

RICHMOND HILLS

STORMWATER MANAGEMENT

EROSION AND SEDIMENT CONTROL

FINAL PLAN

GENERAL NOTES

- OWNER (PRIMARY CONTACT): FREEDOM DEVELOPMENT, LLC
222 N. CONSTITUTION AVENUE
SUITE B
NEW FREEDOM, PA 17344
CONTACT: WILLIAM LUTHER
PHONE: 1 (833)-491-5263
- TAX MAP, 800; PARCELS: 634, 646, 732, & 805
- CURRENT ZONING: R-1 (SINGLE FAMILY) & R-3 (MULTI-FAMILY)
- SITE AREA: TOTAL ENCLOSED AREA: 4.52 AC.±
- DEED REFERENCE: W.L.B. 2438/500
- THE EXISTING FEATURES AND TOPOGRAPHY INFORMATION IS BASED ON AVAILABLE CECIL COUNTY GIS INFORMATION, FIELD RUN TOPOGRAPHY AND FIELD WORK BY BAY STATE LAND SERVICES, INC.
- THERE ARE NO KNOWN AREAS OF SIGNIFICANT HABITAT FOR RARE, THREATENED, OR ENDANGERED SPECIES ON SITE.
- THERE ARE NO KNOWN HISTORIC SITES ON THE SUBJECT PROPERTY.
- THE SITE IS NOT LOCATED WITHIN MARYLAND'S TIER II HIGH QUALITY STREAM SEGMENTS AND THEIR DRAINAGE AREAS/CATCHMENTS.

RECEIVED

JUN 13 2024
Cecil Soil Conservation District
Elkton, Maryland 21921

CHESAPEAKE BAY CRITICAL AREA

THIS SITE IS LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA DESIGNATION.

FLOOD CERTIFICATION

THERE IS NO 100 YEAR F.E.M.A. FLOODPLAIN LOCATED ON THIS SITE PER F.I.R.M. #240150124E, PANEL 124 OF 302, EFFECTIVE DATE MAY 4, 2015.

STORMWATER MANAGEMENT NOTES

- ALL STORMWATER MANAGEMENT PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN. ANY SUBSEQUENT ALTERATION OR MODIFICATION OF THESE PRACTICES REQUIRES APPROVAL FROM CECIL COUNTY DEPARTMENT OF PUBLIC WORKS. APPROVED PLANS ARE AVAILABLE UPON REQUEST FROM CECIL COUNTY DEPARTMENT OF PUBLIC WORKS.
- ACCESS TO ALL STORMWATER MANAGEMENT PRACTICES SHALL BE MADE AVAILABLE TO CECIL COUNTY AT ALL TIMES DURING CONSTRUCTION AND FOR INSPECTIONS AFTER CONSTRUCTION.
- THE OWNERS AND SUBSEQUENT OWNERS SHALL MAINTAIN IN GOOD CONDITION AND PROMPTLY REPAIR AND/OR RESTORE ALL STORMWATER PRACTICES IN ACCORDANCE WITH THE APPROVED STORMWATER MANAGEMENT PLANS.
- IN THE EVENT THE OWNER OR ANY SUBSEQUENT OWNERS FAIL TO ADEQUATELY MAINTAIN THE STORMWATER MANAGEMENT PRACTICE ACCORDING TO THE PROVISIONS OF THESE PRACTICES REQUIRES APPROVAL FROM CECIL COUNTY DEPARTMENT OF PUBLIC WORKS. APPROVED PLANS ARE AVAILABLE UPON REQUEST FROM CECIL COUNTY DEPARTMENT OF PUBLIC WORKS. THE COUNTY HAS THE AUTHORITY TO PLACE THIS EXPENSE AS A LIEN ON THE PROPERTY OR PLACED ON THE TAX BILL AND COLLECTED AS ORDINARY TAXES.

ESTIMATE OF SEDIMENT CONTROLS

	Existing	Mass Grading (Interim)	Builders Phase
1. EARTH DIKE	1184 L.F.	1184 L.F.	214 L.F.
2. SUPER SILT FENCE	512 L.F.	512 L.F.	512 L.F.
3. SILT FENCE	1340 L.F.	1340 L.F.	7,254 L.F.
4. STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM	1 EA.	1 EA.	22 EA.
5. STABILIZED CONSTRUCTION ENTRANCE	2 EA.	2 EA.	N/A
6. SEDIMENT BASIN	1 EA.	1 EA.	1 EA.
7. TEMPORARY HDPE (24")	135 L.F.	135 L.F.	135 L.F.
8. DEWATERING PIPE (2")	65 L.F.	65 L.F.	65 L.F.
9. SUMP PIT	N/A	N/A	1 EA.
10. FILTER BAG	N/A	N/A	1 EA.
11. SEDIMENT BAFFLE	174 L.F.	174 L.F.	174 L.F.
12. SEDIMENT MARKER	1 EA.	1 EA.	1 EA.
13. STANDARD INLET PROTECTION	N/A	0 EA.	0 EA.
14. COMBINATION INLET PROTECTION	N/A	N/A.	1 EA.
15. COMBINATION INLET BLOCKING	N/A	N/A	2 EA.
16. CURB OPENING BLOCKING	N/A	N/A	5 EA.
17. AT-GRADE INLET PROTECTION	N/A	1 EA.	N/A
18. AT-GRADE INLET BLOCKING	N/A	2 EA.	N/A
19. ROADWAY BOX-CUT OPENING	N/A	3 EA.	N/A
20. MOUNTABLE BERM	N/A	1 EA.	1 EA.
21. GABION INFLOW PROTECTION	133 C.Y.	133 C.Y.	133 C.Y.
22. BLAZE ORANGE FENCING	1,504 L.F.	1,326 L.F.	1,326 L.F.

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SITE ANALYSIS (MASS GRADING PHASE)

TOTAL DISTURBED AREA:	6.92 AC.±
TOTAL PROPOSED IMPERVIOUS AREA:	0.71 AC.±
TOTAL AREA TO BE VEGETATIVELY STABILIZED:	6.21 AC.±
ESTIMATED CUT VOLUME:	4,266 C.Y.
ESTIMATED FILL VOLUME:	5,087 C.Y.

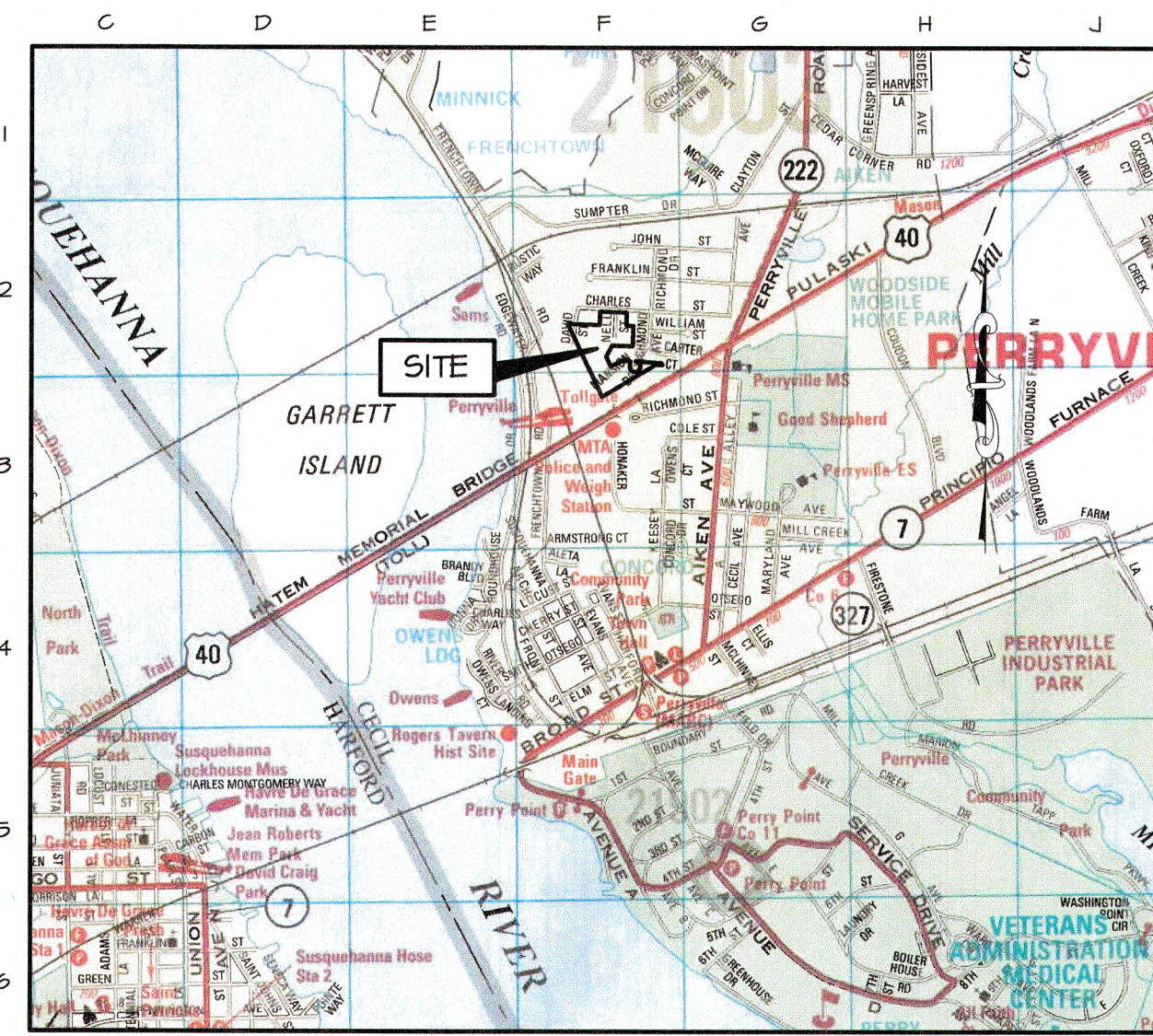
SITE ANALYSIS (BUILDERS PHASE)

TOTAL DISTURBED AREA:	4.45 AC.±
TOTAL PROPOSED IMPERVIOUS AREA:	1.34 AC.±
TOTAL AREA TO BE VEGETATIVELY STABILIZED:	3.06 AC.±
ESTIMATED CUT VOLUME:	2,840 C.Y.
ESTIMATED FILL VOLUME:	2,840 C.Y.

SITE ANALYSIS (TOTAL SITE)

TOTAL SITE AREA:	9.52 AC.±
TOTAL DISTURBED AREA:	6.92 AC.±
TOTAL PROPOSED IMPERVIOUS AREA:	2.10 AC.±
TOTAL AREA TO BE VEGETATIVELY STABILIZED:	4.82 AC.±
ESTIMATED CUT VOLUME:	7,106 C.Y.
ESTIMATED FILL VOLUME:	7,927 C.Y.

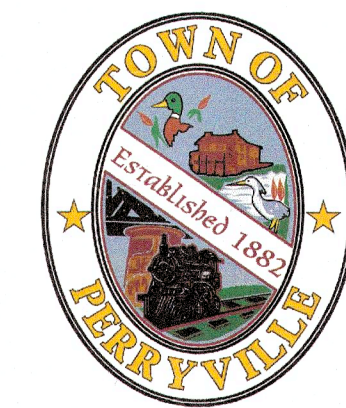
- NOTES:
- CONTRACTOR SHALL VERIFY EARTH QUANTITIES. QUANTITIES SHOWN ARE FOR SEDIMENT CONTROL BONDING PURPOSES ONLY.
 - ALL CUT/FILL MUST BE TAKEN OR COME FROM A SITE WITH AN APPROVED EROSION AND SEDIMENT CONTROL PLAN.



LOCATION MAP

ADC MAP NO. 21 GRID NO. F-2 & F-3

TOWN OF PERRYVILLE CECIL COUNTY, MARYLAND



OWNER'S / DEVELOPER'S CERTIFICATION

"I/We hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have certification of training at a Maryland Department of the Environment approved training program for the control of sediment and erosion before beginning the project. I hereby authorize the right of entry for periodic on-site evaluation by the Cecil Soil Conservation District or their representatives and the State of Maryland, Department of the Environment, compliance inspectors."

"I/We hereby certify that development and/or construction will be done according to this plan of development and plan of erosion and sediment control."

The Owner(s)/Developer(s) shall grant the Department of Public Works or its agent and contractor the right-of-entry at reasonable times and in a reasonable manner for the purpose of inspecting, operating, installing, constructing, reconstructing, maintaining or repairing the facilities. Said Agreement shall include all open space areas of the property.

Signed: *William Luther* Date: 6/7/24
Print Name / Title: William Luther (Managing Member)
Freedom Development, LLC

STORMWATER MANAGEMENT AS-BUILT CERTIFICATION

I hereby certify that the facilities shown on these stormwater management plans have been constructed as shown in red hereon. I also certify that the structural and non-structural "Best Management Practices" as constructed, are in compliance with the approved plans and computations and if applicable, meet the requirements of COMAR 26.11.04.05 and the USDA Natural Resources Conservation Service Maryland Conservation Practice Standard Pond Code 318 (January 2000).

Signature: _____ Date: _____
Print Name/Title: _____ Professional License No.: _____
Street Address: _____ License Type: _____
City, State, Zip: _____

Certify means to state or declare a professional opinion based upon onsite inspections and material tests which are conducted during construction. The on-site inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contract, employment, or other means, including meeting commonly accepted industry practices.

Plan Certification

I hereby certify that I am qualified to design stormwater management and grading plans and that the site grading as shown hereon does not involve the redirection of stormwater runoff off the site or concentrate the release of stormwater runoff in an off-site area that previously received non-concentrated flow. The grading and stormwater management strategies shown hereon meet or exceed the requirements contained within the Cecil County Stormwater Management and Soil Erosion and Sediment Control Ordinances. If the project site is included in a currently approved and valid stormwater management and/or erosion and sediment control plan, the best management practices and strategies utilized on this lot grading plan are consistent with and meet the intent of those plans.

10773 *Leonard A. Parrish* Date: 6/7/24
Reg. P.E. No. LEONARD A. PARRISH, P.E.

DESIGN CERTIFICATION

I hereby certify that all sediment and erosion control measures shown on these plans have been designed in accordance with the 2011 MD Standards and Specifications for Soil Erosion and Sediment Control or current revisions thereof.

I also certify that any stormwater management measures shown on these plans have been designed in accordance with Cecil County standards and regulations, Code of Maryland Regulations (COMAR) Title 26.17.04.25, the USDA Natural Resources Conservation Service Maryland Conservation Practice Standard Pond Code 318 (January 2000), and latest version of Maryland Department of the Environment Policies and Procedures for Small Pond Approval.

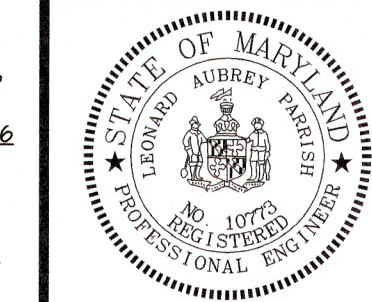
Signed: *Leonard A. Parrish* Date: 6/7/24
Print Name: LEONARD A. PARRISH, P.E. P.E. No.: # 10773

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. 10773 EXPIRATION DATE: 01-22-2026

Leonard A. Parrish Date: 6/7/24
LEONARD A. PARRISH, P.E.

ENGINEER'S SEAL



GEOTECHNICAL CERTIFICATION

In place testing shall be done by a registered soils engineer or their representative to determine suitability of embankment fill material and to certify compaction is at least 95% of maximum dry density with a moisture content within +/- 2% of the optimum, determined by AASHTO T-99.

I, _____ of _____
(Print Name) (Company Name)
Certify that the soil(s) used to construct the core at this site is of the type(s): _____
as listed in the Unified Soil Classification System that are appropriate for use in the structural and non-structural "Best Management Practices" as proposed on these plans and meet the "Earth Fill" requirements of the USDA Natural Resources Conservation Service Maryland Conservation Practice Standard Pond Code 318 (January 2000).

TOWN OF PERRYVILLE DEPARTMENT OF PLANNING AND ZONING

APPROVED: *Nancy Battaglia* 8/9/24
DIRECTOR DATE

APPROVED: CECIL COUNTY DEPARTMENT OF LAND USE AND DEVELOPMENT SERVICES

Stephen 11/21/2024
DIRECTOR DATE

APPROVED: CECIL COUNTY LAND USE AND DEVELOPMENT SERVICES DIVISION OF DEVELOPMENT PLANS REVIEW

Anthony 11/21/24
CHIEF DATE

APPROVED: CECIL COUNTY LAND USE AND DEVELOPMENT SERVICES DIVISION OF WATER AND SEWER PLANNING

Yuan 11/21/24
APPROVING AUTHORITY DATE

Reviewed for Cecil S.C.D. and meets Technical Requirements for Erosion and Sediment Control only

Final Plan Approval
Walter E. McManis 6/17/24
Approved Date
Plan is valid for 2 years from date of approval Project No. 23007

Cecil Soil Conservation District Erosion and Sediment Control Plan

for Final Plan Approval
Chilton 6/17/24
Approved Date
Plan is valid for 2 years from date of approval Project No. 23007

SMALL POND APPROVAL Cecil Soil Conservation District Project No. 23007

Chilton 6/17/24
Approved Cecil SCD Date
Walter E. McManis 6/17/24
Technical Review Cecil SCD Date

Note: This approval applies to all 378 Ponds shown on this plan that fall under the review authority of Cecil Soil Conservation District.

STATEMENT OF DETERMINATION OF MD 378

All stormwater management facilities are to be constructed in accordance with the 2000 Maryland Stormwater Design Manual, Volumes I & II, (Maryland Department of the Environment) and the USDA Natural Resources Conservation Service Maryland Conservation Practice Standard Pond Code 318 (January 2000). These construction drawings are intended to reflect the relevant requirements; however, any lack of specific details on these drawings shall not relieve any of the requirements of these and other relevant codes. The cut-off trench and impervious clay core are required where shown on the approved set of drawings.

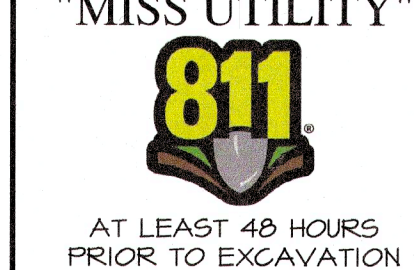
NOTES

- Existing utilities shown hereon are for informational purposes only, based on field located data and supplemented with available approved construction drawings. The contractor shall contact "Miss Utility" and/or private utility entities, at least 48 hours prior to excavation, to have utilities marked and test pit, as necessary, to verify the locations and elevations of all existing utilities within work areas prior to construction.
- The purpose of these construction drawings, are to address stormwater management and sediment & erosion control only. The developer/contractor shall refer to the approved water & sewer and roads & drains construction plans for all other work to be performed as part of this project.
- The proposed homeowner's association, shall be responsible for the maintenance of all stormwater management facilities located in common open space, not the Town of Perryville.
- Individual owners for lots #1-#4 and #9-#22, shall be responsible for the maintenance of all stormwater management facilities located on their lot, not the Town of Perryville.

UNIFIED STORMWATER SIZING CRITERIA

UNIFIED SIZING CRITERIA	VOLUME REQUIRED	VOLUME PROVIDED	COMMENTS
ESDv RUNOFF VOLUME	14,180 cu.ft.	14,814 cu.ft.	
WATER QUALITY VOLUME (WQV)	14,180 cu.ft.	14,814 cu.ft.	FORTY-THREE (43) SINGLE DRYWELLS FIVE (5) BIO-SWALES ONE (1) MICRO-BIORETENTION FACILITY
RECHARGE VOLUME (REV)	1,783 cu.ft.	5,302 cu.ft.	
CHANNEL PROTECTION VOLUME (CPV)	N/A	N/A	ESD PRACTICES SATISFIED CPV BY REDUCING THE COMPOSITE RCN
OVERBANK FLOOD PROTECTION VOLUME (10-YR STORM FREQUENCY)	N/A	N/A	THE PROPOSED 10-YEAR STORM POST DEVELOPMENT PEAK DISCHARGE IS TEMPORARILY STORED WITHIN A STORMWATER MANAGEMENT POND, AND ROUTED THROUGH A CONCRETE RELEASE STRUCTURE.
EXTREME FLOOD VOLUME (100-YR STORM FREQUENCY)	N/A	N/A	THE PROPOSED 100-YEAR STORM POST DEVELOPMENT PEAK DISCHARGE IS SAFELY CONVEYED THROUGH A STORMWATER MANAGEMENT POND AND ROUTED THROUGH A CONCRETE RELEASE STRUCTURE. A MINIMUM TWO-FOOT (2) FREEBOARD IS PROVIDED BETWEEN THE 100-YEAR WATER SURFACE ELEVATION AND THE TOP OF THE STORMWATER MANAGEMENT POND EMBANKMENT.

CONTRACTOR TO CONTACT "MISS UTILITY"



BAY STATE LAND SERVICES
Civil, Structural & Environmental Engineers
Land Planners & Land Surveyors
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Forest Hill, Maryland 21050
Phone: 410-879-4747
Fax: 410-420-3949
www.baystatelandsservices.com

STORMWATER MANAGEMENT & SEDIMENT AND EROSION CONTROL FINAL PLAN TITLE SHEET

REVISIONS		DATE:	DRAWING NO.
NO.	DESCRIPTION		
		JUNE 2024	F
		SCALE: AS SHOWN	ESD
		DESIGNED BY: BWM	1
		DRAWN BY: BWM	SHEET 1 OF 37
			BSLS JOB NO.: 18133