SPECIAL EXCEPTION PLAT

POPEYES RESTAURANT

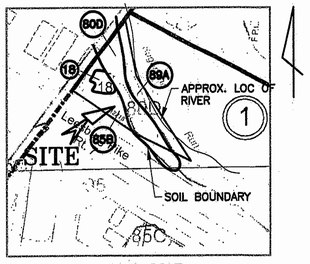
(FAST-FOOD RESTAURANT WITH A DRIVE-THRU WINDOW)
12218 LEESBURG PIKE
TAX MAP# 06-1-((1))-18

DRANESVILLE DISTRICT

FAIRFAX COUNTY, VIRGINIA

GENERAL NOTES:

1. THE SUBJECT PROPERTY IS IDENTIFIED ON FAIRFAX COUNTY TAX MAP AS RECORDED IN DEED BOOK 20599 PAGE 1326 IS.
   PARCEL 18: 006-1-((1))-0018
   LOT AREA=42,535 SQ FT OR 0.976 ACRES
2. THE SUBJECT PROPERTY IS CURRENTLY ZONED C-8 (HIGHWAY COMMERCIAL).
3. PROPOSED USE:
   FAST FOOD RESTAURANT WITH A DRIVE-THRU WINDOW (STAND ALONE).
4. BOUNDARY INFORMATION SHOWN HEREON IS BASED ON ALTA/ACSM LAND TITLE SURVEY PREPARED BY MILLMAN SURVEYING INC ON MARCH 3, 2008.
5. THE SUBJECT LOT CONTAINS CHANTILLY-CATLETT COMPLEX (SOIL ID 18), PENN SILT LOAM (SOIL ID # 85B), AND NESTORIA CHAN (SOIL ID# 80D) ON THE UPLAND AREA, AND ROWLAND SILT LOAM (SOIL ID 89A) ALONG THE RIVER COAST. NO MAJOR CONSTRUCTION WILL BE PERFORMED BY THIS SITE PLAN, AND NO CONSTRUCTION OR LAND DISTURBANCE ACTIVITIES ARE PERFORMED ALONG THE RIVER COAST, WHICH IS ABOUT 50-70 FEET AWAY FROM THE EXISTING BUILDING, NO GEOTECHNICAL INVESTIGATION IS PERFORMED FOR THAT AREA. THE SOIL MAP, AND ITS BRIEF INFORMATION IS PROVIDED ON THIS SHEET.
6. THE WATER SERVICE TO THE EXISTING BUILDING HAS BEEN SERVED BY AN EXISTING ON-SITE WELL AS SHOWN ON THE SITE PLAN. THE SEWER SERVICE HAS BEEN PROVIDED BY PUBLIC SEWER SYSTEM.
7. A 2' INTERVAL TOPOGRAPHIC SURVEY IS PROVIDED AND IS BASED ON FIELD RUN SURVEY PREPARED BY AMA ENGINEERS ON DECEMBER 2009.
8. THERE ARE NO EXISTING OPEN SPACE OR CONSERVATION EASEMENTS ON THE PROPERTY BASED ON AVAILABLE RECORDS OF FAIRFAX COUNTY LAND RECORDS.
9. THE ADJOINING PROPERTY OWNERS INFORMATION IS BASED ON COUNTY OF FAIRFAX REAL ESTATE RECORDS.
10. IN LIEU OF PROVIDING A STAKEOUT PLAN, AMA ENGINEERS WILL RESPOND TO THE DIRECTOR'S REQUEST FOR FIELD ASSISTANCE, WHEN REQUIRED, TO IDENTIFY SPECIFIC AREAS OF PROPOSED DEVELOPMENT AS RELATED TO EXISTING SITE CONDITIONS. PLEASE CONTACT PREM K BHANDARI, AMA ENGINEERS AT (703) 655-2151.
11. THE SITE WILL RESULT IN NET DECREASE IN POST-DEVELOPMENT RUNOFF AND NO STORMWATER MANAGEMENT (QUANTITY) IS REQUIRED PURSUANT TO LETTER TO INDUSTRY 21-88 AND IN ACCORDANCE TO PUBLIC FACILITIES MANUAL. NON-STRUCTURAL MEASURES WILL BE UTILIZED TO MEET THE BMP REQUIREMENTS. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM TO THE LATEST EDITION OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK".
12. ALL ROADS/PAVEMENT WILL BE CONSTRUCTED TO VDOT SUBDIVISION STREET STANDARDS AND PUBLIC FACILITIES MANUAL. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT FAIRFAX COUNTY, AND VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
13. THE SITE SPECIFIC RESOURCE PROTECTION AREA HAS BEEN DELINEATED AND ITS LIMIT HAS BEEN SHOWN ON THE SITE PLAN. AN RPA WAIVER HAS BEEN REQUESTED FOR ANY WORK WITHIN THE RPA AREA. NO ADDITIONAL ENCROACHMENT INTO THE RPA IS EXPECTED BY THIS PLAN. THE LOT CONSISTS OF FLOODPLAIN ZONE, AND NO WORK HAS BEEN PERFORMED WITHIN THE FLOOD PLAIN LIMIT.
14. THE SUBJECT PROPERTY CONTAINS STEEP SLOPES, AND NO LAND DISTURBANCE IS PROPOSED ON THAT AREA.
15. NO ARCHEOLOGICAL, NATURAL OR HISTORICAL FEATURES, GRAVE OR BURIAL SITE IS KNOWN TO EXIST ON THIS PROPERTY.
16. AIR QUALITY PERMIT WILL BE PROVIDED IF REQUIRED OR UPON REQUEST.
17. PARKING LIGHTS WILL BE PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY STANDARDS.
18. THE DEVELOPMENT WILL CONFORM TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS, AND ADOPTED STANDARDS EXCEPT THE FOLLOWING:
    1. A WAIVER FOR AN ENCROACHMENT TO THE MAPPED RESOURCE PROTECTION AREA (RPA) WILL BE SOUGHT FOR APPROVAL, AND THE PERTINENT WAIVER/DOCUMENTS HAVE BEEN CONCURRENTLY SUBMITTED FOR APPROVAL.
    2. A TRAIL WAIVER ALONG THE FRONTAGE OF THE STUDY SITE WILL BE REQUESTED FOR WAIVER.
19. NO HAZARDOUS WASTE AS SET FORTH IN COMMONWEALTH OF VIRGINIA/DEPARTMENT OF WASTE MANAGEMENT REGULATIONS VR 672-10-1-VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATIONS; AND/OR PETROLEUM PRODUCTS AS DEFINED IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 280; WILL BE GENERATED, UTILIZED, STORED, TREATED, AND/OR DISPOSED OF ON SITE.
20. THERE ARE NO UTILITY EASEMENTS HAVING THE WIDTH MORE THAN 25 FEET IN WIDTH.
21. "DARK SKY" COMPLIANT OUTDOOR LIGHTING FOR THE PARKING LOT AND THE SIGNAGE WILL BE PROVIDED.



SOIL MAP
(SCALE: 1"=500')

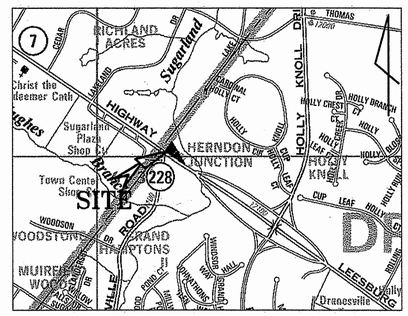
SOILS MAP SOURCE: ☐ COUNTY MAP; ☐ PRIVATE SOILS SCIENTIST (FOR UNMAPPED SITES)

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	HYDROLOGY GROUP	ERODABILITY	PROBLEM CLASS OLD	PROBLEM CLASS NEW
18	CHANTILLY - CATLETT COMPLEX	GOOD	FAIR	D	MEDIUM	C	IVB
85B (SEE NOTE 1)	PEN SILT LOAM	GOOD	FAIR	C	MEDIUM	C	I
80D	NESTORIA CHAN. SILT LOAM	GOOD	FAIR	C/D	HIGH	C	I
89A (SEE NOTE 2)	ROWLAND SILT LOAM	LOW	POOR	C	LOW	A	III

NOTE:

1. THE SOIL IN THIS AREA IS MAPPED AS URBAN LAND (SOIL ID # 95), WHICH IS BASICALLY UNCLASSIFIED AREA. IN-SITU SOIL TEST HAS BEEN PERFORMED FOR SOIL MAPPING AND FOUND AS PEN SILT LOAM (SOIL ID # 85B). THE SOIL MAPPING FOR THIS PORTION OF THE STUDY LOT IS SHOWN ON SHEET 3.

2. THE ROWLAND SILT LOAM SOIL FALLS ON THE LOT ALONG THE RIVER SIDE. NO CONSTRUCTION OR LAND DISTURBANCE ACTIVITIES ARE PERFORMED IN THIS AREA. THE CONSTRUCTION ACTIVITIES ARE LOCATED AT LEAST 50 FEET AWAY FROM THIS PROBLEMATIC SOIL, AND NO GEOTECHNICAL REPORT SUBMISSION IS FELT NECESSARY FOR THE SITE.



VICINITY MAP
SCALE: N.T.S.

OWNER/APPLICANT:

SIVNAM PARTNERSHIP, LLC.
(SAM VAID)
11514 SUNDER COURT
RESTON, VA 20190
DB 20599, PG 1326
PHONE: 202-431-2599
301-567-5447

CIVIL ENGINEER:

AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA 22003
PHONE: 703-655-2151

ATTORNEY:

McGUIREWOODS, LLP
1750 TYSON BOULEVARD, SUITE 1800
MCLEAN, VIRGINIA 22102-4215
PHONE: 703-712-5000
FAX: 703-712-5050

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 noted 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 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 Districts (16-302 2 & 3L)	PRC Plan (16-303 1h & 10)
PDP Districts (except PRC) (16-502 1F & 1Q)	Amendments (18-202 10F & 10I)

1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100).
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 4
3. Provide:

Facility Name/ Type & No.	On-Site area served (acres)	Off-Site area served (acres)	Drainage area (ac.)	Footprint area (acres)	Storage Volume (ac.)	If pond, dam height (ft.)
OPEN SPACE (ONLY FOR BMP)	0.266 AC	NONE	N/A	0.266 AC	N/A	N/A
					Totals	

4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 4
5. Maintenance accesses (road) to stormwater management facility(ies) are shown on Sheet 6
6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet N/A, OPEN SPACE FOR BMP IS ON SHEET 5
7. A "stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on Sheet 5 & 6
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 6
9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 6
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.
11. A submission waiver is requested for DETENTION WAIVER PURSUANT TO LTR -21-88
12. Stormwater management is not required because NO INCREASE IN RUNOFF, REFER TO SHEET 5.

11

SHEET INDEX

SHEET # DESCRIPTION

1.) COVER SHEET
2.) EXISTING SITE CONDITION PLAN
3.) BULK PLANE AND VPD COMPUTATIONS
4.) SPECIAL EXCEPTION PLAT
5.) BMP MAP AND SUB-AREA MAPS
6.) DRAINAGE MAP AND OUTFALL ANALYSIS
7.) EXISTING VEGETATION MAP
8.) TREE CONSERVATION PLAN
9.) SITE PHOTOGRAPHS
10.) SIGHT DISTANCE PLAN AND PROFILE

SITE/ZONING DATA (C-8 ZONE):

DESCRIPTION	REQUIRED	PROPOSED/ EXISTING
1. MINIMUM LOT SIZE	40,000 SQ FT	42,535 SQ FT
2. MINIMUM LOT WIDTH/DEPTH	200 FT	321.2' (@ BRL)
3. MAXIMUM LOT COVERAGE	85% (15% OPEN SPACE)	39.8%
4. MAXIMUM FLOOR AREA RATIO (FAR)	0.50	0.06
5. MAXIMUM HEIGHT	40 FEET	18.0 ± FEET
6. SETBACK		
FROM STREET R/W (FRONT)	40 FEET MIN OR (45% BULK)	43.8 FT
REAR	25 FEET	146.5 FT
SIDES	NONE	18.9 FT
7. LANDUSE SEPARATION BUFFERS	N/A	N/A
8. OPEN SPACE	15% OF THE LOT AREA	60.2%
9. TREE CANOPY (TEN YEAR MATURITY)	10% OF AREA OF SITE	23.5%
10. PARKING SPACE	9 SPACES	9 SPACES
HANDICAPPED SPACE (VAN ACCESSIBLE)	1	1
LOADING SPACE (STANDARD D)	1	1

PARKING SPACE CALCULATION

USE: FAST FOOD RESTAURANT WITH DRIVE-IN FACILITY=1 (ONE ORDERING STATION)

PROP. SEATS=18
PARKING REQUIRED= 18 SEATS x 1/2=9 SPACES (@1 SPACE PER 2 SEATS)
TOTAL SPACE REQUIRED=9 SPACES

PROVIDED

STACKING PARKING REQUIRED: 11 SPACES
STACKING PARKING PROVIDED: 11 SPACES (WITH MINIMUM OF 7 SPACES FOR ORDERING WINDOW)

F.A.R. COMPUTATIONS

LOT AREA=42,535 SQ FT
GROSS FLOOR AREA=2,550 SQ FT
FLOOR AREA RATIO (FAR)=2,550/42,535=0.06

HOURS OF OPERATION

7:00 AM TO 10:00 PM
(SEVEN DAYS A WEEK)

Application No SE 2010-DR-019 Staff M. Bader
Approved SP (SE) Plan
See Dev Conds dated 7-26-2010
Date of (BZA) (BOS) Approval 9-11-2012
Sheet 1 of 11
Comments:

WETLANDS CERTIFICATE

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITIES.

For PRESIDENT OF SIVNAM PARTNERSHIP LLC, 6/12/2012 DATE:

CBPO NOTES

THIS PLAN COMPLIES FULLY WITH AMENDMENT CHAPTER 118 (CHESAPEAKE BAY PRESERVATION ORDINANCE) OF THE CODE OF THE COUNTY OF FAIRFAX, EFFECTIVE NOV. 18. 2003.

RECEIVED
Department of Planning & Zoning
JUN 13 2012
Zoning Evaluation Div.

REV	DATE	REVISION
3	6/2/12	REVISED PER WALKWAY ADDITION
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27-10

COMMONWEALTH OF VIRGINIA
PREM K. BHANDARI
Lic. No. 042492
6/12/2012
PROFESSIONAL ENGINEER

SPECIAL EXCEPTION PLAT

Project Name: POPEYES RESTAURANT

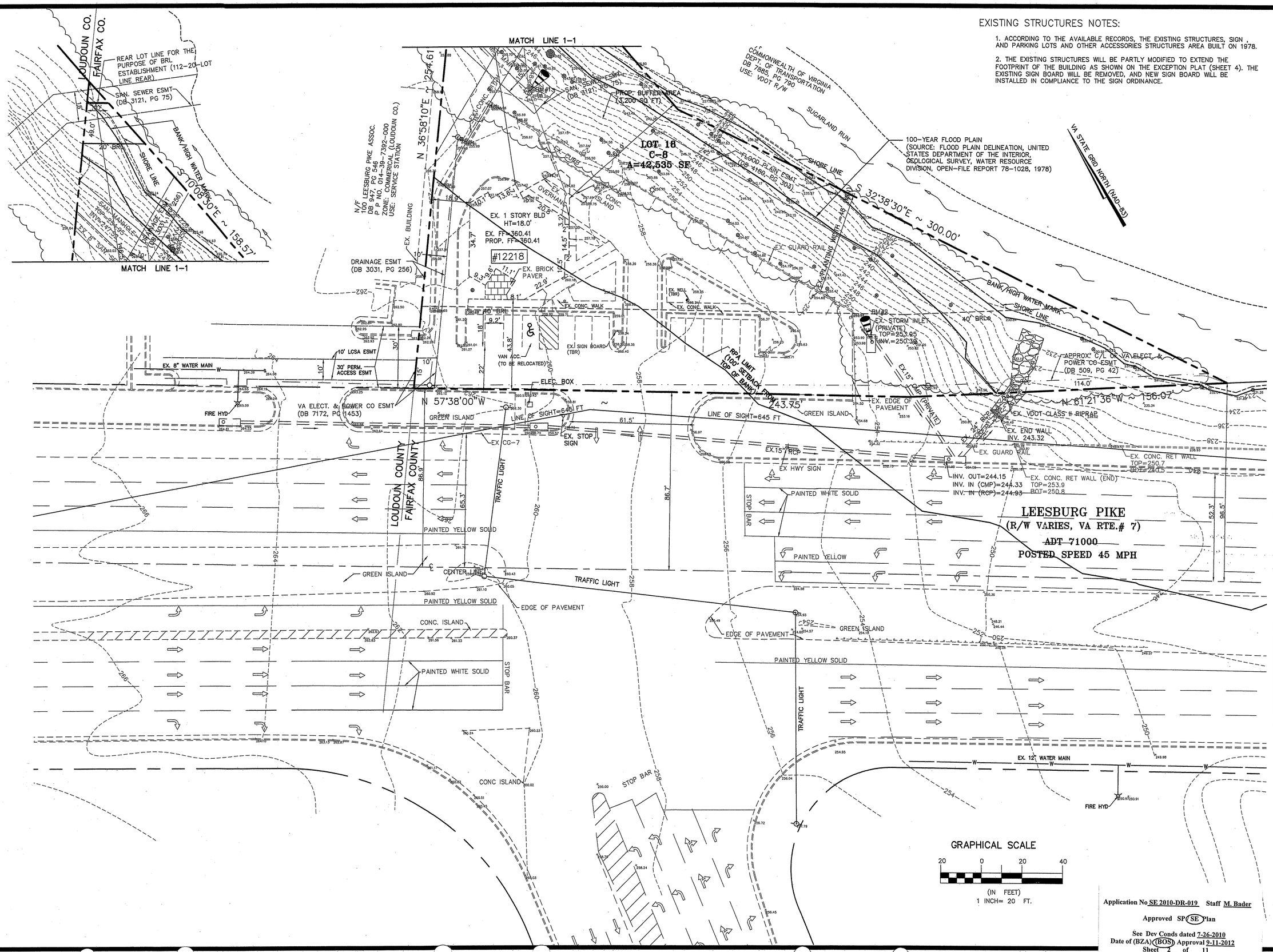
SE 2010-0080 /COVER SHEET

SHEET 1 OF 10

EXISTING STRUCTURES NOTES:

1. ACCORDING TO THE AVAILABLE RECORDS, THE EXISTING STRUCTURES, SIGN , AND PARKING LOTS AND OTHER ACCESSORIES STRUCTURES AREA BUILT ON 1978.

2. THE EXISTING STRUCTURES WILL BE PARTLY MODIFIED TO EXTEND THE FOOTPRINT OF THE BUILDING AS SHOWN ON THE EXCEPTION PLAT (SHEET 4). THE EXISTING SIGN BOARD WILL BE REMOVED, AND NEW SIGN BOARD WILL BE INSTALLED IN COMPLIANCE TO THE SIGN ORDINANCE.



Application No SE 2010-DR-019 Staff M. Bader

Approved SP(SE)Plan

See Dev Conds dated 7-26-2010
Date of (BZA)(BOS) Approval 9-11-2012
Sheet 2 of 11

JOB NO.:	SCALE: 1":20'
DESIGN BY:	DATE: 4/12/10
DRAWN BY:	SHEET: 2 OF 10
CHECKED BY:	

EXISTING SITE PLAN
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE

TAX MAP# 006-1-((1))-18

DISTRICT: DRANESVILLE FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
PERIN K. BHANDARI
Lic. No. 042482
6/12/2012

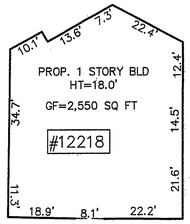
AMA ENGINEERS, LLC
4306 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA-22003
TEL: 703-655-2151
amaengineers@yahoo.com

NO.	DATE	DESCRIPTION	BY
3	6/2/12	REVISED PER WALKWAY ADDITION	
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	

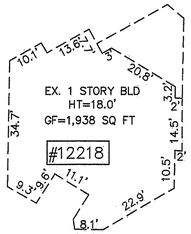
REVISION BLOCK

PROP. FRONT VIEW
SCALE: N.T.S.

EX. FRONT VIEW
SCALE: N.T.S.

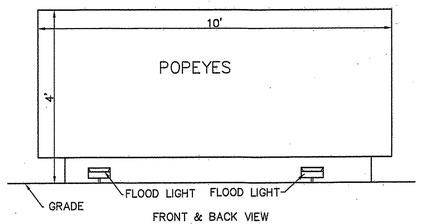


PROP. FOOTPRINT OF THE BUILDING
SCALE: 1"=20'



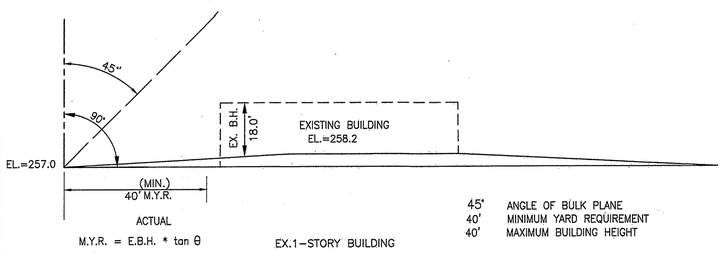
EX. FOOTPRINT OF THE BUILDING
SCALE: 1"=20'

NOTE:
ARCHITECTURAL ELEVATIONS/VIEWS ARE INTENDED TO REPRESENT THE GENERAL DESIGN CHARACTER. DETAILS AND SPECIFIC MATERIALS MAY BE REVISED AT TIME OF FINAL EGNIEERING. AMENITIES AND ENTRY FEATURES SHOWN ARE ILLUSTRATIVE AND INTENDED TO REPRESENT THE GENERAL LOCATION, DESIGN AND QUALITY OF DESIGN. AMENITIES ARE SUBJECT TO CHANGE WITH FINAL ENGINEERING.



FRONT & BACK VIEW
SCALE: N.T.S.

CONCEPTUAL SIGNAGE DESIGN:
1. SIGNAGE DESIGN INCLUDING NAME OF THE FACILITY IS SUBJECT TO CHANGE
2. SIGNAGE SHALL NOT EXCEED 40 SQ FT IN AREA AND 8 FT IN HEIGHT
3. SIGN SHALL BE LOCATED AT THE LOCATION SHOWN ON THE PLAN.



DETAIL ANGLE OF BULK PLANE
(ADJACENT TO LEESBURG PIKE)
(SCALE 1"=20')

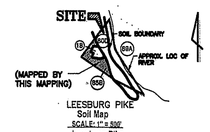
AMA Engineers, LLC
CIVIL ENGINEERS . LAND SURVEYORS . PLANNERS

Soil Evaluation for Construction of Additions/New Structures & or Accessory Structures in an unmapped Soils Area

COMMONWEALTH OF VIRGINIA
PREM K. BHANDARI
NO. 042492
PROFESSIONAL ENGINEER
Certification Seal

Requested By: Mr. Sam Vaid
Proposed Use: Commercial (Minor Addition)
Location: Lot 18, Sugarland Run, Providence District
12218 Leesburg Pike, Herndon, Virginia.
Evaluated By: Prem K Bhandari, P.E.
Map. No. 006-1- ((1))-18
Date: January 24, 2010

Soil Map — Coastal Plain Physiographic Province



Map Legend
Soil Map Symbol: 85B
Soil Number: 85
Slope: B
Erosion: 2

Slope Symbols
A: 0-2% Slope
B: 2-7%
C: 7 to 14%
D: 14-25%
E: 25% and Greater

Erosion Symbols
+: Soil Accumulation
0: No Erosion
1: Slight Erosion
2: Moderate Erosion
3: Severe Erosion

7326 Wakefield Chapel Rd ◆ Annandale ◆ Virginia ◆ 22003 ☎ Phone (703) 655-2151

SOIL EVALUATION NUMBER

LOT NO.	SOIL MAP NUMBER.	SOIL SERIES NAME	PROBLEM CLASS	ESTIMATED % OF SITE
18 (part of it)	85B	Penn Silt Loam	Old Type: C New :I	13

POTENTIAL SOIL PROBLEMS	YES/NO	SOIL NAME/NO.
Slope Instability	YES	Penn Silt Loam
Marginal Subsurface Drainage	YES	
Fair to Marginal Bearing Capacity	YES	
High Seasonal Water Table	YES	
High-Swell Shrink Clays	NO	
Poor Surface Drainage	YES	
Shallow Depth to Bedrock	NO	
High Erodibility	NO	
Flood Plain (Alluvial)	NO	
Poor Septic Drain Field Potential	NO	
Hydric Soils Potential Wetlands	NO	

DESCRIPTION OF SOIL CHARACTERISTICS

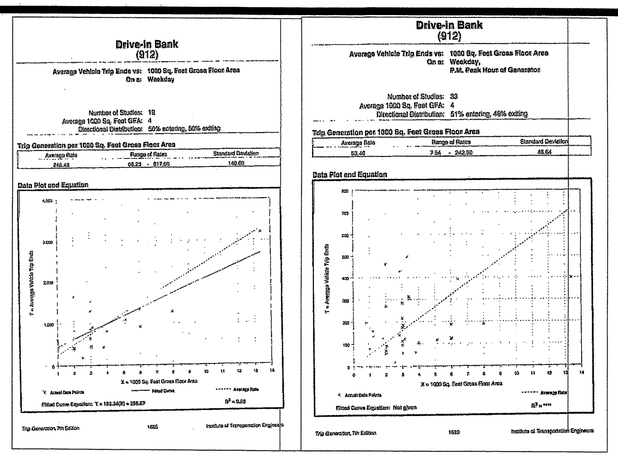
(85) Penn - This silty soil occurs on hilltops and side slopes of the Triassic Basin over red sandstone and shale. Depth to bedrock is three feet. Permeability is moderate to moderately rapid, but may be restricted by un-fractured bedrock. Foundation support is good, but excavation can be difficult because of the shallow bedrock. If water perches on the bedrock, grading and drainage may be needed to provent wet yards. Suitability for septic drainfields and infiltration trenches is poor because of the shallow rock. The bedrock disintegrates rapidly, limiting its use in engineered fill, road embankment, or trench backfill. Topsoil may be needed to increase rooting depths for lawns, trees, and landscape plants.

GEOTECHNICAL REQUIREMENTS
The **Penn silt Loam** is classified as problem soil class I (Old Type:C)." In accordance with the Geotechnical Guidelines of the Public Facility Manual, a Geotechnical engineering report is not typically required for this soil class. The **Penn silt loam** soil is considered good for foundation support, fair for drainage, poor for the construction of a septic field and infiltration trenches, and has medium erosion potential. Foundation drains and waterproofing are needed to prevent wet basements.

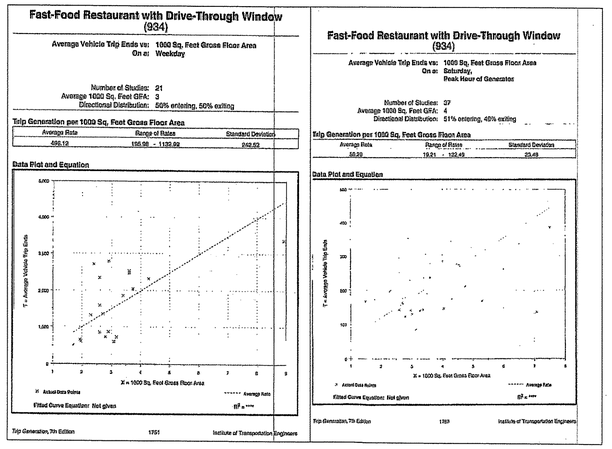
Since the proposed development will be near existing surface grades, and no below grade basement level, hydrostatic pressure against the foundation wall should not be a concern. However, it is recommended that the site plan provide positive surface drainage away from the proposed structure.

7326 Wakefield Chapel Rd ◆ Annandale ◆ Virginia ◆ 22003 ☎ Phone (703) 655-2151

NOTES/REMARKS
This report and the accompanying soil map are based on the site investigations of the property within the limit shown. Soil characteristics, descriptions, and potential problems are based on the site conditions at the time of the investigation. Any disturbance that drastically alters the original site conditions may affect the interpretation of this report.



EXISTING DRIVE-IN BANK



PROPOSED DRIVE-THRU FAST FOOD

TRAFFIC GENERATION COMPUTATIONS

1. PROPOSED TRAFFIC GENERATION

PROP. LAND USE: FAST-FOOD RESTAURANT WITH DRIVE-THROUGH WINDOW
REFERENCE: ITE, TRIP GENERATION MANUAL (7TH EDITION)
LAND USE CODE: 934
GROSS FLOOR AREA (GFA) OF PROP. BUILDING = 2,550 SQ FT

VEHICLE PER DAY (VPD) GENERATION:
VPD= 496.12x2,550 SQ FT /1000=1,265 VPD
(@ 496.12 VPD PER 1000 GFA ON WEEKDAY

VEHICLE PEAK HOUR (VPH) GENERATION:
VPH=59.20x2,550 SQ FT /1000=151 VPH
(@ 59.2 VPH PER 1000 GFA ON SATURDAY PK HOUR)
(NOTE: ACCORDING TO TIS (7TH EDITION), "SATURDAY PEAK HOUR" IS THE MAXIMUM TRAFFIC GENERATION PEAK HOUR FOR THIS LAND USE)

Application No SE 2010-DR-019 Staff M. Bader
Approved SP(SE)Plan
See Dev Conds dated 7-26-2010
Date of (BZA)(BOS) Approval 9-11-2012
Sheet 5 of 11

2. EXISTING TRAFFIC GENERATION

EX. LAND USE: DRIVE-IN BANK
REFERENCE: ITE, TRIP GENERATION MANUAL (7TH EDITION)
LAND USE CODE: 912
GROSS FLOOR AREA (GFA) OF EX. BUILDING = 1,938 SQ FT
VEHICLE PER DAY (VPD) GENERATION:
VPD= 246.49x1,938 SQ FT /1000=478 VPD
(@ 246.49 VPD PER 1000 GFA ON WEEKDAY)

VEHICLE PEAK HOUR (VPH) GENERATION:
VPH=53.46x1,938 SQ FT /1000=104 VPH
(@ 53.46 VPH PER 1000 GFA ON WEEKDAY PM PEAK HOUR)
(NOTE: ACCORDING TO TIS (7TH EDITION), "WEEKDAY PM PEAK HOUR" IS THE MAXIMUM TRAFFIC GENERATION PEAK HOUR FOR THIS LAND USE)

3. CONCLUSION

AS A RESULT OF THE REDEVELOPMENT WORK, THE SITE WILL GENERATE LESS THAN 250 VEHICLES PER PEAK HOUR AND LESS THAN 2,500 VEHICLES PER DAY, NO TRAFFIC STUDY IS REQUIRED PER LTR 7-07.

TIS TABLE

RELATED INFORMATION	TIS REQUIRED	TIS NON-REQUIRED	COUNTY ID NUMBER	COMMENTS /SHEET NO.
VPH=107 <250 VPH VPD=1,299<2500 VPD		X	N/A	N/A

NO.	DATE	DESCRIPTION	BY
3	6/2/12	REVISED PER WALKWAY ADDITION	
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	

REVISION BLOCK

SCALE: AS NOTED
DATE: 4/12/10
SHEET: 3 OF 10
JOB NO.:
DESIGN BY:
DRAWN BY:
CHECKED BY:

BULK PLANE AND VPD COMPUTATIONS
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE
TAX MAP# 006-1-((1))-18
DISTRICT: DRANESVILLE
FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
PREM K. BHANDARI
Lic. No. 042492
PROFESSIONAL ENGINEER

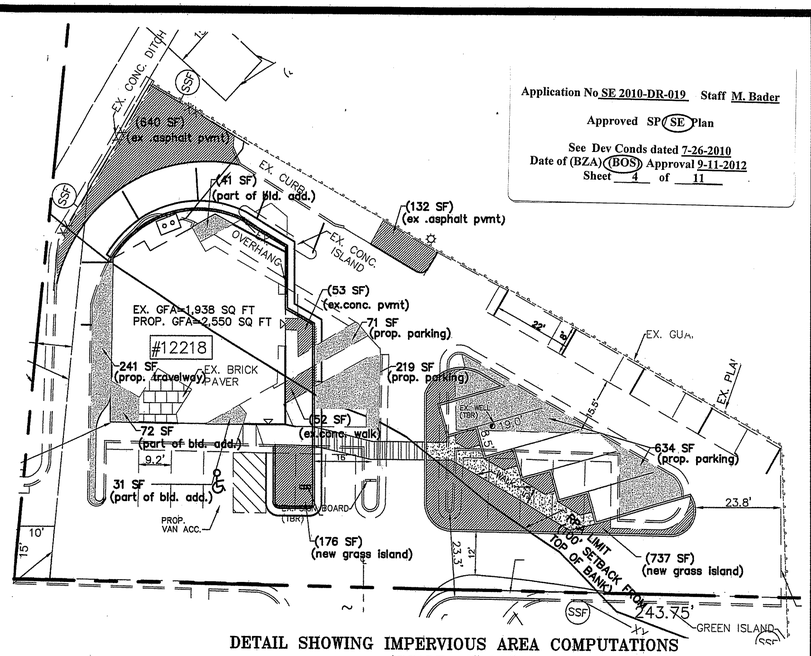
AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA-22003
TEL: 703-655-2151
amaengineers@yahoo.com

TOTAL DISTURBED AREA AND WATERSHED NOTE:

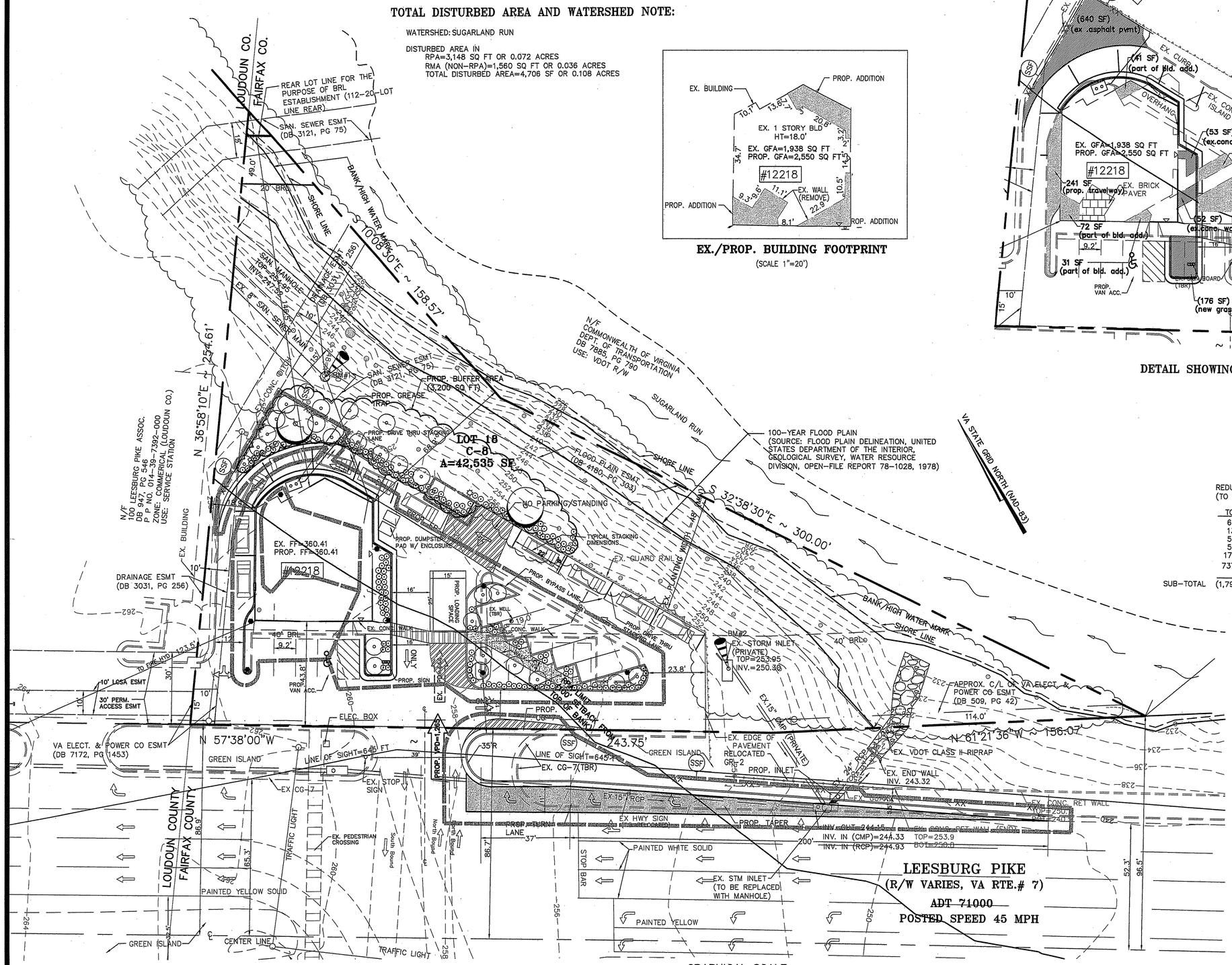
WATERSHED: SUGARLAND RUN

DISTURBED AREA IN
RPA=3,148 SQ FT OR 0.072 ACRES
RMA (NON-RPA)=1,560 SQ FT OR 0.036 ACRES
TOTAL DISTURBED AREA=4,706 SF OR 0.108 ACRES

EX./PROP. BUILDING FOOTPRINT
(SCALE 1"=20')



DETAIL SHOWING IMPERVIOUS AREA COMPUTATIONS
(SCALE: 1":20')



PLAN SHOWING CHANGE IN IMPERVIOUS AREA
SCALE: 1"=20'

REDUCTION IN IMPERVIOUS AREA
(TO BE CONVERTED TO GREEN AREA)

	TOTAL	RPA AREA	RMA AREA
	640	630	10
	132	132	–
	52	27	25
	53	53	–
	176	–	176
	737	415	322
SUB-TOTAL	(1,790)	(1,257)	(533)

ADDITION OF IMPERVIOUS AREA

	TOTAL	RPA AREA	RMA AREA
	219	208	11
	71	71	–
	31	–	31
	241	–	241
	72	–	72
	41	41	
	634	634	–
SUB-TOTAL	1,309	954	355

NET CHANGE IN IMPERVIOUS AREA
RPA AREA: 954-1257=-303 SQ FT (DECREASE)
RMA AREA: 355-533=-178 SQ FT (DECREASE)

NET CHANGE IN IMP. AREA (BOTH RPA & RMA)=1309-1790=-481 SQ FT (DECREASE)

LEGEND

EX. IMP. AREA TO BE CONVERTED TO GREEN AREA

NEW IMPERVIOUS AREA TO BE ADDED

LEGENDS

- EP — EDGE OF PAVEMENT
- W — EX. WATER LINE
- 246 — EX. 2' CONTOUR LINE
- PROP. 2' CONTOUR LINE
- 432.40 EX. SPOT ELEVATION
- +18.5 PROP. SPOT ELEVATION
- S — EX. SANITARY SEWER
- FLOW ARROW
- EX. DRIP LINE
- PROP DRIP LINE
- EX. TREE
- EX. POWER POLE
- LIMIT OF CLEARING AND GRADING
- EX. FIRE HYDRANT
- PROP. TREE
- EX. PARKING LIGHT
- PROP. SECURITY LIGHT

GRAPHICAL SCALE
20 0 20 40
(IN FEET)
1 INCH= 20 FT.

JOB NO.:	SCALE: 1":20'
DESIGN BY:	DATE: 4/12/10
DRAWN BY:	SHEET: 4 OF 10
CHECKED BY:	

SPECIAL EXCEPTION PLAT
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE

TAX MAP# 006-1-((1))-18

DISTRICT: DRANESVILLE

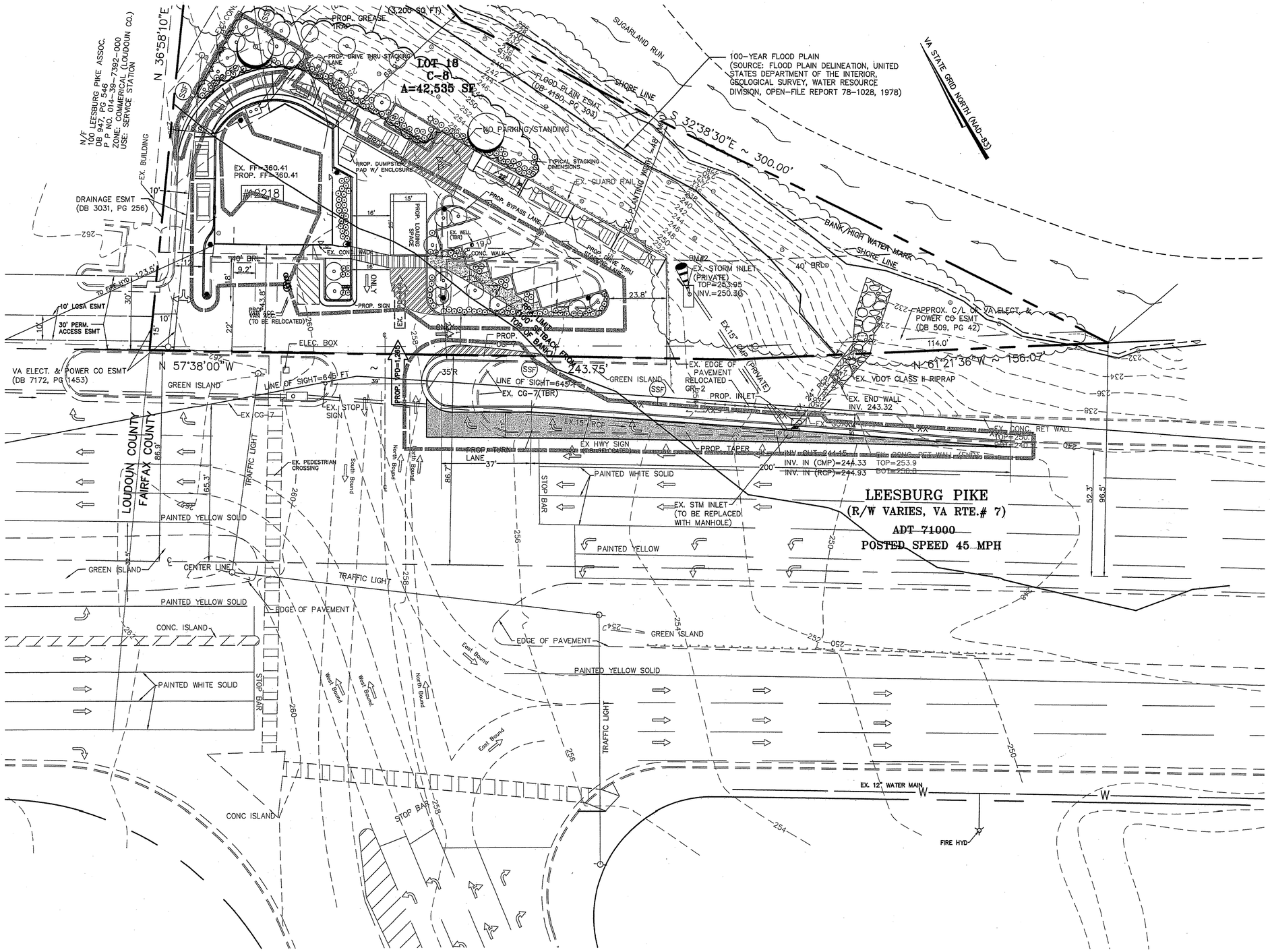
FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
PREM K. BHANDARI
Lic. No. 042482
6/12/2012
PROFESSIONAL ENGINEER

AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA-22003
TEL: 703-655-2151
amaengineers@yahoo.com

NO.	DATE	DESCRIPTION	BY
3	6/2/12	REVISED PER WALKWAY ADDITION	
2	8/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	

REVISION BLOCK



GRAPHICAL SCALE

20 0 20 40

(IN FEET)
1 INCH= 20 FT.

Application No SE 2010-DR-019 Staff M. Bader

Approved SP/SE Plan

See Dev Conds dated 7-26-2010
Date of (BZA)(BOS) Approval 9-11-2012
Sheet 5 of 11

NO.	DATE	DESCRIPTION	BY
3	6/2/12	REVISED PER WALKWAY ADDITION	
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	

REVISION BLOCK

RIGHT TURN LANE
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE

TAX MAP# 006-1-((1))-18

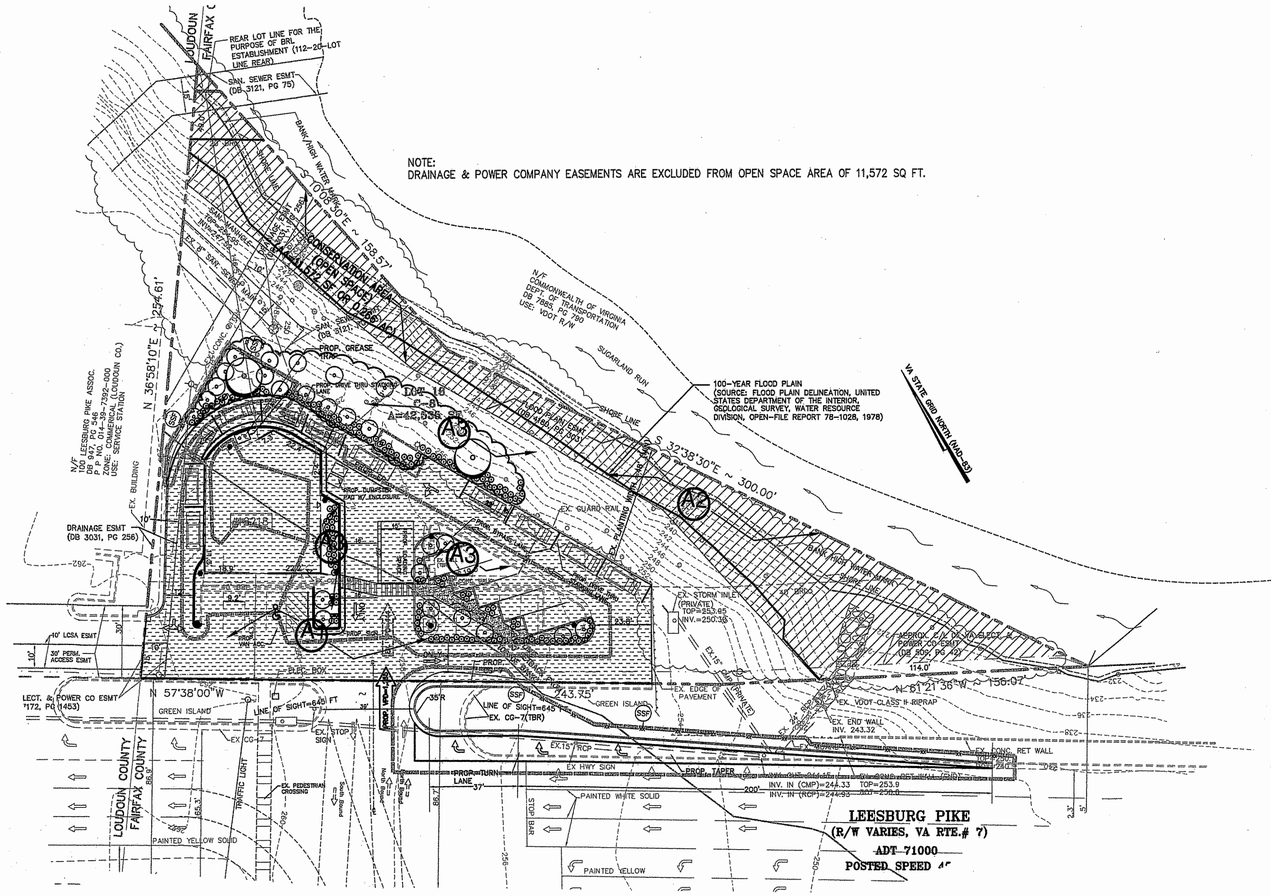
DISTRICT: DRANESVILLE

FAIRFAX COUNTY, VIRGINIA

JOB NO.:	SCALE: 1"=20'
DESIGN BY:	DATE: 4/12/10
DRAWN BY:	SHEET: 4.1 OF 10
CHECKED BY:	

AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA-22003
TEL: 703-655-2151
amaengineers@yahoo.com

COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
PREM K. BHANDARI
Lic. No. 042482
6/12/2012



BMP DRAINAGE MAP

SCALE" 1"=30'

WATER QUALITY NARRATIVE (BMP)

THE PROJECT PROPOSES THE CHANGE OF CURRENT USE TO A RESTAURANT. IT CONSISTS OF MINOR CHANGE TO THE EXISTING SITE, WHICH CONSIST OF MINOR ADDITION TO THE BUILDING FOOTPRINT AREA AND SLIGHT MODIFICATION OF THE PARKING LOT AREA TO REDUCE THE TOTAL IMPERVIOUS AREA WITHIN THE STUDY SITE. THERE IS NET DECREASE IN THE IMPERVIOUS AREA BY ABOUT 202 SQ FT AFTER THE COMPLETION OF THE PROJECT. SINCE THERE IS NET REDUCTION OF IMPERVIOUS AREA WITHIN AN RPA AND NO MORE THAN A NET INCREASE IN IMPERVIOUS AREA WITHIN AN RMA OF 20% RELATIVE TO CONDITIONS PRIOR TO THE DEVELOPMENT, IT QUALIFIES THE PROJECT AS A "REDEVELOPMENT" PER PFM 6-0401.2D. THE MINIMUM BMP REMOVAL REQUIREMENT PER COUNTY REQUIREMENT IS 10% PHOSPHOROUS REMOVAL (PLEASE REEFER TO THE "PHOSPHOROUS REMOVAL REQUIREMENT" ON THIS SHEET) FROM THE SITE IN ITS ULTIMATE DEVELOPMENT CONDITIONS.

THE WATER QUALITY MANAGEMENT AREA, WHICH IS ALSO CALLED "OPEN SPACE" (NON-STRUCTURAL PRACTICE) IS USED TO MEET THE BMP REQUIREMENTS FOR THE SITE. ABOUT 0.283 ACRES OF LAND AREA IS RECORDED WITHIN THE FLOOD PLAIN EASEMENTS IN DEED BOOK 4180 PAGE 303. ACCORDING TO PFM TABLE 6.30 (FOOTNOTE 5), THIS AREA QUALIFIES FOR THE OPEN SPACE FOR BMP CREDIT. ONLY 0.266 ACRES OF AREA IS TAKEN TOWARDS THE CREDIT FOR BMP COMPUTATION FOLLOWING THE EXCLUSION OF THE AREA OCCUPIED BY THE DRAINAGE AND POWER COMPANY EASEMENTS OVERLAP. THE AREA HAS BEEN SHOWN AND LABELED AS "OPEN SPACE" ON THIS SHEET. THE BMP COMPUTATION SHOWS THAT THE TOTAL PHOSPHOROUS REMOVAL ACHIEVED BY THE BMP IS 27.2% WHICH IS MORE THAN REQUIRED (10%) FOR THIS LOT PER PFM FAIRFAX VA, 2003 6-401.2A, PLEASE REFER TO THE BMP COMPUTATIONS ON THIS SHEET. THEREFORE, THE WATER QUALITY REQUIREMENT WILL BE SATISFIED PER CBPO REQUIREMENT BY THE BMP FACILITY.

PHOSPHOROUS REMOVAL REQUIREMENT:

PRE-DEVELOPMENT PERCENT IMPERVIOUS AREA , "Ipre" =0.40
POST-DEVELOPMENT PERCENT IMPERVIOUS AREA , "Ipost" = 0.40

[1-0.9("Ipre"/"Ipost")]x100 = % P REMOVAL.
[PFM, FAIRFAX COUNTY VA, 2003 6-401.2B]

=(1-0.9x (0.40/0.40)x100% =10.0% OF PHOSPHOROUS REMOVAL REQUIREMENT FOR THE REDEVELOPMENT

TREE BOX (FILTERRA UNIT) WILL BE PROVIDED TO MEET THE MINIMUM BMP REQUIREMENT.

PHOSPHOROUS REMOVAL CALCULATIONS - "OCCOQUAN METHOD"

(A) Area of the site 0.976 AC

(B)

Surface area designation (1)		"C" (2)		Acres (3)		Product (4)
Paved Area (Uncontrolled Area) (Building, Driveway and Sidewalk)	A1	0.9	x	0.388	=	0.350
Open Space Area (Controlled)	A2	0.25	x	0.266	=	0.067
Unpaved Area (Uncontrolled)	A3	0.25	x	0.322	=	0.081
				Total (b)	=	0.498
				(b) / (a) = (c)		0.50 acres

Part 3: Compute the Total Phosphorus Removal for the Site

Subarea Designation	BMP Type	Removal Eff. (%)	Area Ratio	"C" Factor Ratio	Product
A2	Open Space	100 x	0.272	x 1.00	= 27.2

Fairfax county phosphorous removal requirement = 10% Total 27.2%

The phosphorus removal is in compliance with Phosphorus Removal Requirement of the redevelopment. Therefore, the design is acceptable.

IMPERVIOUS ACERAGE ANALYSIS

DESCRIPTIONS	DEVELOPMENT LEVEL		IMPERVIOUSNESS ACREAGE COMPUTATION	
	PRE	POST	PRE	POST
SITE AREA IN ACRES	A1	A2	0.976	0.976
COMPOSITE RATIONAL C FACTOR	C1	C2	0.51	0.50
FRACTIONAL IMPERVIOUSNESS	I1	I2	0.40	0.40
TOTAL IMPERVIOUS ACRES	(A1xI1)	(A2xI2)	0.390	0.390
INCREASE IN IMPERVIOUS ACRES	(A2xI2) - (A1xI1)		0.000	

IMPERVIOUS AREA COMPUTATIONS

DESCRIPTIONS	PRE-DEV	PROP. ADDITION	POST-DEV
BUILDINGS	1,938	612	2,550
PARKING & DRIVEWAYS	14,047	-(963)(REDUCED)	13,084
WALKWAY AND OTHERS	1,132	-(130) (REDUCED)	1,002
TOTAL POST-DEV. IMP. AREA	17,117	-481 (REDUCED)	16,636
PERVIOUS AREA (GRASS-AREA)	25,418	25,620	25,899
TOTAL SITE AREA	42535 SF	42535 SF	42535 SF

INCREASE IN IMPERVIOUSNESS = -481 SF OR-3% OF THE EXISTING IMPERVIOUS AREA.

TOTAL PERCENTAGE OF IMPERVIOUSNESS = $\frac{(16636 \times 100\%)}{42535}$ =39.1%

'C' RUNOFF COEFFICIENT

A. PRE-DEVELOPMENT

$= \frac{(17117 \times 0.9 + 25418 \times 0.25)}{42535} = 0.51$

B. POST-DEVELOPMENT

$= \frac{(16636 \times 0.9 + 25899 \times 0.25)}{42535} = 0.50$

RUNOFF, Q = CIA

A. PRE-DEVELOPMENT
(5 MIN Tc) Q2 =(0.51 x 5.45 x 0.976) = 2.71 CFS
Q10 =(0.51 x 7.27 x 0.976) = 3.62 CFS

B. POST-DEVELOPMENT
(5 MIN Tc) Q2 =(0.50 x 5.45 x 0.976) = 2.66 CFS
Q10 =(0.50 x 7.27 x 0.976) = 3.55 CFS

C. INCREASE IN RUNOFF (10YRS)

Q2yr= 2.66-2.71=0.05 CFS (DECREASE)
Q10yr= 3.55 - 3.62=0.07 CFS (DECREASE)

MS-4

SWM FACILITIES							
FACILITY ID NO.	FACILITY TYPE	PURPOSE	ACRES TREATED	WATERSHED	RECEIVING WATERS	MAINTENANCE AGREEMENT Y/N	VAHU6 CODE
1	Open Space (NON-STRUCTURAL)	QUALITY	0.266	SUGARLAND RUN	SUGARLAND RUN CREEK	N/A	PL260

STORMWATER DETENTION WAIVER ABBREVIATED NARRATIVE (LTR 21-88)

THE PROJECT INVOLVES A CHANGE OF CURRENT USE TO A RESTAURANT. THIS WILL INVOLVE A MINOR ADDITION TO THE EXISTING BUILDING FOOTPRINT AREA AND MINOR MODIFICATION OF THE EXISTING PARKING LOT. THE PROJECT WILL RESULT A NET REDUCTION OF AN IMPERVIOUS AREA DUE TO THE CONVERSION OF SOME PARKING AREA TO A GREEN AREA. AFTER THE COMPLETION OF THE PROJECT, THE TOTAL IMPERVIOUS AREA WITHIN THE STUDY SITE WILL BE REDUCED TO 16,636 SQ FT AS COMPARED TO AN EXISTING IMPERVIOUS AREA OF 17,117 SQ FT, PLEASE REFER TO THE COMPUTATION ON THIS SITE AND IMPERVIOUS AREA MAP ON SHEET 4. IT WILL RESULT A NET DECREASE IN AN IMPERVIOUS AREA OF ABOUT 481 SQUARE FEET. THE DECREASE IN THE IMPERVIOUS AREA WILL RESULT IN THE REDUCTION OF THE POST-DEVELOPMENT RUNOFF RATE. THE 10-YEAR AND 2-YEAR RUNOFF RATE WILL DECREASE BY 0.05 CFS AND 0.07 CFS RESPECTIVELY, PLEASE REFER TO THE COMPUTATION ON THIS SHEET.

AFTER THE COMPLETION OF THE PROJECT, THE OVERALL POST-DEVELOPMENT RUNOFF WILL BE 3.55 CFS AND 2.66 CFS FROM 10-YEAR AND 2-YEAR STORM, WHICH WILL BE LESS THAN THE PRE-DEVELOPMENT RUNOFF FOR BOTH STORMS, PLEASE REFER TO THE COMPUTATION ON THIS SHEET. THEREFORE, NO STORMWATER DETENTION IS REQUIRED FOR THIS DEVELOPMENT PURSUANT TO LETTER TO INDUSTRY 21-68.

NOTE: THE DPWES WILL DETERMINE THE STORMWATER MANAGEMENT REQUIREMENT AT THE TIME OF SITE PLAN/MINOR SITE PLAN REVIEW.

LEGEND (SUB-AREA LEGEND)

OPEN SPACE (AREA= 0.266 AC.)

PERVIOUS AREA UNCONTROLLED (AREA= 0.322 AC)

IMPERVIOUS AREA UNCONTROLLED (AREA= 0.388 AC)

Application No SE 2010-DR-019 Staff M. Bader

Approved SP(SE)Plan

See Dev Conds dated 7-26-2010
Date of (BZA)(BOS) Approval 9-11-2012
Sheet 6 of 11

NO.	DATE	DESCRIPTION	BY
3	6/2/12	REVISED PER WALKWAY ADDITION	
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	

REVISION BLOCK

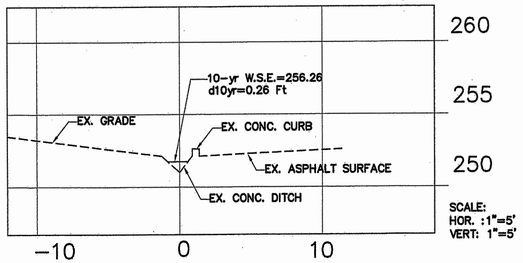
SCALE: 1"=30'
DATE: 4/12/10
SHEET: 5 OF 10
JOB NO.:
DESIGN BY:
DRAWN BY:
CHECKED BY:

BMP COMPS AND SUB-AREA MAP
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE

TAX MAP# 006-1-((1))-18
DISTRICT: DRANESVILLE
FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
PROMI K. BHANDARI
Lic. No. 042832
6/12/2012
PROFESSIONAL ENGINEER

AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA.22003
TEL: 703-655-2151
amaengineers@yahoo.com



(SECTION 1-1)

SCALE:
HOR. :1"=5'
VERT: 1"=5'

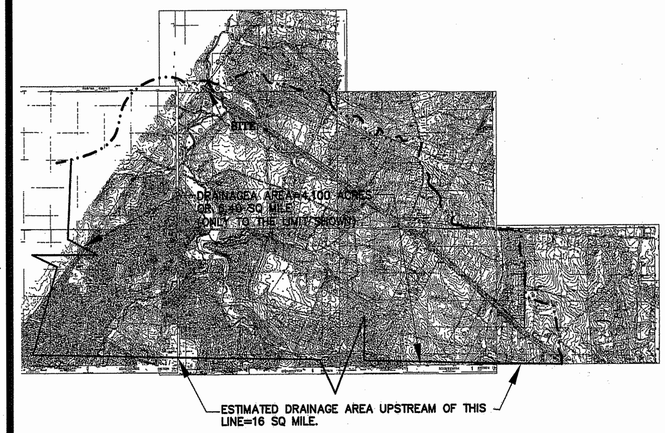
CONC. DITCH ADEQUACY
Q10yr=0.52 CFS (SEE DRAINAGE MAP)

HYDRAULIC COMPUTATIONS (TOOL:FLOW MASTER)

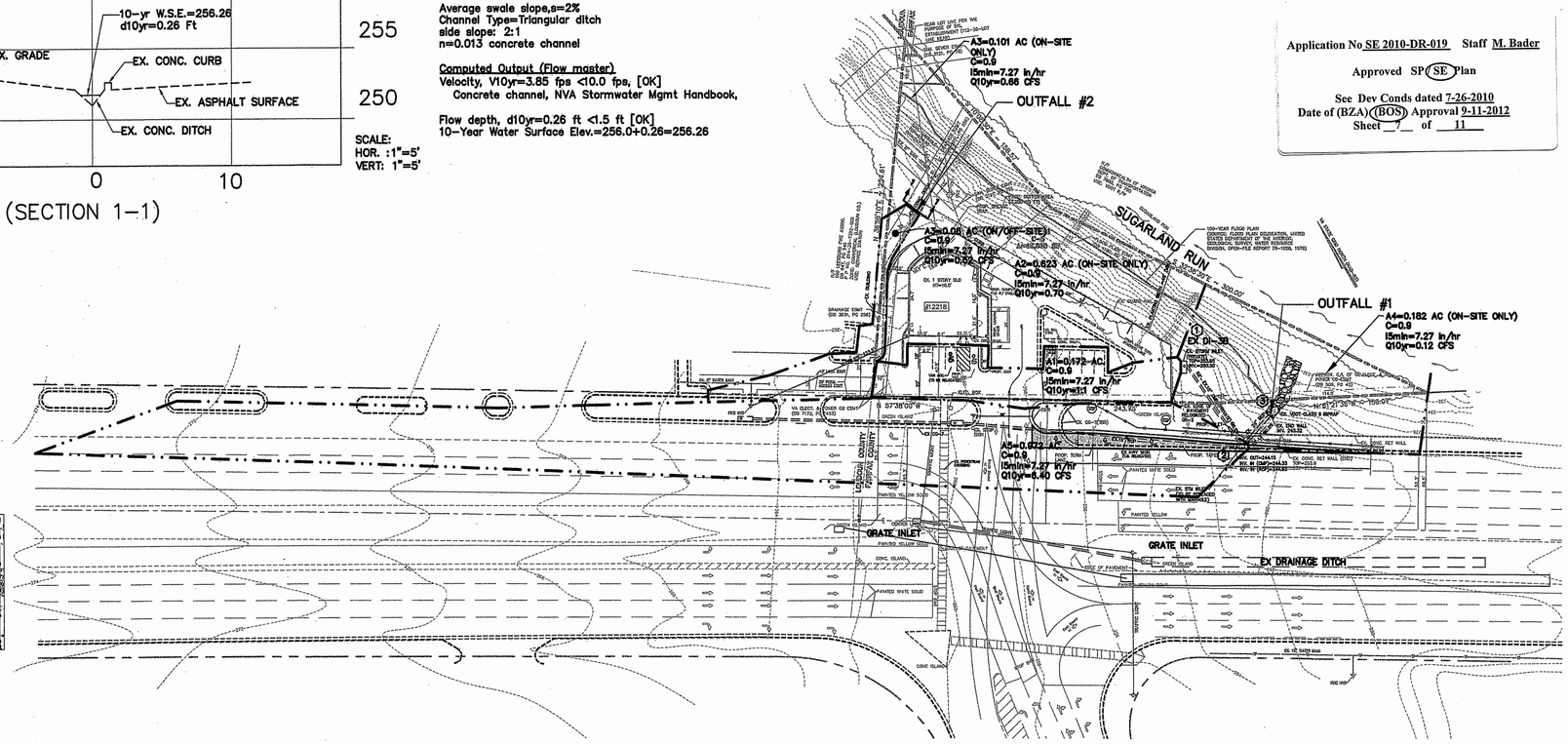
Average swale slope,s=2%
Channel Type=Triangular ditch
side slope: 2:1
n=0.013 concrete channel

Computed Output (Flow master)
Velocity, V10yr=3.85 fps <10.0 fps, [OK]
Concrete channel, NVA Stormwater Mgmt Handbook,

Flow depth, d10yr=0.26 ft <1.5 ft [OK]
10-Year Water Surface Elev.=256.0+0.26=256.26



DRAINAGE MAP
SCALE: 1":3000'



ON-SITE DRAINAGE MAP
SCALE:1":50'

Application No SE 2010-DR-019 Staff M. Bader

Approved SP(SE) Plan

See Dev Conds dated 7-26-2010
Date of (BZA)(BOS) Approval 9-11-2012
Sheet __ of 11

EXISTING STORM DRAIN COMPUTATIONS AND ADEQUACY ANALYSIS

FROM POINT	TO POINT	Q10yr=CIA (CFS)			INLET TIME	LENGTH	SLOPE	DIA	CAPACITY	VELOCITY,V	FLOW TIME MINUTES		REMARKS
		INCREMENT	ACCUMULATED	TOTAL RUNOFF (CFS)	MINUTES	FT	%	IN.	CFS	FPS	INCREMENT	ACCUMULATED	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		(13)
1	2	1.1	0	1.1	5	68	8.8	15	10.6	13.8	0.1	5.1	10.6 CFS>1.1 CFS , [OK]
2	3 OUTFALL	1.1	6.4	7.5	5.1	28	2.8	24	37.8	11.7	0.1	5.2	37.8 CFS>7.5 CFS , [OK]

MAINTENANCE AGREEMENT OF THE STORM SEWER

THE OWNER OF THE LOT OF 18 IS RESPONSIBLE TO MAINTAIN AND OPERATE THE EXISTING STORM SEWER AND STRUCTURES LOCATED WITHIN THE SUBJECT LOT. IT INCLUDES THE FOLLOWING STRUCTURES

1. STRUCTURES #1 (STORM INLET, VDOT DI-3B)
2. EXISTING 15" CMP BETWEEN THE INLET STRUCTURE #1 AND STRUCTURE #2 SHOWN ON THIS SHEET.

OUTFALL NARRATIVE

THE PROJECT PROPOSES THE CHANGE OF ITS CURRENT USE TO A DRIVE-THRU RESTAURANT. THE SITE IS CURRENTLY DEVELOPED WITH AN EXISTING BUILDING (FOR BANK'S USE), PARKING LOTS AND OTHER ACCESSORIES STRUCTURES AND UTILITIES. THE EXISTING SITE IS SLIGHTLY MODIFIED TO MEET THE NEED OF PROPOSED USE AS SHOWN ON THE SITE PLAN ON SHEET 4.

THE SITE CONSISTS OF ABOUT 0.976 ACRES OF TOTAL LAND, AND FALLS IN SUGARLAND RUN WATERSHED. IT CONSISTS OF FOUR SUB-DRAINAGE AREAS DESIGNATED AS A1, A2, A3 AND A4 AS SHOWN ON THE SUB-DRAINAGE MAP ON THIS SHEET. THE RUNOFF FROM ALL THE SUB-DRAINAGE AREAS OUTFALL TO SUGARLAND RUN CREEK THAT RUNS TO THE NORTHWEST DIRECTION ALONG THE NORTH PROPERTY LINE OF THE STUDY LOT.

THE DRAINAGE AREA "A1" CONSISTS OF MAINLY FRONT PARKING AREA AND TRAVELWAY. IT CONTAINS ABOUT 0.172 ACRES OF ON-SITE DRAINAGE AREA. THE RUNOFF FROM THIS DRAINAGE AREA FLOWS TO THE EAST AND OUTFALLS TO THE STORM INLET, DESIGNATED AS STRUCTURE #1, LOCATED SLIGHTLY TO THE EAST OF EXISTING PARKING AREA. THE DRAINAGE AREA CONTRIBUTES ABOUT 1.1 CFS OF RUNOFF FROM THE 10-YEAR STORM. THE RUNOFF FROM THE INLET #1 IS CONVEYED BY THE EXISTING 15" CMP TO THE STRUCTURE #2 LOCATED WITHIN THE VDOT RIGHT OF WAY. THE ADEQUACY OF THE EXISTING 15" CMP PIPE IS CHECKED AND SHOWN ON THE TABLE ON THIS SHEET. THE COMPUTATION SHOWS THAT THE FULL FLOW CARRYING CAPACITY OF THE 15" CMP IS 10.6 CFS, WHICH IS MORE THAT THE FLOW CONVEYED BY THE PIPE, WHICH IS 1.1 CFS.

IN ADDITION TO THE RUNOFF FROM THE INLET #1, THE INLET #2 COLLECTS ABOUT 6.40 CFS OF RUNOFF FROM THE 10-YEAR STORM FROM THE UPSTREAM DRAINAGE AREA A5, WHICH CONTAINS ABOUT OF 0.972 ACRES. THE TOTAL OF (1.1+6.4=) 7.5 CFS OF RUNOFF ACCUMULATED IN STRUCTURE # 2 IS CONVEYED BY AN EXISTING 24" RCP TO THE FINAL OUTFALL POINT #1. THE ADEQUACY OF THE EXISTING 24" RCP IS CHECKED AND SHOWN ON THE TABLE ON THIS SHEET. THE COMPUTATIONS SHOWS THAT THE FULL FLOW CARRYING CAPACITY OF THE 24" RCP IS 37.8 CFS, WHICH IS MORE THAT THE FLOW CONVEYED BY THE PIPE, WHICH IS 7.5 CFS. THE RUNOFF THEN OUTFALLS TO THE VDOT RIP-RAP (CLASS II) WITH THE VELOCITY OF 11.7 CFS. THE RIP-RAP CONVEYS THE RUNOFF TO THE SUGARLAND CREEK.

THE SUB-DRAINAGE AREA A2 CONSISTS OF ABOUT 0.623 ACRES OF TOTAL SITE AREA, WHICH COVERS MOST PART OF THE SITE INCLUDING THE BUILDING AND NORTHERN PARKING AREA. THE DRAINAGE AREA CONTRIBUTES ABOUT 0.70 CFS OF RUNOFF FROM THE 10-YEAR STORM. THE RUNOFF SHEET FLOWS ACROSS THE NORTHERN PARKING AREA AND OUTFALLS TO SUGARLAND CREEK VIA WOODED AREA BETWEEN THE CREEK AND THE PARKING LOT ON THE SITE.

THE DRAINAGE AREA A3 CONTAINS ABOUT 0.08 ACRES OF BOTH ON-SITE AND OFF-SITE AREA AS SHOWN ON THE SUB-DRAINAGE MAP ON THIS SHEET. THE RUNOFF FROM THIS DRAINAGE AREA IS COLLECTED BY AN EXISTING CONCRETE DITCH LOCATED WITHIN THE EXISTING 10 FEET STORM DRAINAGE EASEMENT AS RECORDED IN DEED BOOK 3031, PAGE 256. ABOUT 0.52 CFS OF RUNOFF FROM THE 10-YEAR STORM IS CONTRIBUTED FROM THIS DRAINAGE AREA AT THE END OF THE DITCH OUTFALL LOCATION #2. THE ADEQUACY OF THE DITCH IS ANALYZED AND THE COMPETITION SHOWS THAT THE IS CONVEYED BY THE DITCH WITH THE FLOW DEPTH OF 0.26 FEET AND FLOWS WITH NON-EROSIVE VELOCITY OF 3.85 FPS. THE FLOW OUTFALL TO THE CONCRETE PAD THAT SPREADS THE FLOW AND LEADS TO SUGARLAND CREEK.

THE SUB-DRAINAGE AREA A4, WHICH CONTAINS THE REMAINING PART OF THE SITE SHEET FLOWS ACROSS THE SUB-DRAINAGE AREA. IT CONTRIBUTES ABOUT 0.12 CFS OF RUNOFF FROM THE 10-YEAR STORM OUTFALLS TO SUGARLAND CREEK AS SHEET FLOW.

ALL THE SUB-DRAINAGE AREAS OUTFALLS TO SUGARLAND RUN CREEK, AND THE TOTAL DRAINAGE AREA OF THE SUGARLAND RUN CREEK AT THE STUDY SITE AREA IS MORE THAN 26 SQUARE MILE OF TOTAL DRAINAGE AREA. PLEASE BE ADVISED THAT ONLY A PORTION OF THE DRAINAGE AREA (CONTAINING ABOUT 6.4 SQ MILES) IS SHOWN ON THE DRAINAGE MAP. THE REMAINING PORTION OF THE DRAINAGE AREA, UPSTREAM OF THE LIMIT SHOWN ON THE DRAINAGE MAP, IS ESTIMATED. ALSO, THE OUTFALL AREA FALLS WITHIN THE MAJOR FLOOD PLAIN LIMIT AS SHOWN BY THE 100-YEAR FLOOD LIMIT ON THE SUB-DRAINAGE MAP. THIS MEETS THE MINIMUM REQUIREMENTS OF THE EXTENT OF THE DRAINAGE STUDY PER PFM AND SPECIAL EXCEPTION CHECKLIST OF THE FAIRFAX COUNTY. THE COMPUTATIONS SHOWS THAT ALL THE FLOW CONTAINS WITHIN THE STORM STRUCTURES AND FLOW WITH NON-EROSIVE VELOCITY AND OUTFALL TO THE NATURAL CHANNEL.

AFTER THE COMPLETION OF THE PROJECT, THE OVERALL IMPERVIOUS AREA OF THE STUDY LOT WILL BE DECREASED BY ABOUT 481 SQ FT; PLEASE REFER TO SHEET 5 FOR DETAIL COMPUTATION. IN AN IMPERVIOUS AREA OF ABOUT 481 SQUARE FEET. THE DECREASE IN THE IMPERVIOUS AREA WILL RESULT IN THE REDUCTION OF THE POST-DEVELOPMENT RUNOFF RATE. THE 10-YEAR AND 2-YEAR RUNOFF RATE WILL DECREASE BY 0.05 CFS AND 0.07 CFS RESPECTIVELY, PLEASE REFER TO THE COMPUTATION ON THIS SHEET. THE EXISTING DRAINAGE PATTERN WILL BE HONORED BY THE PROPOSED DEVELOPMENT. THEREFORE, IT IS THE SUBMITTING ENGINEER'S OPINION THAT AN ADEQUATE OUTFALL EXISTS FOR THE SITE AND NO FLOODING OR ADVERSE EFFECT WILL BE ANTICIPATED AT THE DOWNSTREAM OF THE OUTFALLS OF THE SITE.

DURING THE CONSTRUCTION PHASE, SUPERSILT FENCE WILL BE INSTALLED ALONG THE LOWER AREA OF THE DISTURBANCE. THE TOTAL DISTURBED AREA WILL BE 0.108 ACRES. THE RUNOFF FROM THE DISTURBED AREA WILL BE (0.6x0.108 ACx7.27 =) 0.47 CFS FROM THE 10-YEAR STORM AND IT WILL DISPERSE AS A SHEET FLOW AND FILTER THROUGH THE SUPERSILT FENCE. NO GRUBBING OR TEMPORARY GRADING WILL BE CONDUCTED TO CREATE CONCENTRATED FLOW DURING THE CONSTRUCTION ACTIVITIES. THEREFORE, IT IS OUR UNDERSTANDING THAT AN ADEQUATE OUTFALL EXISTS DURING THE CONSTRUCTION PERIOD OF THE PROJECT AND NO ADVERSE IMPACT WILL OCCUR TO THE NEIGHBOR LOTS OR DOWNSTREAM OF THE SITE.

SCALE: AS NOTED
DATE: 4/12/10
SHEET: 6 OF 10

JOB NO.:
DESIGN BY:
DRAWN BY:
CHECKED BY:

DRAINAGE MAP AND OUTFALL NARRATIVE
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE

TAX MAP# 006-1-((1))-18

DISTRICT: DRANESVILLE

FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
PROM K. BHANDARI
Lic. No. 042492
6/12/2012

AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA.22003
TEL: 703-655-2151
amaengineers@yahoo.com

NO.	DATE	DESCRIPTION	BY
3	6/8/12	REVISED PER WALKWAY ADDITION	
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	

REVISION BLOCK

PREPARED BY

PREM K BHANDARI
ISA# MA-5015A
CONTACT: 703-655-2151

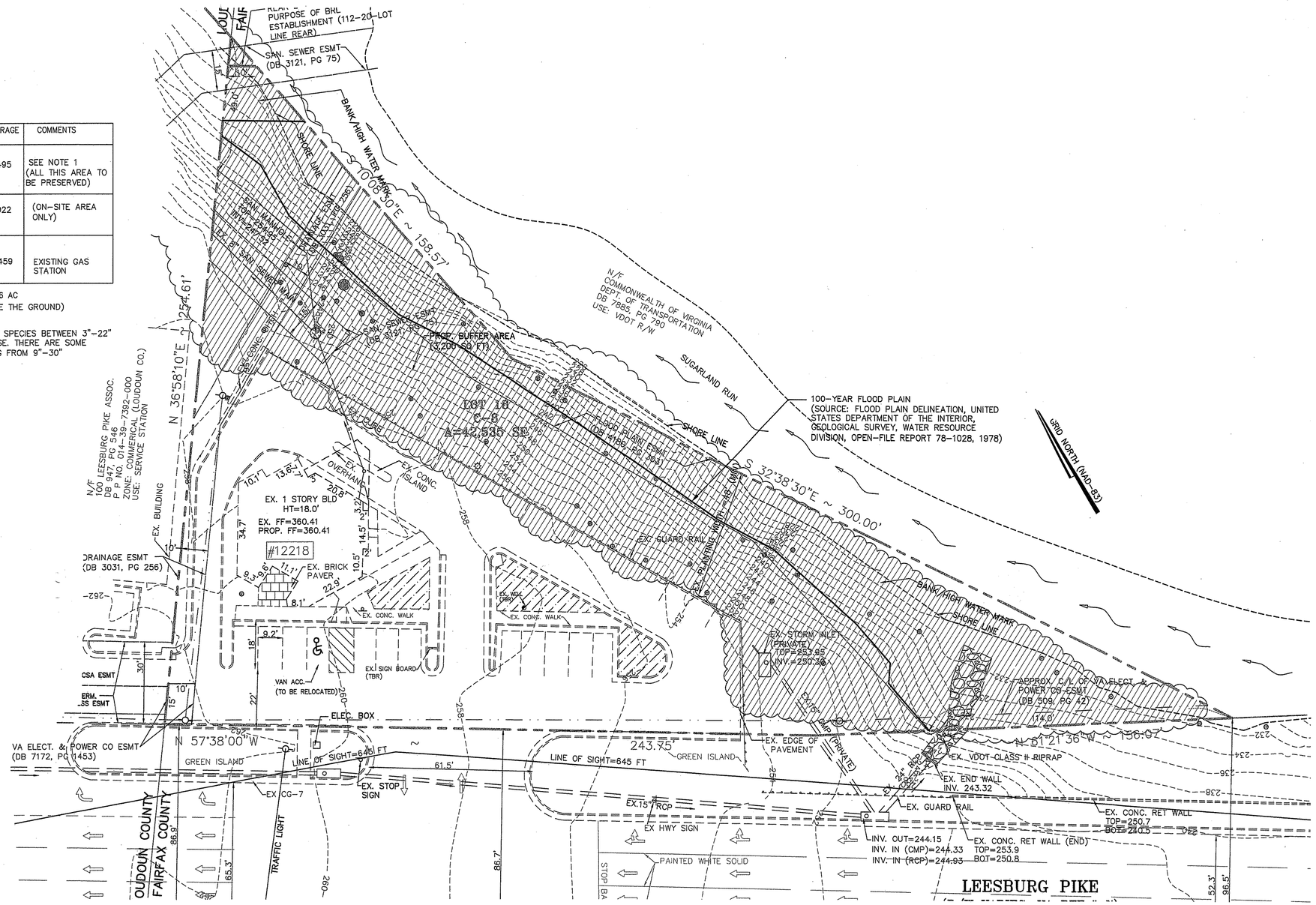
EXISTING VEGETATION MAP (EVM) SUMMARY

COVER TYPE	PRIMARY SPECIES	SUCCESSIONAL STAGE	CONDITION	ACERAGE	COMMENTS
LOWLAND FOREST (W)	REDCEDAR, BLACK LOCUST, BLACK CHERRY, PIN OAK, RED MAPLES, BRIARS	PIONEER EARLY SUCCCESSIONAL	POOR-FAIR	0.495	SEE NOTE 1 (ALL THIS AREA TO BE PRESERVED)
MAINTAINED LANDSCAPE (P)	MAINTAINED LAWN	N/A	GOOD	0.022	(ON-SITE AREA ONLY)
(C) DEVELOPED	N/A	N/A	N/A	0.459	EXISTING GAS STATION

TOTAL AREA=0.976 AC

DBH: DIAMETER AT BREAST HEIGHT (MEASURED 4.5 FEET ABOVE THE GROUND)

NOTE:
1. THIS COVER TYPE CONTAINS EARLY SUCCESSIONLA PIONEER AND INVASIVE TREE SPECIES BETWEEN 3"-22" DBH. THE UNDESTORY CONTAINS THICK PATCHES OF HONEY SUCKLE AND WILD ROSE. THERE ARE SOME HARDWOOD TREE SPECIES, WHICH ARE MAINLY OAK AND MAPLE WITH DBH RANGING FROM 9"-30"



GRAPHICAL SCALE

20 0 20 40

(IN FEET)
1 INCH= 20 FT.

Application No SE 2010-DR-019 Staff M. Bader

Approved SP (SE) Plan

See Dev Conds dated 7-26-2010
Date of (BZA) (BOS) Approval 9-11-2012
Sheet 8 of 11

THIS PLAN HAS BEEN PREPARED/REVIEWED BY ISA CERTIFIED ARBORIST.

PREM K BHANDARI — DATE 6/12/2012 — MA-5015A CERTIFICATE NUMBER)

NO.	DATE	DESCRIPTION	BY
3	6/2/12	REVISED PER WALKWAY ADDITION	
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	

REVISION BLOCK

SCALE: 1"=20'
JOB NO.:
DATE: 4/12/10
DESIGN BY:
DRAWN BY:
SHEET: 7 OF 10
CHECKED BY:

EXISTING VEGETATION MAP (EVM)
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE

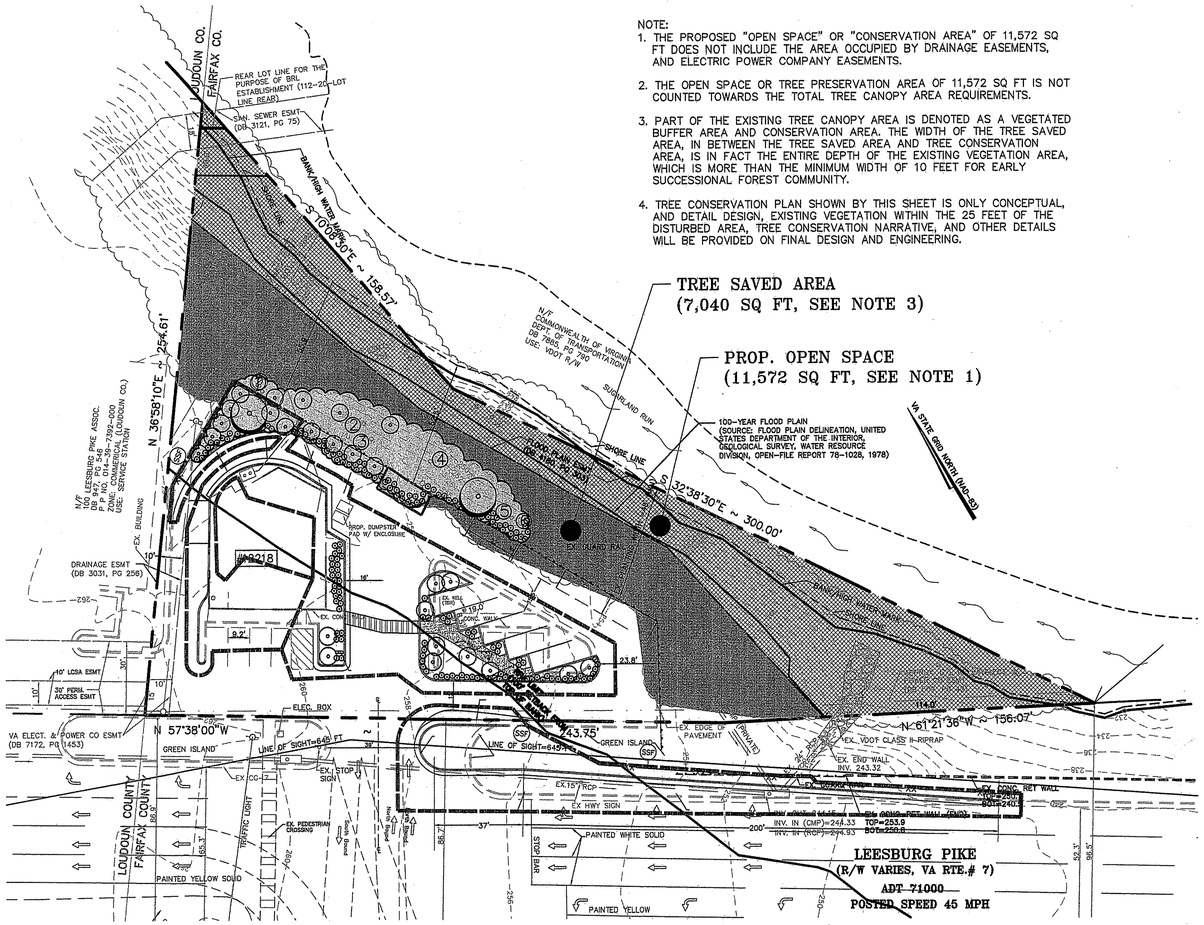
TAX MAP# 006-1-((1))-18

DISTRICT: DRANESVILLE — FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA — PREM K. BHANDARI — Lic. No. 042492 — 6/12/2012 — PROFESSIONAL ENGINEER

AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA-22003
TEL: 703-655-2151
amaengineers@yahoo.com

NOTE:
1. THE PROPOSED "OPEN SPACE" OR "CONSERVATION AREA" OF 11,572 SQ FT DOES NOT INCLUDE THE AREA OCCUPIED BY DRAINAGE EASEMENTS, AND ELECTRIC POWER COMPANY EASEMENTS.
2. THE OPEN SPACE OR TREE PRESERVATION AREA OF 11,572 SQ FT IS NOT COUNTED TOWARDS THE TOTAL TREE CANOPY AREA REQUIREMENTS.
3. PART OF THE EXISTING TREE CANOPY AREA IS DENOTED AS A VEGETATED BUFFER AREA AND CONSERVATION AREA. THE WIDTH OF THE TREE SAVED AREA, IN BETWEEN THE TREE SAVED AREA AND TREE CONSERVATION AREA, IS IN FACT THE ENTIRE DEPTH OF THE EXISTING VEGETATION AREA, WHICH IS MORE THAN THE MINIMUM WIDTH OF 10 FEET FOR EARLY SUCCESSIONAL FOREST COMMUNITY.
4. TREE CONSERVATION PLAN SHOWN BY THIS SHEET IS ONLY CONCEPTUAL, AND DETAIL DESIGN, EXISTING VEGETATION WITHIN THE 25 FEET OF THE DISTURBED AREA, TREE CONSERVATION NARRATIVE, AND OTHER DETAILS WILL BE PROVIDED ON FINAL DESIGN AND ENGINEERING.



LEGEND

- LIMIT OF DISTURBACE
- PROP. OPEN SPACE
- TREE SAVED AREA
- VEGETATED BUFFER AREA (WQIA)
- PROP. UNDERSTORY
- PROP. OVERSTORY
- PROP. SHRUBS
- EX. TREE

Application No SE 2010-DR-019 Staff M. Bader
Approved SP (SE) Plan
See Dev Conds dated 7-26-2010
Date of (BZA) (BOS) Approval 9-11-2012
Sheet 9 of 11

TREE PLANTING FOR BUFFER AREA ESTABLISHMENT

PLANTING SCHEDULE

OVERSTORY TREES=100x0.078=8 COUNTS (@ 100 COUNTS/ACRE PER 118-3-3(f))

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	10-YR CANOPY (SF)	TOTAL (SF)
BG	1	Nyssa sylvatica	Blackgum	2.0-2.5" cal., 8-12' ht.	B&B	150	150
WO	1	Quercus phellos	Willow Oak	2.0-2.5" cal., 8-12' ht.	B&B	200	200

Sub-total= 2 TOTAL 350 SF

Note: Existing 6 overstory trees will be credited towards the total of 8 overstory trees.

UNDERSTORY TREES=200x0.078=15 COUNTS (@ 200 COUNTS/ACRE PER 118-3-3(f))

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	10-YR CANOPY (SF)	TOTAL (SF)
BE	3	Acer negundo	Boxelder	18-24" Ht.	3 gallon	100	500
PP	3	Asimina triloba	Paw-paw	18-24" Ht.	3 gallon	100	500
RB	3	Cercis canadensis	Redbud	18-24" Ht.	3 gallon	100	500
AH	3	Ilex opaca	American Holly	18-24" Ht.	3 gallon	100	500
BH	3	Viburnum prunifolium	Blackhaw	18-24" Ht.	3 gallon	100	600

Sub-total=15 TOTAL 2600 SF

TOTAL 2,950 SF

SHRUBS=0.078x1089=85 COUNTS (@ 1089 COUNTS/ACRE PER 118-3-3(f))

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
sd	12	Cornus amomum	Silky Dogwood	12-18" Ht.	1-gallon
sw	12	Salix sericea	Silky Willow	12-18" Ht.	1-gallon
rd	12	Cornus sericea	Redosier Dogwood	12-18" Ht.	1-gallon
aw	12	Viburnum dentatum	Southern Arrowwood	12-18" Ht.	1-gallon
sa	12	Alnus serrulata	Smooth Alder	12-18" Ht.	1-gallon
bb	12	Cephalanthus occidentalis	Buttonbush	12-18" Ht.	1-gallon
az	13	Taxodium distichum	Rhododendron viscosum	12-18" Ht.	1-gallon

Sub-total=85

GROUND COVER WILL BE PROVIDED THROUGH USE OF ERNST SEEDMIX - ERNMX-138 - SEE SHEET 3

EXISTING TREE INVENTORY (CREDITED TOWARDS GREENBUFFER)

SYMBOL	EXISTING TREE	CALIPER (INCH)	REMARKS	RECOMMENDATION
1	Hickory	7	Remain	Will survive the construction
2	Pin oak	8	Remain	Will survive the construction
3	Pin oak	10	Remain	Will survive the construction
4	White oak	27	Remain	Will survive the construction
5	Pin oak	10	Remain	Will survive the construction
6	Tulip Poplar	12	Remain	Will survive the construction

THIS PLAN AND COMPUTAIONS HAVE BEEN PREPARED/REVIEWED BY ISA CERTIFIED ARBORIST.

PREM K BHANDARI DATE 6/12/2012 CERTIFICATE NUMBER) MA-5015A

TABLE 12.12 10-YEAR TREE CANOPY CALCULATION WORKSHEET

A. TREE PRESERVATION TARGET AND STATEMENT		
A1	PRE-DEVELOPMENT AREA OF EXISTING TREE CANOPY (FROM EXISTING VEGETATION MAP)=	21562 SF
A2	PERCENTAGE OF GROSS SITE AREA COVERED BY EXISTING TREE CANOPY=	51%
A3	PERCENTAGE OF 10-YEAR TREE CANOPY REQUIRED FOR SITE (SEE TABLE 12.4)=	10%
A4	PERCENTAGE OF THE 10-YEAR TREE CANOPY REQUIREMENT THAT SHOULD BE MET THROUGH TREE PRESERVATION=	50.7%
A5	PROPOSED PERCENTAGE OF CANOPY REQUIREMENT THAT WILL BE MET THROUGH TREE PRESERVATION=	165.5%
A6	HAS THE TREE PRESERVATION TARGET MINIMUM BEEN MET?	YES
A7	IF NO FOR A6, THEN SHEET NUMBER WHERE DEVIATION REQUEST IS LOCATED	N/A
A8	IF STEP G REQUIRES A NARRATIVE, IT SHALL BE PREPARED IN ACCORDANCE WITH § 12-0507.4	N/A
B. TREE CANOPY REQUIREMENT		**TOTAL**
B1	GROSS SITE AREA=	42535 SF
B2	SUBTRACT TO PARKS, ROAD FRONTAGE AND OTHERS=	0 SF
B3	SUBTRACT AREA OF EXEMPTIONS=	0 SF
B4	ADJUSTED GROSS SITE AREA 9B1-B2)=	42535 SF
B5	SITE ZONE/USE=	C-8
B6	PERCENT OF 10-YEAR TREE CANOPY REQUIREMENT=	10%
B7	AREA OF 10-YEAR TREE CANOPY REQUIRED (B4xB5)=	4254 SF
B8	MODIFICATION OF 10-YEAR TREE CANOPY REQUIREMENT REQUESTED?	NO
B9	IF B8 IS YES, THEN LIST PLAN SHEET WHERE MODIFICATION REQUEST IS LOCATED=	N/A
C. TREE PRESERVATION		
C1	TREE PRESERVATION TARGET AREA=	2156 SF
C2	TOTAL CANOPY AREA MEETING STANDARDS OF § 12-0200=	
C3	C2x1.25=	0 SF
C4	TOTAL CANOPY AREA PROVIDED BY UNIQUE OR VALUABLE FOREST OR WOODLAND COMMUNITIES=	0 SF
C5	C4x1.5=	0 SF
C6	TOTAL OF CANOPY AREA PROVIDED BY "HERITAGE", "MEMORIAL", "SPECIMEN" OR "STREET" TREES=	0 SF
C7	C6x1.25 OR 1.50=	0 SF
C8	CANOPY OF TREES WITHIN THE RESOURCE PROTECTION AREAS AND 100-YEAR FLOODPLAINS=	7040 SF
C9	C8x1.0=	7040 SF
C10	TOTAL OF C3, C5, C7 AND C9=	7040 SF
D. TREE PLANTING		
D1	AREA OF CANOPY TO BE MET THROUGH TREE PLANTING (B7-C10)=	0 SF
D2	AREA OF CANOPY PLANTED FOR AIR QUALITY BENEFITS=	0 SF
D3	(D2x1.5)=	0 SF
D4	AREA OF TREE PLANTED FOR ENERGY CONSERVATION=	0 SF
D5	(D4x1.5)=	0 SF
D6	AREA OF TREE PLANTED FOR WATER QUALITY BENEFITS=	2950 SF
D7	(D6x1.00, SEE NOTE BELOW)=	2950 SF
D8	AREA OF CANOPY PLANTED FOR WILDLIFE BENEFITS=	0 SF
D9	(D8x1.5)=	0 SF
D10	AREA OF CANOPY PROVIDED BY NATIVE TREES=	0 SF
D11	(D10x1.5)=	0 SF
D12	AREA OF CANOPY PROVIDED BY IMPROVED CULTIVARS AND VARIETIES=	0 SF
D13	(D12x1.25)=	0 SF
D14	AREA OF CANOPY PROVIDED THROUGH TREE SEEDLINGS=	0 SF
D15	(D14x1.0)=	0 SF
D16	PERCENTAGE OF D14 REPRESENTED BY D15= (MUST NOT EXCEED 33% OF D14)	0 SF
D17	TOTAL OF CANOPY AREA PROVIDED THROUGH TREE PLANTING=	2950 SF
D18	IS AN OFFSITE PLANTING RELIEF REQUESTED?	NO
D19	TREE BANK OR TREE FUND? § 12-0511=	NO
D20	CANOPY AREA REQUESTED TO BE PROVIDED THROUGH OFFSITE BANKING OR TREE FUND=	0 SF
D21	AMOUNT TO BE DEPOSITED INTO THE TREE PRESERVATION AND PLANTING FUND=	0 SF
E. TOTAL OF 10-YEAR TREE CANOPY PROVIDED		
E1	TOTAL OF CANOPY AREA PROVIDED THROUGH TREE PRESERVATION=	7040 SF
E2	TOTAL OF CANOPY AREA PROVIDED THROUGH TREE PLANTING=	2950 SF
E3	TOTAL OF CANOPY AREA PROVIDED THROUGH OFFSITE MECHANISM (D19)=	0 SF
		9990 SF

TOTAL TREE CANOPY AREA=9,990 SQ FT OR 23.5 % >10.0%, [OK]

NOTE:
THE PROPOSED "OPEN SPACE" OR "CONSERVATION AREA" OF 11,572 SQ FT OR 27.2% IS NOT INCLUDED ON THE TOTAL TREE COVERAGE CANOPY COMPUTATIONS ABOVE. THE GROSS TREE CANOPY AREA ON THE LOT WITH THE CONSERVATION AREA WILL BE 27.2%+23.5%=50.7% OR 21,562 SQ FT.

SCALE: 1"=30' | DATE: 4/12/10 | SHEET: 8 OF 10

JOB NO.: | DESIGN BY: | DRAWN BY: | CHECKED BY:

TREE CONSERVATION PLAN
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE

TAX MAP# 006-1-((1))-18

DISTRICT: DRANESVILLE FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
PREM K. BHANDARI
Lic. No. 042492
PROFESSIONAL ENGINEER

AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA-22003
TEL: 703-655-2151
amaengineers@yahoo.com

NO.	DATE	DESCRIPTION	BY
3	6/2/12	REVISED PER WALKWAY ADDITION	
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	

REVISION BLOCK

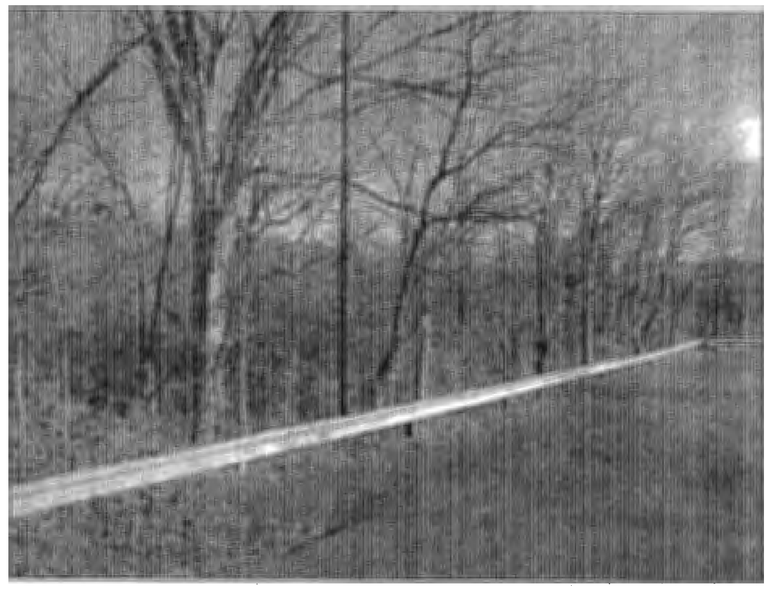
VIEW#1
SCALE: N.T.S.

VIEW#2
SCALE: N.T.S.

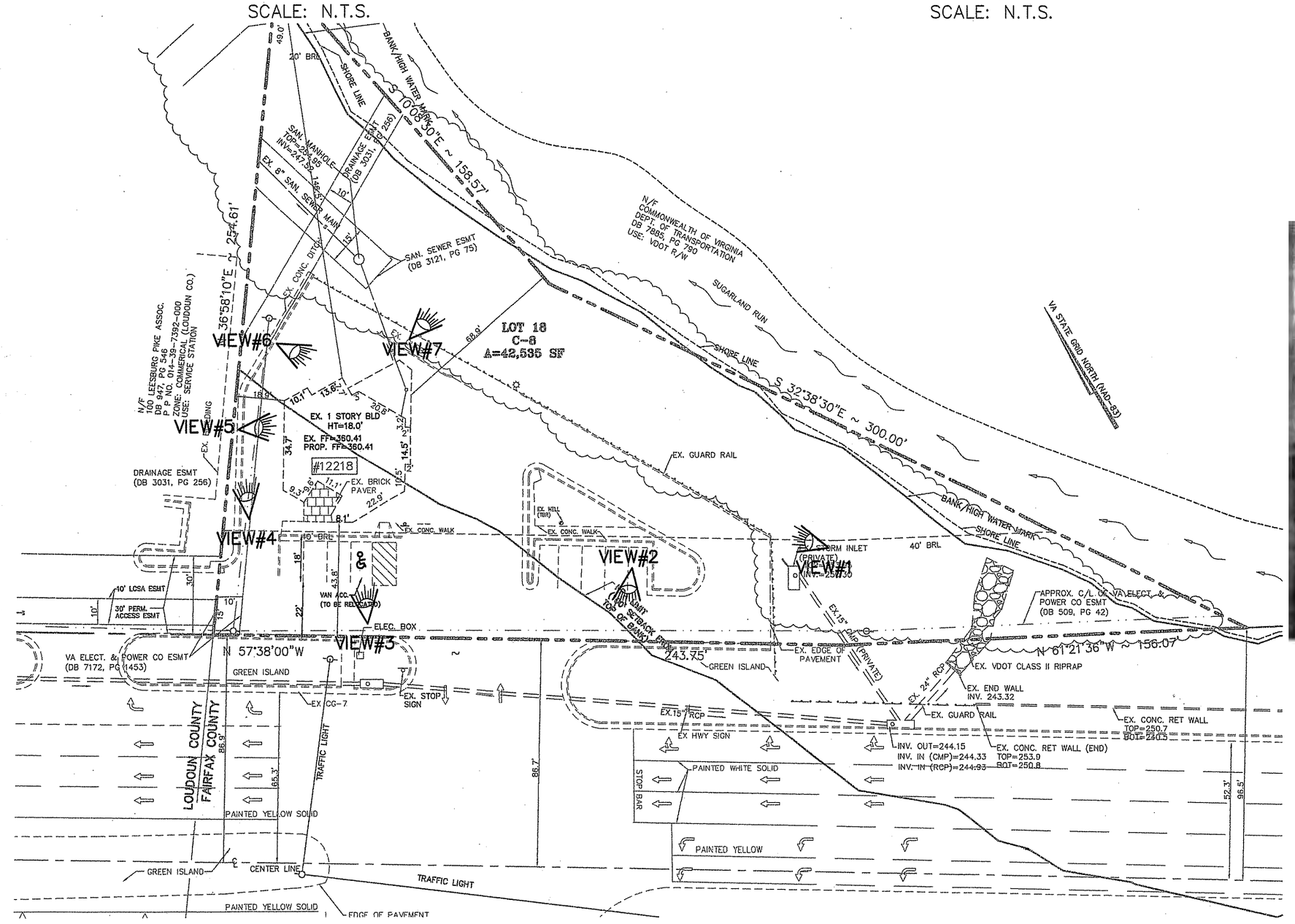
VIEW#3
SCALE: N.T.S.

VIEW#4
SCALE: N.T.S.

VIEW#5
SCALE: N.T.S.



VIEW#6
SCALE: N.T.S.



EX. SITE PLAN
SCALE: 1":30'

VIEW#7
SCALE: N.T.S.

NOTE: ALL THE PHOTOGRAPHS SHOWN ON THIS SHEET ARE TAKE ON DECEMBER 3, 2009.

Application No SE 2010-DR-019 Staff M. Bader

Approved SP(SE) Plan

See Dev Conds dated 7-26-2010
Date of (BZA)(BOS) Approval 9-11-2012
Sheet 10 of 11

JOB NO.:	SCALE: AS NOTED
DESIGN BY:	DATE: 4/12/10
DRAWN BY:	SHEET: 9 OF 10
CHECKED BY:	

SITE PHOTOGRAPHS
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE

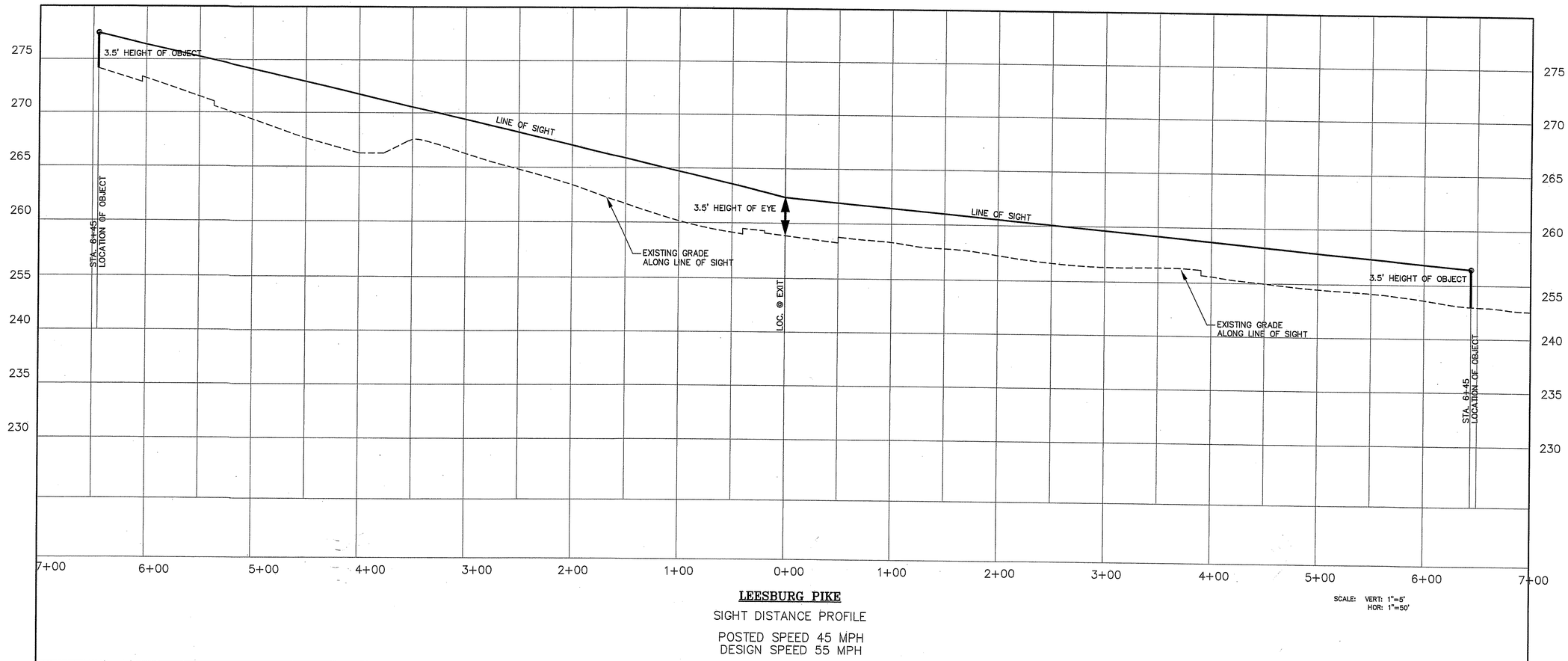
TAX MAP# 006-1-((1))-18

DISTRICT: DRANESVILLE FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
PRIOM K. BHANDARI
Lic. No. 042492
6/12/2012
PROFESSIONAL ENGINEER

AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA-22003
TEL: 703-655-2151
amaengineers@yahoo.com

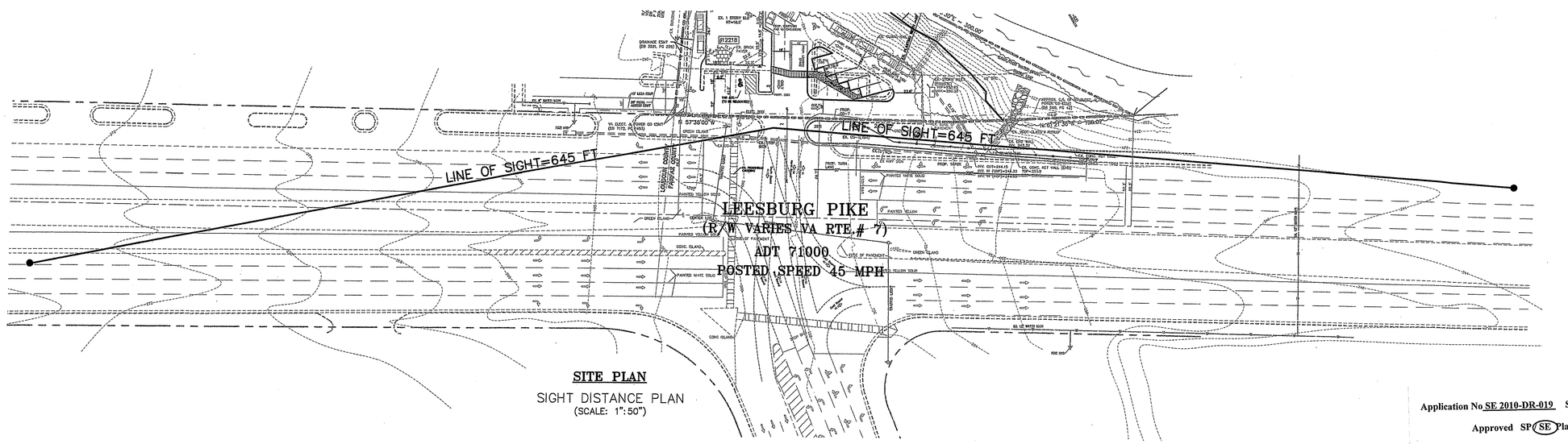
NO.	DATE	REVISION BLOCK	BY
3	6/2/12	REVISED PER WALKWAY ADDITION	
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	



LEESBURG PIKE

SIGHT DISTANCE PROFILE

POSTED SPEED 45 MPH
DESIGN SPEED 55 MPH



SITE PLAN

SIGHT DISTANCE PLAN
(SCALE: 1":50")

Application No SE 2010-DR-019 Staff M. Bader

Approved SP (SE) Plan

See Dev Conds dated 7-26-2010
Date of (BZA) (BOS) Approval 9-11-2012
Sheet 11 of 11

NO.	DATE	DESCRIPTION	BY
3	6/2/12	REVISED PER WALKWAY ADDITION	
2	2/14/11	REVISED PER VDOT RECOMMENDATIONS	
1	10/10/10	REVISED PER STAFF RECOMMENDATION 9-27/10	

REVISION BLOCK

SCALE: VERT:1"=5' HOR: 1"=50'
DATE: 4/12/10
SHEET: 10 OF 10

JOB NO.:
DESIGN BY:
DRAWN BY:
CHECKED BY:

SIGHT DISTANCE PLAN AND PROFILE
LOT 18, SUGARLAND RUN
12218 LEESBURG PIKE

TAX MAP# 006-1-((1))-18

DISTRICT: DRANESVILLE

FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
PREM K. BHANDARI
Lic. No. 042402
6/12/2012
PROFESSIONAL ENGINEER

AMA ENGINEERS, LLC
4308 WAKEFIELD CHAPEL ROAD
ANNANDALE, VA-22003
TEL: 703-655-2151
amaengineers@yahoo.com