PUBLIC WORKS NOTES:

1. All requirements relative to City Code and Public Works Design and Construction Standards shall be submitted and approved before release of site plans.
2. All required bonds, escrows, insurances, cash, etc., shall be submitted and approved before release of site plans.
3. Plan and profile shall be submitted (inked on mylar size 24" x 36") for all storm sewers and street projects in public right-of-ways or public easements and approved before release of site plans.
4. Contractor is responsible to notify all utility companies before construction begins.
5. All datum shall be based on USC and GS datum.
6. Bonds shall not be released until the receipt and approval by the City of as-built site plan, plans and profiles, etc.
7. All underground utilities and transformers shall be shown on site plan and confirmed per location on as-built plan.
8. The owner shall notify the Director of Public Works in Writing three days prior to the beginning of all street or storm sewer work shown on the site plan.
9. The installation of improvements as required in this article shall in no case serve to bind the city to accept such improvements for the maintenance, repair of operation thereof, but such acceptance, shall be subject to the existing regulations concerning the acceptance of each type of improvement.
10. No lane closures are permitted on West Broad Street before 9:30 AM and after 3:00 PM. Only one lane may be closed at a time. VDOT requirements for traffic control will govern.
11. Normal construction hours are 7:00 AM to 9:00 PM Monday, through Friday and 9:00 AM to 9:00 PM on weekends and holidays.
12. Permits are required for construction work located within the established City right-of-way.

GENERAL NOTES:

1. Topographic and utility information provided by Davis Utility Consulting, LLC
2. Easement Plat information provided by EN Engineering and KIM Engineering.

SHEET INDEX

PROJECT DRAWING LIST	
B-51499-7	COVER SHEET
B-51499-8	TITLE SHEET
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B-51499-10	EROSION & SEDIMENT CONTROL NOTES
B-51499-11	EROSION & SEDIMENT CONTROL NOTES
B-51499-12	PLAN VIEW
B-51499-13	EASEMENT PLAN
L-301	TREE PRESERVATION PLAN
L-302	TREE PRESERVATION NOTES AND DETAILS
L-401	LANDSCAPE LAYOUT PLAN
L-402	PAVER DETAILS
L-501	PLANTING PLAN
L-502	PLANTING NOTES AND DETAILS

FIRE MARSHAL NOTES:

All requirements relative to City Fire Code and Virginia Building Code must be complied with.

1. Use group classification _____
2. Type of construction _____
3. Fire flow @ hydrant. _____

RPI MAP INFORMATION:

Lot(s) _____ Block _____

MISCELLANEOUS NOTES:

1. Upon satisfactory completion of the installation of required improvements, as shown on the approved site plan or a section thereof, the developer shall submit to the Department of Planning five copies of an as-built site plan certified by the engineer, architect and/or surveyor for approval for conformity with the approved site plan.
2. The As-Built Site Plan shall be submitted and approved prior to the issuance of the final Occupancy Permit.
3. Final approval by the Planning Commission of this site plan shall expire one year after the day of such approval if building permits have not been obtained for construction in accordance therewith, unless an extension is granted by the City.
4. In any development involving a condominium, cooperative, automatic owners' association or other form of ownership in which there is common area within the development, the documents pertaining to this form of ownership shall be approved by the City Attorney prior to issuance of any Occupancy Permit.
5. Any proposed changes or revisions during the execution of or subsequent to implementation of the approved site plan shall be subject to City review and approval.
6. The federal emergency management agency's flood insurance rate map for the City of Falls Church, Virginia, map number 5100540001c, revised date July 16, 2004, designates the property as being in zone x, "Areas determined to be outside the 0.2% annual chance floodplain."

WAIVERS:

VARIANCE:

PLANNING NOTES:

ARBORIST NOTES:

MISCELLANEOUS NOTES:

Easement(s):

Subdvision(s) and Consolidation(s):

Dedication(s):

Site Plan Approval:

APPLICATION FOR REVIEW AND APPROVAL BY

CITY OF FALLS CHURCH, VIRGINIA

Certification

COMMONWEALTH OF VIRGINIA
KRAIVUT SRISUKKHATHAMAN
LICENSE NO. 041200-0354
PROFESSIONAL ENGINEER
date: 2/24/20
Expired 6/30/2
B-51499

Signature

APPROVALS

PLANNING COMMISSION FINAL APPROVAL:

SPECIAL USE PERMIT (Date(s) of Approval by BZA):

BOND(S) POSTED (Date(s) and Amount(s)):

FINAL STAFF APPROVAL:

Planning _____ Signature : _____ Date : _____

Public Works _____

SUBSEQUENT ACTIONS:

BUILDING PERMIT ISSUED (Date) : _____

AS-BUILT APPROVED (Date) : _____

COMMON AREA DOCUMENTS APPROVED (Date) : _____

LANDSCAPE ESCROW ACCEPTED (Date) : _____

CERTIFICATE OF OCCUPANCY (Date) : _____

OTHER :

Revisions Approved prior to Certificate of Occupancy:

Description	Date Approved

WEST END PARK
NAME OF PROJECT

1048 W BROAD ST, FALLS CHURCH, VA 22046
ADDRESS

CITY OF FALLS CHURCH
OWNER — TELEPHONE #

300 PARK AVE
FALLS CHURCH, VA 22046
ADDRESS — FAX. #

THE OWNER AGREES TO JOIN IN THE SITE PLAN AND AGREES TO BE BOUND BY ALL PLAN REQUIREMENTS.

SIGNATURE _____ DATE _____

Site Plan MUNIS # SHEET #

Washington Gas
CORPORATE ENGINEERING
6801 Industrial Road
Springfield, Virginia 22151
Telephone: 703-750-4405
Fax: 703-750-4447

Rev. Number	Dr/Ck	Date	Appd	Appd	Appd
.	.	.	.	.	.

Reason for Rev.

Design Approval

Appd	Appd	Appd	Appd	Appd	Appd
.	.	.	.	.	.

FAIRFAX, VIRGINIA

WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
GAS PIPING & ESC PLAN
CITY OF FALLS CHURCH, VA

PWD: L:\ECV\Vienna\Vienna\VBG STAGING\Vienna 2005 SAS Pipeline PLOTTED: Thursday, February 27, 2020 3:33:19 PM

Safety Sector: 348	ADC Map: VAFF5526A8
Quad Map: Z001NW	Tax Map: .
Drawn by/Date: (ENE) JW // 01/06/2020	
Checked by/Date: . // .	
Project Engineer: W. DEKKER	
B/M File Number: .	
Process Number: 63000	
Job Number: .	
Scale: NONE	
Revision Number: .	
Drawing Number: B-51499-7	

FAIRFAX, VIRGINIA
WEST END PARK WASHINGTON GAS PLAN AMENDMENT
GAS PIPING & ESC PLAN,
CITY OF FALLS CHURCH, VA

EROSION & SEDIMENT CONTROL NARRATIVE:

PROJECT DESCRIPTION
THE PURPOSE OF THIS PROJECT IS TO RELOCATE AN EXISTING GAS REGULATOR STATION TO FACILITATE THE FALLS CHURCH GATEWAY DEVELOPMENT. THE NEW REGULATOR STATION WILL BE LOCATED AT WEST END PARK. ON A DAILY BASIS, THE LAND DISTURBANCE SHALL NOT EXCEED 2,500 SF, AND THE CONSTRUCTION PROGRESS SHALL BE MANAGED TO COMPLY. THE DISTURBED AREA INCLUDES TRENCHING FOR INSTALLATION OF GAS PIPING WITHIN THE LANDSCAPED AREA. ON A DAILY BASIS, THE SEQUENCE OF CONSTRUCTION WILL BE THE PLACEMENT OF EROSION CONTROL MEASURES FOR THE PORTIONS OF WORK TO BE COMPLETED, INSTALLATION OF THE PIPING, AND STABILIZATION OF THE COMPLETED AREA OF WORK.

EXISTING SITE CONDITIONS
THE EXISTING SITE CONSISTS OF THE NORTHWEST SECTION OF WEST END PARK, ALONG THE PROPERTY LINE. A PORTION OF EXISTING TREES WILL BE REMOVED AND THE AREA RELANDSCAPED. THIS WORK WILL NOT SIGNIFICANTLY ALTER THE PREDEVELOPMENT RUNOFF CHARACTERISTICS OF THE LAND SURFACE AFTER THE COMPLETION OF CONSTRUCTION AND FINAL STABILIZATION.

ADJACENT PROPERTY
THE PROPERTY IS ADJACENT TO THE FORWARD MI, INC. PROPERTY (CAR WASH) TO THE NORTHWEST, ADJACENT TO NORTHERN VIRGINIA REGIONAL PARK AUTHORITY PROPERTY TO THE SOUTH, AND ADJACENT TO ROUTE 7 TO THE SOUTHWEST. THE PROPOSED WORK IS ADJACENT TO ROUTE 7.

OFF-SITE AREAS
THERE IS NO OFFSITE WORK ASSOCIATED WITH THIS PLAN.

SOILS
SEE MAP, SHEET B-51499-11

CRITICAL AREA
THERE ARE NO CRITICAL AREAS ON SITE.

EROSION AND SEDIMENT CONTROL MEASURES

SILT FENCE:	VESCH 3.05
CONSTRUCTION ENTRANCE:	VESCH 3.02
FILTER BAG:	VESCH 3.26

E&S WILL BE LIMITED TO ONE PHASE AND WILL INCLUDE SILT FENCE AND A CONSTRUCTION ENTRANCE. THE EXISTING WEST PARK ENTRANCE OFF OF W BROAD STREET WILL BE UTILIZED AS THE CONSTRUCTION ENTRANCE. ALL CONTROL MEASURES ARE TO BE IN PLACE PRIOR TO THE START OF LAND DISTURBING ACTIVITIES AND SHALL REMAIN IN PLACE UNTIL ALL THE ACTIVITIES ARE COMPLETE AND ON-SITE SOIL HAS BEEN STABILIZED. THE CONTROL MEASURES SHALL BE INSTALLED AND REMOVED APPROPRIATELY AS THE WORK PROGRESSES, LIMITING THE LAND DISTURBANCE DAILY TO 2,500 SF.

CONTRACTOR TO CONTROL DUST DURING CONSTRUCTION THROUGH IRRIGATION IN ACCORDANCE WITH VESCH STANDARDS. THE DEWATERING DEVICE SHALL BE USED AS NECESSARY.

ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH VESCH STANDARDS.

PERMANENT STABILIZATION:
PERMANENT SOIL STABILIZATION SHALL BE IN ACCORDANCE TO VESCH SECTIONS 3.29 TO 3.36. ANY SOIL NOT TO BE BROUGHT TO FINAL GRADE FOR MORE THAN 30 DAYS IS TO BE SEEDED AND MULCHED WITHIN 7 DAYS (ANY DENUDED AREA). STOCKPILES TO BE SEEDED IMMEDIATELY. AREAS LEFT DORMANT OR NOT BROUGHT TO FINAL GRADE SHALL BE PERMANENTLY SEEDED AND MULCHED.

NO DISTURBED AREA WILL BE DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS IT IS AN ACTIVE WORK AREA OR OTHERWISE AUTHORIZED BY THE FALLS CHURCH INSPECTOR. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE IMMEDIATELY STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MAINTENANCE NOTES:
1. MAINTENANCE OF THE TEMPORARY CONSTRUCTION ENTRANCE SHALL BE AS REQUIRED TO PREVENT MUD DEPOSITS IN THE RIGHT-OF-WAY. ALL EXISTING ROADWAYS TO BE MAINTAINED IN A SEDIMENT FREE CONDITION AT ALL TIMES.
2. SILT FENCES SHALL BE INSPECTED AT THE END OF EACH DAY AND AFTER EACH RAINFALL. ANY REQUIRED REPAIRS OR REPLACEMENT SHALL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS WILL BE REMOVED AFTER EACH RAINFALL AND AT ANY TIME THE DEPOSITS REACH APPROXIMATELY 1/2 THE HEIGHT OF THE BARRIER.
3. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED IN PLACE UNTIL GROUND DISTURBING ACTIVITIES, BUILDING CONSTRUCTION, AND PERMANENT STABILIZATION IS COMPLETE.

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE VESCH 4VAC50-30-40 MINIMUM STANDARDS:
A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED IN TRUCKS AND EXCESS MATERIAL SHALL BE HAULED OFFSITE.
C. 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-STIE PROPERTY.
D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

GENERAL EROSION AND SEDIMENT CONTROL NOTES
ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN 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 CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

ES-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.

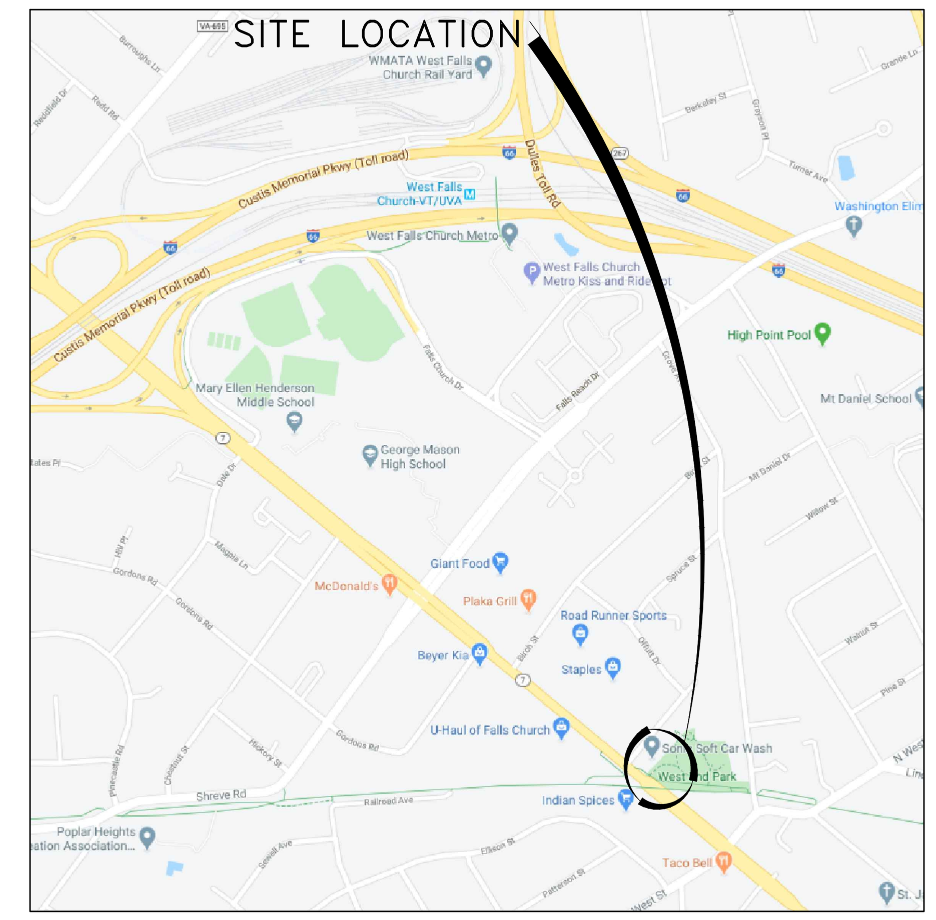
ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION 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.

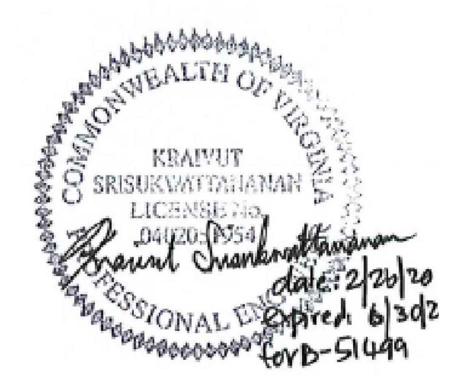
THIS PLAN IS FOR THE INSTALLATION OF NATURAL GAS FACILITIES ON PRIVATE PROPERTY ONLY. A SEPARATE RIGHT-OF-WAY PERMIT SHALL BE OBTAINED FOR THE WORK ALONG AND IN LEESBURG PIKE. THE LAND DISTURBANCE OFFSITE SHALL BE MAINTAINED UNDER 2,500 SF.

NOTES:

1. THE PROJECT DOES NOT SIGNIFICANTLY ALTER THE PREDEVELOPMENT RUNOFF CHARACTERISTICS OF THE LAND SURFACE AFTER THE COMPLETION OF CONSTRUCTION AND FINAL STABILIZATION
2. PROJECT SHALL BE MANAGED SO THAT LESS THAN 2,500 SF OF LAND DISTURBANCE OCCURS ON A DAILY BASIS.
3. DISTURBED LAND WHERE WORK HAS BEEN COMPLETED SHALL BE STABILIZED ON A DAILY BASIS.
4. EROSION CONTROL MEASURES SHALL BE CONTINUALLY MONITORED AND ADJUSTED TO FOLLOW THE ONGOING MOVEMENT OF LAND DISTURBANCE OCCURING.
5. THE CONSTRUCTION ACTIVITY OPERATOR SHALL DESIGN, INSTALL, IMPLEMENT AND MAINTAIN POLLUTION PREVENTION MEASURES TO:
   - MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS;
   - MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, AND OTHER MATERIALS PRESENT ON-SITE TO PRECIPITATION AND TO STORMWATER;
   - MINIMIZE THE DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS AND IMPLEMENT CHEMICAL SPILL AND LEAK PREVENTION AND RESPONSE PROCEDURES;
   - PROHIBIT THE DISCHARGE OF WASTEWATER FROM THE WASHOUT OF CONCRETE;
   - PROHIBIT THE DISCHARGE OF WASTEWATER FROM THE WASHOUT AND CLEANOUT OF STUCCO, PAINT, FROM THE RELEASE OILS, CURING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS AND
   - PROHIBIT THE DISCHARGE OF FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE
6. THE CONTRACTOR SHALL DIRECT CONCRETE WASH INTO A LEAK-PROOF CONTAINER OR LEAK-PROOFSETTLING BASIN THAT IS DESIGNEDSO 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.



VICINITY MAP
NTS



PLANS PREPARED BY:
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Design Approval: Appd / Appd / Appd / Appd / Date; Appd / Appd / Appd / Appd / Appd
Rev. Number / Dr/Ck / Date / Appd / Appd / Appd / Reason for Rev.

FAIRFAX, VIRGINIA
WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
GAS PIPING & ESC PLAN
CITY OF FALLS CHURCH, VA

Safety Sector: 348	ADC Map: VAFF5526A8
Quad Map: Z001NW	Tax Map: .
Drawn by/Date: (ENE) JW // 01/06/2020	
Checked by/Date: . // .	
Project Engineer: W. DEKKER	
B/M File Number: .	
Process Number: 63000	
Job Number: .	
Scale: NONE	
Revision Number: .	
Drawing Number: B-51499-8	

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL NOTIFY THE ADMINISTRATION (VDOT) AT (703)–259–1213 SEVEN (7) DAYS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AND, UNLESS WAIVED BY THE ADMINISTRATION, SHALL BE REQUIRED TO HOLD A PRE–CONSTRUCTION MEETING BETWEEN PROJECT REPRESENTATIVES AND A REPRESENTATIVE OF DEQ.
2. THE CONTRACTOR MUST NOTIFY DEQ IN WRITING AND BY TELEPHONE AT THE FOLLOWING POINTS:
A. THE REQUIRED PRE–CONSTRUCTION MEETING.
B. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES.
C. DURING THE INSTALLATION OF SEDIMENT BASINS (TO BE CONVERTED INTO PERMANENT STORMWATER MANAGEMENT STRUCTURES) AT THE REQUIRED INSPECTION POINTS (SEE INSPECTION CHECKLIST ON PLAN). NOTIFICATION PRIOR TO COMMENCING CONSTRUCTION OF EACH STEP IS MANDATORY.
D. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE(S).
E. PRIOR TO REMOVAL OF ALL SEDIMENT CONTROL DEVICES.
F. PRIOR TO FINAL ACCEPTANCE.
3. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE AND SHALL HAVE THEM INSPECTED AND APPROVED BY THE AGENCY INSPECTOR OR DEQ INSPECTOR PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES. MINOR SEDIMENT CONTROL DEVICE LOCATION ADJUSTMENTS MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE DEQ INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM DEQ INSPECTOR AND AGENCY INSPECTOR. THE CONTRACTOR MUST OBTAIN PRIOR AGENCY AND DEQ APPROVAL FOR CHANGES TO THE SEDIMENTCONTROL PLAN AND/OR SEQUENCE OF CONSTRUCTION.
4. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC ROADS. ALL MATERIALS DEPOSITED ONTO PUBLIC ROADS SHALL BE REMOVED IMMEDIATELY.
5. THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM DEQ INSPECTOR AND AGENCY INSPECTOR.
6. ALL SEDIMENT BASINS, TRAP EMBANKMENTS AND SLOPES, PERIMETER DIKES, SWALES AND ALL DISTURBED SLOPES STEEPER OR EQUAL TO 3:1 SHALL BE STABILIZED WITH SOD OR SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES, AS SOON AS POSSIBLE BUT NO LATER THAN THREE (3) CALENDAR DAYS AFTER ESTABLISHMENT. ALL AREAS DISTURBED OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST BE MINIMIZED. MAINTENANCE MUST BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.
7. THE CONTRACTOR SHALL APPLY SOD OR SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS AND STOCKPILES WITHIN SEVEN (7) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED IN THE AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. (REQUIREMENT MAY BE REDUCED TO THREE (3) DAYS FOR SENSITIVE AREAS.)
8. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES, THE CONTRACTOR SHALL STABILIZE AND HAVE ESTABLISHED PERMANENT STABILIZATION FOR ALL CONTRIBUTORY DISTURBED AREAS USING SOD OR AN APPROVED PERMANENT SEED MIXTURE WITH REQUIRED SOIL AMENDMENTS AND AN APPROVED ANCHORED MULCH. WOOD FIBER MULCH MAY ONLY BE USED IN SEEDING SEASON WHERE THE SLOPE DOES NOT EXCEED 10% AND GRADING HAS BEEN DONE TO PROMOTE SHEET FLOW DRAINAGE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON SHALL BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE, BUT NOT LATER THAN SEVEN (7) CALENDAR DAYS AFTER ESTABLISHMENT. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS OF NOVEMBER THROUGH FEBRUARY, AND PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, TEMPORARY SEED AND ANCHORED STRAW MULCH SHALL BE APPLIED TO DISTURBED AREAS. THE FINAL PERMANENT STABILIZATION OF SUCH PROPERTY SHALL BE APPLIED BY MARCH 15 OR EARLIER IF GROUND AND WEATHER CONDITIONS ALLOW.
9. THE SITE'S APPROVAL LETTER, APPROVED EROSION AND SEDIMENT CONTROL PLANS, DAILY LOG BOOKS, AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY DULY AUTHORIZED OFFICIALS OF DEQ AND THE AGENCY RESPONSIBLE FOR PROJECT.
10. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING PROTECTIVE DEVICES TO LOWER THE WATER DOWNSLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF A CUT OR FILL SLOPE UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. PROTECTIVE METHODS MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.
11. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITH SOD OR SEED WITH AN APPROVED EROSION CONTROL MATTING, RIP–RAP, OR BY OTHER APPROVED STABILIZATION MEASURES.
12. TEMPORARY SEDIMENT CONTROL DEVICES MAY BE REMOVED, WITH PERMISSION OF DEQ INSPECTOR AND AGENCY INSPECTORS, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.
13. NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3:1 WILL BE PERMITTED IN LAWN MAINTENANCE AREAS. A SLOPE GRADIENT OF UP TO 2:1 WILL BE PERMITTED IN NONMAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN WITH A LOW–MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENT STEEPER THAN 2:1 WILL NOT BE PERMITTED WITH VEGETATIVE STABILIZATION.
14. FOR FINISHED GRADING, THE CONTRACTOR SHALL PROVIDE ADEQUATE GRADIENTS TO PREVENT WATER FROM PONDING FOR MORE THAN TWENTY FOUR (24) HOURS AFTER THE END OF A RAINFALL EVENT. DRAINAGE COURSES AND SWALE FLOW AREAS MAY TAKE AS LONG AS FORTY–EIGHT (48) HOURS AFTER THE END OF A RAINFALL EVENT TO DRAIN. AREAS DESIGNED TO HAVE STANDING WATER SHALL NOT BE REQUIRED TO MEET THIS REQUIREMENT.
15. SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN 20 FEET OF A FOUNDATION THAT EXISTS OR IS UNDER CONSTRUCTION. NO STRUCTURE MAY BE CONSTRUCTED WITHIN 20 FEET OF AN ACTIVE SEDIMENT TRAP OR BASIN.
16. THE DEQ INSPECTOR HAS THE OPTION OF REQUIRING ADDITIONAL SAFETY OR SEDIMENT CONTROL MEASURES, IF DEEMED NECESSARY.
17. ALL TRAP DEPTH DIMENSIONS ARE RELATIVE TO THE OUTLET ELEVATION. ALL TRAPS MUST HAVE A STABLE OUTFALL. ALL TRAPS AND BASINS SHALL HAVE STABLE INFLOW POINTS.
18. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. REFER TO APPROPRIATE SPECIFICATIONS FOR TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, SODDING, AND GROUND COVERS.
19. SEDIMENT SHALL BE REMOVED AND THE TRAP OR BASIN RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE QUARTER OF THE TOTAL DEPTH OF THE TRAP OR BASIN. TOTAL DEPTH SHALL BE MEASURED FROM THE TRAP OR BASIN BOTTOM TO THE CREST OF THE OUTLET.
20. SEDIMENT REMOVED FROM TRAPS (AND BASINS) SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN, WETLAND OR TREE–SAVE AREA. WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO A SEDIMENT TRAPPING DEVICE PRIOR TO RELEASE FROM THE SITE. A SUMP PIT MAY BE USED IF SEDIMENT TRAPS THEMSELVES ARE BEING PUMPED OUT.
21. ALL WATER REMOVED FROM EXCAVATED AREAS SHALL BE PASSED THROUGH A DEQ APPROVED DEWATERING PRACTICE OR PUMPED TO A SEDIMENT TRAP OR BASIN PRIOR TO DISCHARGE TO A FUNCTIONAL STORM DRAIN SYSTEM OR TO STABLE GROUND SURFACE.
22. SEDIMENT CONTROL FOR UTILITY CONSTRUCTION FOR AREAS OUTSIDE OF DESIGNED CONTROLS OR AS DIRECTED BY ENGINEER OR DEQ INSPECTOR:
A. CALL "MISS UTILITY" AT 1–800–257–7777 48 HOURS PRIOR TO THE START OF WORK.
B. EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH.
C. TRENCHES FOR UTILITY INSTALLATION SHALL BE BACKFILLED, COMPACTED, AND STABILIZED AT THE END OF EACH WORKING DAY. NO MORE TRENCH SHALL BE OPENED THAN CAN BE COMPLETED THE SAME DAY, UNLESS;
D. TEMPORARY SILT FENCE SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED FOR MORE THAN ONE DAY.

TO REMAIN DISTURBED FOR MORE THAN ONE DAY.

23. WHERE DEEMED APPROPRIATE BY THE ENGINEER OR INSPECTOR, SEDIMENT BASINS AND TRAPS MAY NEED TO BE SURROUNDED WITH AN APPROVED SAFETY FENCE. THE FENCE MUST CONFORM TO LOCAL ORDINANCES AND REGULATIONS. THE DEVELOPER OR OWNER SHALL CHECK WITH LOCAL BUILDING OFFICIALS ON APPLICABLE SAFETY REQUIREMENTS. WHERE SAFETY FENCE IS DEEMED APPROPRIATE AND LOCAL ORDINANCES DO NOT SPECIFY FENCING SIZES AND TYPES, THE FOLLOWING SHALL BE USED AS A MINIMUM STANDARD: THE SAFETY FENCE MUST BE MADE OF WELDED WIRE AND AT LEAST 42 INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN 8 FEET, HAVE MESH OPENINGS NO GREATER THAN 2 INCHES INWIDTH AND 4 INCHES IN HEIGHT WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED AND IN GOOD CONDITION AT ALL TIMES.
24. OFF–SITE SPOIL OR BORROW AREAS ON STATE OR FEDERAL PROPERTY MUST HAVE PRIOR APPROVAL BY DEQ AND OTHER APPLICABLE STATE, FEDERAL, AND LOCAL AGENCIES; OTHERWISE APPROVAL MUST BE GRANTED BY THE LOCAL AUTHORITIES. ALL WASTE AND BORROW AREAS OFF–SITE MUST BE PROTECTED BY SEDIMENT CONTROL MEASURES AND STABILIZED.
25. SITES WHERE INFILTRATION DEVICES ARE USED FOR THE CONTROL OF STORMWATER, EXTREME CARE MUST BE TAKEN TO PREVENT RUNOFF FROM UNSTABILIZED AREAS FROM ENTERING THE STRUCTURE DURING CONSTRUCTION. SEDIMENT CONTROL DEVICES PLACED IN INFILTRATION AREAS MUST HAVE BOTTOM ELEVATIONS AT LEAST TWO (2) FEET HIGHER THAN THE FINISH GRADE BOTTOM ELEVATION OF THE INFILTRATION PRACTICE. WHEN CONVERTING A SEDIMENT TRAP TO AN INFILTRATION DEVICE, ALL ACCUMULATED SEDIMENT MUST BE REMOVED AND DISPOSED OF PRIOR TO FINAL GRADING OF INFILTRATION DEVICE.
26. WHEN A STORM DRAIN SYSTEM OUTFALL IS DIRECTED TO A SEDIMENT TRAP OR SEDIMENT BASIN AND THESYSTEM IS TO BE USED FOR TEMPORARILY CONVEYING SEDIMENT LADEN WATER, ALL STORM DRAIN INLETS IN NON–SUMP AREAS SHALL HAVE TEMPORARY ASPHALT BERMS CONSTRUCTED AT THE TIME OF BASE PAVING TO DIRECT GUTTER FLOW INTO THE INLETS TO AVOID SURCHARGING AND OVERFLOW OF INLETS IN SUMP AREAS.
27. THE CONTRACTOR SHALL ADHERE TO THE BEST MANAGEMENT PRACTICES FOR WORKING IN NON–TIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS AND 100 YEAR FLOODPLAINS. (SEE NOTES ON THIS SHEET)
28. ALL EXCESS OR UNSUITABLE MATERIALS THAT NEED TO BE HAULED OFF SITE MUCT BE COORDINATED WITH THE INSPECTORS AND THAT THE DESTINATION OF THE RECEIVING HAUL SITE MUST BE IDENTIFIED.
29. 11–0405.3C THE SITE DEVELOPMENT AND INSPECTIONS DIVISION HAS PRIMARY RESPONSIBILITY FOR FIELD INSPECTION TO ENSURE THAT THE E&S CONTROL MEASURES SHOWN ON APPROVED GRADING PLANS OR SITE SUB–DIVISION PLANS ARE ACTUALLY PROVIDED. FIELD INSPECTORS ARE AUTHORIZED TO MAKE MINOR MODIFICATIONS TO THE REQUIREMENTS SHOWN ON PLANS WHERE NECESSARY TO CONFORM TO FIELD CONDITIONS OR TO ENSURE EFFECTIVE CONTROL. MAJOR CHANGES SHALL BE CLEARED WITH THE SITE REVIEWERS.
30. TREES IN CONSTRUCTION BOUNDARY TO BE PROTECTED BY SUPER SILT FENCE
31. SITE INFORMATION:

A. TOTAL LENGTH OF FACILITY ___1,090___ FEET
(BASE, CAMPUS, PARK, ETC.)
B. AREA DISTURBED ___0.917___ ACRES
C. TOTAL CUT ___0___ CUBIC YARDS
D. TOTAL FILL ___0___ CUBIC YARDS
E. OFF–SITE WASTE / BORROW AREA LOCATION ___WGL

STD. & SPEC. 3.02
TEMPORARY STONE CONSTRUCTION ENTRANCE

(CE)

Practice Description

A stabilized stone pad with a filter fabric underliner located at points of vehicular ingress and egress on a construction site, used to reduce the amount of mud transported onto paved public roads by motor vehicles or runoff.

Conditions Where Practice Applies

Wherever traffic will be leaving a construction site and moves directly onto a public road or other paved area.

Construction Specifications

1. Aggregate Size: VDOT #1 Coarse Aggregate (2- to 3- inch stone) should be used.

2. Entrance Dimensions: The aggregate layer must be at least 6 inches thick; a minimum three inches of aggregate should be placed in a cut section to give the entrance added stability and to help secure filter cloth separator. It must extend the full width of the vehicular ingress and egress area and have a minimum 12-foot width. The length of the entrance must be at least 70 feet (see Plate 3.02-1).

3. Washing: If conditions on the site are such that the majority of the mud is not removed by the vehicles traveling over the stone, then the tires of the vehicles must be washed before entering the public road. Wash water must be carried away from the entrance to an approved settling area to remove sediment. All sediment shall be prevented from entering storm drains, ditches, or watercourses. A wash rack may also be used to make washing more convenient and effective (see Plate 3.02-1).

4. Location: The entrance should be located to provide for maximum utilization by all construction vehicles.

5. The area of the entrance must be excavated a minimum of 3 inches and must be cleared of all vegetation, roots, and other objectionable material. The filter fabric underliner will then be placed the full width and length of the entrance.

STONE CONST. ENTRANCE

---

6. Following the installation of the filter cloth, the stone shall be placed to the specified dimensions. If wash racks are used, they should be installed according to manufacturer's specifications. Any drainage facilities required because of washing should be constructed according to specifications. Conveyance of surface water under entrance, through culverts, shall be provided as required. If such conveyance is impossible, the construction of a "mountable" berm with 5:1 slopes will be permitted.

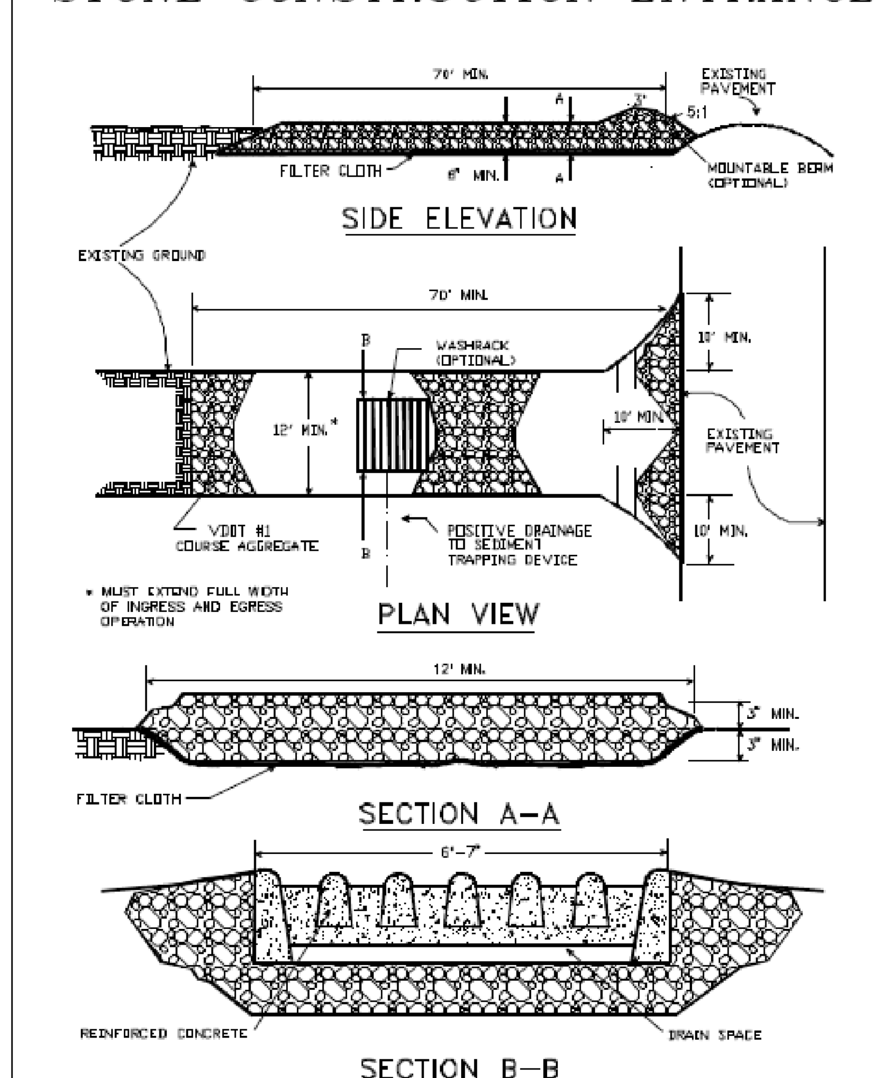
The filter cloth utilized shall be a woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals and hydrocarbons, be mildew and rot resistant, and conform to the physical properties noted in Table 3.02-A.

Maintenance

The entrance shall be maintained in a condition that will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with additional stone or the washing and reworking of existing stone as conditions demand and repair and/or cleanout of any structures used to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately. The use of water trucks to remove materials dropped, washed, or tracked onto roadways will not be permitted under any circumstances.

STONE CONST. ENTRANCE

STONE CONSTRUCTION ENTRANCE



SOURCE: ADAPTED from 1983 Maryland Standards for Soil erosion and Sediment Control, and Va. DSWC — Plate 3.02-1

STONE CONST. ENTRANCE

TABLE 3.02-A
CONSTRUCTION SPECIFICATIONS FOR FILTER CLOTH UNDERLINER

Fabric Properties[1]	Light-Duty Entrance[2] (Graded Subgrade)	Heavy Duty Entrance[3] (Rough Graded)	Test Method
Grab Tensile Strength (lbs.)	200	220	ASTM D1682
Elongation at Failure	50	220	ASTM D1682
Mullen Burst Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 (modified)
Equivalent Opening Size (mm)	40-80	40-80	U.S. Standard Sieve CW-02215

[1] Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

[2] Light Duty Entrance: Sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Examples of fabrics which can be used are: Trevira Spunbound 1115, Mirafi 100X, Typar 3401, or equivalent.

[3] Heavy Duty Entrance: Sites with only rough grading and where most travel would be multi-axle vehicles. Examples of fabrics which can be used are: Trevira Spunbound 1135, Mirafi 600X, or equivalent.

Source: Virginia Highway & Transportation Research Council (VHTRC)

STONE CONST. ENTRANCE

COMMONWEALTH OF VIRGINIA — KRAIVUT SRISUKVATTANANAN — LICENSE No. 0402054744 — PROFESSIONAL ENGINEER
date: 2/26/20 Expired: 6/30/2? Lic. 51499

DIG WITH C.A.R.E. — Call Miss Utility @ 811 — KEEP VIRGINIA SAFE

PLANS PREPARED BY:
ENEngineering
811 PINNACLE DRIVE
SUITE Q
LINTHICUM HEIGHTS, MD. 21090
TEL. 443–517–1600
FAX 410–787–0476
WWW.ENENGINEERING.COM

Washington Gas
CORPORATE ENGINEERING
6801 Industrial Road
Springfield, Virginia 22151
Telephone: 703–750–4405
Fax: 703–750–4447

Design Approval: Appd . Appd . Appd . Appd . Date . / Appd . Appd . Appd . Appd . Appd .
Rev. Number . | Dr/Ck . | Date . | Appd . | Appd . | Appd . | Reason for Rev. .

FAIRFAX, VIRGINIA
WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
GAS PIPING & ESC PLAN
CITY OF FALLS CHURCH, VA

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Checked by/Date: .//.	
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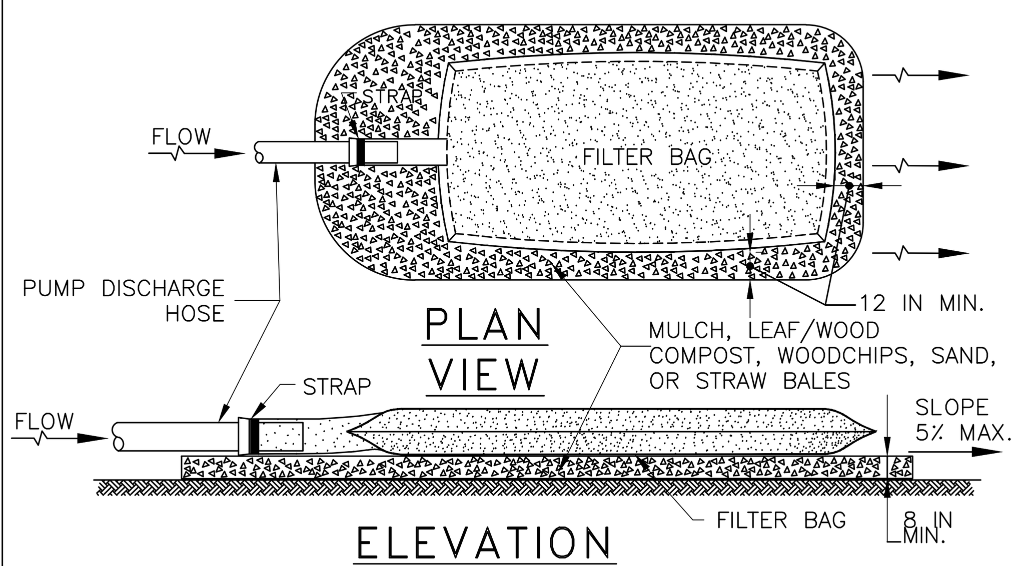


CONSTRUCTION SPECIFICATIONS

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

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.

VIRGINIA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	VIRGINIA DEPARTMENT OF ENVIRONMENT QUALITY

SEQUENCE OF CONSTRUCTION

1. OBTAIN PROPER PERMITS.
2. THE CONTRACTOR SHALL NOTIFY THE ADMINISTRATION (VDOT) AT (703) 259-1213 SEVEN (7) DAYS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AND, UNLESS WAIVED BY THE ADMINISTRATION, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING BETWEEN PROJECT REPRESENTATIVES AND A REPRESENTATIVE OF WMA.
3. CLEAR AND GRUB FOR THE INSTALLATION OF PERIMETER CONTROLS, IF APPLICABLE.
4. INSTALL SEDIMENT CONTROL MEASURES.
5. DESIGNATE CONTRACTOR'S RELATED STAGING AREA(S). CONTRACTOR SHALL NOTIFY THE DEQ SEDIMENT INSPECTOR ON THE LOCATION OF STAGING AND LAYDOWN AREA(S) FOR APPROVAL(S).
6. ADDRESS PERMANENT OR TEMPORARY STABILIZATION WITHIN THREE (3) CALENDAR DAYS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL CRITICAL SLOPES GREATER THAN THREE (3) HORIZONTAL TO ONE (1) VERTICAL (3:1). HEAVY DUTY STABILIZED CONSTRUCTION ENTRANCE(S) SHALL BE PROVIDED AS SHOWN ON PLAN AND AS DIRECTED BY THE DEQ SEDIMENT CONTROL INSPECTOR.
7. DESIGNATE STOCKPILE AREA(S) FOR RELATED TOPSOIL AND RELATED FILL. INSTALL SILT FENCE AROUND THIS AREA TO PROTECT STOCKPILE. ALL EXCAVATED MATERIAL SHALL BE PLACED ON A STANDBY HAUL TRUCK DURING EXCAVATION. ANY EXCESS EXCAVATED MATERIAL SHALL BE HAULED OFFSITE AT THE END OF THE WORKING DAY.
8. INSTALL UTILITIES – SEE DETAIL FOR TYPICAL EROSION AND SEDIMENT CONTROL MEASURES FOR OPEN CUT TRENCH OUTSIDE EXISTING ROADWAY.
9. ALL INACTIVE AREAS ON THE PROJECT SITE MUST BE STABILIZED WITHIN SEVEN (7) DAYS OF BEING DISTURBED. LANDSCAPE DISTURBED AREA AS PROPOSED ON SEDIMENT CONTROL PLAN.
10. REMOVE SEDIMENT CONTROLS WITH PRIOR WRITTEN APPROVAL FROM THE VIRGINIA DEPARTMENT OF ENVIRONMENT QUALITY INSPECTOR WHEN STABILIZATION IS EVIDENT AT PROJECT SITE.
11. FINE GRADE ALL REMAINING AREAS AND STABILIZE AS SPECIFIED BY THE APPROVED SEDIMENT CONTROL PLAN FOR PROJECT SITE.

STD & SPEC. 3.05
SILT FENCE

Practice Description

A temporary sediment barrier consisting of a synthetic filter fabric stretched across and attached to supporting posts and entrenched, used to intercept and detain small amounts of sediment from disturbed areas during construction operations in order to prevent sediment from leaving the site, and to decrease the velocity of sheet flows and low-to-moderate level channel flows.

Conditions Where Practice Applies

1. Below disturbed areas where erosion would occur in the form of sheet and rill erosion.
2. Where the size of the drainage area is no more than one quarter acre per 100 feet of silt fence length; the maximum slope length behind the barrier is 100 feet; and the maximum gradient behind the barrier is 50 percent (2:1).
3. In minor swales or ditch lines where the maximum contributing drainage area is no greater than 1 acre and flow is no greater than 1 cfs.
4. Silt fence will not be used in areas where rock or some other hard surface prevents the full and uniform depth anchoring of the barrier.

Construction Specifications

1. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the requirements noted in Table 3.05-B.

TABLE 3.05-B
PHYSICAL PROPERTIES OF FILTER FABRIC IN SILT FENCE

Physical Property	Test	Requirements
Filtering Efficiency	ASTM 5141	75% (minimum)
Tensile Strength at 20% (max.) Elongation*	VTM-52	Extra Strength- 50 lbs./linear inch (minimum) Standard Strength- 30 lbs./linear inch (minimum)
Flow Rate	ASTM 5141	0.2 gal./sq. ft./min. (minimum)
Ultraviolet Radiation	ASTM-G-26	90% (minimum)

*Requirements reduced by 50% after six months of installation.

Source: VHTRC

2. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0 F to 120 F.
3. If wooden stakes are utilized for silt fence construction, they must have a diameter of 2 inches when oak is used and 4 inches when pine is used. Wooden stakes must have a minimum length of 5 feet.
4. If steel posts (standard "U" or "T" section) are utilized for silt fence construction, they must have a minimum weight of 1.33 pounds per linear foot and shall have a minimum length of 5 feet.

5. Wire fence reinforcement for silt fences using standard-strength filter cloth shall be a minimum of 14 gauge and shall have a maximum mesh spacing of 6 inches.

Installation

1. The height of a silt fence shall be a minimum of 16 inches above the original ground surface and shall not exceed 34 inches above ground elevation.
2. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter cloth shall be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.
3. A trench shall be excavated approximately 4-inches wide and 4-inches deep on the upslope side of the proposed location of the measure.
4. When wire support is used, standard-strength filter cloth may be used. Posts for this type of installation shall be placed a maximum of 10-feet apart (see Plate 3.05-1).

   The wire mesh fence must be fastened securely to the upslope side of the posts using heavy duty wire staples at least one inch long, tie wires or hog rings. The wire shall extend into the trench a minimum of two inches and shall not extend more than 34 inches above the original ground surface. The standard-strength fabric shall be stapled or wired to the wire fence, and 8 inches of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees.

5. When wire support is not used, extra-strength filter cloth shall be used. Posts for this type of fabric shall be placed a maximum of 6-feet apart (see Plate 3.05-2).

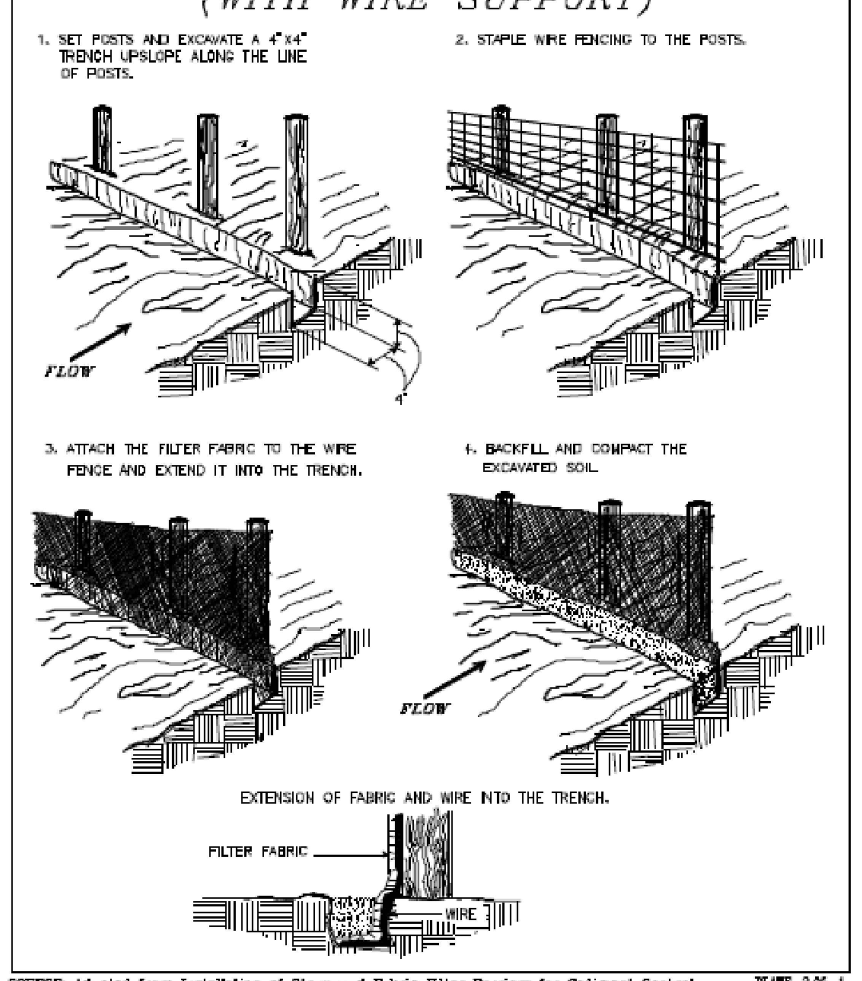
   The filter fabric shall be fastened securely to the upslope side of the posts using one inch long (minimum) heavy-duty wire staples or tie wires and eight inches of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees. This method of installation has been found to be more commonplace than #4.

6. If a silt fence is to be constructed across a ditch line or swale, the measure must be of sufficient length to eliminate endflow, and the plan configuration shall resemble an arc or horseshoe with the ends oriented upslope (see Plate 3.05-2). Extra-strength filter fabric shall be used for this application with a maximum 3-foot spacing of posts.

   All other installation requirements noted in #5 apply.

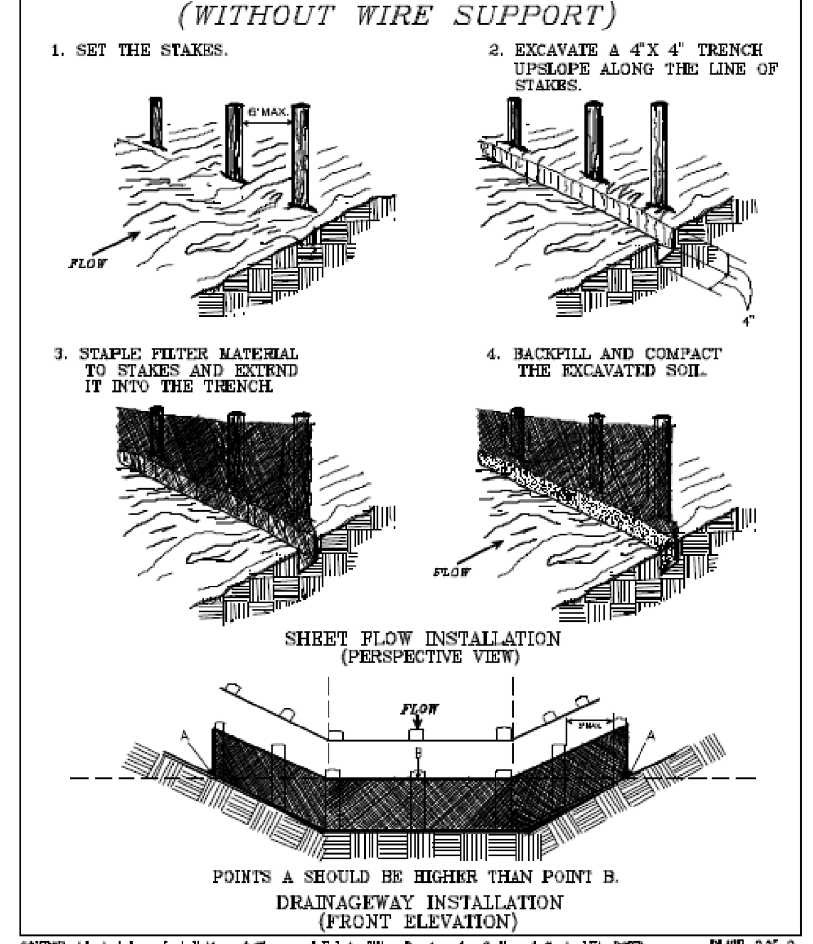
7. The 4-inch by 4-inch trench shall be backfilled and the soil compacted over the filter fabric.
8. Silt fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood & Wyant — PLATE 3.05-1

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant — PLATE 3.05-2

Maintenance

1. Silt fences shall be inspected immediately after rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
2. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting.
3. Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly.
4. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.
5. Any sediment deposits remaining in place after the silt fence is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

PLANS PREPARED BY:
ENEngineering
811 PINNACLE DRIVE
SUITE Q
LINTHICUM HEIGHTS, MD. 21090
TEL. 443-517-1600
FAX 410-787-0476
WWW.ENENGINEERING.COM

Washington Gas
CORPORATE ENGINEERING
6801 Industrial Road
Springfield, Virginia 22151
Telephone: 703-750-4405
Fax: 703-750-4447

Rev. Number	Dr/Ck	Date	Appd	Appd	Appd	Reason for Rev.
.	.	.	.	.	.	.

Design Approval: Appd . Appd . Appd . Appd . Appd . / Appd . Appd . Appd . Appd . Date .

FAIRFAX, VIRGINIA
WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
GAS PIPING & ESC PLAN
CITY OF FALLS CHURCH, VA

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Checked by/Date: . // .	
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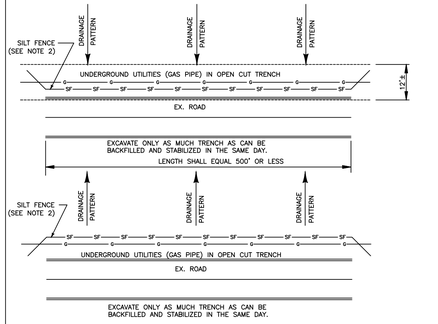
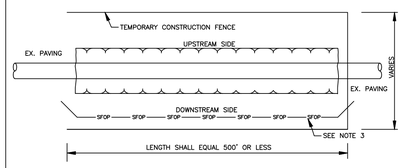
DETAIL WGL–1 TYPICAL EROSION AND SEDIMENT CONTROL MEASURES FOR OPEN CUT TRENCH OUTSIDE EXISTING ROADWAY



UTILITY INSTALLATION SEQUENCE OF CONSTRUCTION NOTES:

1. A HAUL OFF TRUCK SHALL STAND BY TO HAUL CONSTRUCTION AND DEMOLITION DEBRIS OFF SITE.
2. IF AREA CAN NOT BE STABILIZED BY SOD BY THE END OF THE DAY, SILT FENCE SHALL BE INSTALLED ADJACENT TO TRENCH. DUE TO INCLEMENT WEATHER, INLET PROTECTIONS SHALL BE PROVIDED AS NEEDED WHERE INLETS ARE PRESENTED ON LOWER SIDE OF EXCAVATED TRENCH.
3. INSTALL UNDERGROUND UTILITIES. DEWATER: EXCAVATED TRENCH IF NEEDED BY INSTALLING PUMP WITH DEWATERING BAG. NO STANDING WATER OR GROUNDWATER SHALL BE ALLOWED INSIDE THE EXCAVATED TRENCH DURING UNDERGROUND UTILITY INSTALLATION.
4. REGRADE DISTURBED AREA. BACKFILL WITH SUITABLE BACKFILL MATERIALS. REGRADE DISTURBED AREA TO PRE–CONSTRUCTION CONDITIONS.
5. APPLY TOPSOIL BEFORE VEGETATIVE STABILIZATION.

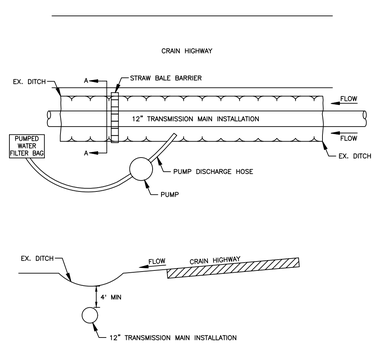
DETAIL WGL–2 TYPICAL TRENCH AND PIPE INSTALLATION IN PAVED AREA DETAIL



SEQUENCE OF CONSTRUCTION NOTES:

1. SAWCUT AND REMOVE PAVING FOR UNDERGROUND GAS MAIN INSTALLATION.
2. A HAUL OFF TRUCK SHALL STAND BY TO HAUL CONSTRUCTION AND DEMOLITION DEBRIS OFF SITE.
3. IF AREA CAN NOT BE STABILIZED BY THE END OF THE DAY, SILT FENCE FOR PAVED AREA MAY BE INSTALLED DOWNHILL OF TRENCH DUE TO INCLEMENT WEATHER. INLET PROTECTIONS SHALL BE PROVIDED AS NEEDED WHERE INLETS ARE PRESENTED ON LOWER SIDE OF EXCAVATED TRENCH.
4. INSTALL UNDERGROUND UTILITIES. DEWATER EXCAVATED TRENCH IF NEEDED BY INSTALLING PUMP WITH DEWATERING BAG. NO STANDING WATER OR GROUNDWATER SHALL BE ALLOWED INSIDE THE EXCAVATED TRENCH DURING UNDERGROUND UTILITY INSTALLATION.
5. REGRADE DISTURBED AREA. BACKFILL WITH SUITABLE BACKFILL MATERIALS. REGRADE DISTURBED AREA TO PRE–CONSTRUCTION CONDITIONS.
6. INSTALL SUBBASE, BASE, AND PAVING TO PRECONSTRUCTION CONDITIONS AND PER THE APPROVED STATE PAVING DETAILS AND SPECIFICATIONS.
7. PROVIDE TEMPORARY PAVING REPAIR AS NECESSARY AND COORDINATE WITH VDOT FOR PERMANENT PAVING RESTORATION.

DETAIL WGL–3 TYPICAL DETAIL PIPELINE INSTALLATION INSIDE A DITCH



SECTION: A–A

NOTES:

1. BAGS SHALL BE LOCATED IN WELL–VEGATATED (GRASSY) ARE, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, WITH THE PRIOR APPROVAL OF THE EROSION CONTROL INSPECTOR, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY.

Falls Church City, Virginia

95—Urban land

Map Unit Setting
National map unit symbol: 22187
Mean annual precipitation: 28 to 58 inches
Mean annual air temperature: 87 to 89 degrees F
Frost-free period: 175 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition
Urban land: 95 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s

105B—Wheaton-Glenelg complex, 2 to 7 percent slopes

Map Unit Setting
National map unit symbol: 2218f
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 45 to 67 degrees F
Frost-free period: 185 to 212 days
Farmland classification: Not prime farmland

Map Unit Composition
Wheaton and similar soils: 45 percent
Glenelg and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Setting
Landform: Interfluves
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mine spoil or earthy fill derived from phyllite

Typical profile
H1 - 0 to 9 inches: loam
H2 - 9 to 60 inches: loam

Properties and qualities
Slope: 2 to 15 percent

Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.5 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Glenelg

Setting
Landform: Interfluves
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum weathered from mica schist and/or residuum weathered from phyllite

Typical profile
H1 - 0 to 6 inches: silt loam
H2 - 6 to 27 inches: silt loam
H3 - 27 to 71 inches: channery loam

Properties and qualities
Slope: 2 to 7 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Custom Soil Resource Report
Soil Map

Washington Gas
CORPORATE ENGINEERING
6801 Industrial Road
Springfield, Virginia 22151
Telephone: 703–750–4405
Fax: 703–750–4447

Rev. Number	Dr/Ck	Date	Appd	Appd	Appd	Appd	Reason for Rev.
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Design Approval: Appd . Appd . Appd . Appd . Appd . Appd . Date .

FAIRFAX, VIRGINIA
WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
GAS PIPING & ESC PLAN
CITY OF FALLS CHURCH, VA

PWD: K:\EN\Vienna\Jobs\SKM\Jag 5866 S&S Phase1a PLOTTED: Thursday, February 27, 2020 3:32:18 PM

Safety Sector: 348	ADC Map: VAFF5526A8
Quad Map: Z001NW	Tax Map: .
Drawn by/Date: (ENE) JW / / 01/06/2020	
Checked by/Date: . / / .	
Project Engineer: W. DEKKER	
B/M File Number: .	
Process Number: 63000	
Job Number: .	
Scale: 1" = 15'	
Revision Number: .	
Drawing Number: B-51499-11	

COMMONWEALTH OF VIRGINIA
KRAIVUT SRISURKVATHAMAN
LICENSE NO. 0402010254
PROFESSIONAL ENGINEER
date: 2/20/20
Expired 6/30/2
for B-51499

DIG WITH C.A.R.E. Call Miss Utility @ 811 KEEP VIRGINIA SAFE

PLANS PREPARED BY:
ENengineering
811 PINNACLE DRIVE
SUITE Q
LINTHICUM HEIGHTS, MD.
21090
TEL. 443–517–1600
FAX 410–787–0476
WWW.ENENGINEERING.COM

DAILY STABILIZATION NOTE:

THIS NOTE SHOULD BE USED FOR MINIMAL AREAS WITHIN THE LIMITS OF DISTURBANCE THAT DO NOT DRAIN TO A SEDIMENT CONTROL MEASURE AND/OR WHERE THE INSTALLATION OF CONTROLS IS NOT FEASIBLE. (ROAD WIDENING, SIDEWALK INSTALLATION ETC.)
CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:
1.) FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE.
2.) FOR AREAS TO BE VEGETATIVELY STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:
A.) PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES.
B.) PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.
ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

UTILITY CONSTRUCTION NOTE:

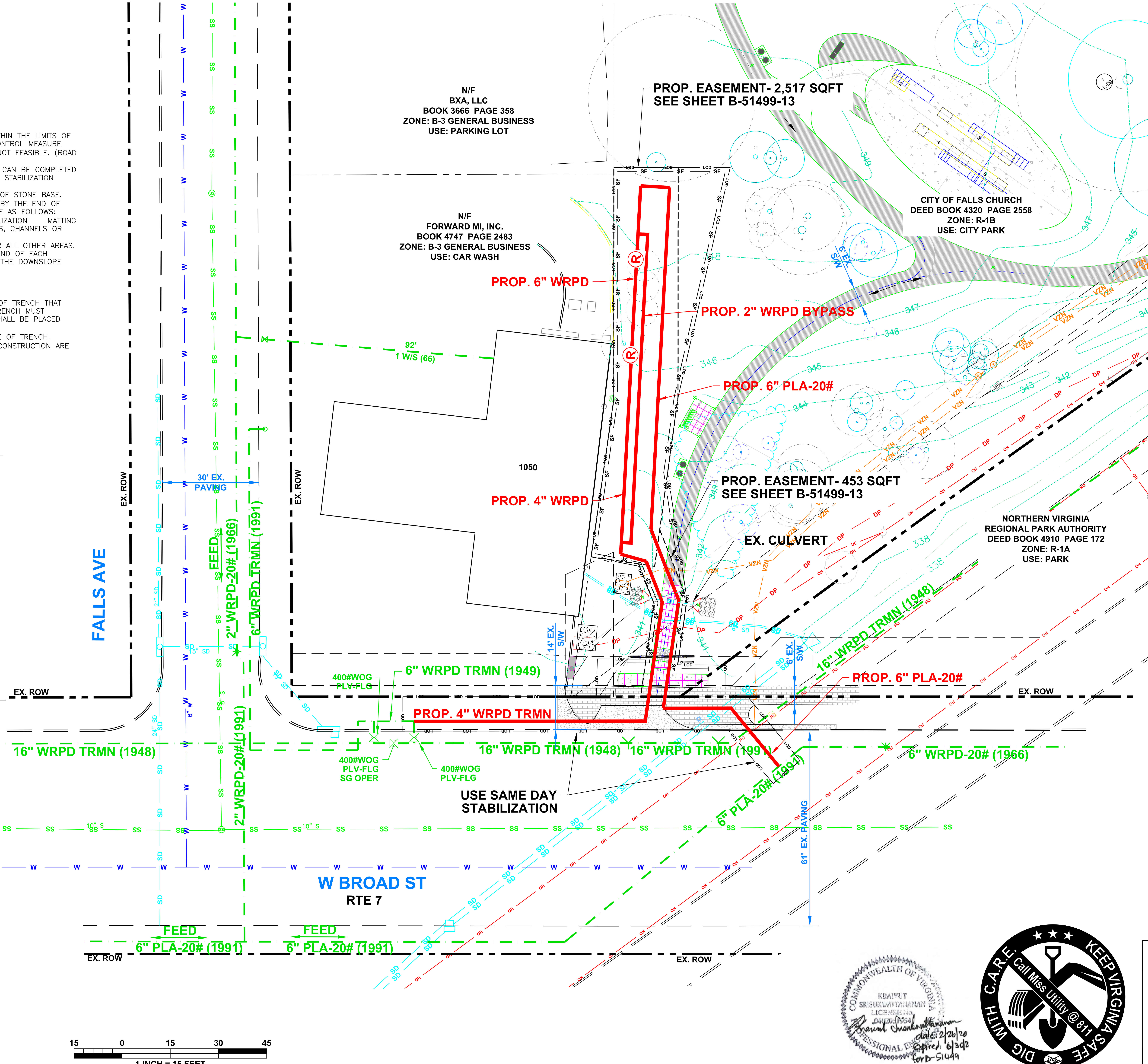
1.) CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
2.) PLACE ALL EXCAVATED MATERIALS ON UPHILL SIDE OF TRENCH.
3.) ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

LEGEND:

- BUS STOP
- ELECTRIC MANHOLE
- GAS MANHOLE
- GAS VALVE
- TELEPHONE MANHOLE
- SANITARY SEWER MANHOLE
- STORM MANHOLE
- WATER MANHOLE
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- TRAFFIC LIGHT POLE
- UTILITY POLE
- BUILDING
- EXISTING ELECTRIC
- WATER
- EXISTING TELECOM
- EXISTING SEWER
- EXISTING STORM DRAIN
- EXISTING ROADWAY
- EXISTING TREE LINE
- EXISTING ROW

WASHGAS LEGEND:

- PROPOSED GAS
- EXIST GAS
- ABANDONED GAS
- ANODE
- TEST STATION
- SILT FENCE
- LIMITS OF DISTURBANCE
- PROP. WGLCO EASEMENT



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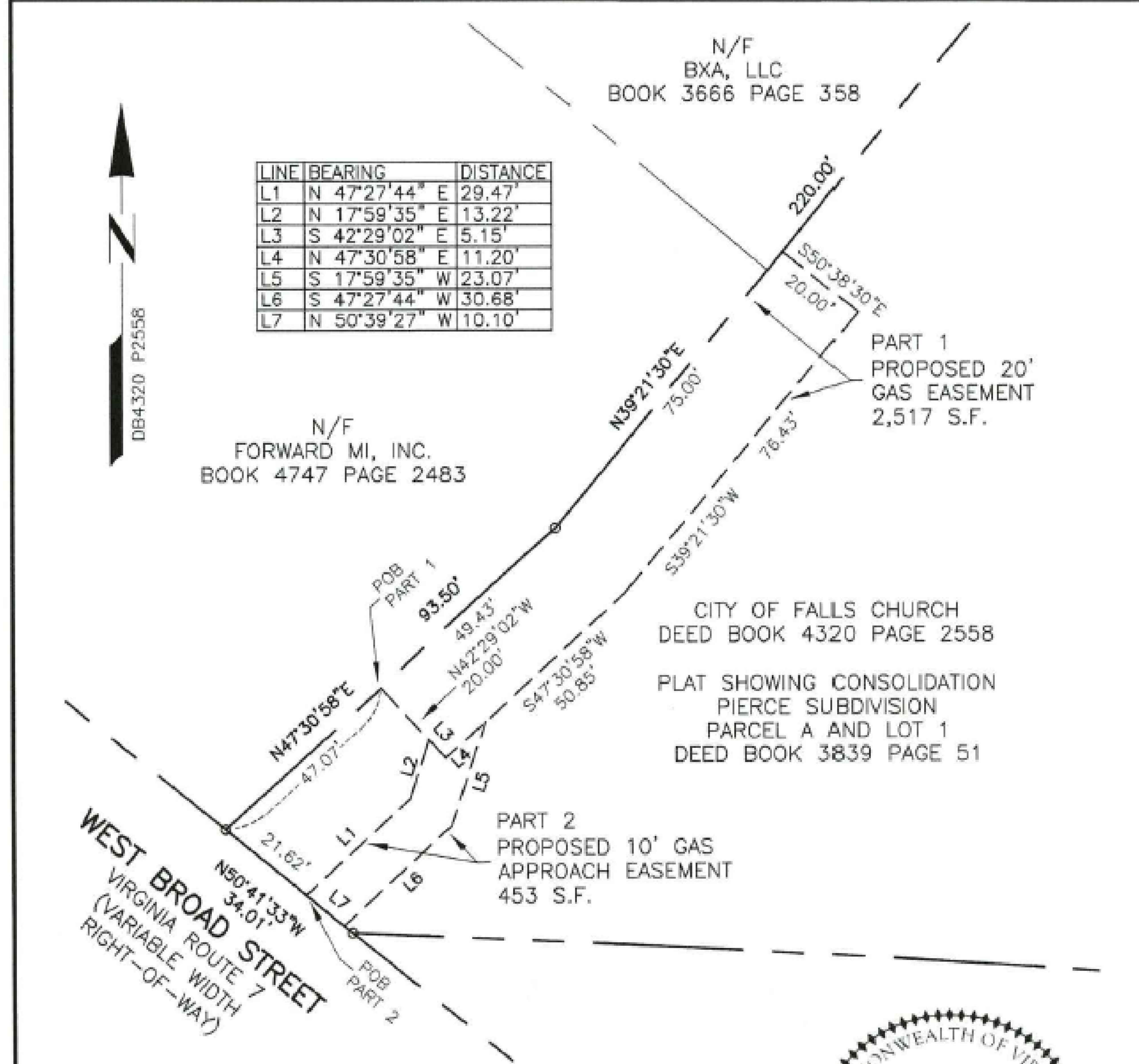
Fax: 703-750-4447

FAIRFAX, VIRGINIA
WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
GAS PIPING & ESC PLAN
CITY OF FALLS CHURCH, VA

Safety Sector: 348	ADC Map: VAFF5526A8
Quad Map: Z001NW	Tax Map: .
Drawn by/Date: (ENE) JW // 01/06/2020	
Checked by/Date: .// .	
Project Engineer: W. DEKKER	
B/M File Number: .	
Process Number: 63000	
Job Number: .	
Scale: 1" = 15'	
Revision Number	
Drawing Number: B-51499-12	



LINE	BEARING	DISTANCE
L1	N 47°27'44" E	29.47'
L2	N 17°59'35" E	13.22'
L3	S 42°29'02" E	5.15'
L4	N 47°30'58" E	11.20'
L5	S 17°59'35" W	23.07'
L6	S 47°27'44" W	30.68'
L7	N 50°39'27" W	10.10'

SKETCH PLAN DELINEATING
A PORTION OF THE PROPERTY OF
THE CITY OF FALLS CHURCH
DEED BOOK 4320 PAGE 2558

PLAT SHOWING CONSOLIDATION
PIERCE SUBDIVISION
PARCEL A AND LOT 1
DEED BOOK 3839 PAGE 41
CITY OF FALLS CHURCH, VIRGINIA
JANUARY 2020 SCALE: 1" = 30'

COMMONWEALTH OF VIRGINIA
JAMES ALDEN FLEMING
NO. 0403003486
LAND SURVEYOR
01-10-2020

KIM ENGINEERING
Kim Engineering, Inc.
MBE/DBE/SWaM
5901 Ammendale Rd, Suite F, Beltsville, MD 20705
240-542-4238
www.kimengineering.com
Baltimore, MD • Beltsville
Civil Engineering • Land Surveying • Geotechnical Engineering

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KIM ENGINEERING

Gas Easement and
Gas Approach Easement

January 9, 2020
DESCRIPTION OF A PORTION OF
THE PROPERTY OF
THE CITY OF FALLS CHURCH
DEED BOOK 4320 PAGE 2558
TAX MAP NO. 51-516-087

Being a portion of the property described in a Deed of Consolidation made by the City of Falls Church dated October 26, 2009 and recorded in Deed Book 4320 at Page 2558 among the Land Records of Arlington County, Virginia; also being part of the property as shown on a plat entitled "Plat Showing Consolidation, Pierce Subdivision, Parcel A and Lot 1, Deed Book 3839 Page 51" being recorded as a part of said deed and being more particularly described as follows:

Part 1: Gas Easement

Beginning for the same at a point on the first (1st), or North 47°30'58" East, 93.50 foot, line of the aforesaid property of The City of Falls Church per deed recorded in Deed Book 4320 at Page 2558, said point being 47.07' northeasterly from the southwesterly end thereof; said line being the common line with the property of Forward MI, LLC, a Virginia limited liability corporation as described in a deed recorded in Deed Book 4747 at Page 2483 among the aforesaid Land Records; thence running with the outline of said property of The City of Falls Church the following two (2) courses and distances

1. North 47°30'58" East 49.43 feet to a point; thence continuing to run with the common line with the property of Forward MI, LLC, a Virginia limited liability corporation as described in a deed recorded in Deed Book 4747 at Page 2483 and the common line with the property of BXA, LLC, a Virginia limited liability company as described in Deed Book 3666 at Page 358
2. North 39° 21'30" East, 75.00 feet to a point; thence leaving the outline of the property of The City of Falls Church as recorded in Deed Book 4320 at Page 2558 and running to as to cross and include a portion thereof the following four(4) courses and distances
3. South 50°38'30" East, 20.00 feet to a point; thence
4. South 39°21'30" West, 76.43 feet to a point; thence
5. South 47°30'58" West, 50.85 feet to a point; thence
6. North 42°29'01" West, 20.00 feet to the point of beginning containing 2,517 square feet or 0.0578 acres of land.

5901 Ammendale Road, Suite F Beltsville, Maryland 20705 Phone: 240-542-4238

KIM ENGINEERING

Part 2: Gas Approach Easement

Beginning for the same at a point on the tenth (10th), or North 50°41,33" West 35.01 foot line of the aforesaid property of The City of Falls Church per deed recorded in Deed Book 4320 at Page 2558, said point being 26.62 feet southeasterly from the northwesterly end thereof; said point also lying on the northerly right-of-way line of West Broad Street (Virginia Route 7), width varies; thence leaving the outline of said property and said northerly right-of-way line and running so as to cross and include a portion thereof the following six (6) courses and distances

1. North 47°27'44" East 29.47 feet to a point; thence
2. North 17°59'35" East, 13.22 feet to a point on the sixth (6th) line of Part 1 as described above; thence with a portion of said sixth (6th) and fifth (5th) lines, reversed
3. South 42°29'02" East, 5.15 feet to a point; thence
4. North 47°30'58" East 11.20 feet to a point; thence leaving the fifth (5th) line of Part 1
5. South 17°59'35" West, 23.07 feet to a point; thence
6. South 47°27'44" West, 30.68 feet to a point on the aforesaid the tenth (10th), or North 50°41,33" West 35.01 foot line of the aforesaid property of The City of Falls Church per deed recorded in Deed Book 4320 at Page 2558 and northerly right-of-way line of West Broad Street (Virginia Route 7), width varies; thence running with a portion thereof
7. North 50°41'33" West, 10.10 feet to the point of beginning containing 453 square feet or 0.0104 acres of land.

COMMONWEALTH OF VIRGINIA
JAMES ALDEN FLEMING
NO. 0403003486
LAND SURVEYOR
01-10-2020

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Rev. Number	Dr/Ck	Date	Appd	Appd	Appd	Reason for Rev.
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Design Approval

Appd	Appd	Appd	Appd	Appd
.	.	.	.	.
Appd	**Appd**	**Appd**	**Appd**	**Date**
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FAIRFAX, VIRGINIA
WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
GAS PIPING & ESC PLAN
CITY OF FALLS CHURCH, VA

PATH: I:\EC\Transfer\Janelle\REG STATION\Reg 0565 E&S Plans.dwg PLOTTED: Thursday, February 27, 2020 3:23:18 PM

Safety Sector: 348	ADC Map: VAFF5526A8
Quad Map: Z001NW	Tax Map: .

Drawn by/Date: (ENE) JW // 01/06/2020
Checked by/Date: . // .
Project Engineer: W. DEKKER
B/M File Number: .
Process Number: 63000
Job Number: .
Scale: 1" = 15'
Revision Number: .
Drawing Number: **B-51499-13**

City of Falls Church		Tree Inventory									
							Activities				
Tree #	Botanical Name	Common Name	Size DBH (in)	Critical Root Zone (CRZ) Radius (ft)	Species Rating (%)	Condition (%)	Removal	Tree Protection Fence	Root Planting	Hand Removal/ Selective Removal	Notes
Tree Survey Information Completed by Walter Phillips, Inc - Arborist Ben Schitter- ISA # MA-5385A #(98-123) 02/07/2020											
101	Juglans nigra	Black walnut	14"	21'	68%	66%		X	X		
102	Chamaecyparis thyoides	Atlantic white-cedar	4"	8'	65%	75%	X				
103	Chamaecyparis thyoides	Atlantic white-cedar	4"	8'	65%	75%	X				
104	Chamaecyparis thyoides	Atlantic white-cedar	4"	8'	65%	75%	X				
105	Ilex opaca	American holly	5"	8'	73%	75%	X				
106	Ilex opaca	American holly	5"	8'	73%	75%	X				
107	Ilex opaca	American holly	5"	8'	73%	75%	X				
108	Ilex opaca	American holly	5"	8'	73%	75%	X				
109	Ilex opaca	American holly	5"	8'	73%	75%	X				
110	Photinia spp.	Photinia	15"	23'	65%	66%	X				
111	Photinia spp.	Photinia	18"	27'	65%	66%	X				
112	Photinia spp.	Photinia	7"	8'	65%	66%	X				
113	Magnolia grandiflora	Southern magnolia	4"	8'	70%	72%		X			
114	Ilex opaca	American holly	16"	24'	73%	69%		X			
115	Taxus spp.	Yew	8"	8'	40%	69%	X				
116	Taxus spp.	Yew	8"	8'	40%	69%	X				
117	Taxus spp.	Yew	8"	8'	40%	69%	X				
118	Juniperus virginiana	Eastern redcedar	4"	8'	75%	75%	X				
119	Juniperus virginiana	Eastern redcedar	4"	8'	75%	75%	X				
120	Juniperus virginiana	Eastern redcedar	4"	8'	75%	75%	X				
121	Ilex opaca	American holly	3"	8'	73%	63%		X			
122	Ilex opaca	American holly	3"	8'	73%	69%		X			
123	Quercus phellos	Willow oak	3"	8'	75%	69%		X			
124	Magnolia virginiana	Sweetbay magnolia	4"	8'	70%	69%		X			
125	Magnolia virginiana	Sweetbay magnolia	4"	8'	70%	69%		X			
126	Magnolia virginiana	Sweetbay magnolia	3"	8'	70%	69%		X			
127	Robinia pseudoacacia	Black locust	16"	24'	55%	63%		X			
128	Robinia pseudoacacia	Black locust	15"	23'	55%	63%		X			
129	Prunus spp.	Ornamental Cherry	9"	14'	55%	66%		X			
130	Prunus spp.	Ornamental Cherry	6"	8'	55%	69%		X			
131	Prunus spp.	Ornamental Cherry	6"	8'	55%	69%		X			
132	Prunus spp.	Ornamental Cherry	6"	8'	55%	69%		X			

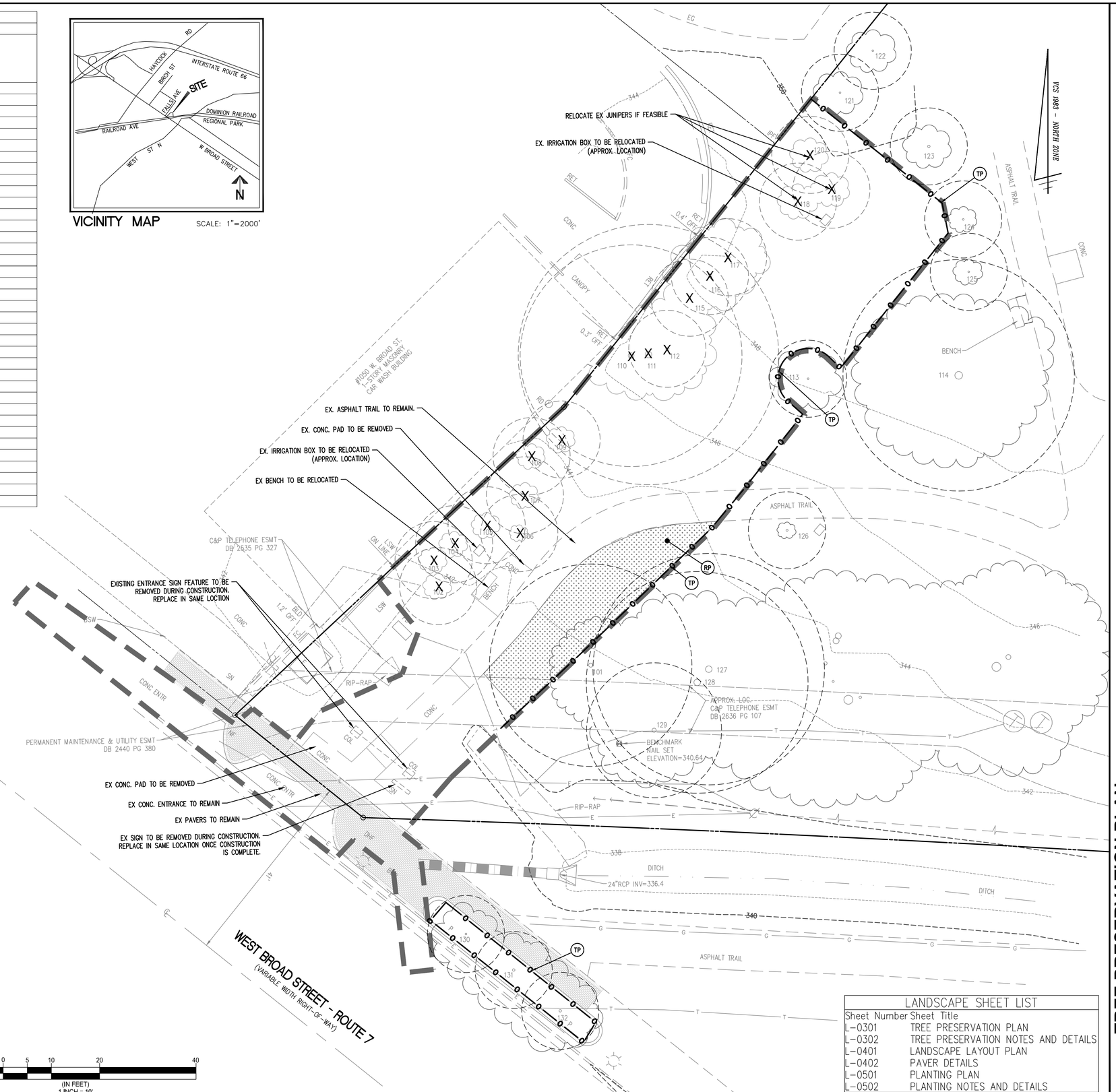
DBH = Diameter at Breast Height (measured 4.5 feet above ground)

CRZ = Critical Root Zone = 1 foot radius per inch of tree diameter, trees over 30" DBH= 1.5 foot radius per inch of tree diameter

CRZ values for trees with multiple stems were calculated based on methods outlined in the 9th edition of the Guide for Plant Appraisal, published by the I.S.A.

Condition Ratings provided as percentages based on methods outlined in the 9th edition of the Guide for Plant Appraisal, published b

VICINITY MAP SCALE: 1"=2000'



LEGEND

APPROX.LOC..... APPROXIMATE LOCATION
BSW..... BRICK SIDEWALK
COL..... COLUMN
CONC..... CONCRETE
DB..... DEED BOOK
DHF..... DRILL HOLE FOUND (PROPERTY CORNER)
EG..... EDGE OF GRAVEL
ENTR..... ENTRANCE
ESMT..... EASEMENT
FC..... HEADER CURB
INV..... INVERT
IPF..... IRON PIN FOUND (PROPERTY CORNER)
LSW..... LANDSCAPING WALL
NF..... NAIL FOUND (PROPERTY CORNER)
N/F..... NOW OR FORMERLY
P..... PLANTER
PD..... TELECOMMUNICATIONS CABINET
PG..... PAGE
RCP..... REINFORCED CONCRETE PIPE
RD..... ROOF DRAIN
RET..... RETAINING WALL
SQ.FT..... SQUARE FEET
Ø ..... UTILITY POLE
☼ ..... LIGHT POLE
..... GUY WIRE
..... OVERHEAD WIRES
E .... UNDERGROUND ELECTRIC LINE
G .... UNDERGROUND GAS LINE
..... UNDERGROUND STORM SEWER LINE
T .... UNDERGROUND TELECOMMUNICATIONS LINE
W .... UNDERGROUND WATER LINE
..... TREE
LIMITS OF TREE CANOPY/VEGETATION
.... CURB AND GUTTER
E ..... ELECTRIC TRANSFORMER
123.4 ..... SPOT ELEVATION
..... SIGN
T ..... TELECOMMUNICATIONS MANHOLE

RP ROOT PAD
TP TREE PROTECTION
CRZ –CRITICAL ROOT ZONE
X TREE TO BE REMOVED
EXISTING TREELINE
LIMITS OF CLEARING AND GRADING

10 0 5 10 20 40
(IN FEET)
1 INCH = 10'

LANDSCAPE SHEET LIST	
Sheet Number	Sheet Title
L-0301	TREE PRESERVATION PLAN
L-0302	TREE PRESERVATION NOTES AND DETAILS
L-0401	LANDSCAPE LAYOUT PLAN
L-0402	PAVER DETAILS
L-0501	PLANTING PLAN
L-0502	PLANTING NOTES AND DETAILS

WALTER L. PHILLIPS INCORPORATED
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Landscape Architects • Arborists
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FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 Fax (703) 533-1301
www.WLPINC.com
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COMMONWEALTH OF VIRGINIA
BENJAMIN J. SCHITTER
Lic. No. 002007
2/26/2020

DRAWN: BS
CHECKED: KRK
SCALE: 1"=10'
DATE: 2/26/2020

NO.	DESCRIPTION	DATE
	SUB01	2/7/2020

TREE PRESERVATION PLAN
WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
LANDSCAPE PLAN
CITY OF FALLS CHURCH, VIRGINIA

SHEET: L-0301

TREE PRESERVATION PROCEDURES AND SPECIFICATIONS
City of Falls Church, VA – Urban Forestry / Development Services

1. Prior to allowing any vehicle or construction equipment to enter the site, the construction foreman and project arborist (also foreman of company doing actual tree work if different from project arborist) is to meet the City Arborist to mark the location of the *limits of clearing/ tree preservation fencing*, erosion control fabric, and root pruning line (where required), access routes, storage areas, and parking areas. The location of the LIMITS OF CLEARING/TREE PRESERVATION FENCING is to be installed in accordance with the approved plan and field located from existing benchmarks, landmarks, and building stakeout survey markers. All work procedures and tree preservation measures are to be discussed at this time. An appointment must be made with the arborist for the City a minimum of three days prior to the establishment of the tree preservation measures is required by City Code (Sec. 35-15 (b), see enclosed. Contact the City Arborist for an appointment at 703-248-5183.

2. Trees to be removed shall be clearly marked and approved by the City Arborist prior to demolition or entry of any equipment on site. A tree contractor licensed and bonded to work in the City shall perform all tree work, including all tree removals. Check with the City Arborist for a copy of the most recent list of Tree Contractors.

3. *Tree preservation fencing* shall be either of the following:

   a. Six (6) foot high chain link fence sections attached to one and five eights (1 5/8) inch outside diameter pipe with eleven (11) -gauge mesh in a two (2) inch diamond pattern. The fencing noted above may be temporary panels set in concrete blocks at the base and secured at the top with saddle clamps
   or
   b. Four (4) foot high fourteen (14) gauge welded wire fence supported by six (6) foot long metal stakes (2" width) to be spaced eight (8) feet on center and sunk into the ground.

   Both of the fencing types noted above shall be flagged with brightly colored surveyor ribbon to improve their visibility. The contractor must maintain fencing in place throughout construction. **In the event fencing must be temporarily removed for any reason, contact must be made first with the arborist at 703-248-5183**. The City Arborist must grant approval before any tree preservation fencing is removed, even temporarily.

4. Erosion and sediment control fencing shall be placed on the inside (toward construction) from the tree preservation fencing and any root-pruning trenches.
   Erosion control devices such as silt fencing, debris basins, and water diversion structures shall be installed to prevent siltation and/or erosion within the tree protection zone.
   Property owners are advised to impose fines in contracts with construction companies if tree preservation measures are violated.

5. Demolition and Site Clearing:

   a. The City Arborist shall be notified a minimum of three (3) days in advance of commencing any form of tree work. Call 703-248-5183 for an appointment.

   b. Trees to be removed shall be felled so as to fall away from tree protection zones and to avoid pulling breaking of roots of trees to remain. If roots are entwined, the consultant may require first severing the major woody root mass before extracting the trees. This may be accomplished by cutting through the roots by hand, with a vibrating knife, rock saw, and narrow trencher with sharp blades, or other approved root-pruning equipment.
   c. Trees being cut within the tree preservation zone shall be cut near ground level and the stumps ground out with a walk-behind grinding machine.
   d. All downed brush and trees shall be removed from the tree protection zone either by hand or with equipment sitting outside the tree protection zone. Extraction shall occur by lifting the material out, not by skidding it across the ground.
   e. Brush shall be chipped and placed in the tree protection zone to a depth of 6 inches, with no chips against the trunks of trees.
   f. Structures and underground features to be removed within the tree protection zone shall use the smallest equipment possible and operate from outside the tree protection zone. The City Arborist shall be present during all such operations within the tree protection zone to monitor demolition activity. Phone 703-248-5183 at least three (3) days in advance for an appointment.
   g. Any damage to trees due to demolition activities shall be reported to the City Arborist within 6 hours so that prompt remedial action can be taken.
   h. If temporary haul or access roads must pass over the root area of trees to be retained, a roadbed of at least 10 inches of mulch shall be created to protect the soil. The roadbed material shall be replenished as necessary to maintain a10-inch depth. The City Arborist must approve the use of any such temporary road in the tree protection area.

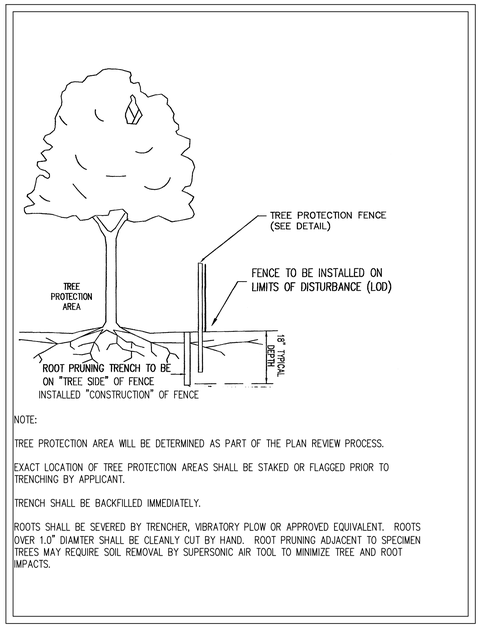
6. Pruning & Other Preservation Measures Specifications:
   a. The City Arborist shall be notified a minimum of three (3) days in advance of commencing any form of tree work. Call 703-248-5183 for an appointment.
   b. Root pruning, where required, shall be mechanically done with a narrow trencher with sharp blades. Once a trench is opened up, approximately 18-24" in depth and 4" wide all exposed roots will be hand pruned so that the clean-cut ends can regrow.
   The tree preservation fencing shall be placed 6-12" outside the root-pruning trench (construction side of the trench). The erosion and sediment fencing shall be placed outside the tree preservation fencing (construction side of the fence).
      - Where required, apply a slow-release complete fertilizer containing major and trace elements, but low in water-soluble nitrogen during the season before the commencement of construction. An application of a *mychorrizae* product may also be required to assist in the preservation of highly stressed trees.
   c. All trees to be saved will be pruned (in accordance with American National Standards Institute (ANSI) Standard Practices for Trees, Shrubs, and Other Woody Plan Maintenance ANSI A300 and adhere to the most recent edition of ANSI Z133.1.
   d. Treat any disease or insect pest as required to reduce stress on trees.
   e. Remove all invasive vines growing on trees and from the area around the trees
   f. Specifications for work to be performed on individual trees shall be indicated under the "maintenance" column of the Tree Survey.
   g. All trees within the project area shall be pruned to:
      - clear the crown of diseased, crossing, weak, and dead wood to a minimum size of 1 ½ inches diameter;
      - provide 14 feet of vertical clearance over streets and 8 feet over sidewalks;
      - remove stubs, cutting outside the woundwood tissue that has formed around the branch;
      - reduce end weight on heavy, horizontal branches selectively removing small diameter branches, no greater than 2 to 3 inches near the ends of the scaffolds.
   h. Where temporary clearance is needed for access, branches shall be tied back to hold them out of the clearance zone. The City Arborist must approve such tying.
   i. Pruning shall not be performed during periods of flight of adult boring insects because fresh wound attract pests. Pruning shall be performed only when the danger of infestation is past.
   j. All work must be performed by a tree contractor licensed and bonded to work in the City and in accordance with the direction of the project certified arborist and the City Arborist.
   k. Interior branches shall not be stripped out.
   l. Pruning cuts larger than 4 inches in diameter, except for dead wood, shall be avoided.
   m. Pruning cuts that expose heartwood shall be avoided whenever possible.
   n. No more than 20 percent of live foliage shall be removed from a tree at on time.
   o. While in the tree, the arborist shall perform an aerial inspection to identify defects that require treatment. Any addition work needed shall be reported to the City Arborist.
   p. Brush shall be chipped and chips shall be spread underneath trees within the tree protection zone to a maximum depth of 6 inches, leaving the trunk and root flare clear of chips.
   q. It may also be necessary to fertilize, aerate and otherwise treat the "trees to be saved" as required by the arborist for the City, following a meeting with the owner's/developer's arborist and approval of the "tree preservation plan". <u>All tree work must be completed prior to construction.</u>
   r. 'Selective clearing' in wooded areas will be allowed only under the direction of the City Arborist. Trees to be removed will be felled by hand so that minimal damage is done to "trees to be saved".
   s. No vehicles or storage of materials of any kind will be allowed inside the limits of clearing. No storage of material or debris will be allowed within the "tree save area". No burning will be allowed on site.
7. Construction Specifications:
   a. Supplemental water shall be supplied to trees being preserved when natural rainfall is less than 1" a week, from early spring until the ground freezes in the fall. Irrigation should be designed to wet the soil to a depth of 2-3 feet. Lacking a source of water early on the construction site, this may be accomplished by constructing a 6" berm around the tree protection zone and filling the basin with a water truck or by injecting the soil using a pressure system from a truck mounted water tank. Shallow frequent watering should be avoided
   b. Have a licensed and bonded tree contractor remove torn, hazardous, or prominent deadwood as it occurs, using ANSI standards noted under # 4 above. .
   c. Where construction traffic must occur in the area of tree roots it shall be necessary to apply the following procedure: cover undisturbed soil with 10-15 inches wood chips and topped with chain link fence pulled taught and anchored or topped with 5/8 to 3/4 inch plywood with non-skid surface.
   d. Where compaction occurs during construction, vertical mulch with good quality compost.
   e. Before grading, pad preparation, or excavation for foundations, footings, walls, or trenching, relevant trees shall be root pruned 1 foot outside the tree protection zone by cutting all roots cleanly to a depth of 24 inches to the maximum depth of root penetration, (usually 3 feet). Roots shall be cut by manually digging a trench and cutting exposed roots with a saw, vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root-pruning equipment. Pruned roots shall be promptly covered with soil.
   f. Any roots damaged during grading or construction shall be exposed to sound tissue and cut leanly with a saw and promptly covered with moist soil.
   g. Soil from trenches, basements or other excavations shall not be placed within the tree protection zone, either temporarily or permanently. Soil stockpiles should be placed only in previously designated areas. No vehicles or construction equipment shall be parked in the tree protection zone.
   h. No burn piles or debris pits shall be placed within the tree protection zone. No ashes, debris or garbage may be dumped or buried within the tree protection zone. No materials of any kind shall be stored in the tree protection zone.
   i. Maintain fire-safe areas around fenced areas. Also, no heat sources, flames, ignition sources, or smoking is allowed near mulch of trees.
   j. A copy of the "approved plan" and TREE PRESERVATION PROCEDURES AND SPECIFICATIONS must be maintained on site at all times.
   k. All underground utilities and drain or irrigation lines shall be routed outside the tree protection zone. If lines must traverse the protection area, they shall be tunneled or bored under the tree(s) with the approval of the City Arborist.
   l. A licensed and bonded tree contractor must perform additional tree pruning required for clearance during construction under the direction of the City Arborist. Construction workers shall not be allowed to prune trees.
   m. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use. Any pesticides used on site must be tree-safe and not easily transported by water.
   n. If injury should occur to any tree during construction, it should be treated as soon as possible under the direction of the City Arborist.
   o. The City Arborist must monitor any grading, construction, demolition, or other work that is expected to encounter tree roots.
   p. At the completion of construction (and all equipment has been removed from site), notify the City Arborist for an inspection before removing the tree preservation fencing. At this time, all trees will be inspected and any repairs needed will be stipulated by the City and promptly made by the Contractor. (Refer to Sec. 35-15(b) of the City Code for guidance on finalizing the requirements of the bond agreement.

8. The planting of the new tree(s) specified on the plan shall take place after the completion of construction. The City Arborist must inspect the trees prior to planting (see Arborist Notification) and also inspect the placement and installation of the tree(s). All products and workmanship related to the planting of the tree(s) must be in accordance with the **Tree Planting Specifications** attached. The Contractor/Owner must present the City with a copy of a one-year guarantee from the landscape contractor for the newly planted tree(s). The tree will need to be thriving and in good condition one year from the date of planting or will need to be replaced.

If you have questions on any of the "procedures" or "specifications" noted above or concerns that may arise during construction, please contact the City Arborist at (703) 248-5183 or the Senior Urban Forester at (703) 248-5016.

ARBORIST NOTIFICATION AND VERIFICATION:

PRIOR TO THE SIGN OFF AND SUBSEQUENT RELEASE OF THE GRADING PLAN ALL PRESERVATION MEASURES REQUIRED, AS PART OF THE *LANDSCAPE CONSERVATION PLAN*, MUST BE INSPECTED AND APPROVED BY THE CITY OF FALLS CHURCH ARBORIST. THIS MAY INCLUDE BUT IS NOT LIMITED TO TREE WORK, FENCING, MULCHING AND ROOT PRUNING. <u>VIOLATIONS</u> OF THE *LANDSCAPE CONSERVATION PLAN* SHALL RESULT IN FINES, STOP WORK ORDERS AND/OR THE RESUBMISSION OF A "MITIGATION PLAN".
THE REQUIRED REPLACEMENT VEGETATION SHALL BE INSPECTED PRIOR TO PLANTING BY THE CITY ARBORIST. VEGETATION THAT IS INSTALLED UN INSPECTED WILL BE REJECTED. TO ARRANGE AN APPOINTMENT CALL THE SENIOR URBAN FORESTER (703) 248-5016.



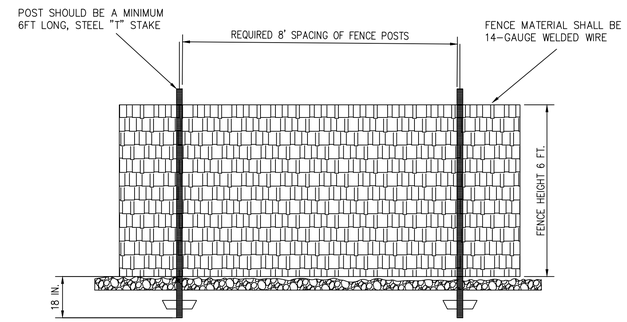
NOTE:

TREE PROTECTION AREA WILL BE DETERMINED AS PART OF THE PLAN REVIEW PROCESS.

EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING BY APPLICANT.

TRENCH SHALL BE BACKFILLED IMMEDIATELY.

ROOTS SHALL BE SEVERED BY TRENCHER, VIBRATORY PLOW OR APPROVED EQUIVALENT. ROOTS OVER 1.0" DIAMTER SHALL BE CLEANLY CUT BY HAND. ROOT PRUNING ADJACENT TO SPECIMEN TREES MAY REQUIRE SOIL REMOVAL BY SUPERSONIC AIR TOOL TO MINIMIZE TREE AND ROOT IMPACTS.



NOTE: TREE PROTECTION FENCING SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION

TREE PROTECTION FENCE INSTALLATION DETAIL
NOT TO SCALE

TYPICAL SIGNAGE FOR TREE PRESERVATION AREA

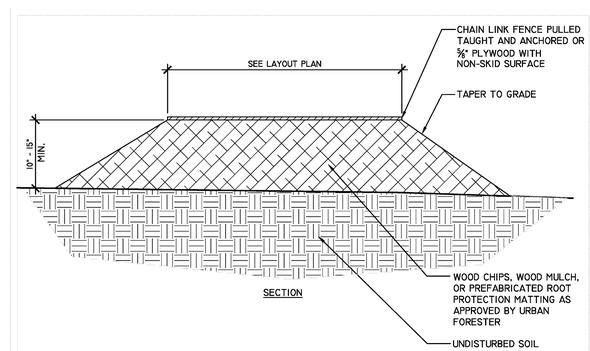
ATTACHMENT TO TREES OR VEGETATION IS PROHIBITED

SIGNS TO BE PROPERLY MAINTAINED THROUGHOUT CONSTRUCTION

SIGN POSTS MAY BE WOOD OR METAL BUT MUST MAKE THE SIGN VISIBLE FROM A STANDING POSITION

SIGNS MUST BE PLACED SUCH THAT A SIGN CAN BE SEEN BY ALL PARTICIPANTS IN THE LAND DISTURBING ACTIVITY AT ALL TIMES, A MINIMUM OF EVERY 50'.

SIGNS MUST BE LAMINATED OR A DURABLE, WEATHERPROOF MATERIAL



ROOT PAD DETAIL 1" = 1'-0"

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(703) 532-6163 Fax (703) 533-1301
www.WLPINC.com

DRAWN: bs | CHECKED: KRV
SCALE: NONE | DATE: 2/26/2020

COMMONWEALTH OF VIRGINIA
BENJAMIN J. SCHITTER
Lic. No. 002007
2/26/2020

NO.	DESCRIPTION	DATE
	SUB01	2/7/2020

TREE PRESERVATION NOTES AND DETAILS

WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
LANDSCAPE PLAN
CITY OF FALLS CHURCH, VIRGINIA

SHEET: L-0302

LEGEND

APPROX.LOC..... APPROXIMATE LOCATION
BSW..... BRICK SIDEWALK
COL..... COLUMN
CONC..... CONCRETE
DB..... DEED BOOK
DHF..... DRILL HOLE FOUND (PROPERTY CORNER)
EG..... EDGE OF GRAVEL
ENTR..... ENTRANCE
ESMT..... EASEMENT
FC..... HEADER CURB
INV..... INVERT
IPF..... IRON PIN FOUND (PROPERTY CORNER)
LSW..... LANDSCAPING WALL
NF..... NAIL FOUND (PROPERTY CORNER)
N/F..... NOW OR FORMERLY
P..... PLANTER
PD..... TELECOMMUNICATIONS CABINET
PG..... PAGE
RCP..... REINFORCED CONCRETE PIPE
RD..... ROOF DRAIN
RET..... RETAINING WALL
SQ.FT..... SQUARE FEET
Ø ..... UTILITY POLE
☼ ..... LIGHT POLE
..... GUY WIRE
..... OVERHEAD WIRES
E ..... UNDERGROUND ELECTRIC LINE
G ..... UNDERGROUND GAS LINE
..... UNDERGROUND STORM SEWER LINE
T ..... UNDERGROUND TELECOMMUNICATIONS LINE
W ..... UNDERGROUND WATER LINE
..... TREE
..... LIMITS OF TREE CANOPY/VEGETATION
..... CURB AND GUTTER
E ..... ELECTRIC TRANSFORMER
123 ..... SPOT ELEVATION
..... SIGN
T ..... TELECOMMUNICATIONS MANHOLE

RP — ROOT PAD

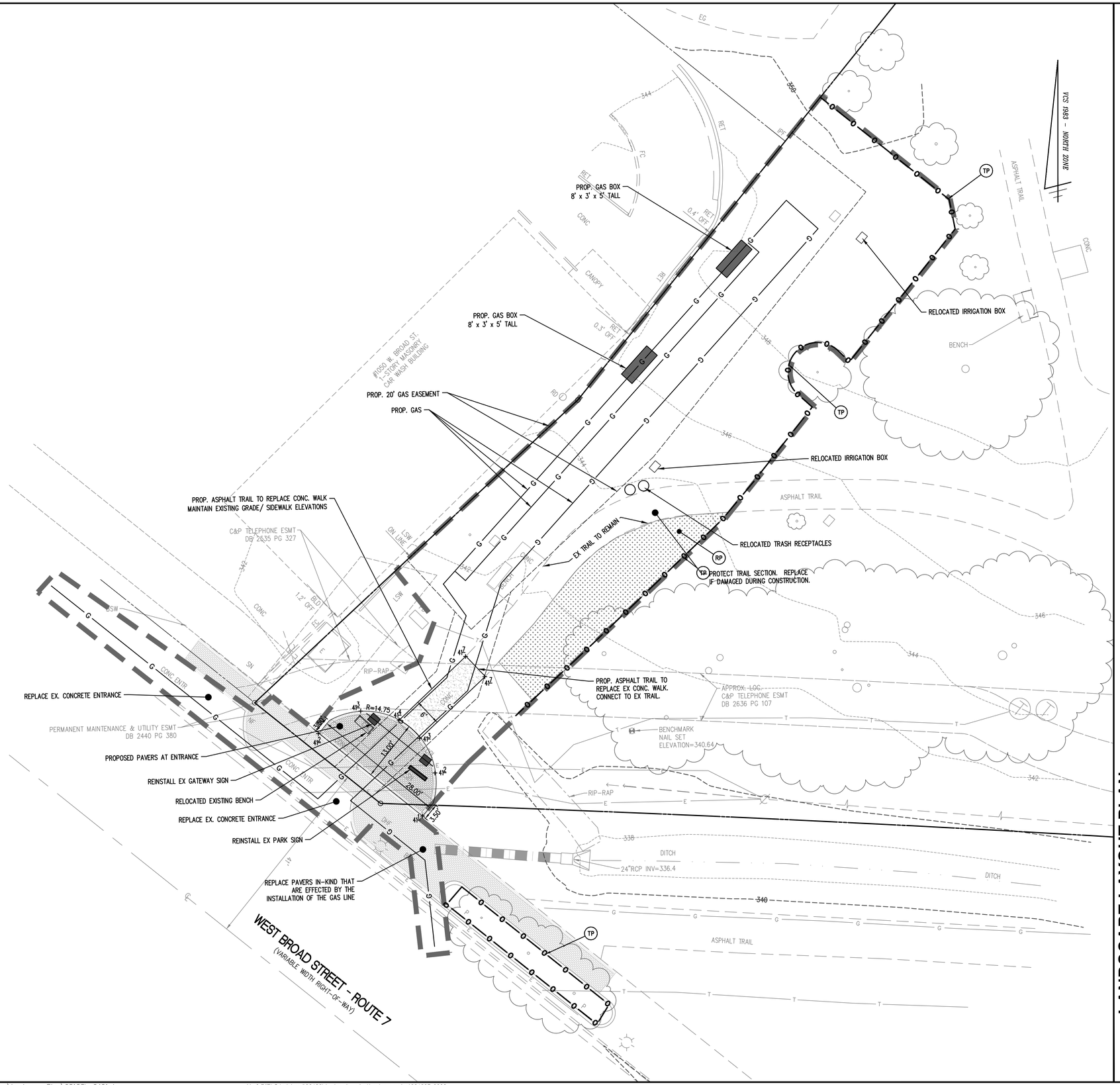
TP — TREE PROTECTION

CRZ –CRITICAL ROOT ZONE

X — TREE TO BE REMOVED

EXISTING TREELINE

LIMITS OF CLEARING AND GRADING



10 0 5 10 20 40
(IN FEET)
1 INCH = 10'

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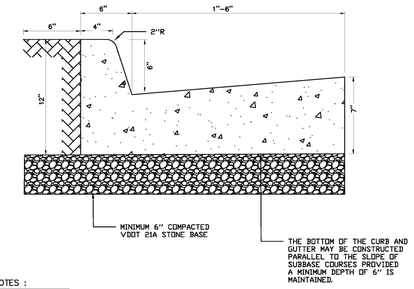
2/26/2020

DRAWN: BS
CHECKED: KRV
SCALE: 1"= 10'
DATE: 2/26/2020

NO.	DESCRIPTION	DATE
	SUB01	2/7/2020

LANDSCAPE LAYOUT PLAN
WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
LANDSCAPE PLAN
CITY OF FALLS CHURCH, VIRGINIA

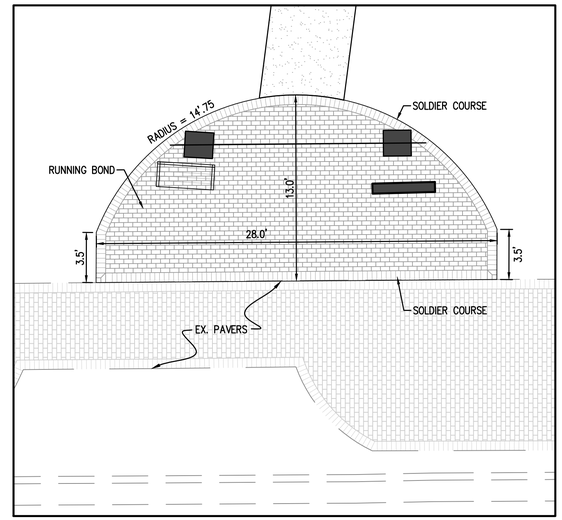


NOTES :
1. CONCRETE TO BE CLASS 3A
2. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER THE BOTTOM OF THE CURB AND GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES. AND TO THE DEPTH OF THE PAVEMENT..

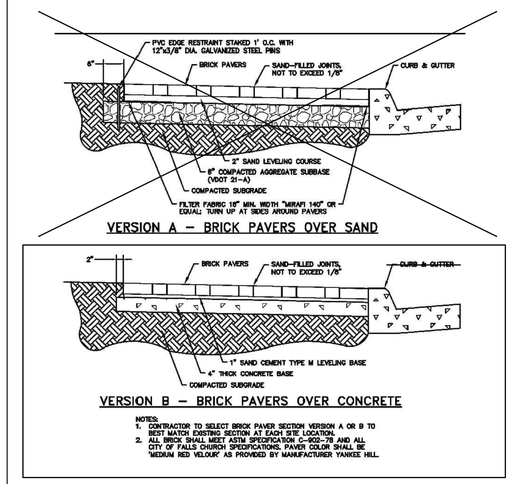
SCALE: N.T.S.

ISSUED:	1/16/15	STANDARD DETAIL COMBINATION 6" CURB & GUTTER	DRAWING NO. 201
REVISION:	1.0		
REVISION:			
APPROVED:	MW/MC		

CITY OF FALLS CHURCH VA PUBLIC WORKS



PAVER ENLARGEMENT
SCALE: 1" = 5'



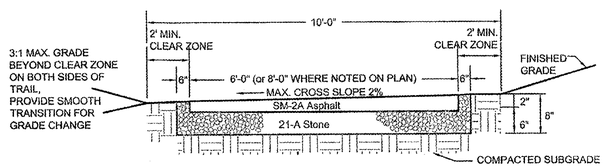
NOTES:
1. CONTRACTOR TO SELECT BRICK PAVER SECTION VERSION A OR B TO BEST MATCH EXISTING SECTION AT EACH SITE LOCATION.
2. ALL BRICK SHALL MEET ASTM SPECIFICATION C-902-78 AND ALL CITY OF FALLS CHURCH SPECIFICATIONS. PAVER COLOR SHALL BE "MEDIUM RED VELOUR" AS PROVIDED BY MANUFACTURER YANKEE HILL.

SCALE: 1"=1'

ISSUED:	2/11/16	STANDARD DETAIL BRICK PAVER SIDEWALK DETAIL	DRAWING NO. 204
REVISION:	1.0		
REVISION:			
APPROVED:	MW/MC		

CITY OF FALLS CHURCH VA PUBLIC WORKS

CONTRACTOR TO MATCH EXISTING PAVEMENT SECTION ADJACENT TO PROPOSED BRICK PUBLIC SIDEWALK ALONG WEST BROAD STREET.



1 ASPHALT TRAIL TYPICAL SECTION
SCALE: N/A

SECTION BY OTHERS
PER APPROVED PLAN S-20090407

KEY	TYPE	MANUFACTURER	SIZE	PRODUCT NAME	COLOR
PAVERS					
A	BRICK PAVER	E.P. HENRY	4" x 8" x 2.25"	YANKEE HILL	MEDIUM RED VELOUR
[redacted]					
[redacted]					
[redacted]					
[redacted]	DETECTABLE WARNING PAVER	[redacted]	[redacted]	DETECTABLE WARNING PAVER	[redacted]

STREETSCAPE PAVER SCHEDULE
NOTE: SEE SPECS FOR PAVER DESCRIPTION
NTS

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CHECKED: KW
SCALE: NONE
DATE: 2/26/2020

COMMONWEALTH OF VIRGINIA
BENJAMIN J. SCHITTER
Lic. No. 002007
2/26/2020

NO.	DESCRIPTION	DATE
	SUB01	2/7/2020

PAVER DETAILS

WEST END PARK

WASHINGTON GAS PLAN AMENDMENT
LANDSCAPE PLAN
CITY OF FALLS CHURCH, VIRGINIA

SHEET: L-0402

LEGEND

APPROX.LOC..... APPROXIMATE LOCATION
BSW..... BRICK SIDEWALK
COL..... COLUMN
CONC..... CONCRETE
DB..... DEED BOOK
DHF..... DRILL HOLE FOUND (PROPERTY CORNER)
EG..... EDGE OF GRAVEL
ENTR..... ENTRANCE
ESMT..... EASEMENT
FC..... HEADER CURB
INV..... INVERT
IPF..... IRON PIN FOUND (PROPERTY CORNER)
LSW..... LANDSCAPING WALL
NF..... NAIL FOUND (PROPERTY CORNER)
N/F..... NOW OR FORMERLY
P..... PLANTER
PD..... TELECOMMUNICATIONS CABINET
PG..... PAGE
RCP..... REINFORCED CONCRETE PIPE
RD..... ROOF DRAIN
RET..... RETAINING WALL
SQ.FT..... SQUARE FEET
Ø ..... UTILITY POLE
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..... GUY WIRE
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..... UNDERGROUND STORM SEWER LINE
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..... CURB AND GUTTER
E ..... ELECTRIC TRANSFORMER
123 ..... SPOT ELEVATION
..... SIGN
T ..... TELECOMMUNICATIONS MANHOLE

PROPOSED EVERGREEN TREE

PROPOSED SHRUBS, GRASSES

TREES

KEY	BOTANICAL NAME	COMMON NAME	QTY	CAL.	HT.	COMMENTS
JV	Juniperus virginiana	Eastern Redcedar	3	N/A	8'-10'	B&B, full specimen compact uniform

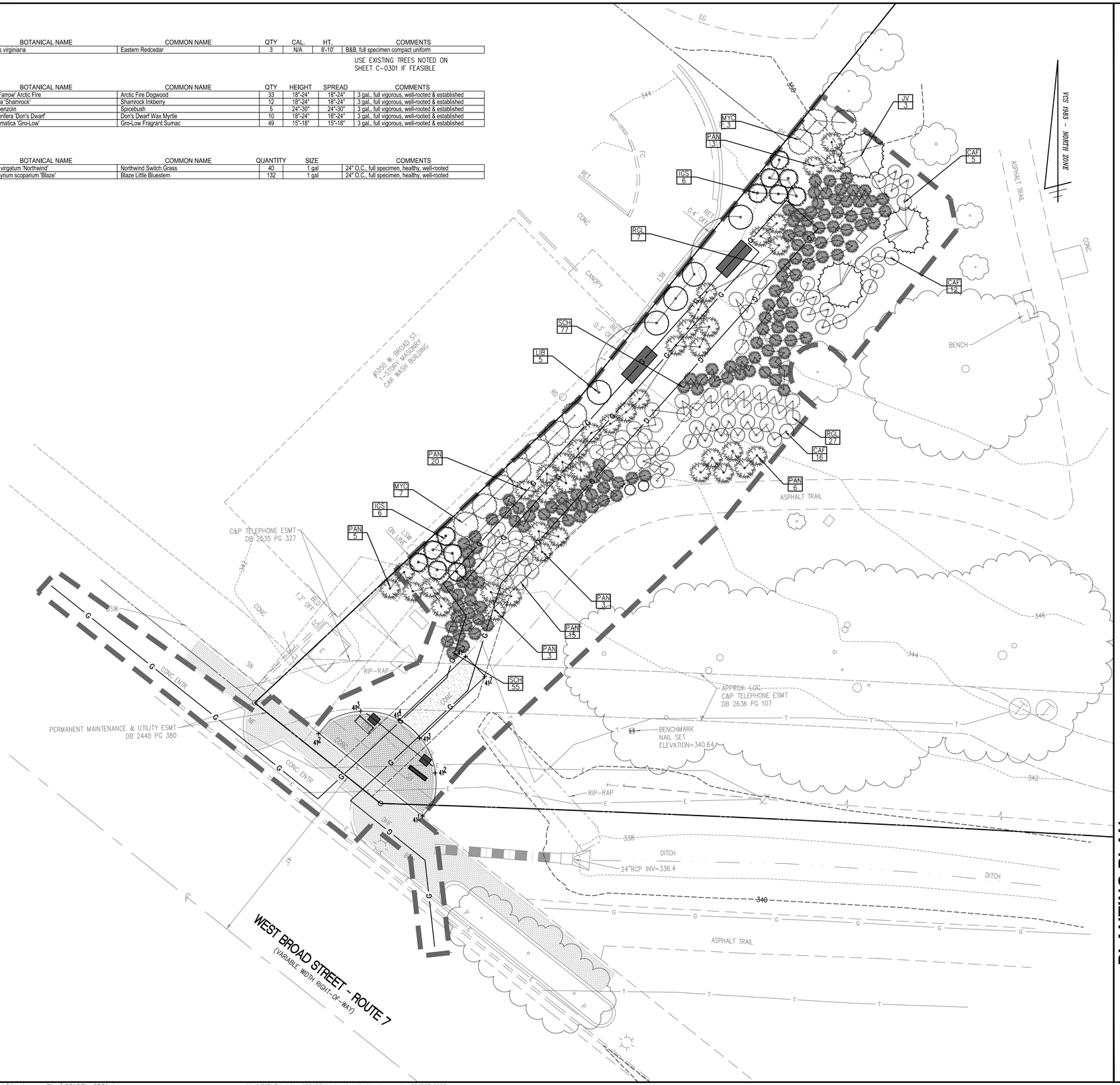
USE EXISTING TREES NOTED ON SHEET C-0301 IF FEASIBLE

SHRUBS

KEY	BOTANICAL NAME	COMMON NAME	QTY	HEIGHT	SPREAD	COMMENTS
CAF	Cornus 'Farrow' Arctic Fire	Arctic Fire Dogwood	33	18"-24"	18"-24"	3 gal., full vigorous, well-rooted & established
IGS	Ilex glabra 'Shamrock'	Shamrock Inkberry	12	18"-24"	18"-24"	3 gal., full vigorous, well-rooted & established
LIB	Lindera benzoin	Spicebush	5	24"-30"	24"-30"	3 gal., full vigorous, well-rooted & established
MYC	Myrica cerifera 'Don's Dwarf'	Don's Dwarf Wax Myrtle	10	18"-24"	18"-24"	3 gal., full vigorous, well-rooted & established
RGL	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	49	15"-18"	15"-18"	3 gal., full vigorous, well-rooted & established

GRASSES

KEY	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE	COMMENTS
PAN	Panicum virgatum 'Northwind'	Northwind Switch Grass	40	1 gal	24" O.C., full specimen, healthy, well-rooted
SCH	Schizachyrium scoparium 'Blaze'	Blaze Little Bluestem	132	1 gal	24" O.C., full specimen, healthy, well-rooted



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(IN FEET)
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CHECKED: KW
SCALE: 1" = 10'
DATE: 12/6/2020

COMMONWEALTH OF VIRGINIA
BENJAMIN J. SCHITTER
Lic. No. 002007
2/26/2020

NO.	DESCRIPTION	DATE
	SUB01	2/7/2020

PLANTING PLAN
WEST END PARK
WASHINGTON GAS PLAN AMENDMENT
LANDSCAPE PLAN
CITY OF FALLS CHURCH, VIRGINIA

SPECIFICATIONS FOR PLANTING
City of Falls Church, VA – Urban Forestry / Development Services

1. Contractor shall verify existing conditions and utility locations. The City Arborist prior to the planting must approve adjustments to locations of plant material due to field conditions. Any substitutions in plant material and sizes specified will not be accepted, unless approved by the City Arborist prior to installation.

2. All plant material shall conform the American Standard for Nursery, latest edition, published by the **American Nursery and Landscape Association**. All plants must be free from injury, insect infestations and disease. All plant material must be inspected by the City Arborist prior to planting. The Contractor shall phone at least three (3) days prior to installation for inspection of the material and for inspection of the planting operation.

3. All plant material must bear original nursery tags indicating the genus, species and if applicable, cultivars and variety. All tags shall be removed after the City Arborist has inspected the plant material.

4. Test soil drainage before planting. Dig a hole as deep as your planting hole and fill with water. If water drains at a rate les than one inch per hour, install drainage to carry water away from the planting hole base, or moving or raising the planting site (berm construction)

5. Examine soil for compaction before planting. If soils are compacted in an area where a group of plants are to be installed, incorporated several inches of a combination of organic materials such as composted yard waste, finely shredded pine bark mulch (*superfines*) or shredded, composted leaf mulch (*leaf-gro*) and till to a depth of tweleve (12) to eighteen (18) inches over the entire area. Do not till if planting is within a tree preservation area. Apply the organic matter at a rate of one-quarter organic matter to three-quarters existing soil. Do not incorporate small quantities of sand – compaction will increase and drainage decreases. For single tree plantings, backfill planting holes with unamended soil. Increase the width of the top of the planting hole in area where soil has been compacted. Do not incorporate organic matter such as peat moss into backfill for individual planting holes.

6. Tree pits shall be a minimum of two (2) and a half (1/2) times the width of the root ball and no deeper than the height of the root ball. On balled and burlaped trees, remove pinning nails or rope lacing, then cut away the wrapping and then backfill. Remove the top 12" of the wire basket. Remove all rope, whether jute or nylon, from trunks. For container materials, remove the container completely. Select trees grown in containers with vertical ribs or a copper-treatment on the interior wall. These container modification and treatments minimize circling root formation. If roots are circling around the root ball exterior of container plants (trees, shrubs or perennials) cut through the roots and soil in a few places. Container tree with multiple circling roots will be rejected. Place shrubs and perennials at the same depth they were in the containers. For bare root perennials plant with the soil even with the top of the crown. Dig the hole wide enough to allow the roots to spread out in the soil. Push the soil back into the hole over the roots and around the top of the plant.

7. A soil test shall be made and the results submitted to the City Arborist prior to the installation of the plant material.

   For trees: A slow-release granular fertilizer shall be incorporated into the top four (4) inches of backfill soil to provide nitrogen, or if a soil test indicated a need for phosphorus or potassium. Use no more that 1 lb. Actual nitrogen per 1,000 ft. of planting hole surface. (Example – if using 18-6-12 with a 5' diameter hole, incorporate 0.3 oz. per planting hole.)

   For shrubs: A slow-release granular fertilizer shall be incorporated into the top four (4) inches of backfill soil to provide nitrogen, or if a soil test indicates a need for phosphorus or potassium. Use quantities in accordance with manufacturer's direction.

   For perennials, bulbs and annuals: A slow –release high phosphate fertilizer such as 7:40:6 or approved equal shall be incorporated into the top four (4) inches of the backfill mix. Alternatively, use Plant-tone on approved equal for sun perennials, together with rock phosphate at rates in accordance with manufacturers directions. Alternatively, for shade perennials use Hollytone or approved equal, together with super phosphate at a rate in accordance with manufacturers directions. Use gypsum, a soil conditioner, for clay soils. For bulbs commercial raw finely ground Bone Meal with an analysis of 4% nitrogen and %20 phosphorus acid shall be incorporated into the backfill mix.

8. When half of the backfill has been returned to the planting hole, water shall be applied to provide settlement and eliminate air pockets. The tree shall be thoroughly watered again after the remaining soil has been placed in the planting pit. A three (3) to four (4) inch dam of soil shall be constructed around the planting pit.

9. Two (2) to three (3) inches of mulch shall be placed over the tree-planting pit, but shall be kept three (3) to four (4) inches away from the trunk of the tree or crowns of shrubs. Do not allow mulch to touch the trunks of trees or crowns of shrubs. Use mulch that is compatible with the type of plant used. Avoid mulch that has not been nitrogen composted, as the pH of the soil could change as the mulch degrades. Pine bark mulch will not change the pH of the soil as it degrades. This is the best type of mulch for use with perennials. In mulching perennials, use no more than 1-2". For Mediterranean type of perennials, such as lavender, or for peonies or iris, use no mulch at all.
10. Trees shall be planted at the height of the surrounding grade with root flares visible. Should soil have been piled over the root flare during the digging process, this soil shall be removed so that the flare is slightly above grade.

11. Any pruning must be done with the approval of the City Arborist. Pruning at the time of planting shall be done only to remove broken branches or double (co dominant) leaders.

12. Remove tags and labels from trees and shrubs to prevent girdling branches and trunks.

13. Stakes shall be used only in area of high traffic or highly windy locations. A tree-staking diagram should be provided if staking is necessary. Stake for maximum of one year. Allow trees a slight amount of flex rather than holding them rigidly in place. Use guying or attaching that won't damage the bark. To prevent trunk girdling, remove all guying material after one year.

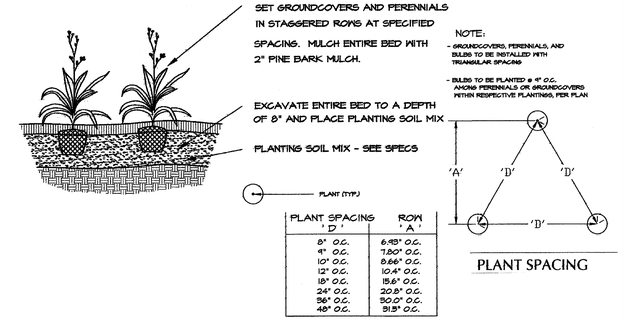
14. Use tree wrap only on thin barked trees planted in spring or summer into hot or paved areas. In these instances use white wrap, attaching with out the use of wire, rope, ties or tape, and remove after one year.

15. Planting Season – Planting shall be done only within the following dates:

    a. Deciduous Trees – March 15 to May 30 or September 15 to December 15 (oaks and black gum to be spring dug and planted only).
    b. Evergreen Trees – March 1 to May 15 or September 15 to November 15.

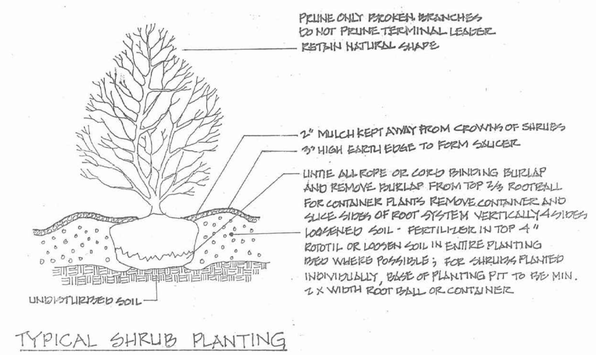
16. All plant material shall be guaranteed by the Contractor for one year from the date of acceptance to be in good, healthy and flourishing condition. In the event that a plant dies or in the judgment of the City Arborist, fails to flourish; the Contractor shall replace in accordance with the above noted specifications.

17. The Contractor shall be responsible for the maintenance of the plants during this one-year warranty period. This maintenance shall include providing water on a weekly basis when natural rainfall is less than one inch a week. Drip irrigation systems and water reservoir devices can facilitate watering. Root balls of trees should be slowly and thoroughly soaked at time of watering. For planting beds (i.e., trees, shrubs and perennials), water slowly and deeply putting down 1"-2" of water in a 6-12 hour period. This should give a penetration of 12-18" depth.

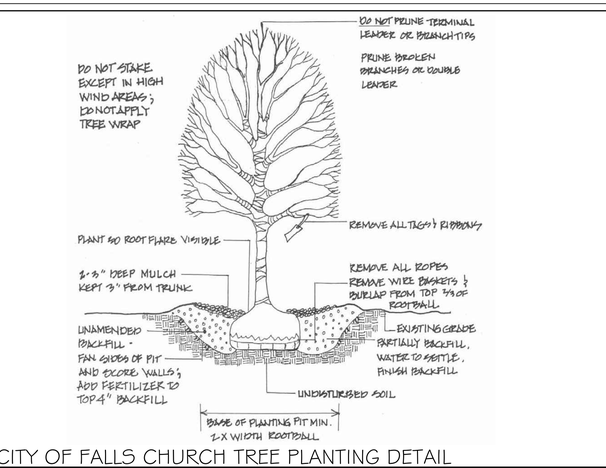


PLANT SPACING 'D'	ROW 'A'
8" O.C.	6.93" O.C.
9" O.C.	7.80" O.C.
10" O.C.	8.66" O.C.
12" O.C.	10.4" O.C.
18" O.C.	15.6" O.C.
24" O.C.	20.8" O.C.
36" O.C.	30.0" O.C.
48" O.C.	41.5" O.C.

CITY OF FALLS CHURCH PERENNIAL/GROUNDCOVER PLANTING DETAIL
SECTION
SCALE:NTS



CITY OF FALLS CHURCH SHRUB PLANTING DETAIL
SECTION
SCALE:NTS



CITY OF FALLS CHURCH TREE PLANTING DETAIL
SECTION
SCALE:NTS

Engineers • Surveyors • Planners
Landscape Architects • Arborists
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ESTABLISHED 1945

DRAWN: BS
CHECKED: KW
SCALE: NONE
DATE: 2/28/2020

COMMONWEALTH OF VIRGINIA
BENJAMIN J. SCHITTER
Lic. No. 002007
2/28/2020

NO.	DESCRIPTION	DATE
	SUB01	2/7/2020

PLANTING NOTES AND DETAILS

WEST END PARK

WASHINGTON GAS PLAN AMENDMENT
LANDSCAPE PLAN
CITY OF FALLS CHURCH, VIRGINIA

SHEET: **L-0502**