Messick & Associates
Consulting Engineers,
Planners, Surveyors
& Landscape Architects
"Designing Success Since 1951"

November 10, 2025

Anne Arundel County
Office of Planning & Zoning
2664 Riva Road
Annapolis, Maryland 21401
Attention: Ms. Sterling Seay

Re: VARIANCE REQUEST
CHARLES BREWER & CAITLIN HANNON PROPERTY
200 GLEN OBAN DRIVE
ARNOLD, MD 21012

Dear Ms. Seay:

On behalf of the applicants, we respectfully request a variance to Article 17-8-201(a) which states in part that 15% slopes or greater in the Limited Development Area (LDA) shall not be disturbed. Relief is also requested to Article 17-8-301 which requires buffer properties to meet the requirements of COMAR 27, and Article 18-13-104(b) which establishes the expanded buffer. The lot is developed with dwelling, pool, sheds and associated improvements. This lot meets the definition of a buildable lot, subject to the approvals of the County. The property is 162,090 square feet in area. The site is served by public water and septic. It is accessed by Glen Oban Drive, a 50' right of way. The site drains towards the tidal waters of Asquith Creek. The site is not waterfront. The site is located in the LDA of the Chesapeake Bay Critical Area. The partially contains hydric soils. The site is zoned R1.

The applicant wishes to replace a structurally unsound failing walls, deck and patios around the existing pool. The owners also wish to add a three car garage to the existing dwelling and add a second floor over the existing garage. The old garage will be converted to living space. The structures around the pool are in a dangerous state and needs to be replaced. Some of the work will take place in steep slopes, and a portion of the access will traverse steep slopes. The pool will remain in place, and the existing features around it will be reconstructed in a slightly different manner but in the same general footprint. Apparently the features were poorly constructed by a previous owner, and now are a hazard to the owners, as well as if not replaced, the pool itself could fail due to lack of support. They would also like to do a three car garage addition to the dwelling. This addition is needed to have space for a growing family as well as to provide the availability for first floor living as well as storage for yard equipment due to the failing sheds. To construct the addition, two existing sheds will be removed. Part of the garage addition is to account for the loss of storage, as the sheds were also poorly constructed and are rapidly deteriorating. The sheds are located in steep slopes. The second floor addition over the old garage to be converted to living space does not increase disturbance or impervious coverage, however it is in the expanded buffer and is part of this request. The driveway will also be reconfigured to access the garage. To perform this work, there will be steep slope

disturbance for slopes (15% & 25%) as the roughly back half of the property and the sides around the dwelling are located in steep slopes. It should be emphasized that the proposed development will cause a minimal increase in lot coverage in the LDA of 405 square feet. It should be noted, the total includes a pervious deck around the pool, which is considered lot coverage but not impervious coverage. Some tree clearing is required, totaling 1,935 square feet, or 2% of the total developed woods on the property. The disturbance required for replacement and construction is 34,630 square feet, and a grading permit will be required for the proposed work, should the variance be granted.

In response to the pre file comments we offer the following to the Critical Area Team and Zoning Administration team. The overall footprint of the replacement of the failing elements around the pool have been reduced to maintain the general existing footprint. The garage has been revised, however, it should be noted that where the driveway goes into the slopes, it is in the area of two existing failing sheds that are to be removed. Little to no additional slope disturbance is necessary. For I&P Engineering, the various plan information comments have been addressed.

This plan meets the intent of 18-16-305(a):

1. The subject property is 162,090 square feet in size, and it is zoned R1 and is encumbered by steep slopes over much of the back half and sides of the site. The failing improvements around the pool and the two failing storage sheds are currently is located in steep slopes and expanded buffer. As such, there is no reasonable possibility of performing the proposed work without relief to the Code.

2. The exceptional circumstances and practical difficulties in redeveloping the deck have been noted in #1 above to a large degree. As the site work is located in existing steep slopes and the expanded buffer, it would not be possible to do any improvements to the failing property features and construct a garage without a variance.

This plan also meets the intent of 18-16-305(b) for critical area variances.

1. What is peculiar about and inherent to this lot is that the developed area of the property is located in steep slopes. The existing improvements are located in steep slopes. Denial of a variance would be a hardship for the owners, as the requested improvements are due to structural failure of existing features.. The garage addition will make the home sufficient for the owners family while replacing structurally unsound sheds.

2. A literal interpretation of COMAR would deny the owners use of the property enjoyed by others as the site has steep slopes and there is no way to do the proposed work without disturbing the steep slopes or expanded buffer, as it encompasses a large portion of the area around the existing home. For the owners to not be allowed to proceed would be a denial of rights commonly enjoyed by others.

The site is not in a bog area.

3. This project will not confer special privileges to the owners. This is an existing house, with failing features, and the development meets the underlying zoning and critical area lot coverage requirements, and provides a minimal increase the overall lot coverage in the LDA. A portion of this increase is a deck around the pool, which is lot coverage by definition but it is not impervious coverage. Allowing the needed, and modest improvements to an existing development will not confer a special privilege.

4. The request is not a result of actions of the owner. The steep slopes were there, the expanded buffer encompasses a large portion of the area of the home, and the owners have not started work prior to the issuance of any permits.

5. This project will not result in a denigration of forest or water quality. There will be a minimal increase in lot coverage. Stormwater management will be provided where none currently exists. Minimal tree clearing is proposed and mitigation will be provided during the permit process.

The owners designed this program to minimize environmental impacts, by performing the proposed work in areas of the property that have already been developed.

6. This site is not in the bog buffer.

7. This plan meets the presumption, as the denial of this variance would deny the owners rights of other owners in the County. The presumption is not to deny development but to ensure responsible development, which this displays. The development is not detrimental to the environment as there is a reduction in lot coverage, and modern construction will make the project a benefit not a detriment to the area.

8. The applicant has tried alternative design. Upon receipt of the pre file comments, the owners made changes to the design to reduce the overall impact of the improvements, by reconfiguring the area around the pool to more closely match existing, and revising the garage layout.

This plan meets the requirements of 18-16-305(c), as the proposal is the minimum relief necessary. The development will not impair the use of adjoining properties, nor reduce forest cover in the LDA or RCA. The work performed will not be contrary to clearing and replacement practices, and will not alter the character of the neighborhood or be detrimental to the public welfare.

1. The variance request is the minimum to afford relief. The request is the minimum to allow for construction of a replacement of the failing features surrounding the pool, and replace the failing sheds with a garage addition, and an overall decrease in lot coverage proposed.

2. i. This variance will not alter the essential character of the neighborhood. For the most part, the development will take place in areas that are already developed, and will not have an impact on the character of the neighborhood.

ii. This variance will not impair the use of adjoining properties. The proposal will not impact neighbors. The proposed work meets all underlying zoning requirements.

iii. Minimal tree clearing is proposed and any mitigation necessary during the permit process will not decrease tree cover in the LDA or RCA.

iv. No work will be performed contrary to approved clearing practices, as a permit will be required, and this permit must meet those requirements.

v. The project will not be detrimental to the public welfare, as it is located on private property.

This plan proposes the minimum relief necessary. The development will not impair the use of adjoining properties, nor reduce forest cover in the LDA or RCA. The work performed will not be contrary to clearing and replacement practices and will not alter the character of the neighborhood or be detrimental to the public welfare.

As this proposal is for construction of a replacement of failing features surrounding a pool, which will remain, and construction of a garage addition mostly over top of existing lot coverage disturbance has been minimized. A grading permit may be required. It_appears that this request is consistent with other development in this area. Denial of this request would not allow the owner to enjoy property rights common to other properties in this area.

The enclosed plan represents the location of the proposed work. In closing, the variances requested are the minimum necessary to afford relief, and is not based on conditions or circumstances that are a result of actions by the applicant. We thank for in advance for your consideration to this request.

If you have any questions, or if you require additional information, please feel free to contact me at 410-266-3212.

Sincerely,
Messick and Associates

Mike Gillespie

Mike Gillespie
Project Manager

LEGEND

PROPERTY LINE / RIGHT-OF-WAY		EXISTING BUILDING	
ADJOINING PROPERTY LINE		EXISTING 15% SLOPES	
BUILDING RESTRICTION LINE		EXISTING 25% SLOPES	
EXISTING CONTOUR	142	PROPOSED SPOT ELEVATION	+ 5.00
EXISTING SPOT ELEVATION	×122.3	PROPOSED CONTOUR LINE	20
EXISTING SOILS TYPE DESIGNATION	AsB / AsC	PROPOSED LIMIT OF DISTURBANCE	
EXISTING ZONING DESIGNATION	R1	PROPOSED REINFORCED SILT FENCE	RSF RSF
EXISTING TREE LINE		PROPOSED BUILDING	
EXISTING FENCE	X X	PROPOSED STABILIZED CONSTRUCTION ENTRANCE	SCE
EXISTING OVERHEAD POWER LINE	OH OH	PROPOSED DRIVEWAY	

SITE INFORMATION

1. GENERAL DESCRIPTION OF PREDOMINATE SOIL TYPE AS SHOWN ON USDA NATURAL RESOURCES CONSERVATION SERVICE MAP:
   AsF - DODON VERY FINE SANDY LOAM, 2 TO 5% SLOPES, HSG "C"
   AoB - MARR-DODON COMPLEX, 2 TO 5% SLOPES, HSG "C"

2. EXISTING ZONING IS R1 - RESIDENTIAL DISTRICT
   SETBACKS:
   FRONT = 35'
   SIDE = 15'
   REAR = 30'.

3. SITE PLAN TABULATIONS:
   TOTAL SITE AREA: .....162,090 SQUARE FEET OR 3.721 ACRES
   EXISTING IMPERVIOUS COVERAGE: .....14,739 SQUARE FEET OR 0.338 ACRES
   PROPOSED IMPERVIOUS COVERAGE: .....15,144 SQUARE FEET OR 0.347 ACRES
   TOTAL DISTURBED SITE AREA: .....34,630 SQUARE FEET OR 0.794 ACRES
   TOTAL AREA VEGETATIVELY STABILIZED: .....20,936 SQUARE FEET OR 0.480 ACRES
   TOTAL AREA STRUCTURALLY STABILIZED: .....15,144 SQUARE FEET OR 0.347 ACRES

4. EXISTING WOODLANDS ON SITE: .....94,674 SQ. FT. OR 2.173 ACRES
   EXISTING WOODLANDS ON SITE TO BE REMOVED: .....1,935 SQ. FT. OR 0.044 ACRES

   TOTAL CUT ON SITE IS 100 CUBIC YARDS
   TOTAL FILL ON SITE IS 200 CUBIC YARDS
   TOTAL SPOIL TO BE REMOVED FROM THE SITE IS 0 CUBIC YARDS
   TOTAL BORROW TO BE BROUGHT TO THE SITE IS 100 CUBIC YARDS

NOTE: CUT AND FILL QUANTITIES PROVIDED DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

GENERAL NOTES

1. **OWNER:**
   CAITLIN HANNON
   200 GLEN OBAN DRIVE
   ARNOLD, MD 21012
   PHONE: 317-607-0124
   EMAIL: caitlin.hannon@buildingimpact.com

   ENGINEER:
   MESSICK & ASOSOCIATES
   7 OLD SOLOMONS ISLAND ROAD, SUITE 202
   ANNAPOLIS, MD 21401
   410-266-3212
   C/O JEFF SLENKER

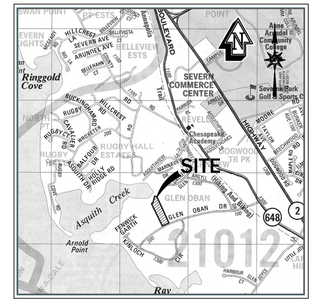
2. THE PROPERTY IS KNOWN AS:
   TAX MAP 39, GRID 10, PARCEL 477, LOT 14; TOTAL AREA = 162,090 SQ. FT. OR 3.721 AC., DEED REF: 39540 / 284)
3. EXISTING ZONING OF THE SITE IS R1 (RESIDENTIAL DISTRICT)
4. THE SITE ADDRESS IS: 200 GLEN OBAN DRIVE, ARNOLD, MD 21012
5. TAX ACCOUNT NO.: 03-364-26115800
6. THE SITE IS LOCATED WITHIN THE LDA (LIMITED DEVELOPMENT AREA) OF THE CHESAPEAKE BAY CRITICAL AREA.
7. PROPOSED SITE UTILITIES ARE PUBLIC WATER (W-7, PUBLIC SERVICE-BROADNECK) AND PRIVATE SEPTIC (S-7, FUTURE SERVICE-BROADNECK).
8. THE PROPERTY DESCRIBED HEREON IS LOCATED IN THE FLOOD HAZARD ZONE "AE" (AREA WITHIN THE 1% ANNUAL CHANCE FLOODPLAIN WITH BASE FLOOD ELEVATION OF 6 FEET), ZONE "X" (AREA WITHIN THE 0.2% ANNUAL CHANCE FLOODPLAIN, AREA OF 1% ANNUAL CHANCE FLOODPLAIN WITH AVERAGE DEPTH LESS THAN 1 FOOT OR WITH DRAINAGE AREA OF LESS THAN 1 SQ. MI.), AND ZONE"X" (AREA OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DELINEATED ON THE FIRM FLOOD INSURANCE MAP #24003C0167F DATED FEBRUARY 18, 2015 FOR ANNE ARUNDEL COUNTY AND DISTRIBUTED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
9. THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION PRIOR TO ANY CONSTRUCTION. ANY UTILITIES DAMAGED DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

VARIANCE REQUEST

§ 17-8-201 (A) WHICH STATES IN PART THAT 15% SLOPES OR GREATER IN THE LIMITED DEVELOPMENT AREA (LDA) SHALL NOT BE DISTURBED.

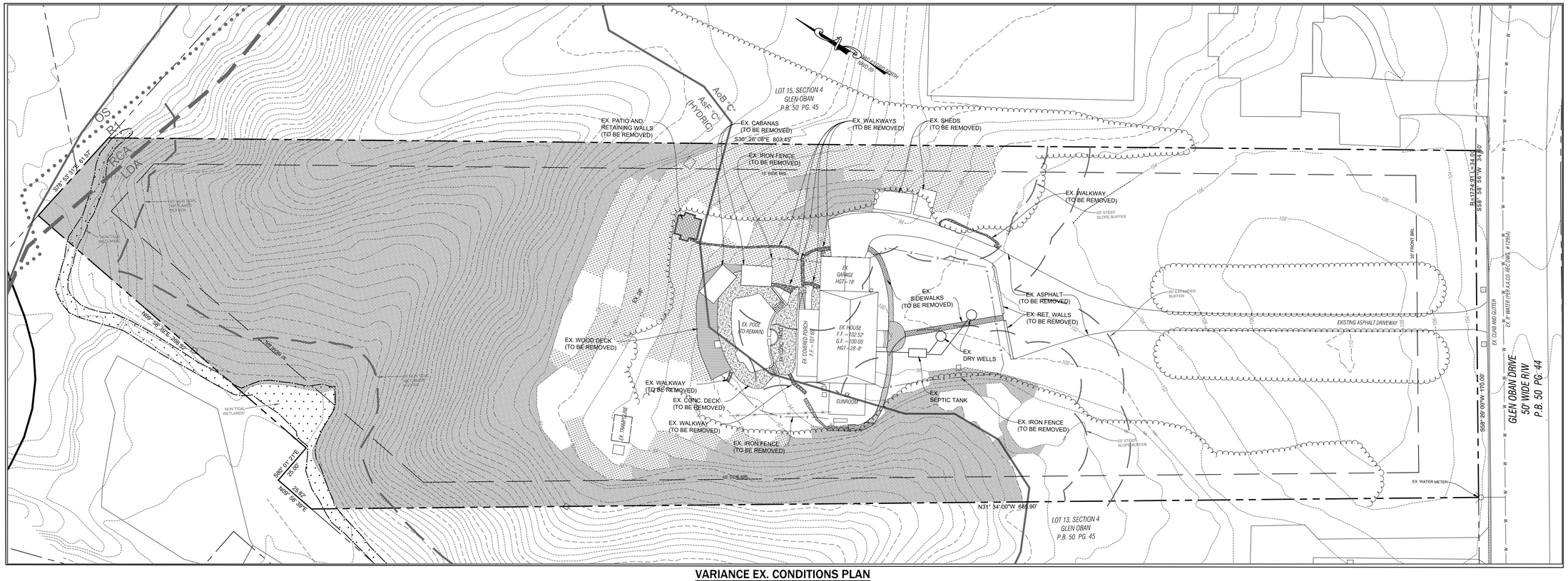
§ 17-8-301 WHICH REQUIRES BUFFER PROPERTIES TO MEET THE REQUIREMENTS OF COMAR 27.

§ 18-13-104 (B) WHICH ESTABLISHES THE EXPANDED BUFFER.



VICINITY MAP

SCALE: 1" = 2,000'



VARIANCE EX. CONDITIONS PLAN

SCALE: 1" = 30'

EXISTING LOT COVERAGE SUMMARY

DESCRIPTION	AREA
EXISTING LOT AREA	162,090 Sq. Ft. or 3.721 Ac.
ALLOWABLE LOT COVERAGE (15%)...	24,313 S.F. or 0.558 Ac.
EXISTING LOT COVERAGE.....	14,739 S.F. or 0.338 Ac.
- EX. HOUSE	2,826 SF
- EX. SCREENED PORCH.....	472 SF
- EX. STOOP	66 SF - 66 SF (TBR)
- EX. ASPHALT DRIVEWAY	6,107 SF - 4,106 SF (TBR)
- EX. POOL	968 SF
- EX. HOT TUB	79 SF - 79 SF (TBR)
- EX. POOL DECK "WOOD"	720 SF - 720 SF (TBR)
- EX. POOL DECK "CONC."	1,394 SF - 1,237 SF (TBR)
- EX. POOL CABANAS	447 SF - 447 SF (TBR)
- EX. PAVER PATIO	197 SF - 197 SF (TBR)
- EX. SHEDS	425 SF - 425 SF (TBR)
- EX. WALKWAYS	956 SF - 438 SF (TBR)
- EX. RETAINING WALLS	82 SF - 82 SF (TBR)
EXISTING LOT COVERAGE (TO BE REMOVED)	7,797 SF or 0.178 Ac.
EXISTING LOT COVERAGE (TO REMAIN)	6,942 SF or 0.159 Ac.
EXISTING DEVELOPED WOODS	94,674 SF

CALL BEFORE YOU DIG!
MARYLAND LAW REQUIRES 48 HOURS NOTICE
BEFORE PLANNED WORK TO MARK
UNDERGROUND UTILITIES PRIOR TO EXCAVATION
MISS UTILITY: 1-800-257-7777

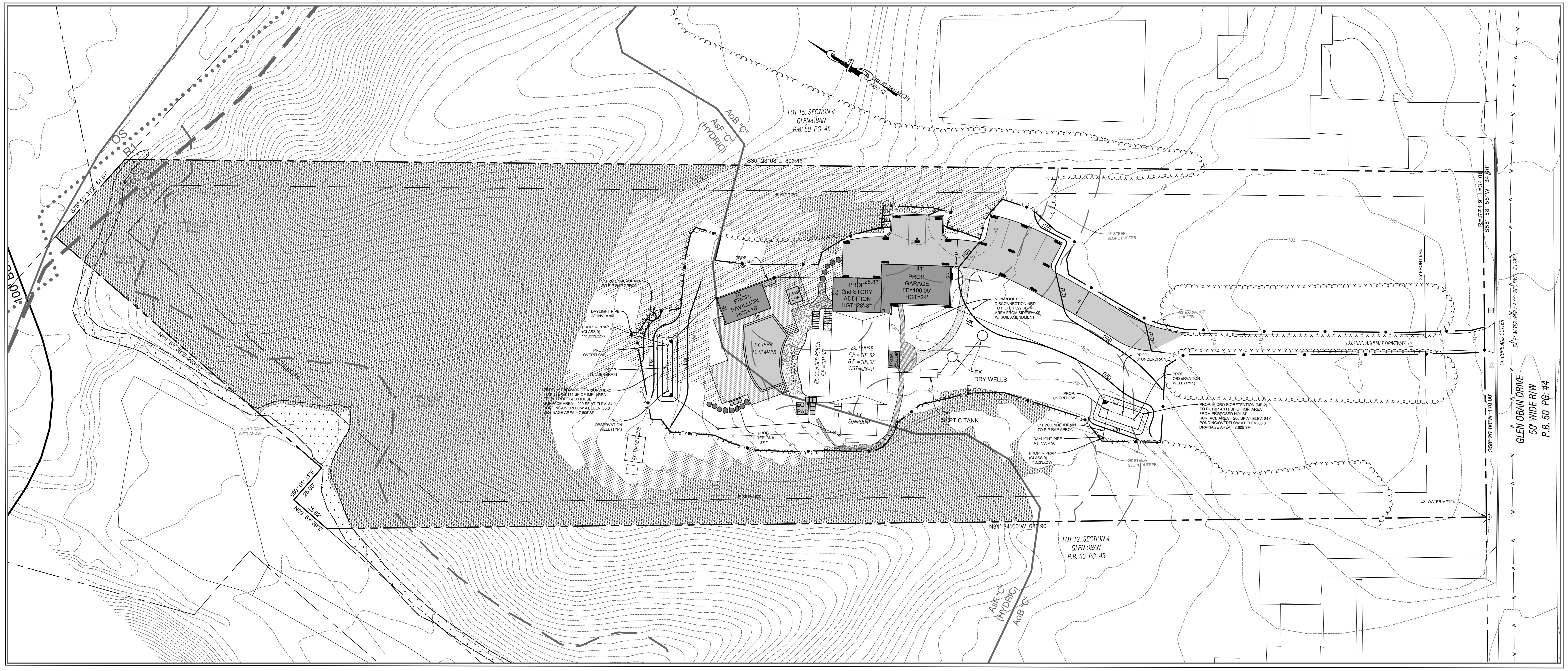
MESSICK & ASSOCIATES
CONSULTING ENGINEERS,
PLANNERS AND SURVEYORS
7 OLD SOLOMONS ISLAND ROAD, SUITE 202
ANNAPOLIS, MARYLAND 21401
(410) 266-3212 * FAX (410) 266-3502 email: engr@messickandassociates.com
* MESSICK GROUP INC. T/A MESSICK AND ASSOCIATES

REVISION DESCRIPTION	BY	DATE

OWNER/DEVELOPER
CAITLIN HANNON
200 GLEN OBAN DRIVE
ARNOLD, MD 21012

EX. CONDITIONS PLAN
VARIANCE PLAN
FOR THE
HANNON PROPERTY
200 GLEN OBAN DRIVE
ARNOLD, MD 21012
TAX MAP: 39 GRID: 10 PARCEL: 477 LOT: 14
TAX ACCOUNT ID: 03-364-26115800
ZONING: R1 / LDA & RCA
THIRD ELECTION DISTRICT ANNE ARUNDEL COUNTY, MARYLAND
SCALE: AS SHOWN DATE: NOVEMBER, 2025
SHEET 1 OF 2

November 2025 FILE: S:\AA 0725\25-1873 200 Glen Oban Drive\DWG\Grading Permit\25-1873 Grading Permit Plans.dwg



PROP. CONDITIONS SITE PLAN

SCALE: 1" = 40'

PROPOSED LOT COVERAGE SUMMARY

DESCRIPTION	AREA
EXISTING LOT AREA	162,090 Sq. Ft. or 3.721 Ac.
ALLOWABLE LOT COVERAGE (15%)...	24,313 Sq. Ft. or 0.558 Ac.
EXISTING LOT COVERAGE.....	14,739 Sq. Ft. or 0.338Ac.
EX LOT COVERAGE (TO BE REMOVED) ...	7,797 Sq. Ft. or 0.178 Ac.
EX LOT COVERAGE (TO REMAIN) ...	6,942 Sq. Ft. or 0.159 Ac.
PROPOSED LOT COVERAGE	8,202 Sq. Ft. or 0.188 Ac.
- PR. GARAGE	966 SF
- PR. STOOP	68 SF
- PR. PAVILLION	448 SF
- PR. SPA	69 SF
- PR. CONCRETE POOL PATIO	248 SF
- PR. POOL DECK	1,450 SF
- PR. BRICK SIDEWALK	308 SF
- PR. DRIVEWAY	4,600 SF
- PR. FIREPLACE	21 SF
- PR. GRILL ISLAND	24 SF
TOTAL LOT COVERAGE AFTER CONSTRUCTION...	15,144 Sq. Ft. or 0.347 Ac.
EXISTING DEVELOPED WOODS...	94,674 Sq. Ft. or 2.173 Ac.
DEVELOPED WOODS CLEARING...	1,935 Sq. Ft. or 0.044 Ac.
PROPOSED DEVELOPED WOODS...	92,739 Sq. Ft. or 2.128 Ac.

CALL BEFORE YOU DIG!
MARYLAND LAW REQUIRES 48 HOURS NOTICE
BEFORE PLANNED WORK TO MARK
UNDERGROUND UTILITIES PRIOR TO EXCAVATION
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ANNAPOLIS, MARYLAND 21401
(410) 266-3212 * FAX (410) 266-3502 email:
engr@messickandassociates.com

REVISION DESCRIPTION	BY	DATE

OWNER/DEVELOPER
CAITLIN HANNON
200 GLEN OBAN DRIVE
ARNOLD, MD 21012

PROPOSED CONDITIONS SITE PLAN

VARIANCE PLAN
FOR THE
HANNON PROPERTY
200 GLEN OBAN DRIVE
ARNOLD, MD 21012
TAX MAP: 39 ~ GRID: 10 ~ PARCEL: 477 ~ LOT: 14
TAX ACCOUNT: 03-364-26115800
ZONING: R1 / LDA & RCA
THIRD ELECTION DISTRICT ANNE ARUNDEL COUNTY, MARYLAND
SCALE: AS SHOWN DATE: NOVEMBER, 2025 SHEET 2 OF 2

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

PROJECT NOTIFICATION APPLICATION

GENERAL PROJECT INFORMATION

Jurisdiction: Anne Arundel County Date: 11-1-25

Tax Map #	Parcel #	Block #	Lot #	Section
39	477	10	114	4 R2

Tax ID: 03-364-26115800

FOR RESUBMITTAL ONLY
Corrections ☐
Redesign ☐
No Change ☐
Non-Critical Area ☐

*Complete Only Page 1 General Project Information

Project Name (site name, subdivision name, or other): Brewer/Hannon Property

Project location/Address: 200 Glen Oban Dr

City: Arnold MD Zip: 21012

Local case number:

Applicant: Last name: Hannon First name: Caitlin

Company:

Application Type (check all that apply):

Building Permit	☐	Variance	☒
Buffer Management Plan	☐	Rezoning	☐
Conditional Use	☐	Site Plan	☐
Consistency Report	☐	Special Exception	☐
Disturbance > 5,000 sq ft	☐	Subdivision	☐
Grading Permit	☐	Other	☐

Local Jurisdiction Contact Information:

Last name: AACo Zoning Administration Section First name:

Phone #: 410-222-7437 Response from Commission Required By: TBD

Fax #: Hearing date: TBD

SPECIFIC PROJECT INFORMATION

Describe Proposed use of project site:

Replace failing deck around pool, Remove failing Sheds, Garage Addition 2nd Floor over the Garage, Rework portion of Driveway

	Yes		Yes
Intra-Family Transfer	☐	Growth Allocation	☐
Grandfathered Lot	☑	Buffer Exemption Area	☐

Project Type (check all that apply)

Commercial	☐	Recreational	☐
Consistency Report	☐	Redevelopment	☐
Industrial	☐	Residential	☑
Institutional	☐	Shore Erosion Control	☐
Mixed Use	☐	Water-Dependent Facility	☐
Other	☐		

SITE INVENTORY (Enter acres or square feet)

	Acres	Sq Ft
IDA Area	0	0
LDA Area	3.698	161,098
RCA Area	0.023	992
Total Area	3.721	162,090

	Acres	Sq Ft
Total Disturbed Area		

# of Lots Created

	Acres	Sq Ft		Acres	Sq Ft
Existing Forest/Woodland/Trees	2.173	94,674	Existing Lot Coverage	0.358	15,599
Created Forest/Woodland/Trees	TBD	TBD	New Lot Coverage	0.188	8,202
Removed Forest/Woodland/Trees	0.044	1,935	Removed Lot Coverage	0.178	7,797
			Total Lot Coverage	0.347	15,144

VARIANCE INFORMATION (Check all that apply)

	Acres	Sq Ft		Acres	Sq Ft
Buffer Disturbance	0.668	29,115	Buffer Forest Clearing	0.044	1,935
Non-Buffer Disturbance	0.120	5,245	Mitigation	TBD	TBD

Variance Type		Structure	
Buffer	☐	Acc. Structure Addition	☐
Forest Clearing	☐	Barn	☐
HPA Impact	☐	Deck	☑
Lot Coverage	☐	Dwelling	☐
Expanded Buffer	☑	Dwelling Addition	☑
Nontidal Wetlands	☐	Garage	☒
Setback	☐	Gazebo	☐
Steep Slopes	☒	Patio	☒
Other	☐	Pool	☐
		Shed	☐
		Other	☐

CRITICAL AREA REPORT

200 GLEN OBAN DRIVE
ARNOLD, MD 21012

October 2025

Prepared for:
Charles Brewer and
Caitlin Hannon

Prepared by:
Messick and Associates
7 Old Solomons Island Road
Suite 202
Annapolis, MD 21401

INTRODUCTION

This site is an 162,090 square foot property that is located on the north side of Glen Oban Drive in Arnold, MD. The proposal is to replace some structurally unsound decking around an existing pool and a garage addition to the existing dwelling. The site is served by public water and septic. The property is completely inside the Chesapeake Bay Critical Area Boundary and is designated as Limited Development Area (LDA) with a very small portion of Resource Conservation Area (RCA) at the rear of the property. The property is zoned residential, R-1 and drains ultimately to Asquith Creek.

EXISTING USE

The property consists of 162,090 square foot property. The site is currently developed. The property is currently a residential lot developed with a house, driveway, pool with an extensive failing deck, and failing sheds, as well as other associated improvements. The property is not a corner lot and gains access from Glen Oban Drive.

SURROUNDING LAND USE

The properties that abut the site are relatively large, with the subject property being typical of the neighborhood, and are developed as single-family lots. The general area is developed as single-family lots. The site is bounded by a developed property to the east and west, south with Glen Oban Drive to the north the backs of developed properties and a community property that abuts Asquith Creek.

PROPOSED WORK

The owners wish to replace structurally unsound decking around the pool, a garage addition to the existing dwelling and removal of structurally unsound sheds constructed by the previous owner. This construction will require disturbance to an area of steep slopes around the pool deck, and for removal of the sheds, and all the work will take place in the expanded buffer.

SOILS

The U.S. Department of Agriculture Soil Survey, defines the property to have a soil type of AoB – Annapolis Fine Sandy Loam 2-5% Slopes (C Soils) and AsF – Annapolis Fine Sandy Loam 25-40% Slopes (C Soils)

FLOODPLAIN

The property described hereon is located in the flood hazard zones "X" - (area of minimal flood hazard) as delineated on the firm flood insurance map #24003C0167F dated February 18, 2015 for said county and distributed by the Federal Emergency Management facility.

NON-TIDAL WETLANDS

There appear to be no Non Tidal Wetlands on the site.

TIDAL WETLANDS

There are no Tidal Wetlands on this site.

BODIES OF WATER

The site drains to Asquith Creek.

STEEP SLOPES

A large portion of the rear of the property is encumbered by steep slopes.

RARE AND ENDANGERED SPECIES

A review of Federal and/or State listed species of rare, threatened or endangered species of plants or animals has been requested via the enclosed letter to Lori Byrne of the Maryland Department of Natural Resources Fish, Heritage and Wildlife Administration.

STORMWATER MANAGEMENT

Stormwater management will be provided as required during the permit process.

FOREST COVER

The existing forest cover is limited to overstory trees and some woodlands on the slope to the community beach.

The following are typical trees of areas such as this site:

Common Name	Scientific Name
Black Locust	*Robinia pseudoacaia*
Eastern Sycamore	*Platanus occidentalis*
American Holly	*Ilex opaca*
Beech	*Fagus grandifolia*
White Poplar	*Populus alba*
Mountain Laurel	*Kalmia latifolia*

WILDLIFE TYPICAL OF THIS AREA

Common Name	Scientific Name
Eastern Gray Squirrel	*Sciurus Carolinensis*
Blue Jay	*Cyanocitta Cristata*
Common Crow	*Corvus Brachythynchos*
Northern Cardinal	*Richmondena Cardinalis*

SITE CALCULATIONS

1. Total Site area.....162,090 sq. ft.
2. Site area in LDA Critical area.....161,098 sq. ft
   Site Area in RCA Critical area.... 992 sq. ft.
3. Existing lot coverage .....14,739 sq. ft.
4. Lot coverage to be removed.....7,797 sq. ft.
4. Proposed lot coverage .....6,752 sq. ft.
5. Total Lot Coverage after Construction...13,694 sq. ft.
6. Proposed Disturbed Area.....34,630 sq. ft.
7. Woodland Clearing.....1,935 sq. ft.

Real Property Data Search ( )
Search Result for ANNE ARUNDEL COUNTY

View Map **View GroundRent Redemption** **View GroundRent Registration**

Special Tax Recapture: None

Account Number: **District -** 03 **Subdivision -** 364 **Account Identifier -** 26115800

Owner Information

Owner Name:	BREWER CHARLES WESLEY HANNON CAITLIN MARIE	**Use:** **Principal Residence:**	EXEMPT YES
Mailing Address:	200 GLEN OBAN DR ARNOLD MD 21012-2106	**Deed Reference:**	/39540/ 00284

Location & Structure Information

Premises Address:	200 GLEN OBAN DR ARNOLD 21012-0000	**Legal Description:**	LT 14 SC 4 PL 2 200 GLEN OBAN DR GLEN OBAN

Map:	Grid:	Parcel:	Neighborhood:	Subdivision:	Section:	Block:	Lot:	Assessment Year:	Plat No:
0039	0010	0477	3080002.02	364	4		14	2025	Plat Ref: 0050/ 0045

Town: None

Primary Structure Built	Above Grade Living Area	Finished Basement Area	Property Land Area	County Use
1979	3,841 SF	450 SF	3.7200 AC	

Stories	Basement	Type	Exterior	Quality	Full/Half Bath	Garage	Last Notice of Major Improvements
2	YES	STANDARD UNIT	SIDING/5		3 full	1 Attached	

Value Information

	Base Value	Value	Phase-in Assessments	
		As of 01/01/2025	As of 07/01/2024	As of 07/01/2025
Land:	402,700	502,700		
Improvements	572,500	812,900		
Total:	975,200	1,315,600	975,200	1,088,667
Preferential Land:	0	0		

Transfer Information

Seller: LEDFORD KELLY	**Date:** 03/24/2023	**Price:** $1,600,000
Type: ARMS LENGTH IMPROVED	**Deed1:** /39540/ 00284	**Deed2:**
Seller: BARRY JOHN C	**Date:** 06/16/2016	**Price:** $1,100,000
Type: ARMS LENGTH IMPROVED	**Deed1:** /29705/ 00076	**Deed2:**
Seller: ROBERTS, BEVERLY A	**Date:** 12/09/2002	**Price:** $950,000
Type: ARMS LENGTH IMPROVED	**Deed1:** /12230/ 00019	**Deed2:**

Exemption Information

Partial Exempt Assessments:	Class	07/01/2024	07/01/2025
County:	020	0.00	1,088,667.00
State:	020	0.00	1,088,667.00
Municipal:	020	0.00|0.00	0.00|0.00

Special Tax Recapture: None

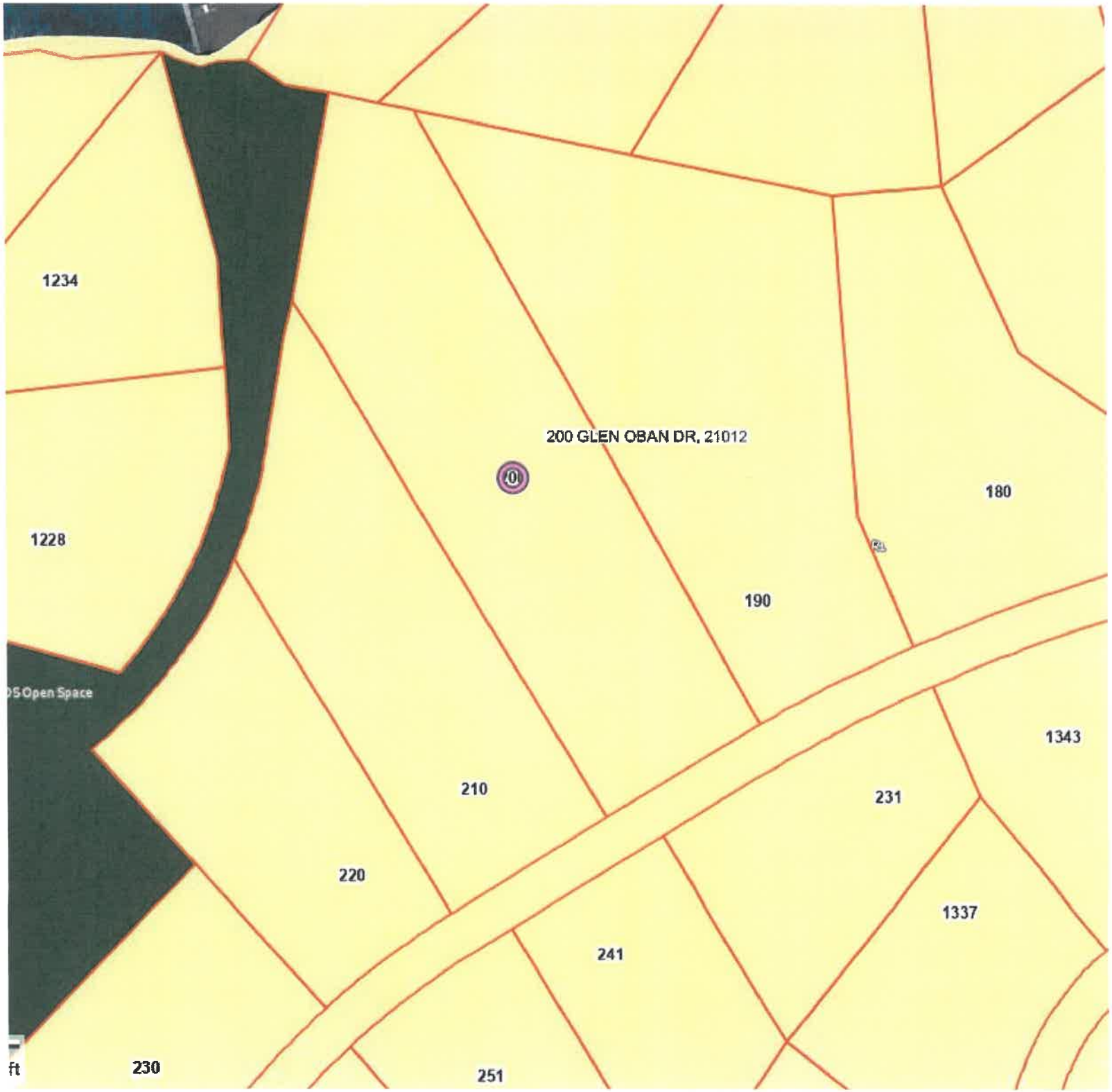
Homestead Application Information

Homestead Application Status: Approved 05/11/2024

Homeowners' Tax Credit Application Information

Homeowners' Tax Credit Application Status: No Application **Date:**


FH4049
FH4048
FH3936
FH3934
FH3935
200


200 GLEN OBAN DR, 21012
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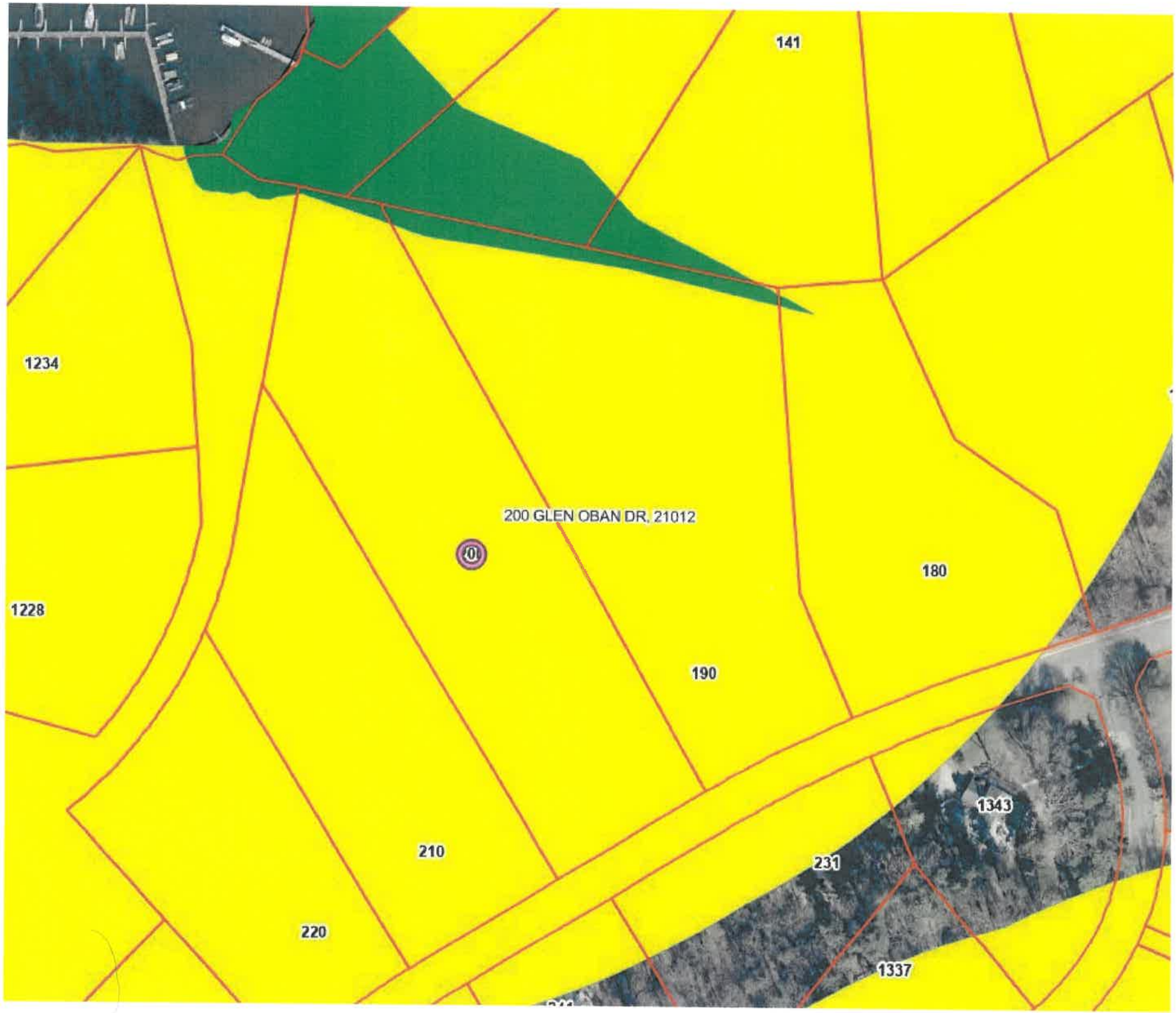
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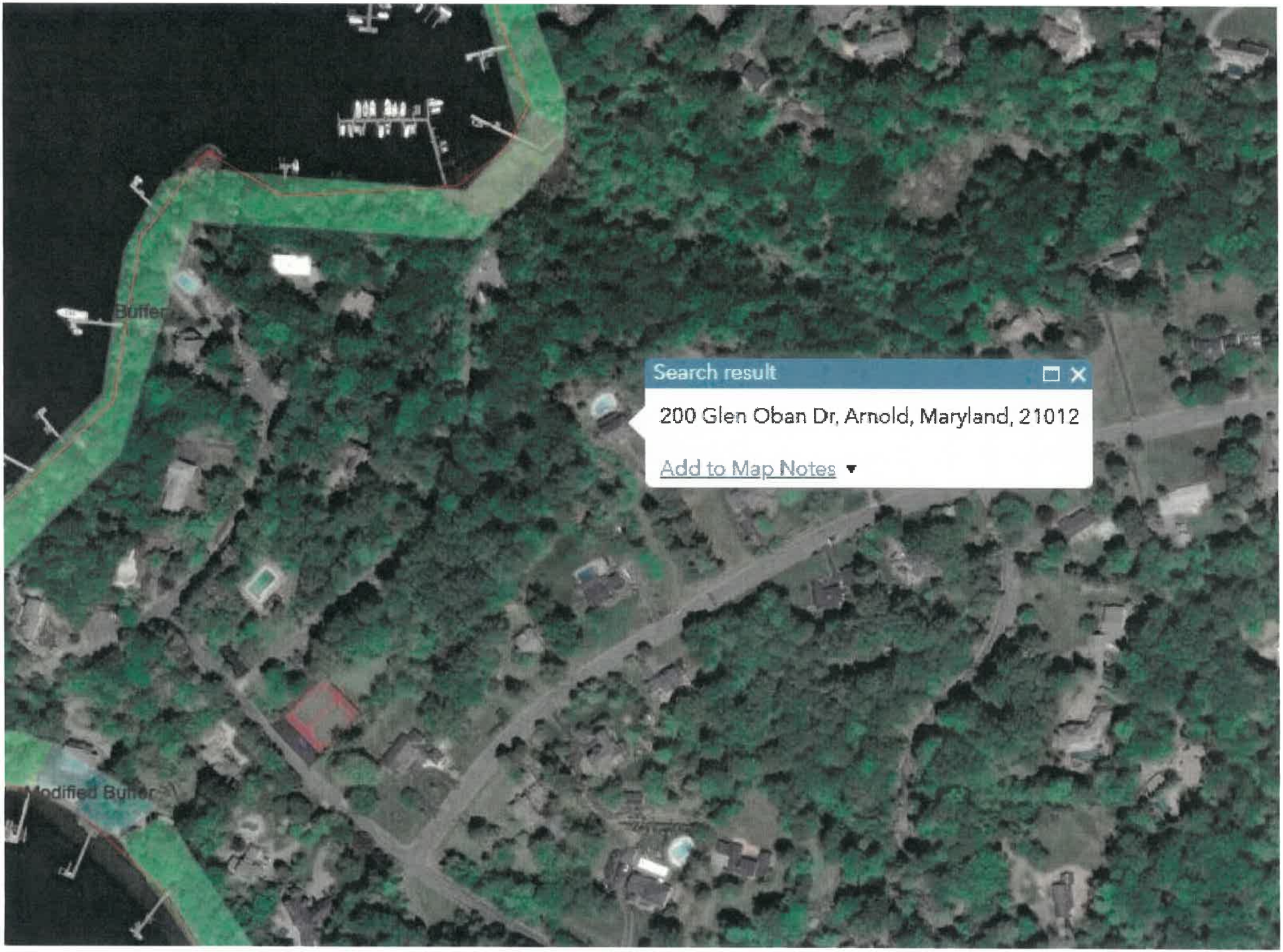

Buffer
Search result
200 Glen Oban Dr, Arnold, Maryland, 21012
Add to Map Notes
Modified Buffer

National Flood Hazard Layer FIRMette

FEMA

76°31'45"W 39°2'26"N

0 250 500 1,000 1,500 2,000 Feet 1:6,000

76°31'8"W 39°1'58"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

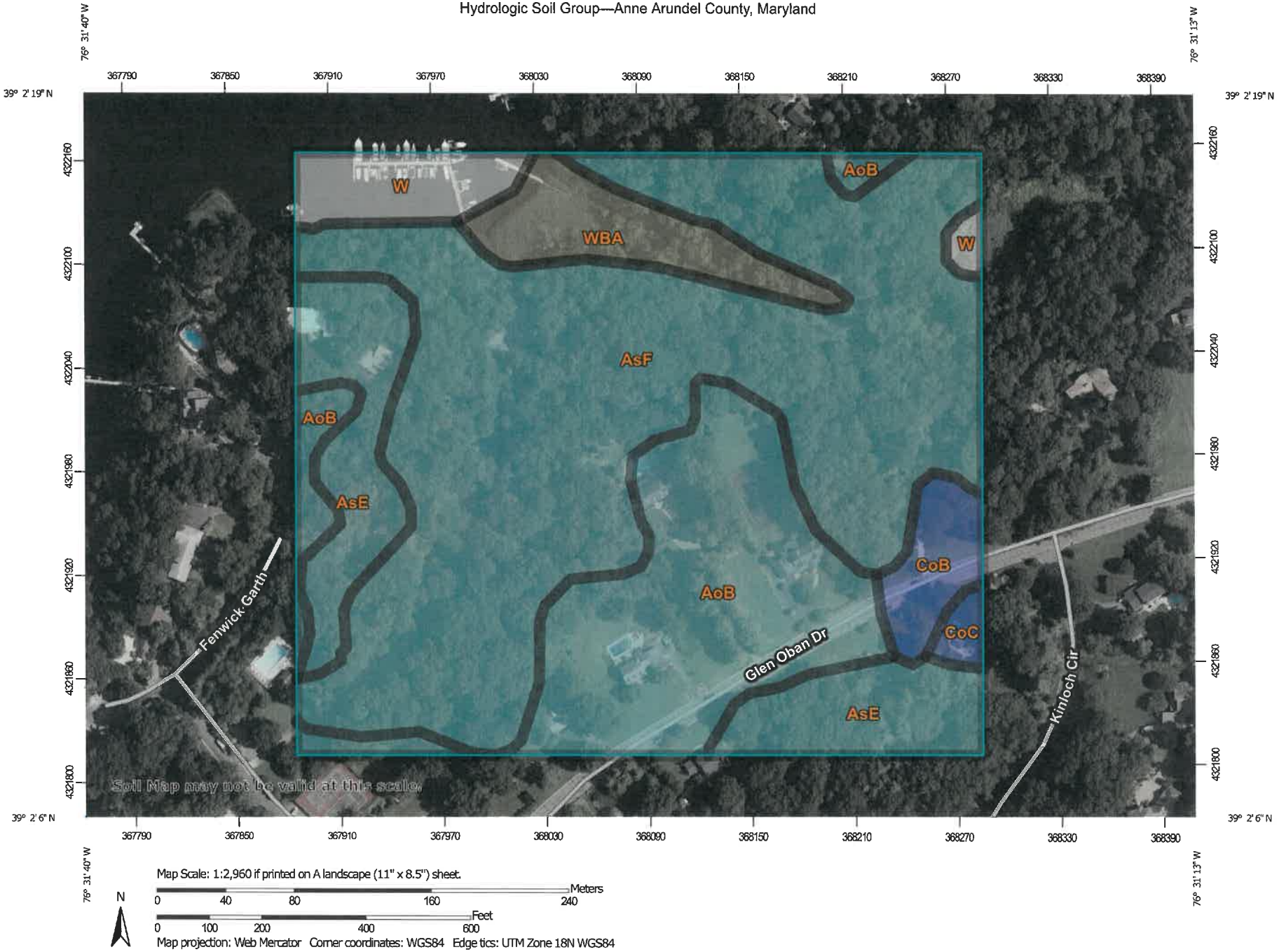
N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/24/2025 at 2:36 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.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76° 31' 13" W
39° 2' 19" N
39° 2' 6" N
367790
367850
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367970
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368090
368150
368210
368270
368330
368390
4322160
4322100
4322040
4321980
4321920
4321860
4321800
W
WBA
AoB
W
AsF
AoB
AsE
CoB
AoB
CoC
AsE
Fenwick Garth
Glen Oban Dr
Kinloch Cir
Soil Map may not be valid at this scale.
Map Scale: 1:2,960 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 40 80 160 240
Feet
0 100 200 400 600
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Anne Arundel County, Maryland
Survey Area Data: Version 23, Sep 6, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 20, 2022—Aug 13, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AoB	Annapolis loamy sand, 2 to 5 percent slopes	C	7.6	21.9%
AsE	Annapolis fine sandy loam, 15 to 25 percent slopes	C	4.2	12.2%
AsF	Annapolis fine sandy loam, 25 to 40 percent slopes	C	18.2	52.5%
CoB	Collington-Wist complex, 2 to 5 percent slopes	B	1.0	3.0%
CoC	Collington-Wist complex, 5 to 10 percent slopes	B	0.3	0.8%
W	Water		1.4	4.1%
WBA	Widewater and Issue soils, 0 to 2 percent slopes, frequently flooded	C/D	1.9	5.5%
Totals for Area of Interest			**34.7**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

ATWELL

July 23, 2025

Mr. Mike Gillespie
Messick and Associates
7 Old Solomons Island Road, Suite 202
Annapolis, MD 21401

Re: 200 Glen Oban Drive - Arnold, Maryland
Atwell Project #25005756

Dear Mr. Gillespie:

I am writing this letter in reference to a site visit that was conducted to the above referenced property on July 8, 2025. The purpose of the site visit was to determine if jurisdictional streams exist within two swales on the property. The 3.72-acre property is located fronting the northwest side of Glen Oban Drive in Arnold, Maryland.

The property currently contains a single-family home, driveway, maintained yard, and areas of mixed hardwood forest. Two swales were reviewed on the property to determine if jurisdictional streams exist within them. The first is located in a wooded area northwest of the house. This swale drains in a northwesterly direction towards a boat trailer parking area located immediately to the west of the site. This swale did not contain an intermittent or perennial stream as no defined channel exists within this relatively steep swale. Wetlands were identified at the bottom of the swale, along the toe of the slope, immediately adjacent to the asphalt parking area. The wetland evaluation was performed using the methodologies outlined in the *1987 Corps of Engineers' Wetlands Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region.*

The second swale reviewed is situated immediately to the west of the existing house on the property. The top portion of this swale does not contain a stream channel and when the bottom portion of this swale is viewed from the marina access road to the west of the property, no jurisdictional stream was observed within the lower end of the swale. The lower portion of the swale along the marina access road does contain a non-tidal wetland which drains in a northerly direction along the access road.

It is the opinion of Atwell, LLC that no jurisdictional streams exist within either of the two swales as no defined channels exist within these swales. If you have any questions, please do not hesitate to contact me.

Respectfully,

Kenneth R. Wallis
Professional Wetland Scientist (#2878)
ATWELL, LLC

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

PROJECT NOTIFICATION APPLICATION

GENERAL PROJECT INFORMATION

Jurisdiction: Anne Arundel County Date: 11-1-25

Tax Map #	Parcel #	Block #	Lot #	Section
39	477	10	114	4 R2

Tax ID: 03-364-26115800

FOR RESUBMITTAL ONLY
Corrections ☐
Redesign ☐
No Change ☐
Non-Critical Area ☐

*Complete Only Page 1 General Project Information

Project Name (site name, subdivision name, or other): Brewer/Hannon Property

Project location/Address: 200 Glen Oban Dr

City: Arnold MD Zip: 21012

Local case number:

Applicant: Last name: Hannon First name: Caitlin

Company:

Application Type (check all that apply):

Building Permit	☐	Variance	☒
Buffer Management Plan	☐	Rezoning	☐
Conditional Use	☐	Site Plan	☐
Consistency Report	☐	Special Exception	☐
Disturbance > 5,000 sq ft	☐	Subdivision	☐
Grading Permit	☐	Other	☐

Local Jurisdiction Contact Information:

Last name: AACo Zoning Administration Section First name:

Phone #: 410-222-7437 Response from Commission Required By: TBD

Fax #: Hearing date: TBD

Revised 12/14/2006

SPECIFIC PROJECT INFORMATION

Describe Proposed use of project site:

Replace failing deck around pool, Remove failing Shed S, Garage Addition 2nd Floor over of Garage, Rework portion of Driveway

	Yes		Yes
Intra-Family Transfer	☐	Growth Allocation	☐
Grandfathered Lot	☑	Buffer Exemption Area	☐

Project Type (check all that apply)

Commercial	☐	Recreational	☐
Consistency Report	☐	Redevelopment	☐
Industrial	☐	Residential	☑
Institutional	☐	Shore Erosion Control	☐
Mixed Use	☐	Water-Dependent Facility	☐
Other	☐		

SITE INVENTORY (Enter acres or square feet)

	Acres	Sq Ft
IDA Area	0	0
LDA Area	3.698	161,098
RCA Area	0.023	992
Total Area	3.721	162,090

	Acres	Sq Ft
Total Disturbed Area		

# of Lots Created

	Acres	Sq Ft		Acres	Sq Ft
Existing Forest/Woodland/Trees	2.173	94,674	Existing Lot Coverage	0.358	15,589
Created Forest/Woodland/Trees	TBD	TBD	New Lot Coverage	0.188	8,202
Removed Forest/Woodland/Trees	0044	1,935	Removed Lot Coverage	0.178	7,797
			Total Lot Coverage	0.347	15,144

VARIANCE INFORMATION (Check all that apply)

	Acres	Sq Ft		Acres	Sq Ft
Buffer Disturbance	0.668	29,115	Buffer Forest Clearing	0.044	1,935
Non-Buffer Disturbance	0.120	5,245	Mitigation	TBD	TBD

Variance Type		Structure	
Buffer	☐	Acc. Structure Addition	☐
Forest Clearing	☐	Barn	☐
HPA Impact	☐	Deck	☑
Lot Coverage	☐	Dwelling	☐
Expanded Buffer	☑	Dwelling Addition	☑
Nontidal Wetlands	☐	Garage	☑
Setback	☐	Gazebo	☐
Steep Slopes	☒	Patio	☒
Other	☐	Pool	☐
		Shed	☐
		Other	☐

Messick & Associates
Consulting Engineers,
Planners, Surveyors
& Landscape Architects
"Designing Success Since 1951"

STORMWATER MANAGEMENT REPORT

FOR THE

HANNON PROPERTY

200 Glen Oban Drive
Arnold, MD 21012
Tax Map 39, Grid 10, Parcel 477, Lot 14
Tax ID: #03-364-26115800
Grading Permit #G02_____

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Land Surveyor under the laws of the State of Maryland.

Provided by:
Messick & Associates
7 Old Solomons Island Road, Suite 202
Annapolis, MD 21401

Date: October 31, 2025
Revised: _____

I. Narrative

A. Introduction

This report contains an analysis that outlines the stormwater management obligations for this site. We evaluated management obligations, using Environmental Site Design (ESD), for Water Quality (WQ_v), Recharge (Re_v), and Channel Protection (Cp_v). For each of the requirements, we offer an assessment regarding the need for management, as well as the type of practice if management is required.

B. General Site Information

The site is known as 200 Glen Oban Drive, Arnold, MD 21012. It is located on Tax Map 39, Grid 10, Parcel 477, Lot 14 and contains 3.721 acres ± (162,090 square feet). The site is currently zoned R1. The site is located within the LDA (Limited Development Area) of the Chesapeake Bay Critical Area. The limit of the proposed area to be disturbed is approximately 0.794 acres ± 34,630 square feet.

Existing Conditions

The site is currently developed with a 2-story brick dwelling. The site is accessed from Glen Oban Drive. The site consists primarily of developed woods and open grass area. Slopes on site within the limit of disturbance are primarily between 5% and 15%. The predominant soil types are AsF (Dodon Very Fine Loam, 2 to 5% slopes, hydrologic soil group "C" and AoB (Marr-Dodon Complex, 2 to 5% slopes, hydrologic soil group "C". Slopes on site outside of the limit of disturbance are primarily between 10% and 25%. The predominant soil types are AsF (Dodon Very Fine Loam, 2 to 5% slopes, hydrologic soil group "C" and AoB (Marr-Dodon Complex, 2 to 5% slopes, hydrologic soil group "C".

The site sheet flows from a high point near the site entrance creating two drainage areas for the project site. The first drainage area discharges into the public storm drain system along Glen Oban Drive. The second drainage area sheet flows into the tidal waters of Asquith Creek and ultimately into the Severn River.

Developed Conditions

A new garage and 2nd-story addition over existing garage, and driveway will be constructed.

The site has been designed to provide the least amount of environmental impacts. Due to ESD utilizing, non-rooftop disconnection and micro-bioretention. A smaller quantity of water will reach the outfall points at the property lines. Flow paths have been maintained and the time of concentration increased. The runoff from the entirety of the new garage and house roof surfaces will be collected by downspouts and will flow to the stormwater devises and shown on the Stormwater Management plan (page 5 of 6). Runoff from the new sidewalk will be addressed with non-rooftop disconnection.

C. Stormwater Management Design

The Stormwater Management concept for this project was designed to meet the requirements of the Stormwater Management Act of 2007.

This stormwater management plan was developed with all treatment options in mind. The total ESD volume required will be achieved utilizing only micro-scale practices from Chapter 5 of the Maryland Stormwater Design Manual. The impervious areas will be treated via one (1) non-rooftop disconnect (N2) and two (2) micro-bioretentions (M6) with the locations shown on the Stormwater Management Plan (page 5 of 6).

Erosion and sediment control has been integrated into the stormwater management strategy by using non-structural and micro-scale treatment techniques and limiting grading and disturbance which produce sediment and erosion.

D. Unified Stormwater Sizing Criteria

Methodology

In accordance with the 2007 Maryland Stormwater Design Manual, Volumes I & II, the site was designed implementing Environmental Site Design (ESD) to the maximum extent practicable (MEP). As a minimum, ESD shall be used to address both Recharge (Re_v) and Water Quality (WQ_v) requirements. Channel Protection (Cp_v) obligations are met when ESD practices are designed according to the Runoff Curve Number Method where developed conditions return the site to an RCN of "woods in good condition". ESD techniques utilized are, specifically, one (1) non-rooftop disconnect (N2) and two (2) micro-bioretentions (M6) with the locations shown on the Stormwater Management Plan (page 5 of 6).

Water Quality Requirements (WQ_v)

The site has been analyzed for Water Quality obligations based on the proposed development. Water quality volume (WQv) obligations will be met on this site by the successful implementation of ESD practices, specifically, one (1) non-rooftop disconnect (N2) and two (2) micro-bioretentions (M6) with the locations shown on the Stormwater Management Plan (page 5 of 6).

Recharge Requirements (Re_v)

The site has been analyzed for Recharge Volume obligations based on the proposed development. Recharge Volume (REv) obligations will be met on this site by the successful implementation of ESD practices, specifically, one (1) non-rooftop disconnect (N2) and two (2) micro-bioretentions (M6) with the locations shown on the Stormwater Management Plan (page 5 of 6).

Channel Protection Requirements (Cp_v)

The site has been analyzed for Channel Protection obligations based on the proposed developments and grading. Channel Protection volume (CPv) obligations will be met on this site by the successful implementation of ESD practices, specifically, one (1) non-rooftop disconnect (N2) and two (2) micro-bioretentions (M6) with the locations shown on the Stormwater Management Plan (page 5 of 6).

Overbank Flood Protection Volume Requirements (Qp_{10})

Overbank flood protection obligations will be met on this site by the successful implementation of ESD practices, specifically, one (1) non-rooftop disconnect (N2) and two (2) micro-bioretentions (M6) with the locations shown on the Stormwater Management Plan (page 5 of 6).

Extreme Flood Volume Requirements (Q_f)

No downstream flooding or erosion should occur, as a result, of this development.

E. Environmental Site Design (ESD)

Title 4, Subtitle 201.1(B) of the "Stormwater Management Act of 2007" defines ESD as using micro-scale practices, non-structural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources.

ESD was implemented in this project to the maximum extent practicable (MEP) to mimic "woods in good condition." In addition, the proposed development minimizes disturbance to existing environmental features. The site was analyzed based on the proposed impervious coverage and each impervious feature was analyzed to meet the ESD Sizing Criteria. Computations can be found in Section II.

F. Outfall Statement

The site sheet flows from a high point near the site entrance creating two drainage areas for the project site. The first drainage area discharges into the public storm drain system along Glen Oban Drive. The second drainage area sheet flows into the tidal waters of Asquith Creek and ultimately into the Severn River. The conveyance is stable and should not be affected by this development due to minimization of impervious coverage, and due to storm water management provided on site.

Stormwater Management Requirements

Project:	Hannon Property		
Job No.:	25-1878		
County:	Anne Arundel		
By:	J. Slenker	*Date:*	10/31/25
Check:	XXX	*Date:*	XX/XX/XX

Site Data

Existing Conditions

Site Area	3.72	ACRES	OR	162,090	SF
Limit of Disturbance	0.79	ACRES	OR	34,630	SF

Design Area used for ESD computations is Site Area

Soils Types

HSG 'A'	0.00	ACRES	OR	0	SF	0.0% *of design area*
HSG 'B'	0.00	ACRES	OR	0	SF	0.0% *of design area*
HSG 'C'	3.72	ACRES	OR	162,090	SF	100.0% *of design area*
HSG 'D'	0.00	ACRES	OR	0	SF	0.0% *of design area*

Impervious Cover

Buildings	0.09	ACRES	OR	3,789	SF	
Paving	0.25	ACRES	OR	10,950	SF	
TOTAL	0.34	ACRES	OR	14,739	SF	9.1% *of design area*

Proposed Conditions

Impervious Cover

Buildings	0.10	ACRES	OR	4,332	SF	
Drives	0.15	ACRES	OR	6,601	SF	
Paving	0.06	ACRES	OR	2,761	SF	
Alternative Surfaces*	0.00			0	SF	
TOTAL	0.31	ACRES	OR	13,694	SF	8.4% *of design area*

* Alternative Surfaces include Permeable Pavers (A-2 ESD Device)

Determine Target ESD_V (Total Site)

Target RCN for "Woods in Good Condition"

HSG	Area (SF)	% Site	RCN
A	0	0%	38
B	0	0%	55
C	162,090	100%	70
D	0	0%	77

RCN_{WOODS} = **70**

Compute Percent Imperviousness, I (Total Site)

I = Impervious Area / Site Area

Existing Impervious Area=	14,739	SF	I =	9.1% *of site*
Proposed Impervious Area=	13,694	SF	I =	8.4% *of site*

Based on % Site Development Category is : New Development

Stormwater Management Requirements

Project:	Hannon Property		
Job No.:	25-1878		
County:	Anne Arundel		
By:	J. Slenker	*Date:*	10/31/25
Check:	XXX	*Date:*	XX/XX/XX

Determine Target ESD_V

Percent Imperviousness

I = Impervious Area / Site Area

I =	8.4 %

Where:

Site Area = 162,090 ft^2

Dimensionless Runoff Coefficient

$R_v = 0.05 + 0.009(I)$

R_v =	0.126

Where:

I = 8.4 %

Target Pe

Using Table 5.3 with the Percent Imperviousness and Soil Type above, determine the Target Pe.

HSG	Area (ft^2)	% SITE	Pe (in)
A	0	0.00%	1.0
B	0	0.00%	1.0
C	162,090	100.00%	1.0
D	0	0.00%	1.0

P_e =	1.00 in.(s)

Where:

I = 10.0 %

Target ESDv

$$ESD_V = \frac{(P_e)(R_V)(A)}{12}$$

ESD_v =	1,702.43 ft^3

Where:

A = 162,090 ft^2

ESDv Runoff Depth

$$Q_e = (P_e)(R_v)$$

ESD Runoff Depth, QE (in):	0.126

Where:

Pe= 1.00 in.

Water Quality Volume

$$WQ_V = \frac{(P_e)(R_V)(A)}{12}$$

WQv=	1,702.43 ft^3

Where:

Pe= 1.00 in.

Required Recharge Volume

$$Re_V = \frac{(S)(R_V)(A)}{12}$$

Rev= 0.0051 ac-ft or 221.32 cf

S = HSG % of site = 0.13

*S Factors from MDE 2001 Manual

HSG	Recharge Factor
A	0.38
B	0.26
C	0.13
D	0.06

***** ONE SET OF TABLES NEEDED FOR EACH SITE DRAINAGE AREA*****

Permit Number	G02
Project Number	25-1878
Project Name	Hannon Property
Structure Address	200 Glen Oban Drive
Structure City	Arnold
State	Maryland
Structure Zip	21012
Total Drainage Area (Ac.)	1.885
RCN - Pre Construction	74
RCN - Post Construction	72
RCN - Woods	70
Total Number of BMP's	2
PE Required	1.00
PE Addressed	1.06
MD 8-Digit HUC	02131102
USGS 12-Digit HUC	

https://data.maryland.gov/Energy-and-Environment/Maryland-s-8-Digit-Sub-Watersheds/e9i9-vuxg

Storm_ID	STRU_NAME	MDE BMP CLASS	MDE BMP TYPE	CONSTRUCTION PURPOSE	ON or OFF SITE	LAND USE	DEVICE DRAINAGE AREA (acres)	IMPERVIOUS AREA DRAINING TO DEVICE (acres)	IMPERVIOUS ACRES RESTORED (acres)	MD NORTH COORD (NAD83-FT)	MD EAST COORD (NAD83-FT)	WQ_v (ac-ft)
	NRD-1	E	NDNR	NEWD - New Development	ONSITE	11	0.01	0.01	n/a	N499564	E1447564	41.33
	MB - 1	E	MMBR	nEWD - New Development	ONSITE	11	0.27	0.17	n/a	N499175	E1447575	862.50
	MB - 1	E	MMBR	NEWD - New Development	ONSITE	11	0.17	0.09	n/a	N499420	E1447460	900.000

STORMWATER MANAGEMENT STRUCTURE SUMMARY TABLE

Project Name: Hannon Property				Project No.:		Subdiv. No.:				
Bay Eng. No.: 25-1878		Design By: J. Slenker		Date: 10/31/2025		Tax Map/Grid/Parcel: 0039/0010/0477				
Overall DA	Practice	Structure No.	Type	Location		Drainage Area Treated (acres)	Maximum Volume for 1-Yr 24-Hr. Storm (Cu. Ft.)	Water Quality Volume (Cu. Ft.)	Actual Device Volume (Cu. Ft.)	Pe Provided (in.)
1	Non-Rooftop Disconnection	NRD-1	N2	N499564	E1447564	0.012	111.58	41.33	41.33	1.00
	Micro-Bioretention	MB-1	M6	N499175	E1447575	0.267	1,636.20	862.50	862.50	1.42
	Micro-Bioretention	MB-2	M6	N499420	E1447460	0.175	918.03	900.00	900.00	2.65
					Total	0.187	2,665.81	**1,803.83**	1,803.83	
					ESD_v Required			**1,702.43**		

Total Site P_e Provided:

SWM Provided for: New Development Conditions

P_e = 1.06 in.

Where:

ESD_v = 1,803.83 ft^3

R_v = 0.13

A (Site Area) = 162,090 ft^2

**Note: These values taken from the Stormwater Management Requirements sheet of these computations.*

6

Environmental Site Design

N-2	Disconnection of Non-Rooftop Runoff		
Drainage Area:	Driveway	Device Name:	NRD-1

Concept Design:

Contributing Drainage Area=	522	ft^2	0.012	ac.
Maximum Drainage Area =	1000	ft^2		
Impervious Coverage =	522	ft^2	0.012	ac.
Percent Impervious (I)=	100	%		
$R_v = 0.05 + 0.009(I)$ =	0.95			

ESDv Provided:

Pervious Length=	85	ft.	Max. Contributing Pervious length = 150-ft
Contributing Imp. Length =	10	ft.	Max. Contributing Imp. Length = 75-ft.
Impervious Ratio=	1:1		
Pervious Ratio =	0.5:1		(Per Table 5.7 (page 5.62)
Pe Provided =	1.0	in.	MD State SWM Manual
Required Length =	53		

$$ESD_v = \frac{(P_E)(A)(R_V)}{12}$$

ESDv=	41.33	ft^3

Table 5.7 ESD Sizing Factors for Non-Rooftop Disconnection

Ratio of Disconnection Length to Contributing Length					
Imperviou s Ratio	0.2:1	0.4:1	0.6:1	0.8:1	1:1
Pervious Ratio	0.1:1	0.2:1	0.3:1	0.4:1	0.5:1
Pe (in.)=	0.2	0.4	0.6	0.8	1.0

Maximum ESDv Allowed:

1-year runoff (Max. Pe) = 2.7 in.

$$ESD_v = \frac{(2.7)(A)(R_V)}{12}$$

Max. ESDv=	111.58	ft^3

Environmental Site Design

M-6 Micro-Bioretention

Drainage Area: Drainage Area 1 Device Name: MB-1

Concept Design:

Contributing Drainage Area=	11610	ft^2	0.27	acres
Impervious Coverage =	7435	ft^2	0.17	acres
Percent Impervious (I)=	64.03962	%		
$R_v = 0.05 + 0.009(I)$ =	0.626357			

ESD_V Required

$ESD_{V,Req.} = (P_E \times R_V \times A) / 12$ =	606	CF
Pe Reqired =	1.00	in.
75% of ESDV,Req. =	454.5	CF

ESD_V Provided

Media Depth, df =	5.75	FT.
Mulch =	3	in.
Planting Soil =	48	in.
Pea Gravel=	6	in.
Gravel =	12	in.
Surface Area, Af =	250	SF
Surface Area Required =	233	*2% of Drainage Area*
Planting Media Porosity, n =	0.4	
Ponding Depth, D =	1.00	FT.

Ponding Storage

WSE	Δ WSE (FT)	Surface Area (SF)	Avg. Surface Area (SF)	Total Volume (CF)	Net Storage (CF)	Total Storage (CF)
98.00	0.00	250.00	0.00	0.00	0.00	0.00
98.50	0.50	250.00	250.00	125.00	125.00	125.00
99.00	0.50	FALSE	125.00	62.50	62.50	187.50

Total Storage Volume Provided = **187.50** CF

Depth of Enhanced Filter = 12.00 in.

Total Combine Storage:

Ponding Storage =	187.50	cf
Media Storage =	575.00	cf
Enhanced Filter =	100.00	cf
ESDv provided =	862.50	cf

(n x Af x Media depth (df)) = Media Storage

Pe Prov. = 1.42 in.

Maximum ESDv Allowed: PE? 0.322997

1-year runoff (Max. Pe) = 2.7 in.

$$ESD_v = \frac{(2.7)(A)(R_V)}{12}$$

Max. ESDv= 1636.20 ft^3

Environmental Site Design

M-6 Micro-Bioretention

Drainage Area: Drainage Area 1 Device Name: MB-2

Concept Design:

Contributing Drainage Area=	7605	ft²	0.17 acres
Impervious Coverage =	4111	ft²	0.09 acres
Percent Impervious (I)=	54.05654	%	
$R_v = 0.05 + 0.009(I)$ =	0.536509		

ESD_V Required

$ESD_{V,Req.} = (P_E \times R_V \times A) / 12$ =	0	CF
Pe Reqired =	0.00	in.
75% of ESDV,Req. =	0	CF

ESD_V Provided

Media Depth, df =	5.75	FT.
Mulch =	3	in.
Planting Soil =	48	in.
Pea Gravel=	6	in.
Gravel =	12	in.
Surface Area, Af =	200	SF
Surface Area Required =	153	*2% of Drainage Area*
Planting Media Porosity, n =	0.4	
Ponding Depth, D =	1.00	FT.

Ponding Storage

WSE	Δ WSE (FT)	Surface Area (SF)	Avg. Surface Area (SF)	Total Volume (CF)	Net Storage (CF)	Total Storage (CF)
84.00	0.00	200.00	0.00	0.00	0.00	0.00
84.50	0.50	200.00	200.00	100.00	100.00	100.00
85.00	0.50	200.00	200.00	100.00	100.00	200.00

Total Storage Volume Provided = **200.00** CF

Depth of Enhanced Filter = 36.00 in.

Total Combine Storage:

Ponding Storage =	200.00	cf
Media Storage =	460.00	cf
Enhanced Filter =	240.00	cf
ESDv provided =	900.00	cf

(n x Af x Media depth (df)) = Media Storage

Pe Prov. = 2.65 in.

Maximum ESDv Allowed:

PE? 0.394477

1-year runoff (Max. Pe) = 2.7 in.

$$ESD_v = \frac{(2.7)(A)(R_V)}{12}$$

Max. ESDv= 918.03 ft³

TR-55 DESIGN COMPUTATION

By: JS
Date: October-25
Check: MG
Date: October-25
Sheet 1 of 1

Project: Hannon Property
Job Number: 25-1878
Drainage Area: DA #1

Existing: [X] Interim: [ ] Proposed [ ]
Ultimate [ ] Reduced Curve Number [ ]

Soil Group	Land Use or Zoning	Hydrologic Condition	% Imperv.	RCN Table 2-2	RCN Figure 2-3	RCN Figure 2-4	Area (Acre)	RCN x Area
C	GRASS	GOOD		74			0.318	23.53
C	WOODS	GOOD		70			0.082	5.74
C	IMP			98			0.019	1.86
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
				Total Square Miles:	0.000655	Total Acres:	0.419	31.13

Weighted RCN= 74.31 , Use 74

TIME OF CONCENTRATIONS

ID	Type of Flow	L(ft.)	n	A	WP	Slope (Percent)	Vel. (fps)	Time (Hours)
A-B	Sheet Flow - woods	100	0.24			4.5		0.172
	Shallow Conc. Flow (fig. 3-1)							
B-C	paved X unpaved	46				9.2	4.89	0.003
	paved unpaved						0.00	
	paved unpaved						0.00	
	paved unpaved							
	Channel Flow							
	Pipe					Assume=>	0.0	
						Assume=>	0.0	
							Total	0.175

(Place Travel Time Comps on back of sheet)

Initial Abstraction Ia = 0.703 in. (Table 5-1) Use Tc= 0.17 Tt=

Rainfall Freq. =	1 Year	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year
Rainfall, P(in) =	2.7	3.2	4.4	5.2	6.1	6.7	7.4
Ia/P =	0.260	0.220	0.160	0.135	0.115	0.105	0.095
Peak (csm/in.) =	886	875	858	851	846	842	842
Runoff Q (in) =	0.72	1.04	1.90	2.52	3.27	3.78	4.393
Peak Dischg. (CFS)=	0.42	0.59	1.07	1.41	1.81	2.08	2.42

TR-55 DESIGN COMPUTATION

By: JS
Date: October-25
Check: MG
Date: October-25
Sheet 1 of 1

Project: Hannon Property
Job Number: 25-1878
Drainage Area: DA #2

Existing: [X] Interim: [ ] Proposed [ ]
Ultimate [ ] Reduced Curve Number [ ]

Soil Group	Land Use or Zoning	Hydrologic Condition	% Imperv.	RCN Table 2-2	RCN Figure 2-3	RCN Figure 2-4	Area (Acre)	RCN x Area
C	GRASS	GOOD		74			0.872	64.53
C	WOODS	GOOD		70			2.090	146.30
C	IMP			98			0.338	33.12
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
				Total Square Miles:	0.005156	Total Acres:	3.300	243.95

Weighted RCN= 73.92 , Use 74

TIME OF CONCENTRATIONS

ID	Type of Flow	L(ft.)	n	A	WP	Slope (Percent)	Vel. (fps)	Time (Hours)
A-B	Sheet Flow - woods	100	0.24			3.5		0.190
	Shallow Conc. Flow (fig. 3-1)							
B-C	paved X unpaved	85				6.4	4.08	0.006
C-D	paved unpaved	122				2.0	2.87	0.012
D-E	paved X unpaved	345				26.2	8.26	0.012
	paved unpaved							
	Channel Flow							
	Pipe					Assume=>	0.0	
						Assume=>	0.0	
							Total	0.219

(Place Travel Time Comps on back of sheet)

Initial Abstraction Ia = 0.703 in. (Table 5-1) Use Tc= 0.22 Tt=

Rainfall Freq. =	1 Year	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year
Rainfall, P(in) =	2.7	3.2	4.4	5.2	6.1	6.7	7.4
Ia/P =	0.260	0.220	0.160	0.135	0.115	0.105	0.095
Peak (csm/in.) =	802	794	783	778	774	771	771
Runoff Q (in) =	0.72	1.04	1.90	2.52	3.27	3.78	4.393
Peak Dischg. (CFS)=	2.99	4.25	7.65	10.13	13.05	15.04	17.47

TR-55 DESIGN COMPUTATION

By: JS
Date: October-25
Check: MG
Date: October-25
Sheet 1 of 1

Project: Hannon Property
Job Number: 25-1878
Drainage Area: DA #2

Existing: [ ] Interim: [ ] Proposed [X]
Ultimate [ ] Reduced Curve Number [ ]

Soil Group	Land Use or Zoning	Hydrologic Condition	% Imperv.	RCN Table 2-2	RCN Figure 2-3	RCN ure 2-4	Area (Acre)	RCN x Area
C	GRASS	GOOD		74			1.129	83.55
C	WOODS	GOOD		70			2.047	143.29
C	IMP			98			0.124	12.15
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
			Total Square Miles:		0.005156	Total Acres:	3.300	238.99

Weighted RCN= 72.42 , Use 72

TIME OF CONCENTRATIONS

ID	Type of Flow	L(ft.)	n	A	WP	Slope (Percent)	Vel. (fps)	Time (Hours)
A-B	Sheet Flow - woods	100	0.24			3.50		0.190
	Shallow Conc. Flow (fig. 3-1)							
B-C	paved X unpaved	85				6.40	4.08	0.006
C-D	paved unpaved	122				2.00	2.87	0.012
D-E	paved X unpaved	345				26.20	8.26	0.012
	Channel Flow							
	Pipe					Assume=>	0.0	
						Assume=>	0.0	
							Total	0.219

(Place Travel Time Comps on back of sheet)

Initial Abstraction Ia = **0.778** **in. (Table 5-1)** **Use Tc=** **0.22** **Tt=**

Rainfall Freq. =	**1 Year**	**2 Year**	**5 Year**	**10 Year**	**25 Year**	**50 Year**	**100 Year**
Rainfall, P(in) =	2.7	3.2	4.4	5.2	6.1	6.7	7.4
Ia/P =	0.288	0.243	0.177	0.150	0.128	0.116	0.105
Peak (csm/in.) =	807	798	786	781	777	775	772
Runoff Q (in) =	0.64	0.93	1.75	2.35	3.08	3.57	4.172
Peak Dischg. (CFS)=	2.64	3.83	7.08	9.47	12.31	14.28	16.62

TR-55 DESIGN COMPUTATION

By: JS
Date: October-25
Check: MG
Date: October-25
Sheet 1 of 1

Project: Hannon Property
Job Number: 25-1878
Drainage Area: DA #2

Existing: [ ] Interim: [ ] Proposed [ ]
Ultimate [ ] Reduced Curve Number [X]

Soil Group	Land Use or Zoning	Hydrologic Condition	% Imperv.	RCN Table 2-2	RCN Figure 2-3	RCN Figure 2-4	Area (Acre)	RCN x Area
	REDUCED CURVE NUMBER			72			3.300	237.60
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
								0.00
			Total Square Miles:	0.005156	Total Acres:		3.300	237.60

Weighted RCN= 72.00 , Use 72

TIME OF CONCENTRATIONS

ID	Type of Flow	L(ft.)	n	A	WP	Slope (Percent)	Vel. (fps)	Time (Hours)
A-B	Sheet Flow - woods	100	0.24			3.50		0.190
	Shallow Conc. Flow (fig. 3-1)							
B-C	paved X unpaved	85				6.40	4.08	0.006
C-D	paved unpaved	122				2.00	2.87	0.012
D-E	paved X unpaved	345				26.20	8.26	0.012
	Channel Flow							
	Pipe					Assume=>	0.0	
						Assume=>	0.0	
(Place Travel Time Comps on back of sheet)							Total	0.219

Initial Abstraction Ia = **0.778** **in. (Table 5-1)** **Use Tc=** **0.22** **Tt=**

Rainfall Freq. =	**1 Year**	**2 Year**	**5 Year**	**10 Year**	**25 Year**	**50 Year**	**100 Year**
Rainfall, P(in) =	**2.7**	**3.2**	**4.4**	**5.2**	**6.1**	**6.7**	**7.4**
Ia/P =	0.288	0.243	0.177	0.150	0.128	0.116	0.105
Peak (csm/in.) =	807	798	786	781	777	775	772
Runoff Q (in) =	0.64	0.93	1.75	2.35	3.08	3.57	4.172
Peak Dischg. (CFS)=	**2.64**	**3.83**	**7.08**	**9.47**	**12.31**	**14.28**	**16.62**

10-Year Reduced CN Calculation (Site Drainage Area)

Drainage Area (ac.)

DA = 3.300 ac.

CN = 74

Q Developed - Q_D (in.)

Q_D= 2.52 in.

$$Q_D = \frac{(P - 0.2S)^2}{(P + 0.8S)}$$

P = 5.2 in. (10-yr storm)

S = 3.51

V_{stored} (ft^3)

V_{stored} = 1763 ft^3 (see volume computations below)

Q Stored - Q_s (in.)

Q_S= 0.147 in. Q_S = *[Vstored (ft^3) x 12 (in./ft.)] / [Drainage Area (ac.) x 43,560 (ft^2/ac.)]*

Q Adjusted - Q_A (in.)

$Q_A = Q_D - Q_S$ Q_A= 2.38 in.

Adjusted CN

$$CN = 200/[(P+2Q_A+2)-\sqrt{(5PQ_A+4Q_A^2)}^{0.5}]$$

P= 5.2 in.

CN= 72

Map Scale: 1:1,420 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

18

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AoB	Annapolis loamy sand, 2 to 5 percent slopes	C	1.8	52.2%
AsF	Annapolis fine sandy loam, 25 to 40 percent slopes	C	1.7	47.8%
Totals for Area of Interest			3.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

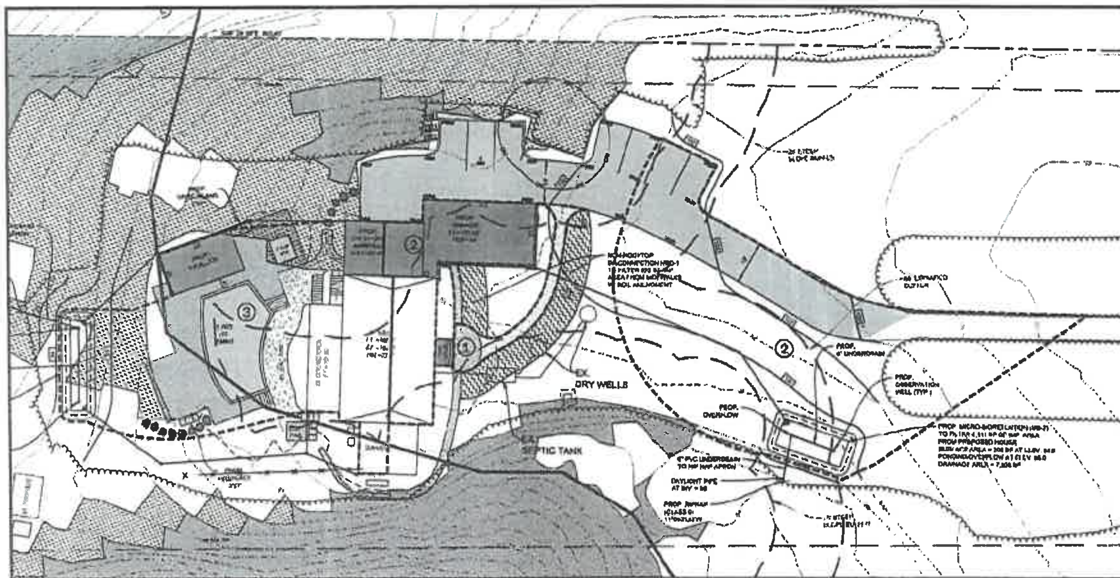
Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

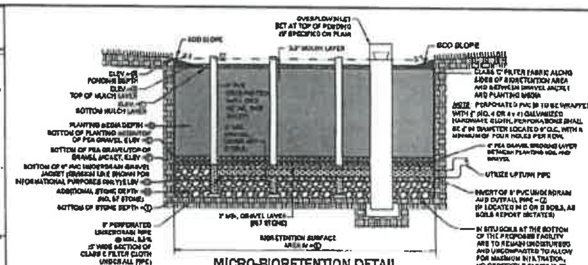
Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

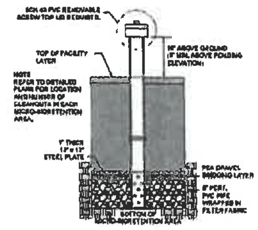
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



DRAINAGE AREA TO ESD FACILITIES
SCALE: 1" = 20'



MICRO-BIORETENTION DETAIL
SCALE: NONE



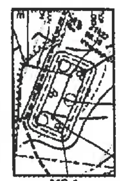
STANDARD MICRO-BIORETENTION AREA OBSERVATION WELL DETAIL

MICRO-BIORETENTION - CONSTRUCTION CRITERIA, INSPECTION NOTES & MAINTENANCE NOTES

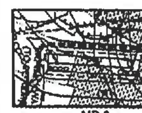
[illegible]

MICRO-BIORETENTION PLANTINGS / PER MB DEVICE

KEY	BOTANICAL NAME	COMMON NAME	QTY	CONTAINER	SPACING
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]



MB-1
PLANTING PLAN
SCALE: 1" = 20'



MB-2
PLANTING PLAN
SCALE: 1" = 20'

MICRO-BIORETENTION SUMMARY TABLE

[illegible]

NON-ROOFTOP DISCONNECTION - CONSTRUCTION CRITERIA & MAINTENANCE NOTES

[illegible]

STORMWATER MANAGEMENT STRUCTURE SUMMARY TABLE

[illegible]

ESD DRAINAGE AREA TABLE

DRAINAGE DESIGNATION	FACILITY	AREA (SF)	IMP. (SF)
1	(NRD-1) NON-ROOFTOP DISCONNECT	822	822
2	(MB-1) MICRO-BIORETENTION	11,810	7,436
3	(MB-2) MICRO-BIORETENTION	7,886	4,111

CALL BEFORE YOU DIG!
MARYLAND LAW REQUIRES 48 HOURS NOTICE
BEFORE PLANNED WORK TO MARK
UNDERGROUND UTILITIES PRIOR TO EXCAVATION
MISS UTILITY: 1-800-257-7777

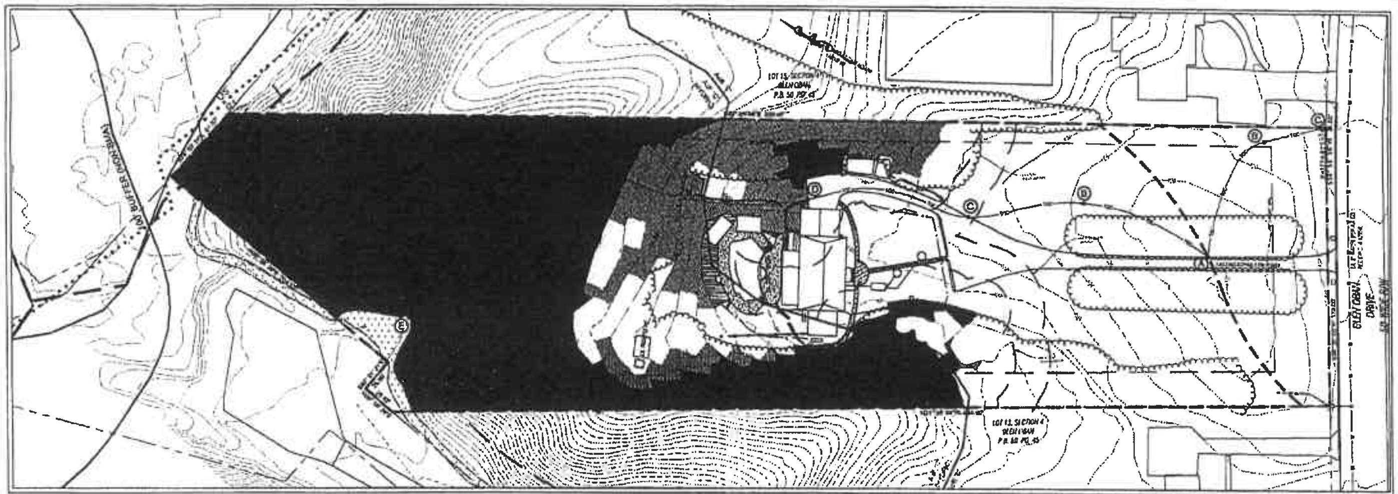
STORM WATER MANAGEMENT DETAILS & SPECIFICATIONS

VARIANCE PLAN
FOR THE
HANNON PROPERTY

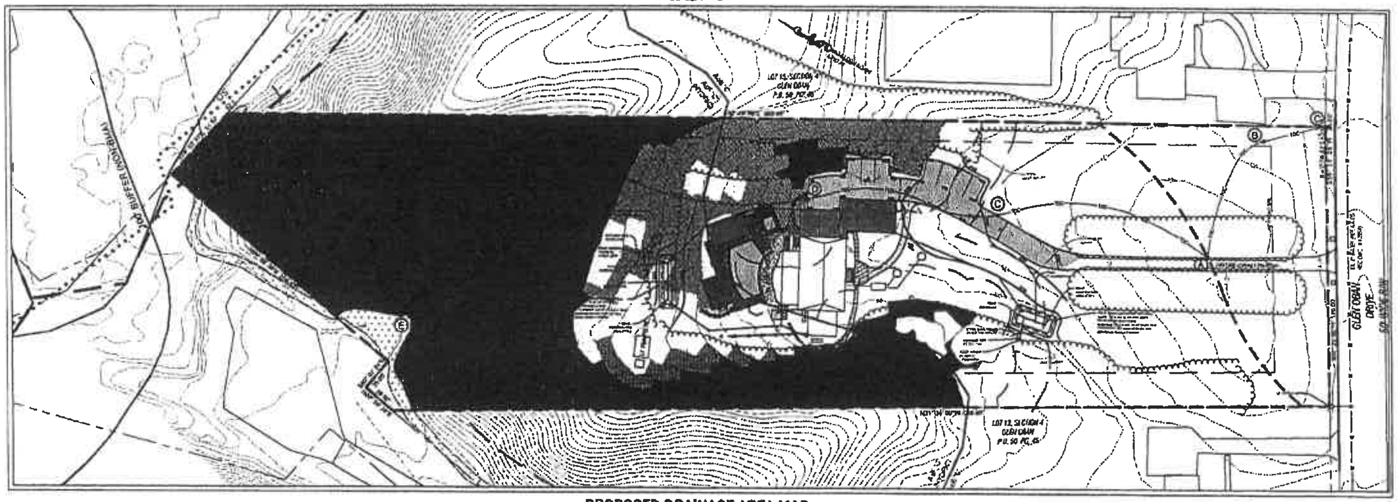
SCALE: AS SHOWN
DATE: OCTOBER, 2025
SHEET OF

REVISION DESCRIPTION | BY | DATE

MESSICK & ASSOCIATES
CONSULTING ENGINEERS,
PLANNERS AND SURVEYORS
7 OLD SOLOMONS ISLAND ROAD, SUITE 202
ANNAPOLIS, MARYLAND 21401
(410) 266-3212 * FAX (410) 266-3502 email:
engr@messickandassociates.com



EXISTING DRAINAGE AREA MAP
SCALE: 1" = 40'



PROPOSED DRAINAGE AREA MAP
SCALE: 1" = 40'

**EXISTING CONDITIONS
SITE DRAINAGE**

EXISTING DRAINAGE AREA #1 = 0.410 Ac.
RUNOFF CURVE NUMBER = 74
TIME OF CONCENTRATION = 0.175 Hrs.

SHEET FLOW	A - B	100' @	4.6%,	n = 0.24, 0.172 Hrs.
SHALLOW CONC.	B - C	48' @	9.2%, UNPAVED, 0.003 Hrs.	

Q₁₀ = 1.41 cfs

EXISTING DRAINAGE AREA #2 = 3.300 Ac.
RUNOFF CURVE NUMBER = 74
TIME OF CONCENTRATION = 0.210 Hrs.

SHEET FLOW	A - B	100' @	3.5%,	n = 0.24, 0.190 Hrs.
SHALLOW CONC.	B - C	85' @	6.4%, UNPAVED, 0.008 Hrs.	
SHALLOW CONC.	C - D	122' @	2.0%, PAVED, 0.012 Hrs.	
SHALLOW CONC.	D - E	345' @	26.2%, UNPAVED, 0.012 Hrs.	

Q₁₀ = 10.13 cfs

DRAINAGE AREA LEGEND

PROPERTY LINE / RIGHT-OF-WAY
DRAINAGE AREA BOUNDARY LINE
TIME OF CONCENTRATION

**PROPOSED CONDITIONS
SITE DRAINAGE**

PROPOSED DRAINAGE AREA #1 = 0.410 Ac.
* NO CHANGE TO DRAINAGE AREA

PROPOSED DRAINAGE AREA #2 = 3.300 Ac.
RUNOFF CURVE NUMBER = 72
TIME OF CONCENTRATION = 0.210 Hrs.

SHEET FLOW	A - B	100' @	3.5%,	n = 0.24, 0.190 Hrs.
SHALLOW CONC.	B - C	85' @	6.4%, UNPAVED, 0.008 Hrs.	
SHALLOW CONC.	C - D	122' @	2.0%, PAVED, 0.012 Hrs.	
SHALLOW CONC.	D - E	345' @	26.2%, UNPAVED, 0.012 Hrs.	

Q₁₀ = 9.47 cfs

CALL BEFORE YOU DIG!
MARYLAND LAW REQUIRES 48 HOURS NOTICE
BEFORE PLANNED WORK TO MARK
UNDERGROUND UTILITIES PRIOR TO EXCAVATION
MISS UTILITY: 1-800-257-7777

EXISTING & PROPOSED DRAINAGE AREA MAPS

VARIANCE PLAN
FOR THE
HANNON PROPERTY
200 GLEN OBAN DRIVE
ARNOLD, MD 21012
TAX MAP 39 – GRID 19 – PARCEL 477 – LOT 11
TAX ACCOUNT 03-364-26111800
ZONING: R1 / LDA & RCA
THIRD ELECTION DISTRICT ANNE ARUNDEL COUNTY, MARYLAND
SCALE: AS SHOWN DATE: OCTOBER, 2025 SHEET OF

OWNER/DEVELOPER
CULLEN HANNON
200 GLEN OBAN DRIVE
ARNOLD, MD 21012

REVISION DESCRIPTION	BY	DATE

MESSICK & ASSOCIATES
CONSULTING ENGINEERS,
PLANNERS AND SURVEYORS
7 OLD SOLOMONS ISLAND ROAD, SUITE 202
ANNAPOLIS, MARYLAND 21401
(410) 266-3212 * FAX (410) 266-3502 email:
engr@messickandassociates.com

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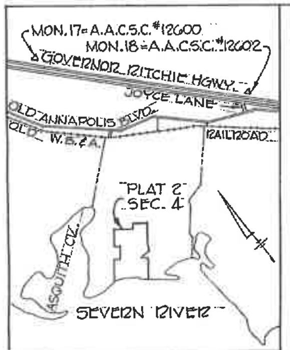


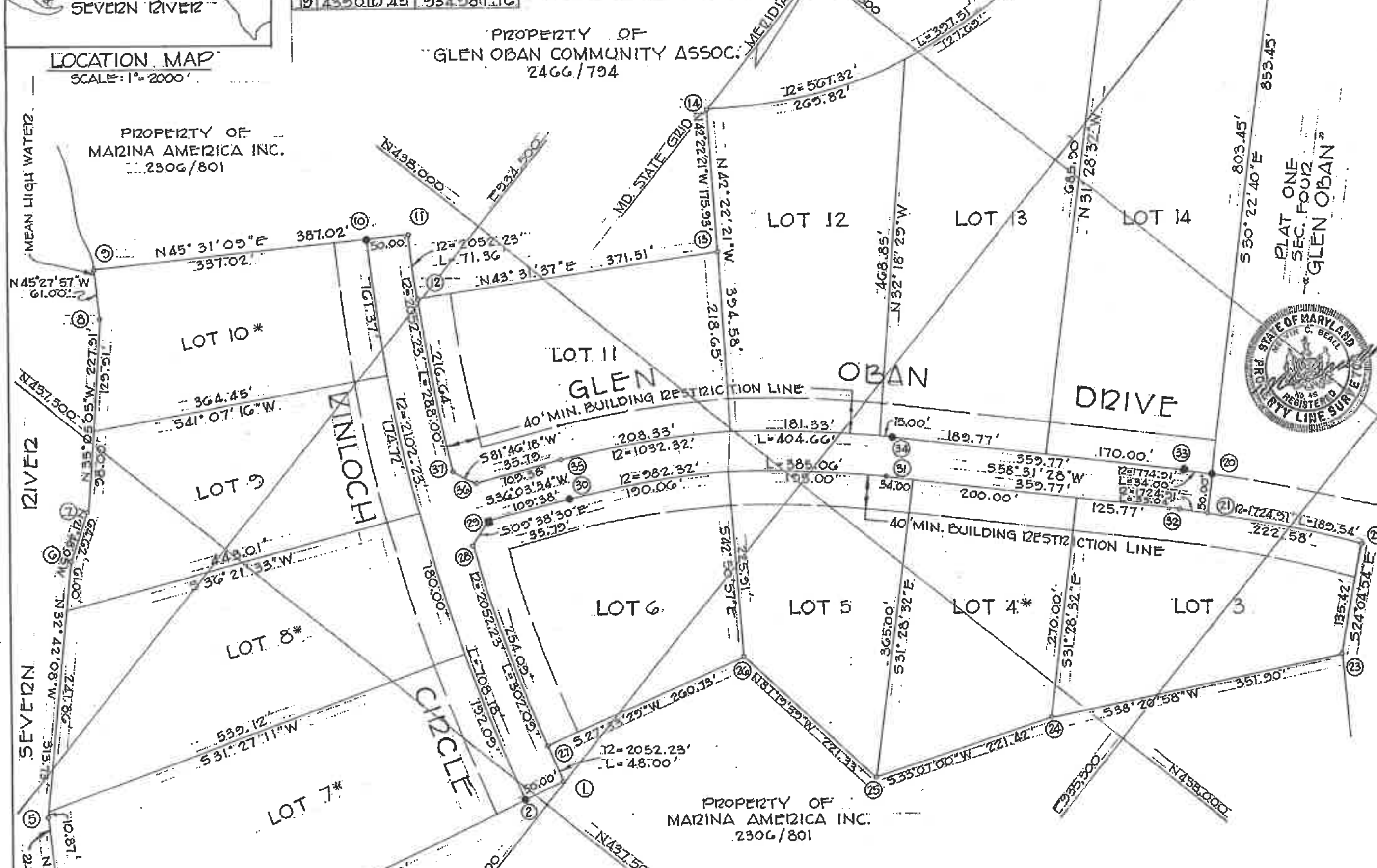
LOCATION MAP
SCALE: 1"=2000'

COORDINATE TABLE		
NO.	NORTH	EAST
1	437533.30	934998.24
2	437488.44	934976.15
3	436945.40	934708.73
4	436981.00	934665.50
5	437112.00	934532.50
6	437376.00	934363.00
7	437436.00	934339.00
8	437622.50	934208.00
9	437665.28	934164.52
10	437901.42	934404.98
11	437936.46	934440.65
12	437886.42	934491.53
13	438155.78	934747.38
14	438285.75	934628.81
15	438622.53	934824.36
16	438821.50	934859.69
17	438811.13	934884.31
18	439072.44	934920.76
19	439010.49	934981.16

COORDINATES (CONT.)		
NO.	NORTH	EAST
20	438317.34	935387.46
21	438274.21	935412.75
22	438360.89	935581.20
23	438237.26	935636.46
24	437961.28	935418.12
25	437775.83	935257.15
26	437786.15	935076.05
27	437555.00	934955.43
28	437680.18	934738.01
29	437721.47	934732.02
30	437809.89	934796.41
31	438069.38	935077.57
32	438257.23	935384.40
33	438295.87	935358.30
34	438112.02	935051.46
35	437839.32	934755.99
36	437750.50	934651.60
37	437745.78	934656.18

The recreation requirements of A.A.Co. have been met by the deeding of 5.134 Acres of land to the Glen Oban Association, by deed dated Feb. 4, 1972 and recorded in Liber M.S.H. 2466 at Folio 794. The articles of incorporation of Glen Oban Association, Inc. are recorded in Book 58 Page 9.

*-NOTE:
No building permit may be issued on the lots designated * until a grading plan has been approved.



CURVE DATA					
NO.	Δ	RAD.	LEN.	TAN.	CHORD
22-21	06-17-46	1724.91	189.54	94.87	S62-46-13W 189.45
14-15	40-08-47	567.32	397.51	207.31	N30-08-31E 389.43
20-33	01-05-51	1774.91	34.00	17.00	S59-04-24W 34.00
34-35	22-27-34	1032.32	404.66	204.96	S47-17-41W 402.08
21-32	01-05-51	1724.91	33.04	16.52	S59-04-24W 33.04
31-30	22-27-34	982.32	385.06	195.04	S47-17-41W 382.60
1-27	01-20-24	2052.23	48.00	24.00	N63-06-43W 48.00
1-28	08-26-02	2052.23	302.09	151.32	N59-33-55W 301.81
37-11	08-02-27	2052.23	288.00	144.24	N48-30-05W 287.77
12-11	01-59-32	2052.23	71.36	35.68	N45-28-37W 71.35
2-10	19-18-04	2102.23	708.18	357.48	N54-07-53W 704.83

The coordinates shown hereon are based on the Maryland State System of Plane Coordinates as established from A.A.Co. Office of Planning and Zoning Traverse Stations.
MON. 17 = A.A.C.S.C. #12600
MON. 18 = A.A.C.S.C. #12602

■ = Denotes concrete monument to be set in accordance with the Subdivision Regulations of Anne Arundel County.

● = Denotes iron bar to be set in accordance with the Subdivision Regulations of Anne Arundel County.

OWNERS DEDICATION:

We, Marina America Inc. a corporation of the state of Conn. by Robert M. Fenner, Ass't Treasurer, owners of the property shown and described hereon, hereby adopt this plan of subdivision, establish the minimum building restriction lines, and dedicate the streets, widening strips, and storm drainage easements to public use, such lands to be deeded to Anne Arundel County upon request.
There are no suits, actions at law, leases, liens, mortgages, trust, easements or rights of way affecting the property included in this plan of subdivision.

MARINA AMERICA INC.
BY: Robert M. Fenner 9-17-73
ASS'T. TREASURER DATE
ATTEST: [signature] 9-17-73
DATE

SURVEYORS CERTIFICATE:

I hereby certify that the plat shown hereon is correct, that it is a subdivision of part of the lands conveyed by Betty Wheat Foster and Samuel D. Foster Jr. to Marina America Inc. by deed dated August 31, 1970 and recorded among the Land Records of A.A.Co. Md. in Liber M.S.H. 2306 at Folio 801.

Melvin C. Beall 10/1/73
MELVIN C. BEALL Propt. L.S. REG. NO. 45 DATE

The requirements of sections 59 to 62 of article 17 of the Annotated Code of Maryland 1957 Edition (Title: Clerks of Court) as far as they relate to the making of this plat and the setting of markers have been complied with.

MARINA AMERICA INC.
BY: Robert M. Fenner 9-17-73
ASS'T. TREASURER DATE
ATTEST: [signature] 9-17-73
DATE

STATE OF MARYLAND MELVIN C. BEALL No. 45 REGISTERED PROPERTY LINE SURVEYOR

Melvin C. Beall 10/1/73
MELVIN C. BEALL Propt. L.S. REG. NO. 45 DATE

NOTICE TO TITLE EXAMINERS:

1. This plat has been approved for recording only, subject to a Subdivision Agreement with Anne Arundel Co. Md. dated Oct. 11, 1973 and recorded in the Land Records of Anne Arundel Co. Md. in Liber 2628 at Folio 775.
2. No sale or contract of sale of the lots shown hereon shall be made until the necessary improvements have been satisfactorily guaranteed by a surety bond, certified check, cash, or an irrevocable letter of credit from a local bank or other such security as authorized by law and that such Agreement has been entered into by the developer with the Public Works Department in accordance with Subdivision Regulations.
3. No building permits shall be issued for any construction in this development other than sample permits, until the requirements of paragraph (2) above have been complied with.
4. All utilities including gas, elec. and communications shall be installed underground in accordance with the Public Service Comm. Statewide Rules of June 14, 1968.
5. The rear five feet of each lot is reserved as an easement for utilities.

ANNE ARUNDEL CO. OFFICE OF PLANNING AND ZONING
APPROVED:
Marion J. McCoy Jr. 10-10-73
MARION J. McCOY PLANNING AND ZONING OFFICER DATE

ANNE ARUNDEL CO. HEALTH DEPARTMENT
APPROVED:
J. Howard Beard 10-3-73
J. HOWARD BEARD COUNTY HEALTH OFFICER DATE

PLAT TWO - SECTION FOUR
"GLEN OBAN"

THIRD DISTRICT ANNE ARUNDEL CO.
SCALE: 1"=100' OCT. 1973
100' 50' 0 100' 200' 300

JOHN E. HARMS JR. AND ASSOCIATES
CONSULTING ENGINEERS
PASADENA MARYLAND

BOOK NO. 50 FOLIO 45

OFFICE OF PLANNING AND ZONING

CONFIRMATION OF PRE-FILE

PRE-FILE #: 2025-00077-P
DATE: 08/15/2025
STAFF: Joan A. Jenkins (OPZ)
Kelly Krinetz (OPZ)
Natalie Norberg (I&P)

APPLICANT/REPRESENTATIVE: Caitlin Hannon / Messick & Assoc. / Wayne Newton

EMAIL: caitlin.hannon@buildingimpact.com / engr@messickandassociates.com / wayne@messickandassocates.com

SITE LOCATION: 200 Glen Oban Dr, Arnold **LOT SIZE:** 3.72 ac

ZONING: R1, OS **CA DESIGNATION:** LDA,RCA **BMA:** **or BUFFER:** **APPLICATION TYPE:** VAR

DESCRIPTION:
The applicant proposes to replace structurally unsound failing walls, deck and patios area around the existing pool and add a three-car garage to the existing dwelling. The structures around the pool are in a dangerous state and need to be replaced. Some of the work will take place in steep slopes, and a portion of the access will traverse steep slopes. The pool will remain in place, and the existing features around it will be reconstructed in a slightly different manner but in the same general footprint. The garage addition is needed to have space for a growing family as well as to provide the availability for first floor living as well as storage for yard equipment due to the failing sheds. To construct the addition, two existing sheds will be removed. Part of the garage addition is to account for the loss of storage, as the sheds were also poorly constructed and are rapidly deteriorating. The driveway will also be reconfigured to access the garage. Roughly half of the property is located on steep slopes. The proposed development will result in a decrease in lot coverage in the LDA.

COMMENTS:

I & P Engineering:
1. Show and label any existing and proposed stormwater management devices. Label what is to be done with any existing devices.
2. Show and label the existing water meter.
3. Add a legend for the various hatches and line types including the limits of disturbance, the three different fence line types, the walkway from the driveway to the proposed stoop, and the rock structure located west of the existing pool.
4. Include the proposed stoop in the limits of disturbance.
5. The limits of disturbance appear excessive on the downhill side for the structures to be removed.
6. Label all septic drywells.
7. It appears the plan view shifts to the northwest between the existing and proposed conditions making the review more difficult, as the same items are not shown in each view.

Critical Area Team:
Relief to repair/replace the existing improvements can be supported however additional steep slope disturbance to accommodate any expansion of any of the existing improvements cannot be supported.

Zoning Administration Section:
The Zoning Administration section concurs with the Critical Area Team. The garage is large and could be minimized to a two-car garage and eliminate the disturbance to steep slopes in the northern corner. Reducing the garage size would eliminate the need for some of the driveway.

The letter of explanation should address 18-16-305(c), requirements for all variances. The house already has a garage. Is the current garage being converted to living space? If so, has the applicant considered a second floor on the existing garage vs. expanding the dwelling into the steep slopes? If the garage remains at this size there should be justification for the large size garage.

INFORMATION FOR THE APPLICANT

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.