

PROJECT MANUAL

SPECIFICATIONS AND OTHER DOCUMENTS

FOR THE CONSTRUCTION OF:

**KENWICK TRAIL RTE. 1530 – HARTLEY CIRCLE RTE. 1533 DRAINAGE
IMPROVEMENTS**

ROANOKE COUNTY, VIRGINIA

OWNER

ROANOKE COUNTY, VIRGINIA

June 26, 2018

VDOT UPC No. 107310

COUNTY BID NO. 2018-113



County of Roanoke

FINANCE DEPARTMENT PURCHASING DIVISION

Heath Honaker, Purchasing Manager
5204 Bernard Drive SW, Suite 300F
Roanoke VA 24018
Telephone: (540) 283-8146
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Email: hhonaker@roanokecountyva.gov

June 26, 2018

INVITATION FOR BID # 2018-113

KENWICK TRAIL RTE. 1530 – HARTLEY CIRCLE RTE. 1533 DRAINAGE IMPROVEMENTS

VDOT UPC NO. 107310

**One (1) non bound Original and Three (3) copies and One Electronic Copy
(USB preferred) of Sealed Bids Due**

Due Date:

July 24, 2018

**3:00 PM
(Local Prevailing Time)**

A non-mandatory Pre-Bid Meeting is scheduled for **10:00 a.m.** on **July 11, 2018** at the County Administration Building at 5400 Bernard Drive. At the end of this meeting, an opportunity will be provided to visit to observe the project site.

This meeting will be held at 5204 Bernard Drive SW Roanoke VA 24018 on the 4th Floor Training Center - Room 438.

Offerors are not to visit the site or have conversations with personnel prior to or subsequent to this scheduled conference.

ROANOKE COUNTY, VIRGINIA

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INVITATION FOR BID

COUNTY OF ROANOKE, VIRGINIA

Sealed Bids for:

**KENWICK TRAIL RTE. 1530 – HARTLEY CIRCLE RTE. 1533 DRAINAGE IMPROVEMENTS
VDOT UPC NO. 107310**

**This project is generally described as providing
improvements to the existing stormwater conveyance and
associated work.**

BID NO. 2018-113

One (1) original, three (3) copies and one (1) electronic copy (USB Flash Drive preferred) of the sealed bid will be accepted at and until **3:00 p.m.** (local prevailing time) on **July 24, 2018**, at the Department of Finance, Purchasing Division, 5204 Bernard Drive, Suite 300F, Roanoke, Virginia 24018. As this is a sealed formal Invitation for Bid, faxed bids will NOT be accepted. Bids not received by the date and time listed above will be returned to the Bidder unopened. The bid package must be clearly marked with "**IFB # 2018-113 Kenwick Trail Rte. 1530 – Hartley Circle Rte. 1533 Drainage Improvements**". The time of receipt shall be determined by the time clock stamp in the Purchasing Office, or it is not working, such time shall be determined by the Purchasing official who is to open the bids. This project is generally described as including improvements to the existing stormwater conveyance system at two locations. The work includes the installation of approximately 306 linear feet of new 15-inch, 18-inch, and 24-inch diameter pipe; 7 curb and drop inlets; and associated demolition, surface restoration, erosion and sediment control, and traffic control.

The Instructions to Bidders, plans, specifications, the Contract, and other Contract Documents are incorporated herein by reference. Copies of these items may be examined during business hours in the Purchasing Division, 5204 Bernard Drive, Suite 300F, Roanoke, Virginia 24018 (Phone: 540-772-2061). Bidders are cautioned to review bid documents thoroughly before submitting a bid. Copies of the documents may be downloaded from the County of Roanoke Purchasing Division's website at www.roanokecountyva.gov/purchasing. The County will not be responsible for documents obtained from any other source.

All Contract Documents prepared and/or furnished by the County shall be the exclusive property of the County of Roanoke, Virginia, and shall not be used for any other project(s).

Each bidder is solely responsible for ensuring that such bidder has the current complete version of the Bid Documents prepared for the project, including any addenda issued by the County, before submitting a bid.

A **non-mandatory** Pre-Bid Meeting is scheduled for **10:00 a.m. on July 11, 2018** at the County Administration Building at 5400 Bernard Drive. At the end of this meeting, an opportunity will be provided to visit to observe the project site.

This **non-mandatory** Pre-Bid Meeting will be held at 5204 Bernard Drive SW Roanoke VA 24018 on the 4th Floor Training Center - Room 438. Offerors are not to visit the site or have conversations with personnel prior to or subsequent to this scheduled conference.

Bidders and all subcontractors are required to comply with all applicable city, state, and federal laws, ordinances, and regulations; and are required to be properly licensed under Sections 54.1-1100, et seq., Code of Virginia (1950), as amended. Bidders shall deposit with their bid a Bid Security executed in the amount and form stipulated in the Instructions to Bidders.

The County expressly reserves the right to cancel this IFB and/or reject any or all bids, to waive any informality or irregularity in the bids received, and to accept a bid from the lowest responsive and responsible bidder which is deemed to be in the best interest of the County.

To determine the lowest responsive and responsible bidder who may be awarded a Contract for the Work, the criteria set forth in or requested pursuant to the Instructions to Bidders or in the Bid Documents may be considered.

By submitting a bid, each bidder agrees that this is a solicitation of bids and each bidder agrees to be solely responsible for the cost or expense of its bid and the County shall have no responsibility for such costs or expenses.

If a certain brand, make, item or manufacturer is specifically and exclusively required or called for in the plans, specifications, or other contract documents, then that brand, make, item, or manufacturer shall be used unless otherwise agreed to by the County, in its sole discretion.

If the bid by the lowest responsive and responsible bidder exceeds available funds, the County reserves the right to negotiate with the apparent low bidder pursuant to Section 2.2-4318 of the Code of Virginia. The conditions and procedures under which such negotiation may be undertaken are set forth in Section 2.2-4318, and the Instructions to Bidders. Any such negotiated Contract shall be subject to final approval by the County in its sole discretion.

Bids may not be withdrawn for a period of sixty (60) calendar days after the opening of bids unless the bid is substantially lower than the other bids because of a clerical error as defined in Section 2.2 - 4330, of the Code of Virginia (1950), as amended. Pursuant to Section 2.2 - 4330 (A)(i), the bidder shall give notice in writing and shall submit the original work papers with such notice to the County of its claim of right to withdraw the bid within two (2) business days after the opening of bids.

The successful bidder shall comply with the Code of Virginia nondiscrimination provisions of Section 2.2-4311 and the Drug-free workplace provisions of Section 2.2-4312.

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COUNTY OF ROANOKE, VIRGINIA

INSTRUCTIONS TO BIDDERS

SECTION 1. DEFINITIONS

Definitions contained in Section 1 of the General Conditions are incorporated herein by reference. The Bidder should refer to the General and Supplemental General Conditions for definitions used in the Contract Documents. "Successful Bidder" is defined as the bidder to whom the County makes an award.

SECTION 2. MISCELLANEOUS

1. The intent of the drawings and specifications is that the Contractor shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the work in accordance with the Contract Documents and all incidental work necessary to complete the project in an acceptable manner, ready for use, occupancy or operation by the Owner.
2. Any item that is shown on the plans but not mentioned in the specifications, or mentioned in the specifications but not shown on the plans, shall be considered as being both shown on the plans and mentioned in the specifications.
3. The entire work provided for in the specifications and shown on the plans is to be accomplished even though every item and minor detail for the proper installation and successful operation of the entire work is not mentioned in the specifications or shown on the plans.
4. The cost of any item whatsoever not listed in the Bid Form, yet, which is mentioned in the specifications or shown on the plans, shall be considered to be included in the cost of some other item of Bid in the Bid Form.
5. "Contract Documents" shall include the Invitation for Bid, the Instructions to Bidders, the Bid Form, the Contract Forms, the Bonds, the General and Special Conditions, the Technical Specifications, any Addenda or Change Orders, any Detailed Drawings and the Construction Plans.
6. Should there be any questions concerning the Contract Documents, the prospective Bidder shall bring the same to the attention of the Owner in writing. Should the prospective Bidder fail to do so before submitting a bid, the Bidder shall accept the resolution of any question provided by the Owner.
7. Any permits obtained by the Owner or contractor shall be made part of and attached to the Contract Documents.
8. The Contractor is responsible for compliance with all Federal, State, and local laws, ordinances, and licenses required for this project to include applicable Roanoke County business licenses and taxes.

9. The County may make investigations to determine the ability of the bidder to perform or supply the services or items as described in this Invitation for Bid. The County reserves the right to reject any bid if the bidder fails to satisfy the County that it is qualified to carry out the obligations of the proposed contract.
10. The successful bidder must comply with the nondiscrimination provisions of Section 2.2-4311 of the Code of Virginia, which are incorporated herein by reference.
11. The successful bidder must comply with the drug-free workplace provisions of Section 2.2-4312 of the Code of Virginia, which are incorporated herein by reference.
12. Providers of any outside services shall be subject to the same conditions and requirements as the successful bidder in regards to law, code or regulation compliance. The County reserves the right of approval for any subcontract work, including costs thereof.
13. This Invitation for Bid and all responses are subject to Section 2.2-4342 of the Code of Virginia regarding public inspection of records and the procedures a bidder must follow to protect trade secrets and proprietary information.
14. Insurance. Successful Bidder and any of its subcontractors, shall, at its or their sole expense, obtain and maintain during the life of the resulting contract the insurance policies and bonds required. Any required insurance policies and bond shall be effective prior to the beginning of any work or other performance by successful bidder, or any of its subcontractors, under any resultant contract. The policies and coverages required are those as may be referred to in the sample contract and/or the general conditions or other documents of this Invitation for Bid.

SECTION 3. EXAMINATION OF SITE AND CONTRACT DOCUMENTS.

1. Each bidder is responsible for examining carefully the site of the Work and the Contract and Bid Documents relating to the Work. By submitting a bid, the bidder acknowledges and agrees that it has examined and considered the conditions to be encountered at and adjacent to the site, the character, quality, and quantities of work to be performed, the material to be furnished, other requirements of the Contract Documents, and to have waived any claim or objection based thereon. Claims as a result of failure to have done such examination will not be considered by the County.
2. Each Bidder shall promptly notify, in writing, the Purchasing Division of any ambiguity, inconsistency, or error which may be discovered upon examination of the Invitation for Bid, any Bid Documents, and/or any related documents.

SECTION 4. CLARIFICATION AND ADDENDA

1. **Questions on Contract Documents:** All questions about the meaning or intent of the Contract Documents shall be directed to the Purchasing Division.

Questions received less than five (5) calendar days prior to the date of opening bids may not be answered. Bidders may only rely upon written addenda issued by the County's Purchasing Division and no other communication or interpretation, whether oral or written, shall have any effect or efficacy.

2. **Addenda:** Any changes, interpretations, or clarifications that may be made to the Contract Documents will be in the form on an addendum. **All bidders are solely responsible for making sure that they have received and reviewed any and all addenda that may have been issued for this IFB.**
3. **Interpretation:** All decisions made in good faith by the Purchasing Division on the meaning or interpretation of the Contract Documents shall be final.
4. **Bidders Responsibility;** All bidders are responsible for ensuring that they have received and examined all addenda that may have been issued before submitting their bid.
5. **Quantities:** Where the bid documents stipulate a unit price, the quantities of the work and material set forth in the bid form or on the plans approximately represent the work to be performed and material to be furnished and are for the purpose of comparing the bids on a uniform basis. Payment shall be made to the Contractor only for the actual quantities of work performed or material furnished in accordance with the plans and specifications and it is understood that the quantities may be increased or decreased as provided in the General and Supplemental General Conditions without in any way invalidating the bid prices.

SECTION 5. CONTRACTORS' LICENSES, PERMITS, FEES AND TAXES

1. **State License:** Bidders and all subcontractors are required to comply with all applicable city, state, and federal laws, ordinances, and regulations, including, but not limited to registration with the Virginia State Corporation Commission if required by law; and are required to be properly licensed in accordance with Sections 54.1-100, *et seq.*, of the Code of Virginia. Bidders shall show evidence of being properly licensed.
2. **Other Licenses, Permits, Fees and Taxes:** Successful Bidder is responsible for paying for all license, permits, fees and taxes applicable to the project. Such charges and fees include, but are not limited to the applicable building permits, mechanical and electrical permits, hauling and dumping of material, and if work performed in the County of Roanoke during a calendar year exceeds twenty-five thousand dollars (\$25,000.00), such bidder will have to possess a County business license and be responsible for paying County of Roanoke business license.
3. **Virginia State Corporation Commission:** Each Bidder who is a stock or nonstock corporation, limited liability company, business trust, or a limited partnership or other business entity shall be authorized to transact business in the Commonwealth of Virginia as a domestic or foreign business entity if required by law. Each such Bidder shall include in its bid response the Identification Number issued to it by the Virginia State Corporation Commission (SCC) and should list its business entity name as it listed with the SCC. Any Bidder that is not required to be authorized to transact business in the Commonwealth as a

domestic or foreign business entity as required by law shall include in its bid response a statement describing why the Bidder is not required to be so authorized. (See Va. Code Section 2.2-4311.2)

SECTION 6. PREPARATION AND SUBMISSION OF BIDS

1. **Bid Form:** Bids shall be submitted on the Bid Form furnished, or copy thereof, and shall be completed and signed in ink. A copy of the Bid Form is provided in these specifications for the information of bidders only. Except as may be otherwise stated, all blank spaces in the Bid Form should be filled in and under no conditions shall any changes be made in the phraseology of the Bid Form. Erasures or other changes in a bid amount must be explained or noted over the initials of the bidder. Bids containing any conditions, omissions, unexplained erasures, alterations or items not called for in the bid documents, or irregularities of any kind, may be rejected by the County as being incomplete and/or non-responsive. NO CHANGES MADE TO THE BID FIGURES BY NOTATIONS ON THE OUTSIDE OF THE ENVELOPE WILL BE CONSIDERED IN THE REVIEW AND TABULATION OF BIDS OR FOR ANY OTHER PURPOSE.
2. **Escrow:** In accordance with Section 2.2-4334, of the Code of Virginia, for bids of \$200,000 or more for construction of highways, roads, streets, bridges, parking lots, demolition, clearing, grading, excavating, paving, pile driving, miscellaneous drainage structures, and the installation of water, gas, sewer lines and pumping stations, the Bid Form will include a space for the bidder to indicate an option to use the escrow account procedure in order to have retained funds paid to an escrow agent. Otherwise, unless stated in the General and Supplementary General Conditions, no escrow will be provided.
3. **Bid Amounts:** Bidders shall indicate in the appropriate blank spaces on the Bid Form the amounts for the base bid and any alternates, written with ink or typed, in both words and figures. In the event of a discrepancy between the words and figures expressed in the base bid or alternatives, the word amount shall govern. Any unit prices for separate items as called for on the Bid Form shall be written with ink or typed in figures in the appropriate blanks.
4. **Bid Package Checklist:** Bidders shall deposit with their bid the documents or information set forth in the Bid Package Checklist.

SECTION 7. RECEIPT AND OPENING OF BIDS

1. **Delivery of Bid:** It is the responsibility of the bidder to assure that its bid is delivered to the place designated for receipt of bids and prior to the time set for receipt of bids. No bids received after the time designated for receipt of bids will be considered.
2. **Receipt of Bid:** The Bid Form, the Bid Security, and all other documents required to be submitted with the bid shall be enclosed in a sealed envelope and addressed as follows:

County of Roanoke
c/o Heath Honaker
5204 Bernard Drive SW
Suite 300F

Place in the lower left-hand corner of the envelope the project title as indicated at the top of the Invitation to Bid. Place in the upper left-hand corner of the envelope the Bidder's name, State Registration Number and mailing address.

3. **Opening of Bid:** Bids will be opened and read at the time and place stated in the Invitation for Bid. The contents may be made public in accordance with Section 2.2-4342 of the Code of Virginia. The officer or agent of the County, whose duty it is to open them, will decide when the specified time has arrived. No responsibility will be attached to any officer or agent for the premature opening of a bid not properly addressed and identified.
4. **Withdrawing of Bid:** After the date of opening of bids, no bid may be withdrawn for at least sixty (60) calendar days after such opening date, except as provided in Section 11 of these Instructions to Bidders.

SECTION 8. BID SECURITY

Each bid must be accompanied by a Bid Security in an amount equal to five (5%) percent of the maximum possible bid price in accordance with Sections 2.2-4336 and 4338 of the Code of Virginia. The Bid Security shall be furnished in one of the following forms:

- a. Bid Bond, made payable to the County of Roanoke and properly executed by the bidder as Principal and a Corporate Surety authorized to transact business in the Commonwealth of Virginia. Attorneys-in-fact who execute Bid Bonds must file with the bond a certified copy of their Power of Attorney.
- b. Certified Check or cash deposited with the County of Roanoke Treasurer in the face amount required for the Bid Security and made payable to the County of Roanoke.
- c. Personal Bond or Letter of Credit issued by an authorized financial institution in the face amount required for the Bid Security, made payable to the County of Roanoke. These forms of security shall be submitted for review and must be approved by the County Attorney, in his sole discretion, at least three (3) working days prior to receipt of bids. Approval will be based upon a determination that the form of security offered will adequately protect the interests of the County as equivalent to a corporate surety's bond.
- d. For return of Bid Security, see Sections 12 and 13 of these Instructions to Bidders.

SECTION 9. INTENT

1. **Work Required:** The County requires that the Successful Bidder perform a complete and satisfactory job in accordance with the Contract Documents.
2. **Work Not Described:** All work not specifically described in the Contract Documents, yet required to produce a fully functional and properly operating project shall be provided even though every item or minor detail for the proper

installation or successful operation of the entire Work is not mentioned in the Contract Documents.

3. **Completion of Work:** The successful bidder acknowledges and agrees that it has taken into account in its bid the requirements of the bid and Contract Documents, local conditions, availability of material, equipment, labor, and any other factors which may affect the performance of the Work. The successful bidder agrees and warrants that it will complete the Work not later than the time period or date indicated for completion.

SECTION 10. MATERIAL AND WORKMANSHIP

1. **“Or Equal Clause”:** The particular brand, make of material, device, or equipment described in the Contract Documents establishes a standard of required function, economy of operation, dimension, appearance, and quality to be met by any proposed substitution. No substitution will be considered unless a written request for approval has been submitted by the bidder and has been received by the Purchasing Division at least ten (10) calendar days prior to the date for receipt of bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data, and any other information necessary or required by the Purchasing Division for an evaluation. A statement setting forth any changes in other material, equipment, or work that incorporation of the substitute would require shall be included. The burden of proof of merit of the proposed substitute is upon the bidder.
2. **Approval of Substitution:** The County’s decision of approval or disapproval of a proposed substitution shall be in the County’s sole discretion and shall be final. If the County approves any proposed substitution, such approval will be set forth in an addendum issued to all recorded bidders. Bidders shall not rely on approvals made in any other manner.
3. **Adaptation Due to Substitution:** The successful bidder shall be responsible for making all changes in the Work necessary to adapt and accommodate any equivalent product or item which it uses. The necessary changes shall be made at the successful bidder’s sole expense.

SECTION 11. ERRORS IN BIDS

1. **Withdrawal of Bid:** A bidder may withdraw its bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor, or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents, and material used in the preparation of the bid sought be withdrawn.
2. **Withdrawal Procedure:** The bidder shall give notice in writing and shall submit the original work papers with such notice to the County of its claim of right to

withdraw its bid within two (2) business days after the conclusion of the opening of bids as set forth in part (i) of Section 2.2-4330 (A), of the Code of Virginia.

3. **Withdrawal Requirements:** Other applicable provisions of Section 2.2-4330, of the Code of Virginia shall apply to any errors in bids or any requested withdrawal due to errors in bids.

SECTION 12. REJECTION OF BIDS

1. **Rejection of Bids:** The County reserves the right to cancel the Invitation for Bid, to reject any or all bids, to reject the bid of a bidder who is not in a position to perform the contract, or to waive any informalities in any bid.
2. **Bid Security Return for Rejected Bids:** The Bid Security will be returned to all rejected bidders after the County and the successful bidder have executed the Contract.
3. **Bid Security Return for Unsuccessful Bids:** Should a bid not be accepted by the County within sixty (60) consecutive calendar days after the opening of bids, or within such other time specified in the Bid Documents, each bidder may obtain its Bid Security from the County.

SECTION 13. ACCEPTANCE OF BIDS, EVALUATION OF BIDS, AWARD OF CONTRACT AND SECURITY REQUIREMENTS

1. **Evaluation and Award to Lowest Responsive and Responsible Bidder:** To determine the lowest responsive and responsible bidder with respect to this bid, the following items may be considered so as to protect the interest of the County:
 - a. The total base bid price plus the price of any alternates (aka-additive bid item) the County elects to accept, if any. The County reserves the right to accept alternatives in any order or combination.
 - b. If a unit price contract is requested, the total amount based on the estimated quantities as set forth in the Bid Form will be considered. (The listed unit prices for each item will control and any multiplication errors may be adjusted by the Purchasing Division using the proper estimated quantities).
 - c. Company background, staffing and experience: The character, integrity, reputation, judgment, experience and efficiency of the bidder.
 - d. References.
 - e. The quality of performance of previous contracts, products and/or services.
 - f. Company financial status: The sufficiency of the financial resources and the ability of the bidder to perform the Contract.
 - g. Bid Submission completeness and compliance with the specifications.

- h. Service and support offering. The ability, capacity and skill of the bidder to perform or provide the service. The ability of the bidder to provide future maintenance and/or service.
- i. Price. Pricing shall be a factor in evaluating the bids; however, Roanoke County reserves the right to purchase other than low bid.
- j. The previous and existing compliance by the bidder with laws and policies relating to the contract.
- k. The quality, availability and adaptability of goods and services.
- l. Whether the bidder can perform the contract and provide service promptly.
- m. The ability of the bidder to respond to problems and concerns.
- n. Bids shall be evaluated based on the requirements set forth in this Invitation for Bid and other criteria to determine acceptability such as inspections, testing, quality, workmanship, delivery, and suitability for a particular purpose. The County, in its sole discretion may elect to waive any informality to any bid.

2. **Negotiation of Bid:** If the bid by the lowest responsive and responsible bidder exceeds available funds, the County reserves the right to negotiate with the apparent low bidder pursuant to Section 2.2-4318 of the Code of Virginia. Any such negotiated Contract shall be subject to final approval of the County, in the sole discretion of the County.
3. **Contract Execution:** The successful bidder shall be required, within ten (10) consecutive calendar days after receipt of the Contract, to return the signed Contract, and furnish to the County all other documents as enumerated hereinafter.
 - a. Performance Bond
 - b. Payment Bond
 - c. Certificate of Insurance
 - d. Escrow Agreement (If applicable)
4. **Security:** A Performance Security and a Labor and Material Payment Security each in the amount of one hundred percent (100%) of the contract amount for all contracts in accordance with Sections 2.2-4337 and 2.2-4338 of the Code of Virginia, shall be furnished by the successful bidder in one of the following forms;
 - a. A Performance Bond and a Labor and Material Payment Security, on forms as provided in the Contract Documents, made payable to the County of Roanoke, properly executed by the successful bidder as

Principal and a Corporate Surety authorized to transact business in the Commonwealth of Virginia. Attorneys-in-fact who execute the bonds must file with each bond a certified copy of their Power of Attorney.

- b. Certified Checks or Cash Escrow in the face amount required for the Performance Security and the Labor and Material Payment Security each made payable to the County of Roanoke.
- c. Personal Bond or Letter of Credit issued by an authorized financial institution in the face amount required for the Performance Security and the Labor and Material Payment Security, made payable to the County of Roanoke. These forms of security must be approved by the County Attorney, in his sole discretion. Approval will be based upon a determination that the form of security offered will adequately protect the interests of the County as equivalent to a corporate surety's bond.

5. **Bid Security Return for Successful Bid:** Upon the execution of the Contract and approval of the Performance and Payment Securities, the Bid Security shall be returned to the successful bidder. Should the successful bidder fail or refuse to execute the Contract or furnish the required Performance and Payment Securities within the stipulated time, the Bid Security shall be due and paid to the County and the County shall be entitled to collect the Bid Security. In addition, the County may pursue any and all other remedies available to it at law or in equity against said bidder.

SECTION 14. BID PACKAGE CHECKLIST

The following items must be completed and included in your bid package. Failure to include all required forms may result in rejection of the bid. If any of these documents were not included with your Project Manual, please contact the Purchasing Division at (540) 772-2061.

- a. Completed Bid Form (all pages)
- b. Properly Executed Bid Security (Bid Bond, Certified or Cashier's Check, etc., if applicable).

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PRE-BID QUESTION FORM

Project: IFB # 2018 – 113 Kenwick Trail Rte. 1530 – Hartley Circle Date:
Rte. 1533 Drainage Improvements

During bidding, written (not oral) comments concerning conflicts (errors, inconsistencies, or omissions) in the contract documents shall be submitted on this form. Conflicts will be resolved only by written addenda.

The following concerns Drawing: Sheet # _____

The following concerns Project Manual: Section _____ Paragraph # _____

Submitted by: _____
Name _____ Phone _____

Organization _____

Roanoke County Finance Department Fax (540) 561-2857
hhonaker@roanokecountyva.gov

Attention: Heath Honaker Purchasing Manager
Roanoke County Community Development

**INVITATION FOR BID 2018-113
BID FORM**

NOTE: All pages of the Bid Form are to be included in the completed bid. Also, bids containing any conditions, omissions, unexplained erasures, alterations, or items not called for in the bid, or irregularities of any kind, may be rejected by the County as being non-responsive. No changes are to be made to the Bid Form. Any changes to a bid amount must be initialed by the authorized person signing the Bid Form.

The undersigned hereby proposes and agrees, if this bid is accepted by the County of Roanoke, to enter into a Contract with the County of Roanoke, Virginia, (hereafter – County or Owner) to furnish all equipment, materials, labor, and services necessary to provide improvements to the existing stormwater conveyance and associated work, Bid No. 2018-113, in accordance with the Contract Documents as prepared by or for the County of Roanoke.

The undersigned agrees that the following Unit Prices will become a part of the Contract and in accordance with the Contract Documents shall be used for the purpose of adjusting the Contract Sum up or down for changes made by the County for increased or decreased quantities of work from estimated quantities as indicated on the Drawings and/or in the Specifications. The Unit Prices shall include all labor, materials, equipment, services, overhead, profit, insurance, bonds, taxes, etc., to cover the finished work of the several kinds called for in place. There is no guaranteed maximum or minimum amount of the quantities for materials listed below.

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL AMOUNT
OUTSIDE OF VDOT RIGHT OF WAY					
1	MOBILIZATION	LS	1		
2	DEMOLITION	LS	1		
3	EXCAVATION (UNCLASSED)	LS	1		
4	15-INCH CLASS III RCP	LF	25		
5	24-INCH CLASS III RCP	LF	116		
6	TYPE "A" RIPRAP DITCH	SY	24		
7	FENCE REPLACEMENT	LF	145		
8	DRIVEWAY REPLACEMENT	SY	30		
9	ELECTRIC GUY WIRE REPLACEMENT	LS	1		
10	EROSION CONTROL SILT FENCE	LF	65		
11	EROSION CONTROL CLASS II RIPRAP OUTLET PROTECTION	LS	1		
12	EROSION CONTROL TEMPORARY AND PERMANENT SEEDING	AC	0.05		
13	EROSION CONTROL OUTLET PROTECTION	EA	1		
	SUBTOTAL, OUTSIDE OF VDOT RIGHT OF WAY				

WITHIN VDOT RIGHT OF WAY					
14	MOBILIZATION	LS	1		
15	DEMOLITION	LS	1		
16	EXCAVATION (UNCLASSED)	LS	1		
17	15-INCH CLASS III RCP	LF	66		
18	18-INCH CLASS III RCP	LF	54		
19	24-INCH CLASS III RCP	LF	45		
20	DI-3B CURB INLET	EA	3		
21	DI-7 DROP INLET	EA	4		
22	PAVEMENT REPLACEMENT	SY	180		
23	DRIVEWAY REPLACEMENT	SY	16		
24	CURB REPLACEMENT	LF	43		
25	EROSION CONTROL INLET PROTECTION	EA	7		
SUBTOTAL, WITHIN VDOT RIGHT OF WAY					
TOTAL BASE BID (OUTSIDE AND WITHIN VDOT RIGHT OF WAY)					

TOTAL BASE BID PRICE - \$ _____

Total Base Bid Price - in *written form*:

_____ Dollars and _____ Cents)

1. Bidder agrees that all unit prices include installation complete.
2. Bidder further agrees that if awarded the Contract, Bidder will commence work, upon receipt of NOTICE TO PROCEED and will reach substantial completion and final completion within the time defined in the Contract. Bidder agrees that contract time shall commence on the date of receipt of Notice to Proceed stipulated in the Contract Documents.
3. The Bidder fully understands that if this bid is accepted, failure or refusal to execute the Contract with and furnish to the County of Roanoke the required bonds, within ten (10) consecutive calendar days from receipt of the Contract Documents may result in a payment of the Bid Security to the County as liquidated damages.
4. The undersigned agrees, if this bid is accepted, to pay as liquidated damages the sum of two hundred dollars (\$200.00) per day to the County of Roanoke for each consecutive calendar day in excess of the stated time required for substantial completion of the work and one hundred dollars (\$100.00) per day to the County

of Roanoke for each consecutive calendar day in excess of the stated time required for final completion of the work..

Addenda: Receipt of the following addenda to the Contract Documents is hereby acknowledged:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Bidder _____ does have _____ does not have a Virginia Contractor's License. (Check appropriate blank).

If bidder has a Virginia Contractor's License, circle the class bidder has and list the number.

Licensed "Class A", "Class B", or "Class C" Virginia Contractor Number

Identify Specialty

If bidder has another type of Virginia License, please list the type and number:

Type of license: _____

Number: _____

The attention of each Bidder is directed to Virginia Code Section 2.2-4311.2 (effective July 1, 2010) which requires a bidder or offeror organized or authorized to transact business in the Commonwealth of Virginia pursuant to Title 13.1 or Title 50 of the Code of Virginia, as amended, or as otherwise required by law, shall include in its bid or proposal the Identification Number issued to such bidder or offeror by the Virginia State Corporation Commission (SCC). Furthermore, any bidder or offeror that is not required to be authorized to transact business in the Commonwealth of Virginia as a domestic or foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid or proposal a statement describing why the bidder or offeror is not required to be so authorized. Please complete the following by checking the appropriate line that applies and providing the requested information:

A. _____ Bidder/Offeror is a Virginia business entity organized and authorized to transact business in Virginia by the SCC and such bidder's Identification Number issued to it by the SCC is _____.

B. _____ Bidder/Offeror is an out-of-state (foreign) business entity that is authorized to transact business in Virginia by the SCC and such bidder's Identification Number issued to it by the SCC is _____.

LEGAL NAME _____

BY _____ TITLE _____
(TYPED NAME: _____)

SIGNED NAME _____

DELIVERY ADDRESS _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

TELEPHONE _____ FAX _____

CONTACT _____

EMAIL

ADDRESS

ESCROW ACCOUNT REQUESTED (if applicable): YES _____ NO _____

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK.

Roanoke County

CONTRACTOR'S BID BOND

Project: Kenwick Trail Rte. 1530 – Hartley Circle Rte. 1533 Drainage Improvements

KNOW ALL MEN BY THESE PRESENTS:

That _____

(Insert full name or legal title and address of bidder)

as Principal (hereafter referred to as "Bidder"),

and _____

(Insert full name or legal title and address of Surety)

as Surety, a corporation duly organized under the laws of the state of _____, and legally authorized to do business in the Commonwealth of Virginia (hereinafter referred to as Surety), are hereby held and firmly bound unto Roanoke County, 5204 Bernard Drive SW, Roanoke, Virginia 24018, as Owner and Obligee (hereinafter referred to as "County"), in the amount of _____

Dollars (\$ _____))

(Insert amount which is not less than 5% of bid)

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 firmly by these presents.

The condition of the above obligation is such that whereas the principal has submitted to Roanoke County a certain Bid (Bid No. 2018-113), incorporated herein by reference and hereby made a part hereof, to enter a contract in writing for the Kenwick Trail Rte. 1530 – Hartley Circle Rte. 1533 Drainage Improvements project.

NOW, THEREFORE: (I) if said Bid shall be rejected; or, (ii) if said Bid shall be accepted and the Bidder shall timely execute and deliver to said County a Contract and all accompanying documentation, in the Form of Contract contained in the proposed contract documents, properly executed in accordance with said Bid, shall furnish any required bond(s) for its faithful performance of said contract and for the payment of all persons performing labor or furnishing materials in connection herewith, shall furnish necessary proof of insurance coverage, and shall in all other respects perform the required conditions and agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in full 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 amount of this obligation as stated herein.

- a. The Surety herein shall and does hereby agree to defend, indemnify the County and hold it harmless of, from and against any and all liability, loss, cost, damage or expense including reasonable attorney fees, or other professional services which the County may incur or which may occur or be imposed upon it by reason of Bidder's failure to carry out any obligation that Bidder may have under the bid or contract documents and shall repay to and reimburse to the County, promptly upon demand, all sums of money including reasonable attorney's and other professional fees, each and every, reasonably paid out or expended by the County on account of the failure and/or refusal of said Contractor to carry out, do, perform, and/or comply with any of the terms and provisions of the bid or contract documents within the time and in the manner therein provided.
- b. The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the County may accept such Bid or any alteration, modification, omission or addition which may be made in or to the specifications or terms of the Contract, or any other forbearance of any nature whatsoever on the part of either the County or the Contractor to the other; and said Surety does hereby waive notice of any such extension, alteration and forbearance.
- c. The provisions of this bond shall be governed by and intended to be consistent with and implement the laws of the Commonwealth of Virginia, including, without limitation, the requirements of the Virginia Public Procurement Act. In the event of any conflict, discrepancy, or omission as between this bond and applicable provisions of the Virginia Public Procurement Act, the provisions of the Virginia Public Procurement Act shall be determinative and controlling.
- d. This bond shall continue in full force and effect and shall not be deemed canceled or to have expired unless and until the County receives from Surety written notice at least 30 calendar days prior to such cancellation or expiration.
- e. Any suit or action hereunder shall be brought in a Virginia court of competent jurisdiction in and for Roanoke County or in the United States District Court for the Western District of Virginia, Roanoke Division, and not elsewhere.

SIGNED and SEALED this _____ day of _____, 2018,
in the presence of:

Attest:

_____ (SEAL)
Principal

Witness to signature of
Attorney-in-Fact:

By _____
Title

Witness

_____ (SEAL)
Surety

By _____
Attorney-in-Fact

(SURETY: Attach Current Power of Attorney)

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 Laws and Regulations.

MODIFIED SUGGESTED FORM OF AGREEMENT
BETWEEN OWNER AND CONTRACTOR FOR
CONSTRUCTION CONTRACT (STIPULATED PRICE)

Prepared by



Issued and Published Jointly by



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**MODIFIED SUGGESTED FORM OF AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between Roanoke County ("Owner") and

("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Scope of work includes improvements to the existing stormwater conveyance system at two locations. The work includes the installation of approximately 306 linear feet of new 15-inch, 18-inch, and 24-inch diameter pipe; 7 curb and drop inlets; and associated demolition, surface restoration, erosion and sediment control, and traffic control.

This short description of the Work shall not in any way be construed to limit the Contractor's obligation for compliance with the Contract Documents.

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

Kenwick Trail Rte. 1530 – Hartley Circle Rte. 1533 Drainage Improvements

Roanoke County

Roanoke, VA

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by

Lumsden Associates, P.C.

4664 Brambleton Avenue, S.W.

Roanoke, VA 24018.

3.02 The County Engineer, or his designee, will act as Owner's Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

A. The Work will be substantially completed within 92 days after the date when the Contract Times commence to run as provided in the General Conditions, and completed and ready for final payment in accordance with the General Conditions within 30 days after the date of substantial completion.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$200.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$75.00 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 25th.day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. 90 percent of Work completed (with the balance being retainage); and
 - b. 90 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 95 percent of the Work completed, less such amounts set off by Owner pursuant to the General Conditions, and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer.

ARTICLE 7 – INTEREST

7.01 All amounts not paid when due shall bear interest at the rate set forth in Virginia Code Section 2.2-4355B.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
- B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- E. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

- F. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- G. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- H. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- I. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to ___, inclusive).
 - 2. Performance bond (pages ___ to ___, inclusive).
 - 3. Payment bond (pages ___ to ___, inclusive).
 - 4. Bid Bond (pages ___ to ___, inclusive).
 - 5. Roanoke County General and Supplemental General Conditions (pages ___ to ___, inclusive).
 - 6. Contractor's Bid Form
 - 7. Specifications as listed in the table of contents of the Project Manual.
 - 8. Drawings (not attached but incorporated by reference) consisting of drawings listed in specification section 00015.
 - 9. Appendices as listed in the table of contents of the Project Manual
 - 10. Addenda (numbers ___ to ___, inclusive).
 - 11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

None.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

License No.:

(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

ROANOKE COUNTY
CONTRACTOR'S PERFORMANCE BOND

Project: Kenwick Trail Rte. 1530 – Hartley Circle Rte. 1533 Drainage Improvements

KNOW ALL MEN BY THESE PRESENTS:

that _____
(Insert full name or legal title and address of contractor)

as Principal, (hereinafter referred to as "Contractor"),

and _____
(Insert full name or legal title and address of Surety)

as Surety, a corporation duly organized under the laws of the state of _____ and legally authorized to do business in the Commonwealth of Virginia (hereinafter referred to as "Surety"), are held and firmly bound unto Roanoke County, 5204 Bernard Drive SW, Roanoke, Virginia 24018, as Obligee (hereinafter referred to as "County"), in the amount of _____ DOLLARS (\$_____._____) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has entered into an agreement with the County, as successful bidder for Bid No. 2018-113 for Kenwick Trail Rte. 1530 – Hartley Circle Rte. 1533 Drainage Improvements in accordance with contract documents for the work, including, without limitation, the General Conditions, Completed Bid Forms, Technical Specifications and Plans and Drawings, if any, and the completed Contract form, which contract documents are herein collectively referred to as the "Contract" and are expressly incorporated herein by reference and made a part of this bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Contractor shall promptly and faithfully perform the Contract, in strict conformity with each and every requirement of the Contract, then this obligation shall be null and void; otherwise, it shall remain in full force and effect, as stated herein.

a. The Contractor shall well and truly perform, and carry out and abide by all the terms, conditions and provisions of said Contract and complete the work therein specified in accordance with the terms thereof and in the event the Contractor fails to perform the Contract as aforesaid, it shall be the duty of the Surety herein to assume responsibility for the performance of said Contract and to complete the work therein specified in accordance with the terms thereof; and the Surety herein shall and does hereby agree to defend, indemnify the County and hold it harmless of, from and against any and all liability, loss, cost, damage or expense including reasonable attorney fees, and any other professional services which the County may incur or which may occur or be imposed upon it by reason of any negligence, default, breach and/or misconduct on the part of the said Contractor, and its agents, servants, subcontractors and/or employees, in, about, or on account of such work and performance of said Contract and shall repay to and reimburse to the County, promptly upon demand, all sums of money including reasonable attorney's and other professional fees, each and every, reasonably paid out or expended by the County on account of the failure and/or refusal of said Contractor to carry out, do, perform, and/or comply with any of the terms and provisions of said Contract within the time and in the manner therein provided, including, without limitation, any warranty, maintenance obligation, or guarantee specified therein.

b. Any alteration, modification, omission, or addition which may be made in or to the terms of the Contract, including, without limitation, the amount to be paid or the work to be done under it, or the giving by the County of any extension of time for the performance of the Contract or any other forbearance of any nature whatsoever on the part of either the County or the Contractor to the other shall not in any way affect or release the Contractor and the Surety, or either of them, their heirs, executors, administrators, successors or assigns with regard to their obligations and liability hereunder, and notice of such alteration, extension or forbearance is hereby expressly waived by Surety.

c. Contractor and Surety covenant and agree that this bond shall continue in full force and effect and shall not be canceled or expire or be deemed to be canceled or have expired until: (I) all of Contractor's obligations under the Contract have been satisfactorily completed, including, without limitation, any and all maintenance, warranty, and guarantee obligations; and, (ii) County receives from Surety written notice evidencing compliance with the requirements of this bond at least 30 calendar days prior to any cancellation or expiration.

d. IT IS NOT INTENDED BY ANY OF THE PROVISIONS OF ANY PART OF THIS BOND TO CONFER A BENEFIT UPON ANY OTHER PERSON OR ENTITY NOT A PARTY TO THIS PERFORMANCE BOND OR TO AUTHORIZE ANY PERSON OR ENTITY NOT A PARTY TO THIS BOND TO MAINTAIN A SUIT PURSUANT TO THE TERMS OR PROVISIONS OF THIS BOND OTHER THAN THE COUNTY OR ITS SUCCESSORS OR ASSIGNS.

e. Any suit or action hereunder shall be brought in a Virginia court of competent jurisdiction in and for Roanoke County, or in the United States District Court for the Western District of Virginia, Roanoke Division, and not elsewhere.

f. The provisions of this bond shall be governed by and are intended to be consistent with and implement the laws of the Commonwealth of Virginia, including, without limitation, the requirements of the Virginia Public Procurement Act. In the event of any conflict, discrepancy, or omission as between this bond and applicable provisions of the Virginia Public Procurement act, the provisions of the Virginia Public Procurement Act shall be determinative and controlling.

SIGNED and SEALED this _____ day of _____, 20____, in the presence of:

Contractor

WITNESS:

By: (Seal)

(Type Name and Title)

Surety

WITNESS:

By: (Seal)

Attorney-In-Fact

(Type Name and Title)

(SURETY: Attach Power of Attorney)

ROANOKE COUNTY

CONTRACTOR'S LABOR AND MATERIAL PAYMENT BOND

Project: Kenwick Trail Rte. 1530 – Hartley Circle Rte. 1533 Drainage Improvements

KNOW ALL MEN BY THESE PRESENTS:

that

(Insert full name or legal title and address of contractor)

as Principal, (hereinafter referred to as "Contractor"),

and

(Insert full name or legal title and address of Surety)

as Surety, a corporation duly organized under the laws of the state of _____ and legally authorized to do business in the Commonwealth of Virginia (hereinafter referred to as "Surety"), are held and firmly bound unto ROANOKE COUNTY, 5204 Bernard Drive SW, Roanoke, VA 24018, as Obligee (hereinafter referred to as "County"), in the amount of _____ DOLLARS (\$ _____), for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has entered a Contract with the County dated _____ for Kenwick Trail Rte. 1530 – Hartley Circle Rte. 1533 Drainage Improvements in accordance with contract documents for the work, including, without limitation, the General Conditions, Technical Specifications and Plans and Drawings, if any, and the completed Contract form, which contract documents are referred to collectively as the "Contract" and are expressly incorporated herein by reference and made a part of this bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Contractor shall promptly make payment to all Claimants as hereinafter defined, for all material furnished or labor supplied or performed in the prosecution of the work provided for in the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

a. Any alteration which may be made in the terms of the Contract, including, without limitation, the amount to be paid or the work to be done under it, or the giving by the County of any extension of time for the performance of the Contract or any other forbearance of any nature whatsoever on the part of either the County or the Contractor to the other shall not in any way release the Contractor and the Surety, or either of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, and notice of such alteration, extension or forbearance is hereby expressly waived by Surety.

b. A Claimant is defined as one who has and fulfills a contract to supply labor or materials, or both, to the Contractor or to any of the Contractor's subcontractors, in the prosecution of work provided for in the Contract, labor and material being construed to include, without limitation, public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the site.

c. The Contractor and Surety hereby jointly and severally agree with the County that every Claimant, as defined in paragraph b, who has performed labor or furnished material in accordance with the Contract in the prosecution of the work provided for in the Contract and who has not been paid in full therefor before the expiration of ninety (90) days after the day on which such claimant performed the last of such labor or furnished the last of such materials for which he claims payment, may bring an action on this payment bond to recover any amount due

him for such labor or material, and may prosecute such action to final judgment and have execution on the judgment. The Contractor and Surety expressly agree that the County shall not be liable for the payment of any judgment, costs or expenses resulting from any such claim or suit and that neither Contractor nor Surety shall cause the County to be named as a party in any such suit. Surety herein shall and does hereby agree to defend, indemnify the County and hold it harmless of, from and against any and all liability, loss, cost, damage or expense including reasonable attorney fees, or other professional services which the County may incur or which may occur or be imposed upon it by reason of such claim or suit.

d. The Contractor and Surety hereby jointly and severally agree with the County that every Claimant, as defined in paragraph b, who has direct contractual relationship with any subcontractor from whom the Contractor has not required a subcontractor payment bond but who has no contractual relationship, express or implied, with such Contractor, may bring an action on this bond only if the Claimant has given written notice to the Contractor within one hundred eighty (180) days from the day on which the Claimant performed the last of the labor or furnished the last of the materials for which payment is claimed, stating with substantial accuracy the amount claimed and the name of the person for whom the work was performed or to whom the material was furnished. The Contractor and Surety expressly agree that the County shall not be liable for the payment of any judgment, costs, or expenses resulting from any such claim or suit and that neither Contractor nor Surety shall cause the County to be named as a party in any such suit. Surety herein shall and does hereby agree to defend, indemnify the County and hold it harmless of, from and against any and all liability, loss, cost, damage or expense including reasonable attorney fees, or other professional services which the County may incur or which may occur or be imposed upon it by reason of such claim or suit.

e. Any suit or action hereunder by any Claimant shall be brought in a Virginia court of competent jurisdiction in and for Roanoke County, or in the United States District Court for the Western District of Virginia, Roanoke Division, and not elsewhere.

f. Any suit or action hereunder shall be brought within one year after the day on which the person bringing such action last performed labor or last furnished or supplied materials.

g. Contractor and Surety covenant and agree that this bond shall continue in full force and effect and shall not be canceled or expire or be deemed to be canceled or have expired until: (i) all of Contractor's obligations under the Contract have been satisfactorily completed, including, without limitation, any and all maintenance, warranty, and guarantee obligations; and, (ii) County receives from Surety written notice evidencing compliance with the requirements of this bond at least 30 calendar days prior to any proposed cancellation or expiration.

h. The provisions of this bond shall be governed by and are intended to be consistent with and implement the laws of the Commonwealth of Virginia, including, without limitation, the requirements of the Virginia Public Procurement Act. In the event of any conflict, discrepancy, or omission as between this bond and applicable provisions of the Virginia Public Procurement Act, the provisions of the Virginia Public Procurement Act shall be determinative and controlling.

SIGNED and SEALED this _____ day of _____, 20____, in the presence of:

Contractor

WITNESS:

By: (Seal)

(Type Name and Title)

Surety

WITNESS:

By: (Seal)

Attorney-In-Fact

(Type Name and Title)

(SURETY: Attach Power of Attorney)

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GENERAL CONDITIONS

1. DEFINITIONS

- 1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicate which shall be applicable to both the singular and plural thereof:
- 1.2 ADDENDA - Written or graphic instruments issued prior to the execution of the Agreement, which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS, and SPECIFICATIONS, by additions, clarifications or corrections.
- 1.3 BID - The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.
- 1.4 BIDDER - Any person, firm, or corporation submitting a BID for the WORK.
- 1.5 BONDS - Bid, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR and his surety in accordance with the CONTRACT DOCUMENTS.
- 1.6 CHANGE ORDER - A written order to the CONTRACTOR authorizing an addition, deletion, or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.
- 1.7 CONTRACT DOCUMENTS - The contract, including Advertisement for Bids, Information for Bidders, General Conditions, Supplemental General Conditions, BID, Technical Specifications and Special Conditions, Bid Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, and ADDENDA.
- 1.8 CONTRACT PRICE - The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.
- 1.9 CONTRACT TIME - The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.
- 1.10 CONTRACTOR - The persons, firm, or corporation with whom the OWNER has executed the Agreement.
- 1.11 DRAWINGS - The part of the CONTRACT DOCUMENTS, which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.
- 1.12 ENGINEER - The Roanoke County Engineer or person, firm, or corporation designated by the OWNER to supervise the WORK and/or administer the CONTRACT DOCUMENTS. Owner's Representative.
- 1.13 FIELD ORDER - A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.
- 1.14 FINAL ACCEPTANCE - The date as certified by the ENGINEER that the WORK has been completed in accordance with the CONTRACT DOCUMENTS and that final payment can be made.

- 1.15 **NOTICE OF AWARD** - The written notice of the acceptance of the BID from the OWNER to the successful BIDDER.
- 1.16 **NOTICE TO PROCEED** - Written communication issued by the OWNER or authorized agent to the CONTRACTOR authorizing the Contractor to proceed with the WORK and establishing the date of commencement of the WORK.
- 1.17 **OWNER** - The Board of County Supervisors for Roanoke County, Virginia, or their authorized agent.
- 1.18 **PROJECT** - The undertaking to be performed as provided in the CONTRACT DOCUMENTS.
- 1.19 **RESIDENT PROJECT REPRESENTATIVE** - The authorized representative of the OWNER who is assigned to the project site or any part thereof.
- 1.20 **SHOP DRAWINGS** - All drawings, diagrams, illustrations, brochures, schedules, and other data, which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, SUPPLIER, or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.
- 1.21 **SPECIFICATIONS** - A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.
- 1.22 **SUBCONTRACTOR** - An individual, firm, or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the WORK at the site.
- 1.23 **SUBSTANTIAL COMPLETION** - That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.
- 1.24 **SUPPLEMENTAL GENERAL CONDITIONS** - Modifications to General Conditions required for the PROJECT, or such requirements that may be imposed by applicable state laws, or required to clarify or amplify the General Conditions.
- 1.25 **SUPPLIER** - Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.
- 1.26 **WORK** - All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.
- 1.27 **WRITTEN NOTICE** - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at their last given address, or delivered in person to said party or their authorized representative on the Project.

2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

- 2.1 The CONTRACTOR may be furnished additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.

2.2 The additional drawings and instruction thus supplied will become a part of the CONTRACT DOCUMENTS. CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

3. SCHEDULES, REPORTS, AND RECORDS

3.1 The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedule, payrolls, reports, estimates, records, and other data where applicable as are required by the CONTRACT DOCUMENTS for the WORK to be performed.

3.2 Prior to beginning work the CONTRACTOR shall submit construction progress schedules showing the order in which the CONTRACTOR proposes to carry out the WORK, including dates at which the CONTRACTOR will start the various parts of the WORK, estimated date of completion of each part, and, as applicable:

3.2.1 The dates at which special detail drawings will be required; and

3.2.2 Respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

3.3 CONTRACTOR shall also submit a schedule of payments anticipated to be earned during course of WORK.

4. DRAWINGS AND SPECIFICATIONS

4.1 The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.

4.2 In case of conflict between DRAWINGS and SPECIFICATIONS, SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.

4.3 Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his discovery of such discrepancies, inconsistencies, or ambiguities shall be done at the CONTRACTOR'S risk.

5. SHOP DRAWINGS

5.1 The CONTRACTOR shall provide SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER'S approval of any SHOP DRAWING shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The approval of any SHOP DRAWING which substantially deviates from the requirement of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER. SHOP DRAWINGS, catalog cuts, samples, schedules, etc. shall be submitted for all materials and equipment. On initial submittals, three copies of each item shall be required. Once the review is complete and all corrections made, five copies of the final SHOP DRAWINGS shall be submitted for approval and distribution to all parties.

- 5.2 When submitted for the ENGINEER'S REVIEW, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that he has reviewed, checked, and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.
- 5.3 Portions of the WORK requiring a SHOP DRAWING or sample submission shall not begin until the SHOP DRAWING or submission has been approved by the ENGINEER. A copy of each approved SHOP DRAWING and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

6. MATERIALS, SERVICES, AND FACILITIES

- 6.1 It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.
- 6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection. All equipment, including but not limited to motors, drives, gear reducers, electrical switch gear, heating, ventilation and air conditioning equipment, communication and instrumentation shall be stored in a secure, heated, ventilated and dry space. Storage must be approved by the ENGINEER. The ENGINEER'S approval of the storage plan shall not release the CONTRACTOR from responsibility for the equipment. Equipment that is not suitably stored shall not be paid for until storage requirements are met. The CONTRACTOR shall be required to comply with the manufacturers' requirements concerning lubrication, oil changes, and other special conditions during the storage period and until the equipment is installed, start-up of the equipment is instituted, and the equipment is finally accepted or determined as substantially completed.
- 6.3 Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.
- 6.4 Materials, supplies, and equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.
- 6.5 Materials, supplies, or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.
- 6.6 Materials, supplies, or equipment to be included into the WORK shall be new and unused.

7. INSPECTION AND TESTING

- 7.1 All materials and equipment used in the construction of the PROJECT shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the CONTRACT DOCUMENTS.
- 7.2 The OWNER shall provide all inspection and testing services unless otherwise stated in the CONTRACT DOCUMENTS. The CONTRACTOR shall notify the OWNER of the work schedule planned in order that adequate inspection can be made. No work may be performed in any day on which it was not scheduled. A minimum of 12 hours notice of change in work schedule must be given to OWNER by CONTRACTOR. If

CONTRACTOR does not work on a scheduled day, the CONTRACTOR will be charged the cost incurred by the OWNER for the lost work of the inspector.

- 7.3 The CONTRACTOR shall provide all necessary inspections and testing for quality control during construction.
- 7.4 If the CONTRACT DOCUMENTS, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any WORK to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing or approval.
- 7.5 Inspections, tests, or approvals by the ENGINEER or others shall not relieve the CONTRACTOR from his obligations to perform the WORK in accordance with the requirements of the CONTRACT DOCUMENTS.
- 7.6 The ENGINEER and other owner representatives will at all times have access to the WORK. In addition, authorized representatives and agents of any participating Federal or State agency shall be permitted to inspect all WORK, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide facilities for such access and observation of the WORK and also for any inspection, or testing thereof.
- 7.7 If any WORK is covered contrary to the written instructions of the ENGINEER, it must, if requested by the ENGINEER, be uncovered for observation and replaced at the CONTRACTOR'S expense.
- 7.8 If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose, or otherwise make available for observation, inspection, or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction. If, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction and an appropriate CHANGE ORDER shall be issued.

8. SUBSTITUTIONS

- 8.1 Whenever a material, article, or piece of equipment is identified on the DRAWINGS or SPECIFICATIONS by reference to brand name or catalogue number, it shall be understood that the first brand name listed in the SPECIFICATIONS is that around which the DRAWINGS have been prepared. Should the second or another brand name be utilized in preparing the BID, the CONTRACTOR shall be responsible for assuring that the costs of all changes, including costs of changes to the CONTRACT DOCUMENTS, required by such use are also included in the BID. The CONTRACTOR may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue cut, if piece of equipment is of equal substance and function to that specified, the ENGINEER may approve its substitution and use by the CONTRACTOR. Any cost differential shall be deductible from the CONTRACT PRICE and the CONTRACT DOCUMENTS shall be appropriately modified by CHANGE ORDER. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the PROJECT will result. Incidental changes or extra

component parts required to accommodate the substitute will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.

9. PATENTS

- 9.1 The CONTRACTOR shall pay all applicable royalties and license fees. The CONTRACTOR shall defend all suits or claims for infringement of patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, however, if the CONTRACTOR has reason to believe that the design, process, or product specified is an infringement of a patent, CONTRACTOR shall be responsible for such loss unless CONTRACTOR promptly gives such information to the ENGINEER.

10. SURVEYS, PERMITS, REGULATIONS

- 10.1 The OWNER shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the WORK as shown in the CONTRACT DOCUMENTS. From the information provided by the OWNER, unless otherwise specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations, and other working points, lines, elevations, and cut sheets.
- 10.2 The CONTRACTOR shall carefully preserve benchmarks, reference points, and stakes; and, in case of willful or careless destruction, CONTRACTOR shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.
- 10.3 Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the Contractor unless otherwise stated in the SUPPLEMENTAL GENERAL CONDITIONS. Permits, licenses, and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR observes that the CONTRACT DOCUMENTS are at variance therewith, CONTRACTOR shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in Section 13, CHANGES IN THE WORK.

11. PROTECTION OF WORK, PROPERTY, AND PERSONS

- 11.1 The CONTRACTOR will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. The CONTRACTOR will take all necessary precautions for the safety of, and will protect the persons who may be affected thereby, protect all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and protect other property at the site adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- 11.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction. The CONTRACTOR will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. The CONTRACTOR will notify owners of adjacent utilities when prosecution of the WORK may affect them. The CONTRACTOR will remedy all damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any SUBCONTRACTOR or anyone directly or

indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER or the ENGINEER or anyone employed by either or them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

11.3 In emergencies affecting safety of persons or the WORK or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from ENGINEER or OWNER, shall act to prevent threatened damage, injury, or loss. CONTRACTOR will give OWNER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

12. SUPERVISION BY CONTRACTOR

12.1 CONTRACTOR shall supervise and direct the WORK. CONTRACTOR shall be solely responsible for means, methods, techniques, sequences, and procedures of construction. CONTRACTOR shall employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by CONTRACTOR as CONTRACTOR'S representative at the site. Supervisor shall have full authority to act on behalf of CONTRACTOR and all communications given to the supervisor shall be as binding as if given to CONTRACTOR. Supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

13. CHANGES IN THE WORK

13.1 The OWNER may at any time, as the need arises, order changes within the scope of the WORK without invalidating the Agreement. If such changes increase or decrease the amount due under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.

13.2 The ENGINEER, also, may at any time, by issuing a FIELD ORDER, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles him to a change in CONTRACT PRICE or TIME or both, in which event he shall give the ENGINEER WRITTEN NOTICE thereof within seven (7) days after the receipt of the ordered change. Thereafter, the CONTRACTOR shall document the basis for the change in CONTRACT PRICE or TIME within thirty (30) days. The CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER or further instruction from the OWNER.

14. CHANGES IN CONTRACT PRICE; CHANGE OF CONTRACT TIMES; CLAIMS

14.1 The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

14.1.1 Unit Prices Previously Approved.

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.

B. 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 27.5.

C. 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.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 14.3 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 varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the Contract Price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity; and

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

3. 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.

14.1.2 An agreed lump sum. For the negotiation of the agreed lump sum amount, the CONTRACTOR shall furnish the ENGINEER a breakdown of all labor, materials, supplies, and equipment utilizing the costing principles described under 14.1.3.

14.1.3 The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the WORK. In addition, there shall be added an amount to be agreed upon but not to exceed 15 percent of the actual cost of the WORK to cover the cost of general overhead and profit. To amplify the items described under 14.1.3, labor shall include the crew foreman but not other supervisory personnel, labor costs shall include taxes, insurance, and actual fringe benefits paid; and, rental rates for equipment owned by the CONTRACTOR shall not exceed 75 percent of Associated Equipment Distributors book rental monthly rates. To costs incurred by SUBCONTRACTORS for changes in the WORK, there shall be an added amount not to exceed 10 percent of the subcontract to cover the cost of general overhead and profit.

14.2 Change of Contract Times

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times 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 14.3.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance of this paragraph.

14.2.1 Delays

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times may be extended in

an amount equal to the time lost due to such delay if a Claim is made therefore as provided in Paragraph 14.2.A and if the performance of the Work is not, was not, or would not have been delayed by any other cause for which the Contractor is not entitled to an extension of the Contract Time under the Contract Documents. 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 Paragraph 25, fires, floods, epidemics, abnormal weather conditions, or acts of God. Contractor acknowledges and agrees that adjustments in the Contract Times will be permitted for a delay only to the extent such delay (i) is not caused, or could not have been anticipated, by Contractor; (ii) could not be limited or avoided by the Contractor's timely notice to Owner of the delay or reasonable likelihood that a delay will occur; and (iii) is of a duration not less than one day.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Paragraph 25, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor may be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor may be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 14.2.1.C.

1. If a claim is made as provided in Paragraph 14.2.1.A and this Paragraph 14.2.1.C for delay due to abnormal weather conditions, the time extension to be awarded to Contractor, if any, shall be calculated using the following schedule of monthly anticipated adverse weather delay days for the project location. Contractor shall incorporate these anticipated adverse weather delays in the scheduling of all weather-dependent activities.

Monthly Contract Allowance (MCA), in days			
January	February	March	April
5	5	7	7
May	June	July	August
8	8	8	6
September	October	November	December
5	5	5	6

2. Actual adverse weather delay days must prevent work on critical activities for fifty percent (50%) or more of Contractor's scheduled workday. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather days exceeds the number of days anticipated by the Monthly Contract Allowance in

Paragraph 14.2.1.C.1, and providing that all other contractually-required conditions are met, qualifying delays will be converted to calendar days and additional calendar days will be added to the Contract Times for each qualifying delay in excess of the Monthly Contract Allowance.

3. Notwithstanding the provisions of Paragraph 14.2.1.C.2, for any prior month(s) in which the number of adverse weather delay days is (are) less than the specified Monthly Contract Allowance, the difference between the Monthly Contract Allowance and the actual number of adverse weather delay days experienced in said prior month(s) shall be credited to Owner and deducted from any adverse weather delays days credited to Contractor.

4. Upon commencement of on-site activities and continuing throughout construction, Contractor shall record daily the occurrence of adverse weather and resultant impact to normally scheduled work.

5. Within 30 days of the last day of any month (hereinafter referred to as the "Reporting Month"), Contractor shall submit a written adverse weather report, including copies of Contractor's daily weather reports and applicable climatological data from the National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location, unless Engineer allows an additional period of time for the submission of said report. Notwithstanding any other provisions, failure to submit the required written report within the time specified above shall be deemed to be and shall constitute a waiver by Contractor of any and all claims for delay due to adverse weather conditions occurring during said Reporting Month.

D. Owner, Engineer and the Related Entities of each of them 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. Time extensions due to weather delay shall not entitle Contractor to any claim, compensation, or recovery for extended overhead.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for 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.

F. Contractor shall be liable to Owner and shall pay Owner for a percentage of all costs incurred by Owner and Engineer in investigating, analyzing, negotiating, arbitrating, and litigating any claim against Owner or Engineer for costs or damages due to any alleged delaying of Contractor in the performance of the Work, which percentage shall be equal to the percentage of Contractor's total delay claim which is determined to be false or to have no basis in law or in fact.

G. To the fullest extent permitted by law, and notwithstanding anything to the contrary in the Contract Documents, an extension of the Contract Time, to the extent permitted under Paragraph 14.2 shall be the sole remedy of Contractor for any (i) delay in the commencement, prosecution, or completion of the Work, (ii) hinderance or obstruction in the performance of the Work, (iii) loss of productivity, or (iv) other similar claims (collectively referred to in this Paragraph 14.2.1.G as "Delays") whether or not such Delays are foreseeable, unless a Delay is caused by acts of Owner constituting active interference with Contractor's performance of the Work, and only to the extent such acts

continue after Contractor furnishes Owner with notice of such interference. In no event shall Contractor be entitled to any compensation or recovery of any damages, in connection with any Delay, including, without limitation, consequential damages, lost opportunity costs, impact damages, or other similar remuneration. Owner's exercise of any of its rights under the Contract Documents (including, without limitation, ordering changes in the Work, or directing suspension, rescheduling or correction of the Work), regardless of the extent or frequency of Owner's exercise of such rights or remedies, shall not be construed as active interference with Contractor's performance of the Work.

14.3 Claims

A. *Engineer's Recommendation Required:* All Claims, except those waived pursuant to Paragraph 19.10, shall be referred to the Engineer for recommendation to Owner. A recommendation by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim, 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; provided, however, that the claimant shall use its best efforts to furnish Engineer and the other party, as expeditiously as possible, with notice of any Claim including, without limitation, those in connection with concealed or unknown conditions, once such Claim is recognized, and shall cooperate with Engineer and the party against whom the Claim is made in any effort to mitigate the alleged or potential damages, delay, or other adverse consequences arising out of the condition that is the cause of such a Claim. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, 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). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 14.1. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 14.2. 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).

C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. recommend Owner deny the Claim in whole or in part,
2. recommend Owner approve the Claim, or
3. notify the parties that the Engineer is unable to resolve, provide Owner a recommendation with respect to the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a recommendation for denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, Engineer's recommendation to Owner shall be deemed to be to deny the Claim.

E In accordance with the requirements of Section 2.2-4363 of the Code of Virginia, 1950, as amended, a final written decision by Owner on Contractor Claims shall be issued by Owner within 30 days after Owner's receipt of Engineer's written action under Paragraph 14.3 or

recommendation for denial pursuant to Paragraphs 14.3, if any is deemed necessary by Owner.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 14.3.

1. The notice required by Paragraph 14.3 is a condition precedent to the assertion of any claim by Contractor. The right of Owner to receive written notice of claims under Paragraph 14.3 may not be waived or modified by Owner or Engineer except in writing signed by Owner, and Contractor will not rely on any purported waiver of this written notice by verbal instructions or other conduct of Owner or Engineer.
2. Contractor's written notice of a Claim shall be by written request seeking a Change Order and specifying the grounds therefore and the relief sought. Contractor shall attach to each Application for Payment a schedule of outstanding and unresolved Contractor Claims. By attaching and submitting such schedule with its Application for Payment, Contractor shall be deemed to have certified that the only outstanding and unresolved Claims of which it has notice at the time of the Application for Payment are those identified in the schedule attached to its Application for Payment. A schedule of outstanding and unresolved requests for change orders and claims shall be required of each Subcontractor submitting an application for payment to Contractor that is to be included in Contractor's Application for Payment to Owner. Owner and Engineer shall each rely upon Contractor's schedule of outstanding and unresolved Claims as inclusive of any and all Claims Contractor is then on notice of, and Contractor's acceptance of payment in response to an Application for Payment shall constitute a waiver and release of any and all Claims not identified in Contractor's schedule of outstanding and unresolved Claims not identified in Contractor's schedule accompanying such Application for Payment. Contractor shall require that each Subcontractor waives and releases any and all requests for change orders and claims the Subcontractor is on notice of at the time it submits its application for payment to Contractor and is not identified in its application for payment by acceptance of payment from Contractor.

15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED. This is a fixed date contract, substantial completion shall be 122 calendar days after issuance of the NOTICE TO PROCEED, and final completion shall be no later than 30 calendar days after substantial completion.

The undersigned agrees, if this bid is accepted, to pay as liquidated damages the sum of three hundred (\$200.00) per day to the County of Roanoke for each consecutive calendar day in excess of the stated time required for substantial completion of the work; and the sum of one hundred (\$75.00) per day to the County of Roanoke for each consecutive calendar day in excess of the stated time required for final completion of the work.

Substantial completion is defined as completion of the new storm drain system and reopening of all roadways. This shall include but not be limited to the installation of all pipes, headwalls, channels, and inlets, and restoration of all final pavement surfaces.

- 15.2 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.
- 15.3 If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay liquidated damages to the OWNER as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.
- 15.4 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER.
 - 15.4.1 To any preference, priority or allocation order duly issued by the OWNER.
 - 15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather.
 - 15.4.3 To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

16. CORRECTION OF WORK

- 16.1 The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.
- 16.2 All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten (10) days after receipt of WRITTEN NOTICE, the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

17. SUBSURFACE CONDITIONS

- 17.1 The CONTRACTOR shall promptly, and before such conditions are disturbed, except in the event of any emergency, notify the OWNER by WRITTEN NOTICE of:
 - 17.1.1 Subsurface or latent physical conditions at the site differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the CONTRACT DOCUMENTS.

- 17.1.2 Unknown physical conditions at the site, of unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the CONTRACT DOCUMENTS.
- 17.2 The OWNER shall promptly investigate the conditions, and if the OWNER finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the WORK, an equitable adjustment shall be made and the CONTRACT DOCUMENTS shall be modified by a CHANGE ORDER. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless he has given the required WRITTEN NOTICE; provided that the OWNER may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

18. SUSPENSION OF WORK, TERMINATION AND DELAY

- 18.1 The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety (90) days or such further time as agreed upon by the CONTRACTOR, by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which WORK shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.
- 18.2 If the CONTRACTOR is adjudged a bankrupt or insolvent; or if the CONTRACTOR makes a general assignment for the benefit of CONTRACTOR'S creditors; or if a trustee or receiver is appointed for the CONTRACTOR or for any of the CONTRACTOR'S property; or if the CONTRACTOR'S files a petition to take advantage of any debtor's act; or to reorganize under the bankruptcy or applicable laws; or if the CONTRACTOR repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment; or if the CONTRACTOR repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials, or equipment; or if the CONTRACTOR disregards laws, ordinances, rules, regulations, or orders of any public body having jurisdiction of the WORK; or if the CONTRACTOR disregards the authority of the ENGINEER; or if the CONTRACTOR otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment, and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method the OWNER may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.
- 18.3 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.
- 18.4 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the CONTRACT. In such case,

the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

- 18.5 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER; or under any order of court or other public authority; or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted; or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days WRITTEN NOTICE to the OWNER and the ENGINEER stop the WORK until he has paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.
- 18.6 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

19. PAYMENTS TO CONTRACTOR

- 19.1 At least ten (10) days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the OWNER'S title to the material and equipment and protect his interest therein, including applicable insurance. The ENGINEER will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing his reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within ten (10) days of presentation to him of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate.
- 19.2 The request for payment may also include an allowance for the cost of such major materials and equipment, which are suitably stored either at or near the site.
- 19.3 Prior to SUBSTANTIAL COMPLETION, the OWNER, with the approval of the ENGINEER and with the concurrence of the CONTRACTOR, may use any completed or SUBSTANTIALLY COMPLETED portions of the WORK. Such use shall not constitute an acceptance of such portions of the WORK.
- 19.4 The OWNER shall have the right to enter the premises for the purpose of doing work not covered by the CONTRACT DOCUMENTS. This provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care and protection of the

WORK, or the restoration of any damaged WORK except such as may be caused by agents or employees of the OWNER.

19.5 ~~The final payment request must be accompanied by a "Release of Surety" prior to acceptance of the request by the ENGINEER.~~ Upon completion and acceptance of the WORK, the ENGINEER shall issue a certificate attached to the final payment request that the WORK has been accepted by him under the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within thirty (30) days of the completion and acceptance of the WORK.

19.6 The CONTRACTOR will indemnify and save the OWNER, or the OWNER'S agents, and VDOT, harmless from all claims growing out of the lawful demands of SUBCONTRACTORS, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so, the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonable sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed, in accordance with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, his Surety, or any third party.

In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

19.7 If the OWNER fails to make payment thirty (30) days after approval by the ENGINEER, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.

19.8 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.

B. Promptly after Contractor's notification, 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.

1. If after the performance of such Substantial Completion inspection, Engineer determines that the Work is not substantially complete, Contractor shall be liable to Owner for any and all costs and expenses (including, but not limited to, Engineer's fees and expenses) incurred by the Owner as a result thereof. Contractor covenants and agrees that Owner may retain, deduct, and/or offset moneys due to the Owner pursuant to this Paragraph 19.8.B.1 from

moneys due to Contractor under the Agreement. Contractor further covenants and agrees that Owner retains the right to make such deduction or offset at any time prior to and including final payment and that the imposition and the deduction and/or offset of such moneys shall not be subject to any notice or claim provisions of the Contract Documents.

C. If Engineer considers the Work substantially complete, Engineer will 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.

D. 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.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

19.9 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.

1. If after the performance of such final completion inspection, Engineer determines that the Work is not substantially complete, Contractor shall be liable to Owner for any and all costs and expenses (including, but not limited to, Engineer's fees and expenses) incurred by the Owner as a result thereof. Contractor covenants and agrees that Owner may retain, deduct, and/or offset moneys due to the Owner pursuant to this Paragraph 19.9.A.1 from moneys due to Contractor further covenants and agrees that Owner retains the right to make such deduction or offset at any time prior to and including final payment and that the imposition and the deduction and/or offset of such moneys shall not be subject to any notice or claim provisions of the Contract Documents.

19.10 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 19.9, 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. *Interpretation of Contract Documents* a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

- 20.1 The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment, however, final or otherwise shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the PERFORMANCE BOND and PAYMENT BONDS.

21. INSURANCE

- 21.1 The CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the CONTRACTOR'S execution of the WORK, whether such execution be by himself or by any SUBCONTRACTOR or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:
 - 21.1.1 Claims under workmen's compensation, disability benefit and other similar employee benefit acts; and
 - 21.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees; and
 - 21.1.3 Claims for damages because of bodily injury, sickness liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person; and
 - 21.1.4 Claims for damages because of bodily injury, sickness, or disease, or death of any person other than his employees; and
 - 21.1.5 Claims for damages because of injury in or destruction of tangible property, including loss of use resulting there from.
- 21.2 Certificates of insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK. These certificates shall contain a provision that coverage afforded under the policies will not be canceled unless at least thirty (30) days prior WRITTEN NOTICE has been given to the OWNER.
- 21.3 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, liability insurance as hereinafter specified:

- 21.3.1 CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the CONTRACT DOCUMENTS, whether such operations be by himself or by any SUBCONTRACTOR under him, or anyone directly or indirectly employed by the CONTRACTOR or by a SUBCONTRACTOR under him. Insurance shall be written with a limit of liability of not less than \$1,000,000 for all damages arising out of bodily injury, including death, at any time resulting there from, sustained by any one person in any one accident; and a limit of liability of not less than \$1,000,000 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$1,000,000 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$1,000,000 aggregate for any such damage sustained by two or more persons in any one accident.
- 21.3.2 The CONTRACTOR shall acquire and maintain Fire and Extended Coverage insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and the SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the CONTRACT DOCUMENTS to fully complete the PROJECT.
- 21.3.3 The CONTRACTOR shall acquire and maintain such special insurance coverage as required by the railroad crossing license/permit
- 21.4 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the WORK is performed. Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the PROJECT and in case any WORK is sublet, the CONTRACTOR shall require each SUBCONTRACTOR similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous WORK under this CONTRACT at the site of the PROJECT is not protected under Workmen's Compensation statute, the CONTRACTOR shall provide, and shall cause each SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.
- 21.5 The CONTRACTOR shall secure "All Risk" type Builder's Risk Insurance for WORK to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the CONTRACT PRICE totaled in the BID. The policy shall cover not less than the losses due to fire, explosion, hail, lightening, vandalism, malicious mischief, wind, flood, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until the WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, the ENGINEER, and the OWNER.

22. CONTRACT SECURITY

- 22.1 The CONTRACTOR shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNER with a Performance Bond and Payment Bond in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions, and agreements of the CONTRACT DOCUMENTS, and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the

CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the State of Virginia and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such BOND is declared a bankrupt or loses its right to do business in Virginia or is removed from the list of Surety Companies accepted on Federal BONDS, CONTRACTOR shall within ten (10) days after notice from the OWNER to do so, substitute an acceptable BOND (or BONDS) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such BOND shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable BOND to the OWNER. The Performance Bond shall remain in full force and effect through the guarantee period.

23. ASSIGNMENTS

- 23.1 Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign, or otherwise dispose of the CONTRACT or any portion thereof, or of their right, title, or interest therein, or their obligations there under, without written consent of the other party.

24. INDEMNIFICATION

- 24.1 The CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses, and expenses including attorney's fees arising out of or resulting from the performance of the WORK, provided that such claims, damage, loss, or expense is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property including the loss of use resulting there from; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.
- 24.2 In any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under workmen's compensation acts, disability benefit acts or other employee benefits acts.
- 24.3 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER or ENGINEER'S employees arising out of the preparation or approval of maps, DRAWINGS, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

25. SEPARATE CONTRACTS

- 25.1 The OWNER reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate the CONTRACTOR'S WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly

report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.

- 25.2 The OWNER may perform additional WORK related to the PROJECT, or OWNER may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such Contracts (or the OWNER, if the CONTRACTOR is performing the additional WORK), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate the CONTRACTOR'S WORK with theirs.
- 25.3 If the performance of additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, WRITTEN NOTICE thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves the CONTRACTOR in additional expense or entitles the CONTRACTOR to an extension of the CONTRACT TIME, the CONTRACTOR may make a claim therefore as provided in Sections 13 and 14.

26. SUBCONTRACTING

- 26.1 The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by specialty CONTRACTORS.
- 26.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(S), in excess of 50 percent of the CONTRACT PRICE, without prior written approval of the OWNER. For purposes of this paragraph, purchase of materials and equipment by the CONTRACTOR with their installation by SUBCONTRACTORS shall not be considered part of the CONTRACTOR'S WORK.
- 26.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of any SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as the CONTRACTOR is for the acts and omissions of persons directly employed by the CONTRACTOR.
- 26.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.
- 26.5 Nothing contained in the CONTRACT shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

27. ENGINEER'S AUTHORITY

- 27.1 The ENGINEER shall act as the OWNER'S representative during the construction period. The ENGINEER shall decide questions, which may arise as to quality and acceptability of materials furnished and WORK performed. The ENGINEER shall interpret the intent of the CONTRACT DOCUMENTS in a fair and unbiased manner. The ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.

- 27.2 The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship and execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply at the ENGINEER'S discretion.
- 27.3 The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.
- 27.4 The ENGINEER shall promptly make decisions relative to interpretation of the CONTRACT DOCUMENTS.
- 27.5 The 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 14.3.

28. LAND AND RIGHT-OF-WAYS

- 28.1 Prior to issuance of NOTICE TO PROCEED, the OWNER shall obtain all land and right-of-ways necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS, unless otherwise mutually agreed.
- 28.2 The OWNER shall provide to the CONTRACTOR information, which delineates and describes the lands owned and right-of-ways acquired.
- 28.3 The CONTRACTOR shall provide at CONTRACTOR'S own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.
- 28.4 The CONTRACTOR shall obtain proper permits from VDOT for work in VDOT right of way.

29. GUARANTY

- 29.1 The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of FINAL ACCEPTANCE. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of FINAL ACCEPTANCE of the system that the completed system is free from all defects due to faulty materials or workmanship and that the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects.
- 29.2 The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The PERFORMANCE BOND shall remain in full force and effect through the guarantee period.
- 29.3 At the end of the guarantee period, CONTRACTOR shall submit a "Release of Surety" form to the OWNER. Upon satisfactory completion of the guarantee period, the OWNER will complete the "Release of Surety" form and return it to the CONTRACTOR.

30. TAXES

30.1 The CONTRACTOR will pay all sales, consumer, use, and other similar taxes required by the law of the place where the WORK is performed.

31. CLEAN UP ON COMPLETION OF PROJECT

31.1 On completion of the WORK covered by any of the sections of this PROJECT, the CONTRACTOR for said section shall clean up the entire premises occupied by his operations, and this area shall be left neat and clean of trash, debris, piles of earth, waste materials or equipment. All surplus materials and equipment, trash, debris, and other foreign matter shall be disposed of as directed by the ENGINEER or OWNER. The entire project or sections thereof shall be made ready for the OWNER'S use, and the CONTRACTOR shall assist as may be necessary in placing any equipment furnished under the contract in proper operating condition.

32. WORK HOURS

Please refer to Roanoke County Noise Ordinance - Chapter 13 (Offense) Article II Noise - Section 13-16 thru 13-2

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>	<i>Sunday</i>
<i>AM 7:00</i>	<i>AM 7:00</i>	<i>AM 7:00</i>	<i>AM 7:00</i>	<i>AM 7:00</i>	<i>No work allowed without prior written approval from the County.</i>	<i>No work allowed without prior written approval from the County.</i>
<i>Through</i>	<i>Through</i>	<i>Through</i>	<i>Through</i>	<i>Through</i>		
<i>PM 9:00</i>	<i>PM 9:00</i>	<i>PM 9:00</i>	<i>PM 9:00</i>	<i>PM 9:00</i>		

33. PROJECT IDENTIFICATION SIGNBOARD

A project sign is not required.

34. SUPPLEMENTAL CONDITIONS

34.1 The following additions to, substitutions for, or explanation of the GENERAL CONDITIONS, if any, shall be included as part of these CONTRACT DOCUMENTS. The number utilized refers to those contained in the GENERAL CONDITIONS.

35. NONDISCRIMINATION PROVISIONS

35.1 The successful Contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, sex or national origin, except where religion, sex or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provision of the nondiscrimination clause.

- 35.2 The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that the Contractor is an equal opportunity employer. Notices, advertisements, and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- 35.3 The Contractor will include the provision of the foregoing paragraph in every subcontract or purchase order over ten thousand dollars (\$10,000.) so that the provisions will be binding upon each subcontractor or vendor.

36. IMMIGRATION AND CONTROL ACT OF 1986

- 36.1 Contractor is aware of and understands the Immigration Reform and Control Act of 1986 (IRCA) and is in compliance with IRCA; that it acknowledges its responsibility to complete I-9 Employment Eligibility Verification forms for all of its employees assigned to work on County contracts who are not authorized to work in the United States; and that it agrees to defend and indemnify the county for any liability arising out of claims that the contractor's employees are not authorized to work in the United States or any other claims based upon any alleged violations of IRCA by the contractor.

SECTION 00015

LIST OF DRAWINGS

PART 1 GENERAL

1.1 DRAWINGS

A. The following drawings accompany the project manual and form a part thereof:

Kenwick Trail Rte. 1530 – Hartley Circle Rte. 1533 Drainage Improvements, Prepared by Lumsden Associates, P.C., dated May 3, 2018

<u>SHEET</u>	<u>TITLE</u>
SHEET 1 OF 9	ROANOKE COUNTY COVER
SHEET 2 OF 9	SHEET VDOT LOCALLY ADMINISTERED PROJECT COVER SHEET
SHEET 3 OF 9	NOTES, DETAILS, AND SUMMARY OF QUANTITIES
SHEET 4 OF 9	DEMOLITION PLAN
SHEET 5 OF 9	STORM DRAINAGE PLAN AND PROFILE
SHEET 6 OF 9	EROSION AND SEDIMENT CONTROL PLAN
SHEET 7 OF 9	EROSION AND SEDIMENT CONTROL NOTES & DETAILS
SHEET 8 OF 9	TRAFFIC MANAGEMENT PLAN NOTES & OVERVIEW
SHEET 9 OF 9	TRAFFIC MANAGEMENT PLAN – PHASE I & II

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 00601

STANDARD FORMS

PART 1 GENERAL

1.1 GENERAL

A. The following documents are hereby incorporated into the Contract Documents by reference:

EJCDC, *Certificate of Substantial Completion*, (C-625) Latest Edition

B. The following documents may, at the sole discretion of the Engineer, be used in connection with this Project:

EJCDC, *Change Order*, (C-941) Latest Edition

EJCDC, Field Order, (C-942) Latest Edition

C. Copies of standard Engineers Joint Contract Documents Committee (EJCDC) documents cited above are available from the National Society of Professional Engineers, 1420 King Street, Alexandria, Virginia 22314.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01000

SPECIAL CONDITIONS

PART 1 GENERAL

1.1 LOCATION OF THE WORK

- A. The project is located in Roanoke County at two locations on Kenwick Trail and Hartley Circle in the Penn Forest area.

1.2 GENERAL DESCRIPTION OF THE WORK

- A. Description: Scope of work includes improvements to the existing stormwater conveyance system at two locations. The work includes the installation of approximately 306 linear feet of new 15-inch, 18-inch, and 24-inch diameter pipe; 7 curb and drop inlets; and associated demolition, surface restoration, erosion and sediment control, and traffic control.
- B. Disclaimer: This short description, however, shall not, in any way, be construed to limit the Contractor's obligation for compliance with the contract documents.
- C. Construction: This project shall be constructed in accordance with the Plans, this Project Manual, and including the following.
 - 1. Virginia Department of Transportation (VDOT)
 - a. Road and Bridge Specifications (RBS), Current Edition.
 - b. Road and Bridge Standards, Current Edition
 - c. Work Area Protection Manual, Current Edition.
 - d. Manual of Instructions - Materials Division, Current Edition.
 - 2. Virginia Department of Environmental Quality: Erosion and Sediment Control Handbook, Current Edition.
- D. Materials: All materials shall be in strict accordance with VDOT requirements and shall be obtained from VDOT approved sources.
- E. Unit and Lump-Sum Priced Items
 - 1. The Bid Form has spaces for bidding several unit and lump sum priced items. The prices submitted and subsequently paid shall constitute full compensation for

all work required by the contract documents. The estimated quantities shown shall be considered as approximate only, and any item may be increased, decreased, or totally deleted should the Owner determine this to be in his best interest.

1.3 REFERENCED SECTIONS

- A. Not Used
- B. Division 1 specification sections include the following:
 - 1. Section 0100 - Special Conditions.
 - 2. Section 01032 - Scheduling and Progress.
 - 3. Section 01039 - Coordination and Meetings.
 - 4. Section 01300 - Submittals.
 - 5. Section 01400 - Quality Control.
 - 6. Section 01500 - Temporary Facilities.
 - 7. Section 01600 - Material and Equipment.
 - 8. Section 01700 - Project Closeout.

1.4 TERMS

- A. Owner's Representative: The direct line of communication from the Owner to the Contractor and will be identified in writing by the Owner.
- B. Not in Contract (NIC): Materials and equipment indicated NIC are not in this contract and will be furnished and installed by the Owner or others.

1.5 PROCEDURES FOR COMMENCING THE WORK

- A. Notice to Proceed: The Owner will issue a notice to proceed to the Contractor following execution of the Form of Agreement and following approval of the certificate of insurance and the bonds.

1.6 MANNER OF CONDUCTING THE WORK

- A. Daily Cleanup: Clean up work regularly and at all times maintain the project in a neat and orderly manner consistent with normal operation. Execute the work and furnish such temporary facilities as required to preclude interference with access within and

between the existing building areas and structures and to cause no possible interference with the operation of any essential service thereof.

- B. Existing Utilities and Equipment: Do not operate or disturb the setting of valves, switches, or electrical equipment on the service lines to the building, and service within the building, except by proper previous arrangement with the Owner and in the presence of the Owner or his authorized representative.
- C. Coordination: Coordinate demolition and installation of temporary and permanent utilities with the Owner. Schedule this work so as to cause no disruption of existing building operation and minimum delay of the work. Notify the Owner a minimum of 2 weeks in advance of anticipated utility outages, and schedule such work at the Owner's convenience.
- D. Damage to Existing Facilities: Restore existing work, including concealed work not indicated or specified to be modified, and which is damaged or otherwise affected by the Contractor's operations, to a condition equal to that which existed before the work was commenced. Use workers skilled in reconstruction and alteration work where new construction adjoins, connects to, or abuts existing work. Join new work to existing work in such a manner as to make the joining as inconspicuous as possible. Obvious patching of damaged work will not be acceptable. At the completion, ensure that the buildings and grounds are in first-class condition within the intent of these specifications, with new parts well joined to the old as required, all connections completed, and facilities in full working condition.

1.7 Not Used

1.8 PRODUCT OPTIONS AND SUBSTITUTIONS

- A. Product Options: For products specified by reference standards, description, or performance only, provide product conforming to the specifications.

1.9 ON-SITE CONFERENCES AND ON-SITE TESTING

- A. Notify the Owner and the Owner's Representative a minimum of 10 days in advance of any on-site conference or on-site test requiring the attendance of the Owner, Owner's Representative, or their representative by the technical specifications. If the attendance of the Owner's Representative is required, schedule the on-site conference or on-site test to occur during a regularly scheduled site visit by the Owner's Representative. If scheduled outside of a regularly scheduled visit by the Owner's Representative, attendance by the Owner's Representative shall be at its option.

1.10 ASBESTOS

- A. Materials used on this project shall contain no asbestos.

1.11 PERMITS

- A. Contractor is responsible to obtain all permits and approvals required for the work. A listing of permits and approvals, known to the Owner to be required are listed in the Appendix. Contractor shall pay for all permit fees.

1.12 EXISTING UTILITIES

- A. Contractor shall locate all existing utilities prior to beginning work. 811 call center shall be utilized to mark existing underground utilities.
- B. Contractor shall protect existing utilities, in place, as necessary.
- C. At any time that it becomes apparent that unanticipated relocation or replacement of utilities is necessary, immediately contact the Owner. The Contractor shall coordinate with the utility company(ies) as necessary to have the existing utilities relocated at the Owner's expense.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01032
SCHEDULING AND PROGRESS

PART 1 GENERAL

1.1 CONTRACTOR'S PROJECT SCHEDULE

- A. Within five (5) consecutive calendar days after Notice to Proceed, the Contractor shall prepare and submit to the Owner's Representative, in triplicate, the Contractor's Project Schedule, which shall be a bar chart of the various operations for the work after Notice to Proceed.
- B. Submittal and approval of Project Schedule is a condition precedent to payment of progress payments. Therefore, no construction work will be permitted and no progress payments will be made until Project Schedule has been approved by the Owner's Representative.
- C. Project Schedule shall be updated monthly and submitted to the Owner's Representative with submittal of the Contractor's monthly Application for Payment.
- D. Submittal of updated Project Schedule, which accurately reflects status of the work and incorporates changes into the schedule, shall be a condition precedent to processing of the Contractor's monthly Application for Payment. Updated schedules shall also be submitted at such other times as the Owner's Representative may direct. Upon approval of change order or issuance of notice to proceed with a change, the approved change shall be reflected in next schedule update submitted by the Contractor.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01039
COORDINATION AND MEETINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination.
- B. Field engineering.
- C. Preconstruction meeting.
- D. Preparation.
- E. Field verifications.

1.2 COORDINATION

- A. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 FIELD ENGINEERING

- A. Employ a Land Surveyor registered in the Commonwealth of Virginia and acceptable to Owner's Representative.
- B. Contractor shall locate and protect survey control and reference points.
- C. Control datum for survey is shown on Drawings.
- D. Verify set-backs and easements and confirm drawing dimensions and elevations.
- E. Provide field engineering services. Layout the site, and establish elevations, lines, and levels, utilizing recognized engineering survey practices.
- F. Submit certificate signed by the Land Surveyor that the elevations and locations of the completed Work are in conformance with the Contract Documents.

1.4 PRECONSTRUCTION MEETING

- A. Owner's Representative will schedule a meeting after Notice to Proceed.
- B. Attendance Required: Owner's Representative and Contractor.

1.5 MONTHLY PROGRESS MEETING

- A. Owner's Representative will schedule monthly progress meetings at a designated date, time and place throughout the life of the project.
- B. Attendance Required: Owner's Representative and Contractor

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01300
SUBMITTALS

PART 1 GENERAL

1.1 GENERAL

- A. Submittals include a submittal register listing all anticipated submittals, shop drawings, product data, and samples as defined in the Contract Documents and also include certificates, test data, schedules, and other submitted data required to demonstrate compliance with the contract documents.

1.2 REFERENCED SECTION

- A. Not Used

1.3 SUBMITTAL DESCRIPTIONS

- A. Submit three copies of each of the following unless otherwise specified.

1. SD-01, Data

- a. Submittals which provide calculations, descriptions, or other documentation regarding the work.

2. SD-02, Manufacturer's Catalog Data

- a. Data composed of catalog cuts, brochures, circulars, specifications and product data, and printed information in sufficient detail and scope to verify compliance with requirements of the contract documents. Reviews and submittals shall be as specified for shop drawings. Clearly mark product data to identify the applicable products or models proposed for use. Clearly identify items where options or modifications are required by the contract documents.

3. SD-03, Manufacturer's Standard Color Charts

- a. Preprinted illustrations displaying choices of color and finish for a material or product.

4. SD-04, Drawings

- a. Submittals which graphically show relationship of various components of the work, schematic diagrams of systems, detail of fabrications, layout of particular elements, connections, and other relational aspects of the work.
- b. Shop Drawings: Drawing size shall not exceed 24 inches by 36 inches. After review, the Owner's Representative will return the reproducible print with any applicable notations and an appropriate stamp. If corrections are to be made, the original drawings shall be revised and a new reproducible and three prints submitted, and so repeated until approved. Upon approval, a reproducible marked as such will be returned to the Contractor. A minimum clear space, 3-1/2 inches high by 4-1/2 inches long, shall be left on the reproducible print above or to the left of the title block for application of the approval stamp. The Contractor shall be responsible for the prints required for the work, and these prints shall be from the final reproducible bearing the final stamp of the Owner's Representative.
- c. Contract Drawings: The Contractor, his subcontractors, and his or their fabricators shall not reproduce the contract drawings and submit these drawings as shop drawings, except in cases specifically approved by the Owner's Representative prior to shop drawing submittal. Without exception, submittals will be returned without action when contract drawings are used for structural steel, steel joists, concrete reinforcement, piping, cabinetwork, acoustical ceilings, and window walls.

5. SD-05, Design Data

- a. Design calculations, mix designs, analyses, or other data, written in nature and pertaining to a part of the work.

6. SD-06, Instructions

- a. Preprinted material describing installation of a product, system, or material, including special notices and Material Safety Data Sheets, if any, concerning impedances, hazards, and safety precautions.

7. SD-07, Schedules

- a. A tabular list of data or tabular list including location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.

8. SD-08, Statements

- a. A document, required of the Contractor, or through the Contractor by way of a supplier, installer, manufacturer, or other lower tier contractor, the purpose of which is to further the quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verification of quality, and guaranties and warranties.

9. SD-09, Reports

- a. Reports of inspection and laboratory test, including analysis and interpretation of test results. Each report shall be properly identified. Test methods used and compliance with recognized test standards shall be described.

10. SD-10, Test Reports

- a. A report signed by an authorized official of a testing laboratory that a material, product, or system identical to the material, product or system to be provided has been tested in accordance with requirements specified by naming the test method and material. The test report must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test. Testing must have been within three years of the date of award of this Contract.

11. SD-11, Factory Test Reports

- a. A written report which includes the findings of a test required to be performed by the Contractor on an actual portion of the work or prototype prepared for this project before it is shipped to the job site. The report must be signed by an authorized official of a testing laboratory and must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material product, or system has passed or failed the test.

12. SD-12, Field Test Reports

- a. A written report which includes the findings of a test made at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation. The report must be signed by an authorized official of a testing laboratory or agency and must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test.

13. SD-13, Certificates

- a. Certificates signed by responsible officials of a manufacturer of a product, system, or material attesting that the product, system, or material meet specified requirements. Submit certificates certifying the method of installation or quality of installation at the completion of the work. The submittal must be dated after the award of this contract, name the project, and list the specific requirements which it is intended to address.

14. SD-14, Samples

- a. Samples, including both fabricated and unfabricated physical examples of materials, products, and units of work as complete units or as portions of units of work.
- b. Submit samples of sufficient size and quantity to illustrate clearly the functional characteristics of the product with integrally related parts and attachment devices. Approved samples are the standard by which the finished work will be evaluated. Furnish one sample for each required submittal unless otherwise specified in the technical specifications. In general, deliver samples to the office of the Owner's Representative unless the Owner's Representative requests delivery to the Owner or the building site. Full-size usable samples will be returned to the Contractor and approved samples may be used as part of the work unless they are specified otherwise in the technical specifications.

15. SD-15, Color Selection Samples

- a. Submit color chips and material samples duplicating the color, texture and finish to be provided for the installed product. Submit manufacturer's complete range as required by the technical specifications. Submit one set of chips for each product specified. Unused chips will not be returned to the Contractor unless specifically requested. In certain cases, the Owner's Representative may have a complete set of color chips in his office. At the request of the Contractor, the Owner's Representative may waive the requirement for specific color samples.

16. SD-16, Sample Panels

- a. One assembly constructed at the project site in a location acceptable to the Contracting Officer and using materials and methods to be employed in the work; completely finished; maintained during construction; and removed at the conclusion of the work or when authorized by the Contracting Officer.

17. SD-17, Sample Installations

- a. One portion of an assembly or material constructed where directed and, if approved, retained as a part of the work.

18. SD-18, Records

- a. Documentation to ensure compliance with an administrative requirement or to establish an administrative mechanism.

19. SD-20, Warranty Forms

- a. Prior to installation, submit warranty forms complete in every respect, except for authorized signature(s) and date of commencement.

20. SD-21, Service and Maintenance Agreements

- a. Prior to installation, submit service and maintenance agreements complete in every respect, except for authorized signature and date of commencement.

1.4 SUBMITTAL REGISTER

- A. Within 30 days after Notice to Proceed, submit a complete listing of all anticipated submittals. Include description of submittal, type of submittal, detailed specification and drawing references, transmittal numbers, and approximate dates scheduled for submission. Clearly label register with the names of the project and the Contractor, and any other necessary information.

1.5 CONTRACTOR PREPARATION

- A. Certification
 - 1. Contractor submittals shall include the following certification:
 - a. "I hereby certify that the material(s), equipment, and/or article(s) shown and marked in this submittal and proposed to be incorporated into the Work is(are) in strict conformance with the Contract Documents, can be installed in the allocated spaces, and comprise(s) no variation thereto, unless specifically noted otherwise."
- B. Contractor Review and Coordination: Before submitting a shop drawing or related material to the Owner's Representative. The Contractor shall:
 - 1. review each such submission for conformance with the Contractor's means, methods, techniques, sequences and operations of construction, and safety precautions and programs incidental thereto, all of which are the sole responsibility of the Contractor;

2. review and coordinate each such submission with other related or affected work;
3. approve each such submission before submitting same; and
4. provide the required Contractor's certification as specified in paragraph "Certification," above.

C. By approving a submittal, the Contractor thereby warrants and represents that he has determined and verified applicable field measurements, field construction criteria, materials, catalog numbers and similar data, and has checked and coordinated the submittal with the requirements of the Work and for conformance with the Contract Documents. Submittals submitted without the required certification and coordination will be returned to the Contractor without review. Delays in construction because of late submission or resubmission of required submittals shall be the sole responsibility of the Contractor.

D. Deviations: If a submittal deviates from the drawings and project manual because of standard shop practice, substitutions (approved in accordance with General Condition, as amended), or any other reason, advise Owner's Representative via a separate written instrument which shall be acknowledged by Owner's Representative in writing. Otherwise, the Contractor will not be relieved of the responsibility for executing the Work in accordance with the Contract Documents even though such submittals may have been approved.

E. Assemblies: Where an item is part of an assembly and must be fully coordinated with that assembly, submit the entire assembly together in order that proper evaluation of the submittals may be made. Submit each of the following groups of items together after the Contractor has coordinated the work within the assembly. Indication that the items have not been coordinated shall show cause for disapproval of the entire group until such coordination has been made. The Owner's Representative's approval of a separate item shall not indicate approval of an assembly in which the item functions.

F. Extent of Submittals: Submit only submittals required by the Contract Documents. The Owner's Representative reserves the right to refrain from reviewing other submittals.

1. Do not include items from more than one specification section per submittal.
2. Contractor may require additional documentation from subcontractors or suppliers for his own use and at no additional cost to the Owner. Such documentation shall not be submitted for review without prior written consent from the Owner's Representative.

1.6 FORM OF SUBMITTAL

A. Submit letter of transmittal in duplicate with each submission listing the contents of the submission and identifying each item by reference to specification section or drawing. The Owner's Representative will furnish the standard letter of transmittal form. Clearly label shop drawings with the name of the project and other necessary information. Bound product data and other similar material that cannot be so labeled conveniently in suitable covers bearing the identifying data. Distribution of submittals by Owner's Representative will be as specified in Paragraph "Owner's Representative Procedures." Additional copies, as required, shall be marked by the Contractor for his use after submittals have been approved.

1.7 RESUBMISSION

A. Change or correct submittals as required by the Owner's Representative and resubmit until approved. Indicate any changes which have been made other than those requested by the Owner's Representative.

1.8 OWNER'S REPRESENTATIVE'S PROCEDURES

A. Owner's Representative's Review: Submittals will be reviewed with reasonable promptness. Submittals will be stamped by the Owner's Representative with one of the five following actions:

1. "Approved" indicates approval with no exception taken and the ordering or fabrication of work shown may proceed. However, the Owner's Representative's approval of any submittal shall not relieve the Contractor from the responsibility of complying with all requirements of this contract, including the obligation to provide submittals that are accurate and complete. The Owner assumes no responsibility for figured dimensions on shop drawings.
2. "Approved as Noted" indicates approval subject to the noted corrections. Ordering or fabrication of work shown may proceed on the basis of corrections indicated.
3. "Correct and Resubmit" indicates that additional information or changes (as noted) are required prior to taking further action. Corrections shall be made to the submittal and it shall be resubmitted. Ordering or fabrication of work shall not proceed.
4. "Disapproved" indicates information provided reveals that submittal does not conform to the contract requirements. Submittal conforming to the contract requirements shall be submitted for approval.
5. "No Action Taken" indicates one of the following:
 - a. Submittal incomplete and a proper review cannot be performed.
 - b. Insufficient copies submitted.

- c. Transmittal form incomplete.
- d. Contractor's certificate approving submittal not signed or missing.
- e. Submittal not required and the contract documents do not require the Owner's Representative to take action on this item.
- f. Other causes or reasons as noted.

B. Time for Review: The Contractor shall allow a minimum of ten (10) consecutive working days (i.e., Monday through Friday, excluding holidays, and measured from the date of receipt of the Contractor's submittal) for the Owner's Representative's review of each submittal. The same minimum timeframe shall be allowed for at least one (1) resubmittal of each such submittal. Upon review of the Contractor's schedule of submittals, the Owner's Representative will advise the Contractor of the time estimated to be required for each submittal indicated on said schedule. The Contractor shall then revise and re-submit his schedule of submittals accordingly. In the event the Contractor and the Owner's Representative are unable to agree on the duration to be allotted for the review of a given submittal, the Owner shall determine such duration and said duration shall be binding upon both the Contractor and the Owner's Representative.

1.9 DISTRIBUTION OF SUBMITTALS

- A. Approved shop drawings, product data, manufacturer's literature, and certificates will be distributed by the Owner's Representative as follows:
 - 1. One copy of shop drawings, product data, and manufacturer's literature to the Contractor.
 - 2. Two copies of all submittals to the Owner.

1.10 COLORS

- A. Color and material chips will be used to select the project's color scheme and, in general, selection will not be completed until necessary chips have been submitted.

1.11 CHANGES AFTER APPROVAL

- A. Make no change in submittal marked "Approved" or "Approved as Noted" without obtaining the prior written consent of the Owner's Representative. If such written consent is obtained, revise the submittal to show fully the altered parts of the work and resubmit according to the procedures specified herein. State on resubmittal that the work shown supersedes and voids identified parts of the same work previously shown. Give full identification on the drawings previously approved by the Owner's Representative and the date of such action.

1.12 PROCEEDING WITHOUT APPROVAL

A. No submittal may be used in the shop or on the work, except in accordance with the foregoing paragraphs. Proceeding with any construction and ordering or fabricating materials before all relevant drawings have been "Approved" or "Approved as Noted" shall be done at the Contractor's sole risk.

1.13 REQUIRED SUBMITTALS

SD-02, Manufacturer's Catalog Data

Reinforced concrete pipe

Precast concrete structures

Non-woven filter fabric

SD-04, Drawings

Precast concrete structures

SD-05, Design Data

Concrete

SD-08, Statements

Submittal register

Project schedule

SD-10, Test Reports from Supplier

Pavement and aggregate materials used within VDOT right of way

SD-13, Certificates

Precast concrete structures

Pavement and aggregate materials used within VDOT right of way

SD-18, Records

Delivery Tickets

As Built Drawings

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)
END OF SECTION

SECTION 01400

QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance - control of installation.
- B. Tolerances
- C. References.
- D. Testing laboratory services.

1.2 REFERENCED SECTIONS

- A. Section - Submittals: Submission of manufacturers' instructions and certificates.
- B. Section - Project Closeout.

1.3 QUALITY ASSURANCE - CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with contract documents, request clarification from Owner's Representative before proceeding.
- D. Comply with specified standards as minimum quality for the work, except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.4 TOLERANCES

- A. Monitor tolerance control of installed products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with contract documents, request clarification from Owner's Representative before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.5 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date specified in the individual specification sections, except where a specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. Neither the contractual relationship, duties, nor responsibilities of the parties in the contract nor those of the Owner's Representative shall be altered from the contract documents by mention or inference otherwise in any reference document.

1.6 TESTING LABORATORY SERVICES

- A. Specified laboratory tests of materials and finished articles shall be made by bureaus, laboratories or agencies approved by VDOT and the certified reports of such tests shall be submitted in triplicate to the Owner's Representative.
- B. Laboratory- and field-testing, will be provided by and paid by the Owner. Failure of any material to pass the specified test will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material.
- C. Samples of various materials delivered on the site or in place may be taken by the Owner's Representative for testing. However, the cost of retesting caused by deficient materials or workmanship shall be paid for by the Contractor.
- D. Samples failing to meet the contract requirements will automatically void previous approvals of the items tested.
- E. Material Quality Control, Samples, and Testing: Conform to VDOT Manual of Instructions - Materials Division.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01500
TEMPORARY FACILITIES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary job office.
- B. Temporary utilities.
- C. Temporary sanitary facilities.
- D. Project sign.
- E. Staging and storage.
- F. Protection of installed work.
- H. Protection of property, employees, and general public.
- H. Removal.

1.2 USE CHARGES

- A. No cost or usage charges for temporary services or facilities are chargeable to the Owner. Cost or use charges for temporary services or facilities or for operation of permanent utilities prior to substantial completion will not be accepted as a basis of claims for an increase in the contract sum.

1.3 JOB OFFICE

- A. A job office will not be required.

1.4 TEMPORARY ELECTRICITY AND LIGHTING

- A. Provide connections to existing facilities, size to provide service required for power and lighting.
- B. Install circuit and branch wiring, with area distribution boxes located so that power and lighting are available throughout the construction by the use of construction-type power cords.

- C. Provide adequate artificial lighting for areas of work when natural light is not adequate for work, and for areas accessible to the public.
- D. Contractor will pay the costs of power used.

1.6 TEMPORARY WATER

- A. Arrange with utility service company to provide water for construction purposes and pay costs for installation, maintenance and removal, and service charges for water used.

1.7 TEMPORARY SANITARY FACILITIES

- A. Provide toilet facilities and maintain in accordance with the public health authority having jurisdiction.

1.8 SIGNS

- A. The Contractor may erect one painted sign at the site which states the name of the project, Owner, Design Engineer, and Contractor.
- B. Do not display other sign or advertisement.
- C. Submit details for the sign for approval by the Owner.

1.9 STAGING AND STORAGE AREA(S)

- A. Contractor is responsible to obtain any necessary staging and storage area(s).
- B. Provide approved construction fencing for protection of the public as a part of the work.

1.10 PROTECTION OF PROPERTY, EMPLOYEES, AND GENERAL PUBLIC

- A. Provide watchmen, fences, planking, bridges, bracing, sheeting, shoring, lights, barricades, and warning signs as necessary to protect Owner's property, adjacent property, employees, and general public, and comply with applicable federal, state, and local regulations.
- B. Trees, Vegetation, and Pavement: Protect from damage existing lawns, trees, and shrubs to remain and existing fences, roads, walks, and curbs not to be removed. Repair or replace damage caused by operations under this contract.

1.11 REMOVAL

- A. Completely remove temporary facilities when their use is no longer required. Repair and clean areas damaged by temporary installations.

B. Restore permanent facilities used for temporary services to their original condition.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01600
MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.

1.2 REFERENCED SECTIONS

- A. Section - Special Conditions: Product options and substitution procedures.
- B. Section - Quality Control: Product quality monitoring.

1.3 PRODUCTS

- A. Do not use materials and equipment removed from existing premises, except as specifically permitted by the contract documents.
- B. Provide interchangeable components of the same manufacture, for components being replaced.

1.4 TRANSPORTATION AND HANDLING

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.5 STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturers' instructions, with seals and labels intact and legible.
- B. Store sensitive products in weather tight, climate controlled enclosures.

- C. For exterior storage of fabricated products place on sloped supports, above ground.
- D. Provide offsite storage and protection when site does not permit onsite storage or protection.
- E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation or potential degradation of product.
- F. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- G. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- H. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.
- I. Maintain storage area in a neat and clean condition at all times. Storage areas shall not be subjected to dust generating activities.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01700

PROJECT CLOSEOUT

PART 1 GENERAL

1.1 DEFINITION

A. Closeout is hereby defined to include general requirements near the end of contract time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by Owner, and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in other sections. Time of closeout is directly related to “Substantial Completion,” and, therefore, may be either a single time period for entire work or a series of time periods for individual parts of the work which have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this section, regardless of whether resulting from “phased completion” originally specified by the contract documents or subsequently agreed upon by Owner and Contractor.

1.2 REFERENCED SECTIONS

A. Section - Special Conditions.

1.3 SUBSTANTIAL COMPLETION

A. Request for Inspection: Prior to requesting Owner’s Representative’s inspection for certification of substantial completion, as required by General Conditions for the entire work, complete the following, as appropriate, and list known exceptions, if any, in request:

1. In progress payment request coincident with or following date claimed, show either 100-percent completion for work claimed as “substantially complete,” or list incomplete items, value of incompletion, and reasons for being incomplete.
2. Submit statement showing accounting of changes to the Contract Sum.
3. Advise Owner of pending insurance changeover requirements.

4. Obtain and submit releases enabling Owner's full and unrestricted use of the work and access to services and utilities, including (where required) occupancy permits, operating certificates, and similar releases.
5. Submit record drawings (as-built documents), and similar final record information.
6. Submit certifications of compliance for each test and inspection required by all sections of the project manual. The certifications shall be signed by the Contractor and by the parties conducting the test.
7. Discontinue and remove from project site temporary facilities and services, along with construction tools and facilities, and similar elements.
8. Complete final clean up requirements.
9. Touch up and otherwise repair and restore marred exposed finishes.

B. Notice of Substantial Completion: After completion of the above specified items, submit written notice to the Owner and the Owner's Representative that the work is substantially complete and request an inspection of same. Include a comprehensive list of items to be completed or corrected. Proceed promptly to complete and correct items on the list. Give a minimum of ten (10) days notice to allow the Owner and Owner's Representative sufficient time to schedule and coordinate the inspection.

C. Inspection: Upon receipt of the Contractor's request, the Owner's Representative will make an inspection to determine whether the work is substantially complete. Following this inspection, the Owner's Representative will either prepare a certificate of substantial completion or advise the Contractor of work which must be performed prior to the issuance of such certificate. Should the Owner's Representative determine that the work is not substantially complete, written notification will be given to the Contractor stating the reasons therefore. The Contractor shall remedy the noted deficiencies in the work and shall send a second written notice of substantial completion to the Owner's Representative and request another inspection. The Owner's Representative will then reinspect the work. The results of a successfully completed substantial completion inspection will form the "punch-list" for final acceptance. When the Owner's Representative concurs that the work is substantially complete, Owner's Representative will:

1. Prepare and deliver to the Owner a tentative Certificate of Substantial Completion, with a tentative list of items to be completed or corrected before final payment.
2. After consideration of any objections made by the Owner, and when the Owner's Representative considers the work substantially complete, the Owner's Representative will execute and deliver to the Owner and the Contractor a

definitized Certificate of Substantial Completion along with a definitized list of items to be completed or corrected. If, after consideration of the Owner's objections, the Owner's Representative considers the work not to be substantially complete, he will notify the Contractor in writing, stating the reasons therefor.

1.4 FINAL ACCEPTANCE

- A. Prerequisites for Final Inspection: Prior to requesting Owner's Representative's final inspection for certification of final acceptance and final payment, as required by the General Conditions, complete the following, as appropriate, and list known exceptions, if any, in request:
 1. Submit final payment request with final releases and supporting documentation not previously submitted and accepted.
 2. Submit certified copy of Owner's Representative's final punch-list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, endorsed, and dated by the Owner's Representative.
 3. Reclean areas soiled during correction of deficiencies.
 4. Submit consent of surety (Surety to remain in force to the end of the one year guarantee period.
- B. Request for Final Inspection: Upon completion of the above-specified prerequisites, submit written notice to the Owner's Representative that the work is complete and ready for final inspection on or after a specified date. Give a minimum of ten (10) days notice to allow the Owner's Representative sufficient time to schedule and coordinate the inspection.
- C. Owner's Representative Procedures
 1. The Owner's Representative will conduct the inspection with the Owner and the Contractor.
 2. Should the Owner's Representative consider the work to be complete, the Owner's Representative will prepare a certificate of final acceptance.
 3. Should the Owner's Representative consider the work, in any part, to be incomplete or defective, he will notify the Contractor in writing of all particulars in which this inspection reveals that the work is incomplete or defective. The Contractor shall immediately take such measures as are necessary to complete such work or remedy such deficiencies.

4. Upon receipt of Contractor's notice that the work has been completed, including "punch-list" items resulting from an earlier inspection, the Owner's Representative will reinspect the work. Upon completion of reinspection, the Owner's Representative will either accept the work as complete or advise the Contractor of work which is not acceptable or obligations not fulfilled as required for final acceptance. If necessary, this procedure will be repeated.
- D. The Owner's Representative will conduct a single Contractor requested inspection to determine final acceptance of the work at no cost to the Contractor, If, after the performance of an initial final inspection, the Owner's Representative determines that the work is not complete, either because of major items not completed or an excessive number of "punch-list" items, successive Contractor requested inspections shall be charged to the Contractor at the rate of 2.5 times direct payroll expense (i.e., direct labor plus payroll related overhead) for each member of the inspection team. The Contractor shall reimburse the Owner for the costs of all subsequently performed inspections or, at the Owner's option, the costs may be deducted from payments due to the Contractor.

1.5 FINAL CLEANING

- A. Clean project site (yard and grounds), including landscape and development areas, of litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, petrochemical spills, and other foreign deposits. Rake grounds which are neither planted nor paved, to a smooth, even-textured surface.

1.6 FINAL ADJUSTMENT OF ACCOUNTS

- A. Final Statement: Submit a final statement of accounting to Owner's Representative. The statement shall reflect all adjustments to the contract sum including the following:
 1. The original contract sum.
 2. Additions and deductions resulting from:
 - a. Previous change orders.
 - b. Allowances.
 - c. Unit prices.
 - d. Deductions for uncorrected work.
 - e. Deductions for liquidated damages in accordance with Modified Form of Agreement Between Owner and Contractor for Construction Contract (Stipulated Price).

- f. Deductions for reinspections for substantial and final completions in accordance with this Section, Articles - Substantial Completion and Final Inspection.
- g. Deductions for default payments in accordance with Modified Standard General Conditions of the Construction Contract.
- h. Other adjustments.

3. Total contract sum, as adjusted.
4. Previous payments.
5. Sum remaining due.

B. Final Change Order: Owner's Representative will prepare a final change order, reflecting approved adjustments to the contract sum which were not previously made by change orders.

1.7 FINAL APPLICATION FOR PAYMENT

A. Contractor shall submit the final application for payment in accordance with procedures and requirements stated in the General Conditions.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

**KENWICK TRAIL RTE. 1530 – HARTLEY CIRCLE RTE. 1533 DRAINAGE
IMPROVEMENTS**

ROANOKE COUNTY, VIRGINIA

APPENDICES

**KENWICK TRAIL RTE. 1530 – HARTLEY CIRCLE RTE. 1533 DRAINAGE
IMPROVEMENTS**

ROANOKE COUNTY, VIRGINIA

APPENDIX A

**VIRGINIA DEPARTMENT OF TRANSPORTATION
ROAD AND BRIDGE SPECIFICATIONS**

**VIRGINIA DEPARTMENT OF TRANSPORTATION
ROAD AND BRIDGE SPECIFICATIONS**

1. OTHER MODIFICATIONS

1.1 Section 101.02 – Terms

The terms Engineer and Department shall include the Owner's Representative and Roanoke County

1.2 Section 102.05 – Preparation of Bid

Delete.

1.3 Section 102.06 – Irregular Bids

Delete paragraph (m).

1.4 Section 102.07 – Proposal Guaranty

Delete.

1.5 Section 102.09 – Submission of Bid

Delete.

1.6 Section 102.10 – Withdrawal of Bid

Delete.

1.7 Section 102.11 – eVA Business-To-Government Vendor Registration

Delete.

1.8 Section 102.12 – Public Opening of Bids

Delete.

1.9 Section 103.04 – Forfeiture Proposal Guaranty

Delete.

1.10 Section 103.05 – Requirements of Contract Bond

Delete.

1.11 Section 103.06 – Contract Documents

Delete.

1.12 Section 103.07 – Failure to Furnish Bonds or Certificate of Insurance

Delete.

1.13 Section 103.09 – Execution of Contract

Delete.

1.14 Section 105.12 – Coordination of Plans, etc.

Add the following:

- g. Roanoke County General Conditions of the Construction Contract and the Agreement will govern over VDOT documents noted above.”

1.15 Section 106.04 – Disposal Areas

- a. First paragraph, first line delete “shown on the plans,”
- b. Delete second paragraph.

1.16 Not Used.

1.17 Section 109.07 – Partial Payments

Delete.

1.18 Section 109.10 – Final Payment

Delete.

**KENWICK TRAIL RTE. 1530 – HARTLEY CIRCLE RTE. 1533 DRAINAGE
IMPROVEMENTS**

ROANOKE COUNTY, VIRGINIA

APPENDIX B
PERMITS

Contractor is responsible to obtain all permits and approvals required for the work. Following is a listing of known permit and approvals that are required:

VDOT –	<u>Land Use Permit</u> Contractor is responsible to apply for and obtain permit; including any permit fee or permit bond requirements.
Roanoke County –	<u>Erosion and Sediment Control Permit</u> Technical approval has been obtained. Permit fee and permit bonding requirements have been waived. Contractor shall contact the County to schedule a preconstruction meeting. The Contractor's Responsible Land Disturber (RLD) shall attend this meeting. The Permit placard shall be provided to the Contractor at this preconstruction meeting.
811 Call Center-	Utility Companies, as applicable