

GENERAL NOTES

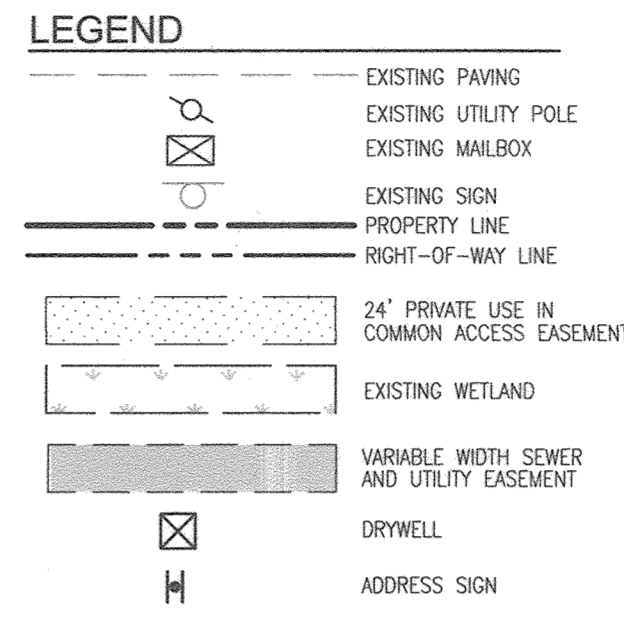
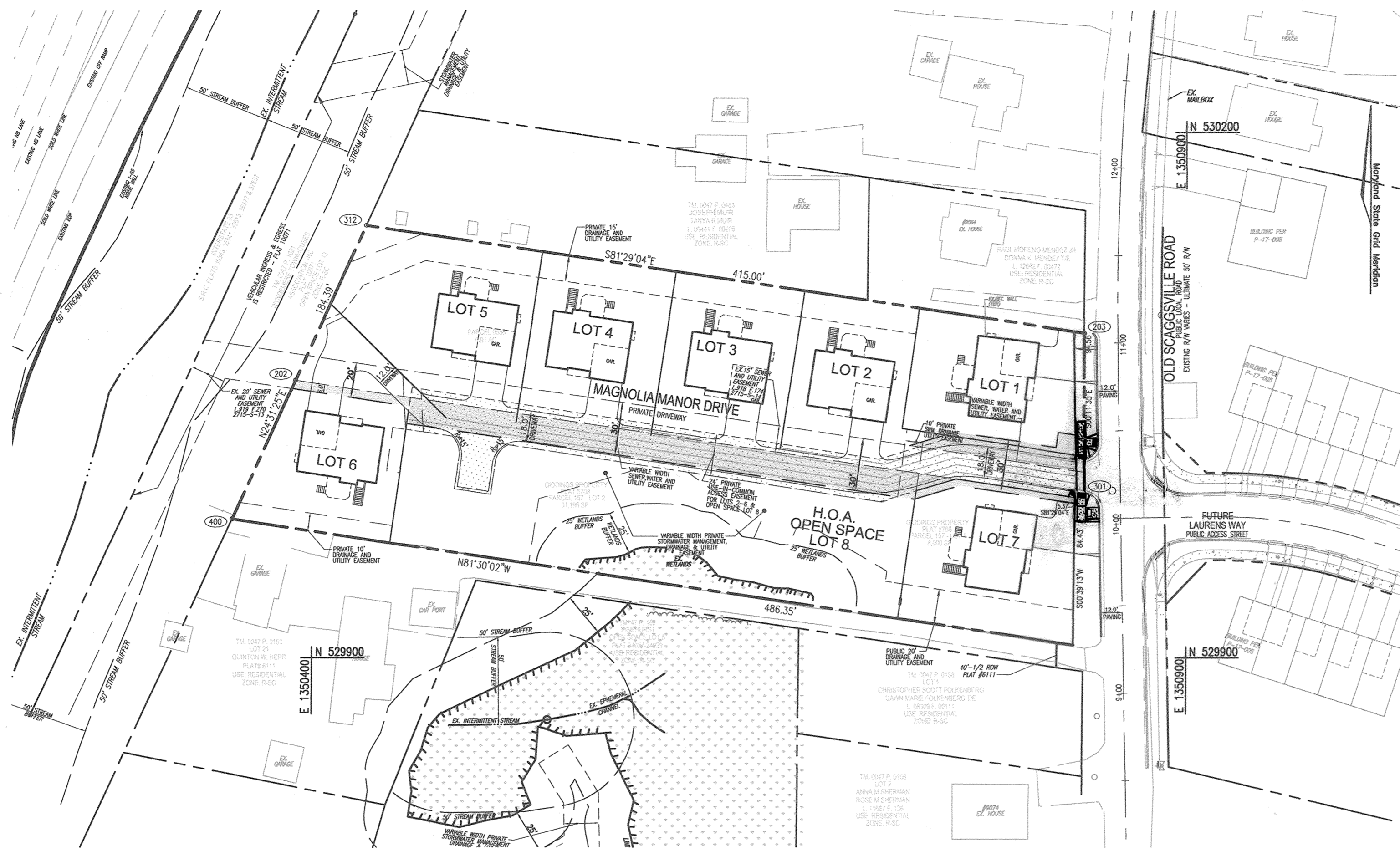
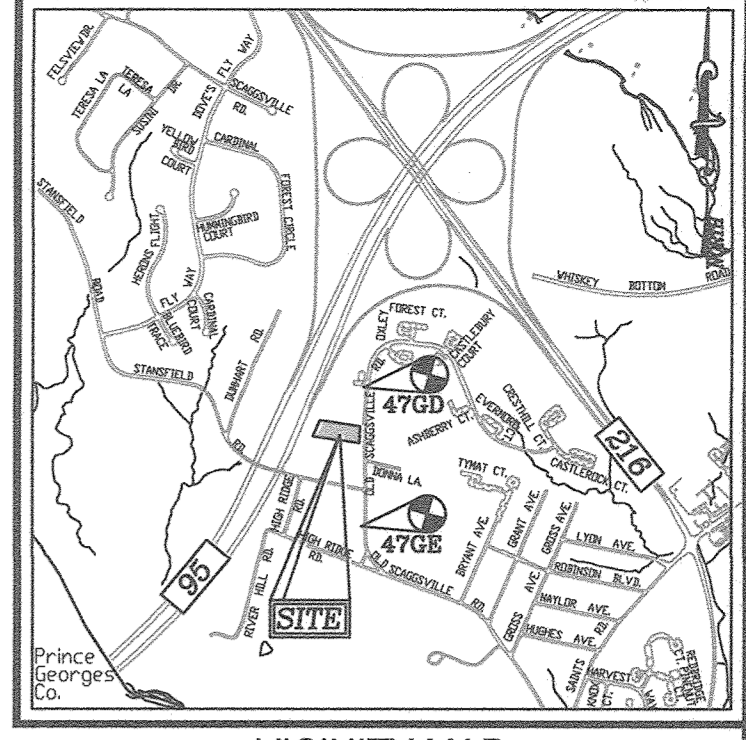
- 1. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
3. THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
MISS UTILITY: 1-800-257-7777
VERIZON TELEPHONE COMPANY: 1-410-954-6281
HOWARD COUNTY BUREAU OF UTILITIES: 410-313-2366
AT&T CABLE LOCATION DIVISION: 1-800-393-3553
B.G.&E. CO. CONTRACTOR SERVICES: 410-850-4620
B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 410-787-4820
STATE HIGHWAY ADMINISTRATION: 410-531-5533
4. THIS FINAL PLAN IS SUBJECT TO THE FOLLOWING DPZ FILES:
F-84-62, ECP-17-004, S-17-003, WP-17-059.
5. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED JUNE 2016. OFFSITE TOPOGRAPHY FROM HOWARD COUNTY GIS.
6. THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED MARCH 2017.
7. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
8. 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.
9. ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. TO THE BEST OF THE OWNERS KNOWLEDGE OR THE HOWARD COUNTY CEMETERY INVENTORY MAP, THERE ARE NO BURIAL GROUNDS, CEMETERIES LOCATED ON THE SUBJECT PROPERTY.
10. THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT. THE TWO EXISTING HOMES BEING REMOVED ARE NOT LISTED ON THE HISTORIC SITES INVENTORY.
11. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
12. WATER FOR THIS PROJECT WILL BE AN EXTENSION OF CONTRACT NO. 1-1-W.
SEWER FOR THIS PROJECT SHALL BE FROM CONTRACT NO. 20-1018.
13. WATER AND SEWER SERVICE WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.8 OF THE HOWARD COUNTY CODE. ALLOCATIONS WILL BE GRANTED AT TIME OF ISSUANCE OF BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, MAJOR RETENTION, OR SLOPING AND GRADING PERMITS.
14. 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 10/2/03 PER COUNCIL BILL 75-2003.
15. ANY DAMAGE INCURRED TO THE EXISTING UTILITIES, DUE TO CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
16. ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE BASED ON ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S 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. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
17. 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. 470E AND 470D WERE USED FOR THIS PROJECT. PER E.C.O.-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR HABITATS WERE OBSERVED DURING THE FIELD REVIEW OF THE PROPERTY.
18. NO FLOODPLAIN IS LOCATED ON SITE.
19. A WETLAND AND SIMPLIFIED FOREST STAND DELINEATION PLAN PREPARED BY E.C.O.-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, AUGUST 16, 2016, AND APPROVED AS PART OF THE ECP & SKECH PLAN SUBMISSION.
AN INTERMITTENT STREAM IS LOCATED OFFSITE. ITS BUFFER DOES NOT IMPACT THE PROJECT SITE.
SEVEN (7) SPECIMEN TREES WERE FOUND ON SITE. THE PROPOSAL INCLUDES THE REMOVAL OF 6 TREES. EFFORTS WILL BE MADE TO SAVE TREE #4. REFER TO WP-17-059.
20. NO GRADING, REMOVAL OF VEGETATIVE COVER, TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
21. A TOTAL OF 7 RESIDENTIAL LOTS AND 1 OPEN SPACE LOT IS PROPOSED UNDER THIS PLAN.
22. STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF MICRO-SCALE AND NON-STRUCTURAL PRACTICES PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. MICRO-SCALE PRACTICES INCLUDE MICRO-BIORETENTIONS (M-6), RAIN GARDENS (M-7) AND DRYWELLS (M-5). THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
23. A NOISE STUDY IS NOT REQUIRED FOR THIS SITE. NOISE MITIGATION CURRENTLY EXISTS ALONG INTERSTATE 95.
24. A TRAFFIC STUDY FOR THIS PROJECT PREPARED BY THE TRAFFIC GROUP, INC., DATED SEPTEMBER 2016, WAS APPROVED UNDER S-17-003.
25. NO STEEP SLOPES OVER 20.00% OF CONTIGUOUS FEET-IN-LEU.
26. FOREST CONSERVATION OBLIGATIONS SHALL BE MET BY PAYMENT OF \$8,000.00 FEE-IN-LEU.
27. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 14.12.4 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$10,050 FOR THE REQUIRED 19 SHADE TREES, 14 SPECIMEN REPLACEMENT SHADE TREES, 5 SHRUBS SHALL BE POSTED WITH THE DEVELOPER AGREEMENTS.
28. UTILIZE HOWARD COUNTY STANDARD DETAIL NO. R-601 FOR THE USE-IN-COMMON DRIVEWAY ENTRANCE AT OLD SCAGGSVILLE ROAD. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
a) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)
b) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING, (1-1 1/2" MIN.)
c) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.
d) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 FLOOD TONS (H25 LOADING).
e) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD TONS WITH NO MORE THAN 1 FOOT DEPTH OVER DRAINAGE SURFACE.
f) STRUCTURE CLEARANCES - MINIMUM 12 FEET.
g) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
29. OLD SCAGGSVILLE ROAD IS CLASSIFIED AS A LOCAL ROAD. PROPOSED ROAD IS A PRIVATE USE-IN-COMMON DRIVEWAY. LOTS 2-6 WILL UTILIZE A USE-IN-COMMON DRIVEWAY. A USE-IN-COMMON MAINTENANCE AGREEMENT FOR THE SHARED DRIVEWAY SHALL BE RECORDED SIMULTANEOUSLY WITH THE FINAL PLAN.
30. FLAG AND PIPESTEM LOTS, RETIRE, REMOVAL AND ROAD MAINTENANCE FOR LOTS 2-6 ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
31. TRASH AND RECYCLING COLLECTION WILL BE AT OLD SCAGGSVILLE ROAD WITHIN 5' OF THE EDGE OF THE COUNTY ROADWAY. THE MAINTENANCE OF THE TRASH PAD AND ITS LANDSCAPING IS THE RESPONSIBILITY OF THE HOA.
32. CERTIFIED TEST PITS HAVE BEEN PROVIDED TO VERIFY THE LOCATIONS OF GROUNDWATER AND/OR ROCK. OPEN TEST PITS WERE OBSERVED BY TRINITY HOMES ON APRIL 2017.
33. IN ACCORDANCE WITH SECTION 16.121(A)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE OPEN SPACE REQUIREMENTS FOR THIS R-SC PROJECT (6,000 SF LOT) IS 25% OF GROSS AREA (1,835.0 AC. GROSS AREA X 25% = 0.4588 AC).
OPEN SPACE LOT 8 IS 0.49 ACRES.
OPEN SPACE LOT 8 IS TO BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
A PRE-SUBMISSION MEETING WAS HELD ON JULY 17, 2016 AT THE NORTH LAUREL COMMUNITY CENTER.
MODERATE INCOME HOUSING UNITS (MIHU) ARE REQUIRED FOR THIS PROJECT.
IN ACCORDANCE WITH SECTION 109.0.E OF THE 10/06/13 COMPREHENSIVE ZONING REGULATIONS, THIS SUBDIVISION IS SUBJECT TO MODERATE INCOME HOUSING UNITS. THE MIHU OBLIGATION FOR THIS DEVELOPMENT WILL BE PROVIDED BY A PAYMENT OF FEE-IN-LEU TO THE HOWARD COUNTY HOUSING DEPARTMENT FOR EACH UNIT OR PORTION OF THE UNITS REQUIRED BY THE DEVELOPMENT.
THE MIHU AGREEMENT WILL BE RECORDED IN THE LAND RECORDS OF HOWARD COUNTY SIMULTANEOUSLY WITH THE RECORDING OF THIS PLAN.
AN ENVIRONMENTAL CONCEPT PLAN (ECP-17-004) WAS APPROVED ON JANUARY 24, 2017.
PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 13.124(A)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. FINANCIAL SURETY (\$1,500) FOR THE REQUIRED 5 STREET TREES SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.
34. 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, PARKING PAD AND COURTS. GARAGES COUNT AS A FULL SPACE. SEE TABULATION THIS SHEET.
35. THE ONE (1) GARAGE SPACE MAY NOT BE CONVERTED TO LIVING SPACE AND SHALL ONLY BE UTILIZED FOR VEHICULAR PARKING SPACE. THE FOLLOWING STANDARDS (CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL) ARE REQUIRED FOR THIS PROJECT:
a. MD-104.02-02 - SHOULDER WORK/2 LANE, 2 WAY - EQ/LESS THAN 40 MPH
b. MD-104.02-10 - RIGHT LANE CLOSURE/2 LANE, 2 WAY - EQ/LESS THAN 40 MPH
FOR ALL STANDARDS REFERRED TO ON THIS PLAN THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSSED AT:
http://apps.roads.maryland.gov/businesswiththa/bizzStdSpecs/
36. THIS PROJECT IS SUBJECT TO WP-17-059. ON MARCH 9, 2017, THE PLANNING DIRECTOR APPROVED THE REQUEST FOR ALTERNATIVE COMPLIANCE TO SECTION 16.1205(A)(7) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, WHICH REQUIRES THE RETENTION OF STATE CHAMPION TREES, TREES 75% OF THE DIAMETER OF STATE CHAMPION TREES, AND TREES 30" IN DIAMETER OR LARGER. THIS PROJECT PROPOSES THE REMOVAL OF SEVEN (7) SPECIMEN TREES APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
1. ADD A GENERAL NOTE FOR THE ALTERNATIVE COMPLIANCE WP 17-059, ON 817-003, MAGNOLIA MANOR WEST STATING THE REQUEST, SECTION REFERENCE NUMBER, THE APPROVAL DATE AND CONDITIONS.
2. SHOW THE SPECIMEN TREES BEING REMOVED AND LABELS PER WP-17-059 ON THE PLAN MYLAR ORIGINAL, FOR S-17-003.
3. REMOVAL OF THE 7 SPECIMEN TREES IS SUBJECT TO PROVIDING THE REPLACEMENT OF FOURTEEN 3-1/2" MINIMUM CALIPER NATIVE SHADE TREES AS STATED IN THE ALTERNATIVE COMPLIANCE JUSTIFICATION TO BE LOCATED AT A MORE APPROPRIATE LOCATION.
4. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
TRAFFIC CONTROL DEVICES:
A. THE R1-1(S)TOP SIGNS AND STREET NAME SIGN (SNS) ASSEMBLIES FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETE.
B. THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
C. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
D. ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, "QUICK PUNCH" SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE - 3' LONG). THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON THE TOP OF EACH POST.
47. THIS PROJECT WILL REQUIRE STREET LIGHTING IN ACCORDANCE WITH SECTION 16.135 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY DESIGN MANUAL. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III, SECTION 5.5.A. A MINIMUM OF 20 FEET SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
A PRIVATE RANGE OF TRAFFIC SIGNS ASSEMBLIES AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS FOR DRIVEWAYS TO LOTS 2-6 AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST ESTIMATES.
48. NO STREET TREE CAN BE PLANTED WITHIN 30' OF A PROPOSED "STOP" SIGN LOCATION (APPROACH DIRECTION).
49. AN AGREEMENT HAS BEEN MADE BETWEEN THE HOWARD COUNTY AND THE DEVELOPER THAT THE REQUIREMENTS OF THIS MAGNOLIA MANOR WEST PROJECT SHALL BE SATISFIED WITH ADDITIONAL SIDEWALK BEING PROVIDED ACROSS OLD SCAGGSVILLE ROAD. THE FUTURE FINAL PLANS FOR THE MAGNOLIA MANOR (P-17-004) PROJECT SHALL INCLUDE THE AGREED UPON ADDITIONAL SIDEWALK.

NOTE:
- HOUSES MAY NOT BE BUILT USING THIS PLAN.

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.

FINAL PLAN
MAGNOLIA MANOR WEST
LOTS 1 - 7 AND OPEN SPACE LOT 8
OLD SCAGGSVILLE ROAD
HOWARD COUNTY, MD

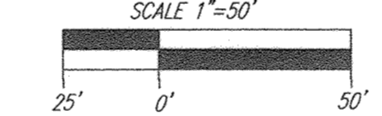
BENCHMARKS
HOWARD COUNTY BENCHMARK - 470E
N 52904.94 E 1350855.03 ELEV.: 337.61
HOWARD COUNTY BENCHMARK - 470D
N 53049.49 E 1350872.35 ELEV.: 312.28



SHEET INDEX table with columns for DESCRIPTION, SHEET NO., and SHEET NO. listing various plan components like cover sheet, site layout, road profiles, erosion control, etc.

SITE DATA table providing project details such as location, zoning, gross area, area of steep slopes, and open space requirements.

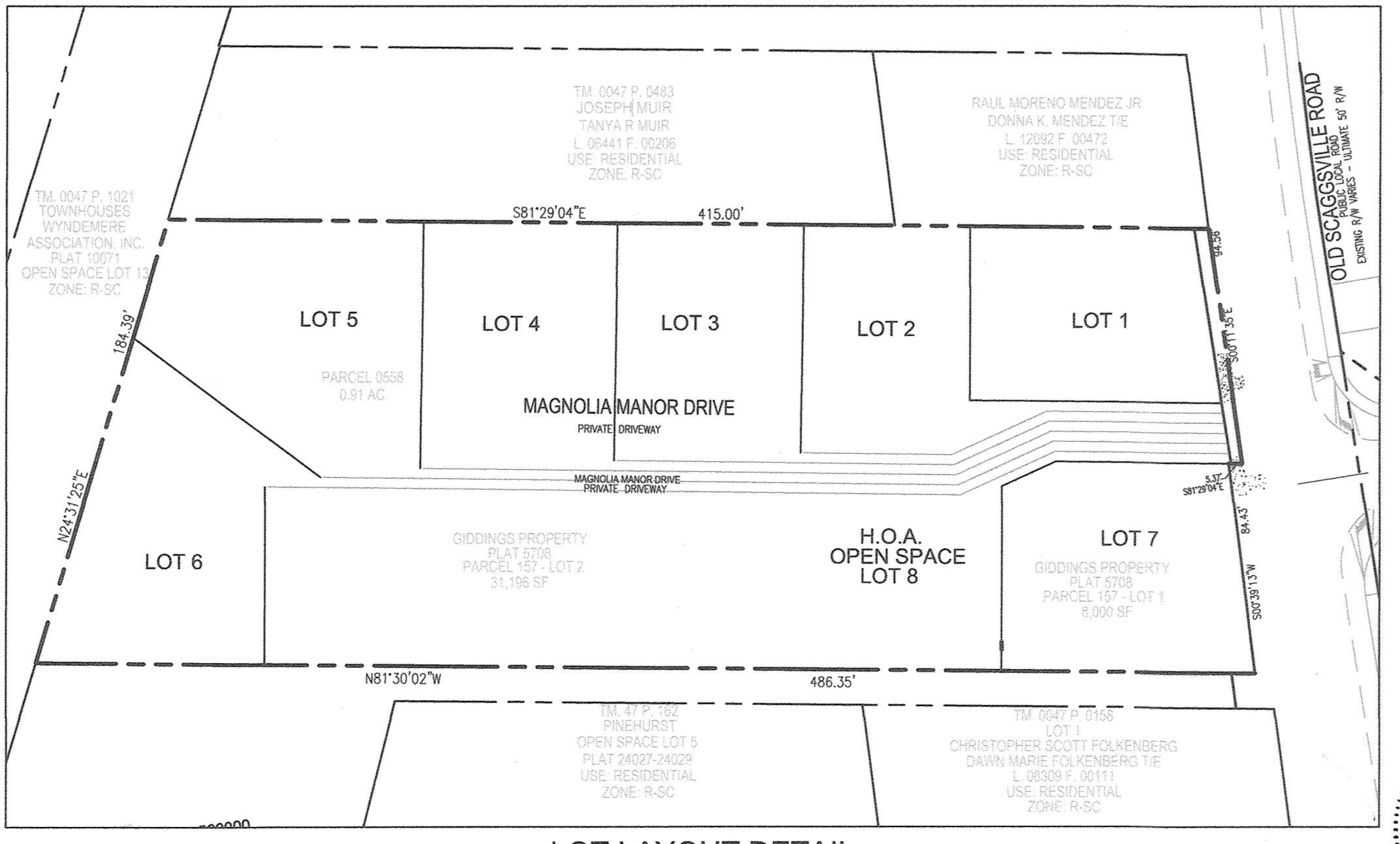
LOCATION MAP



OPEN SPACE TABULATION:
IN ACCORDANCE WITH SECTION 16.121(A)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS THE OPEN SPACE REQUIREMENTS FOR THIS R-SC PROJECT IS 25% OF GROSS AREA.
(1,835.0 AC. GROSS AREA X 25% = 0.4588 AC).

MIHU AGREEMENT
PLEASE NOTE THAT ALL NEW LOTS/RESIDENTIAL UNITS IN THIS SUBDIVISION (LOTS 1-7) ARE SUBJECT TO THE MIHU FEE-IN-LEU 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.

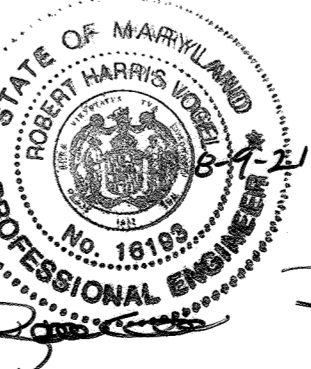
OWNER: MAGNOLIA MANOR LLC
DEVELOPER: TRINITY HOMES MARY LAND, LLC



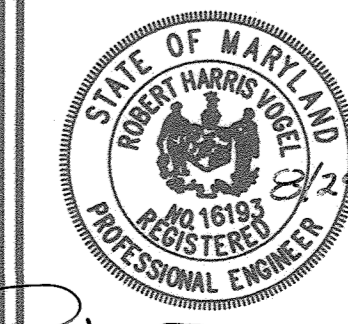
PARKING TABULATION:
TOTAL NUMBER OF DWELLING UNITS PROPOSED : 7
OFF-STREET PARKING SPACES REQUIRED: 2 SPACES PER UNIT = 14 SPACES

MINIMUM LOT SIZE CHART table with columns for LOT, GROSS AREA, PIPESTEM AREA, NET AREA, and MIN LOT SIZE.

MINIMUM LOT SIZE CHART table with columns for LOT, GROSS AREA, PIPESTEM AREA, NET AREA, and MIN LOT SIZE.



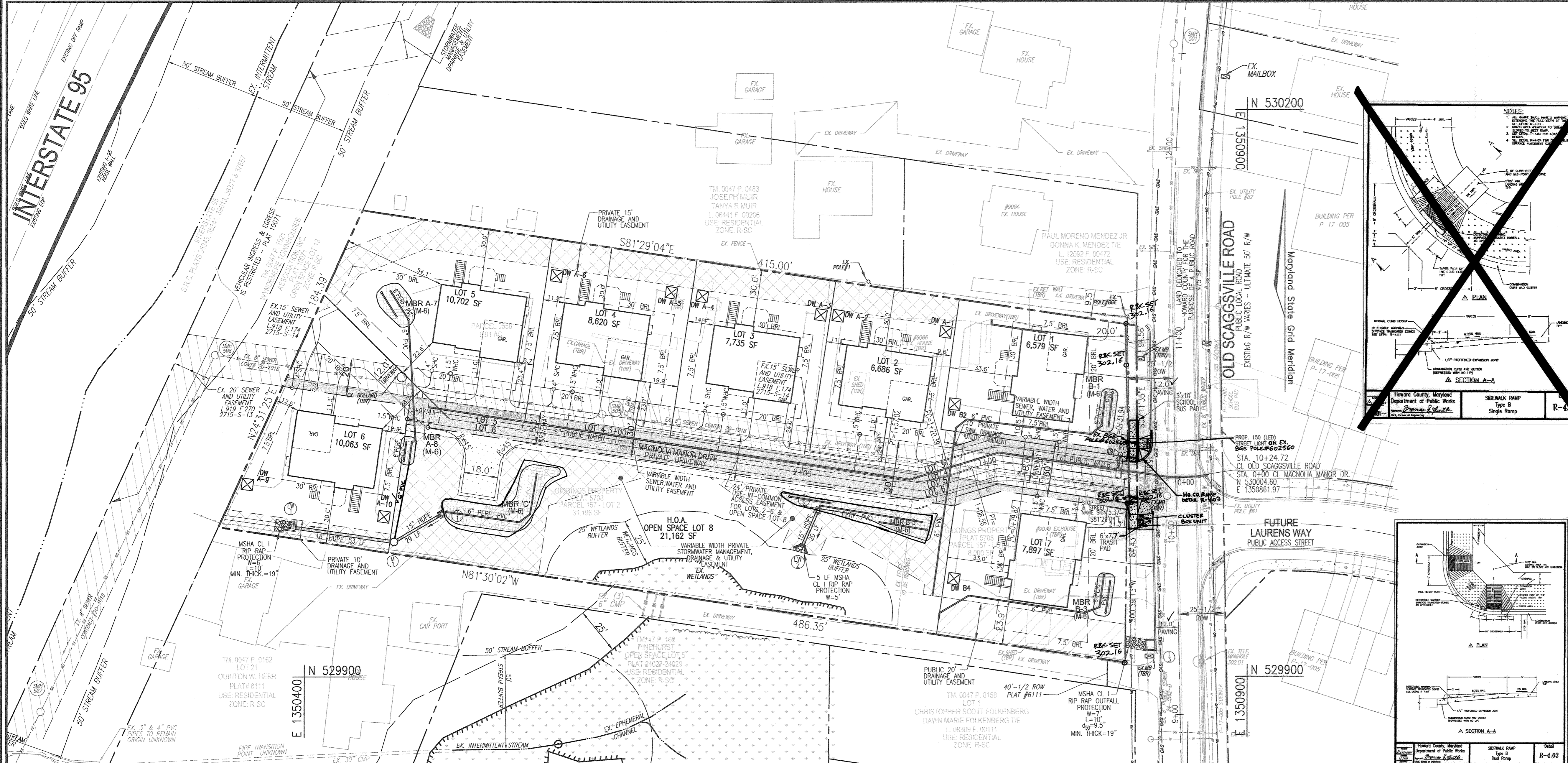
AS-BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS.



DESIGN BY: RHV/EDS
DRAWN BY: KG/EDS
CHECKED BY: RHV
DATE: AUGUST 2018
SCALE: AS SHOWN
W.O. NO.: 16-15

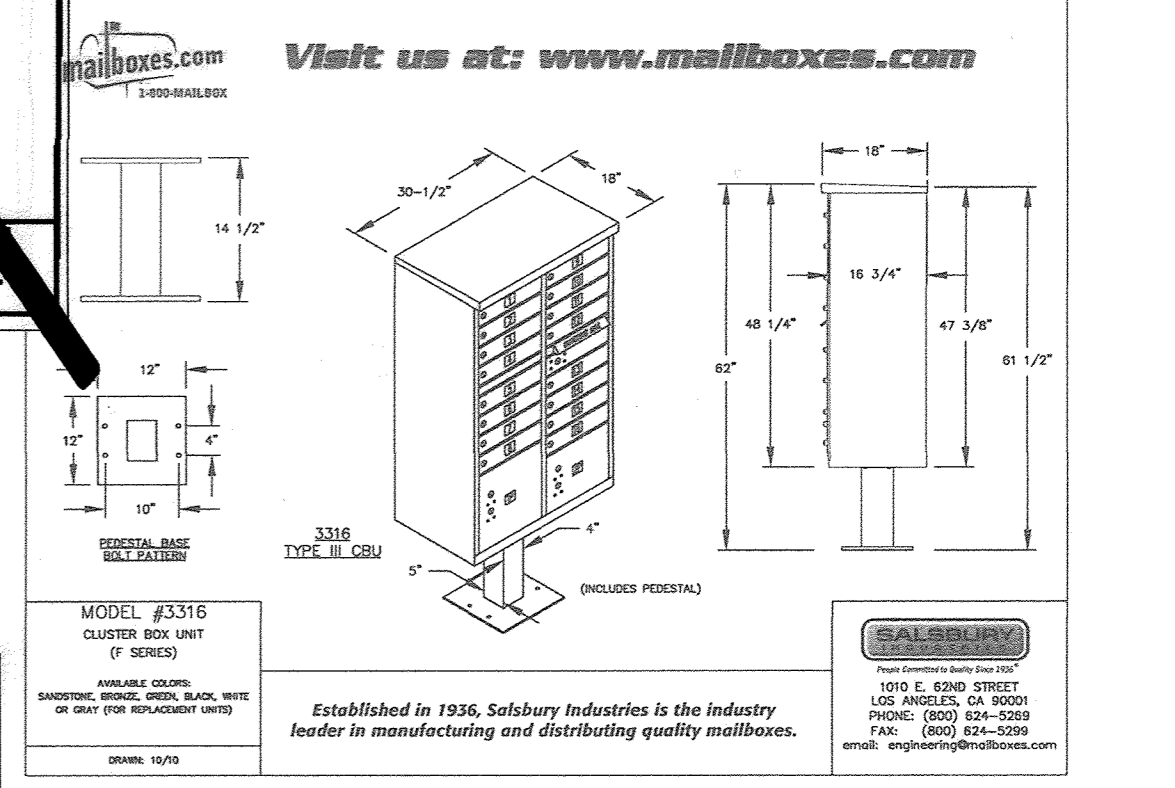
APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT

STORMWATER MANAGEMENT PRACTICE CHART table with columns for LOT #, STREET ADDRESS, and ESD PRACTICE.



CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
0+15.83 - 0+31.94	16.11'	100.00'	09°13'41"	8.07'	N 86°36'17" W	16.09'
0+31.94 - 0+48.56	16.62'	67.00'	24°34'35"	14.59'	S 85°43'16" E	28.52'
0+48.56 - 0+57.02	8.46'	83.00'	25°16'58"	18.62'	N 86°04'28" E	36.33'

1. ALL SIGN LOCATIONS ARE APPROXIMATE. HOWARD COUNTY TRAFFIC SHALL FIELD APPROVE OR MARK ALL SIGN LOCATIONS PRIOR TO ANY SIGNS BEING INSTALLED. CALL 410-313-3752.
2. REFER TO SHEET 7 FOR STORMDRAIN PROFILES.
3. REFER TO SHEET 7 FOR STORMDRAIN SCHEDULE.
4. FOR STREET TREE LOCATIONS, REFER TO SHEET 8.
5. FOR OLD SCAGVILLE ROAD IMPROVEMENTS REFER TO SHEET 3. SEE SHEET 11 FOR CROSS SECTIONS.
6. ALL STREET TREES AND/OR SIGN SHALL BE LOCATED 5' MIN. FROM PROPOSED DRAINAGE, UTILITY STRUCTURE.
7. THERE SHOULD BE A MINIMUM OF 20' BETWEEN STREET LIGHTS AND STREET TREES.
8. IN THE DIRECTION FACING A TRAFFIC CONTROL SIGN: <ul style="list-style-type: none"> 1) THERE SHALL BE A MINIMUM OF 40' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL STOP SIGNS. 2) THERE SHALL BE A MINIMUM OF 35' BETWEEN THE SIGN FACE AND CLOSEST TREE FOR ALL SIGNS OTHER THAN A STOP SIGN.



TYPICAL CENTRAL MAIL DELIVERY BOX (CBU) OR APPROVED EQUAL

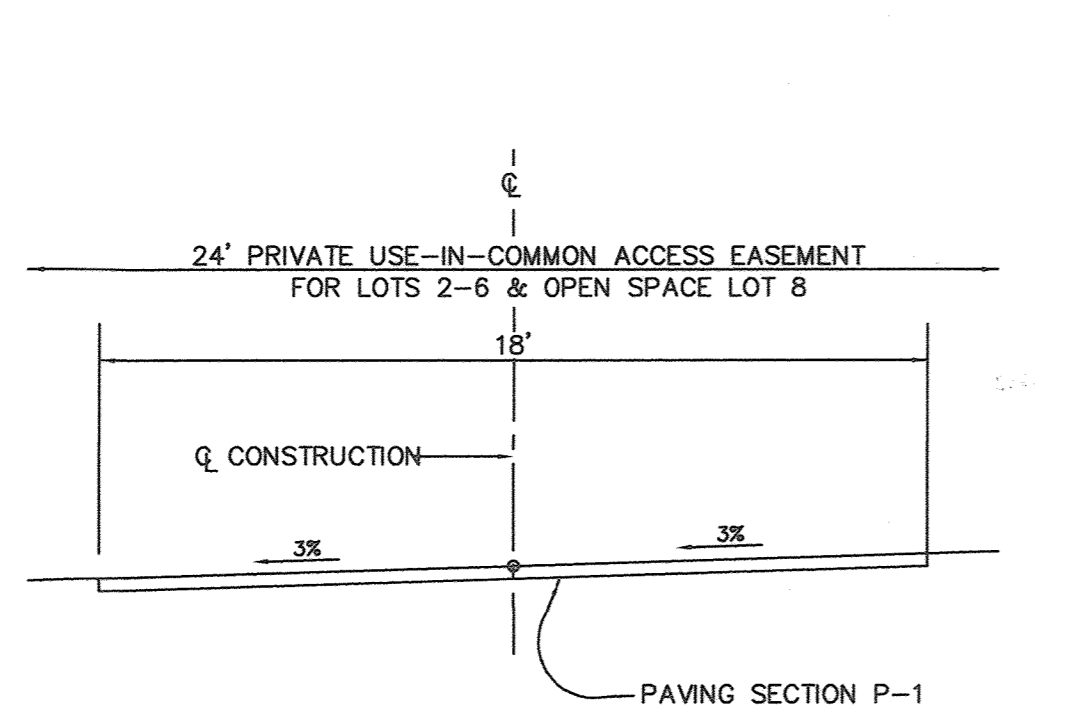
SALSBURY INDUSTRIES MANUFACTURES CBU'S THAT ARE OFFICIALLY LICENSED BY THE U.S.P.S. SALSBURY 3300 SERIES CLUSTER BOX UNITS ARE MANUFACTURED TO U.S.P.S. "F" SPECIFICATIONS. THEY ARE AN OFFICIALLY LICENSED PRODUCT OF THE U.S. POSTAL SERVICE FOR CENTRALIZED MAIL DELIVERY. LICENSE NUMBER 1CDS08-08-B-0026

ROAD NAME	STATION	OFFSET	FIXTURE/POLE TYPE
MAGNOLIA MANOR DRIVE	0+24.25	18.74' RIGHT	150 WATT LED PRIMER POST-TOP FIXTURE MOUNTED ON 5" DIA. 6" DIA. POLE #602560

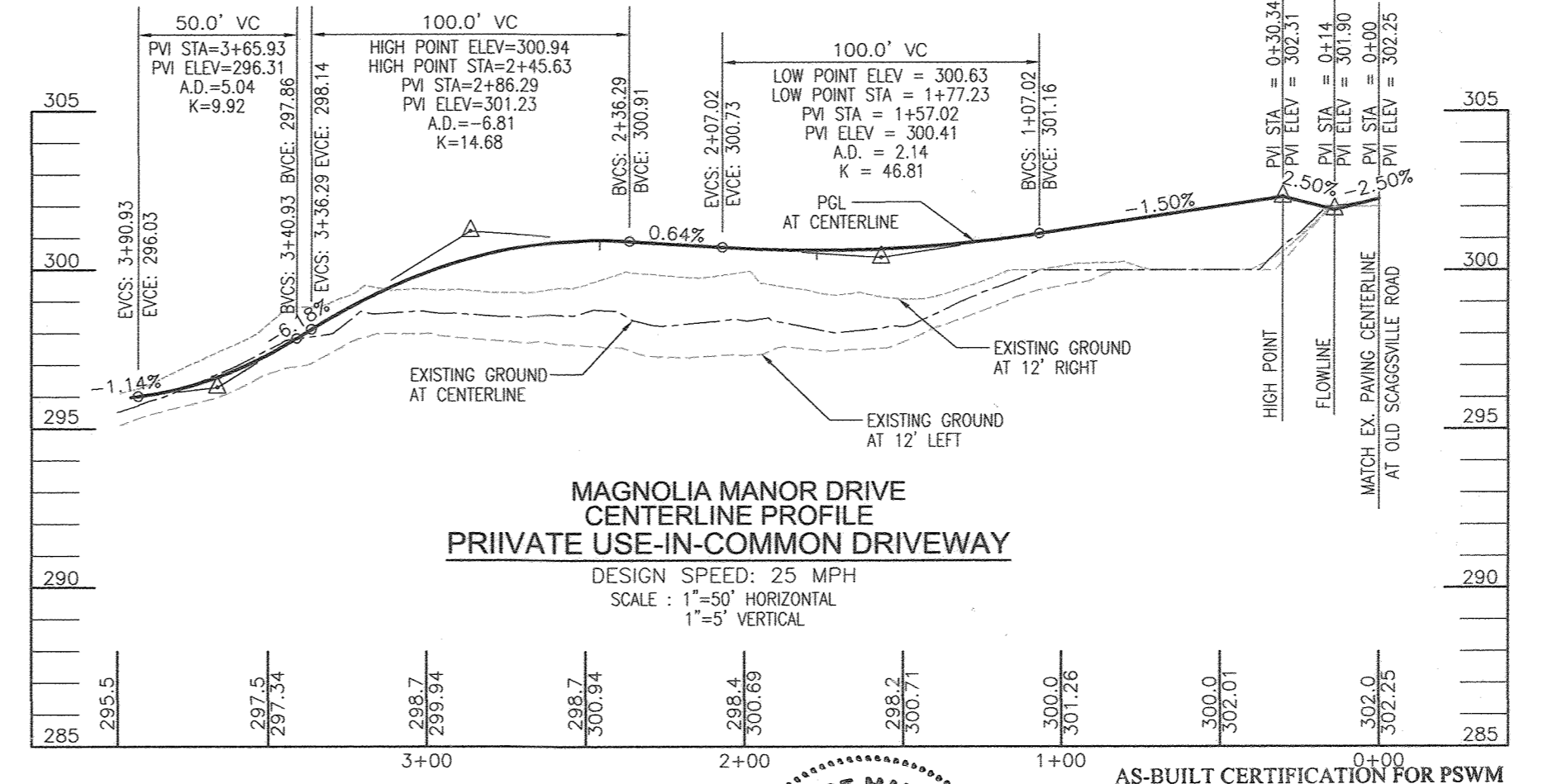
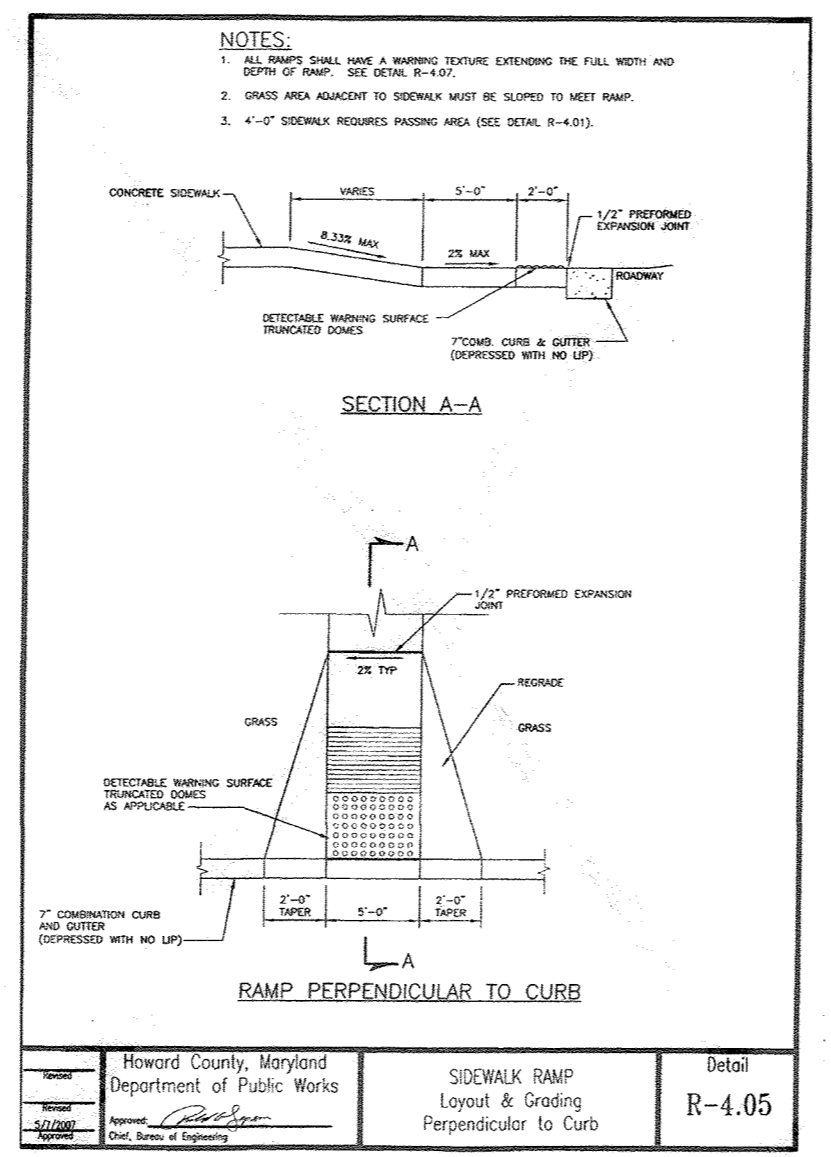
ROAD NAME	STATION	OFFSET	TYPE
MAGNOLIA MANOR DRIVE	0+26.33	10.50' L	R1-1 STOP SIGN & STREET NAME SIGN

1. ALL SIGN LOCATIONS ARE APPROXIMATE. HOWARD COUNTY TRAFFIC SHALL FIELD APPROVE OR MARK ALL SIGN LOCATIONS PRIOR TO ANY SIGNS BEING INSTALLED. CALL 410-313-3752.

- LEGEND:**
- EXISTING PAVING
 - EXISTING UTILITY POLE
 - EXISTING MAILBOX
 - EXISTING SIGN
 - EXISTING SANITARY MANHOLE
 - EXISTING SANITARY LINE
 - EXISTING CLEANOUT
 - EXISTING FIRE HYDRANT
 - EXISTING WATER LINE
 - EXISTING OVER HEAD LINE
 - PROPOSED STORM DRAIN
 - EXISTING TREELINE
 - PROPOSED TREELINE
 - EXISTING WOOD FENCE
 - PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - 24' PRIVATE USE-IN-COMMON EASEMENT
 - EXISTING WETLAND
 - EXISTING VEGETATION
 - EXISTING SPECIMEN TREE
 - MICRO-BIOPRETENTION (M-6)
 - RAIN GARDEN (M-7)
 - EX. 15" SEWER AND UTILITY EASEMENT
 - EX. 15" F.174 - 2715-S-14
 - VARIABLE WIDTH SEWER, WATER AND UTILITY EASEMENT
 - VARIABLE WIDTH PRIVATE STORMDRAIN MANAGEMENT DRAINAGE & UTILITY EASEMENT
 - DRYWELL
 - ADDRESS SIGN



SITE LAYOUT PLAN
SCALE: 1" = 30'



AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

DATE: 1/16/21
P.E. NAME: [Signature]
P.E. # 16193
8-9-21

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS
DATE: 10/11/2018

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 10-22-18

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 10-25-18

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

NO.	REVISION	DATE
2	REVISE PLAN TO REDUCE 6" PVC FROM I-L TO M-L, REMOVE SOME PIPE FROM MBR-C 5-26-21 AND TO REVISE RAMP TO MATCH AS-BUILT CONDITIONS	10-7-20
1	REVISE THE SIDEWALK ALONG THE FRONTAGE AND ADD A TRASH PAD	10-7-20

FINAL PLAN
SITE LAYOUT PLAN AND ROAD PROFILES
MAGNOLIA MANOR WEST
LOTS 1 - 7 AND OPEN SPACE LOT 8
A SUBDIVISION OF TAX MAP 47 - PARCEL 558
AND A RESUBDIVISION OF TAX MAP 47 - PARCEL 157
"TIDDINGS" PROPERTY - LOTS 1 AND 2" (PLAT 5708)

TAX MAP: 47 PARCELS: 157 & 558
BLOCK: 19 ZONING: R-3C
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

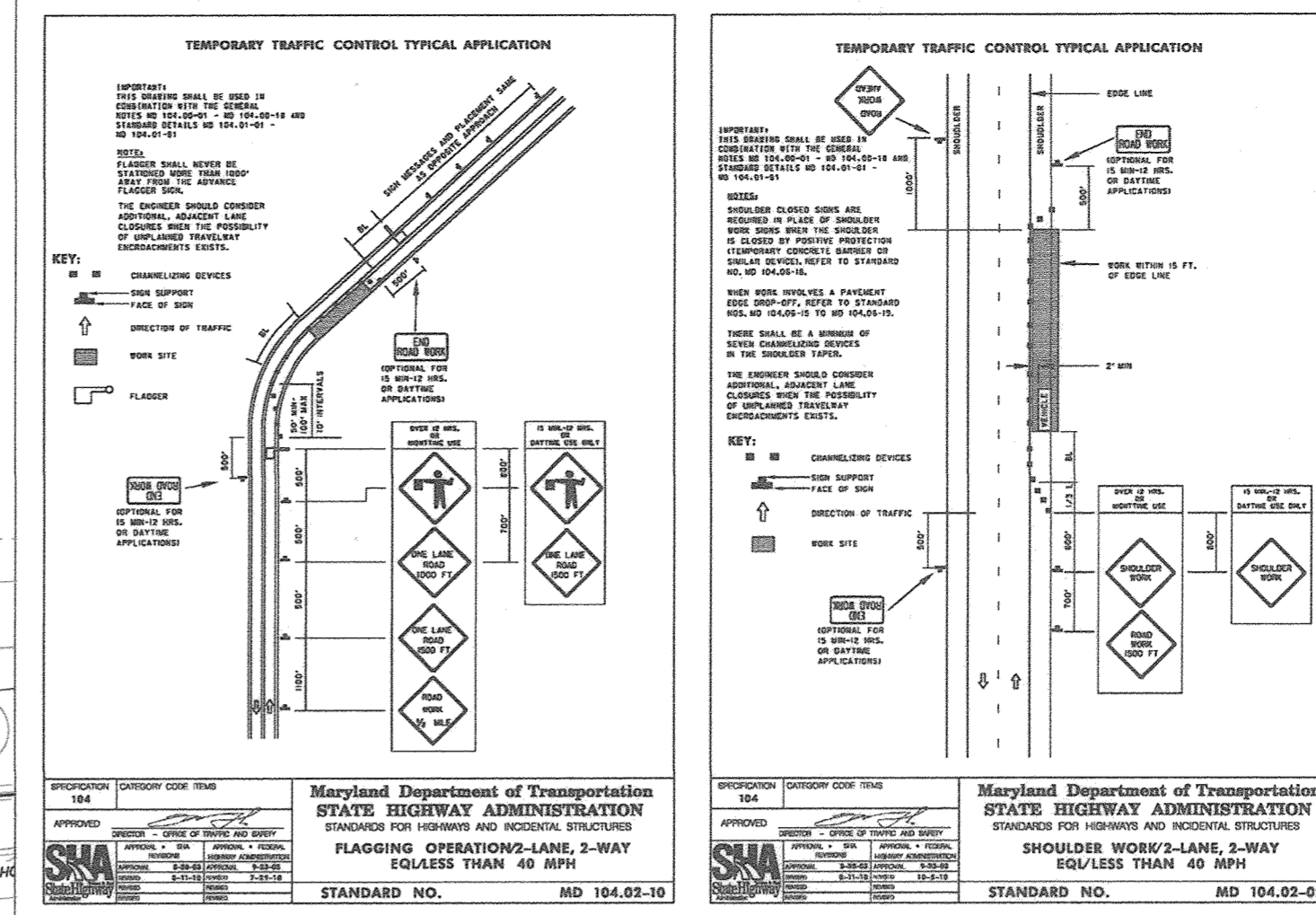
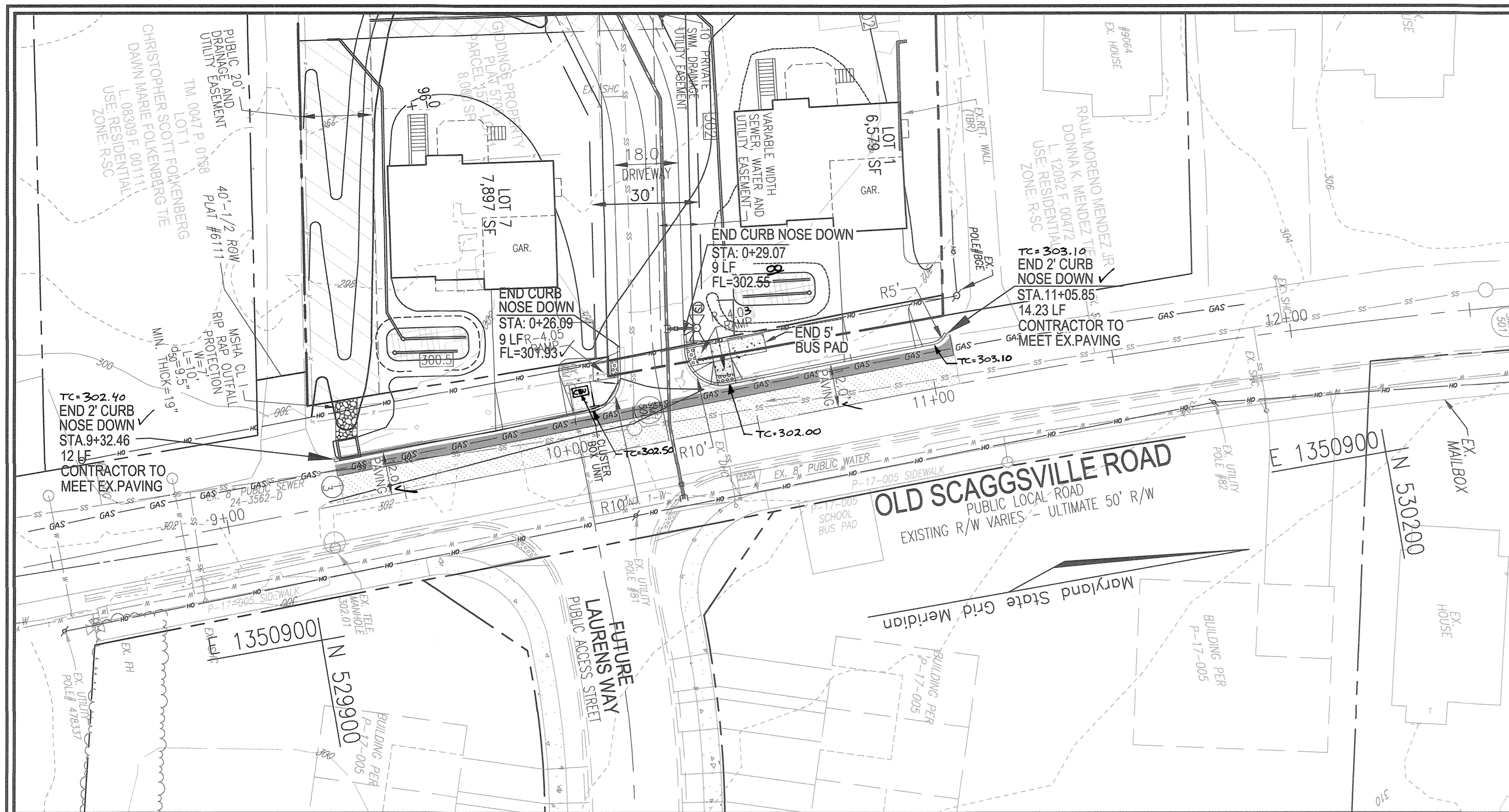
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
3300 N. RIDGE ROAD, SUITE 110
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/EDS
DRAWN BY: KG/EDS
CHECKED BY: RHV
DATE: 8/24/18
SCALE: AS SHOWN
W.D. 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: 09-27-2018

2 SHEET OF 11

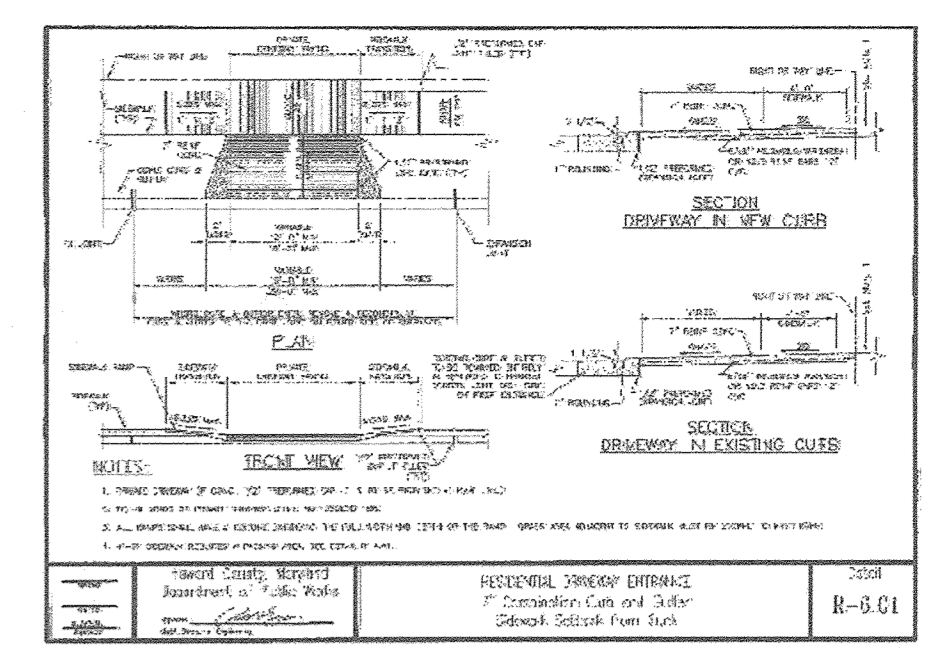
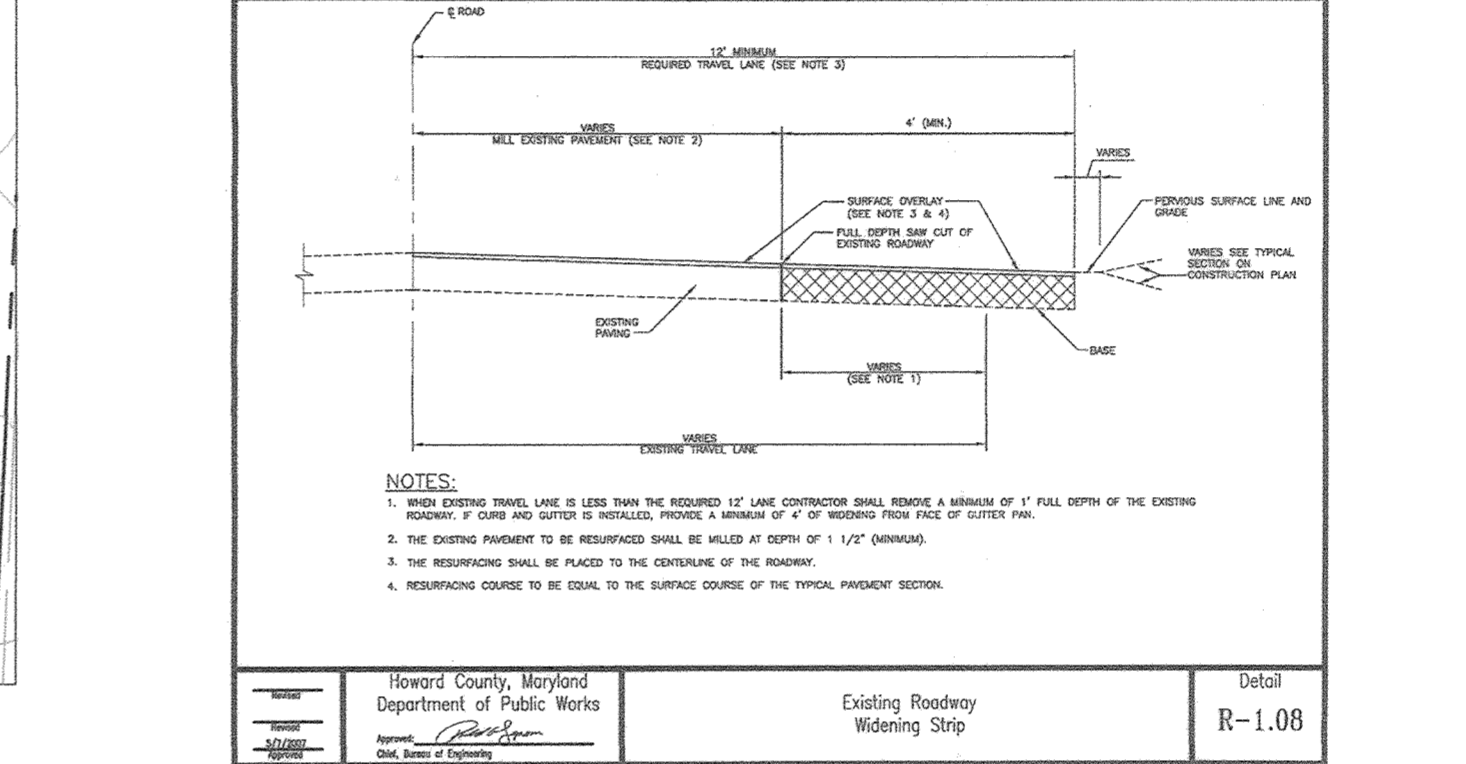


OLD SCAGGSVILLE ROAD TYPICAL WORK ZONE TRAFFIC CONTROL DETAILS

ALL WORK WITHIN THE OLD SCAGGSVILLE ROAD PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE STANDARD MARYLAND STATE HIGHWAY ADMINISTRATION DETAILS: MD 104.02-02 & MD 104.02-10 OR AS DIRECTED BY THE HOWARD COUNTY - TRAFFIC ENGINEERING DIVISION.

OLD SCAGGSVILLE ROAD CURVE TABLE (COMPUTED CL)

10+41.85	-12+96.27	254.42'	1956.00'	0727.09'	127.39'	S 02°27'00" W	254.24'
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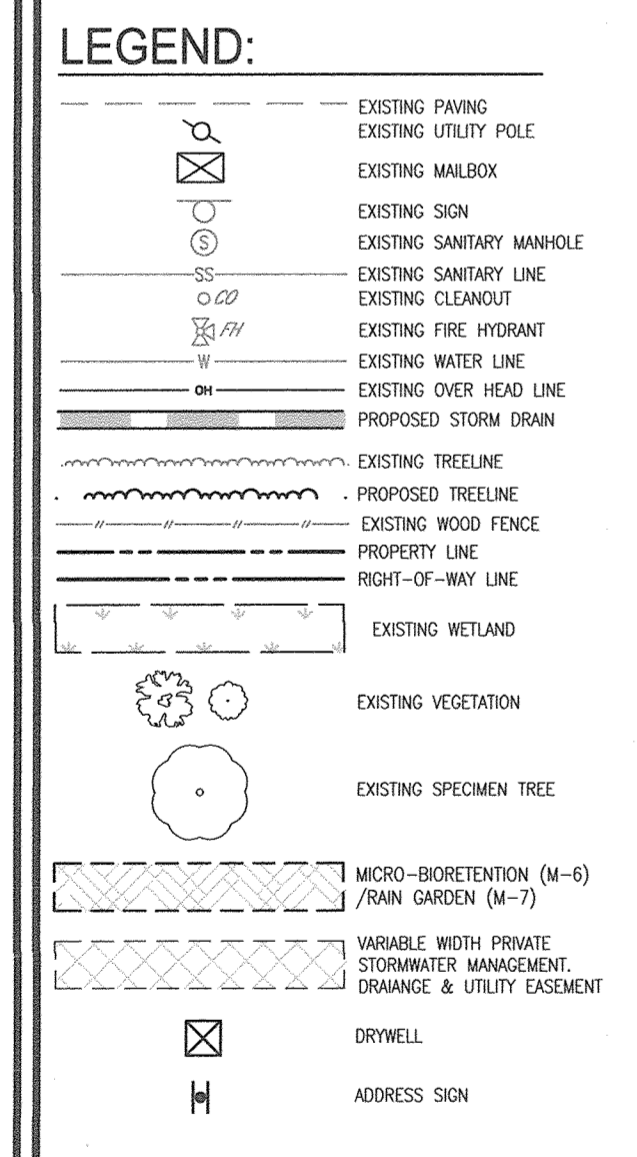


OLD SCAGGSVILLE ROAD LOT 1 & 7 DRIVEWAY ENTRANCE

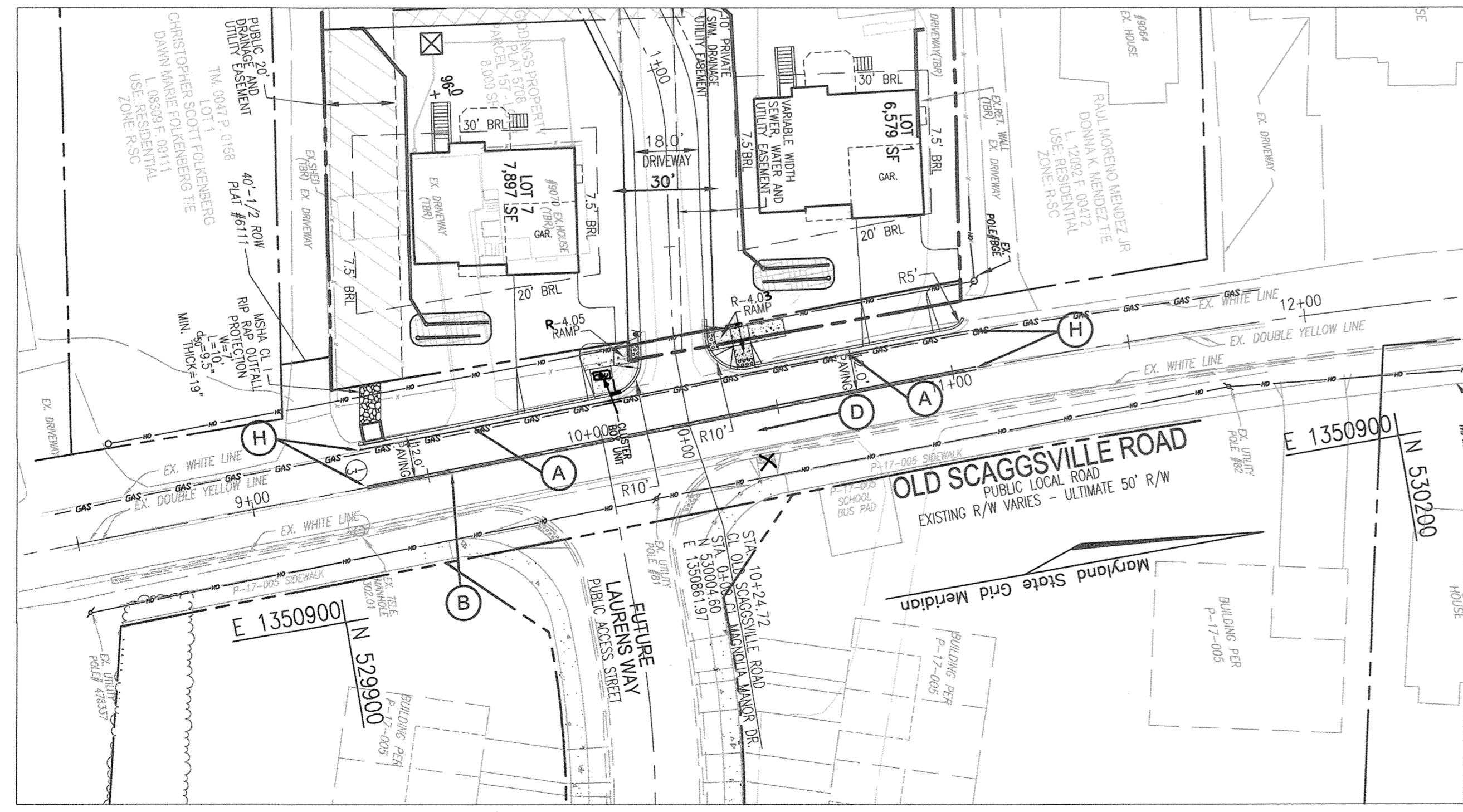
SECTION	NO. AND TITLE	DATE	BY	CHKD.	APP'D.
P-1	PLAN VIEW	10-22-18	RHV	KG	RHV
P-2	SECTION	10-22-18	RHV	KG	RHV
P-3	SECTION	10-22-18	RHV	KG	RHV
P-4	SECTION	10-22-18	RHV	KG	RHV

NOTES:

- TRAFFIC CONTROL DEVICES:
 - A. THE R1-1 (STOP) SIGNS AND STREET NAME SIGN (SNS) ASSEMBLIES FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETE.
 - B. THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
 - C. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE 'MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' (MUMAND).
 - D. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED 'QUICK PUNCH' SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL PERFORATED SQUARE TUBE SLEEVE (12 GAUGE - 3" LONG). THE ANCHOR SHALL NOT EXTEND MORE THAN TWO 'QUICK PUNCH' HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON THE TOP OF EACH POST.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME II (2000), SECTION 5.5.A. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.

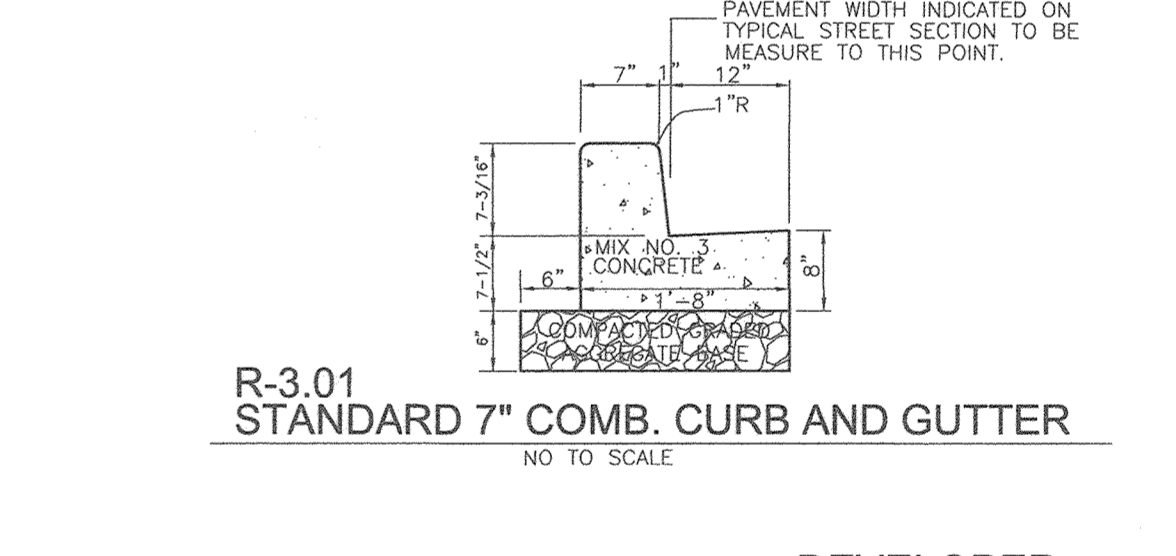
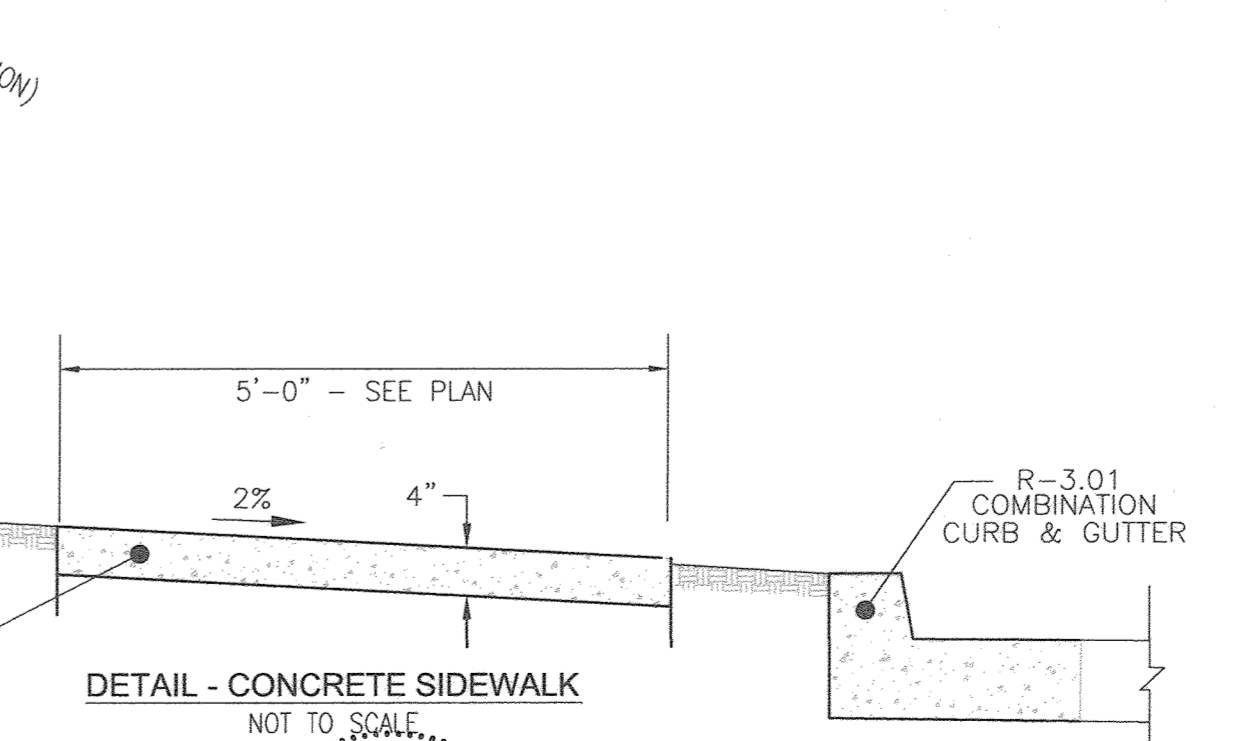
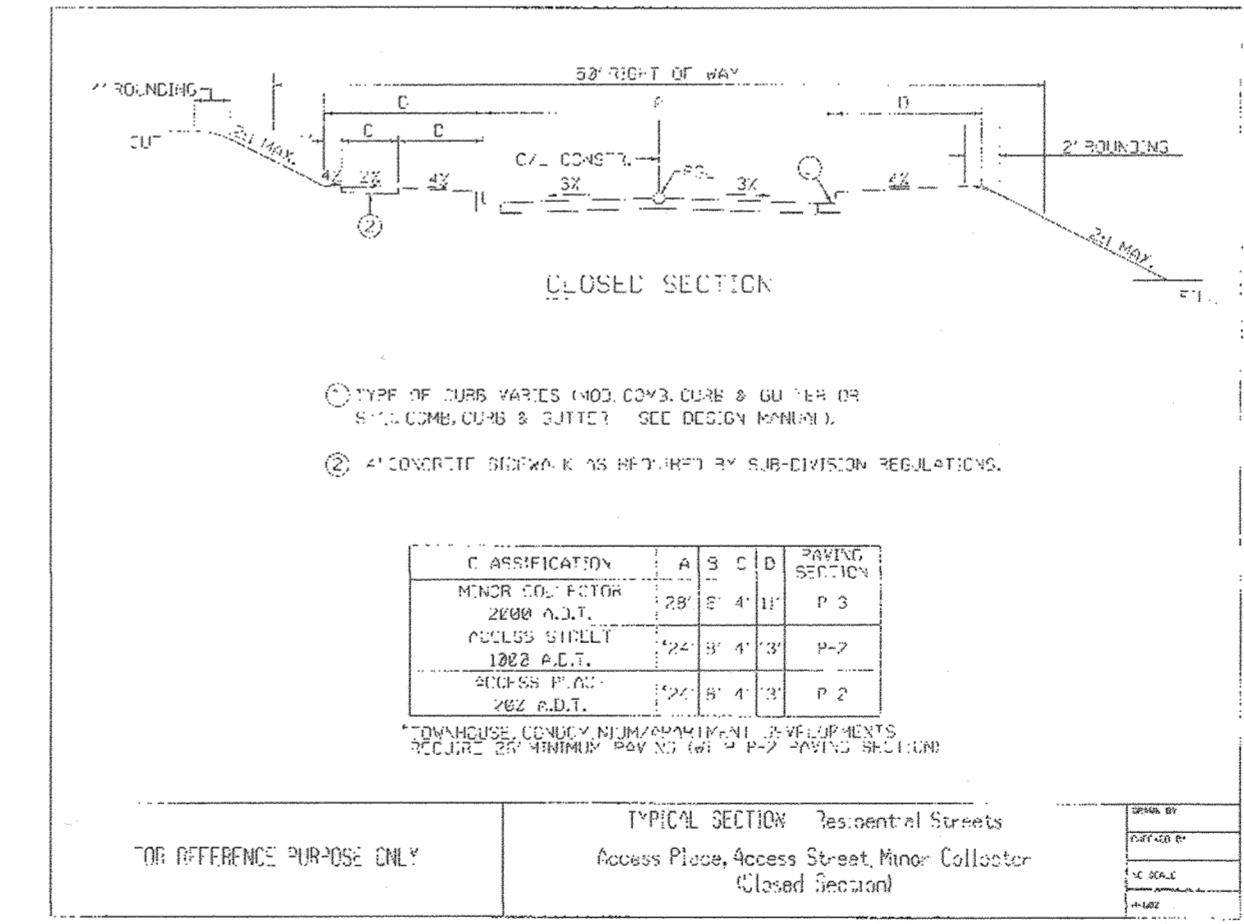
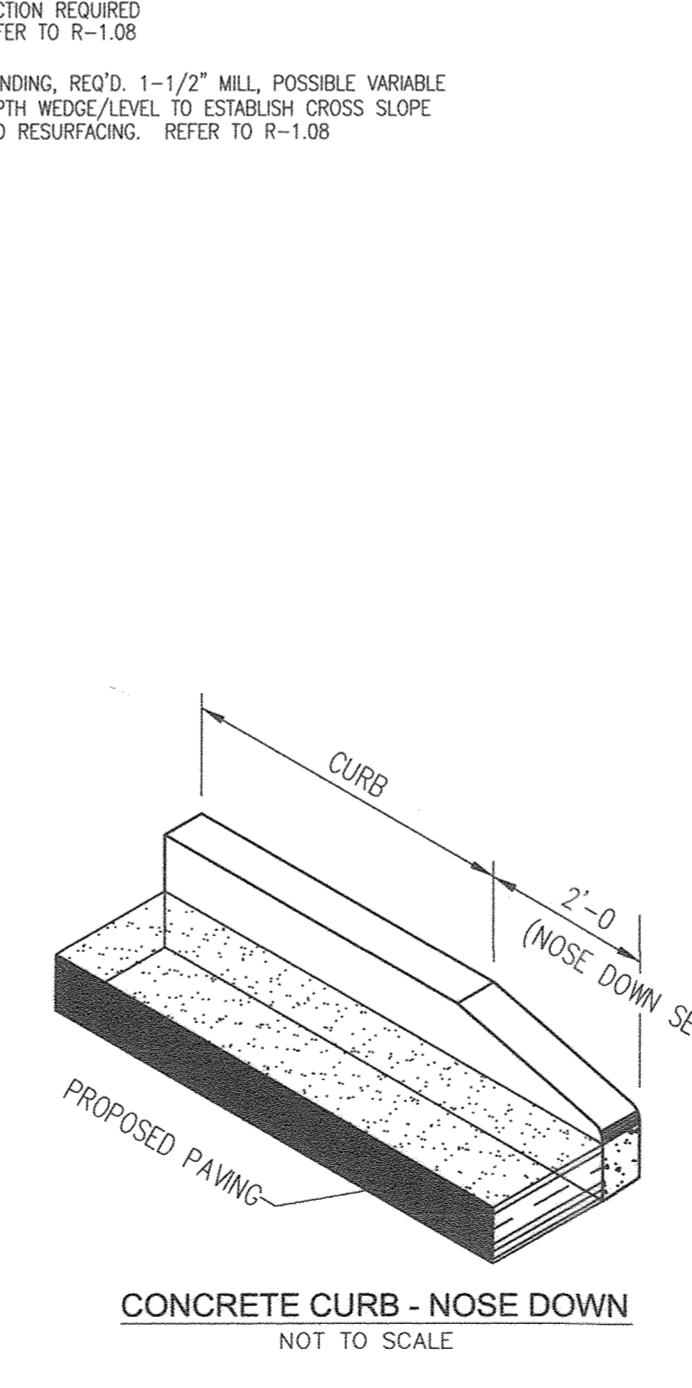


OLD SCAGGSVILLE ROAD WIDENING PLAN
SCALE: 1" = 20'



PAVEMENT MARKING LEGEND

- INSTALL 5 IN. WIDE WHITE SOLID PAVEMENT MARKING FOR LANE LINE.
- INSTALL 5 IN. WIDE YELLOW SOLID PAVEMENT MARKING FOR LANE LINE.
- INSTALL 5 IN. WIDE DOUBLE YELLOW PAVEMENT MARKING - FOR CENTER LINE.
- HOWARD COUNTY CROSSWALK INSTALLED UNDER FUTURE FINAL PLAN ASSOCIATED WITH P-17-004
- TIE TO EXISTING MARKINGS.



R-3.01 STANDARD 7" COMB. CURB AND GUTTER
NO TO SCALE

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

FINAL PLAN
OLD SCAGGSVILLE ROAD ROAD IMPROVEMENTS
MAGNOLIA MANOR WEST
LOTS 1 - 7 AND OPEN SPACE LOT 8
A SUBDIVISION OF TAX MAP 47 - PARCEL 558
AND A RESUBDIVISION OF TAX MAP 47 - PARCEL 157
(GIDDINGS PROPERTY - LOTS 1 AND 2" (PLAT 5708)

TAX MAP: 47 PARCELS: 157 & 558 BLOCK: 19 ZONING: R-3C
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
3300 N. RIDGE ROAD, SUITE 110
ELlicott CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

DESIGN BY: RHV/EDS
DRAWN BY: KG/EDS
CHECKED BY: RHV
DATE: AUGUST 2018
SCALE: AS SHOWN
W.O. NO.: 16-15

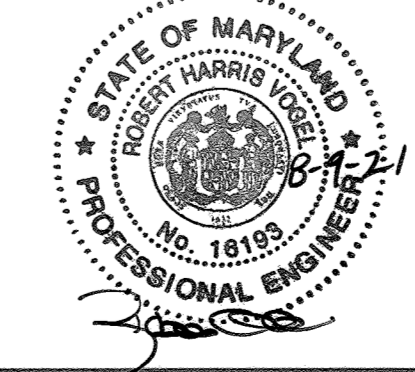
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18183, EXPIRATION DATE 08-27-2018.

3 SHEET OF 11

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS
DATE: 10/11/2018

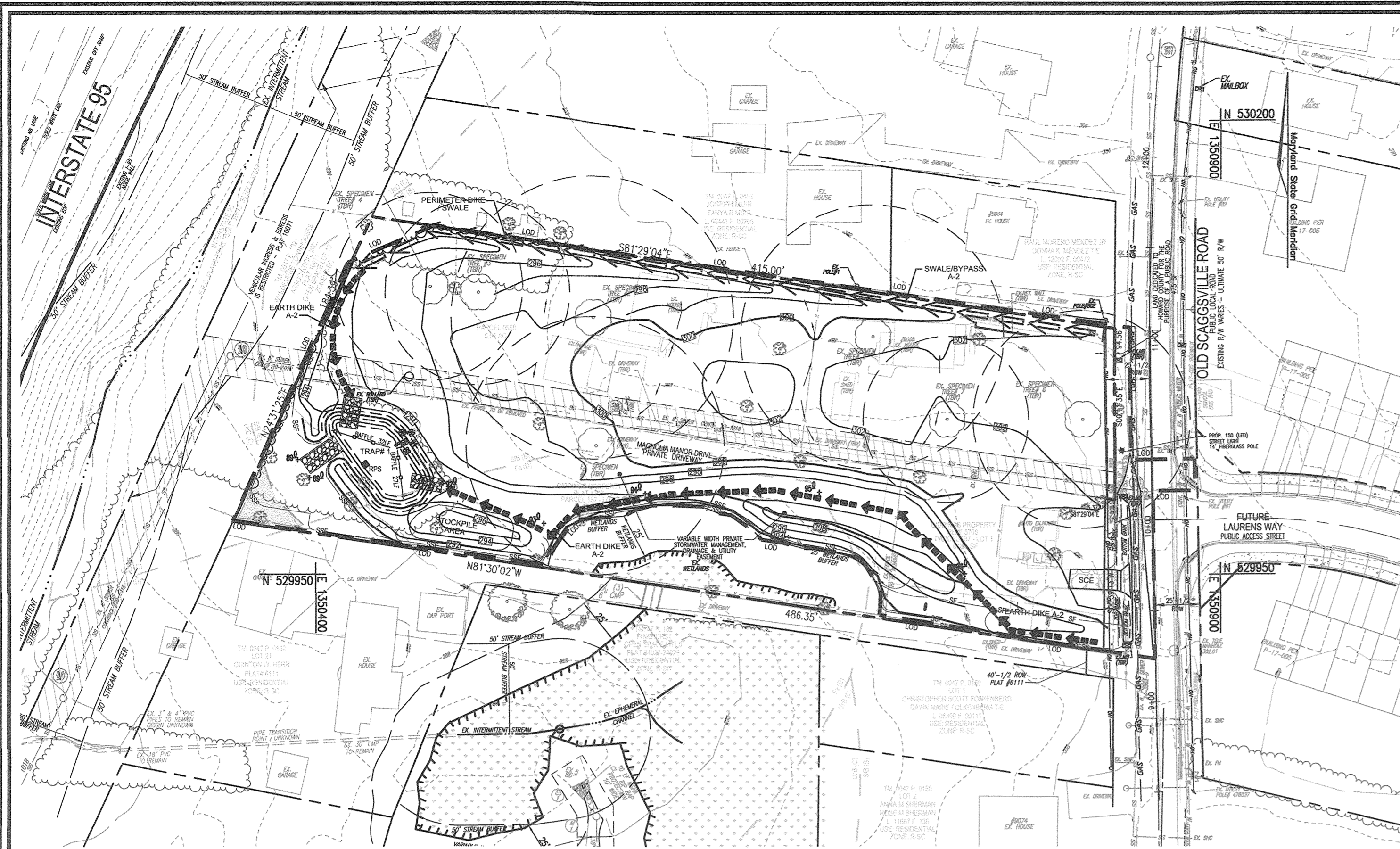
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 10-22-18

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 10-25-18



AS-BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE 'AS-BUILT' PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT FLOODING OF THE UNDERGROUND SWM FACILITY.

DATE: 1/16/21
P.E. NAME: RHV
P.E. NO.: 16193
DATE: 8-9-21



PHASE 1 - GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 50'

NOTE:

PERIMETER DIKE / SWALE SHALL BE CONSTRUCTED AT GRADES SHOWN. BYPASS SWALE IS AN ULTIMATE CONDITION.



PHASE 2 - GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 50'

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT - 1 DAY
- DEVELOPER / CONTRACTOR SHALL REQUEST A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE ENFORCEMENT AUTHORITY PRIOR TO BEGINNING CONSTRUCTION (1 DAY)
- NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410-313-1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK. (1 DAY)
- STAKEOUT LIMITS OF DISTURBANCE. - 1 DAY
- INSTALL STABILIZED CONSTRUCTION ENTRANCE WHERE SHOWN HEREON. - 1 DAY
- REFER TO PHASE 1 PLAN. COMPLETE ANY REQUIRED CLEARING AND GRUBBING ON-SITE AREA FOR THE INSTALLATION OF PERIMETER CONTROLS ONLY. - 1 DAY
- WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, COMPLETE THE CONSTRUCTION OF THE SEDIMENT TRAP PER THE DETAILS AND SPECIFICATIONS SHOWN HEREON AND INSTALL PERIMETER CONTROLS AT THE LIMIT OF DISTURBANCE, WHERE SHOWN OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. - 3 DAYS
- PHASE 1 - EARTH DIKES DIRECTING SITE DISTURBANCES TO THE TRAP SHALL BE CONSTRUCTED AT THE SAME TIME AS THE SEDIMENT TRAP. EARTH DIKES SHALL BE LINED AS DETAILED HEREON. TEMPORARY MATING (1.75) SHOWN ON SHEET 6.
- STABILIZE THE DISTURBED AREAS FROM THE AFOREMENTIONED DISTURBANCES WITH TEMPORARY SEEDING MIXTURE AND STRAW MULCH. - 2 DAYS
- THE SEDIMENT TRAP SHALL BE REMOVED FROM THE SEDIMENT TRAP WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED. - 1 DAY
- THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROLS SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS - 1 DAY
- THE SEDIMENT TRAP SHALL BE DETERMINED BY PUMPING. THE ACCUMULATED SEDIMENT SHALL BE PLACED UP GRADE FROM THE STRUCTURE IN SUCH A MANNER AS NOT TO INTERFERE WITH CONSTRUCTION OPERATIONS OR CAUSE EROSION DOWN GRADE FROM THE STRUCTURE. - 1 DAY
- WITH TRAP IN PLACE AND FUNCTIONING AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, COMPLETE THE PROJECT MASS GRADING REQUIRED TO BRING SITE TO DRAINAGE SURFACE AND COMPACTED FILLS FOR PROPOSED HOME CONSTRUCTION. - ADJUSTMENTS TO THE EARTH DIKES FEEDING TRAP MAY BE REQUIRED TO PROVIDE POSITIVE FLOW TO THE TRAP AS THE ULTIMATE GROUES ARE ESTABLISHED. IN SOME CASES, FILLS BELOW THE EARTH DIKES SHALL BE IMMEDIATELY STABILIZED WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. - 5 DAYS
- COMPLETE THE INSTALLATION OF SEWER HOUSE CONNECTIONS FROM THE EXISTING MAIN. - 1 WEEK
- INSTALL SITE UTILITIES (WATER MAIN EXTENSION FROM OLD SCAGGSVILLE ROAD, AND STORMDRAINS) - 3 WEEKS
- INSTALL STORM DRAIN INLET PROTECTION WHERE SHOWN HEREON - 5 DAYS
- TRAP SHALL REMAIN AS DIRECTED BY SEDIMENT CONTROL INSPECTOR AND SHALL BE MAINTAINED WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR AND/OR AS ULTIMATE GROUES ARE ESTABLISHED / STABILIZED. TRAP SHALL BE REPLACED WITH SUPER SILT FENCE AT THE LIMITS OF DISTURBANCE AS SUPPORTING SLOPES ARE SET TO FINAL GRADE. WITH SLOPES AT GRADE, IMMEDIATELY STABILIZE WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. DAILY ON-GOING GRADING OPERATIONS AND UTILITY DISTURBANCES ARE COMPLETE, STABILIZE DISTURBANCES WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. - DAILY
- COMPLETE OLD SCAGGSVILLE ROAD IMPROVEMENTS AS DETAILED HEREON. - 1 WEEK
- INSTALL BASE COURSE PAVEMENT - 1 DAY
- INSTALL DRY UTILITIES. - 3 WEEKS
- FINE GRADE AREAS FROM DRY UTILITY INSTALLATION ADD TOPSOIL PER THE SPECIFICATIONS SHOWN HEREON AND STABILIZE WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. - DAILY
- FINE GRADE SITE NEAR ROAD CURBSIDE, ADD TOPSOIL PER THE SPECIFICATIONS SHOWN HEREON, INSTALL SIDEWALK, BUS PAD & TRASH PAD AND STABILIZE DISTURBANCES WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. 2 DAYS
- WITH CONTRIBUTING AREA STABILIZED WITH A 2" STAND OF GRASS, CONSTRUCT ESD MICRO-BORSTENTION/BO-SWALE FACILITIES WHICH RECEIVE USE IN COMMON DRIVEWAY RUNOFF OR RUNOFF FROM STABILIZED AREAS. IMMEDIATELY STABILIZE ANY CONTRIBUTING FACILITY SIDE SLOPES WITH SOO AND SURROUND FACILITY WITH SILT FENCE - 2 DAYS EACH
- BEGIN CONSTRUCTION OF INDIVIDUAL HOMES (REFER TO ASSOCIATED BUILDER SDP). PROTECT ANY INSTALLED ESD FACILITIES FROM REENTRY TRUCKS. UPON COMPLETION OF PROJECT HOME CONSTRUCTION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, COMPLETE ANY REMAINING FINE GRADING IN ACCORDANCE WITH STORMWATER MANAGEMENT CRITERIA, ADD TOPSOIL PER THE SPECIFICATIONS SHOWN HEREON, AND STABILIZE DISTURBED AREAS WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. - 1 WEEK
- INSTALL PROJECT LANDSCAPING - 3 DAYS
- AFTER PERMISSION HAS BEEN GIVEN BY SEDIMENT CONTROL INSPECTOR, REMOVE ANY REMAINING ESD CONTROLS AND STABILIZE THE DISTURBED AREAS FROM THE AFOREMENTIONED DISTURBANCES WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. - 1 WEEK

NOTE: ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION

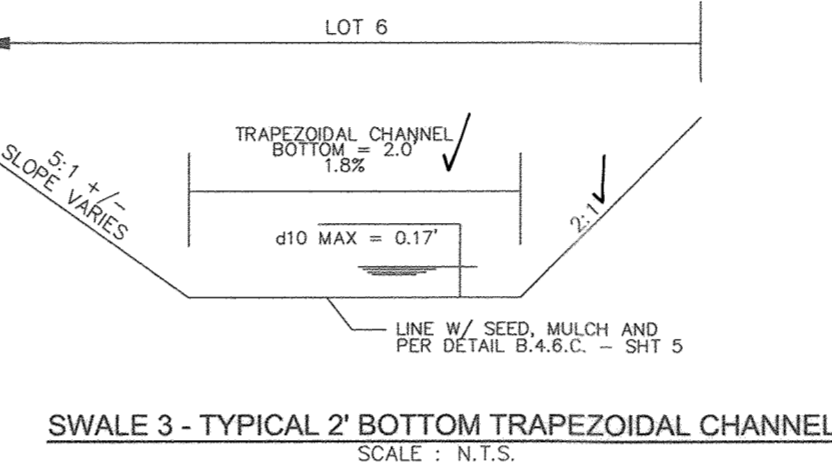
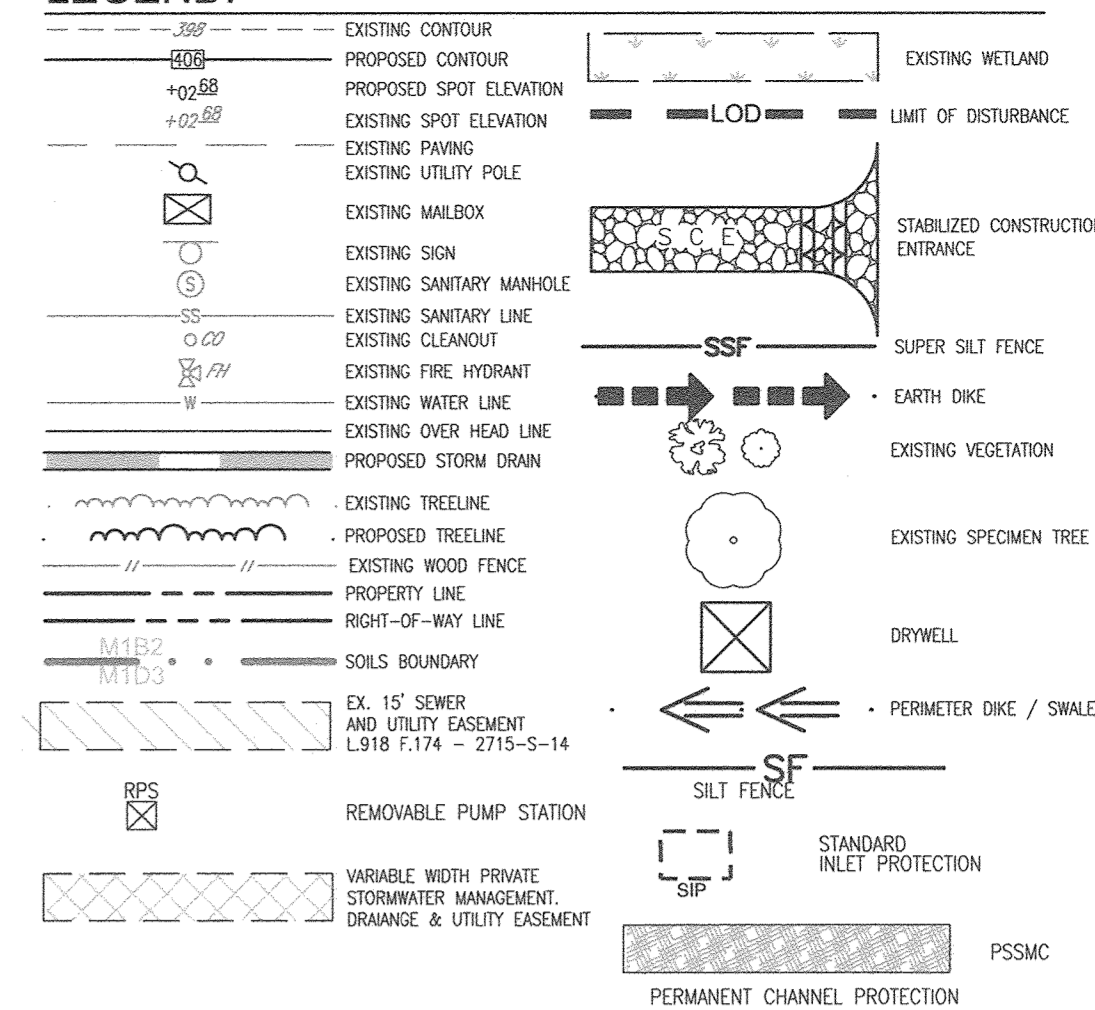
EROSION AND SEDIMENT CONTROL NOTES:

- 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.
- AT NO TIME DURING CONSTRUCTION WILL FENCING BE ALLOWED TO INTERCEPT CONCENTRATED FLOWS
- A DOUBLE ROW OF SSF MAY BE REQUIRED IN THE PROXIMITY OF THE ENVIRONMENTAL AREAS
- SOILS CONSIDERED HIGHLY ERODIBLE BY THE HOWARD SOIL CONSERVATION DISTRICT MAY REQUIRE MORE STRINGENT SEEDING AND STABILIZATION METHODS.
- ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.
- IMBRICATE SF/SSF IN 35' SEGMENTS AS REQUIRED UPHILL BY 2' IN ELEVATION.

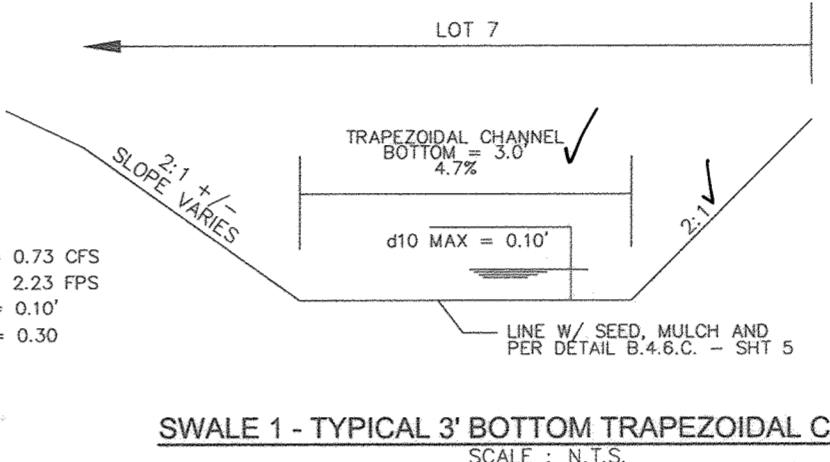
NOTE:

- STABILIZATION IS TO BE DONE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE INTERVALS REQUIRED BY THE 2011 STD'S. & SPECS. WHICHEVER IS MORE RESTRICTIVE.
- LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. ANY STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.
- SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
- SILT FENCE SHALL BE CURLED UPHILL. NO MORE THAN 35 FEET APART
- DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

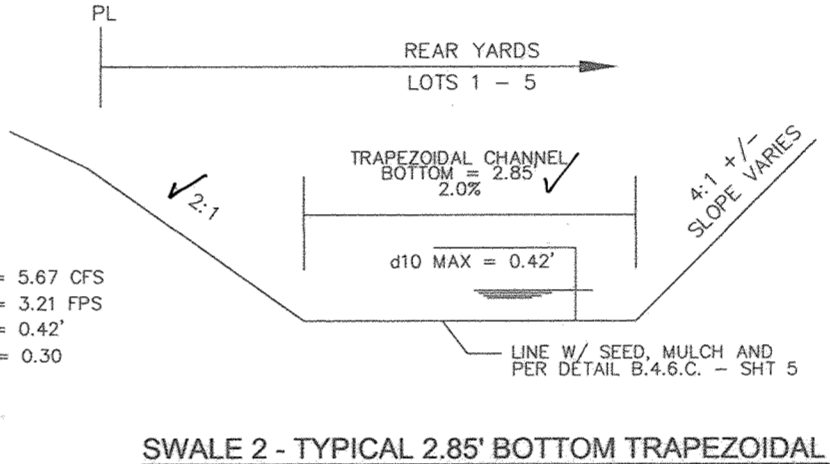
LEGEND:



SWALE 3 - TYPICAL 2' BOTTOM TRAPEZOIDAL CHANNEL



SWALE 1 - TYPICAL 3' BOTTOM TRAPEZOIDAL CHANNEL



SWALE 2 - TYPICAL 2.85' BOTTOM TRAPEZOIDAL CHANNEL

NOTE:
- HOUSES MAY NOT BE BUILT USING THIS PLAN.
- THE HOWARD SCD STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN PERMITS FOR THIS PROJECT.

NOTES

- REFER TO SHEETS 4 FOR STANDARD DETAILS AND STABILIZATION NOTES.
- REFER TO SHEET 8 FOR TEST PIT DATA.

OWNER

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

DEVELOPER

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

SOILS LEGEND
HOWARD COUNTY SOILS MAP #24 - SAVAGE SW

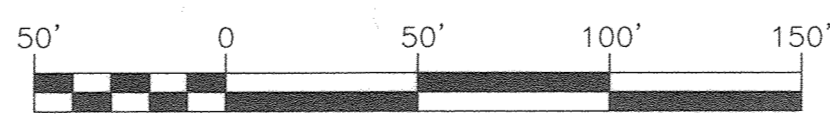
SYMBOL	NAME / DESCRIPTION	GROUP	K FACTOR	ERODIBLE	FARMLAND	HYDRIC
Fo	Fallingson sandy loams, 0 to 2 percent slopes	D	0.02	NO	YES	YES
SfB	Sassafras gravelly sandy loam, 2 to 5 percent slopes	B	0.24	NO	YES	NO
UcD	Urban land-Chillum-Beltsville complex, 5 to 15 percent slopes	C	0.37	YES	NO	NO

NOTE:
TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY
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
NOTE:
FALLINGSON SOILS HAVE SEVERE LIMITATIONS FOR HOME CONSTRUCTION.

AS-BUILT CERTIFICATION FOR PSMW

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

NAME: [Signature] 16193 P.E.# 8-9-21 DATE



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

[Signature] 10/2/18
HOWARD S.C.D. DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS
DATE: 10/11/2018
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 10-22-18
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 10-25-18

OWNER/DEVELOPER CERTIFICATION:
I HEREBY 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 ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.
DATE: 08-29-18
MICHAEL P. FRAU (MEMBER)
PRINTED NAME & TITLE

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.
DESIGNER'S SIGNATURE: [Signature]
ROBERT H. VOGEL
PRINTED NAME
MD REGISTRATION NO. 16193
R.L.S., OR R.L.A. (circle one)

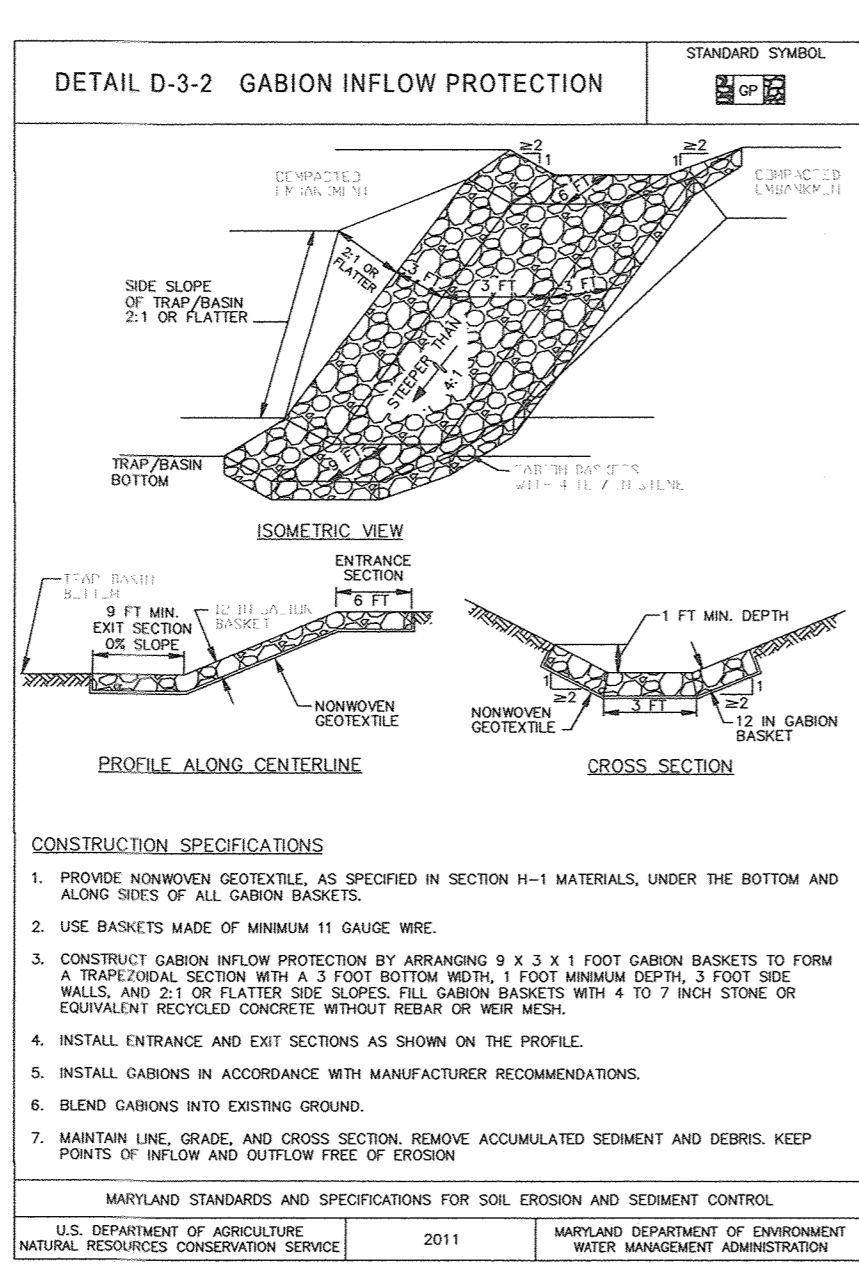
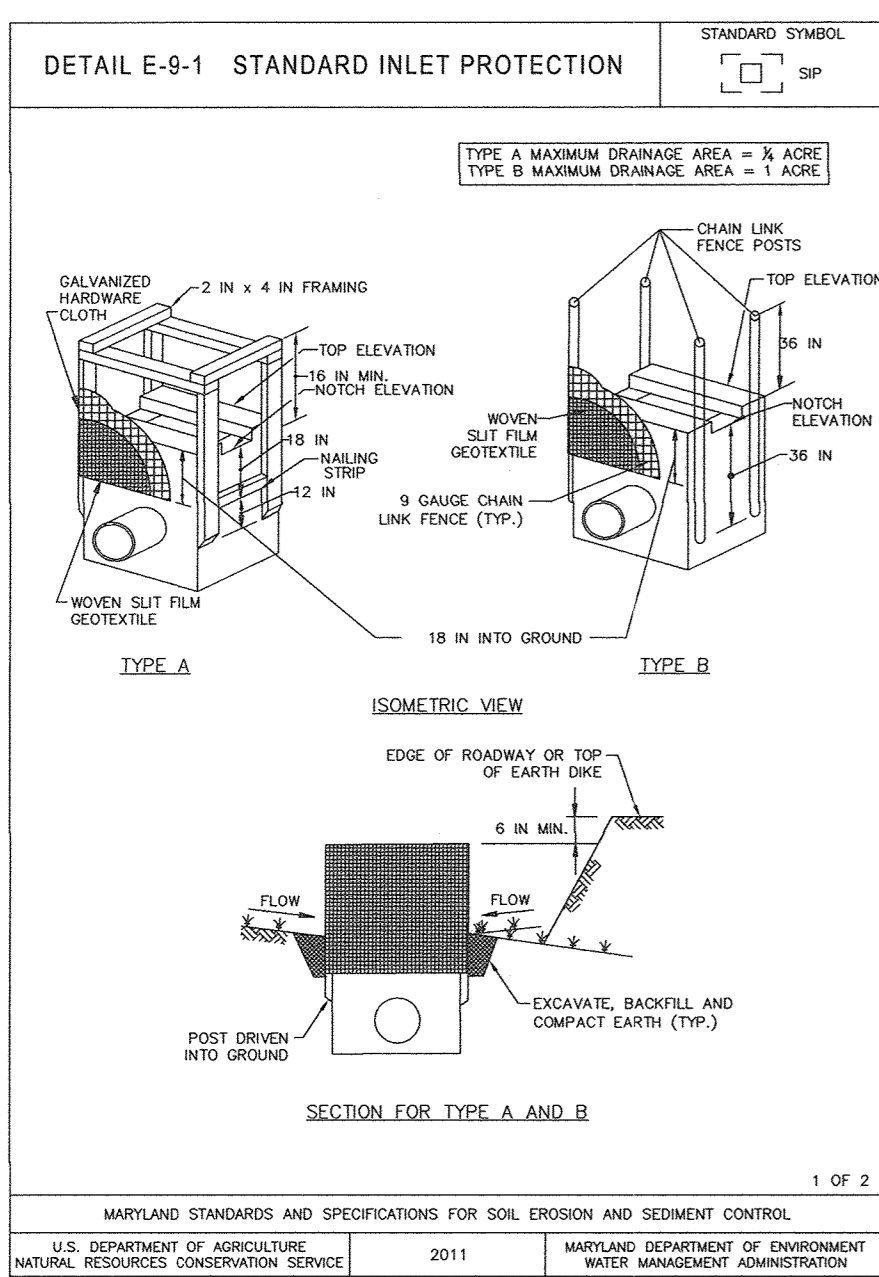
NO.	REVISION	DATE
2	REVISE PLAN TO RELocate 6" PIP FROM L1 TO M-1, REMOVE COVER PIPE FROM MBR-C AND TO REVISE PLAN TO MATCH AS-BUILT CONDITIONS	5-26-21

FINAL PLAN
GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN
MAGNOLIA MANOR WEST
LOTS 1 - 7 AND OPEN SPACE LOT 8
A SUBDIVISION OF TAX MAP 47 - PARCEL 558
AND A RESUBDIVISION OF TAX MAP 47 - PARCEL 157
"GIDDINGS PROPERTY - LOTS 1 AND 2" (PLAT 5708)
TAX MAP: 47 PARCELS: 157 & 558 BLOCK: 19 ZONING: R-SC
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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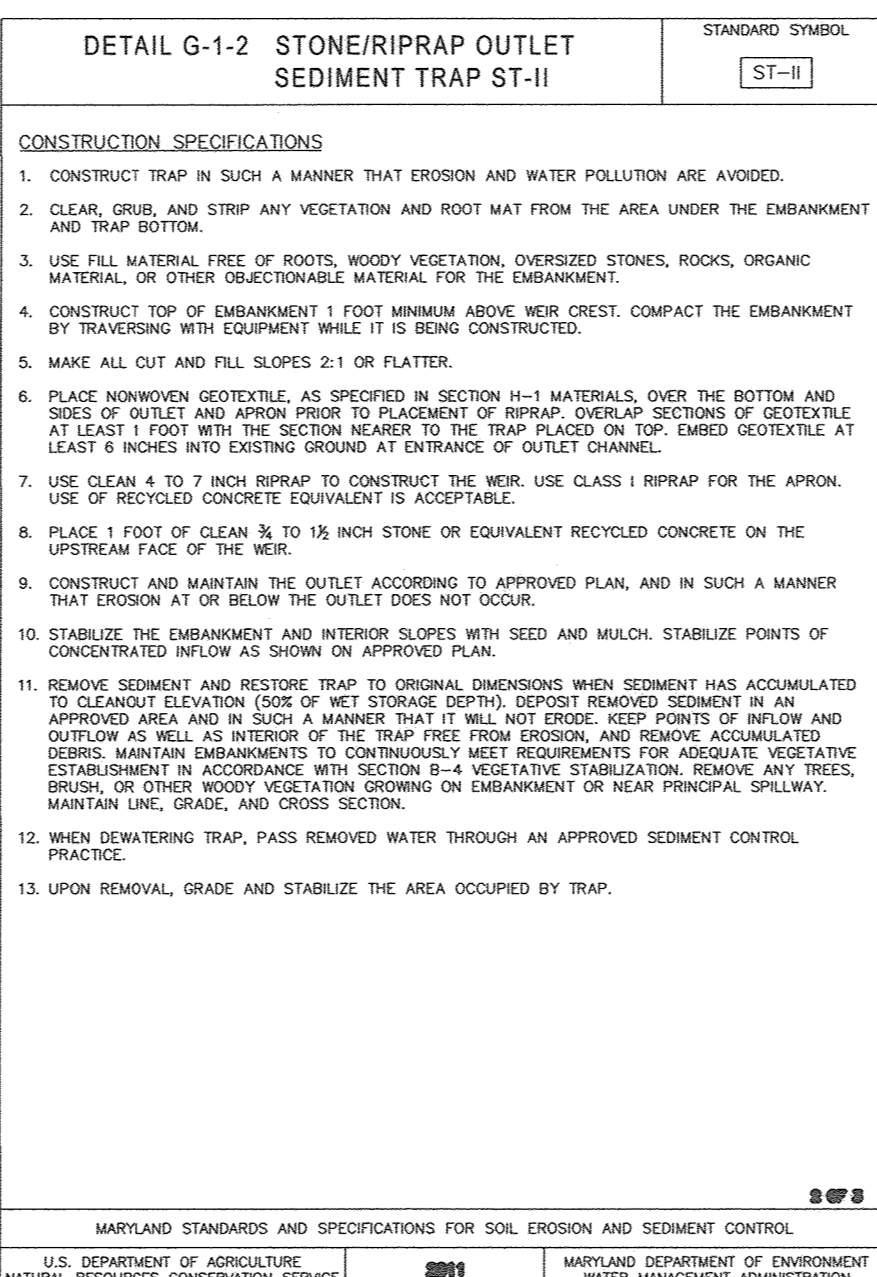
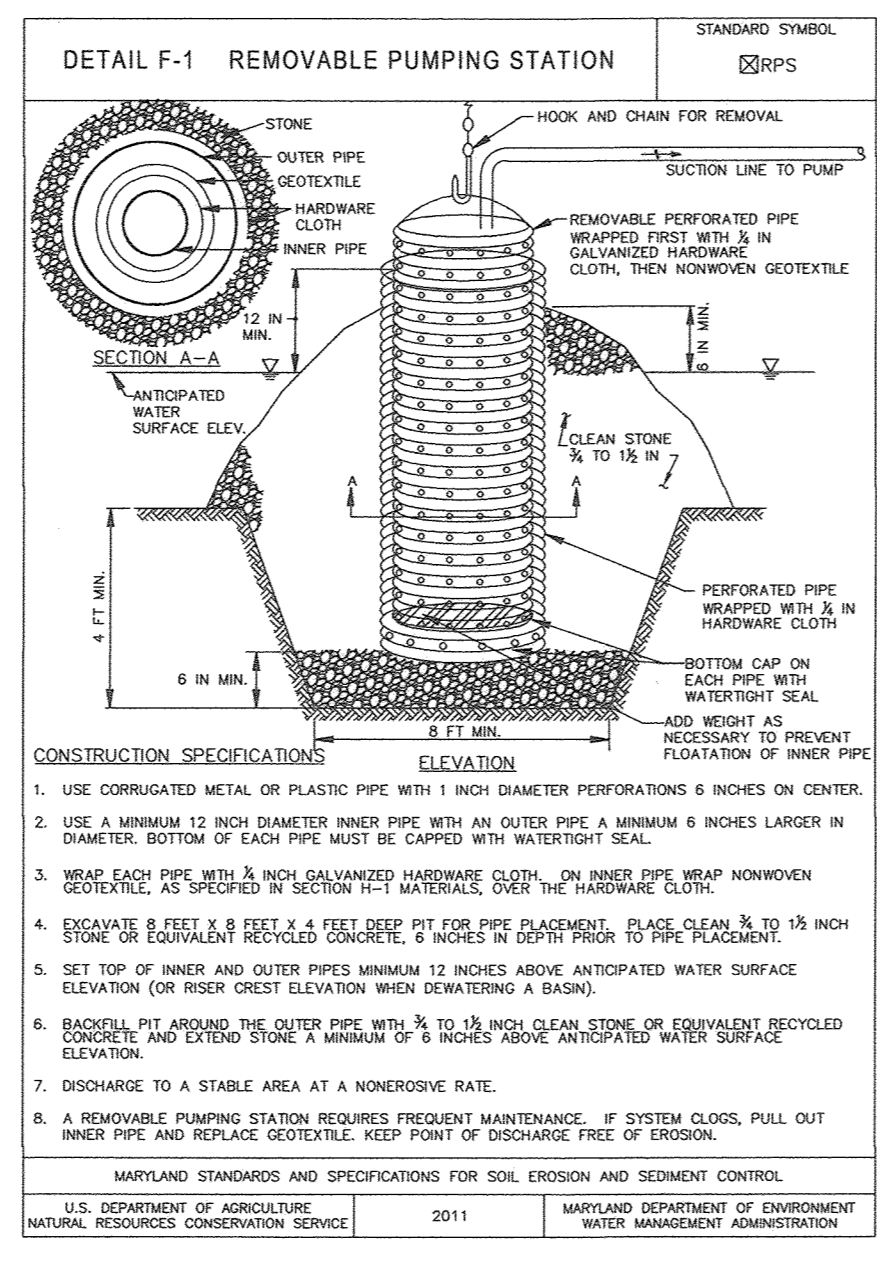
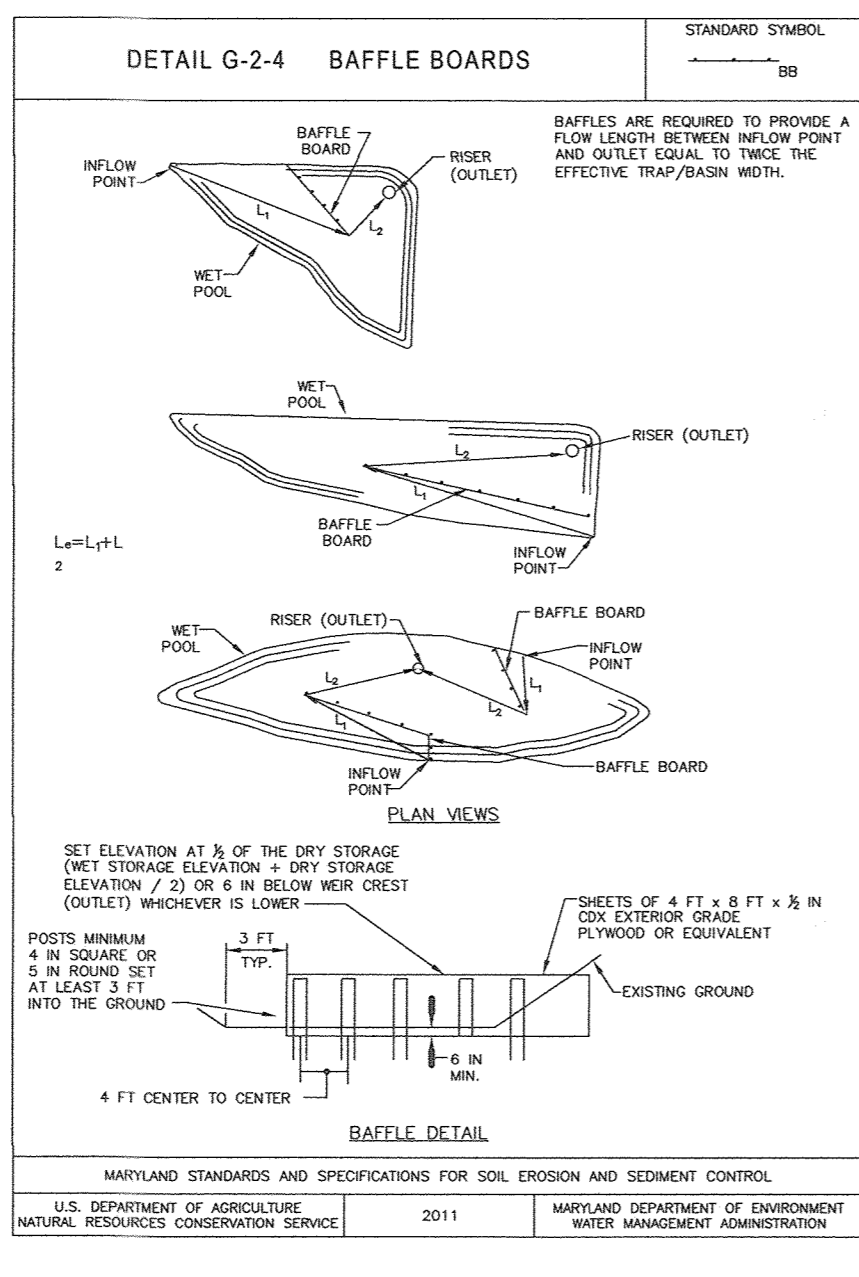
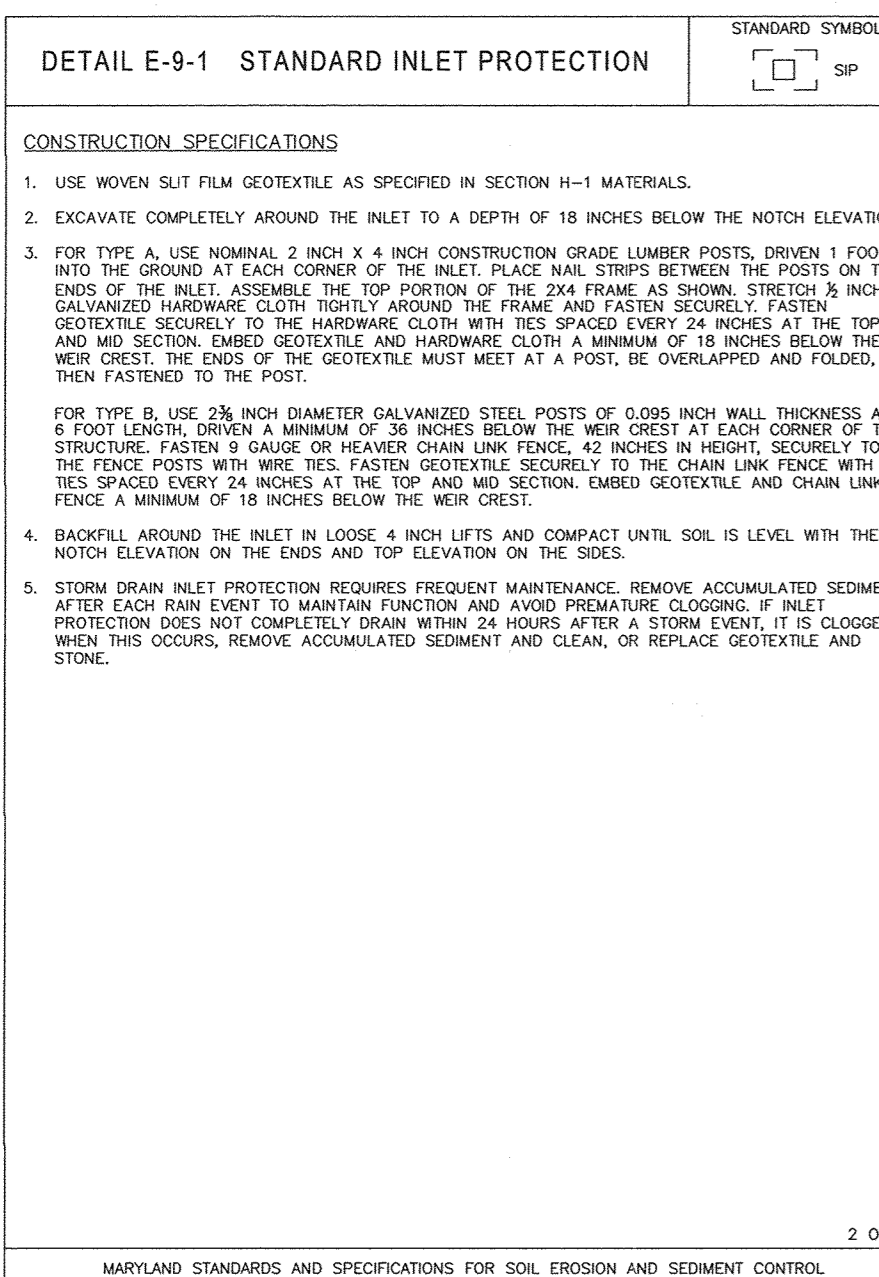
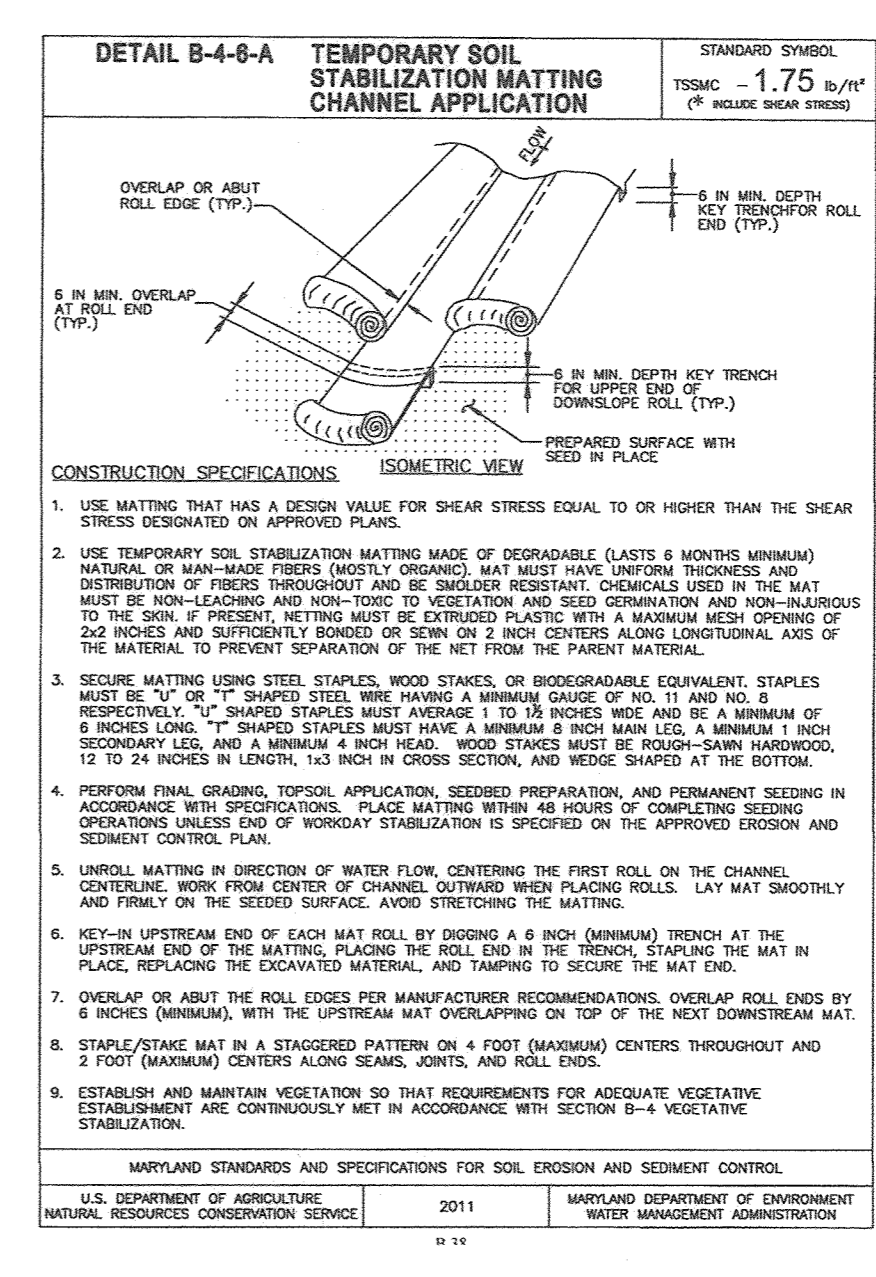
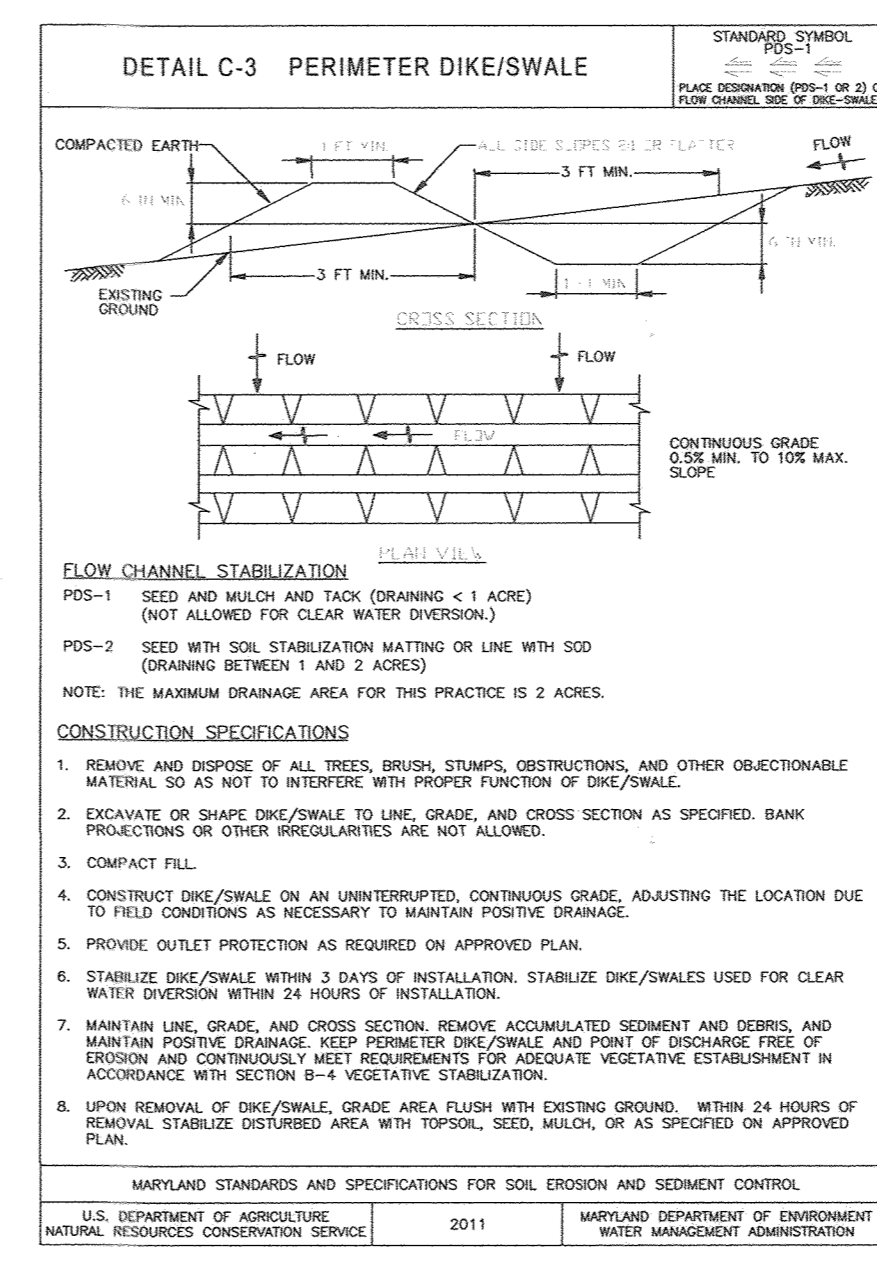
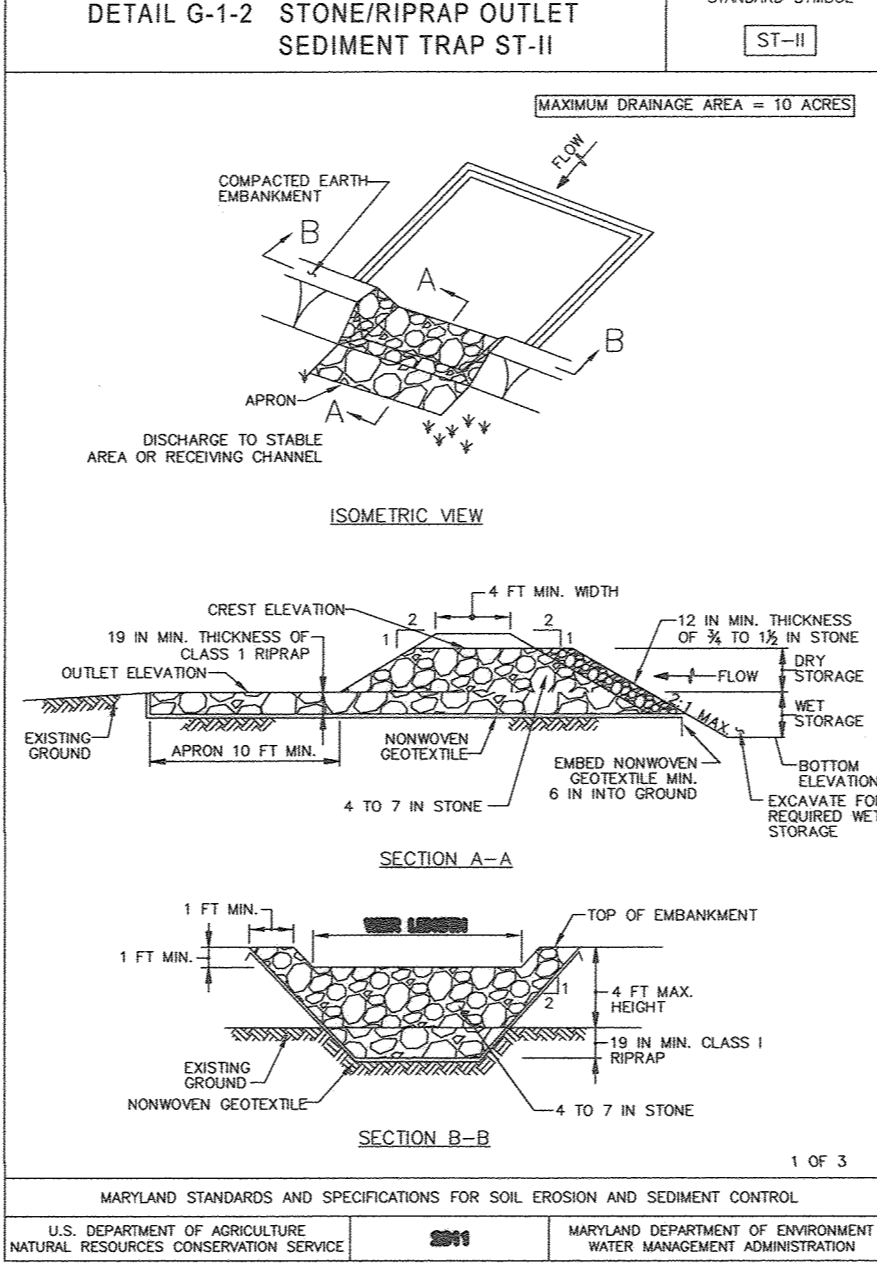
DESIGN BY: RHV/EDS
DRAWN BY: KG/EDS
CHECKED BY: RHV
DATE: AUGUST 2018
SCALE: AS SHOWN
W.O. NO.: 16-15

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. 16193 EXPIRATION DATE: 08-27-2018
4 SHEET OF 11



DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. #	ACRES	CF	FT	FT	FT	FT	FT	FT	IN
DRAINAGE AREA - INITIAL	3.55								
DRAINAGE AREA - INTERIM	-								
DRAINAGE AREA - FINAL	1.55								
TOTAL STORAGE REQUIRED		4,860							
WET STORAGE PROVIDED		5,700							
WET STORAGE REQUIRED		2,430							
WET STORAGE PROVIDED		2,550							
WET STORAGE REQUIRED		2,430							
DRY STORAGE PROVIDED		6,250							
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)		EX GRND 289.0			WET STORAGE EL 289.0				
TRAP BOTTOM ELEVATION		287.0							
TRAP BOTTOM DIMENSIONS		44'-7"2"		11'	8'				
WEIR LENGTH		10'							
WEIR CREST (DRY STORAGE) ELEVATION		289.0							
CLEANOUT ELEVATION		288.3							
TOP OF EMBANKMENT ELEVATION		292.0							
SIDE SLOPE		2:1			H:V RATIO				
EMBANKMENT TOP WIDTH		4'							
OUTLET PROTECTION - LENGTH		10'							
OUTLET PROTECTION - DEPTH		10"							



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

TABLE B-1: Temporary Seeding for Site Stabilization

Plant Species	Seeding Rate		Recommended Seeding Dates by Plant Hardiness Zone ^a
	lb/ac	lb/1000 ft ²	
Cool-Season Grasses			
Annual Ryegrass (<i>Lolium perenne</i> ssp. <i>multiflorum</i>)	40	1.0	Mar 1 to May 15; Aug 1 to Sep 30
Barley (<i>Hordeum vulgare</i>)	96	2.2	Mar 15 to May 31; Aug 1 to Sep 30
Oats (<i>Avena sativa</i>)	72	1.7	Mar 15 to May 31; Aug 1 to Sep 30
Wheat (<i>Triticum aestivum</i>)	120	2.8	Mar 15 to May 31; Aug 1 to Sep 30
Cereal Rye (<i>Cleome coccinea</i>)	112	2.8	Mar 15 to May 31; Aug 1 to Oct 31
Warm-Season Grasses			
Foxtail Millet (<i>Setaria italica</i>)	30	0.7	Jun 1 to Jul 31
Pearl Millet (<i>Pennisetum glaucum</i>)	20	0.5	May 1 to Aug 14

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

TABLE B-1: Temporary Seeding for Site Stabilization

AREA WET STORAGE EL = 1,556 SF

We = (A/2) * 0.5

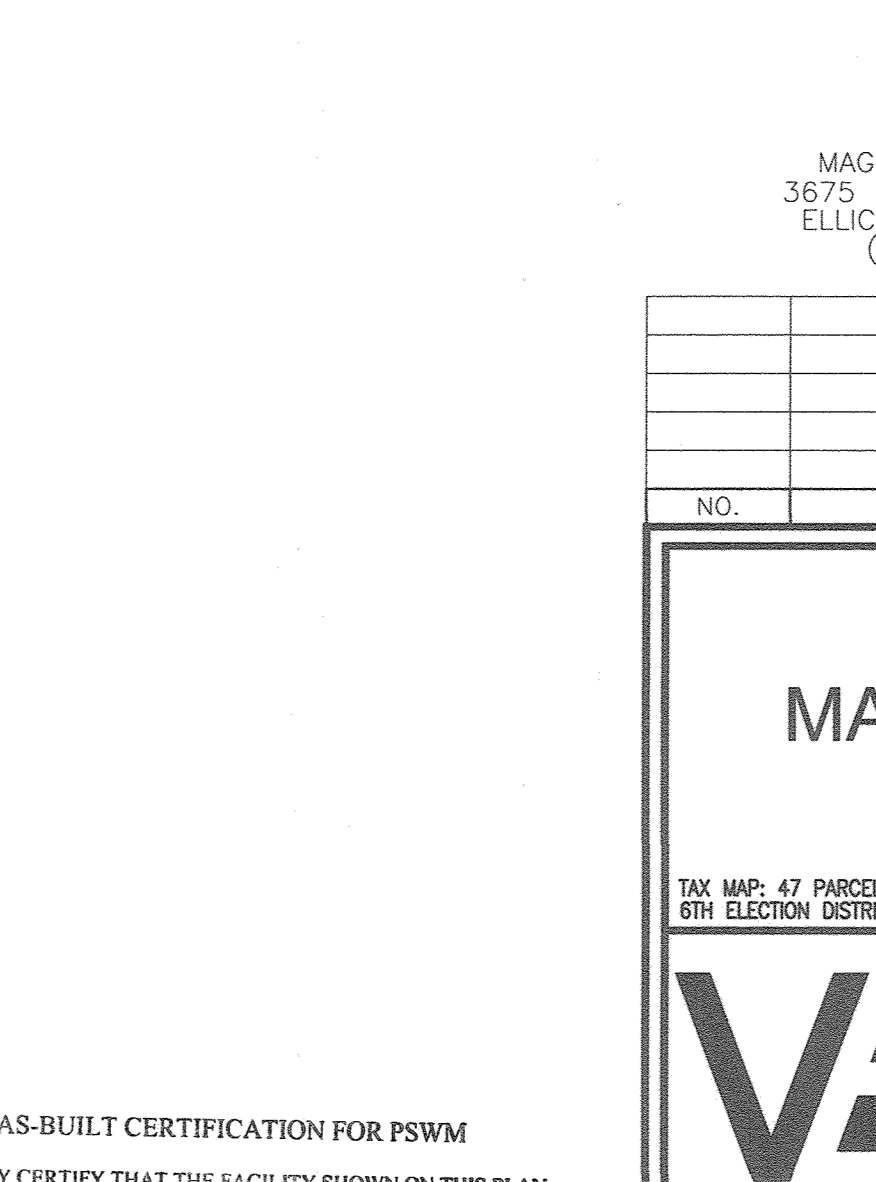
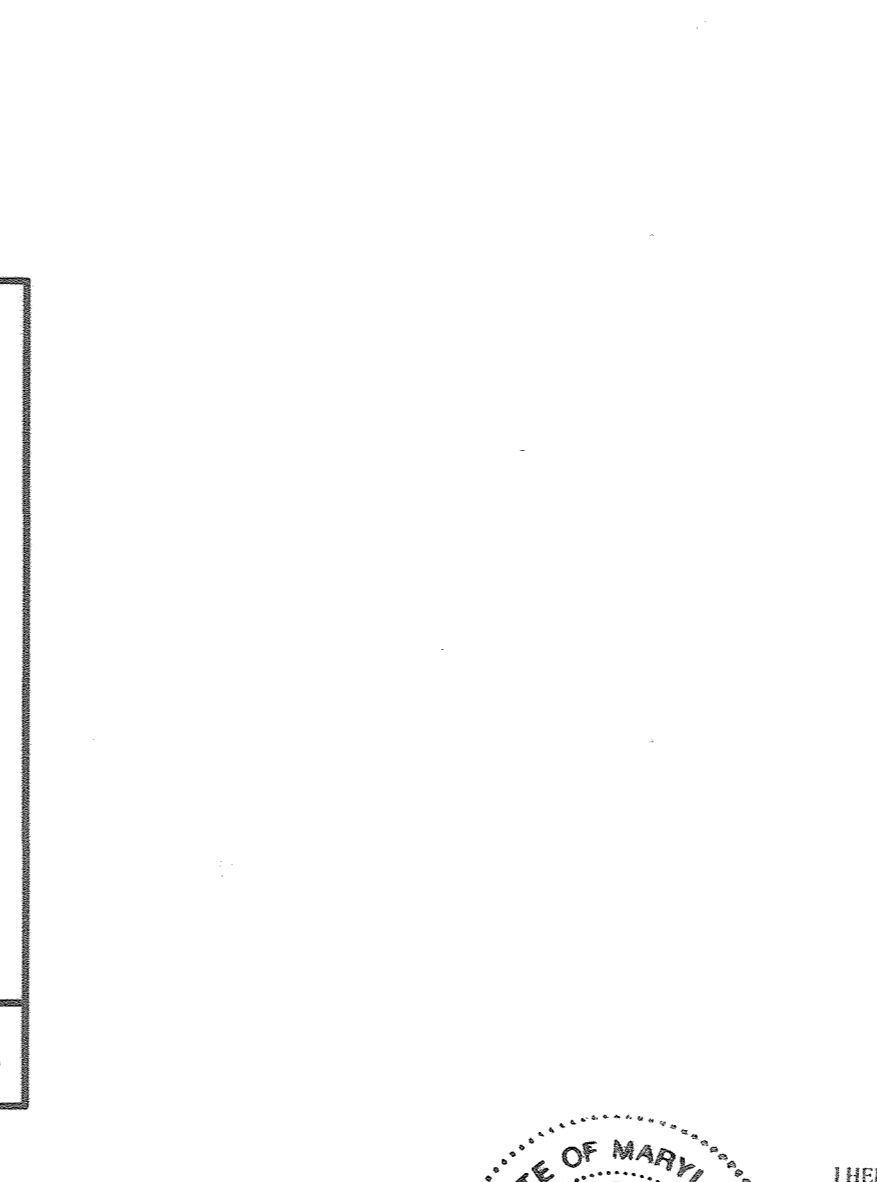
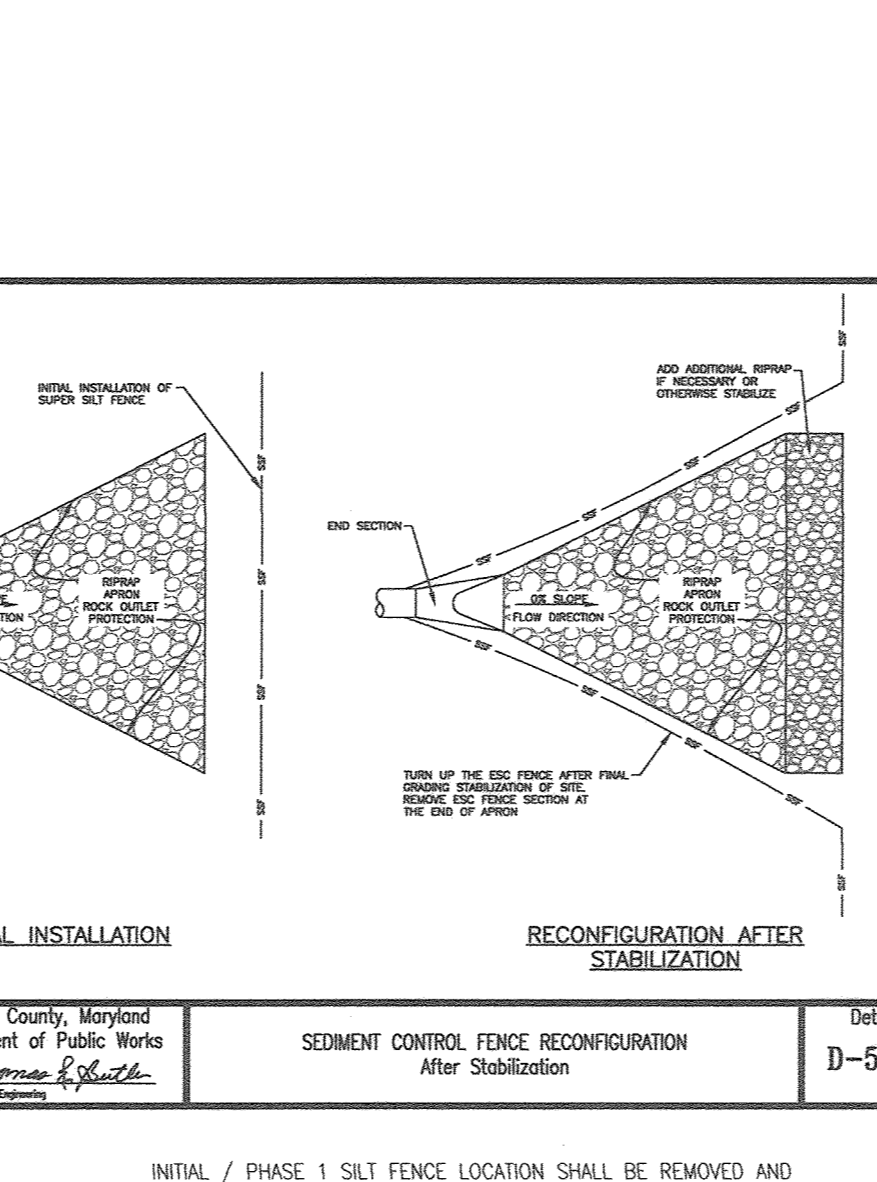
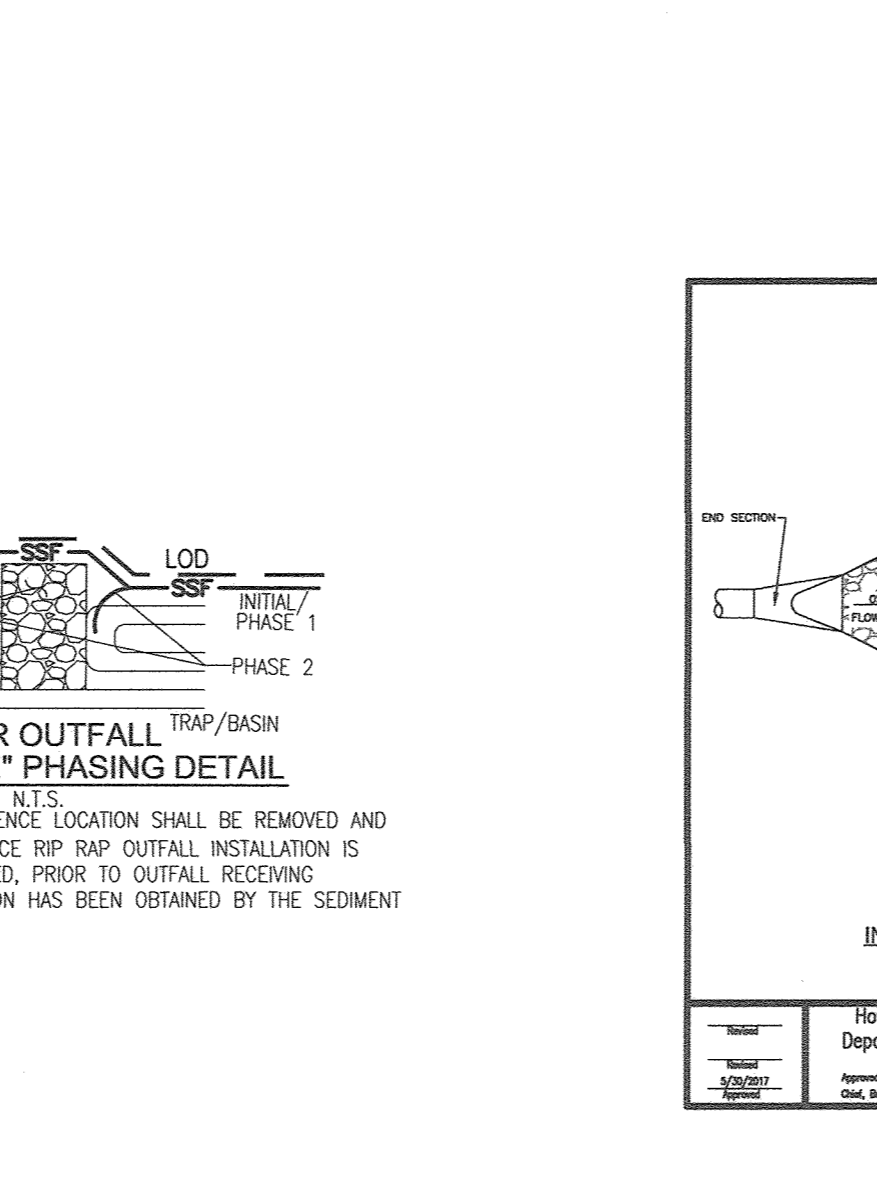
We = 27.8'

MIN Le = We * 2 = 56'

INFLOW WEST: L1= 28', L2= 28', L3= 0'

INFLOW EAST: L1= 28', L2= 28', L3= 28'

PROVIDED Le = 56', PROVIDED Le = 58'



APPROVED: DEVELOPER OF PUBLIC WORKS

10/14/2018

CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

10-22-18

CHIEF, DEVELOPMENT ENGINEERING DIVISION

10-25-18

CHIEF, DIVISION OF LAND DEVELOPMENT

OWNER/DEVELOPER CERTIFICATION:

I HEREBY 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 ON EROSION AND SEDIMENT PROTECTION PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT.

OWNER/DEVELOPER SIGNATURE: MICHAEL PEAL (MEMBER)

DATE: 08-29-18

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.

DESIGNER'S SIGNATURE: ROBERT H. VOGEL

DATE: 08-29-18

MD REGISTRATION NO. 16193

P.E., R.L.S., OR R.L.A. (circle one)

INITIAL / PHASE 1 SILT FENCE LOCATION SHALL BE REMOVED AND RELOCATED ABOVE THE PIPE OUTFALL (PHASE 2) ONCE RIP RAP OUTFALL INSTALLATION IS COMPLETE, AREA STABILIZED, PRIOR TO OUTFALL RECEIVING DISCHARGE AND PERMISSION HAS BEEN OBTAINED BY THE SEDIMENT CONTROL INSPECTOR.

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

DATE: 10/12/18

AS-BUILT CERTIFICATION FOR PSMW

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

DATE: 8-9-21

NO AS-BUILT INFORMATION ON THIS SHEET

OWNER

MAGNOLIA MANOR LLC

3675 PARK AVE., SUITE 301

ELLIOTT CITY, MD 21043

(410) 480-0023

DEVELOPER

TRINITY HOMES MARY LAND, LLC

3675 PARK AVE., SUITE 301

ELLIOTT CITY, MD 21043

(410) 480-0023

OWNER

MAGNOLIA MANOR LLC

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DEVELOPER

TRINITY HOMES MARY LAND, LLC

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ELLIOTT CITY, MD 21043

(410) 480-0023

FINAL PLAN

GRADING, SOIL EROSION

AND SEDIMENT CONTROL PLAN - DETAILS

MAGNOLIA MANOR WEST

LOTS 1 - 7 AND OPEN SPACE LOT 8

A SUBDIVISION OF TAX MAP 47 - PARCEL 558

AND A RESUBDIVISION OF TAX MAP 47 - PARCEL 157

"GIDDINGS PROPERTY - LOTS 1 AND 2" (PLAT 5708)

TAX MAP: 47 PARCELS: 157 & 558

BLOCK: 19 ZONING: R-SC

6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.

ENGINEERS • SURVEYORS • PLANNERS

3300 N. RIDGE ROAD, SUITE 110 ELLIOTT CITY, MD 21043

TEL: 410.461.7666

FAX: 410.461.8961

DESIGN BY: RHV/EDS

DRAWN BY: KG/EDS

CHECKED BY: RHV

DATE: AUGUST 2018

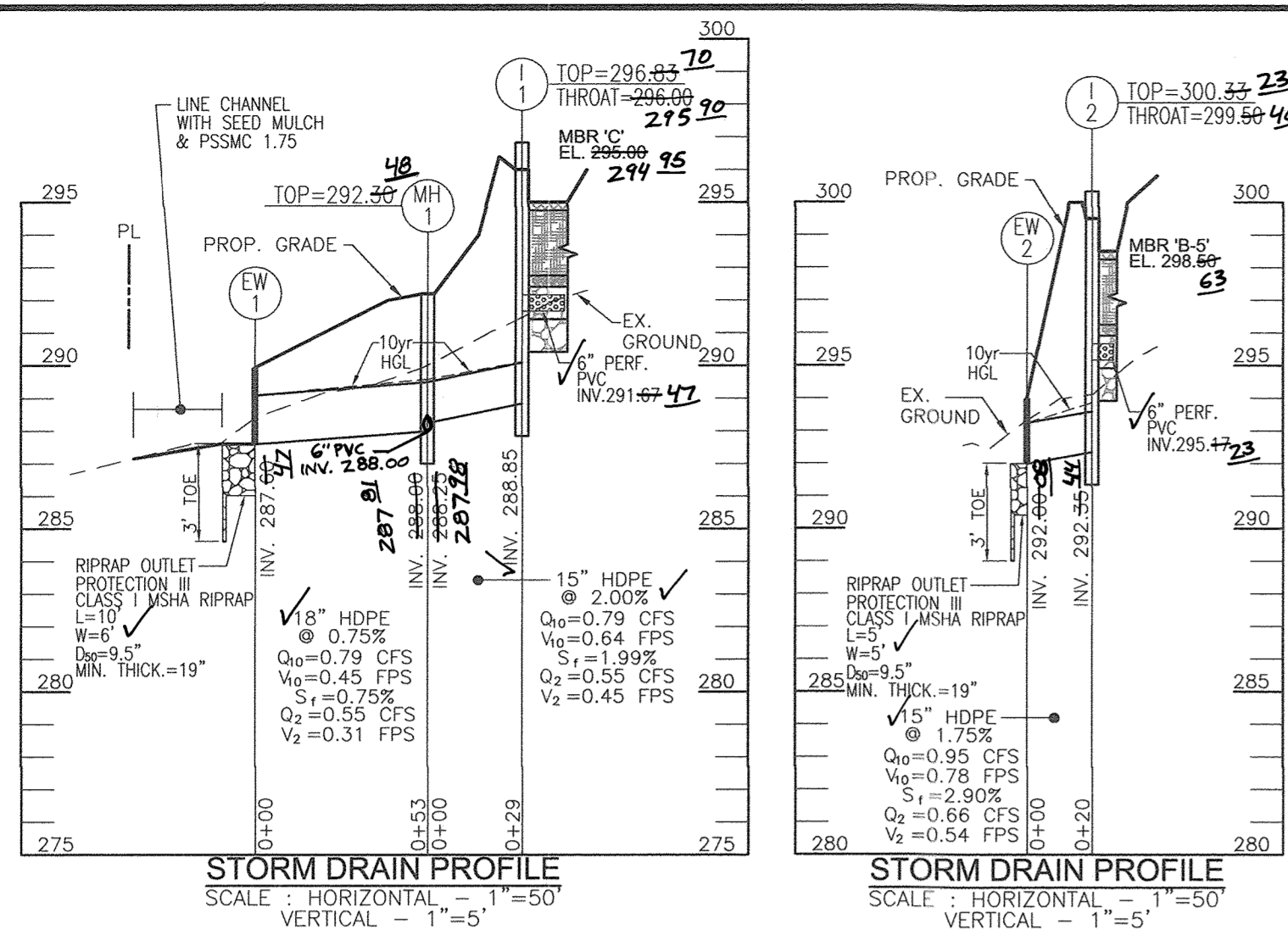
SCALE: AS SHOWN

W.O. NO.: 16-15

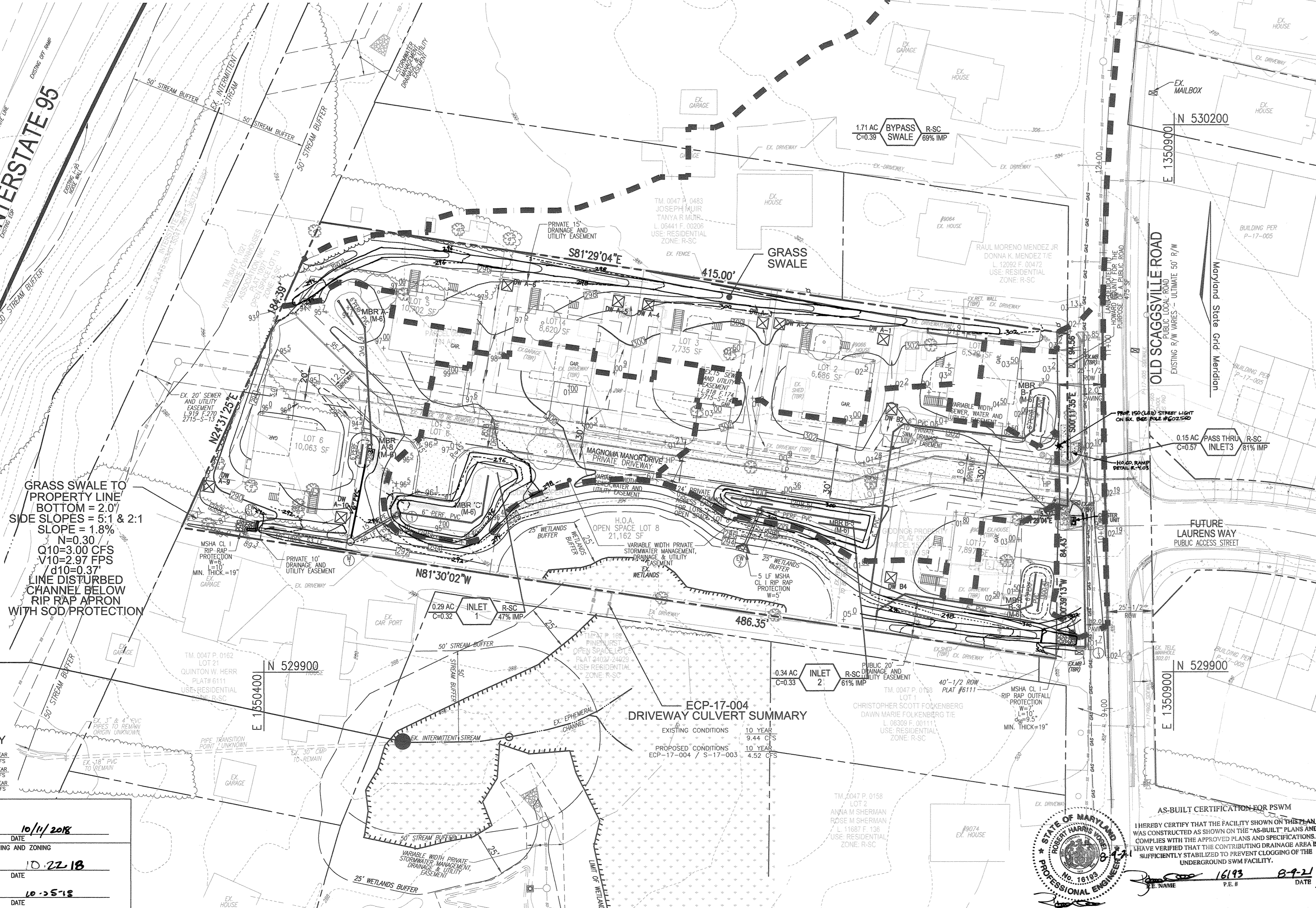
6 SHEET OF 11

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PROFESSIONAL CERTIFICATE



- LEGEND:**
- EXISTING PAVING
 - EXISTING UTILITY POLE
 - EXISTING MAILBOX
 - EXISTING SIGN
 - EXISTING SANITARY MANHOLE
 - EXISTING SANITARY LINE
 - EXISTING CLEANOUT
 - EXISTING FIRE HYDRANT
 - EXISTING WATER LINE
 - EXISTING OVER HEAD LINE
 - PROPOSED STORM DRAIN
 - EXISTING TREELINE
 - PROPOSED TREELINE
 - EXISTING WOOD FENCE
 - PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - 24" PRIVATE USE IN COMMON ACCESS EASEMENT
 - EXISTING WETLAND
 - EXISTING VEGETATION
 - EXISTING SPECIMEN TREE
 - DRYWELL
 - ADDRESS SIGN
 - SOILS BOUNDARY
 - EX. STREAM
 - EX. STREAM BUFFER
 - DRAINAGE AREA DIVIDE
 - AREA RCN
 - INLET
 - ZONE
 - % IMP
 - CENTRAL MAIL DELIVERY BOX



GRASS SWALE TO PROPERTY LINE
 BOTTOM = 2.07'
 SIDE SLOPES = 5:1 & 2:1
 SLOPE = 1.8%
 N=0.30
 Q10=3.00 CFS
 V10=2.97 FPS
 d10=0.37
 LINE DISTURBED CHANNEL BELOW RIP RAP APRON WITH SOD PROTECTION

F-16-002
 CULVERT ANALYSIS SHOWS:
 0.05 INCREASE IN LOW POINT OVERTOPPING IN 10 YR STORM
 0.20 INCREASE IN LOW POINT OVERTOPPING IN 100 YR STORM
 THIS PLAN REDUCES DRAINAGE AREA AND RESULTS IN THE FOLLOWING SUMMARY:

WETLAND CULVERT SUMMARY

EXISTING CONDITIONS	2 YEAR	10 YEAR	100 YEAR
14-002-PROPOSED CONDITIONS	9 CFS	21 CFS	35 CFS
14-002-PROPOSED CONDITIONS	2 YEAR	10 YEAR	100 YEAR
10 CFS	23 CFS	36 CFS	
2 YEAR	10 YEAR	100 YEAR	
8 CFS	19 CFS	33 CFS	

APPROVED: DEPARTMENT OF PUBLIC WORKS
 10/11/2018
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 10.22.18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 10.25.18
 CHIEF, DIVISION OF LAND DEVELOPMENT

ECP-17-004 DRIVEWAY CULVERT SUMMARY

EXISTING CONDITIONS	10 YEAR
10 YEAR	9.44 CFS
PROPOSED CONDITIONS	10 YEAR
ECP-17-004 / S-17-003	4.52 CFS

STRUCTURE SCHEDULE

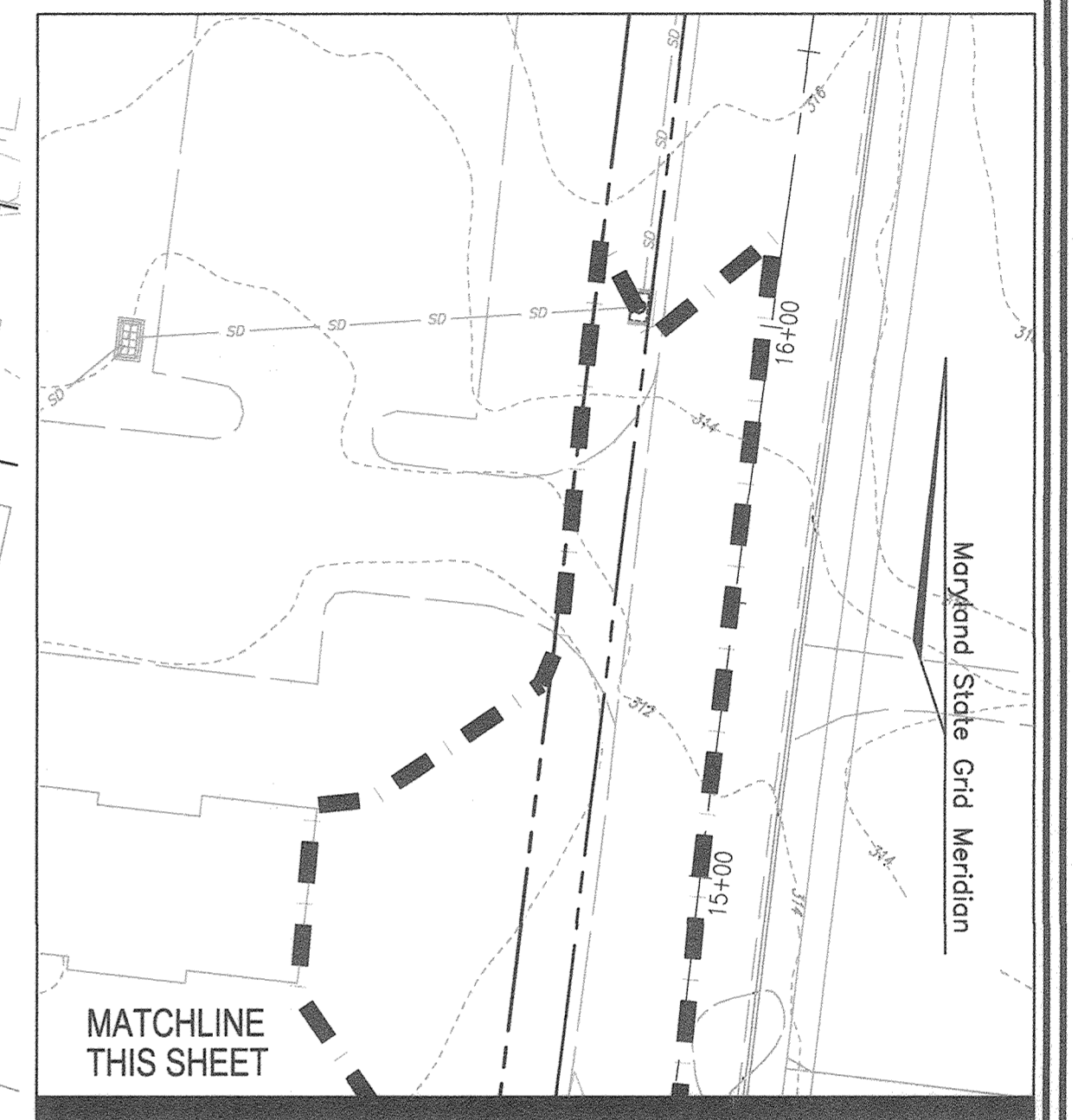
STR #	TYPE	INV. IN	INV. OUT	TOP ELEV.	DETAIL	LOCATION	REMARKS
I-1	D	-	288.85	286.89	D-4.10	N 529886.31 E 1350472.97	
I-2	D	-	292.85	300.23	D-4.10	N 529887.88 E 1350672.43	
I-3	PASS THRU	301.16	302.41		MD 374.68	N 529816.71 E 1350849.64	
MH-1	48" MANHOLE	287.19	288.28	287.82	G 5.12	N 529871.49 E 1350447.57	
EW-1	TYPE "E"	287.60	287.67	289.90	G 5.01	N 529878.86 E 1350395.24	
EW-2	TYPE "A"	292.00	292.08	294.40	D-5.11	N 529869.95 E 1350664.50	

(1) Coordinate for Proposed Structure = Centerline of Structure
 (2) Coordinate for End Section = Centerline of Pipe @ Downstream Face

PIPE SCHEDULE

Size	Class	Total Length
6"	PVC SOLID	369
8"	PVC PERF.	196
15"	HDPE	49
18"	HDPE	53

* The total length of pipe is linear feet only.
 HDPE is to be smooth interior. Contractor shall install pipe in accordance with manufacturer's specifications.



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 ELLICOTT CITY, MD 21043
 (410) 480-0023

NO.	REVISION	DATE
2	REVISE PLANS TO RELOCATE 6" PVC FROM I-1 TO M-1, REMOVE COVER PIPE FROM MBR-C AND TO REVISE ROW TO MATCH AS-BUILT CONDITIONS	5-26-21

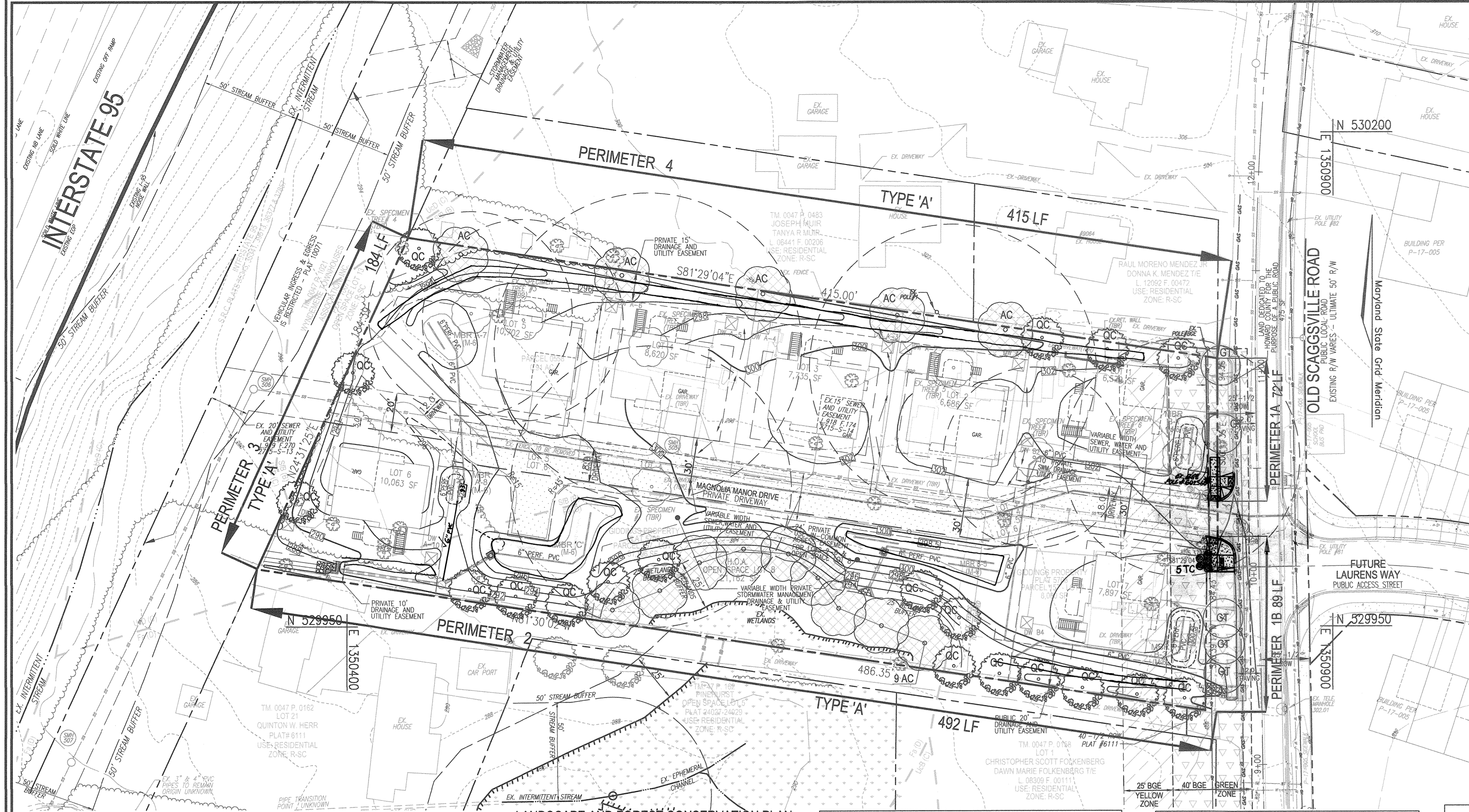
FINAL PLAN
STORM DRAIN DRAINAGE AREA MAP AND PROFILES
MAGNOLIA MANOR WEST
 LOTS 1 - 7 AND OPEN SPACE LOT 8
 A SUBDIVISION OF TAX MAP 47 - PARCEL 558
 AND A RESUBDIVISION OF TAX MAP 47 - PARCEL 157
 ("GIDDINGS PROPERTY - LOTS 1 AND 2" (PLAT 5708))
 TAX MAP: 47 PARCELS: 157 & 558 BLOCK: 19 ZONING: R-SC
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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 3300 N. RIDGE ROAD, SUITE 110 TEL: 410.461.7666
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 DRAWN BY: KG/EDS
 CHECKED BY: RHW
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16193 B-2-1
 R.E. NAME P.E. # DATE



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING PAVING
- EXISTING UTILITY POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING OVER HEAD LINE
- PROPOSED STORM DRAIN
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING WOOD FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- 24' PRIVATE USE IN EASEMENT
- EXISTING WETLAND
- EXISTING VEGETATION
- EXISTING SPECIMEN TREE
- DRYWELL
- ADDRESS SIGN
- PERIMETER LANDSCAPING
- SPECIMEN TREE REPLACEMENT WP-17-059
- STREET TREES
- BGE "GREEN ZONE" TREE HEIGHT LIMITED (TREE HEIGHT 20' MAX.)
- BGE "YELLOW ZONE" TREE HEIGHT LIMITED (TREE HEIGHT 25'-40' MAX.)
- PUBLIC 20' DRAINAGE AND UTILITY EASEMENT
- CENTRAL MAIL DELIVERY BOX

HOWARD COUNTY FOREST CONSERVATION WORKSHEET

ZONED R-SC
NET TRACT AREA:
A. TOTAL TRACT AREA 1.81 AC.
B. AREA WITHIN 100 YEAR FLOODPLAIN 0.00 AC.
C. AREA TO REMAIN IN AG PRODUCTION 0.00 AC.
D. NET TRACT AREA 1.81 AC

LAND USE CATEGORY
INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY. ZONED R-SC

ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	1	0	0

E. AFFORESTMENT THRESHOLD 15% X 1.81 = 0.27 AC
F. FORENSATION THRESHOLD 20% X 1.81 = 0.36 AC

EXISTING FOREST COVER:
G. EXISTING FOREST COVER = 0.00 AC (FSD REPORT)
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD = 0.00 AC
I. AREA OF FOREST ABOVE FORENSATION THRESHOLD = 0.00 AC

BREAK EVEN POINT:
(2 x 1) + F = BREAK EVEN POINT (0 AC)
J. FOREST RETENTION ABOVE THRESHOLD W/ NO MITIGATION = 0.00 AC
K. FOREST CLEARING PERMITTED WITHOUT MITIGATION = 0.00 AC

PROPOSED FOREST CLEARING:
L. TOTAL AREA OF FOREST TO BE CLEARED = 0.00 AC
M. TOTAL AREA OF FOREST TO BE RETAINED = 0.00 AC (IN FCE)

PLANTING REQUIREMENTS:
N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD (L X 2.5) = 0.00 AC
O. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD (M-F) = 0.00 AC
P. TOTAL REFORESTATION REQUIRED (N+P-Q) = 0.00 AC
R. TOTAL AFFORESTATION REQUIRED = 0.27 AC
S. TOTAL PLANTING REQUIREMENT (REFORESTATION AND AFFORESTATION) = 0.27 AC

A FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. ON AUGUST 16, 2016. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION MANUAL. TOTAL FOREST CONSERVATION OBLIGATION OF THIS PROJECT TO BE FULLY MET BY:
= PAYMENT OF FEE-IN-LIEU = 11,761.20 SF (0.27 AC) X \$ 0.75 = \$ 8,820.90.

NOTES:

LEADER MUST REMAIN INTACT
PRUNE APPROXIMATELY 30% OF BRANCHES FOR SUPPORT
DO NOT PRUNE EXPOSED TWIGS

2 STRANDS OF GALVANIZED WIRE TWISTED FOR SUPPORT
UPRIGHT STAKES - SET IN GROUND TO FIRM BEARING
RUBBER HOSE
DOT BURIAL & HOPE FROM TOP OF BALL
3" DEPTH MULCH
2" DIRT SAUCER
FINISH GRADE
1/8" DEPTH OF BALL
PLANTING MIX - SEE PLANTING NOTES
LOOSENEE SUBSOIL

TREE PLANTING AND STAKING

DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE

SHRUB PLANTING DETAIL

NOT TO SCALE

STREET TREE SCHEDULE

SYMB.	KEY	QUAN.	BOTANICAL NAME	SIZE	CAT.
X	GT	5	GLEDITSIA TRICANTHOS/F. NERISIS	1.5"-2" CAL	B & B

STREET TREE CALCULATIONS

STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
OLD SCAGGSVILLE ROAD	179/40	5	5

PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(e)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. FINANCIAL SURETY (\$ 1,500) SHALL BE POSTED AS PART OF THIS FINAL PLAN DEVELOPER'S AGREEMENT FOR THE REQUIRED 5 STREET TREES.

LANDSCAPING NOTES

- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
- THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH ALL REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM ONE (1) CALIPER IN CALIPER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
- PLANTINGS SHOWN HEREIN ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THE FINAL PLAN.
- SURETY FOR THE PROPOSED LANDSCAPING SHALL BE BASED ON THE NUMBER OF PLANTINGS REQUIRED.
- THE REMOVAL OF TREES 30" OR GREATER DBH IS PROHIBITED WITHOUT COUNTY APPROVAL.

Eco-Science Professionals, Inc.
Consulting Ecologists
P.O. Box 5006 Glen Arm, Maryland 21057
Telephone (410) 832-2480 Fax (410) 832-2488

MD DNR Qualified Professional USACOE Wetland Delineator
Certification # WAC93MD061004B2
John F. Canoles
John F. Canoles

JOHN CANOLES
DNR QUALIFIED PROFESSIONAL
SFSD NOTES:

- No rare, threatened or endangered species or their appropriate habitat were observed on the property.
- Surrounding land use is medium-high density residential development.
- No regulated forest is present on the site. Approximately 0.25 acres of forest is present within 100 feet of the property.
- No streams, stream buffers or 100 year floodplain is present on the property. Wetlands and 25 foot wetland buffers are present on the property.
- No steep slopes are present on the property.
- Specimen trees are present on the property.
- The property is located in the Use I watershed of the Patuxent River (02-13-11)
- No cemeteries or historic elements were noted on the property.

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS DATE 10/11/2018
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 10.22.18
CHIEF, DIVISION OF LAND DEVELOPMENT DATE 10-25-18

Specimen Tree Chart

Key (X#)	Species	Size (in dbh)	CRZ (feet radius)	Comments
1	Willow Oak	47.5	71.25	poor condition, substantial dieback
2	White Oak	52	78	good condition
3	Southern Red Oak	34	51	good condition
4	Southern Red Oak	34.5	51.75	fair condition, trimmed some dieback
5	Silver Maple	48.5	72.75	good condition
6	Norway Maple	40	60	good condition, not native
7	Red Maple	30.5	45.75	good condition

REFER TO WP-17-059 - 3-1/2" CALIPER NATIVE SHADE TREES REQUIRED

DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
Signature: Michael Pflaum DATE: 08-29-18

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	1A	1B	A	A	A	TOTAL
PERIMETER/FRONTAGE DESIGNATION	N/A	N/A	A	A	A	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	72	89	492	184	415	
CREDIT FOR EXISTING VEGETATION (YES NO LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO
CREDIT FOR WALL FENCE OR BERM (YES NO LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED	..	..	160.9	160.3	160.7	19
SHRUBS	..	..	..	..	..	..
EVERGREEN TREES	..	..	..	..	..	..
SHADE TREES	..	..	..	..	..	..
NUMBER OF PLANTS PROVIDED	..	..	9	3	7	19
SHRUBS	..	..	..	..	..	..
EVERGREEN TREES	..	..	..	..	..	..
OTHER TREES (2+ SUBSTITUTION)	..	..	..	..	..	..
SHRUBS (10+ SUBSTITUTION)	..	..	..	..	..	..
EX. SPECIMEN TREES TO REMAIN DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED	..	..	..	..	..	..

LANDSCAPE SCHEDULE - REQUIRED PLANTING

SYMB.	KEY	QUAN.	BOTANICAL NAME	SIZE	CAT.
QC	19	19	QUERUS COCCINEA SCARLET OAK	2.5"-3" CAL	B & B
AC	14	14	ACER RUBRUM 'OCTOBER GLORY'	3 1/2" CAL	B & B

TRASH PAD LANDSCAPING

SYMBOL	QTY.	DESCRIPTION	SIZE	REMARKS
TC	5	TAXUS CUSPIDATA 'NANA' DWARF JAPANESE YEW	18"-24" SPREAD	B & B

LANDSCAPE SCHEDULE NOTES:
1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AG SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH ALL PLANTING SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K FACTOR	ERODIBLE	FARMLAND	HYDRIC
Fa	Follingstone sandy loams, 0 to 2 percent slopes.	D	0.02	NO	YES	YES
SfB	Sassafras gravelly sandy loam, 2 to 5 percent slopes	B	0.24	NO	YES	NO
UD	Unsur land-Chillum-Belleville complex, 5 to 15 percent slopes	C	0.37	YES	NO	NO

AS-BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.
P.E. # 16193 DATE 8-9-21

NOTE: TAKEN FROM: USDA, SOCS-MEB SOIL SURVEY, HOWARD COUNTY HIGHLY ERODIBLE SOILS ARE THOSE 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
NOTE: FALLSINGTON SOILS HAVE SEVERE LIMITATIONS FOR HOME CONSTRUCTION.

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

NO.	REVISION	DATE
2	REVISE PLAN TO RELOCATE 6" PVC FROM I-1 TO M-1, REMOVE COVER PIPE FROM MBR-C AND TO REVISE RAMP TO MATCH AS-BUILT CONDITIONS	5-26-21
1	REVISE THE SIDEWALK ALONG THE FRONTAGE AND ADD A TRASH PAD	10-7-20

FINAL PLAN
LANDSCAPE AND FOREST CONSERVATION PLAN
NOTES AND DETAILS
MAGNOLIA MANOR WEST
LOTS 1 - 7 AND OPEN SPACE LOT 8
A SUBDIVISION OF TAX MAP 47 - PARCEL 558
AND A RESUBDIVISION OF TAX MAP 47 - PARCEL 578
"GIDDINGS PROPERTY - LOTS 1 AND 2" (PLAT 1503)

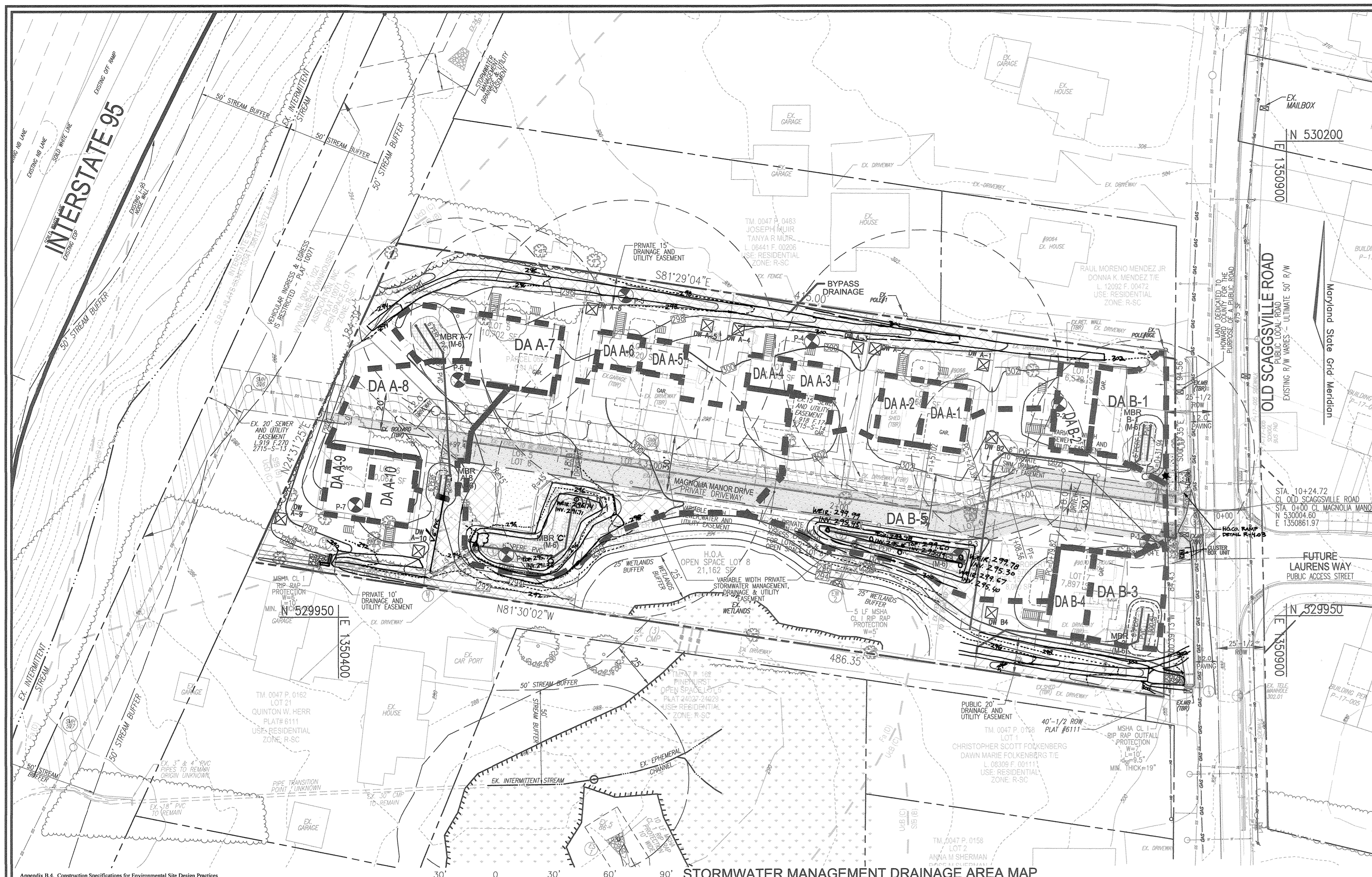
TAX MAP: 47 PARCELS: 157 & 558
6TH ELECTION DISTRICT

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
3300 N. RIDGE ROAD, SUITE 110
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

DESIGN BY: RHW/EDS
DRAWN BY: KG/EDS
CHECKED BY: RHW
DATE: AUGUST 2018
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: 08-27-2018

PROFESSIONAL CERTIFICATE
8 SHEET OF 11



APPENDIX B.A.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS
 THE ALLOWED MATERIALS TO BE USED IN THESE PRACTICES ARE DETAIL IN TABLE B.A.1.

2. FILTERING MEDIA OR PLANTING SOIL
 THE SOIL SHALL BE A UNIFORM MIX OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR QUARANTAINED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH OR PROVE AN OBSTACLE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERBERIS GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOxious WEEDS AS SPECIFIED UNDER COMAR 15.06.01.05.

3. COMPACTION
 IT IS VERY IMPORTANT TO MAINTAIN COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION MACHINERY TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LOADERS, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURTLE TYRES. USE OF EQUIPMENT WITH NARROW TRACKS OR WHEELS SHOULD BE LIMITED TO PLANTING AREAS ONLY. HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

4. PLANT MATERIAL
 RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A2.3.

5. PLANT INSTALLATION
 COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED SUBSURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. FINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH SHOULD BE CHECKED FOR DISEASE AND INSECT INFESTATION. THE ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/3RD OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SEE AND MAINTAIN THE PLANTING PIT THROUGHOUT THE PLANTING SEASON. PLANTING PIT SHOULD BE COVERED WITH PERFORATED PLASTIC. TREES SHALL BE BRANDED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED. GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GROUND COVER PLANTING SPECIFICATIONS.

6. UNDERDRAINS
 THE TOPSOIL OPERATIONS PROVIDE DRAINAGE WATER TO THE UNDERDRAIN. THE UNDERDRAIN SHALL BE CONSTRUCTED TO PROVIDE A CLEAN-OUT POINT AND MONITOR PERFORMANCE OF THE FILTER.

7. UNDERDRAINS
 THE TOPSOIL OPERATIONS PROVIDE DRAINAGE WATER TO THE UNDERDRAIN. THE UNDERDRAIN SHALL BE CONSTRUCTED TO PROVIDE A CLEAN-OUT POINT AND MONITOR PERFORMANCE OF THE FILTER.

OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL MULCH LAYER AND SOIL ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL. PLANTING ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A.4.1 AND 2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL. TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.

2. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.

3. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

SOILS LEGEND
 HOWARD COUNTY SOILS MAP #24 - SAVAGE SW

SYMBOL	NAME / DESCRIPTION	GROUP	K FACTOR	ERODIBLE	FARMLAND	HYDRIC
Fg	Fallington sandy loams, 0 to 2 percent slopes.	D	0.02	NO	YES	NO
S2B	Saukrunge gravelly sandy loam, 2 to 5 percent slopes	B	0.24	NO	YES	NO
UCD	Urban land-Chillum-Belleville complex, 5 to 15 percent slopes	C	0.37	YES	NO	NO

NOTE:
 TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY, MARYLAND. THESE SOILS ARE CLASSIFIED WITH A SLOPE GREATER THAN 15 PERCENT AND ARE NOT SUITABLE FOR HOME FOUNDATION CONSTRUCTION UNLESS THE FOUNDATION IS DESIGNED TO BE ON OR THOSE SOILS WITH A SOIL EXRODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

NOTE:
 FALLSINGTON SOILS HAVE SEVERE LIMITATIONS FOR HOME FOUNDATION CONSTRUCTION UNLESS THE FOUNDATION IS DESIGNED TO BE ON OR THOSE SOILS WITH A SOIL EXRODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

AS-BUILT CERTIFICATION FOR PWSM
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

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

PROFESSIONAL ENGINEER: ROBERT H. VOGEL, P.E. No. 16193

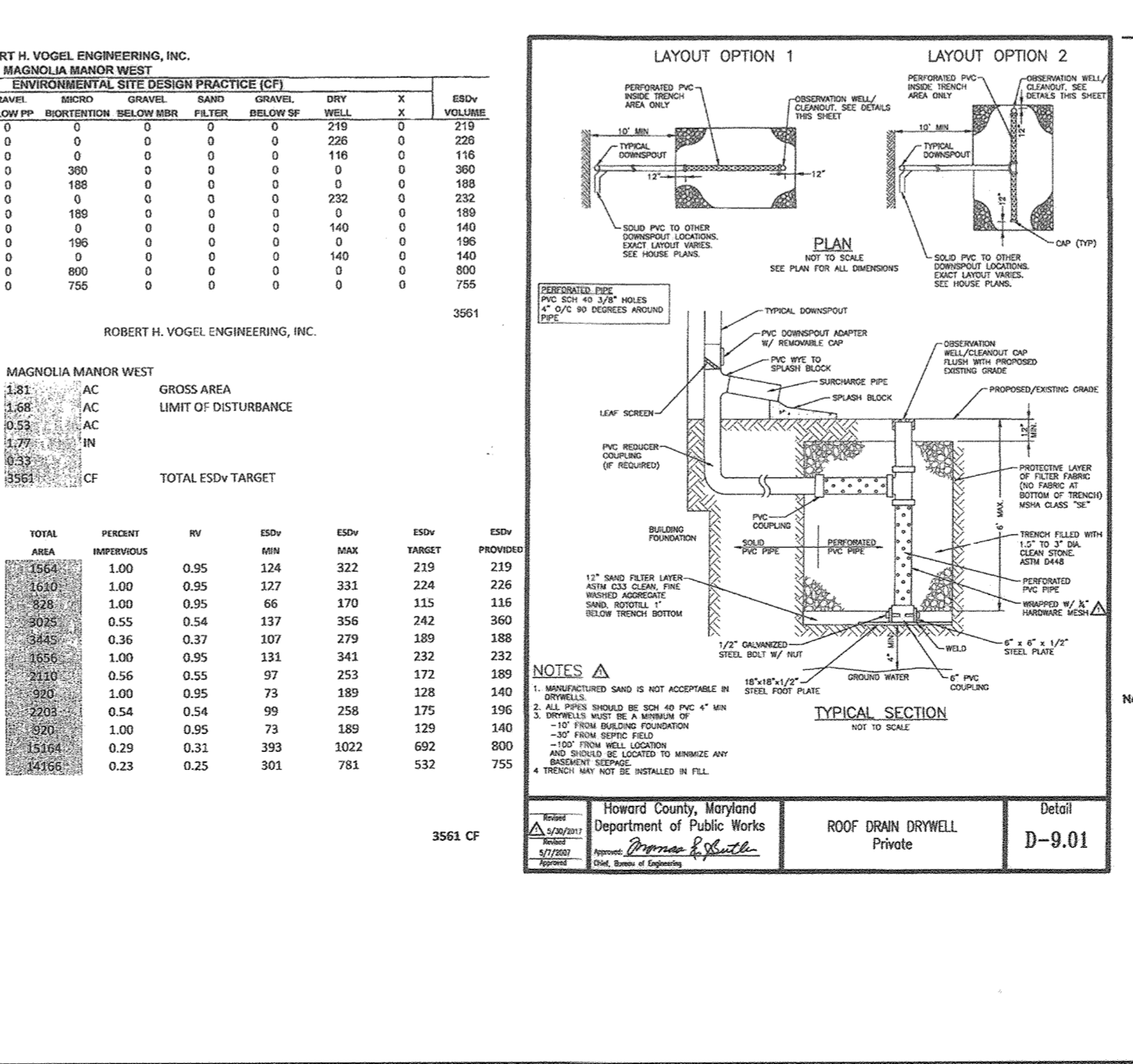
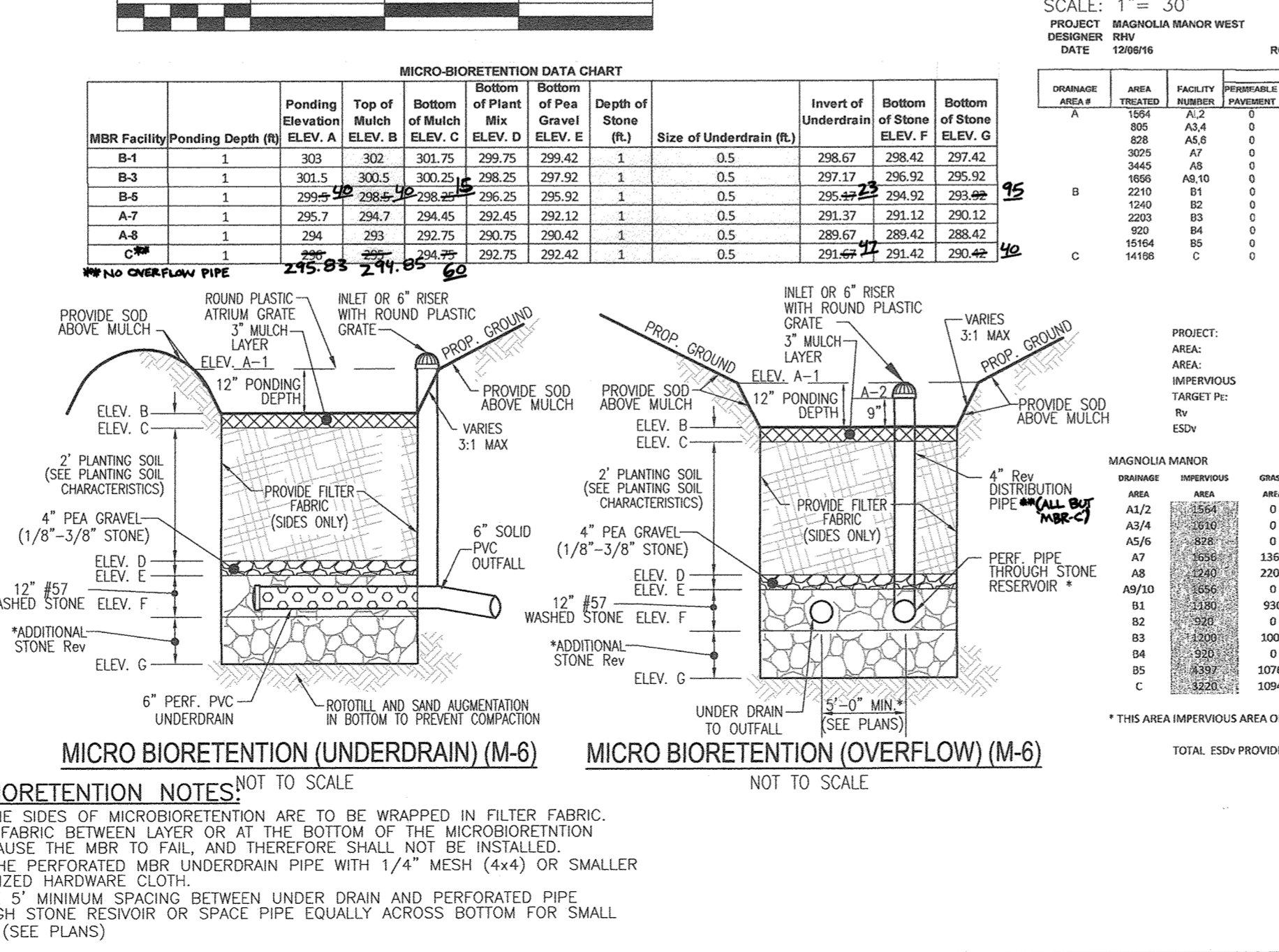
Table B.A.1 Materials Specifications for Micro-Bioretenion, Rain Gardens & Landscape Infiltration

Material	Specification	Note
Planting soil (2" to 4" deep)	loamy sand (60-65% sand) or sandy loam (30% sand, 30% silt, 30% clay) & compost (40%)	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2951) shredded hardwood	aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")
Churn drain	ornamental stone, washed cobbles	stone: 3" to 5"
Geotextile	AA5HTM-43	NO. 57 OR NO. 6 AGREGIATE (2" TO 3/4")
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35
Perforated pipe concrete (if required)	MSHA Min No. 3, F = 3500 psi @ 28 days, normal weight, air-entrained, conforming to AWS A311M-05-09	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row, minimum of 2" of gravel over pipe; not necessary unless design shows needed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACT Code 300.09; vertical loading [H=10 or H=20]; allowable horizontal loading (based on soil strength) and modulus of potential cracking.
Sand	AASHTO M-6 or ASTM-C-33	0.075" to 0.04"

APPROVED: DEPARTMENT OF PUBLIC WORKS
 DATE: 10/11/2018
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 10-23-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DATE: 10-25-18
 CHIEF, DIVISION OF LAND DEVELOPMENT



FINAL PLAN
STORMWATER MANAGEMENT DRAINAGE AREA MAP
MAGNOLIA MANOR WEST
 LOTS 1 - 7 AND OPEN SPACE LOT 8
 A SUBMISSION OF TAX MAP 47 - PARCEL 558
 AND A RESUBMISSION OF TAX MAP 47 - PARCEL 157
 ("GIDDINGS PROPERTY - LOTS 1 AND 2" (PLAT 5708))

TAX MAP: 47 PARCELS: 157 & 558
6TH ELECTION DISTRICT

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

ROBERT H. VOGEL ENGINEERING, INC.
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DESIGN BY: RHV/EDS
DRAWN BY: KG/EDS
CHECKED BY: RHV
DATE: AUGUST 2018
SCALE: AS SHOWN
W.O. NO.: 16-15

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. 16193, EXPIRATION DATE: 09-27-2018

9 SHEET OF **11**

AS-BUILT, JAN. 2021

"MICRO-BIORETENTION/RAINGARDEN" PLANTING SCHEDULE NOTES:

1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAS SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HOWARD COUNTY PLANTING SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.
5. MICROBIORETENTION AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (.0229 STEMS PER SQUARE FOOT). ABOVE PLANTING RATIOS ARE TO BE APPLIED TO THE AREAS PROVIDED IN THE ESDV SUMMARY.
6. FILTER AREA SHALL BE 50% COVERED BY PLANTINGS AT FULL GROWTH.

BIORRETENTION PLANTING SCHEDULE (SHRUB/ORNAMENTAL GRASSES)				
LEGEND/KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
IG	7	ILEX GLABRA "SHAMROCK" INKBERRY HOLLEY	1 GALLON	-
IV	9	ITEA VIRGINICA "HENRY'S GARNETT" VIRGINIA SWEETSPICE	1 GALLON	-
HQ	9	HYDRANGEA QUERCOFOLIA OAKLEAF HYDRANGEA	1 GALLON	-
LR	9	LEUCOTHEO RACEMOSA FETTERBUSH	1 GAL.	-
PV	9	PANICUM VIRGATUM SWITCHGRASS	1 GAL.	-

BIORRETENTION PERENNIALS/GROUND COVER PLANTING SCHEDULE				
LEGEND	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
	49	BAPTISIA AUSTRALIS FALSE INDIGO	4" POT	12"-15" O.C. FOR SIDES AND BOTTOM OF MBR. MIX ALL VARIETIES IN A NATURALIZED RANDOM PATTERN THROUGHOUT. PLANT IN GROUPS OF NO LESS THAN 9 PLANTS PER CLUMP.
	49	ACORUS GRAMINEUS "OGON" GOLDEN VARIEGATED SWEET FLAG	1 QT.	

MICRO-BIORETENTION PLANTING REQUIREMENTS					PLANTINGS PROVIDED					PERENNIALS/GROUND COVER PROVIDED		
MBR-RG #	LF	AREA	STEMS REQUIRED (0.0229)	STEMS PROVIDED	IG	IV	HQ	LR	PV	BA	AG	TOTAL
MBR-A7	73	390	9	10	2	2	2	2	2	13	13	26
MBR-A8	41	112	3	5	1	1	1	1	1	3	3	6
MBR-B1	58	189	5	5	1	1	1	1	1	6	6	12
MBR-B3	58	196	5	5	1	1	1	1	1	6	6	12
MBR-B5	141	601	14	18	2	4	4	4	4	21	21	42
MBR-C	148	839	20	23	3	5	5	5	5	29	29	58
TOTALS:	519	2327	36	43	7	9	9	9	9	49	49	98

Appendix A. Landscaping Guidance for Stormwater BMPs.....Specific Landscaping Criteria

Table A.4 Commonly Used Species for Bio-retention Areas

Trees	Shrubs	Herbaceous Species
<i>Acer rubrum</i>	<i>Asclepias perfoliata</i>	<i>Andropogon virginicus</i>
<i>Rubus</i>	<i>Bottlebrush Buckeye</i>	<i>Broomrape</i>
<i>Betula nigra</i>	<i>Cephalanthus occidentalis</i>	<i>Eupatorium purpureum</i>
<i>River Birch</i>	<i>Burns</i>	<i>Joe Pye Weed</i>
<i>Juniperus virginiana</i>	<i>Hamelletia virginiana</i>	<i>Scirpus pungens</i>
<i>Eastern Red Cedar</i>	<i>Witch Hazel</i>	<i>Three Square Balm</i>
<i>Chionodoxa virginiana</i>	<i>Vaccinium corymbosum</i>	<i>Iris versicolor</i>
<i>Fringe-tree</i>	<i>Highbush Blueberry</i>	<i>Blue Flag</i>
<i>Nyssa sylvatica</i>	<i>Ilex glabra</i>	<i>Lobelia cardinalis</i>
<i>Black Gum</i>	<i>Lakberry</i>	<i>Cardinal Flower</i>
<i>Diostyris virginiana</i>	<i>Ilex verticillata</i>	<i>Panicum virgatum</i>
<i>Peristemon</i>	<i>Winterberry</i>	<i>Switchgrass</i>
<i>Platanus occidentalis</i>	<i>Viburnum dentatum</i>	<i>Dichanthidium scoparium</i>
<i>Sycamore</i>	<i>Arrowwood</i>	<i>Broom Panic Grass</i>
<i>Quercus palustris</i>	<i>Lindera benzoin</i>	<i>Rudbeckia laciniata</i>
<i>Pine Oak</i>	<i>Spicebush</i>	<i>Tall Coneflower</i>
<i>Quercus phellos</i>	<i>Myrica pensylvanica</i>	<i>Scirpus cyperinus</i>
<i>White Oak</i>	<i>Bayberry</i>	<i>Woolgrass</i>
<i>Saxifraga</i>	<i>New York Ironweed</i>	<i>Veronica noveboracensis</i>
<i>Black willow</i>		

1. TABLE A.4 IS TAKEN FROM THE "2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II - APPENDIX A."
2. CONTRACTOR SHALL BE FAMILIAR WITH APPENDIX B.4.C. CONSTRUCTION SPECIFICATIONS AND TABLE B.4.1 MATERIAL SPECIFICATIONS. IN ADDITION THE "2000 MARYLAND STORMWATER DESIGN MANUAL - VOLUME II - APPENDIX A OFFERS ADDITIONAL HELPFUL INFORMATION."
3. NO TREES SHALL BE PLANTED WITHIN A MICRO-BIORETENTION FACILITY. USE ONLY SHRUB OR HERBACEOUS SPECIES.
4. ABOVE TABLE A.4 IS FOR INFORMATIONAL PURPOSES ONLY. LANDSCAPE CONTRACTOR SHALL INSTALL PLANTINGS SPECIFIED OR USE APPROVED EQUAL SPECIES WHICH ARE TOLERANT TO FLUCTUATING WATER LEVELS.
5. PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THIS FINAL PLAN.

MAGNOLIA MANOR WEST STORMWATER TEST PITS						
TEST PIT	SURFACE ELEVATION	PROPOSED GRADE	BOTTOM FACILITY +4 FEET	BORING DEPTH PROPOSED	BORING DEPTH DUG	CONDITION
P-1	300.0	300.5	292.5	7.5	10	DRY / NO ROCK
P-2	299.5	301.5	293.5	6.0	10	DRY / NO ROCK
P-3	295.2	299.5	291.5	3.7	10	DRY / NO ROCK
P-4	300.2	299.0	291.0	9.2	10	DRY / NO ROCK
P-5	298.5	297.0	289.0	9.5	10	DRY / NO ROCK
P-6	294.2	294.7	286.7	7.4	10	DRY / NO ROCK
P-7	289.6	288.0	280.0	9.6	10	DRY / NO ROCK
P-8	291.8	291.5	283.5	8.3	10	DRY / NO ROCK

CERTIFIED TEST PITS HAVE BEEN PROVIDED TO VERIFY THE LOCATIONS OF GROUNDWATER AND/OR ROCK. OPEN TEST PITS WERE OBSERVED BY TRINITY HOMES ON APRIL 2017.

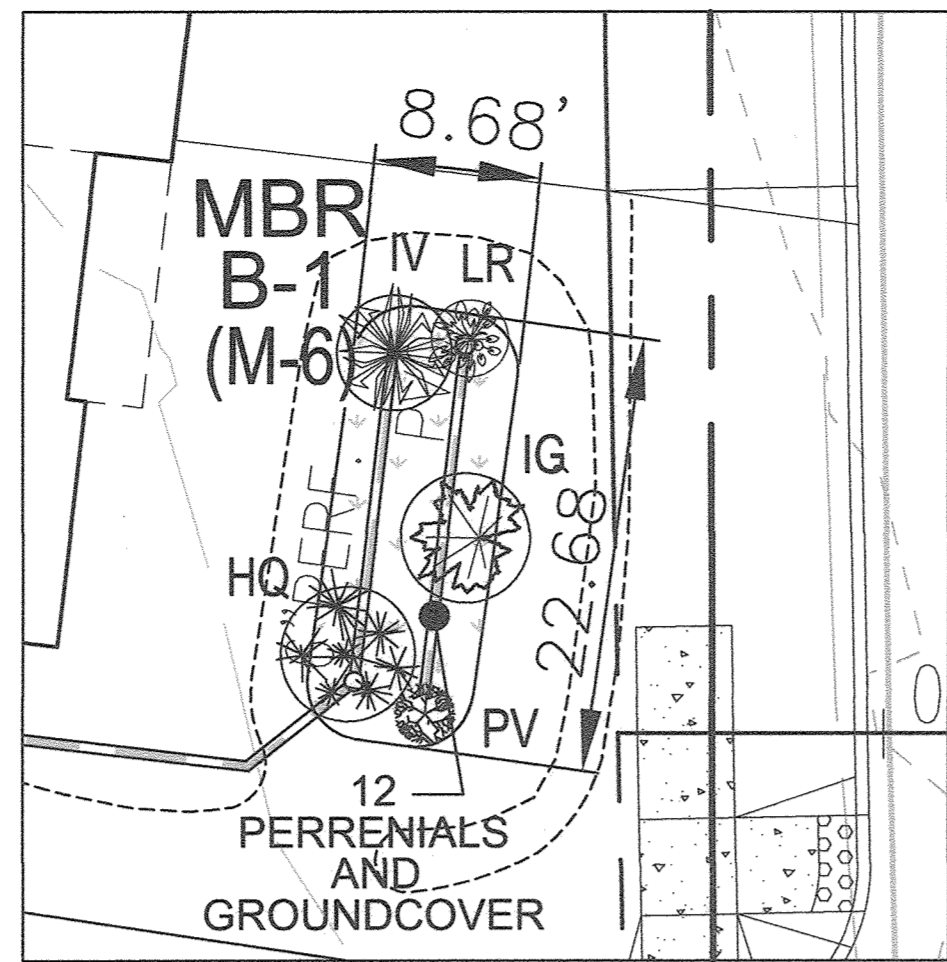
APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS *[Signature]* DATE 10/11/2018

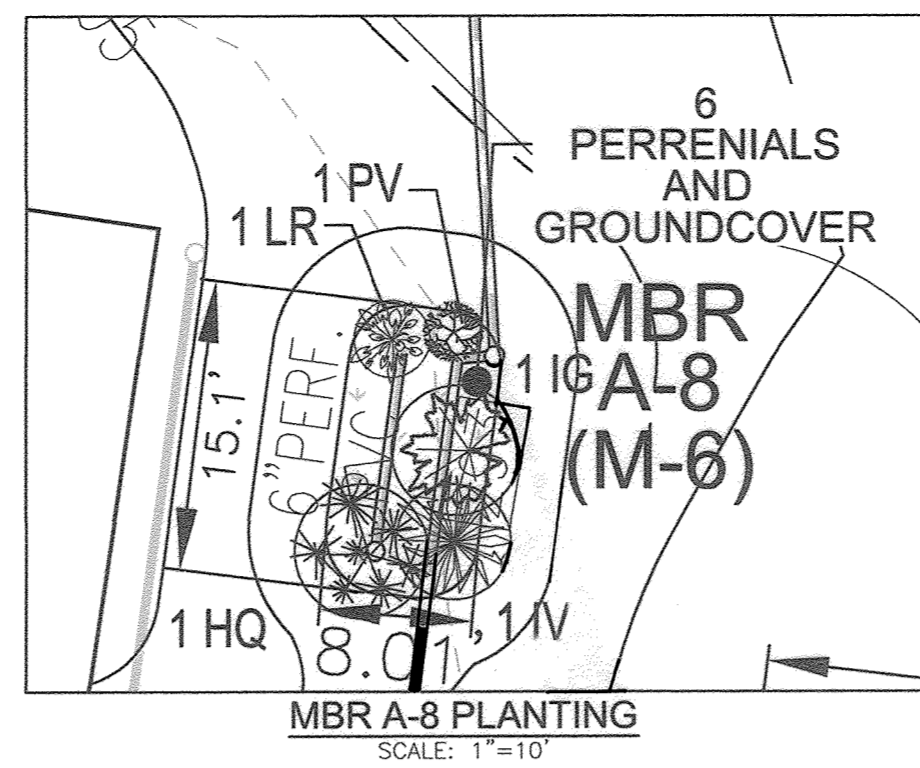
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* DATE 10-22-18

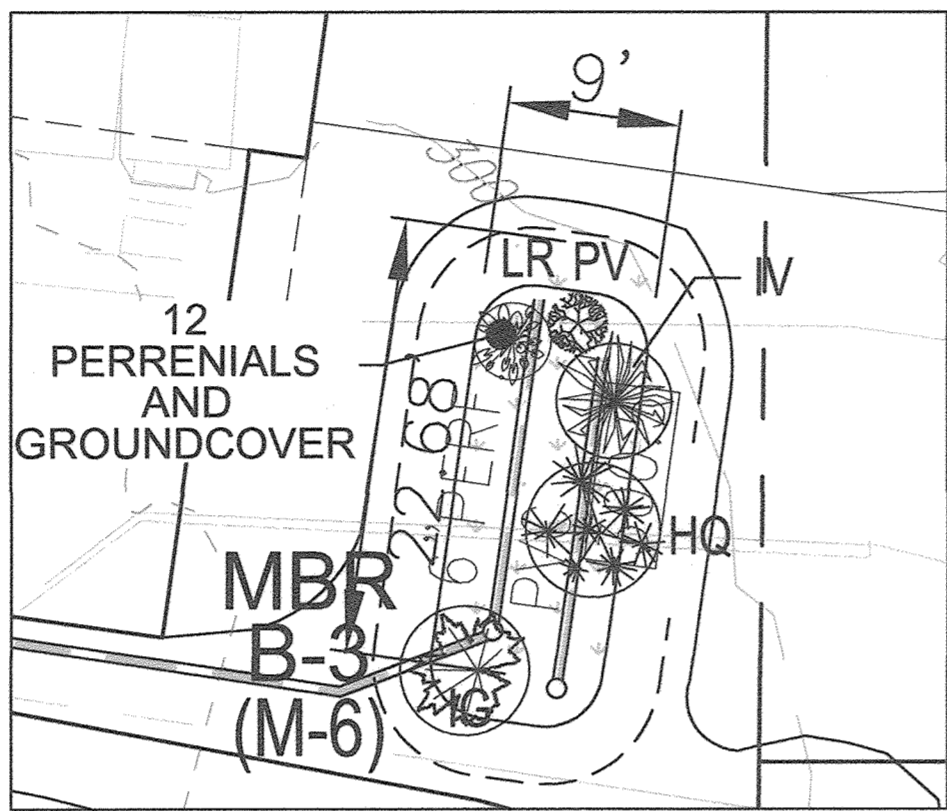
CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* DATE 10/25/18



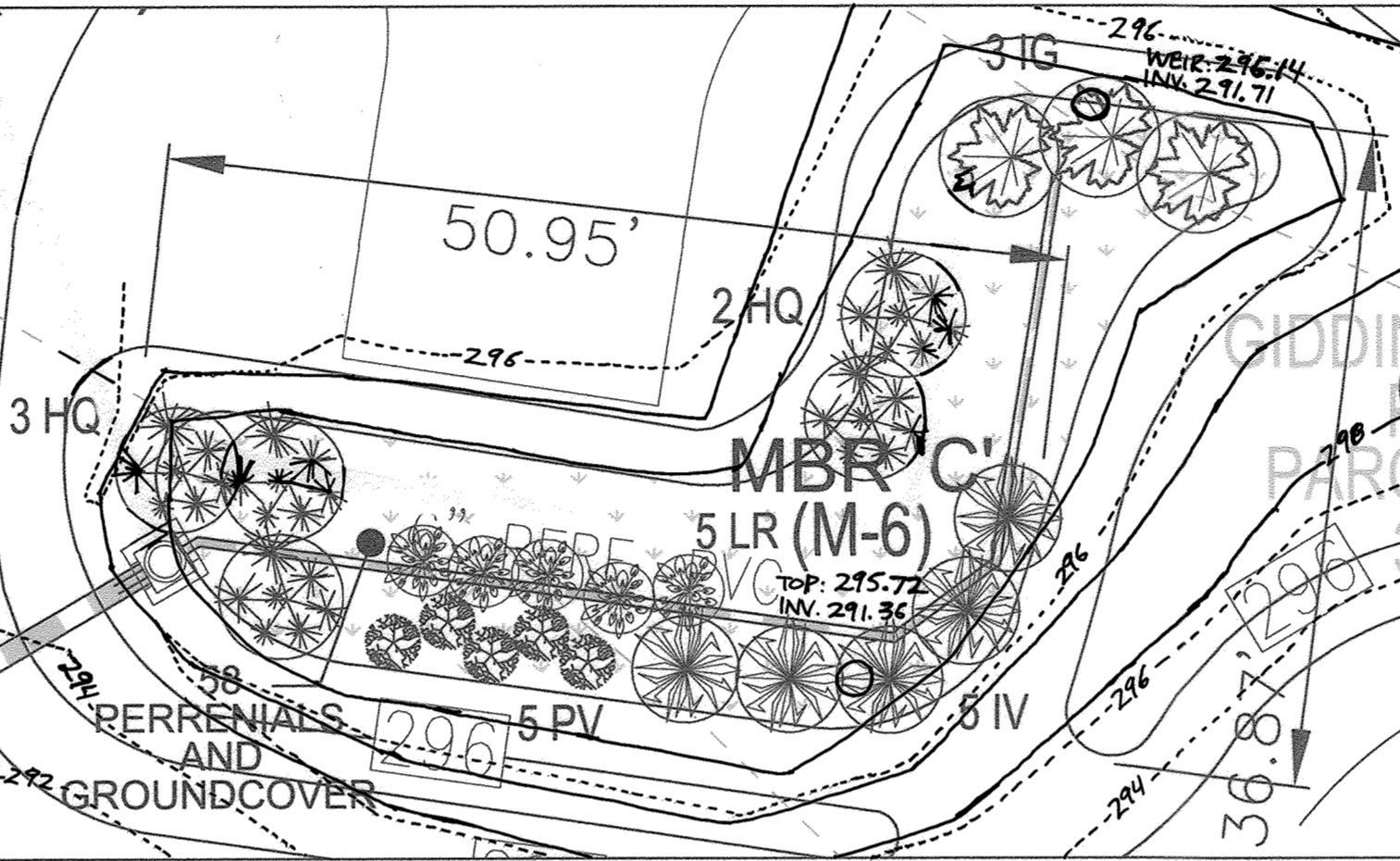
MBR B-1 PLANTING
SCALE: 1"=10'



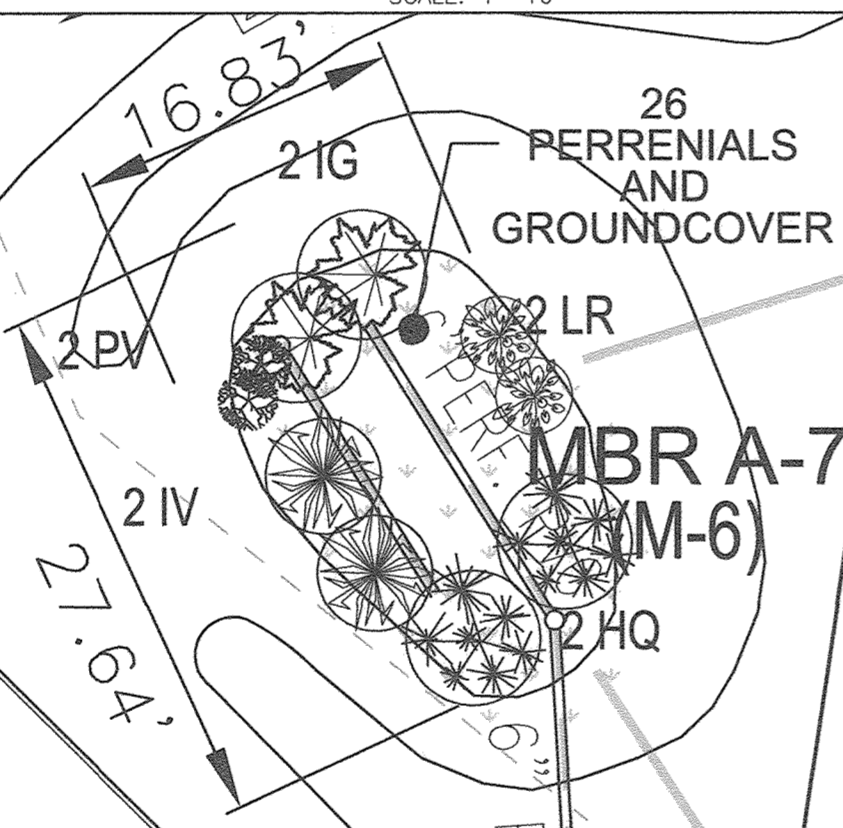
MBR A-8 PLANTING
SCALE: 1"=10'



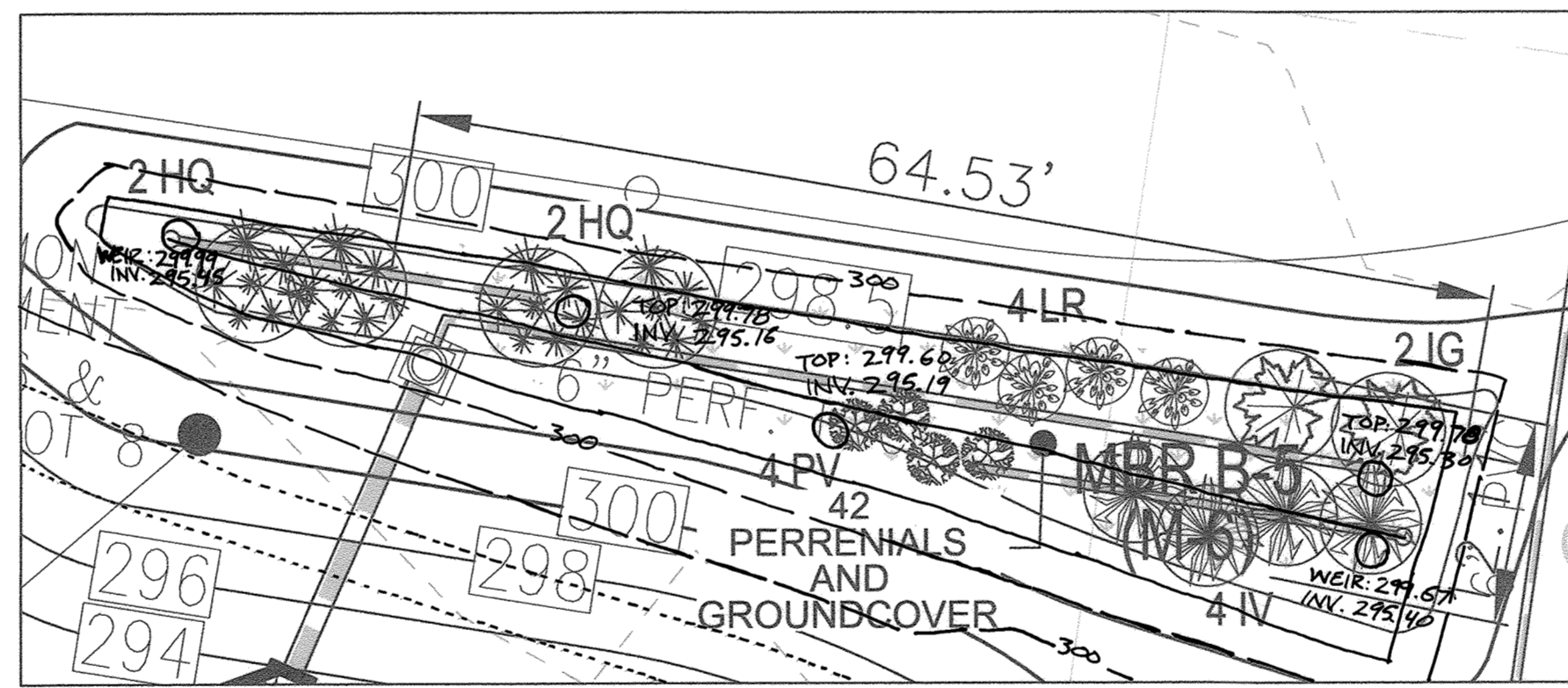
MBR B-3 PLANTING
SCALE: 1"=10'



MBR C PLANTING
SCALE: 1"=10'



MBR A-7 PLANTING
SCALE: 1"=10'



MBR B-5 PLANTING
SCALE: 1"=10'

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

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

NO.	REVISION	DATE
2	REVISE PLAN TO RELOCATE 6" PVC FROM 1-1 TO 1-1, REMOVE COVER PIPE FROM MBR-C AND TO REVISE RAMP TO MATCH AS-BUILT CONDITIONS	5-26-21

FINAL PLAN
MICRO-BIORETENTION - PLANTING DETAILS
MAGNOLIA MANOR WEST
LOTS 1 - 7 AND OPEN SPACE LOT 8
A SUBDIVISION OF TAX MAP 47 - PARCEL 558
AND A RESUBDIVISION OF TAX MAP 47 - PARCEL 157
"GIDDINGS PROPERTY - LOTS 1 AND 2" (PLAT 5708)

TAX MAP: 47 PARCELS: 157 & 558 BLOCK: 19 ZONING: R-SC
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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DESIGN BY: RHY/EDS
DRAWN BY: KG/EDS
CHECKED BY: RHY
DATE: AUGUST 2018
SCALE: AS SHOWN
W.O. NO.: 16-15

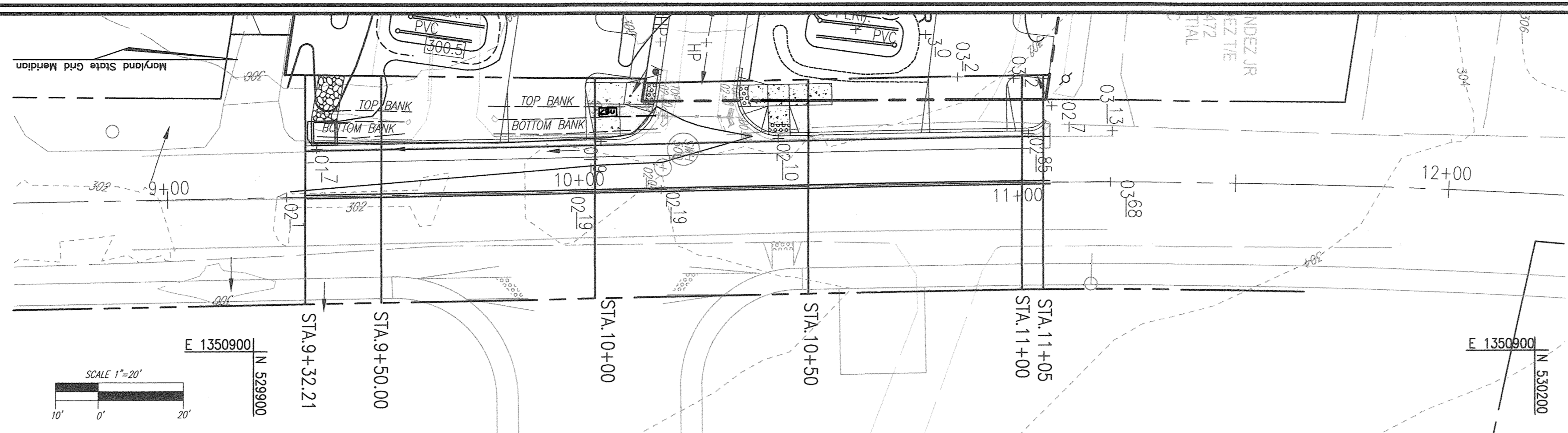
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2018

10 SHEET OF 11

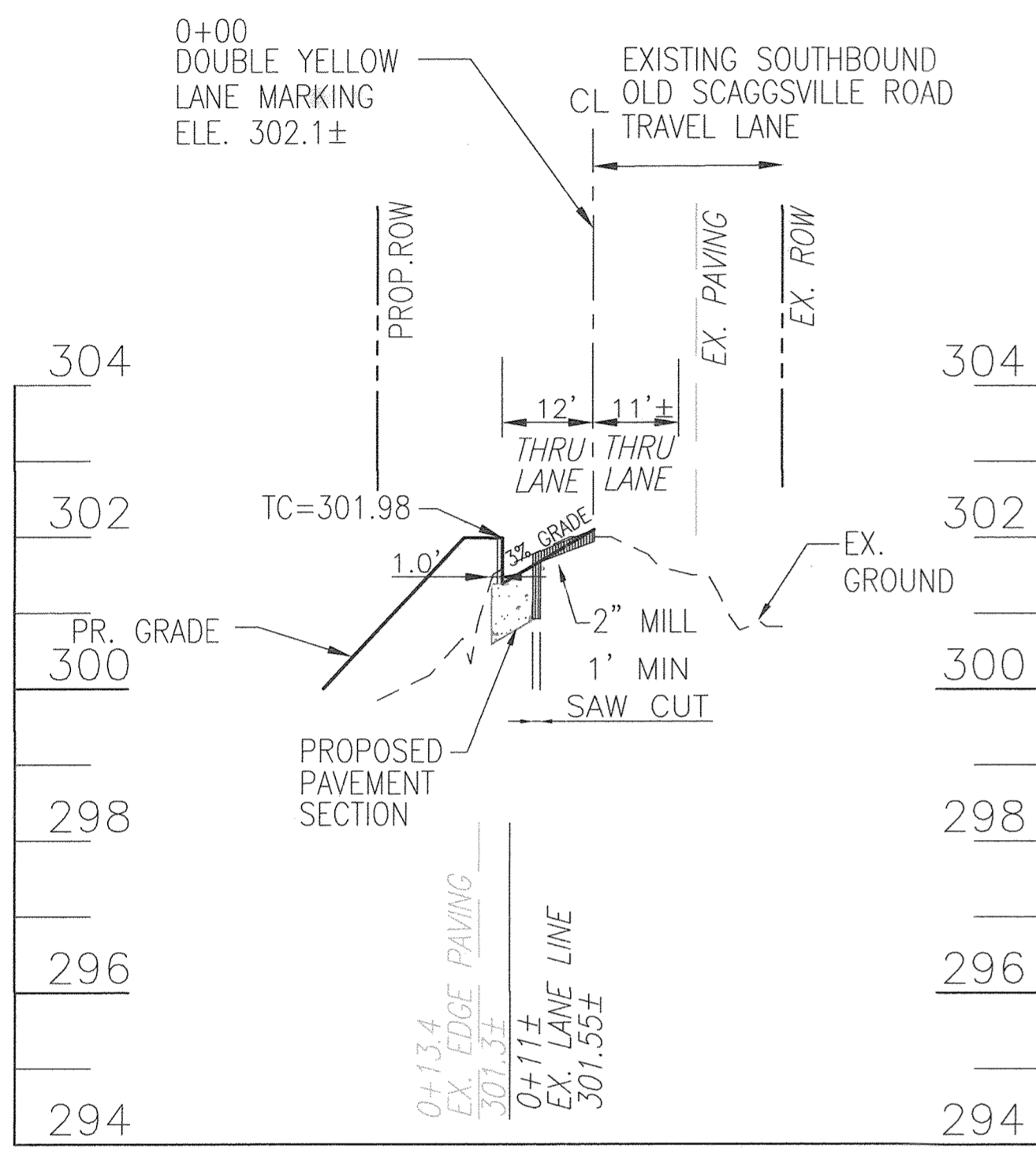


AS-BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

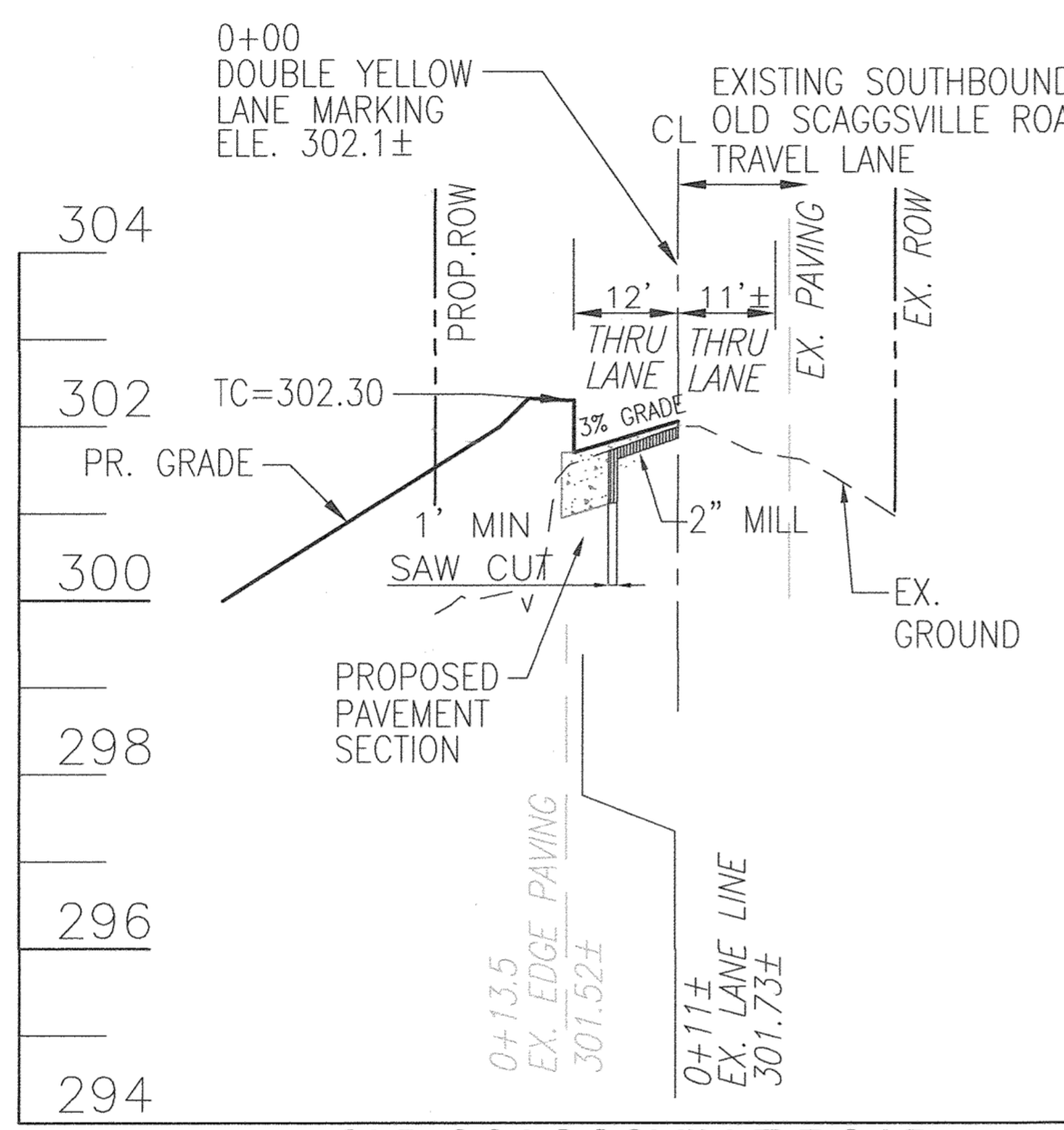
J.R.E. NAME: *[Signature]* P.E.#: 16173 DATE: 8-1-21



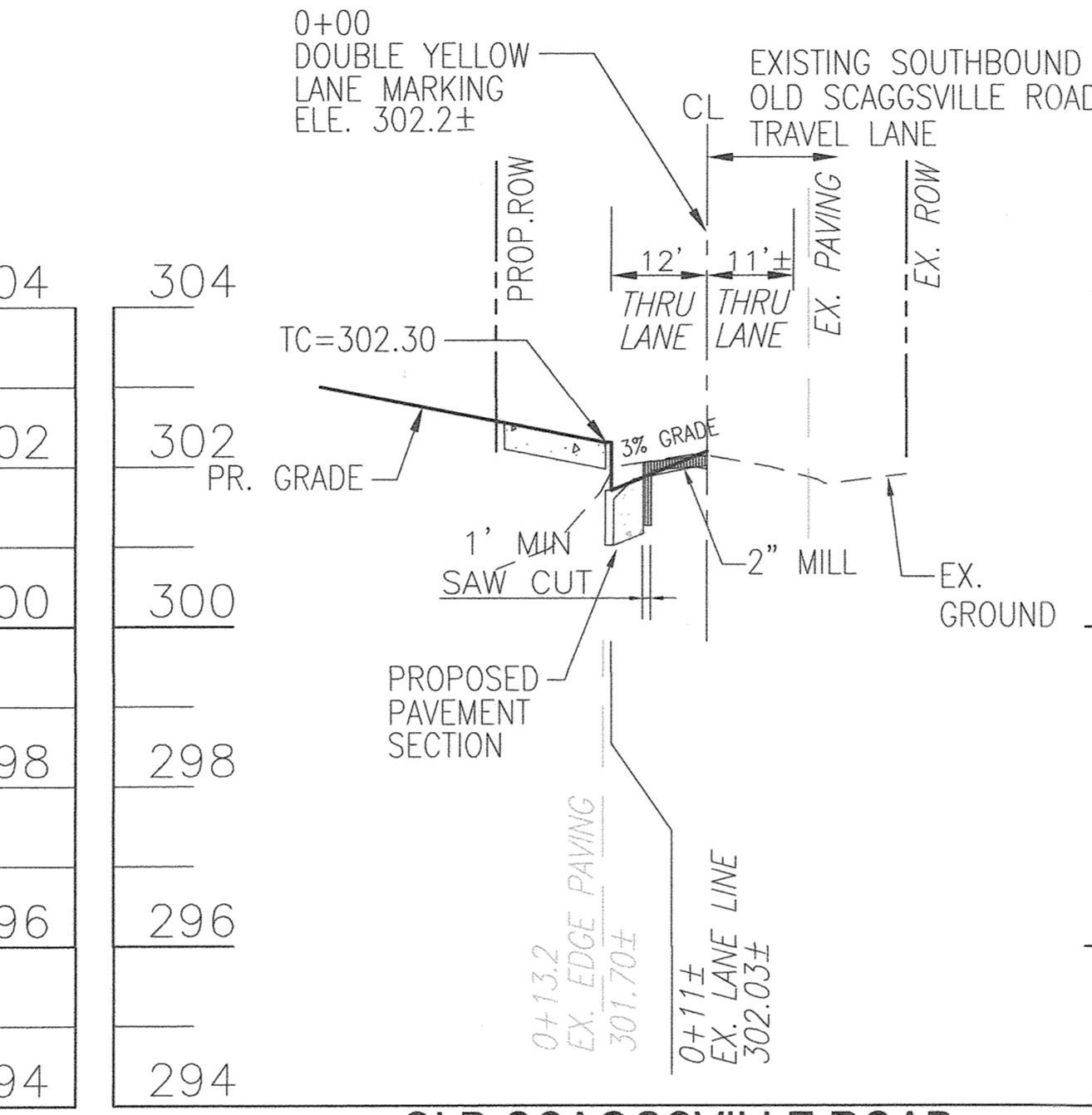
OLD SCAGGSVILLE ROAD - CROSS SECTION LOCATION PLAN
SCALE: 1"=20'



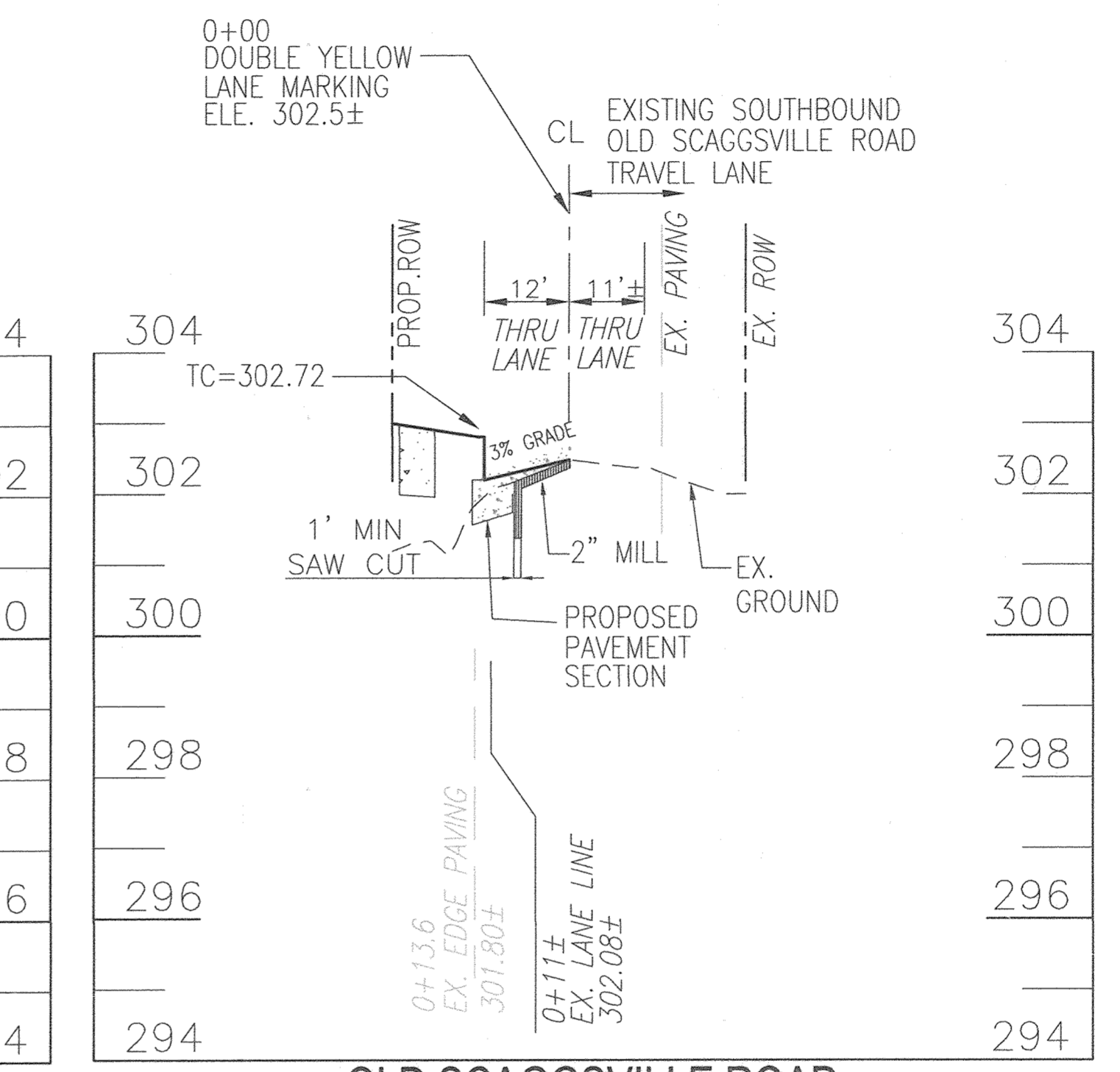
OLD SCAGGSVILLE ROAD
STA. 9+32.21
SCALE: HORIZONTAL - 1"=20'
VERTICAL - 1"=2'



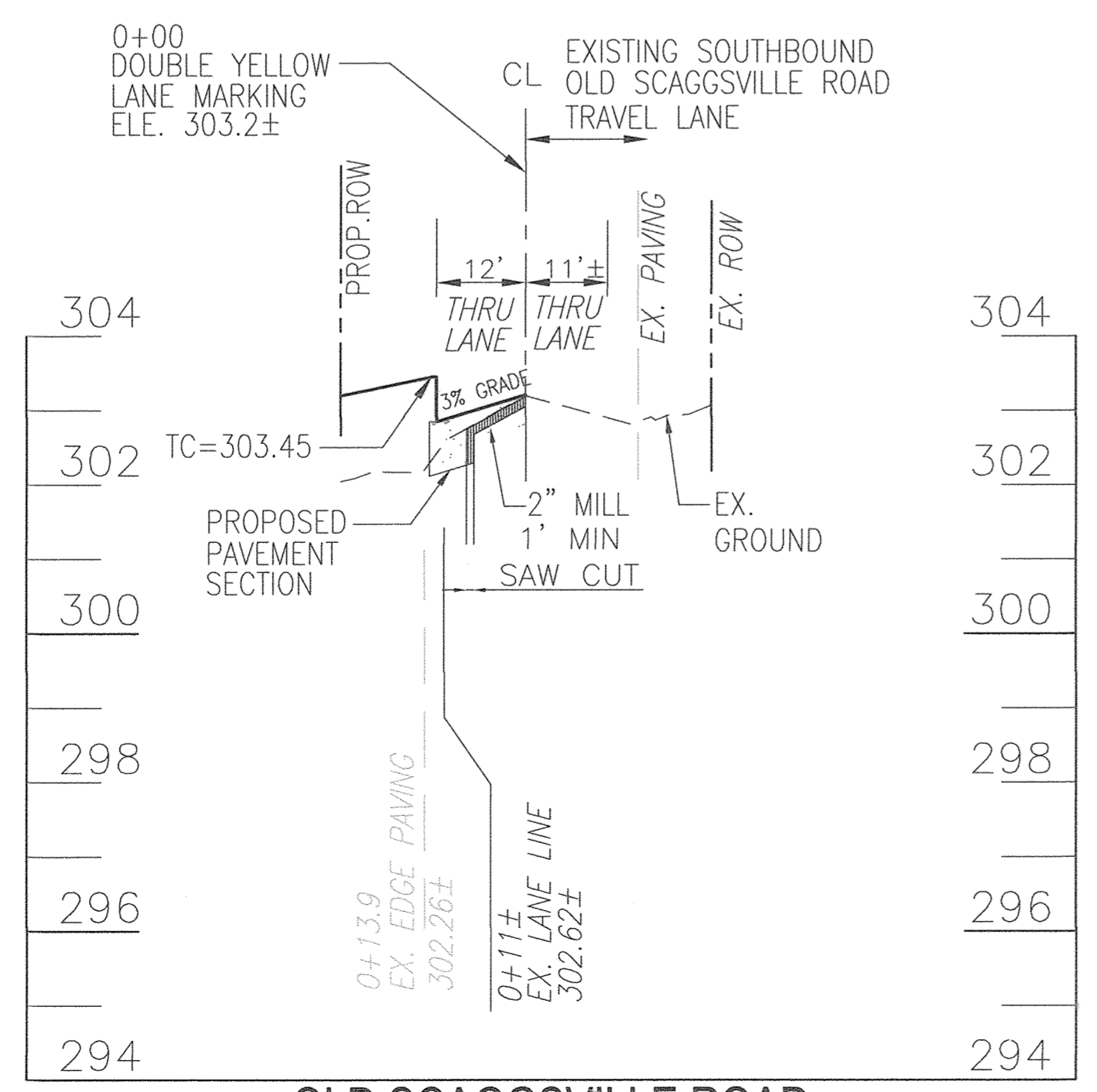
OLD SCAGGSVILLE ROAD
STA. 9+50
SCALE: HORIZONTAL - 1"=20'
VERTICAL - 1"=2'



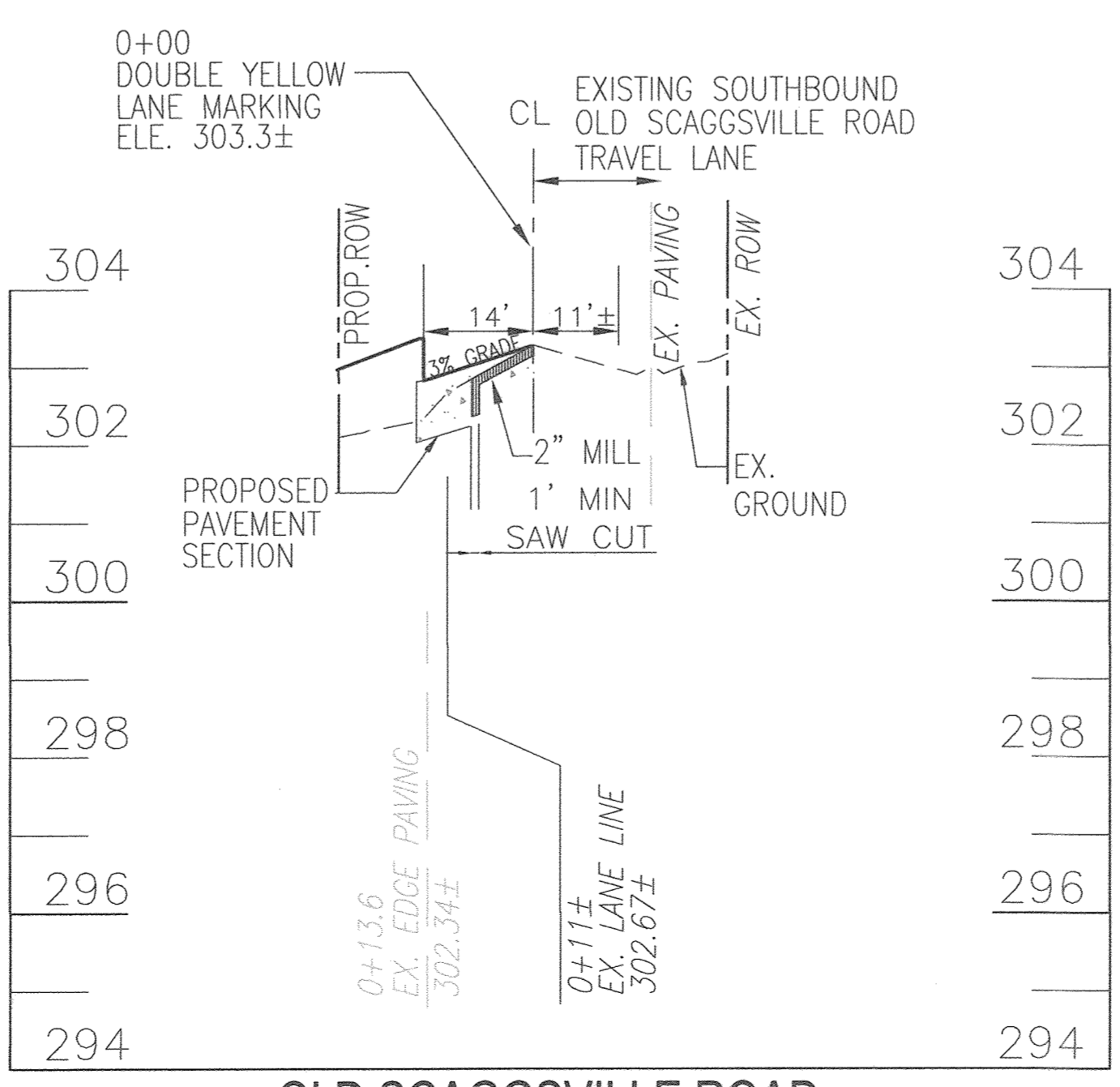
OLD SCAGGSVILLE ROAD
STA. 10+00
SCALE: HORIZONTAL - 1"=20'
VERTICAL - 1"=2'



OLD SCAGGSVILLE ROAD
STA. 10+50
SCALE: HORIZONTAL - 1"=20'
VERTICAL - 1"=2'



OLD SCAGGSVILLE ROAD
STA. 11+00
SCALE: HORIZONTAL - 1"=20'
VERTICAL - 1"=2'



OLD SCAGGSVILLE ROAD
STA. 11+05
SCALE: HORIZONTAL - 1"=20'
VERTICAL - 1"=2'

NOTE:
1. EXISTING DOUBLE YELLOW / CL ELEVATIONS TAKEN FROM FIELD SURVEY ON OR ABOUT JUNE 2015. CONTRACTOR SHALL VERIFY PRIOR TO SETTING CURB GRADES.



AS-BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.
NAME: R. H. VOGEL
P.E. # 16193
DATE: 8-9-21

NO AS-BUILT INFORMATION ON THIS SHEET

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

NO.	REVISION	DATE
2	REVISE PLAN TO RELOCATE C/PK FROM L-1 TO M-1, REMOVE COVER PIPE FROM MBR-C AND TO REVISE RAMP TO MATCH AS-BUILT CONDITIONS	5-26-21

FINAL PLAN
OLD SCAGGSVILLE RD
IMPROVEMENTS & CROSS SECTIONS
MAGNOLIA MANOR WEST
LOTS 1 - 7 AND OPEN SPACE LOT 8
A SUBDIVISION OF TAX MAP 47 - PARCEL 558
AND A RESUBDIVISION OF TAX MAP 47 - PARCEL 157
(GIDDINGS PROPERTY - LOTS 1 AND 2) (PLAT 5708)

TAX MAP: 47 PARCELS: 157 & 558
6TH ELECTION DISTRICT

BLOCK: 19 ZONING: R-5C
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS
3300 N. RIDGE ROAD, SUITE 110
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

DESIGN BY: RHV/EDS
DRAWN BY: KG/EDS
CHECKED BY: RHV
DATE: AUGUST 2018
SCALE: AS SHOWN
W.O. NO.: 18-15

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. 16193 EXPIRATION DATE: 08-27-2018

11 SHEET OF 11

APPROVED: DEPARTMENT OF PUBLIC WORKS
10/11/2018
CHIEF, BUREAU OF HIGHWAYS
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
10-22-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION
10/25/18
CHIEF, DIVISION OF LAND DEVELOPMENT