



APPLICATION ACCEPTED: August 12, 2014
PLANNING COMMISSION: March 4, 2015
BOARD OF SUPERVISORS: TBD

County of Fairfax, Virginia

February 17, 2015

STAFF REPORT

SE 2014-DR-052

DRANESVILLE DISTRICT

APPLICANT: Trinity Land, LLC

ZONING: R-1, HD

LOCATION: 11801 Leesburg Pike

PARCEL(S): 6-3 ((1)) 33, 33A

ACREAGE: 28.93 ac

DENSITY: 1.0 du/ac

OPEN SPACE: 31.1%

PLAN MAP: Residential, .2-.5 du/ac

SE CATEGORY: Category 6 – Cluster subdivisions

PROPOSAL: The applicant seeks a Special Exception for a cluster subdivision to permit the development of 30 single-family detached units.

STAFF RECOMMENDATIONS:

Staff recommends approval of SE 2014-DR-052, subject to development conditions consistent with those contained in Appendix 1.

Michael D. Van Atta

Staff recommends approval of a waiver of the service drive requirement along Leesburg Pike per Par. 3(A) of Sect. 17-201 of the Zoning Ordinance.

It should be noted that it is not the intent of staff to recommend that the Board, in imposing any conditions, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

The approval of this Special Exception does not interfere with, abrogate or annul any easement, covenants, or other agreements between parties, as they may apply to the property subject to this application.

For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.

O:\mvanat\Applications\SE 2014-DR-052 Trinity Land LLC\Staff Report\Staff Report Assembly



Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

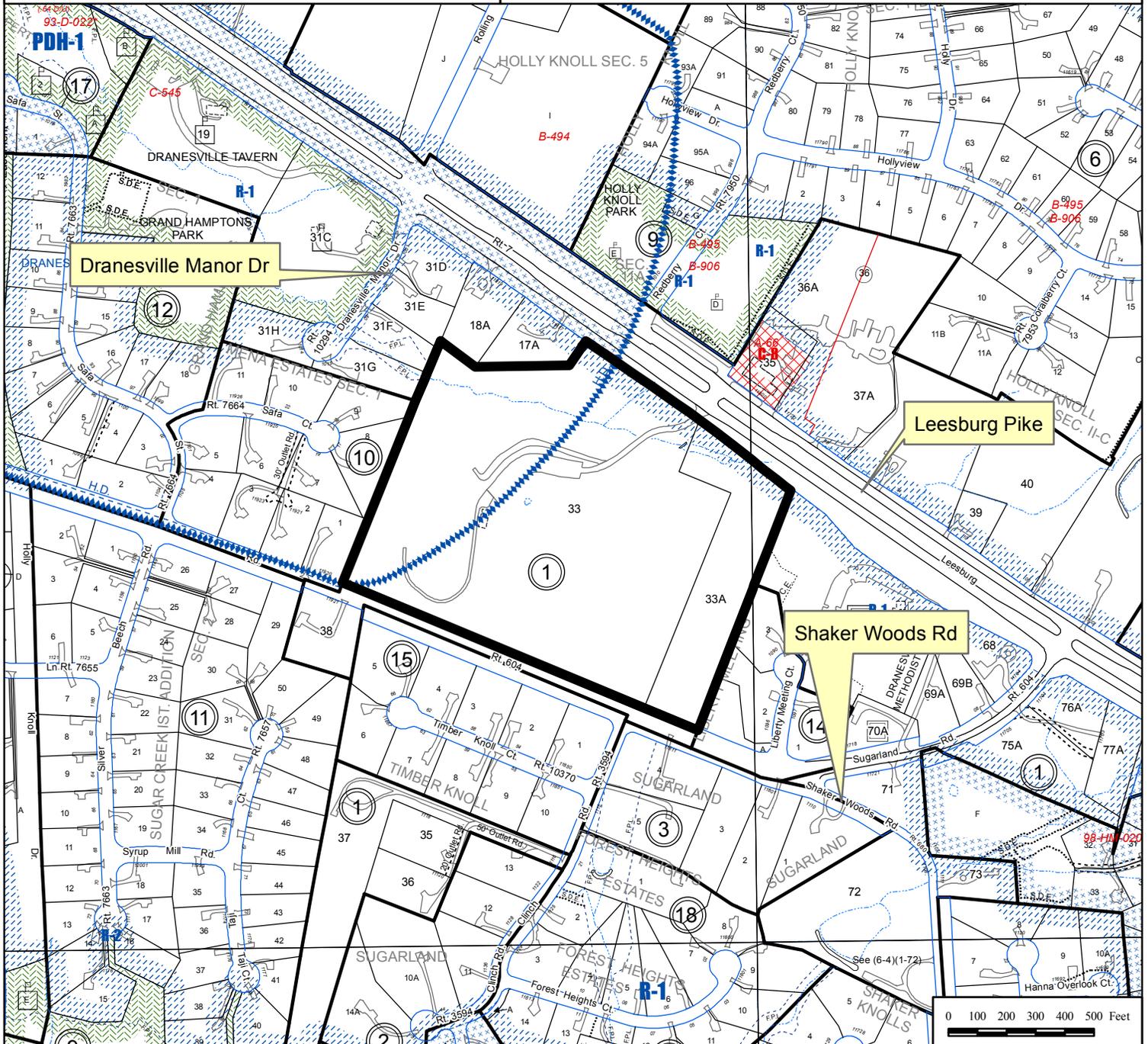
Special Exception

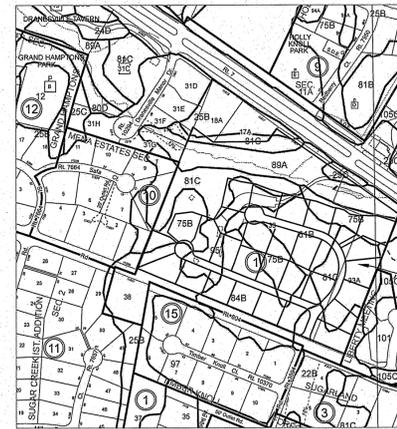
SE 2014-DR-052



Applicant: TRINITY LAND LLC
Accepted: 08/12/2014
Proposed: RESIDENTIAL CLUSTER SUBDIVISION
Area: 28.94 AC OF LAND; DISTRICT - DRANESVILLE

Zoning Dist Sect: 09-0615
Located: 11801 LEESBURG PIKE, HERNDON, VA 20170
Zoning: R-1
Plan Area: 3,
Overlay Dist: HD
Map Ref Num: 006-3- /01/ /0033 /01/ /0033A





SITE

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
22	CHANTILLY-MANASSAS COMPLEX	MARGINAL	POOR	MEDIUM	IVB
25	CHANTILLY-PENN COMPLEX	GOOD	FAIR	MEDIUM	IVB
75	MANASSAS SILT LOAM	MARGINAL	POOR	MEDIUM	II
81	OATLANDS LOAM	GOOD	FAIR	LOW	I
84	PANORAMA LOAM	GOOD	FAIR	MEDIUM	I
89	ROWLAND SILT LOAM	POOR	POOR	LOW	III
95	URBAN LAND	N/A	N/A	N/A	IVB

SUMMERHOUSE LANDING

SE # 2014-DR-052

SPECIAL EXCEPTION PLAN

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
JUNE 26, 2014
REVISED NOVEMBER 17, 2014
REVISED DECEMBER 23, 2014
REVISED FEBRUARY 2, 2015
REVISED FEBRUARY 11, 2015

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAY

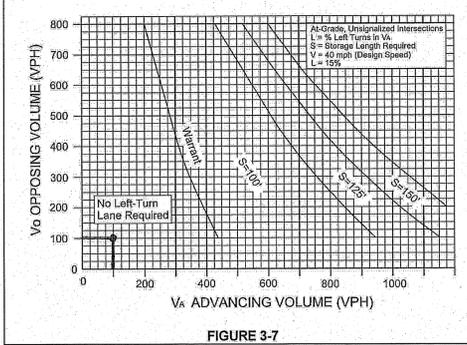
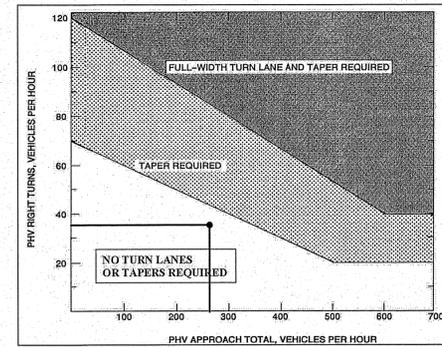


FIGURE 3-7

LEFT TURN LANES ARE NOT REQUIRED FOR THIS PROJECT, PER VDOT ROAD AND BRIDGE MANUAL APPENDIX F, SECTION 3, FIGURE 3-7. PER VIRGINIA ROADS TRAFFIC VOLUME RECORDS, THE EXISTING ADT = 2400 WHICH IS EQUIVALENT TO 100 VPH. PER VDOT REGULATIONS, THE TRIP GENERATION FOR A SINGLE-FAMILY DETACHED RESIDENTIAL DWELLING UNIT IS 10 VEHICLE TRIPS PER DAY. THIS EQUATES TO 12.5, OR 13, VPH FOR THE PROPOSED SUBDIVISION (30 DWELLINGS * 10 TRIPS/DAY/DWELLING = 300 TRIPS/DAY, 300 TRIPS/DAY / 24 HRS/DAY = 12.5 TRIPS/HR OR 13 VPH). 13 VPH IS APPROXIMATELY 13% OF THE TURNS ALONG SUGARLAND ROAD. USING THE APPLICABLE TABLE ABOVE, THIS YIELDS NO LEFT TURN LANES FOR THE PROPOSED PROJECT.



RIGHT TURN LANES ARE NOT REQUIRED FOR THIS PROJECT, PER VDOT ROAD AND BRIDGE MANUAL APPENDIX F, SECTION 3, FIGURE 3-26. TO DETERMINE IF RIGHT TURN LANES ARE REQUIRED, THE PEAK HOUR VOLUME (PHV) MUST BE CALCULATED.

PHV = ADT * K * D
WHERE: ADT = AVERAGE DAILY TRAFFIC
K = THE % OF ADT OCCURRING IN THE PEAK HOUR
D = THE % OF TRAFFIC IN THE PEAK DIRECTION OF FLOW

PER VIRGINIA ROADS TRAFFIC VOLUME RECORDS, THE EXISTING ADT = 2400. PER THIS REFERENCED SECTION, AN AVERAGE OF 11% FOR K * D WILL SUFFICE IF THE INFORMATION IS UNAVAILABLE.

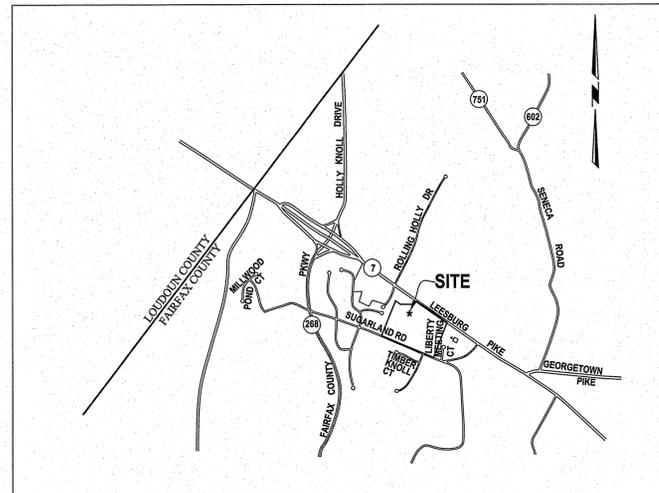
PHV = 2400 * 0.11 = 264. THIS VALUE IS THE PHV APPROACH TOTAL (THE NUMBER OF VEHICLES ALONG SUGARLAND ROAD DURING THE PEAK HOUR).

AS SHOWN IN THE CALCULATIONS FOR THE LEFT TURN ANALYSIS, 13 VPH IS APPROXIMATELY 13% OF THE TURNS ALONG SUGARLAND ROAD. IF 13% OF THE PHV APPROACH TOTAL IS DETERMINED, THIS YIELDS APPROXIMATELY 35 PHV OF RIGHT TURNS.

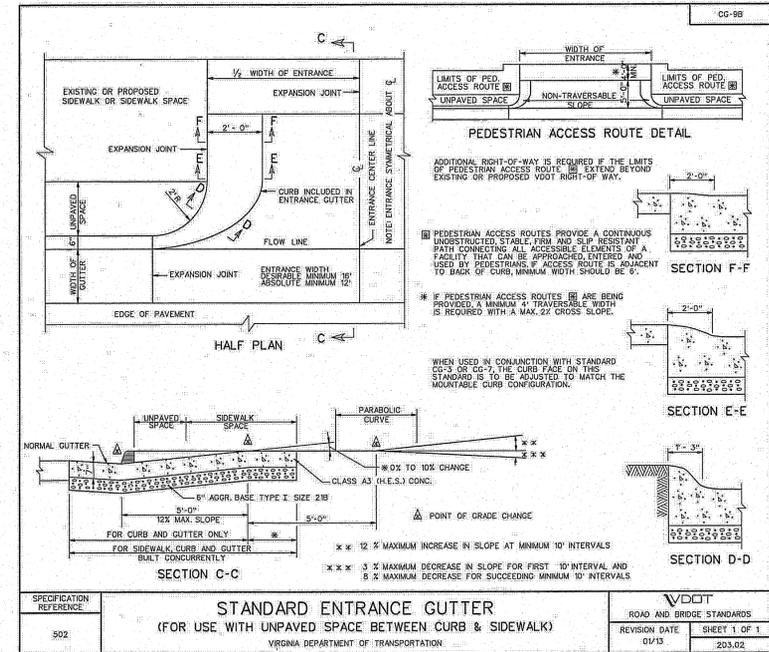
GIVEN A PHV RIGHT TURNS VALUE OF 35 AND A PHV APPROACH TOTAL OF 264, USING THE APPLICABLE TABLE ABOVE, THIS YIELDS NO RIGHT TURN LANES FOR THE PROPOSED PROJECT.

VICINITY MAP

SCALE: 1"=2000'



MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
6-3	1		33-33A



STANDARD ENTRANCE GUTTER (FOR USE WITH UNPAVED SPACE BETWEEN CURB & SIDEWALK) VDOT ROAD AND BRIDGE STANDARDS

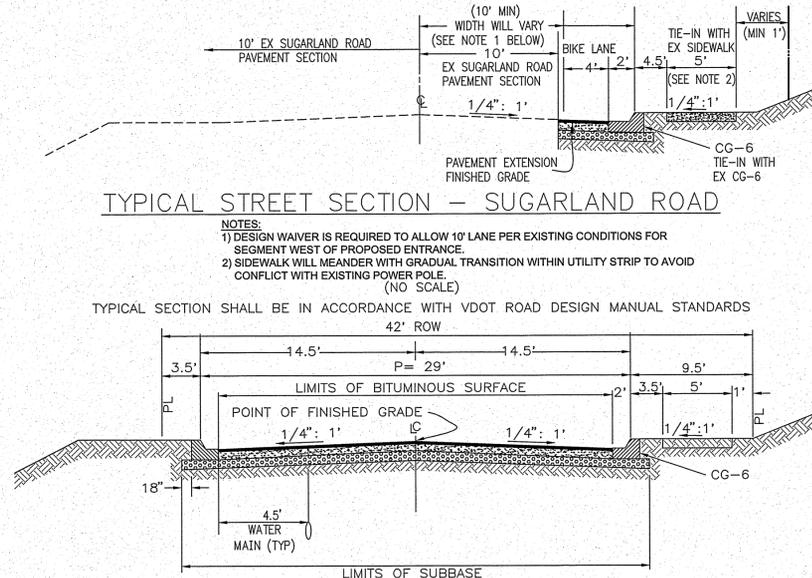
- NOTES:
1) BOX SHOWN FOR HOUSE IS COMPOSITE OF SEVERAL HOUSES. FINAL HOUSE FOOTPRINT AND LOCATION IS LIKELY TO FREE UP SPACE IN THE "REAR" YARD FOR ACCESSORY USES AND DECK.
2) DECK WITH NO PART OF ITS FLOOR HIGHER THAN 4" ABOVE FINISHED GROUND LEVEL MAY EXTEND 8' INTO FRONT YARD, 5' INTO SIDE YARD, AND 20' INTO REAR YARD. AN OPEN DECK WITH ANY PART OF ITS FLOOR HIGHER THAN 4" ABOVE GROUND LEVEL MAY EXTEND 12' INTO THE REAR YARD.

APPLICANT
TRINITY LAND LLC
1152 RIVA RIDGE DRIVE
GREAT FALLS, VA 22066
703-720-8093

ENGINEER
PACIULLI SIMMONS & ASSOCIATES
3975 FAIR RIDGE DRIVE
SUITE 300 SOUTH
FAIRFAX, VIRGINIA 22030
703-934-0900

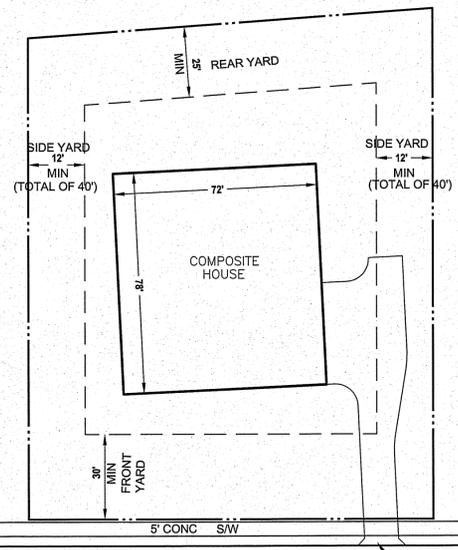
ATTORNEY
HOLLAND & KNIGHT
1600 TYSONS BOULEVARD, SUITE 700
TYSONS CORNER, VA 22102
703-720-8093

TYPICAL STREET SECTION - SUGARLAND ROAD



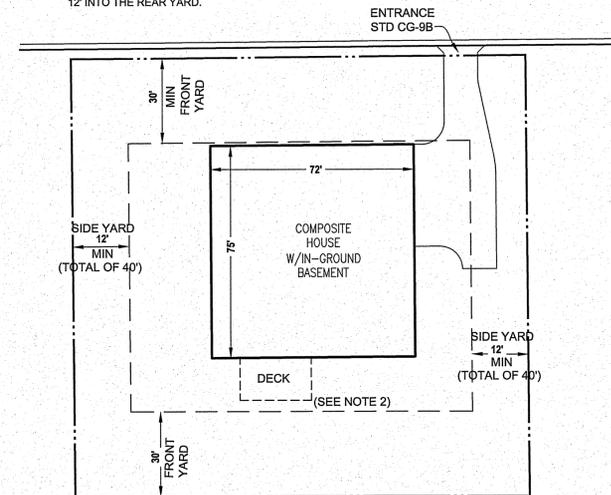
TYPICAL STREET SECTION (NO SCALE)

TYPICAL SECTION SHALL BE IN ACCORDANCE WITH VDOT ROAD DESIGN MANUAL STANDARDS
NOTE 1: PER PRELIMINARY DESIGN (CBR=10) 2" SM-9.5A TOP COURSE, 6" 21-A BASE
2: SIDEWALK ONE SIDE OF THE STREET (SIDE VARIES)



TYPICAL LOT LAYOUT

SCALE: 1"=30'



TYPICAL LOT LAYOUT (REVERSE FRONTAGE)
SCALE: 1"=30'

Sheet List Table

Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS - DEMOLITION
3	SPECIAL EXCEPTION PLAN
4	STORM WATER MANAGEMENT
5	RUNOFF REDUCTION METHOD
5A	RUNOFF REDUCTION METHOD
6	EXISTING VEGETATION MAP
7	LANDSCAPE PLAN
8	LANDSCAPE NOTES AND DETAILS
9	CORRESPONDENCE AND DETAILS
10	CONCEPTUAL ELEVATIONS

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Surveyors
Landscape Architects
Wetland Specialists
Environmental Scientists
Archaeologists



IMPROVEMENTS SHOWN AS EXISTING FOR ONGOING VDOT PROJECT NO. 0007-029-128, P101, R201, C501. APPLICANT WILL CONTINUE TO WORK WITH VDOT REGARDING CLOSURE OR ELIMINATION OF RIGHT TURN LANES AND TAPERS, SIGNALIZATION TIMING, GUARD RAIL, ETC.

APPLICANT WILL BE REQUIRED TO EVALUATE AND INSTALL NEW GUARD RAIL AND END TREATMENTS AS PER VDOT STANDARDS AS APPLICABLE, AND TO CONSTRUCT AFFECTED SEGMENTS OF SHARED USE PATH. SUBDIVISION PLAN WILL PROVIDE FOR DETAILS OF GUARD RAIL CONSTRUCTION.

EXISTING DAM TO BE REMOVED AND CHANNEL RESTORED.

EXISTING ACCESS ROAD AND IMPROVEMENTS SHALL BE REMOVED FROM RPA. CHANNEL SHALL BE RESTORED.

ALL EXISTING STRUCTURES AND SIGNS ARE TO BE REMOVED

PACIULLI

SIMMONS & ASSOCIATES
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Planners
Surveyors
Landscape Architects
Wetland Specialists
Environmental Scientists
Archaeologists

SUMMERHOUSE LANDING

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

**EXISTING CONDITIONS -
DEMOLITION**

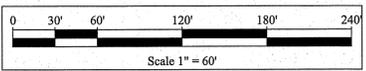
COMMONWEALTH OF VIRGINIA

Ann O. Germain
ANN O. GERMAIN
Lic. No. 028700
2/11/15

PROFESSIONAL ENGINEER

DATE: 8/4/14
FILE NO: F4642
DRN: LC
CKD: AOG

SHEET 2 OF 10



1. THE PROPERTY IS LOCATED ON TAX MAP 6-3-001-33&33A AND IS ZONED R-1. A SPECIAL EXCEPTION IS REQUESTED FOR A CLUSTER DEVELOPMENT.
2. OWNER:
TRINITY LAND, LLC.
1152 RIVA RIDGE DR
GREAT FALLS, VA 22066
3. BOUNDARY IS FROM RECORDS AND REFLECTS PREVIOUS ROAD DEDICATIONS. TITLE REPORT SHOWS EASEMENT DEDICATION TO C&P TELEPHONE, VIRGINIA PUBLIC SERVICE COMPANY, COMMONWEALTH OF VIRGINIA, VEPCO, WASHINGTON GAS & LIGHT COMPANY, FAIRFAX COUNTY BOARD OF SUPERVISORS AND WELL DEDICATION. THIS PLAT IS SUBJECT TO RESTRICTIONS OF RECORD.
4. THIS PROPERTY IS SERVED BY PUBLIC WATER AND SEWER.
5. TOPOGRAPHY SHOWN HEREON IS BASED ON AN AIR SURVEY IN MAY OF 2014, AND SUPPLEMENTED WITH FIELD SHOT INFORMATION BY PSA.
6. THE MAXIMUM PERMITTED HEIGHT IS 35 FEET FOR SINGLE FAMILY DWELLINGS.
7. DEVELOPMENT OF THIS SITE REQUIRES A GEOTECHNICAL ENGINEERING STUDY IN ACCORDANCE WITH THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL.
8. THERE IS NO KNOWN VISIBLE EVIDENCE OF A GRAVE, OBJECT OR STRUCTURE MARKING A PLACE OF BURIAL ON THIS SITE.
9. NO CONSTRUCTION OR LAND DISTURBANCE ACTIVITY SHALL TAKE PLACE IN A RESOURCE PROTECTION AREA EXCEPT THE REMOVAL OF THE EXISTING ROADWAY AND ASSOCIATED STORM DRAINAGE PIPE AND STRUCTURES, REMOVAL OF WOODEN/EARTHEN EMBANKMENT STREAM OBSTRUCTION, REMOVAL OF INVASIVE SPECIES, AND REFORESTATION OF DISTURBED AREAS.
10. A FLOODPLAIN STUDY WILL BE PERFORMED. THE 100 YEAR WATER SURFACE ELEVATION IS SHOWN TO REFLECT THE REMOVAL OF THE EXISTING ROAD WAY AND CULVERT, AND THE EXISTING UPSTREAM WOODEN/EARTHEN EMBANKMENT.
11. ALL EXISTING BUILDINGS, ROADWAYS AND PARKING ON SITE WILL BE DEMOLISHED.
12. ADVANCED DENSITY CREDIT SHALL BE RESERVED FOR ALL DEDICATIONS DESCRIBED HERE, OR AS MAY BE REQUIRED BY FAIRFAX COUNTY OR VDOT AT THE TIME OF SITE PLAN APPROVAL.
13. NEW ENTRANCE SIGNAGE AND LOCATION WILL BE IN CONFORMANCE WITH ARTICLE 12 OF THE ZONING ORDINANCE.
14. PER COMPREHENSIVE PLAN, THERE IS NO WIDENING OF LEESBURG PIKE OR SUGARLAND ROAD SHOWN FOR FUTURE DEVELOPMENT; CURRENT RIGHT-OF-WAY IS ADEQUATE. LEESBURG PIKE IS UNDER CONSTRUCTION PER VDOT PROJECT NO. 0007-029-128, P101,R201,C501, "ROUTE 7 (LEESBURG PIKE) WIDENING FROM ROLLING HOLLY DRIVE TO RESTON AVENUE."
15. THERE ARE NO EXISTING UTILITY EASEMENTS HAVING A WIDTH OF 25FT OR MORE
16. ALL LOTS SHALL BE ACCESSED FROM THE PROPOSED SUBDIVISION STREET.
17. TREE PRESERVATION AND CANOPY REQUIREMENTS WILL BE MET AT FINAL SITE PLAN.
18. THIS DEVELOPMENT CONFORMS TO PROVISIONS OF ALL APPLICABLE ORDINANCES.
19. THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES ON SITE.
20. DRIVEWAY AND HOUSE LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND SUBJECT TO CHANGE WITH FINAL ENGINEERING.
21. THE PROPOSED PROJECT SCHEDULE WILL BE BASED ON MARKET DEMAND.
22. A DRY POND LOCATED IN THE NORTH WESTERN PORTION OF THE SITE SHALL PROVIDE STORMWATER MANAGEMENT FOR WATER QUANTITY. WATER QUALITY REQUIREMENTS ARE PROPOSED TO BE MET BY COMBINATION OF ROOF TOP DISCONNECTION, RAIN GARDENS AND / OR OTHER ACCEPTABLE BMP METHODS.
23. THE COMPREHENSIVE TRAILS PLAN CALLS FOR A MINOR PAVED TRAIL (ASPHALT OR CONCRETE) FROM 4' TO 7' 11" IN WIDTH ALONG SUGARLAND ROAD. A 5' CONCRETE SIDEWALK IS PROPOSED TO SATISFY THE REQUIREMENT.
24. THE APPLICANT REQUESTS A WAIVER OF THE SERVICE DRIVE REQUIREMENT ALONG ROUTE 7.
25. A VDOT SSAR EXCEPTION FOR MULTIPLE STREET CONNECTIONS HAS BEEN APPROVED.
26. A PRELIMINARY NOISE STUDY IS PROVIDED.
27. A GATHERING AREA, SUCH AS A PAVILION OR GAZEBO, WILL BE PROVIDED AS A COMMUNITY AMENITY. THE AMENITY WILL BE LOCATED IN THE OPEN SPACE BY THE BIORETENTION BMPs.

SITE TABULATIONS:

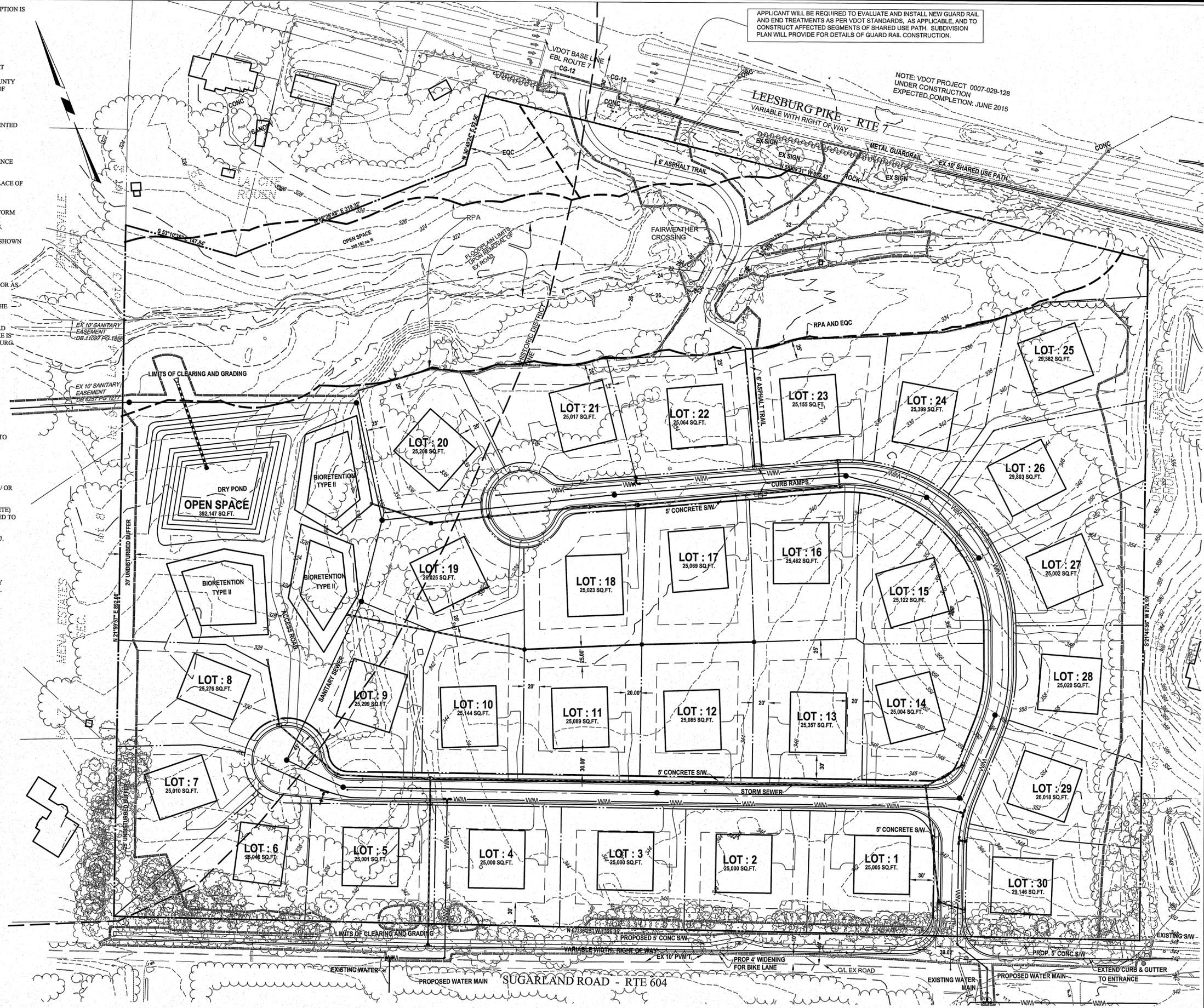
SITE AREA:	4.689 ACRES	(204,244 SF)
PARCEL 33A	24.235 ACRES	(1,055,687 SF)
PARCEL 33	28.924 ACRES	(1,259,931 SF)
SUBTOTAL	1.107 ACRES	(30,031 ACRES)
RESERVED DENSITY CREDIT		
TOTAL AREA		
EXISTING ZONING:	R-1	
PROPOSED ZONING:	SE REQUEST FOR CLUSTER DEVELOPMENT	
MAXIMUM DENSITY PERMITTED ⁽¹⁾	1.1 DU/AC	
PROPOSED DENSITY:	1.00 DU/AC	
MAXIMUM LOTS PERMITTED ⁽¹⁾	33	
PROPOSED LOTS:	30	
MAXIMUM BUILDING HEIGHT:	35'	
YARD REQUIREMENTS:		
FRONT YARD	30'	
SIDE YARD	12' (40' TOTAL)	
REAR YARD	25'	
MINIMUM LOT WIDTH INTERIOR	NO REQUIREMENT	
MINIMUM LOT WIDTH CORNER	125'	
MINIMUM LOT AREA REQUIRED:	25,000 SF	
MINIMUM LOT AREA PROVIDED:	25,000 SF	
AVERAGE LOT AREA REQUIRED:	NONE	
AVERAGE LOT AREA PROVIDED:	25,688 SF	
OPEN SPACE REQUIRED (30%):	30 X 28,924 = 8,677 ACRES (377,980 SF)	
OPEN SPACE PROVIDED:	9,002 ACRES (392,147 SF)	
	9,002 / 28,924 = 31.1%	

PARKING REQUIRED: 60 (2 SPACES/DU)
PARKING PROVIDED: 120 (4 SPACES/DU), NOT INCLUDING ON STREET PARKING

(1) PURSUANT TO ZONING SECTION 2-308.42, MAXIMUM DENSITY PERMITTED IS CALCULATED ON GROSS AREA EXCEPT WHEN 30% OF MORE OF A SITE IS COMPRISED OF: 1) FLOODPLAINS AND SLOPES >15%; 2) QUARRIES; 3) MARINE CLAYS; AND 4) EXISTING BODIES OF WATER.

THE SITE CONTAINS:

FLOODPLAINS	1.81 ACRES
SLOPE >15%	0.49 ACRES
QUARRIES	0 ACRES
MARINE CLAYS	0 ACRES
BODIES OF WATER	0 ACRES
TOTAL	2.30 ACRES (7.95% OF SITE) < 30%
NO REDUCTION REQUIRED	



APPLICANT WILL BE REQUIRED TO EVALUATE AND INSTALL NEW GUARD RAIL AND END TREATMENTS AS PER VDOT STANDARDS, AS APPLICABLE, AND TO CONSTRUCT AFFECTED SEGMENTS OF SHARED USE PATH. SUBDIVISION PLAN WILL PROVIDE FOR DETAILS OF GUARD RAIL CONSTRUCTION.

NOTE: VDOT PROJECT 0007-029-128 UNDER CONSTRUCTION EXPECTED COMPLETION: JUNE 2015

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SUMMERHOUSE LANDING

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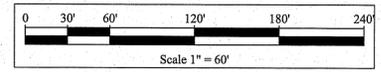
SPECIAL EXCEPTION PLAT

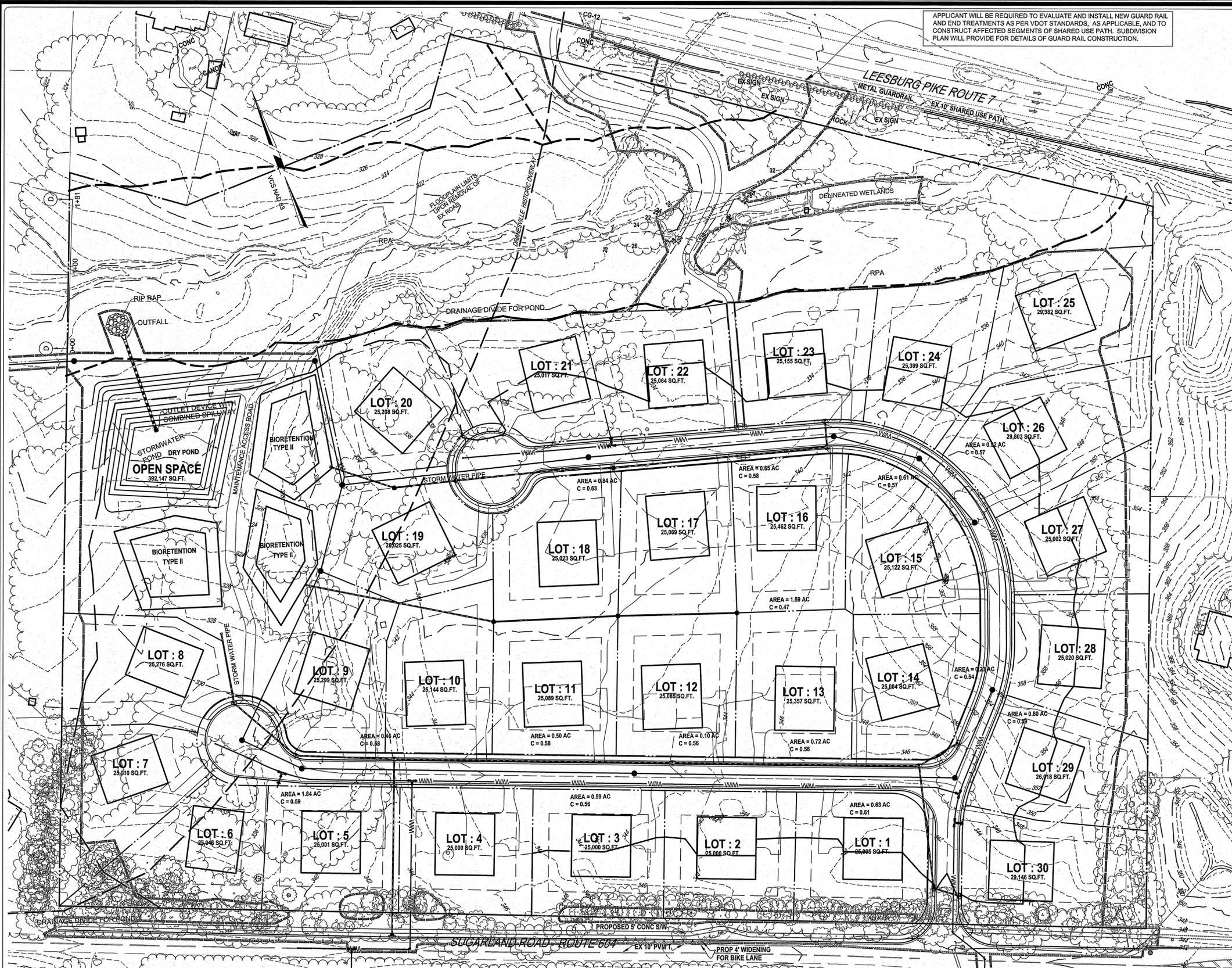
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APPLICANT WILL BE REQUIRED TO EVALUATE AND INSTALL NEW GUARD RAIL AND END TREATMENTS AS PER VDOT STANDARDS, AS APPLICABLE, AND TO CONSTRUCT AFFECTED SEGMENTS OF SHARED USE PATH. SUBDIVISION PLAN WILL PROVIDE FOR DETAILS OF GUARD RAIL CONSTRUCTION.

SUMMERHOUSE LANDING STORM WATER NARRATIVE
 THE SUMMERHOUSE LANDING SITE CONTAINS 28.92 ACRES, PLUS RESERVATION FROM PREVIOUS DEDICATION FOR PUBLIC RIGHTS-OF-WAY. THE MAJORITY OF THE 28.92 ACRE SITE SHEET FLOWS TO THE NORTH. A TRIBUTARY TO SUGARLAND RUN, WITH A DRAINAGE AREA OF APPROXIMATELY 159 ACRES, RUNS ACROSS THE NORTHERN PORTION OF THE SITE FROM EAST TO WEST. THE 159 ACRE DRAINAGE SHED QUALIFIES AS A MINOR FLOOD PLAIN, AND A FLOOD PLAIN STUDY WILL BE PERFORMED AND SUBMITTED TO FAIRFAX COUNTY FOR REVIEW AND APPROVAL. THE TRIBUTARY IS ALSO DESIGNATED AS AN RPA PER FAIRFAX COUNTY GIS MAPPING, AND AN RPA DELINEATION WILL BE PERFORMED AND SUBMITTED TO FAIRFAX COUNTY FOR REVIEW AND APPROVAL. THE SOUTHEASTERN CORNER OF THE SITE SHEET FLOWS TO A SHALLOW DITCH ALONG SUGARLAND ROAD AND IS CONVEYED UNDER THE ROAD VIA AN EXISTING CULVERT.

THE EXISTING SITE CONTAINS 2 ACRES OF IMPERVIOUS SURFACE FOR BUILDINGS, PARKING, AMENITIES AND ACCESS. IN ADDITION, THERE IS 14.61 ACRES OF MANICURED GRASS AREAS AND 12.31 ACRES OF TREE CANOPY. APPROXIMATELY 2 ACRES OF THE EXISTING IMPERVIOUS SURFACE AND 2.3 ACRES OF THE MANICURED GRASS IS LOCATED WITHIN THE RPA AREA, AND AN ADDITIONAL 0.15 ACRES OF IMPERVIOUS SURFACE IS LOCATED BETWEEN THE RPA AND ROUTE 7. THE SUMMERHOUSE DEVELOPMENT PROPOSES TO REMOVE ALL OF THE IMPERVIOUS AREAS FROM THE RPA AND THE AREA NORTHWARD TO ROUTE 7, AND TO RESTORE THE MANICURED GRASS AREAS AND DISTURBED AREAS IN ACCORDANCE WITH RPA REPLANTING STANDARDS. THE CANOPIED PORTIONS OF THE RPA WILL REMAIN UNDISTURBED. THE EXISTING ASPHALT ACCESS ROAD, ASSOCIATED CULVERT CROSSINGS, STORM SEWER AND TIMBER WALL/EMBANKMENT WILL BE REMOVED, AND THE STREAM CHANNEL WILL BE RESTORED IN DISTURBED AREAS. NECESSARY PERMITS AND PERMISSIONS WILL BE OBTAINED FROM THE CORPS OF ENGINEERS. THE RESTORED STREAM WILL ALLOW FOR UNINHIBITED PASSAGE OF FISH AND AQUATIC HABITAT, AND THE REPLANTED RPA WILL ESTABLISH A RIPARIAN BUFFER. A PROPOSED TRAIL WILL BE CONSTRUCTED IN THE RPA.

THE 100 YEAR FLOOD LIMITS AND THE RPA BOUNDARY WILL BE ESTABLISHED BASED ON THE RESTORED STREAM CHANNEL AFTER THE REMOVAL OF THE EXISTING ROADWAY AND CULVERTS AND THE EXISTING WALL/EMBANKMENT. THE RESTORATION OCCURS ENTIRELY WITHIN THE SITE AND HAS NO IMPACT ON THE WATER SURFACE ELEVATIONS UPSTREAM OR DOWNSTREAM OF THE SUMMERHOUSE LANDING SITE.

THE UPPER PORTION OF THE SITE IS PROPOSED TO BE DEVELOPED FOR 30 SINGLE FAMILY DETACHED RESIDENTIAL LOTS. THE PROPOSED STREETS, SIDEWALKS, HOUSES AND ASSOCIATED IMPROVEMENTS WILL RESULT IN APPROXIMATELY 7.8 ACRES OF IMPERVIOUS AREA, 13.0 ACRES OF MANAGED TURF, AND 8.1 ACRES OF FORESTED OPEN SPACE.

APPROXIMATELY 16.47 ACRES OF THE DEVELOPED SITE WILL BE TREATED AS PART OF A TREATMENT TRAIN THAT INCLUDES ROOFTOP DISCONNECTION, BIORETENTION FACILITIES AND A DRY POND, WHILE APPROXIMATELY 2.21 ACRES WILL DISCHARGE AS SHEET FLOW DIRECTLY OVER THE OPEN SPACE. LOTS WILL BE GRADED TO MAXIMIZE THE USE OF ROOFTOP DISCONNECTION AND DRAIN VIA SHALLOW CHANNEL FLOW TO THE STREET OR TO YARD INLETS. INTERCEPTED FLOW WILL BE CONVEYED VIA STORM SEWER TO TYPE 2 BIORETENTION FACILITIES LOCATED AROUND THE PERIMETER OF A DRY POND. ON-SITE SOILS ARE CHARACTERIZED AS SOILS WITH FAIR TO POOR CAPACITY FOR INFILTRATION SO BIORETENTION FACILITIES WILL INCORPORATE AN UNDERDRAIN SYSTEM TO DISCHARGE TO THE DRY POND.

WATER QUALITY VOLUME WILL BE PROVIDED TO MEET 2014 STORMWATER MANAGEMENT CRITERIA USING THE RUNOFF REDUCTION METHOD (SHOWN ON SHEET 5), AND STORMWATER DETENTION WILL BE PROVIDED TO REDUCE THE SITE RUNOFF TO THE REQUIRED LEVEL BELOW THE PRE-DEVELOPMENT RATE FOR ADEQUATE OUTFALL. BASED UPON THE PRE-DEVELOPMENT CONDITIONS WITH AN IMPROVEMENT FACTOR THE ALLOWABLE OUTFLOW FROM THE SITE WAS CALCULATED AND FOUND TO BE 9.43 CFS FOR THE 1-YEAR STORM. THE UNCONTROLLED AREAS (THOSE THAT DO NOT FLOW TO THE POND), APPROXIMATELY 12.45 ACRES, CREATE A DISCHARGE OF 7.43 CFS; LEAVING AN ALLOWABLE DISCHARGE OF 2.00 CFS FROM THE POND FOR THE 1-YEAR STORM.

RESTORED RPA AREAS WILL NOT RECEIVE WATER QUALITY CREDIT BUT WILL BE CONSIDERED AS OPEN SPACE. THE FULL ADEQUATE OUTFALL ANALYSIS IS INCLUDED IN A SEPARATE REPORT. A SUMMARY OF THIS REPORT IS PROVIDED BELOW. STORMWATER CALCULATIONS FOR QUANTITY AND QUALITY ARE PROVIDED.

DRY POND INFORMATION
 APPROXIMATE PONDED AREA = 0.5 AC
 TOP OF DAM WIDTH = 12 FT
 APPROXIMATE TOP OF DAM ELEV = 323
 APPROXIMATE DAM HEIGHT = 12 FT
 1 YR WSEL = 316.58 FT
 2 YR WSEL = 317.42 FT
 10 YR WSEL = 318.74 FT
 100 YR WSEL = 320.07 FT

SUMMERHOUSE LANDING - ADEQUATE OUTFALL SUMMARY

THE ADEQUATE OUTFALL ANALYSIS WAS CONDUCTED FROM WHERE THE UNNAMED STREAM ENTERS THE PROPERTY TO THE CONFLUENCE AT SUGARLAND RUN, APPROXIMATELY 6,775'.

STORM SEWER ENTERS INTO THE PROJECT BOUNDARY FROM THE NORTH VIA EX STORM PIPES; THERE ARE TWO DIFFERENT POINTS AT WHICH STORMWATER ENTERS THE PROJECT AREA. THE TWO INCOMING STORM DRAINAGE POINTS CONVERGE ON-SITE DOWNSTREAM OF THE EXISTING ROAD STREAM CROSSING. THE CHANNEL IN THIS AREA APPEARS TO BE STABLE, THE BOTTOM LAYER OF THE STREAM IS ROCKY WHICH DISSIPATES FLOW. THERE IS NO APPARENT SIGNS OF BANK EROSION. THE BANKS ARE LOW BUT VEGETATED. THERE IS LITTLE DEBRIS IN THE STREAM TO DISRUPT FLOW.

THE STREAM EXITS THE PROPERTY ALONG THE WESTERNMOST BOUNDARY LINE OF LOT 33. THE STREAMBED IN THIS LOCATION IS COMPOSED OF SMALL AND LARGE ROCKS. THERE IS SEDIMENT DEPOSIT ATOP SOME OF THE ROCKS IN THIS LOCATION; THE FLOW IN THIS AREA IS SLOW IN SOME OF THE DEEPER AREAS, OTHERWISE THERE IS STEADY, SHALLOW FLOW. ALTHOUGH EROSION IS APPARENT IN SOME BANK AREAS, THE BANKS ARE GENERALLY VEGETATED AND STABLE. BANK HEIGHT VARIES FROM APPROXIMATELY 1' TO 3.4'. A CROSS SECTION AT THIS LOCATION HAS BEEN PROVIDED AND IS TYPICAL OF THE STREAM CROSS SECTIONS. THE 2YR IN-STREAM FLOW AT THIS CROSS-SECTION IS APPROXIMATELY 228 CFS. THE PROPOSED SWM FACILITY HAS A DISCHARGE OF APPROXIMATELY 2.3CFS FOR THE 2YR STORM EVENT; THERE IS A COMBINED 2YR OQ OF APPROXIMATELY 14.3CFS AT THIS CROSS-SECTION.

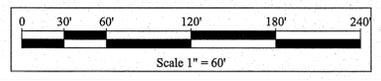
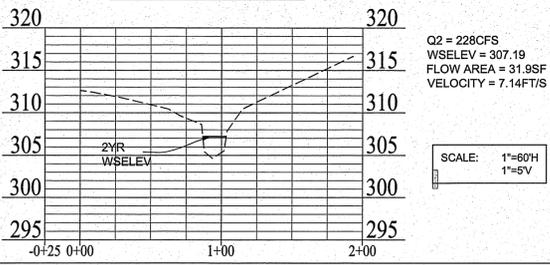
FURTHER DOWNSTREAM, APPROXIMATELY 300' THERE IS A CULVERT CROSSING AT DRANESVILLE MANOR DRIVE. THE STREAM CONTINUES, UNNAMED, TO A BOX CULVERT WHICH RUNS UNDER THE OFF-RAMP OF FAIRFAX COUNTY PARKWAY TO LEESBURG PIKE EAST. THIS CULVERT PASSES RUNOFF FROM LOW STORM EVENTS, AS THE INVERT-IN IS 271.00' (FROM VDOT RECORDS). ADDITIONALLY, THERE ARE 3 - 60" X 38" HORIZONTAL ELLIPTICAL STORM PIPES LOCATED AT AN ELEVATION OF 276.00' (VDOT RECORDS); THE ELLIPTICAL STORM PIPES PROVIDE ADDITIONAL STORM DRAINAGE FOR HIGHER STORM EVENTS, AND ARE SITUATED TO THE WEST OF THE BOX CULVERT. THE STREAM CHANNEL AND SURROUNDING AREA LEADING UP TO THIS CULVERT ARE VERY WELL STABILIZED.

AFTER CROSSING LEESBURG PIKE, ANOTHER JUNCTION BOX PICKS UP ADDITIONAL HIGHWAY DRAINAGE. PIPING CONTINUES NORTHWEST TO CROSS UNDER FAIRFAX COUNTY PARKWAY. STORMWATER IS DISCHARGED TO DAYLIGHT INTO AN EXISTING INCISED CHANNEL AT A POINT NORTHWEST OF THE FAIRFAX COUNTY PARKWAY-LEESBURG PIKE INTERSECTION. STREAM CONDITIONS ARE CHARACTERIZED BY HEALTHY FLOW CONDITIONS, LOW BUT VEGETATED BANKS, AND STABLE STREAMBED CONDITIONS; THE STREAMBED IS COMPOSED OF LARGE STONE. THERE IS NO APPARENT EROSION AT THIS DISCHARGE POINT.

THE STREAM CONVERGES WITH 4 OTHER UNNAMED STREAMS, AND 1 DISCHARGE POINT FROM A WET POND, BEFORE CONVERGING WITH SUGARLAND RUN, IN A MAJOR FLOODPLAIN. AS STATED PREVIOUSLY, THE OUTFALL ANALYSIS HAS BEEN PERFORMED TO A POINT AT WHICH THE TOTAL DRAINAGE AREA IS AT LEAST 100 TIMES THE CONTRIBUTING DRAINAGE AREA OF THE DEVELOPMENT, PER SECTION 6-0203.2B OF THE PUBLIC FACILITIES MANUAL. THE TOTAL AREA OF THE SITE IS 28.92 AC. THIS CONDITION IS SATISFIED AT THE POINT WHERE THE DRAINAGE FROM THE SITE CONVERGES INTO SUGARLAND RUN; THE WATERSHED FOR SUGARLAND RUN IS APPROXIMATELY 22.5 SQUARE MILES (14,400 ACRES).

THE COMBINED DISCHARGE OF THE SWM FACILITY AND THE FLOW WITHIN THE STREAM ITSELF SHOULD NOT NEGATIVELY IMPACT THE DOWNSTREAM STREAM SECTIONS. IF FURTHER ANALYSIS AT THE TIME OF SUBDIVISION SHOWS EXISTING OUTFALL TO BE INADEQUATE, OVER-DETENTION OF ONSITE RUNOFF AND/OR IMPROVEMENTS TO THE DOWNSTREAM CHANNEL WITHIN EXISTING EASEMENTS SHALL BE UNDERTAKEN TO ENSURE ADEQUACY OF THE OUTFALL.

STREAM SECTION D-D



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SUMMERHOUSE LANDING
 DRANESVILLE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

STORM WATER MANAGEMENT

COMMONWEALTH OF VIRGINIA
 ANN O. GERMAIN
 Lic. No. 028700
 2/11/15
 PROFESSIONAL ENGINEER

DATE: 8/1/14
 FILE NO: F4642
 DRN: LC
 CKD: AOG
 SHEET 4 OF 10

Virginia Runoff Reduction Method New Development Worksheet - v2.8 - June 2014

To be used w/ 2011 BMP Standards and Specifications

Site Data

Project Name:

Date:

data input cells	
calculation cells	
constant values	

1. Post-Development Project & Land Cover Information

Constants	
Annual Rainfall (inches)	4.3
Target Rainfall Event (inches)	1.00
Phosphorus EMC (mg/L)	0.26
Target Phosphorus Target Load (lb/acre/yr)	0.41
P	0.90
Nitrogen EMC (mg/L)	1.86

Land Cover (acres)					
A soils	B Soils	C Soils	D Soils	Totals	
Forest/Open Space (acres) - undisturbed, protected forest/open space or reforested land	0.00	2.55	4.41	0.29	7.25
Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed	0.00	10.49	0.00	3.37	13.86
Impervious Cover (acres)	0.00	6.17	0.00	1.64	7.81
			Total		28.92

Rv Coefficients				
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	
Forest/Open Space Cover (acres)	7.25
Weighted Rv(forest)	0.04
% Forest	25%
Managed Turf Cover (acres)	13.86
Weighted Rv(turf)	0.21
% Managed Turf	48%
Impervious Cover (acres)	7.81
Rv(impervious)	0.95
% Impervious	27%
Total Site Area (acres)	28.92
Site Rv	0.37

Post-Development Treatment Volume (acre-ft)	0.89
Post-Development Treatment Volume (cubic feet)	38,577
Post-Development Load (TP) (lb/yr)	24.24
Total Load (TP) Reduction Required (lb/yr)	12.38
Post-Development Load (TN) (lb/yr)	173.40

Drainage Area A

Drainage Area A Land Cover (acres)						
A soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv	
Forest/Open Space (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	0.00	2.90	0.00	0.00	2.90	0.20
Impervious Cover (acres)	0.00	2.32	0.00	0.00	2.32	0.95
			Total			
				5.22		
						Post Development Treatment Volume (cf)
						10106

Practice	Unit	Description of Credit	Credit	Credit Area (acres)	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff Volume (cf)	Phosphorus Efficiency (%)	Phosphorus Load from Upstream RR Practices (lbs)	Untreated Phosphorus Load to Practice (lbs)	Phosphorus Removed By Practice (lbs)	Remaining Phosphorus Load (lbs)	Downstream Treatment to be Employed	Nitrogen Efficiency (%)	Nitrogen Load from Upstream RR Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
2. Rooftop Disconnection														2. Impervious Surface Disconnection				
2.a. Simple Disconnection to A/B Soils (Spec #1)	impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.48	0	828	828	0	0.00	1.04	0.52	0.52	6.b. Bioretention #2	0	0.00	7.43	3.72	3.72
2.b. Simple Disconnection to C/D Soils (Spec #1)	impervious acres disconnected	25% runoff volume reduction for treated area	0.25	0.00	0	0	0	0	0.00	0.00	0.00	0.00	6.b. Bioretention #2	0	0.00	0.00	0.00	0.00
2.c. To Soil Amended Filter Path as per specifications (existing C/D soils) (Spec #4)	impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.d. To Dry Well or French Drain #1 (Microinfiltration #1) (Spec #8)	impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.00	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
2.e. To Dry Well or French Drain #2 (Microinfiltration #2) (Spec #8)	impervious acres disconnected	90% runoff volume reduction for treated area	0.90	0.00	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
2.f. To Rain Garden #1 (Micro-Bioretention #1) (Spec #9)	impervious acres disconnected	40% of volume captured	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
2.g. To Rain Garden #2 (Micro-Bioretention #2) (Spec #9)	impervious acres disconnected	80% runoff volume reduction for treated area	0.80	0.00	0	0	0	50	0.00	0.00	0.00	0.00		60	0.00	0.00	0.00	0.00
2.h. To Rainwater Harvesting (Spec #6)	impervious acres captured	based on tank size and design spreadsheet (See Spec #6)	0.00	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.i. To Stormwater Planter (Urban Bioretention) (Spec #9, Appendix A)	impervious acres disconnected	40% runoff volume reduction for treated area	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00

6. Bioretention		6. Bioretention	
6.a. Bioretention #1 or Urban Bioretention (Spec #9)	impervious acres draining to bioretention	40% runoff volume reduction	0.40
	turf acres draining to bioretention	40% runoff volume reduction	0.40
6.b. Bioretention #2 (Spec #9)	impervious acres draining to bioretention	80% runoff volume reduction	0.80
	turf acres draining to bioretention	80% runoff volume reduction	0.80

TOTAL IMPERVIOUS COVER TREATED (ac)	2.32
TOTAL TURF AREA TREATED (ac)	2.90
AREA CHECK OK.	
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	12.38
TOTAL RUNOFF REDUCTION IN D.A. A (cf)	8,250
PHOSPHORUS REMOVAL FROM RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	5.76
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS	

Drainage Area B

Drainage Area B Land Cover (acres)						
A soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv	
Forest/Open Space (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	0.00	2.18	0.00	0.00	2.18	0.20
Impervious Cover (acres)	0.00	1.44	0.00	0.00	1.44	0.95
			Total			
				3.62		
						Post Development Treatment Volume (cf)
						6549

Practice	Unit	Description of Credit	Credit	Credit Area (acres)	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff Volume (cf)	Phosphorus Efficiency (%)	Phosphorus Load from Upstream RR Practices (lbs)	Untreated Phosphorus Load to Practice (lbs)	Phosphorus Removed By Practice (lbs)	Remaining Phosphorus Load (lbs)	Downstream Treatment to be Employed	Nitrogen Efficiency (%)	Nitrogen Load from Upstream RR Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
2. Rooftop Disconnection														2. Impervious Surface Disconnection				
2.a. Simple Disconnection to A/B Soils (Spec #1)	impervious acres disconnected	50% runoff volume reduction for treated area	0.50	1.44	0	2483	2483	0	0.00	3.12	1.56	1.56	6.b. Bioretention #2	0	0.00	22.29	11.15	11.15
2.b. Simple Disconnection to C/D Soils (Spec #1)	impervious acres disconnected	25% runoff volume reduction for treated area	0.25	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.c. To Soil Amended Filter Path as per specifications (existing C/D soils) (Spec #4)	impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.d. To Dry Well or French Drain #1 (Microinfiltration #1) (Spec #8)	impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.00	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
2.e. To Dry Well or French Drain #2 (Microinfiltration #2) (Spec #8)	impervious acres disconnected	90% runoff volume reduction for treated area	0.90	0.00	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
2.f. To Rain Garden #1 (Micro-Bioretention #1) (Spec #9)	impervious acres disconnected	40% of volume captured	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
2.g. To Rain Garden #2 (Micro-Bioretention #2) (Spec #9)	impervious acres disconnected	80% runoff volume reduction for treated area	0.80	0.00	0	0	0	50	0.00	0.00	0.00	0.00		60	0.00	0.00	0.00	0.00
2.h. To Rainwater Harvesting (Spec #6)	impervious acres captured	based on tank size and design spreadsheet (See Spec #6)	0.00	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.i. To Stormwater Planter (Urban Bioretention) (Spec #9, Appendix A)	impervious acres disconnected	40% runoff volume reduction for treated area	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
6. Bioretention														6. Bioretention				
6.a. Bioretention #1 or Urban Bioretention (Spec #9)	impervious acres draining to bioretention	40% runoff volume reduction	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
	turf acres draining to bioretention	40% runoff volume reduction	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
6.b. Bioretention #2 (Spec #9)	impervious acres draining to bioretention	80% runoff volume reduction	0.80	0.00	2483	1986	497	50	1.56	0.00	1.40	0.16	None	60	11.15	0.00	10.26	0.89
	turf acres draining to bioretention	80% runoff volume reduction	0.80	2.18	0	1266	317	50	0.00	0.99	0.89	0.10	None	60	0.00	7.11	6.54	0.57

TOTAL IMPERVIOUS COVER TREATED (ac)	1.44
TOTAL TURF AREA TREATED (ac)	2.18
AREA CHECK OK.	
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	12.38
TOTAL RUNOFF REDUCTION IN D.A. B (cf)	5,735
PHOSPHORUS REMOVAL FROM RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	3.85
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS	

THE ATTACHED DOCUMENTS ON THIS SHEET ARE THE EXCEL WORKSHEETS FROM THE RUNOFF REDUCTION METHOD. THROUGH THE USE OF ROOF TOP DISCONNECTION AND BIORETENTION TYPE II FACILITIES THE REQUIRED PHOSPHOROUS REMOVAL IS MET.

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SUMMERHOUSE LANDING

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

RUNOFF REDUCTION METHOD

COMMONWEALTH OF VIRGINIA
ANN O. GERMAIN
Lic. No. 028700
2/11/15
PROFESSIONAL ENGINEER

DATE: 8/4/14
FILE NO: F4642
DRN: LC
CKD: AOG
SHEET 5 OF 10

Drainage Area C						
Drainage Area C Land Cover (acres)						
	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	0.00	2.50	0.00	0.00	2.50	0.20
Impervious Cover (acres)	0.00	1.89	0.00	0.00	1.89	0.95
					Total	
						Post Development Treatment Volume (cf) 8333

Practice	Unit	Description of Credit	Credit	Credit Area (acres)	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff Volume (cf)	Phosphorus Efficiency (%)	Phosphorus Load from Upstream RR Practices (lbs)	Untreated Phosphorus Load to Practice (lbs.)	Phosphorus Removed By Practice (lbs.)	Remaining Phosphorus Load (lbs.)	Downstream Treatment to be Employed	Nitrogen Efficiency (%)	Nitrogen Load from Upstream RR Practices (lbs)	Untreated Nitrogen Load to Practice (lbs.)	Nitrogen Removed By Practice (lbs.)	Remaining Nitrogen Load (lbs.)
2. Rooftop Disconnection														2. Impervious Surface Disconnection				
2.a. Simple Disconnection to A/B Soils (Spec #1)	Impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.42	0	724	724	0	0.00	0.91	0.45	0.45	6.b. Bioretention #2	0	0.00	6.50	3.25	3.25
2.b. Simple Disconnection to C/D Soils (Spec #1)	Impervious acres disconnected	25% runoff volume reduction for treated area	0.25	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.c. To Soil Amended Filter Path as per specifications (existing C/D soils) (Spec #4)	Impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.d. To Dry Well or French Drain #1 (Microinfiltration #1) (Spec #8)	Impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.00	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
2.e. To Dry Well or French Drain #2 (Micro-Infiltration #2) (Spec #8)	Impervious acres disconnected	90% runoff volume reduction for treated area	0.90	0.00	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
2.f. To Rain Garden #1 (Micro-Bioretention #1) (Spec #9)	Impervious acres disconnected	40% of volume captured	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
2.g. To Rain Garden #2 (Micro-Bioretention #2) (Spec #9)	Impervious acres disconnected	80% runoff volume reduction for treated area	0.80	0.00	0	0	0	50	0.00	0.00	0.00	0.00		60	0.00	0.00	0.00	0.00
2.h. To Rainwater Harvesting (Spec #6)	Impervious acres captured	based on tank size and design spreadsheet (See Spec #6)	0.00	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.i. To Stormwater Planter (Urban Bioretention) (Spec #9, Appendix A)	Impervious acres disconnected	40% runoff volume reduction for treated area	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
6. Bioretention														6. Bioretention				
6.a. Bioretention #1 or Urban Bioretention (Spec #9)	Impervious acres draining to bioretention	40% runoff volume reduction	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
	turf acres draining to bioretention	40% runoff volume reduction	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
6.b. Bioretention #2 (Spec #9)	Impervious acres draining to bioretention	80% runoff volume reduction	0.80	0.42	724	1738	435	50	0.45	0.91	1.23	0.14		60	3.25	6.50	8.97	0.78
	turf acres draining to bioretention	80% runoff volume reduction	0.80	2.50	0	1452	363	50	0.00	1.14	1.03	0.11		60	0.00	8.15	7.50	0.65

TOTAL IMPERVIOUS COVER TREATED (ac)	0.84
TOTAL TURF AREA TREATED (ac)	2.50
AREA CHECK OK.	
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	12.38
TOTAL RUNOFF REDUCTION IN D.A. C (cf)	3,914
PHOSPHORUS REMOVAL FROM RUNOFF REDUCTION PRACTICES IN D.A. C (lb/yr)	2.71
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS	

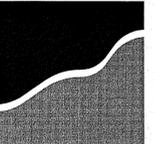
Drainage Area D						
Drainage Area D Land Cover (acres)						
	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious Cover (acres)	0.00	0.39	0.00	0.00	0.39	0.95
					Total	
						Post Development Treatment Volume (cf) 1349

Practice	Unit	Description of Credit	Credit	Credit Area (acres)	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff Volume (cf)	Phosphorus Efficiency (%)	Phosphorus Load from Upstream RR Practices (lbs)	Untreated Phosphorus Load to Practice (lbs.)	Phosphorus Removed By Practice (lbs.)	Remaining Phosphorus Load (lbs.)	Downstream Treatment to be Employed	Nitrogen Efficiency (%)	Nitrogen Load from Upstream RR Practices (lbs)	Untreated Nitrogen Load to Practice (lbs.)	Nitrogen Removed By Practice (lbs.)	Remaining Nitrogen Load (lbs.)
2. Rooftop Disconnection														2. Impervious Surface Disconnection				
2.a. Simple Disconnection to A/B Soils (Spec #1)	Impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.39	0	672	672	0	0.00	0.84	0.42	0.42		0	0.00	6.04	3.02	3.02
2.b. Simple Disconnection to C/D Soils (Spec #1)	Impervious acres disconnected	25% runoff volume reduction for treated area	0.25	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.c. To Soil Amended Filter Path as per specifications (existing C/D soils) (Spec #4)	Impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.d. To Dry Well or French Drain #1 (Microinfiltration #1) (Spec #8)	Impervious acres disconnected	50% runoff volume reduction for treated area	0.50	0.00	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
2.e. To Dry Well or French Drain #2 (Micro-Infiltration #2) (Spec #8)	Impervious acres disconnected	90% runoff volume reduction for treated area	0.90	0.00	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
2.f. To Rain Garden #1 (Micro-Bioretention #1) (Spec #9)	Impervious acres disconnected	40% of volume captured	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
2.g. To Rain Garden #2 (Micro-Bioretention #2) (Spec #9)	Impervious acres disconnected	80% runoff volume reduction for treated area	0.80	0.00	0	0	0	50	0.00	0.00	0.00	0.00		60	0.00	0.00	0.00	0.00
2.h. To Rainwater Harvesting (Spec #6)	Impervious acres captured	based on tank size and design spreadsheet (See Spec #6)	0.00	0.00	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
2.i. To Stormwater Planter (Urban Bioretention) (Spec #9, Appendix A)	Impervious acres disconnected	40% runoff volume reduction for treated area	0.40	0.00	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (ac)	0.39
TOTAL TURF AREA TREATED (ac)	0.00
AREA CHECK OK.	
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	12.38
TOTAL RUNOFF REDUCTION IN D.A. D (cf)	672
PHOSPHORUS REMOVAL FROM RUNOFF REDUCTION PRACTICES IN D.A. D (lb/yr)	0.42
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS	

Site Results	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
IMPERVIOUS COVER	2.52	1.44	1.89	0.39	0.00	OK
IMPERVIOUS COVER TREATED	2.32	1.44	0.84	0.39	0.00	OK
TURF AREA	2.90	2.18	2.50	0.00	0.00	OK
TURF AREA TREATED	2.90	2.18	2.50	0.00	0.00	OK
AREA CHECK	OK	OK	OK	OK	OK	
Phosphorus						
TOTAL TREATMENT VOLUME (cf)	38,577					
TOTAL PHOSPHORUS LOAD REDUCTION REQUIRED (LB/YEAR)	12.38					
RUNOFF REDUCTION (cf)	18,572					
PHOSPHORUS LOAD REDUCTION ACHIEVED (LB/YR)	12.74					
ADJUSTED POST-DEVELOPMENT PHOSPHORUS LOAD (TP) (lb/yr)	11.49					
REMAINING PHOSPHORUS LOAD REDUCTION (LB/YR) NEEDED	CONGRATULATIONS!! YOU EXCEEDED THE TARGET REDUCTION BY 0.4 LB/YEAR!!					
Nitrogen (for information purposes)						
TOTAL TREATMENT VOLUME (cf)	38,577					
RUNOFF REDUCTION (cf)	18,572					
NITROGEN LOAD REDUCTION ACHIEVED (LB/YR)	101.96					
ADJUSTED POST-DEVELOPMENT NITROGEN LOAD (TN) (lb/yr)	71.43					

PACIULLI



SIMMONS & ASSOCIATES
Established 1744

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Engineers
Planners
Surveyors
Landscape Architects
Wetland Specialists
Environmental Scientists
Archaeologists

SUMMERHOUSE LANDING

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

RUNOFF REDUCTION METHOD



DATE: 8/4/14
FILE NO: F4642
DRN: LC
CKD: AOG

SHEET 5A OF 10

SUMMERHOUSE LANDING
 DRANESVILLE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

LANDSCAPE PLAN

ANN O. GERMAIN
 Lic. No. 028700
 2/11/15
 PROFESSIONAL ENGINEER

DATE: 8/4/14
 FILE NO: F4642
 DRN: LC
 CKD: AOG
 SHEET 7 OF 10



LEGEND

	REFORESTATION OF RPA	F = 94,857 SF
	TREES TO BE PRESERVED	A = 9,251 SF B = 35,188 SF C = 6,394 SF D = 22,000 SF
	AREAS IN RPA	NO MULTIPLIER
	AREAS WITH NO MULTIPLIER	

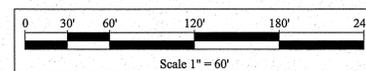
PROPOSED PLANT LIST
LARGE DECIDUOUS TREES

CATEGORY	QUANTITY
CATEGORY IV DECIDUOUS TREES	20
CATEGORY III DECIDUOUS TREES	20
CATEGORY III DECIDUOUS TREES	20
CATEGORY IV DECIDUOUS TREES	20
CATEGORY IV DECIDUOUS TREES	20
CATEGORY IV DECIDUOUS TREES	20
CATEGORY IV DECIDUOUS TREES	20
CATEGORY IV DECIDUOUS TREES	20

LARGE EVERGREEN TREES

CATEGORY	Quantity
CATEGORY IV EVERGREEN TREES	6
CATEGORY IV EVERGREEN TREES	6
CATEGORY III EVERGREEN TREES	6

NOTE:
 APPLICANT SHALL PROVIDE AN INVASIVE PLANT MANAGEMENT PLAN TO
 MANAGE INVASIVE SPECIES ALONG SUGARLAND ROAD

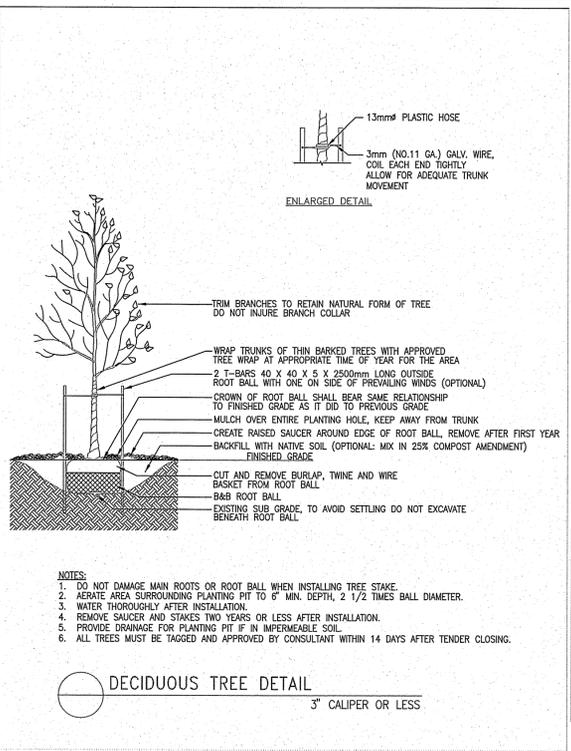


NOTE:
 PROPOSED TREES AROUND DETENTION POND WILL BE LOCATED TO
 MAXIMIZE SCREENING, PROVIDE BUFFER TO RPA AND MINIMIZE
 DISTURBANCE TO EXISTING TREES IN RPA.

VCS
 MAD 83

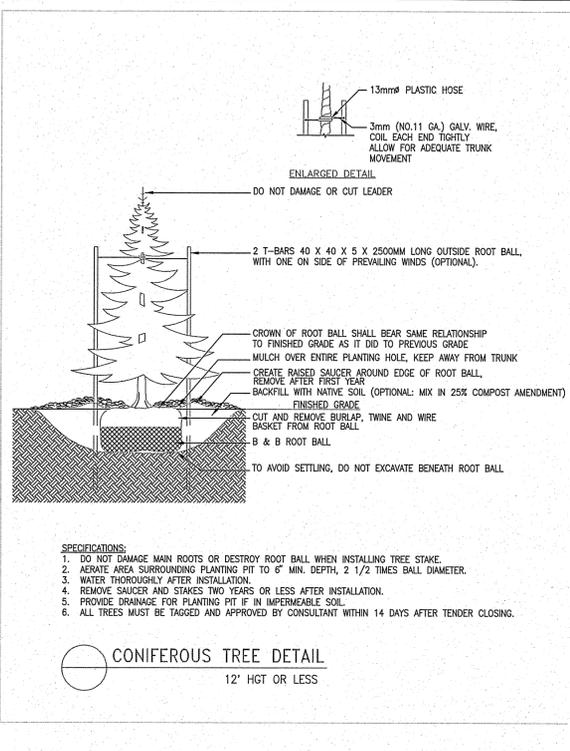
GENERAL LANDSCAPE NOTES:

- THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE ALL LANDSCAPE WORK AS SHOWN ON THE PLANS AND SPECIFICATIONS.
- THE LANDSCAPE CONTRACTOR SHALL STATE THE TOTAL NUMBER OF EACH PLANT WITH THE CONTRACT PRICE. THE PLANT LIST SUBMITTED WILL AUTOMATICALLY BECOME PART OF THE CONTRACT DOCUMENTS. NOTE: IF THE CONTRACTOR BIDS ACCORDING TO THE PLANT LIST, HE/SHE SHOULD DOUBLE CHECK THE PLANT LIST QUANTITIES WITH THE SYMBOLS DRAWN ON THE PLAN, TO BE SURE THERE ARE NO DISCREPANCIES. IF THERE IS A DISCREPANCY BETWEEN THE DRAWING AND THE LIST ON THE PLANS, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIAL WILL CONFORM TO THE CURRENT ISSUE OF THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANT MATERIAL MUST BE SELECTED FROM NURSERIES THAT HAVE BEEN INSPECTED AND CERTIFIED BY STATE PLANT INSPECTORS.
- WHEN REQUESTED BY THE OWNER OR OWNER'S REPRESENTATIVE, SAMPLES OF ALL MATERIALS OTHER THAN PLANTS SHALL BE SUBMITTED TO THE OWNER'S DESIGNATED REPRESENTATIVE FOR APPROVAL.
- ALL APPROVALS WILL BE IN WRITING.
- IT IS THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO MAKE EVERY REASONABLE EFFORT TO FIND THE MATERIAL SPECIFIED BY THE LANDSCAPE ARCHITECT. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR QUALIFYING HIS/HER PROPOSAL TO DOCUMENT ANY PLANT SUITABILITY OR AVAILABILITY PROBLEMS.
- THE LANDSCAPE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AND/OR THE GENERAL CONTRACTOR IN ADVANCE OF CONSTRUCTION TO LOCATE UTILITIES. IF THERE IS A CONFLICT WITH THE UTILITIES AND THE PLANTING, ANY COST DUE TO RELOCATING AFTER PLANTING SHALL BE BORNE BY THE OWNER.
- DURING PLANTING, ALL AREAS SHALL BE KEPT NEAT AND CLEAN, AND PRECAUTIONS SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING PLANTS, LARGE TREES, TURF AND STRUCTURES. WHERE EXISTING TREES ARE TO BE PRESERVED, ADDITIONAL PRECAUTIONS SHOULD BE TAKEN TO AVOID UNNECESSARY ACCUMULATION OF EXCAVATED MATERIALS, SOIL COMPACTION OR ROOT DAMAGE. ANY DAMAGED AREAS CAUSED BY THE LANDSCAPE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
- UPON COMPLETION, ALL DEBRIS AND WASTE MATERIAL RESULTING FROM PLANTING OPERATIONS SHALL BE REMOVED FROM THE PROJECT AND THE AREA CLEANED UP.
- THE OWNER SHALL SUPPLY WATER ON SITE AT NO COST. IF THE LANDSCAPE CONTRACTOR HAS TO SUPPLY WATER TO THE SITE, IT SHALL BE AT AN ADDITIONAL COST TO THE OWNER.
- CONTAINER-GROWN MATERIAL AND HARDENED-OFF B&B EVERGREEN OR DECIDUOUS MATERIAL CAN BE PLANTED YEAR ROUND.
- ALL PLANT ROOTS SHALL BE PROTECTED DURING HANDLING AND PLANTING TO GUARD AGAINST DRYING OUT AND DAMAGE.
- THE USE OF BARE-ROOT GROUND COVER (ROOTED CUTTINGS) SHOULD BE LIMITED TO OPTIMAL PLANTING TIMES AND ONLY SPECIFIED UNDER THESE CONDITIONS KNOWING THE RISK INVOLVED, UNLESS IRRIGATION IS PROVIDED.
- PERENNIALS CAN BE INSTALLED AS SOON AS THE GROUND IS WORKABLE IN SPRING UNTIL NOVEMBER 15. PLANTS INSTALLED AFTER NOVEMBER 15 REQUIRE A PROTECTIVE, SUPPLEMENTAL MULCH APPLIED AFTER DECEMBER 15 AND REMOVED MARCH 1.
- INSPECTION: A VERIFICATION OF PERFORMANCE FOR WORK BY CONTRACT DOCUMENTS, TO BE CONDUCTED BY THE OWNER OR HIS/HER REPRESENTATIVE, ON-SITE AND IN THE PRESENCE OF THE LANDSCAPE CONTRACTOR FOR THE PURPOSE OF ACCEPTANCE. INSPECTION SHALL BE MADE WITHIN TWO (2) WEEKS OF WRITTEN NOTIFICATION FROM THE LANDSCAPE CONTRACTOR. FAILURE OF THE OWNER TO INSPECT THE WORK SHALL VOID THE GUARANTEE. DURING INSPECTION FOR INITIAL ACCEPTANCE, THE LANDSCAPE CONTRACTOR SHOULD HAVE AN ACCEPTANCE FORM TO BE SIGNED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- INITIAL ACCEPTANCE & THE APPROVAL OF WORK INSPECTED: ACCEPTANCE CAN BE ON PARTIALLY COMPLETED WORK UNDER THE CONTRACT, IF APPROVED BY THE OWNER. IF, FOR REASONS BEYOND THE LANDSCAPE CONTRACTOR'S CONTROL, WORK HAS STOPPED, INSPECTION SHALL BE MADE ON PARTIALLY COMPLETED WORK. WARRANTY SHALL BEGIN AFTER LANDSCAPE INSPECTION AND ACCEPTANCE. MAINTENANCE AFTER INITIAL INSPECTION AND ACCEPTANCE SHALL BE THE RESPONSIBILITY OF THE OWNER, UNLESS AN OPTIONAL MAINTENANCE CONTRACT HAS BEEN SPECIFIED.
- THE LANDSCAPE CONTRACTOR SHOULD PERIODICALLY INSPECT THE SITE DURING THE WARRANTY PERIOD AND NOTIFY THE OWNER IN WRITING IF PROPER MAINTENANCE IS NOT BEING PERFORMED.
- FINAL INSPECTION AND ACCEPTANCE: THE LANDSCAPE CONTRACTOR SHALL CONDUCT A FINAL INSPECTION WITH THE OWNER OR OWNER'S REPRESENTATIVE AT THE END OF THE ONE YEAR PERIOD.
- THE STANDARD WARRANTY IS FOR A ONE (1) YEAR PERIOD, COMMENCING ON THE DATE OF INITIAL ACCEPTANCE. ALL PLANTS SHALL BE ALIVE AND IN SATISFACTORY GROWTH AT THE END OF THE GUARANTEE PERIOD.
- ANY MATERIAL THAT IS 25% DEAD OR MORE SHALL BE CONSIDERED DEAD AND MUST BE REPLACED AT NO CHARGE. A TREE SHALL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED BACK, OR 25% OF THE CROWN IS DEAD.
- WARRANTY MAY BE VOID IF PROPER CARE, BY OWNER OR OWNER'S MAINTENANCE CONTRACTOR, IS NOT MAINTAINED.
- REPLACEMENTS SHALL BE MADE DURING THE NEXT PLANTING PERIOD UNLESS THE LANDSCAPE CONTRACTOR AGREES TO AN EARLIER DATE. SPRING: MARCH 15 - JUNE 15 FALL: SEPTEMBER 15 - NOVEMBER 15
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR A ONE-TIME REPLACEMENT ONLY.
- REPLACEMENTS SHALL BE OF THE SAME TYPE, SIZE AND QUALITY AS ORIGINAL SPECIES UNLESS OTHERWISE NEGOTIATED.
- THE LANDSCAPE CONTRACTOR WILL NOT BE RESPONSIBLE FOR PLANT MATERIAL THAT HAS BEEN DAMAGED BY VANDALISM, FIRE, REMOVAL, RELOCATION, WILDLIFE, THEFT, IMPROPER MAINTENANCE OR OTHER ACTIVITIES BEYOND THE LANDSCAPE CONTRACTOR'S CONTROL.
- PLANT LOSSES DUE TO ABNORMAL WEATHER CONDITIONS SUCH AS FLOODS, EXCESSIVE WIND DAMAGE, DROUGHT, SEVERE FREEZING OR ABNORMAL RAINS WILL IN NO WAY BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL PLANT MATERIAL SHOWN ON THE DRAWINGS AND PLANT LIST, AS SUBMITTED WITH THE CONTRACT. THE LANDSCAPE CONTRACTOR SHALL HAVE INVESTIGATED THE SOURCES OF SUPPLY AND SATISFIED HIMSELF/HIMSELF THAT HE/SHE CAN SUPPLY ALL THE PLANTS SPECIFIED ON THE DRAWINGS IN THE SIZE, VARIETY AND QUALITY NOTED BEFORE SUBMITTING THE BID. FAILURE TO TAKE THIS PRECAUTION WILL NOT RELIEVE THE SUCCESSFUL BIDDER FROM THE RESPONSIBILITY FOR FURNISHING AND INSTALLING ALL THE PLANT MATERIAL IN STRICT ACCORDANCE WITH THE CONTRACT REQUIREMENTS AND WITHOUT ADDITIONAL EXPENSE TO THE OWNER. ON THE OTHER HAND, IF PROOF IS SUBMITTED THAT ANY PLANT SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF NEAREST EQUIVALENT SIZE OR VARIETY WITH AN EQUITABLE ADJUSTMENT OF CONTRACT PRICE. SUCH PROOF SHALL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE LANDSCAPE ARCHITECT WITH COPIES TO THE OWNER.
- NO REMOVAL OF NOXIOUS WEED ARE PROPOSED WITH THIS PLAN IN AREAS OUTSIDE OF THE LIMITS OF CONSTRUCTION.



- NOTES:**
- DO NOT DAMAGE MAIN ROOTS OR ROOT BALL WHEN INSTALLING TREE STAKE.
 - AERATE AREA SURROUNDING PLANTING PIT TO 6" MIN. DEPTH, 2 1/2 TIMES BALL DIAMETER.
 - WATER THOROUGHLY AFTER INSTALLATION.
 - REMOVE SAUCER AND STAKES TWO YEARS OR LESS AFTER INSTALLATION.
 - PROVIDE DRAINAGE FOR PLANTING PIT IF IN IMPERMEABLE SOIL.
 - ALL TREES MUST BE TAGGED AND APPROVED BY CONSULTANT WITHIN 14 DAYS AFTER TENDER CLOSING.

DECIDUOUS TREE DETAIL
3" CALIPER OR LESS



- SPECIFICATIONS:**
- DO NOT DAMAGE MAIN ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE STAKE.
 - AERATE AREA SURROUNDING PLANTING PIT TO 6" MIN. DEPTH, 2 1/2 TIMES BALL DIAMETER.
 - WATER THOROUGHLY AFTER INSTALLATION.
 - REMOVE SAUCER AND STAKES TWO YEARS OR LESS AFTER INSTALLATION.
 - PROVIDE DRAINAGE FOR PLANTING PIT IF IN IMPERMEABLE SOIL.
 - ALL TREES MUST BE TAGGED AND APPROVED BY CONSULTANT WITHIN 14 DAYS AFTER TENDER CLOSING.

CONIFEROUS TREE DETAIL
12' HGT OR LESS

**PROPOSED PLANT LIST
LARGE DECIDUOUS TREES**

CATEGORY	SCIENTIFIC NAME	COMMON NAME	NURSERY STOCK	CALIPER	QUANTITY	10-YR CANOPY CREDIT FOR EACH (SF)	TOTAL 10-YR CANOPY (SF)
Category IV Deciduous Trees	TILIA AMERICANA	AMERICAN LINDEN "LEGEND"	BALL AND BURLAP	2"	20	200	4000
Category III Deciduous Trees	BETULA NIGRA	RIVERBIRCH	BALL AND BURLAP	2"	20	150	3000
Category III Deciduous Trees	NYSSA SYLVATICA	BLACK GUM	BALL AND BURLAP	2"	20	150	3000
Category IV Deciduous Trees	ACER RUBRUM	RED MAPLE	BALL AND BURLAP	2"	20	200	4000
Category IV Deciduous Trees	QUERCUS ALBA	WHITE OAK	BALL AND BURLAP	2"	20	200	4000
Category IV Deciduous Trees	QUERCUS PHELLOS	WILLOW OAK	BALL AND BURLAP	2"	20	200	4000
Category IV Deciduous Trees	FAGUS AMERICANA	AMERICAN BEECH	BALL AND BURLAP	2"	20	200	4000
Category IV Deciduous Trees	LIRIODENDRON TULPIFERA	TULIP POPLAR	BALL AND BURLAP	2"	20	200	4000
SUBTOTAL =							30,000

LARGE EVERGREEN TREES

CATEGORY	SCIENTIFIC NAME	COMMON NAME	NURSERY STOCK	SIZE (HEIGHT)	Quantity	10-YR CANOPY CREDIT FOR EACH (SF)	TOTAL 10-YR CANOPY (SF)
Category IV Evergreen Trees	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	BALL AND BURLAP	7-8'	6	150	900
Category IV Evergreen Trees	PINUS VIRGINIANA	VIRGINIA PINE	BALL AND BURLAP	7-8'	6	150	900
Category III Evergreen Trees	PINUS ECHINATA	SHORTLEAF PINE	BALL AND BURLAP	7-8'	6	125	750
SUBTOTAL =							2550

TRANSITIONAL SCREENING AND BARRIER SUMMARY:

SUMMARY PROVIDED FOR INFORMATIONAL PURPOSES. TRANSITIONAL SCREENING AND BARRIER MODIFICATION REQUEST APPLICATION AND TRANSITIONAL SCREENING CALCULATIONS SUBMITTED UNDER SEPARATE COVER.

PROPOSED USE (SITE): R-1 CLUSTER

NORTH BOUNDARY (LEESBURG PIKE - ROUTE 7):

NO TRANSITIONAL SCREENING OR BARRIERS ARE REQUIRED.

EAST BOUNDARY (LIBERTY MEETING SUBDIVISION):

NO TRANSITIONAL SCREENING OR BARRIERS ARE REQUIRED. ADJACENT USE IS ZONED (R-1).

SOUTHERN BOUNDARY (SUGARLAND ROAD - ROUTE 804):

NO TRANSITIONAL SCREENING OR BARRIERS ARE REQUIRED.

WESTERN BOUNDARY (MENA ESTATES):

NO TRANSITIONAL SCREENING OR BARRIERS ARE REQUIRED. ADJACENT USE IS ZONED R-1

RPA REFORESTATION COMPLIANCE CHART

TYPE OF VEGETATION	REQUIREMENT	QUANTITY REQUIRED	PROVIDED	CODE
DECIDUOUS	25.00%	0.55	0.68	PFM 12-0516.4
SEEDLING	1 SEEDLING/100SF OF DISTURBED AREA	950	950	PFM 12-0516.4
SHRUB	1 SHRUB/100SF OF DISTURBED AREA	950	2374	PFM 12-0516.4
OVERSTORY	100 TREES/AC	218	436	118-3-3(f)
UNDERSTORY TREES	200 TREES/AC	436	636	118-3-3(f)
SHRUBS	1089 PLANTS/AC	2374	2374	118-3-3(f)

RPA Plant List

Common Name	Scientific Name	Nursery Stock	Size	Quantity
Overstory Trees				
Red Maple	Acer rubrum	seedling	18-24" height	78
Sweetgum	Liquidambar styraciflua	seedling	18-24" height	78
Sycamore	Platanus occidentalis	seedling	18-24" height	78
Pin Oak	Quercus palustris	seedling	18-24" height	78
Willow Oak	Quercus phellos	seedling	18-24" height	78
Sycamore	Platanus occidentalis	B&B	1" caliper	23
Willow Oak	Quercus phellos	B&B	1" caliper	23
Total =				436
Understory Trees				
Servicberry	Amenanchier laevis	seedling		112
River Birch	Betula nigra	seedling		112
American Hornbeam	Carpinus caroliniana	seedling		112
Eastern Redbud	Cercis canadensis	seedling		112
American Holly	Ilex opaca	seedling		112
American Hornbeam	Carpinus caroliniana	B&B	1" caliper	38
Eastern Redbud	Cercis canadensis	B&B	1" caliper	38
Total =				636
Shrubs				
Arrowwood Viburnum	Viburnum Dentatum		3 Gallon Containers	395
Spicebush	Undera benzoin		3 Gallon Containers	395
Summersweet	Clethra alnifolia		3 Gallon Containers	396
Blackhaw Viburnum	Viburnum prunifolium		3 Gallon Containers	396
Virginia Sweetpire	Itea virginica		3 Gallon Containers	396
Winterberry	Ilex verticillata		3 Gallon Containers	396
Total =				2374

PACIULLI

SIMMONS & ASSOCIATES
Established 1744

3975 Fair Ridge Drive
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Engineers
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SUMMERHOUSE LANDING

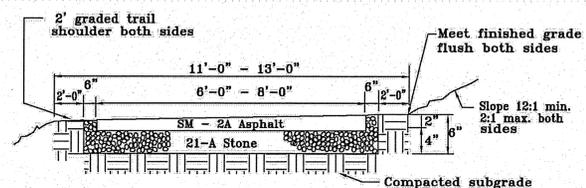
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

LANDSCAPE NOTES AND DETAILS

ANN O. GERMAIN
Lic. No. 028700
2/11/15
PROFESSIONAL ENGINEER

DATE: 8/4/14
FILE NO: F4642
DRN: LC
CKD: AOG

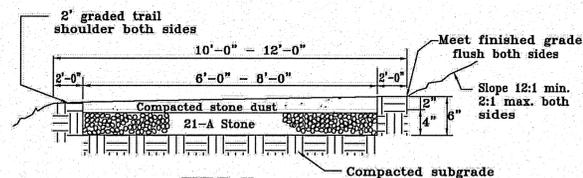
FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



TYPE I

Suitable for bicycle and general pedestrian use. 6' is the required minimum width for bikeways and 8' the required minimum for walkways. Wider sections may be required in heavily traveled areas.

Where soil is well drained and compactable, the stone base may be eliminated and this section replaced by a 3 1/2" full-depth asphalt section. Construction of this substitute section is subject to the approval of the Director.



TYPE II

Suitable for equestrian use, hiking and all-terrain (mountain) bicycle use in gently sloped topography. Susceptible to washout and sheet erosion on grades greater than 5%.

Depth of stone base depends on soil type, stability and drainage.

Ref. Sec. 8-0202.1B, 8-0203.1B	TRAIL CROSS-SECTIONS	PLATE NO.	STD. NO.
Rev. 1-00, 2011 Reprint		4-8	

SERVICE DRIVE WAIVER



Department of Public Works and Environmental Services, Fairfax County, Virginia
Waiver/Modification/Exception Application Form

PLEASE SUBMIT THIS FORM TO: **Waiver Number #** _____
Site and Addressing Center **Date Accepted:** _____
Customer and Technical Support Center
12055 Government Center Parkway, Suite 230
Fairfax, VA 22035-5504
703-222-0801, TTY 711

Requestor's Name: John Candler **Request Date:** _____
Company Name: Paciulli, Simmons & Assoc. Ltd.
Address: 3975 Fair Ridge Drive, Suite 300 South, Fairfax, VA 22033
Phone: 703-934-0900 **Email Address:** jcandler@psaitd.com

Engineer's Name: John Candler **Company Name:** Paciulli, Simmons & Assoc. Ltd.
Address: 3975 Fair Ridge Drive Suite 300 South, Fairfax, VA 22033
Phone: 703-934-0900 **Email Address:** jcandler@psaitd.com

Project Name: Summerhouse Landing
Project Number: 2014-DR-052 **Tax Map Ref:** 6-3 ((1)) 33&33A
Rezoning Case #: _____ **District:** Dranesville

REQUEST FOR: Waiver Modification Exception Determination

CODE REFERENCE: 7-0104.1 of PFM Zoning Ordinance County Code

Description:
All state roads that have a route number below 600 must have a service drive provided by the development that abuts it.

Justification Narrative:
The proposed development's adjoining properties have no existing or proposed vehicular travel lane on either side. (see attached sheets)
The surrounding properties are all zoned for single family detached dwellings. (See attached sheets)
With no service drive to east or west of the subject property. According to Fairfax County Zoning Ordinance 17-201.3.D the service drive may be waived with those two requirements.

Additional justification narrative attached: Yes No Number of pages attached: 2

Potential Impacts Narrative:
No adverse impacts will happen from this waiver. This waiver will keep from an unnecessary service drive being created. See attached plan sheets for reference.

Additional potential impact narrative attached: Yes No Number of pages attached: 2

Additional Supporting Documentation Attached (if necessary):
Tax Map _____
Aerial Photo _____

SUBDIVISION ORDINANCE WAIVERS:
Notices are required for Subdivision Ordinance waivers submitted pursuant to § 101-2-2-(19).
Attachments: List of property owners, the local civic association (CA) and district council notified;
 Copy of written notification letter (and attached plan); and
 Copies of certified mail (white) receipts. Date Notices Mailed: _____
 Releases executed by all property owners, the local CA, and district council (if waiver approval sooner than 30 days from postmark date is sought per § 101-2-2-(19)(C)).

STORMWATER MANAGEMENT ORDINANCE EXCEPTIONS:
Exceptions to the provisions of Articles 4 or 5 of the Stormwater Management Ordinance (SWMO) may be granted by the Director in accordance with SWMO § 124-6-1, subject to the following:
1. - The exception is the minimum necessary to afford relief;
2. - Reasonable and appropriate conditions will be imposed as necessary upon any exception granted so that the intent of the Virginia Stormwater Management Act and the SWMO are preserved;
3. - Granting the exception will not confer any special privileges that are denied in other similar circumstances; and -
4. - Exception requests are not based upon conditions or circumstances that are self-imposed or self-created.
Please note that economic hardship alone is not sufficient reason to grant an exception from the requirements.

Water Quality and/or Water Quantity Exceptions: If this application is requesting an exception to the stormwater water quality or quantity control requirements, please complete and attach the applicable Worksheet, and include the additional required supporting documentation.
Attachment(s): Water Quality Exception Worksheet
 Water Quantity Exception Worksheet

LETTER OF JUSTIFICATION

This letter of justification is to accompany the PFM Waiver Request Form for a service drive (PFM 7-0104.1) to Route 7 on the above-specified project.

The proposed project consists of the demolition of an existing golf range located at 11801 Leesburg Pike, tax map #s 006-3((1)): 33 & 33A. The subject site will be developed into a cluster subdivision consisting of 30 lots. There is an existing RPA delineation located in the northern portion of the site that extends from east to west. The subject property is located between Rt. 7 to the north and Sugarland Road to the south. The proposed interior road for the subdivision will connect with Sugarland Road; the variance with code will occur with the lack of a designed service drive for Leesburg Pike.

Justification for Chosen Design Criteria/Justification for Variation from Standard

There are existing developments both to the West (11819 Leesburg Pike and 11817 Leesburg Pike) and East (Dranesville Methodist Church) and according to Zoning Ordinance 17-201.3.D the service drive may be waived if the adjoining properties have no existing or proposed vehicular travel lane on either side and they are zoned for single family detached dwellings. All of the surrounding properties are zoned for R-1 with detached dwellings and have no current or future plans of having a service drive.

Currently there is a VDOT project that is expanding Route 7 along the subject site which does not have a service drive planned and has no future plan for one.

Additional Information

See next page for aerial map of subject property and developed surrounding properties. Next section also has applicable sheets from plan (Sheets 2-3).

SSAR WAIVER

December 2011



SECONDARY STREET ACCEPTANCE REQUIREMENTS
EXCEPTION REQUEST FORM

Submitted by: John Candler	Date: 12/2/2014
Email Address: jcandler@psaitd.com	Phone: 703-934-0900
Address: 3975 Fair Ridge Drive, Suite 300 South, Fairfax, Va 22033	
Development or Subdivision Name: Summerhouse Landing; SE2014-DR-052	
County: Fairfax	Connecting Route #: 604 Name: Sugarland Road
Description of Proposed Project: The proposed project will consist of a cluster subdivision to be located on two parcels where there is currently a golf course.	

FOR VDOT USE ONLY

Date received by VDOT:	Initial review conducted by:
District Administrator's designee:	Is exception required to be determined by D.A.?
Deadline to finalize exception decision:	Date developer & locality notified of decision:

NOTES:
(i) Attach additional information as necessary describing the reasons for the exception request.
(ii) Use the LD-440 Design Exception or the LD-448 Design Waiver forms for design related standards (e.g. design speed). See IIM-LD-227.5 for additional instructions.

SSAR Exception Request Form (continued)

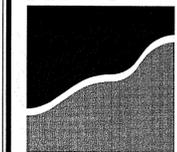
2. **Multiple Connections in Multiple Directions** (Section 60, C, 1. on page 15 of regulation)
Number of connections and related directions being proposed: 1 connection with Sugarland Road.
Reason for exception: The proposed project does not meet the minimum of two (2) connections specified by 24VAC-30-92-60-2.
Why multiple connections in multiple directions can NOT be met.
 Specify reason: Per 24VAC-30-92-60-C.2.a and 24VAC-30-92-60-C.2.e - see attached letter.
 Attached documentation supporting reason for exception.

SSAR Exception Request Form (continued)

Exception Request Recommendation: Approve <input checked="" type="checkbox"/> Deny <input type="checkbox"/>	Date: 1-13-2015
Person completing recommendation: Paul J. Braverman	
Reasons for recommendation (required): The area to the south is bounded by Route 7 and a RPA and the area to the east and west are mature residential neighborhoods that are not subject to redevelop. Fairfax County supports this request.	

Exception Request Action: Approved <input checked="" type="checkbox"/> Denied <input type="checkbox"/>	Date: 1/13/14
Action taken by District Administrator or Designee (name): Helen L. Lewis	
Reasons for action (required):	

PACIULLI



SIMMONS & ASSOCIATES
Established 1744

3975 Fair Ridge Drive
Suite 300 South
Fairfax, VA 22033
PH 703.934.0900
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Engineers
Planners
Surveyors
Landscape Architects
Wetland Specialists
Environmental Scientists
Archaeologists

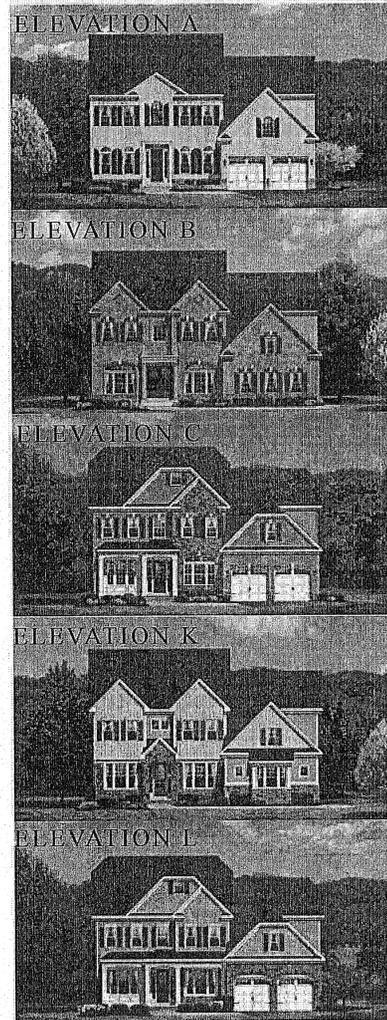
SUMMERHOUSE LANDING

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

CORRESPONDENCE AND
DETAILS



DATE: 8/4/14
FILE NO: F4642
DRN: LC
CKD: AOG



ELEVATION A



ELEVATION B



ELEVATION D



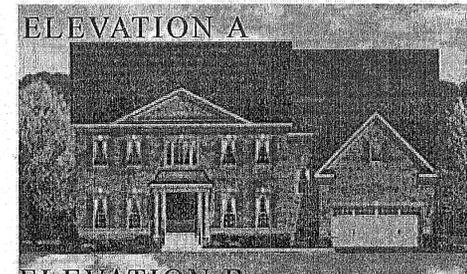
ELEVATION A



ELEVATION D



ELEVATION E



ELEVATION B



ELEVATION C



ELEVATION D



ELEVATION A



ELEVATION B



ELEVATION D

NOTE: THESE ELEVATIONS ARE CONCEPTUAL AND FINAL ELEVATION AND ARCHITECTURE WILL BE DETERMINED AT FINAL HOUSE SITING.

DESCRIPTION OF THE APPLICATION

The applicant, Trinity Land, L.L.C., requests approval of SE 2014-DR-052 in order to permit a cluster residential development on 28.93 acres of land southeast of Dranesville Tavern on what currently exists as Woody's Golf Range. Density credit is applied to the application site as prior land area on the site was dedicated for public street purposes along the site's Leesburg Pike frontage. With the applied density credit, the application site consists of 30.0256 acres. The applicant is proposing to construct 30 single-family detached units [1.0 dwelling unit per acre (du/ac)] on two new public streets, accessed from Sugarland Road. The site is zoned R-1 (one dwelling unit per acre) and is located in the Dranesville Tavern Historic Overlay District.

A reduced copy of the Special Exception (SE) Plat is included at the front of this report. The proposed development conditions, the Applicant's Affidavit and the Statement of Justification are contained in Appendices 1, 2 and 3, respectively.

Waivers and Modifications

The applicant requests a waiver of the service drive requirement along Leesburg Pike per Par. 3(A) of Sect. 17-201 of the Zoning Ordinance.

LOCATION AND CHARACTER

Location

The application site is located south of Leesburg Pike, north of Sugarland Road, and southeast of Dranesville Tavern at Tax Map 6-3 ((1)) 33 and 33A. It is currently developed with a golf driving range (Woody's Golf Range) which has access from Leesburg Pike. Access to the proposed residential development will be provided off of Sugarland Road, with two new public streets within the development.

Site Description

The application site consists of two parcels of land that are mostly cleared and grassy. The northern and western portions of the site are heavily wooded. The northern portion of the site falls within the Resource Protection Area (RPA) and the Environmental Quality Corridor (EQC) due to a stream channel that traverses the site from east to west. Poor draining soils and mild topography also characterize the site. The site is immediately surrounded by a church and single-family detached houses to the east, single-family detached house to the south, Dranesville Tavern and single-family detached houses to the west, and across Leesburg Pike to the north by an auto shop, Holly Knoll Park and single-family detached houses.



Figure 1: Aerial view of site (Source: Fairfax County GIS)

SURROUNDING AREA DESCRIPTION			
Direction	Existing Zoning	Existing Use	Plan
North	C-8; R-1	Commercial; Single-Family Detached (Holly Knoll); Parkland	Retail and Other Commercial Uses; Residential (.2-.5 du/ac); Public Park
East	R-1	Dranesville United Methodist Church; Single-Family Detached (Liberty Meeting)	Residential (.2-.5 du/ac)
South	R-1	Single-Family Detached (Timber Knoll)	Residential (.2-.5 du/ac)
West	R-1	Single-Family Detached (Mena Estates); Dranesville Tavern	Residential (.2-.5 du/ac)

BACKGROUND

There are no previously accepted rezoning applications or proffers associated with the subject property. Four Special Permit applications have been approved on the subject property, all for Woody's Golf Range. None of these applications encumber the current SE proposal; the golf range will end its operation at this location with the proposed development, thus terminating the Special Permits.

COMPREHENSIVE PLAN PROVISIONS

Plan Area:	Area III
Planning District:	Upper Potomac Planning District
Planning Sector:	UP4-Greater Herndon Community Planning Sector
Plan Map:	Residential .2-.5 du/ac
Plan Text:	

The Fairfax County Comprehensive Plan, 2013 Edition, Area III, Upper Potomac Planning District, Amended through 12-2-2014, UP4-Greater Herndon Community Planning Sector, Page 163, as applied to the application area, states the following:

The area (1b) generally located east of Sugarland Run is planned for residential development at .5-1 dwelling unit per acre. This provides for compatible density west of Sugarland Run and a low density buffer type area adjacent to the Sugarland Run stream valley. The area in Reston should conform to the Reston Master Plan.

Density within the Dranesville Tavern Historic Overlay District is planned for .2-.5 dwelling unit per acre, except for the area west of Holly Knoll Drive and south of Leesburg Pike where it is planned for .5-1 dwelling unit per acre.

Cluster residential development should be used to preserve open space.

DESCRIPTION OF THE SPECIAL EXCEPTION (SE) PLAT

(Copy included at the front of the report)

Title of SE Plat:	Summerhouse Landing
Prepared By:	Paciulli Simmons & Associates
Original and Revision dates:	August 4, 2014 through February 11, 2015

The GDP/SE Plat consists of 11 sheets.

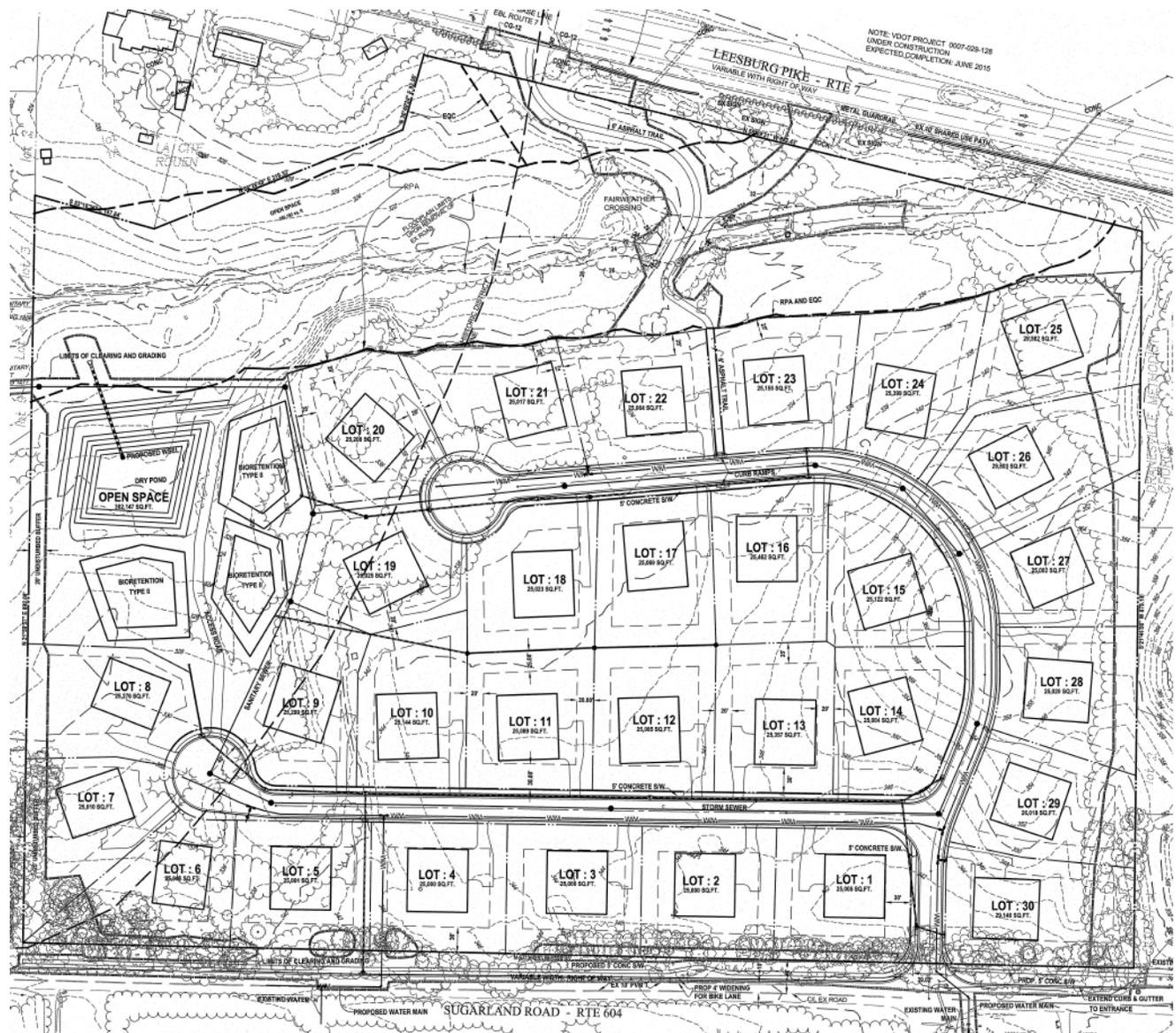


Figure 2: Site layout

Proposed Layout

The SE Plat (Figure 2) clusters the 30 proposed lots towards the southern portion of the site in order to respect the RPA. There will be full restoration of that portion of the site which falls within the RPA (the northern portion of the site). The proposed lots average 25,608 square feet in area. All dwellings will have a minimum 30-foot front yard setback, 25-foot rear yard setback and 12-foot side yard setback for one side (with a minimum 40 total feet of side yard setback), which meets the regulations of the R-1 Cluster District. All dwellings will have at least two-car garages with two parking spaces in the driveways. Stormwater is accommodated by three rain gardens and a dry pond detention facility located west of the northernmost cul-de-sac.

The two existing access points to Woody's Golf Range along Leesburg Pike will be closed with the proposed development. Access to the development will instead be provided via a new access point located off of Sugarland Road. From this access point, one new public street will extend northward and then curve west, terminating in a 45-foot wide cul-de-sac. A second public street will intersect the first public street near the southern portion of the site, also extending westward and terminating in a 45-foot wide cul-de-sac.

Vehicular and Pedestrian Circulation

As noted above, the SE Plat shows that the property will be accessed from Sugarland Road, with two new public streets terminating in cul-de-sacs within the development. Both of these public streets will be 24 feet wide. A 5-foot wide concrete sidewalk is proposed along one side of the public streets, connecting to a new proposed 5-foot wide concrete sidewalk along the Sugarland Road frontage. In addition, a 6-foot wide asphalt trail will connect the development to a future 10-foot wide shared use path along Leesburg Pike (per VDOT improvements along Leesburg Pike).

Parking

The parking tabulations on Sheet 2 of the SE Plat show the development will meet the Zoning Ordinance requirement of 60 parking spaces (30 units X 2 parking spaces). Each unit will have at least two parking spaces in the garage and two parking spaces in the driveway, exceeding the parking requirement by at least 60 additional spaces. There will also be available on-street parking.

Landscape and Open Space

The proposal's 31.1 percent (9.0 acres) open space meets the minimum required 30 percent open space for the application site. This open space area is primarily comprised of RPA. The EQC is generally consistent with the RPA boundary with the exception of additional EQC area west of the proposed 6-foot wide asphalt trail connection. Sheet 7 of the SE Plat, which shows the proposed landscape design, indicates that the trees in the RPA will be preserved. Those areas within the RPA that are currently unforested will be reforested. A 20- to 25-foot wide undisturbed buffer of tree preservation will be provided along the western edge of the site. Proposed trees around the detention pond will be located to provide screening, to buffer the RPA and to minimize disturbance to existing trees in the RPA. Additional plantings will be provided throughout the development, particularly between the northernmost dwellings and the RPA boundary.

Stormwater Management

An unnamed tributary with a drainage area of approximately 159 acres runs across the northern portion of the site from east to west, and flows into Sugarland Run. The majority of the application site flows into this tributary. The southeastern corner of the site flows into a shallow ditch along Sugarland Road. The runoff is then conveyed under the road via an existing culvert. As proposed, approximately 2.21 acres of the site will discharge as sheet flow directly over the open space (RPA). Approximately 16.47 acres of the site will be

treated with a combination of type II bioretention facilities and a dry pond detention facility. Rooftop disconnection will be used to divert the site runoff into the bioretention facilities. The lots will drain via shallow channel flow to street or yard inlets, with intercepted flow conveyed via storm sewer to the bioretention facilities. As the soils onsite are characterized as fair to poor capacity for infiltration, the bioretention facilities will incorporate an underdrain system to discharge to the dry pond. The total phosphorus load reduction will be 12.74 lbs. per year, which is 0.36 lbs. per year more than the required phosphorus load reduction of 12.38 lbs. per year. Stormwater detention will be provided to reduce the site peak runoff from the one year storm to a level below the allowable one year flow as established by the energy balance equation, in accordance with state and county standards.

Architecture

Sample architectural elevations, which are included on Sheet 10 of the SE Plat, depict large, single-family detached units with two car garages. The dwellings contain three levels, not to exceed 35 feet in height. The typical lot layout on Sheet 1 of the SE Plat shows the typical dwelling dimensions as 72 feet by 75 feet for dwellings with reverse frontage on Sugarland Road, and 72 feet by 78 feet for all other dwellings. In support of energy conservation and green building techniques, the applicant will seek certification in accordance with the Earth Craft House Program, the National Green Building Standard ENERGY STAR Qualified Homes path, or the National Association of Home Builders National Green Building Program for each dwelling.

STAFF ANALYSIS

Land Use

Policy Plan Guidelines for Cluster Development (Appendix 5)

The preservation of open space, the protection of environmentally sensitive lands, the provision of opportunities for active and passive recreation, the reduction of the impact of stormwater runoff and erosion, the achievement of high quality design, and the provision of efficient development are fundamental to the preservation of quality of life, the primary goal of Fairfax County's policies and priorities. Cluster development is one tool that may be used to further this goal. The following criteria will be considered when reviewing a cluster subdivision:

- 1. Individual lots, buildings, streets and parking areas should be designed and situated to minimize disruption to the site's natural drainage and topography.*

The proposed development's layout has been designed to respect the RPA, where much of the site naturally drains as sheet flow. The proposed layout clusters the lots away from the RPA and towards the relatively flat area of the site that is already mostly cleared.

- 2. Environmental Quality Corridor (EQC) lands should be preserved and should be dedicated to the county whenever such dedication is in the public interest.*

The proposed layout preserves the EQC, which is shown on the SE Plat. No lot is proposed within the EQC boundary.

3. *Site design should take advantage of opportunities to preserve high quality open space or to provide active or passive recreation and should be sensitive to surrounding properties, in order to be compatible with and to complement surrounding development.*

The proposed layout has been designed to incorporate contiguous open space on the northern portion of the site, much of which falls within the RPA and EQC. A trail connection is shown on the SE Plat, which will connect the proposed development to Leesburg Pike through the open space area. There is also a 5-foot wide concrete sidewalk proposed along the Sugarland Road frontage. The applicant has included a note on the SE Plat which states that a gathering area, such as a pavilion or gazebo, will be provided in the open space area near the proposed rain gardens. Staff would welcome the provision of more active amenities on the application site.

4. *No cluster development should be considered when the primary purpose of the clustering is to maximize density on the site.*

The purpose of the cluster development for this proposal is to respect the RPA and EQC and to create high-quality, contiguous open space. The cluster development is not intended to increase density. The proposed density of the site is 1.0 du/ac, which falls below the maximum density of 1.1 du/ac permitted on site. The use of the cluster provisions allows the applicant to develop the site while remaining outside of the RPA/EQC. Lot 25 is shown as a pipestem lot, which is generally discouraged per the Zoning Ordinance. Staff believes that the development would be improved if this area were to have a community open space.

Residential Development Criteria (Appendix 6)

Fairfax County expects new residential development to enhance the community by fitting into the fabric of the neighborhood, respecting the environment, addressing transportation impacts, addressing impacts on public facilities, being responsive to historic heritage, contributing to the provision of affordable housing, and being responsive to the unique, site specific considerations of the property. Accordingly, all zoning requests for new residential development are evaluated based on the following eight criteria:

1. Site Design

The Site Design criterion requires that the development proposal address consolidation goals in the plan, further the integration of adjacent parcels, and not preclude adjacent parcels from developing in accordance with the Plan. In addition, the proposed development should provide useable, accessible and well-integrated open space, appropriate landscaping and other amenities.

The applicant's proposal includes two parcels near existing residential developments. The

Comprehensive Plan states that the subject property should be developed with residential development between the range of .2 - .5 du/ac. However, the site is currently zoned R-1 which permits one dwelling unit per acre. The applicant has provided an exhibit depicting a by-right development scenario of the subject site with a yield of 30 lots (which is the same as proposed under the cluster subdivision). It should be noted that the by-right scenario assumes that two of the lots would have driveway access directly from Leesburg Pike. Even though there are a few adjacent lots which currently have driveways located off Leesburg Pike, staff is not certain that VDOT would accept these additional driveway locations. Even so, the special exception does not propose density above the maximum density for cluster subdivisions in the R-1 district (which is 1.1 du/ac). Furthermore, the proposed cluster subdivision allows this development to respect the RPA and to provide contiguous open space.

The site is immediately surrounded by residential communities of similar character in all directions (zoned R-1 with single-family detached dwellings), as well as Holly Knoll park and a vehicle repair shop to the north across Leesburg Pike, a church to the east, and Dranesville Tavern to the west. Staff finds the proposed development of 30 single-family detached houses to be compatible with the surrounding area. The provision of a 5-foot wide concrete sidewalk along Sugarland Road and a 6-foot wide asphalt trail that connects the development to Leesburg Pike ensure connectivity to adjacent parcels. As noted earlier, staff believes that the proposed layout could be improved with the provision of additional community amenities, possibly in the location of the proposed Lot 25.

Neighborhood Context

The Neighborhood Context Development Criterion requires the development proposal to fit into the fabric of the community as evidenced by an evaluation of the bulk/mass/orientation of proposed dwelling units, lot sizes, architectural elevations/materials, and changes to existing topography and vegetation in comparison to surrounding uses.

In staff's opinion, the proposal is sensitive to the surrounding neighborhood context. The eastern portion of the site will be adequately buffered with existing trees, and the adjacent community to the west will be separated by at least a 20-foot wide undisturbed buffer along with existing offsite vegetation. Sugarland Road separates the adjacent community to the south from the subject site and the RPA and Leesburg Pike separate the development from communities to the north. With the proposed units facing interior to the new subdivision streets, the lot orientation is logical. The proposed lot sizes for the application site (25,608 square feet on average) are slightly smaller in size to lots in the surrounding area, which range from approximately 21,000 square feet to 50,000 square feet. (Most of the developments immediately adjacent to the application site have average lot sizes within the 28,000 square feet to 38,000 square feet range.) The proposed house sizes are also in character with other houses in the greater community. Though some trees are being removed to allow for the development of the property, the applicant is exceeding the tree canopy requirement, primarily through preservation of trees outside of the development area, and the provision of new plantings in the development area.

2. Environment

This Criterion requires that developments respect the natural environment by conserving natural environmental resources, account for soil and topographic conditions and protect current and future residents from the impacts of noise and light. Developments should minimize off-site impacts from stormwater runoff and adverse water quality impacts.

Due to a stream channel that traverses the northern portion of the site, this area is designated as a minor floodplain and RPA. There is also an EQC, which is generally consistent with the RPA boundary. No development is proposed within the RPA or EQC, as the cluster subdivision is sought after in order to respect the RPA and EQC. In addition, the development proposes to remove all existing impervious area from the RPA and to restore the RPA to a natural condition. The applicant is proposing rain gardens and a dry detention pond to address stormwater management. The applicant will be seeking green building certification. At the time of subdivision review, the applicant will be performing a geotechnical study. The applicant has provided a preliminary noise study and the applicant will be performing a more in-depth acoustical noise study based on all proposed roadway improvements and projecting future noise volumes at the time of site plan review to ensure that noise levels in interior areas do not exceed 45 decibels and noise levels in outdoor recreation areas do not exceed 65 decibels. A development condition has been provided to this effect.

Stormwater Management Analysis (Appendix 9)

According to the applicant's stormwater narrative and adequate outfall analysis, stormwater management will be accommodated by a system that includes rooftop disconnection, three bioretention facilities and a dry detention pond. Water quality volume will be provided to meet 2014 stormwater management criteria using the runoff reduction method. The total load reduction required for stormwater detention is 12.38 lbs. per year. The applicant is exceeding this requirement by reducing the site's runoff by 24.24 lbs. per year. While the restored RPA will not receive credit towards water quality, it will provide additional phosphorus removal. At the time of staff report publication, the applicant has not provided any commitment to assist the future development's homeowners' association (HOA) in the maintenance of the rain gardens. Staff encourages the applicant provide seed money for a BMP maintenance fund, and Staff will continue to confer with the applicant on this issue.

3. Tree Preservation & Tree Cover Requirements

Urban Forest Management Analysis (Appendix 10)

This Criterion states that all developments should be designed to take advantage of existing tree cover and developed appropriately to disturb as little existing tree cover as possible, including the extension of utility improvements to the site.

The majority of the site currently exists as cleared, grassy land (used for a golf driving range), with significant tree cover on the western and northern portions of the site. While the applicant is proposing to remove many of the existing trees, the project meets the

Zoning Ordinance requirement for tree canopy cover. The 30 percent requirement for 10-year tree canopy coverage calls for approximately 377,979 square feet of tree canopy. The applicant will exceed this requirement through approximately 246,891 square feet of existing tree preservation, and an approximately 143,682 square feet of additional tree plantings for a total of approximately 390,573 square feet of 10-year tree canopy. There are no transitional screening or barrier requirements for the site. Staff believes this criterion is met.

4. Transportation (Appendix 8)

Criterion 5 requires that development provide safe and adequate access to the surrounding road network, and that transit and pedestrian travel and interconnection of streets should be encouraged. In addition, alternative street designs may be appropriate where conditions merit.

The two existing access points to Woody's Golf Range along Leesburg Pike will be closed as a part of this proposal. The westernmost entrance located across from Redberry Court will temporarily remain open to serve as the entrance for construction vehicles for the proposed development. This will keep construction traffic out of the site's surrounding neighborhoods during the construction phase of the project. A development condition has been provided speaking to the applicant's agreement to close this existing access point off of Leesburg Pike to Woody's Golf Range once construction is completed. In addition, a VDOT project is already underway for improvements to Leesburg Pike along the application site's frontage. The applicant has been coordinating with VDOT regarding the Leesburg Pike improvements, including the proposed Leesburg Pike eastbound right-turn lane and traffic signal timing at the Leesburg Pike and Redberry Court intersection, guardrail construction, landscaping improvements, and the trail connection to the application site. Appendix 8 discusses these improvements in further detail, and development condition language has been provided speaking to these improvements.

The proposed development will be accessed from a new entrance located off of Sugarland Road, with two new public streets within the development which terminate in cul-de-sacs. The cul-de-sacs will have 45-foot radii to serve as turnarounds for emergency vehicles and VDOT maintenance vehicles. An SSAR waiver for multiple connections has been approved by VDOT. The applicant will be improving the Sugarland Road frontage with a pavement extension for a 4-foot wide bike lane, curb and gutter, and a 5-foot wide concrete sidewalk that will tie into the existing sidewalk to the east of the application site. This sidewalk will also tie into the 5-foot wide concrete sidewalk proposed on one side of the public streets within the development. In addition, the applicant will provide a 6-foot wide asphalt trail connection from within the development to Leesburg Pike. Overall, staff believes that safe and adequate vehicle and pedestrian circulation is provided.

5. Public Facilities

Criterion 6 states that residential developments should offset their impacts upon public facility systems (i.e. schools, parks, libraries, police, fire and rescue, stormwater management and other publicly owned community facilities). Impacts may be offset by

the dedication of land, construction of public facilities, contribution of in-kind goods, services or cash earmarked for those uses, and/or monetary contributions to be used toward funding capital improvement projects.

The applicant has agreed to provide a monetary contribution for recreational facilities. As stated earlier, the applicant has proposed stormwater measures that, subject to DPWES approval, will provide a tangible benefit to the proposed residents. Overall, staff believes this criterion is adequately addressed. Specific public facilities issues are discussed below.

Park Authority Analysis (Appendix 11)

The applicant has agreed to fulfill the Park Authority's requests for a fair share contribution of \$893 per new resident for a total of \$83,049 to offset the effects to service levels at nearby facilities. However, the applicant is proposing to deduct the cost of the provided recreational facilities, including the 6-foot wide asphalt trail and community gathering area amenity, from the contribution total. Staff strongly encourages the applicant to contribute the full \$83,049 without deducting the cost of the provided recreational facilities, as the contribution is intended to offset impacts to parks by the additional residents.

Fairfax County Public Schools (FCPS) Analysis

There is no increase in impact to schools from the proposal, as the proposal for 30 single-family detached dwellings is not a greater density than what is allowable by-right per the Zoning Ordinance.

Sanitary Sewer and Water Service Analysis (Appendix 12)

The site is located within the Sugarland Run watershed. It will be sewerred into the Blue Plains Treatment Plant. Sanitary service is provided from Dranesville Manor Drive. Water connects to an existing line that runs along Sugarland Road.

6. Affordable Housing

This Criterion states that ensuring an adequate supply of housing for low and moderate income families, those with special accessibility requirements, and those with other special needs is a goal of Fairfax County. This Criterion may be satisfied by the construction of units, dedication of land, or by a contribution to the Housing Trust Fund.

As the applicant's proposal falls below the 50-unit minimum, the Affordable Dwelling Unit ordinance is not applicable. The applicant has not agreed to provide the requested contribution to the housing trust fund in an amount equal to one-half of one percent of the value of all of the units. Staff continues to encourage the applicant to provide this contribution.

7. Heritage Resources (Appendix 13)

This Criterion requires that developments address potential impacts on historical and/or archaeological resources through research, protection, preservation, or recordation.

As the application site is partially located within the Dranesville Tavern Historic Overlay District, the Fairfax County Architectural Review Board (ARB) reviewed the Special Exception application. The ARB recommended approval of the application at its October 9, 2014 meeting.

ZONING ORDINANCE PROVISIONS (Appendix 14)

Bulk Standards (R-1 Cluster)		
	Required	Provided
Minimum Lot Size	10 acres	28.93
Minimum Lot Width	Interior lot – no requirement	N/A
Maximum Building Height	35 ft.	35 ft.
Front Yard	30 ft.	30 ft.
Side Yard	12 ft., but a total minimum of 40 ft.	12 ft., 40 ft. total
Rear Yard	25 ft.	25 ft.
Floor Area Ratio (FAR)	1.1	1.0
Open Space	30.0%	31.1%
Parking Spaces	60 (2 per du)	120 (4 per du)

*There are no transitional screening or barrier requirements for the proposal.

Special Exception Requirements

General Special Exception Standards (Sect. 9-006)

General Standard 1 states that *the proposed use at the specified location shall be in harmony with the adopted Comprehensive Plan.*

The Comprehensive Plan states that the Leesburg Pike corridor in this area should be reserved for residential development. This proposal will terminate a commercial use and establish a residential use, which is contemplated under the Comprehensive Plan. The Comprehensive Plan also states that cluster development should be used to preserve open space. In staff's evaluation, the proposed use is in harmony with the recommendations of the Comprehensive Plan.

General Standard 2 states that *the proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations.*

As the property is zoned R-1, the proposal for 30 single-family detached dwellings at a density of 1.0 du/ac remains consistent with the purpose and intent of the R-1 District, which calls for low density single-family detached dwellings.

General Standard 3 requires that the proposed use *shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof.*

The property is adjacent to other residential developments of similar character with similar dwelling and lot sizes. While there are no transitional screening or barrier requirements for the application site, the proposal will provide buffer areas between adjacent developments. Staff believes that the proposal for 30 single-family detached dwellings will not hinder or discourage the development of adjacent or nearby land.

General Standard 4 states that *the proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.*

The applicant proposes two new public streets with sidewalks on one side of the interior streets within the development, as well as a new sidewalk along the Sugarland Road frontage, and a trail connection from the development to Leesburg Pike. The applicant also proposes to close the two existing commercial entrances to the site. In Staff's view neither pedestrian nor vehicular traffic will create a conflict with existing and anticipated traffic in the neighborhood. This standard is satisfied.

General Standard 5 requires *that landscaping and screening be provided in accordance with the provisions of Article 13.*

The proposal exceeds the 10-year tree canopy requirement, and there are no transitional screening or barrier requirements. Therefore, the application meets this standard.

General Standard 6 requires that *open space be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.*

The site is within the R-1 Zoning District, which requires 30 percent open space for cluster developments. The proposal meets this requirement with a total of 31.1 percent open space.

General Standard 7 requires that *adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking and loading requirements are proposed to be in accordance with the provisions of Article 11.*

Adequate utility and drainage facilities exist to serve the proposed development. The proposal exceeds the parking requirement and there are no loading requirements. This standard is satisfied.

General Standard 8 requires that *signs be regulated by the provisions of Article 12; however, the Board may impose more strict requirements for a given use than those set forth in this Ordinance.*

Signage will be maintained as required by Article 12 of the Zoning Ordinance.

Waivers/Modifications:

Waiver of the service drive requirement along Leesburg Pike per Par. 3(A) of Sect. 17-201 of the Zoning Ordinance.

Par. 3(A) of Section 17-201 of the Zoning Ordinance requires a service drive for the full length of the development along the primary highway, Leesburg Pike. VDOT is in the process of improving Leesburg Pike and due to the location of the ramp off the Fairfax County Parkway, a service drive would not be feasible. In addition, there is no planned access to the application site from Leesburg Pike. Staff does not object to this waiver.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The application seeks approval of a Special Exception for a cluster subdivision to permit the development of 30 single-family detached units. Staff finds SE 2014-DR-052 to be in harmony with the Comprehensive Plan and in conformance with all applicable provisions of the Zoning Ordinance with the implementation of the proposed development conditions contained in Appendix 1 of the Staff Report.

Staff Recommendations

Staff recommends approval of SE 2014-DR-052 subject to the proposed development conditions contained in Appendix 1.

Staff recommends approval of a waiver of the service drive requirement along Leesburg Pike per Par. 3(A) of Sect. 17-201 of the Zoning Ordinance.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

The approval of this special exception amendment does not interfere with, abrogate or annul any easement, covenants, or other agreements between parties, as they may apply to the property subject to this application.

APPENDICES

1. Proposed Development Conditions
2. Affidavit
3. Statement of Justification
4. Architectural Elevations
5. Guidelines for Cluster Development
6. Residential Development Criteria
7. Environmental Analysis
8. Transportation (FCDOT and VDOT) Analysis
9. Stormwater Management Analysis
10. Urban Forest Management Analysis
11. Park Authority Analysis
12. Sanitary Sewer and Water Service Analysis
13. Heritage Resources
14. Zoning Ordinance Provisions
15. Glossary

PROPOSED DEVELOPMENT CONDITIONS**SE 2014-DR-052****February 17, 2015**

If it is the intent of the Board of Supervisors to approve SE 2014-DR-052 located at 11801 Leesburg Pike [Tax Map 6-3 ((1)) (1) 33, 33A] to permit a cluster subdivision pursuant to Sect. 3-104 and 9-615 of the Fairfax County Zoning Ordinance, staff recommends that the Board condition the approval by requiring conformance with the following development conditions.

GENERAL:

1. This Special Exception is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This Special Exception is granted only for the purpose(s), structure(s), and/or use(s) indicated on the Special Exception Plat, as qualified by these development conditions.
3. A copy of this Special Exception shall be posted in a conspicuous place on the property of the use and made available to all departments of the County of Fairfax.
4. This Special Exception is subject to the provisions of Article 17, Site Plans, as may be determined by the Director, Department of Public Works and Environmental Services (DPWES). Any plan submitted pursuant to this special exception shall be in substantial conformance with the approved Special Exception Plat entitled *Summerhouse Landing*, prepared by Paciulli Simmons & Associates, dated August 4, 2014 as revised through February 11, 2015, consisting of eleven sheets and these conditions. Minor modifications to the approved Special Exception Amendment may be permitted pursuant to Paragraph 4 of Section 9-004 of the Zoning Ordinance.

HOMEOWNERS ASSOCIATION:

5. Prior to record plat approval, a Homeowners' Association (HOA) shall be established in accordance with Sect. 2-700 of the Zoning Ordinance for the purpose of, among other things, establishing the necessary residential covenants governing the use and operation of common open space and other facilities of the approved development, maintenance of BMP facilities, and to provide a mechanism for ensuring the ability to complete the maintenance obligations, including an estimated budget for such common maintenance items.
6. Prior to entering into a contract of sale, home purchasers shall be notified in writing by the Applicant, or its successors or assigns, of maintenance responsibility for the

BMP facilities, common area landscaping, tree preservation areas, and any other open space amenities and shall acknowledge receipt of this information in writing. The initial deeds of conveyance and HOA governing documents shall expressly contain these disclosures.

TRANSPORTATION:

7. The existing Woody's Golf Range shall permanently terminate the commercial use operation by a date certain of November 1st, 2015.
8. Upon completion of the realigned western entrance to the application site off of Leesburg Pike by VDOT, the closure of the existing use on the site, and prior to its use as a construction entrance, barriers shall be erected on the western entrance to prevent vehicles from entering the site from Leesburg Pike.
9. The existing entrance to Leesburg Pike across from Redberry Court constructed with VDOT Project NFO 0007-029-128, C501 may be used as a construction vehicle entry subject to VDOT approval. A construction access plan shall be provided by the Applicant for the review and approval by VDOT and DPWES. When construction is completed, the Applicant shall close this driveway entrance.
10. Prior to issuance of the last RUP or three years from the commencement of construction, whichever is first, and pursuant to VDOT Project NFO 0007-029-128, C501, the Leesburg Pike entrance shall be removed. This removal shall be subject to VDOT review and approval and other improvements needed to cease operation of the entrance and its access, including the following improvements, unless completed by others:
 - a. Removal of the right turn lane from eastbound Leesburg Pike at Redberry Court; if constructed by VDOT.
 - b. Removal of signal equipment for that vehicle approach and necessary recalibration of the signal operation at the Leesburg Pike and Redberry Court intersection;
 - c. Completion of the shared use path along Leesburg Pike;
 - d. Installing any necessary guardrail and end treatments;
 - e. Removal of any roadway and driveway(s) not needed after construction of the residential development is complete;
 - f. Revegetation of the area at the former entrance to Leesburg Pike;
 - g. Establishment of a trail connection from the Leesburg Pike shared use path to the application property via an internal 6-foot wide asphalt trail, as shown on the SE Plat;

- h. Landscaping along the northern boundary of the application property contiguous to Leesburg Pike, in conformance with what is shown on the SE Plat, and subject to VDOT approval.
- 11. Prior to issuance of the first RUP, frontage improvements shall be provided along the site's Sugarland Road frontage to include a road pavement section to accommodate a 4-foot wide bike lane, curb and gutter, and a 5-foot wide concrete sidewalk. The pavement section, curb and gutter, and sidewalk shall match the existing improvements at the eastern property boundary of the site.
- 12. At the time of the recordation of the first record plat, all internal streets shall be dedicated, without encumbrances and in fee simple, to the Board of Supervisors, as generally shown on the SE Plat. The internal streets, which shall be public, will be constructed in accordance with VDOT public street standards. These public streets area subject to review and approval of VDOT and DPWES.

STORMWATER:

- 13. Stormwater Management (SWM) and Best Management Practices (BMPs) shall be provided in the areas designated on the Special Exception Plat in accordance with the Public Facilities Manual and the Chesapeake Bay Preservation Ordinance subject to approval by DPWES.
- 14. After establishing the HOA pursuant to these development conditions, written materials describing the approved BMPs and how to maintain the BMP facilities, in accordance with the PFM and County guidelines, shall be provided to the HOA by the Applicant.

NOISE ATTENUATION:

- 15. With reference to Leesburg Pike, noise in interior areas of new residential structures shall not exceed 45 dBA Ldn and noise in outdoor recreation areas shall not exceed 65 dBA Ldn. The following noise attenuation measures shall be provided:
 - a. In order to achieve a maximum interior noise level of approximately 45 dBA Ldn, all new residential structures impacted by highway noise having levels between 65 and 70 dBA Ldn shall have the following acoustical attributes:
 - 1) Exterior walls shall have a laboratory sound transmission class ("STC") of at least 39.
 - 2) Doors and glazing shall have a laboratory STC of at least 28. If glazing constitutes more than twenty percent (20%) of any façade, they shall have the same laboratory STC rating as walls.

- 3) Measures to seal and caulk between surfaces shall follow methods approved by the American Society for Testing and Materials to minimize sound transmission.
- b. In order to achieve a maximum interior noise level of approximately 45 dBA Ldn, all new residential structures impacted by highway noise having levels greater than 70 dBA Ldn shall have the following acoustical attributes:
 - 1) Exterior walls shall have a laboratory sound transmission class (“STC”) of at least 45.
 - 2) Doors and glazing shall have a laboratory STC of at least 37. If glazing constitutes more than twenty percent (20%) of any façade, they shall have the same laboratory STC rating as walls.
 - 3) Measures to seal and caulk between surfaces shall follow methods approved by the American Society for Testing and Materials to minimize sound transmission.
 - c. In order to achieve a maximum exterior noise level in outdoor recreation areas of approximately 65 dBA Ldn, an architecturally solid acoustical wall with no gaps or openings (except as may be necessary for drainage) shall be provided for those lots whose rear yards will be impacted by highway noise levels having greater than 65 dBA Ldn. Alternative exterior noise mitigation may be employed if such measures are low maintenance and shown by a refined acoustical analysis (discussed in the next condition) to adequately mitigate existing and future exterior noise levels to 65 dBA Ldn. Where necessary, utilities or drainage lines may cross under the noise wall. The HOA shall be responsible for the maintenance of the acoustic measures as provided in development condition number 5 hereinabove.
 - d. Prior to site plan approval, a refined acoustical analysis shall be performed by a qualified acoustical consultant (the “Noise Study”) which provides recommendations for noise mitigation based on final site grading, model design, roadway improvements, and a twenty-four hour onsite noise measurement for Leesburg Pike (when roadway construction is completed). The noise mitigation recommendations are meant to ensure conformance with Comprehensive Plan guidance that noise in interior areas of new residential structures does not exceed 45 dBA Ldn and that noise in outdoor recreation areas does not exceed 65 dBA Ldn. Prior to the issuance of the first RUP for any residential structure, it shall be demonstrated through certifications from the design architect and the general contractor that the homes were designed and constructed with the appropriate noise attenuation measures and materials to ensure compliance with the interior DNL limit of 45 dBA Ldn. The refined acoustical analysis and revisions to noise attenuation measures are subject to the approval of the Department of Planning and Zoning.

GREEN BUILDING:

16. In support of energy conservation and green building techniques; the Applicant, in consultation with the Environment and Development Review Branch (EDRB) of Department of Planning and Zoning (DPZ), shall seek certification for this development from one of the following programs that offers third party review of “green building” or energy efficient measures. The Applicant shall have sole discretion to choose the program that will be utilized.
 - a. Certification in accordance with the Earth Craft House Program as demonstrated through documentation provided to DPWES and EDRB prior to the issuance of a RUP; or
 - b. Certification in accordance with the National Green Building Standard (NGBS) using the ENERGY STAR® Qualified Homes path for energy performance, as demonstrated through documentation submitted to DPWES and EDRB from a home energy rater certified through Home Innovation Research Labs that demonstrates that the dwelling unit has attained the certification prior to the issuance of the RUP for each dwelling; or
 - c. Certification in accordance with the National Association of Home Builders (NAHB) National Green Building Program, Bronze level, as demonstrated through submission of a copy of the “Green Certificate” issued by NAHB in accordance with its “Green Certificate Program” prior to the issuance of the RUP for each dwelling.

LANDSCAPE:

17. Invasive Plant Management Plan: An Invasive Plant Management Plan shall be submitted as part of the first and all subsequent subdivision plan submissions to address how invasive plants will be managed at levels that do not endanger the long-term ecological functionality of vegetation within tree preservation areas, subject to the review and approval of the Urban Forest Management Division, DPWES.
18. Tree Preservation: A Tree Preservation plan shall be submitted for review and approval as part of the first and all subsequent site plan submissions. The preservation plan shall be prepared by a professional with experience in the preparation of tree preservation plans, such as a Certified Arborist or Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES. The tree preservation plan shall consist of a tree survey that includes the location, species, size, crown spread and condition rating percentage of all trees 12 inches in diameter and greater located within the first 25 feet of the undisturbed area and from the limits of clearing and grading and the first 10 feet from the limits of clearing in the disturbed area shown on the SE Plan for the entire site.

The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the SE Plan and those additional areas in which trees can be preserved as a result of final engineering. The condition analysis ratings shall be prepared using methods outlined in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan.

19. Tree Preservation Walk-Through: The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's Certified Arborist or Registered Consulting Arborist shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made, if any, to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions.
20. Limits of Clearing and Grading: The limits of clearing and grading shall be strictly adhered to as shown on the SE Plan, subject to allowances specified in these development conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the SE Plan, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities.
21. Tree Preservation Fencing: All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the "Root Pruning" condition below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the direct supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES.

22. Root Pruning: The Applicant shall root prune, as needed to comply with the tree preservation requirements of these development conditions. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the submitted plan. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:
- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.
 - Root pruning shall take place prior to any clearing and grading, or demolition of structures.
 - Root pruning shall be conducted with the supervision of a certified arborist.
 - An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.
23. Site Monitoring: During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as per specific development conditions and as approved by the UFMD. The Applicant shall retain the services of a Certified Arborist or Registered Consulting Arborist to monitor all construction and demolition work adjacent to any vegetation to be preserved, tree preservation efforts and landscape installation, in order to ensure conformance with all tree preservation and landscaping development conditions, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.
24. Landscaping Plan: Site plans or subdivision plans submitted for the development shall include a landscape plan as generally shown on the SE Plan. Tree species and planting sites are set forth on the SE Plan, subject to revision as may be approved by the Urban Forest Management Division (UFMD).

Prior to installation of plants to meet requirements of the approved landscape plan, the Contractor/Developer shall coordinate a pre-installation meeting on site

with the landscape contractor and a representative of the County Urban Forest Management Division (UFMD). Any proposed changes to the location of planting, size of trees/shrubs, and any proposed plant substitutions for species specified on the approved plan shall be reviewed at this time and must be approved prior to planting. The installation of plants not specified on the approved plan, and not previously approved by UFMD, may require submission of a revision to the landscape plan or removal and replacement with approved material, prior to bond release. UFMD shall be contacted (703-324-1770) a minimum of three (3) days prior to the meeting on site.

25. Reforestation Planting in the RPA: In reforestation areas within the RPA, the soil throughout the area shall be amended with 3-6 inches of organic matter and thoroughly tilled to a depth of 12-inches before planting. Tree seedlings and shrubs shall be planted in contiguous mulched beds. The mulched bed shall consist of a minimum of 2 inches of organic mulch that shall be placed on the topsoil layer at final grade. Plant stock, seedlings and shrubs shall be planted with 4-foot tall tubes or other means necessary to protect from deer browsing. Planting of nursery stock, tree seedlings, woody shrubs and woody seed mix must be well established prior to release of the conservation deposit. The conservation deposit will be held for a minimum of two years after the initial installation of the plantings and returned to the Applicant thereafter.

CONTRIBUTIONS:

26. Prior to the issuance of the last RUP, a minimum expenditure of \$893 per new resident for a total of \$83,049 shall be made to the Fairfax County Park Authority for the establishment and/or enhancement of public facilities within the service area of the Property. This contribution shall be offset by the cost of providing recreational facilities, including the trail and community amenity gathering area.

CONSTRUCTION ACTIVITY:

27. During development of the subject site, the telephone number of the site superintendent that shall be present on-site during construction shall be provided to the Dranesville District Supervisor's Office.
28. Outdoor construction activity shall be limited to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday and 8:00 a.m. and 5:00 p.m. on Saturdays. No outdoor construction activities shall be permitted on Sundays or on federal holidays. The site superintendent shall notify all employees and subcontractors of these hours of operation and shall ensure that the hours of operation are respected by all employees and subcontractors. Construction hours shall be posted on-site in both English and Spanish. The Applicant shall provide updated construction schedules to the adjacent HOAs and the Dranesville Supervisors Office. This development condition applies to the original construction only and not to future additions and renovations by homeowners.

29. The staging and parking of construction vehicles shall occur on the application property, including personal vehicles utilized by construction workers. No parking shall occur on adjacent roadways.

ARCHITECTURE:

30. The architecture of the units shall be in general conformance with that depicted on the SE Plat.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the required Non-Residential Use Permit (Non-RUP) through established procedures, and this Special Exception Amendment shall not be valid until this has been accomplished.

Pursuant to Sect. 9-015 of the Zoning Ordinance, this Special Exception shall take effect upon approval by the Board of Supervisors.

SPECIAL EXCEPTION AFFIDAVIT

DATE: January 9, 2015
 (enter date affidavit is notarized)

I, Stuart Mendelsohn, Esq., Applicant's Authorized Agent, do hereby state that I am an
 (enter name of applicant or authorized agent)

(check one) applicant
 applicant's authorized agent listed in Par. 1(a) below

126644a

in Application No.(s): SE 2014-DR-052
 (enter County-assigned application number(s), e.g. SE 88-V-001)

and that, to the best of my knowledge and belief, the following information is true:

1(a). The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS, and LESSEES** of the land described in the application,* and, if any of the foregoing is a **TRUSTEE,**** each **BENEFICIARY** of such trust, and all **ATTORNEYS** and **REAL ESTATE BROKERS**, and all **AGENTS** who have acted on behalf of any of the foregoing with respect to the application:

(NOTE: All relationships to the application listed above in **BOLD** print are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in BOLD above)
Trinity Land LLC Agent: Woodroof G. FitzHugh	1152 Riva Ridge Drive, Great Falls, VA 22066	Applicant/Title Owner Tax Map Nos. 0063 01 0033 0063 01 0033A
Paciulli, Simmons & Associates, Ltd. Agent: Ann O. Germain	3975 Fair Ridge Drive, Suite 300 South, Fairfax, Virginia 22033	Engineer/Agent
Holland & Knight LLP Agents: Stuart Mendelsohn Michelle A. Rosati David I. Schneider	1600 Tysons Blvd, Suite 700, Tysons Corner VA 22102	Attorneys/Agent for Title Owner

(check if applicable) There are more relationships to be listed and Par. 1(a) is continued on a "Special Exception Attachment to Par. 1(a)" form.

* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.
 ** List as follows: Name of trustee, Trustee for (name of trust, if applicable), for the benefit of: (state name of each beneficiary).

SPECIAL EXCEPTION AFFIDAVIT

DATE: January 9, 2015
 (enter date affidavit is notarized)

for Application No. (s): SE 2014-DR-052
 (enter County-assigned application number(s))

126644a

1(b). The following constitutes a listing*** of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders:

(NOTE: Include **SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES, and REAL ESTATE INVESTMENT TRUSTS** herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name and number, street, city, state, and zip code)
 Trinity Land LLC
 1152 Riva Ridge Drive
 Great Falls, VA 22066

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
 There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
 There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial and last name)

Woodroof G. FitzHugh
 Joan A. FitzHugh
 Kary G. FitzHugh
 Philip W. FitzHugh
 Mayo M. FitzHugh

(check if applicable) There is more corporation information and Par. 1(b) is continued on a "Special Exception Affidavit Attachment 1(b)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. *In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.* Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Page 1 of 1**Special Exception Attachment to Par. 1(b)**DATE: January 9, 2015
(enter date affidavit is notarized)

126644a

for Application No. (s): SE 2014-DR-052
(enter County-assigned application number (s))**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)Paciulli, Simmons & Associates, Ltd.
3975 Fair Ridge Drive, Suite 300 South
Fairfax, Va, 22033**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)Joseph G. Paciulli
Peter J. Rigby, Jr.
Ann O. Germain
Samuel J. Williams**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: January 9, 2015
(enter date affidavit is notarized)

126644a

for Application No. (s): SE 2014-DR-052
(enter County-assigned application number(s))

1(c). The following constitutes a listing*** of all of the **PARTNERS**, both **GENERAL** and **LIMITED**, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, and number, street, city, state, and zip code)

Holland & Knight LLP
1600 Tysons Boulevard, Suite 700
Tysons Corner, Virginia 22102

(check if applicable) The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. **General Partner, Limited Partner, or General and Limited Partner**)

Michael Abel	Stephen Ball	Robert Bradner
Alfred B. Adams, III	Deborah E. Barnard	Frederick Braid
Barbara A. Adams	Jacob K. Baron	Christopher C. Brockman
Glenn Adams	Bernard Barton	John L. Brownlee
Martin J. Alexander	Leigh-Alexandra Basha	Harold Bucholtz
David B. Ajlswang	Daniel K. Bean	William H. Burchette
Rod Anderson	Neal N. Beaton	William P. Byrne
Norman B. Antin	Meredeth Beers	Lynn K. Cadwalader
Mark I. Aronson	Rodney H. Bell	Lynn E. Calkins
Shenan R. Atcitty	David S. Black	Christopher L. Camarra
Joel M. Athey	Stacy D. Blank	Brett D. Carroll
Adam August	William R. Bloom	Kelly-Ann Cartwright
Chester E. Bacheller	Noel Robert Boeke	Jose A. Casal
James L. Baker	Sanford L. Bohrer	J. Michael Cavanaugh
Philip Baker-Shenk	Susan Jennifer Booth	James C. Chadwick
Gregory Baldwin	Jeffrey F. Boothe	Michael Chapman
Anderson L. Baldy	Christopher Boyett	Doug Clapp

(check if applicable) There is more partnership information and Par. 1(c) is continued on a "Special Exception Affidavit Attachment to Par. 1(c)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. *In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.* Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Special Exception Attachment to Par. 1(c)DATE: January 9, 2015
(enter date affidavit is notarized)

126644a

for Application No. (s): SE 2014-DR-052
(enter County-assigned application number (s))**PARTNERSHIP NAME & ADDRESS:** (enter complete name & number, street, city, state & zip code)Holland & Knight LLP
1600 Tysons Boulevard, Suite 700
Tysons Corner, Virginia 22102(check if applicable) The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g.,
General Partner, Limited Partner, or General and Limited Partner)

Jeffrey P. Clevon	Vincent J. Foley	James Hohenstein
Jerald S. Cohn	M. Matthew Fontane	Brian K. Hole
Brian J. Colandreo	Anthony S. Freedman	Marilyn J. Holifield
Ivan Colao	Michael J. Frevola	William J. Honan
David S. Cole	Michael J. Frevola	Dennis Horn
Charles L. Coleman, III	Peter Friedman	Joseph Hornyak
Christopher H. Collins	Robert Friedman	Stephen J. Humes
Timothy J. Conner	Michael M. Gaba	Richard Hutchison
Peter M. Connolly	George D. Gabel, Jr.	Paul M. James
Louis T.M. Conti	Andrew R. Gelman	Kenneth Jenero
J. Raul Cosio	Suzanne E. Gilbert	Adolfo E. Jimenez
Kevin E. Coventon	Steven L. Gillman	Charles S. Johnson, III
Richard A. Crowley	Norman M. Glasgow, Jr.	Jenny L. Johnson
Maria T. Currier	Rich Gold	Scott J. Johnson
Lawrence Curtin	Joseph G. Goldstein	David A. Jones
Jesus E. Cuza	Enrique Gomez-Pinzon	Robert W. Jones
Christopher G. Cwalina	Alex Gonzalez	David S. Kahn
John D. Dadakis	Steven Gordon	Robert J. Kaler
Laurie Webb Daniel	William F. Gould	Samuel P. Kastner
Harry S. Dannenberg	Frederick J. Grady	Gordon P. Katz
Douglas F. Darbut	Robert J. Grammig	Bonni Kaufman
Jim Davis	George J. Gregores	Kerry S. Kehoe
Vivian C. de las Cuevas-Diaz	Joseph Guay	Francis Keldermans
Kristin A. DeKuiper	Jeffrey D. Haas	Christopher G. Kelly
William B. deMeza	Richard B. Hadlow	Paul J. Kiernan
Harry R. Detwiler	John F. Halula	Paul F. Kilmer
Josias Dewey	Lawrence J. Hamilton, II	Eric W. Kimball
Edward Diaz	Theodore E. Hanselman	Bradford Kimbro
Gregory J. Digel	Peter P. Hargitai	Ronald J. Klein
R. David Donoghue	Nancy L. Hengen	Thomas John Kinasz
Phillip L. Durham	Alberto M. Hernandez	Tammy Knight
Martin Durkin	Jennifer Hernandez	Chris Kolos
Richard O. Duvall	Jorge L. Hernandez-Toraño	Edward Koren
Richard D. Eckhard	Mitchell E. Herr	Daniel L. Kraus
Brandon H. Elledge	Anthony J. Herrera	Joshua Krumholz
Steven M. Elrod	Sara Christina Heskett	Michael P. KupperSmith
James M. Ervin	Edward R. Hickey	Robert Labate
Philip Tucker Evans	Robert S. Highsmith, Jr.	Elizabeth Lake
Irwin J. Fayne	Richard J. Hindlian	Edward W. Lam
Walter T. Featherly	Jerome W. Hoffman	Alejandro Landa Thierry
William K. Fendrick	John M. Hogan	William R. Lane, Jr.

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a
"Special Exception Attachment to Par. 1(c)" form.

Special Exception Attachment to Par. 1(c)DATE: January 9, 2015
(enter date affidavit is notarized)

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for Application No. (s): SE 2014-DR-052
(enter County-assigned application number (s))**PARTNERSHIP NAME & ADDRESS:** (enter complete name & number, street, city, state & zip code)Holland & Knight LLP
1600 Tysons Boulevard, Suite 700
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General Partner, Limited Partner, or General and Limited Partner)

Paul Lannon	Amanda Monchamp	Stephen Shapiro
Ruth L. Lansner	Anita M. Mosner	Sean C. Sheely
Philip S. Lapatin	Christopher J. Murdoch	William B. Sherman
Brian G. Leary	William Mutryn	Gerry Sikorski
Tiffani G. Lee	Christopher Myers	David C. Silver
Marie Lefere	Charles Naftalin	David R. Singleton
Kathryn Hazeem Lehman	La Fonte Nesbitt	Jose Sirven
Ralph T. Lepore, III	Michael Brill Newman	Patrick W. Skelton
Jerome L. Levine	Scott Newman	David Scott Sloan
Shari Levitan	Tracy A. Nichols	Daniel I. Small
Bruce Loring	Kathleen Nilles	James D. Smeallie
Fred J. Lotterhos, III	Matthew E. Norton	Colin J. Smith
Kenneth K. Lowenstein	Kathryn W. Oberto	Colin P. Smith
Leisa Smith Lundy	Ronald Oleynik	Lee S. Smith
Dominic C. MacKenzie	John P. O'Neill	Robert H. Smith
Scott R. MacLeod	Boris Otto	Stephen W. Snively
Ieuan Mahony	Kevin Packman	Steven Sonberg
James L. Main	George Pearce	Rodolfo Sorondo, Jr.
J. Allen Maines	Frederick D. Page	M.J. Spelliscy
Michael Mannix	David L. Perry	M. James Spitzer, Jr.
Michael R. Manthei	William Piels	Michael Starr
Jonathan S. Marcus	Tamsen Plume	Richard B. Stephens
Marisa Marinelli	James Harold Power	Andrew W. Stephenson
Elias Matsakis	John F. Pritchard	Jeffrey Blake Stern
D. Bruce May, Jr.	Roberto R. Pupo	Fred S. Stovall
James Mayer	Whayne Quin	Charles L. Stutts
Juan J. Mayol, Jr.	Richard Redmond	Michelle White Suarez
Tom McAlevey	Christopher J. Reynolds	Ben Subin
Louise McAlpin	Frederick Rohn	Nicholas William Targ
C. Grant McCorkhill	Bruce S. Ross	Kenji Tatsugi
James E. McDermott	Christine Ryan	Lee Philip Teichner
Brian A. McDowell	Stuart M. Saft	Albert F. Tellechea
Miriam McKendall	Alban Salaman	Jovi Tenev
Gregory R. Meeder	Shannon Hartsfield Salimone	Marisa C. Terrenzi
George Mencio	John J. Sarchio	Vivian Lee Thoreen
Stuart Mendelsohn	Tara A. Scanlon	Charles Welch Tiedemann
Judith M. Mercier	Janis Boyarsky Schiff	Charles D. Tobin
Mark C. Michalowski	James E.L. Seay	Lisa Tofil
Nicholas G. Milano	Lawrence Sellers	John M. Toriello
Jeffrey Mittleman	Jeffrey R. Seul	Allison E. Turnbull
John J. Monaghan	Mark Shapiro	Melissa S. Turra

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a
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Special Exception Attachment to Par. 1(c)DATE: January 9, 2015
(enter date affidavit is notarized)

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Tysons Corner, Virginia 22102(check if applicable) The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g.,
General Partner, Limited Partner, or General and Limited Partner)Guillermo Uribe Lara
Matthew Vafidis
Steven B. Varick
Joseph H. Varner
H. Barry Vasios
Woodrow W. Vaughan
Kenneth M. Vesledahl
Edward W. Vogel
Mark A. von Bergen
Robert W. Vyverberg
Karen Walker
Scott C. Wallace
Robert Allan Warram
Eric Wechselblatt
Mel S. Weinberger
Alan M. Weiss
Charles A. Weiss
Michael J. Werner
George Wheeler
Joseph B. Whitebread
David Whitestone
Keith M. Wiener
Richard Williams
James Wing
Richard R. Winter
Thomas R. Woodrow
Douglas A. Wright
Steven Wright
Barbara M. Yadley
Richard M. Yanofsky
Leighton D. Yates, Jr.
Jose V. Zapata
Don Zarin
Michael J. Zdeb
Hongjun Zhang, PH.D
Larry Zanger(check if applicable) There is more partnership information and Par. 1(c) is continued further on a
"Special Exception Attachment to Par. 1(c)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: January 9, 2015
 (enter date affidavit is notarized)

for Application No. (s): SE 2014-DR-052
 (enter County-assigned application number(s))

126644a

1(d). One of the following boxes **must** be checked:

In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land:

Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on the line below.)

None

(check if applicable) There are more interests to be listed and Par. 2 is continued on a "Special Exception Attachment to Par. 2" form.

Application No.(s): SE 2014-DR-052
(county-assigned application number(s), to be entered by County Staff)

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SPECIAL EXCEPTION AFFIDAVIT

DATE: January 9, 2015
(enter date affidavit is notarized)

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3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than \$100, singularly or in the aggregate, with any of those listed in Par. 1 above.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on line below.)

Gerry Sikorski, Esq., of Holland & Knight made a contribution of \$500.00 to John Foust on May 20, 2014

NOTE: Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) [] There are more disclosures to be listed and Par. 3 is continued on a "Special Exception Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature:

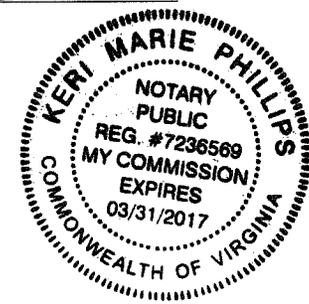
(check one) *Stuart Mendelsohn, Esq.*
[] Applicant [x] Applicant's Authorized Agent

Stuart Mendelsohn, Esq., Applicant's Authorized Agent
(type or print first name, middle initial, last name, and & title of signee)

Subscribed and sworn to before me this 9th day of January 20 15, in the State/Comm. of Virginia, County/City of Fairfax.

[Signature]
Notary Public

My commission expires: 3/31/17



Holland & Knight

1600 Tysons Boulevard, Suite 700 | McLean, VA 22102 | T 703.720.8600 | F 703.720.8610
Holland & Knight LLP | www.hklaw.com

RECEIVED
Department of Planning & Zoning

FEB 03 2015

Zoning Evaluation Division

February 3, 2015

Ms. Barbara Berlin
Director Zoning Evaluation Division
Zoning Evaluation Division
Fairfax County Department of Planning and
Zoning
12055 Government Center Parkway
Suite 801
Fairfax, Virginia 22035

Re: 11801 Leesburg Pike; Tax Map 0063 01 0033 and 0063 01 0033A
Request for Special Exception

Dear Ms. Berlin:

The following is submitted as justification and support for the aforementioned special exception request and as a statement of ownership.

I. PROPERTY

The applicant, Trinity Land LLC, owns the property located at 11801 Leesburg Pike, Herndon, Virginia (the "Subject Property"). The Subject Property is located at Tax Map 0063 01 0033 and 0063 01 0033A. The Subject Property contains 28.919 acres 1,260,566 square feet of land (not including a 1.1066 acre density credit) and is zoned R-1. The Subject Property is located in the Dranesville District. A portion of the property is located in the Dranesville Tavern Historic Overlay District.

II. STATEMENT OF OWNERSHIP

Trinity Land LLC owns the Subject Property and the Subject Property was acquired in good faith.

III. STATEMENT OF PROPOSED USE

A. Description of Use

The Applicant requests a Special Exception in order to develop the Subject Property as a cluster subdivision for residential use. The Subject Property is zoned R-1. The proposed development will end the current commercial use of the Subject Property and change the use to residential, as contemplated under the Comprehensive Plan and its zoning district.

The request for Special Exception seeks to develop 30 single family residential cluster lots. The Subject Property, including the density credit, is 30.0256 acres. Therefore, by-right the applicant could develop 30 residential lots under the R-1 district, and *is not seeking any additional density*. The Applicant requests this Special Exception to allow a cluster subdivision in order to preserve open space and protect the Resource Protection Area ("RPA").

B. Hours of Operation

As the request Special Exception seeks a residential use, there are no hours of operation governing the proposed use.

C. Estimated number of patrons/clients/patients/pupils/etc.

The request for Special Exception seeks to develop 30 single family residential lots.

D. Proposed number of employees/attendants/teachers/etc.

As a residential use, the request for Special Exception does not propose any employees, attendants, teachers, etc.

E. Estimate of Traffic Impact of Proposed Use.

The proposed use generates the exact same traffic impact as a by-right development. It is estimated that 30 residential lots will yield 300 vehicle trips per day. The Special Exception request does not change the number of trips contemplated under the zoning ordinance and comprehensive plan. Therefore, there is no adverse Traffic Impact associated with the proposed use.

F. Vicinity or general area to be served by the use.

The Subject Property will be self-served by the residential use. The residents of the Subject Property will be the citizens served by the use.

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G. Description of Building Façade and Architecture of Proposed Building.

The residences are planned to be upscale houses that will fit in with the existing residences of Herndon/Great Falls. The Applicant has a contract with NV Homes to build the quality products the company is known to build.

H. Listing of Hazardous or Toxic Substances.

There are no known hazardous or toxic substances generated, stored treated and/or disposed of on the site.

I. Statement of Conforming Use and Construction

The proposed use conforms and, as ultimately established, will conform to all applicable ordinances, regulations, and adopted standards.

J. Statement of Ownership and Applicant Interest.

As previously stated, the Subject Property is owned by Trinity Land, LLC.

IV. COMPLIANCE WITH ZONING ORDINANCE

The Applicant respectfully submits that the approval of the proposed Special Exception is consistent with, and furthers the overarching goals and intent of, the Fairfax County Zoning Ordinance. Specifically, the proposed use is consistent with the following criteria for approval of special exceptions as set out in Sections 9-006 of the Fairfax County Zoning Ordinance.

1. The proposed use at the specified location shall be in harmony with the adopted Comprehensive Plan.

The Subject Property is located within UP4 Greater Herndon Community Planning Sector of the Upper Potomac Planning District in the Fairfax County Comprehensive Plan. The proposed use is not only in conformance with the Comprehensive Plan, but also furthers two of its specific goals. First, the Comprehensive Plan states that "[t]he Route 7 Corridor is planned for and should continue to be reserved for residential development. Industrial, office, research and development (R&D), and retail commercial uses are not appropriate in the Route 7 Corridor." Second, the Comprehensive Plan states that "Cluster residential development should be used to preserve open space."

This application accomplishes these exact goals. The Applicant proposes to end the current commercial use of Subject Property along Route 7 and provide a clustered residential use to maintain open space and preserve the RPA. The Special Exception allows the Comprehensive Plan's goals to be implemented.

A. **Compliance with the Countywide Policy Plan**

Appendix 4 of the Countywide Policy Plan provides criteria to be considered when reviewing a cluster subdivision. Criterion 1 states “that the individual lots, buildings, streets and parking areas should be designed and situated to minimize disruption to the site's natural drainage and topography.” Criterion 2 states “Environmental Quality Corridor (EQC) lands should be preserved and should be dedicated to the county whenever such dedication is in the public interest.” Both of these criteria recognize the capability of a cluster subdivision to preserve the environmental integrity of the Property. This is memorialized in Section 9-615(2)(A) of the Zoning Ordinance. The proposed cluster preserves the Resource Protection Area (“RPA”) on the northern portion of the property. All of the lots in the proposed cluster subdivision do not include the RPA, while the entire RPA would be within individual lots under a by-right development. While permissible for a lot to include RPA, without a cluster the burden of protecting the RPA falls on individual homeowners. The proposed clustered subdivision produces a more efficient and practicable development to preserve the environmental integrity of the site.

Criterion 3 of the Policy Plan states “Site design should take advantage of opportunities to preserve high quality open space or to provide active or passive recreation and should be sensitive to surrounding properties, in order to be compatible with and to complement surrounding development.” This concept is memorialized in Section 9-615(2)(B) of the Zoning Ordinance, which states that the physical characteristics of the property are in accordance with the adopted comprehensive plan and established character of the area. Per Section 3-109 of the Zoning Ordinance, a by-right development does not have an open space requirement, but a R-1 cluster development requires 30% of the gross area to be open space. This application provides the best of both worlds. The application contemplates fewer lots than are permitted with an R-1 cluster, but still provides the 30% open space. The County and Community benefit from the cluster by obtaining 30% of open space, while still enjoying the density contemplated by a by-right development. In addition, to fit the character of the neighborhood, this open space has been allocated along Route 7 to preserve the green character around the Dranesville Tavern.

i. **By-right Comparison**

Lastly, criterion 4 states “No cluster development should be considered when the **primary purpose of the clustering is to maximize density on the site.**” (emphasis added). One by-right development plan would yield 29 lots, only one lot less than is proposed with this special exception. We did not spend a lot of time trying to get a layout to show 30 lots even though we believe one to be possible, since we do not believe the number of by-right lots is relevant under the zoning ordinance language. The benefits gained through the proposed special exception far outweigh the one yield differential with even this by-right layout. The by-right option contains parcels in the RPA, which will place limitations on the use of the property and the burden of maintaining the RPA on individuals homeowners. The Special Exception completely preserves the RPA area as open space. The by-right layout requires driveways with

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entrances on both Sugarland Road and Route 7. The Special Exception closes all entrances to the property on Route 7 and streamlines all access through one curb cut on Sugarland Road. The Architectural Review Board's Guidelines and Standards for the Dranesville Tavern Historic Overlay District state that open space is encouraged along Route 7 and that development should be a fair distance away from Route 7. In addition, the ARB recommends that the amount of entrances along Route 7 are reduced and site access is provided from other existing roads when possible. The proposed Special Exception satisfies all of these recommendations. The Comprehensive Plan recommends a cluster development to preserve open space. The Special Exception layout provides over 392,000 square feet of open space, while the by-right option does not have an open space requirement.

2. The proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations.

The stated purpose of the R-1 zoning district is to provide for single family detached dwellings. This application proposes to end the commercial use along Route 7 and to provide single family detached dwellings. Therefore, the proposed use is in complete harmony with the general purpose and intent of the applicable zoning district.

Section 9-615(3) of the Zoning Ordinance states that "in no case shall the maximum density specified for the applicable **district** be increased...". The maximum density specified for the R-1 district is 1.0 dwelling units per acre, with 1.1 dwelling units per acre allowed with a special exception for a cluster. The application does not attempt to increase the permitted density in this district, in fact it is ten percent below the maximum. The Applicant essentially is forgoing the density bonus in an attempt to achieve an efficient and practicable development that preserves the environmental integrity of the site while preserving the established character of the area. This is exactly what is contemplated in the Comprehensive Plan for this area. Even if this language were interpreted to mean the underlying R-1, 30 lots would be allowed by-right. So, we are not increasing the density over that amount either.

3. The proposed use shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures walls and fences, and the nature and extend of screening buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of the adjacent or nearby land and/or buildings or impair the value thereof.

The use will not have any adverse impact upon the use or development of adjacent or nearby land, nor will it impair the value thereof. All buildings and structures will be placed and sized in accordance with the Fairfax County Zoning Ordinance.

The proposed units and lot size both fit into the fabric of the community. The Property is bordered on the west by the Dranesville Manor and Mena Estates communities. The Sugar Creek 1st Addition Section 2 is adjacent to the Southwest. The Timber Knoll community is to the south and the Liberty Meeting Community is to the east. The various Holly Knoll communities are adjacent to the property across Route 7. The average lot size for all of the adjacent neighbors is 27,942 square feet, which is only 2,334 square feet larger than the average lot in Summerhouse Landing (25,608 square feet average). This area is known for similar units to what is proposed. With an average lot size that is comparable to the surrounding community, this application fits the fabric of the community.

Not only the lot size fits the fabric of the community. The application enhances the community. While some of the adjacent neighborhoods have larger lot size, they do not provide any open space. For example, the Timber Knoll, Dranesville Manor and Liberty Meeting communities have **no open space**. This application proposes to provide **more than 392,000 square feet of open space**. When deciding what fits the fabric of a community, the development as a whole must be considered. This application proposes around **9 acres of open space** along Route 7, as is recommended in the Comprehensive Plan. This protects the drive to the Dranesville Tavern and matches the Holly Knoll Communities directly across Route 7.

4. The proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous to or conflict with the existing and anticipated traffic in the neighborhood.

The proposed use will produce the same vehicular traffic as a by-right development under the Subject Property's R-1 zoning. The County has already begun widening Route 7 to the north of the Subject Property and will provide a trail for pedestrians. The Applicant plans to close the two current entrances to the Subject Property along Route 7 and to only provide access to the Subject Property along Sugarland Road. The Applicant also plans on providing a trail along Sugarland Road to protect pedestrians.

In addition, the Applicant has come to an agreement with VDOT to assist with the the Route 7 Widening & Improvements adjacent to the property. The Applicant will provide an internal trail connection with the Leesburg Pike shared use trail. In addition, the Applicant will provide new signal timing plan for the Redberry Court & Route 7 interjection. The Applicant will also evaluate and install new guardrail and end treatments in the area of the trail connection per VDOT Standards instead of the state. In addition, the Applicant will obscure the current roadway not needed after construction is complete instead of the state, and the Applicant will provide landscaping as shown on VDOT plan 17(5) along the northern boundary of the parcel. These actions plus the elimination of the need for the state to build a right-turn lane on Rt. 7 will save the state project money. This agreement is only possible under the proposed Special Exception layout. A copy of a VDOT memorandum memorializing this agreement has been attached.

5. In addition to the standards which may be set forth in this Article for a particular group or use, the Board shall require landscaping and screening in accordance with Article 13.

The property will include landscaping and screening in accordance with Article 13.

6. Open space shall be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.

Under the proposed use the Subject Property will contain more than 392,000 square feet of open space. By-right the R-1 does not have an open space requirement for the property. Therefore, this application accomplishes the goals of the Comprehensive Plan for this property which states "cluster residential development should be used to preserve open space." The amount of open space far exceeds that specified for the underlying zoning district.

7. Adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking and loading requirements shall be in accordance with the provisions of Article 11.

Each lot, individually, between driveways and garages, will be able to provide adequate parking in accordance with Article 11. In addition the streets are planned as 29 feet wide from face to curb to face to curb, therefore, parking on the streets is permitted in both directions.

The Subject Property will be served by public water and sewer. Public water will be extended from existing lines on the east and west of the site to create a loop in the public system, and lines will be extended to the cul-de-sacs. Public sewer will be extended from an existing manhole and through an existing recorded easement in the Dranesville Manor Subdivision to the proposed lots.

Some lots will discharge as sheet flow directly over the open space and some of the lots will drain via shallow channel flow to the street or to yard inlets. Intercepted flow will be conveyed via storm sewer to a dry pond and rain gardens. Water quality volume will be provided to meet 2014 stormwater management criteria using the runoff reduction method, and stormwater detention will be provided to reduce the site runoff to the required level below the pre-developed rate for adequate outfall. Restored RPA areas will not receive water quality credit but will be considered as open space.

Drainage on the site generally sheet flows from South to North, and then is conveyed east to west in an existing channel and flood plain. Drainage from most lots will flow over lawn areas via sheet flow and shallow channel flow to yard or street drainage inlets. Intercepted runoff will be conveyed by storm pipe to the dry pond and rain gardens. The pond outlet structure will discharge to the existing channel within the floodplain. Drainage from some lots will flow directly to the riparian buffer within the open space.

Ms. Barbara Berlin
Page 8

8. Signs shall be regulated by the provisions of Article 12; however, the Board may impose more strict requirements for a given use than those set forth in this Ordinance.

Signage shall be maintained as required by Article 12.

V. REQUEST FOR WAIVERS AND MODIFICATIONS

Due to the nature of the proposed application for a Special Exception, the Applicant requests approval of waivers or modifications to the following submission requirements:

Public Facilities Manual Section 7-0104 Service Drive

As stated in the pre-application conference that was conducted, the Applicant requests a waiver of the requirement of providing a service drive extending for the full length of the development along the primary highway, Route 7. Virginia Department of Transportation has widened Route 7 and due to the location of the ramp off the Fairfax County Parkway, a service drive would not be feasible. In addition, there is no planned access to the Subject Property from Route 7, thereby rendering the service drive not practical.

Respectfully submitted,

HOLLAND & KNIGHT LLP



Stuart Mendelsohn

Clifton Park II



ELEVATION A



ELEVATION B



ELEVATION D

Monticello II



ELEVATION A



ELEVATION D



ELEVATION E

Mount Vernon II



Pinehurst

ELEVATION A



ELEVATION B



ELEVATION C



ELEVATION K



ELEVATION L



Regent's Park II



ELEVATION A



ELEVATION B



ELEVATION D

APPENDIX 4**GUIDELINES FOR CLUSTER DEVELOPMENT**

The preservation of open space, the protection of environmentally sensitive lands, the provision of opportunities for active and passive recreation, the reduction of the impact of storm water runoff and erosion, the achievement of high quality design, and the provision of efficient development are fundamental to the preservation of our Quality of Life, the primary goal of Fairfax County's policies and priorities. Cluster development is one tool that may be used to further this goal. The following criteria will be considered when reviewing a cluster subdivision:

1. Individual lots, buildings, streets and parking areas should be designed and situated to minimize disruption to the site's natural drainage and topography.
2. Environmental Quality Corridor (EQC) lands should be preserved and should be dedicated to the county whenever such dedication is in the public interest.
3. Site design should take advantage of opportunities to preserve high quality open space or to provide active or passive recreation and should be sensitive to surrounding properties, in order to be compatible with and to complement surrounding development.
4. No cluster development should be considered when the primary purpose of the clustering is to maximize density on the site.

APPENDIX 9

RESIDENTIAL DEVELOPMENT CRITERIA

Fairfax County expects new residential development to enhance the community by: fitting into the fabric of the neighborhood, respecting the environment, addressing transportation impacts, addressing impacts on other public facilities, being responsive to our historic heritage, contributing to the provision of affordable housing and, being responsive to the unique site specific considerations of the property. To that end, the following criteria are to be used in evaluating zoning requests for new residential development. The resolution of issues identified during the evaluation of a specific development proposal is critical if the proposal is to receive favorable consideration.

Where the Plan recommends a possible increase in density above the existing zoning of the property, achievement of the requested density will be based, in substantial part, on whether development related issues are satisfactorily addressed as determined by application of these development criteria. Most, if not all, of the criteria will be applicable in every application; however, due to the differing nature of specific development proposals and their impacts, the development criteria need not be equally weighted. If there are extraordinary circumstances, a single criterion or several criteria may be overriding in evaluating the merits of a particular proposal. Use of these criteria as an evaluation tool is not intended to be limiting in regard to review of the application with respect to other guidance found in the Plan or other aspects that the applicant incorporates into the development proposal. Applicants are encouraged to submit the best possible development proposals. In applying the Residential Development Criteria to specific projects and in determining whether a criterion has been satisfied, factors such as the following may be considered:

- the size of the project
- site specific issues that affect the applicant's ability to address in a meaningful way relevant development issues
- whether the proposal is advancing the guidance found in the area plans or other planning and policy goals (e.g. revitalization).

When there has been an identified need or problem, credit toward satisfying the criteria will be awarded based upon whether proposed commitments by the applicant will significantly advance problem resolution. In all cases, the responsibility for demonstrating satisfaction of the criteria rests with the applicant.

1. Site Design:

All rezoning applications for residential development should be characterized by high quality site design. Rezoning proposals for residential development, regardless of the proposed density, will be evaluated based upon the following principles, although not all of the principles may be applicable for all developments.

- a) *Consolidation*: Developments should provide parcel consolidation in conformance with any site specific text and applicable policy recommendations of the Comprehensive Plan. Should the Plan text not specifically address consolidation, the nature and extent of any proposed parcel consolidation should further the integration of the development with adjacent parcels. In any event, the proposed consolidation should not preclude nearby properties from developing as recommended by the Plan.

- b) *Layout:* The layout should:
- provide logical, functional and appropriate relationships among the various parts (e. g. dwelling units, yards, streets, open space, stormwater management facilities, existing vegetation, noise mitigation measures, sidewalks and fences);
 - provide dwelling units that are oriented appropriately to adjacent streets and homes;
 - include usable yard areas within the individual lots that accommodate the future construction of decks, sunrooms, porches, and/or accessory structures in the layout of the lots, and that provide space for landscaping to thrive and for maintenance activities;
 - provide logical and appropriate relationships among the proposed lots including the relationships of yards, the orientation of the dwelling units, and the use of pipestem lots;
 - provide convenient access to transit facilities;
 - Identify all existing utilities and make every effort to identify all proposed utilities and stormwater management outfall areas; encourage utility collocation where feasible.
- c) *Open Space:* Developments should provide usable, accessible, and well-integrated open space. This principle is applicable to all projects where open space is required by the Zoning Ordinance and should be considered, where appropriate, in other circumstances.
- d) *Landscaping:* Developments should provide appropriate landscaping: for example, in parking lots, in open space areas, along streets, in and around stormwater management facilities, and on individual lots.
- e) *Amenities:* Developments should provide amenities such as benches, gazebos, recreational amenities, play areas for children, walls and fences, special paving treatments, street furniture, and lighting.

2. Neighborhood Context:

All rezoning applications for residential development, regardless of the proposed density, should be designed to fit into the community within which the development is to be located. Developments should fit into the fabric of their adjacent neighborhoods, as evidenced by an evaluation of:

- transitions to abutting and adjacent uses;
- lot sizes, particularly along the periphery;
- bulk/mass of the proposed dwelling units;
- setbacks (front, side and rear);
- orientation of the proposed dwelling units to adjacent streets and homes;
- architectural elevations and materials;
- pedestrian, bicycle and vehicular connections to off-site trails, roadways, transit facilities and land uses;
- existing topography and vegetative cover and proposed changes to them as a result of clearing and grading.

It is not expected that developments will be identical to their neighbors, but that the development fit into the fabric of the community. In evaluating this criterion, the individual circumstances of the property will be considered: such as, the nature of existing and planned development surrounding and/or adjacent to the property; whether the property provides a transition between different uses or densities; whether access to an infill development is through an existing neighborhood; or, whether the property is within an area that is planned for redevelopment.

3. Environment:

All rezoning applications for residential development should respect the environment. Rezoning proposals for residential development, regardless of the proposed density, should be consistent with the policies and objectives of the environmental element of the Policy Plan, and will also be evaluated on the following principles, where applicable.

- a) *Preservation:* Developments should conserve natural environmental resources by protecting, enhancing, and/or restoring the habitat value and pollution reduction potential of floodplains, stream valleys, EQCs, RPAs, woodlands, wetlands and other environmentally sensitive areas.
- b) *Slopes and Soils:* The design of developments should take existing topographic conditions and soil characteristics into consideration.
- c) *Water Quality:* Developments should minimize off-site impacts on water quality by commitments to state of the art best management practices for stormwater management and better site design and low impact development (LID) techniques.
- d) *Drainage:* The volume and velocity of stormwater runoff from new development should be managed in order to avoid impacts on downstream properties. Where drainage is a particular concern, the applicant should demonstrate that off-site drainage impacts will be mitigated and that stormwater management facilities are designed and sized appropriately. Adequate drainage outfall should be verified, and the location of drainage outfall (onsite or offsite) should be shown on development plans.
- e) *Noise:* Developments should protect future and current residents and others from the adverse impacts of transportation generated noise.
- f) *Lighting:* Developments should commit to exterior lighting fixtures that minimize neighborhood glare and impacts to the night sky.
- g) *Energy:* Developments should use site design techniques such as solar orientation and landscaping to achieve energy savings, and should be designed to encourage and facilitate walking and bicycling. Energy efficiency measures should be incorporated into building design and construction.

4. Tree Preservation and Tree Cover Requirements:

All rezoning applications for residential development, regardless of the proposed density, should be designed to take advantage of the existing quality tree cover. If quality tree cover exists on site as determined by the county, it is highly desirable that developments meet most or all of their tree cover requirement by preserving and, where feasible and appropriate, transplanting existing trees. Tree cover in excess of ordinance requirements is highly desirable. Proposed utilities, including stormwater management and outfall facilities and

sanitary sewer lines, should be located to avoid conflicts with tree preservation and planting areas. Air quality-sensitive tree preservation and planting efforts (see Objective 1, Policy c in the Environment section of this document) are also encouraged.

5. Transportation:

All rezoning applications for residential development should implement measures to address planned transportation improvements. Applicants should offset their impacts to the transportation network. Accepted techniques should be utilized for analysis of the development's impact on the network. Residential development considered under these criteria will range widely in density and, therefore, will result in differing impacts to the transportation network. Some criteria will have universal applicability while others will apply only under specific circumstances. Regardless of the proposed density, applications will be evaluated based upon the following principles, although not all of the principles may be applicable.

- a) *Transportation Improvements:* Residential development should provide safe and adequate access to the road network, maintain the ability of local streets to safely accommodate traffic, and offset the impact of additional traffic through commitments to the following:
 - Capacity enhancements to nearby arterial and collector streets;
 - Street design features that improve safety and mobility for non-motorized forms of transportation;
 - Signals and other traffic control measures;
 - Development phasing to coincide with identified transportation improvements;
 - Right-of-way dedication;
 - Construction of other improvements beyond ordinance requirements;
 - Monetary contributions for improvements in the vicinity of the development.
- b) *Transit/Transportation Management:* Mass transit usage and other transportation measures to reduce vehicular trips should be encouraged by:
 - Provision of bus shelters;
 - Implementation and/or participation in a shuttle bus service;
 - Participation in programs designed to reduce vehicular trips;
 - Incorporation of transit facilities within the development and integration of transit with adjacent areas;
 - Provision of trails and facilities that increase safety and mobility for non-motorized travel.
- c) *Interconnection of the Street Network:* Vehicular connections between neighborhoods should be provided, as follows:
 - Local streets within the development should be connected with adjacent local streets to improve neighborhood circulation;
 - When appropriate, existing stub streets should be connected to adjoining parcels. If street connections are dedicated but not constructed with development, they should be identified with signage that indicates the street is to be extended;
 - Streets should be designed and constructed to accommodate safe and convenient usage by buses and non-motorized forms of transportation;
 - Traffic calming measures should be implemented where needed to discourage cut-through traffic, increase safety and reduce vehicular speed;

- The number and length of long, single-ended roadways should be minimized;
 - Sufficient access for public safety vehicles should be ensured.
- d) *Streets*: Public streets are preferred. If private streets are proposed in single-family detached developments, the applicant shall demonstrate the benefits for such streets. Applicants should make appropriate design and construction commitments for all private streets so as to minimize maintenance costs which may accrue to future property owners. Furthermore, convenience and safety issues such as parking on private streets should be considered during the review process.
- e) *Non-motorized Facilities*: Non-motorized facilities, such as those listed below, should be provided:
- Connections to transit facilities;
 - Connections between adjoining neighborhoods;
 - Connections to existing non-motorized facilities;
 - Connections to off-site retail/commercial uses, public/community facilities, and natural and recreational areas;
 - An internal non-motorized facility network with pedestrian and natural amenities, particularly those included in the Comprehensive Plan;
 - Offsite non-motorized facilities, particularly those included in the Comprehensive Plan;
 - Driveways to residences should be of adequate length to accommodate passenger vehicles without blocking walkways;
 - Construction of non-motorized facilities on both sides of the street is preferred. If construction on a single side of the street is proposed, the applicant shall demonstrate the public benefit of a limited facility.
- f) *Alternative Street Designs*: Under specific design conditions for individual sites or where existing features such as trees, topography, etc. are important elements, modifications to the public street standards may be considered.

6. Public Facilities:

Residential development impacts public facility systems (i.e., schools, parks, libraries, police, fire and rescue, stormwater management and other publicly owned community facilities). These impacts will be identified and evaluated during the development review process. For schools, a methodology approved by the Board of Supervisors, after input and recommendation by the School Board, will be used as a guideline for determining the impact of additional students generated by the new development.

Given the variety of public facility needs throughout the county, on a case-by-case basis, public facility needs will be evaluated so that local concerns may be addressed.

All rezoning applications for residential development are expected to offset their public facility impact and to first address public facility needs in the vicinity of the proposed development. Impact offset may be accomplished through the dedication of land suitable for the construction of an identified public facility need, the construction of public facilities, the contribution of specified in-kind goods, services or cash earmarked for those uses, and/or monetary contributions to be used toward funding capital improvement projects. Selection of the appropriate offset mechanism should maximize the public benefit of the contribution.

Furthermore, phasing of development may be required to ensure mitigation of impacts.

7. Affordable Housing:

Ensuring an adequate supply of housing for low and moderate income families, those with special accessibility requirements, and those with other special needs is a goal of the county. Part 8 of Article 2 of the Zoning Ordinance requires the provision of Affordable Dwelling Units (ADUs) in certain circumstances. Criterion #7 is applicable to all rezoning applications and/or portions thereof that are not required to provide any Affordable Dwelling Units, regardless of the planned density range for the site.

- a) *Dedication of Units or Land:* If the applicant elects to fulfill this criterion by providing affordable units that are not otherwise required by the ADU Ordinance: a maximum density of 20% above the upper limit of the Plan range could be achieved if 12.5% of the total number of single-family detached and attached units are provided pursuant to the Affordable Dwelling Unit Program; and, a maximum density of 10% or 20% above the upper limit of the Plan range could be achieved if 6.25% or 12.5%, respectively of the total number of multifamily units are provided to the Affordable Dwelling Unit Program. As an alternative, land, adequate and ready to be developed for an equal number of units may be provided to the Fairfax County Redevelopment and Housing Authority or to such other entity as may be approved by the Board.
- b) *Housing Trust Fund Contributions:* Satisfaction of this criterion may also be achieved by a contribution to the Housing Trust Fund or, as may be approved by the Board, a monetary and/or in-kind contribution to another entity whose mission is to provide affordable housing in Fairfax County, equal to 0.5% of the value of all of the units approved on the property except those that result in the provision of ADUs. This contribution shall be payable prior to the issuance of the first building permit. For for-sale projects, the percentage set forth above is based upon the aggregate sales price of all of the units subject to the contribution, as if all of those units were sold at the time of the issuance of the first building permit, and is estimated through comparable sales of similar type units. For rental projects, the amount of the contribution is based upon the total development cost of the portion of the project subject to the contribution for all elements necessary to bring the project to market, including land, financing, soft costs and construction. The sales price or development cost will be determined by the Department of Housing and Community Development, in consultation with the Applicant and the Department of Public Works and Environmental Services. If this criterion is fulfilled by a contribution as set forth in this paragraph, the density bonus permitted in a) above does not apply.

8. Heritage Resources:

Heritage resources are those sites or structures, including their landscape settings, that exemplify the cultural, architectural, economic, social, political, or historic heritage of the county or its communities. Some of these sites and structures have been 1) listed in, or determined eligible for listing in, the National Register of Historic Places or the Virginia Landmarks Register; 2) determined to be a contributing structure or site within a district so listed or eligible for listing; 3) located within and considered as a contributing structure within a Fairfax County Historic Overlay District; or 4) listed in, or having a reasonable potential as determined by the county, for meeting the criteria for listing in, the Fairfax County Inventory of Historic Sites.

In reviewing rezoning applications for properties on which known or potential heritage resources are located, some or all of the following shall apply:

- a) Protect heritage resources from deterioration or destruction until they can be documented, evaluated, and/or preserved;
- b) Conduct archaeological, architectural, and/or historical research to determine the presence, extent, and significance of heritage resources;
- c) Submit proposals for archaeological work to the county for review and approval and, unless otherwise agreed, conduct such work in accordance with state standards;
- d) Preserve and rehabilitate heritage resources for continued or adaptive use where feasible;
- e) Submit proposals to change the exterior appearance of, relocate, or demolish historic structures to the Fairfax County Architectural Review Board for review and approval;
- f) Document heritage resources to be demolished or relocated;
- g) Design new structures and site improvements, including clearing and grading, to enhance rather than harm heritage resources;
- h) Establish easements that will assure continued preservation of heritage resources with an appropriate entity such as the county's Open Space and Historic Preservation Easement Program; and
- i) Provide a Fairfax County Historical Marker or Virginia Historical Highway Marker on or near the site of a heritage resource, if recommended and approved by the Fairfax County History Commission.

ROLE OF DENSITY RANGES IN AREA PLANS

Density ranges for property planned for residential development, expressed generally in terms of dwelling units per acre, are recommended in the Area Plans and are shown on the Comprehensive Plan Map. Where the Plan text and map differ, the text governs. In defining the density range:

- the "base level" of the range is defined as the lowest density recommended in the Plan range, i.e., 5 dwelling units per acre in the 5-8 dwelling unit per acre range;
- the "high end" of the range is defined as the base level plus 60% of the density range in a particular Plan category, which in the residential density range of 5-8 dwelling units per acre would be considered as 6.8 dwelling units per acre and above; and,
- the upper limit is defined as the maximum density called for in any Plan range, which, in the 5-8 dwelling unit per acre range would be 8 dwelling units per acre.
- In instances where a range is not specified in the Plan, for example where the Plan calls for residential density up to 30 dwelling units per acre, the density cited in the Plan shall be construed to equate to the upper limit of the Plan range, and the base level shall be the upper limit of the next lower Plan range, in this instance, 20 dwelling units per acre.



County of Fairfax, Virginia

MEMORANDUM

DATE: February 17, 2015

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

FROM: Pamela G. Nee, Chief
Environment and Development Review Branch, DPZ

SUBJECT: ENVIRONMENTAL ASSESSMENT for: **SE 2014-DR-052**
Summerhouse Landing

This memorandum, prepared by Mary Ann Welton, includes citations from Comprehensive Plan that provide guidance for the evaluation of the subject Special Exception application (SE), revised through February 4, 2015. The extent to which the application conforms to the applicable guidance contained in the Comprehensive Plan is noted. Possible solutions to remedy identified issues are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are in harmony with Plan policies.

COMPREHENSIVE PLAN CITATIONS:

The Comprehensive Plan is the basis for the evaluation of this application. The assessment of the proposal for conformity with the environmental recommendations of the Comprehensive Plan is guided by the following.

Environment

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on pages 7-9, the Plan states:

“Objective 2: Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County.

Policy a. Maintain a best management practices (BMP) program for Fairfax County and ensure that new development and redevelopment complies with the County’s best management practice (BMP) requirements. . . .

- Policy c. Minimize the application of fertilizers, pesticides, and herbicides to lawns and landscaped areas through, among other tools, the development, implementation and monitoring of integrated pest, vegetation and nutrient management plans.
- Policy d. Preserve the integrity and the scenic and recreational value of EQCs....
- Policy 1. In order to augment the EQC system, encourage protection of stream channels and associated vegetated riparian buffer areas along stream channels upstream of Resource Protection Areas (as designated pursuant to the Chesapeake Bay Preservation Ordinance) and Environmental Quality Corridors....

Development proposals should implement best management practices to reduce runoff pollution and other impacts. Preferred practices include: those which recharge groundwater when such recharge will not degrade groundwater quality; those which preserve as much undisturbed open space as possible; and, those which contribute to ecological diversity by the creation of wetlands or other habitat enhancing BMPs, consistent with State guidelines and regulations.”

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on page 10, the Plan states:

“Objective 3: Protect the Potomac Estuary and the Chesapeake Bay from the avoidable impacts of land use activities in Fairfax County.

- Policy a. Ensure that new development and redevelopment complies with the County's Chesapeake Bay Preservation Ordinance. . . .”

The Fairfax County Comprehensive Plan Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, page 11-12 states:

“Objective 4: Minimize human exposure to unhealthful levels of transportation generated noise.

- Policy a: Regulate new development to ensure that people are protected from unhealthful levels of transportation noise....

New development should not expose people in their homes, or other noise sensitive environments, to noise in excess of DNL 45 dBA, or to noise in excess of DNL 65 dBA in the outdoor recreation areas of homes. To achieve these standards new residential development in areas impacted by highway noise between DNL 65 and 75 dBA will require mitigation. New residential development should not occur in areas with projected highway noise exposures exceeding DNL 75 dBA.”

In the Fairfax County Comprehensive, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on page 14 – 17, the Plan states:

“Objective 9: Identify, protect and enhance an integrated network of ecologically valuable land and surface waters for present and future residents of Fairfax County.

Policy a: Identify, protect and restore an Environmental Quality Corridor system (EQC).... Lands may be included within the EQC system if they can achieve any of the following purposes:

- **Habitat Quality:** The land has a desirable or scarce habitat type, or one could be readily restored, or the land hosts a species of special interest. This may include: habitat for species that have been identified by state or federal agencies as being rare, threatened or endangered; rare vegetative communities; unfragmented vegetated areas that are large enough to support interior forest dwelling species; and aquatic and wetland breeding habitats (i.e., seeps, vernal pools) that are connected to and in close proximity to other EQC areas.
- **Connectivity:** This segment of open space could become a part of a corridor to facilitate the movement of wildlife and/or conserve biodiversity. This may include natural corridors that are wide enough to facilitate wildlife movement and/or the transfer of genetic material between core habitat areas.
- **Hydrology/Stream Buffering/Stream Protection:** The land provides, or could provide, protection to one or more streams through: the provision of shade; vegetative stabilization of stream banks; moderation of sheet flow stormwater runoff velocities and volumes; trapping of pollutants from stormwater runoff and/or flood waters; flood control through temporary storage of flood waters and dissipation of stream energy; separation of potential pollution sources from streams; accommodation of stream channel evolution/migration; and protection of steeply sloping areas near streams from denudation.
- **Pollution Reduction Capabilities:** Preservation of this land would result in significant pollutant reductions. Water pollution, for example, may be reduced through: trapping of nutrients, sediment and/or other pollutants from runoff from adjacent areas; trapping of nutrients, sediment and/or other pollutants from flood waters; protection of highly erodible

soils and/or steeply sloping areas from denudation; and/or separation of potential pollution sources from streams.

The core of the EQC system will be the county's stream valleys. Additions to the stream valleys should be selected to augment the habitats and buffers provided by the stream valleys, and to add representative elements of the landscapes that are not represented within stream valleys. The stream valley component of the EQC system shall include the following elements...:

- All 100 year flood plains as defined by the Zoning Ordinance;
- All areas of 15% or greater slopes adjacent to the flood plain, or if no flood plain is present, 15% or greater slopes that begin within 50 feet of the stream channel;
- All wetlands connected to the stream valleys; and
- All the land within a corridor defined by a boundary line which is 50 feet plus 4 additional feet for each % slope measured perpendicular to the stream bank. The % slope used in the calculation will be the average slope measured within 110 feet of a stream channel or, if a flood plain is present, between the flood plain boundary and a point fifty feet up slope from the flood plain. This measurement should be taken at fifty foot intervals beginning at the downstream boundary of any stream valley on or adjacent to a property under evaluation.

Modifications to the boundaries so delineated may be appropriate if the area designated does not benefit any of the EQC purposes as described above. In addition, some disturbances that serve a public purpose such as unavoidable public infrastructure easements and rights of way may be appropriate. Disturbances for access roads should not be supported unless there are no viable alternatives to providing access to a buildable portion of a site or adjacent parcel. The above disturbances should be minimized and occur perpendicular to the corridor's alignment, if practical, and disturbed areas should be restored to the greatest extent possible.

In general, stormwater management facilities should not be provided within EQCs unless they meet one of the following conditions:

- They are consistent with recommendations of a watershed management plan that has been adopted by the Fairfax County Board of Supervisors; or
- They will:
 - Either:
 - Be more effective in protecting streams and better support goals of watershed management plans than stormwater

management measures that otherwise would be provided outside of EQCs; or

- Contribute to achieving pollutant reduction necessary to bring waters identified as impaired into compliance with state water quality standards or into compliance with a Municipal Separate Storm Sewer System (MS4) permit in a manner that would be more effective and/or less environmentally-disruptive than approaches that would be pursued outside of EQCs;

and

- Replace, enhance and/or be provided along with other efforts to compensate for any of the EQC purposes, as described above, that would be affected by the facilities.

When stormwater management facilities within the EQC are determined to be appropriate, encourage the construction of facilities that minimize clearing and grading, such as embankment-only ponds, or facilities that are otherwise designed to maximize pollutant removal while protecting, enhancing, and/or restoring the ecological integrity of the EQC.

The following efforts within EQCs support the EQC policy and should be encouraged:

- Stream stabilization and restoration efforts where such efforts are needed to improve the ecological conditions of degraded streams. Natural channel design methods should be applied to the greatest extent possible and native species of vegetation should be used.
- Replanting efforts in EQCs that would restore or enhance the environmental values of areas that have been subject to clearing; native species of vegetation should be applied.
- Wetland and floodplain restoration efforts.
- Removal of non-native invasive species of vegetation from EQCs to the extent that such efforts would not be in conflict with county ordinances; such efforts should be pursued in a manner that is least disruptive to the EQCs.

Other disturbances to EQCs should only be considered in extraordinary circumstances and only where mitigation/compensation measures are provided that will result in a clear and substantial net environmental benefit. In addition, there should be net benefits relating to most, if not all, of the EQC purposes listed above that are applicable to the proposed disturbances....”

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on page 18, the Plan states:

“Objective 10: Conserve and restore tree cover on developed and developing sites. Provide tree cover on sites where it is absent prior to development.

Policy a: Protect or restore the maximum amount of tree cover on developed and developing sites consistent with planned land use and good silvicultural practices.

Policy b: Require new tree plantings on developing sites which were not forested prior to development and on public rights of way....”

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on page 19 -21, the Plan states:

“Objective 13: Design and construct buildings and associated landscapes to use energy water resources efficiently and to minimize short- and long-term negative impacts on the environment and building occupants.

Policy a. In consideration of other Policy Plan objectives, encourage the application of energy conservation, water conservation and other green building practices in the design and construction of new development and redevelopment projects. These practices may include, but are not limited to:

- Environmentally-sensitive siting and construction of development;
- Application of low impact development practices, including minimization of impervious cover (See Policy k under Objective 2 of this section of the *Policy Plan*);
- Optimization of energy performance of structures/energy-efficient design;
- Use of renewable energy resources;
- Use of energy efficient appliances, heating/cooling systems, lighting and/or other products;
- Application of best practices for water conservation, such as water efficient landscaping and innovative wastewater technologies, that can serve to reduce the use of potable water and/or reduce stormwater runoff volumes;

- Reuse of existing building materials for redevelopment projects;
- Recycling/salvage of non-hazardous construction, demolition, and land clearing debris;
- Use of recycled and rapidly renewable building materials;
- Use of building materials and products that originate from nearby sources;
- Reduction of potential indoor air quality problems through measures such as increased ventilation, indoor air testing and use of low-emitting adhesives, sealants, paints/coatings, carpeting and other building materials;
- Reuse, preservation and conservation of existing buildings, including historic structures;
- Retrofitting of other green building practices within existing structures to be preserved, conserved and reused;
- Energy and water usage data collection and performance monitoring;
- Solid waste and recycling management practices; and
- Natural lighting for occupants.

Encourage commitments to implementation of green building practices through certification under established green building rating systems for individual buildings (e.g., the U.S. Green Building Council's Leadership in Energy and Environmental Design for New Construction [LEED-NC®] or the U.S. Green Building Council's Leadership in Energy and Environmental Design for Core and Shell [LEED-CS®] program or other equivalent programs with third party certification). An equivalent program is one that is independent, third-party verified, and has regional or national recognition or one that otherwise includes multiple green building concepts and overall levels of green building performance that are at least similar in scope to the applicable LEED rating system.

Encourage commitments to the attainment of the ENERGY STAR® rating where available. Encourage certification of new homes through an established residential green building rating system that incorporates multiple green building concepts and

has a level of energy performance that is comparable to or exceeds ENERGY STAR qualification for homes. Encourage the inclusion of professionals with green building accreditation on development teams. Encourage commitments to the provision of information to owners of buildings with green building/energy efficiency measures that identifies both the benefits of these measures and their associated maintenance needs. ...

- Policy c. Ensure that zoning proposals for residential development that are not otherwise addressed in Policy b above will incorporate green building practices sufficient to attain certification under an established residential green building rating system that incorporates multiple green building concepts and that includes an ENERGY STAR Qualified Homes designation or a comparable level of energy performance. Where such zoning proposals seek development at or above the mid-point of the Plan density range, ensure that county expectations regarding the incorporation of green building practices are exceeded in two or more of the following measurable categories: energy efficiency; water conservation; reusable and recycled building materials; pedestrian orientation and alternative transportation strategies; healthier indoor air quality; open space and habitat conservation and restoration; and greenhouse gas emission reduction. As intensity or density increases, the expectations for achievement in the area of green building practices would commensurately increase....”

ENVIRONMENTAL ANALYSIS

This section characterizes the environmental concerns raised by an evaluation of this site and the proposed land use. Solutions are suggested to remedy the concerns that have been identified by staff. There may be other acceptable solutions. Particular emphasis is given to opportunities provided by this application to conserve the County’s remaining natural amenities. Analysis for this application addresses the overall conceptual development plan and proffered commitments for the subject property.

Environmental Quality Corridor (EQC), Resource Protection Area (RPA) and 100 year floodplain: The 28.94 acre subject property is situated within the Sugarland Run watershed and it is currently developed as a golf course. An unnamed tributary associated with Sugarland Run traverses in an east west direction along the northern portion of the site adjacent to Leesburg Pike. The stream valley feature is considered Environmental Quality Corridor (EQC), Resource Protection Area (RPA) and 100 year floodplain. The subject property, particularly in the area of the EQC, gently slopes down from Leesburg Pike, and in some areas the site is generally lower in elevation than the roadway. The EQC/RPA encompasses almost 6 acres of the 29 acre site. Except for a minimum amount of disturbance in stream valley for infrastructure improvements, the EQC/RPA is proposed to be preserved and such preservation is consistent with the EQC policy.

Stormwater Management Best Management Practices and Adequate Outfall: The development plan depicts one large dry pond in the northwest corner of the site below the stream

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valley, as well as three bioretention facilities to accommodate the water quality and the water quantity control requirements for the proposed thirty lot subdivision. Because the land has been developed as a golf course, much of the stream valley is characterized by turf grass with some existing buildings and impervious surface within it. To address this issue, the stormwater narrative indicates that all structures and impervious surface will be removed from the stream valley EQC/RPA. The feature will be restored with appropriate vegetation as prescribed by the County's Chesapeake Bay Preservation Ordinance (CBPO) to establish a healthy stream valley with habitat value. One trail is proposed within the EQC.

The outfall narrative describes that runoff from the subject property discharges from the stream channel at the western boundary of the site and under Leesburg Pike at its intersection with the Fairfax County Parkway. Eventually runoff from the site flows into the 100 year floodplain of Sugarland Run located northwest of the subject property. In the reviewing engineer's opinion the outfall is adequate. Stormwater management/best management practice measures and outfall adequacy are subject to review and approval by the Department of Public Works and Environmental Services (DPWES).

On May 24, 2011, the Virginia Soil and Water Conservation Board adopted Final Stormwater Regulations, which became effective September 13, 2011. The regulations require all local governments in Virginia to adopt and enforce new stormwater management requirements; these new requirements must be effective on July 1, 2014. In support of this legislation, the Fairfax County Board of Supervisors adopted the Stormwater Management Ordinance as an amendment to the Code of Fairfax County on January 28, 2014.

http://www.fairfaxcounty.gov/dpwes/stormwaterordinance/chapter_124.pdf

Staff from the DPWES administers the stormwater management ordinance, which became effective July 1, 2014.

Transportation Generated Noise: The subject property will be affected by transportation generated noise from Leesburg Pike. The applicant has provided a preliminary noise analysis in the form of a memorandum, performed by Phoenix Noise and Vibration, dated January 29, 2015. The acoustical engineer did qualify that this preliminary analysis was based upon a computerized model to simulate the site into the future. Twenty-four hour measurements were unavailable due to atypical conditions caused by roadway construction on Leesburg Pike.

The acoustical analysis indicates that Lots 21-25 will be affected future unmitigated transportation generated noise which exceeds 65 dBA Ldn at the ground level; and the upper stories of Lots 16 & 17, and Lots 20 – 26 will be affected by roadway noise levels between 65 dBA Ldn up to 71 dBA Ldn.

The acoustical analysis offered the following conclusions:

- The subject property will be affected by transportation generated noise levels up to 71 dBA Ldn. Ground level noise in excess of 65 dBA Ldn will impact Lots 21– 25; noise levels in the upper stories of Lots 16 & 17, and Lots 20 – 26 will be affected by roadway noise levels between 65 dBA Ldn up to 71 dBA Ldn.

Barbara Berlin
SE 2014-DR-052
Page 10

- Conformance with the Policy Plan can likely be achieved through building materials and through site modifications, such as a continuous noise barrier, localized barriers and/or earthen berms.
- Detailed noise mitigation recommendations cannot be provided until more information is available regarding final site design and topography, as well as architectural details of the future homes.

Staff recommends that the applicant provide a development condition in support of Policy Plan guidance regarding noise mitigation for new residential use. A development condition addressing roadway noise mitigation should include the following elements:

- Building materials specifications capable of mitigating noise to address 65 – 70 dBA Ldn noise levels;
- Building material specification capable of mitigating roadway noise levels between 70 – 75 dBA Ldn;
- A commitment to perform a refined acoustical analysis at site plan submission to ensure that final grading, model design and roadway improvements and a twenty-four hour onsite noise measurement for Leesburg Pike (when construction is completed) have been accommodated;
- A commitment to ensure that noise in interior areas of new residential development will not exceed 45 decibels and that noise in the recreations areas of the new homes does not exceed 65 dBA;
- Appropriate consultant recommendations to achieve these goals.

Tree Preservation/Restoration: Bottomland forest characterizes the application property on the western portion and on the northern boundary of the site in the location of the stream valley. Maintained grassland characterizes the remainder of the property with some early successional forest found along the southwestern and eastern aspects of the property. The landscape plan shown on sheet 7 of the current development plan depicts those areas designated for preservation, restoration and invasive species removal. The applicant is encouraged to work with the Urban Forestry Management Division (UFMD) of DPWES in order to augment the proposed landscape plan for this proposed development, particularly in the area of the EQC which is currently developed as turf.

Green Building Practices: In support of the County's green building policy, the applicant has committed to the attainment of Earthcraft House or the 2012 National Green Building Standard (formerly known as NAHB National Green Building Certification) using the Energy Star Qualified Homes path for energy performance for the proposed new homes to be demonstrated prior to the Residential Use Permit (RUP) for each new home. Staff recommends that the commitment be incorporated into a development condition.

PGN: MAW



County of Fairfax, Virginia

MEMORANDUM

DATE: February 9, 2015

TO: Barbara Berlin, Director
Zoning Evaluation Division, Department of Planning & Zoning

CC: Michael Van Atta, Staff Coordinator
Zoning Evaluation Division, Department of Planning & Zoning

FROM: Michael A. Davis, Acting Chief 
Site Analysis Section, Department of Transportation

FILE: SE 2014-DR-052

SUBJECT: SE 2014-DR-052 Trinity Land LLC (Summerhouse Landing)
11801 Leesburg Pike, Herndon VA 20170
Tax Map: 06-3 ((1)) 33 & 33A

This Department has reviewed the subject application and Special Exception Plat (SE Plat) dated August 4, 2014, revised through February 2, 2015, and offers the comments below.

A VDOT project (NFO 0007-029-128, C501) is under construction on the Leesburg Pike site frontage. The project will construct a new signalized entrance to the subject property with the project scheduled for completion in December 2015. However, the site layout for the proposed redevelopment of the property does not propose access to Leesburg Pike. This is supported by staff. Discussions occurred between the applicant, staff, and VDOT to potentially change the project scope to eliminate the entrance to the site. VDOT is willing to cooperate; however, the improvement project is in progress and the timing of the Special Exception review and the potential site development implementation is not conducive to changing the road improvement project to accommodate it. Further, the applicant also intends to use the new entrance from Leesburg Pike as a temporary construction access when the subdivision is constructed, extending its operation. Therefore, it will be the responsibility of applicant to permanently close this entrance with completion of the development.

Pursuant to the ultimate closure of the entrance, the applicant has agreed to provide:

- A new signal timing plan at the Route 7 and Redberry Court intersection;
- Removal and obscuring of any roadway not needed after construction is complete;
- Drainage modifications south of the Leesburg Pike shared use trail;
- An evaluation and installation of new guardrail and end treatments at the area where the internal trail connects with the Leesburg Pike shared use trail;
- An internal trail connecting with the shared use trail;
- Landscaping along the northern boundary of the parcel, as shown on VDOT's plan sheets for this area.

The development conditions for the proposal reflect these commitments.

(over)

Fairfax County Department of Transportation
4050 Legato Road, Suite 400
Fairfax, VA 22033-2895
Phone: (703) 877-5600 TTY: 711
Fax: (703) 877-5723
www.fairfaxcounty.gov/fcdot



Summerhouse Landing – FCDOT Memo

February 9, 2015

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Other comments on the application are:

- The applicant proposes to use the existing golf driving range driveway as a temporary construction entrance. The applicant should provide a construction access plan for review and approval by VDOT and DPWES. When construction is completed, the applicant should close this driveway entrance, remove the driveway pavement, construct the internal trail connection, and restore the curb, gutter, Leesburg Pike shared use trail, landscaping and buffer strips.
- The applicant should improve the Sugarland Road frontage by providing a road pavement section to accommodate a 4-foot wide bike lane, curb and gutter, and a 5-foot wide sidewalk. The pavement section, curb and gutter, and sidewalk should match the existing improvements at the eastern property boundary of this site.
- The internal public street should meet VDOT design standards with the provision of a minimum 42-foot wide ROW, a 29-foot wide face-of-curb to face-of-curb section, curb and gutter and 5-foot wide sidewalks.
- The Applicant submitted a Secondary Streets Acceptance Requirements (SSAR) waiver for multiple streets connectivity. VDOT approved the SSAR waiver as of January 13, 2015. FCDOT is agreeable to this waiver, acknowledging that primary access into the site is proposed via Sugarland Road, that the RPA on the northern portion of the site will be restored, with no connections to Route 7, and that no other future street connections or ROW is available to connect the internal streets in the east or west directions.

MAD/RP



Charlie Kilpatrick
COMMISSIONER

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

January 13, 2015

To: Ms. Barbara Berlin
Director, Zoning Evaluation Division

From: Noreen H. Maloney
Virginia Department of Transportation – Land Development Section

Subject: **SE 2014-DR-052; Summerhouse Landing**

All submittals subsequent to the first submittal shall provide a response letter to the previous VDOT comments. Submittals without comment response letters are considered incomplete and will be returned without review.

This office has reviewed the subject application and offers the following comments.

- The SSAR Exception for Multiple Connections has been submitted and approved.
- Provide detail for the Trail connection.
- Provide detail of the guardrail per the VDOT *Road and Bridge Standards*.



County of Fairfax, Virginia

MEMORANDUM

DATE: February 9, 2015

TO: Mike Van Atta, Staff Coordinator
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Camylyn Lewis, Stormwater Engineer *cmL*
Site Development and Inspections Division
Department of Public Works and Environmental Services

SUBJECT: Rezoning Application #SE 2014-DR-052, Summerhouse Landing, 11801 Leesburg Pike; Special Exception Application dated August 04, 2014, LDS Project #014212-ZONA-001-1, Tax Map #006-03-01-0033 and 0033A, Dranesville District

We have reviewed the subject application and offer the following stormwater management comments.

Chesapeake Bay Preservation Ordinance (CBPO)

There is Resource Protection Area (RPA) on this site. The applicant is not proposing to construct the homes in the RPA. See Chapter 101-2-5(12) Final Subdivision Plat. However, a sanitary line and a trail in the RPA are proposed.

- The sanitary line is an exempt use (subject to conditions), Chapter 118-5-2(b). At the time of site plan review the applicant should consider locating the connection to the sanitary line on the upstream side of the pond instead of on the downstream side and potentially conflicting with the dam embankment and the outfall. A WQIA is not required. The approval is typically with the plan.
- A trail or pathway is an exempt use (subject to conditions) under Chapter 118-5-3(a). Chapter 118-5-3(a)(6) requires that a written request for an exemption shall be filled with and approved by the Director. The trail is located in the area disturbed by the existing access road which is to be removed. A WQIA is not required however a written request for an exemption shall be filed with and approved by the Director along with any plans of development submitted for review. Chapter 118-5-3.

There are approximately 0.2 acres of existing impervious surface and 2.3 acres of manicured grass located in the RPA. The plan states that the development will remove all of the impervious areas from the RPA and restore the manicured grass areas and disturbed areas in accordance with the RPA planting standards (see 118-3-3(f)). The plan states that the canopied portions of the RPA will remain undisturbed. The existing asphalt access road, associated culvert crossing, storm sewer and timber wall/embankment will be removed, and the stream channel will be restored in disturbed areas. The

Department of Public Works and Environmental Services
Land Development Services, Site Development and Inspections Division
12055 Government Center Parkway, Suite 535
Fairfax, Virginia 22035-5503
Phone 703-324-1720 • TTY 711 • FAX 703-324-8359



Mike Van Atta, Staff Coordinator

Application #SE 2014-DR-052, Trinity Land, LLC, 11801 Leesburg Pike; LDS Project #014212-ZONA-001-1

Page 2 of 2

stream channel is to be restored to allow for fish passage and aquatic habitat. A WQIA will be required, CBPO 118-4-2.

Floodplain

There is minor floodplain on the property which is mapped with the County Watershed maps. For more information on this floodplain, the applicant should contact Stormwater Planning. As the applicant is proposing to restore the stream channel, a floodplain study is required.

Downstream Drainage Complaints

There are no applicable drainage complaints on file.

Water Quality

The applicant provided the drainage area computations and summary spreadsheet for the Virginia Runoff Reduction Method which indicates that the water quality requirements could be met, sheets 5 and 5-A. To meet water quality requirements, the applicant is proposing simple disconnection and three (3) raingardens, and a dry pond. The applicant will be requested to submit an electronic version of the spreadsheet for detailed review with the subdivision plan. Compliance with DEQ's BMP specifications is required.

Stormwater Detention

The applicant is proposing a dry pond to reduce the site runoff to the required level below the pre-developed rate for a Sheet 1, the size was stated but supporting computations were not provided.

Channel Protection and Flood Protection/Outfall

The applicant indicates that over detention, in the dry pond, will be used to meet the adequate outfall requirements. Supporting computations were not provided.

A detailed outfall analysis in accordance with will be required with the subdivision plan.

Dam Breach

The dam is located adjacent to the minor floodplain. In this case, concerns over a dam failure could be addressed with the site plan.

Miscellaneous

These comments are based on the 2011 version of the Public Facilities Manual (PFM) and, Chapter 124 of the County code.

Please contact me at 703-324-1808, if you have any questions or require additional information.

cc: Donald Demetrius, Chief, Watersheds Evaluation Branch, Stormwater Planning Division, DPWES
Shahab Baig, Chief, North Branch, SDID, DPWES
Zoning Application File



County of Fairfax, Virginia

MEMORANDUM

DATE: December 4, 2014

TO: Michael Van Atta, Staff Coordinator
Zoning Evaluation Division, DPZ

FROM: Craig Herwig, Urban Forester III
Forest Conservation Branch, DPWES

SUBJECT: Summerhouse Landing; SE 2014-DR-052

This review is based on the revised Special Exception Plan and the comment response letter stamped, "Received, Department of Planning and Zoning, November 17, 2014.

Comments on the previously submitted Special Exception Plan were provided to DPZ from the Urban Forest Management Division staff in the memo dated October 16, 2014. Two comments contained in that memo were not adequately addressed. In addition, a development condition has been added to address additional tree preservation areas identified in the revised submission of the plan.

- 1. Comment:** There appear to be additional opportunities to preserve existing bottomland forested areas outside of the RPA and Floodplain west of lot 7.

Recommendation: The Applicant should consider design alternatives to determine if additional tree preservation can be provided west of lot 7. The Applicant should commit to a 20-foot wide undisturbed buffer along the property boundary west of lot 7 to protect off-site and co-owned trees from clearing, grading and construction activities.

- 2. Comment:** The proposed limits of clearing and grading west of the proposed stormwater management pond will provide minimal protection to off-site and co-owned trees and vegetation.

Recommendation: An alternative design of the pond should be considered to provide a 20-foot wide undisturbed buffer along the property boundary west of the proposed stormwater management pond to protect off-site and co-owned trees from clearing, grading and construction activities.

- 3. Comment:** The following development condition should be added to the development conditions already suggested to address the invasive plants located in the tree save areas.

Department of Public Works and Environmental Services
Urban Forest Management Division
12055 Government Center Parkway, Suite 518
Fairfax, Virginia 22035-5503
Phone 703-324-1770, TTY: 711, Fax: 703-653-9550
www.fairfaxcounty.gov/dpwes



Summerhouse Landing
SE 2014-DR-052
December 4, 2014
Page 2 of 2

Recommendation: Invasive Plant Management Plan: Provide an invasive plant management plan to address how invasive plants will be managed at levels that do not endanger the long-term ecological functionality of vegetation within tree preservation areas.

Please feel free to contact me with any questions or concerns.

CSH/

UFMDID #: 196200

cc: DPZ File





FAIRFAX COUNTY PARK AUTHORITY



M E M O R A N D U M

TO: Barbara Berlin, AICP, Director
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Sandy Stallman, AICP, Manager
Park Planning Branch, PDD 

DATE: October 6, 2014

SUBJECT: Summerhouse Landing, SE 2014-DR-052
Tax Map Number(s): 6-3 ((1)) 33 and 33A

BACKGROUND

The Park Authority staff has reviewed the proposed Development Plan signed and sealed on August 4, 2014, for the above referenced application. The Development Plan requests cluster development of 28.94 acres of R-1 zoned land with 30 single family homes. The property is approximately 325' from the Dranesville Tavern site, owned and operated by the Park Authority and protected by a historic overlay district which covers a portion of the subject property. The property currently is operated as Woody's Golf Range. Based on the average single family household size in the Upper Potomac Planning District of 3.13, the development could add 93 new residents to the Dranesville Supervisory District.

PLAN GUIDANCE

The County Comprehensive Plan includes both general and specific guidance regarding parks and resources. The Policy Plan describes the need to mitigate adverse impacts to park and recreation facilities caused by growth and development; it also offers a variety of ways to offset those impacts, including contributions, land dedication, development of facilities, and others (Parks and Recreation, Objective 6, p.8).

The subject property lies within the Greater Herndon Community Planning Sector (UP-4) of the Upper Potomac Planning District. Area specific recommendations reflect the limitation on density of development to 0.2 - 0.5 dwelling units per acre within the Dranesville Tavern Historic Overlay District. The residual of the subject property is recommended for development at a density of 0.5 - 1.0 dwelling units per acre.

The Countywide Trails Plan Map, as part of the Comprehensive Plan, reflects the construction of a major paved trail along Route 7 and a minor paved trail along Sugarland Road.

The Dransville Tavern Historic Overlay District is defined in the Zoning Ordinance in Appendix 1, Part 7. Among the guidelines of the overlay district, Use Limitation #3 states that “all improvements, to include structures, signs, fences, street furniture, outdoor graphics, and public and private utilities, shall be designed and installed to be compatible with the Dranesville Tavern in terms of mass, scale, color and visual impact.”

Finally, text from the Upper Potomac District chapter of the Great Parks, Great Communities Park Comprehensive Plan identifies the growing need for parkland and active recreation within the Upper Potomac planning district to address expanding development, such as the subject application. The greatest need is for athletic fields, basketball courts, and playgrounds.

ANALYSIS AND RECOMMENDATIONS

Recreational Impact of Residential Development:

Future residents of the Summerhouse Landing development will likely frequent Fairfax County parks, increasing demand on existing park facilities. With the Countywide Comprehensive Policy Plan as a guide (Appendix 9, #6 of the Land Use section, as well as Objective 6, Policy a, b and c of the Parks and Recreation section), the Park Authority requests a fair share contribution of \$893 per new resident with any residential rezoning application to offset impacts to park and recreation service levels. This allows the Park Authority to build additional facilities needed as the population increases. To offset the additional impact caused by the proposed development, the applicant should contribute \$83,049 to the Park Authority for recreational facility development at one or more park sites located within the service area of the subject property.

Trails:

The applicant has proposed a five-foot wide concrete sidewalk along Sugarland Road per the guidance of the Comprehensive Plan. A ten foot wide path is shown along Route 7 as part of a VDOT project. The applicant may wish to consider providing a trail connection from the proposed development to the Route 7 trail to provide greater flexibility for future residents and enhance connectivity to Dranesville Tavern Park.

SUMMARY OF RECOMMENDATIONS

This section summarizes the recommendations included in the preceding analysis section.

- Provide a fair share contribution of \$83,049 to the Park Authority for the establishment and/or enhancement of park facilities within the service area of the subject property;
- Consider the provision of a trail connection from within the development to the proposed VDOT trail along Route 7.

Please note the Park Authority would like to review and comment on development conditions related to park and recreation issues. We request that draft and final development conditions be submitted to the assigned reviewer noted below for review and comment prior to completion of the staff report and prior to final Board of Supervisors approval.

FCPA Reviewer: Gayle Hooper
DPZ Coordinator: Michael Van Atta

Copy: Cindy Walsh, Director, Resource Management Division
Michael Van Atta, DPZ Coordinator
Chron File
File Copy



County of Fairfax, Virginia

MEMORANDUM

DATE: September 18, 2014

TO: Mike Van Atta
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Sharad Regmi, P.E.
Engineering Analysis and Planning Branch

SUBJECT: Sanitary Sewer Analysis Report

REF: **Application No. SE 2014 DR 052**
Tax Map No. 006-3-((01))-0033 & 0033-A

The following information is submitted in response to your request for a sanitary sewer analysis for above referenced application:

- The application property is located in the Sugarland Run (B-3) watershed. It would be sewer into the Blue Plains Treatment Plant.
- Based upon current and committed flow, there is excess capacity in the Blue Plains Treatment. For purposes of this report, committed flow shall be deemed that for which fees have been paid, building permits have been issued, or priority reservations have been established by the Board of Supervisors. No commitment can be made, however, as to the availability of treatment capacity for the development of the subject property. Availability of treatment capacity will depend upon the current rate of construction and the timing for development of this site.
- An existing 8 inch line located in the Dranesville Manor Drive and approximately 320 ft from the property is adequate for the proposed use at this time.
- The following table indicates the condition of all related sewer facilities and the total effect of this application.

<u>Sewer Network</u>	<u>Existing Use +Application</u>		<u>Existing Use + Application +Previous Applications</u>		<u>Existing Use + Application + Comp Plan</u>	
	<u>Adeq.</u>	<u>Inadeq</u>	<u>Adeq.</u>	<u>Inadeq</u>	<u>Adeq.</u>	<u>Inadeq</u>
Collector	X		X		X	
Submain	X		X		X	
Main/Trunk	X		X		X	

- Other pertinent comments:**





County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

October 17, 2014

Mr. Stuart Mendelsohn
Holland & Knight LLP
1600 Tysons Blvd.
Tysons Corner, VA 22102

Dear Mr. Mendelsohn:

This letter will serve as official notice of the action taken by the Fairfax County Architectural Review Board (ARB) at its October 9, 2014 meeting on **ARB-14-DRT-01** for the property located at 11801 Leesburg Pike tax map #s 006-3((1))0033 and 006-3((1))0033A partially within the Dranesville Tavern Historic Overlay District (HOD).

The ARB recommended approval of the application of **ARB-14-DRT-01 on SE 2014-DR-052** for the proposed location within the HOD for all or part of 7 residential lots and the storm water management facility as generally shown on the special exception plat entitled "Special Exception Plat Summerhouse Landing" prepared by Paciulli Simmons & Associates dated August 4, 2014. This is the final ARB action on this application. It is understood that this action is only on the recommendation on the special exception. And that as stipulated in *The Fairfax County Zoning Ordinance*, Section 7-204 1 and 3, that site plan review and review of architectural design and other proposed site improvements is required by the ARB and that future applications will be submitted to the ARB for these reviews.

Enclosed is the stamped plan sheet for **ARB-14-DRT-01**, "Special Exception Plat Summerhouse Landing" prepared by Paciulli Simmons & Associates dated August 4, 2014, as recommended for approval by the ARB at its October 9, 2014 meeting. A copy of this sheet and application materials will be retained in the project file.

If you have any questions, please contact me at 703/324-1241 or linda.blank@fairfaxcounty.gov.

Sincerely,

Linda Cornish Blank,
Historic Preservation Planner, Department of Planning & Zoning

Enclosure: 1 page

cc: David Schneider, Holland & Knight LLP (w/o enclosures)
Mike Van Atta, Planner, Zoning Evaluation Div. Dept. of Planning & Zoning (w/o enclosures)



Fairfax County is committed to nondiscrimination on the basis of disability in all county programs, services and activities. Reasonable accommodations will be provided upon request. For information, call (703) 324-1334 or TTY 711 (Virginia Relay Center).

Department of Planning and Zoning

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Fairfax, Virginia 22035-5509
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FAIRFAX COUNTY ZONING ORDINANCE

PART 1 3-100 R-1 RESIDENTIAL DISTRICT, ONE DWELLING UNIT/ACRE**3-101 Purpose and Intent**

The R-1 District is established to provide for single family detached dwellings; to allow other selected uses which are compatible with the low density residential character of the district; and otherwise to implement the stated purpose and intent of this Ordinance.

3-102 Permitted Uses

1. Accessory uses and home occupations as permitted by Article 10.
2. Agriculture, as defined in Article 20.
3. Dwellings, single family detached.
4. Public uses.

3-103 Special Permit Uses

For specific Group uses, regulations and standards, refer to Article 8.

1. Group 2 - Interment Uses.
2. Group 3 - Institutional Uses.
3. Group 4 - Community Uses.
4. Group 5 - Commercial Recreation Uses, limited to:
 - A. Commercial swimming pools, tennis courts and similar courts
5. Group 6 - Outdoor Recreation Uses.
6. Group 7 - Older Structures.
7. Group 8 - Temporary Uses, limited to:
 - A. Carnival, circus, festival, fair, horse show, dog show, steeplechase, music festival, turkey shoot, sale of Christmas trees or other seasonal commodities and other similar activities
 - B. Construction material yards accessory to a construction project
 - C. Contractors' offices and equipment sheds to include trailers accessory and adjacent to an active construction project
 - D. Subdivision and apartment sales and rental offices

RESIDENTIAL DISTRICT REGULATIONS

- E. Temporary dwellings or mobile homes
 - F. Temporary farmers' markets
 - G. Temporary mobile and land based telecommunications testing facility
 - H. Temporary portable storage containers
8. Group 9 - Uses Requiring Special Regulation, limited to:
- A. Barbershops or beauty parlors as a home occupation
 - B. Home professional offices
 - C. Sawmilling of timber
 - D. Veterinary hospitals
 - E. Accessory dwelling units

3-104**Special Exception Uses**

For specific Category uses, regulations and standards, refer to Article 9.

- 1. Category 1 - Light Public Utility Uses.
- 2. Category 2 - Heavy Public Utility Uses, limited to:
 - A. Electrical generating plants and facilities
 - B. Landfills
 - C. Water purification facilities
- 3. Category 3 - Quasi-Public Uses, limited to:
 - A. Alternate uses of public facilities
 - B. Child care centers and nursery schools
 - C. Churches, chapels, temples, synagogues and other such places of worship with a child care center, nursery school or private school of general or special education
 - D. Colleges, universities
 - E. Congregate living facilities
 - F. Cultural centers, museums and similar facilities

FAIRFAX COUNTY ZONING ORDINANCE

- G. Dormitories, fraternity/sorority houses, rooming/boarding houses, or other residence halls
 - H. Independent living facilities
 - I. Medical care facilities
 - J. Private clubs and public benefit associations
 - K. Private schools of general education
 - L. Private schools of special education
 - M. Quasi-public parks, playgrounds, athletic fields and related facilities
4. Category 4 - Transportation Facilities.
5. Category 5 - Commercial and Industrial Uses of Special Impact, limited to:
- A. Baseball hitting and archery ranges, outdoor
 - B. Bed and breakfasts
 - C. Commercial off-street parking in Metro Station areas as a temporary use
 - D. Establishments for scientific research and development
 - E. Funeral chapels
 - F. Golf courses, country clubs
 - G. Golf driving ranges
 - H. Kennels, animal shelters
 - I. Marinas, docks and boating facilities, commercial
 - J. Miniature golf courses ancillary to golf driving ranges
 - K. Offices
 - L. Plant nurseries
 - M. Veterinary hospitals, but only ancillary to kennels
6. Category 6 – Miscellaneous Provisions Requiring Board of Supervisors’ Approval:

Refer to Article 9, Special Exceptions, Part 6, Miscellaneous Provisions Requiring Board of Supervisors’ Approval, for provisions which may qualify or supplement these district regulations.

RESIDENTIAL DISTRICT REGULATIONS

3-105 Use Limitations

1. No sale of goods or products shall be permitted, except as accessory and incidental to a permitted, special permit or special exception use.
2. All uses shall comply with the performance standards set forth in Article 14.
3. Cluster subdivisions may be permitted in accordance with the provisions of Sect. 9-615.

3-106 Lot Size Requirements

1. Minimum district size for cluster subdivisions: 10 acres
2. Average lot area: No Requirement
3. Minimum lot area
 - A. Conventional subdivision lot: 36,000 sq. ft.
 - B. Cluster subdivision lot: 25,000 sq. ft.
4. Minimum lot width
 - A. Conventional subdivision lot:
 - (1) Interior lot - 150 feet
 - (2) Corner lot - 175 feet
 - B. Cluster subdivision lot:
 - (1) Interior lot - No Requirement
 - (2) Corner lot - 125 feet
5. The minimum district size requirement presented in Par. 1 above may be waived by the Board in accordance with the provisions of Sect. 9-610.

3-107 Bulk Regulations

1. Maximum building height
 - A. Single family dwellings: 35 feet
 - B. All other structures: 60 feet
2. Minimum yard requirements
 - A. Single family dwellings

FAIRFAX COUNTY ZONING ORDINANCE

- (1) Conventional subdivision lot
 - (a) Front yard: 40 feet
 - (b) Side yard: 20 feet
 - (c) Rear yard: 25 feet
- (2) Cluster subdivision lot
 - (a) Front yard: 30 feet
 - (b) Side yard: 12 feet, but a total minimum of 40 feet
 - (c) Rear yard: 25 feet
- B. All other structures
 - (1) Front yard: Controlled by a 50° angle of bulk plane, but not less than 40 feet
 - (2) Side yard: Controlled by a 45° angle of bulk plane, but not less than 20 feet
 - (3) Rear yard: Controlled by a 45° angle of bulk plane, but not less than 25 feet
- 3. Maximum floor area ratio:
 - A. 0.15 for uses other than residential or public
 - B. 0.20 for public uses

3-108 Maximum Density

- 1. Conventional subdivisions: One (1) dwelling unit per acre.
- 2. Cluster subdivisions: 1.1 dwelling units per acre for cluster subdivisions approved by special exception and one (1) dwelling unit per acre for cluster subdivisions that are the result of a proffered rezoning from a district that allows a permitted maximum density of less than one (1) dwelling unit per acre.

3-109 Open Space

In subdivisions approved for cluster development, 30% of the gross area shall be open space.

3-110 Additional Regulations

SPECIAL EXCEPTIONS

Except for cluster subdivisions in the R-2 District and cluster subdivisions in the R-3 and R-4 Districts which have a minimum district size of three and one-half (3.5) acres or greater, the Board may approve, either in conjunction with the approval of appropriate proffered conditions or as a special exception, the waiving of the open space requirement presented for a given zoning district and/or the open space requirement for cluster subdivisions in the R-C, R-E and R-1 Districts and cluster subdivisions in the R-3 and R-4 Districts which have a minimum district size of two (2) acres or greater but less than three and one-half (3.5) acres, set forth in Par. 4 of Sect. 2-309, but only in accordance with the following provisions:

1. Such waiver may be approved only if it will further the intent of the Ordinance, and the intent and implementation of the adopted comprehensive plan and other adopted policies.
2. Such waiver may be approved only if it is established that the resultant development will be harmonious with adjacent development.
3. Such a waiver may be approved only if the provisions of Article 13 are satisfied.

9-613 Provisions for Waiving Minimum Lot Width, Minimum Yard and Privacy Yard Requirements for Single Family Attached Dwelling Units

The Board may approve, either in conjunction with the approval of a rezoning or a special exception, the waiving of the minimum yard and/or privacy yard requirements for single family attached dwelling units. Such waiver may be approved only if it will further the intent of the Ordinance, and the intent and implementation of the adopted comprehensive plan and other adopted policies.

9-614 Provisions for Approval of Nonconforming Condominium and Cooperative Conversions

1. Pursuant to Va. Code Sections 55-79.43 and 55-429, the standards set forth in Sect. 006 above shall not apply and an application for a special exception shall be approved if the applicant can demonstrate to the reasonable satisfaction of the Board that existing nonconformities are not likely to be adversely affected by the proposed conversion.
2. Upon approving a special exception, the Board may impose such conditions as deemed necessary to assure that the development will be in harmony with the purpose and intent of the provisions of this Ordinance.
3. An approval of a special exception shall permit existing nonconformities to continue as nonconformities.

9-615 Provisions for a Cluster Subdivision

The Board may approve, either in conjunction with the approval of a rezoning or as a special exception, a cluster subdivision in an R-C, R-E or R-1 District or a cluster subdivision in a R-3 or R-4 District which has a minimum district size of two (2) acres or greater but less than three and one-half (3.5) acres, but only in accordance with the provisions of this section. Special exceptions for cluster subdivisions in the R-2 District and cluster subdivisions in the R-3 or R-4 Districts which have a minimum district size of three and one-half (3.5) acres or greater, that were approved by the Board prior to July 1, 2004, shall remain valid and the cluster subdivisions

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shall continue pursuant to such special exception approval and any development conditions imposed by such approval. Amendments to such special exceptions for cluster subdivisions in the R-2 District and cluster subdivisions in the R-3 or R-4 Districts which have a minimum district size of three and one-half (3.5) acres or greater, shall be pursued in accordance with the provisions of Sect. 9-014 and the following:

1. Notwithstanding Par. 2 of Sect. 011 above, all applications shall be accompanied by twenty-three (23) copies of a plat drawn to designated scale of not less than one inch equals fifty feet (1" = 50'), certified by a professional engineer, land surveyor, architect or landscape architect licensed by the State of Virginia, presented on a sheet having a maximum size of 24" x 36", and one 8 ½" x 11" reduction of the plat. If the proposal cannot be accommodated on one 24" x 36" sheet at a scale of 1" = 50', a scale of not less than 1" = 100' may be used. If presented on more than one (1) sheet, match lines shall clearly indicate where the several sheets join. Such plat shall contain the following information:
 - A. Boundaries of the entire property, with bearings and distances of the perimeter property lines.
 - B. Total area of the property in square feet or acres.
 - C. Scale and north arrow, with north, to the extent feasible, oriented to the top of the plat and on all supporting graphics.
 - D. Area of open space in square feet or acres and percent of total area that is open space.
 - E. Type of open space, whether common open space or dedicated open space, and the proposed uses.
 - F. Maximum number of dwelling units proposed, and the density and open space calculations based on Sections 2-308 and 2-309.
 - G. Existing topography with a maximum contour interval of two (2) feet and a statement indicating whether it is air survey or field run.
 - H. Proposed layout of lots, streets and open space.
 - I. Location, where applicable, of recreation areas, parks, schools, and other public or community uses.
 - J. Public right(s)-of-way, indicating names, route numbers and width, any required and/or proposed improvements to the public right(s)-of-way and delineation of the existing centerline of all streets abutting the property, including dimensions from the existing centerline to the edge of the pavement and to the edge of the right-of-way.
 - K. A delineation of all existing structures, and an indication of their date of construction, if known, and whether they will be retained or demolished.

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- L. Indication that the property is served by public water and/or sewer or private water and/or septic field.
- M. Designation of minimum lot areas and yards that will be provided on lots adjacent to major thoroughfares and adjacent to the peripheral lot lines of the subdivision.
- N. Approximate location, estimated size of footprint in acres and type of all proposed stormwater management facilities, including the full extent of side slopes, embankments, spillways, dams, and approximate water surface elevation for design storms, if applicable. In addition, a preliminary stormwater management plan that includes information about the adequacy of downstream drainage, including the sufficiency of capacity of any storm drainage pipes and other conveyances into which stormwater runoff will be conveyed. When there is 2500 square feet or more of land disturbing activity on the entire application property, in addition to the above, the preliminary stormwater management plan shall include:
 - (1) A graphic depicting:
 - (a) The approximate footprint of the stormwater management facility and, where applicable, the height of the dam embankment and the location of the emergency spillway outlet for each stormwater management facility.
 - (b) The approximate on-site and off-site areas to be served by each stormwater management facility, along with the acreage draining to each facility.
 - (c) A preliminary layout of all on-site drainage channels, outfalls and pipes, including inlet and outlet pipes within the stormwater management facility.
 - (d) The approximate location or alternative locations, if any, of any maintenance access road or other means of access to the stormwater management facility, and the identification of the types of surfaces to be used for any such road.
 - (e) Proposed landscaping and tree preservation areas in and near the stormwater management facility.
 - (f) The approximate limits of clearing and grading on-site and off-site for the stormwater management facility, storm drainage pipes, spillways, access roads and outfalls, including energy dissipation, storm drain outlet protection and/or stream bank stabilization measures.
 - (2) A preliminary stormwater management narrative setting forth the following:
 - (a) Description of how the detention and best management practice requirements will be met.

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- (b) The estimated area and volume of storage of the stormwater management facility to meet stormwater detention and best management practice requirements.
 - (c) For each watercourse into which drainage from the property is discharged, a description of the existing outfall conditions, including any existing ponds or structures in the outfall area. The outfall area shall include all land located between the point of discharge from the property that is located farthest upstream, down to the point where the drainage area of the receiving watercourse exceeds 100 times the area of that portion of the property that drains to it or to a floodplain that drains an area of at least 1 square mile, whichever comes first.
 - (d) Description of how the adequate outfall requirements of the Public Facilities Manual will be satisfied.
- O. Approximate delineation of any floodplain designated by the Federal Emergency Management Agency, United States Geological Survey, or Fairfax County, the delineation of any Resource Protection Area and Resource Management Area, and the approximate delineation of any environmental quality corridor as defined in the adopted comprehensive plan, and, if applicable, the distance of any existing and proposed structures from the floodplain, Resource Protection Area and Resource Management Area, or environmental quality corridor.
 - P. A plan showing limits of clearing, existing vegetation, and any proposed landscaping and screening, to include existing vegetation to be preserved, and when there is 2500 square feet or more of land disturbing activity, an existing vegetation map.
 - Q. Location of all existing utility easements having a width of twenty-five (25) feet or more.
 - R. Location of all trails required by the adopted comprehensive plan.
 - S. Approximate delineation of any grave, object or structure marking a place of burial if known, and a statement indicating how the proposed development will impact the burial site.
 - T. Seal and signature of professional person preparing the plat.
2. It shall be demonstrated by the applicant that the location, topography and other physical characteristics of the property are such that cluster development will:
- A. Preserve the environmental integrity of the site by protecting and/or promoting the preservation of features such as steep slopes, stream valleys, desirable vegetation or farmland, and either
 - (1) Produce a more efficient and practicable development, or

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- (2) Provide land necessary for public or community facilities.
- B. Be in accordance with the adopted comprehensive plan and the established character of the area. To accomplish this end, the cluster subdivision shall be designed to maintain the character of the area by preserving, where applicable, rural views along major roads and from surrounding properties through the use of open space buffers, minimum yard requirements, varied lot sizes, landscaping or other measures.
- 3. In no case shall the maximum density specified for the applicable district be increased nor shall other applicable regulations or use limitations for the district be modified or changed; provided, however, the Board may approve a modification to the minimum lot size and/or minimum yard requirements when it can be concluded that such a modification(s) is in keeping with the purpose of this Section and the applicable zoning district. No lot shall extend into a floodplain and adjacent slopes in excess of fifteen (15) percent grade or Resource Protection Area unless approved by the Board based on a determination that:
 - A. The particular floodplain and adjacent slopes in excess of fifteen (15) percent grade or Resource Protection Area, by reason of its size or shape, has no practical open space value, and
 - B. The amount of floodplain and adjacent slopes in excess of fifteen (15) percent grade or Resource Protection Area on the lot is minimal, and
 - C. The lot otherwise meets the required minimum lot area specified for the district in which located.
 - 4. Upon Board approval of a cluster subdivision, a cluster subdivision plat may be approved in accordance with the plat approved by the Board, the provisions of this Section and the cluster subdivision provisions presented in the zoning district regulations.
 - 5. In the R-C District, in addition to Par. 2 above, the applicant shall demonstrate that the cluster subdivision and the use of its open space is designed to achieve runoff pollution generation rates no greater than would be expected from a conventional R-C District subdivision of the property.

9-616**Driveways for Uses in a C or I District**

The Board may approve, as a Category 6 special exception use, the location on residentially zoned land of a driveway for a commercial or industrial use, but only in accordance with the following:

- 1. It shall be determined that:
 - A. No other means of access is reasonably available; or

GLOSSARY

This Glossary is provided to assist the public in understanding the staff evaluation and analysis of development proposals. It should not be construed as representing legal definitions. Refer to the Fairfax County Zoning Ordinance, Comprehensive Plan or Public Facilities Manual for additional information.

ABANDONMENT: Refers to road or street abandonment, an action taken by the Board of Supervisors, usually through the public hearing process, to abolish the public's right-of-passage over a road or road right-of way. Upon abandonment, the right-of-way automatically reverts to the underlying fee owners. If the fee to the owner is unknown, Virginia law presumes that fee to the roadbed rests with the adjacent property owners if there is no evidence to the contrary.

ACCESSORY DWELLING UNIT (OR APARTMENT): A secondary dwelling unit established in conjunction with and clearly subordinate to a single family detached dwelling unit. An accessory dwelling unit may be allowed if a special permit is granted by the Board of Zoning Appeals (BZA). Refer to Sect. 8-918 of the Zoning Ordinance.

AFFORDABLE DWELLING UNIT (ADU) DEVELOPMENT: Residential development to assist in the provision of affordable housing for persons of low and moderate income in accordance with the affordable dwelling unit program and in accordance with Zoning Ordinance regulations. Residential development which provides affordable dwelling units may result in a density bonus (see below) permitting the construction of additional housing units. See Part 8 of Article 2 of the Zoning Ordinance.

AGRICULTURAL AND FORESTAL DISTRICTS: A land use classification created under Chapter 114 or 115 of the Fairfax County Code for the purpose of qualifying landowners who wish to retain their property for agricultural or forestal use for use/value taxation pursuant to Chapter 58 of the Fairfax County Code.

BARRIER: A wall, fence, earthen berm, or plant materials which may be used to provide a physical separation between land uses. Refer to Article 13 of the Zoning Ordinance for specific barrier requirements.

BEST MANAGEMENT PRACTICES (BMPs): Stormwater management techniques or land use practices that are determined to be the most effective, practicable means of preventing and/or reducing the amount of pollution generated by nonpoint sources in order to improve water quality.

BUFFER: Graduated mix of land uses, building heights or intensities designed to mitigate potential conflicts between different types or intensities of land uses; may also provide for a transition between uses. A landscaped buffer may be an area of open, undeveloped land and may include a combination of fences, walls, berms, open space and/or landscape plantings. A buffer is not necessarily coincident with transitional screening.

CHESAPEAKE BAY PRESERVATION ORDINANCE: Regulations which the State has mandated must be adopted to protect the Chesapeake Bay and its tributaries. These regulations must be incorporated into the comprehensive plans, zoning ordinances and subdivision ordinances of the affected localities. Refer to Chesapeake Bay Preservation Act, Va. Code Section 10.1-2100 et seq and VR 173-02-01, Chesapeake Bay Preservation Area Designation and Management Regulations.

CLUSTER DEVELOPMENT: Residential development in which the lots are clustered on a portion of a site so that significant environmental/historical/cultural resources may be preserved or recreational amenities provided. While smaller lot sizes are permitted in a cluster subdivision to preserve open space, the overall density cannot exceed that permitted by the applicable zoning district. See Sect. 2-421 and Sect. 9-615 of the Zoning Ordinance.

COUNTY 2232 REVIEW PROCESS: A public hearing process pursuant to Sect. 15.2-2232 (Formerly Sect. 15.1-456) of the Virginia Code which is used to determine if a proposed public facility not shown on the adopted Comprehensive Plan is in substantial accord with the plan. Specifically, this process is used to determine if the general or approximate location, character and extent of a proposed facility is in substantial accord with the Plan.

dBa: The momentary magnitude of sound weighted to approximate the sensitivity of the human ear to certain frequencies; the dBa value describes a sound at a given instant, a maximum sound level or a steady state value. See also Ldn.

DENSITY: Number of dwelling units (du) divided by the gross acreage (ac) of a site being developed in residential use; or, the number of dwelling units per acre (du/ac) except in the PRC District when density refers to the number of persons per acre.

DENSITY BONUS: An increase in the density otherwise allowed in a given zoning district which may be granted under specific provisions of the Zoning Ordinance when a developer provides excess open space, recreation facilities, or affordable dwelling units (ADUs), etc.

DEVELOPMENT CONDITIONS: Terms or conditions imposed on a development by the Board of Supervisors (BOS) or the Board of Zoning Appeals (BZA) in connection with approval of a special exception, special permit or variance application or rezoning application in a "P" district. Conditions may be imposed to mitigate adverse impacts associated with a development as well as secure compliance with the Zoning Ordinance and/or conformance with the Comprehensive Plan. For example, development conditions may regulate hours of operation, number of employees, height of buildings, and intensity of development.

DEVELOPMENT PLAN: A graphic representation which depicts the nature and character of the development proposed for a specific land area: information such as topography, location and size of proposed structures, location of streets trails, utilities, and storm drainage are generally included on a development plan. A development plan is a submission requirement for rezoning to the PRC District. A GENERALIZED DEVELOPMENT PLAN (GDP) is a submission requirement for a rezoning application for all conventional zoning districts other than a P District. A development plan submitted in connection with a special exception (SE) or special permit (SP) is generally referred to as an SE or SP plat. A CONCEPTUAL DEVELOPMENT PLAN (CDP) is a submission requirement when filing a rezoning application for a P District other than the PRC District; a CDP characterizes in a general way the planned development of the site. A FINAL DEVELOPMENT PLAN (FDP) is a submission requirement following the approval of a conceptual development plan and rezoning application for a P District other than the PRC District; an FDP further details the planned development of the site. See Article 16 of the Zoning Ordinance.

EASEMENT: A right to or interest in property owned by another for a specific and limited purpose. Examples: access easement, utility easement, construction easement, etc. Easements may be for public or private purposes.

ENVIRONMENTAL QUALITY CORRIDORS (EQCs): An open space system designed to link and preserve natural resource areas, provide passive recreation and protect wildlife habitat. The system includes stream valleys, steep slopes and wetlands. For a complete definition of EQCs, refer to the Environmental section of the Policy Plan for Fairfax County contained in Vol. 1 of the Comprehensive Plan.

ERODIBLE SOILS: Soils that wash away easily, especially under conditions where stormwater runoff is inadequately controlled. Silt and sediment are washed into nearby streams, thereby degrading water quality.

FLOODPLAIN: Those land areas in and adjacent to streams and watercourses subject to periodic flooding; usually associated with environmental quality corridors. The 100 year floodplain drains 70 acres or more of land and has a one percent chance of flood occurrence in any given year.

FLOOR AREA RATIO (FAR): An expression of the amount of development intensity (typically, non-residential uses) on a specific parcel of land. FAR is determined by dividing the total square footage of gross floor area of buildings on a site by the total square footage of the site itself.

FUNCTIONAL CLASSIFICATION: A system for classifying roads in terms of the character of service that individual facilities are providing or are intended to provide, ranging from travel mobility to land access. Roadway system functional classification elements include Freeways or Expressways which are limited access highways, Other Principal (or Major) Arterials, Minor Arterials, Collector Streets, and Local Streets. Principal arterials are designed to accommodate travel; access to adjacent properties is discouraged. Minor arterials are designed to serve both through traffic and local trips. Collector roads and streets link local streets and properties with the arterial network. Local streets provide access to adjacent properties.

GEOTECHNICAL REVIEW: An engineering study of the geology and soils of a site which is submitted to determine the suitability of a site for development and recommends construction techniques designed to overcome development on problem soils, e.g., marine clay soils.

HYDROCARBON RUNOFF: Petroleum products, such as motor oil, gasoline or transmission fluid deposited by motor vehicles which are carried into the local storm sewer system with the stormwater runoff, and ultimately, into receiving streams; a major source of non-point source pollution. An oil-grit separator is a common hydrocarbon runoff reduction method.

IMPERVIOUS SURFACE: Any land area covered by buildings or paved with a hard surface such that water cannot seep through the surface into the ground.

INFILL: Development on vacant or underutilized sites within an area which is already mostly developed in an established development pattern or neighborhood.

INTENSITY: The magnitude of development usually measured in such terms as density, floor area ratio, building height, percentage of impervious surface, traffic generation, etc. Intensity is also based on a comparison of the development proposal against environmental constraints or other conditions which determine the carrying capacity of a specific land area to accommodate development without adverse impacts.

Ldn: Day night average sound level. It is the twenty-four hour average sound level expressed in A-weighted decibels; the measurement assigns a "penalty" to night time noise to account for night time sensitivity. Ldn represents the total noise environment which varies over time and correlates with the effects of noise on the public health, safety and welfare.

LEVEL OF SERVICE (LOS): An estimate of the effectiveness of a roadway to carry traffic, usually under anticipated peak traffic conditions. Level of Service efficiency is generally characterized by the letters A through F, with LOS-A describing free flow traffic conditions and LOS-F describing jammed or grid-lock conditions.

MARINE CLAY SOILS: Soils that occur in widespread areas of the County generally east of Interstate 95. Because of the abundance of shrink-swell clays in these soils, they tend to be highly unstable. Many areas of slope failure are evident on natural slopes. Construction on these soils may initiate or accelerate slope movement or slope failure. The shrink-swell soils can cause movement in structures, even in areas of flat topography, from dry to wet seasons resulting in cracked foundations, etc. Also known as slippage soils.

OPEN SPACE: That portion of a site which generally is not covered by buildings, streets, or parking areas. Open space is intended to provide light and air; open space may function as a buffer between land uses or for scenic, environmental, or recreational purposes.

OPEN SPACE EASEMENT: An easement usually granted to the Board of Supervisors which preserves a tract of land in open space for some public benefit in perpetuity or for a specified period of time. Open space easements may be accepted by the Board of Supervisors, upon request of the land owner, after evaluation under criteria established by the Board. See Open Space Land Act, Code of Virginia, Sections 10.1-1700, et seq.

P DISTRICT: A "P" district refers to land that is planned and/or developed as a Planned Development Housing (PDH) District, a Planned Development Commercial (PDC) District or a Planned Residential Community (PRC) District. The PDH, PDC and PRC Zoning Districts are established to encourage innovative and creative design for land development; to provide ample and efficient use of open space; to promote a balance in the mix of land uses, housing types, and intensity of development; and to allow maximum flexibility in order to achieve excellence in physical, social and economic planning and development of a site. Refer to Articles 6 and 16 of the Zoning Ordinance.

PROFFER: A written condition, which, when offered voluntarily by a property owner and accepted by the Board of Supervisors in a rezoning action, becomes a legally binding condition which is in addition to the zoning district regulations applicable to a specific property. Proffers are submitted and signed by an owner prior to the Board of Supervisors public hearing on a rezoning application and run with the land. Once accepted by the Board, proffers may be modified only by a proffered condition amendment (PCA) application or other zoning action of the Board and the hearing process required for a rezoning application applies. See Sect. 15.2-2303 (formerly 15.1-491) of the Code of Virginia.

PUBLIC FACILITIES MANUAL (PFM): A technical text approved by the Board of Supervisors containing guidelines and standards which govern the design and construction of site improvements incorporating applicable Federal, State and County Codes, specific standards of the Virginia Department of Transportation and the County's Department of Public Works and Environmental Services.

RESOURCE MANAGEMENT AREA (RMA): That component of the Chesapeake Bay Preservation Area comprised of lands that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

RESOURCE PROTECTION AREA (RPA): That component of the Chesapeake Bay Preservation Area comprised of lands at or near the shoreline or water's edge that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation of the quality of state waters. In their natural condition, these lands provide for the removal, reduction or assimilation of sediments from runoff entering the Bay and its tributaries, and minimize the adverse effects of human activities on state waters and aquatic resources. New development is generally discouraged in an RPA. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

SITE PLAN: A detailed engineering plan, to scale, depicting the development of a parcel of land and containing all information required by Article 17 of the Zoning Ordinance. Generally, submission of a site plan to DPWES for review and approval is required for all residential, commercial and industrial development except for development of single family detached dwellings. The site plan is required to assure that development complies with the Zoning Ordinance.

SPECIAL EXCEPTION (SE) / SPECIAL PERMIT (SP): Uses, which by their nature, can have an undue impact upon or can be incompatible with other land uses and therefore need a site specific review. After review, such uses may be allowed to locate within given designated zoning districts if appropriate and only under special controls, limitations, and regulations. A special exception is subject to public hearings by the Planning Commission and Board of Supervisors with approval by the Board of Supervisors; a special permit requires a public hearing and approval by the Board of Zoning Appeals. Unlike proffers which are voluntary, the Board of Supervisors or BZA may impose reasonable conditions to assure, for example, compatibility and safety. See Article 8, Special Permits and Article 9, Special Exceptions, of the Zoning Ordinance.

STORMWATER MANAGEMENT: Engineering practices that are incorporated into the design of a development in order to mitigate or abate adverse water quantity and water quality impacts resulting from development. Stormwater management systems are designed to slow down or retain runoff to re-create, as nearly as possible, the pre-development flow conditions.

SUBDIVISION PLAT: The engineering plan for a subdivision of land submitted to DPWES for review and approved pursuant to Chapter 101 of the County Code.

TRANSPORTATION DEMAND MANAGEMENT (TDM): Actions taken to reduce single occupant vehicle automobile trips or actions taken to manage or reduce overall transportation demand in a particular area.

TRANSPORTATION SYSTEM MANAGEMENT (TSM) PROGRAMS: This term is used to describe a full spectrum of actions that may be applied to improve the overall efficiency of the transportation network. TSM programs usually consist of low-cost alternatives to major capital expenditures, and may include parking management measures, ridesharing programs, flexible or staggered work hours, transit promotion or operational improvements to the existing roadway system. TSM includes Transportation Demand Management (TDM) measures as well as H.O.V. use and other strategies associated with the operation of the street and transit systems.

URBAN DESIGN: An aspect of urban or suburban planning that focuses on creating a desirable environment in which to live, work and play. A well-designed urban or suburban environment demonstrates the four generally accepted principles of design: clearly identifiable function for the area; easily understood order; distinctive identity; and visual appeal.

VACATION: Refers to vacation of street or road as an action taken by the Board of Supervisors in order to abolish the public's right-of-passage over a road or road right-of-way dedicated by a plat of subdivision. Upon vacation, title to the road right-of-way transfers by operation of law to the owner(s) of the adjacent properties within the subdivision from whence the road/road right-of-way originated.

VARIANCE: An application to the Board of Zoning Appeals which seeks relief from a specific zoning regulation such as lot width, building height, or minimum yard requirements, among others. A variance may only be granted by the Board of Zoning Appeals through the public hearing process and upon a finding by the BZA that the variance application meets the required Standards for a Variance set forth in Sect. 18-404 of the Zoning Ordinance.

WETLANDS: Land characterized by wetness for a portion of the growing season. Wetlands are generally delineated on the basis of physical characteristics such as soil properties indicative of wetness, the presence of vegetation with an affinity for water, and the presence or evidence of surface wetness or soil saturation. Wetland environments provide water quality improvement benefits and are ecologically valuable. Development activity in wetlands is subject to permitting processes administered by the U.S. Army Corps of Engineers

TIDAL WETLANDS: Vegetated and nonvegetated wetlands as defined in Chapter 116 Wetlands Ordinance of the Fairfax County Code: includes tidal shores and tidally influenced embayments, creeks, and tributaries to the Occoquan and Potomac Rivers. Development activity in tidal wetlands may require approval from the Fairfax County Wetlands Board.

Abbreviations Commonly Used in Staff Reports

A&F	Agricultural & Forestal District	PDH	Planned Development Housing
ADU	Affordable Dwelling Unit	PFM	Public Facilities Manual
ARB	Architectural Review Board	PRC	Planned Residential Community
BMP	Best Management Practices	RC	Residential-Conservation
BOS	Board of Supervisors	RE	Residential Estate
BZA	Board of Zoning Appeals	RMA	Resource Management Area
COG	Council of Governments	RPA	Resource Protection Area
CBC	Community Business Center	RUP	Residential Use Permit
CDP	Conceptual Development Plan	RZ	Rezoning
CRD	Commercial Revitalization District	SE	Special Exception
DOT	Department of Transportation	SEA	Special Exception Amendment
DP	Development Plan	SP	Special Permit
DPWES	Department of Public Works and Environmental Services	TDM	Transportation Demand Management
DPZ	Department of Planning and Zoning	TMA	Transportation Management Association
DU/AC	Dwelling Units Per Acre	TSA	Transit Station Area
EQC	Environmental Quality Corridor	TSM	Transportation System Management
FAR	Floor Area Ratio	UP & DD	Utilities Planning and Design Division, DPWES
FDP	Final Development Plan	VC	Variance
GDP	Generalized Development Plan	VDOT	Virginia Dept. of Transportation
GFA	Gross Floor Area	VPD	Vehicles Per Day
HC	Highway Corridor Overlay District	VPH	Vehicles per Hour
HCD	Housing and Community Development	WMATA	Washington Metropolitan Area Transit Authority
LOS	Level of Service	WS	Water Supply Protection Overlay District
Non-RUP	Non-Residential Use Permit	ZAD	Zoning Administration Division, DPZ
OSDS	Office of Site Development Services, DPWES	ZED	Zoning Evaluation Division, DPZ
PCA	Proffered Condition Amendment	ZPRB	Zoning Permit Review Branch
PD	Planning Division		
PDC	Planned Development Commercial		