

SOILS TABLE

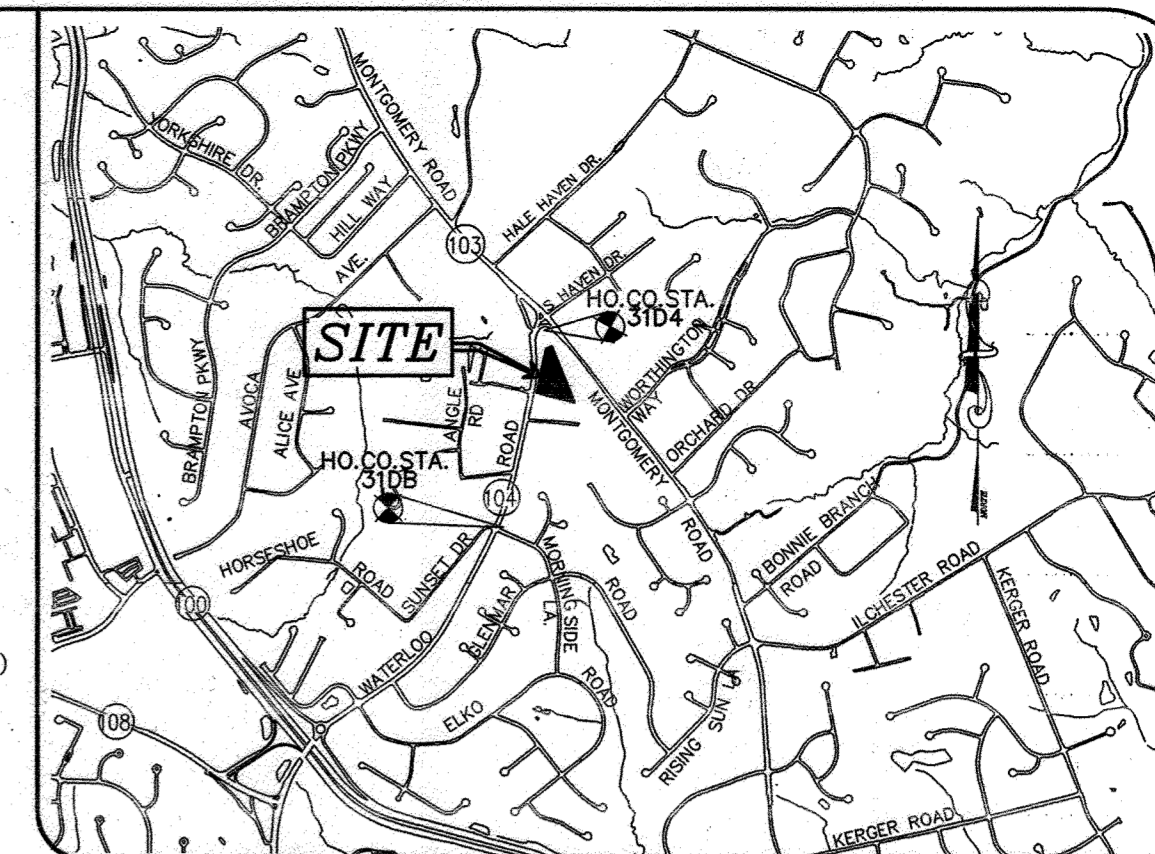
SYMBOL	RATING	NAME	K FACTOR
ChC	(C)	CHILLUM-RUSSETT LOAM, 5-10% SLOPES	.43
UCB	(C)	URBAN LAND-CHILLUM BELTSVILLE COMPLEX, 0-5% SLOPES	.49

SWM PRACTICES SCHEDULE

AREA	PROPOSED PRACTICES	REQUIRED ESDV	PROVIDED ESDV
BUILDING	MICRO-BIORETENTION MB #1 (M-6)	1,934 C.F.	2,820 C.F.
DRIVEWAY	MICRO-BIORETENTION MB #1 (M-6)	2,745 C.F.	3,375 C.F.

SITE ANALYSIS DATA:

- AREA OF THE SITE = 2.52 ACRES ±
- LIMIT OF DISTURBANCE = 97,460 S.F. (2.24 AC±)
- AREA OF ROAD DEDICATION = 0
- AREA OF WETLANDS AND ITS BUFFERS = 0
- AREA OF 100 YEAR FLOODPLAIN = 0
- AREA OF STREAM BUFFER = 0
- AREA OF STEEP SLOPES (25% OR GREATER AT VERTICAL DISTANCE OF 10 FEET OR MORE) = 0
- AREA OF 15%-24.99% SLOPES = 0
- AREA OF FOREST = 1.16 ACRES ±
- TOTAL ENVIRONMENTAL SENSITIVE AREA = 0
- AREA OF HIGHLY ERODIBLE SOILS = 97,460 S.F. (2.24 AC±)
- AREA OF PROPOSED IMPERVIOUS = 35,885 S.F. (0.82 AC±)
- PROPOSED GREEN OPEN SPACE = 74,015 S.F. (1.70 AC±)
- PROPOSED USE: CHILD DAY CARE CENTER



VICINITY MAP

SCALE: 1"=100'
 ADC MAP: 17 (G-7)
 STA. No. 31D N 569583.589, E 1369155.211, EL. 492.348 (NAVD88)
 STA. No. 31D N 571700.664, E 1369606.417, EL. 494.445 (NAVD88)

GENERAL NOTES:

- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 10/06/2013 COMPREHENSIVE ZONING PLAN.
- PROPERTY IS BEING DEVELOPED AS A CONDITIONAL USE FOR A DAY CARE SCHOOL.
- PARCEL BACKGROUND:**
 ADDRESS: WATERLOO RD ELKRIEGE 21075
 TAX MAP 31, GRID: 08 PARCEL 169 (P1, P2 & P3)
 ELECTION DISTRICT: FIRST
 DEED REFERENCE: 21181 / 268
 AREA: 2.52 ACRES ±
 TOTAL NUMBER OF UNITS: 1
 TYPE OF PROPOSED USE: CHILD DAY CARE CENTER AND NURSERY SCHOOL
 PROPOSED USE FOR SITE: COMMERCIAL (CONDITIONAL USE -CHILD DAY CARE CENTER AND NURSERY SCHOOL).
- PROJECT BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT OCT., 2021 BY MILDENBERG, BOENDER & ASSOC.
- TOPOGRAPHY SHOWN HERE IS GIS AND HAS BEEN FIELD VERIFIED BY MILDENBERG, BOENDER & ASSOC. INC. IN OCT. 2021 TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY.
- NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.
- NO WETLAND, STREAM OR FLOODPLAIN EXIST ON SITE AS VERIFIED BY MILDENBERG, BOENDER & ASSOCIATES IN NOV. 2021.
- FOREST STAND DELINEATION PERFORMED BY ECO-SCIENCE PROFESSIONALS, INC. IN JULY 2022.
- PROJECT ANALYSIS:**
 AREA OF BUILDING=13,300 SQ.FT.
 AREA WITHIN BUILDING ENVELOPE=44,400 SQ.FT.
 AREA OF GREEN SURFACES REQUIRED (20% OF BLDG. ENVP)=0.2X44,400=8,880 SQ.FT.
 AREA OF PLAYGROUND PROVIDED=14,700 SQ.FT.
 PROPOSED NUMBER OF STUDENTS=195
- PARKING ANALYSIS:**
 AREA OF BUILDING=13,300 SQ.FT.
 PARKING REQUIRED=13.3X3=40 SPACES
 PARKING PROVIDED=43 SPACES
- PROPERTY WILL BE SERVED VIA PUBLIC WATER AND SEWER.
- THE FOREST CONSERVATION PLAN AND ASSOCIATED FOREST STAND DELINEATION WILL BE REVIEWED FOR COMPLIANCE WITH THE FOREST CONSERVATION ACT AT THE SUBDIVISION PLAN, SITE DEVELOPMENT PLAN OR GRADING PERMIT STAGES. UNDER COUNTY LAW, ONLY A MD LICENSED FORESTER, MD LICENSED LANDSCAPE ARCHITECT OR AN ISIA CERTIFIED ARBORIST WHO IS ALSO A STATE QUALIFIED PROFESSIONAL MAY PREPARE FOREST STAND DELINEATIONS, FOREST CONSERVATION PLANS OR OTHER REQUIRED COUNTY FOREST CONSERVATION PROGRAM DOCUMENTS.
- FOREST CONSERVATION OBLIGATIONS FOR THIS DEVELOPMENT WILL BE PROVIDED BY A PAYMENT OF FEE-IN-LIEU.

ESD NARRATIVE

- NO NATURAL RESOURCES SUCH AS STEEP SLOPES, STREAMS, OR REGULATED FOREST LAND OR FLOODPLAIN EXIST ON-SITE. WETLANDS DO EXIST ON-SITE. THE PROPOSED MICRO-BIO-RETENTION FACILITIES (M-6) PROVIDES STORMWATER QUALITY TREATMENT FOR 10-YEAR STORM EVENT.
- THE 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.
- MICRO-BIO-RETENTION (M-6) WILL PROVIDE STORMWATER QUALITY TREATMENT FOR THE NEW DEVELOPMENT.
- THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST MDE STANDARDS AND SPECIFICATIONS UTILIZING SILT FENCES AND SUPER SILT FENCES. NO CONCENTRATION FLOW IS PROPOSED. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
- TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WERE UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS.
- THIS PROJECT WAS DESIGNED TO MINIMIZE THE IMPERVIOUS AREAS, ESD MEASURES WERE UTILIZED:
 -MICRO-BIO-RETENTION (M-6).

MICRO-BIORETENTION SCHEDULE

FACILITY	TOP EL. (SURFACE)	WEIR EL. (PONDRING)	BERM EL.	NOT TO SCALE INV. IN.	NOT TO SCALE INV. OUT.	SURFACE AREA	PONDING AREA	PONDING DEPTH	GRAVEL DEPTH BELOW UNDERDRAIN	SITE SLOPE
MB-1	490.50	491.50	492.00	487.75	487.50	1,420 S.F.	2,410 S.F.	12"	15"	3:1
MB-2	490.50	491.50	492.00	487.75	487.50	1,730 S.F.	3,290 S.F.	12"	15"	3:1

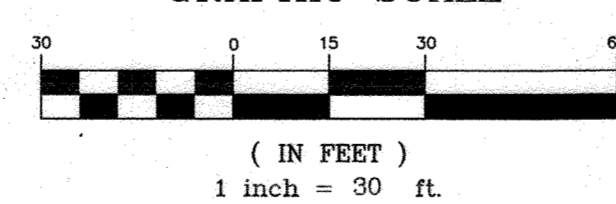
LEGEND

- SSF SUPER SILT FENCE
- LOD LIMIT OF DISTURBANCE
- SCS STABILIZED CONSTRUCTION ENTRANCE
- EX. TREE TO BE REMOVED
- EXISTING TREE LINED
- PROPOSED TREE LINE

WATERLOO ROAD

PUBLIC MINOR ARTERIAL
 100' R/W
 (MD-RTE. 104)
 (SRC PLAT NO. 12464)

GRAPHIC SCALE

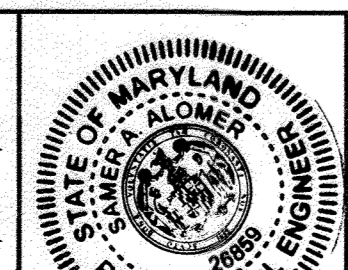


SPECIMEN/24" OR GREATER TREE TABLE

ID	NAME	DHB	CRZ (GRABUS)	CONDITION	NOTES
ST-1	RED MAPLE	39	58.5	GOOD	SAVE
ST-2	WHITE OAK	41.5	62.5	DEAD	SAVE
ST-3	WHITE OAK	36	54.0	DEAD	SAVE
ST-4	TULIP POPLAR	39	58.5	GOOD, BASAL SCAR HEALING, SUCKERS ON TRUNK, HEALTHY CROWN DISTURBANCE IN CRZ.	REMOVE
ST-5	WHITE OAK	31.5	47.25	GOOD, CROWN WEIGHTED TOWARD FOREST EDGE, DISTURBANCE IN CRZ	SAVE
ST-6	WHITE OAK	37.5	56.25	POOR, SEVERE LIGHTNING DAMAGE, DISTURBANCE IN CRZ	REMOVE
T-7	AMERICAN BEECH	25	37.5	GOOD	REMOVE
T-8	AMERICAN BEECH	30	45.0	GOOD	REMOVE
T-9	WHITE OAK	29	43.5	GOOD, CROWN WEIGHTED TOWARD FOREST EDGE, BASAL SCAR HEALING	SAVE
T-10	WHITE OAK	29	43.5	GOOD	REMOVE
T-11	CHESTNUT OAK	25.5	38.25	FAIR, CROWN THINNING, INCLUDED BACK @ 30'	REMOVE
T-12	WHITE OAK	27	40.5	POOR, SEVERE TIP DIEBACK, DISTURBANCE IN CRZ	REMOVE

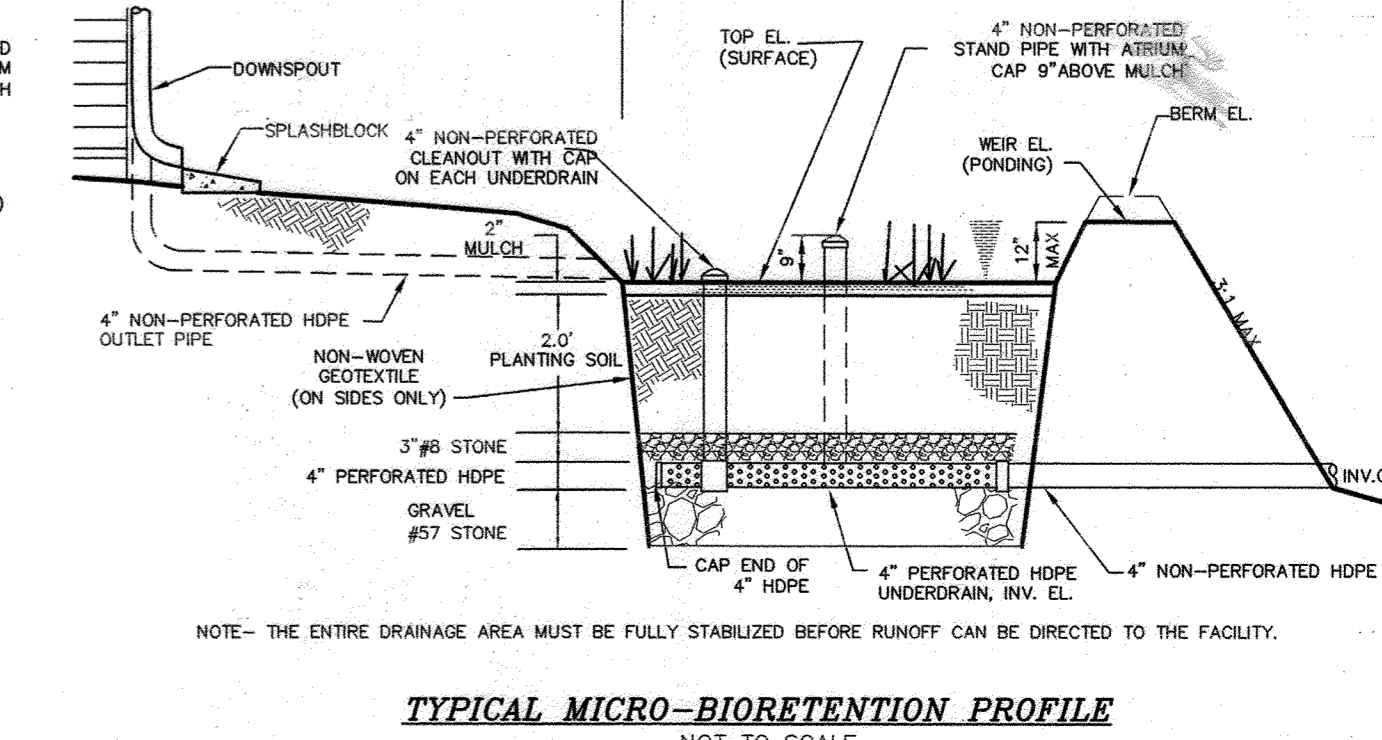
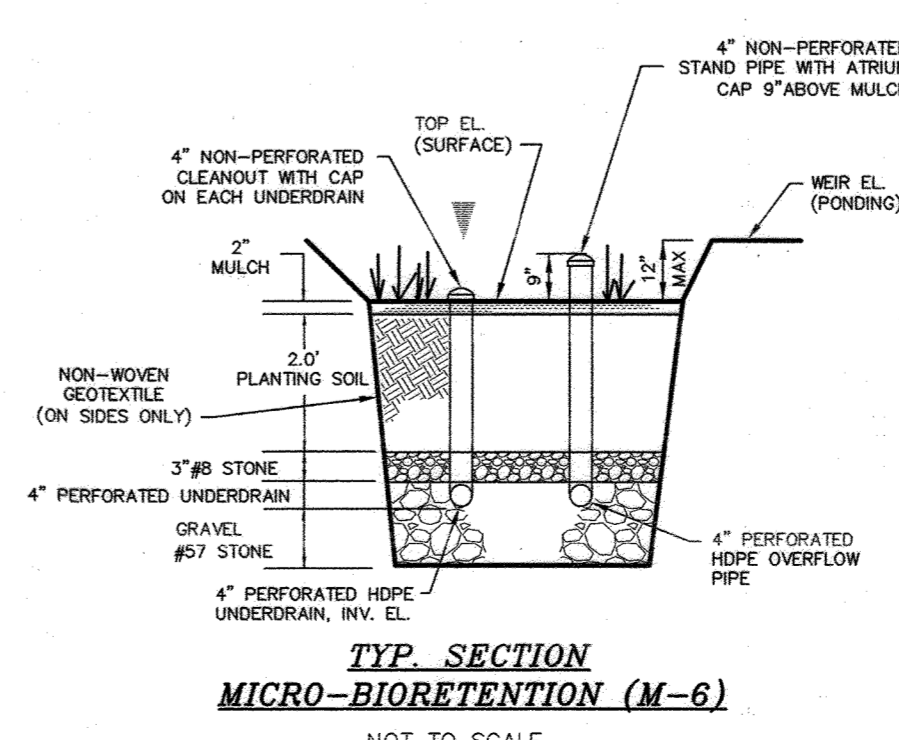
APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 4/6/23
 DATE: 4/4/23



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 08/08/23

OWNER: WAVERLY INVESTORS INC., 8318 FOREST ST., ELLICOTT CITY, MD 21043
 DATE: 3.23.2023



MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 8318 FOREST ST. SUITE 300, ELLICOTT CITY, MD 21043
 (410) 997-0296 Fax (410) 997-0288 Fax

WATERLOO OVERLOOK
 TAX MAP: 31 - PARCEL: 169 (P1,P2,P3) GRID 08
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT
 ENVIRONMENTAL CONCEPT PLAN

date: MAR. 2023
 project: 21-040
 illustration: MAM
 scale: 1"=30'
 date: [blank]
 description: [blank]
 revisions: [blank]

1 OF 1