

SHEET INDEX table with columns SHEET NO. and DESCRIPTION. Rows include TITLE SHEET, SUPPLEMENTAL PLAN, LANDSCAPE PLAN & DETAILS, SEDIMENT & EROSION CONTROL PLAN, and NOTES & DETAILS.

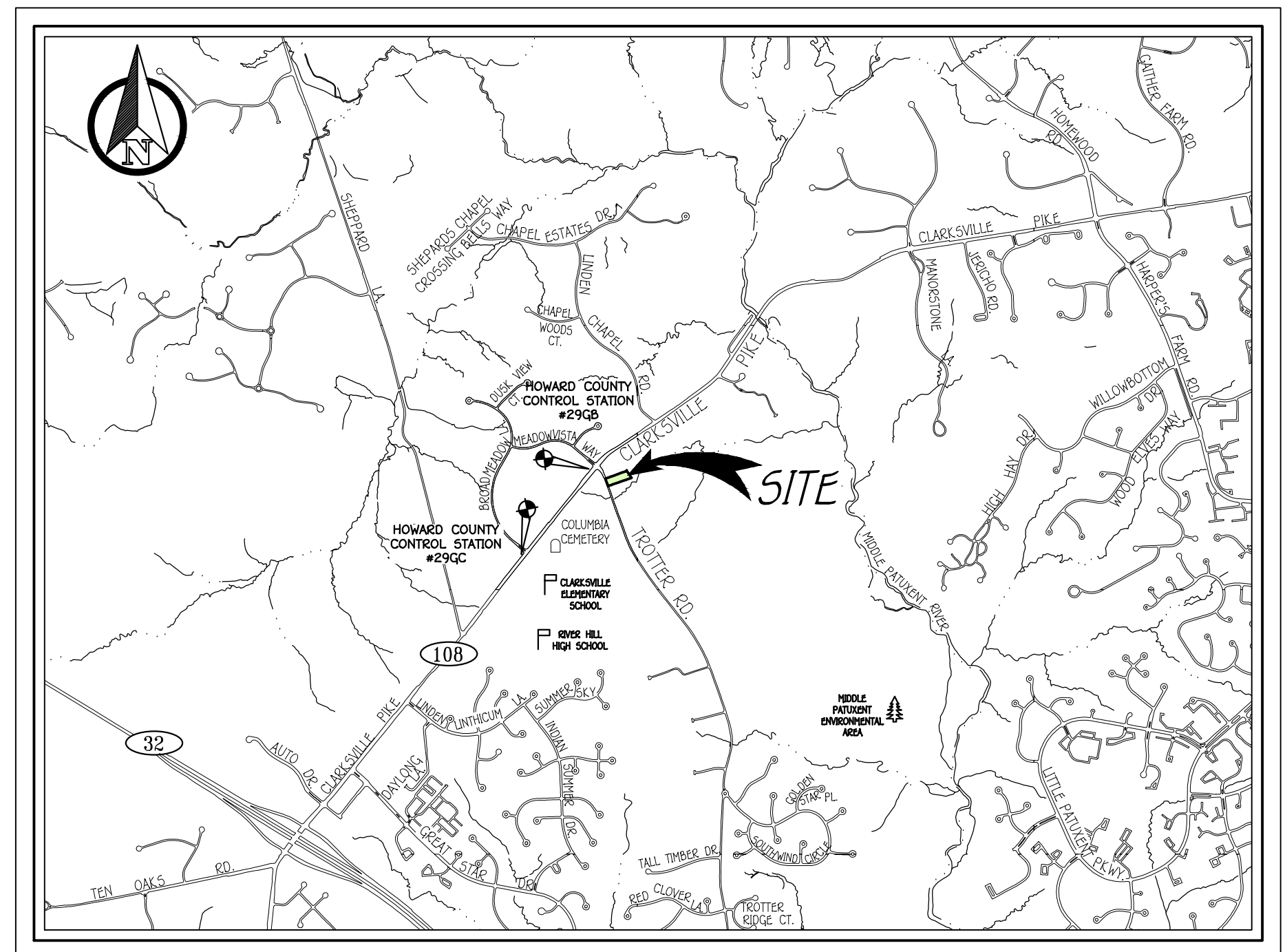
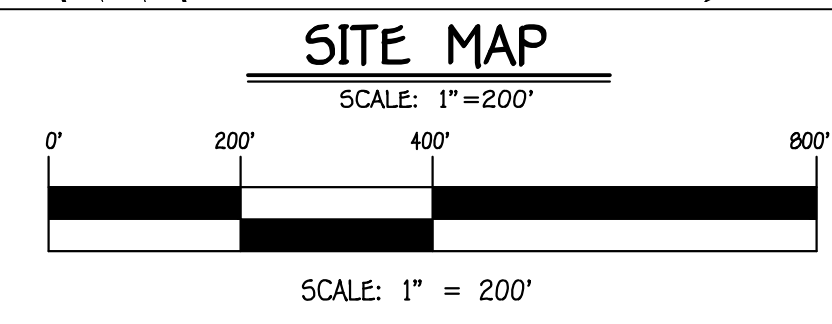
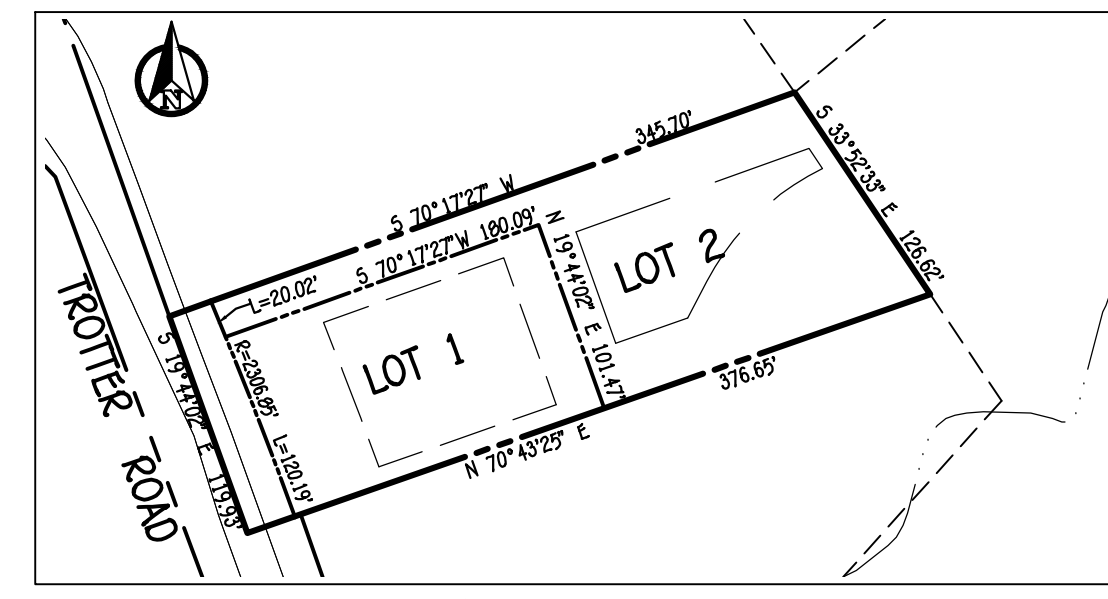
SOILS LEGEND table with columns SOIL, NAME, CLASS, and 'K' VALUE. Rows include GbC (Gládetone loam, 0 to 15 percent slopes) and Gnb (Glennville-Báille silt loams, 0 to 0 percent slopes).

STORMWATER MANAGEMENT PRACTICES table with columns AREA ID, LOCATION, ADDRESS, DRAINAGE AREA SF., % IMPERVIOUS, ESDv REQUIRED CuFt., ESDv PROVIDED CuFt., BIO-RETENTION (Y/N), and DRY WELL (Y/N). Rows include M-6, M-5, and TOTALS.

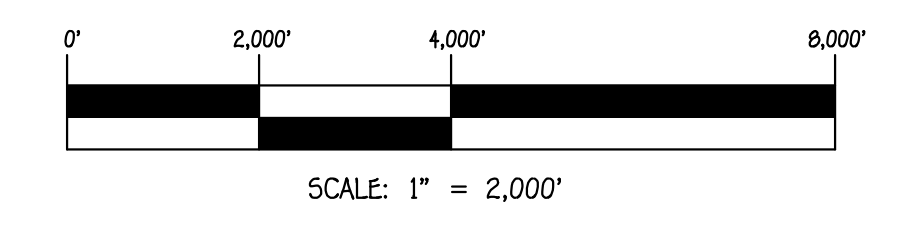
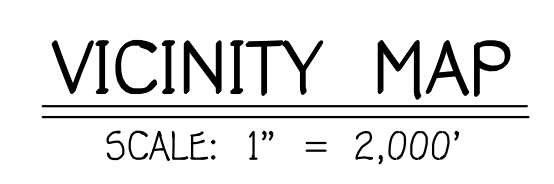
STREET ADDRESS CHART table with columns LOT No. and ADDRESS. Rows include 1 5405 TROTTER ROAD (EX. HOUSE) and 2 5401 TROTTER ROAD (PR. HOUSE).

Minimum Lot Size Tabulation table with columns Lot No., Gross Lot Area, Roadway Dedication, Pipestem Area, and Net Lot Area. Rows include 1 and 2.

- SITE ANALYSIS DATA CHART. A. TOTAL AREA OF THIS SUBMISSION = 1.00 AC. (43,806.80 Sq.Ft.) B. LIMIT OF DISTURBED AREA = 0.80 AC. (34,660 Sq.Ft.) C. PRESENT ZONING DESIGNATION = R-20; D. PROPOSED USE: SINGLE FAMILY DETACHED HOUSING E. NET TRACT AREA = 1.00 AC. (TOTAL SITE AREA - FLOODPLAIN - STEEP SLOPES AREA) (1.00 Ac - (0.00 Ac + 0.00 Ac)) = 1.00 Ac F. BUILDING COVERAGE OF SITE: 0.067 AC. OR 0.067% G. PREVIOUS HOWARD COUNTY FILES: ESP-21-047 H. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE: 0.0 AC. I. TOTAL AREA OF STREAM BUFFER LOCATED ON SITE: 3.726 SqFt (0.0085 AC) J. TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.12 AC. (0 AC, 25% OR GREATER) K. TOTAL AREA OF WETLANDS (INCLUDING BUFFERS) LOCATED ON SITE = 0.00 AC. L. TOTAL FOREST 0.00 AC. M. TOTAL GREEN OPEN AREA = 0.79 AC. N. TOTAL IMPERVIOUS AREA = 0.21 AC. O. AREA OF ERODIBLE SOILS = 0.07 AC.



HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 29CB N 566,826.147 E 1,333,265.923 ELEVATION: 455.96 HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 29GC N 565,530.801 E 1,332,248.776 ELEVATION: 490.71 REFER TO HOWARD CO. ADC MAP 24E7



SUPPLEMENTAL PLAN LEE PROPERTY

5405 TROTTER ROAD

ZONING: R-20 (RESIDENTIAL: SINGLE DISTRICT)

TAX MAP No. 29 GRID No. 20 PARCEL No. 51

FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

Approval stamps from Department of Planning And Zoning and Department of Public Works, dated 1/16/2024 and 1/11/2024.

GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE... 2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF ENGINEERING, CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK... 3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE... 4. THE SUBJECT PROPERTY IS ZONED R-20 (PER 10/06/13 COMPREHENSIVE ZONING PLAN)... 5. BOUNDARY IS BASED ON A FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS & CARTER ON OR ABOUT OCTOBER, 2020... 6. CONTOURS ARE BASED ON A TOPOGRAPHIC FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS & CARTER, ON OR ABOUT OCTOBER, 2020... 7. COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL... 8. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.O.E. STORM WATER DESIGN MANUAL VOLUMES I & II, REVISED 2009... 9. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED FOR THIS PROJECT... 10. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE... 11. A PRE-SUBMISSION MEETING WAS HELD ON JUNE 21, 2022 FOR THIS PROJECT... 12. THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION BASED ON SECTION 16.1202(b)(vii) OF HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL SINCE IT IS A MINOR SUBDIVISION THAT CREATES ONE ADDITIONAL LOT AND HAS NO FURTHER SUBDIVISION POTENTIAL... 13. PERMETER LANDSCAPING SHALL BE IN ACCORDANCE WITH SECTION 16.124 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL... 14. DRAINAGE SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES... 15. STORM WATER MANAGEMENT DEVICES WILL BE OWNED AND MAINTAINED BY PROPERTY OWNER OF LOT 2... 16. EXISTING UTILITIES ARE BASED ON MISS UTILITY MARKINGS, FIELD LOCATIONS AND AVAILABLE COUNTY INFORMATION... 17. TO THE BEST OF OUR KNOWLEDGE NO CEMETERIES ARE LOCATED ON-SITE BASED ON THE HOWARD COUNTY CEMETERY INVENTORY MAP... 18. B.R.L. DENOTES BUILDING RESTRICTION LINE... 19. ALL LOT/PARCEL AREAS ARE MORE OR LESS... 20. THERE IS AN EXISTING DWELLING ON LOT 1 TO REMAIN. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATION REQUIREMENTS... 21. WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122B 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. APPROVAL OF A SITE DEVELOPMENT PLAN IS REQUIRED FOR THE DEVELOPMENT OF ALL RESIDENTIAL LOTS WITHIN THIS SUBDIVISION PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS FOR NEW HOUSE CONSTRUCTION... 24. FEE IN LIEU OF PROVIDING OPEN SPACE TO BE PAID IN THE AMOUNT OF \$1,500.00 WITH PLAT APPROVAL... 25. NO HISTORIC STRUCTURES EXIST WITHIN THE LIMITS OF THIS PLAN SUBMISSION... 26. THIS PROJECT IS LOCATED ALONG A SCENIC ROAD AND IS SUBJECT TO PLANNING BOARD APPROVAL PER SECTION 16.125(c) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS... 27. THERE IS A STREAM NEARBY AND ITS BUFFER EXTENDS ONTO THIS SITE. A 35' ENVIRONMENTAL SETBACK HAS BEEN ESTABLISHED... 28. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLAND, STREAM(S) OR THEIR REQUIRE BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS... 29. PROPERTY IS A MINOR SUBDIVISION AND IS EXEMPT FROM APFO TRAFFIC REPORT IN ACCORDANCE WITH SECTION 4.7.8.5 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME III - ROADS AND BRIDGES... 30. SUBDIVISION IS SUBJECT TO SECTION 10B.6.E OF THE ZONING REGULATIONS. AT LEAST 10% OF THE DWELLING UNITS SHALL BE MODERATE INCOME HOUSING UNITS (M.I.H.U.) OR AN ALTERNATIVE COMPLIANCE WILL BE PROVIDED... 31. IN ACCORDANCE WITH SECTION 16.132(a)(4) OF SUBDIVISION REGULATIONS, THE PROPERTY OWNER SHALL NOT BE REQUIRED TO CONSTRUCT OR PROVIDE FOR CONSTRUCTION OF IMPROVEMENTS TO COUNTY MAINTAINED SCENIC ROADS... 32. IN ACCORDANCE WITH SECTION 16.134(b) OF SUBDIVISION REGULATIONS, NO SIDEWALKS ARE REQUIRED WHEN ADJACENT DEVELOPMENT HAS BEEN SUBSTANTIALLY COMPLETED WITHOUT SIDEWALKS AND SIDEWALKS WOULD BE DETRIMENTAL TO THE CHARACTER OF A SCENIC ROAD... 33. REFUSE COLLECTION AND MAIL DELIVERY FOR LOT 2 IS PROVIDED AT THE JUNCTION OF THE PRIVATE DRIVEWAY AND THE ROAD RIGHT OF WAY LINE... 34. THIS PROJECT WILL BE SUBJECT TO THE REQUIREMENTS OF SECTION 16.127, RESIDENTIAL INFILL DEVELOPMENT... 35. SOIL BORINGS WERE PERFORMED ON IN MAY 2022 BY JEFF ALLEN BACKHOE SERVICE. DETAILS ON SHEET 2... 36. THIS PROJECT IS SUBJECT TO THE FOLLOWING CONDITIONS OF APPROVED DMV2-23-004 REGARDING THE LOW PRESSURE SYSTEM SEWER PUMP: 1. PROVIDE A PUBLIC SEWER AND UTILITY EASEMENT(S) FOR THE PROPOSED PUBLIC LPSS WHEN AND WHERE REQUIRED... 2. THE PROPOSED SYSTEM SHALL BE DESIGNED TO ACCOMMODATE A FUTURE GRAVITY SHC FOR #11855 CLARKSVILLE PIKE... 3. IN-LINE FLUSHING CONNECTIONS SHALL BE INSTALLED AT 400-FOOT INTERVALS ALONG THE MAIN, AND A TERMINAL FLUSHING CONNECTION SHALL BE INSTALLED SOUTH OF LOT 15 SHC TEE... 4. DESIGN OF THE PUBLIC LPSS SHALL BE IN ACCORDANCE WITH DMV2 SECTION 8.5.C AND PUMP MANUFACTURER'S GUIDELINES SUCH AS THE E-ONE 'DESIGN HANDBOOK FOR PRESSURE SEWER SYSTEMS'... 37. LOT SIZE SHOWN HEREON IS BASED ON SUBDIVISION REGULATION SECTION 16.120 - LOT LAYOUT (b)(2)(ii) WHICH STATES 'SPECIAL PROVISION FOR MINOR SUBDIVISIONS... LAND DEDICATED FOR STREET WIDENING IN A MINOR SUBDIVISION MAY BE COUNTED TO SATISFY UP TO TEN PERCENT OF THE MINIMUM LOT SIZE REQUIREMENTS NOT TO EXCEED THE ACTUAL AREA DEDICATED... NOTWITHSTANDING ANY PROVISIONS TO THE CONTRARY IN THE ZONING REGULATIONS OR IN THIS SUBTITLE'... 38. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)... 39. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME III (1993) AND AS MODIFIED BY 'GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)'... 40. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.

LEGEND table with columns SYMBOL and DESCRIPTION. Includes symbols for existing and proposed contours, storm drains, water and sewer lines, easements, and various site features.

GENERAL NOTES

- 41. THERE IS NO 100 YEAR FLOODPLAIN ON THIS SITE. 42. THERE ARE NO WETLANDS ON THIS SITE. 43. DESIGN MANUAL WAIVER DMV2-23-004 WAS APPROVED ON SEPTEMBER 13, 2022 FOR LOTS 1 AND 2 AT 5405 TROTTER ROAD TO BE PROVIDED PUBLIC SERVICE VIA EXTENSION OF AN APPROXIMATELY 700-FOOT 1.5" PUBLIC LOW PRESSURE SEWER SYSTEM (LPSS) ALONG TROTTER ROAD AND CLARKSVILLE PIKE (MD ROUTE 108), AND DISCHARGE TO EXISTING GRAVITY SEWER MANHOLE #1166-145, THEREBY WAIVING DMV2 SECTION 4.3.8.3.b WHICH REQUIRES GRAVITY SEWER SERVICE TO BE PROVIDED TO BUILDINGS, AS WELL AS REQUIRING DPW APPROVAL OF A PUBLIC LPSS PER DMV2 SECTION 8.2. 44. DESIGN MANUAL WAIVER DMV2-24-008 WAS APPROVED ON DECEMBER 1, 2023 FOR THE USE OF DIRECTIONAL DRILLING AND JACK AND BORE TRENCHLESS TECHNOLOGIES TO INSTALL THE LPSS ACROSS MD RT 108 IN TWO CROSSING LOCATIONS, THEREBY WAIVING DMV2 SECTION 4.1.4 WHICH REQUIRES THE APPROVAL OF DPW FOR ALL USE OF TRENCHLESS TECHNOLOGIES. THE TRENCHLESS INSTALLATIONS SHALL BE PERFORMED IN ACCORDANCE WITH DMV2 SECTION 5.14.B&C.



PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/25. Frank Manalansan II 12/17/2023

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLSWORTH CITY, MARYLAND 21028 (410) 461 - 2995

OWNER/DEVELOPER

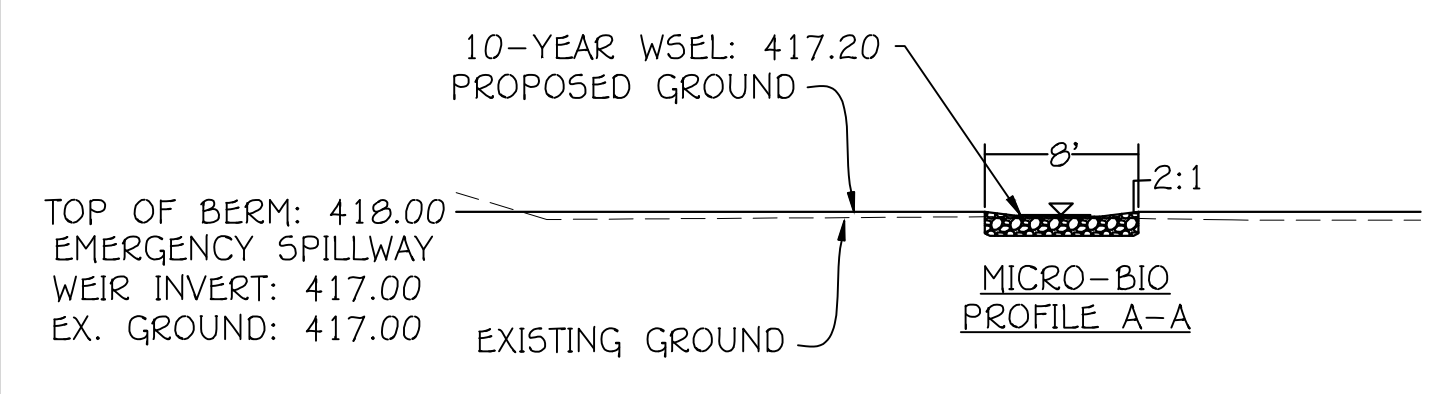
SANGJAE LEE 5765 WESTERN SEA RUN CLARKSVILLE, MARYLAND 21029 PH# 410-302-8356

TITLE SHEET LEE PROPERTY 5405 TROTTER ROAD L15778 F. 00419

TAX MAP No.: 29 GRID No.: 20 PARCEL No.: 51 ZONED R-20 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: DECEMBER, 2023 SHEET 1 OF 5

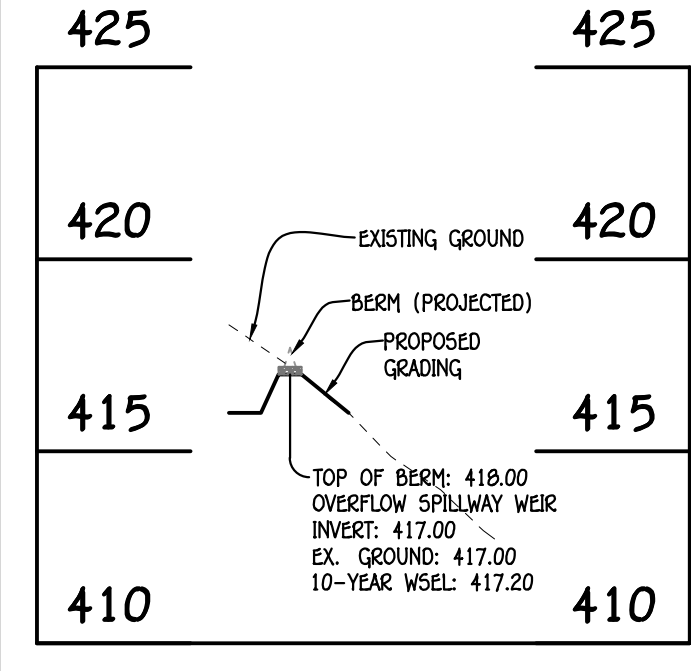
SOILS LEGEND			
SOIL	NAME	CLASS	K VALUE
GbC	Gladstone loam, 8 to 15 percent slopes	B	0.32
GnB	Glenville-Baile silt loams, 0 to 8 percent slopes	B	0.49

SOILS MAP 17, CLARKSVILLE NE QUADRANGLE

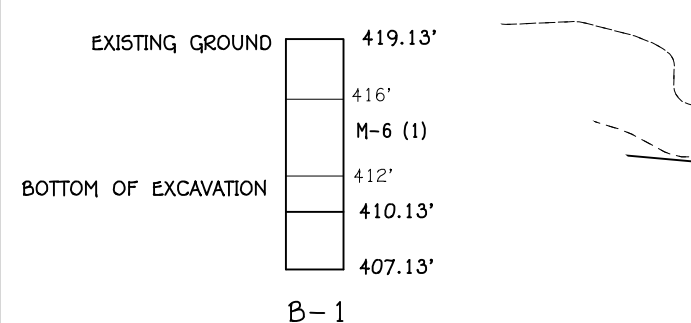


LEE PROPERTY 10-YEAR WEIR COMPUTATION

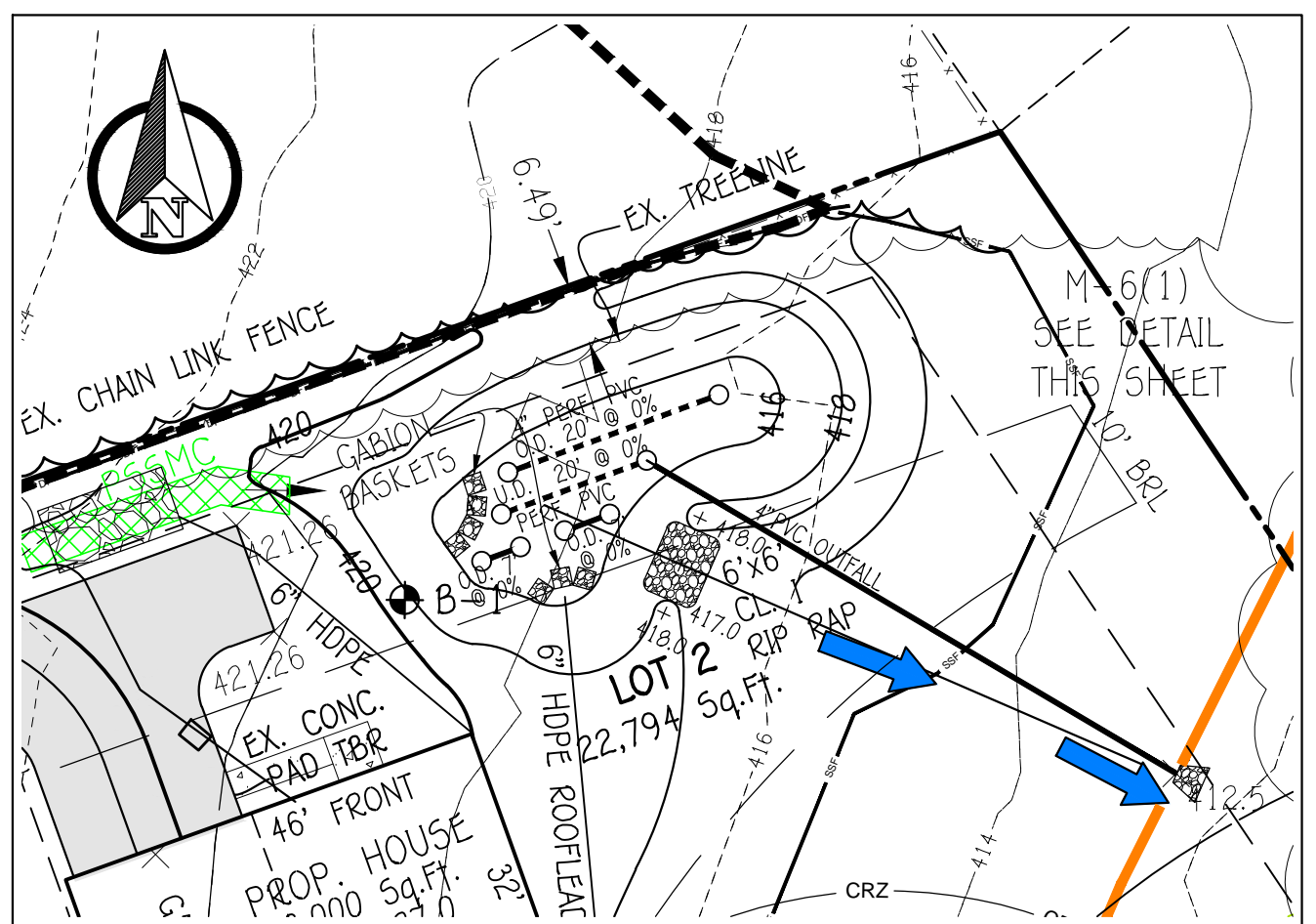
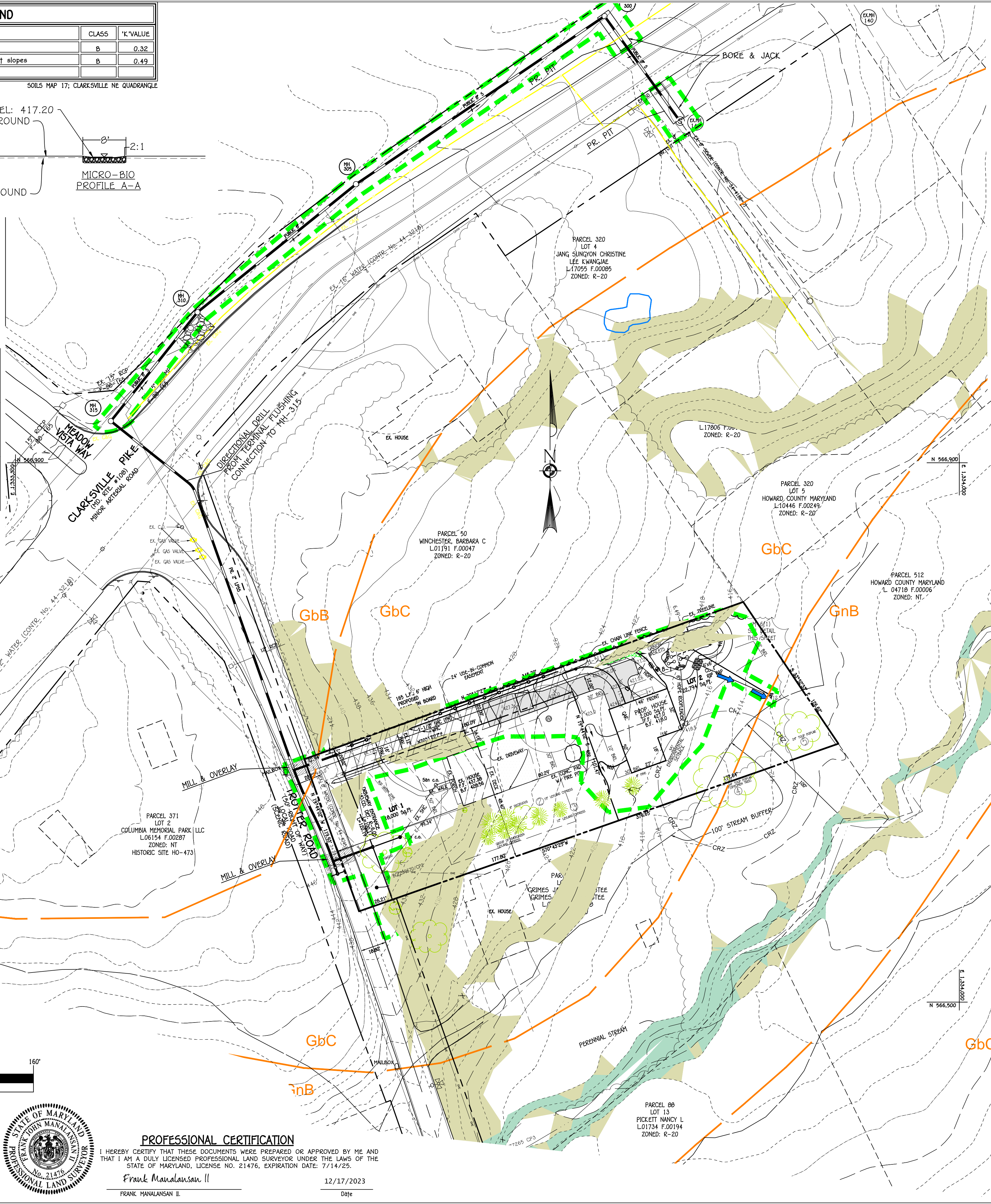
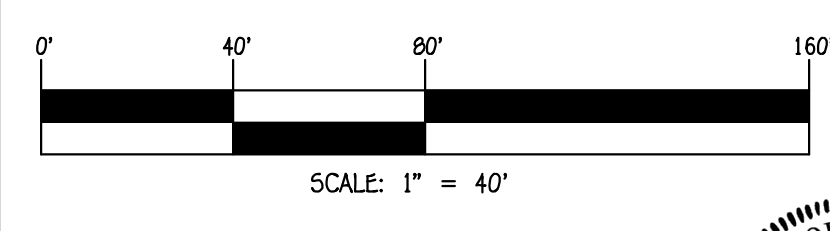
	B Lavn	B Imp
c	0.49143	0.21
i	8.5 in./hr.	
A	0.262351 Ac.	
Q	1.095879 cfs	



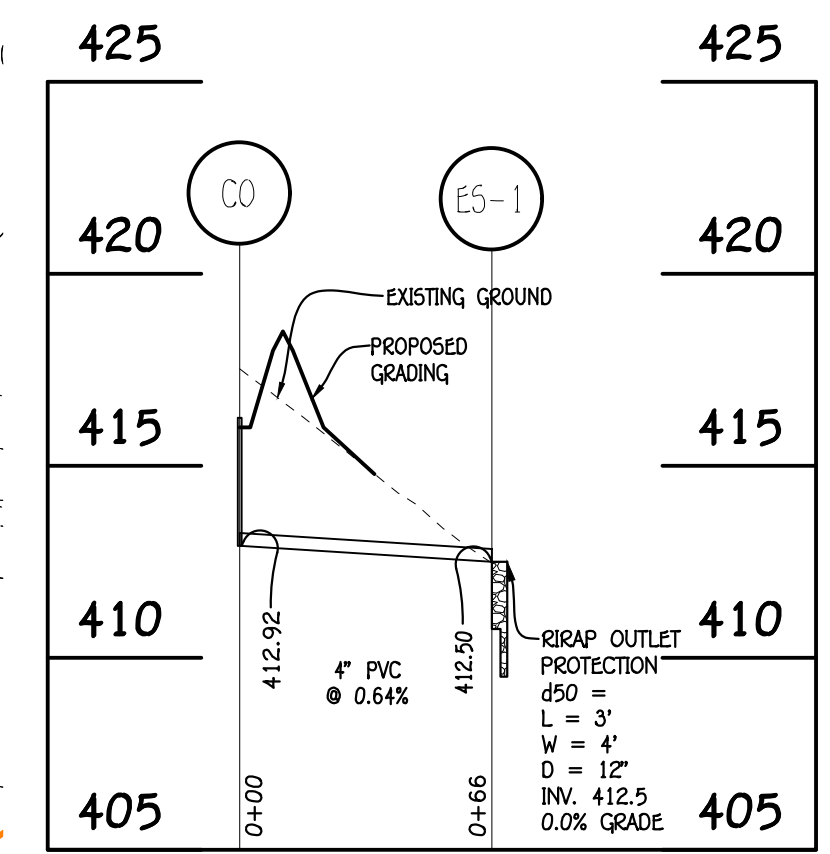
OVERFLOW SPILLWAY WEIR PROFILE
SCALE HORIZ. 1" = 50'
VERT. 1" = 5'



NOTE: ROCK AND WATER WERE ENCOUNTERED DURING EXCAVATION AT 410.13'



PLAN VIEW MICRO-BIORETENTION FACILITY (M-6)
SCALE: 1" = 20'
(FOR LANDSCAPING SEE SHEET 3)



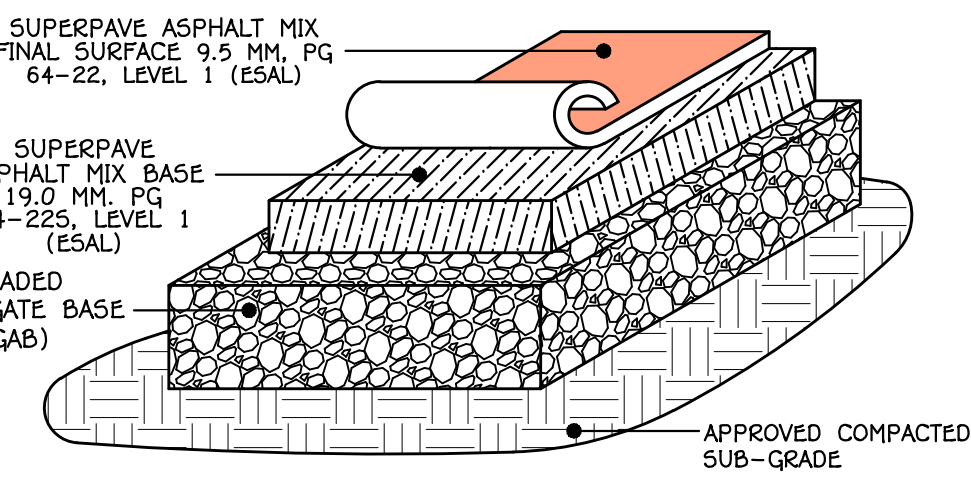
MICRO-BIO OUTFALL
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'

Approved: Department Of Planning And Zoning
Chief, Development & Planning Division
Approved: Department Of Public Works
Chief, Bureau of Highways

1/16/2024
Date
1/8/2024
Date
1/11/2024
Date

LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
x 448.5	SPOT ELEVATION
---	EXISTING STORM DRAIN
---	PROPOSED STORM DRAIN PIPE
---	EXISTING WATER LINE
---	EXISTING SEWER LINE
---	PROPOSED SEWER
---	PROPOSED WATER
---	EXISTING CABLE LINE
---	EXISTING GAS LINE
---	EXISTING OVERHEAD WIRE
---	PROPOSED PAVING/PATH
---	PROPOSED SIDEWALKS
---	FOREST CONSERVATION EASEMENT (REFORESTATION)
---	LIMIT OF DISTURBANCE
---	SEWER LOD (DAILY STABILIZATION)
---	SUPER SILT FENCE
---	SILT FENCE
---	DIVERSION FENCE
---	STABILIZED CONSTRUCTION ENTRANCE
---	EXISTING TREE LINE
---	PROPOSED TREE LINE
---	DRYWELL (M-5)-TYPICAL
---	SOIL LINES AND TYPES
---	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
---	PROPOSED ROOF LEADER
---	DENOTES EXISTING TREES TO BE REMOVED
---	DENOTES EXISTING TREES TO REMAIN
---	CRITICAL ROOT ZONE
---	DENOTES 15%-24.9% SLOPES
---	DENOTES >25% SLOPES
---	SOIL BORING LOCATION
---	LARGER STORM OVERFLOW DIRECTION
---	MILL & OVERLAY (HO. CO. DETAIL R-1.0B)

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)								
		PAVEMENT MATERIAL (INCHES)				MIN HMA WITH GAB				
		3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE 9.5 MM PG 64-22, LEVEL 1 (ESAL)		1.5	1.5	1.5	1.5	1.5	1.5	1.5
	PARKING DRIVE ASILES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	HMA SUPERPAVE INTERMEDIATE SURFACE N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A
		HMA SUPERPAVE BASE 19.0 MM PG 64-22, LEVEL 1 (ESAL)		2.0	2.0	2.0	3.5	3.0	2.5	
		GRADED AGGREGATE BASE (GAB)		8.5	7.0	5.0	4.0	4.0	4.0	



PAVING SECTION HOWARD COUNTY STANDARD DETAIL R-2.01
NO SCALE

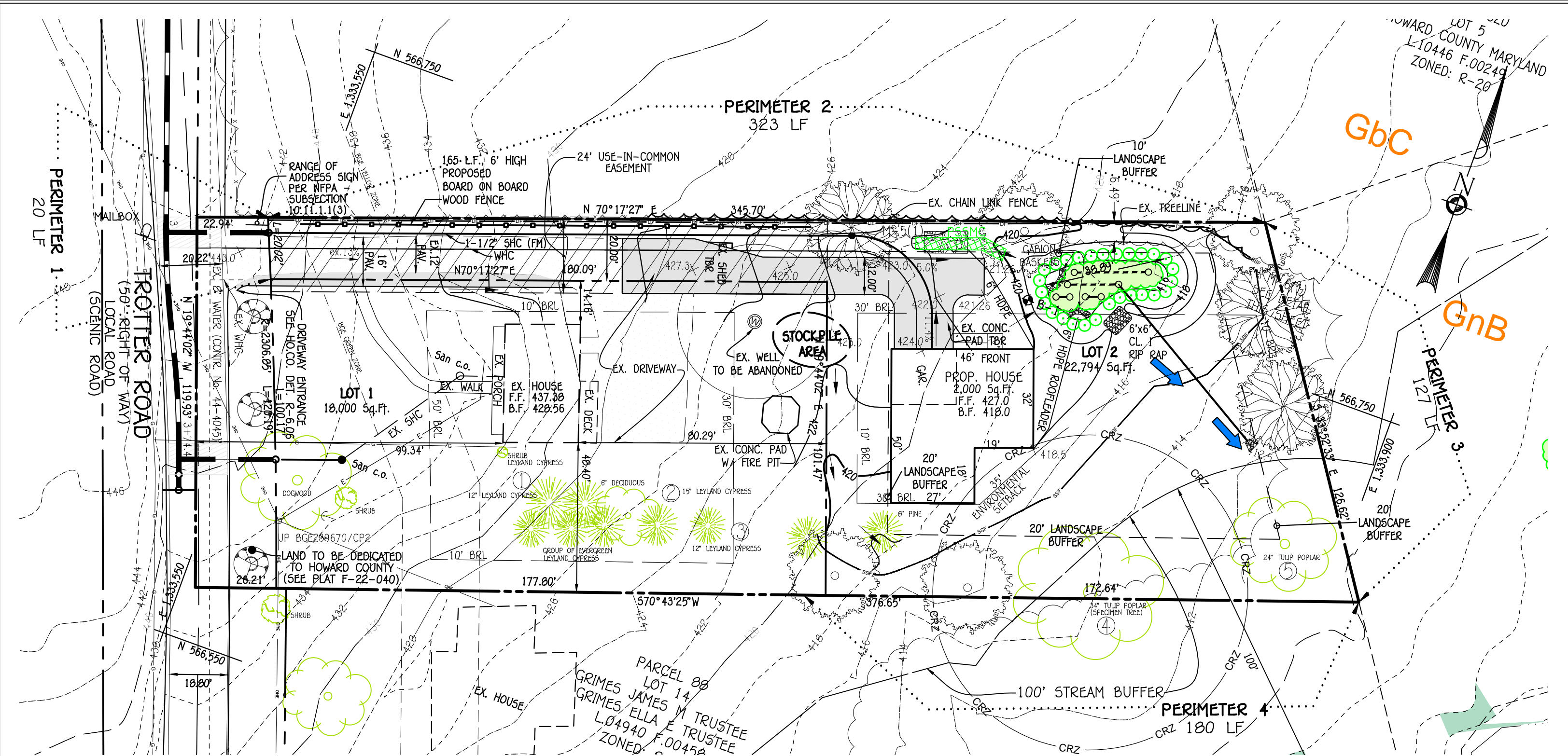
Supplemental, Stormwater Management, and Grading Plan
LEE PROPERTY
5405 TROTTER ROAD
L15778 F. 00419
TAX MAP NO.: 29 GRID NO.: 20 PARCEL NO.: 51
ZONED R-20
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2023
SHEET 2 OF 5

OWNER/DEVELOPER
SANGJAE LEE
5765 WESTERN SEA RUN
CLARKSVILLE, MARYLAND 21029
PH# 410-302-8356



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/25.
Frank Manalansan II
12/17/2023
Date

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21114
(410) 461 - 2995



SCHEDULE A - PERIMETER LANDSCAPE EDGE

PERIMETER CATEGORY	P-1 FRONT TO ROADWAY	P-2 ADJACENT TO RESIDENTIAL LOT	P-3 ADJACENT TO RESIDENTIAL LOT	P-4 ADJACENT TO RESIDENTIAL LOT	TOTALS
LANDSCAPE TYPE	NONE	A	A	A	
LINEAR FEET OF PERIMETER	20 L.F.	323 L.F.	127 L.F.	180 L.F.	
NUMBER OF PLANTS REQUIRED	-	(158' / 60' = 2.63) = 3	(127' / 60' = 2.1) = 2	(180' / 60' = 3)	
SHADE TREES	-	-	-	-	
EVERGREEN TREES	-	-	-	-	
SHRUBS	-	-	-	-	
CREDIT FOR WALL FENCE OR BERM	0	165 L.F.	0	0	
CREDIT FOR EXISTING VEGETATION	0	0	0	YES, 1 SPECIMEN TREE	
NUMBER OF PLANTS PROVIDED	0	3	2	2	7
SHADE TREES	0	3	2	2	7
EVERGREEN TREES	0	0	0	0	0
ORNAMENTAL TREES	0	0	0	0	0
SHRUBS (10:1 SUBSTITUTION)	0	0	0	0	0

Approved: Department Of Planning And Zoning
 Chief, Development Division
 Approved: Department Of Public Works
 Chief, Bureau of Highways

1/16/2024
 Date
 1/8/2024
 Date
 1/11/2024
 Date

LANDSCAPING PLANT LIST

QTY.	KEY	NAME	SIZE
4	(Symbol)	NYSSA SYLVATICA (BLACK GUM)	2 1/2" - 3" CALIPER FULL CROWN, B&B
3	(Symbol)	TILIA AMERICANA (AMERICAN LINDEN)	2 1/2" - 3" CALIPER FULL CROWN, B&B

LANDSCAPE NOTES

- THE PERIMETER LANDSCAPE OBLIGATION IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A LANDSCAPE SURETY IN THE AMOUNT OF \$2,100 BASED ON 7 SHADE TREES @ \$300/SHADE TREE SHALL BE BONDED AS PART OF THE GRADING PERMIT FOR LOT 2.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS 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 APPLICABLE PLANS AND CERTIFICATES.
- 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 APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- FOR ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH CREDIT IS GIVEN, BE REMOVED OR DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR IF THE TREE IS LISTED AS A PROHIBITED OR INVASIVE SPECIES ON THE DPZ TREE LIST IT SHOULD BE REPLACED WITH A RECOMMENDED TREE SPECIES WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.

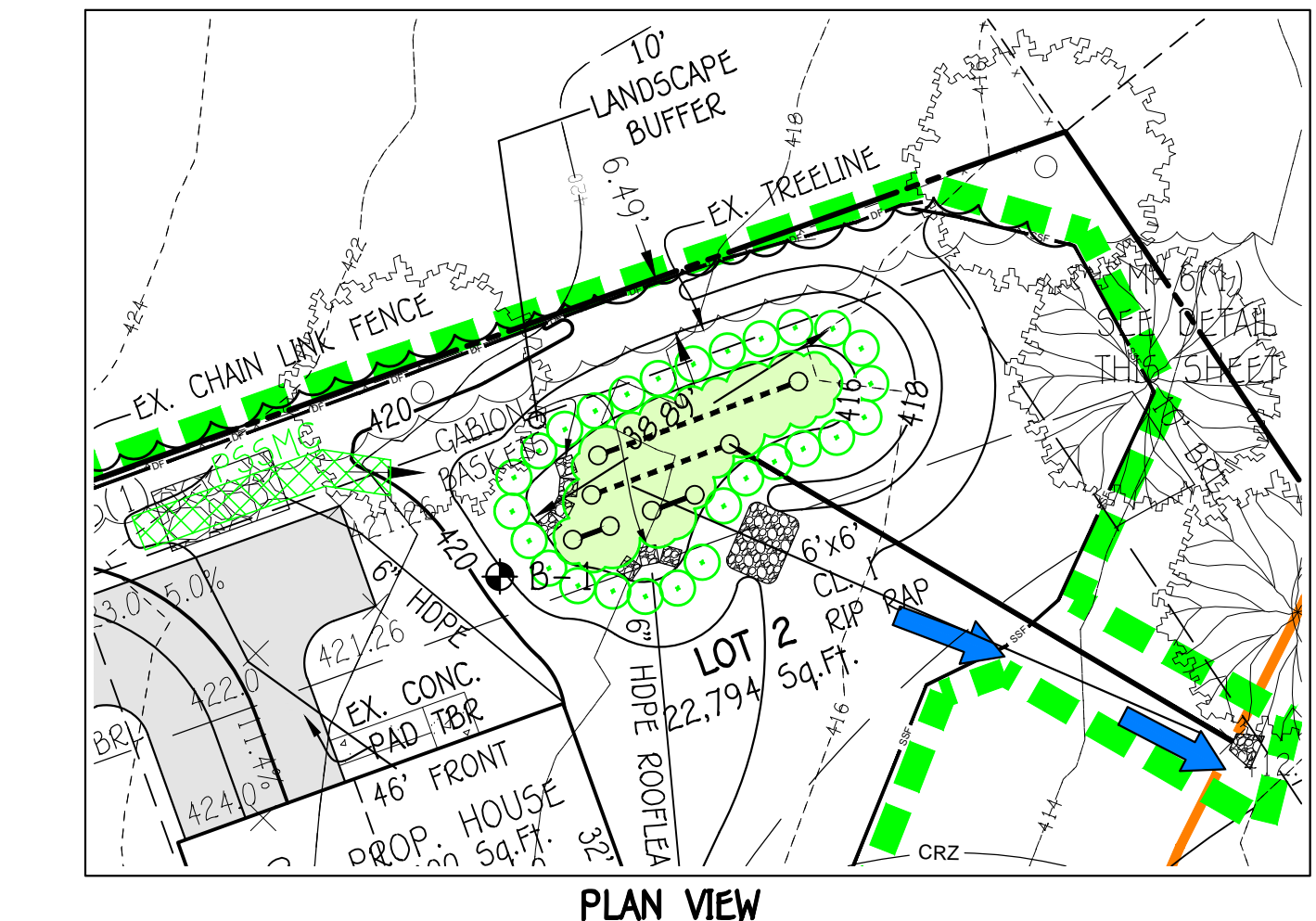
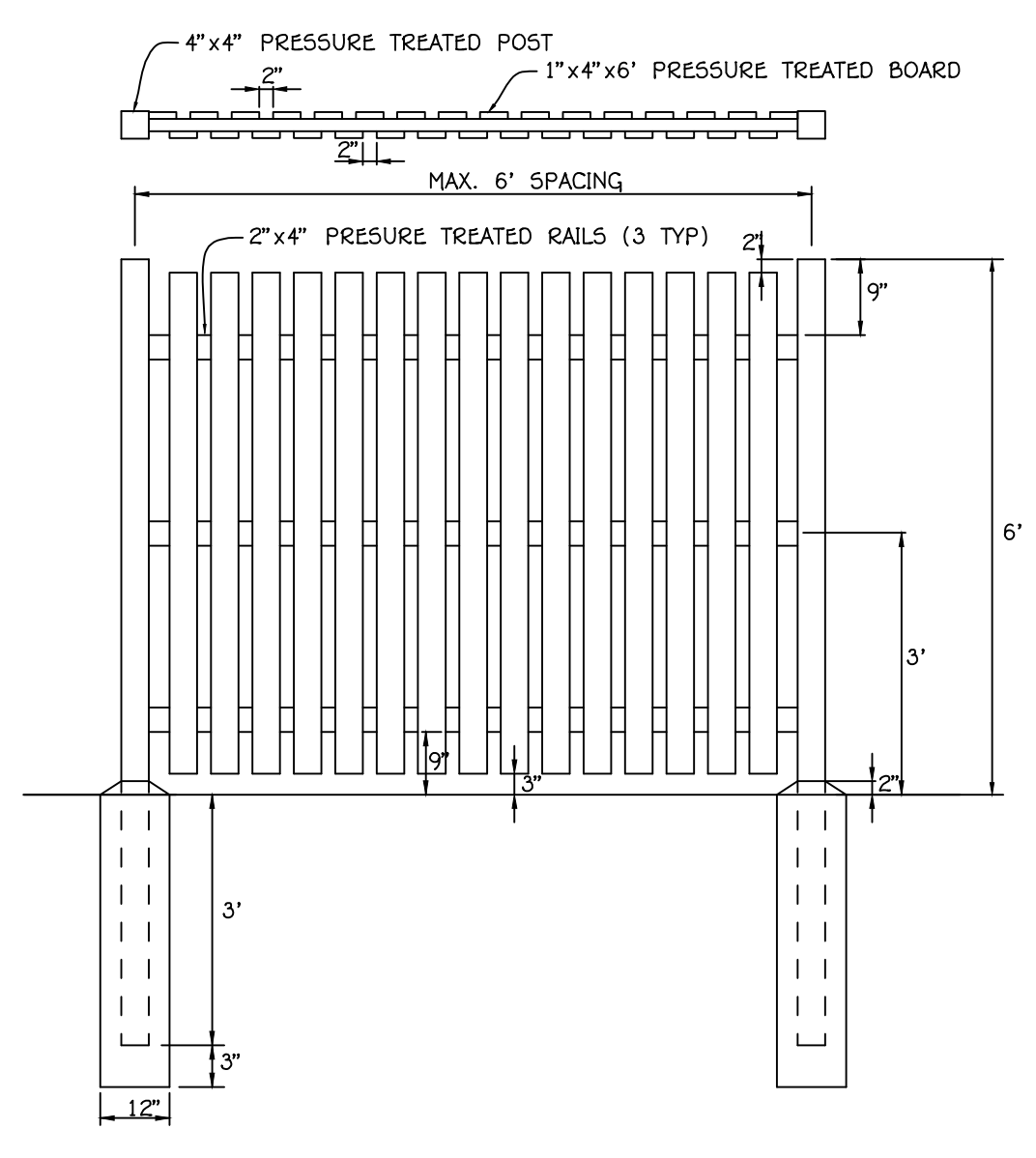
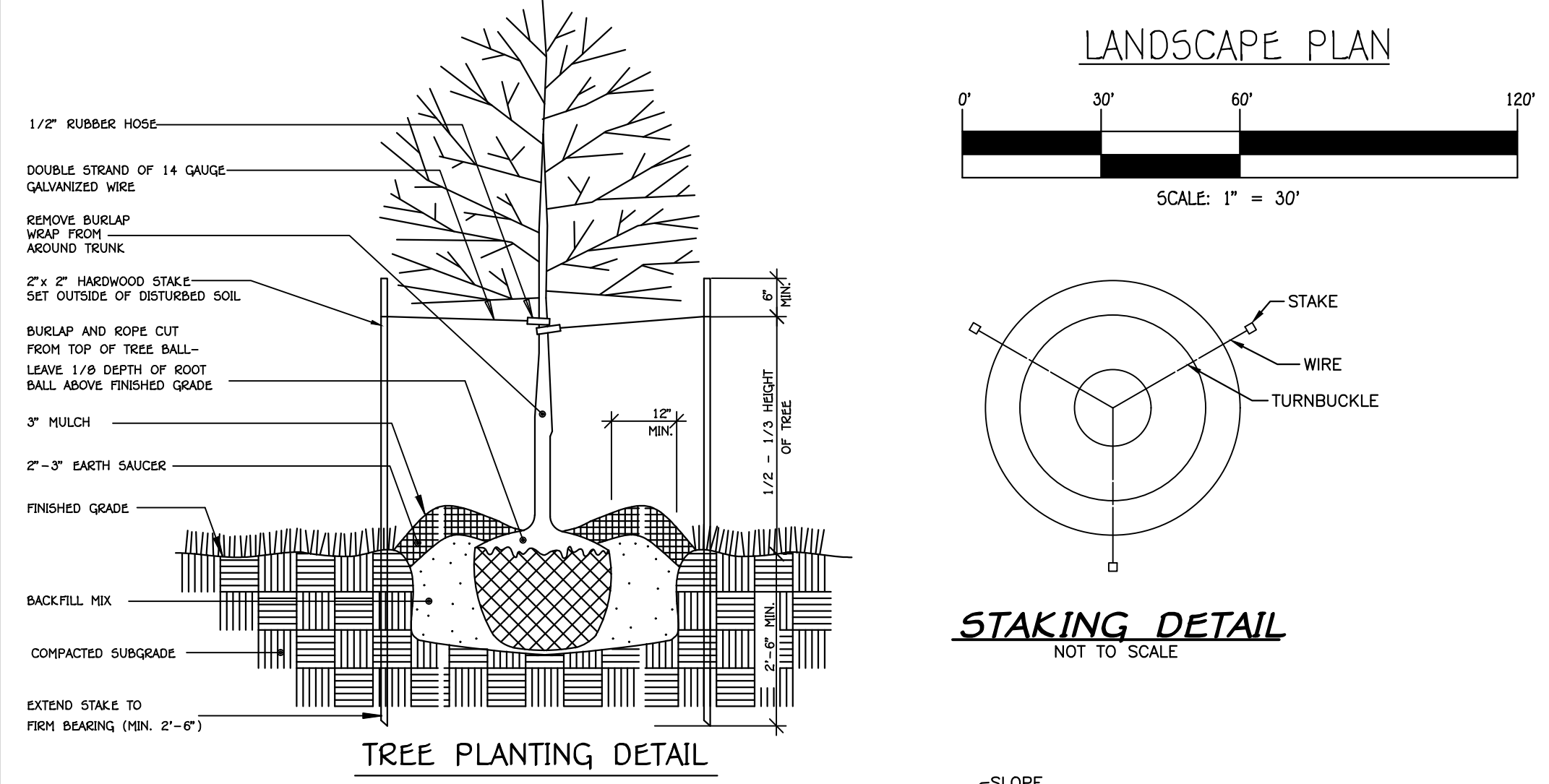
STREET TREE SCHEDULE

QTY.	SYMBOL	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
3	(Symbol)	CORNUS FLORIDA (FLOWERING DOGWOOD)	8' - 10' HGT.	30' APART ON PUBLIC R/W

STREET TREES:
 TROTTER ROAD - 97 L.F. / 30 L.F. = 3 TREES REQUIRED
 *STREET TREES ARE ORNAMENTAL TREES DUE TO THE PRESENCE OF OVERHEAD WIRES

LEGEND

SYMBOL	DESCRIPTION
(Symbol)	EXISTING CONTOUR 2' INTERVAL
(Symbol)	EXISTING CONTOUR 10' INTERVAL
(Symbol)	PROPOSED CONTOUR 10' INTERVAL
(Symbol)	PROPOSED CONTOUR 2' INTERVAL
(Symbol)	SPOT ELEVATION
(Symbol)	EXISTING STORM DRAIN
(Symbol)	PROPOSED STORM DRAIN PIPE
(Symbol)	EXISTING WATER LINE
(Symbol)	EXISTING SEWER LINE
(Symbol)	PROPOSED SEWER
(Symbol)	PROPOSED WATER
(Symbol)	EXISTING CABLE LINE
(Symbol)	EXISTING GAS LINE
(Symbol)	EXISTING OVERHEAD WIRE
(Symbol)	PROPOSED PAVING/PATH
(Symbol)	PROPOSED SIDEWALKS
(Symbol)	FOREST CONSERVATION EASEMENT (REFORESTATION)
(Symbol)	LIMIT OF DISTURBANCE
(Symbol)	SEWER LOD (DAILY STABILIZATION)
(Symbol)	SUPER SILT FENCE
(Symbol)	SILT FENCE
(Symbol)	DIVERSION FENCE
(Symbol)	STABILIZED CONSTRUCTION ENTRANCE
(Symbol)	EXISTING TREE LINE
(Symbol)	PROPOSED TREE LINE
(Symbol)	DRYWELL (M-5)-TYPICAL
(Symbol)	SOIL LINES AND TYPES
(Symbol)	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
(Symbol)	PROPOSED ROOF LEADER
(Symbol)	DENOTES EXISTING TREES TO BE REMOVED
(Symbol)	DENOTES EXISTING TREES TO REMAIN
(Symbol)	CRITICAL ROOT ZONE
(Symbol)	DENOTES 15%-24.9% SLOPES
(Symbol)	DENOTES >25% SLOPES
(Symbol)	SOIL BORING LOCATION
(Symbol)	LARGER STORM OVERFLOW DIRECTION
(Symbol)	MILL & OVERLAY (HO. CO. DETAIL R-1.0B)



EXISTING TREE CHART

TREE NUMBER	TREE SIZE	TREE TYPE
1	12"	LEYLAND CYPRESS
2	15"	LEYLAND CYPRESS
3	12"	LEYLAND CYPRESS
4	34"	TULIP POPLAR
5	24"	TULIP POPLAR

SHRUBS

BAYBERRY
 SPICEBUSH
 ARKWOOD
 WINTERBERRY
 INCBERY
 WITCH HAZEL
 BUTTONBRUSH
 BUCKEYE
 BOTTLEBRUSH
 BUCKEYE

ANY OF THE SHRUBS LISTED MAY BE USED

GRASS

SWITCHGRASS
 HEAVY METAL SWITCHGRASS

ANY OF THE GRASS LISTED MAY BE USED

PLANT MATERIAL- BIO-RETENTION M-6 (1)

QUANTITY	NAME	MAXIMUM SPACING (FT.)
127 (382 sq.ft.)	GRASSES	36" o.c.
27	SHRUBS	36"-40" o.c.

SOILS LEGEND

SOIL	NAME	CLASS	Kc VALUE
GbC	Gladstone loam, 0 to 15 percent slopes	B	0.32
GnB	Glenville-Baile silt loams, 0 to 0 percent slopes	B	0.49

SOILS MAP 17; CLARKSVILLE NE QUADRANGLE

BOARD ON BOARD FENCE

NO SCALE

- ALL WOOD FENCING TO BE PRESSURE TREATED.
- CONCRETE TO BE MIX NO. 1

OWNER'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 LETTER OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Jason Lee 12/16/2023
 NAME DATE

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/25.

Frank Manalansan II 12/17/2023
 NAME DATE

OWNER/DEVELOPER

SANGJAE LEE
 5765 WESTERN SEA RUN
 CLARKSVILLE, MARYLAND 21029
 PH# 410-302-8356

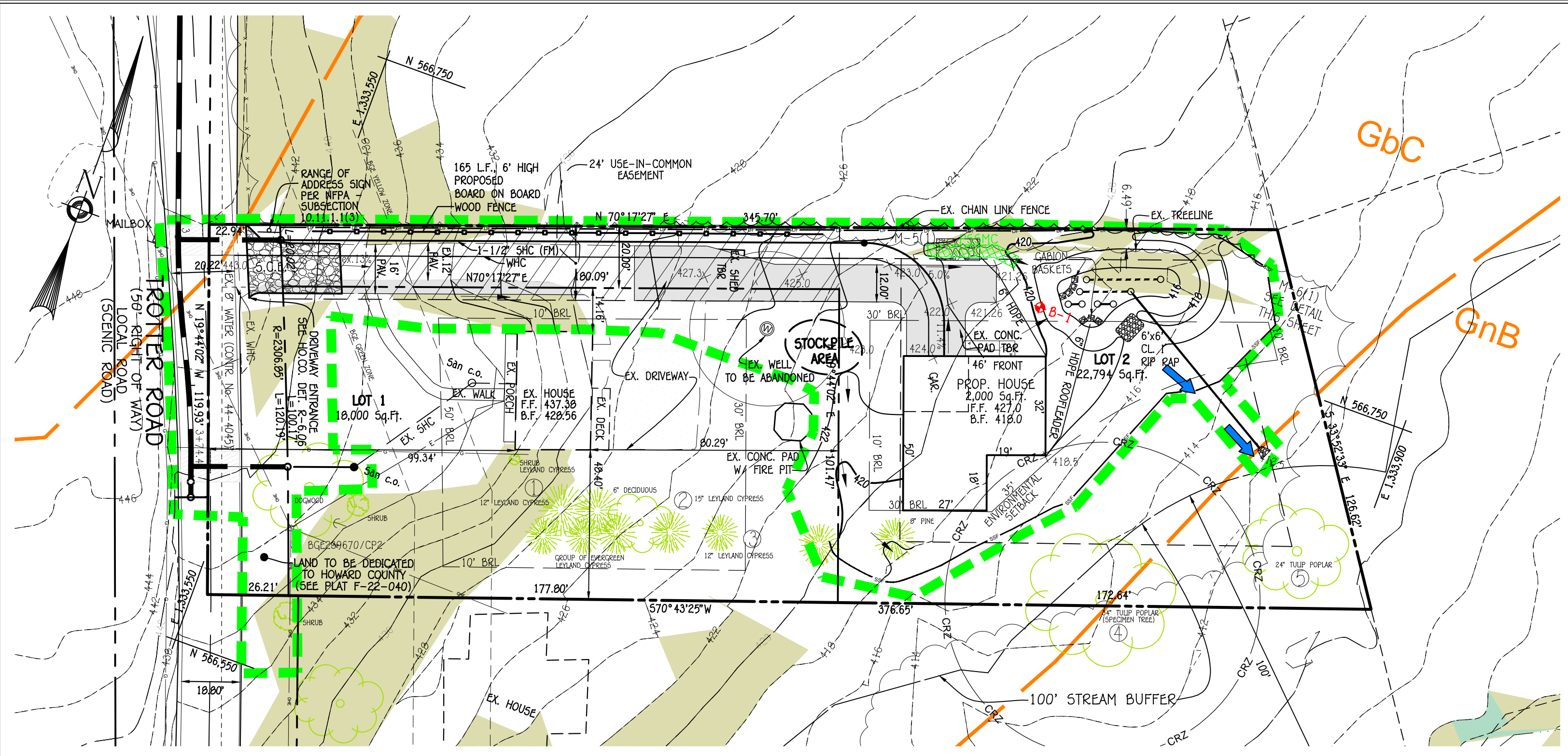
LANDSCAPE PLAN & DETAILS

LEE PROPERTY

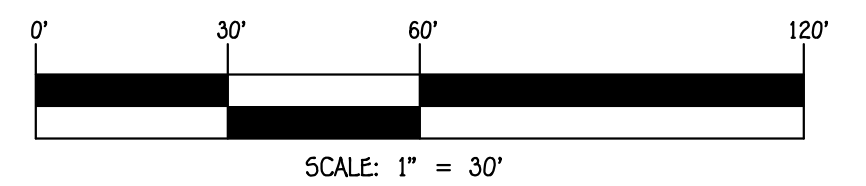
5405 TROTTER ROAD
 L15778 F. 00419

TAX MAP NO.: 29 GRID NO.: 20 PARCEL NO.:51
 ZONED R-20
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2023
 SHEET 3 OF 5





SEDIMENT & EROSION CONTROL PLAN



LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
---	SPOT ELEVATION
---	EXISTING STORM DRAIN
---	PROPOSED STORM DRAIN PIPE
---	EXISTING WATER LINE
---	PROPOSED SEWER
---	PROPOSED WATER
---	EXISTING CABLE LINE
---	EXISTING GAS LINE
---	EXISTING OVERHEAD WIRE
---	PROPOSED PAVING/PATH
---	PROPOSED SIDEWALKS
---	FOREST CONSERVATION EASEMENT (REFORESTATION)
---	LIMIT OF DISTURBANCE
---	SEWER LOD (DAILY STABILIZATION)
---	SUPER SILT FENCE
---	SILT FENCE
---	DIVERSION FENCE
---	STABILIZED CONSTRUCTION ENTRANCE
---	EXISTING TREE LINE
---	PROPOSED TREE LINE
---	DRYWELL (M-5)-TYPICAL
---	SOIL LINES AND TYPES
---	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
---	PROPOSED ROOF LEADER
---	DENOTES EXISTING TREES TO BE REMOVED
---	DENOTES EXISTING TREES TO REMAIN
---	CRITICAL ROOT ZONE
---	DENOTES 15%-24.9% SLOPES
---	DENOTES >25% SLOPES
---	SOIL BORING LOCATION
---	LARGER STORM OVERFLOW DIRECTION
---	MILL & OVERLAY (HO. CO. DETAIL R-1.08)

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF

CONSTRUCTION SPECIFICATIONS

- INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 1/2 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
- PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Approved: Department Of Planning And Zoning
 Documented by: *Chad Edmondson* 1/16/2024
 Chief, Development Management Division Date
 Chief, Division Of Land Development 1/8/2024 Date
 Approved: Department Of Public Works
 Documented by: *Case* 1/11/2024
 Chief, Bureau Of Highways Date

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE

CONSTRUCTION SPECIFICATIONS

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (+30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE. MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
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DETAIL B-4-6-C PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL: PSSMC * 2.5 lbf/ft² (+ INCLUDE SHEAR STRESS)

CONSTRUCTION SPECIFICATIONS

- USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
- USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
- SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 1/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UP THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
- OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
- KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
- STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYS AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
- ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
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SEQUENCE OF CONSTRUCTION

- OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (14 DAYS)
- NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/ INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK. (2 DAYS)
- CLEAR AND GRUB AS NECESSARY FOR INSTALLATION OF PERIMETER CONTROLS. (1 DAY)
- INSTALL THE STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCE & DIVERSION FENCE. (1 DAY)
- WITH PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR BEGIN TO ROUGH GRADE DRIVEWAY, ROUGH GRADE AROUND HOUSE SITE AND INSTALL TEMPORARY SEEDING, IF REQUIRED. (7 DAYS)
- INSTALL LOW PRESSURE SEWER SYSTEM TO EXISTING MANHOLE IN MD 108 RIGHT-OF-WAY PER TRAFFIC CONTROL PLAN WITH SAME DAY STABILIZATION. (14 DAYS)
- BEGIN CONSTRUCTING BUILDING, DRIVEWAY, UTILITIES AND STORM WATER FEATURES. NOTE THAT ALL CONTRIBUTING DRAINAGE AREAS SHALL BE STABILIZED PRIOR TO INSTALLATION OF MICRO-BIORETENTION AND DRYWELL. (30 DAYS)
- FINE GRADE SITE AND INSTALL PERMANENT SEEDING. (7 DAYS)
- ALL FINAL GRADES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED. (7 DAYS)

NOTE:
1) THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT CONTROLS AFTER EACH RAINFALL AND ON A DAILY BASIS.

DETAIL C-9 DIVERSION FENCE

STANDARD SYMBOL: DF

CONSTRUCTION SPECIFICATIONS

- USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2 1/2 INCH MAXIMUM OPENING).
- USE 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
- FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.
- SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE.
- EXTEND SHEETING A MINIMUM OF 4 FEET ALONG FLOW SURFACE AND EMBED END A MINIMUM OF 8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING ALONG FLOW SURFACE.
- WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNGRADE.
- KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

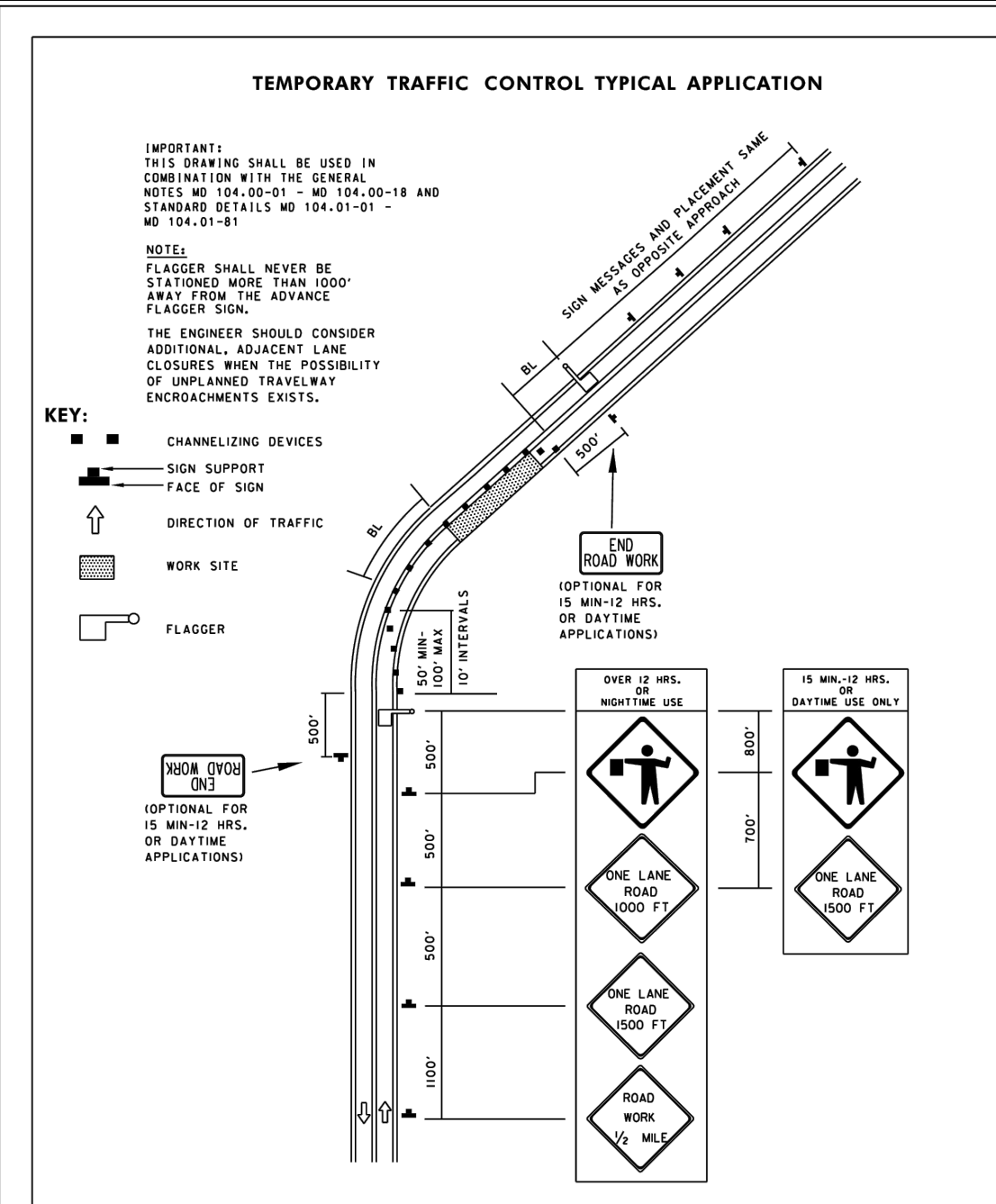
SEDIMENT AND EROSION CONTROL PLAN
LEE PROPERTY
 5405 TROTTER ROAD
 L15778 F. 00419
 TAX MAP NO.: 29 GRID NO.: 20 PARCEL NO.:51
 ZONED R-20
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2023
 SHEET 4 OF 5

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLSWORTH CITY, MARYLAND 21144
 (410) 461 - 2995



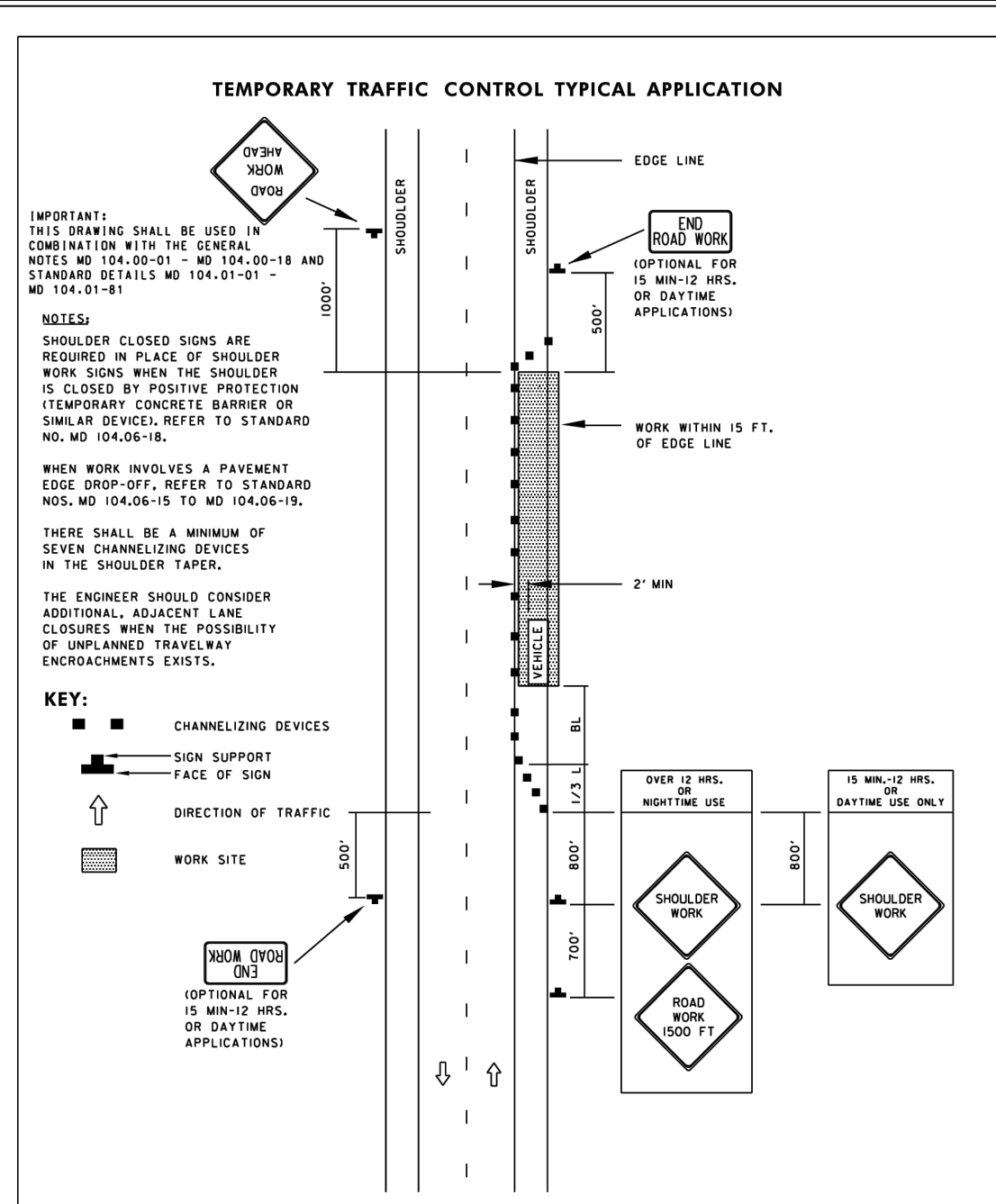
PROFESSIONAL CERTIFICATION
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 Frank Malanusan II
 12/17/2023
 Date

OWNER/DEVELOPER
 SANGJAE LEE
 5765 WESTERN SEA RUN
 CLARKSVILLE, MARYLAND 21029
 PH# 410-302-8356



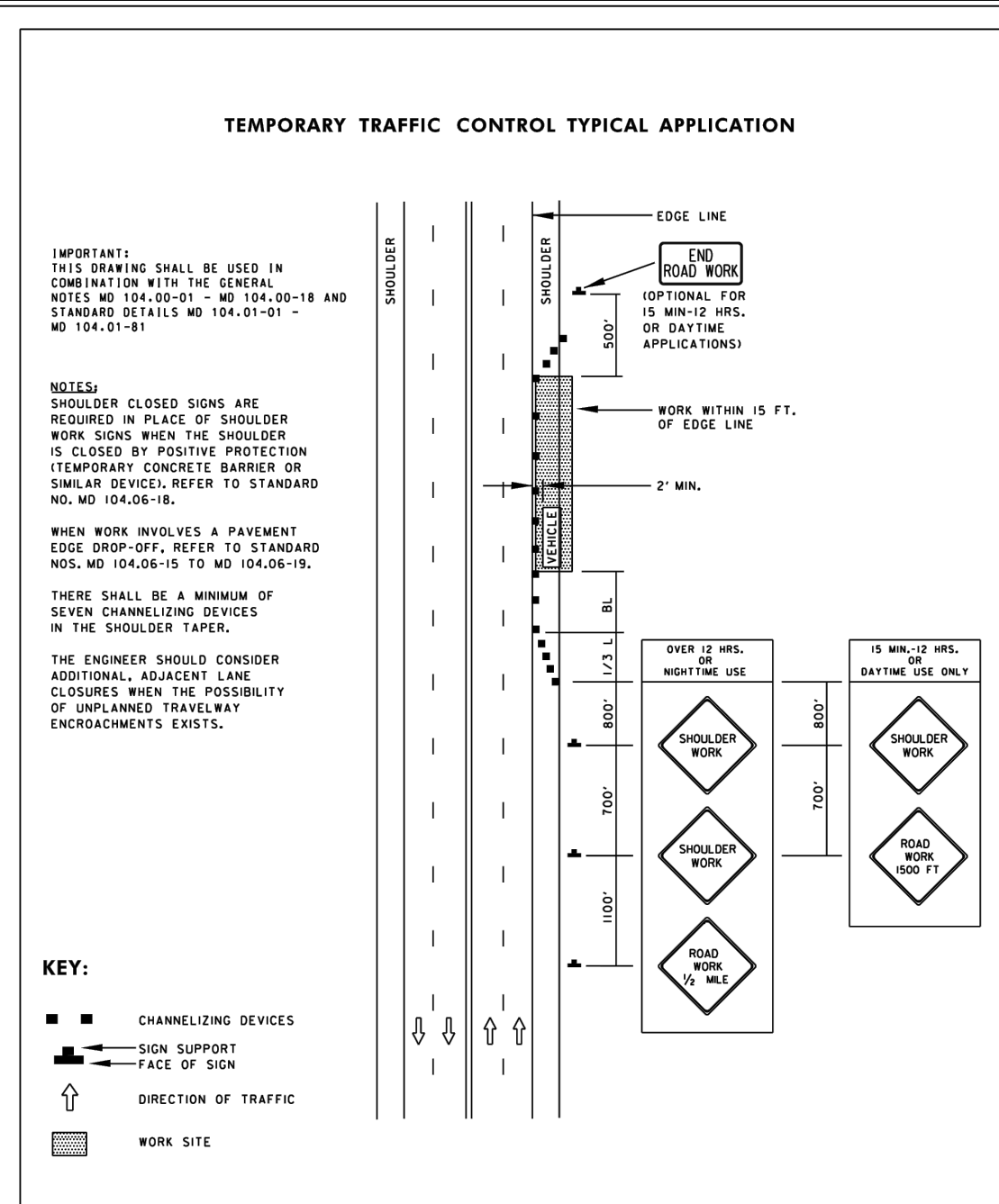
SPECIFICATION	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES FLAGGING OPERATION 2-LANE, 2-WAY EQL/LESS THAN 40 MPH STANDARD NO. MD 104.02-10
104	104	

1 a WORK ZONE TRAFFIC CONTROL PLAN FOR LP55 TROTTER ROAD



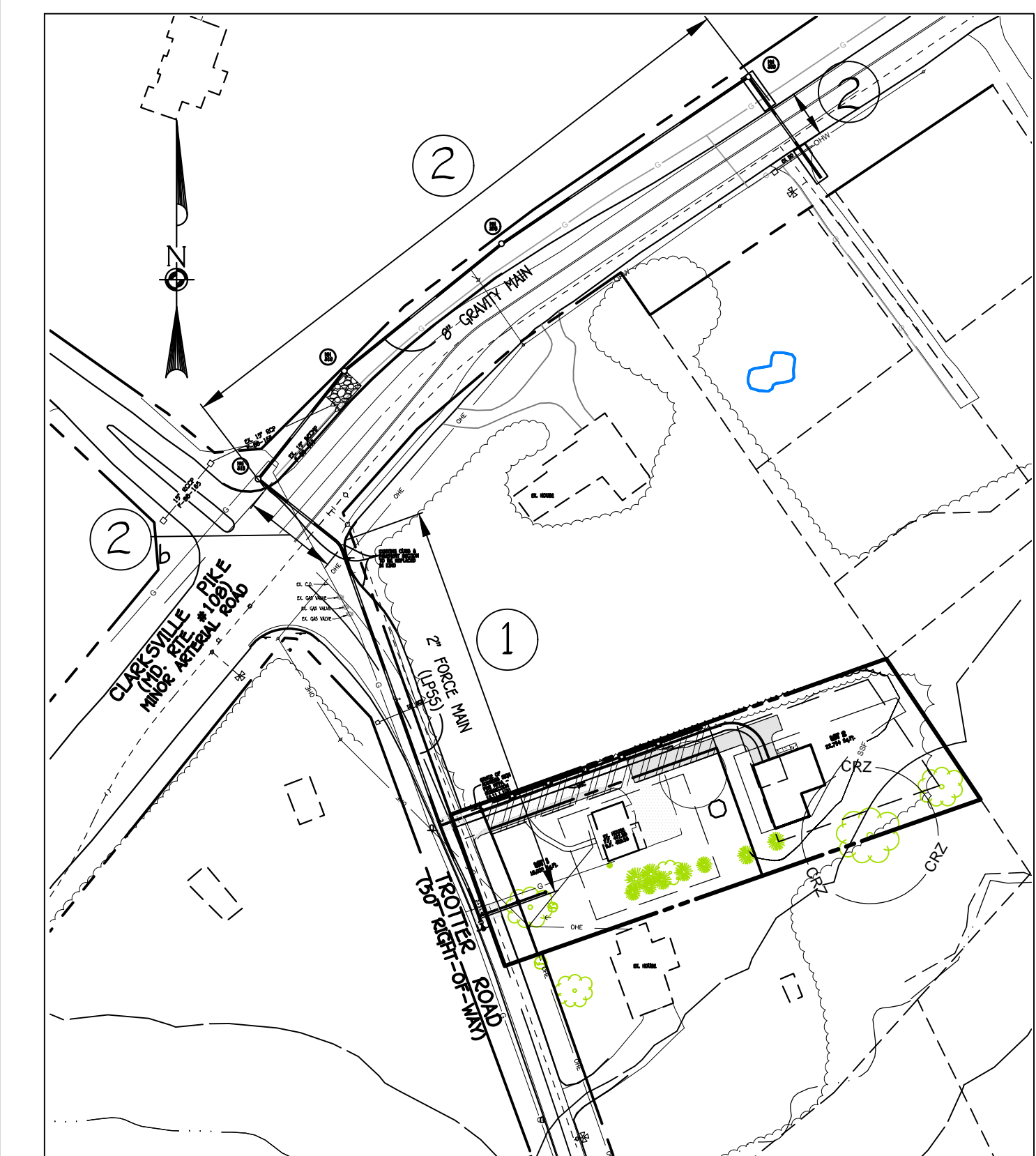
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104	104	

1 b WORK ZONE TRAFFIC CONTROL PLAN FOR LP55 TROTTER ROAD (SHOULDER WORK)

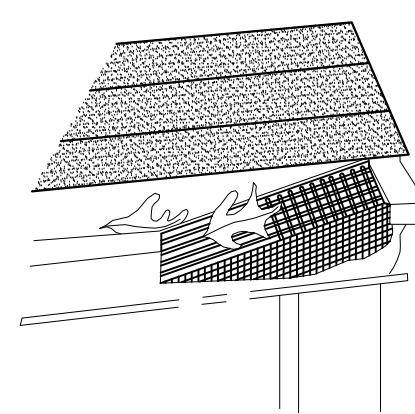
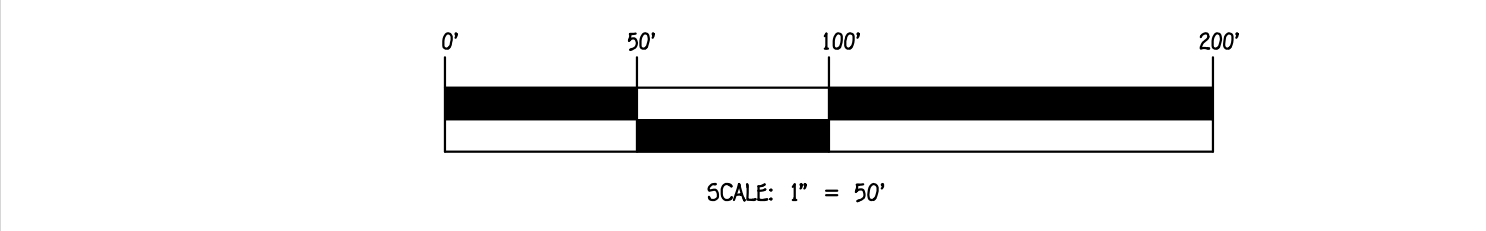


SPECIFICATION	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES SHOULDER WORK/MULTILANE UNDIV. GREATER THAN 40 MPH STANDARD NO. MD 104.03-01
104	104	

2 WORK ZONE TRAFFIC CONTROL PLAN FOR GRAVITY MAIN AND LP55 CLARKSVILLE PIKE/ ROUTE 108 (SHOULDER WORK)



WORK ZONE TRAFFIC CONTROL PLAN SCALE: 1" = 50'

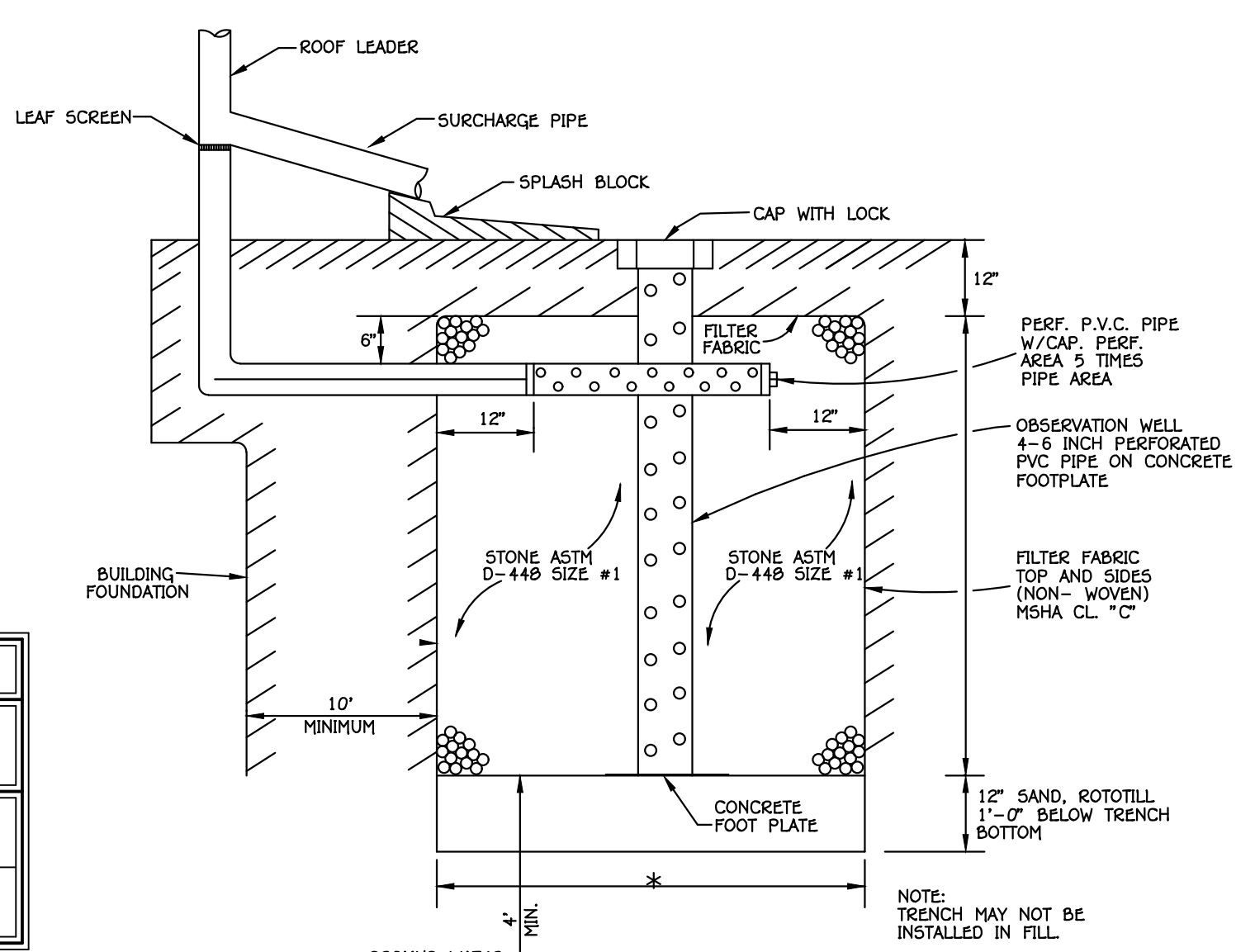


GUTTER DRAIN FILTER DETAIL NOT TO SCALE

STORMWATER MANAGEMENT SUMMARY		
AREA ID.	ESDV PROVIDED CU.FT.	REMARKS
MICRO-BIO	930	TREATS THE DRIVEWAY AND PART OF THE HOUSE
DRYWELLS	196	TREATS THE HOUSE

STORMWATER MANAGEMENT NOTES

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 500 SQ. FT. OR LESS.
- ROOF LEADERS SHALL BE DIRECTED TO THE MICRO-BIORETENTION FACILITY AND DRYWELL. PROPOSED PAVED AREAS SHALL BE DIRECTED TO THE MICRO-BIORETENTION FACILITY. THESE FACILITIES ARE DESIGNED TO TREAT THE SITE FOR ESDV. CONSTRUCTION OF THE MICRO-BIORETENTION AND DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS SHOWN ON THIS SUPPLEMENTAL PLAN.

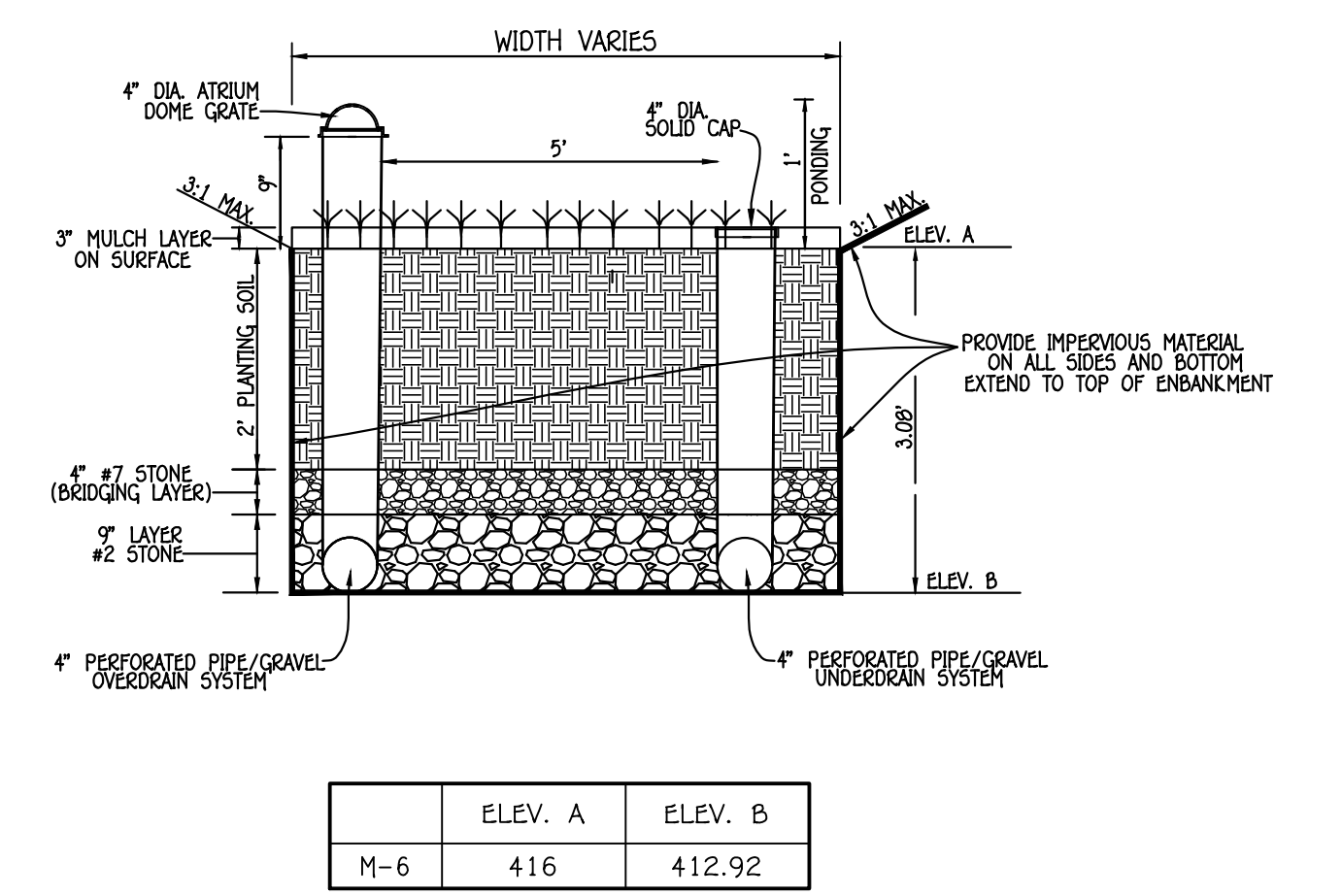


DRY WELL DETAIL NOT TO SCALE

DRY WELL CHART					
LOT NO.	AREA OF ROOF PER DRYWELL	VOLUME PER DRYWELL	AREA OF TREATMENT	% T	REMARKS
2	939 SQ.FT.	196 CF	100%	14' x 7' x 5'	DW 1

OPERATION AND MAINTENANCE SCHEDULE FOR DRYWELLS (M-5)

- THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AFTER EVERY HEAVY STORM EVENT.
- THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
- THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY TWO (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.



TYPICAL SECTION BIORETENTION/ MICRO-BIORETENTION FACILITY (M-6) NOT TO SCALE

OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CULCHING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. 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.
- 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.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

NOTES AND DETAILS

LEE PROPERTY
 5405 TROTTER ROAD
 L15778 F. 00419

TAX MAP NO.: 29 GRID NO.: 20 PARCEL NO.:51
 ZONED R-20
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER, 2023
 SHEET 5 OF 5

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 CLUETON CITY, MARYLAND 21114
 (410) 461 - 2295



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/25.
 Frank Manalansan II
 1/5/2024
 Date

OWNER/DEVELOPER
 SANGJAE LEE
 5765 WESTERN SEA RUN
 CLARKSVILLE, MARYLAND 21029
 PH# 410-302-8356