SHEET INDEX TITLE SHEET ENVIRONMENTAL CONCEPT PLAN TYPICAL SECTION & DETAILS DRAINAGE AREA MAP

EXISTING TREE LINE

EXISTING DECIDUOUS TREE

EXISTING EVERGREEN TREE

OVERHEAD ELECTRIC LINE

SEWER MANHOLE

WATER METER

GAS METER

STORM DRAIN MANHOLE

SEASONAL DISPLAY AREA

PARKING AREA

LEGEND

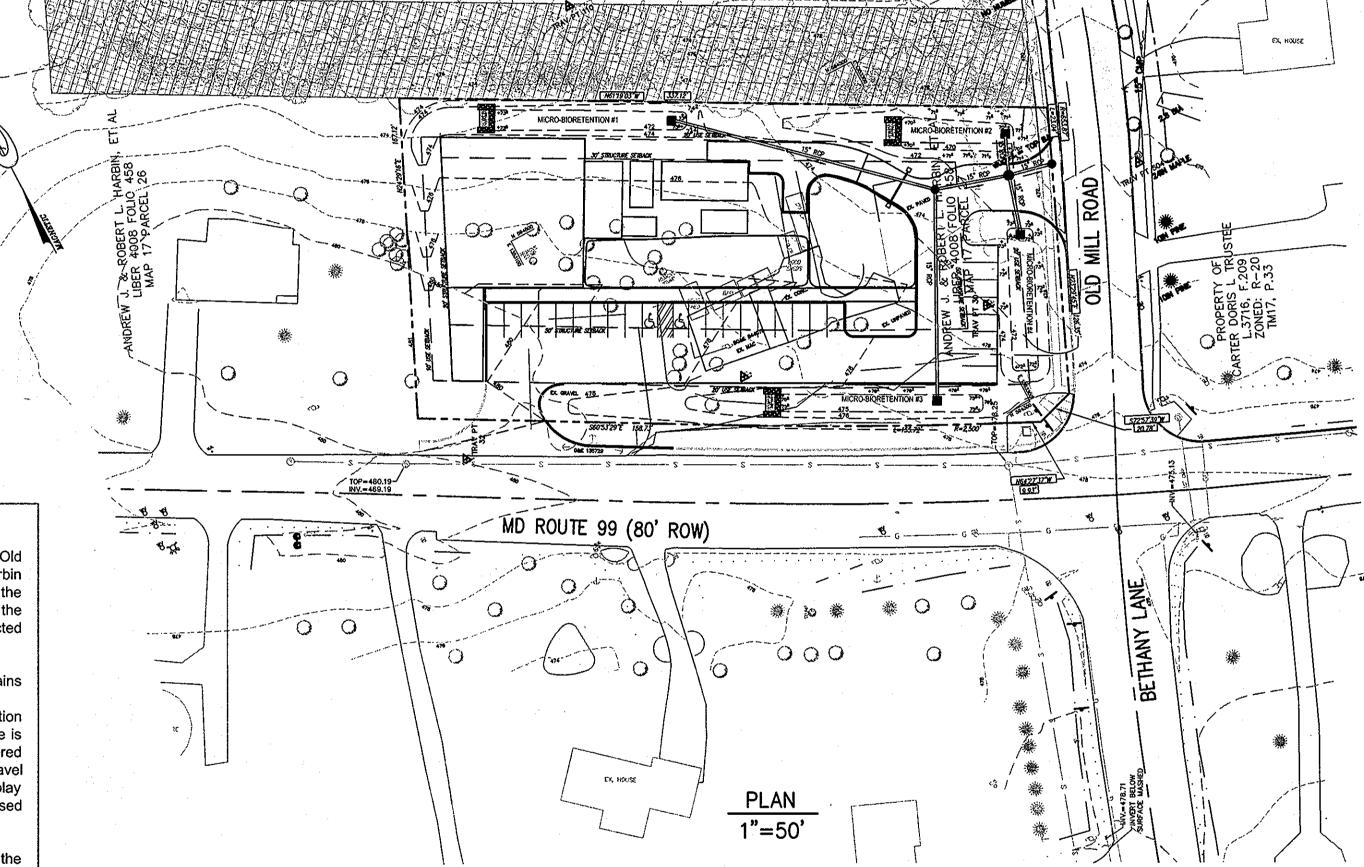
ENVIRONMENTAL CONCEPT PLAN

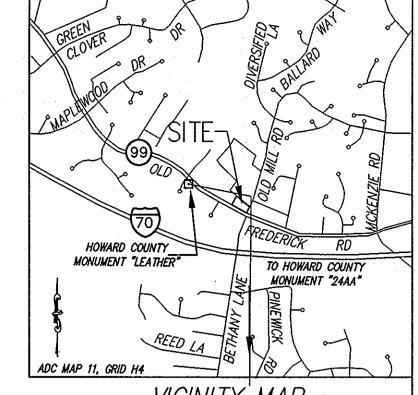
HARBIN PROPERTY

PRODUCE STAND

LOT 2 OF THE HARBIN PROPERTY MINOR SUBDIVISION

2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND





SITE ANALYSIS DA	TA CHART	
TOTAL AREA:	. ,	1.2951 AC.
OPEN SPACE AREA:		0.8962 AC.
IMPERVIOUS AREA:		0.3989 AC.
EXISTING ZONING:		R-20
MAXIMUM BUILDING HEIGHT:		34
STRUCTURE SETBACK FROM F	PUBLIC STREET:	50
STRUCTURE SETBACK FROM F	RESIDENTIAL: 30'	· · - · · · · · · · · · · · · · · · · ·
USE SETBACK FOR PARKING:		20
PROPOSED PRINCIPLE USES		
FOR SITE AND STRUCTURES:		PRODUCE STAND
HOURS OF OPERATION:		7 DAYS A WEEK
MARCH THROUGH NOVER		9 AM - 8 PM
DECEMBER JANUARY AND FEBRUAR		9 AM - 10 PM CLOSED
MAXIMUM NUMBER OF EMPLO		020020
NEIGHBORING COMMUNITIES:		MILL OVERLOOK
		HEBRON MANOR
	PROPOSED	<u>EXISTING</u>
BARN (WOOD)	576 SF	162 SF
COOLER (ALUMINUM)	900 SF	368 SF
SHEDS (WOOD)	180 SF	346 SF
FUTURE BUILDING (WOOD)	800 SF	_
(FOOD PREP BUILDING		P
W/ EMPLOYEE RESTROOM)		,
TOTAL BUILDING AREA	2,456 SF	
SALES & DISPLAY AREA	2,970 SF	
SEASONAL DISPLAY AREA 1	7,215 SF	
SEASONAL DISPLAY AREA 2	2,720 SF	
TOTAL DISPLAY AREA	12,905 SF	
PARKING SPACES	28 SPACES *	25 SPACES
* PARKING TABULATION		
PARKING REQUIRED:		26 SPACES
STRUCTURE:		15 SPACES
2,456 SF (6 SPAC	ES/1,000 SF)	
DISPLAY AREAS:		13 SPACES
12,905 SF (1 SPA	CE/1,000 SF)	•
DARKING BROUDINGS		00.004000

PROPOSED STRUCTURE CHART			
TYPE OF STRUCTURE	EXTERIOR MATERIAL	HEIGHT	
BARNS	WOOD	12'	
COOLERS	ALUMINUM	8'	
SHEDS	WOOD	10'	
FUTURE PREP BUILDING W/ EMPLOYEE RESTROOM	WOOD	14'	

PARKING PROVDIDED:

DESIGN NARRATIVE

The Site is a rectangular shaped property located in the northwest quadrant of the Old Frederick Road and Old Mill Road/Bethany Lane intersection. The site is Lot 2 of the Harbin Property Minor Subdivision, with a total area of 1.2951 acres. Old Frederick Road defines the southern boundary of the property. Old Mill Road defines the eastern boundary. Lot 3 of the Harbin Property Minor Subdivision is to the west of the site, and Lot 1 (Existing Age restricted residential development - Hebron Manor) is to the north.

As per the supporting documents of the Harbin Property Minor Subdivision, this site contains no forests, wetlands, wetland buffers, streams, stream buffers, or floodplain.

The site slopes gently to moderately (average of 3%) from the southwest corner (elevation 480+) down to the northeast corner (el. 470). The western and northern part of the site is covered by lawn and scattered trees. The middle portion of the site contains many scattered trees. The eastern portion of the site is mainly covered by areas of asphalt, an area of gravel & macadam mixture, and areas of gravel. The site is improved with the buildings and display areas of an existing Produce Stand, and the areas of impervious coverage are mainly used for parking and display areas.

The site's entire road frontages of Old Mill and Old Frederick Roads will be improved by the developer of Hebron Manor Age Restricted development. The improvements will consist of curb and gutter, sidewalk, and storm drain. Presently, the Old Mill frontage is partly improved with a macadam driveway, and the Old Frederick frontage is improved with asphalt along approximately 200' of its eastern portion.

In proposed conditions, a 28 space parking area with drive aisles, two driveway access areas, a paved service area, sidewalks, increased building coverage, and impervious sales and display areas are proposed. In proposed conditions, approximately 23,700 sf of surface (42%) area is green (including SWMF), and approximately 32,600 sf (58%) is in impervious cover. Four micro-bioretention facilities are proposed as shown on the plans to provide ESD to MEP for the entire area of proposed impervious cover.

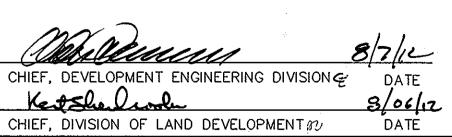
Site Planning: The proposed improvements are in areas that are currently both impervious and pervious. The activity areas have been designed in the middle of the site with SWM facilities designed on the perimeters using surface run-off to directly charge the facilities. The facilities will accommodate landscaping which will serve evapo-transpiration, moisture take-up, and impurities filtration. Parking is located as close to the access streets as possible, minimizing driveway paving. The design and location of improvements ensures that surface run-off drains linearly into swm facilities, and run-off from buildings will also sheet drain without concentration into swm facilities. Furthermore, the outside perimeter of the parking lot is designed as an open-section so that run-off sheet flows without concentration into swm

Minimization of Impervious Area: The conceptual design has proposed no more impervious cover than can be treated on-site with ESD to the MEP practices. The amount of impervious cover is the least amount which can safely serve the public.

There is no increase in drainage area due to proposed improvements. Total drainage area at the study point in the proposed conditions is 1.2951 acres.

NOTES

- SEE COUNTY REFERENCE FILES: F-06-002, WP-05-130, WP-05-140, 5. BA-04-049C, SDP-05-117, ZB-1073M, & BA-11-004C. THERE ARE NO HISTORIC STRUCTURES OR HISTORIC NATURAL FEATURES
- ON THE SITE. LIGHTING: ALL SITE LIGHTING WILL CONFORM TO SECTION 134 OF HOWARD COUNTY ZONING REGULATIONS & CHAPTER 5, SECTION 5.5 OF HOWARD COUNTY DESIGN MANUAL. ADDITIONALLY, IN ACCORDANCE WITH THE CONDITIONAL USE (BA-11-004C), NO POLE LIGHTING SHALL BE INSTALLED. ALL PARKING LOT FIXTURES WILL BE SHIELDED TO DIRECT LIGHT AWAY FROM
- ADJACENT PROPERTIES AND PUBLIC STREET RIGHTS-OF-WAYS. ALL SITE LIGHTING WILL BE LOW INTENSITY LIGHTING AND NOT POLE MOUNTED. THE SERVICE DRIVE AISLE WILL BE SCREENED BY LANDSCAPING OR WOOD FENCING OR BOTH.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES AND/OR RED LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE
- OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS. THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT WAS SATISFIED WITH SDP-05-117.
- 7. THE TOTAL PROPOSED DISTURBED AREA = 1.30 AC. THERE ARE NO WETLANDS OR WETLAND BUFFERS ON THIS SITE. 9. THERE ARE NO FLOODPLAINS OR FLOODPLAIN BUFFERS ON THIS SITE.
- 10. THERE ARE NO FORESTS ON THIS SITE. 11. THERE ARE NO STEEP SLOPES OF 15% AND GREATER ON THIS SITE. 12. THERE ARE NO ERODIBLE SOILS ON THIS SITE OR IN THE PROJECT AREA. 13. THE AREA WITHIN THE LIMIT OF DISTURBANCE IS 1.30 AC.
- 14. EXISTING GREEN OPEN AREA OF THE SITE IS 36,170 SF (64%). 15. EXISTING IMPERVIOUS AREA OF THE SITE IS 20,130 SF (36%). 16. PROPOSED GREEN OPEN AREA OF THE SITE IS 23,700 SF (42%). 17. PROPOSED IMPERVIOUS AREA OF THE SITE IS 57,054 SF (±100%) 18. NATURAL RESOURCES HAVE BEEN FIELD VERIFIED.



28 SPACES

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING

PRODUCE STAND LOT 2 OF THE HARBIN PROPERTY MINOR SUBDIVISION

HARBIN PROPERTY DATE: 07/19/12 DRAWN BY: JRP TITLE SHEET

AND ZONING.

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

DATE NO. REVISION 2006149.06

> CHECKED BY: SBP SHEET: 1 OF 4

AB CONSULTANTS, INC.

9450 ANNAPOLIS ROAD

LANHAM, MARYLAND 20706

PHONE: (301) 306-3091

FAX: (301) 306-3092

SANJAY PATEL, P.E. CONTACT: SANJAY B. PATEL PHONE: 301-306-3091 x121 ZONING R-20, TAX MAP 17, GRIDS 8 & 14, PARCEL 27, DEED REF: 4008/458 & 782/706

——ssf———ssf—— SUPER SILT FENCE

EROSION CONTROL MATTING

STABILIZED CONSTRUCTION ENTRANCE

Robert Harbin, Jr. &

Kimberly Taylor

9944 Route 99

Ellicott City, Maryland 21042

Phone: 410-465-6185 HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY

PETITIONER: ME, AND THAT I AM A DULY LICENSED PROFESSIONAL Michael & Kimberly Taylor ENGINEER UNDER THE LAWS 9944 Route 99 OF THE STATE OF Ellicott City, Maryland 21042 MARYLAND, LICENSE NO. 31042, EXPIRATION DATE: Phone: 410-465-6185 email: mikeandkimt@comcast.ne

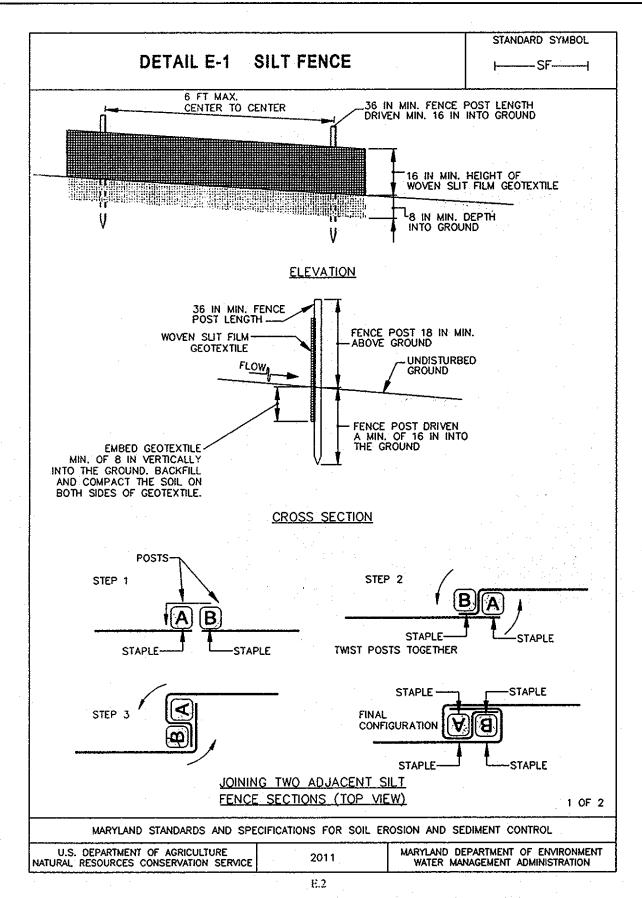


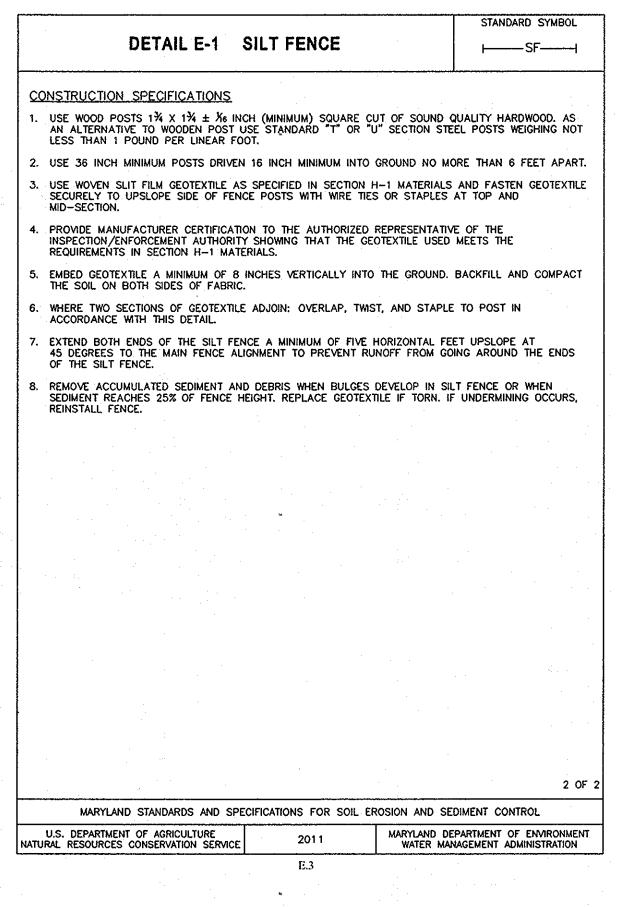


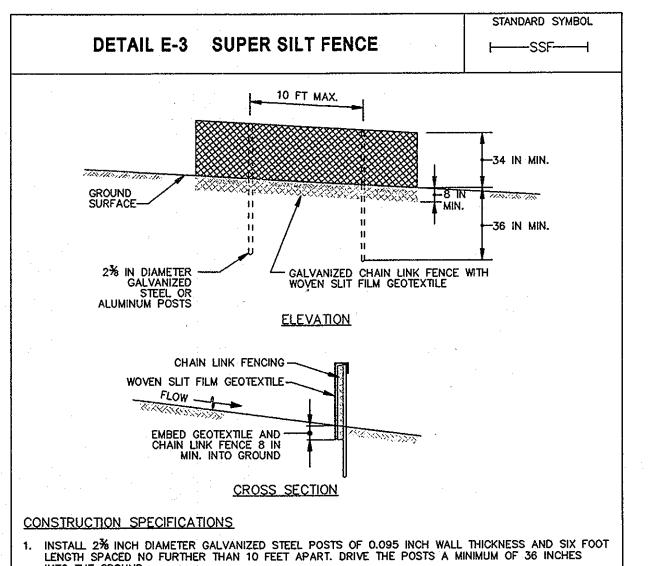


SCALE: 1" = 50

SUMMARY OF SWM MEASURES 7(A) 8(A) A Better Site Design Technique)00 Achieved by minimizing driveway widths, reducing driveway 4(lengths to the minimum, and minimizing internal sidewalks. Using Narrower, shorter streets, A suggestion to decrease the width of parking lot drive rights-of-way, and sidewalks aisles from the minimum required was discouraged by LOT 1 existing regulations. HARBIN PROPERTY MINOR SUBDIVISION Cul-de-Sacs ZONE: R-20 An open vegetated channel is designed along the western TM. 17, PAR. 27 perimeter of the development. This channel will convey Open Vegetated channels runoff from an impervious surface to a micro-bioretention # of parking stalls proposed is the minimum necessary for Parking ratio, parking codes, parking the business, and only two spaces more than a regulatory lots, and structured parking minimum. Suggestions that stall width and length be decreased were discouraged by existing regulations. Parking lots are designed to drain in sheet flow fashion without concentration (linearly) into proposed swm facilities directly at their edges. The ESD-SWM facilities are Parking lot runoff designed within setback areas and within relaxed setback areas. Parking lots will be landscaped, as will the SWM facilities. Requirement achieved along site perimeters in setback areas. As a commercial development with regulated Open Space setbacks, open space minimums are achieved by conformance with the bulk zoning regulations. No setbacks or frontage requirements are compromised in the site plan. Setbacks are relaxed and increased along Setbacks and Frontages the eastern and northeastern boundaries to accommodate ESD to the MEP practices. ENDS HERE Held to minimum necessary for commercial use. Long Driveways driveways without parking loading are avoided. Rooftop runoff N.A. 15" RCP SERVICE DRIVE $+71^9$ $71^{6}+$ $71^{4}+$ **Buffer Systems** LOADING SPACE 30' STRUCTURE SETBACK Achieved, by saving existing trees of value. Forest INFLOW RIPRAP Conservation is not applicable, because the site's forest 900 SF & GABION WALL, Tree Conservation conservation obligation was met through the Harbin HARBIN PROPERTY MINOR SUBDIVISION SEE DTL SHT 3 **COOLERS** Property Minor Subdivision. Use of Native plants will STOCKPILE AREA dominate the proposed landscaping. TM. 17, PAR. 26 -12'X24' Conservation Incentives FOOD PREP 20'X40' SEASONAL Green Roof: N.A. DISPLAY AREA • Permeable Pavements: This option was evaluated for the site. Permeable pavement, including grasscrete and pervious concrete, was considered for the proposed parking stalls SHED 10'X18' and outdoor sales and display areas. This option was rejected due to 1) the safety of customers in high heels or other non-accommodating footwear was considered compromised by such pavement, and 2) long-term maintenance of pervious pavement is deemed problematic, and thus permeable pavements were not considered a practicable option. ROW) 8 PARKING SPACES · Reinforced Turf: reinforced turf is not a practical application to this project, as the use is commercial in nature with foot and automobile traffic too intense for proper maintenance of • Microscale Practices: The following microscale practices were evaluated: EX. HOUSE o Micro-Bioretention - This option has been chosen as the dominant ESD to the MEP 7' SIDEWALK technique for this site due to soils infiltration characteristics, and adequate water volume treatment for the extent of the impervious surface, i.e. - efficiency. 20 PARKING SPACES Landscaping is also required at the site's perimeters per County regulations, and the landscaping will be a part of the micro-bioretention facilities. Four micro-Bioretention facilities are provided. o Rainwater Harvesting - There are no proposed large buildings to make harvesting 28 TOTAL feasible. The small amount of roof runoff is designed to flow to the proposed swm PARKING SPACES & GABION WALL, facilities, which will promote better recharge than rain barrels or other intervening SPACES capture devices. Thus, rainwater harvesting was not considered to be a practicable o Submerged Gravel Wetlands - The overall drainage area is too small to maintain saturated wetland conditions and thus is not considered practicable. o Landscape Infiltration - This option is not practical because of type B/D soils in the zones for filtration applications. o Infiltration Berms - This site is too small without sufficient open space for a practical ECM application of infiltration berms. Additionally, the presence of type B/D soils presents obstacles to proper infiltration. DRAINAGE AREA 'C' o Dry Wells - This option is not practical for sheet flowing parking lots and impervious areas, as there is no concentration of flow. Roof surfaces are too small to capture in | *S60*53'29"E | 158.73*' dry wells, and adequate infiltration of some soils is questionable. FUTURE CURB BY OTHERSo Rain Gardens - Since micro-bioretention is being provided this additional provision was not considered practical. EXISTING EDGE OF PAVEMENT o Swales – A swale is provided along the western perimeter of the developed areas. G&E 135729 o Enhanced Filters –This option is not practical because of Type B/D soils. VEHICULAR INGRESS & EGRESS RESTRICT o Bio-Swales - This option is inefficient - there is not enough space to create the (PLAT NO. 18318) volume necessary to sufficiently treat the site. 9.93' OLD FREDERICK ROAD TOP = 480.19MD ROUTE 99 (80' ROW) INV = 469.19HOWARD COUNTY MINOR ARTERIAL -VEHICULAR INGRESS &/ EGRESS RESTRICTED (PLAT_NO: 18318) FIRE HYDRANT APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. CHIEF, DEVELOPMENT ENGINEERING DIVISION C SOILS NOTE DRAINAGE AREAS CHIEF, DIVISION OF LAND DEVELOPMENTY DATE **SUMMARY TABLE** ALL UNDERLYING SOIL ON THIS SITE IS GLENELG-URBAN Robert Harbin, Jr. & LAND COMPLEX, 0% - 8% SLOPES. MAP SYMBOL IS GhB. Kimberly Taylor REQUIRED PROVIDED MICRO-BIO AREA 9944 Route 99 (AC.) **FACILITY** ESD (CF.) ESD (CF.) SOURCE: CURRENT HOWARD COUNTY, MD SOIL SURVEY Ellicott City, Maryland 21042 DATE NO. REVISION 0.22 Phone: 410-465-6185 0.39 90 1066 1070 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PROJECT HARBIN PROPERTY AB CONSULTANTS, INC. 2006149.06 0.18 90 870 0.31 870 PREPARED OR APPROVED BY 0.32 0.18 872 872 90 PETITIONER: SCALE: 1"=20' PRODUCE STAND 9450 ANNAPOLIS ROAD ME, AND THAT I AM A DULY 0.24 0.17 93 809 DATE: 07/19/12 LOT 2 OF THE HARBIN PROPERTY MINOR SUBDIVISION LICENSED PROFESSIONAL LANHAM, MARYLAND 20706 Michael & Kimberly Taylor ENGINEER UNDER THE LAWS DRAWN BY: JRP 9944 Route 99 PHONE: (301) 306-3091 ENVIRONMENTAL CONCEPT PLAN OF THE STATE OF CHECKED BY: SBP FAX: (301) 306-3092 Ellicott City, Maryland 21042 MARYLAND, LICENSE NO. 31042, EXPIRATION DATE: Phone: 410-465-6185 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND email: mikeandkimt@comcast.net SANJAY PATEL P.E. CONTACT: SANJAY B. PATEL PHONE: 301-306-3091 x121 ZONING R-20, TAX MAP 17, GRIDS 8 & 14, PARCEL 27, DEED REF: 4008/458 & 782/706 SHEET: 2 OF 4

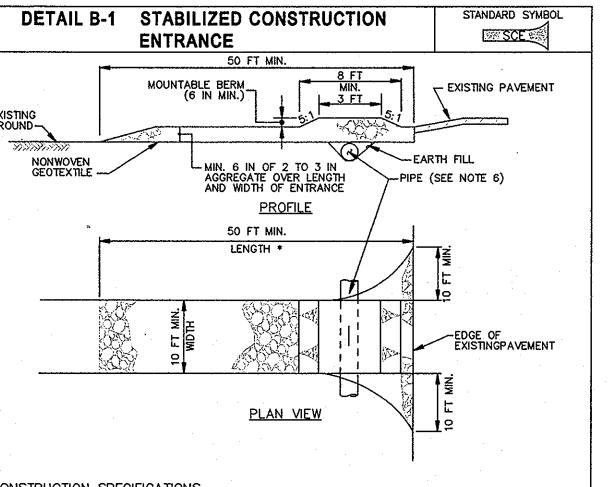






- LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- 2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (23/4 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- 3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- 5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS
- OF THE SUPER SILT FENCE. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT
- GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPE	CIFICATIONS FOR SOIL EF	ROSION AND SEDIMENT CONTROL	
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRON WATER MANAGEMENT ADMINISTRATI	

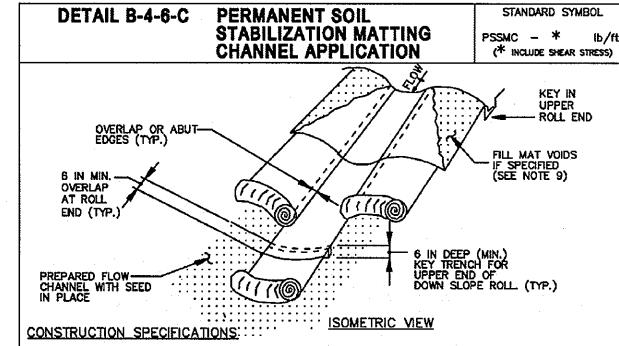


CONSTRUCTION SPECIFICATIONS

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- 2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS. 4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT
- REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPE	CIFICATIONS FOR SOIL ER	ROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

B.2

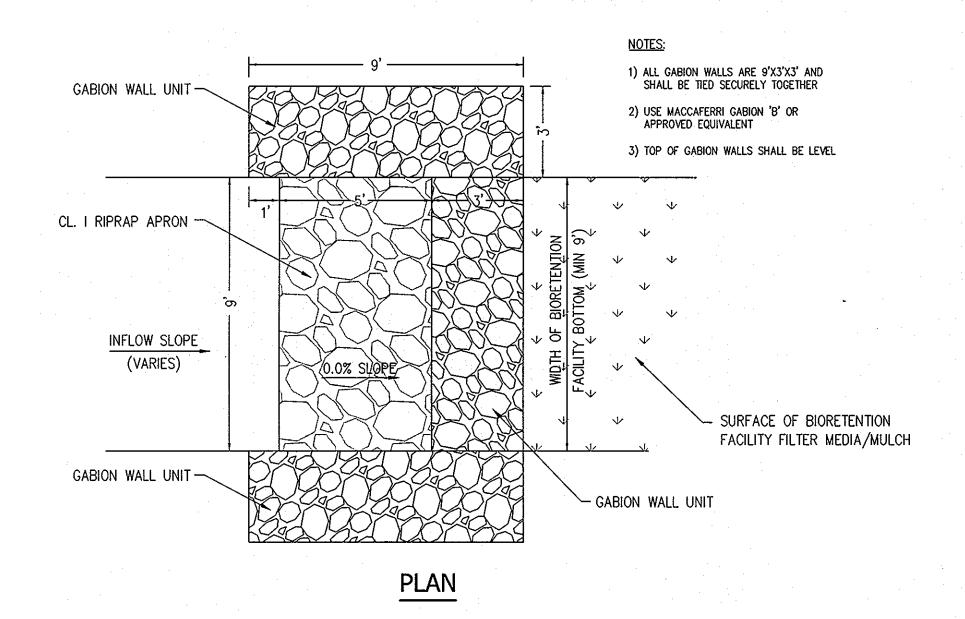


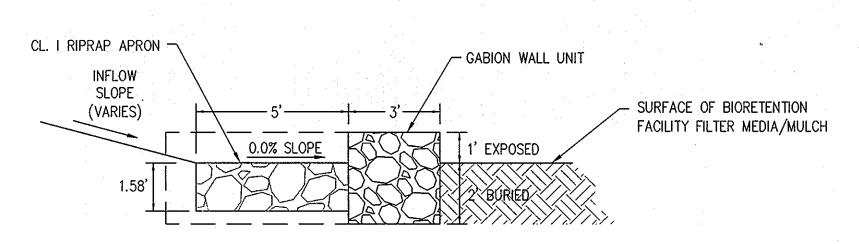
USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS

- USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL
- SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 ½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH—SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS. UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL
- UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS, LAY MATTING SMOOTHLY AND FIRMLY UPON
- OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT. KEY IN THE TOP OF SLOPE END OF MAT 8 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
- STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- 9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
- O, ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

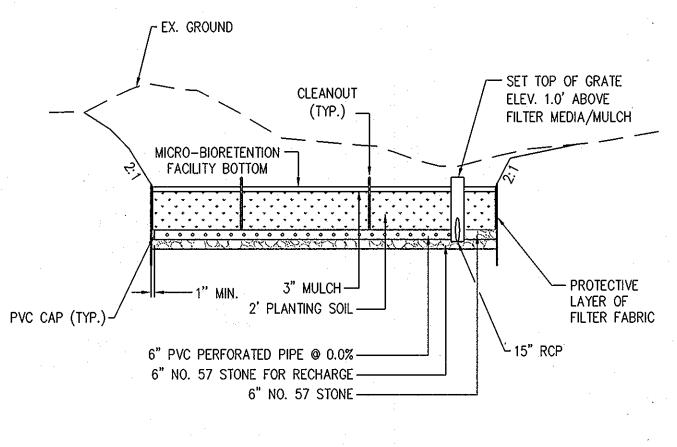




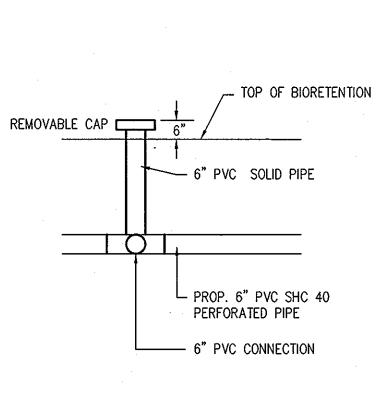
INFLOW RIPRAP & GABION WALL DETAIL SCALE: N.T.S.

PROFILE

TYPICAL DETAILS OF MICRO-BIORETENTION FACILTY







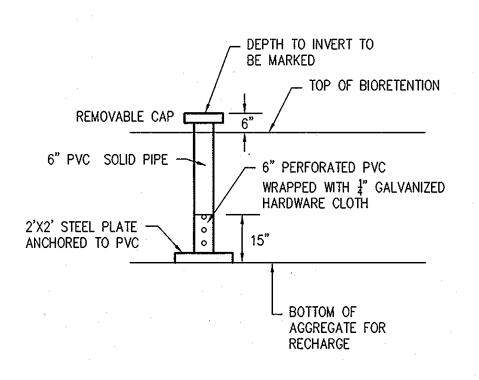
CLEANOUT SCALE: NOT TO SCALE

LICENSED PROFESSIONAL

MARYLAND, LICENSE NO. 31042, EXPIRATION DATE:

OF THE STATE OF

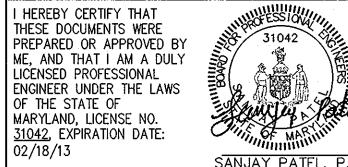
02/18/13



OBSERVATION WELL SCALE: NOT TO SCALE

OWNER: Robert Harbin, Jr. & Kimberly Taylor 9944 Route 99 Ellicott City, Maryland 21042 Phone: 410-465-6185 PETITIONER:

Michael & Kimberly Taylor 9944 Route 99 Ellicott City, Maryland 21042 Phone: 410-465-6185 email: mikeandkimt@comcast.net





AB CONSULTANTS, INC. 9450 ANNAPOLIS ROAD LANHAM, MARYLAND 20706

CONTACT: SANJAY B. PATEL PHONE: 301-306-3091 x121

PHONE: (301) 306-3091 FAX: (301) 306-3092

PROJECT HARBIN PROPERTY PRODUCE STAND LOT 2 OF THE HARBIN PROPERTY MINOR SUBDIVISION TYPICAL SECTION & DETAILS

DATE NO.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING

REVISION

CHIEF, DEVELOPMENT ENGINEERING DIVISION &

CHIEF, DIVISION OF LAND DEVELOPMENTAY

AND ZONING.

Kent Shendroom

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND ZONING R-20, TAX MAP 17, GRIDS 8 & 14, PARCEL 27, DEED REF: 4008/458 & 782/706

SHEET: 3 OF 4 ECP-12-036

DATE

PROJECT NO.

2006149.06

SCALE: AS SHOWN

DATE: 07/19/12

DRAWN BY: JRP

CHECKED BY: SBP

