BOYD & DOWGIALLO, P.A.

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

November 15, 2024

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

Re: 779 Snodgrass Road
Crownsville, MD 21032
Tax No.: 2413-0317-1620

Attn: Mr. Robert Konowal

Dear Mr. Konowal,

On behalf of our client, Matthew Rhoderick, contract purchaser for the above-referenced property, we are submitting herewith a Variance application for development of the site.

The subject property is known as Lots 22 & 23, Block 36B, Section E, as shown on the record plat for Herald Harbor, recorded among the land records of Anne Arundel County in plat 4 at page 14. The property is part of Parcel 390 on Tax Map 31 in Block 23, and is located at 779 Snodgrass Road in Crownsville, MD 21032. The site is currently vacant and predominantly forested. The property is zoned R5 and is located within an area designated LDA on the Chesapeake Bay Critical Area Maps. The site contains 5,800 sqft. of land, the majority of which (5,754 sqft.) is identified as steep slopes; however, the site is not located in the Critical Area Buffer or the Expanded Buffer. No rare, threatened or endangered species were noted during field visits while preparing the Critical Area Report and the Variance Site Plan.

As shown on the attached Variance Site Plan, the footprint of the proposed dwelling has been reduced from that which was shown on the Pre-File Plan (462 sqft. vs 512 sqft. or approximately 10%) and the location of the dwelling has been shifted towards Elm Trail to reduce the steep slope disturbance. In addition, the total proposed lot coverage on-site has been reduced from 1,172 sqft. to 934 sqft (excluding the portion of Snodgrass Road which encumbers the property), which is well below the maximum allowable lot coverage of 1,950 sqft. per the Code. Stormwater management has been provided for the proposed improvements via an infiltration drywell, and lot clearing has been reduced from the Pre-File, consistent with ESD requirements. Through the aforementioned revisions and reductions in proposed improvements, the total steep slopes disturbance has been minimized to 3,714 sqft (excluding disturbance for the proposed water connection.) Lastly, with the aforementioned revisions, the total proposed clearing on-site has been reduced to 3,683 sqft, well below the maximum allowable clearing of 5,194 sqft; and any reforestation requirements will be provided via off-site reforestation in an approved Critical Area Mitigation Bank.

As shown on the attached Variance Site Plan, the proposed development requires the following Variances:

1. A Variance to Article 17, Section 8-201 of the Code to allow the disturbance of 3,714 sqft. of 15%+ steep slopes on-site.
2. A Variance of 7' to the required 25' front setback noted in Article 18, Section 4-601 of the Code to allow a front setback of 18' to Elm Trail.
3. A Variance of 9' to the required 20' rear setback noted in Article 18, Section 4-601 of the Code to allow a rear setback of 11' to the abutting Lot 21.

In accordance with the Variance Instructions Checklist on-line, the following items were uploaded to the LUN:

1. A signed Variance Application.

2. A copy of this explanation letter, including the statement of justification.
3. A copy of the Variance Site Plan, the architectural plans and one (1) copy of the Variance Submittal Requirements.
4. One (1) copy of the current deed.
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.) A copy of the Critical Area report, 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 from the Zoning reviewer. Please note that the plan has been revised to show a reduction in steep slope disturbance as noted above.
   c.) A copy of the completed single-family engineering checklist, including one copy of the Stormwater Management Report.

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

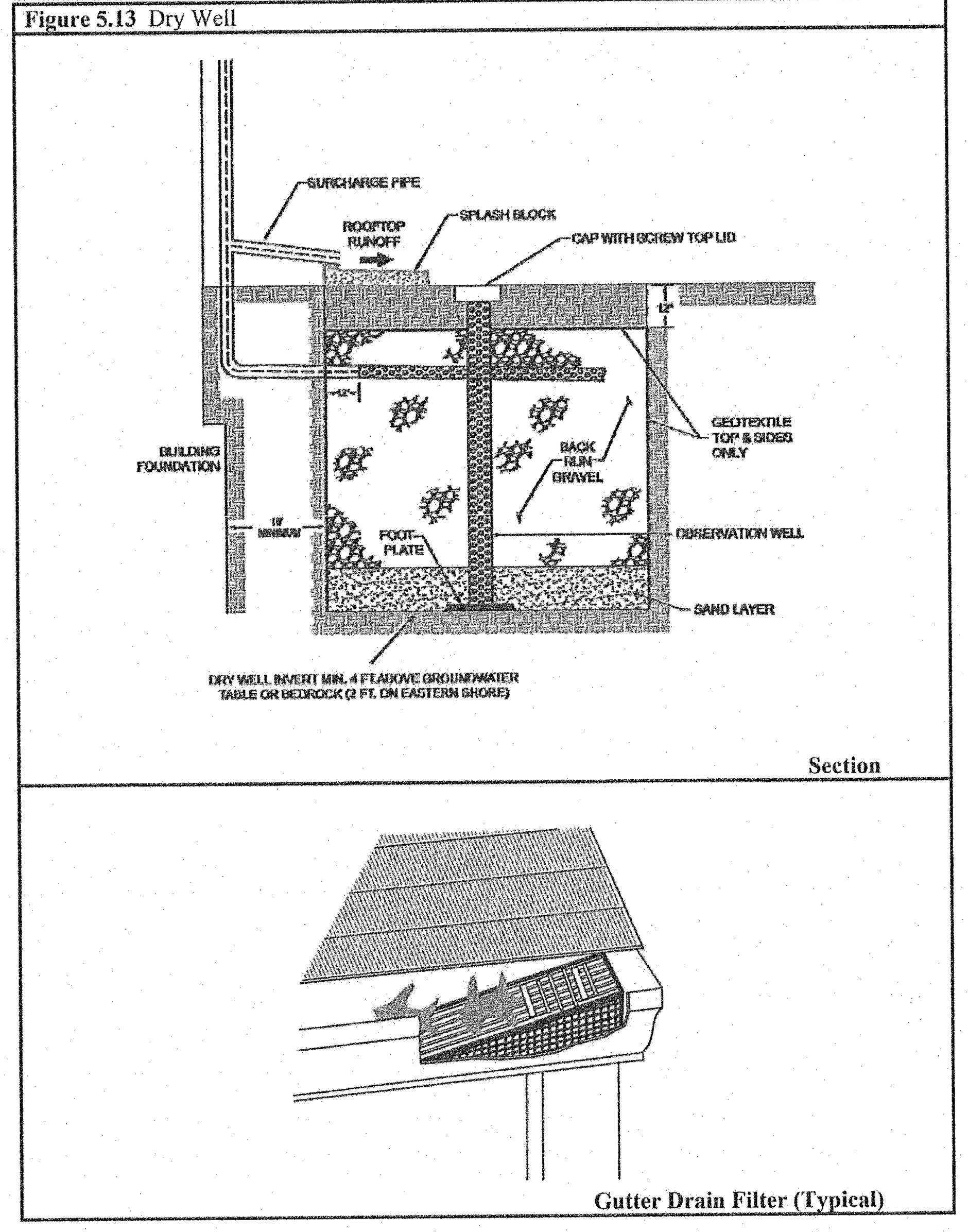
Very truly yours,

Boyd & Dowgiallo, P.A.

By: _____
Jerry Tolodziecki, P.E.

J.o.#20-257
cc: file
enclosures

Figure 5.13 Dry Well



Section

Gutter Drain Filter (Typical)

5.93 Supp.1

DRYWELL DETAIL

CRITICAL AREA TABULATION

Zoning	R5
Critical Area Classification	LDA
Total Site Area	5,800 Sq.Ft.± (0.13 Ac.±)
Total Critical Area	5,800 Sq.Ft.± (0.13 Ac.±)
Existing Forest (Within C.A.)	5,194 Sq.Ft.±
Maximum Clearing Allowed (Within C.A.)	N/A
Proposed Forest Clearing (Within C.A.)	3,683 Sq.Ft.± (Includes 103 Sq.Ft. w/in Elm Trail)
Required Reforestation	3,683 Sq.Ft.± (to be provided by off-site mitigtion)
Ex Steep Slopes (15%+) On-Site	5,754 Sq.Ft.±
Steep Slope (15%+) Disturbance	3,856 Sq.Ft.± (Includes 142 Sq.Ft. for utility connection)
Existing Lot Coverage	151 Sq.Ft.± (Includes a portion of Snodgrass Road and driveway from Lot 114)
Existing Lot Coverage To Be Removed	0 Sq.Ft.±
Maximum Lot Coverage (Within C.A.)	1,950 Sq.Ft.± (25% + 500 Sq.Ft.)
Proposed Lot Coverage (On-Site)	948 Sq.Ft.± (462 Sq.Ft. House + 324 Sq.Ft. D/W + 108 Sq.Ft. Cov. Porch + 54 Sq.Ft. S/W)
Total Proposed Lot Coverage (Within C.A.)	1,099 Sq.Ft.± (462 Sq.Ft. House + 324 Sq.Ft. D/W + 108 Sq.Ft. Cov. Porch + 54 Sq.Ft. S/W + 151 Sq.Ft. Ex. Cover)

GENERAL NOTES

1. Notify the Anne Arundel County Department of Inspections & Permits, Inspection Division, (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 Atwell in April, 2024 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 this plan.
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 "2001 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 SWM facilities as shown on this sheet.
15. This project is located within the Severn River Watershed.
16. For existing water, see A.A. County As-Built Drawing #15,653.
17. 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 23 Parcel 390, Lots 22 & 23 as shown hereon.
18. The property shown hereon is not located within Flood Hazard Zone, as shown on the FIRM Flood Insurance Maps. See F.E.M.A. Flood Map 24003C0162F, dated February 18, 2015.
19. For title, see Deed Liber 17318 Folio 538.
20. The limits of developed woodlands shown here on are taken from aerial imagery shown on the Anne Arundel County G.I.S. Web Site.
19. For additional information regarding proposed septic system see PAT02051161 and perc test #T02014823.

I. ENVIRONMENTAL SITE DESIGN VOLUME

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,

$ESD_v = P_E \times R_v \times A$

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

Site area = 5,800 sq. ft. (0.13 ac.)
Total Proposed Impervious Cover = 1,655 sq. ft.

%I =954/5,800 = 16.4%

$R_V = 0.05 + 0.009(16.4) = 0.20$
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 1.2".

and the ESD_v volume becomes,

ESD_v = (1.2")(0.20)(5,800)/12 = **116 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.

ESDv LOT CALCULATION

The proposed cover equals approximately 954 sq. ft. In order to provide the required ESDv volume for the development, a micro-scale ESD practice is proposed. A drywell is proposed to capture and treat the runoff from the roof area of the dwelling and provide the required volume.

Micro-scale Practices - Drywells - Section 5.4.3 M-5

The footprint of each dwelling equals 570 sq. ft. One (1) circular drywell can be used to capture and treat runoff from the roof. Using the target rainfall value (Pe) of 2.45", the ESDv provided equals,

$ESD_v = \frac{(245")(570 \text{ sq. ft.})}{12}$ = 116 cu. ft.

Using a circular drywell with an 8-foot depth will require a radius of approximately 2.2'. Therefore, provide a stormwater management drywell having the dimensions of 8'Dx2.2'R. The total ESDv volume provided by the microscale drywell practices is equal to 116 cu. ft.

SUMMARY OF ESD VOLUMES

Total Required ESD volume	***= 116 cu.ft.***
Microscale Practice – Drywell ESD volume prov'd.	= 116 cu. ft.
Total ESD volume prov'd.	= 116 cu.ft.
Total ESD volume required	**= 0 cu.ft.**

SWM COMPUTATIONS

STORMWATER MANAGEMENT SUMMARY TABLE

MINIMUM SIZING CRITERIA	SYMBOL	VOLUME REQUIRED (CUBIC-FEET)	SWM Practice	NOTES
ESDv Volume	(WQv)	116	M-5	Provided through the use of a microscale drywell practice
Recharge Volume	(Rev)	41	M-5	Provided through the use of a microscale drywell practice
Channel Protection Storage Volume	(CPv)	N/A	M-5	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 1.2", 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".
Overbank Flood Protection	(Qp10)	163	N/A	The Overbank Flood Protection Volume is being provided by the "Redcuced Curve Number Method", whereby a sufficient amount of ESDv volume is being retained on the site to reduce the 10-year post-development discharge rate to its pre-development rate.
Extreme Flood Protection	(Qf)	N/A	N/A	The extreme flood protection volume is not required since the site does not lie within a non-tidal 100-year floodplain and there are no properties downstream of the site that lie within a 100-yr. non-tidal floodplain.

STORMWATER MANAGEMENT NOTE

This grading permit #G0202_____ 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 microscale drywell practice, in accordance with Chapter 5, Section M-5, of the 2009 MDE Stormwater Design Manual.

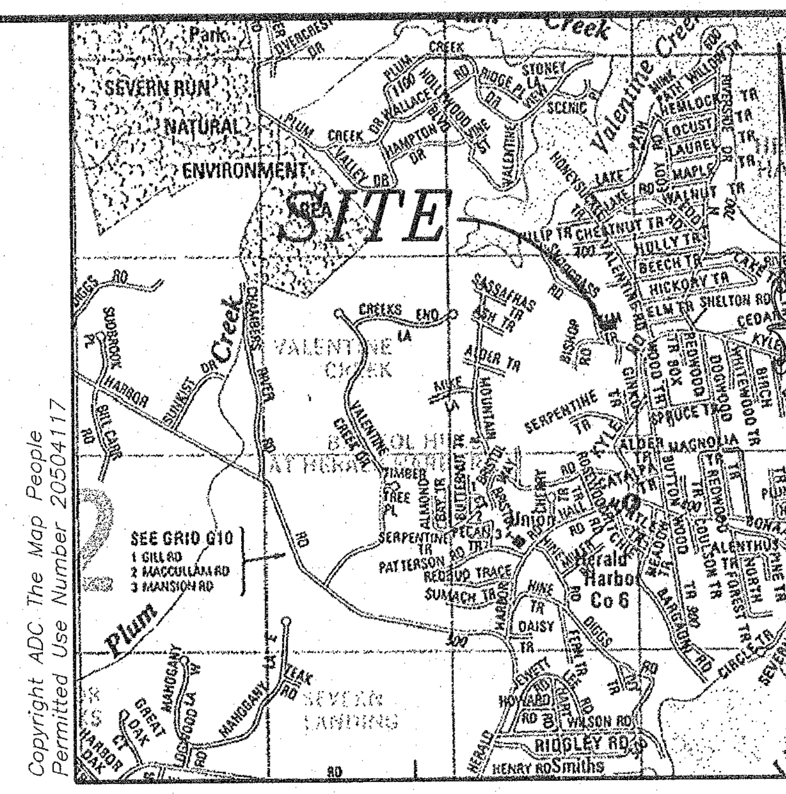
SUMMARY OF ESD VOLUMES

Total Required ESD volume	= 116 cu. ft.
Total Drywell ESD volume prov'd.	= 163 cu. ft. (providing 10-yr. storm management)
Total ESD volume prov'd.	= 116 cu.ft.
ESD volume remaining	= 0 cu. ft.

OUTFALL STATEMENT

Runoff from the site flows in a pre-dominantly southerly direction to the right-of-way of Elm Trail, an existing 25-ft. public right-of-way, and crosses Elm Trail in a southwesterly direction and into a large wooded low-lying marsh area of Valentine Creek. The runoff joins Valentine Creek and meanders northwards into the Severn River. In accordance with the October, 2017 A. A. County Stormwater Management Practices & Procedures Manual, since the site is platted lot and the overbank flood protection volume is being provided on site, the site outfall and point-of-investigation (P.O.I.) are the point along the property's southern boundary line with Elm Trail.

The property was visited by an employee of Boyd & Dowgiallo, P.A. in September, 2024 to inspect the property and site outfall/ P.O.I. It was noted that the site outfall and the P.O.I. were found to be stabilized by lawns and woods and did not show any signs of erosion. Given that the overbank flood protection volume is being provided, there should not be an increase in runoff from the site or erosion downstream.



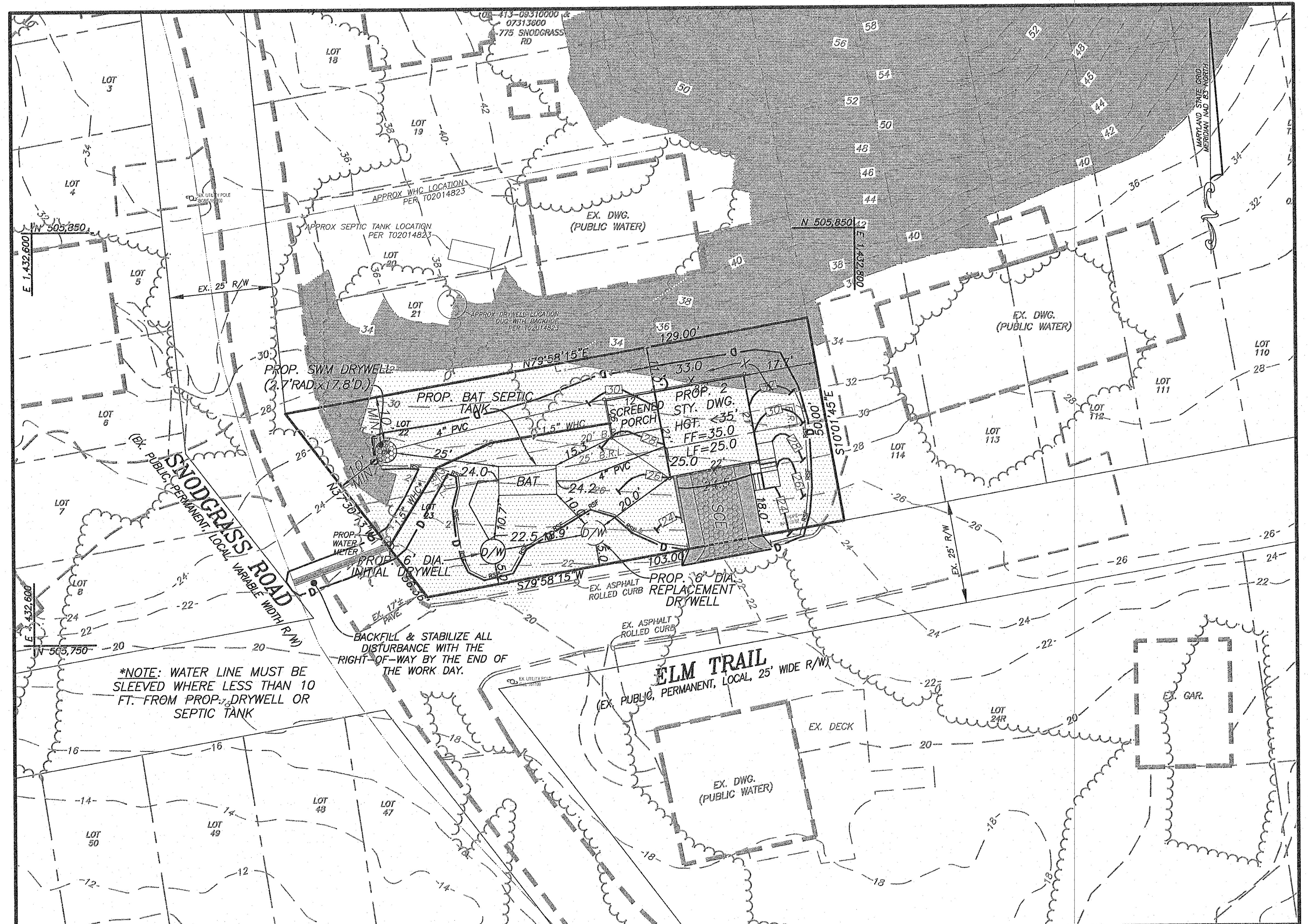
VICINITY MAP
SCALE: 1"=2000'

LEGEND

Existing Curb	
Existing Contour	51
Existing Wire Fence	
Existing Wood Fence	
Existing Woods line	
Existing Telephone Manhole	
Existing Utility Pole	
Existing Water Valve	
Existing Water Meter	
Proposed Contour	18
Proposed Super Silt Fence	SSF
Proposed Limit of Disturbance	D
Stabilized Construction Entrance	S.C.E.
Perc Test Location	
Mean High Tide Line	
Prop. Septic Replacement Sytem #1	R1
Prop. Septic Replacement Sytem #2	R2
Prop. Stormwater Management Drywell	
BAT Septic Tank	BAT
Ex. 15% to 25% Slopes	
Ex. 25% Slopes	
Prop. Gravel/Paved Driveway	
Prop. Downspout & Roof Leader	

SITE ANALYSIS

Zoning	R5
Critical Area Classification	LDA (Modified Buffer)
Total Site Area	5,800 Sq.Ft.± (0.13 Ac.±)
Total Disturbed Area	4,025 Sq.Ft.±
Vegetative Area	3,057 Sq.Ft.±
Predominant Soil Type	Collington, Wist, and Westphalia soils, CSF, 25 to 40% (HSG "A")
Existing Lot Coverage	151 Sq.Ft.± (Ex. cover w/in Snodgrass Rd.)
Existing Lot Coverage To be Removed	0 Sq.Ft.±
Proposed Lot Coverage	948 Sq.Ft.± or 16.3%
Grading Quantities	100 cu. yds. Cut
	50 cu. yds. Fill



PLAN VIEW
SCALE: 1"= 20'

VARIANCE NOTES:

1. In accordance with Article 17, Section 8-201 of the Anne Arundel County Code, a variance is required to allow the disturbance of 3,714 Sq.Ft. of 15%+ steep slopes within the Critical Area and allow the construction of a dwelling and driveway, in accordance with Variance Case # 2024-_____-V, dated ______, 202_.

2. In accordance with Article 18, Section 4-601 of the Anne Arundel County Code, a 7 foot variance to the required 25 foot front setback to allow a front setback of 18 feet was granted with Variance Case # 2024-_____-V, dated ______, 202_.

3. In accordance with Article 18, Section 4-601 of the Anne Arundel County Code, a 9 foot variance to the required 20 foot side setback to allow a rear setback of 11.0 feet was granted with Variance Case # 2024-_____-V, dated ______, 202_.

NO.	DATE	BY	REVISION	APPROVED	DATE

OWNER
JUDE HOGAN
1 Whispering Surf Lane
Scarborough, ME 04074

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 — JEROME EDWARD TOLODZIECKI — NO. 19577 — PROFESSIONAL ENGINEER

"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: 3-16-2026."

VARIANCE/GRADING & SEDIMENT CONTROL PLAN

Job No.: 20-257
Sheet No.: 1 of 1
Checked By: JET
Date: OCTOBER, 2024
Permit #G0202_____
Proj. No.

LOTS 22 & 23, BLOCK 36B, SECTION E,
HERALD HARBOR
PLAT BOOK 4, PAGE 14
TAX MAP 31 BLOCK 23, PARCEL 390
ZONED R5

SECOND DISTRICT

ANNE ARUNDEL COUNTY, MD 21032

JOB# 20-257

\\hal\Land Projects 2020\3 Digit\20-257\DWG\20-257-BASE 9-3-24.dwg //VARIANCE PLAN-8-15-24

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: 10/17/24

Tax Map #	Parcel #	Block #	Lot #	Section
31	390	36B	22+23	E

Tax ID: 02413031716 20

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)	SNODGRASS COTTAGE
Project location/Address	779 SNODGRASS ROAD
City	CROWNSVILLE, MD
Zip	21032
Local case number	
Applicant: Last name	RHODERICK
First name	MATTHEW
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:

CONSTRUCT SINGLE FAMILY DWELLING AND REQUIRED SITE FACILITIES

	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		
LDA Area		5,850
RCA Area		
Total Area		5,850

	Acres	Sq Ft
Total Disturbed Area		4,200
# of Lots Created		

	Acres	Sq Ft		Acres	Sq Ft
Existing Forest/Woodland/Trees		5,850	Existing Lot Coverage		0
Created Forest/Woodland/Trees			New Lot Coverage		970
Removed Forest/Woodland/Trees		1800	Removed Lot Coverage		
		4,050	Total Lot Coverage		970

VARIANCE INFORMATION (Check all that apply)

	Acres	Sq Ft		Acres	Sq Ft
Buffer Disturbance		1800	Buffer Forest Clearing		
Non-Buffer Disturbance		2400	Mitigation		

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	☐

McHALE
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(410) 770-9449

Green Gardens Office
23023 Frederick Road
Clarksburg, MD 20871
(301) 972-9090

Virginia Office
6819 Tennyson Drive
McLean, VA 22101
(703) 760-8600

mchalelandscape.com
info@mchalelandscape.com

CRITICAL AREA REPORT NARRATIVE

Site Information:

- 779 Snodgrass Rd, Crownsville, MD 21032
- Owner – Jude Hogan
- Applicant – Matthew Rhoderick, McHale Landscape Design

Describe the proposed use of the subject property and include if the project is residential, commercial, industrial, or maritime.

- 779 Snodgrass Rd is a 5,800 SF residential unimproved infill corner lot with current water tap connection at the roadway. The property is wooded, with portions containing steep slopes and adjacent developed properties or roadway on all sides. The property is within the R5 residential zone and is in the LDA Critical area classification.

Describe the type of predominant trees and shrubs on the subject property. Include a statement addressing the square footage of the property that is vegetated with trees and shrubs, how much of the property will be disturbed by the proposed development, and how the disturbance will be mitigated.

- Predominant trees include Tulip Poplar, Walnut, Hickory, Maple, and Holly. Predominant shrubs include Yew, Laurel, Mahonia, but much of the wooded area is predominantly shade, evergreen, and understory trees with minimal shrubs. The total wooded area for the property is 5,194 SF. The total area to be disturbed is 4,025 SF, however the site area for the house and driveway is only 948 SF. Construction for this work estimates the removal of 3,856 SF of forested area to allow for grading and drainage, site utilities, and construction of the house and driveway. Any required mitigation for the disturbance will be provided by off-site mitigation in an approved Critical Area Mitigation Bank.

Describe the methods to minimize impacts on water quality and habitat from proposed construction (i.e. stormwater management, sediment control, and silt fence).

- A reinforced silt fence will be installed around the proposed disturbance. Machinery to be used in the construction process will enter through a construction entrance that is located at the proposed driveway entrance. All materials to be unloaded from the construction entrance and staged directly in project area or house during construction. Stormwater management to be addressed with the following Environment Site Design (ESD) elements:
    a. Permeable Pavement (A-2) – Paved areas of the driveway are to be constructed with permeable pavers on top of a geogrid and gravel base to allow for infiltration within an at-source practice.
    b. Conservation Landscaping – Disturbed areas to be restored with a mixture of native trees, shrubs and perennials to allow for the site to minimize runoff and stabilize soils.
    c. Micro-Scale Practices (Dry Wells) (M-5) – Roof area runoff to be captured directly into a dry well system as shown on the site plan, to meet ESDv and REv.

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mchalelandscape.com
info@mchalelandscape.com

Calculate the impervious surface before and after construction, including all structures, gravel areas, driveways, and concrete areas.

- The existing impervious surface (Lot Coverage) is 151 SF. The proposed impervious surface (Lot Coverage) is as follows: Proposed Dwelling – 462 SF, Proposed Driveway – 324 SF, Proposed Stairway – 54 SF and Proposed Porch – 108 SF. The total existing and proposed impervious area (Lot Coverage) = 1,099 SF. The allowable lot coverage per classification LDA is 25% of the parcel plus 500 SF, or 1,963 SF

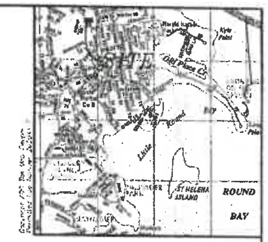
If applicable, describe any habitat protection areas on the subject property including expanded buffers, steep slopes of 15% or greater, rare and endangered species, anadromous fish propagation waters, colonial waterbird nesting sites, historic waterfowl staging and concentration areas, riparian forests, natural heritage areas, and plant and wildlife habitats of local significance.

- The applicable habitat protection areas subject to this property are steep slopes of 15% or greater and the steep slope buffer. In siting the proposed structure, the health department requires all portions of the septic system to be located outside of the steep slopes and buffer. After locating this system, the only location for the proposed house is within the steep slope at the rear of the property, to meet setbacks from site facilities. Construction of the house foundation would facilitate stabilization of the steep slopes and fall into character of surrounding properties built into the slope.

Sincerely,

Applicant Information:

- McHale Landscape Design MHIC #29697
  - 911 West Street, Annapolis, MD 21401
  - (410)-990-0894
- Matthew Rhoderick – Registered Landscape Architect, #3731
  - (301)-512-8234
  - Mattr@mchalelandscape.com



VICINITY MAP
SCALE: 1"=2000'

DEPARTMENT OF HEALTH
DIVISION OF COMMUNITY & ENVIRONMENTAL HEALTH
3 Harry S. Truman Parkway
Annapolis, Maryland 21401

ANNE ARUNDEL COUNTY MARYLAND

APPROVAL TO CONSTRUCT AN ON-SITE SEWAGE DISPOSAL SYSTEM

Tax Account #: [illegible]
Property Owner: JUDE HOGAN
Perc Number: PAT02051161
Type of Construction: New
Property Use: Residential
Building Address: 779 SNODGRASS CROWNSVILLE, 21032
Tax Map: 31 Block: 74 Parcel: 0390 Sect: Block:
Lot #: 4 Subdivision: HERALD HARBOR
LIVABLE SQUARE FOOTAGE: 749
DATE RECEIVED: 12/27/2023

SEWAGE DISPOSAL SYSTEM MINIMUM REQUIREMENTS
DRY WELL

SEPTIC TANK: BAT
DRY WELLS

Number of Pits	1
Diameter	8
Effective Depth	10
Total Depth	12
Effective Area	251
Gravel From	12
Gravel To	[illegible]

COMMENTS: [illegible]

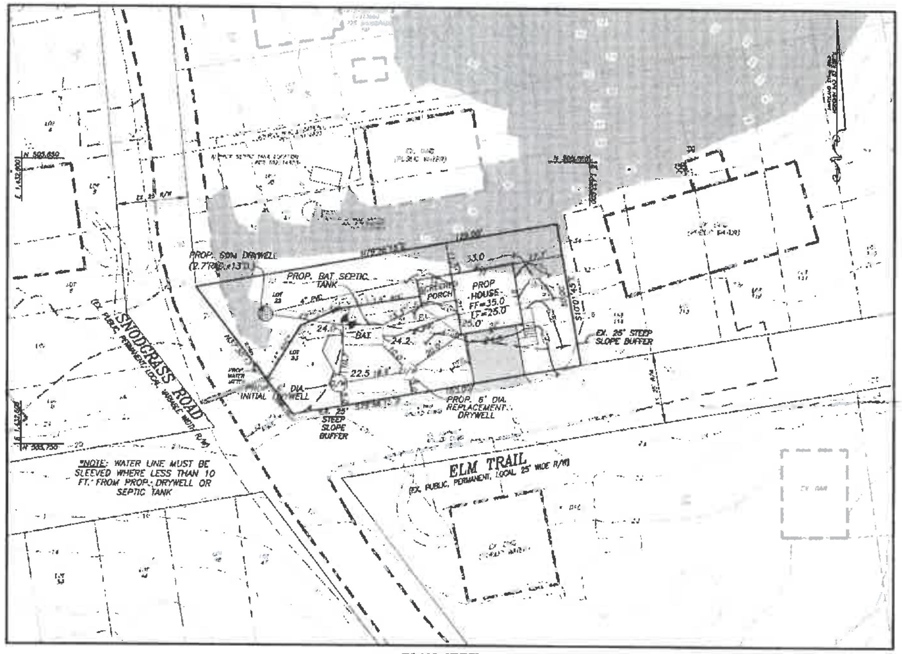
[illegible]

Program Supervisor — Thomas Scalley, Approved By — 03/13/2024, Date of Issuance

Josh Smith, Tested By — 03/30/2016, Date Tested

[illegible]

SEPTIC REQUIREMENT LETTER



PLAN VIEW
SCALE: 1"= 20'

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 Paved Driveway	
Perc Test Location (PASS)	
Perc Test Location (FAIL)	
Initial Drywell	DW
Replacement Drywell	DW
1,500 BAT Tank	
15%+ Slopes	

THIS SITE [illegible] PLAN APPROVED BY THE ANNE [illegible] COUNTY HEALTH DEPT. ANY DEVIATIONS FROM THIS PLAN COULD RESULT IN THE REVOCATION OF THE BUILDING PERMIT.

SETBACKS (ZONED R5)
Front . . . . 25'
Rear . . . . 20'
Side . . . . 7'

* Side yards must have at least 20' on abutting right-of-way.

SEPTIC SYSTEM REQUIREMENTS
FOR 2 BDRM. HOUSE LESS THAN 750 SQ.FT.

Initial Septic System	Replacement Septic Systems (1 Required)
– BAT Septic Tank	
1 Drywell	1 Drywell
Diameter=6'	Diameter=6'
Depth=13'	Depth=13'
Separation =18'	Separation =18'

REVISED

BUILDING PERMIT SITE DATA

Lots	Area (Sq. Ft.)	Prop. Cover (Bldg)	Prop. Cover (Impervious)	Prop. Total (Bldg)	(Prop. Bldg Hgt.)
22,23	5,800 Sq.Ft.	570 Sq.Ft.±	854 Sq.Ft.±	See Arch Plans	See Arch Plans

PERC # PAT02051161

NO.	DATE	BY	REVISION	APPROVED	DATE
			RECEIVED SEP 12 2024 Sanitary Engineering		

DEVELOPER
MATT RHODERICK
779 Snodgrass Road
Crownsville, MD 21032
301-512-8234

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)
JERRY@BNDPA.COM

Job No.: 20-257
Sheet No.: 1 of 1
Checked By: JET
Date: SEPTEMBER, 2024
Permit #G0201____
Proj. No.

SEPTIC PLAN
LOTS 22 & 23 HERALD HARBOR
TAX MAP 31 BLOCK 23, PARCEL 390
ZONED R5

SECOND DISTRICT
ANNE ARUNDEL COUNTY, MD 21032

JOB# 20-257

Snodgrass Cottage

779 Snodgrass Road — Crownsville, MD

VARIANCE SUBMISSION
October 15, 2024

SUBMITTAL	DATE
Variance Submission	10/15/24

SYMBOLS

- CONCRETE MASONRY UNIT
- CONCRETE
- GRAVEL WASHED STONE
- EARTH
- PLYWOOD
- ROUGH LUMBER
- FINISH LUMBER
- STONE
- GYPSUM WALLBOARD
- RIGID INSULATION
- BATT INSULATION
- STEEL
- BRICK
- BUILDING SECTION
- WALL SECTION
- DETAIL
- INTERIOR ELEVATION
- DOOR SYMBOL
- WINDOW TYPES

ABBREVIATIONS

ACCES.	ACCESSORY
ACOUS.	ACOUSTICAL
A.C.T.	ACOUSTICAL CEILING TILE
A.F.F.	ABOVE FINISH FLOOR
ALUM	ALUMINUM
BLDG.	BUILDING
B.O.F.	BOTTOM OF FOOTING
CLG.	CEILING
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CMU	CONCRETE MASONRY UNIT
DN	DOWN
DWG	DRAWING
EL. ELEV.	ELEVATION
EX. EXIST.	EXISTING
FIN	FINISH
FL. FLR.	FLOOR
GWB	GYPSUM WALLBOARD
H.M.	HOLLOW METAL
HT.	HEIGHT
INSUL.	INSULATION
N.I.C.	NOT IN CONTRACT
O.C.	ON CENTER
PL.-LAM.	PLASTIC LAMINATE
POLY	POLYETHYLENE
PTD. PT.	PAINTED
P.T.	PRESSURE TREATED
Q.T.	QUARRY TILE
REF.	REFERENCE
REQ'D	REQUIRED
R.O.	ROUGH OPENING
S/S	STAINLESS STEEL
STL.	STEEL
SUSP.	SUSPENDED
T&G	TONGUE AND GROOVE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PLATE
T.O.W.	TOP OF WALL
TYP.	TYPICAL
W.P.	WATERPROOF
W.W.F.	WOVEN WIRE FABRIC

VICINITY MAP

PROJECT INFO.

OWNER:
Ms. Jade Hogan

LOT LOCATION:
779 Snodgrass Road
Crownsville, MD 21032
Tax ID# 02-413-03171620
Tax Map 0031, Grid 0023, Parcel 0390, Lot 22
Anne Arundel County, Maryland

PROJECT DESCRIPTION:
Construct a new, 3-story single family dwelling with an attached two car garage.

SITE INFORMATION:
ZONING: R5
Front Setback: 25'
Side Setback: 7'
Rear Setback: 20'

CRITICAL AREA: LDA (Limited Dev. Area)

LOT SIZE: 5,800 SF

CONSULTANTS

CIVIL ENGINEER
Boyd & Dowgiallo, PA
412 Headquarters Drive, Suite 5
Millersville, MD 21108
410-729-1234
Jerryn@BNDPA.com

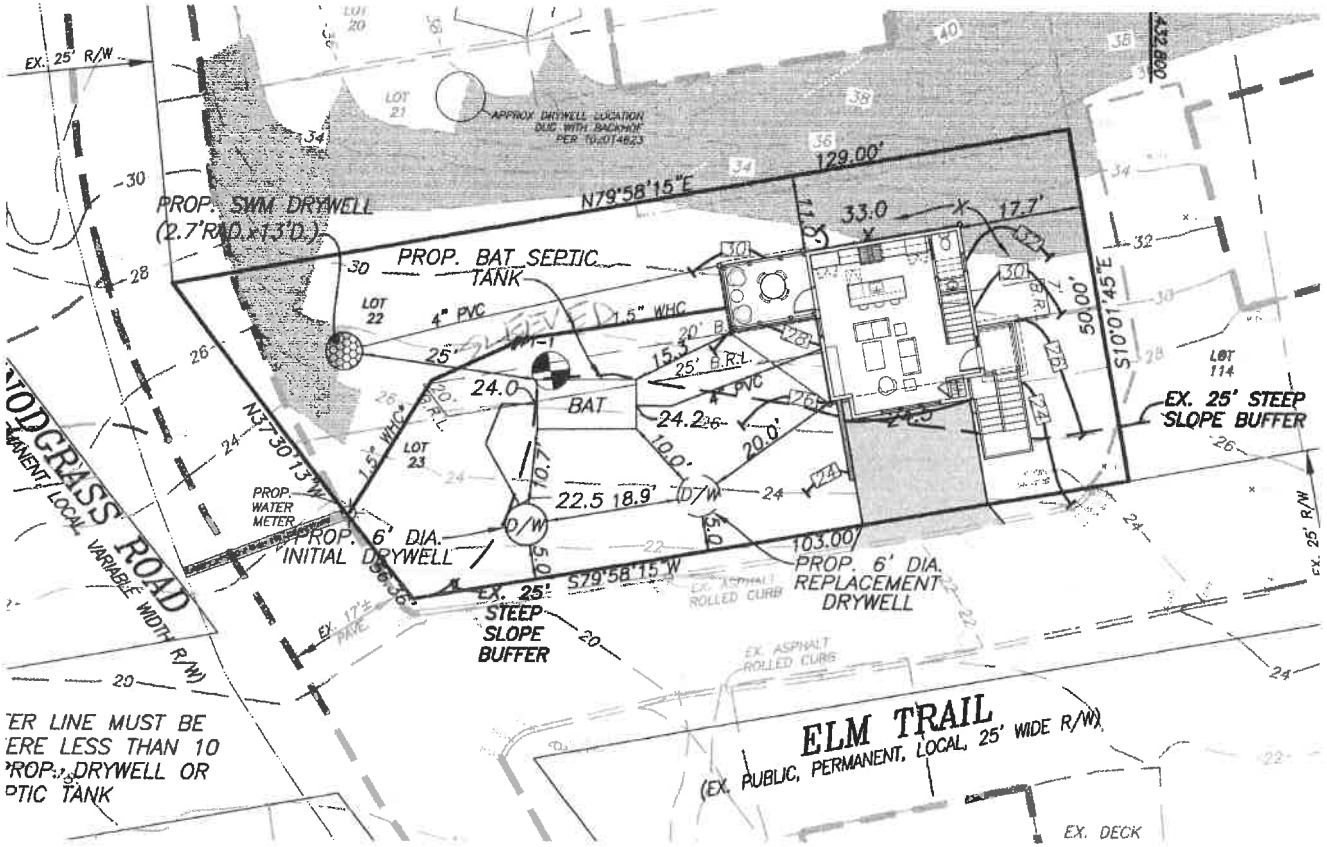
DRAWING LIST

Snodgrass Cottage
779 Snodgrass Road
Crownsville, MD 21032

ISSUE DATE	
SCALE	AS NOTED
PROJECT NO.	24-01

Coversheet

CS



1 S1.0 Proposed Site Plan
Scale: 1/8" = 1'-0"

SUBMITTAL	DATE
Variance Submission	10/15/24

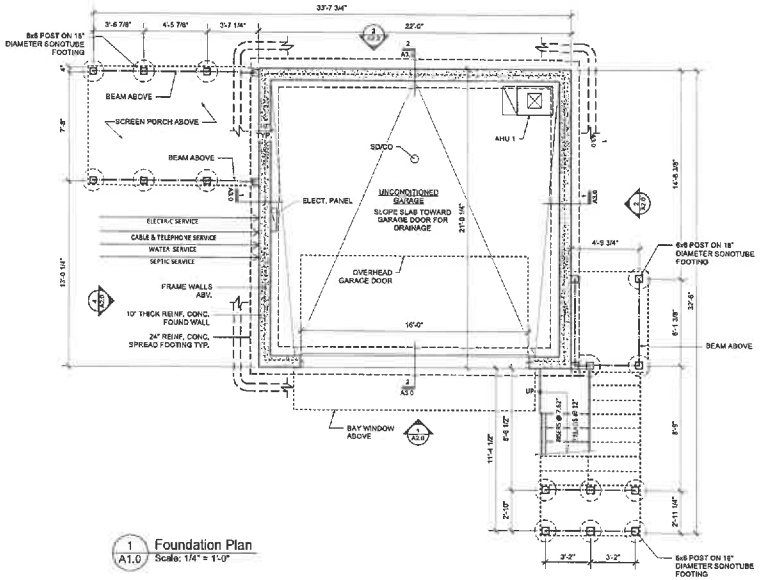
Snodgrass Cottage

779 Snodgrass Road
Crownsville, MD 21032

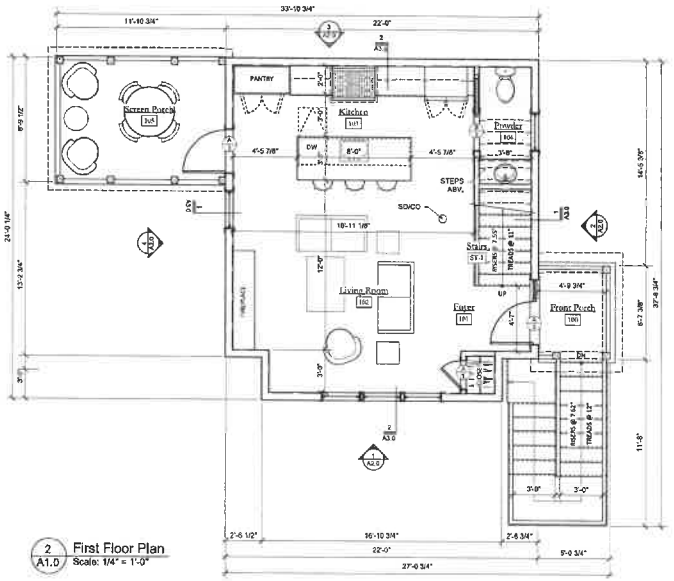
ISSUE DATE	
SCALE	AS NOTED
PROJECT NO.	24-01

Site Plan

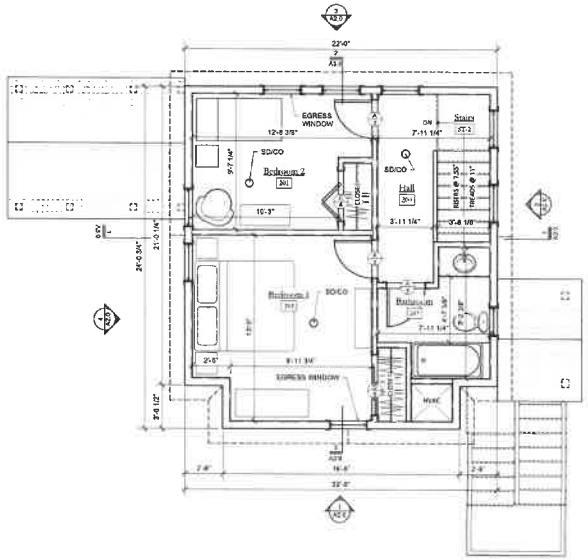
S1.0



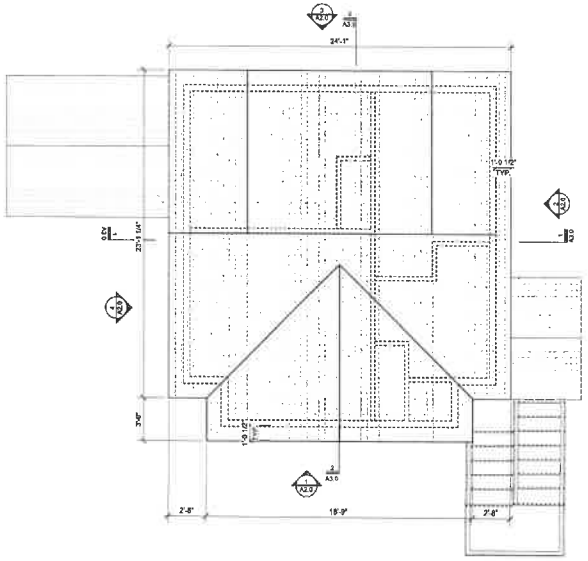
1 A1.0 Foundation Plan
Scale: 1/4" = 1'-0"



2 A1.0 First Floor Plan
Scale: 1/4" = 1'-0"



3 A1.0 Second Floor
Scale: 1/4" = 1'-0"



4 A1.0 Roof Plan
Scale: 1/4" = 1'-0"

SUBMITTAL	DATE
Variance Submission	10/15/24

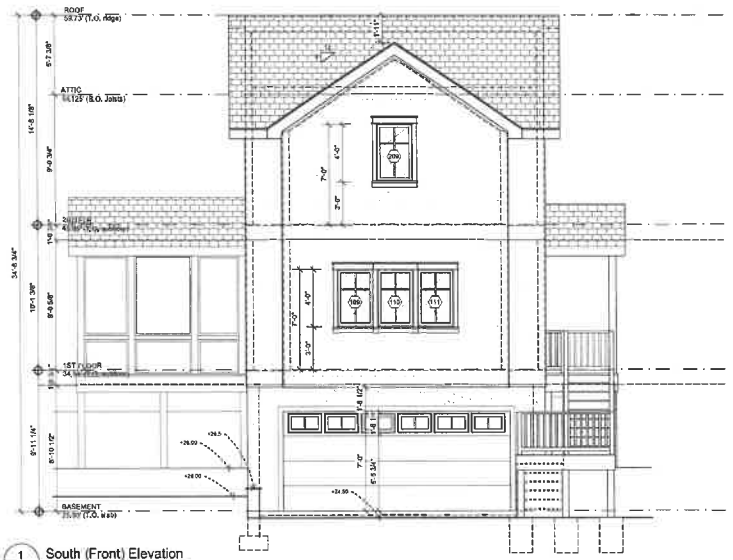
Snodgrass Cottage

779 Snodgrass Road
Crownsville, MD 21032

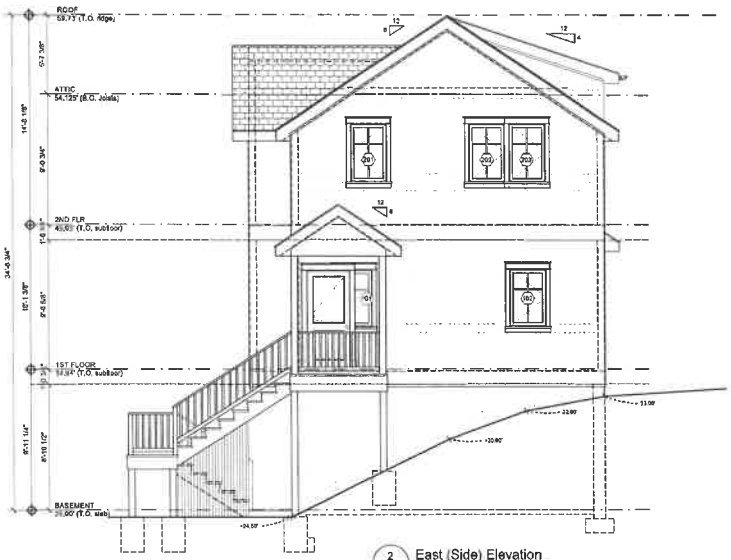
ISSUE DATE	
SCALE	AS NOTED
PROJECT NO.	24-01

Floor Plans

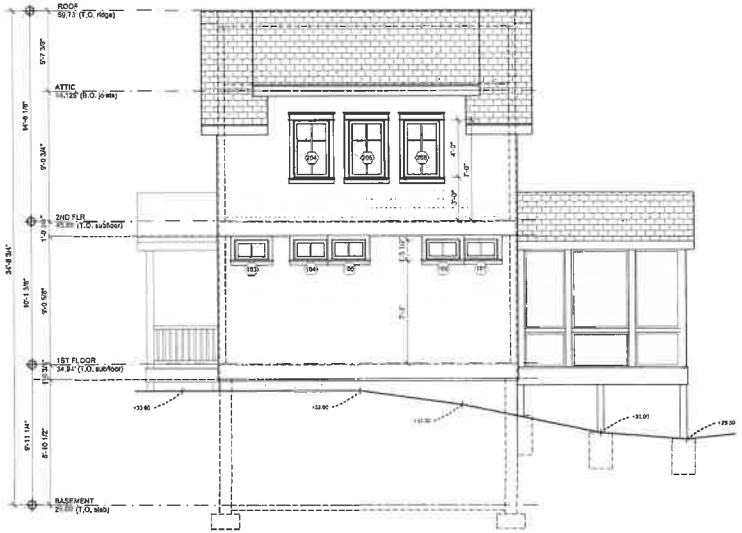
A1.0



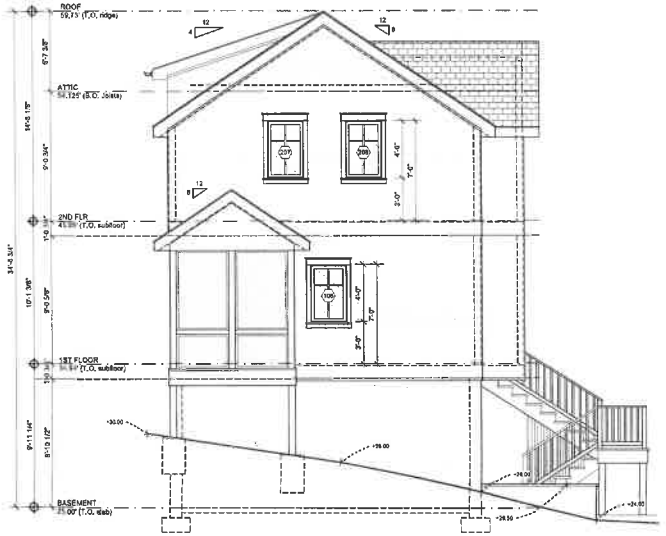
1 A2.0 South (Front) Elevation
Scale: 1/4" = 1'-0"



2 A2.0 East (Side) Elevation
Scale: 1/4" = 1'-0"



3 A2.0 North (Rear) Elevation
Scale: 1/4" = 1'-0"



4 A2.0 West (Side) Elevation
Scale: 1/4" = 1'-0"

SUBMITTAL	DATE
Variance Submission	10/15/24

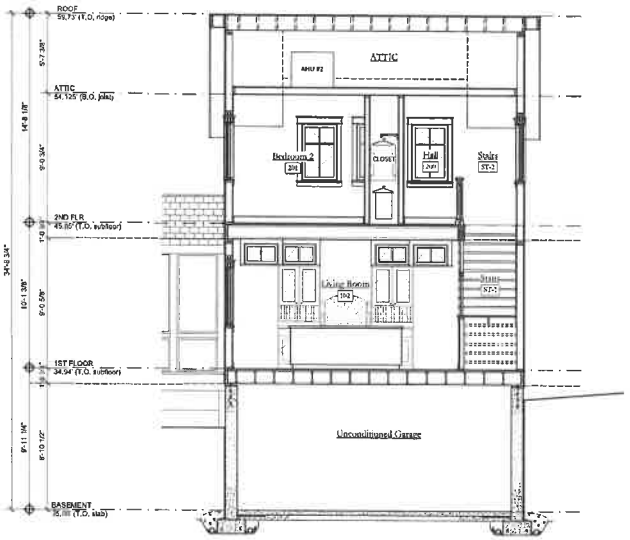
Snodgrass Cottage

779 Snodgrass Road
Crownsville, MD 21032

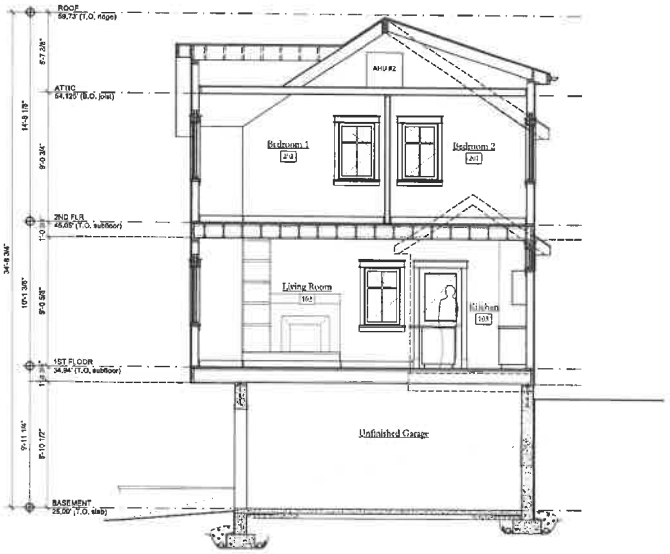
ISSUE DATE	
SCALE	AS NOTED
PROJECT NO.	24-01

Elevations

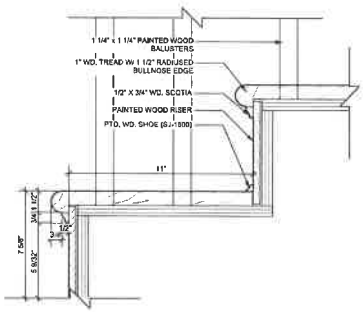
A2.0



1 A3.0 Section 1
Scale: 1/4" = 1'-0"



2 A3.0 Section 2
Scale: 1/4" = 1'-0"



3 A3.0 Stair Tread Detail
Scale: 3" = 1'-0"

SUBMITTAL	DATE
Variance Submission	10/15/24

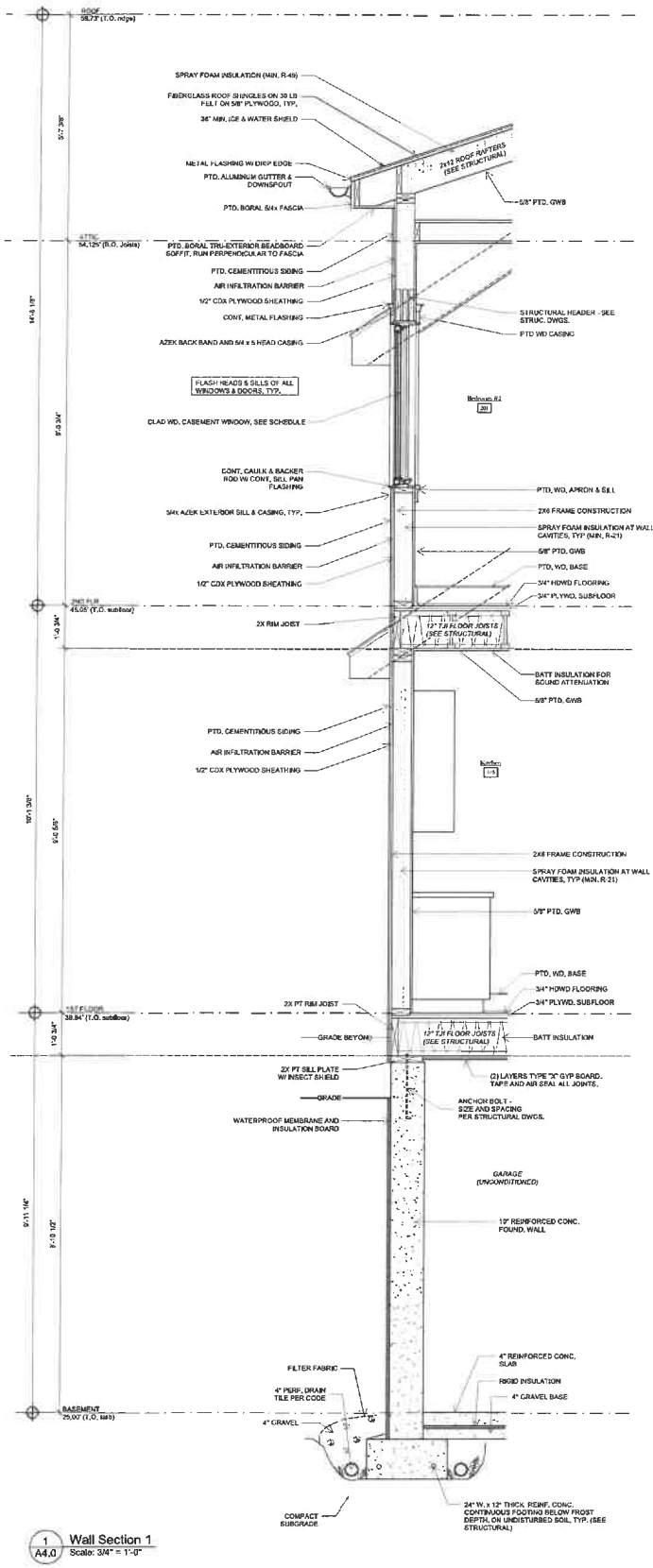
Snodgrass Cottage

779 Snodgrass Road
Crownsville, MD 21032

ISSUE DATE	
SCALE	AS NOTED
PROJECT NO.	24-01

Building Sections

A3.0



1 / A4.0 Wall Section 1
Scale: 3/4" = 1'-0"

Snodgrass Cottage

779 Snodgrass Road
Crownsville, MD 21032

ISSUE DATE	
SCALE:	AS NOTED
PROJECT NO.	24-01

Wall Sections

A4.0

SUBMITTAL	DATE
Variance Submission	10/15/24

SUBMITTAL	DATE
Variance Submission	10/15/24

Snodgrass
Cottage

779 Snodgrass Road
Crownsville, MD 21032

ISSUE DATE	
SCALE	AS NOTED
PROJECT NO.	24-01

Schedules

A5.0

SUBMITTAL	DATE
Variance Submission	10/15/24

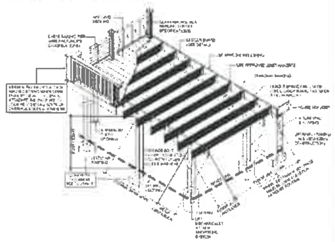
DECK CONSTRUCTION GUIDE

2021 International Residential Code

Building Permit # ____________

The intent of this guide is to assist homeowners and contractors to construct exterior wood-framed decks in accordance with the International Residential Code (IRC) – Section R507. Other decks can be built in accordance with IRC Section R301 and other applicable requirements.

This guide is for reference only. Please refer to the International Residential Code for complete details. Final review and approval are to be subjected to plan review and field inspections.



Applicant to first read through all applicable sections of the International Residential Code and all manufacturer's requirements to become familiar with all requirements. Then, the guide can be utilized to assist in the design, review, construction and inspection of the deck.
Building permit submittal to include Construction Plans of the deck, scaled Site Plan, Standard Grading Plan (https://www.aacounty.org/departments/inspections-and-permits/forms-and-publications/permit-forms SGP.pdf) and a Critical Area Worksheet if within the critical area (https://www.aacounty.org/departments/inspections-and-permits/forms-and-publications/permit-forms/CriticalAreaWorksheet.pdf).

GENERAL / MISCELLANEOUS REQUIREMENTS

1. Decks are not approved for future hot tub installations.
2. Decks to maintain a minimum distance of 30 feet from wells.
3. Decks shall not be attached to overhangs, bay windows or chimneys.
4. Wood materials used for the construction of decks shall be No. 2 grade or better lumber, preservative-treated in accordance with IRC; R317. Cuts, notches and drilled holes of preservative treated wood members shall be treated in accordance with IRC R317.1.1. All preservative-treated wood products in contact with the ground shall be labeled for such usage.
5. Flashing shall be corrosion-resistant metal of nominal thickness not less than 0.019 inch or approved nonmetallic material that is compatible with the substrate of the structure and the decking materials.
6. Emergency escape and rescue openings located under decks shall be fully operable and provide a path not less than 36 inches in height and width to a yard or court.
7. All decks that are within 4 inches of the house shall have at least one receptacle outlet accessible from the deck per the National Electrical Code Section 210.52(E)(3).
8. All nails, bolts, screws, nuts, washers are to be hot-dipped galvanized per ASTM A153, Class C (Class D for 3/8-inch diameter and less), stainless steel, silicon bronze, or copper. Fasteners other than nails can be of mechanically galvanized per ASTM B695 Class 55 or stainless steel.
9. All connectors are to be ASTM A653 type G185 zinc coated galvanized steel or post hot-dipped galvanized per ASTM A123 providing a minimum average coating weight of 2.0 oz./ft² (total both sides), or stainless steel.
10. Before you dig call MISS UTILITY 1-800-257-7777 (2-day notice is required). Please note that the Maryland High Voltage Line Act prohibits any person or object from getting closer than 10 feet to high voltage power lines.

FOOTINGS

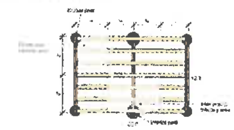
Footings to be a minimum of 30 inches deep for attached decks. Footings must bear on undisturbed soil.

Footing size is based on IRC; Table R507.3.1 for a load of 60 psf with a soil bearing capacity of 2000 psf.

MINIMUM FOOTING SIZE

Tributary Area (sq.ft.)	Side of a Square Footing (inches)	Diameter of a Round Footing (inches)	Thickness (inches)
5	7	8	6
20	10	11	6
40	13	15	6
60	16	18	6
80	19	21	6
100	21	25	7
120	23	26	8
140	25	28	9
160	26	30	10

Below is an example of how to calculate the Tributary Area.



Tributary Area – Interior Post
Length = ½ of total length = 20 ft x ½ = 10 ft
Width = ½ of total width = 12 ft x ½ = 6 ft
Area = 10 ft x 6 ft = 60 ft²

Footing Size – Interior Post
Min. 18 in. diameter
Min. 6 in. thick

DECK POSTS

Post size is based on IRC; Table R507.4, for a 40 psf live load, utilizing southern pine post species.

Deck Post Size (Inches)	Tributary Area (sq.ft.) 20	40	60	80	100	120	140	160
	Maximum Deck Post Height (feet inches)							
4x4	14'-0"	13'-4"	[illegible]	9'-5"	8'-4"	7'-5"	6'-3"	6'-2"
4x6	14'-0"	14'-0"	13'-11"	12'-0"	10'-8"	9'-8"	8'-10"	8'-2"
6x6	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"
8x8	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"

Where deck posts bear on concrete footings, lateral restraint shall be provided by manufactured connectors or a minimum post embedment of 12 inches in concrete piers.

DECK BEAMS

Beam size is based on IRC; Table R507.5, for a 40 psf live load, utilizing southern pine beam species.

MAXIMUM BEAM SPAN LENGTH (feet, inches)
Deck Joist Span Less Than or Equal to (feet).

Beam Size	6	8	10	12	14	16	18
1 (2x6)	4'-7"	4'-0"	3'-7"	3'-3"	3'-0"	2'-10"	2'-8"
1 (2x8)	[illegible]	5'-1"	4'-7"	4'-2"	3'-10"	3'-7"	3'-5"
1 (2x10)	7'-0"	6'-0"	5'-5"	4'-11"	4'-7"	4'-3"	4'-0"
1 (2x12)	8'-3"	7'-1"	6'-4"	5'-10"	5'-5"	5'-0"	4'-9"
2 (2x6)	6'-11"	5'-11"	5'-4"	4'-10"	4'-4"	4'-3"	4'-0"
2 (2x8)	8'-9"	7'-7"	6'-9"	6'-2"	5'-9"	5'-4"	5'-0"
2 (2x10)	10'-4"	9'-0"	8'-0"	7'-4"	6'-9"	6'-4"	6'-0"
2 (2x12)	12'-2"	10'-7"	9'-5"	8'-7"	8'-0"	7'-5"	7'-0"
3 (2x6)	8'-6"	7'-5"	6'-8"	6'-1"	5'-8"	5'-3"	4'-11"
3 (2x8)	10'-11"	9'-6"	8'-6"	7'-9"	7'-2"	6'-8"	6'-4"
3 (2x10)	13'-0"	11'-2"	10'-0"	9'-2"	8'-6"	7'-11"	7'-6"
3 (2x12)	15'-3"	13'-3"	11'-10"	10'-9"	10'-0"	9'-4"	8'-10"

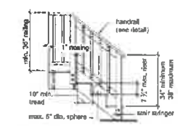
The maximum beam cantilever is allowed to be ¼ of the beam span length. Below is an example.

Calculation of Maximum Cantilever Span Length

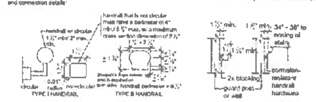
STAIRS, GUARDRAILS AND HANDRAILS

Stairs, guardrails and handrails are to be in accordance with IRC Sections R311 and R312 and the figures below:

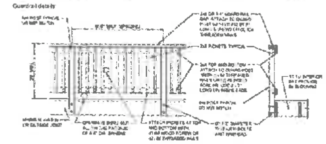
Stair detail



Handrails shall be continuous for the full length of the stairs, from a point directly above the top riser to a point directly above the lowest riser. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrail size and connection details:



Guardrail details



DECK JOISTS

Maximum allowable spans for joists shall be in accordance with the table below based on IRC, Table R507.6, for a 40 psf live load, utilizing southern pine beam species.

Allowable Joist Span

Joist Size	Joist Spacing (inches) 12	16	24
2 x 6	9'-11"	9'-0"	7'-7"
2 x 8	13'-1"	11'-10"	9'-8"
2 x 10	16'-2"	14'-0"	11'-5"
2 x 12	18'-0"	16'-6"	13'-6"

Maximum allowable cantilever for joists shall be in accordance with the table below based on IRC, Table R507.6, for a 40 psf live load, utilizing southern pine beam species.

Maximum Cantilever

Joist Size	Joist Back Span (feet) 4	6	8	10	12	14	16	18
2 x 6	1'-0"	1'-6"	1'-5"	NP	NP	NP	NP	NP
2 x 8	1'-0"	1'-6"	2'-0"	2'-6"	2'-3"	NP	NP	NP
2 x 10	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-4"	3'-4"	NP
2 x 12	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	[illegible]

DECKING

Maximum allowable spacing for joists supporting decking (excluding stairways) shall be in accordance with the table below based on IRC, Table R507.7. Wood decking shall be attached to each supporting member with not less than two 8d threaded nails or two No. 8 wood screws.

MAXIMUM JOIST SPACING FOR WOOD DECKING

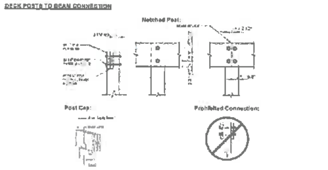
Decking Material Type and Size	Decking Perpendicular to Joist: Single Span	Decking Perpendicular to Joist: Multiple Span	Decking Diagonal to Joist: Single Span	Decking Diagonal to Joist: Multiple Span
	MAXIMUM ON-CENTER JOIST SPACING			
1 1/4 inch thick wood	12 inches	16 inches	8 inches	12 inches
2 inch thick wood	24 inches	24 inches	18 inches	24 inches

DECK POSTS TO BEAM CONNECTION

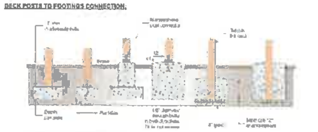
Notched Post:

Post Cap:

Prohibited Connection:



DECK POSTS TO FOOTINGS CONNECTION



VERTICAL SUPPORT (DECK LEDGER)

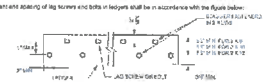
Vertical loads of the deck shall be transferred to band joists with ledgers. Deck ledgers shall be a minimum 2-inch by 8-inch nominal, pressure-preservative-treated Southern pine, incised pressure-preservative-treated hem-fir, or approved, naturally durable, No. 2 grade or better lumber. Deck ledgers shall not be supported on stone or masonry veneer. Ledgers shall be flashed in accordance with IRC, R703.4. Band joists supporting a ledger shall be a minimum 2-inch-nominal, solid-sawn, spruce-pine-fir or better lumber or a minimum 1-inch by 9-1/2-inch dimensional, Douglas fir or better, laminated veneer lumber. Band joists shall bear fully on the primary structure capable of supporting all required loads. For decks with cantilevered framing members, connection of the band joist to ledger shall be designed and constructed to resist uplift resulting from 40 psf acting on the cantilevered portion of the deck.

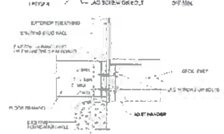
Fasteners used in deck ledger connections shall be in accordance with the table below. Fasteners shall be hot-dipped galvanized or stainless steel. Fasteners are not permitted to be nails subject to withdrawal.

DECK LEDGER CONNECTION TO BAND JOIST

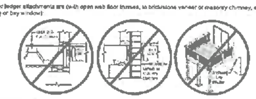
Connection Details	Joist Span: 6' and less	6'-1" to 8'	8'-1" to 10'	10'-1" to 12'	12'-1" to 14'	14'-1" to 16'	16'-1" to 18'
	On-center Spacing of Fasteners (inches)						
1/2-inch diameter lag screw with 1/2-inch maximum sheathing	30	23	18	15	13	11	10
1/2-inch diameter bolt with 1/2-inch maximum sheathing	36	36	34	29	24	21	19
1/2-inch diameter bolt with 1-inch maximum sheathing	36	36	29	24	21	18	16

Placement and spacing of lag screws and bolts in ledgers shall be in accordance with the figure below:





Prohibited ledger attachments are (with open web floor trusses, to brick/stone veneer or masonry chimney, and to an overhang or bay window):

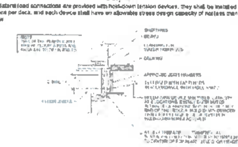


LATERAL CONNECTIONS

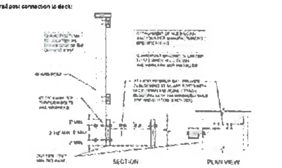
Lateral loads shall be transferred to the ground or to a structure capable of transmitting them to the ground.

Where the lateral load connection is with holddown tension devices, they shall be installed in not less than two locations per deck, within 24 inches of each end of the deck. Each device shall have an allowable stress design capacity of not less than 1,500 pounds. See figure below:

Where the lateral load connections are provided with hold-down tension devices, they shall be installed in not less than four locations per deck, and each device shall have an allowable stress design capacity of not less than 750 pounds. See figure below:



Guardrail post connection to deck:



INSPECTIONS

The applicant is required to obtain inspections from the County for their constructed deck. Inspections are required for Footings, Framing and Final.

To schedule an inspection utilize the LUN system at aacounty.org/LUN

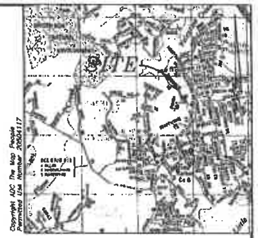
Snodgrass Cottage

779 Snodgrass Road
Crownsville, MD 21032

ISSUE DATE	
SCALE	AS NOTED
PROJECT NO	24-01

Deck/Stairs Details

A6.0



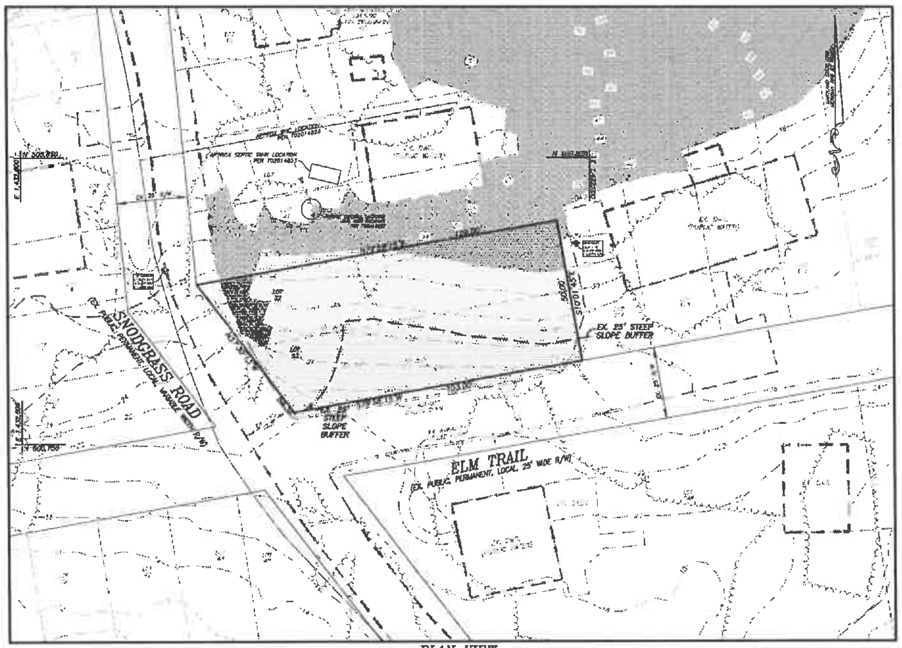
VICINITY MAP
SCALE: 1"=2000'

LEGEND

- Existing Curb
- Existing Contour
- Existing Wire Fence
- Existing Wood Fence
- Existing Woods line
- Existing Gas Line
- Existing Gas Valve
- Existing Telephone Manhole
- Existing Utility Pole
- Boring Location
- Ex. 15% to 25% Slopes
- Ex. 25% Slopes
- 25% Slope Buffer

CRITICAL AREA TABULATION

Zoning	R5
Critical Area Classification	LDA
Total Site Area	5,800 Sq.Ft.± (0.13 Ac.±)
Total Critical Area	5,800 Sq.Ft.± (0.13 Ac.±)
Existing Forest (Within C.A.)	5,194 Sq.Ft.±
Ex Steep Slopes (15%+) On-Site	5,754 Sq.Ft.±
Existing Lot Coverage	151 Sq.Ft.± (includes a portion of Snodgrass Road and driveway from Lot 114)



PLAN VIEW
SCALE: 1"= 20'

SITE ANALYSIS

Zoning	R5
Critical Area Classification	LDA (Modified Buffer)
Total Site Area	5,800 Sq.Ft.± (0.13 Ac.±)
Predominant Soil Type	Collington, [illegible] 40% (HSG "A")
Existing Lot Coverage	151 Sq.Ft.± (Ex. cover w/in Snodgrass Rd.)

NO.	DATE	BY	REVISION	APPROVED	DATE

OWNER
JUDE HOGAN
1 Whispering Surf Lane
Scarborough, ME 04074

Base Plan Information Prepared by:

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

PRE CRITICAL AREA PLAN

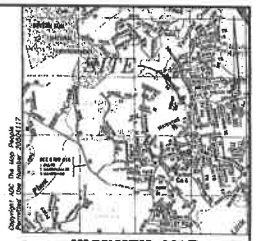
Job No.: 20-257	
Sheet No.: 1 of 1	
Checked By: JET	
Date: OCTOBER, 2024	
Permit #C0202___	
Proj. No.	

LOTS 22 & 23, BLOCK 36B, SECTION E, HERALD HARBOR

PLAT BOOK 4, PAGE 14
TAX MAP 31 BLOCK 23, PARCEL 390
ZONED R5

SECOND DISTRICT
ANNE ARUNDEL COUNTY, MD 21032

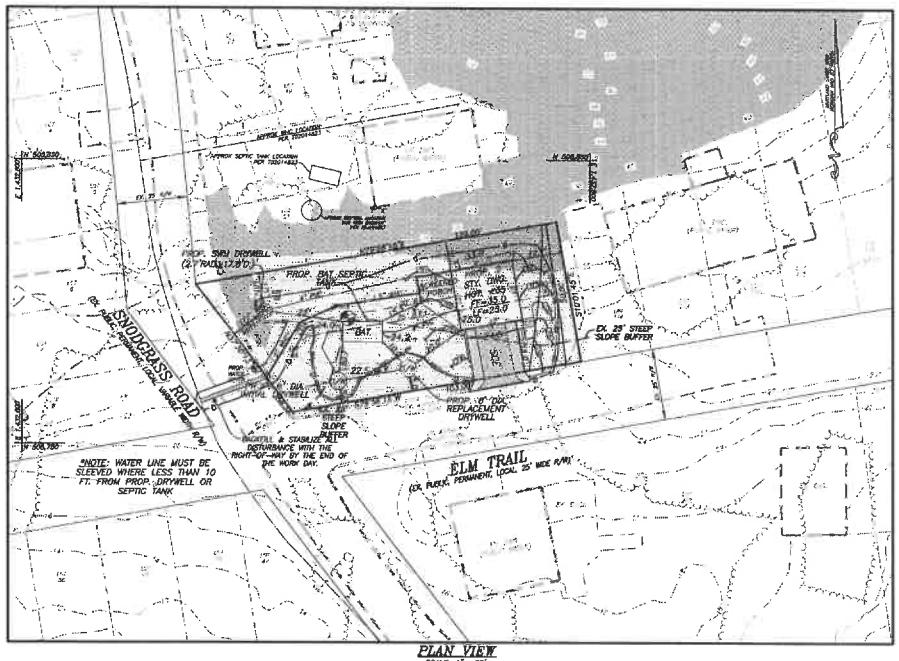
JOB# 20-257



VICINITY MAP
SCALE: 1"=2000'

CRITICAL AREA TABULATION

Zoning	RS
Critical Area Classification	LDA
Total Site Area	5,800 Sq.Ft.± (0.13 Ac.±)
Total Critical Area	5,800 Sq.Ft.± (0.13 Ac.±)
Existing Forest (Within C.A.)	5,184 Sq.Ft.±
Maximum Clearing Allowed (Within C.A.)	N/A
Proposed Forest Clearing (Within C.A.)	3,683 Sq.Ft.± (Includes 103 Sq.Ft. w/in Env Trail)
Required Reforestation	3,683 Sq.Ft.± (to be provided by off-site mitigation)
Ex. Steep Slopes (15%+) On-Site	5,754 Sq.Ft.±
Steep Slope (15%+) Disturbance	3,856 Sq.Ft.± (Includes 142 Sq.Ft. for utility connection)
Existing Lot Coverage	151 Sq.Ft.± (Includes a portion of Snodgrass Road and driveway from Lot 114)
Existing Lot Coverage To Be Removed	0 Sq.Ft.±
Maximum Lot Coverage (Within C.A.)	1,950 Sq.Ft.± (15% + 500 Sq.Ft.)
Proposed Lot Coverage (On-Site)	948 Sq.Ft.± (482 Sq.Ft. House + 324 Sq.Ft. D/W + 108 Sq.Ft. Cov. Porch + 54 Sq.Ft. S/W)
Total Proposed Lot Coverage (Within C.A.)	1,099 Sq.Ft.± (482 Sq.Ft. House + 324 Sq.Ft. D/W + 108 Sq.Ft. Cov. Porch + 54 Sq.Ft. S/W + 151 Sq.Ft. Ex. Cover)



PLAN VIEW
SCALE: 1"= 20'

LEGEND

- Existing Curb
- Existing Contour
- Existing Wire Fence
- Existing Wood Fence
- Existing Woods line
- Proposed Contour (100)
- Proposed Super Silt Fence (SSF)
- Proposed Limit of Disturbance (LOD)
- Stabilized Construction Entrance (SCE)
- Perc Test Location
- Prop. Septic Replacement Sytem #1
- Prop. Septic Replacement Sytem #2
- Prop. Stormwater Management Dry well (SWM)
- BAT Septic Tank (BAT)
- Ex. 15% to 25% Slopes
- Ex. 25% Slopes
- Prop. Gravel/Paved Driveway
- 25% Steep Buffer
- Prop. Downspout & Roof Leader

SITE ANALYSIS

Zoning	RS
Critical Area Classification	LDA (Modified Buffer)
Total Site Area	5,800 Sq.Ft.± (0.13 Ac.±)
Total Disturbed Area	4,025 Sq.Ft.±
Vegetative Area	3,037 Sq.Ft.±
Predominant Soil Type	Collington, Wist, and Westphalia soils, CDF, 25 to 40% (NOS "A")
Existing Lot Coverage	151 Sq.Ft.± (Ex. cover w/in Snodgrass Rd.)
Existing Lot Coverage To be Removed	0 Sq.Ft.±
Proposed Lot Coverage	948 Sq.Ft.± or 16.3%
Grading Quantities	100 cu. yds. Cut
	50 cu. yds. Fill

VARIANCE NOTES:

1. In accordance with Article 17, Section 8-301 of the Anne Arundel County Code, a variance is required to allow the disturbance of 3,714 Sq.Ft. of 15%+ steep slopes within the Critical Area and allow the construction of a dwelling and driveway. In accordance with Variance Case # 2024-____-V, dated _____, 202_.

2. In accordance with Article 18, Section 4-901 of the Anne Arundel County Code, a 7 foot variance to the required 25 foot front setback to allow a front setback of 18 feet was granted with Variance Case # 2024-____-V, dated _____, 202_.

3. In accordance with Article 18, Section 4-901 of the Anne Arundel County Code, a 9 foot variance to the required 20 foot side setback to allow a rear setback of 11 feet was granted with Variance Case # 2024-____-V, dated _____, 202_.

NO.	DATE	BY	REVISION	APPROVED	DATE

Base Plan Information Prepared by:

OWNER
JUDE HOGAN
1 Whispering Surf Lane
Scarborough, ME 04074

Maryland Professional Engineering Firm License No. 47570
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JERRY@BNDPA.COM

Job No.: 20-257	
Sheet No.: 1 of 1	
Checked By: JET	
Date: OCTOBER, 2024	
Permit #G0202	
Proj. No.	

POST CRITICAL AREA PLAN

LOTS 22 & 23, BLOCK 36B, SECTION E, HERALD HARBOR

PLAT BOOK 4, PAGE 14
TAX MAP 31 BLOCK 23, PARCEL 390
ZONED RS

SECOND DISTRICT ANNE ARUNDEL COUNTY, MD

JOB# 20-257

STORMWATER MANAGEMENT
COMPUTATIONS

For

LOTS 22 & 23
779 SNODGRASS ROAD
PLAT BOOK 4, P. 14
Tax Map 31, Block 23, Parcel 390
CROWNSVILLE, MD 21032

To accompany Variance Submittal

October, 2024

"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 3-16-2026"

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. non-point 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 Lots 22 & 23, Block 36B Section E of Herald Harbor, as shown on the plat of "Herald Harbor", recorded among the Land Records of Anne Arundel County in plat book 4, at page 14, and is located at 779 Snodgrass Road in Crownsville, Maryland 21032. The site contains approximately 5,800 sq. ft. (0.13 ac.) of land zoned R5 and is located on the north side of the intersection of Snodgrass Road and Elm Trail. It its current condition, the property is vacant and is predominantly covered by existing woodlands. Ground slopes on the site vary between 14 and 30% and the site drains in a southwesterly direction to the right of way of Elm Trail. The lots are located within a Limited Development Area of the Chesapeake Bay Critical Area due to its proximity to the Severn River and are shown on F.E.M.A. flood map 24003C0162F, but are not impacted by a tidal flood zone.

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, driveway, sidewalk, public water connection, private septic system, and stormwater management practices. The proposed improvements will result in the disturbance of approximately 4,475 sq. ft. and result in a new impervious cover of 934 sq. ft.

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. A green roof practice was considered, but the heavier structural design required for the roof and the limited style options available are discouraging to homeowners. Therefore, this practice was not selected. The second alternative, permeable or porous pavement, is a stormwater management practice that was considered for the driveway area but could not be utilized due to the existing ground slopes. Therefore, this practice was not considered either. Reinforced turf was considered but declined due to the ground slopes present. Therefore, for this project, no alternative surfaces were chosen as an 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. A disconnection of rooftop runoff practice was not selected due to the ground slopes present on the lot. A disconnection of non-rooftop runoff practice was not selected either due to ground slopes. A sheetflow to conservation area practice was not utilized due to the lack of any wooded conservation areas on or adjacent to the subject site. Therefore, no non-structural disconnection of non-rooftop runoff practices were utilized for the proposed development.

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 a drywell practice. This practice was utilized to capture and treat runoff from the proposed rooftop area of the dwelling.

PROTECTION OF NATURAL RESOURCES

Through the use of minimal grading techniques, the disturbed area will remain small and the amount of natural resources affected will be small. Through modern, environmentally friendly stormwater management techniques, rainwater will be captured by using practices that make use of micro-scale practices. These help to reduce the amount of disturbance to any existing natural resources also.

RETENTION OF NATURAL FLOW PATTERNS

Through the use of proposed grades that will 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

The amount of impervious cover proposed is within the acceptable amount allowed under zoning and Critical Area laws.

POLLUTANT REDUCTION & REMOVAL

Given that the site is *not* located within a Chesapeake Bay IDA critical area, it is *not* mandatory that the proposed stormwater management techniques address the "Critical Area Guidance Manual" and provide for 10% pollutant removal reduction. However, the proposed microscale practice will provide pollutant removal to some extent and help reduce the amount of phosphorus and other chemicals to downstream receiving storm drains and waters.

IMPLEMENTATION OF SEDIMENT & EROSION CONTROL

The only sediment control measures being 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 entire site is underlain by soils of the Collington-Wist & Westphalia soils, (CSF), 25 to 40% slopes. These soil types have a hydrologic rating of "A" and are considered to be very conducive to infiltration practices - overall. The stormwater management practice chosen to provide treatment of runoff from impervious areas on the site are based on the results of perc tests taken by a Sanitarian with the Health Department under perc test PAT02051161 and T02014823. Based on the results of the perc tests, the use of infiltration as a means of providing stormwater management on site is a feasible alternative.

SUMMARY OF CONCLUSIONS

In accordance with the 2009 Maryland Department of the Environment (M.D.E.) Stormwater Design Manual and the 2017 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.

ESDv is required in the amount of in the amount of 116 cu. ft. and is being provided by a microscale drywell practice. The recharge volume is required in the amount of 41 cu. ft. and is automatically being provided through the use 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 met through the use of ESD practices, in accordance with the 2009 M.D.E. Manual. The overbank flood protection volume is being provided by the "Reduced Curve Number Method", whereby a sufficient amount of ESDv volume is being provided on-site to reduce the post-development 10-year discharge to its 10-year pre-development discharge rate. The extreme flood protection volume is not required since the site does not lie within a non-tidal 100-year floodplain and there are no properties downstream of the site that lie within a 100-yr. non-tidal floodplain.

OUTFALL STATEMENT

Runoff from the site flows in a pre-dominantly southerly direction to the right-of-way of Elm Trail, an existing 25-ft. public right-of-way, and crosses Elm Trail in a southwesterly direction and into a large wooded low-lying marsh area of Valentine Creek. The runoff joins Valentine Creek and meanders northwards into the Severn River. In accordance with the October, 2017 A. A. County Stormwater Management Practices & Procedures Manual, since the site is platted lot and the overbank flood protection volume is being provided on site, the site outfall and point-of-investigation (P.O.I.) are the point along the property's southern boundary line with Elm Trail.

The property was visited by an employee of Boyd & Dowgiallo, P.A. in September, 2024 to inspect the property and site outfall/ P.O.I. It was noted that the site outfall and the P.O.I. were found to be stabilized by lawns and woods and did not show any signs of erosion. Given that the overbank flood protection volume is being provided, there should not be an increase in runoff from the site or erosion downstream.

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.

ESDv is required in the amount of in the amount of 116 cu. ft. and is being provided by a microscale drywell practice. The recharge volume is required in the amount of 41 cu. ft. and is automatically being provided through the use 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 met through the use of ESD practices, in accordance with the 2009 M.D.E. Manual. The overbank flood protection volume is being provided by the "Reduced Curve Number Method", whereby a sufficient amount of ESDv volume is being provided on-site to reduce the post-development 10-year discharge to its 10-year pre-development discharge rate. The extreme flood protection volume is not required since the site does not lie within a non-tidal 100-year floodplain and there are no properties downstream of the site that lie within a 100-yr. non-tidal floodplain.

OUTFALL STATEMENT

Runoff from the site flows in a pre-dominantly southerly direction to the right-of-way of Elm Trail, an existing 25-ft. public right-of-way, and crosses Elm Trail in a southwesterly direction and into a large wooded low-lying marsh area of Valentine Creek. The runoff joins Valentine Creek and meanders northwards into the Severn River. In accordance with the October, 2017 A. A. County Stormwater Management Practices & Procedures Manual, since the site is platted lot and the overbank flood protection volume is being provided on site, the site outfall and point-of-investigation (P.O.I.) are the point along the property's southern boundary line with Elm Trail.

The property was visited by an employee of Boyd & Dowgiallo, P.A. in September, 2024 to inspect the property and site outfall/ P.O.I. It was noted that the site outfall and the P.O.I. were found to be stabilized by lawns and woods and did not show any signs of erosion. Given that the overbank flood protection volume is being provided, there should not be an increase in runoff from the site or erosion downstream.

STORMWATER MANAGEMENT
COMPUTATIONS

I. ENVIRONMENTAL SITE DESIGN VOLUME

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,

$$ESD_v = P_E \times R_v \times A$$

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

Site area = 5,800 sq. ft. (0.13 ac.)
Total Proposed Impervious Cover = 934 sq. ft.

%I =934/5,800 = 16.1%

$R_V = 0.05 + 0.009(16.1) = 0.195$ (say 0.20)
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 1.2".

and the ESD_v volume becomes,

$$ESD_v = (1.2")(0.20)(5{,}800)/12 = \mathbf{116\ cu.\ ft.}$$

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 ESDv PRACTICES

MICRO-SCALE PRACTICES

Micro-scale Practices - Drywells - Section 5.4.3 M-5

Section 5.4.3 M-5 of Chapter 5 of the 2009 M.D.E. Stormwater Design Manual states that drywells may be used to treat runoff from small drainage areas such as a single rooftop or single downspout. When designed in accordance with the guidelines in Section 5.4.3 M-5, drywells will provide treatment for the required ESD_v and Re_v. A P_E value based on the ESD_v captured and treated shall be applied to the contributing drainage area.

A drywell will be utilized to capture and treat the runoff from the proposed roof area of the dwelling, deck and screened porch.

The proposed area of the dwelling, deck and screened porch equals approximately 570 s.f. Allowing for a maximum of 500 sq. ft. of roof area to a single downspout, and 1,000 sq. ft. to a drywell, the dwelling will require two drywells. The ESD volume provided by one drywell can be found from the following equation:

$$ESD_v = \frac{(P_E)(\text{Roof Area})}{12} = ESD_v \text{ cu. ft.}$$

Given that the site lacks an adequate outfall, the 10-year overbank flood protection volume will be required to be provided on site. Therefore, the target rainfall will be increased over and beyond what is required from 1.2" to 2.45" or,

$$ESD_v = \frac{(2.45")(570 \text{ sq. ft.})}{12} = \mathbf{116 \text{ cu. ft.}}$$

Use a circular drywell with an 8-foot depth will require a radius of approximately 2.2'. Therefore, provide a stormwater management drywell having the dimensions of 8'Dx2.2'R

The final sizes of the drywells will be provided below with the "Overbank Flood Protection Volume" of this Report.

SUMMARY OF ESD VOLUMES

Total Required ESD volume	***= 116 cu.ft.***
Microscale Practice – Drywell	
ESD volume prov'd.	= 116 cu. ft.
Total ESD volume prov'd.	= 116 cu.ft.
Total ESD volume required	**= 0 cu.ft.**

II. RECHARGE VOLUME

The required recharge volume (Rev) 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 Rv are as defined above, and

S = soil specific recharge factor;
= 0.14 for type "A" soil.

The required volume is calculated as follows:

Rev = (0.42)(0.20)(5,800 sq. ft.)/12 = **41 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 1.2", 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 required in the amount of 163 cu. ft. and was determined through the Reduced Curve Number Method. This volume will be provided within the proposed stormwater drywell on-site serving the dwelling as sized above for the ESDv volume, as follows:

From above in this Report, the drywell is providing 137 cu. ft. of ESDv volume. The additional amount of ESDv volume required equals 163 – 137 = 26 cu. ft. Provide a drywell with the constructed volume of,

$V_{const.}$ = 163 cu. ft./0.40 = 408 cu. ft. (where 0.40 equals the porosity of #2 stone)

Using a constructed area of 22.9 sq. ft., the required depth to provide 408 cu. ft. of volume is equal to

$Depth_{const.}$ = Volume/Area = 408 cu. ft./22.9 s.f. = 17.8 ft.

Therefore, provide a drywell on-site with the dimensions of 2.7'R x 17.8'D or alternatively, to provide the overbank flood protection volume in the amount of 163 cu. ft.

The overbank flood protection volume is being provided by the "Reduced Curve Number Method", whereby a sufficient amount of ESDv volume is being provided on-site to reduce the post-development 10-year discharge to its 10-year pre-development discharge rate.

V. EXTREME FLOOD PROTECTION

The extreme flood protection volume is not required since the site does not lie within a non-tidal 100-year floodplain and there are no properties downstream of the site that lie within a 100-yr. non-tidal floodplain.

SOILS & VICINITY MAPS

(See GSC Plans for Maps)

TR-55 COMPUTATIONS

(site only)

CHANGE IN CURVE NUMBER METHOD for 10-yr. Storm

(per 10-2017 A. A. County SWM Practices & Procedures Manual)

779 Snodgrass Road
Crownsville, MD 21032
10 - YEAR

By: JET
8/19/2024

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

Q_{stored}, in.	=	0.35
P (design rainfall depth), in.	=	5.2
$Q_{dev.}$, in.	=	0.78
Q ($Q_{dev.}$ - Q_{stored}), in.	=	0.43

CN = 43.4

RCN = 50

Q_{stored} = ESDv c.f.x 12 / (43,560 x Site Ac.) = **X"**

Qstored= 163 cu.ft. or 0.35
Qdev= 0.78 in.
Site = 0.13 ac.

WinTR-55 Current Data Description

--- Identification Data ---

User: TPJ
Project: 779 SNODGRASS RD
SubTitle: 10 YR
State: Maryland
County: ANNE ARUNDEL
Filename: C:\TR55\20-257 10yr.w55

Date: 9/25/2024
Units: English
Areal Units: Acres

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
PRE		Outlet	0.13	30	0.1
POST		Outlet	0.13	50	0.1
REDUCED		Outlet	0.13	43	0.104

Total area: .39 (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

779 SNODGRASS RD
10 YR
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

779 SNODGRASS RD
10 YR
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	0.13
REDUCED	.00
REACHES	
OUTLET	0.13

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779 SNODGRASS RD
10 YR
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	0.13 12.02
REDUCED	.00 n/a
REACHES	
OUTLET	0.13

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779 SNODGRASS RD
10 YR
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	.13	0.100	30	Outlet	
POST	.13	0.100	50	Outlet	
REDUCED	.13	0.104	43	Outlet	

Total Area: .39 (ac)

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779 SNODGRASS RD
10 YR
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	40	0.2400	0.400				0.063
					Time of Concentration		0.1
POST							
SHEET	50	0.2400	0.240				0.050
					Time of Concentration		0.1
REDUCED							
User-provided							0.104
					Time of Concentration		0.104

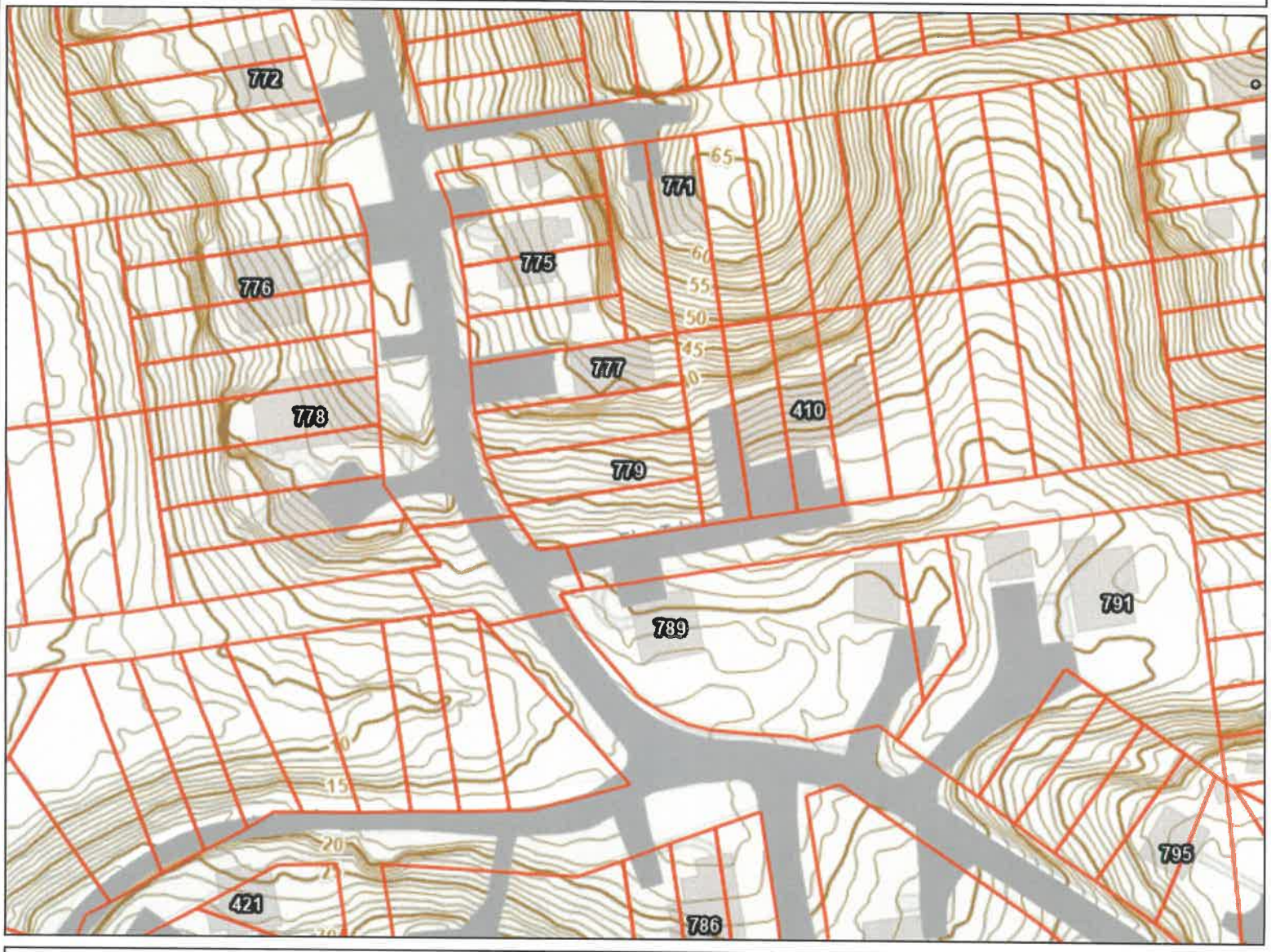
TFJ

779 SNODGRASS RD
10 YR
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	.13	30
	Total Area / Weighted Curve Number			.13	30
				===	==
POST	Open space; grass cover > 75%	(good)	A	.087	39
	Paved parking lots, roofs, driveways		A	.026	98
	Woods	(good)	A	.017	30
	Total Area / Weighted Curve Number			.13	50
				===	==
REDUCED	CN directly entered by user		-	.13	43
	Total Area / Weighted Curve Number			.13	43
				===	==

Snodgrass Road topo map



Legend

Foundation

Addressing

Parcels

Structure

County Structure

Elevation

Topo 2023

Index

Intermediate

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

0 100 200 ft

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THIS MAP IS NOT TO BE USED FOR NAVIGATION

Notes 1"=100'

DS DS

OFFICE OF PLANNING AND ZONING

CONFIRMATION OF PRE-FILE MEETING

DATE OF MEETING May 2024

P&Z STAFF Rob Konowal, Kelly Krinetz, Engineering

APPLICANT/REPRESENTATIVE Matthew Rhoderick EMAIL mdrhoder@gmail.com

SITE LOCATION 779 Snodgrass Road (2024-0043-P) LOT SIZE 5,850 sf ZONING R5

CA DESIGNATION LDA BMA _ or BUFFER n/a APPLICATION TYPE Variance

Proposed new single family detached dwelling

Variance required for less (rear lot line) setbacks than required and disturbance to slopes 15% or greater

COMMENTS

Critical Area Team - The site plan does not include slopes 15% or greater which are defined as steep slopes in the Critical Area. The plan depicts the required buffer to the bottom of the 25% slopes when Code requires the buffer to the top of the slope. Please revise the site plan to accurately depict all slopes 15% or greater and the required buffer to the top of the slope. Disturbance of steep slopes must be included in the requested variance.
The applicant must demonstrate that the proposed disturbance is the minimum necessary to afford the property owner relief. Clearing information must be included on the plans and mitigation will be determined at permit.

Zoning – Indicate number of stories on site plan as well as height. Elevations of dwelling would be helpful. Suggest house be shifted 5 feet closer to Elm Trail via variance to minimize disturbance to slopes.

Engineering – see attached page 2

INFORMATION FOR THE APPLICANT

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

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

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

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

2024-0043-P cont'd

Engineering Comments:

1. All stormwater conveyance systems shall be designed so that no building or habitable structure, either proposed or existing, is flooded or has water impounded against it during the 100-year storm event.

2. Microscale stormwater facility(ies) design should incorporate safe conveyance for overflow discharges from 2, 10, 100-yr 24-hr storm events; plans should show overland relief paths for these storm events and ensure that no structures, or properties are negatively impacted or have water impounded against during these storm events.

3. Design professionals should review site runoff and potential (negative, adverse) impacts to neighboring properties, due to changed grades/elevation on a proposed project.

4. Please ensure that the minimum well and septic setbacks to proposed SWM practices are achieved.

5. Ensure the proposed improvement including runoff, seepage, and slope saturation does not adversely impact the integrity of the slope and potential impact of slope failure.

6. This reviewer is not clear on what type of SWM practice (s) proposed. Per 6.1.4 (G) of the County Stormwater Practices and Procedures manual, SWM facilities shall not be located in areas that are off-limits to development, e.g., natural resources including steep slopes and buffers.

7. Please review existing vegetation (or lack thereof) within the steep slopes; opportunities to supplement vegetation or replanting buffers with native vegetation should be reviewed and provided to enhance water quality.

8. A soil boring is required per practice. The suitability, and siting of proposed SWM practices should be reviewed. Soil boring information including verification of the suitability of in-situ soils for infiltration shall be submitted. Describe the site's hydrologic, and topographic characteristics and provide a recommendation on the feasibility of various BMPs.

9. Based on the plan provided, it appears that the property will be served by a private septic and public water.

10. The stormwater management, and utility/Engineering design review approval for the site shall occur at the grading permit stage.

11. The above is provided as a courtesy review as information for review and consideration comments at the pre-file.