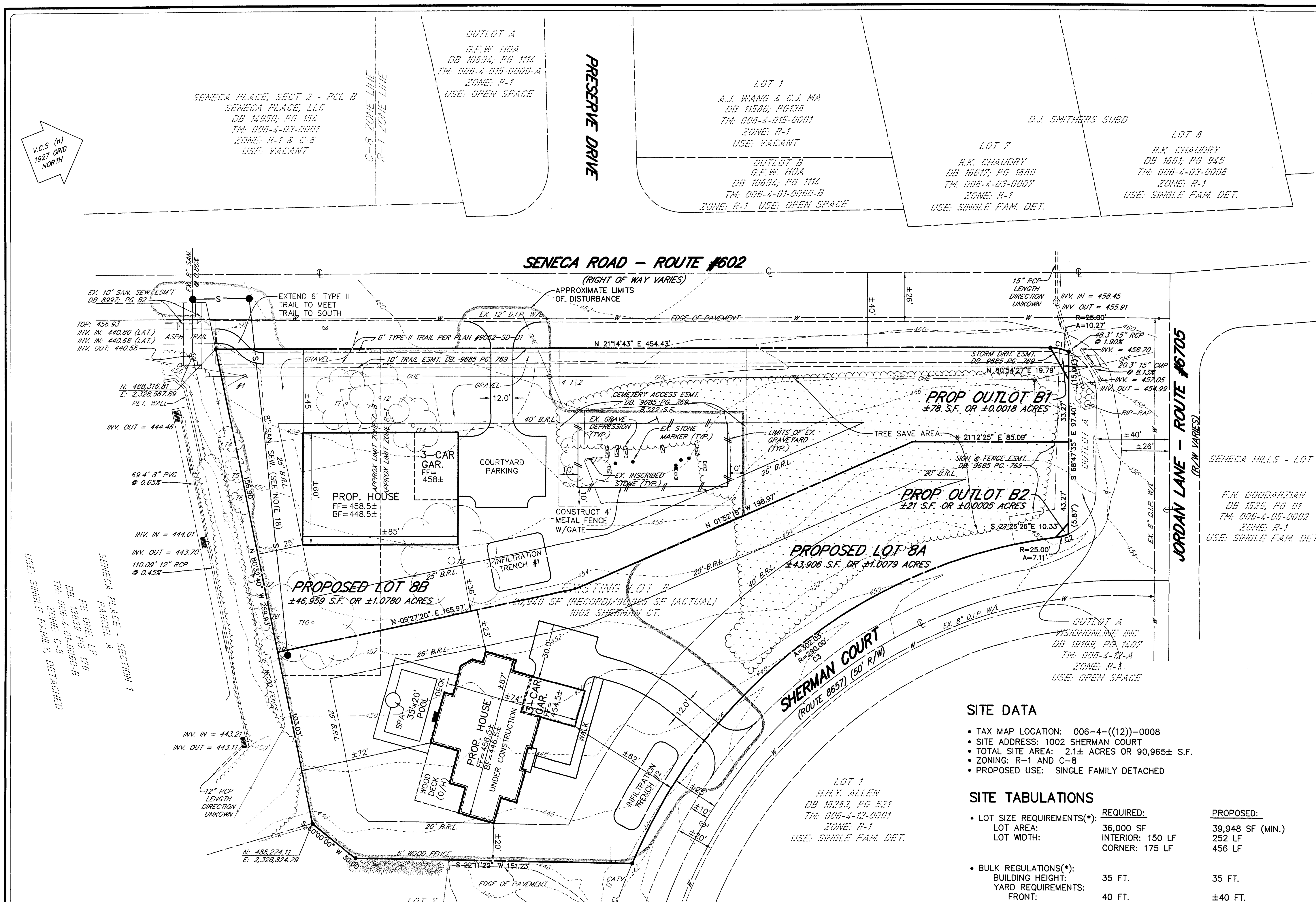

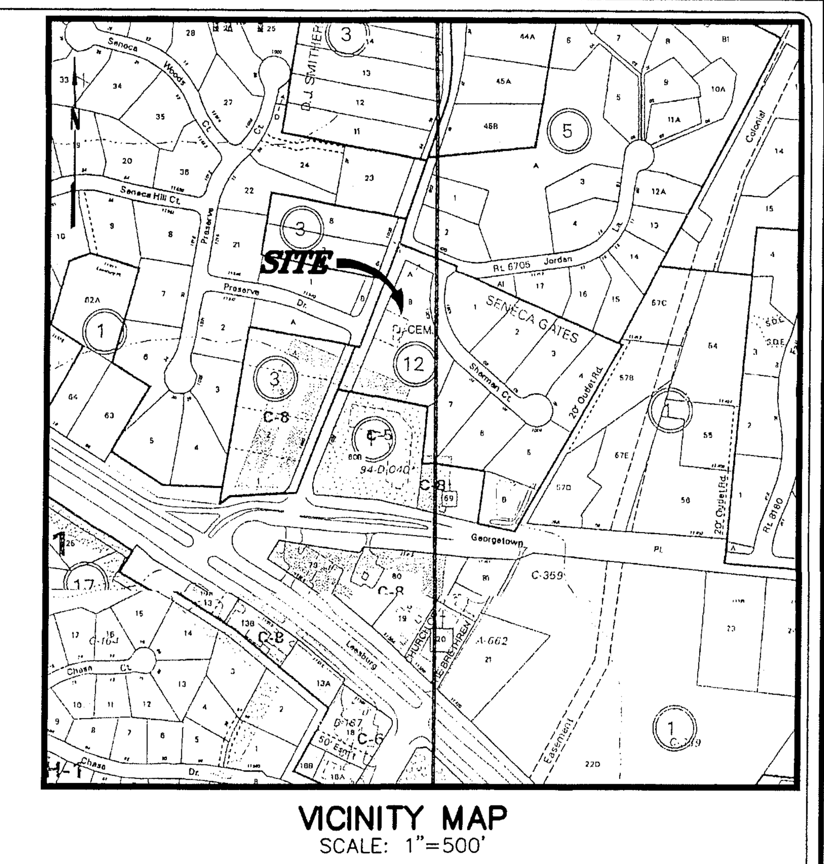

VICINITY MAP
SCALE: 1"=500'

GENERAL NOTES

1. THE PROPERTY DELINEATED ON THIS PLAT CONTAINS 2.1± ACRES (90,965± S.F.) AND IS LOCATED ON FAIRFAX COUNTY TAX MAP 006-4-((12))-0008. THE PROPERTY IS ZONED R-1 AND C-8. THE PURPOSE OF THIS PLAN IS TO REZONE THE C-8 PROPERTY TO THE R-1 DISTRICT.
2. BOUNDARY INFORMATION IS BASED AND THE LOCATION OF PHYSICAL IMPROVEMENTS SHOWN HEREON ARE BASED ON A FIELD SURVEY PERFORMED BY TRI-TEK ENGINEERING IN FEBRUARY, 2004.
3. TOPOGRAPHY INFORMATION SHOWN HEREON IS AT 2 FT. CONTOUR INTERVALS BASED ON A FIELD SURVEY BY TRI-TEK ENGINEERING IN FEBRUARY, 2004.
4. THE PROPERTY DELINEATED ON THIS PLAT IS NOW IN THE NAME OF VISIONLINE INC. AS RECORDED IN DEED BOOK 19199 AT PAGE 1404 AMONG THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA.
5. THE PROPERTY SHOWN ON THIS GDP IS IN THE DRANESVILLE MAGISTERIAL DISTRICT, THE BLUE PLAINS SANITARY SEWER DISTRICT (COLVIN RUN, D-2) SEWER SUB SHED, AND THE DIFFICULT RUN WATER SHED.
6. THIS DEVELOPMENT IS LOCATED IN THE UPPER POTOMAC PLANNING DISTRICT (AREA III); SPRINGVALE SECTOR (UP-2) AND PLAN RECOMMENDATION IS RESIDENTIAL AT 0.2-0.5 AND RETAIL AND OTHER. THIS DEVELOPMENT IS IN CONFORMANCE WITH THE FAIRFAX COUNTY COMPREHENSIVE PLAN AND WILL CONFORM TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS AND CONDITIONS.
7. OFF STREET PARKING AND LOADING IS PROVIDED IN ACCORDANCE WITH ARTICLE 11 OF THE FAIRFAX COUNTY ZONING ORDINANCE.
8. A WAIVER OF STORMWATER DETENTION (#9062-WSWD-001-1) TO UTILIZE THE POND CONSTRUCTED FOR THE OVERALL SUBDIVISION WAS APPROVED SEPTEMBER 26, 2005 AND HAS BEEN MADE PART OF THIS PLAN. A REAPPROVAL WILL BE REQUESTED PENDING APPROVAL OF THE REZONING. WATER QUALITY CONTROLS WERE PROVIDED WITH THE ORIGINAL SUBDIVISION (SENECA GATE, COUNTY #9062-SD-01-2) BY OFFSITE REGIONAL POND D-4. IF WATER QUANTITY/QUALITY CONTROLS ARE ULTIMATELY REQUIRED, THEY WILL BE PROVIDED ON LOT BY INFILTRATION TRENCHES IN ACCORDANCE WITH PFM SECTION 6-1307.2A AND WILL BE PROVIDED AT THE TIME OF PREPARATION OF THE GRADING PLAN FOR EACH LOT.
9. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO GENERAL AREAS THAT HAVE SCENIC ASSETS OR NATURAL FEATURES DESERVING OF PROTECTION AND PRESERVATION.
10. THIS PLAN DOES NOT PURPORT TO SHOW ALL EXISTING UNDERGROUND UTILITIES AND THOSE SHOWN ARE APPROXIMATE. THERE ARE NO KNOWN EXISTING UNDERGROUND UTILITY EASEMENTS HAVING A 25' WIDTH OR MORE ON THE SITE.
11. THIS PLAN DOES NOT SHOW UTILITIES. ALL NECESSARY PUBLIC UTILITIES ARE READILY ACCESSIBLE TO THE SITE AND WILL BE EXTENDED BY THE DEVELOPER OR UTILITY COMPANY. INDIVIDUAL BUILDING UTILITY PLANS PROFILES WILL BE SUBMITTED IN THE FUTURE FOR CONSTRUCTION PURPOSES. TRI-TEK ENGINEERING ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION WITH THESE PLANS.
12. THERE IS NO FLOODPLAIN, EQC, OR APR LOCATED WITHIN THE SUBJECT PROPERTY PER COUNTY RPA MAPS. THE ENTIRE SUBJECT PROPERTY IS IN A RESOURCE MANAGEMENT AREA.
13. DEVELOPMENT REQUIRED FOR THIS PROJECT SHALL COMMENCE AT SUCH TIME AS APPROPRIATE COUNTY APPROVALS HAVE BEEN OBTAINED AND SUBJECT TO THE DISCRETION OF THE OWNER.
14. GRAVE/BURIAL SITES EXIST WITHIN THE CEMETERY ACCESS EASEMENT ON PROPOSED LOT 8B AS IDENTIFIED BY A CEMETERY DELINEATION STUDY PREPARED BY THUNDERBIRD ARCHEOLOGY, A DIV. OF WETLAND STUDIES AND SOLUTIONS, INC., DATED FEB., 2008. DURING CONSTRUCTION, THE AREA OF THE CEMETERY WILL BE FENCED AND PROTECTED FROM ANY DISTURBANCE.
15. TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES THAT ARE TO BE GENERATED, UTILIZED, STORED, TREATED AND/OR DISPOSED OF ON THIS SITE.
16. THE PROPERTY WHICH IS THE SUBJECT OF THIS APPLICATION SHALL BE DEVELOPED IN ACCORDANCE WITH THIS PLAT PREPARED BY TRI-TEK ENGINEERING, INC. PROVIDED THAT MINOR MODIFICATIONS SHALL BE PERMITTED PURSUANT TO THE PROVISIONS OF SEC. 9.004. MODIFICATIONS WILL BE DETERMINED AS PART OF THE FINAL ENGINEERING AND SITE PLAN REVIEW BY THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWES).
17. ANY AND ALL OFF-SITE GRADING, R.O.W., PARKING, ACCESS & UTILITY CROSSING SHALL BE ALLOWED WITH PERMISSION OF ADJACENT OWNERS AS LONG AS NO OFF-SITE TREES ARE IMPACTED.
18. THE PROPOSED HOUSE UNDER CONSTRUCTION ON LOT 8A IS CURRENTLY SERVED BY A SANITARY SEWER LATERAL. AS SUCH, THE SANITARY SEWER MAIN CONSTRUCTION MAY NOT BE REQUIRED AND SHALL BE DETERMINED BY DPWES AT THE TIME OF SUBDIVISION.

SITE DATA

- TAX MAP LOCATION: 006-4-((12))-0008
- SITE ADDRESS: 1002 SHERMAN COURT
- TOTAL SITE AREA: 2.1± ACRES OR 90,965± S.F.
- ZONING: R-1 AND C-8
- PROPOSED USE: SINGLE FAMILY DETACHED

SITE TABULATIONS

	REQUIRED:	PROPOSED:
• LOT SIZE REQUIREMENTS(*):		
LOT AREA:	36,000 SF	39,948 SF (MIN.)
LOT WIDTH:	INTERIOR: 150 LF	252 LF
	CORNER: 175 LF	456 LF
• BULK REGULATIONS(*):		
BUILDING HEIGHT:	35 FT.	35 FT.
YARD REQUIREMENTS:		
FRONT:	40 FT.	±40 FT.
SIDE:	20 FT.	±20 FT.
REAR:	25 FT.	±25 FT.
• DENSITY:	1.0 DU/ACRE	0.96 DU/ACRE

- DENSITY PARENT SUBDIVISION:
  - SENECA GATE SUBDIVISION:
    - AREA: 9.85 ACRES
    - LOTS: 8
    - DENSITY: 0.81 DU/AC
  - PROPOSED SUBDIVISION:
    - AREA PARENT TRACT: 9.85 ACRES
    - APPLICATION PROPERTY: 2.09 ACRES
    - 7 LOTS/9.85 AC – 2.09 AC = 0.90 DU/AC
    - 2 LOTS/2.09 AC = 0.96 DU/AC
- PARKING SCHEDULE:
  - REQUIRED: 2.0 SPACES PER LOT
  - PROVIDED: 2.0 SPACES PER LOT
- SHAPE FACTOR ($\frac{\text{PERIMETER}^2}{\text{AREA}} < 35$):
  - LOT 8A: $\frac{1123^2}{46959} = 26.85$, OR 27
  - LOT 8B: $\frac{1081^2}{43906} = 26.62$, OR 27
- TREE COVER REQUIREMENTS:
  - GROSS SITE AREA = 90,965 SF
  - TREE COVER REQUIRED (20%) = 18,193 SF
  - EXISTING TREES TO BE PRESERVED = 18,306 SF
  - EXISTING TREE COVER CREDIT (X 1.25) = 22,883 SF
  - TREE COVER REQUIREMENTS MET. NO ADDITIONAL PLANTNG REQUIRED.

[dotted box] DENOTES TREES USED TO CACULATE TREE COVER CREDIT

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	CHORD	CHD. BRG.
C1	10.27'	25.00'	23°32'40"	10.20'	S33°01'03"W
C2	7.11'	25.00'	16°17'15"	7.08'	N05°46'04"E
C3	302.03'	290.00'	59°40'20"	288.56'	S15°55'28"E

LEGEND

- SIGN
- MAIL BOX
- PHONE PEDESTAL
- POWER POLE
- GUY WIRE
- SEPTIC
- CLEAN OUT
- STORM MH
- IRON PIPE FOUND
- CURB & GUTTER
- OHE — OVERHEAD ELECTRIC
- FENCE
- WOODLINE

TREE TABLE

T1	15" TREE
T2	15" TREE
T3	48" TREE
T4	6" TREE
T5	6" TREE
T6	6" TREE
T7	6" TREE
T8	6" TREE
T9	6" TREE
T10	18" TREE
T14	24" HOLLY
T17	15" DOGWOOD

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

Application No. RZ 2008-DR-006 Staff t. strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP) 9-19-08
SEE PROFFERS DATED 10-20-08
Date of (BOS) (PC) approval
Sheet 1 of 4

SHEET INDEX

1) GENERALIZED DEVELOPMENT PLAN
2) OFFSITE DRAINAGE ANALYSIS
3) STORMWATER MANAGEMENT
4) EXISTING VEGETATION MAP

RECEIVED
Department of Planning & Zoning
DEC 17 2008
Zoning Evaluation Division

TRI-TEK ENGINEERING
CIVIL
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690 Center Street
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COMMONWEALTH OF VIRGINIA
THEODORE D. BRITT
NO. 023803
9.19.08
PROFESSIONAL ENGINEER

LOT 8 SENECA GATE

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

GENERALIZED DEVELOPMENT PLAN

DATE	REVISION
04.02.08	PER COUNTY COMMENTS.
08.01.08	PER COUNTY COMMENTS.
08.13.08	PER COUNTY COMMENTS.
08.26.08	PER COUNTY COMMENTS.
09.19.08	PER COUNTY COMMENTS.

PM: TDB SCALE: 1"=30'
PE: – DATE: 12.10.07
CO: –A– SHEET 1 OF 4

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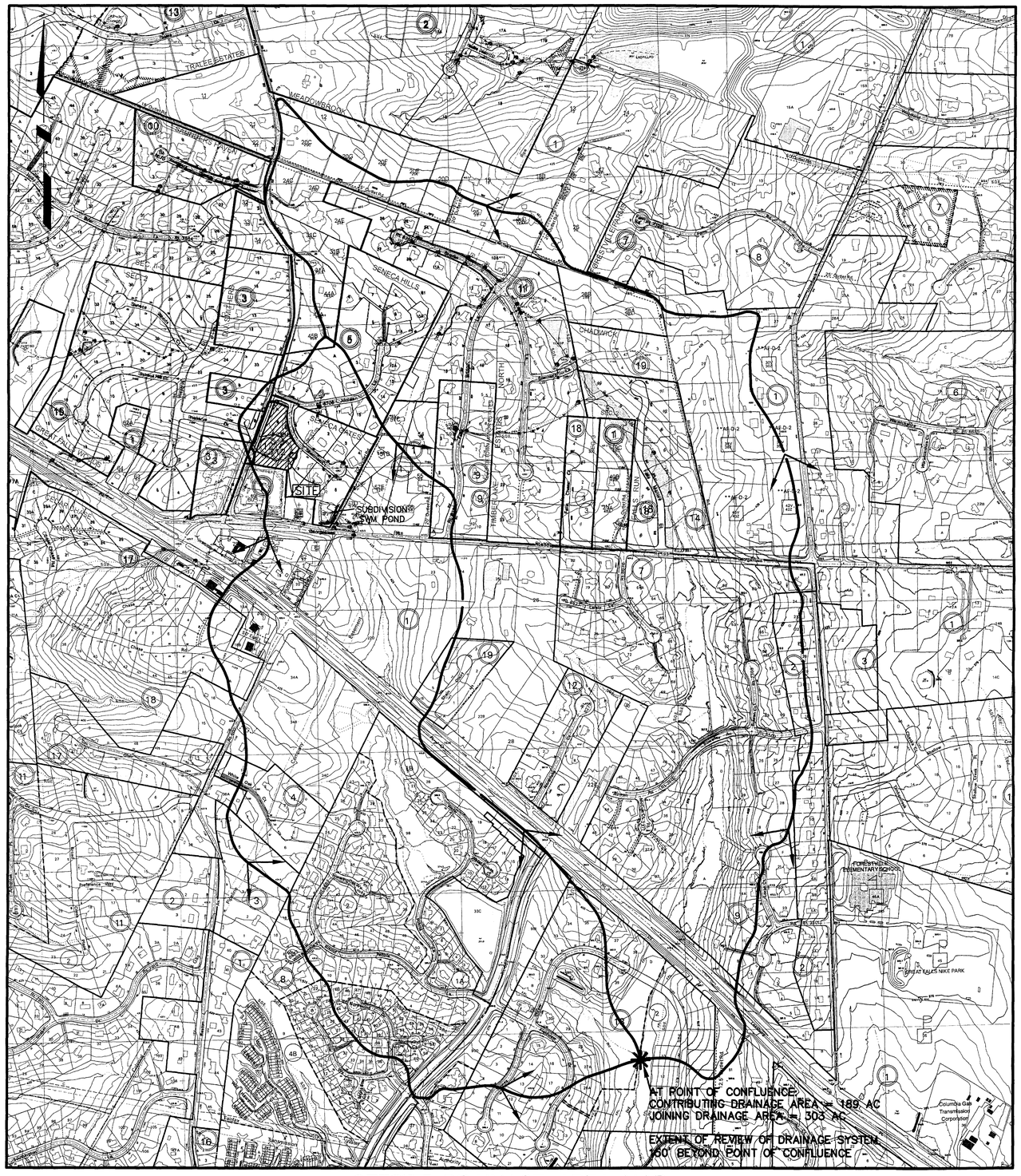
OUTFALL NARRATIVE:
RUNOFF FROM THIS PROPERTY SHEET FLOWS IN A SOUTHEASTERLY DIRECTION TO A STORMWATER MANAGEMENT POND LOCATED AT THE INTERSECTION OF GEORGETOWN PIKE (ROUTE 193) AND AN OUTLET ROAD, SOUTHEAST OF THE PROPERTY. THIS SWM POND WAS DESIGNED FOR THE SENECA GATE SUBDIVISION, ANTICIPATING FUTURE DEVELOPMENT IN THE SUBDIVISION AND SPECIFICALLY DEVELOPMENT OF THE SUBJECT PROPERTY. AS SUCH, WE BELIEVE THE POND IS ADEQUATE FOR THE SMALL INCREASE IN RUNOFF DUE TO DEVELOPMENT.

FROM THE SWM POND, RUNOFF FROM THE SITE FLOWS TO THE BED AND BANKS OF A TRIBUTARY OF DOG RUN IN THE DIFFICULT RUN WATERSHED. AT A POINT APPROXIMATELY 4,700 FEET FROM THE POND, THE TRIBUTARY JOINS DOG RUN. AT THIS POINT OF CONFLUENCE, THE CONTRIBUTING DRAINAGE AREA IS 189 ACRES AND THE JOINING DRAINAGE AREA IS 303 ACRES. THIS IS GREATER THAN 90% OF THE CONTRIBUTING AREA (189 x 0.90 = 170 ACRES). THE EXTENT OF REVIEW IS 150' DOWNSTREAM OF THIS POINT. THE OUTFALL CHANNEL IS LINED WITH RIP-RAP DOWNSTREAM OF THE ROADWAY CULVERTS. THE OUTFALL CHANNEL IS WELL VEGETATED AND APPEARS TO BE IN EXCELLENT CONDITION.

GIVEN THAT OUR SITE SHEET FLOWS FROM THE PROPERTY AND THAT CONTROL WERE PROVIDED WITH THE ORIGINAL SUBDIVISION FOR THIS PROPERTY, WE BELIEVE THE OUTFALL IS ADEQUATE AND THERE WILL BE NO ADVERSE IMPACTS DOWNSTREAM.



OFFSITE DRAINAGE AREA MAP

Application No. RZ 2008-DR-006 Staff: L. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (SDP) (CDP) (FDP)
SEE PROFFERS DATED 9-19-08
Date of (DP) (PC) approval 10-20-08
Sheet 2 of 4

TRI-TEK ENGINEERING
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COMMONWEALTH OF VIRGINIA
THEODORE D. BRITT
NO. 023803
PROFESSIONAL ENGINEER
9.19.08

LOT 8
SENECA GATE
FAIRFAX COUNTY, VIRGINIA
DRANESVILLE DISTRICT

OFFSITE DRAINAGE ANALYSIS

DATE	REVISION
04.02.08	PER COUNTY COMMENTS.
08.01.08	PER COUNTY COMMENTS.
08.13.08	PER COUNTY COMMENTS.
08.26.08	PER COUNTY COMMENTS.
09.19.08	PER COUNTY COMMENTS.

PM: TDB SCALE: 1"=400'
PE: -- DATE: 12.10.07
CO: -A- SHEET 2 OF 4

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FAIRFAX COUNTY

VIRGINIA

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

Land Development Services
Environmental and Site Review Division
12055 Government Center Parkway, Suite 535
Fairfax, Virginia 22035-5503

Phone 703-324-1720 • Fax 703-324-8359 • TTY 703-324-1877

SEP 26 2008

Theodore D. Britt, P.E., Principal
TRI-TEK Engineering
690 Center Street, Suite 300
Herndon, Virginia 20170-5018

Subject: Subdivision of Seneca Gate, Lot 8, Simple Subdivision for Seneca Gate, Lot 8 dated June 28, 2005, Tax Map #006-4-12-0008, Dranesville District

Reference: Stormwater Detention Waiver #9062-WSWD-001-1

Dear Mr. Britt:

A waiver of standard on-site County stormwater detention requirements for the subject project is hereby approved, subject to the following conditions:

1. A detailed analysis of each site outfall shall be incorporated into the subject plan to ensure that adequate measures are provided to prevent erosion of the outfall due to the increase in runoff from the subject project.

2. In the event that any outfall channel shows signs of erosion due to development of the site, the project bond will not be released until the channel is adequately stabilized.

There is sufficient justification to approve this waiver as conditioned, because the minimal increase in runoff will not have an adverse affect on downstream properties, and the existing pond at Seneca Gate provides detention for this site.

This waiver in no way relieves you of any other County drainage requirement, including adequacy of outfall and pro-rata share payments. Compliance with the Chesapeake Bay Preservation Ordinance is also required.

This waiver shall automatically expire, without notice, 24 months after the date of this letter, unless the subject plan has been approved.

Please ensure that a copy of this letter is made a part of the subject plan.

If further assistance is desired, please contact me at 703-324-1720.

Sincerely,

Valerie Tucker
Chief Stormwater Engineer
Site Review East

VT/mw

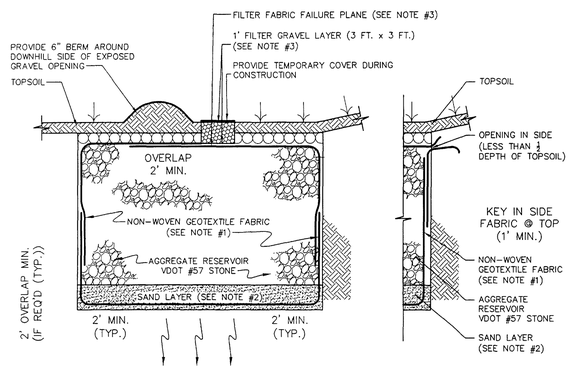
cc: Carl Bouchard, Director, Stormwater Planning Division, DPWES
Cyrus Salehi, Chief Site Review Engineer, Site Review East, ESRD, DPWES
Waiver File

PERCOLATION / INFILTRATION TRENCH COMPUTATION SHEET (TRENCH #1)

A_{IN} =	14142 SF	AREA TO TRENCH
C =	0.63	RUNNOFF COEFFICIENT FOR AREA TO TRENCH
V_{IN} =	2227 CF	(A X 3"/12 X C)
A_{TRENCH} =	820 FT.^2	20' X 41'
I_{RATE} =	2.0 IN/HR	ESTIMATE BASED ON SOIL BORING TESTS
V_{OUT} =	273 CF	(I_{RATE}/60 MIN.) X (60 MIN./1 HR.) X (2 HR.) x (1'/12") X (A_{TRENCH})
$V_{REQUIRED}$ =	1954 CF	(V_{IN} - V_{OUT})
$V_{STONE\ REQUIRED}$ =	4885 CF	($V_{REQUIRED}$ / 0.40) ASSUME 40% VOIDS IN #57 STONE
D =	6.0 FT.	($V_{STONE\ REQUIRED}$ / A_{TRENCH})
Q_{OUT} =	0.04 CFS	(I_{RATE}/60 MIN.) X (1 MIN./60 SEC.) x (1'/12") X (A_{TRENCH})
Q_{IN} =	1.49 CFS	(A_{IN} / 43560 SF/AC.) x (7.27 IN./HR.) x C)
$Q_{REDUCED}$ =	1.45 CFS	(Q_{IN}-Q_{OUT})

PERCOLATION / INFILTRATION TRENCH COMPUTATION SHEET (TRENCH #2)

A_{IN} =	19356 SF	AREA TO TRENCH
C =	0.42	RUNNOFF COEFFICIENT FOR AREA TO TRENCH
V_{IN} =	2032 CF	(A X 3"/12 X C)
A_{TRENCH} =	750 FT.^2	15' X 50'
I_{RATE} =	2.0 IN/HR	ESTIMATE BASED ON SOIL BORING TESTS
V_{OUT} =	250 CF	(I_{RATE}/60 MIN.) X (60 MIN./1 HR.) X (2 HR.) x (1'/12") X (A_{TRENCH})
$V_{REQUIRED}$ =	1782 CF	(V_{IN} - V_{OUT})
$V_{STONE\ REQUIRED}$ =	4456 CF	($V_{REQUIRED}$ / 0.40) ASSUME 40% VOIDS IN #57 STONE
D =	5.9 FT.	($V_{STONE\ REQUIRED}$ / A_{TRENCH})
Q_{OUT} =	0.03 CFS	(I_{RATE}/60 MIN.) X (1 MIN./60 SEC.) x (1'/12") X (A_{TRENCH})
Q_{IN} =	1.36 CFS	(A_{IN} / 43560 SF/AC.) x (7.27 IN./HR.) x C)
$Q_{REDUCED}$ =	1.32 CFS	(Q_{IN}-Q_{OUT})



NOTES:

1. USE NON-WOVEN GEOTEXTILE FABRIC WITH AOS OF 70-100 US SIEVE OR 0.2mm – 0.15mm AS DETERMINED BY ASTM D4751 AND A TRAPEZOIDAL TEAR STRENGTH OF 45 LBS OR 0.2 kN AS DETERMINED BY ASTM D4533.
2. AN 8-IN. DEEP BOTTOM SAND LAYER (VDOT FINE AGGREGATE, GRADING A OR B) IS REQUIRED.
3. FOR AN AGGREGATE SURFACE TRENCH, FILTER FABRIC SHALL SURROUND ALL OF THE AGGREGATE FILL MATERIAL EXCEPT THE TOP ONE FOOT. A SEPARATE PIECE OF FABRIC SHALL BE USED FOR THE TOP LAYER TO ACT AS A FAILURE PLANE. THIS TOP PIECE CAN THEN BE REMOVED AND REPLACED UPON CLOGGING.
4. GEOTEXTILE FABRIC SHALL NOT BE EXPOSED TO DIRECT SUNLIGHT FOR MORE THAN 24 HOURS PRIOR TO INSTALLATION.

PERCOLATION TRENCH DETAIL
(N.T.S.)

SENECA GATE SUBDIVISION:

OVERALL CALCULATIONS – EXISTING POND (9062-SD-01)

PREDEVELOPMENT RUNOFF: TC = 10 MIN.

$Q_{2\ YR}$ =	0.20 x 4.60 IN/HR x 9.90 AC =	9.11 CFS
$Q_{10\ YR}$ =	0.30 x 5.92 IN/HR x 9.90 AC =	17.58 CFS
$V_{25\ YR}$ =	0.30 x 6.77 IN/HR x 9.90 AC =	20.10 CFS

POST-DEVELOPMENT RUNOFF: TC = 5 MIN.

$Q_{2\ YR}$ =	0.40 x 5.45 IN/HR x 9.90 AC =	21.58 CFS
$Q_{10\ YR}$ =	0.40 x 7.27 IN/HR x 9.90 AC =	28.79 CFS
$Q_{25\ YR}$ =	0.40 x 8.27 IN/HR x 9.90 AC =	32.75 CFS

REQUIRED DETENTION:

2 YR. REDUCTION = 21.58 CFS – 9.11 CFS =	12.47 CFS
$Q_{10\ YR}$ REDUCTION = 28.79 CFS – 17.58 CFS =	11.21 CFS
$V_{25\ YR}$ REDUCTION = 32.75 CFS – 20.10 CFS =	12.65 CFS

POND ROUTINGS: Q IN – Q OUT = Q DETAINED

2 YR. =	28.40 CFS – 9.45 CFS =	18.95 CFS
10 YR. =	37.10 CFS – 18.83 CFS =	18.27 CFS
25 YR. =	43.14 CFS – 24.38 CFS =	18.76 CFS

THE POND PROVIDES EXCESS DETENTION FOR THE OVERALL SUBDIVISION WHICH INCLUDES THIS LOT. PREVIOUSLY, A WAIVER WAS APPROVED FOR THE PROPERTY FOR A 2 LOT SUBDIVISION WHICH IS PROVIDED FOR REFERENCE. GIVEN THAT THE POND ANTICIPATED THE FLOWS FROM THIS SITE AND PROVIDES EXCESS DETENTION WE ANTICIPATE BEING ABLE TO CONTINUE TO USE THE FACILITY AND THAT A SIMILAR WAIVER WILL BE GRANTED AT THE TIME OF SUBDIVISION PLAN APPROVAL.

SENECA GATE SUBDIVISION LOT 8A AND 8B ONLY:

PREDEVELOPMENT RUNOFF: TC = 5 MIN.

$Q_{2\ YR}$ =	0.20 x 5.45 IN/HR x 2.09 AC =	2.28 CFS
$Q_{10\ YR}$ =	0.30 x 7.27 IN/HR x 2.09 AC =	4.56 CFS
$V_{25\ YR}$ =	0.30 x 8.27 IN/HR x 2.09 AC =	5.19 CFS

POST-DEVELOPMENT RUNOFF: TC = 5 MIN.

$Q_{2\ YR}$ =	0.40 x 5.45 IN/HR x 2.09 AC =	4.56 CFS
$Q_{10\ YR}$ =	0.40 x 7.27 IN/HR x 2.09 AC =	6.08 CFS
$Q_{25\ YR}$ =	0.40 x 8.27 IN/HR x 2.09 AC =	6.91 CFS

INCREASE DUE TO DEVELOPMENT:

$Q_{2\ YR}$ = 4.56 – 2.28 =	2.28 CFS
$Q_{10\ YR}$ = 6.08 – 4.56 =	1.52 CFS
$Q_{25\ YR}$ = 6.91 – 5.19 =	1.72 CFS

10 YR DETENTION PROVIDED BY INFILTRATION TRENCHES:

$Q_{10\ YR}$ REDUCTION = 1.45 + 1.32 =	2.77 CFS

BMP NARRATIVE:

BMP'S FOR THE SITE WERE PROVIDED WITH THE ORIGINAL SUBDIVISION (SENECA GATE, COUNTY #9062-SD-01-2) BY OFFSITE REGIONAL POND D-4. NO ADDITIONAL BMP CONTROLS ARE REQUIRED. IF IT IS DETERMINED BY DPWES THAT ADDITIONAL BMP CONTROLS ARE REQUIRED, THEY WILL BE PROVIDED ON LOT BY INFILTRATION TRENCHES AND WILL BE PROVIDED AT THE TIME OF PREPARATION OF THE GRADING PLAN FOR EACH LOT.

SUBSTITUTION OF BMP TYPES AND FACILITIES CAN BE MADE AT FINAL ENGINEERING IF SITE CONSTRAINTS INHIBIT THE USE OF DOCUMENTED FACILITIES.

STORMWATER MANAGEMENT NARRATIVE:

STORMWATER MANAGEMENT DETENTION, IF REQUIRED IS PROVIDED THROUGH THE USE OF TWO INFILTRATION TRENCHES. IN ADDITION AN EXISTING SWM POND WAS DESIGNED FOR THE SENECA GATE SUBDIVISION, ANTICIPATING FUTURE DEVELOPMENT IN THE SUBDIVISION AND SPECIFICALLY DEVELOPMENT OF THE SUBJECT PROPERTY. SEE COMPUTATIONS ON THIS SHEET.

A WAIVER OF STORMWATER MANAGEMENT WAS APPROVED BY DPWES ON JUNE 8, 2005. THE WAIVER EXPIRED ON JUNE 8 2007. A WAIVER OF STORMWATER MANAGEMENT DETENTION IS BEING SUBMITTED FOR THIS PROJECT.

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:

Special Permits (8-011 2J & 2L)	Special Exceptions (9-011 2J & 2L)
Cluster Subdivision (9-615 1G & 1N)	Commercial Revitalization Districts (9-622 2A (12) & (14))
Development Plans PRC District (16-302 3 & 4L)	PRC Plan (16-303 1E & 1O)
FDP P Districts (except PRC) (16-502 1F & 1Q)	Amendments (18-202 10F & 10I)

[X] 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').

[X] 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet 1.

[X] 3. Provide:

Facility Name/ Type & No. (e.g. dry pond A, infil. trench, underground vault, etc.)	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
* INFILTRATION TRENCH #1	0.28 AC	0.04 AC	0.32 AC	825 SF	4881 CF	N/A
* INFILTRATION TRENCH #2	0.45 AC		0.45 AC	750 SF	4456 CF	N/A
Totals	0.73 AC	0.04 AC	0.77 AC	1575 SF	9337 CF	

* IF REQUIRED

[X] 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 1. Pond inlet and outlet pipe systems are shown on Sheet 1.

[X] 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 1. Type of maintenance access road surface noted on the plat is ASPHALT (asphalt, geoblock, gravel, etc.).

[X] 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 1.

[X] 7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 2&3.

[X] 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 2.

[X] 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 2.

[X] 10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets 1.

[X] 11. A submission waiver is requested for STORMWATER MANAGEMENT.

[X] 12. Stormwater management is not required because STORMWATER MANAGEMENT WAIVER BEING SUBMITTED. SEE SWM NARRATIVE THIS SHEET.

MS-19 NARRATIVE

A) ANALYSIS SHALL BE MADE TO A POINT AT LEAST 150 FEET DOWNSTREAM OF THE POINT WHERE THE RECEIVING PIPE OR CHANNEL IS JOINED BY ANOTHER THAT HAS A DRAINAGE AREA THAT IS AT LEAST 90% OF THE SIZE OF THE FIRST DRAINAGE AREA AT THE POINT OF CONFLUENCE.
–POINT OF CONFLUENCE PROVIDED ON SHEET 2.

B) NATURAL CHANNEL SHALL BE ANALYZED USING TWO YEAR STORM FOR OVERTOPPING AND EROSIVE VELOCITY.
–THE OUTFALL APPEARS TO BE ADEQUATE. THE OUTFALL POINT WILL BE FURTHER ANALYZED FOR THE ABOVE CRITERIA IN FINAL ENGINEERING PLANS.

C) PROVIDE A DETAILED SITE SPECIFIC OUTFALL NARRATIVE.
–OUTFALL NARRATIVE PROVIDED ON SHEET 2.

D) PROVIDE OUTFALL LOCATION MAP(S) AND ALL DETAILED OUTFALL ANALYSIS COMPUTATIONS.
–SEE SHEET 2 FOR OUTFALL COMPUTATIONS AND OUTFALL MAP

E) AT LEAST 3 TO 5 CROSS SECTIONS, SELECTED AT CRITICAL LOCATIONS SHALL BE USED TO VERIFY THE ADEQUACY OF OUTFALL. CROSS SECTIONAL MUST BE BASED ON FIELD SURVEY DATA OR 2 FT CONTOUR INTERVALS.
–THE OUTFALL HAS BEEN ANALYZED, THE OUTFALL APPEARS TO BE ADEQUATE. FINAL SURVEYED CROSS SECTIONS AT THE OUTFALL WILL BE INCLUDED IN FINAL ENGINEERING PLANS.

F) CROSS SECTIONS MUST HAVE SAME VERTICAL AND HORIZONTAL SCALE TO GIVE CLEAR PICTURE OF BED & BANKS.
–CROSS SECTIONS SHOWN AT SAME VERTICAL AND HORIZONTAL SCALE WILL BE INCLUDED IN FINAL ENGINEERING PLANS.

G) OUTFALL VELOCITIES SHALL BE COMPARED WITH EROSIVE VELOCITIES OF EXISTING CHANNEL.
–THE OUTFALL POINT WILL BE FURTHER ANALYZED FOR THE ABOVE CRITERIA IN FINAL ENGINEERING PLANS.

H) THE USE OF 1-YR EXTENDED DETENTION IS RECOMMENDED TO REMEDY EXISTING DOWNSTREAM CHANNEL EROSION PROBLEMS.
–IF VELOCITIES ARE FOUND TO BE EROSIVE, METHODS WILL BE EMPLOYED DURING FINAL ENGINEERING DESIGN TO REMEDY EROSION PROBLEMS.

Application No. RZ 2008-DR-006 Staff L. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 9-19-08
Date of (BOS) (PC) approval 10-20-08
Sheet 3 of 4

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COMMONWEALTH OF VIRGINIA
THEODORE D. BRITT
No. 023803
PROFESSIONAL ENGINEER
9-19-08

LOT 8
SENECA GATE
FAIRFAX COUNTY, VIRGINIA
DRANESVILLE DISTRICT

STORMWATER MANAGEMENT

DATE	REVISION
04.02.08	PER COUNTY COMMENTS.
08.01.08	PER COUNTY COMMENTS.
08.13.08	PER COUNTY COMMENTS.
08.26.08	PER COUNTY COMMENTS.
09.19.08	PER COUNTY COMMENTS.

PM: TDB SCALE: NONE
PE: – DATE: 12.10.07
CO: –A– SHEET 3 OF 4

F-2401

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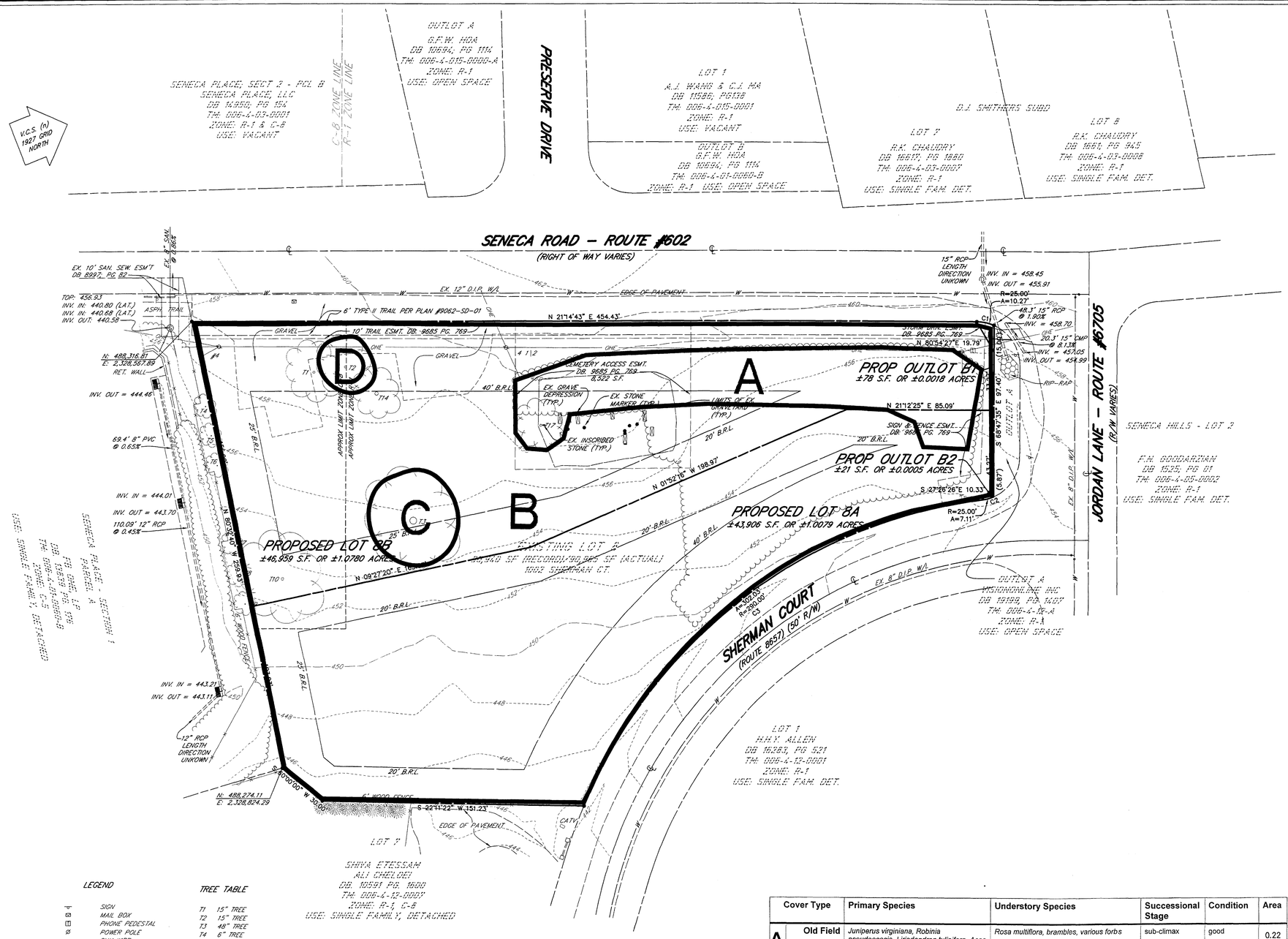

LEGEND

- SIGN
- MAIL BOX
- PHONE PEDESTAL
- POWER POLE
- GUY WIRE
- SEPTIC
- CLEAN OUT
- STORM MH
- IRON PIPE FOUND
- CURB & GUTTER
- OHE — OVERHEAD ELECTRIC
- FENCE
- WOODLINE

TREE TABLE

T1	15" TREE
T2	15" TREE
T3	48" TREE
T4	6" TREE
T5	6" TREE
T6	6" TREE
T7	6" TREE
T8	6" TREE
T9	6" TREE
T10	18" TREE
T14	24" HOLLY
T17	15" DOGWOOD

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	CHORD	CHD. BRG.
C1	10.27'	25.00'	23°32'40"	10.20'	S33°01'03"W
C2	7.11'	25.00'	16°17'15"	7.08'	N05°46'04"E
C3	302.03'	290.00'	59°40'20"	288.56'	S15°55'28"E

	Cover Type	Primary Species	Understory Species	Successional Stage	Condition	Area
A	Old Field	*Juniperus virginiana, Robinia pseudoacacia, Liriodendron tulipifera, Acer rubrum*	*Rosa multiflora, brambles, various forbs*	sub-climax	good	0.22 ACRES
	Comments	Scattered young trees with field forbs and brambles interspersed. Tolerant of change and, ecologically, mostly desirable.				
B	Developed	N/A	Old field.	N/A	N/A	1.87 ACRES
	Comments	Partly under development, and partly disturbed in the process of that development.				
C	Bottomland Forest	*Robinia pseudoacacia*	N/A	N/A	very poor	N/A
	Comments	A single tree that is hazardous due to decay and storm damage. Undesirable.				
D	Bottomland Forest	*Ilex opaca*	N/A	sub-climax	good	N/A
	Comments	A single tree that is very desirable.				

Application No. RZ 2008-DR-006 Staff J. Strunk
APPROVED DEVELOPMENT PLAN
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Sheet 4 of 4

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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9-19-08

LOT 8 SENECA GATE

FAIRFAX COUNTY, VIRGINIA

DRANESVILLE DISTRICT

EXISTING VEGETATION MAP

DATE	REVISION
04.02.08	PER COUNTY COMMENTS.
08.01.08	PER COUNTY COMMENTS.
08.13.08	PER COUNTY COMMENTS.
08.26.08	PER COUNTY COMMENTS.
09.19.08	PER COUNTY COMMENTS.

PM: TDB SCALE: 1"=30'
PE: –– DATE: 12.10.07
CO: –A– SHEET 4 OF 4

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