



COUNTY OF ROANOKE

FINANCE DEPARTMENT

PURCHASING DIVISION

Dawn M. Rago,
Buyer

P.O. Box 29800
5204 Bernard Drive SW, Suite 300F
Roanoke, VA 24018
Phone: (540) 283-8150
drago@roanokecountyva.gov

INVITATION TO BID

#2018-004

for
LILA DRIVE ROAD IMPROVEMENTS

Sealed Bids Due:

August 29, 2017
3:00 PM
(Local Prevailing Time)
One (1) Original
Three (3) Complete Copies
One (1) Electronic Copy

INVITATION TO BID #2018-004

GENERAL INFORMATION

The County of Roanoke, Virginia, is requesting sealed bids for Lila Drive Road Improvements.

A Pre-Proposal Conference will be held on August 15, 2017, at 10:00 AM (EDT) to provide site visits and answer questions. This meeting will be held at the Project Site. Meet at the end of Lila Drive, approximately 900 feet east of the intersection of Lila Drive with Plantation Road. This meeting is MANDATORY. Only the Offerors that attend the meeting will be allowed to submit a proposal. Offerors are not to have conversations with personnel prior to or subsequent to this scheduled conference.

SUBMISSION OF THE BID

One (1) Original, three (3) complete copies and, one (1) Electronic Copy (CD preferred), of the sealed bid will be accepted at and until **3:00 PM (EDT) on August 29, 2017**, at the Department of Finance, Purchasing Division, 5204 Bernard Drive, Suite 300F, Roanoke, VA 24018. As this is a sealed formal Invitation to Bid, faxed bids will NOT be accepted. Bids not received by the date and time listed above will be returned to the Offeror unopened. The bid package must be clearly marked with **"IFB #2018-004."**

It is not the intent of the specifications to be proprietary, nor to exclude any manufacturer or dealer. Deviations will be given consideration if they are considered to be suitable and acceptable for comparison. Any deviations must be submitted, in writing, with your bid. Deviations discovered after bid award or material receipt, not stated in your bid, shall be grounds for disqualification and nullification of order. It is the responsibility of the Offeror to prove that the deviation is equal to the product/service specified. The County of Roanoke will make the final determination as to whether the product is equivalent.

Individuals with disabilities, who require assistance or special arrangements in order to participate in bidding, please contact us. We require that you provide at least 48 hours notice so that reasonable efforts may be made to provide the proper arrangements. You may be requested to specify the nature of any accommodation or assistance, which may be required for your participation.

FOR QUESTIONS REGARDING THE BID, PLEASE CONTACT:

Dawn M. Rago, Buyer
5204 Bernard Dr., SW, Suite 300F
Roanoke, VA 24018
Telephone: 540-283-8150
Email: drago@roanokecountyva.gov

INTRODUCTION

Roanoke County is the primary suburban hub of the Roanoke Valley. With roughly 1,000 employees and approximately 55 facilities, Roanoke County provides a full range of services, including police and fire protection, trash collection, general public improvements, planning and zoning management, recreation and cultural activities, economic development and general administrative support. Residents enjoy certain other services provided through joint cooperation with neighboring localities, such as airport facilities, solid waste facilities and water and sewer services.

SPECIFICATIONS

A description and/or listing of the services and/or items that the Successful Bidder will be required to provide to the County under this IFB are those that are set forth below and/or referred to in any way in any terms and conditions and/or attachments referred to in this IFB. Each Bidder should carefully read and review all such documents.

- A. The Scope of Work includes constructing pavement improvements along approximately 900 linear feet of Lila Drive. Pavement improvements include removing pavement, new base and pavement, scratch leveling course, 2 inch overlay, and milling with variable depth overlay. Other work includes minor demolition, fence work including relocation of existing 30 foot long roller gate, grading, and one each 15 inch and 18 inch diameter culverts.
- B. The plans, prepared by Caldwell White Associates, consist of:
 - C-1 Cover Sheet,
 - C-2 Demolition Plan,
 - C-3 Dimensional Plan
 - C-4 Grading Plan,
 - C-5 Erosion and Sediment Control Plan,
 - C-6 Erosion and Sediment Control Details,
 - C-7 Temporary Traffic Control Plan, and
 - C-8 Pavement Repair Plan.
- C. The bidding documents may be viewed on the County's procurement website, www.RoanokeCountyVA.gov/purchasing. Only prospective bidders that are registered on the County's **Notify Me** website will receive notifications of addenda and other bidding information.
- D. Prospective bidders may obtain full-size copies of the plans from:
 - DTS Reprographics, Inc.
 - 594 Roanoke Street, Salem, VA 24153
 - (540) 387-2200
 - jobs@dts-repro.com.

The cost of printing and shipping will be the responsibility of the prospective bidder.

INSTRUCTIONS TO BIDDERS

A. GENERAL

- a. The intent of the drawings and specifications is that the Successful Bidder 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 County of Roanoke (County).
- b. 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.
- c. 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.
- d. 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.
- e. "Contract Documents" shall include the Invitation to 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.
- f. Should there be any questions concerning the Invitation for Bid, the prospective Bidder shall bring the same to the attention of the County 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 County.
- g. Any permits obtained by the County or Successful Bidder shall be made part of and attached to the Contract Documents.
- h. The Successful Bidder is responsible for compliance with all Federal, State, and local laws, ordinances, and licenses required for this project.

B. QUALIFICATIONS OF BIDDERS

- a. The County of Roanoke may conduct an investigation, as it deems necessary, to determine the ability of the Bidder to perform the work in accordance with the time schedule included in the Invitation for Bid, and, if such an investigation is performed, the Bidder shall furnish the County all information and data requested by the County. The County reserves the right to reject any bid if the evidence submitted by, or the investigation of, such Bidder fails to satisfy the County that such Bidder is properly

qualified to carry out the obligation of the Invitation for Bid and to complete the work contemplated therein in accordance with established completion schedule.

- b. Bidders shall, when requested by the County, be prepared to furnish, in writing, the following information within three (3) working days after receipt of such request:
 - a. The permanent business address of the Bidder.
 - b. Whether the Bidder has plant and equipment adequate to perform the work properly and expeditiously, and if so, a list of the plant and equipment available for this work.
 - c. Whether the Bidder has appropriate technical experience, and if so, a description of the projects which Bidder has carried out, together with the names and addresses of the engineers in charge of the work.
 - d. A financial statement, under oath, showing the assets, obligations and net worth of the Bidder, and the name of banking connections, said statement to be current to the month within which the bid was submitted.

GENERAL TERMS, CONDITIONS, AND INSTRUCTIONS –IFB (Revised 04/2013)

READ CAREFULLY - FAILURE TO COMPLY WITH EACH AND EVERY PROVISION OF THIS INVITATION AND THE SPECIFICATIONS ARE GROUNDS TO DISQUALIFY A BIDDER

Wherever the term Roanoke County, County or Roanoke County Board of Supervisors is used it is understood to include the Roanoke County School Board, in addition, any contract awarded from this solicitation may be used by Roanoke County Public Schools and any other public entity for which the County of Roanoke acts as a fiscal or purchasing agent.

Individuals with disabilities, who require assistance or special arrangements in order to participate in bidding, please contact (540) 772-2061. We require that you provide at least 48 hours' notice so that reasonable efforts may be made to provide the proper arrangements. You may be requested to specify the nature of any accommodations or assistance, which may be required for your participation.

SUBMISSION AND RECEIPT OF BIDS:

- (a) To be considered, all bids must be delivered in a sealed envelope, clearly marked with the words "BID DOCUMENTS", bid number and the name of the item being bid and received in the Roanoke County Finance Department/Purchasing Division no later than the specified date and time for the bid opening. Failure to timely submit such bid shall disqualify the bidder and such bid will be returned to the bidder unopened. NO FAXED BIDS WILL BE ACCEPTED.
- (b) Unless otherwise specified, bidders must use the invitation to bid form furnished by the County. Failure to do so shall be grounds for rejection of the bid.
- (c) Bids having any erasures or corrections must be initialed in ink by the bidder. An authorized officer of the company must sign bids in ink. Such authorization shall be a part of the bid document. All bids must either be typewritten or printed in ink.

- (d) The original copy of the bid must not be permanently bound and one (1) electronic copy is preferred.

IMPORTANT NOTICE EFFECTIVE 3/14/2011 - ADDENDUMS, BIDS, RFPs, TABULATIONS AND NOTICES OF AWARD:

Effective March 14, 2011, the Purchasing Division of Finance, in conjunction with the County of Roanoke, has a new and improved website. With this new website, Purchasing has gained a new bid module which will provide more information and faster downloads for the vendors interested in doing business with the County. There is a new advanced Email/Text Message notification system where vendors can sign up to receive emails or text message notices about bids, proposals, addendums, bid tabulation and awards. Vendors can sign up to receive notification in selected commodity/service categories. The current Vendor Registration to receive notices of bids and proposals will soon be phased out completely. All vendors interested in receiving these automatic electronic notifications will need to sign up in the new "**Notify Me**" and it is their responsibility to keep information current in the system in order to receive the notifications. The sign up only requires an email address and/or a cell phone number for receiving text messages (if your phone is capable) and your choice of categories. The address for this new website is www.RoanokeCountyVA.gov/purchasing.

Although **Notify Me** will be the only way to receive automatic notification, all BIDS/RFP Information will continue to be posted on our website, bulletin board, published in the local newspaper, and can be picked up at the Purchasing Division, 5204 Bernard Drive, Suite 300F, Roanoke, VA 24018. Phone # (540) 772-2061.

PRICES TO BE FIRM:

The bidder warrants, by virtue of bidding, that the prices, terms and conditions quoted in his bid will be firm for a period of 60 days from the date of the bid opening.

NET 30 after receipt of invoice. Price should include shipping.

INVOICES:

The contractor must send all invoices directly to the payment address shown on the purchase order/contract and must submit invoices for items ordered, delivered and accepted by Roanoke County. All invoices must show the purchase order/contract number. All contractors need to be properly registered as a payment vendor for the County in order to receive payment. All vendors previously registered are still in the system as a payment vendor. This system will no longer be used for notification of bids/RFPs.

PERFORMANCE BOND:

At the time of or prior to the execution of the contract, the County reserves the right to require the bidder or contractor to furnish a performance and/or labor and material payment bond with corporate surety, satisfactory to the County of Roanoke, in the amount of the contract price.

DELIVERY POINT:

Unless otherwise indicated, all items shall be delivered F.O.B. with destination and delivery charges included in the bid price. F.O.B. destination is interpreted to mean unloading and placing in the building or area as directed by the County.

CASH DISCOUNTS:

In determining the award of a bid, cash discounts for prompt payment will be considered. Discount time period computation shall commence from and after complete delivery, in satisfactory condition, and receipt of a properly documented invoice.

BRAND NAMES:

When a brand name appears in the specifications, it is solely for the purpose of establishing a grade or quality of material. The County does not wish to rule out other brands or manufacturers; therefore, the words "EQUIVALENT TO" are automatically included. However, if a product other than that specified is bid, it is the vendor's responsibility to prove to the County that said product is equivalent to that specified in the bid.

QUALITY:

All materials used for the manufacture or construction of any supplies, materials, or equipment covered by this bid shall be of the best quality available.

ACCEPTANCE OF MATERIAL:

Until such time as all the conditions in the contract are fulfilled, the County reserves the right to refuse and return material, at the seller's expense.

WARRANTY/RETURNS:

Clearly specify your warranty of product and handling of returns, including turnaround time on faulty equipment. Warranties and other technical data are to be included.

DELIVERY:

Time is of the essence for delivery of any items, products or service procured as a result of this bid. If delivery is not made at the time specified on the Invitation to Bid form, the County reserves the right to call in any and all bonds or other security given for performance, to cancel the order, or any part thereof, without obligation, to declare the seller in default, and to disqualify the seller from bidding on future County contracts.

DEFAULT PROVISION:

In case of default by the contractor, the County shall have the sole discretion to procure the articles or services from other sources. The defaulting contractor shall be liable for any and all costs in excess of the contract price occasioned by or resulting from such default whether directly or indirectly, which sums may be paid or credited from any forfeited bond or other security.

PRICING:

In the event of discrepancy between the total pricing and unit prices, the County in its sole discretion, shall determine the bid price.

Negotiation with lowest responsible Bidder: The County of Roanoke reserves the right to negotiate with the lowest responsible bidder if the low bid exceeds available funds. This provision will be used in accordance with County Code Chapter 17 (Ord. No. 3350, S2-30, 12-14-82). State Code 2.2.4318.

COPYRIGHTS OR PATENT RIGHTS:

The bidder warrants that there have been no violations of copyrights or patent rights in the manufacture, production or sale of the goods shipped or ordered as a result of this bid. The

bidder agrees that the County of Roanoke shall be indemnified and held harmless from any and all liability or expense occasioned by any such violations.

FEES INCLUDED IN BID PRICE:

Submitted bids shall include in the price, the cost of any Business and/or Professional licenses, permits or fees as required by law.

TAX EXEMPTION:

The County of Roanoke is exempt from any taxes imposed by State and/or Federal Government. Upon notification, the County will furnish a certificate of tax exemption for billing to the County of Roanoke only.

CERTIFICATION AND ABILITY:

The County of Roanoke reserves the right to request from the bidder, a separate manufacturer's certification of all statements made in the bid. The County may request any or all bidders to furnish proof of experience, ability and financial standing.

SIGNED BID CONSIDERED AN OFFER:

THIS INVITATION TO BID MUST BE SIGNED AS HEREIN PROVIDED. Submission of this signed invitation shall be considered an offer by the bidder or contractor to sell the items or services as required in the specifications. All bids are subject to approval by the County Board of Supervisors. In the case of default by the bidder or contractor after acceptance of a bid, the County of Roanoke may take such action, as it deems appropriate, including forfeiture of any and all bonds or other security and legal action for damages or specific performance.

NO BID:

To insure that your name remains on our bid listing, should you desire not to bid on a particular project, return the completed bid package marked with the words "NO BID". Failure to return to the County a bid or "NO BID" may cause your name to be removed from our listing.

COMPLIANCE WITH LAWS:

The bidder is responsible for compliance with all Local, State and/or Federal laws and regulations. The County of Roanoke shall be held harmless from any liability.

AUTHORITY TO TRANSACT BUSINESS IN VIRGINIA:

A Contractor organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the Code of Virginia or as otherwise required by law. Any business entity described herein that enters into a Contract with the County pursuant to the Virginia Public Procurement Act 2.2-4300 et seq. shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50 of the Code of Virginia, to be revoked or cancelled at any time during the term of the Contract. The County may void any Contract with a business entity if the business entity fails to remain in compliance with the provisions of this section. All corporations, LLC's and LLP's shall be registered with the State Corporation Commission. To determine whether your firm should register, please contact the SCC.

By my signature on this solicitation, I certify compliance with federal, state, and local laws and regulations applicable to the performance of the services described herein.

ACCEPTANCE OR REJECTION OF BIDS:

The County of Roanoke reserves the right to accept or reject any or all bids/offers. The County also reserves the right to award the contract for any such materials, goods or services the County deems will best serve its interests. It further reserves the right to award the contract on a split order basis, lump sum or individual basis, or such combinations as shall best serve the interest of the County. Roanoke County reserves the right to make a site visit to the facility prior to bid award.

RULING LAW:

This invitation to bid and any contract executed pursuant hereto of which this invitation shall be an internal part shall be governed, controlled and interpreted in accordance with the laws of the Commonwealth of Virginia without reference to its conflict of law principles. Each party to such contract shall thereby submit to the exclusive jurisdiction of the Circuit Court of the County of Roanoke or, in the event that jurisdiction is authorized, to the United States District Court for the Western District of Virginia, sitting at Roanoke, Virginia.

NONDISCRIMINATION PROVISIONS:

During the performance of this contract, the contractor will not 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 provisions of this nondiscrimination clause. The contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such contractor is an equal opportunity employer.

INSURANCE

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:

Claims under workmen's compensation, disability benefit and other similar employee benefit acts; and

Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees; and

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

Claims for damages because of bodily injury, sickness, or disease, or death of any person other than his employees; and

Claims for damages because of injury in or destruction of tangible property, including loss of use resulting there from.

Certificates of insurance acceptable to the OWNER shall be filed with the OWNER prior to coverage's afforded under the policies will not be canceled unless at least fifteen (15) days prior WRITTEN NOTICE has been given to the OWNER.

The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, liability insurance as hereinafter specified:

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.

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.

QUESTIONS REGARDING THE BID:

Questions should be directed to:

Dawn M. Rago, Buyer
5204 Bernard Dr., SW, Suite 300F
Roanoke VA 24018
Telephone: 540-283-8150
Email: drago@roanokecountyva.gov

SPECIAL INSTRUCTIONS:

ANTITRUST:

By entering into a contract, the bidder conveys, sells, assigns, and transfers to Roanoke County all rights, title, and interest in and to all causes of the action it may now or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by Roanoke County under said contract.

ASSIGNMENT OF CONTRACT:

A contract shall not be assignable by the contractor in whole or in part without the written consent of Roanoke County.

AVAILABILITY OF FUNDS:

It is understood and agreed between the parties herein that Roanoke County shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this contract.

IMMIGRATION REFORM AND CONTROL ACT OF 1986:

By signing this bid, the bidder certifies that the firm does not and will not during the performance of this contract employ illegal alien workers or otherwise violate the Federal Immigration Reform and Control Act of 1986.

ANTI-COLLUSION CERTIFICATION:

By my signature on the face of this bid, I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a bid for the same materials, supplies, equipment, or services, and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of the Virginia Governmental Frauds Act and Federal Law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder.

KICKBACKS:

I certify and warrant that by my signature on this solicitation, neither I nor the bidder for whom I am authorized to act has offered or received any kickback from any other bidder, supplier, manufacturer, or subcontractor in connection with bid on this contract, subcontractor in order, in the form of any payment, loan, subscription, advance, deposit of money, services or anything, present or promised, unless consideration of substantially equal or greater value is exchanged. Further, no person shall demand or receive any payment, loan, subscription, advance, deposit of money, service, or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value is exchanged.

DEBARMENT:

By my signature on this solicitation, I certify that this person/firm/corporation is not currently barred from bidding on contracts by any agency of the Commonwealth of Virginia or the federal government of the United States of America, nor is this person/firm/corporation a part of any firm/corporation that is currently barred from bidding on contracts by any agency of the Commonwealth of Virginia or the federal government of the United States of America. I have attached an explanation of the previous debarment(s) and copies of notice(s) of reinstatement(s).

INDEMNIFICATION:

To the fullest extent permitted by law, the Vendor shall indemnify and hold harmless the County of Roanoke and their agents and employees from and against all claims, damages, losses and

expenses, including but not limited to, attorneys' fees, arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting there from, and (2) is caused in whole or in part by any negligent act or omission of the Vendor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph.

The County cannot legally agree to any clause indemnifying the contractor from any damages arising out of the contract or holding the contractor harmless. The submission of a bid or proposal means that the contractor agrees not to request such language in the resulting contract.

CONTRACT:

Any contract resulting from his bid shall consist of the following documents: the General Terms and Conditions and the Specifications, both of which are contained in the Invitation for Bid, together with the bidders response, which consists of this document, the Price Schedule and other bid documents attached hereto or submitted with this document.

DRUG-FREE WORKPLACE:

During the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in violation of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

PROPRIETARY INFORMATION:

Ownership of all data, materials, and documentation originated and prepared for the County of Roanoke pursuant to the INVITATION FOR BID shall belong exclusively to the County and be subject to public inspection in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by a bidder shall not be subject to public disclosure under the Virginia Freedom of Information Act; however, the bidder must invoke the protections of Section 2.2-4342F of the Code of Virginia, in writing, either before or at the time the data or other material is submitted.

The bidder must specifically identify the data or materials to be protected and state the reasons why protection is necessary on the "Notice of Proprietary Information Form" below. In addition,

the proprietary or trade secret material submitted must be identified by some distinct method such as highlighting or underlining in the Bid and must indicate only the specific words, figures, or paragraphs that constitute trade secret or proprietary information.

The classification of an entire bid document, line item prices, and/or total bid prices as proprietary or trade secrets is not acceptable and may result in rejection of the bid.

ATTACHMENT A TO
INVITATION FOR BID # 2018-004
LILA DRIVE ROAD IMPROVEMENTS

GENERAL & SUPPLEMENTAL GENERAL CONDITIONS

1. Definitions
2. Additional Instructions and Detail Drawings.....
3. Schedules, Reports, and Records
4. Drawings and Specifications
5. Shop Drawings.....
6. Materials, Services, and Facilities
7. Inspection and Testing
8. Substitutions.....
9. Patents.....
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons.....
12. Supervision by Contractor
13. Changes in the Work.....
14. Changes in Contract Price.....
15. Time for Completion and Liquidated Damages.....
16. Correction of Work
17. Subsurface Conditions
18. Suspension of Work, Termination and Delay.....
19. Payments to Contractor.....
20. Acceptance of Final Payment as Release
21. NOT USED.....
22. Contract Security.....
23. Assignments.....
24. NOT USED.....
25. Separate Contracts
26. Subcontracting
27. Engineer's Authority
28. Land and Right-of-Ways.....
29. Guaranty
30. Taxes
31. Clean Up on Completion of Project
32. Work Hours
33. Project Identification Signboard.....
34. Supplemental Conditions.....
35. Professional Services.....
36. Temporary Utilities and Facilities.....

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.
- 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 COMPLETION - 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. FINAL COMPLETIONS includes: 1) submission of Operation & Maintenance Manuals and 2) Record Documents and 3) completion of all punch list items.
- 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. SUBSTANTIAL COMPLETION includes: 1) a Certificate of Occupancy from the Building Official / Authority Having Jurisdiction, 2) delivery of extra stock materials, 3) OWNER training & demonstrations, 4) submittal of CONTRACTOR's internal punch list with identification of incomplete items.
- 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. Email notification is an acceptable form of WRITTEN NOTICE.

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 a 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.

3.2.3 For projects exceeding 90 days the CONTRACTOR shall submit a cost loaded Critical Path Method (CPM) schedule. The cost loaded CPM schedule shall be updated and submitted on a monthly basis in conjunction with the CONTRACTOR's payment applications.

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, the most stringent 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. Electronic copies of SHOP DRAWINGS is acceptable and preferred.

1.2 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 not required by 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 at his expense the testing and inspection services required by the CONTRACT DOCUMENTS.
- 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.
- 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

- 1.1 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 include:
 - a. Roanoke County Erosion and Sediment Control Permit – Technical approval has been obtained. No permit fee or bond will be required. Contractor shall make application and obtain permit issuance.
 - b. VDOT Land Use Permit – Contractor is responsible to submit for and obtain permit from VDOT to allow work in VDOT right of way in Plantation Road. Contractor is responsible for any fees or bond that may be required.
- 10.4 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

- 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. Under this method, it is understood that addition to or deletion of quantities of WORK in excess of 25 percent may be cause for review of the agreed unit price.
- 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 conditions, overhead and profit. To amplify the items described under 14.1.3, labor shall include the crew foreman but not supervisory, office, or administrative 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 conditions, overhead and profit.

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. CONTRACT TIME to FINAL COMPLETION for this project is **90 consecutive calendar days, with the further condition that the Contractor shall coordinate the work such that all paving work is completed prior to the winter seasonal shut-down of area asphalt suppliers.**
- 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 to the OWNER the amount of \$100.00 per day for liquidated damages 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 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.
 - 15.4.2 To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs 15.4.1 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 shall be made 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 the first pay application the CONTRACTOR shall submit a Schedule of Values for approval by the ENGINEER.
- 19.2 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 an updated project schedule. For projects expected to exceed 90 days this shall be a cost loaded CPM schedule.
- 19.3 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. As approved in advance by the OWNER 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 twenty (20) 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, less retainage of 10 percent.
- 19.4 If approved in advance by the OWNER 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.
- 19.5 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.
- 19.6 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.

19.7 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.

19.8 The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents 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.

19.9 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.

19.10 Upon Substantial Completion, the Contractor will be paid the contract amount, including retainage; less 120 percent of the estimated cost to complete the Work, as determined by the Engineer.

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. NOT USED

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 thereunder, without written consent of the other party.

24. NOT USED

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 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.
- 26.3 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.
- 26.4 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.

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.

29. GUARANTY

29.1 Unless noted otherwise in the CONTRACT DOCUMENTS 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 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.

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.

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

32.1 Monday through Friday from 8:00 am to 5:00 pm and other hours if approved in advance by the OWNER.

33. PROJECT IDENTIFICATION SIGNBOARD

- 33.1 Provide project sign, 4-foot by 8-foot in size that identifies the project, Roanoke County, Design Engineer, and Contractor. Coordinate sign layout and installation location with the Owner.

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 refer to those contained in the GENERAL CONDITIONS.

35. PROFESSIONAL SERVICES

- 37.1 The Contractor shall retain the services of a registered Land Surveyor, licensed in the Commonwealth of Virginia, to identify existing control points, maintain a survey during construction, and locate fence posts. Ensure that new fence and relocated fence gate is located outside of the Lila Drive property.

36. TEMPORARY UTILITIES AND FACILITIES

- 38.1 Provide all temporary utilities and facilities required by law, regulation, or other requirement at no expense to the Owner.
- 38.2 Remove all temporary utilities and facilities when no longer needed for construction.

**NOTICE OF PROPRIETARY INFORMATION FORM
INVITATION TO BID #2018-004**

Confidentiality References Protection in Accordance with the Code of Virginia, Section 2.2-4342

Section Title	Page #	Reason(s) for Withholding from Disclosure

INSTRUCTIONS: Identify the data or other materials to be protected and state the reasons by using the codes listed below. Indicate the specific words, figures, or paragraphs that constitute trade secrets or proprietary materials. The classification of an entire bid or proposal document, line item prices, and/or total bid or proposal prices as proprietary or trade secret is not acceptable and will result in rejection of the bid or proposal.

- A) This page contains information relating to "trade secrets", and "proprietary information" including processes. Operations, style of work, or apparatus. Identify confidential statistical data. Amount or source of any income...of any person (or) partnership. See Virginia Public Procurement Act. Section 2.2-4342. Unauthorized disclosure of such information would violate the Trade Secrets Act 18 U.S.C. 1905.
- B) This page contains proprietary information including confidential, commercial or financial information, which was provided to the Government on a voluntary basis and is of the type that would not customarily release to the public. See Virginia Public Procurement Act, Section 2.2-4342; 5 U.S.C. 552 (b) (4); 12 C.F.R. 309.5(c) (4).
- C) This page contains proprietary information including confidential, commercial or financial information. The disclosure of such information would cause substantial harm to competitive position and impair the Government's ability to obtain necessary information from contractors in the future. 5 U.S.C. See Virginia Public Procurement Act. Section 2.2-4342; 552 (b) (4)12 C.F.R. 309.5(c) (4).

BID FORM

INVITATION for BID (IFB) #2018-004 Lila Drive Road Improvements

IN COMPLIANCE WITH THIS INVITATION FOR BID AND SUBJECT TO ALL CONDITIONS THEREOF, THE UNDERSIGNED OFFERS AND AGREES TO PROVIDE ALL PERMITS, LICENSES, EQUIPMENT, LABOR, AND MATERIAL NECESSARY TO EXECUTE AND COMPLETE THE WORK REQUIRED FOR THE PROJECT IN ACCORDANCE WITH ATTACHMENTS, GENERAL TERMS AND CONDITIONS AND SPECIAL TERMS AND CONDITIONS.

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1	The Work	Lump Sum	Lump Sum		
2	Scratch Leveling Course	Sq. Yd	454		
				Total Bid Price	

TOTAL BASE BID PRICE \$ _____

MEASUREMENT AND PAYMENT

Item No. 1: The Work

A. Lump sum cost to provide labor, materials, tools and equipment; and anything else required, to perform all of the work shown on the Contract Drawings and specified in the Specifications except for the work included in line item Scratch Leveling Course.

B. No measurement shall be made.

Item No. 2: Scratch Leveling Course

A. Payment for scratch leveling course will be made at the square yard (SY) price bid as detailed, specified and directed. Scratch leveling course shall include, but not be limited to:

1. Surface preparation, and
2. Leveling course to remove surface irregularities in preparation of receiving overlay.

B. Measurement of square yardage shall be made to define payment. In the event that the actual quantity increases or decreases by 25% or more of the bid quantity; then, unit price may be renegotiated.

PRICE FORM AND SIGNATURE PAGE
INVITATION TO BID #2018-004

BIDDERS SIGNING THE BID FORM AGREE THAT THE WORK BEING BID CONFORMS TO ALL DRAWINGS AND SPECIFICATIONS LISTED IN THE BID. BIDDER CERTIFIES THAT BY SUBMISSION OF THIS BID, HE HAS READ AND AGREES TO THE TERMS AND CONDITIONS SET FORTH IN THIS INVITATION TO BID.

DATE _____

PAYMENT TERMS NET 30

COMPANY NAME _____

ADDRESS _____ PHONE # _____

_____ FAX # _____

_____ EMAIL _____

FEIN _____ VA BUSINESS LICENSE NO. _____

VIRGINIA SCC # OR STATEMENT DESCRIBING WHY FIRM IS NOT REQUIRED TO BE SO AUTHORIZED PER VA CODE §2.2-4311.2 _____

SIGNATURE / TITLE _____

NAME / TITLE (please print) _____

To receive consideration for award, this signature sheet must be returned to the Purchasing Division, as it shall be a part of your response.

GENERAL NOTES

PRE-CONSTRUCTION MEETING AND CONSTRUCTION COMMENCEMENT:

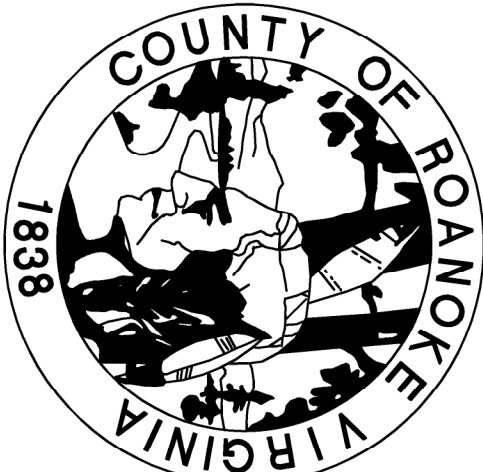
1. All construction methods and materials shall conform to the Construction Standards and Specifications of Roanoke County, the Western Virginia Water Authority, and the Virginia Department of Transportation.
2. Stormwater Management Agreements with an attached 8 1/2" x 11" or 8 1/2" x 14" plat must be approved and recorded prior to the pre-construction meeting.
3. Once all required items are submitted to the County of Roanoke, the developer must contact the Development Review Coordinator to indicate that a pre-construction meeting needs to be scheduled. The pre-construction meeting will be scheduled with the owner/developer two (2) working days later.
4. All land disturbing projects that require approval of an erosion and sediment control plan, grading or clearing permit shall require that the applicant provide the name of an individual who will be responsible for and disturbing activities and that the individual be a resident of Roanoke County. (The individual must be a resident of Roanoke Environmental Quality. The Responsible Land Disturber can be anyone from the Project team that is certified by the Commonwealth of Virginia to be in charge of carrying out the land disturbing activity for the project.
5. It is the responsibility of the owner/developer to notify the certified Responsible Land Disturber and the Utility Coordinator to attend the pre-construction meeting.
6. The Development Review Coordinator will schedule the pre-construction meeting with the owner/developer and the Utility Coordinator. The meeting will be held at the Virginia Water Authority and the Town of Vinton Public Works Department if applicable.
7. An approved set of plans, Storm Water Pollution Prevention Plan (SWPPP), VSNP Coverage Letter, and all permits must be available at the construction site at all times.
8. The developer and/or contractor shall supply all utility companies with copies of approved plans, advising them that all grading and installation shall conform to approved plans.
9. The project engineer will inform the owner/developer verbally and in writing of the County's obligation to perform inspections on site. Everyone in the meeting will be responsible for ensuring that the project engineer is notified of any changes to the County's obligation to perform inspections on site.
10. The Erosion Control Permit or Combined Erosion Control & VSNP Permit is given to the developer at this pre-construction meeting.
11. Notify the County of Roanoke prior to beginning installation of ESC measures. The County will inspect final installation to ensure compliance with approved plan prior to beginning any grading or construction on the property.
12. County inspectors must inspect storm drain / stormwater management / BMP installation during the process of installation. Please contact the site inspector 24 hours in advance.
13. All work shall be subject to inspection by Roanoke County, the Western Virginia Water Authority, and the Virginia Department of Transportation inspectors.
14. Contractors shall notify utilities of proposed construction at least two (2) but not more than ten (10) working days in advance. Area public utilities may be notified thru Miss Utility : 1-800-552-7001 or VA 511.
15. The 100 year Floodway shall be staked prior to any construction.
16. Grade stakes shall be set for all curb and gutter, culvert, sanitary sewer and storm sewer at all times of construction.
17. The Department of Community Development shall be notified when a spring is encountered during construction.
18. Construction debris shall be contained in accordance with the Virginia Litter Control Act. No less than one litter receptacle shall be provided on site.
19. The contractor shall provide adequate means of cleaning mud from trucks and/or other equipment prior to entering public streets or rights of ways. It is the contractors responsibility to insure that the streets are in a clean, mud and dust free condition at all times.
20. Plan approval in no way relieves the developer or contractors of the responsibilities contained within the erosion and sediment control or stormwater management policies.
21. Field construction shall honor proposed drainage divides as shown on plans.
22. Field corrections shall be approved by the Roanoke County Engineering Division and/or the Western Virginia Water Authority and the Professional of Record, prior to such construction.
23. The developer or contractor shall supply the County and the Western Virginia Water Authority with correct As-Built plans before final acceptance.

VIRGINIA DEPARTMENT OF TRANSPORTATION:

24. Plan approval by Roanoke County does not guarantee issuance of any permits by the Virginia Department of Transportation.
25. A permit must be obtained from the Virginia Department of Transportation, Salem Residency Office prior to construction in the highway right-of-way.
26. The preliminary pavement designs should be based on a predicted sub-grade CBR value of 7.0 and with a Resiliency Factor (RF) of 2.0 as shown in Appendix 1 of the 2000 Virginia Department of Transportation Pavement Design Guide for Subdivision Projects. The design should be based on the results of a laboratory test of the sub-grade material and the results submitted to the Virginia Department of Transportation prior to base construction. Should the sub-grade CBR value and/or the RF value be less than the predicted values, additional base material will be required in accordance with Departmental specifications. Refer to the same manual as the number and locations of the required soil samples to be tested. All pavement designs shall be submitted to the Department for review and approval. The sub-grade shall be approved by the Virginia Department of Transportation prior to placement of the base. Base shall be approved by the Virginia Department of Transportation for depth, template, and compaction before the surface is applied.
27. Standard guardrail with safety end sections may be required on fills or in areas where hazards exist as deemed necessary. After completion of rough grading operations, the County Engineer and Virginia Department of Transportation shall be contacted to review the design and the guard rail shall be installed in accordance with the 2001 VDOT Road and Bridge Standards as part of this development.
28. Standard street and traffic control signs shall be erected at each intersection by the developer prior to final street acceptance.
29. All traffic devices shall be in accordance with current edition of the Manual on Uniform Traffic Control Devices (MUTCD).
30. All unsuitable material shall be removed from the construction limits of the roadway before placing embankment.

See Sheet **N/A** for Stormwater Site Statistics Table.
See Sheet **N/A** for New BMP Information Table.

The Project Engineer shall provide electronic copies of the approved plans to the Development Review Coordinator within 5 working days of the pre-construction meeting.
The notes on this sheet shall not be modified.



COUNTY OF ROANOKE, VA

LILA DRIVE

NAME OF DEVELOPMENT :		OWNER/DEVELOPER:	
MASTER/AL DISTRICT(S):		1. NAME OF THE SITE DESIGN REQUIREMENTS IMPOSED BY THIS SITE. ALL PROJECTS SHALL BE DESIGNED TO COMPLY WITH THESE REQUIREMENTS AND THE THIRTY (30) POINTS SHOWN ON THIS COVER SHEET UNLESS MODIFIED IN ACCORDANCE WITH LOCAL LAW.	
OWNER:		COUNTY OF ROANOKE DEPARTMENT OF COMMUNITY DEVELOPMENT Roanoke, Virginia 24018 Attn: David Holladay, Planning Administrator Tel: (540) 772-2096, ext. 227	
CONTRACTOR:		SUBJECT TO BID	
ENGINEER:		Caldwell White Associates P.O. BOX 6260 Roanoke, Virginia 24017 Attn: Mr. Frank Caldwell, III, PE, LS Tel: (540) 366-3400	
TAX MAP NO(S):		27-06-5-13	

WATER NOTES

All water facilities shall be constructed according to the Western Virginia Regional Design and Construction Standards (Latest Edition).

A minimum cover of three (3) feet is required over proposed lines.

Contractor shall be responsible for locating and uncovering valve vaults after paving and adjustment to final grade if necessary.

All existing utilities may not be shown in their exact location. The contractor shall comply with the (State Water Works Regulations, Section 12VACS-590-1150, where lines cross).

All trenches in existing or future highway right-of-ways shall be connected according to Virginia Department of Transportation standards.

Lines shall be staked prior to construction.

Water main shall be minimum Class 350 Ductile Iron in accordance to AWWA C151 or DR-14 PVC in accordance with AWWA C-900.

Ductile Iron Pipe in accordance with the Western Virginia Regional Design and Construction Standards shall be required for all pipe with a working pressure equal to or greater than 100 p.s.i.

Western Virginia Water Authority
Availability either number: **N/A**

SEWER NOTES

All sanitary sewer facilities shall be installed according to the Western Virginia Regional Design and Construction Standards. (Latest Edition).

A minimum cover of three (3) feet is required over proposed lines.

Contractor shall be responsible for locating and uncovering all manholes after paving. Manhole tops shall be adjusted to grade if necessary.

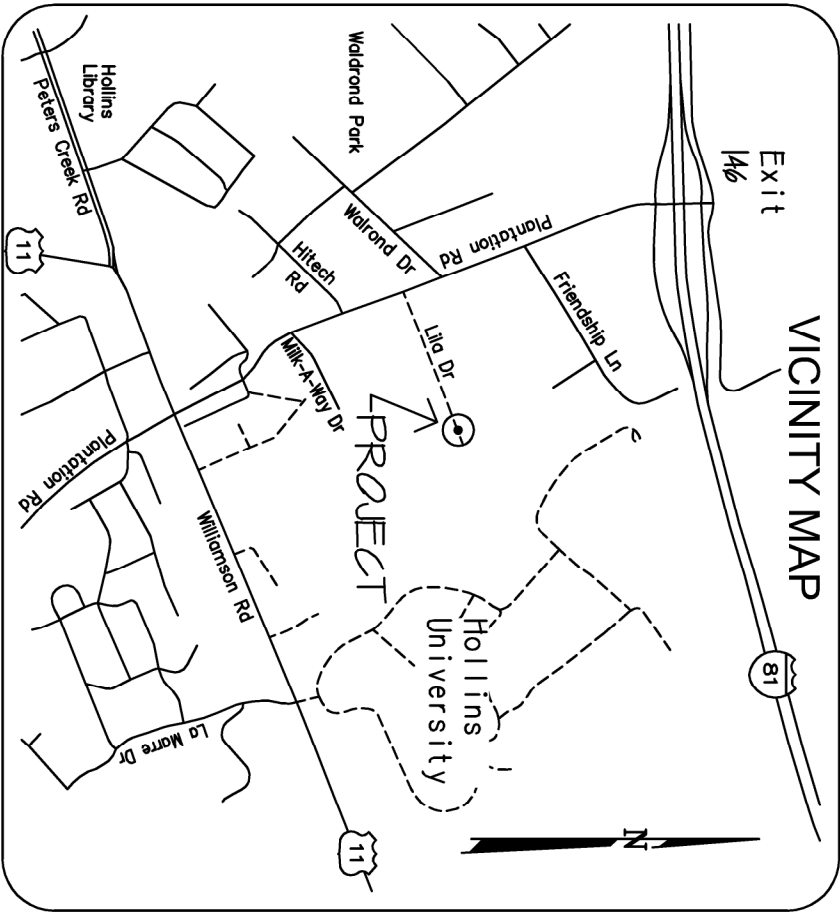
All existing utilities may not be shown in their exact location. The contractor shall comply with (State Water Works Regulations, Section 12VACS-590-1150, where lines cross).

All trenches in existing or future rights-of-way shall be connected according to Virginia Department of Transportation standards.

Lines shall be staked prior to construction.

PRIVATE UTILITIES

Underground utilities installed on private property or in private utility easements and building related storm drains shall be designed and installed per the current edition of the Virginia Uniform Statewide Building Code, Design and Installation Manual, and the Virginia Department of Transportation's (VDOT) standards. The USBC requirements are acceptable for private utilities. All private utilities are to be permitted through and inspected by the Roanoke County Inspections Office. Valves, valves and other devices installed by or under the control of the Western Virginia Water Authority may not substituted for the code required devices.



LEGEND

Property Line	---	---
Right-of-way	---	---
Centerline	---	---
Minimum Building Line	---	---
Existing Storm Sewer	---	---
Existing Sanitary Sewer	---	---
Existing Water Main	---	---
Existing Contour	---	---
Proposed Contour	---	---
Proposed Drainage Divide	---	---
Proposed Limits of Clearing	---	---
Proposed Storm Sewer	---	---
Proposed Sanitary Sewer	---	---
Proposed Water Main	---	---

SHEET INDEX

SHEET	TITLE
C-1	COVER SHEET
C-2	DEMOLITION PLAN
C-3	DIMENSIONAL PLAN
C-4	GRADING PLAN
C-5	EROSION & SEDIMENT CONTROL PLAN
C-6	EROSION & SEDIMENT CONTROL DETAILS
C-7	TEMPORARY TRAFFIC CONTROL PLAN
C-6	PAVEMENT REPAIR PLAN

SURVEY INFORMATION

Horizontal and vertical control surveys were performed in year: _____
By: _____

All vertical elevations must be referenced to the National Geodetic Vertical Datum of 1929 or 1988. All horizontal elevations must be referenced to the North American Datum of 1927 or 1983.

Horizontal Datum: **N/A** Vertical Datum: **NAD 88**

Source of topographic mapping is dated: **CALDWELL WHITE ASSOCIATES**


Boundary was performed by **CALDWELL WHITE ASSOCIATES** dated **MARCH, 2015**.

Benchmark Information: **SEE SHEET C-4**

The professional seal and signature certifies the boundary survey and topographic mapping to be accurate and correct.

QUANTITY & COST ESTIMATE

ITEM	QUANTITY	UNIT	UNIT PRICE	COST	BONDABLE
CHURNING AND GRABBING		AC			
EXCAVATION		C.Y.			
EMBANKMENT		C.Y.			
CURB INLET D.		EA			
CURB INLET D.		EA			
MANHOLE MH-		EA			
MANHOLE MH-		EA			
-IN CONCRETE PIPE, CLASS III		LF			
-IN CONCRETE PIPE, CLASS IV		LF			
-IN CM CULVERT		LF			
-IN CM CULVERT		LF			
BOX CULVERT		LS			
PAVED SWALE		LF			
RIPRAP - CLASS		SF			
PERMANENT GRASS SWALE		LF			
-IN CONCRETE ENDWALL EXP-		EA			
-IN END SECTION IS-		EA			
HEADER CURB & GUTTER CG-					
CURB & GUTTER CG-					
VALLEY CUTTER					
GRAVEL BASE					
GRAVEL SHOULDER					
SURFACE TREATMENT					
-IN BIT CONC.: TYPE B					
-IN BASE MATERIAL					
-IN SUBBASE MATERIAL					
TRAFFIC BARRICADE					
-IN WATER LINE		LF			
-IN WATER LINE		LF			
FIRE HYDRANT ASSEMBLIES		EA			
BLOW OFFS W/ VALVE, FRAME & COVER		EA			
-IN GATE VALVES W/ VALVE, FRAME & COVER		EA			
-IN GATE VALVES W/ VALVE, FRAME & COVER		EA			
-IN SANITARY SEWER		LF			
STANDARD MANHOLE W/ FRAME & COVER		EA			
SAMPLING MANHOLE/PORT		EA			
LANDSCAPING		LS			
AS-BUILT PLANS (STORM SEWER SYSTEMS)		LS			
AS-BUILT PLANS (STORMWATER MANAGEMENT)		LS			
10% CONTINGENCY					
ESTIMATED TOTAL					



CALDWELL WHITE ASSOCIATES

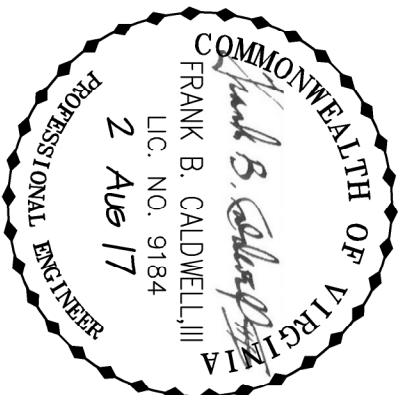
ENGINEERS / SURVEYORS / PLANNERS

4203 MELROSE AVENUE, N.W.
P.O. BOX 6260
ROANOKE, VIRGINIA 24017
(540) 366-3400
EMAIL: CWAROANOKE@AOL.COM

Designed: J.V. Judy
Drawn: J.V. Judy
Checked: F.B. Caldwell
Date: 11/09/15
N.B. No.: R/c-o 8
W.O. No.: 15-0060

Revisions

1 12/08/15
per ROANOKE COUNTY 1st REVIEW
2 8/02/17
per ROANOKE COUNTY 2nd REVIEW



APPROVED

Date Stamp

Approval Stamp

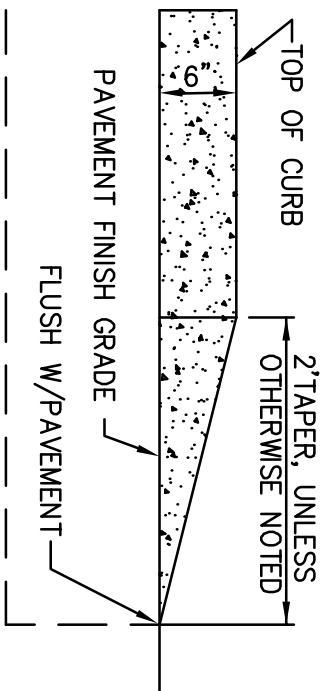
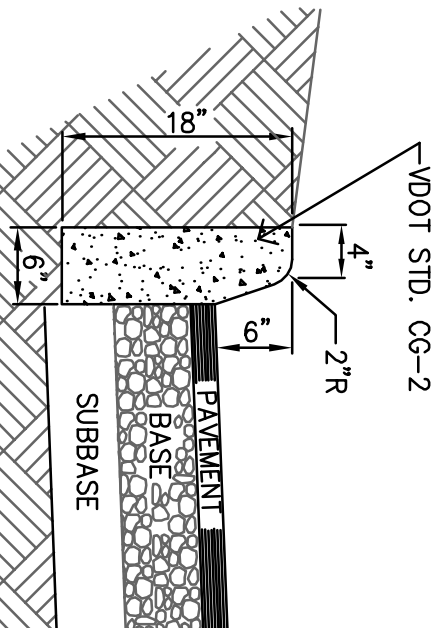
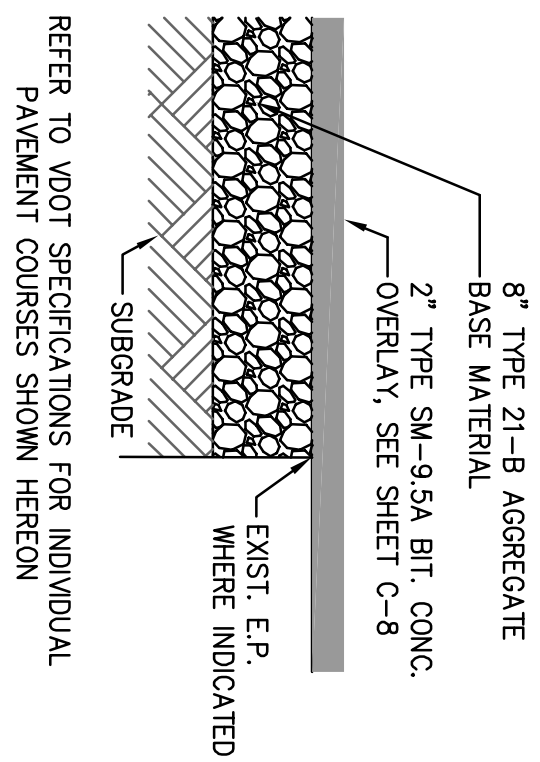
ROAD IMPROVEMENTS

LILA DRIVE

ROANOKE COUNTY, VA

SHEET

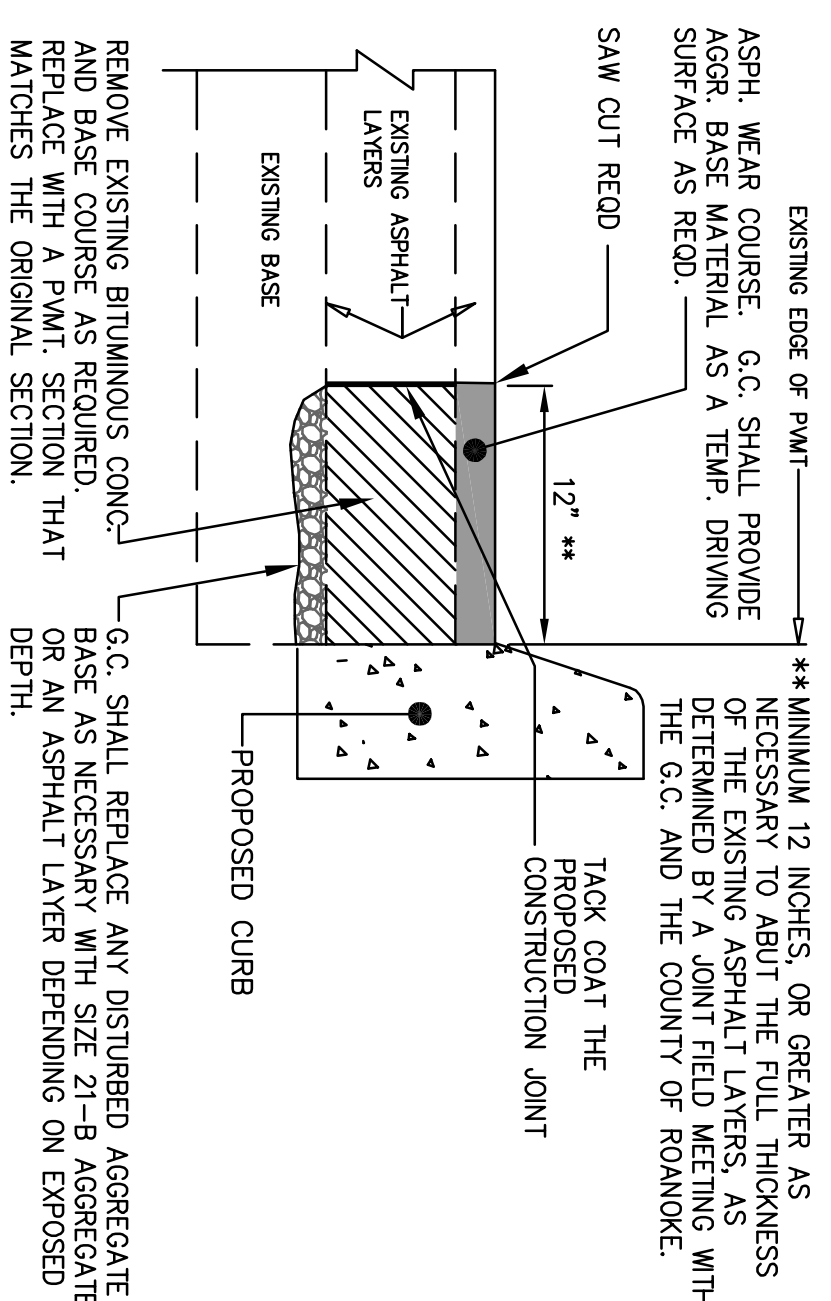
C-1



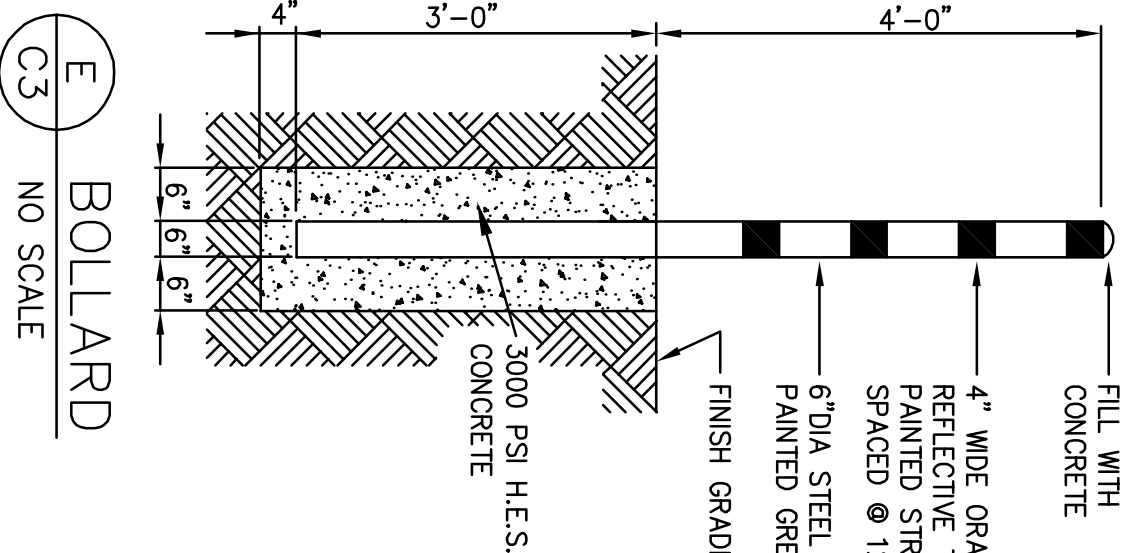
A BASE AGGREGATE
C3 NO SCALE

B CONCRETE CURB
C3 NO SCALE

C CURB TAPER
C3 NO SCALE



D PAVEMENT RESTORATION
C3 NO SCALE



E BOLLARD
C3 NO SCALE

GENERAL NOTES

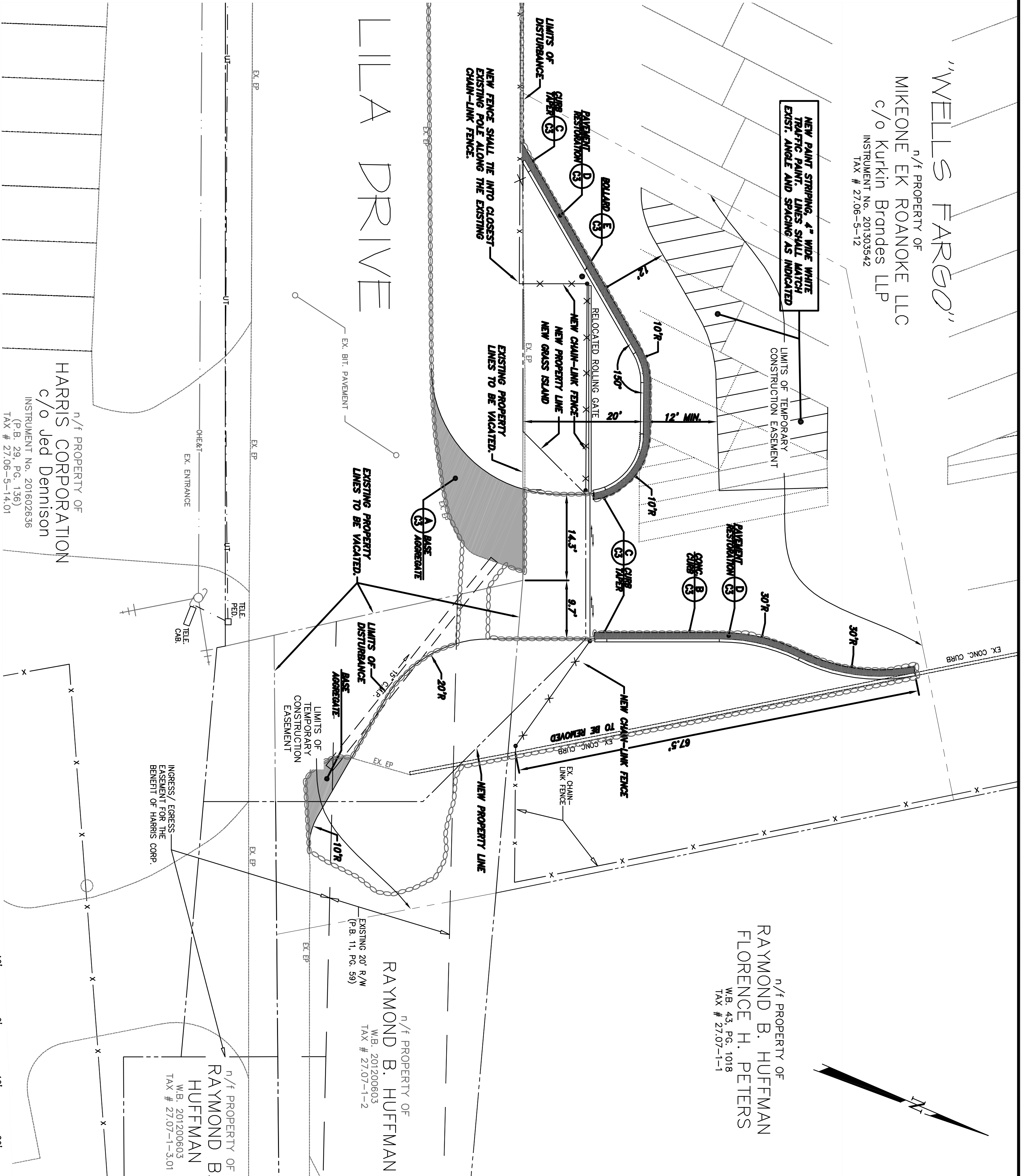
THE GENERAL CONTRACTOR SHALL COORDINATE ALL WORK AND ANY CLOSURES OF LILA DRIVE WITH THE ADJOINING PROPERTY OWNERS.
TAX #27-06-5-12, "WELLS FARGO" c/o JONES LANG LASALLE, MS, JESSICA CALL, 540-563-6070, TAX #27-06-5-14-01, "HARRIS CORPORATION" c/o MR. GENE TUCKER, 540-561-0484, AND TAX #27-06-5-14-02, "HARRIS CORPORATION" c/o MR. GENE TUCKER, 540-561-0484.
1. IT IS OF THE UTMOST IMPORTANCE THAT THE CONTRACTOR COORDINATE CLOSELY WITH THESE ADJOINING PROPERTY OWNERS, AND THAT THEY ARE AWARE OF ALL CONSTRUCTION SCHEDULING.
2. CERTAIN HOURS OF THE DAY WILL BE MORE CONDUCTIVE FOR CERTAIN CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL INSURE THAT VEHICULAR ACCESS IS AVAILABLE AT ALL TIMES TO THE HUFFMAN PROPERTY.
AN APPROVED SET OF PLANS AND ALL PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.

CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AT THE JOB SITE.
NO CONSTRUCTION OR FIELD CHANGES SHALL BE PERFORMED WITHOUT PRIOR APPROVAL OF THE CONSULTING ENGINEER AND THE COUNTY OF ROANOKE DEPARTMENT, DEPARTMENT OF COMMUNITY DEVELOPMENT.

THE SITE WORK AND LANDSCAPING CONTRACTOR(S) SHALL COMPLY WITH LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES, BOTH ON AND OFF THE SITE. REFER TO THE VIRGINIA UNIFORM CODING SYSTEM CONTAINED IN THE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION, FOR DETAILS AND SPECIFICATIONS OF EROSION CONTROL ITEMS SHOWN ON THESE PLANS.

ALL PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS. THE PAVEMENT DESIGN SHALL BE AS SHOWN HEREON.

ALL NEW CHAIN-LINK FENCING SHALL MATCH THE EXISTING PERIMETER FENCING FOR TAX PARCEL #27-06-5-12, INCLUDING BRACES, POLE DIAMETERS, BARB-WIRE SECURITY, ETC.



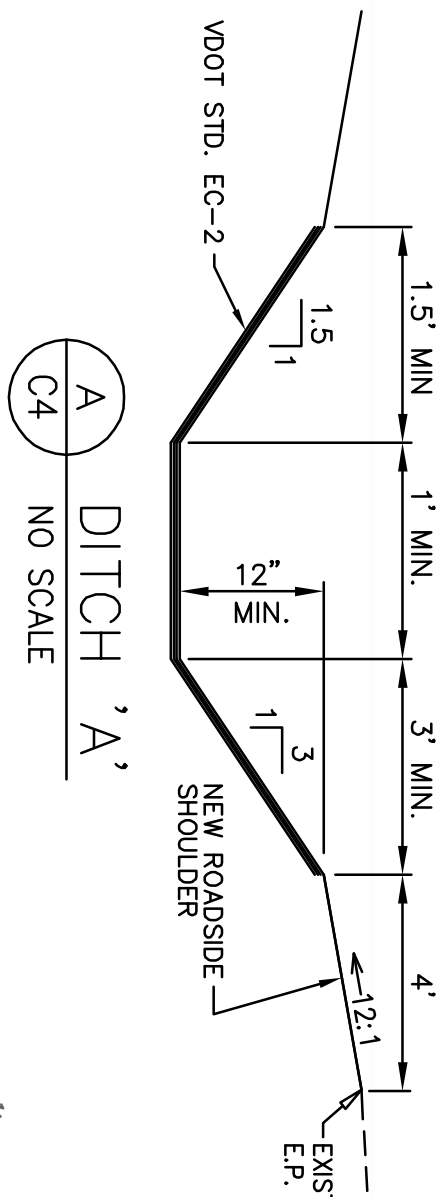
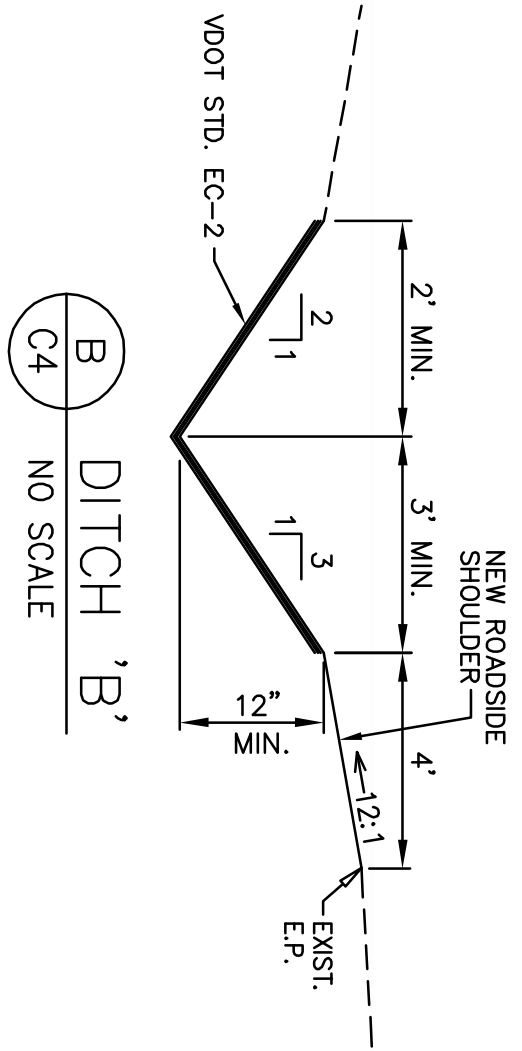
ENGINEER'S NOTES

ANY WORK COMMENCED ON A PROJECT PRIOR TO PLAN APPROVAL IS AT THE SOLE RISK OF THE OWNER.

CAIDWELL WHITE ASSOCIATES DOES NOT GUARANTEE THE COMPLETION OR QUALITY OF PERFORMANCE OF THE CONTRACTS BY CONTRACTORS OR OTHER THIRD PARTIES.
SOURCE OF TOPOGRAPHIC MAPPING IS A FIELD SURVEY BY CAIDWELL WHITE ASSOCIATES DATED: AUGUST, 2015.
BOUNDARY DATA SHOWN IS FROM FIELD SURVEY BY CAIDWELL WHITE ASSOCIATES DATED: AUGUST, 2015

THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY SITE CONDITIONS THAT WILL AFFECT THE INSTALLATION OF PROPOSED IMPROVEMENTS.

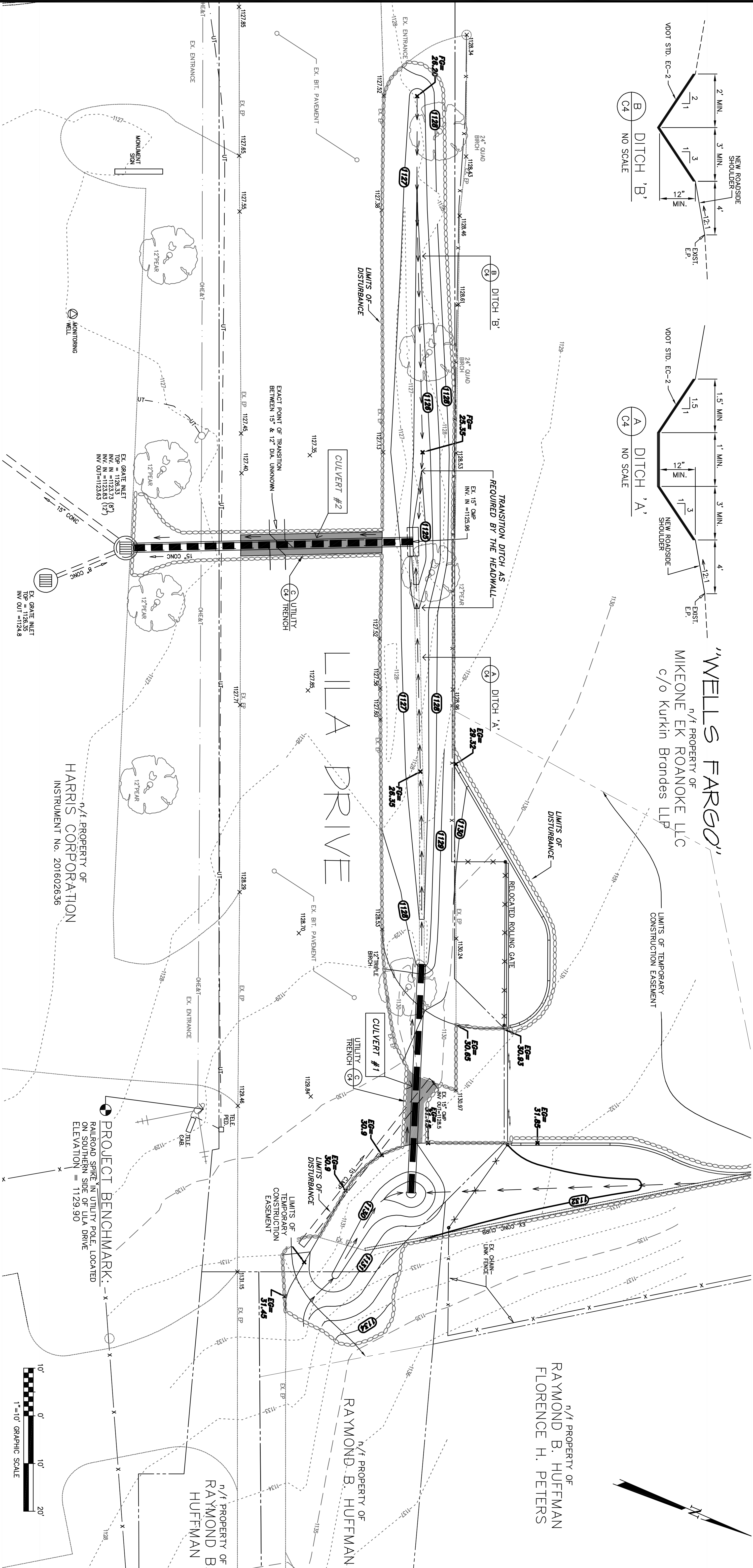
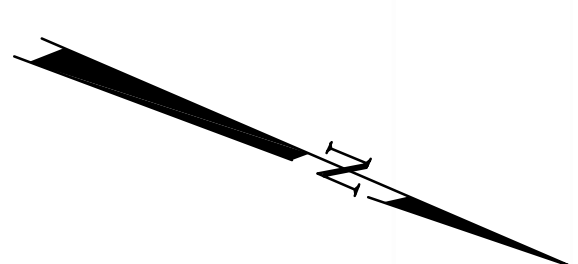
<p>DESIGNED: _____ L.V.L. CHECKED: _____ F.B.C. REVISED: _____ 12/09/15 Scale: _____ 1"=10' For Parcel: _____ 27-06-5-13 NB. No.: _____ RkCo 8 W.O. No.: _____ 15-0060</p>		<p>COMMONWEALTH OF VIRGINIA Jed B. Caldwell L.C. NO. 9184 2 ALE 17 PROFESSIONAL SEAL</p>		<p>CALDWELL WHITE ASSOCIATES ENGINEERS / SURVEYORS / PLANNERS 4803 MEDOBER AVENUE, N.W. ROANOKE, VIRGINIA 24017 EMAIL: CWA@CWAASSOCIATES.COM</p>	
<p>LILA DRIVE ROAD IMPROVEMENT PLAN COUNTY OF ROANOKE SITATE OFF PLANTATION ROAD ROANOKE COUNTY, VIRGINIA</p>		<p>CWA</p>		<p>RAYMOND B. HUFFMAN FLORENCE H. PETERS W.B. 43, PG. 1018 TAX # 27-07-1-1</p>	



"WELLS FARGO"

n/f PROPERTY OF
MIKEONE EK ROANOKE LLC
c/o Kurkin Brandes LLP

LIMITS OF TEMPORARY CONSTRUCTION EASEMENT

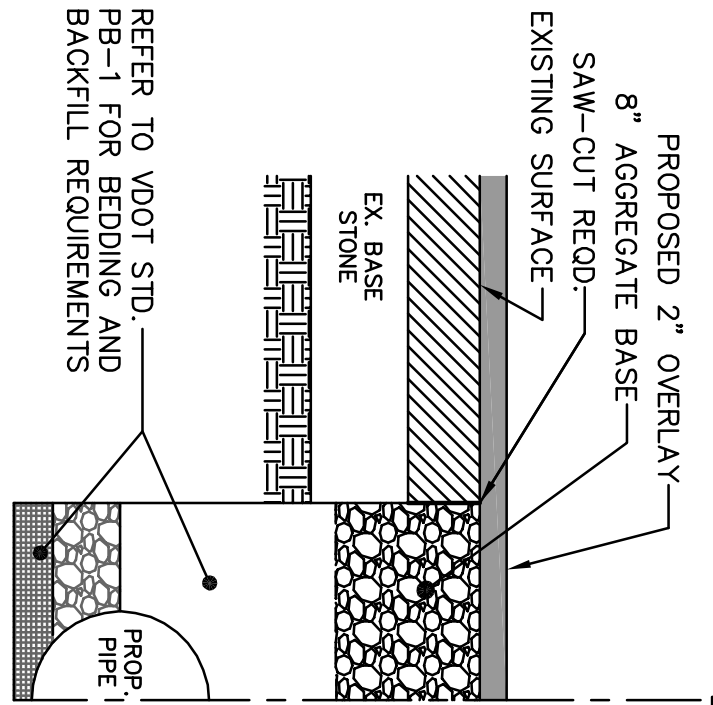
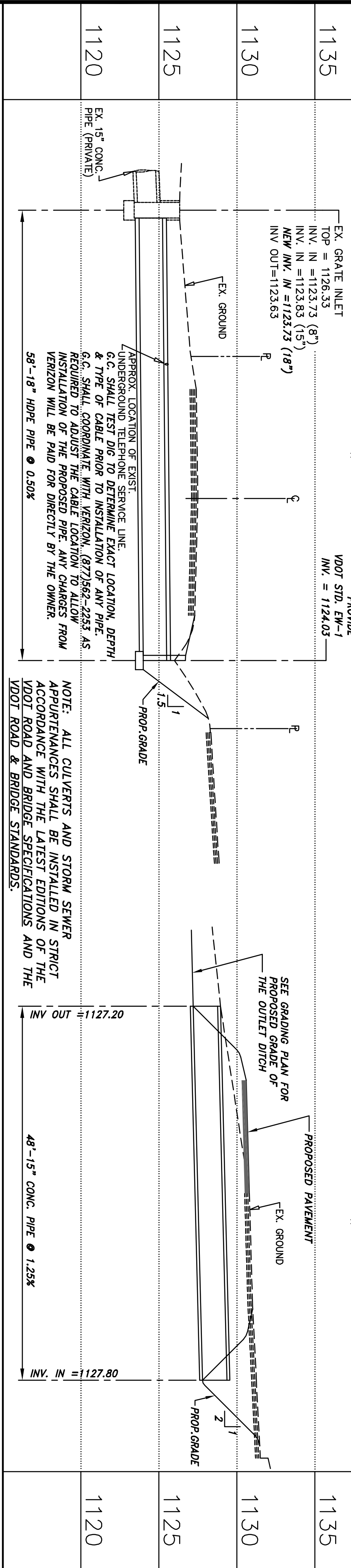


CULVERT #2

STORM DRAIN PROFILES

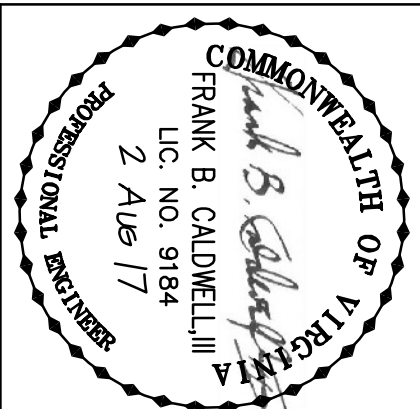
SCALES - HORIZ. 1"=10'
VERT. 1"= 5'

CULVERT #1



C4 NO SCALE

REVISED AUGUST 2, 2017 (PER ROANOKE COUNTY COMMENTS)



GRADING PLAN

LILA DRIVE

ROAD IMPROVEMENT PLAN

COUNTY OF ROANOKE

SITATE

OFF PLANTATION ROAD

ROANOKE COUNTY, VIRGINIA



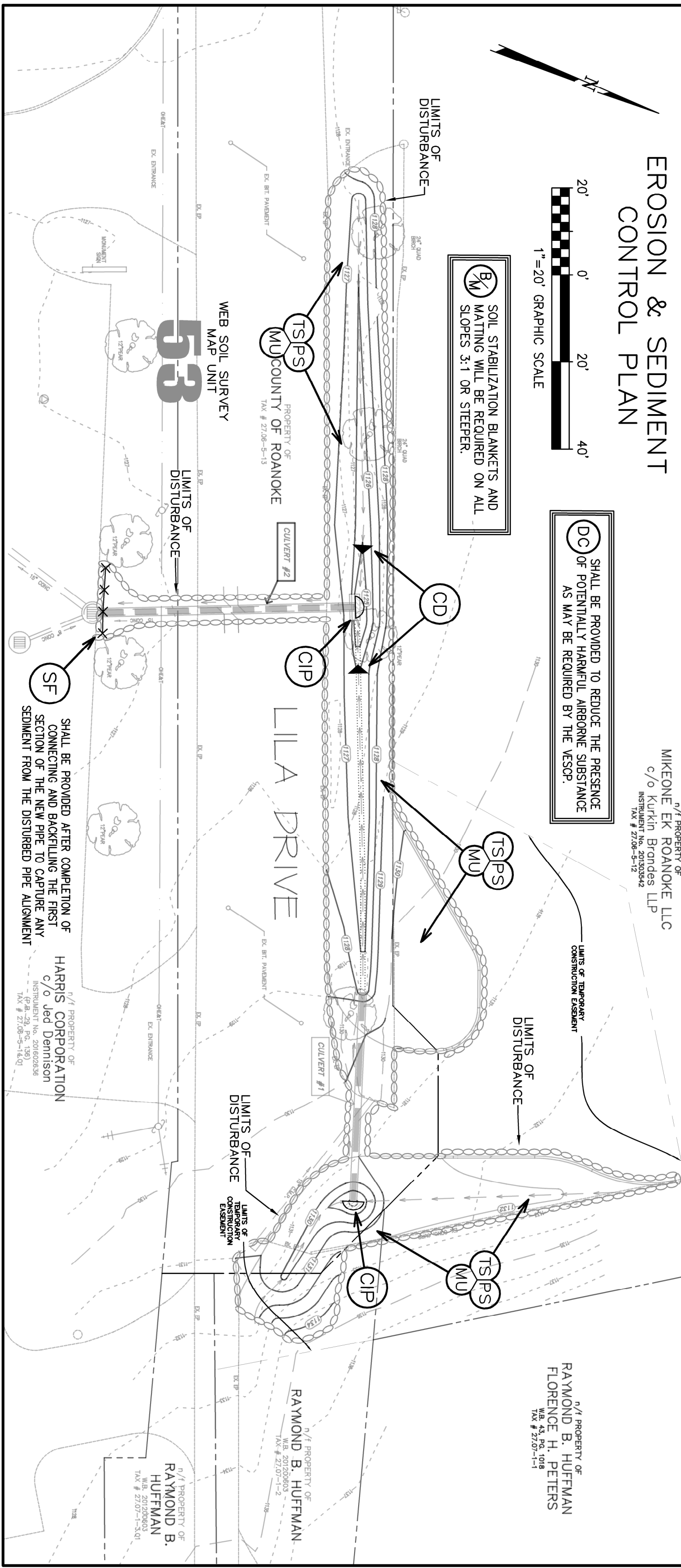
CAIDWELL WHITE ASSOCIATES

DESIGNED: J.V.L.
DRAWN: J.V.L.
CHECKED: F.B.C.
REVISED: 12/09/15
SCALE: 1"=10'
FOR PERMIT: 27-06-5-13
BY: J.V.L.
DATE: 12/09/15
PROJECT: LILA DRIVE
SHEET: C-4 OF 8

THE FOLLOWING STANDARDS ARE TO BE PROVIDED OR ADDRESSED ON EVERY DEVELOPMENT PROJECT EXCEEDING 10,000 S.F. IN AREA OF DISTURBANCE. THESE STANDARDS ARE CONSIDERED REASONABLE AND MAY REQUIRE ADDITIONAL MEASURES AS DEEMED NECESSARY BY THE LOCAL VIRGINIA EROSION & SEDIMENT CONTROL PROGRAM AUTHORITY OR THE CONSULTING ENGINEER.

Criteria	Technique or Method
1.	PURPOSE OF TEMPORARY STABILIZATION SHALL BE APPLIED TO ERODED AREAS WITHIN SEVEN DAYS AFTER RAINFALL CESSATION ON ANY DATE OTHER THAN ONE YEAR. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DOMAN FOR MORE THAN ONE YEAR.
2.	DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE BIDDING IS RESPONSIBLE FOR THE EROSION PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL MATERIAL EXPOSED FROM THE PROJECT SITE.
3.	A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON REMOVED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACQUIRED THAT IS SUFFICIENT MAINTENANCE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
4.	SEDIMENT BASINS AND TRAPS, PENETRATED DICES, SEDIMENT BARBERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
5.	STABILIZATION METHODS SHALL BE APPLIED TO EARthen STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
6.	SEMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
7.	a) THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE THREE LACES ONLY b) SURFACE RUNOFF FROM DISBURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN ONE ACRE SHALL BE CONTROLLED BY A SEDIMENT BASIN. c) THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. d) THE OFFICIAL DESIGN SHALL AT A MINIMUM MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25- YEAR STORM OF 24-HOUR DURATION. e) CALCULATIONS SHALL CORRESPOND TO A BRIEF DRY CONDITION OR THOSE CONDITIONS DIRECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
8.	CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE EXPOSING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZATION MEASURES UNTIL THE PROBLEM IS CORRECTED.
9.	CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITH AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE BRACK STRUCTURE.
10.	WHENEVER WATER SEEPS FROM A SCORE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
11.	ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONCEALED SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE PREVENTED TO REDUCE SEDIMENT.
12.	BETTER NEW CONSTRUCTION STORMWATER COLLECTION CHANNLES OR DECS ARE USED OPERATIONALLY, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONCERNCE CHANNEL AND RECEDING CHANNEL.
13.	WHERE WORK IN A LIVE WATERCOURSE IS PREPERRED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENGAGEMENT CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NON-EROSSIVE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CURBSIDEWAYS AND COVERTWAYS. EARTHEN ILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON-EROSSIVE COVER MATERIALS.
14.	IF EXISTING NATURAL RECEIVING CHANNELS OR PEDES ARE USED OPERATIONALLY, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONCERNCE CHANNEL AND RECEDING CHANNEL.
15.	THE BEDS AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETE.
16.	UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA: a) NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME. b) EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. c) EXCAVATION SHALL BE LIMITED TO THE SHALLOWEST NECESSARY DEPTH THROUGH AN APPROPRIATE SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCARDED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR ON-SITE PROPERTY. d) MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION. e) APPLICATION SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.
17.	WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT FROM THE ROADWAY. WHEN ACCESSING A ROAD, THE DRIVER SHALL STOP, CLEAN THE BOTTOM OF THE WHEELS, REMOVE ANY LOOSE MATERIAL, AND SHOULD BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE RADIOS BY SHOULDER OR STREET SWEEPERS. PROVISION SHALL APPLY TO INDIVIDUAL DETACHMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
18.	TERRAIN EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE LAST SIGNIFICANT RAINFALL EVENT. WHERE EROSION OCCURS, THE CAUSE SHALL BE IDENTIFIED AND CORRECTED. WHERE EROSION IS NOT CORRECTED, THE SOIL ALREYS RESULTING FROM THE DISPOSAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
19.	PROPERTIES AND VALUES DOWNSTREAM FROM EROSION PRONE SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN SOLID RELATIVES FROM FLOOD OR STORMWATER. FOR THE SETTING RECORD-STORM OR EXCEEDENCE-LEVEL FLOOD DIRECTION IN CHANNEL CROSS SECTION, THE FLOODING EFFECTS OF THE PROJECT IN EITHER (a) OR (2) NATURAL CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS. (b) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-TEN YEAR STORM TO DETERMINE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS. AND (c) PRESS AND STORM WATER STRIDES c) IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PRES ARE NOT ADEQUATE, THE APPLICANT SHALL IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM IS CONTAINED WITH THE APPROPRIATES. o) IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PRES ARE NOT ADEQUATE, THE APPLICANT SHALL IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM IS CONTAINED WITH THE APPROPRIATES. o) IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PRES ARE NOT ADEQUATE, THE APPLICANT SHALL IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM IS CONTAINED WITH THE APPROPRIATES. o) IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PRES ARE NOT ADEQUATE, THE APPLICANT SHALL 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MIKEONE EK ROANOKE LLC
c/o Kurkin Brandes LLP
INSTRUMENT No. 201303562



GENERAL EROSION & SEDIMENT CONTROL NOTES:

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS THE CONSTRUCTION OF A VEHICLE TURN--AROUND FOR THE PRIVATE ROADWAY AND IMPROVEMENTS TO THE STORM DRAIN SYSTEM.

ADJACENT PROPERTY. THIS MAP SUBJECT PROPERTY IS OWNED BY THE COUNTY OF ROANOKE, A PRIVATE ROAD EAST OF PLANTATION ROAD BETWEEN ROUTE 11 AND INTERSTATE 81. REFER TO THE PLAN VIEW, THIS PAGE, FOR THE ADJOINING PROPERTY OWNERS.

MEASURES ARE INSTALLED AND VERY CRITICALLY MAINTAINED. THE STORM DRAIN PIPES DISCHARGING TO THE EXISTING SYSTEM ARE AT MINIMUM GRADES, AND MAY THEREFORE BE SUBJECT TO SEDIMENTATION. THE BEST METHOD TO REDUCE THE CONTRACTOR'S WORKLOAD FOR CLEANING OUT THE STORM DRAIN SYSTEM IS TO LIMIT THE SEDIMENT TRANSPORT THROUGH THE PIPES TO THE ABSOLUTE MINIMUM.

OFF-SITE AREAS: THE CONTRACTOR WILL BE REQUIRED TO PROVIDE, TO THE COUNTY OF ROANOKE:

B. THE LOCATION OF ANY OFF-SITE AREAS WHERE EXCESS EXCAVATED MATERIAL AND/OR RIPRAP WILL BE DISPOSED.

SOILS. SOILS IN THE AREA ARE IDENTIFIED BY THE SOIL SURVEY OF ROANOKE COUNTY AND THE CITIES OF ROANOKE AND SALEM. AS URBAN LAND, AS THE MAJORITY OF THE PROJECT IS WITHIN DEVELOPED PROPERTY, NO ADDITIONAL INFORMATION IS NEEDED ABOUT THE ORIGINAL NATIVE MATERIAL.

SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "MAGNINIA EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION, THE MINIMUM STANDARDS OF THE YESD. (SEE THIS SHEET) SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY VARIANCE BY THE YESD. IN PARTICULAR THE FOLLOWING MEASURES ARE REFERENCED ON THE PLAN VIEW:

SILT FENCE—Std. 3.05 a temporary barrier constructed of posts, filter fabric and, in some case a wire support fence, placed across or at the toe of a slope to intercept and detain sediment

CULVERT INLET PROTECTION—Sld 3.08 a sediment filter located at the inlet to storm sewer culverts which prevents sediment from entering and accumulating in and being transferred by the culvert.

CHECK DAMS—Sld 3.20 small, temporary stone dams constructed across a drainage ditch to reduce the velocity of concentrated flows, reducing erosion of the swale or ditch.

EMERGENCY SEEDING—S-3.51, establishment of temporary vegetative cover on disturbed areas that will not be brought to final grade for a year or more; **S-3.52**, establishment of permanent vegetative cover on disturbed areas that will not be brought to final grade for a year or more where permanent, long-lived vegetative cover is needed on fine-grained erosive soils; **MULCHING—S-3.53**, application of plant residues or other surface materials to the soil surface. Mulching will prevent erosion by holding the soil in place until vegetation has established itself; **SOIL STABILIZATION BLANKETS & MATTINGS—S-3.55**, the installation of a protective covering or a soil stabilization mat on a prepared planting area of a steep slope or channel. In particular, the use of soil mats in channelized areas will raise the soil surface above the water level, thus reducing the possibility of bank failure; **DUST CONTROL—S-3.59**, the application of measures to reduce wind-blown dust from exposed soil surfaces and reduce the presence of airborne substances which may present health hazards, traffic safety problems or harm animals or plant life.








PERMANENT STABILIZATION. FOLLOWING FINAL GRADING OPERATIONS, ALL REMAINING DISTURBED AREAS LOCATED WITHIN THE LIMITS OF DISTURBANCE SHALL BE SEEDED AND STABILIZED WITHIN SEVEN (7) DAYS. SEEDING SHALL BE DONE ACCORDING TO THE STD. & SPEC. 3.32, PERMANENT SEEDING. IN ALL SEEDING OPERATIONS, SEED, AND ANY REQUIRED CHEMICALS SHALL BE APPLIED PRIOR TO MULCHING.

MAINTENANCE. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL MAINTENANCE REQUIREMENTS OF THE EROSION AND SEDIMENT CONTROL MEASURES AS OUTLINED IN THE WORKING EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAIN/FALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

STORMWATER RUNOFF CONSIDERATIONS: THE PROPOSED PROJECT HAS REDUCED THE QUANTITY OF IMPERVIOUS AREA WITHIN THE LIMITS OF DISTURBANCE AND THEREFORE DECREASING RUNOFF, PEAK AND QUANTITY.

RESTORATION: PER REQUIREMENTS OF THE COUNTY OF ROANOKE IT SHALL BE NOTED THAT NO EROSION CONTROL STRUCTURAL MEASURES INDICATED ON THESE PLANS ARE TO BE REMOVED WITHOUT APPROVAL FROM THE COUNTY.

EROSION AND SEDIMENT CONTROL PRACTICES

NO.	TITLE	KEY	SYMBOL
3.05	SILT FENCE	SF	*****
3.08	CULVERT INLET PROTECTION	CP	
3.20	CHECK DAM	CD	
3.31	TEMPORARY SEEDING	TS	
3.32	PERMANENT SEEDING	PS	
3.35	MULCHING	MU	
3.36	SOIL STABILIZATION BLANKETS	SB	
3.39	DUST CONTROL	DC	

REVISED AUGUST 2, 2017 (PER ROANOKE COUNTY COMMENTS),

A DRIVE

ROAD IMPROVEMENT PLAN

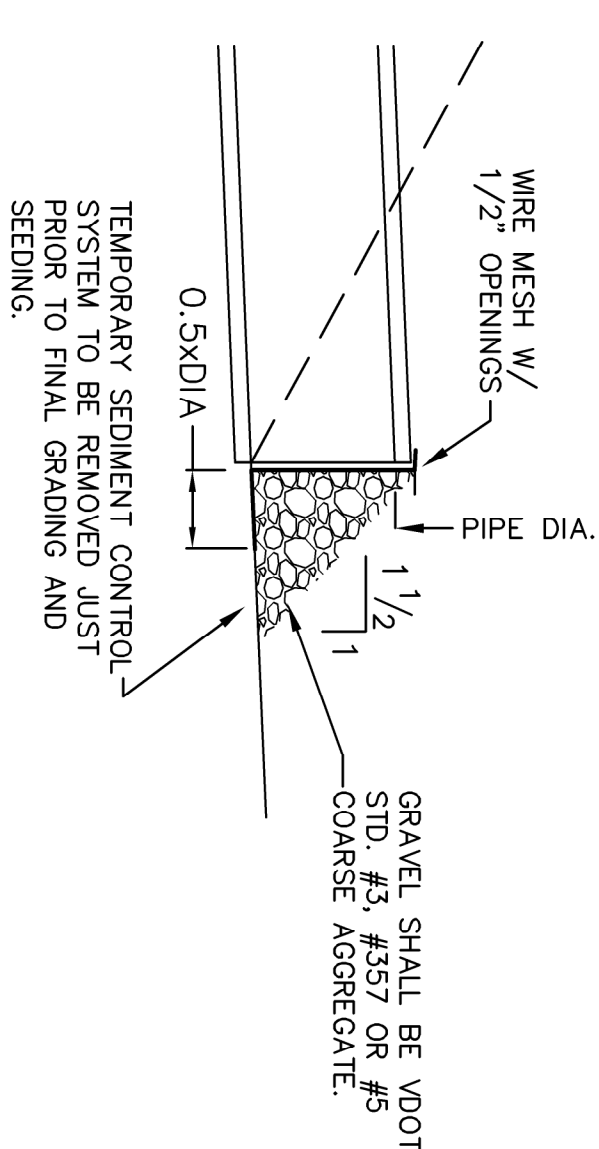
COUNTRY OF R

OFF PLANTATION ROAD

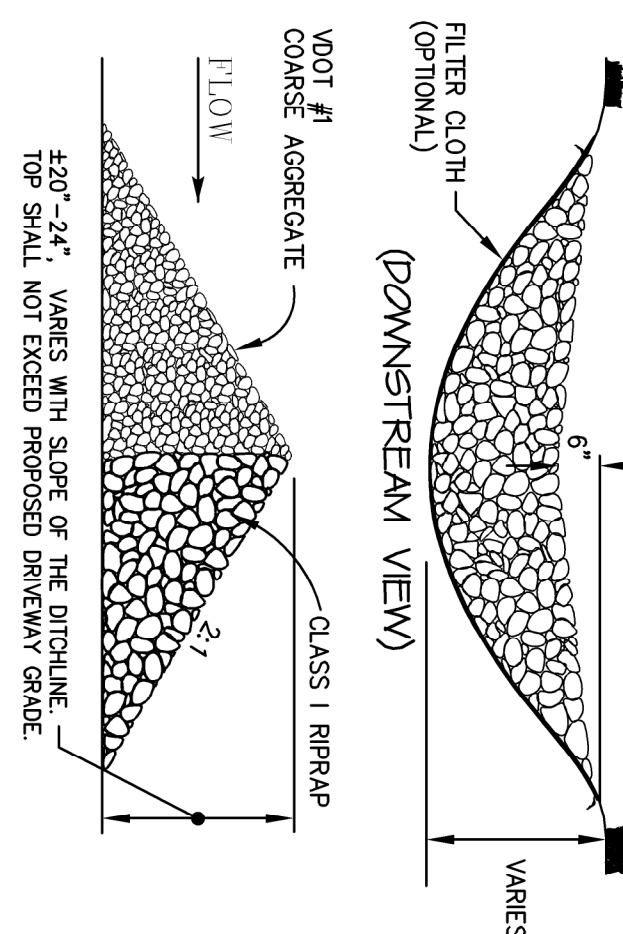
ROANOKE COUNTY, VIRGINIA

CALDWELL WHITE ASSOCIATES
ENGINEERS / SURVEYORS / PLANNERS

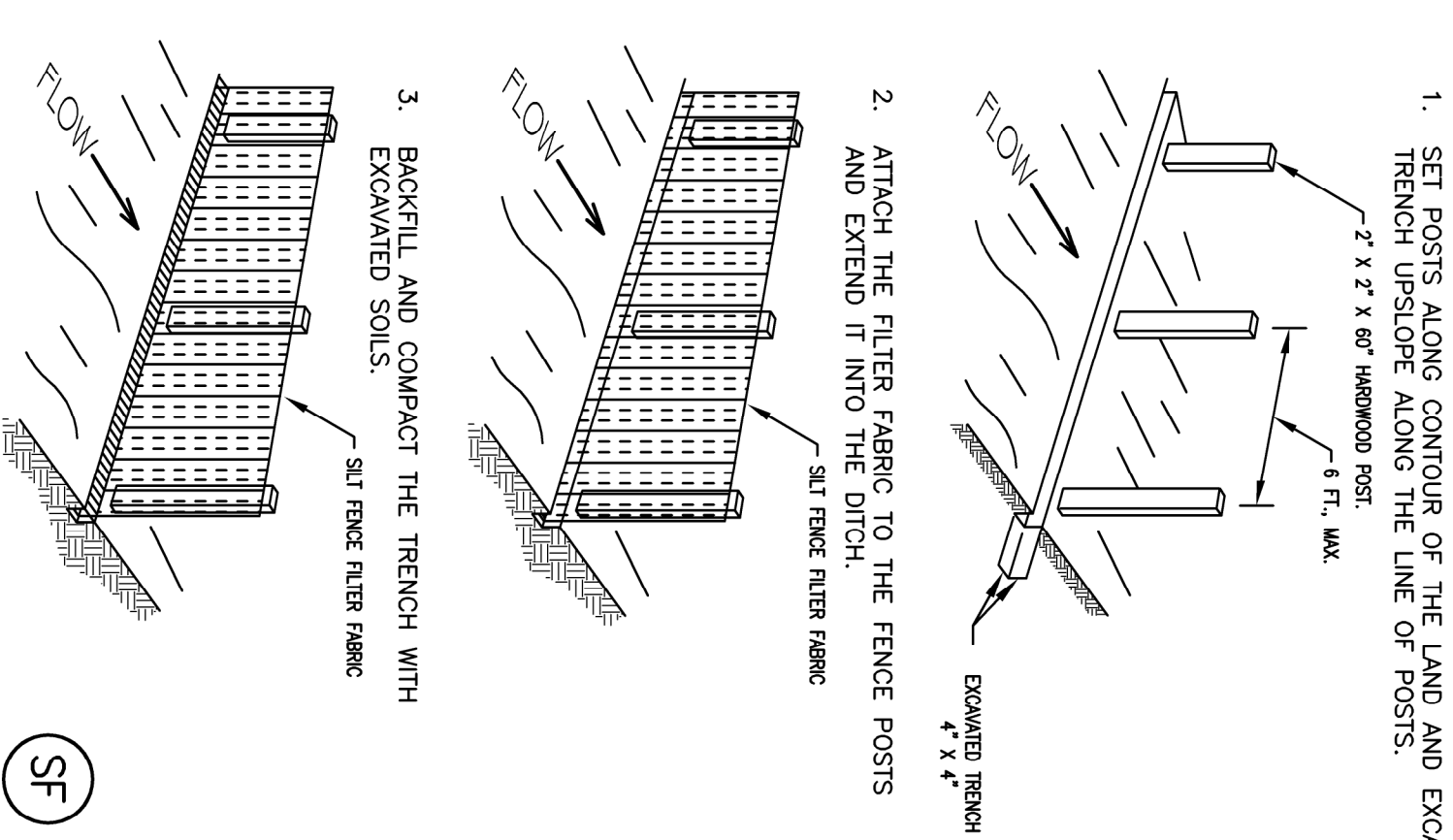
4203 MELROSE AVENUE, N.W.
P.O. BOX 6260
ROANOKE, VIRGINIA 24017
(540) 366-3400
EMAIL: CWAROANOKE@AOL.COM



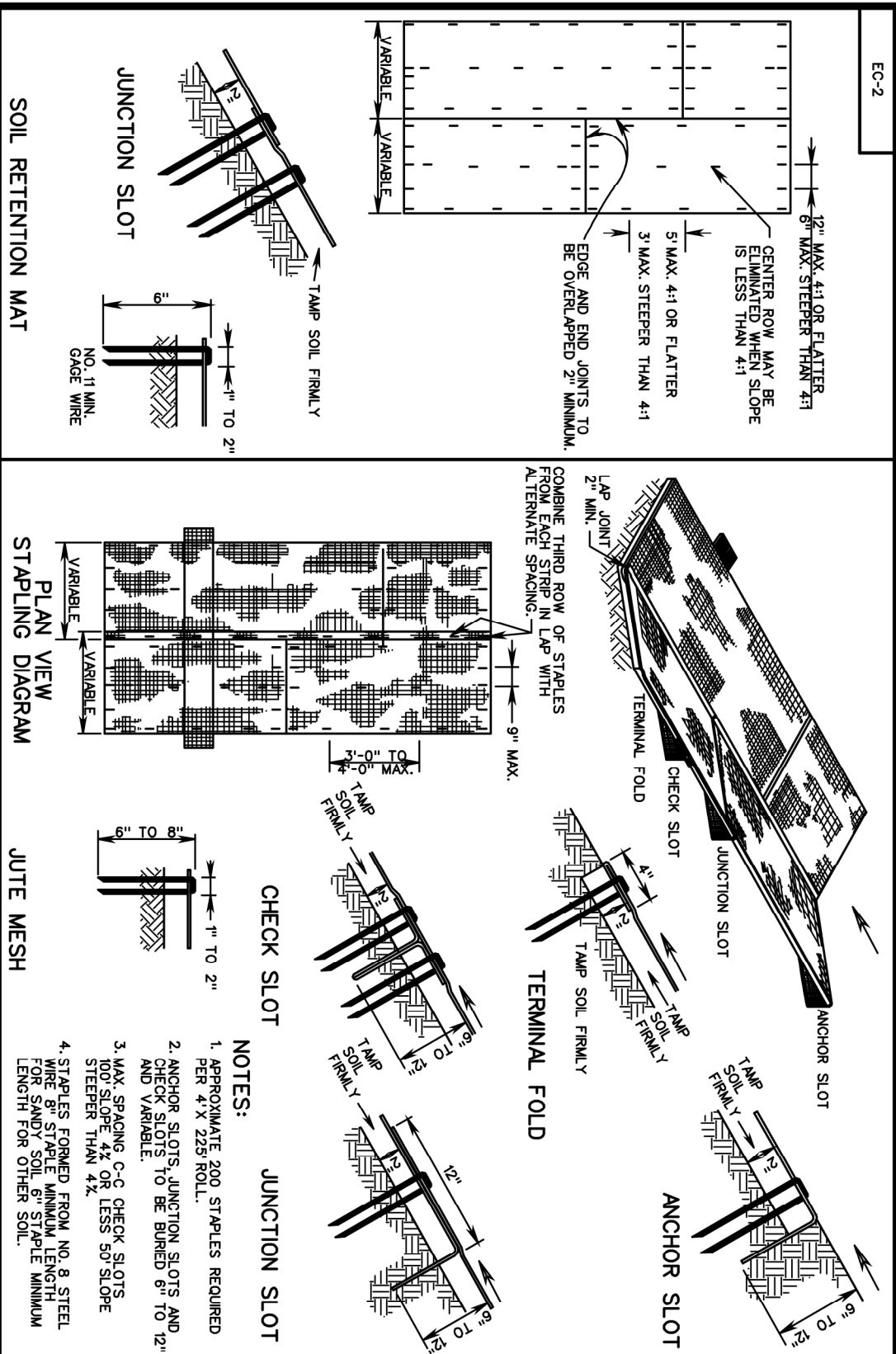
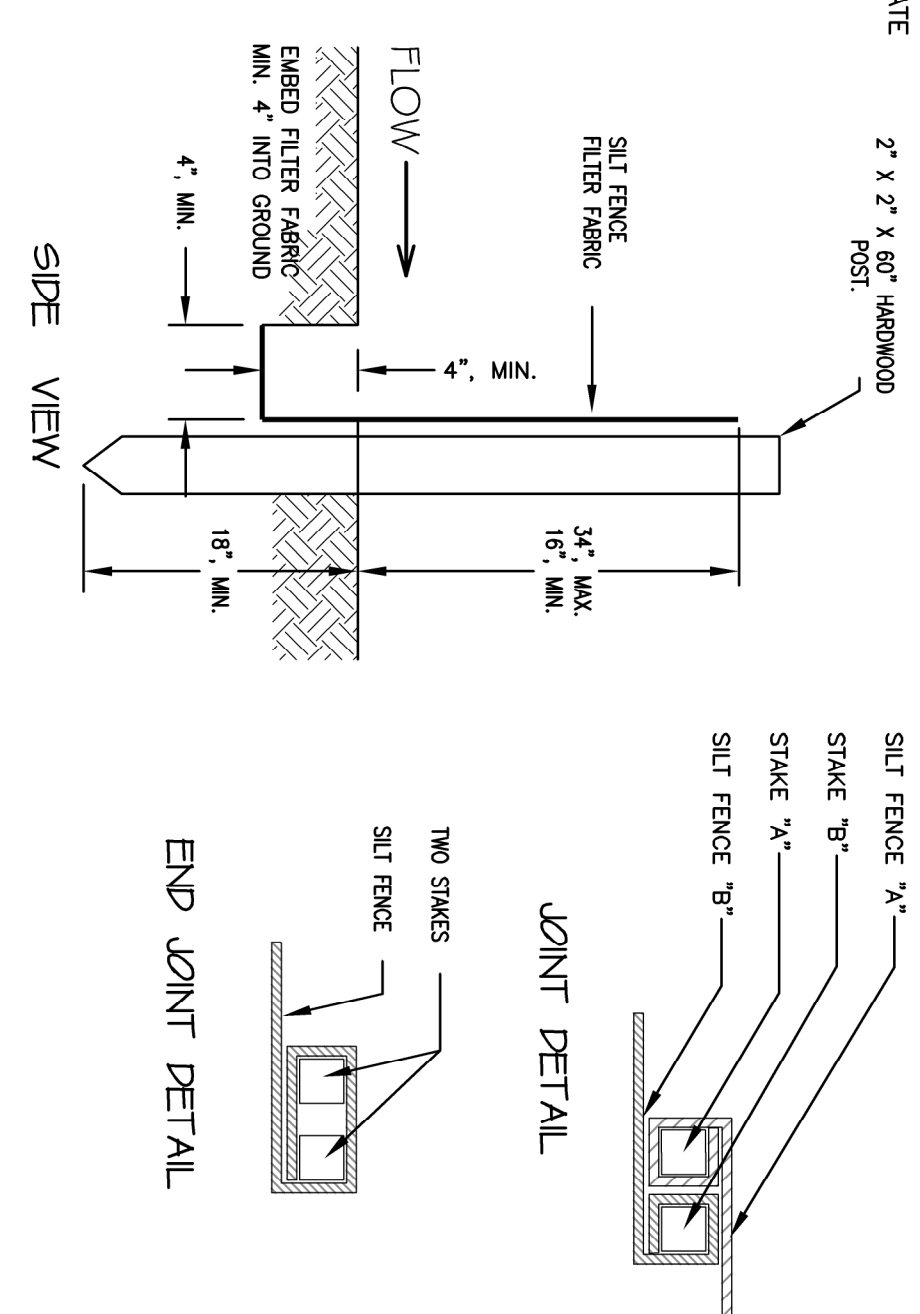
Ⓒ⒫ CULVERT INLET PROTECTION



ⒸⒹ ROCK CHECK DAMS



ⒸⒻ SILT FENCE



SOIL RETENTION MAT

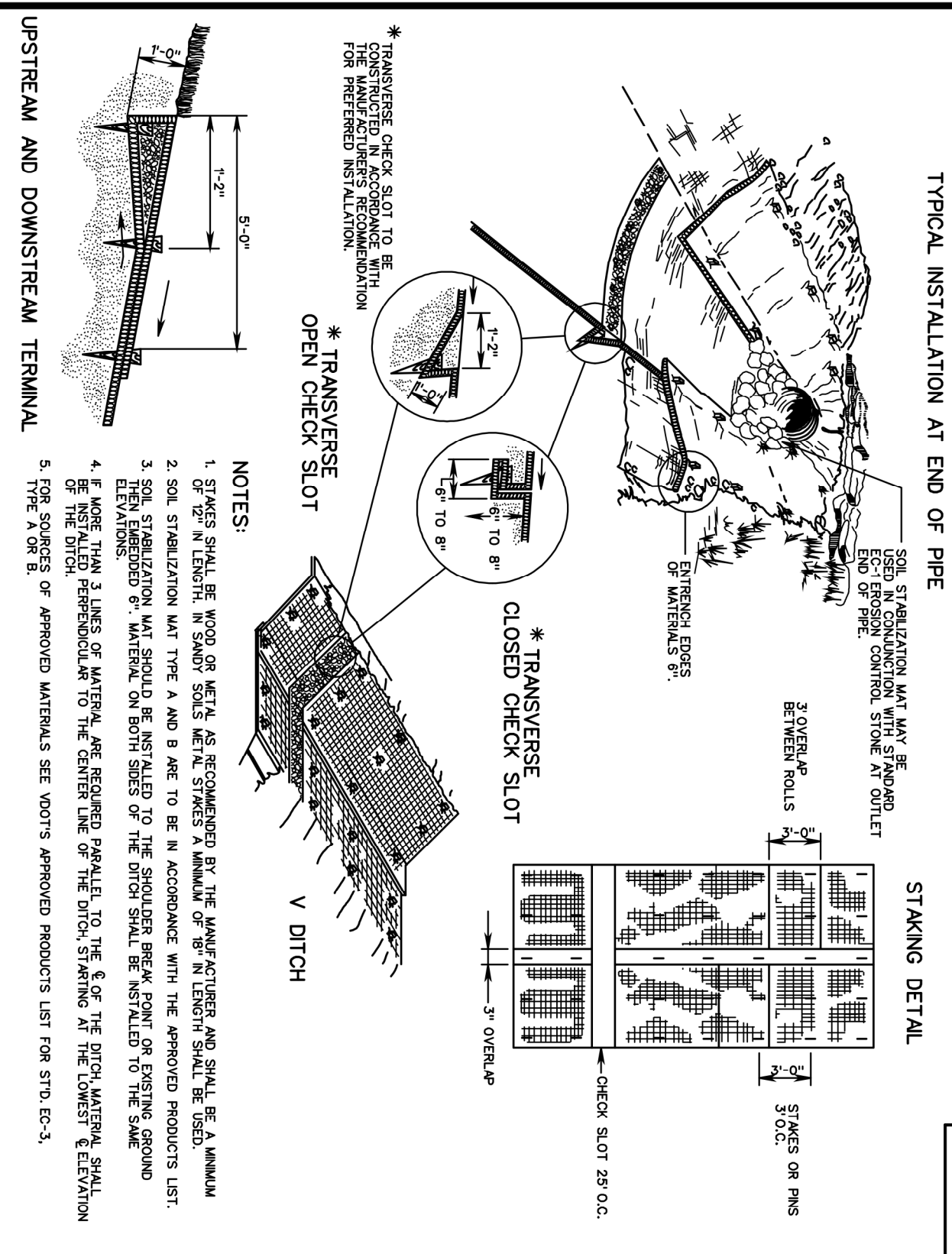
GENERAL NOTES:

1. BASE OF PAYMENT TO BE SQUARE YARDS OF PROTECTIVE COVERING COMPLETE IN PLACE.
2. 1-1/2\"/>

ROAD AND BRIDGE STANDARDS	REVISION DATE
244	11/2/03

PROTECTIVE COVERING INSTALLATION CRITERIA

REVISION DATE	REVISION DATE
244	11/2/03



TYPICAL INSTALLATION AT END OF PIPE

STAKING DETAIL

REVISION DATE	REVISION DATE
244	11/2/03

ROAD AND BRIDGE STANDARDS	REVISION DATE
244	11/2/03

SOIL STABILIZATION MAT DITCH INSTALLATION TYPE A OR B

ⒸⒼ SOIL STABILIZATION BLANKETS & MATTING

TABLE 3.32.C
(Revised June 2003)
PERMANENT SEEDING SPECIFICATIONS FOR APPALACHIAN MOUNTAIN AREA

LAND USE	SEED SPECIES	APPLICATION RATES
Minimum Care Lawn	Tall Fescue ¹	90-100%
Commercial or Residential	Perennial Ryegrass ² Kentucky Bluegrass ¹	0-10% 0-10%
High-Maintenance Lawn	Minimum of three (3) up to five (5) varieties of Kentucky Bluegrass from approved list for use in Virginia ¹	TOTAL: 200-250 lbs
General Slope (3:1 or less)	Tall Fescue ³ Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop ³	128 lbs 2 lbs 20 lbs
Low-Maintenance Slope (Steeper than 3:1)	Tall Fescue ³ Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop ³	108 lbs 2 lbs 20 lbs

- 1 - When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (V CIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by V CIA. A current turfgrass variety list is available at the local County Extension office or through V CIA at 804-746-4894 or at <http://sustainableseed.com/turfpublications/publications2.html>
- 2 - Perennial Ryegrass will germinate faster and at lower soil temperatures than Tall Fescues, thereby providing cover and erosion resistance for seedbed.
- 3 - Use seasonal nurse crop in accordance with seeding dates as stated below:
March, April - May 15th Annual Ryegrass
May 16th - August 15th Annual Ryegrass
August 16th - September Winter Ryegrass
November - February Winter Ryegrass
March, April - May 15th Annual Ryegrass
May 16th - August 15th Annual Ryegrass
August 16th - September Winter Ryegrass
November - February Winter Ryegrass
- 4 - All legume seed must be properly inoculated. If Rhizobia is used, increase to 30 lbs/acre. If Weeping Lovegrass seed, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30-40 lbs/acre.

FERTILIZER & LIME

- Apply 10-20-10 fertilizer at a rate of 500 lbs./acre (or 12 lbs./1,000 sq. ft.)
- Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 50 lbs./1,000 sq. ft.)

NOTE: - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
- When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at <http://www.cda.state.vx.us/ssw/SSKSS/limbpubs>

TABLE 3.31.B
(Revised June 2003)
TEMPORARY SEEDING SPECIFICATIONS
QUICK REFERENCE FOR ALL REGIONS

APPLICATION DATES	SEED SPECIES	APPLICATION RATES
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (olium multi-florum) & Cereal (White) Ryegrass (Secale cereale)	50 - 100 (lbs/acre)
Feb. 16 - Apr. 30	Annual Ryegrass (olium multi-florum)	60 - 100 (lbs/acre)
May 1 - Aug. 31	German Millet	50 (lbs/acre)

FERTILIZER & LIME

- Apply 10-10-10 fertilizer at a rate of 450 lbs./acre (or 10 lbs./1,000 sq. ft.)
- Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 50 lbs./1,000 sq. ft.)

NOTE: - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
- When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at <http://www.cda.state.vx.us/ssw/SSKSS/limbpubs>

ⒸⒶ TEMPORARY SEEDING

REVISED AUGUST 2, 2017 (PER ROANOKE COUNTY COMMENTS)

EROSION & SEDIMENT CONTROL DETAILS

LILA DRIVE ROAD IMPROVEMENT PLAN

OFF PLANTATION ROAD

ROANOKE COUNTY, VIRGINIA

SITATE

CAIDWELL WHITE ASSOCIATES

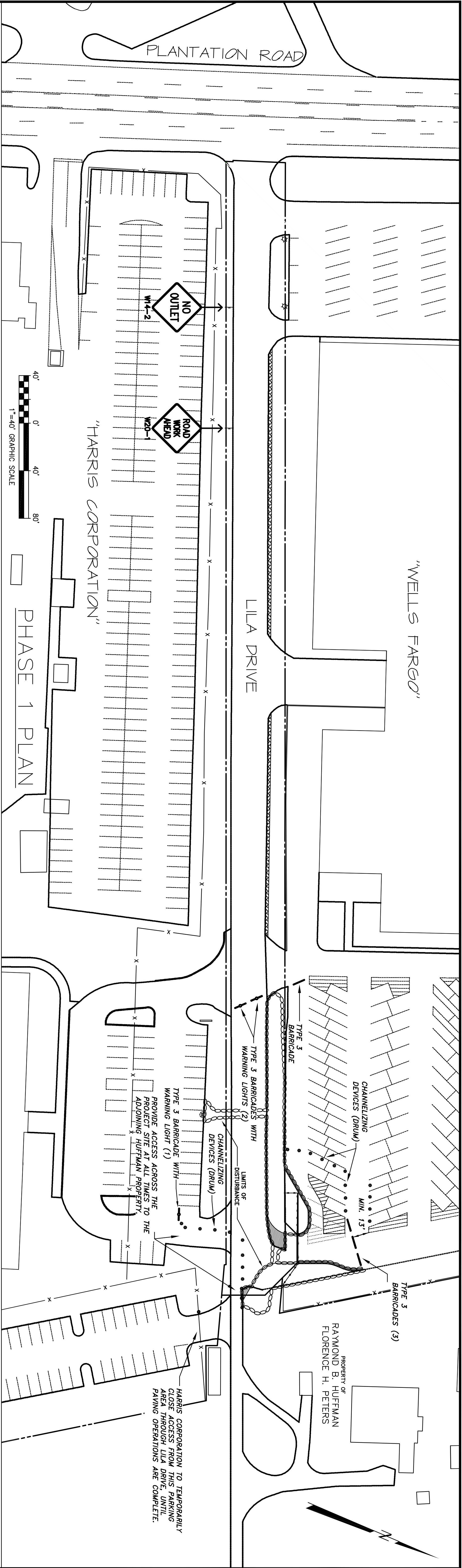
ENGINEERS / SURVEYORS / PLANNERS

4809 MEDICOR AVENUE, N.W.

ROANOKE, VIRGINIA 24017

PHONE: (540) 343-1111

EMAIL: CWA@CWAASSOCIATES.COM



GENERAL NOTES

AGRONOMY, LANDSCAPE, AND TRAFFIC CONTROL DEVICES, 2009 EDITION
VDOT - VIRGINIA DEPARTMENT OF TRANSPORTATION
WAMP - VIRGINIA WORK AREA PROTECTION MANUAL, 2011 EDITION

THE GENERAL CONTRACTOR (G.C.) FOR THIS PROJECT SHALL BE COMMITTED TO PROVIDING SAFE AND EFFICIENT MOVEMENT OF MOTORIZED AND NON-MOTORIZED TRAFFIC THROUGH AND AROUND ROADWAY WORK ZONES, AS WELL AS PROVIDING PROTECTION FOR WORKERS AND EQUIPMENT LOCATED WITHIN WORK ZONES.

THE G.C. SHALL FOCUS ON ROADWAY VISIBILITY AND FUNCTIONALITY OF TEMPORARY TRAFFIC CONTROL IN WORK ZONES AND PROTECT FROM PROGRESSIVE COLLISIONS. ROADWORKERS SHALL BE MAINTAINED WITHIN THE PROTECTED WORK ZONE. ALL SAFETY DEVICES AND EQUIPMENT SHALL BE MAINTAINED AND EQUIPMENT NOR ANY OTHER OBSTACLE CAN BE ALLOWED TO INTERFERE WITH SIGHT DISTANCES AT ENTRANCES OR INTERSECTIONS ON THE PROJECT.

G.C. SHALL COMPLETE THE WORK IN A TIMELY MANNER TO MAINTAIN ACCESS FOR THE ADJOINING BUSINESSES.

G.C. SHALL EXPECT FREQUENT ON-SITE REVIEWS BY THE COUNTY OF ROANOKE AND VDOT TO INSPECT THE WORK ZONES PERFORMANCE AND TO IMPLEMENT ANY CHANGES TO THE TEMPORARY TRAFFIC PLAN TO ENHANCE THE WORK ZONE'S SAFETY AND MOBILITY.

THIS PROJECT CAN BE DIVIDED INTO TWO (2) DISTINCT AREAS OF IMPROVEMENT AND THE TEMPORARY TRAFFIC PLAN SHALL BE DIVIDED INTO THESE TWO (2) AREAS SHOULD THE CONTRACTOR NEED TO OVERLAP ANY OF THE CONSTRUCTION AREA, A MODIFIED TEMPORARY TRAFFIC PLAN SHALL BE PROVIDED TO THE COUNTY OF ROANOKE.

THE POSTED SPEED LIMIT ON LILA DRIVE IS 25 MPH. ALL TAPER LENGTHS, BUFFER LENGTHS, AND CHANNELIZING DEVICES SHALL BE BASED ON THIS SPEED.

ALL SIGNS, AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH VIRGINIA'S WAMP AND MUTCD STANDARDS.

IT IS NOT THE INTENT OF THIS PLAN TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH WORK ZONE, BUT ONLY TO SHOW THE GENERAL FEATURES NECESSARY TO PROVIDE FOR PROPER HANDLING OF TRAFFIC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE FOR SAFE TRAVEL AROUND THE WORK ZONES.

THE CONTRACTOR SHALL COORDINATE THE SEQUENCE OF CONSTRUCTION WITH THE COUNTY OF ROANOKE. WRITTEN NOTIFICATION SHALL BE PROVIDED WITH A WORK SCHEDULE, TWO (2) WEEKS PRIOR TO BEGINNING ROAD WORK.

SIGN SPACING MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

ALL TRAFFIC CONTROL DEVICES INDICATED SHALL BE REVIEWED DAILY TO ENSURE THEIR FUNCTIONALITY.

THE USE OF FLAGGERS SHALL BE PERMITTED IF NEEDED. ALL FLAGGERS SHALL BE STATE CERTIFIED AND HAVE THEIR CERTIFICATION IN THEIR POSSESSION WHEN PERFORMING FLAGGING DUTIES.

CHANNELIZING DEVICES, SUCH AS CONES OR BARRELS, AND/OR WORK VEHICLES SHALL BE UTILIZED WHERE REQUIRED IN ACCORDANCE WITH THE WAMP.

TRAVEL LANES SHALL MAINTAIN A MINIMUM WIDTH OF TEN (10) FEET AT ALL TIMES, UNLESS OTHERWISE NOTED.

WHEN WORK IS NOT ACTIVE, NO EQUIPMENT OR STORED MATERIALS SHALL BE LEFT WITHIN THE PUBLIC ROADWAYS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO WORK WITH LOCAL PROPERTY OWNERS TO ACQUIRE TEMPORARY RIGHTS TO UTILIZE ANY ADJOINING PROPERTIES FOR STORING, PARKING, ETC.

IF CONSTRUCTION OCCURS AFTER DARK, FLOODLIGHTS SHALL BE UTILIZED TO PROVIDE ADEQUATE LIGHTING. FLOODLIGHTS SHALL NOT CREATE A DISTRACTING GLARE TO DRIVERS.

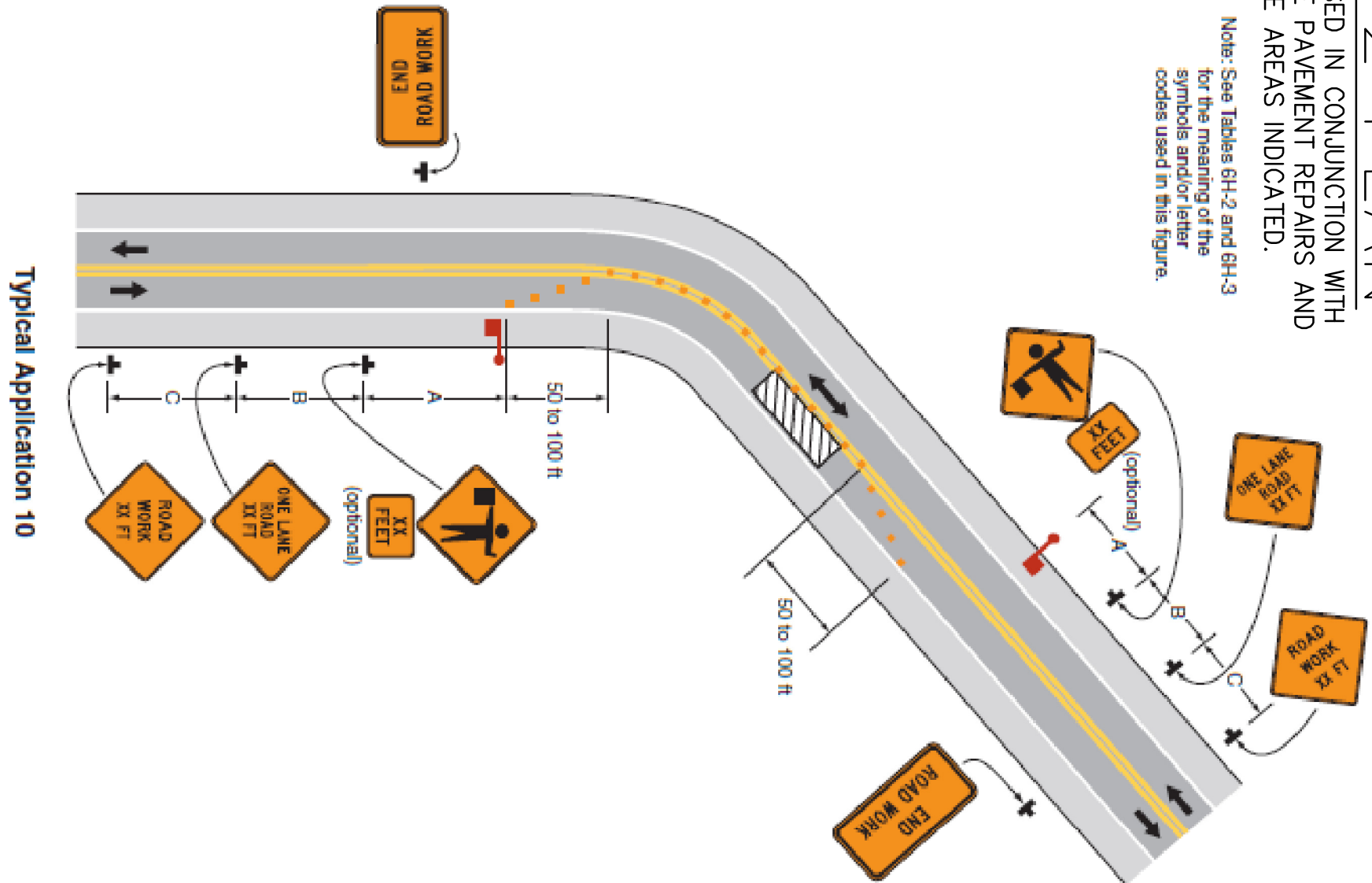
DIAGRAM FROM MUTCD

Figure 6H-10. Lane Closure on a Two-Lane Road Using Flaggers (TA-10)

PHASE 2 PLAN

THIS PLAN TO BE USED IN CONJUNCTION WITH SHEET C-8 FOR THE PAVEMENT REPAIRS AND OVERLAYS WITHIN THE AREAS INDICATED.

Note: See Tables 6H-2 and 6H-3 for the meaning of the codes used in this figure.



PHASE 1 PLAN SHALL ONLY BE USED DURING THE INSTALLATION OF CULVERT #2. PRIOR TO BEGINNING PHASE 1, THE CONTRACTOR SHALL COORDINATE WITH WELLS FARGO, HARRIS CORP., MR. JOHN HUFFMAN AND ROANOKE COUNTY. SEE GENERAL NOTES, SHEET 3 OF 8 FOR CONTACT INFORMATION. IT IS IMPERATIVE THAT THE CLOSURE OF LILA DRIVE BE HELD TO A MINIMUM DURING INSTALLATION OF CULVERT #2. THE CONTRACTOR SHALL HAVE ALL MATERIALS ON SITE PRIOR TO BEGINNING INSTALLATION OF THE CULVERT WITHOUT DELAYS OR REASSIGNMENT OF CREWS PERFORMING THE WORK.

REVISED AUGUST 2, 2017 (PER ROANOKE COUNTY COMMENTS)

COMMONWEALTH OF VIRGINIA
FRANK B. CALDWELL III
LIC. NO. 9184
2 AVE 17
PROFESSIONAL ENGINEER

TEMPORARY TRAFFIC CONTROL PLAN

LILA DRIVE

ROAD IMPROVEMENT PLAN

COUNTY OF ROANOKE

SITATE

OFF PLANTATION ROAD

ROANOKE COUNTY, VIRGINIA

CWA

CAIDWELL WHITE ASSOCIATES

ENGINEERS / SURVEYORS / PLANNERS

4808 MEDFORD AVENUE, N.W.
ROANOKE, VIRGINIA 24017
EMAIL: CWA@CWAENGINEERS.COM

Designed: KYL

Drawn: KYL

Checked: F.B.C.

Date: 12/09/15

Scales: 1"=40'

Tot. Parcel: 21.06-5-13

NS. No.: RK60.8

W.O. No.: 15-0060

