

ADDRESS CHART	
LOT NO.	STREET ADDRESS
2	8110 BETHEL LANE
4	8111 BETHEL LANE
6	8114 BETHEL LANE
7	8115 BETHEL LANE

MINIMUM LOT SIZE CHART			
LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
2	10,674 SQ. FT.	836 SQ. FT.	9,838 SQ. FT.
4	11,494 SQ. FT.	1,094 SQ. FT.	9,400 SQ. FT.
6	10,800 SQ. FT.	1,201 SQ. FT.	9,600 SQ. FT.
7	11,490 SQ. FT.	1,091 SQ. FT.	9,601 SQ. FT.

PERMIT INFORMATION CHART					
SUBDIVISION NAME		SECTION/AREA	LOT #		
BETHEL CROSSING		N/A	2, 4, 6 & 7		
PLAT NO. 14678/14839	BLOCK # 5	ZONE R-12	TAX/ZONE MAP 47	ELEC. DIST. 6TH	CENSUS TRACT 6069.02
WATER CODE PRIVATE		SEWER CODE PRIVATE			

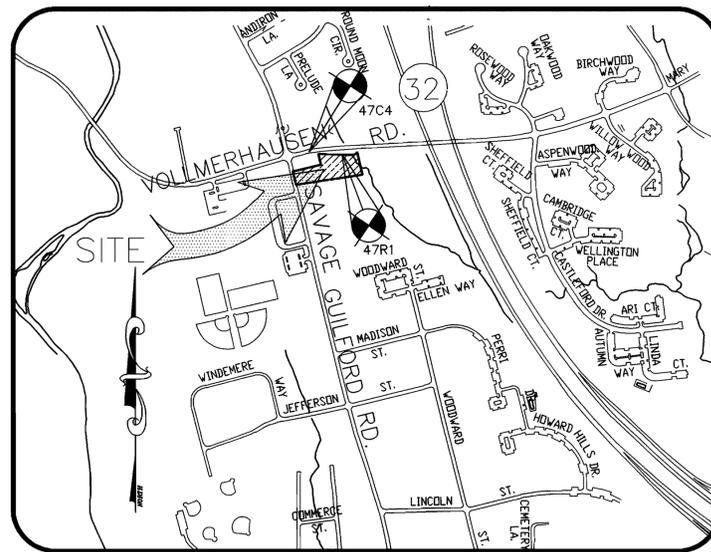
SITE DEVELOPMENT PLAN

BETHEL CROSSING

LOTS 2, 4, 6 AND 7

SIXTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE 1"=800'

GENERAL NOTES:

- SUBJECT PROPERTY ZONED R-12 AS PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, AND MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION 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.
- PROJECT BACKGROUND:
TOTAL PROJECT AREA: 1.02± Ac
LIMIT OF DISTURBED AREA: 0.82± Ac
ZONING: R-12
PROPOSED USE: RESIDENTIAL SINGLE FAMILY DETACHED
TOTAL NUMBER OF UNITS ALLOWED: 4
TOTAL NUMBER OF UNITS PROPOSED: 4
OPEN SPACE ON SITE: 0.43± Ac
PERCENT OPEN SPACE: 23%
DPZ FILE NO.: F-00-150, Fol-186, P. 01-100
- HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 47R1 & 47C4.
STATION 47R1: NORTHING 539734.765, EASTING 1363098.875, ELEVATION 282.240
STATION 47C4: NORTHING 539645.665, EASTING 1361379.426, ELEVATION 288.791
- TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY CONDUCTED BY MILDENBERG BOENDER & ASSOCIATES, INC. ON OR ABOUT AUG. 1999.
- BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN & MONUMENTED SURVEY BY MILDENBERG BOENDER & ASSOCIATES, INC. ON OR ABOUT AUG. 1999.
- PUBLIC WATER AND SEWER WILL BE UTILIZED. LOTS 2, 4, 6 & 7 WILL BE SERVICED UNDER CONTRACT # 128-S & 3-W.
- WETLANDS STUDY AND FOREST STAND DELINEATION BY MILDENBERG BOENDER AND ASSOC. ON OR ABOUT FEB. 2000.
- NO BURIAL OR CEMETERY SITES EXIST ON THE SITE.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS, STREAMS AND THEIR BUFFERS OR FOREST CONSERVATION AREAS.
- DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A) WIDTH-12 FEET (14 FEET IF SERVING MORE THAN ONE RESIDENCE).
B) SURFACE-4 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
C) GEOMETRY-MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 FOOT TURNING RADIUS.
D) STRUCTURES (CULVERTS/BRIDGES)-CAPABLE OF SUPPORTING 25 GROSS TONS (250,000 LBS) LOAD.
E) DRAINAGE ELEMENTS-CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
F) STRUCTURE CLEARANCES-MINIMUM 12 FEET.
G) MAINTENANCE-SUFFICIENT TO INSURE ALL WEATHER USE.
- 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 SETBACK, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- ANY DAMAGE TO COUNTY'S RIGHT OF WAY SHALL BE CORRECTED AT THE DEVELOPERS EXPENSE.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING CONSTRUCTION.
- DRY WELLS WILL BE USED TO CONTROL WATER QUALITY FOR LOTS 2, 4, 6 & 7.
- LANDSCAPE REQUIREMENTS PER SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL SHALL BE PROVIDED AS SHOWN ON THESE PLANS.
SURETY FOR THE REQUIRED LANDSCAPING SHALL BE PROVIDED AT THE TIME OF GRADING PERMIT APPLICATION FOR THE FOLLOWING LOTS:
3. EVERGREEN TREES ON LOT 7.
2. SHADE TREES ON LOT 2.
4. EVERGREEN TREES ON LOT 6.
2. SHADE TREES ON LOT 4.
- LOT 1 IS EXEMPT SINCE IT HAS AN EXISTING HOUSE LOCATED ON THE LOT WHICH IS TO REMAIN. PERIMETER LANDSCAPING HAS BEEN REVISED THROUGH A REDLINE REVISION TO THE RECORD PLAT.
FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL HAS BEEN PROVIDED BY THE PLACEMENT OF 0.28 ACRES IN A FOREST CONSERVATION EASEMENT (0.24 ACRES OF AFFORESTATION AND 0.04 ACRES OF REFORESTATION). SURETY IN THE AMOUNT OF \$3,179.04 FOR 10,596.8 SQ.FT. HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT. FOREST CONSERVATION CREDIT IN THE AMOUNT OF 1,600 SQ.FT. OF LANDSCAPING IS BEING TAKEN FOR THE FOUR (4) SHADE TREES AS SHOWN ON THIS PLAN TO BE PLANTED AS PART OF THE LANDSCAPE REQUIREMENTS. FINANCIAL SURETY FOR THESE TREES IS BEING POSTED AS PART OF THE LANDSCAPE SURETY REQUIRED WITH THE GRADING PERMIT FOR LOT 4.
THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT.
- A USE-IN-COMMON DRIVEWAY MAINTENANCE AGREEMENT FOR LOTS 2, 4, 6 & 7, AND OPEN SPACE LOT 5 HAS BEEN RECORDED IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND, SIMULTANEOUSLY WITH THE RECORD PLAT.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY LINE ONLY.
- THIS PROJECT IS SUBJECT TO WAIVER PETITION WP-00-123 REQUESTING THAT THE REQUIRED 40' FRONTAGE PER THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SECTION 16.121(e)(1) BE SATISFIED VIA FRONTAGE ON VOLLERHAUSEN ROAD. ACCESS TO OPEN SPACE LOT 5 WILL BE PROVIDED VIA AN INGRESS/EGRESS EASEMENT IN CONJUNCTION WITH THE USE-IN-COMMON EASEMENT. THIS WAIVER WAS APPROVED ON JULY 31, 2000.

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Jerry L. Rusing 5/14/01
SIGNATURE OF DEVELOPER DATE
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:
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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

R. JACOB HIKMAT 5/14/01
SIGNATURE OF ENGINEER DATE
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

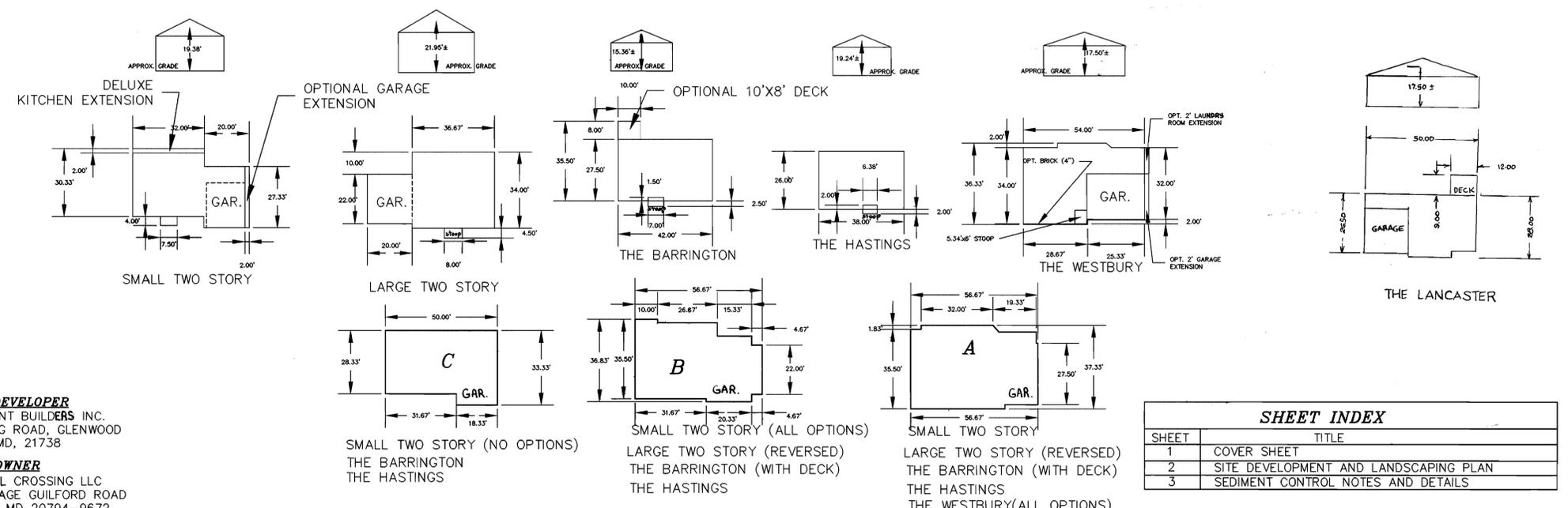
Jim Moxley 5/15/01
USDA - NATURAL RESOURCE CONSERVATION SERVICE DATE

THESE DEVELOPMENT PLANS ARE APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John W. Roberts 5/15/01
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
David Hamilton 7/5/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
David Hamilton 5/22/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



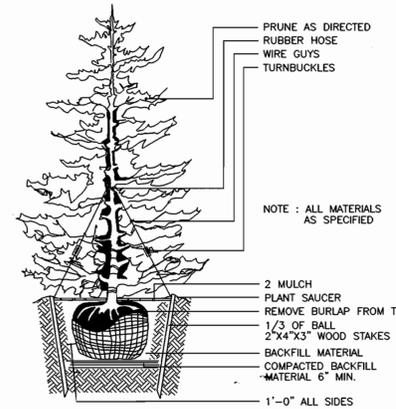
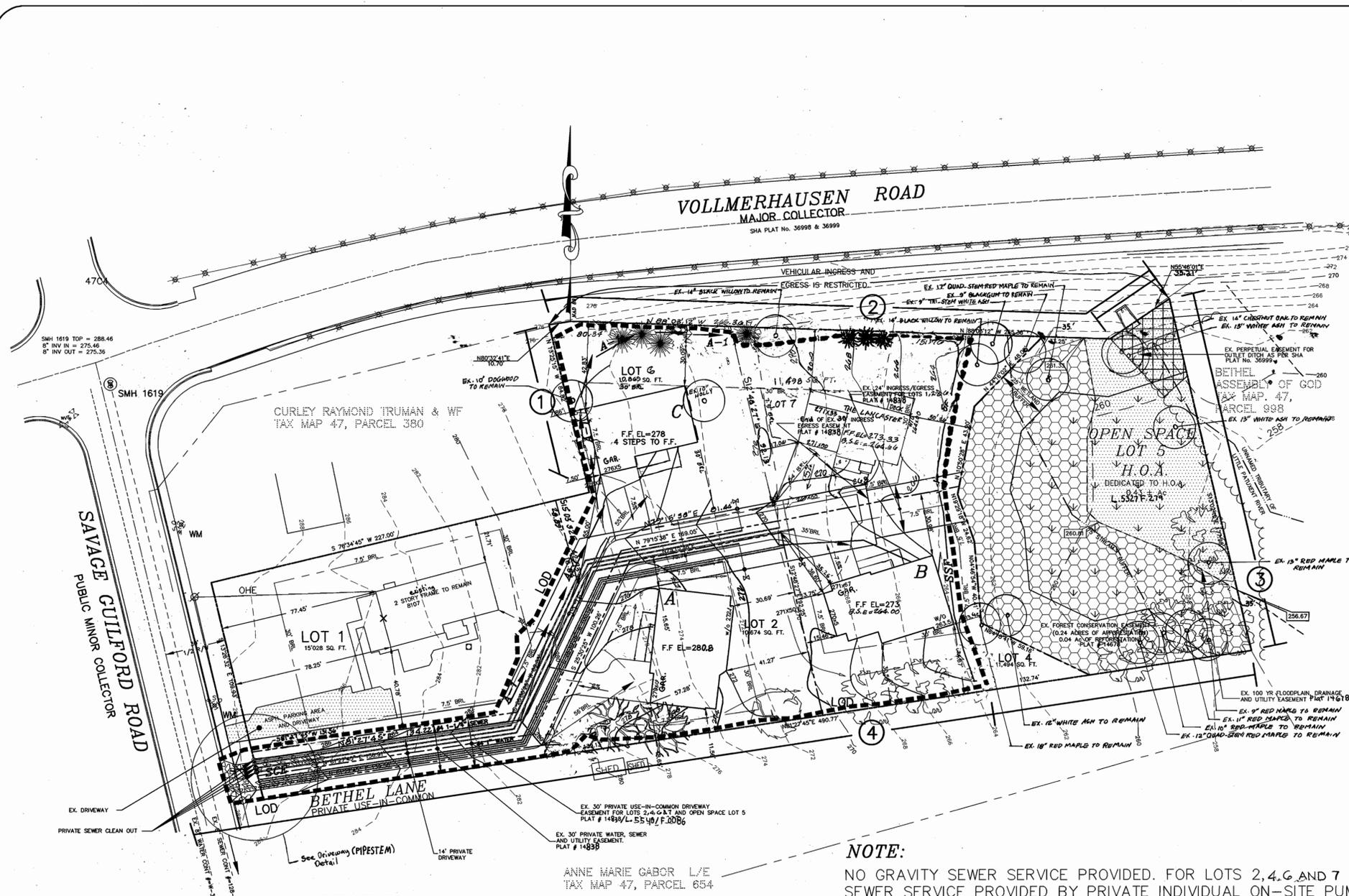
SHEET INDEX	
SHEET	TITLE
1	COVER SHEET
2	SITE DEVELOPMENT AND LANDSCAPING PLAN
3	SEDIMENT CONTROL NOTES AND DETAILS

Project	date	description	approval
98049	APR. 2001	engineering	SAH
		scale	AS SHWN
		revision	RH

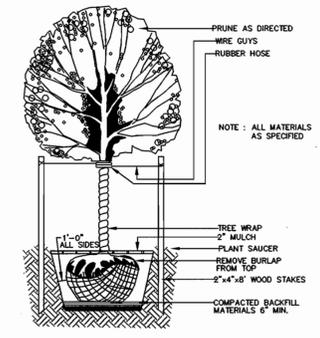
no.	description	revisions
2	ADD LOT 5 TO THE PROJECT AND TO THE RECORD PLAT. THE RECORD PLAT IS TO BE SUBMITTED TO THE RECORDS OFFICE OF HOWARD COUNTY, MARYLAND.	

BETHEL CROSSING
LOTS 2, 4, 6 AND 7
TAX MAP 47 - PARCEL 626 - BLOCK 5
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
COVER SHEET

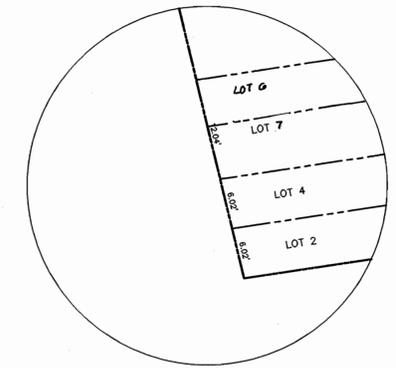
MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Elliott City, Maryland 21042
(410) 997-0286 Bldg. (301) 621-5521 Wash. (410) 997-0288 Fax.



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



TYPICAL DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



PIPESTEM DETAIL
SCALE 1"=10'

NOTE:
NO GRAVITY SEWER SERVICE PROVIDED. FOR LOTS 2, 4, 6, AND 7 SEWER SERVICE PROVIDED BY PRIVATE INDIVIDUAL ON-SITE PUMPS.

LEGEND

- 100 YR FLOOD PLAIN
- WETLANDS
- EX. FOREST CONSERVATION EASEMENT
- EX. SANITARY SEWER MANHOLE
- EX. SANITARY SEWER CLEAN OUT
- EX. WATER VALVE
- EX. POWER POLE
- EX. TELEPHONE PEDESTAL
- EX. SIGN
- EX. STORM DRAIN GRATE INLET
- LOD
- APPROX. LOCATION OF CLEAN OUT & GRINDER PUMP
- DENOTES PERIMETER LANDSCAPE EDGE

LANDSCAPE REQUIREMENT PLANTING SCHEDULE

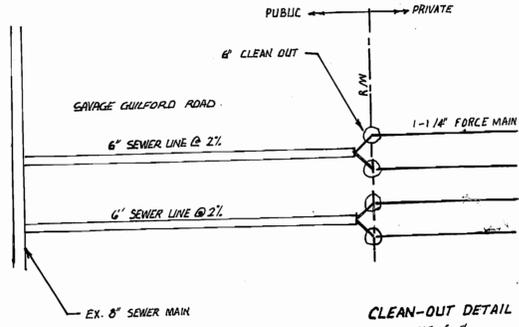
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
2		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
7		PINUS STROBUS	EASTERN WHITE PINE	6' - 8' HT.
2		ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2" - 3" CAL.
TOTAL 11 TREES (4 SHADE TREES, 7 EVERGREENS)				

NOTE:
SEE SHEET 1 NOTE 19 FOR SURETY REQUIREMENTS

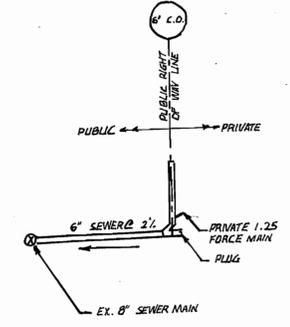
SCHEDULE A: PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES	
	A (PERIMETERS 1, 3 AND 4)	B (PERIMETER 2)
LANDSCAPE TYPE	790.00 LF	311.27 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, CREDIT FOR 0 SHADE TREES & 1 ORNAMENTAL TREE*	YES, CREDIT FOR 7 SHADE TREES*
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO
NUMBER OF PLANTS REQUIRED	4 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 7 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED	4 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS (10:1 SUBSTITUTION)	0 SHADE TREES 7 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS

*CREDIT FOR EXISTING VEGETATION ALONG PERIMETER 1 FOR 1 EXISTING 10' DOGWOOD, CREDIT ALONG PERIMETER 3 FOR ONE EXISTING 18' WHITE ASH, ONE EXISTING 18' MAPLE, AND ONE EXISTING 9' MAPLE AND CREDIT ALONG PERIMETER 4 FOR ONE EXISTING 11' RED MAPLE, ONE EXISTING 10' RED MAPLE, ONE EXISTING 12' QUAD-STEM RED MAPLE, ONE 15' WHITE ASH, ONE EXISTING 18' RED MAPLE, CREDIT ALONG PERIMETER 2 FOR ONE EXISTING 15' RED MAPLE, ONE EXISTING 14' BLACK WILLOW, ONE EXISTING 9' WHITE ASH, ONE EXISTING 9' BLACKGUM, ONE 17' RED MAPLE, ONE EXISTING 14' CHESTNUT OAK, AND ONE EXISTING 13' WHITE ASH.



CLEAN-OUT DETAIL
SCALE 1"=5'



BY THE DEVELOPER:
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Jerry L. Kushing 5/14/01
SIGNATURE OF DEVELOPER DATE
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:
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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

R. T. HIKMAT 5/14/01
SIGNATURE OF ENGINEER DATE
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim M... 5/15/01
USDA - NATURAL RESOURCE CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN WAS PREPARED FOR SOIL EROSION AND SEDIMENTATION CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Jim M... 5/15/01
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING.

... 7/5/01
DIRECTOR DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING.

... 7/5/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

... 5/22/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DEVELOPER
PATUXENT BUILDERS INC.
3330 SANG ROAD, GLENWOOD MD, 21738

OWNER
BETHEL CROSSING LLC
8107 SAVAGE GUILFORD ROAD
JESSUP MD 20794-9672



project	99049	date	JAN. 2001
illustration	SA	engineering	SA
scale	1"=90'	approval	SA

revision	1	description	REVISE GRADING ON LOT 2	date	4/29/02
revision	2	description	REVISE GRADING ON LOT 2	date	4/29/02

BETHEL CROSSING
LOTS 2, 4, 6, AND 7
TAX MAP 47 - PARCEL 626 - BLOCK 5
SIXTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
SITE DEVELOPMENT AND LANDSCAPING PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsney Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 987-0286 Fax (301) 821-5521 Wash. (410) 987-0286 Fax

HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING.
HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.)

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1-4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEeping LOVEGRASS.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEeping LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

- 1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF NAY CONSTRUCTION. (313-1855).
2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT 'MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL', AND REVISIONS THERETO.
3) FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.

- 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

BY THE DEVELOPER: I, JERRY L. KUSHING, CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER: I, JERRY L. KUSHING, CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: DEPARTMENT OF PLANNING AND ZONING. SIGNATURE: Hilma T. DATE: 5/14/01

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STANDARD AND SPECIFICATIONS FOR TOPSOIL

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.

CONDITIONS WHERE PRACTICE APPLIES: 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 THROUGHOUT 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.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED 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 EXPERIMENTAL 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, LOAMY SAND, 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 CONTAMINATED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CONCRETES, STONES, SLAG, COARSE FRAGMENTS, GRAVEL STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
2. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONSON GRASS, NUTSEDGE, 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 DESIGNATED 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. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
5. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
a. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
i. pH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A pH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PERSCRIBED TO RAISE THE pH TO 6.5 OR HIGHER.
ii. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
iii. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
iv. NO SOD 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 DEGRADATION OF PHYTO-TOXIC MATERIALS.
b. 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.
6. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

NOTE: 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.

III. TOPSOIL APPLICATION: WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

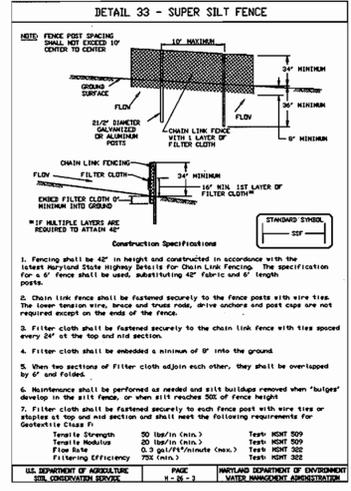
IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

V. 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:
1. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
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 COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS 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 1/3 THE NORMAL LIME APPLICATION RATE.

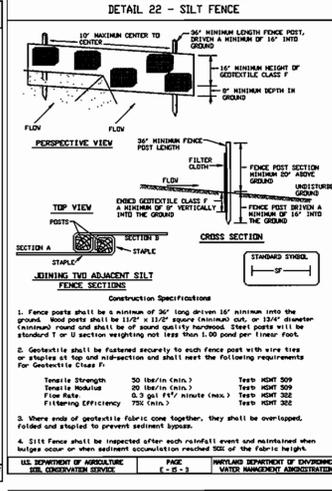
VI. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

SEQUENCE OF CONSTRUCTION

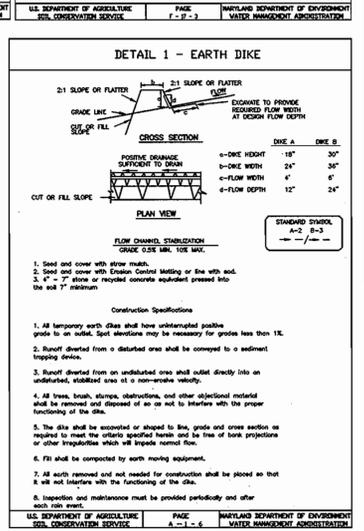
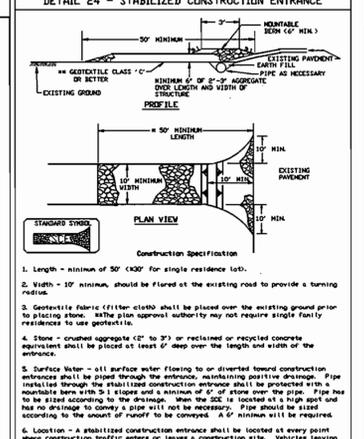
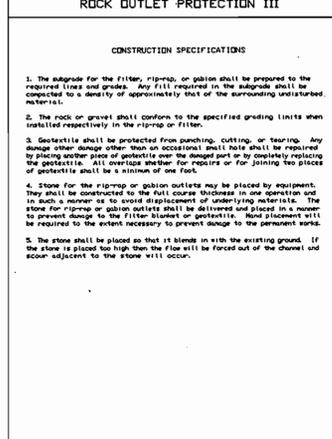
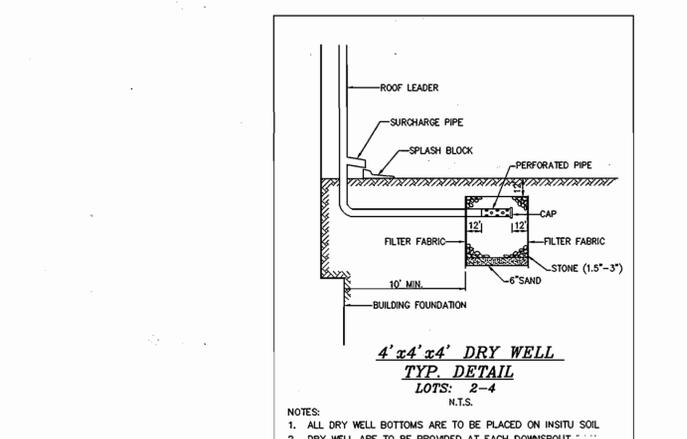
- 1. OBTAIN GRADING PERMIT
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN. (1 DAY)
3. CONSTRUCT PROPOSED SEDIMENT CONTROL MEASURES (2 DAY)
4. BUILD HOUSES ON LOTS 2-4
5. STABILIZE DISTURBED AREAS
6. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED, AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES AND STABILIZE ALL REMAINING AREAS. (3 DAYS)



SUPER SILT FENCE Design Criteria table with columns: Slope, Slope Steepness, Slope Length (maximum), Silt Fence Length (maximum). Rows include 0-100, 10-200, 20-330, 30-500, 500+.



SILT FENCE Silt Fence Design Criteria table with columns: Slope Steepness, (Maximum) Slope Length, (Maximum) Silt Fence Length. Rows include Flatter than 30:1, 30:1 to 10:1, 10:1 to 5:1, 5:1 to 3:1, 3:1 to 1:1, 1:1 and steeper.



TAX MAP 47, BLOCK 5, PARCEL 626 BETHEL CROSSING HOWARD COUNTY, MARYLAND. MILDENBERG, BOENDER & ASSOC., INC. 5072 Dorsey Hall Drive, Suite 202, Elkton City, Maryland 21042. (410) 997-0296 Fax. (301) 621-5521 Wash. (410) 997-0298 Fax. SDP-01-60