BOYD & DOWGIALLO, P.A.
Engineers, Surveyors & Planners
Maryland Professional Engineering Firm License No. 47570

APP. EXHIBIT# 1
CASE: 2023-0168-V
DATE: 3/7/24

AFFIDAVIT OF POSTING

This affidavit of posting hereby certifies that notice of application for a variance has been posted on February 23, 2024, on property subject of Case No. 2023-0168-V as required by the Anne Arundel County code.

Boyd & Dowgiallo, P.A.

Jerry Tolodziecki
President

Job# 20-006

NOTICE

AN APPLICATION HAS BEEN FILED FOR VARIANCE TO ALLOW A DWELLING AND ASSOCIATED FACILITIES WITH DISTURBANCE TO SLOPES OF 15% OR GREATER AND THAT DOES NOT COMPLY WITH THE DESIGNATED LOCATION OF A PRINCIPAL STRUCTURE ON A WATERFRONT LOT.

LOCATION: 610 ECHO ROAD CROWNSVILLE

CASE NO: 2023-0168-V

SIKORA PROPERTIES, LLC

PENDING A PUBLIC ZOOM MEETING. FOR INFO CONTACT THE ZONING DIVISION AT 410-222-7437 OR VIEW WEBSITE WWW.AACOUNTY.ORG/ADMINHEAR/INDEX.CFM

NOTICE

AN APPLICATION HAS BEEN FILED FOR VARIANCE TO ALLOW A DWELLING AND ASSOCIATED FACILITIES WITH DISTURBANCE TO SLOPES OF 15% OR GREATER AND THAT DOES NOT COMPLY WITH THE DESIGNATED LOCATION OF A PRINCIPAL STRUCTURE ON A WATERFRONT LOT.

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For Office Use Only

CASE # _____

FEE PAID _____

DATE _____

APP. EXHIBIT# 2

CASE: 2023-0168-V

DATE: 3/7/24

SIGN: YES ____ NO ____

NO. OF SIGNS _____

VARIANCE APPLICATION

NOTE: This form can be downloaded to your computer and filled out utilizing Adobe Reader (or similar product). It can also be printed and filled out by hand.

Applicant(s): SIKORA PROPERTIES, LLC

(Applicant must have a financial, contractual, or proprietary interest in the property)

Property Address: 60 ECHO COVE RD, CROWNSVILLE, MD 21032

Property Location: 65 feet of frontage on the (N, S, E, W) side of ECHO COVE DRIVE (Enter Street Name);

200 feet (N, S, E, W) of (Nearest intersecting street) CLARE RD (Enter Street Name).

12-digit Tax Account Number 2748-0425-9250 Tax District (2) Council District (3)

Waterfront Lot: Y [X] N [ ] Corner Lot: Y [ ] N [X] Deed Title Reference 34538/207

Zoning District R2 Lot # 758 Tax Map 31 Block/Grid 8 Parcel 142

Area 10,942 (Sq Ft, or Acres) Subdivision Name SUNRISE BEACH, SEC. 5

Description of Proposed Project and Variance Requested (Brief, detail fully in letter of explanation)

A VARIANCE TO ARTICLE 17, SEC. 8-201(a) TO ALLOW THE DISTURBANCE OF 4806 SQFT OF STEEP SLOPES.

The applicant hereby certifies that he or she has a financial, contractual, or proprietary interest in the property; that he or she is authorized to make this application; that the information shown on this application is correct; and that he or she will comply with all applicable regulations of Anne Arundel County, Maryland.

Applicant's Signature Carole M Sikora	Owner's Signature Carole M Sikora, Member
Print Name SAME AS OWNER	Print Name For SIKORA PROPERTIES, LLC
Mailing Address _____	Mailing Address 20 HOME LANE
City, State, Zip _____	City, State, Zip SEVERNA PARK, MD 21146
Work Phone _____	Work Phone 786-391-5563
Home Phone _____	Home Phone —
Cell Phone _____	Cell Phone —
Email Address _____	Email Address SIKORAINVESTMENTS@GMAIL.COM

*** * * Below For Office Use Only * * ***

Application accepted by Anne Arundel County Office of Planning and Zoning: _____ Initials _____ Date

Variance to _____

Rev 08/03/16

BOYD & DOWGIALLO, P.A.

Engineers, Surveyors & Planners
Maryland Professional Engineering Firm License No. 47570

September 21, 2023

Anne Arundel County
Office of Planning and Zoning
2664 Riva Road
Annapolis, MD 21401

Re: Lot 758, Sunrise Beach
Crownsville, MD 21032
Tax #2748-0425-9250

Attn: Mr. Rob Konowal

Dear Mr. Konowal,

On behalf of our client, Sikora Properties, LLC, owner & developer of the above-referenced property, we are submitting herein a variance request to Article 17-8-201(a) of the Anne Arundel County Code.

The subject property is known as Lot 758 of Sunrise Beach, recorded among the Land Records of Anne Arundel County in Plat Book 18, page 23. The site is an existing legally buildable lot containing 19,942 square feet (sq.ft.) of land zoned R2. Adjacent lots in the neighborhood are improved with single family dwellings of similar size as the proposed dwelling and improvements. Public water and sewer service are not available in this area, so the structure would be served by private well and septic. The subject property is a waterfront lot located along the north side of Echo Cove Road in Crownsville, MD 21032. The site is located within an area designated LDA on the Chesapeake Bay Critical Area Maps, and subject to a "Modified Buffer" as shown on the County's Buffer Modification Map. The narrow lot is vacant, predominantly wooded, and contains existing 15%+ steep slopes along the waterfront. However, as noted by the environmental consultant for the project, the lot does not contain any historic waterfowl staging areas or colonial water bird nesting sites. The lot is also impacted by the 100-year tidal floodplain for the Severn River per current FEMA maps, but due to the existing topography, all improvements on-site are well above the flood elevation.

The location of the proposed dwelling and improvements is away from the steepest slopes and shoreline. In response to the pre-file comments dated July 29, 2022, environmental impacts were reduced by decreasing the size (finished area) of the proposed dwelling from 4,000+ sq.ft. to 2,500 sq.ft., which also allowed a reduction in the size of the proposed septic system. Additionally, this allowed the dwelling location to be shifted towards Echo Cove Road and away from the shoreline and steeper slopes existing nearer to the water. The proposed development would largely occur within the buffer to sleep slopes, and not on the steep slopes themselves. The adjusted location of the home is consistent with the immediately adjacent properties in terms of its distance from the water, and accordingly no variance to the "relatively in line" provisions of the County Code is required. Given the minimum required setbacks to the existing shallow wells on the opposite side of Echo Cove Road, the proposed dwelling cannot be moved any closer to Echo Cove Road. Further reduction of the size of the dwelling would make the property out of character with the nearby waterfront lots in the neighborhood. The topography of the site makes avoiding steep slopes and their buffer impossible, but the proposed home has been sized and sited to reduce the disturbance to the slopes and maximize distance to the mean high water of the river.

The decrease in the house size and its required septic system reduced the total proposed disturbance on-site to 9,230 sq.ft. The proposed steep slope and steep slope buffer disturbance is 4,806 sq.ft. and represents the least impactful disturbance while still allowing the lot to be developed. The total proposed lot coverage has also been reduced and is well below the maximum permitted under Critical Area requirements. Any proposed clearing on-site will address reforestation via off-site mitigation (due to the lack of any clear area on-site for reforestation). The requested relief is the minimum possible and is necessary to construct a single-family dwelling on this legal lot.

Therefore, on behalf of our client, we are requesting a variance to Article 17-8-201(a) of the County Code, to allow the disturbance of 6,300 square feet of steep slopes and their associated buffer within an area designated LDA.

In accordance with Article 18-16-305(b), it is our professional opinion that the requested variance is the minimal possible to allow construction of the proposed improvements, and area consistent with the abutting developed lots in the subdivision, based on the following:

(1) Unique physical conditions, including the wooded steep slope encumbering the narrow lot and the existing wells across Echo Cove Drive, would result in unwarranted hardship if the requested relief is not granted. Given that the portion of the lot abutting Echo Cove Road is the only location on-site which can accommodate a private septic system, the dwelling must be located within the steep slopes and their buffer. Without a variance to permit slope disturbance the legal lot would be rendered unbuildable.
(2) A literal interpretation of the critical area program would deprive the applicant of rights commonly enjoyed by other properties in similar areas. Denial of a variance to permit slope disturbance will preclude the construction of any dwelling on the property, denying the owner the ability to utilize the property for construction of a dwelling, consistent all of the abutting waterfront lots along the roadway with similar sized dwellings.
(3) Granting of the variance will not confer any special privilege. The applicant seeks to build a reasonably sized single-family dwelling on a legal lot consistent with the existing homes in the neighborhood. The abutting Lot 757 to the south was developed under a variance in 2015, and the applicant's proposed home will be of a comparable size and location to the surrounding development.
(4) The variance request is not based on actions or circumstances that are the result of actions by the applicant. Due to the steep slopes on-site and the existing shallow wells on the opposite side of Echo Cove Road, the septic area and dwelling locations on-site are limited; therefore, the variance is not a result of any actions by the applicant.
(5) The issuance of a variance for the proposed development and slope disturbance will not affect water quality or fish and wildlife habitat, since the proposed house and driveway address stormwater management via ESD practices. Reforestation is required at a 1:1 basis for any clearing on-site and will be provided as set forth in the attachments.
(6) The location of the dwelling is not in an area deemed bog; therefore, the house has no impact on the bog or its 100' upland buffer.
(7) As explained above, the issuance of a variance is consistent with the intentions of the critical area program, and overcomes the presumption in Natural Resources Article Sec. 8-1808 of the Maryland Code. The development includes stormwater management, a BAT septic system, and reforestation, and will not be detrimental to the environment.
(8) The applicant has evaluated and implemented site planning alternatives, and the proposed dwelling and improvements are reduced to the greatest extent possible following the initial feedback from the pre-file meeting.
(9) As explained herein, the variance requested is the minimum variance necessary to afford relief. The granting of the variance to allow the proposed dwelling will not alter the essential character of the neighborhood as the size and location is consistent with the neighboring waterfront dwellings along Echo Cove Road. The proposed project would not impair the use and development of adjacent property; there are no setback variances required and the homes would be relatively in line with each other and the shoreline. Any trees that would be removed would be reforested and thus the proposed development would not reduce forest cover, nor would it be contrary to the acceptable clearing and replating practices in the critical area. Lastly, as described above, the proposed development would not be detrimental to the public welfare.

The applicant respectfully submits that this legally buildable lot would not be able to be reasonably developed without the relief requested.

In accordance with the Variance Instructions on-line at AACounty.org, we are submitting the following:

1. Two (2) signed, original Variance Applications.
2. Nine (9) copies of the explanation letter and accompanying statement of justification.
3. Nine (9) copies of the Site Plan, one copy of the architectural plans and one (1) copy of the Site Plan Checklist. An electronic copy of the Site Plan in a pdf format will be emailed to the County upon request.
4. One (1) copy of the current deed and record plat.
5. A list of names & addresses of all property owners within 300 feet.
6. A Filing Fee in the amount of $250 for the Variance fee and two signs.
7. a.) Four copies of the Critical Area report by Penn Marr Environmental Services, LLC, including the existing and developed plan views, one copy of the project notification application, one copy of the County topography map at 200 scale showing the property location.
   b.) One copy of the pre-file form the Zoning reviewer. Please note that the plan has been revised to show a reduction in steep slope disturbance as noted above.
   c.) Three copies of the single-family engineering checklist, including one copy of the Stormwater Management Report.

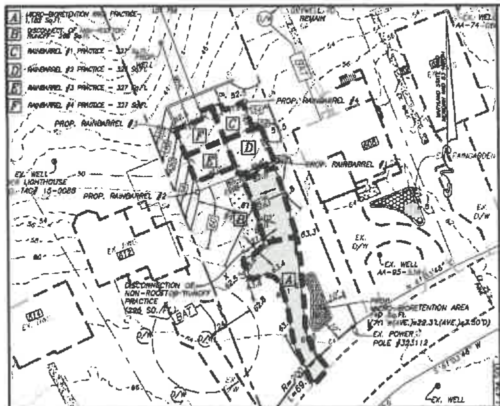
We appreciate your attention in this matter, and if you have any questions or require any additional information regarding this request, please do not hesitate to contact our office.

Very truly yours,
Boyd & Dongiallo, P.A.

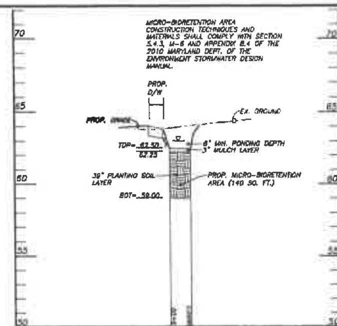
By: _____
Jerry Tolodziecki, P.E.

cc: file
enclosures

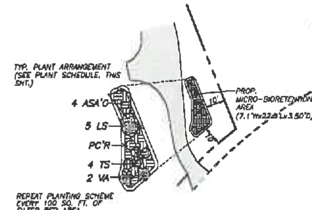
APP. EXHIBIT# 3
CASE: 2023-0168-V
DATE: 3/7/24



ESD PRACTICE MAP
SCALE: 1"= 30'



MICRO-BIORETENTION AREA PROFILE
SCALE: 1"= 4' (V)
1"= 40' (H)



MICRO-BIORETENTION AREA PLANTING SCHEMATIC
NOT TO SCALE

PLANT SCHEDULE (TYPICAL)

Code	Quantity	Scientific Name/Common Name	Size	Condition	Spacing
ASA'C	4	Asarum Canadense, wild ginger	1Gal	Container	18" O.C.
VA	2	Viburnum acerifolium, Maple-leaved Arrowwood	1Gal	Container	5' O.C.
LS	5	Lobelia siphilitica/Great Blue Lobelia	1Gal	Container	18" O.C.
TS	4	Tussock Sedge/Carex stricta	1Gal	Container	18" O.C.
PC'R	1	Panicum virgatum/Red Switch Grass	1Gal	Container	30" O.C.

Existing Gas Valve
Existing Stormdrain Inlet
Existing Stormdrain Manhole
Existing Sewer Manhole
Existing Sewer Cleanout
Existing Telephone Manhole
Existing Utility Pole
Existing Water Valve
Existing Water Meter
Proposed Contour
Proposed Reinforced Silt Fence — RSF —
Proposed Limit of Disturbance — D —
Stabilized Construction Entrance S.C.E.
Mean High Tide Line
BAT Septic Tank
Ex. 15% to 25% Slopes
Ex. 25% Slopes
FEMA Flood Line
Initial Septic Drywell
Replacement Septic Drywell

VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES

1. Notify the Anne Arundel County Department of Planning and Code Enforcement, Environmental Programs, (410)222-7784 (48) forty-eight hour before beginning the work shown on these plans.
2. The existing utilities and obstructions shown are from the best available records and shall be verified by the contractor prior to construction. Necessary precautions shall be taken by the contractor to protect existing services and mains, and any damage to them shall be repaired immediately at his own expense.
3. It shall be distinctly understood that failure to mention specifically any work which would normally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
4. Temporary sediment control measures shall be maintained until all contributing areas are graded and stabilized.
5. The property and topographic information shown hereon is based on field surveys performed by Boyd & Dowgiallo P.A. and the A.A.Co. GIS Site.
6. All disturbed areas shall be seeded or better as per plans.
7. The user is responsible to verify all information shown on these plans.
8. The contractor shall note that in case of a discrepancy between the scaled and the computed dimensions shown on these plans: the computed dimensions shall govern.
9. Pile dirt on the high side of the trench during utility construction.
10. The grading quantities shown hereon are for permit purposes only and should not be used for bidding purposes.
11. All construction shall be in conformance with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment controls."
12. For exact building dimensions, see Architectural Plans, by others.
13. All easements, irrespective of public or private disposition, are to be permanent unless otherwise labeled. All private easements have been labeled as such.
14. All roof drains shall be directed to the proposed rain barrels as shown on sheet 4 of these plans.
15. This project is located within Severn River watershed.
16. The boundary lines, bearings, and distances as shown hereon for all adjacent parcels, rights-of-way, etc. are taken from deed plotting's only. This drawing does not represent a field run survey of any parcel except Tax Map 31 Block 8 Parcel 142, Lot 758 as shown hereon.
17. The property shown hereon is located within Flood Hazard Zone "AE" EL=5.0 as shown on F.E.M.A. Map 24003C0153F dated February 8, 2015.
18. For title, see Deed Liber 32831 Folio 337.

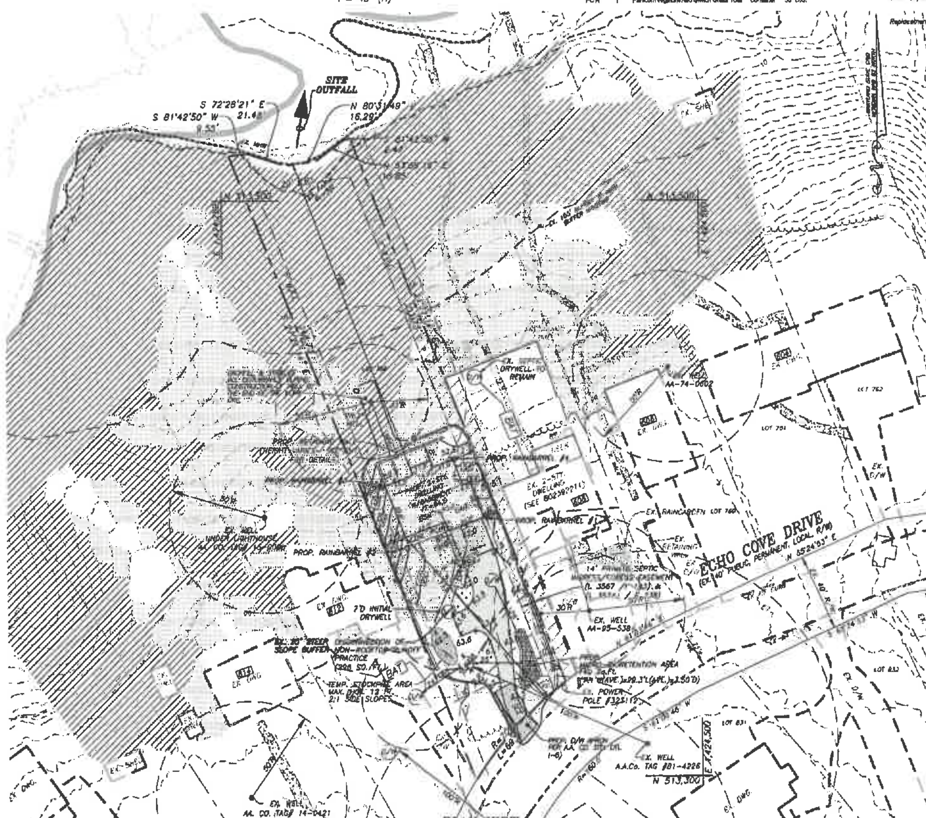
SETBACKS
(ZONED R5)

Front . . . . N/A*
Rear . . . . 20'
Side . . . . 7'

*Established by existing dwellings

CRITICAL AREA TABULATION

Zoning	R2
Critical Area Classification	LDA, Modified Buffer
Total Site Area	19,942 Sq.Ft.± (0.46 Ac.±)
Total Critical Area	19,942 Sq.Ft.± (0.46 Ac.±)
Existing Developed Woodlands (Within C.A.)	10,820 Sq.Ft.±
Maximum Clearing Allowed (Within C.A.)	Minimum necessary to accommodate development
Proposed Developed Woodlands Clearing (Within C.A.)	9,230 Sq.Ft.±
Required Reforestation	9,230 Sq.Ft.± (to be provided by off-site mitigation)
Prop. Reforestation On-Site	0 Sq.Ft.
Steep Slopes (15%)	14,338 Sq.Ft.±
Steep Slope (15%+) Disturbance	4,806 Sq.Ft.±
Existing Lot Coverage	122 Sq.Ft. (Ex. Shed)
Existing Lot Coverage To be Removed	122 Sq.Ft. (Ex. Shed)
Maximum Lot Coverage (Within C.A.)	6,231 Sq.Ft. or (31.25%)
Proposed Lot Coverage (On-Site)	2,970 Sq.Ft.± (1,308 Sq.Ft. House + 1,510 Sq.Ft. D/W + 42 Sq.Ft. S/W & Steps)
Total Proposed Lot Coverage (Within C.A.)	2,970 Sq.Ft.± (1,308 Sq.Ft. House + 1,510 Sq.Ft. D/W + 42 Sq.Ft. S/W & Steps)
Ex. Lot Coverage Within 100' Buffer	0 Sq.Ft.
Prop. New Lot Coverage Within 100' Buffer	0 Sq.Ft.
Prop. Buffer Mitigation Planting Requirement	0 Sq.Ft.



PLAN VIEW
SCALE: 1" = 30'

VARIANCE NOTES

1. In accordance with Article 17, Section 8-201(a) of the Anne Arundel County Code, a variance is required to allow the disturbance of 4,806 sq. ft. 15%+ steep slopes within a Limited Development Area for construction of the proposed dwelling and its associated improvements.

SITE ANALYSIS

Zoning	R2
Critical Area Classification	LDA, Modified Buffer
Total Site Area	19,942 Sq.Ft.± (0.46 Ac.±)
Total Disturbed Area	9,230 Sq.Ft.±
Vegetative Area	6,258 Sq.Ft.±
Predominant Soil Type	EuE: Evesboro-galestown-urban land complex, 15 to 25 percent slopes (A) EuD: Evesboro-galestown-urban land complex, 5 to 15 percent slopes (A)
Existing Developed Woodlands	10,820 Sq.Ft.±
Proposed Developed Woodlands Clearing	9,230 Sq.Ft.±
Maximum Clearing Allowed	Minimum necessary to accommodate development
Existing Lot Coverage	122 Sq.Ft.±
Existing Lot Coverage To be Removed	122 Sq.Ft.±
Existing Coverage within 100' Buffer	0 Sq.Ft.±
Proposed Lot Coverage	2,970 Sq.Ft.± (1,308 Sq.Ft. House + 1,510 Sq.Ft. D/W + 42 Sq.Ft. S/W & Steps)
Grading Quantities	150 cu. yds. Cut
	200 cu. yds. Fill

STORMWATER MANAGEMENT NOTE

This grading permit #G02019919 was reviewed under the 2010 regulations for stormwater management. Stormwater management practices will be provided for the proposed redevelopment shown hereon in accordance with Article 16, Section 4 and the final plan on file with the Office of Planning & Zoning. ESD to the MEP was achieved through the use of a non-structural disconnection of non-rooftop runoff practice, microscale rainbarrel practices and a microscale micro-bioretention area practice, in accordance with Chapter 5, Sections N-2, M-1 & M-6 of the 2009 MDE Stormwater Design Manual.

NOTE: TO MINIMIZE EROSION AND DEPOSITION OF SEDIMENT OFF-SITE, ALL DISTURBANCE WITHIN THE 15% SLOPES ARE TO BE STABILIZED VIA WITH 4-6" HARDWOOD MULCH AT THE END OF THE WORKDAY, UNLESS NOTED OTHERWISE ON THESE PLANS.

NO.	DATE	BY	REVISION	APPROVED	DATE

OWNER/DEVELOPER
SIKORA PROPERTIES LLC
108 STONE POINT RD.
UNIT 221
ANNAPOLIS, MD 21401
786-391-5569
SIKORAINVESTMENT@GMAIL.COM

Maryland Professional Engineering Firm License No. 47570
BOYD & DOWGIALLO, P.A.
ENGINEERS*SURVEYORS*PLANNERS
412 Headquarters Drive, Suite 5
Millersville, Maryland 21108
(410) 729-1234 (P)
(410) 729-1243 (F)
JERRYT@BNDPA.COM

STATE OF MARYLAND

Job No.: 20-006
Sheet No.: 1 of 1
Checked By: JET
DATE: FEBRUARY, 2024
Permit #G02019919
Proj. No.

VARIANCE SITE PLAN

LOT 758, SUNRISE BEACH

PLAT BOOK 23, PAGE 18
TAX MAP 31 BLOCK 8, PARCEL 142
ZONED R2

SECOND DISTRICT
ANNE ARUNDEL COUNTY, MD 21032

JOB# 20-006

APP. EXHIBIT# 4
CASE: 2023-0168-V
DATE: 3/7/24

PLAT NO 1090 BOOK NO 23 FOLIO 18 SPEED 22

SUNRISE BEACH

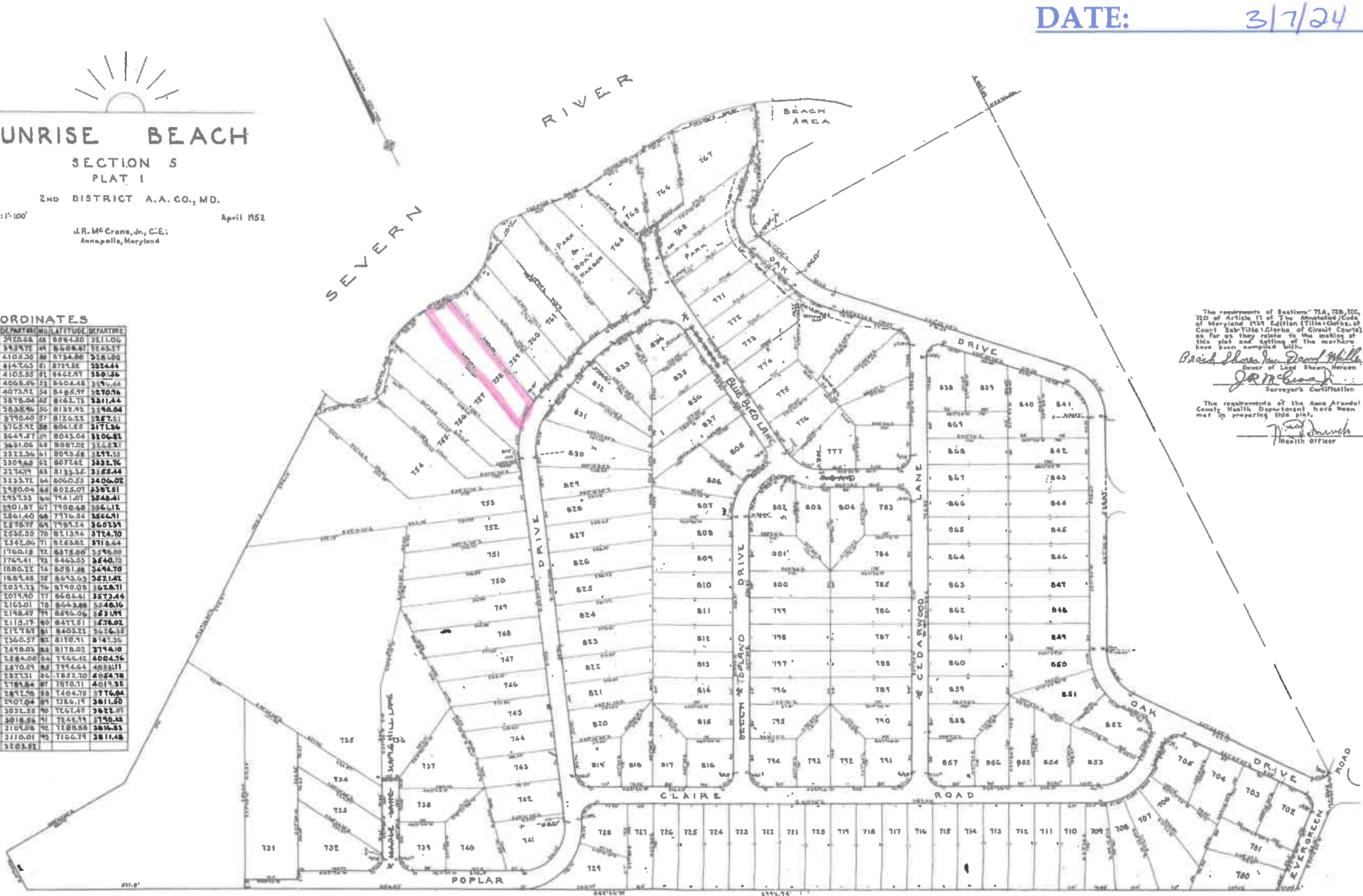
SECTION 5
PLAT 1

2ND DISTRICT A.A. CO., MD.

Scale: 1"=100'

April 1952

J.R. McCrone, Jr., C.E.
Annapolis, Maryland



COORDINATES

NO.	LATITUDE	DEPARTURE	NO.	LATITUDE	DEPARTURE
1	6720.20	3920.68	48	8984.30	3211.06
2	6699.84	3939.72	49	8608.92	3243.27
3	6612.56	4105.35	50	8734.00	3281.00
4	6895.[illegible]	4147.63	51	8739.88	3324.44
5	6901.24	4105.85	52	8442.97	3501.46
6	6834.67	4068.56	53	8604.48	3191.44
7	6876.75	4073.92	54	8465.97	3270.76
8	7127.81	3878.04	55	8162.73	3311.44
9	7133.17	3835.96	56	8132.92	3290.04
10	7099.90	3790.40	57	8126.22	3257.11
11	7131.63	3765.92	58	8061.85	3171.36
12	7122.18	3649.57	59	8043.04	3206.82
13	7088.72	3631.06	60	8087.02	3142.21
14	7192.00	3322.36	61	8093.58	3297.32
15	7332.47	3309.65	62	8072.62	3482.76
16	7350.98	3274.19	63	8133.35	3365.44
17	7338.27	3233.72	64	8060.53	3406.02
18	7466.36	2970.04	65	8026.07	3387.51
19	7526.83	2957.33	66	7941.07	3548.41
20	7543.34	2901.87	67	7900.48	3561.12
21	7532.64	2861.40	68	7776.56	3566.91
22	7635.07	2278.77	69	7989.24	3607.39
23	7618.48	2535.50	70	8213.94	3724.70
24	7544.31	2342.06	71	8263.82	3718.64
25	7848.09	1760.18	72	8375.00	3298.00
26	7865.82	1769.41	73	8463.03	3540.13
27	7807.97	1880.22	74	8581.88	3494.70
28	7823.70	1889.48	75	8693.63	3521.42
29	7747.82	2039.23	76	8790.08	3628.71
30	7760.23	2079.90	77	8686.61	3573.44
31	7919.80	2163.01	78	8643.88	3548.16
32	7901.29	2198.47	79	8596.06	3631.99
33	7741.72	2115.17	80	8477.51	3578.02
34	7701.25	2127.87	81	8403.22	3626.15
35	7579.77	2360.57	82	8178.91	3747.36
36	7632.47	2498.03	83	8178.02	3794.10
37	7677.45	2584.00	84	7966.42	4004.76
38	7717.44	2670.59	85	7994.64	4033.11
39	8399.92	2827.31	86	7852.70	4054.78
40	8413.91	2789.84	87	7870.71	4019.32
41	8517.25	2892.98	88	7404.70	3776.04
42	8479.80	2907.04	89	7386.19	3811.60
43	8526.94	3032.58	90	7267.47	3822.81
44	8164.41	3018.56	91	7147.99	3790.42
45	8581.92	3109.08	92	7208.58	3816.83
46	8541.93	3110.01	93	7166.79	3811.48
47	8544.10	3203.52			

The requirements of Sections 72A, 72B, 72C, 72D of Article 17 of The Annotated Code of Maryland 1939 Edition (Title: Clerks of Court Sub-Title: Clerks of Circuit Courts) as far as they relate to the making of this plat and setting of the markers have been complied with.

Beach Shores Inc. David Miller Pres.
Owner of Land Shown Hereon

J.R. McCrone Jr.
Surveyor's Certification

The requirements of the Anne Arundel County Health Department have been met in preparing this plat.

Health Officer

* Changed per Order of Court 3/28/83 #3154264 E. Aubrey Collison

MdHR 44177

MSA S54-1235-6515

APP. EXHIBIT# 5
CASE: 2023-0168-V
DATE: 3/7/24

Pen Mar Environmental Services, LL
P.O. Box 6809
Annapolis, MD 21401
2dmusser1@gmail.com
443.875.3955

CHESAPEAKE BAY CRITICAL AREA REPORT with NARRATIVE DESCRIPTION

PROPERTY:	Lot 758, Sec. 5, Plat 1, Sunrise Beach Subdivision 610 Echo Cove Road, Crownsville, MD 21032
CURRENT OWNER:	Sikora Development, LLC 20 Hoyle Lane Severna Park, MD 21146
DESCRIPTION:	19,942 Square Feet Tax Map 31, Grid 08, Parcel 142 Tax ID#2748-0425-9250
ZONING:	R2 – Residential
CRITICAL AREA:	LDA – Limited Development Area
DATE:	March 6, 2023
REVISED:	August 8, 2023

Introduction and Site Description:

This Chesapeake Bay Critical Area Report is being prepared to meet Anne Arundel County standards for development in the Chesapeake Bay Critical Area. The 19,942 sq. ft. (0.46 ac) site is located in the Sunrise Beach community of Crownsville, Maryland in central Anne Arundel County (Fig. 1). The subject property is currently zoned as R2 – Residential (Fig. 2) and is located within the Severn River Watershed (8 Digit #02131002). The site is currently undeveloped and but exhibits 122 square feet existing impervious area in the form of an existing shed. It is located within existing developed woodlands with a canopy cover of 18,140 square feet which is 91% of the site area. The entire 19,942 sq. ft. site has been designated as a Limited Development Area (LDA) within the Chesapeake Bay Critical Area (Fig. 3).

The property is located along the north side of Echo Cove Road. It is bordered on both the east and west sides by developed residential property. It is bordered along its' north property boundary by the Severn River. The property lies at the top of a north facing "steep-slope", draining towards the Severn River. Onsite topographic elevations range from 0' above sea level (a.b.s.) along the shores of the Severn River up to 64' a.b.s. along the south property line/Echo Cove Road (Fig. 4).

Public sewer and water service is not available in this area so any proposed new residential structures would be served by private well and septic.

Existing Vegetation:

This undeveloped lot is almost entirely forested with developed woodland as it is bordered in three directions by residential single-family homes. Of the 19,942 square-foot lot, 18,140 square feet (91%) are considered to include developed woodland (Fig. 5). The developed woodland that exists on the property is dominated by mature, upland deciduous trees with a moderately dense understory. The overstory trees on the property are dominated by chestnut oak (Quercus prinoides), red maple (Acer rubrum) and southern red oak (Quecus falcata). The understory includes American holly (Illex opaca), flowering dogwood (Cornus florida), mountain laurel (Kalmia latifolia) and deerberry (Vaccinium stamineum). Patridge berry (Mitchella repens) was noted as a groundcover. Many of the chestnut oaks on the site are in decline or standing dead. No trees over 30-inches in diameter were found on the property.

Environmental Features and Habitat Protection Areas:

According to a review of Maryland's Environmental Resources and Land Information Network (MERLIN), the site is considered to be on the edge of Forest Interior Bird Dwelling species (FIDs) habitat which is considered to be a habitat protection area (Fig. 6). Additionally, steep slopes over 15% and their associated buffers are located on the property. No non-tidal wetlands or their associated 25-foot buffer were found to exist on the subject property (Fig. 7 and Fig. 8). The property is waterfront and the 100-foot buffer to tidal waters expands across the bulk of the property. A small portion of the 100-year floodplain is located along the north shoreline of this property (Fig. 9). Additionally, the review identified no historic waterfowl staging areas or colonial water bird nesting sites.

Soils:

The USDA Natural Resources Conservation Service identifies one soil type is found on site which is the Evesboro-Galesville-Urban land complex (EuD/EuE) on 5% - 25% slopes (Fig.10). The Evesboro-Galesville-Urban land complex is a loamy sand down to 80-inches. It is excessively drained and does not have a hydric soil rating. The Annapolis fine sandy loam has a whole soil erosion "K" factor rating of 0.05 and is not considered to be highly erodible.

Proposed Use:

The property owner is proposing to construct a two-story home with built in garage and driveway creating 2,961 square feet of impervious surface (14.8% of site area) as identified on the attached Pre-File Variance Plan prepared by Boyd and Dowgiallo, P.A. (Fig. 11). Construction of the home will require 8,030 square feet of developed woodland clearing which is 44.3% of the existing 18,140 square feet of on-site developed woodlands. On-site reforestation is being proposed to the maximum practicable degree.

Stormwater management will be in compliance with the AACO Stormwater Management Practices and Procedures Manual updated 10-1-2017 and will utilize Environmental Site Design (ESD) to the Maximum Extent Possible (MEP).

Minimization of Impacts:

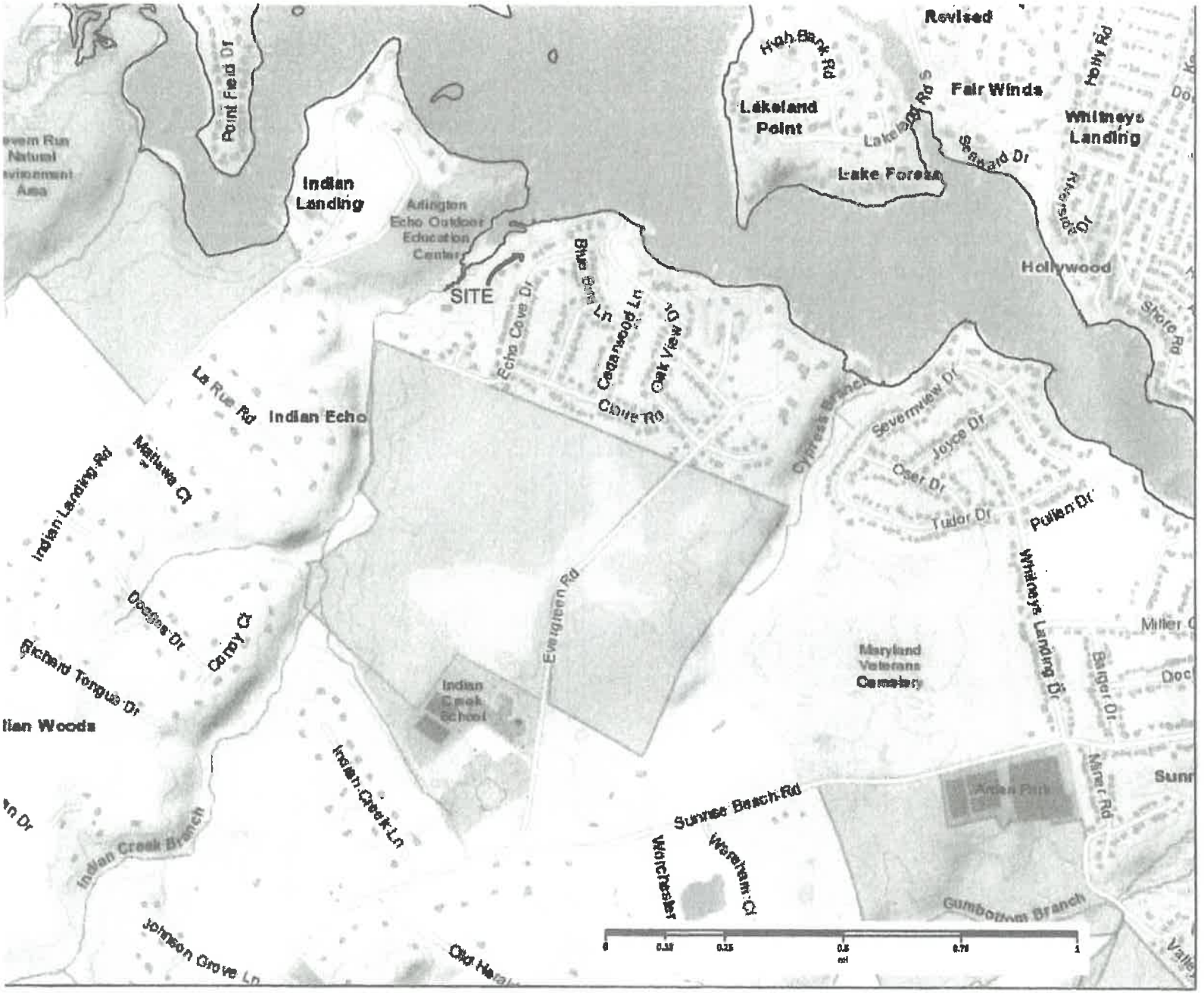
The proposed structure is being located near Echo Cove Drive to avoid the steep slopes but will be in the buffer to steep slopes which encompasses the bulk of the property. Additional constraints from the Health Department in regards to the septic system will also limit the size of any proposed structure on the lot.

Conclusions:

The site is located in a Buffer Modification Area along the shores of the Severn River. Based upon the field review it was determined the no significant or endangered vegetation exists on the property. While steep slopes exist on the site, the proposed new structure is generally outside of the steep slopes but inside of the buffer to the steep slopes. No hydric soils are mapped on the project area. Other than the steep slopes, 100-foot buffer to tidal water and FIDs edge habitat, no other habitat protection areas were found to exist.

Proposed new impervious area within the LDA Critical Area is 2,961 square feet (14.8% of site area) for a new single-family home with attached garage and driveway which is below the maximum 31.25% permitted. Forest area to be removed will be mitigated in accordance with County reforestation standards. Currently there is no onsite stormwater management on the site and modern stormwater management techniques will be implemented, limiting the amount of stormwater exiting the property.

List of Figures



Features

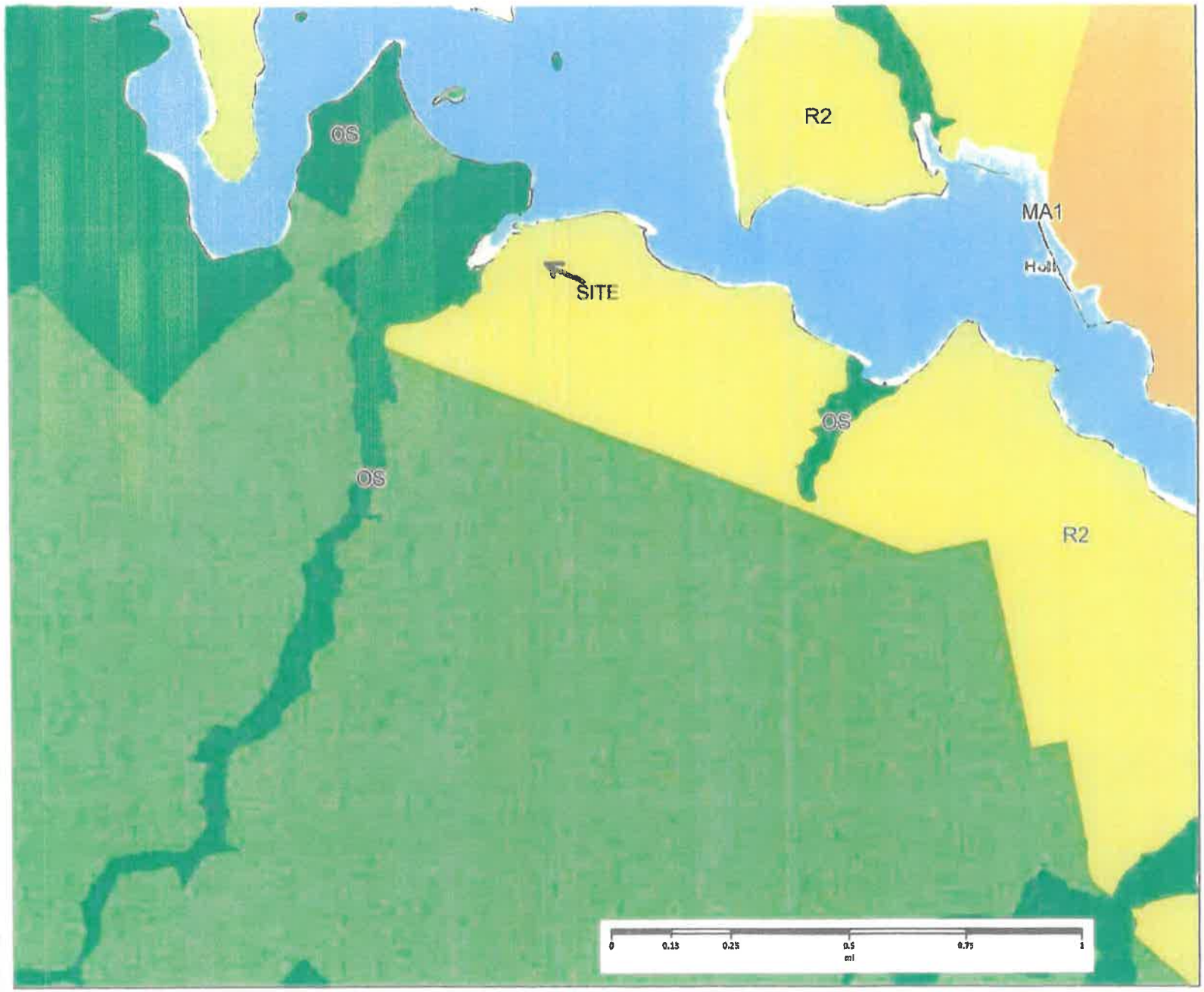
County Boundary

ANNE ARUNDEL COUNTY MARYLAND

Vicinity Map - 610 Echo Cove Dr.

Fig. 1

Date: 3/4/2023 Time: 2:59 PM Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere



N
W E
S

Features

Zoning
- C1 Commercial - Local
- C2 Commercial - Office
- C3 Commercial - General
- C4 Commercial - Highway
- City of Annapolis
- MA1-Community Marina
- MA2-Light Commercial Marina
- MA3-Yacht Club
- MB-General Commercial Marina
- MC-Heavy Commercial Marina
- MXD-C Mixed Use Commercial
- MXD-R Mixed Use Residential
- MXD-T Mixed Use Transit
- MXD-E Mixed Use Employment
- O-CDR Odenton Core
- O-EDD East Odenton
- O-HIS Odenton Historic
- O-IND Odenton Industrial
- O-NOD North Odenton
- O-TRA Odenton Transition
- OS Open Space
- R1 Residential
- R10 Residential
- R15 Residential
- R2 Residential
- R22 Residential
- R5 Residential
- RA Rural Agricultural
- RLD Residential Low Density
- SB Small Business
- TC Town Center
- W1 Industrial Park
- W2 Industrial - Light
- W3 Industrial - Heavy
- Water
- County Boundary

ANNE ARUNDEL COUNTY
MARYLAND

Zoning Map - 610 Echo Cove Dr.

Date: 3/4/2023 Time: 3:07 PM Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

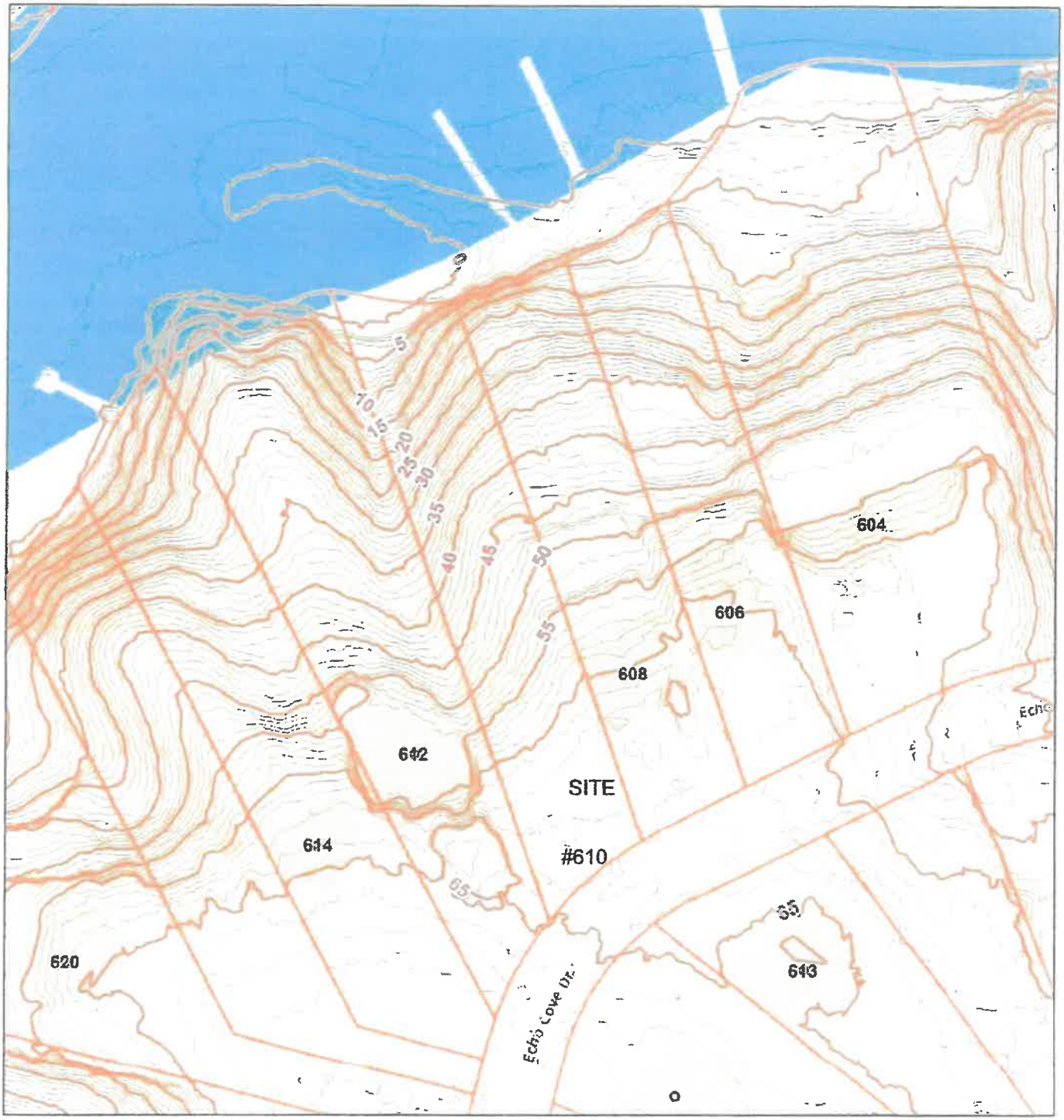
Fig. 7

Anne Arundel County Critical Area Map

CRITICAL AREA MAP
610 Echo Cove Road

Fig. 3

Topo Map - 610 Echo Cove Dr.



3/4/2023, 3:16:52 PM

1:1,128

0 0.01 0.01 0.03 mi

0 0.01 0.02 0.04 km

Structure Address

Parcels

Topography 2017 - 1ft contours

Index

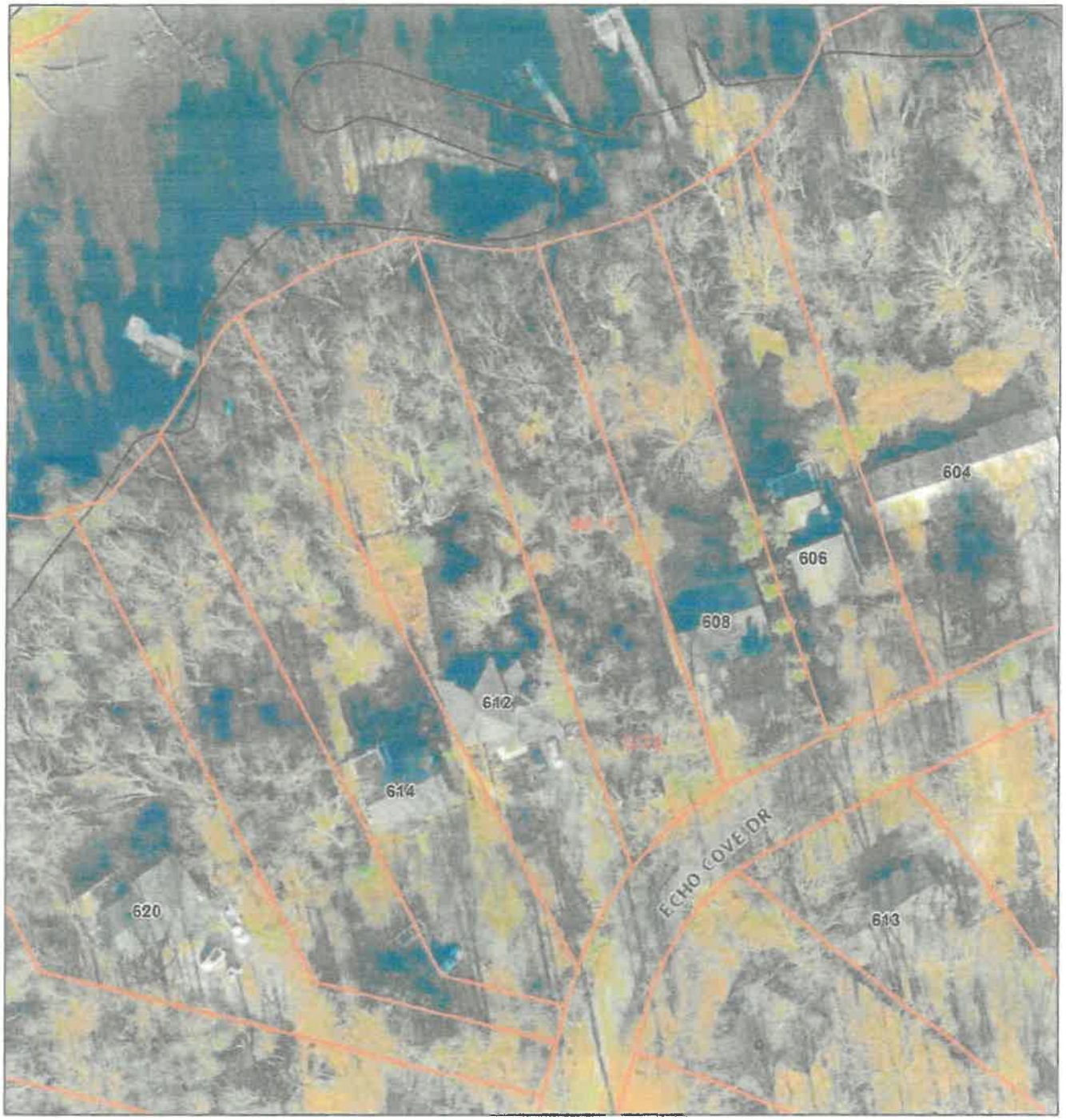
Intermediate

Topo 2017 Labels

Fig. 4

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, County of Anne Arundel, VGIN, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS,

Aerial Photo - 610 Echo Cove Dr.



3/4/2023, 3:11:44 PM

1:1,128

0 0.01 0.01 0.03 mi

0 0.01 0.02 0.04 km

Local Road Label

County Boundary

Orthophoto 2021

Red: Red

Green: Green

Blue: Blue

Structure Address

Parcels

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, County of Anne Arundel, VGIN, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS.

Fig. 5

MERLIN Living Resources Map - 610 Echo Cove Dr.

3/4/2023, 3:51:44 PM

- Forest Interior Dwelling Species
- Coastal Bays Shorebirds
- Natural Heritage Areas
- Waterfowl Areas
- Sensitive Species Project Review Areas
- MD Amphibian and Reptile Atlas Grid
- Coastal Bays Horseshoe Crab Habitat
- Chesapeake Bay Horseshoe Crab Habitat
- beach

1:4,514

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.19 km

County of Anne Arundel, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, MD iMAP, DNR

Fig. 6

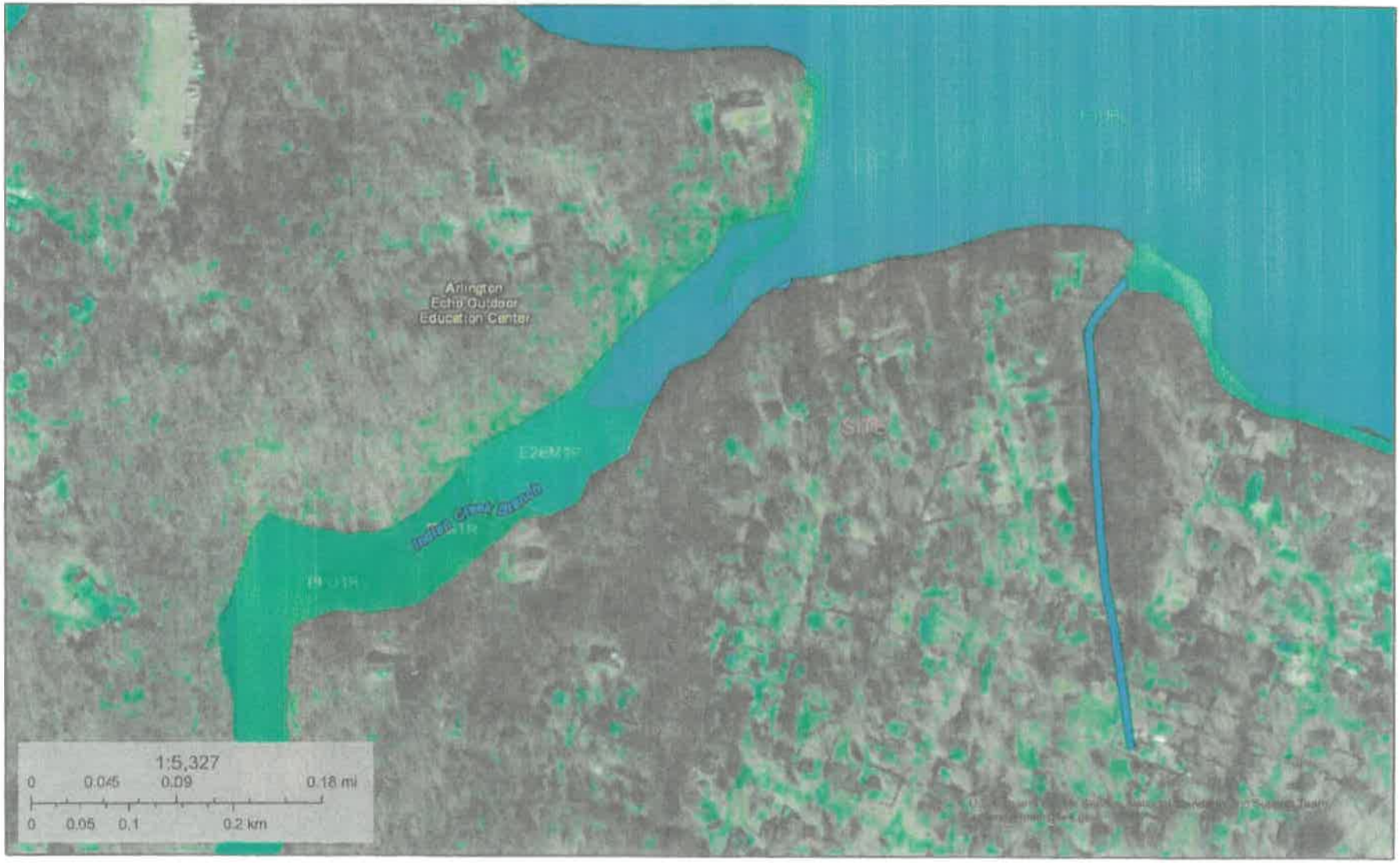
Maryland Department of Natural Resources

County of AnneArundel, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA | MD iMAP | MD iMAP, DoIT | MD iMAP, USDA | MD iMAP, USGS | MD iMAP, COMMERCE, DHCD, MDP, MHT, MDOT, MDOT SHA, USDOT, FHWA, DoIT | MD iMAP, MDP,

U.S. Fish and Wildlife Service

National Wetlands Inventory

NWI Map - 610 Echo Cove Dr.



March 5, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Fig. 8

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

MERLIN Wetlands Map - 610 Echo Cove Dr.

3/5/2023, 9:25:55 AM

Wetlands - Linear - Special State Concern

Wetlands - Polygon - Special State Concern

Wetlands - National Wetlands Inventory

Estuarine

Lacustrine

Marine

Palustrine

Riverine

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

MD iMAP, DNR, USFW, County of Anne Arundel, VITA, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Fig. 7

Maryland Department of Natural Resources

County of Anne Arundel, VITA, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA | MD iMAP | MD iMAP, DoIT | MD iMAP, USDA | MD iMAP, USGS | MD iMAP, COMMERCE, DHCD, MDP, MHT, MDOT, MDOT SHA, USDOT, FHWA,

MERLIN Floodplain Map - 610 Echo Cove Dr.

3/5/2023, 9:27:31 AM

Preliminary FEMA Floodplain

100 Year Floodplain (1% Chance)

500 Year Floodplain (0.2% Chance)

Floodway (1% Chance)

Upland (Zone X)

Effective FEMA Floodplain

100 Year Floodplain (1% Chance)

500 Year Floodplain (0.2% Chance)

1:9,028

0 0.05 0.1 0.2 mi

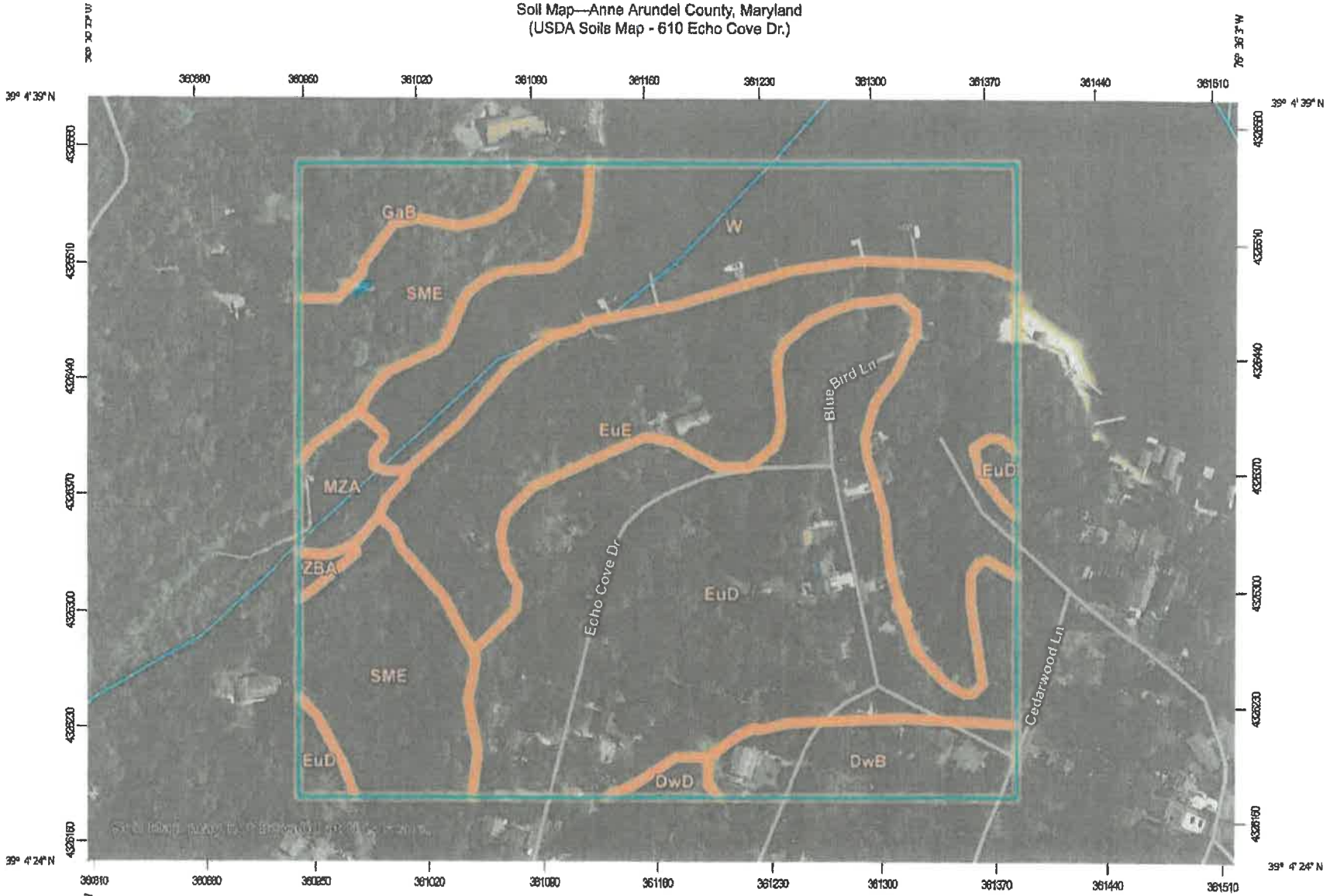
0 0.07 0.15 0.3 km

MD iMAP, MDE, County of Anne Arundel, VITA, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Maryland Department of Natural Resources

Fig. 9

Soil Map—Anne Arundel County, Maryland
(USDA Soils Map - 610 Echo Cove Dr.)



Map Scale: 1:3,250 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 150 300 600 900

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

Fig. 10

USDA Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

3/5/2023

APP. EXHIBIT# 6
CASE: 2023-0168-V
DATE: 3/7/24

STORMWATER MANAGEMENT COMPUTATIONS

For

LOT 758, SUNRISE BEACH
P. B. 10, P. 9
Tax Map 31, Block 8, Parcel 142
CROWNSVILLE, MD 21032
G02019919

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19577. EXPIRATION DATE 3-16-2024"

by

Boyd & Dowgiallo, P.A.
412 Headquarters Drive
Suite 5
Millersville, MD 21108
410/729-1234

TABLE OF CONTENTS

STORMWATER MANAGEMENT STATEMENT

As stated in Article 16 of the Anne Arundel County Code, the purpose of Stormwater Management is "to protect and promote public health, safety and general welfare through the management of stormwater, to protect public and private property from damage, to reduce the effects of land use changes on stream channel erosion, to maintain and assist in the improvement of water quality, to preserve and enhance the environmental quality of streams and stream valleys, and to minimize adverse impacts on water quality and conserve plant, fish, and wildlife habitat."

In accordance with the General Performance Standards, outlined in the 2010 Anne Arundel County Stormwater Practices and Procedures Manual, the use of Environmental Site Design Practices (ESD) shall be provided as necessary to address the required performance standards, to prevent adverse impacts from stormwater runoff.

As defined, in Chapter 6, Section 6.1.5, the MEP standard is met when:

I. channel stability is maintained and
II. predevelopment groundwater recharge is replicated and
III. nonpoint source pollution is maintained and
IV. regenerative step pool conveyance systems are employed wherever practicable on all public stormwater systems.

INTRODUCTION

The subject site is known as Lot 758, Sunrise Beach, as shown on the plat entitled "Sunrise Beach", recorded in plat book 23, at page 18, and is located on Echo Cove Drive in Crownsville, Maryland 21032. The site is zoned R5 and contains 19,942 sq. ft. (0.46 ac.) of land. The property is also located within a Limited Development Area (LDA) of the Chesapeake Bay Critical Area. The site in its existing condition is vacant and is entirely wooded.

Ground slopes on the site vary from 3.3% to over 25% along the site's property line with the Severn River. The site drains from the northern right-of-way of Echo Beach Drive, northwesterly to the Severn River. The property is impacted by a FEMA floodplain at elevation 5.0, as shown on the F.I.R.M. Map# 24003C0153F. The site is also impacted by a 100 ft. buffer to the M.H. tide line but the lot is within a modified buffer area. The site does not contain any wetlands or their buffers and is not located within a bog protection area or one of its buffers. The property is not known to contain any rare, threatened or endangered species of plants, animals, and no wildlife habitat areas have been identified. The site is not known to contain any historical or archaeological artifacts or other items of historical or archaeological interest.

Planned development of the site includes the construction of a single-family residential dwelling, sidewalk, stormwater management devices, connection to public sewer and installation of a well. The proposed improvements will result in the disturbance of approximately 9,230 sq. ft. and introduce approximately 2,970 sq. ft. of new impervious cover.

CONSIDERATION OF SWM PRACTICES & ALTERNATIVES

Stormwater design for the proposed improvements was provided in accordance with Chapter 5 of the 2009 M.D.E. where three general types of stormwater methods are used to provide the required ESD volume at a site:

1. *Alternative Surfaces*
   Listed under Section 5.3, these surfaces include green roofs, permeable pavements and reinforced turf. Given that the development being proposed is a residential single-family dwelling, the feasibility of using a green roof for the structure is impractical given the maintenance and/potential replacement obligations associated with a green roof, which are beyond the capability of a typical homeowner. Therefore, a green roof was not chosen as a stormwater management practice. The second and third alternatives, permeable pavements and reinforced turf were not viable due to location of the proposed septic system serving the dwelling, which would conflict with either practice. Therefore, for this project, an alternative surface was not chosen for as a stormwater management ESD practice.

2. *Non-structural Practices*
   Listed under Section 5.4.2 of the 2009 M.D.E. Manual, these practices include disconnection of rooftop runoff, disconnection of non-rooftop runoff, and sheetflow to conservation area. Due to the less than 5% slopes present near the driveway, a disconnection of non-rooftop ruoff practice was used to provide a portion of the required ESDv. A disconnection of rooftop runoff practice was not used due to the presence of steep slopes and a sheetflow to conservation area practice could not be utilized for the same reason. Therefore, for this project, only a disconnection of non-rooftop practice was used to provide a portion of the required ESDv.

3. *Micro-scale Practices*

Listed under Section 5.4.3 of the 2009 M.D.E. Manual, these practices include small water quality treatment devices to capture runoff from small, discrete areas. Out of the nine options listed under this category, those that provided the most effective treatment were the use of microscale rainbarrel practices and a microscale micro-bioretention area practice. These practices were utilized to capture and treat runoff from the proposed rooftop area of the dwelling and the driveway on the lot.

PROTECTION OF NATURAL RESOURCES

Through the use of minimal grading techniques, the disturbed area will remain small and the existing slopes will not be significantly impacted.

RETENTION OF NATURAL FLOW PATTERNS

Through the use of grading techniques that mimic the existing site grades, no disturbance to existing flow patterns will occur and the direction of rainwater runoff will remain largely unaffected.

REDUCTION OF IMPERVIOUS SURFACES

Through the use of a relatively modest house footprint, the amount of impervious cover proposed meets the County's law & the Critical Area Commission's requirements regarding the amount of impervious cover.

POLLUTANT REDUCTION & REMOVAL

Given that the site is located within a LDA critical area, it is not mandatory that the proposed stormwater management techniques address the "Critical Area 10% Rule Guidance Manual" and provide for 10% pollutant removal reduction. However, the stormwater practices proposed will provide some pollutant removal and reduce the amount of downstream pollutants from reaching the tidal waters of the Severn River.

IMPLEMENTATION OF SEDIMENT & EROSION CONTROL

Given the relatively small size of the site, it is not possible to implement sediment control measures to help provide in the stormwater management design of the site. The only sediment control measures used are those provided to capture sediment laden runoff from leaving the site.

SOIL & FACILITY INVESTIGATION

The Anne Arundel County Soil Survey indicates that the site is underlain by soils of the Evesboro-Urban land complex (EuB/EuD). These soil types have a hydrologic rating of "A" and are typically considered to have good infiltration rates depending on the absence/presence of any clay layers. These soils have a soil erodibility factor of 0.05, and are not considered "highly erodible" by themselves; however, any areas where the existing slopes exceed 15% are recognized as "highly erodible."

A test pit taken for the proposed septic system and conducted by a Sanitarian with A. A. County Department of Health revealed tan sand from 0 to 5 feet below, clay from 5 to 17 feet and tan-orange sand from 17 to 45 feet. A soil boring taken by a representative of Boyd & Dowgiallo, P.A. for the purposes of identifying feasibility of the soil for stormwater management

purposes identified coarse sand from 0.5 to 1.5 fee, brown fine sand from 1.5 to 3.5, brown sandy clay loam from 3.5 to 4.0 feet and brown-orange sandy loam from 4.0 to 9.0 feet. The results of the boring seem to indicate that infiltration as a means of providing stormwater management for the proposed improvements is a viable option.

SUMMARY OF CONCLUSIONS

In accordance with the 2009 Maryland Department of the Environment (M.D.E.) Stormwater Design Manual and the 2012 Anne Arundel County Storm Water Management Practices and Procedures Manual, the water quality, recharge, channel protection, overbank flood protection, and extreme flood protection volumes were considered in the overall stormwater management design for this site.

Water quality volume is required in the amount of in the amount of 299 cu. ft. and will be provided by four rainbarrels and a microscale micro-bioretention area practice. The recharge volume is required in the amount of 126 cu. ft. and is automatically provided through the utilization of the ESD practices being utilized on-site. The channel protection volume is being provided since the environmental site design target rainfall amount is being provided through the use of ESD practices, in accordance with the 2009 M.D.E. Manual. The overbank flood protection volume is being provided by a direct tidal discharge to the Severn River. Extreme flood protection volume is not required since the site has a direct tidal discharge to the Severn River.

OUTFALL STATEMENT

Runoff from site discharges northerly over lawns and woodlands to the northern property line of the lot and the tidal water line of the Severn River. Due to the existing topography within the steep slopes abutting the river, consistent with the other improved lots along the north side of Echo Cove Road, runoff from the proposed improvement meanders back and forth across the abutting lots as it flows towards the limit of tidal waters. Given that sufficient proposed development is a residential lot and has an adequate outfall, the site outfall and P.O.I. is the northern property line where the lot meets the Severn River.

The property was visited by an employee of Boyd & Dowgiallo, P.A. in July, 2020 to inspect the site outfall and the P.O.I. It was noted that the site outfall was found to be stabilized by woodlands and grass and did not show any signs of erosion. Given that management of the 10-year storm is being provided, there should not be an increase in erosion or downstream flooding as a result of the proposed development.

STORMWATER MANAGEMENT
COMPUTATIONS

I. ENVIRONMENTAL SITE DESIGN

In Section 5.2.2 of the revised Chapter 5 of the 2000 M.D.E. Stormwater Design Manual, it is stated, "the criteria for sizing ESD practices are based on capturing and retaining enough rainfall so that the runoff leaving a site is reduced to a level equivalent to a wooded site in good condition as determined using U.S.D.A's Natural Resource Conservation Service methods...."the goal is to provide enough treatment using ESD practices to address Cp_v requirements by replicating an RCN for woods in good condition for the 1-year rainfall event. In accordance with the "Stormwater Management Act of 2007" and Table 5.3 of the revised Chapter 5 M.D.E. Manual, the environmentally sensitive runoff volume, ESD_v, is equal to,

$$ESD_v = P_E \times R_v$$

Where, P_E = the rainfall target from Table 5.3
R_v = the volumetric runoff coefficient

Site area = 19,942 sq. ft. (0.46 ac.)
Total Proposed Impervious Cover = 2,970 sq. ft.

%I =2,970/19,942 = 14.9% (proposed)
$R_V = 0.05 + 0.009(14.9) = 0.18$
Existing soil types present = HSG "A"

From Table 5.3 of Chapter 5 of the M.D.E. Manual, the target rainfall based upon the impervious cover proposed and the soil types present is equal to 1.0".

and the ESD_v volume becomes,

$$ESD_v = (1.0")(0.18)(19,942)/12 = \mathbf{299\ cu.\ ft.}$$

This is the *total* ESDv volume required for the proposed improvements to return the site back to a state of "woods in good condition".

This volume will be provided on-site within ESD practices as described below.

STORMWATER
MANAGEMENT DESIGN
With
ESD$_v$ PRACTICES

NON-STRUCTURAL PRACTICES

Disconnection of Non-Rooftop Runoff Practice - Section 5.4.2, N-2

Section 5.4.2 N-2 of Chapter 5 of the 2009 M.D.E. Stormwater Design Manual states that non-rooftop disconnections may be used to direct flow from impervious surfaces to vegetated areas where it can soak into or filter over the ground. This disconnects these surfaces from the storm drain system, reducing both runoff volume and pollutants from entering downstream receiving waters.

This practice can be used to disconnect a portion of the proposed driveway surface to an adjacent lawn area.

Prop. Driveway

An area of proposed driveway that can be disconnected is 296 sq. ft. The P_E values provided in Table 5.7 can be used when the contributing area is adequately disconnected. Rev requirements are also met when the P_E provided by the practice meets or exceeds the sites' soil specific recharge factor.

The ESD volume provided by this disconnected area is equal to,

$$ESDv = (1.0")(0.95)(296 \text{ s.f.}/12) = \textbf{23 cu. ft.}$$

Total ESD volume provided by the disconnection practice = 23 cu. ft.

MICRO-SCALE PRACTICES

Microscale Practices – Rainwater Harvesting- Section 5.4.3 M-1

In accordance with Section 5.4.3 M-1, rainbarrels can be used to intercept and store rainfall for future use. Stored water may be used for landscaping, irrigation, car washing or other non-potable water supply. This practice can be used to capture runoff the roof area of the proposed dwelling and provide a portion of the required ESDv volume.

A total of four (4) rainbarrels can be installed around the dwelling at the corners of the building. Using four 50-gallon rainbarrels, a total ESDv volume of 4 x 50 x 0.134 cu. ft./gal. = 27 cu. ft. can be provided by the dwelling.

Total ESD volume provided by the rainbarrel practice = 27 cu. ft.

MICRO-SCALE PRACTICES

Microscale Practices – Micro-bioretention area - Section 5.4.3 M-6

A micro-bioretention area captures and treats runoff from impervious surfaces by passing it through a filter mixture of sand, soil, and organic matter. Filtered stormwater is either returned to the conveyance system or patially infiltrated into the soil. Rev requirements are also met when the P_E from Equation 5.2 meets or exceeds the soil specific recharge factor listed in Section 2.2.

This practice can be used to capture runoff from a portion of the proposed driveway surface. An area of approximately 1,182 sq. ft. drains to the micro-bioretention area (see ESDv D.A. Map on plan sheet 3). The amount of cover within this area also equals 1,182 sq. ft. Using a target rainfall value of 2.7" over this area, the maximum ESDv volume that can be captured equals (2.7")(1,182)/12 = 266 cu. ft.

Using a micro-bioretention area with a 3" mulch layer, a 39" soil planting layer, and a 6" deep ponding depth, the ESDv provided can be found from the following equation:

$$ESDv = (0.5 \times A) + (3.50 \times 0.40^* \times A) = 266 \text{ cu. ft.} \quad \text{(eq. 1)}$$

*In the above equation, 0.40 is equal to the void ratio of the planter soil (39") and 3" mulch layer within the M.B.R.A. The 0.5 ft. corresponds to a ponding depth above the mulch layer.

Solving for "A" in eq. 1 above yields, A = 140 sq. ft.

Provide a micro-bioretention area in the front yard with the approximate dimensions of 7.1'(Ave.)W x 22.3'(Ave.)L x 3.50'D to provide an ESDv volume of 266 cu. ft.

SUMMARY OF ESD VOLUMES

Total Required ESD volume	***= 299 cu.ft.***
Non-Structural Practice – Disconnection of Non-Rooftop Runoff ESD volume prov'd.	= 23 cu. ft.
Microscale Practice – Rainbarrels ESD volume prov'd.	= 27 cu. ft.
Microscale Practice – Excavated Raingarden ESD volume prov'd.	= 266 cu. ft.
Total ESD volume prov'd.	= 316 cu.ft.
Total ESD volume surplus	**= 0 *cu.ft.***

II. RECHARGE VOLUME

The required recharge volume (Re_V) for the proposed development is determined in accordance with the following equation, as stated in Section 2.2 of the MDE Stormwater Design Manual:

$$Re_V = \frac{(S)(R_V)(A)}{12}$$ ac-ft, where A and R_V are as defined above, and

S = soil specific recharge factor;
= 0.42 for type "A" soil.

The required volume is calculated as follows:

Rev = (0.42)(0.18)(19,942)/12 = **126 cu.-ft.**

This is the required recharge volume required for the proposed improvements. The recharge volume will be provided through the use of environmental site design practices, as described below.

III. CHANNEL PROTECTION VOLUME

The channel protection volume for this lot is being provided through the use of environmental site design practices that provide the target rainfall value of 1.0", as specified in Table 5.3 of the revised M.D.E. Manual and return the site back to a "pre-development state of woods in good condition".

V. OVERBANK FLOOD PROTECTION VOLUME

The overbank flood protection volume is not required since the site has a direct tidal discharge to the Severn River.

V. EXTREME FLOOD PROTECTION

The extreme flood protection volume is not required since the site has a direct tidal discharge to the Severn River.

SOILS & VICINITY MAPS

(See GSC Plans)

TR-55 COMPUTATIONS

TFJ

LOT 758 SUNRISE BEACH
10 Yr. Computations
ANNE ARUNDEL County, Maryland

Storm Data

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
3.3	.0	5.2	.0	.0	7.4	.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type II
Dimensionless Unit Hydrograph: <standard>

TFJ

LOT 758 SUNRISE BEACH
10 Yr. Computations
ANNE ARUNDEL County, Maryland

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 10-Yr (cfs)
SUBAREAS	
PRE	.00
POST	0.12
REACHES	
OUTLET	0.12

TFJ

LOT 758 SUNRISE BEACH
10 Yr. Computations
ANNE ARUNDEL County, Maryland

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period 10-Yr (cfs) (hr)
SUBAREAS	
PRE	.00 n/a
POST	0.12 12.05
REACHES	
OUTLET	0.12

TFJ

LOT 758 SUNRISE BEACH
10 Yr. Computations
ANNE ARUNDEL County, Maryland

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
PRE	.46	0.228	30	Outlet	
POST	.46	0.119	42	Outlet	

Total Area: .92 (ac)

WinTR-55 Current Data Description

--- Identification Data ---

User:	TFJ	Date:	1/9/2024
Project:	LOT 758 SUNRISE BEACH	Units:	English
SubTitle:	10 Yr. Computations	Areal Units:	Acres
State:	Maryland		
County:	ANNE ARUNDEL		
Filename:	C:\TR55\20-006 10 yr LOT 758.w55		

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
PRE		Outlet	0.46	30	.228
POST		Outlet	0.46	42	.119

Total area: .92 (ac)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
3.3	.0	5.2	.0	.0	7.4	.0

Storm Data Source:	User-provided custom storm data
Rainfall Distribution Type:	Type II
Dimensionless Unit Hydrograph:	<standard>

TFJ

LOT 758 SUNRISE BEACH
10 Yr. Computations
ANNE ARUNDEL County, Maryland

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
PRE							
SHEET	100	0.0625	0.400				0.223
SHALLOW	159	0.3300	0.050				0.005
					Time of Concentration		.228
POST							
SHEET	75	0.0630	0.240				0.118
SHALLOW	28	0.3300	0.050				0.001
					Time of Concentration		.119

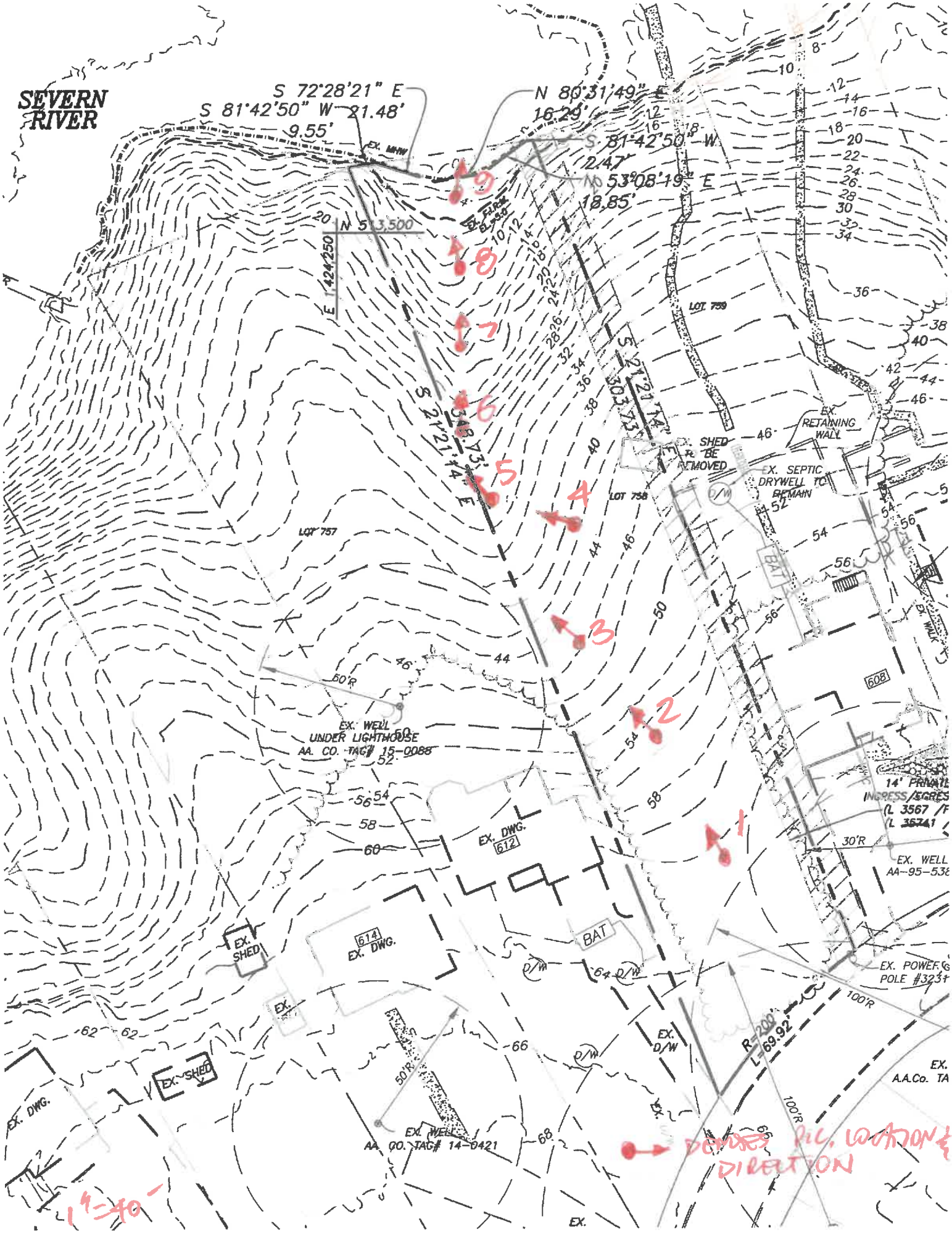
TFJ

LOT 758 SUNRISE BEACH
10 Yr. Computations
ANNE ARUNDEL County, Maryland

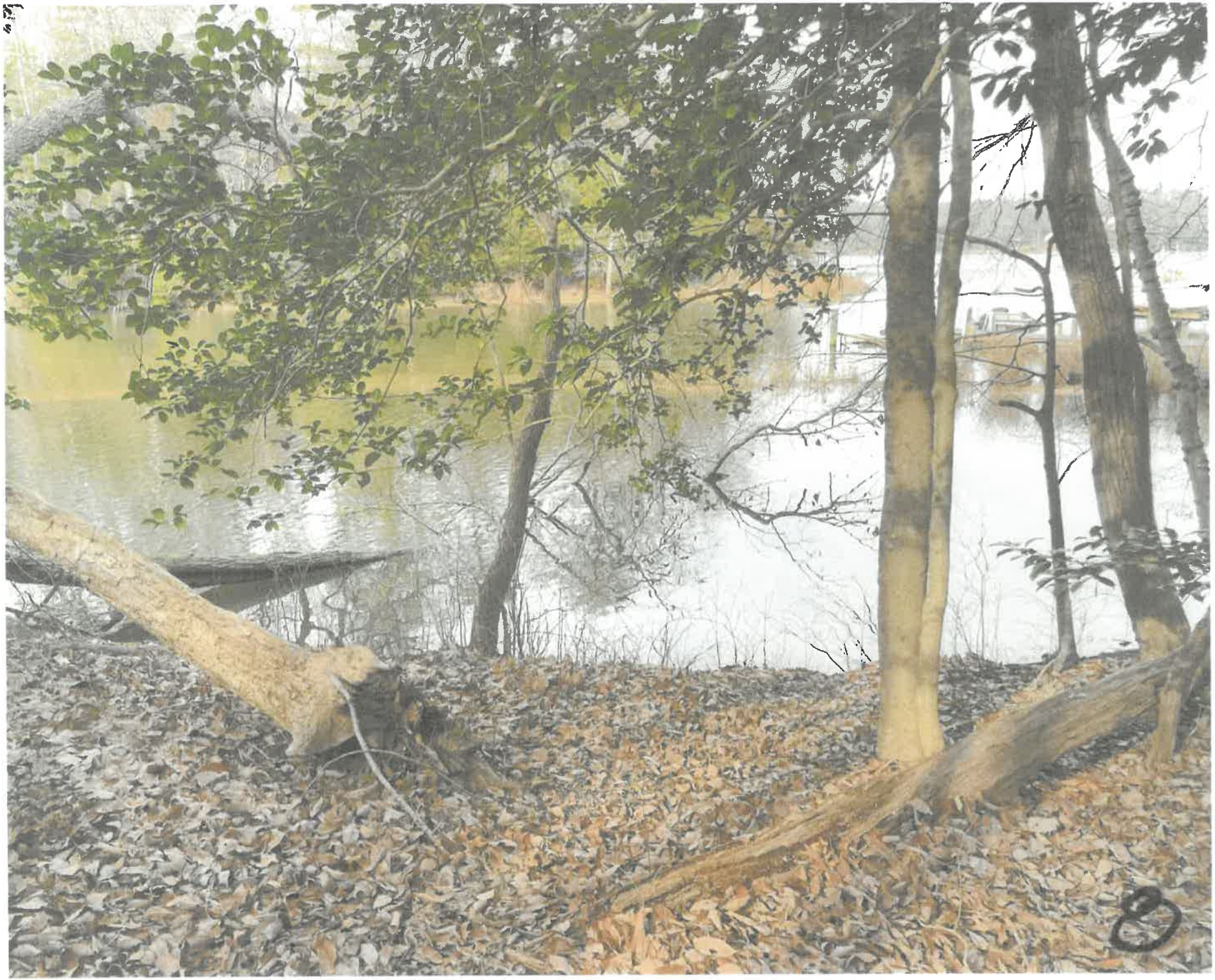
Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use		Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
PRE	Woods	(good)	A	.457	30
	Total Area / Weighted Curve Number			.46	30
POST	Open space; grass cover > 75%	(good)	A	.126	39
	Paved parking lots, roofs, driveways		A	.062	98
	Woods	(good)	A	.273	30
	Total Area / Weighted Curve Number			.46	42

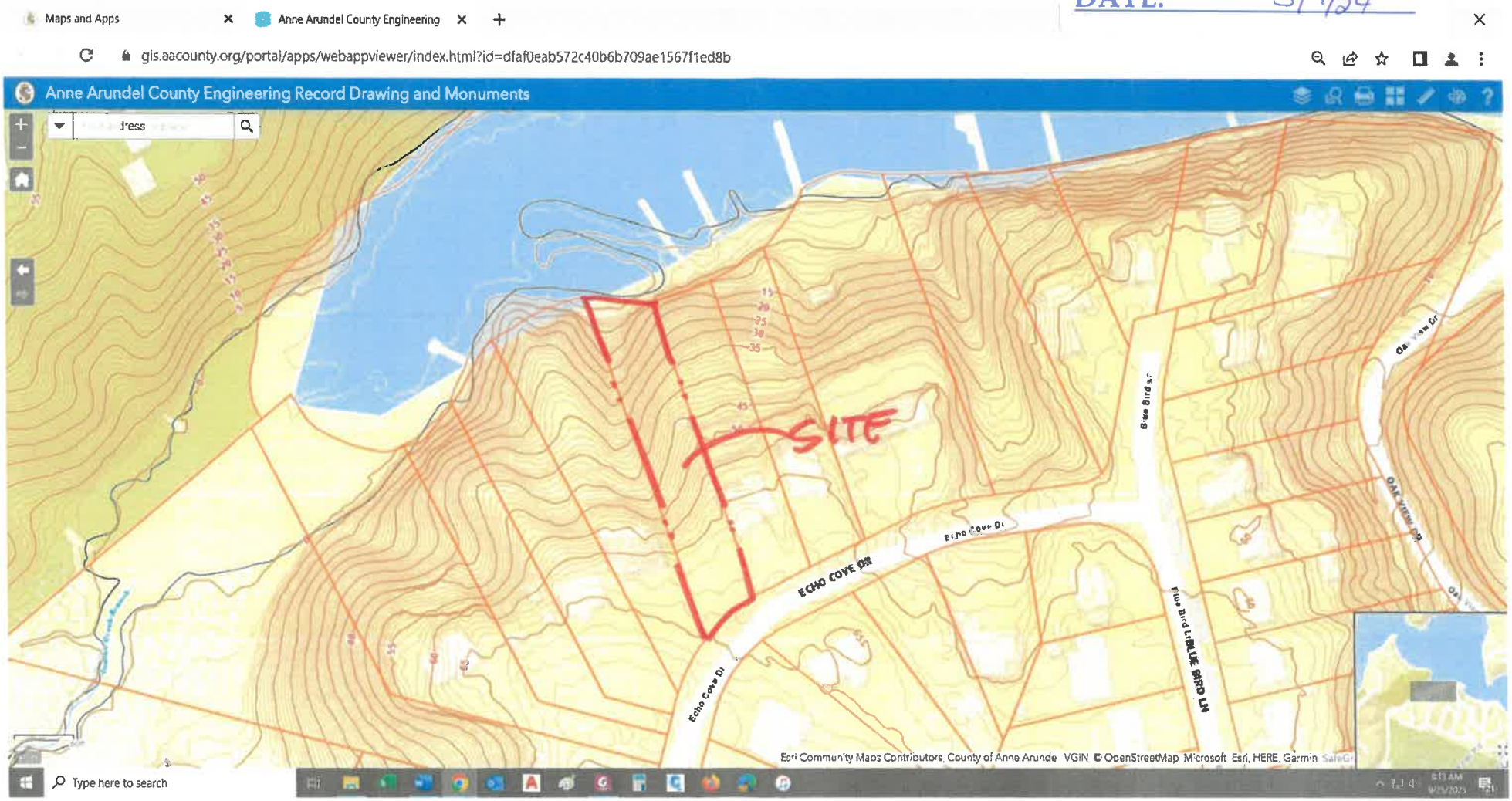
OUTFALL PICTURES
& LOCATION MAP


SEVERN RIVER
S 72°28'21" E
S 81°42'50" W 21.48'
9.55'
EX. MHW
N 80°31'49" E
16.29'
S 81°42'50" W
2.47'
N 53°08'19" E
18.85'
N 533,500
E 1,424,250
S 21°21'14" E
348.73'
S 21°21'14" E
303.73'
LOT 759
LOT 758
LOT 757
EX. RETAINING WALL
SHED TO BE REMOVED
EX. SEPTIC DRYWELL TO REMAIN
D/W
BAT
608
612
614
EX. DWG.
EX. SHED
EX. WELL UNDER LIGHTHOUSE AA. CO. TAG# 15-0088
EX. WELL AA-95-538
EX. WELL AA. CO. TAG# 14-0421
14' PRIVATE INGRESS/EGRESS
(L 3567 /
(L 36741
30'R
50'R
100'R
EX. POWER POLE #3231
R=200'
L=69.92'
EX. A.A.Co. TA
1
2
3
4
5
6
7
8
9
DENOTES PIC. LOCATION & DIRECTION
1"=40'


3

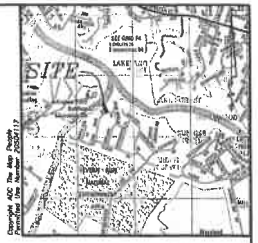


APP. EXHIBIT# 7
CASE: 2023-0168-V
DATE: 3/7/24

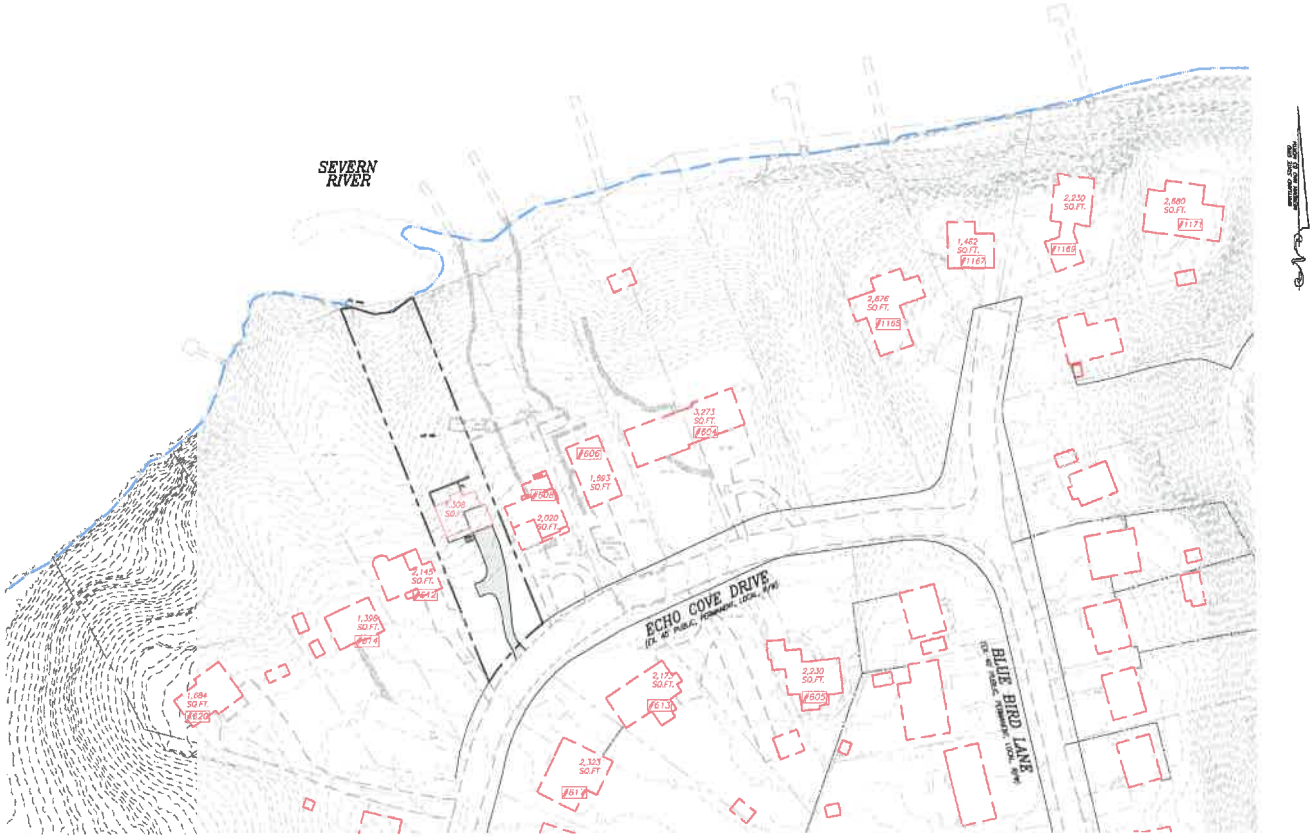


A.A.Co. TOPO MAPS

APP. EXHIBIT# 8
CASE: 2023-0168-V
DATE: 3/7/24



VICINITY MAP
SCALE: 1"=2000'



PLAN VIEW
SCALE: 1" = 50'

NO.	DATE	BY	REVISION	APPROVED	DATE

OWNER/DEVELOPER
SIKORA PROPERTIES LLC
108 STONE POINT RD.
UNIT 221
ANNAPOLIS, MD 21401
786-391-5569
SIKORAINVESTMENT@GMAIL.COM

Maryland Professional Engineering Firm License No. 47570
BOYD & DOWGIALLO, P.A.
ENGINEERS•SURVEYORS•PLANNERS
412 Headquarters Drive, Suite 5
Millersville, Maryland 21108
(410) 729-1234 (P)
(410) 729-1243 (F)
JERRYT@BNDPA.COM

EXHIBIT

LOT 758, SUNRISE BEACH

PLAT BOOK 23, PAGE 18
TAX MAP 31 BLOCK 8, PARCEL 142
ZONED R2

Job No.: 20-006	
Sheet No.: 1 of 1	
Checked By: JET	
DATE: FEBRUARY, 2024	
Permit #: 02019919	
Proj. No.	

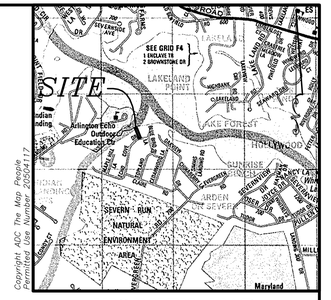
SECOND DISTRICT
ANNE ARUNDEL COUNTY, MD 21032

JOB# 20-006

Projects 2020\J Dgn\20-006\DWG\20-006-BASE-GE-LOT-758-

APPLICANT EXHIBIT 9
2023-0168-V
03/07/2024

EX. AVERAGE FRONT SETBACK TABULATION	
Address	Ex. Front Setback
#620	162'
#614	198'
#612	212'
#608	196'
#606	196'
#604	194'
TOTAL # LOTS 6	1,158 /6= 193'



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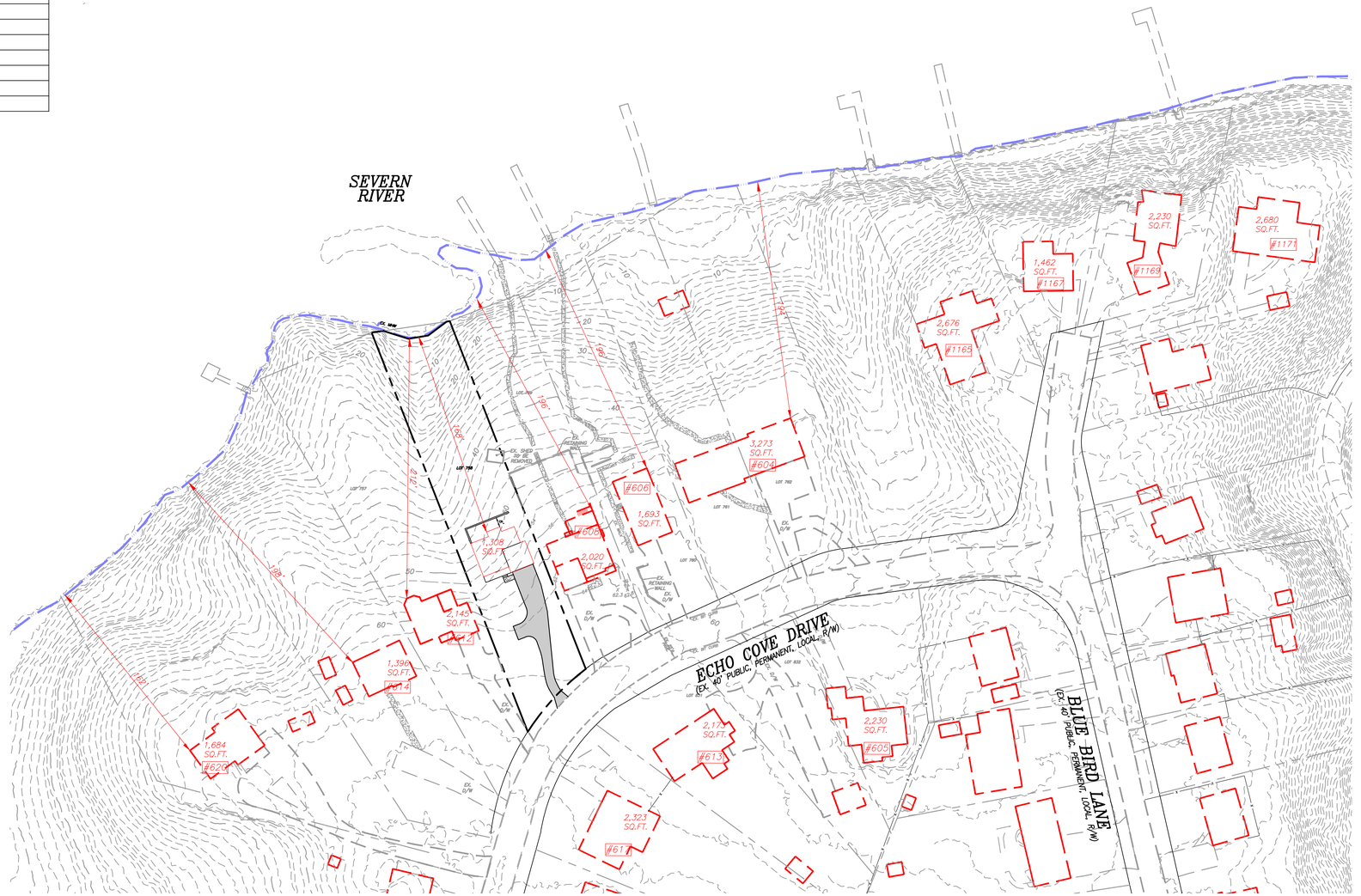
VICINITY MAP
SCALE: 1"=2000'



PLAN VIEW
SCALE: 1"= 50'

NO.	DATE	BY	REVISION	APPROVED	DATE

OWNER/DEVELOPER
SIKORA PROPERTIES LLC
108 STONE POINT RD.
UNIT 221
ANNAPOLIS, MD 21401
786-391-5569
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412 Headquarters Drive, Suite 5
Millersville, Maryland 21108
(410) 729-1234 (P)
(410) 729-1243 (F)
JERRYT@BNDPA.COM

EXHIBIT

LOT 758, SUNRISE BEACH

PLAT BOOK 23, PAGE 18
TAX MAP 31 BLOCK 8, PARCEL 142
ZONED R2

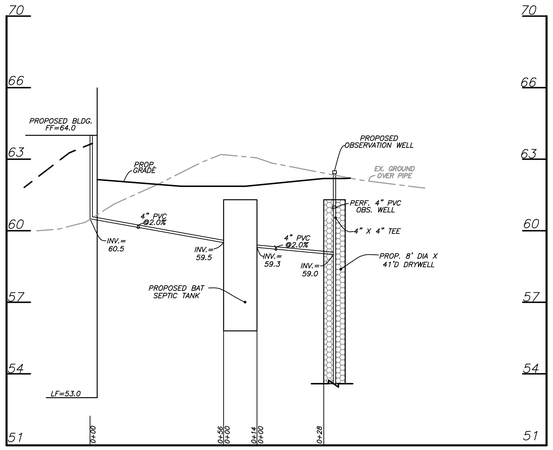
Job No.: 20-006	
Sheet No.: 1 of 1	
Checked By: JET	
DATE: FEBRUARY, 2024	
Permit #G02019919	
Proj. No.	

SECOND DISTRICT — ANNE ARUNDEL COUNTY, MD 21032

\\HAL\Land Projects 2020\3 Digit\20-006\DWG\20-006-BASE-GSC-LOT-758-12-7-23.dwg //GSC-3

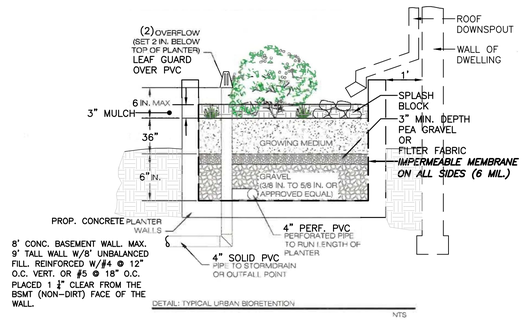
JOB# 20-006

APPLICANT EXHIBIT 10
2023-0168-V
03/07/2024



SEPTIC SYSTEM PROFILE

SCALE: 1"= 3' (V)
1"= 30' (H)

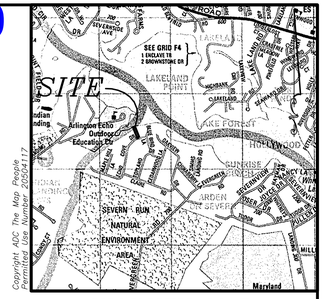


Typical Detail – Urban Bioretention Cross-Section

PLAN VIEW

SCALE: 1"= 30'

*NOTE: BAT IS TO BE TRAFFIC BEARING.



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VICINITY MAP

SCALE: 1"=2000'

SETBACKS (ZONED R2)

Front . . . . . 30'
Rear . . . . . 25'
Side . . . . . 7'

LEGEND

- Existing Contour — 18 —
- Proposed Contour — 18 —
- Perc Test Location (PASS)
- Existing Woods line
- Prop. Replacement Drywell — R/W
- Prop. Initial Drywell — I/W
- Prop. BAT Tank (Traffic Bearing) — BAT*
- Ex. 15% Steep Slopes
- Ex. 15% Steep Slopes Buffer

CRITICAL AREA TABULATION

Zoning	R2
Critical Area Classification	LDA, Modified Buffer
Total Site Area	19,942 Sq.Ft.± (0.46 Ac.±)
Total Critical Area	19,942 Sq.Ft.± (0.46 Ac.±)
Existing Developed Woodlands (Within C.A.)	18,140 Sq.Ft.±
Maximum Clearing Allowed (Within C.A.)	Minimum necessary to accommodate development
Proposed Developed Clearing (Within C.A.)	9,071 Sq.Ft.±
Required Reforestation*	9,071 Sq.Ft.±
Steep Slopes (15%)	14,336 Sq.Ft.±
Steep Slope Buffer	1,795 Sq.Ft.±
Steep Slope (15%) Disturbance	6,300 Sq.Ft.±
Steep Slope Buffer Disturbance	1,768 Sq.Ft.±
Existing Lot Coverage	122 Sq.Ft. (Ex. Shed)
Existing Lot Coverage To Remain	122 Sq.Ft. (Ex. Shed)
Maximum Lot Coverage (Within C.A.)	6,231 Sq.Ft. or (31.25%)
Proposed Lot Coverage (On-Site)	3,401 Sq.Ft.± (1,732 Sq.Ft. House + 90 Sq.Ft. Porch + 1,504 Sq.Ft. D/W + 75 Sq.Ft. S/W)
Total Proposed Lot Coverage (Within C.A.)	3,523 Sq.Ft.± (1,732 Sq.Ft. House + 90 Sq.Ft. Porch + 1,504 Sq.Ft. D/W + 75 Sq.Ft. S/W + 122 Sq.Ft. Ex. Shed)
Ex. Lot Coverage Within 100' Buffer	0 Sq.Ft.
Prop. New Lot Coverage Within 100' Buffer	0 Sq.Ft.
Prop. Buffer Mitigation Planting Requirement	0 Sq.Ft.
Total Reforestation Requirement	9,071 Sq.Ft.±
Proposed Reforestation (On-Site)	0 Sq.Ft.
Remaining Reforestation/Mitigation obligation*	9,071 Sq.Ft.±

BUILDING PERMIT SITE DATA

Lot	Area (Sq. Ft.)	Prop. Cover (Bldg)	Prop. Cover (Impervious)	Prop. Total (Bldg)	(Prop. Bldg Hgt.)
758	19,942 Sq.Ft.	1,732 Sq.Ft.± or (8.7%)	3,523 Sq.Ft.± or (17.7%)	< 3,500 Sq.Ft.	N/A

VARIANCE NOTES

1. In accordance with Article 17, Section 8-201(a) of the Anne Arundel County Code, a variance is required to allow the disturbance of 6,300 sq. ft. 15%+ steep slopes within a Limited Development Area for construction of the proposed dwelling and its associated improvements.

ANNE ARUNDEL COUNTY
MARYLAND
DEPARTMENT OF HEALTH

20-006

Bureau of Environmental Health
3 Harry S. Truman Parkway
Annapolis, MD 21401
Phone 410-222-7193 Fax 410-222-7479
Maryland Relay (TTY): 711
www.aahealth.org

Nileh Kalyanaraman, M.D., F.A.C.P.
Health Officer

March 23, 2021

BOYD & DOWGIALLO, PA
412 HEADQUARTERS DR, STE 5
MILLERSVILLES, MD 21108

RE: Perc #T02048219
Tax Account #2748042592S0
Site: 610 ECHO COVE DR
CROWNSVILLE

This letter does not constitute Health Department or Building Permit approval for the referenced site. The Anne Arundel County Department has completed an evaluation of the above referenced property. Percolation test(s) were conducted on May 3, 2005. Minimum design requirements are based on a proposed house size **no larger than 3500** square feet and the test results. The minimum design requirement for the initial septic system and replacement systems are as follows:

Septic Tank BAT UNIT

Initial Drywell/Seepage Pit:

Total Depth 41 feet
Diameter 8 feet
No. of Pits 1
Pits Separated by 24 feet from edge to edge

Replacement systems:

Total Depth 41 feet
Diameter 8 feet
No. of Pits 1
Pits Separated by 24 feet from edge to edge

Other: A HOUSE OVER 3500SQFT WILL REQUIRE TWO DRYWELLS PER SYSTEM AND WILL LIKELY NOT FIT ON THE PROERTY. RECS FOR A HOUSE UP TO 3500SQFT HAVE BEEN SENT INSTEAD. A HOUSE OVER 3500SQFT WILL REQUIRE SHOWING 6 6FOOT DIAMETER DRYWELLS.

A nitrogen reducing pretreatment unit will be required with the design of the sewage disposal system. The reason for this requirement is this property is located in the Chesapeake Bay watershed as required by COMAR 26.04.02.07.

The minimum design requirements listed above are for the purpose of preparing site plans for the referenced property

Before approval of a septic system for this property is considered, eight (8) copies of a site plan should include; all items on the enclosed site plan requirement sheet, a nitrogen reducing pretreatment unit if required and the layout of the proposed initial septic system and 2 replacement(s) must be prepared by the owner/applicant and submitted to this office for review.

SEPTIC SYSTEM REQUIREMENTS**

Initial Septic System – BAT Septic Tank	Replacement Septic Systems (2 Required)
1 Drywell	1 Drywell
Diameter=9'	Diameter=9'
Depth=41'	Depth=41'
Separation =27'	Separation =27'

** A variance of five (5) feet to the minimum 10 foot setback for a drywell is required from the property line to allow a drywell within 5 feet of the property line.

PERC# T02048219

NO.	DATE	BY	REVISION	APPROVED	DATE

OWNER/DEVELOPER
SIKORA DEVELOPMENT, LLC
20 HOYLE LANE
SEVERNA PARK, MD 21146
786-391-5569
SIKORAINVESTMENT@GMAIL.COM

BOYD & DOWGIALLO, P.A.
ENGINEERS*SURVEYORS*PLANNERS
412 Headquarters Drive Suite 5
Millersville, Maryland 21108
(410) 729-1234

VARIANCE PRE-FILE PLAN

LOT 758, SUNRISE BEACH, SECTION 5

Plat Book 23, page 18
TAX MAP 31 BLOCK 8, PARCEL 142
ZONED R2

Job No.: 20-006	
Sheet No.: 1 of 1	
Checked By: JET	
Date: APRIL, 2022	
Permit #G0201____	
Proj. No.	

SECOND DISTRICT — ANNE ARUNDEL COUNTY, MD 21032

JOB# 20-006

\\HAL\Land Projects 2020\3 Digit\20-006\DWG\20-006-BASE-LOT-758-RE-PERC-11-19-21.dwg //VARIANCE

20-006

ANNE ARUNDEL COUNTY
MARYLAND
DEPARTMENT OF HEALTH

Bureau of Environmental Health
3 Harry S. Truman Parkway
Annapolis, MD 21401
Phone 410-222-7193 Fax 410-222-7479
Maryland Relay (TTY): 711
www.aahealth.org

Nilesh Kalyanaraman, M.D., F.A.C.P.
Health Officer

March 23, 2021

BOYD & DOWGIALLO, PA
412 HEADQUARTERS DR, STE 5
MILLERSVILLES, MD 21108

RE: Perc #TC2048219
Tax Account #274804259250
Site: 610 ECHO COVE DR
CROWNSVILLE

This letter does not constitute Health Department or Building Permit approval for the referenced site. The Anne Arundel County Department has completed an evaluation of the above referenced property. Percolation tes(s) were conducted on May 3, 2005. Minimum design requirements are based on a proposed house size **no larger than 3500** square feet and the test results. The minimum design requirement for the initial septic system and replacement systems are as follows:

Septic Tank BAT UNIT

Initial Drywell/Seepage Pit:	Replacement systems:
Total Depth 41 feet	Total Depth 41 feet
Diameter 8 feet	Diameter 8 feet
No. of Pits 1	No. of Pits 1
Pits Separated by 24 feet from edge to edge	Pits Separated by 24 feet from edge to edge

Other: A HOUSE OVER 3500SQFT WILL REQUIRE TWO DRYWELLS PER SYSTEM AND WILL LIKELY NOT FIT ON THE PROERTY. RECS FOR A HOUSE UP TO 3500SQFT HAVE BEEN SENT INSTEAD. A HOUSE OVER 3500SQFT WILL REQUIRE SHOWING 6 6FOOT DIAMETER DRYWELLS.

A nitrogen reducing pretreatment unit will be required with the design of the sewage disposal system. The reason for this requirement is this property is located in the Chesapeake Bay watershed as required by COMAR 26.04.02.07.

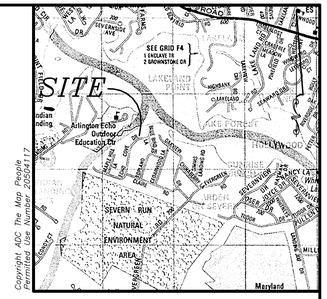
The minimum design requirements listed above are for the purpose of preparing site plans for the referenced propery

Before approval of a septic system for this property is considered, eight (8) copies of a site plan should include; all items on the enclosed site plan requirement sheet, a nitrogen reducing pretreatment unit if required and the layout of the proposed initial septic system and 2 replacement(s) must be prepared by the owner/applicant and submitted to this office for review.

SEPTIC SYSTEM REQUIREMENTS*

Initial Septic System	Replacement Septic Systems (2 Required)
– BAT Septic Tank	
– 1000 Gallon Pump Pit	
1– Drywell	1st Replacement System
Diameter=8'	1– Drywell
Depth=41'	Diameter=8'
Separation =24'	Depth=41'
	Separation =24'

PLAN VIEW
SCALE: 1"= 30'



VICINITY MAP
SCALE: 1"=2000'

LEGEND

- Existing Contour
- Proposed Contour
- Perc Test Location (PASS)
- Existing Woods line
- Prop. Replacement Drywell (D/W)
- Prop. Initial Drywell (D/W)
- Prop. BAT Tank (BAT)
- Ex. 25% Steep Slopes
- Ex. 25% Steep Slopes Buffer
- Prop. Steep Slopes

SETBACKS (ZONED R2)

Front	30'
Rear	25'
Side	7'

BUILDING PERMIT SITE DATA

Lot	Area (Sq. Ft.)	Prop. Cover (Bldg)	Prop. Cover (Impervious)	Prop. Total (Bldg)	(Prop. Bldg Hgt.)
758	20,258 Sq.Ft.	2,811 Sq.Ft.± or (13.9%)	4,124 Sq.Ft.± or (20.4%)	< 3,500 Sq.Ft.	N/A

PERC# T02048219

NO.	DATE	BY	REVISION	APPROVED	DATE

OWNER/DEVELOPER
SIKORA DEVELOPMENT, LLC
20 HOYLE LANE
SEVERNA PARK, MD 21146
786-391-5569
SIKORAINVESTMENT@GMAIL.COM

BOYD & DOWGIALLO, P.A.
ENGINEERS*SURVEYORS*PLANNERS
412 Headquarters Drive Suite 5
Millersville, Maryland 21108
(410) 729-1234

SEPTIC & BUILDING PERMIT SITE PLAN

Job No.: 20-006	
Sheet No.: 1 of 1	
Checked By: JET	
Date: MAY, 2021	
Permit #G0201____	
Proj. No.	

LOT 758, SUNRISE BEACH, SECTION 5

Plat Book 23, page 18
TAX MAP 31 BLOCK 8, PARCEL 142
ZONED R2

SECOND DISTRICT — ANNE ARUNDEL COUNTY, MD 21032

JOB# 20-006

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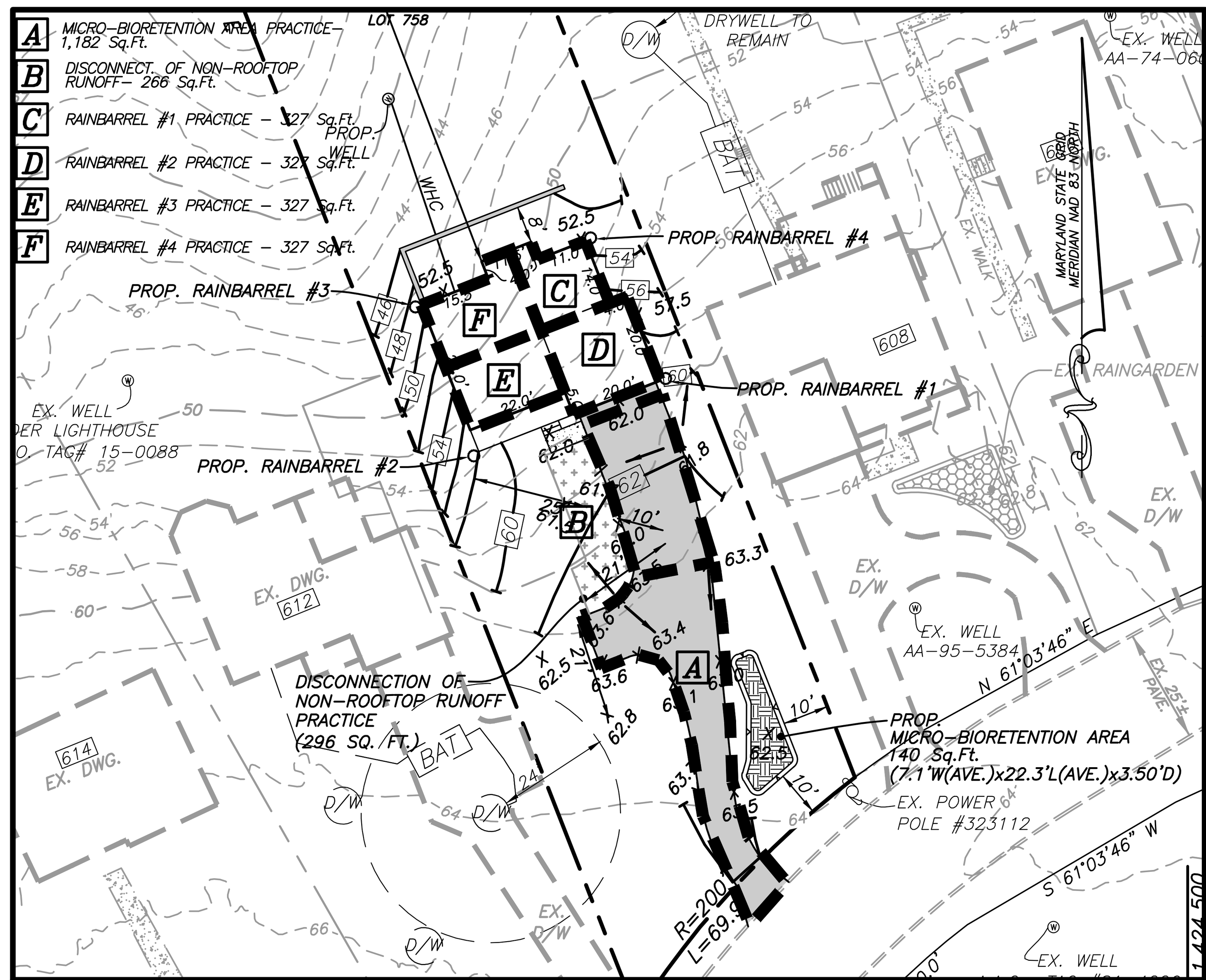
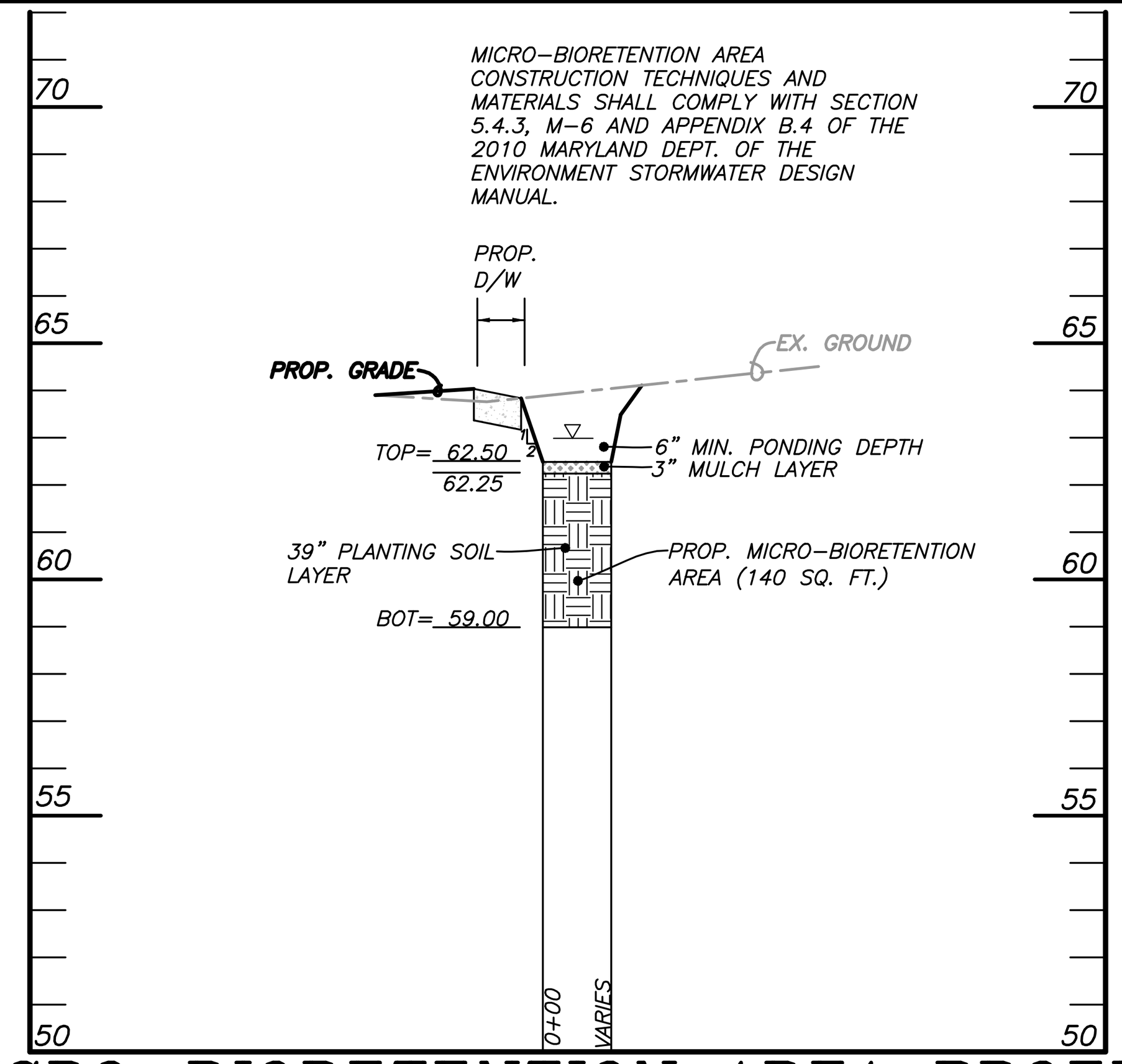


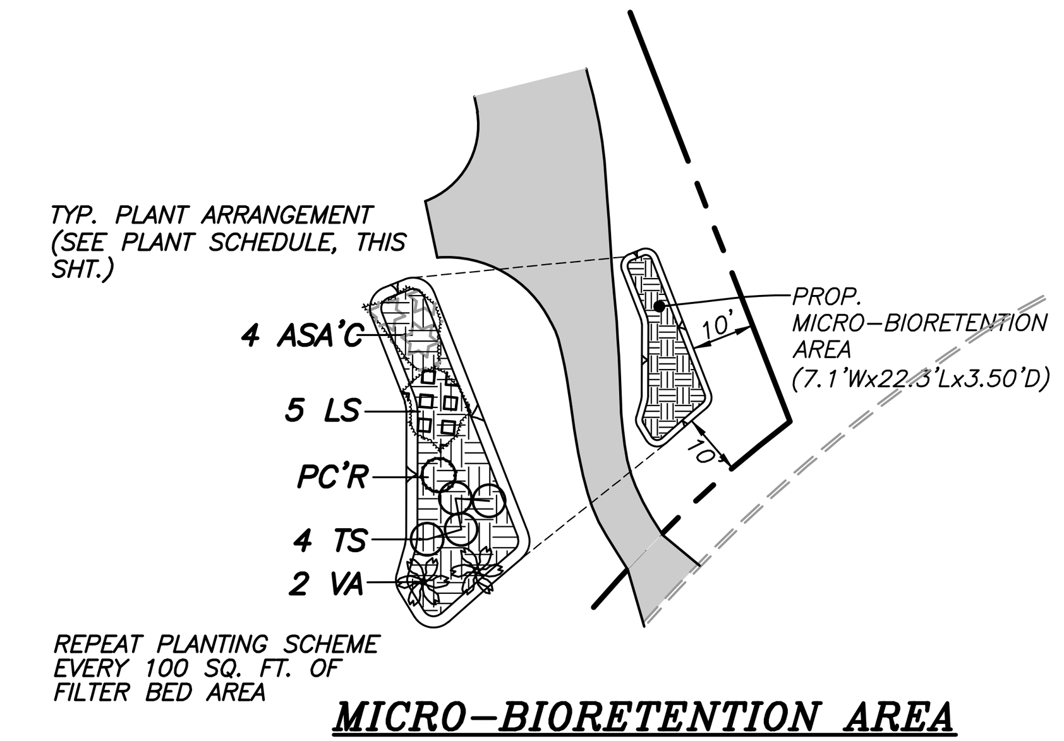
ESD PRACTICE MAP

SCALE: 1"= 30'



MICRO-BIORETENTION AREA PROFILE

SCALE: 1"= 4' (V)
1"= 40' (H)



MICRO-BIORETENTION AREA PLANTING SCHEMATIC

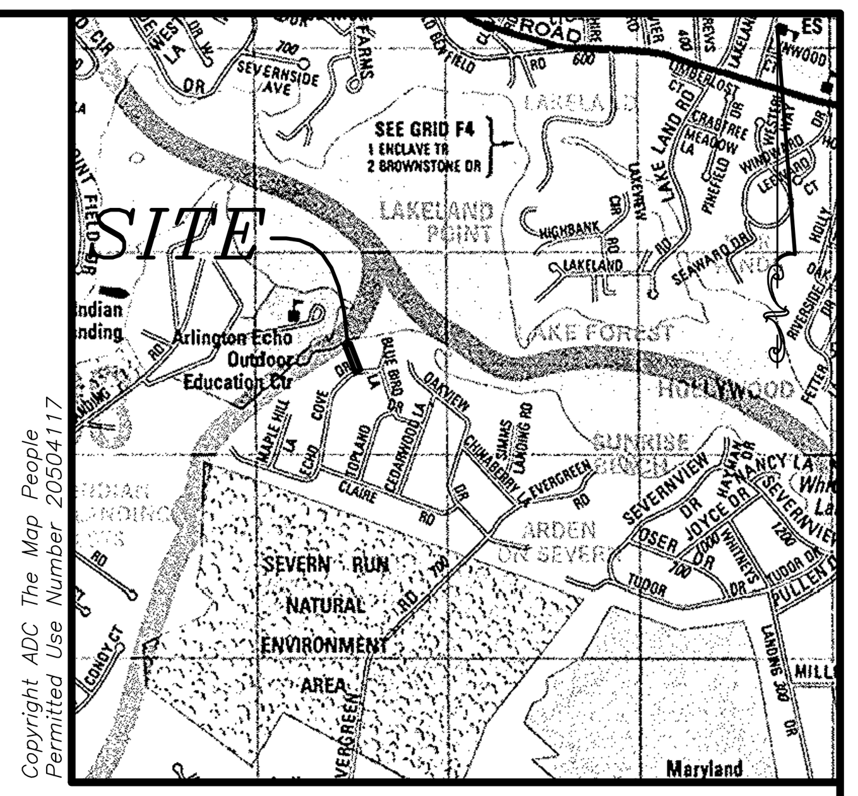
NOT TO SCALE

PLANT SCHEDULE (TYPICAL)

Code:	Quantity	Scientific Name/Common Name	Size	Condition	Spacing
ASA'C	4	Asarum Canadense, wind ginger	1Gal	Container	18" O.C.
VA	2	Viburnum acerifolium, Maple-leaved Arrowwood	1Gal	Container	5' O.C.
LS	5	Lobelia siphilitica/Great Blue Lobelia	1Gal	Container	18" O.C.
TS	4	Tussock Sedge/Carex stricta	1Gal	Container	18" O.C.
PC'R	1	Panicum virgatum/Red Switch Grass	1Gal	Container	30" O.C.

LEGEND

- Existing Curb
- Existing Contour
- Existing Wire Fence
- Existing Wood Fence
- Existing Woods line
- Existing Gas Line
- Existing Gas Valve
- Existing Stormdrain Inlet
- Existing Stormdrain Manhole
- Existing Sewer Manhole
- Existing Sewer Cleanout
- Existing Telephone Manhole
- Existing Utility Pole
- Existing Water Valve
- Existing Water Meter
- Proposed Contour
- Proposed Reinforced Silt Fence — RSF
- Proposed Limit of Disturbance — D
- Stabilized Construction Entrance — S.C.E.
- Mean High Tide Line
- BAT Septic Tank — BAT
- Ex. 15% to 25% Slopes
- Ex. 25% Slopes
- FEMA Flood Line
- Initial Septic Drywell — D/W
- Replacement Septic Drywell — D/W



VICINITY MAP

SCALE: 1"=2000'

GENERAL NOTES

1. Notify the Anne Arundel County Department of Planning and Code Enforcement, Environmental Programs, (410)222-7784 (48) forty-eight hour before beginning the work shown on these plans.
2. The existing utilities and obstructions shown are from the best available records and shall be verified by the contractor prior to construction. Necessary precautions shall be taken by the contractor to protect existing services and mains, and any damage to them shall be repaired immediately at his own expense.
3. It shall be distinctly understood that failure to mention specifically any work which would normally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
4. Temporary sediment control measures shall be maintained until all contributing areas are graded and stabilized.
5. The property and topographic information shown hereon is based on field surveys performed by Boyd & Dowgiallo P.A. and the A.A.Co. GIS Site.
6. All disturbed areas shall be seeded or better as per plans.
7. The user is responsible to verify all information shown on these plans.
8. The contractor shall note that in case of a discrepancy between the scaled and the computed dimensions shown on these plans: the computed dimensions shall govern.
9. Pile dirt on the high side of the trench during utility construction.
10. The grading quantities shown hereon are for permit purposes only and should not be used for bidding purposes.
11. All construction shall be in conformance with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment controls."
12. For exact building dimensions, see Architectural Plans, by others.
13. All easements, irrespective of public or private disposition, are to be permanent unless otherwise labeled. All private easements have been labeled as such.
14. All roof drains shall be directed to the proposed rain barrels as shown on sheet 4 of these plans.
15. This project is located within Severn River watershed.
16. The boundary lines, bearings, and distances as shown hereon for all adjacent parcels, rights-of-way, etc. are taken from deed plotting's only. This drawing does not represent a field run survey of any parcel except Tax Map 31 Block 8 Parcel 142, Lot 759 as shown hereon.
17. The property shown hereon is located within Flood Hazard Zone "AE" El.=5.0 as shown on F.E.M.A. Map 24003C0153F dated February 8, 2015.
18. For title, see Deed Liber 32831 Folio 337.

SETBACKS (ZONED R5)

Front . . . . N/A*
Rear . . . . 20'
Side . . . . 7'

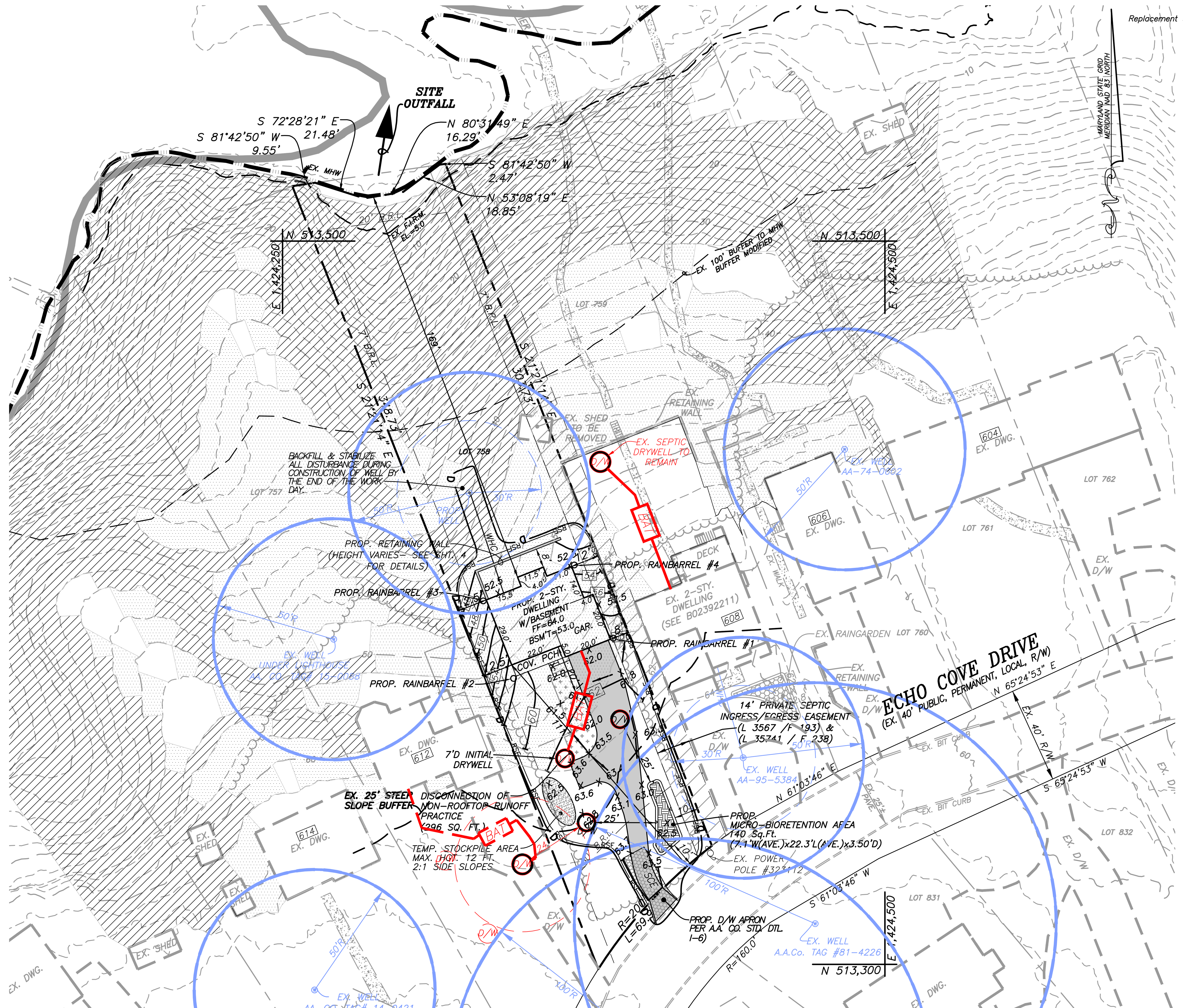
*Established by existing dwellings

CRITICAL AREA TABULATION

Zoning	R2
Critical Area Classification	LDA, Modified Buffer
Total Site Area	19,942 Sq.Ft.± (0.46 Ac.±)
Total Critical Area	19,942 Sq.Ft.± (0.46 Ac.±)
Existing Developed Woodlands (Within C.A.)	19,820 Sq.Ft.±
Maximum Clearing Allowed (Within C.A.)	Minimum necessary to accommodate development
Proposed Developed Woodlands Clearing (Within C.A.)	9,230 Sq.Ft.±
Required Reforestation	9,230 Sq.Ft.± (to be provided by off-site mitigation)
Prop. Reforestation On-Site	0 Sq.Ft.
Steep Slopes (15%)	14,336 Sq.Ft.±
Steep Slope (15%+) Disturbance	4,806 Sq.Ft.±
Existing Lot Coverage	122 Sq.Ft. (Ex. Shed)
Existing Lot Coverage To be Removed	122 Sq.Ft. (Ex. Shed)
Maximum Lot Coverage (Within C.A.)	6,231 Sq.Ft. or (31.25%)
Proposed Lot Coverage (On-Site)	2,970 Sq.Ft.± (1,308 Sq.Ft. House + 1,510 Sq.Ft. D/W + 42 Sq.Ft. S/W & Steps)
Total Proposed Lot Coverage (Within C.A.)	2,970 Sq.Ft.± (1,308 Sq.Ft. House + 1,510 Sq.Ft. D/W + 42 Sq.Ft. S/W & Steps)
Ex. Lot Coverage Within 100' Buffer	0 Sq.Ft.
Prop. New Lot Coverage Within 100' Buffer	0 Sq.Ft.
Prop. Buffer Mitigation Planting Requirement	0 Sq.Ft.

NOTE: TO MINIMIZE EROSION AND DEPOSITION OF SEDIMENT OFF-SITE, ALL DISTURBANCE WITHIN THE 15% SLOPES ARE TO BE STABILIZED VIA WITH 4-6" HARDWOOD MULCH AT THE END OF THE WORKDAY, UNLESS NOTED OTHERWISE ON THESE PLANS.

APPLICANT EXHIBIT 11
2023-0168-V
03/07/2024



PLAN VIEW

SCALE: 1"= 30'

VARIANCE NOTES

1. In accordance with Article 17, Section 8-201(a) of the Anne Arundel County Code, a variance is required to allow the disturbance of 4,806 sq. ft. 15%+ steep slopes within a Limited Development Area for construction of the proposed dwelling and its associated improvements.

SITE ANALYSIS

Zoning	R2
Critical Area Classification	LDA, Modified Buffer
Total Site Area	19,942 Sq.Ft.± (0.46 Ac.±)
Total Disturbed Area	9,230 Sq.Ft.±
Vegetative Area	6,259 Sq.Ft.±
Predominant Soil Type	EuE: EVesboro-galestown-urban land complex, 15 to 25 percent slopes (A) EuD: Evesboro-galestown-urban land complex, 5 to 15 percent slopes (A)
Existing Developed Woodlands	19,820 Sq.Ft.±
Proposed Developed Woodlands Clearing	9,230 Sq.Ft.±
Maximum Clearing Allowed	Minimum necessary to accommodate development
Existing Lot Coverage	122 Sq.Ft.±
Existing Lot Coverage To be Removed	122 Sq.Ft.±
Existing Coverage within 100' Buffer	0 Sq.Ft.±
Proposed Lot Coverage	2,970 Sq.Ft.± (1,308 Sq.Ft. House + 1,510 Sq.Ft. D/W + 42 Sq.Ft. S/W & Steps)
Grading Quantities	150 cu. yds. Cut
	200 cu. yds. Fill

STORMWATER MANAGEMENT NOTE

This grading permit #G02019919 was reviewed under the 2010 regulations for stormwater management. Stormwater management practices will be provided for the proposed redevelopment shown hereon in accordance with Article 16, Section 4 and the final plan on file with the Office of Planning & Zoning. ESD to the MEP was achieved through the use of a non-structural disconnection of non-rooftop runoff practice, microscale rainbarrel practices and a microscale micro-bioretention area practice, in accordance with Chapter 5, Sections N-2, M-1 & M-6 of the 2009 MDE Stormwater Design Manual.

NO.	DATE	BY	REVISION	APPROVED	DATE

OWNER/DEVELOPER
SIKORA PROPERTIES LLC
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UNIT 221
ANNAPOLIS, MD 21401
786-391-5569
SIKORAINVESTMENT@GMAIL.COM

Maryland Professional Engineering Firm License No. 47570
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ENGINEERS*SURVEYORS*PLANNERS
412 Headquarters Drive, Suite 5
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(410) 729-1234 (P)
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JERRYT@BNDPA.COM

STATE OF MARYLAND ... PROFESSIONAL ENGINEER

VARIANCE SITE PLAN

LOT 758, SUNRISE BEACH

PLAT BOOK 23, PAGE 18
TAX MAP 31 BLOCK 8, PARCEL 142
ZONED R2

Job No.: 20-006	
Sheet No.: 1 of 1	
Checked By: JET	
DATE: FEBRUARY, 2024	
Permit #G02019919	
Proj. No.	

SECOND DISTRICT

ANNE ARUNDEL COUNTY, MD 21032

JOB# 20-006