ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
2100 CLARENDON BOULEVARD, SUITE 500
ARLINGTON, VIRGINIA 22201

CONTRACT AWARD COVERPAGE

TO: A&M CONCRETE CORPORATION
42685 DULLES TRADE COURT
STERLING, VIRGINIA 20166

DATE ISSUED: 5/24/2023
CONTRACT NO: 23-DES-ITBPW-474
CONTRACT TITLE: N GLEBE ROAD WATERMAIN REPLACEMENT

THIS IS A NOTICE OF AWARD OF CONTRACT AND NOT AN ORDER. NO WORK IS AUTHORIZED UNTIL THE VENDOR RECEIVES A VALID COUNTY PURCHASE ORDER ENCUMBERING CONTRACT FUNDS.

The contract documents consist of the terms and conditions of AGREEMENT No. 23-DES-ITBPW-474, including any attachments or amendments thereto.

EFFECTIVE DATE: MAY 16, 2023
EXPIRES: 540 CALENDAR DAYS FOR SUBSTANTIAL COMPLETION AFTER NOTICE TO PROCEED
RENEWALS: THERE ARE NO RENEWALS AVAILABLE
COMMODITY CODE(S): 91340
LIVING WAGE: N

ATTACHMENTS:
AGREEMENT No. 23-DES-ITBPW-474

EMPLOYEES NOT TO BENEFIT:
NO COUNTY EMPLOYEE SHALL RECEIVE ANY SHARE OR BENEFIT OF THIS CONTRACT NOT AVAILABLE TO THE GENERAL PUBLIC.

VENDOR CONTACT: BRIAN GROVER
VENDOR TEL. NO.: (703) 544-0850
EMAIL ADDRESS: BGROVER@AMCONCRETE.NET
COUNTY CONTACT: RIC SCHULTZ, DES, ENG
COUNTY TEL. NO.: (703) 228-4826
COUNTY CONTACT EMAIL: RSCHULTZ@ARLINGTONVA.US

PURCHASING DIVISION AUTHORIZATION

Kaylin Schreiber__ Title: Procurement Officer__ Date: 5/1/2023_____

ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
SUITE 500, 2100 CLARENDON BOULEVARD
ARLINGTON, VA 22201

AGREEMENT NO. 23-DES-ITBPW-474

THIS AGREEMENT is made, on 5/24/2023, between A&M Concrete Corporation, 42685 Dulles Trade Court, Sterling, Virginia 20166 ("Contractor") a Virginia Corporation authorized to do business in the Commonwealth of Virginia, and the County Board of Arlington County, Virginia ("County"). The County and the Contractor, for the consideration hereinafter specified, agree as follows:

1. CONTRACT DOCUMENTS

The Contract Documents consist of:

- Agreement No. 23-DES-ITBPW-474, and all modifications properly incorporated into the Agreement
- Exhibit A – Arlington County Invitation to Bid No. 23-DES-ITBPW-474, including DES General Conditions, Special Conditions, and Supplementary Specifications, incorporated by reference
- Exhibit B – Virginia Department Of Labor And Industry Wage Determination Decision
- Exhibit C – Price Bid of Contractor
- Exhibit D – Contractor Performance Evaluation Form
- Exhibit E – Drawings
- Exhibit F – LDA Plan Set
- Exhibit G – Special Conditions
- Exhibit H – Materials Testing Specification
- Exhibit I – Test Holes
- Exhibit J – LUP Permit
- Exhibit K – LDA Green Card, incorporated as a separate attachment
- Exhibit L – VDOT Lane Closure Guidelines
- Exhibit M – List of State and Federal Roads in Arlington County
- Exhibit N – Change Order Forms
- Exhibit O – RFI Form

Where the terms and provisions of this Agreement vary from the terms and provisions of the other Contract Documents, the terms and provisions of this Agreement will prevail over the other Contract Documents, and the remaining Contract Documents will be complementary to each other. If there are any conflicts, the most stringent terms or provisions will prevail.

The Contract Documents set forth the entire agreement between the County and the Contractor. The County and the Contractor agree that no representative or agent of either party has made any

representation or promise with respect to the parties' agreement that is not contained in the Contract Documents. The Contract Documents may be referred to below as the "Contract" or the "Agreement".

2. SCOPE OF WORK

The Contractor will furnish all labor, materials, and equipment for the construction of the N Glebe Road watermain replacement (the "Project") and all other work shown, described, and required by the Contract Documents (hereinafter "the Work").

The Work shall be performed according to the standards established by the Contract Documents read together as a single specification. It shall be the Contractor's responsibility, at solely the Contractor's cost, to provide sufficient services to fulfill the purposes of the Work. Nothing in the Contract Documents shall be construed to limit the Contractor's responsibility to manage the details and execution of its Work.

3. PROJECT OFFICER

The performance of the Contractor is subject to the review and approval of the County Project Officer identified in Section 53, Notices, unless the Contractor is otherwise notified in writing.

4. TIME FOR COMPLETION

Work under this Agreement shall achieve Substantial Completion no later than five hundred forty (540) consecutive calendar days after the commencement date given in a Notice to Proceed provided by the County to the Contractor, subject to any modifications made as provided for in the Contract Documents. This five hundred forty (540) day period shall be the Period of Performance for Substantial Completion. No Work shall be deemed Substantially Complete until it meets the requirements of Substantial Completion set forth in the General Conditions. Final Completion of the Work shall be completed no later than thirty (30) calendar days after the date of acceptance of Substantial Completion by the County Project Officer. Work will not reach Final Completion until it meets the requirements set forth in the General Conditions.

Unless otherwise provided, no claims for early completion are allowed.

5. CONTRACT AMOUNT

The County will pay the Contractor in accordance with the terms of the Progress Payments and Retainage and Payment Terms sections below and at the prices shown in Exhibit C, but not more than $2,121,978.00 for the Contractor's completion of the Work as required by the Contract Documents provided the Work is performed to the satisfaction of and is accepted by the Project Officer. The Contractor will complete the Work for the total amount specified in this section ("Contract Amount") unless such amount is modified as provided in this Agreement. The Contract Amount includes all of the Contractor's costs and fees (profit) and is inclusive of all anticipated or known site conditions, anticipated or known materials, labor, and equipment costs, or any other costs which should reasonably have been expected by the Contract Documents.

6. PROGRESS PAYMENTS AND RETAINAGE

The County will make monthly progress payments to the Contractor upon written application by the Contractor, on the basis of a written estimate of the work performed during the preceding calendar month as approved by the Project Officer. However, 5% of each progress payment will be retained by the County until Final Completion and acceptance of all Work covered by the Agreement.

All material and work covered by partial payments will become the property solely of the County at the time the partial payment is made. However, the Contractor will have the sole responsibility, care and custody for all materials and work upon which payments have been made until Substantial Completion. When calculating payment for materials on-site, the County shall not pay for materials which are not scheduled for incorporation into the Work within sixty (60) days from the date of application for payment.

7. PAYMENT TERMS

The Contractor must submit invoices to the County's Project Officer, who will either approve the invoice or require corrections. The County will pay the Contractor 45 days after approval of an invoice for completed work which is reasonable and allocable to the Contract. All payments will be made from the County to the Contractor via ACH. The number of the County Purchase Order pursuant to work has been performed must appear on all invoices.

8. PAYMENT OF SUBCONTRACTORS

The Contractor is wholly responsible for the entire amount owed to any subcontractor with which the Contractor contracts in the performance of this Agreement, regardless of whether the Contractor has received payment from the County. The Contractor is not liable for amounts that are not owed as a result of the subcontractor's breach of its agreement with the Contractor, in which case the Contractor must notify the subcontractor in writing of its intention to withhold payment, in full or in part, and the reason for doing so.

The Contractor is obligated to take one of the two following actions within seven days after receipt of payment by the County for work performed by any subcontractor under this Contract:

a. Pay the subcontractor for the proportionate share of the total payment received from the County attributable to the work performed by the subcontractor under this Contract; or

b. Notify the County and the subcontractor, in writing, of the Contractor's intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

The Contractor is obligated to pay interest to the subcontractor on all amounts owed by the Contractor to the subcontractor that remain unpaid after seven days following receipt by the Contractor of payment from the County for work performed by the subcontractor under this Contract, except for amounts withheld as allowed in subsection b., above. Unless otherwise provided under the terms of this Contract, interest will accrue at the rate of 1% per month.

The Contractor must include in each of its subcontracts, if any are permitted, a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

The Contractor's obligation to pay an interest charge to a subcontractor pursuant to this section may not be construed to be an obligation of the County. A Contract modification may not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

9. PREVAILING WAGE CONTRACT REQUIREMENTS

A. Section 4-104 of the Arlington County Purchasing Resolution (regarding "Prevailing Wage) applies to this Contract. All employees of the Contractor and any subcontractors shall be paid

wages, salaries, benefits, and other remuneration at or above the craft or trade category prevailing wage rate indicated by Virginia Commissioner of Labor and Industry (DOLI) and as listed in the contract.

The Contractor and its subcontractors shall submit all certified payrolls and statements of compliance weekly through the eComply website. If the Contractor or any subcontractor does not have an eComply profile, a one-time registration process immediately following the Notice of Award or Notice of Intent to Award and training on system functionality are required for each non-registered entity. The Contractor shall also be responsible for reviewing subcontractor payrolls and ensuring that contract requirements are met.

In addition to applying the prevailing wage rates to its own employees, the Contractor shall include the provisions of this Article 4-104 in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor agrees to assume the obligation that the wage requirements will be observed in fulfilling the requirements of the Contract. The appropriate enforcement sanctions will be invoked against the Contractor and any such subcontractor in the event of such subcontractor's failure to comply with any of the provisions of this Article 4-104.

All wage rates to be used are listed in this Contract in Exhibit B. While DOLI maintains a list of wage determinations online for reference purposes, only the wage determinations made in an official Wage Determination Decision, sent by DOLI to Arlington County, can be used to ascertain the exact rates to be paid for this Contract.

All rates are determined by DOLI and any appeals of specific classification may be made through the Wage Determination Appeal form available at http://www.doli.virginia.gov/wp-content/uploads/2021/04/Appeal-for-Wage-Determination-Clarification.pdf.

B. Upon award of the Contract, the Contractor shall certify, under oath, to the Virginia Commissioner of Labor and Industry and to the County Prevailing Wage Compliance Manager, the pay scale for each craft and trade to be employed for, or to provide labor for, in the Work by the Contractor and any subcontractors. The Contractor's certification shall include all information required by the Code of Virginia § 2.2-4321.3G.

C. The Contractor shall ensure that each individual providing labor as a mechanic, laborer, worker or equivalent shall be accurately classified in confirmation with the Wage Determination.

D. The Contractor shall post the prevailing wage rate for each craft and classification involved as determined by DOLI, including the effective date, in a prominent and easily accessible place at the work site during the time work is being performed. The posting must be in English and any other language that is primarily spoken by the individuals at the work site. Within 10 days of such posting the Contractor shall certify to the County Prevailing Wage Compliance Manager and DOLI its compliance with this subsection at https://www.doli.virginia.gov/wp-content/uploads/2021/04/PW_Posting_Compliance_Form.pdf;

E. The Contractor must fully cooperate with the County Prevailing Wage Compliance Manager to ensure contract compliance requirements ,including but not limited to site visits, wage rate signage, contractor employee interviews, and the submission of certified payroll records.

F. The Contractor must submit to the County Prevailing Wage Compliance Manager and DOLI, within five (5) working days of the end of each month, certification for each craft or trade employed on the project, specifying the total hourly amount paid to employees, including wages and applicable fringe benefits using the Pay Scale Certification Form at https://www.doli.virginia.gov/wp-content/uploads/2021/04/DOLI-Pay-Scale-Certification-for-Public-Works-Projects.pdf. The certification must itemize the amount paid in wages and each applicable benefit and list the names and addresses of any third party fund, plan or program to which benefit payments will be made on behalf of employees.

G. The Contractor shall indemnify and hold harmless the County from any fines, demands, claims, suits, and damages, including attorney's fees, resulting from the Contractor's or any subcontractor's failure to pay the Prevailing Wage.

H. The Contractor and its subcontractors shall keep, maintain, and preserve (i) records relating to the wages paid to and hours worked by each individual performing the work of any mechanic, laborer, or worker; and (ii) a schedule of the occupation or work classification at which each individual performing the work of any mechanic, laborer, or worker on the construction project is employed each work day and week. The Contractor and its subcontractors shall make such records available to the Prevailing Wage Compliance Manager within 10 days of a request or per a regular schedule established in the Contract, and shall certify that records reflect the actual hours worked and the amount paid to its workers for whatever time period is requested. The Contractor and its subcontractors must preserve these records for a period of six (6) years after the expiration or earlier termination of the applicable contract.

I. Any Contractor or subcontractor who pays any mechanic, laborer, or worker for services under this Contract less than the Prevailing Wage shall be liable to such individuals for the payment of all wages due, plus interest at an annual rate of eight percent (8%) from the dates wages were due; and shall be disqualified from bidding on public contracts with any public body until the Contractor or subcontractor has made full restitution. A willful violation of Article 4-104 is a Class I misdemeanor.

J. For questions regarding Prevailing Wage, please email prevailingwage@arlingtonva.us.

10. RELEASE AND REQUEST FOR FINAL PAYMENT

In order to receive final payment upon Final Completion of the Project and before Final Acceptance, the Contractor must submit to the Project Officer a signed original notarized copy of the Arlington County Release and Request for Final Payment form per the General Conditions.

11. LIQUIDATED DAMAGES

Time is of the essence under this Contract. The Work must be completed within the Time for Completion. The County and the Contractor agree that damages for failure to achieve Substantial Completion of the Work by the date specified under Time for Completion are not susceptible to exact determination but that $1758 per calendar day is in proportion to the actual loss that the County would suffer from such delay. Therefore, the Contractor will pay the County as liquidated damages $1758 per day for each and every day beyond the time for Substantial Completion that the County determines Substantial Completion has not achieved. The County and the Contractor also agree that damages for failure to achieve Final Completion of the Work by the date specified under Time for Completion are not susceptible to exact

determination but that $1758 per calendar day is in proportion to the actual loss the County would suffer from such delay. Therefore, the Contractor will pay the County as liquidated damages $1758 per day for each and every day beyond the time for Final Completion until Final Completion is achieved.

AND

The County will be entitled to deduct liquidated damages against any sums owed by the County to the Contractor under this Contract. The Contractor hereby waives any defense as to the validity of any liquidated damages on grounds that such liquidated damages are void as penalties or are not reasonably related to actual damages.

12. BACKGROUND CHECK

All employees or subcontractors whom the Contractor assigns to work on this Contract must pass a County background check. The background check will include fingerprinting by the County Sheriff's Office and a credit check.

13. PERFORMANCE OF WORK BY THE CONTRACTOR

The Contractor shall perform on site, and with its own organization, at least eighty percent (80%) of the total direct labor and at least eighty percent (80%) of the total work in place to be performed under the Contract. Prior to award, the Contractor must demonstrate to the Project Officer's satisfaction that both of these standards will be met during contract performance. Labor and work to be counted when determining whether the Contractor has met the self-performance requirement shall not include any work that the Contractor performs under the supervision of a subcontractor.

The self-performance percentage may be reduced by an Amendment to the Contract, if during performance of the Work, the Contractor requests a reduction and the Project Officer determines that the reduction would be to the advantage of the County.

14. NON-APPROPRIATION

All payments by the County to the Contractor pursuant to this Contract are subject to the availability of an annual appropriation for this purpose by the County Board of Arlington County, Virginia ("Board"). In the event that the Board does not appropriate funds for the goods or services provided under this Contract, the County will terminate the Contract, without termination charge or other liability to the County, on the last day of the fiscal year or when the previous appropriation has been spent, whichever occurs first.

15. ESTIMATED QUANTITIES/NON-EXCLUSIVITY OF CONTRACTOR

This Contract does not obligate the County to purchase a specific quantity of items or services during Contract Term. Any quantities that are included in the Contract Documents are the present expectations of the County for the period of the Contract; and the County is under no obligation to buy that or any amount as a result of having provided this estimate or of having had any normal or otherwise measurable requirement in the past. The County may require more goods and/or services than the estimated annual quantities, and any such additional quantities will not give rise to any claim for compensation other than at the unit prices and/or rates in the Contract.

The County does not guarantee that the Contractor will be the exclusive provider of the goods or services covered by this Contract. The items or services covered by this Contract may be or become available under

other County contract(s), and the County may determine that it is in its best interest to procure the items or services through those contract(s).

16. COUNTY PURCHASE ORDER REQUIREMENT

County purchases are authorized only if the County issues a Purchase Order in advance of the transaction, indicating that the ordering County agency has sufficient funds available to pay for the purchase. If the Contractor provides goods or services without a signed County Purchase Order, it does so at its own risk and expense. The County will not be liable for payment for any purchases made by its employees that are not authorized by the County Purchasing Agent.

17. LIEN

It is expressly agreed that after any payment has been made by the County either to the Contractor for work done, or labor or material supplied under the Contract, the County will have a lien upon all material delivered to the site either by the Contractor, or for the Contractor, which is to be used in the performance of the Contract.

18. EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED

During the performance of its work pursuant to this Contract:

A. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, sexual orientation, gender identity, national origin, age, disability or on any other basis prohibited by state law. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

B. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation will be deemed sufficient for meeting the requirements of this section.

C. The Contractor will state in all solicitations or advertisements for employees that it places or causes to be placed that such Contractor is an Equal Opportunity Employer.

D. The Contractor will comply with the provisions of the Americans with Disabilities Act of 1990 ("ADA"), which prohibits discrimination against individuals with disabilities in employment and mandates that disabled individuals be provided access to publicly and privately provided services and activities.

E. The Contractor must include the provisions of the foregoing paragraphs in every subcontract or purchase order of more than $10,000.00 relating to this Contract so that the provisions will be binding upon each subcontractor or vendor.

19. EMPLOYMENT OF UNAUTHORIZED ALIENS PROHIBITED

In accordance with §2.2-4311.1 of the Code of Virginia, as amended, the Contractor must not during the performance of this Contract knowingly employ an unauthorized alien, as that term is defined in the federal Immigration Reform and Control Act of 1986.

20. DRUG-FREE WORKPLACE TO BE MAINTAINED BY CONTRACTOR

During the performance of this Contract, the Contractor must: (i) provide a drug-free workplace for its 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 the Contractor's workplace and specifying the actions that will be taken against employees for violating 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 more than $10,000.00 relating to this Contract so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "workplace" means the site(s) for the performance of the work required by this Contract.

21. SEXUAL HARASSMENT POLICY

If the Contractor employs more than five employees, the Contractor shall (i) provide annual training on the Contractor's sexual harassment policy to all supervisors and employees providing services in the Commonwealth, except such supervisors or employees that are required to complete sexual harassment training provided by the Department of Human Resource Management, and (ii) post the Contractor's sexual harassment policy in (a) a conspicuous public place in each building located in the Commonwealth that the Contractor owns or leases for business purposes and (b) the Contractor's employee handbook.

22. COVID-19 VACCINATION POLICY FOR CONTRACTORS

Due to the ongoing COVID-19 pandemic, the County has taken various steps to protect the welfare, health, safety, and comfort of the workforce and public at large. As part of these steps, the County has implemented various requirements with respect to health and safety including policies with respect to social distancing, the use of face-coverings and vaccine mandates. To protect the County's workforce and the public at large, all employees and subcontractors of the Contractor who are assigned to this Contract, should be fully vaccinated against COVID-19. Any contractor employee or subcontractor who is not fully vaccinated should be following a weekly testing protocol as established by the Contractor, unless exempt pursuant to a valid reasonable accommodation under state or federal law.

23. PROJECT STAFF

The County has the right to reasonably reject staff or subcontractors whom the Contractor assigns to the Project. The Contractor must then provide replacement staff or subcontractors satisfactory to the County in a timely manner and at no additional cost to the County. The day-to-day supervision and control of the Contractor's employees and its subcontractors is the sole responsibility of the Contractor.

24. FAILURE TO DELIVER

If the Contractor fails to deliver goods or services in accordance with the Contract terms and conditions, the County, after notice to the Contractor, may procure the goods or services from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. The County shall be entitled to offset such costs against any sums owed by the County to the Contractor. However, if public necessity requires the use of nonconforming materials or supplies, they may be accepted at a reduction in price to be determined solely by the County.

25. UNSATISFACTORY WORK

If any of the work done, or material, goods, or equipment provided by the Contractor, is unsatisfactory to the County the Contractor must, upon notice from the County, immediately remove at the Contractor's expense such unsatisfactory work, material, goods, or equipment and replace the same with work, material, goods, or equipment satisfactory to the County. If the Contractor fails to do so after fifteen (15) days the County shall have the right to remove or replace the rejected work, material, goods, or

equipment at the expense of the Contractor and offset the expense and administrative costs against any sums owed to the Contractor. This provision applies during the Contract term and during any warranty or guarantee period. At the Project Officer's discretion, rather than correction or replacement of the work, an appropriate adjustment to the Contract Amount may be made.

26. TERMINATION

The County may terminate this Contract at any time as follows: (1) for cause, if, as determined by the County, the Contractor is in breach or default or has failed to perform the Work satisfactorily; or (2) for the convenience of the County.

Upon receipt of a notice of termination, the Contractor must not place any further orders or subcontracts for materials, services or facilities; must terminate all vendors and subcontracts, except as are necessary for the completion of any portion of the Work that the County did not terminate; and must immediately deliver all documents related to the terminated Work to the County.

Any purchases that the Contractor makes after the notice of termination will be the sole responsibility of the Contractor, unless the County has approved the purchases in writing as necessary for completion of any portion of the Work that the County did not terminate.

If any court of competent jurisdiction finds a termination for cause by the County to be improper, then the termination will be deemed a termination for convenience.

A. TERMINATION FOR CAUSE, INCLUDING BREACH AND DEFAULT; CURE

1. Termination for Unsatisfactory Performance. If the County determines that the Contractor has failed to perform satisfactorily, then the County will give the Contractor written notice of such failure(s) and the opportunity to cure them within 15 days or any other period specified by the County ("Cure Period"). If the Contractor fails to cure within the Cure Period, the County may terminate the Contract for failure to provide satisfactory performance by providing written notice with a termination date. Upon such termination, the Contractor may apply for compensation for Contract services that the County previously accepted ("Termination Costs"), unless payment is otherwise barred by the Contract. The Contractor must submit any request for Termination Costs, with all supporting documentation, to the County Project Officer within 30 days after the expiration of the Cure Period. The County may accept or reject the request for Termination Costs, in whole or in part, and may notify the Contractor of its decision within a reasonable time.

   In the event of termination by the County for failure to perform satisfactorily, the Contractor must continue to provide its services as previously scheduled through the termination date, and the County must continue to pay all fees and charges incurred through the termination date.

2. Termination for Breach or Default. If the County terminates the Contract for default or breach of any Contract provision or condition, then the termination will be immediate after notice of termination to the Contractor (unless the County provides for an opportunity to cure), and the Contractor will not be permitted to seek Termination Costs.

   Upon any termination pursuant to this section, the Contractor will be liable to the County for costs that the County must expend to complete the Work, including costs resulting

from any related delays and from unsatisfactory or non-compliant work performed by the Contractor or its subcontractors. The County will deduct such costs from any amount due to the Contractor; or if the County does not owe the Contractor, the Contractor must promptly pay the costs within 15 days of a demand by the County. This section does not limit the County's recovery of any other damages to which it is entitled by law.
Except as otherwise directed by the County, the Contractor must stop work on the date of receipt the notice of the termination.

B. TERMINATION FOR THE CONVENIENCE OF THE COUNTY

The County may terminate this Contract in whole or in part whenever the Purchasing Agent determines that termination is in the County's best interest. The County will give the Contractor at least 15 days' notice in writing. The notice must specify the extent to which the Contract is terminated and the effective termination date. The Contractor will be entitled to Termination Costs, as defined above, plus any other reasonable amounts that the parties might negotiate; but no amount will be allowed for anticipatory profits.

Except as otherwise directed by the County, the Contractor must stop work on the date of receipt of the notice of the termination.

27. INDEMNIFICATION

The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless and indemnify the County and all of its elected and appointed officials, officers, current and former employees, agents, departments, agencies, boards and commissions (collectively the "County Indemnitees") from and against any and all claims made by third parties for any and all losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability, demands or exposure resulting from, arising out of or in any way connected with the Contractor's acts or omissions, including the acts or omissions of its employees, vendors, delivery drivers and/or subcontractors, in performance or nonperformance of the Contract. This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

28. INTELLECTUAL PROPERTY INDEMNIFICATION

The Contractor warrants and guarantees that in providing services under this Contract neither the Contractor nor any subcontractor is infringing on the intellectual property rights (including, but not limited to, copyright, patent, mask and trademark) of third parties.

If the Contractor or any of its employees or subcontractors uses any design, device, work or material that is covered by patent or copyright, it is understood that the Contract Amount includes all royalties, licensing fees, and any other costs arising from such use in connection with the Work under this Contract.
The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless, and indemnify the County Indemnitees, as defined above, from and against any and all claims, losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability or exposure for infringement of or on account of any trademark, copyright, patented or unpatented invention, process or article manufactured or used in the performance of this Contract. This duty to save,

defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

29. COPYRIGHT

By this Contract, the Contractor irrevocably transfers, assigns, sets over and conveys to the County all rights, title and interest, including the sole exclusive and complete copyright interest, in any and all copyrightable works created pursuant to this Contract. The Contractor will execute any documents that the County requests to formalize such transfer or assignment.

The rights granted to the County by this section are irrevocable and may not be rescinded or modified, including in connection with or as a result of the termination of or a dispute concerning this Contract.

The Contractor may not use subcontractors or third parties to develop or provide input into any copyrightable materials produced pursuant to this Contract without the County's advance written approval and unless the Contractor includes this Copyright provision in any contract or agreement with such subcontractors or third parties related to this Contract.

30. OWNERSHIP AND RETURN OF RECORDS

This Contract does not confer on the Contractor any ownership rights or rights to use or disclose the County's data or inputs.

All drawings, specifications, blueprints, data, information, findings, memoranda, correspondence, documents or records of any type, whether written, oral or electronic, and all documents generated by the Contractor or its subcontractors as a result of this Contract (collectively "Records") are the exclusive property of the County and must be provided or returned to the County upon completion, termination, or cancellation of this Contract. The Contractor will not use or willingly cause or allow such materials to be used for any purpose other than performance of this Contract without the written consent of the County.

The Records are confidential, and the Contractor will neither release the Records nor share their contents. The Contractor will refer all inquiries regarding the status of any Record to the Project Officer or to his or her designee. At the County's request, the Contractor will deliver all Records, including hard copies of electronic records, to the Project Officer and will destroy all electronic Records.

The Contractor agrees to include the provisions of this section as part of any contract or agreement related to this Contract into which it enters with subcontractors or other third parties.

The provisions of this section will survive any termination or cancellation of this Contract.

31. CONFIDENTIAL INFORMATION

The Contractor and its employees, agents and subcontractors will hold as confidential all County information obtained under this Contract. Confidential information includes, but is not limited to, nonpublic personal information; personal health information (PHI); social security numbers; addresses; dates of birth; other contact information or medical information about a person; and information pertaining to products, operations, systems, customers, prospective customers, techniques, intentions,

processes, plans and expertise. The Contractor must take reasonable measures to ensure that all of its employees, agents and subcontractors are informed of and abide by this requirement.

32. ETHICS IN PUBLIC CONTRACTING

This Contract incorporates by reference Article 9 of the Arlington County Purchasing Resolution, as well as all state and federal laws related to ethics, conflicts of interest or bribery, including the State and Local Government Conflict of Interests Act (Code of Virginia § 2.2-3100 et seq.), the Virginia Governmental Frauds Act (Code of Virginia § 18.2-498.1 et seq.) and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Code of Virginia, as amended (§ 18.2-438 et seq.). The Contractor certifies that its bid was made without collusion or fraud; that it has not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer or subcontractor; and that it has not conferred on any public employee having official responsibility for this procurement any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

33. COUNTY EMPLOYEES

No Arlington County employee may share in any part of this Contract or receive any benefit from the Contract that is not available to the general public.

34. FORCE MAJEURE

Neither party will be held responsible for failure to perform the duties and responsibilities imposed by this Contract if such failure is due to a fire, riot, rebellion, natural disaster, war, act of terrorism or act of God that is beyond the control of the party and that makes performance impossible or illegal, unless otherwise specified in the Contract, provided that the affected party gives notice to the other party as soon as practicable after the force majeure event, including reasonable detail and the expected duration of the event's effect on the party.

35. AUTHORITY TO TRANSACT BUSINESS

The Contractor must, pursuant to Code of Virginia § 2.2-4311.2, be and remain authorized to transact business in the Commonwealth of Virginia during the entire term of this Contract. Otherwise, the Contract is voidable at the sole option of and with no expense to the County.

36. RELATION TO THE COUNTY

The Contractor is an independent contractor, and neither the Contractor nor its employees or subcontractors will be considered employees, servants or agents of the County. The County will not be responsible for any negligence or other wrongdoing by the Contractor or its employees, servants or agents. The County will not withhold payments to the Contractor for any federal or state unemployment taxes, federal or state income taxes or Social Security tax or for any other benefits. The County will not provide to the Contractor any insurance coverage or other benefits, including workers' compensation.

37. ANTITRUST

The Contractor conveys, sells, assigns and transfers to the County all rights, title and interest in and to all causes of action under state or federal antitrust laws that the Contractor may have relating to this Contract.

38. REPORT STANDARDS

The Contractor must submit all written reports required by this Contract for advance review in a format approved by the Project Officer. Reports must be accurate and grammatically correct and should not

contain spelling errors. The Contractor will bear the cost of correcting grammatical or spelling errors and inaccurate report data and of other revisions that are required to bring the report(s) into compliance with this section.

Whenever possible, proposals must comply with the following guidelines:

- printed double-sided on at least 30% recycled-content and/or tree-free paper
- recyclable and/or easily removable covers or binders made from recycled materials (proposals with glued bindings that meet all other requirements are acceptable)
- avoid use of plastic covers or dividers
- avoid unnecessary attachments or documents or superfluous use of paper (e.g. separate title sheets or chapter dividers)

39. AUDIT

The Contractor must retain all books, records and other documents related to this Contract for at least five (5) years, unless otherwise specified in the Contract, or such period of time required by the County's funding partner(s), if any, whichever is greater, after the final payment and must allow the County or its authorized agents to examine the documents during this period and during the Contract Term. The Contractor must provide any requested documents to the County for examination within 15 days of the request, at the Contractor's expense. Should the County's examination reveal any overcharging by the Contractor, the Contractor must, within 30 days of County's request, reimburse the County for the overcharges and for the reasonable costs of the County's examination, including, but not limited to, the services of external audit firm and attorney's fees; or the County may deduct the overcharges and examination costs from any amount that the County owes to the Contractor. If the Contractor wishes to destroy or dispose of any records related to this Contract (including confidential records to which the County does not have ready access) within five (5) years after the final payment, unless otherwise specified in the Contract, or such period of time required by the County's funding partner(s), if any, whichever is greater, the Contractor must give the County at least 30 days' notice and must not dispose of the documents if the County objects.

The Purchasing Agent may require the Contractor to demonstrate that it has the necessary facilities, ability, and financial resources to comply with the Contract and furnish the service, material or goods specified herein in a satisfactory manner at any time during the term of this Contract.

40. ASSIGNMENT

The Contractor may not assign, transfer, convey or otherwise dispose of any award or any of its rights, obligations or interests under this Contract without the prior written consent of the County.

41. AMENDMENTS

This Contract may not be modified except by written amendment executed by persons duly authorized to bind the Contractor and the County.

42. ARLINGTON COUNTY PURCHASING RESOLUTION AND COUNTY POLICIES

Nothing in this Contract waives any provision of the Arlington County Purchasing Resolution, which is incorporated herein by reference, or any applicable County policy.

43. DISPUTE RESOLUTION

All disputes arising under this Agreement or concerning its interpretation, whether involving law or fact and including but not limited to claims for additional work, compensation or time, and all claims for alleged breach of contract must be submitted in writing to the Project Officer as soon as the basis for the claim arises. In accordance with the Arlington County Purchasing Resolution, claims denied by the Project Officer may be submitted to the County Manager in writing no later than 60 days after the final payment. The time limit for a final written decision by the County Manager is 30 days. Procedures concerning contractual claims, disputes, administrative appeals and protests are contained in the Arlington County Purchasing Resolution. The Contractor must continue to work as scheduled pending a decision of the Project Officer, County Manager, County Board or a court of law.

44. APPLICABLE LAW, FORUM, VENUE, AND JURISDICTION

This Contract is governed in all respects by the laws of the Commonwealth of Virginia; and the jurisdiction, forum and venue for any litigation concerning the Contract or the Work is in the Circuit Court for Arlington County, Virginia, and in no other court.

45. ARBITRATION

No claim arising under or related to this Contract may be subject to arbitration.

46. NONEXCLUSIVITY OF REMEDIES

All remedies available to the County under this Contract are cumulative, and no remedy will be exclusive of any other at law or in equity.

47. NO WAIVER

The failure to exercise a right provided for in this Contract will not be a subsequent waiver of the same right or of any other right.

48. SEVERABILITY

The sections, paragraphs, clauses, sentences, and phrases of this Contract are severable; and if any section, paragraph, clause, sentence or phrase of this Contract is declared invalid by a court of competent jurisdiction, the rest of the Contract will remain in effect.

49. ATTORNEY'S FEES

In the event that the County prevails in any legal action or proceeding brought by the County to enforce any provision of this Contract, the Contractor will pay the County's reasonable attorney's fees and expenses.

50. SURVIVAL OF TERMS

In addition to any statement that a specific term or paragraph survives the expiration or termination of this Contract, the following sections also survive: INDEMNIFICATION; INTELLECTUAL PROPERTY INDEMNIFICATION; RELATION TO COUNTY; OWNERSHIP AND RETURN OF RECORDS; AUDIT; COPYRIGHT; DISPUTE RESOLUTION; APPLICABLE LAW AND JURISDICTION; ATTORNEY'S FEES, AND CONFIDENTIAL INFORMATION.

51. HEADINGS

The section headings in this Contract are inserted only for convenience and do not affect the substance of the Contract or limit the sections' scope.

52. AMBIGUITIES

The parties and their counsel have participated fully in the drafting of this Agreement; and any rule that ambiguities are to be resolved against the drafting party does not apply. The language in this Agreement is to be interpreted as to its plain meaning and not strictly for or against any party.

53. NOTICES

Unless otherwise provided in writing, all legal notices and other formal communications required by this Contract are deemed to have been given when either (a) delivered in person; (b) delivered by an agent, such as a delivery service; or (c) deposited in the United States mail, postage prepaid, certified or registered and addressed as follows:

TO THE CONTRACTOR:
Brian Grover, Vice President
A&M Concrete Corporation
42685 Dulles Trade Court
Sterling, Virginia 20166
Phone: (703) 544-0850
Email: bgrover@amconcrete.net

TO THE COUNTY:

Ric Schultz, Project Officer
Arlington County, Virginia
2100 Clarendon Boulevard, Suite 813
Arlington, Virginia 22201
Phone: (703) 228-4826
Email: rschultz@arlingtonva.us

AND

Dr. Sharon T. Lewis, LL.M, MPS, VCO, CPPB
Purchasing Agent
Arlington County, Virginia
2100 Clarendon Boulevard, Suite 500
Arlington, Virginia 22201
Phone: (703) 228-3294
Email: slewis1@arlingtonva.us

TO COUNTY MANAGER'S OFFICE (FOR PROJECT CLAIMS):

Mark Schwartz, County Manager
Arlington County, Virginia
2100 Clarendon Boulevard, Suite 318
Arlington, Virginia 22201

54. NON-DISCRIMINATION NOTICE

Arlington County does not discriminate against faith-based organizations.

55. INSURANCE, PAYMENT AND PERFORMANCE BONDS

The Contractor shall maintain the required insurance coverage and payment and performance bonds as set forth in the Invitation to Bid through completion of the Contract, including all warranty and guarantee periods.

56. MATERIAL CHANGES

The Contractor shall notify Purchasing Agent within seven days of any material changes in its operation that relate to any matter attested regarding certifications on its bid form.

57. CONTRACTOR PERFORMANCE EVALUATION

Arlington County will perform written evaluations of the Contractor's performance at various intervals throughout the term of this Contract. The evaluations will address, at a minimum, the Contractor's work/performance, quality, cost controls, schedule, timeliness and sub-contractor management. The Project Officer shall be responsible for completing the evaluations and providing a copy to the Contractor and County Procurement Officer.

58. COUNTERPARTS

This Agreement may be executed in one or more counterparts and all of such counterparts shall together constitute one and the same instrument. Original signatures transmitted and received via facsimile or other electronic transmission (e.g., PDF or similar format) are true and valid signatures for all purposes hereunder and shall be effective as delivery of a manually executed original counterpart.

WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON COUNTY, VIRGINIA

AUTHORIZED SIGNATURE: DocuSigned by: Kaylin Schreiber 2513E5602A3A4DE...

NAME: Kaylin Schreiber

TITLE: Procurement Officer

DATE: 5/24/2023

A&M CONGRETE CORPORATION

AUTHORIZED SIGNATURE: DocuSigned by: Joe Alves 70BFBD041ED74C3...

NAME: Joe Alves

TITLE: Ex. Vice President

DATE: 5/23/2023

EXHIBIT B

COMMONWEALTH of VIRGINIA
DEPARTMENT OF LABOR AND INDUSTRY

Gary G. Pan
COMMISSIONER

Main Street Centre
600 East Main Street, Suite 207
Richmond, Virginia 23219
PHONE (804) 371-2327
FAX (804) 371-6524

Virginia Department of Labor and Industry Wage Determination Decision

Project Name	N. Glebe Watermain Replacement
County Project Code	23-DES-ITBPW-474
DOLI Project Number	ARLC-23-0002 UPDATE
County or Independent City	Arlington County
Publication Date	04/26/2023
Construction Type	Highway

Wage Determinations	Wage	Fringe
Carpenter, Includes Form Work	$20.97	
Cement Mason/Concrete Finisher	$20.70	$8.03
Electrician, Includes Traffic Signalization	$30.55	$11.51
Fence Erector	$15.28	
Ironworker, Reinforcing	$34.18	
Ironworker, Structural	$34.18	
Laborer: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	$19.06	$1.75
Laborer: Common or General	$21.41	$8.11
Laborer: Grade Checker	$14.88	
Laborer: Pipelayer	$20.48	
Laborer: Power Tool Operator	$15.69	
Operator: Asphalt Spreader and Distributor	$20.58	$2.31
Operator: Backhoe/Excavator/Trackhoe	$23.93	

Wage Determinations	Wage	Fringe
Operator: Bobcat/Skid Steer/Skid Loader	$19.00	$3.49
Operator: Broom/Sweeper	$17.40	$2.01
Operator: Bulldozer, Including Utility	$20.64	
Operator: Crane	$29.46	
Operator: Drill	$24.89	
Operator: Gradall	$19.26	
Operator: Grader/Blade	$23.21	
Operator: Hydroseeder	$16.64	
Operator: Loader	$18.92	
Operator: Mechanic	$22.84	
Operator: Milling Machine	$23.19	$2.94
Operator: Pavement Planer	$21.14	
Operator: Pavement Planer Groundsmen	$19.75	
Operator: Paver (Asphalt, Aggregate, and Concrete)	$20.33	$2.81
Operator: Piledriver	$21.83	$4.08
Operator: Roller	$18.92	
Operator: Roller (Finishing)	$18.73	$3.23
Operator: Screed	$22.13	$4.89
Pavement Marking Operator	$22.16	
Pavement Marking Truck Driver	$18.78	
Traffic Control: Flagger	$13.64	
Truck Driver: 1/Single Axle Truck	$19.35	
Truck Driver: Fuel and Lubricant Service	$18.25	
Truck Driver: Heavy 7CY & Under	$15.53	
Truck Driver: Heavy Over 7CY	$18.05	
Truck Driver: Multi Axle	$20.34	$2.89

Additional Notes

All wage rates to be used on a contract will be set at the time the contract is awarded. While DOLI maintains a list of wage determinations online for reference purposes, only the wage determinations made in an official Wage Determination Decision, sent by DOLI to the contracting agency, can be used to ascertain the exact rates to be paid for a specific contract.

All rates are determined by DOLI and any appeals of specific classifications may be made through the Wage Determination Appeal form available at http://www.doli.virginia.gov/wp-content/uploads/2021/04/Appeal-for-Wage-Determination-Clarification.pdf

Any additional classifications may be requested through the Additional Wage Classification form available at http://www.doli.virginia.gov/wp-content/uploads/2021/04/Request-for-Additional-Wage-Classification.pdf
Understand your duties as a contractor under Virginia law by referencing our Contractor Responsibilities information sheet available at http://www.doli.virginia.gov/wp-content/uploads/2021/04/PREVAILING-WAGE-CONTRACTOR-RESPONSIBILITIES.pdf

Your employees have specific rights, which can be found on our List of Employee Rights information sheet available at http://www.doli.virginia.gov/wp-content/uploads/2021/04/PREVAILING-WAGE-EMPLOYEE-RIGHTS.pdf
Any further questions should be directed to PrevailingWage@doli.virginia.gov

EXHIBIT C

BID TAB

ITB NO. 23-DES-ITBPW-474
PROJECT NO. XXXX

PREPARED BY: _____

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME)_A&M Concrete Corporation___
IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER _2705031795 Class A_ WAS ISSUED ON THE __30th__DAY OF _November___, 2023. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

CHECKED BY: _____

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	GENERAL EARTH WORK				
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
01400-C1-00030	Test Pits (or Test Bores), Up to 6' Deep (with restoration)	5	EA	$850.00	$4,250.00
01400-C1-00040	Test Pits (or Test Bores), Each VF Over 6' Deep (with restoration)	10	VF	$215.00	$2,150.00
02200-C1-00130	Aggregate, VDOT #21-A (Compacted in Place per VDOT standards & Specs)	380	CY	$105.00	$39,900.00
				SUBTOTAL	**$46,300.00**

C2	CONCRETE WORK				
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
02750-C2-00040	Concrete Curb, Standard 6" (VDOT CG-2), includes curb for aprons, ramps, etc.	144	LF	$75.00	$10,800.00
02750-C2-00070	Concrete Curb & Gutter, Combination 6" (VDOT CG-6), includes curb & gutter for aprons, ramps, etc.	276	LF	$75.00	$20,700.00
02611-C2-00110	Concrete Sidewalk, 4" Thickness (Arlington County Detail R-2.0)	101	SY	$120.00	$12,120.00
02612-C2-00130	Concrete Pavers (Arlington County Detail R-2.1)	51	SY	$220.00	$11,220.00
				SUBTOTAL	**$54,840.00**

C3	ASPHALT WORK				
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
02600-C3-00010	Asphalt Concrete, Planing or Milling (1/2" to 3" Depth)	4885	SY	$8.00	$39,080.00
02600-C3-00030	Asphalt Concrete, Base Course (VDOT BM-25.0A)	194	TON	$295.00	$57,230.00
02600-C3-00060	Asphalt Concrete, Surface Course (VDOT SM-9.5A)	597	TON	$195.00	$116,415.00
03100-C3-00150	Remove and Replace 8" to 10" Reinforced Concrete Paving VDOT Standards PR-3, PR-4, PR-5 and PR-6)	1385	SY	$270.00	$373,950.00
				SUBTOTAL	**$586,675.00**

BID TAB

ITB NO. 23-DES-ITBPW-474
PROJECT NO. XXXX

PREPARED BY: _____

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME)_A&M Concrete Corporation___
IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER _2705031795 Class A_ WAS ISSUED ON THE __30th__DAY OF _November___, 2023. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

CHECKED BY: _____

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	GENERAL EARTH WORK				
C6	WATERMAIN WORK				
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
02550-C6-00140	12-Inch Gate Valve & Valve Box	11	EA	$4,500.00	$49,500.00
02550-C6-00150	8-Inch Gate Valve & Valve Box	2	EA	$2,650.00	$5,300.00
02550-C6-00160	6-Inch Gate Valve & Valve Box	1	EA	$1,900.00	$1,900.00
02550-C6-00190	Connect To Existing 12-Inch Water Main	3	EA	$5,800.00	$17,400.00
02550-C6-00200	Connect To Existing 8-Inch Water Main	3	EA	$3,800.00	$11,400.00
02550-C6-00210	Connect To Existing 6-Inch Water Main	4	EA	$2,800.00	$11,200.00
02550-C6-00250	Remove Existing Fire Hydrant	1	EA	$2,500.00	$2,500.00
02550-C6-00270	Install New Fire Hydrant (includes Fire Hydrant, Gate Valve with Valve Box and up to 20 LF 6-inch DIP CL-52)	1	EA	$18,500.00	$18,500.00
02550-C6-00300	Cut & Cap 12-Inch Water Main	4	EA	$1,900.00	$7,600.00
02550-C6-00320	Cut & Cap 8-Inch Water Main	3	EA	$1,200.00	$3,600.00
02550-C6-00330	Cut & Cap 6-Inch Water Main	3	EA	$1,200.00	$3,600.00
02550-C6-00630	Service Taps - 3/4-inch and 1-inch (TAP MAIN, INSTALL COPPER TUBING, INSTALL ANGLE VALVES, CORPORATION COCK, METER BOX AND METER YOKE/METER, CONNECT TO EXISTING PRIVATE SERVICE LINE, BACKFILL, EXCAVATION AND PAVEMENT RESTORATIONS)--UP TO 10 FT.	10	EA	$3,800.00	$38,000.00
02550-C6-00640	Service Taps - 3/4-inch and 1-inch PER ADDITIONAL LINEAR FOOT OVER 10 FT.	256	LF	$135.00	$34,560.00
02550-C6-00650	Service Re-Taps - 3/4-inch and 1-inch (TAP MAIN, INSTALL COPPER TUBING, CONNECT TO EXISTING SERVICE LINE, ABANDON CORPORATION COCK FROM EXISTING SERVICE LINE, BACKFILL, EXCAVATION AND PAVEMENT RESTORATIONS)-UP TO 10 FT.	9	EA	$3,800.00	$34,200.00
02550-C6-00660	Service Re-Taps - 3/4-inch and 1-inch PER ADDITIONAL LINEAR FT. OVER 10 FT.	298	LF	$145.00	$43,210.00

BID TAB

ITB NO. 23-DES-ITBPW-474
PROJECT NO. XXXX

PREPARED BY: _____

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME)_A&M Concrete Corporation___
IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER _2705031795 Class A_ WAS ISSUED ON THE __30th__DAY OF _November___, 2023. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

CHECKED BY: _____

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	**GENERAL EARTH WORK**				
02550-C6-00710	Service Re-Taps - 1 1/2-inch and 2-inch (TAP MAIN, INSTALL COPPER TUBING, CONNECT TO EXISTING SERVICE LINE, ABANDON CORPORATION COCK FROM EXISTING SERVICE LINE, BACKFILL, EXCAVATION AND PAVEMENT RESTORATIONS)--UP TO 10 FT.	7	EA	$4,800.00	$33,600.00
02550-C6-00720	Service Re-Taps - 1 1/2-inch and 2-inchPER ADDITIONAL LINEAR FOOT OVER 10 FT.	208	LF	$185.00	$38,480.00
02550-C6-00350	Remove Existing Valve Boxes	8	EA	$525.00	$4,200.00
02550-C6-00030	12-Inch Water Main, DIP CL-52, Upto 6' Deep	1365	LF	$360.00	$491,400.00
02550-C6-00040	12-Inch Water Main, DIP CL-52, > 6' Deep	676	LF	$390.00	$263,640.00
02550-C6-00050	8-Inch Water Main, DIP CL-52, Upto 6' Deep	87	LF	$520.00	$45,240.00
02550-C6-00070	6-Inch Water Main, DIP CL-53, Upto 6' Deep	90	LF	$390.00	$35,100.00
				SUBTOTAL	**$1,194,130.00**

C10	PAVEMENT MARKING AND SIGNAGE WORK				
MASTER ITEM #	**DESCRIPTION**	**QTY**	**UNIT**	**UNITPRICE**	**TOTAL**
02900-C10-00020	Six (6) Inch Transverse Markings	400	LF	$3.00	$1,200.00
02900-C10-00040	Eighteen (18) Inch Transverse Markings	36	LF	$7.50	$270.00
02900-C10-00050	Twenty Four (24) Inch Transverse Markings, Note: Used For Continental (Ladder) Crosswalk	1001	LF	$10.00	$10,010.00
02900-C10-SP001	Twenty Four (24) Inch Transverse Markings, Note: Used For Stop Bars	175	LF	$10.00	$1,750.00

BID TAB

ITB NO. 23-DES-ITBPW-474
PROJECT NO. XXXX

PREPARED BY: _____

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME)_A&M Concrete Corporation___
IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER _2705031795 Class A_ WAS ISSUED ON THE __30th__DAY OF _November___, 2023. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

CHECKED BY: _____

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	GENERAL EARTH WORK				
02900-C10-00070	Four (4) Inch Longitudinal Solid Line	1785	LF	$1.25	$2,231.25
02900-C10-00080	Four (4) Inch Longitudinal Skip Line (Ten (10) Foot Line/Thirty (30) Foot Spacing), Note: Forty (40) LF Consists of Ten (10) LF of Marking and Thirty (30) LF of Space	2831	LF	$1.25	$3,538.75
02900-C10-00160	Six (6) Inch Longitudinal Skip Line (Two (2) Foot Line/ Four (4) Foot Spacing), Note: Twelve (12) LF Consists of Two (2) LF of Marking and Four (4) LF of Space	396	LF	$3.00	$1,188.00
				SUBTOTAL	**$20,188.00**

C11 LANDSCAPE AND HARDSCAPE RESTORATION WORK

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
02200-C11-00010	Imported Topsoil	35	CY	$95.00	$3,325.00
02801-C11-00060	Sod, Tall Fescue/Bluegrass Mixture	201	SY	$20.00	$4,020.00
				SUBTOTAL	**$7,345.00**

CONTRACT TOTAL (EXCLUDING PERCENTAGE ITEMS) **$1,909,478.00**

PCT PERCENTAGE LINE ITEMS

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
01500-C13-10000	Temporary Erosion and Sediment Controls	NA	%	0.00%	**$12,500.00**
01000-C16-00010	Maintenance of Traffic (MOT)	NA	%		**$135,000.00**
01000-C16-00030	Mobilization and De-Mobilization	NA	%		**$65,000.00**
				PERCENTAGE LINE ITEMS SUBTOTAL	**$212,500.00**

PRIMARY CONTRACT : **$2,121,978.00**

EXHIBIT D

CONTRACTOR PERFORMANCE EVALUATION FORM

ARLINGTON COUNTY GOVERNMENT

Contractor Performance Evaluation Form

Contractor Name:_____ Contract No.: _____

Date:_____ Project/Contract Name: _____

Interim Evaluation____ Final Evaluation _____

Scope of Work/Services Provided:

_____

_____

_____

_____

_____

Contract Start Date: _____/_____/____ Contract End Date: ___/____/____ Actual Completion Date: ___/___/_____

Please rate the effectiveness of the Contractor's performance on the Contract/Project across the following dimensions:

Evaluation Criteria: Unacceptable Poor Satisfactory Excellent

Written comments to explain assigned ratings are required for any performance ratings below "satisfactory" or an "excellent" in any category.

Evaluation Questions

1. Quality of Workmanship

Rate the quality of the Contractor's workmanship. Were there quality-related or workmanship problems on the Contract? Was the Contractor responsive to remedial work required?

____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

2. Problem Solving and Decision Making

Rate the Contractor's ability to provide effective and creative problem solving, coordination and fair decision making on Contract/Project.

____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

3. Project Schedule

   Rate the Contractor's performance with regard to adhering to contract schedules. Did the Contractor meet the contract schedule, or the schedule as revised by approved change orders? If not was the delay attributable to the Contractor?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

4. Subcontractor Management

   Rate the Contractor's ability, effort and success in managing and coordinating subcontractors (if no subcontractors rate the Contractor's overall project management). Was the Contractor able to effectively resolve problems?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

5. Safety

   Rate the Contractor's safety procedures on this Contract/Project? Were there any OHSA violations or serious safety accidents?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

6. Environmental Compliance

   Did the Contractor comply with local, state, and federal environmental standards in the performance of the Contract? Did the Contractor comply in good faith with local erosion and sedimentation control requirements and/or any Stormwater Pollution Prevention Plan?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

7. Change Orders

   Did the Contractor unreasonably claim change orders or extras? Were the Contractor's prices on change orders and extra work reasonable?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

8. Paperwork Processing

   Rate this Contractor's performance in completing and submitting required project paperwork (i.e. change orders, submittal, drawings, invoices, workforce reports, etc.) Did the Contractor submit the required paperwork promptly and in proper form?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

9. Supervisory Personnel

   Rate the general performance of this Contractor's supervisory personnel. Did they have the knowledge, management skills and experience to run a project of this size and scope?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

10. Expertise, Knowledge and Experience

    Rate this Contractor's personnel. Were they dedicated, experienced and qualified for the duration of project.

    ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

11. Project/Contract Closeout

    Rate the Contractor's performance on timeliness and quality of closeout deliverables such as As-Built Drawings, Operation and Maintenance Manuals, and training. Did the Contractor complete the tasks or Project on schedule; was the punch list completed within the allotted time?

    ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

12. Level of Overall Performance

    ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

Based on these comments, would you recommend this Contractor for comparable work in the future?

☐ Yes ☐ No

Please provide any comments regarding the Contractor's performance or the quality of its work. The Contractor can also provide any comments or clarification on the evaluation in the box below.

(Project Officer or Contractor, use additional sheets, if Necessary):

Signatures and Certifications:

1. The information contained in this evaluation form represents, to the best of my knowledge, a true and accurate analysis of the Contractor's performance record on this Contract; and,
2. The contents on the evaluation form and the ratings were not negotiated with the Contractor or its representative for any reason.

Evaluator's Signature:_____ Date: _____

Evaluator's (PjO) Printed Name_____ Evaluator's Title: _____

Contractor's signature below acknowledges receipt and the opportunity to respond:

Contractor Signature:_____ Date: _____

Contractor Printed Name:_____ Title: _____

EVALUATION RATINGS DEFINITIONS

Rating	Definition	Notes
Excellent	Performance meets contractual requirements and exceeds many to the County's benefit. The contractual performance of the element or sub-element being evaluated was accomplished with few minor problems for which corrective actions taken by the contractor were highly effective.	To justify an Exceptional rating, identify multiple significant events and state how they were of benefit to the County. A singular benefit, however, could be of such magnitude that it alone constitutes an Exceptional rating. Also, there should have been NO significant weaknesses identified.
Satisfactory	Performance meets contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.	To justify a Satisfactory rating, there should have been only minor problems, or major problems the contractor recovered from without impact to the contract/order. There should have been NO significant weaknesses identified. A fundamental principle of assigning ratings is that contractors will not be evaluated with a rating lower than Satisfactory solely for not performing beyond the requirements of the contract/order.
Poor	Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being evaluated reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented.	To justify poor performance, identify a significant event in each category that the contractor had trouble overcoming and state how it impacted the County. A poor rating should be supported by referencing the management tool that notified the contractor of the contractual deficiency (e.g., management, quality, safety, or environmental deficiency report or letter).

Unacceptable	Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains a serious problem(s) for which the contractor's corrective actions appear or were ineffective.	To justify an Unsatisfactory rating, identify multiple significant events in each category that the contractor had trouble overcoming and state how it impacted the County. A singular problem, however, could be of such serious magnitude that it alone constitutes an unsatisfactory rating. An Unsatisfactory rating should be supported by referencing the management tools used to notify the contractor of the contractual deficiencies (e.g., management, quality, safety, or environmental deficiency reports, or letters).
Not Applicable (N/A)	N/A (not applicable) should be used if the ratings are not going to be applied to a particular area for evaluation.	

END

REVISED ON 05/23/2018

EXHIBIT E

ARLINGTON
VIRGINIA

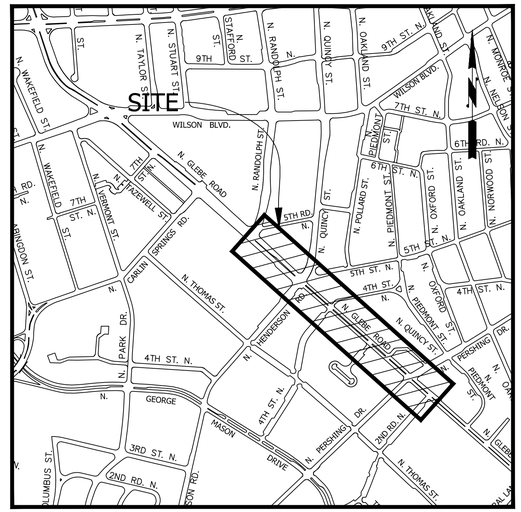
ENGINEER
DEPARTMENT OF
ENVIRONMENTAL SERVICES

FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629 FAX: 703.228.3606
WWW.ARLINGTONVA.US

OWNER
DES/OD/WSS

CONTRACTOR
TO BE DETERMINED

LOCATION MAP



GRAPHIC SCALE

CONSTRUCTION DRAWINGS FOR:

N. GLEBE ROAD WATERMAIN REPLACEMENT
FROM N. RANDOLPH STREET TO N. PERSHING DRIVE

PROJECT NUMBER: R014

GENERAL NOTES:

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
2. ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
4. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PRIVATE WATER, SEWER AND GAS LATERALS WILL NOT BE MARKED BY MISS UTILITY OR THE COUNTY. THE CONTRACTOR SHALL LOCATE AND PROTECT THESE SERVICES DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS. THE COST OF ALL NECESSARY SURVEYING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND, UNLESS OTHERWISE SPECIFIED, THE COST SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
6. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER.
7. EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
8. THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.
9. ALL SIDEWALK AND CURB AND GUTTER DEMOLITION SHALL BEGIN AND END AT THE CONSTRUCTION JOINT NEAREST TO THE DEPICTED DEMOLITION EXTENTS WITH A NEAT SAWCUT LINE TO FULL DEPTH OF PAVEMENT SECTION.

STORMWATER AND ENVIRONMENTAL PROTECTION

10. THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES AT THE SITE ASSOCIATED WITH CONSTRUCTION ACTIVITIES, TO INCLUDE STORAGE OF EQUIPMENT AND OR MATERIALS, ACCESS TO THE WORK, FORMWORK, ETC. TO WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD).

TREE PROTECTION

11. TREES SHALL BE PROTECTED PER THE REQUIREMENTS OF ARLINGTON PARKS & RECREATION STANDARD.

TRAFFIC CONTROL

12. CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO DISTURBING ANY EXISTING, OR INSTALLING ANY NEW, TRAFFIC SIGNS, SIGNALS, OR OTHER TRAFFIC CONTROL DEVICES.
13. THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. THE PREMARKING MAY CONSIST OF TYPE D TAPE, CHALK, OR LUMBER CRAYONS. THE CONTRACTOR SHALL ALLOW 3 WORKING DAYS FOR THE INSPECTION AND APPROVAL OF THE PREMARKINGS PRIOR TO PLACING THE PERMANENT MARKINGS.
14. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER.
15. WHEN THE APPROVED PLAN CALLS FOR THE REMOVAL OF ANY PARKING METER THE CONTRACTOR MUST MAKE A REQUEST TO THE PROJECT OFFICER AT LEAST ONE WEEK IN ADVANCE OF THE DESIRED REMOVAL. THE PROJECT OFFICER WILL THEN COORDINATE THE PARKING METER REMOVAL WITH TRAFFIC ENGINEERING AND OPERATIONS.
16. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. ANY RELOCATION OR CLOSURE OF A BUS STOP SHALL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR - 703-228-3049.
17. WHEN CONDITIONS WARRANT DUE TO TRAFFIC VOLUMES, PATTERNS, OR SPECIAL EVENTS, THE COUNTY MAY SUSPEND OR OTHERWISE DIRECT THE CONTRACTOR'S ACTIVITIES TO PROTECT THE PUBLIC AND OR THE COUNTY'S TRANSPORTATION NETWORK.

WATER DISTRIBUTION, STORM AND SANITARY SEWER SYSTEMS

18. UNLESS OTHERWISE DIRECTED, CONTRACTORS ARE EXPRESSLY PROHIBITED FROM OPERATING ANY WATER VALVES OR APPURTENANCES. CONTRACTORS SHALL SUBMIT ALL REQUESTS FOR VALVE OPERATIONS TO THE PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED OPERATION.
19. IN THE EVENT OF A WATER OR SEWER EMERGENCY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY'S WATER CONTROL CENTER AT 703-228-6555 AND THE PROJECT OFFICER.
20. THE CONTRACTOR SHALL COORDINATE ALL UTILITY SHUTOFFS, DISCONNECTS, AND/OR ABANDONMENT WITH UTILITY OWNER AND PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED INTERRUPTION.

FIRE DEPARTMENT NOTES:

21. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
22. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
23. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

Sheet List

LDA 20163
SWM# 20-0176

ADT

26,000 - N. GLEBE ROAD (FROM FAIRFAX DR. TO ARLINGTON BLVD.) - 2019 - VDOT _ DAILY TRAFFIC VOLUME ESTIMATES
6,800 - N. RANDOLPH STREET (WILSON BLVD TO GLEBE RD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
1,100 - N. QUINCY STREET (GLEBE RD TO WILSON BLVD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
10,000 - N. HENDERSON ROAD (GLEBE RD TO THOMAS ST) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
4TH STREET N. - NO TRAFFIC INFORMATION
3RD STREET N. - NO TRAFFIC INFORMATION
N. QUEBEC STREET - NO TRAFFIC INFORMATION
7,900 - N. PERSHING DRIVE (GLEBE RD TO WASHINGTON BLVD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
6,300 - N. PERSHING DRIVE (G. MASON DR TO GLEBE RD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC

STREET CLASSIFICATION

N. GLEBE ROAD - PRINCIPAL ARTERIAL
N. RANDOLPH RD - MINOR ARTERIAL
N. QUINCY STREET - MINOR ARTERIAL
N. HENDERSON ROAD - MINOR ARTERIAL
N. PERSHING DRIVE - MINOR ARTERIAL

POSTED SPEED

N. GLEBE ROAD - 30 MPH
N. RANDOLPH ROAD - 25 MPH
N. QUINCY STREET - 25 MPH
N. HENDERSON ROAD - 25 MPH
4TH STREET N. / 3RD STREET N. / N. QUEBEC STREET - 25 MPH
N. PERSHING DRIVE - 25 MPH

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
Solomon W Shikur
SOLOMON W SHIKUR
Lic. No. 41376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takitak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

COVER

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

(AS SHOWN)

C000.1

FINAL DESIGN PLANS - SIGNED 2/9/21

FILENAME: R014-200-COVER.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

FINAL DESIGN PLANS - SIGNED 2/9/21

FILENAME: R014-202-LEGEND.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

LINETYPE LEGEND

FEATURE	EXISTING	PROPOSED
BUILDING		
CENTERLINE / BASELINE		
COMMUNICATIONS CABLE	COM	COM
CONTOURS MAJOR; MINOR	250	
CRITICAL ROOT ZONE	CRZ	CRZ
EASEMENT		
ELECTRIC (UNDERGROUND)	UGE	UGE
FENCE (MATERIAL NOTED)	X	X
FIBER OPTIC	FO	FO
GAS LINE	GAS	GAS
X" GAS LINE (SIZE INCLUDED IF AVAILABLE)		
GUARDRAIL		
HARDSCAPE FEATURE (MATERIAL NOTED)		
LIMITS OF DISTURBANCE	LOD	LOD
LIMITS OF WORK	LOW	LOW
OVERHEAD WIRES		
PAVEMENT MINI SKIP LINE		
PAVEMENT SKIP LINE		
PROPERTY LINE		
RIGHT-OF-WAY LINE		
ROOT PRUNING	RP	RP
SANITARY SEWER	SAN	SAN
X" SANITARY SEWER (SIZE INCLUDED IF AVAILABLE)		
SILT FENCE	X	X
STORM (SIZE NOTED)	STM	
STREAM		
STREET LIGHT CONDUIT	SL	SL
TELEPHONE (UNDERGROUND)	UGT	UGT
TREE LINE		
TREE PROTECTION FENCE	TP	TP
WALL		
WATER	6"w	
X" WATER (SIZE INCLUDED IF AVAILABLE)		

SYMBOL LEGEND

EXISTING	PROPOSED
EX CABLE PEDESTAL	PROP CABLE PEDESTAL
EX ELECTRIC BOX	
EX FIRE HYDRANT	PROP FIRE HYDRANT
EX GAS VALVE	PROP GAS VALVE
EX GROUND LIGHT	
EX GUY WIRES	
EX IRON PIPE OR PIN	
EX LIGHT POLE	PROP LIGHT POLE
EX MAILBOX	
EX MONUMENT	
EX PARKING METER	
EX PAY STATION	PROP PAY STATION
EX SANITARY MANHOLE	PROP SANITARY MANHOLE
EX STORM BASIN	PROP STORM CATCH BASIN (TO SCALE)
EX STORM MANHOLE	PROP STORM MANHOLE
EX TELEPHONE PEDESTAL	
EX TRAFFIC CONTROL BOX	
EX TRAFFIC SIGN	PROP TRAFFIC SIGN
EX TRASH CAN	PROP TRASH CAN
EX TRAVERSE	
EX TREES, WOODED AREA	PROPOSED TREE REMOVAL
EX UTILITY MANHOLE TYPE INDICATED ELECTRIC, TELE, ETC	
EX UTILITY POLE	PROP UTILITY POLE
EX WATER MANHOLE	PROP WATER MANHOLE
EX WATER METER	PROP WATER METER
EX WATER VALVE	PROP WATER VALVE
EX YARD INLET	PROP YARD INLET (TO SCALE)
EX BENCHMARK	CONSTRUCTION NOTES (LEADER TO AREA AFFECTED)
	CURVE NUMBER (SEE CURVE TABLE)
	LINE NUMBER (SEE LINE TABLE)
	TEST HOLE
	NORTH ARROW

LABEL LEGEND

EXISTING	PROPOSED
EXISTING SANITARY STRUCTURE NUMBER XXXX	PROPOSED SANITARY SEWER STRUCTURE NUMBER XXXX
EXISTING STORM SEWER STRUCTURE NUMBER XXXX	PROPOSED STORM SEWER STRUCTURE NUMBER XXXX

HATCH LEGEND

- PROP MILL & OVERLAY
- PROP FULL DEPTH ASPHALT
- PROP CONCRETE
- REPLACE & MATCH EXISTING DRIVEWAY OR LEADWALK. SEE CONSTRUCTION NOTES
- DEMOLITION AREA

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy P Flaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takitak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

LEGEND

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

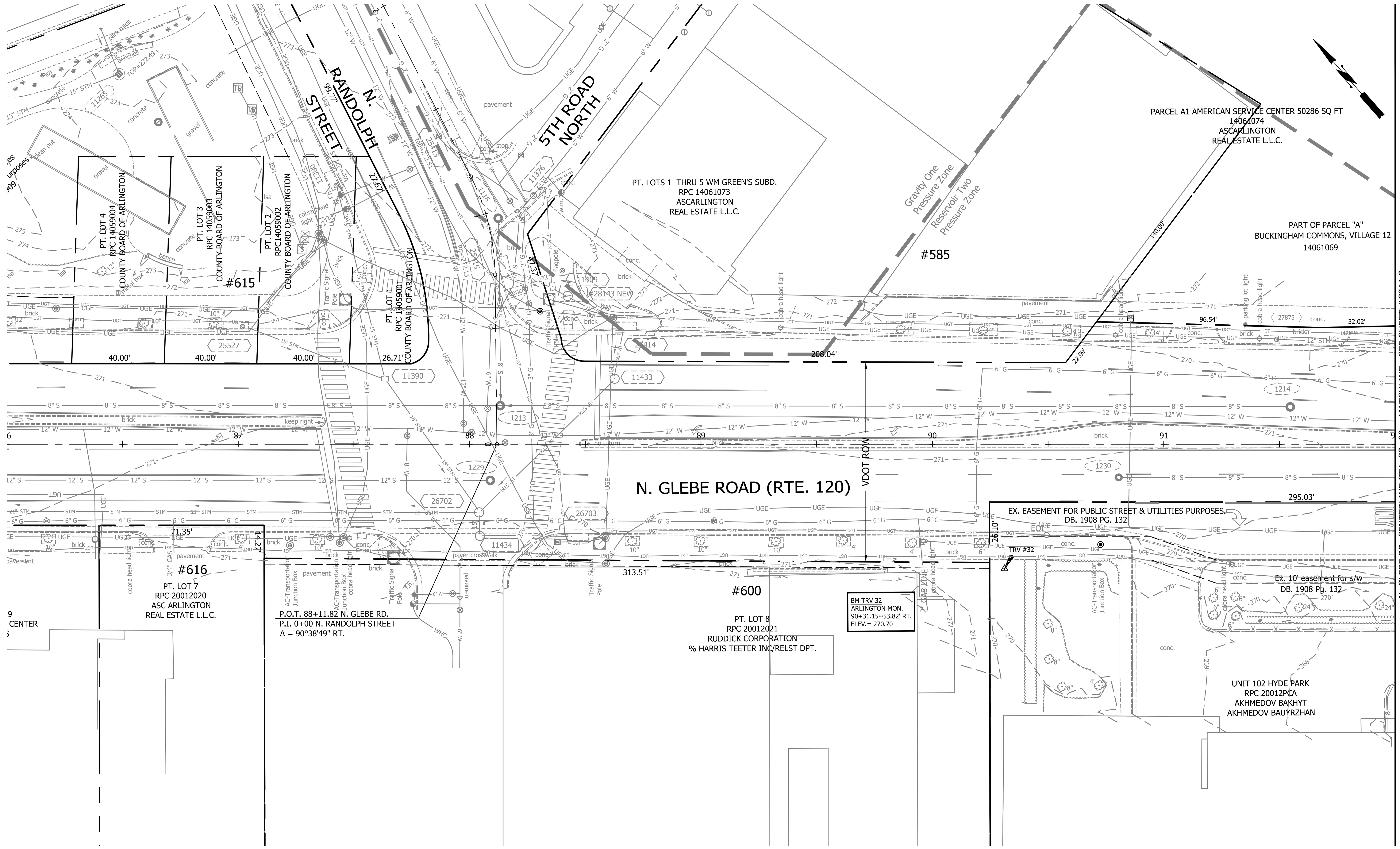
PLOTTED: FEBRUARY 10 2021

SCALE:

N/A

C006.1

REVISED ON 05/23/2018



GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum — QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak — CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach — TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver — PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

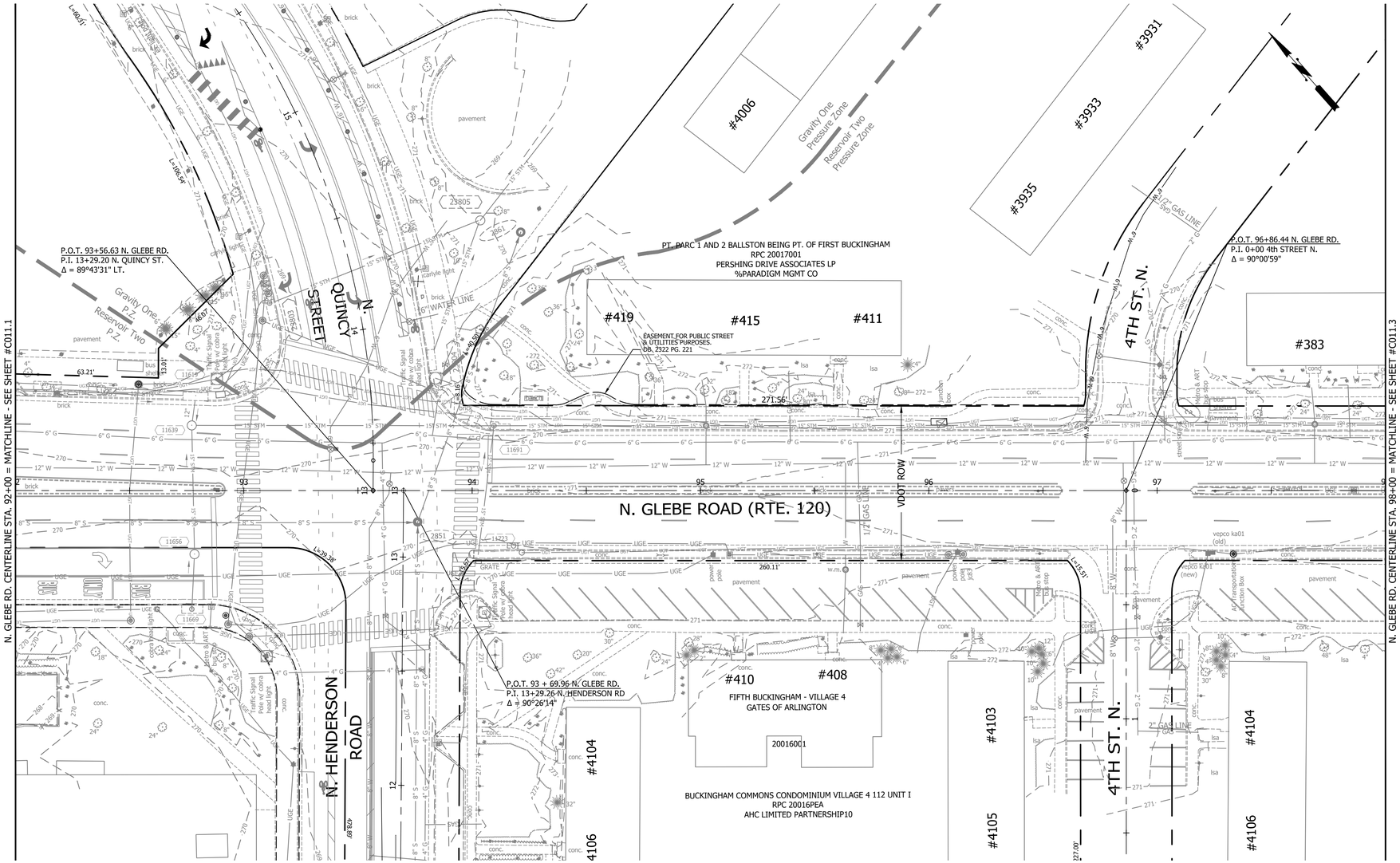
PLOTTED: FEBRUARY 10 2021

SCALE:
0 25 50
HORIZ. SCALE

C011.1

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018



GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 41376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

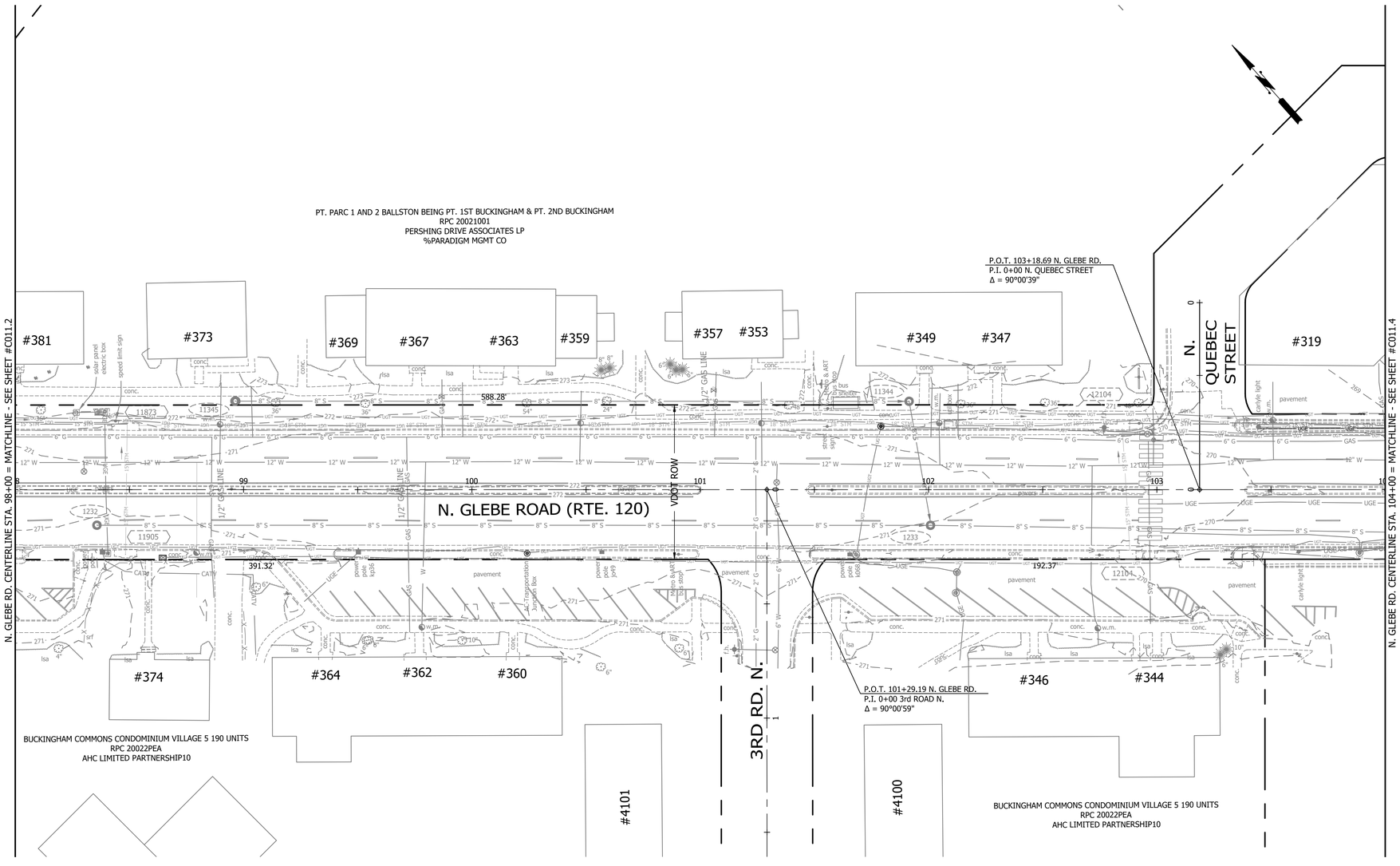
SCALE:

0 25 50
HORIZ. SCALE

C011.2

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL_DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018



STORM SEWER TABLE

#11376
TOP = 272.62
INV. IN = 268.17 15" RCP (11362)
INV. OUT = 267.97 15" RCP (11409)

#11380
TOP = 272.10
INV. OUT = 268.74 15" RCP (11390)

#11390
TOP = 270.51
INV. IN = 266.56 15" RCP (25527)
INV. IN = 266.61 15" RCP (11380)
INV. OUT = 266.51 18" RCP (26702)

#11409
TOP = 271.84
INV. IN = 267.89 15" RCP (25415)
INV. IN = 267.94 15" RCP (11376)
INV. OUT 267.84 15" RCP (#28143 NEW)

#11433
TOP = 270.19
INV. IN = 266.76 15" RCP (25414)
INV. OUT = 266.41 15" RCP (26702)

#11434
TOP = 269.83
INV. IN = 266.89 15" RCP (26703)
INV. OUT = 266.67 15" RCP (26702)

#11619
TOP = 269.92
INV. IN = 267.14 12" RCP (27875)
INV. OUT = 267.04 12" RCP (11619)

#11639
TOP = 269.64
INV. IN = No access 12" RCP (11619)
INV. IN = NO ACCESS 15" RCP (11656)
INV. OUT = 266.15 15" RCP (11691)

#11656
TOP = 269.63
INV. IN = 266.89 12" RCP (11669)
INV. OUT = 266.88 15" RCP (11639)

#11691
TOP = 270.40
INV. IN = 265.37 15" RCP (11639)
INV. IN = 266.38 15" RCP (11723)
INV. OUT = 265.33 15" RCP (11873)

#11669
TOP = 269.54
INV. OUT = 267.11 12" RCP (11656)

#11723
TOP = 270.32
INV. OUT = 266.61 15" RCP (11691)

#11873
TOP = 271.10
INV. IN = NEEDS CLEANING (11905)
INV. OUT = NEEDS CLEANING (12104)

#11905
TOP = 270.99
INV. ????

#12104
TOP = 270.51
INV. IN = 262.57 18" RCP (11873)
INV. IN = 263.65 15" RCP (12145)
INV. OUT = 262.66 18" RCP (12227)

#12145
TOP = 270.36
INV. OUT = 266.21 15" RCP (12104)

#12227
TOP = 267.74
INV. IN = 262.01 18" RCP (12104)
INV. OUT = 261.86 ??" ??? (28062 NEW)

#12230
TOP = 268.59
INV. IN = 263.57 15" RCP (#28482 NEW)
INV. OUT = 262.88 15" RCP (12227)

#12419
TOP = 263.30
INV. IN = 259.78 15" RCP (12438)
INV. INT = 258.93 24" RCP (NEW STR.)

#12438
TOP = 263.98
INV. OUT = 259.46 15" RCP (12419)

#23803
TOP = 269.25
INV. OUT = 266.55 15" RCP (23805)

#23804
TOP = 269.97
INV. OUT = 266.82 15" RCP (23805)

#23805
TOP = 269.82
INV. IN = 265.04 15" RCP (23803)
INV. IN = 265.10 15" RCP (23804)
INV. OUT = 264.99 15" RCP (23806)

#25413
TOP = 272.48
INV. OUT = 268.36 15" RCP (25415)

#25414
TOP = 270.31
INV. IN = 267.36 15" RCP (#28143 NEW)
INV. OUT = 266.53 15" RCP (11433)

#25415
TOP = 272.12
INV. IN = 267.04 15" RCP (25413)
INV. OUT = 267.01 15" RCP (11409)

#25527
TOP = 270.70
INV. OUT = 267.00 15" RCP (11390)

#26702
TOP = 270.15
INV. IN = 266.28 15" RCP (11434)
INV. IN = 266.20 15" RCP (11433)
INV. IN = 266.19 18" RCP (11390)
INV. OUT = 266.05 21" RCP (27404)

#26703
TOP = 270.40
INV. OUT = 267.00 15" RCP (11434)

#28143 NEW
TOP = 271.51
INV. IN = 267.66 15" RCP (11409)
INV. OUT = 267.61 15" RCP (#25414)

#27401
TOP = 270.96
INV. IN = 263.46 24" RCP (27404)
INV. IN = CAN'T ACCESS (11188)
INV. OUT = 263.31 24" RCP (28189 NEW)

#27402
TOP = 270.59
INV. IN = 263.03 24" RCP (#28189 NEW)
INV. IN = 264.24 18" RCP (11130)
INV. IN = 265.36 10" RCP (11206)
INV. OUT = 262.19 36" RCP (11143)

#27404
TOP = 271.35
INV. IN = 264.51 21" RCP (26702)
INV. OUT = 264.35 24" RCP (27401)

#28062 NEW
TOP=267.42
INV. IN = 261.80 18" RCP (12227)
INV. OUT = 261.71 24" RCP (12419)

#28189 NEW
TOP = 270.79
INV. IN = CAN'T OPEN (27401)
INV. OUT = CAN'T OPEN (27402)

#28482 NEW
TOP = 268.74
INV. OUT = 264.43 15" RCP (12230)

SANITARY SEWER TABLE

#1116
TOP = 272.26
C/L INV. = 261.44

#1211
TOP = 270.69
C/L INV. = 258.74

#1212
TOP = 271.60
C/L INV. = 259.12

#1213
TOP = 270.38
C/L INV. = 260.94

#1214
TOP = 270.13
C/L INV. = ALREADY HAVE

#1227
TOP = 270.66
C/L INV. = CAN'T OPEN

#1228
TOP = 271.57
C/L INV. = 262.61

#1229
TOP = 270.48
C/L INV. = 264.48

#1230
TOP = 270.69
C/L INV. = COULD NOT OPEN

#1232
TOP = 270.98
C/L INV. = 260.18

#1233
TOP = 270.96
C/L INV. = 257.88

#1234
TOP = 267.73
C/L INV. 257.09

#2850
TOP = 268.34
C/L INV. = 264.00

#2851
TOP = 270.19
C/L INV. = COULD NOT OPEN

#2861
TOP = 269.44
C/L INV. = 261.59

#11344
TOP = 271.50
C/L INV. = 259.35

#11345
TOP = 272.75
C/L INV. = 262.35

#13693
TOP = 270.67
C/L INV. = CAN'T OPEN

GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy P. Flaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

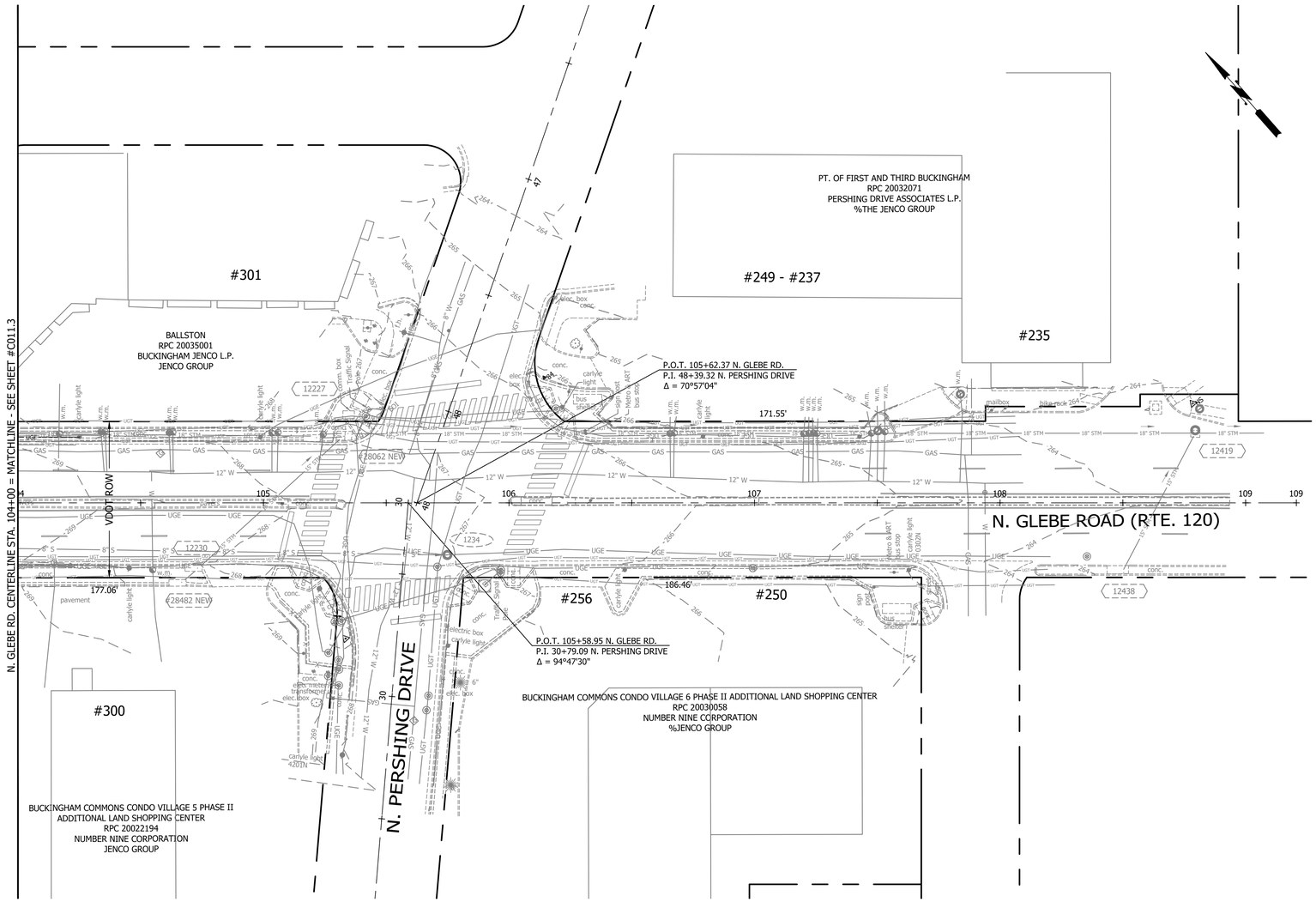
PLOTTED: FEBRUARY 10 2021

SCALE:

0 25 50
HORIZ. SCALE

C011.3

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21



GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 41376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takitak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 4

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

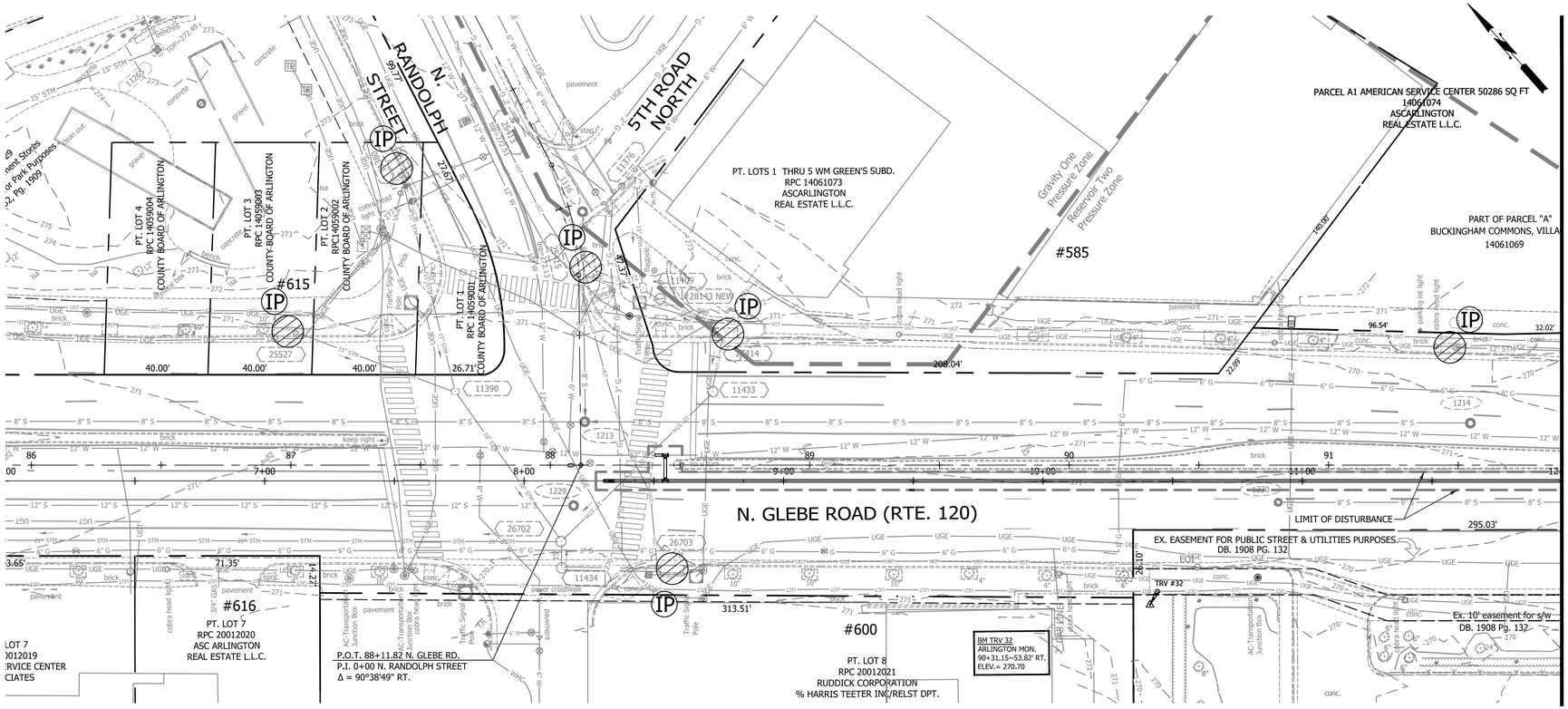
PLOTTED: FEBRUARY 10 2021

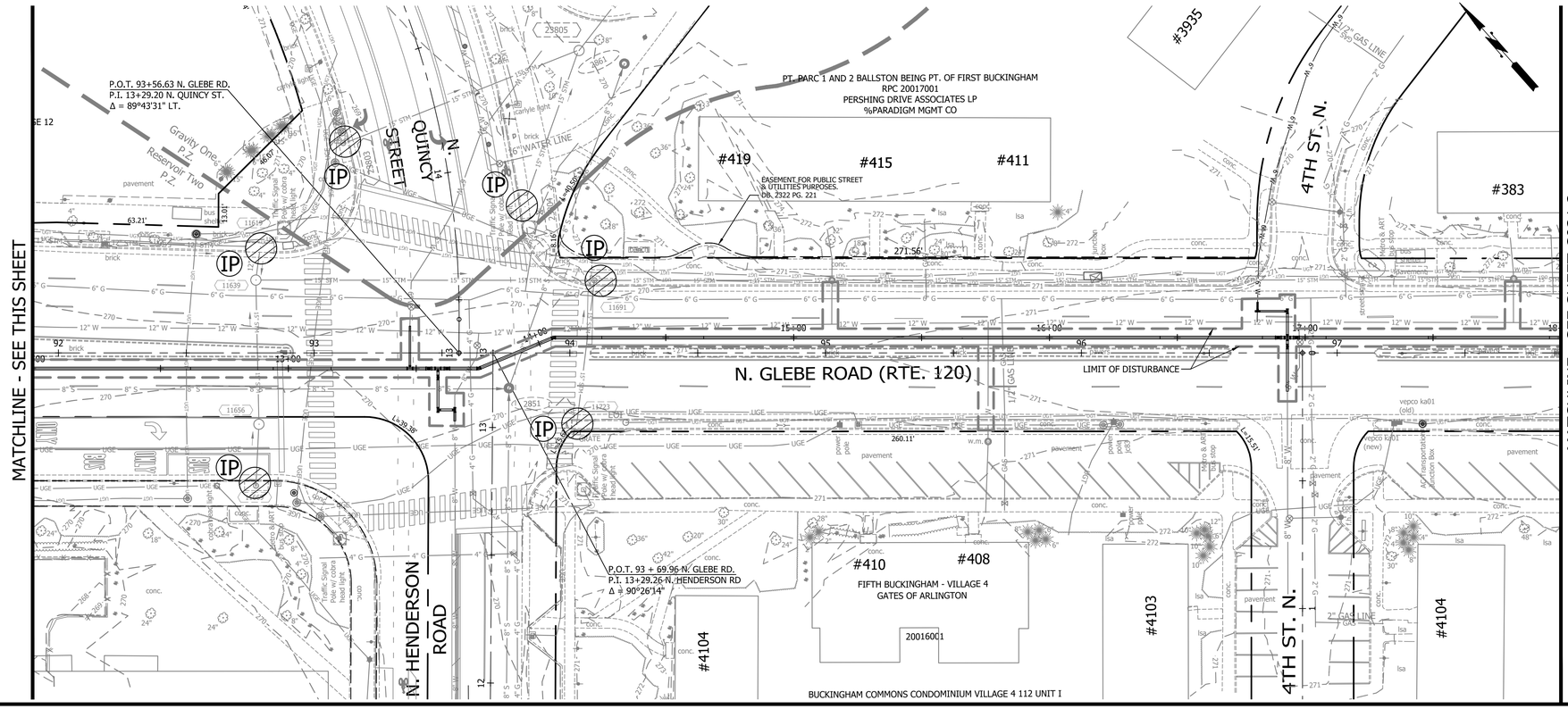
SCALE:

0 25 50
HORIZ. SCALE

C011.4

REVISED ON 05/23/2018





ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL PLAN - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

0 25 50
GRAPHIC SCALE

C031.1

FILENAME: R014-224-E_AND_S_PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018

RPC 20021001
PERSHING DRIVE ASSOCIATES LP
%PARADIGM MGMT CO

P.O.T. 103+18.69 N. GLEBE RD.
P.I. 0+00 N. QUEBEC STREET
Δ = 90°00'39"

MATCHLINE - SEE SHEET C031.1

#381 #373 #369 #367 #363 #359 #357 #353 #349 #347 #319

N. QUEBEC STREET

588.28'

LIMIT OF DISTURBANCE

N. GLEBE ROAD (RTE. 120)

391.32'

192.37'

#374 #364 #362 #360 #346 #344

3RD RD. N.

P.O.T. 101+29.19 N. GLEBE RD.
P.I. 0+00 3rd ROAD N.
Δ = 90°00'59"

#4101 #4100

BUCKINGHAM COMMONS CONDOMINIUM VILLAGE 5 190 UNITS
RPC 20022PEA
AHC LIMITED PARTNERSHIP10

BUCKINGHAM COMMONS CONDOMINIUM VILLAGE 5 190 UNITS
RPC 20022PEA

MATCHLINE - SEE THIS SHEET

PERSHING DRIVE ASSOCIATES L.P.
%THE JENCO GROUP

#301 #249 - #237 #235

BALLSTON
RPC 20035001
BUCKINGHAM JENCO L.P.
JENCO GROUP

P.O.T. 105+62.37 N. GLEBE RD.
P.I. 48+39.32 N. PERSHING DRIVE
Δ = 70°57'04"

171.55'

LIMIT OF DISTURBANCE

N. GLEBE ROAD (RTE. 120)

177.06'

186.46'

#256 #250

P.O.T. 105+58.95 N. GLEBE RD.
P.I. 30+79.09 N. PERSHING DRIVE
Δ = 94°47'30"

N. PERSHING DRIVE

#300

BUCKINGHAM COMMONS CONDO VILLAGE 5 PHASE II
ADDITIONAL LAND SHOPPING CENTER
RPC 20022194
NUMBER NINE CORPORATION
JENCO GROUP

BUCKINGHAM COMMONS CONDO VILLAGE 6 PHASE II ADDITIONAL LAND SHOPPING CENTER
RPC 20030058
NUMBER NINE CORPORATION
%JENCO GROUP

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 41376
PROFESSIONAL ENGINEER
12/4/20

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takyak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL PLAN - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

0 25 50
GRAPHIC SCALE

C031.2

FILENAME: R014-224-E_AND_S_PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

THE COUNTY IS PROPOSING TO REPLACE THE EXISTING WATERMAIN TO 12-INCH DIAMETER WATERMAIN IN THE RIGHT OF WAY N. GLEBE ROAD, BETWEEN N. RANDOLPH RD AND N. PERSHING RD. THE EXISTING WATERMAIN WAS INSTALLED IN THE 1920s AND IS REQUIRED TO BE UPGRADED.
THIS PROJECT IS LOCATED WITHIN THE "DOCTOR'S BRANCH AND LUBBER RUN" WATERSHEDS AND ENDING UP IN THE POTOMAC RIVER AND DISTURBANCE AREA OF 0.41 AC.

EXISTING SITE CONDITIONS:

THE NORTH GLEBE ROAD IS A PAVED URBAN OTHER PRINCIPAL ARTERIAL WITH A SPEED LIMIT OF 30 MPH. THERE ARE NO STREET PARKING EITHER ON BOTH SIDES OF N. GLEBE ROAD.

ADJACENT PROPERTIES:

THERE ARE COMMERCIAL/ RESIDENTIAL PROPERTIES ON BOTH SIDES OF N. GLEBE ROAD.

OFF-SITE AREAS:

THERE ARE NO OFFSITES AREAS FOR THIS PROJECT.

CRITICAL AREAS:

THERE ARE NO STEEP SLOPES OR CRITICAL AREAS LOCATED WITHIN THE LIMITS OF DISTURBANCE.

EROSION AND SEDIMENT CONTROL MEASURES:

THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA INCLUDE SAFETY FENCE AND INLET PROTECTION. INLET PROTECTION IS REQUIRED OUTSIDE THE PROJECT LIMITS WHEN/WHERE WATER FROM DISTURBED AREA FLOWS.

PERMANENT STABILIZATION:

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH GRASS, MULCH OR SOD. SEE THE PROPOSED PLANS FOR ADDITIONAL INFORMATION.

STORMWATER RUNOFF CONSIDERATIONS:

NO ADDITIONAL IMPERVIOUS AREA WILL BE ADDED TO THIS PROJECT.

TOTAL LAND DISTURBANCE.......................= 17,680 SF (0.41 ACRE) LIMIT OF WORK WILL BE IN THE ROW
PRE-IMPROVEMENT IMPERVIOUS AREA.....= 17,680 SF (0.41 ACRE)
POST-IMPROVEMENT IMPERVIOUS AREA...= 17,680 SF (0.41 ACRES)
INCREASED IMPERVIOUS AREA.................= 0 SF (0 ACRES)

SOILS INFORMATION:

THE FOLLOWING SOILS ARE FOUND ON SITE (SEE SOILS MAP ON SHEET C032.2 FOR LOCATION)

SOIL#:	SOIL NAME:	HYDROLOGIC GROUP:	ERODAB ILITY:
4	URBAN LAND - SASSAFRAS - NEABSCO COMPLEX	B & C	MODERATE (4B)
12	URBAN LAND - UDORTHENTS COMPLEX	VARIABLE	VARIABLE

FLOODPLAIN AND RESOURCE PROTECTION AREA (RPA):

THERE ARE NO FLOODPLAIN OR RESOURCE PROTECTION AREAS LOCATED WITHIN THIS PROJECT SITE

EROSION & SEDIMENT CONTROL PROJECT PHASING

1. PHASE I:

a. PRE-CONSTRUCTION MEETING WITH THE PROJECT OFFICER, CONTRACTOR, AND COUNTY INSPECTOR.

b. INSTALL THE TEMPORARY CONSTRUCTION ENTRANCE (IF NEEDED) IN THE LOCATION SHOWN ON THE E&S PHASE I PLAN. MUD AND DEBRIS SHALL BE WASHED FROM ALL TRUCKS EXISTING THE SITE.

c. INSTALL PERIMETER TREE DEMARCATION FENCING IN THE FORM OF TREE PROTECTION FENCE (TP) AS SHOWN ON E&S PHASE I PLAN.

d. PERFORM INITIAL PERIMETER CLEARING TO INSTALL REMAINDER OF PERIMETER CONTROLS SUCH AS DIVERSION DIKE (DD), SILT FENCE (SF), AND SUPER SILT FENCE (SSF) AS PER THE PHASE I PLAN.

e. SEED AND MULCH ALL EARTHEN CONTROLS.

f. CONTACT ARLINGTON COUNTY PROJECT OFFICER FOR A PERIMETER INSPECTION PRIOR TO CLEARING THE REMAINDER OF THE SITE IN ORDER TO OBTAIN PHASE II GRADING PERMIT.

g. CLEAR THE SITE TO THE LIMITS AS SHOWN ON THE CONSTRUCTION PLANS.

2. PHASE II:

a. BEGIN UTILITY CONSTRUCTION, INSTALL ALL UTILITIES UNDERGROUND UTILITIES AND BEGIN SITE GRADING.

b. INLET PROTECTION (IP) SHALL BE PROVIDED AT STORM DRAIN INLETS AS THEY ARE CONSTRUCTED.

c. ONCE THE SITE IS BOUGHT TO NEAR FINAL GRADE, AND THE UTILITY CONSTRUCTION IS COMPLETE, COMMENCE CONSTRUCTION OF CURB & GUTTER, STREET, SIDEWALKS, AND OTHER IMPROVEMENTS

d. THE CONTROL MEASURES MAY NOT BE REMOVED UNTIL ALL OF THE DISTURBED AREAS HAVE BEEN STABILIZED AND ONLY AS APPROVED AND DIRECTED BY THE INSPECTOR.

RUNOFF SHALL BE TREATED WITH SILT FENCE AND INLET PROTECTION PRIOR TO ENTERING MAJOR STORM SEWER SYSTEMS.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE ARLINGTON COUNTY EROSION AND SEDIMENT CONTROL ORDINANCE. THE MINIMUM STANDARDS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

1. STRUCTURAL PRACTICES

a. TEMPORARY CONSTRUCTION ENTRANCE - VESCH 3.02

a.a. A TEMPORARY CONSTRUCTION ENTRANCE WITH A WASH RACK SHALL BE INSTALLED AT THE EXISTING ACCESS POINT TO THE SITE. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE RE-ENTERING THE LOCAL ROADWAYS.

a.b. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC WASHING OF THE MATS AND/OR REPLACEMENT OF WOOD CHIPS AS NECESSARY.

a.c. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

a.d. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED INTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.

b. SILT FENCE - VESCH 3.05

b.a. SILT FENCE WILL BE INSTALLED WITH THE E&S PLAN TO FILTER RUNOFF FROM DISTURBED AREAS. RUNOFF SHALL NOT BE DIRECTED PARALLEL TO THE INSTALLATION OF SILT FENCE.

b.b. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

b.c. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM UNDERCUTTING.

b.d. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, THE FABRIC SHALL BE REPLACED IMMEDIATELY.

b.e. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

b.f. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, THEN PREPARED AND SEEDED.

c. TEMPORARY DIVERSION DIKE - VESCH 3.09

c.a. A SYSTEM OF TEMPORARY DIKES, TO DIRECT FLOW INTO PROPOSED & EXISTING STORM SEWER STRUCTURES WILL BE INSTALLED AS INDICATED IN EROSION & SEDIMENT CONTROL PLAN.

c.b. THE STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.

d. STORM DRAIN INLET PROTECTION - VESCH 3.07

d.a. ALL EXISTING & PROPOSED STORM SEWER INLETS IN AND AROUND THE PROJECT LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.

d.b. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.

d.c. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

e. DEWATERING STRUCTURE - VESCH 3.26

e.a. SEDIMENT LADEN OR TURBID WATER SHALL BE FILTERED, SETTLED OR SIMILARLY TREATED PRIOR TO DISCHARGE.

e.b. THE FILTERING DEVICES MUST BE INSPECTED FREQUENTLY AND REPAIRED OR REPLACED ONCE THE SEDIMENT BUILD-UP PREVENTS THE STRUCTURE FROM FUNCTIONING AS DESIGNED.

e.c. THE ACCUMULATED SEDIMENT WHICH IS REMOVED FROM A DEWATERING DEVICE MUST BE SPREAD ON-SITE AND STABILIZED OR DISPOSED OF AT AN APPROVED DISPOSAL SITE AS PER THE APPROVED PLAN.

f. TREE PROTECTION - VESCH 3.38

f.a. ALL TREES ARE TO BE PROTECTED UNLESS OTHERWISE DIRECTED BY THE COUNTY INSPECTOR AND URBAN FORESTER. THE COUNTY'S URBAN FORESTER (703-228-1863) SHALL INSPECT ALL TREE PROTECTION 72 HOURS PRIOR TO THE START OF CONSTRUCTION. IN SPITE OF PRECAUTIONS, SOME DAMAGE TO PROTECTED TREES MAY OCCUR. IN SUCH CASES, THE FOLLOWING MAINTENANCE GUIDELINES SHALL BE FOLLOWED:

f.a.a. SOIL AERATION: IF THE SOIL HAS BECOME COMPACTED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHALL BE AERATED BY PUNCHING HOLES WITH AN IRON BAR. THE BAR SHALL BE DRIVEN 1-FOOT DEEP AND THEN MOVED BACK AND FORTH UNTIL THE SOIL IS LOOSENED. THIS PROCEDURE SHALL BE REPEATED EVERY 18 INCHES UNTIL ALL OF THE COMPACTED SOIL BENEATH THE CROWN OF THE TREE HAS BEEN LOOSENED.

f.a.b. REPAIR OF DAMAGE:

f.a.A.a. ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE RETAINED ON THE SITE SHALL BE REPAIRED IMMEDIATELY.

f.a.A.b. WHENEVER MAJOR ROOT OR BARK DAMAGE OCCURS, REMOVE SOME FOLIAGE TO REDUCE THE DEMAND FOR WATER AND NUTRIENTS.

f.a.A.c. DAMAGED ROOTS SHALL IMMEDIATELY BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA. CUT SURFACES SHALL BE PAINTED WITH APPROVED TREE PAINT, AND MOIST PEAT MOSS, BURLAP, OR TOPSOIL SHALL BE SPREAD OVER THE EXPOSED AREA.

f.a.A.d. TO TREAT BARK DAMAGE, CAREFULLY CUT AWAY ALL LOOSENED BARK BACK INTO THE UNDAMAGED AREA, TAPER THE CUT AT THE TOP AND BOTTOM, AND PROVIDE DRAINAGE AT THE BASE OF THE WOUND.

f.a.A.e. ALL TREE LIMBS DAMAGED DURING CONSTRUCTION OR REMOVED FOR ANY OTHER REASON SHALL BE CUT OFF ABOVE THE COLLAR AT THE PRECEDING BRANCH JUNCTION.

f.a.A.f. CARE FOR SERIOUS INJURIES SHALL BE PRESCRIBED BY A FORESTER OR A TREE SPECIALIST.

f.b. FERTILIZATION: BROADLEAF TREES THAT HAVE BEEN STRESSED OR DAMAGED SHALL RECEIVE A HEAVY APPLICATION OF FERTILIZER TO AID THEIR RECOVERY.

f.b.a. TREES SHALL BE FERTILIZED IN THE LATE FALL (AFTER OCTOBER 1) OR THE EARLY SPRING (FROM THE TIME FROST IS OUT OF THE GROUND UNTIL MAY 1). FALL APPLICATIONS ARE PREFERRED, AS THE NUTRIENTS WILL BE MADE AVAILABLE OVER A LONGER PERIOD OF TIME.

f.b.b. FERTILIZER SHALL BE APPLIED TO THE SOIL OVER THE FEEDER ROOTS. IN NO CASE SHALL IT BE APPLIED CLOSER THAN 3 FEET TO THE TRUNK. THE ROOT SYSTEM OF CONIFERS EXTENDS SOME DISTANCE BEYOND THE DRIP LINE. INCREASE THE AREA TO BE FERTILIZED BY ONE FOURTH THE AREA OF THE CROWN.

f.b.c. FERTILIZER SHALL BE APPLIED USING APPROVED FERTILIZATION METHODS AND EQUIPMENT.

f.b.d. FORMULATIONS AND APPLICATION RATES SHALL CONFORM TO THE GUIDELINES GIVEN IN TABLE 3.38-A OF VESCH.

2. VEGETATIVE PRACTICES

a. TOPSOILING (STOCKPILE) - VESCH 3.30

a.a. TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATIONS MAY HAVE TO BE LOCATED OFF-SITE AND ARE TO BE STABILIZED WITH TEMPORARY VEGETATION. PRIOR TO LAND-DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY E&S PLAN (IF THE STOCKPILE IS LOCATED OFF-SITE). THIS SUPPLEMENTAL PLAN WOULD HAVE TO BE APPROVED BY THE PLAN APPROVING AUTHORITY BEFORE ANY OFF-SITE ACTIVITY COMMENCES.

b. TEMPORARY SEEDING - VESCH 3.31

b.a. ALL DENUDED AREAS, WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.

b.b. SEE SHEET III-288 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) FOR ALLOWABLE PLANTING MATERIAL, SEEDING RATES, AND DATES. THE PLANTING REQUIREMENTS OF THE "SOUTH" SHALL BE FOLLOWED. LIMING SHALL BE BASED ON TABLE 3.31-A OF VESCH. FERTILIZERS SHALL BE APPLIED AS 600 LB/ACRE. THE FERTILIZER SHALL BE INCORPORATED INTO THE TOP 2-4" OF SOIL. SEED SHALL BE EVENLY APPLIED AND SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5" DEEP. SEEDING MADE IN FALL FOR WINTER COVER AND DURING HOT SUMMER MONTHS SHALL BE MULCHED.

c. EROSION CONTROL BLANKET AND MULCHING - VESCH 3.36 AND 3.35

c.a. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND TO ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS AND WILL BE APPLIED AS A SECOND STEP IN SEEDING OPERATION.

d. DUST CONTROL - VESCH 3.39

d.a. DUST SHALL BE CONTROLLED USING A VARIETY OF METHODS SUCH AS VEGETATIVE COVER, MULCH, TILLAGE, IRRIGATION, SPRAY-ON ADHESIVES, STONE BARRIERS, AND CALCIUM CHLORIDE. THE IMPLEMENTATION OF THE DUST CONTROL METHODS SHALL BE INSTALLED PER SECTION 3.39 OF VESCH

e. PERMANENT SEEDING - VESCH 3.32

e.a. SINCE THE SUBJECT SITE IS LOCATED WITHIN THE COASTAL PLAIN AREA OF VIRGINIA, SHEET III-304 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE FOLLOWED FOR FINAL SEEDING MATERIAL, SEEDING RATES, AND DATES OF APPLICATION.

f. SODDING - VESCH 3.33

f.a. SODDED AREAS SHALL BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLANS. SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR LIME AND FERTILIZER. PRIOR TO LAYING SOD, SOIL SURFACE SHALL BE CLEAR OF TRASH, DEBRIS AND LARGE OBJECTS. QUALITY OF SOD SHALL BE STATE CERTIFIED TO ENSURE GENETIC PURITY AND HIGH QUALITY. SOD SHALL NOT BE LAID ON FROZEN SOIL SURFACE, OR IN EXCESSIVELY WET OR DRY WEATHER. SOD SHALL BE DELIVERED AND INSTALLED WITHIN 36 HOURS, AND SHALL BE INSTALLED PER PAGE III-339 OF VESCH.

THE EROSION AND SEDIMENT CONTROL INSPECTOR SHALL HAVE THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS AS NEEDED IN THE FIELD. IN ADDITION, NO SEDIMENT TRAPS OR BASINS MAY BE REMOVED WITHOUT PRIOR APPROVAL OF THE INSPECTOR.

EROSION AND SEDIMENT CONTROL MANAGEMENT MEASURES

LANDSCAPE / TREE PRESERVATION NOTES

PRIOR TO ANY LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL CONTACT THE ARLINGTON COUNTY ARBORIST TO SCHEDULE AN INSPECTION.

LAND CONSERVATION NOTES:

1. NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
3. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 100 FEET ARE TO BE OPEN AT ANY ONE TIME.
4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILLING.
5. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
6. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION.
7. ANY DISTURBED AREA NOT COVERED BY NOTE 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOV. 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE AND OVER-SEEDED BY APRIL 15.
8. AT THE COMPLETION OF ANY PROJECT CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

EROSION & SEDIMENT CONTROL PROGRAM:

1. THE EROSION CONTROL PLAN IS INTENDED TO ESTABLISH ENTRANCES AND PERIMETER CONTROL MEASURES WHICH INCLUDES SILT FENCE (SF), INLET PROTECTION (IP), AND OTHER CONTROLS SPECIFIED ON THE PLANS.
2. WHERE CONSISTENT WITH JOB SAFETY REQUIREMENTS, ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. NO MATERIAL SHALL BE PLACED IN STREAMBEDS. ANY STOCKPILED MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 7 DAYS SHALL BE SEEDED AND MULCHED. WHEN SPOIL IS PLACED ON THE DOWNHILL SIDE OF TRENCH, IT SHALL BE BACKSLOPED TO DRAIN TOWARD THE TRENCH. WHEN NECESSARY TO DEWATER THE TRENCH, THE PUMP DISCHARGE HOSE SHALL OUTLET IN A STABILIZED AREA OR A SEDIMENT TRAPPING DEVICE.
3. ALL PRACTICES AND CONTROL DEVICES DESCRIBED HEREIN SHALL CONFORM TO THE CURRENT VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). IN ADDITION, THE CONTRACTOR SHALL TAKE THE FOLLOWING STEPS TO MINIMIZE THE VOLUME OF SILT:
   a. CONTRACTOR SHALL EVALUATE THE SITE TO DETERMINE EXTENSIVE CUT AND FILL AREAS, AND SHALL WORK THOSE AREAS TO MINIMIZE THE USE OF HEAVY EQUIPMENT. CONTRACTOR SHALL BRING DISTURBED AREAS TO GRADE (ROUGH OR FINISHED) AND STABILIZE THOSE AREAS WITH TEMPORARY OR PERMANENT VEGETATION. THESE DISTURBED AREAS SHALL BE STABILIZED PRIOR TO BEGINNING WORK IN ANOTHER AREA.
   b. FILL AREAS SHALL BE COMPACTED COMPLETELY PRIOR TO THE END OF EACH WORK DAY. FILL SLOPE SURFACES SHALL BE KEPT ROUGH TO REDUCE SHEET EROSION OF THE SLOPES. CONTRACTOR SHALL RE-DIRECT CONCENTRATED RUNOFF, BY EARTH BERMS OR OTHER DEVICES, AROUND ACTIVELY DISTURBED AREAS TO STABILIZED OUTLETS.
   c. CUT SLOPES SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS (ABOVE THE SLOPE) AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.
4. MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. THE INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND/OR THE APPROVAL OF THE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA AND CHAPTER 57 OF THE ARLINGTON COUNTY CODE.
5. ALL AREAS, ON OR OFF-SITE, THAT ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS SEED MIXTURE OR SOD THAT IS INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. ALL SLOPES 3:1 AND GREATER SHALL BE RECEIVE SOIL STABILIZATION IN ACCORDANCE WITH THE SPECIFICATIONS.
6. WHERE STREAM CROSSINGS ARE REQUIRED FOR EQUIPMENT, TEMPORARY CULVERTS SHALL BE PROVIDED.
7. FOR FURTHER REQUIREMENTS AND DETAILS OF TREE PRESERVATION, PLANTING, EROSION AND SEDIMENT CONTROL, SEE COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN THE AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
9. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
10. ALL BIOFILTERS SHALL BE KEPT OFF-LINE UNTIL CONSTRUCTION IS COMPLETED AND ALL AREAS HAVE BEEN PROPERLY STABILIZED. THIS SHALL BE ACHIEVED BY USING INLET PROTECTION AT THE CURB CUTS AND STORMWATER CATCH BASINS LEADING DIRECTLY INTO THE BIOFILTERS.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

PRE-STORM EROSION & SEDIMENTATION CHECKLIST:

PER GENERAL EROSION AND SEDIMENT CONTROL NOTE 6, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL (ESC) MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE COUNTY. THESE SUPPLEMENTARY PRACTICES ARE IN ADDITION TO THOSE SHOWN IN AN EROSION AND SEDIMENT CONTROL PLAN. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MODIFIED AS NEEDED TO ENSURE ONLY CLEAR WATER IS DISCHARGED FROM THE SITE.

THE FOLLOWING ACTIONS SHALL BE TAKEN PRIOR TO STORM EVENTS WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL TO PREVENT SEDIMENT DISCHARGES FROM A CONSTRUCTION SITE. A TYPICAL SUMMER THUNDERSTORM IS AN EXAMPLE OF A STORM EVENT WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL.

1. PERIMETER CONTROLS
   a. SILT FENCE SHALL BE CHECKED FOR UNDERMINING, HOLES, OR DETERIORATION OF THE FABRIC. FENCING SHALL BE REPLACED IMMEDIATELY IF THE FABRIC IS DAMAGED OR WON. SILT FENCE MUST BE TRENCHED INTO THE GROUND PER STATE SPECIFICATIONS (VESCH STD & SPEC 3.09).
   b. WOODEN STAKES OR STEEL POSTS SHALL BE PROPERLY SECURED UPRIGHT INTO THE GROUND. DAMAGED POSTS OR STAKES MUST BE REPLACED.
   c. SEDIMENT THAT HAS ACCUMULATED AGAINST THE SILT FENCE SHALL BE REMOVED. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE LEVEL REACHES ONE-HALF THE HEIGHT OF THE FENCING.
   d. HAY BALES OR A STONE BERM SHALL BE PLACED ACROSS THE CONSTRUCTION ENTRANCE TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
2. EXPOSED SLOPES AND SOIL
   a. EXPOSED SLOPES NOT AT THE FINAL STABILIZATION PHASE SHALL BE COVERED WITH TARPS, PLASTIC SHEETING, OR EROSION CONTROL MATTING. COVERING MATERIAL SHALL BE PROPERLY SECURED/ANCHORED.
   b. CONTROLS SHALL BE INSTALLED TO PREVENT CONCENTRATED FLOW DOWN AN EXPOSED SLOPE. BERMS OR DIVERSION DIKES SHALL BE INSTALLED AT THE TOP OF CUT/EXPOSED SLOPES TO DIRECT STORM FLOW AROUND THE DISTURBED AREA.
   c. EXPOSED SLOPES AT THE FINAL STABILIZATION PHASE SHALL BE STABILIZED USING SLOPE STABILIZATION PRACTICES SUCH AS SOIL STABILIZATION BLANKETS OR MATTING AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH STD & SPEC 3.36). BLANKETS OR MATS MUST BE PROPERLY SECURED AND ANCHORED TO THE SLOPE USING STAPLES, PINS, OR STAKES.
   d. SEEDED AREAS SHALL BE CHECKED AND RESEEDED AS NECESSARY TO COVER EXPOSED SOIL. RECENTLY SEEDED AREAS SHALL BE PROTECTED BY STRAW OR SOIL STABILIZATION BLANKETS TO PREVENT SEEDING FROM BEING WASHED AWAY.
3. STOCKPILES
   a. STOCKPILED SOIL AND OTHER LOOSE MATERIALS THAT CAN BE WASHED AWAY SHALL BE COVERED WITH A TARP, PLASTIC SHEETING, OR OTHER STABILIZATION MATTING. THE COVER MUST BE PROPERLY SECURED/ANCHORED DOWN TO PREVENT IT FROM BEING BLOWN OFF AND EXPOSING MATERIALS TO RAIN. CONTROLS SUCH AS HAY BALES OR BOOMS SHALL BE PLACED ALONG THE PERIMETER OF THE STOCKPILE (DOWNHILL SIDE).
4. INLET PROTECTION
   a. INLET PROTECTION CONTROLS SHALL BE INSPECTED TO ENSURE THEY ARE FUNCTIONING PROPERLY AND FLOODING WILL NOT OCCUR. CLOGGED OR DAMAGED CONTROLS MUST BE REPLACED IMMEDIATELY. ENSURE CONTROLS ALLOW FOR OVERFLOW/BYPASS OF STORMWATER RUNOFF DURING SIGNIFICANT STORM EVENTS.

IN ADDITION TO THESE PRE-STORM ACTIONS, ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES MUST BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.

POLLUTION PREVENTION PLAN NOTES (STORMWATER MANUAL - SECTION 2.4)

1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS:
   a. WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIREFIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
2. APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (E.G., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S MS4 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.
3. PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

UTILITY INSTALLATION:

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

1. NO MORE THAN 100 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
2. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
3. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
4. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
5. STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
6. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
9. ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED NO LATER THAN MAY 15TH.
10. AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. ARLINGTON COUNTY INSPECTOR TO APPROVE REMOVAL OF ALL TEMPORARY SILTATION MEASURES.

MAINTENANCE PROGRAM:

THE FOLLOWING IS A PROGRAM OF MAINTENANCE FOR THE MECHANICAL CONTROLS SPECIFIED IN THIS NARRATIVE AND ON THE PLAN:

1. THE SITE SUPERINTENDENT OR HIS/HER REPRESENTATIVE SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREA (I.E. SEEDED AND MULCHED AND/OR SODDED AREAS) ON A DAILY BASIS; ESPECIALLY AFTER A HEAVY RAINFALL EVENT TO ENSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. ANY DAMAGED CONTROLS SHALL BE REPAIRED PRIOR TO THE END OF THE WORK DAY INCLUDING RE-SEEDING AND MULCHING OR RE-SODDING IF NECESSARY.
2. ALL SEDIMENT TRAPPING DEVICES SHALL BE CLEARED OUT AT 50% TRAP CAPACITY AND THE SEDIMENT SHALL BE DISPOSED OF BY SPREADING ON THE SITE OR IF NOT SUITABLE FOR FILL, HAULING AWAY AND DEPOSITING AT AN ACCEPTABLE DUMP SITE.
3. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PREVENT MUD AND/OR OTHER DEBRIS FROM BEING ENTERED ONTO EXISTING SWM/BMP FACILITIES OR DOWNSTREAM WATER WAYS. SHOULD OFF-SITE AREAS BECOME POLLUTED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE AFFECTED AREAS TO THE SATISFACTION OF THE INSPECTOR.
4. AT THE COMPLETION OF CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ANY REMAINING DENUDED AREAS SHALL BE STABILIZED. CERTAIN DEVICES MAY BE REMOVED PRIOR TO CONSTRUCTION COMPLETION BUT ONLY WITH THE APPROVAL OF THE COUNTY INSPECTOR.
5. AFTER CONSTRUCTION OPERATIONS HAVE ENDED, ALL DISTURBED AREAS SHALL BE STABILIZED. UPON APPROVAL OF THE COUNTY INSPECTOR, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED AND THE GROUND PERMANENTLY STABILIZED WITH VEGETATION WITHIN 30 DAYS.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
Solomon W.
SOLOMON W SHIKUR
Lic. No. 44276
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum — QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak — CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
[signature] — WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach — TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver — PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL NOTES

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE: N/A

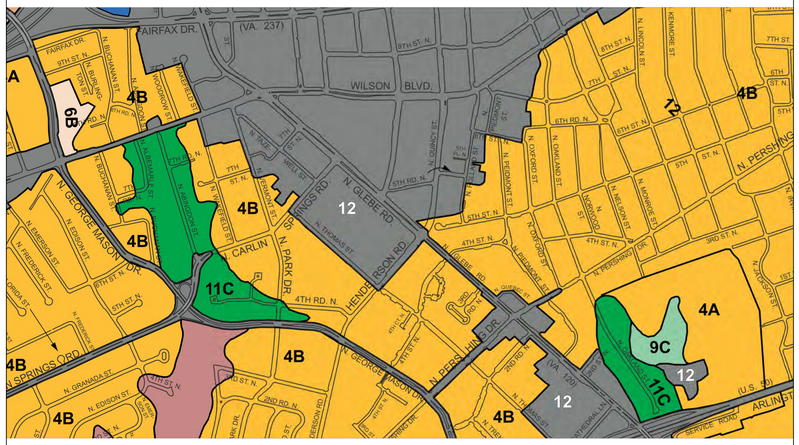
C032.1

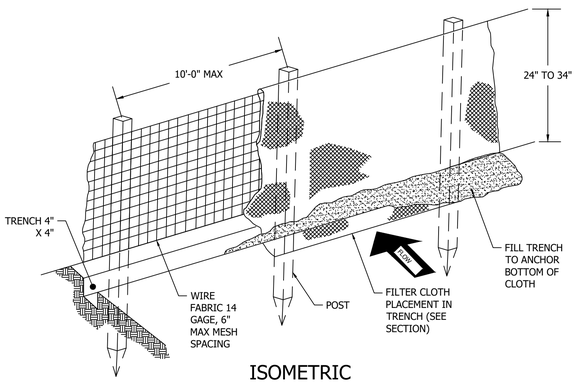
FILENAME: R014-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018

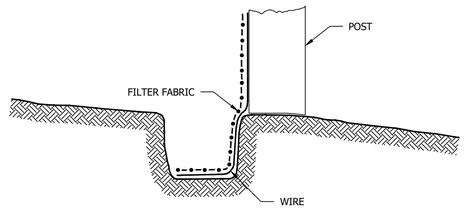
HYDROLOGIC SOILS MAP

(N.T.S.)





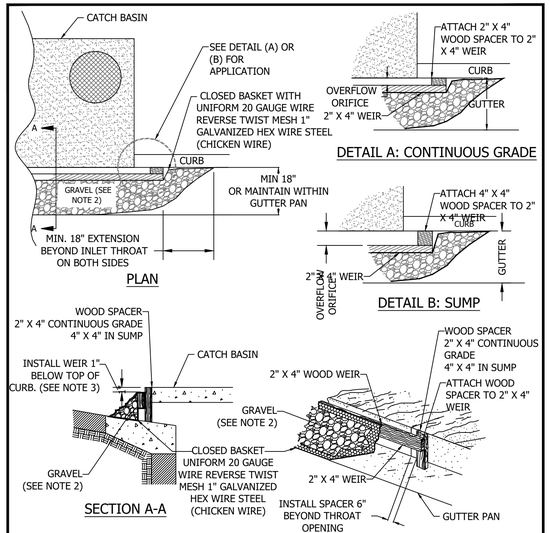
ISOMETRIC



SECTION

MODIFIED-VESCH 3.05

SILT FENCE — NOT TO SCALE



NOTES

1. DIMENSIONAL LUMBER SIZES SHOW.
2. GRAVEL SHALL BE VDOT COARSE AGGREGATE #3, # 357 OR #5.
3. WEIR HEIGHT MAY BE ADJUSTED BY PROJECT OFFICER OR INSPECTOR IN FLOOD PRONE AREAS.
4. PAINT 2"X4" WEIR, CLOSED BASKET, AND GUTTER WITH HIGH VISIBILITY INCANDESCENT ORANGE PAINT.
5. REMOVE SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE THE PROTECTION.

CURB INLET PROTECTION

REVISION & DATE

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. 3.07-7 (ACG)

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum — QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtah — CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach — TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver — PROJECT MANAGER	01/27/2021

REVISIONS	DATE

July 1, 2020
date

Qianqian Li, P.E.
ESC Program Administrator
Department of Environmental Sevices
2100 Clarendon Boulevard, Suite 813
Arlington, Virginia 22201

Re: Erosion and Sediment Control Permit Application for:

N. Glebe Road Water Main Replacement
street address

From N Randolph St to N Pershing Dr
lot, block, section subdivision

permit number

Dear Mrs. Li:

I hereby certify that I accept the responsibilities of Responsible Land Disturber for the above referenced project. I understand that these responsibilities include:

1. Reviewing the erosion and sedimentation (E&S) plan for the project.
2. Walking the site prior to construction to identify critical areas.
3. Conducting a pre-construction briefing with earth moving and site contractors to present the E&S plan and highlight the presence of critical areas, the limits of clearing and the required E&S controls and tree protection measures to be installed. Call 703-228-0760 to schedule pre-construction meeting.
4. Regularly inspecting the site during construction to ensure that all E&S controls are functioning and are adequate to address erosion and sedimentation. Inspect the site 48 hours after a runoff-generating storm, and provide a copy of the inspection findings to the county.
5. Reporting to the owner the presence inadequate or non functioning E&S controls when they are observed.
6. Ensuring that temporary soil stabilization is applied within 7 days to areas denuded that will remain undisturbed for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
7. Calling (703) 228-0760 at least 80 hours before demolishing any structure.

I may be reached at 703-228-3654 with questions about this plan or my execution of the duties of
telephone number
Responsible Land Disturber.

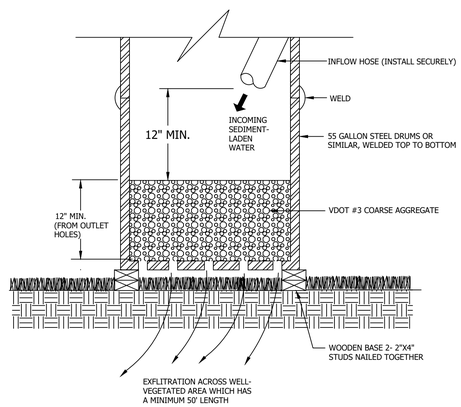
Sincerely,

signed

Solomon Shikur
name printed

VA PE #44276
professional registration (type and number)

FILTER BOX



ELEVATION VIEW

SOURCE: VA. DSWC — PLATE: 3.26-2

EROSION AND SEDIMENT CONTROL LEGEND

3.05	TEMPORARY SILT FENCE	SF	—X—X—
3.07	STORM DRAIN INLET PROTECTION	IP	
3.26	DEWATERING STRUCTURE	DS	

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL NOTES AND DETAILS - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

AS SHOWN

C032.2

FILENAME: R014-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

Spill Prevention & Response
Most spills can be cleaned up following manufacturer specifications. The priority should be to protect all people, equipment, property, and the environment. Enter the telephone number of your local fire and police departments.

Most spills can be cleaned up using a spill kit. Absorbent/oil dry, sealable containers, plastic bags, and shovels/brooms are suggested minimum spill response items that should be available at the project site.

1st Priority: Protect all people
2nd Priority: Protect equipment and property
3rd Priority: Protect the environment

1. Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave the area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.
2. Ensure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
3. Stop the spill source.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers.
5. If possible, stop spill from spreading and/or entering storm drains (use absorbent or other materials as necessary).
6. If spilled material has entered a storm drain; contact Arlington County Fire Department and project manager.
7. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials and do not flush area with water.
8. Properly dispose of cleanup materials and used absorbent material according to manufacturer specifications.

Emergency Contacts:

Local Contacts

Arlington County Fire & Police	703-558-2222
DES Water, Sewer, Streets 24-Hour Emergency	703-228-6555
Washington Gas Emergency	703-750-1400

Nights, Holidays & Weekends

VA Dept. of Emergency Management	804-674-2400
24 Hour Reporting Service	

Spill kit on site: ☐ Yes ☐ No

Location(s) of spill kit: _____

Potential Sources of Pollution & Pollution Prevention Practices
Identify the pollutant-generating activities likely to be present at the project site; implement and maintain the corresponding pollution prevention practices. If an unlisted pollutant-generating activity is likely to be present at the project site, describe it, identify the associated pollutant(s), and provide the corresponding pollution prevention practice(s) to be implemented and maintained.

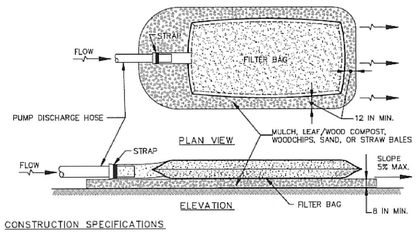
Pollutant-Generating Activity	Pollutants: Likely Present at your Project Site?	Sediment	Nutrients	Heavy Metals	pH (acids and bases)	Pesticides & Herbicides	Oil & Grease	Bacteria & Viruses	Trash, Debris, Solids	Other Toxic Chemicals	Pollution Prevention Practice	Responsible Party
Clearing, grading, excavating, and un-stabilized areas	☐ Yes ☒ No	X	X						X		(1)	Construction Activity Operator (See Cover Page of this SWPPP)
Paving and saw cutting operations	☒ Yes ☐ No	X					X		X		(2)	
Concrete operations, washout, and cement waste	☐ Yes ☒ No			X	X				X		(3)	
Washing / cleaning	☒ Yes ☐ No	X	X	X	X		X		X	X	(4)	
Dewatering operations	☒ Yes ☐ No	X	X						X		(5)	
Material / chemical use and storage	☒ Yes ☐ No	X	X	X	X	X	X		X	X	(6)	
Equipment and vehicle maintenance	☒ Yes ☐ No				X		X		X	X	(7)	
Waste management / disposal	☒ Yes ☐ No								X	X	(8)	
Sanitary waste	☒ Yes ☐ No		X		X			X			(9)	
Nutrient management	☐ Yes ☒ No	X	X						X	X	(10)	

Authorized Non-Stormwater Discharges
Identify the authorized non-stormwater discharges likely to be present at the project site. If an unlisted authorized non-stormwater discharge is likely to be present at the project site, provide it here.

Type of Authorized Non-Stormwater Discharges	Likely Present at Your Project Site?	
Uncontaminated excavation dewatering	☐ Yes	☒ No
Landscape irrigation	☐ Yes	☒ No
Others [describe]	☐ Yes	☒ No

Filter Bag

The Maryland Standard F-4 for a filter bag is provided as an acceptable option for use in Arlington County if straw bales or stone are used as the layer under the filter bag. The use of mulch, leaf/wood compost, woodchips or sand is not acceptable.



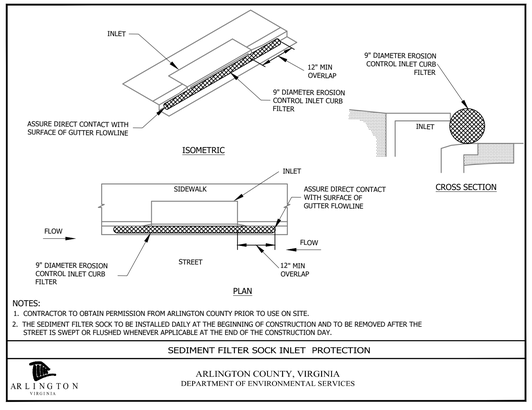
CONSTRUCTION SPECIFICATIONS

1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT²	ASTM D-4491
PERMITTIVITY (SEC⁻¹)	1.2 SEC⁻¹	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15–0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

15



NOTES:
1. CONTRACTOR TO OBTAIN PERMISSION FROM ARLINGTON COUNTY PRIOR TO USE ON SITE.
2. THE SEDIMENT FILTER SOCK TO BE INSTALLED DAILY AT THE BEGINNING OF CONSTRUCTION AND TO BE REMOVED AFTER THE STREET IS SWEPT OR FLUSHED WHENEVER APPLICABLE AT THE END OF THE CONSTRUCTION DAY.

SEDIMENT FILTER SOCK INLET PROTECTION

ARLINGTON
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS DATE

Amy Pflaum 2/1/2021
QUALITY CONTROL ENGINEER
K.N. Takitak 2.3.21
CONSTRUCTION MANAGEMENT SUPERVISOR
02.09.2021
WATER, SEWER, STREETS BUREAU CHIEF
Dennis M. Leach 02/09/21
TRANSPORTATION DIRECTOR
Dabney R Carver 01/27/2021
PROJECT MANAGER

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL NOTES AND DETAILS - 2

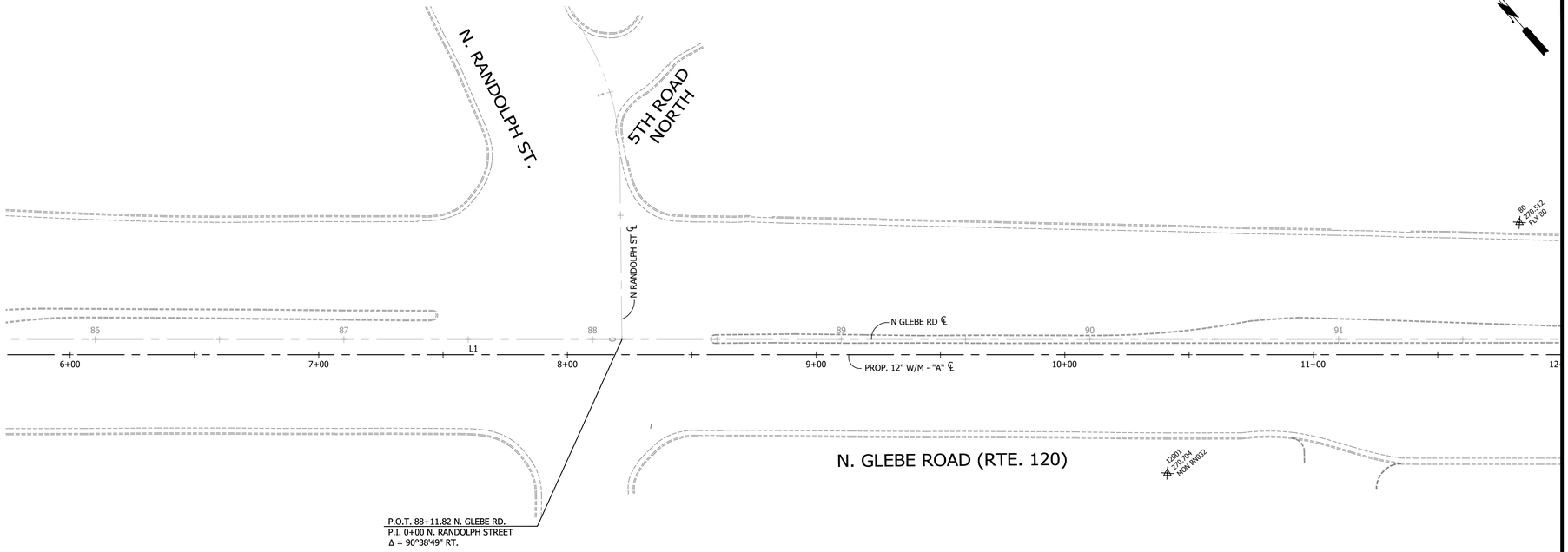
DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

AS SHOWN

C032.3



MATCHLINE - SEE C045.2 - STATION 12+00

PROP. 12" W/M - "A" ℄ (GLEBE RD)

ALIGNMENT: PROP. 12 IN WM - A

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L1	S 48° 28' 44" E	1224.45'	1+50.00	13+74.45	7005916.17, 11878183.96	7005104.49, 11879100.72
L2	S 70° 58' 44" E	31.62'	13+74.45	14+06.07	7005104.49, 11879100.72	7005094.18, 11879130.61
L3	S 48° 28' 44" E	34.73'	26+71.29	27+06.02	7004262.21, 11880077.49	7004239.18, 11880103.49
L4	S 48° 28' 44" E	1260.45'	14+06.07	26+66.52	7005094.18, 11879130.61	7004258.64, 11880074.33
L5	N 41° 31' 16" E	4.77'	26+66.52	26+71.29	7004258.64, 11880074.33	7004262.21, 11880077.49

Survey Control

PT#	Northing	Easting	Elev.	Desc.
80	7005271.3718	11878992.5720	270.512	FLY 80
81	7005048.3454	11879129.5612	270.003	FLY 81
82	7004672.7291	11879662.6703	272.042	FLY 82
83	7004297.1561	11879947.3900	268.255	FLY 83
84	7004323.5920	11880078.3563	266.146	FLY 84
2000	7004842.9269	11879333.1376	272.144	FLY 2000
12001	7005289.6542	11878819.6077	270.704	MON BN032
12002	7005911.8017	11878229.6394	271.180	FLY 100
12003	7006013.3953	11878414.1516	265.130	FLY 105
20005	7005692.2603	11878451.6045	272.560	TRV 216
20103	7005171.1772	11879175.0800	270.217	FLY 20103
20106	7005097.6034	11879192.0160	271.537	FLY 20106

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 41376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takitak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

GEOMETRIC CONTROL PLAN - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

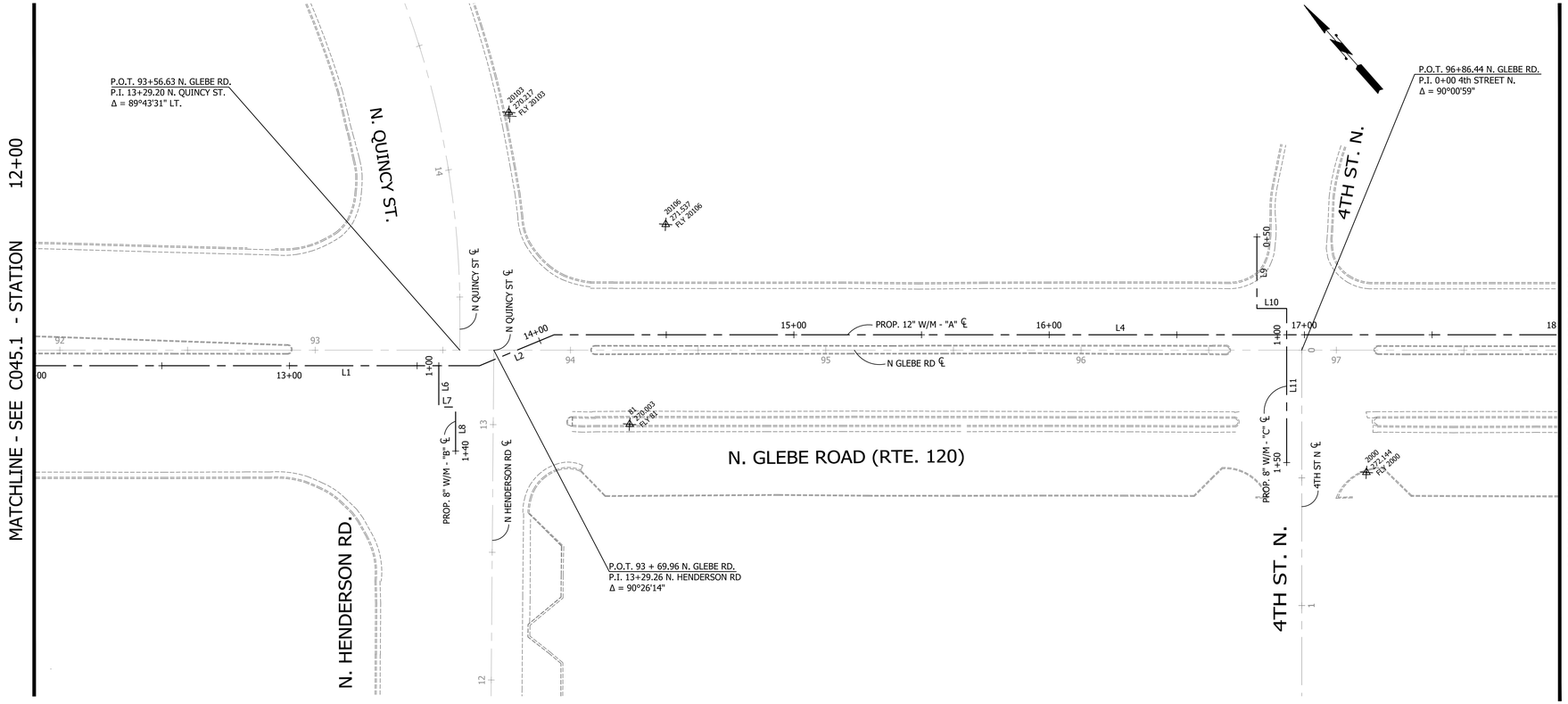
PLOTTED: FEBRUARY 10 2021

SCALE:

0 25 50
GRAPHIC SCALE

C045.1

REVISED ON 05/23/2018



PROP. 12" W/M - "A" ℄ (GLEBE RD)

ALIGNMENT: PROP. 12 IN WM - A

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L1	S 48° 28' 44" E	1224.45'	1+50.00	13+74.45	7005916.17, 11878183.96	7005104.49, 11879100.72
L2	S 70° 58' 44" E	31.62'	13+74.45	14+06.07	7005104.49, 11879100.72	7005094.18, 11879130.61
L3	S 48° 28' 44" E	34.73'	26+71.29	27+06.02	7004262.21, 11880077.49	7004239.18, 11880103.49
L4	S 48° 28' 44" E	1260.45'	14+06.07	26+66.52	7005094.18, 11879130.61	7004258.64, 11880074.33
L5	N 41° 31' 16" E	4.77'	26+66.52	26+71.29	7004258.64, 11880074.33	7004262.21, 11880077.49

PROP. 8" W/M - "B" ℄ (HENDERSON RD)

ALIGNMENT: PROP. 8 IN WM - B

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L6	S 41° 31' 16" W	16.19'	1+00.00	1+16.19	7005115.07, 11879088.78	7005102.95, 11879078.05
L7	S 48° 28' 44" E	6.60'	1+16.19	1+22.78	7005102.95, 11879078.05	7005098.58, 11879082.98
L8	S 41° 31' 16" W	17.22'	1+22.78	1+40.00	7005098.58, 11879082.98	7005085.68, 11879071.57

PROP. 8" W/M - "C" ℄ (4th ST N)

ALIGNMENT: PROP. 8 IN WM - C

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L9	S 41° 31' 16" W	28.05'	0+50.00	0+78.05	7004940.40, 11879362.17	7004919.39, 11879343.57
L10	S 48° 28' 44" E	11.65'	0+78.05	0+89.70	7004919.39, 11879343.57	7004911.67, 11879352.29
L11	S 41° 31' 16" W	60.30'	0+89.70	1+50.00	7004911.67, 11879352.29	7004866.53, 11879312.32

Survey Control

PT#	Northing	Easting	Elev.	Desc.
80	7005271.3718	11878992.5720	270.512	FLY 80
81	7005048.3454	11879129.5612	270.003	FLY 81
82	7004672.7291	11879662.6703	272.042	FLY 82
83	7004297.1561	11879947.3900	268.255	FLY 83
84	7004323.5920	11880078.3563	266.146	FLY 84
2000	7004842.9269	11879333.1376	272.144	FLY 2000
12001	7005289.6542	11878819.6077	270.704	MON BN032
12002	7005911.8017	11878229.6394	271.180	FLY 100
12003	7006013.3953	11878414.1516	265.130	FLY 105
20005	7005692.2603	11878451.6045	272.560	TRV 216
20103	7005171.1772	11879175.0800	270.217	FLY 20103
20106	7005097.6034	11879192.0160	271.537	FLY 20106

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

GEOMETRIC CONTROL PLAN - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

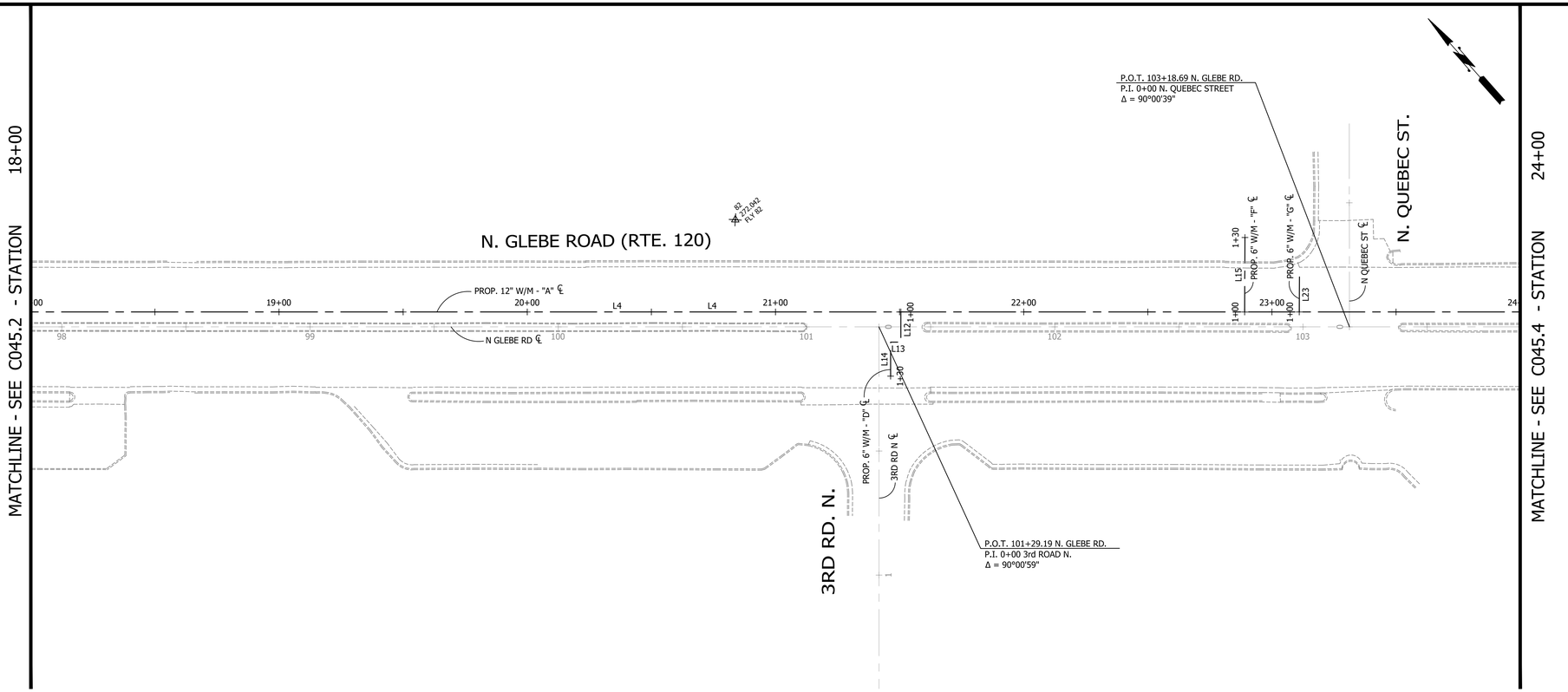
SCALE:

0 25 50
GRAPHIC SCALE

C045.2

FILENAME: R014-216-GEOMETRIC_CONTROL_PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018



PROP. 12" W/M - "A" ℄ (GLEBE RD)

ALIGNMENT: PROP. 12 IN WM - A

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L1	S 48° 28' 44" E	1224.45'	1+50.00	13+74.45	7005916.17, 11878183.96	7005104.49, 11879100.72
L2	S 70° 58' 44" E	31.62'	13+74.45	14+06.07	7005104.49, 11879100.72	7005094.18, 11879130.61
L3	S 48° 28' 44" E	34.73'	26+71.29	27+06.02	7004262.21, 11880077.49	7004239.18, 11880103.49
L4	S 48° 28' 44" E	1260.45'	14+06.07	26+66.52	7005094.18, 11879130.61	7004258.64, 11880074.33
L5	N 41° 31' 16" E	4.77'	26+66.52	26+71.29	7004258.64, 11880074.33	7004262.21, 11880077.49

PROP. 6" W/M - "D" ℄ (3rd RD N)

ALIGNMENT: PROP. 6 IN WM - D

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L12	S 41° 31' 16" W	12.16'	1+00.00	1+12.16	7004600.69, 11879687.99	7004591.59, 11879679.93
L13	N 48° 28' 44" W	4.16'	1+12.16	1+16.32	7004591.59, 11879679.93	7004594.34, 11879676.81
L14	S 41° 31' 16" W	13.68'	1+16.32	1+30.00	7004594.34, 11879676.81	7004584.10, 11879667.75

PROP. 6" W/M - "F" ℄ (QUEBEC ST)

ALIGNMENT: PROP. 6 INCH WM - F

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L15	N 41° 45' 34" E	30.00'	1+00.00	1+30.00	7004508.90, 11879791.66	7004531.28, 11879811.64

PROP. 6" W/M - "G" ℄ (QUEBEC ST)

ALIGNMENT: PROP. 6 INCH WM - G

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L23	N 41° 46' 17" E	14.14'	1+00.00	1+14.14	7004494.33, 11879808.15	7004504.88, 11879817.57

Survey Control

PT#	Northing	Easting	Elev.	Desc.
80	7005271.3718	11878992.5720	270.512	FLY 80
81	7005048.3454	11879129.5612	270.003	FLY 81
82	7004672.7291	11879662.6703	272.042	FLY 82
83	7004297.1561	11879947.3900	268.255	FLY 83
84	7004323.5920	11880078.3563	266.146	FLY 84
2000	7004842.9269	11879333.1376	272.144	FLY 2000
12001	7005289.6542	11878819.6077	270.704	MON BN032
12002	7005911.8017	11878229.6394	271.180	FLY 100
12003	7006013.3953	11878414.1516	265.130	FLY 105
20005	7005692.2603	11878451.6045	272.560	TRV 216
20103	7005171.1772	11879175.0800	270.217	FLY 20103
20106	7005097.6034	11879192.0160	271.537	FLY 20106

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takitak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

GEOMETRIC CONTROL PLAN - 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

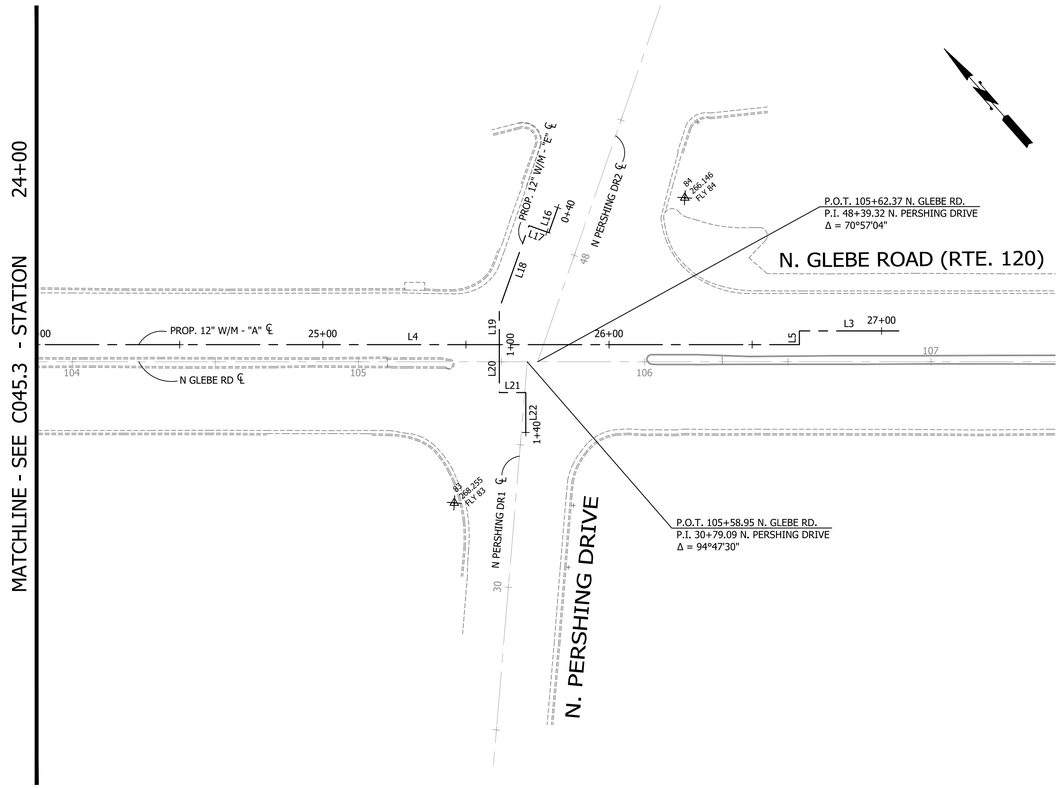
PLOTTED: FEBRUARY 10 2021

SCALE:

0 25 50
GRAPHIC SCALE

C045.3

FILENAME: R014-216-GEOMETRIC_CONTROL_PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21



PROP. 12" W/M - "A" ℄ (GLEBE RD)

ALIGNMENT: PROP. 12 IN WM - A

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L1	S 48° 28' 44" E	1224.45'	1+50.00	13+74.45	7005916.17, 11878183.96	7005104.49, 11879100.72
L2	S 70° 58' 44" E	31.62'	13+74.45	14+06.07	7005104.49, 11879100.72	7005094.18, 11879130.61
L3	S 48° 28' 44" E	34.73'	26+71.29	27+06.02	7004262.21, 11880077.49	7004239.18, 11880103.49
L4	S 48° 28' 44" E	1260.45'	14+06.07	26+66.52	7005094.18, 11879130.61	7004258.64, 11880074.33
L5	N 41° 31' 16" E	4.77'	26+66.52	26+71.29	7004258.64, 11880074.33	7004262.21, 11880077.49

Survey Control

PT #	Northing	Easting	Elev.	Desc.
80	7005271.3718	11878992.5720	270.512	FLY 80
81	7005048.3454	11879129.5612	270.003	FLY 81
82	7004672.7291	11879662.6703	272.042	FLY 82
83	7004297.1561	11879947.3900	268.255	FLY 83
84	7004323.5920	11880078.3563	266.146	FLY 84
2000	7004842.9269	11879333.1376	272.144	FLY 2000
12001	7005289.6542	11878819.6077	270.704	MON BN032
12002	7005911.8017	11878229.6394	271.180	FLY 100
12003	7006013.3953	11878414.1516	265.130	FLY 105
20005	7005692.2603	11878451.6045	272.560	TRV 216
20103	7005171.1772	11879175.0800	270.217	FLY 20103
20106	7005097.6034	11879192.0160	271.537	FLY 20106

PROP. 12" W/M - "E" ℄ (PERSHING DR)

ALIGNMENT: PROP. 12 IN WM - E

LINE SEGMENT TABLE						
Line #	Bearing	Distance	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
L16	S 61° 09' 56" W	9.29'	0+40.00	0+49.29	7004350.44, 11880042.83	7004345.95, 11880034.69
L17	N 28° 50' 04" W	7.34'	0+49.29	0+56.63	7004345.95, 11880034.69	7004352.39, 11880031.15
L18	S 61° 09' 56" W	30.87'	0+56.63	0+87.51	7004352.39, 11880031.15	7004337.50, 11880004.11
L19	S 41° 31' 16" W	12.49'	0+87.51	1+00.00	7004337.50, 11880004.11	7004328.14, 11879995.82
L20	S 41° 31' 16" W	16.76'	1+00.00	1+16.76	7004328.14, 11879995.82	7004315.60, 11879984.72
L21	S 48° 28' 44" E	9.27'	1+16.76	1+26.02	7004315.60, 11879984.72	7004309.45, 11879991.65
L22	S 41° 31' 16" W	13.98'	1+26.02	1+40.00	7004309.45, 11879991.65	7004298.99, 11879982.39

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 41376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takitak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

GEOMETRIC CONTROL PLAN - 4

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

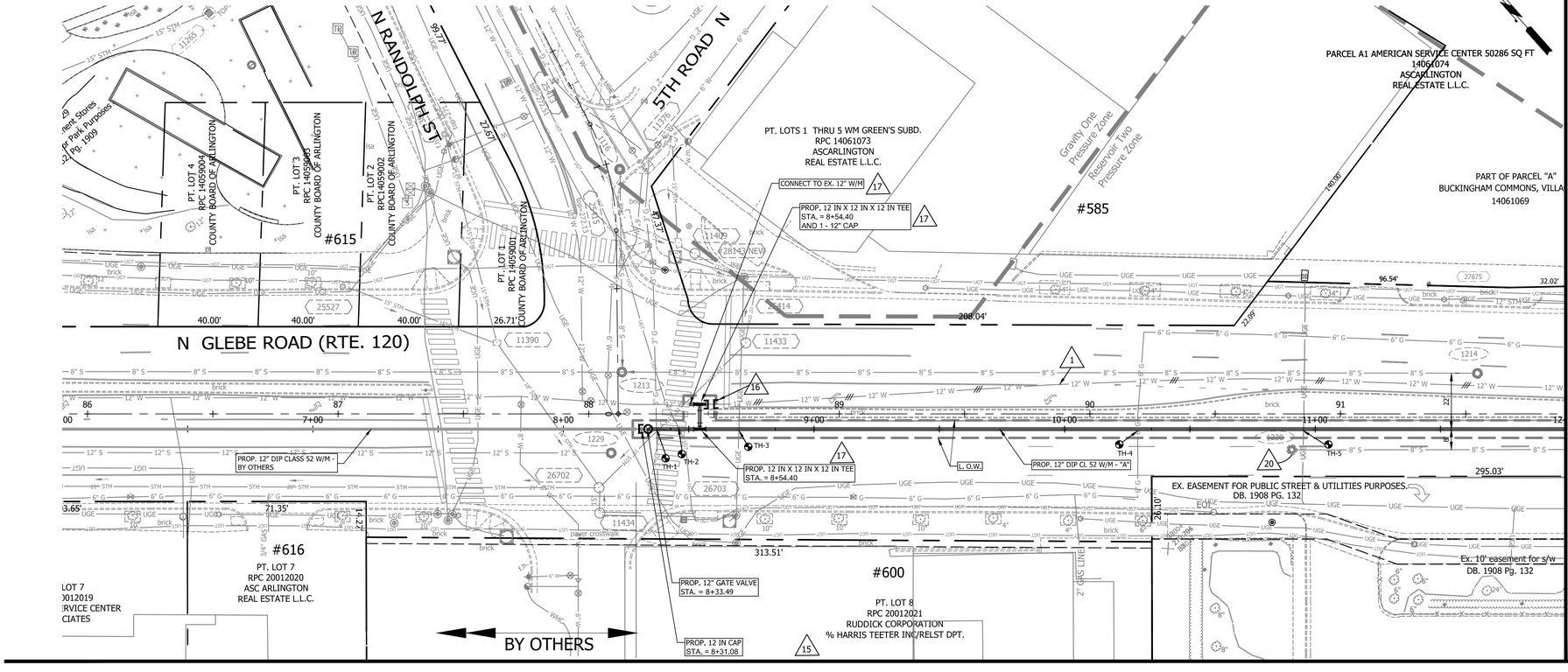
PLOTTED: FEBRUARY 10 2021

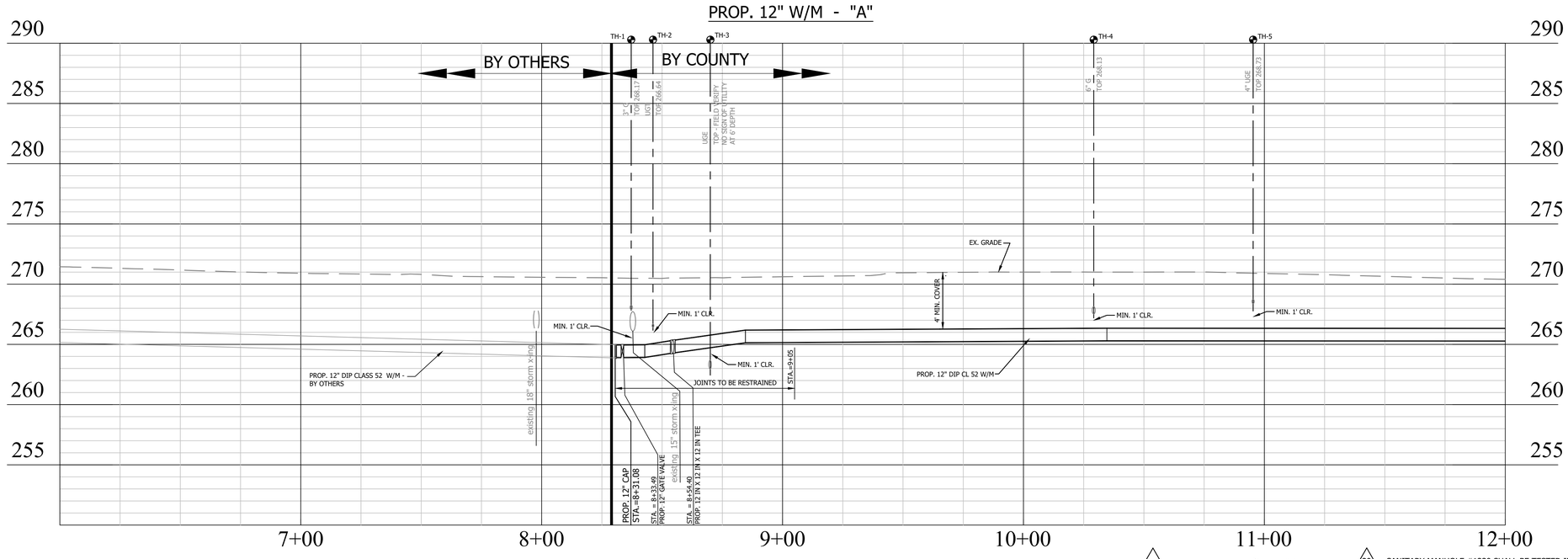
SCALE:

0 25 50
GRAPHIC SCALE

C045.4

REVISED ON 05/23/2018





WATERMAIN CONSTRUCTION NOTES:

1. /// ——— /// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE ASPHALT PAVEMENT WIDENING (WP-2) & PIPE TRENCH REINSTATEMENT FOR HCC WITH ASPHALT OVERLAY DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN COUNTY RIGHT OF WAY AND VDOT STANDARDS WITHIN VDOT RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED AS PER ARLINGTON COUNTY SPECIFICATION 02550. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 20 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. ONCE THE NEW THE 12" MAIN IS IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.
19. SERVICE RE-TAPS - 1 ½" AND 2" (TAP MAIN , INSTALL COPPER TUBING AND CONNECT TO EXISTING SERVICE LINE.
20. SANITARY MANHOLE #1230 SHALL BE TESTED IN PLACE FOR BEING WATERTIGHT. IF ANY LEAKS ARE DETECTED MEASURES SHALL BE TAKEN TO MAKE THEM WATERTIGHT IN ACCORDANCE WITH THE COUNTY'S SANITARY MANHOLE CONSTRUCTION SPECIFICATIONS.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis W. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

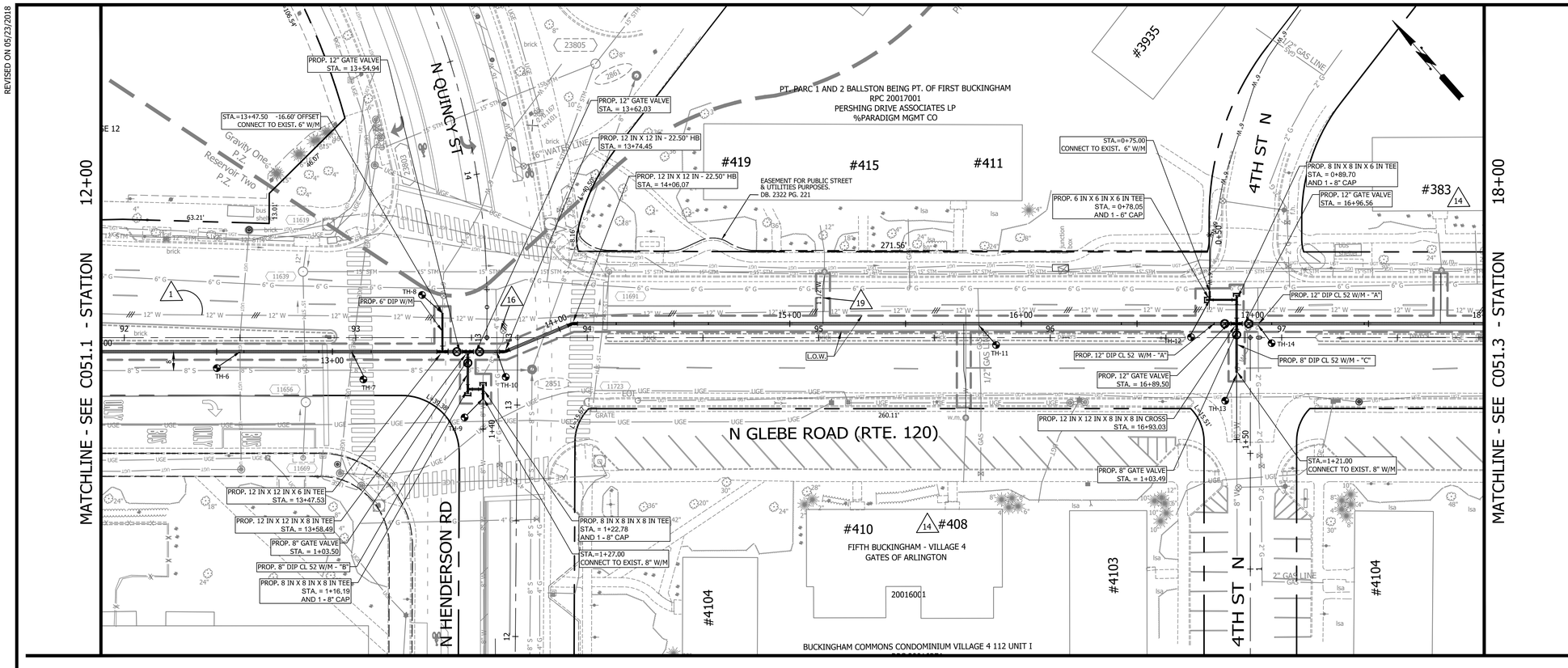
PLOTTED: FEBRUARY 10 2021

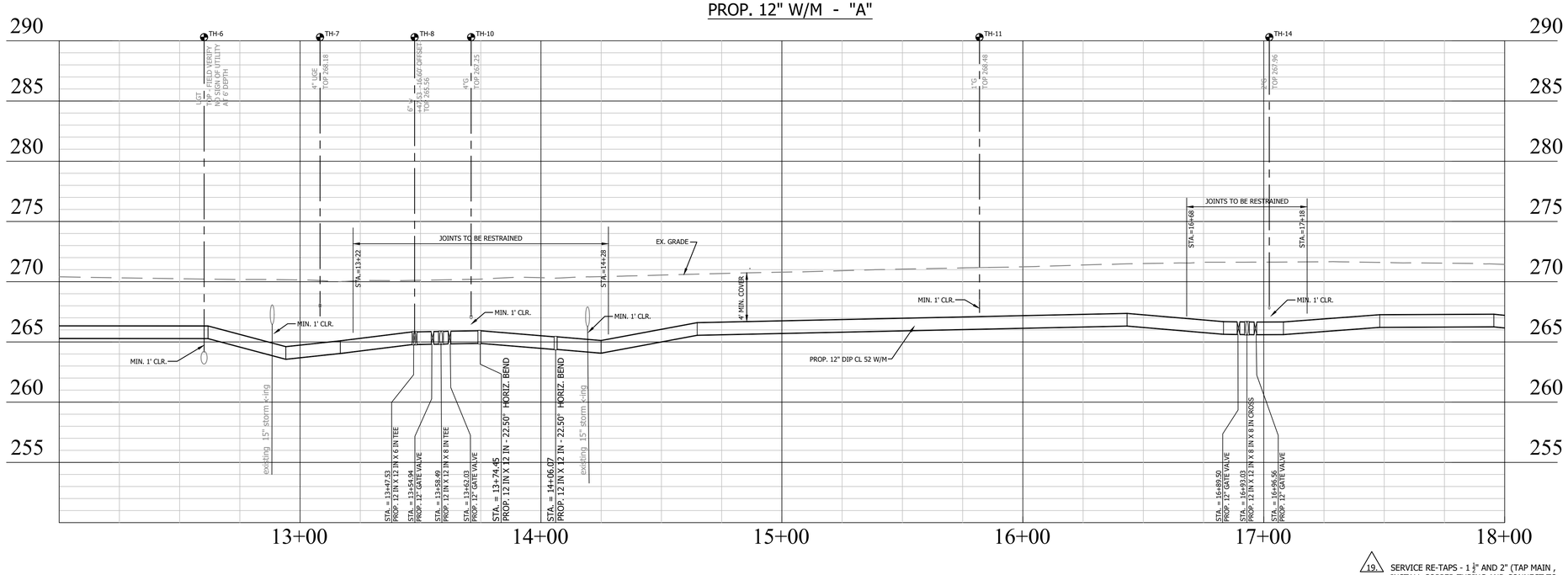
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C051.1

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018





19. SERVICE RE-TAPS - 1 ¼" AND 2" (TAP MAIN , INSTALL COPPER TUBING AND CONNECT TO EXISTING SERVICE LINE.

WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE ASPHALT PAVEMENT WIDENING (WP-2) & PIPE TRENCH REINSTATEMENT FOR HCC WITH ASPHALT OVERLAY DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN COUNTY RIGHT OF WAY AND VDOT STANDARDS WITHIN VDOT RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED AS PER ARLINGTON COUNTY SPECIFICATION 02550. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 20 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. ONCE THE NEW THE 12" MAIN IS IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy P. Flaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

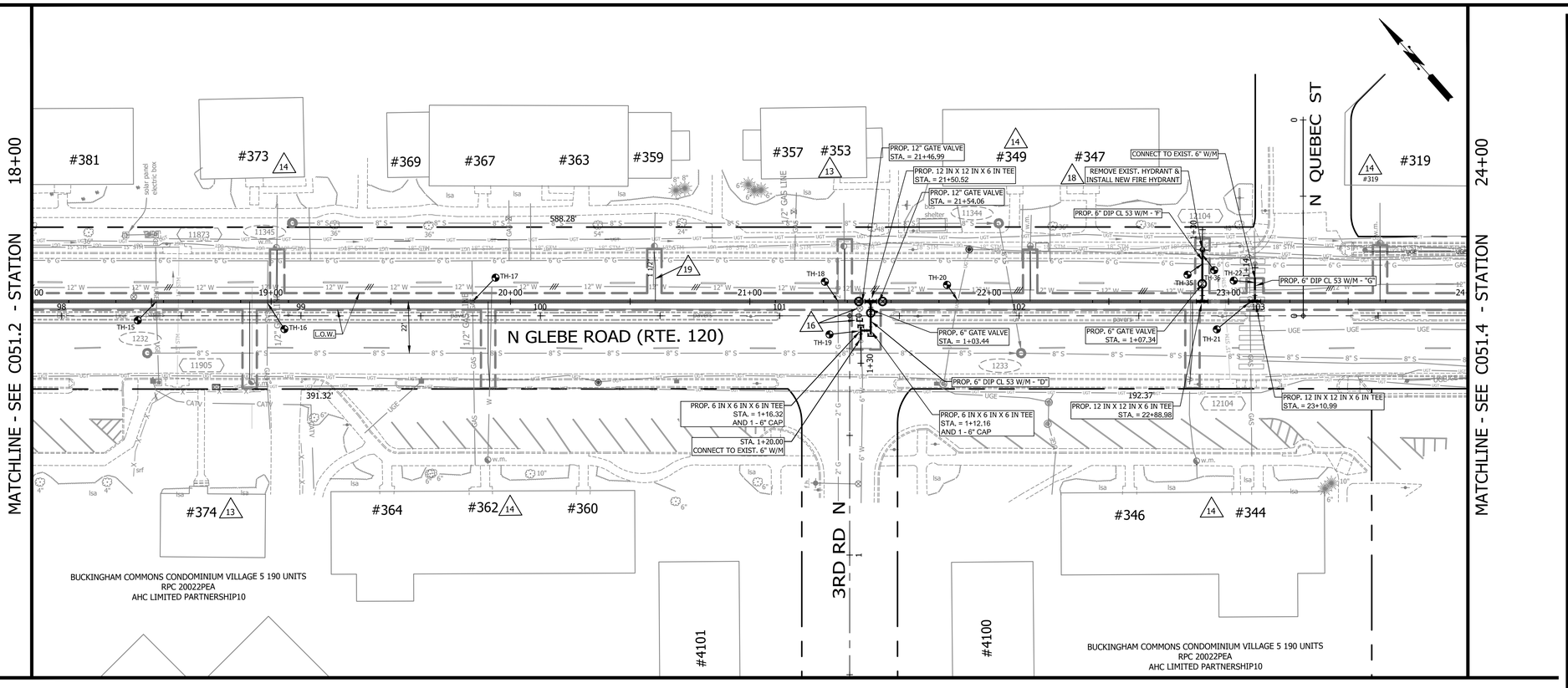
PLOTTED: FEBRUARY 10 2021

SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

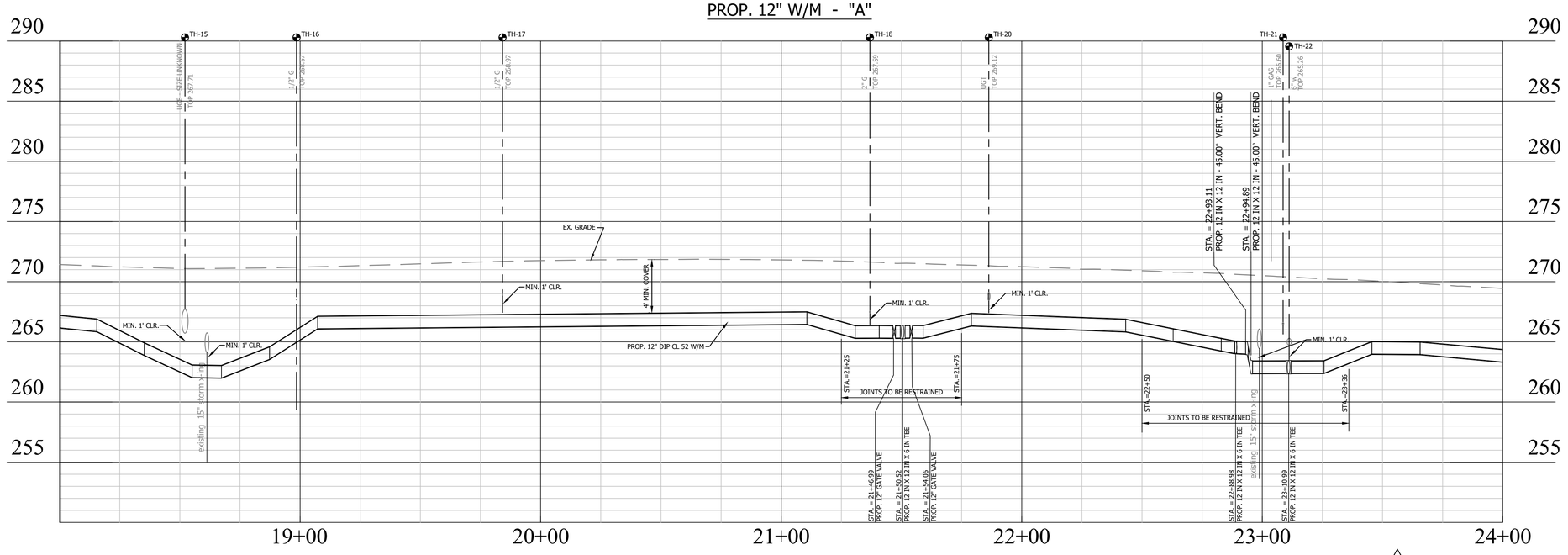
C051.2

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018



PROP. 12" W/M - "A"



WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE ASPHALT PAVEMENT WIDENING (WP-2) & PIPE TRENCH REINSTATEMENT FOR HCC WITH ASPHALT OVERLAY DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN COUNTY RIGHT OF WAY AND VDOT STANDARDS WITHIN VDOT RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED AS PER ARLINGTON COUNTY SPECIFICATION 02550. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 20 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. ONCE THE NEW THE 12" MAIN IS IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.
19. SERVICE RE-TAPS - 1 1/2" AND 2" (TAP MAIN , INSTALL COPPER TUBING AND CONNECT TO EXISTING SERVICE LINE.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

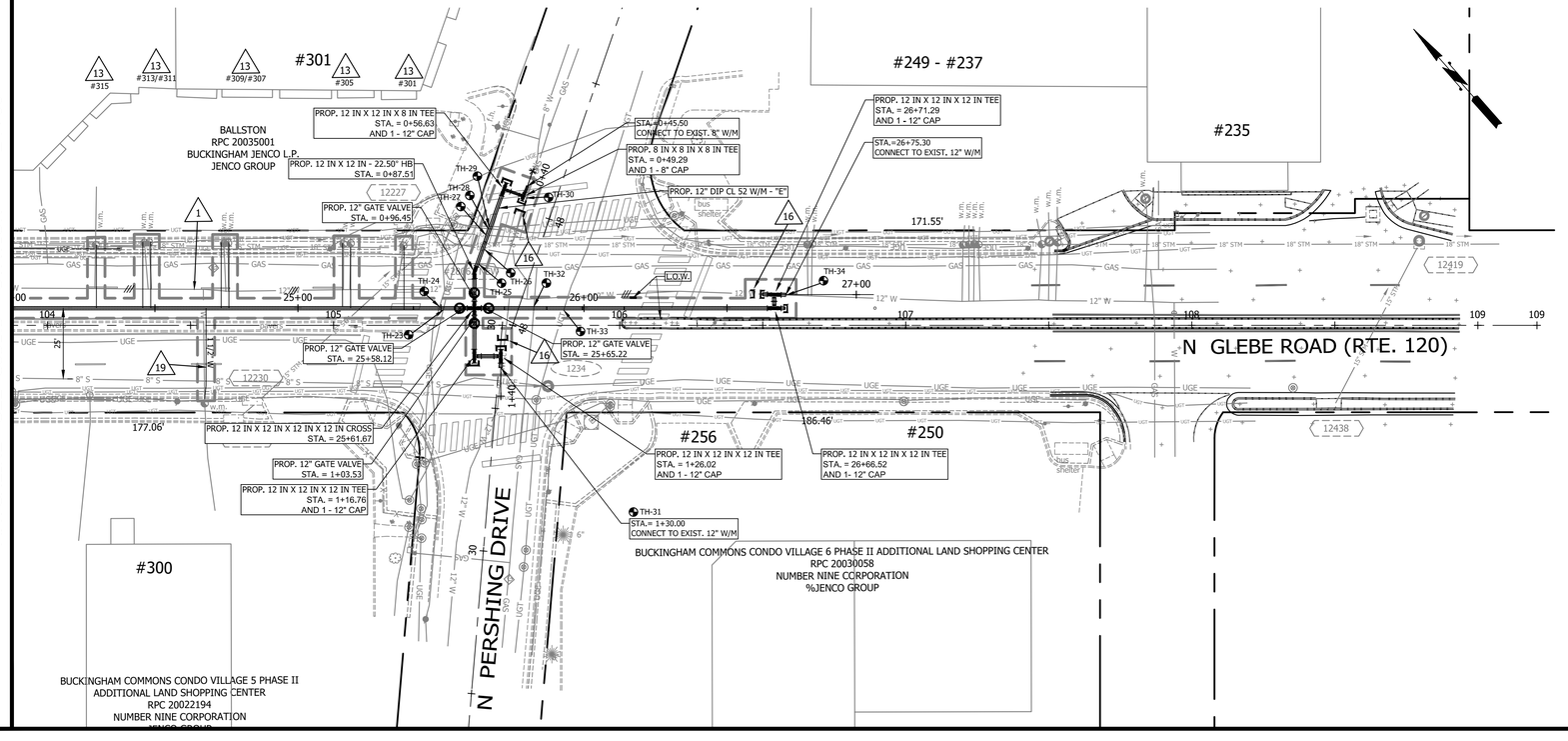
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

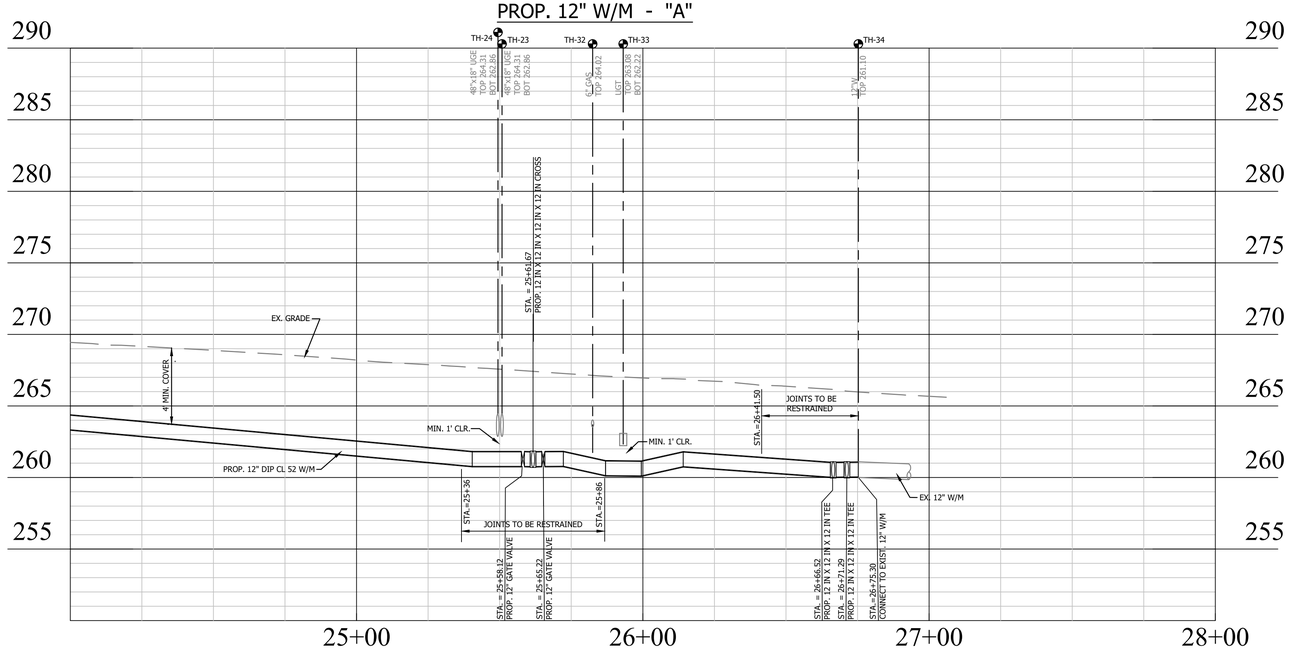
C051.3

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018

MATCHLINE - SEE C051.3 - STATION 24+00





WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE ASPHALT PAVEMENT WIDENING (WP-2) & PIPE TRENCH REINSTATEMENT FOR HCC WITH ASPHALT OVERLAY DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN COUNTY RIGHT OF WAY AND VDOT STANDARDS WITHIN VDOT RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED AS PER ARLINGTON COUNTY SPECIFICATION 02550. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 20 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. ONCE THE NEW THE 12" MAIN IS IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.
19. SERVICE RE-TAPS - 1 ¼" AND 2" (TAP MAIN , INSTALL COPPER TUBING AND CONNECT TO EXISTING SERVICE LINE.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis W. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 4

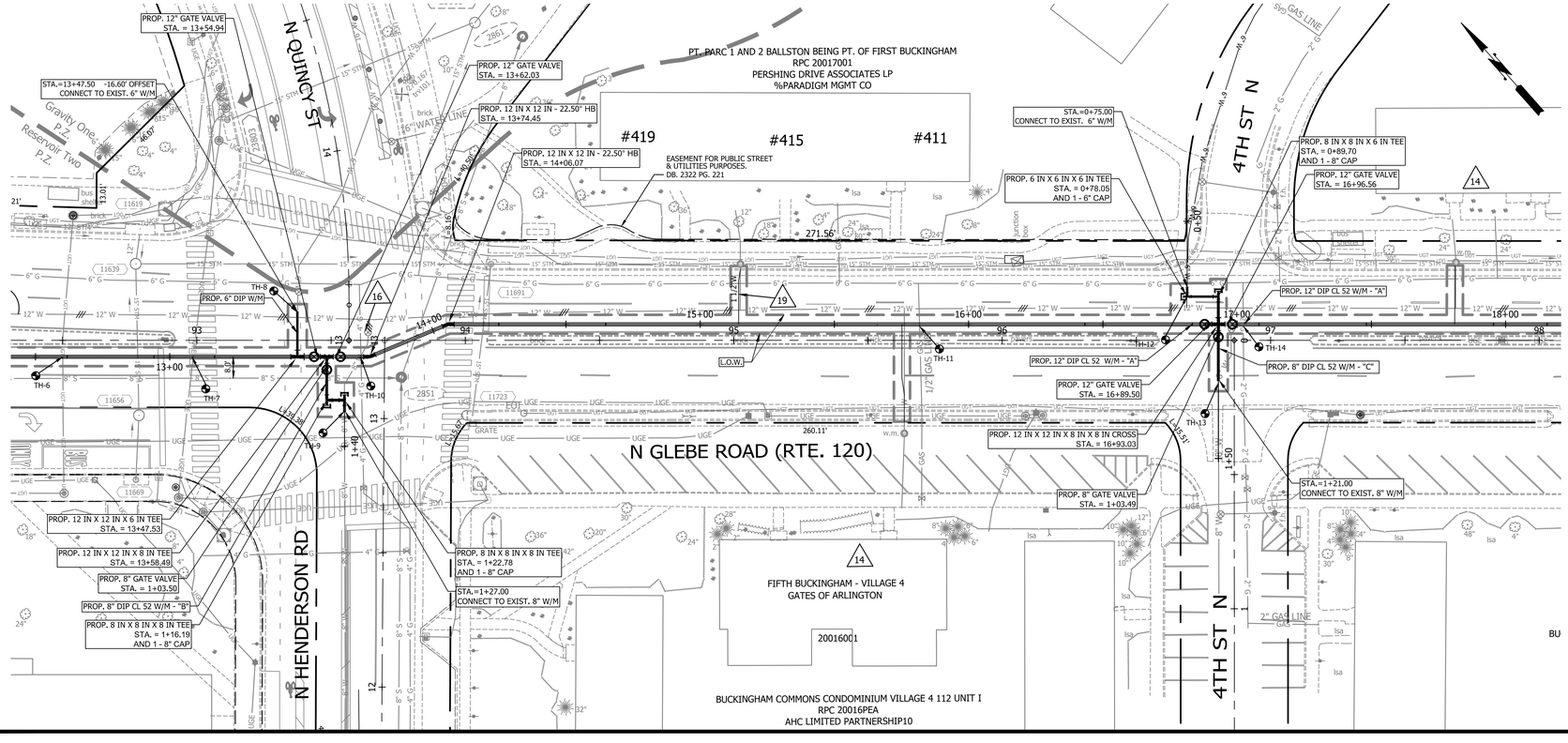
DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

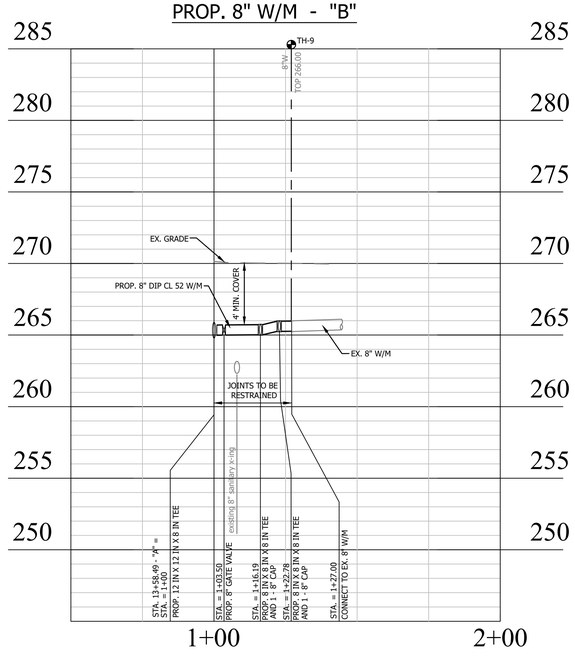
PLOTTED: FEBRUARY 10 2021

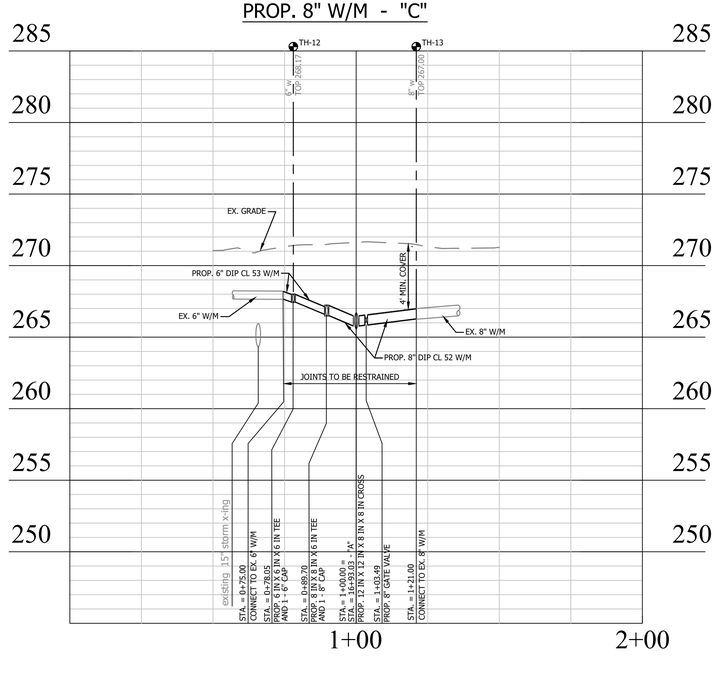
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C051.4

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21







WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE ASPHALT PAVEMENT WIDENING (WP-2) & PIPE TRENCH REINSTATEMENT FOR HCC WITH ASPHALT OVERLAY DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN COUNTY RIGHT OF WAY AND VDOT STANDARDS WITHIN VDOT RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED AS PER ARLINGTON COUNTY SPECIFICATION 02550. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 20 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. ONCE THE NEW THE 12" MAIN IS IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.
19. SERVICE RE-TAPS - 1 ½" AND 2" (TAP MAIN , INSTALL COPPER TUBING AND CONNECT TO EXISTING SERVICE LINE.

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis W. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 5

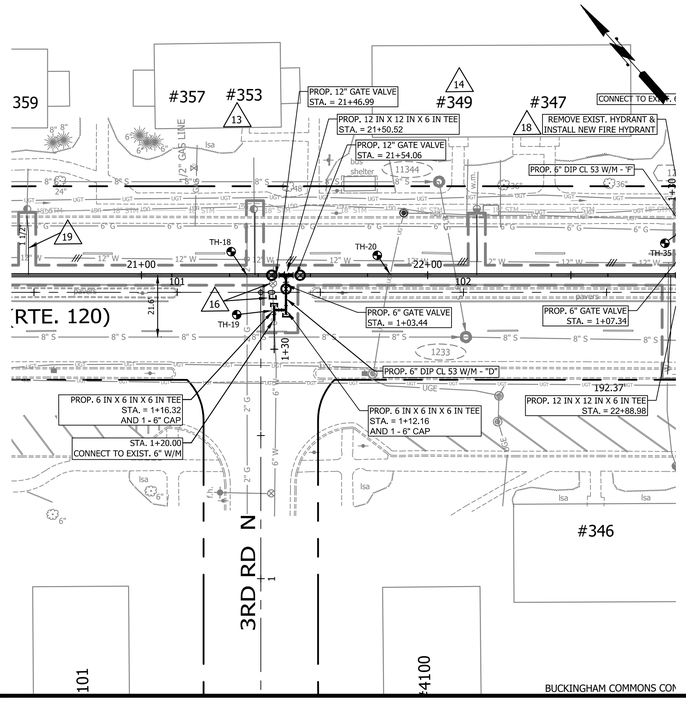
DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

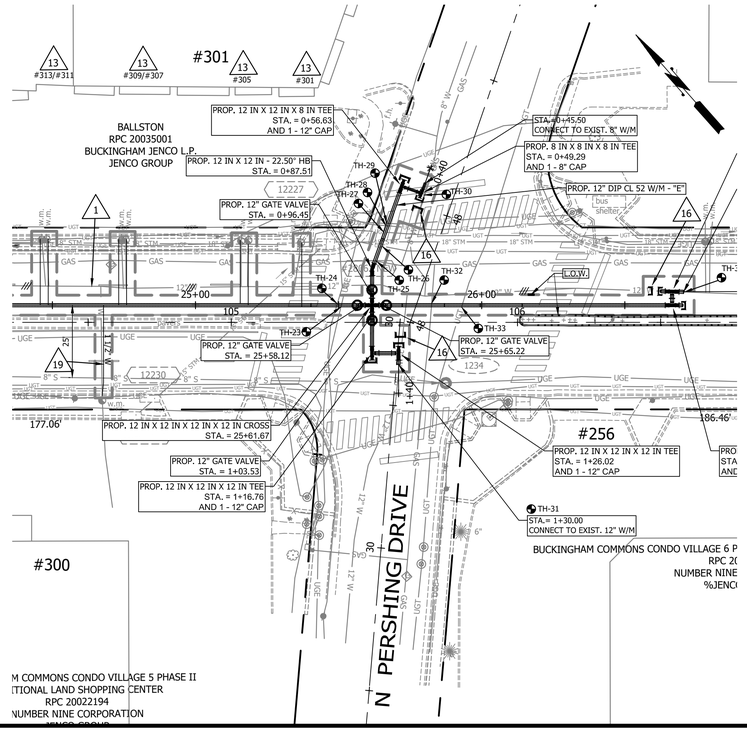
PLOTTED: FEBRUARY 10 2021

SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

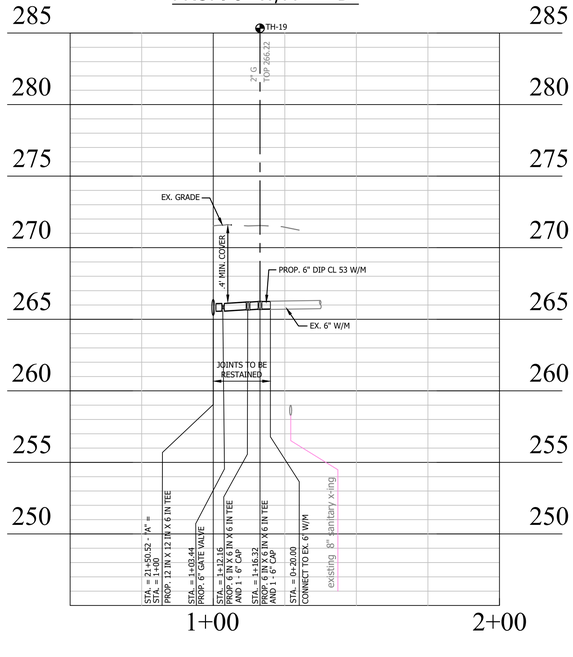
C051.5

REVISED ON 05/23/2018

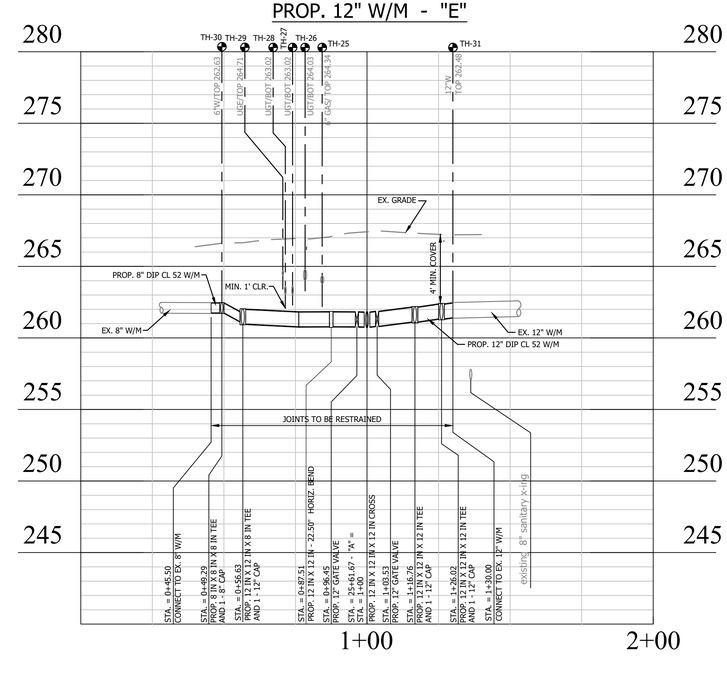




PROP. 6" W/M - "D"



PROP. 12" W/M - "E"



19. SERVICE RE-TAPS - 1 ¾" AND 2" (TAP MAIN , INSTALL COPPER TUBING AND CONNECT TO EXISTING SERVICE LINE.

WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE ASPHALT PAVEMENT WIDENING (WP-2) & PIPE TRENCH REINSTATEMENT FOR HCC WITH ASPHALT OVERLAY DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN COUNTY RIGHT OF WAY AND VDOT STANDARDS WITHIN VDOT RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED AS PER ARLINGTON COUNTY SPECIFICATION 02550. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 20 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. ONCE THE NEW THE 12" MAIN IS IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis W. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 6

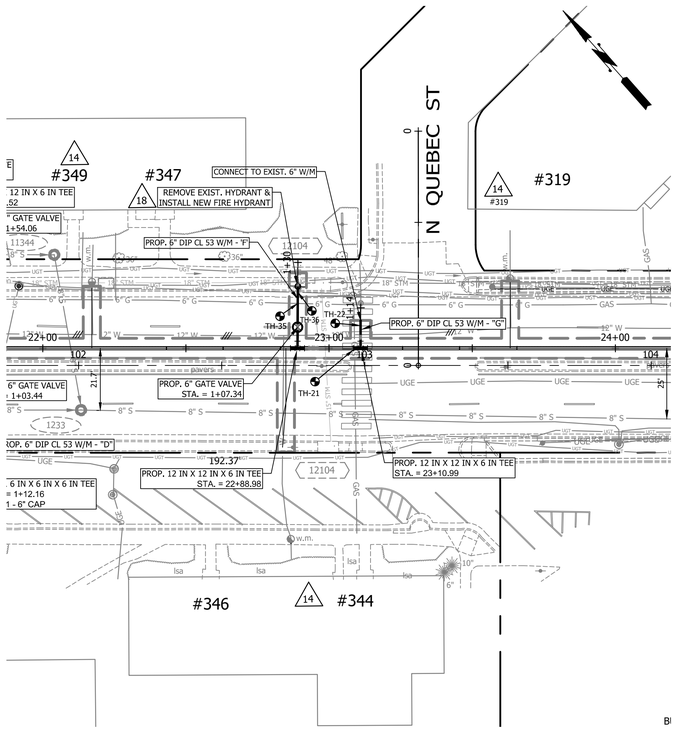
DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

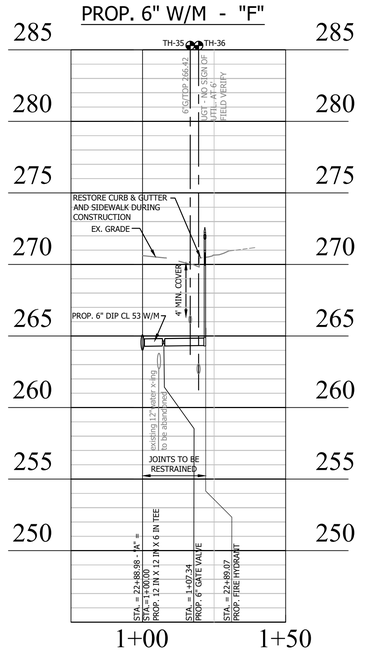
PLOTTED: FEBRUARY 10 2021

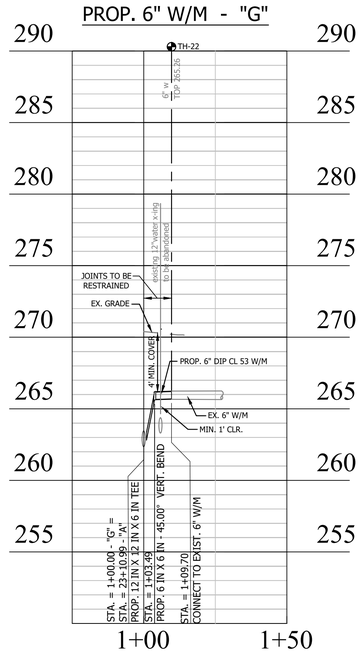
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C051.6

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21







WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE ASPHALT PAVEMENT WIDENING (WP-2) & PIPE TRENCH REINSTATEMENT FOR HCC WITH ASPHALT OVERLAY DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN COUNTY RIGHT OF WAY AND VDOT STANDARDS WITHIN VDOT RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED AS PER ARLINGTON COUNTY SPECIFICATION 02550. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 20 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. ONCE THE NEW THE 12" MAIN IS IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.
19. SERVICE RE-TAPS - 1 ½" AND 2" (TAP MAIN , INSTALL COPPER TUBING AND CONNECT TO EXISTING SERVICE LINE.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy P Flaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 7

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C051.7

REVISED ON 05/23/2018

Commonwealth of Virginia
Department of Transportation
April 2012

LUP-OC NOVA
Land Use Permit
Special Provisions for Pavement Open Cuts

Virginia Department of Transportation
NOVA Fairfax Permits
4975 Alliance Drive, Ste. 1N300
Fairfax, Virginia 22030

NOTE: Pavement restoration is a minimum 10' each side of the trench width for roads up to 5,000 ADT

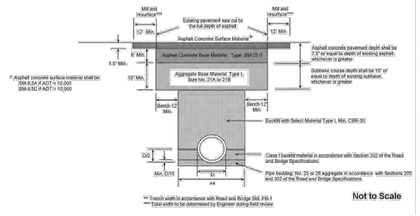
NOTE: Pavement restoration is a minimum 25' each side of the trench width for roads above 5,000 ADT

ADT (Average Daily Traffic)

Virginia Department of Transportation
NOVA District Materials Section

Detail: Pipe Bedding, Backfill and Asphalt Concrete Pavement Reinstatement

Note: This detail should not be used for longitudinal trenches in pavement which has an open graded drainage layer (OGDL) and/or cement treated aggregate base material (CTA).

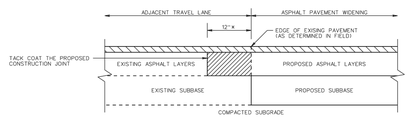


Not to Scale

Page 3 of 6

2016 ROAD & BRIDGE STANDARDS

WP-2



CONSTRUCTION JOINT DETAIL

REMOVE EXISTING ASPHALT LAYERS TO EXISTING SUBBASE AND REPLACE WITH PROPOSED ASPHALT WIDENING LAYERS

PROPOSED MINIMUM 1½ INCH THICK ASPHALT SURFACE COURSE (SEE NOTE 5)

* MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

NOTES:

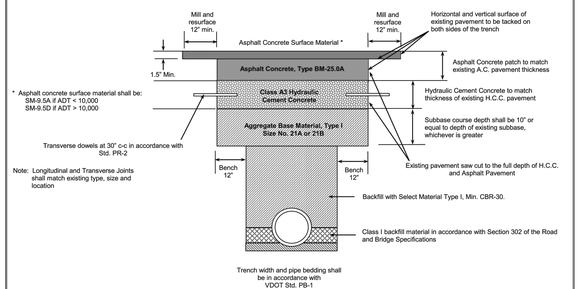
1. ASPHALT PAVEMENT WIDENING SHALL HAVE A PAVEMENT DESIGN IN ACCORDANCE WITH CURRENT VDOT PROCEDURES AND BE APPROVED BY THE ENGINEER.
2. THE PAVEMENT DESIGN FOR ASPHALT PAVEMENT WIDENING SHALL MEET OR EXCEED THE DEPTHS AND TYPES OF THE LAYERS OF EXISTING PAVEMENT. SUBSURFACE DRAINAGE OF THE EXISTING AND PROPOSED PAVEMENT SHALL BE ADDRESSED IN THE PAVEMENT DESIGN.
3. A MINIMUM OF THREE CORES SHALL BE TAKEN ALONG THE CENTER OF THE ADJACENT TRAVEL LANE TO DETERMINE THE TYPE AND THICKNESS OF EXISTING PAVEMENT LAYERS. THESE CORES SHALL BE SPACED NO MORE THAN 500 FEET APART.
4. THE ADJACENT TRAVEL LANE SHALL BE MILLED A MINIMUM DEPTH OF 1½ INCHES AND REPLACED WITH AN ASPHALT SURFACE COURSE TO MATCH THE PROPOSED PAVEMENT WIDENING SURFACE COURSE, UNLESS WAIVED BY THE ENGINEER.
5. THE ENGINEER MAY REQUIRE THE MILLING DEPTH OF THE EXISTING PAVEMENT TO BE ADJUSTED TO ACHIEVE AN ACCEPTABLE PAVEMENT CROSS-SLOPE AND EFFECTIVE SURFACE DRAINAGE.
6. EXISTING PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS SHALL BE RESTORED SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. FINAL TRANSVERSE PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS EXCEPT THAT ALL JOINTS AT TIE-IN LOCATIONS SHALL BE TESTED USING A 10 FOOT STRAIGHTEDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS.

VDOT ROAD AND BRIDGE STANDARDS	ASPHALT PAVEMENT WIDENING FOR WIDENING SUBJECT TO TRAFFIC VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE	315
303.02		

2016 ROAD & BRIDGE STANDARDS

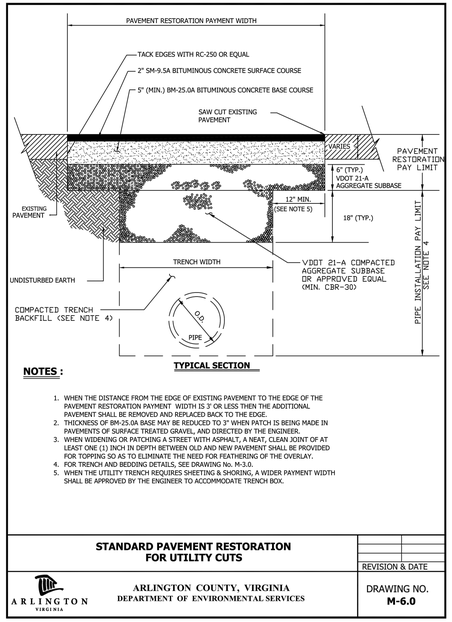
Virginia Department of Transportation
NOVA District Materials Section

Detail: Pipe Trench Reinstatement for Hydraulic Cement Concrete Pavement with Asphalt Overlay



Not to Scale

Q:\mat\ typical Sections\Pavement Details\Trench Reinstatement, Concrete with Asphalt Overlay Pavement (March 2013).doc



TYPICAL SECTION

NOTES :

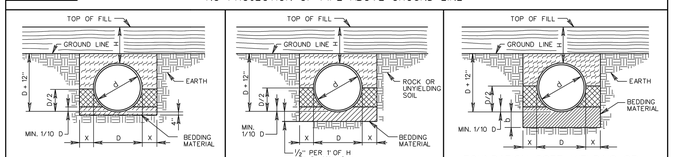
1. WHEN THE DISTANCE FROM THE EDGE OF EXISTING PAVEMENT TO THE EDGE OF THE PAVEMENT RESTORATION PAYMENT WIDTH IS 3' OR LESS THEN THE ADDITIONAL PAVEMENT SHALL BE REMOVED AND REPLACED BACK TO THE EDGE.
2. THICKNESS OF BM-25.0A BASE MAY BE REDUCED TO 3" WHEN PATCH IS BEING MADE IN PAVEMENTS OF SURFACE TREATED GRAVEL, AND DIRECTED BY THE ENGINEER.
3. WHEN WIDENING OR PATCHING A STREET WITH ASPHALT, A NEAT, CLEAN JOINT OF AT LEAST ONE (1) INCH IN DEPTH BETWEEN OLD AND NEW PAVEMENT SHALL BE PROVIDED FOR TOPPING SO AS TO ELIMINATE THE NEED FOR FEATHERING OF THE OVERLAY.
4. FOR TRENCH AND BEDDING DETAILS, SEE DRAWING No. M-3.0.
5. WHEN THE UTILITY TRENCH REQUIRES SHEETING & SHORING, A WIDER PAYMENT WIDTH SHALL BE APPROVED BY THE ENGINEER TO ACCOMMODATE TRENCH BOX.

STANDARD PAVEMENT RESTORATION FOR UTILITY CUTS	REVISION & DATE
ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES	DRAWING NO. M-6.0

2016 ROAD & BRIDGE STANDARDS

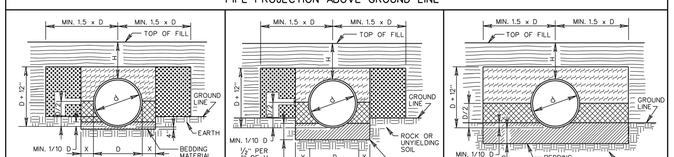
PB-1

NO PROJECTION OF PIPE ABOVE GROUND LINE



NORMAL EARTH FOUNDATION | ROCK FOUNDATION | FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL

PIPE PROJECTION ABOVE GROUND LINE



NORMAL EARTH FOUNDATION | ROCK FOUNDATION | FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL

BEDDING MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

FOR PLASTIC PIPE CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

FOR ALL OTHER PIPE REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

EMBANKMENT

REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

NOTES:

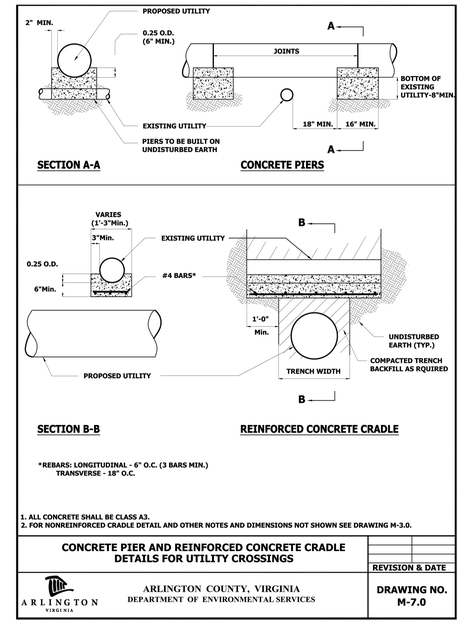
FOR GENERAL NOTES ON PIPE BEDDING, SEE INSTALLATION OF PIPE CULVERTS AND STORM SEWERS GENERAL NOTES ON SHEET 107.00.

CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26 MAY BE USED IN PLACE OF CLASS I BACKFILL.

CLASS I BACKFILL MATERIAL SHALL BE EXTENDED TO 12" ABOVE THE PROP. PIPE.

VDOT ROAD AND BRIDGE STANDARDS	INSTALL. OF PIPE CULVERTS AND STORM SEWERS CIRC. PIPE BEDDING AND BACKFILL - METHOD "A" VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 4	REVISION DATE	302 303
107.01	07/12	

2016 ROAD & BRIDGE STANDARDS



*REBARS: LONGITUDINAL - 6" O.C. (3 BARS MIN.)
TRANSVERSE - 18" O.C.

1. ALL CONCRETE SHALL BE CLASS A3.
2. FOR NONREINFORCED CRADLE DETAIL AND OTHER NOTES AND DIMENSIONS NOT SHOWN SEE DRAWING M-3.0.

CONCRETE PIER AND REINFORCED CONCRETE CRADLE DETAILS FOR UTILITY CROSSINGS	REVISION & DATE
ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES	DRAWING NO. M-7.0

FILENAME: R014-204-DETAILS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY:: LDIZON

FINAL DESIGN PLANS - SIGNED 2/9/21

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 41376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum	2/1/2021
QUALITY CONTROL ENGINEER	
K.N. Takitak	2.3.21
CONSTRUCTION MANAGEMENT SUPERVISOR	
	02.09.2021
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	02/09/21
TRANSPORTATION DIRECTOR	
Dabney R Carver	01/27/2021
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN NOTES & DETAILS - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

AS SHOWN

C052.1

REVISED ON 05/23/2018

POLYETHYLENE ENCASEMENT

INSTALLATION INSTRUCTIONS:

TAPING OVER POLYETHYLENE ENCASEMENT ALLOWS DIRECT TAPS TO BE MADE THROUGH THE TAPE AND POLYETHYLENE ENCASEMENT. ELIMINATES POTENTIAL REPAIRS TO EXPOSED AREA.

TIE STRAPS ALLOW EASY, QUICK, SECURE TIE DOWN OF POLYETHYLENE ENCASEMENT BEHIND THE BELL CONTOUR AND ON OVERLAPS AGAINST THE PIPE SURFACE.

FIGURE 1.
REMOVE ALL LUMPS OF CLAY, MUD, CINDERS, ETC. WHICH MAY HAVE ACCUMULATED ON THE SURFACE OF THE PIPE. A POLYETHYLENE TUBE SHOULD BE CUT SO THAT IT IS APPROXIMATELY TWO FEET LONGER THAN THE PIPE SECTION. SLIP THE TUBE ONTO THE PIPE. ALLOW APPROXIMATELY ONE FOOT OF THE TUBE TO OVERHANG EACH END OF THE PIPE.

FIGURE 2.
PUSH BACK THE OVERHANGING TUBE ENDS UNTIL THEY CLEAR THE PIPE ENDS.

FIGURE 3.
TAKE UP THE SLACK IN THE TUBE TO MAKE A SNUG BUT NOT TIGHT FIT. FOLD EXCESS BACK OVER THE TOP OF THE PIPE.

FIGURE 4.
SECURE THE FOLD WITH POLYETHYLENE COMPATIBLE ADHESIVE TAPE AT SEVERAL LOCATIONS ALONG THE PIPE BARREL.

FIGURE 5.
DIG A SHALLOW BELL-HOLE IN THE TRENCH BOTTOM AT THE JOINT LOCATION.

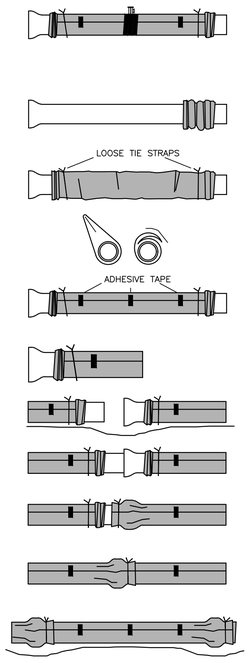
FIGURE 6.
PLACE THE PIPE INTO THE TRENCH.

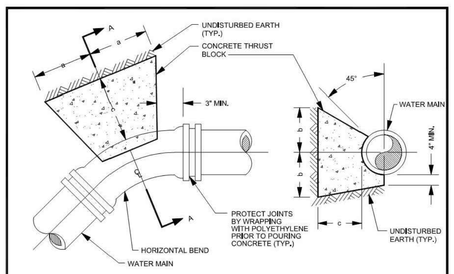
FIGURE 7.
ASSEMBLE THE JOINT.

FIGURE 8.
PULL THE POLYETHYLENE TUBE END OF THE PREVIOUSLY INSTALLED PIPE OVER THE NEW PIPE AND SECURE WITH THE TIE STRAP FROM THE PRECEDING PIPE BELL.

FIGURE 9.
OVERLAP THE SECURED TUBE END OF THE NEW PIPE SECTION. SECURE THE NEW TUBE END IN PLACE WITH THE SPIGOT END TIE STRAP.

FIGURE 10.
REPAIR ALL RIPS, TEARS, OR OTHER TUBE DAMAGE WITH SUITABLE ADHESIVE TAPE. EXPERIENCE HAS SHOWN THAT VERY SMALL PIN POINT SIZED PUNCTURES NEED NOT BE REPAIRED.





PIPE DIA.	HORIZONTAL BEND								MIN. C
	11 1/4° (1/32)		22 1/2° (1/16)		45° (1/8)		90° (1/4)		
	a	b	a	b	a	b	a	b	
6"	5"	7"	7"	7"	11"	9"	15"	12"	18"
8"	7"	8"	10"	9"	14"	12"	20"	16"	18"
12"	10"	10"	16"	12"	23"	16"	36"	20"	18"
16"	12"	14"	20"	16"	32"	20"	48"	24"	24"

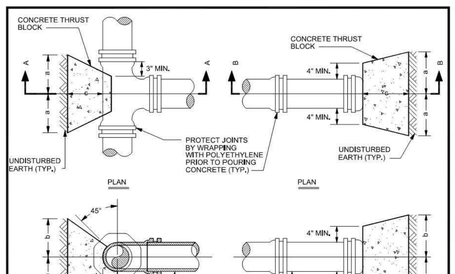
NOTES :
1. ALL BEARING SURFACES FOR CONCRETE BLOCKING SHALL BE UNDISTURBED EARTH WITH A MINIMUM BEARING VALUE OF 2,000 PSF. THE MINIMUM THICKNESS OF UNDISTURBED EARTH BEHIND THE BLOCKING SHALL BE 5 FEET.
2. BLOCKING SHOWN IS FOR A MAXIMUM STATIC PRESSURE OF 120 PSI PLUS WATER HAMMER ALLOWANCE OF 120 PSI.
3. FORM THE NON-BEARING SIDES OF THRUST BLOCKS BY USING PROPER FORMWORK.
4. SPECIAL BLOCKING DESIGN SHALL BE REQUIRED FOR CONDITIONS AND SIZES OTHER THAN THOSE INDICATED ON THIS SHEET.

CONCRETE THRUST BLOCKS FOR HORIZONTAL BENDS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.0**



PIPE DIAMETER	a	b	MIN. C	
			TEES	CAPS
6"	11"	11"	12"	18"
8"	15"	15"	12"	18"
12"	24"	20"	18"	18"
16"	33"	24"	24"	24"

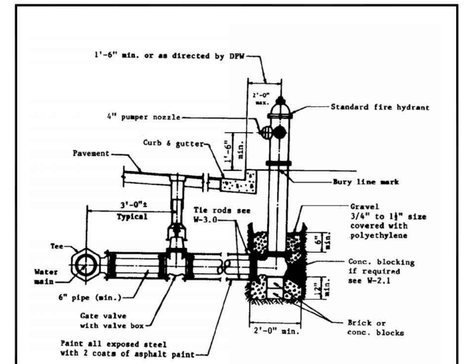
NOTES :
1. ALL BEARING SURFACES FOR CONCRETE BLOCKING SHALL BE UNDISTURBED EARTH WITH A MINIMUM BEARING VALUE OF 2,000 PSF, THE MINIMUM THICKNESS OF UNDISTURBED EARTH BEHIND THE BLOCKING SHALL BE 5 FEET.
2. BLOCKING SHOWN IS FOR A MAXIMUM STATIC PRESSURE OF 120 PSI PLUS WATER HAMMER ALLOWANCE OF 120 PSI. SPECIAL BLOCKING DESIGN SHALL BE REQUIRED FOR CONDITIONS AND SIZES OTHER THAN THOSE INDICATED ON THIS SHEET.
3. FORM THE NON-BEARING SIDES OF THRUST BLOCKS BY USING PROPER FORMWORK.
4. THE BLOCKS FOR THE TEES SHALL BE SIZED ACCORDING TO THE DIAMETER OF THE BRANCH MAIN.

CONCRETE THRUST BLOCKS FOR TEES AND CAPS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.1**



NOTES:
1. **All valves and fire hydrants shall be strapped to main unless directed otherwise.**
2. **Provide vertical offsets or bends as required to set hydrants at proper grade.**
3. **Maximum bury depth of fire hydrant is 6' unless approved otherwise.**

FIRE HYDRANT SETTING

REVISION & DATE

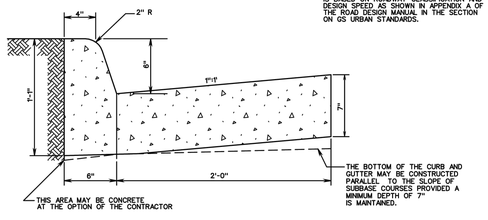
ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-7.0**

2016 ROAD & BRIDGE STANDARDS

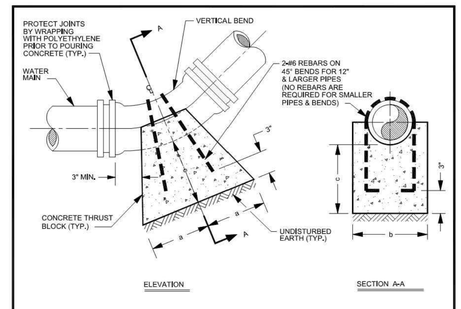
CG-6

NOTES:
1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAD FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.



SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: — SHEET 1 OF 1 201.03

2016 ROAD & BRIDGE STANDARDS



PIPE DIA.	LOWER VERTICAL BEND								
	11 1/4° (1/32)			22 1/2° (1/16)			45° (1/8)		
	a	b	c	a	b	c	a	b	c
6"	3"	14"	9"	3"	14"	9"	6"	14"	9"
8"	3"	16"	9"	5"	16"	9"	9"	16"	9"
12"	4"	20"	9"	8"	20"	9"	14"	22"	14"
16"	6"	24"	9"	11"	24"	11"	19"	26"	19"

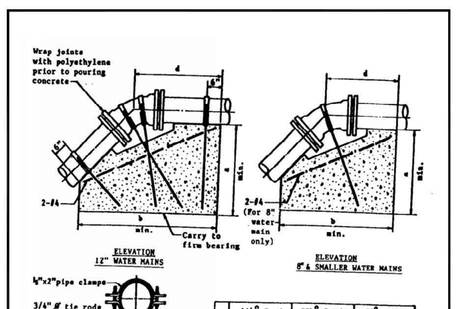
NOTES :
1. ALL BEARING SURFACES FOR CONCRETE BLOCKING SHALL BE UNDISTURBED EARTH WITH A MINIMUM BEARING VALUE OF 2,000 PSF. THE MINIMUM THICKNESS OF UNDISTURBED EARTH BENEATH THE BLOCKING SHALL BE 5 FEET.
2. BLOCKING SHOWN IS FOR A MAXIMUM STATIC PRESSURE OF 120 PSI PLUS WATER HAMMER ALLOWANCE OF 120 PSI. SPECIAL BLOCKING DESIGN SHALL BE REQUIRED FOR CONDITIONS AND SIZES OTHER THAN THOSE INDICATED ON THIS SHEET.
3. FORM THE NON-BEARING SIDES OF THRUST BLOCKS BY USING PROPER FORMWORK.
4. PAINT ALL EXPOSED STEEL WITH TWO COATS OF ASPHALT PAINT.

CONCRETE THRUST BLOCKS FOR LOWER VERTICAL BENDS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.2**



	11½° Bend		22½° Bend		45° Bend	
	6"	8" 12"	6"	8" 12"	6"	8" 12"
a	21"	27" 36"	30"	39" 48"	42"	48" 60"
b	27"	36" 51"	36"	54" 78"	42"	54" 84"
c	30"	30" 36"	30"	30" 36"	30"	30" 36"
d	15"	21" 27"	21"	30" 42"	27"	36" 48"

NOTES:
1. **Blocking shown is for maximum static pressure of 120 psi plus water hammer allowance of 120 psi. Special blocking shall be designed for sizes and conditions other than those indicated.**
2. **Paint all exposed steel with 2 coats of asphalt paint.**
3. **Form sides of thrust blocks.**

CONCRETE THRUST BLOCKS UPPER VERTICAL BENDS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.3**

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA — SOLOMON W SHIKUR, Lic. No. 41376, 12/4/20 — PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtah CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN NOTES & DETAILS - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

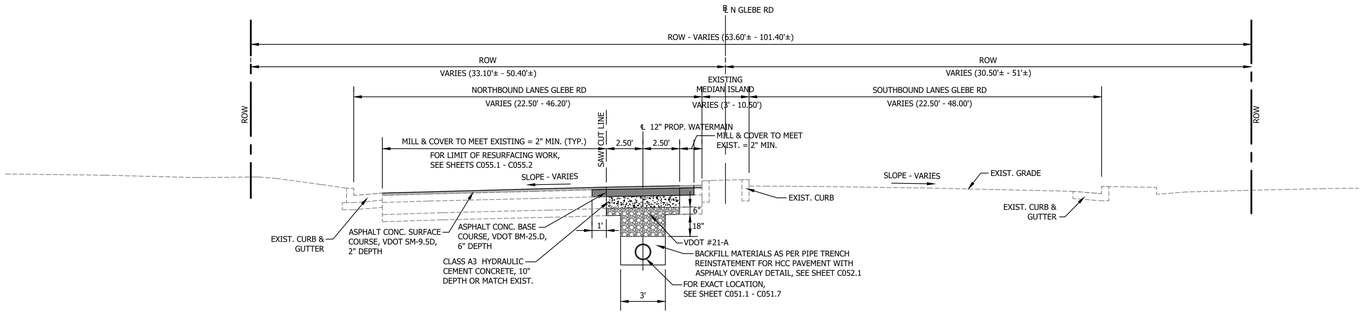
SCALE:

AS SHOWN

C052.2

FILENAME: R014-204-DETAILS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN R ANS - SIGNED 2/9/21

REVISED ON 05/23/2018



TYPICAL ROADWAY SECTION - N. GLEBE ROAD

SCALE: 1" = 5'

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 41376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum — QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takyak — CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach — TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver — PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN NOTES & DETAILS - 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

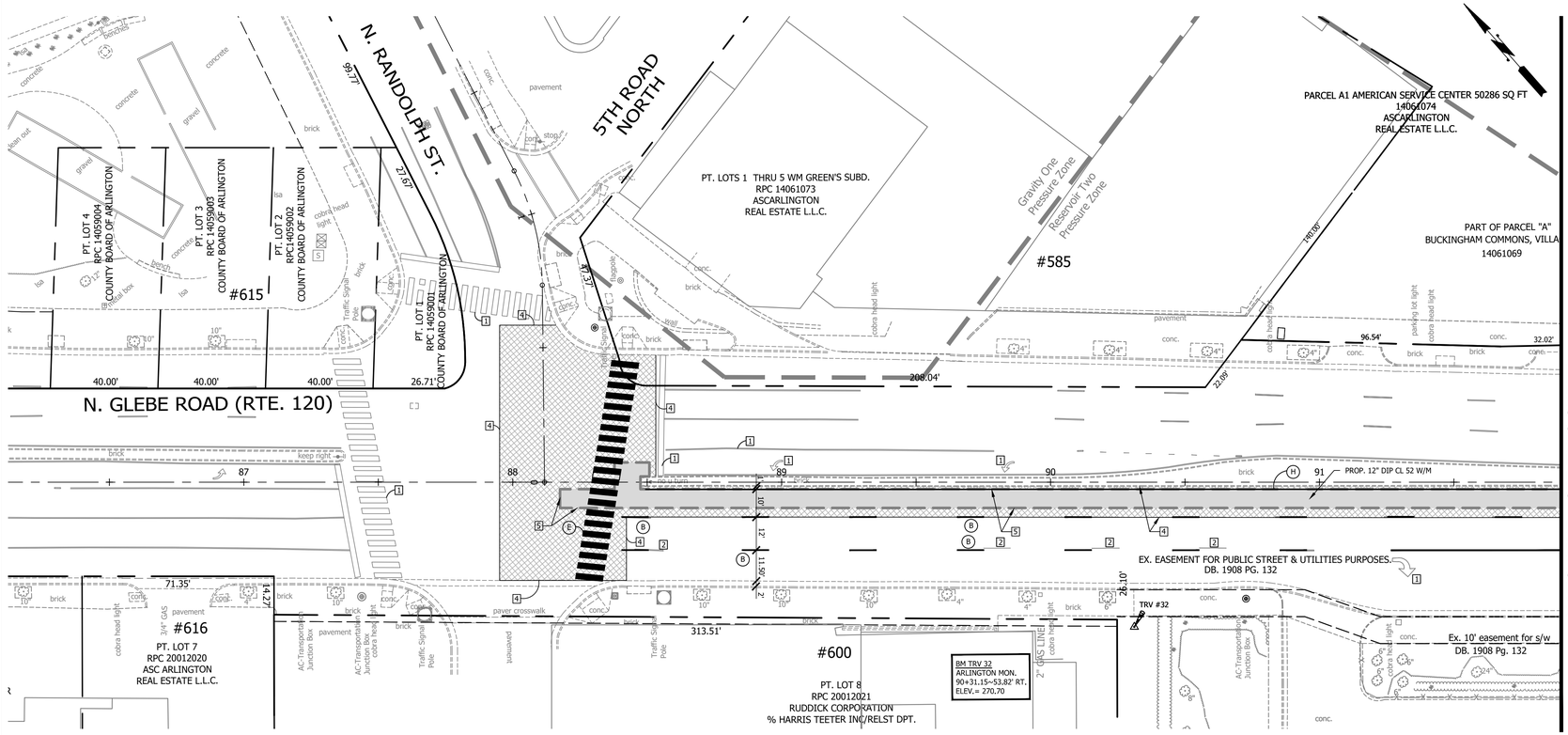
SCALE:

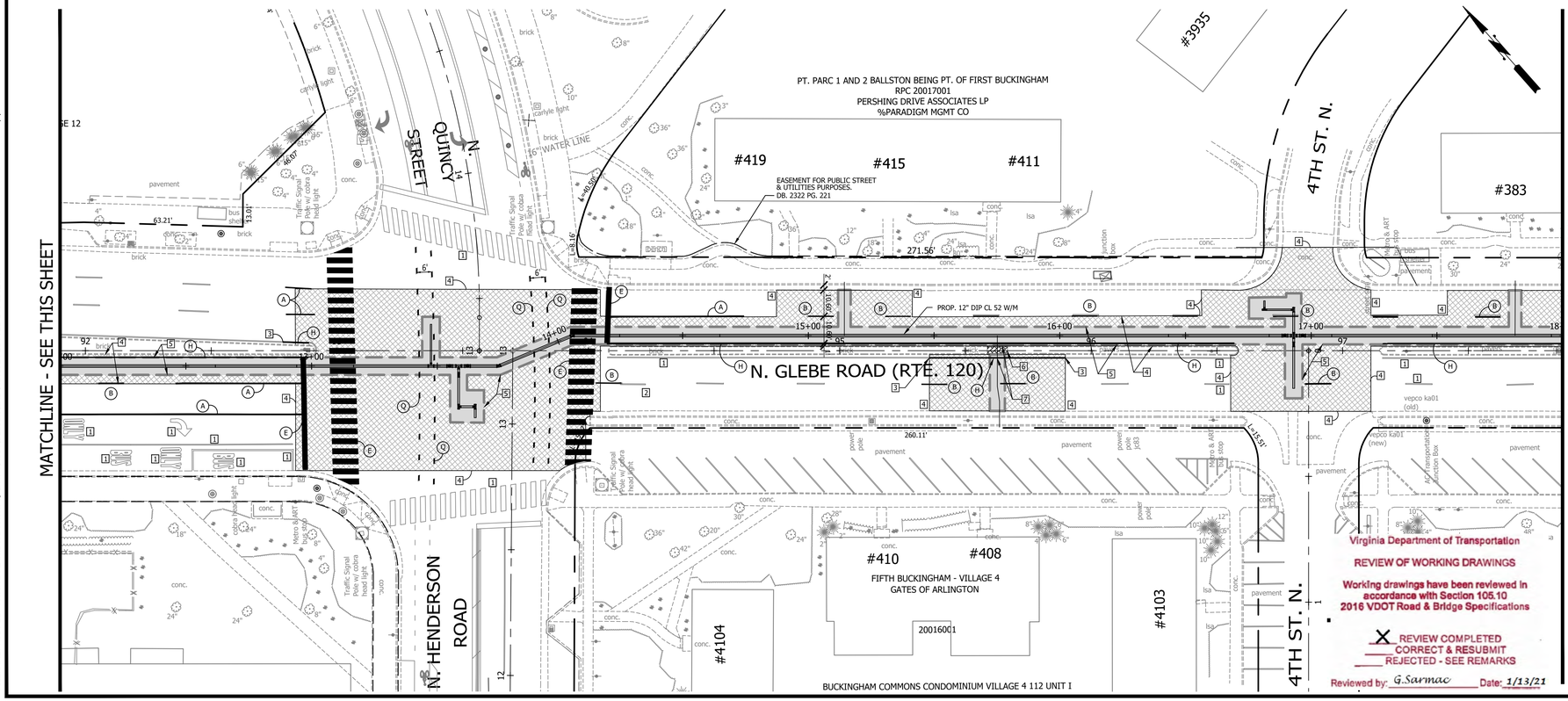
AS SHOWN

C052.3

FILENAME: R014-204-DETAILS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018





STANDARD PAVEMENT MARKING LEGEND:

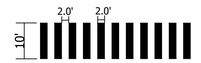
(A) TYPE B CLASS 1.....,WHITE 4" WIDTH	PARKING LANES, EDGE LINES, LANE LINES
(B) TYPE B CLASS 1.....,WHITE 4" WIDTH, 10' LONG, 30' SPACING	DASHED LANE LINES
(C) TYPE B CLASS 1.....,WHITE 4" WIDTH, 2' LONG, 10' SPACING	LANE TRANSITIONS, TURN LANE SKIPS
(D) TYPE B CLASS 1.....,WHITE 18" WIDTH	STOP BARS
(E) TYPE B CLASS 1.....,WHITE 24" WIDTH	CONTINENTAL CROSS WALKS
(F) TYPE B CLASS 1.....,WHITE 6" WIDTH	TURN LANES,TRANSVERSE CROSSWALKS, BIKE LANES
(G) TYPE B CLASS 1.....,YELLOW 4" WIDTH, 10' LONG, 30' SPACING	DIVIDED TRAFFIC, TWO WAY TURN LANES
(H) TYPE B CLASS 1.....,YELLOW 4" WIDTH	EDGE LINES
(I) TYPE B CLASS 1.....,YELLOW 4" WIDTH, DOUBLE LINE, 4" SPACING	CENTERLINES
(J) TYPE B CLASS 1.....,WHITE 6" WIDTH, 10' SPACING @45 DEGREE	HATCH LINES, SAFETY ZONES
(K) TYPE B CLASS 1.....,WHITE SINGLE ARROW	TURN LANES
(L) TYPE B CLASS 1.....,WHITE COMBINATION ARROW	TURN LANES
(M) TYPE B CLASS 1.....,WHITE 8' LETTERS	PAVEMENT LETTERS (STOP, YIELD, BUS, ONLY etc.)
(N) TYPE B CLASS 1.....,WHITE 6" WIDTH, 2' LONG, 10' SPACING	LANE TRANSITIONS, TURN LANE SKIPS
(O) TYPE B CLASS 1.....,WHITE 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS
(P) TYPE B CLASS 1.....,YELLOW 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS
(Q) TYPE B CLASS 1.....,WHITE 6" WIDTH, 2' LONG, 4' SPACING	LANE TRANSITIONS

SIGN AND PAVEMENT MARKING NOTES:

1. STREET WIDTH MEASUREMENTS ARE FROM FACE OF CURB TO FACE OF CURB. LANES ARE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING .
2. CONTACT DENNIS HOWELL OR HIS DESIGNEE AT 703-228-6598 OR (571) 437-1077 TO APPROVE MARKING LAYOUT 48 HRS. PRIOR TO INSTALLATION OF MARKINGS.
3. PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THE FOLLOWING AND ANY REVISIONS HERE TO:
   A.) THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   B.) ARLINGTON COUNTY MARKING STANDARDS.
4. ALL MARKINGS SHALL BE THERMOPLASTIC PER ARLINGTON COUNTY MARKING STANDARDS.
5. STOP BARS SHALL BE A MINIMUM OF 4' IN ADVANCE OF A MARKED CROSSWALK. IF THERE IS NO MARKED CROSSWALK, STOP BAR SHALL BE NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTED TRAVELED WAY.
6. CROSSWALKS SHALL BE 10' WIDE UNLESS OTHERWISE NOTED.
7. LEFT TURN ARROWS SHALL BE LOCATED 25' BACK FROM STOP BAR. FOR ADDITIONAL ARROWS FOLLOW COUNTY MARKING STANDARDS.
8. ON-STREET PARKING LANE IS 7' WIDE (UNLESS OTHERWISE NOTED) AND MARKED WITH 4" WIDE WHITE LINES. BEGINNING AND END OF PARKING SHALL BE MARKED WITH AN END LINE PERPENDICULAR TO CURB EXCEPT AT NUBS OR WHERE OTHERWISE INDICATED.
9. SHARED LANE MARKINGS SHALL BE PLACED IN CENTER OF LANE, 250' APART UNLESS OTHERWISE SPECIFIED.
10. BIKE LANE SYMBOLS TO BE PLACED 330' APART UNLESS OTHERWISE SPECIFIED.

LEGEND

EXISTING		PROPOSED
	BUS STOP	
	FIRE HYDRANT	
	PARKING METER	
	SIGN	
(A)	STRIPING	(A)



HIGH VISIBILITY CROSSWALK
NOT TO SCALE

CONSTRUCTION NOTES:

1	EXISTING PAVEMENT MARKINGS TO REMAIN.
2	ERADICATE EXISTING PAVEMENT MARKINGS.
3	TIE INTO EXISTING PAVEMENT MARKINGS.
4	LIMIT OF MILL & RESURFACE OF EXIST. PAVEMENT
5	LIMIT OF FULL DEPTH PAVEMENT REPLACEMENT
6	REMOVE AND REPLACE CONCRETE AND BRICK PAVERS (ARLINGTON COUNTY DETAIL R-2.1)
7	REMOVE AND REPLACE CONCRETE CURB, STANDARD 6" (VDOT CG-2)

PAVEMENT LEGEND:

- EXIST. PAVEMENT TO BE REMOVED (FULL DEPTH SAW CUT AND REPLACE WITH NEW PAVEMENT)
- MILL AND RESURFACE EXISTING PAVEMENT (PROVIDE 1 ½" MIN. MILLING DEPTH)

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 41376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy P. Flaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtah CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R. Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

PAVING AND PAVEMENT MARKING PLAN - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

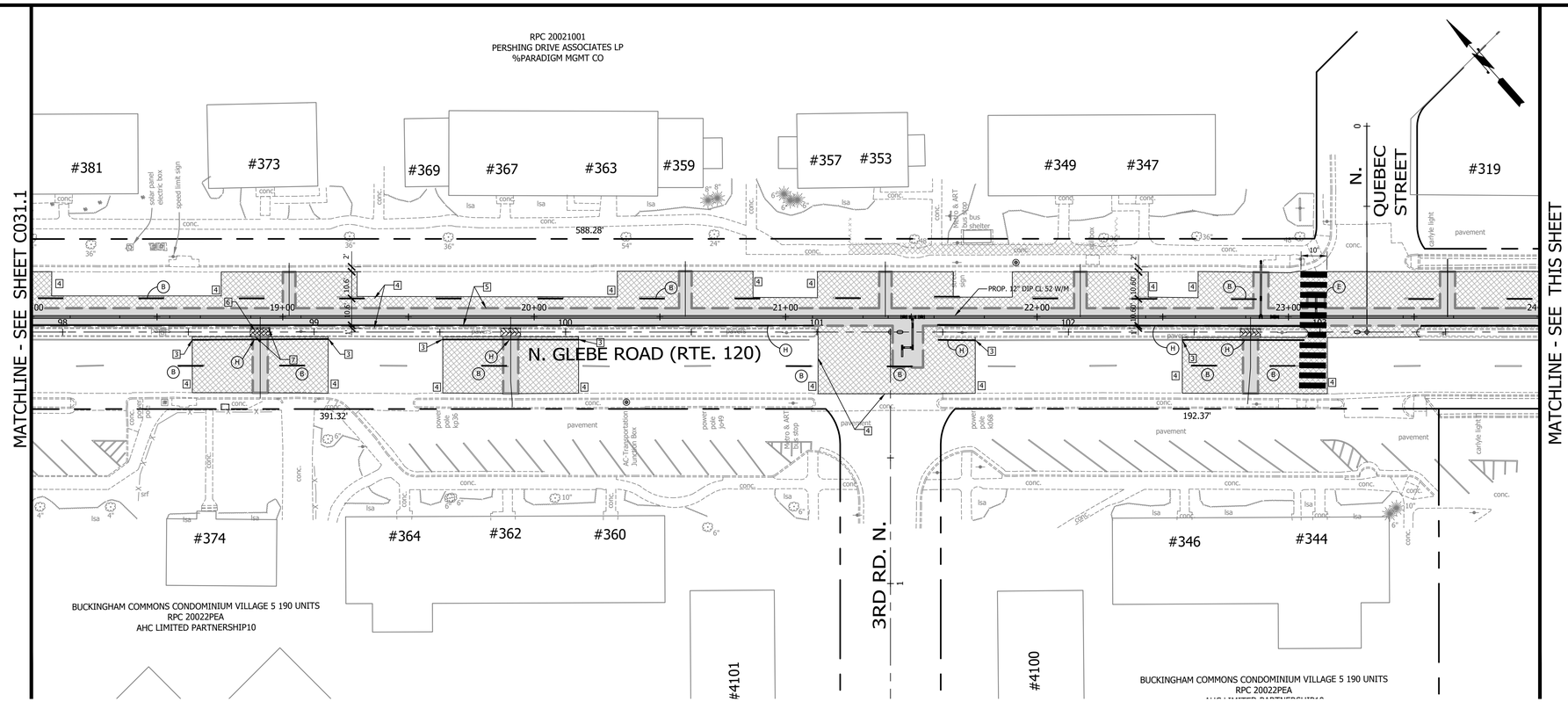
SCALE:

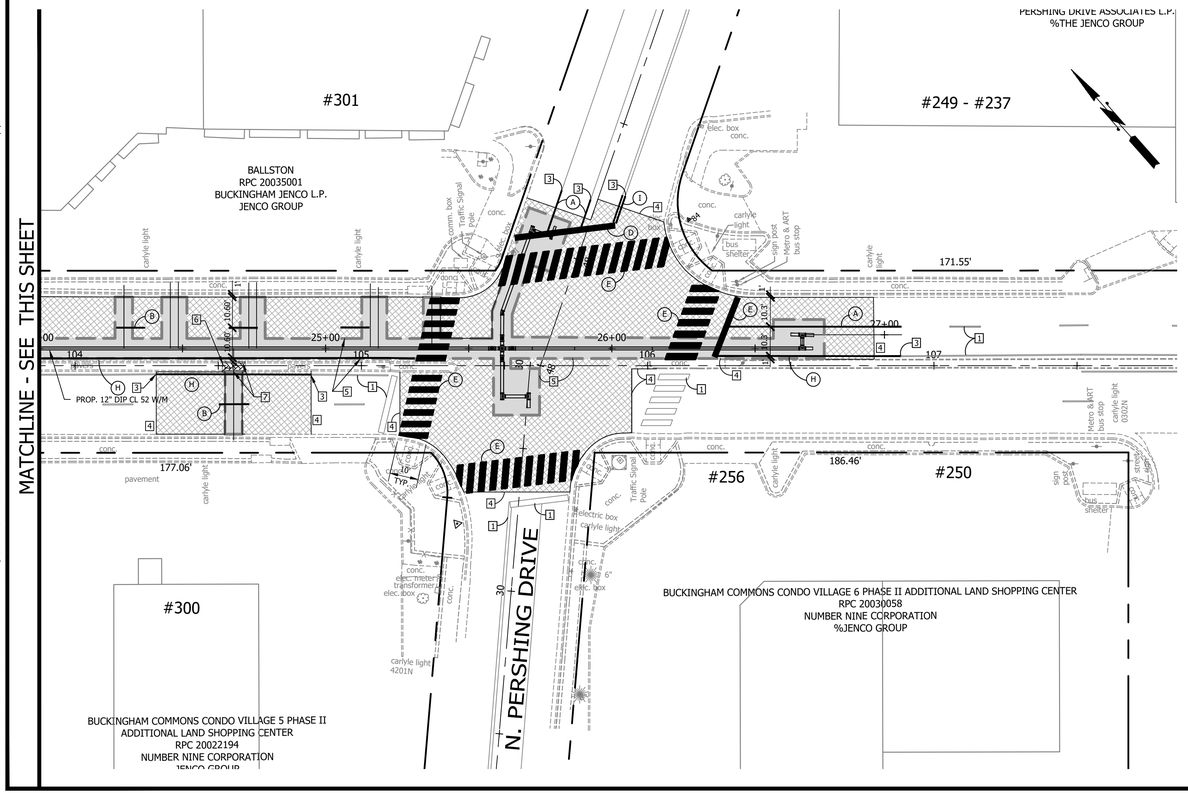
0 25 50
GRAPHIC SCALE

C055.1

FILENAME: R014-227-PAVING PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018





STANDARD PAVEMENT MARKING LEGEND:

(A) TYPE B CLASS 1.....WHITE 4" WIDTH	PARKING LANES, EDGE LINES, LANE LINES
(B) TYPE B CLASS 1.....WHITE 4" WIDTH, 10' LONG, 30' SPACING	DASHED LANE LINES
(C) TYPE B CLASS 1.....WHITE 4" WIDTH, 2' LONG, 10' SPACING	LANE TRANSITIONS, TURN LANE SKIPS
(D) TYPE B CLASS 1.....WHITE 18" WIDTH	STOP BARS
(E) TYPE B CLASS 1.....WHITE 24" WIDTH	CONTINENTAL CROSS WALKS
(F) TYPE B CLASS 1.....WHITE 6" WIDTH	TURN LANES,TRANSVERSE CROSSWALKS, BIKE LANES
(G) TYPE B CLASS 1.....YELLOW 4" WIDTH, 10' LONG, 30' SPACING	DIVIDED TRAFFIC, TWO WAY TURN LANES
(H) TYPE B CLASS 1.....YELLOW 4" WIDTH	EDGE LINES
(I) TYPE B CLASS 1.....YELLOW 4" WIDTH, DOUBLE LINE, 4" SPACING	CENTERLINES
(J) TYPE B CLASS 1.....WHITE 6" WIDTH, 10' SPACING @45 DEGREE	HATCH LINES, SAFETY ZONES
(K) TYPE B CLASS 1.....WHITE SINGLE ARROW	TURN LANES
(L) TYPE B CLASS 1.....WHITE COMBINATION ARROW	TURN LANES
(M) TYPE B CLASS 1.....WHITE 8' LETTERS	PAVEMENT LETTERS (STOP, YIELD, BUS, ONLY etc.)
(N) TYPE B CLASS 1.....WHITE 6" WIDTH, 2' LONG, 10' SPACING	LANE TRANSITIONS, TURN LANE SKIPS
(O) TYPE B CLASS 1.....WHITE 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS
(P) TYPE B CLASS 1.....YELLOW 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS
(Q) TYPE B CLASS 1.....WHITE 6" WIDTH, 2' LONG, 4' SPACING	LANE TRANSITIONS

SIGN AND PAVEMENT MARKING NOTES:

1. STREET WIDTH MEASUREMENTS ARE FROM FACE OF CURB TO FACE OF CURB. LANES ARE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING .
2. CONTACT DENNIS HOWELL OR HIS DESIGNEE AT 703-228-6598 OR (571) 437-1077 TO APPROVE MARKING LAYOUT 48 HRS. PRIOR TO INSTALLATION OF MARKINGS.
3. PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THE FOLLOWING AND ANY REVISIONS HERE TO:
   A.) THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   B.) ARLINGTON COUNTY MARKING STANDARDS.
4. ALL MARKINGS SHALL BE THERMOPLASTIC PER ARLINGTON COUNTY MARKING STANDARDS.
5. STOP BARS SHALL BE A MINIMUM OF 4' IN ADVANCE OF A MARKED CROSSWALK. IF THERE IS NO MARKED CROSSWALK, STOP BAR SHALL BE NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTED TRAVELED WAY.
6. CROSSWALKS SHALL BE 10' WIDE UNLESS OTHERWISE NOTED.
7. LEFT TURN ARROWS SHALL BE LOCATED 25' BACK FROM STOP BAR. FOR ADDITIONAL ARROWS FOLLOW COUNTY MARKING STANDARDS.
8. ON-STREET PARKING LANE IS 7' WIDE (UNLESS OTHERWISE NOTED) AND MARKED WITH 4" WIDE WHITE LINES. BEGINNING AND END OF PARKING SHALL BE MARKED WITH AN END LINE PERPENDICULAR TO CURB EXCEPT AT NUBS OR WHERE OTHERWISE INDICATED.
9. SHARED LANE MARKINGS SHALL BE PLACED IN CENTER OF LANE, 250' APART UNLESS OTHERWISE SPECIFIED.
10. BIKE LANE SYMBOLS TO BE PLACED 330' APART UNLESS OTHERWISE SPECIFIED.

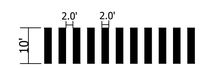
PAVEMENT LEGEND:

EXIST. PAVEMENT TO BE REMOVED (FULL DEPTH SAW CUT AND REPLACE WITH NEW PAVEMENT)

MILL AND RESURFACE EXISTING PAVEMENT (PROVIDE 1 ½" MIN. MILLING DEPTH)

LEGEND

EXISTING		PROPOSED
	BUS STOP	
	FIRE HYDRANT	
	PARKING METER	
	SIGN	
(A)	STRIPING	(A)



HIGH VISIBILITY CROSSWALK
NOT TO SCALE

CONSTRUCTION NOTES:

1. EXISTING PAVEMENT MARKINGS TO REMAIN.
2. ERADICATE EXISTING PAVEMENT MARKINGS.
3. TIE INTO EXISTING PAVEMENT MARKINGS.
4. LIMIT OF MILL & RESURFACE OF EXIST. PAVEMENT
5. LIMIT OF FULL DEPTH PAVEMENT REPLACEMENT
6. REMOVE AND REPLACE CONCRETE AND BRICK PAVERS (ARLINGTON COUNTY DETAIL R-2.1)
7. REMOVE AND REPLACE CONCRETE CURB, STANDARD 6" (VDOT CG-2)

Virginia Department of Transportation
REVIEW OF WORKING DRAWINGS
Working drawings have been reviewed in accordance with Section 105.10 2016 VDOT Road & Bridge Specifications
X REVIEW COMPLETED
____ CORRECT & RESUBMIT
____ REJECTED - SEE REMARKS
Reviewed by: G.Sarmac Date: 1/13/21

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

PAVING AND PAVEMENT MARKING PLAN - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

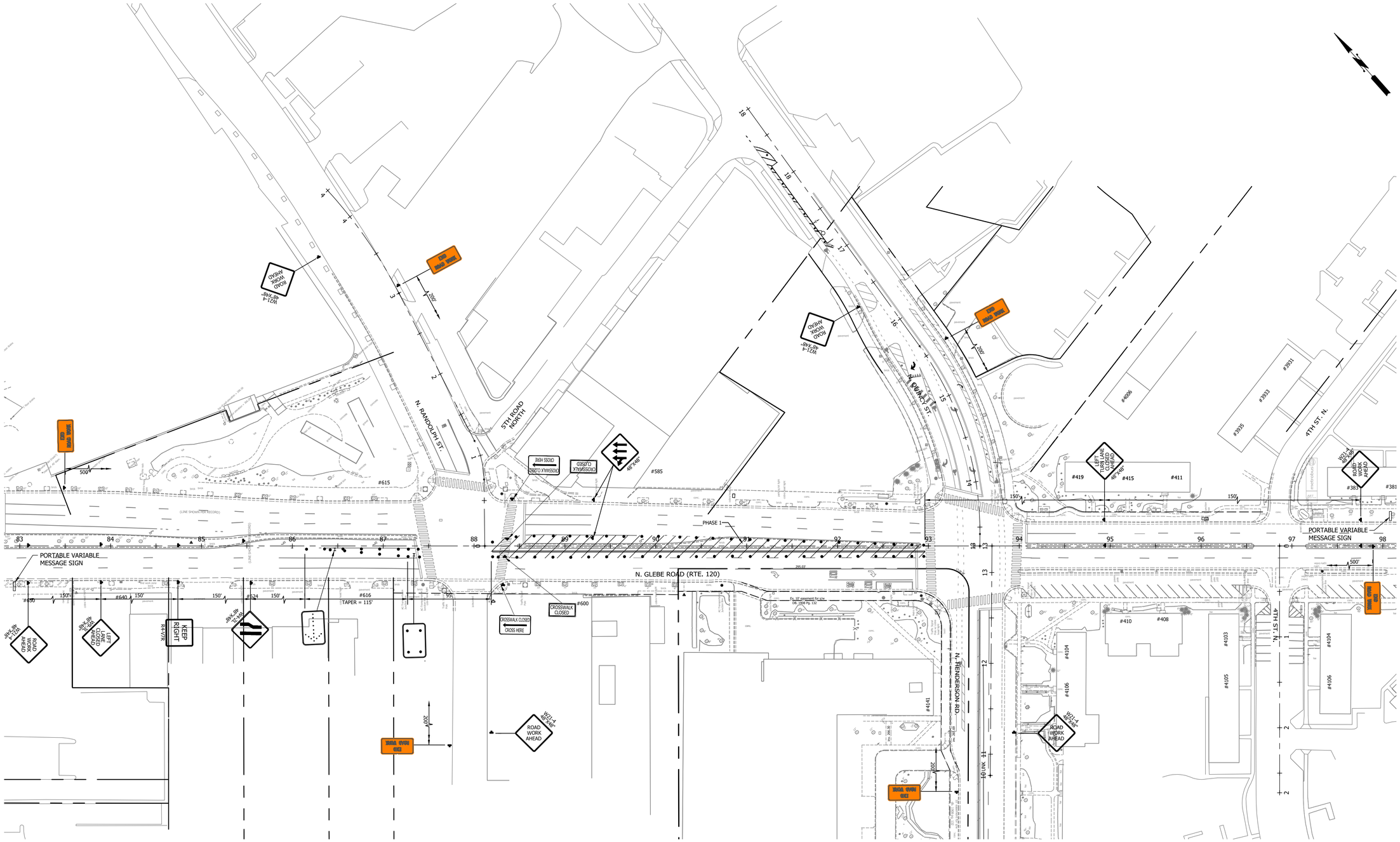
0 25 50
GRAPHIC SCALE

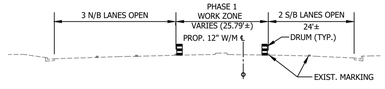
C055.2

FINAL DESIGN PLANS - SIGNED 2/9/21

FILENAME: R014-227-PAVING PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018





PHASE 1 - N. GLEBE ROAD

NOTES:

1. PHASE 1 WORK SHALL BE COMPLETED IN 22 CALENDAR DAYS.
2. TYPICAL FIGURES USED IN THIS PHASE:
   (A) TTC-17.2
   (B) TTC-23.2
3. CONTRACTOR TO NOTIFY COUNTY STAFF TO INSTALL TEMPORARY NO PARKING SIGNS 1 WEEK PRIOR TO CONSTRUCTION.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takyiak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MAINTENANCE OF TRAFFIC PLAN - 1
PHASE 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

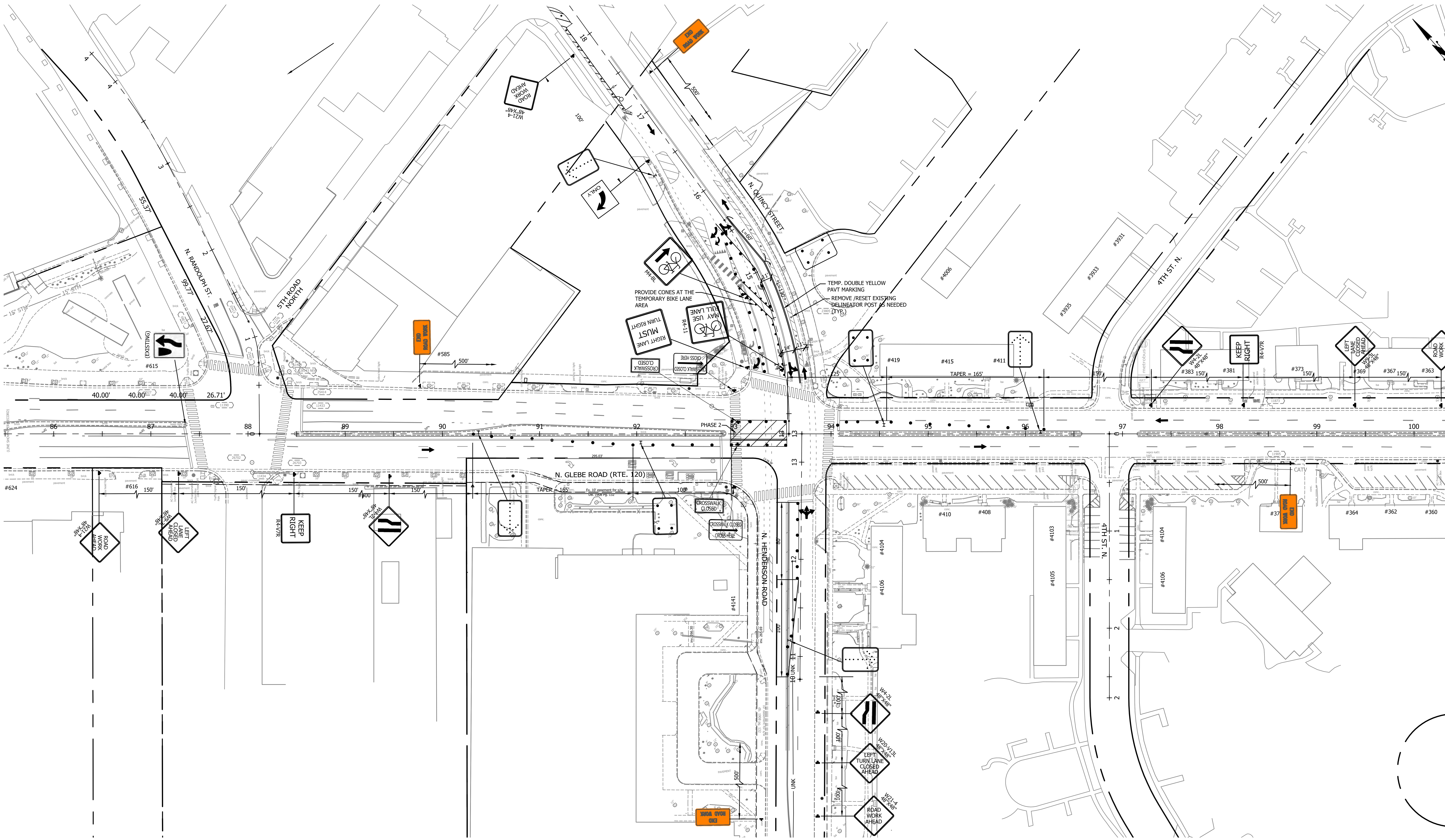
SCALE:

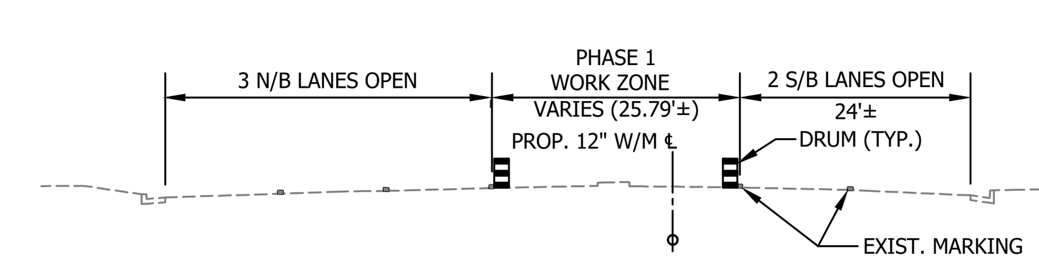
0 50 100
GRAPHIC SCALE

C121.1

FILENAME: R014-286-MOT.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

FINAL DESIGN PLANS - SIGNED 2/9/21





PHASE 1 - N. GLEBE ROAD

1 N/B LANE PHASE 3

NOTES:

1. PHASE 2 WORK SHALL BE COMPLETED IN 6 CALENDAR DAYS.
2. TYPICAL FIGURES USED IN THIS PHASE:
   (A) TTC-17.2
   (B) TTC-23.2
   (C) TTC-27.2
3. CONTRACTOR TO NOTIFY COUNTY STAFF TO INSTALL TEMPORARY NO PARKING SIGNS 1 WEEK PRIOR TO CONSTRUCTION.
4. CONTRACTORS MUST HAVE FLAGGERS & POLICE ASSISTANCE DURING CONSTRUCTION. CONTRACTOR TO CONSIDER NIGHT WORK DURING THE CONSTRUCTION ON THE INTERSECTION AREAS.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum — QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak — CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach — TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver — PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MAINTENANCE OF TRAFFIC PLAN - 2
PHASE 2

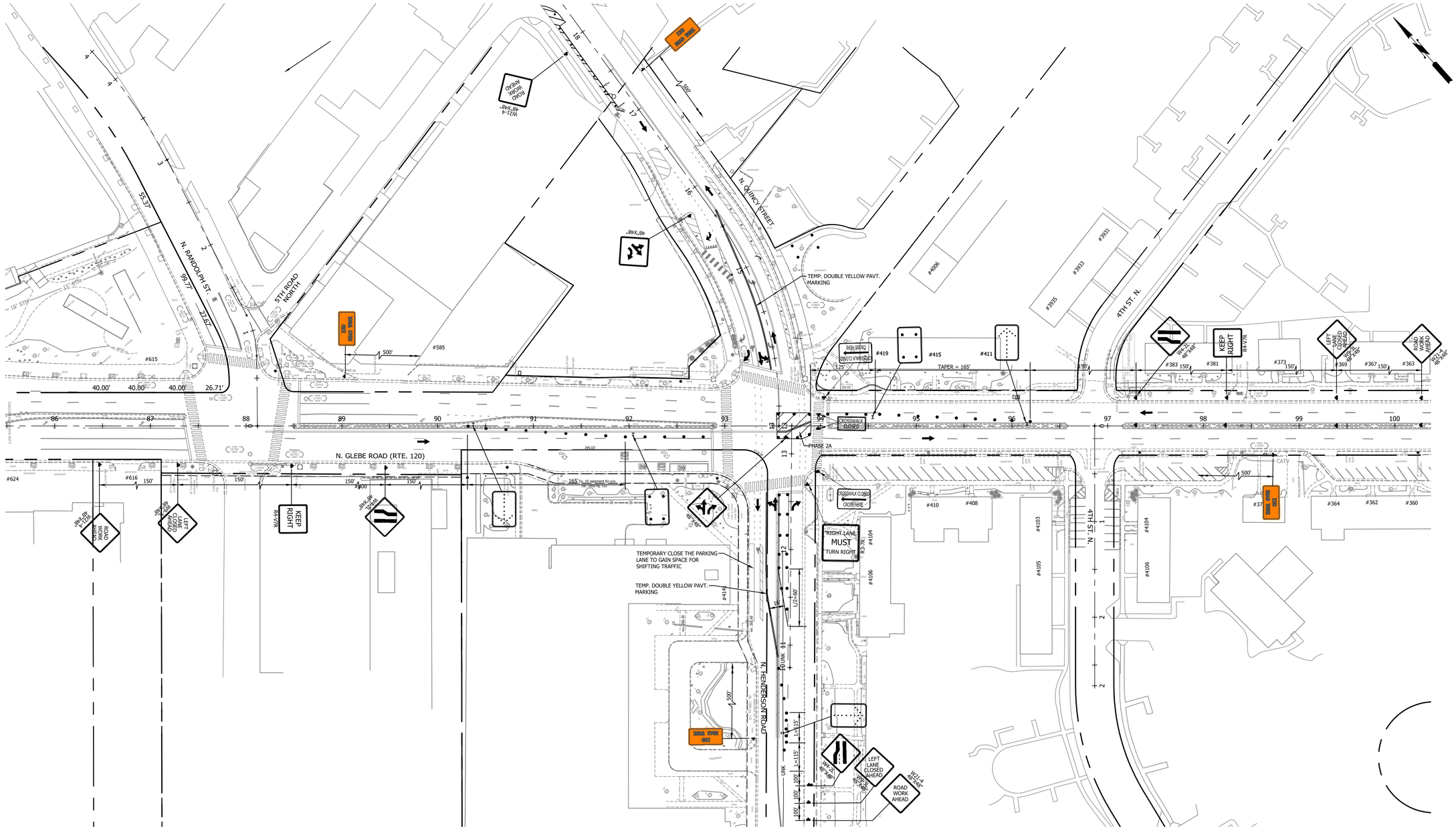
DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:
0 50 100
GRAPHIC SCALE

C121.2

REVISED ON 05/23/2018



NOTES:

1. PHASE 2 WORK SHALL BE COMPLETED IN 2 CALENDAR DAYS.
2. TYPICAL FIGURES USED IN THIS PHASE:
   (A) TTC-17.2
   (B) TTC-23.2
   (C) TTC -29.2
3. CONTRACTOR TO NOTIFY COUNTY STAFF TO INSTALL TEMPORARY NO PARKING SIGNS 1 WEEK PRIOR TO CONSTRUCTION.
4. CONTRACTORS MUST HAVE FLAGGERS & POLICE ASSISTANCE DURING CONSTRUCTION. CONTRACTOR TO CONSIDER NIGHT WORK DURING THE CONSTRUCTION ON THE INTERSECTION AREAS.

FINAL DESIGN PLANS - SIGNED 2/9/21

FILENAME: R014-286-MOT.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 41376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MAINTENANCE OF TRAFFIC PLAN - 2A PHASE 2A

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

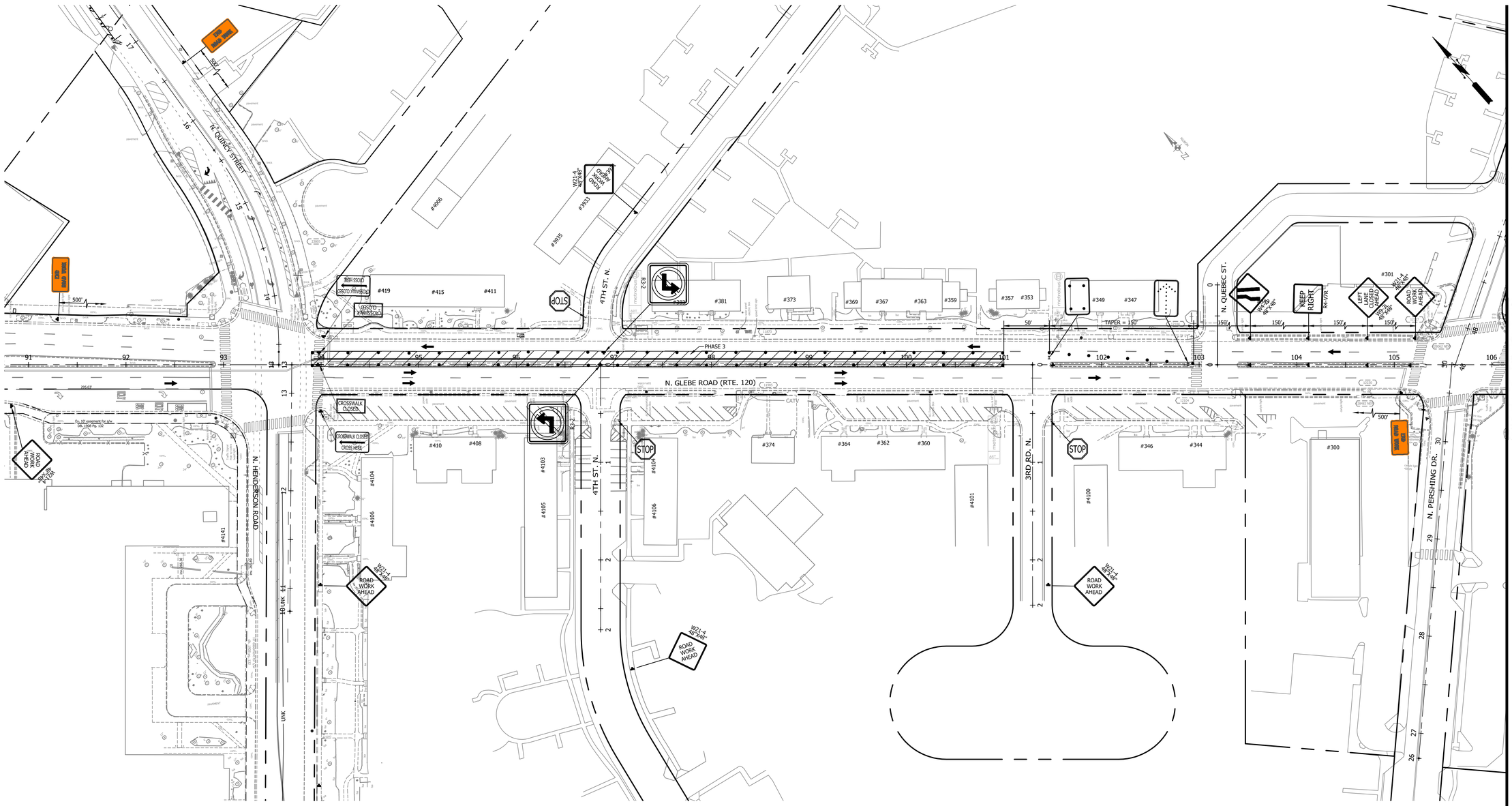
PLOTTED: FEBRUARY 10 2021

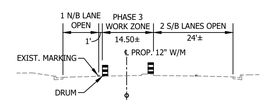
SCALE:

0 50 100
GRAPHIC SCALE

C121.3

REVISED ON 05/23/2018





PHASE 3 - N. GLEBE ROAD

NOTES:

1. PHASE 3 WORK SHALL BE COMPLETED IN 36 CALENDAR DAYS.
2. TYPICAL FIGURES USED IN THIS PHASE:
   (A) TTC-17.2
   (B) TTC-23.2
3. CONTRACTOR TO NOTIFY COUNTY STAFF TO INSTALL TEMPORARY NO PARKING SIGNS 1 WEEK PRIOR TO CONSTRUCTION.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtah CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
 WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MAINTENANCE OF TRAFFIC PLAN - 3
PHASE 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

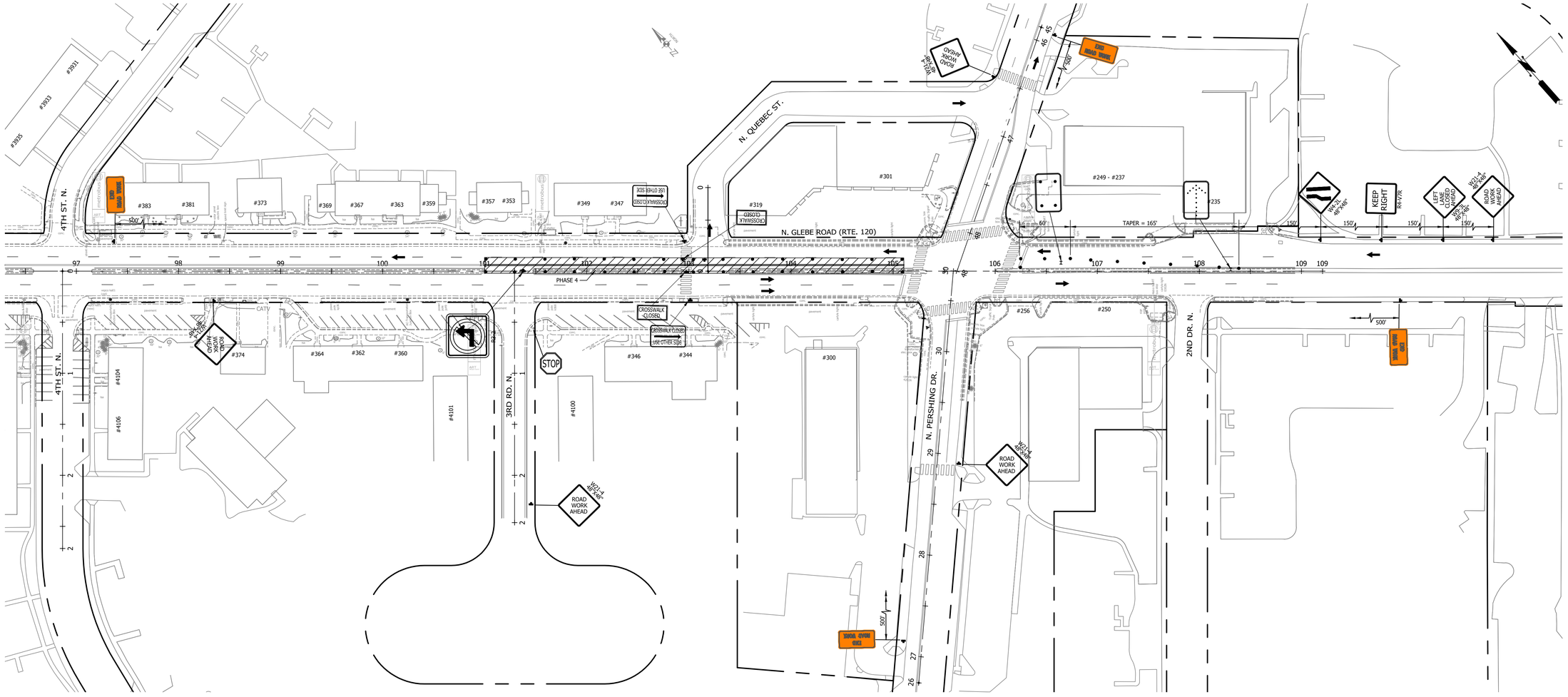
0 50 100
GRAPHIC SCALE

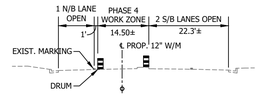
C121.4

FILENAME: R014-286-MOT.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018





PHASE 4 - N. GLEBE ROAD

NOTES:

1. PHASE 4 WORK SHALL BE COMPLETED IN 20 CALENDAR DAYS.
2. TYPICAL FIGURES USED IN THIS PHASE:
   (A) TTC-17.2
   (B) TTC-23.2
3. CONTRACTOR TO NOTIFY COUNTY STAFF TO INSTALL TEMPORARY NO PARKING SIGNS 1 WEEK PRIOR TO CONSTRUCTION.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MAINTENANCE OF TRAFFIC PLAN - 4
PHASE 4

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

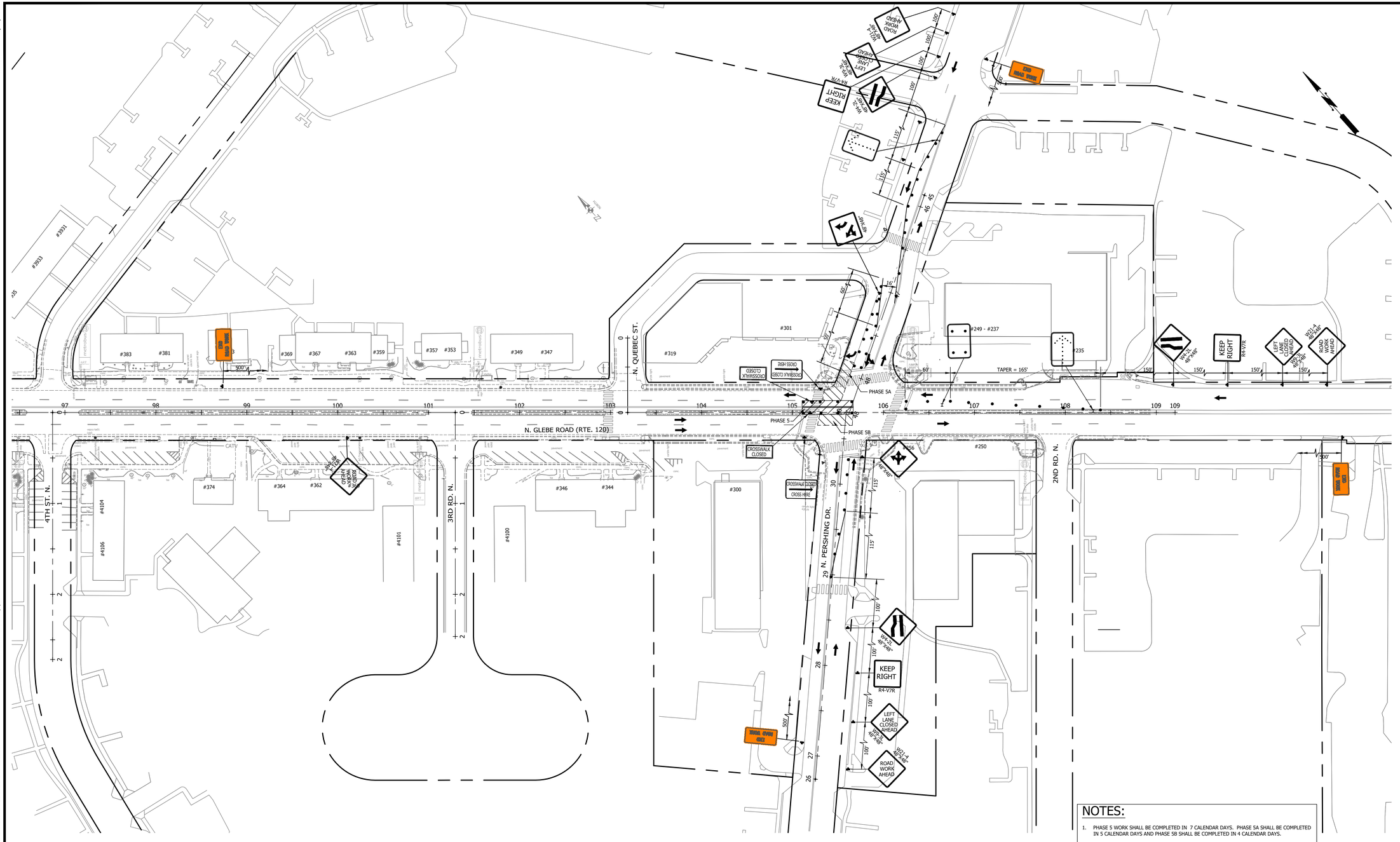
SCALE:

0 50 100
GRAPHIC SCALE

C121.5

FILENAME: R014-286-MOT.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON
FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018



FILENAME: R014-286-MOT.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

FINAL DESIGN PLANS - SIGNED 2/9/21

NOTES:

1. PHASE 5 WORK SHALL BE COMPLETED IN 7 CALENDAR DAYS. PHASE 5A SHALL BE COMPLETED IN 5 CALENDAR DAYS AND PHASE 5B SHALL BE COMPLETED IN 4 CALENDAR DAYS.
2. TYPICAL FIGURES USED IN THIS PHASE:
   (A) TTC-17.2
   (B) TTC-23.2
   (C) TTC-27.2
3. PHASE 5A SHALL COMMENCE UPON THE COMPLETION OF PHASE 5. PHASE 5A WILL TEMPORARILY CLOSE OUTER LANE OF NORTHBOUND GLEBE RD AND OUTER LANE OF WESTBOUND PERSHING DR DURING CONSTRUCTION HOURS. TRAFFIC CONTROL DEVICES, TEMPORARY PAVEMENT MARKINGS, CONSTRUCTION SIGNINGS AND TEMPORARY ASPHALT WHERE REQUIRED SHALL BE INSTALLED.
4. PHASE 5B SHALL COMMENCE UPON THE COMPLETION OF PHASE 5A. PHASE 5B WILL TEMPORARILY CLOSE INNER LANE OF SOUTHBOUND GLEBE RD DURING CONSTRUCTION HOURS. TRAFFIC CONTROL DEVICES, TEMPORARY PAVEMENT MARKINGS, CONSTRUCTION SIGNINGS AND TEMPORARY ASPHALT WHERE REQUIRED SHALL BE INSTALLED.
5. CONTRACTOR TO NOTIFY COUNTY STAFF TO INSTALL TEMPORARY NO PARKING SIGNS 1 WEEK PRIOR TO CONSTRUCTION.
6. CONTRACTORS MUST HAVE FLAGGERS & POLICE ASSISTANCE DURING CONSTRUCTION. CONTRACTOR TO CONSIDER NIGHT WORK DURING THE CONSTRUCTION ON THE INTERSECTION AREAS.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtah, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MAINTENANCE OF TRAFFIC PLAN - 5
PHASE 5, 5A & 5B

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

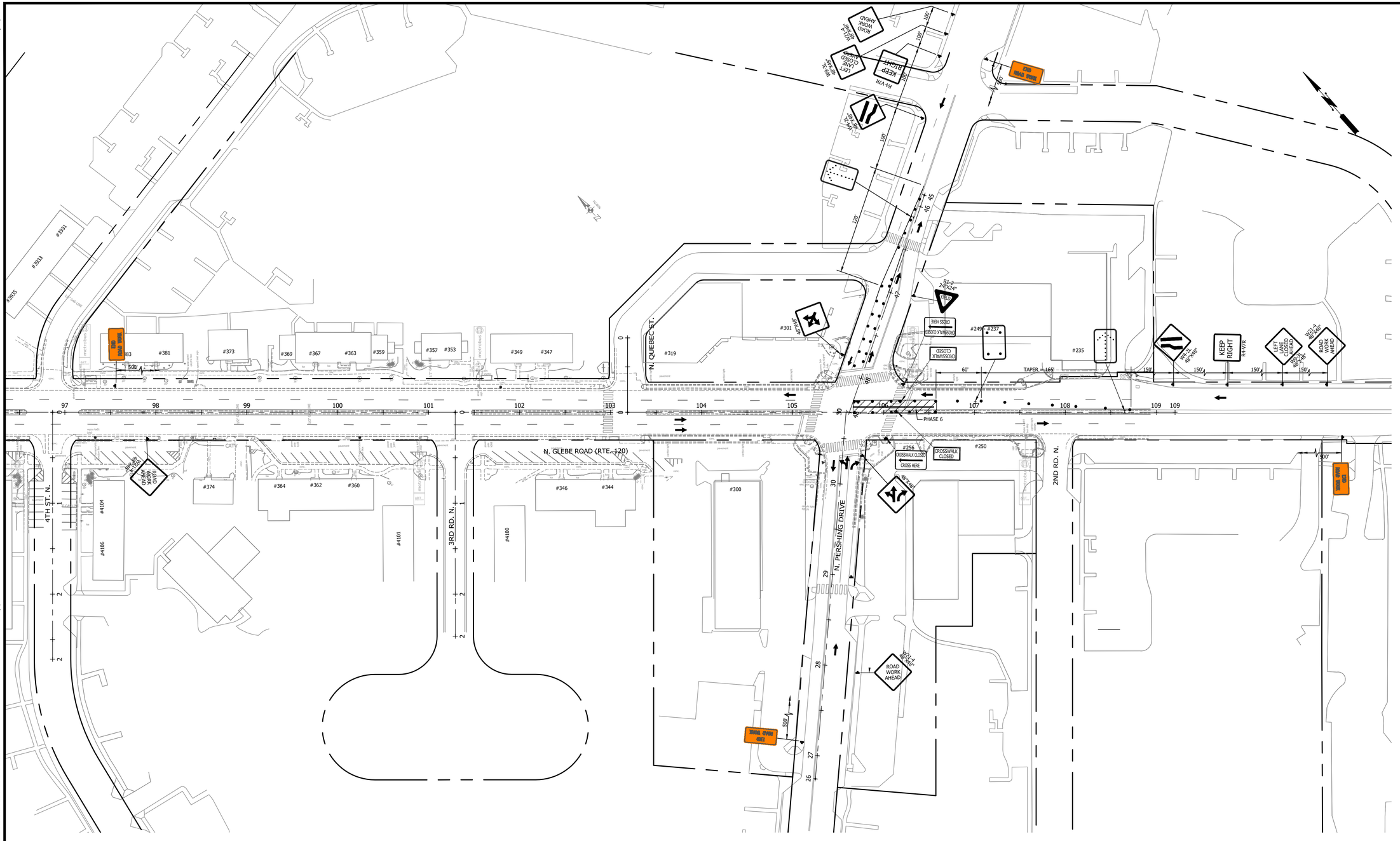
PLOTTED: FEBRUARY 10 2021

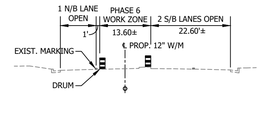
SCALE:

0 50 100
GRAPHIC SCALE

C121.6

REVISED ON 05/23/2018





PHASE 6 - N. GLEBE ROAD

NOTES:

1. PHASE 6 WORK SHALL BE COMPLETED IN 8 CALENDAR DAYS.
2. TYPICAL FIGURES USED IN THIS PHASE:
   (A) TTC-17.2
   (B) TTC-23.2
   (C) TTC-28.2
3. CONTRACTOR TO NOTIFY COUNTY STAFF TO INSTALL TEMPORARY NO PARKING SIGNS 1 WEEK PRIOR TO CONSTRUCTION.
4. CONTRACTORS MUST HAVE FLAGGERS & POLICE ASSISTANCE DURING CONSTRUCTION. CONTRACTOR TO CONSIDER NIGHT WORK DURING THE CONSTRUCTION ON THE INTERSECTION AREAS.

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Tahtak CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
[signature] WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MAINTENANCE OF TRAFFIC PLAN - 6
PHASE 6

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

0 50 100
GRAPHIC SCALE

C121.7

FILENAME: R014-286-MOT.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

FINAL DESIGN PLANS - SIGNED 2/9/21

REVISED ON 05/23/2018

N. GLEBE ROAD WATERMAIN REPLACEMENT PROJECT
N. RANDOPH ST. TO N. PERSHING DR.
TRANSPORTATION MANAGEMENT PLAN (TMP)

GENERAL TMP NOTES:

1. PROJECT IS A "TYPE A" TMP PROJECT. THIS PROJECT SUPPORTS FOR THE IMPROVEMENT OF N GLEBE ROAD WATERMAIN REPLACEMENT . THE DESIGN FOR THE N. GLEBE ROAD WATERMAIN IMPROVEMENT PROJECT INCLUDES THE UPGRADING OF THE 8" EXISTING WATERMAIN TO 12" WATERMAIN.
2. FOR WATERMAIN REPLACEMENT WORK (ONE-LANE CLOSURE), THE WORKING HOURS ALONG VDOT RIGHT-OF-WAY AREA ARE AS FOLLOWS:

MON. TO THU.	FRIDAY	MON. TO FRI.	FRI. TO SAT.	SUNDAY
9:30 AM TO 3:00 PM	9:30 AM TO 2:00 PM	10:00 PM TO 5:00 AM	10:00 PM TO 9:00 AM	*NOT ALLOWED

3. THE WORKING HOURS WITHIN ARLINGTON COUNTY RIGHT-OF-WAY ARE AS FOLLOWS:

MON. TO FRI.	NIGHT WORK	SUNDAY
9:00 AM TO 4:00 PM	10:00 PM TO 5:00 AM	*Not Allowed

4. BEFORE AND AFTER WORKING HOURS, ALL TRAVEL LANES SHALL BE OPENED TO THE MOTORISTS.
5. NO LANE CLOSURES WILL BE ALLOWED FROM NOON ON THE DAY BEFORE A HOLIDAY UNTIL NOON ON THE WORKDAY FOLLOWING THE HOLIDAY. HOLIDAYS INCLUDE ALL STATE AND FEDERAL HOLIDAYS.
6. MAINTENANCE OF TRAFFIC (MOT) PLAN WHICH INCLUDE THE SEQUENCE OF CONSTRUCTION (SOC) WAS REVIEWED AND APPROVED BY THE ARLINGTON COUNTY TRANSPORTATION ENGINEERING AND OPERATION (TE&O) BUREAU.
7. NO DRIVEWAY ENTRANCES ARE BEING AFFECTED BY THE PROPOSED WORK ALONG VDOT R-O-W.
8. THE CONTRACTOR SHALL COORDINATE WITH ARLINGTON COUNTY TRANSIT BUREAU (703-228-3049) AT LEAST 4 WEEKS PRIOR TO COMMENCEMENT OF WORK FOR APPROVAL, IF TRANSIT IS AFFECTED.
9. THE CONTRACTOR SHALL RETAIN PEDESTRIAN ACCESS TO THE BUS STOPS LOCATED WITHIN THE CONSTRUCTION ZONE FOR THE DURATION OF THE PROJECT.
10. THE CONTRACTOR SHALL :
    A. DESIGNATE A PERSON ASSIGNED TO THE PROJECT WHO WILL HAVE THE PRIMARY RESPONSIBILITY, WITH SUFFICIENT AUTHORITY, FOR IMPLEMENTING THE TMP/MOT/SOC AND OTHER SAFETY AND MOBILITY ASPECTS OF THE PERMIT WORK. THIS PERSON SHALL COORDINATE WITH THE ARLINGTON COUNTY CONSTRUCTION MANAGER FOR THE DURATION OF THE PROJECT.
    B. ENSURE THAT PERSONNEL ASSIGNED TO THE PROJECT ARE TRAINED IN TRAFFIC CONTROL TO A LEVEL COMMENSURATE WITH THEIR RESPONSIBILITIES IN ACCORDANCE WITH VDOT'S WORK ZONE TRAFFIC CONTROL TRAINING GUIDELINES.
    C. PERFORM REVIEWS OF THE CONSTRUCTION AREA TO ENSURE COMPLIANCE WITH CONTRACT DOCUMENTS AT REGULARLY SCHEDULED INTERVALS AT THE DIRECTION OF THE ENGINEER. CONTRACTORS SHALL MAINTAIN AN APPROVED COPY OF THE TEMPORARY TRAFFIC CONTROL PLAN AT THE WORK SITE AT ALL TIMES.
11. THIS TMP/MOT/SOC PLAN IS INTENDED AS A GUIDE. IT IS NOT TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE, BUT ONLY TO TO SHOW THE GENERAL HANDLING OF EXISTING TRAFFIC. IF THE CONTRACTOR IS TO DEVIATE FROM THE APPROVED TMP, A NEW OR REVISED TMP MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
12. ALL AREAS EXCAVATED BELOW THE EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED UP TO EXISTING PAVEMENT OR NEWLY CONSTRUCTED PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC.
13. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADD ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION.
14. EACH PHASE OF CONSTRUCTION SHALL BE COMPLETED PRIOR TO THE START OF THE NEXT PHASE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
15. PUBLIC COMMUNICATION PLAN
    THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
    A. NOTIFYING THE VDOT PROJECT MANAGER/RESIDENCY ADMINISTRATOR OF SCHEDULED WORK PLANS AT LEAST 48 HOURS PRIOR TO BEGINNING EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.
    B. NOTIFYING THE VDOT PROJECT MANAGER/RESIDENCY ADMINISTRATOR, REGIONAL OPERATION MANAGER AND THE PUBLIC AFFAIRS STAFF OF ANY UNSCHEDULED TRAFFIC DELAYS THAT THAT MAY OCCUR.
    C. INSTALLING PORTABLE VARIABLE MESSAGE SIGNBOARDS (VMS) WITH PROJECT START DATE INFORMATION APPROXIMATELY 500' BEFORE AND AFTER THE PROJECT SITE LIMIT THREE (3) WEEKS ADVANCE PRIOR TO START OF ANY ROADWORK AND LANE CLOSURE.
16. TRANSPORTATION OPERATION PLANS
    THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND PROVIDING THE FOLLOWING:
    A. NOTIFYING THE VDOT REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) 48 HOURS IN ADVANCE IN ORDER TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC. FOR ADDITIONAL INFORMATION, PLEASE CALL CARLENE MC WHIRT AT 571-350-2078.
    B. HAVING THE LIST OF LOCAL EMERGENCY RESPONSE AGENCIES AVAILABLE AT THE WORK SITE AT ALL TIMES.
    C. IMMEDIATELY REPORTING ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.
    D. NOTIFY THE PROJECT'S CONSTRUCTION MANAGER AND CORRESPONDING ENGINEER OF ANY INCIDENTS AND EXPECTED TRAFFIC DELAYS.
    E. WITHIN 24 HOURS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE, A REVIEW OF THE TRAFFIC CONTROLS SHALL BE IMPLEMENTED AND NECESSARY ADJUSTMENTS MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE ACCIDENTS.
    F. EMERGENCY CONTACTS DURING THE DURATION OF THE PROJECTS ARE THE FOLLOWING:
    - KAMAL TAKTAK - CONSTRUCTION MANAGEMENT SUPERVISOR - 703-228-7527
    - SOLOMON SHIKUR - ENGINEERING DESIGN TEAM SUPERVISOR - 703-228-3654
    - DES R-O-W PERMITTING SECTION - 703-228-4798
    - ARLINGTON COUNTY TRANSIT BUREAU - 703-228-3049
    - WATER, SEWER AND STREET OPERATION - 703-228-6555
    - ARLINGTON COUNTY POLICE - 703 -558-2222
    - EMERGENCY CALL - 911
    - VDOT PROJECT CONSTRUCTION INSPECTOR - TBD

FIRE DEPARTMENT NOTES:

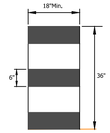
1. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
2. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
3. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

MAINTENANCE OF TRAFFIC (MOT) GENERAL NOTES:

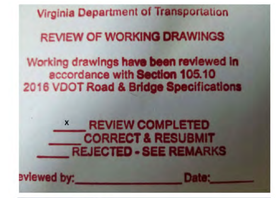
1. TRAFFIC CONTROL DEVICES AND SAFETY MEASURES SHALL COMPLY WITH THE LATEST EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL, VDOT's GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, ARLINGTON COUNTY STANDARDS, THE TRAFFIC CONTROL PLANS INCLUDED IN THE CONSTRUCTION DRAWINGS, AND/OR AS DIRECTED BY THE PROJECT OFFICER.
2. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE WHICH INDICATES START AND FINISH DATES FOR EACH SEGMENT OF THE WORK. THE SCHEDULE SHALL INDICATE THE DURATION OF ALL LANE OR SHOULDER CLOSURES. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF PROCEEDING TO THE NEXT WORK SEGMENT.
3. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER OF PARKING RESTRICTION NEEDS A MINIMUM OF 3 BUSINESS DAYS PRIOR TO COMMENCEMENT OF WORK FOR EACH SEGEMENT. COUNTY PROJECT OFFICER SHALL RESTRICT PARKING BY CONTACTING DES - PERMITTING SECTION, 703-228-4798.
4. PORTABLE VARIABLE MESSAGE SIGNS WITH CLOSURE INFORMATION MUST BE INSTALLED AHEAD OF WORK AREA 3 WEEKS PRIOR TO CLOSURE.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL EITHER MAINTAIN APPROPRIATE SIGHT DISTANCE TO ALL TRAFFIC SIGNS OR PROVIDE FOR TEMPORARY SIGNAGE OR FLAGGERS TO GUIDE TRAFFIC THROUGH WORK ZONES.
6. THE CONTRACTOR SHALL MINIMIZE THE DURATION OF ANY BLOCKAGE TO PRIVATE ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF DRIVEWAY CLOSURE FOR APPROVAL BY THE PROJECT OFFICER. THE PROJECT OFFICER SHALL BE NOTIFIED A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF SUCH ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE TEMPORARY CLOSURE OF ACCESS TO THE PROPERTY. THE CONTRACTOR SHALL MAKE ALL PRIVATE ENTRANCES AND DRIVEWAYS ACCESSIBLE AT THE CONCLUSION OF EACH WORKDAY.
7. WHEN DOING WORK AT THE INTERSECTION AN ARLINGTON COUNTY POLICE OFFICER(S) SHALL BE PRESENT TO DIRECT OR MONITOR ROAD USERS DURING MOT OPERATIONS AT THE CONTRACTOR'S EXPENSE. CONTACT ARLINGTON COUNTY POLICE DEPARTMENT LT. ROBERT DESO OR HIS ASSIGNEE AT 703-228-7460 FOR DETAILS AT LEAST 2 WEEKS IN ADVANCE PRIOR TO START OF WORK AT FOLLOWING INTERSECTIONS SHOWN BELOW.
    - N. GLEBE ROAD / N. HENDERSON ROAD / N. QUINCY STREET INTERSECTION
    - N. GLEBE ROAD / N. PERSHING DRIVE INTERSECTION
8. ANY EXCAVATIONS WHICH ARE SPECIFICALLY APPROVED BY THE PROJECT OFFICER TO REMAIN OPEN PAST NORMAL WORKING HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROTECTED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND AS APPROVED BY THE PROJECT OFFICER.
9. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, INCLUDING ACCESS TO BUS STOP SHELTERS, UNLESS OTHERWISE APPROVED IN THE PLANS.
10. PEDESTRIAN TRAFFIC SHALL BE SEPARATED FROM WORK ZONES WITH APPROPRIATE MEASURES IN ACCORDANCE WITH MUTCD.
11. ADEQUATE PROVISIONS FOR PERSONS WITH DISABILITIES SHALL BE PROVIDED AT ALL TIMES PER ADA REQUIREMENTS.
12. WHEN NECESSARY, PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDBLOCK WORK SITES.
13. PEDESTRIANS SHALL NOT BE LED INTO CONFLICT WITH WORK SITE EQUIPMENT, OPERATIONS, AND/OR VEHICLES MOVING THROUGH OR AROUND THE WORK SITE.
14. THE CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY TRANSIT BUREAU, 703-228-3049, A MINIMUM OF 4
15. WEEKS PRIOR TO COMMENCEMENT OF WORK, IF TRANSIT IS AFFECTED.
16. AT SIGNALIZED INTERSECTIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VEHICLE DETECTION AT ALL TIMES DURING THE PROJECT. TRAFFIC SENSORS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION STATE PRIOR TO THE COMPLETION OF THIS PROJECT.
17. THE CONTRACTOR SHALL COMPLY WITH "RESTRICTED" WORKING HOURS AS DEFINED BY VDOT AND AS NOTED ON THE APPROVED VDOT PERMIT WHEN WORKING WITHIN THE VDOT RIGHT-OF-WAY. THE CONTRACTOR IS RESPONSIBLE FOR SATISFYING ALL VDOT PERMIT REQUIREMENTS.
18. MAINTENANCE OF TRAFFIC PLANS AND DETAILS SHOWN HERE SHALL BE FOLLOWED BY THE CONTRACTOR DURING CONSTRUCTION. SHOULD THE CONTRACTOR DESIRE TO FOLLOW AN ALTERNATE PLAN, HE SHALL SUBMIT THE PLAN PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL. ALTERNATIVE PLAN PREPARATION SHALL BE NO COST TO THE COUNTY.
19. DIRECTIONAL ARROWS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS ARE FOR INFORMATION ONLY AND ARE NOT TO BE PLACED AS PAVEMENT MARKINGS.
20. THE CONTRACTOR SHALL COVER ANY EXISTING SIGNS WHICH ARE NOT APPLICABLE OR ARE IN CONFLICT WITH THIS MOT PLAN.
21. THE CONTRACTOR SHALL ERADICATE AND RE-STRIPE AS NECESSARY ANY EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH OR DO NOT ALIGN WITH THE TEMPORARY PAVEMENT MARKINGS OR NEW TRAFFIC PATTERNS.
22. THE CONTRACTOR SHALL ERADICATE ALL TEMPORARY PAVEMENT MARKINGS, INCLUDING TEMPORARY MARKED CROSSWALKS ONCE THE WORK AREA(S) ASSOCIATED WITH THE MARKINGS HAS BEEN COMPLETED.
23. CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY PUBLIC SCHOOLS TWO WEEKS PRIOR TO STARTING CONSTRUCTION.
24. ALL TEMPORARY AND BUS TRAVEL LANES SHALL BE 11' WIDE.

LEGEND:

- ILLUMINTAED FLASHING AMBER ARROW PANEL TYPE C
- ILLUMINTAED FLASHING AMBER (CAUTION MODE) ARROW PANEL TYPE B OR C
- AREA UNDER CONSTRUCTION
- TRAFFIC FLOW
- CHANNELIZING DEVICE
- ARROW PANEL
- SIGN
- TYPE III BARRICADE
- FLAGGER STATION



DRUM GROUP 2



REVIEWED
By Brian E. Fry at 10:50 am, Jan 19, 2021

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum, QUALITY CONTROL ENGINEER	2/1/2021
K.N. Taktak, CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach, TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver, PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MOT NOTES & DETAILS - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

25 0 25

HORIZ: SCALE: 1" = 25'

C122.1

FILENAME: R014-228-MOT_NOTES AND DETAILS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON FINAL DESIGN PLANS - SIGNED 2/9/21

Typical Traffic Control
Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.2)
NOTES

Standard:

1. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**

Guidance:

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left side signs cannot be installed.*[2]
4. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.*
5. *All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.*

Standard:

6. **Taper length (L) and channelizing device spacing shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S*W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S*W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S*W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Limited Access highways shall use a 1000' merging taper regardless of the posted speed.

Shifting Tapers see Table 6H-2.[2] | Shoulder Taper = ½ L Minimum

7. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	* Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

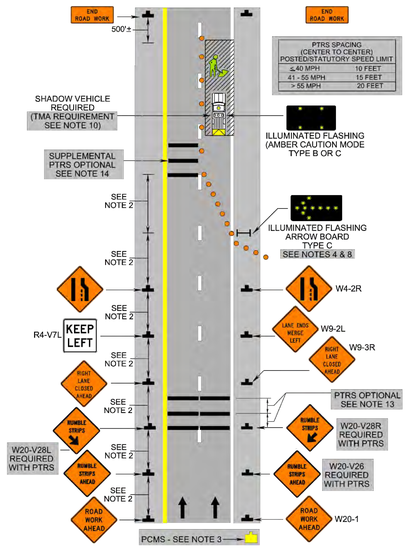
8. **An arrow board shall be used when a lane is closed. When more than one lane is closed, a separate arrow board shall be used for each closed lane (see Figure TTC-18).**
9. **The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
10. **A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, flashing, or[1] oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-mounted attenuator shall be used.**
11. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights but can be used to supplement the amber rotating, flashing, or[1] oscillating lights.**
12. **When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.**

Option:[2]

13. PTRS and their supporting signs may be used, see Sections 6F.99 and 6G.25. Long-term transverse rumble strips may be used in long-term situations, see Section 6F.99 and TTC-20.[2]
14. The supplemental PTRS may be eliminated.[2]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.2)



Typical Traffic Control
Inside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-17.2)
NOTES

Standard:

1. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**

Guidance:

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left side signs cannot be installed.*[2]
4. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.*
5. *All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.*

Standard:

6. **Taper length (L) and channelizing device spacing shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S*W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S*W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S*W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Limited Access highways shall use a 1000' merging taper regardless of the posted speed.

Shifting Tapers see Table 6H-2.[2] | Shoulder Taper = ½ L Minimum

7. **Channelizing device spacing shall be at the following:**

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

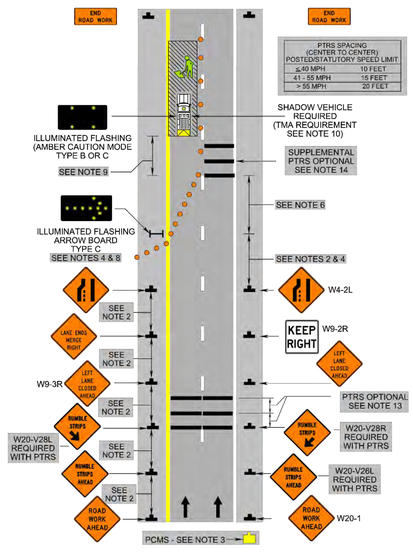
8. **An arrow board shall be used when a lane is closed. When more than one lane is closed, a separate arrow board shall be used for each closed lane (see Figure TTC-18).**
9. **The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
10. **A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, flashing, or[1] oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-mounted attenuator shall be used.**
11. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights but can be used to supplement the amber rotating, flashing, or[1] oscillating lights.**
12. **When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.**

Option:[2]

13. PTRS and their supporting signs may be used, see sections 6F.99 and 6G.25. Long-term transverse rumble strips may be used in long-term situations, see Section 6F.99 and TTC-20.[2]
14. The supplemental PTRS may be eliminated.[2]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Inside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-17.2)



Typical Traffic Control
Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.*
2. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.*
3. *To maintain efficient traffic flow in a flagging operation on a two-lane roadway, the maximum time motorists should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day). For additional information see Section 6E.07.*[1]

Standard:

4. **Portable Temporary Rumle Strips (PTRS) shall be used as noted in Section 6F.99.**
5. **Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see Table 6H-3 on Page 6H-5).**
6. **All flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers).**
7. **Cone spacing shall be based on the posted speed and the values in Table 6H-4 on Page 6H-6.**[1]
8. **A shadow vehicle with at least one high intensity amber rotating, flashing, or[1] oscillating light shall be parked 80'-120' in advance of the first work crew.**

Option:

8. A SLOW (W21-V10) sign[1] may be required in this area to give advance warning of the operation ahead by slowing approaching traffic prior to reaching the flagger station or queued traffic.

Guidance:

9. *If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign then the signs, and if used the PTRS[1] should be readjusted at greater distances.*
10. *When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-56 for additional information on highway-rail crossings).*

Standard:

11. **At night, flagger stations shall be illuminated, except in emergencies (see Section 6E.08).**

Option:

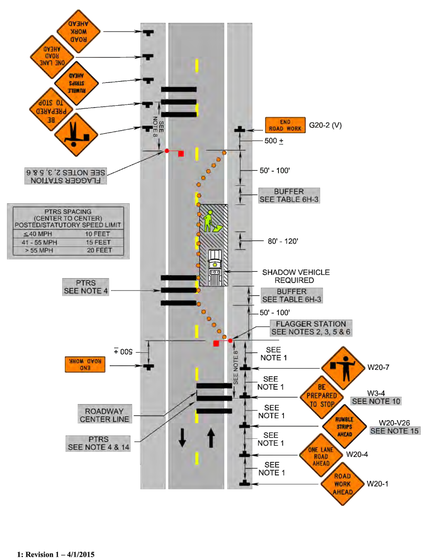
12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.
13. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).

Standard:[1]

14. **When used[3], three portable temporary rumble (PTRS) strips shall be installed across the entire travel lane adjacent to the BE PREPARED TO STOP (W3-4) sign. The portable temporary rumble strips shall be monitored and adjusted as necessary during the work shift to ensure proper placement on the roadway. When the PTRS are installed, the RUMBLE STRIPS AHEAD (W20-V26) sign shall also be utilized.**

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.2)



Typical Traffic Control
Lane Closure Operation – Far Side of an Intersection
(Figure TTC-27.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **Taper length (L) shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S*W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S*W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S*W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Shifting Tapers - full lane width shifts on Limited Access Highways shall use a 750' shifting taper for posted speeds less than 65 mph and a 1000' shifting taper for posted speeds equal to or greater than 65 mph. For all other roadways ½ L should be used.[2]

Shoulder Taper = ½ L Minimum

4. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

Guidance:

5. *If room permits, a shadow vehicle with at least one amber[1] rotating, oscillating, or high intensity flashing[1] light should be parked 80'-120' in advance of the first work crew,*

Standard:

6. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or high intensity amber flashing or oscillating[1] lights mounted on the vehicle and visible for 360º shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Standard:

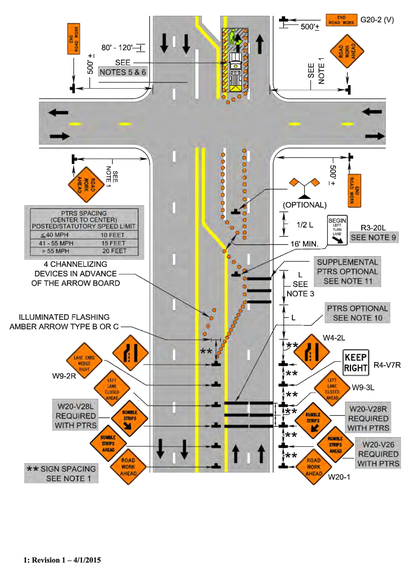
9. **If the left turn lane is closed a NO LEFT TURN (Symbol) (R3-2) shall be used.**[1]

Option:[2]

10. PTRS may be used as shown in Figure TTC-17 and in accordances with Section 6F-99.[2]
11. The supplemental PTRS may be eliminated.[2]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Lane Closure Operation - Far Side of an Intersection
(Figure TTC-27.2)



ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum	2/1/2021
QUALITY CONTROL ENGINEER	
K.N. Tahtah	2.3.21
CONSTRUCTION MANAGEMENT SUPERVISOR	
	02.09.2021
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	02/09/21
TRANSPORTATION DIRECTOR	
Dabney R Carver	01/27/2021
PROJECT MANAGER	

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MOT NOTES & DETAILS - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

AS SHOWN

C122.2

Typical Traffic Control
Lane Closure Operation in an Intersection
(Figure TTC-28.2)
NOTES

Guidance:

1. *The control of traffic through the intersection in order of preference should be:*
   a. *Obtain the services of law enforcement personnel.*
   b. *Detour the effective routes to other roads and streets as approved and directed by the District[2] Traffic Engineer.*
   c. *Place a state certified flagger on each leg of the intersection controlling a single lane of traffic.*

   Appropriate signing as shown should be used for law enforcement and flagging operations. For detour signs see Figure TTC-34.
2. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*
3. *To maintain efficient traffic flow in a flagging operation on a two-lane roadway the maximum time motorist should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day). For additional information see Section 6E.07.*

Standard:

4. **Channelizing device spacing shall be on 20' centers or less.**
5. **PTRS shall be used as noted in Section 6F.99.**

Guidance:

6. *If room permits, a shadow vehicle with at least one rotating amber light or high intensity amber flashing or oscillating[1] light should be parked 80'-120' in advance of the first work crew.*

Standard:

7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or high intensity amber flashing or oscillating[1] lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

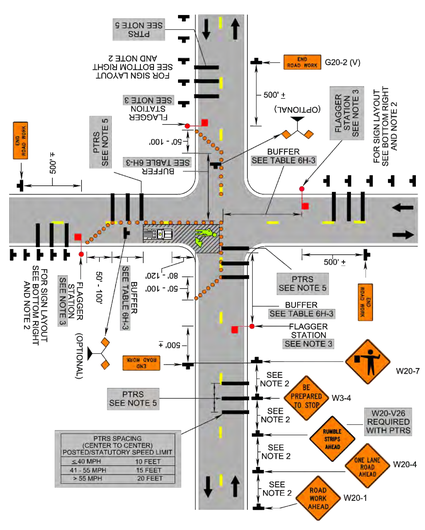
8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Support:

9. Turns can be prohibited as required by vehicular traffic conditions. Unless the streets are wide, it might be physically impossible to make certain turns, especially for large vehicles.

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Lane Closure Operation in an Intersection
(Figure TTC-28.2)



2: Revision 2 – 9/1/2019

Typical Traffic Control
Turn Lane Closure Operation
(Figure TTC-29.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **To prevent accidental intrusion into the work area, channelizing device spacing shall not exceed 10' on centers or as directed by the Engineer.**

Option:

4. This layout may be used for either right or left turn lane closures.
5. For a high volume of turning movements, additional traffic control devices, such as signs (graphic NO LEFT TURN (R3-2) or LEFT LANE MUST TURN LEFT (R3-7L)), channelizing devices and vehicles may be used.

Standard:

6. **Taper length (L) shall be at the following:**

Taper Length L											
Speed Limit (mph)	Lane Width (Feet)				Remarks	Speed Limit (mph)	Lane Width (Feet)				Remarks
	9	10	11	12			9	10	11	12	
25	95	105	115	125	$L=S^2W/60$	50	450	500	550	600	L=SW
30	135	150	165	180	$L=S^2W/60$	55	495	550	605	660	L= SW
35	185	205	225	245	$L=S^2W/60$	60	540	600	660	720	L=SW
40	240	270	295	320	$L=S^2W/60$	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW
Shoulder Taper = ⅓ L Minimum											

7. **Length of the Longitudional Buffer spacing shall be at the following:**

Posted Speed Limit (mph)	Distance (Feet)	Posted Speed Limit (mph)	Distance (Feet)
≤ 20	115 – 120	50	425 – 445
25	155 – 165	55	500 – 530
30	200 – 210	60	570 – 600
35	250 – 260	65	645 – 675
40	305 – 325	70	730 – 760
45	360 – 380		

Guidance:

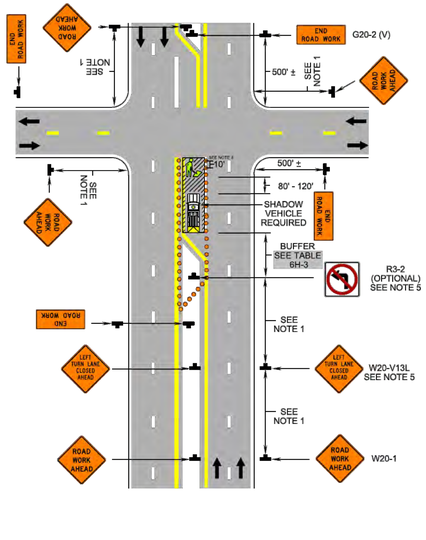
8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Support:

9. Turns can be prohibited as required by vehicular traffic conditions. Unless the streets are wide, it might be physically impossible to make certain turns, especially for large vehicles.

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Turn Lane Closure Operation
(Figure TTC-29.2)



2: Revision 2 – 9/1/2019

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44376
12/4/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
Amy Pflaum QUALITY CONTROL ENGINEER	2/1/2021
K.N. Takitaki CONSTRUCTION MANAGEMENT SUPERVISOR	2.3.21
WATER, SEWER, STREETS BUREAU CHIEF	02.09.2021
Dennis M. Leach TRANSPORTATION DIRECTOR	02/09/21
Dabney R Carver PROJECT MANAGER	01/27/2021

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

MOT NOTES & DETAILS - 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: FEBRUARY 10 2021

SCALE:

AS SHOWN

C122.3

EXHIBIT F

ARLINGTON COUNTY, VIRGINIA

2100 Clarendon Boulevard, Arlington, VA 22201

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

8/30/2020

PERMIT SUMMARY

Permit Number	Address	Floor	Unit	Use Group	Sq ft
LDA20163					0

ADDITIONAL INFORMATION

Permit Holder	
Contractor	
Type of Work	Land Disturbance Activity
Brief Description of Work	
Code Cycle	

PLANS APPROVED BY

Area of Approval	Reviewer Name	Date
DPR Urban Forestry	Adam Lipera	08/11/2020
DES Stormwater Management	Nader Mahmoudpour	08/28/2020
DES Wet Utilities	Amos Jallah	08/30/2020

PLANS APPROVED AS NOTED BY THE FOLLOWING COMMENTS

ARLINGTON COUNTY, VIRGINIA

2100 Clarendon Boulevard, Arlington, VA 22201

ARLINGTON
VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

LDA NO. _16430_____

SWM NO. _____

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Project: **N. Glebe Road Watermain Replacement**

Project Account No. **519-43542-R014-0337-0000**

SUBMISSION DATE: **August 4, 2020**

SUBMITTED BY: **Solomon Shikur X3654**

sshikur@arlingtonva.us

Leo Dizon X0585

Ldizon@arlingtonva.us

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES
DIVISION OF TRANSPORTATION
2100 CLARENDON BLVD, SUITE 800
ARLINGTON, VA 22201

APPLICATION FOR LAND DISTURBING ACTIVITIES

Approved: 8/30/2020
Subject to field inspection
LDA20163

ALL APPLICANTS MUST COMPLETE ITEMS 1 THRU 26: (Please print legibly)

Application Information (Office Use Only)	LDA Permit No.	Building/Demolition Permit No.		Application Date
Applicant or Contractor Information	1. Individual or Company Full Legal Name (if applicable): Arlington County - Department of Environmental Services			
	2. Name of Representative (First, MI, Last): Solomon Shikur	3. Title of Representative		
	4. Telephone No.: 703-228-3654	5. Cell Phone No.	6. Fax. No.	7. E-mail address: Sshikur@arlingtonva.us
	8. Address: 2100 Clarendon Blvd., Suite 813	9. City, State, Zip Code: Arlington, VA 22201		
	10. State Contractor's License No.	11. Arlington Business License No.		
Property Owner Information	12. Full Legal Name (First and Last Name): Arlington County Government	13. Telephone No.: 703-228-3654		
	14. Owner's Legal Address	15. City, State, Zip Code		

16. **Street name & address(es): (*Exact location of proposed work*)** _____

17. **Purpose of work or activity: (*Check all that apply)***

Construction:

- ☐ New Residential
- ☐ New Commercial
- ☐ Detached Structure
- ☐ Building Addition (includes decks)
- ☐ Driveway/Parking Lot
- ☐ Clearing/Grading
- ☐ Excavation/Fill
- ☐ Tree Planting/Landscaping
- ☒ Other Water Replacement

Demolition:

- ☐ Commercial Structure
- ☐ Multi-family Dwelling
- ☐ Single Family Dwelling
- ☐ Tree Removal - specify type, diameter below
- ☐ Other _____

18. **Full Description of Work or Activity:** This is a watermain replacement project and consist of installation of 2,230 linear feet of 12 Inch, 8 Inch and 6 Inch DIP watermain starting from N Randolph St to N Pershing Dr.

19. **Total Area of Land Disturbance:** 17,680 **Square Feet**

(Any type of land disturbing activity – 1 acre or more in area – requires this permit and a Construction General Permit from the Virginia Department of Environmental Quality (DEQ) for discharges of storm water from construction activities)

20. **Is any part of this property located within a Resource Protection Area (RPA)?** ☐ **Yes** ☒ **No**

21. **Is any part of this property located within a Floodplain?** ☐ **Yes** ☒ **No**

22. **Responsible Land Disturber (RLD):** Solomon Shikur **Certification No.:** _____ **Phone:** 703-228-3654

(Applicant must provide a signed RLD Form, including the name of person with RLD certification prior to starting any land disturbing activity)

==========

I hereby certify that: I have the full authority to make the foregoing Application; the information in this Application and the Applicant's required submittals are complete and correct; and the Work shall comply with all laws of the Commonwealth of Virginia, and all ordinances, rules, regulations, policies, and special ~~conditions~~ of the County and of the County Board of Arlington County, Virginia.

23. **Signature of Applicant/Permittee:** _____ 24. **Date:** 8/5/20

25. **Print Name:** Solomon Shikur 26. **Phone No.:** 703-228-3654

NOTE: This permit shall become invalid if the authorized work is not started within six (6) months from the date issued, and/or if the authorized work is suspended for a period of six (6) months after the time for commencing the work. This permit is not a substitute for other permits that may be required from the County, State, and Federal Government. Inspections by the County DES Inspector assigned to this permit are only for activities related to land disturbance. If the proposed flow pattern will be affected by any new features that is not part of the original approved plan (Grading, fence, and retaining wall, etc.), this permit shall become invalid.

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) COVER PAGE

For Construction Activities At:

N. Glebe Road Watermain Replacement
N. Randolph St. to N. Pershing Dr.
Arlington, VA 22203

Latitude: 38.875629 N (decimal degrees)

Longitude: -77.108137 W (decimal degrees)

Construction Activity Operator:

TBD

SWPPP Preparation Date:

August 3, 2020

CERTIFICATION

"I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Operator Name: _____

Title: _____

Signature: _____

Date: _____

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

1.0 SWPPP Documents Located Onsite & Available for Review

SWPPP Document Type	Located Onsite & Availab	
Registration Statement	☐ Yes	☒ NA
Notice of Coverage Letter	☐ Yes	☒ NA
Construction General Permit	☐ Yes	☒ NA
Pollution Prevention Plan	☒ Yes	☐ NA
Erosion & Sediment Control Plan (or agreement in lieu of)	☒ Yes	☒ NA
Stormwater Management Plan	☐ Yes	☒ NA

2.0 Authorized Non-Stormwater Discharges

Type of Authorized Non-Stormwater Discharge	Likely Present at Your Project Site?	
External buildings wash down	☐ Yes	☒ No
Uncontaminated foundation or footing drains	☐ Yes	☒ No
Uncontaminated excavation dewatering	☒ Yes	☒ No
Landscape irrigation	☐ Yes	☒ No
Others	☐ Yes	☒ No

3.0 Pollution Prevention Awareness

Employees will be given a “walk through” of the site identifying areas of possible pollution and will be shown Erosion and Sediment Controls and Pollution Prevention Practices (identified in Sections 4.0 and 5.0 of this SWPPP) that are applicable to their assigned job duties. A refresher meeting and “walk through” will be conducted on an as needed basis.

4.0 Erosion & Sediment Controls

Select all that apply	Erosion & Sediment Control	Estimated Installation Date	Estimated Removal Date	Responsible Party
☐	Construction Entrance (Std. & Spec. 3.02)			Construction Activity Operator (See Cover Page of this SWPPP)
☐	Silt Fence (Std. & Spec. 3.05)			
☐	Culvert Inlet Protection (Std. & Spec. 3.08)			
☐	Outlet Protection (Std. & Spec. 3.18)		NA	
☐	Temporary Seeding (Std. & Spec. 3.31)		NA	
☐	Permanent Seeding (Std. & Spec. 3.32)		NA	
☐	Sodding (Std. & Spec. 3.33)		NA	
☐	Mulching (Std. & Spec. 3.35)		NA	
☐	Safety Fence (Std. & Spec 3.01)			

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

☒	Storm Drain Inlet Protection (Std. & Spec 3.08)			
☐	Dewatering (Std. & Spec 3.26)			
☐	Turbidity Curtain (Std. & Spec 3.27)			
☐	Tree Protection (Arlington County Std. & Spec.)			
☐	Others			

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

5.0 Potential Sources of Pollution & Pollution Prevention Practices

Pollutant-Generating Activity	Pollutants										Pollution Prevention Practice	Responsible Party
	Likely Present at your Project Site?	Sediment	Nutrients	Heavy Metals	pH (acids and bases)	Pesticides & Herbicides	Oil & Grease	Bacteria & Viruses	Trash, Debris, Solids	Other Toxic Chemicals		
Clearing, grading, excavating, and un-stabilized areas	☐ Yes ☒ No	X							X		(1)	Construction Activity Operator (See Cover Page of this SWPPP)
Paving operations	☒ Yes ☐ No	X					X		X		(2)	
Concrete washout and cement waste	☐ Yes ☒ No			X	X				X		(3)	
Structure construction, stucco, painting, and cleaning	☐ Yes ☒ No			X	X				X	X	(4)	
Dewatering operations	☒ Yes ☒ No	X	X						X		(5)	
Material delivery and storage	☒ Yes ☐ No	X	X	X	X		X		X	X	(6)	
Material use during building process	☐ Yes ☒ No		X	X	X		X		X	X	(7)	
Solid waste disposal	☒ Yes ☐ No								X	X	(8)	
Sanitary waste	☐ Yes ☒ No		X		X			X			(9)	
Landscaping operations	☒ Yes ☐ No	X	X			X			X	X	(10)	

Pollution Prevention Practices:

(1) **Clearing, grading, excavating and un-stabilized areas** – Utilize erosion and sediment control practices to prevent sediment laden or turbid runoff from leaving the construction site. Dispose of clearing debris in approved disposal sites. Apply permanent or temporary stabilization, sodding and/or mulching to denuded areas in accordance with the erosion and sediment control specifications and the general VPDES permit for discharges of stormwater from construction activities.

(2) **Paving operations** – Cover storm drain inlets during paving operations and utilize pollution prevention materials such as drip pans and absorbent/oil dry for all paving machines to limit leaks and spills of paving materials and fluids.

(3) **Concrete washout and cement waste** – Direct concrete wash water into a leak-proof container or leak-proof settling basin that is designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes.

(4) **Structure construction, stucco, painting and cleaning** – Enclose, cover or berm building material storage areas if susceptible to contaminated stormwater runoff. Conduct painting operations consistent with local air quality and OSHA regulations. Mix paint indoors, in a containment area or in a flat unpaved area. Prevent the discharge of soaps, solvents, detergents and wash water from construction materials, including the clean-up of stucco paint, form release oils and curing compounds.

(5) **Dewatering operations** – Construction site dewatering from building footings or other sources may not be discharged without treatment. Sediment laden or turbid water shall be filtered, settled or similarly treated prior to discharge.

(6) **Material delivery and storage** – Designate areas of the construction site for material delivery and storage. Place near construction entrances, away from waterways, and avoid transport near drainage paths or waterways.

(7) **Material use during building process** – Use materials only where and when needed to complete the construction activity. Follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability and mixing of chemicals.

(8) **Solid waste disposal** – Designate a waste collection area on the construction site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterway. Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible. Schedule waste collection to prevent the containers from overfilling.

(9) **Sanitary waste** – Prevent the discharge of sanitary waste by providing convenient and well-maintained portable sanitary facilities. Locate sanitary facilities in a convenient location away from waterways.

(10) **Landscaping operations** – Maintain as much existing vegetation as practicable. Apply permanent or temporary stabilization, sodding and/or mulching to denuded areas in accordance with the erosion and sediment control specifications and the general VPDES permit for discharges of stormwater from construction activities. Apply nutrients in accordance with manufacturer's recommendations and not during rainfall events.

(11) **Others** – If applicable, describe your Pollution Prevention Practice.

6.0 Stormwater Management Controls

Select all that apply	Stormwater Management Control	Estimated Installation Date	Responsible Party
☐	Post-development Stormwater Management Controls provided by a Larger Common Plan of Development or Sale	NA	Common Plan Construction Activity Operator
☐	Rooftop Disconnection	Insert Date	Construction Activity Operator (See Cover Page of this SWPPP)
☐	Sheet flow to Vegetated Filter (1 or 2)	Insert Date	
☐	Grass Channel	Insert Date	
☐	Rainwater Harvesting	Insert Date	
☐	Permeable Pavement (1 or 2)	Insert Date	

Select all that apply	Stormwater Management Control	Estimated Installation Date	
☐	Infiltration (1 or 2)		Construction Activity Operator (See Cover Page of this SWPPP)
☐	Bioretention (1 or 2)		
☐	Others		
☐	Exempted	NA	NA

7.0 Spill Prevention & Response

Most spills can be cleaned up following manufacturer specifications. Absorbent/oil dry, sealable containers, plastic bags, and shovels/brooms are suggested minimum spill response items that should be available at this location.

1st Priority: Protect all people
2nd Priority: Protect equipment and property
3rd Priority: Protect the environment

1. Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave the area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.
2. Make Sure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
3. Stop the spill source.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers.
5. If possible, stop spill from entering drains (use absorbent or other material as necessary).
6. Stop spill from spreading (use absorbent or other material)
7. If spilled material has entered a storm sewer; contact locality's storm water department.
8. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials and do not flush area with water.
9. Properly dispose of cleaning materials and used absorbent material according to manufacturer specifications.

Emergency Contacts:

Normal Working Hours

DEQ Northern Regional Office 703-583-3800

Nights, Holidays & Weekends

VA Dept. of Emergency Management 804-674-2400
24 Hour Reporting Service

Local Contacts

Arlington County Fire & Police 703-558-2222
DES Water, Sewer, Streets 24-Hour Emergency 703-228-6555
Washington Gas Emergency 703-750-1400

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

8.0 Self Inspections Report & Corrective Action Log (make additional copies as neces

Qualified Inspector

Company/Organization:
Name:
Telephone Number:
Qualifications:

Inspection Schedule

Discharges to impaired waters, surface waters within a TMDL watershed, or exceptional waters:

☒ Once every 4 business days.

Inspection Date:

Type of Inspection: ☐ Regular ☐ Pre-storm event ☐ During storm event ☐ Post-storm event

Phase of construction: ☐ Pre-Con ☐ DEMO ☐ Clearing ☐ Building ☐ Grading ☐ Final Stabilization

Is a copy of the SWPPP available on site? ☐ Yes ☐ No Is the SWPPP complete? ☐ Yes ☐ No

Are there any discharges at the time of this inspection? ☐ Yes ☐ No If yes, describe:

Have any discharge occurred since the last inspection? ☐ Yes ☐ No If yes, describe:

Best Management Practices (BMPs)	In Compliance with SWPPP?	Corrective Action Needed; Responsible Party & Notes	Date Corrective Action Taken
Are all construction exits preventing sediment from being tracked onto the adjacent streets?	☐ Yes ☐ No ☐ NA		
Are perimeter controls and sediment barriers adequately installed and maintained?	☐ Yes ☐ No ☐ NA		
Are storm drain inlets properly protected? (on-site and adjacent)	☐ Yes ☐ No ☐ NA		
Are discharge points and receiving waters free of any sediment deposits?	☐ Yes ☐ No ☐ NA		

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Best Management Practices (BMPs)	In Compliance with SWPPP?	Corrective Action Needed; Responsible Party & Notes	
Are all slopes and disturbed areas not actively being worked properly stabilized?	☐ Yes ☐ No ☐ NA		
Are washout facilities (e.g., concrete, paint, stucco) available, clearly marked and maintained?	☐ Yes ☐ No ☐ NA		
Is trash/litter from work areas collected and contained in dumpsters?	☐ Yes ☐ No ☐ NA		
Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐ Yes ☐ No ☐ NA		
Are natural resources (e.g., streams, wetlands, mature trees) area protected with barriers or similar BMPs?	☐ Yes ☐ No ☐ NA		
Are vehicle and equipment fueling, cleaning and maintenance areas free of spills, leaks, or other deleterious material?	☐ Yes ☐ No ☐ NA		
Are materials that are potential stormwater contaminants stored inside or under cover?	☐ Yes ☐ No ☐ NA		
Are disturbed areas stabilized within 7 days, if areas denuded will remain undisturbed for 14 days?	☐ Yes ☐ No ☐ NA		

Non – Compliance

Describe any incidents of non-compliance not described above (use another page is necessary)

Certification

"I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Operator or Assigned Qualified Personnel Name: _____

Signature: _____

Date: _____

9.0 Grading & Stabilization Activities Log

Date Grading Activity Initiated	Description of the Grading Activity (including location)	Date Grading Activity Ceased	Date Stabilization Measures Initiated	Description of Stabilization Measures (including location)

10.0 SWPPP Modification & Update Log

Modification Date	Description of the Modification / Update (name & title that request the modification)	Modification Prepared By (name & title)

INSTRUCTIONS for COMPLETING the SINGLE FAMILY RESIDENCE, COMMON PLAN of DEVELOPMENT or SALE STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

General
A Stormwater Pollution Prevention Plan (SWPPP) must be developed prior to obtaining locality (e.g., City, Coun to commence land disturbance.

SWPPP Cover Page
For a construction activity, enter the project/site name and physical address (if available), including city (or town), state and zip code. Enter the latitude and longitude in decimal degrees of the construction activity.

Enter the Construction Activity Operator's company/organization name, the Operator's name and mailing address, including city (or town), state, and zip code, telephone number, email address (if available), and a 24-hour emergency contact.

Enter the SWPPP preparation date.

The Construction Activity Operator identified on the cover page of the SWPPP is responsible for certifying the information contained therein. Please sign the certification in INK. Please note that state statues require the SWPPP to be signed as follows:
(1) For a corporation: by a responsible corporate officer;
(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
(3) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.

Section 1.0 SWPPP Documents Located Onsite & Available for Review
Utilize the provided checklist to ensure that the required SWPPP documents are located onsite and are available for review, if applicable.

Section 2.0 Authorized Non-Stormwater Discharges
Identify the authorized non-stormwater discharges likely to be present at the project site. If an unlisted authorized non-stormwater discharge is likely to be present at the project site, provide it here.

Section 3.0 Pollution Prevention Awareness
Provide employees with a "walk through" of the project site and identify areas of possible pollution, erosion and sediment controls, and pollution prevention practices which are applicable to their assigned job duties. Conduct refresher meetings and perform additional "walk throughs" on an as needed basis.

Section 4.0 Erosion & Sediment Controls
Identify the erosion and sediment controls to be implemented at the project site. For each erosion and sediment control, enter the estimated installation date and estimated removal date. If an unlisted erosion and sediment control will be implemented at the project site, provide the applicable information here.

Section 5.0 Potential Sources of Pollution & Pollution Prevention Practices
Identify the pollutant-generating activities likely to be present at the project site; implement and maintain the corresponding pollution prevention practices. If an unlisted pollutant-generating activity is likely to be present at the project site, describe it, identify the associated pollutant(s), and provide the corresponding pollution prevention practice(s) to be implemented and maintained.

Section 6.0 Stormwater Management Controls
Identify the stormwater management controls to be implemented at the project site, if applicable. For each stormwater management control, enter the estimated installation date. If an unlisted stormwater management control will be implemented at the project site, provide the applicable information here.

Section 7.0 Spill Prevention & Response
Most spills can be cleaned up following manufacturer specifications. The priority should be to protect all people, equipment, property, and the environment. Enter the telephone number of your local fire and police departments.

Section 8.0 Inspections & Corrective Action Log
Enter the qualified inspector's company/organization name, the inspector's name, telephone number, and qualifications. Select the applicable inspection type, enter the construction activity inspection date, and enter the date and rainfall amount of the last measurable storm event (if applicable). Identify if the implemented best management practices are in compliance with the SWPPP. Enter corrective actions needed; the party responsible for implementing the corrective actions, and the date corrective actions were taken, if applicable. Make additional copies of the inspection and corrective action log as necessary.

Section 9.0 Grading & Stabilization Activities Log
Enter the date grading activities were initiated, a description of the grading activities including location, the date grading activities ceased, the date stabilization measures were initiated, and a description of the stabilization measures including location.

Section 10.0 SWPPP Modification & Update Log
Enter the SWPPP modification date, description of the SWPPP modification/update, and the name and title of the SWPPP modification preparer, if applicable.

ARLINGTON VIRGINIA

Department of Environmental Services
LDA Permit SWPPP Minimum Acceptance Criteria (MAC) C

February 2018

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Instructions: Complete this required Front Counter Minimum Acceptance Criteria (MAC) Checklist to ensure the intake of your plan upon submission at 1st submission. If applicable, also complete all attached MAC Checklists for requirements pertaining to the individual review of plan elements.

Project Name: N. Glebe Road Watermain Replacement	
Address: N. Glebe Road from N. Randolph St. to N. Pershing Dr.	**Date: August 3, 2020**

	General Items	**yes**	**n/a**	**no**	**sheet**
1	Completion of this Front Counter MAC Checklist and all applicable Plan Review MAC Checklists.	X			1
2	Submit and sign the MAC Checklist with the civil engineering plan for first submittal only.	X			
3	Include a Cover Sheet with the following information	X			C000.1
a	Name of project	X			C000.1
b	Include the address, if known at the time of submission.	X			C000.1
c	Vicinity Map indicating the North arrow; label all streets	X			C000.1
d	Name, address, phone number and email of Contractor	X			C032.1
e	Name, address, phone number and email of Owner	X			C000.1
f	Name, address, phone number and email of Engineer	X			C000.1
g	Table of Contents/ Sheet Index	X			C000.1
h	Horizontal Datum: All plans shall be referenced to the Virginia Coordinate System of 1983 (VCS 83). The following note should be present on the cover sheet: “The site shown hereon is referenced to the Virginia Coordinate System of 1983 as computed from a field run boundary and horizontal control survey.”	X			C011.1
i	Vertical Datum: All plans shall be referenced to the North American Vertical Datum of 1988 (NAVD 88). The following note should be present on the cover sheet: “The site shown hereon is referenced to the North American Vertical Datum of 1988 as computed from a field run vertical control survey.”	X			C011.1
j	Site plan/use permit number and/or which FBC if the project is pursuant to a 4.1 site plan, or a use permit, or a Form Based Code project.		X		
4	Include an Existing Conditions Plan Sheet, Demolition Plan Sheet and Site Plan Sheet	X			C011.1 -
5	Include the following within the Plan, on applicable Plan Sheets		X		
a	Graphic Scale on ALL plan sheets	X			
b	North Arrow on ALL plan sheets	X			
c	Current Field Survey Topography (certified)	X			C011.1
d	Site Areas (Post Dedication and Post Vacation)				
e	Total site area of property in sq ft and acres		X		
f	Existing and Proposed Easements on an exhibit		X		
g	Real Property Identification Map Number, RPC Numbers	X			C011.1
h	Legends	X			C006.1
6	Engineer's Seal/ Signature - Signed and dated on all sheets	X			

Erosion and Sediment Control Plan					sheet
1	Include the Following on Erosion and Sediment Control Plan Sheets				22
a	E&S Control Plan and Site Plans				
b	E&S Control Narrative				
c	E&S Control practices detail drawing (dewatering device, etc..)				
d	E&S Control Plan Legend		X		
e	Virginia Erosion and Sediment Control Handbook (VESCH) specification numbers		X		
f	Blank Responsible Land Disturber Letter	X			
2	General E&S Control Notes, General Land Conservation Notes, and Pre-Storm Erosion and Sediment Control Checklist.		X		
3	Landscape Conservation Plan with the following clearly indicated		X		
a	Determination of the critical root zone		X		
b	Tree protection fencing		X		
c	Signage		X		
d	Critical Root zone mitigation, such as root pruning, padding, or other root protection methods		X		
e	Note requiring county arborist inspection before any land disturbance activity		X		
f	Tree inventory of all trees larger than 3 inches DBH, either on site or with a critical root zone encroaching the limit of disturbance. This list will contain information on species, size, health, whether the tree is to be protected or not, and other issues, such as location in the RPA, disease concerns, or invasive species presence		X		
g	Tree canopy coverage calculation		X		
h	RPA delineation, if applicable		X		
i	For 4.1 site plans and use permits, a copy of all relevant approved conditions, including, but not limited to, the landscape plan and tree preservation plan		X		
j	For 4.1 site plans and use permits, a copy of the tree preservation plan and the calculation of the tree replacement value of removed trees approved by the County Board, if these were part of the approval		X		
k	For public projects which do not have a tree preservation condition approved by the County Board, a calculation of the tree replacement value of removed trees		X		

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Stormwater Management Plan		YES	NO	N/A	sheet
1	Include the following on Stormwater Management Plan Sheets		X		
a	Runoff Reduction Spreadsheet		X		
b	Design details and reference of stormwater facilities listed in the Runoff Reduction Spreadsheet		X		
c	Facility detail, maintenance schedule, material specifications and construction inspection checklist for each stormwater facility proposed		X		
d	Drainage area boundary and runoff flow arrows		X		
e	Water Quantity Energy Balance Worksheet		X		
f	Waterproofing Note, if applicable		X		
g	Meet requirement for sheetflow and statement of no adverse impact to adjacent properties		X		
h	Indicate sump pump discharge location, tie into the public storm sewer system when possible.		X		
i	Indicate Floodplain boundary and floodplain study OR certification on plan that no floodplain is present		X		
j	Indicate Resource Protection Area (RPA) boundary on plan OR include certified note on plan that no RPA is present. If RPA is present, include Completed Water Quality Impact Assessment (WQIA) form with required elements. Include Completed Exception Request Form on plan (if required), and proposed RPA mitigation		X		
k	Blank Stormwater Facility Maintenance and Monitoring Agreement		X		
l	SWM# on the coversheet, once assigned after 1st review		X		

m	For 4.1 site plans and use permits, a copy of the conceptual SWM plan and calculations from the County Board-approved 4.1 or use permit plans for information only				

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Pollution Prevention Plan					
1	Include the following on the Pollution Prevention Plan				
a	Standard notes from Stormwater Manual Section 2.4		X		
b	Authorized Non-Stormwater Discharge (Section 2.0), Potential Sources of Pollution & Pollution Prevention Practices (Section 5.0), and Spill Prevention & Response (Section 7.0) from SWPPP Template (Appendix B) of the Stormwater Manual	X			
Wet Utility Requirements					
a	for a new development with a new building or for additions that will upgrade to more than 3 toilets (WCs), the water meter and service line shall have as existing, or be upgraded to a minimum ¾" and 1", respectively.		X		
b	the location of the existing and proposed meter/service shall clearly be shown on the plan to be within the utility strip (where applicable) or sidewalk but not on private property without the provision of an easement ,nor in driveway/apron, nor within five (5) tormwater Management Facility and Site Data Spreadsheet	X			
c	if the water service and meter are relocated from the existing meter location and the service line crosses other utilities (water, sewer, gas, underground dry utility) between the water main and meter , a depth profile shall be provided to clearly show the separation from these utilities with a minimum vertical separation of twelve (12) inches. The plan must be certified by a licensed professional	X			
d	the location of the new meter shall be staked out by the developer/owner with information to be provided to the County meter installers.from these utilities with a minimum vertical separation of twelve (12) inches. The plan must be certified by a licensed professional	X			
Attachments (one 8.5"x 11" hard copy stapled to the SWPPP plan)					
a	Registration Statement for project with land disturbance equal to or greater than 1 acre		x		
b	Stormwater Management Facility and Site Data Spreadsheet		x		
c	Stormwater Prevention Plan (P2) Template of the Stormwater Manual	x			
d	Planning & Field Guide for Pollution Prevention (P2)	x			

I certify that the above is true and accurate to the best of my knowledge.

Solomon Wold

Signature

August 3, 2020

Date

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Planning & Field Guide for Pollution Prevention (P2)

Attachment to the P2 Plan for (insert address below):

N GLEBE ROAD WATERMAIN REPLACEMENT

FROM N. RANDOLPH ST. TO N. PERSHING DR.

ARLINGTON
VIRGINIA

Table of Contents

Introduction

This supplement highlights some of the common pollution-preventing practices that are s
supplement is intended to assist you with the creation of the required Stormwater Polluti d
provides suggestions of practices that help prevent pollution. Most pollution-releasing in
construction sites could have been avoided with the proper planning and implementation
practice should be appropriately sized for the specific project site where it will be implemented. Regular review,
maintenance and adjustment, when necessary, of the practice is the responsibility of the construction site
manager to ensure that only clean, clear stormwater leaves the site.

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Some practices from Maryland's Department of the Environment are provided in this guide. These are acceptable examples that could be used in Arlington County. The drawings and their detail are available at:

http://mde.maryland.gov/programs/Water/StormwaterManagementProgram/SoilErosionandSedimentControl/Pages/2011_ESC_details.aspx

Monitor the Weather

It is extremely important to regularly monitor the weather forecast and plan accordingly when a construction site is active and/or unstabilized. It is the contractor's responsibility to:

- Schedule time to implement pre-storm plan when precipitation is predicted.
- Check containment practices after a precipitation event and maintain as necessary.

Good Housekeeping

Clean up sediment and debris along the curb and in the street every day using "dry" methods, such as shoveling, sweeping or vacuuming. The use of water to remove sediment and debris from the right-of-way will not be permitted under any circumstance. Remember - only clean, clear stormwater may leave a construction site.

Example cleanup methods. Left photo: vacuuming. Right photo: sweeping debris away from the storm drain.

Concrete Washout

Concrete wash water is directed into a leak-proof container or settling basin. The contain
adequately sized to ensure overflows do not occur, whether due to precipitation or inade
concrete washes are removed and disposed of in a manner consistent with handling cons
and mortar work must also utilize a washout device.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Best Practices:

- ✓ Washouts must be sized appropriately for the needs of the site.
- ✓ Do not locate washouts near storm drains.
- ✓ Concrete washouts cannot be used for the purpose of dewatering. Concrete washouts and dewatering devices are not interchangeable.
- ✓ Don't mix more fresh concrete or cement than you will use in a two-hour period.
- ✓ Set up and operate small mixers on top of plywood that is covered by tarps or heavy plastic drop cloths, and bermed with stones around the edge.
- ✓ Set up mortar containers on top of a tarp or heavy plastic drop cloth.
- ✓ When cleaning up after driveway or sidewalk construction, use DRY methods such as sweeping, shoveling or use a street sweeper/vacuum truck.
- ✓ Wash down exposed aggregate concrete only when the wash water can drain onto a bermed surface from which it can be pumped and disposed of properly or be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms.
- ✓ Wash out concrete mixers in designated wash-out areas where the water flows into a temporary waste pit.
- ✓ Dispose of settled, hardened concrete as garbage.
- ✓ Ensure that tracking does not occur from the concrete washout area.
- ✓ Dewatering of accumulated stormwater can only be done through a chemical filtering sock.
- ✓ Concrete wash water and sawcut slurry are not allowed to enter a storm drain.

If debris is in the curb, a vacuum truck may be needed to clean up the area.

Check which practice you will implement. Drawings and descriptions are in the fo

If choosing "Other," supply a drawing and detailed description (including mainte

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

____ Excavated Washout Structure

____ Washout Structure with Wood Planks

____ Washout Structure with Straw Bales

____ Prefabricated Containment System

- Name of manufacturer: _____
- Size: _____
- Attach the manufacturer's specification sheet and detail of how it will be maintained.

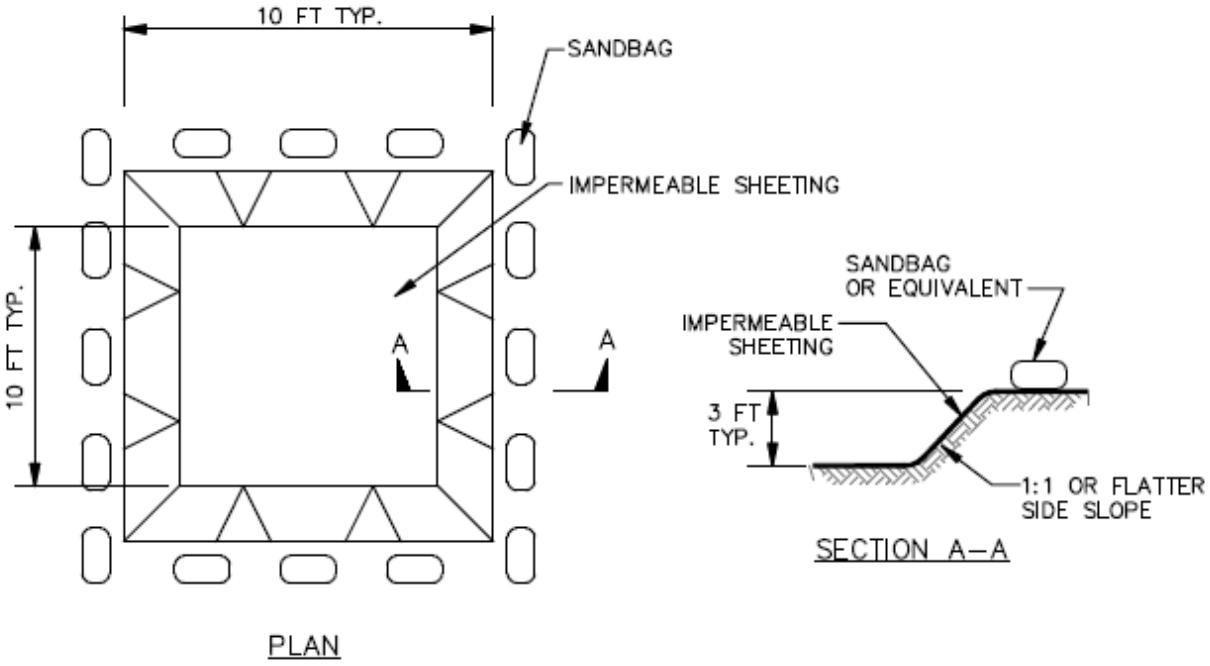
____ Other

Approved Concrete Washout Practice Drawings & Descriptions

Excavated Washout Structure

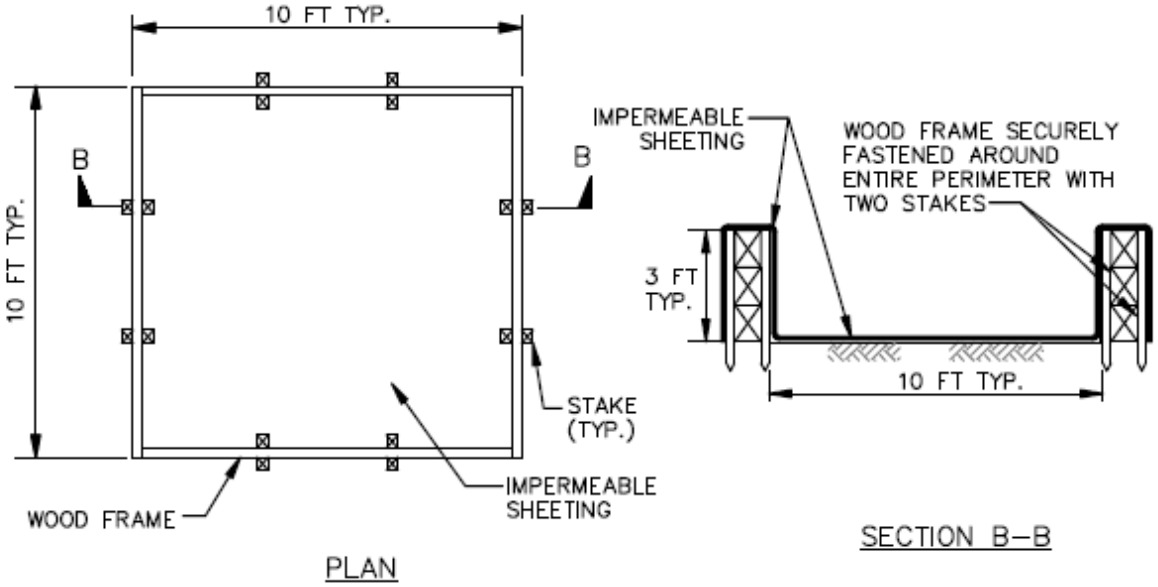
The Maryland Standard H-6 for an onsite concrete washout structure is provided as an option for use in Arlington County.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163



Washout Structure with Wood Planks

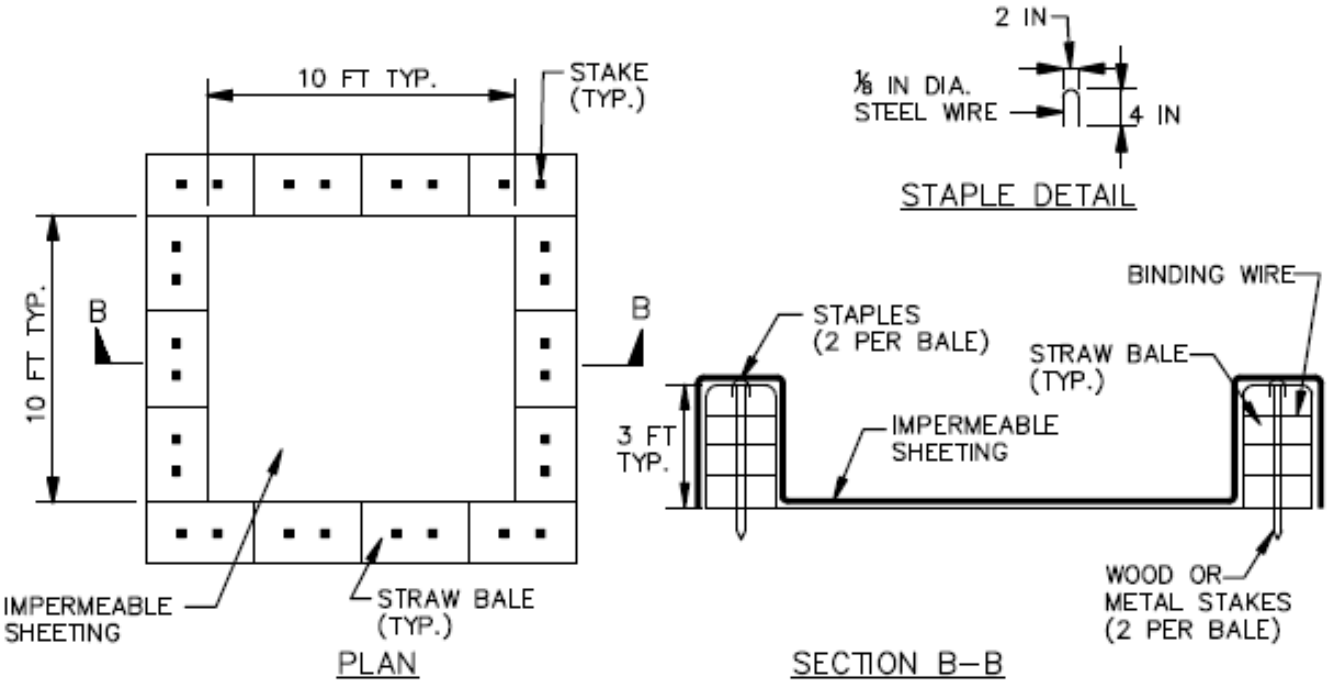
The Maryland Standard H-6 for an onsite concrete washout structure is provided as an acceptable option for use in Arlington County.



Washout Structure with Straw Bales

The Maryland Standard H-6 for an onsite concrete washout structure is provided as an option for use in Arlington County.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163



NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

Example washout structures. Note that each example is fully lined and the washout is contained.

Prefabricated containment example.

Concrete Washout Other

Supply a drawing and detailed description. Include information on practi

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Structure Construction, Stucco, Painting and Cleaning

Enclose, cover or berm building material storage areas if susceptible to contaminated sto
Conduct painting operations consistent with local air quality and OSHA regulations. Mi
containment area or a flat unpaved area. Prevent the discharge of soaps, solvents, deterge
form construction materials, including the cleanup of stucco paint, form release oils and

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Best Practices:

- ✓ Liquid waste may not enter a storm drain.
- ✓ Liquid wastes are to be contained in a controlled area, such as a portable tank.
- ✓ Containment must be structurally sound and leak-free.
- ✓ Containment must be sized appropriately for the needs of the site.
- ✓ Locate containment areas away from storm drains.

<u>Examples for Structure Construction, Stucco, Painting and Cleaning Practices</u>

Example paint washout structure.

Example small-scale concrete and paint washout area.

Structure Construction, Stucco, Painting and Cleaning Other

Supply a drawing and detailed description. Include information on practi

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Dewatering Operations

Construction site dewatering from building footings or other sources may not be discharg
Sediment laden or turbid water must be filtered, settled or similarly treated prior to disch
structure must be sized to allow pumped water to flow through the filtering device witho
structure. Use a combination of filtering and inlet protection approaches described below
clear water leaves the site. Closely monitor and maintain the sediment removal devices t
clogged and operate correctly. Make adjustments as site conditions change.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Check which filtering practice(s) you will implement. Drawings and descriptions are in the following section. If choosing "Other," supply a drawing and detailed description that includes information on maintenance on page 17.

____ Filter Box

____ Straw Bale/Silt Fence Pit

____ Portable Sediment Tank

____ Filter Bag

____ Pump from Settling Pit

____ Manufactured System

- Name of manufacturer: _____
- Size: _____
- Attach the manufacturer's specification sheet and detail of how it will be maintained.

____ Other

Check which inlet protection practice(s) you will couple with the filtering practice. See Arlington's *Erosion and Sediment Control Supplement* and/or the Virginia Department of Environmental Quality's *Virginia Erosion and Sediment Control Handbook* for inlet protection practice specifications.

If choosing "Other," supply a drawing and detailed description that includes information on maintenance on page 8 of the E&S Supplement.

____ Filter Fabric Inlet Protection

____ Gravel Curb Inlet Sediment Filter

____ Block and Gravel Curb Inlet Sediment Filter

____ Block and Gravel Drop Inlet Sediment Filter

____ Silt Fence Drop Inlet Protection

____ Median Inlet Protection

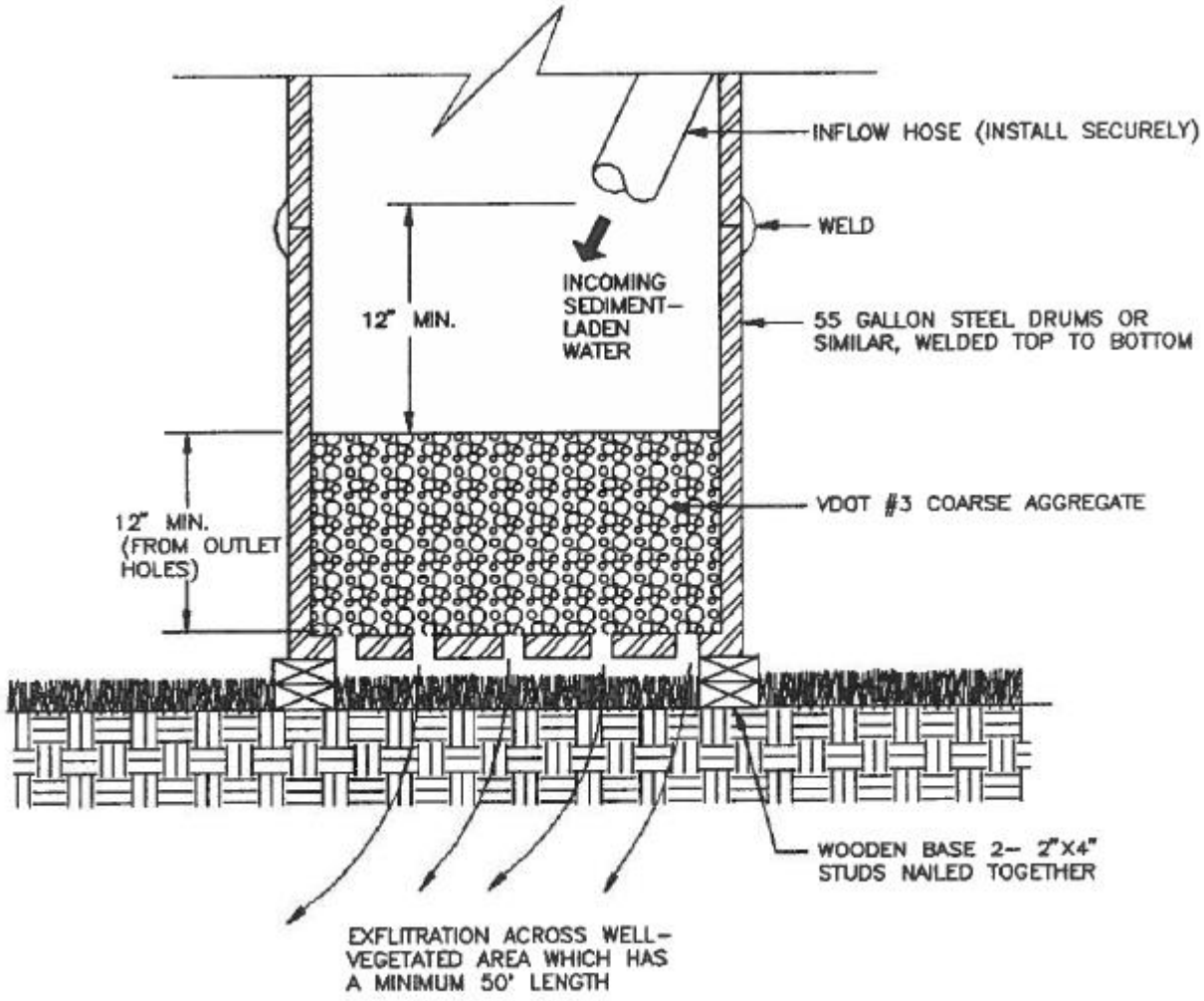
____ Other

Approved Dewatering Practice Drawings & Descriptions

Filter Box

See the Virginia Department of Environmental Quality's *Virginia Erosion and Sediment* Chapter 3-3.26 for additional design specifications. The box must be cleaned out once or if filled with sediment. If the stones become clogged and the box stops properly function removed, cleaned and replaced.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

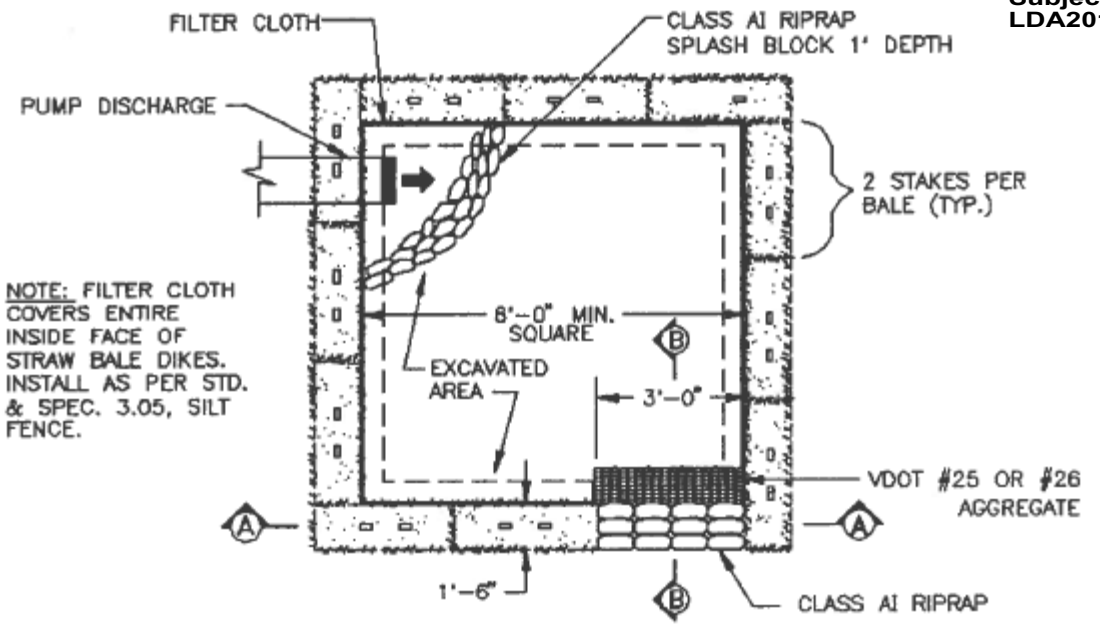


ELEVATION VIEW

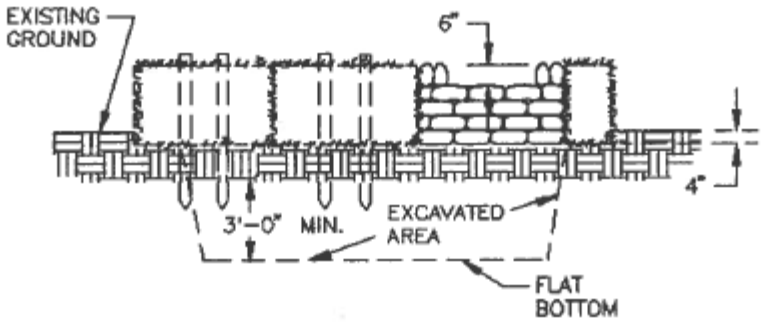
Straw Bale/Silt Fence Pit

See the Virginia Department of Environmental Quality's *Virginia Erosion and Sediment* Chapter 3-3.26 for additional design specifications.

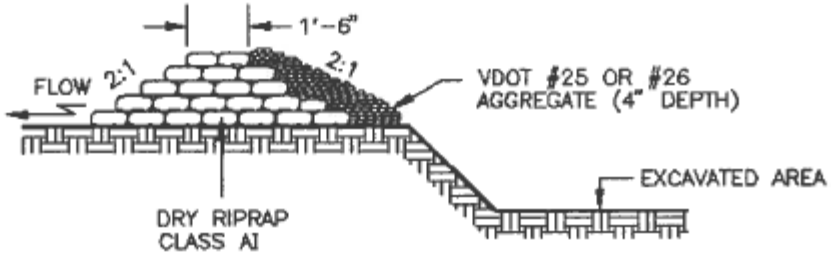
ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163



PLAN VIEW



CROSS-SECTION A-A



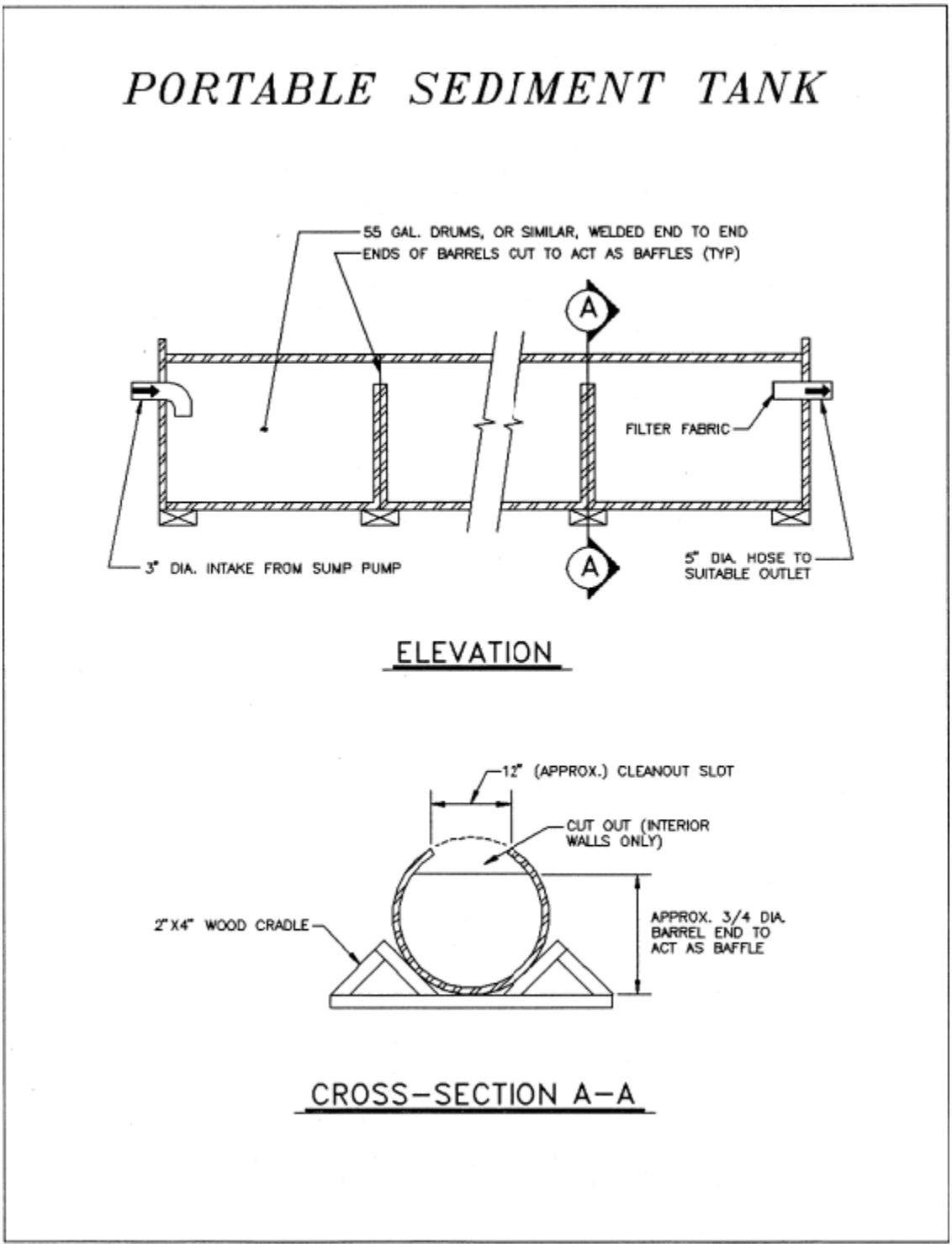
CROSS-SECTION B-B

Portable Sediment Tank

See the Virginia Department of Environmental Quality's *Virginia Erosion and Sediment* Chapter 3-3.26 for additional design specifications. Storage volume of the sediment tank

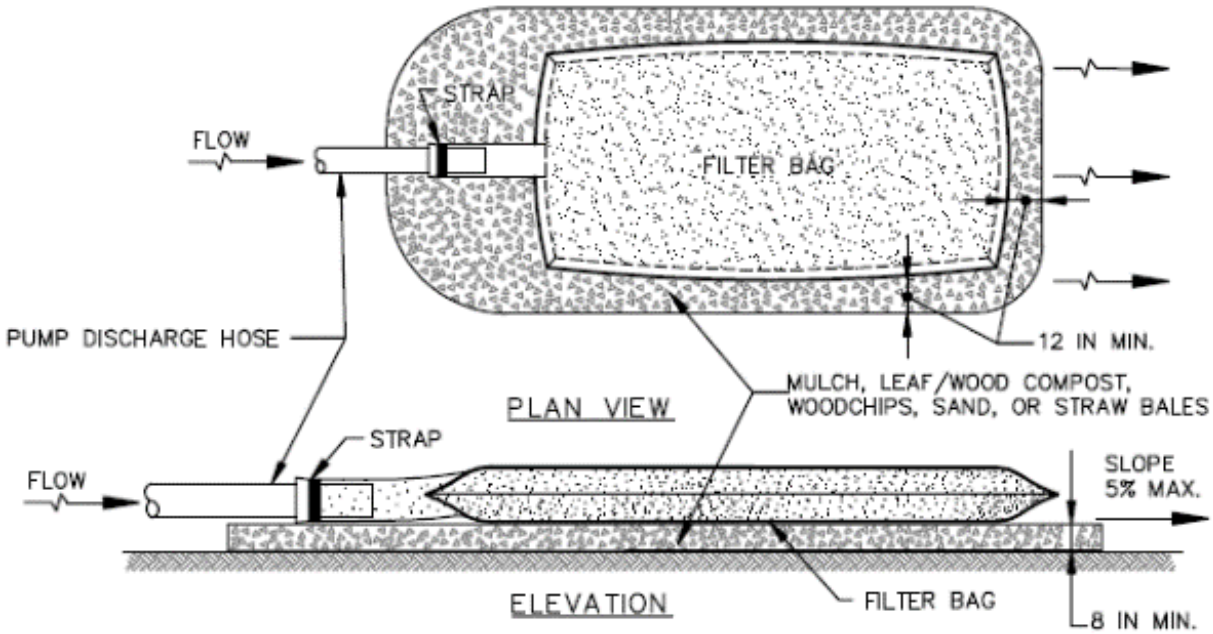
Pump discharge (g.p.m.) x 16 = cubic feet of storage required

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163



The Maryland Standard F-4 for a filter bag is provided as an acceptable option for use in County if straw bales or stone are used as the layer under the filter bag. The use of mulc compost, woodchips or sand is not acceptable.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163



CONSTRUCTION SPECIFICATIONS

1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT^2	ASTM D-4491
PERMITTIVITY (SEC^{-1})	1.2 SEC^{-1}	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

Pump from Settling Pit

Dig a small pit and fill with fine gravel. Draw water from the top of the pit, not the botto ensure that you are drawing only clear water from the pit.

Approved: 8/30/2020
Subject to field inspection
LDA20163

Manufactured System

There are a variety of manufactured systems on the market. Choose one that fits the size constraints of your site and can adequately meet your dewatering needs.

Dewatering Practice Other

Supply a drawing and detailed description. Include information on practice m

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Material Delivery and Storage

Eliminate or minimize the chances of contact with runoff and a pollution discharge even ı site. Designate areas of the construction site for material delivery and storage. Place neai s, away from waterways, and avoid transport near drainage paths or waterways.

Best Practices

- ✓ Train employees and subcontractors on the proper material delivery and storage practices.
- ✓ Keep materials dry and protected from wind and rain. Install berms or curbs when necessary to prevent runoff.
- ✓ Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks or channels.
- ✓ Cover dry and wet materials, including exposed piles of soil and construction materials, with plastic sheeting or temporary roofs when not in use.
- ✓ Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall and runoff.
- ✓ Provide secondary containment around tanks or at a minimum berm them.
- ✓ Place a stockpile of spill cleanup materials, such as brooms, dustpans and vacuum sweepers (if desired), near the storage area where it will be readily accessible.
- ✓ Keep outdoor storage containers in good condition.

Example of a manufacturer's storage container. Note that the doors are closed and that the area surrounding the container is clean (except for some residual snow).

Chemical and Fuel Management and Storage

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Best Practices

- ✓ Establish a designated fueling area where all vehicles and equipment are fueled.
- ✓ Place temporary "caps" over nearby catch basins or manhole covers so that if a spill occurs it is prevented from entering the storm drain.
- ✓ Cover fueling and chemical storage areas with an overhanging roof structure or canopy so that precipitation cannot come in contact.
- ✓ Place a stockpile of spill cleanup materials where it will be readily accessible. Include portable absorbent booms (long flexible shafts or barriers made of absorbent material) in unbermed fueling areas.
- ✓ Use DRY methods such as adsorbent materials on small spills. Remove the adsorbent materials after use promptly.
- ✓ Install protective guards around tanks and piping to prevent vehicle or forklift damage.
- ✓ Use a perimeter drain or slope pavement inward with drainage to sump. Pave area with concrete rather than asphalt.
    - Where covering is not feasible and the fuel island is surrounded by pavement, apply a suitable sealant that protects the asphalt from spilled fuels.
- ✓ Install overflow protection devices on tank systems to warn the operator to automatically shutdown transfer pumps when the tank reaches full capacity.
- ✓ Install clear tagging or labeling of all valves to reduce human error.
- ✓ Fit fuel dispensing nozzles with "hold-open latches" (automatic shutoffs) except where prohibited by local fire departments.
- ✓ Post signs at the fuel dispenser or fuel island warning vehicle owners/operators against "topping off" of vehicle fuel tanks.
- ✓ Use secondary containment when transferring fuel from the tank truck to the fuel tank.
- ✓ Regularly inspect fuel and chemical containers.
    - Check for external corrosion and structural failures such as cracks, scratches and other physical damage that may weaken the tank or container system.
    - Check for leaks or spills while pumping liquids or gases from truck to a storage facility or vice versa.
    - Check tank foundations, connections, coatings, tank walls and piping system for failures.
    - Visually inspect new tank or container installation for loose fittings, poor welding, and improper or poorly fitted gaskets.
- ✓ Integrity testing should be conducted periodically by a qualified professional.

- ✓ Report significant spills to your site inspector. Immediately call 703-558-2222 if a Hazmat team is required to address the spill.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Fuel storage example. Cans are closed and located inside of a lined, secondary containment. The cans are also covered by a plastic liner to protect them from the elements.

Chemical storage example. Containers are closed, covered by a tarp, and off of the ground.

Portable refueling mat example. The mat catches drips that may occur during the fueling process.

Material Delivery and Storage, and Chemical and Fuel management and Storage Other

Supply a drawing and detailed description. Include information on practice m

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Solid Waste Disposal

Designate a waste collection area on the construction site that does not receive a substan
from upland areas and does not drain directly to a waterway. Ensure that containers have
covered before periods of rain, and keep containers in a covered area whenever possible.
collection to prevent the containers from overfilling.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Best Practices

- ✓ A sufficient number of waste containers must be kept on a site to handle the quantity of waste produced.
- ✓ Keep waste collection areas clean.
- ✓ Keep dumpster lids closed.
- ✓ Have the dumpster emptied before it becomes full and overflows its contents.
- ✓ Waste containers must be water tight.
- ✓ Check waste containers frequently for leaks and clean using DRY methods when necessary.
    - Never clean out a dumpster by power washing or hosing it out.
- ✓ Replace containers that are leaking, corroded, or otherwise deteriorating.
- ✓ Place waste containers under roofs, or cover with tarps or plastic sheeting secured around the outside of the dumpster.
- ✓ Never bury waste material. Dispose of excess dry concrete, grout and mortar in the trash.
- ✓ Create designated hazardous waste collection areas on-site.
- ✓ Place hazardous waste containers in secondary containment.
- ✓ When breaking up pavement, pick up all the pieces and dispose of them properly. Recycle large chunks of broken concrete at a landfill.

Good example of dumpster best practices. The dumpster is tarped and the tarp is secured. Traffic cones keep the area around the dumpster free of traffic and reflective tape (see bottom photo) is affixed to the ends of the dumpster.

Solid Waste Disposal Other

Supply a drawing and detailed description. Include information on practice m

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Sanitary Waste

Best Practices

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

- ✓ Place portable toilets away from storm drains and waterways, preferably in a veg[illegible]. The toilet would ideally be downhill of storm drains and waterways.
- ✓ Locate portable toilets on level ground.
- ✓ Make sure portable toilets are in good working order. Check frequently for leaks.
- ✓ Regularly schedule pump outs of portable toilets.
- ✓ It is the responsibility of the construction site operator to ensure that the location and cleanliness of the portable toilet is acceptable.

Portable toilet is located on level ground, and is inside secondary containment.

Sanitary Waste Other

Supply a drawing and detailed description. Include information on practice m

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Equipment and Vehicle Maintenance

Use a designated area, away from storm drains, to refuel or perform vehicle or equipmen

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Best Practices

- ✓ Designate one area of the site for auto parking, vehicle refueling, and routine equ
  The designated area should be away from streams or storm drain inlets.
- ✓ Storm drain inlets should be protected. See the Inlet Protection section of the Planning & Field Guide for Erosion & Sediment Control for details.
- ✓ Maintain vehicles and equipment to ensure leaks are quickly found and repaired.
- ✓ Collect all spent fluids, store in separate containers, and properly dispose as hazardous waste (recycle whenever possible).
- ✓ Make major vehicle and equipment repairs off site.
- ✓ Clean up leaks, drips and other spills immediately.
- ✓ Paved surfaces are clear of drip and spill residues, and are stain-free.
- ✓ Use DRY cleanup methods (absorbent materials, cat litter and/or rags). Sweep, shovel or vacuum up and dispose of absorbent materials.
- ✓ Remove construction equipment as soon as possible from the job site. Do not store equipment onsite.
- ✓ Cover exposed fifth wheel hitches and other oily or greasy equipment during rain events.
- ✓ Report significant spills to your site inspector. Immediately call 703-558-2222 if a Hazmat team is required to address the spill.

Equipment and Vehicle Maintenance Other

Supply a drawing and detailed description. Include information on practice m

ARLINGTON
VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

(page intentionally left blank)

July 1, 2020
date

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

Qianqian Li, P.E.
ESC Program Administrator
Department of Environmental Sevices
2100 Clarendon Boulevard, Suite 813
Arlington, Virginia 22201

Re: Erosion and Sediment Control Permit Application for:

N. Glebe Road Water Main Replacement
street address

From N. Randolph St. to N. Pershing Dr.
lot, block, section subdivision

_____
permit number

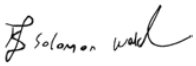
Dear Mrs. Li:

I hereby certify that I accept the responsibilities of Responsible Land Disturber for the above referenced project. I understand that these responsibilities include:

1. Reviewing the erosion and sedimentation (E&S) plan for the project.
2. Walking the site prior to construction to identify critical areas.
3. Conducting a pre-construction briefing with earth moving and site contractors to present the E&S plan and highlight the presence of critical areas, the limits of clearing and the required E&S controls and tree protection measures to be installed. Call 703-228-0760 to schedule pre-construction meeting.
4. Regularly inspecting the site during construction to ensure that all E&S controls are functioning and are adequate to address erosion and sedimentation. Inspect the site 48 hours after a runoff-generating storm, and provide a copy of the inspection findings to the county.
5. Reporting to the owner the presence inadequate or non functioning E&S controls when they are observed.
6. Ensuring that temporary soil stabilization is applied within 7 days to areas denuded that will remain undisturbed for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
7. Calling (703) 228-0760 at least 80 hours before demolishing any structure.

I may be reached at 703-228-3654 with questions about this plan or my execution of the duties of
telephone number
Responsible Land Disturber.

Sincerely,



_____
signed

Solomon Shikur
name printed

VA PE #44276
professional registration (type and number)

REVISED ON 05/23/2018

ARLINGTON
VIRGINIA

ENGINEER
DEPARTMENT OF
ENVIRONMENTAL SERVICES

FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629 FAX: 703.228.3606
WWW.ARLINGTONVA.US

OWNER
DES/OD/WSS

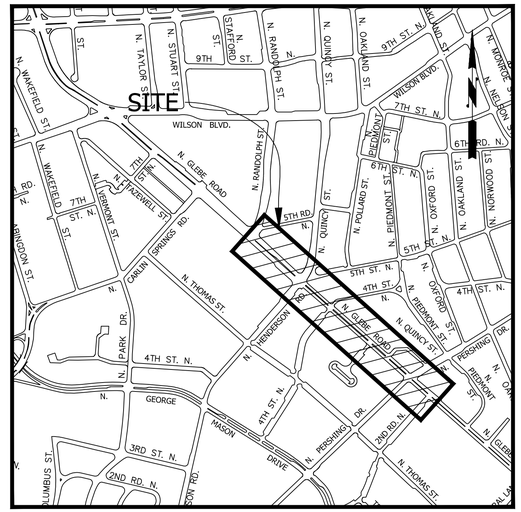
CONTRACTOR
TO BE DETERMINED

CONSTRUCTION DRAWINGS FOR:

N. GLEBE ROAD WATERMAIN REPLACEMENT
FROM N. RANDOLPH STREET TO N. PERSHING DRIVE

PROJECT NUMBER: R014

LOCATION MAP



0 600 1200
GRAPHIC SCALE

GENERAL NOTES:

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
2. ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
4. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PRIVATE WATER, SEWER AND GAS LATERALS WILL NOT BE MARKED BY MISS UTILITY OR THE COUNTY. THE CONTRACTOR SHALL LOCATE AND PROTECT THESE SERVICES DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS. THE COST OF ALL NECESSARY SURVEYING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND, UNLESS OTHERWISE SPECIFIED, THE COST SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
6. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER.
7. EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
8. THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.
9. ALL SIDEWALK AND CURB AND GUTTER DEMOLITION SHALL BEGIN AND END AT THE CONSTRUCTION JOINT NEAREST TO THE DEPICTED DEMOLITION EXTENTS WITH A NEAT SAWCUT LINE TO FULL DEPTH OF PAVEMENT SECTION.

STORMWATER AND ENVIRONMENTAL PROTECTION

10. THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES AT THE SITE ASSOCIATED WITH CONSTRUCTION ACTIVITIES, TO INCLUDE STORAGE OF EQUIPMENT AND OR MATERIALS, ACCESS TO THE WORK, FORMWORK, ETC. TO WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD).

TREE PROTECTION

11. TREES SHALL BE PROTECTED PER THE REQUIREMENTS OF ARLINGTON PARKS & RECREATION STANDARD.

TRAFFIC CONTROL

12. CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO DISTURBING ANY EXISTING, OR INSTALLING ANY NEW, TRAFFIC SIGNS, SIGNALS, OR OTHER TRAFFIC CONTROL DEVICES.
13. THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. THE PREMARKING MAY CONSIST OF TYPE D TAPE, CHALK, OR LUMBER CRAYONS. THE CONTRACTOR SHALL ALLOW 3 WORKING DAYS FOR THE INSPECTION AND APPROVAL OF THE PREMARKINGS PRIOR TO PLACING THE PERMANENT MARKINGS.
14. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER.
15. WHEN THE APPROVED PLAN CALLS FOR THE REMOVAL OF ANY PARKING METER THE CONTRACTOR MUST MAKE A REQUEST TO THE PROJECT OFFICER AT LEAST ONE WEEK IN ADVANCE OF THE DESIRED REMOVAL. THE PROJECT OFFICER WILL THEN COORDINATE THE PARKING METER REMOVAL WITH TRAFFIC ENGINEERING AND OPERATIONS.
16. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. ANY RELOCATION OR CLOSURE OF A BUS STOP SHALL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR - 703-228-3049.
17. WHEN CONDITIONS WARRANT DUE TO TRAFFIC VOLUMES, PATTERNS, OR SPECIAL EVENTS, THE COUNTY MAY SUSPEND OR OTHERWISE DIRECT THE CONTRACTOR'S ACTIVITIES TO PROTECT THE PUBLIC AND OR THE COUNTY'S TRANSPORTATION NETWORK.

WATER DISTRIBUTION, STORM AND SANITARY SEWER SYSTEMS

18. UNLESS OTHERWISE DIRECTED, CONTRACTORS ARE EXPRESSLY PROHIBITED FROM OPERATING ANY WATER VALVES OR APPURTENANCES. CONTRACTORS SHALL SUBMIT ALL REQUESTS FOR VALVE OPERATIONS TO THE PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED OPERATION.
19. IN THE EVENT OF A WATER OR SEWER EMERGENCY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY'S WATER CONTROL CENTER AT 703-228-6555 AND THE PROJECT OFFICER.
20. THE CONTRACTOR SHALL COORDINATE ALL UTILITY SHUTOFFS, DISCONNECTS, AND/OR ABANDONMENT WITH UTILITY OWNER AND PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED INTERRUPTION.

FIRE DEPARTMENT NOTES:

21. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
22. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
23. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

Sheet List

LDA 20163
SWM# 20-0176

ADT

27,000 - N. GLEBE ROAD (FROM FAIRFAX DR. TO ARLINGTON BLVD.) - 2017 - VDOT _ DAILY TRAFFIC VOLUME ESTIMATES
8,400 - N. RANDOLPH ROAD (WILSON BLVD TO GLEBE RD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
12,000 - N. QUINCY STREET (GLEBE RD TO WILSON BLVD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
8,000 - N. HENDERSON ROAD (GLEBE RD TO G. MASON DR) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
4TH STREET N. - NO TRAFFIC INFORMATION
3RD STREET N. - NO TRAFFIC INFORMATION
N. QUEBEC STREET - NO TRAFFIC INFORMATION
8,300 - N. PERSHING DRIVE (GLEBE RD TO WASHINGTON BLVD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
6,300 - N. PERSHING DRIVE (G. MASON DR TO GLEBE RD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC

STREET CLASSIFICATION

N. GLEBE ROAD - PRINCIPAL ARTERIAL
N. RANDOLPH RD - MINOR ARTERIAL
N. QUINCY STREET - MINOR ARTERIAL
N. HENDERSON ROAD - MINOR ARTERIAL
N. PERSHING DRIVE - MINOR ARTERIAL

POSTED SPEED

N. GLEBE ROAD - 30 MPH
N. RANDOLPH ROAD - 25 MPH
N. QUINCY STREET - 25 MPH
N. HENDERSON ROAD - 25 MPH
4TH STREET N. / 3RD STREET N. / N. QUEBEC STREET - 25 MPH
N. PERSHING DRIVE - 25 MPH

ARLINGTON VIRGINIA
ARLI Approved: 8/30/2020
Subject to field inspection
VIRGINIA LDA20163

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

COVER

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 25 2020

SCALE:

(AS SHOWN)

C000.1

FILENAME: R014-200-COVER.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

LINETYPE LEGEND

FEATURE	EXISTING	PROPOSED
BUILDING		
CENTERLINE / BASELINE		
COMMUNICATIONS CABLE	COM COM	COM COM
CONTOURS MAJOR; MINOR	250 250	
CRITICAL ROOT ZONE	CRZ CRZ	CRZ CRZ
EASEMENT		
ELECTRIC (UNDERGROUND)	UGE UGE	UGE UGE
FENCE (MATERIAL NOTED)	X X X X X	X X X X X
FIBER OPTIC	FO FO	FO FO
GAS LINE	GAS GAS	GAS GAS
X" GAS LINE (SIZE INCLUDED IF AVAILABLE)		
GUARDRAIL		
HARDSCAPE FEATURE (MATERIAL NOTED)		
LIMITS OF DISTURBANCE	LOD LOD	LOD LOD
LIMITS OF WORK	LOW LOW	LOW LOW
OVERHEAD WIRES		
PAVEMENT MINI SKIP LINE		
PAVEMENT SKIP LINE		
PROPERTY LINE		
RIGHT-OF-WAY LINE		
ROOT PRUNING	RP RP	RP RP
SANITARY SEWER	SAN SAN	SAN SAN
X" SANITARY SEWER (SIZE INCLUDED IF AVAILABLE)		
SILT FENCE	X X X X X	X X X X X
STORM (SIZE NOTED)	STM STM	
STREAM		
STREET LIGHT CONDUIT	SL SL	SL SL
TELEPHONE (UNDERGROUND)	UGT UGT	UGT UGT
TREE LINE		
TREE PROTECTION FENCE	TP TP	TP TP
WALL		
WATER	6"w	
X" WATER (SIZE INCLUDED IF AVAILABLE)		

SYMBOL LEGEND

EXISTING	PROPOSED
EX CABLE PEDESTAL	PROP CABLE PEDESTAL
EX ELECTRIC BOX	
EX FIRE HYDRANT	PROP FIRE HYDRANT
EX GAS VALVE	PROP GAS VALVE
EX GROUND LIGHT	
EX GUY WIRES	
EX IRON PIPE OR PIN	
EX LIGHT POLE	PROP LIGHT POLE
EX MAILBOX	
EX MONUMENT	
EX PARKING METER	
EX PAY STATION	PROP PAY STATION
EX SANITARY MANHOLE	PROP SANITARY MANHOLE
EX STORM BASIN	PROP STORM CATCH BASIN (TO SCALE)
EX STORM MANHOLE	PROP STORM MANHOLE
EX TELEPHONE PEDESTAL	
EX TRAFFIC CONTROL BOX	
EX TRAFFIC SIGN	PROP TRAFFIC SIGN
EX TRASH CAN	PROP TRASH CAN
EX TRAVERSE	
EX TREES, WOODED AREA	PROPOSED TREE REMOVAL
EX UTILITY MANHOLE TYPE INDICATED ELECTRIC, TELE, ETC	
EX UTILITY POLE	PROP UTILITY POLE
EX WATER MANHOLE	PROP WATER MANHOLE
EX WATER METER	PROP WATER METER
EX WATER VALVE	PROP WATER VALVE
EX YARD INLET	PROP YARD INLET (TO SCALE)
EX BENCHMARK	CONSTRUCTION NOTES (LEADER TO AREA AFFECTED)
	CURVE NUMBER (SEE CURVE TABLE)
	LINE NUMBER (SEE LINE TABLE)
	TEST HOLE
	NORTH ARROW

LABEL LEGEND

EXISTING	PROPOSED
EXISTING SANITARY STRUCTURE NUMBER XXXX	PROPOSED SANITARY SEWER STRUCTURE NUMBER XXXX
EXISTING STORM SEWER STRUCTURE NUMBER XXXX	PROPOSED STORM SEWER STRUCTURE NUMBER XXXX

HATCH LEGEND

PROP MILL & OVERLAY

PROP FULL DEPTH ASPHALT

PROP CONCRETE

REPLACE & MATCH EXISTING DRIVEWAY OR LEADWALK. SEE CONSTRUCTION NOTES

DEMOLITION AREA

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

LEGEND

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

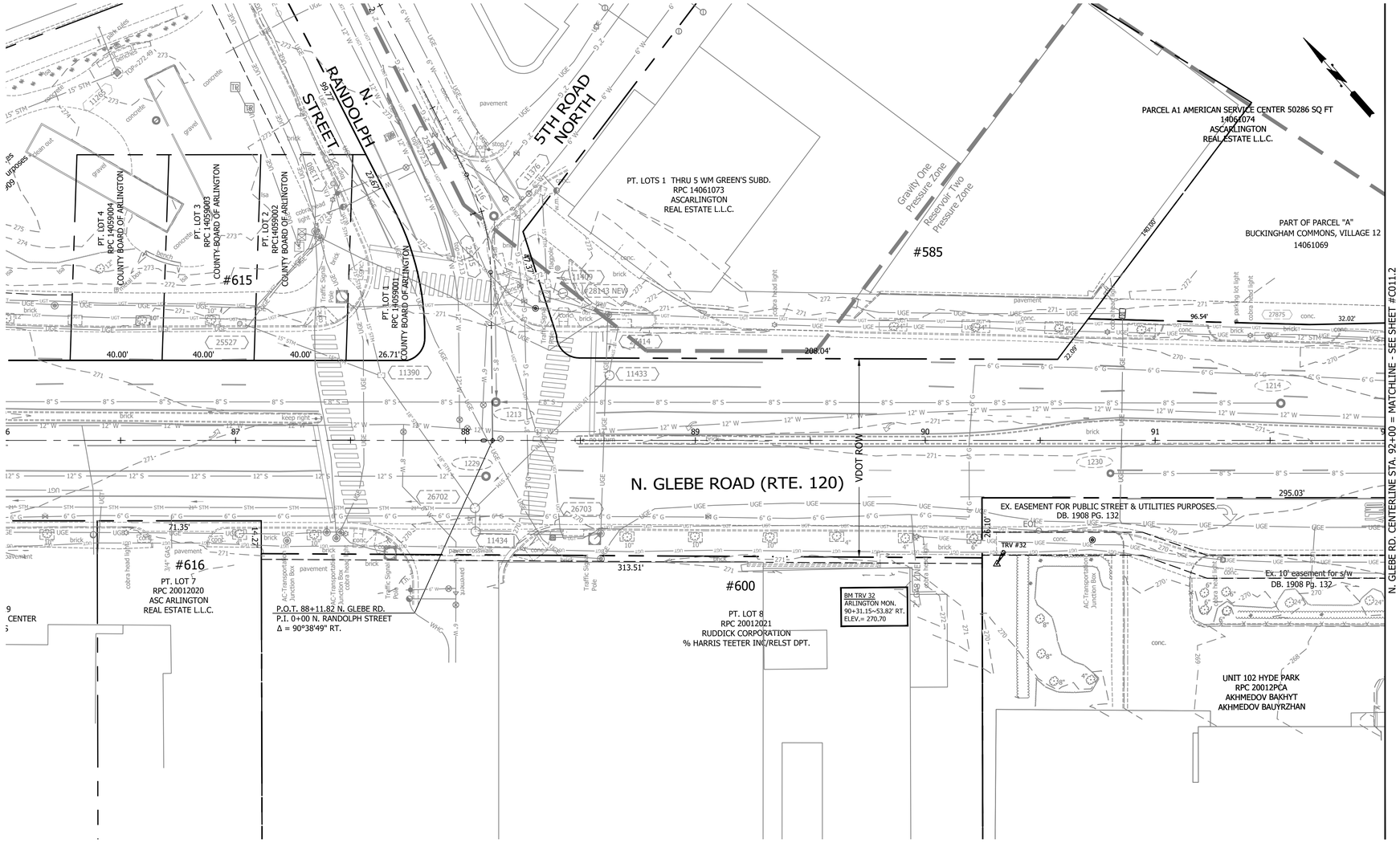
SCALE:

N/A

C006.1

FILENAME: R014-202-LEGEND.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018



GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA#20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

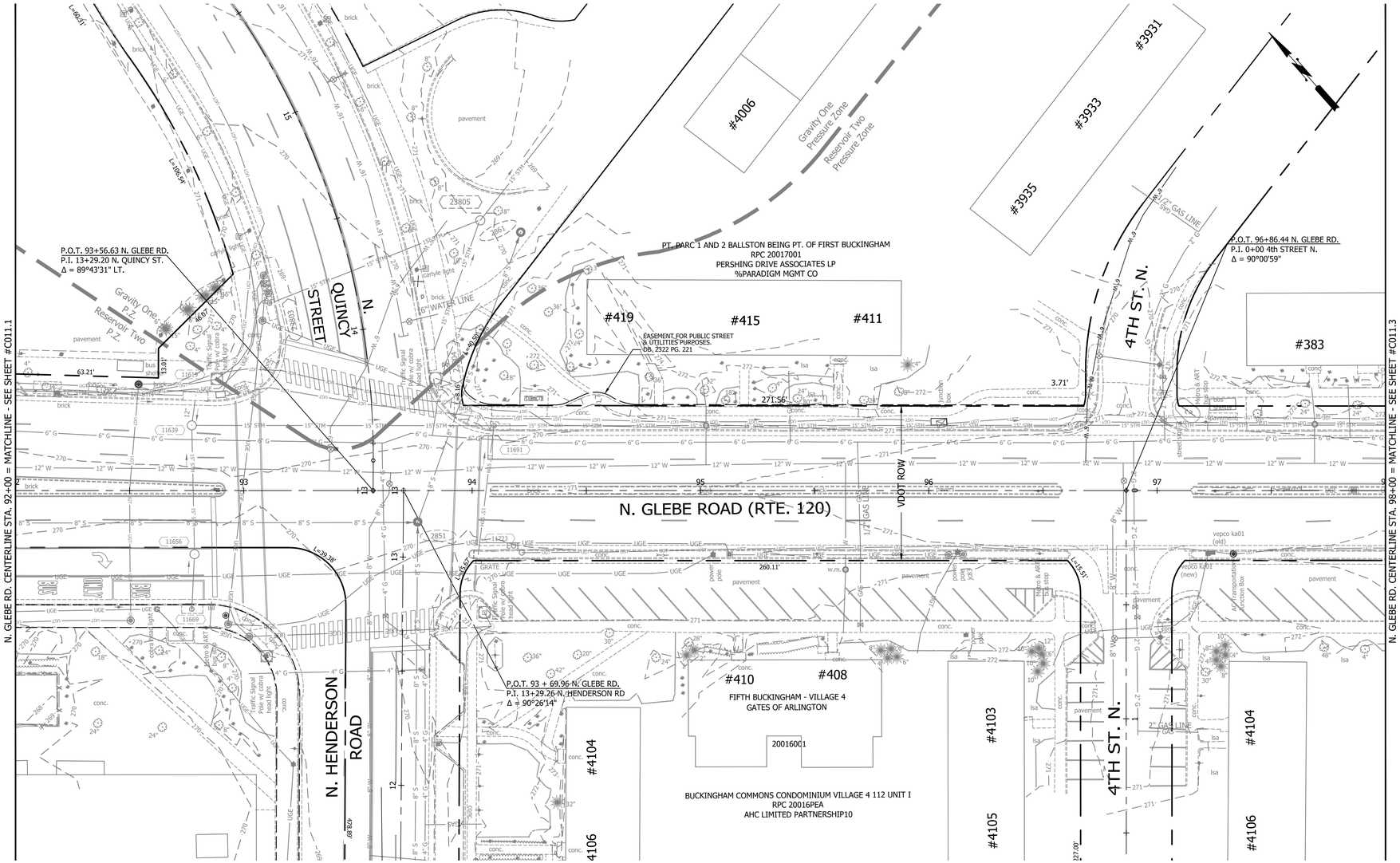
SCALE:

0 25 50
HORIZ. SCALE

C011.1

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018



GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA#20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT

R014

N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

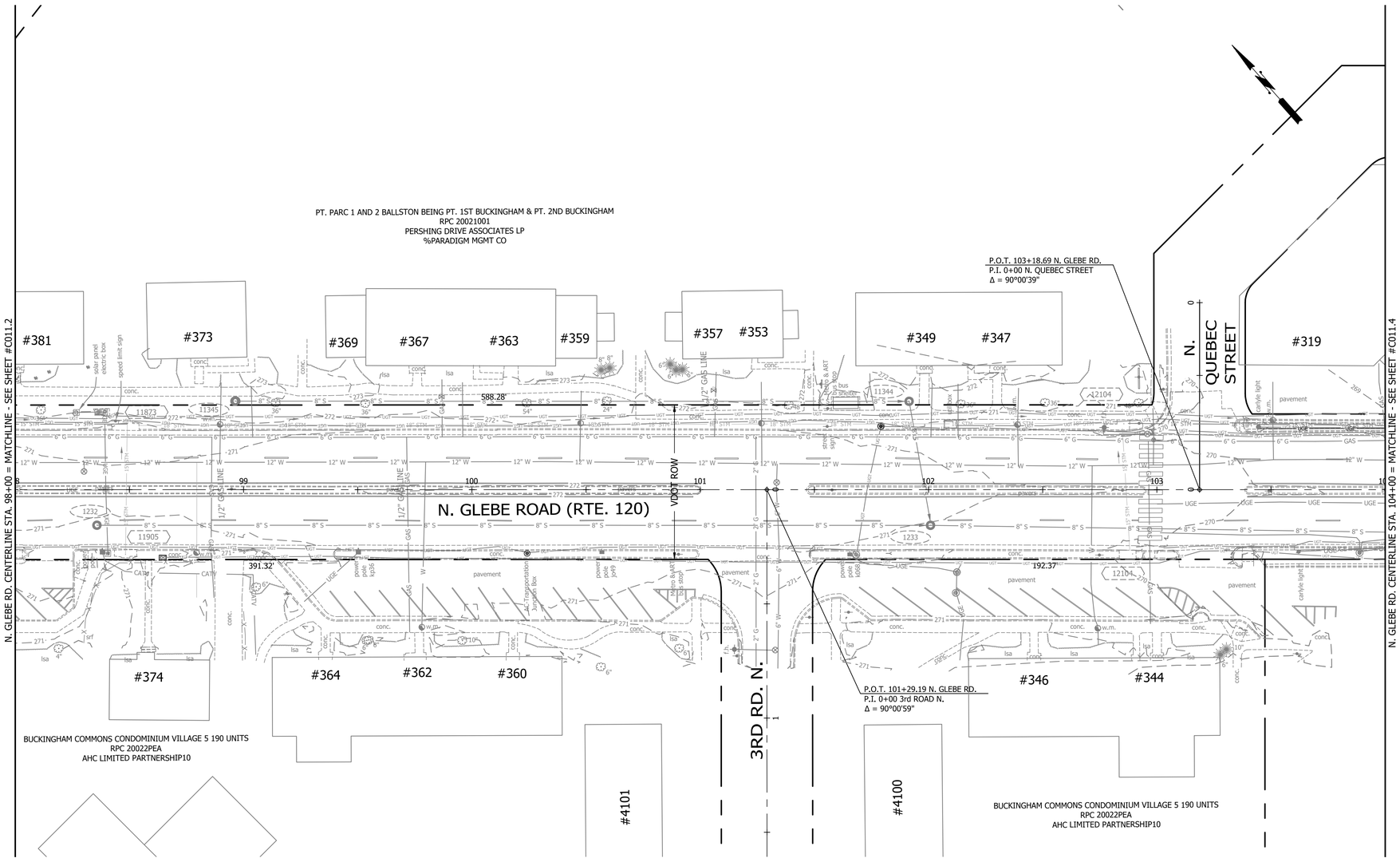
SCALE:

0 25 50
HORIZ. SCALE

C011.2

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018



STORM SEWER TABLE

#11376
TOP = 272.62
INV. IN = 268.17 15" RCP (11362)
INV. OUT = 267.97 15" RCP (11409)

#11380
TOP = 272.10
INV. OUT = 268.74 15" RCP (11390)

#11390
TOP = 270.51
INV. IN = 266.56 15" RCP (25527)
INV. IN = 266.61 15" RCP (11380)
INV. OUT = 266.51 18" RCP (26702)

#11409
TOP = 271.84
INV. IN = 267.89 15" RCP (25415)
INV. IN = 267.94 15" RCP (11376)
INV. OUT 267.84 15" RCP (#28143 NEW)

#11433
TOP = 270.19
INV. IN = 266.76 15" RCP (25414)
INV. OUT = 266.41 15" RCP (26702)

#11434
TOP = 269.83
INV. IN = 266.89 15" RCP (26703)
INV. OUT = 266.67 15" RCP (26702)

#11619
TOP = 269.92
INV. IN = 267.14 12" RCP (27875)
INV. OUT = 267.04 12" RCP (11619)

#11639
TOP = 269.64
INV. IN = No access 12" RCP (11619)
INV. IN = NO ACCESS 15" RCP (11656)
INV. OUT = 266.15 15" RCP (11691)

#11656
TOP = 269.63
INV. IN = 266.89 12" RCP (11669)
INV. OUT = 266.88 15" RCP (11639)

#11691
TOP = 270.40
INV. IN = 265.37 15" RCP (11639)
INV. IN = 266.38 15" RCP (11723)
INV. OUT = 265.33 15" RCP (11873)

#11669
TOP = 269.54
INV. OUT = 267.11 12" RCP (11656)

#11723
TOP = 270.32
INV. OUT = 266.61 15" RCP (11691)

#11873
TOP = 271.10
INV. IN = NEEDS CLEANING (11905)
INV. OUT = NEEDS CLEANING (12104)

#11905
TOP = 270.99
INV. ????

#12104
TOP = 270.51
INV. IN = 262.57 18" RCP (11873)
INV. IN = 263.65 15" RCP (12145)
INV. OUT = 262.66 18" RCP (12227)

#12145
TOP = 270.36
INV. OUT = 266.21 15" RCP (12104)

#12227
TOP = 267.74
INV. IN = 262.01 18" RCP (12104)
INV. OUT = 261.86 ?" ??? (28062 NEW)

#12230
TOP = 268.59
INV. IN = 263.57 15" RCP (#28482 NEW)
INV. OUT = 262.88 15" RCP (12227)

#12419
TOP = 263.30
INV. IN = 259.78 15" RCP (12438)
INV. INT = 258.93 24" RCP (NEW STR.)

#12438
TOP = 263.98
INV. OUT = 259.46 15" RCP (12419)

#23803
TOP = 269.25
INV. OUT = 266.55 15" RCP (23805)

#23804
TOP = 269.97
INV. OUT = 266.82 15" RCP (23805)

#23805
TOP = 269.82
INV. IN = 265.04 15" RCP (23803)
INV. IN = 265.10 15" RCP (23804)
INV. OUT = 264.99 15" RCP (23806)

#25413
TOP = 272.48
INV. OUT = 268.36 15" RCP (25415)

#25414
TOP = 270.31
INV. IN = 267.36 15" RCP (#28143 NEW)
INV. OUT = 266.53 15" RCP (11433)

#25415
TOP = 272.12
INV. IN = 267.04 15" RCP (25413)
INV. OUT = 267.01 15" RCP (11409)

#25527
TOP = 270.70
INV. OUT = 267.00 15" RCP (11390)

#26702
TOP = 270.15
INV. IN = 266.28 15" RCP (11434)
INV. IN = 266.20 15" RCP (11433)
INV. IN = 266.19 18" RCP (11390)
INV. OUT = 266.05 21" RCP (27404)

#26703
TOP = 270.40
INV. OUT = 267.00 15" RCP (11434)

#28143 NEW
TOP = 271.51
INV. IN = 267.66 15" RCP (11409)
INV. OUT = 267.61 15" RCP (#25414)

#27401
TOP = 270.96
INV. IN = 263.46 24" RCP (27404)
INV. IN = CAN'T ACCESS (11188)
INV. OUT = 263.31 24" RCP (28189 NEW)

#27402
TOP = 270.59
INV. IN = 263.03 24" RCP (#28189 NEW)
INV. IN = 264.24 18" RCP (11130)
INV. IN = 265.36 10" RCP (11206)
INV. OUT = 262.19 36" RCP (11143)

#27404
TOP = 271.35
INV. IN = 264.51 21" RCP (26702)
INV. OUT = 264.35 24" RCP (27401)

#28062 NEW
TOP=267.42
INV. IN = 261.80 18" RCP (12227)
INV. OUT = 261.71 24" RCP (12419)

#28189 NEW
TOP = 270.79
INV. IN = CAN'T OPEN (27401)
INV. OUT = CAN'T OPEN (27402)

#28482 NEW
TOP = 268.74
INV. OUT = 264.43 15" RCP (12230)

SANITARY SEWER TABLE

#1116
TOP = 272.26
C/L INV. = 261.44

#1211
TOP = 270.69
C/L INV. = 258.74

#1212
TOP = 271.60
C/L INV. = 259.12

#1213
TOP = 270.38
C/L INV. = 260.94

#1214
TOP = 270.13
C/L INV. = ALREADY HAVE

#1227
TOP = 270.66
C/L INV. = CAN'T OPEN

#1228
TOP = 271.57
C/L INV. = 262.61

#1229
TOP = 270.48
C/L INV. = 264.48

#1230
TOP = 270.69
C/L INV. = COULD NOT OPEN

#1232
TOP = 270.98
C/L INV. = 260.18

#1233
TOP = 270.96
C/L INV. = 257.88

#1234
TOP = 267.73
C/L INV. 257.09

#2850
TOP = 268.34
C/L INV. = 264.00

#2851
TOP = 270.19
C/L INV. = COULD NOT OPEN

#2861
TOP = 269.44
C/L INV. = 261.59

#11344
TOP = 271.50
C/L INV. = 259.35

#11345
TOP = 272.75
C/L INV. = 262.35

#13693
TOP = 270.67
C/L INV. = CAN'T OPEN

GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

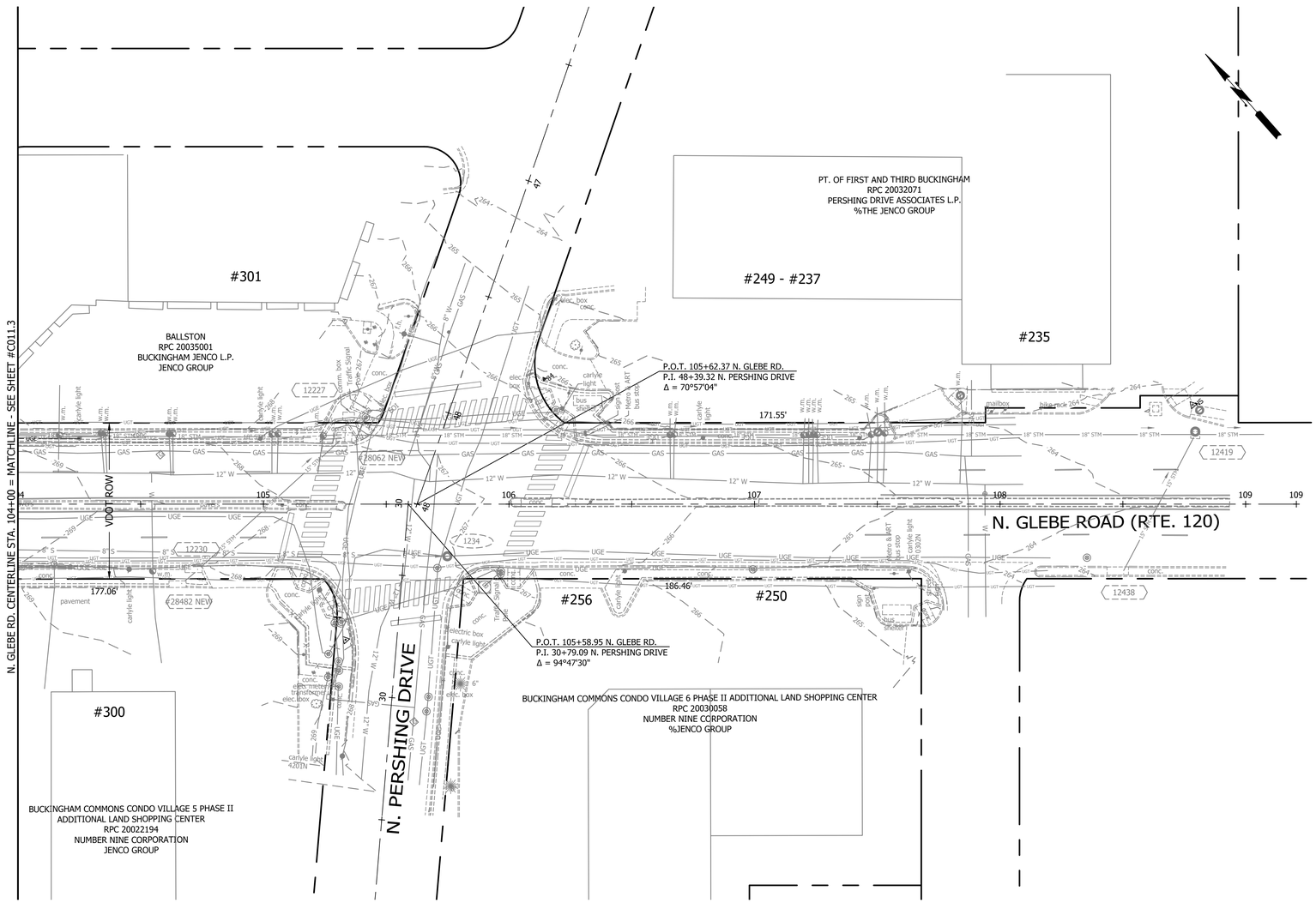
SCALE:

0 25 50
HORIZ. SCALE

C011.3

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018



GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 4

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

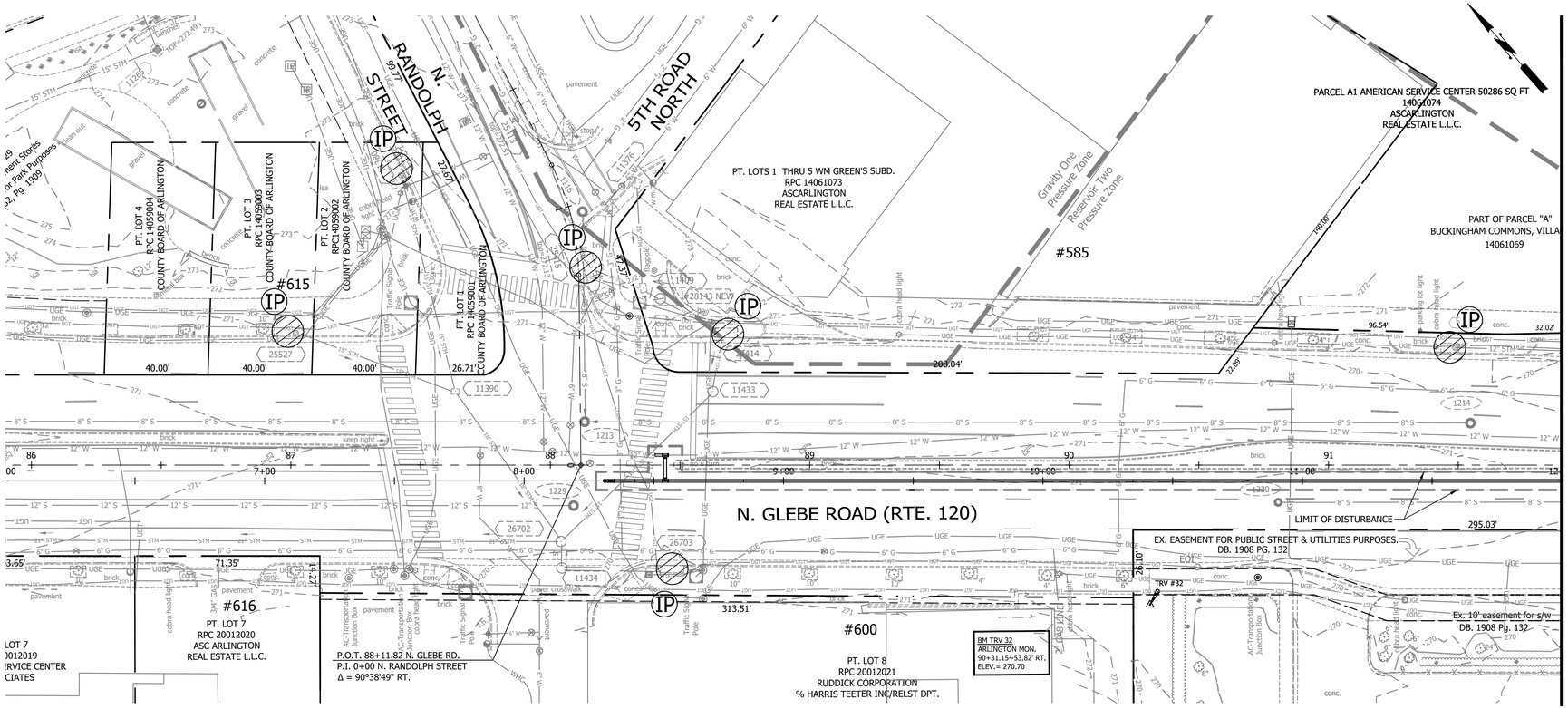
SCALE:

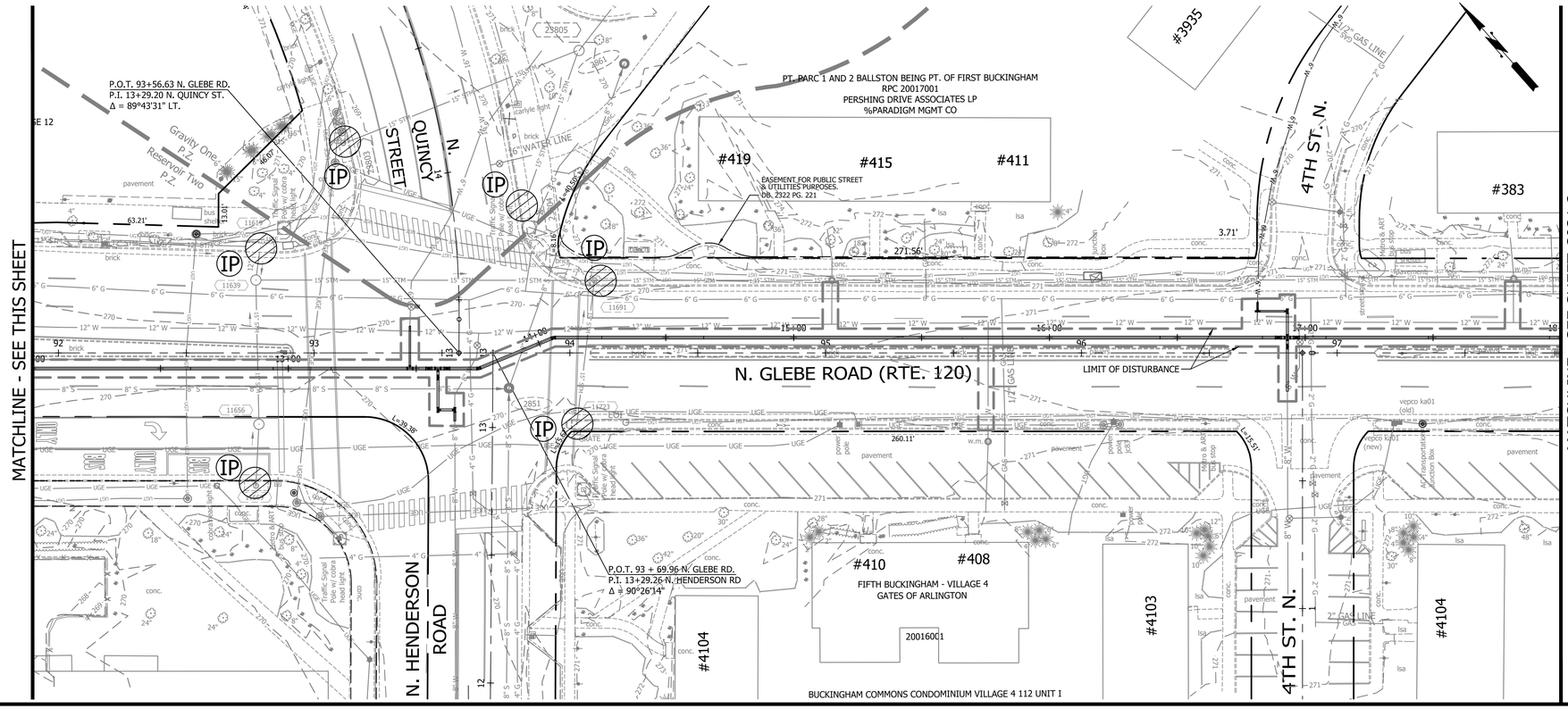
0 25 50
HORIZ. SCALE

C011.4

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018





ARLINGTON VIRGINIA
'Approved: 8/30/2020
Subject to field inspection
LDA220163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL PLAN - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

0 25 50
GRAPHIC SCALE

C031.1

FILENAME: R014-224-E_AND_S_PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

RPC 20021001
PERSHING DRIVE ASSOCIATES LP
%PARADIGM MGMT CO

MATCHLINE - SEE SHEET C031.1

#381 #373 #369 #367 #363 #359 #357 #353 #349 #347 #319

P.O.T. 103+18.69 N. GLEBE RD.
P.I. 0+00 N. QUEBEC STREET
Δ = 90°00'39"

N. QUEBEC STREET

588.28'

LIMIT OF DISTURBANCE

N. GLEBE ROAD (RTE. 120)

192.37'

#374 #364 #362 #360 #346 #344

3RD RD. N.

P.O.T. 101+29.19 N. GLEBE RD.
P.I. 0+00 3rd ROAD N.
Δ = 90°00'59"

#4101 #4100

BUCKINGHAM COMMONS CONDOMINIUM VILLAGE 5 190 UNITS
RPC 20022PEA
AHC LIMITED PARTNERSHIP10

BUCKINGHAM COMMONS CONDOMINIUM VILLAGE 5 190 UNITS
RPC 20022PEA

MATCHLINE - SEE THIS SHEET

PERSHING DRIVE ASSOCIATES L.P.
%THE JENCO GROUP

#301 #249 - #237 #235

BALLSTON
RPC 20035001
BUCKINGHAM JENCO L.P.
JENCO GROUP

P.O.T. 105+62.37 N. GLEBE RD.
P.I. 48+39.32 N. PERSHING DRIVE
Δ = 70°57'04"

171.55'

27+00

N. GLEBE ROAD (RTE. 120)

LIMIT OF DISTURBANCE

177.06'

186.46'

#256 #250

P.O.T. 105+58.95 N. GLEBE RD.
P.I. 30+79.09 N. PERSHING DRIVE
Δ = 94°47'30"

#300

N. PERSHING DRIVE

BUCKINGHAM COMMONS CONDO VILLAGE 5 PHASE II
ADDITIONAL LAND SHOPPING CENTER
RPC 20022194
NUMBER NINE CORPORATION
JENCO GROUP

BUCKINGHAM COMMONS CONDO VILLAGE 6 PHASE II ADDITIONAL LAND SHOPPING CENTER
RPC 20030058
NUMBER NINE CORPORATION
%JENCO GROUP

ARLINGTON VIRGINIA
'Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL PLAN - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

0 25 50
GRAPHIC SCALE

C031.2

FILENAME: R014-224-E_AND_S_PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:
THE COUNTY IS PROPOSING TO REPLACE THE EXISTING WATERMAIN TO 12-INCH DIAMETER WATERMAIN IN THE RIGHT OF WAY N. GLEBE ROAD, BETWEEN N. RANDOLPH RD AND N. PERSHING RD. THE EXISTING WATERMAIN WAS INSTALLED IN THE 1920s AND IS REQUIRED TO BE UPGRADED.
THIS PROJECT IS LOCATED WITHIN THE "DOCTOR'S BRANCH AND LUBBER RUN" WATERSHEDS AND ENDING UP IN THE POTOMAC RIVER AND DISTURBANCE AREA OF 0.41 AC.

EXISTING SITE CONDITIONS:
THE NORTH GLEBE ROAD IS A PAVED URBAN OTHER PRINCIPAL ARTERIAL WITH A SPEED LIMIT OF 30 MPH. THERE ARE NO STREET PARKING EITHER ON BOTH SIDES OF N. GLEBE ROAD.

ADJACENT PROPERTIES:
THERE ARE COMMERCIAL/ RESIDENTIAL PROPERTIES ON BOTH SIDES OF N. GLEBE ROAD.

OFF-SITE AREAS:
THERE ARE NO OFFSITES AREAS FOR THIS PROJECT.

CRITICAL AREAS:
THERE ARE NO STEEP SLOPES OR CRITICAL AREAS LOCATED WITHIN THE LIMITS OF DISTURBANCE.

EROSION AND SEDIMENT CONTROL MEASURES:
THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA INCLUDE SAFETY FENCE AND INLET PROTECTION. INLET PROTECTION IS REQUIRED OUTSIDE THE PROJECT LIMITS WHEN/WHERE WATER FROM DISTURBED AREA FLOWS.

PERMANENT STABILIZATION:
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH GRASS, MULCH OR SOD. SEE THE PROPOSED PLANS FOR ADDITIONAL INFORMATION.

STORMWATER RUNOFF CONSIDERATIONS:
NO ADDITIONAL IMPERVIOUS AREA WILL BE ADDED TO THIS PROJECT.

TOTAL LAND DISTURBANCE.......................= 17,680 SF (0.41 ACRE) LIMIT OF WORK WILL BE IN THE ROW
PRE-IMPROVEMENT IMPERVIOUS AREA.....= 17,680 SF (0.41 ACRE)
POST-IMPROVEMENT IMPERVIOUS AREA...= 17,680 SF (0.41 ACRES)
INCREASED IMPERVIOUS AREA..................= 0 SF (0 ACRES)

SOILS INFORMATION:
THE FOLLOWING SOILS ARE FOUND ON SITE (SEE SOILS MAP ON SHEET C032.2 FOR LOCATION)

SOIL#:	SOIL NAME:	HYDROLOGIC GROUP:	ERODAB_ILITY:
4	URBAN LAND - SASSAFRAS - NEABSCO COMPLEX	B & C	MODERATE (4B)
12	URBAN LAND - UDORTHENTS COMPLEX	VARIABLE	VARIABLE

FLOODPLAIN AND RESOURCE PROTECTION AREA (RPA):
THERE ARE NO FLOODPLAIN OR RESOURCE PROTECTION AREAS LOCATED WITHIN THIS PROJECT SITE

EROSION & SEDIMENT CONTROL PROJECT PHASING

1. PHASE I:

a. PRE-CONSTRUCTION MEETING WITH THE PROJECT OFFICER, CONTRACTOR, AND COUNTY INSPECTOR.
b. INSTALL THE TEMPORARY CONSTRUCTION ENTRANCE (IF NEEDED) IN THE LOCATION SHOWN ON THE E&S PHASE I PLAN. MUD AND DEBRIS SHALL BE WASHED FROM ALL TRUCKS EXISTING THE SITE.
c. INSTALL PERIMETER TREE DEMARCATION FENCING IN THE FORM OF TREE PROTECTION FENCE (TP) AS SHOWN ON E&S PHASE I PLAN.
d. PERFORM INITIAL PERIMETER CLEARING TO INSTALL REMAINDER OF PERIMETER CONTROLS SUCH AS DIVERSION DIKE (DD), SILT FENCE (SF), AND SUPER SILT FENCE (SSF) AS PER THE PHASE I PLAN.
e. SEED AND MULCH ALL EARTHEN CONTROLS.
f. CONTACT ARLINGTON COUNTY PROJECT OFFICER FOR A PERIMETER INSPECTION PRIOR TO CLEARING THE REMAINDER OF THE SITE IN ORDER TO OBTAIN PHASE II GRADING PERMIT.
g. CLEAR THE SITE TO THE LIMITS AS SHOWN ON THE CONSTRUCTION PLANS.

2. PHASE II:

a. BEGIN UTILITY CONSTRUCTION, INSTALL ALL UTILITIES UNDERGROUND UTILITIES AND BEGIN SITE GRADING.
b. INLET PROTECTION (IP) SHALL BE PROVIDED AT STORM DRAIN INLETS AS THEY ARE CONSTRUCTED.
c. ONCE THE SITE IS BOUGHT TO NEAR FINAL GRADE, AND THE UTILITY CONSTRUCTION IS COMPLETE, COMMENCE CONSTRUCTION OF CURB & GUTTER, STREET, SIDEWALKS, AND OTHER IMPROVEMENTS
d. THE CONTROL MEASURES MAY NOT BE REMOVED UNTIL ALL OF THE DISTURBED AREAS HAVE BEEN STABILIZED AND ONLY AS APPROVED AND DIRECTED BY THE INSPECTOR.

RUNOFF SHALL BE TREATED WITH SILT FENCE AND INLET PROTECTION PRIOR TO ENTERING MAJOR STORM SEWER SYSTEMS.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE ARLINGTON COUNTY EROSION AND SEDIMENT CONTROL ORDINANCE. THE MINIMUM STANDARDS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

1. STRUCTURAL PRACTICES

a. TEMPORARY CONSTRUCTION ENTRANCE - VESCH 3.02

a.a. A TEMPORARY CONSTRUCTION ENTRANCE WITH A WASH RACK SHALL BE INSTALLED AT THE EXISTING ACCESS POINT TO THE SITE. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE RE-ENTERING THE LOCAL ROADWAYS.
a.b. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC WASHING OF THE MATS AND/OR REPLACEMENT OF WOOD CHIPS AS NECESSARY.
a.c. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
a.d. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED INTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.

b. SILT FENCE - VESCH 3.05

b.a. SILT FENCE WILL BE INSTALLED WITH THE E&S PLAN TO FILTER RUNOFF FROM DISTURBED AREAS. RUNOFF SHALL NOT BE DIRECTED PARALLEL TO THE INSTALLATION OF SILT FENCE.
b.b. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
b.c. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM UNDERCUTTING.
b.d. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
b.e. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
b.f. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, THEN PREPARED AND SEEDED.

c. TEMPORARY DIVERSION DIKE - VESCH 3.09

c.a. A SYSTEM OF TEMPORARY DIKES, TO DIRECT FLOW INTO PROPOSED & EXISTING STORM SEWER STRUCTURES WILL BE INSTALLED AS INDICATED IN EROSION & SEDIMENT CONTROL PLAN.
c.b. THE STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.

d. STORM DRAIN INLET PROTECTION - VESCH 3.07

d.a. ALL EXISTING & PROPOSED STORM SEWER INLETS IN AND AROUND THE PROJECT LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.
d.b. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.
d.c. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

e. DEWATERING STRUCTURE - VESCH 3.26

e.a. SEDIMENT LADEN OR TURBID WATER SHALL BE FILTERED, SETTLED OR SIMILARLY TREATED PRIOR TO DISCHARGE.
e.b. THE FILTERING DEVICES MUST BE INSPECTED FREQUENTLY AND REPAIRED OR REPLACED ONCE THE SEDIMENT BUILD-UP PREVENTS THE STRUCTURE FROM FUNCTIONING AS DESIGNED.
e.c. THE ACCUMULATED SEDIMENT WHICH IS REMOVED FROM A DEWATERING DEVICE MUST BE SPREAD ON-SITE AND STABILIZED OR DISPOSED OF AT AN APPROVED DISPOSAL SITE AS PER THE APPROVED PLAN.

f. TREE PROTECTION - VESCH 3.38

f.a. ALL TREES ARE TO BE PROTECTED UNLESS OTHERWISE DIRECTED BY THE COUNTY INSPECTOR AND URBAN FORESTER. THE COUNTY'S URBAN FORESTER (703-228-1863) SHALL INSPECT ALL TREE PROTECTION 72 HOURS PRIOR TO THE START OF CONSTRUCTION. IN SPITE OF PRECAUTIONS, SOME DAMAGE TO PROTECTED TREES MAY OCCUR. IN SUCH CASES, THE FOLLOWING MAINTENANCE GUIDELINES SHALL BE FOLLOWED:
f.a.a. SOIL AERATION: IF THE SOIL HAS BECOME COMPACTED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHALL BE AERATED BY PUNCHING HOLES WITH AN IRON BAR. THE BAR SHALL BE DRIVEN 1-FOOT DEEP AND THEN MOVED BACK AND FORTH UNTIL THE SOIL IS LOOSENED. THIS PROCEDURE SHALL BE REPEATED EVERY 18 INCHES UNTIL ALL OF THE COMPACTED SOIL BENEATH THE CROWN OF THE TREE HAS BEEN LOOSENED.
f.a.b. REPAIR OF DAMAGE:
f.a.A.a. ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE RETAINED ON THE SITE SHALL BE REPAIRED IMMEDIATELY.
f.a.A.b. WHENEVER MAJOR ROOT OR BARK DAMAGE OCCURS, REMOVE SOME FOLIAGE TO REDUCE THE DEMAND FOR WATER AND NUTRIENTS.
f.a.A.c. DAMAGED ROOTS SHALL IMMEDIATELY BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA. CUT SURFACES SHALL BE PAINTED WITH APPROVED TREE PAINT, AND MOIST PEAT MOSS, BURLAP, OR TOPSOIL SHALL BE SPREAD OVER THE EXPOSED AREA.
f.a.A.d. TO TREAT BARK DAMAGE, CAREFULLY CUT AWAY ALL LOOSENED BARK BACK INTO THE UNDAMAGED AREA, TAPER THE CUT AT THE TOP AND BOTTOM, AND PROVIDE DRAINAGE AT THE BASE OF THE WOUND.
f.a.A.e. ALL TREE LIMBS DAMAGED DURING CONSTRUCTION OR REMOVED FOR ANY OTHER REASON SHALL BE CUT OFF ABOVE THE COLLAR AT THE PRECEDING BRANCH JUNCTION.
f.a.A.f. CARE FOR SERIOUS INJURIES SHALL BE PRESCRIBED BY A FORESTER OR A TREE SPECIALIST.
f.b. FERTILIZATION: BROADLEAF TREES THAT HAVE BEEN STRESSED OR DAMAGED SHALL RECEIVE A HEAVY APPLICATION OF FERTILIZER TO AID THEIR RECOVERY.
f.b.a. TREES SHALL BE FERTILIZED IN THE LATE FALL (AFTER OCTOBER 1) OR THE EARLY SPRING (FROM THE TIME FROST IS OUT OF THE GROUND UNTIL MAY 1). FALL APPLICATIONS ARE PREFERRED, AS THE NUTRIENTS WILL BE MADE AVAILABLE OVER A LONGER PERIOD OF TIME.
f.b.b. FERTILIZER SHALL BE APPLIED TO THE SOIL OVER THE FEEDER ROOTS. IN NO CASE SHALL IT BE APPLIED CLOSER THAN 3 FEET TO THE TRUNK. THE ROOT SYSTEM OF CONIFERS EXTENDS SOME DISTANCE BEYOND THE DRIP LINE. INCREASE THE AREA TO BE FERTILIZED BY ONE FOURTH THE AREA OF THE CROWN.
f.b.c. FERTILIZER SHALL BE APPLIED USING APPROVED FERTILIZATION METHODS AND EQUIPMENT.
f.b.d. FORMULATIONS AND APPLICATION RATES SHALL CONFORM TO THE GUIDELINES GIVEN IN TABLE 3.38-A OF VESCH.

2. VEGETATIVE PRACTICES

a. TOPSOILING (STOCKPILE) - VESCH 3.30

a.a. TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATIONS MAY HAVE TO BE LOCATED OFF-SITE AND ARE TO BE STABILIZED WITH TEMPORARY VEGETATION. PRIOR TO LAND-DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY E&S PLAN (IF THE STOCKPILE IS LOCATED OFF-SITE). THIS SUPPLEMENTAL PLAN WOULD HAVE TO BE APPROVED BY THE PLAN APPROVING AUTHORITY BEFORE ANY OFF-SITE ACTIVITY COMMENCES.

b. TEMPORARY SEEDING - VESCH 3.31

b.a. ALL DENUDED AREAS, WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.
b.b. SEE SHEET III-288 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) FOR ALLOWABLE PLANTING MATERIAL, SEEDING RATES, AND DATES. THE PLANTING REQUIREMENTS OF THE "SOUTH" SHALL BE FOLLOWED. LIMING SHALL BE BASED ON TABLE 3.31-A OF VESCH. FERTILIZERS SHALL BE APPLIED AS 600 LB/ACRE. THE FERTILIZER SHALL BE INCORPORATED INTO THE TOP 2-4" OF SOIL. SEED SHALL BE EVENLY APPLIED AND SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5" DEEP. SEEDING MADE IN FALL FOR WINTER COVER AND DURING HOT SUMMER MONTHS SHALL BE MULCHED.

c. EROSION CONTROL BLANKET AND MULCHING - VESCH 3.36 AND 3.35

c.a. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND TO ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS AND WILL BE APPLIED AS A SECOND STEP IN SEEDING OPERATION.

d. DUST CONTROL - VESCH 3.39

d.a. DUST SHALL BE CONTROLLED USING A VARIETY OF METHODS SUCH AS VEGETATIVE COVER, MULCH, TILLAGE, IRRIGATION, SPRAY-ON ADHESIVES, STONE BARRIERS, AND CALCIUM CHLORIDE. THE IMPLEMENTATION OF THE DUST CONTROL METHODS SHALL BE INSTALLED PER SECTION 3.39 OF VESCH

e. PERMANENT SEEDING - VESCH 3.32

e.a. SINCE THE SUBJECT SITE IS LOCATED WITHIN THE COASTAL PLAIN AREA OF VIRGINIA, SHEET III-304 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE FOLLOWED FOR FINAL SEEDING MATERIAL, SEEDING RATES, AND DATES OF APPLICATION.

f. SODDING - VESCH 3.33

f.a. SODDED AREAS SHALL BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLANS. SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR LIME AND FERTILIZER. PRIOR TO LAYING SOD, SOIL SURFACE SHALL BE CLEAR OF TRASH, DEBRIS AND LARGE OBJECTS. QUALITY OF SOD SHALL BE STATE CERTIFIED TO ENSURE GENETIC PURITY AND HIGH QUALITY. SOD SHALL NOT BE LAID ON FROZEN SOIL SURFACE, OR IN EXCESSIVELY WET OR DRY WEATHER. SOD SHALL BE DELIVERED AND INSTALLED WITHIN 36 HOURS, AND SHALL BE INSTALLED PER PAGE III-339 OF VESCH.

THE EROSION AND SEDIMENT CONTROL INSPECTOR SHALL HAVE THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS AS NEEDED IN THE FIELD. IN ADDITION, NO SEDIMENT TRAPS OR BASINS MAY BE REMOVED WITHOUT PRIOR APPROVAL OF THE INSPECTOR.

EROSION AND SEDIMENT CONTROL MANAGEMENT MEASURES

LANDSCAPE / TREE PRESERVATION NOTES
PRIOR TO ANY LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL CONTACT THE ARLINGTON COUNTY ARBORIST TO SCHEDULE AN INSPECTION.

LAND CONSERVATION NOTES:
1. NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
3. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 100 FEET ARE TO BE OPEN AT ANY ONE TIME.
4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILLING.
5. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
6. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION.
7. ANY DISTURBED AREA NOT COVERED BY NOTE 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOV. 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE AND OVER-SEEDED BY APRIL 15.
8. AT THE COMPLETION OF ANY PROJECT CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

EROSION & SEDIMENT CONTROL PROGRAM:
1. THE EROSION CONTROL PLAN IS INTENDED TO ESTABLISH ENTRANCES AND PERIMETER CONTROL MEASURES WHICH INCLUDES SILT FENCE (SF), INLET PROTECTION (IP), AND OTHER CONTROLS SPECIFIED ON THE PLANS.
2. WHERE CONSISTENT WITH JOB SAFETY REQUIREMENTS, ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. NO MATERIAL SHALL BE PLACED IN STREAMBEDS. ANY STOCKPILED MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 7 DAYS SHALL BE SEEDED AND MULCHED. WHEN SPOIL IS PLACED ON THE DOWNHILL SIDE OF TRENCH, IT SHALL BE BACKSLOPED TO DRAIN TOWARD THE TRENCH. WHEN NECESSARY TO DEWATER THE TRENCH, THE PUMP DISCHARGE HOSE SHALL OUTLET IN A STABILIZED AREA OR A SEDIMENT TRAPPING DEVICE.
3. ALL PRACTICES AND CONTROL DEVICES DESCRIBED HEREIN SHALL CONFORM TO THE CURRENT VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). IN ADDITION, THE CONTRACTOR SHALL TAKE THE FOLLOWING STEPS TO MINIMIZE THE VOLUME OF SILT:
   a. CONTRACTOR SHALL EVALUATE THE SITE TO DETERMINE EXTENSIVE CUT AND FILL AREAS, AND SHALL WORK THOSE AREAS TO MINIMIZE THE USE OF HEAVY EQUIPMENT. CONTRACTOR SHALL BRING DISTURBED AREAS TO GRADE (ROUGH OR FINISHED) AND STABILIZE THOSE AREAS WITH TEMPORARY OR PERMANENT VEGETATION. THESE DISTURBED AREAS SHALL BE STABILIZED PRIOR TO BEGINNING WORK IN ANOTHER AREA.
   b. FILL AREAS SHALL BE COMPACTED COMPLETELY PRIOR TO THE END OF EACH WORK DAY. FILL SLOPE SURFACES SHALL BE KEPT ROUGH TO REDUCE SHEET EROSION OF THE SLOPES. CONTRACTOR SHALL RE-DIRECT CONCENTRATED RUNOFF, BY EARTH BERMS OR OTHER DEVICES, AROUND ACTIVELY DISTURBED AREAS TO STABILIZED OUTLETS.
   c. CUT SLOPES SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS (ABOVE THE SLOPE) AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.
4. MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. THE INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND/OR THE APPROVAL OF THE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA AND CHAPTER 57 OF THE ARLINGTON COUNTY CODE.
5. ALL AREAS, ON OR OFF-SITE, THAT ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS SEED MIXTURE OR SOD THAT IS INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. ALL SLOPES 3:1 AND GREATER SHALL BE RECEIVE SOIL STABILIZATION IN ACCORDANCE WITH THE SPECIFICATIONS.
6. WHERE STREAM CROSSINGS ARE REQUIRED FOR EQUIPMENT, TEMPORARY CULVERTS SHALL BE PROVIDED.
7. FOR FURTHER REQUIREMENTS AND DETAILS OF TREE PRESERVATION, PLANTING, EROSION AND SEDIMENT CONTROL, SEE COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

GENERAL EROSION AND SEDIMENT CONTROL NOTES
1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN THE AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
9. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
10. ALL BIOFILTERS SHALL BE KEPT OFF-LINE UNTIL CONSTRUCTION IS COMPLETED AND ALL AREAS HAVE BEEN PROPERLY STABILIZED. THIS SHALL BE ACHIEVED BY USING INLET PROTECTION AT THE CURB CUTS AND STORMWATER CATCH BASINS LEADING DIRECTLY INTO THE BIOFILTERS.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

PRE-STORM EROSION & SEDIMENTATION CHECKLIST:
PER GENERAL EROSION AND SEDIMENT CONTROL NOTE 6, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL (ESC) MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE COUNTY. THESE SUPPLEMENTARY PRACTICES ARE IN ADDITION TO THOSE SHOWN IN AN EROSION AND SEDIMENT CONTROL PLAN. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MODIFIED AS NEEDED TO ENSURE ONLY CLEAR WATER IS DISCHARGED FROM THE SITE.

THE FOLLOWING ACTIONS SHALL BE TAKEN PRIOR TO STORM EVENTS WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL TO PREVENT SEDIMENT DISCHARGES FROM A CONSTRUCTION SITE. A TYPICAL SUMMER THUNDERSTORM IS AN EXAMPLE OF A STORM EVENT WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL.

1. PERIMETER CONTROLS
   a. SILT FENCE SHALL BE CHECKED FOR UNDERMINING, HOLES, OR DETERIORATION OF THE FABRIC. FENCING SHALL BE REPLACED IMMEDIATELY IF THE FABRIC IS DAMAGED OR WON. SILT FENCE MUST BE TRENCHED INTO THE GROUND PER STATE SPECIFICATIONS (VESCH STD & SPEC 3.09).
   b. WOODEN STAKES OR STEEL POSTS SHALL BE PROPERLY SECURED UPRIGHT INTO THE GROUND. DAMAGED POSTS OR STAKES MUST BE REPLACED.
   c. SEDIMENT THAT HAS ACCUMULATED AGAINST THE SILT FENCE SHALL BE REMOVED. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE LEVEL REACHES ONE-HALF THE HEIGHT OF THE FENCING.
   d. HAY BALES OR A STONE BERM SHALL BE PLACED ACROSS THE CONSTRUCTION ENTRANCE TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
2. EXPOSED SLOPES AND SOIL
   a. EXPOSED SLOPES NOT AT THE FINAL STABILIZATION PHASE SHALL BE COVERED WITH TARPS, PLASTIC SHEETING, OR EROSION CONTROL MATTING. COVERING MATERIAL SHALL BE PROPERLY SECURED/ANCHORED.
   b. CONTROLS SHALL BE INSTALLED TO PREVENT CONCENTRATED FLOW DOWN AN EXPOSED SLOPE. BERMS OR DIVERSION DIKES SHALL BE INSTALLED AT THE TOP OF CUT/EXPOSED SLOPES TO DIRECT STORM FLOW AROUND THE DISTURBED AREA.
   c. EXPOSED SLOPES AT THE FINAL STABILIZATION PHASE SHALL BE STABILIZED USING SLOPE STABILIZATION PRACTICES SUCH AS SOIL STABILIZATION BLANKETS OR MATTING AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH STD & SPEC 3.36). BLANKETS OR MATS MUST BE PROPERLY SECURED AND ANCHORED TO THE SLOPE USING STAPLES, PINS, OR STAKES.
   d. SEEDED AREAS SHALL BE CHECKED AND RESEEDED AS NECESSARY TO COVER EXPOSED SOIL. RECENTLY SEEDED AREAS SHALL BE PROTECTED BY STRAW OR SOIL STABILIZATION BLANKETS TO PREVENT SEEDING FROM BEING WASHED AWAY.
3. STOCKPILES
   a. STOCKPILED SOIL AND OTHER LOOSE MATERIALS THAT CAN BE WASHED AWAY SHALL BE COVERED WITH A TARP, PLASTIC SHEETING, OR OTHER STABILIZATION MATTING. THE COVER MUST BE PROPERLY SECURED/ANCHORED DOWN TO PREVENT IT FROM BEING BLOWN OFF AND EXPOSING MATERIALS TO RAIN. CONTROLS SUCH AS HAY BALES OR BOOMS SHALL BE PLACED ALONG THE PERIMETER OF THE STOCKPILE (DOWNHILL SIDE).
4. INLET PROTECTION
   a. INLET PROTECTION CONTROLS SHALL BE INSPECTED TO ENSURE THEY ARE FUNCTIONING PROPERLY AND FLOODING WILL NOT OCCUR. CLOGGED OR DAMAGED CONTROLS MUST BE REPLACED IMMEDIATELY. ENSURE CONTROLS ALLOW FOR OVERFLOW/BYPASS OF STORMWATER RUNOFF DURING SIGNIFICANT STORM EVENTS.

IN ADDITION TO THESE PRE-STORM ACTIONS, ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES MUST BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.

POLLUTION PREVENTION PLAN NOTES (STORMWATER MANUAL - SECTION 2.4)
1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS:
   a. WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIREFIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
2. APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (E.G., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S MS4 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.
3. PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

UTILITY INSTALLATION:
UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
1. NO MORE THAN 100 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
2. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
3. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
4. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
5. STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
6. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
9. ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED NO LATER THAN MAY 15TH.
10. AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. ARLINGTON COUNTY INSPECTOR TO APPROVE REMOVAL OF ALL TEMPORARY SILTATION MEASURES.

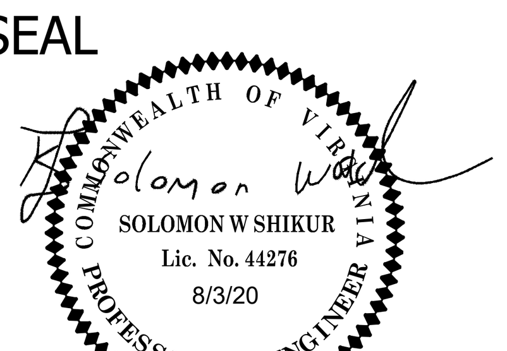
MAINTENANCE PROGRAM:
THE FOLLOWING IS A PROGRAM OF MAINTENANCE FOR THE MECHANICAL CONTROLS SPECIFIED IN THIS NARRATIVE AND ON THE PLAN:
1. THE SITE SUPERINTENDENT OR HIS/HER REPRESENTATIVE SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREA (I.E. SEEDED AND MULCHED AND/OR SODDED AREAS) ON A DAILY BASIS; ESPECIALLY AFTER A HEAVY RAINFALL EVENT TO ENSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. ANY DAMAGED CONTROLS SHALL BE REPAIRED PRIOR TO THE END OF THE WORK DAY INCLUDING RE-SEEDING AND MULCHING OR RE-SODDING IF NECESSARY.
2. ALL SEDIMENT TRAPPING DEVICES SHALL BE CLEARED OUT AT 50% TRAP CAPACITY AND THE SEDIMENT SHALL BE DISPOSED OF BY SPREADING ON THE SITE OR IF NOT SUITABLE FOR FILL, HAULING AWAY AND DEPOSITING AT AN ACCEPTABLE DUMP SITE.
3. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PREVENT MUD AND/OR OTHER DEBRIS FROM BEING ENTERED ONTO EXISTING SWM/BMP FACILITIES OR DOWNSTREAM WATER WAYS. SHOULD OFF-SITE AREAS BECOME POLLUTED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE AFFECTED AREAS TO THE SATISFACTION OF THE INSPECTOR.
4. AT THE COMPLETION OF CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ANY REMAINING DENUDED AREAS SHALL BE STABILIZED. CERTAIN DEVICES MAY BE REMOVED PRIOR TO CONSTRUCTION COMPLETION BUT ONLY WITH THE APPROVAL OF THE COUNTY INSPECTOR.
5. AFTER CONSTRUCTION OPERATIONS HAVE ENDED, ALL DISTURBED AREAS SHALL BE STABILIZED. UPON APPROVAL OF THE COUNTY INSPECTOR, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED AND THE GROUND PERMANENTLY STABILIZED WITH VEGETATION WITHIN 30 DAYS.

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL



APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL NOTES

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 27 2020

SCALE:

N/A

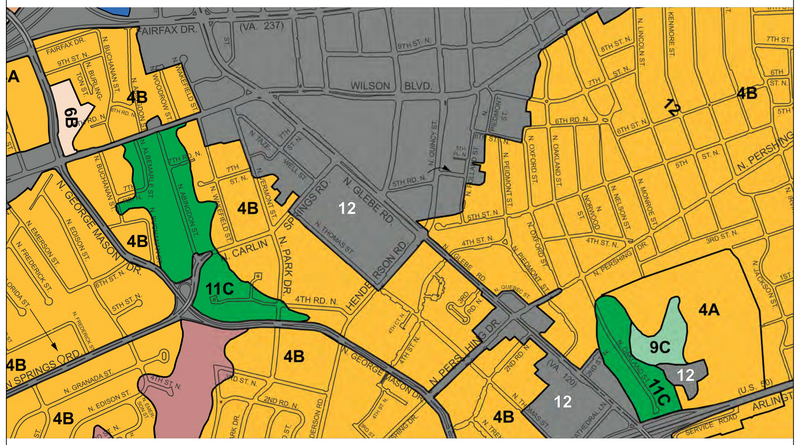
C032.1

FILENAME: R014-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

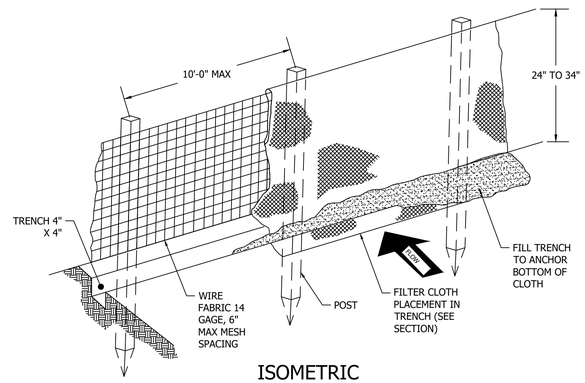
REVISED ON 05/23/2018

HYDROLOGIC SOILS MAP

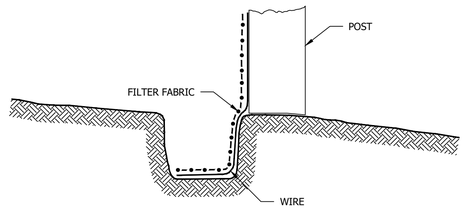
(N.T.S.)



ISOMETRIC

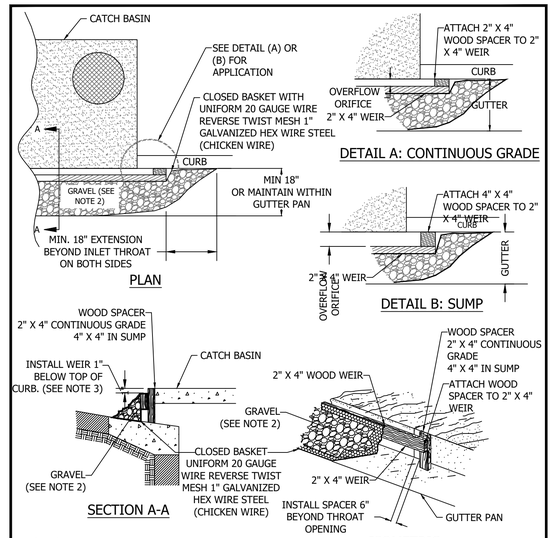


SECTION



MODIFIED-VESCH 3.05

SILT FENCE — NOT TO SCALE



NOTES

1. DIMENSIONAL LUMBER SIZES SHOW.
2. GRAVEL SHALL BE VDOT COARSE AGGREGATE #3, # 357 OR #5.
3. WEIR HEIGHT MAY BE ADJUSTED BY PROJECT OFFICER OR INSPECTOR IN FLOOD PRONE AREAS.
4. PAINT 2"X4" WEIR, CLOSED BASKET, AND GUTTER WITH HIGH VISIBILITY INCANDESCENT ORANGE PAINT.
5. REMOVE SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE THE PROTECTION.

CURB INLET PROTECTION

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. 3.07-7 (ACG)

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS — DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS — DATE

July 1, 2020
date

Qianqian Li, P.E.
ESC Program Administrator
Department of Environmental Sevices
2100 Clarendon Boulevard, Suite 813
Arlington, Virginia 22201

Re: Erosion and Sediment Control Permit Application for:

N. Glebe Road Water Main Replacement
street address

From N Randolph St to N Pershing Dr
lot, block, section subdivision

permit number

Dear Mrs. Li:

I hereby certify that I accept the responsibilities of Responsible Land Disturber for the above referenced project. I understand that these responsibilities include:

1. Reviewing the erosion and sedimentation (E&S) plan for the project.
2. Walking the site prior to construction to identify critical areas.
3. Conducting a pre-construction briefing with earth moving and site contractors to present the E&S plan and highlight the presence of critical areas, the limits of clearing and the required E&S controls and tree protection measures to be installed. Call 703-228-0760 to schedule pre-construction meeting.
4. Regularly inspecting the site during construction to ensure that all E&S controls are functioning and are adequate to address erosion and sedimentation. Inspect the site 48 hours after a runoff-generating storm, and provide a copy of the inspection findings to the county.
5. Reporting to the owner the presence inadequate or non functioning E&S controls when they are observed.
6. Ensuring that temporary soil stabilization is applied within 7 days to areas denuded that will remain undisturbed for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
7. Calling (703) 228-0760 at least 80 hours before demolishing any structure.

I may be reached at 703-228-3654 with questions about this plan or my execution of the duties of
telephone number
Responsible Land Disturber.

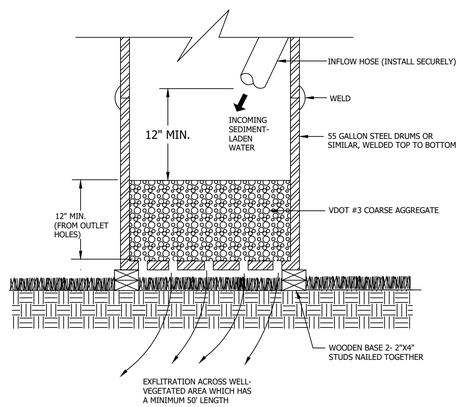
Sincerely,

signed

Solomon Shikur
name printed

VA PE #44276
professional registration (type and number)

FILTER BOX



ELEVATION VIEW

SOURCE: VA. DSWC — PLATE: 3.26-2

EROSION AND SEDIMENT CONTROL LEGEND

3.05	TEMPORARY SILT FENCE	SF	—X—X—
3.07	STORM DRAIN INLET PROTECTION	IP	
3.26	DEWATERING STRUCTURE	DS	

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL NOTES AND DETAILS - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

AS SHOWN

C032.2

FILENAME: R014-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

Spill Prevention & Response
Most spills can be cleaned up following manufacturer specifications. The priority should be to protect all people, equipment, property, and the environment. Enter the telephone number of your local fire and police departments.

Most spills can be cleaned up using a spill kit. Absorbent/oil dry, sealable containers, plastic bags, and shovels/brooms are suggested minimum spill response items that should be available at the project site.

1st Priority: Protect all people
2nd Priority: Protect equipment and property
3rd Priority: Protect the environment

1. Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave the area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.
2. Ensure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
3. Stop the spill source.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers.
5. If possible, stop spill from spreading and/or entering storm drains (use absorbent or other materials as necessary).
6. If spilled material has entered a storm drain; contact Arlington County Fire Department and project manager.
7. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials and do not flush area with water.
8. Properly dispose of cleanup materials and used absorbent material according to manufacturer specifications.

Emergency Contacts:

Local Contacts

Arlington County Fire & Police	703-558-2222
DES Water, Sewer, Streets 24-Hour Emergency	703-228-6555
Washington Gas Emergency	703-750-1400

Nights, Holidays & Weekends

VA Dept. of Emergency Management	804-674-2400
24 Hour Reporting Service	

Spill kit on site: ☐ Yes ☐ No

Location(s) of spill kit: _____

Potential Sources of Pollution & Pollution Prevention Practices
Identify the pollutant-generating activities likely to be present at the project site; implement and maintain the corresponding pollution prevention practices. If an unlisted pollutant-generating activity is likely to be present at the project site, describe it, identify the associated pollutant(s), and provide the corresponding pollution prevention practice(s) to be implemented and maintained.

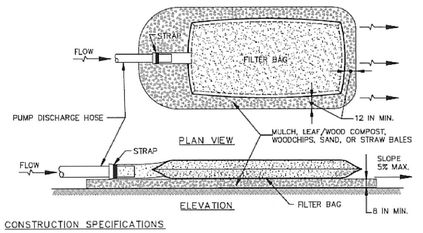
Pollutant-Generating Activity	Likely Present at your Project Site?	Pollutants: Sediment	Nutrients	Heavy Metals	pH (acids and bases)	Pesticides & Herbicides	Oil & Grease	Bacteria & Viruses	Trash, Debris, Solids	Other Toxic Chemicals	Pollution Prevention Practice	Responsible Party
Clearing, grading, excavating, and un-stabilized areas	☐ Yes ☒ No	X	X						X		(1)	Construction Activity Operator (See Cover Page of this SWPPP)
Paving and saw cutting operations	☒ Yes ☐ No	X					X		X		(2)	
Concrete operations, washout, and cement waste	☐ Yes ☒ No			X	X				X		(3)	
Washing / cleaning	☒ Yes ☐ No	X	X	X	X		X		X	X	(4)	
Dewatering operations	☒ Yes ☐ No	X	X						X		(5)	
Material / chemical use and storage	☒ Yes ☐ No	X	X	X	X	X	X		X	X	(6)	
Equipment and vehicle maintenance	☒ Yes ☐ No				X		X		X	X	(7)	
Waste management / disposal	☒ Yes ☐ No								X	X	(8)	
Sanitary waste	☒ Yes ☐ No		X		X			X			(9)	
Nutrient management	☐ Yes ☒ No	X	X						X	X	(10)	

Authorized Non-Stormwater Discharges
Identify the authorized non-stormwater discharges likely to be present at the project site. If an unlisted authorized non-stormwater discharge is likely to be present at the project site, provide it here.

Type of Authorized Non-Stormwater Discharges	Likely Present at Your Project Site?	
Uncontaminated excavation dewatering	☐ Yes	☒ No
Landscape irrigation	☐ Yes	☒ No
Others [describe]	☐ Yes	☒ No

Filter Bag

The Maryland Standard F-4 for a filter bag is provided as an acceptable option for use in Arlington County if straw bales or stone are used as the layer under the filter bag. The use of mulch, leaf/wood compost, woodchips or sand is not acceptable.

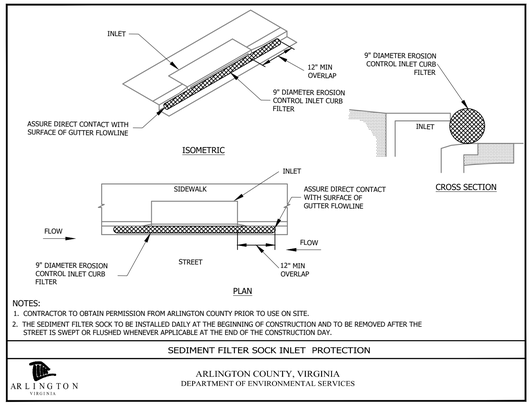


CONSTRUCTION SPECIFICATIONS

1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT²	ASTM D-4491
PERMITTIVITY (SEC⁻¹)	1.2 SEC⁻¹	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15–0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.



NOTES:
1. CONTRACTOR TO OBTAIN PERMISSION FROM ARLINGTON COUNTY PRIOR TO USE ON SITE.
2. THE SEDIMENT FILTER SOCK TO BE INSTALLED DAILY AT THE BEGINNING OF CONSTRUCTION AND TO BE REMOVED AFTER THE STREET IS SWEPT OR FLUSHED WHENEVER APPLICABLE AT THE END OF THE CONSTRUCTION DAY.

SEDIMENT FILTER SOCK INLET PROTECTION

ARLINGTON VIRGINIA
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ARLINGTON VIRGINIA
ARLI Approved: 8/30/2020
Subject to field inspection
LDA20163
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL NOTES AND DETAILS - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

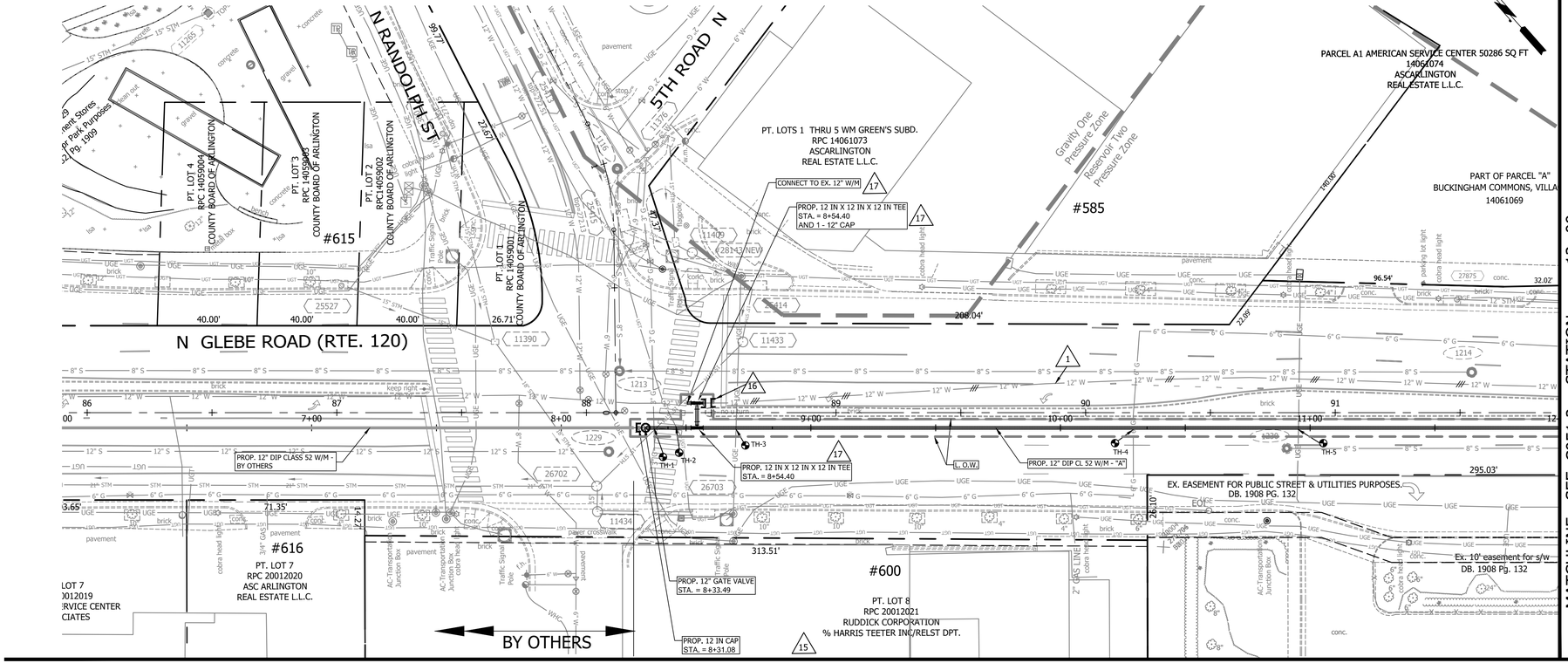
PLOTTED: AUGUST 4 2020

SCALE:

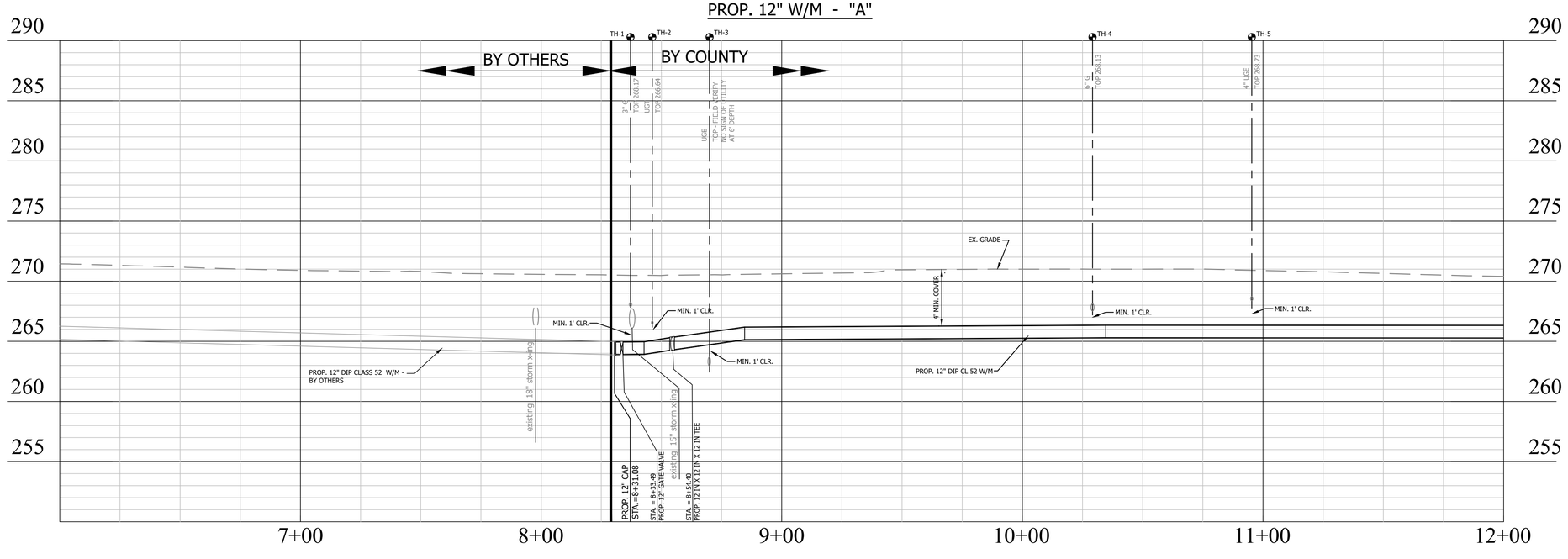
AS SHOWN

C032.3

REVISED ON 05/23/2018



PROP. 12" W/M - "A"



WATERMAIN CONSTRUCTION NOTES:

1. INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
'Approved: 8/30/2020
Subject to field inspection
LDA220163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

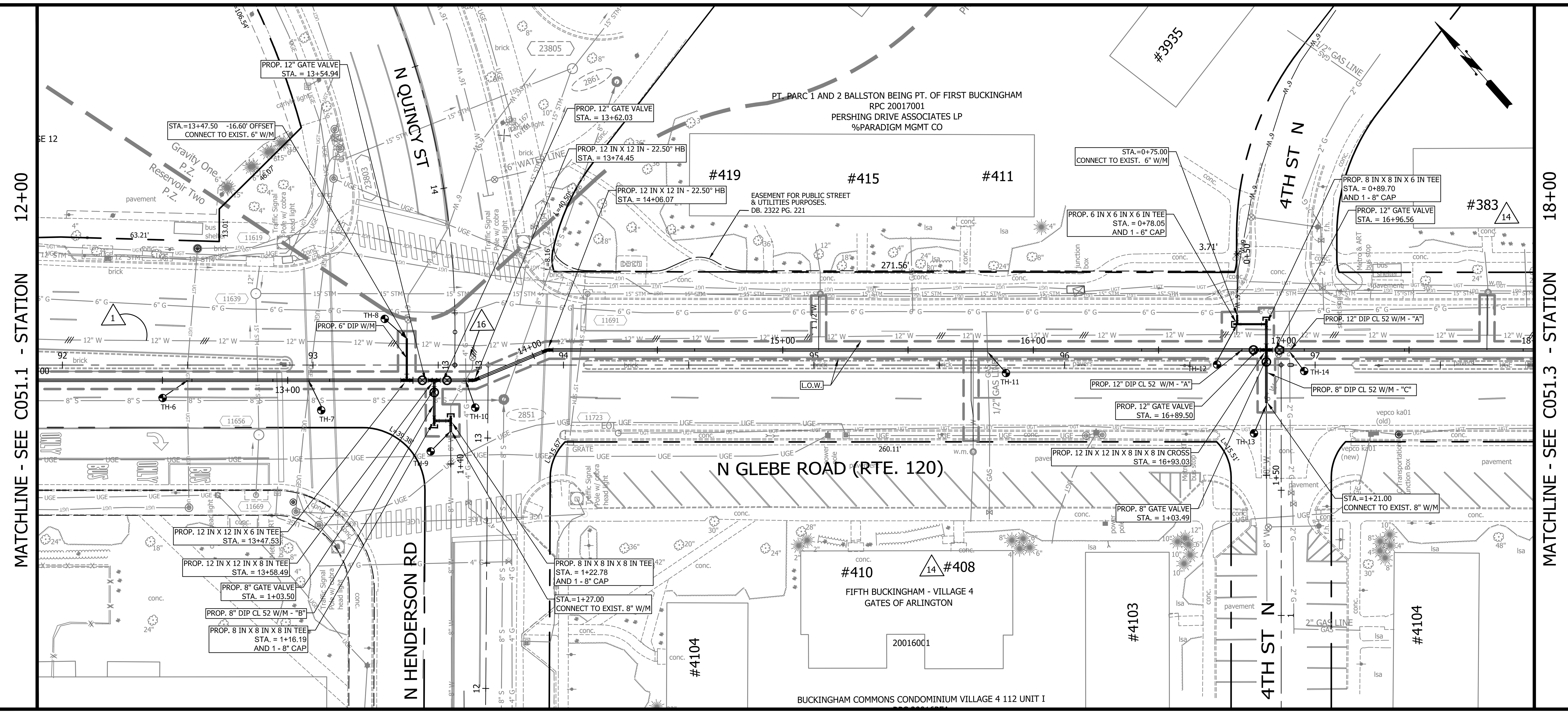
PLOTTED: AUGUST 4 2020

SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

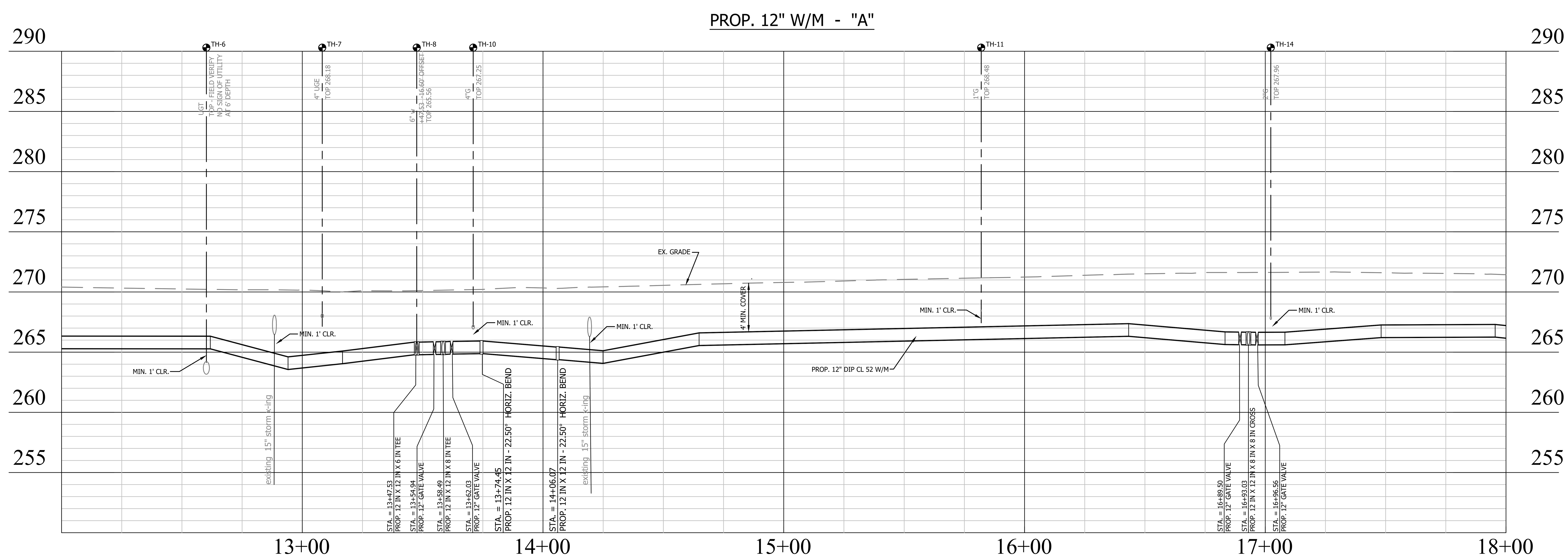
C051.1

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018



PROP. 12" W/M - "A"



FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

WATERMAIN CONSTRUCTION NOTES:

1. /// ——— /// —— INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER
Solomon W. [illegible]

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 2

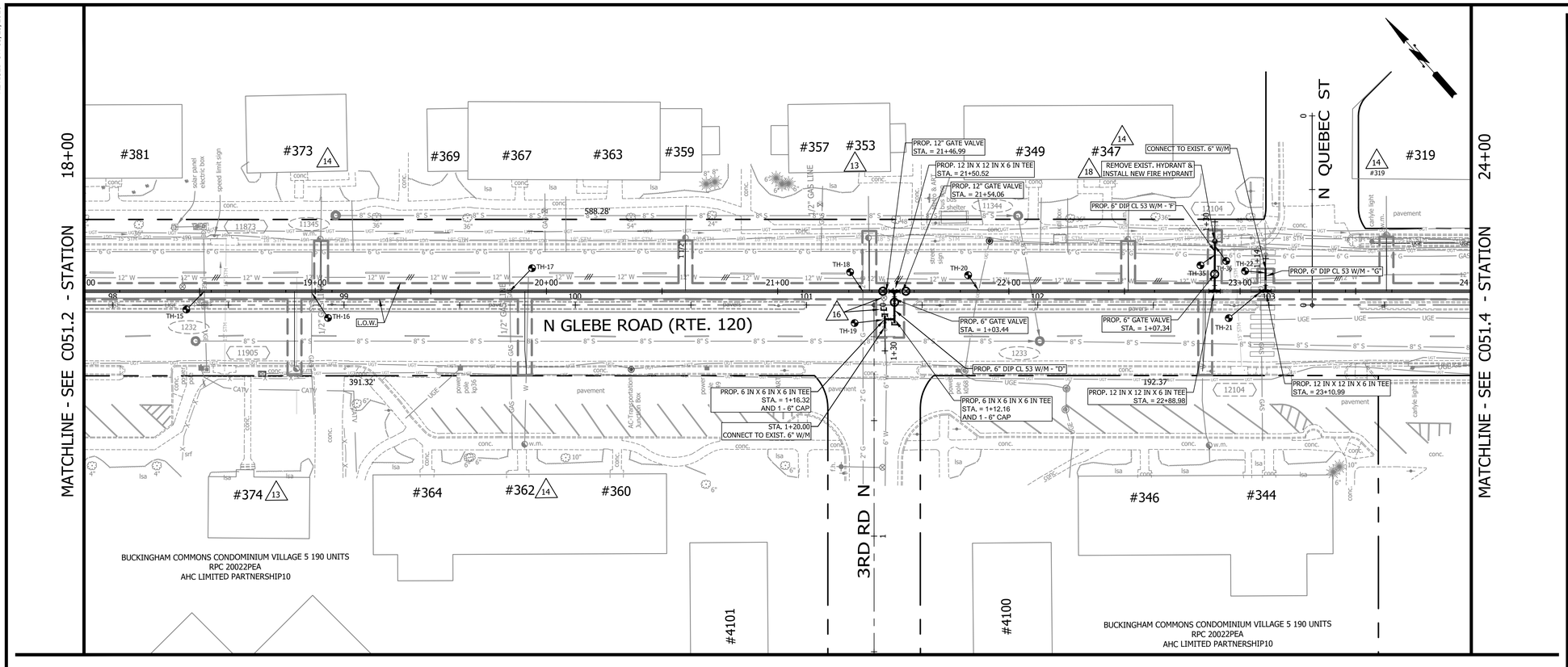
DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

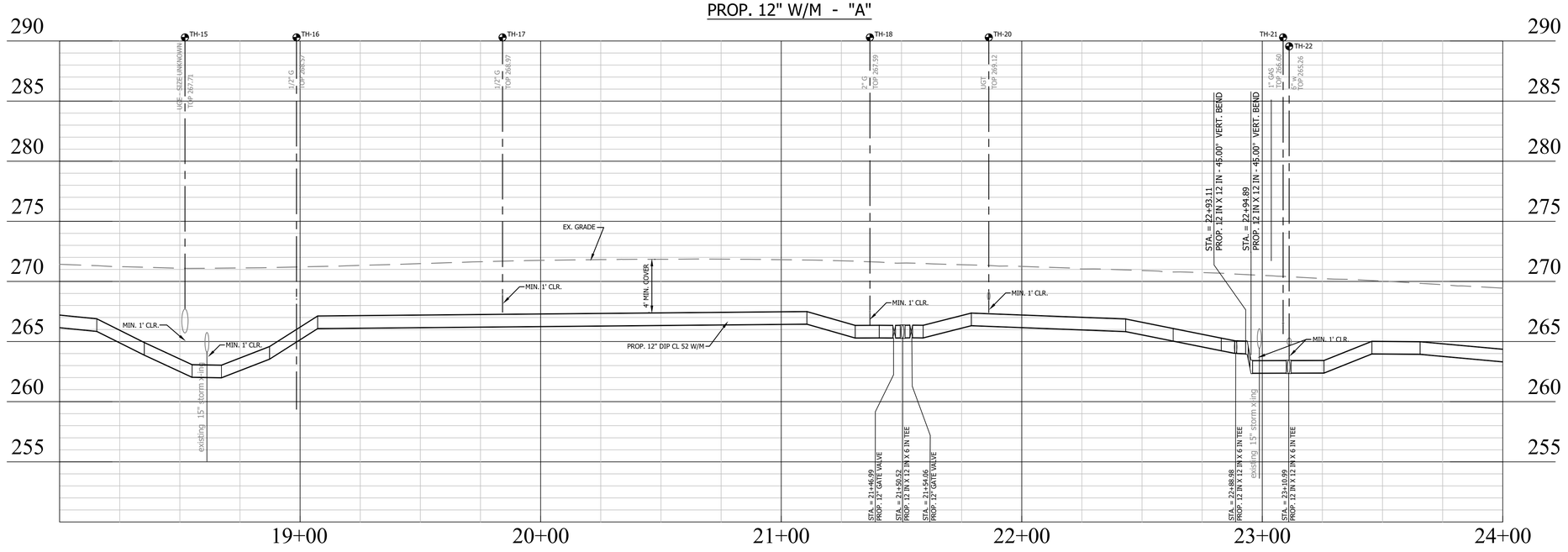
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C051.2

REVISED ON 05/23/2018



PROP. 12" W/M - "A"



WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
ARLI 'Approved: 8/30/2020
'Subject to field inspection
VIRGINIA LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

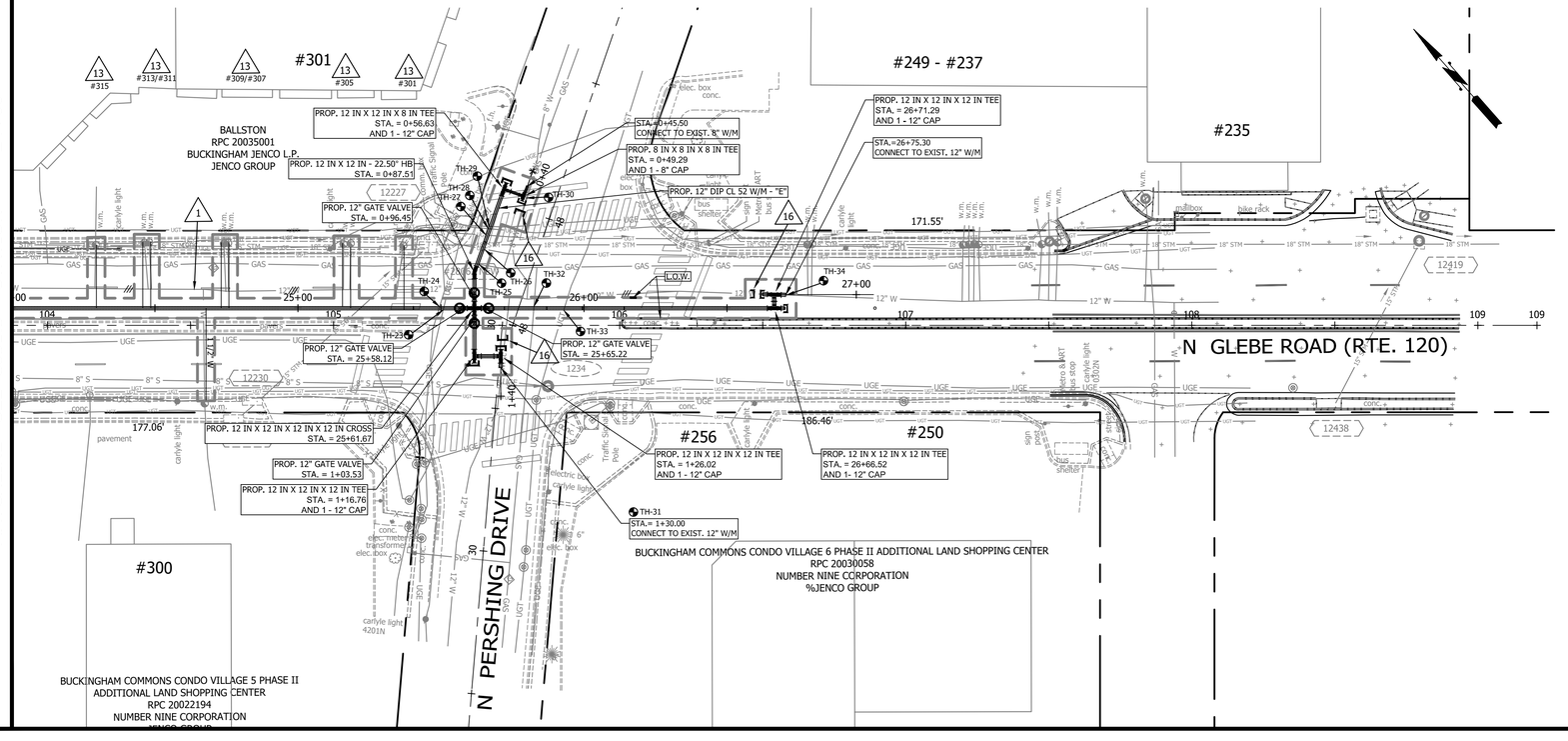
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

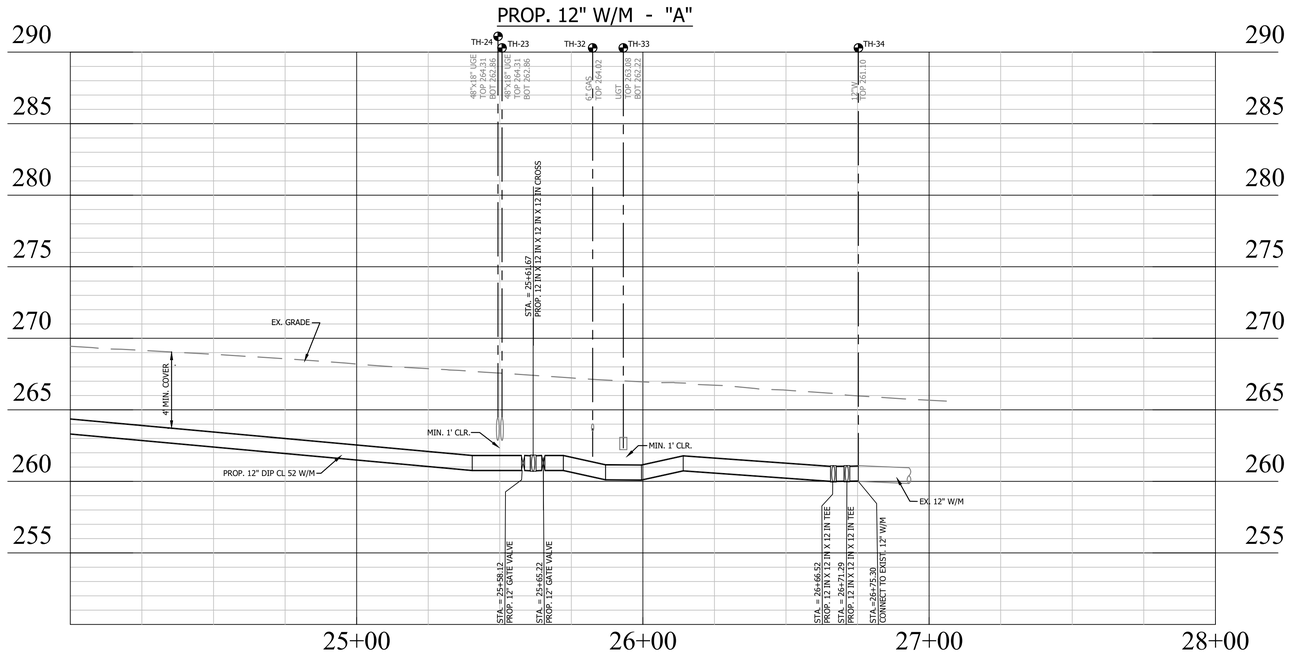
C051.3

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

MATCHLINE - SEE C051.3 - STATION 24+00





WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 4

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

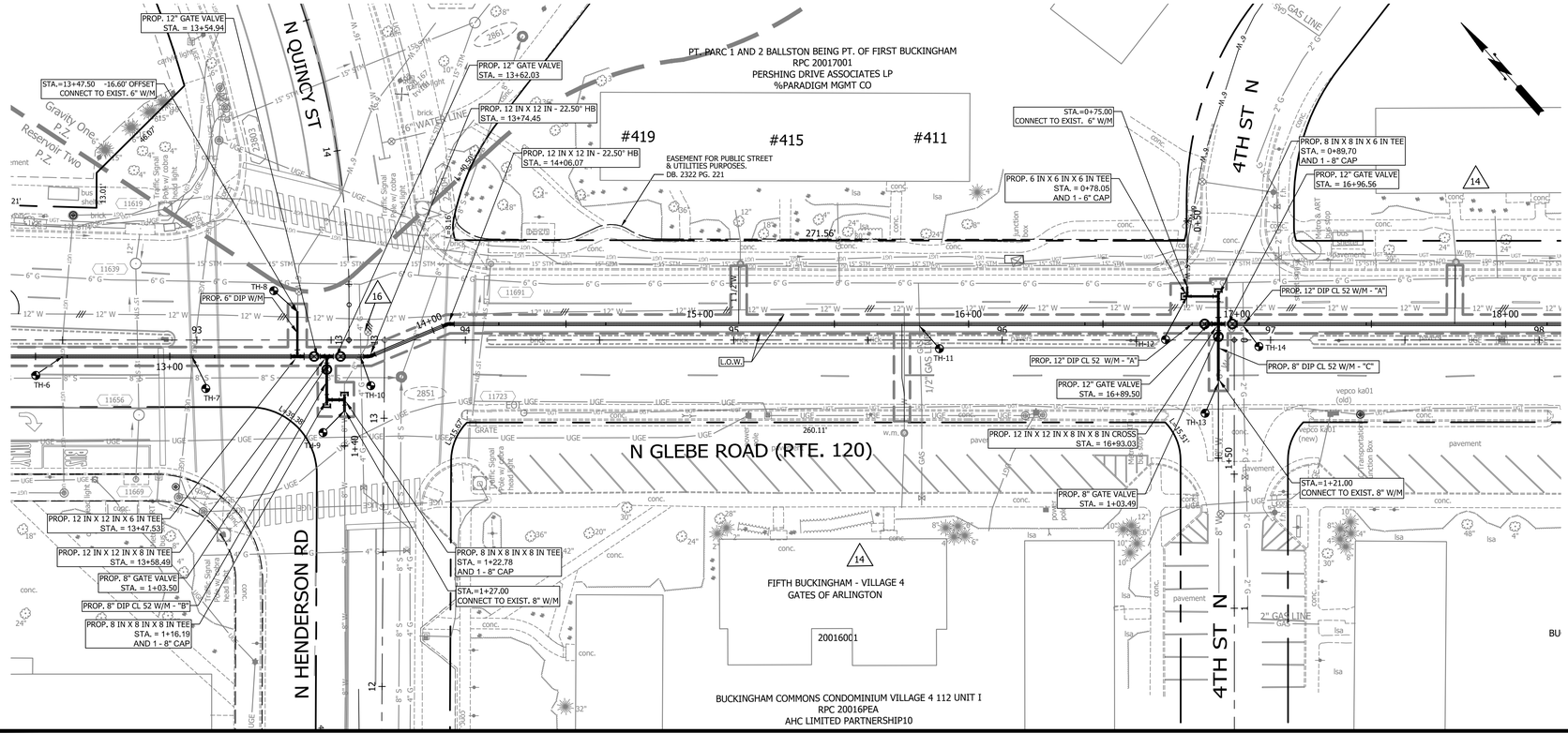
PLOTTED: AUGUST 4 2020

SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

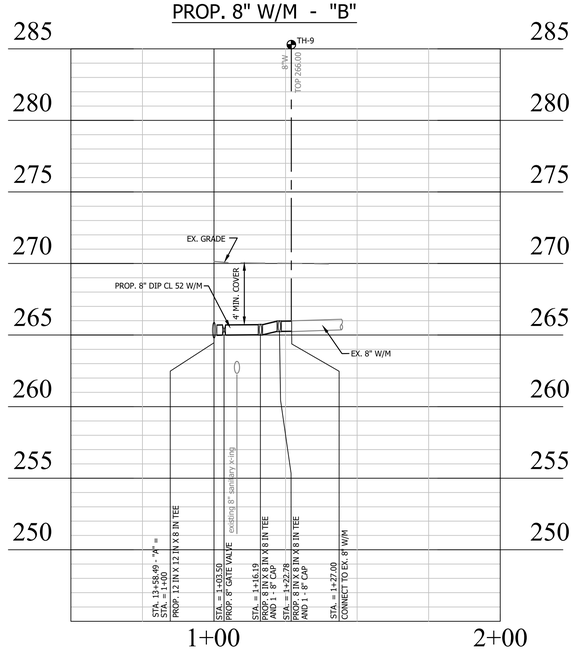
C051.4

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

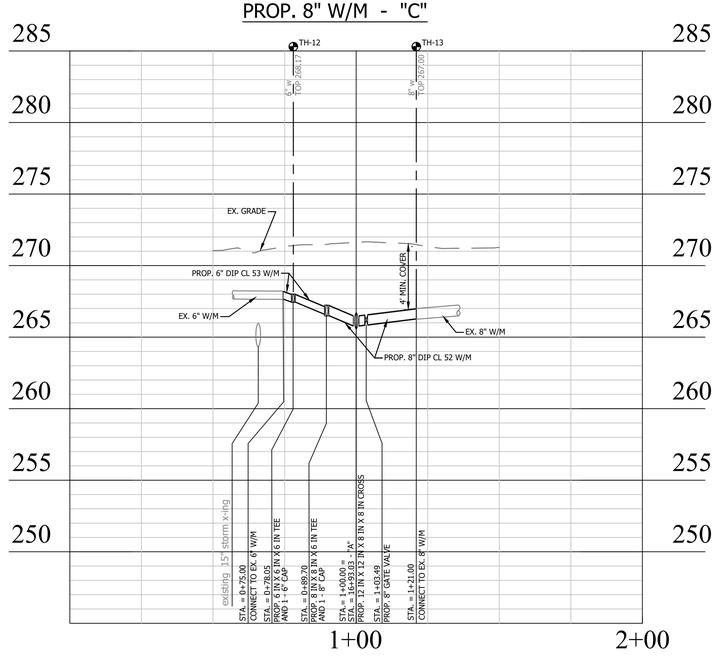
REVISED ON 05/23/2018



PROP. 8" W/M - "B"



PROP. 8" W/M - "C"



WATERMAIN CONSTRUCTION NOTES:

1. /// ——— /// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.

2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.

3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.

4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.

5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.

6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.

7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.

8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.

9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.

10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.

11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.

12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.

13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.

16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.

17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.

18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
ARLI Approved: 8/30/2020
Subject to field inspection
LDA220163
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 5

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

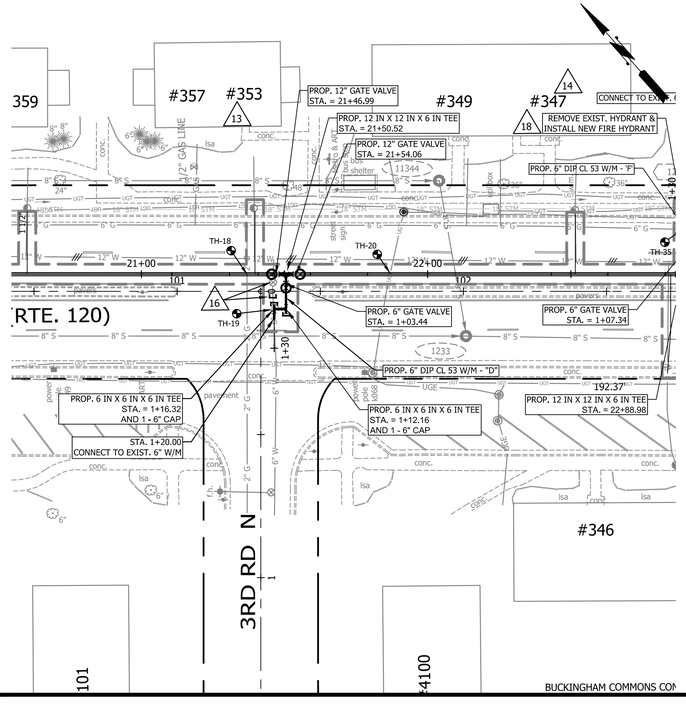
PLOTTED: AUGUST 4 2020

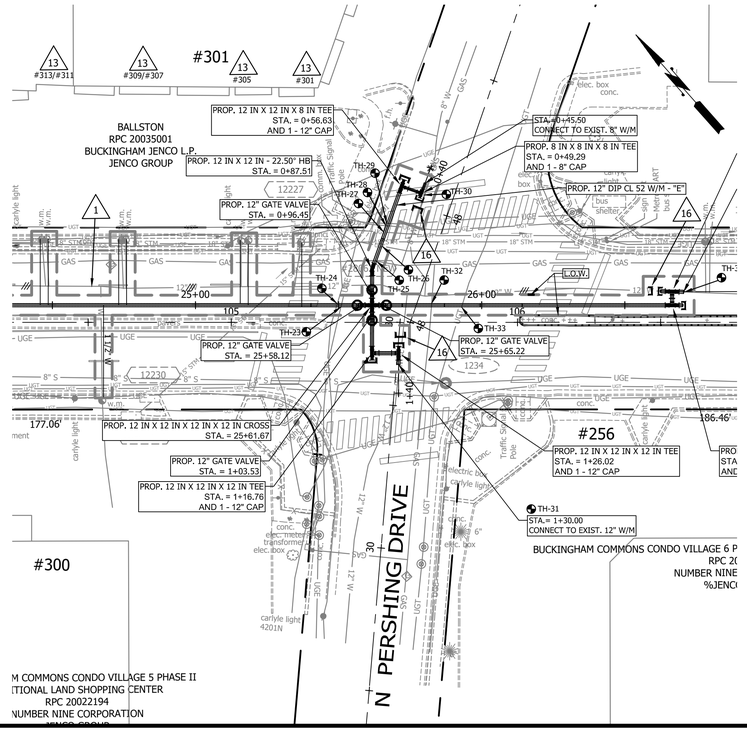
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

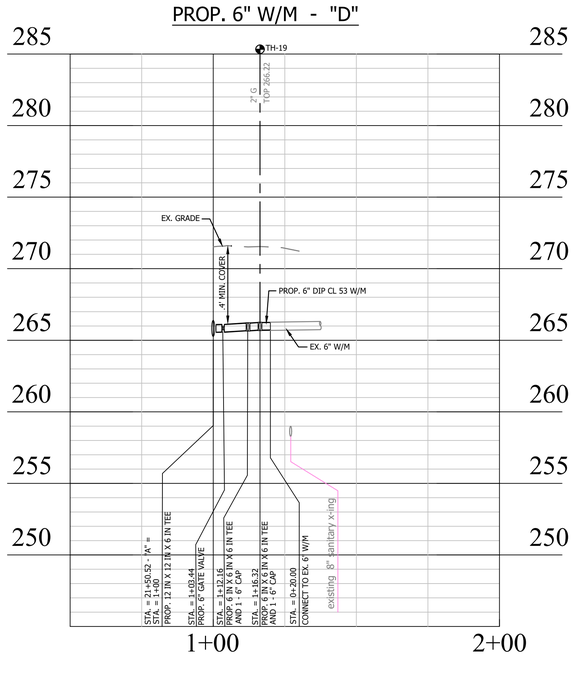
C051.5

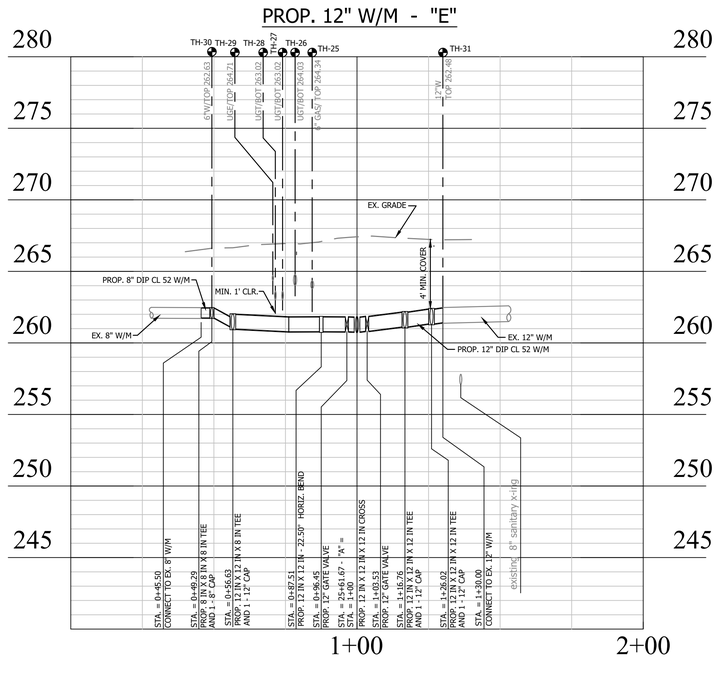
FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018









WATERMAIN CONSTRUCTION NOTES:

1. /// ——— /// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 6

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

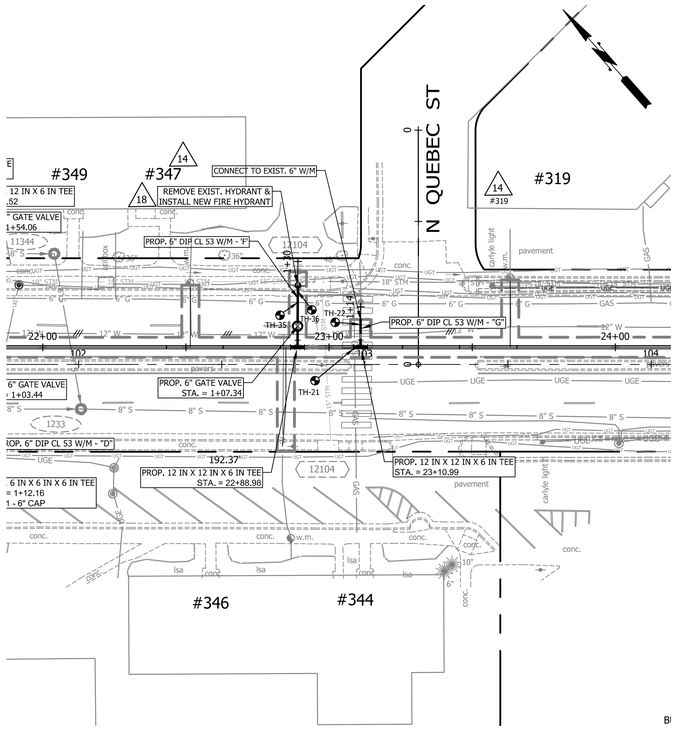
PLOTTED: AUGUST 4 2020

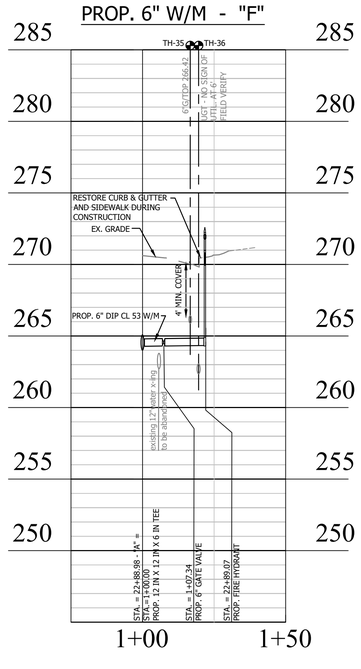
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

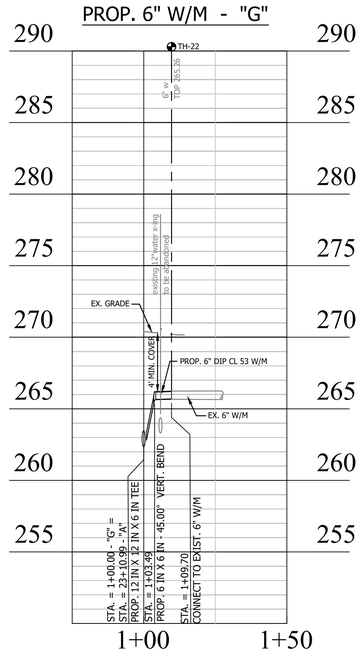
C051.6

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018







WATERMAIN CONSTRUCTION NOTES:

1. /// ——— /// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA

'Approved: 8/30/2020
'Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 7

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C051.7

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

Commonwealth of Virginia
Department of Transportation
April 2012

LUP-OC NOVA
Land Use Permit
Special Provisions for Pavement Open Cuts

Virginia Department of Transportation
NOVA Fairfax Permits
4975 Alliance Drive, Ste. 1N300
Fairfax, Virginia 22030

NOTE: Pavement restoration is a minimum 10' each side of the trench width for roads up to 5,000 ADT

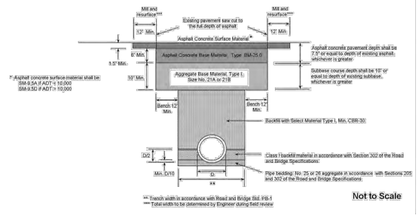
NOTE: Pavement restoration is a minimum 25' each side of the trench width for roads above 5,000 ADT

ADT (Average Daily Traffic)

Virginia Department of Transportation
NOVA District Materials Section

Detail: Pipe Bedding, Backfill and Asphalt Concrete Pavement Reinstatement

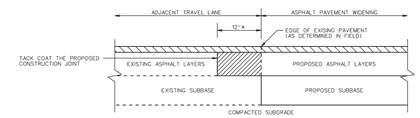
Note: This detail should not be used for longitudinal trenches in pavement which has an open graded drainage layer (OGDL) and/or cement treated aggregate base material (CTA).



Not to Scale

2016 ROAD & BRIDGE STANDARDS

WP-2



CONSTRUCTION JOINT DETAIL

REMOVE EXISTING ASPHALT LAYERS TO EXISTING SUBBASE AND REPLACE WITH PROPOSED ASPHALT WIDENING LAYERS

PROPOSED MINIMUM 1½ INCH THICK ASPHALT SURFACE COURSE (SEE NOTE 5)

× MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

NOTES:

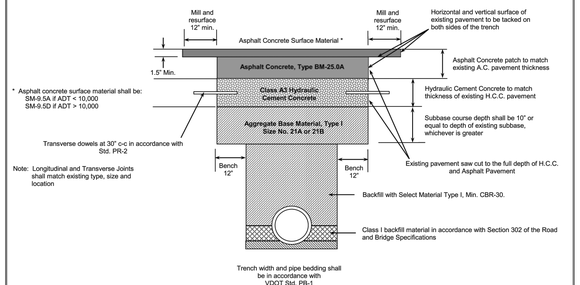
1. ASPHALT PAVEMENT WIDENING SHALL HAVE A PAVEMENT DESIGN IN ACCORDANCE WITH CURRENT VDOT PROCEDURES AND BE APPROVED BY THE ENGINEER.
2. THE PAVEMENT DESIGN FOR ASPHALT PAVEMENT WIDENING SHALL MEET OR EXCEED THE DEPTHS AND TYPES OF THE LAYERS OF EXISTING PAVEMENT. SUBSURFACE DRAINAGE OF THE EXISTING AND PROPOSED PAVEMENT SHALL BE ADDRESSED IN THE PAVEMENT DESIGN.
3. A MINIMUM OF THREE CORES SHALL BE TAKEN ALONG THE CENTER OF THE ADJACENT TRAVEL LANE TO DETERMINE THE TYPE AND THICKNESS OF EXISTING PAVEMENT LAYERS. THESE CORES SHALL BE SPACED NO MORE THAN 500 FEET APART.
4. THE ADJACENT TRAVEL LANE SHALL BE MILLED A MINIMUM DEPTH OF 1½ INCHES AND REPLACED WITH AN ASPHALT SURFACE COURSE TO MATCH THE PROPOSED PAVEMENT WIDENING SURFACE COURSE, UNLESS WAIVED BY THE ENGINEER.
5. THE ENGINEER MAY REQUIRE THE MILLING DEPTH OF THE EXISTING PAVEMENT TO BE ADJUSTED TO ACHIEVE AN ACCEPTABLE PAVEMENT CROSS-SLOPE AND EFFECTIVE SURFACE DRAINAGE.
6. EXISTING PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS SHALL BE RESTORED SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. FINAL TRANSVERSE PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS EXCEPT THAT ALL JOINTS AT TIE-IN LOCATIONS SHALL BE TESTED USING A 10 FOOT STRAIGHTEDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS.

VDOT ROAD AND BRIDGE STANDARDS	ASPHALT PAVEMENT WIDENING FOR WIDENING SUBJECT TO TRAFFIC VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE	315
303.02		

2016 ROAD & BRIDGE STANDARDS

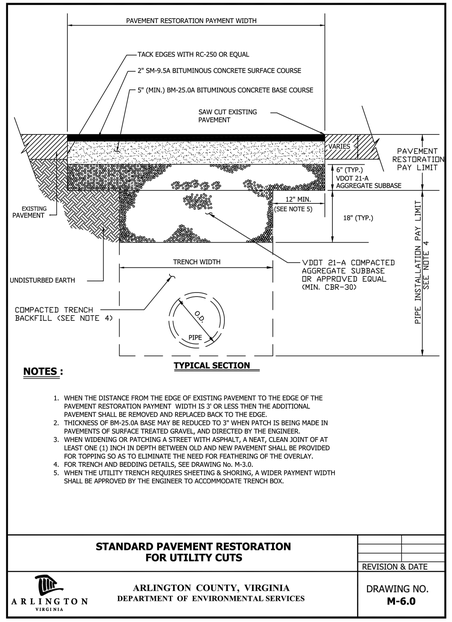
Virginia Department of Transportation
NOVA District Materials Section

Detail: Pipe Trench Reinstatement for Hydraulic Cement Concrete Pavement with Asphalt Overlay



Not to Scale

Q:\mat\ typical Sections\Pavement Details\Trench Reinstatement, Concrete with Asphalt Overlay Pavement (March 2013).doc



TYPICAL SECTION

NOTES :

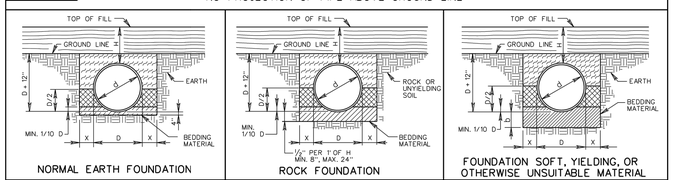
1. WHEN THE DISTANCE FROM THE EDGE OF EXISTING PAVEMENT TO THE EDGE OF THE PAVEMENT RESTORATION PAYMENT WIDTH IS 3' OR LESS THEN THE ADDITIONAL PAVEMENT SHALL BE REMOVED AND REPLACED BACK TO THE EDGE.
2. THICKNESS OF BM-25.0A BASE MAY BE REDUCED TO 3" WHEN PATCH IS BEING MADE IN PAVEMENTS OF SURFACE TREATED GRAVEL, AND DIRECTED BY THE ENGINEER.
3. WHEN WIDENING OR PATCHING A STREET WITH ASPHALT, A NEAT, CLEAN JOINT OF AT LEAST ONE (1) INCH IN DEPTH BETWEEN OLD AND NEW PAVEMENT SHALL BE PROVIDED FOR TOPPING SO AS TO ELIMINATE THE NEED FOR FEATHERING OF THE OVERLAY.
4. FOR TRENCH AND BEDDING DETAILS, SEE DRAWING No. M-3.0.
5. WHEN THE UTILITY TRENCH REQUIRES SHEETING & SHORING, A WIDER PAYMENT WIDTH SHALL BE APPROVED BY THE ENGINEER TO ACCOMMODATE TRENCH BOX.

STANDARD PAVEMENT RESTORATION FOR UTILITY CUTS	REVISION & DATE
ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES	DRAWING NO. M-6.0

2016 ROAD & BRIDGE STANDARDS

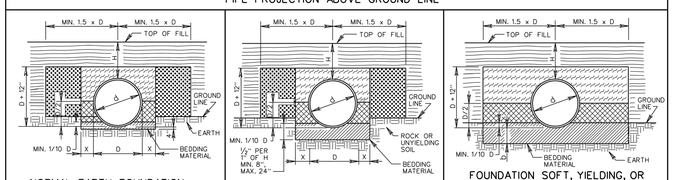
PB-1

NO PROJECTION OF PIPE ABOVE GROUND LINE



NORMAL EARTH FOUNDATION | ROCK FOUNDATION | FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL

PIPE PROJECTION ABOVE GROUND LINE



NORMAL EARTH FOUNDATION | ROCK FOUNDATION | FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL

BEDDING MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

FOR PLASTIC PIPE CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

FOR ALL OTHER PIPE REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

EMBANKMENT

REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

NOTES:

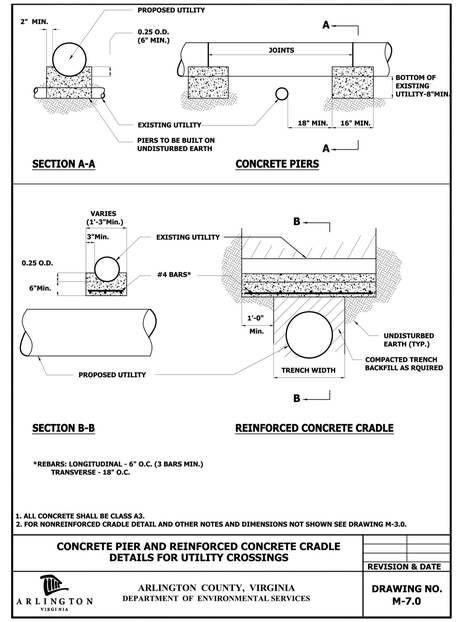
FOR GENERAL NOTES ON PIPE BEDDING, SEE INSTALLATION OF PIPE CULVERTS AND STORM SEWERS GENERAL NOTES ON SHEET 107.00.

CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26 MAY BE USED IN PLACE OF CLASS I BACKFILL.

CLASS I BACKFILL MATERIAL SHALL BE EXTENDED TO 12" ABOVE THE PROP. PIPE.

VDOT ROAD AND BRIDGE STANDARDS	INSTALL. OF PIPE CULVERTS AND STORM SEWERS CIRC. PIPE BEDDING AND BACKFILL - METHOD "A" VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 4	REVISION DATE	302 303
107.01	07/12	

2016 ROAD & BRIDGE STANDARDS



*REBARS: LONGITUDINAL - 6" O.C. (3 BARS MIN.)
TRANSVERSE - 18" O.C.

1. ALL CONCRETE SHALL BE CLASS A3.
2. FOR NONREINFORCED CRADLE DETAIL AND OTHER NOTES AND DIMENSIONS NOT SHOWN SEE DRAWING M-3.0.

CONCRETE PIER AND REINFORCED CONCRETE CRADLE DETAILS FOR UTILITY CROSSINGS	REVISION & DATE
ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES	DRAWING NO. M-7.0

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN NOTES & DETAILS - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

AS SHOWN

C052.1

FILENAME: R014-204-DETAILS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: : LDIZON

REVISED ON 05/23/2018

POLYETHYLENE ENCASEMENT

INSTALLATION INSTRUCTIONS:

TAPING OVER POLYETHYLENE ENCASEMENT ALLOWS DIRECT TAPS TO BE MADE THROUGH THE TAPE AND POLYETHYLENE ENCASEMENT. ELIMINATES POTENTIAL REPAIRS TO EXPOSED AREA.

TIE STRAPS ALLOW EASY, QUICK, SECURE TIE DOWN OF POLYETHYLENE ENCASEMENT BEHIND THE BELL CONTOUR AND ON OVERLAPS AGAINST THE PIPE SURFACE.

FIGURE 1.
REMOVE ALL LUMPS OF CLAY, MUD, CINDERS, ETC. WHICH MAY HAVE ACCUMULATED ON THE SURFACE OF THE PIPE. A POLYETHYLENE TUBE SHOULD BE CUT SO THAT IT IS APPROXIMATELY TWO FEET LONGER THAN THE PIPE SECTION. SLIP THE TUBE ONTO THE PIPE. ALLOW APPROXIMATELY ONE FOOT OF THE TUBE TO OVERHANG EACH END OF THE PIPE.

FIGURE 2.
PUSH BACK THE OVERHANGING TUBE ENDS UNTIL THEY CLEAR THE PIPE ENDS.

FIGURE 3.
TAKE UP THE SLACK IN THE TUBE TO MAKE A SNUG BUT NOT TIGHT FIT. FOLD EXCESS BACK OVER THE TOP OF THE PIPE.

FIGURE 4.
SECURE THE FOLD WITH POLYETHYLENE COMPATIBLE ADHESIVE TAPE AT SEVERAL LOCATIONS ALONG THE PIPE BARREL.

FIGURE 5.
DIG A SHALLOW BELL-HOLE IN THE TRENCH BOTTOM AT THE JOINT LOCATION.

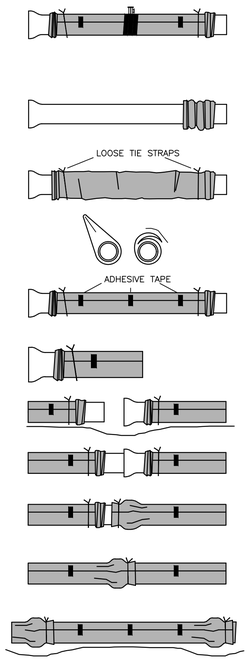
FIGURE 6.
PLACE THE PIPE INTO THE TRENCH.

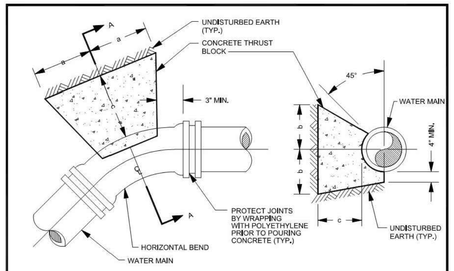
FIGURE 7.
ASSEMBLE THE JOINT.

FIGURE 8.
PULL THE POLYETHYLENE TUBE END OF THE PREVIOUSLY INSTALLED PIPE OVER THE NEW PIPE AND SECURE WITH THE TIE STRAP FROM THE PRECEDING PIPE BELL.

FIGURE 9.
OVERLAP THE SECURED TUBE END OF THE NEW PIPE SECTION. SECURE THE NEW TUBE END IN PLACE WITH THE SPIGOT END TIE STRAP.

FIGURE 10.
REPAIR ALL RIPS, TEARS, OR OTHER TUBE DAMAGE WITH SUITABLE ADHESIVE TAPE. EXPERIENCE HAS SHOWN THAT VERY SMALL PIN POINT SIZED PUNCTURES NEED NOT BE REPAIRED.





PIPE DIA.	HORIZONTAL BEND								MIN. C
	11 1/4° (1/32)		22 1/2° (1/16)		45° (1/8)		90° (1/4)		
	a	b	a	b	a	b	a	b	
6"	5"	7"	7"	7"	11"	9"	15"	12"	18"
8"	7"	8"	10"	9"	14"	12"	20"	16"	18"
12"	10"	10"	16"	12"	23"	16"	36"	20"	18"
16"	12"	14"	20"	16"	32"	20"	48"	24"	24"

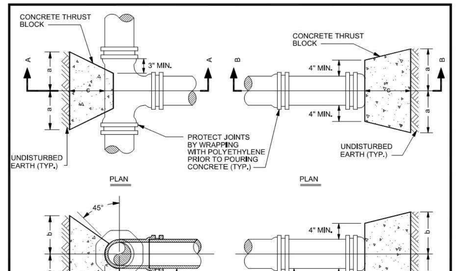
NOTES :
1. ALL BEARING SURFACES FOR CONCRETE BLOCKING SHALL BE UNDISTURBED EARTH WITH A MINIMUM BEARING VALUE OF 2,000 PSF. THE MINIMUM THICKNESS OF UNDISTURBED EARTH BEHIND THE BLOCKING SHALL BE 5 FEET.
2. BLOCKING SHOWN IS FOR A MAXIMUM STATIC PRESSURE OF 120 PSI PLUS WATER HAMMER ALLOWANCE OF 120 PSI.
3. FORM THE NON-BEARING SIDES OF THRUST BLOCKS BY USING PROPER FORMWORK.
4. SPECIAL BLOCKING DESIGN SHALL BE REQUIRED FOR CONDITIONS AND SIZES OTHER THAN THOSE INDICATED ON THIS SHEET.

CONCRETE THRUST BLOCKS FOR HORIZONTAL BENDS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.0**



PIPE DIAMETER	a	b	MIN. C	
			TEES	CAPS
6"	11"	11"	12"	18"
8"	15"	15"	12"	18"
12"	24"	20"	18"	18"
16"	33"	24"	24"	24"

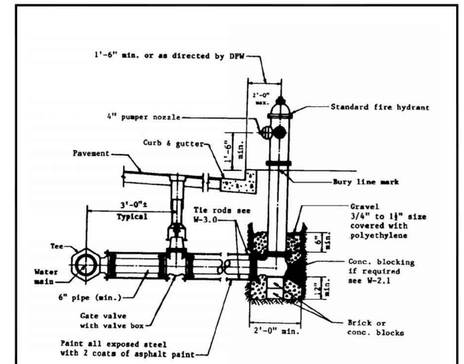
NOTES :
1. ALL BEARING SURFACES FOR CONCRETE BLOCKING SHALL BE UNDISTURBED EARTH WITH A MINIMUM BEARING VALUE OF 2,000 PSF, THE MINIMUM THICKNESS OF UNDISTURBED EARTH BEHIND THE BLOCKING SHALL BE 5 FEET.
2. BLOCKING SHOWN IS FOR A MAXIMUM STATIC PRESSURE OF 120 PSI PLUS WATER HAMMER ALLOWANCE OF 120 PSI. SPECIAL BLOCKING DESIGN SHALL BE REQUIRED FOR CONDITIONS AND SIZES OTHER THAN THOSE INDICATED ON THIS SHEET.
3. FORM THE NON-BEARING SIDES OF THRUST BLOCKS BY USING PROPER FORMWORK.
4. THE BLOCKS FOR THE TEES SHALL BE SIZED ACCORDING TO THE DIAMETER OF THE BRANCH MAIN.

CONCRETE THRUST BLOCKS FOR TEES AND CAPS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.1**



NOTES:
1. **All valves and fire hydrants shall be strapped to main unless directed otherwise.**
2. **Provide vertical offsets or bends as required to set hydrants at proper grade.**
3. **Maximum bury depth of fire hydrant is 6' unless approved otherwise.**

FIRE HYDRANT SETTING

REVISION & DATE

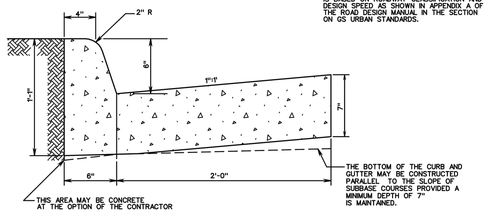
ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-7.0**

2016 ROAD & BRIDGE STANDARDS

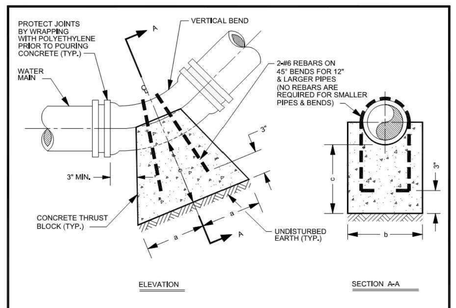
CG-6

NOTES:
1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAD FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.



SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE SHEET 1 OF 1 201.03

2016 ROAD & BRIDGE STANDARDS



PIPE DIA.	LOWER VERTICAL BEND								
	11 1/4° (1/32)			22 1/2° (1/16)			45° (1/8)		
	a	b	c	a	b	c	a	b	c
6"	3"	14"	9"	3"	14"	9"	6"	14"	9"
8"	3"	16"	9"	5"	16"	9"	9"	16"	9"
12"	4"	20"	9"	8"	20"	9"	14"	22"	14"
16"	6"	24"	9"	11"	24"	11"	19"	26"	19"

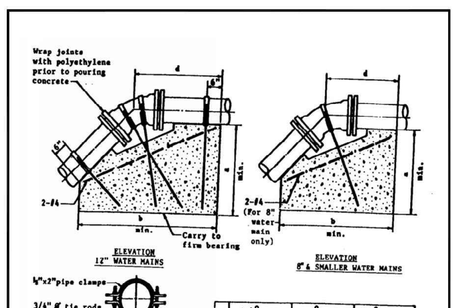
NOTES :
1. ALL BEARING SURFACES FOR CONCRETE BLOCKING SHALL BE UNDISTURBED EARTH WITH A MINIMUM BEARING VALUE OF 2,000 PSF. THE MINIMUM THICKNESS OF UNDISTURBED EARTH BENEATH THE BLOCKING SHALL BE 5 FEET.
2. BLOCKING SHOWN IS FOR A MAXIMUM STATIC PRESSURE OF 120 PSI PLUS WATER HAMMER ALLOWANCE OF 120 PSI. SPECIAL BLOCKING DESIGN SHALL BE REQUIRED FOR CONDITIONS AND SIZES OTHER THAN THOSE INDICATED ON THIS SHEET.
3. FORM THE NON-BEARING SIDES OF THRUST BLOCKS BY USING PROPER FORMWORK.
4. PAINT ALL EXPOSED STEEL WITH TWO COATS OF ASPHALT PAINT.

CONCRETE THRUST BLOCKS FOR LOWER VERTICAL BENDS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.2**



	11¼° Bend		22½° Bend			45° Bend		
	6"	8"	12"	6"	8"	12"	6"	8"	12"
a	21"	27"	36"	30"	39"	48"	42"	48"	60"
b	27"	36"	51"	36"	54"	78"	42"	54"	84"
c	30"	30"	36"	30"	30"	36"	30"	30"	36"
d	15"	21"	27"	21"	30"	42"	27"	36"	48"

NOTES:
1. **Blocking shown is for maximum static pressure of 120 psi plus water hammer allowance of 120 psi. Special blocking shall be designed for sizes and conditions other than those indicated.**
2. **Paint all exposed steel with 2 coats of asphalt paint.**
3. **Form sides of thrust blocks.**

CONCRETE THRUST BLOCKS UPPER VERTICAL BENDS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.3**

ARLINGTON VIRGINIA
ARLI Approved: 8/30/2020
Subject to field inspection
VIRGI LOA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA — SOLOMON W SHIKUR — Lic. No. 44276 — 8/3/20 — PROFESSIONAL ENGINEER

APPROVALS DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN NOTES & DETAILS - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

AS SHOWN

C052.2

FILENAME: R014-204-DETAILS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

ARLINGTON
VIRGINIA

ENGINEER
DEPARTMENT OF
ENVIRONMENTAL SERVICES

FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629 FAX: 703.228.3606
WWW.ARLINGTONVA.US

OWNER
DES/OD/WSS

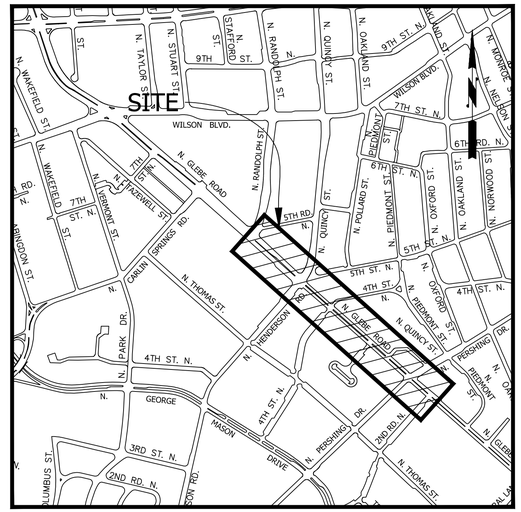
CONTRACTOR
TO BE DETERMINED

CONSTRUCTION DRAWINGS FOR:

N. GLEBE ROAD WATERMAIN REPLACEMENT
FROM N. RANDOLPH STREET TO N. PERSHING DRIVE

PROJECT NUMBER: R014

LOCATION MAP



GENERAL NOTES:

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
2. ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
4. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PRIVATE WATER, SEWER AND GAS LATERALS WILL NOT BE MARKED BY MISS UTILITY OR THE COUNTY. THE CONTRACTOR SHALL LOCATE AND PROTECT THESE SERVICES DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS. THE COST OF ALL NECESSARY SURVEYING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND, UNLESS OTHERWISE SPECIFIED, THE COST SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
6. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER.
7. EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
8. THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.
9. ALL SIDEWALK AND CURB AND GUTTER DEMOLITION SHALL BEGIN AND END AT THE CONSTRUCTION JOINT NEAREST TO THE DEPICTED DEMOLITION EXTENTS WITH A NEAT SAWCUT LINE TO FULL DEPTH OF PAVEMENT SECTION.

STORMWATER AND ENVIRONMENTAL PROTECTION

10. THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES AT THE SITE ASSOCIATED WITH CONSTRUCTION ACTIVITIES, TO INCLUDE STORAGE OF EQUIPMENT AND OR MATERIALS, ACCESS TO THE WORK, FORMWORK, ETC. TO WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD).

TREE PROTECTION

11. TREES SHALL BE PROTECTED PER THE REQUIREMENTS OF ARLINGTON PARKS & RECREATION STANDARD.

TRAFFIC CONTROL

12. CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO DISTURBING ANY EXISTING, OR INSTALLING ANY NEW, TRAFFIC SIGNS, SIGNALS, OR OTHER TRAFFIC CONTROL DEVICES.
13. THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. THE PREMARKING MAY CONSIST OF TYPE D TAPE, CHALK, OR LUMBER CRAYONS. THE CONTRACTOR SHALL ALLOW 3 WORKING DAYS FOR THE INSPECTION AND APPROVAL OF THE PREMARKINGS PRIOR TO PLACING THE PERMANENT MARKINGS.
14. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER.
15. WHEN THE APPROVED PLAN CALLS FOR THE REMOVAL OF ANY PARKING METER THE CONTRACTOR MUST MAKE A REQUEST TO THE PROJECT OFFICER AT LEAST ONE WEEK IN ADVANCE OF THE DESIRED REMOVAL. THE PROJECT OFFICER WILL THEN COORDINATE THE PARKING METER REMOVAL WITH TRAFFIC ENGINEERING AND OPERATIONS.
16. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. ANY RELOCATION OR CLOSURE OF A BUS STOP SHALL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR - 703-228-3049.
17. WHEN CONDITIONS WARRANT DUE TO TRAFFIC VOLUMES, PATTERNS, OR SPECIAL EVENTS, THE COUNTY MAY SUSPEND OR OTHERWISE DIRECT THE CONTRACTOR'S ACTIVITIES TO PROTECT THE PUBLIC AND OR THE COUNTY'S TRANSPORTATION NETWORK.

WATER DISTRIBUTION, STORM AND SANITARY SEWER SYSTEMS

18. UNLESS OTHERWISE DIRECTED, CONTRACTORS ARE EXPRESSLY PROHIBITED FROM OPERATING ANY WATER VALVES OR APPURTENANCES. CONTRACTORS SHALL SUBMIT ALL REQUESTS FOR VALVE OPERATIONS TO THE PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED OPERATION.
19. IN THE EVENT OF A WATER OR SEWER EMERGENCY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY'S WATER CONTROL CENTER AT 703-228-6555 AND THE PROJECT OFFICER.
20. THE CONTRACTOR SHALL COORDINATE ALL UTILITY SHUTOFFS, DISCONNECTS, AND/OR ABANDONMENT WITH UTILITY OWNER AND PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED INTERRUPTION.

FIRE DEPARTMENT NOTES:

21. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
22. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
23. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

Sheet List

LDA
SWM#

ADT
27,000 - N. GLEBE ROAD (FROM FAIRFAX DR. TO ARLINGTON BLVD.) - 2017 - VDOT _ DAILY TRAFFIC VOLUME ESTIMATES
8,400 - N. RANDOLPH ROAD (WILSON BLVD TI GLEBE RD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
12,000 - N. QUINCY STREET (GLEBE RD TO WILSON BLVD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
8,000 - N. HENDERSON ROAD (GLEBE RD TO G. MASON DR) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
4TH STREET N. - NO TRAFFIC INFORMATION
3RD STREET N. - NO TRAFFIC INFORMATION
N. QUEBEC STREET - NO TRAFFIC INFORMATION
8,300 - N. PERSHING DRIVE (GLEBE RD TO WASHINGTON BLVD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC
6,300 - N. PERSHING DRIVE (G. MASON DR TO GLEBE RD) - 2019 - VDOT_ANNUAL AVERAGE DAILY TRAFFIC

STREET CLASSIFICATION
N. GLEBE ROAD - PRINCIPAL ARTERIAL
N. RANDOLPH RD - MINOR ARTERIAL
N. QUINCY STREET - MINOR ARTERIAL
N. HENDERSON ROAD - MINOR ARTERIAL
N. PERSHING DRIVE - MINOR ARTERIAL

POSTED SPEED
N. GLEBE ROAD - 30 MPH
N. RANDOLPH ROAD - 25 MPH
N. QUINCY STREET - 25 MPH
N. HENDERSON ROAD - 25 MPH
4TH STREET N. / 3RD STREET N. / N. QUEBEC STREET - 25 MPH
N. PERSHING DRIVE - 25 MPH

ARLINGTON VIRGINIA
ARLI Approved: 8/30/2020
Subject to field inspection
VIRGINIA LDA20163

DEPARTMENT OF
ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

COVER

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

(AS SHOWN)

C000.1

FILENAME: R014-200-COVER.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

LINETYPE LEGEND

FEATURE	EXISTING	PROPOSED
BUILDING		
CENTERLINE / BASELINE		
COMMUNICATIONS CABLE	COM COM	COM COM
CONTOURS MAJOR; MINOR	250 250	
CRITICAL ROOT ZONE	CRZ CRZ	CRZ CRZ
EASEMENT		
ELECTRIC (UNDERGROUND)	UGE UGE	UGE UGE
FENCE (MATERIAL NOTED)	X X X X X	X X X X X
FIBER OPTIC	FO FO	FO FO
GAS LINE	GAS GAS	GAS GAS
X" GAS LINE (SIZE INCLUDED IF AVAILABLE)		
GUARDRAIL		
HARDSCAPE FEATURE (MATERIAL NOTED)		
LIMITS OF DISTURBANCE	LOD LOD	LOD LOD
LIMITS OF WORK	LOW LOW	LOW LOW
OVERHEAD WIRES		
PAVEMENT MINI SKIP LINE		
PAVEMENT SKIP LINE		
PROPERTY LINE		
RIGHT-OF-WAY LINE		
ROOT PRUNING	RP RP	RP RP
SANITARY SEWER	SAN SAN	SAN SAN
X" SANITARY SEWER (SIZE INCLUDED IF AVAILABLE)		
SILT FENCE	X X X X X	X X X X X
STORM (SIZE NOTED)	STM STM	
STREAM		
STREET LIGHT CONDUIT	SL SL	SL SL
TELEPHONE (UNDERGROUND)	UGT UGT	UGT UGT
TREE LINE		
TREE PROTECTION FENCE	TP TP	TP TP
WALL		
WATER	6"w	
X" WATER (SIZE INCLUDED IF AVAILABLE)		

SYMBOL LEGEND

EXISTING	PROPOSED
EX CABLE PEDESTAL	PROP CABLE PEDESTAL
EX ELECTRIC BOX	
EX FIRE HYDRANT	PROP FIRE HYDRANT
EX GAS VALVE	PROP GAS VALVE
EX GROUND LIGHT	
EX GUY WIRES	
EX IRON PIPE OR PIN	
EX LIGHT POLE	PROP LIGHT POLE
EX MAILBOX	
EX MONUMENT	
EX PARKING METER	
EX PAY STATION	PROP PAY STATION
EX SANITARY MANHOLE	PROP SANITARY MANHOLE
EX STORM BASIN	PROP STORM CATCH BASIN (TO SCALE)
EX STORM MANHOLE	PROP STORM MANHOLE
EX TELEPHONE PEDESTAL	
EX TRAFFIC CONTROL BOX	
EX TRAFFIC SIGN	PROP TRAFFIC SIGN
EX TRASH CAN	PROP TRASH CAN
EX TRAVERSE	
EX TREES, WOODED AREA	PROPOSED TREE REMOVAL
EX UTILITY MANHOLE TYPE INDICATED ELECTRIC, TELE, ETC	
EX UTILITY POLE	PROP UTILITY POLE
EX WATER MANHOLE	PROP WATER MANHOLE
EX WATER METER	PROP WATER METER
EX WATER VALVE	PROP WATER VALVE
EX YARD INLET	PROP YARD INLET (TO SCALE)
EX BENCHMARK	CONSTRUCTION NOTES (LEADER TO AREA AFFECTED)
	CURVE NUMBER (SEE CURVE TABLE)
	LINE NUMBER (SEE LINE TABLE)
	TEST HOLE
	NORTH ARROW

LABEL LEGEND

EXISTING	PROPOSED
EXISTING SANITARY STRUCTURE NUMBER XXXX	PROPOSED SANITARY SEWER STRUCTURE NUMBER XXXX
EXISTING STORM SEWER STRUCTURE NUMBER XXXX	PROPOSED STORM SEWER STRUCTURE NUMBER XXXX

HATCH LEGEND

PROP MILL & OVERLAY

PROP FULL DEPTH ASPHALT

PROP CONCRETE

REPLACE & MATCH EXISTING DRIVEWAY OR LEADWALK. SEE CONSTRUCTION NOTES

DEMOLITION AREA

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

LEGEND

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

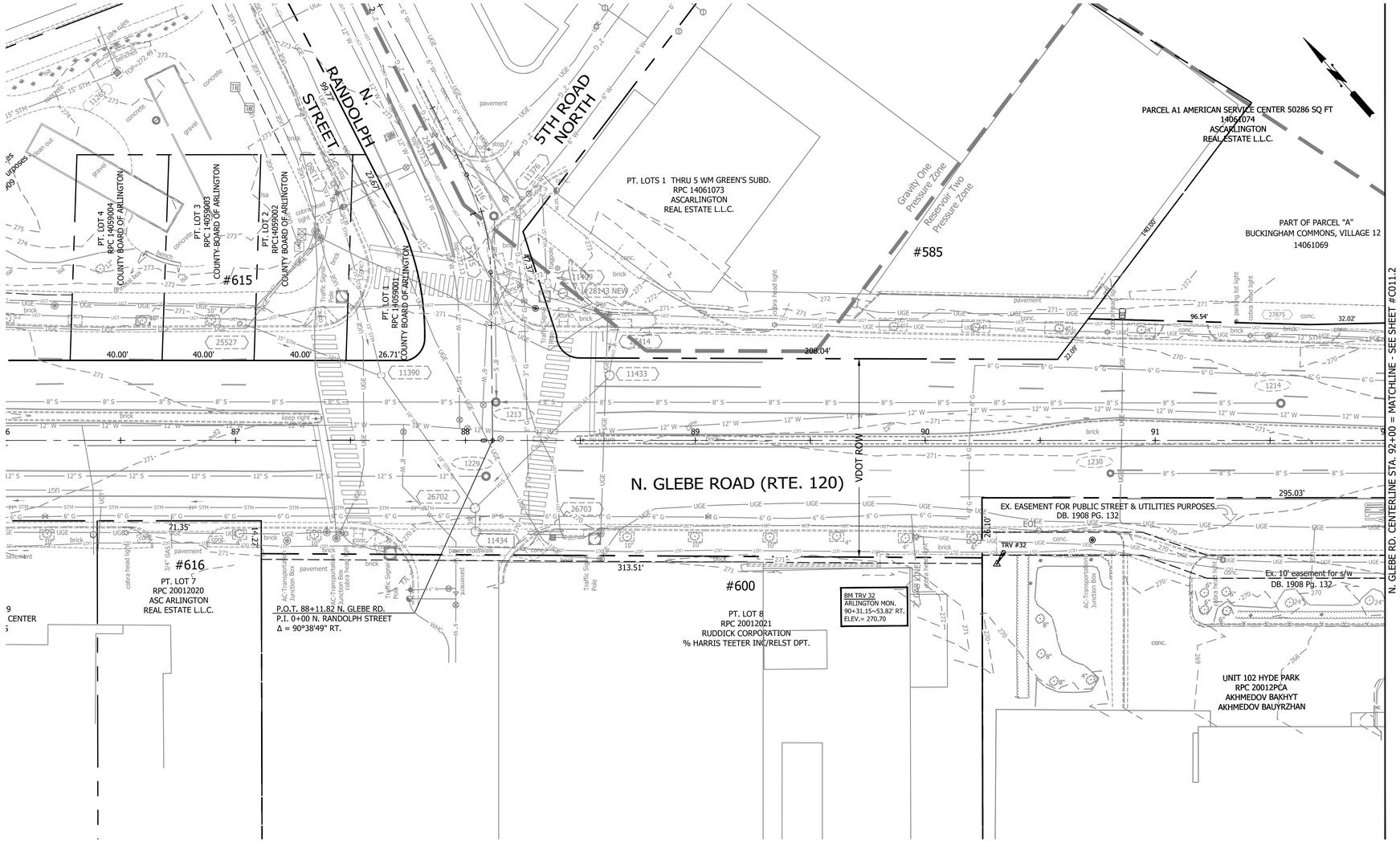
SCALE:

N/A

C006.1

FILENAME: R014-202-LEGEND.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018



GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA#20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

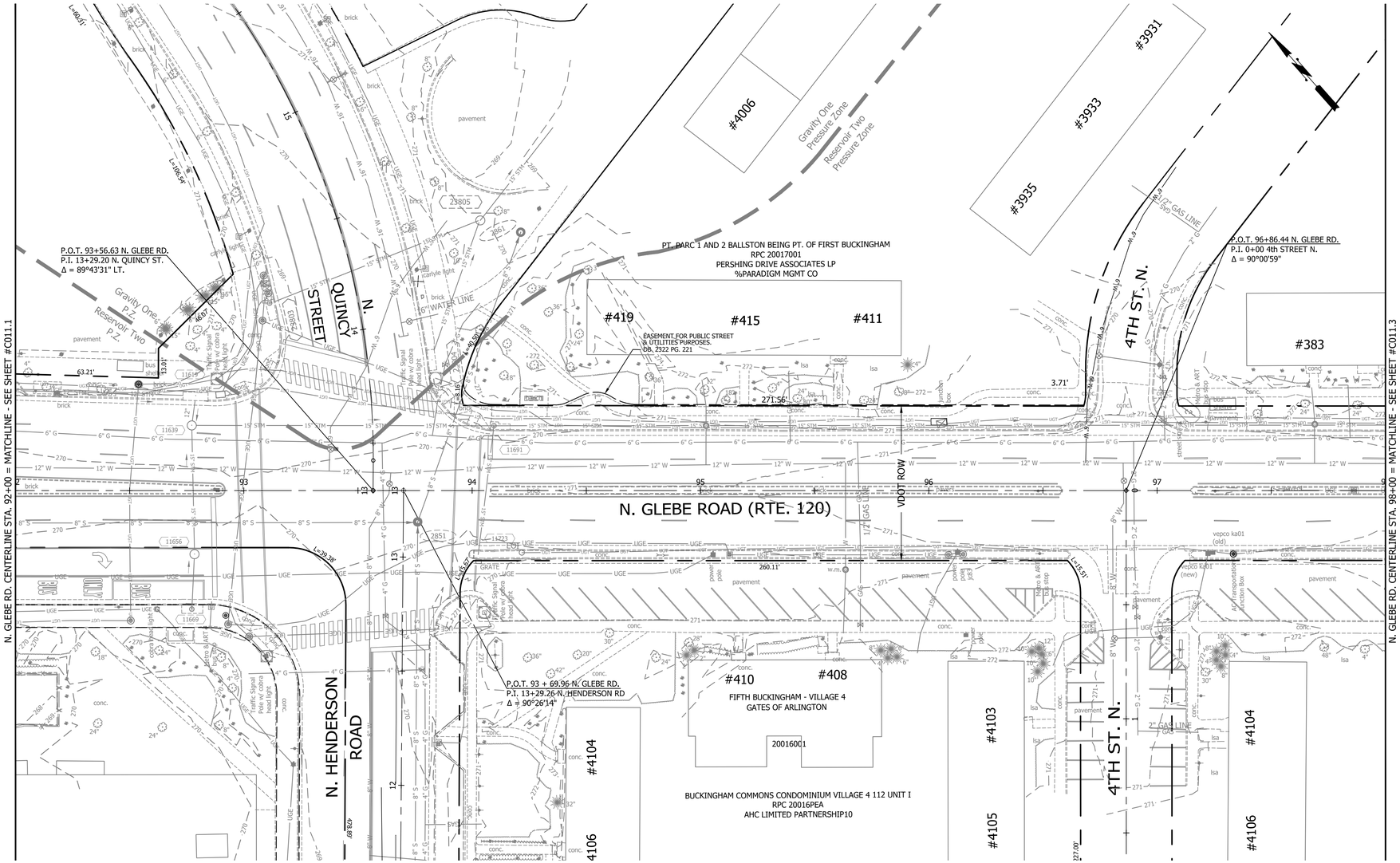
SCALE:

0 25 50
HORIZ. SCALE

C011.1

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018



GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA#20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT

R014

N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

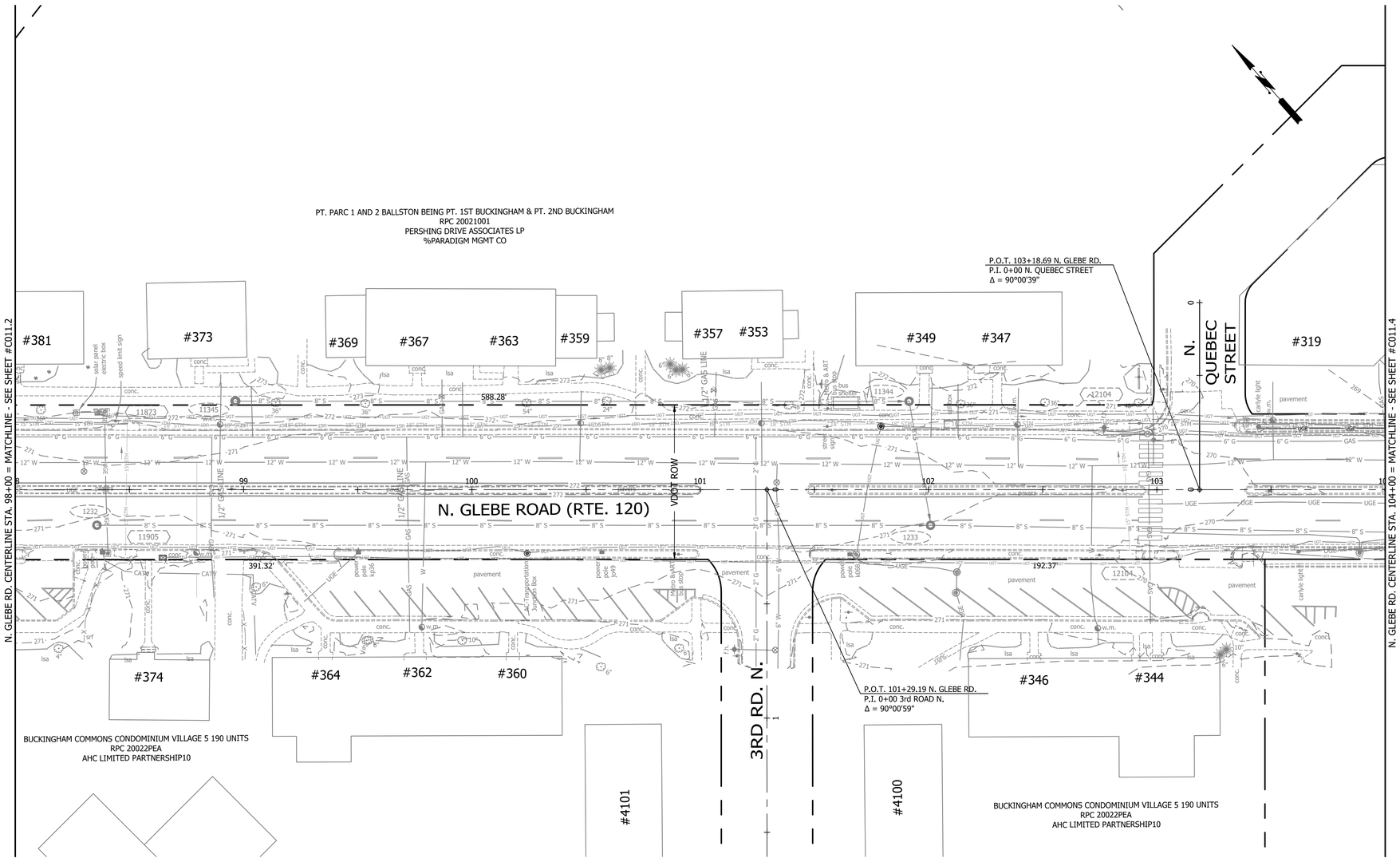
SCALE:

0 25 50
HORIZ. SCALE

C011.2

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018



STORM SEWER TABLE

#11376
TOP = 272.62
INV. IN = 268.17 15" RCP (11362)
INV. OUT = 267.97 15" RCP (11409)

#11380
TOP = 272.10
INV. OUT = 268.74 15" RCP (11390)

#11390
TOP = 270.51
INV. IN = 266.56 15" RCP (25527)
INV. IN = 266.61 15" RCP (11380)
INV. OUT = 266.51 18" RCP (26702)

#11409
TOP = 271.84
INV. IN = 267.89 15" RCP (25415)
INV. IN = 267.94 15" RCP (11376)
INV. OUT 267.84 15" RCP (#28143 NEW)

#11433
TOP = 270.19
INV. IN = 266.76 15" RCP (25414)
INV. OUT = 266.41 15" RCP (26702)

#11434
TOP = 269.83
INV. IN = 266.89 15" RCP (26703)
INV. OUT = 266.67 15" RCP (26702)

#11619
TOP = 269.92
INV. IN = 267.14 12" RCP (27875)
INV. OUT = 267.04 12" RCP (11619)

#11639
TOP = 269.64
INV. IN = No access 12" RCP (11619)
INV. IN = NO ACCESS 15" RCP (11656)
INV. OUT = 266.15 15" RCP (11691)

#11656
TOP = 269.63
INV. IN = 266.89 12" RCP (11669)
INV. OUT = 266.88 15" RCP (11639)

#11691
TOP = 270.40
INV. IN = 265.37 15" RCP (11639)
INV. IN = 266.38 15" RCP (11723)
INV. OUT = 265.33 15" RCP (11873)

#11669
TOP = 269.54
INV. OUT = 267.11 12" RCP (11656)

#11723
TOP = 270.32
INV. OUT = 266.61 15" RCP (11691)

#11873
TOP = 271.10
INV. IN = NEEDS CLEANING (11905)
INV. OUT = NEEDS CLEANING (12104)

#11905
TOP = 270.99
INV. ????

#12104
TOP = 270.51
INV. IN = 262.57 18" RCP (11873)
INV. IN = 263.65 15" RCP (12145)
INV. OUT = 262.66 18" RCP (12227)

#12145
TOP = 270.36
INV. OUT = 266.21 15" RCP (12104)

#12227
TOP = 267.74
INV. IN = 262.01 18" RCP (12104)
INV. OUT = 261.86 ?" ??? (28062 NEW)

#12230
TOP = 268.59
INV. IN = 263.57 15" RCP (#28482 NEW)
INV. OUT = 262.88 15" RCP (12227)

#12419
TOP = 263.30
INV. IN = 259.78 15" RCP (12438)
INV. INT = 258.93 24" RCP (NEW STR.)

#12438
TOP = 263.98
INV. OUT = 259.46 15" RCP (12419)

#23803
TOP = 269.25
INV. OUT = 266.55 15" RCP (23805)

#23804
TOP = 269.97
INV. OUT = 266.82 15" RCP (23805)

#23805
TOP = 269.82
INV. IN = 265.04 15" RCP (23803)
INV. IN = 265.10 15" RCP (23804)
INV. OUT = 264.99 15" RCP (23806)

#25413
TOP = 272.48
INV. OUT = 268.36 15" RCP (25415)

#25414
TOP = 270.31
INV. IN = 267.36 15" RCP (#28143 NEW)
INV. OUT = 266.53 15" RCP (11433)

#25415
TOP = 272.12
INV. IN = 267.04 15" RCP (25413)
INV. OUT = 267.01 15" RCP (11409)

#25527
TOP = 270.70
INV. OUT = 267.00 15" RCP (11390)

#26702
TOP = 270.15
INV. IN = 266.28 15" RCP (11434)
INV. IN = 266.20 15" RCP (11433)
INV. IN = 266.19 18" RCP (11390)
INV. OUT = 266.05 21" RCP (27404)

#26703
TOP = 270.40
INV. OUT = 267.00 15" RCP (11434)

#28143 NEW
TOP = 271.51
INV. IN = 267.66 15" RCP (11409)
INV. OUT = 267.61 15" RCP (#25414)

#27401
TOP = 270.96
INV. IN = 263.46 24" RCP (27404)
INV. IN = CAN'T ACCESS (11188)
INV. OUT = 263.31 24" RCP (28189 NEW)

#27402
TOP = 270.59
INV. IN = 263.03 24" RCP (#28189 NEW)
INV. IN = 264.24 18" RCP (11130)
INV. IN = 265.36 10" RCP (11206)
INV. OUT = 262.19 36" RCP (11143)

#27404
TOP = 271.35
INV. IN = 264.51 21" RCP (26702)
INV. OUT = 264.35 24" RCP (27401)

#28062 NEW
TOP=267.42
INV. IN = 261.80 18" RCP (12227)
INV. OUT = 261.71 24" RCP (12419)

#28189 NEW
TOP = 270.79
INV. IN = CAN'T OPEN (27401)
INV. OUT = CAN'T OPEN (27402)

#28482 NEW
TOP = 268.74
INV. OUT = 264.43 15" RCP (12230)

SANITARY SEWER TABLE

#1116
TOP = 272.26
C/L INV. = 261.44

#1211
TOP = 270.69
C/L INV. = 258.74

#1212
TOP = 271.60
C/L INV. = 259.12

#1213
TOP = 270.38
C/L INV. = 260.94

#1214
TOP = 270.13
C/L INV. = ALREADY HAVE

#1227
TOP = 270.66
C/L INV. = CAN'T OPEN

#1228
TOP = 271.57
C/L INV. = 262.61

#1229
TOP = 270.48
C/L INV. = 264.48

#1230
TOP = 270.69
C/L INV. = COULD NOT OPEN

#1232
TOP = 270.98
C/L INV. = 260.18

#1233
TOP = 270.96
C/L INV. = 257.88

#1234
TOP = 267.73
C/L INV. 257.09

#2850
TOP = 268.34
C/L INV. = 264.00

#2851
TOP = 270.19
C/L INV. = COULD NOT OPEN

#2861
TOP = 269.44
C/L INV. = 261.59

#11344
TOP = 271.50
C/L INV. = 259.35

#11345
TOP = 272.75
C/L INV. = 262.35

#13693
TOP = 270.67
C/L INV. = CAN'T OPEN

GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

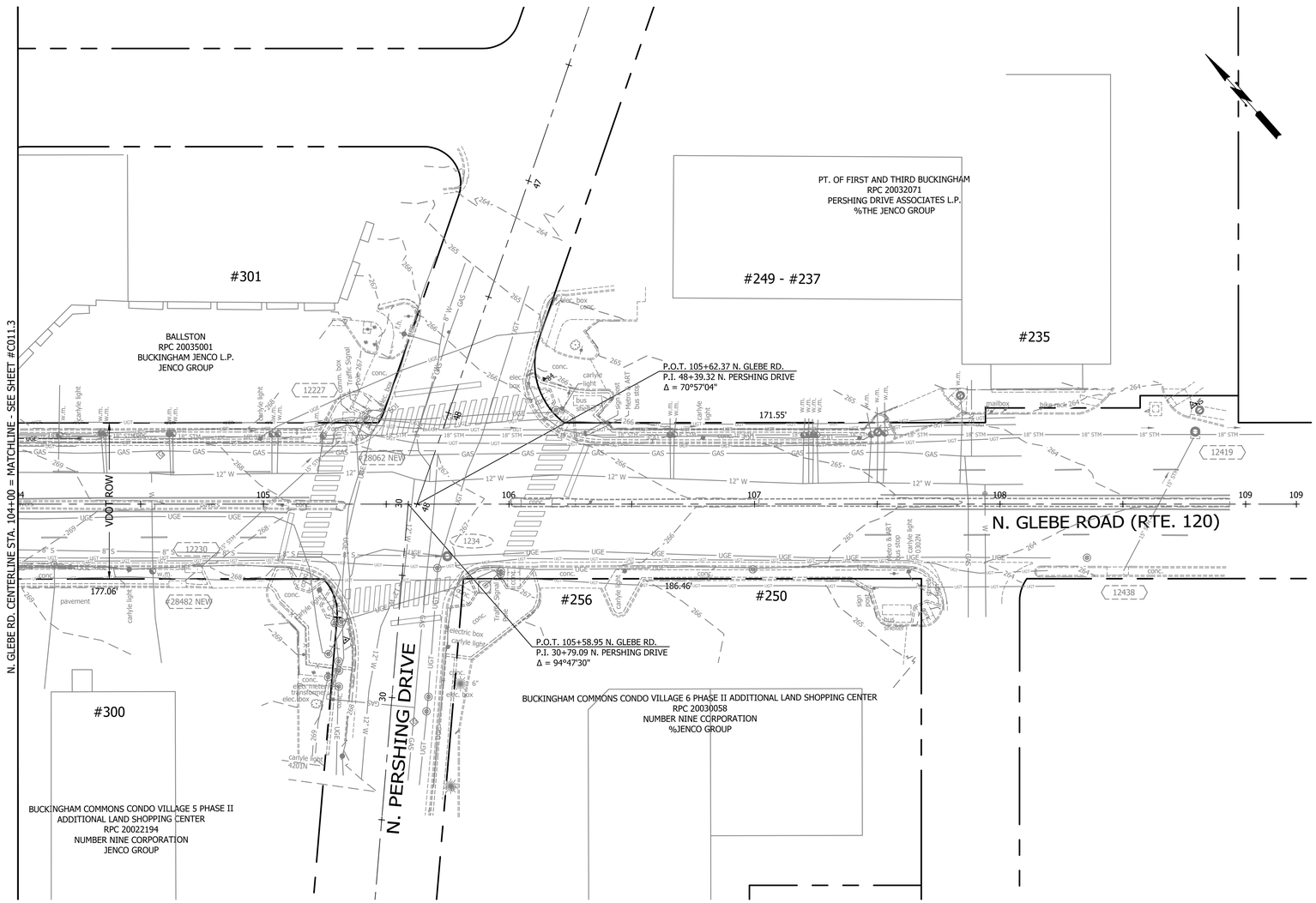
SCALE:

0 25 50
HORIZ. SCALE

C011.3

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018



GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2014 TO 07/2014 WITH A SUPPLEMENTAL SURVEY OBTAINED FROM 07/2018 TO 09/2018; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EXISTING CONDITIONS PLAN - 4

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

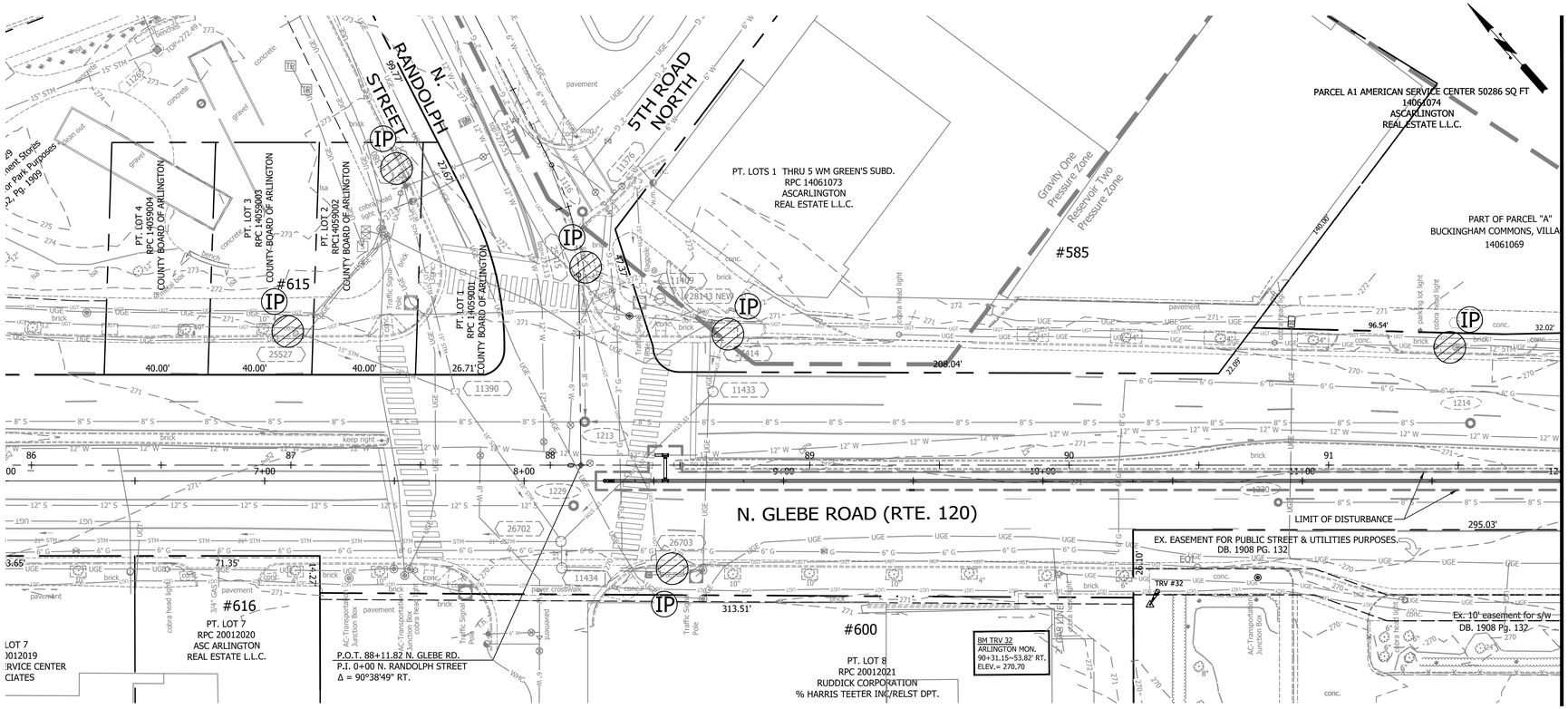
SCALE:

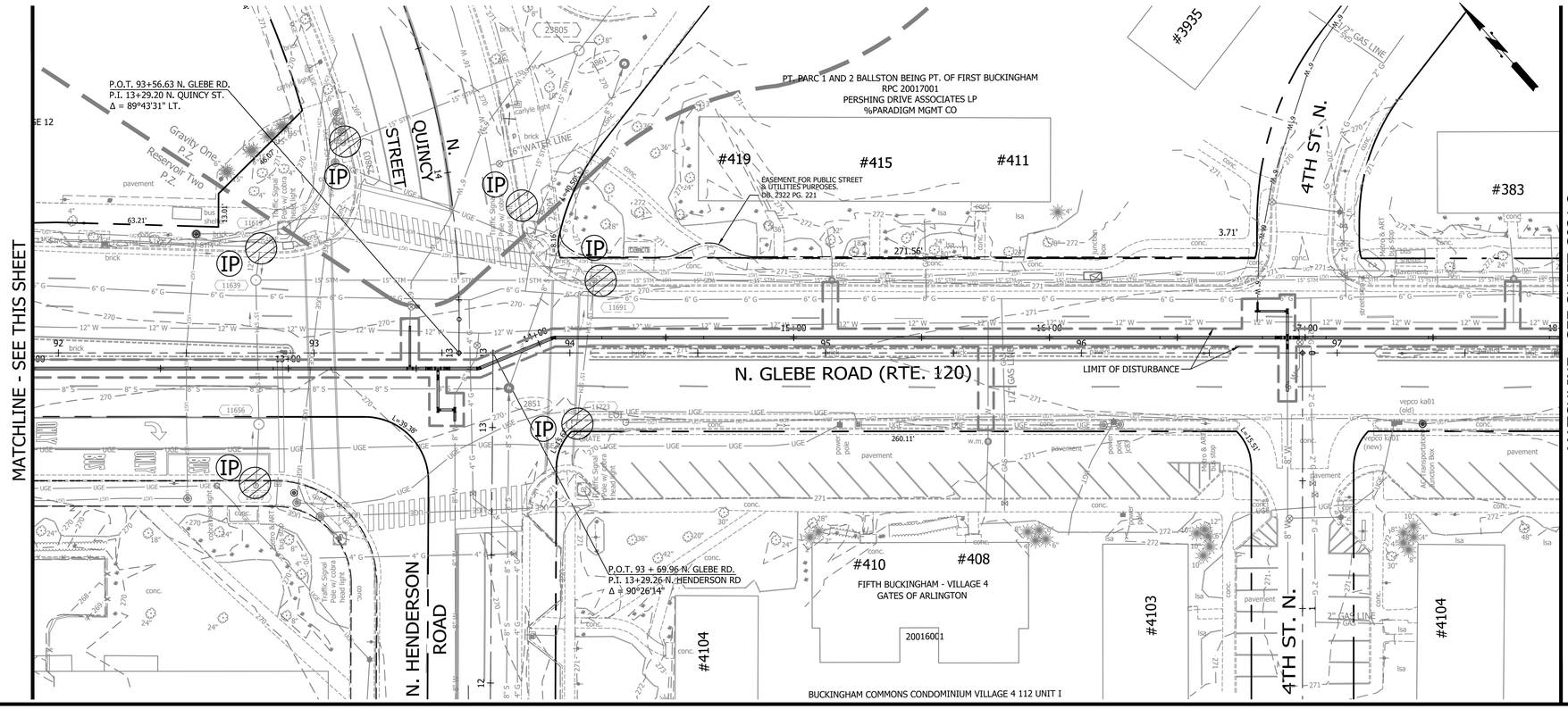
0 25 50
HORIZ. SCALE

C011.4

FILENAME: R014-214-EXISTING_CONDITIONS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018





ARLINGTON VIRGINIA
'Approved: 8/30/2020
Subject to field inspection
LDA220163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL PLAN - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

0 25 50
GRAPHIC SCALE

C031.1

FILENAME: R014-224-E_AND_S_PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

RPC 20021001
PERSHING DRIVE ASSOCIATES LP
%PARADIGM MGMT CO

MATCHLINE - SEE SHEET C031.1

#381 #373 #369 #367 #363 #359 #357 #353 #349 #347 #319

P.O.T. 103+18.69 N. GLEBE RD.
P.I. 0+00 N. QUEBEC STREET
Δ = 90°00'39"

N. QUEBEC STREET

588.28'

LIMIT OF DISTURBANCE

N. GLEBE ROAD (RTE. 120)

192.37'

#374 #364 #362 #360 #346 #344

3RD RD. N.

P.O.T. 101+29.19 N. GLEBE RD.
P.I. 0+00 3rd ROAD N.
Δ = 90°00'59"

#4101 #4100

BUCKINGHAM COMMONS CONDOMINIUM VILLAGE 5 190 UNITS
RPC 20022PEA
AHC LIMITED PARTNERSHIP10

BUCKINGHAM COMMONS CONDOMINIUM VILLAGE 5 190 UNITS
RPC 20022PEA

MATCHLINE - SEE THIS SHEET

PERSHING DRIVE ASSOCIATES L.P.
%THE JENCO GROUP

#301 #249 - #237 #235

BALLSTON
RPC 20035001
BUCKINGHAM JENCO L.P.
JENCO GROUP

P.O.T. 105+62.37 N. GLEBE RD.
P.I. 48+39.32 N. PERSHING DRIVE
Δ = 70°57'04"

171.55'

27+00

N. GLEBE ROAD (RTE. 120)

LIMIT OF DISTURBANCE

177.06'

186.46'

#256 #250

P.O.T. 105+58.95 N. GLEBE RD.
P.I. 30+79.09 N. PERSHING DRIVE
Δ = 94°47'30"

#300

N. PERSHING DRIVE

BUCKINGHAM COMMONS CONDO VILLAGE 5 PHASE II
ADDITIONAL LAND SHOPPING CENTER
RPC 20022194
NUMBER NINE CORPORATION
JENCO GROUP

BUCKINGHAM COMMONS CONDO VILLAGE 6 PHASE II ADDITIONAL LAND SHOPPING CENTER
RPC 20030058
NUMBER NINE CORPORATION
%JENCO GROUP

ARLINGTON VIRGINIA
'Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL PLAN - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

0 25 50
GRAPHIC SCALE

C031.2

FILENAME: R014-224-E_AND_S_PLAN.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:
THE COUNTY IS PROPOSING TO REPLACE THE EXISTING WATERMAIN TO 12-INCH DIAMETER WATERMAIN IN THE RIGHT OF WAY N. GLEBE ROAD, BETWEEN N. RANDOLPH RD AND N. PERSHING RD. THE EXISTING WATERMAIN WAS INSTALLED IN THE 1920s AND IS REQUIRED TO BE UPGRADED.

EXISTING SITE CONDITIONS:
THE NORTH GLEBE ROAD IS A PAVED URBAN OTHER PRINCIPAL ARTERIAL WITH A SPEED LIMIT OF 30 MPH. THERE ARE NO STREET PARKING EITHER ON BOTH SIDES OF N. GLEBE ROAD.

ADJACENT PROPERTIES:
THERE ARE COMMERCIAL/ RESIDENTIAL PROPERTIES ON BOTH SIDES OF N. GLEBE ROAD.

OFF-SITE AREAS:
THERE ARE NO OFFSITES AREAS FOR THIS PROJECT.

CRITICAL AREAS:
THERE ARE NO STEEP SLOPES OR CRITICAL AREAS LOCATED WITHIN THE LIMITS OF DISTURBANCE.

EROSION AND SEDIMENT CONTROL MEASURES:
THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA INCLUDE SAFETY FENCE AND INLET PROTECTION. INLET PROTECTION IS REQUIRED OUTSIDE THE PROJECT LIMITS WHEN/WHERE WATER FROM DISTURBED AREA FLOWS.

PERMANENT STABILIZATION:
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH GRASS, MULCH OR SOD. SEE THE PROPOSED PLANS FOR ADDITIONAL INFORMATION.

STORMWATER RUNOFF CONSIDERATIONS:
NO ADDITIONAL IMPERVIOUS AREA WILL BE ADDED TO THIS PROJECT.

TOTAL LAND DISTURBANCE......................= 17,680 SF (0.41 ACRE) LIMIT OF WORK WILL BE IN THE ROW
PRE-IMPROVEMENT IMPERVIOUS AREA.....= 17,680 SF (0.41 ACRE)
POST-IMPROVEMENT IMPERVIOUS AREA...= 17,680 SF (0.41 ACRES)
INCREASED IMPERVIOUS AREA.................= 0 SF (0 ACRES)

SOILS INFORMATION:
THE FOLLOWING SOILS ARE FOUND ON SITE (SEE SOILS MAP ON SHEET C032.2 FOR LOCATION)

SOIL#:	SOIL NAME:	HYDROLOGIC GROUP:	ERODABILITY:
4	URBAN LAND - SASSAFRAS - NEABSCO COMPLEX	B & C	MODERATE (4B)
12	URBAN LAND - UDORTHENTS COMPLEX	VARIABLE	VARIABLE

FLOODPLAIN AND RESOURCE PROTECTION AREA (RPA):
THERE ARE NO FLOODPLAIN OR RESOURCE PROTECTION AREAS LOCATED WITHIN THIS PROJECT SITE

EROSION & SEDIMENT CONTROL PROJECT PHASING

1. PHASE I:

a. PRE-CONSTRUCTION MEETING WITH THE PROJECT OFFICER, CONTRACTOR, AND COUNTY INSPECTOR.

b. INSTALL THE TEMPORARY CONSTRUCTION ENTRANCE (IF NEEDED) IN THE LOCATION SHOWN ON THE E&S PHASE I PLAN. MUD AND DEBRIS SHALL BE WASHED FROM ALL TRUCKS EXISTING THE SITE.

c. INSTALL PERIMETER TREE DEMARCATION FENCING IN THE FORM OF TREE PROTECTION FENCE (TP) AS SHOWN ON E&S PHASE I PLAN.

d. PERFORM INITIAL PERIMETER CLEARING TO INSTALL REMAINDER OF PERIMETER CONTROLS SUCH AS DIVERSION DIKE (DD), SILT FENCE (SF), AND SUPER SILT FENCE (SSF) AS PER THE PHASE I PLAN.

e. SEED AND MULCH ALL EARTHEN CONTROLS.

f. CONTACT ARLINGTON COUNTY PROJECT OFFICER FOR A PERIMETER INSPECTION PRIOR TO CLEARING THE REMAINDER OF THE SITE IN ORDER TO OBTAIN PHASE II GRADING PERMIT.

g. CLEAR THE SITE TO THE LIMITS AS SHOWN ON THE CONSTRUCTION PLANS.

2. PHASE II:

a. BEGIN UTILITY CONSTRUCTION, INSTALL ALL UTILITIES UNDERGROUND UTILITIES AND BEGIN SITE GRADING.

b. INLET PROTECTION (IP) SHALL BE PROVIDED AT STORM DRAIN INLETS AS THEY ARE CONSTRUCTED.

c. ONCE THE SITE IS BOUGHT TO NEAR FINAL GRADE, AND THE UTILITY CONSTRUCTION IS COMPLETE, COMMENCE CONSTRUCTION OF CURB & GUTTER, STREET, SIDEWALKS, AND OTHER IMPROVEMENTS

d. THE CONTROL MEASURES MAY NOT BE REMOVED UNTIL ALL OF THE DISTURBED AREAS HAVE BEEN STABILIZED AND ONLY AS APPROVED AND DIRECTED BY THE INSPECTOR.

RUNOFF SHALL BE TREATED WITH SILT FENCE AND INLET PROTECTION PRIOR TO ENTERING MAJOR STORM SEWER SYSTEMS.

EROSION AND SEDIMENT CONTROL MEASURES
UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE ARLINGTON COUNTY EROSION AND SEDIMENT CONTROL ORDINANCE. THE MINIMUM STANDARDS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

1. STRUCTURAL PRACTICES

a. TEMPORARY CONSTRUCTION ENTRANCE - VESCH 3.02

a.a. A TEMPORARY CONSTRUCTION ENTRANCE WITH A WASH RACK SHALL BE INSTALLED AT THE EXISTING ACCESS POINT TO THE SITE. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE RE-ENTERING THE LOCAL ROADWAYS.

a.b. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC WASHING OF THE MATS AND/OR REPLACEMENT OF WOOD CHIPS AS NECESSARY.

a.c. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

a.d. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED INTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.

b. SILT FENCE - VESCH 3.05

b.a. SILT FENCE WILL BE INSTALLED WITH THE E&S PLAN TO FILTER RUNOFF FROM DISTURBED AREAS. RUNOFF SHALL NOT BE DIRECTED PARALLEL TO THE INSTALLATION OF SILT FENCE.

b.b. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

b.c. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM UNDERCUTTING.

b.d. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, THE FABRIC SHALL BE REPLACED IMMEDIATELY.

b.e. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

b.f. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, THEN PREPARED AND SEEDED.

c. TEMPORARY DIVERSION DIKE - VESCH 3.09

c.a. A SYSTEM OF TEMPORARY DIKES, TO DIRECT FLOW INTO PROPOSED & EXISTING STORM SEWER STRUCTURES WILL BE INSTALLED AS INDICATED IN EROSION & SEDIMENT CONTROL PLAN.

c.b. THE STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.

d. STORM DRAIN INLET PROTECTION - VESCH 3.07

d.a. ALL EXISTING & PROPOSED STORM SEWER INLETS IN AND AROUND THE PROJECT LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.

d.b. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.

d.c. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

e. DEWATERING STRUCTURE - VESCH 3.26

e.a. SEDIMENT LADEN OR TURBID WATER SHALL BE FILTERED, SETTLED OR SIMILARLY TREATED PRIOR TO DISCHARGE.

e.b. THE FILTERING DEVICES MUST BE INSPECTED FREQUENTLY AND REPAIRED OR REPLACED ONCE THE SEDIMENT BUILD-UP PREVENTS THE STRUCTURE FROM FUNCTIONING AS DESIGNED.

e.c. THE ACCUMULATED SEDIMENT WHICH IS REMOVED FROM A DEWATERING DEVICE MUST BE SPREAD ON-SITE AND STABILIZED OR DISPOSED OF AT AN APPROVED DISPOSAL SITE AS PER THE APPROVED PLAN.

f. TREE PROTECTION - VESCH 3.38

f.a. ALL TREES ARE TO BE PROTECTED UNLESS OTHERWISE DIRECTED BY THE COUNTY INSPECTOR AND URBAN FORESTER. THE COUNTY'S URBAN FORESTER (703-228-1863) SHALL INSPECT ALL TREE PROTECTION 72 HOURS PRIOR TO THE START OF CONSTRUCTION. IN SPITE OF PRECAUTIONS, SOME DAMAGE TO PROTECTED TREES MAY OCCUR. IN SUCH CASES, THE FOLLOWING MAINTENANCE GUIDELINES SHALL BE FOLLOWED:

f.a.a. SOIL AERATION: IF THE SOIL HAS BECOME COMPACTED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHALL BE AERATED BY PUNCHING HOLES WITH AN IRON BAR. THE BAR SHALL BE DRIVEN 1-FOOT DEEP AND THEN MOVED BACK AND FORTH UNTIL THE SOIL IS LOOSENED. THIS PROCEDURE SHALL BE REPEATED EVERY 18 INCHES UNTIL ALL OF THE COMPACTED SOIL BENEATH THE CROWN OF THE TREE HAS BEEN LOOSENED.

f.a.b. REPAIR OF DAMAGE:

f.a.A.a. ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE RETAINED ON THE SITE SHALL BE REPAIRED IMMEDIATELY.

f.a.A.b. WHENEVER MAJOR ROOT OR BARK DAMAGE OCCURS, REMOVE SOME FOLIAGE TO REDUCE THE DEMAND FOR WATER AND NUTRIENTS.

f.a.A.c. DAMAGED ROOTS SHALL IMMEDIATELY BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA. CUT SURFACES SHALL BE PAINTED WITH APPROVED TREE PAINT, AND MOIST PEAT MOSS, BURLAP, OR TOPSOIL SHALL BE SPREAD OVER THE EXPOSED AREA.

f.a.A.d. TO TREAT BARK DAMAGE, CAREFULLY CUT AWAY ALL LOOSENED BARK BACK INTO THE UNDAMAGED AREA, TAPER THE CUT AT THE TOP AND BOTTOM, AND PROVIDE DRAINAGE AT THE BASE OF THE WOUND.

f.a.A.e. ALL TREE LIMBS DAMAGED DURING CONSTRUCTION OR REMOVED FOR ANY OTHER REASON SHALL BE CUT OFF ABOVE THE COLLAR AT THE PRECEDING BRANCH JUNCTION.

f.a.A.f. CARE FOR SERIOUS INJURIES SHALL BE PRESCRIBED BY A FORESTER OR A TREE SPECIALIST.

f.b. FERTILIZATION: BROADLEAF TREES THAT HAVE BEEN STRESSED OR DAMAGED SHALL RECEIVE A HEAVY APPLICATION OF FERTILIZER TO AID THEIR RECOVERY.

f.b.a. TREES SHALL BE FERTILIZED IN THE LATE FALL (AFTER OCTOBER 1) OR THE EARLY SPRING (FROM THE TIME FROST IS OUT OF THE GROUND UNTIL MAY 1). FALL APPLICATIONS ARE PREFERRED, AS THE NUTRIENTS WILL BE MADE AVAILABLE OVER A LONGER PERIOD OF TIME.

f.b.b. FERTILIZER SHALL BE APPLIED TO THE SOIL OVER THE FEEDER ROOTS. IN NO CASE SHALL IT BE APPLIED CLOSER THAN 3 FEET TO THE TRUNK. THE ROOT SYSTEM OF CONIFERS EXTENDS SOME DISTANCE BEYOND THE DRIP LINE. INCREASE THE AREA TO BE FERTILIZED BY ONE FOURTH THE AREA OF THE CROWN.

f.b.c. FERTILIZER SHALL BE APPLIED USING APPROVED FERTILIZATION METHODS AND EQUIPMENT.

f.b.d. FORMULATIONS AND APPLICATION RATES SHALL CONFORM TO THE GUIDELINES GIVEN IN TABLE 3.38-A OF VESCH.

2. VEGETATIVE PRACTICES

a. TOPSOILING (STOCKPILE) - VESCH 3.30

a.a. TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATIONS MAY HAVE TO BE LOCATED OFF-SITE AND ARE TO BE STABILIZED WITH TEMPORARY VEGETATION. PRIOR TO LAND-DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY E&S PLAN (IF THE STOCKPILE IS LOCATED OFF-SITE). THIS SUPPLEMENTAL PLAN WOULD HAVE TO BE APPROVED BY THE PLAN APPROVING AUTHORITY BEFORE ANY OFF-SITE ACTIVITY COMMENCES.

b. TEMPORARY SEEDING - VESCH 3.31

b.a. ALL DENUDED AREAS, WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.

b.b. SEE SHEET III-288 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) FOR ALLOWABLE PLANTING MATERIAL, SEEDING RATES, AND DATES. THE PLANTING REQUIREMENTS OF THE "SOUTH" SHALL BE FOLLOWED. LIMING SHALL BE BASED ON TABLE 3.31-A OF VESCH. FERTILIZERS SHALL BE APPLIED AS 600 LB/ACRE. THE FERTILIZER SHALL BE INCORPORATED INTO THE TOP 2-4" OF SOIL. SEED SHALL BE EVENLY APPLIED AND SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5" DEEP. SEEDING MADE IN FALL FOR WINTER COVER AND DURING HOT SUMMER MONTHS SHALL BE MULCHED.

c. EROSION CONTROL BLANKET AND MULCHING - VESCH 3.36 AND 3.35

c.a. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND TO ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS AND WILL BE APPLIED AS A SECOND STEP IN SEEDING OPERATION.

d. DUST CONTROL - VESCH 3.39

d.a. DUST SHALL BE CONTROLLED USING A VARIETY OF METHODS SUCH AS VEGETATIVE COVER, MULCH, TILLAGE, IRRIGATION, SPRAY-ON ADHESIVES, STONE BARRIERS, AND CALCIUM CHLORIDE. THE IMPLEMENTATION OF THE DUST CONTROL METHODS SHALL BE INSTALLED PER SECTION 3.39 OF VESCH

e. PERMANENT SEEDING - VESCH 3.32

e.a. SINCE THE SUBJECT SITE IS LOCATED WITHIN THE COASTAL PLAIN AREA OF VIRGINIA, SHEET III-304 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE FOLLOWED FOR FINAL SEEDING MATERIAL, SEEDING RATES, AND DATES OF APPLICATION.

f. SODDING - VESCH 3.33

f.a. SODDED AREAS SHALL BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLANS. SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR LIME AND FERTILIZER. PRIOR TO LAYING SOD, SOIL SURFACE SHALL BE CLEAR OF TRASH, DEBRIS AND LARGE OBJECTS. QUALITY OF SOD SHALL BE STATE CERTIFIED TO ENSURE GENETIC PURITY AND HIGH QUALITY. SOD SHALL NOT BE LAID ON FROZEN SOIL SURFACE, OR IN EXCESSIVELY WET OR DRY WEATHER. SOD SHALL BE DELIVERED AND INSTALLED WITHIN 36 HOURS, AND SHALL BE INSTALLED PER PAGE III-339 OF VESCH.

THE EROSION AND SEDIMENT CONTROL INSPECTOR SHALL HAVE THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS AS NEEDED IN THE FIELD. IN ADDITION, NO SEDIMENT TRAPS OR BASINS MAY BE REMOVED WITHOUT PRIOR APPROVAL OF THE INSPECTOR.

EROSION AND SEDIMENT CONTROL MANAGEMENT MEASURES

LANDSCAPE / TREE PRESERVATION NOTES
PRIOR TO ANY LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL CONTACT THE ARLINGTON COUNTY ARBORIST TO SCHEDULE AN INSPECTION.

LAND CONSERVATION NOTES:
1. NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
3. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 100 FEET ARE TO BE OPEN AT ANY ONE TIME.
4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILLING.
5. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
6. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION.
7. ANY DISTURBED AREA NOT COVERED BY NOTE 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOV. 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE AND OVER-SEEDED BY APRIL 15.
8. AT THE COMPLETION OF ANY PROJECT CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

EROSION & SEDIMENT CONTROL PROGRAM:
1. THE EROSION CONTROL PLAN IS INTENDED TO ESTABLISH ENTRANCES AND PERIMETER CONTROL MEASURES WHICH INCLUDES SILT FENCE (SF), INLET PROTECTION (IP), AND OTHER CONTROLS SPECIFIED ON THE PLANS.
2. WHERE CONSISTENT WITH JOB SAFETY REQUIREMENTS, ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. NO MATERIAL SHALL BE PLACED IN STREAMBEDS. ANY STOCKPILED MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 7 DAYS SHALL BE SEEDED AND MULCHED. WHEN SPOIL IS PLACED ON THE DOWNHILL SIDE OF TRENCH, IT SHALL BE BACKSLOPED TO DRAIN TOWARD THE TRENCH. WHEN NECESSARY TO DEWATER THE TRENCH, THE PUMP DISCHARGE HOSE SHALL OUTLET IN A STABILIZED AREA OR A SEDIMENT TRAPPING DEVICE.
3. ALL PRACTICES AND CONTROL DEVICES DESCRIBED HEREIN SHALL CONFORM TO THE CURRENT VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). IN ADDITION, THE CONTRACTOR SHALL TAKE THE FOLLOWING STEPS TO MINIMIZE THE VOLUME OF SILT:
   a. CONTRACTOR SHALL EVALUATE THE SITE TO DETERMINE EXTENSIVE CUT AND FILL AREAS, AND SHALL WORK THOSE AREAS TO MINIMIZE THE USE OF HEAVY EQUIPMENT. CONTRACTOR SHALL BRING DISTURBED AREAS TO GRADE (ROUGH OR FINISHED) AND STABILIZE THOSE AREAS WITH TEMPORARY OR PERMANENT VEGETATION. THESE DISTURBED AREAS SHALL BE STABILIZED PRIOR TO BEGINNING WORK IN ANOTHER AREA.
   b. FILL AREAS SHALL BE COMPACTED COMPLETELY PRIOR TO THE END OF EACH WORK DAY. FILL SLOPE SURFACES SHALL BE KEPT ROUGH TO REDUCE SHEET EROSION OF THE SLOPES. CONTRACTOR SHALL RE-DIRECT CONCENTRATED RUNOFF, BY EARTH BERMS OR OTHER DEVICES, AROUND ACTIVELY DISTURBED AREAS TO STABILIZED OUTLETS.
   c. CUT SLOPES SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS (ABOVE THE SLOPE) AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.
4. MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. THE INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND/OR THE APPROVAL OF THE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA AND CHAPTER 57 OF THE ARLINGTON COUNTY CODE.
5. ALL AREAS, ON OR OFF-SITE, THAT ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS SEED MIXTURE OR SOD THAT IS INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. ALL SLOPES 3:1 AND GREATER SHALL BE RECEIVE SOIL STABILIZATION IN ACCORDANCE WITH THE SPECIFICATIONS.
6. WHERE STREAM CROSSINGS ARE REQUIRED FOR EQUIPMENT, TEMPORARY CULVERTS SHALL BE PROVIDED.
7. FOR FURTHER REQUIREMENTS AND DETAILS OF TREE PRESERVATION, PLANTING, EROSION AND SEDIMENT CONTROL, SEE COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

GENERAL EROSION AND SEDIMENT CONTROL NOTES
1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN THE AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
9. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
10. ALL BIOFILTERS SHALL BE KEPT OFF-LINE UNTIL CONSTRUCTION IS COMPLETED AND ALL AREAS HAVE BEEN PROPERLY STABILIZED. THIS SHALL BE ACHIEVED BY USING INLET PROTECTION AT THE CURB CUTS AND STORMWATER CATCH BASINS LEADING DIRECTLY INTO THE BIOFILTERS.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

PRE-STORM EROSION & SEDIMENTATION CHECKLIST:
PER GENERAL EROSION AND SEDIMENT CONTROL NOTE 6, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL (ESC) MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE COUNTY. THESE SUPPLEMENTARY PRACTICES ARE IN ADDITION TO THOSE SHOWN IN AN EROSION AND SEDIMENT CONTROL PLAN. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MODIFIED AS NEEDED TO ENSURE ONLY CLEAR WATER IS DISCHARGED FROM THE SITE.

THE FOLLOWING ACTIONS SHALL BE TAKEN PRIOR TO STORM EVENTS WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL TO PREVENT SEDIMENT DISCHARGES FROM A CONSTRUCTION SITE. A TYPICAL SUMMER THUNDERSTORM IS AN EXAMPLE OF A STORM EVENT WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL.

1. PERIMETER CONTROLS
   a. SILT FENCE SHALL BE CHECKED FOR UNDERMINING, HOLES, OR DETERIORATION OF THE FABRIC. FENCING SHALL BE REPLACED IMMEDIATELY IF THE FABRIC IS DAMAGED OR WON. SILT FENCE MUST BE TRENCHED INTO THE GROUND PER STATE SPECIFICATIONS (VESCH STD & SPEC 3.09).
   b. WOODEN STAKES OR STEEL POSTS SHALL BE PROPERLY SECURED UPRIGHT INTO THE GROUND. DAMAGED POSTS OR STAKES MUST BE REPLACED.
   c. SEDIMENT THAT HAS ACCUMULATED AGAINST THE SILT FENCE SHALL BE REMOVED. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE LEVEL REACHES ONE-HALF THE HEIGHT OF THE FENCING.
   d. HAY BALES OR A STONE BERM SHALL BE PLACED ACROSS THE CONSTRUCTION ENTRANCE TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
2. EXPOSED SLOPES AND SOIL
   a. EXPOSED SLOPES NOT AT THE FINAL STABILIZATION PHASE SHALL BE COVERED WITH TARPS, PLASTIC SHEETING, OR EROSION CONTROL MATTING. COVERING MATERIAL SHALL BE PROPERLY SECURED/ANCHORED.
   b. CONTROLS SHALL BE INSTALLED TO PREVENT CONCENTRATED FLOW DOWN AN EXPOSED SLOPE. BERMS OR DIVERSION DIKES SHALL BE INSTALLED AT THE TOP OF CUT/EXPOSED SLOPES TO DIRECT STORM FLOW AROUND THE DISTURBED AREA.
   c. EXPOSED SLOPES AT THE FINAL STABILIZATION PHASE SHALL BE STABILIZED USING SLOPE STABILIZATION PRACTICES SUCH AS SOIL STABILIZATION BLANKETS OR MATTING AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH STD & SPEC 3.36). BLANKETS OR MATS MUST BE PROPERLY SECURED AND ANCHORED TO THE SLOPE USING STAPLES, PINS, OR STAKES.
   d. SEEDED AREAS SHALL BE CHECKED AND RESEEDED AS NECESSARY TO COVER EXPOSED SOIL. RECENTLY SEEDED AREAS SHALL BE PROTECTED BY STRAW OR SOIL STABILIZATION BLANKETS TO PREVENT SEEDING FROM BEING WASHED AWAY.
3. STOCKPILES
   a. STOCKPILED SOIL AND OTHER LOOSE MATERIALS THAT CAN BE WASHED AWAY SHALL BE COVERED WITH A TARP, PLASTIC SHEETING, OR OTHER STABILIZATION MATTING. THE COVER MUST BE PROPERLY SECURED/ANCHORED DOWN TO PREVENT IT FROM BEING BLOWN OFF AND EXPOSING MATERIALS TO RAIN. CONTROLS SUCH AS HAY BALES OR BOOMS SHALL BE PLACED ALONG THE PERIMETER OF THE STOCKPILE (DOWNHILL SIDE).
4. INLET PROTECTION
   a. INLET PROTECTION CONTROLS SHALL BE INSPECTED TO ENSURE THEY ARE FUNCTIONING PROPERLY AND FLOODING WILL NOT OCCUR. CLOGGED OR DAMAGED CONTROLS MUST BE REPLACED IMMEDIATELY. ENSURE CONTROLS ALLOW FOR OVERFLOW/BYPASS OF STORMWATER RUNOFF DURING SIGNIFICANT STORM EVENTS.

IN ADDITION TO THESE PRE-STORM ACTIONS, ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES MUST BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.

POLLUTION PREVENTION PLAN NOTES (STORMWATER MANUAL - SECTION 2.4)
1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS:
   a. WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIREFIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
2. APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (E.G., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S MS4 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.
3. PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

UTILITY INSTALLATION:
UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
1. NO MORE THAN 100 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
2. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
3. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
4. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
5. STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
6. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
9. ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED NO LATER THAN MAY 15TH.
10. AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. ARLINGTON COUNTY INSPECTOR TO APPROVE REMOVAL OF ALL TEMPORARY SILTATION MEASURES.

MAINTENANCE PROGRAM:
THE FOLLOWING IS A PROGRAM OF MAINTENANCE FOR THE MECHANICAL CONTROLS SPECIFIED IN THIS NARRATIVE AND ON THE PLAN:
1. THE SITE SUPERINTENDENT OR HIS/HER REPRESENTATIVE SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREA (I.E. SEEDED AND MULCHED AND/OR SODDED AREAS) ON A DAILY BASIS; ESPECIALLY AFTER A HEAVY RAINFALL EVENT TO ENSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. ANY DAMAGED CONTROLS SHALL BE REPAIRED PRIOR TO THE END OF THE WORK DAY INCLUDING RE-SEEDING AND MULCHING OR RE-SODDING IF NECESSARY.
2. ALL SEDIMENT TRAPPING DEVICES SHALL BE CLEARED OUT AT 50% TRAP CAPACITY AND THE SEDIMENT SHALL BE DISPOSED OF BY SPREADING ON THE SITE OR IF NOT SUITABLE FOR FILL, HAULING AWAY AND DEPOSITING AT AN ACCEPTABLE DUMP SITE.
3. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PREVENT MUD AND/OR OTHER DEBRIS FROM BEING ENTERED ONTO EXISTING SWM/BMP FACILITIES OR DOWNSTREAM WATER WAYS. SHOULD OFF-SITE AREAS BECOME POLLUTED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE AFFECTED AREAS TO THE SATISFACTION OF THE INSPECTOR.
4. AT THE COMPLETION OF CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ANY REMAINING DENUDED AREAS SHALL BE STABILIZED. CERTAIN DEVICES MAY BE REMOVED PRIOR TO CONSTRUCTION COMPLETION BUT ONLY WITH THE APPROVAL OF THE COUNTY INSPECTOR.
5. AFTER CONSTRUCTION OPERATIONS HAVE ENDED, ALL DISTURBED AREAS SHALL BE STABILIZED. UPON APPROVAL OF THE COUNTY INSPECTOR, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED AND THE GROUND PERMANENTLY STABILIZED WITH VEGETATION WITHIN 30 DAYS.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL NOTES

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

N/A

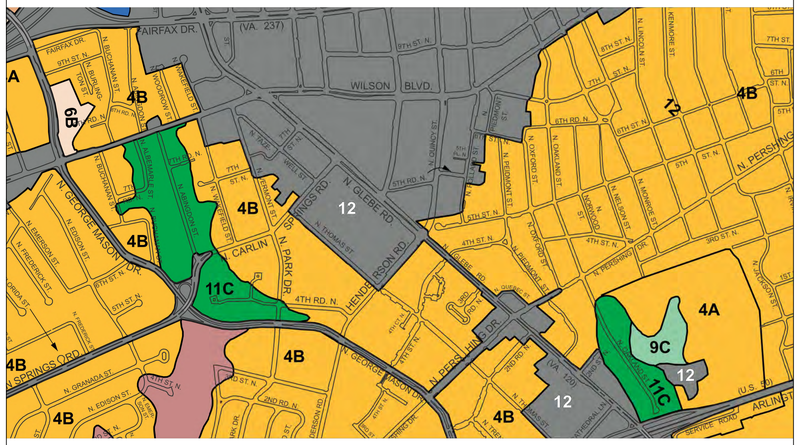
C032.1

FILENAME: R014-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

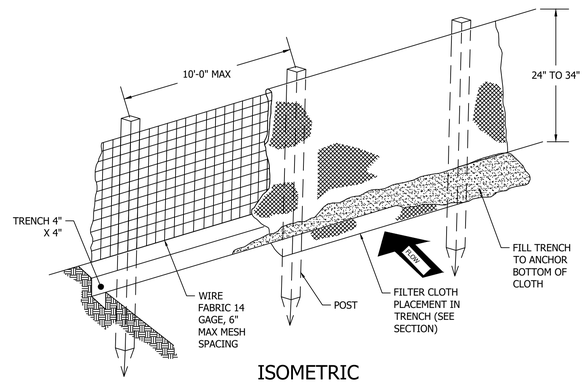
REVISED ON 05/23/2018

HYDROLOGIC SOILS MAP

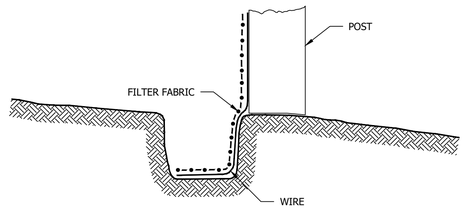
(N.T.S.)



ISOMETRIC

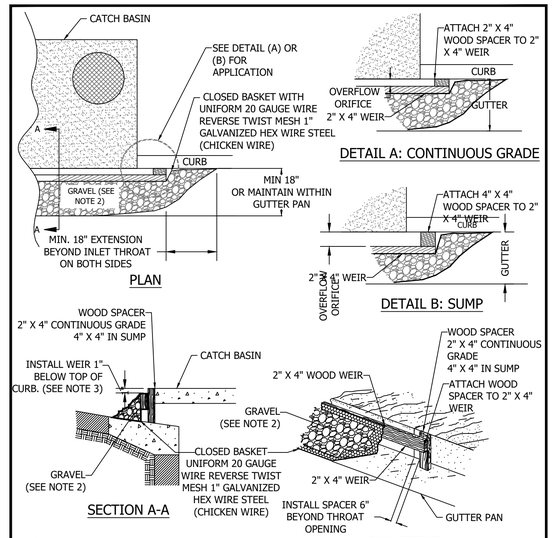


SECTION



MODIFIED-VESCH 3.05

SILT FENCE — NOT TO SCALE



NOTES

1. DIMENSIONAL LUMBER SIZES SHOW.
2. GRAVEL SHALL BE VDOT COARSE AGGREGATE #3, # 357 OR #5.
3. WEIR HEIGHT MAY BE ADJUSTED BY PROJECT OFFICER OR INSPECTOR IN FLOOD PRONE AREAS.
4. PAINT 2"X4" WEIR, CLOSED BASKET, AND GUTTER WITH HIGH VISIBILITY INCANDESCENT ORANGE PAINT.
5. REMOVE SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE THE PROTECTION.

CURB INLET PROTECTION

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. 3.07-7 (ACG)

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS — DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS — DATE

July 1, 2020
date

Qianqian Li, P.E.
ESC Program Administrator
Department of Environmental Sevices
2100 Clarendon Boulevard, Suite 813
Arlington, Virginia 22201

Re: Erosion and Sediment Control Permit Application for:

N. Glebe Road Water Main Replacement
street address

From N Randolph St to N Pershing Dr
lot, block, section subdivision

permit number

Dear Mrs. Li:

I hereby certify that I accept the responsibilities of Responsible Land Disturber for the above referenced project. I understand that these responsibilities include:

1. Reviewing the erosion and sedimentation (E&S) plan for the project.
2. Walking the site prior to construction to identify critical areas.
3. Conducting a pre-construction briefing with earth moving and site contractors to present the E&S plan and highlight the presence of critical areas, the limits of clearing and the required E&S controls and tree protection measures to be installed. Call 703-228-0760 to schedule pre-construction meeting.
4. Regularly inspecting the site during construction to ensure that all E&S controls are functioning and are adequate to address erosion and sedimentation. Inspect the site 48 hours after a runoff-generating storm, and provide a copy of the inspection findings to the county.
5. Reporting to the owner the presence inadequate or non functioning E&S controls when they are observed.
6. Ensuring that temporary soil stabilization is applied within 7 days to areas denuded that will remain undisturbed for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
7. Calling (703) 228-0760 at least 80 hours before demolishing any structure.

I may be reached at 703-228-3654 with questions about this plan or my execution of the duties of
telephone number
Responsible Land Disturber.

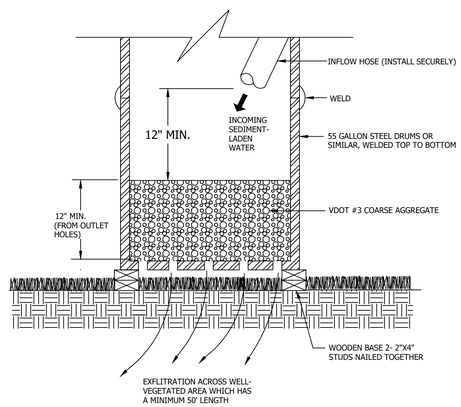
Sincerely,

signed

Solomon Shikur
name printed

VA PE #44276
professional registration (type and number)

FILTER BOX



ELEVATION VIEW

SOURCE: VA. DSWC — PLATE: 3.26-2

EROSION AND SEDIMENT CONTROL LEGEND

3.05	TEMPORARY SILT FENCE	SF	—X—X—
3.07	STORM DRAIN INLET PROTECTION	IP	
3.26	DEWATERING STRUCTURE	DS	

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL NOTES AND DETAILS - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

AS SHOWN

C032.2

FILENAME: R014-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

Spill Prevention & Response
Most spills can be cleaned up following manufacturer specifications. The priority should be to protect all people, equipment, property, and the environment. Enter the telephone number of your local fire and police departments.

Most spills can be cleaned up using a spill kit. Absorbent/oil dry, sealable containers, plastic bags, and shovels/brooms are suggested minimum spill response items that should be available at the project site.

1st Priority: Protect all people
2nd Priority: Protect equipment and property
3rd Priority: Protect the environment

1. Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave the area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.
2. Ensure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
3. Stop the spill source.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers.
5. If possible, stop spill from spreading and/or entering storm drains (use absorbent or other materials as necessary).
6. If spilled material has entered a storm drain; contact Arlington County Fire Department and project manager.
7. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials and do not flush area with water.
8. Properly dispose of cleanup materials and used absorbent material according to manufacturer specifications.

Emergency Contacts:

Local Contacts

Arlington County Fire & Police	703-558-2222
DES Water, Sewer, Streets 24-Hour Emergency	703-228-6555
Washington Gas Emergency	703-750-1400

Nights, Holidays & Weekends

VA Dept. of Emergency Management	804-674-2400
24 Hour Reporting Service	

Spill kit on site: ☐ Yes ☐ No

Location(s) of spill kit: _____

Potential Sources of Pollution & Pollution Prevention Practices
Identify the pollutant-generating activities likely to be present at the project site; implement and maintain the corresponding pollution prevention practices. If an unlisted pollutant-generating activity is likely to be present at the project site, describe it, identify the associated pollutant(s), and provide the corresponding pollution prevention practice(s) to be implemented and maintained.

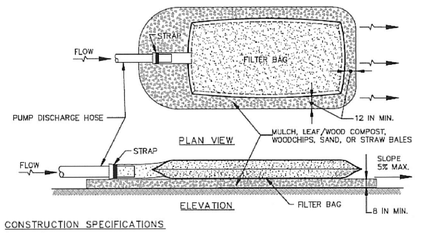
Pollutant-Generating Activity	Likely Present at your Project Site?	Pollutants: Sediment	Nutrients	Heavy Metals	pH (acids and bases)	Pesticides & Herbicides	Oil & Grease	Bacteria & Viruses	Trash, Debris, Solids	Other Toxic Chemicals	Pollution Prevention Practice	Responsible Party
Clearing, grading, excavating, and un-stabilized areas	☐ Yes ☒ No	X	X						X		(1)	Construction Activity Operator (See Cover Page of this SWPPP)
Paving and saw cutting operations	☒ Yes ☐ No	X					X		X		(2)	
Concrete operations, washout, and cement waste	☐ Yes ☒ No			X	X				X		(3)	
Washing / cleaning	☒ Yes ☐ No	X	X	X	X		X		X	X	(4)	
Dewatering operations	☒ Yes ☐ No	X	X						X		(5)	
Material / chemical use and storage	☒ Yes ☐ No	X	X	X	X	X	X		X	X	(6)	
Equipment and vehicle maintenance	☒ Yes ☐ No				X		X		X	X	(7)	
Waste management / disposal	☒ Yes ☐ No								X	X	(8)	
Sanitary waste	☒ Yes ☐ No		X		X			X			(9)	
Nutrient management	☐ Yes ☒ No	X	X						X	X	(10)	

Authorized Non-Stormwater Discharges
Identify the authorized non-stormwater discharges likely to be present at the project site. If an unlisted authorized non-stormwater discharge is likely to be present at the project site, provide it here.

Type of Authorized Non-Stormwater Discharges	Likely Present at Your Project Site?	
Uncontaminated excavation dewatering	☐ Yes	☒ No
Landscape irrigation	☐ Yes	☒ No
Others [describe]	☐ Yes	☒ No

Filter Bag

The Maryland Standard F-4 for a filter bag is provided as an acceptable option for use in Arlington County if straw bales or stone are used as the layer under the filter bag. The use of mulch, leaf/wood compost, woodchips or sand is not acceptable.

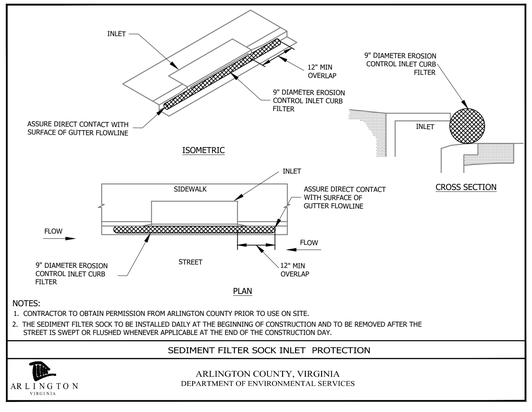


CONSTRUCTION SPECIFICATIONS

1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT²	ASTM D-4491
PERMITTIVITY (SEC⁻¹)	1.2 SEC⁻¹	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15–0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.



NOTES:
1. CONTRACTOR TO OBTAIN PERMISSION FROM ARLINGTON COUNTY PRIOR TO USE ON SITE.
2. THE SEDIMENT FILTER SOCK TO BE INSTALLED DAILY AT THE BEGINNING OF CONSTRUCTION AND TO BE REMOVED AFTER THE STREET IS SWEPT OR FLUSHED WHENEVER APPLICABLE AT THE END OF THE CONSTRUCTION DAY.

SEDIMENT FILTER SOCK INLET PROTECTION

ARLINGTON VIRGINIA
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ARLINGTON VIRGINIA
ARLI Approved: 8/30/2020
Subject to field inspection
LDA20163
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

EROSION & SEDIMENT CONTROL NOTES AND DETAILS - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

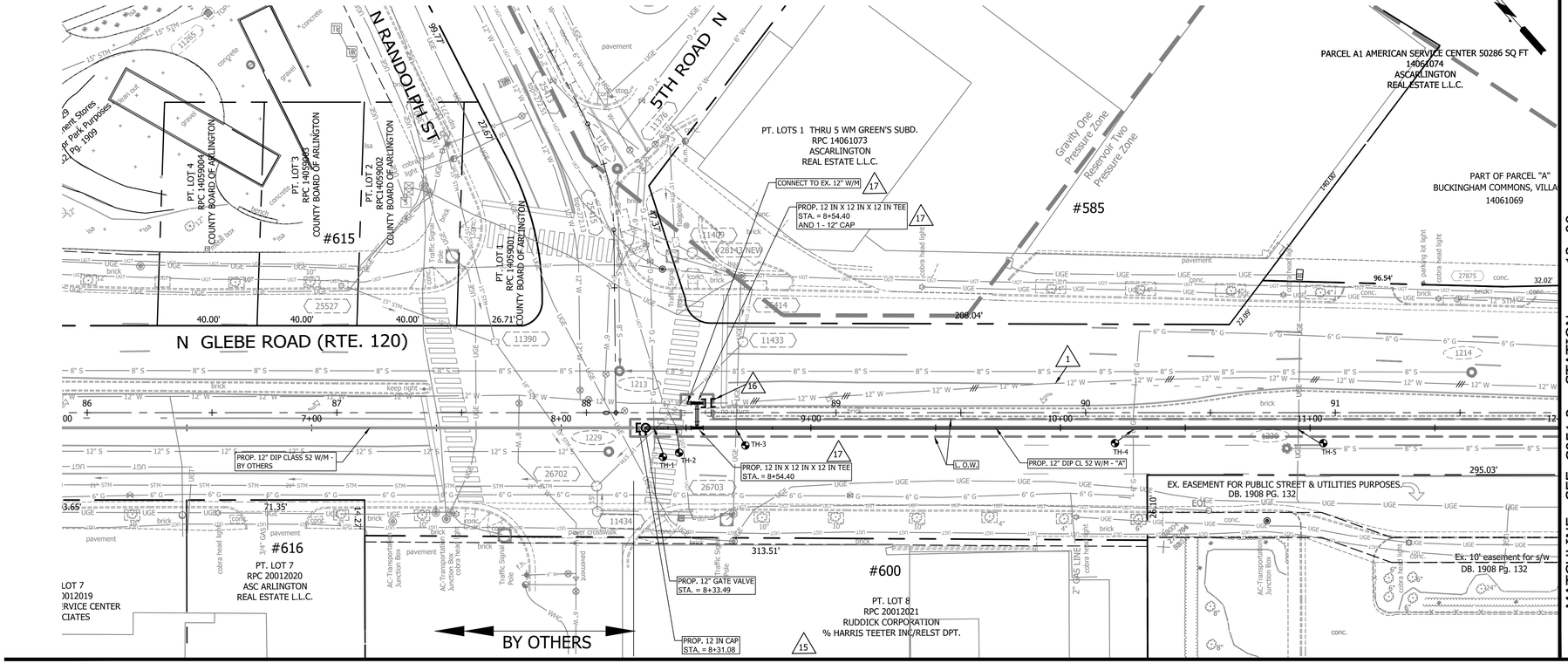
PLOTTED: AUGUST 4 2020

SCALE:

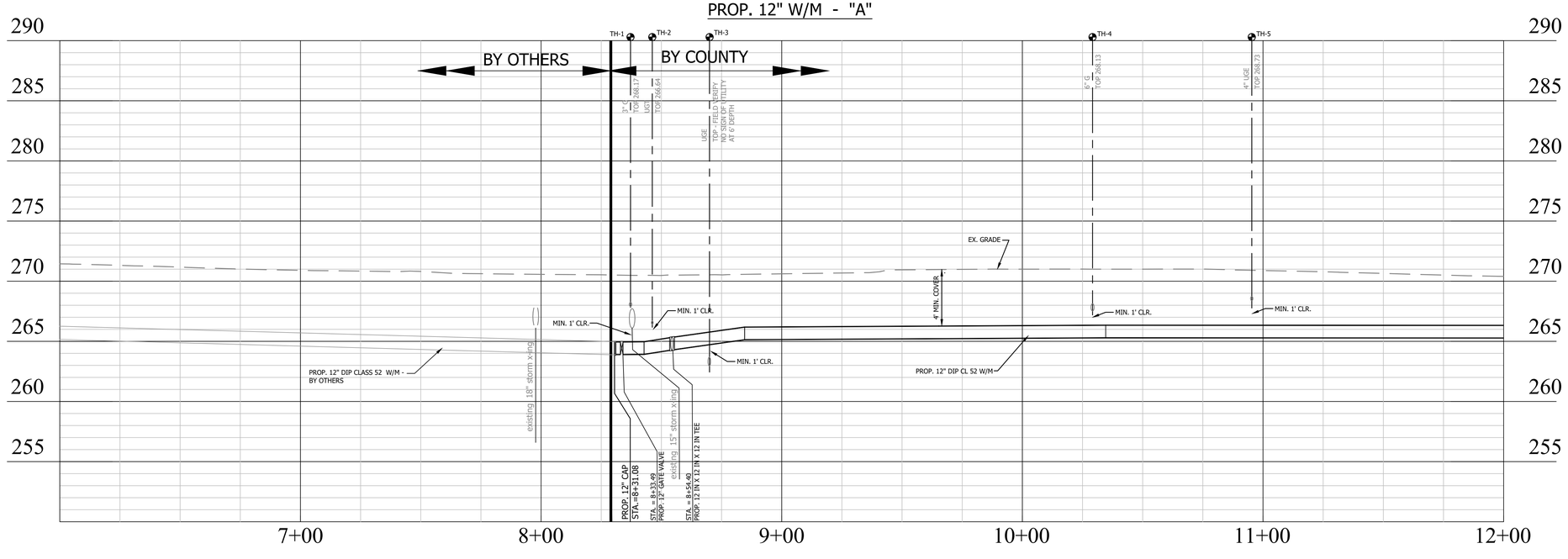
AS SHOWN

C032.3

REVISED ON 05/23/2018



PROP. 12" W/M - "A"



WATERMAIN CONSTRUCTION NOTES:

1. INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
'Approved: 8/30/2020
Subject to field inspection
LDA220163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

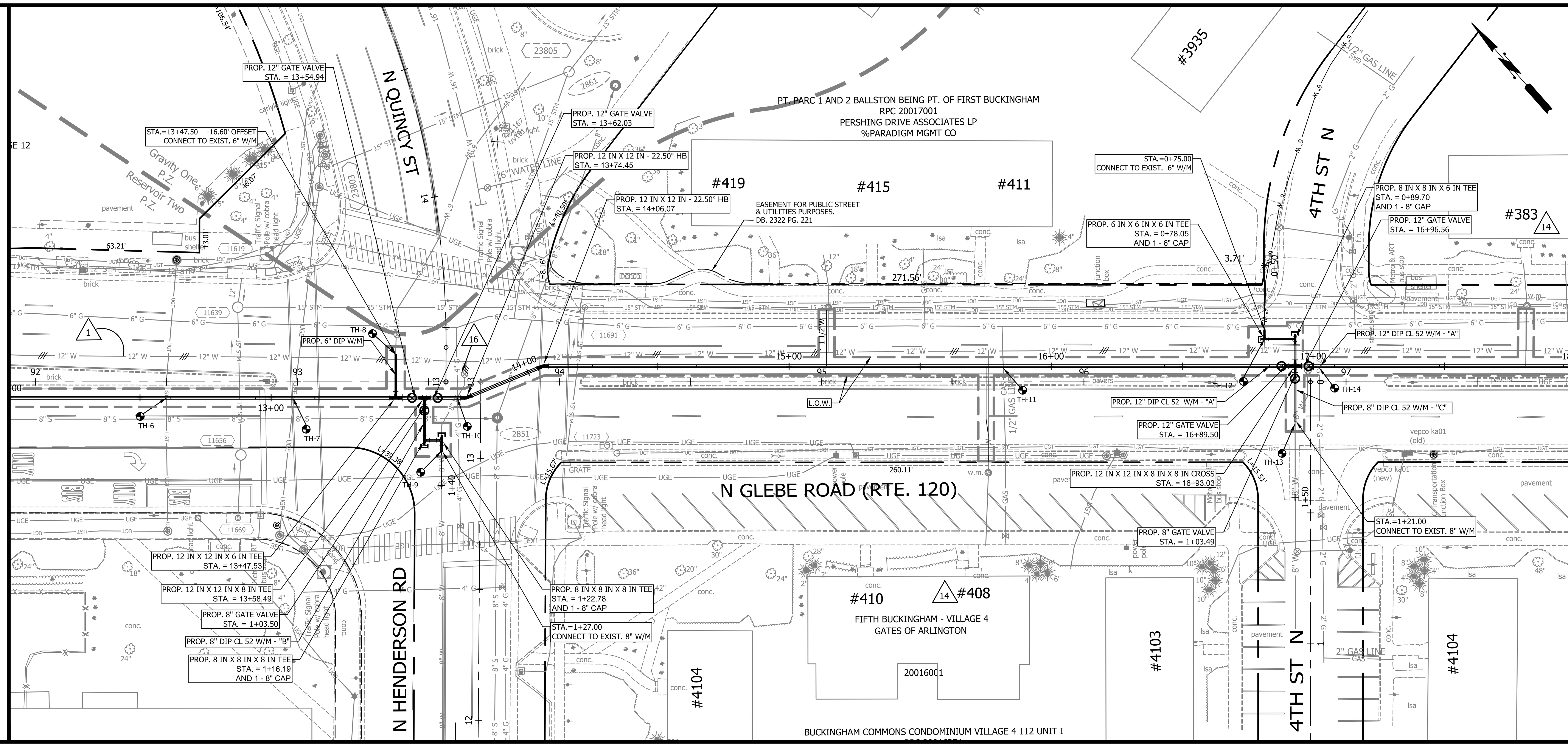
PLOTTED: AUGUST 4 2020

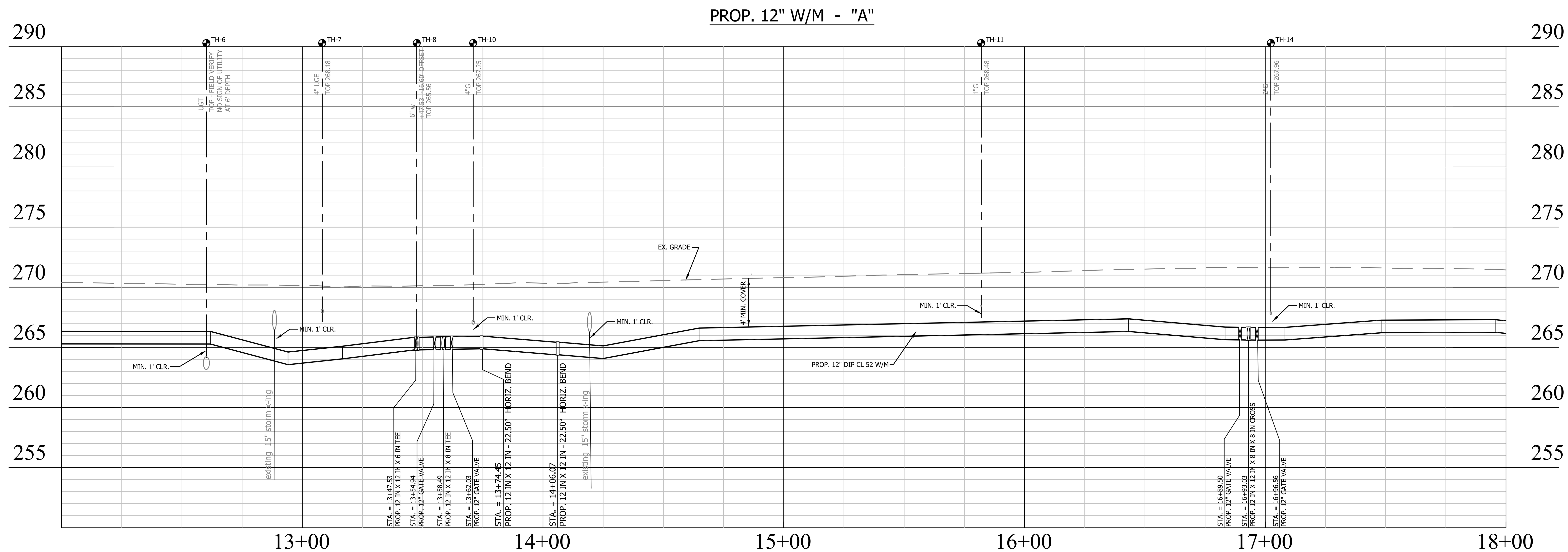
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C051.1

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018





FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

WATERMAIN CONSTRUCTION NOTES:

1. /// ——— /// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL
COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER
[illegible]

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 2

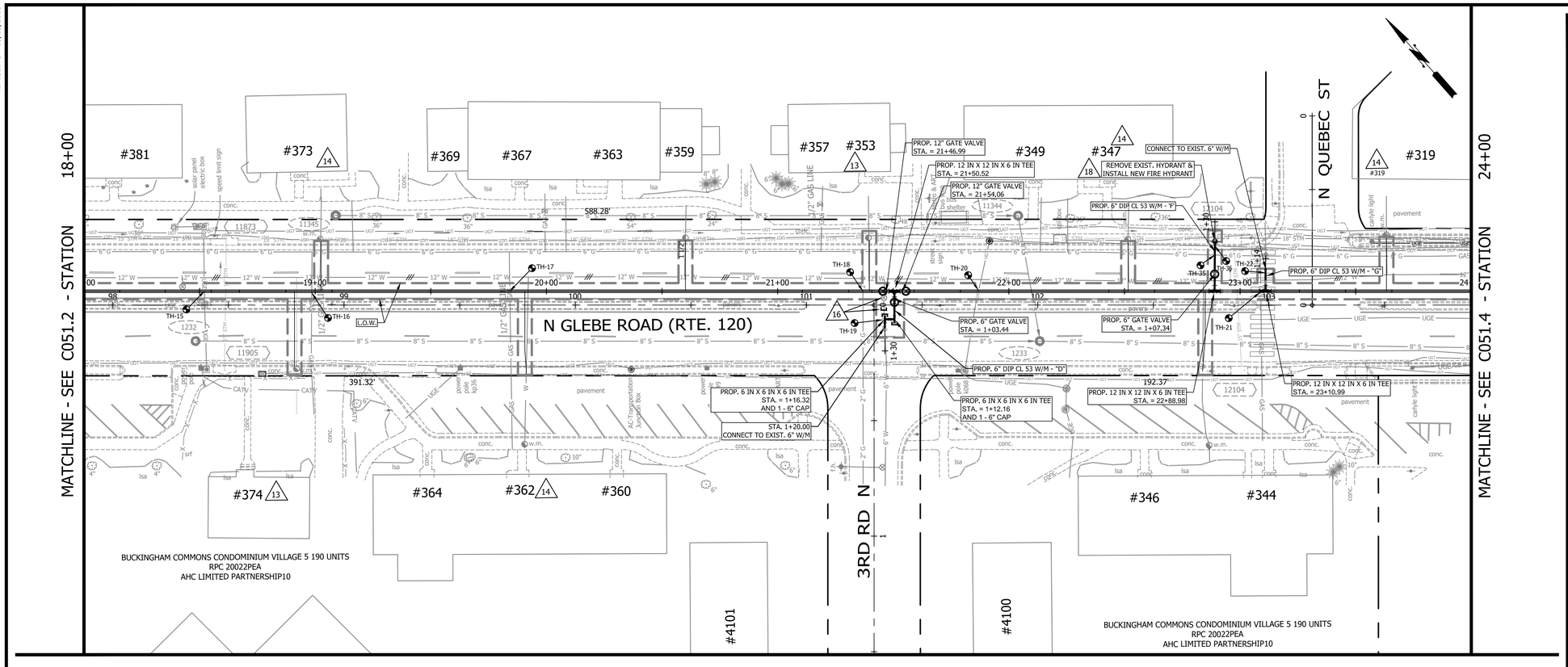
DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

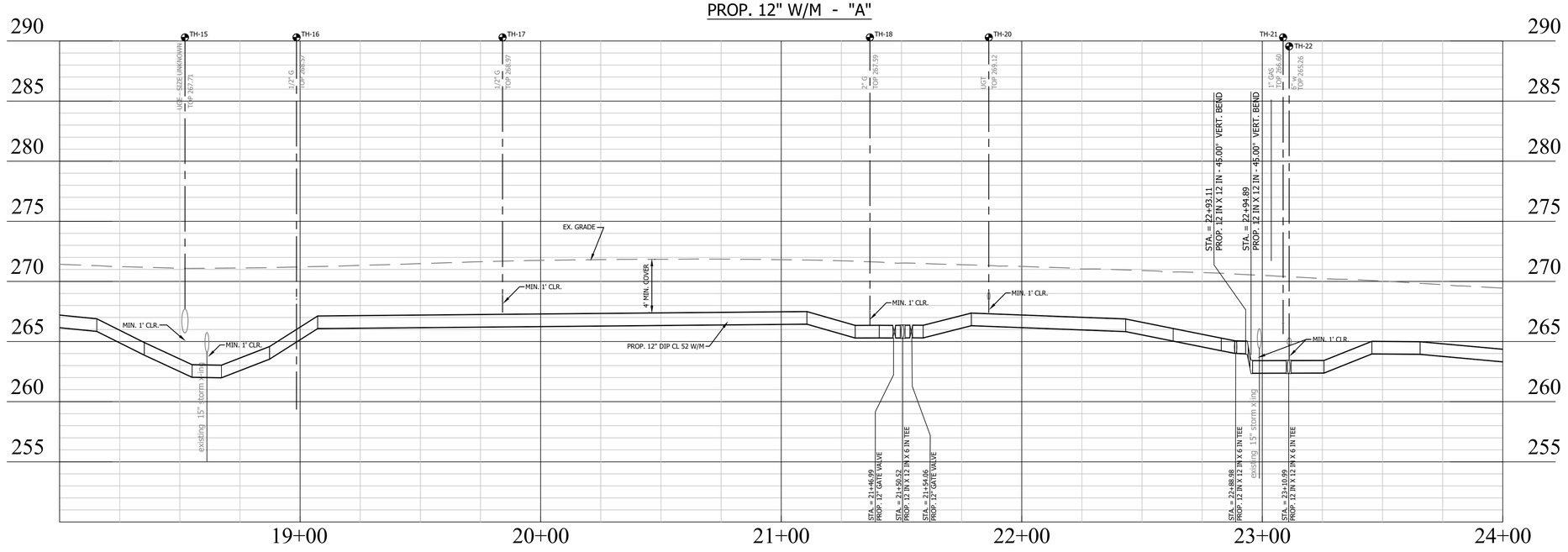
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C051.2

REVISED ON 05/23/2018



PROP. 12" W/M - "A"



WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
ARLI 'Approved: 8/30/2020
'Subject to field inspection
VIRGINIA LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 3

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

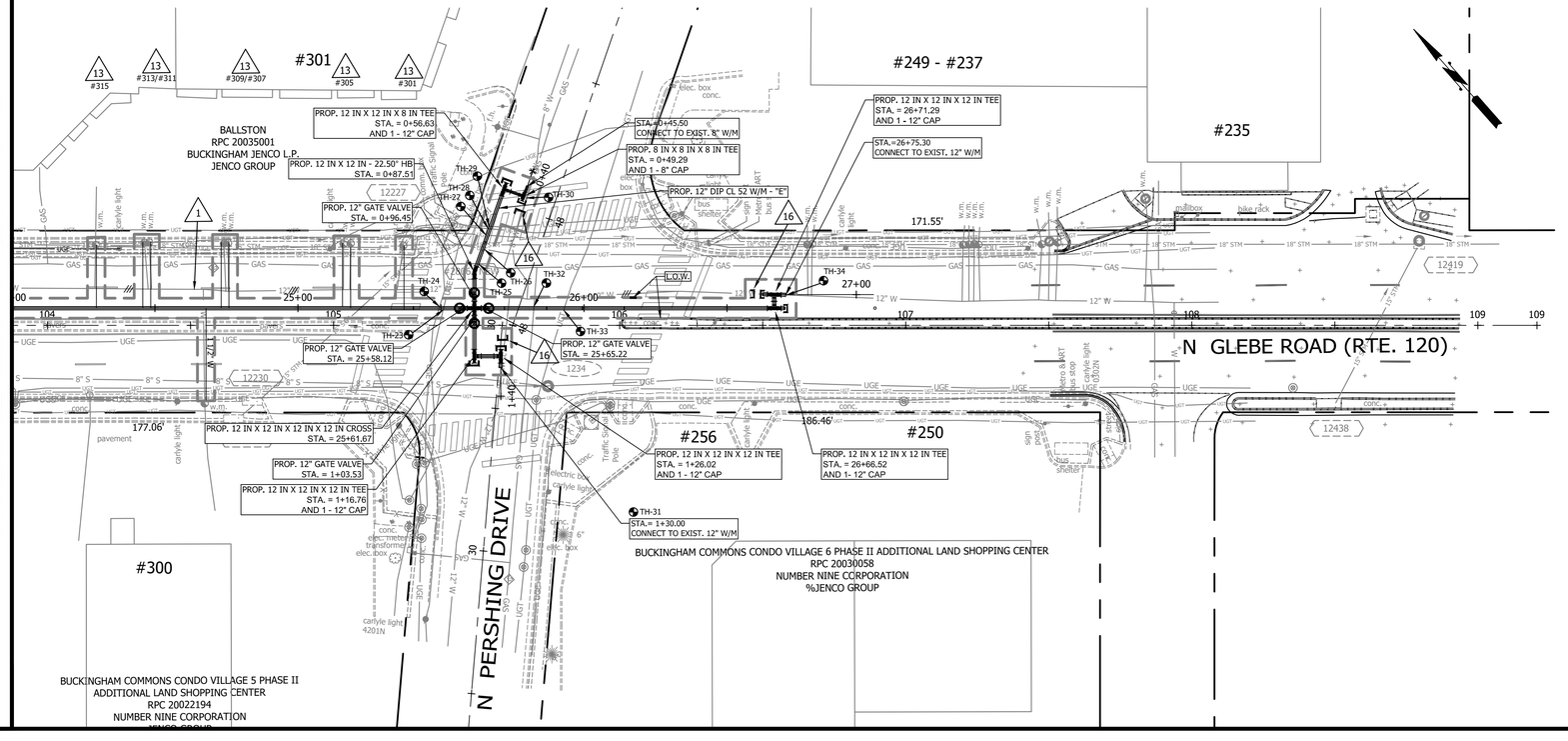
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

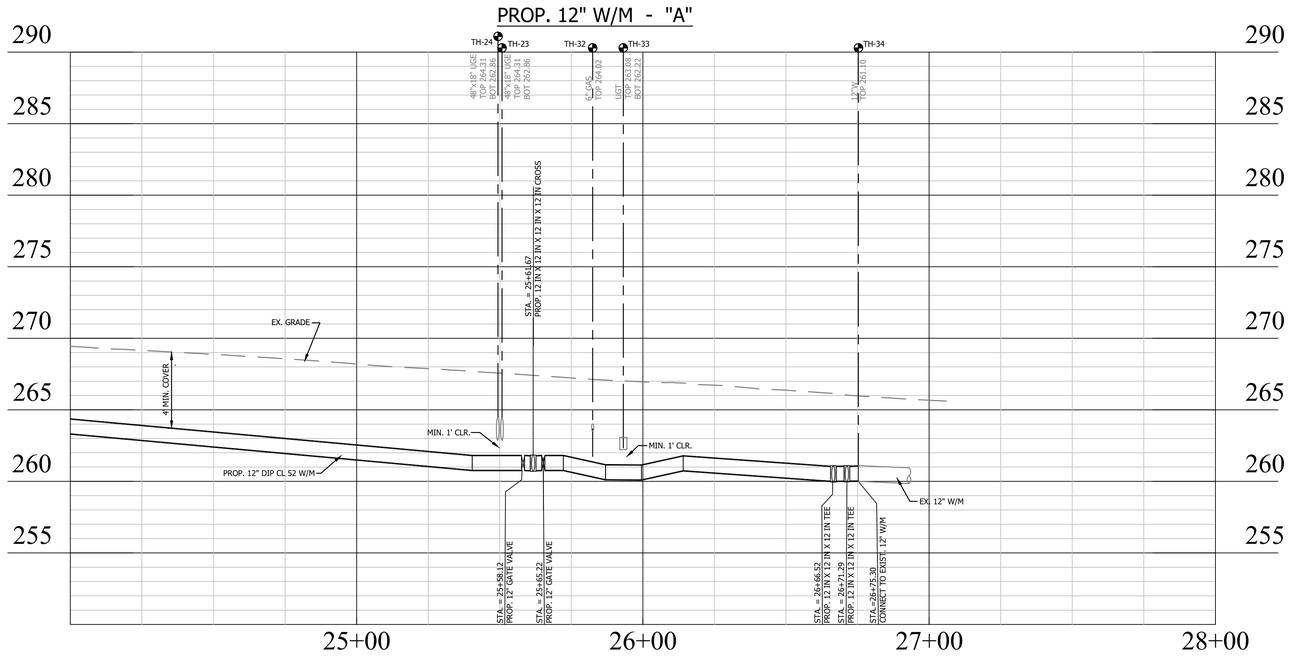
C051.3

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

MATCHLINE - SEE C051.3 - STATION 24+00





WATERMAIN CONSTRUCTION NOTES:

1. ////////// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA

Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 4

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

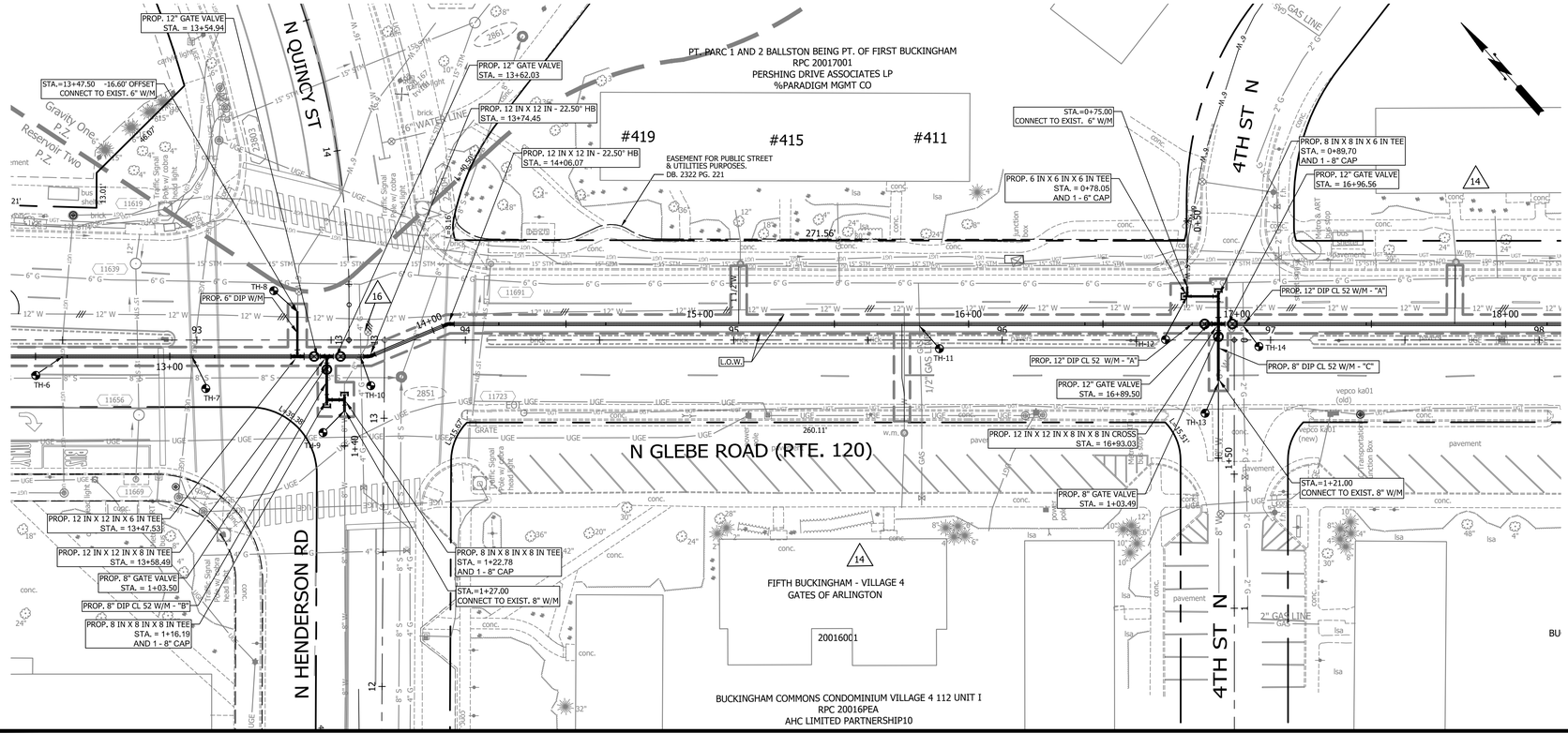
PLOTTED: AUGUST 4 2020

SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

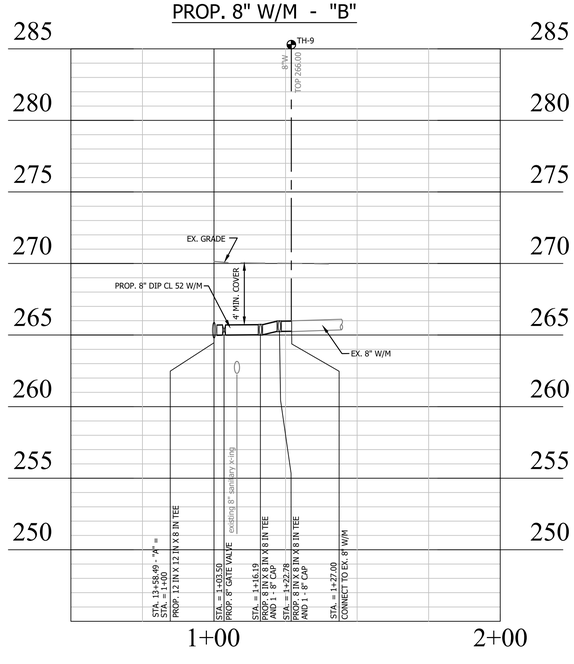
C051.4

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

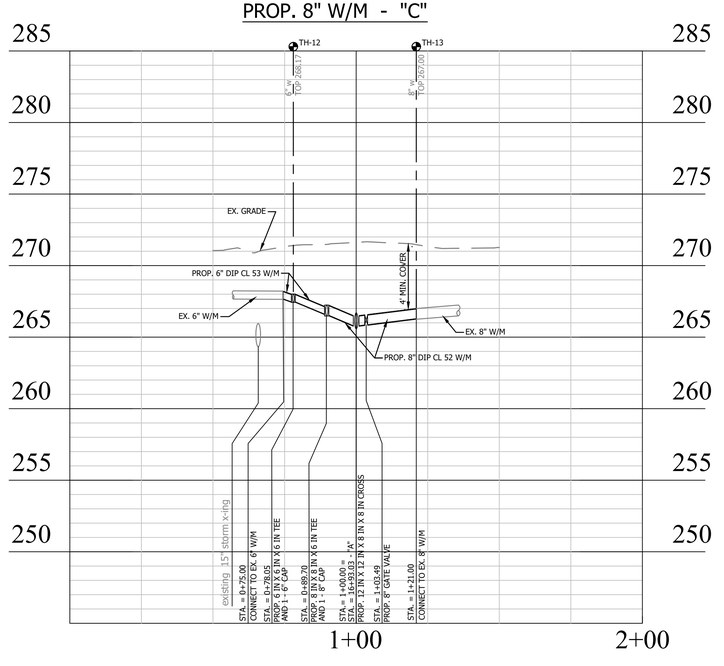
REVISED ON 05/23/2018



PROP. 8" W/M - "B"



PROP. 8" W/M - "C"



WATERMAIN CONSTRUCTION NOTES:

1. /// ——— /// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.

2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.

3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.

4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.

5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.

6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.

7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.

8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.

9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.

10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.

11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.

12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.

13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.

16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.

17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.

18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
ARLI Approved: 8/30/2020
Subject to field inspection
LDA220163
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 5

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

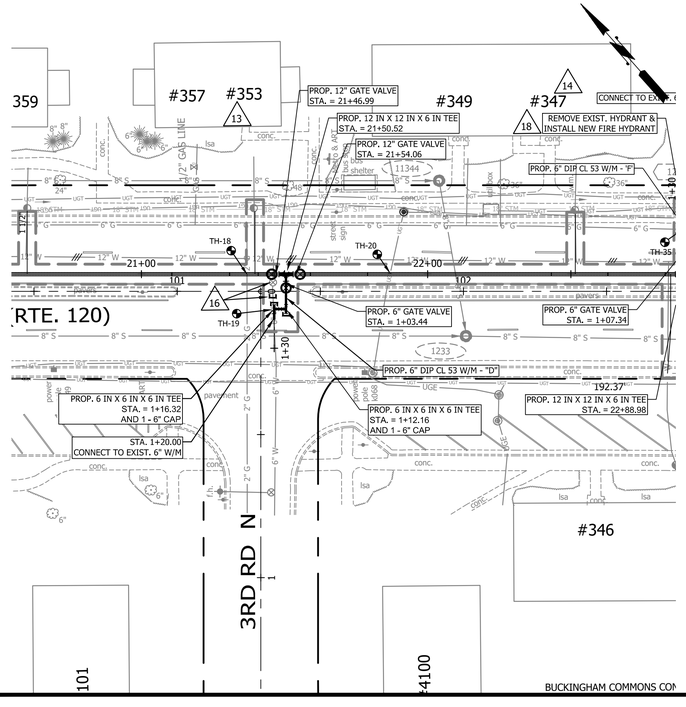
PLOTTED: AUGUST 4 2020

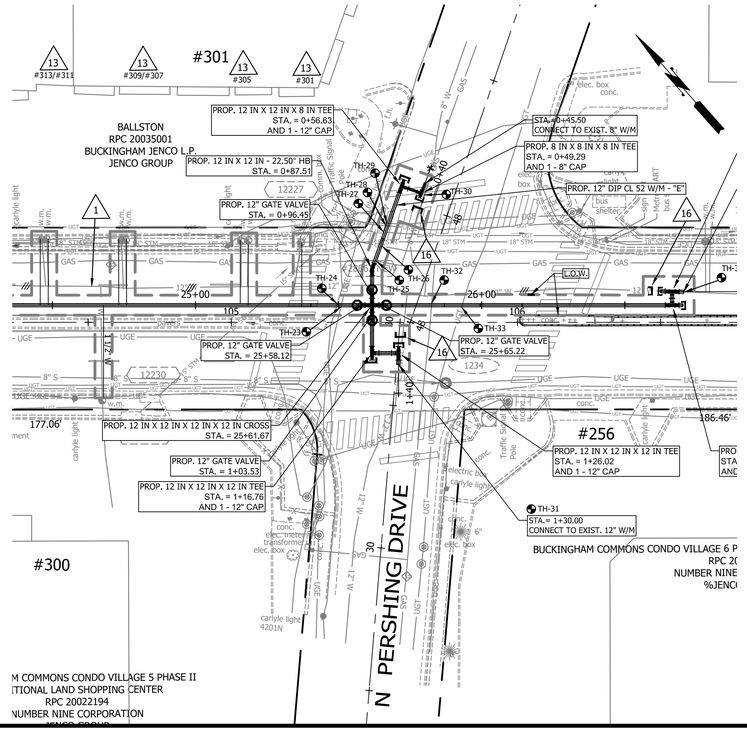
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

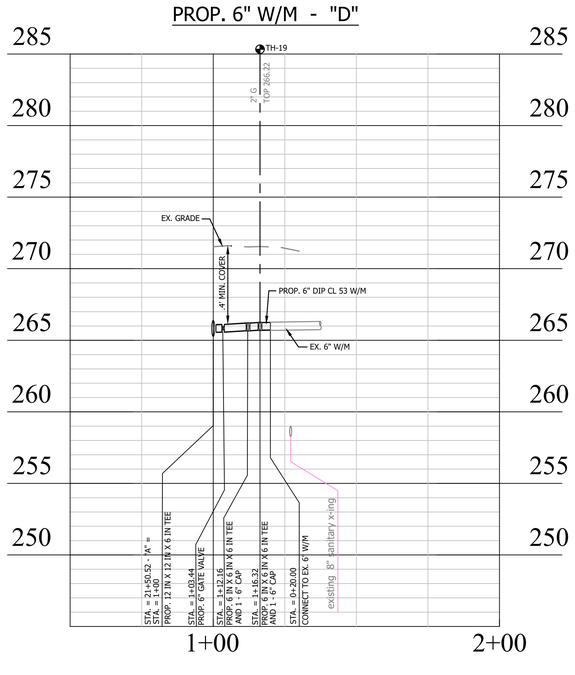
C051.5

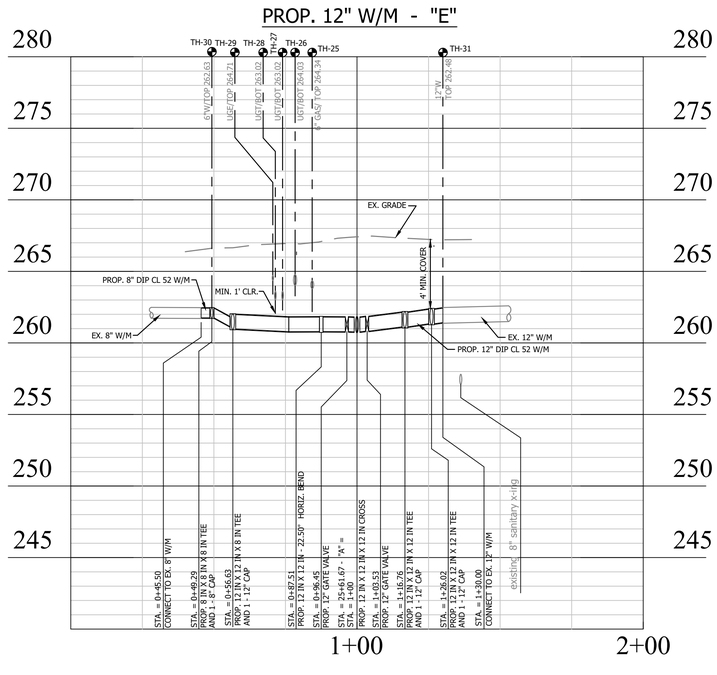
FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018









WATERMAIN CONSTRUCTION NOTES:

1. /// ——— /// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 6

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

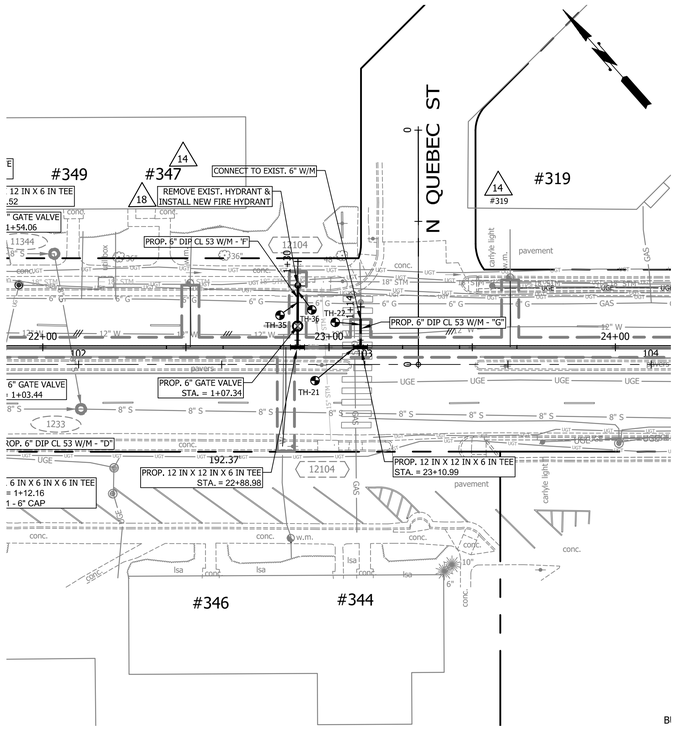
PLOTTED: AUGUST 4 2020

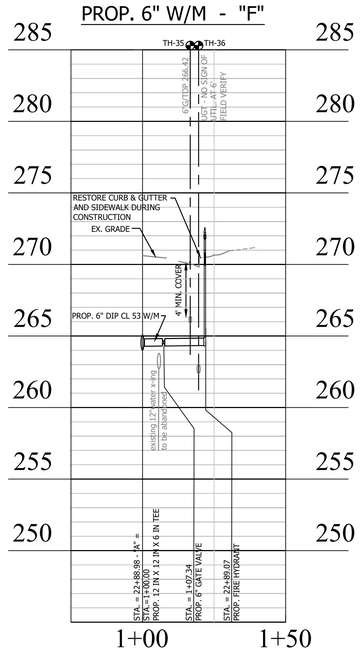
SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

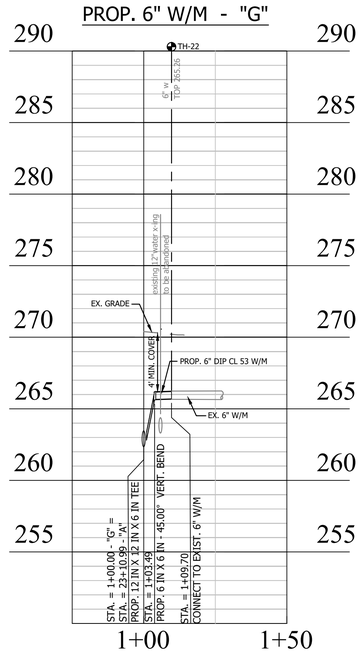
C051.6

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018







WATERMAIN CONSTRUCTION NOTES:

1. /// ——— /// INDICATES EXISTING WATER MAIN TO BE REMOVED FOR THE INSTALLATION OF PROPOSED WATERMAIN, OR ABANDONED IN PLACE FOR PER ARLINGTON COUNTY SPECIFICATIONS AND STANDARDS.
2. PROPOSED BENDS SHOWN ON THE PLAN ARE BASED ON BEST AVAILABLE INFORMATION. DURING CONSTRUCTION IT MAY NEED TO DEFLECT PIPES AND INSTALL ADDITIONAL BENDS AS NECESSARY TO ACCOMPLISH THE INSTALLATION OF WATER MAINS AS SHOWN ON THE PROPOSED PLAN AT NO ADDITIONAL COST TO THE COUNTY.
3. SEE DETAIL INSTRUCTION ON SHEET C052.1 FOR THE POLYETHYLENE ENCASEMENT OF THE PROPOSED PIPES.
4. SEE DETAILS ON SHEET C052.1 FOR THE PAVEMENT RESTORATION AFTER COMPLETION OF THE WATERMAIN INSTALLATION AND TESTING.
5. ALL DEMOLISHED CURB AND GUTTER AND SIDEWALK FOR THE INSTALLATION OF PROPOSED WATERMAIN SHALL BE RESTORED AS PER ARLINGTON COUNTY STANDARDS WITHIN THE COUNTY RIGHT OF WAY.
6. DEMOLISHED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED UP TO THE NEAREST JOINT.
7. ALL DISTURBED GRADED LAND AREA SHALL BE RESTORED WITH TOP SOIL AND SOD.
8. TH # IN PLAN VIEW DENOTES TEST HOLE CONDUCTED AT EXISTING UTILITY AND PROPOSED WATER MAIN CROSSINGS.
9. REFER PROFILE VIEW FOR ELEVATION INFORMATION.
10. TEST PITS SHALL BE MADE TO VERIFY EXACT LOCATION AND INVERTS OF EXISTING UTILITIES TO ALLOW FOR POSSIBLE CHANGES IN THE LINE AND GRADE. THESE TEST PITS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY AND ARE INCIDENTAL TO THE WATER MAIN WORK.
11. ALL WATER MAIN JOINTS INCLUDING ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. SHALL BE RESTRAINED USING "MEGALUG", "TR-FLEX PIPE", OR APPROVED EQUAL. THE CONTRACTOR SHALL SUBMIT JOINT RESTRAINT DETAILS DESIGNED FOR PRESSURE OF 250 PSI PRIOR TO INSTALLATION OF PIPE. ALL TEES, BENDS, PLUGS, VALVES, FIRE HYDRANTS ETC. IN CONJUNCTION WITH JOINT RESTRAINT SHALL ALSO BE RESTRAINED WITH CONCRETE THRUST BLOCKS AS SHOWN ON SHEET C052.1.
12. A TOTAL OF 21 WATER SERVICE CONNECTIONS TO THE EXISTING 12" WATER MAIN WILL BE TRANSFERRED TO THE PROPOSED 12" WATER MAIN.
13. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
5/8"	3/4"	1"	

14. SEE PROPERTY ADDRESS ON THE PLAN:

Ex. Water Meter	NEW Water Meter to Be Installed	NEW Service Line to Be Installed	Remark
3/4"	Not Required	1"	Field Verification of the Ex. service Line Size is Required

15. IF THE WATERMAIN WEST OF RANDOLPH ST IS INSTALLED BY OTHERS BEFORE THIS PLAN, REMOVE CAP AND CONNECT TO THE EXISTING 12" WATERMAIN.
16. AFTER THE 12" WATERMAIN IN SERVICE, CUT & CAP THE EXISTING 12"/8"/6" WATERMAIN WHERE NECESSARY AND ABANDON THESE EXISTING WATERMAINS AS INDICATED IN-PLACE. EXISTING VALVES TO BE ABANDONED SHALL BE ABANDONED IN-PLACE. THE EXISTING VALVE BOX SHALL BE REMOVED AND THE RESULTING VOID SHALL BE STABILIZED VIA USE OF FLOWABLE FILL OR OTHER APPROVED MEANS TO AVOID FUTURE SETTLEMENT.
17. IF THE WATERMAIN BY OTHERS PRECEDES THE WATERMAIN PROPOSED WITH THIS PLAN, THERE SHALL BE NO NEED FOR THIS CONNECTION.
18. EXISTING FIRE HYDRANT TO BE REMOVED AND DISPOSED. THE CONTRACTOR IS REQUIRED TO CAP HYDRANT LEAD CAP, INSTALL THRUST RESTRAINT BEHIND THE VALVE, ABANDON THE EXISTING VALVE IN PLACE AND REMOVE THE VALVE BOX AND STABILIZED THE VOID.

ARLINGTON VIRGINIA

'Approved: 8/30/2020
'Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN PLAN AND PROFILE - 7

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C051.7

FILENAME: R014-240-WATERMAIN_P_AND_P.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

REVISED ON 05/23/2018

Commonwealth of Virginia
Department of Transportation
April 2012

LUP-OC NOVA
Land Use Permit
Special Provisions for Pavement Open Cuts

Virginia Department of Transportation
NOVA Fairfax Permits
4975 Alliance Drive, Ste. 1N300
Fairfax, Virginia 22030

NOTE: Pavement restoration is a minimum 10' each side of the trench width for roads up to 5,000 ADT

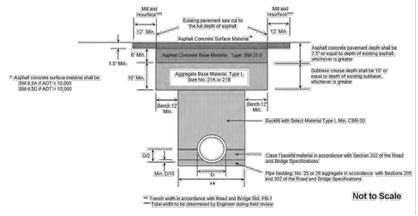
NOTE: Pavement restoration is a minimum 25' each side of the trench width for roads above 5,000 ADT

ADT (Average Daily Traffic)

Virginia Department of Transportation
NOVA District Materials Section

Detail: Pipe Bedding, Backfill and Asphalt Concrete Pavement Reinstatement

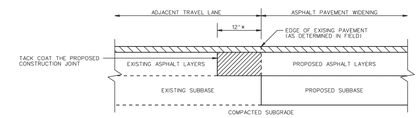
Note: This detail should not be used for longitudinal trenches in pavement which has an open graded drainage layer (OGDL) and/or cement treated aggregate base material (CTA).



Not to Scale

2016 ROAD & BRIDGE STANDARDS

WP-2



CONSTRUCTION JOINT DETAIL

REMOVE EXISTING ASPHALT LAYERS TO EXISTING SUBBASE AND REPLACE WITH PROPOSED ASPHALT WIDENING LAYERS

PROPOSED MINIMUM 1½ INCH THICK ASPHALT SURFACE COURSE (SEE NOTE 5)

× MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

NOTES:

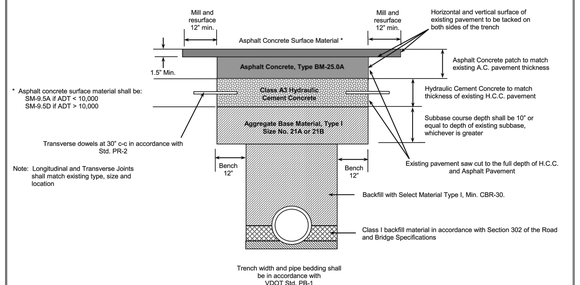
1. ASPHALT PAVEMENT WIDENING SHALL HAVE A PAVEMENT DESIGN IN ACCORDANCE WITH CURRENT VDOT PROCEDURES AND BE APPROVED BY THE ENGINEER.
2. THE PAVEMENT DESIGN FOR ASPHALT PAVEMENT WIDENING SHALL MEET OR EXCEED THE DEPTHS AND TYPES OF THE LAYERS OF EXISTING PAVEMENT. SUBSURFACE DRAINAGE OF THE EXISTING AND PROPOSED PAVEMENT SHALL BE ADDRESSED IN THE PAVEMENT DESIGN.
3. A MINIMUM OF THREE CORES SHALL BE TAKEN ALONG THE CENTER OF THE ADJACENT TRAVEL LANE TO DETERMINE THE TYPE AND THICKNESS OF EXISTING PAVEMENT LAYERS. THESE CORES SHALL BE SPACED NO MORE THAN 500 FEET APART.
4. THE ADJACENT TRAVEL LANE SHALL BE MILLED A MINIMUM DEPTH OF 1½ INCHES AND REPLACED WITH AN ASPHALT SURFACE COURSE TO MATCH THE PROPOSED PAVEMENT WIDENING SURFACE COURSE, UNLESS WAIVED BY THE ENGINEER.
5. THE ENGINEER MAY REQUIRE THE MILLING DEPTH OF THE EXISTING PAVEMENT TO BE ADJUSTED TO ACHIEVE AN ACCEPTABLE PAVEMENT CROSS-SLOPE AND EFFECTIVE SURFACE DRAINAGE.
6. EXISTING PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS SHALL BE RESTORED SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. FINAL TRANSVERSE PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS EXCEPT THAT ALL JOINTS AT TIE-IN LOCATIONS SHALL BE TESTED USING A 10 FOOT STRAIGHTEDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS.

VDOT ROAD AND BRIDGE STANDARDS	ASPHALT PAVEMENT WIDENING FOR WIDENING SUBJECT TO TRAFFIC VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE	315
303.02		

2016 ROAD & BRIDGE STANDARDS

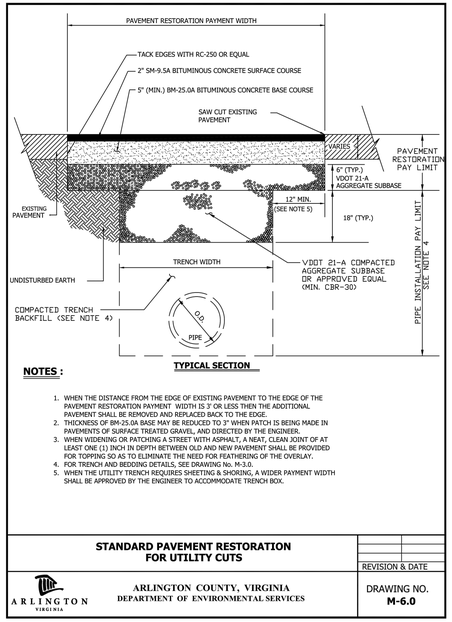
Virginia Department of Transportation
NOVA District Materials Section

Detail: Pipe Trench Reinstatement for Hydraulic Cement Concrete Pavement with Asphalt Overlay



Not to Scale

Q:\mat\ typical Sections\Pavement Details\Trench Reinstatement, Concrete with Asphalt Overlay Pavement (March 2013).doc



TYPICAL SECTION

NOTES :

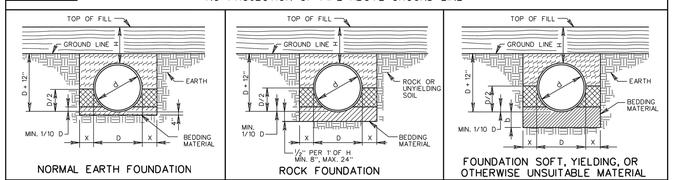
1. WHEN THE DISTANCE FROM THE EDGE OF EXISTING PAVEMENT TO THE EDGE OF THE PAVEMENT RESTORATION PAYMENT WIDTH IS 3' OR LESS THEN THE ADDITIONAL PAVEMENT SHALL BE REMOVED AND REPLACED BACK TO THE EDGE.
2. THICKNESS OF BM-25.0A BASE MAY BE REDUCED TO 3" WHEN PATCH IS BEING MADE IN PAVEMENTS OF SURFACE TREATED GRAVEL, AND DIRECTED BY THE ENGINEER.
3. WHEN WIDENING OR PATCHING A STREET WITH ASPHALT, A NEAT, CLEAN JOINT OF AT LEAST ONE (1) INCH IN DEPTH BETWEEN OLD AND NEW PAVEMENT SHALL BE PROVIDED FOR TOPPING SO AS TO ELIMINATE THE NEED FOR FEATHERING OF THE OVERLAY.
4. FOR TRENCH AND BEDDING DETAILS, SEE DRAWING No. M-3.0.
5. WHEN THE UTILITY TRENCH REQUIRES SHEETING & SHORING, A WIDER PAYMENT WIDTH SHALL BE APPROVED BY THE ENGINEER TO ACCOMMODATE TRENCH BOX.

STANDARD PAVEMENT RESTORATION FOR UTILITY CUTS	REVISION & DATE
ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES	DRAWING NO. M-6.0

2016 ROAD & BRIDGE STANDARDS

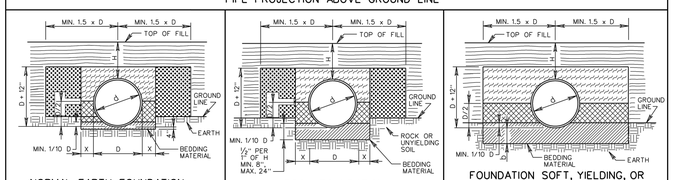
PB-1

NO PROJECTION OF PIPE ABOVE GROUND LINE



NORMAL EARTH FOUNDATION | ROCK FOUNDATION | FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL

PIPE PROJECTION ABOVE GROUND LINE



NORMAL EARTH FOUNDATION | ROCK FOUNDATION | FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL

BEDDING MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

FOR PLASTIC PIPE CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

FOR ALL OTHER PIPE REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

EMBANKMENT

REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

NOTES:

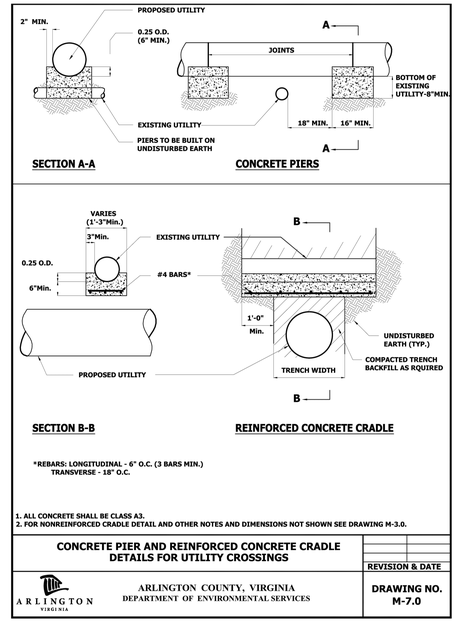
FOR GENERAL NOTES ON PIPE BEDDING, SEE INSTALLATION OF PIPE CULVERTS AND STORM SEWERS GENERAL NOTES ON SHEET 107.00.

CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26 MAY BE USED IN PLACE OF CLASS I BACKFILL.

CLASS I BACKFILL MATERIAL SHALL BE EXTENDED TO 12" ABOVE THE PROP. PIPE.

VDOT ROAD AND BRIDGE STANDARDS	INSTALL. OF PIPE CULVERTS AND STORM SEWERS CIRC. PIPE BEDDING AND BACKFILL - METHOD "A" VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 4	REVISION DATE	302 303
107.01	07/12	

2016 ROAD & BRIDGE STANDARDS



*REBARS: LONGITUDINAL - 6" O.C. (3 BARS MIN.)
TRANSVERSE - 18" O.C.

1. ALL CONCRETE SHALL BE CLASS A3.
2. FOR NONREINFORCED CRADLE DETAIL AND OTHER NOTES AND DIMENSIONS NOT SHOWN SEE DRAWING M-3.0.

CONCRETE PIER AND REINFORCED CONCRETE CRADLE DETAILS FOR UTILITY CROSSINGS	REVISION & DATE
ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES	DRAWING NO. M-7.0

ARLINGTON VIRGINIA
Approved: 8/30/2020
Subject to field inspection
LDA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
SOLOMON W SHIKUR
Lic. No. 44276
8/3/20
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN NOTES & DETAILS - 1

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

AS SHOWN

C052.1

FILENAME: R014-204-DETAILS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: : LDIZON

REVISED ON 05/23/2018

POLYETHYLENE ENCASEMENT

INSTALLATION INSTRUCTIONS:

TAPING OVER POLYETHYLENE ENCASEMENT ALLOWS DIRECT TAPS TO BE MADE THROUGH THE TAPE AND POLYETHYLENE ENCASEMENT. ELIMINATES POTENTIAL REPAIRS TO EXPOSED AREA.

TIE STRAPS ALLOW EASY, QUICK, SECURE TIE DOWN OF POLYETHYLENE ENCASEMENT BEHIND THE BELL CONTOUR AND ON OVERLAPS AGAINST THE PIPE SURFACE.

FIGURE 1.
REMOVE ALL LUMPS OF CLAY, MUD, CINDERS, ETC. WHICH MAY HAVE ACCUMULATED ON THE SURFACE OF THE PIPE. A POLYETHYLENE TUBE SHOULD BE CUT SO THAT IT IS APPROXIMATELY TWO FEET LONGER THAN THE PIPE SECTION. SLIP THE TUBE ONTO THE PIPE. ALLOW APPROXIMATELY ONE FOOT OF THE TUBE TO OVERHANG EACH END OF THE PIPE.

FIGURE 2.
PUSH BACK THE OVERHANGING TUBE ENDS UNTIL THEY CLEAR THE PIPE ENDS.

FIGURE 3.
TAKE UP THE SLACK IN THE TUBE TO MAKE A SNUG BUT NOT TIGHT FIT. FOLD EXCESS BACK OVER THE TOP OF THE PIPE.

FIGURE 4.
SECURE THE FOLD WITH POLYETHYLENE COMPATIBLE ADHESIVE TAPE AT SEVERAL LOCATIONS ALONG THE PIPE BARREL.

FIGURE 5.
DIG A SHALLOW BELL-HOLE IN THE TRENCH BOTTOM AT THE JOINT LOCATION.

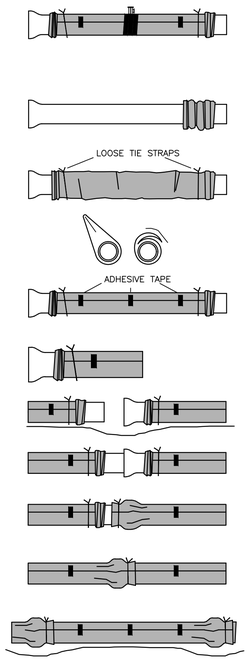
FIGURE 6.
PLACE THE PIPE INTO THE TRENCH.

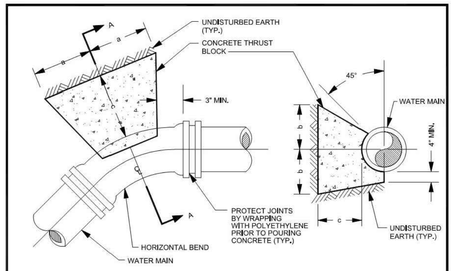
FIGURE 7.
ASSEMBLE THE JOINT.

FIGURE 8.
PULL THE POLYETHYLENE TUBE END OF THE PREVIOUSLY INSTALLED PIPE OVER THE NEW PIPE AND SECURE WITH THE TIE STRAP FROM THE PRECEDING PIPE BELL.

FIGURE 9.
OVERLAP THE SECURED TUBE END OF THE NEW PIPE SECTION. SECURE THE NEW TUBE END IN PLACE WITH THE SPIGOT END TIE STRAP.

FIGURE 10.
REPAIR ALL RIPS, TEARS, OR OTHER TUBE DAMAGE WITH SUITABLE ADHESIVE TAPE. EXPERIENCE HAS SHOWN THAT VERY SMALL PIN POINT SIZED PUNCTURES NEED NOT BE REPAIRED.





PIPE DIA.	HORIZONTAL BEND								MIN. C
	11 1/4° (1/32)		22 1/2° (1/16)		45° (1/8)		90° (1/4)		
	a	b	a	b	a	b	a	b	
6"	5"	7"	7"	7"	11"	9"	15"	12"	18"
8"	7"	8"	10"	9"	14"	12"	20"	16"	18"
12"	10"	10"	16"	12"	23"	16"	36"	20"	18"
16"	12"	14"	20"	16"	32"	20"	48"	24"	24"

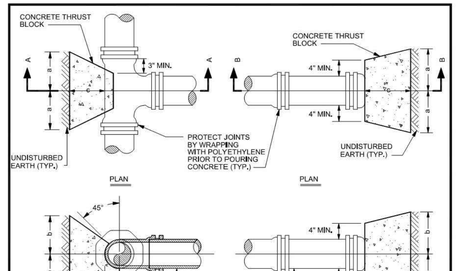
NOTES :
1. ALL BEARING SURFACES FOR CONCRETE BLOCKING SHALL BE UNDISTURBED EARTH WITH A MINIMUM BEARING VALUE OF 2,000 PSF. THE MINIMUM THICKNESS OF UNDISTURBED EARTH BEHIND THE BLOCKING SHALL BE 5 FEET.
2. BLOCKING SHOWN IS FOR A MAXIMUM STATIC PRESSURE OF 120 PSI PLUS WATER HAMMER ALLOWANCE OF 120 PSI.
3. FORM THE NON-BEARING SIDES OF THRUST BLOCKS BY USING PROPER FORMWORK.
4. SPECIAL BLOCKING DESIGN SHALL BE REQUIRED FOR CONDITIONS AND SIZES OTHER THAN THOSE INDICATED ON THIS SHEET.

CONCRETE THRUST BLOCKS FOR HORIZONTAL BENDS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.0**



PIPE DIAMETER	a	b	MIN. C	
			TEES	CAPS
6"	11"	11"	12"	18"
8"	15"	15"	12"	18"
12"	24"	20"	18"	18"
16"	33"	24"	24"	24"

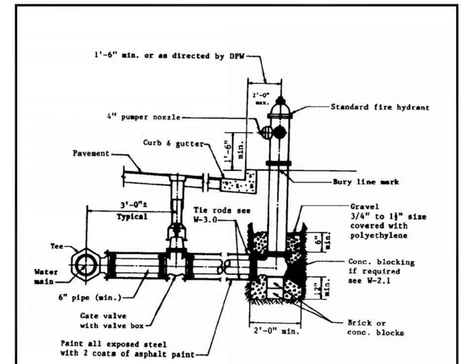
NOTES :
1. ALL BEARING SURFACES FOR CONCRETE BLOCKING SHALL BE UNDISTURBED EARTH WITH A MINIMUM BEARING VALUE OF 2,000 PSF, THE MINIMUM THICKNESS OF UNDISTURBED EARTH BEHIND THE BLOCKING SHALL BE 5 FEET.
2. BLOCKING SHOWN IS FOR A MAXIMUM STATIC PRESSURE OF 120 PSI PLUS WATER HAMMER ALLOWANCE OF 120 PSI. SPECIAL BLOCKING DESIGN SHALL BE REQUIRED FOR CONDITIONS AND SIZES OTHER THAN THOSE INDICATED ON THIS SHEET.
3. FORM THE NON-BEARING SIDES OF THRUST BLOCKS BY USING PROPER FORMWORK.
4. THE BLOCKS FOR THE TEES SHALL BE SIZED ACCORDING TO THE DIAMETER OF THE BRANCH MAIN.

CONCRETE THRUST BLOCKS FOR TEES AND CAPS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.1**



NOTES:
1. All valves and fire hydrants shall be strapped to main unless directed otherwise.
2. Provide vertical offsets or bends as required to set hydrants at proper grade.
3. Maximum bury depth of fire hydrant is 6' unless approved otherwise.

FIRE HYDRANT SETTING

REVISION & DATE

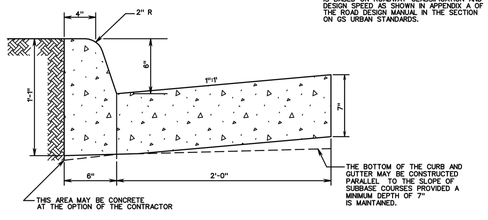
ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-7.0**

2016 ROAD & BRIDGE STANDARDS

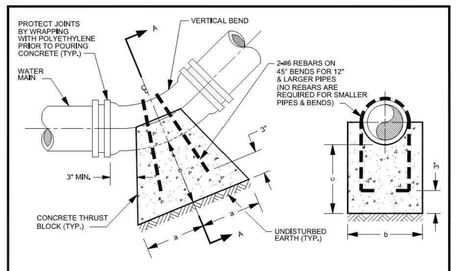
CG-6

NOTES:
1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAD FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.



SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: — SHEET 1 OF 1 201.03

2016 ROAD & BRIDGE STANDARDS



PIPE DIA.	LOWER VERTICAL BEND								
	11 1/4° (1/32)			22 1/2° (1/16)			45° (1/8)		
	a	b	c	a	b	c	a	b	c
6"	3"	14"	9"	3"	14"	9"	6"	14"	9"
8"	3"	16"	9"	5"	16"	9"	9"	16"	9"
12"	4"	20"	9"	8"	20"	9"	14"	22"	14"
16"	6"	24"	9"	11"	24"	11"	19"	26"	19"

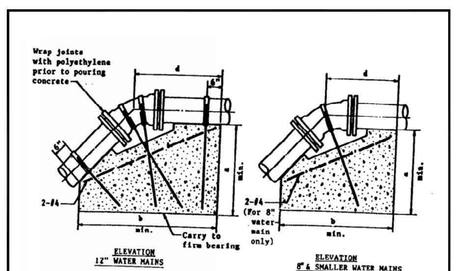
NOTES :
1. ALL BEARING SURFACES FOR CONCRETE BLOCKING SHALL BE UNDISTURBED EARTH WITH A MINIMUM BEARING VALUE OF 2,000 PSF. THE MINIMUM THICKNESS OF UNDISTURBED EARTH BENEATH THE BLOCKING SHALL BE 5 FEET.
2. BLOCKING SHOWN IS FOR A MAXIMUM STATIC PRESSURE OF 120 PSI PLUS WATER HAMMER ALLOWANCE OF 120 PSI. SPECIAL BLOCKING DESIGN SHALL BE REQUIRED FOR CONDITIONS AND SIZES OTHER THAN THOSE INDICATED ON THIS SHEET.
3. FORM THE NON-BEARING SIDES OF THRUST BLOCKS BY USING PROPER FORMWORK.
4. PAINT ALL EXPOSED STEEL WITH TWO COATS OF ASPHALT PAINT.

CONCRETE THRUST BLOCKS FOR LOWER VERTICAL BENDS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.2**



	11¼° Bend		22½° Bend		45° Bend	
	6"	8" 12"	6"	8" 12"	6"	8" 12"
a	21"	27" 36"	30"	39" 48"	42"	48" 60"
b	27"	36" 51"	36"	54" 78"	42"	54" 84"
c	30"	30" 36"	30"	30" 36"	30"	30" 36"
d	15"	21" 27"	21"	30" 42"	27"	36" 48"

NOTES:
1. Blocking shown is for maximum static pressure of 120 psi plus water hammer allowance of 120 psi. Special blocking shall be designed for sizes and conditions other than those indicated.
2. Paint all exposed steel with 2 coats of asphalt paint.
3. Form sides of thrust blocks.

CONCRETE THRUST BLOCKS UPPER VERTICAL BENDS

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **W-2.3**

ARLINGTON VIRGINIA
ARLI Approved: 8/30/2020
Subject to field inspection
VIRGINIA LOA20163

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629
FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA — SOLOMON W SHIKUR — Lic. No. 44276 — 8/3/20 — PROFESSIONAL ENGINEER

APPROVALS DATE

QUALITY CONTROL ENGINEER

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

N. GLEBE ROAD WATERMAIN REPLACEMENT
R014
N. RANDOLPH ST. TO N. PERSHING DR.

WATERMAIN NOTES & DETAILS - 2

DESIGNED: JK/LD
DRAWN: JK/LD
CHECKED: SS

PLOTTED: AUGUST 4 2020

SCALE:

AS SHOWN

C052.2

FILENAME: R014-204-DETAILS.DWG PATH: Q:\DATA\R014\DESIGN\CAD\ACTIVE PLOTTED BY: LDIZON

EXHIBIT G

ARLINGTON COUNTY DES ENGINEERING
SPECIAL CONDITIONS

Contents

PROJECT SUMMARY

The Contractor shall replace the existing 12” water main along N Glebe Road between N Randolph Street and N Pershing Street with a new 12” water main. The main scope of work includes the installation of approximately 2041 linear feet of 12” water main, approximately 87 linear feet of 8” water main and 90 linear feet of 6” watermain with various appurtenances. The work also includes several water main connections to existing services or existing fire hydrants, 26 each of water service re-taps, restoration of disturbed or damaged surfaces during construction and full depth pavement restoration of the excavated areas.

The Contractor shall provide all resources to successfully perform the terms of this contract in accordance with project plans, and in compliance with Arlington County and VDOT Standards and Specifications. The Contractor shall perform the work complete, in place, tested, and ready for continuous service.

All work within the VDOT Right-Of-Way shall be performed in accordance with the VDOT Standards and Specifications, unless otherwise noted. All work within the County Right-Of-Way shall be in accordance with the Arlington County Standards and Specifications, unless otherwise noted.

SUPPLEMENTS TO THE GENERAL CONDITIONS

These Conditions modify the Arlington County Construction General Conditions. All provisions that are not modified or deleted by these Supplemental Conditions shall remain in full force and effect.

The address system used in these Supplemental Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

ARTICLE B – DRAWINGS, SPECIFICATIONS AND RELATED DATA

SC-B.10 TESTS

Add the following new language to Paragraph B.10:

All materials testing shall be in compliance with the Arlington County Materials Testing Specification Reference. This document specifies the method and frequency of testing for Arlington County projects. A copy of this document is included in the bid documents. This shall be incidental to the work and no separate payment will be made.

The Contractor shall engage the services of a geotechnical company, acceptable to both the County and VDOT, to conduct all materials testing per the County and VDOT Specifications.

If it is observed that samples for testing are being improperly taken or that samples are being taken from an area that is not fully representative of all project conditions, then Contractor shall take and test additional samples at the County Project Officer's request from areas designated by the County Project Officer and at the Contractor's expense.

In addition, the Contractor shall provide the County with unfettered site access as needed for VDOT/County personnel or VDOT/County consultants to enter the site, inspect, and perform any additional testing for any and all materials (including soil, concrete, asphalt, etc.).

Compaction results must meet VDOT Specifications and be certified by a Geotechnical Engineer licensed in Virginia. This work shall be at no cost to the County.

ARTICLE C – COUNTY, COUNTY PROJECT OFFICER, AND CONTRACTOR RELATIONS

SC-C.1 STATUS OF COUNTY PROJECT OFFICER OR DESIGNEE

Add the following new language to Paragraph C.1:

The County Project Officer will coordinate and consult with the VDOT Field Inspector as appropriate when working within the VDOT Right-Of-Way.

SC-C.4 INSPECTION OF WORK

Add the following new language to Paragraph C.4:

Contractor shall notify the Project Officer at least 3 working days prior to disturbing any existing, or installing any new, traffic signs, signals, or other traffic control devices. The Contractor shall allow 3 working days for the inspection and approval of the premarkings prior to placing the permanent markings.

SC-C.9 CONTRACTOR MANAGEMENT PERSONNEL

Add the following new language to Paragraph C.9:

Site Supervisor:

The Contractor shall have a qualified and experienced site supervisor who can clearly communicate technical matters on-site at all times when construction activity is occurring or when the site is not in a secure state. The Site Supervisor must have at least (5) years of experience in overseeing projects of similar type and size. Safety Project Officer:

The Contractor shall have at least one (1) employee certified by VDOT in Basic Work Zone Traffic Control on-site at all times that work is occurring and be responsible for the following:

- Placement, maintenance, and removal of work zone traffic control devices,
- Compliance with permit requirements and conditions, approved plans and specifications, the Virginia Work Area Protection Manual, and the Manual of Uniform Traffic Control Devices.

The flagger shall be certified in accordance with the VDOT Flagger Certification Program, the American Traffic Safety Services Association Flagger Certification Program or any other VDOT approved flagger program. The flagger shall have his/her certification card with them at all times while performing flagging activities.

The Contractor shall have at least one (1) employee certified in OSHA 10 on-site at all times that work is occurring. The employee shall have served as a Project Safety Officer on at least three (3) prior projects. If the contractor has multiple employees with these

requirements, the Contractor shall clearly identify which employee shall serve as the Project Safety Officer.

Environmental Project Officer:

The Contractor shall have at least one (1) employee that has successfully completed the VDOT Erosion & Sediment Control Contractor Certification training. The Contractor employee shall be on-site during all land disturbance activities. The Contractor shall be responsible for ensuring compliance with all applicable local, State, and Federal erosion and sediment control regulations and permits during land disturbance activities.

If the Contractor proposes to deviate from the approved Erosion and Sediment Control Plan, it shall be the Contractor's responsibility to coordinate and obtain approval from the County Project Officer prior to implementing any changes.

SC-C.13 PROTECTION OF WORK AND PROPERTY

Add the following new language to Subparagraph C.13.c:

The Contractor shall be responsible for all damages caused by their construction activities. The Contractor shall perform or provide repairs, replacements, and restoration to all property that has been damaged resulting from construction operations performed by the Contractor, and shall meet the following requirements:

1. Restore all areas to conditions that existed prior to construction. Remove and Replace damaged items with items equal to or better than the damaged items.

ARTICLE E – LEGAL RESPONSIBILITY AND PUBLIC SAFETY

SC-E.1 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

Add the following new language at the end of E.1:

When construction activity reaches in proximity to existing utilities, the trench(es) shall be opened a sufficient distance ahead of the work or test pits shall be made to verify the exact location and inverts of the utility to allow for possible changes in the line or grade as directed by the Project Officer. This shall be incidental to the work and no separate payment shall be made.

SC-E.2 PUBLIC CONVENIENCE

Add the following new language to Paragraph E.2:

The Contractor shall set up controls at the beginning of each work day and take down controls at the end of each work day for the duration of the project. At all times the

Contractor shall maintain safe two-way vehicular traffic, and safe accessible pedestrian traffic in conformance with County and VDOT standards.

At all times the Contractor shall use the personnel and traffic control signs and devices necessary to comply with the Virginia Work Area Protection Manual and Part VI of the "National Manual on Uniform Traffic Control Devices." The Contractor has sole responsibility for ensuring that its operations are conducted in a safe manner and notwithstanding any other provision to the contrary, shall fully indemnify Arlington County, its officers, agents and employees for any damage or injury related to traffic operations which is caused by negligent or otherwise improper or deficient performance under the Contract or nonperformance of the terms of the Contract. All personnel, signs, barricades and any other items necessary for the maintenance of traffic and safety shall be provided by the Contractor.

When conditions warrant due to traffic volumes, patterns, or special events, the County may suspend or otherwise direct the Contractor's activities to protect the public and or the County's transportation network.

When the project includes a VDOT and/or County approved MOT Plan (or Plans), the Contractor shall strictly abide by this plan. If the Contractor proposes to deviate from the approved MOT Plan for a County road, it shall be the Contractor’s responsibility to coordinate and obtain approval from the County Project Officer prior to implementing any changes. If the Contractor proposes to deviate from the approved MOT Plan for a VDOT road, it shall be the Contractor’s responsibility to coordinate and obtain approval directly from VDOT prior to implementing any changes.

Prior to any lane closures within the VDOT Right-of-Way, the County Project Officer and VDOT Field Inspector must be notified in advance of such lane closure in accordance with VDOT requirements.

The Contractor shall not be entitled to any additional payment for changes to MOT which are the result of the Contractor’s work schedule or resource allocation, weather delays, or other factors not controlled by the County.

Failure of the Contractor to correct any MOT deficiency immediately upon notification may result in the project being shut down until the deficiency is corrected, and a reduction from the amount of payment due in the amount of $1,000.00 per violation. Repeated violations of this provision may result in contract termination.

The Contractor shall install project information signs (size - 36”x48”) at least two (2) different locations for each site. Signs will be supplied by the County. Sign posts and incidentals necessary for a complete installation of the signs shall be furnished by the Contractor. Signs shall be installed at least two (2) weeks prior to the start of the construction. The Contractor shall coordinate the location of the signs with the Project

Officer. After the project has been completed the Contractor shall remove and return the signs to the County Project Officer. The cost for this work shall be considered incidental to other items within the Contract and no separate payment will be made.

At the close of each work day, the area of work shall be confined to the smallest area possible, but in no event larger than the area designated in the Construction Documents, so that the maximum use of the street and sidewalk shall be restored and the hazard to traffic reduced to the minimum.

The Contractor shall preserve all bus stops, including maintaining adequate accessibility through and adjacent to the construction for buses and their passengers. The Contractor shall not close, relocate, or otherwise modify a bus stop without prior request of the Project Officer. Any relocation or closure of a bus stop will require at least four weeks advance notice for coordination with the county's bus stop coordinator.

SC-E.10 SITE CLEAN-UP AND WASTE DISPOSAL

Add the following new language to Paragraph E.10:

The County's Earth Products Recycling Yard (located at 4300 29th Street South, Arlington, VA) shall **not** be used on an as-needed basis for unspecified quantities of waste (due in part to the limited size of the Yard). Although atypical, the Yard **may** be considered, on a case-by-case basis, for disposal of specific types/quantities of waste from County construction projects. In such cases disposal arrangements must be approved by the County Project Officer, be made in advance, depend on available space and the type/quantity of waste, and comply with certain requirements (for example, concrete shall be broken into pieces no longer than 24" in any dimension, contain less than 20% soil content, and be free of rebar).

SC-E.11 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

Delete Paragraph 2.

ARTICLE F– PROGRESS AND COMPLETION OF THE WORK

SC-F.2 TIME FOR COMPLETION

Delete Paragraph F.2 and replace with the following language:

It is hereby understood and mutually agreed by and between the Contractor and the County that the Commencement Date, the rate of progress, and the Time for Completion of the Work to be done hereunder are essential conditions of the Contract. The Contractor agrees that the Work shall be started promptly upon receipt of a written Notice to Proceed in accordance with the accepted schedule. Additional time shall not be allowed for holidays or weather delays except as allowed in the contract.

ARTICLE G– MEASUREMENT AND PAYMENT

SC-G.1 PAYMENTS TO CONTRACTOR

Add the following new language to Section G.1:

Payments will be based on actual quantities and site measurements of the approved work taken in the field by the County Project Officer using the Contract Unit Prices. Any Work that is not shown on the approved plans that has not been previously authorized in writing by the Project Officer shall be at the Contractor's expense, and at no cost to the County.

SPECIAL CONDITIONS

These Special Conditions include any project-specific requirements in addition to the General Condition, Supplementary Specifications, and the County Standards Referenced herein.

---

1. CONSTRUCTION STANDARDS

All work shall conform to project plans and specifications along with the current edition of following County and VDOT construction standards and specifications:

- **The Arlington County Department of Environmental Services (DES) Bike Parking Standards**, a copy of which may be downloaded at no charge from the internet at: https://info.arlingtontransportationpartners.com/arlington-county-bike-parking-standards
- **The Arlington County Department of Environmental Services (DES) Construction Standards and Specifications,** a copy of which may be downloaded at no charge from the internet at: http://topics.arlingtonva.us/building/construction-standards-specifications/
- **The Arlington County Department of Environmental Services (DES) Traffic Signal Specifications**, a copy of which may be downloaded at no charge from the internet at: https://transportation.arlingtonva.us/traffic-signal-specification-updates/
- **The Arlington County Department of Environmental Services (DES) Streetlight Specifications**, a copy of which may be downloaded at no charge from the internet at: https://transportation.arlingtonva.us/streets/street-lights/lighting-standards-specifications-updates/
- **The Arlington County Department of Environmental Services (DES) Pavement Marking Specifications**, a copy of which may be downloaded at no charge from the internet at: Design Standards & Guidelines – Official Website of Arlington County Virginia Government (arlingtonva.us)
  marking-standards-rev-2.0-3.30.2020.pdf (arlingtonva.us)
- **The Arlington County Department of Parks and Recreation (DPR) Specifications**, a copy of which may be downloaded at no charge from the internet at:

https://www.arlingtonva.us/Government/Departments/Parks-Recreation/About/Design-Standards

- **The Virginia Department of Transportation (VDOT) Road and Bridge Standards and Specifications**, a copy of which may be downloaded at no charge from the internet at: http://www.virginiadot.org/business/const/spec-default.asp
- **The Virginia Work Area Protection Manual (WAPM),** a copy of which may be downloaded at no charge from the internet at: https://www.virginiadot.org/business/trafficeng-WZS.asp
- **Manual on Uniform Traffic Control Devices(MUTCD),** a copy of which may be downloaded at no charge from the internet at: http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf_index.htm
- **The Arlington County Department of Environmental Services (DES) Dechlorination and Disposal Procedures**, a copy of which may be downloaded at no charge from the internet at: https://www.arlingtonva.us/Government/Programs/Water-Utilities/Discharging-Chlorinated-Water
- **The Supplementary Specifications listed within the Contract**.

In case of a discrepancy, the following order of priority will apply, with the highest governing item appearing first and the least governing item appearing last:

The Contract Bid Items
Special Conditions
Contract Drawings
Supplemental Specifications
Arlington County Construction Standards and Specifications
External Agency Specifications

2. PERMITS

Permits required for the project include, but are not limited to:

- **County Land Disturbing Activities (LDA) permit**
- **County Public Right-Of-Way (PROW) permit**
- **County Transportation Right-Of-Way (TROW) permits**
- **County Water Meter and Fire Hydrant permits**
- **VDOT Land Use permit (Obtained and included as an Exhibit)**
- **VDOT Open Cut permit**

All fees for County permits will be waived by Arlington County, and fees for non-County permits will be paid by Arlington County.

The County will obtain the County LDA permit, the County RPA permit, VDOT Land Use permit, VDOT Open Cut permit, VSMP Permit and then NVRPA permits prior to the start of work. The Contractor shall transfer the County LDA permit, VDOT Land Use Permit, VDOT

Open Cut permit and the VSMP Permit in the Contractors name as the permittee and/or responsible party prior to the start of Work. The Contractor shall complete and sign the VDOT forms and submit to the County Project Officer for submission to VDOT two weeks prior to the start of Work within VDOT ROW.

The Contractor shall provide a Responsible Land Disturber (RLD) that meets all the required qualifications of the permits. The Contractor shall complete and sign the RLD certificate and submit to the County Project Officer prior to the start of Work.

The Contractor shall obtain the County PROW permit, the County TROW permits and the County Water Meter and Fire Hydrant permits. The Contractor is responsible for investigating and satisfying all permit requirements for the above-mentioned permits.

3. SPECIAL CONTRACTOR/SUBCONTRACTOR QUALIFICATIONS

The Contractor shall have three (3) continuous years construction contract experience conducting public works infrastructure and street improvement projects in an urban environment. The experience shall be work of similar size and scope, construction, re-construction, and maintenance.

The Contractor obtained project experience shall consist of the following:

- **State and County streets**
- **Curbs and gutters**
- **Sidewalks and walkways**
- **Driveway aprons**
- **Storm sewer pipes and inlets**
- **Wet Utilities**
- **Pavement markings and signage**
- **Electrical conduits**
- **Traffic signals and Street lighting**
- **Streetscapes and related site work**

4. STAKEOUT AND CUT-SHEETS

The Contractor shall be responsible for laying out the work and shall retain a professional land surveyor licensed in the Commonwealth of Virginia to provide all necessary construction layouts and establish all control lines, grades, and elevation during construction. The Contractor shall submit a copy of all cut-sheets for review, per the Arlington County Specifications. All cut-sheets for layout and construction shall be provided as submittals at least seven (7) calendar days prior to construction of the work included on that cut-sheet. The cost of all necessary surveying services shall be considered incidental to the work and no separate payment shall be made.

5. SCHEDULE, DURATION, AND PHASING REQUIREMENTS

The Contractor shall provide a schedule for all work listed on plans including any additional work not specifically mentioned on plans but was agreed upon with the County prior to work commencing. The schedule shall account for steel plate use restrictions of "VDOT Special Provisions for Pavement Open Cuts".

Work Duration per task order shall be calculated in accordance with Supplements to the General Condition "SC-F.2 TIME FOR COMPLETION". The Time for completion shall be used as the basis for the project schedule.

Contractor shall make sure that the submittals/shop drawings are reviewed and accepted and materials ordered and delivered on site as no additional time will be granted for this.

6. WORK HOURS

The Contractor shall comply with **normal daytime working hours** as defined in the County Noise Control Ordinance unless otherwise defined by the project plans and specifications, or approved by the Project Officer.

The Contractor shall comply with **restricted working hours** of 9:00 am to 3:00 pm when working in Arlington County arterial streets unless otherwise indicated on the Maintenance of Traffic Plans for each project.

The Contractor shall comply with **restricted working hours** as defined by VDOT and as noted on the approved VDOT permit when working within the VDOT Right-Of-Way. For restricted work hours in VDOT ROW, see attached "Lane Closure Guidelines in NOVA District". The Contractor is responsible for satisfying all VDOT Permit requirements found at: http://www.virginiadot.org/business/fairfax-permits-main.asp.

In addition, the County reserves the right to restrict working days and hours to accommodate special site conditions as required.

7. GENERAL SITE SECURITY AND CONTROLS

The Contractor is responsible for securing its work area for safety and security. The Contractor shall confine its construction and presence to the Limits of Work, unless otherwise approved by the County Project Officer.

The Contractor shall provide, erect, and maintain barricades, fences, and/or signage as required to protect the general public, workers, and adjoining properties at no additional cost to the County. Before leaving the site at the end of each day, the Contractor shall replace any and all sections of the security fence or barricade moved or removed during work hours.

The Contractor shall maintain clear vehicular access to existing driveways and entrances at all times unless such access is otherwise addressed on County-approved project plans,

precluding concrete pouring and curing of such access points, unless otherwise directed by the County Project Officer.

Homeowners shall be notified by the Contractor a minimum of fourteen (14) calendar days in advance of any driveway closure, and driveways can only be closed for a maximum of five (5) calendar days.

The Contractor shall monitor parking of construction personnel's private vehicles and ensure that the public has unobstructed access to and through parking areas.

8. SPECIAL TRAFFIC MAINTENANCE CONSIDERATIONS

The maintenance of Traffic for the work in this contract shall be carried out in accordance with Maintenance of Traffic Plan C121.1 - 7 and C122.1 -3. Any deviation from the Maintenance of Traffi Plan shall be coordinator with VDOT.

9. TRAFFIC SIGNALS AND STREETLIGHTS

Materials and construction of the communications conduit, streetlights, and traffic signals shall abide by the latest versions of the 'Arlington County Traffic Signal Specifications and Standards' and 'Arlington County Lighting Specifications and Standards. All materials for these areas shall be approved by Arlington County Transportation Engineering and Operations Bureau. The County Project Officer will facilitate the material specification submissions for review by the Transportation Engineering and Operations Bureau.

The Contractor shall abide by VDOT's requirement to submit signal foundation details for review. These details include, but are not limited to soil tests to verify the detail design, along with any other supporting information required by VDOT in their submission package. Details shall be created for each signal pole foundation and shall be for both three feet and four feet diameter foundations. The County will assist only in the submission of these details to VDOT, if requested. The Contractor is responsible for satisfying all VDOT requirements. The Contractor shall incorporate all costs for this in relevant items and no payment will be made by the County. The submission shall be submitted with enough time for VDOT to adequately review it. The Contractor cannot claim any time delay or any additional compensation due to such delay.

Prior to removal of the existing signal equipment and materials, the Contractor shall meet with the Project Officer to verify which equipment will be returned to the County, when and where the returned equipment will be delivered, and which equipment will be disposed. All costs associated with this shall be incidental to other items in the Contract.

Installation of electrical service for temporary services such as signals, streetlights, signal cabinets, construction trailers, or for equipment use are incidental to the contract.

Intercepting existing streetlight conduits and splicing into existing cables are incidental to the contract.

References to a CCTV camera shall mean to both furnish and install the CCTV camera, unless specifically excluded.

As part of the luminaire installation, Contractor shall install house-side shields in each fixture. These shields will be provided by the County. If requested, the County will demonstrate how to install the shields. The Contractor shall contact the Streetlights Operations Team Manager at (703) 228-6531 to obtain the shields prior to ordering any streetlight materials to ensure they will be available at the time of construction, and to request a demonstration on how to install the shields. Failure to do so will be at the Contractor's expense for time if construction is stopped because the shields are not available. The installation of the shields is considered incidental to the contract and no additional payments shall be made for this work.

10. OTHER SPECIAL PROVISIONS

A. The contractor to coordinate with affected property owners / residents before shut-downs of the water main. If shut-down is not an option, the contractor to provide temporary water service to affected residents from nearest fire hydrant. This work is considered as an incidental. No additional payment will be made for this work.
B. Abandoning or removal of existing water mains (all sizes/all locations) shall be considered incidental. No separate payment will be made.
C. The proposed 12 inch watermain goes under an existing Underground Electric and underground Telephone line on several location through out the proposed length. Contractor shall seek and follow directions from Dominion and comcast to work around the utilities safely. Any hand digging or other methods used to pass the watermain underneath the utilities shall be incidental to the watermain work and there shall not be separate payment for that.

SUPPLEMENTS TO THE DES CONSTRUCTION STANDARDS AND SPECIFICATIONS

SECTION 01500 – TEMPORARY EROSION AND SEDIMENT CONTROL

PART 3 - EXECUTION

PARAGRAPH 3.1 Installation and Maintenance of Erosion and Sediment Controls

Delete

3.1.E The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. Any discharge from dewatering operations shall be properly filtered prior to being

discharged. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations must be included as part of the erosion and sediment control plan.

Add

3.1.E The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. Any discharge from dewatering operations shall be properly filtered prior to being discharged. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations shall be prepared by the Contractor.

SECTION 02200 – EARTHWORK

PART 3 - EXECUTION

PARAGRAPH 3.5 Dewatering

Delete

3.5.C The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations must be included as part of the erosion and sediment control plan.

Add

3.5.C The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. Any discharge from dewatering operations shall be properly filtered prior to being discharged. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations shall be prepared by the Contractor.

SECTION 02500 – GRAVITY SEWERS AND APPURTENANCES

PART 4 – MEASUREMENT AND PAYMENT

PARAGRAPH 4.1 Sewer

Delete

4.1.A Sewer pipe for the various materials, classes, and sizes shown on the plans shall be measured in linear feet along the center line of the pipe and shall be measured from inside wall of structure to inside wall of structures. Payment shall include the furnishing of all pipe and fittings, all necessary tests, excavation, removal and disposal of existing pipes, removal and disposal of unsuitable or surplus material, placement of bedding and backfill as shown in Standard M-3.0, restoration of roadways as shown in Standard M-6.1, all other restoration, and all other work required to providing a complete sewer installation in compliance with the Construction Documents.

Add

4.1.A Sewer pipe for the various materials, classes, and sizes shown on the plans shall be measured in linear feet along the center line of the pipe and shall be measured from inside wall of structure to inside wall of structures. Payment shall include the furnishing of all pipe and fittings, all necessary tests, excavation, abandonment and/or removal and disposal of existing pipes, removal and disposal of unsuitable or surplus material, placement of bedding and backfill as shown in Standard M-3.0, restoration of roadways as shown in Standard M-6.1, all other restoration, and all other work required to providing a complete sewer installation in compliance with the Construction Documents.

SECTION 02600 - BITUMINOUS ROADWAY PAVEMENTS

PART 4 – MEASUREMENT AND PAYMENT

Delete

4.2 Subbase shall be measured to the width and depths shown on the approved plans as verified in the field by the Project Officer or his designee. Payment shall be in cubic yards of material.

Add

4.2 Subbase shall be measured to the width and depths shown on the approved plans as verified in the field by the Project Officer or his designee. Payment shall be in cubic yards of material and shall include demolition, excavation, and the necessary preparation of the sub grade surface.

SECTION 02900 - PAVEMENT MARKINGS

PART 3 - EXECUTION

PARAGRAPH 3.2 Provision for Temporary Markings

Add

B. All Type D pavement markings shall conform to the latest VDOT requirements.

PART 4 - MEASUREMENT AND PAYMENT

PARAGRAPH 4.4 Removal/Eradication of Existing Pavement Markings

Delete

A. Payment for pavement line markings (type, class, width) removal and/or eradication shall be paid by actual work performed as listed in the contract and shall include all labor,

materials, tools, equipment, transportation, supplies, and incidentals required to remove and/or eradicate the line markings as specified.

Add

A. Payment for pavement line markings (type, class, width) removal and/or eradication shall be incidental to the work and no separate payment shall be made.

Add

PARAGRAPH 4.5 Pavement Message Marking

A. Measurement of pavement message markings (type, class, size) shall be in units of each furnished and installed.

B. Payment for pavement message markings (type, class, size) shall be in units of each and shall include all labor, materials, tools, equipment, transportation, supplies, and incidentals required to furnish and install the message markings as specified.

SECTION 329100 - PLANTING PREPARATION

PART 4 - MEASUREMENT AND PAYMENT

Add

4.10 The measurement of CONTINUOUS SOIL PANEL to be paid for shall be per CUBIC YARD of the amended soil in accordance with the plans, specifications and to the satisfaction of the Project Officer.

4.11 The unit price for CONTINUOUS SOIL PANEL shall include the cost of furnishing all labor, materials, equipment and incidental expenses, including but not limited to imported topsoil, vapor barrier, 4" UD-4 underdrain (per VDOT specification), bedding material per Continuous Soil Panel and Tree Pit Drainage Details, and connection to storm sewer system.

SUPPLEMENTS TO THE 2020 LIGHTING SPECIFICATIONS

Modify the listed sections as follows:

SECTION 14050 – LIGHTING CONDUCTORS

PART 4 MEASUREMENT AND PAYMENT

Delete

(a) Furnish Conductor shall be measured and paid for on a linear foot basis.

(b) Install Conductor will be measured and paid for on a linear foot basis. Several conductors pulled into a single conduit at the shall be measured by the length of the pull rather than the total length of the conductors installed. Cost for pulling conductors shall

include all connectors, splice enclosures, or other appurtenances required for making the electrical connections.

1. The cost of installing or replacing pull rope shall be incidental to the cost of pulling conductor.

Add

(a) Furnishing and installing all conductor(s) and/or cable(s) for streetlights is included in a single price paid per linear foot measured by the length of conduit installed. The Unit Price shall include the cost of all conductors, fittings, connections, slack, securing terminals and other incidentals necessary for the Work as detailed in the County Lighting Specifications.

1. The size, number and/or required slack length of the conductor(s) and/or cable(s) will not be assessed independently for payment.

2. The cost of installing or replacing pull rope shall be incidental to the cost of the conductor(s).

(b) THIS LINE INTENTIONALLY LEFT BLANK

EXHIBIT H

Arlington County, VA Materials Testing Specification Reference (September 2020)

MATERIAL AND TEST (*REF. - VDOT TEST METHODS MANUAL)*	VDOT ROAD AND BRIDGE SPECIFICATION 2002 (*Or Latest Version)*	MINIMUM RATE OF SAMPLING (*REF. - VDOT MANUAL OF INSTRUCTIONS)*	LOCATION OF SAMPLING	REMARKS
SOILS AND AGGREGATES				
1. Embankments				
(a) Density, Any Method	303.04(h)	One (1) test per 2500 yd3 or less plus: (a) for fills less than 500 ft. length one (1) test on every other 6-in. layer bottom to top of fill starting with the second lift; (b) for fills from 500-2000 ft. length, two (2) tests per 6-in. layer within top five (5) ft. of fill; (c) for fills greater than 2000 ft length, break into equal segments not to exceed 2000 ft. and use same frequency for each section as for fills 500 to 2000 ft. in length.	Roadway	When tests are not run due to gravel, muck, rock, etc. give station and depth on report in lieu of test, with reason. For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.
2. Finished Sub-grade (Both Cut and Fill Sections)				
(a) Density, Any Method	305.03	One (1) test per 2000 continuous linear ft. of roadway and one test minimum per intersection per construction location	Roadway (24 ft.)	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.

Arlington County, VA Materials Testing Specification Reference (September 2020)

MATERIAL AND TEST (*REF. - VDOT TEST METHODS MANUAL)*	VDOT ROAD AND BRIDGE SPECIFICATION 2002 (*Or Latest Version)*	MINIMUM RATE OF SAMPLING (*REF. - VDOT MANUAL OF INSTRUCTIONS)*	LOCATION OF SAMPLING	REMARKS
(b) Density, Any Method	305.03	One (1) test per continuous section/block/or intersection	Curb, Comb. Curb and Gutter	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.
(c) Density, Any Method	305.03	One (1) test per continuous section/block/or intersection	Sidewalk	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.
3. Central Mix Aggregate (Treated or Un-treated) Base, Subbase, and Select Material				
(a) Density, Any Method	305.03, 308.03, & 309.05,	One (1) test per 1/2 mile or less per continuous lane application width per layer. If testing by nuclear method, each test shall consist of average of five (5) readings.	Roadway. Location of five (5) nuclear readings at randomly selected sites.	For nuclear tests, use Backscatter, Control Strip Method, VTM-10. With nuclear method, set up roller pattern and control strip for each layer or lift placed. See Notes 1 and 2.
(b) Density, Any Method	305.03, 308.03, & 309.05,	One (1) test per continuous section/block/or intersection	Curb, Comb. Curb and Gutter	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.
(c) Density, Any Method	305.03, 308.03, & 309.05,	One (1) test per continuous section/block/or intersection	Sidewalk	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.

Arlington County, VA Materials Testing Specification Reference (September 2020)

MATERIAL AND TEST (*REF. - VDOT TEST METHODS MANUAL)*	VDOT ROAD AND BRIDGE SPECIFICATION 2002 (*Or Latest Version)*	MINIMUM RATE OF SAMPLING (*REF. - VDOT MANUAL OF INSTRUCTIONS)*	LOCATION OF SAMPLING	REMARKS
4. Backfill for Pipes and Box Culverts	302.03, 303.04(g), 401.03(i)	Minimum one test per lift on alternating sides of pipe for each 300 feet of pipe or portion thereof. Test pattern is to begin after first 4" compacted layer above the structures bedding and continue to 1' above top of pipe or box culvert structure. For rate of testing greater than 1' above top of pipe refer to contract documents and Rate of Sampling for embankments.	Alternating sides of structure	For nuclear test, use Direct Transmission Methods, VTM-10. See Notes 1 and 2. Backfill lifts shall be compacted in horizontal layers not more than 6 inches in thickness, loose measurement. (Or as Specified by the Contract Documents)
5. Backfill for Drop Inlets	302.03, 303.04(g)	Minimum one test every other lift around the perimeter beginning after the first 4" compacted layer above the bedding and continue to top of the structure. Stagger tests to ensure consistent compaction effort has been achieved.	Perimeter of structure	To include drop inlets, junction boxes, etc. For nuclear test, use Direct Transmission Methods, VTM-10. See Notes 1 and 2. Backfill lifts shall be compacted in horizontal layers not more than 6 inches in thickness, loose measurement. (Or as Specified by the Contract Documents)
6. Backfill for Manholes	302.03, 303.04(g)		Perimeter of structure	For nuclear test, use Direct Transmission Methods, VTM-10. See Notes 1 and 2. Backfill lifts shall be compacted in horizontal layers not more than 6 inches in thickness, loose measurement. (Or as Specified by the Contract Documents)

Arlington County, VA Materials Testing Specification Reference (September 2020)

MATERIAL AND TEST (*REF. - VDOT TEST METHODS MANUAL)*	VDOT ROAD AND BRIDGE SPECIFICATION 2002 (*Or Latest Version)*	MINIMUM RATE OF SAMPLING (*REF. - VDOT MANUAL OF INSTRUCTIONS)*	LOCATION OF SAMPLING	REMARKS
HYDRAULIC CEMENT CONCRETE				
1. Sidewalk, Curb, Comb. Curb and Gutter				
(a) Temperature Measurements	217	One test per batch (truck), and when making compressive specimens.	At job site, and prior to placing concrete in forms.	If test on any batch fails, recheck batch immediately before rejecting. Enter results of tests in project records.
(b) Air Content	217	One test per batch (truck), and when making compressive specimens	At job site, and prior to placing concrete in forms	Any of 3 approved methods may be used for this test. However, with any test method used, with readings indicating concrete to be outside of specification must be confirmed first with test by Pressure Method before rejection of concrete. Enter results in project records.
(c) Consistency (Slump Test).	217	One test per batch (truck), and when making compressive specimens.	At job site, and prior to placing concrete in forms.	If test on any batch fails, recheck batch immediately before rejecting. Enter results in project records.

Arlington County, VA Materials Testing Specification Reference (September 2020)

MATERIAL AND TEST (*REF. - VDOT TEST METHODS MANUAL)*	VDOT ROAD AND BRIDGE SPECIFICATION 2002 (*Or Latest Version)*	MINIMUM RATE OF SAMPLING (*REF. - VDOT MANUAL OF INSTRUCTIONS)*	LOCATION OF SAMPLING	REMARKS
(d) Compressive Strength...	217	For <u>miscellaneous concrete,</u> one set of 3 cylinders shall be made for each 250 cubic yards, with a minimum of one set of 3 per day. Any one set to be made from same batch. For <u>structural concrete,</u> one set of 3 cylinders shall be made for each 100 cubic yards of concrete placed, with a minimum of 2 sets of 3 cylinders each per structure per class of concrete. Any one set to be made from same batch.	At job site.	<u>Molding and Curing</u> Molds shall be placed on a rigid horizontal surface free from vibration and other disturbances during the first 24 hours, all test specimens shall be stored under conditions that maintain the temperature immediately adjacent to the specimens in the range of 60℉ to 80℉, and prevent loss of moisture. <u>Testing</u> Except when high-early strength concrete is specified, compressive strength testing will be performed at 28 days.

Arlington County, VA Materials Testing Specification Reference (September 2020)

MATERIAL AND TEST (*REF. - VDOT TEST METHODS MANUAL)*	VDOT ROAD AND BRIDGE SPECIFICATION 2002 (*Or Latest Version)*	MINIMUM RATE OF SAMPLING (*REF. - VDOT MANUAL OF INSTRUCTIONS)*	LOCATION OF SAMPLING	REMARKS
ASPHALT PAVEMENT				
(a) In-Place Pavement Density by Nuclear Method (Roller Pattern)/ (Control Strip) (Asphalt Pavement)	Roads and Bridges Section 315.05 VTM-76 AASHTO T-166	Establish Roller pattern and Control Strip according to VTM-76. Ten (10) stratified random sample to establish target density. Verify minimum density achieved with cores per VTM-76. **QC technician shall be certified and pass State proficiency**	Field	Contractor/Asphalt Producer shall provide Certified Asphalt Paving Technician for density testing
(b) In-place Pavement Density by Nuclear Method and/or VDOT cores Test Section) (Asphalt Pavement)	Roads and Bridges Section 315.05 VTM-76 AASHTO T-166	Test Section- Lot Size: 5000 ft. per Lane width. Ten (10) stratified random samples per lot for nuclear gauge and/or five(5) stratified random plug/cores per lot **QC technician shall be certified and pass State proficiency**	Field	Contractor/Asphalt Producer shall provide Certified Asphalt Paving Technician for density testing
(c) Temperature Measurements	Roads and Bridges 211.08	One temperature measurement initially on first and fifth loads, each type mix each production day, and thereafter minimum of one per hour of production time for each mix type, by Producer's Certified Asphalt	QC - Processing or mixing plant from back of truck **QA – Field**	The Contractor should take and record temperature measurements of the asphalt concrete at the beginning of paving operations and thereafter at a rate of not less than one measurement every hour. The

Arlington County, VA Materials Testing Specification Reference (September 2020)

MATERIAL AND TEST (*REF. - VDOT TEST METHODS MANUAL)*	VDOT ROAD AND BRIDGE SPECIFICATION 2002 (*Or Latest Version)*	MINIMUM RATE OF SAMPLING (*REF. - VDOT MANUAL OF INSTRUCTIONS)*	LOCATION OF SAMPLING	REMARKS
		Concrete Technician. If any test outside of tolerance, minimum of 3 additional tests made in different points of the load, and 4 tests averaged and average used as temperature of load or batch.		Project Officer may increase the frequency of temperature measurements at any time. The temperature should be checked using an appropriate heat-sensing device (i.e. probe thermometer, infrared thermometer, etc.).

Note 1. Density tests are reported on Forms TL-53, TL-54, TL-55, TL-124, TL-125 (Sand Cone Method), and TL-125A (One-Point Proctor Method).

Note 2. If there is a breakdown in the nuclear testing equipment, then density testing shall continue using other approved methods.

EXHIBIT I

MID-ATLANTIC UTILITY LOCATING, L.L.C.

TEST HOLE FORM

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-14
City: Arlington	**State:** VA	**Test Hole:** 1 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: 3"	**Material:** Paper Wrapped Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 4" C = 12"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.42'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 2.25' **Elevation:** 268.17'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**	

PLAN VIEW

COORDINATES

Northing: 7005459.2020 **Easting:** 11878695.3980

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-14
City: Arlington	**State:** VA	**Test Hole:** 2 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: (4 visible) 2 1/2"	**Material:** P.E.	**Good Condition:** YES
Utility Type: Fiber Optic Conduits		**Utility Owner:** JUC

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 4" C = 12"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.44'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 3.80' **Elevation:** 266.64'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:** 8"

PLAN VIEW

COORDINATES

Northing: 7005454.1720 **Easting:** 11878702.2990

COMMENTS/NOTES

MID-ATLANTIC UTILITY LOCATING, L.L.C.

TEST HOLE FORM

rover MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-19
City: Arlington	**State:** VA	**Test Hole:** 3 of
General Location: N. Glebe and N. Randolph		

UTILITY INFORMATION

Utility Size: Clear Hole	**Material:**	**Good Condition:** YES
Utility Type: None		**Utility Owner:**

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 5" C = 6"
Ground Condition: Brown Soil	

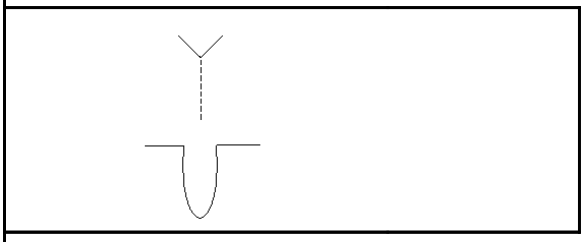
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.47'
Offset/Direction: Nail is set C/L of the Hole.	

PROFILE VIEW



Top of utility field measurement: 6.00' **Elevation:** 264.47'

Bottom of utility field measurement: None **Elevation:** None

Facing: None **Utility Width/Spacing:**	

PLAN VIEW

COORDINATES

Northing: 7005440.1000 **Easting:** 11878718.7000

COMMENTS/NOTES

Crew notes that they could not produce a signal on the utility in question on plan. Client was informed of findings and requested a 6' clearance hole to be dug in location indicated on plans.

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Oscar Johnson	**Date:** 2020-05-19
City: Arlington	**State:** VA	**Test Hole:** 4 of
General Location: N. Glene		

UTILITY INFORMATION

Utility Size: 6 1/2”	**Material:** Epoxy Coated Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:**

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 5” C = 6”
Ground Condition: Brown soil	

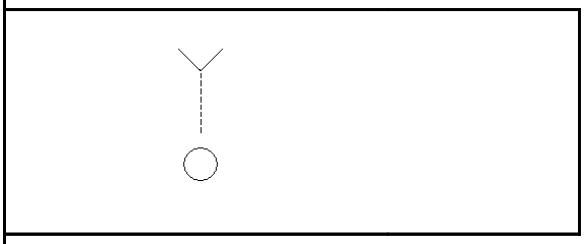
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.86'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 2.73’ **Elevation:** 268.13'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7005330.6160 **Easting:** 11878839.8020

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-15
City: Arlington	**State:** VA	**Test Hole:** 5 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: 4"	**Material:** PVC	**Good Condition:** YES
Utility Type: Electric Conduit		**Utility Owner:** Dominion

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 2" C = 10"
Ground Condition: Brown Soil	

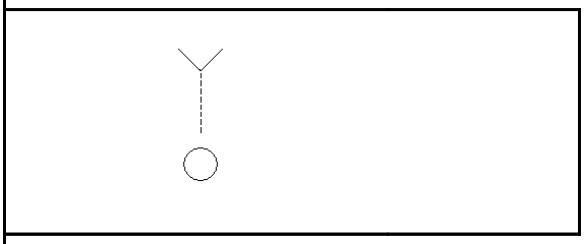
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.66'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 1.93' **Elevation:** 268.73'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7005285.5000 **Easting:** 11878889.7180

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-15
City: Arlington	**State:** VA	**Test Hole:** 6 of
General Location: Glebe Rd.		

UTILITY INFORMATION

Utility Size: Clear Hole	**Material:**	**Good Condition:** YES
Utility Type: None		**Utility Owner:**

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Aspahlt	**Pavement thickness:** 12"
Ground Condition: Brown Soil	

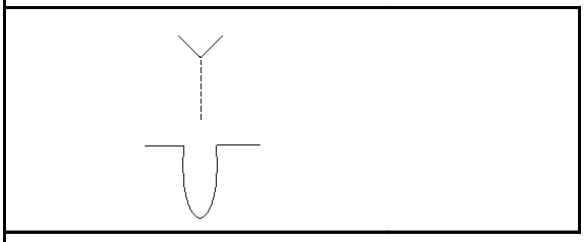
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.04'
Offset/Direction: Nail is set C/L of the Hole.	

PROFILE VIEW



Top of utility field measurement: 6.00' **Elevation:** 264.04'

Bottom of utility field measurement: None **Elevation:** None

Facing: None **Utility Width/Spacing:**	

PLAN VIEW

COORDINATES

Northing: 7005178.4280 **Easting:** 11879013.7860

COMMENTS/NOTES

Crew tried to expose the UGT but encountered refusal, instrument was put inside test hole to get depth and location of utility but reading was showing in location of test hole and depth reading was showing around 7' while inside test hole. Crew cleared to 6.00' with no evidence of utility found.

MID-ATLANTIC UTILITY LOCATING, L.L.C.

TEST HOLE FORM

rover MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-15
City: Arlington	**State:** VA	**Test Hole:** 7 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: (10 visible) 2"	**Material:** Steel	**Good Condition:** YES
Utility Type: Electric Conduits		**Utility Owner:** Arlington

ADDITIONAL UTILITY INFORMATION

Utility Size: (1 visible) 4"	**Material:** Steel	**See Test Hole No.:**
Utility Type: Electric Conduit		**Utility Owner:** V-DOT

SITE CONDITIONS

Field Condition: Asphalt **Pavement thickness:** A = 12"

Ground Condition: Brown Soil

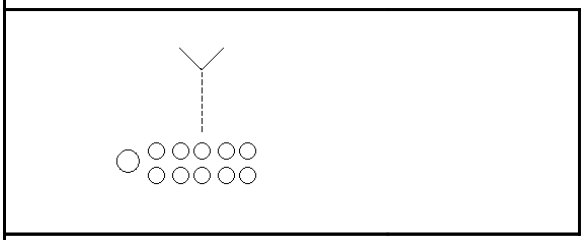
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 269.97'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 1.79' **Elevation:** 268.18'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:** 30"

PLAN VIEW

COORDINATES

Northing: 7005146.0460 **Easting:** 11879049.2290

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Chris Lugiano	**Date:** 2020-05-26
City: Arlington	**State:** VA	**Test Hole:** 8 of
General Location: N Glebe / N Quincy		

UTILITY INFORMATION

Utility Size: 6 3/4"	**Material:** Ductile Iron	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Arlington County

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt / Concrete	**Pavement thickness:** A = 2" / C = 9"
Ground Condition: Brown Soil	

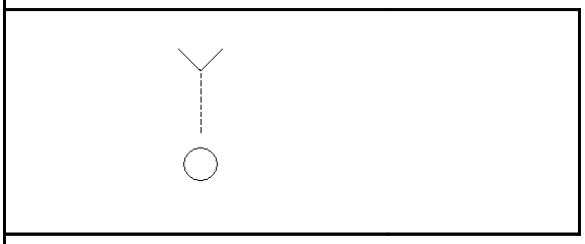
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 269.90'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 4.34' **Elevation:** 265.56'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7005137.9140 **Easting:** 11879093.4030

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Chris Lugiano	**Date:** 2020-05-26
City: Arlington	**State:** VA	**Test Hole:** 9 of
General Location: N Glebe / N Quincy		

UTILITY INFORMATION

Utility Size: 8 3/4"	**Material:** Ductile Iron	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Arlington County

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt / Concrete	**Pavement thickness:** A = 4" / C = 10"
Ground Condition: Brown Soil	

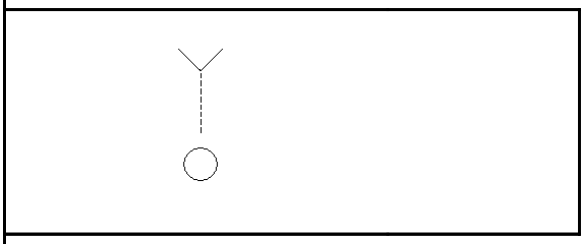
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 269.98'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 3.98' **Elevation:** 266.00'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7005094.8090 **Easting:** 11879090.6510

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Chris Lugiano	**Date:** 2020-05-26
City: Arlington	**State:** VA	**Test Hole:** 10 of
General Location: N Glebe / N Quincy		

UTILITY INFORMATION

Utility Size: 4"	**Material:** Epoxy Coated Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt / Concrete	**Pavement thickness:** A = 3" / C = 9 1/2"
Ground Condition: Brown Soil	

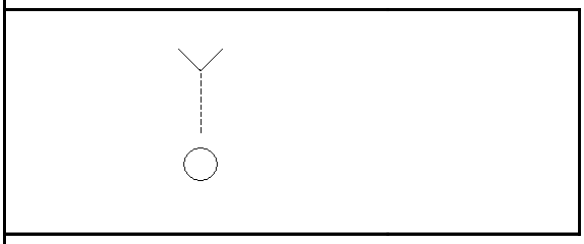
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.14'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 2.89' **Elevation:** 267.25'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7005107.0250 **Easting:** 11879099.6040

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-18
City: Arlington	**State:** VA	**Test Hole:** 11 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: 1"	**Material:** Paper Wrapped Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 2" C = 12"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.09'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 2.61' **Elevation:** 268.48'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004978.1170 **Easting:** 11879262.8960

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-14
City: Arlington	**State:** VA	**Test Hole:** 12 of
General Location: Glebe Rd.		

UTILITY INFORMATION

Utility Size: 6 1/2"	**Material:** Cast Iron	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Arlington

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 2" C = 12"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.42'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 3.25' **Elevation:** 268.17'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004917.7490 **Easting:** 11879343.1080

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Chris Lugiano	**Date:** 2020-05-26
City: Arlington	**State:** VA	**Test Hole:** 13 of
General Location: N Glebe / 4th St		

UTILITY INFORMATION

Utility Size: 8 3/4"	**Material:** Ductile Iron	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Arlington County

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt / Concrete	**Pavement thickness:** A = 3" / C = 10"
Ground Condition: Brown Soil	

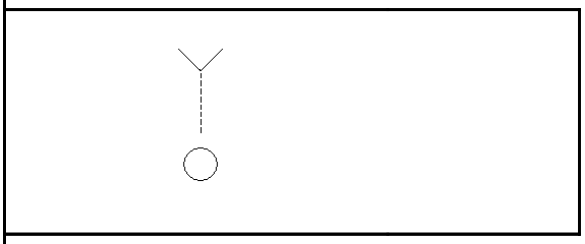
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.43'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 4.43' **Elevation:** 267.00'

Bottom of utility field measurement: None **Elevation:** None

Facing: East **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004887.4530 **Easting:** 11879330.7500

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-13
City: Arlington	**State:** VA	**Test Hole:** 14 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: 2 1/2"	**Material:** Paper Wrapped Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 2" C = 12"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.61'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 3.65' **Elevation:** 267.96'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004897.3980 **Easting:** 11879352.9560

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-13
City: Arlington	**State:** VA	**Test Hole:** 15 of
General Location: Glebe Rd.		

UTILITY INFORMATION

Utility Size: Unknown Size	**Material:** Concrete	**Good Condition:** YES
Utility Type: Electric Ductbank		**Utility Owner:**

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 2" C = 12"
Ground Condition: Brown Soil	

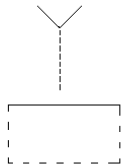
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.10'
Offset/Direction:	

PROFILE VIEW



Top of utility field measurement: 3.39' **Elevation:** 267.71'

Bottom of utility field measurement: None **Elevation:** None

Facing: East **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004798.8280 **Easting:** 11879464.9610

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-13
City: Arlington	**State:** VA	**Test Hole:** 16 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: 1/2"	**Material:** Paper Wrapped Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 2" C = 12"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.09'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 2.52' **Elevation:** 268.57'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004763.1720 **Easting:** 11879506.8300

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-13
City: Arlington	**State:** VA	**Test Hole:** 17 of
General Location: Glebe Rd.		

UTILITY INFORMATION

Utility Size: 1"	**Material:** Paper Wrapped Steel	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 2" C = 12"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.63'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 2.66' **Elevation:** 268.97'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004711.8870 **Easting:** 11879564.8670

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-12
City: Arlington	**State:** VA	**Test Hole:** 18 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: 2"	**Material:** Paper Wrapped Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 2" C = 10"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.42'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 3.83' **Elevation:** 267.59'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004611.1540 **Easting:** 11879676.1750

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-12
City: Arlington	**State:** VA	**Test Hole:** 19 of
General Location: Glebe Rd.		

UTILITY INFORMATION

Utility Size: 6 1/2"	**Material:** Cast Iron	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Arlington

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 2" C = 10"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.37'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 5.15' **Elevation:** 266.22'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004595.6130 **Easting:** 11879676.9830

COMMENTS/NOTES

MID-ATLANTIC UTILITY LOCATING, L.L.C.

TEST HOLE FORM

rover MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-12
City: Arlington	**State:** VA	**Test Hole:** 20 of
General Location: Glebe Rd.		

UTILITY INFORMATION

Utility Size: (2) 2 1/2"	**Material:** P.E.	**Good Condition:** YES
Utility Type: Fiber Optic Conduits		**Utility Owner:** Arlington

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt	**Pavement thickness:** A = 5"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 271.16'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 2.04' **Elevation:** 269.12'

Bottom of utility field measurement: None **Elevation:**

Facing: Northeast **Utility Width/Spacing:** 5"

PLAN VIEW

COORDINATES

Northing: 7004576.0950 **Easting:** 11879714.1950

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-12
City: Arlington	**State:** VA	**Test Hole:** 21 of
General Location: Glebe Rd.		

UTILITY INFORMATION

Utility Size: 1"	**Material:** Paper Wrapped Steel	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 3" C = 8"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.23'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 3.63' **Elevation:** 266.60'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004498.0240 **Easting:** 11879805.1720

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Mike Cooper	**Date:** 2020-05-12
City: Arlington	**State:** VA	**Test Hole:** 22 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: 6 1/2"	**Material:** Cast Iron	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Arlington

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 14"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.21'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 4.95' **Elevation:** 265.26'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004499.7940 **Easting:** 11879812.2720

COMMENTS/NOTES

MID-ATLANTIC UTILITY LOCATING, L.L.C.

TEST HOLE FORM

rover MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Oscar Johnson	**Date:** 2020-05-19
City: Arlington	**State:** VA	**Test Hole:** 23/24 of
General Location: N. Glene		

UTILITY INFORMATION

Utility Size: 48”	**Material:** Concrete	**Good Condition:** YES
Utility Type: Electric Ductbank		**Utility Owner:**

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 5” C = 7”
Ground Condition: Brown soil	

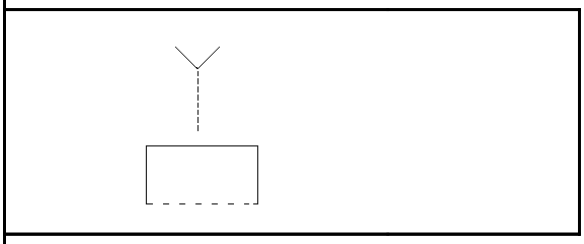
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 267.43'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 3.12’ **Elevation:** 264.31'

Bottom of utility field measurement: 4.57’ **Elevation:** 262.86'

Facing: East **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004339.2620 **Easting:** 11879986.8320

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Oscar Johnson	**Date:** 2020-05-19
City: Arlington	**State:** VA	**Test Hole:** 25 of
General Location: N. Glene		

UTILITY INFORMATION

Utility Size: 6 1/2”	**Material:** Epoxy Coated Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:**

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 1” C = 6”
Ground Condition: Brown soil	

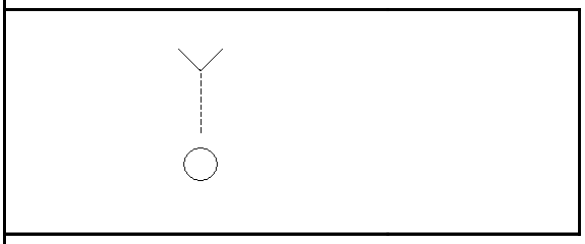
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 266.99'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 2.65’ **Elevation:** 264.34'

Bottom of utility field measurement: None **Elevation:** None

Facing: West **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004339.8690 **Easting:** 11880005.4820

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Cody Brown	**Date:** 2020-05-08
City: Arlington	**State:** VA	**Test Hole:** 26 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: 1/2"	**Material:** Steel	**Good Condition:** YES
Utility Type: Unknown Function Conduit		**Utility Owner:**

ADDITIONAL UTILITY INFORMATION

Utility Size: (4 visible) 2 1/2"	**Material:** P.E.	**See Test Hole No.:**
Utility Type: Fiber Optic Conduits		**Utility Owner:** Arlington

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 3" C = 4"
Ground Condition: Brown Soil	

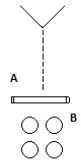
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 266.91'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 2.13' **Elevation:** 264.78'

Bottom of utility field measurement: 2.88' **Elevation:** 264.03'

Facing: Northwest **Utility Width/Spacing:** 5"

PLAN VIEW

COORDINATES

Northing: 7004342.1510 **Easting:** 11880010.1450

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Cody Brown	**Date:** 2020-05-08
City: Arlington	**State:** VA	**Test Hole:** 27/28 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: (9 visible) 2"	**Material:** P.E.	**Good Condition:** YES
Utility Type: Fiber Optic Conduits		**Utility Owner:** Fiberlight/ MCI

ADDITIONAL UTILITY INFORMATION

Utility Size: Unknown	**Material:** RCP	**See Test Hole No.:**
Utility Type: Storm Line		**Utility Owner:** Arlington

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 4" C = 7"
Ground Condition: Brown Soil	

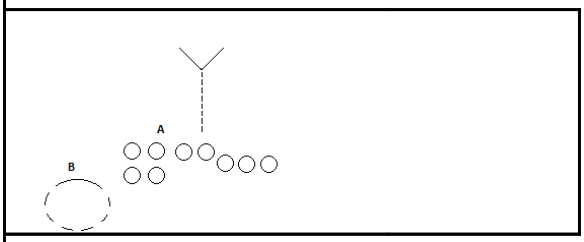
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 266.83
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: A = 3.21' **Elevation:** 263.62'

Bottom of utility field measurement: B = 3.81' **Elevation:** 263.02'

Facing: Northwest **Utility Width/Spacing:** 14"

PLAN VIEW

COORDINATES

Northing: 7004344.2090 **Easting:** 11880013.1370

COMMENTS/NOTES

Centerline of storm is directly under the western most edge of conduits.

MID-ATLANTIC UTILITY LOCATING, L.L.C.

TEST HOLE FORM

rover MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Cody Brown	**Date:** 2020-05-08
City: Arlington	**State:** VA	**Test Hole:** 29 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: (1) 3 1/2"	**Material:** Steel	**Good Condition:** YES
Utility Type: Electric Conduit		**Utility Owner:** V-DOT

ADDITIONAL UTILITY INFORMATION

Utility Size: (1) 2 1/2"	**Material:** Steel	**See Test Hole No.:**
Utility Type: Electric Conduit		**Utility Owner:** V-DOT

SITE CONDITIONS

Field Condition: Asphalt	**Pavement thickness:** A = 5"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 266.83'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 2.12' **Elevation:** 264.71'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northwest **Utility Width/Spacing:** 8"

PLAN VIEW

COORDINATES

Northing: 7004346.7580 **Easting:** 11880017.2580

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Oscar Johnson	**Date:** 2020-05-19
City: Arlington	**State:** VA	**Test Hole:** 30 of
General Location: N. Glene		

UTILITY INFORMATION

Utility Size: 8 1/2”	**Material:** Cast Iron	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:**

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 5” C = 6”
Ground Condition: Brown soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 266.72'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 4.09' **Elevation:** 262.63'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004345.7430 **Easting:** 11880039.1460

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Chris Lugiano	**Date:** 2020-05-27
City: Arlington	**State:** VA	**Test Hole:** 31 of
General Location: N Glebe / N Pershing		

UTILITY INFORMATION

Utility Size: 12 3/4"	**Material:** Ductile Iron	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Arlington County

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt / Concrete	**Pavement thickness:** A = 5" / C = 6"
Ground Condition: Brown Soil	

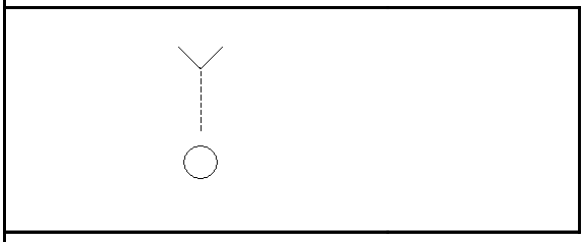
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 267.13'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 4.65' **Elevation:** 262.48'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**	

PLAN VIEW

COORDINATES

Northing: 7004312.5020 **Easting:** 11879992.6250

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Chris Lugiano	**Date:** 2020-05-27
City: Arlington	**State:** VA	**Test Hole:** 32 of
General Location: N Glebe / N Pershing		

UTILITY INFORMATION

Utility Size: 6"	**Material:** Epoxy Coated Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt / Concrete	**Pavement thickness:** A = 3" / C = 9"
Ground Condition: Brown Soil	

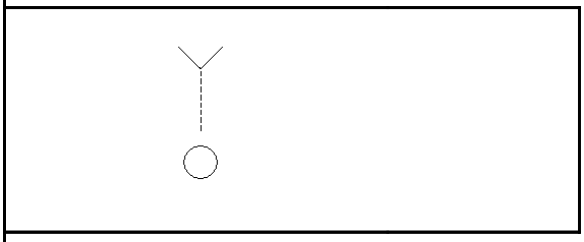
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 267.04'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 3.02' **Elevation:** 264.02'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northeast **Utility Width/Spacing:**	

PLAN VIEW

COORDINATES

Northing: 7004314.1030 **Easting:** 11880011.1050

COMMENTS/NOTES

MID-ATLANTIC UTILITY LOCATING, L.L.C.

TEST HOLE FORM

rover
MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Chris Lugiano	**Date:** 2020-05-27
City: Arlington	**State:** VA	**Test Hole:** 33 of
General Location: N Glebe / N Pershing		

UTILITY INFORMATION

Utility Size: 21"	**Material:** Rough Pour Concrete	**Good Condition:** YES
Utility Type: Communication Ductbank		**Utility Owner:** VZN

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt / Concrete	**Pavement thickness:** A = 4" / C = 7"
Ground Condition: Brown Soil	

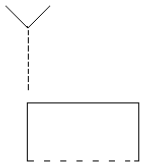
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 266.94'
Offset/Direction: Nail is set of North Edge.	

PROFILE VIEW



Top of utility field measurement: 3.86' **Elevation:** 263.08'

Bottom of utility field measurement: 4.72' **Elevation:** 262.22'

Facing: East **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004307.3340 **Easting:** 11880019.2590

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Chris Lugiano	**Date:** 2020-05-29
City: Arlington	**State:** VA	**Test Hole:** 34 of
General Location: N. Glebe and Pershing		

UTILITY INFORMATION

Utility Size: 12 3/4"	**Material:** Ductile Iron	**Good Condition:** YES
Utility Type: Water Line		**Utility Owner:** Arlington

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 3" C = 12"
Ground Condition: Brown Soil	

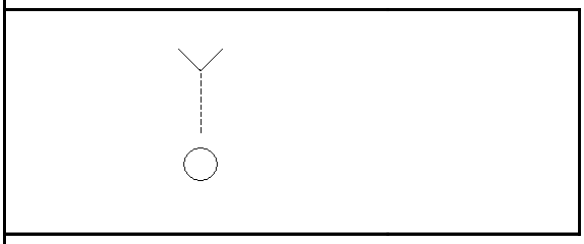
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 266.00'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW



Top of utility field measurement: 4.90' **Elevation:** 261.10'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northwest **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004258.4030 **Easting:** 11880079.1940

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Cody Brown	**Date:** 2020-05-11
City: Arlington	**State:** VA	**Test Hole:** 35 of
General Location: N. Glebe		

UTILITY INFORMATION

Utility Size: 6 1/2"	**Material:** Epoxy Coated Steel	**Good Condition:** YES
Utility Type: Gas Line		**Utility Owner:** Washington Gas

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Asphalt/ Concrete	**Pavement thickness:** A = 3" C = 6"
Ground Condition: Brown Soil	

FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Mag Nail	**Elevation:** 270.09'
Offset/Direction: Nail is set C/L of the Utility.	

PROFILE VIEW

Top of utility field measurement: 3.67' **Elevation:** 266.42'

Bottom of utility field measurement: None **Elevation:** None

Facing: Northwest **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004521.3750 **Easting:** 11879799.1520

COMMENTS/NOTES

TEST HOLE FORM

MID-ATLANTIC UTILITY LOCATING, L.L.C.

rover — MID-ATLANTIC UTILITY LOCATING's MOBILE FIELD DATA REPORTING

44200 WAXPOOL RD, SUITE 127 ASHBURN, VA 20147 | 703.378.0100 | WWW.MIDATLANTICLOCATING.COM

Project: M-0618-0201-RO14 (N. Glebe Water Line Replacement)	**Prepared By:** Chris Lugiano	**Date:** 2020-05-11
City: Arlington	**State:** VA	**Test Hole:** 36 of
General Location: N. Glebe and Quebec		

UTILITY INFORMATION

Utility Size: Clear Hole	**Material:**	**Good Condition:** YES
Utility Type: None		**Utility Owner:**

ADDITIONAL UTILITY INFORMATION

Utility Size:	**Material:**	**See Test Hole No.:**
Utility Type: None		**Utility Owner:**

SITE CONDITIONS

Field Condition: Grass Area	**Pavement thickness:** N/A
Ground Condition: Brown Soil	

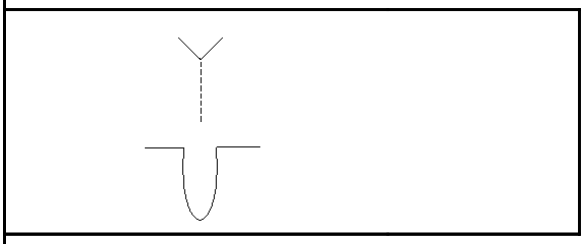
FIRST & SECOND BENCHMARK INFORMATION

1st Elevation:	**1st Benchmark Description:**
BM Check:	
2nd Elevation:	**2nd Benchmark Description:**
Elevation Datum:	

FIELD MARKER INFORMATION

Type set: Chiseled "X"	**Elevation:** 269.88'
Offset/Direction: Chiseled "X" is set C/L of the Hole.	

PROFILE VIEW



Top of utility field measurement: 6.00' **Elevation:** 263.88'

Bottom of utility field measurement: None **Elevation:** None

Facing: None **Utility Width/Spacing:**

PLAN VIEW

COORDINATES

Northing: 7004524.8740 **Easting:** 11879803.4400

COMMENTS/NOTES

Crew was unable to locate the utility in test hole. Client was notified of findings and requested to clear 6.00'

EXHIBIT J

Commonwealth Of Virginia

Department Of Transportation

Land Use Permit

Permit No 947-143688

Status APPROVED

This permit only grants permission to use whatever rights the Commonwealth Transportation Board and the Department of Transportation have in the right of way and no more, and it is the obligation of the permittee to secure any other releases or permission that may be needed in order to perform the work.

Effective Date May 14, 2021 **Expiration Date** Oct 31, 2023 **Reinstatement Date**

Permitee Information	**Your Job#** Arlington R014	**Surety & Account Receivable Information**
Owner & Address County of Arlington 2100 Clarendon Boulevard Suite 813 Arlington VA 22201	**Agent**	**Name** Arlington County **Surety Account** VAAR00617 **Surety Type** Resolution **Amount** 10,000,000.00 **Obligation Amount** 1,000.00 **Surety Holder** CUSTOMER
Contact Leo Dizon **Phone#** 703-732-5989 **Fax#** 703-228-3606 **24 Hr#** 703-549-7546	**Contact** **Phone#** **Fax#** **24 Hr#**	

AUTHORIZATION: In compliance with your application, permission is hereby given insofar as the Commonwealth Transportation Board has the right, power, and authority under sections 33.2 - 210;33.2 - 240;33.2 - 241 of the Code of Virginia as amended, to grant by Special Agreement and/or by Land Use Permit for you to perform the work and or activity(s) described below:

Location

County/City/Town	Arlington County	Highway Route(s)	120 - N. Glebe Road
From Route Number	NIS	From Route Name	N Randolph Street
To Route Number	NIS	To Route Name	N Pershing Drive

Work Description

Furnish & install approx. 2,050LF of 12" water main, 900LF of 8" watermain, and 10LF of 6" water main, along with valves, vaults, fire hydrants, connections to existing water mains, other related appurtenances to complete the water main installation, reinstallation of approx. 420LF of curb and gutter, 160SY of sidewalk and 6,722SY of pavement restorations and all other related incidental work. All work shall conform to the provisions as listed on the LUP-SPG Special Provisions Form. WORK HOURS: Monday thru Thursday 9:30am-3pm, and Friday 9:30am-2pm. Information Sign Required; see item#7, General Requirements, LUP-SPG. LOCATION INSPECTOR: Mark Kaldmaa (703)259-2777. Lane closure request forms must be submitted to the inspector by COB Wednesday the week before the lane closure is needed and also entered into LCAMS/VA Traffic. All lane closures require the applicant to call VDOT TOC at 703-877-3401 before setup and after removal of MOT.

Payment Reference	Payment Date	Payment Type	Payment Amount
60799584	5/5/2021	Credit Card	$885.00

Applicant has compiled with VA Code Section 56-265.15 Affidavit is attached.

TERMS: Applicable as stated in the VDOT Land Use Permit Regulations (current edition) and/or as per approved plans, and/or regulatory instructions, including but not limited to the LUP-SPG and/or agreement(s) attached hereto.

COMMONWEALTH TRANSPORTATION BOARD

By: *May 14, 2021*

Robert Burton

C Call before you dig

A Allow the required time for marking

R Respect and protect the marks/flags

E Excavate carefully

Call Miss Utility
811

[ ] When checkbox is marked, by approving this permit, the issuing official certifies that the entrance was designed in accordance with Appendix F of the Road Design Manual

FINAL INSPECTION & SURETY REQUIREMENTS: Upon completion of the work or activity(s) authorized under this Land Use Permit, the permittee shall contact the following office in writing or by electronic communication to request final inspection and release of the surety obligation for this permit.

NOVA District - Fairfax Permits
4975 Alliance Drive Suite 1N
Fairfax, VA VA 22030

EXHIBIT L

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

September 29, 2016

MEMORANDUM

TO: NOVA District Staff

FROM: Hari Sripathi, P.E.
Regional Operations Director

SUBJECT: Lane Closures in Nova District

As a follow up to the Lane Closures in Nova District memorandum dated April 27, 2012, enclosed are the updated guidelines for lane closures.

These updated guidelines will be effective immediately. All existing and previously approved projects are encouraged to review their respective contract documents and make adjustments if possible.

ATTACHMENT - VDOT Lane Closure Guidelines

Lane Closure Guidelines

-For Northern Virginia-

Virginia Department of Transportation
Northern Region Operations

September 21, 2016

Instruction

The purpose of this memorandum is to present guidelines for lane closure hours for construction, maintenance, permits, and special events in Northern Virginia.

The first version of the lane closure guidelines was issued in April 2012. In the past four years, there have been completed and on-going roadway construction projects in the NoVA District, such as I-495 and I-95 express lanes and the I-66 spot improvements. As these guidelines are applied and implemented, modifications and updates to these guidelines have become necessary. Same as the previous version, the modifications were made based on traffic volume; roadway characteristics; comments from staff; and considering the public tolerance for the lane closure during certain time periods of the day.

It should be noted that these guidelines must be used as a starting point for discussion at the project level. On large scale projects with robust community outreach and a Traffic Management Plan, these hours could be extended. If project staff would like to modify these hours for interstate or major arterials, they must work with NRO Traffic Operations staff for recommendations and obtain final approval from their functional Assistant District Administrator (ADA).

Please review the existing contracts and discuss the deviations from these hours with your functional ADA.

Restriction of Operations:

In addition to the allowable lane closure hours specified in the tables, the restrictions listed below shall be followed.

1. **Peak Hours Lane Closures**
   Any lane reductions (temporary or permanent) during the peak periods (Monday to Friday, 6:00AM to 9:00AM and 3:30PM to 6:30PM) on roads with an AADT above or equal to 10,000 vehicles requires consultation with the Regional Operations Director (ROD) and Public Affairs Manager.

2. **Complete Roadway Closures**

   If there are complete road closures on any road for construction or maintenance work, the ROD and Public Affairs Manager must be consulted.

   Complete Roadway Closures shall be limited to 20 to 30 minutes intermittent stoppage for some specific work activities.

   If the closure duration is above 30 minutes, it shall be approved separately with full Maintenance of Traffic and Traffic Management Plans.

3. **Construction in Residential Subdivisions**

   Road work within residential subdivisions and/or cul-de-sac streets should be conducted during daytime hours to avoid night time noise issues.

4. **Express Lanes (I-95 & I-495)**

   All I-95 and I-495 Express Lane closures shall be coordinated with the Express Lanes Operations Center at least 5 business days in advance using their Authorization to Work form (available from the Express Lanes Operations Center at (571) 419-6046. Complete road closures on the I-95 Express Lanes and I-495 Express Lanes will be limited to 30 minutes or less

5. **Holiday**

   In addition to the Sunday or Holiday work limitations, mobile, short duration, short-term stationary or intermediate-term stationary temporary traffic control zone lane closures on mainline lanes, shoulders or ramps shall not be performed during the following Holiday time periods without the written permission of the Engineer. Additionally, long-term stationary temporary traffic control zones shall not be initially put in place, adjusted, or removed during the following Holiday time periods without the written permission of the Engineer (VDOT 2016 Standard Specifications, updated 7/2016):

- **January 1:** From Noon on the preceding day until Noon on the following day, except as indicated below.
- **Martin Luther King, Jr. Day and Lee Jackson Day*:** From Noon on the preceding Thursday to Noon on the following Tuesday.
- **Presidents Day*:** As indicated below.
- **Easter*:** As indicated below.
- **Memorial Day:** As indicated below.
- **July 4:** From Noon on the preceding day until Noon on the following day, except as indicated below.
- **Labor Day:** As indicated below.
- **Columbus Day*:** As indicated below.
- **Veterans Day*:** From Noon on the preceding day until Noon on the following day, except as indicated below.
- **Thanksgiving Day:** From Noon on the Wednesday proceeding Thanksgiving Day until Noon on the Monday following Thanksgiving Day.
- **Christmas Day:** From Noon on the preceding day until Noon on the following day, except as indicated below.

If the Holiday occurs on a Friday or Saturday: From Noon on the preceding Thursday to Noon on the following Monday.
If the Holiday occurs on a Sunday or Monday: From Noon on the preceding Friday to Noon on the following Tuesday.

***Note:**

For low volume roadways (minor arterial), lane closures will not be allowed during the holidays; however, there will be no restriction to the preceding day and the following day.

INTERSTATE 395 & INTERSTATE 95

WEEKDAY		Northbound			
		Single-Lane Closures or Shoulder	**Two-Lane Closures**	**Multiple-Lane Closures**	**Complete Road Closure**
Segment 1	**14th St. Bridge to Springfield Interchange**	10:00AM to 3:00PM 9:00PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 2	**Springfield Interchange to Rt.123**	9:30AM to 3:30PM 9:00PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 3	**Rt.123 to Prince William / Stafford County line**	9:30AM to 3:30PM 9:00PM to 5:00AM	10:00PM to 4:30AM	11:00PM to 4:00AM	12:00AM to 4:00AM
Segment 4	**Prince William / Stafford County line to Rt.3 Exit 130**	9:30AM to 3:30PM 9:00PM to 4:30AM	10:00PM to 4:30AM	n/a	12:00AM to 4:00AM
Segment 5	**Rt.3 Exit 130 to Caroline / Hanover County line**	9:00AM to 3:30PM 9:00PM to 5:30AM	10:00PM to 4:30AM	n/a	12:00AM to 4:00AM
All lanes open at 12:00 noon on Friday					
WEEKDAY		**Southbound**			
		Single-Lane Closures or Shoulder	**Two-Lane Closures**	**Multiple-Lane Closures**	**Complete Road Closure**
Segment 1	**14th St. Bridge to Springfield Interchange**	10:00AM to 2:30PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 2	**Springfield Interchange to Rt.123**	9:00AM to 2:00PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 3	**Rt.123 to Prince William / Stafford County line**	9:00AM to 2:00PM 9:30PM to 6:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 4	**Prince William / Stafford County line to Rt.3 Exit 130**	9:00AM to 2:00PM 9:30PM to 6:00AM	10:00PM to 5:30AM	n/a	12:00AM to 4:00AM
Segment 5	**Rt.3 Exit 130 to Caroline / Hanover County line**	9:00AM to 3:00PM 9:30PM to 6:00AM	10:00PM to 5:30AM	n/a	12:00AM to 4:00AM
All lanes open at 11:00am on Friday					

INTERSTATE 395 & INTERSTATE 95			
WEEKEND	**Northbound/Southbound***		
	Single-Lane Closures or Shoulder	**Multiple-Lane Closures**	**Complete Road Closure**
Friday to Saturday	10:00PM to 7:00AM	11:00PM to 6:00AM	12:00AM to 5:00AM
Saturday to Sunday	10:00PM to 7:00AM	11:00PM to 6:00AM	12:00AM to 5:00AM
Sunday to Monday	10:00PM to 5:00AM	11:00PM to 4:00AM	12:00AM to 4:00AM
* For special operations, depending on time of year, additional hours may be allowed with proper ADA/ROD approval.			

	REVERSIBLE LANES (HOV & EXPRESS LANES)*	
	Single-Lane Closures or Shoulder	**Complete Road Closure****
WEEKDAY	9:30PM (Sunday to Thursday) to 4:00AM (Monday to Friday)	11:00PM to 4:00AM
WEEKEND	11:00PM (Friday to Saturday) to 9:00AM (Saturday to Sunday)	11:00PM to 4:00AM
* Direction of traffic control for all lane closures in reversible lanes will need to be adjusted as necessary to face direction of traffic.		
** Complete Road Closure on Express Lanes limited to 30 minutes or less.		

INTERSTATE 495 (BELTWAY)					
WEEKDAY		**Inner Loop**			
		Single-Lane Closures or Shoulder	**Two-Lane Closures**	**Multiple-Lane Closures**	**Complete Road Closure**
Segment 1	**A. L. Bridge to Springfield Interchange**	10:00AM to 3:00PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
Segment 2	**Springfield Interchange to W.W. Bridge**	10:00AM to 3:00PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
All lanes open at 12:00 noon on Friday					
WEEKDAY		**Outer Loop**			
		Single-Lane Closures or Shoulder	**Two-Lane Closures**	**Multiple-Lane Closures**	**Complete Road Closure**
Segment 1	**A. L. Bridge to Springfield Interchange**	9:30AM to 2:30PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
Segment 2	**Springfield Interchange to W.W. Bridge**	10:00AM to 3:00PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
All lanes open at 12:00 noon on Friday					
WEEKEND		**Inner/Outer Loop**			
		Single-Lane Closures or Shoulder		**Multiple-Lane Closures**	**Complete Road Closure**
Friday to Saturday		10:00PM to 8:00AM		11:00PM to 7:00AM	12:00AM to 5:00AM
Saturday to Sunday		10:00PM to 9:00AM		11:00PM to 8:00AM	12:00AM to 5:00AM
Sunday to Monday		9:30PM to 5:00AM		11:00PM to 5:00AM	12:00AM to 5:00AM

	EXPRESS LANES	
	Single-Lane Closures or Shoulder	**Complete Road Closure****
WEEKDAY	9:30PM (Sunday to Thursday) to 4:00AM (Monday to Friday)	11:00PM to 4:00AM
WEEKEND	11:00PM (Friday to Saturday) to 9:00AM (Saturday to Sunday)	11:00PM to 4:00AM
** Complete Road Closure on Express Lanes limited to 30 minutes or less.		

INTERSTATE 66					
WEEKDAY		**Eastbound**			
		Single-Lane Closures or Shoulder	**Two-Lane Closures**	**Multiple-Lane Closures**	**Complete Road Closure**
Segment 1	**Prince William County line to Route 286**	10:00AM to 3:30PM 8:00PM to 5:00AM	9:00PM to 5:00AM	10:00PM to 5:00AM	12:00AM to 4:00AM
Segment 2	**Route 286 to Beltway**	11:00AM to 3:30PM 9:00PM to 5:00AM	10:00PM to 5:00AM**	11:00PM to 5:00AM**	12:00AM to 4:00AM
Segment 3	**Beltway to TR Bridge (Inside Beltway)**	9:30PM to 5:00AM	n/a	n/a	12:00AM to 4:00AM
All lanes open at 12:00 noon on Friday					
WEEKDAY		**Westbound**			
		Single-Lane Closures or Shoulder	**Two-Lane Closures**	**Multiple-Lane Closures**	**Complete Road Closure**
Segment 1	**Prince William County line to Route 286**	9:00AM to 2:30PM 9:00PM to 6:00AM	9:30PM to 6:00AM	10:30PM to 5:00AM	12:00AM to 4:00AM
Segment 2	**Route 286 to Beltway**	9:00AM to 2:00PM* 9:30PM to 5:00AM	10:00PM to 5:00AM**	11:00PM to 5:00AM**	12:00AM to 4:00AM
Segment 3	**Beltway to TR Bridge (Inside Beltway)**	9:30AM to 2:00PM* 10:00PM to 5:00AM	10:00PM to 5:00AM**	n/a	12:00AM to 4:00AM
All lanes open at 12:00 noon on Friday					

**** Only be considered for three lane segment.***
*** Consider opening shoulder lane, where Applicable.*

WEEKEND	**Eastbound/Westbound**		
Outside Beltway	**Single-Lane Closures or Shoulder**	**Multiple-Lane Closures**	**Complete Road Closure**
Friday to Saturday	9:00PM to 9:00AM	10:00PM to 6:00AM	12:00AM to 5:00AM
Saturday to Sunday	9:00PM to 9:00AM	10:00PM to 6:00AM	12:00AM to 5:00AM
Sunday to Monday	8:00PM to 5:00AM	9:00PM to 5:00AM	12:00AM to 4:00AM
Inside Beltway	**Single-Lane Closures or Shoulder**	**Multiple-Lane Closures**	**Complete Road Closure**
Friday to Saturday	10:00PM to 6:00AM	n/a	12:00AM to 5:00AM
Saturday to Sunday	10:00PM to 6:00AM	n/a	12:00AM to 5:00AM
Sunday to Monday	9:30PM to 5:00AM	n/a	12:00AM to 4:00AM

ROUTE 267 CONNECTOR				
WEEKDAY	**Eastbound**		**Westbound**	
	Single-Lane Closures or Shoulder	**Complete Road Closure**	**Single-Lane Closures or Shoulder**	**Complete Road Closure**
Monday to Friday	11:00AM to 3:00PM	12:00AM to 4:00AM	9:30AM to 3:00PM	12:00AM to 4:00AM
	9:30PM to 5:00AM		9:00PM to 5:00AM	
All lanes open at 12:00 noon on Friday				

WEEKEND	**Eastbound/Westbound**	
	Single-Lane Closures or Shoulder	**Complete Road Closure**
Friday to Saturday	10:00PM to 8:00AM	12:00AM to 5:00AM
Saturday to Sunday	11:00PM to 8:00AM	12:00AM to 5:00AM
Sunday to Monday	9:00PM to 5:00AM	12:00AM to 4:00AM

Single-Lane Closures* or Shoulder					
ARTERIAL	**WEEKDAY**		**WEEKEND**		
	Monday to Thursday	Friday	Friday to Saturday	Saturday to Sunday	Sunday to Monday
Major Arterials**	9:30AM to 3:00PM 10:00PM to 5:00AM	9:30AM to 2:00 PM	10:00PM to 9:00AM	10:00PM to 8:00AM	10:00PM to 5:00AM
All Other Roadways	9:00AM to 3:30PM 9:00PM to 5:00AM	9:00AM to 2:00 PM	10:00PM to 9:00AM	9:00PM to 9:00AM	10:00PM to 5:00AM

Multiple-Lane Closures					
ARTERIAL	**WEEKDAY**		**WEEKEND**		
	Monday to Thursday	Friday	Friday to Saturday	Saturday to Sunday	Sunday to Monday
Major Arterials**	10:00PM to 5:00AM	Not allowed until 11:00PM	11:00PM to 5:00AM	11:00PM to 6:00AM	11:00PM to 5:00AM
All Other Roadways	9:00PM to 5:00AM	Not allowed until 10:00PM	10:00PM to 6:00AM	10:00PM to 6:00AM	10:00PM to 5:00AM

**Single-lane closures only permitted for multiple-lane roadways.*
***Major Arterials defined as Primary Roads, high volume Secondary Roads, and all other routes that connect directly to Interstates.*

EXHIBIT M

State & Federal Roads in Arlington County, VA

State Routes

- Interstate 66: Custis Memorial Parkway
- Interstate 395: Henry G. Shirley Memorial Highway
- U.S. Route 1: Jefferson Davis Highway
- State Route 27: Washington Boulevard (Memorial Bridge to U.S. Route 50)
- U.S. Route 29: Lee Highway
- U.S. Route 50: Arlington Boulevard
- State Route 110: Jefferson Davis Highway (Rosslyn to Crystal City)
- State Route 120: Glebe Road
- State Route 123: Chain Bridge Road
- State Route 124: Spout Run Parkway (Lee Highway to Lorcom Lane)
- State Route 233: Airport Viaduct
- State Route 237: Washington Boulevard (North Glebe Road to Lee Highway)
- State Route 237: Fairfax Drive (Kirkwood Road to North Glebe Road)
- State Route 237: 10th Street North (U.S. Route 50 to Kirkwood Road)
- State Route 309: Old Dominion Drive

Federal Routes

- Arlington Hall Street
- Boundary Channel Drive
- George Washington Memorial Parkway
- Fort Myer streets, including Arlington National Cemetery
- Marshall Drive (North Meade Street to U.S. Route 110)
- Memorial Avenue
- Pentagon Street
- Spout Run Parkway (Lorcom Lane to George Washington Memorial Parkway)

EXHIBIT N

DEPARTMENT OF ENVIRONMENTAL SERVICES
Engineering Bureau
2100 Clarendon Boulevard, Suite 813, Arlington, VA 22201
TEL 703.228.3669 FAX 703.228.3606 www.arlingtonva.us

Revised: 1/4/2022

CONSTRUCTION CHANGE ORDER BUDGET SUMMARY

Please use this form to track change order cost throughout the construction phase

Contractor:	Contractor
Project Name:	Project Name
Project No:	XX###
Prepared by:	Project Engineer

Date: x/x/202x

Contract #:	XX-XXX-X-ITB
Purchase Order #:	XXXX

	Fund	*Natural Acc.*	*Cost Center*	*Project*	*Source of Fund*	*Task*
Account Number to Increase PO:	123	123456	12345	0000	0000	0000

TOTAL CONTRACT AUTHORIZATION
(PO and Contingency)

ORIGINAL PURCHASE ORDER AMOUNT:
(Contract without Contingency)

CONTRACT CONTINGENCY AMOUNT:

TOTAL CHANGE ORDERS INCREASE:

Change #	Amount	Description	Date
CO # 1	$ 1.00		
CO # 2	$ 1.00		
CO # 3	$ 1.00		
CO # 4	$ 1.00		
CO # 5	$ 1.00		
CO # 6			
CO # 7			
CO # 8			
CO # 9			
CO # 10			
CO # 11			

AUTHORIZED CONTINGENCY BALANCE: $0.00

EXHIBIT O

ARLINGTON COUNTY, VA
REQUEST FOR INFORMATION FORM

PROJECT: **RFI NUMBER:** _____
PROJECT NO.:

FOR CONTRACTOR ROUTING:
Contractor: _____ Transmittal No.: _____
Work Category: Date:

TO
☐ **(County Project Officer)** ☐ Action ☐ Faxed to _____ ☐ Emailed ☐ Mailed Pages ___
☐ **(Consultant)** ☐ Action ☐ Faxed to _____ ☐ Emailed ☐ Mailed Pages ___
☐ **(Other)** ☐ Action ☐ Faxed to _____ ☐ Emailed Pages ___

REGARDING: _____
SPEC. SECTION: _____ **DWG. NO.:** _____

EXPLANATION OF ISSUE: (Provide complete description of request with sketches or photos if necessary, and present status of work)

RECOMMENDATION / SUGGESTED SOLUTION:

RESPONSE PRIORITY: ☐ EARLIEST CONVENIENCE ☐ RUSH (WORK IN PROGRESS)
REASON FOR REQUEST: ☐ Existing Condition ☐ Non-conformance ☐ Clarification / Interpretation ☐ Agency Generated ☐ Other

CONTRACTOR : _____
BY: _____ **DATE**: _____ Dist: _____

ARCHITECT'S/ENGINEER'S ROUTING: (for A/E use only)
To: _____ Date: _____ Return to: _____ Date _____

TO: **(contractor)** ☐ Faxed to _____ ☐ Emailed ☐ Mailed ☐ Hand delivered

RESPONSE:

☐ The above is considered a change. The following document will be used for processing: _____
☐ The above is consistent with the intent of and reasonably inferable from Contract Documents, or makes minor changes in the Work without change in Contract Sum or Contract Time. If Contractor does not agree, submit written notice within twenty (20) days substantiating claim in accordance with Contract Documents for approval.
☐ This RFI is returned without response for the following reason: ☐ Incomplete or lack of detailed information. ☐ Related to "means & methods". ☐ Lack of adequate Coordination Drawings. ☐ Is a "Substitution Request". ☐ Response required by others.

FROM: _____
BY: _____ **DATE:** _____ Dist: ☐ _____ ☐ File

Posted: 03/01/2018