

GENERAL NOTES

- 1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
3. ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
4. THE SUBJECT PROPERTY IS ZONED R-SC IN ACCORDANCE WITH THE 10/6/2013 COMPREHENSIVE ZONING PLAN AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/22/03 PER COUNCIL BILL 75-2003.
5. THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY VOGEL ENGINEERING + TIMMONS GROUP DATED DECEMBER 2022.
6. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON FIELD RUN SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC DATED NOVEMBER 2017, FROM FINAL PLAN, AND HOWARD COUNTY GIS.
7. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS BM 47GE AND BM 47GD WERE USED FOR THIS PROJECT.
8. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
9. STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF MICRO-SCALE AND NON STRUCTURAL PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. MICRO-SCALE PRACTICES INCLUDE MICRO-BIOPRETENTION (M-6) AND DRYWELLS (M-5) THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
10. THE PROPOSED UNITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
11. EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS, APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
12. ANY DAMAGE TO THE COUNTY'S RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
13. SHC ELEVATIONS ARE LOCATED AT THE PROPERTY LINE/EDGE OF EASEMENT.
14. THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING AT&T BGE (CONSTRUCTION SERVICES) 410-637-8713 BGE (EMERGENCY) 410-685-0123 BUREAU OF UTILITIES 410-313-4900 COLONIAL PIPELINE CO 410-795-1390 MISS UTILITY 1-800-257-7777 STATE HIGHWAY ADMINISTRATION 410-531-5533 VERIZON 1-800-743-0033
15. THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT, THERE IS EXISTING HOUSE ON PROPERTY TO BE REMOVED.
16. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
-SEE SHEET 5 FOR ADDITIONAL ZONING REGULATION REQUIREMENTS.
17. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A) WIDTH - 12' (1) SIDEWALK (MINIMUM 6" WIDE)
B) SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1"-1 1/2" MIN.)
C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (425 LOADING)
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
F) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
18. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, AND FOREST CONSERVATION EASEMENT AREAS.
19. REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE FOR LOTS 1-4 ARE PROVIDED TO THE JUNCTION OF THE PIPESTEM AND THE PROPOSED ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIESTEM LOT DRIVEWAY. TRASH AND RECYCLING WILL BE COLLECTED WITHIN 67' OF THE COUNTY ROADWAY.
20. THE PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- WATER SERVICE CONNECTION FOR THIS PROJECT WILL BE FROM CONTRACT NO. 24-5031 AND 1-18
- SEWER SERVICE CONNECTION FOR THIS PROJECT WILL BE FROM CONTRACT NO. 24-5031-D AND 20-1018.
21. WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE.
22. PUBLIC WATER AND SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
23. ALL WATER HOUSE CONNECTIONS SHALL BE OUTSIDE METER SETTING UNLESS OTHERWISE NOTED ON THE PLANS OR IN SPECIFICATIONS.
24. TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES LOCATED ON THIS PROPERTY OR THE COUNTY'S CEMETERY SITE MAP.
25. OLD SCAGSVILLE ROAD IS CLASSIFIED AS A LOCAL ROAD, AND IT IS NOT A SCENIC ROAD.
26. A WETLAND AND SIMPLIFIED FOREST STAND DELINEATION PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, JULY 18, 2018 AND APPROVED AS PART OF THE ECP PLAN SUBMISSION.
- THREE (3) SPECIMEN TREES WERE FOUND ONSITE. THE PROPOSAL INCLUDES THE REMOVAL OF 1 TREE. EFFORTS WILL BE MADE TO SAVE TREE #2 AND 3. REFER TO WP-19-093.
27. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT AREA ALLOWED.
- TOTAL FOREST CONSERVATION OBLIGATION OF THIS PROJECT FOR THE REQUIRED AFFORESTATION OF 0.2 AC HAD BEEN FULFILLED UNDER F-19-022.
28. IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME 3, CHAPTER 4 - SECTION 4.7(B)(5), A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
29. A NOISE STUDY IS NOT REQUIRED FOR THIS SITE.
30. CERTIFIED TEST PITS HAD BEEN PROVIDED TO VERIFY THE LOCATIONS OF GROUNDWATER AND/OR ROCK. OPEN TEST PITS WERE OBSERVED BY TRINITY HOMES ON NOVEMBER 2018.
31. THE PRE-SUBMISSION COMMUNITY MEETING WAS HELD FOR THIS PROJECT ON JANUARY 10, 2018 AT THE NORTH LAUREL COMMUNITY CENTER.
-A SECOND MEETING WAS HOLD ON FEBRUARY 13TH, 2019.
32. AN ENVIRONMENTAL CONCEPT PLAN (ECP-18-024) WAS APPROVED ON AUGUST 27, 2018.
33. A FINAL PLAN (F-19-022) WAS APPROVED ON JUNE 13, 2019.
34. PUBLIC STREET TREES ARE NOT REQUIRED FOR THIS PLAN.
35. PERIMETER LANDSCAPING WAS PROVIDED FOR THIS PROJECT UNDER F-19-022 IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY WAS POSTED AS PART OF THE F-19-022 DEVELOPER AGREEMENTS.
36. THE PROPOSED SUBDIVISION AND RELATED CONSTRUCTION WILL NOT IMPACT ENVIRONMENTAL FEATURES OR BUFFERS.
37. NO FLOODPLAIN IS LOCATED ONSITE.
38. NO STEEP SLOPES OVER 20,000 SF CONTIGUOUS ARE LOCATED ONSITE.
39. IN ACCORDANCE WITH DESIGN MANUAL-VOLUME 3, CHAPTER 2 - SECTION 2.9.B. PARKING IS REQUIRED AT TWO (2) SPACES PER UNIT OFF-STREET PARKING TO INCLUDE GARAGE SPACE, DRIVEWAY AND PARKING PADS. GARAGES COUNT AS A FULL SPACE. THE ONE (1) GARAGE SPACE MAY NOT BE CONVERTED TO LIVING SPACE AND SHALL ONLY BE UTILIZED FOR VEHICULAR PARKING SPACE. REFER TO PARKING TABULATION.
40. THE HOMEOWNERS ASSOCIATION DOCUMENTS HAVE BEEN RECORDED WITH THE MARYLAND STATE DEPARTMENT OF ASSESSMENTS AND TAXATION, REFERENCE #023310808. HOMEOWNERS ASSOCIATION COVENANTS AND RESTRICTIONS WERE RECORDED UNDER LIBER 21898 FOLIO 465 SIMULTANEOUSLY WITH F-19-022. REFER TO LIBER 21898 FOLIO 500, DEED DATED DECEMBER 21, 2022.
41. THIS PROJECT IS SUBJECT TO A ALTERNATIVE COMPLIANCE WP-19-093 APPROVED ON MAY 15, 2019, THE CHIEF OF THE DEVELOPMENT ENGINEERING DIVISION APPROVED THE REQUEST FOR ALTERNATIVE COMPLIANCE OF SECTION 16.1205(O)(7) FOREST RETENTION PRIORITIES FOR THE REMOVAL OF ONE SPECIMEN TREE A 36" RED MAPLE SUBJECT TO FOLLOWING CONDITIONS:
1. ADD THE ALTERNATIVE COMPLIANCE WP-19-093, ON F-19-022, MAGNOLIA MANOR EAST AS A GENERAL NOTE STATING THE REQUEST, THE APPROVAL DATE AND CONDITIONS.
2. SHOW THE 1 SPECIMEN TREE BEING REMOVED AND LABELED PER WP-19-093 ON THE SUPPLEMENTAL PLAN, THE SPECIMEN TREE REMOVAL SHALL BE MITIGATED BY THE PLANTING OF 2 NATIVE SPECIES TREES OF 2 1/2" TO 3" CALIPER PROVIDED AS PERIMETER LANDSCAPE TREES AND BONDED AS PART OF THE LANDSCAPE SURETY.
42. ELECTRICAL CHARGING STATIONS ARE NOT REQUIRED PER COUNCIL BILL 76 BECAUSE THE SUPPLEMENTAL PLAN WAS SIGNED PRIOR TO JANUARY 11, 2019.
43. A PRIVATE RANGE OF ADDRESS SIGN SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES. SEE F-19-022.
44. THIS PROJECT IS SUBJECT TO A ALTERNATIVE COMPLIANCE WP-23-050 APPROVED ON DECEMBER 9th, 2022, THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING, APPROVED THE REQUEST FOR ALTERNATIVE COMPLIANCE OF SECTION 16.144(g) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO REQUEST A 60 DAY EXTENSION TO COMPLETE THE DEVELOPER'S AGREEMENTS FOR F-19-022. SUBJECT TO FOLLOWING CONDITIONS:
1. THE APPLICANT MUST COMPLETE THE DEVELOPER AGREEMENTS, PAY FEES, POST FINANCIAL OBLIGATIONS FOR F-19-022 WITHIN 60 DAYS OF THE DATE OF THIS ALTERNATIVE COMPLIANCE APPROVAL (ON OR BEFORE FEBRUARY 6, 2023).

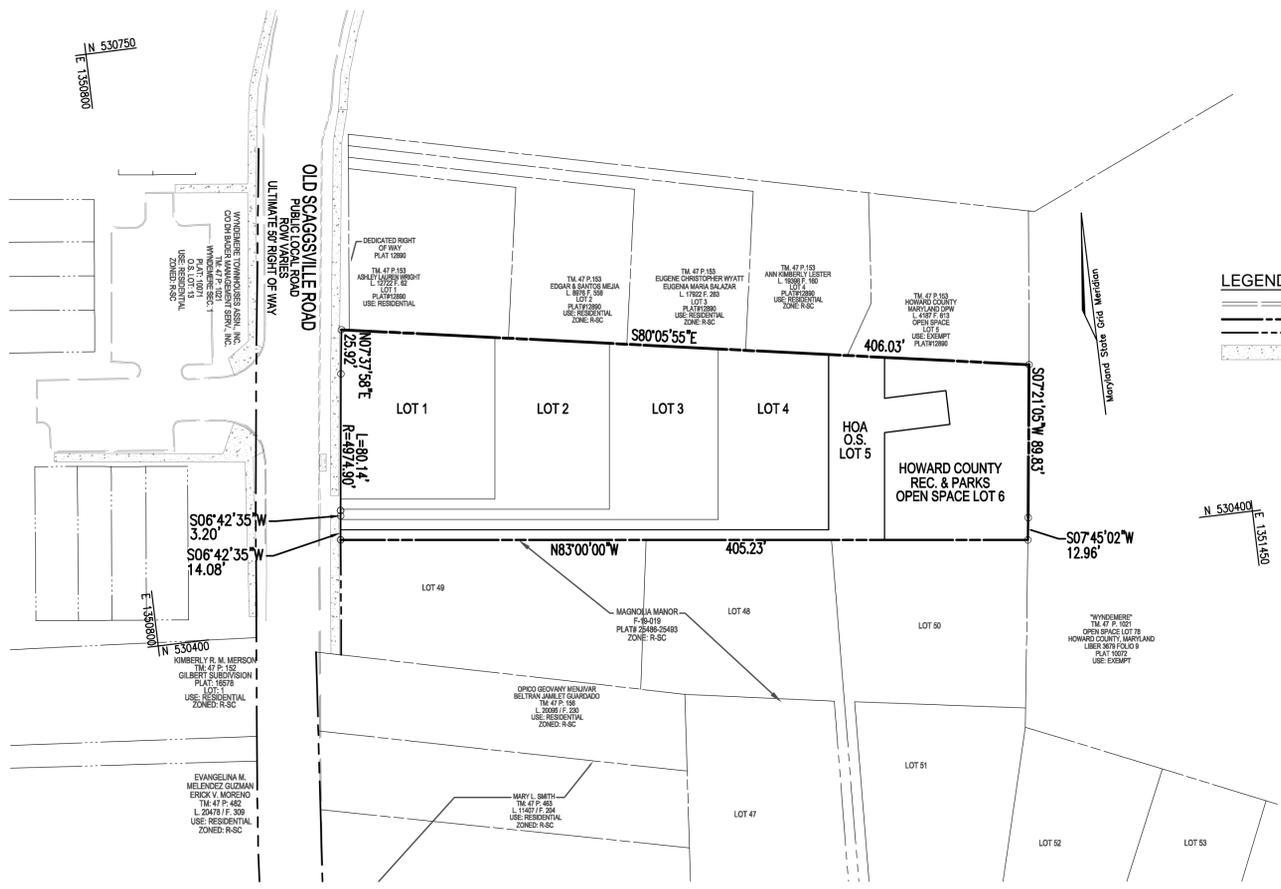
SITE DEVELOPMENT PLAN
MAGNOLIA MANOR EAST
LOTS 1 - 4
HOWARD COUNTY, MD

NOTES:
1. ALL WATER CONNECTIONS SHALL BE 1 1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAIL W-3.28 OUTSIDE METER SETTINGS.

BENCHMARKS
HOWARD COUNTY BENCHMARK - 47GE
N 529044.94 E 1350855.03 ELEV: 337.61
HOWARD COUNTY BENCHMARK - 47GD
N 530494.49 E 1350872.35 ELEV: 312.28



VICINITY MAP
SCALE: 1"=2,000'
ADC MAP COORDINATE: PAGE: 40 BLOCK: A6 & A7



LEGEND
EXISTING CURBS AND GUTTER
PROPERTY LINE
RIGHT-OF-WAY LINE
EXISTING SIDEWALK F-19-022

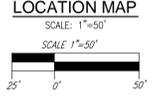
SHEET INDEX
DESCRIPTION SHEET NO.
COVER SHEET 1 OF 5
LAYOUT PLAN 2 OF 5
GRADING, AND SOIL EROSION AND SEDIMENT CONTROL PLAN 3 OF 5
GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN-NOTES AND DETAILS 4 OF 5
ESD STORMWATER MANAGEMENT NOTES, DETAILS, AND HOUSE TYPES 5 OF 5

MODERATE INCOME HOUSING UNITS (MIHU) ALLOCATION EXEMPTIONS TRACKING
TOTAL NUMBER OF LOTS/UNITS PROPOSED 4
NUMBER OF MIHU REQUIRED 1
NUMBER OF MIHU PROVIDED ONSITE (EXEMPT FROM APFO ALLOCATIONS) 0
NUMBER OF APFO ALLOCATIONS REQUIRED (REMAINING LOTS/UNITS) 3
MIHU FEE-IN-LIEU (LOTS 1-4)

F-19-022 - MIHU AGREEMENT
PLEASE NOTE THAT ALL LOTS/RESIDENTIAL UNITS IN THIS SUBDIVISION (LOTS 1-4) ARE SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT ISSUANCE BY THE PERMIT APPLICANT. REFER TO L21898 F.509

SITE ANALYSIS DATA

- A. TOTAL PROJECT AREA: 1.0995 AC
B. AREA OF PLAN SUBMISSION: 0.7270 AC = AREA OF BUILDABLE LOTS
C. LIMIT OF DISTURBANCE: 0.61 AC
D. PRESENT ZONING DESIGNATION: R-SC
E. PROPOSED USES FOR SITE AND FLOOR SPACE ON EACH LEVEL: SINGLE FAMILY DETACHED
G. TOTAL NUMBER OF UNITS ALLOWED FOR PROJECT AS SHOWN ON FINAL PLAT: N/A
H. TOTAL NUMBER OF UNITS PROPOSED: 4 BUILDABLE LOTS
I. MAXIMUM NUMBER OF EMPLOYEES, TENANTS ON SITE PER USE: N/A
J. NUMBER OF PARKING SPACES PROVIDED BY HOOD ZONING REGULATIONS: 2 PER UNIT (SEE PARKING TABULATION HEREON)
K. NUMBER OF PARKING SPACES PROVIDED ON SITE: 2 PER SFD
L. OPEN SPACE ON SITE: SEE OPEN SPACE TABULATION
M. AREA OF RECREATION OPEN SPACE REQUIRED BY SUBDIVISION & LAND DEVELOPMENT REGULATIONS: N/A
N. BUILDING COVERAGE OF SITE: N/A
O. APPLICABLE DPZ FILE REFERENCES: WP-19-093, ECP-18-024, F-19-022, WP-23-050
P. ANY OTHER INFORMATION WHICH MAY BE RELEVANT: TAX MAP 47, GRID 19, PARCEL 154 6TH ELECTION DISTRICT
Q. FLOOR AREA RATIO: N/A



SUMMARY OF FINDINGS FOR APFO TRAFFIC ANALYSIS:
IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME 3, CHAPTER 4 SECTION 4.7(B)(5), A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
A. DATE OF REPORT: NOT APPLICABLE
B. DATE OF COUNT(S): NOT APPLICABLE
C. REPORT SUBMITTED AS PART OF PLAN NUMBER: NOT APPLICABLE
D. PROVIDE STATEMENT THAT SCHOOLS WERE IN SESSION ON THAT DATE(S): NOT APPLICABLE
E. LIST INTERSECTIONS STUDIED, IDENTIFY INTERSECTION AS STATE OR COUNTY JURISDICTION, AND LABEL LOS FOR THE HORIZON YEAR OF EACH INTERSECTION: NOT APPLICABLE
F. PROVIDE STATEMENT AS TO WHETHER MITIGATION IS REQUIRED AND EXPLAIN THE METHOD OF MITIGATION/IN LIEU FEE. NOT APPLICABLE

OWNER: MAGNOLIA MANOR, LLC
DEVELOPER: TRINITY HOMES MARY LAND, LLC
3675 PARK AVE., SUITE 301
ELLICOTT CITY, MD 21043
(410) 480-0023

SITE DEVELOPMENT PLAN
COVER SHEET
MAGNOLIA MANOR EAST
LOTS 1 - 4
PLAT# 26295
TAX MAP: 47 PARCEL: 154
6TH ELECTION DISTRICT
BLOCK: 19 ZONING: R-SC
HOWARD COUNTY, MARYLAND

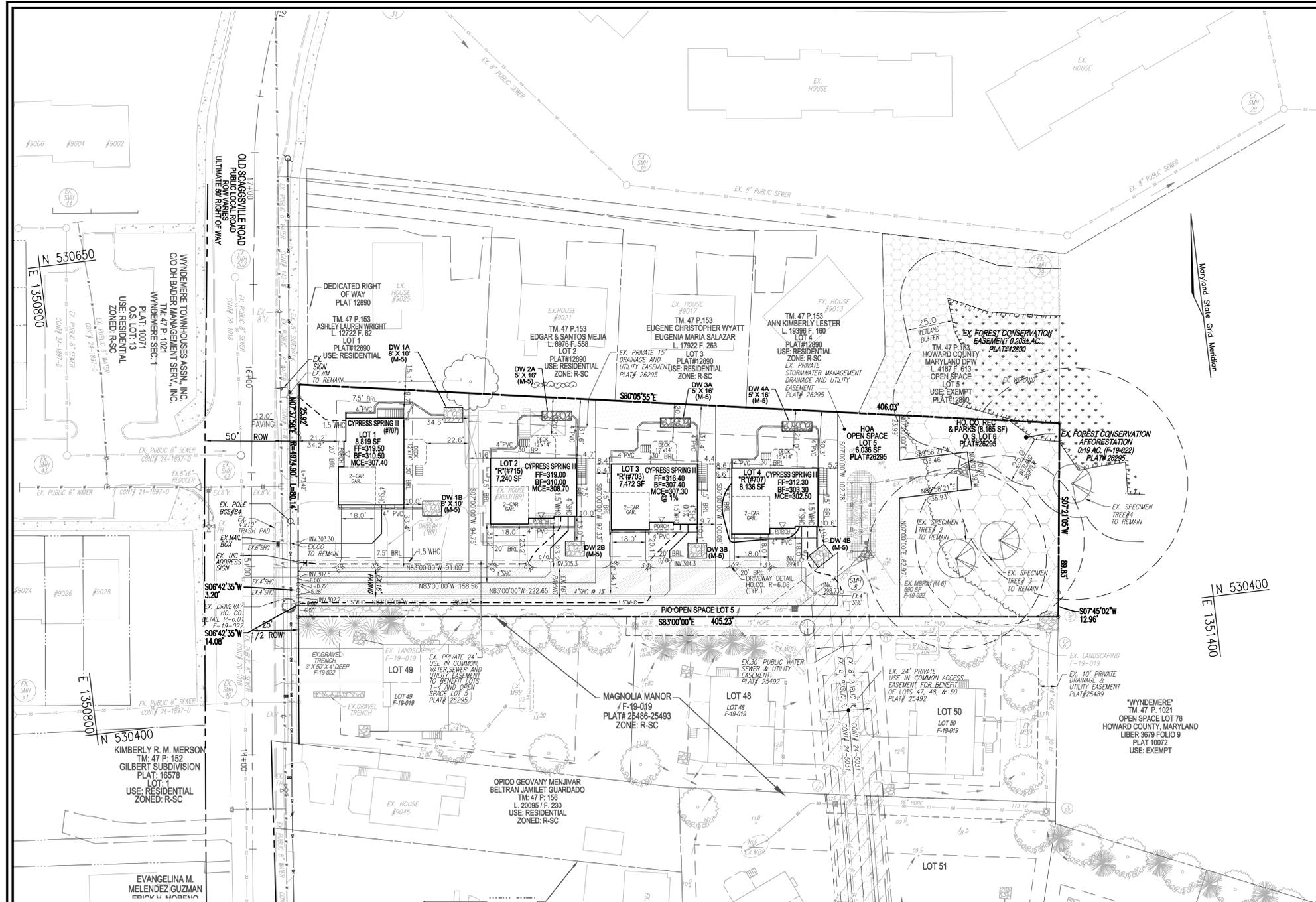
ADDRESS & STORMWATER MANAGEMENT PRACTICE CHART
LOT # STREET ADDRESS ESD PRACTICE
LOT 1 9037 OLD SCAGSVILLE ROAD (2) DRY WELL (M-5)
LOT 2 9035 OLD SCAGSVILLE ROAD (2) DRY WELL (M-5)
LOT 3 9033 OLD SCAGSVILLE ROAD (2) DRY WELL (M-5)
LOT 4 9031 OLD SCAGSVILLE ROAD (2) DRY WELL (M-5)
OPEN SPACE LOT 5 OLD SCAGSVILLE ROAD (1) MICRO BIO-RETENTION (M-6), GRASS SWALE (M-8)

MINIMUM LOT SIZE CHART
LOT GROSS AREA PIPESTEM AREA NET AREA MIN. LOT SIZE
1 8,819 SF 0.00 SF 8,819 SF 6,000 SF
2 7,240 SF 546 SF 6,694 SF 6,000 SF
3 7,472 SF 951 SF 6,521 SF 6,000 SF
4 8,136 SF 1,336 SF 6,800 SF 6,000 SF

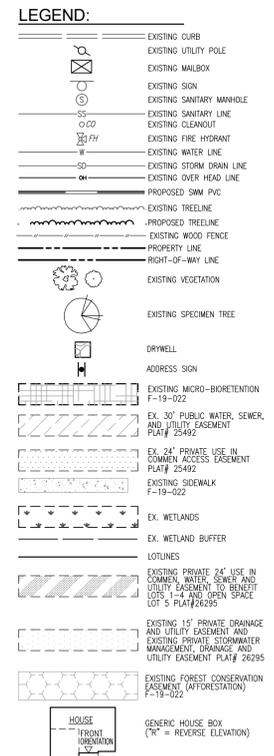
PERMIT INFORMATION CHART
SUBDIVISION NAME: MAGNOLIA MANOR EAST
SECTION/AREA: N/A
LOTS/PARCEL #: 154
PLAT # OR L/F: 26295
BLOCK NO.: 19
ZONE: R-SC
TAX MAP: 47
ELECT. DIST.: 6TH
CENSUS TR.: 606906

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division: Will Edmondson 4/12/2023
Chief, Division of Land Development: [Signature] 4/17/2023
Director: [Signature]

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com
PROFESSIONAL CERTIFICATE
DESIGN BY: RHV
DRAWN BY: KG
CHECKED BY: RHV
DATE: MARCH 2023
SCALE: AS SHOWN
W.O. NO.: 16-15
1 SHEET OF 5
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. 18193 EXPIRATION DATE: 09-27-2024



DRIVEWAY NOTES:
 1. TYPICAL DRIVEWAY WIDTH SHOWN HEREON IS 18 FEET WIDE FOR THE PROPOSED 2 CAR GARAGE. WIDTH SUBJECT TO CHANGE WITH BUILDER RESITE.
 2. THE SHOWN DRIVEWAY LOCATION CANNOT CHANGE UNLESS NOTED ON THIS SDP CONFIRMING THAT THE GRADING AND DRIVEWAY SLOPES WILL REMAIN THE SAME WHETHER THE DRIVEWAY IS ON THE RIGHT OR LEFT SIDE OF THE HOUSE. ONLY ONE DRIVEWAY ORIENTATION CAN BE SHOWN FOR CORNER LOTS.



SITE LAYOUT PLAN
 SCALE: 1" = 30'
 SCALE 1"=30'

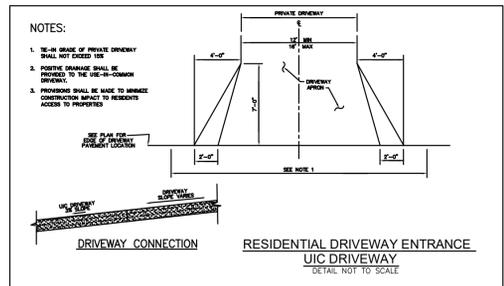
MINIMUM CELLAR ELEVATION (MCE)
 DROP THRU SLAB = 2.5

| LOT # | INV MAIN | TYPE | DIST TO ESMT/R/W | EL @ ESMT/R/W | DIST ESMT - HSE | SHC SLOPE | EL @ HOUSE | BF ELEV | MCE |
|-------|----------|------|------------------|---------------|-----------------|-----------|------------|---------|--------|
| 1 | 302.40 | SHC | 30 | 303.30 | 80 | 2.0% | 304.90 | 310.50 | 307.40 |
| 2 | 301.90 | SHC | 30 | 302.50 | 185 | 2.0% | 306.20 | 310.00 | 308.70 |
| 3 | 301.60 | SHC | 29 | 302.18 | 262** | 1.0% | 304.80 | 307.40 | 307.30 |
| 4 | 298.53 | SHC | 10 | 298.73 | 64 | 2.0% | 300.00 | 303.30 | 302.50 |

* EXISTING 6" SHC CONTRACT 20-1018
 ** 1.0% SHC

WATER NOTE:
 1. ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.
 2. COPPER SHALL BE USED FOR THE 1.5" WHC.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 4/14/2023
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 4/12/2023
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 4/17/2023
 DIRECTOR



STORM WATER MANAGEMENT NOTE:
 1. REFER TO SHEET 5 FOR DRYWELL (DW) SIZE, NOTES & DETAILS

OWNER
 MAGNOLIA MANOR, LLC
 3675 PARK AVE., SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

DEVELOPER
 TRINITY HOMES MARY LAND, LLC
 3675 PARK AVE., SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

| REVISION | DATE |
|----------|------|
| | |
| | |
| | |
| | |

SITE DEVELOPMENT PLAN
SITE LAYOUT PLAN
MAGNOLIA MANOR EAST
 LOTS 1 - 4
 PLAT# 26295

TAX MAP: 47 PARCEL: 154
 6TH ELECTION DISTRICT

BLOCK: 19 ZONING: R-SC
 HOWARD COUNTY, MARYLAND

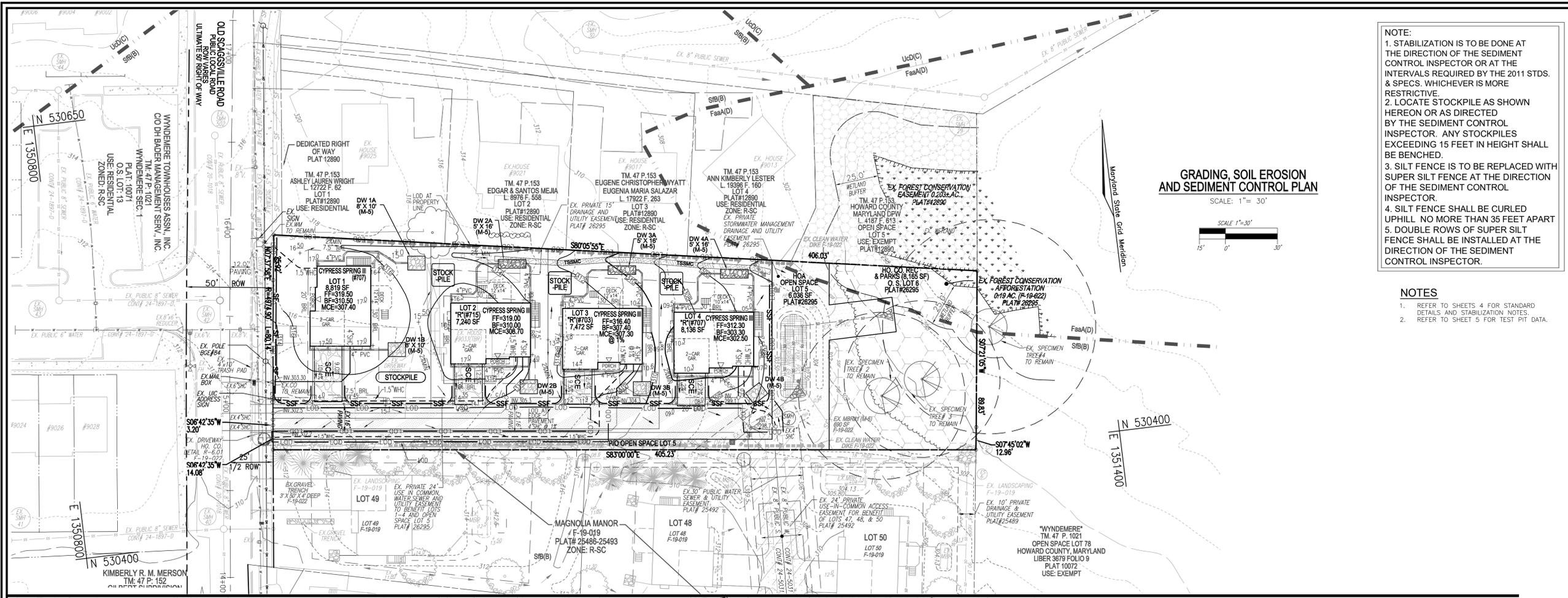
VOGEL ENGINEERING

TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A REGULARLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2024

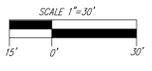
DESIGN BY: RHV
 DRAWN BY: KG
 CHECKED BY: RHV
 DATE: MARCH 2023
 SCALE: AS SHOWN
 W.O. NO.: 16-15

[Signature] ROBERT H. VOGEL, PE No. 16193



GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 30'



LEGEND:

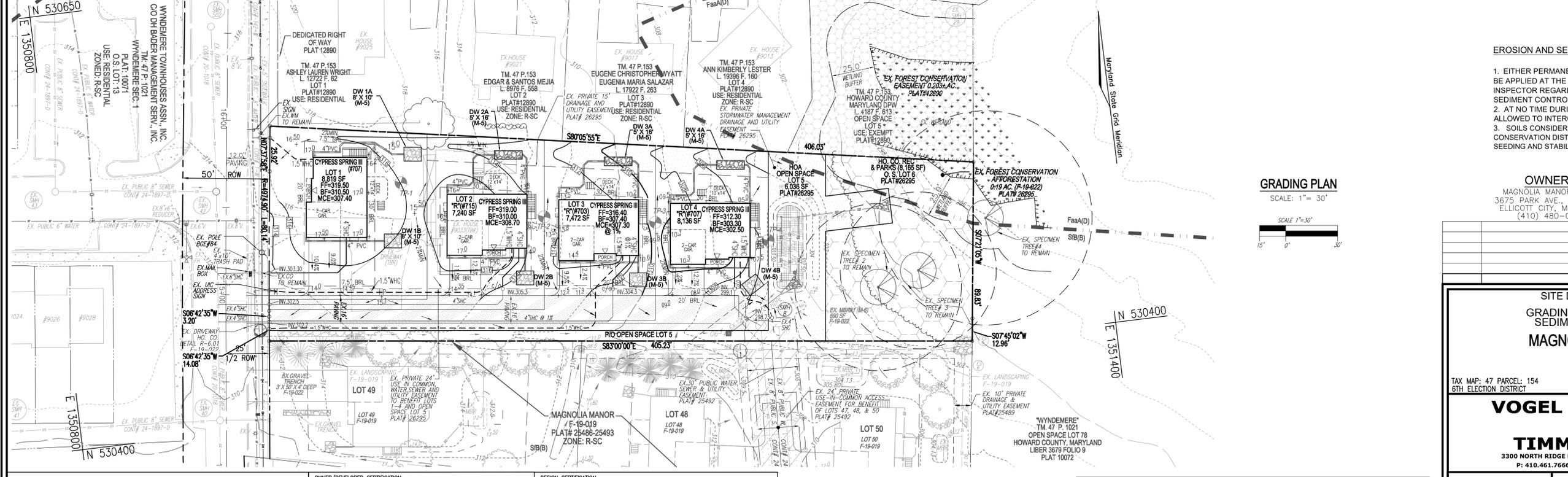
| | |
|--|---|
| | EXISTING CONTOUR |
| | PROPOSED CONTOUR |
| | PROPOSED SPOT ELEVATION |
| | EXISTING CURB AND GUTTER |
| | EXISTING UTILITY POLE |
| | EXISTING MAILBOX |
| | EXISTING SIGN |
| | EXISTING SANITARY MANHOLE |
| | EXISTING SANITARY LINE |
| | EXISTING FIRE HYDRANT |
| | EXISTING WATER LINE |
| | EXISTING OVER HEAD LINE |
| | EXISTING STORM DRAIN LINE |
| | EXISTING TREELINE |
| | PROPOSED TREELINE |
| | PROPERTY LINE |
| | RIGHT-OF-WAY LINE |
| | EXISTING VEGETATION |
| | EXISTING SPECIMEN TREE |
| | DRIVEWAY |
| | ADDRESS SIGN |
| | PROPOSED SIGN |
| | ADDRESS SIGN |
| | EX. MICRO-BORE-TRENCH |
| | EX. 30' PUBLIC WATER, SEWER, AND UTILITY EASEMENT |
| | EX. 24' PRIVATE USE IN COMMON ACCESS EASEMENT |
| | EXISTING SIDEWALK |
| | EX. WETLANDS |
| | EX. WETLAND BUFFER |
| | LOT LINES |
| | EXISTING PRIVATE 24' USE IN COMMON WATER, SEWER AND UTILITY EASEMENT TO BENEFIT LOTS 1-4 AND OPEN SPACE LOT 5 |
| | EXISTING PRIVATE 15' DRAINAGE AND UTILITY EASEMENT TO BENEFIT LOTS 1-4 AND OPEN SPACE LOT 5 |
| | EXISTING FOREST CONSERVATION EASEMENT (AFFORESTATION) |
| | EXISTING EARTH DIKE |
| | EXISTING SALT FENCE |
| | SILT FENCE |
| | SUPER SILT FENCE |
| | LIMIT OF DISTURBANCE |
| | STABILIZED CONSTRUCTION ENTRANCE |
| | TEMPORARY SOIL STABILIZATION MATTING (TSSMC) |
| | HOUSE |
| | FRONT OBSERVATION |
| | GENERIC HOUSE BOX ("R" = REVERSE ELEVATION) |

NOTE:

1. STABILIZATION IS TO BE DONE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE INTERVALS REQUIRED BY THE 2011 STDS. & SPECS. WHICHEVER IS MORE RESTRICTIVE.
2. LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. ANY STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.
3. SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
4. SILT FENCE SHALL BE CURLED UPHILL. NO MORE THAN 3 FEET APART
5. DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

NOTES

1. REFER TO SHEETS 4 FOR STANDARD DETAILS AND STABILIZATION NOTES.
2. REFER TO SHEET 5 FOR TEST PIT DATA.



GRADING PLAN

SCALE: 1" = 30'



EROSION AND SEDIMENT CONTROL NOTES:

1. EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.
2. AT NO TIME DURING CONSTRUCTION WILL FENCING BE ALLOWED TO INTERCEPT CONCENTRATED FLOWS.
3. SOILS CONSIDERED HIGHLY ERODIBLE BY THE HOWARD SOIL CONSERVATION DISTRICT MAY REQUIRE MORE STRINGENT SEEDING AND STABILIZATION METHODS.

OWNER
MAGNOLIA MANOR, LLC
3675 PARK AVE., SUITE 301
ELLCOTT CITY, MD 21043
(410) 480-0023

DEVELOPER
TRINITY HOMES MARY LAND, LLC
3675 PARK AVE., SUITE 301
ELLCOTT CITY, MD 21043
(410) 480-0023

| REVISION | DATE |
|----------|------|
| | |
| | |
| | |

SITE DEVELOPMENT PLAN
GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN
MAGNOLIA MANOR EAST
LOTS 1 - 4
PLAT# 26295

TAX MAP: 47 PARCEL: 154
6TH ELECTION DISTRICT

BLOCK: 19 ZONING: R-SC
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLCOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 (Signature)
 CHIEF, DEVELOPMENT-ENGINEERING DIVISION
 DATE: 4/12/2023

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 4/17/2023

DIRECTOR
 DATE:

OWNER/DEVELOPER CERTIFICATION:
 I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODS ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

Michael Pfau
 OWNER/DEVELOPER SIGNATURE
 DATE: 3/20/2023

DESIGN CERTIFICATION:
 I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

(Signature)
 ROBERT H. VOGEL
 DESIGNER'S SIGNATURE
 DATE: 3/17/2023

MD REGISTRATION NO. 16193
 (S) R.L.S. OR P.L.A. (circle one)
 HOWARD S.C.D. DATE:

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

(Signature)
 Alexander Bratchie 4/12/2023
 DATE:

SOILS LEGEND
HOWARD COUNTY SOILS MAP #24

| SYMBOL | NAME / DESCRIPTION | GROUP | K FACTOR | ERODIBLE |
|--------|---|-------|----------|----------|
| SIB | SASSAFRAS GRAVELLY SANDY LOAM, 2 TO 5 PERCENT SLOPES | B | 0.32 | NO |
| F06a | FALLSINGTON SANDY LOAMS, 0 TO 2 PERCENT SLOPES, NORTHERN COASTAL PLAN | D | 0.24 | NO |

-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE
 -HOWARD COUNTY SOILS MAP NUMBER 24
 -K VALUES PER https://www.howardscd.org/documents - "K" FACTORS (USE KW)
 NOTE: HIGHLY ERODIBLE SOILS ARE 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 PERCENT * LIMITS OF PROJECT

PROFESSIONAL CERTIFICATE

(Seal of Robert H. Vogel, Professional Engineer, No. 16193, State of Maryland)

DESIGN BY: RHV
 DRAWN BY: KG
 CHECKED BY: RHV
 DATE: MARCH 2023
 SCALE: AS SHOWN
 W.O. NO.: 16-15

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. 16193, EXPIRATION DATE: 09-27-2024

3 SHEET OF 5

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- 1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LEO AND PROTECTED AREAS ARE MARKED CLEAR IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES: A. PRIOR TO THE START OF EARTH DISTURBANCE. B. UPON COMPLETION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. C. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT. D. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

- 2. ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO. 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE CONSTRUCTION. 4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE AND ACCORDANCE WITH STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION EQUIPMENT, SOIL EROSION AND SEDIMENT CONTROL, FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION TECHNIQUES ARE TO BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN INCREASINGLY. STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH 45% OR MORE OF EXCESS OF 20 FT. OR MORE OF EXCESS OF 20 FT. MUST BE BENECHED WITH STABLE OUTLET, ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATING (SEC. B-4-6).

- 5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID. 6. SITE ANALYSIS: TOTAL AREA OF SITE: 1.0995 ACRES DISTURBED: 0.31 ACRES AREA TO BE ROOFED OR PAVED: 0.184 ACRES AREAS TO BE VEGETATIVELY STABILIZED: 0.465 ACRES TOTAL CU: 100 CU YDS. TOTAL TOTAL FILL: 100 CU YDS. TOTAL OFFSITE WASTE/BORROW AREA LOCATION: N/A

- (1) REFER TO ITEM #1 BELOW 2. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE. 3. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID, TO THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE SEDIMENT CONTROL INSPECTOR, AND THE NEXT DAY AFTER EACH RAIN EVENT, A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE: INSPECTION DATE - INSPECTION TIME (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT) - NAME AND TITLE OF INSPECTOR - WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION) - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES - EVIDENCE OF SEDIMENT DISCHARGES - IDENTIFICATION OF PLAN DISCREPANCIES - IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE - IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS - IDENTIFICATION OF THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS - PHOTOGRAPHS - CONTROLLING/AMPLING - MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED - OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).

- 7. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR TO TWO CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER. WHEN MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE CID PRIOR TO PROCEEDING WITH CONSTRUCTION. MAJOR REVISIONS MAY BE ALLOWED BY THE CID PER THE USE OF BEST-APPROVED FIELD CHANGES. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MINIMUM AREAS OF 20,000 SQ. FT. ARE TO BE SEQUENCED TO BE COMPLETED PRIOR TO A SUBSEQUENT GRADING UNIT WITH AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE CID, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME. 8. WHEN MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE CID PRIOR TO PROCEEDING WITH CONSTRUCTION. MAJOR REVISIONS MAY BE ALLOWED BY THE CID PER THE USE OF BEST-APPROVED FIELD CHANGES. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MINIMUM AREAS OF 20,000 SQ. FT. ARE TO BE SEQUENCED TO BE COMPLETED PRIOR TO A SUBSEQUENT GRADING UNIT WITH AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE CID, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME. 9. SOILS SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE. 10. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE MAINTAINED AT 2" MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPWARD BY 2" IN ELEVATION. 11. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUDES): - USE 1# AND 1#B MARCH 1 - JUNE 15 - USE 1# AND 1#B OCTOBER 1 - APRIL 30 - USE 1# AND 1#B MARCH 1 - MAY 31 12. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE. REV. 8/2015

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. Discussed by: Alexander Bratish/12/2023 6664980AB98AC1 HOWARD S.C.D. DATE

OWNER/DEVELOPER CERTIFICATION: I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR SEDIMENT ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE. OWNER/DEVELOPER SIGNATURE: Michael Pfau DATE: 3/20/2023

DESIGNER CERTIFICATION: I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT I REPRESENT A PRACTICAL, FEASIBLE, AND WORKABLE SOLUTION ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. Designer Signature: Rob Vogel DATE: 3/17/2023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Chief, Division of Land Development. DATE: 4/12/2023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Chief, Division of Land Development. DATE: 4/17/2023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Chief, Division of Land Development. DATE: 4/17/2023

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION: THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. CONDITIONS WHERE PRACTICE APPLIES: WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED. CRITERIA: 1. SOIL PREPARATION: 1. TEMPORARY STABILIZATION: A. SEEDING PREPARATION CLASS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CASEL PLOWS, OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SOUR. B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAW. C. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF PROTEIN-BINDING BACTERIA. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AT ROOM TEMPERATURES ABOVE 70 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE. D. SOIL SOD MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT SOD TO BE PLACED ON THE SOIL.

- 2. PERMANENT STABILIZATION: A. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE: I. SOIL PH BETWEEN 6.0 AND 7.0. II. SOLUBLE SALTS LESS THAN 300 PARTS PER MILLION (PPM). III. SOIL SOLIDS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE, AN EXCEPTION: F LOESSALS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WILL BE ACCEPTABLE. IV. SOIL SOLIDS CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT. V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. B. APPLICATION OF MANURE/COMPOST TO SOILS IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS. C. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCAPED OR OTHERWISE SMOOTH TO A DEPTH OF 3 TO 5 INCHES. D. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST. E. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. F. MAINTAIN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBSTACLES LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS DO NOT PERMIT NORMAL SEEDING. PREPARATION TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SURFACE TO BE PREPARED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRABLE. SEEDING LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

- 2. TURFGRASS MIXTURES: A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. B. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN. C. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE CID. TESTING AGENT: D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY USE FORM FERTILIZER (45-0-0) AT 3-1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY. 2. TURFGRASS MIXTURES: A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. B. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN. C. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE CID. TESTING AGENT: D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY USE FORM FERTILIZER (45-0-0) AT 3-1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.

- 2. B. TOPSOILING: 1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL, PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE ESTABLISHMENT. TOPSOILING IS NOT TO BE USED ON SITES WITH LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRAINS. 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THIS PLAN AND DOES NOT CONTAIN EXCESSIVE DUSTY NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED. 3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATION. B. THE SOIL MATERIAL IS SO CALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FLURISH CONTINUOUS SUPPLIES OF MOISTURE AND PLANT NUTRIENTS. C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE. E. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND APPROVAL. 4. TOPSOILING SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA: A. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED. B. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL. 5. TOPSOILING APPLICATION: A. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL. B. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. PROCEED IS TO BE PERFORMED IN SUCH A MANNER THAT SOODING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SUBSTRATE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS. C. SOIL MUST NOT BE PLACED ON TOPSOIL IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION. C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS): 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES. 2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FINE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER. 3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 90 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MANGANESE OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 90 PERCENT WILL PASS THROUGH A #10 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE. 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. 5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

- 2. SOIL TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER). 1. GENERAL SPECIFICATIONS: A. CLASS OF TURFGRASS SOO MUST BE MARYLAND STATE CERTIFIED. SOO LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR. B. SOO MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/8 INCH, AT THE TIME OF CUTTING. REPAIRING FOR THICKNESS MUST EXCEED COVER GROWTH AND TEND TO BE BROKEN UP AND TORN OR OTHERWISE DAMAGED. SOO IS NOT TO BE OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS. C. WHEREVER POSSIBLE, LAY SOO WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERED JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOO TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOO CONTACT EXISTING BETWEEN SOO ROOTS AND THE UNDERLYING SOIL SURFACE. D. WATER THE SOO IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PECE OF SOO WITHIN EIGHT HOURS. 2. SOO MAINTENANCE: A. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOO DURING THE HEAT OF THE DAY TO PREVENT WILTING. B. AFTER THE FIRST WEEK, SOO WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT. C. DO NOT MOW UNTIL THE SOO IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

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PERMANENT SEEDING SUMMARY table with columns for species, application rate, seeding dates, and fertilizer rates.

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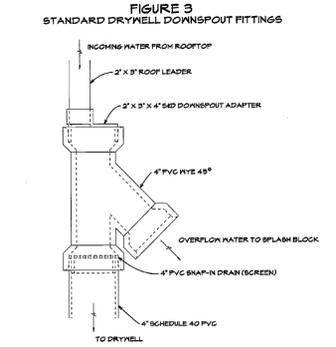
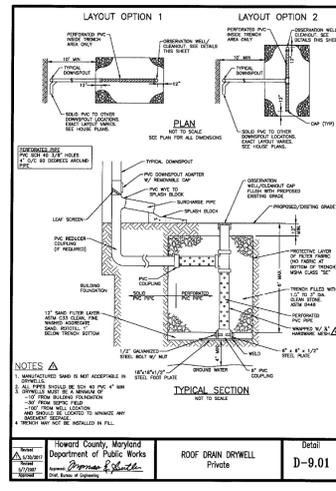
R-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION: THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. CONDITIONS WHERE PRACTICE APPLIES: WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED. CRITERIA: 1. SOIL PREPARATION: 1. TEMPORARY STABILIZATION: A. SEEDING PREPARATION CLASS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CASEL PLOWS, OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SOUR. B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAW. C. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF PROTEIN-BINDING BACTERIA. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AT ROOM TEMPERATURES ABOVE 70 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE. D. SOIL SOD MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT SOD TO BE PLACED ON THE SOIL.

- 2. PERMANENT STABILIZATION: A. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE: I. SOIL PH BETWEEN 6.0 AND 7.0. II. SOLUBLE SALTS LESS THAN 300 PARTS PER MILLION (PPM). III. SOIL SOLIDS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE, AN EXCEPTION: F LOESSALS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WILL BE ACCEPTABLE. IV. SOIL SOLIDS CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT. V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. B. APPLICATION OF MANURE/COMPOST TO SOILS IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS. C. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCAPED OR OTHERWISE SMOOTH TO A DEPTH OF 3 TO 5 INCHES. D. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST. E. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. F. MAINTAIN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBSTACLES LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS DO NOT PERMIT NORMAL SEEDING. PREPARATION TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SURFACE TO BE PREPARED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRABLE. SEEDING LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

- 2. B. TOPSOILING: 1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL, PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE ESTABLISHMENT. TOPSOILING IS NOT TO BE USED ON SITES WITH LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRAINS. 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THIS PLAN AND DOES NOT CONTAIN EXCESSIVE DUSTY NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED. 3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATION. B. THE SOIL MATERIAL IS SO CALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FLURISH CONTINUOUS SUPPLIES OF MOISTURE AND PLANT NUTRIENTS. C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE. E. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND APPROVAL. 4. TOPSOILING SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA: A. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED. B. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL. 5. TOPSOILING APPLICATION: A. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL. B. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. PROCEED IS TO BE PERFORMED IN SUCH A MANNER THAT SOODING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SUBSTRATE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS. C. SOIL MUST NOT BE PLACED ON TOPSOIL IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION. C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS): 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES. 2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FINE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER. 3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 90 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MANGANESE OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 90 PERCENT WILL PASS THROUGH A #10 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE. 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. 5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

- 2. SOIL TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER). 1. GENERAL SPECIFICATIONS: A. CLASS OF TURFGRASS SOO MUST BE MARYLAND STATE CERTIFIED. SOO LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR. B. SOO MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/8 INCH, AT THE TIME OF CUTTING. REPAIRING FOR THICKNESS MUST EXCEED COVER GROWTH AND TEND TO BE BROKEN UP AND TORN OR OTHERWISE DAMAGED. SOO IS NOT TO BE OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS. C. WHEREVER POSSIBLE, LAY SOO WITH THE LONG



NOTES:
 1. THE SNAP RELEASE IS REQUIRED TO PREVENT CLOSING OF THE DRYWELL WITH DEBRIS.
 2. SEE PART 3 LIST OF POTENTIAL SUPPLIERS TO ACCOMPANY FIGURE 3 STANDARD DRYWELL DOWNSPOUT FITTINGS FOR INFORMATION ON SOME LOCAL RETAILERS THAT SUPPLY COMPONENTS FOR THIS SYSTEM.

- OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER DRY WELLS (M-5)
- The monitoring wells and structures shall be inspected on a quarterly basis and after every large storm event.
 - Water levels and sediment build up in the monitoring wells shall be recorded over a period of several days to insure trench drainage.
 - A log book shall be maintained to determine the rate at which the facility drains.
 - When the facility becomes clogged so that it does not drain down within the 72 hour time period, corrective action shall be taken.
 - The maintenance log book shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.
 - Once the performance characteristics of the infiltration facility have been verified, the monitoring schedule can be reduced to an annual basis unless the performance data indicates that a more frequent schedule is required.

| DW # | LOT # | DW # | NUMBER | PROP. GRADE OVER | TOP SURFACE | STONE DEPTH (ft.) | SAND DEPTH (ft.) |
|-------|-------|------|--------|------------------|-------------|-------------------|------------------|
| DW 1A | 1 | R | 1 | 314.8 | 313.8 | 8.00 | 10.00 |
| DW 1B | 1 | R | 1 | 315.7 | 314.7 | 8.00 | 10.00 |
| DW 2A | 2 | R | 1 | 312.6 | 311.6 | 16.00 | 5.00 |
| DW 2B | 2 | F | 1 | 313.0 | 312 | 8.00 | 10.00 |
| DW 3A | 3 | R | 1 | 309.0 | 308 | 16.00 | 5.00 |
| DW 3B | 3 | F | 1 | 310.0 | 309 | 8.00 | 10.00 |
| DW 4A | 4 | R | 1 | 304.1 | 303.1 | 16.00 | 5.00 |
| DW 4B | 4 | F | 1 | 304.5 | 303.5 | 8.00 | 10.00 |

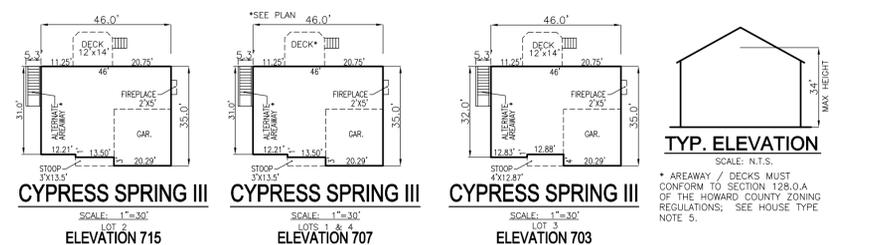
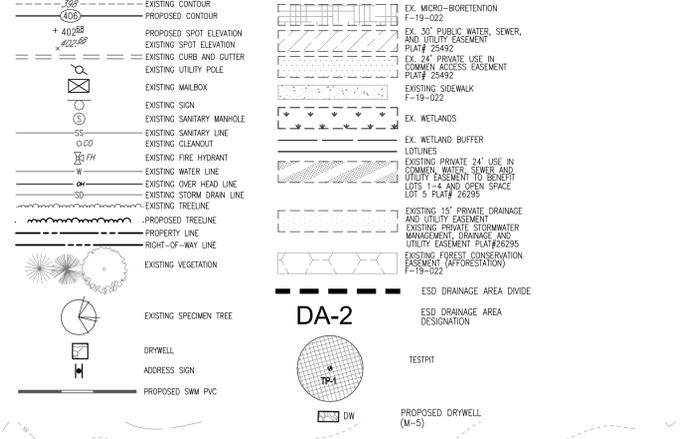
| TEST PIT # | SURFACE ELEVATION | PROPOSED GRADE | +4 FEET BOTTOM FACILITY | BORING DEPTH | DUG | CONDITION |
|------------|-------------------|----------------|-------------------------|--------------|-----|-------------------------|
| TP-1 | 317.3 | 310.0 | 306.0 | 11.3 | 9 | DRY / NO ROCK |
| TP-2 | 312.4 | 309.0 | 305.0 | 7.4 | 10 | WATER AT 6 ft / NO ROCK |
| TP-3 | 308.5 | 304.0 | 300.0 | 8.5 | - | DRY / NO ROCK |
| TP-4 | 303.7 | 298.5 | 294.5 | 9.2 | - | WATER AT 6 ft / NO ROCK |

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 4/14/2023
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 4/12/2023
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 4/17/2023
 DIRECTOR

MAGNOILA MANOR EAST - ESDv PER AREA COMPUTATIONS

| DEVELOPED / SITE AREA: | 1.09 AC | REV | Dec-22 | | | | | | | | | |
|---|-------------------------|---------------|--------------|-------------|----------------|----------------|------------------------|-------------|--------------|-------------|-------------|---|
| TARGET Pe: | 1.58 IN | | | | | | | | | | | |
| SITE IMPERVIOUS: | 28.44 PERCENT ESTIMATED | | | | | | | | | | | |
| SITE Rv: | 0.3060 ESTIMATED | | | | | | | | | | | |
| Rv=0.05+0.009Xi | (1.0x0.95x)/12 | | | | | | | | | | | |
| Vmin=1.0" rainfall | (2.6x0.95x)/12 | | | | | | | | | | | |
| Vmax=1yr rainfall=2.6" | | | | | | | | | | | | |
| DA # | % IMPERV | Rv | DA (SF) | DA (AC) | MINIMUM VOLUME | MAXIMUM VOLUME | 1.58" VOLUME PROVIDED* | IMPERV (SF) | IMPERV (AC) | GREEN AREA | REMARKS | |
| AREA 1 Lot 1 House | 100.00 | 0.9500 | 1558 | 0.04 | 123 | 321 | 195 | 256 | 1558 | 0.04 | 0.00 | MICROSCALE PRAC. (DRY WELL) 1A& 1B 128 CF FOR EACH DRYWELL |
| AREA 2 Lot 2 House | 100.00 | 0.9500 | 1558 | 0.04 | 123 | 321 | 195 | 256 | 1558 | 0.04 | 0.00 | MICROSCALE PRAC. (DRY WELL) 2A& 2B 128 CF FOR EACH DRYWELL |
| AREA 3 Lot 3 House | 100.00 | 0.9500 | 1558 | 0.04 | 123 | 321 | 195 | 256 | 1558 | 0.04 | 0.00 | MICROSCALE PRAC. (DRY WELL) 3A& 3B 128 CF FOR EACH DRYWELL |
| AREA 4 Lot 4 House | 100.00 | 0.9500 | 1558 | 0.04 | 123 | 321 | 195 | 256 | 1558 | 0.04 | 0.00 | MICROSCALE PRAC. (DRY WELL) 4A& 4B 128 CF FOR EACH DRYWELL |
| AREA UIC USE-IN-COMMON DRIVEWAY | 31.29 | 0.3316 | 14700 | 0.34 | 406 | 1056 | 642 | 920 | 4600 | 0.11 | 0.23 | MICROSCALE MICRO-BIO RETENTION #6 920 690 SF MICRO BIO |
| AREA SWALE UIC DRIVEWAY & LOT 1 DRIVEWAY | 55.99 | 0.5539 | 2840 | 0.07 | 131 | 341 | 207 | 240 | 1590 | 0.04 | 0.03 | MICROSCALE PRAC. (GRAVEL TRENCH) 240 CF TRENCH |
| TOTALS | 52.25 | 0.5203 | 23772 | 0.55 | - | - | 1629 | 2184 | 12422 | 0.29 | 0.26 | |

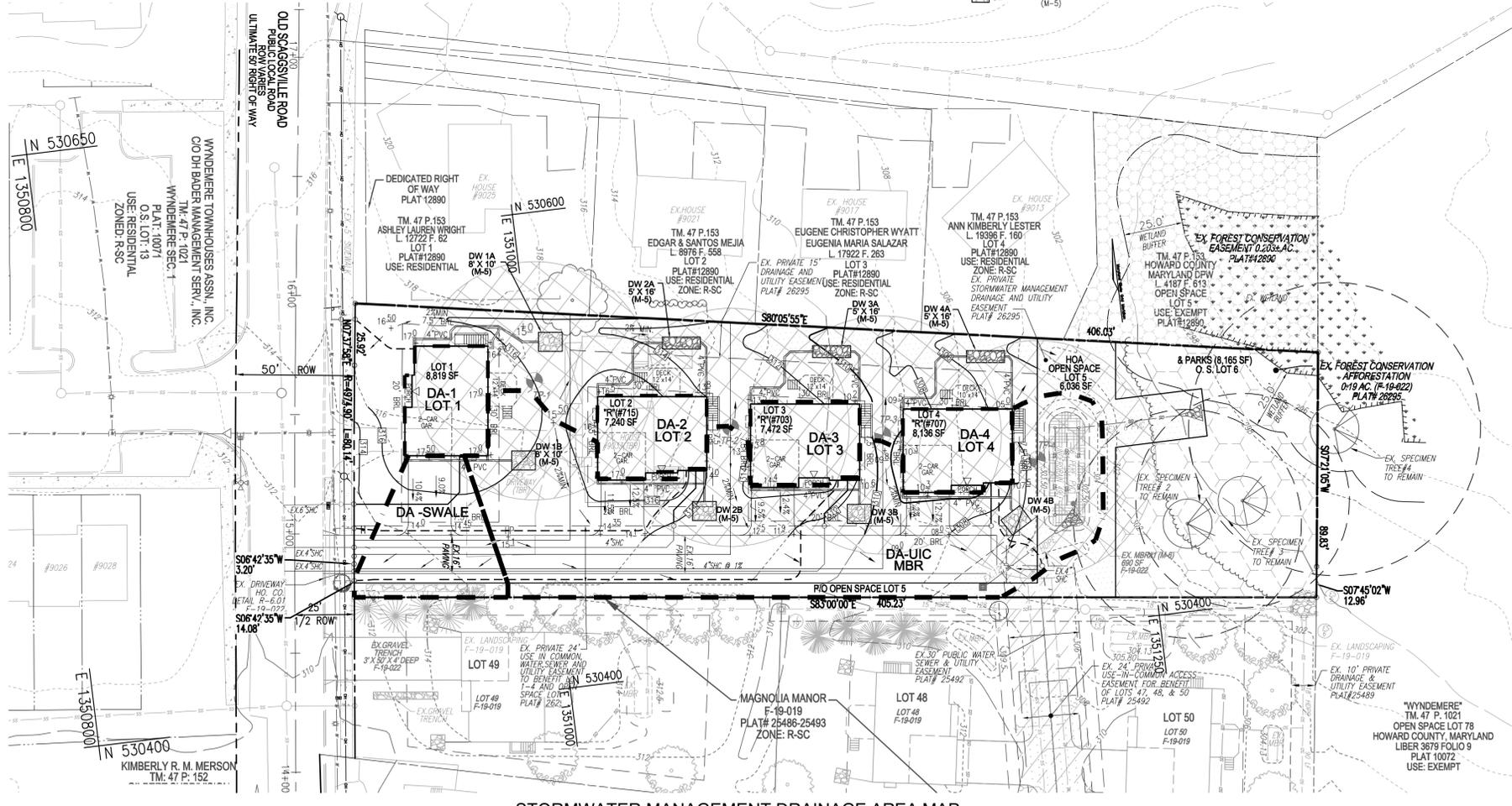
LEGEND:



"R" = REVERSE ELEVATION

NOTES:

- ADDITIONAL HOUSE TYPES AND OPTIONS MAY FIT ON ANY GIVEN LOT. THE STAKING OF FOUNDATIONS PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY BUILDING RESTRICTION LINES IS RECOMMENDED.
- A MINIMUM OF 10 FEET SHALL BE PROVIDED BETWEEN THE CHOSEN HOME MODEL AND A MICRO-BIORETENTION / RAIN GARDEN OR DRYWELL ESD STORMWATER FACILITY.
- MODEL ELEVATION SHALL NOT EXCEED 34" MAX HEIGHT AS ALLOWED BY R-SC ZONE.
- IN ACCORDANCE WITH SECTION 128.0.A OF THE HOWARD COUNTY ZONING REGULATIONS:
 - MAX ENCROACHMENT INTO SETBACK FOR CORNICES, EAVES AND CANTILEVERED BUILDING FEATURES WHICH DO NOT CONTAIN ANY FLOOR AREA OR EXTENSION OF INTERIOR LIVING SPACE IS: 3 FEET INTO ANY SETBACK.
 - MAX ENCROACHMENT INTO SETBACK FOR BAY WINDOWS, WINDOW WELLS, ORIELS, VESTIBULES, BALCONIES AND CHIMNEYS IS: 4 FEET INTO ANY SETBACK OR A REQUIRED DISTANCE BETWEEN BUILDINGS, PROVIDED THE FEATURE HAS A MAXIMUM WIDTH OF 16 FEET AS MEASURED HORIZONTALLY ALONG THE WALL FROM WHICH THE FEATURE EXTENDS.
 - MAX ENCROACHMENT INTO SETBACK FOR EXTERIOR STAIRWAYS OR RAMPS, ABOVE OR BELOW GROUND LEVEL EXCLUDING THOSE ATTACHED TO A PORCH OR DECK (SEE E) IS: 10 FEET INTO A FRONT SETBACK OR A SETBACK FROM A PROJECT BOUNDARY OR DIFFERENT ZONING DISTRICT, 16 FEET INTO A REAR SETBACK, 4 FEET INTO A SIDE SETBACK OR A REQUIRED DISTANCE BETWEEN BUILDINGS.
 - MAX ENCROACHMENT INTO SETBACK FOR OPEN OR ENCLOSED PORCHES AND DECKS, AND THE STAIRWAYS OR RAMPS ATTACHED THERETO IS: 10 FEET INTO A FRONT OR REAR SETBACK, A SETBACK FROM A PROJECT BOUNDARY, A SETBACK FROM A DIFFERENT ZONING DISTRICT, OR A REQUIRED DISTANCE BETWEEN BUILDINGS.



| REVISION | DATE |
|----------|------|
| | |
| | |
| | |

SITE DEVELOPMENT PLAN
ESD STORMWATER MANAGEMENT & HOUSE TYPE - NOTES AND DETAILS
MAGNOILA MANOR EAST
 LOTS 1 - 4
 PLAT# 26295

TAX MAP: 47 PARCEL: 154
 6TH ELECTION DISTRICT

BLOCK: 19 ZONING: R-SC
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
 +
NIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.nimmons.com

PROFESSIONAL CERTIFICATE
 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. 18193, EXPIRATION DATE: 09-27-2024

DESIGN BY: RHV
 DRAWN BY: KG
 CHECKED BY: RHV
 DATE: MARCH 2023
 SCALE: AS SHOWN
 W.O. NO.: 16-15

5 SHEET OF 5