VI of the Civil Rights Act of 1964* (78 Stat. 252) and the Regulations of the Department of Transportation (49 C.F.R., Part 21), issued pursuant to such act, hereby notifies all bidders that it will affirmatively insure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the grounds of race, creed, color, national origin, age, sex, disability, marital status, handicap, gender, gender identity or expression, retaliation, or sexual orientation.

Award will be made to the lowest responsible and responsive Bidder for each Contract as soon as practicable, provided that in the selection of equipment or materials, a Contract may be awarded to a responsible Bidder other than the lowest in the interest of standardization or if ultimate economy is clearly evident.

### **Evaluation of Bids**

1. All spaces for lump sum and unit prices in the Bid Form shall be filled in with a number. Spaces left blank will be evaluated as zero (\$0.00).
2. Discrepancies between the multiplication of units of Work and Unit Prices will be resolved in favor of the Unit Prices.
3. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
4. Discrepancies between words and figures will be resolved in favor of the words.

The award of the Contract, if it is awarded, will be to the lowest responsive, responsible bidder on the base bid whose qualifications indicate the award will be in the best interest of the Town of Holly Springs. The Town of Holly Springs reserves the right to waive technicalities and/or reject any or all bids.

The Owner will not consider any bid or award of Contract to any person, firm, or corporation who has defaulted in any obligation to the Owner or who, in the opinion of the Owner, failed to perform their work satisfactorily, either as to character or time.

**Any bidder that is currently in litigation with the town will be disqualified from bidding.**

A conditioned or qualified bid will not be accepted.

Pursuant to N.C.G.S. § 44A-26, construction or repair contracts require performance and payment bonds of 100% if the amount bid is \$300,000 or more, or Pursuant to N.C.G.S. § 143-129(c). These bonds are submitted after the award is made to a contractor but before a contract is executed. A Performance Bond and a Payment Bond, each in the amount of one hundred percent (100%) of the contract price, with a corporate surety approved by the Town of Holly Springs, will be required for the faithful performance of the contract. Bidders shall provide certification that performance and payment bond sureties are licensed in North Carolina.

**Reference Sheet**  
**(To be filled out with each submittal package)**

Company Name	Address	Phone	E-mail	Contact person Name	Contact Person Position	Type of Work Completed

**ADDITIONAL INSTRUCTIONS**

All bids shall be prepared and submitted in accordance with the following requirements. Failure to comply with any requirement shall cause the bid to be considered irregular and shall be grounds for rejection of the bid.

1. The bid form furnished by **Town of Holly Springs** with the proposal shall be used and shall not be altered in any manner.
2. All entries on the bid form, including signatures, shall be written in ink.
3. The Bidder shall submit a unit price for every item on the bid form. The unit prices for the various contract items shall be written in figures. **\*\*\*Unit prices must be limited to TWO decimal places.\*\*\***
4. An amount bid shall be entered on the bid form for every item. The amount bid for each item shall be determined by multiplying each unit bid by the quantity for that item and shall be written in figures in the "Amount Bid" column of the form.
5. The total amount bid shall be written in figures in the proper place on the bid form. The total amount shall be determined by adding the amounts bid for each item.
6. Changes in any entry shall be made by marking through the entry in ink and making the correct entry adjacent thereto in ink. A representative of the Bidder shall initial the change in ink. Do not use "White Out" or similar product to make corrections.
7. The bid shall be properly executed. All bids shall show the following information:
  - a. Name of individual, firm, corporation, partnership, or joint venture submitting bid.
  - b. Name of individual or representative submitting bid and position or title.
  - c. Name, signature, and position or title of witness.
  - d. Federal Identification Number
  - e. Contractor's License Number (If available)
8. Bids submitted by corporations shall bear the seal of the corporation.
9. The bid shall not contain any unauthorized additions, deletions, or conditional bids.
10. The bidder shall not add any provision reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

-END OF SECTION 00250 -

SECTION 00300  
**BID PROPOSAL (“Proposal”)**

TO: THE TOWN OF HOLLY SPRINGS, NORTH CAROLINA (“Owner”)

FROM: “BIDDER” \_\_\_\_\_

ADDRESS \_\_\_\_\_  
\_\_\_\_\_

DATE OF BID \_\_\_\_\_, 20\_\_\_\_\_

The Bidder hereby signifies that it is his/her/its intention and purpose to enter into a formal Contract with the Town of HOLLY SPRINGS, North Carolina, to furnish all labor, materials, tools, equipment, apparatus, supplies, and the like required, and to do all the work necessary, for and because of the construction, erection, and/or installation of the proposed “Project”:

**Ting Park – Oak Hall Greenway Connector  
Town of Holly Springs Project 23-015**

for the Town of HOLLY SPRINGS, North Carolina in accordance with the Contract Documents, including Addenda thereto.\*\* There is deposited, herewith, a certified check in the amount of (must be dollar amount): \_\_\_\_\_ Dollars (\$\_\_\_\_\_), or a Bid Bond, in the amount of five percent (5%) of the total aggregate amount of the Bid, made payable to the Owner, the same to be refunded to the Bidder under the conditions of and in accordance with the terms of this Proposal, which are as follows:

THAT: The Bidder has carefully examined the Plans and Specifications and all other Contract Documents and fully understands them.

THAT: The Bidder has carefully examined the site of the Project and is familiar with the conditions under which the work, or any part thereof, is to be performed and the conditions which must be fulfilled in furnishing and/or installing, erecting or constructing any or all items of the Project.

THAT: The Bidder shall provide all necessary tools, machinery, equipment, apparatus, and all other means necessary to do all the work and shall furnish all labor, materials and all else required to complete such Contract as may be entered into, in the manner prescribed in and in accordance with the terms of the Specifications and the Contract and in accordance with the true intent and meaning thereof, and in accordance with the Plans and/or Drawings and the requirements of the Consulting Engineers under them, in a first class manner.

[Terms continued on the following page.]

\*\* Fill in appropriate Addenda number(s):

Addendum # \_\_\_\_\_ Dated \_\_\_\_\_  
Addendum # \_\_\_\_\_ Dated \_\_\_\_\_

THAT: The rights of the Owner and the recommendations of the Consulting Engineers shall not be questioned in the Award of the Contract.

THAT: It is the intention of the Owner to let contracts on the basis of the Bids received in accordance with G.S. 143-129 and in such manner as the Owner may deem to be for the best interests of the Owner.

THAT: The Owner reserves the right to reject any or all proposals.

THAT: The work under each Section will be awarded under one Contract and that the Owner shall have the right to include such item or items as the Owner may deem to be in the best interests of the Owner.

THAT: On being awarded the Contract, the Bidder shall execute a Performance Bond and a Payment Bond, on the forms included herein, each equal to one hundred percent (100%) of the Awarded Contract Price (Contract Sum), as security for the faithful performance of the Contract.

THAT: The Bidder shall submit, in the blank spaces provided, all data, guarantees and other information called for.

THAT: The Bidder shall submit, herewith, drawings, or cuts and Specifications showing and describing in detail the equipment and/or apparatus which the undersigned proposes to furnish.

THAT: This Proposal shall be signed and submitted in the manner prescribed in the Instructions to Bidders.

THAT: Should this Proposal not be accepted by the Owner, the certified check, in the amount of (must be dollar amount): \_\_\_\_\_ Dollars (\$\_\_\_\_\_) or the five percent (5%) Bid Bond, as applicable, deposited herewith shall be returned to the Bidder.

THAT: Should this Proposal be accepted by the Owner and the Bidder fail or neglect to execute the Contract and furnish the required Bonds within fifteen (15) days after receiving notifications of the acceptance of the Proposal and/or receipt of the formal Contract and Bond forms, the certified check, in the amount of (must be dollar amount): \_\_\_\_\_ Dollars (\$\_\_\_\_\_), or the Bid Bond, deposited herewith shall be retained by the Owner as liquidated damages, it being understood that the Owner reserves the right to extend the time allowed for executing the Contract and/or furnishing the Bond in its sole discretion.

THAT: The Bidder shall complete such Contract as may be entered into within the number of consecutive calendar days specified in the Contract from the date of the Notice to Proceed.

THAT: The Bidder proposes to enter into a Contract in accordance with this Proposal, the Plans and Specifications and the Contract Documents included herein, for the prices shown on the following pages.

[Terms continued on the following page.]

THAT: The Bidder shall be required to submit a complete detailed itemized unit cost breakdown of the Bid Items on the Itemized Bid Proposal form in Section 00510 along with a computed Lump Sum Bid Price amount with this proposal.

THAT: It is the intent of these Contract Documents to obtain a Contract based on Unit Prices with project awarded based upon the lowest qualified total bid based upon unit prices applied to the estimated quantities. Where a discrepancy exists between words and numbers in the Bid amount, the written words shall govern. Where a discrepancy exists between unit prices and mathematical computations in the Itemized Proposal, the unit prices and quantities in the Itemized Proposal shall govern.

THAT: The successful bidder shall have all proper Bidder licenses and privilege licenses required under North Carolina state laws governing their respective trade(s).

THAT: Notice to Proceed and project available shall occur within 60 days of award of contract by the Town Council.

**BID PROPOSAL**

**GENERAL CONSTRUCTION  
FOR THE**

**Ting Park – Oak Hall Greenway Connector - Holly Springs, NC**

**Town of Holly Springs Project 23-015**  
(the “Project”)

**ITEMIZED PROPOSAL**

The attached itemized list of work items and materials shall be made a part of this contract along with the completed price per unit of work item. The itemized bid proposal shall consist of the full completion of this list supplemented with any work item the contractor deems necessary to complete the project.

**TOTAL “BID” PRICE** for the construction of the Project complete as indicated by the Contract Documents (in words and figures):

\_\_\_\_\_ Dollars  
and \_\_\_\_\_ Cents (\$\_\_\_\_\_)

Bidder \_\_\_\_\_ (Print)

**NOTE: PROPOSAL SIGNATURE REQUIRED ON PAGE 00300-8. ALL PROPOSALS MUST BE PROPERLY EXECUTED TO BE CONSIDERED A VALID BID.**

## **CERTIFIED LIST OF EQUIPMENT/MATERIAL MANUFACTURERS**

The Bidder, as part of the procedure for the submission of Bids on the Project, submits the following list of Equipment/Materials Manufacturers to be used in the performance of work to be done on said Project. The list of Manufacturers and all equipment/materials furnished shall be based on requirements of the Contract Documents. Changes to this list after the Bid opening shall only be as approved by the Owner upon request by the Bidder or as required by the Owner based upon review of Bidder's submittals:

**EQUIPMENT/MATERIALS**

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**MANUFACTURER**

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It is understood and agreed that, if awarded a Contract, the Bidder shall not make any additions, deletions or substitutions to this certified list without the consent of the Owner. Failure to identify a manufacturer for any or all of the items listed shall constitute an entry of one of the manufacturers listed in its respective technical specifications.

### **CERTIFICATION AFFIDAVIT**

THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER UNDERSTAND AND AGREE THAT, IF AWARDED A CONTRACT, THIS CERTIFICATION SHALL BE ATTACHED THERETO AND BECOME A PART THEREOF.

---

[If Bidder is not an individual, enter entity name here]

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

NAME OF SIGNER: \_\_\_\_\_  
(Please Print or Type)

TITLE OF SIGNER: \_\_\_\_\_  
(Please Print or Type)

DATE: \_\_\_\_\_

**BID SECURITY:**

Accompanying this Proposal is a (1)\_\_\_\_\_ in the amount of (2)\_\_\_\_\_ Dollars (\$\_\_\_\_\_).

NOTE: (1) Insert the words "bank draft," "certified check," "bid bond", "cash", or "cashiers check", as the case may be.

(2) Amount must be equal to at least five percent (5%) of the total Bid.

**BIDDER'S LICENSE:**

The Bidder certifies that (he/she/it) is licensed as a Bidder under the specific North Carolina state law regulating his/her/its particular trade and that the number of the license under which he/she/it now operates is\_\_\_\_\_.

**BIDDER'S CERTIFICATION AS TO ORGANIZATION AND AUTHORITY:**

The Bidder certifies that the Affidavit of Organization and Authority, like the other documents attached hereto, form an integral part of the Proposal, and the Bidder acknowledges that the Owner will rely on the information provided therein in reviewing the Proposal and awarding a Contract.

**LIQUIDATED DAMAGES:**

The Bidder agrees, further, that the Owner may retain those amounts indicated in the Contract from the amount of compensation due the Bidder, under the terms of the Contract, for each and every day that the work remains incomplete and/or unsatisfactory beyond the completion date(s) specified in the Notice to Proceed. This amount is agreed upon as the proper measure of liquidated damages the Owner will sustain, per day, by the failure of the Bidder to complete the work within the stipulated time, and it is not to be construed in any sense as a penalty.

The Bidder shall not have or bring a claim against the Owner, or raise as a defense against the imposition of liquidated damages, other construction purportedly impeding Bidder's progress or timely project completion.

**(SIGNATURE PAGE)**

Dated \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_ (SEAL)  
Bidder—Legal Entity

By: \_\_\_\_\_ (SEAL)  
(SIGN HERE)

SEAL-if corporation

\_\_\_\_\_ Printed Name

\_\_\_\_\_

\_\_\_\_\_ Address

(\_\_\_\_\_) \_\_\_\_\_  
Telephone No.

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_ Notary Public

My Commission Expires:

## BID BOND

This is a Bid Bond that is subject to the provisions of Article 3 of Chapter 44A of the North Carolina General Statutes.

This Bid Bond is executed on \_\_\_\_\_, 20\_\_.

The name of the PRINCIPAL is \_\_\_\_\_ (1)  
\_\_\_\_\_  
(2)

The name of the SURETY is  
\_\_\_\_\_  
\_\_\_\_\_

The TOWN OF HOLLY SPRINGS, NORTH CAROLINA, is the OWNER.

The amount of the Bond is \_\_\_\_\_  
(Dollars) (\$\_\_\_\_\_)

KNOW BY ALL MEN BY THESE PRESENTS, the Principal and Surety above named are hereby held and firmly bound unto the above named OWNER hereinafter called the OWNER in the penal sum of the amount stated above in lawful money of the United States, for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of the above obligation is such that whereas the Principal has submitted to the OWNER a certain Bid Proposal, attached hereto and hereby made a part hereof to enter into a Contract in writing, for the construction of:

Ting Park – Oak Hall Greenway Connector – Holly Springs, NC as described by a document entitled  
“Project Manual for Ting Park – Oak Hall Greenway Connector” Project No. 23-015 dated, January 2026  
by the Town of Holly Springs

NOW, THEREFORE

- (a) If said Bid Proposal shall be rejected; or in the alternate,
- (b) If said Bid Proposal shall be accepted and the Principal shall execute and deliver a Contract in the form of Contract attached hereto (properly completed in accordance with said Bid Proposal) and shall furnish a bond for his faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid Proposal, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bid Bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid Proposal; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

ATTEST:

---

(Principal) Secretary  
(SEAL)

---

Principal

BY: \_\_\_\_\_ (3)

---

(Address)

---

Witness as to Principal

---

(Address)

ATTEST:

---

N. C. Resident Agent  
(SEAL)

---

Surety

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

---

(Name)

---

(Address)

---

(Phone Number)

---

Witness as to Surety

---

(Address)

- (1) Insert the correct name of Principal.
- (2) Insert whether the Principal is a corporation, a partnership, a limited liability company or an individual.
- (3) If Principal is a partnership, all partners should execute the Bid Bond. If Bidder is a limited liability company, all managers (or all members, if the company is member-managed) should execute the Bond.
- (4) Provide contact name, address and phone number for bid bond surety.

**POWER OF ATTORNEY**  
**(Attach)**

**BIDDER'S CERTIFICATES**  
**AFFIDAVIT OF ORGANIZATION AND AUTHORITY**  
**SWORN STATEMENT**

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

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

\_\_\_\_\_ being first duly sworn on oath deposes and says that the Bidder on the attached Bid Proposal is organized as indicated below and that all statements herein made are made on behalf of such Bidder and that this deponent is authorized to make them.

(Fill Out Applicable Paragraph)

**CORPORATION:**

The Bidder is a corporation organized and existing under the laws of the State of \_\_\_\_\_, it operates under the legal name of \_\_\_\_\_, and the full names of its officers are as follows:

President \_\_\_\_\_  
Secretary \_\_\_\_\_  
Treasurer \_\_\_\_\_  
Manager \_\_\_\_\_

and it does \_\_\_\_\_ have a corporate seal. The \_\_\_\_\_ is/are authorized to sign construction proposals and contracts for the company by action of its Board of Directors taken \_\_\_\_\_, a certified copy of which is hereto attached. (Strike out this last phrase if not applicable.)

**PARTNERSHIP:**

The Bidder is a [limited/general] partnership consisting of individual/corporate partners as follows:

General Partners

Limited Partners

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

The partnership does business under the name of : \_\_\_\_\_

**LIMITED LIABILITY COMPANY:**

The bidder is a [member-managed/manager-managed] limited liability company consisting of the following individual/corporate members/managers:

Managers

Members

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

**INDIVIDUAL:**

The Bidder is an individual whose full name is:

and if operating under a trade name, said trade name is as follows:

---

The business address of the Bidder is: \_\_\_\_\_

---

---

Its phone number is: \_\_\_\_\_

The contact person for this Proposal is: \_\_\_\_\_

\_\_\_\_\_  
Bidder

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

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_  
\_\_\_\_\_, 20\_\_\_.  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
County

My Commission Expires:

---

## **EQUAL EMPLOYMENT OPPORTUNITY ADDENDUM**

During the performance of the Contract the Bidder agrees as follows:

- a. The Bidder shall not discriminate against any employee or applicant because of race, color, religion, sex, or national origin. The Bidder shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to race, color, religion, sex, or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Bidder agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of the nondiscrimination clause.
- b. The Bidder shall, in all solicitations or advertisements for employees placed by or on behalf of the Bidder, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- c. The Bidder shall send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract understanding, a notice, to be provided, advising the labor union or worker's representative of the Bidder's commitments under the Equal Employment Opportunity Section of the Contract, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. In the event of the Bidder's noncompliance with the nondiscrimination clauses of the Contract or with any of such rules, regulations, or orders, the Contract may be canceled, terminated, or suspended in whole or in part and the Bidder may be declared ineligible for further OWNER contracts.
- e. The Bidder will include the provisions of this Addendum in every subcontract or purchase order unless exempted by rules, regulations, or orders of the OWNER so that such provisions will be binding upon each Subcontractor or vendor.

(Use the following form for execution by a CORPORATION):

ATTEST:

\_\_\_\_\_  
(Assistant) Secretary

Corporate Name

BY: \_\_\_\_\_  
(Vice) President

(CORPORATE SEAL)

(Use the following form for execution by a PARTNERSHIP):

\_\_\_\_\_  
(SEAL)  
Partnership Name

BY: \_\_\_\_\_  
(SEAL)  
General Partner

(Use the following form for execution by a LIMITED LIABILITY COMPANY):

\_\_\_\_\_  
(SEAL)  
Company Name

BY: \_\_\_\_\_  
(SEAL)  
Manager/Member

(Use the following form for execution by an INDIVIDUAL):

BY: \_\_\_\_\_  
(SEAL)

WITNESS:

\_\_\_\_\_  
Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
County

My Commission Expires:

## QUALIFICATIONS OF BIDDERS

In order to assist the Owner in determining whether the Bidder is qualified to perform the Work, as set forth in the Contract Documents, the Bidder shall furnish the following information.

1. List of references who are qualified to judge as to his financial responsibility and his experience in work of similar nature to that bid upon:
  
2. List of previous contracting experience, including dollar values of contracts:
  
3. List of facilities or equipment that is available for use:
  
4. Name, residence, and title of the individual who will give personal attention to the work:
  
5. Financial Statement:

### ASSETS

#### CURRENT ASSETS:

Cash	\$ _____
Notes and Accounts Receivable	_____
Inventories _____	_____

#### PLANT ASSETS:

Real Estate	\$ _____
Machinery	_____
Good Will, Patents, etc.	_____
	\$ _____
	Total Assets

**LIABILITIES:**

Notes Payable	\$ _____
Accounts Payable	_____
Accrued Wages	_____
Other Liabilities	_____
	\$ _____
	Total Liabilities
	EXCESS OF ASSETS OR NET WORTH
	\$ _____

6. List all pending claims or lawsuits, and any lawsuit within the last 10 years, filed by or against the Bidder, and describe the resolution of each claim or lawsuit:

<u>Claim</u>	<u>Date of Claim</u>	<u>Resolution, if any</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

The existence of unresolved claims against Bidder may disqualify the Bidder from making a Bid Proposal and entering into a Contract.

**Notes:**

- A. The above is a suggested form for the Financial Statement, but the Bidder is not required to follow the form explicitly. The Financial Statement submitted must clearly show to the satisfaction of the Owner the Bidder's current financial condition. The Owner reserves the privilege of requiring additional information as to financial responsibility of the Bidder prior to awarding Contract.
- B. Bidder shall attach additional pages, if necessary, in order to complete the required information.
- C. The Bidder shall submit detailed information required for above items 1 through 4 with his Bid Proposal package and, at the discretion of the Bidder, the information required under Item 5 may be furnished after Bid Proposals are received if required by the Owner and Engineer to evaluate the financial qualifications of a prospective Bidder.

**AFFIDAVIT OF  
STATEMENT OF NON-COLLUSIVE**

State of \_\_\_\_\_) ) ss.  
County of \_\_\_\_\_)

\_\_\_\_\_, being first duly sworn,  
deposes and says that:

- (1) He/she is the \_\_\_\_\_  
(Owner, Partner, Officer, Representative or Agent)  
of \_\_\_\_\_, the BIDDER that has submitted  
the attached BID PROPOSAL;
- (2) He is fully informed respecting the preparation and contents of the attached BID PROPOSAL and  
of all pertinent circumstances respecting such BID PROPOSAL;
- (3) Such BID PROPOSAL is genuine and is not a collusive or sham BID PROPOSAL;
- (4) Neither the said BIDDER nor any of its officers, partners, owners, agents, representatives,  
employees or parties in interest, including this affiant, have 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 PROPOSAL in connection with the Contract for which the attached BID  
PROPOSAL has been submitted; or to refrain from bidding in connection with such Contract; or  
have in any manner, directly or indirectly, sought by agreement or collusion, or communication, or  
conference with any BIDDER, firm, or person to fix the price or prices in the attached BID  
PROPOSAL or of any other BIDDER, or to fix any overhead, profit, or cost elements of the BID  
PROPOSAL price or the BID PROPOSAL price of any other BIDDER, or to secure through any  
collusion, conspiracy, connivance, or unlawful agreement any advantage against The Town of  
HOLLY SPRINGS, or any person interested in the proposed Contract;
- (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 other  
of its agents, representatives, owners, employees or parties in interest, including this affidavit.

---

BIDDER

BY \_\_\_\_\_

ITS \_\_\_\_\_  
(Title)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

My commission expires \_\_\_\_\_

END OF AFFIDAVIT

### **NONDISCRIMINATION CLAUSE**

It is specifically agreed as part of the consideration of the signing of this Bid Proposal, and the resulting execution of a Contract, that the parties hereto, their agents, officials, employees or servants shall not discriminate in any manner on the basis of age, handicap, race, color, creed, gender, religious affiliation, or national origin with reference to the subject matter of the Contract, no matter how remote.

This provision, being incorporated for the benefit of the Town of HOLLY SPRINGS and its residents, may be enforced as set out in the ordinances of the Town of HOLLY SPRINGS, enforcement of this provision shall be by action for specific performance, injunctive relief, or other remedy as by law provided.

This provision shall be binding on the successors and assigns of the parties hereto with reference to the subject matter of the Contract.

(Use the following form for signatures by a CORPORATION):

Corporate Name

ATTEST:

---

(Assistant) Secretary

---

BY: \_\_\_\_\_

(Vice) President

---

(Printed Name)

---

(Printed Name)

(Corporate Seal)

(Use the following form for signatures by a PARTNERSHIP):

---

WITNESS

---

(SEAL)

Partnership Name

---

(Printed Name)

---

(SEAL)

General Partner

(Use the following form for signatures by a LIMITED LIABILITY COMPANY):

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(SEAL)  
Company Name

BY: \_\_\_\_\_  
(SEAL)  
Manager/Member

(Use the following form for signatures by an INDIVIDUAL):

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(SEAL)

\_\_\_\_\_  
(Printed Name)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
County

My Commission Expires:

\_\_\_\_\_

## NOTICE OF AWARD

TO: CONTRACTOR/BIDDER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

---

FROM: Town of Holly Springs  
PO Box 8  
Holly Springs, NC 27540

OWNER: Town of Holly Springs  
Parks and Recreation  
Holly Springs, North Carolina

PROJECT:

Ting Park – Oak Hall Greenway Connector – Holly Springs, NC  
Project No. 23-015

You are hereby notified that the Owner has considered the Bid Proposal submitted by you for the above-described project in response to its Notice to Bidders dated \_\_\_\_\_.

It appears that it is to the best interest of said Owner to accept your Bid Proposal in the amount of: \_\_\_\_\_ Dollars (\$\_\_\_\_\_\_). You are therefore hereby notified that your Bid Proposal has been accepted for \_\_\_\_\_

---

The Bidder is required by as a condition of its Award of the Contract to execute and deliver the formal Contract with the Owner and to furnish the required Bidder's Performance and Payment Bonds within fifteen (15) days from the date of the delivery of this Notice to you.

If you fail to execute said Contract and to furnish said Bonds within fifteen (15) days from the date of delivery of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid Proposal as abandoned and to award the work covered by your Bid Proposal to another bidder, or to readvertise the work or otherwise dispose thereof as the Owner may see fit.

Dated this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Town of HOLLY SPRINGS, North Carolina

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

Title: \_\_\_\_\_

### **ACCEPTANCE OF NOTICE**

Receipt of the above Notice of Award is hereby acknowledged this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.  
  

---

Bidder

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

Title: \_\_\_\_\_

- END OF SECTION 00300 -

SECTION 00500  
**AGREEMENT (CONTRACT)**

**INSTRUCTIONS TO CONTRACTORS AND REQUIREMENTS AS TO FORM FOR TOWN  
OF HOLLY SPRINGS, NC AGREEMENTS**

**DO NOT REMOVE FROM AGREEMENT**

Please observe the following in executing the attached Agreement:

1. The Owner may contract with four types of legal entities.
  - (a) If the Agreement is with an individual, that individual should sign the Agreement exactly as his/her name is set out. If the Agreement is with an individually-owned business, the Agreement should be with the individual owner, and not the named business.
  - (b) Execution on behalf of a corporation should be by the president or a vice president, attested by the corporate secretary, with the corporate seal affixed. An official other than president or vice president should attach documentation of his/her authority to execute and bind the corporation.
  - (c) If the Agreement is with a partnership, all general partners of the partnership should execute the Agreement unless an authorized partner is designated to execute, in which case documentation of such authorization should be attached.
  - (d) If the Agreement is with a limited liability company, all managers of the limited liability company should execute the Agreement. If the limited liability company is member-managed, all members should sign the Agreement. If only certain manager(s) or member(s) of the limited liability company are authorized to execute the Agreement, documentation of such authorization should be attached.
2. After signing the Agreement, the appropriate notary's acknowledgement, in the individual, corporate or partnership form should be completed.
3. The Performance Bond and Payment Bond should be attached to the Agreement package. They should be signed by the Contractor, and its signature should be acknowledged with the appropriate acknowledgement form. Next, the Bonds, in approved form, must be signed by the authorized agent of the Surety Company issuing the Bonds, and an executed Power of Attorney document authorizing the agent to sign must accompany the Bond Documents.
4. The Agreement and Bonds should not be dated, except by the last person executing the Agreement, normally the Town Clerk.
5. The Bid Form and all other documents submitted with the Bid shall be included with the Agreement.
6. Bid Proposal: Complete the Acceptance of Notice section on the last page of this document.
7. Page 00500-3: Fill in the Contractor name and address.
8. Pages 00500-6 through 00500-9: Choose the appropriate signature page and complete it in its entirety.

9. Pages 00500-10 through 00500-15: Complete in their entirety.
10. Page 00500-17: Certificate of Insurance. The General Conditions of the Contract, as modified by the Supplementary Conditions and the Special Conditions, require the Certificate of Insurance to include the Indemnification Agreement on the reverse side of the Certificate. All parties required to be named as additional insured parties by the Contract Documents in connection with the attached Agreement shall be named on the Certificate of Insurance for each policy.
11. Most Certificates of Insurance state under the cancellation clause that “the issuing company will endeavor to mail 30 days written notice to the ...” and “but failure to mail such notice shall impose no obligation or liability of any kind upon the Company, its agents or representatives”. If your certificate states this, the words “endeavor to” and “but failure to mail such notice shall impose no obligation or liability of any kind upon the Company, its agents or representatives” must be stricken in order to comply with the Contract Documents.
12. Four copies of the Agreement are sent to the Contractor. The original and duplicates should be signed and returned to the Engineer or Architect for signature by the Owner, after which one duplicate will be returned to the Contractor and one copy will be sent to the Contractor’s Bonding Company(ies).
13. Failure to fully complete all four sets of the Agreement will cause delays in the approval by the Owner and therefore delay the issuance of the Notice to Proceed.

## AGREEMENT

This Agreement (the "Agreement") is made this \_\_\_\_\_ day of \_\_\_\_\_, in the year 20\_\_\_\_, by and between the Town of Holly Springs, North Carolina, (the "Owner") and \_\_\_\_\_, (the "Contractor").

## WITNESSETH

THAT, WHEREAS, an Award of Contract (the "Award") for:

Ting Park – Oak Hall Greenway Connector – Holly Springs, NC  
Project No. 23-015

as prepared by the Town of Holly Springs. (hereinafter called "Engineer's Consultant"), has recently been awarded to the Contractor by the Owner.

AND WHEREAS, the work to be performed by the Contractor or its subcontractors, and the labor, materials, equipment, apparatus, and supplies to be provided in connection therewith (collectively, the "Work") is more particularly described in the Proposal (the "Proposal") attached hereto.

AND WHEREAS, the aggregate cost of the Work (referred to as either the "Contract Price" or the "Contract Sum") and the individual prices and rates of the various components of the Work that together comprise the Contract Price, are more particularly described in the Proposal.

AND WHEREAS, it was one of the conditions of said Award that a formal contract should be executed by and between the Owner and the Contractor, evidencing the terms of said Award.

NOW THEREFORE, THIS AGREEMENT FURTHER WITNESSETH THAT the Owner and the Contractor represent, warrant, covenant and agree as follows:

It is agreed and understood that the terms and conditions of the following documentation of are a part of and parcel to this Agreement to the same extent as if incorporated herein in full:

Project Manual for Project No. 23-015 Ting Park – Oak Hall Greenway Connector Standard General Conditions of the Construction Contract (EJCDC Document No. 1910-8, 1996 edition), as amended, revised, and supplemented by the Supplementary Conditions (the "Supplementary Conditions") and the Special Conditions (the "Special Conditions") thereto (as so amended, revised and supplemented, the "General Conditions") or 2024 NCDOT Standard Specifications for Roads and Structures.

The Contractor hereby covenants and agrees with the Owner that it will, for a sum equal to the Contract Price, well and faithfully perform, provide and execute the Work in accordance with each and every one of the conditions, covenants, stipulations, terms and provisions contained in the Notice to Bidders/Invitation to Bid, the Instructions to Bidders, the Proposal, the Plans, the Specifications, the General Conditions and the Contract Documents (as that term is defined in the General Conditions), all of which are a part of and parcel to this Agreement to the same extent as if incorporated herein in full.

And the Owner does hereby covenant and agree with the Contractor that it will pay to the Contractor, when due and payable under the terms of the Contract Documents and the Award, the Contract Price, and that it

will well and faithfully comply with and perform each and every obligation imposed upon it by said Contract Documents and the terms of said Award.

The Contractor shall commence the Work on the commencement date specified in a written order of the Owner (the “Notice to Proceed”). The Work shall be **finally and fully completed in the manner and times described in Table 1 below**, so that it is ready for final payment, as evidenced by the Engineer’s or the Architect’s written recommendation. In the event that the Work is not completed to the standards and degrees required by the Contract Times, or either of them, liquidated damages shall be assessed against the Contractor for each day of delay as described herein below.

### LIQUIDATED DAMAGES

The parties recognize and acknowledge that Owner will suffer financial losses if the Work is not completed as required within the Contract Times. They also recognize and acknowledge that the damages caused by the contractor’s delays are difficult to ascertain and that the expense and difficulty to both parties in proving or contesting the amounts of those losses would be substantial. Instead of requiring proof of those amounts, it is agreed that Contractor shall be liable for and shall pay owner the following amounts under owner’s damages, and engineering charges, all as liquidated damages, and not as a penalty in the event the Work remains incomplete at the end of the contract time specified in the Notice to Proceed.

The Contractor agrees further that the Owner may retain those amounts indicated below from the amount of Compensation due the Contractor for each day that the work remains incomplete beyond the completion date specified in the Notice to Proceed. Payment by the Owner to the Contractor in lieu of retainage does not constitute a waiver by the Owner. This amount is agreed upon as the proper measure of liquidated damages the Owner will sustain, per day, by the failure of the undersigned to complete the work within the stipulated time, and it is not to be construed, in any sense, as a penalty. The parties agree this is a reasonable amount.

No Contractor shall have a claim against the Owner as a result of a third party’s lack of progress or project completion.

**Table 1 - Time for Performance**

Contract	Number of Days	Owner’s Damages	Engineering Charges	Total Liquidated Damages
From NTP to Substantial Completion	270	\$300/day	\$200/day	\$500/day
From Substantial Completion to Final Completion	30	\$150/day	\$100/day	\$250/day

Payment of the charges described herein shall not excuse or relieve the Contractor for any other liability under the Contract Documents for delay in the progress schedule of the Work, and all other penalties imposed on the Contractor and remedies available to the Owner under the Contract Documents shall remain in full force and effect.

**INTERMEDIATE CONTRACT TIME NUMBER 1**

The Contractor shall complete the required work of installing, maintaining, and removing the traffic control devices for lane closures and restoring traffic to the existing traffic pattern. The Contractor shall not close or narrow a lane of traffic on any State maintained route or Town Street during the following time restrictions:

**DAY AND TIME RESTRICTIONS**

MONDAY THRU FRIDAY 6 AM TO 9 AM  
MONDAY THRU FRIDAY 4 PM TO 7 PM

In addition, the Contractor shall not close or narrow a lane of traffic on any State maintained route or Town Street, including Sportsmanship Way and Tennis Court, during holidays, holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

**HOLIDAYS AND HOLIDAY WEEKENDS:**

1. Memorial Day, May 25, 2026
2. Juneteenth, June 19, 2026
3. Independence Day, July 4, 2026 (Observed on July 3)
4. Labor Day, September 7, 2026
5. Columbus Day, October 12, 2026
6. Veterans Day, November 11, 2026
7. Thanksgiving, November 26-27. 2026

**OTHER:**

1. Spring Fling, March 21, 2026
2. Community Yard Sale, March 28, 2026
3. Spring Concert, May 9, 2026
4. Car Show, September 5, 2026
5. Half Marathon, November 21, 2026
6. Coordination with Ting Park Complex Manager required to minimize impacts to access and parking during scheduled sports events.
  - a. Holly Springs Salamanders Home Games, May 22 thru August 8
7. Any unexpected occurrence that creates unusually high traffic volumes, as directed by the Engineer.

The time of availability for this intermediate contract work shall be the time the Contractor begins to install all traffic control devices for lane closures according to the time restrictions listed herein.

The completion time for this intermediate contract work shall be the time the Contractor is required to complete the removal of all traffic control devices for lane closures according to the time restrictions stated above and place traffic in the existing traffic pattern.

The liquidated damages are \$500 per 15 minutes.

IN WITNESS WHEREOF, said Contractor and Owner, being duly authorized, have caused these presents to be signed in their names as of the day and year first above written.

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

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

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

Title: \_\_\_\_\_

ATTEST:

TOWN OF HOLLY SPRINGS,  
a North Carolina municipality

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

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

Name: Linda McKinney

Name: Randy Harrington

Title: Town Clerk

Title: Town Manager

(SEAL)

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

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

I, \_\_\_\_\_, a Notary Public of \_\_\_\_\_ County,  
State of \_\_\_\_\_, do hereby certify that \_\_\_\_\_  
personally came before me this day and acknowledged that he/she is the Town Clerk of the Town of Holly  
Springs, a North Carolina municipality, and that, by authority duly given and as the act of the corporation,  
the foregoing instrument was signed in its name by its Town Manager, sealed with its seal, and attested by  
himself/herself as its Town Clerk.

Witness my hand and official seal, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

[OFFICIAL SEAL]

[Contractor's Signature, if individual(s)]

CONTRACTOR:

\_\_\_\_\_ (SEAL)

\_\_\_\_\_ (SEAL)

\_\_\_\_\_ (SEAL)

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

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

I, \_\_\_\_\_, a Notary Public of \_\_\_\_\_ County,  
State of \_\_\_\_\_, do hereby certify that \_\_\_\_\_  
personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_ Notary Public

My Commission expires: \_\_\_\_\_

[OFFICIAL SEAL]

**IMPORTANT**

NOTE: If Contractor is an individual, his/her signature shall be placed above. The signature of the Contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgment.

**[OR: Contractor's Signature, if a corporation]**

CONTRACTOR:

a \_\_\_\_\_ corporation

ATTEST:

\_\_\_\_\_ Secretary  
(SEAL)

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_ President

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

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

I, \_\_\_\_\_, a Notary Public of \_\_\_\_\_ County, State of \_\_\_\_\_, do hereby certify that \_\_\_\_\_ personally came before me this day and acknowledged that he/she is \_\_\_\_\_ Secretary of \_\_\_\_\_, a \_\_\_\_\_ corporation, and that, by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its \_\_\_\_\_ President, sealed with its corporate seal, and attested by himself/herself as its \_\_\_\_\_ Secretary.

Witness my hand and official seal, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_ Notary Public

My Commission Expires: \_\_\_\_\_

[OFFICIAL SEAL]

**IMPORTANT**

NOTE: If the Contractor is a Corporation, the legal name of the Corporation shall be set forth above, together with the signature of the officer or officers authorized to sign Contracts on behalf of the Corporation. If the signature is by an agent other than an authorized officer of the Corporation, a Resolution must be attached hereto. The signature of the Contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgment.

**[OR: Contractor's Signature, if a partnership]**

CONTRACTOR:

\_\_\_\_\_  
a [general/limited] partnership (SEAL)

By: \_\_\_\_\_ (SE  
AL)

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

Title: General Partner

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

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

I, \_\_\_\_\_, a Notary Public of \_\_\_\_\_ County, State of \_\_\_\_\_, do hereby certify that \_\_\_\_\_, General Partner of \_\_\_\_\_, a \_\_\_\_\_ [general/limited] partnership, personally appeared before me this day and acknowledged the due execution of the foregoing instrument as his/her act and deed and as the act and deed of the partnership.

Witness my hand and official seal, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_ Notary Public

My Commission Expires: \_\_\_\_\_

[OFFICIAL SEAL]

**IMPORTANT**

NOTE: If Contractor is a partnership, the true name of the firm shall be set forth above, together with the signatures of all the general partners. If the signature is by an agent other than a general partner, a Resolution must be attached hereto. The signature of the Contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgment.

**[OR: Contractor's Signature, if a limited liability company]**

CONTRACTOR:

\_\_\_\_\_  
a limited liability company (SEAL)

By: \_\_\_\_\_ (SEAL)

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

Title: Member/Manager

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

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

I, \_\_\_\_\_, a Notary Public of \_\_\_\_\_ County,  
State of \_\_\_\_\_, do hereby certify that \_\_\_\_\_ a  
[Member/Manager] of \_\_\_\_\_, a \_\_\_\_\_ limited liability  
company, personally appeared before me this day and acknowledged the due execution of the foregoing  
instrument as his/her act and deed and as the act and deed of the company.

Witness my hand and official seal, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

[OFFICIAL SEAL]

**IMPORTANT**

NOTE: If Contractor is a limited liability company, the true name of the firm shall be set forth above, together with the signatures of all the managers. If the signature is by an agent other than all of the managers of the limited liability company (or all of the members, if the company is member-managed), a Resolution must be attached hereto. The signature of the Contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgment.

**PERFORMANCE BOND**

This Bond is executed on \_\_\_\_\_, 20\_\_\_\_.

The name of the PRINCIPAL is \_\_\_\_\_(1)

a \_\_\_\_\_(2)

The name of the SURETY is \_\_\_\_\_

The TOWN OF HOLLY SPRINGS, NORTH CAROLINA is the CONTRACTING BODY.

The amount of the Bond is \_\_\_\_\_  
\_\_\_\_\_  
Dollars (\$ \_\_\_\_\_))

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held and firmly bound unto the above named CONTRACTING BODY, hereinafter called the "Contracting Body", in the penal sum of the amount stated above in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas, the Principal entered into a certain Agreement with the Contracting Body, dated the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ for work described by Plans and Specifications prepared by Town of Holly Springs, herein called and referred to as the "Engineers", a copy of said Agreement is hereto attached and made a part hereof for the construction of:

**Ting Park – Oak Hall Greenway Connector – Holly Springs, NC as described by a document  
entitled "Project Manual for Ting Park – Oak Hall Greenway Connector" Project No. 23-015,  
dated January 2026 by the Town of Holly Springs**

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said Agreement during the original term of said Agreement and any extensions thereof that may be granted by the Contracting Body, with or without notice to the Surety, and during the life of any guaranty required under the Agreement, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said Agreement that may hereafter be made, notice of which modifications to the SURETY being hereby waived, then, this obligation is to be void; otherwise it shall remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

ATTEST:

(Principal) Secretary  
Principal  
(SEAL)

By: \_\_\_\_\_ (3)

(Address)

Witness as to Principal

(Address)

Surety

By:

(4)

(Name)

ATTEST:

(Address)

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

[N.C. Resident Agent]  
(SEAL)

(Phone Number)

Witness as to Surety

(Address)

NOTE: Date of Bond must not be prior to date of Agreement.

- (1) Insert the correct name of Contractor.
- (2) Insert whether the Contractor is a corporation, a partnership, a limited liability company or an individual.
- (3) If Contractor is a partnership, all general partners should execute the Bond. If Contractor is a limited liability company, all managers (or all members, if the company is member-managed) should execute the Bond .
- (4) Provide contact name, address and phone number for performance bond surety.

**PAYMENT BOND**

This Bond is executed on \_\_\_\_\_, 20\_\_.

The name of the PRINCIPAL is \_\_\_\_\_ (1)

a \_\_\_\_\_ (2)

The name of the SURETY is \_\_\_\_\_

The TOWN OF HOLLY SPRINGS, NORTH CAROLINA is the CONTRACTING BODY.

The amount of the Bond is \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held and firmly bound unto the above named CONTRACTING BODY, hereinafter called the "Contracting Body", in the penal sum of the amount stated above in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas, the Principal entered into a certain Agreement with the Contracting Body, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ for work described by Plans and Specifications prepared by Town of Holly Springs, herein called and referred to as the "Engineers", a copy of said Agreement is hereto attached and made a part hereof for the construction of:

**Ting Park – Oak Hall Greenway Connector – Holly Springs, NC as described by a document entitled Project Manual for Ting Park – Oak Hall Greenway Connector, Project No. 23-015, dated January 2026 by the Town of Holly Springs**

NOW THEREFORE, if the Principal shall promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said Agreement, and any and all duly authorized modifications of said Agreement that may hereafter be made, notice of which modifications to the SURETY being hereby waived, then this obligation is to be void; otherwise it shall remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

ATTEST:

\_\_\_\_\_  
(Principal) Secretary  
(SEAL)

\_\_\_\_\_  
Principal  
By: \_\_\_\_\_ (3)

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

\_\_\_\_\_  
Witness as to Principal

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

\_\_\_\_\_  
Surety  
By: \_\_\_\_\_ (4)  
(Name)

ATTEST:

\_\_\_\_\_  
By: \_\_\_\_\_  
[N.C. Resident Agent]  
(SEAL)

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

\_\_\_\_\_  
(Phone Number)

\_\_\_\_\_  
Witness as to Surety

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

NOTE: Date of Bond must not be prior to date of Agreement.

- (1) Insert the correct name of the Contractor.
- (2) Insert whether the Contractor is a corporation, a partnership, a limited liability company or an individual.
- (3) If Contractor is a partnership, all general partners should execute the Bond. If Contractor is a limited liability company, all managers (or all members, if the company is member-managed) should execute the Bond.
- (4) Provide contact name, address and phone number for payment bond surety.

## AFFIDAVIT

(To be attached to all Agreements)

\_\_\_\_\_, being first duly sworn on oath deposes and says that  
s/he is \_\_\_\_\_ (attorney-in-fact or agent) of  
\_\_\_\_\_, (bonding company) surety on the attached Agreement on  
\_\_\_\_\_, executed by  
\_\_\_\_\_, (Contractor).

Affiant further deposes and says that no officer, official or employee of the Owner has any interest directly or indirectly, or is receiving any premium, commission fee or other thing of value on account of the same or furnishing of the Bond, undertaking or Contract of Indemnity, Guaranty, Suretyship in connection with the above mentioned Agreement.

Signed \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

(Notary Public, \_\_\_\_\_ County, \_\_\_\_\_)

My Commission Expires\_\_\_\_\_

RESOLUTION OF CONTRACTOR'S PARTNERS, MANAGERS OR MEMBERS

(Attach if necessary)

CERTIFICATE OF INSURANCE

(Attach)

[See the General Conditions for specific requirements.]

## NOTICE TO PROCEED

TO: CONTRACTOR: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

FROM: LeeAnn Plumer  
Director of Parks & Recreation

OWNER: Town of Holly Springs  
P.O. Box 8  
128 S. Main St.  
Holly Springs, North Carolina 27540

PROJECT: Ting Park-Oak Hall Greenway Connector – Holly Springs, NC  
PROJECT NO.: 23-015

CONTRACT PRICE/SUM: \$\_\_\_\_\_

You are hereby notified to commence Work on the referenced project on or before \_\_\_\_\_, 20\_\_\_\_ (the “Commencement Date”), and are to finally and fully complete the Work within \_\_\_\_ CONSECUTIVE CALENDAR DAYS of the Commencement Date. Your Contract final completion date is therefore \_\_\_\_\_, 20\_\_\_\_.

The Agreement provides for assessment of liquidated damages for each consecutive calendar day after the above established completion date that the Work remains incomplete to the standard and degree required.

ENGINEER/ARCHITECT:

\_\_\_\_\_  
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

- END OF SECTION 00500 -

**SECTION 00510**  
**ITEMIZED BID PROPOSAL**

**UNIT PRICES:**

A unit price is an amount stated in the Construction Agreement as a price per unit of measurement for materials or service an shall be added to or deducted from the contract Sum by Change order in the event that a specific material and/or service provided by the Contractor is increased or decreased from the Estimated Quantity Bid in the Construction Agreement.

Unit prices are complete for labor, equipment, material, overhead and profit. Base Bid and Alternate Bid (if the Alternate Bid is Accepted) includes the quantity of each item to be furnished complete according to the work shown on the plans and specifications and as estimated herein, inclusive of all appurtenances, as shown and specified. Any unused amount will be credited to the Owner by change order at the end of the project. Likewise, any item installed and accepted by the Owner that exceed the Contract Quantity estimated for that particular Bid item will be paid to the Contractor by Change Order at the Progress Payment that follows approval of the installation of the additional work items.

**Ting Park – Oak Hall Greenway Connector**

<b>Item #</b>	<b>Item Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Amount</b>
1	MOBILIZATION	1	LS	\$	\$
2	CLEARING AND GRUBBING	1.5	AC	\$	\$
3	UNCLASSIFIED EXCAVATION	6500	CY	\$	\$
4	BORROW EXCAVATION	400	CY	\$	\$
5	FINE GRADING	1	LS	\$	\$
6	6" AGGREGATE BASE COURSE	460	TON	\$	\$
7	2" S9.5B	120	TON	\$	\$
8	ASPHALT BINDER FOR PLANT MIX	10	TON	\$	\$
9	SELECT GRANULAR MATERIAL	311	CY	\$	\$
10	PRIME COAT	445	GAL	\$	\$
11	GEOTEXTILE INTERLAYER	1624	SY	\$	\$
12	10' GREENWAY ADA RAMP (AT MUSES MILL CT)	1	EA	\$	\$
13	4" CONCRETE SIDEWALK (AT MUSES MILL CT)	10	SY	\$	\$
14	CURB & GUTTER AND SIDEWALK REMOVAL (AT MUSES MILL CT)	10	LF	\$	\$
15	SAFETY RAILING	310	LF	\$	\$
16	SIGN (R5-3, "NO MOTOR VEHICLES") AND POST	1	EA	\$	\$
17	SIGN (GREENWAY MARKER)	1	EA	\$	\$
18	15" RCP, CLASS III	42	LF	\$	\$
19	18" RCP, CLASS III	34	LF	\$	\$
20	RIP RAP, CLASS I	7	TON	\$	\$
21	GEOTEXTILE FOR DRAINAGE	16	SY	\$	\$
22	PIPE HEADWALLS	2	EA	\$	\$
23	YARD INLET DI	1	EA	\$	\$
24	FALSE SUMP	1	EA	\$	\$
25	TEMPORARY 18" PVC PIPE	46	LF	\$	\$
26	TEMPORARY 36" HDPE (2 @ 60')	120	LF	\$	\$
27	TEMPORARY HEADWALL	2	EA	\$	\$

28	TEMPORARY BACKFILL AGGREGATE SURFACE	1	LS	\$	\$
29	EROSION CONTROL (PROJECT SITE/CONSTRUCTION ACCESS)	1.5	AC	\$	\$
30	TEMPORARY SILT FENCE	541	LF	\$	\$
31	SILT FENCE OUTLET	30	LF	\$	\$
32	PIPE INLET PROTECTION	1	EA	\$	\$
33	ROCK CHECK DAM	12	EA	\$	\$
34	INLET PROTECTION	1	EA	\$	\$
35	GEOTEXTILE FOR DRAINAGE (EROSION CONTROL)	55	SY	\$	\$
36	EROSION CONTROL STONE, CLASS A	11	TON	\$	\$
37	EROSION CONTROL STONE, CLASS B	54	TON	\$	\$
38	SEDIMENT CONTROL STONE	30	TON	\$	\$
39	TEMPORARY MULCHING	0.25	AC	\$	\$
40	SEED FOR TEMPORARY SEEDING	25	LB	\$	\$
41	FERTILIZER FOR TEMPORARY SEEDING	0.10	TON	\$	\$
42	TEMPORARY SLOPE DRAINS	50	LF	\$	\$
43	SAFETY FENCE	65	LF	\$	\$
44	SILT EXCAVATION	60	CY	\$	\$
45	EROSION MATTING	2165	SY	\$	\$
46	COIR FIBER MAT	25	SY	\$	\$
47	¼" HARDWARE CLOTH	8	LF	\$	\$
48	SEEDING AND MULCHING	1	AC	\$	\$
49	SEED FOR REPAIR SEEDING	13	LB	\$	\$
50	FERTILIZER FOR REPAIR SEEDING	0.25	TON	\$	\$
51	SEED FOR SUPPLEMENTAL SEEDING	13	LB	\$	\$
52	FERTILIZER TOPDRESSING	.25	TON	\$	\$
53	CONCRETE WASHOUT STRUCTURE	1	EA	\$	\$
54	MOWING	.5	AC	\$	\$
55	SPECIALIZED HAND MOWING	5	MHR	\$	\$
56	FIBERGLASS BRIDGE (10' W X 60' L)	1	EA	\$	\$
57	PRE-DRILLING SETUP PER BRIDGE FOUNDATION	2	EA	\$	\$
58	STEEL PILES (EB2: 4 PILES @ 12 LF)	48	LF	\$	\$
59	PRE-DRILLING FOR STEEL PILES	48	LF	\$	\$
60	PILE EXCAVATION IN SOIL	18	LF	\$	\$
61	PILE EXCAVATION NOT IN SOIL	30	LF	\$	\$
62	BRIDGE ABUTMENT 1	1	EA	\$	\$
63	BRIDGE ABUTMENT 2	1	EA	\$	\$
64	APPROACH PADS	2	EA	\$	\$
65	CONSTRUCTION SURVEYING	1	LS	\$	\$
66	CONTRACTOR TRAILER, STORAGE LAYDOWN, TEMP FACILITIES	1	LS	\$	\$
	<b>Total Bid</b>				\$

[If Bidder is not an individual, enter entity name here]

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

(Signature)

NAME OF SIGNER: \_\_\_\_\_  
(Please Print or Type)

TITLE OF SIGNER: \_\_\_\_\_  
(Please Print or Type)

DATE: \_\_\_\_\_

- END OF SECTION 00510 -

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly By



AMERICAN COUNCIL OF  
ENGINEERING COMPANIES



**National Society of  
Professional Engineers®**

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of Civil Engineers

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AMERICAN SOCIETY OF CIVIL ENGINEERS

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This document has been approved and endorsed by



The Associated General Contractors of America

Construction Specifications Institute

These General Conditions have been prepared for use with the Owner-Contractor Agreements (No. 1910-8-A-1 or 1910-8-A-2) (1996 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC User's Guide (No. 1910-50). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17) (1996 Edition).

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## GENERAL CONDITIONS

### ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

---

#### 1.01 Defined Terms

A. Wherever used in the Contract Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.

3. *Application for Payment*--The form acceptable to ENGINEER which is to be used by CONTRACTOR during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

7. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.

8. *Bonds*--Performance and payment bonds and other instruments of security.

9. *Change Order*--A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*--The Contract Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Contract Documents.

13. *Contract Price*--The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment.

15. *CONTRACTOR*--The individual or entity with whom OWNER has entered into the Agreement.

16. *Cost of the Work*--See paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by CONTRACTOR. Shop Drawings and other CONTRACTOR submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *ENGINEER*--The individual or entity named as such in the Agreement.

20. *ENGINEER's Consultant*--An individual or entity having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

21. *Field Order*--A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

22. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

23. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

24. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

25. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

28. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.

29. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.

30. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.

31. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

32. *PCBs*--Polychlorinated biphenyls.

33. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

34. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.

35. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

36. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

37. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some

portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

40. *Site*--Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of CONTRACTOR.

41. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

42. *Subcontractor*--An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

43. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

44. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

45. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

46. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

47. *Unit Price Work*--Work to be paid for on the basis of unit prices.

48. *Work*--The entire completed construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

49. *Work Change Directive*--A written statement to CONTRACTOR issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

50. *Written Amendment*--A written statement modifying the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

## 1.02 Terminology

### A. Intent of Certain Terms or Adjectives

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of ENGINEER as to the Work, it is intended that such action or determination will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

B. *Day*

1. The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. *Defective*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.04 or 14.05).

D. *Furnish, Install, Perform, Provide*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of CONTRACTOR, "provide" is implied.

E. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## ARTICLE 2 - PRELIMINARY MATTERS

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2.01 Delivery of Bonds

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02 Copies of Documents

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 Starting the Work

A. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

A. *CONTRACTOR's Review of Contract Documents:* Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Agreement (unless otherwise specified

in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:

1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and
3. a preliminary schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

**C. Evidence of Insurance:** Before any Work at the Site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with Article 5.

#### 2.06 Preconstruction Conference

A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

#### 2.07 Initial Acceptance of Schedules

A. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.05.B. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made

to CONTRACTOR until acceptable schedules are submitted to ENGINEER.

1. The progress schedule will be acceptable to ENGINEER if it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on ENGINEER responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor.

2. CONTRACTOR's schedule of Shop Drawing and Sample submittals will be acceptable to ENGINEER if it provides a workable arrangement for reviewing and processing the required submittals.

3. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

#### 3.01 Intent

A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to OWNER.

C. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in Article 9.

#### 3.02 Reference Standards

A. *Standards, Specifications, Codes, Laws, and Regulations*

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code,

or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall any such provision or instruction be effective to assign to OWNER, ENGINEER, or any of ENGINEER's Consultants, agents, or employees any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

### 3.03 Reporting and Resolving Discrepancies

#### A. *Reporting Discrepancies*

1. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.04; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

#### B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction

(whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 Amending and Supplementing Contract Documents

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways: (i) a Written Amendment; (ii) a Change Order; or (iii) a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (i) a Field Order; (ii) ENGINEER's approval of a Shop Drawing or Sample; or (iii) ENGINEER's written interpretation or clarification.

### 3.05 Reuse of Documents

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

## ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

### 4.01 Availability of Lands

A. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application but specifically related to use of

the Site with which CONTRACTOR must comply in performing the Work. OWNER will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If CONTRACTOR and OWNER are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in OWNER's furnishing the Site, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

B. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

#### 4.02 Subsurface and Physical Conditions

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

#### 4.03 Differing Subsurface or Physical Conditions

A. *Notice:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *ENGINEER's Review:* After receipt of written notice as required by paragraph 4.03.A, ENGINEER will promptly review the pertinent condition, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto, and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

#### C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in CONTRACTOR's cost of, or time required for,

performance of the Work; subject, however, to the following:

- a. such condition must meet any one or more of the categories described in paragraph 4.03.A; and
- b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.08 and 11.03.

2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Contract Times if:

- a. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
- b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or
- c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.04

#### Underground Facilities

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to OWNER

or ENGINEER by the owners of such Underground Facilities, including OWNER, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and
2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:
  - a. reviewing and checking all such information and data,
  - b. locating all Underground Facilities shown or indicated in the Contract Documents,
  - c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and
  - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

#### B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

2. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or

indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

4.05 Reference Points

A. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 Hazardous Environmental Condition at Site

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. CONTRACTOR shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. CONTRACTOR shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.

D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible creates a Hazardous Environmental Condition, CONTRACTOR shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by paragraph 6.16); and (iii) notify OWNER and ENGINEER (and promptly thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. CONTRACTOR shall not be required to resume Work in connection with such condition or in any affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by CONTRACTOR, either party may make a Claim therefor as provided in paragraph 10.05.

F. If after receipt of such written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of an

adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 10.05. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.E shall obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.F shall obligate CONTRACTOR to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of paragraphs 4.02, 4.03, and 4.04 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 5 - BONDS AND INSURANCE

### 5.01 Performance, Payment, and Other Bonds

A. CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Contract Documents.

B. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

### 5.02 Licensed Sureties and Insurers

A. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

### 5.03 Certificates of Insurance

A. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to

purchase and maintain. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain.

#### 5.04 CONTRACTOR's Liability Insurance

A. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;
3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;
4. claims for damages insured by reasonably available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;
5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any

customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include completed operations insurance;
4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;
5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.03 will so provide);
6. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing, or replacing defective Work in accordance with paragraph 13.07; and
7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

#### 5.05 OWNER's Liability Insurance

A. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, OWNER, at

OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

#### 5.06 Property Insurance

A. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER;

5. allow for partial utilization of the Work by OWNER;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.

D. OWNER shall not be responsible for purchasing and maintaining any property insurance specified in this paragraph 5.06 to protect the interests of CONTRACTOR, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by CONTRACTOR, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the Site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

#### 5.07 Waiver of Rights

A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and all other

individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

B. OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of, or resulting from fire or other peril whether or not insured by OWNER; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.05, after Substantial Completion pursuant to paragraph 14.04, or after final payment pursuant to paragraph 14.07.

C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of

recovery against CONTRACTOR, Subcontractors, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.

#### 5.08 Receipt and Application of Insurance Proceeds

A. Any insured loss under the policies of insurance required by paragraph 5.06 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.08.B. OWNER shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

B. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

#### 5.09 Acceptance of Bonds and Insurance; Option to Replace

A. If either OWNER or CONTRACTOR has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by paragraph 2.05.C. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party

who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

#### 5.10 Partial Utilization, Acknowledgment of Property Insurer

A. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

### ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

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#### 6.01 Supervision and Superintendence

A. CONTRACTOR shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of OWNER or ENGINEER in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

#### 6.02 Labor; Working Hours

A. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out, and construct the Work as required by the Contract Documents. CON-

TRACTOR shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday without OWNER's written consent (which will not be unreasonably withheld) given after prior written notice to ENGINEER.

#### 6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the General Requirements, CONTRACTOR shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

#### 6.04 Progress Schedule

A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 as it may be adjusted from time to time as provided below.

1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.07) proposed adjustments in the progress schedule that will not result in changing the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

#### 6.05 Substitutes and “Or-Equals”

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or-equal” item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to ENGINEER for review under the circumstances described below.

1. *“Or-Equal” Items:* If in ENGINEER’s sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an “or-equal” item, in which case review and approval of the proposed item may, in ENGINEER’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and;

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

#### 2. Substitute Items

a. If in ENGINEER’s sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an “or-equal” item under paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first make written application to ENGINEER for review of a proposed substitute item of material or equipment that CONTRACTOR seeks to furnish or use. The application shall certify that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR’s achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure

of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.

*C. Engineer's Evaluation:* ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

*D. Special Guarantee:* OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

*E. ENGINEER's Cost Reimbursement:* ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute.

*F. CONTRACTOR's Expense:* CONTRACTOR shall provide all data in support of any proposed substitute or "or-equal" at CONTRACTOR's expense.

#### 6.06 *Concerning Subcontractors, Suppliers, and Others*

*A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement, against whom OWNER may have reasonable objection.* CONTRACTOR shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

*B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to OWNER in advance for acceptance by OWNER by a specified date prior to the Effective Date of the Agreement, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. CONTRACTOR shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.*

*C. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other individual or entity, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.*

*D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.*

*E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.*

*F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.*

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

#### 6.07 Patent Fees and Royalties

A. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees or agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any

infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

#### 6.09 Laws and Regulations

A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

B. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in paragraph 10.05.

## 6.10 Taxes

A. CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

## 6.11 Use of Site and Other Areas

A. *Limitation on Use of Site and Other Areas*

1. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant, and the officers, directors, partners, employees, agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER, or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work CONTRACTOR shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work CONTRACTOR shall clean the Site and make it ready for utilization by OWNER. At the completion of the Work CONTRACTOR shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

## 6.12 Record Documents

A. CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

## 6.13 Safety and Protection

A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

#### 6.14 Safety Representative

A. CONTRACTOR shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

#### 6.15 Hazard Communication Programs

A. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

#### 6.16 Emergencies

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, CONTRACTOR is obligated to act to prevent threatened damage, injury, or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in

response to such an emergency, a Work Change Directive or Change Order will be issued.

#### 6.17 Shop Drawings and Samples

A. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.

B. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

#### D. *Submittal Procedures*

1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to means, methods, techniques, sequences, and procedures of

construction and safety precautions and programs incident thereto; and

d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

#### E. *ENGINEER's Review*

1. ENGINEER will timely review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. ENGINEER's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents

unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of each submittal as required by paragraph 6.17.D.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

#### F. *Resubmittal Procedures*

1. CONTRACTOR shall make corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

#### 6.18 Continuing the Work

A. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

#### 6.19 CONTRACTOR's General Warranty and Guarantee

A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or any other individual or entity for whom CONTRACTOR is responsible; or

2. normal wear and tear under normal usage.

B. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

1. observations by ENGINEER;
2. recommendation by ENGINEER or payment by OWNER of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;
4. use or occupancy of the Work or any part thereof by OWNER;
5. any acceptance by OWNER or any failure to do so;
6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;
7. any inspection, test, or approval by others; or
8. any correction of defective Work by OWNER.

## 6.20 Indemnification

A. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage:

1. is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom; and
2. is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

## ARTICLE 7 - OTHER WORK

### 7.01 Related Work at Site

A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and
2. if OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in paragraph 10.05.

B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner

(and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

C. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to so report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent defects and deficiencies in such other work.

#### 7.02 Coordination

A. If OWNER intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
2. the specific matters to be covered by such authority and responsibility will be itemized; and
3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility for such coordination.

## ARTICLE 8 - OWNER'S RESPONSIBILITIES

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#### 8.01 Communications to Contractor

A. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

#### 8.02 Replacement of ENGINEER

A. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer to whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

#### 8.03 Furnish Data

A. OWNER shall promptly furnish the data required of OWNER under the Contract Documents.

#### 8.04 Pay Promptly When Due

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

#### 8.05 Lands and Easements; Reports and Tests

A. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by ENGINEER in preparing the Contract Documents.

#### 8.06 Insurance

A. OWNER's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

#### 8.07 Change

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

8.08                    Inspections, Tests, and Approvals

A. OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.09                    Limitations on OWNER's Responsibilities

A. The OWNER shall not supervise, direct, or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

8.10                    Undisclosed Hazardous Environmental Condition

A. OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.11                    Evidence of Financial Arrangements

A. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

## ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

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9.01                    OWNER'S Representative

A. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and will not be changed without written consent of OWNER and ENGINEER.

9.02                    Visits to Site

A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of

CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, for the benefit of OWNER, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and particularly, but without limitation, during or as a result of ENGINEER's visits or observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work.

9.03                    Project Representative

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the Site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04                    Clarifications and Interpretations

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a written clarification or interpretation,

a Claim may be made therefor as provided in paragraph 10.05.

#### 9.05 Authorized Variations in Work

A. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR, who shall perform the Work involved promptly. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

#### 9.06 Rejecting Defective Work

A. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

#### 9.07 Shop Drawings, Change Orders and Payments

A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.

B. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

C. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

#### 9.08 *Determinations for Unit Price Work*

A. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding (except as modified by ENGINEER to reflect changed factual conditions or more accurate data)

upon OWNER and CONTRACTOR, subject to the provisions of paragraph 10.05.

#### 9.09 Decisions on Requirements of Contract Documents and Acceptability of Work

A. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.

B. When functioning as interpreter and judge under this paragraph 9.09, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.

#### 9.10 Limitations on ENGINEER's Authority and Responsibilities

A. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by ENGINEER shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants.

## ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

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### 10.01 Authorized Changes in the Work

A. Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in paragraph 10.05.

### 10.02 Unauthorized Changes in the Work

A. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in paragraph 3.04, except in the case of an emergency as provided in paragraph 6.16 or in the case of uncovering Work as provided in paragraph 13.04.B.

### 10.03 Execution of Change Orders

A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

1. changes in the Work which are: (i) ordered by OWNER pursuant to paragraph 10.01.A, (ii) required because of acceptance of defective Work under paragraph 13.08.A or OWNER's correction of defective Work under paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.18.A.

### 10.04 Notification to Surety

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility. The amount of each applicable Bond will be adjusted to reflect the effect of any such change.

### 10.05 Claims and Disputes

A. *Notice:* Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by the claimant to ENGINEER and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. Notice of the amount or extent of the Claim, dispute, or other matter with supporting data shall be delivered to the ENGINEER and the other party to the Contract within 60 days after the start of such event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of such Claim, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the

provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER and the claimant within 30 days after receipt of the claimant's last submittal (unless ENGINEER allows additional time).

B. *ENGINEER's Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. ENGINEER's written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

## ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

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### 11.01 Cost of the Work

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

3. Payments made by CONTRACTOR to Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER, who will then determine, with the advice of ENGINEER, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in this paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of CONTRACTOR.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor, or

anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressage, and similar petty cash items in connection with the Work.

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, the costs of premiums for all Bonds and insurance CONTRACTOR is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by CONTRACTOR, whether at the Site or in CONTRACTOR's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in

paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

4. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraphs 11.01.A and 11.01.B.

C. *CONTRACTOR's Fee:* When all the Work is performed on the basis of cost-plus, CONTRACTOR's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to paragraphs 11.01.A and 11.01.B, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

#### 11.02 Cash Allowances

A. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. CONTRACTOR's costs for unloading and handling on the Site, labor, installation costs, overhead, profit, and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

B. Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

#### 11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.

B. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

C. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

## ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

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### 12.01 Change of Contract Price

A. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.03 ); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. *CONTRACTOR's Fee:* The CONTRACTOR's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;

b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

### 12.02 Change of Contract Times

A. The Contract Times (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. Any adjustment of the Contract Times (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones) will be determined in accordance with the provisions of this Article 12.

### 12.03 Delays Beyond CONTRACTOR's Control

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in paragraph

12.02.A. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

12.04                    Delays Within CONTRACTOR's Control

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.05 *Delays Beyond OWNER's and CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

12.06                    Delay Damages

A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from:

1. delays caused by or within the control of CONTRACTOR; or

2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

## ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01                    Notice of Defects

A. Prompt notice of all defective Work of which OWNER or ENGINEER has actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02                    Access to Work

A. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's Site safety procedures and programs so that they may comply therewith as applicable.

13.03                    Tests and Inspections

A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection or approval.

D. CONTRACTOR shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

#### 13.04 Uncovering Work

A. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof,

CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

#### 13.05 OWNER May Stop the Work

A. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

#### 13.06 Correction or Removal of Defective Work

A. CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

#### 13.07 Correction Period

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected

or repaired or may have the rejected Work removed and replaced, and all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

B. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

#### 13.08 Acceptance of Defective Work

A. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment, ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by CONTRACTOR pursuant to this sentence. If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and OWNER shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

#### 13.09 OWNER May Correct Defective Work

A. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days written notice to CONTRACTOR, correct and remedy any such deficiency.

B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the Site, take possession of all or part of the Work and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors, and ENGINEER and ENGINEER's Consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.

C. All Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by OWNER in exercising the rights and remedies under this paragraph 13.09 will be charged against CONTRACTOR, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, OWNER may make a Claim therefor as provided in paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of CONTRACTOR's defective Work.

D. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies under this paragraph 13.09.

## ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

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### 14.01 Schedule of Values

A. The schedule of values established as provided in paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

### 14.02 Progress Payments

#### A. *Applications for Payments*

1. At least 20 days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect OWNER's interest therein, all of which must be satisfactory to OWNER.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied on account to discharge CONTRACTOR's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

#### B. *Review of Applications*

1. ENGINEER will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the

Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's observations on the Site of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents; or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

4. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of

construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable to CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any of the Work, materials, or equipment has passed to OWNER free and clear of any Liens.

5. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.02.B.2. ENGINEER may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Written Amendment or Change Orders;
- c. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or
- d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.

#### C. Payment Becomes Due

1. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.

#### D. Reduction in Payment

1. OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

a. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens;

c. there are other items entitling OWNER to a set-off against the amount recommended; or

d. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

2. If OWNER refuses to make payment of the full amount recommended by ENGINEER, OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld. OWNER shall promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

3. If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

#### 14.03 CONTRACTOR's Warranty of Title

A. CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

#### 14.04 Substantial Completion

A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If

ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

#### 14.05 Partial Utilization

A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.

1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be

ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

2. No occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of paragraph 5.10 regarding property insurance.

#### 14.06 Final Inspection

A. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will promptly make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 14.07 Final Payment

##### A. *Application for Payment*

1. After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in

paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

#### B. *Review of Application and Acceptance*

1. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application for Payment to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.09. Otherwise, ENGINEER will return the Application for Payment to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application for Payment.

#### C. *Payment Becomes Due*

1. Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.

#### 14.08 *Final Completion Delayed*

A. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.

### ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

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#### 15.01 *OWNER May Suspend Work*

A. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not

more than 90 consecutive days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes a Claim therefor as provided in paragraph 10.05.

**15.02 OWNER May Terminate for Cause**

A. The occurrence of any one or more of the following events will justify termination for cause:

1. CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);
2. CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;
3. CONTRACTOR's disregard of the authority of ENGINEER; or
4. CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Site, and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by OWNER arising out of or relating to completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses, and damages exceed such unpaid balance, CONTRACTOR shall pay the

difference to OWNER. Such claims, costs, losses, and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and, when so approved by ENGINEER, incorporated in a Change Order. When exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

C. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

**15.03 OWNER May Terminate For Convenience**

A. Upon seven days written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
3. for all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
4. for reasonable expenses directly attributable to termination.

B. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

**15.04 CONTRACTOR May Stop Work or Terminate**

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Contract and recover from OWNER payment on the same terms as provided in paragraph 15.03. In lieu of terminating the Contract and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within 30 days after it is submitted, or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may, seven days after written notice to OWNER and ENGINEER, stop the Work until payment is made of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping the Work as permitted by this paragraph.

## ARTICLE 16 - DISPUTE RESOLUTION

### 16.01 Methods and Procedures

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

## ARTICLE 17 - MISCELLANEOUS

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### 17.01 Giving Notice

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### 17.02 Computation of Times

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

### 17.03 Cumulative Remedies

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

### 17.04 Survival of Obligation

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Agreement.

### 17.05 Controlling Law

A. This Contract is to be governed by the law of the state in which the Project is located.

**SECTION 00800**  
**SUPPLEMENTARY & SPECIAL CONDITIONS**

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## SUPPLEMENTARY & SPECIAL CONDITIONS

These Supplementary & Special Conditions amend, revise, and supplement the Standard General Conditions of the Construction Contract (EJCDC Document No. 1910-8, 1996 edition) (the “General Conditions in connection with the Agreement between the Town of Holly Springs and the Contractor (as identified in the Agreement, attached hereto) and other provisions of the Contract Documents in the manner indicated below. All provisions that are not so amended, revised, and supplemented remain in full force and effect. In addition, where any portion of an article, section, paragraph, subparagraph or clause is deleted or modified by these Supplementary Conditions, the unaltered provisions of the article, section, paragraph, subparagraph or clause shall remain in full force and effect. All capitalized terms used but not defined herein shall have the meanings ascribed to them in the Agreement or the General Conditions. In any instance in which the insertion or deletion of text described herein is inaccurately described (as to the location of such insertion or deletion, accompanying appropriate grammar or other technical rather than substantive aspects of the insertion or deletion), if the correct description of the insertion or deletion can be reasonably deduced from the context of the insertion or the deletion, or otherwise, then the description of the insertion or deletion shall be deemed reformed in accordance with the correct description thereof.

### A. ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

#### 1. SC-1.01.

- a) In Subparagraph 1.01.A.12, the definition for “*Contract Documents*”, in the first sentence, third line, after the word “*Agreement*”, insert “the Invitation To Bid, the Instructions to Bidders, and this Project Manual.”
- b) In Subparagraph 1.01.A.19, the definition for “*ENGINEER*”, add the following sentence at the end of the definition:

“In the discretion of the OWNER, the OWNER may replace the ENGINEER from time to time pursuant to the terms of any agreement(s) between the OWNER and the ENGINEER. Once the CONTRACTOR has been notified in writing by the OWNER of the identity of a new or replacement ENGINEER for the Project or a portion thereof, the CONTRACTOR shall treat such new or replacement ENGINEER as the ENGINEER under the Contract Documents for the remainder of the Project, or the portion of the Project so specified by the OWNER, but nothing herein shall impute any liability on a new or replacement ENGINEER’s part for actions or circumstances of a prior ENGINEER.

The ENGINEER is the Director of Engineering of the Town of Holly Springs and/or any other party identified by the OWNER as the ENGINEER for the Work from time to time. In its sole discretion, the OWNER may act in the stead of the ENGINEER, exercising any of the rights or responsibilities of the ENGINEER provided under the Contract Documents, so long as the OWNER provides notice to the CONTRACTOR of its intent to do so. In its sole discretion, the OWNER may delegate any of the rights or responsibilities of the ENGINEER to a third party, who, for the purposes of the rights and responsibilities so delegated, shall be governed by the Contract Documents, so long as the OWNER provides notice to the CONTRACTOR of its intent to do so.”

- c) In Subparagraph 1.01.A.20, the definition of “*ENGINEER’s Consultant*,” add the following sentence to the end of the definition:

“The ENGINEER’s Consultant is **Town of Holly Springs** and any other party to a subcontract with **ENGINEER** in connection with the Work.”

d) In Subparagraph 1.01.A.30, the definition for “*OWNER*,” delete the text in its entirety and insert the following in its place:

“30. *OWNER*--The Town of Holly Springs, a municipal corporation in North Carolina, and its successors and assign, and is the party for whom the work is to be performed.

The Owner’s Representative is the **Town Manager of the Town of Holly Springs**. The Owner’s Representative may be an employee, agent or other representative of the Owner, and may be an individual or any one of several identified individuals, or a committee or entity, in which case the committee or entity shall select one or more individuals to speak and act on its behalf and on behalf of the Owner.

The OWNER’S REPRESENTATIVE has the express authority to bind the OWNER with respect to all matters requiring the OWNER’s approval or authorization. Except as otherwise specifically stated, the ENGINEER does not have such authority. The term ‘*OWNER*’ means the OWNER or the OWNER’s REPRESENTATIVE”

e) In Subparagraph 1.01.A.41 of the EJCD, in the definition for “*Specifications*” add the following sentence to the end of the definition:

“Specifications include all Sections included under the Technical Specifications of the Project Manual.”

f) In Subparagraph 1.01.A.43, the definition for “*Substantial Completion*:”

In the first sentence, third line, after the words “in the opinion of the ENGINEER,” add the words “and with the approval of the OWNER.”

Add the following line to the last sentence of the paragraph:

“The OWNER’s receipt of all certificates of occupancy and approvals by regulatory agencies applicable to the Project is a condition precedent to the Project being deemed ‘Substantially Complete.’”

g) In Subparagraph 1.01.A.44, the definition for “*Supplementary Conditions*,” add the following to the end of the definition:

“; whether titled the ‘Supplementary Conditions,’ the ‘Special Conditions,’ ‘Supplementary or Special Conditions,’ or otherwise. Unless otherwise indicated, Special Conditions amend and/or supplement the General Conditions as already amended and/or supplemented by Supplementary Conditions.”

h) In Subparagraph 1.01.48, the definition for “*Work*,” delete the second sentence of the definition in its entirety and insert the following in its place:

“Work includes and is the result of performing or providing all labor, services, and documentation necessary or appropriate to produce such construction, and furnishing, installing, and incorporating all necessary or appropriate materials and equipment into such construction, all as required and more specifically described in the Contract Documents.”

i) Add the following new definitions to Paragraph 1.01.A immediately after Subparagraph 1.01.A.50 as follows:

- “51. *Conditions of the Contract*--The combined General Conditions and Supplementary Conditions, including the Special Conditions.
- 52. *Project Manual*--The Advertisement for Bids, Instructions to Bidders, Bid Forms, Agreements, Bonds, General Conditions, Supplementary Conditions, Special Conditions, Specifications, and Appendices.
- 53. *General Contractor*--The Contractor responsible for all Work other than Electrical, Instrumentation, HVAC, and Plumbing Work, as defined in the Contract Documents.
- 54. *HVAC Contractor*--The Contractor responsible for all HVAC Work as defined in the Contract Documents.
- 55. *Plumbing Contractor*--The Contractor responsible for all Plumbing Work as defined in the Contract Documents.
- 56. *Electrical Contractor*--The Contractor responsible for all Electrical and Instrumentation Work as defined in the Contract Documents.
- 57. *Single Prime Contractor*--If this project is awarded as a Single Prime Contract, then the terms General Contractor, HVAC Contractor, Plumbing Contractor, and Electrical Contractor shall be understood to refer to the Single Prime Contractor.
- 58. *Preoperational Testing*--All field inspections, installation checks, water test, performance tests, and necessary corrections required of Contractor to demonstrate that individual components of the Work have been properly constructed and do operate in accordance with the Contract Documents for their intended purposes.
- 59. *Startup Testing*--A predefined trial period required for achieving substantial completion during which Contractor is to operate the entire Work (or any part thereof agreed to by the OWNER) under actual and simulated operating conditions for the purpose of (i) making such minor adjustments and changes to the Work as may be necessary for the Work to comply with the Contract Documents and (ii) complying with the final test requirements in the Contract Documents.”

j) Add Subparagraphs 1.01.A.60 and 61 to the EJCDC General Conditions:

- “ 60. The ‘Standard Specifications and Details’ shall be the ‘*Town of Holly Springs Engineering Design and Construction Standards*,’ that have been adopted as of the date of the work performed by the Contractor.
- 61. The ‘NCDOT Standard Specifications’ shall be the ‘*Standard Specifications for Roads and Structures*’ and the ‘*Roadway Standard Drawings*,’ current edition as of the date of the work performed by the Contractor.”

B. ARTICLE 2 – PRELIMINARY MATTERS

2. SC-2.02.

a) In Paragraph 2.02.A:

Delete Paragraph 2.02.A in its entirety and insert the following in its place:

“The Contract Documents shall be executed by the OWNER and the CONTRACTOR in four (4) counterparts, one (1) of which shall be returned to the CONTRACTOR. Additional copies will be furnished upon request at the cost of reproduction and handling to be borne by CONTRACTOR.”

b) Add a new Paragraph immediately after Paragraph 2.02.A as follows:

“B. The ENGINEER shall provide the CONTRACTOR with three (3) copies of any revised plans, Drawings, and Specifications as may be required for the execution of authorized changes or extra Work.”

2. SC-2.03.

Delete Paragraph 2.03.A in its entirety and insert the following in its place:

“A. Notice to Proceed will be given in the timeframe indicated in the Bid Proposal or Notice to Bidders. The Contract Times will commence at the time specified in such Notice to Proceed.”

3. SC-2.04.

Delete the second sentence of 2.04.A in its entirety and insert the following in its place:

“No Work shall be done, including materials supplied, at the Site prior to the date on which the Contract Times commence to run without the express written consent of the OWNER.”

4. SC-2.05.

a) In Paragraph 2.05.A:

(i) Insert the following text before the first sentence, after “*CONTRACTOR’s Review of Contract Documents*:”

“The data provided in the Specifications and shown on the plans and Drawings is believed by the ENGINEER or the OWNER to be accurate, but the accuracy is not guaranteed by the ENGINEER or the OWNER. The CONTRACTOR must take all levels, locations, and measurements, and verify all dimensions of the Site prior to construction, and adapt its Work to the exact construction. Scale measurements taken from prints shall not be considered except as references; the larger scale Drawings take precedence over the smaller scale, and Shop Drawings take precedence over all others. All Work under this Contract shall be constructed in accordance with the lines and grades shown on the Contract Drawings or as otherwise directed by the ENGINEER. Elevations of existing ground, structures and appurtenances shown on Drawings and Specifications are presented only as an approximation. Any error or apparent discrepancy in the data shown, or omissions of data, shall be referred immediately to the ENGINEER for interpretation or correction.”

(ii) In the [original] second sentence, thirteenth line, after the words “Documents unless,” insert the words “and until.”

b) In Paragraph 2.05.B, on the third line, delete the words “General Requirements” and insert the words “Contract Documents” in their place.

c) Delete Paragraph 2.05.C in its entirety and insert the following in its place:

“C. Before any Work at the site is started, CONTRACTOR shall deliver to OWNER, with copies to ENGINEER and each additional insured identified in Article 5, as supplemented and amended by the Supplementary Conditions, certificates of insurance (and other evidence requested by OWNER)

that CONTRACTOR is required to purchase and maintain in accordance with the requirements of Article 5.”

d) Add a new Paragraph immediately after Paragraph 2.05.C as follows:

“D. Execution of the Contract by the CONTRACTOR is a representation by the CONTRACTOR that CONTRACTOR has visited the Site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with the requirements of the Contract.”

## 5. SC-2.06

a) In the first sentence, second line, after the text “before any Work at the Site is started” insert the text “or any materials or equipment are delivered to the Site.”

b) Add the following sentences after the first sentence:

“The ENGINEER shall notify the CONTRACTOR of the place, date and time of the conference. The CONTRACTOR, its project manager, its superintendent, and any of the CONTRACTOR’s other Project coordinators, representatives or other parties whose work on the Project would benefit from the conference shall attend.

c) Add a new Paragraph immediately after Paragraph 2.07.A of the General Conditions of the EJCDC, as follows:

“B. Construction Conferences. The following conferences with the ENGINEER or the Owner shall be held to ensure that the Work progresses appropriately and that the Owner and the Architect are kept apprised of the status of the Work throughout the duration of the Project:

1. Preconstruction Conference. A preconstruction conference shall be held after the award of the Contract and prior to commencement of the Work or delivery of materials or equipment to the Project site. The ENGINEER shall notify the Contractor of the place, date, and time of the meeting. The Contractor, its project manager, its superintendent, and any of the Contractor’s other Project coordinators, representatives or other parties whose work on the Project would benefit from the conference shall attend. The OWNER and ENGINEER will attend this conference. The Contractor, major subcontractors, and Contractor’s safety representative shall attend this conference. The resumes of both the Contractor’s project manager and superintendent shall be submitted to the Owner for review and approval prior to the conference. The project manager and superintendent shall have at least 2 years of experience managing and supervising the type of construction work specified in the contract documents. No work shall be allowed until the Project Superintendent is on-site and working on this project. The conference agenda will include, as a minimum: tentative construction schedule; critical work sequencing; designation of responsible personnel; processing of field decisions, proposal requests and change orders; adequacy of distribution of contract documents; submittal of shop drawings and samples; procedures for maintaining record documents; use of site and Owner’s requirements; material deliveries and storage areas; major equipment and material deliveries and priorities; safety; security; housekeeping procedures; partial payment processing; general regard for community relations.”

## 6. SC-2.07.

a) Insert the following four sentences immediately before the first sentence of Subparagraph 2.07.A.1:

“The progress schedule may be a critical path type or any other system likely to provide equivalent results. The progress schedule shall account for all Work to be performed under subcontracts. The progress schedule shall provide for the proper sequence of construction, considering various crafts, purchasing times, shop drawing approval, material delivery, equipment fabrication and similar time-consuming factors. The progress schedule shall show as a minimum, earliest starting, earliest completion, latest starting, latest completion, and the total float times for each task or item.”

- b) In the [original] first sentence of Subparagraph 2.07.A.1, second line, after the words “if it provides”, insert the words “all of the foregoing and”
- c) Add a new Subparagraph immediately after Paragraph 2.07.A of the EJCDC General Conditions, as follows:

“B. The construction schedule shall be evaluated by the Contractor not less than monthly. An updated and corrected progress schedule shall be submitted to the ENGINEER in triplicate and shall show any rescheduling necessary to reflect the true job conditions. This updated progress schedule shall be submitted monthly to the ENGINEER with the Contractor’s pay request. When the shortening of various time intervals is necessary to correct for behind-schedule conditions, the Contractor shall indicate the steps necessary to accomplish the Work in the shortest schedule possible. Information regarding the new time intervals and the reasons for them shall be submitted to the ENGINEER in writing with the revised schedule. Notwithstanding anything apparently to the contrary in the Contract Documents, the ENGINEER may withhold progress payments until such time as the progress schedule or revised progress schedule, if applicable, is received.”

## 7. SC 2.08

a. Add a new Section in the EJCDC after Section 2.07, as follows:

“2.08 *Construction Conferences*

- A. Regular construction conferences shall be held with the ENGINEER or the OWNER to ensure that the Work progresses appropriately and that the OWNER and the ENGINEER are kept apprised of the status of the Work throughout the duration of the Project.”
  - 1. Monthly Progress Meetings. Each prime contractor is required to attend monthly, or more frequently as specified in the contract, progress conferences called or scheduled by ENGINEER at the Project Site. Each prime contractor shall be represented at these meetings by both its home office and Project personnel. These representatives shall have the authority to act on behalf of the Contractor. The meetings shall be open to the Subcontractors, materials suppliers, utility company representatives and any others whose presence and participation would contribute toward maintaining required job progress. It shall be the principal purpose of these meetings to effect coordination, cooperation and assistance in every practical way toward the end of maintaining progress of the Project on schedule and to complete the Project within the specified Contract [Time or Times]. Each prime contractor shall be prepared to assess the progress of the Work as required in its particular contract and to recommend remedial measures for correction of the progress as may be appropriate. The ENGINEER, or the representative thereof, shall be the coordinator of the conferences and shall preside as chairman. The ENGINEER will record minutes of the proceedings and decisions, and will distribute copies of minutes to attendees. The Owner and ENGINEER will attend this meeting. The Contractor shall attend

this meeting. The agenda will include, as a minimum: review and approve minutes of previous meeting; review progress of work since last meeting; review proposed 30-60 day construction schedule; field observations, problems and conflicts; problems that impede planned progress; corrective measures and/or procedures to regain projected schedule; revise construction schedule as indicated and plan progress during the next work period; submittal status; pending changes; maintenance of quality and work standards; status of community relations and complaint resolution; complete other current business; schedule next progress meeting.

2. Weekly Coordination Meetings. The Contractor shall meet with the ENGINEER at least once per week to ensure efficient coordination of the various aspects of the Work being performed.
3. Other Required Meetings. As the ENGINEER or the Owner believes it is appropriate and would be helpful to maintaining the efficiency and quality of the Work, the ENGINEER or the Owner may schedule a meeting with the Contractor and any other parties. The Contractor shall ensure proper representation at such meetings to effect their purpose, including sending any specific personnel requested by the ENGINEER or the Owner. Notwithstanding the foregoing, if the Contractor reasonably believes that the progress or quality of the Work will or might be impeded by attendance at the meeting, then the party calling such meeting shall work with the Contractor to reschedule it for a mutually convenient time.”

## C. ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

### 8. SC-3.01.

#### a) In Paragraph 3.01.B:

- (i) In the first sentence, second line, after the words “a functionally complete” add the words “and operable.”
- (ii) In the second sentence, seventh line, delete the word “will” and insert the word “shall” in its place.

#### b) Add a new Paragraph immediately after Paragraph 3.01.C as follows:

“D. Each and every provision of law and clause required by law to be inserted in these Contract Documents shall be deemed to be inserted herein, and they shall be read and enforced as though included herein. If through mistake or otherwise, any such provision is not inserted correctly, then upon the application of either party, the Contract Documents shall forthwith be physically amended to correct such insertion. If such physical amendment does not occur, however, the correct provision shall be deemed to have been inserted.”

### 9. SC-3.02.

- a) In Subparagraph 3.02.A.1, in the sixth line, after the word “Bids”, insert the text “or, if Laws or Regulations are different at the time of the Work, then those Laws or Regulations in effect at the time of the Work.”

b) Delete Subparagraph 3.02.A.2 in its entirety without substitution.

10. SC-3.03.

Delete Paragraph 3.03.B in its entirety and insert the following in its place:

*“B. Resolving Discrepancies.* Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and the provisions of any standard, specification, manual, code, or instruction of any technical society, organization or association if the standard, specification, manual, code or instruction imposes a weaker or less stringent standard or obligation upon the Contractor or any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work than the Contract Documents appear to impose; otherwise, the standard, specification, manual, code or instruction of any technical society, organization or association shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and the provisions of such standard, specification, manual, code or instruction.”

11. SC-3.04.

Add a new Paragraph immediately after Paragraph 3.04.B as follows:

*“C. The Drawings may be supplemented from time to time with additional Drawings by the ENGINEER as required to illustrate the Work or, as the Work progresses, with additional Drawings by the CONTRACTOR, subject to the approval of the ENGINEER. Supplementary Drawings, when issued by the ENGINEER or by the CONTRACTOR, after approval by the ENGINEER, shall be deemed a part of the Drawings and shall be furnished in sufficient quantity to all those who, in the opinion of the ENGINEER, are affected by such Drawings.”*

5. SC-3.05.

Add a new Section immediately after Section 3.05 as follows:

*“3.06 Organization of the Documents.*

*A. Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings, shall not control the CONTRACTOR in dividing the Work among Subcontractors or in establishing the extent of the Work to be performed by any trade or party.”*

**D. ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS**

12. SC-4.01.

Add a new Paragraph immediately after Paragraph 4.01.C as follows:

*“D. If all lands, easements and rights-of-way are not obtained as herein contemplated before construction begins, CONTRACTOR shall begin the Work upon and within such lands, easements and rights-of-way as OWNER has at that time acquired.”*

13. SC-4.02.

- a) In Paragraph 4.02.B, in the second sentence, fifth line, delete the words "is identified in the Supplementary Conditions" and insert the following words in lieu thereof "is provided in the Specifications and Drawings and may be further identified in the Project Manual or Special Conditions."

- b) Add a new Paragraph immediately after Paragraph 4.02.B as follows:

*"C. No Reliance by CONTRACTOR on Reports of Subsurface Investigations.* In the preparation of Drawings and Specifications, the ENGINEER has relied upon reports of subsurface investigations as may be attached to the Contract Documents. Such reports are not part of the Contract Documents."

14. SC-4.03.

- a) Add a new Subparagraph immediately after Paragraph 4.03.C of the EJCDC General Conditions and replace it, as follows:

*"C. Possible Price and Time Adjustments:* Subsurface information, if provided by the OWNER to the CONTRACTOR, is provided for the sole purpose of placing the CONTRACTOR in receipt of all information available to the OWNER and the ENGINEER, and such information is not to be considered as part of the Contract Documents. CONTRACTOR acknowledges that it has interpreted the subsurface information according to its own judgment in bidding the Work and that it did not rely on the subsurface information provided to it in making its bid. The CONTRACTOR acknowledges that it assumes all risks contingent upon the nature of the subsurface conditions actually to be encountered by it in performing the Work required by the Contract, even though such actual conditions may result in the Contractor performing more or less Work than originally anticipated. Unless the Owner specifically agrees in writing, neither the Contract [Time or Times] nor the Contract [Sum or Price] shall be adjusted on the basis of the actual subsurface conditions being different than as revealed in the subsurface information provided to the CONTRACTOR by the OWNER."

15. SC-4.05.

- a) In Paragraph 4.05.A:

- (i) In the third sentence, tenth line, after the words "reference point" insert the text ", survey markers, property corners, right of way monuments."
  - (ii) At the end of the third sentence, fourteenth line, replace the words "professionally qualified personnel" with "a North Carolina Professional Land Surveyor (PLS)".

- b) Add a new Paragraph immediately after Paragraph 4.05.A as follows:

*"B. ENGINEER may check lines, elevations, reference marks, batter boards, and the like, set by CONTRACTOR. CONTRACTOR shall correct any errors disclosed by such check as directed by the ENGINEER. No such check shall be deemed an approval of CONTRACTOR's work, nor shall it relieve CONTRACTOR of the responsibility for accurate construction of the entire Work.*

*CONTRACTOR shall furnish personnel to assist ENGINEER in checking lines and grades. If CONTRACTOR through the course of its Work discovers information leading it to believe that such*

reference points are in error or that there has been a mistake in survey data, CONTRACTOR shall immediately notify ENGINEER and OWNER.”

16. SC-4.06.

- a) In Paragraph 4.06.A, in the first sentence, second line, delete the word “Supplementary” and insert the word “Project Manual” in its place.
- b) In Paragraph 4.06.B, in the second sentence, sixth line, delete the word “Supplementary” and insert the word “Project Manual” in its place.
- c) In Paragraph 4.06.C, in the first sentence:
  - (i) In the first line, insert the text “Except as otherwise described in the Contract Documents,” as the beginning of the sentence.
  - (ii) In the third line, delete the word “which” and insert the word “that” in its place
  - (iii) At the end of the first sentence, add: “, provided that CONTRACTOR uses reasonable care in its operation equivalent to the care used by similar contractors in the locality.”
- d) In Paragraph 4.06.G, in the second sentence, seventeenth line, delete the reference to Paragraph “4.06.E” and insert “4.06.G” in its place.
- e) In the first sentence, delete the word “and” before “(ii)”, and add the following after the word “responsible” at the end of the sentence:

“, and (iii) was known by the OWNER to exist.”
- f) In Paragraph 4.06.H, in the second sentence, twelfth line, delete the reference to Paragraphs “4.06.F” and insert “4.06.H” in its place.

3. SC-4.07.

Add a new Section immediately after Section 4.06 as follows:

**“4.07 Existing Utilities**

A. The CONTRACTOR shall be responsible for the location and verification of all utilities prior to construction, both public and private, within the Site. Prior to commencing construction, the CONTRACTOR shall walk the Site verifying the location of all utilities in order to determine which utilities the CONTRACTOR may deem to be in conflict with the Work. At the completion of the walk-through, the CONTRACTOR shall notify the ENGINEER in writing of any such conflicts. The CONTRACTOR shall also attend monthly progress meetings with the OWNER or ENGINEER, and utility company representatives if appropriate, to discuss potential and/or existing conflicts on all roadway and utility portions of the Work, unless such meeting is waived for a particular month or for the duration of the Project by the ENGINEER. At the option of the OWNER, such meetings may occur in connection with any monthly progress meetings established pursuant to Subparagraph 2.08.A.2.

B. Where existing utilities and structures are indicated on the Drawings, it shall be understood that all of the existing utilities and structures affecting the Work may not be shown and that the locations of those shown are approximate only. It shall be the responsibility of the CONTRACTOR to ascertain the actual extent and exact location of the existing utilities and structures. In every instance, the CONTRACTOR shall notify the proper authority having jurisdiction and obtain all necessary directions and approvals before performing any Work in the vicinity of existing utilities.

C. The Work shall be carried out in a manner to prevent disruption of existing services and to avoid damage to the existing utilities. Temporary connections shall be provided, as required, to ensure that no interruption of existing services occurs. Any damage resulting from the Work shall be promptly repaired by the CONTRACTOR at its own expense in a manner approved by the ENGINEER and further subject to the requirements of any authority having jurisdiction. Where it is required by the authority having jurisdiction that such jurisdiction perform its own repairs or have them done by others, the CONTRACTOR shall be responsible for the costs thereof.”

#### 7. SC 4.08

Add a new Section immediately after Section 4.07 (created above) as follows:

##### *“4.08 Miscellaneous Site Conditions”*

A. Construction Staking and Surveying. The OWNER will perform all construction surveying and staking as called for in the Contract Documents unless a bid item for construction surveying is included in the itemized Proposal. All Work under this Contract shall be constructed in accordance with the lines and grades shown on the Contract Drawings or as directed by the ENGINEER.. Elevations of existing ground, structures and appurtenances are believed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake-out survey shall be referred immediately to the ENGINEER for interpretation or correction.

B. The CONTRACTOR shall provide and maintain substantial survey markings delineating easement and property boundaries during construction. These markings shall be in place and approved by the ENGINEER prior to beginning construction activities.

C. Water for Construction. Water needed for construction of the Work may be obtained from the Town of Holly Springs at no charge to the CONTRACTOR. The CONTRACTOR shall be responsible for transporting water. The CONTRACTOR shall contact the Holly Springs Department of Public Works to have a hose and meter installed so as to obtain water. The CONTRACTOR shall not operate any main valve or fire hydrant on the Town water system except in accordance with Town of Holly Springs Policy Statement No. P-005.

D. The CONTRACTOR is advised to perform video inspections and take photographs of the proposed construction areas before disturbing the Site in order to establish an accurate record of the pre-construction conditions for comparison the final restoration work.

E. The CONTRACTOR shall continually notify members of the public that own or occupy private property that may be affected by the scheduled Work that affects their property. The OWNER will distribute a letter to all property owners that will be affected by the proposed Work describing the Project. When construction begins, the CONTRACTOR shall notify residents at least 72 hours in advance of when their property will be directly affected by the Work, with continual updates as required by the progress of the Work. In the event of planned utility service disruptions, the Town’s Public Works and Utilities Department, or other affected utility provider, shall also be notified. At a minimum, the CONTRACTOR shall distribute door

hangers to all residents in the affected area before mobilizing on the Site and then distribute follow-up notices at least 3-days before residents are directly affected by the planned Work. The door hangers shall be provided by the Owner and will include information deemed necessary by the OWNER.

**E. ARTICLE 5 – BONDS AND INSURANCE**

**4. SC-5.00.**

Add a new Paragraph at the beginning of Article 5 as follows:

**“5.00 *Evidence of Bonds and Insurance Required Prior to the Work***

All evidence of bonds and insurance required in this Article shall be provided prior to the CONTRACTOR or its Subcontractors commencing the Work or making or accepting delivery of materials or equipment to the Site. Failure of the CONTRACTOR to timely obtain and deliver evidence of bonds and insurance as described herein shall not excuse CONTRACTOR from adhering to the progress scheduling for the Work, and any such resulting failure of the CONTRACTOR to adhere to the progress schedule or the Contract Times shall entitle the OWNER to such sanctions and remedies as are provided elsewhere in the Contract Documents for insufficient progress on the Work.”

**5. SC-5.01.**

**f) In Paragraph 5.01.A:**

(i) In the first sentence, insert the following text at the beginning of the sentence:

“Concurrent with the execution of this Contract.”.

(ii) In the first sentence, first line, after the word “furnish” insert the text:

“and maintain, at the CONTRACTOR’s cost and expense.”.

(iii) In the second sentence, sixth and seventh lines, after the words “date when final payment becomes due,” insert the words “pursuant to Paragraph 14.07.C”.

g) In Paragraph 5.01.C, in the first sentence, fifth line, delete the number “20” and insert in lieu thereof the text “five (5) business”.

**6. SC-5.02.**

In Paragraph 5.02.A, in the second sentence, seventh line, after the words “surety and insurance companies shall also” insert the text “be approved by the OWNER and”.

**7. SC-5.03.**

Add the following two new Paragraphs immediately after Paragraph 5.03.A as follows:

“B. The CONTRACTOR shall provide to the OWNER, insurance certificates or other evidence that all Subcontractors are carrying the required insurance. In lieu of each Subcontractor being required to carry the necessary insurance, the CONTRACTOR may insure the activities of its

Subcontractors under its policy(ies). In such case, evidence of such coverage shall be provided on the CONTRACTOR's insurance certificates. Subcontractors shall in all cases, however, provide workers' compensation and employer's liability insurance and motor vehicle liability insurance.

C. An authorized representative of the insurance company(ies) providing coverage required herein shall certify that all of the required insurance coverages and amounts specified in the Contract Documents are provided by the submitted policies. The certification shall be signed by the authorized representatives of the insurance company(ies) and notarized. The authorized representative of the insurance company(ies) shall specifically indicate with the submittal which of the policies submitted fulfill which specific coverage and amounts specified under Sections 5.04 and 5.05 of the Contract. The certification, including the correlation, shall be furnished and included with the insurance certificates. One (1) copy of each such insurance policy and the certificates indicating each type of coverage mentioned, and the correlation between the insurance furnished and that required, shall be provided to each insured party.

The insurance required to be provided by the Contractor (except Worker's Compensation and Employer's Liability insurance) shall name the following as additional insureds as primary without contribution:

The Town of Holly Springs       Architect  
 Engineer       Architect's or Engineer's Consultant  
 Other: \_\_\_\_\_.

5. SC-5.04.

- a) Rename Section 5.04, "*CONTRACTOR's Liability and Property Insurance.*"
- b) In Subparagraph 5.04.A.6, add the following words at the end of the Subparagraph:  
"in the prosecution of the Work".
- c) In Paragraph 5.04.B:
  - (i) In Subparagraph 5.04.B.6, delete the word "and" at the end of the Subparagraph.
  - (ii) In Subparagraph 5.04.B.7, delete the "." at the end of the Subparagraph and insert a ";" in its place.
  - (iii) Add four new Subparagraphs immediately after Subparagraph 5.04.B.7 as follows:
    8. include builder's risk/fire and extended coverage insurance, including coverage for vandalism and malicious mischief for the life of the Contract upon all Work in place and all materials at the Site;
    9. include special hazards insurance covering bodily injury and property damage resulting from blasting and explosions, collapse of or structural injury to any structure, and damage to underground structures, pipes or conduits due to the CONTRACTOR's or its Subcontractor's operations;

10. contain provisions or endorsements that:

- a) the OWNER shall be notified in writing within thirty (30) days after the filing of each claim under the policy;
- b) full coverage shall be reinstated after payment of each claim;
- c) the insurer shall have no right of recovery or subrogation against the OWNER, its agents or agencies, or the ENGINEER, it being the intention of the parties that the insurance policies shall protect both the OWNER and the ENGINEER and be primary coverage for any and all losses covered by the policies;
- d) the clause "other insurance provisions" in a policy in which the OWNER, its agents or agencies, or the ENGINEER is named as an insured, shall not apply to such insured parties;
- e) the insurance companies issuing the policy or policies shall have no recourse against the OWNER, its agents or agencies, or the Engineer for the payment of any premiums or for assessments under any form of policy; and
- f) any and all deductibles under the insurance policies shall be assumed by and be at the sole risk and expense of the CONTRACTOR;

and

11. contain the following Indemnification Agreement, endorsed on the reverse sides of all certificates of insurance:

**Indemnification** - To the fullest extent permitted by law, CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER and their agents, consultants and employees from and against all claims, damages, losses and expenses, including but not limited to attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense: (a) is attributable to bodily injury, sickness, disease or death, or to injury or to destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (b) is due to damage caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not a party indemnified hereunder is partially negligent, or arises out of operation of law as a consequence of any act or omission of the CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether any of them has been negligent; provided, however, that no party shall be entitled to indemnification with respect to such party's own negligence. This provision is intended to indemnify to the fullest extent permitted by law both OWNER and ENGINEER independently of the negligence of the other and thus the OWNER's negligence shall not preclude indemnification by CONTRACTOR of the ENGINEER, and ENGINEER's negligence shall not preclude indemnification by CONTRACTOR of OWNER.\*\*\*

- d) Add a new Paragraph immediately after Paragraph 5.04.B of the EJCDC General Conditions , as follows:

#### C. SPECIFIC INSURANCE REQUIREMENTS

1. The Contractor shall provide insurance coverage for the Town as additional insured to be treated as primary insurance without contribution in amounts not less than the following amounts, and greater coverage where required by law.

Check if Required	Insurance	Minimum Coverage
✓	Worker's Compensation	[Statutory Minimum]
✓	Employer's Liability	\$1,000,000
	Comprehensive General Liability including Premises/Operations; Explosion, Collapse and Underground Property Damages; Products/Completed Operations; Broad Form Contractual; Independent Contractors; Broad Form Property Damage; and Personal Liability:	
✓	(1) Bodily Injury	\$1,000,000 Each Occurrence \$2,000,000 Annual Aggregate
✓	(2) Property Damage	\$1,000,000 Each Occurrence \$1,000,000 Annual Aggregate
✓	(3) Personal Injury, with employment exclusion deleted	\$1,000,000 Annual Aggregate
	Comprehensive Motor Vehicle Liability, including all owned (private and others), hired and non-owned vehicles used in the Work:	
✓	(1) Bodily Injury	\$1,000,000 Each Person \$2,000,000 Each Accident
✓	(2) Property Damage	\$1,000,000 Each Occurrence
✓	Completed Operations Hazard Insurance	Contract [Sum or Price] or \$1,000,000 if greater

Check if Required	Insurance	Minimum Coverage
	Builder's Risk/Fire and Extended Coverage, including vandalism and malicious mischief	Contract [Sum or Price] or \$1,000,000 if greater
✓	Special Hazards Insurance, including coverage for "boiler and machinery", "blasting and explosion", "collapse of structure" or "injury to any structure due to contractor's operations" and "damage to underground structures, pipes or conduits"	Contract Amount or \$1,000,000, whichever is greater
✓	Umbrella Liability	\$5,000,000 per occurrence and policy aggregate limit

2. The comprehensive general liability insurance and comprehensive motor vehicle disability insurance shall include Owner, its agents and agencies, ENGINEER and ENGINEER'S Consultant and all municipalities where Work is being performed as additional insureds as primary without contribution. The insurance policies required hereunder shall not contain any third party benefit exclusion.

3. Contractor may purchase and maintain excess liability insurance in the umbrella form in order to satisfy the limits of liability required for the insurance to be purchased and maintained in accordance with this Paragraph. Evidence of such excess liability shall be delivered to OWNER in the form of a certificate indicating the policy numbers and limits of liability of all underlying insurance. The umbrella liability insurance shall have a combined single limit of not less than \$5,000,000.

4. If any of the property and casualty insurance requirements described herein are not complied with at the renewal dates of the insurance policy(ies), then payments to the Contractor shall be withheld until all requirements have been met, or, at the option of the Owner, if the renewal premiums have not been paid, then the Owner may pay the renewal premiums and withhold the cost thereof from any monies due to the Contractor.

5. In the event that claims in excess of the coverage amounts provided herein are filed by reason of any operations under the Contract, the amount of excess of such claims, or any portion thereof, may be withheld from payment due or to become due to the CONTRACTOR until such time as the CONTRACTOR shall furnish such additional security covering such claims as may be determined by the OWNER.

6. The CONTRACTOR shall submit to the OWNER documentation as to the cost of insurance coverage required hereunder prior to obtaining the policy(ies). The OWNER may, if it deems it to be in its best interest, obtain a portion or all of the coverage on its own and receive a credit from the CONTRACTOR against the Contract Sum for the cost of the insurance so provided by the OWNER."

6. Delete Paragraph 5.05.A of the EJCDC General Conditions, in its entirety, and replace it with the following:

“A. CONTRACTOR shall purchase and maintain a separate OWNER’S Protective Liability policy, issued to OWNER at the expense of CONTRACTOR, including OWNER and ENGINEER as named insured as primary coverage without contribution. The CONTRACTOR shall provide the OWNER with a certificate of insurance for the policy prior to the effective date of the CONTRACT. The certificate shall state that the policy cannot be canceled or terminated while the Work under this Contract, and any renewals thereof, is still in progress without 30 days’ prior notice to the OWNER, who shall have the option of reinstating the policy. The CONTRACTOR shall provide renewal certificates no later than 30 days prior to the expiration date of the policy. The policy of insurance shall provide coverage for not less than the following amounts:

1.	Bodily Injury	\$1,000,000
Each Occurrence		
2.	Property Damage	\$1,000,000
Each Occurrence	\$1,000,000      Annual Aggregate”	

7. SC-5.06.

- a) Rename Section 5.06, “*Additional Insurance*.”
- b) Delete Paragraph 5.06.A in its entirety and insert the following in its place:

“A. OWNER, CONTRACTOR and ENGINEER, each at their own option and expense, may purchase and maintain any additional insurance it deems necessary or prudent to protect its interests in connection with the Work. Expenses of such insurance and any deductibles shall not constitute a portion of the Contract Price but are to be borne entirely by the party obtaining such insurance.”

- c) Delete Paragraphs 5.06.B through 5.06.E in their entirety without substitution.

8. SC-5.07.

- a) Delete Paragraph 5.07.A in its entirety and insert the following in its place:

“A. Intentionally Omitted.”

- b) Delete Paragraph 5.07 B in its entirety and insert the following in its place:

“B. Intentionally Omitted.”

- c) Delete Paragraph 5.07 B in its entirety and insert the following in its place:

“C. Intentionally Omitted.”

9. SC-5.08.

Delete Section 5.08 in its entirety and insert the following in its place:

“5.08 Intentionally Omitted.”

10. SC-5.09.

Delete Paragraph 5.09.A in its entirety and insert the following in its place:

“A. If OWNER has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by CONTRACTOR in accordance with this Article 5 on the basis of its not complying with the Contract Documents, OWNER shall notify CONTRACTOR in writing thereof within ten (10) days of the date of delivery of such certificates to OWNER in accordance with paragraph 2.05. CONTRACTOR shall provide such additional information in respect of insurance provided by CONTRACTOR as OWNER may reasonably request. Failure of OWNER to notify CONTRACTOR of its objection shall not constitute a waiver of any condition of a bond, insurance coverage, or any other covenant contained in the Contract Documents.”

11. SC 5.10.

Delete Paragraph 5.10 in its entirety and insert the following in its place:

“Intentionally Omitted.”

F. ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

1. SC-6.01.

a) In Paragraph 6.01.A, in the second sentence, twelfth line, after the word “Documents,” add the following:

“, unless the CONTRACTOR knew or should have known of a mistake, error, flaw, miscalculation, or the like, in the design or specification at the time of the making of the Agreement and failed to notify the OWNER and the ENGINEER thereof.”

b) Insert the following two Paragraphs immediately after Paragraph 6.01.B:

**“C. Project Manager and Superintendent:** The CONTRACTOR’s project manager and the CONTRACTOR’s superintendent shall be full-time employees of the CONTRACTOR. The project manager and the superintendent shall each have a minimum of five years’ experience constructing projects similar to the Project. The project manager’s and the superintendent’s previous work performances must, respectively, be acceptable to the OWNER as to quality of workmanship and time of performance. The CONTRACTOR shall submit resumes of the project manager and the superintendent to the OWNER at the time the Contract is signed. If either person is or becomes unacceptable to the OWNER, the CONTRACTOR, upon written demand by the OWNER, shall promptly remove the unacceptable person and shall appoint a replacement satisfactory to the OWNER.”

*D. Multi-prime Contract Projects:*

1. The general contractor, or any other contractor specifically named by OWNER, shall act as the Project Expediter, responsible for preparing the Project Schedule, including coordinating the progress schedules of the other prime contractors and their subcontractors, ensuring that each prime contractor and subcontractor adheres to its schedule, and communicating regularly with the ENGINEER or the OWNER regarding any concerns that arise during the course of the Project, including, without limitation, the scheduling, adherence to the Drawings, the Specifications and/or the Project Manual.

2. All prime contractors shall be required to cooperate and consult with other contractors and with the Project Expeditor during the construction of the Project. Each prime contractor shall schedule and execute its portion of the Work so as to cause the least delay to other contractors. Each prime contractor shall be financially responsible to the other prime contractors for undue delay caused by it to other prime contractors and subcontractors on the Project.”

2. SC-6.02.

g) Delete Paragraph 6.02.A in its entirety and insert the following in its place:

“A. CONTRACTOR is responsible for expediting the Work efficiently and effectively and with due care to the quality of the Work. CONTRACTOR shall ensure that at least half of the Work is performed with CONTRACTOR’s employees. CONTRACTOR shall employ only competent, suitably qualified persons to perform the Work. CONTRACTOR shall at all times maintain good discipline and order at the Site. Whenever OWNER notifies CONTRACTOR in writing that any person on the Project appears to be incompetent, disorderly, or otherwise unsatisfactory, such person shall be removed from the Project and shall not again be employed on it except with the prior written consent of OWNER. No adjustment shall be made in the Contract Price or the Contract Times on the basis of the removal of such person from the Project.”

b) In Paragraph 6.02.B:

(i) In the first sentence, fifth line, of Paragraph 6.02.B, delete the text “overtime work” from the sentence and keep the remaining text.

(ii) Insert the following five sentences after the first sentence:

“Regular Working Hours’ are defined as 8 hours per day, Monday through Friday, excluding holidays, between the hours of 7:00 AM and 6:00 PM. Requests to work other than Regular Working Hours shall be submitted to ENGINEER not less than 48 hours prior to any proposed additional daily working hours (including second and third shifts), weekend work or scheduled extended work weeks. All requests to work other than Regular Working Hours must comply with all applicable regulations and ordinances. ENGINEER shall review requests, and ENGINEER shall either (1) deny the request or (2) provide CONTRACTOR with terms for additional engineering and/or inspection costs to be paid for by CONTRACTOR as a result of overtime work

in excess of the Regular Working Hours. CONTRACTOR shall agree to ENGINEER's terms prior to ENGINEER approving CONTRACTOR's request to work other than Regular Working Hours."

c) Insert the following two Paragraphs immediately after Paragraph 6.02.B. as follows:

"C. This Agreement is subject to the applicable provisions of the Contract Work Hours and Safety Standards Act, Public Law 87-581, 87th Congress. Neither the CONTRACTOR nor any Subcontractor contracting for any part of the Work shall require or permit any laborer or mechanic to be employed on the Work in excess of forty hours in any work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half times that person's basic rate of pay for all hours worked in excess of forty hours in such work week.

D. CONTRACTOR and all Subcontractors shall, insofar as practicable, give preference in the hiring of workers for the Project: 1) according to the Minority Outreach Plan as specified in the Contract Documents; and 2) to qualified local residents, with first preference being given to citizens of the United States who have served in the armed forces of the United States and have been honorably discharged therefrom or released from active duty therein."

E. The cost of such overtime Work or the performance of Work on a Saturday, Sunday, or any legal holiday shall be borne by the CONTRACTOR. CONTRACTOR shall reimburse the OWNER for additional engineering and/or inspection costs incurred as a result of overtime work in excess of the Regular Working Hours stipulated herein. At Owner's option, overtime costs may either be deducted from the CONTRACTOR's monthly payment request or deducted from the CONTRACTOR's retention prior to release of final payment. Overtime costs for the OWNER's personnel shall be based on the individual's current overtime wage rate. Overtime costs for personnel employed by the ENGINEER or OWNER's employees or independent testing laboratory shall be calculated in accordance with the terms of their respective contracts with the ENGINEER or the OWNER.

F. Temporary lighting and all other facilities necessary for performing and inspecting the Work outside of Regular Working Hours shall be furnished and maintained by the CONTRACTOR at the CONTRACTOR's expense.

G. Work shall not be performed when the weather is inclement, stormy, freezing or otherwise unsuitable. Only such Work as will not suffer injury to workmanship, materials or equipment is permitted. The CONTRACTOR shall carefully protect all Work against damage or injury from the weather, and when Work is permitted during freezing weather, shall provide and maintain approved facilities for heating the materials and equipment and for protecting the finished Work. The CONTRACTOR shall take all necessary precautions (in the event of impending storms) to protect all Work, materials, and equipment from damage or deterioration due to floods, driving rain, wind or snowstorms. The OWNER reserves the right, upon the advice of the ENGINEER, to order that additional protective measures over and beyond those proposed by the CONTRACTOR be taken to safeguard all components of the Project. The CONTRACTOR shall have no right to nor make any claim for compensation for such precautionary measures so ordered, nor have a right to or make any claim for compensation from the OWNER for damage to the Work from weather elements.

H. The mixing and placing of concrete or pavement courses, the laying of masonry, and installation of sewers and water mains shall be stopped during rainstorms, if ordered by the ENGINEER; all freshly placed Work shall be protected by canvas or other suitable covering in such manner as to prevent running water from coming in contact with it. Sufficient coverings shall be provided and kept ready at hand for this purpose. CONTRACTOR shall not be entitled to an increase in Contract Times due to Work stoppage and other time not spent working pursuant to this Paragraph."

3. SC-6.03.

a) Add the following text at the end of Paragraph 6.03.A:

“The CONTRACTOR shall provide temporary toilet facilities for the use of all workmen.

Temporary toilet facilities shall comply with local and state sanitation laws and regulations.”

b) Add the following text at the end of Paragraph 6.03.B:

“All construction shall conform (in increasing order of priority in the event of any conflict) to the requirements and dimensions in the Town of Holly Springs ‘Engineering Design and Construction Standards’, the Town Code of the Town of Holly Springs, this Contract, the construction plans, and the Specifications. All materials and workmanship, except as otherwise provided herein, shall be in accordance with the latest edition of the North Carolina Department of Transportation ‘Standard Specifications for Roads and Structures,’ and all addenda thereto, and the Town of Holly Springs ‘Engineering Design and Construction Standards.’”

c) Add three new Paragraphs immediately after Paragraph 6.03.B as follows:

*C. Delivery of Equipment and Materials:* All materials and equipment delivered to the Site shall be accompanied by certificates, signed by an authorized officer of the Supplier, and notarized, guaranteeing that the materials and equipment conform to Specifications requirements. Such certificates shall be immediately turned over to the ENGINEER. Materials and equipment delivered to the Site without such certificates shall be subject to rejection by the ENGINEER. The CONTRACTOR shall ensure that equipment and materials to be incorporated in the Work shall be delivered to the Site sufficiently in advance of their installation and use in order to prevent delay in the execution of the Work, and that they shall be delivered to the Site, as nearly as is feasible, in the order required for executing the Work. The CONTRACTOR shall provide for continuity of supply to avoid changes of supplies or manufacturers or changes in brands of materials during the Work. The CONTRACTOR shall deliver packaged materials to the Site in the manufacturer’s original, unopened, labeled containers and shall not open such containers until the approximate time for the use of the contents.

*D. Storage and Protection of Equipment and Materials:* The CONTRACTOR shall protect all equipment and materials from deterioration and damage. Any equipment or materials of whatever kind

that may have become damaged or deteriorated from any cause shall be removed and replaced by new and satisfactory items, at the CONTRACTOR'S expense, including expenses of labor and materials for such removal and replacement. The CONTRACTOR shall store all equipment and materials at the Site in accordance with the manufacturer's recommendations, as directed by the ENGINEER, and in conformity with applicable statutes, ordinances, regulations and rulings of any public authority having jurisdiction. The CONTRACTOR shall store the cementitious and wood materials in dry, weather-tight, ventilated spaces. The CONTRACTOR shall store ferrous materials so as to prevent contact with the ground and to prevent rusting and damage from weather. The CONTRACTOR shall store masonry materials so as to prevent them from coming in contact with earth or staining materials and shall cover and protect such materials against weather, moisture, neglect and damage. The CONTRACTOR shall protect materials and equipment from equipment damage, weather, moisture, neglect, and construction operations. The CONTRACTOR shall store all equipment and materials at the Site in the accordance with the manufacturer's recommendation, as directed by the ENGINEER, and in conformity with applicable statutes, ordinances, regulations, and ruling of any public authority having jurisdiction. The CONTRACTOR shall not store unnecessary materials or equipment on the Site and shall take care to prevent any structure from being loaded with a weight that may endanger its security or the safety of persons and property. If the Site is such that equipment and materials cannot be safely stored at the Site, then the CONTRACTOR shall be responsible for locating and providing storage areas for equipment and materials. Such storage shall comply with all applicable statutes, ordinances, regulations and rulings of public authorities having jurisdiction.

*E. Hazardous Material:* The operations of neither the CONTRACTOR nor any Subcontractor shall expose any Town of Holly Springs employees or other person to any hazardous chemicals or other occupational safety or health hazards. The CONTRACTOR shall inform the ENGINEER about any hazardous substances that the CONTRACTOR or the Subcontractors might be using and to which the Town of Holly Springs' employees might become exposed. The CONTRACTOR shall also advise the ENGINEER of the appropriate control measures to be used by the Town of Holly Springs' employees to prevent exposure to such substances and to minimize the risks of such exposure. The OWNER shall not be responsible for any improper use of materials or substances referenced in the Contract Documents nor for any materials or substances brought to the Site by CONTRACTOR."

4. SC-6.04.

a) Add a new Paragraph immediately after Paragraph 6.04.A as follows:

"B. If the CONTRACTOR does not take the necessary action to accomplish the Work according to the progress schedule established in accordance with Paragraph 2.07, the CONTRACTOR may be ordered by the ENGINEER in writing to take necessary and timely action to improve its Work progress, and CONTRACTOR shall take such action. The ENGINEER's order may include increasing Work forces, providing extra equipment, working extra shifts, or taking other action as required. Should the CONTRACTOR refuse or neglect to take such action or fail to accomplish improvements in meeting the progress schedule, the ENGINEER may take any action authorized under this Contract, including but not limited to withholding of payment of the Contract Price and termination of the Contract."

5. SC-6.05.

a) Add the following sentence after the first sentence of Paragraph 6.05.A:

"It is the intent of the parties that the CONTRACTOR shall provide materials of the highest standard known to the trade and to provide materials free from defects in workmanship and product."

b) In Subparagraph 6.05.A.2.d:

(i) At the end of the first sentence, add the text: “, at least 14 days before such substitute item of material or equipment is to be brought to the Site.”

(ii) After the first sentence, insert the following sentence:

“The application shall include sufficient documentation and samples to allow the ENGINEER to determine the acceptability of the proposed substitute item of material or equipment.”

(iii) After the last sentence in paragraph 6.05B add the following:

“The substitution shall not be allowed without written approval of the OWNER, in its sole discretion.”

6. SC-6.06.

a) Delete Paragraphs 6.06.A and 6.06.B in their entirety and insert the following in their place:

“A. CONTRACTOR shall make a good faith effort to utilize minority business enterprises (MBEs) per North Carolina General Statutes Section 143-128, *et seq.*, as Subcontractor for the Work. CONTRACTOR shall submit for approval to the OWNER and the ENGINEER, within ten (10) days after the issuance of the Notice of Award, a list of the names of Subcontractors and Suppliers of principal items of material and equipment. CONTRACTOR shall also submit for approval to the OWNER and the ENGINEER a list of the names of any additional or replacement Subcontractors and Suppliers the CONTRACTOR wishes to use in connection with the Project prior to utilizing their services. The ENGINEER or OWNER shall notify the CONTRACTOR within ten (10) days after receipt of the list of any reasonable objections to any Subcontractor or Supplier. CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization, (including those who are to furnish the principal items of materials or equipment), whether initially or as a substitute, against whom OWNER may have reasonable objection. Acceptance of any Subcontractor, other person or organization by OWNER shall not constitute a waiver of any right of OWNER to reject defective Work or remove such person from the Project pursuant to Paragraph 6.02.A.

h) Add a new sentence at the end of Paragraph 6.06.E as follows:

“Notwithstanding the foregoing, however, OWNER or ENGINEER may furnish to any such Subcontractor, Supplier or other person or organization, to the extent practicable, information about amounts paid on their behalf to CONTRACTOR in accordance with CONTRACTOR’s Applications for Payment.”

7. SC-6.07.

At the end of Paragraph 6.07.A, add the following sentence:

“In the event of any claim or action by law on account of such patents or fees, it is agreed that the OWNER may retain out of the monies that are due or that may become due to the CONTRACTOR under this Contract, a sum of money sufficient to protect the OWNER against loss, and to retain the same until said claims are paid or are satisfactorily adjusted.”

8. SC-6.08.

- a) In Paragraph 6.08.A from the eighth line to the end of the Paragraph, delete the text: "or if there are no Bids....plant investment fees.", and insert in lieu thereof: "and the CONTRACTOR shall pay all charges of utility owners for connections to the Work."

9. SC-6.09.

- a) In Paragraph 6.09.A, delete the first sentence and insert in lieu thereof the following two sentences:

"The CONTRACTOR shall, at all times, observe and comply with and shall cause all of its agents and employees and all of its Subcontractors to observe and comply with all such existing Laws or Regulations. The CONTRACTOR shall protect and indemnify the OWNER and the ENGINEER and the municipalities and counties in which Work is being performed, and their officers and agents, against any claim, fee, civil penalty, fine or liability arising from or based on the violation of any such Law or Regulation, whether by the CONTRACTOR or its employees or any of its Subcontractors."

- b) In Paragraph 6.09.B:

- (i) In the first sentence, seventh line, insert "including all fines, fees, charges, civil penalties and the like assessed against the CONTRACTOR and/or the OWNER by any governmental unit or agency (including, without limitation, the OWNER in its capacity as a municipal corporation)" after "arising out of or relating to such Work."

- (ii) Insert the following sentence prior to the first sentence of the Paragraph:

"If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, it shall give ENGINEER prompt written notice thereof."

- c) Add a new Paragraph immediately after Paragraph 6.09.C as follows:

*"D. Fines for Noncompliance with Sedimentation and Erosion Control Regulations:* The CONTRACTOR should be aware that State laws and Town ordinances provide for the imposition of fines and other civil penalties for the failure to properly plan, implement and maintain appropriate sedimentation and erosion control practices. The CONTRACTOR shall familiarize itself with all applicable sedimentation and erosion control regulations and shall follow and abide by them closely. Applicable regulations include (by way of illustration and not limitation) North Carolina General Statutes Section 113A-50 *et seq.* and Town of Holly Springs Ordinances. Violations of such regulations include (by way of illustration and not limitation) grading without prior receipt of a valid grading permit or in a manner inconsistent with such permit, failure to take reasonable measures to protect public or private property from damage caused by failure to retain sediment on site, failure to install adequate erosion and sedimentation control devices, failure to maintain temporary and/or permanent erosion control measures, failure to protect exposed slopes, failure to provide adequate ground cover, failure to revise the erosion and sedimentation control plan after notification of the need to do so, failure to keep dirt and mud off of public streets, and failure to maintain slopes. Sedimentation and erosion control laws and ordinances shall be considered among the Laws and Regulations described in Paragraph 6.09.B hereof, and CONTRACTOR shall perform all Work so as to be in compliance with same and pay all fees, fines and civil penalties in connection with the violation(s) of same that do occur. This provision is intended to call CONTRACTOR's attention to State and Town sedimentation and erosion control plans, and nothing herein is intended to impliedly limit the types of regulations deemed to be Laws and Regulations herein, nor is anything herein intended to limit the applicability of Paragraph 6.09.A or 6.09.B as to sedimentation and erosion control laws."

10. SC-6.10.

- a) At the end of Paragraph 6.10.A, add the following text:

“Use tax is due on construction equipment brought into North Carolina for use in the performance of the Work (N.C. Revenue Laws G.S. 105-164.4 and 105-164.6). CONTRACTOR is also liable for payment of applicable privilege licenses (N.C. Revenue Laws G.S. 105-54) and for payment of applicable franchise, corporate income and withholding taxes (N.C. Revenue Laws, G.S. 105-122, 105-123, 105-134, and 105-163.2). The absence of mention of any specific tax herein in no way relieves the CONTRACTOR of its obligation to pay the same.”

- b) Add two new Paragraphs immediately after Paragraph 6.10.A as follows:

“B. Refunds of all North Carolina sales and use taxes paid in the purchase of building materials, supplies, fixtures and equipment that become a part of or annex to buildings or structures being erected, altered or repaired under contracts with the OWNER are to be made to the OWNER in accordance with state law. Thus, the following procedures shall be followed in order that the OWNER may recover the full amount of the North Carolina sales use and taxes permitted to be refunded to it under the law.

1. It shall be the CONTRACTOR’s responsibility to furnish the OWNER documentary evidence showing the material used and sales tax paid by the CONTRACTOR and each of its Subcontractors and Suppliers.

2. With each partial payment request submitted at the end of a calendar month, fiscal year or final payment, the CONTRACTOR must furnish (i) a certified and notarized statement setting forth the cost of the property purchased from each vendor and the amount of sales and/or use tax paid thereon, and (ii) documentary evidence supporting the statement, including copies of invoices for which the statement is being submitted, with invoice numbers indexed to the statement.

3. The statement shall show all taxes and assessments paid to the State of North Carolina, the County of Wake, and the Town of Holly Springs, including the North Carolina Sales Tax and the Town of Holly Springs Tax, and the statement shall list any payments made directly to the North Carolina Department of Revenue.

4. In the event the CONTRACTOR makes several purchases from the same vendor, the statement must indicate the invoice numbers, the inclusive dates of the invoices, the total amount of the invoices, and the sales and use taxes paid thereon.

5. Such statement must include the cost of any tangible personal property withdrawn from the CONTRACTOR’s warehouse stock and the amount of sales or use tax paid thereon by the CONTRACTOR.

6. Similar certified statements by its Subcontractors must be obtained by the prime CONTRACTOR and furnished to the OWNER.

7. If no tax has been paid during the pay request period, ‘NONE’ shall be entered on the tax form.

C. Materials used in the Project from the CONTRACTOR’s as Subcontractor’s warehouse stock shall be billed to the OWNER at warehouse stock prices.”

11. SC-6.11.

a) In Paragraph 6.11.A.1:

(i) Add four new sentences immediately after the first sentence as follows:

“Storage of equipment or materials, or erection and use of sheds outside of the Site, if such areas are the property of the OWNER, shall be used only with the OWNER’s approval. Such storage or temporary structures, even within the Site, shall be confined to the OWNER’S property. CONTRACTOR shall not utilize property other than the Site, including property designated as easement area or right of way area, unless specifically permitted elsewhere in the Contract Documents, without the express permission of the owner thereof. Such permission of owners of other properties shall not be sought by the CONTRACTOR without the express permission of the OWNER to so approach such owners.”

(ii) Add two new sentences at the end of the Subparagraph as follows:

“Prior to commencement of Work in the vicinity of property adjacent to the Site, CONTRACTOR, at its own expense, shall take such surveys as may be necessary or expedient to establish the existing conditions of the property. Any damage or injury occurring to any property as a result of any act, omission or neglect on the part of the CONTRACTOR shall be repaired so that the property is restored in a proper and satisfactory manner, or replaced, by and at the expense of the CONTRACTOR, to an equal or superior condition than previously existed.”

b) In Subparagraph 6.11.A.2, add two new sentences at the end of the Subparagraph as follows:

“CONTRACTOR shall be responsible for all costs in connection with the settlement of or defense against such claims. Before final payment under the Contract shall be made to the CONTRACTOR, the CONTRACTOR shall furnish satisfactory evidence to the OWNER that all claims for damage have been legally settled, that sufficient funds to cover such claims have been placed in escrow, or that an adequate bond to cover such claims has been obtained.”

c) In Paragraph 6.11.B:

(i) In the second sentence, add the following at the end of the sentence:

“, and shall include, without limitation, appropriate sedimentation control measures, as applicable.”

(ii) Add the following text after the second sentence of Paragraph 6.11.B:

“During construction, the CONTRACTOR shall regularly remove from the Site all accumulated debris and surplus materials of any kind that result from its operations. Unused equipment and tools shall be stored at the CONTRACTOR’s yard or base of operations for the Project. When the Work involves installation of sewers, drains, water mains, manholes, underground structures, or other disturbance of existing features in or across streets, rights of way, easements, or private property, the CONTRACTOR shall, as the Work progresses, promptly backfill, compact, grade, and otherwise restore the disturbed area to a basic condition that will permit resumption of pedestrian or vehicular traffic and any other essential activity or function consistent with the original use of the land. Unsightly mounds of earth, large stones, boulders, and debris shall be removed as promptly as possible so that the Site maintains a neat appearance.”

d) In Paragraph 6.11.C:

(i) In the first sentence, after the words “clean the Site,” insert the words “to a neat and orderly condition meeting or exceeding its appearance prior to construction.”

(ii) At the end of the Paragraph, add the following sentences:

“Failure to clean and prepare the Site in accordance with this Paragraph shall forestall CONTRACTOR’s right to receive its final payment of the Contract Price. At the Contract Time for full performance of the Work, if the cleaning and preparation is not complete, OWNER may make arrangements for same with a third party. The CONTRACTOR shall reimburse the OWNER for all costs associated with such work in a deduction in the Contract Price or by direct payment from the CONTRACTOR to the OWNER, or a combination of both, at the option of the OWNER.”

e) Add three new Paragraphs immediately after Paragraph 6.11.D as follows:

“E. *Traffic to and from the Site*: The CONTRACTOR shall maintain traffic to, from and around the Site in accordance with the Town of Holly Springs Engineering Design and Construction Standards, Section 150 of the NCDOT ‘Standard Specifications for Roads and Structures’ and the following provisions: At the end of each workday, the CONTRACTOR shall backfill, up to the edge and elevation of existing pavement, any area adjacent to the

travelway that has a drop off of more than three (3) inches. The CONTRACTOR shall perform this work at no additional cost to the OWNER. Access to the Site and properties adjacent to the Site shall be maintained at all times throughout the Project. Where driveways, mailboxes and/or other improvements are disturbed, temporary drives, mailboxes and/or other improvements if appropriate shall be installed immediately and maintained until such time as permanent repair to the driveways, mailboxes and/or other improvements is made. An ABC stone base shall be used to maintain temporary driveways. No additional payment shall be made by the OWNER or other parties to the Contract for such temporary driveway construction and maintenance because such Work shall be considered incidental to the Contract and included in the Contract Price.

*F. Work in Streets, Highways and Other Rights of Way:* Excavation, grading, fill, storm drainage, paving and any other construction or installations in rights of way of streets, highways, public carrier lines, utility lines (either aerial, surface or subsurface), and the like, shall be done in accordance with the applicable portions of the Specifications and the requirements of authorities having jurisdiction. The OWNER shall make all arrangements with the proper authorities for such Work, including the obtaining of permits, and shall pay costs associated with such, with the exception of electrical permits, blasting permits and inspections. The CONTRACTOR shall keep a copy of all required permits on the Site at all times. The CONTRACTOR shall be responsible for all bonds required by the North Carolina Department of Transportation.

*G. Final Clean-up and Site Rehabilitation:* Before leaving the Site upon completion of the Work, the CONTRACTOR shall remove from the Site all accumulated debris and surplus materials of any kind

that result from the Project, including construction equipment, tools, sheds, sanitary enclosures, and the like. The completed Project shall be turned over to the OWNER in a neat and orderly condition. The Site shall be rehabilitated or developed in accordance with other sections of the Specifications and the Drawings. In the absence of any portion of these requirements, the CONTRACTOR shall completely rehabilitate the Site to a condition and appearance equal or superior to that which existed just prior to construction, except for those items whose permanent removal or relocation was required in the Contract Documents or so ordered by the OWNER.”

**H. Mail Service:** Mail service shall not be interrupted by construction activities. In the event that mailboxes are relocated or temporarily removed, the Contractor must provide alternate methods as approved by the US Postal Service and the Owner for property owners to receive uninterrupted mail service. There will be no separate payments issued for alternate measures required to maintain mail service.

12. SC-6.12.

a) Add a new sentence at the end of Paragraph 6.12.A as follows:

“Failure to furnish the ENGINEER with accurate and detailed record documents shall be grounds for withholding final payment until such record documents have been properly furnished.”

b) Add a new Paragraph immediately after Paragraph 6.12.A of the EJCDC General Conditions, as follows:

“B. “Contractor shall maintain ‘as-built’ record drawings, current with the progress of the Work on the Project site, available for inspection on site, and shall provide them in mylar and electronic format to the ENGINEER and the OWNER prior to Substantial completion.”

13. SC-6.13.

a) In Paragraph 6.13.A, add the following text at the end of the first sentence:

“, and shall be solely and completely responsible for conditions of the Site, including the safety of all persons and property at the Site, preparatory to and during performance of the Work.”

b) In Paragraph 6.13.B:

(i) In the first sentence, second line, after the words “Laws and Regulations,” insert the text “, including such safety regulations as may be prescribed from time to time by the ENGINEER, the OWNER or local authorities having jurisdiction.”

(ii) In the first sentence, fourth line, after the text “damage, injury or loss:” delete the word “and”.

(iii) In the first sentence, fifth line, after the words “safety and protection”, insert the text:

“; and shall, when so directed by the ENGINEER or the OWNER, properly correct any unsafe conditions created by, or unsafe practices being committed on the part of its employees, Subcontractors, Suppliers or any individual or entity directly or indirectly employed by any of them. The CONTRACTOR shall fully comply with any and all applicable portions of the latest revision of the North Carolina Division of Highway ‘Policies and Procedures for Accommodating Utilities on Highway Right of Way.’ In the event of the CONTRACTOR’S failure to comply with any of the safety precautions referenced herein or in the Contract Documents, the ENGINEER or OWNER may take the necessary measures to correct the conditions or practices complained of; and all costs thereof will be deducted from the Contract Price due the CONTRACTOR. Failure of the ENGINEER to direct the correction of unsafe conditions or practices shall not relieve the CONTRACTOR of its responsibility hereunder.”

(iv) In the third sentence, delete the seventeenth line, now reading:

“CONTRACTOR (except damage or loss attributable to the”

and insert the following text in its place:

“CONTRACTOR (except and to the extent that such damage or loss is attributable to the”.

(v) In the fourth sentence, insert after the words “responsibilities for safety and for protection of the Work” the text “and those people and that property that come into contact with the Work.”

(vi) In the fourth sentence, insert after the words “shall continue” the text “even during non-working hours.”.

c) Add two new Paragraphs immediately after Paragraph 6.13.B as follows:

“C. In the event of any claims for damage or alleged damage to persons or property as a result of Work under this Contract, the CONTRACTOR shall be responsible for all costs in connection with the settlement of or defense against such claims. Before final payment to the CONTRACTOR is made under the Contract, the CONTRACTOR shall furnish satisfactory evidence that all claims for damage have been legally settled or that sufficient funds to cover such claims have been placed in escrow, or that an adequate bond to cover such claims has been obtained.

D. The Construction Documents and the joint and several phases of construction contemplated by the Construction Documents are to be governed at all times by applicable provisions of local and State laws, ordinances and regulations and Federal laws, including but not limited to the latest amendments of the Department of Labor, Bureau of Labor Standards, Safety and Health Regulations for Construction; and Williams and Steiger Occupational Safety and Health Act of 1970, including rules and regulations issued pursuant thereto (OSHA), applicable to the Work and performance of the Contract. Where applicable to the Work, in addition to the requirements of the General Conditions, as supplemented by these Supplementary Conditions and any Special Conditions, the CONTRACTOR shall fully comply with any and all applicable portions of the Division of Highway ‘Policies and Procedures for Accommodating Utilities on Highway Right of Way’ or latest revision. The duty of the ENGINEER to conduct a construction review of the CONTRACTOR’s performance is not intended to include a review of the adequacy of the CONTRACTOR’s safety measures in, on, or near the Site.”

#### 14. SC-6.15.

Add a new Paragraph immediately after Paragraph 6.15.A as follows:

“B. CONTRACTOR shall notify the OWNER immediately, and no event more than eight hours later, after an emergency has occurred if an emergency compromising the safety of persons or property at the Site has occurred.”

15. SC-6.17.

a) In Paragraph 6.17.A, delete the third sentence and insert the following sentence in its place:

“CONTRACTOR shall provide on the Shop Drawings complete data with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials and equipment that CONTRACTOR agrees to provide, and the Shop Drawings shall be sufficient to enable ENGINEER to review the information for the purposes delineated in paragraph 6.17.E.”

b) Add two new Subparagraphs immediately following Subparagraph 6.17.D.3 as follows:

“4. All submittals required by the Contract Documents shall be submitted in three (3) copies plus the number to be returned to the CONTRACTOR. Samples and Operation and Maintenance Manuals required by the Contract Documents shall be submitted in three (3) copies, none of which will be returned.

5. All submittals shall be checked by CONTRACTOR for accuracy and conformance to the Contract Documents before submittal to ENGINEER. Shop Drawings shall show the location of all structural members, walls, and slabs with relation to the Work on the layout drawings. Any potential interference with structural members, pipes, ducts, or other equipment or work must be brought to the Engineer’s attention by the CONTRACTOR in writing.”

16. SC-6.19.

a) In Paragraph 6.19.A, in the second sentence, fifth line, insert after the word “damage” the word “normally”.

b) Add a new Paragraph 6.19.C as follows:

“C. By entering into the Contract with the OWNER, the CONTRACTOR represents and warrants:

1. That CONTRACTOR is experienced in and competent to perform the type of Work required and to furnish the plant, materials, supplies or equipment to be so performed or furnished by it.

2. That CONTRACTOR is financially solvent, able to pay its debts as they mature, and possessed of sufficient working capital to initiate and complete the Work required under the Contract.

3. That CONTRACTOR is familiar with all federal, state, county, municipal and department laws, ordinances, permits, regulations and resolutions which may in any

way affect the Work or those employed therein, including but not limited to any special laws or regulations relating to the Work or any part thereof.

4. That such temporary and permanent Work required by the Contract Documents that is to be done by CONTRACTOR will be satisfactorily constructed and fit for use for its intended purpose and that such construction will not injure any person, or damage any property.

5. That CONTRACTOR has carefully examined the Contract Documents and the Site of the Work and that from its own investigations, it has satisfied itself and made itself familiar with: (1) the nature and locations of the Work; (2) the character, quality and quantity of surface and subsurface materials likely to be encountered, including, but not limited to all structures and obstructions on or at the Project Site, whether natural or man-made; (3) the character of equipment and other facilities needed for the performance of the Work; (4) the general and local conditions including, without limitation, the climatic conditions, the availability and cost of labor and the availability and cost of materials, tools and equipment; (5) the quality and quantity of all materials, supplies, tools, equipment, labor and professional services necessary to complete the Work in the manner required by the Contract Documents; and (6) all other matters or things which could in any manner affect the performance of the Work.

6. That CONTRACTOR will fully comply with all requirements of the Contract Documents.

7. That CONTRACTOR will perform the Work consistently with good workmanship, sound business practice, and in the most expeditious manner, consistent with the best interests of the OWNER.

8. That CONTRACTOR will furnish efficient business administration and experienced superintendents and an adequate supply of workmen, equipment, tools and materials at all times.

9. That CONTRACTOR has carefully reviewed the Work required and that the Work can be planned and executed in a normal and orderly sequence of Work and reasonably scheduled so as to ensure completion of the Project in accordance with the Contract Documents, allowing for normal and reasonable foreseeable weather, labor and other delays, interruptions and disruptions of the Work.

10. That CONTRACTOR will complete the Work within the Contract Time and all portions thereof within any required Contract deadlines.

11. That the Contract Price is based upon the labor, materials, systems and equipment required by the Contract Documents, without exception.

12. That CONTRACTOR will make a good faith effort to utilize minority business enterprises (MBEs) per N.C. General Statutes Section 143-128, *et seq.*, as Subcontractors for the Work.

13. That Contractor is not at the time of the making of the Contract in dispute with the Town of Holly Springs in connection with any project for which it has performed Work.”

17. SC-6.20.

a) In Paragraph 6.20.A:

- (i) In the first sentence, sixth line, after the word “costs” insert the text “, civil penalties, fines...”
- (ii) In the first sentence, eleventh line, after the word “cost” insert the text “,civil penalty, fine...”
- (iii) Add two new sentences at the end of Subparagraph 6.20.A.2 as follows:

“If through the negligence on the part of CONTRACTOR performing the Work, any other contractor or any subcontractor shall suffer or claim to have suffered loss or damage, CONTRACTOR shall reasonably attempt to settle such claims with such other contractor or subcontractor by agreement or arbitration. If such other contractor or subcontractor shall assert any claim against OWNER on account of any damage alleged to have been sustained, OWNER shall notify CONTRACTOR, who shall indemnify and hold harmless OWNER against any such claims.”

b) Add a new Paragraph immediately after Paragraph 6.20.C as follows:

“D. Nothing in the Contract Documents shall create or give to third parties any claim or right of action against the CONTRACTOR, the OWNER or the ENGINEER beyond such claims or rights as legally exist irrespective of the Contract.”

18. SC-6.21.

Add a new Section immediately after Section 6.20 as follows:

*“6.21 Contractor License Requirements.*

A. CONTRACTOR shall be licensed in North Carolina in an amount equal to one and one-half (1-1/2) times the total Contract Price for all of the Work. CONTRACTOR shall have and maintain a valid Town of Holly Springs Privilege License to perform the Work. If the Work involves any roadway construction, CONTRACTOR shall have and maintain a current unlimited General Contractor’s license with the ‘Highway Contractor’ classification.”

G. ARTICLE 7 – OTHER WORK

1. SC-7.01.

In Paragraph 7.01.B:

- (i) In the third sentence, twelfth line, after the word “endanger,” insert the words “others or”
- (ii) In the fourth sentence, seventeenth line, after the words “for the benefit of”, insert the text “OWNER,”

2. SC-7.02.

In Paragraph 7.02.A, in the first sentence, first line, after the word “intends,” insert the words “at the time of the making of the Agreement”.

3. SC-7.03.

Add a new Section immediately after Section 7.02 as follows:

**“7.03 Remedies**

A. Should CONTRACTOR cause damage to the work or property of any separate contractor at the Site, or should any claim arising out of CONTRACTOR’s performance of the Work at the Site be made by any separate contractor against CONTRACTOR, OWNER, ENGINEER, ENGINEER’s Consultants, the Construction Coordinator or any other person, then CONTRACTOR shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or at law.

B. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER, ENGINEER, ENGINEER’s Consultants and the Construction Coordinator harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals, and court and arbitration or mediation costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any separate contractor against OWNER, ENGINEER, ENGINEER’s Consultants or the Construction Coordinator to the extent based on a claim arising out of CONTRACTOR’s performance of the Work. Should a separate contractor cause damage to the Work or property of CONTRACTOR or should the performance of work by any separate contractor at the site give rise to any other claim, CONTRACTOR shall not institute any action, legal or equitable, against OWNER, ENGINEER, ENGINEER’s Consultants or the Construction Coordinator or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter that seeks to impose liability on or to recover damages from OWNER, ENGINEER, ENGINEER’s Consultants or the Construction Coordinator on account of any such damage or claim. If CONTRACTOR is delayed at any time in performing or furnishing Work by any act or neglect of a separate contractor and OWNER and CONTRACTOR are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, CONTRACTOR may make a claim for an extension of times in accordance with Article 12. An extension of the Contract Times shall be CONTRACTOR’s exclusive remedy with respect to OWNER, ENGINEER, ENGINEER’s Consultants and Construction Coordinator for any delay, disruption, interference or hindrance caused by any separate contractor. This paragraph does not alter the liability of OWNER, ENGINEER, ENGINEER’s Consultant and Construction Coordinator for activities that are their respective responsibilities.”

**H. ARTICLE 8 – OWNER’S RESPONSIBILITIES**

4. SC-8.01.

In Paragraph 8.01.A:

- (i) Insert “as amended by the Supplementary Conditions and any Special Conditions, and unless OWNER is also acting as the ENGINEER or the inspector for the Project,” after “Except as otherwise provided in these General Conditions”.
- (ii) Add at the end of the sentence “or shall copy ENGINEER on its direct correspondence with CONTRACTOR.”

**I. ARTICLE 9 – ENGINEER’S STATUS DURING CONSTRUCTION**

1. SC-9.01.

In Paragraph 9.01.A:

- (i) At the end of the first sentence, add “, unless and until the OWNER provides otherwise in writing to the CONTRACTOR, and all instructions of the ENGINEER as the OWNER’s representative shall be executed promptly and efficiently by the CONTRACTOR and its Subcontractors.”
- (ii) Delete the second sentence in its entirety.

2. SC-9.02.

Add a new Paragraph immediately after Paragraph 9.02.B as follows:

“C. After hours or weekend Work shall include only such tasks that do not require observation by the ENGINEER unless the OWNER specifically authorizes otherwise in writing.”

3. SC-9.03.

In Paragraph 9.03.A, add the text “and any Special Conditions” at the end of the second sentence, after “in the Supplementary Conditions”.

4. SC-9.05.

In Paragraph 9.05.A, delete the last sentence, on the ninth through the thirteenth lines, and insert the following in its place:

“If the CONTRACTOR decides that the Field Order should result in an increase of the Contract Price or a change in the Contract Times, then the CONTRACTOR shall submit a written request regarding such an adjustment to the ENGINEER prior to commencing the Work. If the CONTRACTOR proceeds with the Work prior to the execution of the Change Order, such Work shall be performed with the understanding that the increase in the Contract Price or a change in the Contract Times requested is subject to the approval of the OWNER. The decision rendered by the OWNER concerning the request for an increase in the Contract Price or a change in the Contract Times resulting from a Field Order shall be final.”

5. SC-9.10.

a) In Paragraph 9.10.A., insert the following text at the beginning of the first sentence:

“Unless otherwise specified in any separate agreement between the OWNER and the ENGINEER,”

and replace the former initial word of the first sentence “Neither” with “neither”.

b) In Paragraph 9.10.B, insert the following at the beginning of the first and the second sentence:

“Unless otherwise specified in any separate agreement between the OWNER and the ENGINEER,”.

c) In Paragraph 9.10.C, insert the following at the beginning of the sentence:

“Unless otherwise specified in any separate agreement between the OWNER and the ENGINEER,”.

d) In Paragraph 9.10.D., in the first sentence, sixth line, delete the word “generally”.

e) Renumber Paragraph 9.10.E as 9.10.F.

f) Add a new Paragraph immediately following Paragraph 9.10.D as follows:

“E. The presence or absence of the ENGINEER at the Site shall in no way modify the CONTRACTOR’s responsibility for conformity with the Drawings and Specifications. Failure of the ENGINEER to reject materials or Work that does not conform with the Drawings and Specifications, whether from lack of discovery or for any other reason, shall in no way prevent later rejection of or corrections to the unsatisfactory materials or Work when discovered. The CONTRACTOR shall have no claim for losses suffered due to any necessary removals or repairs resulting from unsatisfactory Work.”

J. ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

1. SC-10.01.

Add three new Paragraphs immediately after Paragraph 10.01.B as follows:

“C. If CONTRACTOR claims (1) that any work he/she has been ordered to do is not part of the Work required by the Contract Documents (hereinafter referred to as ‘Extra Work’) and that he/she has performed or is going to perform Extra Work, or (2) that any action or omission of OWNER or ENGINEER is contrary to the terms and provisions of the Contract Documents, CONTRACTOR shall:

- (i) Verbally inform the ENGINEER or OWNER of its claim and then Promptly comply with such order;
- (ii) File with ENGINEER, within fourteen working days after being ordered to perform the work

claimed by him/her to be Extra Work or within fourteen working days after commencing performance of the Extra Work, whichever date shall be the earlier, or within fourteen working days after the action or omission of the OWNER or the ENGINEER occurred or was due, a written notice stating the basis of his/her claim and a request for a determination thereof;

- (iii) File with ENGINEER thirty (30) calendar days after said alleged Extra Work was required to be performed or said alleged Extra Work was commenced, whichever date shall be earlier, or said alleged action or omission by OWNER or ENGINEER occurred or was due, a verified detailed statement, with documentary evidence of the items and basis of his/her claim;
- (iv) Produce for OWNER'S examination, upon notice from OWNER, all his/her books of account, bills, invoices, payrolls, subcontracts, time books, progress records, daily reports, bank deposit books, bank statements, checkbooks and canceled checks showing all of his/her actions and transactions in connection with or relating to or arising by reason of his/her claim, and submit himself/herself and persons in his/her employment and in his/her Subcontractor's employment for examination under oath by any person designated by OWNER to investigate any claims made against OWNER under the Contract, such examination to be made at the offices of OWNER or OWNER'S agent;
- (v) Proceed diligently, pending and subsequent to determination of OWNER with respect to any such disputed matter, with the performance of the Contract and in accordance with all instructions of OWNER and ENGINEER.

D. CONTRACTOR'S failure to comply with any or all of the provisions of Paragraph 10.01.C shall be deemed to be: (1) a conclusive and binding determination that said order, work action or omission is not additional or extra Work for CONTRACTOR and is not contrary to the terms and provisions of the Agreement; and (2) a waiver by CONTRACTOR of all claims for additional compensation or damages or extension of Contract Times as a result of said order, work action or omission.

E. Only OWNER may waive or modify any of the provisions of Paragraphs 10.01.C or 10.01.D, which waiver must be done in writing and signed by OWNER. In any action against OWNER to recover any sum in excess of the sum certified by OWNER to be due under or by reason of the Contract, CONTRACTOR must allege in his/her complaint and prove at trial compliance with the provisions of Paragraph 10.01.C. Nothing in paragraphs 10.01.C, 10.01.D, or this paragraph shall in any way affect OWNER's right to obtain an examination of CONTRACTOR before trial or discovery and inspection in any action that might be instituted by or against OWNER or CONTRACTOR."

2. SC-10.05.

- a) In Subparagraph 10.05.B.1, in the third line, after the text "Article 16", insert the words "or in the Supplementary Conditions".
- b) In Subparagraph 10.05.B.2:
  - (i) In the second line, after the text "Article 16", insert the words "or in the Supplementary Conditions".
  - (ii) In the fifth and sixth lines, delete the words "after the date of such decision" and insert in their place "after the date such decision is delivered to OWNER and CONTRACTOR".
  - (iii) In the eighth line, delete the words "within 60 days after the date of such decision" and insert in their place the following:

"within 60 days after the date of delivery of such decision, if the appealing party is the CONTRACTOR, and within 90 days after the date of delivery of such decision, if the appealing party is the OWNER,".

c) In Paragraph 10.05.C, add the following to the end of the sentence:

“, in which case an appeal from the denial of the claim may be made in accordance with subparagraph 10.05.B.1 or 10.05.B.2.”

d) Add a new Paragraph immediately following Paragraph 10.05.D as follows:

“E. CONTRACTOR shall diligently continue all Work and adhere to the progress schedule to the extent possible during the resolution of any dispute, including a Claim, even if the dispute or Claim pertains to Contract Times, Contract Price, or any other integral feature of the Agreement, unless the OWNER and the CONTRACTOR agree otherwise in writing.”

3. SC-10.06; SC-10.07.

Add two new Sections immediately after Section 10.05 as follows:

*“10.06 Requests for Changes in the Work*

A. At any time ENGINEER may request a quotation from CONTRACTOR for a proposed change in the Work. Within 21 calendar days after receipt of a request for a quotation for a proposed change, the CONTRACTOR shall proceed to submit a written and detailed proposal for an increase or decrease in the Contract Price or alterations of the Contract Times for the proposed change. ENGINEER shall have 21 calendar days after receipt of the detailed proposal to respond in writing. The proposal shall include an itemized estimate of all cost and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in accordance with Articles 11 and 12, and in sufficient detail to reasonably permit an analysis by ENGINEER of all material, labor, equipment, subcontracts, overhead costs and fees, and shall cover all Work involved in the change, whether such Work was deleted, added, changed, or impacted. Any amount claimed for subcontracts shall be similarly supported. Itemized schedule adjustments shall be in sufficient detail to permit an analysis of impact as required by the Contract Documents. Notwithstanding the request for quotation, CONTRACTOR shall carry on the Work and maintain the progress schedule.

*10.07 Effect of the Change Order*

A. The adjustment in the Contract Price and/or Contract Times stated in a Change Order shall comprise the total price and/or time adjustment due or owed the CONTRACTOR for the work or changes defined in the Change Order. By executing the Change Order, the CONTRACTOR acknowledges and agrees that the stipulated price and/or time adjustments include the costs and delays for all Work contained in the Change Order, including costs and delays associated with the interruption of schedules, extended overheads, delay, and cumulative impacts or ripple effect on all other non-affected Work under this Contract. Signing of the Change Order constitutes full and mutual accord and satisfaction for the adjustment in contract price or time as a result of increases or decreases in costs and time of performance caused directly and indirectly from the change, subject to the current scope of the entire Work as set forth in the Contract Documents. Acceptance of this waiver constitutes and agreement between OWNER and CONTRACTOR that the Change Order represents an equitable adjustment to the Contract, and that CONTRACTOR will waive all rights to file a claim on this Change Order after it is properly executed.”

K. ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

4. SC-11.01.

a) In Subparagraph 11.01.A.5:

(i) In Subparagraph 11.01.A.5.c add the following text between the second and third sentence:

“Rental rates shall include all fuel, lubricants, insurance and the like necessary in connection with the use of the equipment. Equipment rental charges shall not exceed the prorated monthly rental rates listed in the current edition of the ‘Compilation of Rental Rates for Construction Equipment’ as published by the Associated Equipment Distributors. Hourly charges shall be determined by dividing the monthly rates by 176.”

(ii) In Subparagraph 11.01 A 5.c eliminate the words “CONTRACTOR or” from the first sentence, third line.

(iii) In Subparagraph 11.01.A.5.f:

(1) In the first sentence, fifth, sixth and seventh lines, delete the following text without substitution:

“(except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D)”.

(2) In the first sentence, eighth line, after the text “provided” insert the text “and to the extent that”.

(iv) In Subparagraph 11.01.A.5.h:

(1) In the third line, after the text “petty cash items” insert the text “, all of which must be”.

(2) In the fourth line, after the text “connection with” insert the text “and in furtherance of”.

b) Add a new Subparagraph immediately following Subparagraph 11.01.B.5, as follows:

“6. Any costs due to the CONTRACTOR, or the Subcontractors or Suppliers, not properly performing or supplying the Work, including, without limitation, not adhering to the progress schedule.”

c) In Paragraph 11.01.C add the following sentence at the end of the Paragraph:

“The CONTRACTOR’s fee shall not be applied to payroll taxes, social security contributions, or unemployment taxes.”

2. SC-11.04.

Add a new Section immediately after Section 11.03 as follows:

#### “11.04 *Costs Included in Contract Price*

A. ENGINEER acknowledges that the Contract Price includes CONTRACTOR’s costs of bonds, insurance, transportation of materials, labor and equipment, general administration, and the like. Gravel construction entrances to the Site also are included in the Contract Price.”

L. ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIME

5. SC-12.01.

a) In Subparagraph 12.01.C.1, replace in its entirety without substitution with:

“a mutually acceptable fixed fee or a mutually acceptable percentage of Cost of Work; or”

b) In Subparagraph 12.01.C.2.b, in the third line, after the word “percent” and before the semicolon, add the words “based on the Subcontractor’s Cost of Work;”.

6. SC-12.02.

Add a new Paragraph after Paragraph 12.02.B as follows:

“C. Pending any adjustment of the Contract Times pursuant to the terms of this paragraph 12.02, the CONTRACTOR shall diligently continue all Work and adhere to the progress schedule and the Contract Times to the extent possible.”

7. SC-12.03.

a) In Paragraph 12.03.A:

(i) Insert the following immediately after the first sentence:

“Extensions granted to the Contract Times shall reflect the actual delay likely to be caused to the date of Substantial Completion. For example, a 3-day delay in the exterior landscaping due to abnormal weather conditions may or may not result in a full 3-day delay in the remainder of the Work such that Substantial Completion is also delayed a full three days. Only the resulting delay to Substantial Completion shall be credited to the Contract Times.”

(ii) Insert the following at the end of the Paragraph:

**“Abnormal weather is defined as weather that is more severe than the average weather for the particular time(s) and date(s) in question as compared to the last 5-year average. The ‘average’ shall be based on the ‘Local Climatological Data’ published by the National Oceanic and Atmospheric Administration for the Project area. It shall be the responsibility of the CONTRACTOR to furnish all data necessary to support its request. The CONTRACTOR shall not be entitled to additional compensation as a result of time extensions not due to acts or neglect by the OWNER.”**

8. SC-12.06.

Delete Paragraph 12.06.B in its entirety and insert the following in lieu thereof:

“B. The CONTRACTOR agrees to make no claim against OWNER, ENGINEER, their agents, representatives, or employees for damages or a change in the Contract Price for delay in the performance of this Contract occasioned by any act or omission to act of the OWNER or any of its representatives, and agrees that any such potential claim shall be fully satisfied by an extension of time to complete performance of the deemed Work as provided in Paragraph 12.03.”

5. SC-12.07.

Add a new Section immediately after Section 12.06 as follows:

“12.07

*Float Times and Contract Times and Contract Price*

A. Notwithstanding the agreement by the parties that the CONTRACTOR controls and has responsibility for matters of scheduling, sequencing and arranging the work, the parties hereby agree that the float time is a benefit to the OWNER in the progress schedule, and therefore, without obligation to extend either the overall completion date or any intermediate completion dates set out in the progress schedule, the OWNER may initiate changes to the Work that absorb float time only. OWNER-initiated changes that affect the critical path on a critical path methods schedule shall be the sole grounds for extending (or contracting) said completion dates. CONTRACTOR-initiated changes that encroach on the float time identified in the current progress schedule may be accomplished with the OWNER’s concurrence. Such changes, however, shall give way to OWNER-initiated changes competing for the same float time.

B. Portions of the Work that are listed in the progress schedule with a float time may, at the option of the OWNER, be performed using any or no amount of the float time, but in no event shall performance of the Work during the float times entitle the CONTRACTOR to an increase in the Contract Price as to such portions of the Work or as to other portions of the Work.”

M. ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

9. SC-13.03.

a) Add two sentences at the end of Paragraph 13.03.C as follows:

“Testing to be performed under the Contract Documents shall be performed in accordance with the North Carolina Department of Transportation ‘Materials Specifications Guidelines’ and the Town of Holly Springs ‘Engineering Design and Construction Standards’. If and to the extent that the Town of Holly Springs testing standards conflict with and are more stringent than those of the North Carolina Department of Transportation, testing shall be performed in accordance with the Town of Holly Springs standards.”

b) In Paragraph 13.03.E, replace the following words at the end of the sentence:

“be uncovered for observation”

with:

“be uncovered and made available for inspection at the CONTRACTOR’s expense”.

c) In Paragraph 13.03.F, in the fourth line, after the word “same”, insert the text “, and given ENGINEER time to inspect same.”.

d) Add four Paragraphs immediately after Paragraph 13.03.F as follows:

“G. The CONTRACTOR shall allow the ENGINEER sufficient time and opportunity for testing materials and equipment to be used in the Work. The CONTRACTOR shall advise the ENGINEER promptly upon placing orders for materials and equipment so that arrangements may be made, if desired by the ENGINEER, for inspection before shipment from the place of manufacture. The CONTRACTOR shall at all times furnish the ENGINEER and all OWNER representatives appropriate facilities for performing inspections and tests, including any labor necessary, and shall allow proper time for inspecting and testing materials, equipment, and workmanship. In setting Contract Times and a progress schedule for the Work, the CONTRACTOR should anticipate that delays may be caused in the execution of Work due to the necessity of materials and equipment being inspected and accepted

for use. The CONTRACTOR shall furnish, at its own expense, samples of all materials required by the ENGINEER for testing, and shall make its own arrangements for providing water, electric power, and/or fuel for the various inspections and tests of structures and equipment.

H. The CONTRACTOR shall furnish the services of representatives of the manufacturers of certain equipment if so prescribed in the Specifications. The CONTRACTOR shall also place its orders for such equipment requiring that, after the equipment has been tested prior to final acceptance of the Work, the manufacturer shall furnish the OWNER with certified statements that the equipment has been installed properly and is ready to be placed in functional operation. Tests and analyses required of equipment shall be paid for by the CONTRACTOR, unless specified otherwise in the Contract Documents.

I. The OWNER reserves the right to independently perform, at its own expense, laboratory tests on random samples of material or performance tests on equipment delivered to the Site. These tests if made shall be conducted in accordance with the Specification requirements or other appropriate standards. The entire shipment represented by any given sample or piece of equipment may be rejected on the basis of the failure of a sample or piece of equipment to meet specified test requirements. All rejected materials and equipment shall be removed from the Site, whether stored or installed in the Work, and the required replacement shall be made, all at no additional cost to the OWNER in accordance with terms of Paragraphs 13.06 through 13.09.

J. Whenever nonconformance is discovered by the ENGINEER as a result of tests, inspections, or investigations, the CONTRACTOR shall bear responsibility for the full cost of such tests, whether otherwise required to pay for such tests, inspections or investigations under the Contract Documents, and shall directly pay for such services or shall reimburse the OWNER for such costs. Once nonconformance has been discovered, the cost of any additional tests and investigations that are ordered by the ENGINEER to ascertain subsequent conformance with the Contract Documents shall be borne by the CONTRACTOR, whether or not the original tests, inspections, or investigations of such nonconforming Work were originally required by the Contract Documents to be borne by another party.”

10. SC-13.05.

- a) In Paragraph 13.05.A, in the fourth line, after the word “will” insert the words “or is likely to”.
- b) Add a new Paragraph immediately after Paragraph 13.05.A as follows:

“B. If OWNER stops Work under Paragraph 13.05.A, CONTRACTOR shall be entitled to no extension of Contract Times or increase in Contract Price.”

11. SC-13.06.

- a) In Paragraph 13.06.A:
  - (i) At the end of the first sentence, after the word “defective,” insert the text “, even if such Work has previously been overlooked by ENGINEER and estimated as a basis for payment.”
  - (ii) Add two new sentences immediately after the first sentence as follows:

“At any time during the progress of the Work and up to the date of final acceptance, the ENGINEER shall have the right to reject any Work that does not conform to the requirements of the Contract

Documents, even if such Work has been previously inspected and paid for. Any omissions or failure on the part of the ENGINEER to disapprove or reject any Work or materials at the time of inspection shall not be construed as an acceptance of any defective Work or materials.”

(iii) In the [original] second sentence, [originally on the] eleventh line, after the words “work of others” and before the end parenthesis, insert the words “or other portions of the Work affected by such correction, removal, or replacement.”

b) Add a new Paragraph immediately after Paragraph 13.06.A as follows:

“B. The ENGINEER may order tests of imperfect or damaged Work, equipment, or materials to determine the required functional capability for possible acceptance, if there is no other reason for rejection. The cost of such tests shall be borne by the CONTRACTOR; and the nature, tester, extent and supervision of the tests shall be as determined by the ENGINEER. If the results of the tests indicate that the required functional capability of the Work, equipment, or material was not impaired, then the Work, equipment, or materials may be deemed acceptable by OWNER. If the results of such tests reveal that the required functional capability of the questionable Work, equipment or materials have been impaired, then such Work, equipment, or materials shall be deemed imperfect and shall be replaced at the CONTRACTOR’s expense. The CONTRACTOR may elect to replace the imperfect Work, equipment, or material immediately upon their identification as such in lieu of performing the tests for functional capability.”

12. SC-13.07.

- a) In Paragraph 13.07.A, insert at the end of the second sentence the words “immediately upon the submission of an invoice for such expenses to the CONTRACTOR by the ENGINEER or the OWNER”.
- b) In Paragraph 13.07.C, insert at the end of the sentence the text:

“, or, if such correction or removal and replacement took longer than one year, then for such period of time as the correction or removal and replacement took. All warranties for the Work so affected shall be extended for the same amount of time.”

13. SC-13.08.

- a) In Paragraph 13.08.A, at the end of the second sentence, insert the text “and a proportionate amount of the CONTRACTOR’s fee.”
- b) In Paragraph 13.08.C, at the end of the first sentence, insert the text “, including a proportionate decrease in the amount of the CONTRACTOR’s fee.”

N. ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14. SC-14.02.

- a) Delete Subparagraph 14.02.A.1 in its entirety and insert the following in its place:

“1. Once a month after the Work has commenced, CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by the CONTRACTOR covering the Work completed as of the date of the Application for Payment and accompanied by such supporting documentation as is required by the Contract Documents. The due date for submitting an Application for Payment shall be the 25<sup>th</sup> day of the month for which the application is being made. Request for

payment shall be submitted on the standard forms included in the Contract Documents unless approved otherwise by the ENGINEER. All submittals shall include five (5) copies of Application for Payment forms, all bearing original signatures. The Certificate of Sales Tax Paid, shall be notarized and bearing original signatures and shall also be submitted as described under Section 6.10. If payment is requested on the basis of materials and equipment not incorporated into the Work but delivered and suitably stored at the Site or at another location agreed to in writing by the OWNER, the Application for Payment shall also be accompanied by such supporting data, satisfactory to the OWNER, which shall establish the OWNER's title to the materials and equipment, clear of liens, and protection of the OWNER's interest in the materials and equipment, including the maintenance of insurance on materials stored off the site."

- b) In Subparagraph 14.02.A.2, in the third line, after the word "CONTRACTOR" insert the words "and all Subcontractors who have performed Work or are otherwise receiving payment under the Application for Payment."
- c) Add two new Subparagraphs immediately after Subparagraph 14.02.A.3 as follows:

"4. Beginning with the second Application for Payment, each Application shall include evidence that payment received on the basis of materials and equipment not incorporated and suitably stored, has in fact been paid to the respective Supplier(s) within sixty days of payment by OWNER. Failure to provide such evidence of payment may result in the withdrawal of previous approval(s) and removal of the cost of related materials and equipment from the next submitted Application for Payment.

5. Each Application for Payment shall include the current list of Subcontractors and Suppliers providing labor or materials to the Site. Failure to provide an accurate list, or the existence of Subcontractors or materials at the Site that have not been approved by the OWNER and the ENGINEER, may result in the withdrawal of previous approval(s) and/or removal of the cost of labor and/or materials provided by unapproved Subcontractors and/or Suppliers from the current and future Applications for Payment."

- d) In Subparagraph 14.02.B.2:
  - (i) Delete the "and" at the end of Clause 14.02.B.2.b.
  - (ii) Replace the "." At the end of Clause 14.02.B.2.c with ";" and".
  - (iii) Add a new Clause immediately after Clause 14.02.B.2.c as follows:

"d. any fines owed by CONTRACTOR (to third parties or the OWNER), setoffs, or other reductions in the amount due to CONTRACTOR have been subtracted from the current or previous Applications for Payment."

- e) In Subparagraph 14.02.B.3, in the first line, delete the text "By recommending any such payment ENGINEER" and insert in its place the text "Except as specified in any separate agreement between the OWNER and the ENGINEER, and only to the extent of that agreement, the ENGINEER through his recommendation..."
- f) In Subparagraph 14.02.B.4, in the first line, delete the text "Neither" and insert in its place the text "Except as specified in any separate agreement between the OWNER and the ENGINEER, and only to

the extent of that agreement, neither..."

g) In Subparagraph 14.02.B.5:

- (i) Delete the "or" at the end of Subparagraph 14.02.B.5.c.
- (ii) Replace the ":" at the end of Subparagraph 14.02.B.5.d with a ";".

(iii) Add three new Subparagraphs immediately after Subparagraph 14.02.B.5.d as follows:

"e. ENGINEER has knowledge of any setoff, fine, or other reduction in the amount due to CONTRACTOR in connection with the Application for Payment and such amount has not been properly accounted for in the Application for Payment;

f. The Application for Payment is in any way incomplete; or

g. Unapproved Subcontractors or Suppliers are performing Work at or supplying materials to the Site."

h) In Subparagraph 14.02.C.1, first line, delete the word "Ten" and insert the word "Thirty" in its place.

i) Add five new Subparagraphs immediately after Subparagraph 14.02.C.1 as follows:

"2. Should CONTRACTOR neglect to pay any undisputed claims made in writing to OWNER within thirty days after completion of the Work or any portion thereof, and continuing unsatisfied for a period of ninety days, OWNER may pay such claim and deduct the amount thereof from the balance due CONTRACTOR. OWNER may also, with the written consent of CONTRACTOR, use any monies retained, due, or to become due under this Contract for the purpose of paying for both labor and materials for such Work, even if claims have not been filed.

3. Payment under the Payment Bond and the withholding of retainage by the OWNER for claims shall not be mutually exclusive protections for OWNER. OWNER may exercise both.

4. Any and all liens for work and materials may be paid off by OWNER within a reasonable time after filing for record of a notice of such liens in accordance with State and local laws, except where the claim on which the lien is filed is being actively litigated by CONTRACTOR; in such case OWNER may pay the amount of any final judgment or decree or any such claim within a reasonable time after such final judgment or decree shall be rendered.

5. All monies paid by OWNER in settlement of liens as aforesaid, with all costs and expenses incurred by OWNER in connection therewith, shall be charged to CONTRACTOR, shall bear interest at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank, and shall be deducted from the next payment(s) due CONTRACTOR under the terms of this Contract or shall be reimbursed by CONTRACTOR immediately upon receipt by the CONTRACTOR of an invoice therefor by the OWNER if insufficient payments are outstanding to the CONTRACTOR to cover such costs and expenses.

6. As this agreement is a public construction contract, final payment shall be governed by North Carolina General Statute §143-134.1 and the applicable interest rate shall be four percent per annum."

j) In Subparagraph 14.02.D.1:

- (i) Delete the "or" at the end of Clause 14.02.D.1.c.

(ii) Replace the “.” at the end of Clause 14.02.D.1.d with “;or”.

(iii) Add a new Clause immediately after 14.02.D.1.d as follows:

“e. Insufficient funds have been deducted from the Application for Payment to cover all fines owed by CONTRACTOR (to third parties or the OWNER) and other setoffs and reductions in the amount due to the CONTRACTOR in connection with the Application for payment.”

15. SC-14.03.

Add two new Paragraphs immediately following Paragraph 14.03.A as follows:

“B. No materials or supplies for the Work shall be purchased by CONTRACTOR or any Subcontractor subject to any chattel mortgage, fixture filing, or under a conditional sale contract or other agreement by which an interest is retained by the seller. CONTRACTOR warrants that CONTRACTOR has good title to all materials and supplies used by CONTRACTOR in the Work, free from all liens, claims or encumbrances.

C. CONTRACTOR shall indemnify and save OWNER harmless from all claims growing out of the lawful demands of Subcontractors, Suppliers, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this Contract. CONTRACTOR shall at OWNER’s request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If CONTRACTOR fails to do so, then OWNER may, after having provided ten (10) days’ written notice on CONTRACTOR, withhold from the CONTRACTOR’s unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims. OWNER may hold such withheld money until satisfactory evidence is furnished that all liabilities have been fully discharged, or use the money to pay the unpaid obligations. Once the obligations have been satisfied, payment to CONTRACTOR shall be resumed in accordance with the terms of this Contract. In no event shall the provisions of this paragraph be construed to impose any obligations upon OWNER to either CONTRACTOR or CONTRACTOR’s Surety. In paying any unpaid bills of the CONTRACTOR, OWNER shall be deemed the agent of CONTRACTOR, and any payment so made by OWNER shall be deducted from the Contract Price due to CONTRACTOR. OWNER shall not be liable to CONTRACTOR for any such payment made in good faith.”

16. SC-14.04.

- a) In Paragraph 14.04.A, in the third sentence, ninth line, delete the phrase “If ENGINEER does not consider the Work” and insert in its place the phrase “If ENGINEER or OWNER does not consider the Work”.
- b) In Paragraph 14.04.B, at the end of the sentence, insert the words “unless the OWNER has stopped or suspended Work or terminated the Contract pursuant to the terms hereof.”

17. SC-14.05.

Add a new Subparagraph immediately after Subparagraph 14.05.A.2 as follows:

“3. Payment in full for portions of the Project that are completed and used by OWNER shall not be made until the entire Project has been completed. Partial payments and retainage shall continue to be handled as described elsewhere in the Contract Documents. Under no circumstances shall occupancy and use of

completed portions of the Project by OWNER be considered grounds for either reducing the retainage withheld from CONTRACTOR's partial payments or increasing the Contract Price."

18. SC-14.09.

In Subparagraph 14.09.A.2, in the third line, delete the word "which" and insert the word "that" in its place.

O. ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

19. SC-15.01.

In Paragraph 15.01.A, in the third sentence, sixth line, insert at the beginning of the sentence the following text "If the OWNER suspends the Work without cause, then..."

20. SC-15.02.

a) Delete the header to Paragraph 15.02 and insert the following in its place:

*"OWNER May Terminate the Contract or Suspend the Work for Cause."*

b) In Paragraph 15.02.A, in the second line, after the word "justify" insert the text "suspension of the Work and/or termination of the Contract (which termination may or may not be preceded by a suspension of the Work)."

c) Add three new Subparagraphs immediately after Subparagraph 15.02.A.4 as follows:

"5. CONTRACTOR's abandonment of the Work, or sublet or assignment of its rights and/or responsibilities under this Contract, or any part thereof, without the previous written consent of OWNER, or the CONTRACTOR's assignment of any right, obligation or claim under the Contract without the previous written consent of the OWNER or otherwise than as herein specifically permitted;

6. Delays within the control of the CONTRACTOR, pursuant to Paragraph 12.04.A, have caused or will shortly cause the Work to interfere with the intended use of the Site, or a portion thereof, for other purposes, which interference would not have occurred if Contract Times had been met;

7. Any material misstatement by CONTRACTOR in any of the public bidding documents or failure of the CONTRACTOR to comply with any public bidding law."

d) In Paragraph 15.02.B, in the last line, insert at the end of the last sentence the following:

" , and may pay more than the prevailing rate if necessary to have the Work completed in accordance, or as close thereto as feasible, with the original progress schedule and Contract Times."

e) Add a new Paragraph immediately after 15.02.C as follows:

“D. If the OWNER suspends Work due to repeated unsafe Work conducted by the CONTRACTOR, confirmed by subsequent inspection by OSHA NC, then the CONTRACTOR shall not be allowed any adjustment in the Contract Price or extension of Contract Times for delays caused by such suspension, and CONTRACTOR shall bear all responsibilities under this Contract for such delays.”

21. SC-15.03.

- a) In Subparagraph 15.03.A.1, in the fourth line, after the words “and profit on such” insert the words “completed and acceptable”.
- b) Add a new Paragraph immediately after Paragraph 15.03.B as follows:

“C. Upon receiving the OWNER’s notification of termination of the Contract, the CONTRACTOR shall immediately and expeditiously terminate any ongoing Work and inform its Subcontractors and Suppliers of termination, all so as to minimize the costs, expenses and other damage sustained prior to the effective date of the termination.”

22. SC-15.04.

- a) In Paragraph 15.04.A:
  - (i) In the first sentence, seventh line, after the words “be due” and before the comma, insert the words “and not disputed by either party...”
  - (ii) In the second sentence, seventeenth line, after the words “be due” and before the comma, insert the words “and not disputed by either party...”

K. ARTICLE 16 – DISPUTE RESOLUTION

1. SC-16.01.

Add a new sentence at the end of Paragraph 16.01.A as follows.

“CONTRACTOR shall continue to diligently pursue completion of the Work and maintain the progress schedule during any dispute resolution process, unless otherwise agreed by CONTRACTOR and OWNER in writing.”

The Town of Holly Springs shall follow the rules of the State Construction Office entitled “Rules Implementing Mediated Settlement Conferences in North Carolina Public Construction Projects, Adopted February 26, 2002” as found at:

[http://www.nc-sco.com/Guidelines/SBC/sbc\\_Dis\\_rules.pdf](http://www.nc-sco.com/Guidelines/SBC/sbc_Dis_rules.pdf)

P. ARTICLE 17 – MISCELLANEOUS

2. SC-17.06; SC-17.07; SC-17.08; SC-17.09; SC-17.10.

Add six new Sections immediately following Section 17.05 as follows:

“17.06 *Amendments*

A. This Contract may only be amended in writing by an instrument executed by the party or parties granting additional rights against it to others or upon whom additional obligations are being imposed.

17.07 *Assignment*

A. CONTRACTOR shall not assign, transfer, convey or otherwise dispose of the Contract, or of its legal right, title, or interest in or to the same or obligations or warranties made thereunder, in whole or in part, without the prior written consent of the OWNER. CONTRACTOR shall not assign by power of attorney or otherwise any monies due it and payable under this Contract without the prior written consent of the OWNER. Such consent, if given, shall in no way relieve the CONTRACTOR from any of the obligations of this Contract. OWNER shall not be bound to abide by or observe the requirements of any such assignment.

17.08 *Addresses*

A. Both the address given in the Bid Form upon which this Agreement is founded, and CONTRACTOR's office at or near the site of the Work are hereby designated as places to either of which notices, letters, and other communications to CONTRACTOR shall be certified, mailed, or delivered. The delivering at either of the above named places, or depositing in a postpaid wrapper directed to the address in the Bid Form, in any post office box regularly maintained by the post office department, of any notice, letter or other communication to Contractor shall be deemed sufficient service thereof upon CONTRACTOR; and the date of said service shall be the date of such delivery or mailing. The CONTRACTOR's notice address may be changed at any time by an instrument in writing, executed and acknowledged by CONTRACTOR, and delivered to OWNER and ENGINEER. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or other communication upon CONTRACTOR personally.

17.09 *Forms*

A. The form of all submittals, notices, change orders, and other documents permitted or required to be used or transmitted under the Contract Documents shall be determined by ENGINEER. Standard forms, which ENGINEER expects to use, are contained in the pages of the Special Conditions following the amendments, deletions and revisions to the General Conditions.

17.10 *Dissemination of Information*

A. It is expressly agreed and understood that the CONTRACTOR shall not at any time publicly disseminate any information concerning the Project without prior approval from the OWNER. Such approval will not be unreasonably withheld but may be given with certain stipulations, such as Owner participation in the creation of the public product or OWNER review and the option to refuse ultimate release of the final product should it fail to meet the OWNER's standards and goals. Public dissemination includes but is not limited to electronic, video, audio, photographic or hard copy materials serving as, in whole or part, professional papers or presentations, news releases, articles, or other media products, and/or CONTRACTOR's business collateral pieces.

17.11 *Other:*

The section headings contained herein are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement. This Agreement has been produced by negotiation of the parties, each of whom had an opportunity to consult with an attorney, and the rule of construction against the interest of the drafter shall not apply.”

- END OF SECTION 00800 -

## **APPLICATIONS FOR PROGRESS PAYMENT**

**FOR PAYMENT APPLICATIONS – 1 COMPLETE SET IS TO BE SUBMITTED TO THE TOWN, ATTN: DEBBIE ABBENE (Debbie.Abbene@hollyspringsnc.gov)**

**PAYMENT APPLICATIONS ARE TO BE SUBMITTED EVERY MONTH FOR PAYMENT**

Each Application for progress payment must include, as a minimum, the following information:

1. Pay Request cover letter as included on page 00900-2.
2. Town of Holly Springs Cover Sheet as included on page 00900-3.
3. Itemized quantity sheet(s) as included on page 00900-4.
4. A Certificate of Sales Tax Paid as included on page 00900-5.  
If no sales tax has been paid in the period, then a certificate should be included stating that no sales tax was paid.
5. Updated schedule.
7. Subcontractor Payment Report on page 00905-10.
8. Five full sets of the above information.
9. A progress schedule updated to reflect current status of project. If project is still on a previously submitted schedule, submit another copy of the schedule with “No Change” noted, along with the date of submittal.
10. S&EC Rain Event Logs
11. S&EC Self Inspection Logs
12. MBE Documentation for Contract Payments on page 00905-15

**PAY REQUEST COVER LETTER  
(To Be Submitted)**

**DATE:** \_\_\_\_\_

**TO:** Town of Holly Springs

**RE:** \_\_\_\_\_

We hereby certify that the labor and materials listed on this request for payment have been used in the construction of this Work, or that all materials included in this request for payment and not yet incorporated into the construction are now on the site or stored at an approved location with proper insurance to protect these stored materials; and that all lawful charges for labor, materials and the like, covered by previous Certificates of Payment have been paid and that all other lawful charges on which this request for payment is based have been paid for in full or will be paid for in full from the funds received in payment of this request within ten (10) calendar days from receipt of this partial payment from the OWNER.

**CONTRACTOR:** \_\_\_\_\_

**BY:** \_\_\_\_\_

**TIME:** \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public (Seal)

My Commission Expires

**APPLICATION FOR PAYMENT**

Town of Holly Springs, North Carolina

Project \_\_\_\_\_

Contractor \_\_\_\_\_

Project No. \_\_\_\_\_

Period \_\_\_\_\_

Payment No. \_\_\_\_\_

The undersigned Contractor certifies that to the best of its knowledge and belief, all items, units, quantities and prices of all work and material indicated on sheet(s) \_\_\_\_\_ of this periodic estimate are correct; that all Work has been performed and Materials supplied in full accordance with the terms and conditions of the construction Contract Documents between the undersigned as Contractor and the Town of Holly Springs as Owner, dated \_\_\_\_\_, \_\_\_\_\_, and all authorized changes thereto; that the following is a true and correct statement of the Contract amount up to and including the last day of the period covered by this estimate; and that no part of the "Total Amount Due" has been received.

Total Contract Amount, Including Change Orders\_\_\_\_\_

Total Amount Earned, To Date \_\_\_\_\_

% Earned

5% Retainage \_\_\_\_\_

Total Earned Less Retainage \_\_\_\_\_

Total Previously Approved \_\_\_\_\_

Amount Due This Estimate \_\_\_\_\_

Unpaid From Previous Estimate \_\_\_\_\_

Current Amount Due \_\_\_\_\_

Balance to Finish, Including Retainage \_\_\_\_\_

The Contractor further certifies that all claims outstanding as of this date against the undersigned as Contractor for labor, materials, and expendable equipment employed in the performance of said Contract up to the date of this estimate have been paid in full accordance with the requirements of this Contract.

CONTRACTOR \_\_\_\_\_ BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

**APPROVAL FOR PAYMENT:**

Resident Project Representative \_\_\_\_\_

Engineer/Architect \_\_\_\_\_

Town of Holly Springs – Owner's Representative \_\_\_\_\_

## APPLICATION FOR PAYMENT

## Town of Holly Springs, North Carolina

PAYMENT NO. \_\_\_\_\_

PROJECT \_\_\_\_\_

PERIOD \_\_\_\_\_

## CONTRACTOR

### TOTAL EARNED TO DATE

**TOTAL PAID TO DATE**

### 5% RETAINAGE

**AMOUNT DUE THIS ESTIMATE**

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www.english-test.net

**CERTIFICATE OF SALES TAX PAID****PAYMENT NO. 1**

PROJECT \_\_\_\_\_

OWNER - TOWN OF HOLLY SPRINGS, WAKE COUNTY, NORTH CAROLINA

CONTRACTOR\_\_\_\_\_

FOR PERIOD \_\_\_\_\_ TO \_\_\_\_\_

VENDOR	ADDRESS	INVOICE #	DATE	AMOUNT	NC TAX	COUNTY	TRANSIT TAX	COUNTY TAX
TOTALS								

I hereby certify that the above listed vendors were paid sales tax upon purchases of building materials during the period covered by this construction estimate, and the property upon which such taxes were paid was or will be used in the performance of this Contract. No tax on purchases or rentals of tools and/or equipment is included in the above list. All of the materials listed above became a part of or are annexed in the above referenced construction project.

By \_\_\_\_\_  
*Signature**Title*

\_\_\_\_\_, being duly sworn, certifies that the foregoing statement of sales taxes paid in connection with the referenced Contract is true to the best of his or her knowledge and belief.

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

---

Notary Public

My commission expires \_\_\_\_\_, 20\_\_\_\_\_.

## FIELD ORDER

FIELD ORDER NO.: \_\_\_\_\_

DATE: \_\_\_\_\_

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

RE: \_\_\_\_\_

TO CONTRACTOR: This Field Order is issued to interpret/clarify the Contract Documents, order minor changes in the work, and/or memorialize trade-off agreements. Both parties hereby agree that the work described by this Field Order is to be accomplished without change in Contract Sum or Price, Contract Time or Times, and/or claims with other costs.

DESCRIPTION: \_\_\_\_\_

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ATTACHMENTS: \_\_\_\_\_

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REFERENCES: \_\_\_\_\_

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**RECOMMENDED:**

By: \_\_\_\_\_  
Inspector  
(Authorized Signature)

Date: \_\_\_\_\_

**APPROVED:**

By: \_\_\_\_\_  
Development Inspection Administrator  
or Senior Engineer  
(Authorized Signature)

Date: \_\_\_\_\_

**ACCEPTED:**

By: \_\_\_\_\_  
Contractor  
(Authorized Signature)

Date: \_\_\_\_\_

Distribution:

Project Inspector  
Lead Inspector  
Project Engineer  
Director of Engineering/Town Engineer  
Contractor

## WORK CHANGE DIRECTIVE INSTRUCTIONS

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### A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work which, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Sum or Price or the Contract Time or Times. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a possible change in the Contract Sum or Price or the Contract Time or Times, a Field Order instead shall be used.

### B. COMPLETING THE WORK CHANGE DIRECTIVE FORM

Engineer or Architect initiates the form, including a description of the items involved and attachments.

Based on conversations between Engineer or Architect and Contractor, Engineer or Architect completes the following:

**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT SUM OR PRICE:** Mark the method to be used in determining the final cost of Work involved and the estimated net effect on the Contract Sum or Price. If the change involves an increase in the Contract Sum or Price and the estimated amount is reached before the additional or changed Work is completed, another Work Change Directive must be issued to change the estimated price or Contractor may stop the changed Work when the estimated price is reached. If the Work Change Directive is not likely to change the Contract Sum or Price, the space for estimated increase (decrease) should be marked "Not Applicable."

**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT TIME OR TIMES:** Mark the method to be used in determining the change in Contract Time or Times and the estimated increase or decrease in Contract Time or Times. If the changes involves an increase in the Contract Time or Times and the estimated times are reached before the additional or changed Work is completed, another Work Change Directive must be issued to change the times or Contractor may stop the changed Work when the estimated times are reached. If the Work Change Directive is not likely to change the Contract Time or Times, the space for estimated increase (decrease) should be marked "Not Applicable."

Once Engineer or Architect has completed and signed the form, all copies should be sent to Owner for authorization because neither Engineer nor Architect alone has the authority to authorize changes in the Contract Sum or Price or the Contract Time or Times. Once authorized by Owner, a copy should be sent by Engineer or Architect to Contractor. The Contract Sum or Price and the Contract Time or Times may only be changed by Change Order signed by Owner and Contractor with Engineer's or Architects' recommendations.

Once the Work covered by this directive is completed or final cost and times are determined, Contractor should submit documentation for inclusion in a Change Order.

**THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT SUM OR PRICE OR THE CONTRACT TIME OR TIMES. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.**

## WORK CHANGE DIRECTIVE

WORK CHANGE DIRECTIVE NO.: \_\_\_\_\_

DATE:

Project: \_\_\_\_\_

Contractor \_\_\_\_\_

Engineer/Architect \_\_\_\_\_

You are directed to proceed promptly with the following change(s):

Description: \_\_\_\_\_

Purpose of Work Change Directive: \_\_\_\_\_

Attachments (List documents supporting change): \_\_\_\_\_

If a claim is made that the above change(s) have affected the Contract Sum or Price or the Contract Time or Times, any claim for a Change Order based thereon will involve one or more of the following methods of determining the effect of the change(s).

Method of determining change in Contract Sum or Price:

- Unit Prices
- Lump Sum
- Other \_\_\_\_\_

Method of determining change in Contract Time or Times:

- Contractor's records
- Engineer's records
- Other \_\_\_\_\_

Estimated (increase/decrease) in Contract Price:

\$ \_\_\_\_\_

Substantial Completion: \_\_\_\_\_ days;

Estimated (increase/decrease) in Contract Times:

Ready for final payment: \_\_\_\_\_ days;

If the change involves an increase, the estimated price and times are not to be exceeded without further authorization.

**RECOMMENDED:**

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

Development Inspection Administrator  
or Senior Engineer  
(Authorized Signature)

Date: \_\_\_\_\_

**APPROVED:**

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

Director of Engineering  
(Authorized Signature)

Date: \_\_\_\_\_

**ACCEPTED:**

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

Contractor  
(Authorized Signature)

Date: \_\_\_\_\_

Distribution: Project Inspector

Lead Inspector  
Project Engineer  
Director of Engineering/Town Engineer  
Contractor

## CHANGE ORDER INSTRUCTIONS

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### A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling Contract changes that affect the Contract Sum or Price or the Contract Time or Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect the Contract Sum or Price or the Contract Time or Times.

Changes that affect the Contract Sum or Price or the Contract Time or Times should be promptly covered by a Change Order. The practice of accumulating change order items to reduce the administrative burden may lead to unnecessary disputes.

If milestones have been listed, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Sum or Price or the Contract Time or Times, a Field Order may be used.

### B. COMPLETING THE CHANGE ORDER FORM

Engineer or Architect initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer or Architect has completed and signed the form, all copies should be sent to Contractor for approval. After approval and signature by Contractor, all copies should be sent to Owner for approval. Engineer or Architect should distribute executed copies after approval by Owner.

If a change only applies to the Contract Sum or Price or to the Contract Time or Times, cross out the part of the tabulation that does not apply.

**CHANGE ORDER**

CHANGE ORDER NO.: \_\_\_\_\_

DATE: \_\_\_\_\_

Project: \_\_\_\_\_

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

Engineer/Architect: \_\_\_\_\_

CONTRACTOR is directed to make the following changes in the Contract Documents.

Description:

Attachments:

CHANGE IN CONTRACT SUM OR PRICE:	CHANGE IN CONTRACT TIME OR TIMES:
Original Contract Price \$_____	Original Contract Times Substantial Completion: _____ Ready for final payment: _____ days or dates
Net change from previous Change Orders No. ____ to No. ____: \$_____	Net change from previous Change Orders No. ____ to No. ____: _____ days
Contract Sum or Price prior to this Change Order \$_____	Contract Times with all approved Change Orders Substantial Completion: _____ Ready for final payment: _____ days or dates
Net Increase (decrease) of this Change Order \$_____	Net Increase (decrease) of this Change Order _____ days
Contract Sum or Price with all approved Change Orders \$_____	Contract Times with all approved Change Orders Substantial Completion: _____ Ready for final payment: _____ days or dates

**RECOMMENDED:**By: \_\_\_\_\_  
Director of Engineering  
(Authorized Signature)  
Date: \_\_\_\_\_**APPROVED:**By: \_\_\_\_\_  
Town Manager  
(Authorized Signature)  
Date: \_\_\_\_\_**ACCEPTED:**By: \_\_\_\_\_  
Contractor  
(Authorized Signature)  
Date: \_\_\_\_\_

CHANGE ORDER NO.: \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_

The adjustment in Contract Sum or Price and/or Contract Time or Times stated in this Change Order shall comprise the total price and/or time adjustment due or owed the CONTRACTOR for the work or changes defined in this Change Order. By executing the Change Order, the CONTRACTOR acknowledges and agrees that the stipulated price and/or time adjustments include the costs and delays for all work contained in the Change Order, including costs and delays associated with the interruption of schedules, extended overheads, delay, and cumulative impacts or ripple effect on all other non-affected work under this Contract. Signing of the Change Order constitutes full and mutual accord and satisfaction for the adjustment in Contract Sum or Price or Contract Time or Times as a result of increases or decreases in costs and time of performance caused directly and indirectly from the change, subject to the current scope of the entire work as set forth in the Contract Documents. Acceptance of the waiver constitutes an agreement between OWNER and CONTRACTOR that the Change Order represents an equitable adjustment to the Contract, and that CONTRACTOR waives all rights to file a claim on this Change Order after it is properly executed.

IN WITNESS WHEREOF, the undersigned have caused the execution hereof:

CONTRACTOR: \_\_\_\_\_  
\_\_\_\_\_

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

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

Title: \_\_\_\_\_

\_\_\_\_\_

Secretary

Address: \_\_\_\_\_

[Corporate Seal]

Date: \_\_\_\_\_

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

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

Date: \_\_\_\_\_

Title: \_\_\_\_\_

OWNER: TOWN OF HOLLY SPRINGS

Approval as to form and legal sufficiency:

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

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

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

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Distribution:

## **CONTRACTOR'S RELEASE OF OWNER**

The Contractor, known as \_\_\_\_\_,

for the construction of Project: \_\_\_\_\_,

hereby and forever releases the Town of Holly Springs (Owner), its officers, agents, and [Engineers/Architects]: \_\_\_\_\_, from all past, present, and future claims and liability to the Contractor for anything done or furnished for, relating to, or for any act of neglect of the Owner, its engineers, or any persons relating to or affecting the work.

Contractor's Certification:

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

Authorized Representative: \_\_\_\_\_

Date: \_\_\_\_\_

## **CONSENT OF SURETY COMPANY TO FINAL PAYMENT**

PROJECT:

OWNER:

**CONTRACTOR:** \_\_\_\_\_

CONTRACT: \_\_\_\_\_ DATE: \_\_\_\_\_

TO:

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In accordance with the provisions of the Contract between the Town of Holly Springs (Owner), and the Contractor, known as \_\_\_\_\_, the Surety Company, known as \_\_\_\_\_, on bond of Contractor, hereby approves of the final payment to Contractor, and agrees that final payment to Contractor shall not relieve the Surety Company of any of its obligations to the Owner as set forth in said Surety Company's bond.

In witness whereof, the Surety Company has hereunto set its hand this \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_.

---

## Surety Company

**Signature of Authorized Representative**

[Seal]

Typed Name and Title of Authorized Representative

## FINAL RECEIPT

Contract: \_\_\_\_\_

Received this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ as full and final payment of the cost of all improvements provided for in the foregoing Contract the sum of

\_\_\_\_\_ Dollars and  
\_\_\_\_\_ Cents, (\$\_\_\_\_\_), in cash, being the full amount accruing to the undersigned by virtue of said Contract, said cash covering and including full payment for all extra work and material furnished by the undersigned in the construction of said improvements, and all incidentals thereto, and the undersigned hereby releases the said \_\_\_\_\_ from all claims whatsoever growing out of the said Contract.

These presents are to certify that all persons doing work upon or furnishing materials or supplies for said improvements under the foregoing Contract have been paid in full.

The undersigned further certifies that all taxes imposed by Chapter 212, North Carolina Statues (Sales and Use Tax Act), as amended, have been paid and discharged.

---

CONTRACTOR

By: \_\_\_\_\_ (Seal)

\_\_\_\_\_  
(Typewritten Name)

**SECTION 00905**  
**DISADVANTAGED BUSINESS ENTERPRISES SPECIAL PROVISIONS**

**OUTREACH PLAN AND GUIDELINES FOR RECRUITMENT AND  
SELECTION OF MINORITY BUSINESSES FOR PARTICIPATION IN TOWN OF  
HOLLY SPRINGS CONSTRUCTION CONTRACTS**

In accordance with G.S. 143-128.2 these guidelines establish goals for minority participation in single-prime bidding, separate-prime bidding, Construction Manager-at-Risk, and alternative contracting methods on Holly Springs construction projects in the amount of \$300,000 or more. The Outreach Plan shall also be applicable to the selection process of architectural, engineering and Construction Manager-at-Risk services.

The Town of Holly Springs current goal for minority participation for public building construction is ten percent (10%). The overall goal will be reviewed annually or as soon as relevant data is available.

**INTENT**

The intent of these guidelines is that the Town of Holly Springs, as awarding authority for construction projects, and the contractors and subcontractors performing the construction contracts awarded, shall cooperate and in good faith do all things, legal, proper and reasonable to achieve the statutory goal of ten percent (10%) for participation by minority businesses in each construction project as mandated by GS 143-128.2. Nothing in these guidelines shall be construed to require contractors or awarding authorities to award contracts or subcontracts to or to make purchases of materials or equipment from minority-business contractors or minority-business subcontractors who do not submit the lowest responsible responsive bid or bids.

**DEFINITION**

1. Minority - a person who is a citizen or lawful permanent resident of the United States and who is:
  - a. Black, that is, a person having origins in any of the black racial groups in Africa;
  - b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central American, or the Caribbean Islands, regardless of race;
  - c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia and Asia, the Indian subcontinent, or the Pacific Islands;
  - d. American Indian, that is, a person having origins in any of the original peoples of North America; or
  - e. Female
2. Minority Business - means a business
  - a. In which at least fifty-one percent (51 %) is owned by one or more minority persons, or in the case of a corporation, in which at least fifty-one percent (51 %) of the stock is owned by one or more minority persons or socially and economically disadvantaged individuals; and

- b. Of which the management and daily business operations are controlled by one or more of the minority persons or socially and economically disadvantaged individuals who own it.
3. Socially and economically disadvantaged individual – means the same as defined in 15 U.S.C. 637. "Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities". "Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged".
4. Public Entity - means State and all public subdivisions and local government units.
5. Owner – The Town of Holly Springs.
6. Designer - Any person, firm, partnership, or corporation, which has contracted with the Town of Holly Springs to perform architectural or engineering work.
7. Bidder - Any person, firm, partnership, corporation, association, or joint venture seeking to be awarded a public contract or subcontract.
8. Contract - A mutually binding legal relationship, or any modification there of, obligating the seller to furnish equipment, materials or services, including construction, and obligating the buyer to pay for them.
9. Contractor - Any person, firm, partnership, corporation, association, or joint venture which has contracted with the Town of Holly Springs to perform construction work or repair.
10. Subcontractor - A firm under contract with the prime contractor or Construction Manager-at-Risk for supplying materials or labor and materials and/or installation. The subcontractor may or may not provide materials in the subcontract.

## **Minority and Small Business Participation Outreach Plan**

1. Work with minority-focused and small business groups that support MBE and small business inclusion in the solicitation of bids.
2. Place more emphasis on the importance of soliciting certified MBE firms and small businesses for subcontracting opportunities at pre-bid conferences and in the bid documents. Examine specifications to identify special subcontracting opportunities and strongly encourage prime contractors to solicit bids for subcontracts from MBE firms.
3. Provide detailed information to majority contractors concerning the Guidelines for Recruitment and Selection of Minority Business and Outreach Plan and provide information on G.S. 143-129 by holding meetings with the contractors.

4. Assess the effectiveness of the MBE Program, and identify opportunities to enhance it, by evaluating MBE participation and compliance and reviewing the "good faith efforts" provided in bid packages.
5. Identify subcontracting opportunities unique to each construction contract and project and concentrate heavily on targeting certified MBE firms and small businesses that have expressed an interest in the Town's projects. Identify these opportunities and contact interested businesses no later than 10 days prior to the bid opening and provide a list of prime contractors plan to participate in the project.
6. Build new business relationships through networking and continue networking with other North Carolina cities and counties to find out how their Outreach Program and MBE program is working and sharing "best practices" and ideas to improve the program.
7. Participate in education opportunities throughout the community as they become available and offer training sessions to share the Town's Outreach Plan with interested businesses and organizations.
8. Be visible through participation in trade shows and business organizations of interest to MBE firms, majority contractors and small businesses, and provide information to the general public about the MBE Program, and continue outreach efforts to the business community.
9. Enhance the Town's web page by including the Outreach Plan and Guidelines, listing good faith efforts, and creating links to MBE resources, and creating awareness of specific subcontracting opportunities.
10. Make available to minority-focused agencies, a list of subcontracting opportunities when they are identified, no later than 10 days prior to the bid opening, and a list of prime bidders that subcontractors may wish to contact for subcontracting consideration.
11. Continue to maintain a database specifically for MBE firms and majority contractors to ensure those firms wishing to do business with the Town of Holly Springs have access to up to date information.
12. Advertise upcoming bid opportunities in minority-focused media.
13. Work with architects and engineers to make subcontracting opportunities more noticeable and more easily understood by potential contractors and subcontractors.

#### **DESIGNER**

Under the single-prime bidding, separate prime bidding, dual bidding, Construction Manager-at-Risk, or alternative contracting method, the designer must do all of the following:

- a. Attend the scheduled prebid conference to explain minority business requirements to the prospective bidders.
- b. Assist the owner to identify and notify prospective minority business prime and subcontractors of potential contracting opportunities.

- c. Maintain documentation of any contacts, correspondence, or conversations with minority business firms made in an attempt to meet the goals.
- d. Review jointly with the owner, all requirements of G.S. 143-128.2(c) and G.S. 143-128.2(f) - (i.e. bidders' proposal for identification of the minority businesses that will be utilized with corresponding dollar value of the bid and affidavit listing Good Faith Efforts or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) - prior to recommendation of an award.
- e. During the construction phase of the project, review "MBE Documentation for Contract Payment" form with monthly pay applications to the owner and forward copies to the Town of Holly Springs.

**PRIME CONTRACTOR(S) CONSTRUCTION MANAGER-AT RISK. AND ITS FIRST-TIER SUBCONTRACTORS**

Under the single-prime bidding, the separate-prime bidding, dual bidding, Construction Manager-at-Risk and alternative contracting methods, contractor(s) must do all of the following:

- a. Attend the scheduled prebid conference.
- b. Identify or determine those work areas of a subcontract where minority businesses may have an interest in performing subcontract work.
- c. At least ten (10) days prior to the scheduled day of bid opening, notify minority businesses of potential subcontracting opportunities listed in the proposal. The notification must include all of the following:
  - (1) A description of the work for which the subbid is being solicited.
  - (2) The date, time and location where subbids are to be submitted.
  - (3) The name of the individual within the company who will be available to answer questions about the project.
  - (4) Where bid documents may be reviewed.
  - (5) Any special requirements that may exist, such as insurance, licenses, bonds and financial arrangements.
- d. During the bidding process, comply with the contractor(s) requirements listed in the proposal for minority participation.
- e. Identify on the bid the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit listing good faith efforts as required by G.S. 143-128.2(c) and G.S. 143-128.2(f) or Intent to Perform Contract With Own Workforce affidavit.
- f. Make documentation showing evidence of implementation of Prime Contractor, Construction Manager-at-Risk and First Tier Subcontractor responsibilities available for review by the Town of Holly Springs upon request.
- g. Provide one of the following upon being named the apparent low bidder: (1) an affidavit that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal. This affidavit shall give rise to a presumption that the bidder has made the required good faith effort; or (2) if the percentage is not equal to the applicable goal, then documentation of all good faith efforts taken to meet the goal. The documentation must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations, and evidence of other specific actions demonstrating

recruitment and selection of minority businesses for participation in the contract. Failure to comply with these requirements is grounds for rejection of the bid and award to the next lowest responsible and responsive bidder.

- h. Identify the name(s) of minority business subcontractor(s) and corresponding dollar amount of work on the schedule of values.
- i. Submit with each monthly pay requests(s) and final payment(s), "MBE Documentation for Contract Payment" for designer's review.
- j. If at any time during the construction of a project, it becomes necessary to replace a minority business subcontractor I immediately advise the owner in writing of the circumstances involved. The prime contractor shall make a good faith effort to replace a minority business subcontractor with another minority business subcontractor.
- k. Make a good faith effort to solicit subbids from minority businesses during the construction of a project if additional subcontracting opportunities become available.

#### **MINORITY BUSINESS RESPONSIBILITIES**

The Town of Holly Springs does not certify minority, disadvantaged or woman-owned businesses. Any business which desires to participate as an MBE will be required to complete and submit for certification, documents required by the agencies listed below. Only those firms holding current certification through at least one of the following agencies will be considered eligible for inclusion in meeting the MBE participation percentage goals:

North Carolina Administration Department Historically Underutilized Business (HUB) certification.

North Carolina Department of Transportation Minority/Disadvantage/Woman- owned Business certification.

Small Business Administration 8(a) certification.

Other governmental agencies on a case-by-case basis.

A copy of these guidelines will be issued with each bid package for the Town of Holly Springs construction projects. These guidelines shall apply to all contractors regardless of ownership.

#### **MINIMUM COMPLIANCE REQUIRMENTS**

All written statements, affidavits or intentions made by the Bidder shall become a part of the agreement between the Contractor and the Town of Holly Springs for the performance of the contract. Failure to comply with any of these statements, affidavits or intentions, or with the minority business guidelines shall constitute a breach of contract. A finding by the Town that any information, submitted either prior to award of the contract or during the performance of the contract, is inaccurate, false or incomplete, shall constitute a breach of the contract. Any such breach may result in termination of the contract in accordance with the termination provisions contained in the contract. It shall be solely at the option of the Town of Holly Springs whether to terminate the contract for breach.

In determining whether a contractor has made Good Faith Efforts, the Town will evaluate all efforts made by the Contractor and will determine compliance in regard to quantity, intensity, and results of these efforts. Contractors are required to earn at least 50 points. Failure to file a required

affidavit or documentation that demonstrates that the contractor made the required good faith effort is grounds for rejection of the bid.

- (1) Contacting 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 or proposal date and notifying them of the nature and scope of the work to be performed. Value = 10 points.
- (2) Making 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 bid or proposals are due. Value = 10 points.
- (3) Breaking down or combining elements of work in economically feasible units to facilitate minority participation. Value - 15 points.
- (4) Working with minority trade, community, or contractor organizations identified by the Office for Historically Underutilized Businesses and those included in the bid documents to provide assistance in recruitment of minority businesses. Value = 10 points.
- (5) Attending any prebid meetings scheduled by the public owner. Value = 10 points.
- (6) Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors. Value = 20 points.
- (7) Negotiating in good faith with interested minority businesses and not rejecting 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. Value = 15 points.
- (8) Providing 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. Assisting minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit. Value = 25 points.
- (9) Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public building construction or repair project when possible. Value = 20 points.
- (10) Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands. Value = 20 points.

**Town of Holly Springs**  
**Intent to Perform Contract With Own Workforce**

County of \_\_\_\_\_

Affidavit of \_\_\_\_\_  
(Name of Bidder)

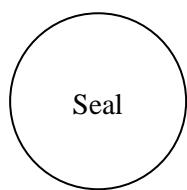
I hereby certify that it is our intent to perform 100% of the work required for the  
\_\_\_\_\_ contract.  
(Name of Project)

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 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: \_\_\_\_\_

State of North Carolina, County of \_\_\_\_\_  
Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_  
Notary Public \_\_\_\_\_  
My commission expires \_\_\_\_\_

**TOWN OF HOLLY SPRINGS, NORTH CAROLINA  
"GOOD FAITH EFFORT"**

County of \_\_\_\_\_

Affidavit of \_\_\_\_\_  
(Name of Bidder)

**I have made a good faith effort to comply under the following areas checked:** (A  
minimum of 50 points is required to have achieved a "good faith effort")

(Y/N)

- (1) Contacting 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 or proposal date and notifying them of the nature and scope of the work to be performed. Value = 10 points
- (2) Making 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 bid or proposals are due. Value = 10 points
- (3) Breaking down or combining elements of work into economically feasible units to facilitate minority participation. Value = 10 points
- (4) Working 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. Value = 10 points.
- (5) Attending any pre-bid meetings scheduled by the public owner. Value = 10 points.
- (6) Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors. Value = 20 points.
- (7) Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Any rejection of minority business based on lack of qualification should have the reasons documented writing. Value = 15 points.
- (8) Providing 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. Assisting minority businesses in obtaining the 'same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit. Value = 25 points.

- (9) Negotiating 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. Value = 20 points.
- (10) Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands. Value = 20 points.

In accordance with GSI43-128.2(d) the undersigned will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon execution of a contract with the Owner. Failure to abide by this statutory provision will constitute a breach of the contract.

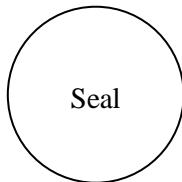
The undersigned hereby certified that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_

Name of Authorized \_\_\_\_\_

Officer: Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of North Carolina, County of \_\_\_\_\_  
Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_  
Notary Public \_\_\_\_\_  
My commission expires \_\_\_\_\_

## Town of Holly Springs

### **- Portion of the Work to be Performed by Minority Firms**

\*\*\*\*\* (NOTE: THIS FORM IS NOT TO BE SUBMITTED WITH THE BID PROPOSAL) \*\*\*\*\*

If the portion of the work to be executed by minority businesses as defined in GS 143-128.2 (g) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit. This affidavit shall be provided by the apparent lowest responsible, responsive bidder within 72 hours after notification of being low bidder.

Affidavit of: \_\_\_\_\_ I do hereby certify that on the  
(Bidder)

(Project Name)

Project ID # \_\_\_\_\_ Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_ % of the total dollar amount of the contract with minority business enterprises. Minority Businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below.

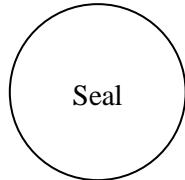
Attach additional sheets if required.

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

Pursuant to GS 143-128.2 (d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

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

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_



Signature: \_\_\_\_\_

Title: \_\_\_\_\_

State of North Carolina, County of \_\_\_\_\_  
Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_  
Notary Public \_\_\_\_\_  
My commission expires \_\_\_\_\_

Holly Springs- Good Faith Efforts

If the goal of 10% participation by minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts.

Affidavit of: \_\_\_\_\_  
(Bidder)

I do certify the attached documentation as true and accurate representation of my good faith efforts.

(Attach additional sheets if required)

Name and Phone Number	*Minority Category	Work Description	Dollar Value

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

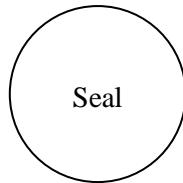
Documentation of the Bidder's good faith efforts to meet the goals set forth in these provisions. Examples of documentation shall include the following evidence:

- A. Copies of solicitation for quotes to at least three (3) minority business firms from the source list provided for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contract, and location, date and time when quotes must be received.
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster.

- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing reasons for rejection of minority business due to lack of qualification.
- I. Letter documenting proposed assistance offered to minority businesses in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_



Signature: \_\_\_\_\_

Title: \_\_\_\_\_

State of North Carolina, County of \_\_\_\_\_  
Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

## Identification of Minority Business Participation

I, \_\_\_\_\_  
(Name of Bidder)

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

**Firm Name, Address and Phone #** **Work Type** **\*Minority Category**

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

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

**Town of Holly Springs, NC**

**MBE DOCUMENTATION FOR CONTRACT PAYMENTS**

Prime Contractor/Architect: \_\_\_\_\_

Address & Phone: \_\_\_\_\_

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

Pay Application #: \_\_\_\_\_ Period: \_\_\_\_\_

The following is a list of payments to be made to minority business contractors on this project for the above-mentioned period.

Firm Name	*Minority Category	Payment Amount	Owner Use Only

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

Date: \_\_\_\_\_ Approved/Certified By: \_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

**\*\*THIS DOCUMENT MUST BE SUBMITTED WITH EACH PAY REQUEST & FINAL PAYMENT**

SECTION 00910

**CERTIFICATES OF TOWN ATTORNEY & FINANCE OFFICER**

**CERTIFICATE OF TOWN ATTORNEY**

I am the Town Attorney for the Town of Holly Springs and after receiving these documents, I find them legally sufficient as to form.

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

**CERTIFICATE OF FINANCE OFFICER**

I hereby certify that I am the legal and duly appointed Financial Officer for the Owner of this project and that provision for the payment of the moneys to fall due under this agreement has been made or will be made by appropriation duly made or by bonds or notes duly authorized, as required by the Local Government and Fiscal Control Act.

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

- END OF SECTION 00910 -

Section 00915

**E-VERIFY AFFIDAVIT**

**STATE OF NORTH CAROLINA**

)

**OF WAKE**

)

**AFFIDAVIT OF CONTRACTOR'S COUNTY**

**COMPLIANCE WITH E-VERIFY**

I, \_\_\_\_\_ (the individual attesting below), being duly authorized by and on behalf of \_\_\_\_\_ (the "Contractor") after first being duly sworn hereby swears or affirms as follows:

1. Contractor understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).
2. Contractor understands that Contractors Must Use E-Verify. Each Contractor, after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS §64-26(a).
3. Contractor is a person, business entity, or other organization that transacts business in this State and that employs 25 or more employees in this State. (mark Yes or No)
  - a. YES \_\_\_\_\_, or
  - b. NO \_\_\_\_\_
4. Contractor's subcontractors comply with E-Verify, and if Contractor is the winning bidder on this project Contractor will ensure compliance with E-Verify by any subcontractors subsequently hired by Contractor.

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**Signature of Affiant**

**Print or Type Name:** \_\_\_\_\_

**State of North**

**Carolina County of \_\_\_\_\_**

**Signed and sworn to (or affirmed) before me, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.**

**My Commission Expires:**

**Notary Public**

**(Affix Official/Notarial Seal)**

# TOWN OF HOLLY SPRINGS

## TING PARK – OAK HALL GREENWAY CONNECTOR

### TECHNICAL SPECIFICATIONS

Wake County, NC

#### Ting Park – Oak Hall Greenway Connector Project

- The proposed greenway connection will travel from the existing Ting Park greenway along a proposed route connecting Muses Mill Court in the Oak Hall neighborhood. The new, approximately 1,050-foot greenway connection would include a pedestrian bridge across Little Branch Creek.

January 2026

**PREPARED BY:**

BENESCH  
8000 REGENCY PARKWAY, SUITE 175,  
CARY, NC 27518  
(984) 275-2490



DocuSigned by:

Eric Spalding

1/15/2026

C7E7FA0BA3864D8...

Eric Spalding, PE

Greenway Design Engineer



Signed by:

Travis Stump

1/15/2026

872AE500953F446...

Travis Stump, PE

Bridge Design Engineer

**SECTION 01000**  
**DEFINITIONS, ABBREVIATIONS and REFERENCE STANDARDS**

**PART 1 - DEFINITIONS**

- A. **CONTRACTOR** – The successful Bidder to whom a contract has been awarded and who has properly executed the contract documents.
- B. **EASEMENT** – An interest in land owned by another that entitles its holder to a specific use. Or a property right to use or control real property of another.
- C. **ENGINEER** – The Director of Engineering of the Town of Holly Springs or other representative duly authorized by the Director of Engineering.
- D. **INSPECTOR** – The Lead Development Inspector, a Construction Inspector, or other representative duly authorized by the Director of Engineering.
- E. **ENGINEER'S CONSULTANT** – Duly authorized representative from hired firm.
- F. **INVERT** - The lowest point in the internal cross section of a pipe or other culvert.
- G. **OWNER** – The Town of Holly Springs, a Municipal Corporation of the State of North Carolina.
- H. **PLANS** – The approved design drawings that show the work to be done.
- I. **RIGHT OF WAY** - The area that encompasses public streets, sidewalks and utility strips.
- J. **SUBGRADE** - That portion of the roadbed prepared as a foundation for the pavement structure.

**PART 2 – ABBREVIATIONS** The following is a partial list of abbreviations that may appear in the specifications, plans, and/or estimates and their definitions.

1) A.B.C.	aggregate base course
2) A.B.S.	Acrylonitrile Butadiene Styrene
3) A.F.F.	above finished floor
4) AWG	American Wire Gauge
5) B.C.Y	bank cubic yard
6) BHP	brake horsepower
7) BOC	back of curb
8) BV	butterfly valve
9) C/O	sewer clean out
10) °C	degrees Centigrade
11) C.F.	cubic feet

12) CMP	corrugated metal pipe
13) CV	check valve
14) cy or cu. yd.	cubic yard
15) DIP	ductile iron pipe
16) EI or EIT	Engineer Intern
17) EIP	existing iron pipe
18) EOP	edge of pavement
19) °F	degrees Fahrenheit
20) FES	flared end section (pipe)
21) ft.	foot
22) gpd	gallons per day
23) gpm	gallons per minute
24) GV	gate valve
25) HDPE	high density polyethylene
26) HP	horsepower
27) ID	internal diameter
28) in.	inches
29) inv	invert
30) lbs.	pounds
31) L.F.	Linear Feet
32) MH	manhole
33) max.	maximum
34) min.	minimum
35) M.S.F	thousand square feet
36) MSL	mean sea level
37) MUTCD	Manual on Uniform Traffic Control Devices
38) NCDENR	North Carolina Department of Environment and Natural Resources
39) NCDOT	North Carolina Department of Transportation
40) NPDES	National Pollutant Discharge Elimination System
41) O.C.	on center
42) OD	outside diameter
43) OHPL	overhead power line
44) OSHA	Occupational Safety and Health Act
45) oz.	ounce
46) PAM	Polyacrylamide
47) P.C.	point of curvature
48) P.E.	Professional Engineer, registered in North Carolina
49) pH	measure of the acidity or alkalinity of a solution
50) P.L.S.	Professional Land Surveyor, registered in North Carolina
51) ppm	parts per million
52) psi	pounds per square inch
53) PL	property line
54) P.T.	point of tangency
55) PVC	polyvinyl chloride
56) P.V.C.	point of curvature on vertical curve
57) P.V.T.	point of tangency on vertical curve

58) Qmax	maximum discharge
59) Qmin	minimum discharge
60) R. or Rad.	radius
61) RCP	reinforced concrete pipe
62) RH	relative humidity
63) SCS	Soil Conservation Service
64) sec.	second
65) S.F. or sq. ft.	square feet
66) S.Y. or sq. yd.	square yard
67) TDH	total dynamic head
68) TOHS	Town of Holly Springs
69) Typ.	typical
70) UPL	underground power line
71) VAC	volts (alternating current)
72) VDC	volts (direct current)
73) WM	water meter
74) WV	water valve
75) yd	yard

### **PART 3 – REFERENCE STANDARDS**

All materials, products and procedures incorporated into the work shall be in strict accordance with the following codes, standards and specifications. Wherever reference is made to any published standard, code or standard specification, it shall mean the latest edition in effect at the invitation for bids.

- A. American Association of State Highway and Transportation Officials (AASHTO)
- B. American National Standards Institute (ANSI)
- C. American Society of Testing and Materials (ASTM)
- D. American Water Works Association (AWWA)
- E. Ductile Iron Pipe Research Association (DIPRA)
- F. Manual on Uniform Traffic Control Devices for Streets and Highways, as prepared by the National Advisory Committee on Uniform Traffic Control Devices (MUTCD)
- G. North Carolina Department of Transportation (NCDOT), July 2024 “Standard Specifications and Roadway Standard Drawings, available online at <https://connect.ncdot.gov/resources/Specifications/Pages/default.aspx>
- H. National Pre-Cast Concrete Association (NPCA)
- I. North Carolina Department of Environment and Natural Resources (NCDENR)

- J. National Electrical Code (NEC)
- K. National Electrical Manufacturers Association (NEMA)
- L. Natural Resources Conservation Service (NRCS [formerly "SCS"])
- M. New York Department of Transportation (NYDOT)
- N. Occupational Safety and Health Act (OSHA)
- O. Soil Conservation Service (SCS)
- P. Town of Holly Springs (TOHS) "Engineering Design and Construction Standards" – available online at <https://www.hollyspringsnc.gov/127> or may be obtained from the office of the Engineering Director, Holly Springs Municipal Bldg., 128 S. Main St., Holly Springs, North Carolina. Where TOHS standard specifications exceed NCDOT standards, the TOHS standard specification shall apply.
- Q. Underwriters Laboratories, Inc. (UL)

END OF SECTION 01000

SECTION 02000  
**SUBMITTALS**

**PART 1 – SUBMITTALS**

**A. General Submittal Requirements**

- i. Submittals shall meet the requirements of the General Conditions and Supplementary Conditions.
- ii. The following submittals will be required for this project:
  - Sedimentation and Erosion Control
  - Asphalt & ABC (Aggregate Base Course)
  - Cast in Place Concrete
  - Storm Drainage
  - Steel Piles
  - Prefabricated Pedestrian Bridge
  - Seeding and Mulching
  - As-builts
- iii. The Contractor shall transmit submittals in sufficient time to allow thorough review by the Engineer.
- iv. Submittals shall be accompanied by a letter of transmittal containing the date, project name, Contractor's name, supplier, manufacturer, number and title of submittal, notification of exceptions and/or deviations from the Contract requirements, and any other pertinent data to facilitate review.
- v. The Contractor shall thoroughly check all submittals for accuracy and conformance to the intent of the Contract Documents, and make any necessary changes, prior to submitting them to the Engineer. All submittals shall bear the Contractor's certification stating that they have been so checked. **This certification shall include the following statement: "By this Submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers, and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all contract requirements."** **SUBMITTALS WITHOUT THE CONTRACTOR'S CERTIFICATION WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW.**
- vi. No material shall be ordered, fabricated or shipped or any work performed until the Engineer returns the required submittal to the Contractor with satisfactory review indicated.

vii. The Engineer's review of the Contractor's submittals shall in no way relieve the Contractor of any responsibility under the Contract. An acceptance of a submittal shall be interpreted to mean that the Engineer has no specific objections to the submitted material, subject to conformance with the Contract Documents.

**B. Shop Drawings**

- i. The Contractor shall submit to the Engineer for review shop drawings for all fabricated work and for all manufactured items for which shop drawings are required elsewhere in the project manual.
- ii. Where manufacturers' publications in the form of catalogs, brochures, illustrations or other data sheets are submitted, items for which approval is requested shall be specifically indicated. Submittals showing only general information shall not be acceptable.
- iii. Within ten (10) days after notice to proceed, the contractor shall submit three (3) copies of his preliminary schedule of shop drawing submittals to the Engineer for approval.

**C. Layout and Installation Drawings**

- i. The Contractor shall submit to the Engineer, for review, layout and installation drawings for all pipes, valves, fittings, sewers, manholes, electrical, conduits, etc. to be provided under this contract.
- ii. Within ten (10) days after notice to proceed, the contractor shall submit three (3) copies of his preliminary schedule of layout and installation drawing submittals to the Engineer for approval.

**PART 2 – OTHER REQUIREMENTS**

**A. Progress Schedule**

- i. The Contractor shall submit three (3) copies of its proposed progress schedule to the Engineer for review and approval, in accordance with the General Conditions.
- ii. Progress schedule shall be updated monthly, with three (3) copies submitted to the Engineer with the application for payment. The Engineer may withhold progress payments until such time as the schedule or revised schedule is received.

- iii. Progress schedule shall be prepared in the form of a horizontal bar chart showing in detail the proposed sequence of work. Schedule shall be time scaled showing start and completion dates for each stage of the work. The schedule shall account for all subcontractors. The schedule shall provide for proper sequence of construction considering various crafts, purchasing time, submittal review, material delivery, equipment fabrication and similar time-consuming factors. The schedule shall show as a minimum, earliest starting, earliest completion, latest starting, latest completion, and total float for each task or item.

**B. List of Subcontractors**

- i. The Contractor shall submit to the Engineer for review, prior to the preconstruction conference, a listing of all subcontractors. This submittal shall include a description of the work to be performed by each subcontractor, the estimated value of such work, and the subcontractor's experience performing similar work. This list shall be kept current throughout the project duration. All subcontractors shall be approved by the Town of Holly Springs.

**C. As-Built Drawings**

- i. If Town employee signed and sealed the construction plan: Contractors shall provide a complete as-built point file so that the Town Project Engineer can provide three (3) complete sets of field-surveyed and sealed As-Built plans, (1 set mylar, 2 sets blue prints) at the completion of the project, prior to final payment. As-builts shall conform to the requirements set forth in the Town of Holly Springs, "Engineering Design and Construction Standards", with all information tied to the appropriate local Town benchmark monument.
- ii. If Town outsourced the sign and seal of the Construction Plan: Contractor shall provide a complete as-built point file to original design engineer and provide three (3) complete sets of field-surveyed and sealed As-Built plans, (to the Town of Holly Springs) (1 set mylar, 2 sets blue prints) at the completion of the project, prior to final payment. As-builts shall conform to the requirements set forth in the Town of Holly Springs, "Engineering Design and Construction Standards", with all information tied to the appropriate local Town benchmark monument.

END OF SECTION 02000

**SECTION 03000  
CLEARING AND GRUBBING**

**PART 1 - GENERAL**

- A. The Contractor shall furnish all labor, equipment, materials, tools, etc. and shall perform all clearing and grubbing of trees, down timber, logs, snags, brush undergrowth, heavy growth of grass or weeds, debris, and rubbish, etc. Care shall be taken to minimize removal of acceptable soil material from the site when clearing and grubbing. All such material shall be disposed of by burning (when permitted), suitable removal from the site, or other means acceptable to the Engineer.
- B. The width of clearing for the project shall be limited to the right of way, temporary and permanent easements, sight triangles and permitted impacts to streams, wetlands, and riparian buffers as noted on the drawings or in the environmental permit conditions for the project. The entire width of the permanent easement is to be cleared unless otherwise indicated by clearing limits noted on the drawings. Clearing and grubbing shall be conducted in a manner to prevent damage to vegetation that is intended to remain growing and also to prevent damage to adjacent property. See Section 40000, Special Construction.
- C. The Engineer will designate all areas of growth or individual trees inside the clearing limits, which are to be preserved due to their desirability. The trees to be preserved will be shown in the Contract Documents or otherwise designated by the Engineer. The Contractor will install a tree protection fence outside the drip line of such designated trees prior to commencing with clearing and grubbing operations.
- D. All spoil materials that are removed by clearing and grubbing operations shall be adequately disposed of, removed from the site or burned if permitted by the appropriate authorities. The contractor shall be responsible for controlling fires in compliance with all Federal, State or local laws.
- E. All work performed under this section shall be conducted to minimize erosion and sediment pollution as outlined in Section 16000. Installation of temporary or permanent erosion control measures shall occur prior to clearing and grubbing operations or as directed by the Engineer. The Town of Holly Springs will be responsible for obtaining an erosion control and sedimentation permit, prior to beginning construction, when disturbance is greater than one acre within the project construction limits. The Contractor shall obtain an erosion control and sedimentation permit for any other disturbance including but not limited to the borrow pit.
- F. Tree Protection will be installed around those areas indicated on the plans for protection, by local, state, or federal environmental permits or designated by the Engineer in the field. Tree protection will be installed prior to any clearing and grubbing for the project unless designated by the Development Inspector. A site inspection shall be held with the Contractor and Development Inspector or designee

to confirm that the installation matches the drawings and environmental permit conditions. The tree protection fence shall consist of steel posts and orange, UV resistant, high-strength, poly barricade fabric constructed per standard details provided in the plans. Signs shall be placed on the fence with the inscription: "Tree Protection Fence – Do Not Enter". This tree protection fence should not be encroached upon for any reason unless otherwise directed by the Engineer. All reasonable efforts will be made to avoid skinning or crushing roots, skinning or bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line or excess foot or vehicular traffic or parking of vehicles within the drip line.

## **PART 2 - PAYMENT**

- A. **Basis of Payment:** Payment for "Clearing and Grubbing" shall be at the unit price per area basis or lump sum as indicated on the Itemized Proposal. If no line item is provided for clearing and grubbing, it shall be considered incidental to the project.

END OF SECTION 03000

**SECTION 04000  
EARTHWORK**

**PART 1 - GENERAL**

- A. The work covered by this section consists of the excavation, placement, and compaction or satisfactory disposal of all materials encountered within the limits of the work necessary for the construction of the project in conformity with the lines, grades, and cross sections shown on the plans or established by the Engineer.
- B. The Contractor shall fill areas that settle unevenly during the course of construction at no additional cost to the Owner.
- C. If soil testing is requested, it shall be the responsibility of the contractor at no additional cost to the owner.
- D. Any areas set aside for materials storage shall be an area that is previously approved by the Engineer.

**PART 2 - UNCLASSIFIED EXCAVATION**

- A. All material excavated from the project limits in order to achieve the site lines, grades, and cross sections shown on the plans shall be classified as Unclassified Excavation.
- B. During excavation, the site's topsoil shall be stripped and stored for reuse in final grading and/or landscape repair. During backfilling, subsoil shall be placed and compacted as required to a depth ranging from 6 to 12 inches below grade. The set aside topsoil shall be used to backfill the remainder except under pavement or any other structure. If prior work has mixed the native topsoil into the subsoil, the loamier portions of excavated soil shall be used to backfill the remainder. This soil should be compacted only to the point necessary to meet acceptable temporary rough grade and to meet safety requirements. Topsoil removal shall include but not be limited to excavation, hauling or re-hauling anywhere along the project, storing anywhere along the project, removal and disposal of undesirable and excess material, any backfilling required, and maintaining the work and shall be included in the unit price of "Unclassified Excavation." The areas set aside for materials storage shall be an area that's previously approved by the Engineer.
- C. For this project, topsoil was calculated as 6 inches deep over the entire site. The topsoil volume is included in the unclassified excavation quantity; however, it's not counted as usable fill material in quantity calculations. This has been done to account for the loss of topsoil encountered in grubbing operations. Excess topsoil will have to be disposed of offsite with no additional compensation. Should topsoil exceed 6 inches average depth be encountered on this project, no adjustments will be made to any quantity nor will there be any additional compensation.

- D. Should hard rock be encountered requiring blasting for removal, a written PERMIT FOR BLASTING must be obtained from the Town of Holly Springs Fire Department or the appropriate jurisdiction for a fee a MINIMUM of 24 hours before any explosive material or blasting agents are transported into the Corporate Limits of Holly Springs. Contractor shall work with Inspector to notify all adjacent residents and determine if there is a need for monitoring. If monitoring is needed, Contractor should install and evaluate all seismic monitoring and respond with 24 hour to complaints and copy the Town with response and all coordination. This work shall be included in the unit price of "Unclassified Excavation."
- E. Whenever encountered during work, remove any trash and non-natural debris. Remove all roots and pieces of wood or debris larger than three (3) inches in diameter.
- F. All suitable material removed in the excavation shall be used as far as practicable in the formation of embankments, subgrades, and shoulders, and at such other places as may be indicated on the plans or directed by the Engineer. Unsuitable material and excess excavated material not required for construction of embankments shall be properly disposed of offsite at no additional cost to the Owner.
- G. The intersection of slopes with natural ground surfaces, including the beginning and ending of cut slopes, shall be uniformly rounded as shown on the plans or as may be directed by the Engineer. Concurrent with the excavation of cuts, the Contractor shall construct intercepting berm ditches or earth berms along and on top of the cut slopes at locations shown on the plans or designated by the Engineer. All slopes shall be finished to reasonably uniform surfaces acceptable for seeding and mulching operations. All protruding roots and other objectionable vegetation shall be removed from slopes.
- H. The Contractor shall, as directed by the Engineer, cut off and plug all private utility lines, and remove all underground tanks encountered within the right of way or construction limits during construction in accordance with State requirements. This work shall be included in the unit price of "Unclassified Excavation."
- I. When the Contractor's excavation operations encounter graves, the operations shall be temporarily discontinued in the vicinity of the graves and not resumed until so directed by the Engineer.
- J. When the Contractor's excavation operations encounter artifacts of historical or archeological significance, the operations shall be temporarily discontinued in the vicinity of the artifacts and not resumed until so directed by the Engineer. Disposition of the artifacts shall be in accordance with the requirements of the State Division of Archives and History.
- K. A tolerance of plus or minus 0.10 foot from the established grade will be permitted in the roadbed after it has been graded to a uniform surface.

- L. The Contractor shall be responsible during construction and until final acceptance for the maintenance of all work covered by this section.
- M. During construction and until final acceptance, the Contractor shall shape the excavated surface to provide for the drainage of surface runoff along and throughout the length of the cut, shall construct temporary ditches, and use any other methods necessary to maintain the work covered by this section so that the work will not contribute to excessive soil erosion.
- N. As much as practicable, the Contractor shall perform the work covered by this subsection and the construction of embankments in such a manner that cut and fill slopes will be completed to final slopes and grade in a continuous operation. The operation of removing excavation material from any cut and the placement of embankment in any fill shall be a continuous operation to completion unless otherwise permitted by the Engineer.
- O. If grading operations are suspended for any reason whatsoever, partially completed cut and fill slopes shall be brought to the required slope and the work of seeding and mulching or other required erosion control operations shall be performed.

NOTE: Time period prior to stabilization cannot exceed 21 days.

P. Basis of Payment:

- i. The quantity of unclassified excavation to be paid for will be the actual number of cubic yards of excavation as computed by the Average End Area Method based upon the plan cross-sections, which have been acceptably excavated in accordance with the Contract Documents. Shrinkage factors shall not be used in calculating excavation quantities.
- ii. The Contractor will have the option of providing a set of original cross sections to the Engineer for approval prior to the commencement of grading operations. The cross sections must be plotted to the same scale and using the same baseline and stationing as those provided with the bid documents and sealed by a surveyor and based upon a field survey. If the Contractor commences work without having a set of existing cross sections approved by the Engineer, the Contractor accepts the accuracy of the existing cross section information provided with the bid documents. At the Engineer's option, final cross sections may be performed to determine if actual grading quantities are less than plan quantities.
- iii. Payments will not be made for excavation in excess of that shown on the plan cross sections unless authorized by change order due to a change in scope of work. The approved quantity of excavation will be paid for at the contract unit price per cubic yard for "Unclassified Excavation" as set forth on the Itemized Proposal in the Contract Documents.

**PART 3 - EMBANKMENT**

- A. The work covered by this subsection consists of placing in embankments, backfills, and earth berms, suitable material excavated as previously described by these specifications in conformity with the lines, grades, and typical cross sections shown on the plans or established by the Engineer. It shall include the preparation of the areas upon which the embankment is to be constructed; the formation, compaction, stability, and maintenance of the embankment.
- B. Before embankment construction is begun, all vegetation, debris, deleterious and unsuitable material shall be removed from the area within the limits of the embankment. Upon completion of clearing and stripping, the subgrade area to receive embankment shall be uniformly proofrolled under the observation of the Engineer. Proofrolling shall be accomplished using a loaded dump truck or similar pneumatic-tired equipment of a minimum ten (10) ton static weight making at least four (4) passes over each area. Any areas which pump or deflect under proofrolling, or are otherwise deemed unsuitable by the Engineer, shall be stabilized or bridged as directed by the Engineer. Should such stabilization become necessary, the amount of compensation due the Contractor for such work shall be a fair market value for these services, which shall be mutually agreeable to the Contractor and Owner prior to the execution of such work.
- C. Embankment material and backfill material shall consist of clean, readily compactible earthen material with a maximum particle size of two (2) inches. Embankment material shall be free from debris, organic matter, frozen or deleterious material, and shall be approved for use by the Owner.
- D. The embankment material shall be deposited and spread in successive, uniform, approximately horizontal layers of not more than eight (8) inches in depth, loose measurement, for the full width of the cross section, and shall be kept approximately level by the use of effective spreading equipment. Each layer of the embankment shall be thoroughly compacted as hereinafter specified. Hauling shall be distributed over the full width of the embankment, and in no case will deep ruts be allowed to form during the construction of the embankment. The embankment shall be properly drained at all times.
- E. All embankment material shall be compacted as specified herein unless otherwise provided in the contract or directed by the Engineer. Compaction equipment used by the Contractor shall be adequate to produce the required compaction and produce a uniformly constructed embankment with all layers uniformly bound to all preceding layers.
- F. The embankment material shall be compacted to at least 95% of the maximum dry density obtained by compacting a sample of the material in accordance with ASTM T-99, except for the upper one foot of subbase below pavement base, which shall be compacted to at least 100% of the maximum dry density obtained by compacting a sample in accordance with ASTM T-99. Embankment materials shall be compacted at a moisture content satisfactory to the Engineer, which shall be approximately that

required to produce the maximum dry density. The Contractor shall dry or add moisture to the embankment material when required to provide a uniformly compacted and stable embankment.

- G. Backfill materials placed around and over pipe culverts, box culverts, and arch culverts, and embankment materials placed around other structures, shall be clean select material. The material shall be placed and compacted in a manner, which will avoid unbalanced loading and will not produce undue stress on the structure. Such embankments shall be placed in loose layers not to exceed six (6) inches in depth and each layer shall be thoroughly compacted as hereinafter specified. All pipe culverts, box culverts, and arch culverts, after being backfilled as specified in this subsection, shall be protected by a three (3) foot cover of fill at any time that heavy hauling equipment is permitted to cross during construction of the roadway. Any damage or displacement to culverts or other structures due to the Contractor's operation shall be corrected or repaired by the Contractor prior to final acceptance at no cost to the Owner.
- H. The Contractor shall be responsible during construction and until final acceptance for the maintenance of all embankments made under the contract.
- I. During construction and until final acceptance, the Contractor shall construct temporary or permanent earth berms along the outer edges of the top surface of the embankment, construct temporary ditches, shape the embankment surface to provide for the drainage of surface runoff along and throughout the length of the embankments, and use any other methods necessary to maintain the work covered by this section so that the work will not contribute to excessive soil erosion.
- J. The Contractor shall replace, at no cost to the Owner, any portion of embankments, which have become displaced or damaged due to carelessness or neglect on the part of the Contractor. Where the work has been properly constructed, completely drained, and properly maintained, and damage occurs due to natural causes, the Contractor will be paid at the contract unit price for the excavated material required to make necessary repairs to such damage. Measurements of quantities must be performed and approved prior to commencement of work.
- K. All embankments shall be brought to the grade and cross section shown on the plans, or established by the Engineer, prior to final inspection and acceptance by the Engineer.

L. Basis of Payment:

- i. The quantity of embankment shall be determined from proposed plan cross sections using the average end area method. Shrinkage factors shall not be used in calculating embankment quantities. There will be no separate payment for embankment. The price for placement of embankment shall be included in the contract price for "Unclassified Excavation" and "Borrow Excavation." This price and payment will be full compensation for all work covered by this section,

including but not limited to constructing all embankments necessary to achieve the lines, grades, and cross sections indicated on the plans, backfilling of utilities, appurtenances, miscellaneous structures required, and maintaining the work.

#### **PART 4 - UNDERCUT EXCAVATION**

- A. The work covered by this subsection consists of the excavation, placement, and compaction and/or satisfactory disposal of materials removed from a location below the finished graded cross section.
- B. When the Engineer determines that the natural soil materials are undesirable in their location or condition, the Engineer may require the Contractor to remove this undesirable material and backfill with approved material properly compacted.
- C. Where undercutting is required adjacent to or beneath the location of a proposed drainage structure, undercut and backfill shall be done over a sufficient distance adjacent to the installation to prevent future operations from disturbing the completed drainage structure.
- D. All materials removed in the work of undercut excavation will be classified by the Engineer as either suitable for use without excessive manipulation and utilized by the Contractor elsewhere in the work, or unsuitable for further use and disposed of by the Contractor as directed by the Engineer.
- E. The Contractor shall conduct undercut operations in such a way that the Engineer can take the necessary measurements before any backfill is placed.
- F. Backfill in undercut areas shall be placed as a continuous operation along with the undercutting operation. Backfill material shall not be placed in water unless otherwise permitted by the Engineer.
- G. All materials which the Contractor has been directed to excavate from a location below the finished graded cross section will be classified as undercut excavation and will be measured separately.

##### **H. Basis of Payment:**

- i. The quantity of material excavated in accordance with this subsection shall be paid for at the Contract unit price per square yard for "Undercut Excavation" as indicated in the Itemized Proposal. This payment shall be full compensation for all work covered by this section, including but not limited to excavation, removal of undesirable material, disposal of materials, backfilling with suitable material and maintaining the work.

#### **PART 5 - BORROW EXCAVATION**

A. The work covered by this subsection consists of the excavation of approved material from borrow sources and the hauling and placing of this material as required on the plans or as directed by the Engineer. It shall also include the satisfactory disposal of any material from the borrow source which is not suitable for use. All work covered by this subsection shall be in accordance with Section 230 of the NCDOT, January 2024, "Standard Specifications for Roads and Structures."

B. Basis of Payment:

i. The quantity of borrow to be paid for will be the actual number of cubic yards of borrow, as computed by the grid surface comparison on 5 foot grid method based upon the plan cross sections, which have been acceptably placed in accordance with the Contract Documents. Shrinkage factors shall not be used in calculating quantities. Payment will not be made for borrow placed in excess of that shown on the plan cross sections unless authorized by change order. The approved quantity of borrow excavation will be paid for at the contract unit price for "Borrow Excavation" as indicated in the Itemized Proposal in the Contract Documents.

## PART 7 – FINE GRADING SUBGRADE, SHOULDERS AND DITCHES

### A. DESCRIPTION

The work covered by this section consists of the preparation, shaping, and compaction of either an unstabilized or stabilized roadbed to a condition suitable for placement of base course, pavement, sidewalk, and shoulders. It shall also include the cleaning, shaping, and maintenance of roadway ditches; the stripping of existing vegetation; and the placement and compaction of all materials resulting from the shaping operation. Such work shall extend over those portions of the project which will be paved under the contract.

### B. CONSTRUCTION METHODS

The greenway shall be shaped to conform to the lines, grades, and typical sections shown on the plans or established by the Engineer. All existing vegetation shall be stripped from the ground surface wherever shaping of the roadway is to be done. All suitable surplus material shall be utilized in the construction of the roadway or stockpiled for use in shoulder construction. Surplus material in excess of that needed for roadway or shoulder construction shall be disposed of as waste. Additional material, if needed, shall be obtained from roadway excavation or borrow sources.

All unsuitable material, boulders, and all vegetative matter shall be removed and replaced with suitable material. Suitable material, when not available from the shaping or fine grading operation, shall be obtained from roadway excavation or borrow sources.

Roadway ditches shall be cleaned, reshaped, and maintained in a satisfactory condition until final acceptance of the project.

The Contractor shall conduct his operations in such a manner as to avoid damage to any previously constructed structures and facilities.

#### C. PREPARATION OF SUBGRADE

The subgrade shall be shaped to the lines, grades, and typical sections shown on the plans. Where the Engineer directs that areas of the subgrade are to be stabilized with aggregate, the subgrade surface in such areas may, subject to the approval of the Engineer, be left uniformly below grade to provide for the addition of the stabilizer material.

Material excavated in preparing the subgrade shall be stored or stockpiled in such a manner as to not interfere with proper drainage or any subsequent operations of stabilization, or placing base or pavement.

#### D. COMPACTION OF SUBGRADE

All material to a depth of 8 inches below the finished surface of the subgrade shall be compacted to a density equal to at least 100% of that obtained by compacting a sample of the material in accordance with AASHTO T99 as modified by the Department. Copies of these modified testing procedures are available upon request from the Materials and Test Unit.

The subgrade shall be compacted at a moisture content which is approximately that required to produce the maximum density indicated by the above test method. The Contractor shall dry or add moisture to the subgrade when required to provide a uniformly compacted and acceptable subgrade.

Where the subgrade is to be stabilized with lime, aggregate, or cement, the above density requirements will not apply prior to the incorporation of the stabilizing material but compaction shall be in accordance with the requirements of Article 501-10, 510-3, or 542-9, as appropriate.

#### E. TOLERANCES

A tolerance of plus or minus 1/2 inch from the established grade will be permitted after the subgrade has been graded to a uniform surface.

The maximum differential between the established grade and the graded subgrade within any 100 foot section shall be 1/2 inch.

#### F. PROTECTION OF SUBGRADE

Ditches and drains shall be provided and maintained as may be necessary to satisfactory drain the subgrade. Where previously approved subgrade is damaged by natural causes, by hauling equipment, or by other traffic, the Contractor shall restore the subgrade to the required lines, grades, and typical sections and to the required density at no additional cost to the Department.

#### G. COMPENSATION

The work covered by this section will be paid for at the contract lump sum price for "Fine Grading." Such lump sum price will be full payment for all material excavated to a depth of 0.4 foot below the existing graded surface.

Any material which has been excavated from the subgrade at a depth greater than 0.4 foot below the existing graded surface will be considered unclassified excavation and will be paid for as provided in

As an exception to the above, on those areas in which the Contractor is responsible for constructing the embankment on which the subgrade is located, no payment will be made for that excavation that may be necessary to bring the grade to the established subgrade elevation and typical section. Such surplus material shall be incorporated into the project at no additional cost to the Town.

When sufficient material is not available from the fine grading operation to complete the work of fine grading, additional material will be paid for as provided in "Unclassified Excavation" or in "Borrow Excavation," depending on the source of material.

The above prices and payments will be full compensation for all work covered in this section including but not limited to all grading, shaping, and compacting of the roadway; stripping existing vegetation; construction of the subgrade; all cleaning, shaping, and maintaining of the roadway ditches; all hauling; stockpiling of surplus material for the construction of shoulders; and any necessary disposal of surplus stockpile material as waste.

END OF SECTION 04000

**SECTION 05000  
ASPHALT CONCRETE**

**PART 1 - GENERAL**

- D. The work covered by this section consists of the installation and/or removal of aggregate base course, asphalt concrete surface course, superpave - asphalt concrete surface course, asphalt concrete binder course, superpave - asphalt concrete intermediate course, asphalt concrete base course, superpave - asphalt concrete base course, asphalt tack coat, asphalt prime coat, Geotextile Interlayer, Asphalt Surface Treatments, and utility adjustments.
- E. No base material shall be placed on a roadway until the storm sewer, subgrade, utilities and all appurtenances have been inspected and approved by the Inspector.
- F. The NCDOT, January, 2024, "Standard Specifications for Roads and Structures" shall apply to this project unless otherwise specified herein.
- G. The NCDOT maintains a list of addendums to the January, 2024, "Standard Specifications for Roads and Structures". The addendum for "Asphalt Pavements Superpave" shall apply to this project unless otherwise specified herein. This list is located at the following website:

<https://connect.ncdot.gov/resources/Specifications/Pages/2024-Specifications-and-Special-Provisions.aspx>

**PART 2 - MATERIALS**

**A. Aggregate Base Course:**

- i. This base course shall consist of an approved coarse aggregate produced in accordance with Section 520 in the NCDOT, January 2024, "Standard Specifications for Roads and Structures." All materials, construction requirements and other provisions in Section 520 shall apply. The subgrade for the coarse aggregate base course shall be constructed in accordance with the requirements of these Specifications.
- ii. The subgrade shall be thoroughly compacted and constructed to the line, grade, and cross section on the plans or as directed by the Engineer. Before placing the base course, the subgrade shall be inspected and approved by the Inspector, and backfilling behind the curb shall be complete.
- iii. The base course material shall be placed in lifts not to exceed ten (10) inches. Each layer shall be graded to the required section and compacted to at least one hundred percent (100%) of the density as determined by AASHTO T180. The base material shall be compacted at a moisture content which is approximately that required to produce the maximum density.

- iv. After final shaping and compacting, the Inspector will check the surface of the base for conformance to grade and typical section. The thickness of the base shall be within a tolerance of plus or minus 1/2 inch of the base thickness required by the plans.
- v. **Basis of Payment:** Payment will be made under the contract unit price per square yard at the specified thickness for the actual amount of “Aggregate Base Course” used to construct the roadway base to the line, grade, and cross section indicated on the plans. The price of aggregate base course installed under curb and gutter shall be included in the price per linear foot for Curb and Gutter. When instructed by the Engineer, the Contractor will use aggregate base course for maintaining access to driveways. Payment will be made under the contract unit price per square yard for “Temporary Gravel Driveway Connection”.

**B. Asphalt Concrete Surface Course: Type I-1, I-2 & HDS:**

- i. The surface course shall be Asphalt Concrete Surface Course, Type I-1, I-2 or HDS shall consist of a mixture of coarse and fine aggregates, asphalt cement, and meet the requirements in Section 645 of the NCDOT, January 2024, “Standard Specifications for Roads and Structures.”
- ii. Before the asphalt surface course is placed on the road, the aggregate base course shall be inspected and approved by the Inspector.
- iii. The mixture shall be transported from the mixing plant to the point of use and delivered at a temperature between 250° F and 300° F. The asphalt course shall then be uniformly spread to minimize segregation of the mix. Immediately after the mixture has been spread, it shall be thoroughly and uniformly compacted. The mixture shall be compacted to a density of at least ninety-five percent (95%) of the maximum theoretical density.
- iv. Sections of the newly finished pavement shall be protected from traffic until they have become properly hardened. Finished surfaces of the base shall be checked with a 10-foot straightedge, applied parallel to the center of the pavement, and any places that vary more than one-eighth (1/8) of an inch as measured from the bottom of the straightedge to the finished course shall be corrected.

**C. Superpave - Asphalt Concrete Surface Course: Type S 4.75 A, SF 9.5 A, S 9.5 B, S 9.5 C, S 12.5 B, S 12.5 C, & S 12.5 D:**

- i. The Superpave surface course shall be Asphalt Concrete Surface Course, Type S 4.75 A, SF 9.5 A, S 9.5 B, S 9.5 C, S 12.5 B, S 12.5 C, or S 12.5 D shall be produced, delivered, placed, tested, compacted, and accepted in accordance with Sections 609 and 610 of the NCDOT, January 2024, “Standard Specifications for Roads and Structures.”

**D. Asphalt Concrete Binder Course: Type H & HDB:**

- i. The binder course shall be Asphalt Concrete Binder Course, Type H or HDB and shall conform to the general, material, and construction specifications as specified in Section 610 and Section 640 of the NCDOT, January 2024, “Standard Specifications for Roads and Structures.”

**E. Superpave - Asphalt Concrete Intermediate Course: Type I 19.0 B, I 19.0 C, & I 19.0 D:**

- i. The Superpave intermediate course shall be Asphalt Concrete Intermediate Course, Type I 19.0 B, I 19.0 C, or I 19.0 D shall be produced, delivered, placed, tested, compacted, and accepted in accordance with Sections 609 and 610 of the NCDOT, January 2024, "Standard Specifications for Roads and Structures."

F. Asphalt Concrete Base Course: Type HB:

- i. The base course shall be Asphalt Concrete Base Course, Type HB, and shall conform to the general, material, and construction specifications as specified in the Section 610 and Section 630 of the NCDOT, January 2024, "Standard Specifications for Roads and Structures."

G. Superpave - Asphalt Concrete Base Course: Type B 25.0 B, B 25.0 C, & B 37.5C:

- i. The Superpave base course shall be Asphalt Concrete Base Course, Type B 25.0 B, B 25.0 C, or B 37.5C shall be produced, delivered, placed, tested, compacted, and accepted in accordance with Sections 609 and 610 of the NCDOT, January 2024, "Standard Specifications for Roads and Structures."

H. Asphalt Tack Coat:

- i. The tack coat shall be asphalt or asphalt cement and shall meet the general, material, and construction specifications as specified in Section 605 of the NCDOT, January 2024, "Standard Specifications for Roads and Structures." The tack coat shall be uniformly applied at a rate of three hundredths (0.03) gallons per square yard and shall be applied beneath each layer of asphalt plant mix base or pavement to be placed except where a prime coat has been applied, unless otherwise approved or specified by the Engineer. There will be no direct payment for the work covered by this section.

I. Pavement Repair Patch:

- i. Where it is necessary to open cut along or across streets with asphalt surfaces, the pavement shall be replaced with seven (7) inches of asphalt concrete binder course, Type I 19.0 C, and two (2) inches of asphalt concrete surface course, Type S 9.5 B. The replacement surface and/or base shall extend a minimum of 1 foot on each side of the excavated opening. The thickness of the replacement material shall be sufficient to provide a base and surface of equivalent strength to the undisturbed base and surface. The replaced pavement shall meet all applicable material and installation specifications outlined elsewhere in the Contract Documents.

J. Select Granular Material

Select granular material will be paid as Select Granular Material or Select Granular Material, Class III unless the material is obtained from the same source as the borrow material and the contract includes a pay item for Borrow Excavation. When this occurs, select granular material will be paid at the lower bid price per cubic yard for either Borrow Excavation or Select Granular Material / Select Granular Material, Class III.

Select Granular Material and Select Granular Material, Class III will be measured and paid in cubic yards. When undercut excavation is in accordance with Section 226 and the Engineer requires undercut to be backfilled with select granular material, the second sentence of the sixth paragraph of Article 226-3 will not apply, as payment for the backfill will be made as described in this article.

Select granular material will be measured by in place measurement or by weighing material in trucks as determined by the Engineer. When select granular material is weighed in trucks, a unit weight of 135 pcf will be used to convert the weight of select granular material to cubic yards. At the Engineer's discretion, truck measurement may be used instead of weighing material in trucks.

The contract unit prices for Select Granular Material, Select Granular Material, Class III and Borrow Excavation as described above will be full compensation for providing, transporting, handling, placing, compacting and maintaining select granular material.

Payment for this work will be made at the contract unit bid price per cubic yard for "Select Granular Material"

**K. Asphalt Prime Coat:**

- i. The prime coat shall be asphalt and shall meet the general, material, and construction specifications as specified in Section 600 of the NCDOT, January 2024, "Standard Specifications for Roads and Structures." The prime coat shall be uniformly applied, in accordance with the referenced specifications, on existing non-asphalt base courses prior to placement of asphalt pavement, unless otherwise approved or specified by the Engineer.
- ii. Apply prime coat only when the surface to be treated is free of standing water, at proper moisture content and the atmospheric temperature measured at the location of the operation away from artificial heat is 40°F or above for plant mix and 50°F or above for asphalt surface treatment. Do not apply prime coat on a frozen surface or when the weather is foggy or rainy.
- iii. Apply the prime coat at a rate from 0.20 to 0.50 gal/sy. The exact rate for each application will be established by the Engineer before application. The required rate of application of asphalt materials will be based on the volume of material measured at the application temperature. Apply the prime coat material at a temperature that is in accordance with the manufacturer's recommendations or as approved.
- iv. Apply the prime coat only when the base to be treated has been approved. Cover bridge floors, curbs and handrails of structures and all other appurtenances to protect them from tracking or splattering of prime coat. After the prime coat has penetrated sufficiently and when directed, roll the primed surface until all loose base material is thoroughly bonded.
- v. Prime Coat will be paid at the contract unit price per gallon of prime coat material satisfactorily placed on the roadway. Each distributor load of prime coat material delivered and used on the project will be measured. Repair damaged prime coat at no cost to the Town.

**L. Asphalt Plant Mix:**

- i. The production, delivery, and placement of all types of asphalt plant mixed bases, binder, intermediate, and surface courses shall conform to Sections 609 and 610 of the NCDOT, January 2024, "Standard Specifications for Roads and Structures." There will be no direct payment for the work covered by this section.

**M. Milling Existing Asphalt Pavement:**

- i. Where new asphalt overlay ties to existing pavement, the existing pavement shall be milled to ensure a smooth, strong transition. The Inspector shall determine the scope of milling needed at each end of the overlay. There will be no direct payment for the work covered by this section.

**PART 3 - PAYMENT FOR ASPHALT CONCRETES**

**A. Basis of Payment:**

- i. Payment of Asphalt Concrete Surface Course (Type I-1, Type I-2, HDS, S 4.75 A, SF 9.5 A, S 9.5 B, S 9.5 C, S 12.5 B, S 12.5 C, or S 12.5 D), Asphalt Concrete Binder Course (Type H or HDB), Asphalt Concrete Intermediate Course (Type I 19.0 B, I 19.0 C, & I 19.0 D), and Asphalt Concrete Base course (Type HB, B 25.0 B, B 25.0 C, or B 37.5C) shall be paid at the contract unit price bid per square yard at the thickness designated or as indicated in the Itemized Proposal. The bid price shall be full compensation for all furnishing, mixing, hauling, placing and compacting all materials, and for all labor, equipment and incidentals necessary to complete the work.
- ii. Pavement repair patches shall be paid at the contract unit price bid per linear foot or per square yard for "Pavement Repair Patch" as indicated in the Itemized Proposal. The unit price for pavement repair shall be full compensation for all work necessary to repair the pavement and maintain the roadway. The unit price shall include all pavement repair(s) both temporary and permanent, furnishing, hauling, placing, and shaping the asphalt pavement to produce a uniform, smooth driving surface including any temporary or permanent striping. No additional payments will be issued to replace pavement damaged by the Contractor outside of the standard trench opening as defined by the Contract Documents.
- iii. No additional payments will be issued to replace pavement damaged by the Contractor outside of the standard trench opening as defined by the Contract Documents.
- iv. If the thickness of the asphalt concrete is suspected to be less than specified on the plans and Itemized Proposal, the Engineer shall have corings performed to determine the thickness in place. Corings shall be made at five-hundred (500) foot intervals or as determined by the Engineer. If the Contractor desires additional corings, the Engineer's material testing firm shall perform additional corings at the Contractor's expense. If the asphalt concrete is found to be thicker than specified, the Contractor shall not be compensated for asphalt concrete placed to a thickness above and beyond the specified thickness. If the asphalt concrete is found to be thinner than specified, the Engineer shall determine if: 1) more asphalt concrete must be placed to bring the thickness to the specified thickness or 2) the unit price shall be adjusted down to compensate the Owner for material which was not placed. The method of adjustment will be based on the ratio of thickness installed to the thickness specified.

## **PART 4 - CONSTRUCTION METHODS**

### **A. Subgrade:**

- i. **Preparation of Subgrade:** The subgrade shall be shaped to the lines, grades and typical sections established by the Owner. All unsuitable material, boulders and all vegetative matter shall be removed and replaced with suitable material. Suitable material shall come from sources approved by the Owner.
- ii. **Compaction of Subgrade:** The top one (1) foot of subgrade and the entire base course shall be compacted to a density of 100 PERCENT maximum dry density as determined by AASHTO method T99. For that portion of fill under roadways and extending beyond the back of curb, compact to a density of NO LESS THAN 95 PERCENT maximum dry density as determined by AASHTO method T99. Backfill material shall be placed in lifts of eight (8) inches or less of compacted soil.
  - a) The subgrade shall be compacted at a moisture content which is approximately that required to produce the maximum density indicated by the above test method.
  - b) The Contractor shall dry or add moisture to the subgrade when required to provide a uniformly compacted and acceptable subgrade.

### **B. Proofrolling:**

- i. **Equipment:** The equipment shall consist of a loaded tandem-axle dump truck or similar pneumatic-tired equipment of a minimum ten (10) ton static weight. The Contractor is responsible for providing the equipment necessary in order to perform proofrolling at no additional cost to the Owner.
- ii. **Method:** After the roadbed has been completed within five hundredths (0.05) feet of final grade, the roadbed shall then be compacted and tested with two (2) or more coverages unless otherwise directed by the Owner, using a heavy pneumatic-tired roller meeting the requirements listed above. A coverage is considered that stage in the rolling procedure when the entire width of the area being proofrolled has been in contact with the pneumatic tires of the roller. The roller shall be operated in a systematic manner so that the number of coverages over all areas to be proofrolled can be readily determined and recorded.
  - a) The equipment shall be operated at a speed between two and one-half (2-1/2) and three and one-half (3-1/2) miles per hour. All proofrolling procedures shall be followed to the satisfaction of the Inspector on site during the proofrolling.
- iii. **Corrective Action:** If it becomes necessary to take corrective action, such as, but not limited to, underdrain installation, undercut and backfill of unsuitable materials, and aeration of excessively wet material in areas that have been proofrolled, these areas shall be proofrolled again following the completion of the necessary corrections. If the corrections are necessary due to the negligence of the Contractor or weather, the corrective work and additional proofrolling shall be performed by the Contractor at no cost to the Owner.

### **C. Placing Asphalt Concrete Mixture:**

- i. The mixture shall be spread by means of a mechanical self-contained, power-propelled paver, capable of spreading the mixtures, without segregation, to the required grade and confine the mixture to true lines without the use of stationary side forms.
- ii. The term "screed" includes any "strike-off" device operated by cutting, crowding or other practical action which is effective on the mixtures at workable temperature without tearing, shoving or gouging and which produces a finished surface of the evenness and texture specified.
- iii. Longitudinal and transverse joints shall be made in a careful manner. Well bonded and sealed joints are required. If necessary to obtain this result, joints shall be painted with hot asphalt cement and heated. After the base course mixture has been spread and before roller compaction is started, the surface shall be checked and all flat spots and irregular areas removed and replaced with satisfactory material. Irregularities in grade shall be corrected before compacting.
- iv. Contact surfaces of headers, curbing, gutters, manholes, etc. shall be painted with an approved asphalt cement just before the base mixture is placed against them. All exposed longitudinal edges of the surface course shall be "set up" by tamping with a rake or lute at proper height and level to receive the maximum compression under rolling.
- v. Asphalt mixture shall not be produced or placed during rainy weather, when the subgrade or base course shows excess moisture, or when the air temperature is less than 40° F. in the shade away from artificial heat, unless otherwise permitted by the Owner. In applications involving less than one inch of asphalt, the temperature shall be at least 50° F. Should rain begin during paving operations, the Owner assumes no responsibility for asphalt left on the trucks at the time that the paving operation is halted.

**D. Protection of Material:**

- i. The Contractor shall provide and have ready for use at all times enough tarpaulins or covers for use in case of rain, chilly wind, or other delay, for the purpose of covering or protecting any material dumped but not spread.

**E. Compacting Asphalt Concrete Mixture:**

- i. After placing, the mixture shall be thoroughly and uniformly compacted with tandem rollers of eight (8) or ten (10) ton model weighing not less than 250 pounds per inch width of roller tread. The number and weight of rollers shall be sufficient to compact the mixture to the required density while it is still in a workable condition.
- ii. Each roller shall be operated by a competent, experienced operator and must be kept in continuous operation as nearly as practicable. Rolling shall start longitudinally at the outer edges and proceed toward the center of the pavement, overlapping on successive trips by at least one half (1/2) the width of the roller.
- iii. The speed of the roller shall be at all times slow enough to avoid displacement of the hot mixture as a result of reversing. Any displacement shall be immediately corrected. Rolling shall proceed at a rate not in excess of 500 square yards per hour per roller and shall continue until no further visible compaction is obtainable and all roller marks have

been eliminated. Rolling shall compact the mixture to at least ninety-four (94) percent of the laboratory density as determined by the Marshall test method.

- iv. The asphalt concrete mixture shall have a temperature at the time of delivery of between 250° F and 300° F and shall be rolled with a temperature of not less than 235° F.
- v. Rolling shall be started as soon as the mixture will bear the roller without undue misplacement or hairline cracking. Delays in rolling hand raked mixture will not be tolerated.
- vi. To prevent adhesion of the mixture to the roller, the wheels shall be kept moistened with water. Places not accessible to the roller shall be thoroughly compacted with hot tamps.

**F. Compacted Densities:**

- i. Unless otherwise noted compaction and density control of Asphalt Pavements shall be in accordance with the requirements of Articles 609-9, 610-10, and 610-11, as well as Sections 609 and 610, of the NCDOT, January 2024, "Standard Specifications for Roads and Structures." There will be no direct payment for the work covered by this section.
  - a) **Asphalt Concrete Binder Course (Type H or Type HDB):** The asphalt concrete binder course, Type H, shall be compacted to a density of at least ninety-four percent (94%) of the laboratory density as determined by the Marshall method of test.
  - b) **Asphalt Concrete Surface Course (Type I-1, Type I-2 or Type HDS):** The asphalt concrete surface course, Type I-1 or Type I-2 shall be compacted to a density of at least ninety-five percent (95%) of the laboratory density as determined by the Marshall method of test.
  - c) **Asphalt Concrete Base Course (Type HB):** The asphalt concrete base course, Type HB shall be compacted to a density of at least ninety percent (90%) of the laboratory density as determined by the Marshall method of test.

**G. Plant Tickets:**

- i. The number of batches and total weight of all loads of mixture shall be recorded in duplicate upon plant ticket forms. With each load delivered to the work, the truck driver shall present one copy of the plant ticket to the Inspector. The driver shall retain one copy for the Contractor. Should the Engineer decide to provide a plant inspector, he/she shall keep the stub copy. The weights to be included in the estimate shall be the total of the tickets delivered by the truck driver to the Inspector at the work site. At any time, for the purpose of checking the weighing equipment at the plant, the Owner may direct the Contractor to weigh or cause to be weighed on tested and approved platform scales at the Contractor's expense the contents of any truckload that is to be delivered to the work site.

**H. Protection of Pavement:**

- i. When edges are not protected, planks of the same thickness shall be placed adjacent to longitudinal or transverse joints until the surface course is completed. Sections of newly finished pavements shall be protected from traffic until they have become properly hardened by temperature cooling.

## **PART 5 - REMOVAL OF EXISTING PAVEMENT**

- A. The work covered by this section consists of the removal and disposal of the portland cement concrete or bituminous components and any stone subbase of an existing pavement structure, including paved shoulders, within the limits shown on the plans or as directed by the Engineer. This work shall also include the removal of any temporary roadway pavement structure placed during construction to serve as a detour. The work covered by this section shall not include the removal and disposal of sidewalks, driveways, and curb and gutter, which are covered in the “Unclassified Excavation” subsection.
- B. Where concrete pavement is to be removed, the Contractor shall provide a neat edge along the pavement being obtained by sawcutting the pavement at least two (2) inches deep or greater as required to provide a neat, clean break from the pavement to remain, before breaking the adjacent pavement away. The pavement shall be milled to the specified depth as indicated in the Contract Documents. The disposal of all materials resulting from the pavement removal shall be done as provided herein.
- C. Insofar as possible, all materials shall be used in the construction of embankments, but such use shall be subject to the approval of the Engineer.
- D. Milling asphalt pavement shall be in accordance with Section 612 of the NCDOT, January 2024, “Standard Specifications for Roads and Structures.”
- E. All materials, which cannot be used in the work, shall be disposed of off site of the right of way in waste areas provided by the Contractor.

F. **Basis of Payment:**

- i. The quantity of pavement removed will be paid for at the contract unit price bid per square yard for “Removal of Existing Pavement” as indicated in the Itemized Proposal. Unless otherwise indicated the quantity of pavement to be removed will be determined by actual surface area measurement of the pavement prior to its removal. The unit price and payments shall be full compensation for all work covered by this section, including but not be limited to the satisfactory sawcutting, milling, removal, hauling, and disposal of existing pavement and existing stone sub base.
- ii. The quantity of paving to be milled shall be paid for at the contract unit price bid per square yard at the specified depth for “Milling Asphalt Pavement” as indicated in the Itemized Proposal. Unless otherwise indicated the quantity of milling will be determined by actual surface area measurement of the pavement prior to its removal. The unit price and payments shall be full compensation for all work covered by this section, including

but not be limited to the milling and/or remilling of the pavement, cleaning the milled surface, loading, hauling, and disposal of all milled material.

## **PART 6 - ASPHALT RESURFACING**

### **A. General:**

- i. Asphalt Resurfacing shall meet all applicable material and installation specifications outlined elsewhere in the Contract Documents.
- ii. Should construction take place near signalized intersections, the Contractor shall contact the NCDOT Division Traffic Engineer to schedule the field location of any traffic signal conflicts. The Contractor shall notify the Engineer of any potential conflict prior to construction. The Engineer shall be responsible for coordinating the conflict relocation with NCDOT and the Contractor during construction.
- iii. Prior to beginning construction, the contractor shall provide the engineer with a complete construction schedule detailing all construction activities. The Contractor shall also prepare a weekly schedule detailing the construction activities planned for the following week. This schedule shall be presented to the Inspector before Friday, 12:00 noon of the week preceding the effective date of the schedule. Weekly meetings may be required to review construction activities as directed by the Engineer.
- iv. In the event that all vehicles are not removed from the construction area despite timely delivery of the construction notice letter, the Contractor shall attempt to contact vehicle owners by other means in an effort to find the vehicle's owner and have the vehicle relocated. If the Contractor is unsuccessful they shall contact the Engineer and provide the make, model, and license plate number of the vehicle as well as the vehicle location. The Engineer shall try contacting the vehicle owner and if unsuccessful shall contact a designated towing company to move the vehicle out of the construction area, to a neighboring street, at the Town of Holly Spring's expense.
- v. Construction traffic control shall be provided on each street by the Contractor in strict conformance with NCDOT "North Carolina Supplement to the MUTCD," the MUTCD, the Contract Documents, or as directed by the Engineer. No work shall begin on any street without the proper traffic control measures in place.
- vi. Construction traffic control shall be installed and practiced as a means to inform drivers that asphalt tack coat is being placed on the road surface.
- vii. The Contractor shall be responsible for spraying or burning all weeds growing on and in the streets. The Contractor shall be responsible for removing and properly disposing of the dead weeds as carefully cleaning each street before beginning asphalt concrete construction operations. There will be no separate compensation for this work.
- viii. Asphalt resurfacing projects shall have a maximum acceptable elevation difference from the top of the resurfacing layer to the adjacent gutter of 1.5 inch. The Owner shall not accept any newly resurfaced streets exceeding the maximum elevation difference. Should it be determined that the resurfacing layer is more than 1.5 inch higher than the gutter elevation the resurfacing shall be removed and replaced or remedied as directed by the Engineer at the Contractor's expense.

- ix. The Contractor shall allow time for the inspection of areas, as needed, by a qualified testing firm as directed by the Engineer.
- x. The Contractor shall construct all improvements so as to create and/or maintain positive drainage.

**B. Materials:**

i. **Geotextile Interlayer Installation:**

- a) The geotextile interlayer shall be a needlepunched, nonwoven engineering fabric made of polypropylene and staple fiber; calendared on one side. It shall be resistant to ultraviolet degradation and have the following properties:

	<b>Typical</b>	<b>Test</b>
Grab Tensile Strength (lbs)	101	ASTM D 4632
Grab Elongation (%)	50	ASTM D 4632
Puncture Strength (lbs)	65	ASTM D 4833
Mullen Burst (psi)	220	ASTM D 3786
Trapezoidal Tear (lbs)	45	ASTM D 4533
Mass Per Unit Area (oz/sq yd)	4.1	ASTM D 5261
Thickness (mils)	35	ASTM D 5199
Melting Point (°F)	Greater than 150	ASTM D 276
UV Resistance (%)	70 at 500 hrs	ASTM D 4355

- b) For the tack coat, uncut asphalt cements are preferred, however, cationic or anionic emulsions may be used. For asphalt cements the minimum temperature shall be 150° C, but to avoid damage to the fabric the distributor tank temperatures shall not exceed 160° C. When asphalt emulsions are used, the emulsion shall be cured prior to placing the fabric.
- c) The engineering fabric shall be placed onto the asphalt sealant, calendared side up, prior to the time the asphalt has cooled and lost tackiness. Wrinkles or folds in excess of 1 inch shall be slit and laid flat. In order to maximize fabric contact with the pavement surface, blooming or pneumatic rolling will be required. The fabric joints shall be overlapped sufficiently to ensure full closure of the joint, but should not exceed 6 inches. To prevent edge pickup by the paver, transverse joints shall be lapped in the direction of paving. A second application of sealant to the fabric overlaps will be required as directed by the Engineer.
- d) Quickly following the fabric installation, the hot-mix overlay should be placed evenly. Should the asphalt bleed through the fabric causing construction problems prior to overlay placement, the affected areas shall be blotted by spreading sand. Turning the paver and other vehicles shall be gradual and kept to a minimum to avoid movement of, or damage to the sealant saturated fabric.
- e) **Basis of Payment:** Payment shall be made under the contract unit price bid per square yard for the actual amount of "Geotextile Interlayer" as indicated in the Itemized Proposal and shall constitute full compensation for furnishing all labor, material,

equipment, and performing all operations in connection with placing the geotextile interlayer as shown on the plans, Contract Documents, or as directed by the Engineer.

ii. Asphalt Surface Treatment:

- a) Chip seal shall be “straight seal” with 78M stone in accordance with Section 660 of the NCDOT, January 2024, “Standard Specifications for Roads and Structures.” Careful attention shall be given to surface preparation (as specified in Section 660) under chip sealing.
- b) Cleanup: Excess aggregate resulting from straight seal shall be collected and removed from the construction site either before resurfacing occurs or one (1) week after the straight seal is applied, whichever occurs first.
- c) Basis of Payment: Payment shall be made under the contract unit price bid per square yard at the specified type of seal coat for the actual amount of “Asphalt Surface Treatment” as indicated in the Itemized Proposal and shall constitute full compensation for furnishing all labor, material, equipment, and performing all operations in connection with the placement and cleanup of the asphalt surface treatment as shown on the plans, Contract Documents, or as directed by the Engineer.

iii. Leveling Course

- a) In asphalt resurfacing projects a leveling course of Asphalt Concrete Surface Course (Type S 9.5 C) shall be hand-placed in areas where the pavement is depressed, sunken or uneven, and its surface grade varies from surrounding elevation by one (1) inch or greater. Leveling asphalt shall be placed only after authorization for placement by the Engineer.
- b) Basis of Payment: Payment for this work shall be included in the unit price per ton for “Asphalt Leveling Course” as indicated in the Itemized Proposal. Plant tickets should be submitted with the pay request, and each ticket should include a date, time of delivery, signature of recipient, location of placement by station, and street name. Only those tickets with the above information will be approved.

**PART 7 - Asphalt Concrete Plant Mix Pavements**

**610 – 1 DESCRIPTION**

The work covered by this section consists of the production, delivery, placement and compaction of Superpave hot mix asphalt base, intermediate, and surface courses.

The work shall include one or more courses of asphalt mixture constructed on a prepared surface in accordance with these specifications and any additional requirements of Division 6 of the Standard Specifications which may be applicable; and in reasonably close conformity with the lines, grads, thickness, and typical sections shown on the plans or established by the Engineer. The gradation and design criteria requirements for the various mix types are given in Table 1 and Table 2 of these provisions.

Where the asphalt plant mix incorporates reclaimed asphalt pavement materials, the plant mix will be considered to be a recycled asphalt plant mix and the provisions of Section 611 of the Standard Specifications, except as modified herein, will be applicable.

The asphalt mixture shall be produced, placed, tested, and accepted in accordance with the Project Special Provision "Section 609, Quality Management System for Asphalt Pavements (Superpave Version)".

## 610-2 MATERIALS

- A. Asphalt Binder – Asphalt binder materials shall be Performance Graded (PG) asphalt binder materials conforming to the requirements of AASHTO MP 1 and applicable requirements of Section 620 and Section 1020 of the Standard Specifications, except as modified herein. Testing of the asphalt binder shall be performed by the supplier prior to delivery to the asphalt plant. Air blown asphalt will not be permitted. Where modification of the asphalt binder is required to meet the specified grade, the modification shall be accomplished using a SBS or SB polymer.
- B. Aggregate – Coarse and Fine aggregate shall conform to the requirements of Section 1005 and Section 1012 of the Standard Specifications except as modified herein. The consensus property criteria in Table 2 apply to the coarse aggregate blend or fine aggregate blend. Source property criteria apply to individual aggregate sources.

Standard size coarse aggregate meeting the requirements of Table 1005-1 of the Standard Specification and these provisions shall be used unless otherwise approved by the Engineer. The coarse aggregate blend shall meet the requirements of Table 2 for coarse aggregate angularity (CAA) when tested in accordance with ASTM D 5821. NOTE: 95/90 denotes that at least 95% of the coarse aggregate (+N. 4) (4.75 mm) has one fractured face and at least 90% has two or more fractured faces.

The fine aggregate blend shall have a minimum fine aggregate angularity (FAA) as indicated in Table 2 when tested in accordance with AASHTO TP 33, Method A. The fine aggregate blend shall have a minimum sand equivalent (SE) percentage as indicated in Table 2 when tested in accordance with AASHTO T 176.

Flat and Elongated Particles in the coarse aggregate blend when tested in accordance with ASTM D 4791 (Section 8.4) on the No. 4 (4.75 mm) sieve and larger shall be maximum of 10% by weight of flat and elongated particles with a 5:1 aspect ratio (maximum to minimum) for all pavement types except there is no requirement for Type S 4.75A, Type SF 9.5A, Type S 9.5 A and type S 9.5B (See Table 2, F&E). Resistance to Abrasion of each individual coarse aggregate by use of the L.A. Abrasion machine when tested in accordance with AASHTO T96 shall be a maximum of 55%. Stone screenings shall be produced from stone which has a maximum percentage of wear of 55% when tested in accordance with AASHTO T 96 using test grading A.

Soundness of individual aggregate sources by use of sodium sulfate when tested in accordance with AASHTO T 104 for 5 cycles shall be a maximum of 15%. Clay Lumps and Friable particles in individual aggregate sources when tested in accordance with AASHTO T 112 shall be a maximum of 0.3%. Mineral Filler shall conform to the requirements of AASHTO M17.

- C. Reclaimed Asphalt Pavement – Reclaimed Asphalt Materials (RAP) shall conform to Section 611 of the Standard Specifications as modified herein.
- D. Reclaimed Asphalt Shingles – Reclaimed asphalt shingle (RAS) material shall conform to Section 611 of the Standard Specifications as modified herein.

E. Anti-strip Additive – An anti-strip additive shall be used in all Superpave asphalt mixes. It may be hydrated lime or a chemical additive or a combination of both. The mixture shall produce the minimum tensile strength ratio (TSR) value as specified in TABLE 2 of these provisions for both mix design and production tests, unless otherwise approved by the Engineer. The TSR value shall be determined in accordance with AASHTO T 283, as modified by the Department. No Freeze-Thaw cycle is required. Mix Design TSR tests shall be conducted using the same materials that are to be used in mix production and shall be conducted in accordance with procedures outlined in Section 609 as modified herein.

When a chemical additive is used, it shall be added to the virgin asphalt binder prior to introduction into the mix in accordance with Section 622 of the Standard Specifications Chemical additive shall be added at a rate of not less than 0.25% by weight of asphalt binder. Any chemical additive or particular concentration of chemical additive found to be harmful to the asphalt material or which causes the performance grading of the original asphalt binder to be out of specifications for the grade required shall not be used.

When hydrated lime is used, it shall conform to the requirements of ASTM C977. Hydrated lime shall be added at a rate of not less than 1.0 percent by weight of total dry aggregate.

#### 610-3 COMPOSITION OF MIXTURES (JOB MIX FORMULA)

- A. General – The composition of the asphalt plant mix (including the mix design and job mix formula) shall be established in accordance with Section 610-3 of the Standard Specifications as modified herein.
- B. Mix Design Criteria – Asphalt Concrete mixtures shall conform to the gradation requirements and design criteria in table 1 and table 2 for the mix type specified. The mix type designates the nominal maximum aggregate size and the design traffic level. Nominal maximum size is defined as one standard sieve size larger than the first sieve to retain more than 10 percent aggregate. Maximum sieve size is defined as one standard sieve size larger than the nominal maximum size.

Table 1 provides gradation control points that shall be adhered to in the development of the design aggregate structure for each mix type. Aggregate gradations shall be equal to or pass between the control points, unless approved in writing by the Engineer.

Table 2 provides the aggregate properties and mix design criteria for the various mix types.

- C. Mix Design Procedures and Requirements – The proposed Superpave Mix Design Data shall be prepared in accordance with AASHTO PP 28 as modified by the Department and shall include but not limited to the following information.
  - 1. Source and percentage of each aggregate component to be used in the design aggregate blend gradation, including RAP and RAS.
  - 2. Percentage of asphalt binder in Rap and RAS.
  - 3. Average gradation of each aggregates component, including Rap and RAS.
  - 4. The following material properties: bulk specific gravity (Gsb), apparent specific gravity (Gsa) and absorption of the individual aggregate components to be used when tested in accordance with AASHTO T84 and T 85, except that the effective bulk specific gravity (Gse) of the RAP and RAS aggregate determined by AASHTO T 209 shall be reported. Coarse aggregate angularity, fine aggregate angularity, flat and elongated percentages, and sand equivalent for h total aggregate blend shall be reported.
  - 5. Source(s), modification method, and percent of modifier by weight of the asphalt binder, if modified.

6. The supplier, source, grade, and equi-viscous mixing and compaction temperatures of the asphalt binder. Equi-viscous temperatures shall be determined using the rotational viscometer in accordance with ASTM D 4402 corresponding to the recommended Superpave viscosity ranges:

Range for mixing	= 0.150 to 0.190 Pa-s
Range for compaction	= 0.250 to 0.310 Pa-s

When PG 76-22 or modified binders are used, the temperatures shall be based on the documented suppliers recommendations.

7. Name of product, manufacturer, shipping point, grade, and percentage of anti-strip additive used in mix design. The TSR data determined in accordance with AASHTO T 283 as modified by the Department.

8. Target value for percent passing each standard sieve for the design aggregate gradation. The data will show the percent passing for the 50.0, 37.5, 25.0, 19.0, 12.5, 9.5, 4.75, 2.36, 1.18, 0.600, 0.300, 0.150 and 0.075 mm sieves applicable for the specified mix type. The percentages shall be in units of one percent of aggregate passing, except the 0.075 mm sieve, which shall be in units to one-tenth of one percent. Percentages shall be based on the dry weight of aggregate determined in accordance with AASHTO T 11 and T 27.

9. The volumetric properties of the compacted mixture calculated on the basis of the mixture's maximum specific gravity determined by AASHTO T 209 (mixture must be agreed in accordance with AASHTO PP2) and the bulk specific gravity of the specimens determined by AASHTO T 166, Method A, for each asphalt content tested. Properties shall be determined and reported in accordance with the requirements of AASHTO PP 28 except as modified herein, and Department Superpave Mix Design Policies and Procedures.

10. Graphical plots of the percent asphalt binder by total weight of mix (Pb) versus the following properties (all at the design number of gyrations Ndes, specified).

- a) SGC bulk gravity Gmb @Ndes
- b) %Gmm @Nini
- c) Voids in total Mix (VTM)
- d) Voids Filled With Asphalt (VFA)
- e) Voids in Mineral Aggregate (VMA)
- f) % Compaction versus Log of Gyrations

11. Graphical plot of the design aggregate structure (design blend) on FHWA 0.45 power chart showing the applicable Superpave control points, restricted zone, and maximum density line. All standard sieves shall be plotted.

12. The proposed target value of asphalt binder content by weight of total mix and specification design properties at that percentage.

When the mix design is submitted to the Mix Design Engineer the contractor shall also submit TSR specimens and data to the appropriate Division QA Laboratory in accordance with Department policies and procedures. In addition, when requested by the Engineer, the Contractor shall submit to the Department's Materials & Tests unit in Raleigh, representative samples of each mix component, including RAP, RAS, mineral filler, asphalt binder, chemical anti-strip additive or hydrated lime as noted below. Provide the samples at least 10 days prior to beginning placement of mixture.

250 lb. (115 kg) of each coarse aggregate  
150 lb. (70 kg) of each intermediate and fine aggregate  
150 lb (70 kg) Rap and/or RAS  
1 gal. (4 liters) of mineral filler and/or baghouse fines  
2 gal. (8 liters) of asphalt binder  
1 gal. (4 liters) of hydrated lime  
1 pint (0.5 liters) of chemical anti-strip additive

When the submitted aggregate samples are combined according to the Contractor's proposed blend percentages, the combined gradation shall be within the gradation band defined by the design criteria specified in Table 1 for each sieve or the samples will not be considered representative and new samples may be required.

**TABLE 1**  
**SUPERPAVE AGGREGATE GRADATION REQUIREMENTS**

Standard Sieve (mm)	Percent Passing Criteria (Control Points)											
	Nominal Maximum Sieve Size											
	4.75 mm (a)		9.5 mm		12.5 mm		19.0 mm		25.0 mm		37.5 mm	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max	Min.	Max.
50.0												100.0
37.5										100.0	90.0	100.0
25.0						100.0			90.0	100.0		
19.0					100.0	90.0	100.0			90.0		
12.5	100.0		100.0		90.0	100.0		90.0				
9.50	95.0	100.0	90.0	100.0		90.0						
4.75	90.0	100.0		90.0								
2.36	65.0	90.0	32.0 (b)	67.0 (b)	28.0	58.0	23.0	49.0	190	45.0	15.0	41.0
1.18	30.0	60.0										
0.075	4.0	8.0	4.0	8.0	4.0	8.0	3.0	8.0	3.0	7.0	3.0	6.0

	Restricted Zone Guidelines											
4.75								39.5	39.5	34.7	34.7	
2.36			47.2	47.2	39.1	39.1	34.6	34.6	26.8	30.8	23.3	27.3
1.18			31.6	37.6	25.6	31.6	22.3	28.3	18.1	24.1	15.5	21.5
0.600			23.5	27.5	19.1	23.1	16.7	20.7	13.6	17.6	11.7	15.7
0.300			18.7	18.7	15.5	15.5	13.7	13.7	11.4	11.4	10.0	10.0

(a) For Type S 4.75A, a minimum of 50% of the aggregate components shall be manufactured material from the crushing of stone.

(b) For Type SF 9.5A, the percent passing the 2.36 mm sieve shall be a Minimum of 60% and a maximum of 70%

**TABLE 2**  
**SUPERPAVE MIX DESIGN CRITERIA**

Mix type	Design ESAL's (Millions) (a)	Binder PG Grade (b)	Compaction Levels No. Gyrations @			Volumetric Properties ©				Consensus Aggregate Properties			
			<sup>N</sup> ini	<sup>N</sup> des	<sup>N</sup> max	VMA	VFA	VTM	<sup>%G</sup> mm@ <sup>N</sup> ini	CAA	FAA	SE	F&E
						% Min.	%-%	%-%	%	% Min.	% Min.	% Min.	% Max.
S-4.75 A	<0.3	64-22	6		75	20.0	--	7.0-15.0	--	--	40	40	--
SF-9.5A	<0.3	64-22	6	50	75	16.0	70-80	4.0-6.0	<input type="checkbox"/> 91.5	75 / -	40	40	--
S-95A	<0.3	64-22	6	50	75	15.0	70-80	3.0-5.0	<input type="checkbox"/> 91.5	75 / -	40	40	--
S-9.5B	0.3 – 3	64-22	7	75	115	15.0	65-80	3.0-5.0	<input type="checkbox"/> 90.5	75 / -	40	40	--
S-9.5C	3- 30	70-22	8	100	160	15.0	65-76	3.0-5.0	<input type="checkbox"/> 89.0	95/90	45	45	10
S012.5B	<3	64-22	7	75	115	14.0	65-78	3.0-5.0	<input type="checkbox"/> 90.5	75 / -	40	40	10
S12.5C	3 – 30	70-22	8	100	160	14.0	65-75	3.0-5.0	<input type="checkbox"/> 89.0	95/90	45	45	10
S-12.5D	>30	76-22	9	125	205	14.0	65-75	3.0-5.0	<input type="checkbox"/> 89.0	100/00	45	50	10
I-19.0B	<3	64-22	7	75	115	13.0	65-78	3.0-5.0	<input type="checkbox"/> 90.5	75 / -	40	40	10
I-19.0C	3 – 30	64-22	8	100	160	13.0	65-75	3.0-5.0	<input type="checkbox"/> 89.0	95/90	45	45	10
I-19.0D	>30	70-22	9	125	205	13.0	65-75	3.0-5.0	<input type="checkbox"/> 89.0	100/100	45	50	10
B-25.0B	<3	64-22	7	75	115	12.0	65-78	3.0-5.0	<input type="checkbox"/> 90.5	75 / -	40	40	10
B-25.0C	>3	64-22	8	10	160	12.0	65-75	3.0-5.0	<input type="checkbox"/> 89.0	95/90	45	45	10
B37.5C	>3	64-22	8	100	160	11.0	65-75	3.0-5.0	<input type="checkbox"/> 89.0	95/90	45	45	10
All Mix Types	Design Parameter					Design Criteria <input type="checkbox"/> 98.0% (d) 0.6 – 1.4 85% Min. (e)							
	1. %Gmm @ Nmax 2. Dust to Binder Ratio (P0.075/Pbe) 3. Tensile Strength Ratio (TSR)												

NOTES: (a) Based on a 20 year design period.

(b) When Recycled Mixes are used, the binder grade to be added shall be in accordance with Article 610-3 (A) of these provisions.

(c) Volumetric properties based on specimens compacted to Ndes as modified by the Department.

(d) Based on specimens compacted to N<sub>max</sub> at selected optimum asphalt binder content.

(e) AASHTO T 283 Modified (No Freeze-Thaw Cycle required). TSR for Types S 4.75, B-25.0 and B-37.5 shall be 80% minimum.

(f) Mix Design Criteria for Types S 4.75A and SF 9.5A may be modified, subject to approval by the Engineer.

## 610-4 CONSTRUCTION REQUIREMENTS

A. Asphalt Mixture Production – Asphalt mixture production shall be in accordance with Article 610-5 of the Standard Specifications as modified herein. The mixing temperature at the asphalt plant shall be established on the job mix formula between 265<sup>0</sup>F (130<sup>0</sup>C) and 350<sup>0</sup>F (175<sup>0</sup>C) or as approved by the Engineer. Unless otherwise requested by the Contractor, the JMF temperature will be established as follows:

Mixes with Binder grade:	PG 64-22 300 <sup>0</sup> F (149 <sup>0</sup> C)
	PG 70-22 315 <sup>0</sup> F (157 <sup>0</sup> C)
	PG 76-22 335 <sup>0</sup> F (168 <sup>0</sup> C)

The temperature of the mix in the hauling vehicle at the asphalt plant shall be within +/- 150 F (=- 8<sup>0</sup>C) of the JMF temperature. The temperature of the mix immediately prior to discharge from the hauling vehicle shall be within +15<sup>0</sup>F (-8<sup>0</sup>F) to -25<sup>0</sup>F (-14<sup>0</sup>C) of the JMF temperature.

B. Storage System – Storage facilities shall be in accordance with applicable provisions of Section 610 of the Standard Specifications.

C. Hauling of Asphalt Mixture – Hauling of asphalt mixture shall be in accordance with Article 610-8 of the Standard Specifications as modified herein.

D. Spreading and Finishing - Spreading and finishing of the asphalt mixture shall be in accordance with Article 610-9 of the Standard Specification, except as modified herein.

Asphalt mixtures shall not be produced or placed during rainy weather, when the subgrade or base course is frozen, or when the moisture on the surface to be paved would prevent proper bond. Asphalt material shall not be placed when the air temperature, measured in the shade away from artificial heat at the location of the paving operation and the road surface temperature in the shade is less than the following temperatures.

Road Surface <u>Asphalt Concrete Type</u> <u>Temperature</u>	Air <u>Temperature</u>
ACBC, Types B 25.0B, & C, B 37.5C 35 <sup>0</sup> F (2 <sup>0</sup> C)	35 <sup>0</sup> F (2 <sup>0</sup> C)
ACIC, Types I 19.0B, C, & D 35 <sup>0</sup> F (2 <sup>0</sup> C)	35 <sup>0</sup> F (2 <sup>0</sup> C)
ACSC, Types S 4.75A, SF 9.5A 50 <sup>0</sup> F (10 <sup>0</sup> C) S 9.5A, & B, S 12.5 B	40 <sup>0</sup> F (5 <sup>0</sup> C)
ACSC, Types S 9.5C, S 12.5C & D 50 <sup>0</sup> F (10 <sup>0</sup> C)	50 <sup>0</sup> F (10 <sup>0</sup> C)

In addition, surface course material which is to be the final layer of pavement shall not be placed between December 15 and March 16.

As an exception to the above, when in any day's operations, the placement of a layer of asphalt base course material or intermediate course material 2" (50 mm) or greater in thickness has started, it may continue until the air temperature drop to 32°F (0°C).

No plant mix base course or intermediate course shall be placed that will not be covered with surface course during the same calendar year or within 15 days of placement if the plant mix is placed in January or February. Failure of the Contractor to cover the plant mix as required above will result in the Engineer notifying the Contractor in writing to cover the plant mix with a sand seal. The sand seal shall be applied in accordance with the requirements of Section 660 of the Standard Specifications, except that Articles 660-3, 660-11, and 660-12 will not apply. This work shall be performed by the Contractor at no cost to the Department. In the event the Contractor fails to apply the sand seal within 72 hours of receipt of such notice, the Engineer may proceed to have such work performed with Department forces and equipment. The cost of such work performed by Department forces will be deducted from monies due or to become due to the Contractor.

E. Compaction and Density Control – Compaction and density control of the pavement shall be in accordance with the requirements of Articles 609-9, 610-10, and 610-11 of the Standard Specifications, except as modified herein.

The asphalt plant mix shall be compacted to at least the minimum percentage of the maximum specific gravity (AASHTO T 209) listed in Table 3 below, except as noted. Density sampling and testing shall be performed on all pavement widening 4.0 fees (1.2 m) or greater, on uniform width paved shoulders 2.0 feet (0.6 m) wide or greater, and on all full width travel lane pavements, including normal travel lanes, turn lanes, collector lanes, ramps and loops, and temporary pavements, unless otherwise approved.

For base and intermediate mix types (surface mix types not included) used to widen pavements less than 4.0 feet (1.2 m) and for all mix types used in intersections (exclusive of full width travel lanes), tapers, and irregular areas, a specified density will not be required provided the pavement is compacted using approved equipment and procedures. Irregular areas are defined as areas which have irregular shapes which make them difficult to compact with conventional asphalt rollers.

**TABLE 3**

MIX TYPE	MINIMUM % OF <sup>G</sup> mm (AASHTO T 209)
S 4.75A	85.0*
SF 9.5A	92.0*
All Other Mix Types Listed in Table 2	92.0

\*All pavements utilizing S 4.75A and SF 9.5A mixtures will be accepted for density under Article 105-3 of the Standard Specifications.

- F. Joints – Construction of joints shall be in accordance with Article 610-12 of the Standard Specifications.
- G. Surface Smoothness Requirements – The surface of the pavement after compaction shall conform to the requirements of Article 610-13 of the Standard Specifications except in the case where the Project Special Provision titled, “FINAL SURFACE TESTING – ASPHALT PAVEMENTS” is included in the contract. In that case, the project special provision shall apply.
- H. Maintenance – Maintenance of the completed pavement shall be in accordance with Article 610-4 of the Standard Specifications.

#### 610-5           METHOD OF MEASUREMENT

The quantity of hot mix asphalt pavement to be paid for will be the actual number of tons (metric tons) of each type of hot mix asphalt pavement which has been incorporated into the completed and accepted work. The hot mix asphalt pavement will be measured by being weighed in trucks on certified platform scales or other certified weighing devices.

#### 610-6           BASIS OF PAYMENT

The quantity of hot mix asphalt pavement, measured as provided above, will be paid for at the contract unit prices per ton (metric ton) for “Asphalt Concrete Surface Courses, Types S 4.75A, SF 9.5A, S 9.5A, S 9.5 B, and S 9.5 C”, “Asphalt Concrete Surface Course, Types S 12.5B, S 12.5 C, and S 12.5D”, “Asphalt concrete Intermediate Course, Types I 19.0 B, I 19.0 C, and I 19.0 D”, “Asphalt Concrete Base Course, Type B 25.0 B and B 25.0 C”, and “Asphalt Concrete Base Course, Type B 37.5 C”.

Furnishing asphalt binder shall be paid for a provided in Article 620-5 for “Asphalt Binder for Plant Mix” as modified herein for each grade described in this provision.

Adjustments to the payments due the Contractor for asphalt binder shall apply to all grades covered in this provision. Adjusted contract unit prices for all grades will be based on the average selling price and base price index for Asphalt Binder, Grade PG 64-22 regardless of the actual grade used.

The above prices and payments will be full compensation for all work covered by this provision, including but not limited to producing, weighing, transporting, placing and compacting the plant mix as specified in section 610 of the Standard Specifications except as modified above, furnishing the aggregate, asphalt binder, anti-strip additive, and all other materials for the plant mix; furnishing and applying tack coat as specified in section 605; furnishing scales, maintaining the course until final acceptance of the project; making any repairs or corrections to the course that may become necessary, providing and conducting quality control as specified in Section 609 and surface testing of the completed pavement.

Payment will be made under:

Asphalt Concrete Base Course, Type B 25.0 B ..... Ton (Metric Ton)  
Asphalt Concrete Base course, Type B 25.0 C ..... Ton (Metric Ton)

Asphalt Concrete Base course, Type B 37.5 C ..... Ton (Metric Ton)

Asphalt Concrete Intermediate Course, Type I 19.0 B .....	Ton (Metric Ton)
Asphalt Concrete Intermediate Course, Type I 19.0 C .....	Ton (Metric Ton)
Asphalt Concrete Intermediate Course, Type I 19.0 D .....	Ton (Metric Ton)
Asphalt Concrete Surface Course, Type S 4.75 A .....	Ton (Metric Ton)
Asphalt Concrete Surface Course, Type SF 9.5 A .....	Ton (Metric Ton)
Asphalt Concrete Surface Course, Type S 9.5 A .....	Ton (Metric Ton)
Asphalt Concrete Surface Course, Type S 9.5 B.....	Ton (Metric Ton)
Asphalt Concrete Surface Course, Type S 9.5 C .....	Ton (Metric Ton)
Asphalt Concrete Surface Course, Type S 12.5 B .....	Ton (Metric Ton)
Asphalt Concrete Surface Course Type S 12.5 C .....	Ton (Metric Ton)
Asphalt Concrete Surface Course Type S 12.5 D .....	Ton (Metric Ton)
Asphalt Binder for Plant Mix, Grade PG 64-22 .....	Ton (Metric Ton)
Asphalt Binder for Plant Mix, Grade PG 70-22 .....	Ton (Metric Ton)
Asphalt Binder for Plant Mix, Grade PG 76-22 .....	Ton (Metric Ton)

END OF SECTION 05000

**SECTION 06000  
CAST IN PLACE CONCRETE**

**PART 1 – MATERIALS**

- A. Portland cement concrete for curb and gutter, driveways, driveway aprons, wheelchair ramps, sidewalks, traffic islands and other items as specified on the plans shall have a minimum 28 day compressive strength of 3,000 psi, a non-vibrated slump between 2.5 and 4 inches, a minimum cement content of 545 pounds per cubic yard, an air entrainment of 5 - 7%, and a maximum water-cement ratio of 0.545 in accordance with Class B concrete as described in the NCDOT “Standard Specifications for Roads and Structures” unless otherwise specified in the Contract Documents. Portland cement concrete for structures, culverts and other items as specified on the plans shall be Class A or Class AA in accordance with NCDOT “Standard Specifications for Road and Structures.” Dyed concrete is not allowed in the construction of driveway aprons or public sidewalks unless otherwise specifically required in the Contract Documents.
- B. Joint filler shall be a non-extruding joint material conforming to ASTM C1751.
- C. Aggregate for portland cement concrete shall meet the requirements for fine and coarse aggregate of Section 1014 of the NCDOT “Standard Specifications for Roads and Structures.”
- D. Portland Cement and admixtures shall meet the requirements of Section 1000 of the NCDOT “Standard Specifications for Roads and Structures.”
- E. Water for mixing or curing the concrete shall be free from injurious amounts of oil, salt, acid, or other products injurious to the finished product.

**PART 2 - QUALITY ASSURANCE**

- A. Concrete shall be only plant-mixed, transit-mixed or ready-mixed concrete. The time elapsing from mixing to placing the concrete shall not exceed ninety (90) minutes. Concrete shall not be deposited on frozen subgrade and shall not be poured when the air temperature is falling and below 40° F, and the predicted low temperature for the succeeding 24-hour period is less than 32° F.
- B. All concrete when placed in the forms shall have a temperature of between 50° F and 90° F and shall be maintained at a temperature of not less than 50° F for at least 72 hours for normal concrete and 24 hours for high early strength concrete, or for as much time as is necessary to secure proper rate of airing and designed compressive strength. The use of admixture, retarders, and accelerators shall be used as directed by the Engineer.

**PART 3 - CONSTRUCTION METHODS – GENERAL**

- A. Proportioning of Concrete: The concrete shall be mixed in proportions discussed herein and approved by the Engineer.

- B. Mixing Concrete: The concrete shall be mixed by machine on the job or at a central mixing plant. A batch mixer of any approved type may be used. The method of measuring the materials for the concrete, including water, shall be one which will insure separate and uniform proportions of each of the materials at all times. The mixing shall continue at least 1-1/2 minutes after all ingredients have been emptied before receiving material for the succeeding batch.
  - i. A central mixing plant shall not be used until approved by the Engineer and shall be certified by the NCDOT. The concrete from a central plant shall be delivered and deposited at the consistency specified without segregation. The time elapsing from mixing to placing the concrete shall not exceed ninety (90) minutes.
  - ii. Concrete shall be mixed only in such quantities as are required for immediate use and all such material shall be used while fresh and before initial set has taken place. Any concrete in which set has begun shall not be used in the work. Retempering of concrete will not be allowed.
- C. Subgrade: The subgrade shall be excavated to the required depth below the finished surface in accordance with the plans to the lines and grades established by the Engineer. All soft yielding material or other unsuitable material shall be removed and replaced with suitable material and the subgrade shall be compacted thoroughly and finished to a firm, smooth surface. No curb and gutter, driveways, driveway aprons, wheelchair ramps, sidewalks, or traffic islands shall be poured until the subgrade is approved by the inspector. Forms: The forms shall be of metal and of the necessary dimensions to construct the combined curb and gutters specified in the plans. Wood forms may be used where conditions make the use of metal forms impractical. The use of wood forms must be approved by the Engineer. The forms shall be set true to the line and grade established by the Engineer and held rigidly in position, so as to prevent leakage of mortar and springing out of line when the concrete is placed in them. The forms shall be true in line, free from warping or bending. No concrete shall be placed until the forms and subgrades have been approved by the Inspector.
- D. Placing of Concrete: The subgrade shall be moistened and the concrete shall be placed in the forms and tamped sufficiently to bring the mortar to the surface, after which it shall be finished smooth and even by means of a wooden float.
  - i. The curb and gutter shall be constructed in place in uniform sections ten (10) feet in length. The joints between sections shall be formed by steel templates one-sixth (1/6) inch in thickness and of the width and depth of the curb and gutter. The templates shall be left in place until the concrete has set sufficiently to hold its shape but shall be removed while the forms are still in place.
  - ii. Machine poured concrete curb and gutter will be scored at 15 feet intervals with expansion joints located at intervals no greater than 50 feet.
  - iii. Expansion joints shall be one-half (1/2) inch in width and shall be placed between all rigid objects at a distance of no more than fifty (50) feet apart and shall extend the full depth of the concrete with the top of the filler one-half (1/2) inch below the finished surface.

- E. Finishing: The edges of the curb and gutter shall be finished with an approved edging tool of one-half (1/2) inch radius. Joints shall be similarly finished immediately after the templates have been removed.
- F. Curing: Contractor may select method of curing provided that the method is approved by the Engineer and that the means and methods of curing conform to standards specified by current AASHTO or ASTM specifications.
- G. Removing Forms: Forms shall not be removed from freshly placed concrete until it has set for at least 12 hours. Forms shall be carefully removed in such a manner as to prevent damage to the edges of the concrete. Any honeycombed areas along the sides shall be filled promptly with mortar composed of one part cement and two parts of fine aggregate.
- I. Cold Weather and Night Concreting: Concreting shall be done when weather conditions are favorable unless otherwise directed by the Engineer. Concrete operations shall be discontinued when a temperature of 40° F is reached on a falling thermometer and may be continued when temperature reaches 35° F on a rising thermometer. No concreting shall be attempted when local weather bureau indicates temperature below freezing within the ensuing 24 hours unless proper precautions are made to protect the concrete by covering with straw or other thermal insulation satisfactory to the Engineer. The Contractor shall be responsible for the quality and strength of the concrete laid during cold weather and any concrete damaged by frost action or freezing shall be removed and replaced as directed by the Engineer at the Contractor's expense.
  - i. The Contractor may be permitted by the Engineer to proceed with concrete operations during cold weather in temperatures of not less than 25° F at placing time provided that the Contractor furnishes an approved admixture and uses an amount per batch not to exceed two percent (2%) by weight of the total amount of cement, and further provided that he takes other precautions deemed necessary by the Engineer to prevent concrete from freezing during curing period.
  - ii. No more concrete shall be laid than can be properly finished and covered during daylight, unless adequate artificial light satisfactory to the Engineer is provided.
- J. Protection of Concrete: Immediately after the forms have been removed and all honeycombed areas repaired, the back of the curb shall be backfilled to prevent underwash. Traffic shall be excluded from crossing the concrete for a period of approximately fourteen (14) days, by erection and maintenance of suitable barricades, unless otherwise specified in the Contract Documents or by the Engineer. Contractor shall be responsible for any damage resulting from traffic or vandalism until accepted by the Engineer, and he shall remove and replace any concrete damaged as directed by the Inspector.

#### **PART 4 - CONSTRUCTION METHODS - CURB & GUTTER, DRIVEWAYS, DRIVEWAY APRONS, WHEELCHAIR RAMPS, SIDEWALKS, AND TRAFFIC ISLANDS**

A. Areas of concrete to be removed shall be sawcut before removing. The sawcut shall provide a smooth, straight edge approximately two (2) inches deep before breaking away the adjacent concrete. There will be no direct payment for the work covered by this section.

B. Concrete shall be constructed in accordance with Section 825 of the NCDOT

“Standard Specifications for Roads and Structures” and shall be given a “sidewalk finish,” except as otherwise noted herein.

C. Brooming of the concrete surface shall be done transverse to the direction of traffic. Joint spacing shall not be less than 5 feet. Where existing sidewalks are being widened, transverse joints shall be located so as to line up with existing joints in the adjacent existing sidewalk. Grooved joints shall not be sealed.

D. No backfill shall be placed adjacent to the curb & gutter, driveways, driveway aprons, wheelchair ramps, or sidewalks until at least 3 curing days have elapsed, as defined in Section 825-9 of the NCDOT “Standard Specifications for Roads and Structures.” However, all backfill shall be placed within 4 calendar days after the completion of this 3 curing day time period. Backfill shall clean earthen material free of all debris and shall be compacted to a degree comparable to the adjacent undisturbed material or as directed by the inspector.

## PART 5 - PAYMENT

A. Basis of Payment: Compensation for cast in place concrete items shall be as follows:

i. Payment for “Remove and Replace Concrete Curb and Gutter” shall be paid at the unit price bid per linear foot for the type as indicated in the Itemized Proposal. The aggregate base course or asphalt concrete placed under the concrete curb and gutter shall be in accordance with the NCDOT Standard Details and shall be included in the unit price bid for curb and gutter. Unit price shall be full compensation for all labor, equipment and materials to furnish and install curb and gutter, and aggregate base course or asphalt concrete under the curb and gutter. Payment for this item shall not be made until work is complete, including backfilling and seeding & mulching, and has been inspected and accepted by the inspector.

ii. Payment for “Remove and Replace Concrete Sidewalk” shall be paid at the unit price bid per linear foot at the width and thickness designated in the Itemized Proposal and in accordance with the NCDOT Standard Details. Unit price shall be full compensation for all labor, equipment and materials to furnish and install concrete sidewalk. Payment for this item shall not be made until work is complete, including backfilling and seeding & mulching, and has been inspected and accepted by the inspector.

iii. Payment for “Remove and Replace ADA Curb Ramp” shall be paid at the unit price bid per each item as designated in the Itemized Proposal and in accordance with the NCDOT Standard Details. Unit price shall be full compensation for all labor, equipment and materials to furnish and install concrete wheelchair ramps, depressed curb and gutter, and aggregate base course or asphalt concrete under the depressed curb and gutter or wheelchair ramp necessary for the construction of the concrete wheelchair

ramp. Payment for this item shall not be made until work is complete, including backfilling and seeding & mulching, and has been inspected and accepted by the inspector.

iv. Payment for “New ADA Curb Ramp” shall be paid at the unit price bid per each as designated in the Itemized Proposal and in accordance with the NCDOT Standard Details. Unit price shall be full compensation for all labor, equipment and materials to remove existing material, furnish and install concrete wheelchair ramps, depressed curb and gutter, and aggregate base course or asphalt concrete under the depressed curb and gutter or wheelchair ramp necessary for the construction of the concrete wheelchair ramp. Payment for this item shall not be made until work is complete, including backfilling and seeding & mulching, and has been inspected and accepted by the inspector.

v. Payment for “New ADA Curb Ramp” shall be paid at the unit price bid per each as designated in the Itemized Proposal and in accordance with the NCDOT Standard Details. Unit price shall be full compensation for all labor, equipment and materials to remove existing material, furnish and install concrete wheelchair ramps, depressed curb and gutter, and aggregate base course or asphalt concrete under the depressed curb and gutter or wheelchair ramp necessary for the construction of the concrete wheelchair ramp. Payment for this item shall not be made until work is complete, including backfilling and seeding & mulching, and has been inspected and accepted by the inspector.

vi. Payment for “Remove Ramp and install Curb and Backfill” shall be paid at the unit price bid per each as designated in the Itemized Proposal and in accordance with the NCDOT Standard Details. Unit price shall be full compensation for all labor, equipment and materials to remove existing material, furnish and install concrete curb and gutter, and aggregate base course or asphalt concrete under the depressed curb and gutter. Payment for this item shall not be made until work is complete, including backfilling and seeding & mulching, and has been inspected and accepted by the inspector.

vii. Payment for “Retrofit Truncated Dome Concrete” shall be paid at the unit price bid per each as indicated in the Itemized Proposal. Unit price shall be full compensation for all labor, equipment and materials to furnish and install the Truncated Dome. Truncated Domes are to be installed Cast in Place unless otherwise directed by the engineer.

END OF SECTION 06000

**SECTION 09000  
STORM DRAINAGE**

**PART 1 - GENERAL**

- A. The work of furnishing and installing storm sewer shall consist of performing all work and services necessary to complete the construction of the storm sewer pipe and the catch basins in accordance with the provisions of the Contract Documents.
- B. Where proposed storm sewers are to be installed under existing roadways, the construction shall be performed in such a way that half of the roadway will be maintained and available to traffic in accordance with the plans, Contract Documents, the NCDOT "Roadway Standard Drawings," and the MUTCD.

**PART 2 - SUBMITTALS**

- A. The Contractor shall submit shop drawings to the Engineer for all storm drainage materials to be used on this project. Submittals shall be in accordance with Section 02000 of the Contract Documents.

**PART 3 - QUALITY STANDARDS**

- A. Procedures for handling, laying, protection and use of pipe shall be in accordance with the pipe manufacturer's recommendations and these specifications. Procedures for construction of drainage structures shall be in accordance with these specifications.
- B. Reinforced Concrete Pipes and Flared End Sections shall be as per ASTM C76, Table III or Table IV with a diameter as indicated on plans. The pipe shall be equal to that as furnished by N.C. Products or Adams Concrete. Joints shall be wiped with mortar or sealed with a plastic cement putty meeting Federal specification SS-S-00210, such as Ram-Nek or a butyl rubber sealant.
- C. Corrugated Steel Pipe shall conform to AASHTO M36 with pipe ends having no less than 2 round corrugations on each end. Bands for connecting pipe shall be corrugated with a minimum of 2 corrugations for each pipe. The pipe shall be fully bituminous coated in accordance with the requirements of AASHTO M190. The pipe shall have an asphalt-paved invert.
- D. Concrete Block or Brick shall be solid and conform to ASTM C139 in design and manufacture. The block or brick shall be embedded in a mortar bed to form a one-half (1/2) inch mortar joint. Mortar used in brick masonry and joints shall be composed of one (1) part Portland cement and hydrated lime (not more than 10 percent lime, based on the volume of cement, shall be used) and two (2) parts sand. Portland cement shall meet the requirements of the latest ASTM specifications C- 150, Type 1. The sand shall be composed of clean, hard and durable grains, and shall be of a quality and gradation approved by the Engineer. Hydrated lime shall meet the requirement of ASTM designation C-6. Mortar shall be mixed in a clean, tight mortar box or in an approved mechanical mixer and shall be used within 45 minutes after mixing.
- F. Precast Concrete Manholes shall meet ASTM C478 in design and manufacture holes and shall be in accordance with the NCDOT Standard Details. The standard manhole joint shall be sealed with a plastic cement putty meeting Federal specification SS-S-00210 such as Ram-Nek or a butyl rubber sealant.
- G. Manhole Frames and Covers shall be cast iron or ductile iron with "Storm Sewer"

stamped on the cover and four 1 inch perforated holes and shall be in accordance with the NCDOT Standard Details. Castings shall be machined to give even and continuous bearing on the full length of the frame. Castings shall be free of porosity and blow holes, and shall receive one coat of Koppers Super Service Bitumastic black paint. Paint shall be kept off bolt threads, and surfaces shall be thoroughly wire brushed before painting.

H. Manhole Steps shall be of composite plastic metal or steel reinforced polypropylene and shall be in accordance with the NCDOT Standard Details. Steps shall be placed at sixteen (16) inches O.C. for the full depth in all structures when they are greater than five (5) feet in depth. Steps shall be designed for a vertical load of 400 pounds and a horizontal pull out load of 1,000 pounds.

I. Yard Inlets, Catch Basins, Curb Inlets, and False Sumps shall be in accordance with the NCDOT Standard Details.

- i. Frame, Grate, & Hood shall be cast iron and meet the ASTM requirements set forth in the latest edition of the NCDOT "Standard Specifications for Roads and Structures" and the dimensional requirements set forth in the latest edition of the NCDOT "Roadway Standard Drawings." Grates shall be stamped with the appropriate NCDOT specification number as evidence of satisfying the above requirements. Hoods shall be stamped with either "Drains to Neuse River" or "Drains to Cape Fear River" or other wording as confirmed by the Engineer. Lettering shall be  $\frac{3}{4}$ " height and shall be clean, crisp, and free of defects.
- ii. Construct False Sumps in accordance with the details in the plans and at locations shown in the plans or at other locations as directed by the Engineer. Payment for the work of construction of the false sumps will be made at the contract unit price per EACH for False Sump.

#### PART 4 - CONSTRUCTION

- A. All storm sewers shall be laid to provide a "true line" between manholes or structures, and they shall be installed at each deflection of line and/or grade.
- B. The mortar for brick masonry shall conform to the requirements herein set forth. Excavation shall be made to the required depth and the foundation on which the brick masonry is to be laid shall be approved by the Inspector. The brick shall be laid so that they will be thoroughly bonded into the mortar joints by means of the "shove joint" method: (buttered or plastered joints will not be permitted). The headers and stretchers shall be so arranged as to thoroughly bond the mass. Brickwork shall be of alternate headers and stretchers with consecutive courses in thickness. The joints shall be completely filled with mortar. No spalls or bats shall be used except for shaping round irregular openings or when unavoidable to finish out a course. Competent bricklayers shall be employed on the work and all details of construction shall be in accordance with approved practice and to the satisfaction of the Engineer.
- C. Manhole steps shall be set in the masonry as the work is built up, thoroughly bonded, and accurately spaced and aligned.
- D. Inverts in storm drainage structures shall be shaped to form a smooth and regular surface free from sharp or jagged edges. They shall be sloped adequately to prevent sedimentation.

- E. The castings shall be set in full mortar beds. All castings when set shall conform to the finished grade as established by the Engineer. Any castings not conforming shall be adjusted to the correct grade without extra compensation.
- F. All pipes entering catch basins or junction boxes shall enter through a wall and not through a corner of the structure. The pipe shall not project into the drainage structure, but shall be finished flush with the inside of the structure.
- G. When necessary, the contractor shall provide for the temporary diversion of water or dewatering in order to maintain the storm sewer foundations in a dry condition, and shall continue to maintain trenches in a dry condition until backfill and compaction activities are complete.
- H. The Contractor shall maintain all storm sewers in a condition such that they will function properly from the time the storm sewers are installed until the Owner accepts the project. The Contractor shall thoroughly clean out all storm sewers at no expense to the owner throughout construction.

#### PART 5 - PAYMENT

##### A. Basis of Payment:

- i. Payment to furnish, excavate, install, and backfill storm drainage pipe shall be paid at the unit price bid for the actual number of linear feet of the size and type of pipe installed as indicated in the Itemized Proposal and shall include any washed stone necessary for stabilization, required paved inverts, pipe coating and shall be full compensation for all labor, equipment, and materials necessary to install the pipe.
- ii. Payment to furnish, excavate, install and backfill around "Manholes," "Yard Inlets," "Catch Basins," "Curb Inlets," "Flared End Sections," "Headwalls," and other structures shall be paid at the contract unit price for each item installed as indicated in the Itemized Proposal and shall be full compensation for all labor, equipment, and material to furnish and install these structures including excavation and backfill.

END OF SECTION 09000

**SECTION 16000**  
**SOIL EROSION AND SEDIMENTATION CONTROL**

**PART 1 - GENERAL**

- a. Temporary and permanent erosion control measures shall be provided for all land disturbing activities in accordance with the Contract Documents and/or an erosion control plan approved by the North Carolina Department of Environmental Quality (NCDEQ). A preliminary walk through prior to installation of devices. Temporary measures shall be installed by the Contractor, then inspected by the Inspector for compliance prior to any land disturbing activity. The inspection and approval process shall be required on each phase of construction. All permanent erosion control measures shall be incorporated into the work at the earliest practical time. All temporary measures shall be maintained until the permanent measures have taken effect. Temporary and permanent measures shall be coordinated to provide effective and continuous erosion control throughout the construction and post-construction period to minimize siltation of streams, lakes, reservoirs, and other impoundments, ground surfaces, and other property. These measures shall remain in effect until final approval for removal is given by the Inspector and/or the NCDEQ at which time the Contractor shall remove all temporary erosion control measures at no additional cost to the Owner.
- b. The Contractor shall be familiar with the applicable provisions of the Sedimentation Pollution Control Act of 1973, General Statutes, Chapter 113A, Article 4. The Contractor shall be responsible for incorporating conservation procedures necessary to comply with this act in minimizing erosion and sediment pollution associated with the construction of this project as directed by the Engineer.
- c. The Contractor shall be financially responsible for any and all fines that result from the Contractor's failure to install and/or maintain erosion control measures in accordance with the Contract Documents.
- d. The Contractor shall provide all of the necessary services to comply with the NPDES Stormwater discharge permit for construction activities (Permit No. NCG01000). This includes, but is not limited to, providing a rain gauge on site, monitoring rain events, checking all erosion and sedimentation control measures for stability and operation following each rainfall event or at least once per week, maintaining the monitoring log for the site, and keeping an up to date copy of the log and approved set of the erosion control plans on site at all times. This also includes the proper storage and disposal of materials. The Contractor shall make any needed repairs immediately to maintain all control measures as designed. The Contractor shall retain all records of all monitoring information and copies of all reports required by the general permit during the construction of the project and provide these records to the Town with each pay request.

- e. The Contractor shall clean out all sediment trapping devices when the device reaches 50% trap capacity and shall dispose of the sediment by spreading on the site in a protected area or by hauling away if not suitable for fill at no additional cost to the Owner.

## PART 2 - TEMPORARY MEASURES

- A. Silt Fence shall be installed at the toe of all fill slopes, and any other necessary locations as shown on the plans and as directed by the Engineer. Silt fence shall be erected in accordance with details as shown in the plans or in the specifications.
- B. Inlet Protection shall be installed around inlets and any other necessary locations as shown on the plans and as directed by the Engineer. Inlet protection shall be erected in accordance with details as shown in the plans or in the specifications.
- C. Diversion Ditches/ Perimeter Dikes shall be installed at the top of cut and fill slopes and any other necessary locations as shown on the plans and as directed by the Engineer. Diversion ditches and perimeters shall be installed in accordance with details as shown in the plans or in the specifications.
- D. Tree Protection Fence shall be installed around the drip line of trees in the construction work area as shown on the plans and as directed by the Engineer. The tree protection fence shall be installed in such a manner that it prevents all construction activities from encroaching into the area inside the drip line of the tree. Signs shall be placed on the fence with the inscription: "Tree Protection Fence – Do Not Enter" at a maximum of 50 foot intervals. The material and installation specifications for the tree protection fence shall be approved for use by the Engineer prior to installation. Tree Protection Fence shall also be installed along the limits of disturbance adjacent to all streams, wetlands, riparian buffers, undisturbed areas or other locations shown on the approved plan. Combination fence may be used in lieu of tree protection where shown on the approved plan.
- E. Construction Entrances shall be installed at all points of access to the construction site. Any access point, which does not have a construction entrance, shall be barricaded to prevent its use. Construction entrances shall be installed in accordance with details as shown in the plans or in the specifications. Construction Entrances shall be included in the unit bid price for "Mobilization."
- F. Sediment Traps, Sediment and Skimmer Basins shall be installed at all points where accumulated runoff is released to natural drainage channels as shown on the plans and as directed by the Engineer. Sediment traps, skimmer and sediment basins shall be installed in accordance with details as shown in the plans or in the specifications to meet minimum settling area and volume requirements as specified. All basins shall be installed in accordance with details as shown in the plans or in the specifications.

- G. Check Dams shall be installed in ditches and any other necessary location as shown on the plans and as directed by the Engineer. Check dams shall be erected in accordance with details as shown in plans or in the specifications.
- H. Stone Silt Screen shall be constructed at the locations shown on the plans and at other locations as directed by the engineer. The structural stone shall be placed in the stream below the stream crossing with 2:1 side slopes, and shall be faced on the upstream side with sediment control stone 12" thick. The dam structure shall have a 1.5 foot minimum height and a 3 foot maximum height and shall not be higher than 1 foot above the normal flow of the stream.
- I. Impervious Dike shall be constructed in such a manner as approved by the engineer. It shall not permit seepage of water into the construction site or contribute to siltation of the stream. The impervious dike may be constructed of materials including, but not limited to, sheet piles, sandbags and/or the placement of and acceptable size stone lined with polypropylene or other impervious fabric. Earth material shall not be used to construct the dike if it is in direct contact with the stream unless vegetation can be established before contact with the stream takes place.
- J. Pipe Inlet Protection shall be constructed as shown in the plans and at the locations shown on the plans or as directed by the Engineer. It shall work to reduce water velocity at pipe inlets and trap sediment. The inlet protection may be constructed of plywood,  $\frac{1}{4}$ - inch hardware cloth and #5 washed stone, or as shown in the Gravel and Rip Rap Filter Berm Basin detail included in the plans.
- K. Stilling Basin shall be constructed at the locations shown in the plans and at other locations as directed by the Engineer. It shall serve as a basin for pumped effluent from culvert construction sites and trap sediment from the pumped effluent prior to its discharge. Earth dikes with a permeable stone drain shall be constructed in a rectangular form as shown in the construction details. The earth dikes shall have a 4 foot maximum height. Additional depth may be obtained through excavation below natural ground. The basin shall have a Class B stone baffle and an 8-inch minimum diameter overflow pipe installed at the permeable stone drain.
- L. Temporary HDPE Pipe shall be installed at the locations as shown in the plans and other locations as directed by the Engineer. This pipe location shall be used as a temporary stream crossing during construction. The temporary pipe shall be located in the bottom of the drainage channel. The pipe shall be covered with Class B rip rap and #5 washed stone as shown in the construction detail for a Temporary Stream Crossing.
- M. Temporary PVC Pipe shall be installed at the locations as shown in the plans and other locations as directed by the Engineer. This pipe location shall be used for temporary ditch continuity during construction. The temporary pipe shall be located per the labeled inverts on the plans.

- N. Bypass Pumping shall be in accordance with all state and federal permits and regulations. A silt bag or stilling basin shall be used during pumping operations. Pumps must be accompanied by an operator at all times and must be installed in a manner to prevent sedimentation.
- O. Culvert Diversion Channel shall be installed at the location and sized to the dimensions as shown in the construction drawings. The channel is required to be lined with erosion restraint matting approved by the engineer.
- P. Erosion Control Stone, Class “ ” shall be furnished, stockpiled if directed, placed and maintain an approved stone for construction of erosion control devices at ditches, diversions, swales, pipe inlets, pipe outlets, drainage turnouts and at other locations designated in the plans or as directed. The work includes, but is not limited to, furnishing, weighing, stockpiling, re-handling, placing and maintaining stone; and disposal of any stone not incorporated into the project when necessary.
- Q. Coir Fiber Mat shall consist of 100% coconut fiber (coir) twine woven into high strength matrix. The coir fiber mat shall have a thickness of at least 0.30 inch and weigh at least 20 ounces per square yard. The coir fiber mat shall have a tensile strength of at least 1,348 x 626 lbs/ft and elongation of no more than 34% x 38%. The coir fiber mat shall have a flexibility of 65,030 x 29,590 mg-cm. The coir fiber mat shall have an observed flow velocity of 11 feet per second. The coir fiber mat shall have a C-Factor of 0.002. The size of the coir fiber mat shall be 6.6 feet x 164 feet and the measured open area shall be 50%.
- R. Concrete Washout Structures are enclosures above or below grade to contain concrete waste water and associated concrete mix from washing out ready-mix trucks, drums, pumps, or other equipment. Concrete washouts must collect and retain all the concrete washout water and solids, so that this material does not migrate to surface waters or into the ground water. These enclosures are not intended for concrete waste not associated with wash out operations. The concrete washout structure may include constructed devices above or below ground and or commercially available devices designed specifically to capture concrete wash water.
- S. Mowing; The actual conditions which occur during the construction of the project will determine the quantity of mowing. The quantity of mowing may be increased, decreased or eliminated entirely as directed. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work. Mowing will be measured and paid in acres measured along the surface of the ground mowed as directed. Where an area has been mowed more than once at the direction of the Engineer, separate measurement will be made each time the area is mowed.
- T. Specialized Hand Mowing; This work consists of specialized hand mowing around or under fixed objects, including but not limited to guardrails, signs, barriers and slopes in a method acceptable to the Engineer. Specialized hand mowing shall be completed with mechanically powered trimmers, string trimmers, hand operated rotary mowers or self-propelled mowers of sufficient size and quality to perform the work timely and efficiently. The quantity of

mowing to be performed will be affected by the actual conditions that occur during the construction of the project. The quantity of mowing may be increased, decreased or eliminated entirely as directed. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work. Specialized Hand Mowing will be measured and paid as the actual number of man hours each worker spends hand mowing, as directed. When directed to mow an area more than once, separate measurement will be made each time the area is mowed.

U. **Basis of Payment:** Payment for temporary erosion control measures shall be at the contract unit price for each item as indicated on the Itemized Proposal in the contract documents. These prices will be full compensation for all materials required and work covered by this section including but not limited to furnishing and installing all temporary erosion control measures indicated on the plans, per project plans and specifications, maintenance of the measures to comply with rules and regulations work throughout the life of the project as required by the Inspector, and removal of the measures, and final stabilization of areas disturbed with removal.

### **PART 3 - TEMPORARY AND PERMANENT NON-LAWN SEEDING MEASURES**

#### **A. General:**

- i. After construction is complete in any area or phase of the project, the disturbed areas shall receive a permanent ground cover. Seeding and mulching shall be performed immediately behind construction. The Contractor shall provide permanent seeding in all disturbed areas as indicated in the Contract Documents. The Contractor shall adapt permanent seeding operations to protect and to accommodate any temporary seeding and soil and erosion control measures that may already be in place during the work period.
- ii. When seeding must take place out of season for permanent grass the appropriate temporary seeding shall be done and the contractor shall be responsible for permanent seeding as specified in season at no additional cost to Owner.
- iii. Contractor shall be responsible for turf maintenance through substantial completion. Slopes must be at 90% coverage at substantial completion review to be accepted. If not at 90% coverage, substantial completion will be delayed until the following growing season.

#### **B. Site Preparation and Installation:**

- i. **Ground Cover:** All disturbed areas shall be dressed to a depth of five (5) inches. The top two (2) inches shall be pulverized to provide a uniform seedbed. Rake or harrow the site to establish a smooth and level final grade. Soil particles should be no larger than marble size, and pea gravel size is even better. Agricultural lime shall be applied at the rate of 95 lbs./1000 sq. ft. immediately before plowing. Grass seed shall be applied at the rates outlined in Tables 1 and 2.

- ii. 5-10-10 fertilizer shall be applied to all disturbed areas at a rate of 21 lbs./1000 sq. ft. Mulching shall consist of small grain straw applied at a rate of 70 lbs./1000 sq. ft. Mulched areas shall be tacked with asphalt or other approved method sufficient to hold the straw in place, at a rate of 150 to 200 gallons per ton of straw.
- iii. If active construction ceases in any area for more than fifteen (15) calendar days, all disturbed areas must be seeded, mulched, fertilized and tacked at no additional cost to the Owner.
- iv. Some areas may require temporary seeding due to an interruption of work exceeding fifteen (15) calendar days or seasonal restrictions as specified in the permanent seeding schedule, or a combination thereof. These areas shall be reseeded in accordance with the permanent seeding schedule. If temporary seeding is required due to Contractor delays, there will be no compensation for the temporary seeding. Temporary seeding shall be performed only at the direction of the Engineer or Inspector.
- v. When seeding must take place out of season for permanent grass the appropriate temporary seeding shall be done and the contractor shall be responsible for permanent seeding as specified in season at no additional cost to Owner.

**C. Cleanup and Inspection:**

- i. Upon completion of work, the Contractor shall remove from the site all equipment and other articles used. All excess soil, stone, and debris shall be removed and legally disposed of at no additional cost to the Owner. All work areas shall be left in a clean and neat condition. All damage to existing construction caused by landscaping operations shall be repaired to the satisfaction of the Town at the Contractor's expense.
- ii. Seeded areas shall be protected and replanted as necessary to establish a uniform stand of specified grass. Scattered bare spots, none of which shall be larger than one (1) square foot, will be allowed up to a maximum of 3% of the seeded area for each property. When seeded areas are ready for inspection, the maintained turf areas shall be neatly mowed to the uniform height of approximately two and one-half (2.5) inches. The lawns shall be considered established only when the specified grass is vigorous and growing well in addition to meeting the other requirements specified.
- iii. An inspection of the completed seeding shall be made at the conclusion of the landscape work upon written notice requesting such inspection submitted by the Contractor to the Engineer, at least ten (10) days prior to the anticipated date of inspection.
- iv. A final inspection shall be performed when a satisfactory stand of seeded turf grass has been produced, upon written notice requesting such inspection

submitted by the Contractor to the Engineer, at least ten (10) days prior to the anticipated date of inspection. If a satisfactory stand of turf has not been produced at the time of final inspection, necessary repairs shall be performed in conformance with the requirements of this section. Upon completion of these repairs, the seeded grass shall be reinspected upon written notice as above.

**D. Basis of Payment:**

- i. Payment for establishing permanent and temporary ground cover shall be the actual amount of seeding installed and will be paid for at the unit price bid per acre or square yard as indicated on the Itemized Proposal in the contract documents for "Seeding and Mulching" and/or "Temporary Seeding and Mulching." These prices shall be full compensation for all work covered by this section including but not limited to furnishing all permanent and temporary seeding, mulching, fertilizing, tacking, site preparation, cleanup, maintenance, and warranty of work as specified.
- ii. Payment for "Seeding and Mulching" and/or "Temporary Seeding and Mulching" shall be made as follows:
  - a) Fifty percent (50%) of the total quantity of the seeding and mulching items on the Itemized Proposal on the first partial payment estimate after which the initial seeding has been completed and accepted.
  - b) Twenty-five percent (25%) of the total quantity of the seeding and mulching items on the Itemized Proposal on the first partial payment estimate made after which the initial establishment of grass and any required reseeding is complete.
  - c) Twenty-five percent (25%) of the total quantity of the seeding and mulching items on the Itemized Proposal on the first partial payment after the final establishment of grass and the project is one hundred percent (100%) complete.

TABLE 1

**SHOULDERS, SIDE DITCHES, SLOPES**  
**(For Slopes Between 2:1 and 3:1)**

<b>Date</b>	<b>Type</b>	<b>Planting Rate</b>
Mar 1 - June 1	Sericea Lespedeza (scarified) and	50 lbs./acre
Mar 1 - Apr 15	<u>Add</u> Tall Fescue or	120 lbs./acre
Mar 1 - June 30	<u>Add</u> Weeping Lovegrass or	10 lbs./acre
Mar 1 - June 30	<u>Add</u> Hulled Common Bermudagrass	25 lbs./acre

June 1 - Sept 1	***Tall Fescue <u>and</u> ***Browntop Millet or ***Sorghum-Sudan Hybrids	120 lbs./acre 35 lbs./acre 30 lbs./acre
Sept 1 - Mar 1	Sericea Lespedeza (unhulled/unscarified) and Tall Fescue	70 lbs./acre 120 lbs./acre
Nov 1 - Mar 1	<u>Add</u> Abruzzi Rye	25 lbs./acre

<b>TABLE 2</b> <b>SHOULDERS, SIDE DITCHES, SLOPES</b> <b>(For Slopes 3:1 and Flatter)</b>		
<b>Date</b>	<b>Type</b>	<b>Planting Rate</b>
Aug 15 - Nov 1	Tall Fescue	300 lbs./acre
Nov 1 - Mar 1	Tall Fescue and Abruzzi Rye	300 lbs./acre
Mar 1 - Apr 15	Tall Fescue	300 lbs./acre
Apr 15 - June 30	Hulled Common Bermudagrass	25 lbs./acre
July 15 - Aug 15	Tall Fescue <u>and</u> ***Browntop Millet <u>or</u> ***Sorghum-Sudan Hybrids	35 lbs./acre

Notes:

Consult Engineer or Natural Resources Conservation Service (NRCS) for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those which do well under local conditions; other seeding rate combinations may be possible but must be approved by the Engineer.

\*\*\*Temporary - Reseed according to optimum season for desired permanent vegetation. Do not allow temporary cover to grow over 12 inches in height before mowing to keep fescue from being shaded out.

**PART 4 - PERMANENT LAWN SEEDING MEASURES**

**A. General**

- i. The following information shall be applicable for all permanent lawn seeding. Permanent lawn seeding shall take place within all developed areas of disturbance including residential and commercial areas and shall be performed in a manner to provide a lawn equivalent to the pre-existing lawn materials by the Contractor. For most properties, this will consist of an approved turf-type tall fescue blend per the Contract Documents. Kentucky 31 is not an acceptable blend. For other properties, contractor shall propose replacement materials for approval by the engineer prior to installation.
- ii. When seeding must take place out of season for permanent grass the appropriate temporary seeding shall be done and the contractor shall be responsible for permanent seeding as specified in season at no additional cost to Owner.

- iii. Contractor shall be responsible for lawn maintenance through substantial completion. Lawns must be at 90% coverage at substantial completion review to be accepted. If not at 90% coverage, substantial completion will be delayed until the following growing season.

**B. Site Preparation:**

- i. Remove or kill any undesirable existing turf or vegetation. Herbicide spraying or other chemical treatment shall be approved by the Engineer prior to being used by the contractor. If preexisting turf or other vegetation is mixed with the soil to be reused, the contractor shall use best judgement in removing it or incorporating it into the soil during preparation.
- ii. If topsoil was not used to reestablish the upper soil layer and the upper soil is heavy with high clay content, spread 1.5-2 inches of aged ground pine bark or bagged organic humus over the area to be repaired.
- iii. For all grasses except centipedegrass, apply per 1,000 square feet:  
75 pounds of ground limestone and one of the following fertilizers:  
40 pounds of 5-10-10; 20 pounds of 10-20-20; or 20 pounds of 8-8-8  
or 10-10-10 in combination with 4 pounds of 0-46-0. Centipedegrass prefers acidic soils and low levels of phosphorus and may not require the addition of lime and phosphorus.
- iv. Incorporate lime and fertilizer (and pine bark if added) into the top 6 inches of the soil using a rototiller or by hand. Rototill or hand cultivate to well incorporate the amendments and get a uniform loosely textured soil of minimum 6-inch depth.
- v. Rake or harrow the site to establish a smooth and level final grade. Soil particles should be no larger than marble size, and pea gravel size is even better. Hand raking to level the soil and work out hills and hollows. For areas larger than 100 sq. ft. allow rain or irrigate to settle the soil. In some situations, the Engineer may require rolling or cultipacking to firm the soil before seeding. Hand rake again to break up the crusty surface before seeding or planting.

**C. Installation:**

- i. General:
  - a) Seed or plant the required grass according to Table 3.
  - b) Seed shall be tagged certified seed. Germination shall be a minimum of 95%. Seed shall be 98% pure with less than 2% other-crop seed or debris. Seed shall be free of noxious weed seed.

- c) Sod, sprigs, plugs or other vegetative plant propagation materials shall be certified free of noxious weeds. Materials shall be in good health and vigor, free of disease or pests, or damage from dryness, adverse temperature, herbicides, fertilizer or other chemicals. Sprigs that are older than 48 hours are not acceptable regardless of condition.
- d) The Contractor shall maintain a log of dates that sod, sprigs, plugs, or other seeding installation was completed for each individual property and shall notify the Engineer or Inspector of each day's progress.

ii. Seeding:

- a) Sow the seed on freshly prepared soil. Ensure uniform coverage by using a centrifugal (rotary) or drop-type spreader. Areas larger than 100 sq. ft. shall be seeded with a minimum of two passes at the appropriate partial rate for each pass. For areas averaging greater 15 ft. width, apply half the seed in one direction and the other half at right angles to the first direction.
- b) Apply a starter-type fertilizer to the soil surface for example, 10 pounds of 5-10-10 or 5 pounds of 10-20-20 per 1,000 square feet at the time of seeding.
- c) Lightly cover the seed by hand raking or dragging with a mat or chain-link fence. Roll or tamp the soil lightly to firm the surface and provide good seed-to-soil contact.
- d) Mulch grass seed with weed-free small grain straw or hay. Use one bale per 1,000 square feet for warm-season grasses and 1 to 2 bales for cool-season grasses. Stabilize small areas of mulch by rolling, watering or tacking with asphalt tacking spray. Twine netting can be used if wind displacement is a problem. If applied evenly and lightly, these materials need not be removed. Larger areas shall be stabilized by asphalt tacking spray or twine netting.

ii. Sprigging or Broadcasting:

- a) Sprigging is the preferred method of installing bermudagrass in larger areas. For smaller areas of bermudagrass, sprigging and plugging are both good options. The less expensive is preferred. In some cases sod may be less expensive or necessary due to circumstances.
- b) Broadcasting sprigs uniformly over the entire area. Bermudagrass or zoysiagrass sprigs shall be broadcast at a minimum rate of 5 bushels (yards) of sprigs per 1,000 square feet. Up to 10 bushels (yards) may be used where very fast cover is desired. Press the sprigs into the top  $\frac{1}{2}$  to 1 inch of soil by hand, and then by using an old disk, set straight. In the case of very large areas

use a sprigging machine, cultipacker, or roller. (Note - St. Augustinegrass is seldom established through broadcasting because the stems are too sensitive.)

iii. Plugging:

- a) Plugging is the preferred method of installing zoysia and St. Augustine except where sprigging or sod is less expensive or necessary due to circumstances.
- b) Plugs shall consist of individual pieces of sod that are 2 inches or larger. The plugs shall be planted at grade on 8 inch centers.

iv. Sodding:

- a) Lay sod as soon as possible after it has been harvested to prevent injury. Sod should be installed within 24 hours of delivery. While installing, take action as necessary to prevent heat buildup within the unlaid sod. Plan to unstack and unroll the sod if it cannot be laid within 48 hours. Soil should be moist (but not overly wet) before laying sod. Irrigating the soil several days before delivery is often adequate.
- b) Start sodding from a straight edge (driveway or sidewalk) and butt strips together, staggering them in a brick-like pattern. Avoid stretching sod. Use a knife or sharp spade for trimming to fit irregularly shaped areas. Lay sod lengthwise across the face of slopes and peg or stake the pieces to prevent slippage. After the sod has been placed, roll the lawn to ensure good sod-to-soil contact.
- c) Water sod immediately after installation. Soak sod thoroughly enough to penetrate soil below the newly installed sod to a minimum depth of two (2) inches. Contractor is responsible for insuring adequacy of water supply. The Contractor shall provide any necessary temporary means to properly water sod, including temporary pumps and sprinklers. Proper irrigation shall be required by the contractor until the project has been inspected and is accepted by the Town of Holly Springs. (The Contractor shall be required to obtain all applicable watering permits from the Town of Holly Springs prior to beginning watering activities.)
- d) In some cases sod can be laid in space planting "semi-checkerboard" fashion in order to lower costs. This method is described here assuming that the sod is cut into the standard 18 in. x 24 in. size. The first piece of sod is laid with the narrow side flush to a straight edge. This will start a row that is 24 in. wide. The next piece of sod is laid likewise but it is spaced 9 in. away and parallel to the first piece along the longer side. This is continued to make the first row. The next row is laid flush with the previous and in the same fashion except it is laid offset by 9 inches, i.e. laid beginning at the centerline of the first

piece of sod in the previous row. Subsequent rows are laid in this alternating pattern.

**D. Cleanup and Inspection:**

- i. Upon completion of work, the Contractor shall remove from the site all equipment and other articles used. All excess soil, stone, and debris shall be removed and legally disposed of at no additional cost to the Owner. All work areas shall be left in a clean and neat condition. All damage to existing construction caused by landscaping operations shall be repaired to the satisfaction of the Town at the Contractor's expense.
- ii. Seeded areas shall be protected and replanted as necessary to establish a uniform stand of specified grass. Scattered bare spots, none of which shall be larger than one (1) square foot, will be allowed up to a maximum of 3% of the seeded area for each property. When seeded areas are ready for inspection, the maintained turf areas shall be neatly mowed to the uniform height of approximately two and one-half (2.5) inches. The lawns shall be considered established only when the specified grass is vigorous and growing well in addition to meeting the other requirements specified.
- iii. An inspection of the completed seeding shall be made at the conclusion of the landscape work upon written notice requesting such inspection submitted by the Contractor to the Engineer, at least ten (10) days prior to the anticipated date of inspection.
- iv. A final inspection shall be performed when a satisfactory stand of seeded turf grass has been produced, upon written notice requesting such inspection submitted by the Contractor to the Engineer, at least ten (10) days prior to the anticipated date of inspection. If a satisfactory stand of turf has not been produced at the time of final inspection, necessary repairs shall be performed in conformance with the requirements of this section. Upon completion of these repairs, the seeded grass shall be reinspected upon written notice as above.

**E. Basis of Payment:**

- i. Payment for establishing permanent lawn ground cover shall be the actual amount of seeding installed and will be paid for at the unit price bid per acre or square yard as indicated on the Itemized Proposal in the contract documents for "Permanent Lawn Seeding and Mulching." This price shall be full compensation for all work covered by this section including but not limited to furnishing all permanent and temporary seeding, mulching, fertilizing, tacking, watering, site preparation, cleanup, maintenance, and warranty of work as specified.
- ii. Payment for "Permanent Lawn Seeding and Mulching" shall be made as follows:

- a) Fifty percent (50%) of the total quantity of the seeding and mulching items on the Itemized Proposal on the first partial payment estimate after which the initial seeding has been completed and accepted.
- b) Twenty-five percent (25%) of the total quantity of the seeding and mulching items on the Itemized Proposal on the first partial payment estimate made after which the initial establishment of grass and any required reseeding is complete.
- c) Twenty-five percent (25%) of the total quantity of the seeding and mulching items on the Itemized Proposal on the first partial payment after the final establishment of grass and the project is one hundred percent (100%) complete.

TABLE 3 <b>LAWN SEEDING (Cool- and Warm-Season Grasses)</b>				
	<b>Typical Planting Rate/1,000 sq. ft.</b>			
Lawn Grass	<b>Planting Dates<sup>1</sup></b>	<b>Seeds<sup>2</sup></b>	<b>Space Planting<sup>3</sup></b>	<b>Sprigging<sup>4</sup></b>
Tall fescue	March 1 to Oct. 15 (Aug. 15 to Oct. 1 optimum)	6	-	-
Tall fescue/annual (winter) rye	Oct. 15 to March 1	6 fescue 1 rye		
Bermudagrass(seed)	Apr. 1 to Aug. 15	1 to 2	-	-
Bermudagrass (vegetative)	Apr. 15 to Aug. 30	-	5 <sup>4</sup>	5
Centipedegrass	March to July	0.25 to 0.50	5 <sup>4</sup>	-
Zoysiagrass	April to July	-	5 <sup>4</sup>	5
St. Augustinegrass	Apr. to July	-	5 <sup>4</sup>	-

Notes:

<sup>1</sup> Sod consisting of cool-season grasses can be installed anytime the ground is not frozen. Sod consisting of warm- season grasses can be installed as long as soil temperature exceeds 55° F. (typically April 15 to Oct. 1)

<sup>2</sup> Pounds of seed per 1,000 sq. ft.

<sup>3</sup> Square yards of turf cut into 2-inch centers to plant 1,000 sq. ft.

<sup>4</sup> Bushels of sprigs per 1,000 sq. ft. (1 sq. yd. of turf pulled apart is equivalent to 1 bushel of sprigs.)

## PART 5 - MATTING FOR EROSION CONTROL

- A. Matting for erosion control shall be jute matting or excelsior matting. Matting for erosion control shall not be dyed, bleached, or otherwise treated in a manner that will result in toxicity to vegetation. Matting shall be used in all areas as shown on the approved plan or on slopes and ditches or channels where temporary or permanent stabilization methods have not been successful.
- B. Jute Matting: Jute matting shall be of a uniform open plain weave of single jute yarn, forty-eight (48) inches in width, plus or minus one (1) inch. The yarn shall be of a loosely twisted construction and shall not vary in thickness by more than one-half its normal diameter. There shall be 78 warp ends, plus or minus 2, per linear yard; and the weight shall average 1.22 pounds per linear yard of the matting with a tolerance of plus or minus 5 percent.
- C. Excelsior Matting: Excelsior matting shall consist of a machine-produced mat of curled wood excelsior at least 47 inches in width. The mat shall weigh 0.975 pounds per square yard with a tolerance of plus or minus 10 percent. At least 80% of the individual excelsior fibers shall be 6 inches or more in length. The excelsior fibers shall be evenly distributed over the entire area of the blanket. One side of the excelsior matting shall be covered with a woven fabric of twisted paper cord or cotton cord, or with an extruded plastic mesh. The mesh size for either the fabric or plastic mesh shall be a minimum of 1" x 1" and a maximum of 1-1/2" x 3".
- D. Wire Staples: Staples shall be machine-made of No. 11 gage new steel wire formed into a "U" shape. The size when formed shall be not less than 6 inches in length with a throat of not less than 1 inch in width.
- E. Basis of Payment: Payment for erosion control matting shall be based on the actual quantity of matting in square yards installed in accordance with the project Contract Documents and per unit price indicated on the Itemized Proposal for "Erosion Matting."

## PART 6 - RIPRAP DISSIPATION PADS

- A. After construction is complete, all points of stormwater release shall be protected by riprap dissipation pads.
- B. Stone for plain riprap shall consist of field stone or rough unhewn quarry stone. The stone shall be sound, tough, dense, resistant to the action of air and water, and suitable in all other respects for the purpose intended. Stone shall vary in weight from 5 to 200 pounds. At least 30 percent of the total weight of the riprap shall be in individual pieces weighing a minimum of 60 pounds each. Not more than 10 percent of the total weight of the riprap may be in individual pieces weighing less than 15 pounds each.

- C. Unless otherwise directed by the Engineer, the stone shall be placed on a flat slope or as indicated on the plans. The stone shall be graded so that the smaller stones are uniformly distributed throughout the mass.
- D. The Contractor may place the stone by mechanical methods, augmented by hand-placing where necessary, provided that when the riprap is completed it forms a properly graded, dense, neat layer of stone.
- E. The completed riprap shall be at least the thickness indicated on the plans, with the top of the riprap pad flush with the surrounding finished grade.
- F. Geotextile fabric consisting of Mirafi 14ON or equivalent shall be installed under all riprap unless otherwise noted. No direct payment shall be made for geotextile fabric. The price for geotextile fabric used under riprap shall be included in the unit price bid for "Riprap."
- G. Basis of Payment: Payment for riprap shall be based on the actual quantity of riprap in tons provided or by depth and per the unit price per square yard for the appropriate class as indicated on the Itemized Proposal in the Contract Documents for "Riprap Dissipation Pad". The unit prices and payments for "Riprap Dissipation Pad" will be full compensation for all work covered by this section including, but not limited to, all excavation, embankment preparation, backfilling, and furnishing and placing riprap and other materials.

#### PART 7 - GEOTEXTILE FOR DRAINAGE

- A. Supply and place rip rap and, if necessary, filtration geotextiles in accordance with the contract and as directed.
- B. Grade locations for rip rap as shown in the plans. Use filtration geotextiles under rip rap when shown in the plans and as directed. Do not leave geotextiles exposed for more than 7 days before covering with rip rap. Place filtration geotextiles on surfaces free of obstructions, debris and soft pockets. Overlap adjacent geotextiles at least 18 inches in the downhill and downstream direction to prevent flow from lifting the edge of the top geotextile. Pull filtration geotextiles taut so they are in tension and free of kinks, folds, wrinkles or creases. Hold geotextiles in place as needed with wire staples or anchor pins. Do not displace or damage filtration geotextiles while placing rip rap. Replace any damaged geotextiles to the satisfaction of the Engineer. For rip rap at pipe outlets, place rip rap immediately after installing pipes. When rip rap is required for channel changes and drainage ditches, place rip rap before diverting water into channels and ditches. Place rip rap such that the smaller stones are uniformly distributed throughout rip rap. Install rip rap with mechanical methods and if necessary, by hand to form a well-graded, dense and neat layer of rip rap.
- C. Basis of Payment: Rip Rap, Class \_\_\_\_ will be measured and paid in tons. Plain rip rap will be measured by weighing rip rap in trucks in accordance with 106-7. Geotextile for Drainage will be measured and paid in square yards. Filtration

geotextiles will be measured along the ground surface as the square yards of exposed geotextiles before placing rip rap. No measurement will be made for overlapping geotextiles. The contract unit prices for Rip Rap, Class \_\_\_\_ and Geotextile for Drainage will be full compensation for providing, transporting and placing rip rap, filtration geotextiles, wire staples and anchor pins.

#### **PART 8 – DRAINAGE DITCH**

- A. A culvert diversion channel shall be constructed to detour the existing stream around the culvert construction site at locations as shown on the plans. Work includes constructing diversion channel, disposing of excess materials, providing and placing filter liner, maintaining diversion area in acceptable condition, removing filter fabric liner, backfilling diversion channel area with suitable material and providing proper drainage when diversion channel area is abandoned.

Filter fabric shall consist of strong rot-proof synthetic fibers formed into a woven fabric or a nonwoven needle punched fabric. The fabric shall be free from any treatment or coating which might significantly alter its physical properties before or after installation. The fabric fibers shall contain stabilizers and/or inhibitors to make the filaments resistant to deterioration resulting from ultraviolet or heat exposure. The fabric shall be a pervious sheet of synthetic fibers oriented into a stable network so that the fibers retain their relative position with respect to each other. The edge of the fabric shall be finished to prevent the outer fibers from pulling away from the fabric. The fabric shall be free of defects or flaws which significantly affect its physical and/or filtering properties. Sheets of fabric may be sewn or bonded together with a fungus resistant material. No deviation from any physical requirements will be permitted due to the presence of the seam.

Tree protection fence shall be installed prior to culvert installation at the permitted impact limits.

- B. Construction requirements:

Use local material or material specified on plans.

Filter fabric shall conform to the general, physical, and acceptance specifications as specified in Section 1056 of the NCDOT, January 2024. “Standard Specifications for Roads and Structures” for a Type 2 fabric.

Grade channel according to plan with channel surface free of obstructions, debris, and pockets of low density material.

Utilize suitable material and provide disposal area for unsuitable material.

Line channel with fabric unrolled in the direction of flow and lay smoothly but loosely on soil surface without creases.

Bury top of slope fabric edge in a trench at least five inches deep and tamp.

Make vertical overlaps a minimum of eighteen inches with upstream fabric overlapping the downstream fabric.

Secure fabric with eleven gauge wire staples shaped into a “u” shape with a length of not less than six inches and a throat not less than one inch in width.

Place staples along outer edges and throughout the fabric a maximum of three feet (one meter) horizontally and vertically.

C. **Basis of Payment:** Payment to furnish install and backfill the culvert diversion ditch shall be paid for at the contract unit price per cubic yard of Culvert Diversion Channel and per square yard of Filter Fabric for Culvert Diversion. Quantities for payment shall be field measured based upon length, width and depth of excavation and actual area of completed placement of filter fabric. No payment allowances will be made for seams or overlaps.

## **PART 9 – STONE FOR PERMANENT STORMWATER AND PERMANENT EROSION CONTROL MEASURES**

A. **Description:** Furnish, stockpile if directed, place and maintain an approved stone for construction of permanent stormwater and permanent erosion control devices at ditches, diversions, swales, pipe inlets, pipe outlets, preformed scour holes and at other locations designated on the plans or as directed. The work includes but not limited to furnishing, weighing, stockpiling, rehandling, placing and maintaining stone, providing liner if specified or on plans, and disposing of any stone not incorporated into the project when necessary.

B. **Materials:** Refer to Article 1042-1 and Article 1005 of the North Carolina Department of Transportation Standard Specifications for Roads and Structures.

C. **Basis of Payment:** Payment for rip rap and/or stone as specified on plans for permanent stormwater and permanent erosion control measures shall be made under the contract unit price per cubic yard for the type of stone furnished, stockpiled if directed, installed and maintained in accordance with the plans and proposal. The unit prices and payments will be full compensation for all labor, equipment, and materials necessary to install and maintain the devices in accordance with the Contract Documents. In the instance that payment for permanent measures is specified per each, there shall be no separate payment for rip rap and/or stone.

## **PART 10 – TEMPORARY MULCHING**

- A. Description: Furnish, place and secure mulch material to prevent excessive soil erosion during construction operations where it is impossible or impractical to perform permanent seeding and mulching.
- B. Materials: Refer to Article 1060-3 of the North Carolina Department of Transportation Standard Specifications for Roads and Structures.
- C. Basis of Payment: Payment for “Temporary Mulching” shall be made under the contract unit price bid per acre as indicated in the Itemized Proposal in the Contract Documents. This price shall be full compensation for all work covered by this section including but not limited to furnishing, placing and securing the temporary mulch as specified.

## PART 11 – TEMPORARY SLOPE DRAINS

### DESCRIPTION

Furnish, place, maintain and remove temporary slope drains at the locations shown in the plans and at locations as directed. Work includes, but is not limited to, furnishing all pipe, anchor stakes and compacted earth; installation and removal of the slope drain; constructing the sump, earth shoulder berm and earth berm ditch block; constructing the stone inlet protection; constructing the outlet protection; and dressing, seeding and mulching the disturbed area after the slope drain and berm have been removed. Standard T-sections and elbows at the inlet of the slope drain pipe may be required as directed.

The actual conditions during the construction of the project will determine the quantity of temporary slope drains.

The quantity of temporary slope drains may be increased, decreased or eliminated entirely at the direction of the Engineer. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work.

### CONSTRUCTION METHODS

Install temporary slope drains in accordance with *Roadway Standard Drawings* during all phases of grading operations and adjust as needed to properly direct water flow.

Construct an earth berm at the top of cut and fill sections to direct water flow into temporary slope drains.

At locations of single direction water flow, locate temporary slope drain inlets in a sump along the earth berm. Construct an earth berm ditch block perpendicular to the direction of the water flow on the downstream side of the temporary slope drain. Construct ditch blocks of sufficient height to block the flow of water but at no higher elevation than the earth shoulder berm. Install an elbow at inlet of slope drain pipe as directed.

At locations of multi direction flow, install a sump on both sides of the slope drain inlet. Construct inlet protection with sediment control stone and Class B stone in accordance with *Roadway Standard Drawings*. Install a standard T-section at the slope drain inlet as directed.

Join multiple pipe sections using an approved pipe coupling. Anchor slope drains in accordance with the *Roadway Standard Drawings*. Extend slope drain to bottom of slope and erosion control measures.

#### **MEASUREMENT AND PAYMENT**

*Temporary Slope Drains* will be measured and paid in linear feet of pipe, including inlets, tees and elbows, measured along the invert of the temporary slope drain, completed and accepted.

### **PART 12 – SAFETY FENCE**

#### **Description**

*Safety Fence* shall consist of furnishing materials, installing and maintaining polyethylene or polypropylene fence along the outside riparian buffer, wetland, or water boundary, or other boundaries located within the construction corridor to mark the areas that have been approved to infringe within the buffer, wetland, endangered vegetation, culturally sensitive areas or water. The fence shall be installed prior to any land disturbing activities.

Interior boundaries for jurisdictional areas noted above shall be delineated by stakes and highly visible flagging.

Jurisdictional boundaries at staging areas, waste sites, or borrow pits, whether considered outside or interior boundaries shall be delineated by stakes and highly visible flagging.

#### **Materials**

##### **(A) Safety Fencing**

Polyethylene or polypropylene fence shall be a highly visible preconstructed safety fence approved by the Engineer. The fence material shall have an ultraviolet coating.

Either wood posts or steel posts may be used. Wood posts shall be hardwood with a wedge or pencil tip at one end, and shall be at least 5 ft. in length with a minimum nominal 2" x 2" cross section. Steel posts shall be at least 5 ft. in length, and have a minimum weight of 0.85 lb/ft of length.

##### **(B) Boundary Flagging**

Wooden stakes shall be 4 feet in length with a minimum nominal 3/4" x 1-3/4" cross section. The flagging shall be at least 1" in width. The flagging material shall be vinyl and shall be orange in color and highly visible.

#### **Construction Methods**

No additional clearing and grubbing is anticipated for the installation of this fence. The fence shall be erected to conform to the general contour of the ground.

**(A) Safety Fencing**

Posts shall be set at a maximum spacing of 10 ft., maintained in a vertical position and hand set or set with a post driver. Posts shall be installed a minimum of 2 ft. into the ground. If hand set, all backfill material shall be thoroughly tamped. Wood posts may be sharpened to a dull point if power driven. Posts damaged by power driving shall be removed and replaced prior to final acceptance. The tops of all wood posts shall be cut at a 30-degree angle. The wood posts may, at the option of the Contractor, be cut at this angle either before or after the posts are erected.

The fence geotextile shall be attached to the wood posts with one 2" galvanized wire staple across each cable or to the steel posts with wire or other acceptable means.

Place construction stakes to establish the location of the safety fence in accordance with Article 105-9 or Article 801-1 of the *Standard Specifications*. No direct pay will be made for the staking of the safety fence. All stakeouts for safety fence shall be considered incidental to the work being paid for as "Construction Surveying", except that where there is no pay item for construction surveying, all safety fence stakeout will be performed by state forces.

The Contractor shall be required to maintain the safety fence in a satisfactory condition for the duration of the project as determined by the Engineer.

**(B) Boundary Flagging**

Boundary flagging delineation of interior boundaries shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6" into the ground. Interior boundaries may be staked on a tangent that runs parallel to buffer but must not encroach on the buffer at any location. Interior boundaries of hand clearing shall be identified with a different colored flagging to distinguish it from mechanized clearing.

Boundary flagging delineation of interior boundaries will be placed in accordance with Article 105-9 or Article 801-1 of the *Standard Specifications*. No direct pay will be made for delineation of the interior boundaries. This delineation will be considered incidental to the work being paid for as *Construction Surveying*, except that where there is no pay item or construction surveying the cost of boundary flagging delineation shall be included in the unit prices bid for the various items in the contract. Installation for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6" into the ground. Additional flagging may be placed on overhanging vegetation to enhance visibility but does not substitute for installation of stakes.

Installation of boundary flagging for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall be performed in accordance with Subarticle 230-4(B)(5) or Subarticle 802-2(F) of the *Standard Specifications*. No direct pay will be made for this

delineation, as the cost of same shall be included in the unit prices bid for the various items in the contract.

The Contractor shall be required to maintain alternative stakes and highly visible flagging in a satisfactory condition for the duration of the project as determined by the Engineer.

### **Measurement and Payment**

*Safety Fence* will be measured and paid as the actual number of linear feet of polyethylene or polypropylene fence installed in place and accepted. Such payment will be full compensation including but not limited to furnishing and installing fence geotextile with necessary posts and post bracing, staples, tie wires, tools, equipment and incidentals necessary to complete this work.

## **PART 13 – SILT EXCAVATION**

### **DESCRIPTION**

Excavate and satisfactorily dispose of all materials excavated in the construction, cleaning out and maintenance of silt basins, silt ditches, diversions and other silt detention devices. Work includes, but is not limited to, excavation, shaping of the basins or ditches, cleaning out and maintaining the basins or ditches, disposal of all materials and backfilling.

### **CONSTRUCTION METHODS**

#### **(A) General**

Excavate silt basins, silt ditches, diversions or other silt detention devices to the dimensions and at the locations shown in the plans or as directed for the purpose of siltation control with non-vertical side slopes and not greater than 1.5:1 slope. Clean out silt detention devices, when so directed, to maintain their effectiveness. Backfill and shape for seeding and mulching silt detention basins and silt ditches before completion of the project unless otherwise directed.

#### **(B) Disposal of Materials**

Use all excavated materials in the construction of roadway embankments except where otherwise directed. Dispose of materials, which are not used in the construction of roadway embankments in waste areas in accordance with Section 802.

### **MEASUREMENT AND PAYMENT**

Silt Excavation will be measured and paid in cubic yards measured in the original position, of all materials excavated within the limits established by the plans or directed by the Engineer. If in the opinion of the Engineer it is not feasible to measure the excavated material in its original position, the volume will be determined by truck measurement in accordance with Article 230-5, except that no deduction for shrinkage will be made. The filling of silt basins, diversions or silt ditches will be paid as provided in Section 225 for Unclassified Excavation or in Section 230 for Borrow Excavation, depending on the source of the material used to fill the basins or ditches.

END SECTION 16000

## SECTION 19000 STRUCTURES

### A. STRUCTURE PILES

#### DESCRIPTION

This work consists of furnishing and installing the steel piles for Abutment 2. The contractor will furnish and install piles in accordance with the contract and accepted submittals. The Owner will provide special inspections related to the installation of the piles. The contractor is responsible for scheduling and coordinating access to the abutment locations. Any damage to private or public property shall be the responsibility of the contractor to repair with no additional payment. Special inspections to be provided by the Owner. The contractor is responsible for scheduling the required special inspection with agency.

The contractor shall provide steel piles with steel sections and material properties shown in the plans. The contractor will pre-drill piles with approved equipment. Galvanize, restrike, redrive, splice, cut off, build up piles and perform predrilling as necessary or required. "Pile embedment" is defined as the required pile embedment in the cap or footing and "pile penetration" is defined as the minimum required pile tip elevation or penetration into natural ground, whichever is deeper. "Natural ground" is defined as below the ground or mud line before constructing any embankments. The estimated pile lengths shown in the plans are for bid purposes only. The contractor shall provide piles of sufficient lengths for the pre-drilling depth, pile embedment and pile penetration. The contractor shall provide piles of sufficient lengths by performing subsurface investigations, as needed.

For steel piles for the pedestrian bridge abutments refer to NCDOT Standard Specifications for Roads and Structures Section 450-1.

#### MATERIALS

Refer to Division 10, NCDOT Standard Specifications for Roads and Structures and according to specifications on the plan documents.

Before incorporating steel piles into the work, obtain all applicable certified mill test reports clearly identifiable to the lot of material by heat numbers, submit these reports to the Engineer for review and analysis and receive approval of such test reports from the Engineer. These requirements apply to both domestic. Transfer the heat number of each painted pile to the newly painted surface with a permanent marker of a color contrasting to the paint once the paint has fully cured. Steel H-piles shall meet ASTM A572 Grade 50 or ASTM A588.

For drilled-in piles, Class A concrete shall meet Article 1000-4 except as modified herein. Provide concrete with a slump of 6 inches to 8 inches. Use an approved high-range water reducer to achieve this slump. Use steel H-piles that meet Section 1084. Use steel pile points and splicers that are on the NCDOT APL.

<u>Item</u>	<u>Section</u>
Flowable Fill, Non-Excavatable	1000-6
Neat Cement Grout, Type 1	1003
Portland Cement Concrete, Class A	1000

Steel Piles

1084-1B

**CONSTRUCTION METHODS****Abutment 2**

Due to the shallow presence of Partially Weathered Rock (PWR), holes will need to be pre-drilled to achieve sufficient embedment depth.

Refer to NCDOT Standard Specifications for Roads and Structures Section 450-3.

**MEASUREMENT AND PAYMENT**

No additional payment will be made for subsurface investigations to determine required pile lengths or larger caps or footings due to piles out of position.

*Pile Pre-drilling Equipment Setup Per Bridge Foundation* will be full compensation for coordinating access to each location, mobilizing and demobilizing pile driving equipment, personnel, supplies and incidentals, setting up and breaking down pre-drilling equipment, e.g., drill, crane, template, etc. and submitting the proposed pile pre-drilling methods and equipment. This includes the setup costs for all the foundation piles.

*Predrilling for Steel Piles* will be measured and paid in linear feet. For foundations with a predrilling pay item shown in the plans, predrilling will be paid as *Predrilling for Steel Piles* and measured per pile location as the depth from the ground or mud line to the specified predrilling elevation or revised elevation approved by the Engineer. The contract unit price for *Predrilling for Steel Piles* will also be full compensation for using temporary casings. For foundations without a predrilling pay item shown in the plans, predrilling will be incidental to the contract unit prices for Steel Piles.

*Pile Excavation in Soil and Pile Excavation Not in Soil* will be measured and paid in linear feet. Pile excavation will be measured as the depth from the ground line to the specified pile excavation elevation or revised elevation approved by the Engineer. Define “not in soil” as material with a rock auger penetration rate of less than 2 inches per 5 minutes of drilling at full crowd force. When not in soil is encountered, seams, voids and weathered rock less than 3 feet thick with a rock auger penetration rate of greater than 2 inches per 5 minutes of drilling at full crowd force will be paid at the contract unit price for Pile Excavation Not in Soil. Seams, voids and weathered rock greater than 3 feet thick will be paid at the contract unit price for Pile Excavation in Soil where not in soil is no longer encountered. The contract unit prices for Pile Excavation in Soil and Pile Excavation Not in Soil will be full compensation for stabilizing and filling holes with concrete, grout or flowable fill.

*Steel Piles* will be paid according to length of H-Pile section before installation minus any pile-cutoffs. No payment will be made for portions of steel H-pile sections embedded in pre-stressed concrete sections or steel pile splicers and any associated hardware or welding. After piles attain the required resistance and pile penetration and at the Contractor's option, drive piles to grade instead of cutting off piles provided the remaining portions of piles do not exceed 5 feet and piles can be driven without damage or reaching the maximum blow count or refusal. When this occurs, the additional pile length driven will be measured and paid at the contract unit prices for *Steel Piles*. Such payment shall be considered full compensation for the items of work, including the cost for furnishing all materials, labor, equipment, tools, incidentals, and storage

of steel piles. *Steel piles* will include any steel pile points that may be required.

*Payment will be made under:*

Pay Item	Pay Unit
Pile Pre-drilling Equipment Setup Per Bridge Foundation	each (EA)
Steel Piles	linear feet (LF)
Predrilling for Steel Piles	linear feet (LF)
Pile Excavation in Soil	linear feet (LF)
Pile Excavation Not in Soil	linear feet (LF)

## B. BRIDGE ABUTMENTS

### DESCRIPTION

Construct cast-in-place concrete structures in conformity with the lines, grades and dimensions shown in the contract. Furnish and place concrete, reinforcing steel, joint filler and sealer, curing agents, epoxy protective coating, deck drains, expansion anchors and any other material; erect and remove all falsework and forms; protect concrete in wind, rain, low humidity, high temperatures or other unfavorable weather; construct joints and weep holes; finish and cure concrete; protect concrete from rust stains.

Refer to NCDOT Standard Specifications for Roads and Structures Section 420-1.

### MATERIALS

Refer to Division 10, NCDOT Standard Specifications for Roads and Structures.

<u>Item</u>	<u>Section</u>
Calcium Nitrite Corrosion Inhibitor	1000-4(K)
Curing Agents	1026
Epoxy Protective Coating	1054-1
Joint Fillers	1028-1
Joint Sealers	1028
Portland Cement Concrete	1000
Reinforcing Steel	1070
Geotextiles, Type I	1056
Subdrain Coarse Aggregate	1044-2
Subdrain Fine Aggregate	1044-1

### CONSTRUCTION METHODS

Refer to NCDOT Standard Specifications for Roads and Structures Section 420, Concrete Structures. Refer to Section to 425 for Fabricating and Placing Reinforcement.

Refer to Section 453, CIP Gravity Retaining walls for construction of the Reinforced Concrete Abutments on Spread Footings for Abutment 1.

If applicable and at the Contractor's option, use temporary shoring for wall construction instead of temporary slopes to construct reinforced abutments on spread footings. Define "temporary shoring for wall construction" as temporary shoring not shown in the plans or required by the Engineer including shoring for OSHA reasons or the Contractor's convenience.

**Abutment 1:**

Prior to construction, the contractor should verify the rock elevation and a minimum bearing pressure of 2.2 ksf. Excavate to the elevation shown in the plan. If excavations deviate further than 6 inches than the expected elevation shown on the plans, notify the Engineer. Notify the Engineer when foundation excavation is complete. Do not place concrete for footings until excavation depth and foundation material are approved.

**EXCAVATION AND BACKFILL**

The bridge abutment excavation at Abutment 2 shall be completed prior to installing the steel piles. Backfill behind Abutment 1 and Abutment 2 and the wing walls shall be #57 stone.

**MEASUREMENT AND PAYMENT**

The pay item *Bridge Abutment 1 and Bridge Abutment 2* shall be made. Drainage materials and all other materials and work to construct bridge abutment shall be included in the respective payment items.

Such payment shall be considered full compensation for the items of work, including the cost for furnishing all materials, labor, equipment, tools, incidentals, and storage of materials.

The excavation, temporary shoring, riprap removal and resetting, underdrain and granular backfill shall be incidental to pay items *Bridge Abutment 1* and *Bridge Abutment 2*.

Refer to 0400-EARTHWORK for specifications on Bridge Abutment Excavation & Backfill.

*Payment will be made under:*

Pay Item	Pay Unit
Bridge Abutment 1	each (EA)
Bridge Abutment 2	each (EA)

**C. FIBERGLASS BRIDGE**

**DESCRIPTION**

Furnish, assemble, and install pre-engineered, fiberglass pedestrian bridge in conformity with the lines, grades and dimensions shown in the contract plans and specifications. The Contractor is required to provide full structural design as necessary to obtain a permit from building standards, all drawings and structural calculations shall be signed and sealed by a professional engineer licensed in the State of North Carolina. Shop drawings are to be submitted to the Engineer for review to ensure conformance to design and specifications prior to fabrication and submittal to building standards. The Contractor is required to make the submittal with the review fee to reviewing authority. Special inspections will be provided by the Owner. The contractor is responsible for scheduling and coordinating access to the abutment location with

all landowners. Any damage to private or public property shall be the responsibility of the contractor to repair with no additional payment.

**Manufacturer**

The bridge manufacturer shall have been in the business of design and fabrication of bridges for a minimum of 4 years and provide a list of 5 successful bridge projects of similar construction. List the location, bridge size, owner and contact reference for each bridge.

**MATERIALS**

Provide a 60'-0" span truss fiberglass bridge, providing 10'-0" clear width between handrails and a maximum 18'-0" structure width, with a solid surface, non-slip fiberglass deck per bridge drawings. ADA handrails shall be provided at 36" from the top surface of the bridge deck. A minimum railing height of 54" shall be provided from the top surface of the bridge deck. The maximum opening between the rail shall not be greater than 4".

Bridge color has been determined by the Town to be brown.

All members shall be fabricated from pultruded FRP composite profiles and structural shapes as required. Bridge shall be mechanically precambered over the full length of the bridge to eliminate initial dead load deflection, at a minimum.

The bridge shall be fabricated from high-strength E-glass and isophthalic polyester resin unless otherwise specified. Weathering and ultraviolet light protection shall be provided by addition of a veil to the laminate construction.

The minimum thickness of FRP Composite shapes shall be as follows unless otherwise specified: Square tube members (closed type shape) shall be 0.25 in. Wide-flange beams, channel sections, and angles (open type shapes) shall be a minimum thickness of 0.25 in. Standard plate shall be a minimum thickness of 0.25 in.

Minimum material strengths and properties are as follows:

Tension: 30 ksi  
Compression: 30 ksi  
Shear: 4 ksi  
Bending: 30 ksi  
Modulus: 2,800,000 psi  
Young's Modulus: 2,800,000 psi

All cutting and drilling fabrication to be done by experienced fiberglass workers using carbide or diamond-tipped tooling to a tolerance of 1/16". No material deviations beyond industry standards are accepted. All cut edges to be cleaned and sealed.

Bolted connections shall be A307 hot-dipped galvanized steel. Mounting devices shall be galvanized or stainless steel.

Bridge deck shall be constructed of FRP and meet the same strength and loading criteria as the bridge. The surface shall be solid or adjacent plank, with a non-slip surface.

### **Bridge Loading**

Live Load: Bridges shall be designed for a 90 psf pedestrian live load, and an H-5 (10,000 lb.) truck.

Wind Load: All bridges shall be designed for a minimum wind load of 35 psf. The wind is calculated on the entire vertical surface of the bridge as if fully enclosed.

Service live load deflection is limited to L/500.

Minimum vertical frequency (fn) shall be 5 Hz without any live load.

Minimum horizontal frequency (fn) shall be 3 Hz without any live load.

### **CONSTRUCTION METHODS**

Delivery is to be made by truck to a location nearest the site accessible by roads and parking lots, agreed in advance by the manufacturer, contractor and owner. The manufacturer shall notify the contractor and owner in advance of the expected time of arrival at the site. The bridge will be shipped to the site in component parts. The spans can be completely assembled using standard hand tools. The manufacturer shall provide assembly drawings and a recommended assembly procedure for building the bridge, including optional pick points for a crane. The contractor may choose to assemble the bridge in place or assemble the bridge adjacent to the site and lift it in place with a crane. Temporary supports, rigging equipment and crane are the responsibility of the contractor.

Install according to plan documents and manufacturer's recommendations in accordance with all applicable local, state and federal safety requirements.

### **WARRANTY**

The bridge manufacturer shall warrant the structural integrity of all FRP materials, design and workmanship for 15 years. This warranty shall not cover defects in the bridge caused by foundation failures, abuse, misuse, overloading, accident, faulty construction or alteration, or other cause not the result of defective materials or workmanship.

### **MEASUREMENT AND PAYMENT**

The pay item *FiberglassBridge* shall be made per each bridge installed.

Such payment shall be considered full compensation for the items of work for the bridge and deck, including the cost for furnishing all materials, labor, assembly and installation, equipment, tools, incidentals, and storage of materials.

*Payment will be made under:*

Pay Item	Pay Unit
Fiberglass Bridge	each

## D. APPROACH PADS

### DESCRIPTION

This work consists of furnishing and placement of Portland cement concrete pavement for the approach slabs in accordance with the lines, grades, thickness and typical sections shown on the plans. This work includes furnish, transporting, placing, curing & finishing Portland concrete pavement and maintaining the pavement course until final acceptance of the project. This also includes furnish and place reinforcing steel and any form work required.

### MATERIALS

Refer to Division 7, NCDOT Standard Specifications for Roads and Structures.

<u>Item</u>	<u>Section</u>
Portland Cement Concrete	1000
General Requirements for Aggregate	1005
Aggregate for Portland Cement Concrete	1014
Curing Agents	1026
Joint Materials	1028
Reinforcing Steel	1070

### CONSTRUCTION METHODS

NCDOT Standard Specifications for Roads and Structures Section 700, Section 846, Section 848, and the project Geotechnical Report.

Any concrete placed without the subgrade being checked and approved is subject to removal at the projects Engineers discretion and at the contractors expense.

### MEASUREMENT AND PAYMENT

Approach slabs will be paid lump sum. Such payment shall be considered full compensation for the items of work, including the cost for furnishing all materials, labor, equipment, tools, incidentals, preparation, installation and maintenance.

*Payment will be made under:*

Pay Item	Pay Unit
Approach Pads	each

END SECTION 19000

**SECTION 20000**  
**CONSTRUCTION TRAFFIC CONTROL**

**PART 1 - GENERAL**

- A. The work covered by this section consists of furnishing, erecting, maintaining, relocating, and removing traffic control devices in accordance with the Contract Documents as well as the latest versions of the NCDOT "Standard Specifications for Roads and Structures, January 2024," NCDOT "Roadway Standard Drawings Manual, January 2024," MUTCD, NCDOT Supplement to the MUTCD, or as directed by the Inspector.
- B. All traffic control devices furnished by the Contractor shall remain the property of the Contractor, unless otherwise specified by the contract. Traffic control devices shall include, but are not limited to signs, drums, barricades, barriers, electronic variable message boards, cones, delineators, flashing arrow panels, temporary guardrails, temporary concrete median barriers, vehicle-mounted temporary impact attenuators, pavement markings, raised reflective pavement markers, NCDOT Certified flaggers, and pilot vehicles.

**PART 2 - MATERIALS - GENERAL**

- A. Unless otherwise required, materials used in the fabrication and installation of construction traffic control devices shall be in accordance with the applicable provisions of the MUTCD. When traffic control devices are no longer required for traffic handling in the initial phase of construction requiring their use, they may be reused at various locations throughout the project provided the device is not defaced, is structurally sound, clean and otherwise conforms to the above requirements.
- B. All enclosed lens (Engineer's Grade) sheeting required for use on traffic control devices shall have an identification mark on the surface. This mark signifies that the sheeting meets the requirements of Federal Specification L-S-300C for Minimum Reflectivity 1 Sheeting and Tape. The identification mark shall not interfere with the function of the device, but shall be visible both day and under illumination at night without the use of special devices. No work on the project shall start until all the traffic control devices required for the particular work activity are inspected and approved by the Engineer.
- C. Traffic control devices which do not meet the requirements of this section shall not be used. If a device ceases to meet the requirements of this section during the project, it shall be promptly removed and replaced with a conforming device at no additional compensation. The Engineer shall have the authority to determine the acceptability of the traffic control devices.

### **PART 3 - CONSTRUCTION METHODS - GENERAL**

- A. Existing public streets or highways shall be kept open to traffic at all times by the Contractor unless permission to close these streets, or portions thereof, is granted by both the Engineer and the Director of Public Safety. In addition, the Town of Holly Springs Communications Division of the Police Department must be contacted BY THE CONTRACTOR A MINIMUM OF 24 HOURS before any streets are closed or partially closed. The Engineer may request that the Contractor make additional notifications to property owners.
- B. Traffic control devices shall be installed at the inception of construction operations, and shall be properly maintained, relocated as necessary, cleaned, and operated during the time they are in use. They shall remain in place only as long as they are needed and shall be immediately removed thereafter. Where operations are performed in stages, only those devices that apply to the conditions present shall be left in place.
- C. The location, legends, sheeting, dimension, number of supports, and horizontal and vertical placement of warning signs, barricades, and other traffic control devices shall be as required by the plans or the MUTCD or as directed by the Engineer. The Contractor may submit for the Engineer's consideration a method for handling traffic other than as shown on the plans. The alternate traffic control plans shall not be used until they are approved in writing by the Engineer. During periods when not warranted, warning signs and other devices shall be removed from the work area, covered with specified material, or otherwise positioned so that they do not convey their message to the traveling public. If covered, the covering material shall be exterior plywood and shall cover the entire face of the sign panel. The covering material shall be installed in such a manner that the sign panel will not be defaced. Non-metal washers or other spacing devices shall be used to keep the plywood covering material from direct contact with the sign panel. Covering material shall be maintained in a neat manner during its use.
- D. Weeds, brush, trees, construction materials, equipment, etc. shall not be allowed to obscure any traffic control device in use. There will be no separate compensation for any trimming or cutting required for this purpose.
- E. Competent and properly trained flaggers, properly attired and equipped, shall be provided in accordance with MUTCD standards and when directed by the Engineer or Inspector or when the Contractor deems it necessary to safely handle traffic through the construction zone.
- F. The Contractor shall assume full responsibility for the continuous and expeditious maintenance of all construction warning signs, barricades, and other traffic control devices which in the opinion of the Engineer are damaged by traffic or other means or deteriorated beyond effectiveness. Conditions covered under maintenance shall include but not be limited to replacement due to loss of reflectivity; replacement of broken supports; plumbing of leaning signs; cleaning of dirty signs, barricades, and

other devices; repair of defaced sheeting and legend; and replacement of stolen or vandalized items. All items used for traffic control shall be maintained in a satisfactory condition. Failure to maintain all traffic control devices in a satisfactory condition may be cause for suspension of construction operations until proper traffic control is re-established.

- G. The Contractor shall follow the construction procedure and maintenance of traffic as shown on the Traffic Control Plan, unless a more workable plan is agreed to by the Engineer prior to or during the execution of the work. The Contractor shall complete each construction phase in the sequence shown if phasing is specified.
- H. Work on the project shall not start until all the traffic control devices required for the particular work activity have been inspected and approved by the Engineer.
- I. The Contractor shall continuously review and maintain all traffic control measures to assure that adequate provisions have been made for the safety of the public and workers.
- J. The Contractor shall furnish a material certification for all new and used reflective sheeting.

#### **PART 4 - PAYMENT**

- A. Basis of Payment:
  - i. Payment for traffic control shall be made at the contract lump sum price for "Temporary Traffic Control" or as designated on the Itemized Proposal. Payment will include all work covered by this section. If no item is included for traffic control devices in the "Itemized Proposal," all traffic control devices must be placed, and no direct payment shall be made. Payment will be full compensation for all work of furnishing, erecting, relocating, maintaining and removing any and/or all temporary traffic control devices.
  - ii. If traffic control measures are designated separately on the Itemized Proposal, measurement and payment shall be made as follows:
    - a) "Stationary Construction Signs" will be paid by the actual number of square feet of sign panels installed at each location required by the contract. Where a particular sign is used at more than one location, measurement will be made at each location.
    - b) "Non-Metallic Drums" shall be paid by the maximum number of drums acceptably placed at any one time during the life of the project as required by the contract.

- c) "Portable Temporary Traffic Control Devices" shall be paid for at the lump sum price for all work including, but not limited to portable signs, temporary guardrails, barricades, barriers, electronic variable message boards, cones, delineators, flaggers, pilot vehicles, and any other traffic control devices not covered by any other section included in this contract.
- d) "Type III Barricades" shall be paid for per linear foot, acceptably placed and in use at any one time during the life of the project. Relocation of barricades will be considered as incidental to the measurement of the quantity of barricades. This includes all materials necessary to furnish and install as shown on the plans and per MUTCD.

iii. Payment for "Temporary Traffic Control," "Stationary Construction Signs," "Non-Metallic Drums," and "Portable Temporary Traffic Control Devices" shall be made as follows:

- d) Fifty percent (50%) of the total quantity of each item on the Itemized Proposal on the first partial payment estimate after which said item(s) have been placed into operation.
- e) Twenty-five percent (25%) of the total quantity of each item on the Itemized Proposal on the first partial payment estimate made after the project is 50% complete.
- f) Twenty-five percent (25%) of the total quantity of each item on the Itemized Proposal on the first partial payment after the project is one hundred percent (100%) complete.
- g) In the event the Contractor fails to follow MUTCD guidelines, the Town may contract to install or install with Town forces, traffic control per MUTCD guidelines, permanently retaining all associated costs from funds paid to the Contractor.
- h) If it is necessary for the Town of Holly Springs police to be present to aid in the control of traffic, a 24 hour notice must be given to the Chief of Police and all associated costs must be paid, by the contractor, to the Town.

## PART 5 – PERMANENT SIGNS

All materials, labor, equipment and work performed or supplied under this item shall be as specified in the NCDOT Standard Specifications latest revisions including, but not limited to, Division 9 thereof.

Sign hardware shall be consistent with Town of Holly Springs detail HS360, which includes a black coated-aluminum u-channel and sign backing.

Payment shall be full compensation for all labor, equipment, furnishing, accessories, mounting, erecting and installation, of the sign(s) as indicated in the plans and details. Payment shall be at the contract unit bid price per EACH sign system complete in place.

#### **PART 6 – PERMANENT GREENWAY MARKER**

All materials, labor, equipment and work performed or supplied under this item shall be as specified in the Town of Holly Springs Standard Detail HS-397.

Payment shall be full compensation for all labor, equipment, furnishing, accessories, mounting, erecting and installation, of the marker(s) as indicated in the plans and details. Payment shall be at the contract unit bid price per EACH marker complete in place.

#### **PART 7 – SAFETY RAILING**

All materials, labor, equipment and work performed or supplied under this item shall be as specified in the Town of Holly Springs Standard Detail HS-001.

Payment shall be full compensation for all labor, equipment, furnishing, accessories, mounting, erecting and installation, of the railing(s) as indicated in the plans and details. Payment shall be at the contract unit bid price per Linear Foot of railing complete in place.

END OF SECTION 20000

## SECTION 40000 **SPECIAL CONSTRUCTION**

The following items in Section 40000 are project-specific and shall supersede any other conflicting portion of these contract documents.

Conform to the requirements of the pay items included in these Technical Specifications.

### **General**

- A. Mobilization (which includes demobilization) shall not exceed 5% of the project cost and shall be paid for as lump sum unit price.
- B. Unless otherwise approved by the Town of Holly Springs, the Contractor shall perform a minimum of 50% of the work with their own forces. Documentation of this shall be provided in Section 905.
- C. The Contractor will be responsible for attending bi-weekly meetings during the project duration at which point a report will be made as to the project status including any problems encountered. Contractor's representative shall be a project manager familiar with the daily progress and field conditions of the project. Contractor and subcontractors shall limit communications to those with the Inspector except as otherwise provided by these documents.
- D. Contractors must be licensed with the State of North Carolina as a General Contractor, plus any specialty work performed by the Contractor and/or subcontractor shall be performed by a Contractor licensed in the respective specialty area.
- E. Where the contractor fails to respond in a timely manner to Town directives to complete certain repairs and/or work that, in the Town's opinion, cause a safety hazard or the potential for damages, the Town may have such work performed and deduct the costs plus 25% from the Contractor's pay request. This provision shall not, however, obligate the Town to undertake such work that is the responsibility of the Contractor.
- F. Contractor must meet all requirements of forthcoming NCDENR, NCDOT and other required permits on this project. Permits are inserted into the Appendix prior to construction.
- G. Contractor shall agree to a reduction or an increase in the scope of work as requested by the Town of Holly Springs with no adjustment to unit cost.
- H. Construction surveying shall be included in the contract bid. Surveyor shall provide a stakeout of areas where an environmental permit is required prior to performing any construction in or adjacent to these areas. Stake out limits of the permitted work areas according to the approved permit drawings. Provide clear delineation by use of pink or other highly visible flagging. Ensure construction limits do not exceed approved permitted work areas. Immediately notify the Environmental Inspector of any variation of the stakeout limits when compared to the approved permit drawings. The Environmental Inspector shall approve the limits of the staked area prior to the onset of construction in that area. Payment for "Construction Surveying" will be made under the contract lump sum based upon a

percentage complete of the project and shall include all labor, equipment, and materials necessary to perform construction surveying and staking during the duration of the contract and after construction as required. Surveying required to complete the as-built plans and submittal of as-built plans (1 set mylar, 2 sets blueprints) to the Town shall be included in the price for "Construction Surveying" and shall be delivered and approved by the Town prior to Final Application for Payment. The as-built plans shall comply with the TOHS "Engineering and Construction Standards" requirements for as-builts, and the data shall be tied to the nearest TOHS geodetic control monument. All construction surveying shall be staked from the same monument used in the design of the plans.

- I. The itemized Bid Quantities are engineer's estimate and are used for the comparison of bids. The Town maintains the right to add or delete quantities at any time, without an adjustment to the unit price.
- J. There shall be no unit price adjustment for materials due to market variability.

### **Prior to Construction**

- A. The Contractor shall inspect all features within the construction limits including both public and private existing sidewalk, curb and gutter, landscaping, signs, pavement, pavement markings, light posts, utilities and other physical features, which according to the plans will remain in place, prior to construction. The Contractor shall document with the Engineer, in writing and recorded on video tape supplemented with appropriate photographs, prior to beginning any construction, the full project limits. The Inspector shall be present during the videotaping. Any damage to existing features from the work of this contract shall be promptly repaired by the Contractor at no additional cost to the Town, in a manner approved by the Engineer.
- B. The Contractor shall install, one (1) 24"x36" A-frame sign each at least one (1) week in advance of beginning construction, at the project limits from each direction of the ex. sidewalk. The Contractor shall provide a layout and verbiage for the A-frames to the Town for review ahead of the installation.
- C. The Contractor shall notify, in writing, businesses, residents and property owners adjacent to proposed construction of impending work at least one (1) week in advance of beginning construction in the vicinity of their property. Construction limits shall be staked prior to this notice. A standard letter for this purpose shall be provided to the Contractor by the Town.
- D. Contractor shall stake the easements and install all tree protection fence deemed necessary. Once this is completed a "walk thru" shall be scheduled with the Contractor, Inspector, and Engineer at which time adjustments may be made. No clearing (even within the easement) shall be started prior to this walk thru. After the walk thru, root pruning and then clearing operations may begin.

### **Site**

- A. Staging, topsoil, and stockpile location is noted on the plan. Site shall be maintained in good condition and all S&EC measures shall be present as shown on plan. At the end of project, area shall be cleaned and repaired as necessary to prior condition. This cost is incidental to the project.

- B. The Contractor shall accept actual conditions at the site and perform the work specified without additional compensation for possible variation from grades and conditions shown, whether surface or subsurface, except as provided for by the contract documents.
- C. At the end of each working day and during periods of construction inactivity, equipment shall be parked and/or stored in designated staging area and/or a minimum of 30 feet from the edge of any travel lane unless deflective barriers are employed in accordance with MUTCD standards. All sight distances shall be kept clear and free of equipment and materials at all times.
- D. The Contractor shall be responsible for removing and replacing existing street signs, utility services such as c/o's and water meters, headwalls, and other related or similar existing items. All items shall be replaced in a location as shown on the plans or as directed by the Inspector. Unless noted in the project bid estimate, no direct payment shall be made for such relocations.
- E. Contractor shall be required to re-establish and re-set any existing property corner markers or local survey monuments which are disturbed by construction. Written documentation that such corners were re-established in a proper manner must be provided by a PLS.
- F. The Contractor shall construct all improvements so as to create and/or maintain positive drainage at all times.
- G. Incidental Stone quantities must be approved, prior to installation, by the Inspector/Engineer in order for payment to be approved. In addition, tickets for incidental stone shall be provided to the Inspector on the day of placement to be eligible for payment.
- I. The Contractor shall comply with all requirements listed in the North Carolina Division of Environmental Management Stormwater Discharge NPDES Permit NCG010000, including the following conditions listed below. Contractor shall abide by the approved Sedimentation and Erosion Control Plan for this project and keep a signed copy of the letter of approval of the plan on-site at all times.
  - i. There shall be no discharge of any sanitary wastewater from this construction activity except under the provisions of another NPDES permit specifically issued therefore.
  - ii. There shall be no chemicals added to the discharge.
  - iii. All wastes composed of building and construction materials will be disposed of in accordance with N. C. statutes and rules governing solid waste disposal.
  - iv. Maintenance activities for vehicles and heavy equipment shall be performed so as to not result in contamination of the surface or ground waters.
- J. Contractor shall take precautions to avoid damage to existing pavement during construction. Whenever pavement or other physical features outside of the construction limits but in proximity to project becomes damaged, unless evidence is presented by the Contractor to the contrary, Contractor is assumed responsible for such damages. The Contractor shall be responsible for the repair of such to a state acceptable by the Engineer at no additional cost to the Owner.
- K. If contaminated soil is encountered during construction, the material shall be handled in a manner acceptable to DENR. The Contractor shall be responsible for obtaining any permits necessary.

- L. Accessibility to existing mailboxes shall be maintained at all times during construction through means of temporary relocation. When temporarily removing and replacing mailboxes, the contractor shall remove the mailbox and post without damaging. The contractor shall photograph all mailboxes before removal to ensure that the replaced mailbox is of equal or greater condition than before. Contractor shall be responsible for final placement of mailboxes in a condition equal to or better than that which is existing and method of installation to be equal to the pre-construction method of installation. Inspector to approve all mailbox removal and replacement.
- P. The Contractor shall restore any grass, landscaping, driveways, and/or other features that are located on private property and that is damaged or disturbed as a result of construction with "in-kind" material, and to the satisfaction of the Inspector.
- R. Pavement repairs, if needed, shall be made in accordance with the plans and details. Temporarily backfilling is discouraged but if it becomes necessary to establish access, it shall be accomplished using ABC or select backfill material approved by the engineer. The temporary backfill shall be removed as soon as possible and the proper backfill and pavement repair performed. No additional compensation will be made for temporary backfill.
- T. Select backfill shall be suitable material as specified by the Town's Inspector or designated party.
- U. This project is located within the Triassic Basin. In areas where Triassic material is encountered, the steepest cut slope allowable shall be 4:1.
- V. Permanent driveway ties to finished roadway shall be constructed in-kind with the existing driveway at reasonable accessible grades. Permanent Un-paved drives shall consist of a minimum of 4" of compacted ABC establishing a smooth grade that is easily negotiable by a small 2WD sedan. Permanent asphalt drives shall be a minimum of 2" of I-2 on 3.5 inches of compacted ABC in total and paid for as specified in Itemized Bid. Concrete drives shall be a minimum of 6" of reinforced concrete. All permanent drives shall be paid for by the square yard for the respective work and backfill of the shoulders to match the existing grade.

### **Utility Work**

- A. Any underground encounter or unusual circumstance that occurs during construction should also be documented by the Contractor with photographs and field measurements along with prompt notification to the Engineer.
- B. If, at any time during construction, it becomes necessary to operate utility valves, the Town of Holly Springs Department of Public Works and the Inspector must be contacted prior to operation.
- C. Conflict avoidance, utility construction and/or relocation by others will take place on the project site either prior to or during the Contractor's activity. After project availability date, the Contractor shall coordinate any utility relocation by others in order to avoid any delay in construction progression. Damage to utilities and their accompanying facilities by the Contractor shall be reported immediately to the respective utility owner(s) and the Inspector and arrangements made to repair at the expense of the Contractor.

- D. The Contractor shall limit any interruption of water service to less than 2-hours. The Inspector as well as the residents affected by the interruption of water service shall be notified by the Contractor in writing at least 2 days prior to the interruption. Contractor shall provide written notice to Inspector for approval in advance of delivery. In addition, if any water or sewer services or active lines are accidentally disrupted or accidentally damaged, the Inspector must be contacted immediately. Contractor will be responsible for repair and any separations to property owners resulting from such damages.
- E. No interruption of wastewater flow in the main line or lateral service lines shall be permitted at any time. The Contractor shall take all necessary precautions and actions to prevent overflow and spillage of wastewater, including temporary bypass piping and pumping. Relocation of lateral and service lines shall be performed as needed with no interruption of wastewater flow. Fines, clean up costs, etc. for any wastewater spills or backups will be the responsibility of the Contractor.
- F. Pits and/or trenches excavated for construction shall be backfilled if practical by the end of the day. If this is impractical, the Contractor shall cover the opening with plate steel, secure the area with minimum 6' fencing to deter access by the public, or install jersey barricades plus traffic control as necessary in accordance with the NCDOT, January 2024, "Roadway Standard Drawings". No separate payment will be made for this work.
- G. Minimum Separations between existing and proposed utilities shall be as specified in the Town of Holly Springs Standard Specification. If utility separation conflicts occur during construction, the Contractor shall coordinate acceptable adjustments or special treatments with the Engineer and the Town prior to proceeding with work.
- H. It is the responsibility of the contractor to determine the exact location of, and to avoid, all existing utilities and/or facilities within the project limits.
- I. Miscellaneous utility connections shall be terminated with the demolition phase of the project. Town Inspector must verify and give specific approval.

### **Inspection/Testing**

- A. The Contractor shall provide access to all construction materials and allow time for the inspection/testing of areas, as needed, by a qualified testing firm and/or the Inspector.

### **Landscape**

- A. The Contractor shall confine all clearing, grading, and construction to within the Right of Way and Temporary Construction Easements (TCE) with the exception that no clearing or grading shall occur beyond the limits of tree protection fencing (where it encroaches into the TCE). Contractor shall not disturb existing plantings and other landscape features beyond the area described above. Any damage to landscaping within these protected areas shall be repaired by the Contractor at no additional charge. The Town, at its discretion, may require the Contractor to secure the opinion of a professional arborist to direct such repairs.

- B. Contractor shall prune roots of any tree within tree protection fencing for which root zone extends into the area to be cleared or graded. This shall occur prior to clearing or grading operations. Root pruning shall be performed by hand saw or chain saw after use of air spade to expose roots. Contractor shall employ this and other methods to preserve vegetation outside of construction area to the maximum extent practical. Tree protection fence to be placed in a circle around the drip line of the tree. Inspector to approve fence.
- C. If any trees are to be removed that are within the dip-line of a bigger tree that we are saving, cut the tree to be removed at the base. Do not pull root ball out.

### **Traffic Control/Site Access**

- A. All existing driveways, roadways, accesses, etc. shall be maintained and shall be fully accessible at all times. Construction shall not be allowed to interfere with business and/or residential operations. Driveway access suitable for navigation by passenger vehicles must be well established at the end of each work day or whenever construction activity ceases in front of the driveway. In the event a driveway must be temporarily closed for any period of time, the Contractor shall obtain permission first from the Inspector, shall then notify the Town and the property owner/resident affected in writing a minimum of 48 hours in advance to make arrangements for their respective access to the site. Temporary driveways, if necessary, must be provided. There will be no separate payment for this work. Written notice must be approved by the Town prior to being provided to the property owner.
- B. Hours of work permitted for certain activities may be restricted in order to ensure access to properties. Contractor will make all efforts not to hinder the access and mobility of emergency vehicles.
- C. Contractor shall be responsible for all traffic control devices and signage per MUTCD and North Carolina Supplement to the MUTCD.
- D. Contractor shall place stationary traffic control signs (Advance Warning Signs) at the beginning, end, and at all Y-lines on the project, per MUTCD. All traffic control – stationary and portable – shall be covered under the bid item “Temporary Traffic Control” and shall include all equipment, personnel, and related work to insure conformance with MUTCD and NCDOT standards.

### **Punchlist Inspection**

- A. At the punchlist inspection the Contractor shall submit any remaining S&EC rain event logs or S&EC self-inspection logs to the Environmental Technician. The box and drain gauge shall remain on site until the NCDENR S&EC permit is closed out.

END SECTION 40000

## **APPENDIX A – Geotechnical Report**

The Town of Holly Springs has secured the Geotechnical Report, and the Contractor shall follow the terms and conditions of said report.

See pages 2-37 of the “Appendix.pdf” document for more information.

## **APPENDIX B – Wetland Delineation Report**

The Town of Holly Springs has secured the Wetland Delineation Report, and the Contractor shall follow the terms and conditions of said report.

See pages 38-74 of the “Appendix.pdf” document for more information.

## **APPENDIX C – Protected Species Review Report**

The Town of Holly Springs has secured the Protected Species Review Report, and the Contractor shall follow the terms and conditions of said report.

See pages 75-114 of the “Appendix.pdf” document for more information.

## **APPENDIX D – Stormwater Report**

The Town of Holly Springs has secured the Stormwater Report, and the Contractor shall follow the terms and conditions of said report.

See pages 115-151 of the “Appendix.pdf” document for more information.

## **APPENDIX E – NCDEQ DLMNR Sedimentation and Erosion Control Permit**

The Town of Holly Springs has secured the NCDEQ DLMNR Sedimentation and Erosion Control Permit, and the Contractor shall follow the terms and conditions of said report.

See pages 152-163 of the “Appendix.pdf” document for more information.

## **APPENDIX F – Nationwide Permit 14**

The Town of Holly Springs has secured the Corps of Engineers SAW-2013-01763 Nationwide Permit 14, and the Contractor shall follow the terms and conditions of said report.

See pages 164-197 of the “Appendix.pdf” document for more information.

## **APPENDIX G – Duke Energy No Objection Letter**

The Town of Holly Springs has secured a letter of no objection from Duke Energy Transmission, and the Contractor shall follow the terms and conditions of said letter.

See pages 198-203 of the “Appendix.pdf” document for more information.

## **APPENDIX H – Oak Hall HOA Easement Agreement**

The Town of Holly Springs has secured an easement agreement with the Oak Hall Homeowner's Association, and the Contractor shall follow the terms and conditions of said agreement.

See pages 204-207 of the “Appendix.pdf” document for more information.