MCPB Item No.: 3 Date: 6-20-19

Potter Glen, Preliminary Plan No. 120190120



Jonathan Casey, Senior Planner, Area 3, Jonathan. Casey@montgomeryplanning.org, (301) 495-2162

Sandra Pereira, Supervisor, Area 3, Sandra.Pereira@montgomeryplanning.org, (301) 495-2186

Richard Weaver, Chief, Area 3, Richard.Weaver@montgomeryplanning.org, (301) 495-4544

Completed: 6/10/19

#### **Description**

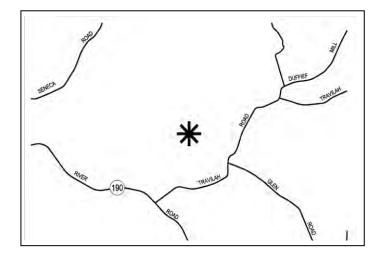
#### Potter Glen, Preliminary Plan No. 120190120:

Application to create 5 lots for 5 single-family detached houses, in the NE quadrant of the intersection of Glen Road and Query Mill Road; 13.32 acres, RE-2 Zone, 2002 Potomac Subregion Master Plan.

**Recommendation** – Approval with conditions

**Applicant:** Terrier Glen, LLC **Submittal Date:** 12/18/2018

Review Basis: Chapter 50, Chapter 59, Chapter 22A



#### Summary

- Staff recommends **Approval with conditions** of the Preliminary Plan.
- The proposed lots meet the standards of development in the RE-2 zone.
- The Application is consistent with the recommendations of the 2002 *Potomac Subregion Master Plan* and 1996 *Rustic Roads Functional Master Plan*.
- Staff supports no frontage improvements on Glen Road, Query Mill Road and Moran Court, consistent with the recommendations of the Rustic Roads Advisory Committee.
- The Application includes a Chapter 22A variance for the impact to 10 and removal of 14 trees that are 30 inches or greater diameter at breast height.
- Staff has received correspondence in opposition to the Application, as discussed in Sections 6.
- The Planning Board granted two regulatory review extensions, valid until July 11, 2019.

#### SECTION 1 – RECOMMENDATION AND CONDITIONS

**Preliminary Plan No. 120190120:** Staff recommends approval of the Preliminary Plan subject to the following conditions:

#### **General Approval**

1. This Preliminary Plan is limited to five lots for five one-family detached dwelling units.

#### **Adequate Public Facilities and Outside Agencies**

2. The Adequate Public Facility ("APF") review for the Preliminary Plan will remain valid for sixty-one (61) months from the date of mailing of this Planning Board Resolution.

#### **Outside Agencies**

- 3. The Planning Board accepts the recommendations of the Montgomery County Department of Transportation ("MCDOT") in its letter dated June 7, 2019 and incorporates them as conditions of the Preliminary Plan approval. The Applicant must comply with each of the recommendations as set forth in the letter, which may be amended by the MCDOT if the amendment does not conflict with any other conditions of the Preliminary Plan approval.
- 4. Before recording a plat for the Subject Property, the Applicant must satisfy the MCDOT's requirements for access and improvements.
- 5. The Planning Board accepts the recommendations of the Montgomery County Department of Permitting Services ("MCDPS") Water Resources Section in its stormwater management concept letter dated April 10, 2019 and incorporates them as conditions of the Preliminary Plan approval. The Applicant must comply with each of the recommendations as set forth in the letter, which may be amended by the MCDPS Water Resources Section if the amendment does not conflict with any other conditions of the Preliminary Plan approval.
- 6. The Planning Board accepts the recommendations of the Montgomery County Department of Permitting Services Well and Septic Section in its letter dated June 7, 2019 and incorporates them as conditions of the Preliminary Plan approval. The Applicant must comply with each of the recommendations as set forth in the letter, which may be amended by the MCDPS Well and Septic Section if the amendment does not conflict with any other conditions of the Preliminary Plan approval.
- 7. The Planning Board accepts the recommendations of the Montgomery County Department of Permitting Services ("MCDPS"), Fire Department Access and Water Supply Section in its letter dated March 21, 2019 and incorporates them as conditions of approval. The Applicant must comply with each of the recommendations as set forth in the letter, which the MCDPS may amend if the amendment does not conflict with other conditions of Preliminary Plan approval.

#### **Environment and Noise**

#### **Forest Conservation**

- 8. The Applicant must comply with the conditions of approval for the Preliminary/Final Forest Conservation Plan (FFCP), No. 120190120, approved as part of this Preliminary Plan, including:
  - a. Prior to the start of any demolition, clearing, grading or construction on the Subject Property, the Applicant must record a Category I Conservation Easement over the 3.62 acres of retained forest as specified on the approved FFCP. The Category I Conservation Easement approved by the M-NCPPC Office of the General Counsel must be recorded in the Montgomery County Land Records by deed and the Book/Page for the easement must be referenced on the record plat.
  - b. Prior to the start of any demolition, clearing, grading or construction on the Subject Property, the Applicant must record a Category II Conservation Easement over the 0.50 acres of retained forest as specified on the approved FFCP. The Category II Conservation Easement approved by the M-NCPPC Office of the General Counsel must be recorded in the Montgomery County Land Records by deed and the Book/Page for the easement must be referenced on the record plat.
  - c. Prior to any clearing, grading or construction on the project site, the Applicant must record an M-NCPPC approved Certificate of Compliance to use an M-NCPPC approved offsite forest bank to satisfy the reforestation requirement for a total of 1.18 acres of mitigation credit.
  - d. The Applicant must install permanent Conservation Easement signage along the perimeter of the Category I and Category II Conservation Easements as shown on the approved FFCP. Signs must be installed a maximum of 100 feet apart with additional signs installed where the easement changes direction, or at the discretion of the M-NCPPC forest conservation inspector.
  - e. The Final Sediment Control Plan must be consistent with the final limits of disturbance shown on the approved FFCP.
  - f. The Applicant must comply with all tree protection and tree save measures shown on the approved FFCP. Tree save measures not specified on the FFCP may be required by the M-NCPPC forest conservation inspector at the pre-construction meeting.

#### **Transportation**

#### **Existing Frontage Improvements**

- 9. The Applicant must provide the following dedications and show them on the record plat(s) for the following existing roads:
  - a. All land necessary to accommodate 35 feet of right-to-way from the centerline along the Subject Property for Query Mill Road, as shown on the Certified Preliminary Plan.
  - b. All land necessary to accommodate 35 feet of right-to-way from the centerline along the Subject Property for Glen Road, as shown on the Certified Preliminary Plan.
- 10. The driveways for lots 1-5 must be located at the same locations shown on the Certified Preliminary Plan.

#### **Record Plats**

11. There shall be no clearing or grading of the site prior to recordation of plat(s).

#### **Easements**

12. The record plat must show necessary easements.

#### **Certified Preliminary Plan**

- 13. The Applicant must include the stormwater management concept approval letter and Preliminary Plan Resolution on the approval or cover sheet(s).
- 14. The certified Preliminary Plan must contain the following note:

Unless specifically noted on this plan drawing or in the Planning Board conditions of approval, the building footprints, building heights, on-site parking, site circulation, and sidewalks shown on the Preliminary Plan are illustrative. The final locations of buildings, structures and hardscape will be determined at the time of issuance of building permit(s). Please refer to the zoning data table for development standards such as setbacks, building restriction lines, building height, and lot coverage for each lot.

#### **SECTION 2 – SITE LOCATION AND HISTORY**

#### Site Location and Vicinity

The Subject Property is located on both sides of Moran Court in the NE quadrant of the intersection of Glen Road and Query Mill Road. The Subject Property, Parcel 190 on Tax Map ER341 (Book 55699 / Page 473), consisting of 13.32 acres of land zoned RE-2 ("Property" or "Subject Property"). The Subject Property is in the Travilah area of the 2002 *Potomac Subregion Master Plan* ("Master Plan") and has frontage on two rustic roads identified in the 1996 *Rustic Roads Functional Master Plan*.

The area surrounding the Subject Property is entirely developed (or approved for development) with single-family detached houses zoned RE-2. The most recent development approval in the area is the Priddy Property, Preliminary Plan No. 120170160, located north of the Subject Property at 13511 Query Mill Road (Figure 1), which is approved for 8 lots on approximately 27 acres.

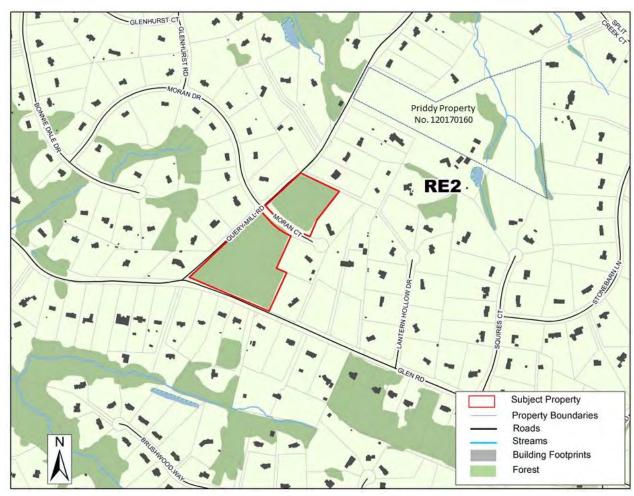


Figure 1 – Vicinity Map

#### Site Description

The 13.32-acre (580,220 sq. ft.) Subject Property is bisected by an existing public right-of-way, Moran Court. The area of the Subject Property north of Moran Court contains approximately 4.2 acres. The area of the property south of Moran Court contains approximately 9.1 acres. The Subject Property has approximately 1,300 feet of frontage along Query Mill Road and approximately 750 feet of frontage along Glen Road.

The Subject Property also has frontage on Moran Court, a 60-foot-wide dedicated but unmaintained right-of-way which terminates in a cul-de-sac ("paper street"). Moran Court was dedicated in 1960 when the original two lots were created (Lot 1, Polo Club Estates, 13111 Moran Court, and Lot 2, Polo Club Estates, 13112 Moran Court), but for unknown reasons, the public road was never constructed when those two homes were built in 1964 and 1965 (Attachment 1 - Record Plat 5815). Currently, there is a 10 to 12-foot-wide gravel driveway that was built in the right-of-way that serves as the sole access to two existing houses at the terminus of Moran Court. While most of the driveway is located in the public right-of-way, approximately 2,000 square feet were constructed on the Subject Property.

The Subject Property is located within the Muddy Branch watershed, a Use I-P stream. The Subject Property contains 11.57 acres of forest but does not contain streams or other environmentally sensitive features.



Figure 2 – Aerial Map

#### **SECTION 3 - PROPOSAL**

#### **Proposal**

Preliminary Plan Application No. 120190120, Potter Glen ("Application" or "Preliminary Plan") was submitted on December 18, 2018 to create 6 lots. The Preliminary Plan was subsequently revised and currently proposes 5 lots because one of the proposed lots did not pass percolation testing (Attachment 2).

The Applicant is dedicating a total of 0.96 acres of right-of-way for Glen Road and Query Mill Road. Individual driveways will be constructed to access each lot; four taking access from Query Mill Road and one taking access from Glen Road. Since Query Mill Road and Glen Road are both classified as rustic roads, the proposed access points were reviewed by the Rustic Roads Advisory Committee ("RRAC") in addition to MCDOT, and M-NCPPC Staff.

Each lot will be served by an on-site private well and septic system, constructed in the location shown on the Preliminary Plan. Stormwater management requirements will be met utilizing environmental site design practices by using drywells on the individual lots. The Applicant is removing 7.95 acres of forest, retaining 3.62 acres of forest in Category I Conservation Easements and requesting credit for retaining 0.30 acres of forest within Category II Conservation easements. This results in a total reforestation requirement of 1.18 acres. The Applicant proposes to meet the remaining 1.18-acre reforestation requirement by purchasing the appropriate amount of forest credits in an off-site forest bank.

Forest conservation will be met on-site by providing Category I and Category II Conservation Easements. The Category II Conservation Easements are located along the frontage of Query Mill Road, to help preserve the existing vegetation, which is part of the rustic character associate with the road. Category II Conservation easements will also provide a vegetated buffer (screening) between the proposed houses and the road. The Application also includes a tree variance to remove 14 and impact 10 trees that are 30 inches or greater, DBH, and considered a high priority for retention under Section 22A-12(b)(3) of the County code.

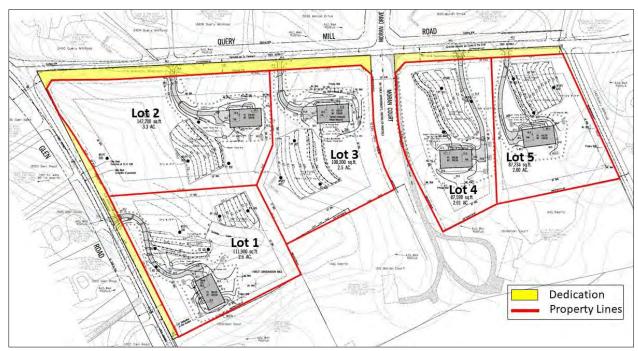


Figure 3 – Preliminary Plan

#### SECTION 4 – ANALYSIS AND FINDINGS, 50.4.2.D

- 1. The layout of the subdivision, including size, width, shape, orientation and diversity of lots, and location and design of roads is appropriate for the subdivision given its location and the type of development or use contemplated and the applicable requirements of Chapter 59
  - a. The block design is appropriate for the development or use contemplated

The block design is appropriate for the development of 5 residential lots. Considering that all of the land surrounding the Subject Property has been subdivided or dedicated as right-of-way, and in the process established the basic block design shown on the Preliminary Plan.

#### b. The lot design is appropriate for the development or use contemplated

The size, width, shape and orientation of the proposed lots are appropriate for the location of the subdivision, taking into account the recommendations included in the 2002 *Potomac Subregion Master Plan*. Based on the RE-2 zoning, the maximum density permitted is 6 dwelling units, however, after completing percolation tests, the Preliminary Plan was revised to show only 5 dwelling units. The average lot size is 2.48 acres, ranging in size from 2.0 acres to 3.3 acres which is generally consistent with existing development patterns in the surrounding area. Each lot has frontage on a public road. As shown on the Preliminary Plan, each lot can adequately accommodate the proposed one-family detached house, driveway, stormwater management facilities, conservation easements, septic systems, and public utility easements.

There are no recreation requirements for this Application, but there are recreational opportunities in the surrounding area. The Property is close to both Muddy Branch Stream Valley Park and Greenbrier Local Park, providing a range of passive and active recreational amenities for the future residents.

#### c. The Lot(s) and Use comply with the basic requirements of Chapter 59

The lots were reviewed for compliance with the dimensional requirements for the RE-2 zone as specified in the Zoning Ordinance. The lots as proposed will meet all the dimensional requirements for area, frontage, width, and setbacks in that zone. A summary of this review is included in Table 1.

Standard	Required/Permitted	Proposed	
Density	6 dwelling units total	5 dwelling units total	
Minimum lot size	2 acres (87,250 SF)	2 acres (87,250 SF) or larger	
Front setbacks	50 ft. min.	50 ft. or more	
Side setbacks	17 ft. min., 35 ft. total	17 ft./35 ft. or more	
Rear setbacks	35 ft. min.	50 ft. or more	
Min Lot Width at Front	150 ft.	150 ft. or more	
Max Lot Coverage	25%	Not to exceed 10%	
Max Building Height	50 ft max	Not to exceed 50 ft.	
Open Space	NA	NA	
Site Plan Required	No	No	

#### 2. The Preliminary Plan substantially conforms to the Master Plan or Urban Renewal Plan

The Preliminary Plan substantially conforms to the 2002 *Potomac Subregion Master Plan*. The Subject Property is in the Travilah area of the Master Plan, which is described as follows:

"This central and southern portion of the Potomac Subregion is a low-density area that acts as a transition from the higher densities of Potomac and North Potomac to lower densities in

Darnestown and the natural environment of the Potomac River. This community is under intense development pressure and contains natural features of County and State significance.... Like Darnestown, Travilah is a more rural portion of the Subregion, and the area's dependence on septic systems has ensured low-density residential neighborhoods...The area is dominated by low-density, single-family detached residential development in the R-200, RE-1, RE-2, and RE-2C Zones, (p. 80)".

#### Land Use

There are no site-specific recommendations for the Subject Property. The Preliminary Plan conforms to the 2002 *Potomac Subregion Master Plan* in that it proposes single-family detached dwelling units, utilizing well and septic. The proposed density of 5 units is below the maximum 6 units permitted based on the size of the Property and RE-2 zoning, which is consistent with the Master Plan's vision of low-density development in this area.

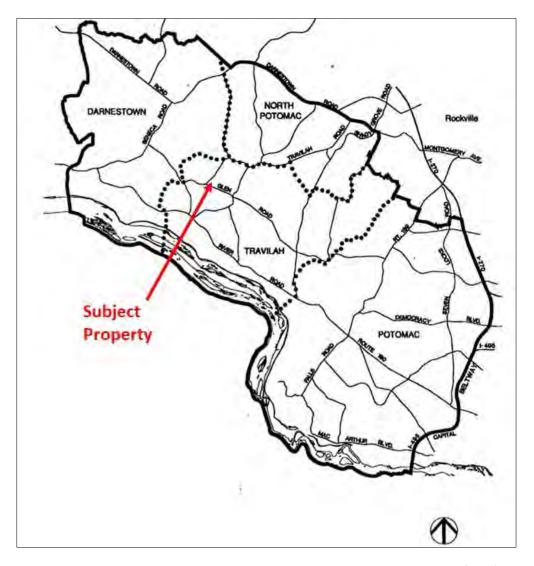


Figure 4 – Travilah Community Area – 2002 Potomac Subregion Masterplan (pg.5)

#### **Transportation**

The Preliminary Plan also conforms to the recommendation in the 1996 *Rustic Roads Functional Master Plan*. The Rustic Roads Advisory Committee has reviewed the Application for compliance with the *Rustic Roads Functional Master Plan* given that the Property has frontage on two rustic roads, Glen Road and Query Mill Road.

In its letter dated March 11, 2019 (Attachment 3), the RRAC stated their support for the new single driveways accessing the Rustic Roads because this option would be the least impactful on the rustic character of the roads. As proposed, Lot 1 will access Glen Road via a new driveway. Lots 2, 3, 4, and 5 will access Query Mill road with individual driveways. The new driveways will be curved in a way that will limit visibility of the new houses from the rustic roads. Existing forest is being retained and protected with a Category II Conservation Easement along the frontage of lot 1, 2 and 3 to protect the forest-lined view from the roads. In addition, the forest at the intersection of Query Mill Road and Glen Road will be placed in a Category I Conservation Easement, preserving the natural character of the intersection. As proposed, the Preliminary Plan is consistent with recommendations in the 2002 *Potomac Subregion Master Plan* and 1996 Rustic Road Functional Master Plan.

#### 3. Public Facilities will be adequate to support and service the area of the subdivision

#### a. Roads and Other Transportation Facilities

Transportation access is adequate to serve the proposed development by this Preliminary Plan. The Subject Property is located in the Rural West Policy Area and has frontage on three public roads, Query Mill Road, Glen Road and Moran Court.

Moran Court is a non-master planned 60-foot-wide tertiary road, which is dedicated but unbuilt and unmaintained terminating in a cul-de-sac ("paper street"). Moran Court was dedicated in 1960 when the original two lots were created (Lot 1, Polo Club Estates, 13111 Moran Court, and Lot 2, Polo Club Estates, 13112 Moran Court), but for unknown reasons, the public road was never constructed when those two homes were built in 1964 and 1965 (Record Plat 5815). Currently, there is a 10 to 12-foot-wide gravel driveway that was built in the right-of-way that serves as the sole access to two existing houses at the terminus of Moran Court. While most of the driveway is located in the public right-of-way, approximately 2,000 square feet were constructed on the Subject Property.

The Application proposes to grant 35 feet of right-of-way from the centerline of Query Mill Road to accommodate the Master Plan required right-of-way dedication. The Applicant is also dedicating 35 feet of right-of-way from the centerline of Glen Road to accommodate the Master Plan required right-of-way dedication of 70 feet.

Under Section 49-33(e)(1)(B) of the County code, "If a lot or lots front on a public road, the permittee must install sidewalks, master-planned bikeways, ramps, curbs, and gutters, except any sidewalk: .....(B) on any roadway classified as exceptional rustic, <u>rustic</u>, country arterial, or country road". Based on the classification of Glen Road and Query Mill Road as Rustic Roads, no sidewalk or other frontage improvements are required. The Application will not access Moran Court and

there is no proposal to extend Moran Court beyond its current termination. Therefore, no improvements are required as part of this Application. As shown on the Preliminary Plan, transportation access is adequate to serve the proposed development by this Preliminary Plan.

#### b. Local Area Transportation Review (LATR

The Applicant submitted a transportation statement showing how the Preliminary Plan for 5 dwelling units generates 50 or fewer additional peak-hour person trips (Table 2), therefore, the Application is exempt from review under the LATR guidelines.

Table 2: Trip Generation

_		AM Peak Hour		PM Peak Hour			
Development	Units	In	Out	Total	In	Out	Total
Single-Family Detached	5	2	8	10	7	3	10
Total	5	2	8	10	7	3	10

#### c. Other Public Facilities and Services

#### School Adequacy

The Application was reviewed under the FY2019 Annual School Test, approved by the Planning Board on June 21, 2018, and effective July 1, 2018. Under the FY2019 Annual School Test, student generation is calculated by multiplying the number of dwelling units by the applicable regional student generation rate for each school level. For the purposes of this calculation, dwelling units are categorized by structure type: single family detached, single family attached (townhouse), low- to mid-rise multifamily unit, or high-rise multifamily unit (Table 3). The Subject Property seeks approval for 5 single-family detached dwelling units. This Property is in the Wootton Cluster in the southwest region of the County.

Based on this analysis, the Project is estimated to generate zero new elementary school students, zero new middle school students, and zero new high school students (Table 4).

Table 3: Student Generation Rates Per Dwelling Unit – Southwest Region

	Elementary School	Middle School	High School
SF Detached	0.193	0.111	0.147
SF Attached	0.191	0.094	0.124
MF Low- to Mid-Rise	0.146	0.063	0.083
MF High-Rise	0.055	0.022	0.031

Table 4: Potter Glen – Estimated Enrollment Impact

Unit Type	Net New Units	ES Generation Rates	ES Students Generated	MS Generation Rates	MS Students Generated	HS Generation Rates	HS Students Generated
Single- Family Detached	5	0.193	0.965	0.111	0.555	0.147	0.735
Total	5		0		0		0

#### **Cluster Adequacy Test**

Student enrollment and capacity projections for the Wootton Cluster, as established in the FY2019 Annual School Test, are summarized in Table 5. As indicated in the last column of the table, the sum of the projected future enrollment and the estimated student impact associated with the Subject Application fall below the moratorium<sup>1</sup> thresholds at all three school levels. As a result, staff finds that sufficient capacity exists at the elementary, middle and high school cluster levels to accommodate the estimated number of students generated by this project.

Table 5: FY2019 Annual School Test - Thomas S. Wootton High School Cluster

	Projected C	Moratorium	Projected		
School Level	Enrollment	Program Capacity	% Utilization	Enrollment Threshold	Enrollment + Application Impact
Elementary	2,968	3,504	84.7%	4,205	2,968
Middle	1,315	1,521	86.5%	1,826	1,315
High	2,283	2,159	105.7%	2,591	2,283

#### <u>Individual School Adequacy Test</u>

The applicable elementary and middle schools for this project are Travilah Elementary School and Robert Frost Middle School, respectively. Based on the FY2019 Annual School Test results, the student enrollment and capacity projections for these schools are noted in Table 6.

Table 6: FY2019 Annual School Test - Individual School Adequacy

	Projected School Totals, September 2023 Moratorium En  Threshole					Projected Enrollment +	
School	Enrollment	Program Capacity	% Utilization	Surplus / Deficit	120% Utilization	Surplus/ Deficit	Application Impact
Travilah ES	394	522	75.5%	+128	627	632	394
Frost MS	917	1,084	84.6%	+167	1,301	1,264	917

 $<sup>^{\</sup>rm 1}\,\mbox{The}$  moratorium enrollment threshold represents 120% enrollment utilization.

Under the individual school adequacy test, a school is deemed inadequate if the projected school utilization rate exceeds 120% and if the school seat deficit meets or exceeds 110 seats for the elementary school or 180 seats for the middle school. If a school's projected enrollment exceeds both thresholds, then the school service area is placed in a residential development moratorium.

The Moratorium Enrollment Thresholds, identified in Table 6, are the enrollments at which the 120% utilization threshold and the seat deficit threshold are exceeded. As indicated in the last column, the projected enrollment plus the estimated impact of this application falls below both applicable moratorium thresholds for Travilah Elementary School and Frost Middle School. Therefore, there is sufficient anticipated school capacity to accommodate the estimated number of students generated by the Project.

#### School Capacity Analysis Conclusion

Based on the FY2019 Annual School Tests at the cluster and individual school level, there is adequate school capacity to support the proposed development.

Other public facilities and services are available and adequate to serve the proposed lots. Each lot will be served by on-site well and septic systems. The use of individual, well water service and septic systems is consistent with the existing W-6 and S-6 services categories designated for the Property. The Application has been reviewed by the MCDPS — Well and Septic Section, which determined the proposed well and septic locations are acceptable as shown on the approved well and septic plan dated June 7, 2019 (Attachment 4).

The Application has been reviewed by the MCDPS Fire Department Access and Water Supply Section who determined that the Property has adequate access for fire and rescue vehicles by transmittal dated March 21, 2019 (Attachment 5).

Electric and telecommunications services are available and adequate to serve the proposed lots. Other public facilities and services, such as police stations, firehouses and health services are currently operating within the standards set by the 2016-2020 Subdivision Staging Policy Resolution.

#### 4. All Forest Conservation Law, Chapter 22A requirements are satisfied

#### a. Environmental Guidelines

#### Natural Resource Inventory/Forest Stand Delineation

The Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) #420181390 for the Subject Property was approved on February 22, 2018 (Attachment 6). The NRI/FSD identifies the environmental features and forest resources on the Subject Property. The Subject Property is located within the Muddy Branch watershed, a Use I-P stream. The Subject Property is 13.32 acres in size, contains 12.39 acres of forest, but does not contain streams or other environmentally sensitive features.

#### b. Forest Conservation Plan

The Application meets the requirements of Chapter 22A of the Montgomery County Forest

Conservation Law. As required by Chapter 22A, an FFCP was submitted with the project Application (Attachment 7). The total net tract area for forest conservation purposes is 12.46 acres which includes the Subject Property of 13.32 acres, plus off-site work of 0.10 acres and a deduction of 0.96 acres for right-of-way dedication. The Property is zoned RE-2 and is classified as Medium Density Residential as specified in the Trees Technical Manual. The Subject Property contains 11.57 acres (539,700 sq. ft.) of forest. The Applicant proposes to remove 7.95 acres of forest, retain 3.62 acres of forest in Category I Conservation Easements and receive credit for retention of forest within Category II Conservation easements of 0.30 acres (Figures 5 and 6). This results in a total reforestation requirement of 1.18 acres. The Applicant proposes to meet this requirement by purchasing the appropriate amount of forest credits in an off-site forest bank.



Figure 5 – Conservation Easements, Lots 1-3

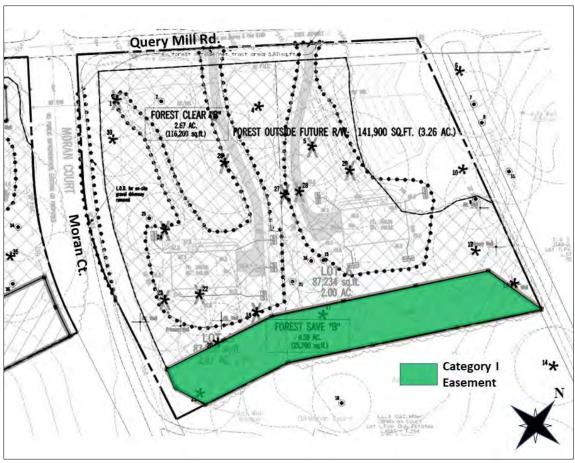


Figure 6 – Conservation Easements, Lots 4 & 5

#### c. Forest Conservation Tree Variance

Section 22A-12(b)(3) of Montgomery County Forest Conservation Law provides criteria that identify certain individual trees and other vegetation as high priority for retention and protection. The law requires that there be no impact to: trees that measure 30 inches or greater DBH; are part of an historic site or designated with an historic structure; are designated as a national, State, or County champion trees; are at least 75 percent of the diameter of the current State champion tree of that species; or trees, shrubs, or plants that are designated as Federal or State rare, threatened, or endangered species. Any impact to high priority vegetation, including disturbance to the critical root zone (CRZ) requires a variance. An applicant for a variance must provide certain written information in support of the required findings in accordance with Section 22A-21 of the County Forest Conservation Law. Development of the Property requires impact to trees identified as high priority for retention and protection, therefore, the Applicant has submitted a variance request for these impacts.

#### Variance Request

The Applicant submitted a variance request in a letter dated November 8, 2018 and updated on April 4, 2019 (Attachment 8). As part of this variance request, there are ten (10) specimen sized trees proposed to be impacted by construction (Table 7) and fourteen (14) specimen trees proposed to be removed (Table 8).

Table 7 – Variance trees to be impacted but retained

Tree Number	Species	DBH Inches	Percent Impact to CRZ	Status
4	Tulip Poplar ( <i>Liriodendron tulipifera</i> )	35"	13%	Good condition
20	Tulip Poplar ( <i>Liriodendron tulipifera</i> )	32"	26%	Good condition
30	Black Cherry (Prunus serotina)	31"	16%	Good condition
35	Red Maple (Acer rubrum)	54"	13%	Good condition
37	Red Maple (Acer rubrum)	36"	26%	Good condition
42	42 Red Maple (Acer rubrum)		14%	Good condition
43	Tulip Poplar (Liriodendron tulipifera)	30"	19%	Good condition
58	Black Cherry ( <i>Prunus serotina</i> )	36"	24%	Good condition
61	Red Maple (Acer rubrum)	36"	20%	Good condition
65	Tulip Poplar ( <i>Liriodendron tulipifera</i> )	30"	4%	Good condition

Table 8 – Variance trees to be removed

Tree Number	Species	DBH Inches	Percent Impact to CRZ	Status
1	Tulip Poplar (Liriodendron tulipifera)	31"	100%	Good condition. Located in primary septic field.
5	Black Cherry (Prunus serotina)	32"	100%	Good condition. Located in graded area.
19	Black Cherry (Prunus serotina)	38"	100%	Fair condition. Located on LOD.
22	Tulip Poplar ( <i>Liriodendron tulipifera</i> )	34"	100%	Good condition. Located in graded area.
23	Black Cherry (Prunus serotina)	42"	100%	Good condition. Located in graded area.
24	Tulip Poplar ( <i>Liriodendron tulipifera</i> )	31"	100%	Good condition. Located in graded area.
26	Tulip Poplar ( <i>Liriodendron tulipifera</i> )	42"	100%	Fair condition. Located on LOD.
27	Black Cherry (Prunus serotina)	35"	100%	Good condition. Located on LOD.
28	Tulip Poplar ( <i>Liriodendron tulipifera</i> )	30"	100%	Good condition. Located in graded area.
29	Black Cherry (Prunus serotina)	48"	100%	Fair condition. Located in primary septic field.
33	Red Maple (Acer rubrum)	33"	100%	Good condition. Located in graded area.
38	Red Oak (Quercus rubra)	40"	53%	Good condition. Excessive impacts to CRZ.
44	Tulip Poplar (Liriodendron tulipifera)	37"	71%	Good condition. Excessive impacts to CRZ.
60	Black Cherry (Prunus serotina)	30"	100%	Good condition. Excessive impacts to CRZ.

#### Unwarranted Hardship Basis

Per Section 22A-21(a), an applicant may request a variance from Chapter 22A if the applicant can demonstrate that enforcement of Chapter 22A would result in an unwarranted hardship. In this case, the Applicant is faced with removing 14 specimen trees and impacting 10 others (Figures 7 and 8).

The Applicant has demonstrated that the denial of the variance request would cause an unwarranted hardship. The Applicant proposes to subdivide the Subject Property into 5 Lots of roughly equal size and to construct a single-family residence on each lot. The Subject Property is almost entirely forested and contains 26 specimen sized trees spread throughout the Property. Given the area needed for the construction of the homes, the installation of the septic fields, well locations and the location of the access drives, it would be impossible to avoid impacting or removing specimen trees. Originally, the Applicant proposed creating 6 lots, the maximum residential density based on the RE-2 zoning. However, the Preliminary Plan was revised to show only 5 potential lots. Eliminating a potential lot

enabled the Applicant to increase the amount of forest saved on-site. The Applicant has worked to reduce the amount of impacts to the specimen trees as much as possible. The Applicant has shifted the limits of disturbance for house construction on each of the lots and has saved as much of the existing forest as possible in a sizeable coherent massing. However, even with these efforts and given the site wide ranging locations of these specimen trees, it is impossible not to impact a majority of these trees.

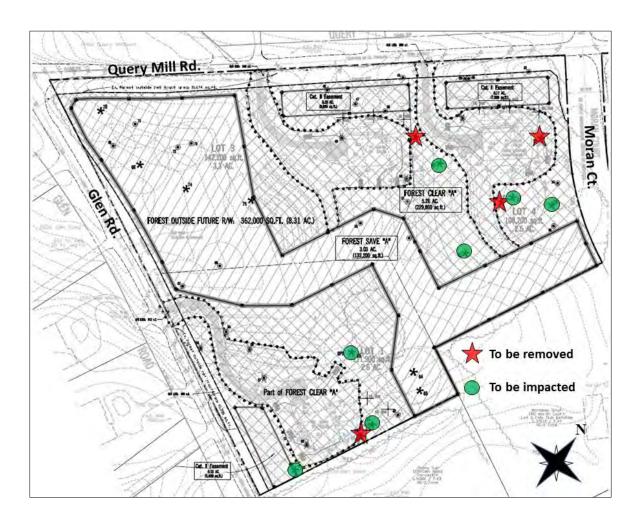


Figure 7 – Variance Trees, Lots 1-3

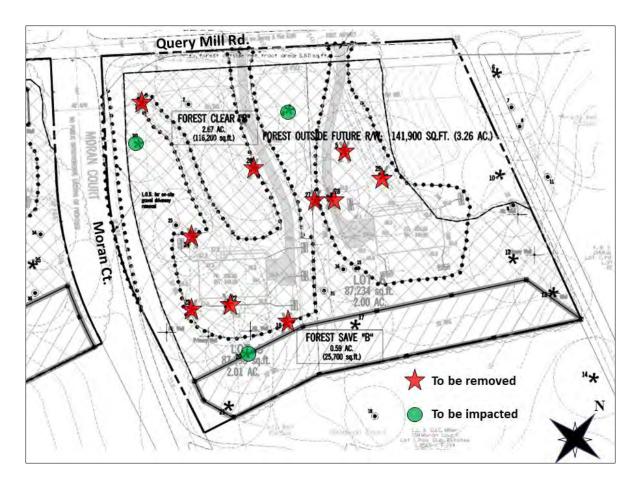


Figure 8 – Variance Trees, Lots 4 & 5

As a result, Staff believes that not being able to request a variance to remove these 14 trees and impact 10 others would constitute an unwarranted hardship on this Applicant to reasonably develop this site. Therefore, Staff concurs that the Applicant has a sufficient unwarranted hardship to justify a variance request.

<u>Variance Findings</u> - Section 22A-21 of the County Forest Conservation Law sets forth the findings that must be made by the Planning Board or Planning Director, as appropriate, in order for a variance to be granted. Staff has made the following determination based on the required findings in the review of the variance request and the Preliminary/Final Forest Conservation Plan:

#### Granting of the requested variance:

1. Will not confer on the applicant a special privilege that would be denied to other applicants.

Granting the variance will not confer a special privilege on the Applicant as the removal of the 14 trees and impacting 10 others is due to the location of the trees and necessary site design requirements imposed by governmental agencies. Therefore, Staff believes that the granting of this variance is not a special privilege that would be denied to other applicants.

2. Is not based on conditions or circumstances which are the result of the actions by the applicant.

The requested variance is not based on conditions or circumstances which are the result of actions by the Applicant. The requested variance is based upon the existing site conditions, requirements of governmental agencies and necessary design requirements of this Preliminary Plan application.

Of the 14 specimen trees proposed to be removed, 10 are located within the active construction areas of the development for the installation of the houses and primary septic fields for each residence. The remaining 3 trees are outside of the active construction areas. However, these 3 trees are so severely impacted that their long-term health would be in jeopardy and it would be prudent to remove them.

3. Is not based on a condition relating to land or building use, either permitted or non-conforming, on a neighboring property.

The requested variance is a result of the existing conditions and not as a result of land or building use on a neighboring property.

4. Will not violate State water quality standards or cause measurable degradation in water quality.

The variance will not violate State water quality standards or cause measurable degradation in water quality. The specimen trees being removed are not located within a stream buffer.

#### Mitigation for Trees Subject to the Variance Provision

As shown on the FFCP, there are 14 specimen trees proposed for removal in this variance request resulting in a total of 503 inches of DBH being removed. These trees being removed are located within an existing forest stand on the Subject Property. It has been M-NCPPC policy not to require mitigation for specimen trees removed within forest stands since the removal of the forest stand is compensated for through the Forest Conservation Worksheet. Additionally, no mitigation is required for trees that are impacted, but retained.

#### County Arborist's Recommendation on the Variance

In accordance with Montgomery County Code Section 22A-21(c), the Planning Department is required to refer a copy of the variance request to the County Arborist in the Montgomery County Department of Environmental Protection prior to acting on the request. The tree variance request was forwarded to the County Arborist on January 7, 2019. On March 28, 2019 the County Arborist recommended approval.

#### Variance Recommendation

Staff recommends approval of the variance request.

The Application meets all applicable requirements of Chapter 22A of the County Code. Therefore, Staff recommends that the Planning Board approve the Applicant's request for a variance from Chapter 22A and the PFCP/FFCP with the conditions cited in this Staff Report.

5. All stormwater management, water quality plan, and floodplain requirements of Chapter 19 are satisfied

The Preliminary Plan Application meets the stormwater management requirements of Chapter 19 of the County Code. The Applicant received a stormwater concept approval from the MCDPS Water Resources Section on April 24, 2019 (Attachment 9). The Application will meet stormwater management goals by capturing and treating runoff in individual drywells on each of the five lots.

#### SECTION 6 – CITIZEN CORRESPONDENCE AND ISSUES

The Applicant has met all proper signage, noticing and pre-submission meeting requirements for the submitted Applications. A pre-submission meeting for the Preliminary Plan was held on December 3, 2018 at the Quince Orchard Library.

Early in the review process, prior to the Development Review Committee (DRC) meeting, Staff received an email (Attachment 10) from the abutting property owners (Mr. and Mrs. Miller – 13111 Moran Court & Mr. Singh – 13112 Moran court) regarding their existing gravel driveway. As described in Section 2, this is a 10 to 12-foot-wide gravel driveway that was mostly built in the Moran Court public right-of-way to provide access to their two homes. Approximately 2,000 square feet of the driveway was constructed on the Subject Property. The email expressed concerns over the long-term maintenance of the driveway and retaining access to their properties. The email also stated that Moran Court should be improved and maintained by the County.

At the DRC meeting on January 22, 2019, which the Miller's attended, Staff commented that the Applicant would need to rectify the situation in a way that is amicable to all parties by providing an access easement over the portion of the existing driveway that is on the proposed lot, relocating the gravel driveway, or providing a reasonable alternative.

Staff met with the Applicant, and the Miller's after DRC to discuss the review process and determine what, if anything, would be required of the Applicant regarding improvements to Moran Court. The Miller's insisted that the Applicant be required to complete Moran Court as a public road and that the road be maintained by County.

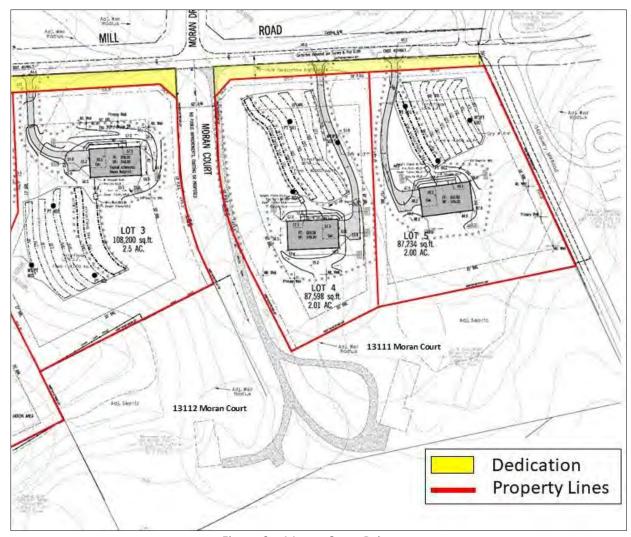


Figure 9 – Moran Court Driveway

The existing driveway conflict is technically a private matter between property owners, outside the scope of the Preliminary Plan review. However, Staff has coordinated with the MCDOT, MCDPS, RRAC, the Miller's and the Applicant throughout the Preliminary Plan review process in an effort to find a resolution. Throughout the review, Staff received additional correspondence from the Millers (Attachment 11) reiterating their concerns about Moran Court.

Hypothetically, if any new lots are going to access Moran Court (not currently proposed), they will require a new access permit, the construction of a tertiary road with 20 feet of pavement, curb and gutter (limited right-of-way width), stormwater management, a proper termination, streetlights, and street trees.

Theoretically the existing ROW could accommodate a Tertiary road. However, public streets require a proper turnaround (cul-de-sac) to accommodate maintenance and emergency vehicles. The only logical location for a cul-de-sac is where the platted cul-de-sac was recorded, past the applicant's frontage on Moran Court. Given the size of the proposed subdivision (5 lots), requiring the applicant to provide an off-site improvement for the benefit of the two existing houses does not seem proportionally reasonable. In general, construction of a tertiary public road for the two existing houses on Moran Court is excessive,

however, MCDOT agrees that a paved driveway exclusively for the two existing homes is feasible. Additionally, the Rustic Roads Advisory Committee recommended against improving Moran Court as a tertiary road, terminating in a cul-de-sac and preferred single driveways out to Query Mill Road and Glen

Staff has also been working with MCDOT, MCDPS and Fire & Rescue staff, since their regulations ultimately dictate how and if improvements in the right-of-way can be constructed (e.g. pavement width). At this time, both agencies have agreed to work with the Applicant and the Miller's to allow the construction of a 10 to 12-foot-wide private asphalt driveway in the Moran Court right-of-way to access the two existing houses only. The Applicant has stated the they are willing to construct the aforementioned driveway (realigned in the right-of-way) to the end of the Property frontage on Moran Court. In this scenario the existing "curbcut" (driveway entrance) would be maintained, but paved, and the driveway will be shifted south into the existing right-of-way.

Staff supports the proposed private driveway, because it is consistent with what the Rustic Roads Advisory Committee recommended and would continue to provide access to the two existing homes. The Preliminary Plan does not reflect the new driveway because it will be constructed by permit, in the right-of-way in accordance with a private agreement between the property owners. However, the FFCP does account for the removal of the section of driveway that is on the Subject Property.

Staff also met with two members of the West Montgomery Civic Association to discuss the Application, specifically regarding the proposed access on the rustic roads, forest conservation and the Miller's driveway.

Shortly before posting this Staff Report, Mr. Singh contacted Staff to discuss the status of the Preliminary Plan and improvements to Moran Court. Mr. Singh stated that he met with MCDOT staff previously to discuss the process of improving Moran Court as a publicly maintained road. Staff explained why Moran Court is not being improved as a public road as part of the Preliminary Plan and discussed the specific obstacles and constrains associated with constructing a public road in the existing right-of-way to current design standards. Because of the constraints discussed in this Staff Report, MCDOT does not support completing Moran Court as a public road at this time.

#### **SECTION 7– CONCLUSION**

The proposed lots meet all of the requirements established in the Subdivision Regulations and the Zoning Ordinance and conform to the recommendations of the 2002 *Potomac Subregion Master Plan*. Access to the lots is adequate and all public facilities and utilities have been deemed adequate to serve this Application. The Application was reviewed by other applicable County agencies, all of whom have recommended approval of the plans. Therefore, staff recommends approval of the Application, with the conditions as specified.

#### **Attachments**

Attachment 1 – Record Plat 5815

Attachment 2 – Preliminary Plan

Attachment 3 – Rustic Roads Advisory Committee letter

Attachment 4 – Well & Septic letter

Attachment 5 – Fire and Rescue letter

Attachment 6 - NRI/FSD

Attachment 7 – Forest Conservation Plan

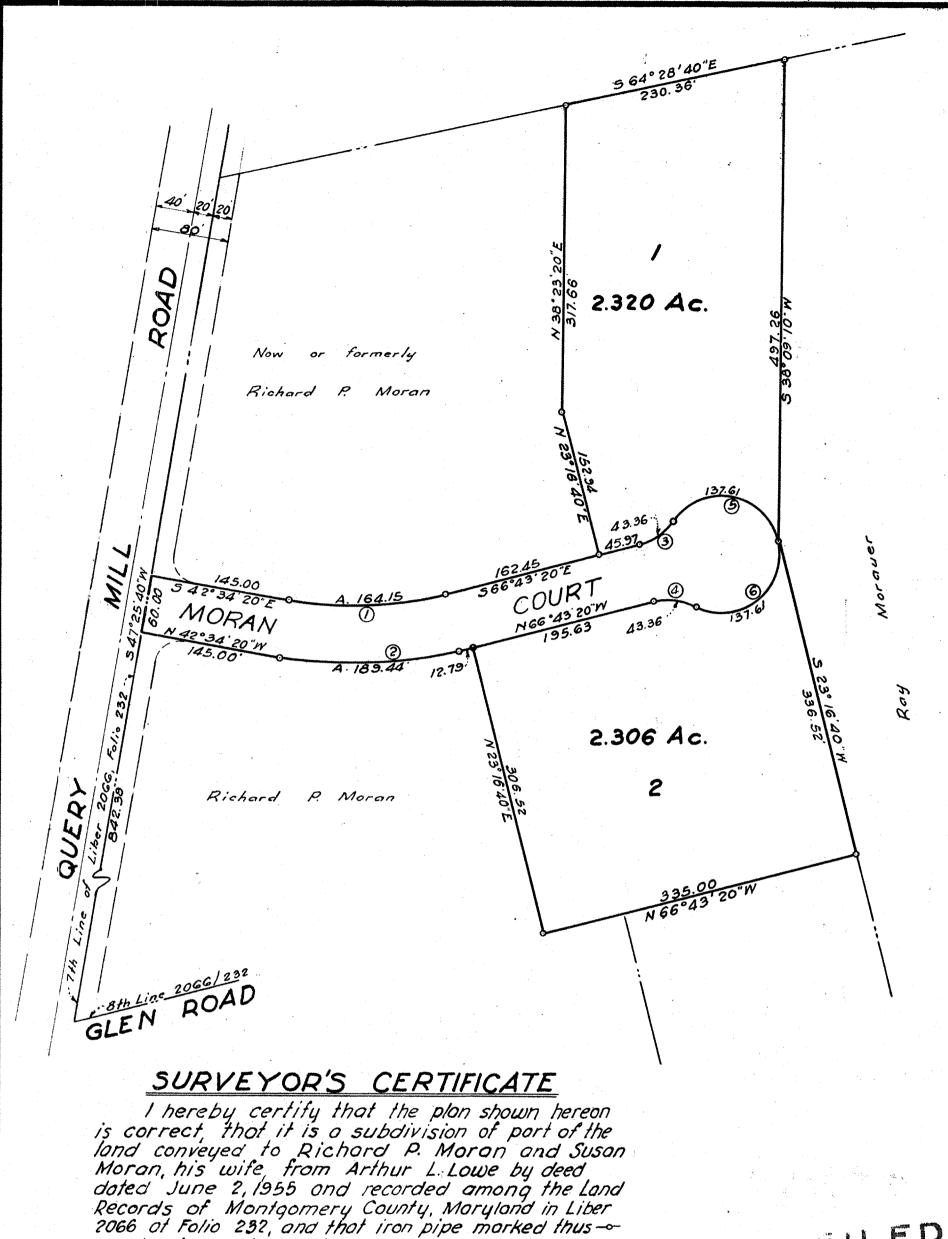
Attachment 8 – Tree Variance Request

Attachment 9 – DPS Water Resources Section letter

Attachment 10 – Correspondence (Miller & Singh)

Attachments 11 – Correspondence (Miller)

Attachment 12 – MCDOT Approval Letter



PLAT No 5815

## OWNERS' DEDICATION

We, Richard P. Moran and Susan Moran, his wife, owners of the property shown and described hereon hereby adopt this plan of subdivision, establish the minimum building restriction lines, and dedicate the street to public use. RICHARD. P. MORAN

Assent. Date: De 19, 1959 SUSAN D. MORAN, HIS WIFE.

Slave H. abrahams Julient A. Streety & VINCENT A. SHEEHY, MORTGAGED

			CURY	E DATA	- 1 × 2	•
Νō	RAD	ARC	Δ	CHD. BEARING	CHORD	TAN.
1	38945	164.15	24°09'00"	S 54° 38' 50" E	163.00	83.31
2	449.45	189.44	24.09.00	N 54° 38' 50"H	188.04	96.15
3	60.00	43.36	41°24'34"	587° 25' 37"E	42.43	22.68
4	60.00	43.36	41-2434	N 46°01' 03'W	42.43	22.68
5	60.00	137.61	131° 24' 34"	S 42°25' 37"E	109.37	132.92
6	60.00	137.61	/31° 24' 34"	S88°58'57'W	109.37	132.92

FILED FEB 1 0 1960

LOTS /&2

## POLO CLUB ESTATES

DARNESTOWN DISTRICT

MONTGOMERY COUNTY, MARYLAND.

Scale: /"= 100'

October 1959

R.K. Moddox County Surveyor Rockville, Maryland

Area Street Dedication is 44,611 sq.ft.

MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION MONTGOMERY COUNTY PLANNING BOARD

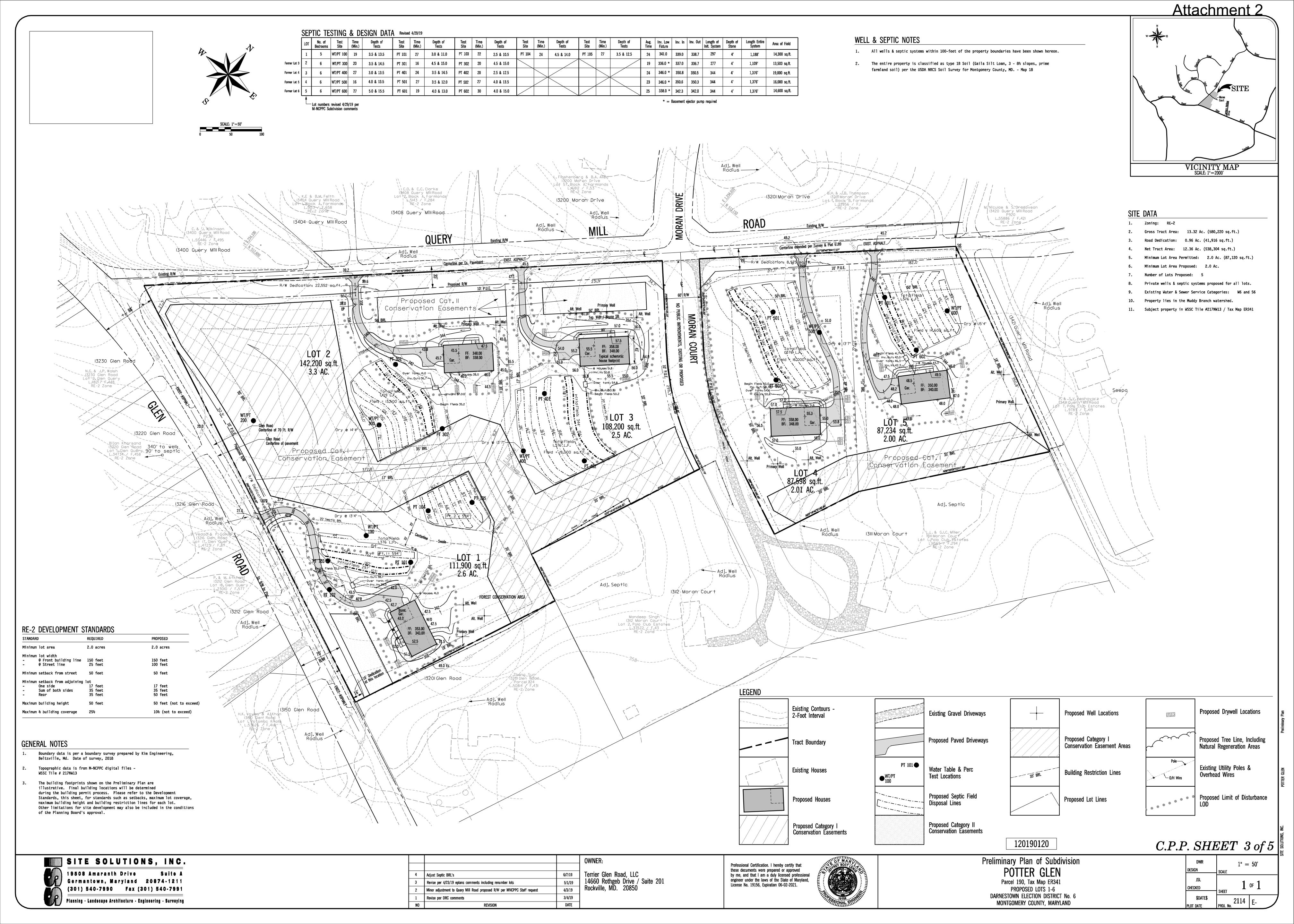
November 12, 1959 APPROVED:

REGISTERED LAND SURVEYOR MD. #528

M-N.C.P. &P.C. RECORD FILE NO. 173-2

are in place where shown.

Dote: Oct. 13, 1959





#### RUSTIC ROAD ADVISORY COMMITTEE



Attachment 3

March 11, 2019

Craig C. Kazanjian Kaz Brothers, L.C. 14660 Rothgeb Drive, Suite 201 Rockville, MD 20850

Re: Potter Glen Preliminary Plan of Subdivision 120190120

Dear Mr. Kazanjian:

Thank you for coming before the Rustic Roads Advisory Committee on Jan. 22 and Feb. 26, 2019 to discuss the pending development application on Query Mill and Glen Roads (both rustic).

The Committee's review of this project centered around its potential to cause negative impacts to the visual character of Query Mill and Glen Roads, both of which are currently forested along this property. The 2002 Potomac Subregion Master Plan notes that both rustic roads have outstanding natural features along them. In this case, the Committee was presented with several possible options for 6 (later 5) lots, as well as for an existing gravel driveway, Moran Court, which serves two residences built in the 1960s. Moran Court relocation or expansion was under consideration due to right of way concerns as well as access issues.

Because of the various design proposals under discussion, the Committee voted to establish principles that should be observed when proceeding in this review process:

- The Committee recommends that the applicant be allowed to propose up to 6 driveways entering onto Query Mill and Glen Roads, including the existing driveway at Moran Court.
- The Committee recommends there be no new tertiary road on or near the existing Moran Court, specifically because MCDOT rules may require excessive tree clearing (up to 94-feet in width), curb and gutter extending to rustic Query Mill Road, street lights, and a large circle turnaround. (Per Committee discussion: If it is possible to have some driveway access from Moran Court without excessive widening and putting in curbing or lighting, the Committee may support that proposal.)
- The Committee recommends narrow (10-foot wide) rather than wide (20-foot wide) driveways in all instances.
- The Committee recommends the use of Category 2 forest conservation easements along the roadsides and
  extending toward the home sites where allowable. (Per Committee discussion: The Committee would like to see
  preservation of the mature trees along the road when driveways are placed, and the Committee would like to see
  preservation of mature trees on the lots between the road and the home site. We look to the Planning
  Department for expertise on this.)
- The Committee recommends that access to the two existing residences be maintained with the existing driveway or a new driveway in a way that has minimal visual impact on Query Mill Road.

The Committee would like to review the revisions to this project that are likely to result in impacts to the affected roads, including revisions to the limits of disturbance and forest conservation easements. Please submit revisions to the Rustic Roads staff coordinator, Atiq Panjshiri by email at Atiq.Panjshiri@montgomerycountymd.gov, and we will review them at our next scheduled meeting.

Respectfully,

**The Rustic Roads Advisory Committee** 

Rulit Thouseulo

Robert J. Tworkowski, Chair

<u>Committee Members:</u> Sarah Navid (Vice Chair), Jane Thompson, Todd Greenstone, Laura Van Etten, Dan Seamans, Lonnie Luther, Leslie Saville

cc: Leroy Miller & Irmgard Classen-Miller, 13111 Moran Court Casey Anderson, Chair, Montgomery County Planning Board Jonathan Casey, M-NCPPC Chris Van Alstyne, M-NCPPC Leslie Saville, M-NCPPC



#### DEPARTMENT OF PERMITTING SERVICES

Marc Elrich
County Executive

Hadi Mansouri

Acting Director

#### MEMORANDUM

June 7<sup>th</sup>, 2019

TO: Neil Braunstein

**Development Review** 

Maryland National Capital Park and Planning Commission

FROM: Heidi Benham, Manager

Well and Septic Section

**Department of Permitting Services** 

SUBJECT: Status of Preliminary Plan: Potter Glen

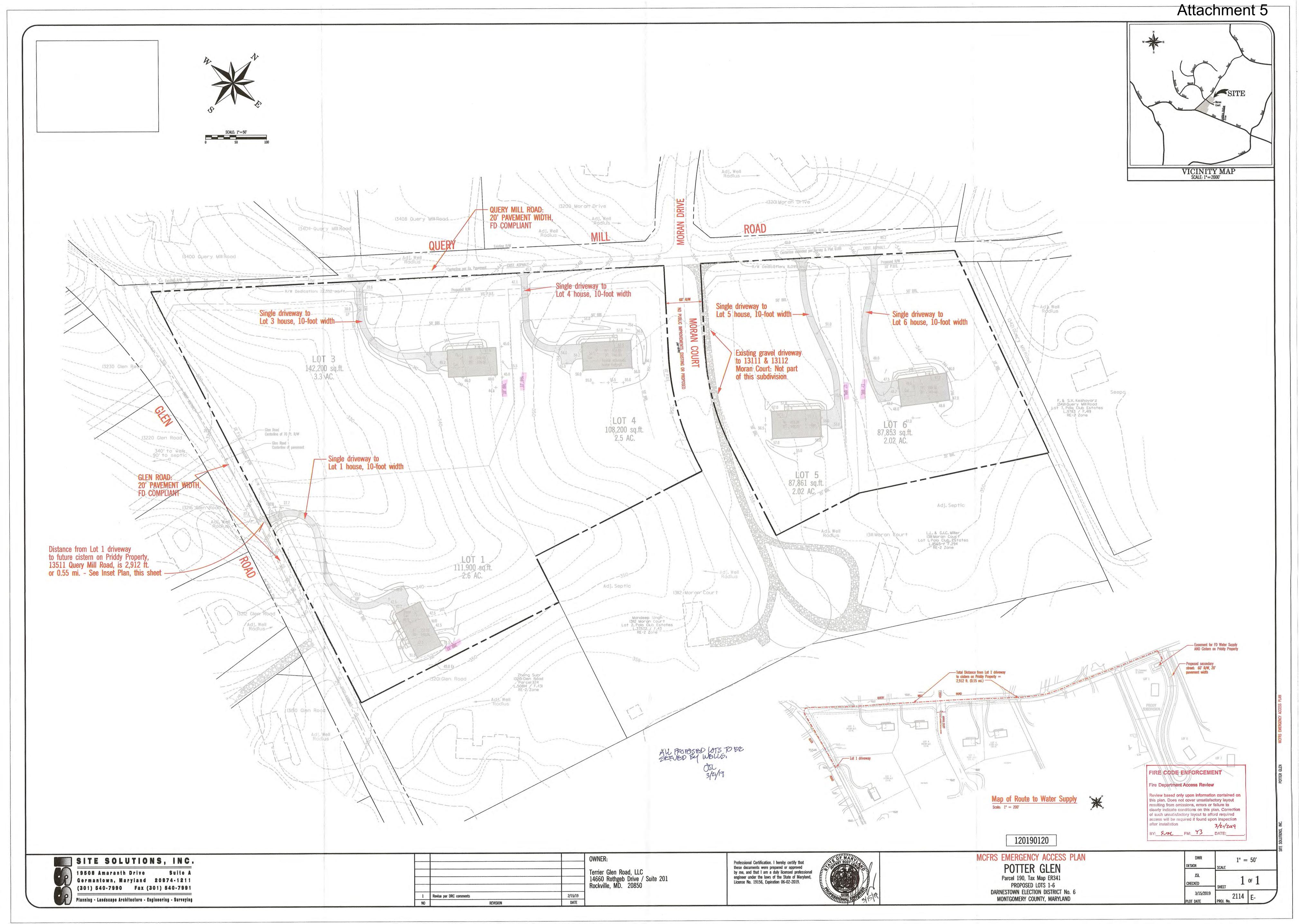
120190120

This is to notify you that the Well & Septic Section of MCDPS approved the plan received in this office on June  $7^{th}$ , 2019.

Approved with the following reservations:

- 1. The record plat must be at the same scale as the preliminary plan, or submit an enlargement of the plat to match the preliminary plan.
- 2. The record plat must show the wells and septic reserve areas as they are shown on this plan.

If you have any questions, please contact Heidi Benham at (240) 777-6318.





### **Department of Permitting Services** Fire Department Access and Water Supply Comments

DATE:

21-Mar-19

TO:

Jeffrey Lewis - jsl@ssimd.net

Site Solutions, Inc.

FROM:

Marie LaBaw

RE:

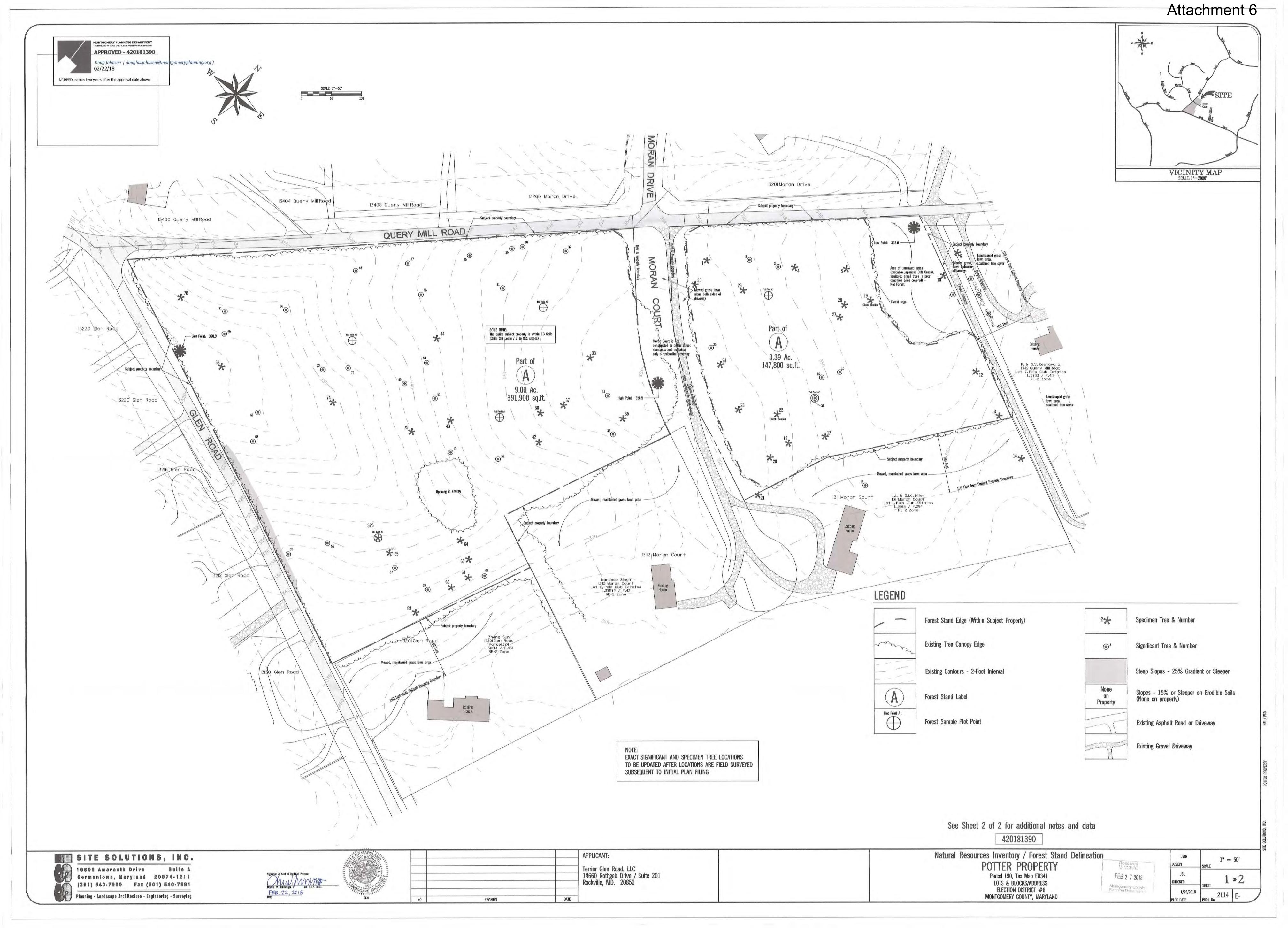
Potter Glen

120190120

#### PLAN APPROVED

- 1. Review based only upon information contained on the plan submitted 21-Mar-19 .Review and approval does not cover unsatisfactory installation resulting from errors, omissions, or failure to clearly indicate conditions on this plan.
- 2. Correction of unsatisfactory installation will be required upon inspection and service of notice of violation to a party responsible for the property.

\*\*\* Water Supply: See Priddy Property 1/18/2018 Approval \*\*\*



FIELD SAMPLING DATA SHEET
Site Solutions, Inc.

FIELD SAMPLING DATA SHEET
Site Solutions, Inc.

### SPECIMEN & SIGNIFICANT TREE LIST

lumber	Botanical Name	Common Name	DBH	Condition	Remarks
*	Liriodendron tulipifera	Tulip Poplar	31"	Good	
	Liriodendron tulipifera	Tulip Poplar	28"	Good	
	Liriodendron tulipifera	Tulip Poplar	28"	Good	
*	Liriodendron tulipifera	Tulip Poplar	35" (Double trunk)	Good	
W	Prunus serotina	Black Cherry	32"	Good	
*	Pinus strobus	White Pine	33"	Good	Off-site
	Pinus strobus	White Pine	27"	Good	Off-site
	Pinus strobus	White Pine	27"	Good	Off-site
	Prunus serotina	Black Cherry	25"	Fair	Depleted crown
0 *	Prunus serotina	Black Cherry	30"	Poor	Poor crown
1	Quercus alba	White Oak	27"	Good	Off-site
2 *	Prunus serotina	Black Cherry	35" (Multf trunk)	Good	
3 *	Prunus serotina	Black Cherry	31" (Multi trunk)	Fair	Depleted crown
*	Quercus alba	White Oak	32"	Good	Off-site
	Liriodendron tulipifera	Tulip Poplar	26"	Good	
5	Liriodendron tulipifera	Tulip Poplar	26"	Good	
*	Liriodendron tulipifera	Tulip Poplar	30"	Good	066 6350
3	Pinus strobus	White Pine	24"	Good	Off-site
*	Prunus serotina	Black Cherry	38" (Multi trunk)	Good	
*	Liriodendron tulipifera	Tulip Poplar	32"	Good	
W	Quercus rubra	Red Oak	33°	Good	
*	Liriodendron tulipifera	Tulip Poplar	34"	Good	
} *	Prunus serotina	Black Cherry	42"	Good	
w	Liriodendron tulipifera	Tulip Poplar	31"	Good	
5	Liriodendron tulipifera	Tulip Poplar	29"	Good	01.161
5 *	Liriodendron tulipifera	Tulip Poplar	42" (Double trunk)	Fair	Significant rot at base
*	Prunus serotina	Black Cherry	35"	Good	
3 *	Liriodendron tulipifera	Tulip Poplar	30"	Good	American American
*	Prunus serotina	Black Cherry	48" (Multi trunk)	Fair	Dense vines in crown
*	Prunus serotina	Black Cherry	31"	Good	03-1-0-1-1-0-
	Liriodendron tulipifera	Tulip Poplar	25"	Good	Plot Point A2
	Liriodendron tulipifera	Tulip Poplar	24"	Good	
3 *	Acer rubrum	Red Maple	33"	Good	and the second second and the
1	Liriodendron tulipifera	Tulip Poplar	28"	Fair	Bowed trunk, canopy damage
5 *	Acer rubrum	Red Maple	54" (Multi trunk)	Good	7 leaders 0 10" - 18"
5	Prunus serotina	Black Cherry	26"	Poor	Poor crown
7 *	Acer rubrum	Red Maple	36" (Multi trunk)	Good	5 leaders
*	Quercus rubra	Red Oak	40°	Good	2 leaders, 28" & 18"
-	Liriodendron tulipifera	Tulip Poplar	24"	Good	
)	Liriodendron tulipifera	Tulip Poplar	24"	Good	
li .	Liriodendron tulipifera	Tulip Poplar	24"	Good	
2 *	Acer rubrum	Red Maple	42"	Good	
3 *	Liriodendron tulipifera	Tulip Poplar	30"	Good	
4 *	Liriodendron tulipifera	Tulip Poplar	37"	Good	
5	Liriodendron tulipifera	Tulip Poplar	28"	Fair	Dense vine cover
ŝ	Liriodendron tulipifera	Tulip Poplar	26"	Fair	Dense vine cover
,	Liriodendron tulipifera	Tulip Poplar	27"	Fair	Split trunk
3	Liriodendron tulipifera	Tulip Poplar	28"	Good	
)	Liriodendron tulipifera	Tulip Poplar	29"	Good	
	Liriodendron tulipifera	Tulip Poplar	25"	Good	
	Liriodendron tulipifera	Tulip Poplar	24"	Good	
2	Liriodendron tulipifera	Tulip Poplar	24"	Good	
3	Liriodendron tulipifera	Tulip Poplar	24"	Good	
l.	Liriodendron tulipifera	Tulip Poplar	27"	Good	
5	Lirlodendron tulipifera	Tulip Poplar	27"	Good	
	Liriodendron tulipifera	Tulip Poplar	28"	Good	
,	Liriodendron tulipifera	Tulip Poplar	27"	Good	
3 *	Prunius serotina	Black Cherry	36" (Multi trunk)	Good	3 leaders 0 12, 18 & 20°
)	Liriodendron tulipifera	Tulip Poplar	25"	Good	
*	Prunus serotina	Black Cherry	30" (Multi trunk)	Good	3 leaders @ 15, 18, & 18"
<b>.</b> *	Acer rubrum	Red Maple	36" (Multi trunk)	Good	
2	Prunus serotina	Black Cherry	25"	Fair	Poor crown
*	Prunus serotina	Black Cherry	48" (Multi trunk)	Good	3 leaders @ 18, 18, 26"
	Liriodendron tulipifera	Tulip Poplar	30"	Good	
*	Liriodendron tulipifera	Tulip Poplar	30"	Good	
	Liriodendron tulipifera	Tulip Poplar	26"	Fair	Vine covered
	Liriodendron tulipifera	Tulip Poplar	29"	Good	South Cartes and
3 *	Liriodendron tulipifera	Tulip Poplar	32"	Good	
9	Liriodendron tulipifera	Tulip Poplar	24"	Good	
	Liriodendron tulipifera	Tulip Poplar	34"	Good	
0 *	19-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	Tulip Poplar	26"	Good	
1	Liriodendron tulipifera		26"	Good	
2	Liriodendron tulipifera	Tulip Poplar			
	Liriodendron tulipifera	Tulip Poplar	24"	Good	
3		The state of the s	4011		
3 4 * 5 *	Liriodendron tulipifera Liriodendron tulipifera	Tulip Poplar Tulip Poplar	48" 30"	Good Good	

\* - Specimen Trees, 30" DBH and larger

There are no trees that are 75% or larger of the county or state champions for their species on this property.

### Soils Table

Julia Tanie								
SYMBOL	SOIL NAME	SLOPE	ERODIBLE*	HYDRIC	PRIME FARMLAND SOIL	REMARKS		
18	Gaila Silt Loam	3 - 8%	No	No	Yes	Very deep & well-drained soil		

Reference: "Soil Survey of Montgomery County, Maryland", U.S.D.A. Natural Resources Conservation Service,

### Plan Notes

Gross Tract Area: 13.32 Acres (580,220 sq.ft.) - Per Tax Record Area of Proposed R/W's and Easements: 0

Net Tract Area: 13.32 Acres Zoning: RE-2 Planning Area: Potomac Subregion (M-NCPPC Area 3) Area of Existing Forest Cover: 12.39 Ac. (539,700 sq.ft.) Watershed: Muddy Branch (State Water Use I, I-P) This property is not located within a Special Protection Area

There is no evidence of non-tidal wetlands on the subject property There are no hydric soils, evidence of wetland plants or wetland hydrology. There is no 100-Year floodplain on or adjacent to the subject property according to FEMA Map #24031C0310D, this property is in Zone X, outside the 100-Year floodplain. The subject property is also well outside any mapped 100-Year floodplain areas shown on M-NCPPC floodplain maps.

### Resource Data Table

ACRES OF FOREST	12.39
ACRES OF FLOODPLAIN	0
ACRES OF FLOODPLAIN IN FOREST	o
ACRES OF WETLANDS	0
ACRES OF WETLANDS IN FOREST	0
ACRES OF ENVIRONMENTAL BUFFER	0
ACRES OF ENVIRONMENTAL BUFFER FOREST	0
AVERAGE WIDTH OF ENVIRONMENTAL BUFFER	N/A
LINEAR EXTENT OF STREAMS	N/A

### **General Notes**

- Existing topography, surface feature information and property boundary location are from M-NCPPC digital file #217NW13.
- Existing significant and specimen tree locations are per occular field locations and are approximate. Surveyed locations will be obtained prior to Final FCP.
- Soil information is from the "Soil Survey of Montgomery County, Maryland", U.S.D.A. Natural Resources Conservation Service, Issued July, 1995 Map 18.
- There are no known historical resources on or adjacent to the subject property.
- No rare, threatened or endangered (RTE) plant or animal species or their habitats were observed on the subject property in doing the field work for this NRI/FSD.
- A Maryland DNR RTE Database check has been requested for this property. A copy of the DNR response letter will be forwarded to M-NCPPC upon receipt by Site Solutions, Inc.
- Field work for this NRI/FSD was done by D. Rohrbaugh, of Site Solutions, Inc. on January 11, 2018. Tree DBH was measured with a metal diameter tape (inches).

### Narrative

### DESCRIPTION OF THE PROPERTY

The subject property is a 13.32 acre tract, and is an unrecorded parcel, Parcel 190, Tax Map ER341. The property is bisected by Moran Court, a secondary residential road right-of-way. Moran Court is a "paper street", consisting of a dedicated right-of-way that is not improved with a paved public street. However, a gravel driveway lies within the Moran Court right-of-way that serves two detached single-family residences, 13111 and 13112 Moran Court. There are no existing structures on the subject property.

Approximately 4 acres of the subject property lies north of Moran Court and the remainder of the property, approximately 9.3 acres lies south of Moran Court. The property is bounded on the west by Query Mill Road and on the south by Glen Road. Existing single-family detached house lots (RE-2 zone) abut the northern and eastern boundaries of the property.

The subject property is split into two drainage areas. A high point is located on a ridge at the Moran Court right-of-way at elevation 358.5. From the high point and ridge, the property slopes downward to the south (toward Glen Road) and downward toward the north. The low point is along Glen Road at elevation 320.0. From high point to low point, a distance of 800 feet, the average grade is about five percent, a gently sloping condition. From high point to low point on the north side of the ridge, there is a drop of about 15 feet over a distance of 500 feet for an average slope of about three percent.

There are no streams, springs, water bodies or other hydrological features on the subject property. There are no streams on or adjacent to the property, thus there is no stream buffer area impacting the subject property.

There is limited evidence of herbaceous invasive species since this study was prepared in January, when many species are dormant and not emerged. There is a possibility of Japanese Stilt Grass at the northern part of Stand A within the open (non-canopy) area just outside the stand. Varying amounts of bush Honeysuckle was encountered throughout Stand A, especially in the larger southern part of the stand along Query Mill Road.

### PAST MANAGEMENT OF THE SUBJECT PROPERTY

Per available Montgomery County aerial photographic records:

Vacant, No forest cover Vacant, Pioneer natural regeneration of forest Vacant, scattered tree cover Vacant, Tree & forest growth continues Vacant, Forest growth continues

Mature forest per current conditions

FOREST AND TREE COVER

General: The forest cover on the subject property is essentially one stand that has been bisected by Moran Court and the driveway placed in Moran Court ("paper street") to serve the two houses at 13111 and 13112 at the east side of the subject property. This analysis considers the forest cover on the subject property to be one stand containing slight variations in tree species densities in the various parts of the stand. Six sample plot points were obtained in an effort to gather technical stand data in all areas of the stand. The following data figures are average values that can be applied over the greater stand area. In addition to the sample plot point data, seventy-five significant and specimen trees have been identified and are labeled on the NRI/FSD map. Of the seventy-five trees identified, thirty-eight are specimen trees at 30-inch DBH or larger.

### Stand A:

Area of Stand:

12.39 Acres (539,700 sq.ft.) Sample Plot Points = 1/10 Acre

Basal Area:

Tulip Poplar (Liriodendron tulipifera) (some areas with Red Maple co-dominant) Dominant Tree Species: White Oak (Quercus alba), Black Cherry (Prunus serotina), Red Oak (Quercus rubra), Black Locust

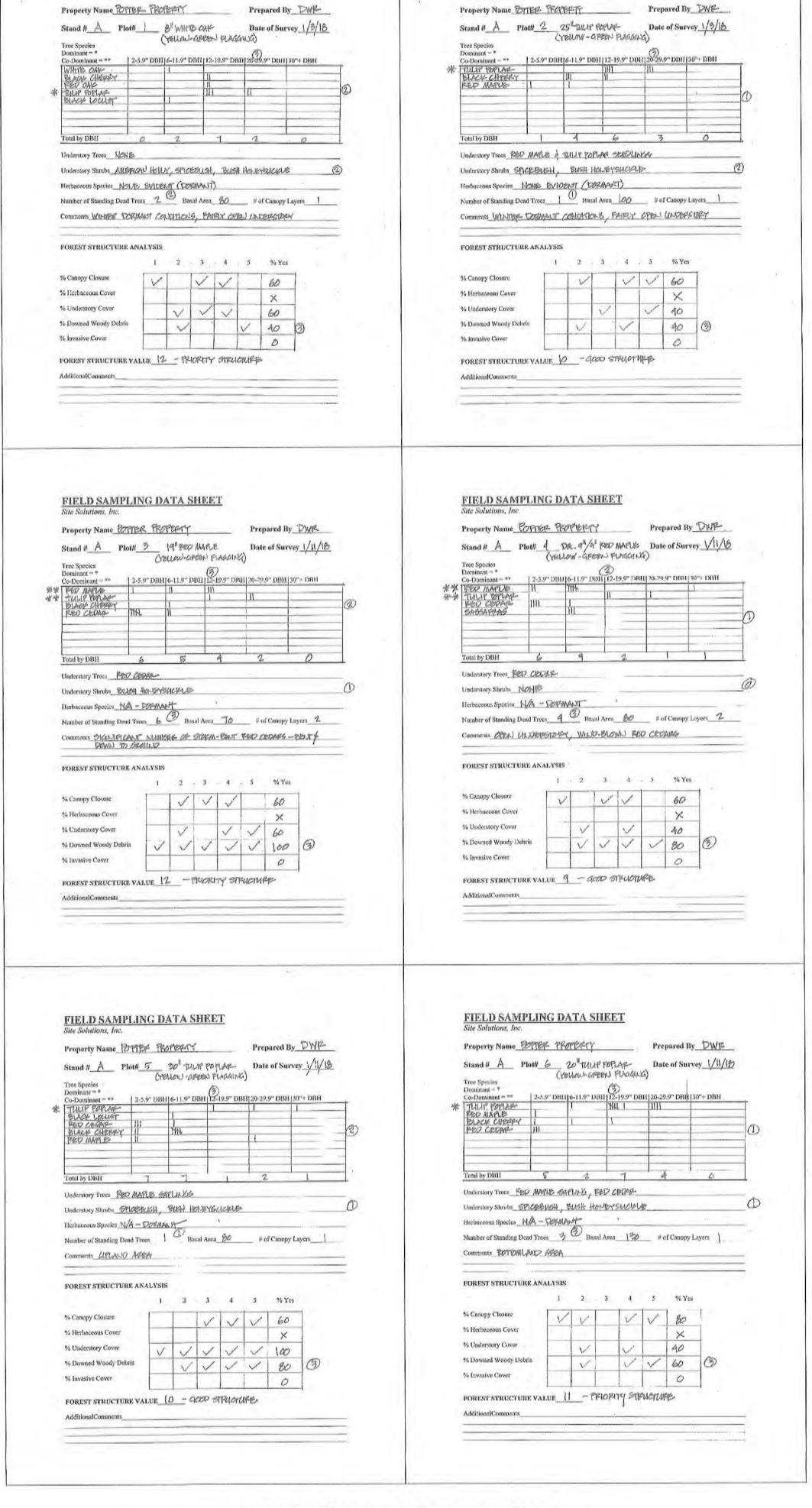
Other Tree Spp. in Stand: (Robinia pseudoacacia), Red Maple (Acer rubrum), Sassafras (Sassafras albidum), Red Cedar (Juniperus

Only Non-herbaceous species evident: Bush Honeysuckle. Limited amounts of Multiflora Rose Invasive Species:

Forest Structure: Retention Priority:

Mostly Priority Structure (See Pgs. 134 & 135 of "Trees Technical Manual") Moderate to High (Priority 2 to 1) (See Pg. 20 of "Trees Technical Manual")

MARYLAND Hoyd Butherford, Lt. Governor Mark Belton, Secretary DEPARTMENT OF NATURAL RESOURCES Joanne Throwe, Deputy Secretary January 16, 2018 Mr. Don Rohrbaugh Site Solutions, Inc. 19508-A Amaranth Drive Germantown, Maryland 20874 RE: Environmental Review for Parcel 190, Tax Map ER341, Glen Road and Query Mill Road, Potomae, Montgomery-County, Maryland. Dear Mr. Rohrbaugh: The Wildlife and Heritage Service has determined that there are no official State or Federal records for listed plant or animal species within the delineated area shown on the map provided. As a result, we have no specific concerns regarding potential impacts or recommendations for protection measures at this time. Please let us know however if the limits of proposed disturbance or overall site boundaries change and we will provide you Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573. Lori A. Byrne, Environmental Review Coordinator Wildlife and Heritage Service MD Dept. of Natural Resources ER# 2018.0002.mo Tawes State Office Building – 580 Taylor Avenue – Annapolis, Maryland 21401 410-260-RDNR or foll free in Maryland 877-620-80NR – dor maryland onv – TTY Users Call via the Manyland Relay. Maryland DNR RTE Species Letter



Sample Plot Point Summary Sheets

420181390

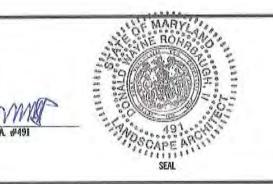
Natural Resources Inventory / Forest Stand Delineation POTTER PROPERTY

Parcel 190, Tax Map ER341

LOTS & BLOCKS/ADDRESS ELECTION DISTRICT #6 MONTGOMERY COUNTY, MARYLAND

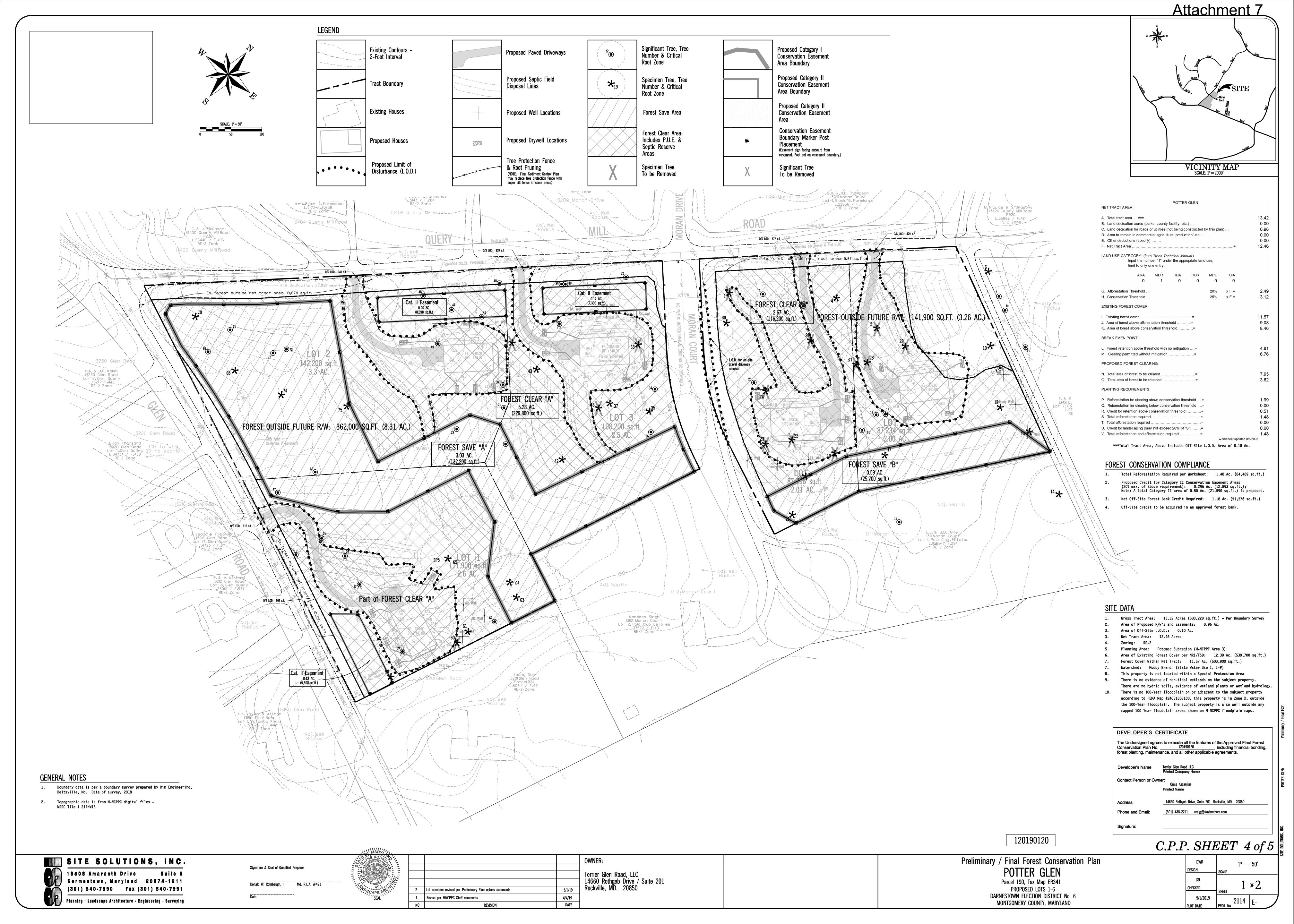
M-NCPPC FEB 2 7 2018

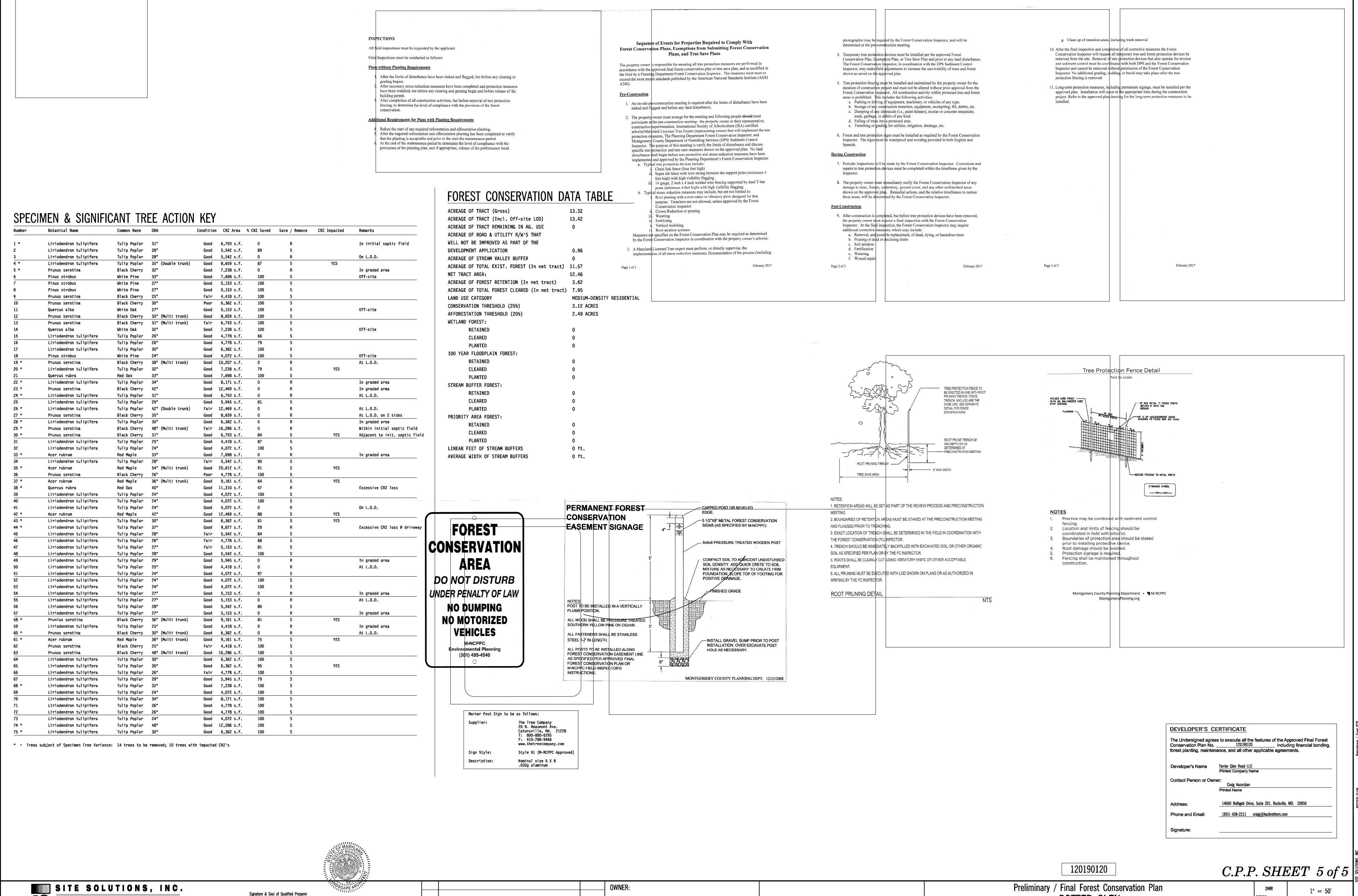
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Terrier Glen Road, LLC 14660 Rothgeb Drive / Rockville, MD. 20850
Nockville, IVID. 20030

<sup>\*</sup> Per Erodible Soils List, Appendix C, "Environmental Guidelines", M-NCPPC, January, 2000





Terrier Glen Road, LLC 14660 Rothgeb Drive / Suite 201 Rockville, MD. 20850

DATE

Rev. FC Data Table & STAK per plan change:

REVISION

Revise per Sheet 1 of 2 changes

19508 Amaranth Drive Suite A

Germantown, Maryland 20874-1211

(301) 540-7990 Fax (301) 540-7991

Planning · Landscape Architecture · Engineering · Surveying

DWR 1" = 50'SCALE

JSL

CKED

SHEET

4/4/2019

DATE

PROJ. No. 2114E-

POTTER GLEN

DARNESTOWN ELECTION DISTRICT No. 6

MONTGOMERY COUNTY, MARYLAND

Parcel 190, Tax Map ER341 PROPOSED LOTS 1-6

#### STATEMENT FOR THE APPLICANT

Terrier Glen Road, L.L.C.

## FOR A VARIANCE IN ACCORDANCE WITH SECTION 22A-21 OF THE MONTGOMERY COUNTY CODE

# PRELIMINARY PLAN #120190120 POTTER GLEN

November 8, 2018, Revised April 4, 2019

#### I. BACKGROUND INFORMATION

The Applicant, Terrier Road, L.L.C., makes this request for a variance pursuant to the provisions of Section 22A-21 of the Montgomery County Code. The Applicant is owner of the subject property, also designated as Parcel 190 on Tax Map ER341. The Applicant proposes to subdivide the property into five lots for single-family detached homes. The five proposed lots will comply with the development standards applicable to the subject property's RE-2 zoning classification. The property is located in the northeast quadrant of Query Mill Road and Glen Road in North Potomac. The subject property consists of 13.32 acres, and is divided into two parts, as follows: 4 acres lie on the north side of Moran Court (an unimproved "paper street" containing only a gravel driveway leading to two subdivided lots located at its terminus), and the remainder of the property, +/-9.3 acres lies between Moran Court and Glen Road, to the south.

About ninety percent of the property is under forest cover. A Natural Resources Inventory / Forest Stand Delineation (#420181390) has been submitted to and approved by M-NCPPC. There are no streams, stream buffers or environmental priority areas on or adjacent to the subject property. Thirty-seven specimen trees (30" DBH and larger) have been identified and survey-located on and adjacent to the subject property and are shown on the NRI/FSD.

#### II. APPLICANT'S PROPOSAL

Attached is a copy of the proposed Preliminary Plan of Subdivision (see E-plans) showing the proposed lots, houses and driveway locations. Also attached is the Preliminary / Final Forest Conservation Plan (see E-plans) showing the proposed forest clear and forest save areas as well as proposed tree protection measures. It is important to note that the lots are not to be on public water and sewer service, but rather private well and septic fields. Since proposed septic easements cannot overlap conservation easements, the entire proposed septic fields, including the reserve field areas must be considered as "cleared" for the purposes of forest conservation calculations. However, until the reserve field areas must be utilized, if ever, the existing forest cover within the reserve areas should be preserved.

# III. EXPLANATION FOR THE NEED TO IMPACT THE CRITICAL ROOT ZONES OF TEN TREES AND REMOVE FOURTEEN TREES THAT ARE IDENTIFIED FOR PROTECTION BY STATE LAW

The attached Preliminary / Final Forest Conservation Plan (see E-plans) indicates the location of the ten impacted trees and fourteen trees to be removed. The critical root zones of all trees are also shown.

#### The ten impacted trees are as follows:

Tree #4	Tulip Poplar	35" DBH	Good Condition	87% CRZ Saved
Tree #20	Tulip Poplar	32" DBH	Good Condition	74% CRZ Saved
Tree #30	Black Cherry	31" DBH	Good Condition	84% CRZ Saved
Tree #35	Red Maple	54" DBH	Good Condition	87% CRZ Saved
Tree #37	Red Maple	36" DBH	Good Condition	74% CRZ Saved
Tree #42	Red Maple	42" DBH	Good Condition	86% CRZ Saved
Tree #43	Tulip Poplar	30" DBH	Good Condition	81% CRZ Saved
Tree #58	Black Cherry	36" DBH	Good Condition	76% CRZ Saved
Tree #61	Red Maple	36" DBH	Good Condition	80% CRZ Saved
Tree #65	Tulip Poplar	30" DBH	Good Condition	95% CRZ Saved

The fourteen trees to be removed are as follows:

Tree #1	Tulip Poplar	31" DBH	Good Condition	In initial septic field
Tree #5	Black Cherry		Good Condition	In graded area
Tree #19	Black Cherry	38" DBH	Good Condition	At L.O.D.
Tree #22	Tulip Poplar	34" DBH	Good Condition	In graded area
Tree #23	Black Cherry	42" DBH	Good Condition	In graded area
Tree #24	Tulip Poplar	31" DBH	Good Condition	In graded area
Tree #26	Tulip Poplar	42" DBH	Fair Condition	At L.O.D.
Tree #27	Black Cherry	35" DBH	Good Condition	L.O.D. on 2 sides
Tree #28	Tulip Poplar	30" DBH	Good Condition	In graded area
Tree #29	Black Cherry	48" DBH	Fair Condition	In initial septic fld.
Tree #33	Red Maple	33" DBH	Good Condition	In graded area
Tree #38	Red Oak	40" DBH	Good Condition	Excessive CRZ loss
Tree #44	Tulip Poplar	37" DBH	Good Condition	In graded area
Tree #60	Black Cherry	30" DBH	Good Condition	In graded area

## IV. <u>SATISFACTION OF THE CRITERIA LISTED IN SECTION 22A-21(b) OF THE MONTGOMERY COUNTY CODE</u>

A Chapter 22A variance is required in order to secure approval of the disturbance of twenty-three identified trees that are considered priority for retention and protection under the Natural Resources Article of the Maryland Annotated Code and the County Code. This variance request is submitted pursuant to Section 22A-21 of Chapter 22A of the County Code and Section 5-1607(c) and Section 5-1611 of Title 5 of the Natural Resources Article of the Maryland Annotated Code, (the "Natural Resources Article").

Under the County Code, Section 22A-21(b) lists the criteria for the granting of the variance requested herein. The following narrative explains how the requested variance is justified under the set of circumstances described above.

"(1) describe the special conditions peculiar to the property which caused the unwarranted hardship."

Unwarranted hardship is demonstrated, for the purpose of obtaining a Chapter 22A Variance when an applicant presents evidence that denial of the variance would deprive the Applicant of the reasonable and substantial use of the property. Section 22A-21 of the County Code authorizes the grant of a variance under that chapter when an applicant "shows that enforcement would result in unwarranted hardship."

Natural Resources Article Section 5-1611 authorizes the Planning Board to grant a forest conservation variance "where owing to special features of a site or other circumstances, implementation of this subtitle would result in unwarranted hardship to the applicant." Those special features are described below. The phrase "unwarranted hardship" used in both the State Code and the County Code is not defined in either.

In this case, the Applicant would suffer unwarranted hardship if disturbance or removal of the designated trees were not allowed. The submitted subdivision plan that proposes dividing the subject property into five lots under the RE-2 lot design standards is clearly within the class of reasonable and substantial uses that justify the approval of a Chapter 22A Variance. If the variance were denied, then the Applicant would be precluded from developing the subject property to its highest and best use in accordance with the RE-2 zoning, a right that, in the past, has been commonly enjoyed by owners of similar properties.

Over ninety percent of the subject property is under forest cover and contains thirty-seven specimen trees that are identified for protection under Chapter 22A. These thirty-seven trees are scattered throughout the subject property and impact all five of the proposed development lots. The minimum required lot area in the RE-2 zone is two acres. The subject property is 13.32 acres in size, thus the average lot size is proposed to be approximately 2.7 acres. Several of the proposed lots are to be exactly two acres in area. As a result of the configuration of the subject property and minimum 2-acre lot size, all five proposed lots contain specimen trees.

The proposed lots will be served by private well and septic disposal systems. Public water and sewer facilities are not available to the subject property. Septic systems require allowing space for an initial disposal field and area for future reserve fields, if the initial field fails. Generally, the septic disposal area on any given lot must be a minimum of 10,000 square feet in area and up to 20,000 square feet, depending on soil perc rates and the proposed number of bedrooms in each house. The area allotted for septic disposal added to the space required to construct a house and driveway have a significant impact on the ability to preserve surrounding trees. Impact on some of the existing specimen trees is

unavoidable. Septic disposal system locations are dependent on the location of successful perc test sites (location of perc test sites are specified by the Montgomery County Department of Permitting Services Well & Septic Division) and may impact trees in or adjacent to the required disposal areas.

Houses and driveways are sited on lots in a relationship with the proposed septic areas. The proposed house locations are also governed by statutory building restriction lines. House placement dictates the location of the driveway to serve the house. In addition, the proposed driveway alignments for this development project have been influenced by the County's Rustic Road Advisory Committee. Houses and driveways must be properly graded, thus establishing a limit of disturbance (LOD). The LOD may impact some surrounding specimen trees, especially given the fact that specimen trees are widely scattered throughout the subject property. Only trees that fall within the LOD or are adjacent to the LOD are scheduled for removal. Disturbance to the trees listed in this variance statement is unavoidable, given the required elements that must be included on each lot. A substantial area of trees and forest is proposed for preservation in this development proposal, much of which will be placed in a Category I Conservation Easement.

"(2) Describe how enforcement of these rules will deprive the owner of rights commonly enjoyed by others in similar areas."

Any alternative subdivision design that would propose five lots in the RE-2 zone would impact at least a similar number of specimen trees and potentially could impact more trees if a different lot configuration is proposed. Without this variance, the Applicant would be deprived from the ability to, based on the existing RE-2 zoning, implement their plan to subdivide the subject property into five lots and would thus be deprived of reasonable use of their property that would be available to others. Many similar properties in the subject area of the County, in the past, were subdivided prior to implementation of the provisions of Section 22A-21 of the Montgomery County Code, without the need for a variance.

"(3) Verify that State water quality standards will not be violated or that a measurable degradation in water quality will not occur as a result of the granting of the variance."

In conjunction with its proposed development of the subject property, the Applicant has prepared a Stormwater Management Concept Plan and report. This proposed concept proposes proper measures to protect stormwater quality and quantity that may impact the subject property and surrounding property. The proposed concept complies with current Environmental Site Design to the Maximum Extent Possible stormwater management regulations. A copy of the report is included as an attachment to this variance statement.

The Applicant confirms that the impact on the twenty-four affected trees will not cause degradation to water quality associated with development of the proposed subdivision as a result of the granting of the requested variance.

"(4) Provide any other information appropriate to support the request."

The information set forth above satisfies the criteria to grant the requested variance to allow the proposed development to impact ten protected trees and remove fourteen protected trees as part of this proposed subdivision proposal.

Furthermore, the Applicant's request for a variance complies with the "minimum criteria" of Section 22A-21(d) for the following reasons:

- 1. The Applicant will receive no special privileges or benefits by the granting of the requested variance that would not be available to any other applicant;
- 2. The configuration of the subject property, regulatory requirements, and the location of the protected trees are not the result of actions by the Applicant, since any similar development of the subject property as a RE-2 zoned residential subdivision would encounter the same constraints;
- 3. The requested variance is not related in any way to a condition on an adjacent, neighboring property; and
- 4. The impact on the CRZ's of the ten affected trees and the removal of the fourteen affected trees will not violate State water quality standards or cause measurable degradation in water quality as evidenced in the attached Stormwater Management Concept report.

Submitted on behalf of the Applicant, Terrier Glen, L.L.C.

By
Site Solutions, Inc.,
Donald W. Rohrbaugh, II,
MD. R.L.A. #491

November 8, 2018, Revised April 4, 2019

## **ATTACHMENT**

Stormwater Management Concept Report

## POTTER GLEN

Proposed Lots 1-5 Parcel P190 DPS SM#284366

## STORMWATER MANAGEMENT CONCEPT REPORT & COMPUTATIONS

November 27, 2018 Revised March 11, 2019



I hereby certify that these documents were prepared or approved by me, and I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 19156, Expiration 06-02-2019.

Prepared By:
Site Solutions, Inc.
19508-A Amaranth Drive
Germantown, MD 20874
301-540-7990

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#### Potter Glen

P190

Proposed Residential Lots 1-5

### STORMWATER MANAGEMENT CONCEPT

DPS SM #284366

#### I. NARRATIVE

#### A. Existing Site Description

This project is a 13.3-acre property located on the southeast corner of the intersection of Glen Road and Query Mill Road in Potomac, Montgomery County.

The property is zoned RE-2 and lies within the Class I Muddy Branch watershed. Query Mill Road lies to the north of the property and Glen Road to the southwest. Moran Court, an unimproved public right-of-way bisects the property. Existing residential lots surround the property to the south and east. The site drains from east to west and north.

The property currently undeveloped and mostly wooded, and there are no streams or wetlands located on the property.

The topography of the property is generally moderate, with slopes ranging from 2% to 8%, with some local steeper areas adjacent to the streets. Site elevations run from a low of 320 near the northwest corner to a high of 358 near the east side of the property.

#### B. Proposed Development Project

This subdivision application proposes to subdivide existing unrecorded parcel into 5-single family residential lots per the M-NCPPC Preliminary Plan #120190120. The lots will be served by driveways to both Glen Road and Query Mill Road. The lots will be served by private wells and septic systems.

The total imperviousness proposed on the 5 lots is approximately 35,262 square feet, or 6.6% of the overall property.

The location and size of the lots has been influenced by the design of the septic fields and placement of wells. One lot had to be deleted from the original layout since septic testing was not sufficient to allow the additional field. The property is also subject to forest conservation requirements so there are forest conservation areas and easement s that need to be respected during the design of the site and stormwater management.

Glen Road and Query Mill Road are both Rural and Rustic Roads and the location of the driveways had to be approved by the Rural and Rustic Roads Committee. After discussions and review by the Committee, it was decided that the individual driveways should be configured in such a way to avoid seeing a lot of cleared area when looking down the driveways and into the lots from main roads. The driveways were configured with curves in them so the house could not be easily visible for the road.

Table 1 summarizes the proposed development elements.

#### C. Soils

The entire property is located on Gaila silt loam (1B) soil based on the "Soil Survey of Montgomery County, Maryland". The Gaila silt loam is a soil considered to be well drained located in upland areas and is a hydrologic group B soil.

A detailed geotechnical analysis including infiltration analysis was performed by ECS-Mid Atlantic on February 22, 2019. Six (6) borings and infiltration tests were performed on the property. No groundwater or rock were encountered in the borings that were drilled to a depth of 15' below the surface. The infiltration rates ranged from 0.5 in/hr to 10.7 in/hr.

#### D. Proposed Stormwater Management

The site was evaluated for stormwater management requirements based on the Maryland Stormwater Design Manual as well as Montgomery County Regulations. Environmental site design methods were evaluated and implemented based on MDE's Chapter 5.0, "Environmental Site Design".

1. Environmental Site Design (ESD). The design of stormwater management systems incorporates best management practices into the design of the site with the goal to reduce runoff from the site to that of a forest in good

- condition. Micro-practices are proposed to manage runoff closer to the source to allow filtration and groundwater recharge.
- Methodology. Each lot was individually evaluated to determine the target rainfall (P<sub>E</sub>) and the required ESD Volume (ESD<sub>V</sub>) based on MCDPS WRTP-5. The impervious areas and limits of disturbance for each lot were determined based on the preliminary plan.
- 3. The development of the property will result in a low-density subdivision since the lot sizes are relatively large (greater than 2 acres) and forest conservation requirements limit the amount of clearing. Septic field layout also limits the amount of disturbance and construction on the lots.
  - The location and size of ESD measures was limited by the setbacks required from the potable wells, septic fields, houses and forest conservation areas.
- 4. The following types of practices are proposed to address ESD on this project.
  - Drywells. Four (4) drywells are proposed to be constructed on each lot to receive runoff from the roof of the proposed house. The drywells were located in areas that meet the setback requirements established by MCDPS Design Guidelines. Since the lots will be served by wells and septic systems, the design of the wells and septic systems and the location of the drywells had to be closely coordinated.
  - Additional treatment of the driveways was looked at to see if direct treatment of the impervious surfaces could be provided. The driveways on most lots were located adjacent to the septic fields which prevents the installation of ESD measures next to driveways for direct treatment. The grading of some driveways is steeper than allowed for the use of swales. However, mots of the driveways will drain back into the lots and not directly onto the main roads which will allow a disconnect of the impervious areas as runoff will flow across natural ground. Although credit was not taken for this measure since some of the slopes would not meet the maximum allowable slope for the credit, the longer travel path will both attenuate the total travel time and encourage infiltration.

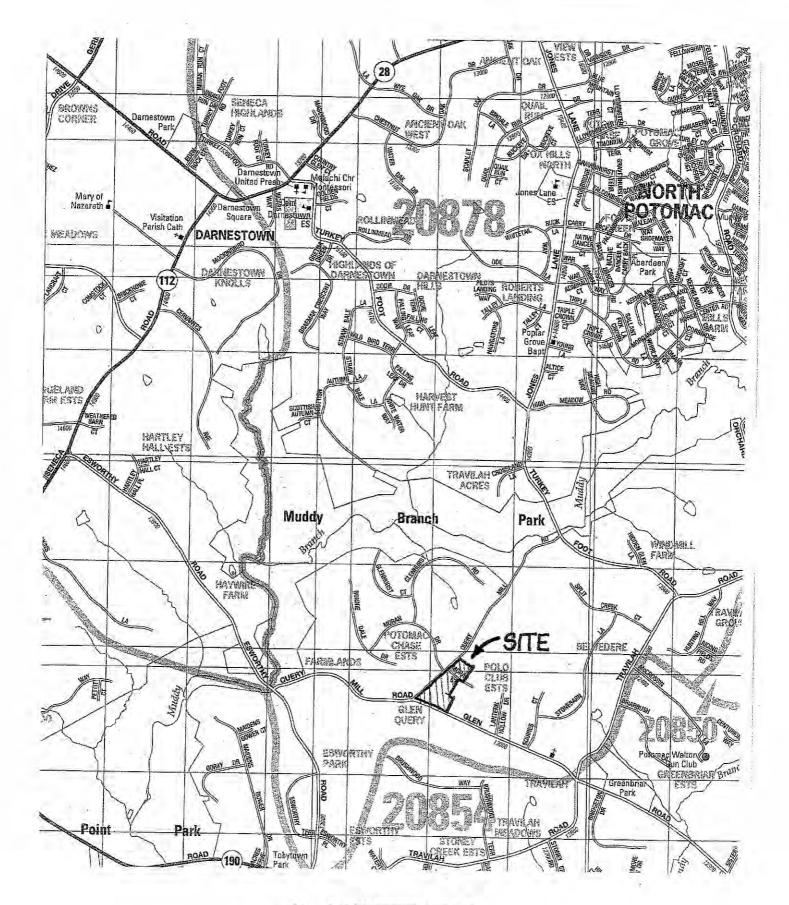
#### 5. Results.

The use of the proposed facilities will provide full ESD volume for the impervious surfaces proposed on the proposed lots.

## Table 1 Development Summary

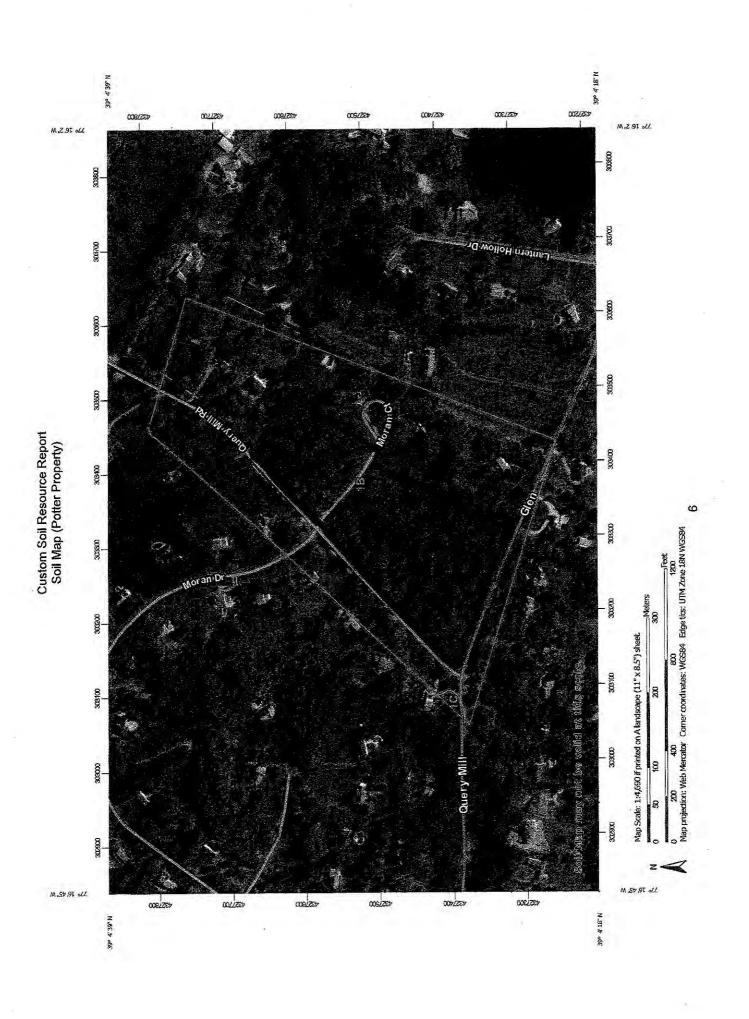
- 1. Property Size: 580,220 Square Feet or 13.3 Acres
- 2. Zoning: RE-2
- 3. Number of Proposed Lots: 5
- 4. Location: Southeast corner of Glen Road & Query Mill Road
- 5. Watershed: Muddy Branch
- 6. Tax Map: ER341
- 7. ADC Map (2011): Page 55, E4, F4
- 8. Existing Parcel: P190
- 9. WSSC Map: 217NW13
- 10. Election District: 6 (Darnestown)
- 11. Proposed Impervious Area / ESD Volume Required / Provided:

	Impervious Area	ESDv Req'd	ESDv Provided
Lot 1	7,757 sq. ft. (6.9%)	738 cu. ft.	740 cu. ft.
Lot 2	6,687 sq. ft. (4.7%)	643 cu. ft.	648 cu. ft.
Lot 3	6,350 sq. ft (5.9%)	621 cu. ft.	624 cu. ft.
Lot 4	7,333 sq. ft. (8.4%)	684 cu. ft.	690 cu. ft.
Lot 5	7,135 sq. ft (8,1%)	664 cu. ft.	672 cu. ft.



II. VICINITY MAP

## III. SOILS MAP



### Montgomery County, Maryland

#### 1B-Gaila silt loam, 3 to 8 percent slopes

#### Map Unit Setting

National map unit symbol: kx7m Elevation: 100 to 2,000 feet

Mean annual precipitation: 35 to 50 inches Mean annual air temperature: 45 to 57 degrees F

Frost-free period: 120 to 255 days

Farmland classification: All areas are prime farmland

#### Map Unit Composition

Gaila and similar soils: 95 percent Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### Description of Gaila

#### Typical profile

H1 - 0 to 8 inches: silt loam

#### Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to

high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 1.3 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B Hydric soil rating: No

#### **Minor Components**

#### Baile

Percent of map unit: 5 percent

Landform: Flats Hydric soil rating: Yes

## IV. SWM COMPUTATIONS

#### Compute Target PE and Required ESDv:

#### LOT#1

The project P<sub>E</sub> is computed based on the entire lot area per MCDPS WRTP-5.

Lot #1 Area= 111,896 Sq. Ft. 2.57 Ac. Total Disturbed Area= 32,400 Sq. Ft.

**Impervious Area Calculations** 

Туре	On-Lot Only:	Within Disturbed
	Sq. Ft.	Sq. Ft.
Proposed House	3,600	3,600
Prop. Onlot Sidewalk	353	353
Prop. Onlot Driveway	3,804	3,804
Prop. ROW Sidewalk	0	0
Prop. ROW Driveway Apron	0	286
TOTAL	7,757	8,043

Note: Common Offsite Disturbed & Impervious Areas were split between the lots

On-Lot % Impervious for Lot  $(I_S)$  = On-Lot Impervious / Lot Area % Impervious for On-Lot  $(I_S)$  = 6.9%

#### Compute RCN for Pre-developed Site at Woods in Good Condition.

B-Soil (RCN=55), Area =	111,896	Sq. Ft =	2.57	Ac. =	100.0%
C-Soil (RCN=70), Area =	0	Sq. Ft=	0.00	Ac. =	0.0%
D-Soil (RCN=77), Area =	0	Sq. Ft =	0.00	Ac. =	0.0%

Composite RCN = [(B-Soil \*55) + (C-Soil\*70) + (D-Soil\*77)] / Lot Area = 55

Determine Composite P<sub>E</sub> based on Soils and Impervious Area = 7%

From MDE Table 5.3

Soil Type	$P_{\rm E}$ (In.)	% Area
В	1.0	100.0%
C	1.0	0.0%
D	1.0	0.0%
Composite P <sub>E</sub> =	1.00	Inches

The ESD<sub>V</sub> Computation is Based on the Total Disturbed Area for the Lot

Total Disturbed Area (A) = 32,400 Sq. Ft.

% Impervious in Disturbed Area (I<sub>p</sub>) = 24.8% (Total Impervious Area/Total Disturbed Area)

 $R_V = (0.009*I_p) + 0.05 = 0.27$  (Within Total Disturbed Area)

Target ESD Volume (ESD<sub>V</sub>):

Required ESD<sub>V</sub> = 
$$(P_E * R_V * A) / 12$$
  
Where:  $P_E = 1.00$  "  $R_V = 0.27$  A= 32,400 s.f.  
Req'd Lot #1 ESD<sub>V</sub>= 738 Cubic Feet

## Lot 1

#### ESDv DESIGN - Drywell

Definitions and Equations for Design:

% Impervious (I) = Impervious Area / Drainage Area Minimum & Maximum Volumes that must and can be stored:  $ESD_V(Min) = (P_E*R_V*A) / 12, \text{ where } P_E=1.0"$   $ESD_V(Max) = (P_E*R_V*A) / 12, \text{ where } P_E=2.6"$ 

 $R_V = (0.009*i) + 0.05$ 

Design ESD<sub>V</sub>= (L\*W\*D\*0.4)

ESD Facility #	DW-1A	DW-1B	DW-1C	DW-1C
ESD Type:	Drywell	Drywell	Drywell	Drywell
Drainage Area (sf)=	900	900	900	900
Impervious Area (sf) =	900	900	900	900
% Impervious (I) =	100.0%	100.0%	100.0%	100.0%
R <sub>V</sub> =	0.95	0.95	0.95	0.95
Min. ESD <sub>V</sub> (cf)=	71.3	71.3	71.3	71.3
Max. ESD <sub>V</sub> (cf)=	185.3	185.3	185.3	185.3
Drywell Dimensions				
L (ft) =	12.75	12.75	12.75	12.75
W (ft) =	7.25	7.25	7.25	7.25
D ft) =	5.00	5.00	5.00	5.00
Design ESD <sub>V</sub> (cf) =	184.9	184.9	184.9	184.9
Total ESDV - Lot 1 =	739.5	Cu Ft		

ESDV Required = 738 Cu Ft ESDV Provided = 740 Cu Ft

#### Compute Target PE and Required ESDv:

#### LOT #2

The project P<sub>E</sub> is computed based on the entire lot area per MCDPS WRTP-5.

Lot #2 Area= 142,235 Sq. Ft.
Total Disturbed Area= 28,300 Sq. Ft.

**Impervious Area Calculations** 

Туре	On-Lot Only:	Within Disturbed	
	Sq. Ft.	Sq. Ft.	
Proposed House	3,600	3,600	
Prop. Onlot Sidewalk	353	353	
Prop. Onlot Driveway	2,734	2,734	
Prop. ROW Sidewalk	0	0	
Prop. ROW Driveway Apron	0	310	
TOTAL	6,687	6,997	

On-Lot % Impervious for Lot  $(I_S)$  = On-Lot Impervious / Lot Area % Impervious for On-Lot  $(I_S)$  = 4.7%

#### Compute RCN for Pre-developed Site at Woods in Good Condition.

B-Soil (RCN=55), Area =	142,235	Sq. Ft =	3.27	Ac. =	100.0%
C-Soil (RCN=70), Area =	0	Sq. Ft =	0.00	Ac. =	0.0%
D-Soil (RCN=77). Area =	0	Sa. Ft =	0.00	Ac. =	0.0%

Composite RCN = [(B-Soil \*55) + (C-Soil\*70) + (D-Soil\*77)] / Lot Area = 55

Determine Composite P<sub>E</sub> based on Soils and Impervious Area = 5%

#### From MDE Table 5.3

Soil Type	$\underline{P_{E}}$ (In.)	% Area
В	1.0	100.0%
C	1.0	0.0%
D	1.0	0.0%
Composite $P_E =$	1.00	Inches

The ESD<sub>V</sub> Computation is Based on the Total Disturbed Area for the Lot

Total Disturbed Area (A) = 28,300 Sq. Ft.

% Impervious in Disturbed Area (I<sub>p</sub>) = 24.7% (Total Impervious Area/Total Disturbed Area)

 $R_V = (0.009*I_P) + 0.05 = 0.27$  (Within Total Disturbed Area)

Target ESD Volume (ESD<sub>v</sub>):

Required ESD<sub>V</sub> = 
$$(P_E^*R_V^*A) / 12$$
  
Where:  $P_E^=$  1.00 "  $R_V^=$  0.27 A= 28,300 s.f.  
Req'd Lot #3 ESD<sub>V</sub>= 643 Cubic Feet

## Lot 2

#### **ESDv DESIGN - Drywell**

Definitions and Equations for Design:

% Impervious (I) = Impervious Area / Drainage Area

Minimum & Maximum Volumes that must and can be stored:

 $ESD_V(Min) = (P_E*R_V*A) / 12$ , where  $P_E=1.0$ "

 $ESD_V(Max) = (P_E * R_V * A) / 12$ , where  $P_E = 2.6$ "

 $R_V = (0.009*I) + 0.05$ 

Design  $ESD_V = (L^*W^*D^*0.4)$ 

ESD Facility #	DW-2A	DW-2B	DW-2C	DW-2D
ESD Type:	Drywell	Drywell	Drywell	Drywell
Drainage Area (sf)=	900	900	900	900
Impervious Area (sf) =	900	900	900	900
% Impervious (I) =	100.0%	100.0%	100.0%	100.0%
R <sub>V</sub> =	0.95	0.95	0.95	0.95
Min. ESD <sub>V</sub> (cf)=	71.3	71.3	71.3	71.3
Max. ESD <sub>V</sub> (cf)=	185.3	185.3	185.3	185.3
Drywell Dimensions				
L (ft) =	13.50	13.50	13.50	13.50
W (ft) =	6.00	6.00	6.00	6.00
D ft) =	5.00	5.00	5.00	5.00
Design ESD <sub>V</sub> (cf) =	162.0	162.0	162.0	162.0
Total ESDV - Lot 3 =	648.0	Cu Ft		

ESDV Required = 643 Cu Ft

ESDV Provided = 648 Cu Ft

#### Compute Target PE and Required ESDv:

#### LOT#3

The project  $P_E$  is computed based on the entire lot area per MCDPS WRTP-5.

Lot #3 Area= 108,161 Sq. Ft.
Total Disturbed Area= 29,400 Sq. Ft.

**Impervious Area Calculations** 

Туре	On-Lot Only:	Within Disturbed	
	Sq. Ft.	Sq. Ft.	
Proposed House	3,600	3,600	
Prop. Onlot Sidewalk	357	357	
Prop. Onlot Driveway	2,393	2,393	
Prop. ROW Sidewalk	0	0	
Prop. ROW Driveway Apron	0	301	
TOTAL	6,350	6,651	

On-Lot % Impervious for Lot  $(I_S)$  = On-Lot Impervious / Lot Area % Impervious for On-Lot  $(I_S)$  = 5.9%

#### Compute RCN for Pre-developed Site at Woods in Good Condition.

B-Soil (RCN=55), Area =	108,161	Sq. Ft =	2.48	Ac. =	100.0%
C-Soil (RCN=70), Area =	0	Sq. Ft =	0.00	Ac. =	0.0%
D-Soil (RCN=77), Area =	0	Sq. Ft =	0.00	Ac. =	0.0%

Composite RCN = [(B-Soil\*55) + (C-Soil\*70) + (D-Soil\*77)] / Lot Area = 55

Determine Composite P<sub>E</sub> based on Soils and Impervious Area = 6%

From MDE Table 5.3

	Soil Type	$P_{E}$ (In.)	% Area
	В	1.0	100.0%
	C	1.0	0.0%
	D	1.0	0.0%
Cor	mposite P <sub>E</sub> =	1.00	Inches

The ESD<sub>V</sub> Computation is Based on the Total Disturbed Area for the Lot

Total Disturbed Area (A) = 29,400 Sq. Ft.

% Impervious in Disturbed Area  $(I_p) = 22.6\%$ 

(Total Impervious Area/Total Disturbed Area)

 $R_V = (0.009*I_p) + 0.05 = 0.25$ 

(Within Total Disturbed Area)

Target ESD Volume (ESD<sub>V</sub>):

Required 
$$ESD_V = (P_E * R_V * A) / 12$$
  
Where:  $P_E = 1.00 \text{ } R_V = 0.25$   $A = 29,400 \text{ s.f.}$ 

Req'd Lot #4 ESD<sub>v</sub>= 621 Cubic Feet

## Lot 3

### **ESDv DESIGN - Drywell**

Definitions and Equations for Design:

% Impervious (I) = Impervious Area / Drainage Area Minimum & Maximum Volumes that must and can be stored:

 $ESD_V(Min) = (P_E*R_V*A) / 12$ , where  $P_E=1.0$ "

 $ESD_V(Max) = (P_E * R_V * A) / 12$ , where  $P_E = 2.6$ "

 $R_V = (0.009*1) + 0.05$ 

Design ESD<sub>v</sub>= (L\*W\*D\*0.4)

ESD Facility #	DW-3A	DW-3B	DW-3C	DW-3D
ESD Type:	Drywell	Drywell	Drywell	Drywell
Drainage Area (sf)=	900	900	900	900
Impervious Area (sf) =	900	900	900	900
% Impervious (I) =	100.0%	100.0%	100.0%	100.0%
R <sub>V</sub> =	0.95	0.95	0.95	0.95
Min. $ESD_V$ (cf)=	71.3	71.3	71.3	71.3
Max. ESD <sub>V</sub> (cf)=	185.3	185.3	185.3	185.3
Drywell Dimensions	3,-1,-			
L (ft) =	12.00	12.00	12.00	12.00
W (ft) =	6.50	6.50	6.50	6.50
D ft) =	5.00	5.00	5.00	5.00
Design ESD <sub>V</sub> (cf) =	156.0	156.0	156.0	156.0
Total ESDV - Lot 3 =	624.0	Cu Ft		V-10 -1100

ESDV Required = 621 Cu Ft ESDV Provided = 624 Cu Ft

### Compute Target PE and Required ESDv:

#### **LOT #4**

The project  $P_{\rm E}$  is computed based on the entire lot area per MCDPS WRTP-5.

Lot #4 Area= 87,861 Sq. Ft.
Total Disturbed Area= 27,900 Sq. Ft.

Impervious Area Calculations

Туре	On-Lot Only:	Within Disturbed
	Sq. Ft.	Sq. Ft.
Proposed House	3,600	3,600
Prop. Onlot Sidewalk	350	350
Prop. Onlot Driveway	3,383	3,383
Prop. ROW Sidewalk	0	0
Prop. ROW Driveway Apron	0	237
TOTAL	7,333	7,570

On-Lot % Impervious for Lot  $(I_S)$  = On-Lot Impervious / Lot Area % Impervious for On-Lot  $(I_S)$  = 8.3%

## Compute RCN for Pre-developed Site at Woods in Good Condition.

B-Soil (RCN=55), Area =	87,861	Sq. Ft =	2.02	Ac. =	100.0%
C-Soil (RCN=70), Area =	0	Sq. Ft =	0.00	Ac. =	0.0%
D-Soil (RCN=77), Area =	0	Sq. Ft =	0.00	Ac. =	0.0%

Composite RCN = [(B-Soil\*55) + (C-Soil\*70) + (D-Soil\*77)] / Lot Area = 55

Determine Composite P<sub>B</sub> based on Soils and Impervious Area = 9%

From MDE Table 5.3

Soil Type	P <sub>E</sub> (In.)	% Area
В	1.0	100.0%
C	1.0	0.0%
D	1.0	0.0%
Composite $P_E =$	1.00	Inches

The ESD<sub>V</sub> Computation is Based on the Total Disturbed Area for the Lot

Total Disturbed Area (A) = 27,900 Sq. Ft.

% Impervious in Disturbed Area (Ip) = 27.1% (Total Impervious Area/Total Disturbed Area)

 $\mathbf{R}_{\mathbf{V}} = (0.009 * \mathbf{I}_{\mathbf{P}}) + 0.05 = \mathbf{0.29}$  (Within Total Disturbed Area)

Target ESD Volume (ESD<sub>V</sub>):

Required 
$$ESD_V = (P_E * R_V * A) / 12$$
  
Where:  $P_E = 1.00$  "  $R_V = 0.29$  A= 27,900 s.f.  
Req'd Lot #5  $ESD_V = 684$  Cubic Feet

## Lot 4

#### ESDv DESIGN - Drywell

Definitions and Equations for Design:

% Impervious (I) = Impervious Area / Drainage Area
Minimum & Maximum Volumes that must and can be stored:

 $\mbox{ESD}_{\mbox{\scriptsize V}}(\mbox{Min})$  = (P\_E\*R\_V\*A) / 12, where P\_E=1.0"

 $ESD_V(Max) = (P_E*R_V*A) / 12$ , where  $P_E=2.6$ "

 $R_V = (0.009*i) + 0.05$ 

Design ESD<sub>V</sub>= (L\*W\*D\*0.4)

ESD Facility #	DW-4A	DW-4B	DW-4C	DW-4D
ESD Type:	Drywell	Drywell	Drywell	Drywell
Drainage Area (sf)=	900	900	900	900
Impervious Area (sf) =	900	900	900	900
% Impervious (I) =	100.0%	100.0%	100.0%	100.0%
R <sub>V</sub> =	0.95	0.95	0.95	0.95
Min. ESD <sub>v</sub> (cf)=	71.3	71.3	71.3	71.3
Max. ESD <sub>V</sub> (cf)=	185.3	185.3	185.3	185.3
Drywell Dimensions				
L (ft) =	11.50	11.50	11.50	11.50
W (ft) =	7.50	7.50	7.50	7.50
D ft) =	5.00	5.00	5.00	5.00
Design ESD <sub>V</sub> (cf) =	172.5	172.5	172.5	172.5
Total ESDV - Lot 5 =	690.0	Cu Ft	-	

ESDV Required = 684 Cu Ft ESDV Provided = 690 Cu Ft

#### Compute Target PE and Required ESDv:

#### **LOT #5**

The project P<sub>E</sub> is computed based on the entire lot area per MCDPS WRTP-5.

, Lot #5 Area= 87,853 Sq. Ft. Total Disturbed Area= 27,300 Sq. Ft.

**Impervious Area Calculations** 

Туре	On-Lot Only:	Within Disturbed
	Sq. Ft.	Sq. Ft.
Proposed House	3,600	3,600
Prop. Onlot Sidewalk	350	350
Prop. Onlot Driveway	3,185	3,185
Prop. ROW Sidewalk	0	0
Prop. ROW Driveway Apron	0	204
TOTAL	7,135	7,339

On-Lot % Impervious for Lot  $(I_S)$  = On-Lot Impervious / Lot Area % Impervious for On-Lot  $(I_S)$  = 8.1%

### Compute RCN for Pre-developed Site at Woods in Good Condition.

B-Soil (RCN=55), Area =	87,853	Sq. Ft =	2.02	Ac. =	100.0%
C-Soil (RCN=70), Area =	0	Sq. Ft =	0.00	Ac. =	0.0%
D-Soil (RCN=77). Area =	0	So Ft =	0.00	Ac =	0.0%

Composite RCN = [(B-Soil\*55) + (C-Soil\*70) + (D-Soil\*77)] / Lot Area = 55

Determine Composite P<sub>E</sub> based on Soils and Impervious Area = 9%

From MDE Table 5.3

Soil Type	$P_{E}$ (In.)	% Area
В	1.0	100.0%
C	1.0	0.0%
D -	1.0	0.0%
Composite $P_E =$	1.00	Inches

The ESD<sub>V</sub> Computation is Based on the Total Disturbed Area for the Lot

Total Disturbed Area (A) = 27,300 Sq. Ft.

% Impervious in Disturbed Area (Ip) = 26.9% (Total Impervious Area/Total Disturbed Area)

 $\mathbf{R_V} = (0.009*I_P) + 0.05 = 0.29$  (Within Total Disturbed Area)

Target ESD Volume (ESD<sub>V</sub>):

Required ESD<sub>V</sub> = 
$$(P_E*R_V*A) / 12$$
  
Where:  $P_E* = 1.00$  "  $R_V* = 0.29$  A= 27,300 s.f.  
Req'd Lot #6 ESD<sub>V</sub>\* 664 Cubic Feet

### Lot 5

#### **ESDv DESIGN - Drywell**

Definitions and Equations for Design:

% Impervious (I) = Impervious Area / Drainage Area
Minimum & Maximum Volumes that must and can be stored:

 $ESD_V(Min) = (P_E * R_V * A) / 12$ , where  $P_E = 1.0$ "

 $ESD_V(Max) = (P_E * R_V * A) / 12$ , where  $P_E = 2.6$ "

 $R_V = (0.009*I) + 0.05$ 

Design ESD<sub>V</sub>= (L\*W\*D\*0.4)

ESD Facility #	DW-5A	DW-5B	DW-5C	DW-5D
ESD Type:	Drywell	Drywell	Drywell	Drywell
Drainage Area (sf)=	900	900	900	900
Impervious Area (sf) =	900	900	900	900
% Impervious (I) =	100.0%	100.0%	100.0%	100.0%
. R <sub>V</sub> =	0.95	0.95	0.95	0.95
Min. $ESD_V$ (cf)=	71.3	71.3	71.3	71.3
Max. ESD <sub>V</sub> (cf)=	185.3	185.3	185.3	185.3
Drywell Dimensions				
L (ft) =	14.00	14.00	14.00	14.00
W (ft) =	6.00	6.00	6.00	6.00
D ft) =	5.00	5.00	5.00	5.00
Design ESD <sub>V</sub> (cf) =	168.0	168.0	168.0	168.0
Total ESDV - Lot 6 =	672.0	Cu Ft		

ESDV Required = 664 Cu Ft ESDV Provided = 672 Cu Ft

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Environmental Site Design (ESD) Computation Summary Sheet	

Location				ESD <sub>v</sub> DESIGN SUMMARY		ESD <sub>v</sub> DESIGN SUMMARY	SUMMARY						
111,896	_	ssign P <sub>B</sub> In.)	Location/ Description	ESD Facility Type	Drainage Area (Square Feet)	_=	a % Impervious (I)	R <sub>V</sub>	Drywe L(ft) x	Drywell Dimensions	nsions × D (ft)	Design ESD <sub>V</sub> (Cu Ft)	Notes
111,896			DW-1A	Drywell	006	006	100.0%	0.95	12.75		x 5.0	185	Roof
111,896			DW-1B	Drywell	006	006	100.0%	0.95	12.75	x 7.25	1	185	Roof
111,896			DW-1C	Drywell	006	006	100.0%	0.95	12.75	× 7.25	x 5.0	185	Roof
TOTAL ESDY REQ'D = 738		00.	DW-1C	Drywell	006	006	100,0%	0.95	12.75	x 7.25	x 5.0	185	Roof
TOTAL ESDY REQ'D = 738										L	TOTAL	740	This is a common of the common
142,235   6,687   4,70%   1.00   DW-2B   Drywell   900	-		LOI	AL ESDV REQ'D =	738	Cubic Feet							
142,235   6,687   4,70%   1.00   DW-2B   Drywell   900			TOTALE	SDV PROVIDED =	740	Cubic Feet	FULL ESD VOL. PROVIDED	L. PRO	/IDED		***************************************		
142,235   6,687   4,70%   1.00   DW-2D   Dywell   900		-	DW-2A	Drywell	006	006	100.0%	0.95	13.50	00'9 x	x 5.0	162	Roof
142,235   6,687   4,70%   1.00   DW-2D   Drywell   900			DW-2B	Drywell	006	006	100.0%	0.95	13.50	x 6.00	x 5.0	162	Roof
142,235 6,687 4.70% 1.00 DW-2D Dywell 900			DW-2C	Drywell	006	006	100.0%	0.95	13.50	00'9 ×	× 5.0	162	Roof
TOTAL ESDV REQ'D = 643		00.	DW-2D	Drywell	006	006	100.0%	0.95	13.50	x 6.00	x 5.0	162	Roof
108,161   6,350   5.87%   1.00   DW-3A   Drywell   900							1			T	TOTAL	849	
108,161   6,350   5.87%   1.00   DW-3B   Drywell   900			TOTA	AL ESDV REQ'D ==	643	Cubic Feet							
108,161   6,350   5.87%   1.00   DW-3B   Drywell   900			TOTAL ES	SDV PROVIDED =	648	Cubic Feet	FULL ESD VOL. PROVIDED	L. PRO	/IDED				
108,161   6,350   5.87%   1.00   DW-3D   Drywell   900			DW-3A	Drywell	006	006		0.95	12.00	د و.50	x 5.0	156	Roof
108,161   6,350   5.87%   1.00   DW-3C   Drywell   900			DW-3B	Drywell	006	006	100.0%	0.95	12.00	x 6.50	x 5.0	156	Roof
108,161   6,350   5.87%   1.00   DW-3D   Drywell   900			DW-3C	Drywell	006	006	100.0%	0.95	12.00	× 6.50	× 5.0	156	Roof
TOTAL ESDV REQ'D = 621	_	00.	DW-3D	Drywell	900	006	100.0%	0.95	12.00	x 6.50	x 5.0	951	Roof
TOTAL ESDV REQ'D = 621   TOTAL ESDV PROVIDED = 624   DW-4A   Drywell   900											TOTAL	624	
TOTAL ESDV PROVIDED = 624			TOTA	AL ESDV REQ'D =	621	Cubic Feet					tion and the same of the same		
87,861   7,333   8.35%   1.00   DW-4B   Drywell   900			TOTAL ES	SDV PROVIDED =	624	Cubic Feet	FULL ESD VOL. PROVIDED	L. PRO	/IDED				
R7,861   7,333   8.35%   1.00   DW-4D   Drywell   900		_	DW-4A	Drywell	006	006	100.0%	0.95	11.50	× 7.50	x 5.0	173	Roof
87,861         7,333         8.35%         1.00         DW-4D         Drywell         900           Polymell         DW-4D         Drywell         900           Polymell         900         900           Polymell         900	*	اعينا	DW-4B	Drywell	006	006	100.0%	0.95	11.50	x 7.50	x 5.0	173	Roof
87,861 7,333 8.35%   1.00   DW-4D   Drywell   900			DW-4C	Drywell	906	006	100.0%	0.95	11.50	x 7.50	x 5.0	173	Roof
TOTAL ESDV REQ'D = 684   TOTAL ESDV PROVIDED = 690   DW-5A   Drywell   900   DW-5B   Drywell   900   DW-5D   Drywell   900   DW-5D   Drywell   900   TOTAL ESDV REQ'D = 664   TOTAL ESDV PROVIDED = 672		8.	DW-4D	Drywell	006	006	100.0%	0.95	11.50	x 7.50	x 5.0	173	Roof
TOTAL ESDV REQ'D = 684										Ţ	TOTAL	069	
87,853 7,135 8.12% 1.00 DW-5D Drywell 900  TOTAL ESDY FROYIDE.D = 690  DW-5A Drywell 900  DW-5C Drywell 900  TOTAL ESDY REQ'D = 664  TOTAL ESDY PROVIDED = 672			TOTA	AL ESDV REQ'D =	684	Cubic Feet			277720				
87,853 7,135 8.12% 1.00 DW-5B Drywell 900 DW-5C Drywell 900 DW-5C Drywell 900 DW-5C Drywell 900 TOTAL ESDV REQ'D = 664 TOTAL ESDV PROVIDED = 672			TOTALE	TO LUCKINGS	020	Cubic reet	NULL ESD VOL. PROVIDED	L. FRO	/IDED				
87,853         7,135         8.12%         1.00         DW-5D         Drywell         900           TOTAL ESDV REQ'D = 664           TOTAL ESDV PROVIDED = 672			DW-5A	Drywell	006	006	100.0%	0.95	14.00 x	00'9	× 5.0	168	Roof
87,853         7,135         8.12%         1.00         DW-5C         Drywell         900           TOTAL ESDV REQ'D = 664           TOTAL ESDV PROVIDED = 672		]	DW-5B	Drywell	006	006	100.0%	0.95	14.00	× 6.00	x 5.0	168	Roof
87,853 7,135 8.12% 1.00 DW-5D Dywell 900			DW-5C	Drywell	006	006	100.0%	0.95		x 6.00	x 5.0	168	Roof
TOTAL ESDV REQ'D = 664 TOTAL ESDV PROVIDED = 672		8	DW-5D	Drywell	006	006	100.0%	0.95	14.00	x 6.00	x 5.0	168	Roof
TOTAL ESDV REQ'D = 664 TOTAL ESDV PROVIDED = 672										I	FOTAL	672	
			TOTAL ES	AL ESDV REQ'D = DV PROVIDED =	664	Cubic Feet Cubic Feet	FULL ESD VOL. PROVIDED	L. PRO	/IDED				
Decision 538,006 35,262 6,6%	%9'9				Alexander of the second								



Marc Elrich
County Executive

Diane R. Schwartz Jones
Director

April 24, 2019

Mr. Jeffrey Lewis, P.E. Site Solutions, Inc. 19508 Amaranth Drive, Suite A Germantown, Maryland 20874

Re: COMBINED STORMWATER MANAGEMENT

CONCEPT/SITE DEVELOPMENT

STORMWATER MANAGEMENT PLAN for

Potter Glen

Preliminary Plan #: 120190120

SM File #: 284366

Tract Size/Zone: 13.3 Ac. / RE-2 Total Concept Area: 13.3 Ac. Lots/Block: 5 Lots Proposed

Parcel(s): P190

Watershed: Muddy Branch

Dear Mr. Lewis:

Based on a review by the Department of Permitting Services Review Staff, the stormwater management concept for the above-mentioned site is **acceptable**. The stormwater management concept proposes to meet required stormwater management goals via 4 drywells for each proposed lot.

The following items will need to be addressed during the detailed sediment control/stormwater management plan stage:

- 1. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
- An engineered sediment control plan must be submitted for this development.
- 3. All filtration media for manufactured best management practices, whether for new development or redevelopment, must consist of MDE approved material.

This list may not be all-inclusive and may change based on available information at the time.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.



If you have any questions regarding these actions, please feel free to contact Mike Geier at 240-777-6342.

Sincerely,

Mark C. Etheridge, Manager Water Resources Section

**Division of Land Development Services** 

MCE: CN284366 Potter Glen.mjg

CC:

N. Braunstein SM File # 284366

ESD: Required/Provided 3,350 cf / 3,374 cf

PE: Target/Achieved: 1.0"/1.0" STRUCTURAL: 0 cf

WAIVED: 0 ac.

To: Lead Reviewer, Development Application and Regulatory Coordination Division (DARC)

Phillip Estes Montgomery County Planning Department - Zoning Amendments,
Jonathan Casey Montgomery County Planning Department - Senior Planner | Area 3,
Rich Weaver Montgomery County Planning Department - Area 3 Chief,
Development Application and Regulatory Coordination Division (DARC)
M-NCPPC, 8787 Georgia Avenue
Silver Spring, Maryland 20910-3760

Craig Kazanjian Kaz Brothers, Developer

Copies to: County Executive Marc Elrich and Councilmember Andrew Friedson

December 30, 2018

Case Number: 120190120/ Potter Glen/ Preliminary

As the owners of 13111 Moran Court and 13112 Moran Court, North Potomac MD 20878 which accounts for 100% of the residents of Moran Court we are responding to the proposed development of Potter Glen (# 120190120). Moran Court is situated in the middle of the proposed development.

We are in agreement that Moran Court should be improved and maintained by the county with full 60 feet of public right of way as it was dedicated to public use by Richard P. Moran and Susan Moran on October 19, 1959. (see attached). As Glen Road and Query Mill Road are rustic roads we would like for Moran Court to blend into the surrounding environment.

Unfortunately, the proposed development plan that was sent to us does not reflect the Moran Court development accurately as it displaces all utilities, which includes electric, Verizon FIOS underground service and more.

The proposed development shows that the road as it is today will disappear and that there is no plan for replacement or improvement of Moran Court by the developer or the county.

Additionally, the current plan shows that the cul-de-sac shows an opening through our properties to our neighbor, where as we have not authorized building on our private property.

We want to maintain access to our houses with full public of right away and to keep our current addresses of 13111 Moran Court and 13112 Moran Court.

For over 25 years we have maintained access to our houses on a gravel road with 30 feet of grass on each side of the road. We have installed gardens and Moran Court house address signs extending 30 feet to each side of the road at the intersection with

Query Mill Road. We have spent approximately \$5000 each year to supply materials, equipment and labor for the gravel road including pot hole repair, gravel, plowing snow, mowing adjacent grass areas and cutting back brush on 30 feet to each side of the road.

After our recent conversations with Montgomery County, including Department of Transportation, we were advised the developer must submit an Architectural plan which is approved by both owners, and build the Moran Court with asphalt coat following Montgomery County DOT Requirements and then turn over the road to DOT. A bond must be placed until this is completed. DOT will take over the road and manage going forward including snow removal.

Continuing to maintain a road with anticipated added expenses and obstacles would create hardship for us financially and physically. The road being in the middle of the Potter Glen development it could conceivably be used as side entrances by the adjacent Potter Glen houses for transporting brush and equipment and parking cars.

Owners of 13111 Moran Court

Leroy Miller

Dr. Leroy L Miller

Date: 12/30/2018

Gertrud I Classen-Miller

Gertrud I. Classen-Miller

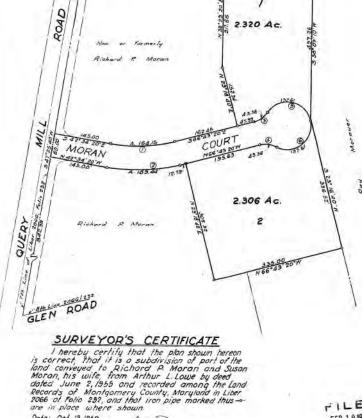
Date: 12/30/2018

Owner of 13112 Moran Court

Mandeep Singh

Mandeep Singh

Date: 12/30/2018



P. D. In welder R. K. MADDOX, COUNTY SURVEYOR REGISTERED LAND SURVEYOR MD. \$520

PLAT No 5815

#### OWNERS' DEDICATION

We, Richard P. Moron and Susan Moron, his wife, owners of the property shown and described hereon hereby adopt this plan of subdivision, establish the minimum building restriction lines, and dedicate the street to, public use.

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LASSENT Date Dairy, 1959 SUSAN D MISEAN, HIS MISE

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VINCENT A. SHEEN, MORTGAGED

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3				3 07° 25' 37'E		
4				N 46'01' 03'N	42.43	225
3	60.00	/37.61	131"24"34"	5 42*25' 37'E	109.37	1323
6	60.00	/37.6/	131 26 34	388'58'57'W	109.37	132.9

FILED

FEB 1 0 1960

LOTS /&2

## POLO CLUB ESTATES

DARNESTOWN DISTRICT MONTGOMERY COUNTY, MARYLAND.

Scale 1'= 100'

October 1959

R.K. Maddax County Surveyor Rockville, Maryland

Area Street Dedication is 44,611sq.ft. MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION MONTGOMERY COUNTY PLANNING BOARD.

ADAROVED: November 12, 1959 Jes talloles

Dote: Oct 13, 1959

M-N.C. P. &R.C. RECORD FILE NO. 173-2

Doc ID: 67876517175all611az33d367b9ec70abc514293



TITLE Final - Moran Court Letter

FILE NAME 12-30-18 h Moran ...eliminary (1) pdf

**DOCUMENT ID** d7875517175aff011023dd36709ec70bbc5f4293

STATUS © Completed

## Document History

SENT	<b>12/30/2018</b> 16:06:30 UTC-5	Sent for signature to Dr. Leroy L. Miller (Imiller6@gmail.com), Gertrud I. Classen-Miller (gicmiller@gmail.com) and Mandeep Singh (mandeep.singh@a2-g.com) from leroy@classen-miller.com IP: 67.78.170.26
VIEWED	<b>12/30/2018</b> 16:06:44 UTC-5	Viewed by Dr. Leroy L. Miller (Imiller6@gmail.com) IP: 67.78.170.26
SIGNED	<b>12/30/2018</b> 16:07:03 UTC-5	Signed by Dr. Leroy L. Miller (Imiller6@gmail.com) IP: 67.78.170.26
<b>⊙</b> VIEWED	<b>12/30/2018</b> 16:07:43 UTC-5	Viewed by Gertrud I. Classen-Miller (gicmiller@gmail.com) IP: 67.78.170.26
\$IGNED	<b>12/30/2018</b> 16:08:58 UTC-5	Signed by Gertrud I. Classen-Miller (gicmiller@gmail.com) IP: 67.78.170.26
© VIEWED	<b>12/30/2018</b> 16:33:18 UTC-5	Viewed by Mandeep Singh (mandeep.singh@a2-g.com) IP: 71.255.235.221



TITLE Final - Moran Court Letter

FILE NAME 12-30-18 h Moran ... eliminary (1) pdf

DOCUMENT ID d7875517175aff011023dd36709ec70bbc5f4293

STATUS Completed

### Document History

12/30/2018 Signed by Mandeep Singh (mandeep.singh@a2-g.com)

signed 16:34:34 UTC-5 IP: 71,255,235,221

(7) 12/30/2018 The document has been completed.

COMPLETED 16:34:34 UTC-5

THE LAW OFFICE OF

ANTHONY G. GORSKI LLC

ATTORNEY & COUNSELOR AT LAW

2661 RIVA ROAD
BUILDING 300, 1<sup>ST</sup> FLOOR
ANNAPOLIS, MARYLAND 21401
(443) 837-3504 - TELEPHONE
(410) 267-5901 - FACSIMILE
AGG@AGGORSKI.COM

April 12, 2019

Via email <u>craig@kazbrothers.com</u> & Certified Mail, Postage Prepaid, Return Receipt Requested

Craig C. Kazanjian Kaz Brothers, L.C. Terrier Glen, LLC 14660 Rothgeb Drive, Suite 201 Rockville, MD 20850

Re: Potter Glen/Moran Court

Dear Mr. Kazanjian:

Montgomery County

APR 1 J 2019

Anning Department

This law firm represents Leroy Miller and Irmgard Classen-Miller in regards to issues presented by the pending Potter Glen subdivision. I have reviewed the email correspondence and spoken with my clients on the matter. The focus at this point is the unknown impacts the subdivision will have on Moran Court, which provides the sole means of ingress and egress to their residence at 13111 Moran Court. Their residence was constructed in or before 1965. All information I have seen indicates that Moran Court has existed in its current location since that time. Since purchasing the property in 1993, the Millers have invested substantial time and money in the upkeep and improvements to Moran Court and the adjacent land areas, including portions of the proposed Lot 5 along the southern and western boundaries. These facts provide them certain usage, possessory and, potentially, ownership rights to Moran Court in its current location and those portions of the proposed Lot 5.

I think it is fair to say that Mr. & Mrs. Miller have been patient and amicable in raising their questions and pointing out their concerns. I know that they would prefer to have that demeanor continue. They asked that I contact you now because the subdivision appears to be moving along through the County review process, with a potential Planning Board hearing in June, but definitive plans for Moran Court are still lacking. The most recent subdivision drawings submitted to Montgomery County, dated April 4, 2019, provide proposed locations for paved driveways on the lots but not for a relocated Moran Court, even though the plans clearly indicate partial removal.

I understand that you plan to send a proposal to Mr. Miller regarding relocating Moran Court. The connection to Query Mill Road raises particular concerns. As you know, there is a

Craig C. Kazanjian April 12, 2019 Page 2

utility pole located almost at the center line of the area actually dedicated for Moran Court. While it appears Moran Court can be relocated without moving the utility pole, it may not result in a perpendicular approach to enter onto Query Mill Road. Please be sure to take into consideration that the angle of approach may make it difficult to see approaching vehicles traveling on Query Mill Road. Also, please confirm, as part of that proposal, that you will pave the relocated Moran Court as you have indicated to Mr. & Mrs. Miller.

The remaining concerns have to do with upcoming construction activity. Moran Court currently is a gravel drive, not constructed to withstand heavy equipment. During recent site work, vehicles and equipment entered the subdivision property via Moran Court and traversed it when traveling from one area of the property to another. The ruts created by these activities make it impossible to mow the sides of Moran Court, a necessary task to control the weeds and vegetative growth along the road as well as to maintain the entrance to their home as they have worked so hard to do over the years. The Millers need to have some understanding as to the extent of this activity, its impact on their use, as well as a commitment that they will not face any time periods where the conditions caused by construction activity make Moran Court impassable by ordinary vehicles. Likewise, emergency vehicles must always be able to reach both residences on Moran Court. Fire equipment, in particular, is not able to cross extensive ruts or uneven surfaces because of its low ground clearance.

My clients have not lodged opposition to the Potter Glen subdivision, and that is not their intention. However, as you are well aware, their ability to informally exert influence on your plans for Moran Court and obtain a binding commitment on these matters is at its peak during the subdivision review and approval process. Once completed, there is no informal way to address these problems. In fact, if completed without a satisfactory resolution to the changes and other issues associated with Moran Court, their only option to protect their interests will be to assert their above-referenced usage, possessory and potential ownership rights in court - an expensive and lengthy process that should be unnecessary. Please let me know when we can expect to see definitive plans for the Moran Court relocation and also provide a copy to my office. I look forward to amicably putting these issues to rest for my clients in the very near future.

Sincerely,

Anthony G. Gorski

cc: Irmgard Classen-Miller

Leroy Miller

Gwen Wright, Planning Director (Montgomery County Planning Department)

Jonathan Casey, Senior Planner, Area 3 (Montgomery County Planning Department)

Rich Weaver, Area 3 Chief (Montgomery County Planning Department)



Mark Elrich
County Executive

Al R. Roshdieh Director

June 7, 2019

Mr. Jonathan Casey, Senior Planner Area 3 Planning Division The Maryland-National Capital Park & Planning Commission 8787 Georgia Avenue Silver Spring, Maryland 20910-3760

RE: **REVISED** 

Preliminary Plan No. 120190120

Potter Glen

Dear Mr. Casey:

We have completed our review of the revised preliminary plan uploaded to eplans on June 4, 2019. A previous version of this plan was reviewed by the Development Review Committee (DRC) at its meeting on January 22, 2019. We recommend approval of the plan subject to the following comments:

All Planning Board Opinions relating to this plan or any subsequent revision, project plans or site plans should be submitted to the Montgomery County Department of Permitting Services in the package for record plats, storm drain, grading or paving plans, or application for access permit. This letter and all other correspondence from this department should be included in the package.

#### Significant Plan Review Comments

1. The storm drain report was reviewed and deemed acceptable by MCDOT. The existing 18" CMP under Glen Road, approximately 100' east of the intersection with Query Mill Road, is undersized. Since the existing pipe is undersized in both existing and developed conditions and the proposed development only increases the discharge from 10.4 cfs to 10.6 cfs, we will not require the applicant to replace the pipe. However, the applicant may need to provide on-site stormwater management quantity controls to reduce the discharge to existing conditions. The Department of Permitting Services (DPS) will evaluate this issue at the permit stage.

Mr. Jonathan Casey Preliminary Plan No. 120190120 June 7, 2019 Page 2

- 2. The Applicant must provide the following dedications and show them on the record plat(s) for the following existing roads:
  - A. All land necessary to accommodate 35 feet of right-to-way from the centerline along the Subject Property for Query Mill Road, as shown on the Certified Preliminary Plan.
  - B. All land necessary to accommodate 35 feet of right-to-way from the centerline along the Subject Property for Glen Road, as shown on the Certified Preliminary Plan.
- 3. The applicant must provide an ingress, egress easement to benefit Lots 1 and 2 (Polo Club Estates Record Plat 5815) over the portion of the existing gravel driveway located on proposed Lot 4, unless the Applicant relocates the aforementioned section of driveway into the existing Moran Court right-of-way. The record plat must reflect this easement if the existing driveway is not relocated.

#### Standard Plan Review Comments

- 4. Grant necessary slope and drainage easements. Slope easements are to be determined by study or set at the building restriction line.
- 5. Well and septic systems cannot be located in the right-of-way or the slope and drainage easements.
- 6. No PUE is required on any Rustic Road, unless required by MNCPPC as part of DRC and removal of Rustic Road designation.
- 7. Prior to approval of the record plat by DPS, submit a completed, executed and sealed MCDOT Sight Distances Evaluation certification form for the proposed driveways for DPS review and approval. Since access will be from roadways included on the Rustic Roads Program, stake and pavement mark the proposed driveway locations for DPS evaluation of the impact on the Rustic Road features.
- 8. Permit and bond will be required as a prerequisite to DPS approval of the record plat. The permit may include, but not necessarily be limited to the following improvements:
  - A. Permanent monuments and property line markers, as required by Section 50-24(e) of the Subdivision Regulations.
  - B. Erosion and sediment control measures as required by Section 50-35(j) and onsite stormwater management where applicable shall be provided by the Developer (at no cost to the County) at such locations deemed necessary by the Department of Permitting Services (DPS) and will comply with their

Mr. Jonathan Casey Preliminary Plan No. 120190120 June 7, 2019 Page 3

specifications. Erosion and sediment control measures are to be built prior to construction of streets, houses and/or site grading and are to remain in operation (including maintenance) as long as deemed necessary by the DPS.

Thank you for the opportunity to review this preliminary plan. If you have any questions or comments regarding this letter, please contact the area Engineer, Mr. William Whelan at william.whelan@montgomerycountymd.gov or (240) 777-2173.

Sincerely,

Rebecca Torma

Rebecca Torma, Manager Development Review Team Office of Transportation Policy

Sharepoint/DOT/Development Review/WhelanW/120190120 Potter Glen - REVISED MCDOT Review Letter 060719.docx

cc: FY19 letters notebook

cc-e: Craig Kazanjian Terrier Glen, LLC

Donald Rohrbaugh

Jeff Lewis

Site Solutions, Inc.

MCDBC MCBC

Mark Etheridge MCDPS WRS Atiq Panjshiri MCDPS RWPR Sam Farhadi MCDPS RWPR

Marie LaBaw MCFRS

Vince Subramaniam MCDOT DTEO