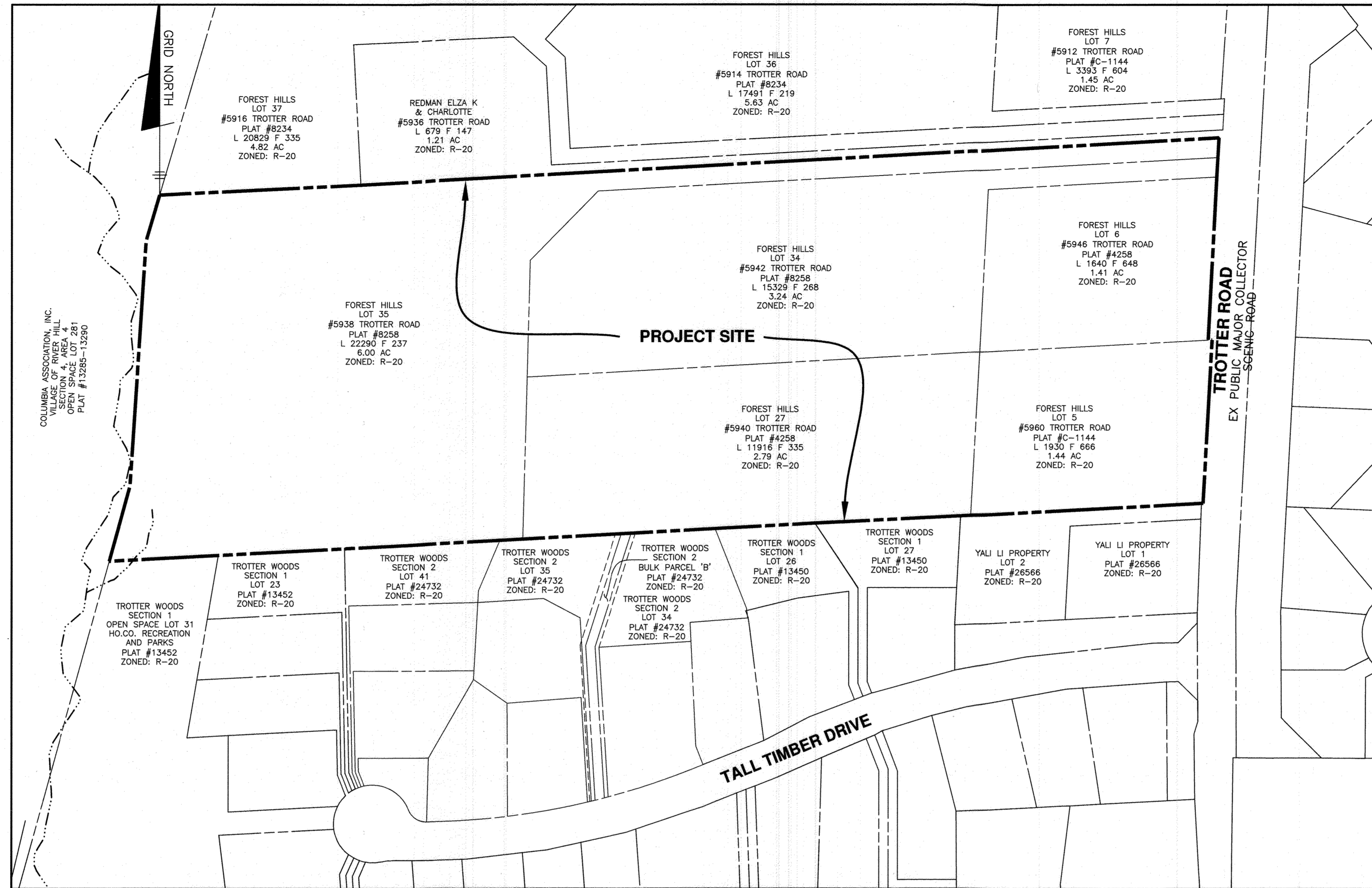


GENERAL NOTES

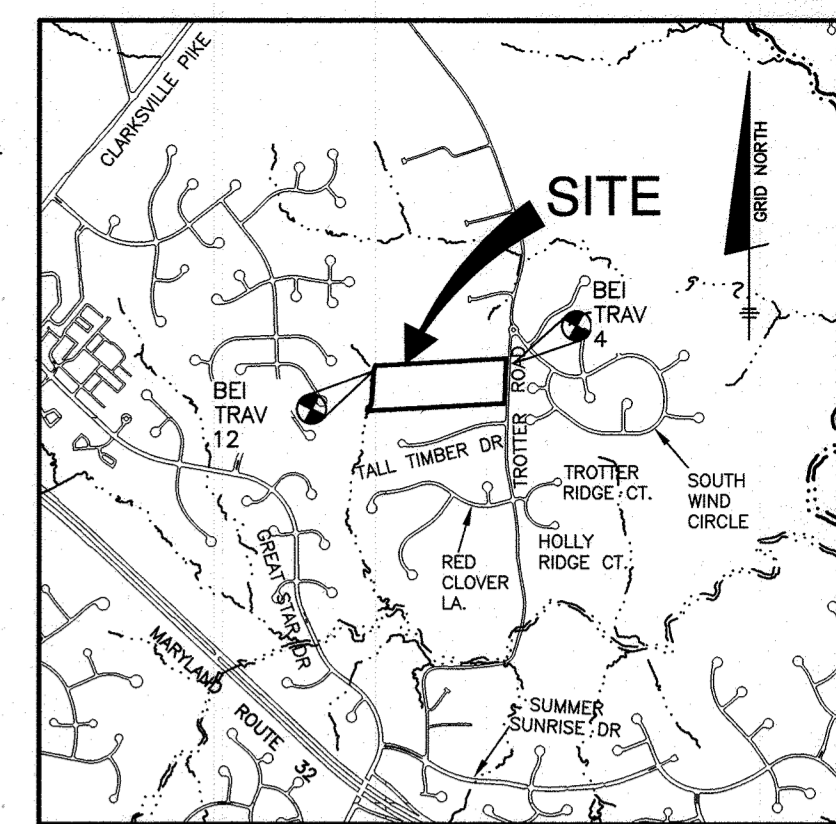
- 1. SUBJECT PROPERTY IS ZONED R-20 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. IT SHALL BE DEVELOPED UNDER R-ED REGULATIONS PER SECTION 108.0.G.3.
2. THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
3. THE PROJECT BOUNDARY IS BASED ON BOUNDARY SURVEY PREPARED BY BENCHMARK ENGINEERING, INC. IN JUNE, 2024.
4. THE EXISTING TOPOGRAPHY IS BASED ON HOWARD COUNTY GIS.
EXISTING UTILITIES ARE BASED HOWARD COUNTY GIS AND CONTRACT DRAWINGS.
5. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF STREAM OR STREAM BUFFER AND FOREST CONSERVATION EASEMENT RETENTION AREA. THERE ARE NO WETLANDS, WETLANDS BUFFER, 100-YEAR FLOODPLAIN, OR 25% OR GREATER STEEP SLOPES WITH MORE THAN 20,000 SF OF CONTIGUOUS AREA LOCATED ON THIS SITE.
6. EXISTING LOTS 5 AND 6 ARE LOCATED IN THE METROPOLITAN DISTRICT. EXISTING LOTS 27, 34, AND 35 ARE NOT LOCATED IN THE METROPOLITAN DISTRICT. A REQUEST TO BE INCLUDED SHALL BE SUBMITTED AT THE NEXT PLAN STAGE.
7. TO THE BEST OF OUR KNOWLEDGE, INFORMATION, AND BELIEF, AND PER THE HOWARD COUNTY INTERACTIVE MAP, THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES LOCATED ON THESE LOTS.
8. APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT PLAN.
9. 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.
10. STORMWATER MANAGEMENT PRACTICES SHOWN ASSUME ADEQUATE SOIL BORING TEST RESULTS. THE DESIGN MAY NEED TO BE ADJUSTED AT THE NEXT PLAN STAGE WITH ALTERNATE ESD PRACTICES AFTER SOIL BORING TESTING HAS BEEN COMPLETED.
11. THE SEDIMENT AND EROSION CONTROL SHOWN IN THIS PLAN SET IS A SCHEMATIC CONCEPTUAL DESIGN. A MORE DETAILED DESIGN COMPLETE WITH A SEQUENCE OF CONSTRUCTION, NOTES, DETAILS, AND COMPUTATIONS SHALL BE PROVIDED AT THE FINAL ROAD CONSTRUCTION PLAN STAGE OR SITE DEVELOPMENT PLAN STAGE.
12. FOREST STAND AND WETLAND DELINEATION PLAN AND REPORT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JULY 24, 2024.
13. PREVIOUS DPZ FILE NUMBERS: N/A
14. AT THE NEXT PLAN STAGE, AN ALTERNATIVE COMPLIANCE SHALL BE SUBMITTED FOR THE REMOVAL OF SPECIMEN TREES AND A DESIGN MANUAL WAIVER SHALL BE SUBMITTED FOR UNITS WHOSE CELLARS CANNOT BE SERVICED VIA GRAVITY FLOW.

ENVIRONMENTAL CONCEPT PLAN
RIVER HILL ESTATES



BENCHMARK ESTABLISHED BY GPS OBSERVATION
HORIZONTAL: MARYLAND NAD83
VERTICAL: NAVD88

BEI 4
REBAR AND CAP
N 561509.2375
E 1334104.5801
ELEV. 415.101
BEI 12
REBAR AND CAP
N 561499.9695
E 1333873.6057
ELEV. 406.5359



VICINITY MAP
SCALE: 1" = 2000'

LEGEND OF SYMBOLS

- LIMIT OF SUBMISSION
--- EXISTING CONTOURS
--- LIMIT OF FLOODPLAIN
--- SB --- SB --- STREAM BUFFER
--- CL --- CL --- CL STREAM
--- NRCS SOILS DELINEATION LINE
MaC NRCS SOILS TYPE
--- EXISTING TREELINE
--- EXISTING SPECIMEN TREE
--- EXISTING SPECIMEN TREE TO BE REMOVED
--- S --- S --- EXISTING SEWER
--- W --- W --- EXISTING WATER
--- PROPOSED STORM DRAIN
--- PROPOSED SEWER
--- PROPOSED WATER
--- PROPOSED FIRE HYDRANT
--- SWM DRAINAGE AREA LINE
--- OFF-SITE DRAINAGE AREA
--- DRY WELL
--- FOREST CONSERVATION EASEMENT RETENTION
--- FOREST CONSERVATION EASEMENT PLANTING

Design Narrative:

1. Natural Resource Protection:

The following natural resources exist within the project limits:

- Perennial stream bank (and associated floodplain)
Perennial stream bank buffer
Intermittent stream
Intermittent stream buffer
Ephemeral channel
53 specimen trees

The proposed design does not disturb any portion of the streams, their required buffers, or floodplain. Approximately 313 linear feet of the 393 linear foot long ephemeral channel shall not be disturbed. These areas shall be located within a forest conservation retention easement. This plan proposes to remove 31 specimen trees.

2. Maintenance of natural flow patterns:

As stated in the General Site Information section above, there are two distinct drainage patterns. These patterns shall be maintained in the post-developed condition. All of the micro bio-retention practices shall discharge towards the western edge of the site while the surface sand filter shall discharge to the northside. This maintains natural flows based on the existing topography.

Each M-6 practice shall have its own outfall with the exception MB #1 and MB #2 which need to be combined in order to get proper outfall elevation without running parallel pipes.

3. Reduction of impervious areas through site design:

The roadway pavement has been made the narrowest as allowed per Design Manual Volume III. The driveways have been made as narrow as possible while still accommodating a 2-car garage. The project provides open space lots that amount to 50% of the gross site area. There will be 2.1 acres of existing forest retained and 2.9 acres of forest conservation planting shall occur on-site which exceeds the 75% minimum required.

4. Integration of sediment controls into the stormwater strategy:

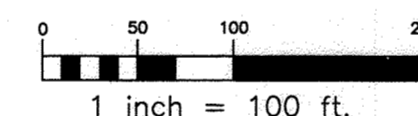
Sediment and erosion control shall be provided in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. The proposed surface sand filter shall act as a sediment trap during construction phase. Additionally, the micro-bioretenion practices at the end of the cul-de-ac shall also act as a sediment trap.

5. Implementation of ESD planning techniques and practices to the maximum extent practical (MEP)

The proposed ESD practices shall provide treatment for all proposed impervious surfaces and therefore the site shall be considered treated to the maximum extent practical (MEP).

6. Request for Design Manual Waiver and Alternative Compliance for environmental and stormwater design.

The need for design manual waivers is not anticipated. An alternative compliance will be required for the removal of specimen trees. This shall be submitted at the next plan stage.



Stormwater Management Summary Chart table with columns: MDE Designation, Practice Description, Quantity of Each Practice, ESDv (cf) Required based on individual DA, ESDv (cf) Provided, REV (cf) Required, REV (cf) Provided, Ownership.

Site Analysis Data Chart table with rows: Total Project Area (14.85 ac), Proposed Site Use (single family detached homes), Number of Units Proposed (31), 100yr Floodplain (0.00 ac), Steep Slopes 25% or greater (0.00 ac), Wetlands (0.00 ac), Wetlands Buffer (0.00 ac), Stream Channel (0.07 ac), Stream Buffer (1.06 ac), Forested Area (4.90 ac), Erodible Soils (3.49 ac), Limit of Disturbance (12.62 ac), Impervious Area (within LOD) (3.28 ac), Green Space (within LOD) (9.34 ac), Public Road Right-of-Way (1.34 ac), Buildable Lots (5.91 ac), Open Space (7.60 ac).

* Section 16.108.b.55: steep slope means a slope that averages 25 percent or greater over ten vertical feet.

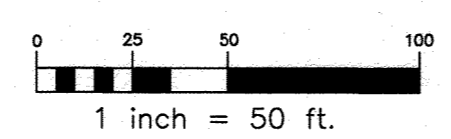
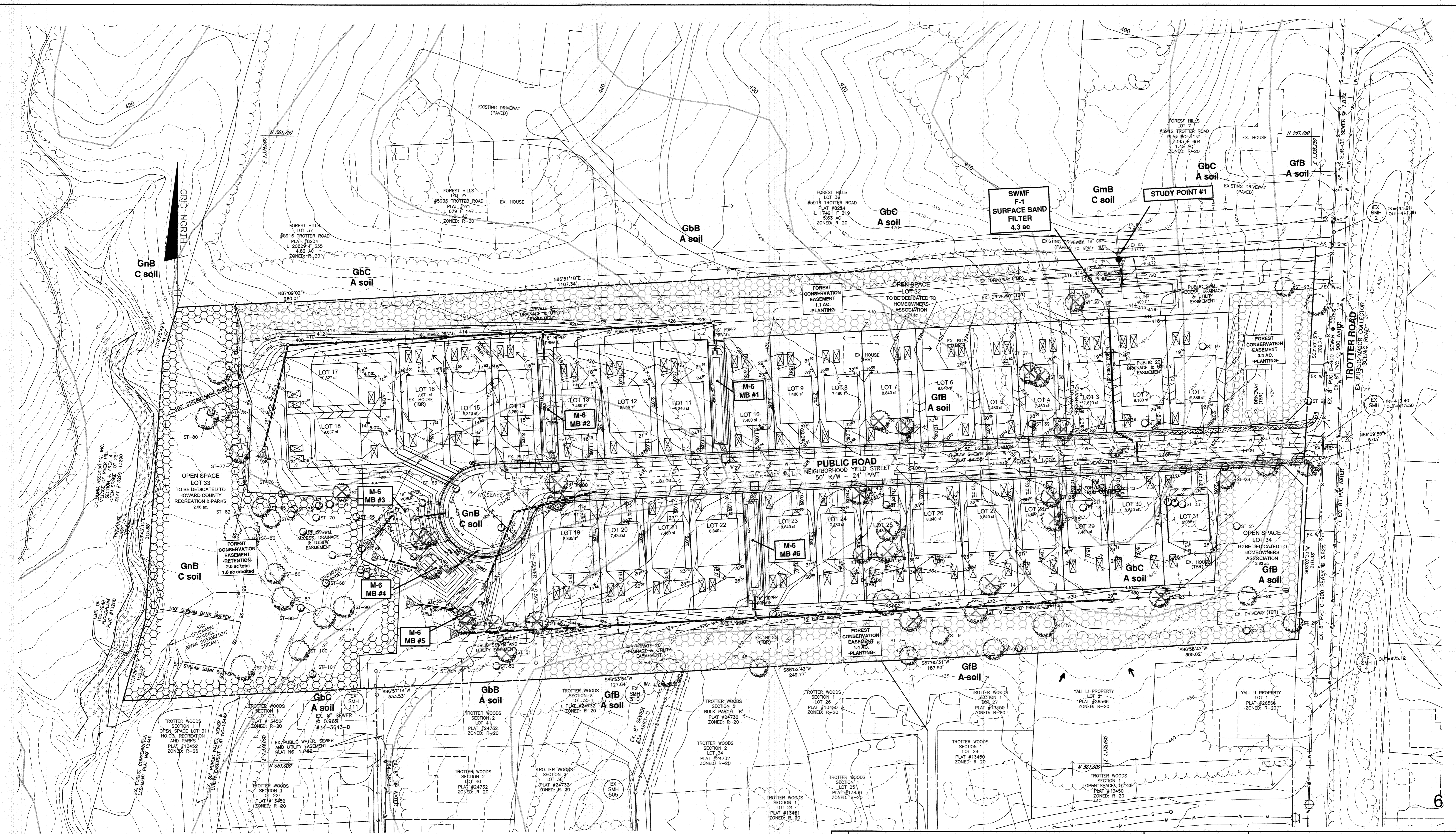
SHEET INDEX table with columns: SHEET, TITLE. Rows: 1 TITLE SHEET, 2 ENVIRONMENTAL CONCEPT PLAN, 3 DRAINAGE AREA MAP, 4 CONCEPTUAL SEDIMENT AND EROSION CONTROL PLAN.

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND table with columns: SYMBOL, HYDRIC, HYDROLOGIC GROUP, NAME, k-VALUE, ERODIBLE.

HSCD Newsletter dated April, 2013 defines erodible soils as those soils with a slope greater than 15 percent or those soils 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
Chief, Development Engineering Division
9/16/24
Chief, Division of Land Development
9/16/24

Project information including: BENCHMARK ENGINEERING, INC. logo, Professional Certification, OWNER (SARY CHARISSE), RIVER HILL ESTATES LOTS 1-31 AND OPEN SPACE LOTS 32-35, ENVIRONMENTAL CONCEPT PLAN, DATE: SEPTEMBER 7, 2024, SHEET 1 OF 4.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

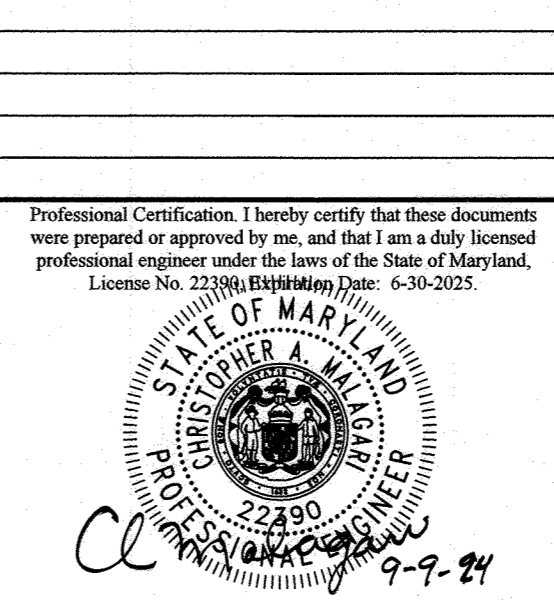
Chad Clark 9.16.24
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 9/12/24
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

NO. DATE REVISION

BENCHMARK
 ENGINEERS & LAND SURVEYORS & PLANNERS

ENGINEERING, INC.
 3300 N. RIDGE ROAD SUITE 140 A ELICOTT CITY, MARYLAND 21043
 (P) 410-485-6105 (F) 410-485-6844
 WWW.BE-CIVILENGINEERING.COM



OWNER:
 LOT 5:
 SHRY CHARISSE
 9960 TROTTER ROAD
 CLARKSVILLE, MARYLAND 21029

LOT 6:
 RISTWAY EDWARD A
 RISTWAY BARBARA A
 5946 TROTTER ROAD
 CLARKSVILLE, MARYLAND 21029

LOT 27:
 HWANG STEVEN SEKU
 HWANG SUN WHA
 6105 SYRACUSE COURT
 CLARKSVILLE, MARYLAND 21029

LOT 34 AND 35:
 5938 TROTTER LLC
 82 E LAKE DRIVE
 ANNAPOLIS, MARYLAND 21403

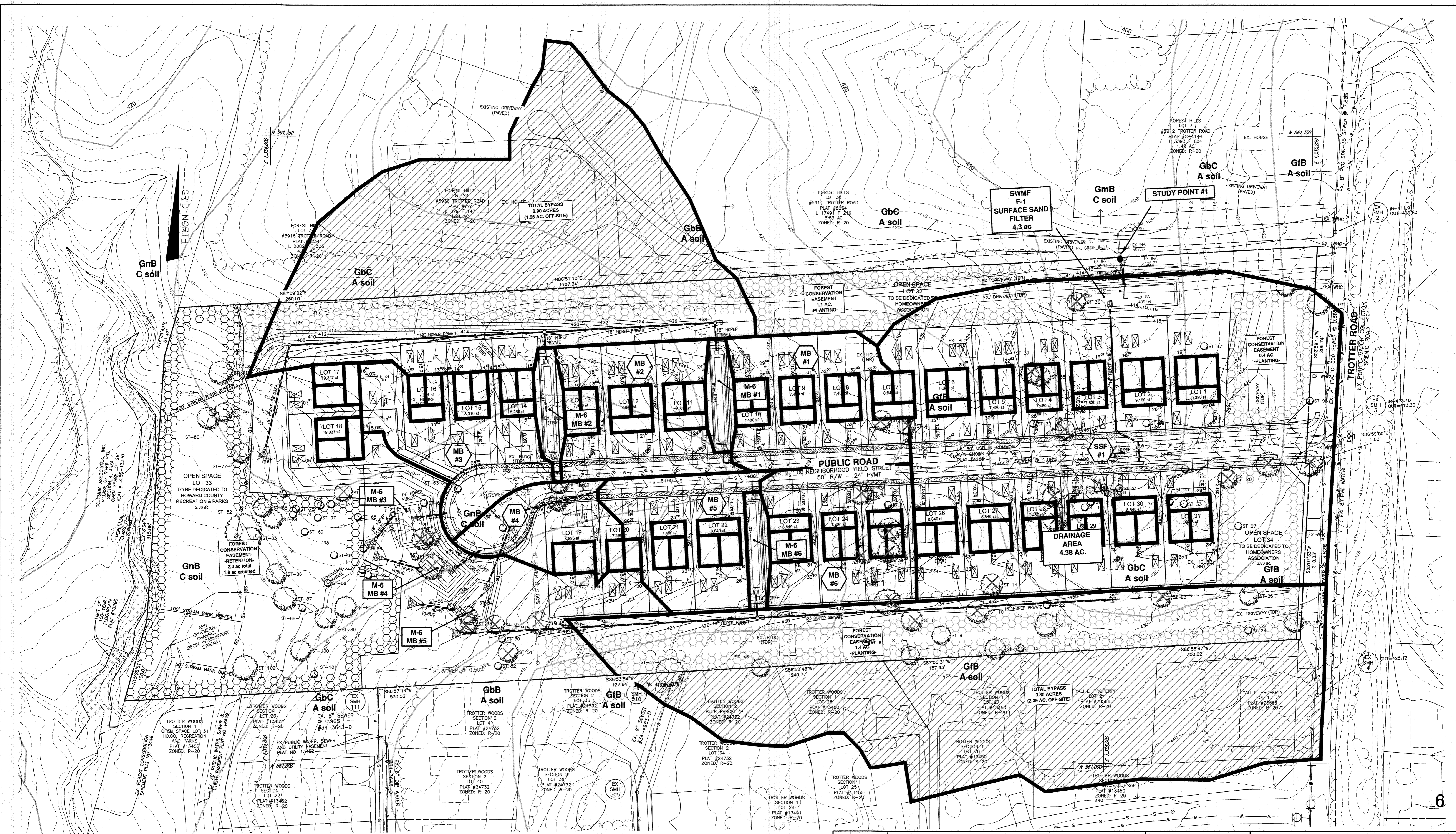
RIVER HILL ESTATES
 LOTS 1-31 AND OPEN SPACE LOTS 32-35

A Re-Subdivision of Lot 5 (previously recorded as Forest Hills Plat No. C-1144);
 Lots 6 and 27 (previously recorded as Forest Hills Plat No. 4258); Lots 34 and 35
 (previously recorded as Forest Hills Plat No. 8258)

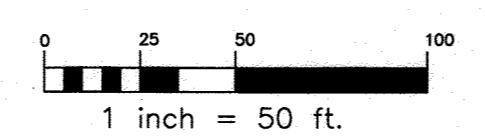
TAX MAP: 0035 GRID: 0008 PARCEL: 0373
 ZONED: R-20
 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

ENVIRONMENTAL CONCEPT PLAN

DATE: SEPTEMBER 7, 2024 BEI PROJECT NO. 3200
 SCALE: AS SHOWN SHEET 2 OF 4

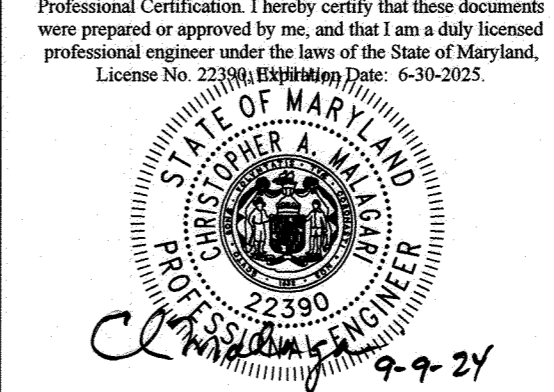


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 9.16.24
 DATE
 Chief, Division of Land Development
 9/16/24
 DATE



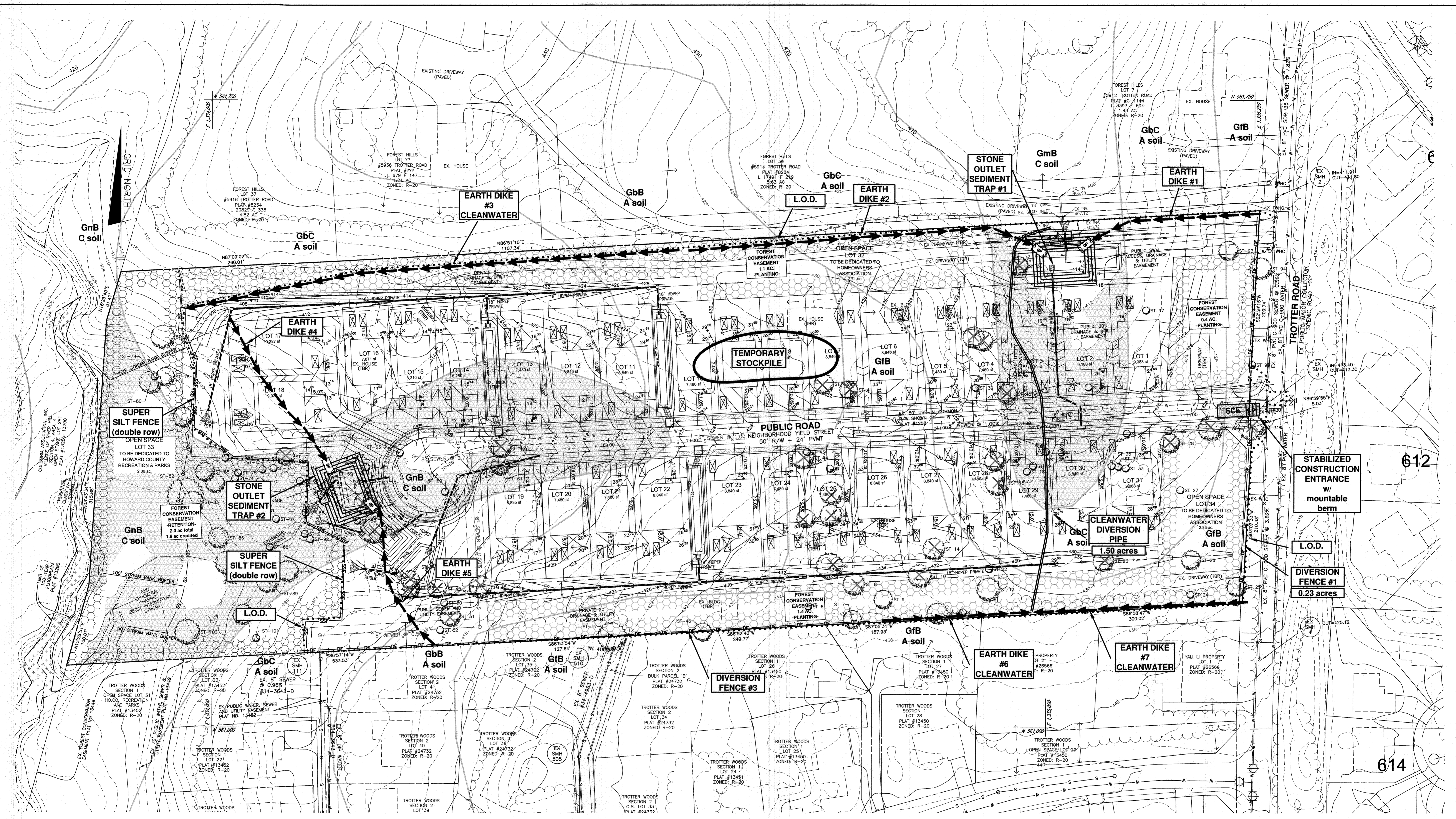
NO.	DATE	REVISION

BENCHMARK
 ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
 3300 N. RIDGE ROAD & SUITE 140 & ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-8105 (F) 410-465-8644
 WWW.BEG-CIVILENGINEERING.COM



OWNER:
 LOT 5:
 SARY CHARISSE
 5980 TROTTER ROAD
 CLARKSVILLE, MARYLAND 21029
 LOT 6:
 RISTWAY EDWARD A
 RISTWAY BARBARA A
 5946 TROTTER ROAD
 CLARKSVILLE, MARYLAND 21029
 LOT 27:
 HWANG STEVEN SEKU
 HWANG SUN WHA
 6165 SYRACUSE COURT
 CLARKSVILLE, MARYLAND 21029
 LOT 34 AND 35:
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RIVER HILL ESTATES
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 TAX MAP: 0035 GRID: 0008 PARCEL: 0373
 ZONED: R-20
 ELECTION DISTRICT NO.: HOWARD COUNTY, MARYLAND
ENVIRONMENTAL CONCEPT PLAN
DRAINAGE AREA MAP
 DATE: SEPTEMBER 7, 2024 BEI PROJECT NO. 3200
 SCALE: AS SHOWN SHEET 3 OF 4



SEDIMENT CONTROL LEGEND

- LIMIT OF DISTURBANCE
- SSF—SSF— SUPER SILT FENCE
- DF—DF— DIVERSION FENCE
- ←←←←← EARTH DIKE
- SCE** STABILIZED CONSTRUCTION ENTRANCE
- OP** GABION INFLOW PROTECTION
- ERODIBLE SOILS

NOTE: SOIL STABILIZATION MATTING SHALL BE PLACED WITHIN ALL SWALES. MATTING SHALL BE SHOWN ON FUTURE PLAN SUBMISSIONS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 9.16.24
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 9/12/24
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

1:3320 Forest Hills/I/ECP sed cont.dwg, 9/7/2024 10:23:49 AM

NO. DATE REVISION

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS
3300 N. RIDGE ROAD & SUITE 140 A ELICOTT CITY, MARYLAND 21043
(P) 410-485-6105 (F) 410-485-6844
WWW.BEI-CVLEENGINEERING.COM

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. 22390/ENR/ME/MD/06-030-2025.

OWNER:
LOT 5: SARY CHARISSE
5960 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029
LOT 6: RISTWAY EDWARD A
RISTWAY BARBARA A
5946 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029
LOT 27: HWANG STEVEN SEUKU
HWANG SUN WHA
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LOT 34 AND 35: 5936 TROTTER LLC
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TAX MAP: 0035 GRID: 0008 PARCEL: 0373
ELECTION DISTRICT NO. — HOWARD COUNTY, MARYLAND

ENVIRONMENTAL CONCEPT PLAN
SEDIMENT CONTROL

DATE: SEPTEMBER 7, 2024 BEI PROJECT NO. 3200
SCALE: AS SHOWN SHEET 4 OF 4

DESIGN: DBT CHECK: CAM

9.9.24