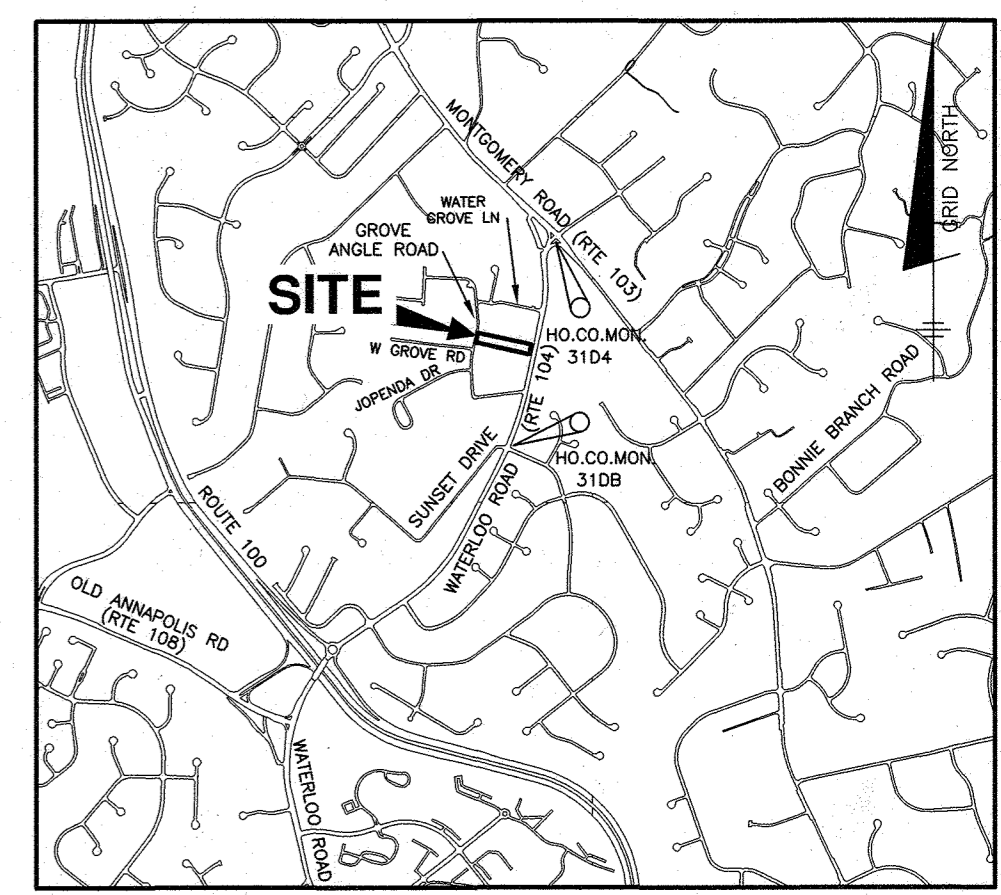
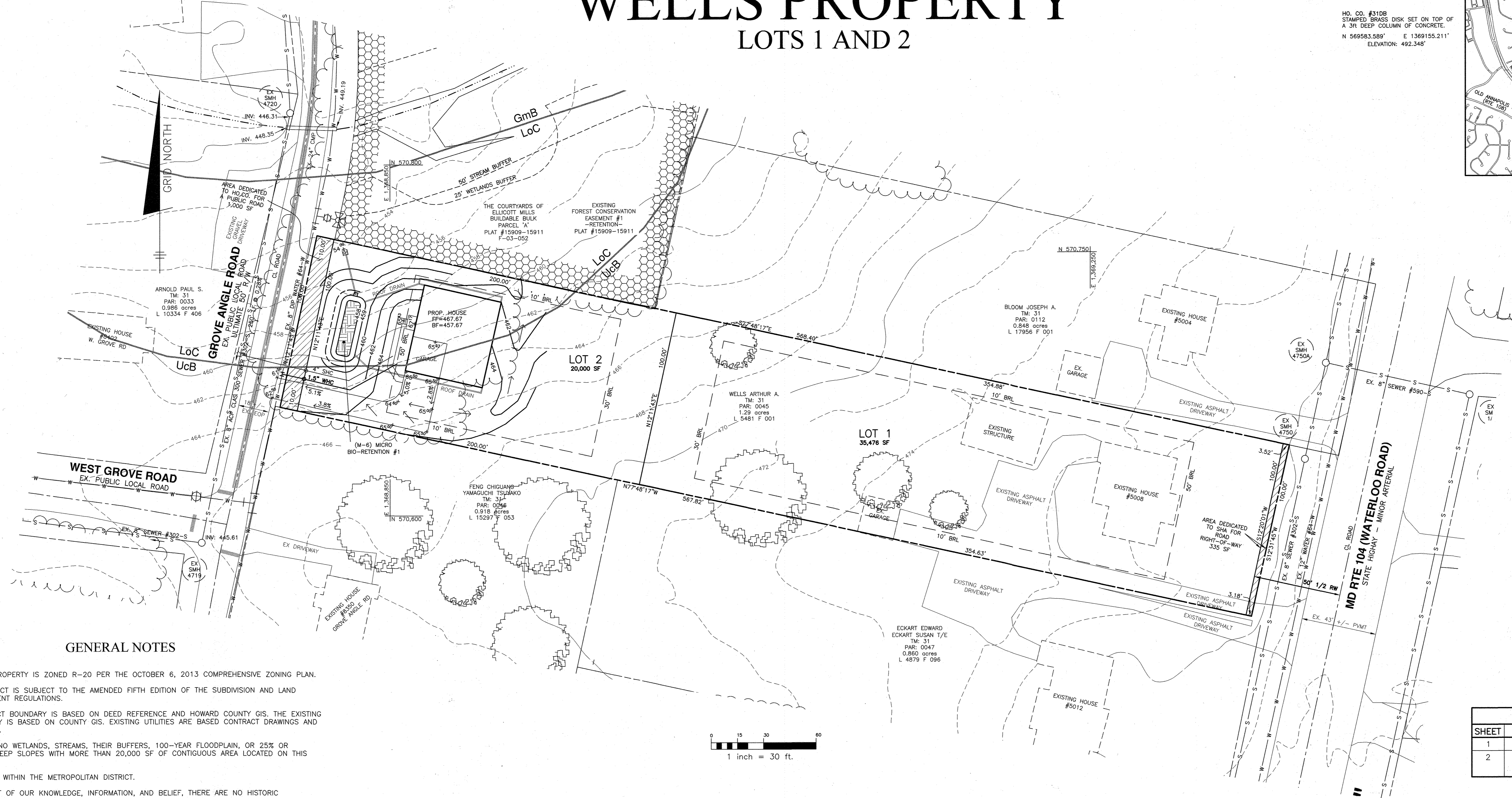


ENVIRONMENTAL CONCEPT PLAN WELLS PROPERTY LOTS 1 AND 2

BENCHMARK
HORIZONTAL: MARYLAND NAD83
VERTICAL: NAVD83
HO. CO. #3104 (AKA: 2843004)
STAMPED BRASS DISK SET ON TOP OF
A 3/4" DEEP COLUMN OF CONCRETE.
N 571700.664' E 1369606.417'
ELEVATION: 494.445'
HO. CO. #3108
STAMPED BRASS DISK SET ON TOP OF
A 3/4" DEEP COLUMN OF CONCRETE.
N 569583.589' E 1369155.211'
ELEVATION: 492.345'



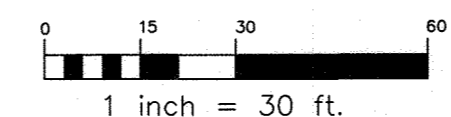
VICINITY MAP
SCALE: 1" = 2000'
ADC MAP: 4936
GRID: C3



GENERAL NOTES

- SUBJECT PROPERTY IS ZONED R-20 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THE PROJECT BOUNDARY IS BASED ON DEED REFERENCE AND HOWARD COUNTY GIS. THE EXISTING TOPOGRAPHY IS BASED ON COUNTY GIS. EXISTING UTILITIES ARE BASED CONTRACT DRAWINGS AND COUNTY GIS.
- THERE ARE NO WETLANDS, STREAMS, THEIR BUFFERS, 100-YEAR FLOODPLAIN, OR 25% OR GREATER STEEP SLOPES WITH MORE THAN 20,000 SF OF CONTIGUOUS AREA LOCATED ON THIS LOT.
- THIS SITE IS WITHIN THE METROPOLITAN DISTRICT.
- TO THE BEST OF OUR KNOWLEDGE, INFORMATION, AND BELIEF, THERE ARE NO HISTORIC STRUCTURES LOCATED ON THIS LOT.
- THIS LOT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200, THE FOREST CONSERVATION ACT OF HOWARD COUNTY, BASED ON SECTION 16.1202(b)(iv) SINCE IT IS A MINOR SUBDIVISION THAT CREATES ONE ADDITIONAL LOT AND HAS NO FURTHER SUBDIVISION POTENTIAL. THEREFORE, A FSD AND FCP ARE NOT REQUIRED.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT PLAN.
- REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION AND/OR SITE DEVELOPMENT PLAN STAGES. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.
- STORMWATER MANAGEMENT PRACTICES SHOWN ON THIS PLAN ASSUME ADEQUATE SOIL BORING TEST RESULTS. THE DESIGN MAY NEED TO BE ADJUSTED AT THE SITE DEVELOPMENT PLAN STAGE AFTER SOIL BORING TESTING HAS BEEN COMPLETED AND AN ALTERNATE PRACTICE MAY NEED TO BE UTILIZED.
- THE SEDIMENT AND EROSION CONTROL SHOWN IN THIS PLAN SET IS A SCHEMATIC PRELIMINARY DESIGN. A MORE DETAILED DESIGN COMPLETE WITH SEQUENCE OF CONSTRUCTION, NOTES, DETAILS AND COMPUTATIONS SHALL BE PROVIDED AT THE SITE DEVELOPMENT PLAN STAGE.
- PREVIOUS DPZ FILE NUMBERS: N/A

STORMWATER MANAGEMENT DESIGN NARRATIVE:
THERE ARE NO NATURAL RESOURCES OR OTHER ENVIRONMENTALLY SENSITIVE AREAS ON-SITE.
THE LAND SLOPES FROM THE EAST TO THE WEST. THIS EXISTING FLOW PATTERNS SHALL BE MAINTAINED. A SWALE SHALL BE CONSTRUCTED IN THE REAR OF THE PROPOSED HOUSE IN ORDER TO CARRY RUNOFF AROUND THE HOUSE AND DISCHARGE ON THE WESTERN EDGE. NO GRADING WILL OCCUR ON THE EASTERN PORTION OF THE PROPERTY.
IMPERVIOUS AREAS ARE BEING MINIMIZED AS BEST POSSIBLE. IT SHALL ONLY CONSIST OF THE ROOFTOP AND THE DRIVEWAY WHICH SHALL BE THE MINIMUM 12 FEET WIDE.
SEDIMENT AND EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. IT IS ANTICIPATED THAT THE LOT CAN BE TREATED VIA SUPER SILT FENCING. THERE ARE NO IMPACTS TO THE STORMWATER MANAGEMENT DESIGN BASED ON SEDIMENT AND EROSION CONTROL.
THE PROPOSED (M-6) MICRO BIO-RETENTION SHALL ADEQUATELY TREAT THE PROPOSED IMPERVIOUS SURFACES. THE PRACTICE DISCHARGES AT A LOCATION THAT IS NOT DETRIMENTAL TO THE ADJACENT PROPERTY.
AT THIS TIME, THERE ARE NO REQUESTS FOR NECESSARY DISTURBANCES, DESIGN MANUAL WAIVERS, OR ALTERNATIVE COMPLIANCE REQUESTS AND NONE ARE ANTICIPATED.



LEGEND OF SYMBOLS

- EXISTING CONTOURS
- EXISTING TREELINE
- NRCS SOILS DELINEATION LINE
- NRCS SOILS TYPE
- LIMIT OF SUBMISSION
- EXISTING SEWER
- EXISTING WHC
- PROPOSED ROOF DRAIN
- RIGHT-OF-WAY DEDICATION
- BUILDING RESTRICTION LINE
- MICRO-BIORETENTION

SHEET INDEX

| SHEET | TITLE |
|-------|--|
| 1 | ENVIRONMENTAL CONCEPT PLAN |
| 2 | STORMWATER MANAGEMENT DA MAP & SEDIMENT AND EROSION CONTROL PLAN |

| Site Analysis Data Chart | |
|------------------------------|-------------|
| Total Project Area | 1.30 ac |
| Proposed Site Use | RESIDENTIAL |
| 100yr Floodplain | 0.00 ac |
| Slopes 15% or greater | 0.00 ac |
| Slopes 25% or greater | 0.00 ac |
| Wetlands | 0.00 ac |
| Wetlands Buffer | 0.00 ac |
| Forested Area | 0.00 ac |
| Erodible Soils | 0.17 ac |
| Limit of Disturbance | 0.35 ac |
| Impervious Area (within LOD) | 0.09 ac |
| Green Space (within LOD) | 0.26 ac |
| Public Road Right-of-Way | 0.03 ac |
| Buildable Lots | 1.27 ac |
| Bulk Parcels | 0.00 ac |
| Open Space | 0.00 ac |
| Number of Units Proposed | 2 |

| STANDARD STORMWATER MANAGEMENT PRACTICE CHART | | |
|---|------------------|-----------------------------|
| LOT NUMBER | ADDRESS | MICRO-BIORETENTION (NUMBER) |
| 2 | Grove Angle Road | 1 |

| STORMWATER MANAGEMENT SUMMARY CHART - INDIVIDUAL PRACTICES | | | | | | | | | | | | | | | |
|--|---------|---------------|-------|------|-------------|---------------------|---------------------------|------------------------------|---------------------|-------------|-------------------|-------------------|-----------|-----------|---------|
| Practice | DA (sf) | Imp Area (sf) | % Imp | Rv | Pe Required | Total ESDv Required | 75% ESDv ponding Required | 25% ESDv (cf) below Required | Total ESDv Provided | Pe Provided | REV (cf) Required | REV (cf) Provided | Ownership | | |
| (M-6) Micro Bio-Retention #1 | 6,140 | 3,864 | 63% | 0.62 | 1.0 | 315 | 237 | 390 | 79 | 79 | 469 | 1.5 | 49 | 79 | Private |
| Totals | | | | | | 315 | cf | | 469 | cf | 49 | cf | 79 | cf | |

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 12-5-22
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 11/2/22

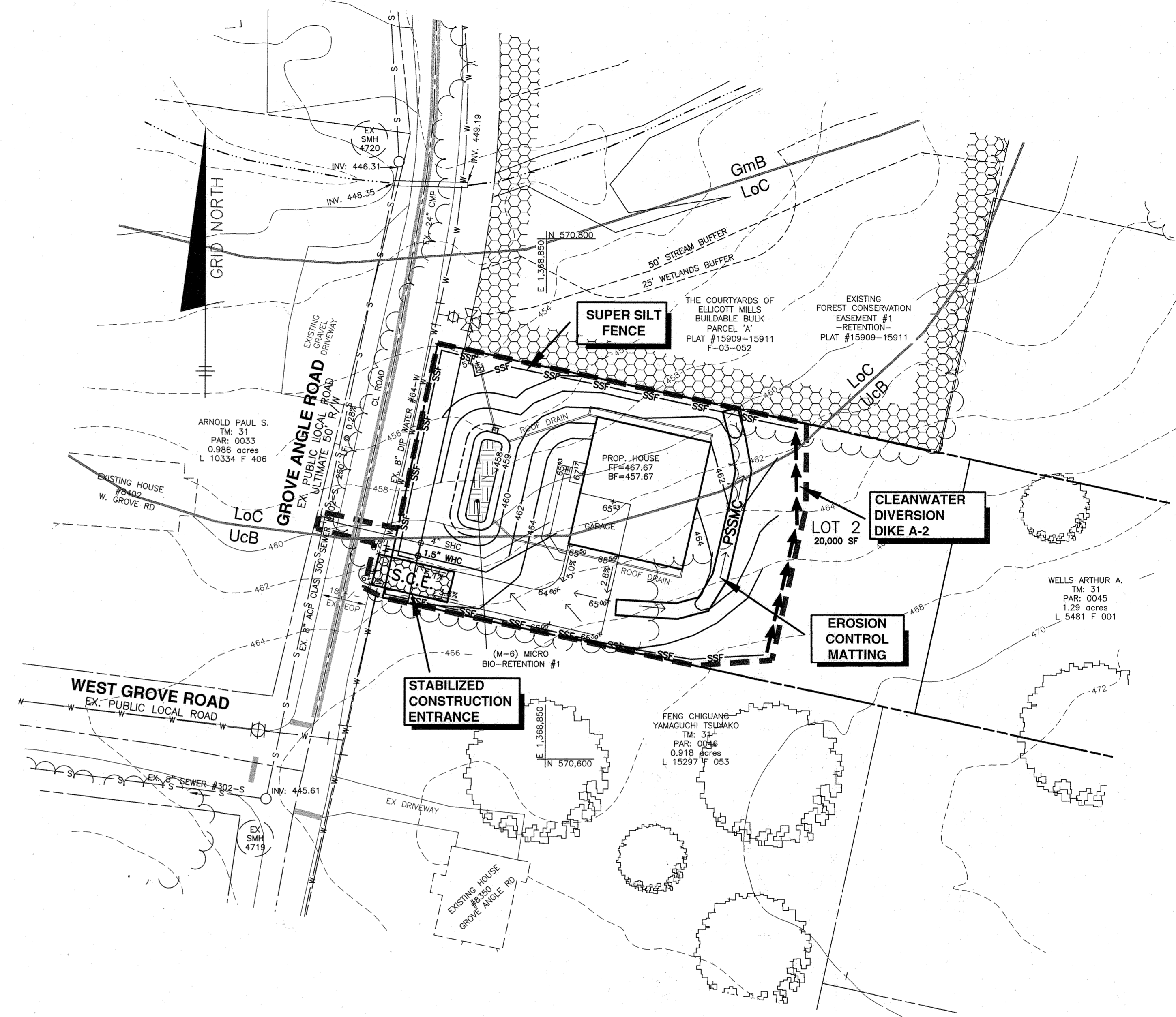
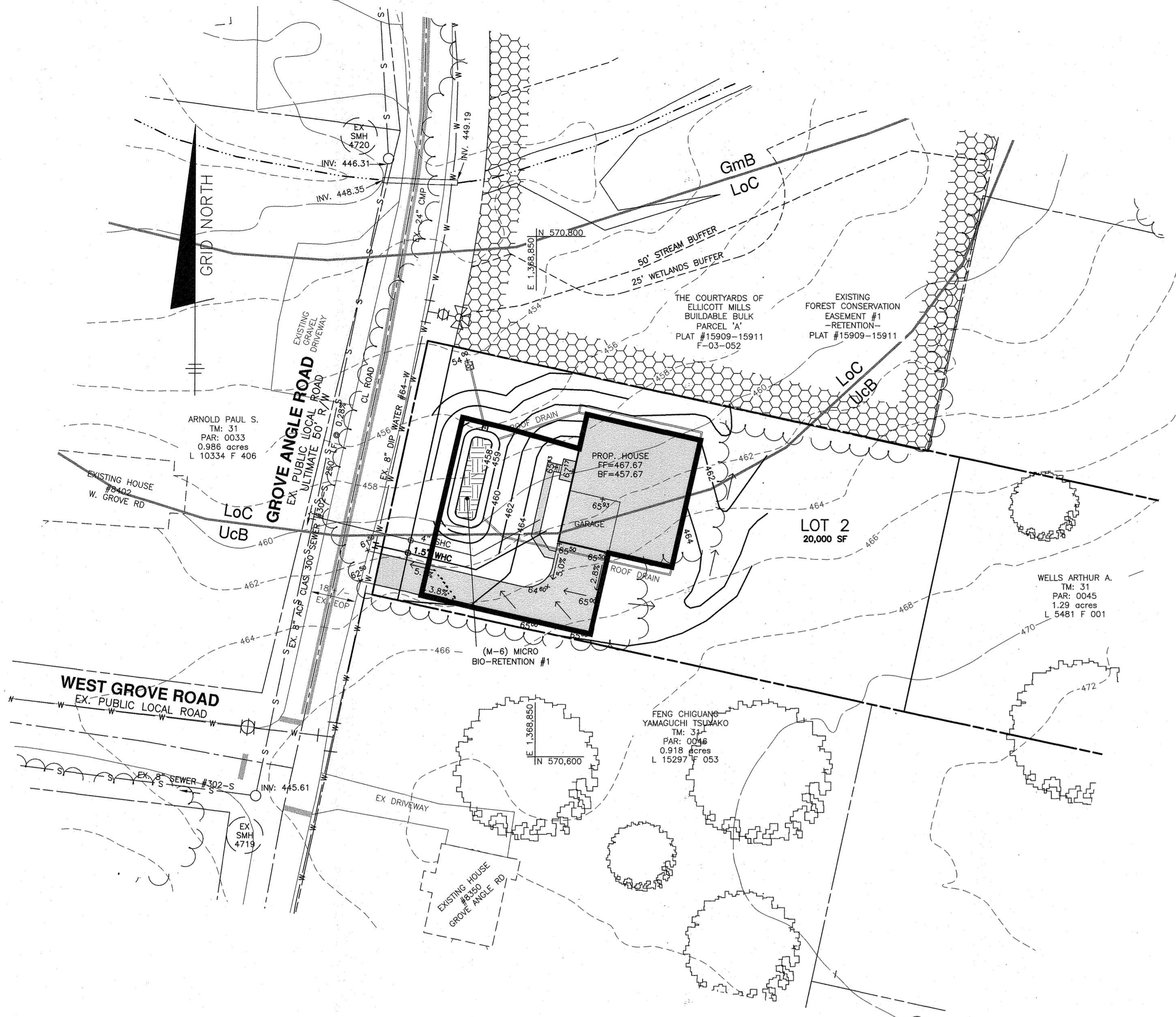
Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer, member of the State of Maryland, License No. 11717-22.

BENCHMARK ENGINEERING, INC.
 3300 N. RIDGE ROAD & SUITE 140 ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-8105 (F) 410-465-6644
 WWW.BE-CIVILENGINEERING.COM

WELLS PROPERTY
 LOTS 1 AND 2
 5008 WATERLOO ROAD
 TAX MAP: 31 GRID: 13 PARCEL: 45
 ZONED: R-20
 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

OWNER/DEVELOPER:
 ARTHUR WELLS
 5008 WATERLOO ROAD
 ELLICOTT CITY, MARYLAND 21042
 410-207-2188

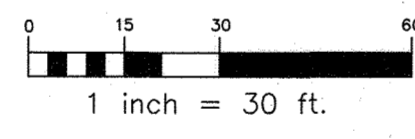
ENVIRONMENTAL CONCEPT PLAN
 DATE: NOVEMBER 17, 2022
 BEI PROJECT NO. 3133
 DESIGN: DBT DRAFT: DBT SCALE: AS SHOWN SHEET 1 OF 2



STORMWATER MANAGEMENT LEGEND

- DRAINAGE AREA
- PROPOSED IMPERVIOUS AREA

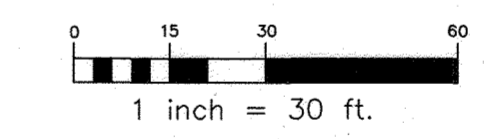
DRAINAGE AREA MAP



SEDIMENT CONTROL LEGEND

- LIMIT OF DISTURBANCE
- DIKE
- SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION
- SOILS LINE
- SOILS TYPE

SEDIMENT AND EROSION CONTROL PLAN



SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND

| SYMBOL | HYDRIC | HYDROLOGIC GROUP | NAME | K-VALUE | ERODIBLE |
|--------|--------|------------------|--|---------|----------|
| GmB | YES | C/D | GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES | 0.55 | YES |
| LoC | NO | C | LEGORE-MONTALDO-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES | 0.64 | YES |
| UCB | NO | C | URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 0 TO 5 PERCENT SLOPES | 0.64 | NO |

HSCD Newsletter dated April, 2013 defines erodible soils as those soils with a slope greater than 15 percent or those with a soil erodibility factor K greater than 0.35 and with a slope greater than 5%.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 12.5.22
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 11/20/22
 CHIEF, DIVISION OF LAND DEVELOPMENT

| | | | |
|---|------------|------------------------------------|----------------------|
| NO. | | DATE | REVISION |
| 3300 N. RIDGE ROAD & SUITE 140 • ELLICOTT CITY, MARYLAND 21045 (P) 410-455-6105 (F) 410-455-6664 WWW.BEI-CIVILENGINEERING.COM | | | |
| OWNER/DEVELOPER: | | WELLS PROPERTY | |
| ARTHUR WELLS 5008 WATERLOO ROAD ELLICOTT CITY, MARYLAND 21042 410-207-2188 | | LOTS 1 AND 2 5008 WATERLOO ROAD | |
| TAX MAP: 31 GRID: 13 PARCEL: 45 ZONE: R-20 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND | | | |
| STORMWATER MANAGEMENT DA MAP & SEDIMENT AND EROSION CONTROL PLAN | | | |
| DESIGN: DBT | DRAFT: DBT | DATE: NOVEMBER 17, 2022 | BEI PROJECT NO. 3133 |
| SCALE: AS SHOWN | | SHEET 2 OF 2 | |