

August 30, 2023

Anne Arundel County Office of Planning and Zoning 2664 Riva Road, 3<sup>rd</sup> Floor Annapolis, MD 21401

RE: Variance Request Article 17, Section 8-301(b) Buffer Disturbance CEDAR DRIVE ~ PARCEL 78

844 Cedar Drive
Deale, Maryland 20751
Tax Account #07-000-90021624

#### Dear Sir/Madam:

On behalf of the applicant/owners Mr. Otto Seidel, Jr. and Mr. Troy Edward Vaughn, please find the enclosed proposed development Variance Plan dated August 1, 2023. The applicant/owner is seeking a variance to **Article 17**, **Section 8-301(b)** related to **COMAR**, **Title 27** to allow disturbance in the expanded buffer due to hydric soils to raze the existing single-family dwelling and construct a new existing single-family dwelling, porch, and patio.

The subject property is located off Cedar Drive in Deale, Maryland. The property is irregular in shape, legal building parcel consisting of approximately 2.34 acres in area and is currently improved with a single-family dwelling which is proposed to be razed and removed. The majority of the property is zoned R-5 with a minimal area of R-2 abutting along the north property line, and the site has a split Chesapeake Bay Critical Area land use designation of LDA & RCA. The entirety of the existing dwellings footprint is within the 300' expanded buffer. The existing dwelling is located 257.4 feet from the shoreline. The site is currently served by a private water well and public sewer. There are several hardships and practical difficulties regarding the redevelopment of the subject property. Just under half of the site is within the 300' expanded buffer which extends to the east past the footprint of the existing dwelling and encumbers 48,082 sq. ft. or 47% of the total lot area. The site area located outside of the expanded buffer is encumbered with woods in good condition, development within this area would adversely affect native flora and fauna.

The homeowners propose to construct a new single-family dwelling, wrap around porch, attached garage, patio, walk, and associated improvements. The new dwelling is sited partially overtop the footprint of the previous structure with a portion of the proposed dwelling to remain within the 300' expanded buffer. The site will continue to be served by a private water well & public sewer. Due to the expanded buffer and presence of healthy woodland on site, development isn't possible without disturbing the expanded buffer or forested areas. While disturbance to the expanded buffer is impossible to avoid, the disturbance to the canopy on site is minimized by locating the proposed dwelling partially overtop of the existing dwellings footprint.

A pre-filing review was conducted by the Office of Planning and Zoning and comments were issued on April 14, 2023, by Ms. Hala Flores of Inspections and Permits, the Office of Planning and Zoning, and the Critical Area team had four recommendations. The applicant and their design professionals considered the pre-file comments and worked with their project design team to provide a slightly modified design which minimizes the permanent disturbance including reconfiguration of the driveway to further reduce developed woodland clearing. A copy of the pre-file comments is included with this submittal.

The proposed dwelling has been sited partially overtop of the existing dwellings footprint to minimize the disturbance to the buffer, utilize the existing cleared area and avopid the contiguous wooded area on the eastern portion of the site. The site currently has 2,940 s.f. (0.07 Ac.) of impervious coverage, all of which is within the 300' expanded buffer. Under proposed conditions, the buffer lot coverage will be reduced overall by 398 square feet. The proposed improvements have been sited such the existing driveway's impervious surface is removed from the buffer and the new driveway, garage, stormwater management and the parking pad are located entirely outside the buffer and developed woodland clearing is minimized. A contiguous forest conservation easement totaling 1.27 acres is proposed to preserve the remaining 82% of the sites developed woodland.

Under existing conditions, stormwater runoff from the site sheet flows into an existing drainage swale abutting the southern property line and ultimately drains to Parker Creek. The proposed redevelopment addresses Environmental Site Design to the Maximum Extent Practicable via partial Disconnection of Rooftop Runoff and a Submerged Gravel Wetland sited ten feet off the southern property line. Stormwater management computations and narrative are included on the Concept Plans with this variance submittal.

This variance request represents the minimum buffer disturbance necessary to construct the improvements and reduces lot coverage in the expanded buffer. A buffer management plan will be provided for on-site mitigation plantings in accordance with code requirements. The implementation of onsite stormwater management, sediment and erosion controls, mitigation plantings and a forest conservation easement will not adversely affect water quality, impact fish, wildlife or plant habitat and be in harmony with the critical area program. We believe that this request meets all the requirements for a Critical Area variance:

#### Code Article 18-16-305

#### (b) Requirements for Critical Area Variances.

(1) Unwarranted Hardship. The applicants propose to demolish an unsafe, structurally failing house, remove an existing driveway/apron and built a new home slightly further from the shoreline at approximately 261.00-feet. Unique physical conditions that generate an unwarranted hardship include the location of hydric soils that expand the initial 100-foot buffer to 300-feet, the existing dwelling and clearing being located in the expanded buffer, a large area of contiguous woodland canopy covering approximately 66% of the total site area and covering 99% of the RCA designation of the critical area portion of the site.

- (2) Rights commonly enjoyed the proposed improvements are in character with other dwellings in the neighborhood and surrounding properties. A waterside porch and patio are features commonly found throughout the neighboring properties. To deny the applicants the ability to develop a waterfront house on a property over 2 acres in size where the existing improvements are entirely located within the 300-ft expanded buffer deprives applicants of rights commonly enjoyed by other property owners in the area. There are (3) existing homes in the immediate neighborhood within 300-feet of the subject site that are either equivalent in size or larger and closer to the shoreline. The home at 5992 Deale Beach Road is closer to the shoreline, equivalent in size and has a larger detached garage. The home at 6000 Parker Drive is larger than the proposed home, closer to the shoreline and on a smaller property. The home at 830 Cedar Drive is equivalent in size, on a smaller lot and only 70-feet +/- away from the shoreline.
- (3) Will not confer special privilege granting this variance would not confer a special privilege to the applicants. Nearby properties enjoy improvements larger in scale much closer to the shoreline than what is proposed for this project. The applicant has made extensive efforts to lay this proposed project out in a responsible manner that places portions of the proposed improvements over top of existing permanent buffer disturbance, removes the driveway from the buffer, places the proposed dwelling no closer to the shoreline than the existing dwelling façade, and reduces the ultimate lot coverage in the buffer.
- (4) Actions by Applicants and Neighbors- The variance is not based on conditions or circumstances that are the result of actions by the applicants or conditions or use on neighboring properties- conditions and circumstances are based on the very small presence of hydric soils located in the northwest portion of the site along the waterfront and the location of the existing improvements within the 300-ft expanded buffer.
- (5) Water Quality, Intent of the Critical Area Program. The requested variances will not adversely affect water quality, impact fish, wildlife or plant habitat and be in harmony with the critical area program. Disturbance is minimized to only what is necessary to complete the project. The majority of the buffer disturbance is only temporary and in harmony with the general spirit and intent of the County's Critical Area Program by removing existing driveway impervious coverage from the buffer, siting the proposed dwelling in a location which minimizes clearing of the existing woodland and provides conservation of a significant amount of remaining developed woodland. Mitigation will occur in accordance with county regulations at a 3:1 ratio for buffer disturbance and will be addressed during the permitting process via a Buffer Management Plan. Sediment and erosion controls including a stabilized construction entrance and reinforced silt fence will be utilized to ensure that construction and grading will not adversely affect the surrounding environmental features located within the Critical Area. The proposed project will provide the site with stormwater management where none currently exists. These precautions will ensure that water quality, fish, wildlife, and plant habitat will not be adversely affected.
- (6) Presumption Sec 8-1808(d)(2)(ii) The applicants have overcome the presumption that the use for which the variances were requested were not in conformity with the purpose and intent of the Critical Area Program. The distance between the proposed improvements and the area of hydric soils and the shoreline is maintained such that the improvements are no closer than what already exists. There are no bogs present on the subject property.

## (c) Requirements for all variances.

- 1. Minimum necessary to afford relief The proposed variances allow for modest uses that not only meets the "significant and reasonable standard" but also are the minimal necessary development to afford relief. Disturbance to the buffer is the minimum necessary to construct the proposed improvements and to greatly reduce the impervious surface area within the buffer by relocating the driveway.
- 2. The granting of the variance will not:
  - i. alter the essential character of the neighborhood, and all proposed development will be harmonious with the architectural styles and scale of the surrounding area.
  - ii. substantially impair the appropriate use or development of adjacent properties.
  - iii. reduce forest cover in the RCA. Vegetative clearing is reduced to the minimum necessary to construct the proposed improvements and will be mitigated appropriately during the permit process with a buffer management plan.
  - iv. be contrary to acceptable clearing or replanting practices required for development of the Critical Area or Bog Protection Area. Clearing is minimal and only for what is necessary for construction and access, and the property is not located within a Bog Protection Area.
  - v. be detrimental to the public welfare as constructing a single-family dwelling and associated improvements on a residentially zoned property will not impose harm to adjacent property owners or the public.

Denial of the requested variances and a strict implementation of the County's Zoning and Critical Area Program would constitute an unwarranted hardship on the applicant and deprive them of the same rights and privileges others enjoy in the neighborhood and deny reasonable and significant use of the entire property. The proposed home is sited slightly further away from the shoreline than the existing dwelling. Conservation and stormwater management will be provided on-site to the maximum extent practicable.

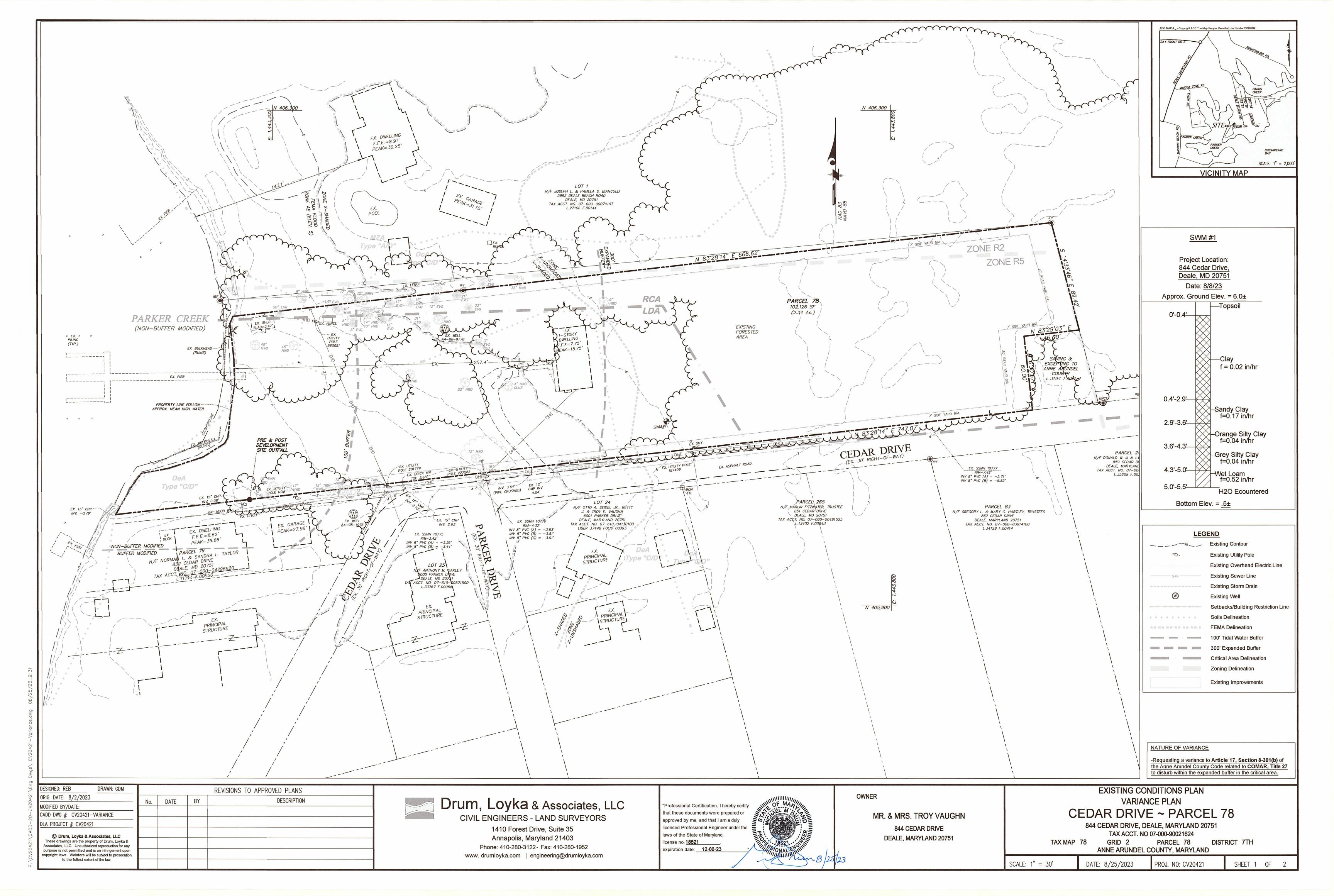
We appreciate your consideration of the enclosed variance request and we remain available to answer any questions you may have.

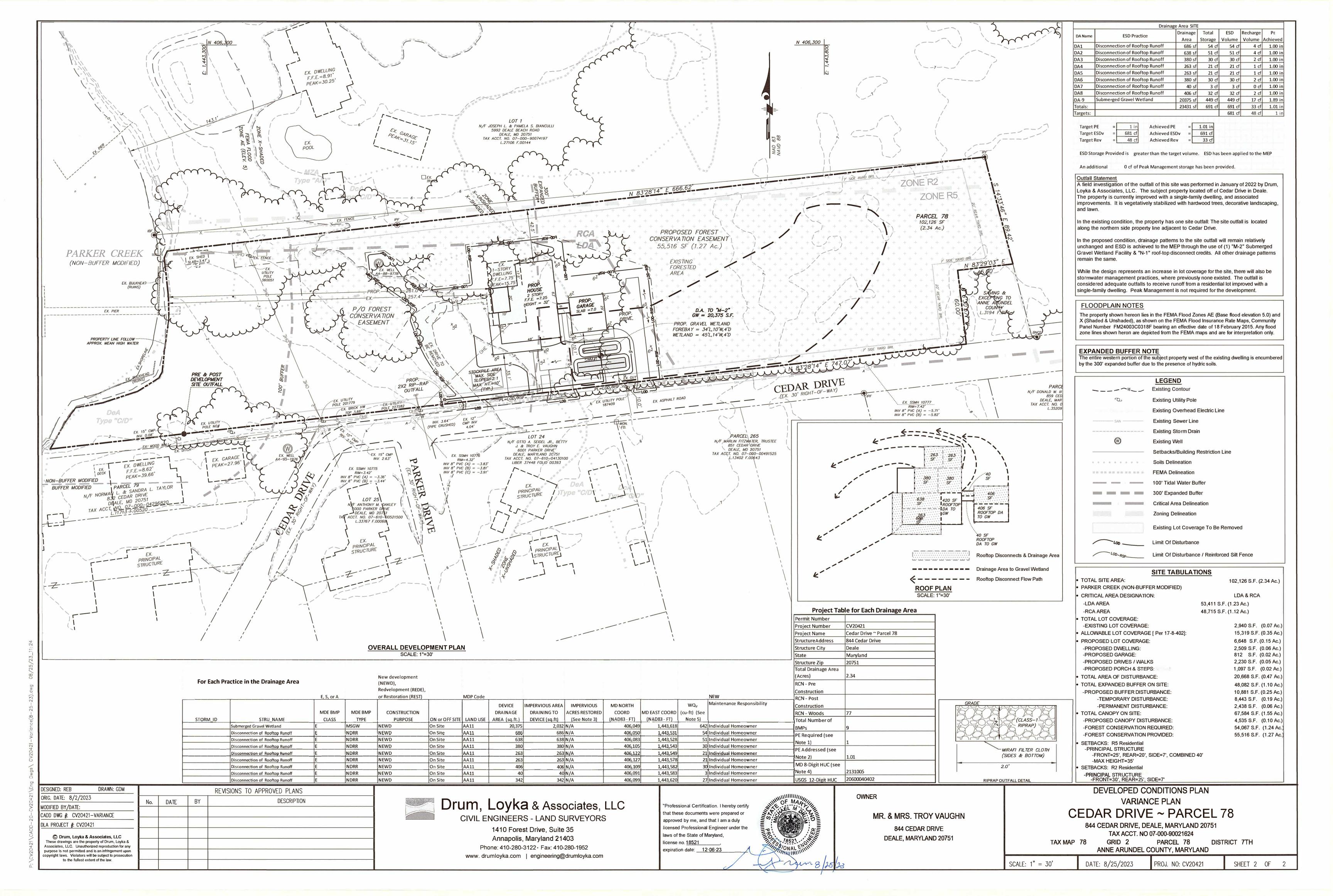
Sincerely,

DRUM, LOYKA AND ASSOCIATES, LLC

Robert Baxter Project Manager

Cc: Troy Edward Vaughn





# CRITICAL AREA COMMISSION FOR THE CHESAPEAKE AND ATLANTIC COASTAL BAYS 1804 WEST STREET, SUITE 100 ANNAPOLIS, MD 21401

# PROJECT NOTIFICATION APPLICATION

# GENERAL PROJECT INFORMATION

Jurisdiction:	Anne Arunde	el County			Da	te August 28, 2023
T. M. #	D1 #	Block #	Lot #	Section	7	FOR RESUBMITTAL ONLY
Tax Map#	Parcel #		Lot #	Section	$\dashv$	Corrections
78	78	0002	-		$\Box$	Redesign
					H	No Change
					Ц	Non-Critical Area
			VIII V			* Complete only Page 1
Tax ID	07-000-9	0021624			Š	General Project Information
Project Nam	ne (site name	, subdivision	name, or ot	her) Cedar D	Prive – Parcel	78
Project loca	tion/Address	844 Ceda	r Drive			
0''	D. 1. M	emiland			Zip 207	751
City	Deale, M	aryiand			Zip 207	J1
Local case r	number		11178	1/55		
Amulicont	Last name	Vaughn			First name	Betty Jane and Troy Edward
Applicant:	Last Hailie	vaugiiii			1 HSt Hame	Delty Julie and 110y Edward
Company		n/a				
Application	Type (check	all that app	ly):			
Building Peri	mit		Va	riance	X	
	gement Plan			zoning		
Conditional U	_			e Plan		
Consistency				ecial Exception		
	> 5,000 sq ft	X		bdivision		
Grading Pern		X		her	500	
Jiading 1 om		71				
Local Jurisd	liction Conta	act Informat	ion:			
Last name:			First nan	ne		
Phone #			Response	e from Commis	sion Require	d By
?n== #			Lagring	date		
Fax #			ricaring	uale		

#### SPECIFIC PROJECT INFORMATION

Describe Proposed use of project site:

To raze existing	g single-family dwelling and reconstruct a single-family dwelling and associated	
improvements		

Yes Yes

Intra-Family Transfer Growth Allocation
Grandfathered Lot X Buffer Exemption Area

Project Type (check all that apply)

Commercial Recreational Redevelopment X Industrial Residential X Institutional Shore Erosion Control Mixed Use Water-Dependent Facility

# **SITE INVENTORY (Enter acres or square feet)**

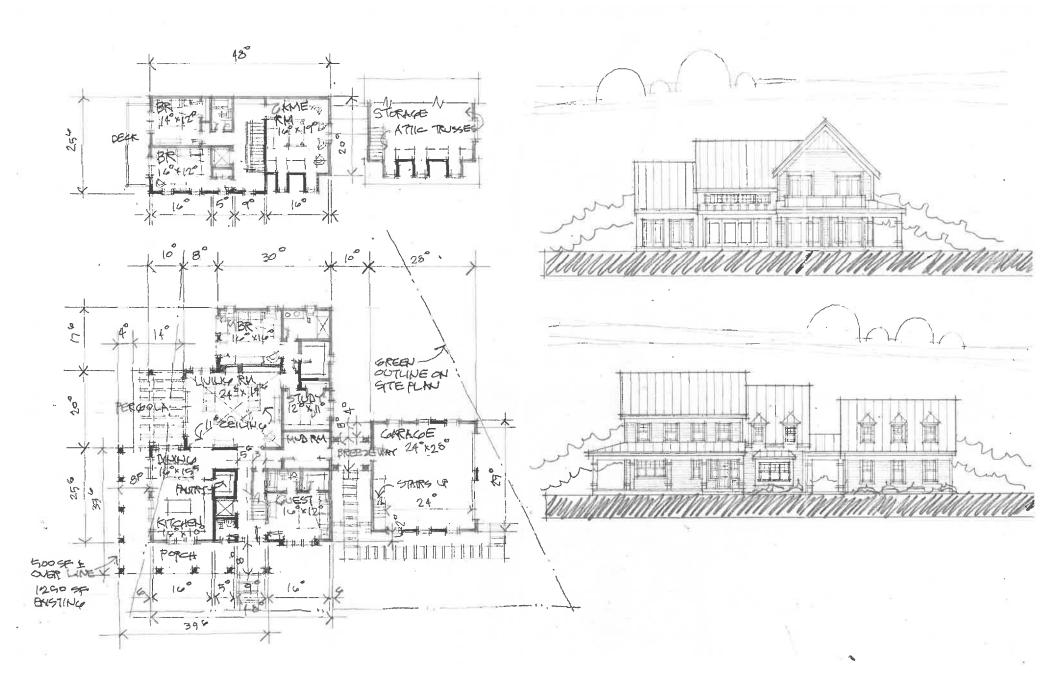
				Acres Sq Ft
	Acres	Sq Ft	Total Disturbed Area	0.47
IDA Area	0.00			
LDA Area	1.23		# of Lots Created	n/a
RCA Area	1.12			
Total Disturbed Area	0.47			

	Acres	Sq Ft		Acres	Sq Ft
Existing Forest/Woodland/Trees	1.55		Existing Lot Coverage	0.07	
Created Forest/Woodland/Trees	TBD		New Lot Coverage	0.11	
Removed Forest/Woodland/Trees	0.10		Removed Lot Coverage	0.03	
			Total Lot Coverage	0.15	

# VARIANCE INFORMATION (Check all that apply)

	Acres	Sq Ft		Acres	Sq Ft
Buffer Disturbance	0.25		Buffer Forest Clearing	0.03	
Non-Buffer Disturbance	0.22		Mitigation	TBD	

Variance Type		Structure		
Buffer		Acc. Structure Addition		
Forest Clearing		Barn		
HPA Impact		Deck		
Impervious Surface		Dwelling	X	
Expanded Buffer	X	Dwelling Addition		
Nontidal Wetlands		Garage		
Steep Slopes		Gazebo		
Setback		Patio		
Other		Pool		
	·	 Shed		
		Other		





#### OFFICE OF PLANNING AND ZONING

#### **CONFIRMATION OF PRE-FILE MEETING**

	DATE OF MEETING4/14/2023 (via email)
	P&Z STAFFDonnie D./Hala F./Kelly K
APPLICANT/REPRESENTATIVERene VaughnEMAIL_	tvkids@verizon.net
SITE LOCATION844 Cedar Drive Deale	LOT SIZE2.34 AC_ ZONINGR5
CA DESIGNATIONLDA/RCABMAor_bufferX	APPLICATION TYPEVariance
Site is currently improved with a single family dwelling. Applic	the state of the s

Site is currently improved with a single family dwelling. Applicant proposes to raze the existing dwelling and construct a new SFD with associated facilities. Due to hydric soils the buffer is expanded. The proposed development will disturb this expanded buffer and requires a variance to this provision. This property was the subject of a prior variance application for a demo rebuild requiring buffer disturbance in case 2017-0264-V. That case was denied as it was determined that the property provided opportunity for development outside of the expanded buffer and that it was not the minimum necessary for relief.

#### **COMMENTS**

From Zoning: The site plan does not contain a LOD (limit of disturbance) nor does it have the square footage of buffer disturbance. Both of these will need to be addressed and explained with the variance submittal. Based on the previous variance denial in case 2017-0264-V, this Office is unlikely to support this request as it appears there is room on the lot for redevelopment outside of the expanded buffer. Furthermore, the proposed dwelling is substantially larger than the dwelling to be removed and does not represent the minimum necessary. The applicant should explore site planning alternatives to both reduce the size of the proposed dwelling and relocate it outside of the expanded buffer. Finally, the site plan does not address the amount of proposed lot coverage with the redevelopment which is required information for a variance submittal.

**From Critical Area Team:** Greater effort must be made to utilize the footprint of the existing structure thereby reducing the proposed disturbance within the buffer. The portion of the footprint located outside of the buffer must be reduced to substantially limit the amount of proposed clearing since preservation of the existing forested area is the justification for allowing the new structure to be located within the buffer.

From Inspections and Permits (Engineering Division): Engineering provided comments regarding stormwater management and other site planning requirements. Full comments attached.

#### **INFORMATION FOR THE APPLICANT**

Section 18-16-201 (b) Pre-filing meeting required. Before filing an application for a variance, special exception, or to change a zoning district, to change or remove a critical area classification, or for a variance in the critical area or bog protection area, an applicant shall meet with the Office of Planning and Zoning to review a pre-file concept plan or an administrative site plan. For single lot properties, the owner shall prepare a simple site plan as a basis for determining what can be done under the provisions of this Code to avoid the need for a variance.

\*\*\* A preliminary plan checklist is required for development impacting environmentally sensitive areas and for all new single-family dwellings. A stormwater management plan that satisfies the requirements of the County Procedures Manual is required for development impacting environmentally sensitive areas OR disturbing 5,000 square feet or more. State mandates require a developer of land provide SWM to control new development runoff from the start of the development process.

Section 18-16-301 (c) Burden of Proof. The applicant has the burden of proof, including the burden of going forward with the production of evidence and the burden of persuasion, on all questions of fact. The burden of persuasion is by a preponderance of the evidence.

A variance to the requirements of the County's Critical Area Program may only be granted if the Administrative Hearing Officer makes affirmative findings that the applicant has addressed all the requirements outlined in Article 18-16-305. Comments made on this form are intended to provide guidance and are not intended to represent support or approval of the variance request.



Mark Wedemeyer, Director

#### Memorandum

To: Planner, Office of Planning and Zoning

From: Hala Flores, P.E., Engineer Manager, Department of Inspections and Permits

Date: March 24, 2024

**Subject:** 844 Cedar Drive

Pre-file Request

Variance Request – Allow relief from disturbance to expanded buffer due to hydric soils

**Review** - This office has reviewed the pre-file request for the subject property. The following comments must be addressed with the variance request for I&P Engineering to have a "no objection" determination:

- 1- The driveway may not be located within 50 ft of intersections of Parker Drive and Cedar Drive: Please show stopping sight distance computations and vehicle templates that demonstrate that vehicles turning left on greenway road will have sufficient stopping sight distance so as not to collide with a vehicle backing off the proposed driveway.
- 2- The limit of disturbance was not provided. If the LOD is less than 5000 SF and since this is not a "new" house, stormwater may be met with plantings. Otherwise, a conceptual SWM report is required before a favorable determination from I&P Engineering can be given for the variance request.
- 3- Due to the hydric soils, considerations for natural area conservation, rooftop and non-rooftop disconnection, and new impervious minimization should be made. Consider the use of rain handlers in lieu of conventional gutters with downspouts. Reliance on SWM micro-practices may not be feasible due to the hydric soils and is not permitted within the critical area expanded buffer.
- 4- Setback requirements: The submitted plan must show clearly with dimensions the setback provided from the proposed Stormwater facilities to the proposed house, the adjacent property lines, wells, SHC, etc.

# **Chesapeake Bay Critical Area Report**

# Cedar Drive ~ Parcel 78

Tax Map 78, Grid 2, Parcel 78
Tax Account No. 07-000-90021624

Property Address: 844 Cedar Drive

Deale, Maryland 20751

Property Owner & Variance Applicant: Ms. Betty Jane Vaughn

Critical Area Designation: LDA & RCA Zoning: R-5 Lot Area: 2.34 Ac.

# **Site Description**

The subject property is located off Cedar Drive in Deale, Maryland. The property is irregular in shape, legal building parcel consisting of approximately 2.34 acres in area and is currently improved with a single-family dwelling which is proposed to be razed and removed. The property is zoned R-5, and the site has a split Chesapeake Bay Critical Area land use designation of LDA & RCA. The entirety of the existing dwellings footprint is within the 300' expanded buffer. The existing dwelling is located 257.4 feet from the shoreline. The site is currently served by a private water well and public sewer. There are several hardships and practical difficulties regarding the redevelopment of the subject property. Just under half of the site is within the 300' expanded buffer which extends to the east past the footprint of the existing dwelling which encumbers 48,082 sq. ft. or 47% of the total lot area. The site area located outside of the expanded buffer is encumbered with woods in good condition, development within this area would adversely affect native flora and fauna.

# **Description and Purpose of Variance Request**

The homeowners propose to construct a new single-family dwelling, porch, attached garage, side entry deck, walk, and associated improvements. The new dwelling is sited partially overtop the footprint of the previous structure with a portion of the proposed dwelling to remain within the 300' expanded buffer. The site will continue to be served by a private water well & public sewer. A submerged gravel wetland is proposed to the primary treatment on site collecting roof area from half of garage, the southeast portion of the house and sheetflow from the proposed walk and drive. The proposed dwelling is within the size and character of other dwellings in the neighborhood. Due to the expanded buffer and presence of healthy woodland on site, development isn't possible without disturbing the expanded buffers or forested areas. Therefore, the proposed improvements require a variance to Article 17, Section 8-301(b) related to COMAR, Title 27 to disturb within the expanded buffer in the Critical Area. While disturbance to the expanded buffer is impossible to avoid, the disturbance to the canopy on site is minimized by locating the proposed dwelling partially overtop of the existing dwellings footprint.

A pre-filing review was conducted by the Office of Planning and Zoning and comments were issued on April 14, 2023, by Ms. Hala Flores of Planning and Zoning, and the Critical Area team had four recommendations. The comments were considered, and the site plan was revised accordingly. A copy of the pre-file comments is included with this submittal.

# **Vegetative Coverage and Clearing**

The waterway yard is stabilized with various native evergreen & hardwood trees, including American Holly's, Pitch Pines, Sweet Gums & Southern Red Oaks. In addition to the native species there are a handful of ornamental shrubs and trees along with a large portion of dense grass. The undeveloped portion of the site is entirely encumbered with existing woodlands, majority of the species in this area are native including all the previously mentioned species as well as Silver & Red Maples, Cedars & American Chestnut. A high density of invasive Northern Catalpa is present within the area where disturbance to canopy is proposed. Groundcover consisting of Greenbriar, Privett, wineberry, poison ivy & wild rose are present within this undeveloped area as well, all of which is common to the area. This property is vegetatively stabilized with developed woodland, in a variety of stages of life allowing for succession to take place. Preservation of the existing woods on site is of utmost importance preserving various sources of habitat for the native flora and fauna. The existing on-site wooded area totals roughly 67,584 s.f. (1.55 Ac.). Removal of vegetation has been minimized to only that is necessary to construct the proposed improvements, the dwelling has been sited to minimize woodland clearing and disturbance to the expanded buffer. Removal of vegetation onsite for the proposed redevelopment is approximately 4,535 s.f. (0.10 Ac.). While there is disturbance to the existing canopy on site it has been minimized to the maximum extent practical. Additionally, through the redevelopment process a 55,516 square foot forest conservation easement is being proposed. Reforestation requirements for this property will be addressed during the grading permit phase of this project in accordance with code requirements.

#### Lot Coverage

The site currently has 2,940 s.f. (0.07 Ac.) of impervious coverage, all of which is within the 300' expanded buffer. The proposed impervious area for this property is 6,648 s.f. (0.15 Ac.), while this represents an increase of 3,708 s.f. from the existing impervious there is a reduction of 398 s.f. of lot coverage within the expanded buffer. Additionally, the proposed lot coverage amount is well below the allowable 15,319 (0.35) s.f. of lot coverage for this site.

#### **Expanded Buffer**

Approximately 48,082 s.f of the subject property falls within the expanded buffer due to a pocket of hydric soils present on the western side of the lot, nearly half of the property is within the expanded buffer. Disturbance of the expanded buffer was inevitable as a large portion of the site is encumbered by it, including the entirety of the existing dwelling and its associated improvements. The proposed dwelling has been sited partially overtop of the existing dwellings footprint to minimize the disturbance to the buffer to construct the dwelling, associated improvements & stormwater management.

#### **Predominant Soils**

The predominant soil type is Deale-Shadyoak complex, 0 to 2 percent slopes (DcA). This soil has a type "C/D" hydrologic classification and is not a hydric soil (soils characteristic of wetlands).

**Drainage and Rainwater Control** 

Runoff from the site sheetflows across the site into an existing drainage swale abutting the southern property line and ultimately drains to Parker Creek. The proposed redevelopment addresses stormwater management environmental site design to the maximum extent practicable via "N-1" rooftop disconnect credits and (1) "M-2" submerged gravel wetland sited ten feet off the southern property line.

Stormwater management and sediment and erosion control will be further addressed during the permitting phase of the project in order to meet Anne Arundel County design criteria.

### Conclusions - Variance Standards

The applicant proposes to construct a new single-family dwelling, porch, reconfigured drive, side yard deck, walk, and associated improvements. The need for the requested Critical Area Variances arises from the existing unique nature and constraints of this property, specifically the expanded buffer, and location of the existing dwelling in relation to the presence of hydric soils, developed woodlands and the irregular shape of the lot. It is not possible to complete this project without disturbance to the expanded buffer or existing woodlands on site. The proposed improvements are consistent in size and nature with other homes in the area and therefore will not alter the essential character of the neighborhood, impair development of adjacent properties, or be detrimental to the public welfare. To deny the requested variance would deprive the applicant of rights commonly enjoyed by other properties in the immediate area. With the implementation of mitigation, and sediment and erosion control practices, to be addressed during permitting, the proposed development will not cause adverse impacts to fish, wildlife, or water quality in the Critical Area.

#### Reference:

ADC: The Map People, 2002 Anne Arundel County, Maryland, Street Map Book

Anne Arundel County Office of Planning & Zoning, 2007 Critical Area Map

Anne Arundel County Office of Planning & Zoning, 2007 Buffer Exemption Map

Anne Arundel County, Maryland; Chesapeake Bay Critical Area Mapping Program, 2007, Critical Area Map

Federal Emergency Management Agency, 2016. Flood Insurance Rate Map

First American Real Estate Solutions, 2002, Realty Atlas: Anne Arundel County Maryland

Drum, Loyka and Associates LLC, 2023 Variance Plan

U.S. Department of Agriculture, Natural Resource Conservation Service –2016 Soil Survey of Anne Arundel County Maryland.

State Highway Administration of Maryland, 1989. Generalized Comprehensive Zoning Map: Third Assessment District



**Existing Drainage Swale Along Cedar Drive** 



**Existing Drainage Swale Running Along Side Southern Property Line** 



**Existing Swale Approaching Subject Properties Existing Drive** 



Existing 12" Culvert Pipe Running Under Existing Drive



**Existing Grass Swale Directing Water Along Subject Property Line** 



**Existing RCP Storm Drain Running Under Cedar Drive** 



**Existing Drainage Swale Flowpath Abutting Existing Retaining Wall** 



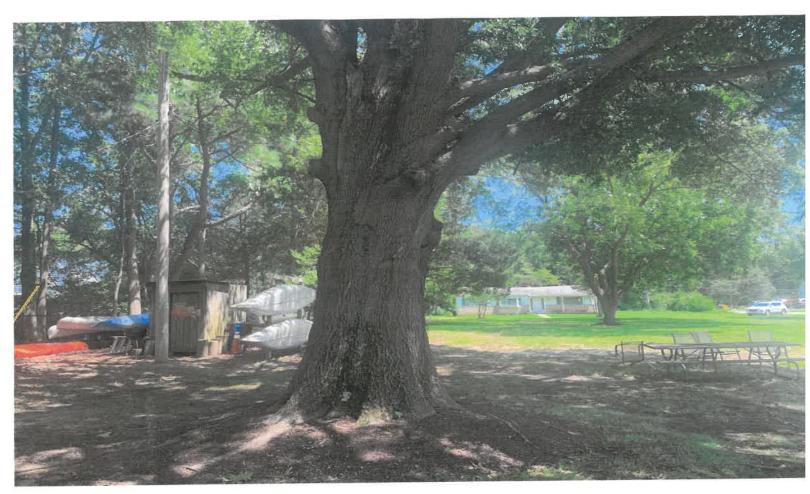
**Drainage Swale Heading to Existing Sump Condition** 



**Subject Property Waterway Yard** 



Existing 48" Oak Tree On Site To Be Placed In Forest Conservation



Existing 45" Oak Tree On Site To Be Placed In Forest Conservation



**Existing Hardwoods & Evergreens To Be Placed In Forest Conservation** 



**Existing Sump Condition On Site** 



**Undeveloped Portion Of Subject Property To Be Placed In Forest Conservation** 



**Undeveloped Portion Of Subject Property To Be Placed In Forest Conservation** 



**Existings Harwoods & Evergreens To Be Placed In Forest Conservation** 



American Chestnut (Castanea dentata)

American Sweetgum (Liquidambar styraciflua)



Red Maple (Acer rubrum)

Northern Catalpa (Catalpa speciosa)