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NO.	DESCRIPTION
1	COVER SHEET
2	SITE DEVELOPMENT, SEDIMENT CONTROL PLANS AND SOIL MAP
3	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
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**LEGEND**

- STREET AND PERIMETER TREES PROVIDED UNDER F-13-053
- EXISTING TREES TO REMAIN UNDER F-13-053
- EXISTING TREES TO BE REMOVED UNDER F-13-053
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE, SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- ROOFTOP DISCONNECTION (N-1) FLOW PATH
- ROOF LEADER

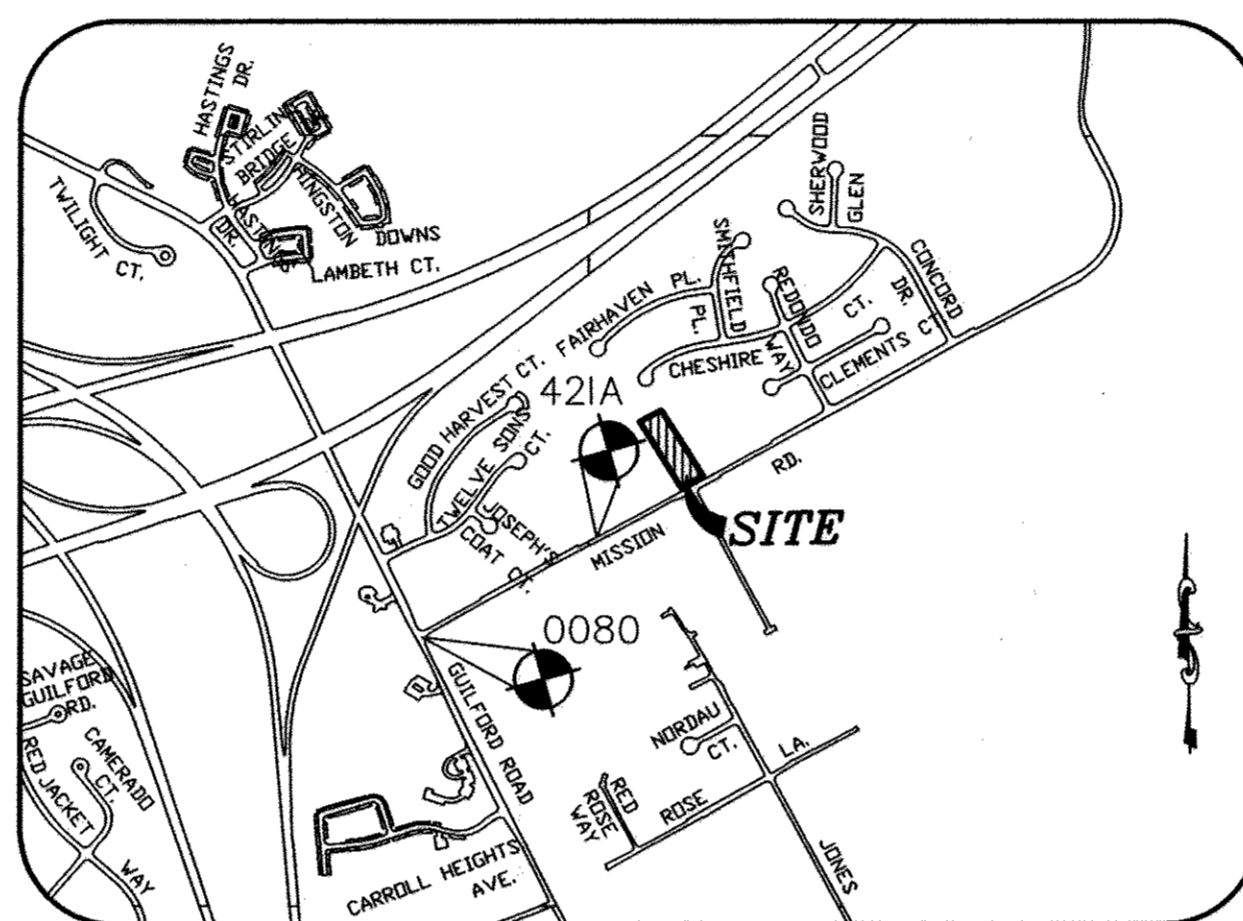
# SITE DEVELOPMENT PLAN

## MISSION RIDGE

### LOTS 1 THRU 4

## SIXTH ELECTION DISTRICT

## HOWARD COUNTY, MARYLAND



**VICINITY MAP**  
SCALE: 1"=1000'  
ADC MAP: 40 GRID: F1

LOT #	ADDRESS	STORMWATER MANAGEMENT PRACTICES														
		A-1 (Y/N)	A-2 (Y/N)	A-3 (Y/N)	N-1 (NUMBER)	N-2 (Y/N)	N-3 (Y/N)	M-1 (NUMBER)	M-2 (NUMBER)	M-3 (NUMBER)	M-4 (NUMBER)	M-5 (NUMBER)	M-6 (NUMBER)	M-7 (NUMBER)	M-8 (NUMBER)	M-9 (NUMBER)
1	7903 BURKARD LANE	N	N	N	2	N	N	0	0	0	0	2	0	0	1 (SHARED)	0
2	7907 BURKARD LANE	N	N	N	2	N	N	0	0	0	0	2	0	0	1 (SHARED)	0
3	7911 BURKARD LANE	N	N	N	2	N	N	0	0	0	0	2	0	0	1 (SHARED)	0
4	7915 BURKARD LANE	N	N	N	0	N	N	0	0	0	0	0	1	0	1 (SHARED)	0

- GENERAL NOTES**
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
  - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
  - THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS AND CARTER, INC. ON OR ABOUT OCTOBER, 2012.
  - COORDINATES BASED ON NAD 83 (HORIZONTAL) AND NAVD 88 (VERTICAL) MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO.421A & 0080  
STA. No. 421A N 543,390.4139 E 1,364,912.6624 ELEV. 312.01  
STA. No. 0080 N 542,366.9140 E 1,363,075.9745 ELEV. 282.39
  - STORMWATER MANAGEMENT REQUIREMENTS HAVE BEEN SATISFIED VIA THE USE OF MICRO-BIORETENTION FACILITIES (M-6), ROOFTOP DISCONNECTION (N-1), DRY WELLS (M-5), AND GRASSED SWALES (M-8) IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL AS APPROVED UNDER F-13-053.
  - EXISTING UTILITIES ARE BASED ON ACTUAL FIELD LOCATIONS, IN COMBINATION WITH EXISTING WATER AND SEWER CONTRACTS.
  - ANY DAMAGE TO THE COUNTY RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
  - SEWER SEWER CONNECTION ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE OR EASEMENT LINE.
  - FOR DRIVEWAY ENTRANCE DETAILS, REFER TO HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.06.
  - SITE ANALYSIS DATA CHART:  
LOCATION: TAX MAP 42 PARCEL 507 & 512, PLAT 22641  
ZONING: R-12 (ZONING MAP DATED JULY 28, 2006)  
ELECTION DISTRICT: 6TH  
TOTAL PROJECT AREA: 1.19 AC ±  
LIMIT OF DISTURBED AREA: 0.78 AC ±  
PROPOSED USE FOR SITE: RESIDENTIAL  
TOTAL NUMBER OF UNITS: 4  
TYPE OF PROPOSED UNIT: SFD  
DPZ FILES: F-13-053, ECP-13-036
  - SUBJECT PROPERTY ZONED R-12 RESIDENTIAL PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND PER THE COMP LITE ZONING AMENDMENT EFFECTIVE 7/28/06.
  - IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS; PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
  - 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 MIN. (16 FEET MIN. SERVING MORE THAN ONE RESIDENCE).  
- SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2 INCH MINIMUM).  
- GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.  
- STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING);  
- DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.  
- MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
  - PUBLIC WATER AND SEWER WILL BE UTILIZED. LOTS 1 THRU 4 WILL BE SERVICED UNDER CONTRACT # 24-4781-D.
  - 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-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY RIGHT-OF-WAY LINE.
  - MINIMUM LOT SIZE AND OPEN SPACE REQUIREMENTS SHOWN ABOVE ARE IN ACCORDANCE WITH SECTION 16.121(a)(2) OF THE HOWARD COUNTY SUBDIVISION REGULATIONS, AMENDED 5th ED.
  - BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE.
  - NO STEEP SLOPES (FOR A VERTICAL HEIGHT OF 10 FEET OR MORE) OR FLOODPLAINS EXIST ON SITE.
  - THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE HAVE BEEN SATISFIED UNDER F-13-053 BY PROVIDING A FEE-IN-LIEU PAYMENT OF \$6,207.30.
  - PERIMETER LANDSCAPING SHALL BE PROVIDED AS SHOWN ON THE SUPPLEMENTAL/ROAD CONSTRUCTION DRAWINGS FOR F-13-053, AND STREET TREES ALONG MISSION ROAD ARE IN ACCORDANCE WITH F-13-053.
  - THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING PLANT MATERIALS, BERMS, FENCES AND WALLS (AS REQUIRED UNDER F-13-053) 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.
  - A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.
  - A USE-IN-COMMON ACCESS MAINTENANCE AGREEMENT BETWEEN LOTS 1 THRU 4 AND TRASH PAD MAINTENANCE HAVE BEEN RECORDED SIMULTANEOUSLY WITH THE FINAL PLAT IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND.
  - STORMWATER MANAGEMENT HAS BEEN APPROVED UNDER F-13-053.
  - A WAIVER TO THE THE HOWARD COUNTY DESIGN MANUAL TO ALLOW LOTS 2, 3, 4 TO NOT HAVE BASEMENT GRAVITY SEWER SERVICE PROVIDED SIMULTANEOUSLY WITH THE FINAL PLAT IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND, ON APRIL 25, 2013.

**OWNER**  
TJW LAND, LLC  
5300 DORSEY HALL DR  
SUITE 102  
ELLICOTT CITY, MD 21042

**DEVELOPER**  
BURKARD HOMES, LLC  
5300 DORSEY HALL DRIVE  
SUITE 102  
ELLICOTT CITY, MARYLAND 21042  
(443)367-0422

**DEVELOPERS CERTIFICATE**  
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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.

*Tim Burkard*  
SIGNATURE OF DEVELOPER  
1/24/14  
DATE  
PRINTED NAME OF DEVELOPER

**ENGINEER'S CERTIFICATE**  
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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.

*Jeffrey S. Sloman*  
SIGNATURE OF ENGINEER  
1/23/14  
DATE  
PRINTED NAME OF ENGINEER

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

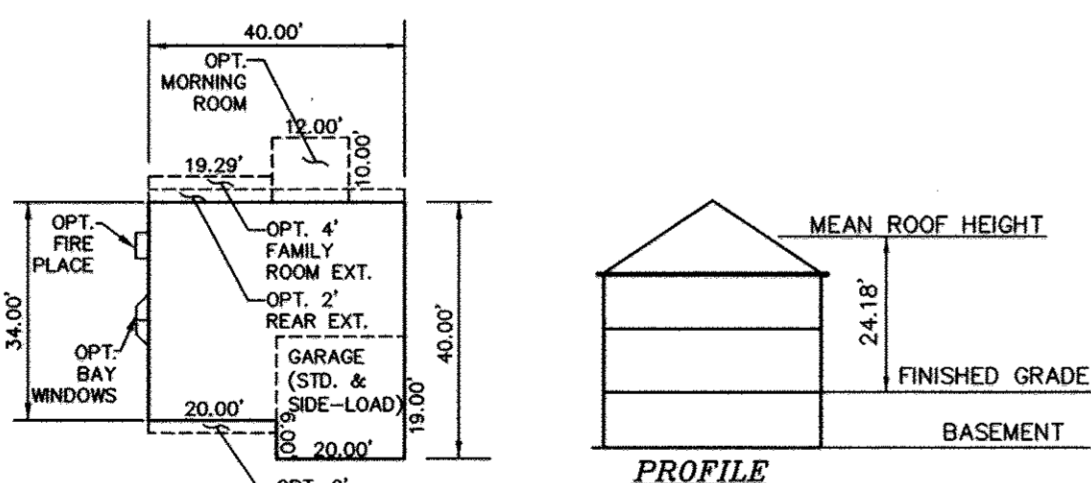
*John R. Roberts*  
SIGNATURE OF DISTRICT ENGINEER  
2/4/14  
DATE  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

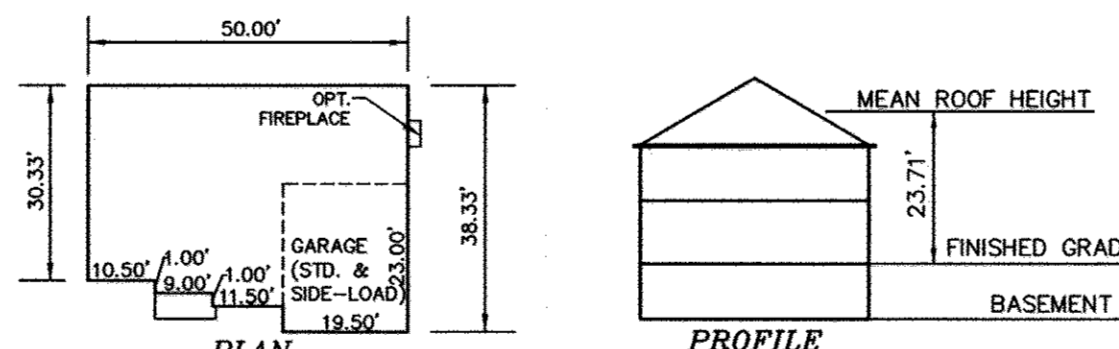
*Chris Edwards*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
2-7-14  
DATE

*Kate Schaefer*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
2/13/14  
DATE

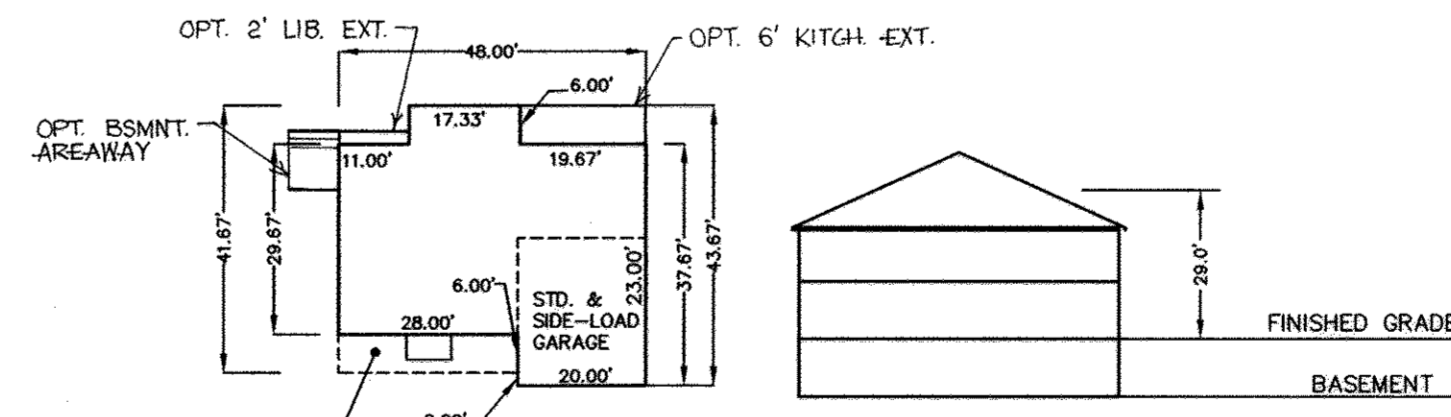
*Marvin M. Young*  
DIRECTOR  
2/13/14  
DATE



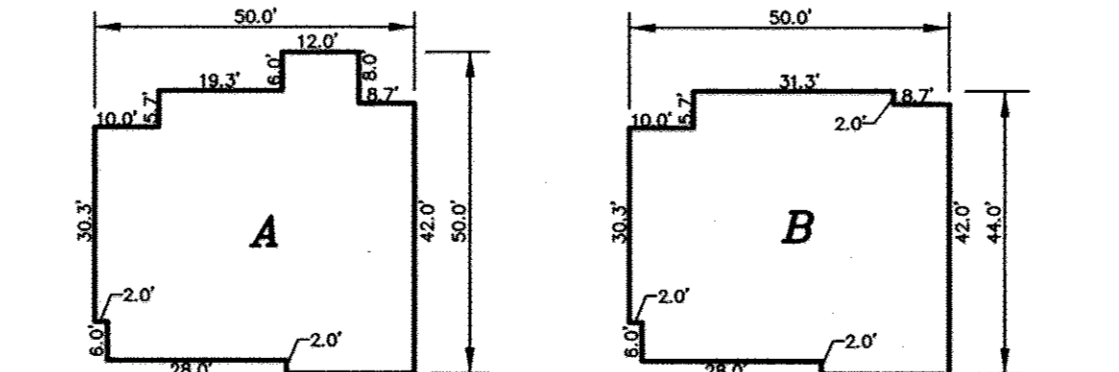
**PATUXENT**  
(MAX. FOOTPRINT=1,528 SF)  
SCALE: 1"=30'



**PATAPSCO**  
(MAX. FOOTPRINT=1,771 SF)  
SCALE: 1"=30'



**SENECA**  
(MAX. FOOTPRINT=1,856 SF)  
SCALE: 1"=30'



**GENERIC BOX A**  
SCALE: 1"=30'  
MODEL: OPTION RESTRICTIONS  
PATUXENT: NONE  
PATAPSCO: NONE  
SENECA: NONE

**GENERIC BOX B**  
SCALE: 1"=30'  
MODEL: OPTION RESTRICTIONS  
PATUXENT: NO MORNING ROOM  
PATAPSCO: NONE  
SENECA: NONE

**PERMIT INFORMATION BLOCK**

SUBDIVISION NAME: MISSION RIDGE		SECTION/AREA: 507 & 512 LOTS 1 THRU 4
PLAT NO. 22641	BLOCK(S) 24	ZONING R-12
TAX MAP NO. 42	ELECTION DISTRICT 6TH	CENSUS TRACT 6069.01

**ADDRESS CHART**

LOT #	ADDRESS
1	7903 BURKARD LANE
2	7907 BURKARD LANE
3	7911 BURKARD LANE
4	7915 BURKARD LANE

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 6800 Deerpark Road, Suite 150, Ellicott City, Maryland 21075  
 (410) 997-0286 Fax: (410) 997-0288 Fax

**MISSION RIDGE**  
 LOTS 1 THRU 4, SINGLE-FAMILY DETACHED, PLAT 22641  
 TAX MAP 42, PARCEL 507, 512  
 SIXTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 COVER SHEET

Project: 13-008  
 date: JAN 2014  
 illustration: JLS  
 engineering: JMS  
 approval: MMM  
 scale: 1"=30'  
 date: 05/23/15  
 description: 1. ADD OPTIONS TO SENECA MODEL  
 revisions:



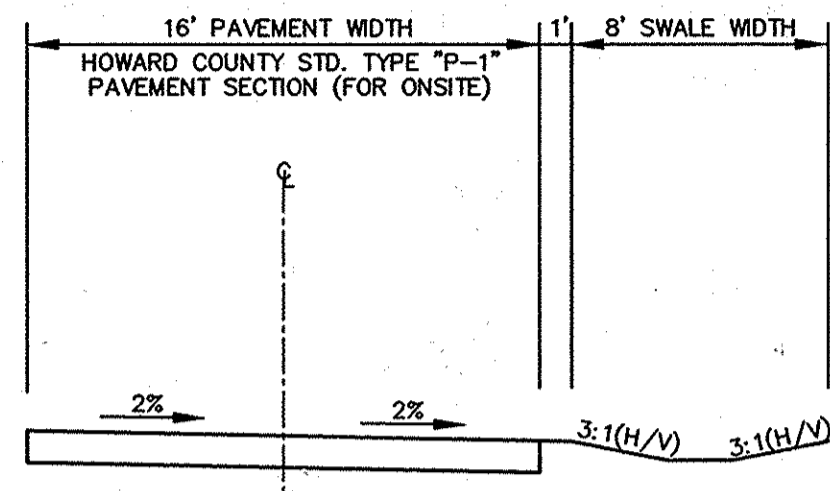
LIMIT OF DISTURBANCE TO BE FIELD ADJUSTED AS NECESSARY TO AVOID DISTURBING TREES PLANTED UNDER F-13-053.

SEE SUPPLEMENTAL PLANS / CONSTRUCTION PLANS PER F-13-053 FOR DETAILS FOR MICRO-BIORETENTION (M-6), GRASSED SWALES (M-8), AND DRY WELLS (M-5).

ALL SOIL STOCKPILING SHALL BE DONE WITHIN THE PROPOSED LIMIT OF DISTURBANCE

THE ARROWS LABELED "N-1" REPRESENT THE FINAL FLOW PATH BASED ON THE FINAL GRADING. ROOF LEADERS SHOULD DRAIN IN THE DIRECTION THE ARROW INDICATES.

STORMWATER MANAGEMENT FOR THIS DEVELOPMENT HAS BEEN APPROVED UNDER F-13-053.



USE IN COMMON DRIVEWAY SECTION  
NOT TO SCALE

**LEGEND**

- EXISTING PRIVATE USE-IN-COMMON ACCESS DRIVEWAY, DRAINAGE, STORMWATER MANAGEMENT SWALE & UTILITY EASEMENT FOR THE USE AND BENEFIT OF LOTS 1 THRU 4. (PLAT 22641)
- EXISTING 30' PUBLIC SEWER, WATER & UTILITY EASEMENT (PLAT 22641)

**OWNER**  
TJV LAND, LLC  
5300 DORSEY HALL DR.  
SUITE 102  
ELLCOTT CITY, MD 21042

**DEVELOPER**  
BURKARD HOMES, LLC  
5300 DORSEY HALL DRIVE  
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**DEVELOPERS CERTIFICATE**  
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*Jim Burkard* 1/24/14  
SIGNATURE OF DEVELOPER DATE  
PRINTED NAME OF DEVELOPER

**ENGINEER'S CERTIFICATE**  
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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.

*Jeffrey SLOMAN* 1/23/14  
SIGNATURE OF ENGINEER DATE  
JEFFREY SLOMAN  
PRINTED NAME OF ENGINEER

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

*John C. Roberts* 2/4/14  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chris Edwards* 2-7-14  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

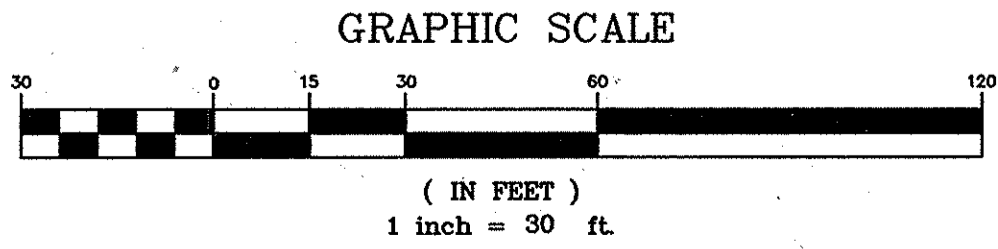
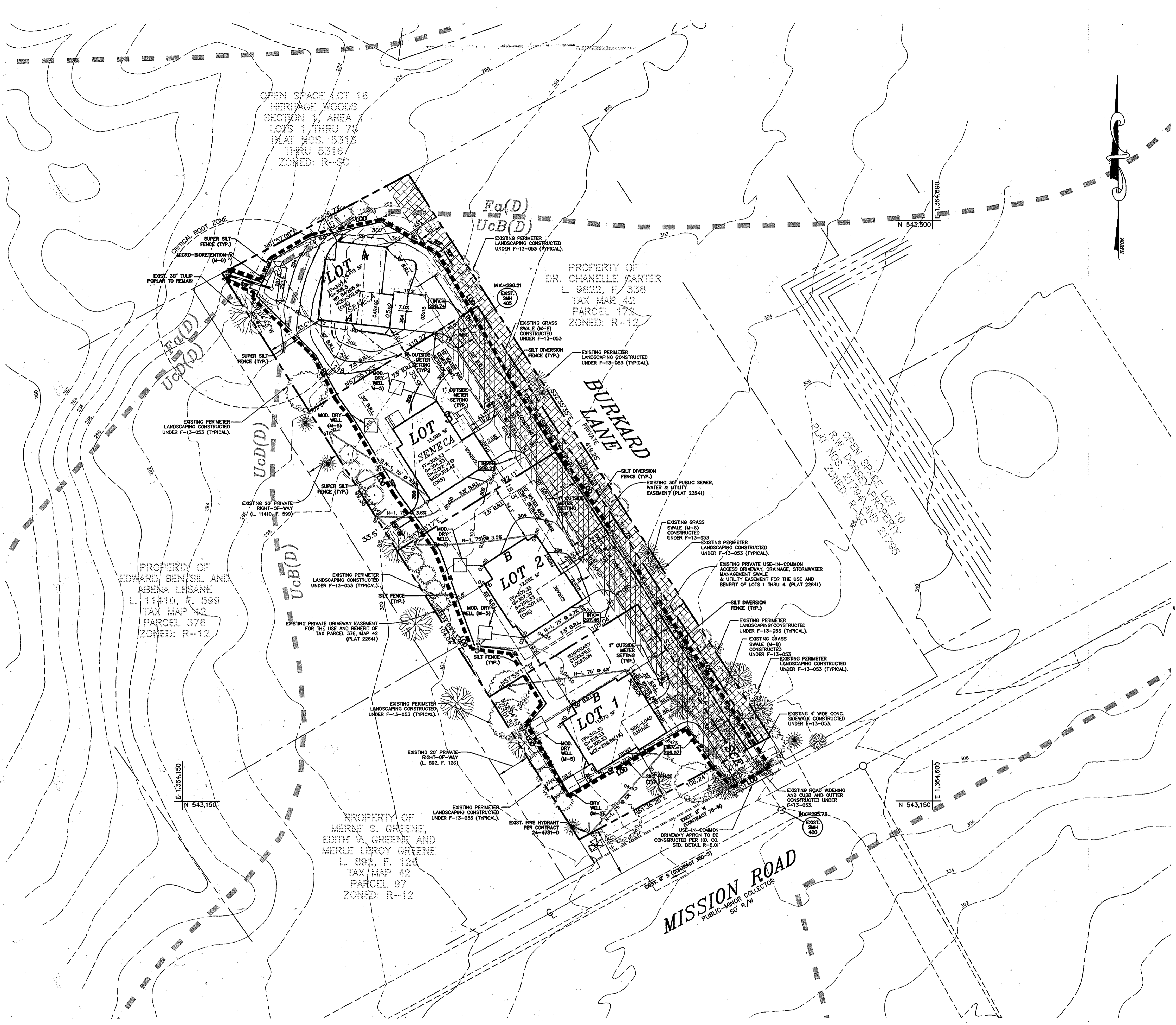
*Kevin DeLoach* 2/12/14  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Paula M. Cuyler* 2/16/14  
DIRECTOR DATE



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. 40091, EXP DATE 2/13/15

*Jeffrey SLOMAN* 1/23/14  
JEFFREY SLOMAN P.E. DATE



**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
Fa	FALSTINGTON SANDY LOAM, 0 TO 2 PERCENT SLOPE	D
UcB	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 0 TO 5 PERCENT SLOPE	D/B/C
UcD	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPE	D/B/C

project	date	description
13-008	JAN 2014	engineering
1	JIS	approval
1	JIS	approval
1	MM	approval

REV	DESCRIPTION	DATE
1	REV GRADING LOT 4 TO REFLECT AS-BUILT CONDITIONS	9/1/16
1	SITE SENECA MODEL ON LOT 3	09/23/15

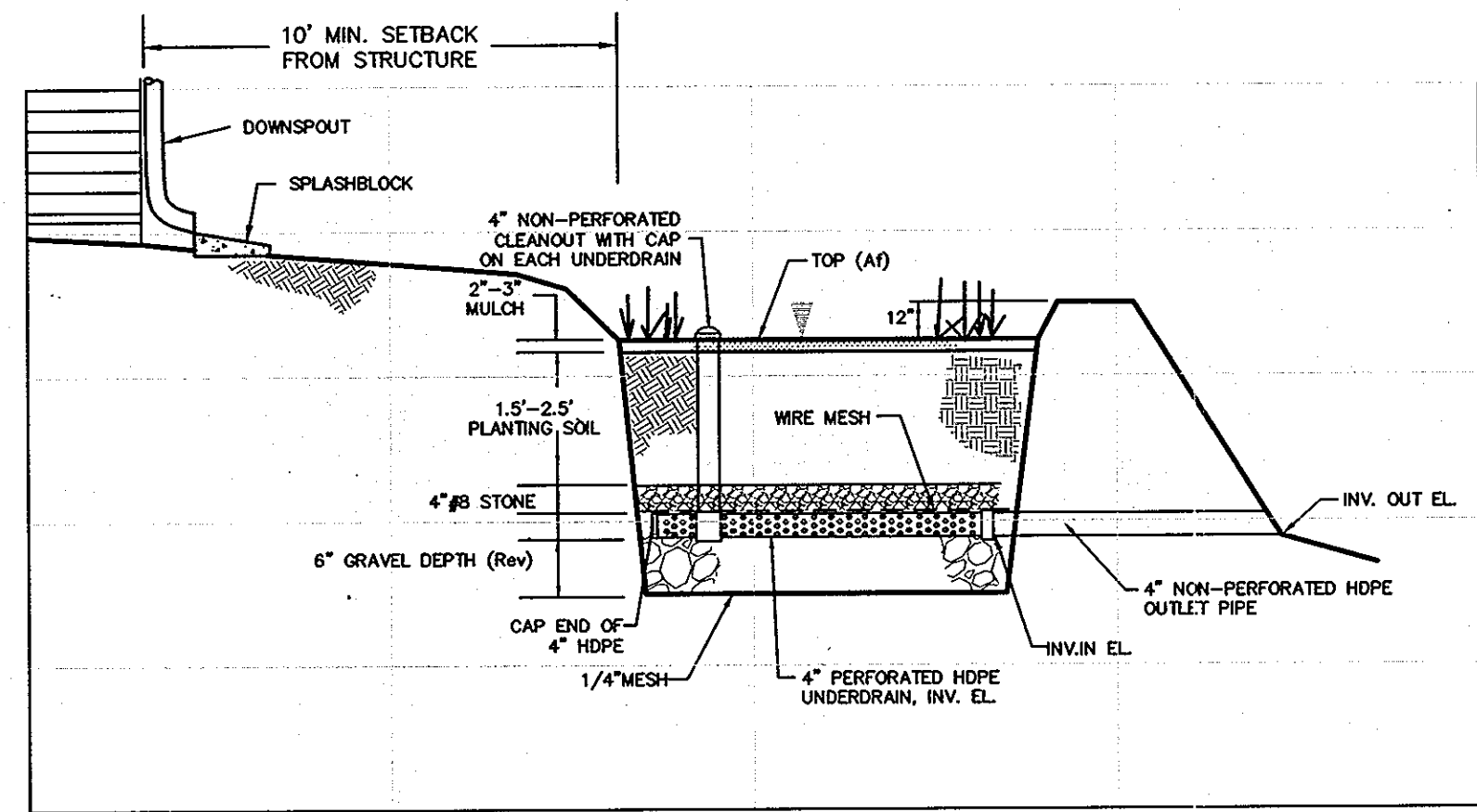
**MISSION RIDGE**  
LOTS 1 THRU 4, SINGLE-FAMILY DETACHED, PLAT 22641  
TAX MAP 42, PARCEL 507, 512  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SITE DEVELOPMENT, SEDIMENT CONTROL PLAN AND SOILS MAP

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
6800 Deerpath Road, Suite 150, Elkridge, Maryland 21075  
(410) 987-0286 Fax

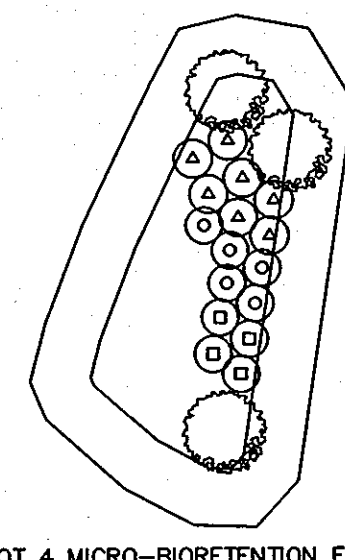








**MICRO-BIORETENTION (M-6) DETAIL**  
NOT TO SCALE



LOT 4 MICRO-BIORETENTION FACILITY

**MICRO-BIORETENTION FACILITY (M-6) PLANT LIST**

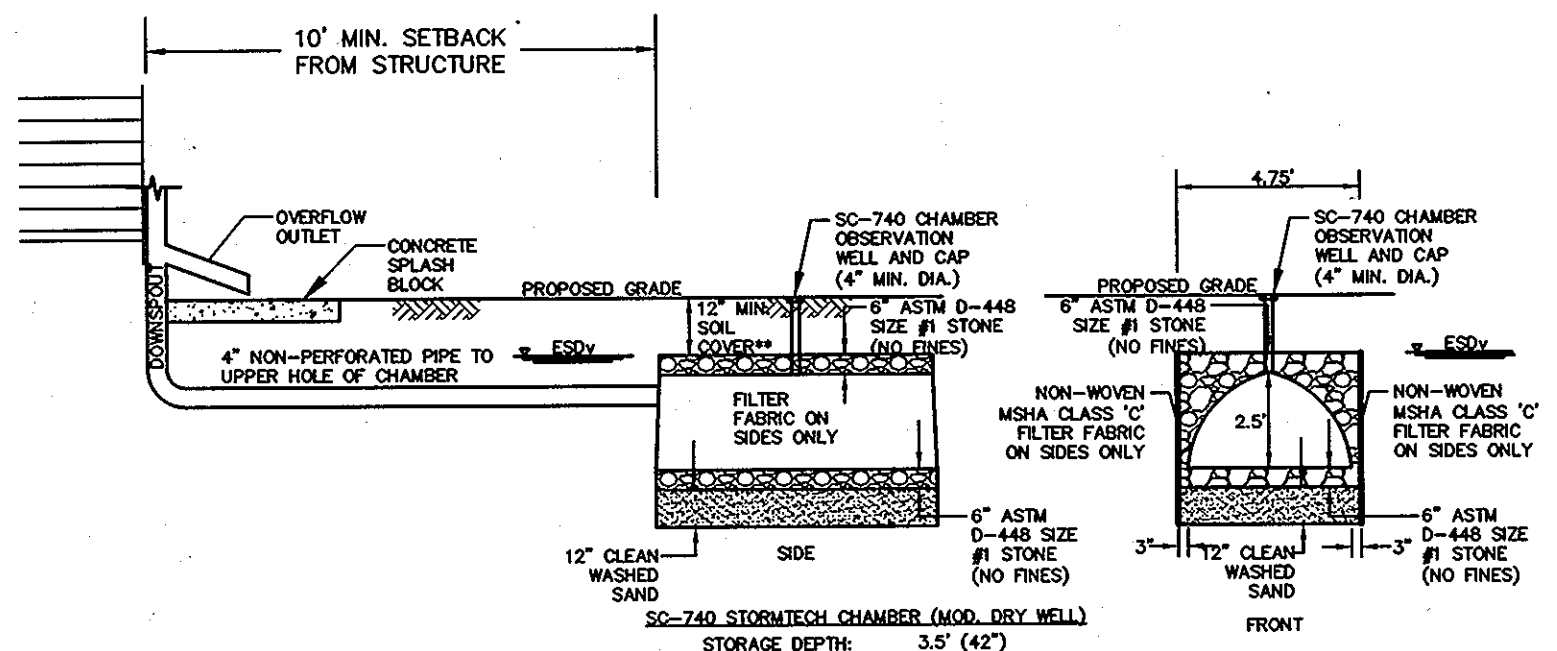
QUANTITY REQUIRED	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY REQUIRED / PROVIDED FOR EACH FACILITY
1 PER 60 SF	○	ILEX GLABRA	INK BERRY	2' - 3' HL.	LOT 4: 130 SF / 60 = 3
1 PER 20 SF	⊙	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL. CONTAINER	LOT 4: 130 SF / 20 = 7
1 PER 30 SF	⊙	ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER	LOT 4: 130 SF / 30 = 5
1 PER 40 SF	⊙	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER	LOT 4: 130 SF / 40 = 4

TOTAL: 16 PERENNIALS, 3 SHRUBS

**MICRO-BIORETENTION SCHEDULE**

FACILITY	TOP EL. AT (A)	TOP OF BERM (B)	INV. IN (C)	INV. OUT (D)	AREA AT TOP EL. (A-F)
LOT 4	292.80	293.80	289.72	289.57	130 SF

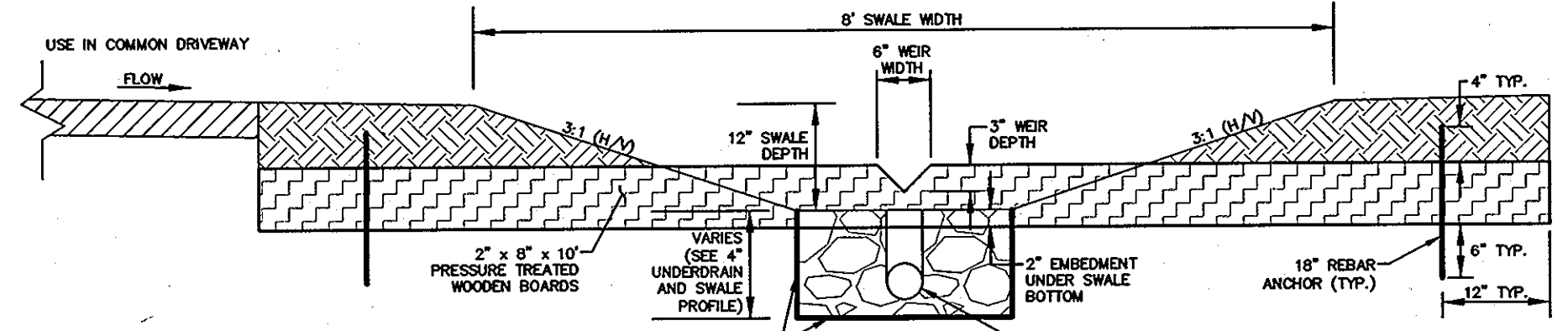
DIMENSIONS OF THE PROPOSED MICRO-BIORETENTION FACILITIES MAY BE REVISED IN THE FIELD SO LONG AS THE TOP OF FACILITY AREAS ARE MAINTAINED AND ALL REQUIRED SETBACKS ARE OBSERVED.



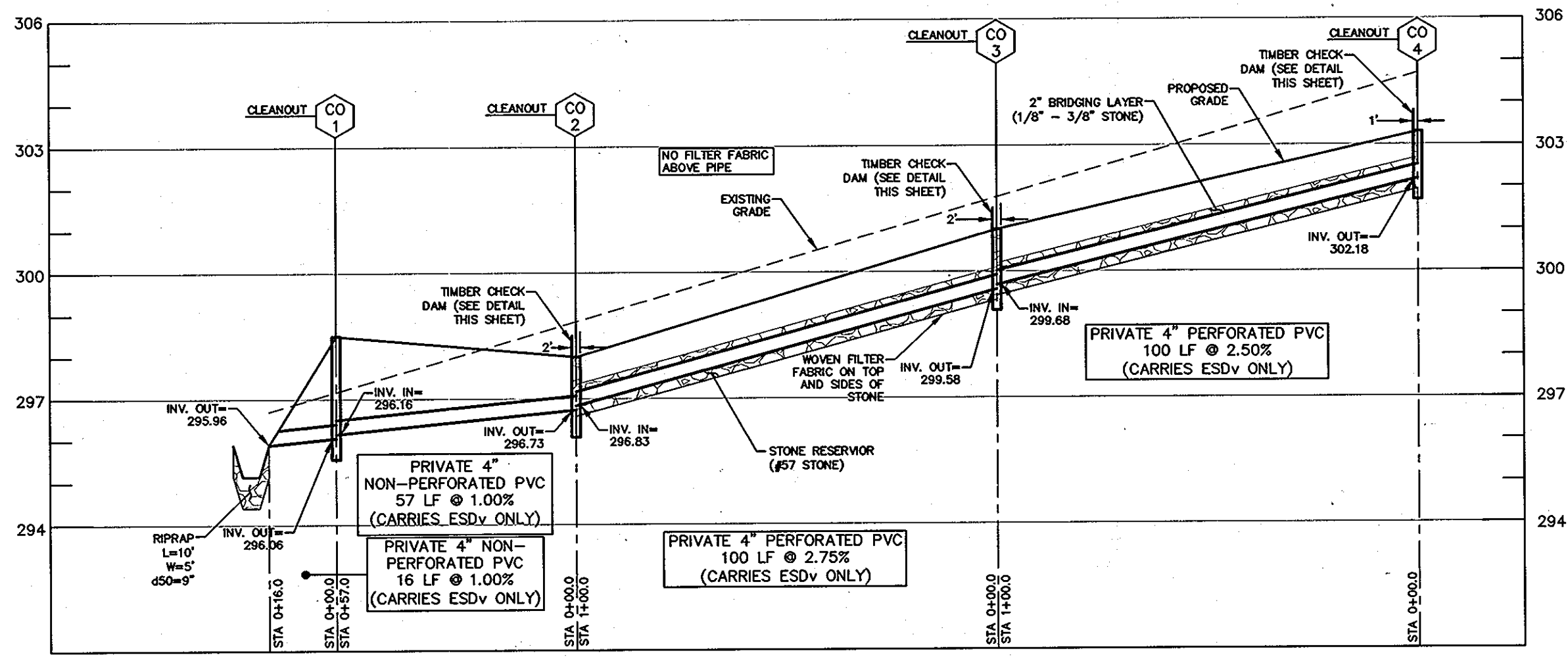
**MODIFIED DRY WELL (M-5) DETAIL**  
NOT TO SCALE

**PIPE SCHEDULE**

SIZE	LENGTH	TYPE / CLASS
4"	199 LF	HDPE (MICRO-BIORETENTION OUTLET)
4"	72 LF	HDPE (NON-PERFORATED)
6"	9 LF	HDPE
6"	29 LF	RCP (CLASS IV)



**GRASS SWALE AND TIMBER CHECK DAM (M-8)**  
NOT TO SCALE



**4\"/>**

**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)**

- A. MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OF DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

**OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6) AND GRASSED SWALES (M-8)**

- A. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. 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.
- B. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- C. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.

**OPERATION AND MAINTENANCE SCHEDULE FOR MODIFIED DRY WELLS (M-5)**

- A. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- B. 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.
- C. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- D. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A 72-HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO ENSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- F. 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.

STORMWATER MANAGEMENT FOR THIS DEVELOPMENT HAS BEEN APPROVED UNDER F-13-053.

**OWNER**  
TW LAND, LLC  
5300 DORSEY HALL DR.  
SUITE 102  
ELLCOTT CITY, MD 21042

**DEVELOPER**  
BURKARD HOMES, LLC  
5300 DORSEY HALL DRIVE  
SUITE 102  
ELLCOTT CITY, MARYLAND 21042  
(443)367-0422

**DEVELOPERS CERTIFICATE**  
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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: *Tim Burkard* DATE: 1/23/14

**ENGINEER'S CERTIFICATE**  
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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: *Jeffrey SLOMAN* DATE: 1/23/14

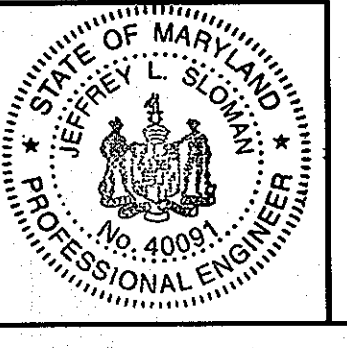
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: *John R. Roberts* DATE: 2/4/14

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Signature: *Chad Edmond* DATE: 2-7-14  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

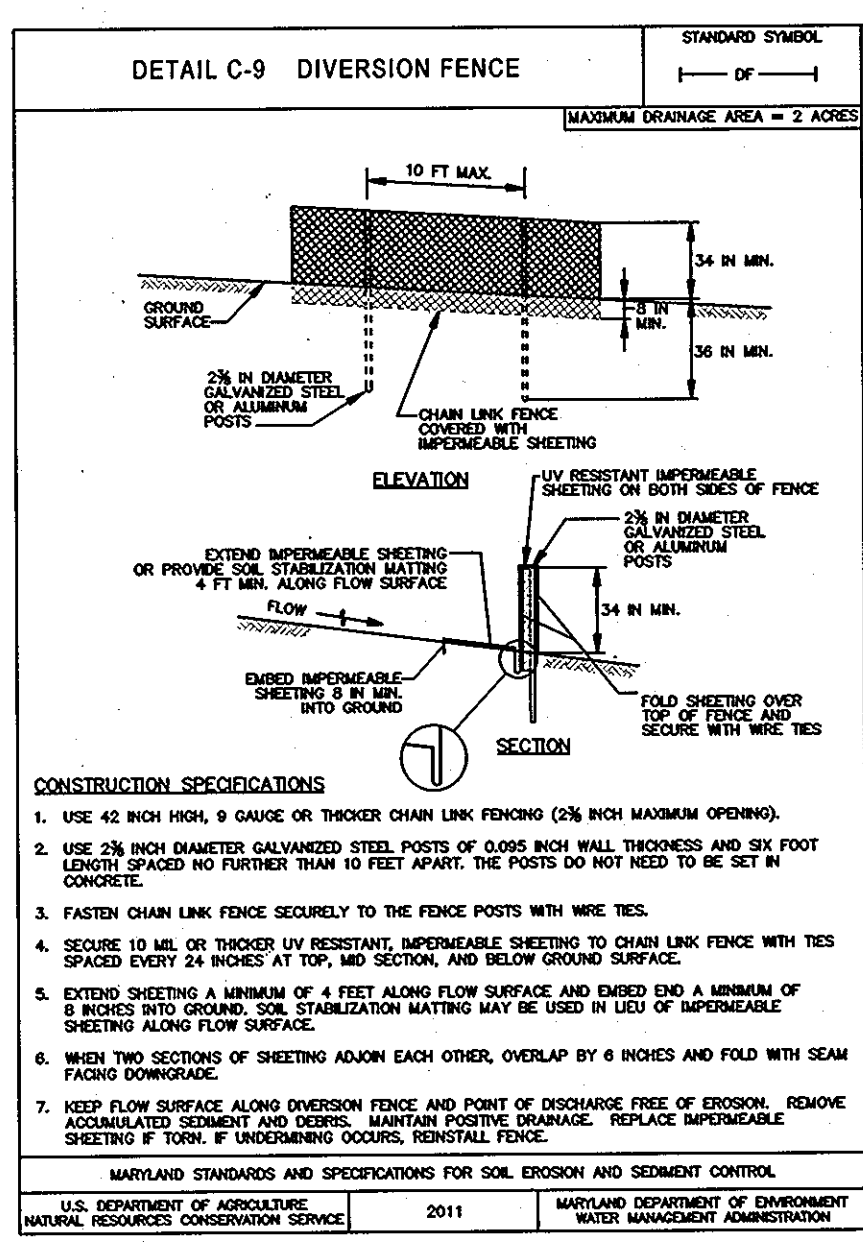
Signature: *Kate Schaefer* DATE: 2/12/14  
CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *Marsha M. Ayler* DATE: 2/12/14  
DIRECTOR



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. 40091, EXP DATE 2/13/15

Signature: *Jeffrey SLOMAN* DATE: 1/23/14  
JEFFREY SLOMAN P.E.



**DETAIL C-9 DIVERSION FENCE**  
STANDARD SYMBOL: SSF  
MAXIMUM DRAINAGE AREA = 2 ACRES

**B.A.S. STANDARDS AND SPECIFICATIONS**

**FOR STOCKPILE AREA**

Definition: A mound or pile of soil prepared by appropriately designed erosion and sediment control measures.

Purpose: To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions When Practice Applies: Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

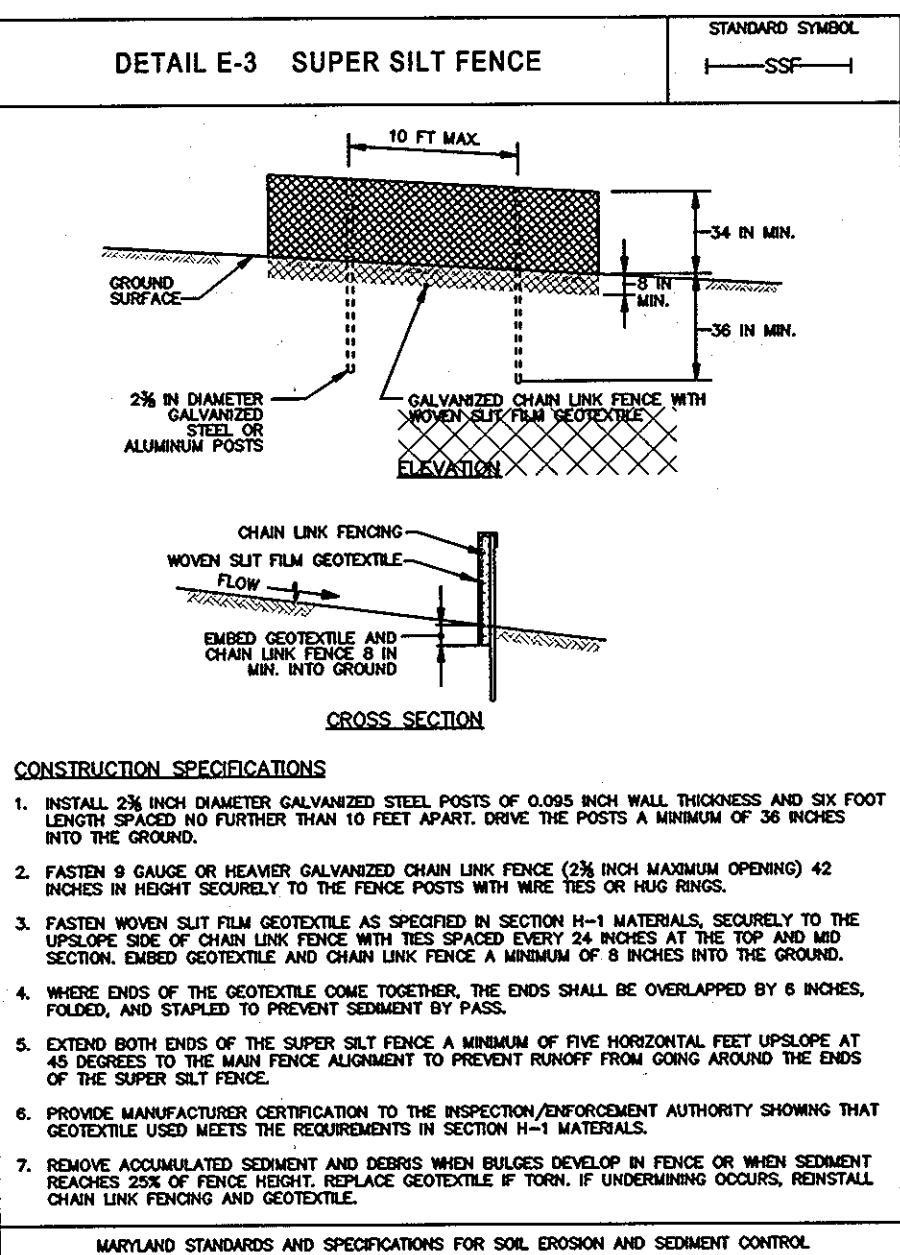
**CONSTRUCTION SPECIFICATIONS**

- 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 6.00 INCH WALL THICKNESS AND SIX FOOT LENGTHS 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 ENDED END A MINIMUM OF 8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING IF TYPICAL UNDERGROUND OCCURS. FENCE LINE.
- WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNWARD.
- KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF EXCHANGE FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN IF UNDERGROUND OCCURS. FENCE LINE.

**MATERIALS**

The stockpile area must continuously meet the requirements for Adaptive Vegetation Establishment in accordance with Section 6-4 Vegetation Stabilization. Slope shall be maintained at no steeper than 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slope, 30 feet for 3:1 slope, or 40 feet for 4:1 slope, bonding must be provided in accordance with Section 6-3 Land Grading.

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



**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 LENGTHS 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 THIS METHOD.
- FASTEN WOVEN SILT 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. ENDED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 6 INCHES INTO GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEPARATION 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 COMING AROUND THE ENDS OF THE SUPER SILT FENCE.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BUILDS UP IN FENCE OR WHEN SEDIMENT REACHES 6 INCH FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERGROUND OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

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

MISSION RIDGE  
LOTS 1 THRU 4, SINGLE-FAMILY DETACHED, PLAT 22641  
TAX MAP 42, PARCEL 507, 512  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

ENGINEERS: MILDENBERG, BOENDER & ASSOC., INC.  
Planners: *Jeffrey SLOMAN*  
Surveyors: *John R. Roberts*  
6800 Deepwater Road, Suite 150, Elkridge, Maryland 21075  
(410) 987-0286 Fax

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