SOIL CHART

SYMBOL	RATING	NAME	Kw FACTOR
ChB	C	CHILLUM–RUSSETT LOAMS, 2–5 % SLOPES	0.43
ChC	C	CHILLUM–RUSSETT LOAMS, 5–10 % SLOPES	0.43
MgD	B	MANOR–BANNERTOWN SANDY LOAM, 15–25 % SLOPES, ROCKY	0.24
MgF	B	MANOR–BANNERTOWN SANDY LOAM, 25–65% SLOPES, ROCKY	0.24

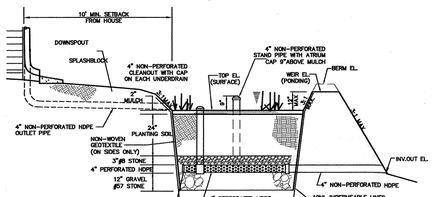
TREE CHART

Key (X#)	Species	Size (in. DBH)	CRZ 1:1.5 (ft radius)	State Champion (DBH)	Good (unless otherwise noted)
ST– 1	Black Oak	41	61.5	81.85	Good/Fair, Large Broken Limb, Hypoxylon Present
2	Mockernut Hickory	24	36.0	36.31	Poor, Large Dead, Large Trunk Scar
ST– 3	White Oak	34.5	51.8	91.72	Fair, Codominant at Base, Some Large Dead (TO BE REMOVED)
ST– 4	White Oak	35.5	53.3	91.72	(TO BE REMOVED)
5	Black Walnut	28.5	42.8	74.52	Good/Fair, Larger Damage, Vine Pressure
6	Silver Maple	26.5	39.8	93.95	Fair, Vine Pressure, Cavity at Base
ST– 7	Tulip Poplar	43	64.5	101.27	
8	Paulownia	24.5	36.8	69.43	Fair, Leaninf, Root Flare Damage
ST– 9	Tulip Poplar	31	46.5	101.27	Fair, Larger Damage
ST– 10	Tulip Poplar	38	57.0	101.27	Fair, Codominant Head Height, Included Bark
ST– 11	Tulip Poplar	31	46.5	101.27	
12	Tulip Poplar	28	42.0	101.27	Fair/Poor, Larger Dead, Cavity at Waist Height
ST– 13	Tulip Poplar	39.5	59.3	101.27	Good/Fair, Codominant Ankle Height
ST– 14	Tulip Poplar	35	52.5	101.27	Poor, Root Rot, Large Dead, Trunk Scar
15	Tulip Poplar	26	39.0	101.27	
ST– 16	Tulip Poplar	49	73.5	101.27	
ST– 17	Tulip Poplar	36.5	54.8	101.27	Fair, Larger Dead Present
18	White Oak	27	40.5	91.72	
ST– 19	White Oak	53.5	80.3	91.72	
ST– 20	White Oak	34.5	51.8	91.72	Fair, Heavy Lean (TO BE REMOVED)
ST– 21	White Oak	41	61.5	91.72	(TO BE REMOVED)
ST– 22	White Oak	37.5	56.3	91.72	(TO BE REMOVED)
ST– 23	White Oak	38.5	57.8	91.72	Good/Fair, Trunk Suckers Present (TO BE REMOVED)
ST– 24	White Oak	32	48.0	91.72	(TO BE REMOVED)
25	Southern Red Oak	27	40.5	84.08	

* ST–#: SPECIMEN TREE

SWM PRACTICES

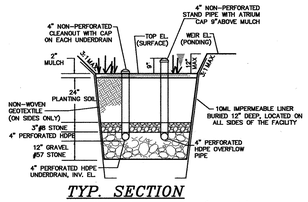
PROPOSED PRACTICE	REQUIRED ESDv	PROPOSED ESDv
M–6, MICRO–BIORETENTION (MB–1)	487 C.F.	592 C.F.
M–5, DRY WELLS (DW–1 & 2)	132 C.F.	140 C.F.
TOTAL	619 C.F.	732 C.F.



NOTE– THE ENTIRE DRAINAGE AREA MUST BE FULLY STABILIZED BEFORE RUNOFF CAN BE DIRECTED TO THE FACILITY.

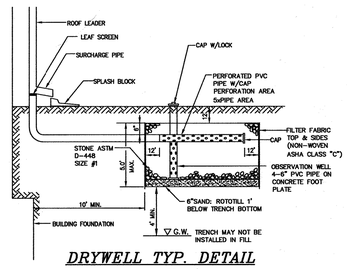
TYPICAL MICRO–BIORETENTION PROFILE

NTS



TYP. SECTION MICRO–BIORETENTION (M–6)

NTS

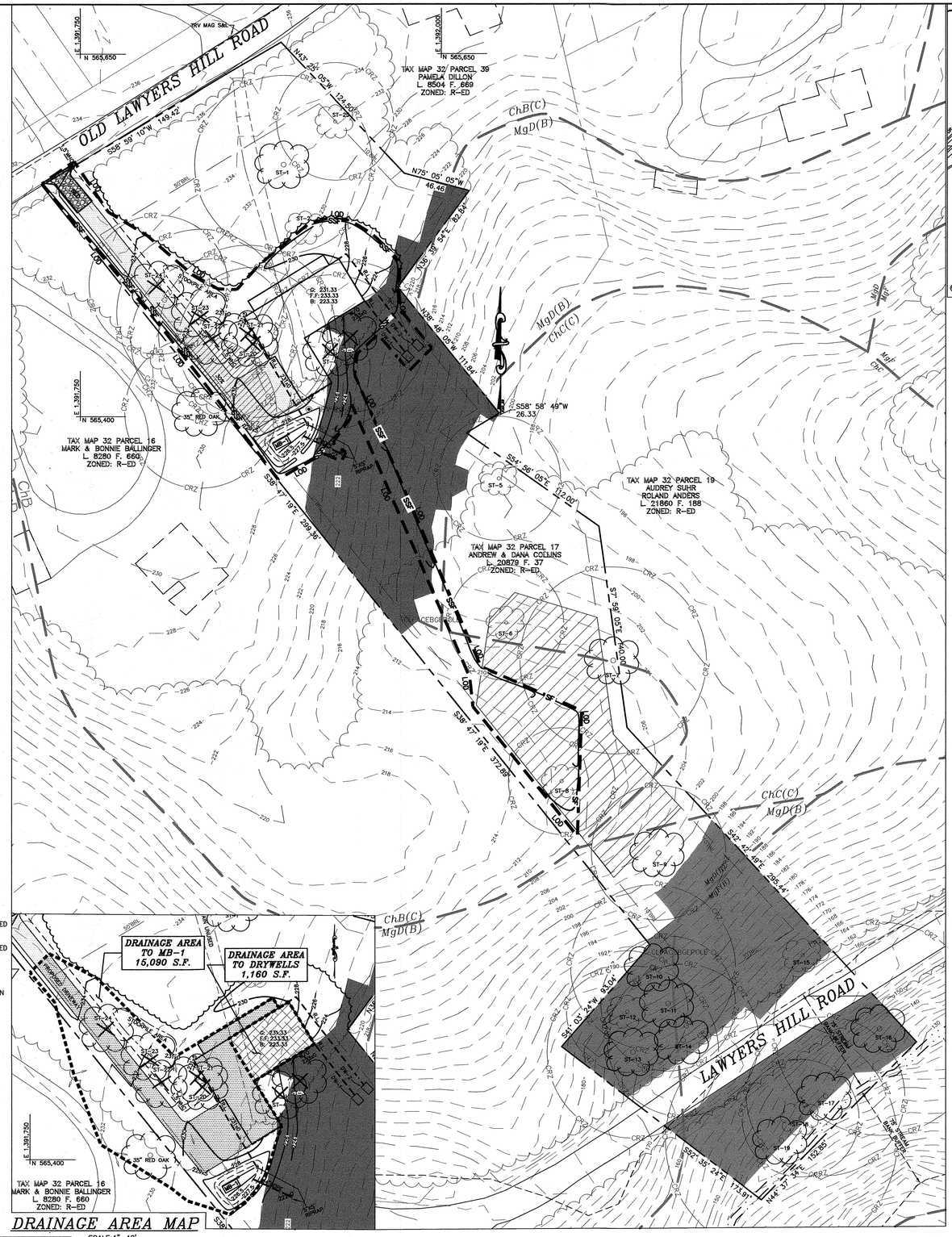


DRYWELL TYP. DETAIL

NTS

LEGEND

- 15–24.9% SLOPES
- ≥ 25% SLOPES
- IMPERVIOUS AREA TREATED BY MICRO–BIO (MB–1)
- IMPERVIOUS AREA TREATED BY DRYWELLS
- SEWAGE DISPOSAL AREA
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- LOD — LIMIT OF DISTURBANCE
- DRAINAGE AREA
- SSF — SUPER SILT FENCE
- SF — SILT FENCE
- STOCKPILE AREA
- ST# — EX. TREE
- ST# — EX. TREE TO BE REMOVED
- CRZ — CRITICAL ROOT ZONE
- EXISTING TREELINE / PROPOSED TREELINE
- STREAM
- STREAM BANK BUFFER
- 40ZO — MICRO–BIORETENTION
- DRYWELL
- R.L. — ROOF LEADER



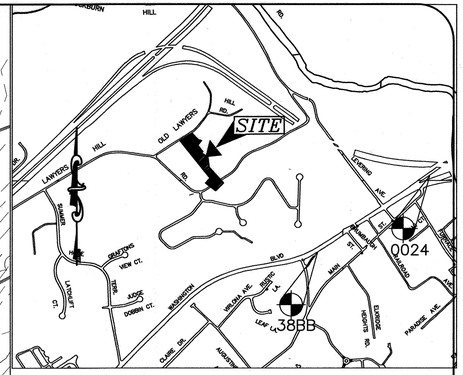
DRAINAGE AREA MAP

SCALE: 1"=40'

ECP PLAN

40 0 20 40 80

1"=40'



VICINITY MAP

SCALE: 1"=1000'

GENERAL NOTES:

1. THIS SUBJECT PROPERTY IS ZONED R–ED PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. THIS PROPERTY IS BEING DEVELOPED PURSUANT TO THE R–20 ZONING REGULATIONS IS ACCORDANCE WITH SECTION 107.1.1.a.2. OF ZONING REGULATIONS
2. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
3. THE EXISTING TOPOGRAPHY SHOWN HERE IS GIS AND WAS FIELD VERIFIED BY MILDENBERG, BOENDER & ASSOC, INC. IN MARCH 2023 TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY.
4. HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 0024 & 38BB
   STA. 0024: N 565,065.448; E 1,395,212.167; EL. 26.9496 (NAVD88)
   STA. 38BB: N 564,007.645; E 1,393,649.926; EL. 63.6554 (NAVD88)
5. PROJECT BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT MARCH 2023 BY MILDENBERG, BOENDER & ASSOC.
6. THE PROPERTY IS LOCATED WITHIN METROPOLITAN DISTRICT. WATER IS PUBLIC. WATER CONTRACT NO. (2–W). SEWER IS PRIVATE.
7. PARCEL BACKGROUND:
   ADDRESS : 6061 OLD LAWYERS HILL RD. ELKRIDGE, MD 21075
   TAX MAP 32; GRID; 21; PARCEL: 17; ELECTION DISTRICT : 1ST.
   DEED REFERENCE: 20879 / 00037
   GROSS AREA : 2.85 AC ±
   PROPOSED USE: RESIDENTIAL
   PROPOSED STRUCTURE: SFD
8. STORM WATER MANAGEMENT IS PROVIDED VIA MICRO BIO–RETENTION FACILITIES (M–6) AND DRY WELLS (M–5) WHICH WILL BE PRIVATELY OWNED AND MAINTENANCE BY HOMEOWNER.
9. PROPERTY IS LOCATED IN A HISTORIC DISTRICT. A HISTORIC SITE IS LOCATED ON AN ADJACENT LOT.
10. APPROVAL OF THIS ECP DOES NOT CONSTITUTE ANY APPROVAL OF SUBSEQUENT SUBDIVISION OR SITE DEVELOPMENT PLANS. FURTHER COMMENTS WILL BE GENERATED UPON REVIEW OF THE APPLICABLE DEVELOPMENT PLANS IN ACCORDANCE WITH THE SUBDIVISION AND ZONING REGULATIONS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.THE APPROVED ECP SHALL NOT BE CONSTRUED AS ANY RIGHT TO PROCESS A GRADING OR BUILDING PERMIT WITHOUT AN APPROVED SUBDIVISION OR SITE DEVELOPMENT PLAN AND MAY NOT BE USED AS JUSTIFICATION FOR ANY REQUIRED ALTERNATIVE COMPLIANCE ACTIONS.
11. WETLAND AND FOREST STAND DELINEATION PERFORMED BY ECO–SCIENCE, INC. IN MAY, 2023.
12. THERE ARE FORESTS, STEEP SLOPES, STREAM AND ITS BUFFERS ON THE PROPERTY.
13. EXISTING STREAM, STREAM BUFFERS, STEEP SLOPES TO REMAIN UNDISTURBED, MOST SPECIMEN TREES TO REMAIN UNDISTURBED.AN ALTERNATIVE COMPLIANCE WILL BE REQUIRED TO SECTION 16.1205 (a)(3) FOR THE REMOVAL OF SEVEN (7) SPECIMEN TREES.
14. FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION WILL BE FULFILLED BY THE ON–SITE RETENTION OF 1.5 ACRES OF FOREST.

SITE ANALYSIS DATA:

1.	AREA OF THE SITE:	124,146 S.F. (2.85 AC±)
2.	AREA OF ROAD DEDICATION:	0
3.	AREA OF WETLANDS AND ITS BUFFERS:	0
4.	AREA OF FLOODPLAIN:	0
5.	AREA OF EXISTING FOREST:	94,854 S.F. (2.2 AC±)
6.	AREA OF STREAM BUFFER:	12,910 S.F.
7.	AREA OF SLOPES 15%–24.99%:	19,315 S.F.
8.	AREA OF STEEP SLOPES ≥ 25%:	23,676 S.F.
9.	TOTAL ENVIRONMENTAL SENSITIVE AREA:	36,585 S.F.
10.	NET BUILDABLE AREA:	87,561 S.F. (2.0 AC±)
11.	LIMIT OF DISTURBANCE AREA:	28,020 S.F.
12.	GREEN OPEN AREA (PERVIOUS):	116,381 S.F. (2.67 AC±)
13.	PROPOSED IMPERVIOUS AREA:	7,765 S.F.
14.	AREA OF HIGHLY ERODIBLE SOILS:	62,004 S.F. (1.42 AC±)

ESD NARRATIVE

1. THE PROPERTY CONTAINS ENVIRONMENTALLY SENSITIVE AREAS INCLUDING STEEP SLOPES, STREAM, AND ITS BUFFER. THERE IS WOODED AREA OF APPROXIMATELY 2.16 ACRES ON SITE. 17 SPECIMEN TREES EXIST ON SITE.
2. IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS.
3. 12' WIDE DRIVEWAY WILL BE USED TO PROVIDE ACCESS TO THE PROPOSED HOUSE. MICRO–BIORETENTION FACILITY (M–6) AND DRY WELLS (M–5) WILL PROVIDE STORMWATER QUALITY TREATMENT FOR THE NEW DEVELOPMENT.
4. THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE CURRENT MDE STANDARDS AND SPECIFICATIONS UTILIZING SUPER SILT FENCES. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
5. TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WAS UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS BY MINIMIZING EARTH DISTURBANCE.
6. THIS PROJECT WAS DESIGNED TO MINIMIZE THE IMPERVIOUS AREAS, ESD MEASURES WERE UTILIZED IN THE FOLLOWING ORDER OF PREFERENCE: (M–6), (M–5).

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1.22.24

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/11/24

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. 26859, EXP DATE 08/08/25

SAMER A. ALOMER, P.E. — DATE: 12/13/2023

DEVELOPER/OWNER

ANDREW COLLINS
4301 SCOTCH MEADOW CT.
OLNEY, MD 20832
301–233–7810

project 23–004 | date DEC 2023
illustration PM | engineering PM
scale 1"=40' | approval SAA

no.	description	date
	revisions	

COLLINS PROPERTY

TAX MAP: 32 – GRID: 21 – PARCEL : 17
FIRST ELECTION DISTRICT – HOWARD COUNTY, MARYLAND

ENVIRONMENTAL CONCEPT PLAN (ECP)

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
8318 FORREST ST. ELLICOTT CITY, MD 21043
(410) 997–0296 Tel. (410) 997–0298 Fax.

1 OF 1

ECP–23–053

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