

GENERALIZED DEVELOPEMENT PLAN
SRSF INVESTMENTS, LLC

T.M. # 47-A-148
9134 COURTHOUSE ROAD
COURTLAND MAGISTERIAL DISTRICT, SPOTSYLVANIA COUNTY, VIRGINIA

OWNER/APPLICANT:

SRSF INVESTMENTS, LLC
C/O JENNIFER M. SIMMONS
10709 SPOTSYLVANIA AVENUE, SUITE 101B
FREDERICKSBURG, VA 22408
PHONE: (540) 710-7800

ENGINEER:



Freeland Engineering, PC
rfreeland@FreelandEngineeringPC.com
10814 Courthouse Road
Fredericksburg, Virginia 22408
Phone: 540.898.3092 Fax: 877.658.7735
www.FreelandEngineeringPC.com

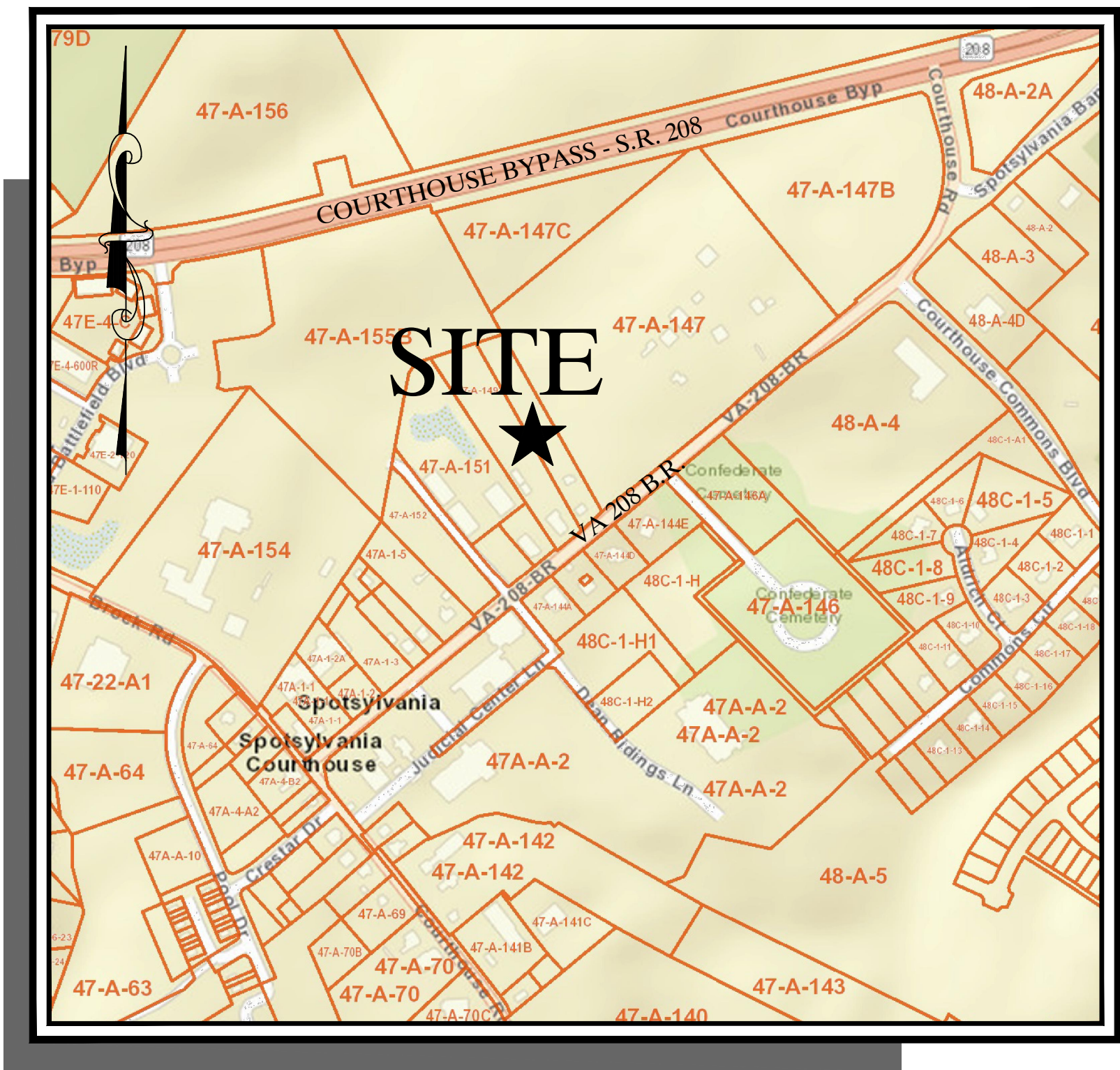
SHEET	DESCRIPTION
1	COVER SHEET
2	GENERALIZED DEVELOPMENT PLAN
3	NOTES

GENERAL NOTES

- THE PURPOSE OF THIS GENERALIZED DEVELOPMENT PLAN AND ACCOMPANYING APPLICATION IS TO REZONE THE SUBJECT PROPERTY TO THE MIXED USE (MU-4) ZONING DISTRICT. THE APPLICATION IS BASED ON OFFERING INTER-PARCEL CONNECTIVITY TO FUTURE DEVELOPMENT ON A NEIGHBORING PARCEL, A SIDEWALK ALONG THE ROAD FRONTAGE, ALONG WITH THE MIXED USE OF GENERAL OFFICE AND RESIDENTIAL ALL WITH RESPECT TO THE CHARACTER AESTHETICS OF ADJACENT PROPERTIES THAT FALL WITHIN THE HISTORICAL OVERLAY DISTRICT OF SPOTSYLVANIA COUNTY.
- NO TITLE REPORT FURNISHED.
- EASEMENTS NOT SHOWN MAY EXIST.
- THIS PLAN DEMONSTRATES THE PROPOSED IMPROVEMENTS AND USES ASSOCIATED WITH A GENERALIZED DEVELOPMENT PLAN.
- BOUNDARIES DERIVED FROM INSTRUMENT #: 200300029200 RECORDED IN SPOTSYLVANIA COUNTY ON JULY 22, 2003
- THE PROPOSED SITE IS CURRENTLY AND WILL REMAIN TO BE SERVED BY PUBLIC WATER AND SEWER MAINTAINED BY SPOTSYLVANIA COUNTY.
- THIS PLAN SHOWS A PRELIMINARY SWM/BMP FACILITY LOCATION. FINAL SITE PLAN SHALL SHOW A DESIGN COMPATIBLE WITH THE ACTUAL DEVELOPMENT OF THE SITE AND SHALL MEET THE STANDARDS FOR STORMWATER QUALITY AND QUANTITY CONTROL, ALONG WITH THE VIRGINIA RUNOFF REDUCTION REQUIREMENTS. IF REQUIRED, THE FINAL SITE PLAN FOR DEVELOPMENT SHALL INTEGRATE THE STORMWATER MANAGEMENT FACILITY AS AN AMENITY INTO THE LANDSCAPE PLAN AND OVERALL SITE DESIGN.

APPROVAL BLOCK

AGENT, SPOTSYLVANIA COUNTY BOARD OF SUPERVISORS DATE



VICINITY MAP
SCALE: 1"=2000'



WASTE STREAM CALCULATIONS

STEP 1:				
USE	FLOOR AREA (SQUARE FEET)	ANNUAL WASTE GENERATION RATE (TONS/SQ FT)	ANNUAL WASTE (TONS)	
OFFICE	1941 S.F.	x 0.0013	=	2.5233 TONS
STEP 2:				
COMBINED ANNUAL WASTE STREAM	CU. YDS./TON	NO. OF ANNUAL COLLECTIONS (MIN. 52)	NO. OF CONTAINERS (MIN. 2)	MIN SIZE OF EACH CONTAINER
2.5233	x 4.44	/ 52	/ 2	= 0.1077
STEP 3:				
CONTAINER TYPE	SIZE (CU. YDS)	NO. OF CONTAINERS	NO. OF PICKUPS	MATERIAL
CARTS		2	2	TRASH AND RECYCLE

SITE DATA:

OWNER/APPLICANT: SRSF INVESTMENTS, LLC
C/O JENNIFER M. SIMMONS
ADDRESS: 10709 SPOTSYLVANIA AVENUE, SUITE 101B
FREDERICKSBURG, VA 22408
PHONE: 540-710-7800
PLAN PREPARER: FREELAND ENGINEERING, PC
ADDRESS: 10814 COURTHOUSE ROAD
FREDERICKSBURG, VA 22553
OWNER: 540-898-3092
TAX MAP: 47-A-148
PARCEL AREA: 79,902 S.F. OR 1.8 AC.

CURRENT ZONING DISTRICT: RURAL DISTRICT 'RU'
PROPOSED ZONING DISTRICT: RESIDENTIAL MIXED USE 'MU-4'

AC/FORESTAL DISTRICT: NO
AIRPORT PROTECTION OVERLAY DISTRICT: NO
HISTORIC OVERLAY DISTRICT: NO
HIGHWAY CORRIDOR OVERLAY DISTRICT: NO
RESERVOIR PROTECTION OVERLAY DISTRICT: NO
RIVER PROTECTION OVERLAY DISTRICT: NO
KNOWN PLACES OF BURIAL ON-SITE: NO

CURRENT USE: RESIDENTIAL
PROPOSED USE: OFFICE AND RESIDENTIAL
SITE ADDRESS: 9134 COURTHOUSE ROAD
SPOTSYLVANIA, VA 22408

FLOODPLAIN ON SITE: N
FEMA FIRM #: 510308 0200C (DATED: 02/18/1998)
ZONE: 'X' AREA OF MINIMAL FLOOD HAZARD
WETLANDS ON SITE: N
SOURCE: GIS
PERMIT REQUIRED: N
RPA ON SITE: N

DENSITY CALCULATIONS:
COMMERCIAL FLOOR AREA RATIO (0.7 MAX): FLOOR AREA = 830.76 S.F. = 0.01
LOT AREA 79,902 S.F.
MAXIMUM BUILDING HEIGHT ALLOWABLE FOR BUSINESS: 4 STORIES
MAXIMUM BUILDING HEIGHT ALLOWABLE FOR RESIDENTIAL: 3 STORIES
EXISTING BUILDING HEIGHT (DETACHED RESIDENTIAL): 1 STORY
EXISTING BUILDING HEIGHT (OFFICE): 2 STORIES
PROPOSED BUILDING ADDITION HEIGHT: 1 STORY

BUILDING SETBACKS: FRONT - OFFICE = 0'
RESIDENTIAL = 10'
SIDE - OFFICE = 0'
RESIDENTIAL = 4'
REAR - OFFICE = 0'
RESIDENTIAL = 20'

PARKING REQUIREMENTS: RESIDENTIAL: 2 SPACES PER SINGLE FAMILY UNIT = 2
OFFICE: 1 SPACE PER 500 S.F. OF GROSS FLOOR AREA = 1,941 S.F. / 500 = 4

TOTAL PARKING REQUIRED: 6 SPACES (1 HANDICAPPED SPACE)
PARKING PROVIDED: 7 SPACES (1 HANDICAPPED SPACE)

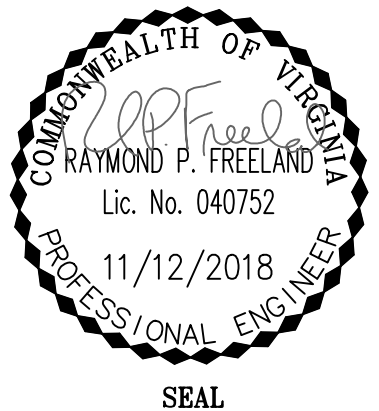
EXISTING AND PROPOSED IMPERVIOUS SURFACES: STRUCTURES = 3,435 S.F.
DRIVEWAY, S/W. = 4,019 S.F.
TOTAL IMP. AREA = 7,454 S.F.

IMPERVIOUS SURFACE RATIO: IMPERVIOUS AREA = 7,454 S.F. = 0.09%
TOTAL SITE AREA 79,902 S.F.

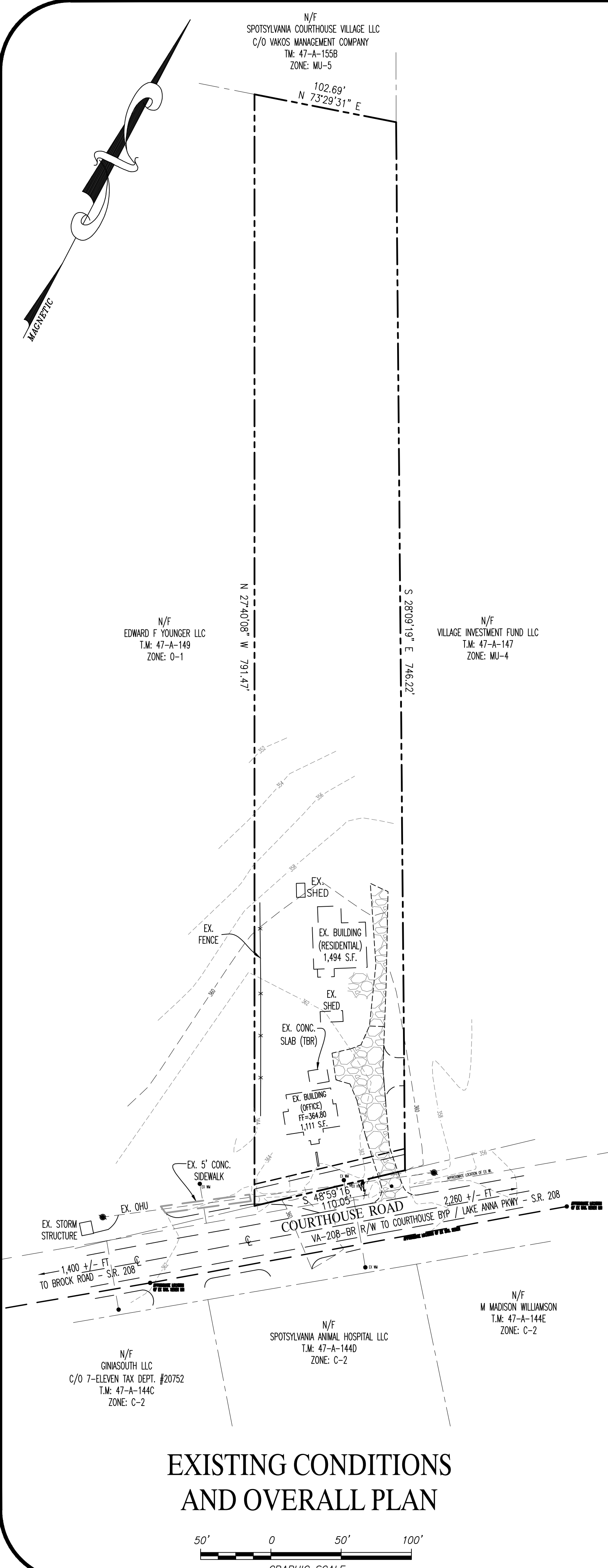
OPEN SPACE REQUIRED: 79,902 S.F. X 10% = 7,990 S.F. REQUIRED
OPEN SPACE PROVIDED: 72,448 S.F.



COVER SHEET
SRSF INVESTMENTS, LLC
9134 COURTHOUSE ROAD - T.M. 47-A-148
COURTLAND MAGISTERIAL DISTRICT
SPOTSYLVANIA COUNTY, VIRGINIA



County Plan Number: R18-0009
Drawn By: CAC
Designed By: RPF
Checked By: RPF
Date: 06/19/2018
Scale: N/A
Sheet: 1 of 3
PROJECT #: 4078



TRAFFIC DATA FOR ENTRANCE DESIGN:

TRAFFIC DATA: 88-613 BROOK ROAD TO BUS. VA 208 COURTHOUSE ROAD
AVG. DAILY TRAFFIC (AADT) = 15,000 VEHICLES PER DAY (2015, VDOT)
K FACTOR (K) = 0.0867
DIRECTION FACTOR (D) = 0.6250
PEAK HOUR VOLUME (PHV) = AADT x K x D = 813 VEHICLES PER HOUR

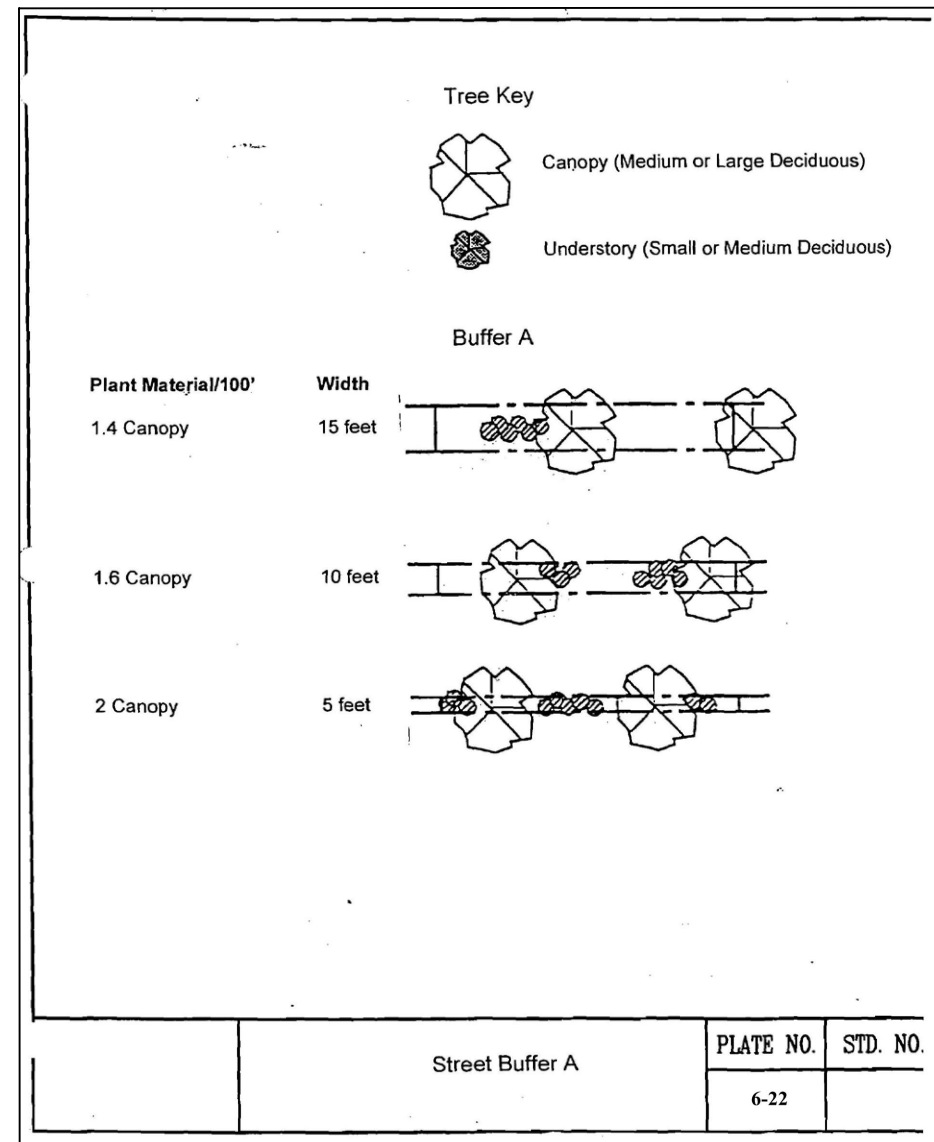
ITE TRIP GENERATION:
GENERAL OFFICE: 1.94 KSF² = 21 TOTAL GENERATED TRIPS DAILY
RESIDENTIAL: 1 DU = 10 TOTAL GENERATED TRIPS DAILY

PROPOSED ENTRANCE IS CLASSIFIED AS A "LOW VOLUME COMMERCIAL ENTRANCE"
(LESS THAN 50 TRIPS GENERATED). HOWEVER, HIGHWAY VPD EXCEEDS MODERATE VOLUME COMMERCIAL ENTRANCE DESIGN.

NO TURN LANES OR TAPER REQUIRED PER VDOT FIGURE 3-26, APPENDIX F.

LANDSCAPE BUFFER, & SCREENING:

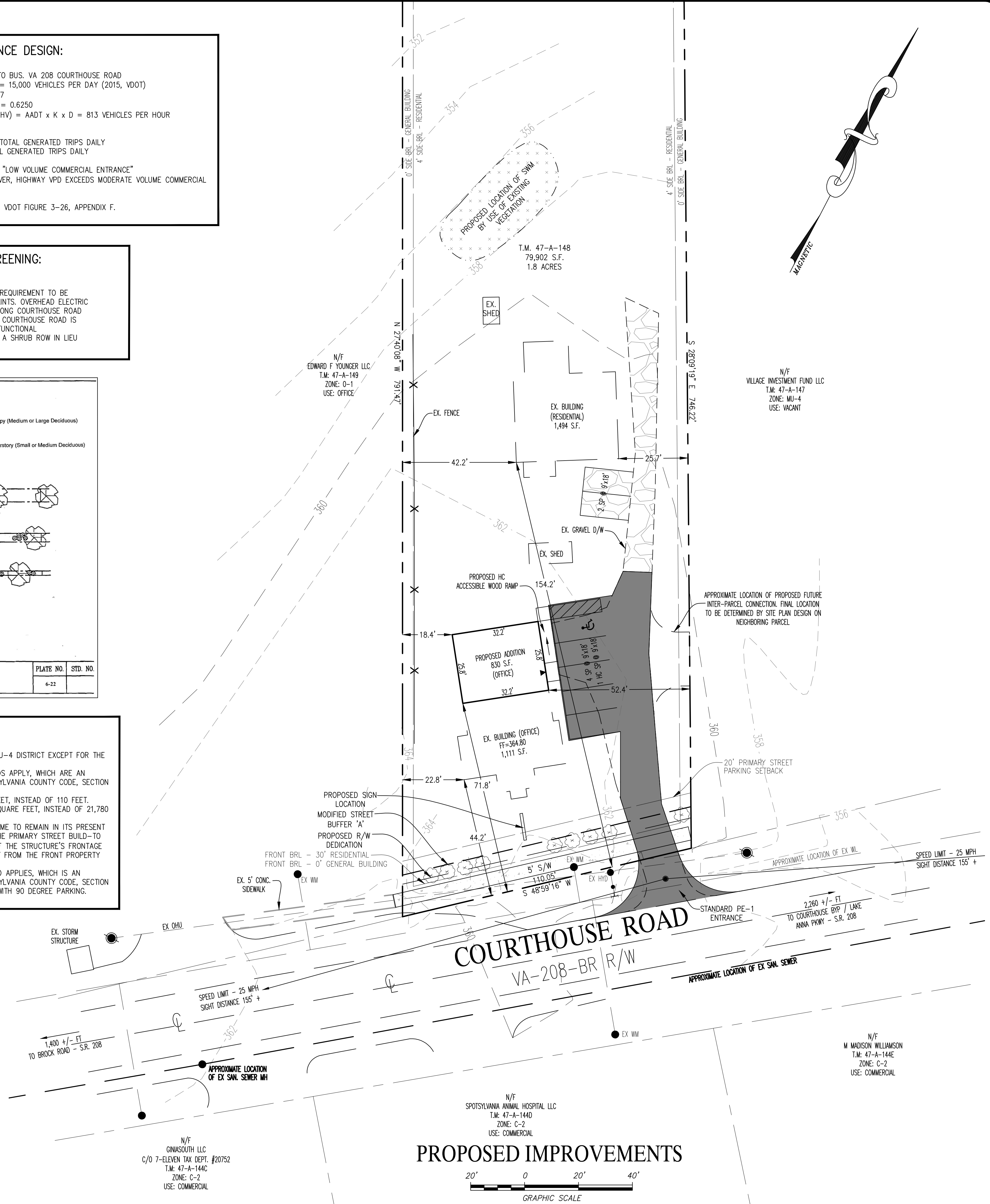
STREET BUFFER A:
APPLICANT REQUESTS THE STREET BUFFER REQUIREMENT TO BE
WAIVED OR MODIFIED DUE TO SITE CONSTRAINTS. OVERHEAD ELECTRIC
LINES AND AVAILABLE LANDSCAPE AREA ALONG COURTHOUSE ROAD
RESTRICT STANDARD BUFFER REQUIREMENT. COURTHOUSE ROAD IS
CONSIDERED A COLLECTOR PER THE VDOT FUNCTIONAL
CLASSIFICATION MAP. APPLICANT SUGGESTS A SHRUB ROW IN LIEU
OF CANOPY AND UNDERSTORY PLANTINGS.



ALTERNATIVE DEVELOPMENT STANDARDS:

THE PROPERTY WILL BE DEVELOPED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MU-4 DISTRICT EXCEPT FOR THE FOLLOWING:

- THE FOLLOWING DEVELOPMENT STANDARDS APPLY, WHICH ARE AN ALTERNATIVE TO WHAT IS FOUND IN SPOTSYLVANIA COUNTY CODE, SECTION 23-6.26.4.E, TO:
 - ALLOW A LOT WIDTH OF 110.05 FEET, INSTEAD OF 110 FEET.
 - ALLOW A LOT AREA OF 79,902 SQUARE FEET, INSTEAD OF 21,780 SQUARE FEET.
 - ALLOW AN EXISTING DETACHED HOME TO REMAIN IN ITS PRESENT LOCATION, WHICH DOES NOT MEET THE PRIMARY STREET BUILD-TO-ZONE REQUIREMENT TO HAVE 70% OF THE STRUCTURE'S FRONTAGE WITHIN A SETBACK OF 5 TO 45 FEET FROM THE FRONT PROPERTY LINE.
- THE FOLLOWING DEVELOPMENT STANDARD APPLIES, WHICH IS AN ALTERNATIVE TO WHAT IS FOUND IN SPOTSYLVANIA COUNTY CODE, SECTION 23-6.26.7.G, TO ALLOW PARKING ACCESS WITH 90 DEGREE PARKING.



REVISION
REVISED PER COUNTY COMMENTS
REVISED TO REMOVE AN INTER-PARCEL
CONNECTOR

DATE
11/12/2018
05/10/2019

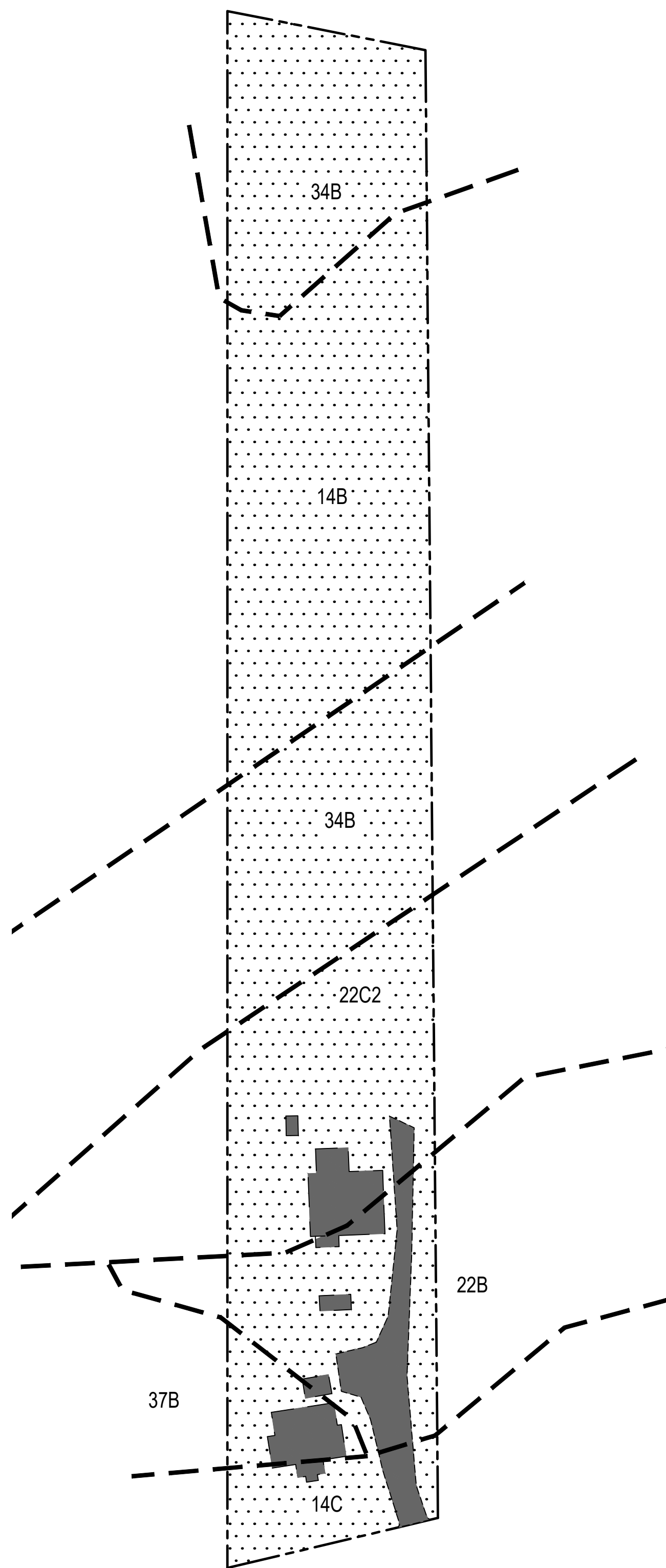
Freeland Engineering, PC
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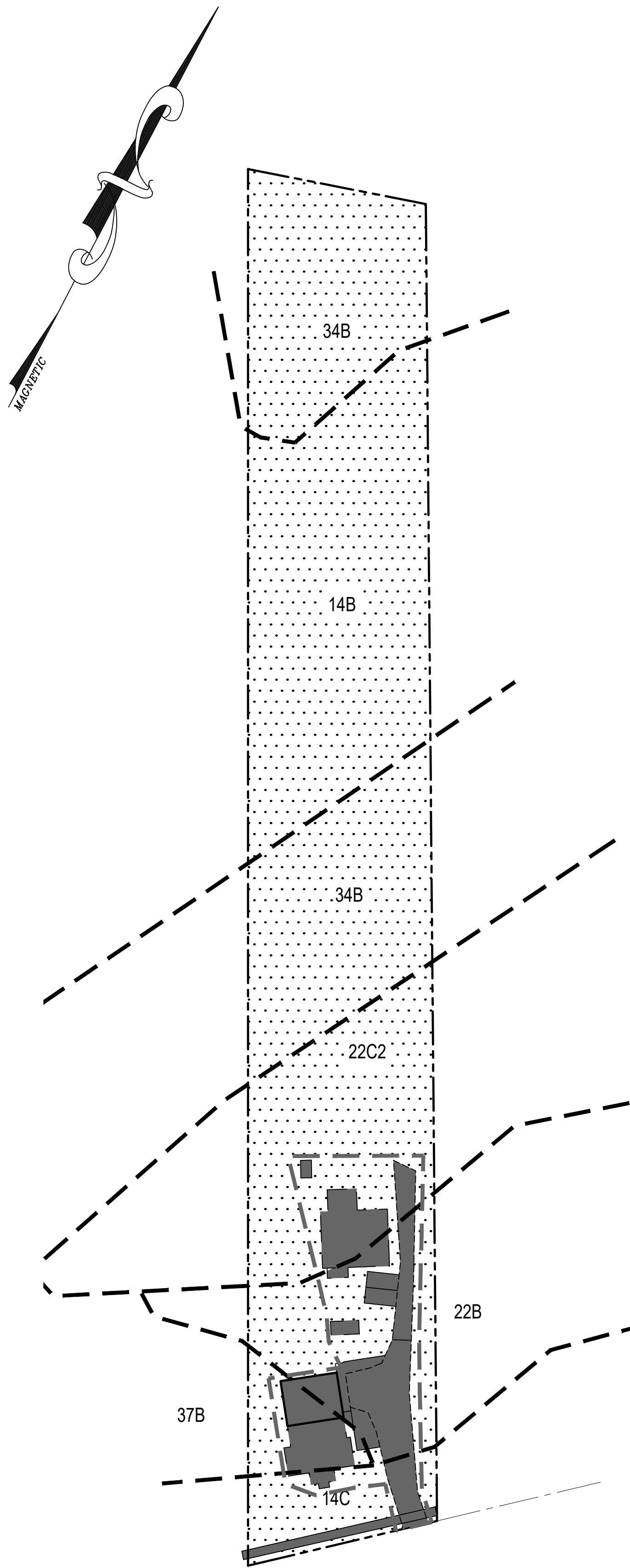
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PRE-DEVELOPMENT CONDITIONS



POST-DEVELOPMENT CONDITIONS

NOTE: THE VRRM SPREADSHEET IS APPROXIMATE IN NATURE AND IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. FINAL SWM AND BMP CALCULATIONS WILL BE PROVIDED WITH FINAL CONSTRUCTION PLANS.

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0

2011 BMP Standards and Specifications

2013 Draft BMP Standards and Specifications

Project Name: SRSF Investments, LLC

Date: 10/19/2018

Linear Development Project? No

CLEAR ALL (Ctrl+Shift+R)

data input cells

constant values

calculation cells

final results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → 0.30

Maximum reduction required: 10%

The site's net increase in impervious cover (acres) is: 0.04

Post-Development TP Load Reduction for Site (lb/yr): -0.19

Check: BMP Design Specifications List: 2013 Draft Stds & Specs

Linear project? No

Land cover areas entered correctly? ✓

Total disturbed area entered? ✓

TP LOAD REDUCTION NOT REQUIRED

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed forest/open space		1.22	0.31		1.53
Managed Turf (acres) -- disturbed, graded for yards or other turf to be		0.10	0.06		0.16
Impervious Cover (acres)		0.08	0.06		0.14
					1.83

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested		1.22	0.30		1.52
Managed Turf (acres) -- disturbed, graded for yards or other turf to be		0.07	0.06		0.13
Impervious Cover (acres)		0.11	0.07		0.18
Area Check	OK.	OK.	OK.	OK.	1.83

* Forest/Open Space areas must be protected in accordance with the Virginia Runoff Reduction Method

Constants

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
Pj (unitless correction factor)	0.90

Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

LAND COVER SUMMARY – PRE-REDEVELOPMENT

Land Cover Summary-Pre		
Pre-ReDevelopment	Listed	Adjusted ¹
Forest/Open Space Cover (acres)	1.53	1.52
Weighted Rv(forest)	0.03	0.03
% Forest	84%	85%
Managed Turf Cover (acres)	0.16	0.13
Weighted Rv(turf)	0.21	0.21
% Managed Turf	9%	7%
Impervious Cover (acres)	0.14	0.14
Rv(impervious)	0.95	0.95
% Impervious	8%	8%
Total Site Area (acres)	1.83	1.79
Site Rv	0.12	0.12

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0179	0.0174
Pre-ReDevelopment Treatment Volume (cubic feet)	781	758
Pre-ReDevelopment TP Load (lb/yr)	0.49	0.48
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	0.27	0.27
Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		0.73

LAND COVER SUMMARY – POST DEVELOPMENT

Land Cover Summary-Post (Final)		
Post-ReDev. & New Impervious	Land Cover Summary-Post	Land Cover Summary-Post
	Post-ReDevelopment	Post-Development New Impervious
Forest/Open Space Cover (acres)	1.52	
Weighted Rv(forest)	0.03	
% Forest	83%	85%
Managed Turf Cover (acres)	0.13	
Weighted Rv (turf)	0.21	
% Managed Turf	7%	
ReDev. Impervious Cover (acres)	0.14	New Impervious Cover (acres) 0.04
Rv(impervious)	0.95	Rv(impervious) 0.95
% Impervious	10%	
Final Site Area (acres)	1.83	
Final Post Dev Site Rv	0.13	

Treatment Volume and Nutrient Load

Final Post-Development Treatment Volume (acre-ft)	0.0206	Post-Development Treatment Volume (acre-ft) 0.0032
Final Post-Development Treatment Volume (cubic feet)	896	Post-Development Treatment Volume (cubic feet) 138
Final Post-Development TP Load (lb/yr)	0.56	Post-Development TP Load (lb/yr) 0.09
Final Post-Development TP Load per acre (lb/acre/yr)	0.31	
		Max. Reduction Required (Below Pre-ReDevelopment Load) 10%
		TP Load Reduction Required for Redeveloped Area (lb/yr) -0.26
		TP Load Reduction Required for New Impervious Area (lb/yr) 0.07

* Reduction below new development load limitation not required

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	-0.19	** TP LOAD REDUCTION NOT REQUIRED
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Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	3.51	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr) 4.03
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NOTES AND DETAILS

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