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 FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. IN SEPTEMBER, 2024.

   EXISTING UTILITIES ARE BASED FIELD SURVEY LOCATIONS, HOWARD COUNTY GIS, AND AS-BUILT CONTRACT DRAWINGS.
5. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING, AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, THEIR REQUIRED BUFFERS, 100-YEAR FLOODPLAIN, OR 25% OR GREATER STEEP SLOPES THAT HAVE MORE THAN 20,000 SF OF CONTIGUOUS AREA UNLESS AN ALTERNATIVE COMPLIANCE IS APPROVED BY DEPARTMENT OF PLANNING AND ZONING.
6. THERE IS NO 100-YR FLOODPLAIN OR STEEP SLOPES 25% OR GREATER WITH MORE THAN 20,000 SF OF CONTIGUOUS AREA LOCATED WITHIN THE LIMITS OF THIS SUBMISSION.
7. ALL EXISTING LOTS THAT ARE PART OF THIS SUBDIVISION ARE LOCATED WITHIN THE METROPOLITAN DISTRICT.
8. WATER AND SEWER SERVICE FOR THIS SUBDIVISION WILL BE PUBLIC WATER AND PUBLIC SEWER. THE CONTRACT NUMBER IS 34-5279-D. THE DRAINAGE AREA IS THE MIDDLE PATUXENT.
9. TO THE BEST OF OUR KNOWLEDGE, INFORMATION, AND BELIEF, AND PER THE INTERACTIVE HOWARD COUNTY ONLINE MAP THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.
10. THE REQUIRED PRE-SUBMISSION COMMUNITY INPUT MEETING WAS HELD ON OCTOBER 9, 2024 AT CLARET HALL.
11. THE FOREST STAND DELINEATION PLAN AND REPORT AND THE WETLANDS DELINEATION PLAN AND REPORT WERE PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., DATED SEPTEMBER 5, 2024 AND SUBMITTED WITH ECP-25-004. THEY SHALL BE APPROVED WITH THE APPROVAL OF SP-25-002.
12. THIS DEVELOPMENT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200, THE FOREST CONSERVATION ACT OF HOWARD COUNTY, BY THE ON-SITE RETENTION OF 2.2 ACRES OF CREDITED NET TRACT AREA FOREST AND THE ON-SITE PLANTING OF 2.8 ACRES OF FOREST. THE TOTAL OBLIGATION REQUIRED IS 4.8 ACRES. THE TOTAL PROVIDED IS 5.0 ACRES, OR 104%.

    FINANCIAL SURETY FOR THE PLANTING SHALL BE PAID AS PART OF THE DEVELOPERS AGREEMENT UNDER THE FUTURE ROAD CONSTRUCTION PLANS.
13. THE PRELIMINARY FOREST CONSERVATION PLAN WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., AND IS INCLUDED IN THIS PLAN SET.
14. A NOISE STUDY IS NOT REQUIRED AS THIS SITE IS NOT LOCATED WITHIN ANY OF THE LOCATION GUIDELINES LISTED IN SECTION 5.2.G.2 OF DESIGN MANUAL VOLUME III.
15. THE TRAFFIC IMPACT STUDY WAS PREPARED BY THE TRAFFIC GROUP, INC. IT WAS APPROVED ON APRIL 30, 2025.

    SUMMARY OF FINDINGS FOR APFO TRAFFIC ANALYSIS:
    A.DATE OF REPORT: MARCH 17, 2025
    B.DATE OF COUNT(S): MARCH 13, 2025
    C.REPORT SUBMITTED AS PART OF PLAN NUMBER: SP-25-002
    D.PROVIDE STATEMENT THAT SCHOOLS WERE IN SESSION ON THAT DATE(S): HOWARD COUNTY PUBLIC SCHOOLS WERE IN SESSION ON DAY OF COUNTS
    E.LIST INTERSECTIONS STUDIED, IDENTIFY INTERSECTION AS STATE OR COUNTY JURISDICTION, AND LABEL LOS FOR THE HORIZON YEAR OF EACH INTERSECTION:
    MD108/SHEPPARD LANE: STATE MAINTAINED – LOS 'A' UNDER 2028 PROJECTED TRAFFIC VOLUMES
    GREAT STAR/MD 32: LOS 'A' UNDER 2028 PROJECTED TRAFFIC VOLUMES.

    F.PROVIDE STATEMENT AS TO WHETHER MITIGATION IS REQUIRED AND EXPLAIN THE METHOD OF MITIGATION/IN LIEU FEE: MITIGATION IS NOT REQUIRED
16. THE SPEED STUDY FOR TROTTER ROAD WAS PREPARED BY MARS GROUP IN MAY, 2024.
17. THE GEOTECHNICAL REPORT FOR THE STORMWATER MANAGEMENT PRACTICES WAS PREPARED BY GEOLABS, INC. DATED NOVEMBER 4, 2024.AND UPDATED IN MARCH, 2025.
18. STORMWATER MANAGEMENT HAS BEEN PROVIDED VIA ENVIRONMENTAL SITE DESIGN TO THE MAXIMUM EXTENT PRACTICAL (ESD TO THE MEP) AND COMPLIES WITH THE "MARYLAND DEPARTMENT OF THE ENVIRONMENT STORMWATER MANAGEMENT ACT OF 2007" AND THE "HOWARD COUNTY DESIGN MANUAL VOLUME I, CHAPTER 5". THE REPORT WAS PREPARED BY BENCHMARK ENGINEERING, INC. DATED JUNE 11, 2025.

    STORMWATER MANAGEMENT IS TO BE PROVIDED BY 3 (M-6) MICRO-BIORETENTION PRACTICES. 89 (M-5) DRY WELLS, 1 (F-1) SURFACE SAND FILTER, AND 1 (F-6) BIORETENTION FACILITY. THE (F-1) SURFACE SAND FILTER HAS BEEN SELECTED IN ORDER TO CONTROL POST DEVELOPMENT RUNOFF TO BE EQUAL TO OR LESS THAN THE EXISTING CONDITION DUE TO DISCHARGE ONTO ADJACENT RESIDENTIAL PROPERTIES.

    THE (M-5) PRACTICES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE OWNER OF THE LOT ON WHICH THEY RESIDE. THE (M-6) PRACTICES SHALL BE PRIVATELY OWNED AND PRIVATELY MAINTAINED BY THE HOMEOWNERS ASSOCIATION. THE (F-1) FACILITY SHALL BE PRIVATELY OWNED AND PRIVATELY MAINTAINED BY THE HOMEOWNERS ASSOCIATION THE (F-6) PRACTICE SHALL BE PRIVATELY OWNED AND JOINTLY MAINTAINED
19. THE DEVELOPMENT IS SUBJECT TO SECTION 13.402(c)(e) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS FOR MODERATE INCOME HOUSING UNITS. THE REQUIREMENT IS 10% OF THE DWELLING UNITS. THE TOTAL MIHU REQUIRED UNDER THIS PLAN AMOUNTS TO FOUR (4) DWELLING UNITS. THIS OBLIGATION SHALL BE ACCOMPLISHED VIA FEE-IN-LIEU PAYMENT THAT IS TO BE CALCULATED AND PAID AT THE TIME OF BUILDING PERMIT ISSUANCE FOR EACH LOT WITHIN THE SUBDIVISION (LOTS 1-31).
20. APPLICABLE DPZ FILE REFERENCES: ECP-24-004, WP-25-068
21. WP-25-068, AN ALTERNATIVE COMPLIANCE TO SECTION 16.1205(a)(3) TO ALLOW FOR THE REMOVAL OF SPECIMEN TREES 30" IN DIAMETER OR GREATER HAS BEEN SUBMITTED. APPROVAL IS PENDING.
22. THE TWO (2) BONUS UNITS FOR THIS DEVELOPMENT SHALL COME FROM PARCEL 2 OF TAX MAP 32 COMMONLY KNOWN AS 6555 BELMONT WOODS ROAD, ELKRIDGE, HOWARD COUNTY, MARYLAND. DENSITY SENDING HAS ALREADY BEEN ESTABLISHED BY HOWARD COUNTY AND RECEIVING PLATS SHALL BE PROVIDED AT THE FINAL ROAD CONSTRUCTION PLAN STAGE.
23. THE PROJECT IS IN CONFORMANCE WITH WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
24. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 35BB AND 35DA WERE USED FOR THIS PROJECT.
25. THE EXISTING LOTS ARE CURRENTLY SERVED BY PRIVATE WELL AND PRIVATE SEPTIC. ALL PRIVATE WELLS AND SEPTIC ARE TO BE PROPERLY ABANDONED.
26. A DESIGN MANUAL WAIVER TO ALLOW FOR A FEE-IN-LIEU PAYMENT IN THE AMOUNT OF $42,794.00 FOR FRONTAGE IMPROVEMENTS ALONG TROTTER ROAD WAS APPROVED ON APRIL 14, 2025. THE FEE-IN-LIEU SHALL BE PAID AS PART OF THE DEVELOPERS AGREEMENT UNDER THE FINAL ROAD CONSTRUCTION PLANS. IT SHALL BE CREDITED TO CAPITAL PROJECT NUMBER J-4220.
28. THIS PROPERTY IS LOCATED ALONG A SCENIC ROAD (TROTTER ROAD) AND IS SUBJECT TO PLANNING BOARD APPROVAL PER SECTION 16.125(c) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
29. PER SECTION 108.0.G.3.b, THIS DEVELOPMENT IS SUBJECT TO PLANNING BOARD APPROVAL SINCE IT IS BEING DEVELOPED UNDER R-ED REGULATIONS.
30. IF ANY PRIVATE WELLS OR SEPTIC SYSTEMS ARE ENCOUNTERED DURING EXCAVATION OR DEVELOPMENT OF THE SUBJECT PROPERTY, CONSTRUCTION MUST BE HALTED INSTANTLY AND THE HEALTH DEPARTMENT SHALL BE CONTACTED IMMEDIATELY.

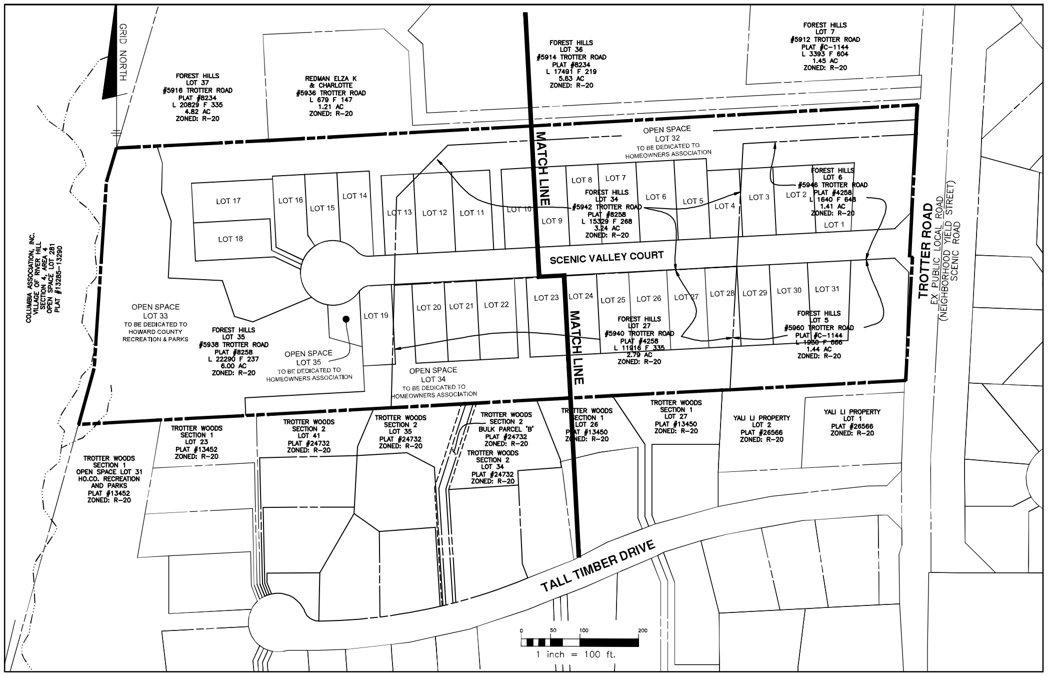
TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
RIVER HILL ESTATES

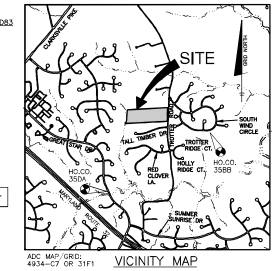


BENCHMARKS
HORIZONTAL: MARYLAND NAD83
VERTICAL: NAVD88

HO.CO.MON. 35BB
N 560790.404
E 1336537.287
ELEV. 394.271

HO.CO.MON. 35DA
N 558918.620
E 1333137.370
ELEV. 350.813

SEE SHEET 2 FOR LEGEND OF SYMBOLS.



ADC MAP/GRID:
4934-C7 OR 31F1

VICINITY MAP
SCALE: 1" = 2000'

SHEET INDEX	
SHEET	TITLE
1	TITLE SHEET
2-3	SUBDIVISION LAYOUT PLAN
4-5	GRADING PLAN
6	ROAD PROFILE AND DETAILS
7-8	LANDSCAPE PLAN
9	STORMWATER MANAGEMENT DRAINAGE AREA MAP
10	STORM DRAIN DRAINAGE AREA MAP
11-12	CONCEPTUAL SEDIMENT AND EROSION CONTROL PLAN
13-16	FOREST CONSERVATION PLAN
17	EXISTING CONDITIONS PLAN

BOUNDARY COORDINATES

POINT #	NORTHING	EASTING
101	561618.3230	1335255.7432
102	561568.1100	1335253.0332
103	561358.5774	1335242.0973
104	561358.8408	1335247.1204
105	561148.8261	1335235.6515
106	561133.0184	1334936.0444
107	561132.3887	1334923.0833
108	561122.8546	1334735.3954
109	561109.2541	1334485.9927
110	561102.3481	1334358.5412
111	561073.9975	1333825.7603
112	561170.4339	1333852.4697
113	561485.6466	1333872.9978
114	561544.6019	1333890.3832
115	561557.5280	1334150.0766

Site Analysis Data Chart

Zoned: R-20 (to be developed under R-ED regluations)
Section 108.0.G.3

Existing Lot 5	1.44	
Existing Lot 6	1.41	
Existing Lot 27	2.78	
Existing Lot 34	3.23	
Existing Lot 35	5.99	
Gross Area	14.85 acres	
100-yr Floodplain	0.00 acres	
Steep Slopes 25% or greater (outside floodplain)	0.00 acres	a
Net Area	14.85 acres	
Number of Units allowed (2 per net acre)	29	
Number of Units Proposed	31	b
Area of Buildable Lots	5.67 acres	
Area of Public Right-of-way	1.33 acres	
Area of Open Space Required	7.43 acres	c
Area of Open Space Provided	7.85 acres	
Non-Credited	0.19 acres	
Credited	7.66 acres	
Recreational OS Required	9,300 sf	
Recreational OS Provided	9,425 sf	

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

[b] Section 108.0.G.2. Bonus density up to 10% (29 units X 10% = 2 units)
29 matter of right units + 2 bonus units = 31 total units

[c] Open Space Required based on 50% of gross area.

Stormwater Management Summary Chart

MDE Designation	Practice Description	Quantity of Each Practice	Storage (cf) Required based on individual DA	Storage (cf) Provided	REv (cf) Required	REv (cf) Provided	Ownership	Maintenance
F-1	Surface Sand Filter	1	3,327	16,001	1,855	1,855	Private	Private
F-6	Bioretention	1	3,901	4,211	2,034	975	Private	Private
M-6	Micro Bio-Retention	3	2,733	4,568		683	Private	Private
M-5	Dry Well	89	15,028	31,569		31,569	Private	Private
		Total	24,989	56,349	3,888	35,082		

Stormwater Management Quantity Summary Table
Study Point #1

	Pre-Developed		Post-Developed	
2-year	0.2	cfs	0.1	cfs
10-year	3.7	cfs	0.8	cfs
100-year*	18.7	cfs	17.0	cfs

*Only required to safely pass the 100-year storm. However, in this case, management of the 100-year was also achieved.

SEE SHEET 10 FOR ADDITIONAL SUMMARY TABLE OF INDIVIDUAL PRACTICES.

STREET LIGHT CHART

ROAD	STATION	OFFSET	TYPE
Scenic Valley Court	0+25	18' RIGHT	LED-100
Scenic Valley Court	1+40	15' LEFT	LED-100
Scenic Valley Court	2+50	15' RIGHT	LED-100
Scenic Valley Court	3+82	15' LEFT	LED-100
Scenic Valley Court	5+50	15' RIGHT	LED-100
Scenic Valley Court	7+15	15' RIGHT	LED-100
Scenic Valley Court	8+69	15' RIGHT	LED-100
cul-de-sac	LP 0+33	3' LEFT	LED-100
cul-de-sac	LP 1+38	3' LEFT	LED-100

● LED-100
POLE: 14'
TYPE: BLACK FIBERGLASS
FIXTURE: POST TOP PREMIERE
LAMP TYPE: LED-100

Recreational Open Space Chart

Property Zone	Subdivision Section	Requirement	Units	Req. (sf)	Prov.(sf) [1]
R-ED	16.121.a.4.vi	300 sf per unit	31	9,300	9,425

[1] Provided area based on:

land area	3,425 sf
3 playground equipment	6,000 sf
0 picnic table w/benches	0 sf
Total	9,425 sf

SIGN CHART

ROAD	STATION	OFFSET	SIGN TYPE
Scenic Valley Court	0+15	RIGHT	STREET NAME/NO OUTLET
Scenic Valley Court	0+40	LEFT	STOP (R1-1)
Scenic Valley Court	1+00	RIGHT	NO PARKING
Scenic Valley Court	1+25	RIGHT	SPEED LIMIT 25MPH (R2-1)
Scenic Valley Court	1+45	LEFT	NO PARKING
Scenic Valley Court	1+90	RIGHT	NO PARKING
Scenic Valley Court	2+80	RIGHT	NO PARKING
Scenic Valley Court	3+90	RIGHT	NO PARKING
Scenic Valley Court	4+90	RIGHT	NO PARKING
Scenic Valley Court	6+10	RIGHT	NO PARKING
Scenic Valley Court	7+05	LEFT	SPEED LIMIT 25MPH (R2-1)
Scenic Valley Court	7+40	RIGHT	NO PARKING
Scenic Valley Court	8+50	RIGHT	NO PARKING
Scenic Valley Court	LP 9+45	RIGHT	NO PARKING
cul-de-sac	LP 1+53	LEFT	RANGE OF ADDRESS

Minimum Lot Size Chart

Lot	Zoned	Total Lot Area (sf)	Flagstem Area (sf)	Min Lot Area (sf)
17	R-20	10,184	840	9,344
18	R-20	8,925	448	8,477

Lots are being developed under R-ED regulations. See General Note 1.
R-ED minimum lot size is 6,000 sf

MODERATE INCOME HOUSING UNIT (MIHU) APPLICATION EXEMPTIONS TRACKING

Total Number of Lots/Units Proposed	31
Total Number of MIHU's Required	4
Number of MIHU's Provided Onsite (Exempt from APFO allocations)	0
Number of APFO Allocations Required (Remaining Lots/Units)	26
MIHU Fee-in-Lieu (Indicate Lot/Unit numbers)	Lots 1-31

Note: 5 existing allocations already established based on the 5 existing lots that make up this development.

NO.	DATE	REVISION

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
3300 N. RIDGE ROAD▲SUITE 140▲ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.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, Expiration Date: 6-30-2025.

STATE OF MARYLAND
CHRISTOPHER A. MALAGARI
22390
PROFESSIONAL ENGINEER

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 SEKU
HWANG SUN WHA
6105 SYRACUSE COURT
CLARKSVILLE, MARYLAND 21029

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

PHONE: 410-792-2565

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

PRELIMINARY EQUIVALENT SKETCH PLAN
TITLE SHEET

DATE: JUNE 11, 2025		BEI PROJECT NO. 3200	
DESIGN: DBT	CHECK: CAM	SCALE: AS SHOWN	SHEET 1 OF 17

SP-25-002

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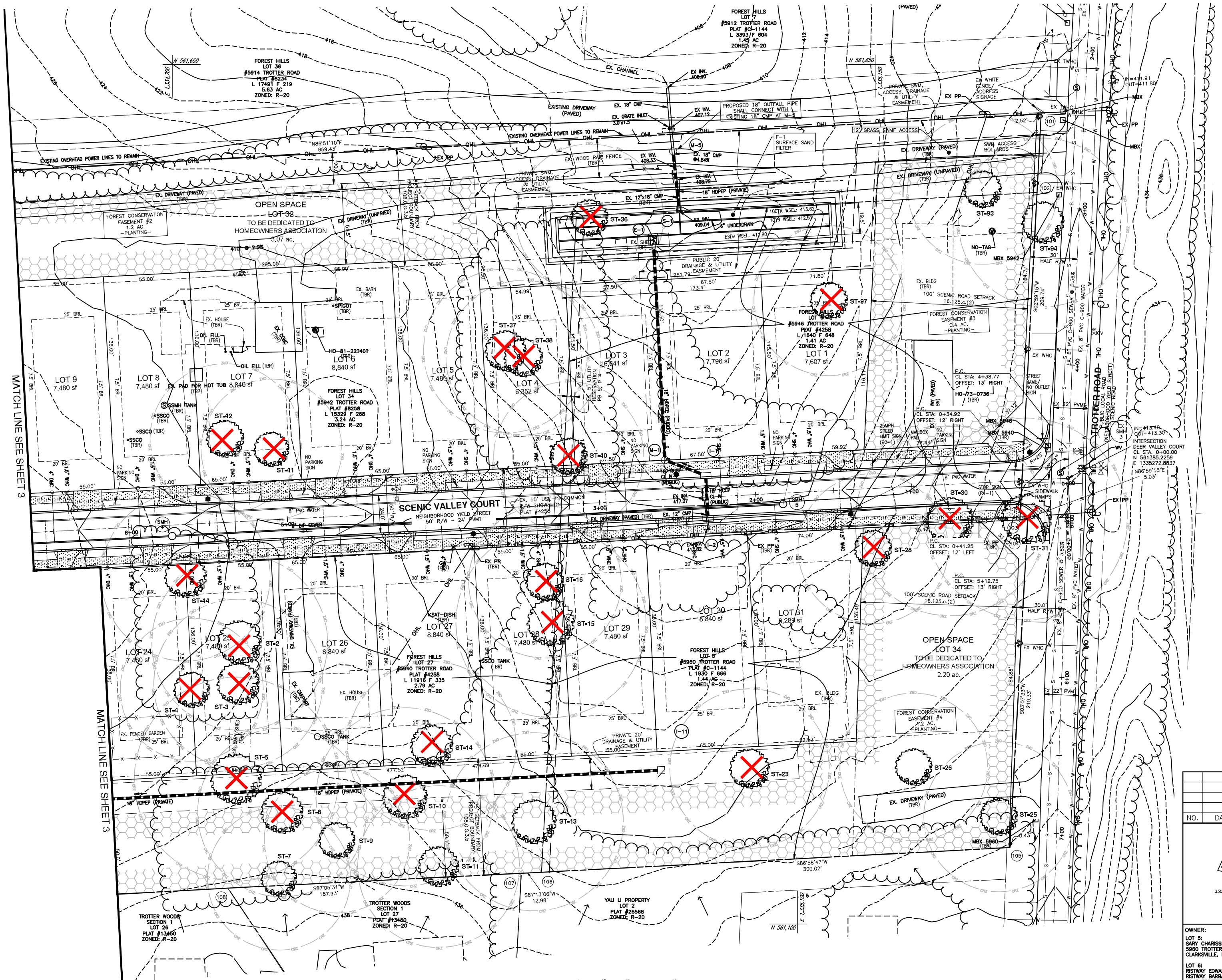

LEGEND OF SYMBOLS

- LIMIT OF SUBMISSION
- EXISTING CONTOURS
- EXISTING FLOODPLAIN
- EXISTING OVERHEAD LINES
- EXISTING UTILITY POLE
- EXISTING FENCE
- STREAM BUFFER
- CL STREAM
- EXISTING SEWER
- EXISTING WATER
- NRCS SOILS DELINEATION LINE
- GfB A soil — NRCS SOILS TYPE
- EXISTING TREELINE
- EXISTING SPECIMEN TREE
- EXISTING SPECIMEN TREE TO BE REMOVED
- CRITICAL ROOT ZONE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED FIRE HYDRANT
- PROPOSED SEWER HOUSE CONNECT
- PROPOSED WATER HOUSE CONNECTI
- PROPOSED STORM DRAIN
- DRY WELL (STANDARD)
- DRY WELL (R-TANK DESIGN)
- FOREST CONSERVATION EASEMENT RETENTION
- FOREST CONSERVATION EASEMENT PLANTING
- NON-CREDITED OPEN SPACE
- B-XX — SOIL BORING
- PROPOSED 5' CONCRETE SIDEWALK
- PROPOSED CONCRETE DRIVEWAY APRON
- STREET LIGHT

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
3300 N. RIDGE ROAD ▲ SUITE 140 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.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, Expiration Date: 6-30-2025.

STATE OF MARYLAND — CHRISTOPHER A. MALAGARI — 22390 — PROFESSIONAL ENGINEER

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 SEKU
HWANG SUN WHA
6105 SYRACUSE COURT
CLARKSVILLE, MARYLAND 21029

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

PHONE: 410-792-2565

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

SUBDIVISION LAYOUT PLAN

DESIGN: DBT	CHECK: CAM	DATE: JUNE 11, 2025	BEI PROJECT NO. 3200
		SCALE: AS SHOWN	SHEET 2 OF 17

SP-25-002

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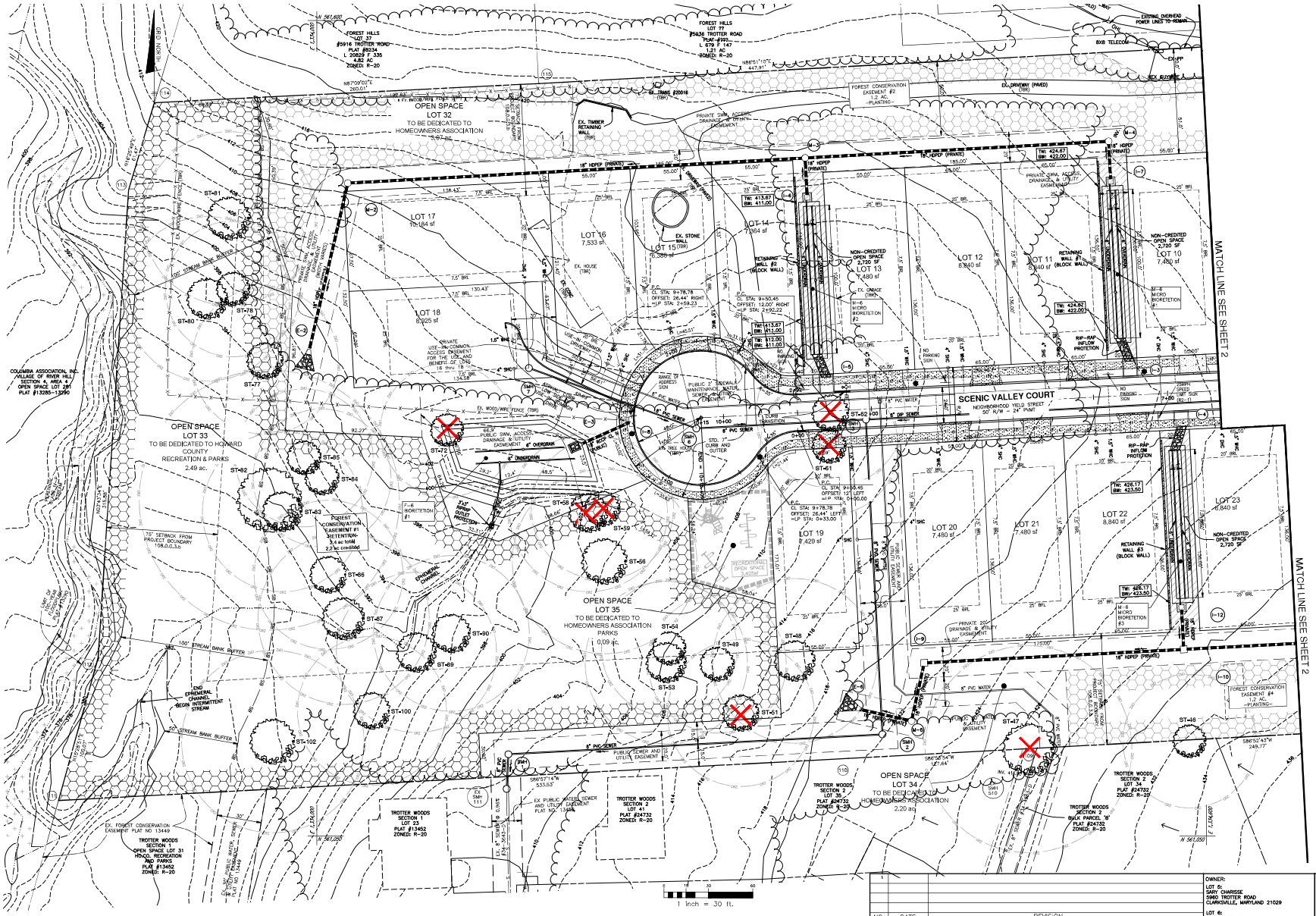

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

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WWW.BEI-CIVILENGINEERING.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. 32390, Expiration Date: 9-14-2025.

STATE OF MARYLAND
CHRISTOPHER A. CAMPBELL
32390
PROFESSIONAL ENGINEER

OWNER:
LOT 6:
GARY CHARISSE
5960 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

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

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PHONE: 410-792-2565

DESIGN: DBT | CHECK: CAM

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ZONED: R-20
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SUBDIVISION LAYOUT PLAN

DATE: JUNE 11, 2025 | BEI PROJECT NO. 3200
SCALE: AS SHOWN | SHEET 3 OF 17

SP-25-002

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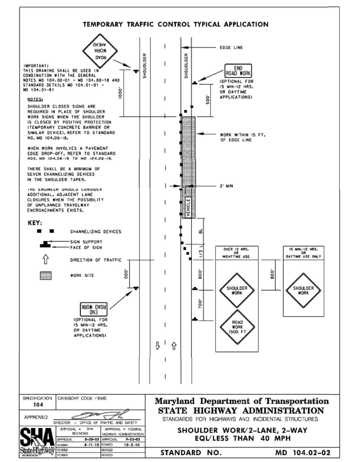

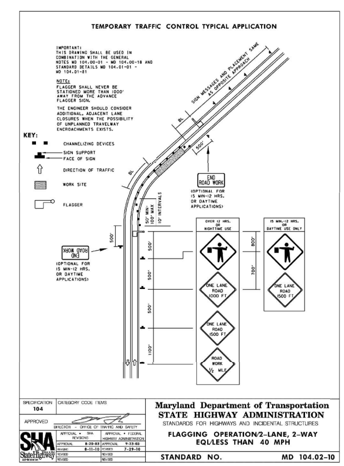

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Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 22390, Expiration Date: 6-30-2025.

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CHRISTOPHER A. MALAGARI
22390
PROFESSIONAL ENGINEER

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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

GRADING PLAN

DATE: JUNE 11, 2025	BEI PROJECT NO. 3200
SCALE: AS SHOWN	SHEET 4 OF 17

DESIGN: DBT CHECK: CAM

SP-25-002

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

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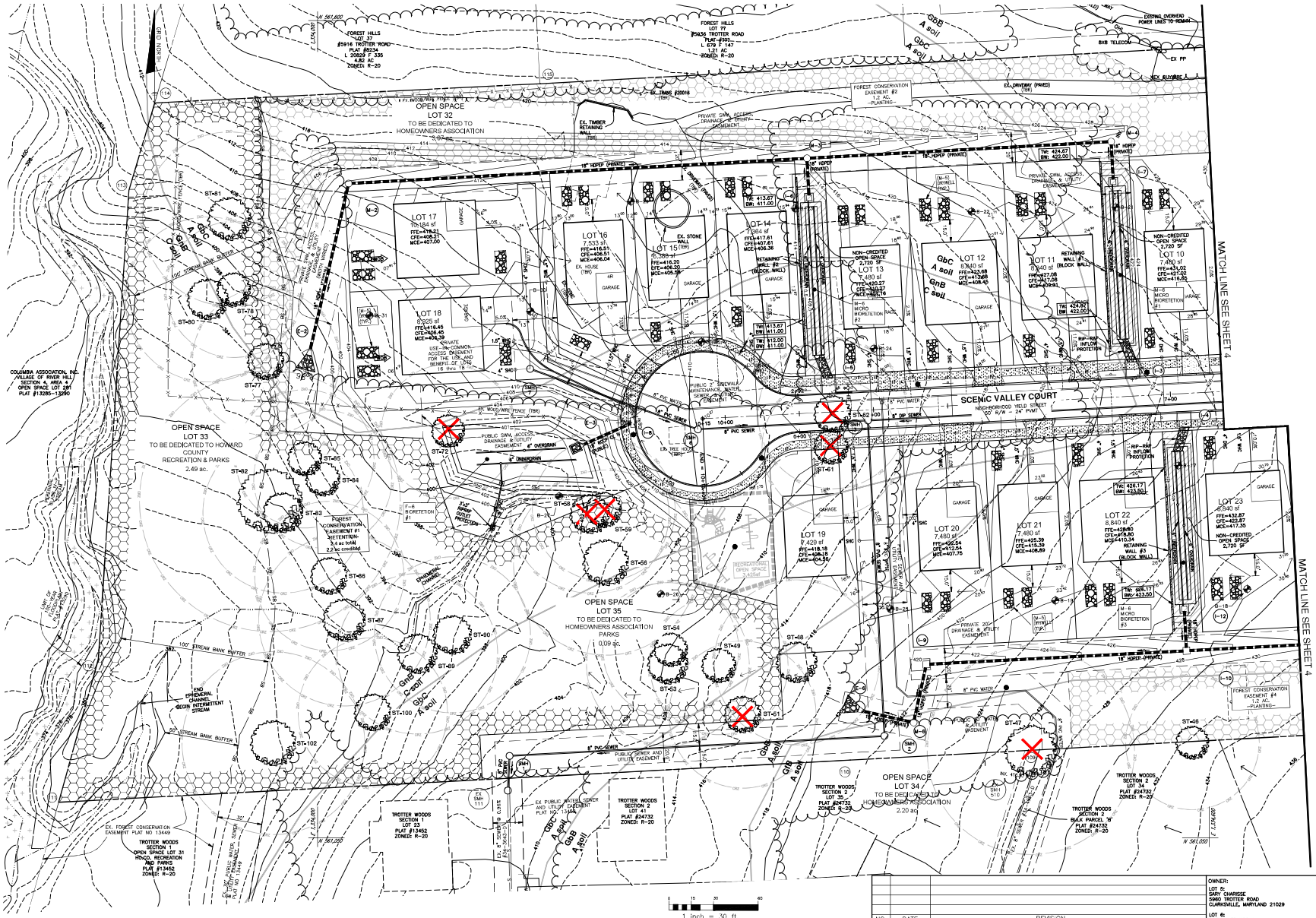

NO.	DATE	REVISION

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HOWARD COUNTY

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BENCHMARK
ENGINEERING, INC.
3300 N. RIDGE ROAD ▲ SUITE 140 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.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. 32390, Expiration Date: 9-30-2025.

STATE OF MARYLAND
CHRISTOPHER A. CAMPBELL
32390
PROFESSIONAL ENGINEER

OWNER:
LOT 6:
GARY CHARISSE
5960 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

LOT 6:
RILEY 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:
5838 TROTTER LLC
82 E LAKE DRIVE
ANNAPOLIS, MARYLAND 21403

PHONE: 410-792-2565

DESIGN: DBT CHECK: CAM

RIVER HILL ESTATES

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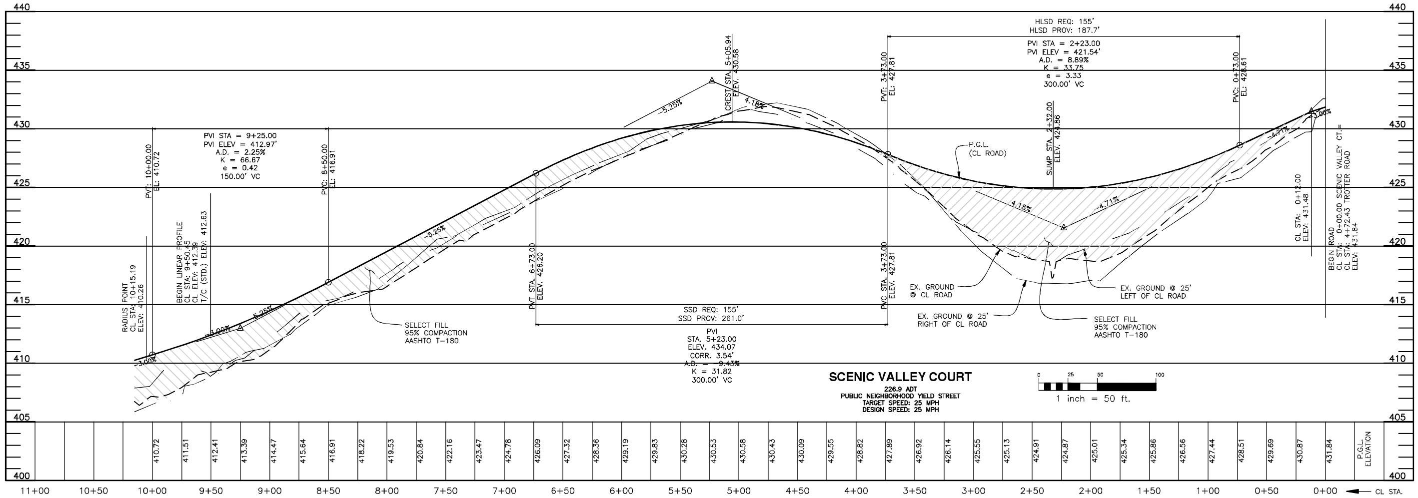
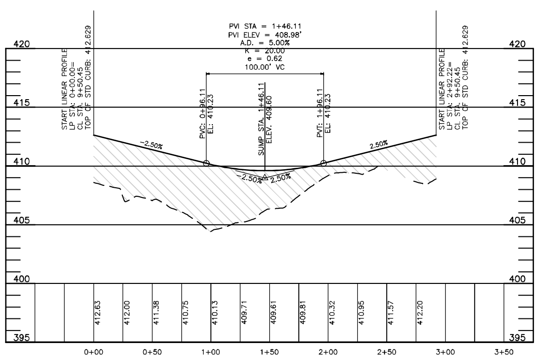


SCENIC VALLEY COURT

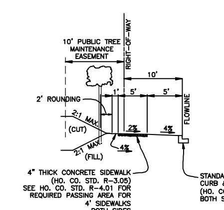
226.9 ADT
PUBLIC NEIGHBORHOOD YIELD STREET
TARGET SPEED: 25 MPH
DESIGN SPEED: 25 MPH

0 25 50 100
1 inch = 50 ft.

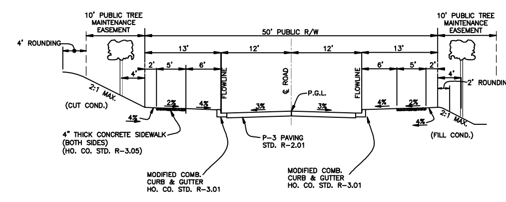


SCENIC VALLEY COURT:
CUL-DE-SAC

0 25 50 100
1 inch = 50 ft.



LINEAR PROFILE
TYPICAL ROADWAY SECTION
SCALE: 1" = 10'



TYPICAL ROADWAY SECTION
NEIGHBORHOOD YIELD STREET
TARGET SPEED: 25 MPH
DESIGN SPEED: 25 MPH
SCALE: 1" = 10'

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STATE OF MARYLAND
CHRISTOPHER A. MALAGARI
22390
PROFESSIONAL ENGINEER

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:
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ROAD PROFILES AND DETAILS

DESIGN: DBT	CHECK: CAM	DATE: JUNE 11, 2025	BEI PROJECT NO. 3200
		SCALE: AS SHOWN	SHEET 6 OF 17

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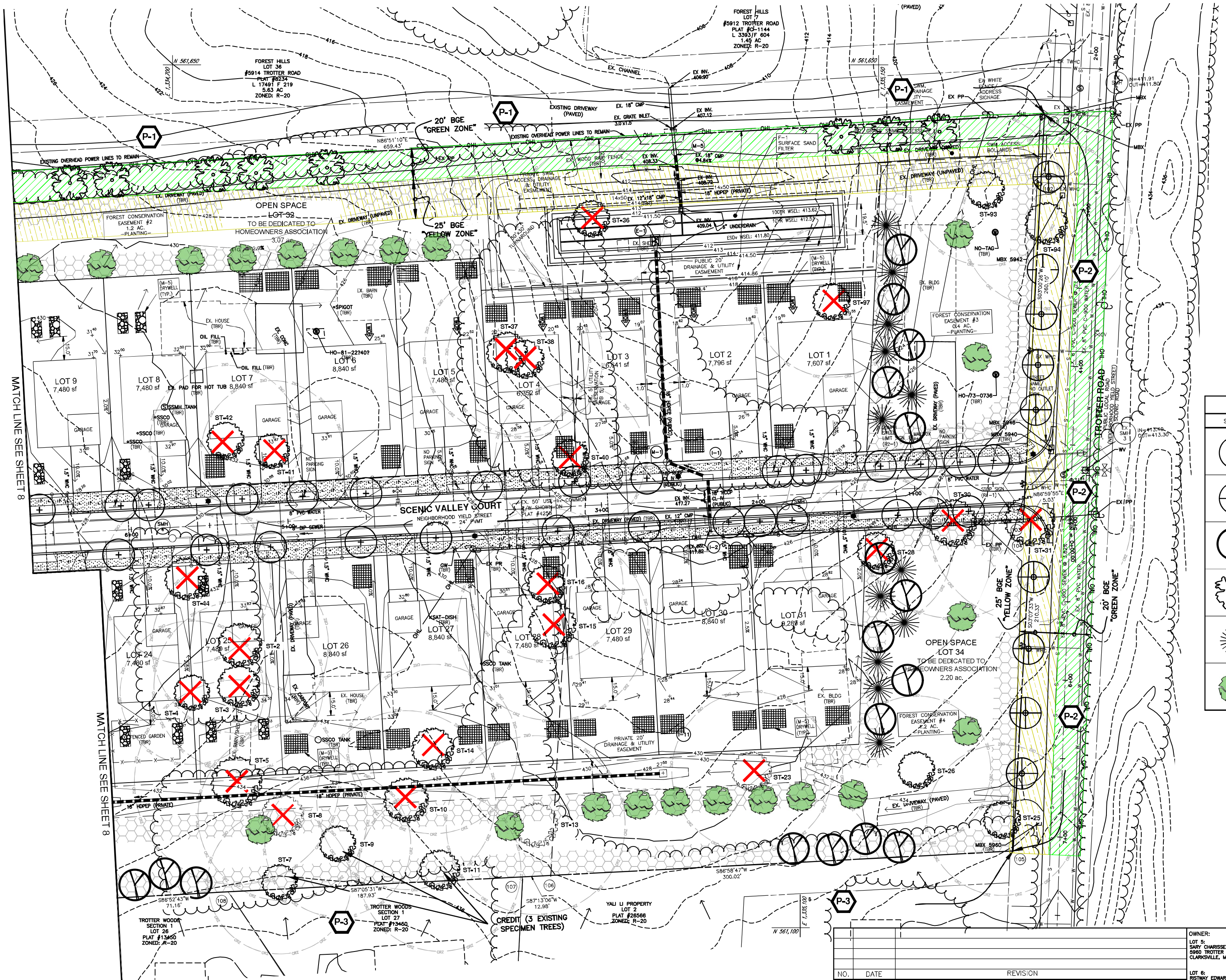

Schedule A
Perimeter Landscape Edge

Category	P-1	P-2	P-3	P-4	Totals
Landscape Type	A	B	A	A	
Linear Feet of Road Frontage or Perimeter	1,367	475	1,411	477	
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if reeded)	70 yes	0 no	285 yes	477 yes	
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe below if reeded)	0 no	0 no	0 no	0 no	
Linear Feet of Planting	1,297	475	1,126	0	
Number of Plants Required					
Shade Trees	22	10	19	0	51
Evergreen Trees	0	12	0	0	12
Other Trees (2:1 substitute)					
Shrubs	0	0	0	0	0
Number of Plant Provided					
Shade Trees	22	10	15	0	47
Evergreen Trees	0	12	0	0	12
Other Trees (2:1 substitute)	0	0	0	0	0
Shrubs	0	0	0	0	0

Note: 4 existing specimen trees to remain to be credited toward obligation

Street Tree Schedule

Category	Scenic Valley Court	Trotter Road
Linear Feet of ROW	2110	475
Number of Trees Required (1:40 LF)	52	11
Credit for Existing Trees (yes/no)	no	yes
Number of Existing Trees	0	2 (a)
Number of Trees to be Provided	52	9

(a) ST-25 and ST-94

LANDSCAPE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS	DESCRIPTION
⊕	52	TILIA CORDATA 'GREENSPIRE' (Greenspire Littleleaf Linden)	2.5" – 3"cal.	STREET TREES ALONG DEER VALLEY COURT TO BE PROVIDED BY THE DEVELOPER
⊕	9	TREES LESS THAN 40' IN HEIGHT AMERICAN HORNBEAM, HEDGE MAPLE, HONEY LOCUST – IMP., SAWTOOTH OAK	2.5" – 3"cal.	STREET TREES ALONG TROTTER ROAD TO BE PROVIDED BY THE DEVELOPER
Ⓨ	39	CLADRASTIS KENTUKEA LUTEA (Yellowwood)	2.5" – 3"cal.	SHADE TREES ALONG PERIMETER EDGES TO BE PROVIDED BY THE DEVELOPER
✿	8	TREES LESS THAN 25' IN HEIGHT PAPERBACK MAPLE TRIDENT MPALE PACIFIC SUNSET AMUR MAPLE	2.5" – 3"cal.	SHADE TREES ALONG PERIMETER EDGES TO BE PROVIDED BY THE DEVELOPER
✳	12	THUJA PLICATA GIANT ARBORVITAE 'GREEN GIANT'	5' – 6' ht.	EVERGREEN TREES ALONG PERIMETER EDGES TO BE PROVIDED BY THE DEVELOPER
🟩	56	EITHER RED MAPLE, TULIP POPLAR, SYCAMORE, WHITE OAK, OR RED OAK	3"dbh or greater	SPECIMEN TREE MITIGATION PLANTING FOR THE REMOVAL OF 28 SPECIMEN TREES PER WP-25-068 APPROVAL.

◯ EXISTING SPECIMEN TREE

✗ EXISTING SPECIMEN TREE TO BE REMOVED

⬡ FOREST CONSERVATION EASEMENT RETENTION

⬡ FOREST CONSERVATION EASEMENT PLANTING

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STATE OF MARYLAND CHRISTOPHER A. MALAGARI 22390 PROFESSIONAL ENGINEER

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 SEKU
HWANG SUN WHA
6105 SYRACUSE COURT
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LOT 34 AND 35:
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82 E LAKE DRIVE
ANNAPOLIS, MARYLAND 21403

PHONE: 410-792-2565

DESIGN: DBT CHECK: CAM

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LANDSCAPE PLAN

DATE: JUNE 11, 2025 BEI PROJECT NO. 3200
SCALE: AS SHOWN SHEET 7 OF 17

SP-25-002

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STATE OF MARYLAND — CHRISTOPHER A. CAMPBELL — 32390 — PROFESSIONAL ENGINEER

OWNER:
LOT 5:
SMC CHARISSE
5944 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

LOT 6:
RISTWAY EDWARD A
RISTWAY BARBARA A
5948 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

LOT 27:
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LANDSCAPE PLAN

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SCALE: AS SHOWN | SHEET 8 OF 17

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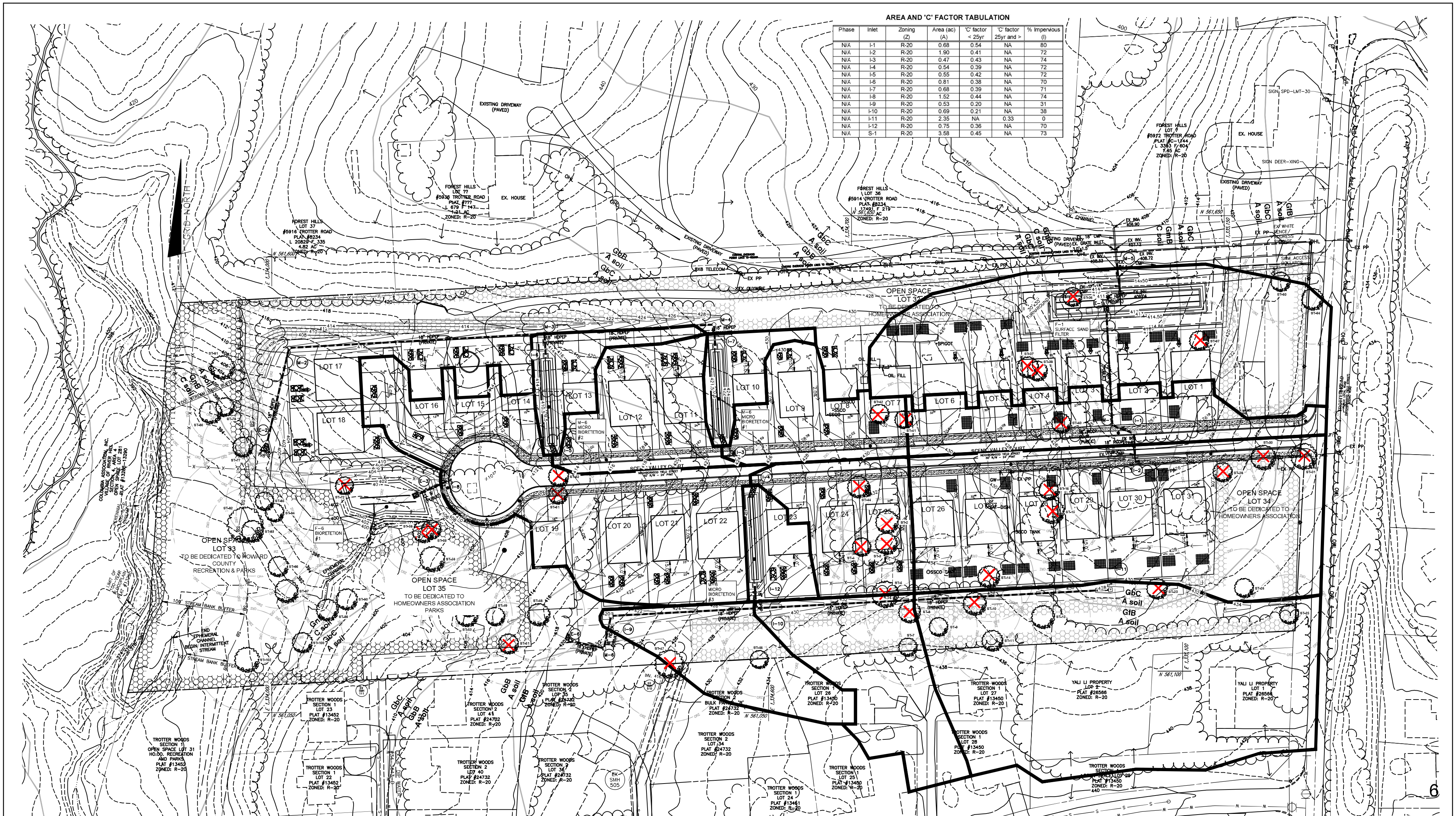

AREA AND 'C' FACTOR TABULATION

Phase	Inlet	Zoning (Z)	Area (ac) (A)	'C' factor < 25yr	'C' factor 25yr and >	% Impervious (I)
N/A	I-1	R-20	0.68	0.54	NA	80
N/A	I-2	R-20	1.90	0.41	NA	72
N/A	I-3	R-20	0.47	0.43	NA	74
N/A	I-4	R-20	0.54	0.39	NA	72
N/A	I-5	R-20	0.55	0.42	NA	72
N/A	I-6	R-20	0.81	0.38	NA	70
N/A	I-7	R-20	0.68	0.39	NA	71
N/A	I-8	R-20	1.52	0.44	NA	74
N/A	I-9	R-20	0.53	0.20	NA	31
N/A	I-10	R-20	0.69	0.21	NA	38
N/A	I-11	R-20	2.35	NA	0.33	0
N/A	I-12	R-20	0.75	0.36	NA	70
N/A	S-1	R-20	3.58	0.45	NA	73

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STORM DRAIN DRAINAGE AREA MAP

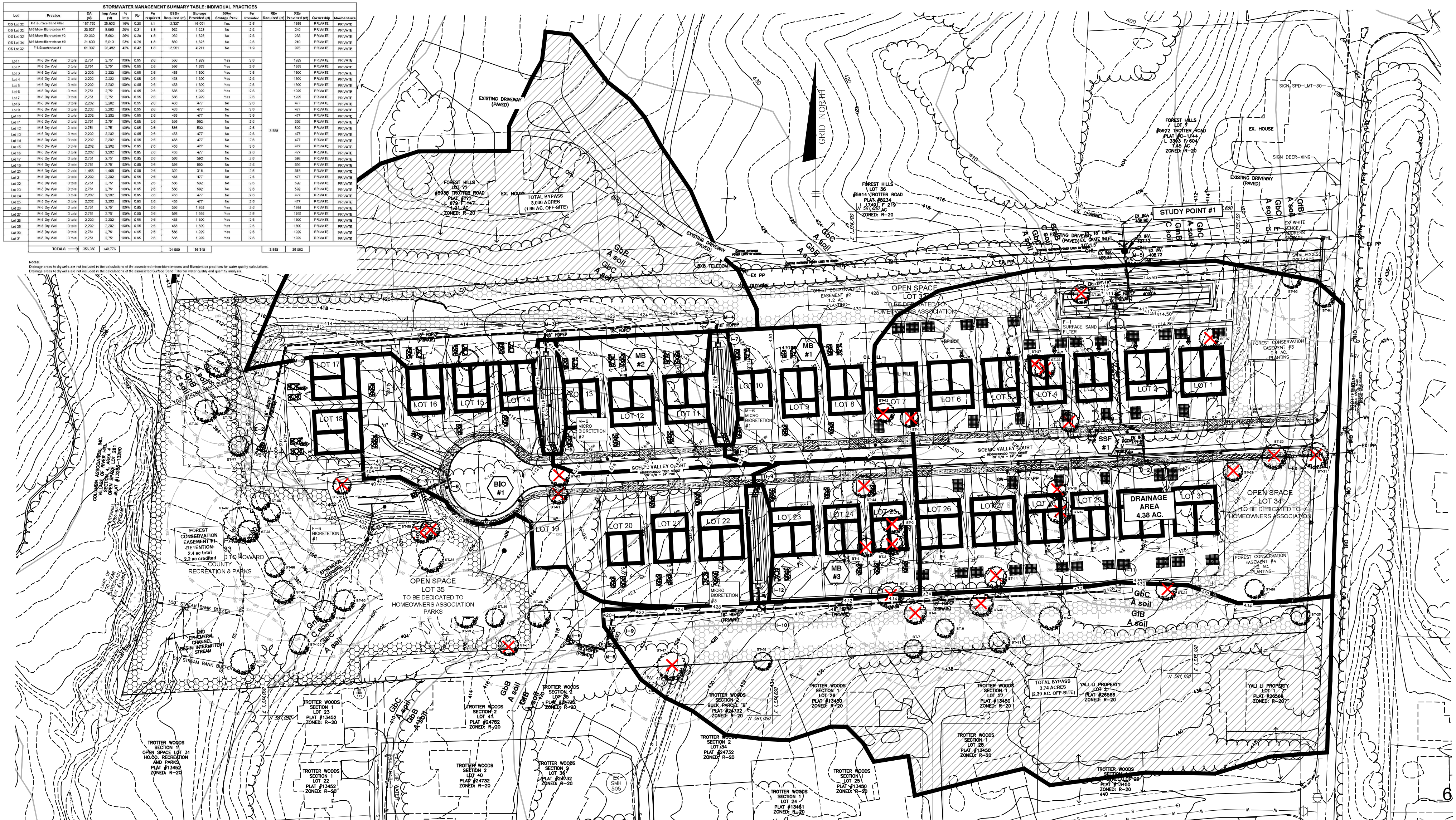
DATE: JUNE 11, 2025	BEI PROJECT NO. 3200
SCALE: AS SHOWN	SHEET 9 OF 17

SP-25-002

STORMWATER MANAGEMENT SUMMARY TABLE: INDIVIDUAL PRACTICES

Lot	Practice	DA (sf)	Imp Area (sf)	% Imp	Rv	Pe required	ESDv Required (cf)	Storage Provided (cf)	100yr Storage Prov.	Pe Provided	REv Required (cf)	REv Provided (cf)	Ownership	Maintenance
OS Lot 32	F-1 Surface Sand Filter	157,792	25,602	16%	0.20	1.1	3,327	16,001	Yes	2.6		1855	PRIVATE	PRIVATE
OS Lot 32	M-6 Micro-Bioretention #1	20,527	5,985	29%	0.31	1.8	962	1,523	No	2.6		240	PRIVATE	PRIVATE
OS Lot 32	M-6 Micro-Bioretention #2	22,032	5,682	26%	0.28	1.8	932	1,523	No	2.6		233	PRIVATE	PRIVATE
OS Lot 34	M-6 Micro-Bioretetrion #3	21,600	5,013	23%	0.26	1.8	839	1,523	No	2.6		210	PRIVATE	PRIVATE
OS Lot 32	F-6 Bioretention #1	61,397	25,482	42%	0.42	1.8	3,901	4,211	No	1.9		975	PRIVATE	PRIVATE
Lot 1	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	1,929	Yes	2.6		1929	PRIVATE	PRIVATE
Lot 2	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	1,929	Yes	2.6		1929	PRIVATE	PRIVATE
Lot 3	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	1,500	Yes	2.6		1500	PRIVATE	PRIVATE
Lot 4	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	1,500	Yes	2.6		1500	PRIVATE	PRIVATE
Lot 5	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	1,500	Yes	2.6		1500	PRIVATE	PRIVATE
Lot 6	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	1,929	Yes	2.6		1929	PRIVATE	PRIVATE
Lot 7	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	1,929	Yes	2.6		1929	PRIVATE	PRIVATE
Lot 8	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 9	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 10	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 11	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	592	No	2.6		592	PRIVATE	PRIVATE
Lot 12	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	592	No	2.6	3,888	592	PRIVATE	PRIVATE
Lot 13	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 14	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 15	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 16	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 17	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	592	No	2.6		592	PRIVATE	PRIVATE
Lot 18	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	592	No	2.6		592	PRIVATE	PRIVATE
Lot 20	M-5 Dry Well 2 total	1,468	1,468	100%	0.95	2.6	302	318	No	2.6		318	PRIVATE	PRIVATE
Lot 21	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 22	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	592	No	2.6		592	PRIVATE	PRIVATE
Lot 23	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	592	No	2.6		592	PRIVATE	PRIVATE
Lot 24	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 25	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	477	No	2.6		477	PRIVATE	PRIVATE
Lot 26	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	1,929	Yes	2.6		1929	PRIVATE	PRIVATE
Lot 27	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	1,929	Yes	2.6		1929	PRIVATE	PRIVATE
Lot 28	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	1,500	Yes	2.6		1500	PRIVATE	PRIVATE
Lot 29	M-5 Dry Well 3 total	2,202	2,202	100%	0.95	2.6	453	1,500	Yes	2.6		1500	PRIVATE	PRIVATE
Lot 30	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	1,929	Yes	2.6		1929	PRIVATE	PRIVATE
Lot 31	M-5 Dry Well 3 total	2,751	2,751	100%	0.95	2.6	566	1,929	Yes	2.6		1929	PRIVATE	PRIVATE
	TOTALS ⟶	356,360	140,776				24,989	56,349			3,888	35,062		

Notes:
Drainage areas to drywells are not included in the calculations of the associated micro-bioretentions and Bioretention practices for water quality calculations.
Drainage areas to drywells are not included in the calculations of the associated Surface Sand Filter for water quality and quantity analysis.



0 25 50 100
1 inch = 50 ft.

SWM DRAINAGE AREA LINE

OFF-SITE DRAINAGE AREA

NOTE:
FOR WATER QUALITY CALCULATIONS THE DRAINAGE AREAS TO EACH DRYWELL WERE NOT INCLUDED IN THE DRAINAGE AREAS TO THE FACILITIES SINCE THE DRYWELLS PROVIDE WATER QUALITY FOR THEIR INDIVIDUAL DRAINAGE AREA.

FOR QUANTITY CONTROL AT THE SURFACE SAND FILTER, THE DRYWELLS WITHIN THAT DRAINAGE AREA WERE DESIGNED TO STORE THE 100-YEAR STORM EVENT. AS SUCH, THEIR INDIVIDUAL DRAINAGE AREAS WERE NOT INCLUDED IN THE TOTAL DRAINAGE AREA TO THE SURFACE SAND FILTER.

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ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
3300 N. RIDGE ROAD ▲ SUITE 140 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.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, Expiration Date: 6-30-2025.

STATE OF MARYLAND CHRISTOPHER A. MALAGARI 22390 PROFESSIONAL ENGINEER

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 SEKU
HWANG SUN WHA
6105 SYRACUSE COURT
CLARKSVILLE, MARYLAND 21029

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

DESIGN: DBT CHECK: CAM

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

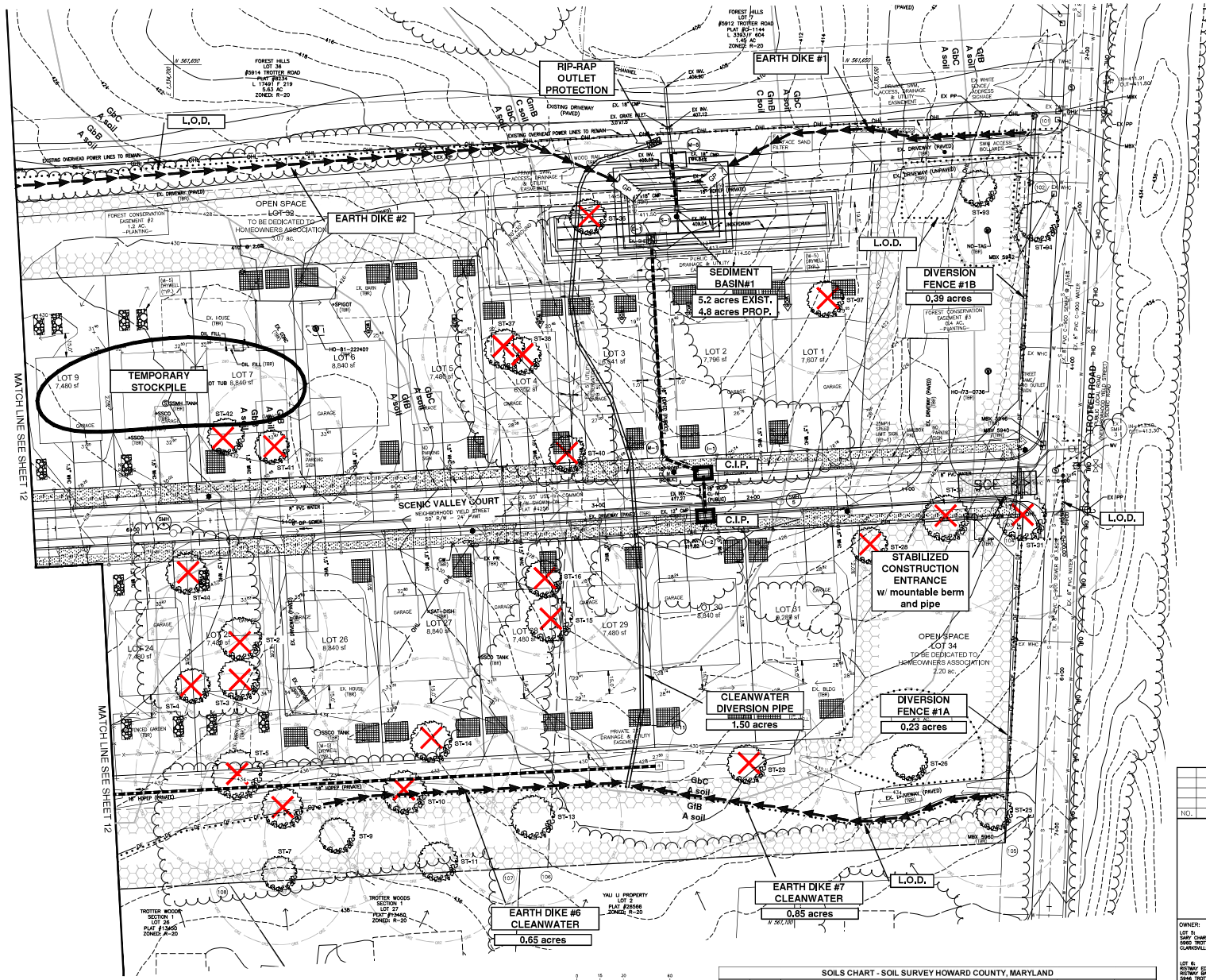
A Re-Subdivision of Lot 5 (previously recorded as Forest Hills Plat No. C-1144); Lots 6 and 27 (previously recorded as Forest Hills Plat No. 4258); Lots 34 and 35 (previously recorded as Forest Hills Plat No. 8258)

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

STORMWATER MANAGEMENT DRAINAGE AREA MAP

DATE: JUNE 11, 2025	BEI PROJECT NO. 3200
SCALE: AS SHOWN	SHEET 10 OF 17

SP-25-002



PRELIMINARY SEQUENCE OF CONSTRUCTION

NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF WORK

Note: This sequence assumes that all existing structures are to be removed under a separate demolition permit.

1. Obtain grading permit and MDE Notice of Intent. Notify C.I.D. at 410-313-1880 at least 24 hours before starting any work. **Day 1**

2. Hold on-site pre-construction meeting. **Day 2**

3. Upon approval from the Howard County Sediment Control Inspector, Clear and grub as necessary in order to install the perimeter controls and install those controls (i.e. SCE, super silt fencing, diversion fending, earth dikes, clean water diversion pipe, and sediment basins). Construct basins prior to the earth dikes that discharge into them. When installing earth dikes, start from the low end and work uphill. Do not install DF #4 thru #8 at this time. **Day 3-24**

4. Proceed to clear and grub. **Day 25-32**

5. Proceed with site grading. Grade in swale along south side and storm drain from E-5 to I-13 first. Once installed the clean water diversion pipe and earth dikes #6 and #7 can be removed. **Day 33-93.**

6. Continue to bring road bed to subgrade and install sewer, water, and remainder of storm drain. **Day 94-115**

7. Pour curb and gutter and then base pave road. **Day 116-125**

8. Construct micro bio-retention facilities #1 #2, #5, and #6. At this time, utilize inlet protection in locations shown. Install DF **#4, #5, #6,** and **#7** uphill of facilities and cove their surface media with filter fabric. Do not install mulch or plantings at this time. **Day 126-145**

9. Construct sidewalks (this may be delayed until SDP stage where sections of sidewalk are constructed as each house is built). After the relative drainage area to each micro bio-retention is stabilized the DF and filter fabric can be removed and mulch and plantings can be installed. Finalize site grading and stabilize in accordance with the permanent seedbed notes. **Day 146-155**

10. Upon approval from the Howard County Sediment Control Inspector, flush the storm drain system and convert Basin #1 to its final configuration as a Surface Sand Filter and convert Basin #2 to its final configuration as Micro-Bioretention Facilities #3 and **#4.** Remove all remaining sediment control devices. Stabilize any remaining disturbed areas in accordance with the permanent seedbed notes. **Day 156-175**

11. Install the street trees, perimeter landscaping, (this may be delayed until SDP stage) and SWMF plantings. **Day 176-185**

Note: The houses, driveways, SWM drywells, and roof leader drains shall be constructed under future site development plan by the Builder.

Note: A maximum acreage of 20 acres to be disturbed at any one time. Additional disturbance not to occur until at least 50% of the current disturbed area has been stabilized and approved by CID.

Note: Following initial soil disturbance or any re-disturbance, permanent or temporary stabilization shall be completed within:
- **A. 3 calendar days for all perimeter sediment control structures, dikes, swales and all slopes greater than 3:1.**
- **B. 7 calendar days for all other disturbed areas.**

During grading and after each rainfall, contractor will inspect and provide necessary maintenance to the sediment control measures of this plan.

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND

SYMBOL	HYDRIC	HYDROLOGIC GROUP	NAME	K-VALUE	ERODIBLE
GbB	NO	A	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	0.32	NO
GbC	NO	A	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	0.32	NO
GfB	NO	A	GLADSTONE-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	0.32	NO
GmB	YES	C	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	0.55	YES
GnB	YES	C	GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES	0.49	YES

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%.

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
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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. 22980, Expiration Date: 9-30-2027.

OWNER:
LOT 5:
SHAO CHARISSE
5940 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

LOT 6:
RISTWAY EDWARD A
RISTWAY BARBARA A
5948 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

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LOT 34 AND 35:
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PHONE: 410-792-2565

RIVER HILL ESTATES

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ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

CONCEPTUAL SEDIMENT AND EROSION CONTROL PLAN

DATE:	JUNE 11, 2025	BEI PROJECT NO.	3200
DESIGN: DBT	CHECK: CAM	SCALE:	AS SHOWN
		SHEET	11 OF 17

SP-25-002

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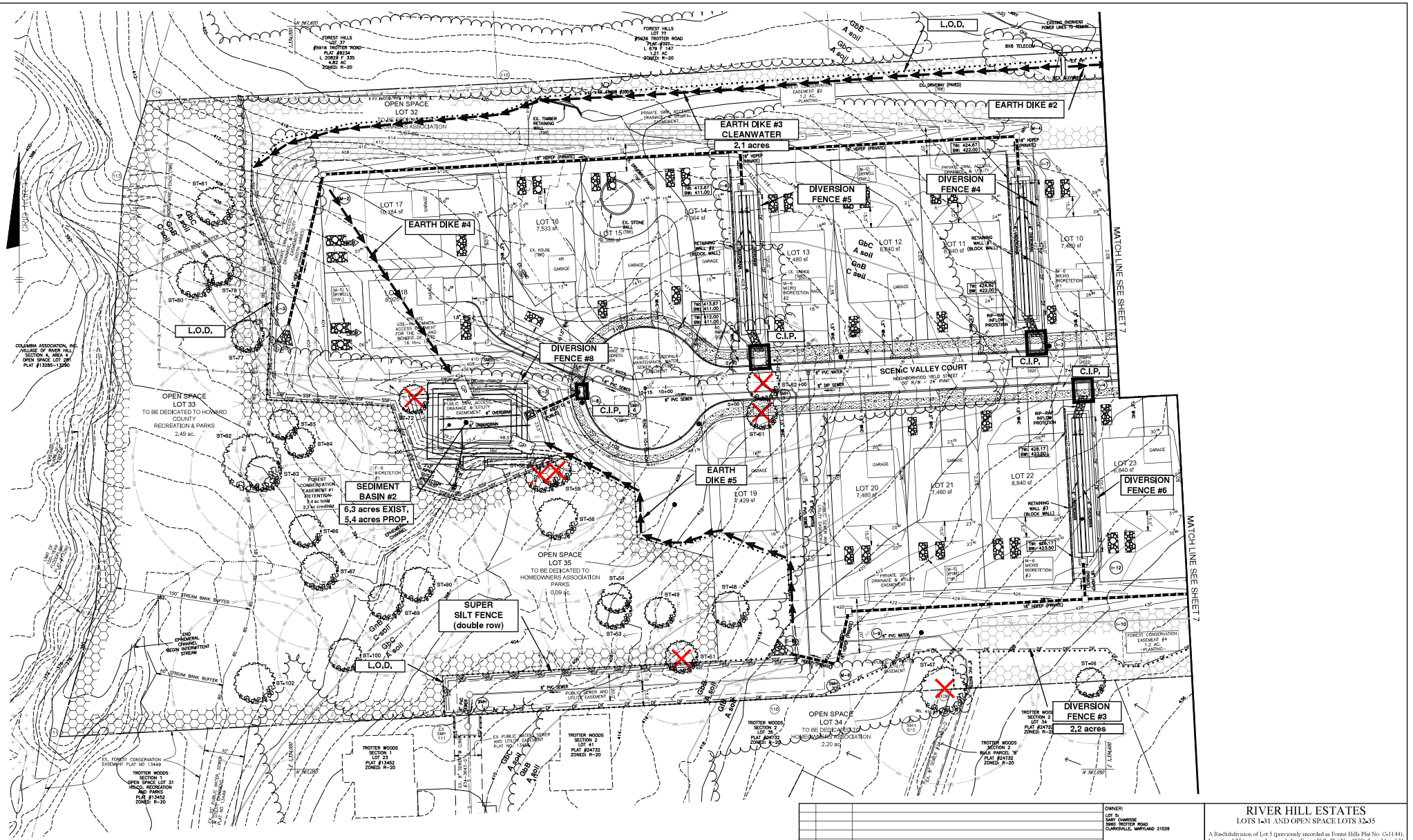

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

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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. [illegible], Expiration Date: 9-11-2025.

STATE OF MARYLAND — CHRISTOPHER A. CAMPBELL — 32390 — PROFESSIONAL ENGINEER

OWNER:
LOT 5:
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5944 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

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CLARKSVILLE, MARYLAND 21029

LOT 27:
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PHONE: 410-792-2565

DESIGN: DBT | CHECK: CAM

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CONCEPTUAL SEDIMENT AND EROSION CONTROL PLAN

DATE: JUNE 11, 2025 | BEI PROJECT NO. 3200
SCALE: AS SHOWN | SHEET 12 OF 17

SP-25-002

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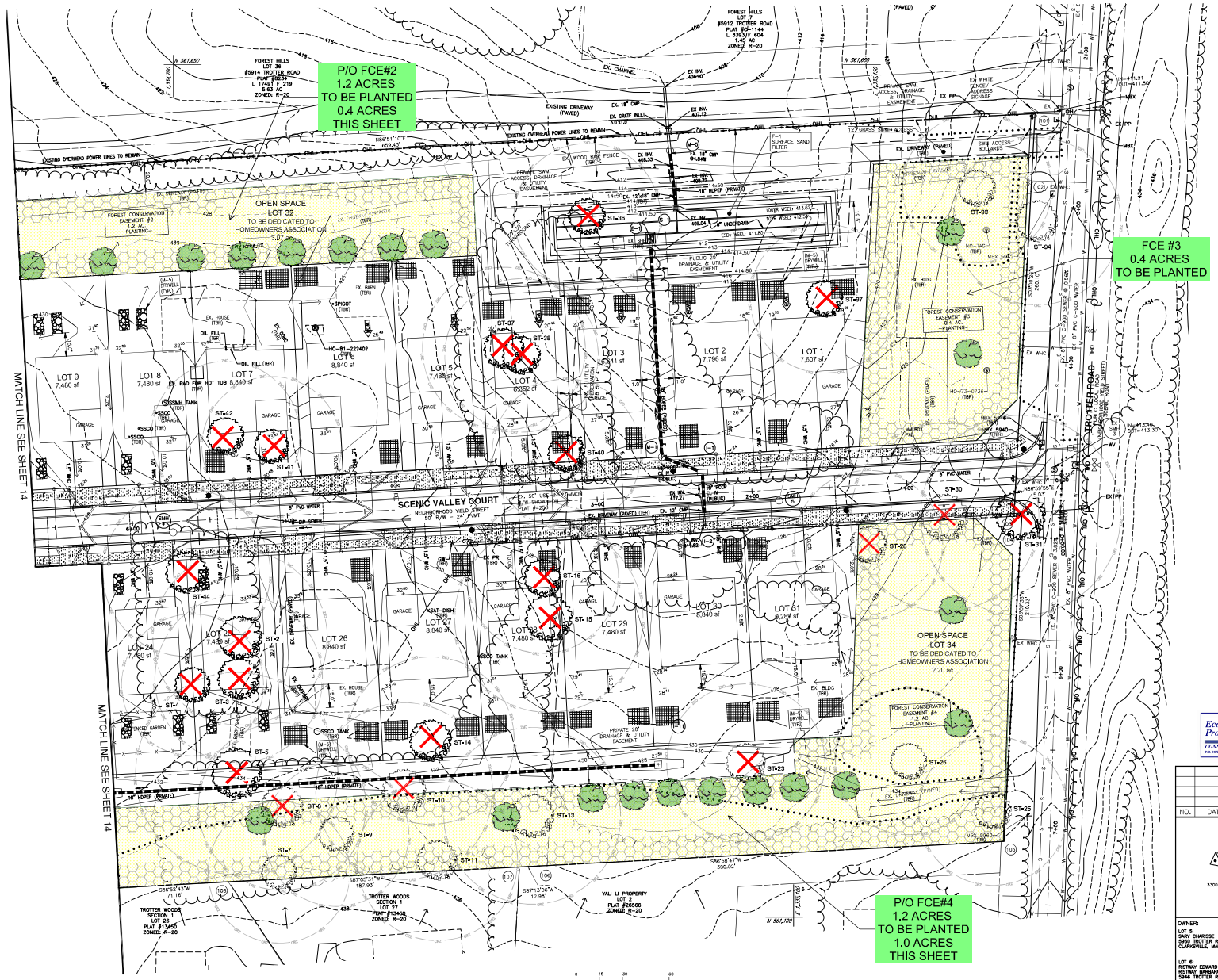

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HOWARD COUNTY

PLANNING DIRECTOR DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS

J. Brody McAllister
ISA Certified Arborist
Cert ID: MA-6471A
MD DNR FCA Qualified Professional

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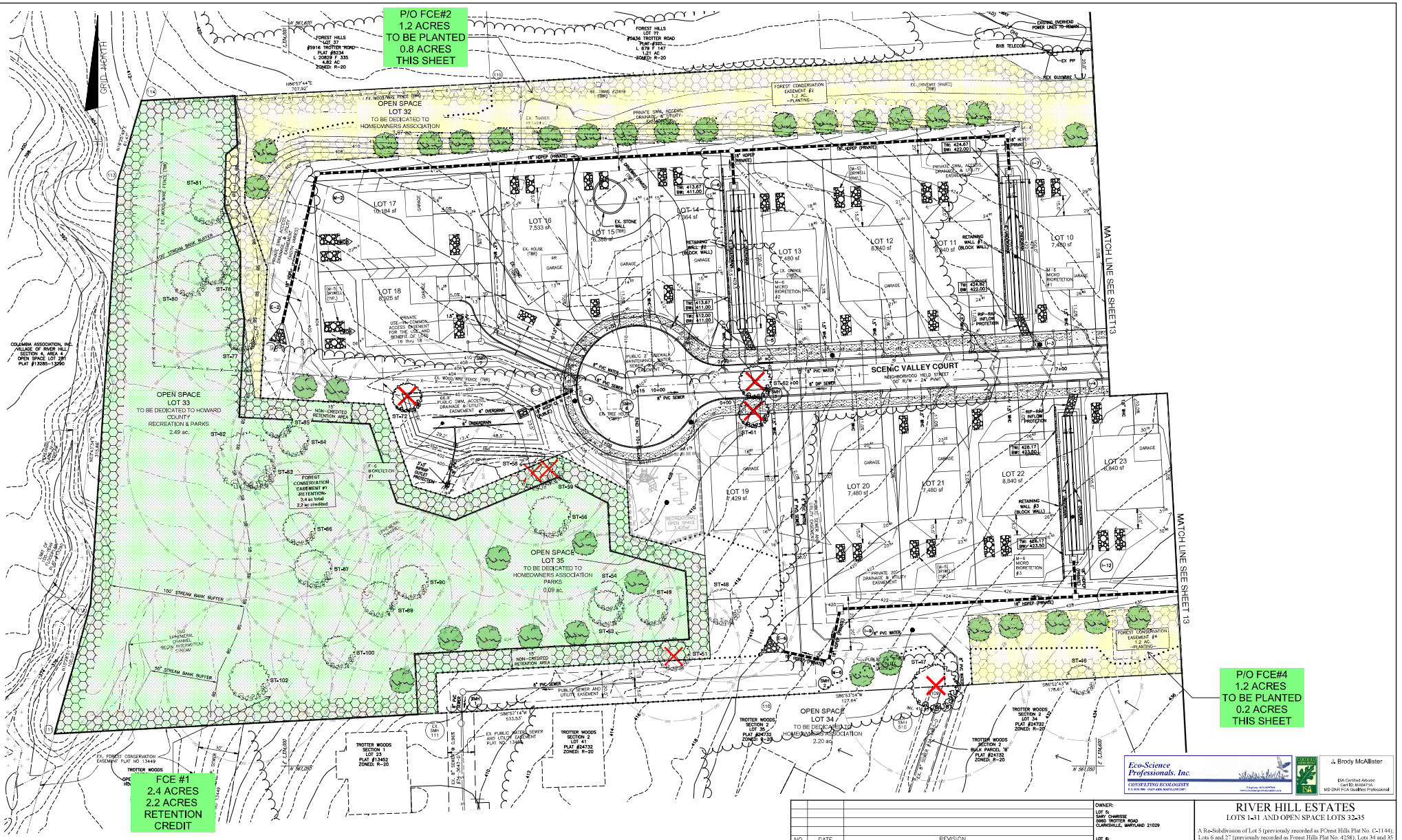
FOREST CONSERVATION PLAN

DESIGN: .	CHECK: .	DATE: JUNE 11, 2025	BEI PROJECT NO. 3200
		SCALE: AS SHOWN	SHEET 13 OF 17

SP-25-002



TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

1 Inch = 30 ft.

NO.	DATE	REVISION

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ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

FOREST CONSERVATION PLAN

DATE: JUNE 11, 2025 BEI PROJECT NO. 3200
SCALE: AS SHOWN SHEET 14 OF 17

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS

Brody McAllister
ISA Certified Arborist
Cert ID: MA-6471A
MD DNR PCA Qualified Professional

SP-25-002

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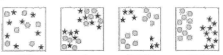
Howard County, MD
FOREST CONSERVATION MANUAL

Figure 3-N: Planting Patterns

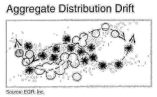
Typical Forest Tree Distribution Patterns



Note:
In reality occurring populations of trees tend to be found in forest groupings. A cluster of trees in nature is mixed to different species groups. We recommend an informative reforestation plan as to select the appropriate species and distribution pattern for a close site that mimic natural patterns.

Source: Prince George County Woodland Conservation Manual.

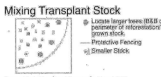
Aggregate Distribution Drift



Note:
When seed, plant cluster type groupings that taper or feather out along the edges. Clusters often appear as elongated or tear drop shapes.

Source: EOR, Inc.

Mixing Transplant Stock

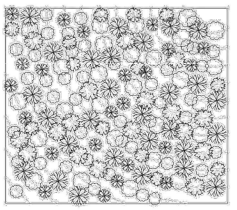


Source: Adapted from Forest Conservation Manual, 1991

Chapter 3
FOREST CONSERVATION PLAN

Figure 3-N: Planting Patterns (continued)

Curvilinear Randomized Planting



Plant placement detail not to scale.

1. Mix tree species in the staging area.
2. Set the guide curvilinear line as close to contour aspossible.

Source: Used with the permission of Exploration Research, Inc. (ER).

Howard County, MD
FOREST CONSERVATION MANUAL

Figure E-2: Forest Conservation Easemnt Signs

FOREST CONSERVATION AREA

TREES FOR YOUR FUTURE

DUMPING, MACHINERY, OR STORAGE OF MATERIALS, CUTTING OR REMOVAL OF VEGETATION OR SOIL IN THIS AREA IS STRICTLY PROHIBITED

Howard County Code, Title 16 Subtitle 12

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE HOWARD COUNTY FOREST CONSERVATION ACT

For more information or to report violations, please call Howard County Department of Recreation and Parks, Natural Resources Division

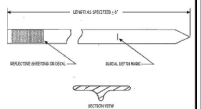
410-313-4725
TTY 410-313-6405

Howard County MARYLAND

Forest Conservation Decal

Notes:
1. Decal is available then the Department of Recreation and Parks 410-313-1678.
2. Decal material is number 3690 Scotchcal non-reflexive substrate.
3. Dimensions are 2.5' wide by 12' high.
4. Colors are dark green text and border on beige back-ground.

Forest Conservation Fost

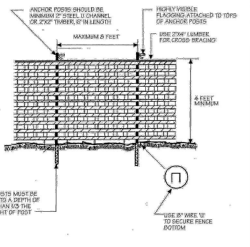


Notes:
1. Post is available from the Department of Recreation and Parks 410-313-1678.
2. Post material is Curflex CRM 250R, UV resistant con-tinuous glass reinforced composite marker.
3. Dimensions are 2.62" wide by 6' high.
4. Post will be embedded in ground to a depth of 18".
5. Color to be dark brown.

Source: Howard County Department of Recreation and Parks

Howard County, MD
FOREST CONSERVATION MANUAL

Figure E-3: Plastic Mesh Tree Protection Fence

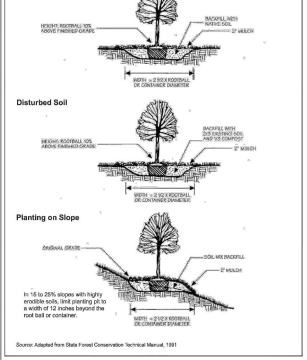


Notes:
1. Blaze orange or blue plastic mesh fence for forest protection device, only.
2. Boundaries of Retention Area will be established as part of the Forest Conservation Plan review process.
3. Stake and flag boundaries of Retention Area prior to installing device.
4. Avoid damage to critical root zone. Do not damage or sever large roots when installing posts.
5. Protection signs are required, see Figures E-1 and E-2.
6. Maintain device throughout construction.

Source: Adapted from Prince George's County, Maryland. Woodland Conservation Manual and State Forest Conservation Technical Manual, 1991

Appendix E
EXAMPLE DETAILS AND SPECIFICATIONS

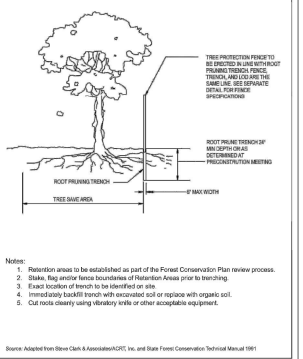
Figure E-18: Plant Installation



Source: Adapted from State Forest Conservation Technical Manual, 1991

Howard County, MD
FOREST CONSERVATION MANUAL

Figure E-9: Root Pruning



Notes:
1. Retention areas to be established as part of the Forest Conservation Plan review process.
2. Stake, flag and/or fence boundaries of Retention Areas prior to trenching.
3. Exact location of trench to be identified on site.
4. Immediately backfill trench with excavated soil or replace with organic soil.
5. Cut roots cleanly using vibratory knife or other acceptable equipment.

Source: Adapted from Steve Clark & Associates/ACRT, Inc. and State Forest Conservation Technical Manual 1991

3. Root Pruning

Root pruning shall be performed or supervised by an ISA and/or TCIA certified arborist. Root pruning shall be applied to all specimen trees and trees to be retained in the forest retention areas with disturbance in the critical root zone, on roots one inch in diameter or greater.

One of two methods shall be used:

1. Soil excavation using air excavation tools, pressurized water, or hand tools, followed by selective root cutting and/or
2. Cutting through the soil along a line just outside the tree protection fence on the surface using a tool specifically designed to cut roots including but not limited to mechanical root pruning tools such as Dosko or Vermeer.

• Prune before construction disturbance as shown in Figure E-9.
• Cut cleanly using well-maintained pruning equipment.
• Cover exposed roots immediately with topsoil, leaf compost or other suitable plant-growth medium.
• For trees with DBH greater than 15 inches, conduct root pruning up to one entire growing season before construction disturbance.
• Water before and after root pruning, as needed.

DEER SHELTERS OR CAGES ARE REQUIRED FOR ALL PLANTING STOCK.

SEE SECTION 3.93 PLANT MATERIAL SIZE, DENSITY AND ARRANGEMENT OF THE FOREST CONSERVATION MANUAL.

SEE SHEET 16 FOR SPECIMEN TREE IMPACT CALCULATIONS

Sequence of Construction

1. Sediment control shall be installed in accordance with general construction plan for site.
2. Plants shall be installed as per Plant Schedule and the Planting/Soil Specifications for the project.
3. Upon completion of the planting, signage shall be installed as shown.
4. Plantings shall be maintained and guaranteed in accordance with the Maintenance and Guarantee requirements for project.

Maintenance of Plantings

1. Maintenance of plantings shall last for a period of (3) years.
2. Plantings must receive 2 gallons of water, either through precipitation or watering, weekly during the 1st growing season, as needed. During second growing season, once a month during May-September, if needed.
3. Invasive exotics and noxious weeds will be removed, as required, from planting areas mechanically and/or with limited herbicide. Old field successional species will be retained.
4. Plants shall be examined a minimum two times during the growing season for serious plant pests and diseases. Serious problems will be treated with the appropriate agent.
5. Dead branches will be pruned from plantings.

Guarantee Requirements

3. A 75 percent survival rate of forestation plantings will be required at the end of two growing seasons. All plant material below the 75 percent threshold will be replaced at the beginning of the next growing season. Wild trees arising from natural regeneration may be counted up to 50 percent towards the total survival number if they are healthy, native species at least 12 inches tall.

Education of New Occupants

1. The developer shall provide educational information to all property owners within the new development/home about the proper use of forest conservation areas.

Final Inspection and Release of Obligations

1. At the end of the post-construction management and protection period the developer shall submit a certification to the County that all forest conservation areas have remained intact or have been restored to appropriate condition, that the stipulated survival rates have been achieved, and that any permanent protection measures required by the plan are in place. Upon review and acceptance, the County will release the developers or their release the developers or insure obligations related to the Forest Conservation Act.

FCP NOTES

1. THE FOREST CONSERVATION OBLIGATIONS FOR THIS SITE WILL BE ADDRESSED WITH 2.2 ACRES OF ONSITE RETENTION AND 2.8 ACRES OF REFORESTATION.

2. TEMPORARY PROTECTIVE FENCING SHALL BE INSTALLED PRIOR TO ANY SITE DISTURBANCE. FENCING SHALL BE INSTALLED ALONG ALL LOD AREAS ADJACENT STREAM BUFFERS, TREE STANDS, AND SPECIMEN TREES TO BE RETAINED.

3. REFORESTATION AREAS 2 AND 4 ARE LOCATED ALONG THE PROPERTY LINE AND INCLUDES A HEDGEROW TREES AND BRUSHY UNDERSTORY. INVASIVE TREES, SHRUBS, AND VINES SHALL BE CLEARED FROM THE PLANTING AREA PRIOR TO PLANTING. MATURE TREES IN THE PLANTING AREA SHALL BE RETAINED, PLANTINGS MAY BE INTERSPERSED WITHIN THE EXISTING TREES BUT CARE SHALL BE TAKEN TO AVOID INJURY TO EXISTING TREES DURING THE PLANTING PROCESS. RUBBER TIRE MACHINERY SHALL BE USED TO ACCESS PLANTING SITES AND PLANTINGS SHOULD BE KEPT OUTSIDE THE STRUCTURAL ROOT ZONE OF THE EXISTING TREES. THE STRUCTURAL ROOT ZONE IS MEASURED AS 1' RADIUS/1"DBH OF THE TREE. SPACING OF THE AFFORESTATION PLANTINGS MAY BE REDUCED AS NEEDED TO FACILITATE THE RETENTION OF EXISTING TREES. A SPECIFIC UNDERSTORY PLANTING IS PROPOSED FOR THE 0.3 ACRES OF FCE 4 THAT OCCURS IN A TREE LAWN SETTING.

4. PERMANENT PROTECTIVE SIGNAGE SHALL BE INSTALLED ALONG THE PERIMETER OF THE FOREST CONSERVATION EASEMENTS AS SHOWN

5. AN ALTERNATIVE COMPLIANCE REQUEST FOR REMOVAL OF SPECIMEN TREES WILL BE REQUIRED, ASSUMING THAT REQUEST IS APPROVED THE PROJECT WILL GENERATE A MITIGATION REQUIREMENT OF FIFTY-SIX, 3 INCH DBH TREES. THE PROPOSED PLANTING LOCATION FOR THESE TREES IS SHOWN ON THE PLANS. THESE TREES ARE NOT CREDITED TOWARD THE AFFORESTATION REQUIREMENTS OF THE PROJECT.

6. A SECURITY FOR THE PROPOSED SPECIMEN TREE MITIGATION PLANTINGS SHALL BE PROVIDED. THE COST OF THIS SECURITY HAS BEEN CALCULATED TO BE $300.00 PER TREE - $16,800.00.

7. THE SECURITY REQUIREMENT FOR THE ONSITE REFORESTATION PLANTINGS IS CALCULATED AT $0.50/SQ.FT = $60,984.00.

SITE CONDITION NOTES FROM FSD

1. No wetlands are present on the site but streams and stream buffers are present on the subject property.

2. The site is located within the watershed of Middle Patuxent River (02131106960). This segment of the watershed is classified Use IV-P.

3. No 100-year floodplain is present on the site.

4. No cemeteries were observed on the site and the property does not show any elements listed on the Maryland or National Registers of Historic Places per the MERLIN website.

5. No rare, threatened or endangered species were observed on the site. The property is identified as possible forest interior habitat.

PLANTING SCHEDULE

FCE 2 Reforestation Area – 1.2 acres
Planting Units Required: 840
Planting Units Provided: 840

Qty	Species	Canopy/ Understory	Size	Spacing	Total FCA Units
25	Acer negundo - Box elder	U	1" caliper	15' oc.	
35	Acer rubrum - Red maple	C	1" caliper	15' oc	
25	Cercis canadensis - Red bud	U	1" caliper	15' oc	
25	Cornus florida - Flowering dogwood	U	1" caliper	15' oc	
55	Liriodendron tulipifera - Tulip poplar	C	1" caliper	15' oc	
35	Nyssa sylvatica - Black gum	C	1" caliper	15' oc	
20	Quercus alba - White oak	C	1" caliper	15' oc	
20	Quercus rubra - Red oak	C	1" caliper	15' oc	
240	Total 1" caliper plantings x 3.5 units free = FCA unit credit				840
	Total Unit Credit				840

FCE 3 Reforestation Area – 0.4 acres
Planting Units Required: 280
Planting Units Provided: 280

Qty	Species	Canopy/ Understory	Size	Spacing	Total FCA Units
10	Acer negundo - Box elder	U	1" caliper	15' oc.	
5	Acer rubrum - Red maple	C	1" caliper	15' oc	
5	Cercis canadensis - Red bud	U	1" caliper	15' oc	
5	Cornus florida - Flowering dogwood	U	1" caliper	15' oc	
15	Liriodendron tulipifera - Tulip poplar	C	1" caliper	15' oc	
15	Nyssa sylvatica - Black gum	C	1" caliper	15' oc	
15	Quercus alba - White oak	C	1" caliper	15' oc	
10	Quercus rubra - Red oak	C	1" caliper	15' oc	
80	Total 1" caliper plantings x 3.5 units free = FCA unit credit				280
	Total Unit Credit				280

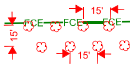
FCE 4 - Reforestation Area -Existing Treed Lawn - 0.3 acres
Planting Units Required: 210
Planting Units Provided: 210

Qty	Species	Canopy/ Understory	Size	Spacing	Total FCA Units
10	Acer negundo - Box elder	U	1" caliper	15' oc.	
10	Cercis canadensis - Red bud	U	1" caliper	15' oc	
10	Cornus florida - Flowering dogwood	U	1" caliper	15' oc	
15	Nyssa sylvatica - Black gum	C	1" caliper	15' oc	
15	Viburnum prunifolium	U	1" caliper	15' oc	
60	Total 1" caliper plantings x 3.5 units free = FCA unit credit				210
	Total Unit Credit				210

FCE 4 Reforestation Area – Existing Lawn 0.9 acres
Planting Units Required: 630
Planting Units Provided: 630

Qty	Species	Canopy/ Understory	Size	Spacing	Total FCA Units
15	Acer negundo - Box elder	U	1" caliper	15' oc.	
25	Acer rubrum - Red maple	C	1" caliper	15' oc	
15	Cercis canadensis - Red bud	U	1" caliper	15' oc	
20	Cornus florida - Flowering dogwood	U	1" caliper	15' oc	
45	Liriodendron tulipifera - Tulip poplar	C	1" caliper	15' oc	
30	Nyssa sylvatica - Black gum	C	1" caliper	15' oc	
15	Quercus alba - White oak	C	1" caliper	15' oc	
15	Quercus rubra - Red oak	C	1" caliper	15' oc	
180	Total 1" caliper plantings x 3.5 units free = FCA unit credit				630
	Total Unit Credit				630

WHERE REFORESTATION AREA ABUTS PRIVATE LOTS TWO ROWS OF PLANTINGS SHALL BE INSTALLED TO DEFINE THE EDGE OF THE FCE. THE FIRST ROW SHALL BE PLANTED ONE FOOT INSIDE THE FCE LIMIT AND THE SECOND ROW SHALL BE SPACED 15 FEET AWAY. THE TREES IN THE INTERIOR ROW MAY BE STAGGERED AS SHOWN BELOW. TREES IN THE REMAINDER OF THE REFORESTATION AREA MAY BE PLANTED RANDOMLY WITH APPROXIMATE SPACING AS REQUIRED. REFORESTATION PLANTINGS SHALL BE SHIFTED, AS NEEDED, TO ACCOMODATE SPECIMEN TREE MITIGATION PLANTINGS. PLANTINGS SHALL NOT BE INSTALLED WITHIN 5 FEET OF ANOTHER PLANTING UNIT OR EXISTING TREE.



Specimen Tree Mitigation Plantings

Qty	Species	Size	Spacing
56 To be selected from the following list of species based on availability at the time of planting	Acer rubrum - Red maple	3" dbh	see landscape plans for mitigation planting locations
	Liriodendron tulipifera - Tulip poplar		
	Platanus occidentalis - Sycamore		
	Quercus alba - White oak		
	Quercus rubra - Red oak		

CRITICAL ROOT ZONE

For the edge of large areas, use the greater of the two choices below:

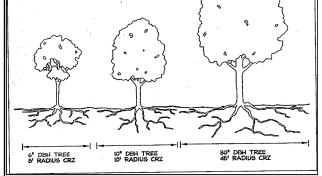
1' DBH of the tree = 1' radius of the critical root zone

or

6 ft. radius circle around the trunk of the tree

For isolated specimen trees:

1' DBH = 1.5' radius of the critical root zone



REFORESTATION PLAN

A. Planting Plan and Methods

Plant species selection was based on our knowledge regarding plant communities in Maryland's Piedmont Plateau and information provided in the soil survey on typical vegetation for the soil type on the planting site. Species selection was also based on our knowledge of plant availability in the nursery industry.

Reforestation will be accomplished using 1" caliper trees. Larger stock may be utilized if desired. Container grown stock is recommended.

Prior to planting the proposed Forest Conservation Easements all multiflora rose in the planting area shall be removed. Removal of the rose may be performed with mowing and herbicide treatments. Physical removal of all top growth followed by a periodic herbicide treatment of stump sprouts is recommended. Native tree and shrub species occurring within the rose thickets should be retained wherever possible. Herbicide treatments shall occur on 2 month intervals during the first growing season and once each in the spring and fall for subsequent years. Herbicide used shall be made specifically to address woody plant material and shall be applied as per manufacturers specifications. Care should be taken not to spray planted trees or naturally occurring native trees/shrub seedlings. It is recommended that initiation of rose removal begin at least six months prior to planting.

B. Planting and Soil Specifications

Plant material will be installed in accordance with the Planting Detail and Planting Specifications shown on the Forest Conservation Plan.

Amendments to existing soil will be in accordance with the Planting Specifications shown on the Forest Conservation Plan. Soil disturbance will be limited to individual planting locations.

C. Guarantee Requirements

A 90 percent survival rate of the reforestation plantings will be required after one growing season. All plant material below the 90 percent survival threshold will be replaced at the beginning of the second growing season. At the end of the second and third growing seasons, a 75 percent survival rate will be required. All plant material below the 75 percent survival threshold will be replaced by the beginning of the next growing season.

D. Security for Reforestation

Section 16-1209 of the Howard County Forest Conservation Act requires that a developer shall post a security (bond, letter of credit, etc.) with the County to insure that all work is done in accordance with the FCP.

CONSTRUCTION PERIOD PROTECTION PROGRAM

A. Forest Protection Techniques

1. Soil Protection Area (Critical Root Zone)

The soil protection area, or critical root zone, of a tree is that portion of the soil column where most of a its roots may be found. The majority of roots responsible for water and nutrient uptake are located just below the soil surface. Temporary fencing shall be placed around the critical root zone of the forest in areas where the forest limits occur within 50 feet of the limit of disturbance.

2. Fencing and Signage

Existing forest limits occurring within 50 feet of the limits of disturbance shall be protected using temporary protective fencing. Permanent signage shall be placed around the afforestation area prior to plant installation, as shown on the plan.

B. Pre-Construction Meeting

Upon staking of limits of disturbance a pre-construction meeting will be held between the developer, contractor and appropriate County inspector. The purpose of the meeting will be to verify that all sediment control is in order, and to notify the contractor of possible penalties for non-compliance with the FCP.

C. Storage Facilities/Equipment Cleaning

All equipment storage, parking, sanitary facilities, material stockpiling, etc. associated with construction of the project will be restricted to those areas outside of the proposed Forest Conservation Easement. Cleaning of equipment will be limited to areas within the LOD of the proposed homesites. Wastewater resulting from equipment cleaning will be controlled to prevent runoff into environmentally sensitive areas.

D. Sequence of Construction

The following timetable represents the proposed timetable for development. The items outlined in the Forest Conservation Plan will be enacted within two (2) years of subdivision approval.

Below find a proposed sequence of construction.

1. Install all signage and sediment control devices.
2. Hold pre-construction meeting between developer, contractor and County inspector.
3. Build access roads, install well and septic systems, and construct houses. Stabilize all disturbed areas accordingly.
4. Begin multiflora rose/invasive species removal, as needed. Install permanent protective signage for Easements and initiate plantings in accordance with Forest Conservation Plan. Plantings will be completed within two (2) years of subdivision approval.
5. Remove sediment control.
6. Hold post-construction meeting with County inspectors to assure compliance with FCP. Submit Certification of Installation.
7. Monitor and maintain plantings for 2 years.

E. Construction Monitoring

Eco-Science Professionals, or another qualified professional designated by the developer, will monitor construction of the project to ensure that all activities are in compliance with the Forest Conservation Plan.

F. Post-Construction Meeting

Upon completion of construction, Eco-Science Professionals, or another qualified professional designated by the developer, will notify the County that construction has been completed and arrange for a post-construction meeting to review the project site. The meeting will allow the County inspector to verify that afforestation plantings have been installed.

POST-CONSTRUCTION MANAGEMENT PLAN

Howard County requires a two year post-construction management plan be prepared as part of the forest conservation plan. The plan goes into effect upon acceptance of the construction certification of completion by the County. Eco-Science Professionals, or another qualified professional designated by the developer, will be responsible for implementation of the post-construction management plan.

The following items will be incorporated into the plan:

A. Fencing and Signage

Permanent signage indicating the limits of the retention/reforestation area shall be maintained.

B. General Site Inspections/Maintenance of Plantings

Site inspections will be performed a minimum of three times during the growing season. The purpose of the inspections will be to assess the health of the afforestation plantings. Appropriate measures will be taken to rectify any problems which may arise.

In addition, maintenance of the afforestation plantings will involve the following steps:

1. Watering - All plant material shall be watered twice a month during the 1st growing season, more or less frequently depending on weather conditions. During the second growing season, once a month during May-September, if needed.
2. Removal of invasive exotics and noxious weeds. Old field successional species will be retained.
3. Identification of serious plant pests and diseases, treatment with appropriate agent.
4. Pruning of dead branches.
5. After 12 and 24 months, replacement of plants, if required, in accordance with the Guarantee Requirements shown on the FCP.

C. Education

The developer will provide appropriate materials to property owners informing them of the location and purpose of the afforestation area. Materials may include site plans and information explaining the intent of the forest conservation law.

D. Final Inspection

At the end of the two year post-construction management period, Eco-Science Professionals, or another qualified professional, will submit to the administrator of the Howard County Forest Conservation Program certification that all retention/afforestation requirements have been met. Upon acceptance of this certification, the County will release the developer from all future obligations and release the developer's bond.

Planting/Soil Specifications

1. Installation of bareroot/plug plant stock shall take place between March 15 - April 20; Balled/container stock March 15 -May 30 or September 15 - November 15. Fall planting of B&B stock is not recommended.
2. Disturbed areas shall be seeded and stabilized as per general construction plan for project. Planting areas not impacted by site grading shall have no additional topsoil installed.
3. Bareroot plants shall be installed so that the top of root mass is level with the top of existing grade. Roots shall be dipped in an anti-desiccant gel prior to planting. Backfill in the planting pits shall consist of 3 parts existing soil to 1 part pine fines or equivalent.
4. Fertilizer shall consist of Agriform 22-8-2, or equivalent, applied as per manufacturer's specifications, for woody plants. Herbaceous plant shall be fertilized with Osmocote 8-8-12.
5. Plant material shall be transported to the site in a tarped or covered truck. Plants shall be kept moist prior to planting.
6. The contractor shall remove all non-organic debris associated with the planting operation from the site.

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS

J. Brody McAllister
ISA Certified Arborist
Cert ID: MA-6417-A
MD DNR FCA Qualified Professional

NO.	DATE	REVISION

BENCHMARK
ENGINEERING, INC.
PLANNERS ▲ LAND SURVEYORS ▲ ENGINEERS
3300 NORTH RIDGE ROAD ▲ SUITE 140 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BENCHMARKENGINEERING.COM

OWNER:
LOT 5:
SHRI CHARISSE
5042 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

LOT 6:
RISTAKY EDWARD A
RISTAKY BARBARA A
5048 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

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

LOT 34 AND 35:
5038 TROTTER LLC
80 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 PO nest 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 MAPS: 0035 GRID: 0008 PARCEL: 0373
ZONED: R-20
ELECTION DISTRICT NO. __ HOWARD COUNTY, MARYLAND

PRELIMINARY FOREST CONSERVATION PLAN

DESIGN:	CHECK:	SCALE: AS SHOWN	DATE: JUNE 11, 2025	BEI PROJECT NO. 3200	SHEET 15 OF 17

SP-25-002

Specimen/Significant Tree Chart

Key (X#)	Species	Size (in.dbh)	CRZ 1:1,5 (feet radius)	Condition (good unless otherwise noted)	State Champion (in. dbh)
1	White pine	27.5	41.25	Fair, some dieback	52,99
2	White pine	37.5	56.25	Poor, trunk rot	52,99
3	American beech	36	54	Fair	78,03
4	White pine	30.5	45.75	Fair	52,99
5	Tulip poplar	43.5	65.25	Fair	101,27
6	White pine	26	39	Poor, dieback	52,99
7	Red maple	30.5	45.75		86,94
8	Tulip poplar	36	54		101,27
9	Red maple	31	46.5		86,94
10	Willow oak	38	57	Fair, dieback	87,90
11	Red maple	34.5	51.75	Fair, dieback	86,94
12	White pine	25	37.5		52,99
13	Tulip poplar	38	57		101,27
14	White pine	36	54		52,99
15	Tulip poplar	40.5	60.75	Very poor, significant rot	101,27
16	White pine	32.5	48.75		52,99
17	White pine	26	39		52,99
18	White pine	25	37.5		52,99
19	White pine	24	36		52,99
20	White pine	24.5	36.75		52,99
21	White pine	27	40.5		52,99
22	Red maple	25.5	38.25		86,94
23	Red maple	34	51		86,94
24	Red maple	29	43.5	Poor, storm damage	86,94
25	White pine	32	48		52,99
26	English walnut	31.5	47.25		81,15
27	Red maple	28.5	42.75		86,94
28	Tulip poplar	32	48		101,27
29	Tulip poplar	27.5	41.25		101,27
30	Tulip poplar	40.5	60,75	Trimmed for power lines	101,27
31	Tulip poplar	43	64.5	Trimmed for power lines	101,27
32	Tulip poplar	29	43.5	Trimmed for power lines	101,27
33	White pine	28	42		52,99
34	White pine	27.5	41.25		52,99
35	White pine	24	36		52,99
36	Pin oak	31.5	47.25		63,38
37	Red maple	35	52.5	Fair, co-dominant stems	86,94
38	Tulip poplar	33	49,5	Fair, co-dominant stems	101,27
39	Red maple	28	42	Multi-stemmed	86,94
40	Tulip poplar	32/27	48	Poor, major lean, dead stem	101,27
41	White pine	30	45		52,99
42	White pine	32	48		52,99
43	White pine	28	42		52,99
44	White pine	36	54	odd branching pattern	52,99
45	Black walnut	29.5	44.25		74,52
46	Mulberry	30	45		75,48
47	Red maple	46.5	69,75	Fair, co-dominant stems fused @ bh	86,94
48	Tulip poplar	37	55,5		101,27
49	Tulip poplar	31	46,5		101,27
50	Tulip poplar	26,5	39,75		101,27
51	Tulip poplar	33	49,5		101,27
52	Tulip poplar	28	42		101,27
53	Tulip poplar	36,5	54,75		101,27
54	Tulip poplar	30,5	45,75	Poor, trunk rot	101,27
55	White oak	25,5	38,25		88,85
56	Tulip poplar	41,5	62,25		101,27
57	Tulip poplar	24	36		101,27
58	Tulip poplar	35,5	53,25	Poor, dead co-dominant trunk	101,27
59	Tulip poplar	32	48		101,27
60	Tulip poplar	26,5	39,75		101,27
61	Tulip poplar	31	46,5	Fair, co-dominant trunks @ bh	101,27
62	Tulip poplar	33,5/29	50,25	Fair, twin trunks above bh	101,27
63	Tulip poplar	26	39		101,27
64	Tulip poplar	25,5	38,25		101,27
65	Tulip poplar	27	40,5		101,27
66	Tulip poplar	27	40,5		101,27
67	Tulip poplar	25,5	38,25		101,27
68	Tulip poplar	28	42		101,27
69	Tulip poplar	25,5	38,25		101,27
70	Tulip poplar	26,5	39,75		101,27
71	Tulip poplar	28	42		101,27
72	Tulip poplar	30	45		101,27
73	Tulip poplar	24	36		101,27
74	Tulip poplar	25	37,5		101,27
75	Tulip poplar	24,5	36,75		101,27
76	Tulip poplar	25,5	38,25		101,27
77	Tulip poplar	33	49,5		101,27
78	Tulip poplar	30,5	45,75		101,27
79	Tulip poplar	26,5	39,75		101,27
80	Tulip poplar	37	55,5		101,27
81	Red maple	39	58,5	Good/fair, co-dominant trunks	101,27
82	Tulip poplar	58,5	87,75	Fair, some trunk rot	101,27
83	Tulip poplar	36	54	Fair, some trunk rot	101,27
84	Tulip poplar	31	46,5		101,27
85	Tulip poplar	31	46,5		101,27
86	Tulip poplar	33,5	50,25		101,27
87	Tulip poplar	38,5	57,75		101,27
88	Tulip poplar	26	39		101,27
89	Tulip poplar	36	54		101,27
90	Black oak	35	52,5		81,85
91	Tulip poplar	24,5	36,75		101,27
92	Tulip poplar	25,5	38,25		101,27
93	Silver maple	32	48		93,95
94	Red maple	36	54		86,94
95	Silver maple	24,5	36,75	Good/Fair, vine pressure present	93,95
96	Tulip poplar	28	42	Fair/Poor, large storm damage present in canopy, heavy vine pressure	101,27
97	Red maple	32	48	Fair, rot present at large pruning cut	86,94
98	White pine	28	42	Fair/Poor, large dead present, girdling root, trunk scar with carpenter ant damage	52,99
99	White pine	28	42		52,99
100	Tulip poplar	33,5	50,25		101,27
101	Tulip poplar	29,9	44,85		101,27
102	Tulip poplar	41	61,5		101,27

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

FOREST CONSERVATION WORKSHEET FOR _____

Net Tract Area

A.	Total (Gross) Tract Area		A = 14,85
B.	Area within 100-year Floodplain		B = 0,00
C.	Other Deductions (identify_____)		C = 0,00
D.	Net Tract Area		D = 14,85

Land Use Category
Insert the number "1" under the appropriate land use (limit to only one entry)

Resid. Rural LD	Resid. Rural MD	Resid. Suburban	Ind./ Linear	Retail/Ind./ Office	Mixed Use/ PUD
0	0	1	0	0	0

E.	Afforestation Threshold	(Net Tract Area x 15%)	E = 2,20
F.	Reforestation Threshold	(Net Tract Area x 20%)	F = 3,20

Existing Forest Cover

G.	Existing Forest Cover within the Net Tract Area	G = 4,90
H.	Area of Forest above Afforestation Threshold	H = 2,70
I.	Area of Forest above Reforestation Threshold	I = 1,30

Break Even Point

J.	Break Even Point	J = 3,83
K.	Forest Clearing Permitted without Mitigation	K = 1,27

Proposed Forest Clearing

L.	Total Area of Forest to be Cleared	L = 2,70
M.	Total Area of Forest to be Retained	M = 2,20

Planting Requirements Inside Watershed

N.	Reforestation for Clearing above the Reforestation Threshold	N = 1,20
P.	Reforestation for Clearing below the Reforestation Threshold	P = 1,20
Q.	Credit for Retention above the Reforestation Threshold	Q = 0,00
R.	Total Reforestation Required	R = 2,80
S.	Total Afforestation Required	S = 0,00
T	Total Reforestation and Afforestation Requirement	T= 2,80
U	75% of Total Obligation (Retention + Planting)	U= 3,60
V	Planting Required Onsite to meet 75% Obligation	V= 1,40

Planting Requirements Outside Watershed

W.	Total Planting within Development Site Watershed	W= 3,10
X.	Total Afforestation Required	X= 0,00
Y.	Remaining Planting within Watershed for Reforestation Credit	Y= 3,10
Z.	Reforestation for Clearing above the Reforestation Threshold	Z= 0,00
AA.	Reforestation for Clearing below the Reforestation Threshold	AA= 0,00
BB.	Credit for Retention above the Reforestation Threshold	BB= 0,00
CC.	Total Reforestation Required	CC= 0,00
DD.	Total Afforestation and Reforestation Requirement	DD= 0,00

Date: 6/11/25

Written Findings for Clearing within a Priority Retention Area

Written findings and justification for any clearing of a priority retention area, as listed in Code section 16.1205b is required for development project.

Criteria:

1. The design minimizes disturbance and addresses the protection of these areas in the priority which they are listed;
2. There is no other reasonable alternative; and
3. The cost of an alternative improvement shall not be a factor in deciding whether the criteria above can be met.

The following chart outlines the compliance goals of the FCA relative to the retention of high priority forest:

Priority Ranking	Justification for Clearing
(1) Howard County Green Infrastructure Network.	Not impacted by project
(2) 100-year floodplain as defined in the Subdivision Regulations.	Not impacted by project
(3) Stream buffers as defined in the Subdivision Regulations, except that a minimum 100-foot buffer shall be provided for perennial streams;	Not impacted by project
(4) Forested wetlands and wetland buffers as defined in the Subdivision Regulations;	Not impacted by project
(5) Critical habitat areas and forest corridors with a minimum width of 300 feet, where practical, for wildlife movement;	Not impacted by project
(6) Forest suitable for forest interior-dwelling species;	The forest on the site is mapped as potential forest interior-dwelling species habitat but all of the forest on the site is within the 300 foot influence of the edge effect. The proposed forest clearing is limited to the outer edge of the stand and will not directly impact any functional interior forest. The clearing will not indirectly impact offsite forest because of overlapping edge effect from existing forest edges. No rare, threatened, or endangered species are reported on or adjacent to the site per the Living Resources mapping on MD Merlin.
(7) Steep slopes as defined in the Subdivision Regulations and slopes of 15% or greater with a soil erodibility factor greater than 0.35;	Not impacted by project
(8) Forest located in a Tier II or Tier III high quality watershed as identified by the Maryland Department of the Environment;	Not impacted by project
(9) Forest located in a water resource protection zone, a reservoir watershed, or a wellhead protection area;	Not impacted by project
(10) Forest in urban areas:	The forest on the site is mapped within an urban area and limited forest clearing is proposed. Avoidance of all forest clearing would create a hardship in that all of the forest on the site is considered urban forest and the forest occupies over 30 percent of the property. The challenge of balancing development that follows the density allocation of master planned zoning and urban forest protection is a difficult one. Much of the forest to be impacted by the proposed development is a man-made white pine planting that is isolated and has limited species and structural diversity. The proposed site plan, however, will allow for the retention of the highest priority forest. This includes natural deciduous forest in and adjacent to the stream buffers in the west end of the site. The site plan also proposes onsite reforestation such that ultimately more forest will be present on the site than currently exists. The reforestation will be accomplished with a diversity of native species and will create corridors along the perimeter of the site that will provide wildlife habitat and connectivity. The forest to be retained and created will be protected in easements and not on private lots with no protection, as is currently the case.
(11) Forest contiguous with the priority areas listed above;	Forested stream buffers are present on the site. The limited forest clearing proposed for this project is contiguous to this priority forest type. Only a small area of forest to be cleared is immediately adjacent to the stream buffer, the majority of forest to be cleared is well away from the buffer limit. The main forest clearing area is more than 120 feet removed from the buffer. Since the majority of the forest on the site is part of the forest patch that contains the stream buffer, avoidance of this priority area would cause a significant hardship for the property owner. Complete avoidance of all forest contiguous to the stream buffer/ potential forest interior habitat would require that 4.5 acres of the site be set aside. This represents over 30 percent of the property. Given that most of the forest to be removed is a young successional forest with significant invasive species colonization, avoiding clearing this low priority forest is unwarranted.
(12) Forest contiguous with off-site forest, if the off-site forest is also protected by a Forest Conservation Easement;	Not impacted by project
(13) Property line and right-of-way buffers, particularly adjacent to scenic roads	Not impacted by project - the project's reforestation plans will fortify the forest along the property line.

SPECIMEN TREE IMPACT CALCULATOR

TREE	CRZ (sf)	LOD (sf)	% of CRZ disturbed	TBR (Y/N)
2	9,940	9,940	100%	YES
3	9,161	9,161	100%	YES
4	6,576	6,576	100%	YES
5	13,375	10,499	78%	YES
7	6,576	309	5%	NO
8	9,161	5,025	55%	YES
9	6,793	1,658	24%	NO
10	10,207	5,494	54%	YES
11	8,413	334	4%	NO
13	10,207	3,012	29,5%	NO
14	9,160	8,011	87%	YES
15	11,594	11,594	100%	YES
16	7,466	7,466	100%	YES
23	8,171	6,763	83%	YES
25	7,238	1,226	17%	NO
26	7,014	1,867	27%	NO
28	7,238	7,238	100%	YES
30	11,594	11,594	100%	YES
31	13,070	8,648	66%	YES
36	7,014	7,014	100%	YES
37	8,659	8,659	100%	YES
38	7,698	7,698	100%	YES
40	7,238	7,238	100%	YES
41	6,362	6,362	100%	YES
42	7,238	7,238	100%	YES
44	9,161	9,161	100%	YES
46	6,362	1,417	22%	NO
47	15,264	4,746	31%	YES
48	9,677	1,795	19%	NO
49	6,792	298	4%	NO
51	7,698	2,671	35%	YES
53	9,417	680	7%	NO
54	6,576	1,841	0%	NO
56	12,173	2,276	19%	NO
58	8,908	4,401	49%	YES
59	7,328	3,668	50%	YES
61	6,793	6,793	100%	YES
62	7,933	7,933	100%	YES
72	6,362	5,375	84%	YES
77	7,698	2,282	30%	NO
78	6,576	314	5%	NO
80	9,677	0	0%	NO
81	10,751	1,800	17%	NO
82	24,190	1,761	7%	NO
83	9,161	0	0%	NO
84	6,793	731	11%	NO
85	6,792	1,273	19%	NO
86	7,933	0	0%	NO
87	10,477	0	0%	NO
89	9,161	0	0%	NO
90	8,659	0	0%	NO
93	7,238	2,032	28%	NO
94	9,160	1,492	16%	NO
97	7,238	7,238	100%	YES
100	7,933	0	0%	NO
102	11,882	0	0%	NO

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS
P.O. BOX 1966 GLEN ARM, MARYLAND 21057

J. Brody McAllister
ISA Certified Arborist
Cert ID: MA-6417A
MD DNR FCA Qualified Professional

NO.	DATE	REVISION

BENCHMARK
ENGINEERING, INC.
3300 NORTH RIDGE ROAD▲SUITE 140▲ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.COM

OWNER:
LOT 5:
SAMY CHARRISE
5960 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

LOT 6:
RISTWAY EDWARD A
RISTWAY BARBARA A
5948 TROTTER ROAD
CLARKSVILLE, MARYLAND 21029

LOT 57:
HWANG STEVEN SEKU
HWANG SUN WHA
6105 SYRACUSE COURT
CLARKSVILLE, MARYLAND 21029

LOT 34 AND 35:
5838 TROTTER LLC
82 E LAKE DRIVE
ANNAPOLIS, MARYLAND 21403

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

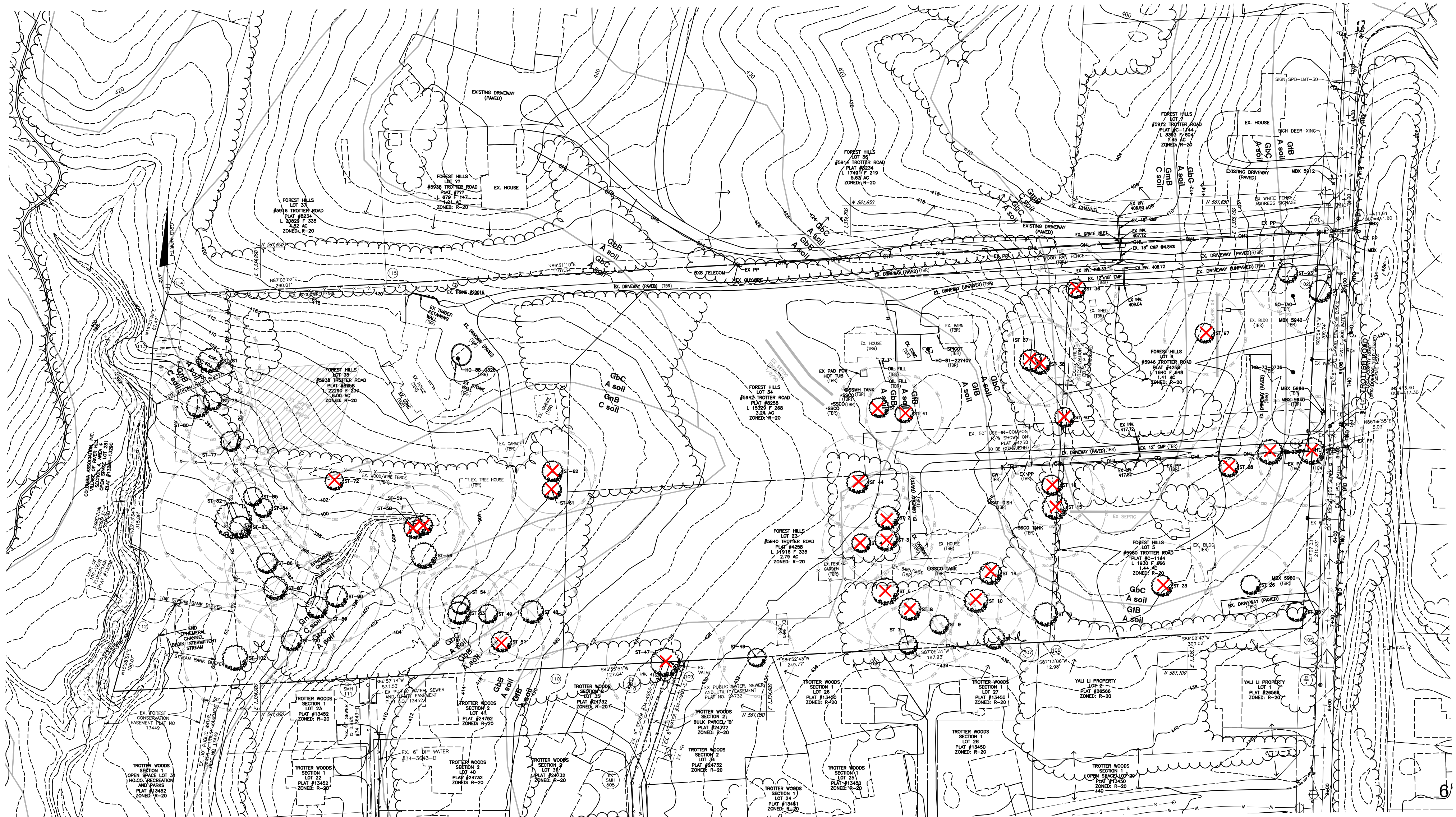
A Re-Subdivision of Lot 5 (previously recorded as Forest Hills Plat No. C-1144); Lots 6 and 27 (previously recorded as Forest Hills Plat No. 4288); Lots 34 and 35 (previously recorded as Forest Hills Plat No. 8258)

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

FOREST CONSERVATION PLAN

DATE: JUNE 11, 2025 BEI PROJECT NO. 3200
DESIGN: CHECK: SCALE: AS SHOWN SHEET 16 OF 17

SP-25-002



1 inch = 50 ft.

NO.	DATE	REVISION

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
3300 N. RIDGE ROAD ▲ SUITE 140 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.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, Expiration Date: 6-30-2025.

STATE OF MARYLAND — CHRISTOPHER A. MALAGARI — 22390 — PROFESSIONAL ENGINEER

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 SEKU
HWANG SUN WHA
6105 SYRACUSE COURT
CLARKSVILLE, MARYLAND 21029

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

DESIGN: DBT | CHECK: CAM

RIVER HILL ESTATES
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ZONED: R-20
ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

EXISTING CONDITIONS PLAN

DATE: JUNE 11, 2025 | BEI PROJECT NO. 3200
SCALE: AS SHOWN | SHEET 17 OF 17

SP-25-002

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR DATE

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE

NOTE:
ALL EXISTING STRUCTURES, WELL AND SEPTIC, AND DRIVEWAYS ARE TO BE REMOVED. ALL LOT LINES AND EASEMENTS SHALL BE EXTINGUISHED UPON SUBDIVISION

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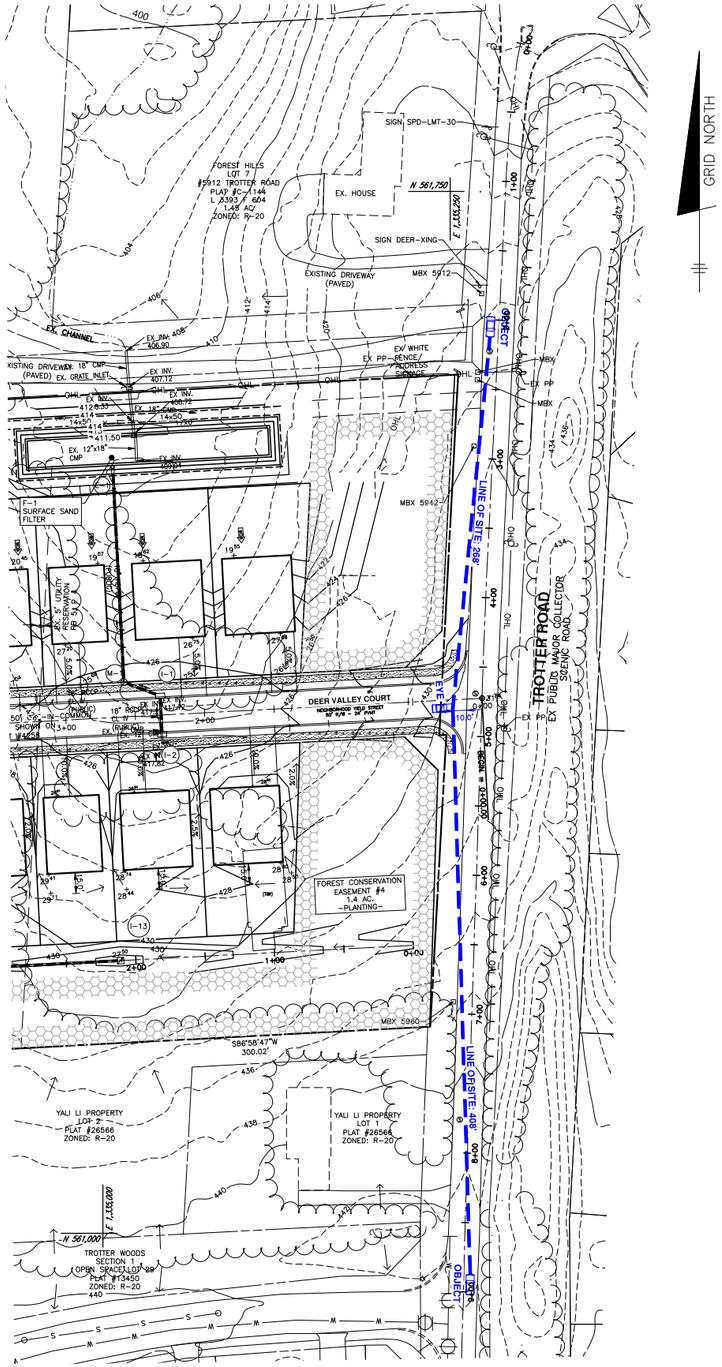


NOTE:

THE SPEED STUDY USED FOR THIS ANALYSIS WAS PREPARED BY MARS GROUP, DATED MAY, 2024.

THE 85TH PERCENTILE SPEEDS WERE AS INDICATED BELOW:

TROTTERT ROAD NORTHBOUND: 37 mph
SOUTHBOUND: 28 mph

NOTE:

TROTTER ROAD TOPOGRAPHY SHOWN IS BASED ON FIELD SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. IN SEPTEMBER, 2024.

INTERSECTION SIGHT DISTANCE

ISD = 1.47(Vmajor)(tg)

WHERE:

ISD = intersection sight distance (length of the leg of sight triangle along the major road)(ft)

Vmajor = design speed of major road(mph)

tg = time gap for minor road vehicle to enter the major road (s).
7.5s for CASE B1, 6.5s for CASE B2 and B3 per EXHIBIT 9-54 and 9-57

NOTE:

PER SECTION 2.1.E.3;

INTERSECTION SIGHT DISTANCE IS MEASURED USING A HEIGHT OF EYE OF 3.5 FEET AND HEIGHT OF OBJECT OF 3.5 FEET. THE DISTANCE IS MEASURED FROM A POINT 10 FEET BACK FROM THE EDGE OF PAVING OR FLOW LINE OF THE MAJOR STREET.

CASE B-1: LEFT TURN FROM STOP

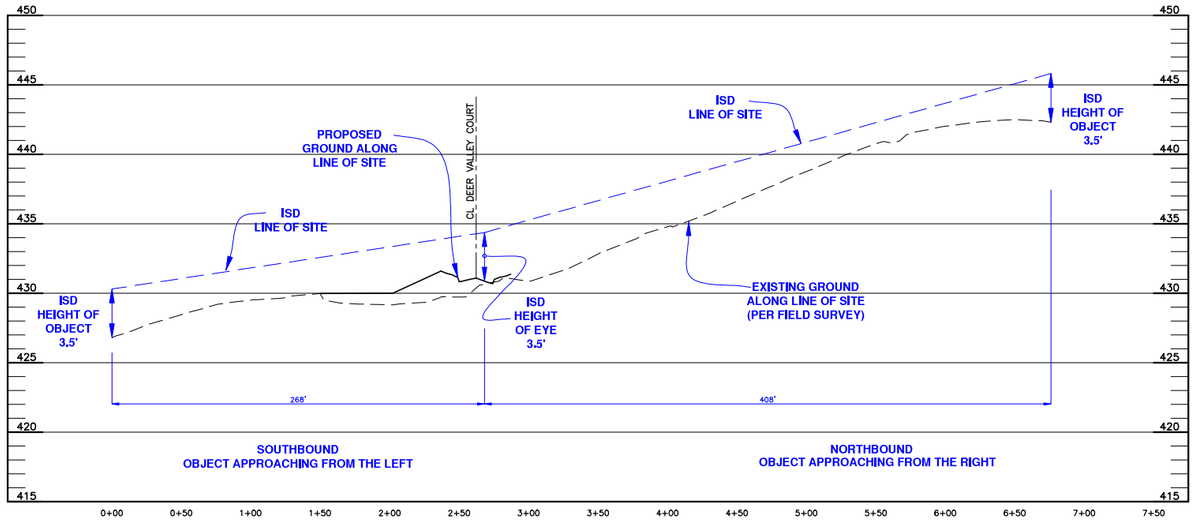
ISD = 1.47 (37 mph) 7.5 = 408'

CASE B-2: RIGHT TURN FROM STOP

ISD = 1.47 (28 mph) 6.5 = 268'

CASE B-3: CROSSING MANEUVER

ISD = 1.47 (mph) 6.5 = N/A
ISD = 1.47 (mph) 6.5 = N/A



0 25 50 100
1 inch = 50 ft., HORIZ.

0 2.5 5 10
1 inch = 5 ft., VERT.

NO.	DATE	REVISION

BENCHMARK
ENGINEERING, INC.
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
3300 N. RIDGE ROAD ▲ SUITE 140 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.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, Expiration Date: 6-30-2025

STATE OF MARYLAND · CHRISTOPHER A. MILLIGAN · 22390 · PROFESSIONAL ENGINEER

OWNER:

LOT 5:
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CLARKSVILLE, MARYLAND 21029

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RISTWAY BARBARA A
5946 TROTTER ROAD
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TAX MAP: 0035 GRID: 0008 PARCEL: 0373
ZONED: R-20
ELECTION DISTRICT NO. __ HOWARD COUNTY, MARYLAND

SIGHT DISTANCE ANALYSIS
INTERSECTION SIGHT DISTANCE

DESIGN: DBT	CHECK: CAM	DATE: DECEMBER 15, 2024	BEI PROJECT NO. 3200
		SCALE: AS SHOWN	SHEET 1 OF 1

SP-25-002

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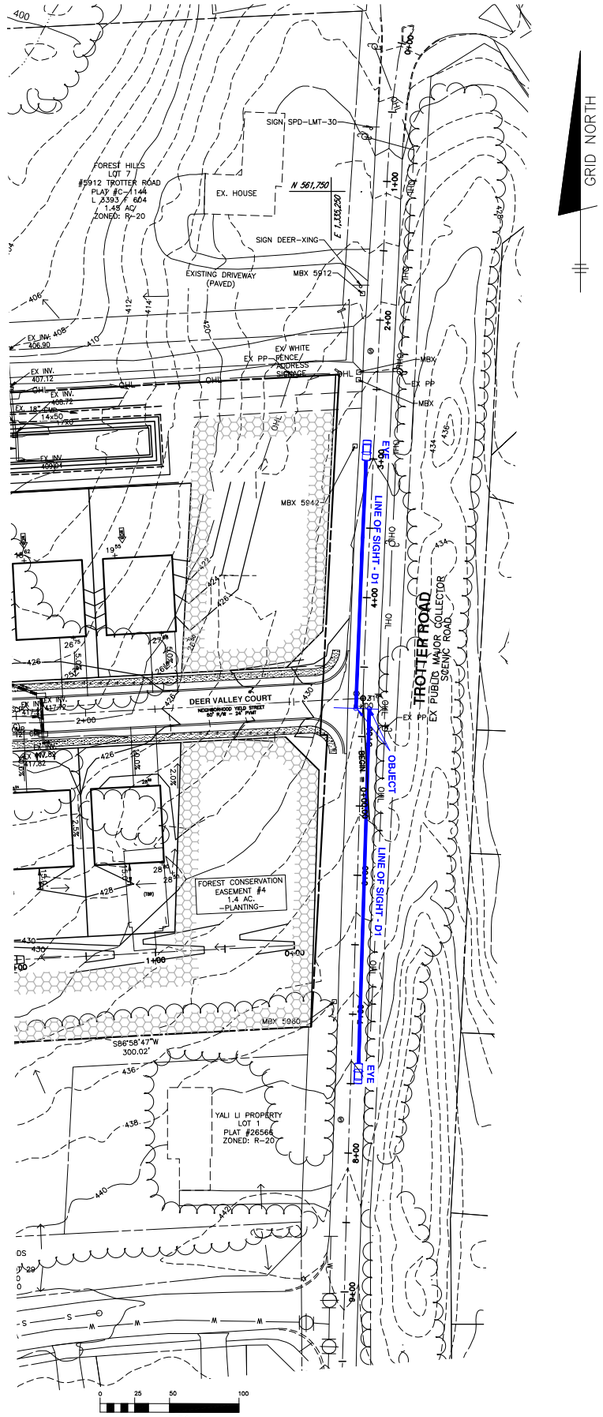

NOTE:

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THE 85TH PERCENTILE SPEEDS WERE AS INDICATED BELOW:

TROTTER ROAD NORTHBOUND: 37 mph
SOUTHBOUND: 28 mph

NOTE:

TROTTER ROAD TOPOGRAPHY SHOWN IS BASED ON FIELD SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. IN SEPTEMBER, 2024.

STOPPING SIGHT DISTANCE

d=1.47Vt + 1.075(V^2/a)

WHERE:

d = stopping sight distance
t = brake reaction time, 2.5s
V = design speed, mph
a = deceleration rate, ft/s^2
3.4 m/s^2

Southbound

SSD = 178.0

V = 28 mph
t = 2.5 s
a = 11.2 ft/s^2
G = 0 percent of grade/100

Northbound

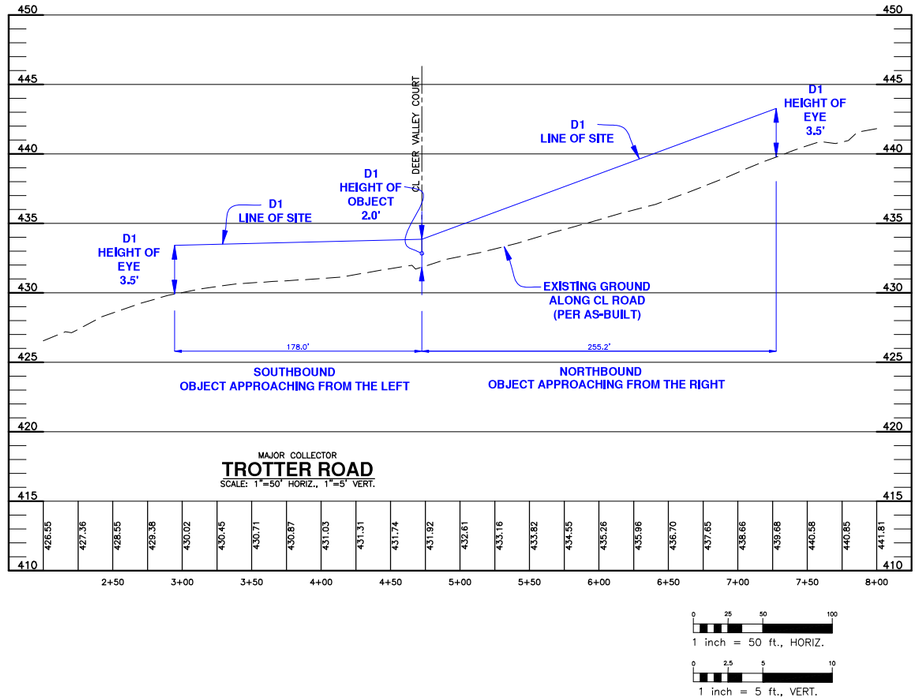
SSD = 255.2

V = 37 mph
t = 2.5 s
a = 11.2 ft/s^2
G = 0.035 percent of grade/100

NOTE:

PER SECTION 2.1.E.1;

STOPPING SIGHT DISTANCE IS MEASURED BETWEEN AN EYE HEIGHT OF 3.5 FEET AND AN OBJECT HEIGHT OF 2.0 FEET.



0 25 50 100
1 inch = 50 ft., HORIZ.

0 2.5 5 10
1 inch = 5 ft., VERT.

NO.	DATE	REVISION

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STATE OF MARYLAND · CHRISTOPHER A. MAYER · 22390 · PROFESSIONAL ENGINEER

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ZONED: R-20
ELECTION DISTRICT NO. __ HOWARD COUNTY, MARYLAND

SIGHT DISTANCE ANALYSIS
STOPPING SIGHT DISTANCE

DATE: DECEMBER 15, 2024 | BEI PROJECT NO. 3200
SCALE: AS SHOWN | SHEET 1 OF 1

SP-25-002

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