

**SCHEDULE A - PERIMETER LANDSCAPE EDGE - (CONCEPT LANDSCAPING = DEFERRED TO 5DP)**

| PERIMETER                      | P-1                     | P-2                              | P-3                              | P-4                              | P-5                                       | P-6                              | P-7                 | P-8               | TOTAL |
|--------------------------------|-------------------------|----------------------------------|----------------------------------|----------------------------------|---|----------------------------------|---------------------|-------------------|-------|
| CATEGORY                       | ADJACENT TO SCENIC ROAD | ADJACENT TO PERIMETER PROPERTIES | ADJACENT TO PERIMETER PROPERTIES | ADJACENT TO PERIMETER PROPERTIES | ADJACENT TO PERIMETER PROPERTIES          | ADJACENT TO PERIMETER PROPERTIES | ADJACENT TO ROADWAY | LANDSCAPE BUFFER  |       |
| LANDSCAPE TYPE                 | B                       | A                                | A                                | A                                | D   | D                                | B                   | B                 |       |
| LINEAR FEET OF PERIMETER       | 94.06 L.F.              | 234.03 L.F.                      | 131.68 L.F.                      | 105.64 L.F.                      | 245.00 L.F.                               | 120.00 L.F.                      | 12.02 L.F.          | 123.73 L.F.       |       |
| NUMBER OF PLANTS REQUIRED      |                         |                                  |                                  |                                  |   |                                  |                     |                   |       |
| SHADE TREES                    | (94.06'/50') = 2        | (234.03'/60') = 4                | (131.68'/60') = 2                | (105.64'/60') = 2                | (245.00'/60') = 4                         | (120.00'/60') = 2                | N/A                 | (123.73'/50') = 2 | 18    |
| EVERGREEN TREES                | (94.06'/10') = 3        |                                  |                                  |                                  | (245.00'/10') = 25                        | (120.00'/10') = 12               | (IN PAVING)         | (123.73'/10') = 3 | 43    |
| CREDIT FOR WALL, FENCE OR BERM | NO                      | 0                                | 0                                | 0                                | (245 L.F. OF EX. FENCE IN POOR CONDITION) | 0                                | NO                  | 0                 |       |
| CREDIT FOR EXISTING VEGETATION | NO                      | NO                               | NO                               | NO                               | NO  | YES                              | NO                  | NO                |       |
| SHADE TREES                    | N/A                     | 0                                | 0                                | 0                                | 1 (BLACK OAK)                             | SPECIMEN TREE 'C' = 1            | N/A                 | 0                 | 2     |
| EVERGREEN TREES                | N/A                     | 0                                | 0                                | 0                                | 0   | 0                                | N/A                 | 0                 | 0     |
| NUMBER OF PLANTS PROVIDED      |                         |                                  |                                  |                                  |   |                                  |                     |                   |       |
| SHADE TREES                    | 2                       | 4                                | 2                                | 2                                | (4 REQ'D - 1 CREDIT) = 3                  | 2 REQUIRED - 1 (CREDIT) = 1      | N/A                 | 2                 | 16    |
| EVERGREEN TREES                | 3                       | 0                                | 0                                | 0                                | 25  | 12                               | N/A                 | 3                 | 43    |

A Total Landscape Surety For 16 Shade Trees @ \$300/each and 43 Evergreens @ \$150/each = \$11,250.00. The Financial Surety For Landscaping is Provided With The Building Permit For Each Lot As Follows:  
 Lot 1 (6 Shade Trees @ \$300/each and 6 Evergreens @ \$150/each) = \$2,700.00  
 Lot 2 (10 Shade Trees @ \$300/each and 37 Evergreens @ \$150/each) = \$8,550.00

**LANDSCAPING PLANT LIST (THIS SHEET)**

| QTY. | KEY | NAME  | SIZE                                      |
|------|-----|---|---|
| 8    | ☼   | ACEA RUBROM<br>'OCTOBER GLOOM'<br>(OCTOBER RED MAPLE) | 2 1/2" - 3"<br>CALIPER FULL<br>CROWN, B&B |
| 5    | ☼   | QUERCUS RUBRA<br>RED OAK                              | 2 1/2" - 3"<br>CALIPER FULL<br>CROWN, B&B |
| 3    | ☼   | CORNUS KOUSA<br>KOLISA DOGWOOD                        | 8'-10' HGT.                               |
| 10   | ☼   | PICEA PUNGENS 'GLAUCO'<br>COLORADO BLUE SPRUCE        | 6'-8' HGT.                                |
| 25   | ☼   | ILEX OPACA/AMERICAN HOLLY                             | 5'-8' HGT.                                |
| 8    | ☼   | PINUS STROBUS<br>EASTERN WHITE PINE                   | 6'-8' HGT.                                |

**SPECIMEN TREE DATA**

| KEY | SPECIES, SIZE       | COMMENT   |
|-----|---------------------|---|
| A   | RED MAPLE, 48"      | GOOD CONDITION, SOME BRANCH DAMAGE                      |
| B   | SILVER MAPLE, 63.5" | POOR CONDITION, SUBSTANTIAL LEADER DAMAGE AND TRUNK ROT |
| C   | TULIP POPLAR, 35"   | GOOD CONDITION  |

**LEGEND**

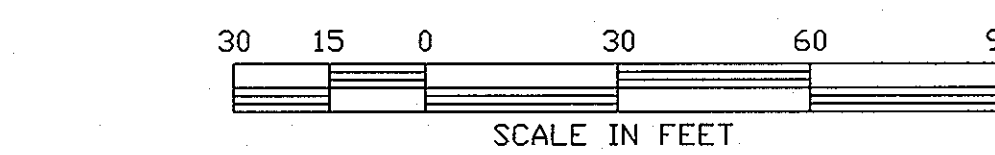
| SYMBOL | DESCRIPTION                      |
|--------|----------------------------------|
| ---    | EXISTING 2' CONTOURS             |
| ---    | EXISTING 10' CONTOURS            |
| ---    | PROPOSED CONTOUR                 |
| •      | SPOT ELEVATION                   |
| ---    | LIMITS OF DISTURBANCE            |
| ---    | EXISTING TREELINE                |
| ---    | PROPOSED TREELINE                |
| ---    | SOILS LINES AND TYPE             |
| ---    | SUPER DIVERSION FENCE            |
| ---    | STABILIZED CONSTRUCTION ENTRANCE |
| ---    | NON-ROOFTOP DISCONNECTION (N-2)  |
| ---    | SOIL BORING                      |
| ---    | PROPOSED DRIVEWAY                |
| ---    | SILT FENCE                       |
| ---    | EROSION CONTROL MATTING          |
| ---    | DRYWELL (M-5)                    |

**SOILS LEGEND**

| SOIL | NAME  | CLASS |
|------|---|-------|
| Gbc  | Gladstone loam, 0 to 15 percent slopes              | B     |
| Gfb  | Gladstone-Urban land complex, 0 to 8 percent slopes | B     |
| Gnb  | Glenville-Balle silt loams, 0 to 8 percent slopes   | B     |

**STORMWATER MANAGEMENT PRACTICES**

| LOT No. | ADDRESS           | DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2) (Y/N) | DRY WELLS (M-5) (NUMBER) | MICRO BIO-RETENTION (N-6) (NUMBER) |
|---------|-------------------|---|--------------------------|------------------------------------|
| 1       | 5857 TROTTER ROAD | N   | 3                        | 1                                  |
| 2       | 5861 TROTTER ROAD | Y   | 6                        | 0                                  |



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SERVICE OFFICE: 10222 BATHURST NATIONAL PIKE  
 ELLSWORTH CITY, MARYLAND 21144  
 (410) 461-2995



**ENGINEER'S CERTIFICATE**

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

*[Signature]*  
 Signature of Engineer  
 Date: 6-27-13

**DEVELOPER'S CERTIFICATE**

"I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

*[Signature]*  
 Signature of Developer  
 Date: 6-21-13

Reviewed for HOWARD SCD and meets Technical Requirements.  
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

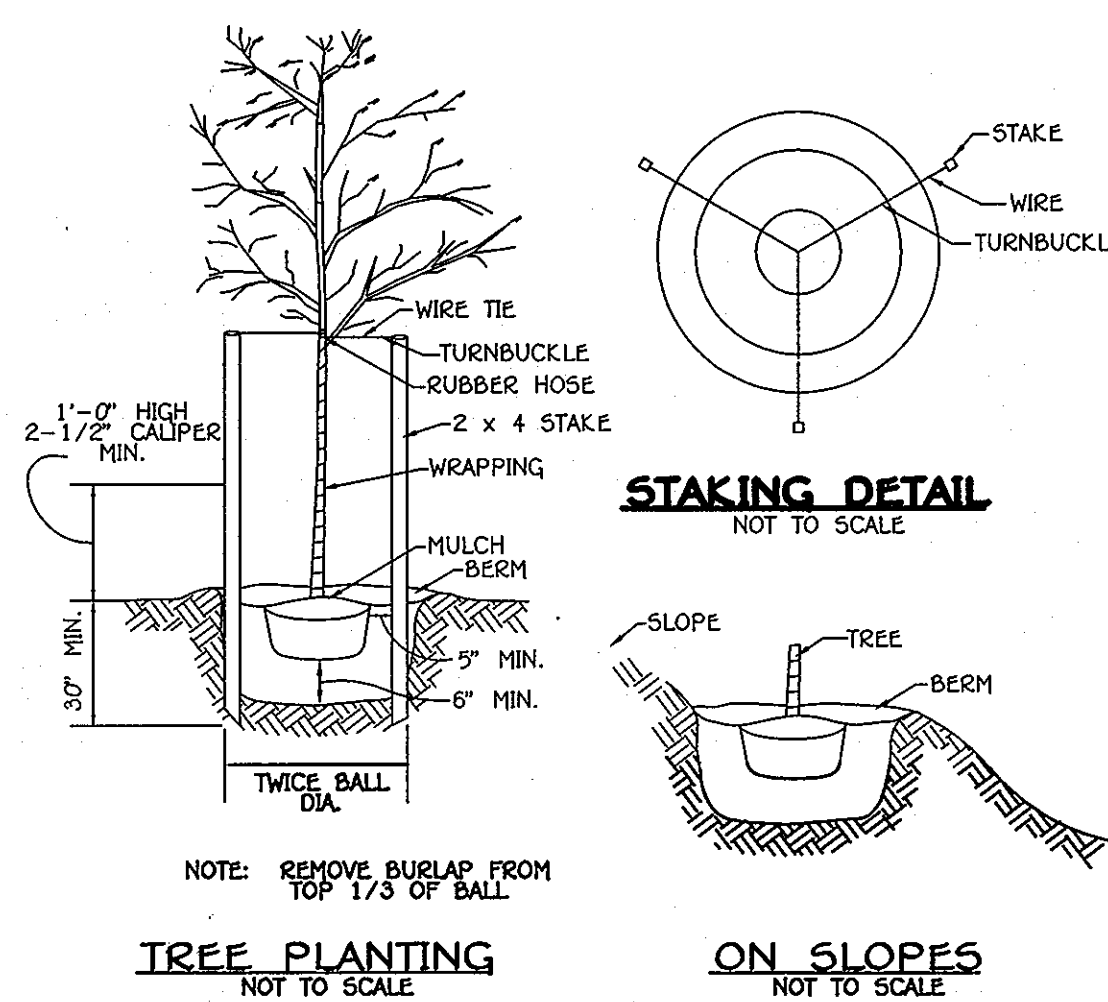
*[Signature]*  
 Signature of Howard SCD  
 Date: 7/2/13

**OWNER/BUILDER/DEVELOPER**

VIKING CUSTOM HOMES  
 5850 OLD WASHINGTON BLVD.  
 SYKEVILLE, MD, 21784  
 410-977-2188

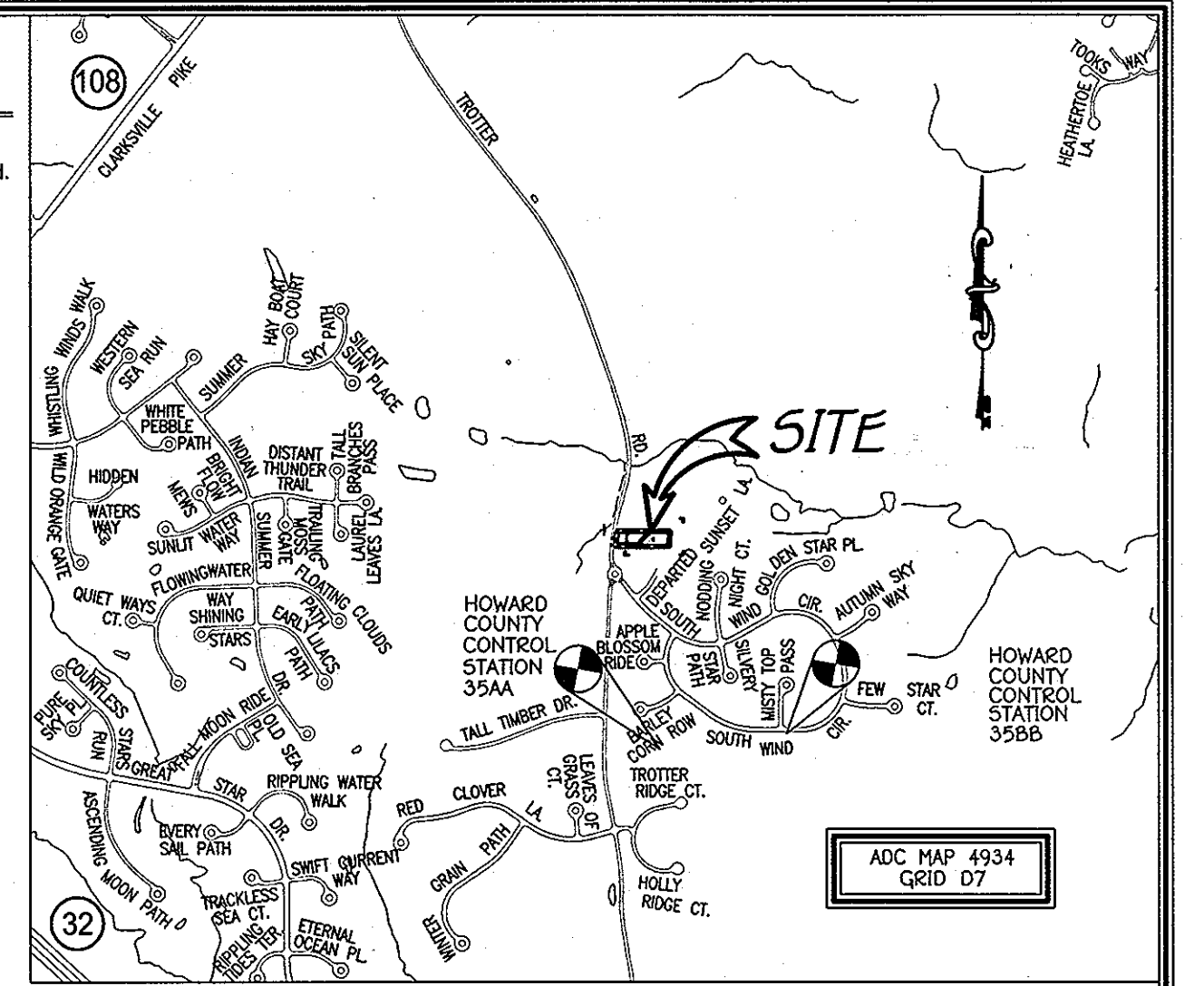
**BENCHMARKS**

STATION 35AA-N 560767.8901 E 1335483.8345  
 Location 86.2° South Ex. Dwelling #5823 Barley Corn Rd.  
 Sta. 35AA N 560767.8901 E 1335483.8345  
 Station 35BB-N 560790.4155 E 1336537.2303  
 Location 83.4° East and 3.74° South, at intersection of Heavy Top Path on South Wind Circle.



**ADDRESS CHART**

| LOT NUMBER | STREET ADDRESS    |
|------------|-------------------|
| 1          | 5857 TROTTER ROAD |
| 2          | 5861 TROTTER ROAD |



**General Notes**

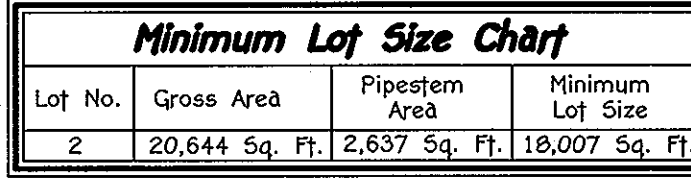
- The Subject Property is Zoned R-20 Per the Decision and Order For ZB-1091M Approved by the Zoning Board On September 6, 2011.
- Coordinates Based On NAD 83, Maryland Coordinate System As Projected by Howard County Geodetic Control Stations No. 35AA And No. 35BB.
- Sta. 35AA N 560767.8901 E 1335483.8345  
Sta. 35BB N 560790.4155 E 1336537.2303
- This Plan is Based On Field Run Topography and Monumented Boundary Survey Performed On Or About Jan. 6, 2010, by Fisher, Collins and Carter, Inc.
- No Cemeteries Exist On This Site Based On Both A Site Visit And On An Examination Of The Howard County Cemetery Inventory File.
- Previous Department Of Planning And Zoning File Numbers: ZB-1091M, HC-12-17, ECP-12-029 And F-13-002, Water And Sewer Contract No. 34-4345-D.
- For Fire Or Pipestem Lots, Refuse Collection, Snow Removal And Road Maintenance Are Provided To The Junction Of The Flag Or Pipestem And Road Right-Of-Way Line And Not To 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:  
 a) Width - 12 Feet (16 Feet Serving More Than One Residence);  
 b) Surface - Six (6) Inches Of Compacted Crusher Run Base With Tar And Chip Coating (1 - 1/2" Minimum);  
 c) Geometry - Maximum 12% Grade, Maximum 10% Grade Change And 45-Foot Turning Radius;  
 d) Structures (Culverts/Bridges) - Capable Of Supporting 25 Gross Tons (125-Loading);  
 e) Ornage Elements - Capable Of Safely Passing 100 Year Flood With No More Than 1-Foot Depth Over Surface;  
 f) Structure Clearances - Minimum 12 Feet;  
 g) Maintenance - Sufficient To Ensure All Weather Use.
- No Noise Study is Required For This Project Per Howard County Design Manual, Vol. III, Section 5.2(F).
- The Forest Stand Delineation And Wetland Delineation For This Project Was Prepared By Eco-Science Professionals, Inc. Dated November 10, 2011.
- Open Space Requirements Are Provided By A Fee-In-Lieu Payment Of \$1,500.00 Per F-13-002.
- The 24' Private Use-In-Common Access Easement And Maintenance Agreement For Lots 1 And 2 Has Been Recorded In The Howard County Land Records Office Simultaneously With The Recording Of The Subdivision Plan.
- There Are No Wetlands Or Streams On Site Based On A Site Inspection By Eco-Science Professionals, Inc. On November 10, 2011.
- Water And Sewer Service To These Lots Will Be Granted Under The Provisions Of Section 18.122B Of The Howard County Code.
- This Plan is Except From Forest Conservation With Section 16.1202(b)(1)(vii) Of The Howard County Code And Forest Conservation Manual Since It is A Minor Subdivision That Creates One Additional Lot And Has No Further Subdivision Potential.
- Site Disturbance Study For This Project Was Prepared By Mars Group, Dated June, 2012.
- This Property is Located Within The Metropolitan District.
- A Community Meeting Was Conducted On January 25, 2012 For The Purpose Of The Developer To Provide Information To The Community, Answer Questions And To Make Comments, Per Section 16.120(d), Of The Subdivision Regulations.
- Stormwater Management Requirements For This Site Will Be Met Using Environmental Site Design To The Maximum Extent Possible In Accordance With The Maryland Stormwater Design Manual, Volumes 1 & 11, Effective May, 2010. Proposed Practices Will Be Located On Individual Lots And The Use-In-Common Driveway As Follows:  
 1) Lot 1 Will Meet Stormwater Requirements Using Drywells (M-5) And Landscape Infiltration (M-3) For The Proposed House, Non-Rooftop Disconnection (N-2) For The Proposed Use-In-Common Driveway And Individual Driveway.  
 2) Lot 2 Will Meet Stormwater Requirements Using Drywells (M-5) For The Proposed House And Non-Rooftop Disconnection (N-2) For The Proposed Driveway. These Practices Shall Be Privately Owned And Maintained In Accordance With Individual Declarations Of Covenants.
- The Swm Measures Illustrated On This Plan Are Conceptual As Specific House Configurations Have Not Yet Been Established. Specific Swm Measures Will Be Provided With The Associated Plan When Final Design Details Can Be Provided.
- This Plan Subject To WF-13-021 Which The Planning Director On August 24, 2012 Approved A Request To Waive Sections 16.1205(a)(7) And 16.1205(a)(10) Of The Subdivision And Land Development Regulations, Which Requires The Retention Of State Champion Trees, Trees 75% Of The Diameter Of State Trees, And Trees 30' In Diameter Or Larger. The Applicant is Requesting A Waiver To Remove One Specimen Tree. Approval is Subject To The Following Conditions:  
 1) The Perimeter Landscaping Obligation Must Be Fulfilled Under The Subdivision Or Site Development Plan Process.  
 2) Approval Of This Waiver is For The Removal Of Specimen Tree 'A' As Shown On The Waiver Petition Exhibit, No Other Specimen Trees May Be Removed.
- This Plan Has Been Prepared In Accordance With The Provisions Of Section 16.124 Of The Howard County Landscaping Manual. Financial Surety Will Be Provided With The Building/GA&P Permit For Each Lot As Follows:  
 Lot 1 (6 Shade Trees @ \$300/each and 6 Evergreens @ \$150/each) = \$2,700.00  
 Lot 2 (10 Shade Trees @ \$300/each and 37 Evergreens @ \$150/each) = \$8,550.00
- Any Damage To The County Owned Right Of Way Shall Be Corrected At The Developer's Expense.
- In Accordance With Section 12B Of The Howard County Zoning Regulations, Bay Windows, Chimneys or Exterior Driveways Not More Than 16 Feet In Width May Project Not More Than 4 Feet Into Any Setback. Porches Or Decks, Open Or Enclosed May Project Not More Than 10 Feet Into The Front Or Rear Yard Setbacks.
- Waiver To Remove One Specimen Tree. Approval is Subject To The Following Conditions:  
 24. SHC Elevations Shown Are Located At The Property Line.  
 25. All Water House Connections Shall Be For Inside Meter Settings.  
 26. The Contractor Shall Notify "Miss Utility" At 1-800-257-7777 At Least 48 Hours Prior To Any Excavation Work Being Done.  
 27. The Contractor Shall Notify The Department Of Public Works/Bureau Of Engineering/Construction Inspection Division At 410-313-1800 At Least 5 (5) Working Days Prior To The Commencement Of Any Work.
- This plan came before the Historic District Commission on Jan. 27, 2012 for advisory comments. The Commission had no objections to this plan or the demolition of the 1930's home.
- A private range of address signs shall be located beside the Use-In-Common Driveway where it intersects with Trotter Road. The sign shall be fabricated and installed by the Howard County Bureau of Highways at the Developer/Owner's expense. Contact the Howard County Traffic Division at 410-313-2430 for sign details and a cost estimate.

**SITE ANALYSIS DATA CHART**

- TOTAL PROJECT AREA: 0.8077 ACRES OR 38,671 SQUARE FEET.
- AREA OF SUBMISSION: 0.8077 ACRES OR 38,671 SQUARE FEET.
- LIMITS OF DISTURBANCE: 0.09 ACRES OR 37,026 SQUARE FEET.
- DRENT ZONING DESIGNATION: R-20.
- PROPOSED USES FOR SITE: RESIDENTIAL.
- APPLICABLE DPZ FILE REFERENCES: ZB-1091 M, HC-12-17, ECP-12-17.
- F-13-002, W&S CONTR. NO. 34-4345-D.
- NUMBER OF UNITS ALLOWED: 2
- NUMBER OF UNITS PROPOSED: 2

**SHEET INDEX CHART**

| SHEET | DESCRIPTION   |
|-------|---|
| 1     | SITE DEVELOPMENT, LANDSCAPE, SWM, SEDIMENT & EROSION CONTROL PLAN |
| 2     | SWM, SEDIMENT AND EROSION CONTROL DETAILS                         |
| 3     | SEDIMENT & EROSION CONTROL DETAILS                                |



**SITE DEVELOPMENT, LANDSCAPE, SWM, SEDIMENT & EROSION CONTROL PLAN**

**TROTTER CIRCLE  
 LOTS 1 & 2**

TAX MAP NO. 0035 GRID NO. 0002 PARCEL NO. 0220  
 FIFTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 ZONED: R-20  
 SCALE: 1" = 30'  
 DATE: MARCH, 2013

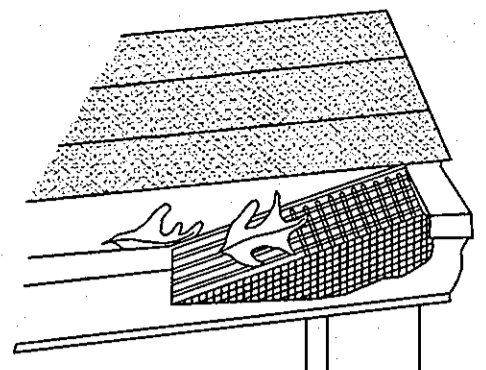
APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
 Director - Department of Planning and Zoning  
 Date: 7/2/13

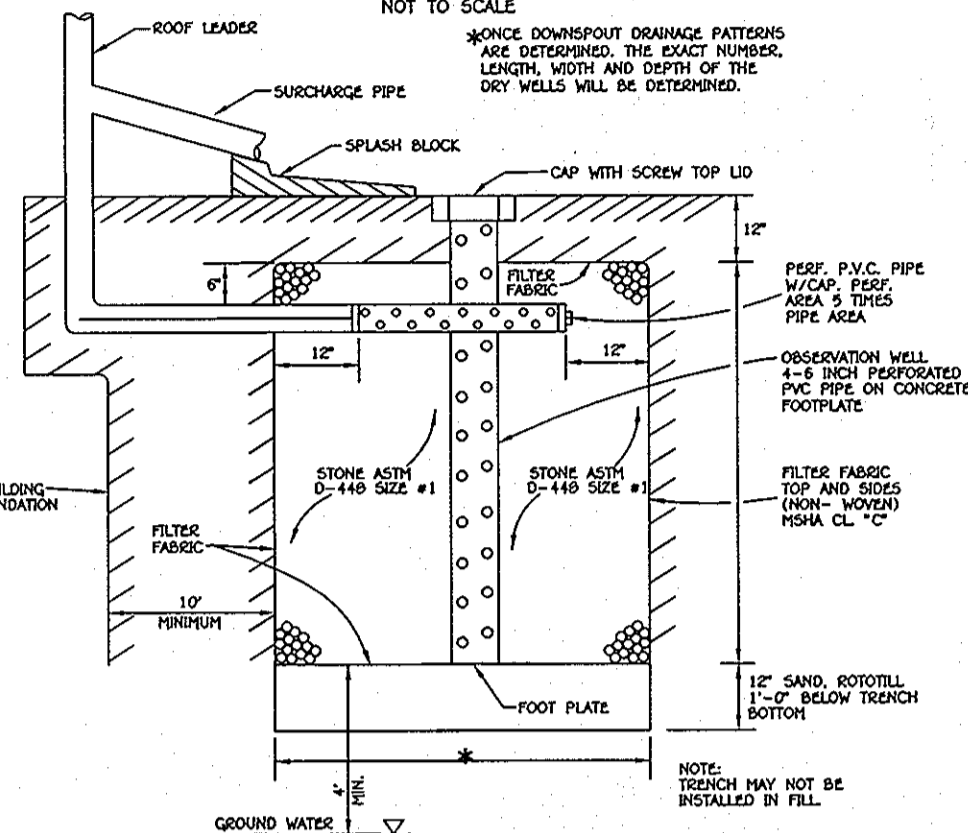
*[Signature]*  
 Chief, Division of Land Development  
 Date: 7/2/13

*[Signature]*  
 Chief, Development Engineering Division  
 Date: 7/2/13

| SUBDIVISION    | SECTION/AREA    | LOT NUMBERS     |
|----------------|-----------------|-----------------|
| TROTTER CIRCLE | N/A             | 1 AND 2         |
| PLAT NO. 22223 | BLOCK NO. 0002  | ZONE R-20       |
| TAX/ZONE 0035  | ELEC. DIST. 5TH | CENSUS TR. 6030 |
| PARCEL NO. 220 |                 |                 |



**GUTTER DRAIN FILTER DETAIL**  
NOT TO SCALE

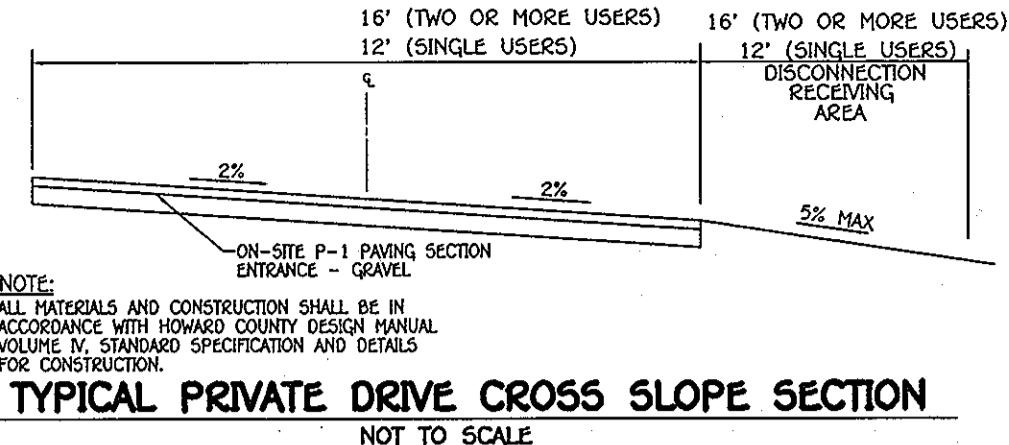


**DRY WELL DETAIL**  
NOT TO SCALE

| LOT | NO. OF DRY WELLS | AREA OF ROOF SQ. FT. | VOL. REQ. CU. FT. | VOLUME PROVIDED CU. FT. | SIZE PROVIDED |
|-----|------------------|----------------------|-------------------|-------------------------|---------------|
| 1   | 3                | 417                  | 76                | 86.5                    | 9' x 8' x 4'  |
| 2   | 6                | 417                  | 76                | 86.5                    | 9' x 8' x 4'  |

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

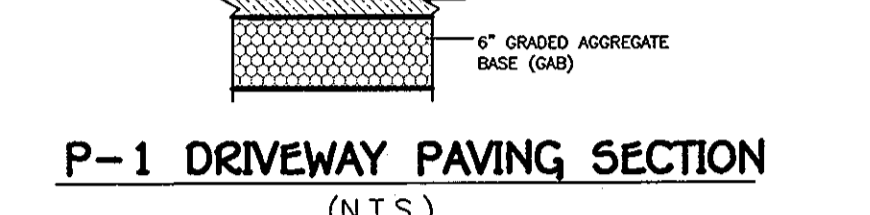
- THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
- THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE DATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR 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.



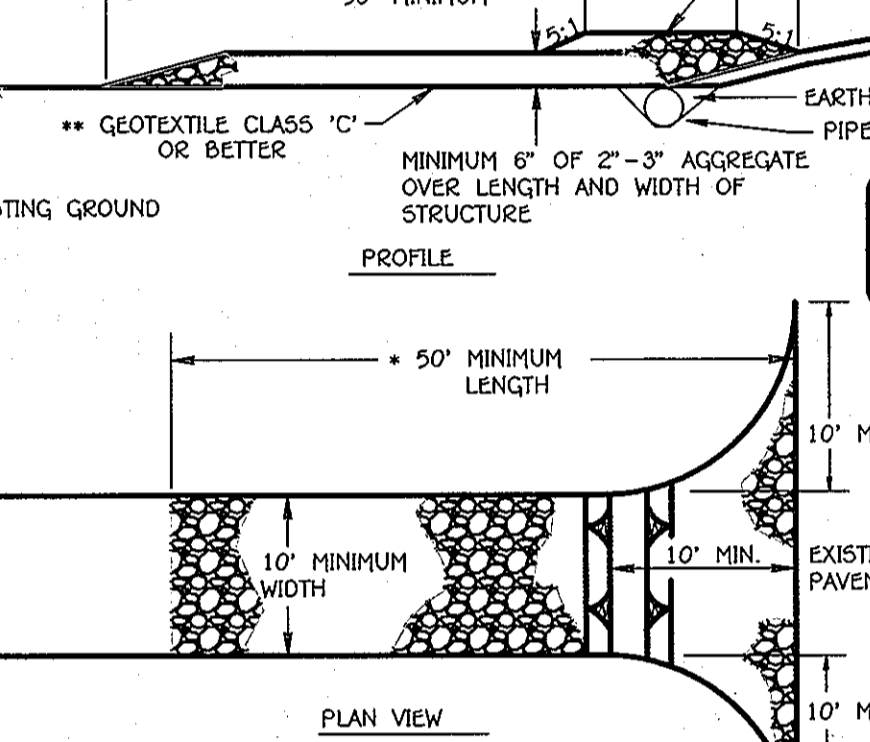
**TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION**  
NOT TO SCALE

**OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF NONROOFTOP RUNOFF**

- MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NOT DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA IN COMMERCIAL AREAS. FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.



**P-1 DRIVEWAY PAVING SECTION**  
(N.T.S.)



**STABILIZED CONSTRUCTION ENTRANCE**

**STORMWATER MANAGEMENT SUMMARY CHART**

TOTAL SITE AREA = DEVELOPMENT AREA = 0.887 ACRES  
TARGET RCN = 55  
TARGET PE = 1.6"

**Stormwater Management Note**

Stormwater Management requirements for this site will be met using Environmental Site Design to the Maximum Extent Possible in accordance with the Maryland Stormwater Design Manual, Volume 1 & II, effective May, 2010. Proposed practices will be located on individual lots and the Use-in-Common driveway as follows:

- Lot 1 will meet stormwater requirements using Drywells (M-5), Micro-Bioretentation (M-6) and Non-Rooftop Disconnection (N-2)
- Lot 2 will meet stormwater requirements using Drywells (M-5) and Non-Rooftop Disconnection (N-2)

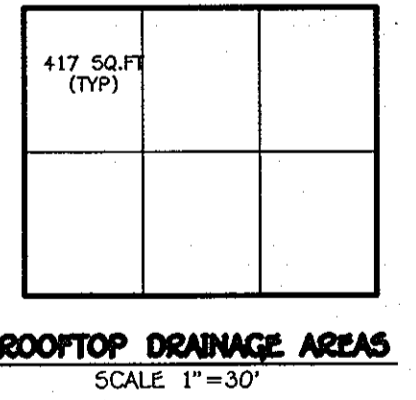
These practices shall be privately owned and maintained in accordance with individual Declarations of Covenants.

**STORMWATER MANAGEMENT NOTES**

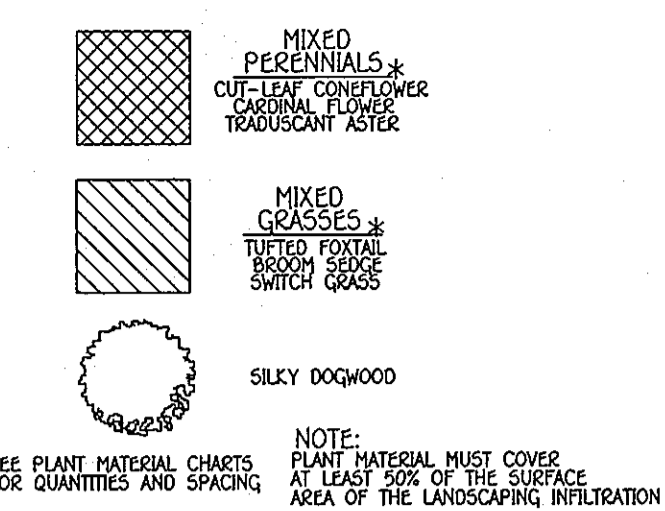
- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 500 SQ. FT. OR LESS.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% SLOPE. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS SHEET.

| AREA ID       | ESD REQ. cu.ft. | ESDv Pvd. cu.ft. | REMARKS                                      |
|---------------|-----------------|------------------|--|
| LOT 1         | 475             | 475              | DRY WELLS (M-5) & MICRO-BIORETENTION (M-6) & |
| LOT 2         | 518             | 518              | DRY WELLS (M-5)                              |
| ALL DRIVEWAYS | 317             | 317              | NON-ROOFTOP DISCONNECTION (N-2)              |
| TOTALS        | 1370            | 1310+            |  |

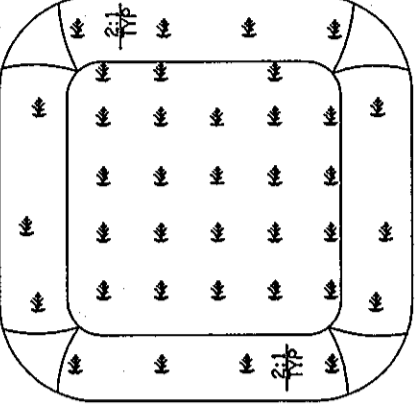
+(475+518+317)



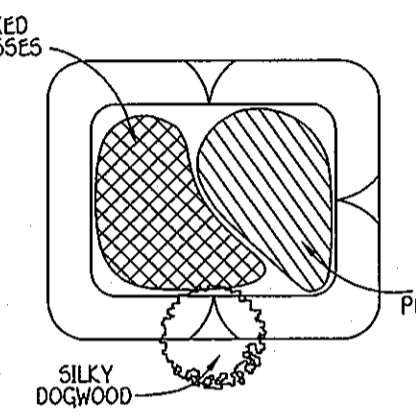
**ROOFTOP DRAINAGE AREAS**  
SCALE 1"=30'



NOTE: PLANT MATERIAL MUST COVER AT LEAST 50% OF THE SURFACE AREA OF THE LANDSCAPING INFILTRATION

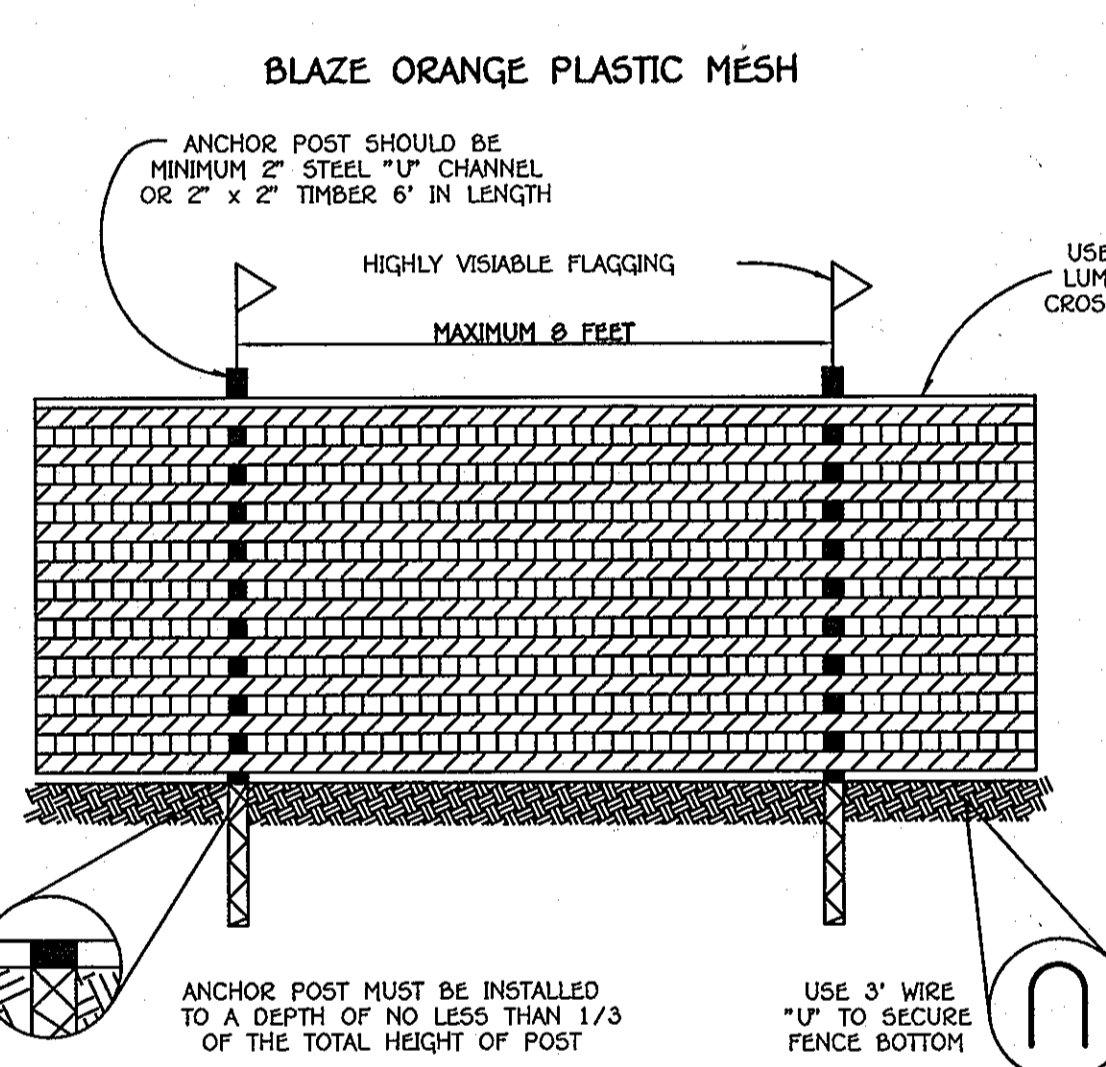


**PLAN**



**CROSS-SECTION**

**MICRO-BIORETENTION PLANTING DETAIL**  
NOT TO SCALE



NOTES:

- FOREST PROTECTION DEVICE ONLY.
- RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
- BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
- ROOT DAMAGE SHOULD BE AVOIDED.
- PROTECTIVE SIGNAGE MAY ALSO BE USED.
- DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

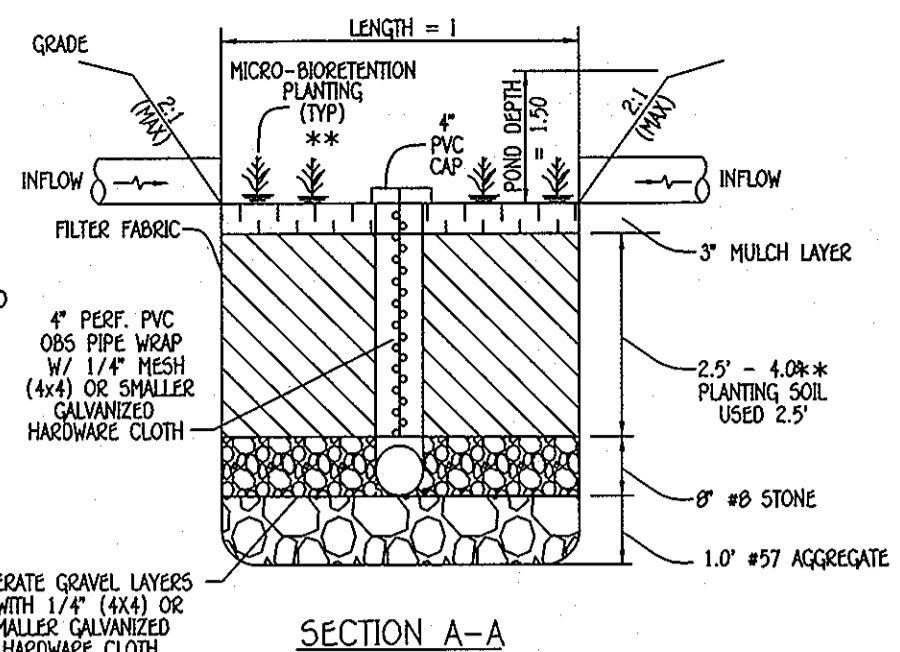
**TREE PROTECTION DETAIL**  
NOT TO SCALE

CALCULATE THE PE PROVIDED AS FOLLOWS:  
Pe Provided =  $\frac{ESDv \times 12}{Rv \times A} = \frac{1310 \times 12}{66,638.41/43,560} = 1.53/1.6" = 0.95\%$

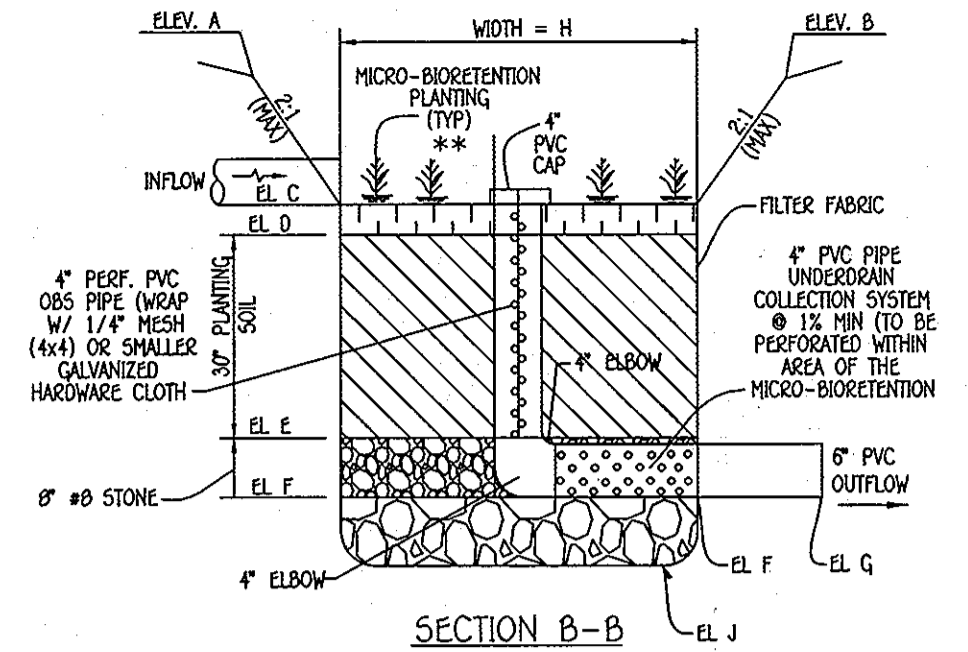
Through the Application of Approved Chapter 5 Practices, Runoff Characteristics of "Woods in Good Condition" RCN of 55 For This Environmental Concept Plan Have Been Met Through the Application of Environmental Site Design (ESD) To The Maximum Extent Practicable (MEP). Once The Final House Types And Grading Have Been Determined At The Site Development Plan Stage Of This Project, The Design Can Be Refined To Meet 100% Of The Pe Requirement.

**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 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.



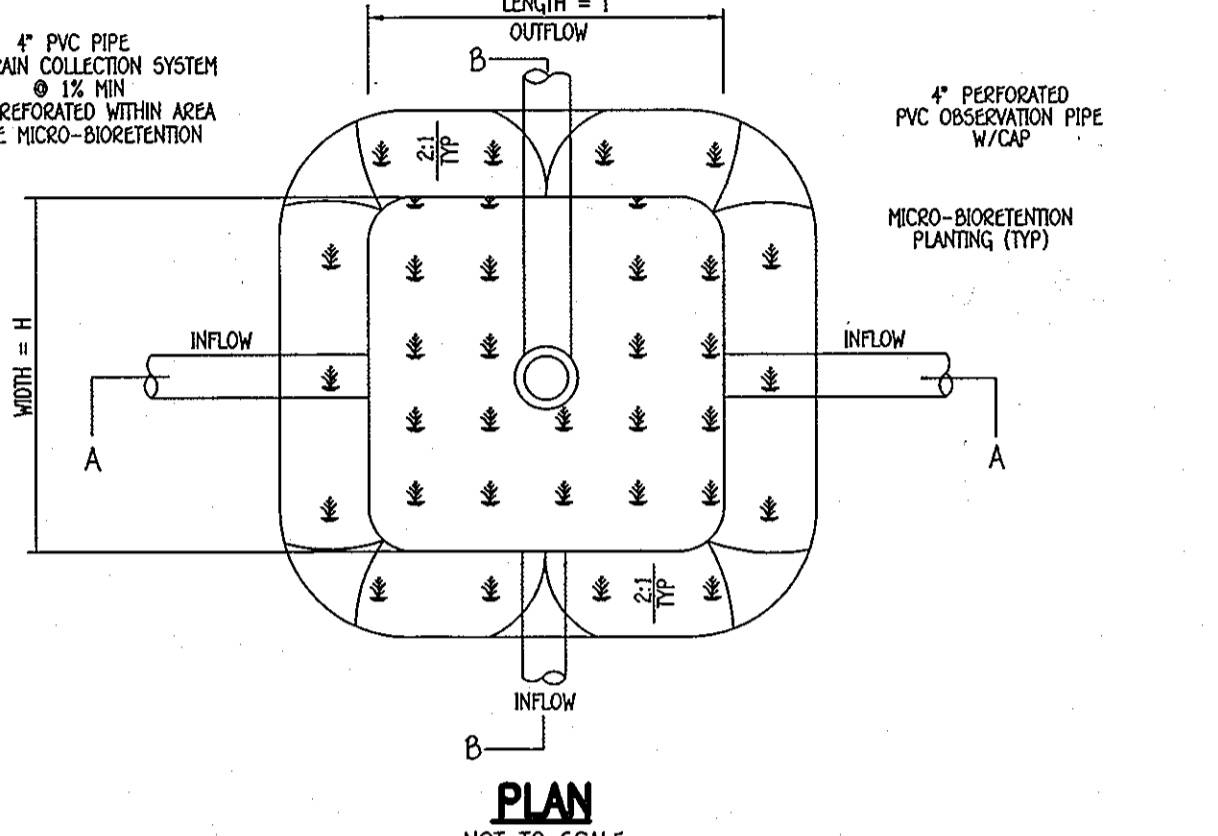
**SECTION A-A**



**SECTION B-B**

**MICRO-BIORETENTION DETAIL (M-6)**  
NOT TO SCALE

| BIORETENTION FILTER | A      | B      | C      | D      | E      | F      | G      | H   | I   | J      |
|---------------------|--------|--------|--------|--------|--------|--------|--------|-----|-----|--------|
| 1                   | 594.00 | 594.00 | 593.00 | 592.75 | 590.25 | 589.50 | 589.00 | 10' | 22' | 500.50 |



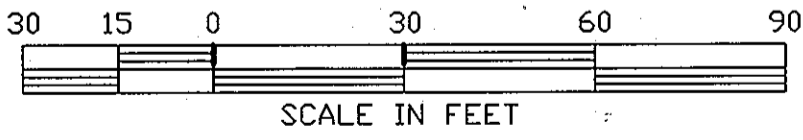
**PLAN**  
NOT TO SCALE

| QUANTITY | NAME             | MAXIMUM SPACING (FT.)           |
|----------|------------------|---------------------------------|
| 45       | MIXED PERENNIALS | 1 FT.                           |
| 45       | MIXED GRASSES    | 1 FT.                           |
| 1        | SILKY DOGWOOD    | PLANT AWAY FROM INFLOW LOCATION |

- CONSTRUCTION SPECIFICATIONS**
- KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH, 6" IN DEPTH. BACKFILL THE TRENCH AND TAMP FIRMLY TO CONFORM TO THE CHANNEL CROSS-SECTION. SECURE WITH A ROW OF STAPLES ABOUT 4" DOWN SLOPE FROM THE TRENCH. SPACING BETWEEN STAPLES IS 6".
  - STAPLE THE 4" OVERLAP IN THE CHANNEL CENTER USING AN 18" SPACING BETWEEN STAPLES.
  - BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL.
  - STAPLES SHALL BE PLACED 2' APART WITH 4 ROWS FOR EACH STRIP, 2 OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER.
  - WHERE ONE ROLL OF MATTING ENDS AND ANOTHER BEGINS, THE END OF THE TOP STRIP SHALL OVERLAP THE UPPER END OF THE LOWER STRIP BY 4". SHIFLAP FASHION. REINFORCE THE OVERLAP WITH A DOUBLE ROW OF STAPLES SPACED 6" APART IN A STAGGERED PATTERN ON EITHER SIDE.
  - THE DISCHARGE END OF THE MATTING LINER SHOULD BE SIMILARLY SECURED WITH 2 DOUBLE ROWS OF STAPLES.

NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA EFFECTED BY THE FLOW MUST BE KEYED-IN.

**EROSION CONTROL MATTING**  
NOT TO SCALE



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALDOROCK NATIONAL PIKE  
ELLSWORTH CITY, MARYLAND 21142  
(410) 461-2999



**ENGINEER'S CERTIFICATE**  
I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature of Engineer: *Earl D. Collins* Date: 6-27-13

**DEVELOPER'S CERTIFICATE**  
I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

Signature of Developer: *John R. Robertson* Date: 6-26-13

Reviewed for HOWARD SCD and meets Technical Requirements.  
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Signature of Howard SCD: *John R. Robertson* Date: 7/2/13

**OWNER/BUILDER/DEVELOPER**

VIKING CUSTOM HOMES  
5890 OLD WASHINGTON BLVD.  
SYKESVILLE, MD. 21174  
410-977-2180

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Signature: *Earl D. Collins* Date: 7-29-13  
Signature: *Earl D. Collins* Date: 7/26/13  
Signature: *Earl D. Collins* Date: 7/28/13

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 9753, EXPIRATION DATE: 2/28/14.  
Signature: *Earl D. Collins* Date: 6-28-13

**STORMWATER MANAGEMENT NOTES, SEDIMENT & EROSION CONTROL DETAILS**

**TROTTER CIRCLE**  
LOTS 1 & 2  
TAX MAP No. 0055 GRID No. 0002 PARCEL No. 0220  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
ZONED: R-20  
SCALE: AS SHOWN DATE: MARCH, 2013  
SHEET 2 OF 3

SDP-13-036

**20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION**

Using vegetation as cover for barren soil to protect it from forces that cause erosion. PURPOSE: Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

**CONDITIONS WHERE PRACTICE APPLIES**  
This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (0 to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary soil stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpiles and staging areas, etc.

**EFFECTS ON WATER QUALITY AND QUANTITY**

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

**SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS**

- A. Site Preparation
  - i. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
  - ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary structures.
  - iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
  - iv. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Managers may be substituted for fertilizer with prior approval from the appropriate authority. Fertilizers shall be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and manufacturer.
  - v. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 90% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass thru a #100 mesh sieve and 95-100% will pass through a #20 sieve.
  - vi. Inoculants shall be ground and fertilizer into the top 3-5" of soil by disk or other suitable means.
- B. Temporary Seeding
  - i. Method of application shall consist of loosening soil to a depth of 3" to 5" by means of applicable agricultural or construction equipment, such as disc harrows or chisel plows or ripers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (steeper than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
  - ii. Apply fertilizer and lime as prescribed on the plans.
  - iii. In complete lime and fertilizer into the top 3-5" of soil by disk or other suitable means.
  - iv. Permanent Seeding
    - a. Minimum soil conditions required for permanent vegetative establishment:
      1. Soil pH shall be between 6.0 and 7.0.
      2. Soluble salts shall be less than 6.0 meq per million (ppm).
      3. The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. No exceptions in the amount or percent of clay is to be allowed, then a sandy soil (<30% silt plus clay) would be acceptable.
      4. Soil shall contain 1.5% minimum organic matter by weight.
      5. Soil must contain sufficient pore space to permit adequate root penetration.
      6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standards and Specifications for Topsoil.
    - b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
    - c. Apply soil amendments as per soil test or as included on the plans. Lawn areas should be raked to smooth the topsoil by disk or other suitable means. Lawn areas should be raked to smooth the topsoil, remove large objects like stones and branches, and raked the area for seed and application. Where site conditions will not permit normal seeded preparation to occur surface should be smoothed with a heavy chain or other equipment to roughen the surface. Slope slopes (steeper than 3:1) shall be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-2" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.
- C. Seed Specifications
  - i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subjected to re-testing by the Howard County Department of Planning and Zoning within a 6 month period immediately preceding the date of seeding such material on this job.
  - ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effective.
  - iii. Methods of Seeding
    - a. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.
    - b. Fertilizer: If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen: maximum of 100 lbs. per acre total of soluble nitrogen; P2O5 (phosphorous): 500 lbs/acre; K2O (potassium): 200 lbs/acre.
    - c. Lime - use only ground agricultural limestone. (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
    - d. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
    - e. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
- D. Seed Specifications
  - i. Seed spread dry should be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 26 or 28. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
  - ii. Where topsoil is not present, seeding shall be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
  - iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
  - a. Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4" inch of soil covering. Seeded must be firm after planting.
  - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

**STANDARDS AND SPECIFICATIONS FOR TOPSOIL**

Definition: Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation. Purpose: To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

- I. This practice is limited to areas having 2:1 or flatter slopes where:
  - a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
  - b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
  - c. The original soil to be vegetated contains material toxic to plant growth.
  - d. The soil is so acidic that treatment with limestone is not feasible.
- II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate application shown on the plans.

- A. Construction and Material Specifications
  - i. Topsoil obtained from the existing site may be provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
  - ii. Topsoil Specifications - soil to be used as topsoil must meet the following:
    1. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loam, and other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textures, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
    2. Topsoil may be fine of plants or plant parts such as bermud grass, quackgrass, Johnsongrass, nematode, poison ivy, thistle, or others as specified.
    3. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over described areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
    4. For sites having disturbed areas under 5 acres:
      - a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
      - b. Organic content of topsoil shall be not less than 1.5 percent by weight.
      - c. Topsoil contains soluble salt content greater than 500 parts per million shall not be used.
      - d. No seed or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit resolution of phytotoxic materials.

- B. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
  - i. Composted sludge material for use as a soil conditioner for sites having disturbed areas under 5 acres shall conform to the following requirements:
    - a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMA §26.08.03.
    - b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If the compost does not meet these requirements, the appropriate conditions must be added to meet the requirements prior to use.
    - c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
    - d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/2 the normal lime application rate.

Notes: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

II. Placement (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

**SECTION 2 - TEMPORARY SEEDING**

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

- A. Seed mixtures - Permanent Seeding
  - i. Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardness Zone (from Figure 3) and enter them in the Permanent Seeding Summary below, along with application rates, seeding dates and seeding depths. If this summary is not put on the plans and completed, then Table 26 must be put on the plans.
  - ii. For sites having disturbed areas under 5 acres, the rates shown on this table shall be deleted and the rates recommended by the soil testing agency shall be written in.
  - iii. For areas receiving low maintenance, apply urea-form fertilizer (46-0-0) @ 3 1/2 lbs/1000 sq. ft. (150 lbs/acre), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding.
- B. Seed mixtures - Temporary Seeding
  - i. Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardness Zone (from Figure 3) and enter them in the Temporary Seeding Summary below, along with application rates, seeding dates and seeding depths. If this summary is not put on the plans and completed, then Table 26 must be put on the plans.
  - ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in. Soil tests are not required for temporary Seeding.

**SECTION 3 - PERMANENT SEEDING**

Seeding grass and legumes to establish ground cover for a minimum of one year on disturbed areas generally receiving low maintenance.

- A. Seed mixtures - Permanent Seeding
  - i. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardness Zone (from Figure 3) and enter them in the Permanent Seeding Summary below, along with application rates, seeding dates and seeding depths. If this summary is not put on the plans and completed, then Table 25 must be put on the plans.
  - ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in. Soil tests are not required for temporary Seeding.
- B. Seed mixtures - Temporary Seeding
  - i. Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardness Zone (from Figure 3) and enter them in the Temporary Seeding Summary below, along with application rates, seeding dates and seeding depths. If this summary is not put on the plans and completed, then Table 26 must be put on the plans.
  - ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in. Soil tests are not required for temporary Seeding.

**SEQUENCE OF CONSTRUCTION**

1. OBTAIN GRADING PERMIT 7 DAYS
2. INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON PLAN 7 DAYS
3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE 1 DAY
4. INSTALL TEMPORARY SEEDING 2 DAYS
5. CONSTRUCT BUILDINGS 60 DAYS
6. FINE GRADE SITE/INSTALL SAW DEVICES, PERMANENT SEEDING AND LANDSCAPE 14 DAYS
7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSON IS OBTAINED BY E/S CONTROL INSPECTOR. 7 DAYS

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

**ENGINEER'S CERTIFICATE**  
"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer: [Signature] Date: 6/27/13

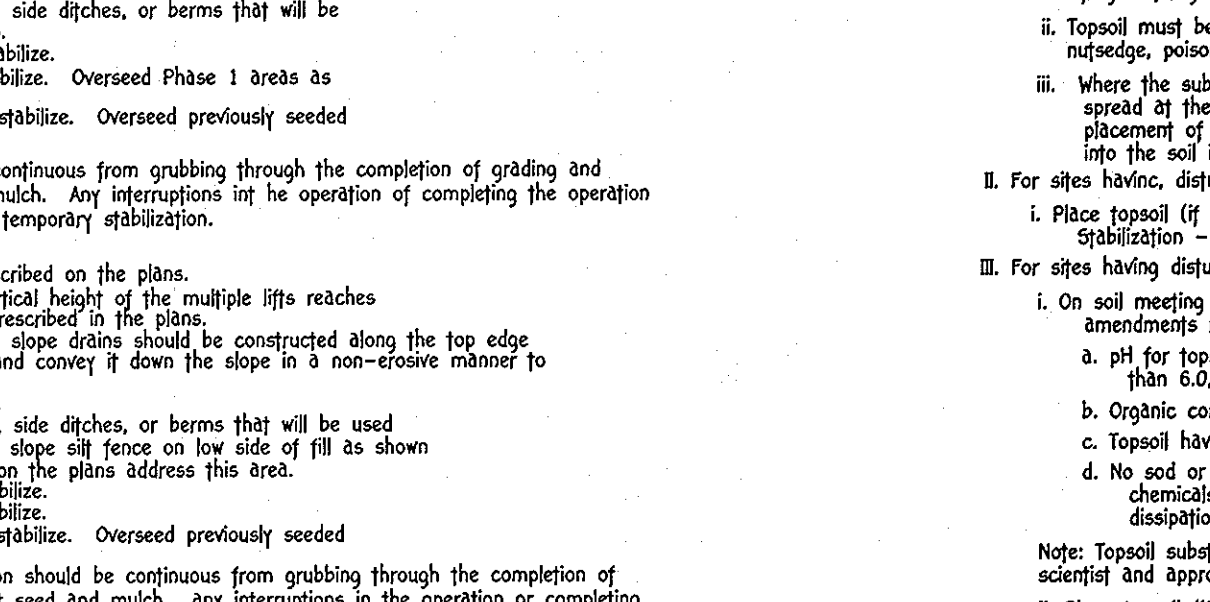
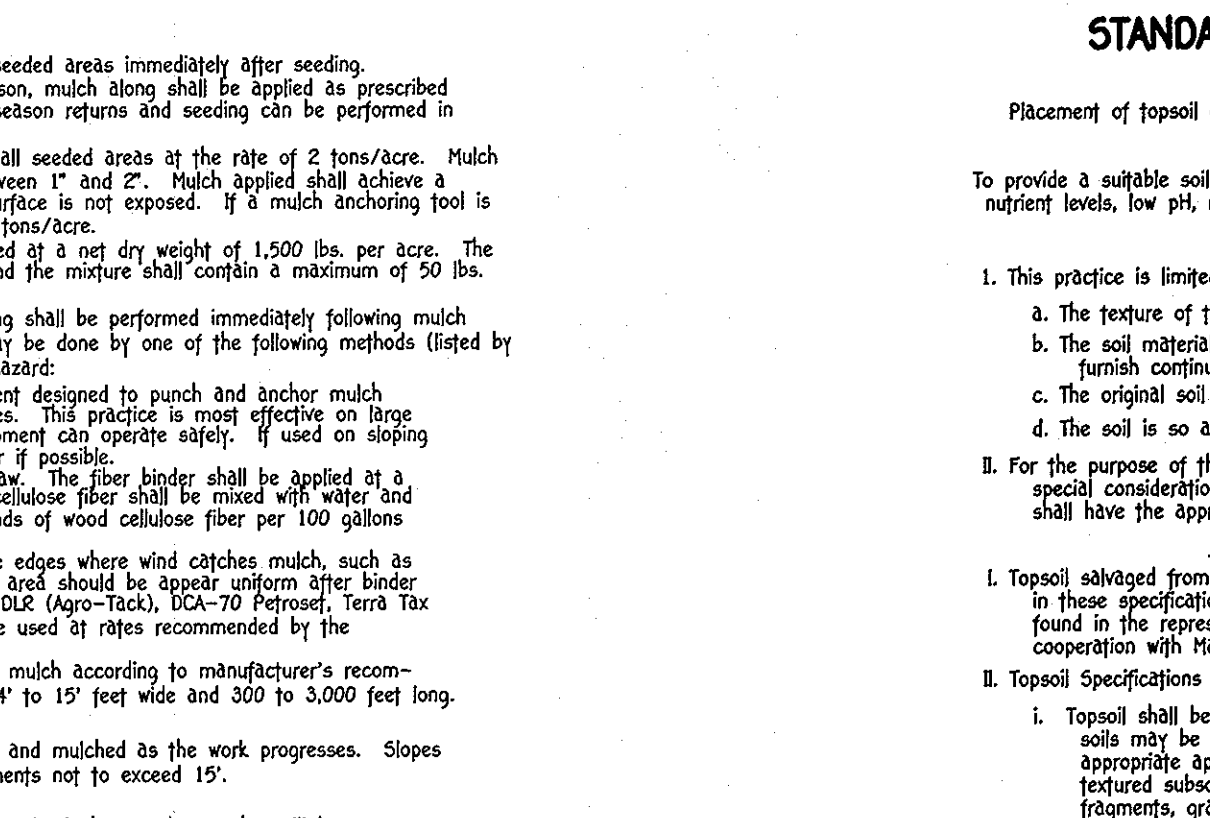
**DEVELOPER'S CERTIFICATE**  
"I certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer: [Signature] Date: 6/27/13

**OWNER/BUILDER/DEVELOPER**  
VIKING CUSTOM HOMES  
5950 OLD WASHINGTON BLVD.  
SYKESVILLE, MD. 21784  
410-977-2188

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Director - Department of Planning and Zoning  
John R. Robertson  
6/27/13  
Chief, Development Engineering Division

SEDIMENT & EROSION CONTROL DETAILS  
**TROTTER CIRCLE**  
LOTS 1 & 2  
TAX MAP No. 0035 GRID No. 0022 PARCEL No. 0220  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
ZONED: R-20  
SCALE: AS SHOWN DATE: MARCH, 2013  
SHEET 3 OF 3  
**SDP-13-036**



**CONSTRUCTION SPECIFICATIONS**  
1. USE 42 INCH HIGH, 8 GAUGE OR THICKER CHAIN LINK FENCING (2% INCH MAXIMUM OPENING).  
2. USE 3/8 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.  
3. FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.  
4. SECURE TO 4 INCH OR THICKER IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE.  
5. 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.  
6. WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNWARD.  
7. KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF DEBRIS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN, IF UNDERMINING OCCURS, REINSTALL FENCE.

**CONSTRUCTION SPECIFICATIONS**  
1. USE WOOD POSTS 1 1/2 X 1 1/2 X 3/4 INCH (MINIMUM) SQUARE END OF SOUND QUALITY HARDWOOD, AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.  
2. USE 3/8 INCH MINIMUM POSTS DRIVEN 18 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.  
3. USE WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.  
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USE MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.  
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND, BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.  
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN, OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.  
7. EXTEND BOTH ENDS OF THE 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 SILT FENCE.  
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN, IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
U.S. DEPARTMENT OF AGRICULTURE NATIONAL RESOURCES CONSERVATION SERVICE 2011

MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION

**SEED MIXTURES - PERMANENT SEEDING**

| No. | Seed Mixture (Hardness Zone 6b - 25)  |                            | Seeding Dates | Seeding Depths | Fertilizer Rate (10-20-20)   |                             |                             | Lime Rate                     |
|-----|---|----------------------------|---------------|----------------|------------------------------|-----------------------------|-----------------------------|-------------------------------|
|     | Species   | Application Rate (lb/acre) |               |                | N                            | P2O5                        | K2O                         |                               |
| 1   | TALL FESCUE (85%)<br>PERENNIAL RYE GRASS (10%)<br>CRACKBLISS BLUEGRASS (5%) | 125                        | 3/1 - 5/15    | 1" - 2"        | 90 lb/acre (2.0 lb/1000sqft) | 175 lb/acre (4 lb/1000sqft) | 175 lb/acre (4 lb/1000sqft) | 2 tons/acre (100 lb/1000sqft) |
| 3   | TALL FESCUE (85%)<br>HARD FESCUE (20%)                                      | 100                        | 3/1 - 5/15    | 1" - 2"        | 125                          | 150                         | 150                         | 2 tons/acre (100 lb/1000sqft) |

**SEED MIXTURES - TEMPORARY SEEDING**

| No. | Seed Mixture (Hardness Zone 6b - 26) |                            | Seeding Dates              | Seeding Depths                | Fertilizer Rate (10-10-10)   |                               |                               | Lime Rate                     |
|-----|--------------------------------------|----------------------------|----------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------|
|     | Species                              | Application Rate (lb/acre) |                            |                               | N                            | P2O5                          | K2O                           |                               |
| 1   | BARLEY<br>OATS<br>RYE                | 122<br>96<br>140           | 3/1 - 5/15<br>8/15 - 10/15 | 1" - 2"<br>1" - 2"<br>1" - 2" | 600 lb/acre (15 lb/1000sqft) | 2 tons/acre (100 lb/1000sqft) | 2 tons/acre (100 lb/1000sqft) | 2 tons/acre (100 lb/1000sqft) |