

- GENERAL NOTES**
- Subject Property Zoned R-12 Per 2/02/04 Comprehensive Zoning Plan And Comp Lite Zoning Regulations Effective 7/28/06.
 - Coordinates Based On '83 NAD, Maryland Coordinate System As Projected By Howard County Geodetic Control Stations No. 424 And No. 0080.
 - This Plan is Based On Field Run Monumented Boundary Survey Performed On Or About October, 2012, By Fisher, Collins & Carter, Inc.
 - B.S.L. Denotes Building Restriction Line.
 - Denotes Iron Pin Set With Cap "F.C.C. #".
 - Denotes Iron Pipe Or Iron Bar Found.
 - Denotes Angular Change In Bearing Or Right-Of-Way.
 - Denotes Concrete Monument Set With Cap "F.C.C. #".
 - Denotes Concrete Monument Or Stone Found.
 - For Flag Or Pipestem Lots, Refuse Collection, Snow Removal And Road Maintenance Are Provided To The Junction Of The Flag Or Pipestem And Road Right And Not Onto The Pipestem Lot Driveway.
 - Driveways Shall Be Provided Prior To Issuance Of A Use And Occupancy Permit For Any New Dwellings To Ensure Safe Access For Fire And Emergency Vehicles Per The Following (Minimum) Requirements:
 - Width - 12 Feet (18 Feet Saving More Than One Residence);
 - Surface - 5/8" Inches Of Compacted Crusher Run Base With Tar And Chip Coating. (1-1/2" Minimum);
 - Geometry - Maximum 15% Grade, Maximum 10% Grade Change And 45-Foot Turning Radius;
 - Structures (Culverts/Bridges) - Capable Of Supporting 25 Tons (25-Tons Loading);
 - Drainage Elements - Capable Of Safely Passing 100 Year Flood With No More Than 3" Depth Over Surface;
 - Structure Clearances - Minimum 12 Feet;
 - Maintenance - Sufficient To Ensure All Weather Use.
 - Common Driveway Maintenance To Be Installed In Accordance With Howard County Standard Detail R-6.01.
 - All Lot Areas Are More Or Less (+/-).
 - Stormwater Management Requirements For Lots 1 Thru 4 Will Be Met Using Environmental Site Design To The Maximum Extent Possible In Accordance With The Maryland Stormwater Design Manual, Volumes 1 & 2, Effective In May Of 2010. The Proposed Practices Will Be Located On The Individual Lots As Follows:
 - Lot 1: Rooftop Disconnection (N-1) And Drywells (M-5) For The Proposed House And A Grass Channel (M-8) For The Proposed Individual And Common Driveway.
 - Lot 2: Rooftop Disconnection (N-1) And Drywells (M-5) For The Proposed House And A Grass Channel (M-8) For The Proposed Individual And Common Driveway.
 - Lot 3: Rooftop Disconnection (N-1) And Drywells (M-5) For The Proposed House And A Grass Channel (M-8) For The Proposed Individual And Common Driveway.
 - Lot 4: Micro-Bioretenion (M-6) For The Proposed House And A Grass Channel (M-8) For The Proposed Individual And Common Driveway.

- These Practices Shall Be Privately Owned And Maintained In Accordance With Individual Declarations Of Covenants.
- A Traffic Study Is Not Required For This Project Since It Is A Minor Subdivision.
- There Are No Existing Structures On-Site.
- No Cemeteries Exist On This Site Based On A Visual Site Visit And Based On An Examination Of The Howard County Cemetery Inventory Map And Historic Structures Sites Or Features.
- The Forest Conservation Requirements Of Section 16.1202 Of The Howard County Code And Forest Conservation Act For This Subdivision Will Be Fulfilled By Providing A Fee-In-Lieu Payment Of \$6,207.30 Based On 0.19 Acres X \$43,560 Sqr. Ft./Acre X \$0.75/Sq. Ft.
- Landscape For Lots 1 Thru 4 Is Provided In Accordance With Section 16.124 Of The Howard County Code And The Landscape Manual. A Landscape Surety In The Amount Of \$5,400.00 (4 Shade Trees @ \$300/Shade Tree, 20 Evergreen Trees @ \$150/Evergreen Tree) Has Been Posted As Part Of The DFW Developer's Agreement.
- Water And Sewer Service To These Lots Will Be Granted Under The Provisions Of Section 18.1225 Of The Howard County Code.
- Public Water And Sewerage Allocations Will Be Granted At Time Of Issuance Of The Building Permit If Capacity Is Available At That Time.
- Approval Of A Site Development Plan Is Required For The Development Of All Residential Lots Within This Subdivision Prior To Issuance Of Building Permits For New House Construction In Accordance With Section 16.155 Of The Subdivision And Land Development Regulations.
- Property Subject To Department Of Planning And Zoning File Nos. ECP-13-036.
- This Property Is Located Within The Metropolitan District And Will Be Served By Public Water And Sewer under contract # 24-4781-D.
- A Letter Of Findings Dated October 12, 2012 For The Forest Stand Delineation And Wetland Delineation For This Project Was Prepared By Eco-Science Professionals Or Wetlands Expert On-Site.
- This Plan Is In Compliance With The Amended Fifth Edition Of The Subdivision And Land Development Regulations Per Council Bill 45-2003 And The Zoning Regulations As Amended By Council Bill 75-2003. Development Or Construction On These Lots Must Comply With Setback, And Buffer Regulations In Effect At The Time Submission Of The Site Development Plan, Erosion Prevention Application, Or Building/Grading Permit And Per The Comp-Lite Zoning Regulations Dated July 28, 2006.
- The Use-In-Common Driveway Maintenance Agreement For Lots 1 Thru 4 Will Be Recorded In The Howard County Land Records Office Simultaneously With The Recording Of The Subdivision Plat.
- Open Space Requirements Are Provided By A Fee-In-Lieu Payment Of \$6,000.00.
- This Development Is Designed To Be In Accordance With Section 16.127-Residential Infill Development - Subdivision And Land Development Regulations. This Project Shall Create Compatibility With The Existing Neighborhood Through The Use Of Enhanced Perimeter Landscaping, Berms, Fences, Similar Housing Unit Types And The Directional Orientation Of The Proposed Houses.
- Noise Study Is Not Required For This Project Per Howard County Design Manual, Volume III, Section 5.2(F).
- A Community Meeting Was Conducted On October 22, 2012 For The Purpose Of The Developer To Provide Information To The Community Regarding The Proposed Residential Development And To Allow The Community To Ask Questions And To Make Comments, Per Section 16.129(D), Of The Subdivision Regulations.
- All Construction Shall Be In Accordance With The Latest Standards And Specifications Of Howard County.
- 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 The Start Of Work.
- The Contractor Shall Notify "Hesse Utility" At 1-800-257-7777 At Least 48 Hours Prior To Any Excavation Work Being Done.
- Traffic Control Devices, Markings, And Signage Shall Be In Accordance With The Latest Edition Of The Manual Of Traffic Control Devices (MUTCD). All Street And Regulatory Signs (R-1 Stop Sign & Range Of Address Assemblies) Shall Be In Place Prior To The Placement Of Any Asphalt. 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.
- The Existing Topography Is Taken From Field Run Survey With Contour Intervals Prepared By Fisher, Collins and Carter, Inc. Dated October, 2012 And Supplemented With Howard County GIS Information.
- Existing utilities shown are based on available construction drawings.
- The Private Range Of Address Signage Shall Be Fabricated And Installed By Howard County Bureau Of Highways At The Developer's/Owner's Expense. Contact Howard County Traffic Division At 410-313-2430 For Details And Cost Estimate.
- 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-Finish), 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-Finish Holes Above Ground Level. A Galvanized Steel Pole Cap Shall Be Mounted On Top Of Each Post.
- There Are No Floodplains, 15-24.5% Slopes, 25% Or Greater Slopes, Wetlands, Streams, Or Other Buffers On This Site.
- There Are No Disturbances To Environmental Features As There Are No Environmental Features Located On This Property. In Areas Where The Limit Of Disturbance Are Within The Critical Root Zone Of The Specimen Trees, Trees Shall Be Root Pruned. See Root Pruning Detail This Sheet.
- Site Area: 53,257 sq. ft. / 12,000 sq. ft. = 4 Lots / Units (4.49).
Minimum Adjusted Lot Area (Including Divided 2,191 sq. ft. Road Widening Area):
Lot 1: 11,070 sq. ft. / 330 sq. ft. = 33.00 sq. ft. / 12,000 sq. ft. = 0.27
Lot 2: 12,582 sq. ft. / 330 sq. ft. = 38.13 sq. ft. / 12,000 sq. ft. = 0.32
Lot 3: 13,596 sq. ft. / 330 sq. ft. = 41.20 sq. ft. / 12,000 sq. ft. = 0.34
Lot 4: 14,419 sq. ft. / 330 sq. ft. = 43.69 sq. ft. / 12,000 sq. ft. = 0.36

- In Accordance With Section 16.1201(b)(2)(ii) Of The Subdivision And Land Development Regulations, Land Dedicated For Street Widening In A Minor Subdivision May Be Counted To Satisfy Up To 10% Of The Minimum Lot Size Requirements Not To Exceed The Actual Area Dedicated. 2,191 Square Feet Of Land Will Be Dedicated To Howard County For The Purpose Of A Public Road.
- This Plan Is Subject To A Design Manual Waiver Approved On February 1, 2013 To Waive Design Manual, Volume III, Section 2.6.0, Requiring A 25' Clearance Between A Driveway And A Public Road. Approval Was Based On The Following:
 - The Proposed Driveway Is Minor In Nature For The Use Of Only 4 Houses.
 - Adequate Sight Distance Exists In All Directions From The Driveway And Intersecting Roads.
 - An Existing Acceleration And Deceleration Lane Exists Directly Across From The Proposed Driveway That Could Be Utilized As A Pull-off If Needed In An Emergency Condition.
 - The Justifications And Evidentiary Provided In The Engineer's Request Dated November 5, 2012.
- The Lots Created By This Subdivision Plat Are Subject To A Fee Or Assessment To Cover Or Defray All Or Part Of The Developer's Cost Of The Installation Of The Water And Sewer Facilities, Pursuant To The Howard County Code Section 18.112. This Fee Or Assessment, Which Runs With The Land, Is A Contractual Obligation Between The Developer And Each Owner Of This Property And Is Not In Any Way A Fee Or Assessment Of Howard County.

LANDSCAPE NOTES

The Owner, Tenants 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 Conditions, 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.

No Clearing Of Existing Vegetation Is Permitted Within The Landscape Edge For Which Credit Is Being Taken; However, Landscape Maintenance Is Authorized.

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 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 Revision Are Made To Applicable Plans Or Certificates.

SOILS LEGEND

SOIL	NAME	CLASS	K FACTOR
BcC2	BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	C	0.37
BcC3	BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED	C	0.37

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE PROVISIONS OF THE STATE OF MARYLAND, LICENSE NO. 39366, EXPIRATION DATE: 01/12/2015.

Hydraulic Suite 7/16/13
Signature of Professional Engineer DATE

Developer's/Builder's Certificate

I hereby certify that the landscaping shown on this plan will be done according to and that I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE PROVISIONS OF THE STATE OF MARYLAND, LICENSE NO. 39366, EXPIRATION DATE: 01/12/2015.

Fisher, Collins & Carter, Inc. 7/17/13
Signature of Professional Engineer DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Kent Johnson 7/31/13
Chief, Division of Land Development DATE

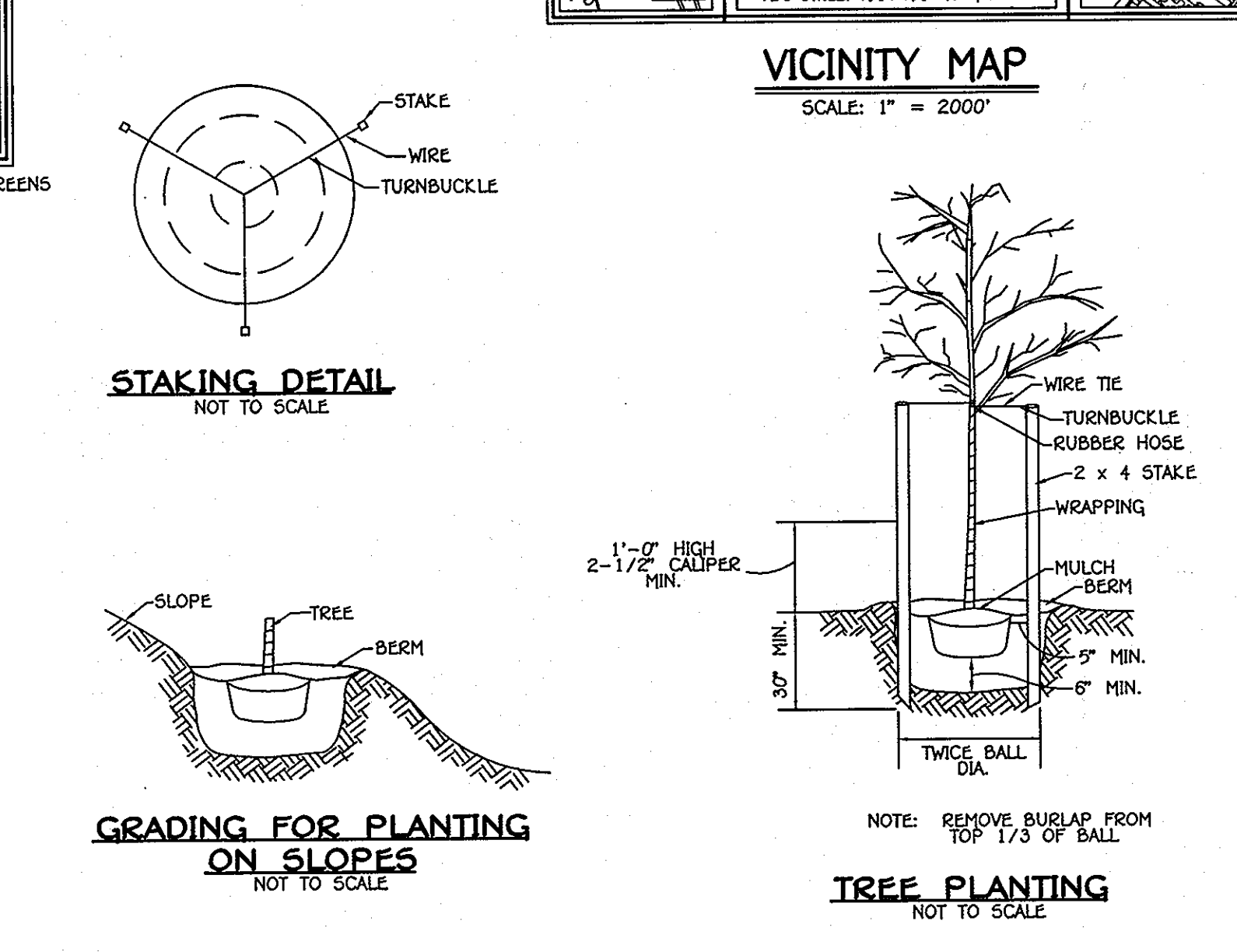
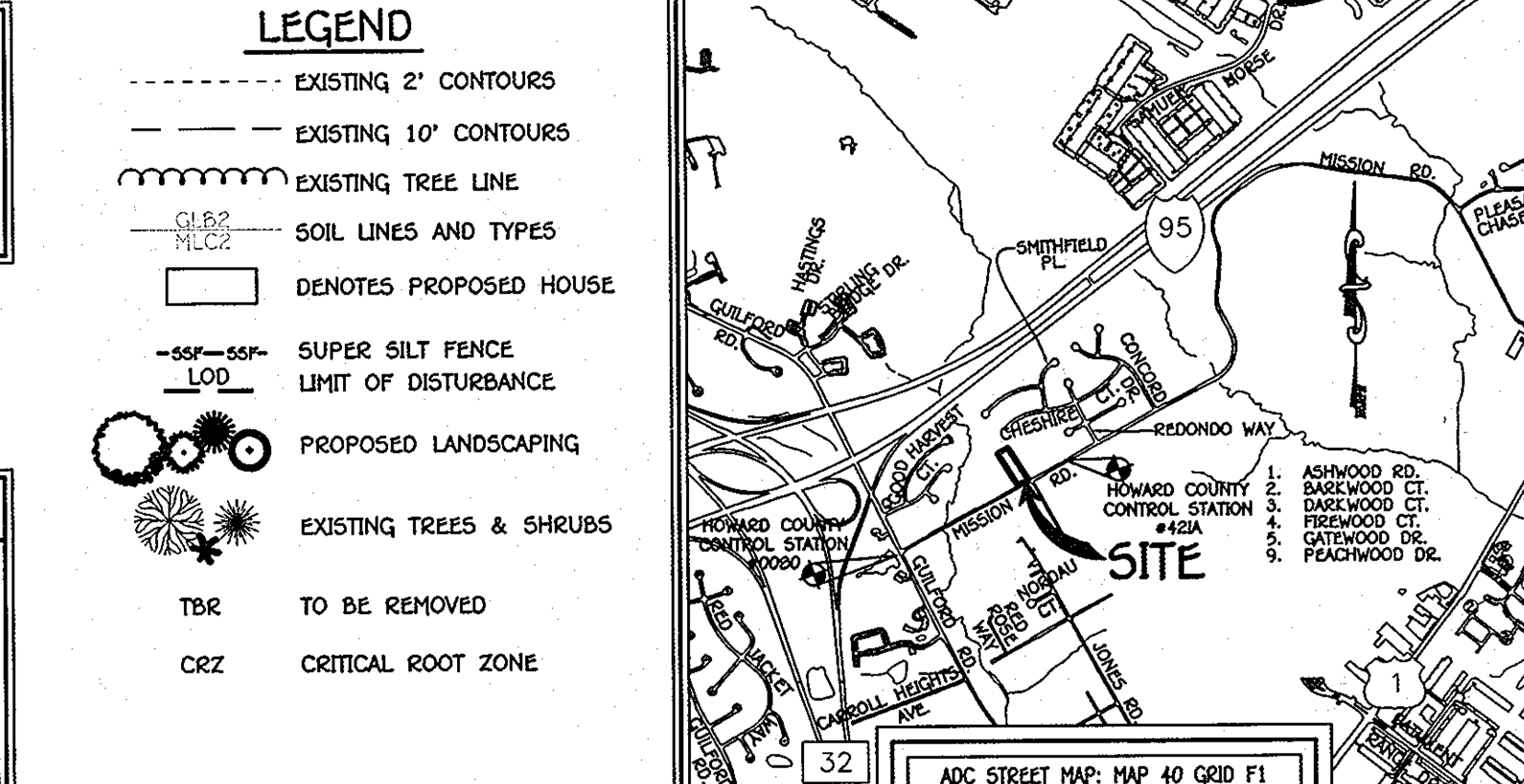
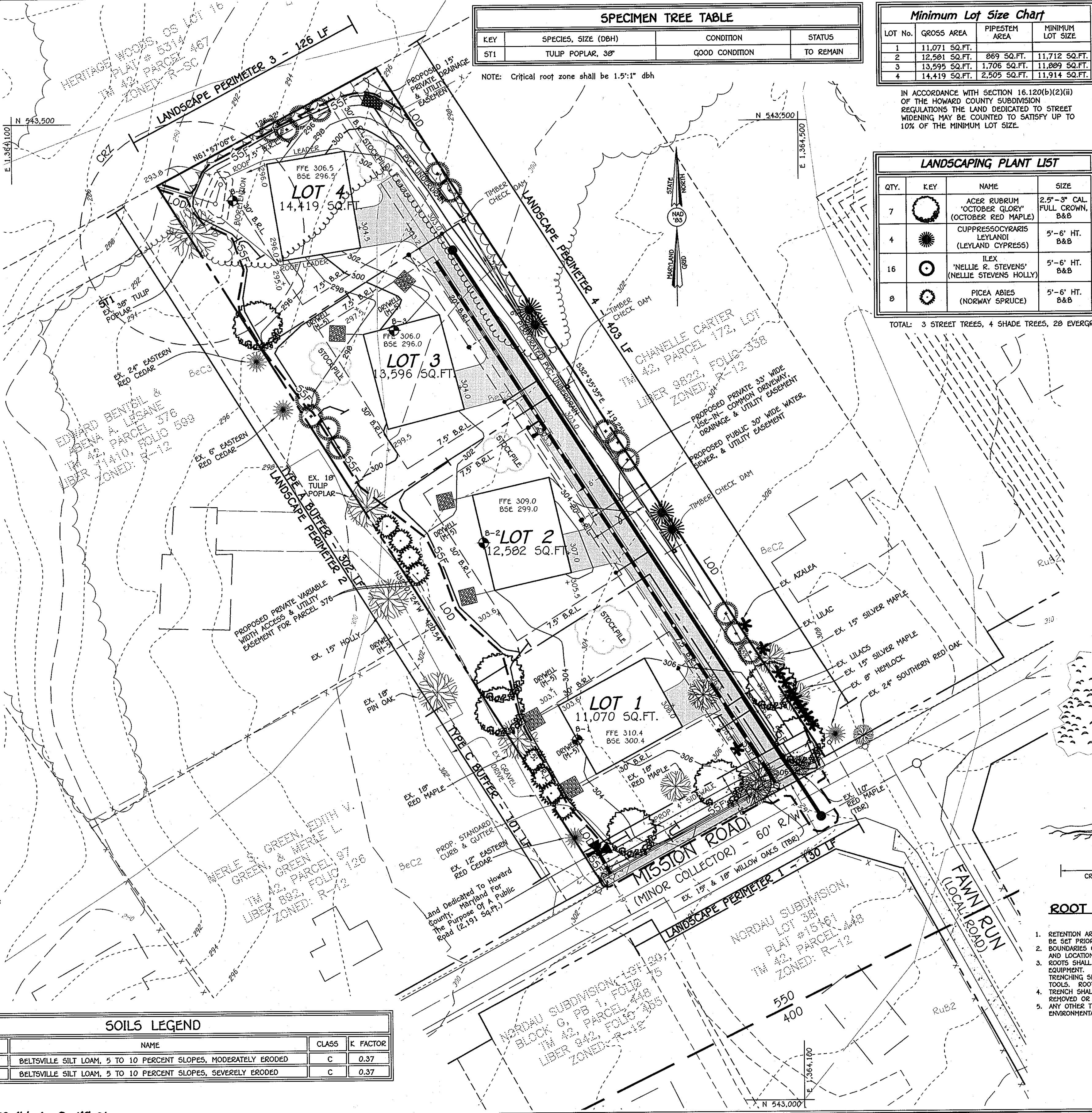
Michael Chubb 7/31/13
Chief, Development Engineering Division DATE

OWNER

ARNOLD BENEDICT MYERS
7955 JONES ROAD
JESSUP, MARYLAND 20794-9536
301-795-8931

DEVELOPER

TIM BURKARD
BURKARD HOMES
5300 DORSEY RUN ROAD, SUITE 102
ELICOTT CITY, MARYLAND 21042
(410) 367-0422



FOREST CONSERVATION WORKSHEET

NET TRACT AREA		
A	TOTAL TRACT AREA	1.24 AC
B	DEDUCTIONS	0.00 AC
C	NET TRACT AREA	1.24 AC

LAND USE CATEGORY					
ARA	MDR	IDA	HDR	HPD	CIA
0	0	0	1	0	0

EXISTING FOREST COVER		
D	AFFORESTATION THRESHOLD (NET TRACT AREA x 15%)	0.19 AC
E	CONSERVATION THRESHOLD (NET TRACT AREA x 20%)	0.25 AC

EXISTING FOREST COVER		
F	EXISTING FOREST COVER WITHIN THE NET TRACT AREA	0.00 AC
G	AREA OF FOREST ABOVE CONSERVATION THRESHOLD	0.00 AC

BREAK EVEN POINT		
H	BREAK EVEN POINT	0.00 AC
I	FOREST CLEARING PERMITTED WITHOUT MITIGATION	0.00 AC

PROPOSED FOREST CLEARING		
J	TOTAL AREA OF FOREST TO BE CLEARED	0.00 AC
K	TOTAL AREA OF FOREST TO BE RETAINED	0.00 AC

PLANTING REQUIREMENTS		
L	REFORESTATION FOR CLEARING ABOVE THE CONSERVATION THRESHOLD	0.00 AC
M	REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD	0.00 AC
N	CREDIT FOR RETENTION ABOVE THE CONSERVATION THRESHOLD	0.00 AC
P	TOTAL REFORESTATION REQUIRED	0.00 AC
Q	TOTAL AFFORESTATION REQUIRED	0.19 AC
R	TOTAL PLANTING REQUIRED	0.19 AC

NOTE: A FEE-IN-LIEU IN THE AMOUNT OF \$6,207.30 WILL BE PAID IN ORDER TO FULFILL THE 0.19 ACRE AFFORESTATION REQUIREMENT.

STREET TREES

ROAD NAME	ROAD LENGTH	# OF TREES REQUIRED	# OF TREES PROVIDED
MISSION ROAD	130 LF	(130'/40' = 3.3 OR 3)	3

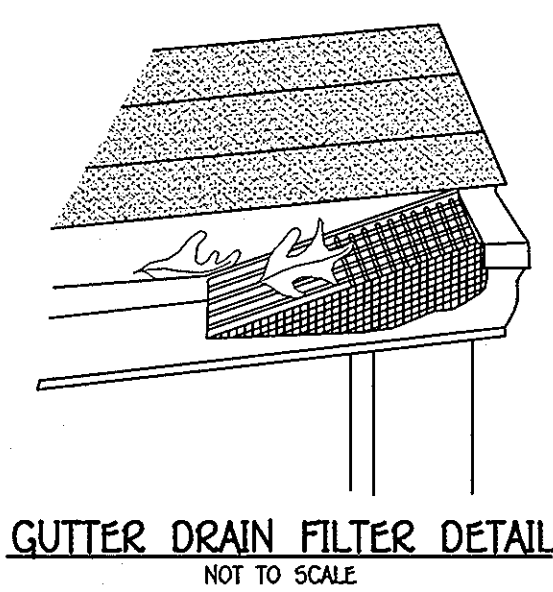
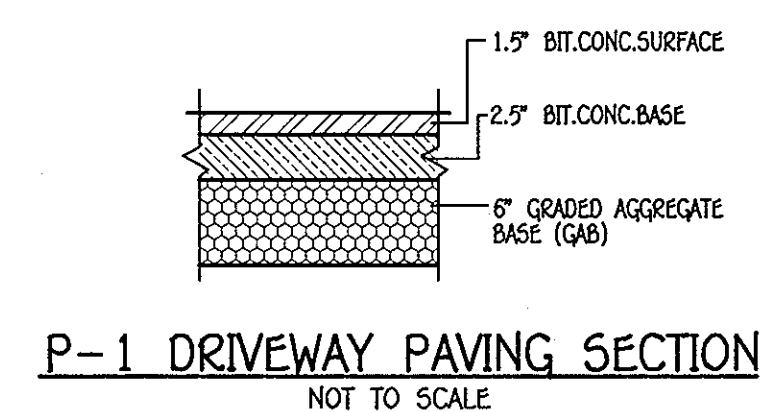
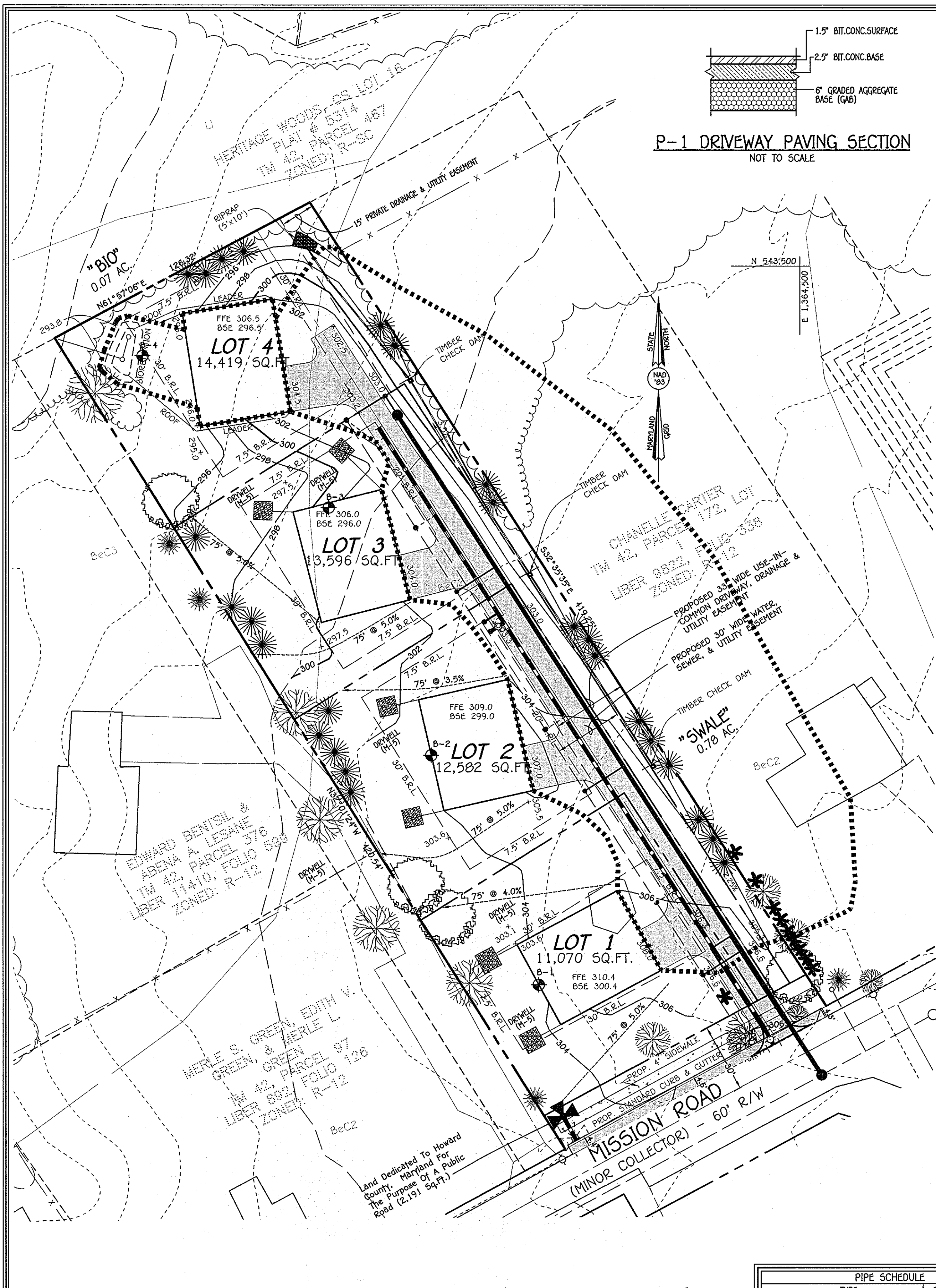
SUPPLEMENTAL & LANDSCAPE PLAN

MISSION RIDGE, LOTS 1 THRU 4

ZONED R-12 TAX MAP NO.: 42 GRID NO.: 24
PARCEL NO.: 507 & 512
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 16, 2013
SHEET 1 OF 2

SCHEDULE A - PERIMETER LANDSCAPE EDGE

PERIMETER CATEGORY	PERIMETER TYPE				TOTAL
	P-1 ADJACENT TO ROADWAY	P-2 ADJACENT TO PERIMETER PROPERTIES	P-3 ADJACENT TO PERIMETER PROPERTIES	P-4 ADJACENT TO PERIMETER PROPERTIES	
LANDSCAPE TYPE	N/A	C	A	A	
LINEAR FEET OF PERIMETER	130 L.F.	101 L.F.	302 L.F.	126 L.F.	403 L.F.
NUMBER OF PLANTS REQUIRED	N/A	3 / 5 (101'/40' = 2.5 OR 3)	(302'/60' = 5)	(126'/60' = 2.1 OR 2)	17
SHADE TREES	N/A	(101'/20' = 5)		(403'/60' = 6.7 OR 7)	5
CREDIT FOR EXISTING VEGETATION	N/A	1	2	0	3
SHADE TREES	N/A	1	0	0	1
SMALL/MEDIUM DECIDUOUS TREES (2:1 SUBSTITUTION)	N/A	2	1	0	4
NUMBER OF PLANTS PROVIDED	N/A	4	0	12	20
SHADE TREES	N/A	4	0	0	4
SMALL/MEDIUM DECIDUOUS TREES (2:1 SUBSTITUTION)	N/A	0	0	0	0



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 1,000 SQ. FT. OR LESS.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.

DRYWELL CHART

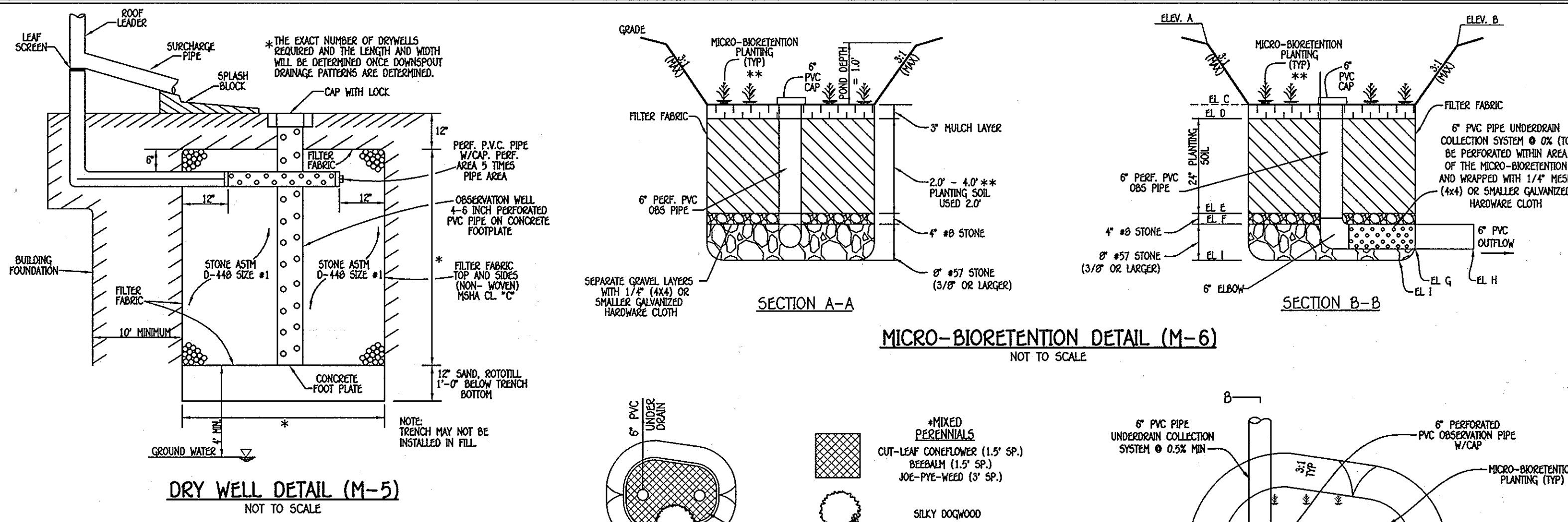
DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	W	D
1 (LOT 1)	500 SQ. FT.	64 C.F.	92 C.F.	100%*	9'	0.5'	4'
2 (LOT 1)	500 SQ. FT.	64 C.F.	92 C.F.	100%*	9'	0.5'	4'
3 (LOT 2)	500 SQ. FT.	64 C.F.	96 C.F.	100%*	8'	0'	5'
4 (LOT 2)	500 SQ. FT.	64 C.F.	96 C.F.	100%*	8'	0'	5'
5 (LOT 3)	500 SQ. FT.	64 C.F.	96 C.F.	100%*	8'	0'	5'
6 (LOT 3)	500 SQ. FT.	64 C.F.	96 C.F.	100%*	8'	0'	5'

* AREA OF TREATMENT EXCEEDS THAT REQUIRED. ALL PROPOSED IMPERVIOUS AREAS HAVE BEEN TREATED FOR A MINIMUM OF 1". MEETING ESD TO THE MEP FOR ALL PROPOSED IMPERVIOUS AREAS.

STORMWATER MANAGEMENT SUMMARY CHART

AREA = 1.236 ACRES
 ROW = 70'
 TARGET PE = 1.6"

AREA ID	TREATMENT PROVIDED
LOT 1	DRYWELLS (M-5), GRASS SWALE (M-8), & ROOFTOP DISCONNECTION (N-1)
LOT 2	DRYWELLS (M-5), GRASS SWALE (M-8), & ROOFTOP DISCONNECTION (N-1)
LOT 3	DRYWELLS (M-5), GRASS SWALE (M-8), & ROOFTOP DISCONNECTION (N-1)
LOT 4	MICRO-BIORETENTION (M-6) & GRASS SWALE (M-8)



OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND 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 ENSURE 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 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 ASSURE 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.

MICRO-BIORETENTION PLANTING DETAIL

NOTE: PLANT MATERIAL MUST COVER ENTIRE SURFACE OF THE STORAGE AREA OF THE MICRO-BIORETENTION.

MICRO-BIORETENTION PLANT MATERIAL

QUANTITY	PERIOD	MAXIMUM SPACING (FT.)
12	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED OPEN CHANNEL SYSTEMS - GRASS SWALES, (M-8)

- THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
- THE OPEN CHANNEL SHALL BE MOVED A MINIMUM OF AS NEEDED DURING THE GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 6 INCHES.
- GRASS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
- VISIBLE SIGNS OF EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
- REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT EXCEEDS 25% OF THE ORIGINAL MOW.
- INSPECT CHECK DAMS TWICE A YEAR FOR STRUCTURAL INTEGRITY. RESTORE CHECK DAMS TO ORIGINAL CONDITION AS APPLICABLE.

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

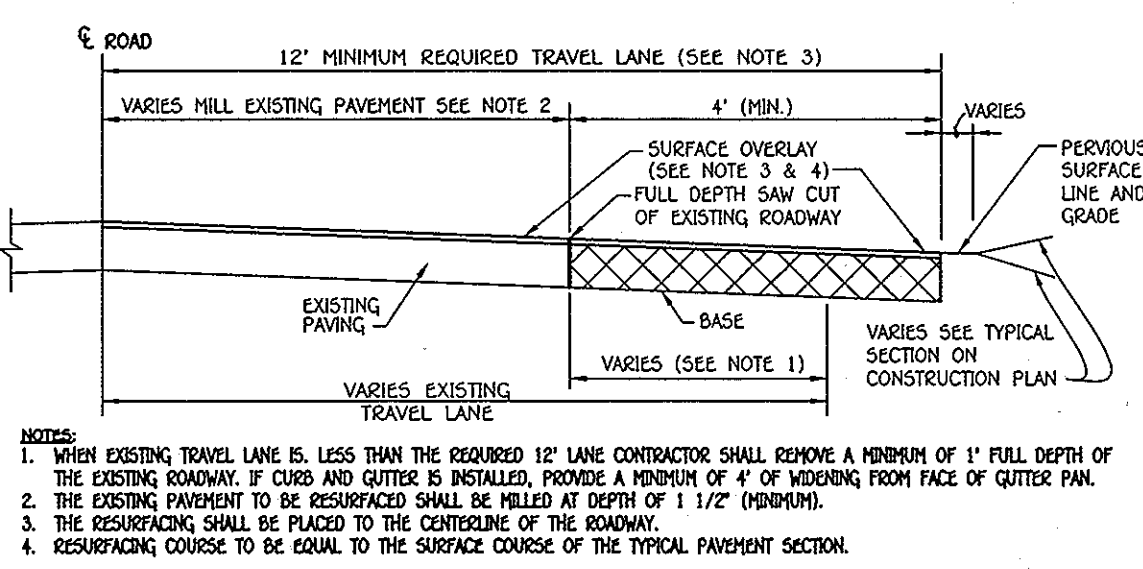
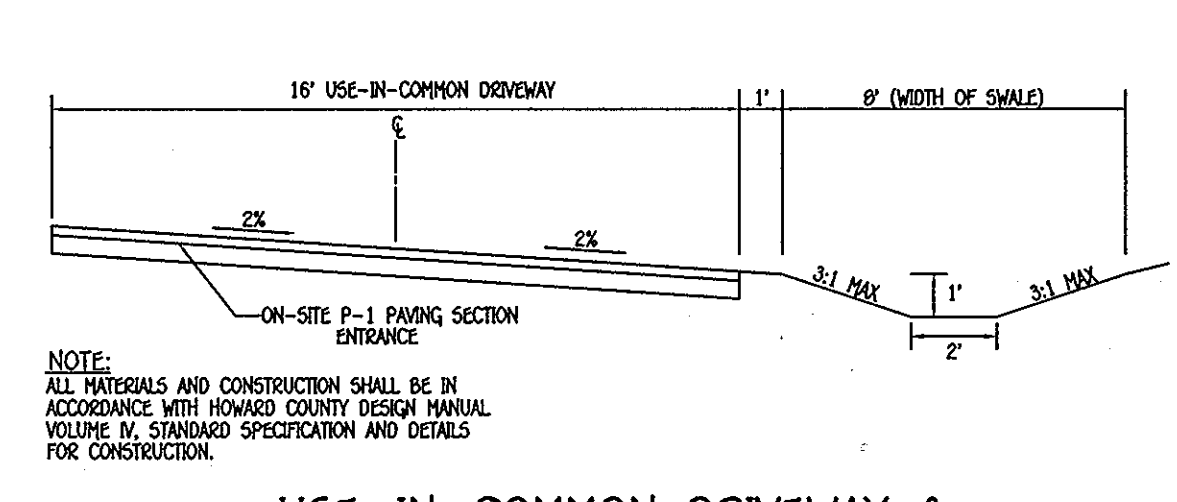
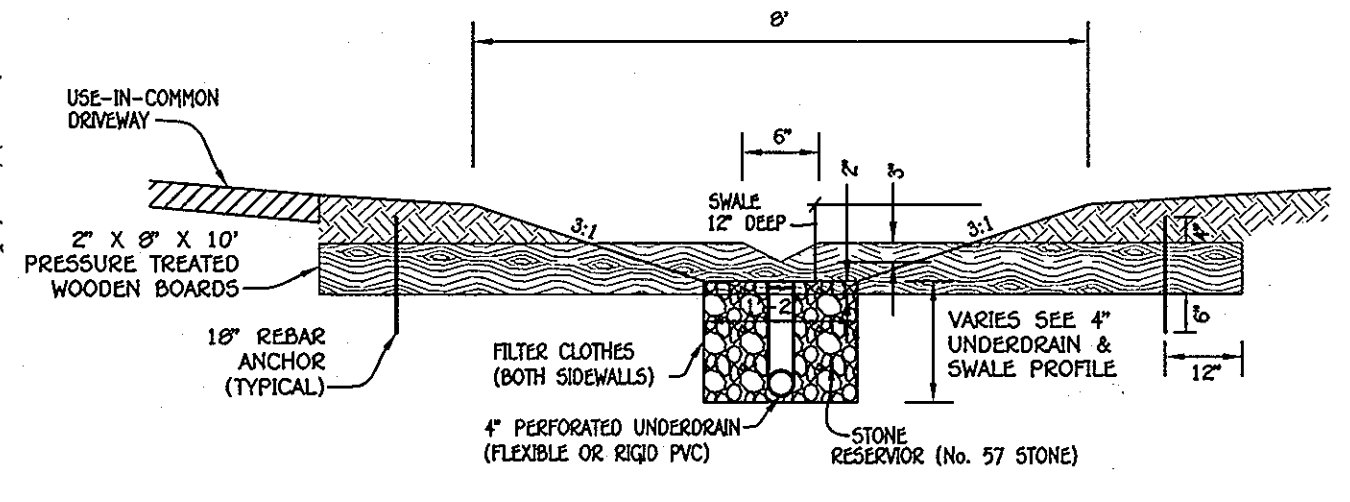
- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LISTED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- THE OWNER SHALL RESEED 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 STAGES AND WIRDS.
- 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.

MICRO-BIORETENTION

BIORETENTION FILTER	A	B	C	D	E	F	G	H	I
1	293.00	293.00	292.80	292.55	292.55	292.22	289.72	289.57	289.55

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (7 DAYS)
- INSTALL SEDIMENT AND EROSION CONTROL DEVICES AND TREE PROTECTION FENCE. (1 DAY)
- CLEAR AND GRUB TO LIMITS OF DISTURBANCE. (1 DAY)
- REMOVE GRADE AREA OF ROAD WIDENING AND COMMON DRIVEWAY AND INSTALL TEMPORARY SEEDING. (1 DAY)
- CONSTRUCT WATER AND SEWER MAINS. (14 DAYS)
- INSTALL SWALE ALONG COMMON DRIVEWAY WITH CHECK DAMS, STONE WINDOWS, AND UNDERDRAIN WITH CLEANOUTS AND RIPRAP. (5 DAYS)
- INSTALL CURB & GUTTER. (2 DAYS)
- PAVE ROAD WIDENING AND COMMON DRIVEWAY. (3 DAYS)
- REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY SEDIMENT CONTROL INSPECTOR. (1 DAY)

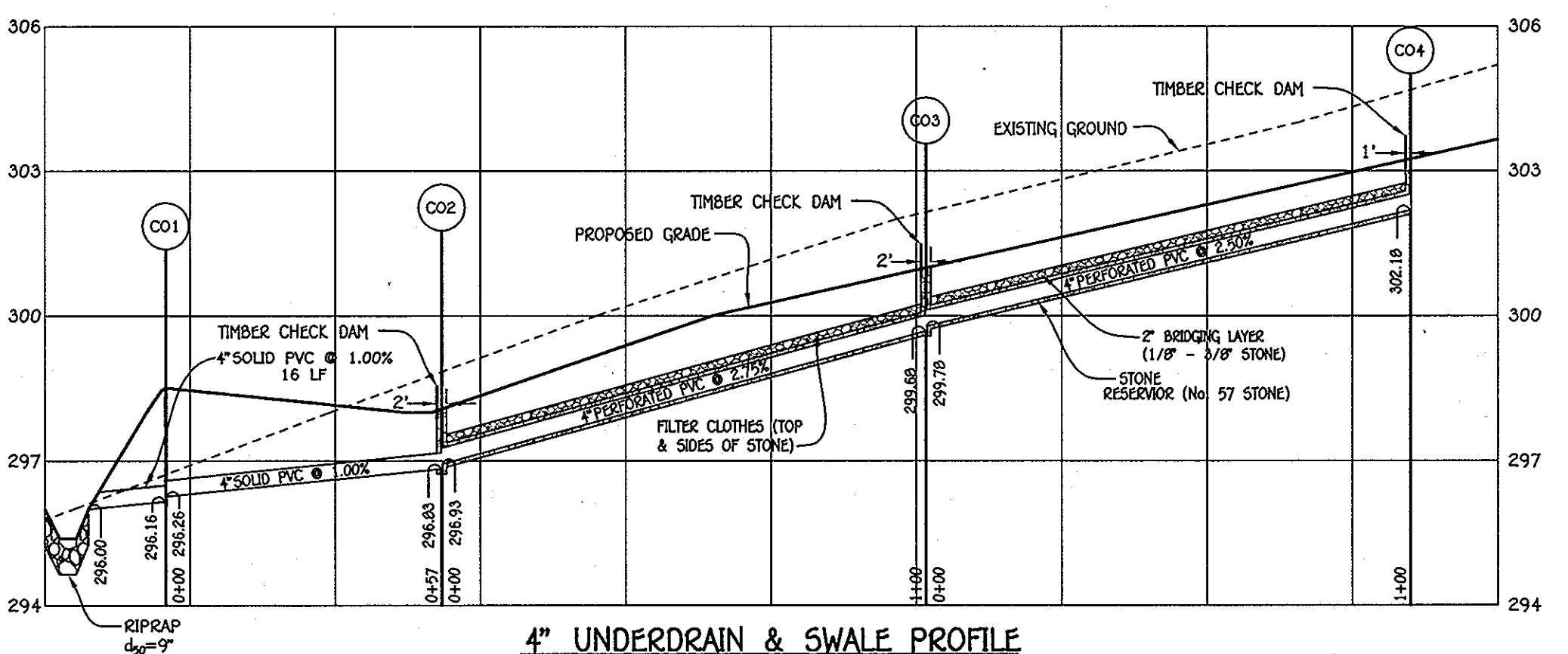


GRASS SWALE & TIMBER CHECK DAM DETAIL

SECTION "A-A"
 NOT TO SCALE

USE-IN-COMMON DRIVEWAY & SWALE CROSS SLOPE SECTION

NOT TO SCALE



**4\"/>
 SCALE: HOR. : 1"=30'
 VER. : 1"=3'**

PIPE SCHEDULE

TYPE	SIZE	QUANTITY
PVC, FLEXIBLE OR SCHEDULE 40, PERFORATED	4"	199 LF
PVC, SCHEDULE 40, SOLID	4"	72 LF
PVC, SCHEDULE 40, PERFORATED	6"	9 LF
PVC, SCHEDULE 40, SOLID	6"	29 LF

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE STATUTE OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2014.

Autronic Int 7/16/13
 Signature of Professional Engineer DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

V. J. Paulson 7/31/13
 Chief, Division of Land Development DATE

Shel Chander 7/31/13
 Chief, Development Engineering Division DATE

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
 CLUETT CITY, MARYLAND 21042
 (410) 461-2895

OWNER

ARNOLD BENEDEKT MYERS
 7895 JONES ROAD
 JESSUP, MARYLAND 20794-9538
 301-795-8931

DEVELOPER

TIM BURKARD
 BURKARD HOMES
 5300 DORSEY RUN ROAD, SUITE 102
 ELLICOTT CITY, MARYLAND 21042
 (443) 367-0422

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)				
		3 TO <5	5 TO <7	7 TO <10	10 TO <15	
P-2	PARKING DRIVE ASBLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINIAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0
	LOCAL ROADS: ACCESS PLACE, ACCESS STREET	HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	2.0
	CUL-DE-SACS: RESIDENTIAL	GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0

SUPPLEMENTAL PLAN - STORMWATER MANAGEMENT DETAILS & NOTES

MISSION RIDGE, LOTS 1 THRU 4

ZONED R-12 TAX MAP NO.: 42 GRID NO.: 24
 PARCEL NO.: 507 & 512
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: JULY 16, 2013
 SHEET 2 OF 2