

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	OVERALL SITE DEVELOPMENT PLAN
3	SITE DEVELOPMENT PLAN
4	GRADING & SEDIMENT CONTROL PLAN AND SOILS MAP
5	STORMWATER MANAGEMENT PLAN
6	SEDIMENT AND EROSION CONTROL DETAILS
7	STORMWATER MANAGEMENT DETAILS
8	FOREST STAND DELINEATION
9	FOREST STAND DELINEATION NOTES AND TABULATIONS
10	LANDSCAPE AND FOREST CONSERVATION PLAN
11	LANDSCAPE AND FOREST CONSERVATION NOTES AND DETAILS
12	SOIL BORING LOGS

SITE DEVELOPMENT PLAN

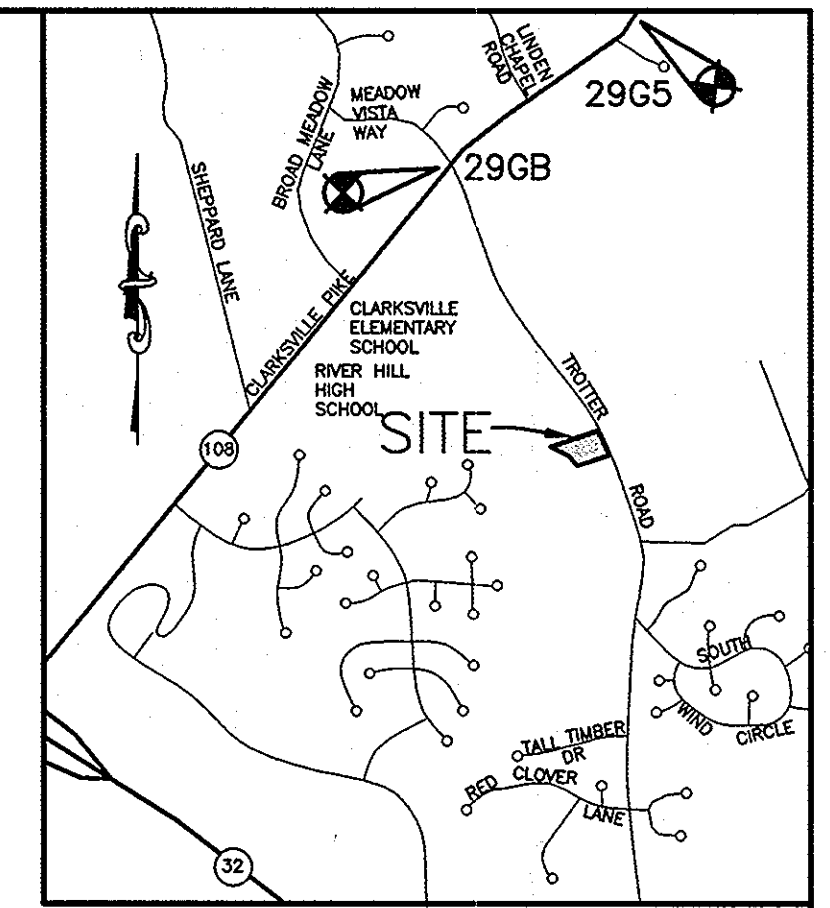
TROTTER CROSSING II

LOTS 14-19

A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

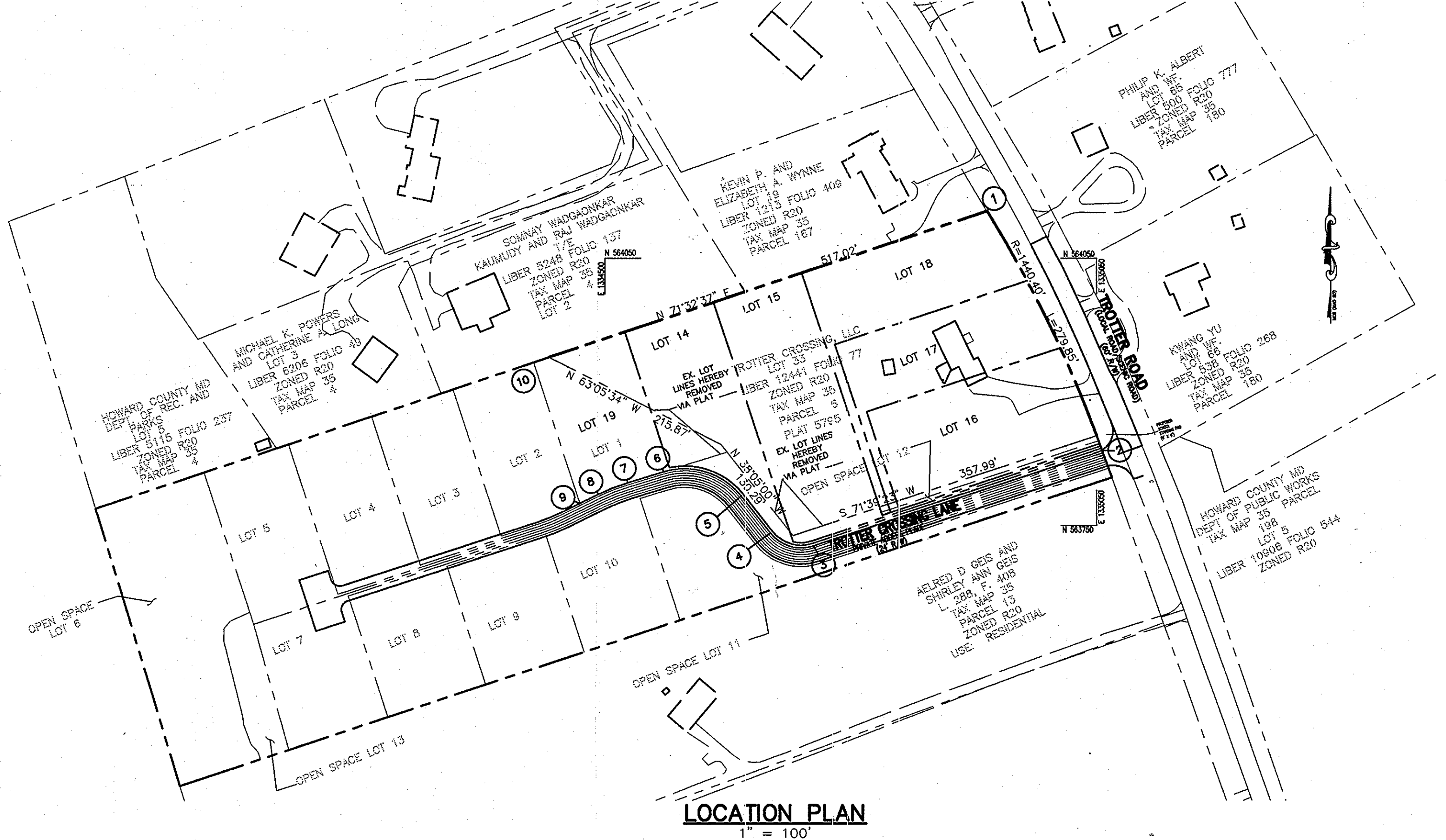
5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1"=200'
COPYRIGHT ADC THE MAP PEOPLE
PERMITTED USE NO. 2081197
HOWARD COUNTY ADC MAP 4934 : C6

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD STUDY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PATTON HARRIS RUST AND ASSOCIATES IN AUGUST 2009. COORDINATES BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD GEODETIC CONTROL STATIONS Nos. 29GB AND 29G5.
 - THE BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED IN JANUARY 2003 BY PATTON HARRIS RUST & ASSOCIATES.
 - WATER: PUBLIC CONTRACT 34-4170-D. THE EXISTING PRIVATE WELL AND SEPTIC FACILITIES WILL BE ABANDONED IN ACCORDANCE WITH HOWARD COUNTY HEALTH DEPARTMENT GUIDELINES.
 - SEWER DRAINAGE AREA: LITTLE PATUXENT. THE CONTRACT NUMBER FOR THE PUBLIC SEWER SERVING THIS DEVELOPMENT IS 34-4170-D.
 - THIS SUBDIVISION IS SUBJECT TO SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND/OR SEWER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS THEREOF EFFECTIVE JUNE 10, 2008, ON WHICH DATE DEVELOPERS AGREEMENT WAS FILED AND ACCEPTED, CONTRACT NO. WS 34-4170-D.
 - STORM WATER MANAGEMENT WILL BE PROVIDED FOR LOTS 14-18 BY PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT RAIN GARDENS, GRASS SWALES, AND DISCONNECTIONS OF NON-ROOFTOP RUNOFF. ENVIRONMENTAL SITE DESIGN (ESD) TECHNIQUES HAVE BEEN PROVIDED TO TREAT THE REQUIRED TARGET RAINFALL (P₀) AMOUNTS FOR THIS SITE. STORMWATER MANAGEMENT FOR LOT 19 IS PROVIDED BY A PRIVATELY OWNED AND MAINTAINED POCKET POND LOCATED ON OPEN SPACE LOT 11 PER F-05-067.
 - APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
 - NO WETLANDS WERE FOUND WITHIN THE SUBJECT PROPERTY AS VERIFIED BY PATTON HARRIS RUST AND ASSOCIATES, SEPTEMBER 2009.
 - THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP AND DATED SEPTEMBER 2009.
 - A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
 - SUBJECT PROPERTY ZONED R-20 PER 02-02-04 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 07-28-06.
 - SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S.: F-84-121 (FOREST HILLS LOT 32), SP-03-15, WF-03-123, F-05-067, WF-09-080, SDP-09-19, F-10-53.
 - THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
 - CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
 - PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
 - NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
 - ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
 - PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
 - ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
 - SEE F-05-067 FOR STREET TREE REQUIREMENTS.
 - THERE IS ONE EXISTING HOUSE ON-SITE TO BE REMOVED. THE EXISTING HOUSE WAS BUILT IN 1987. THERE IS ALSO ONE EXISTING SHED ON-SITE TO BE REMOVED.
 - THERE ARE NO STREAMS, WETLANDS, OR 100 YEAR FLOODPLAIN ON THIS SITE. STEEP SLOPES HAVE BEEN SHOWN.
 - BASED ON AVAILABLE COUNTY MAPS AND RECORDS, THERE ARE NO HISTORIC STRUCTURES OR KNOWN CEMETERIES LOCATED ON THE SUBJECT PROPERTY.
 - THE OFF-SITE REPAIRS FOR THIS PROJECT (F10-53/TROTTER CROSSING II) IS LOCATED ON THE FOLLOWING SITES: .58 ACRES AT THE HARLESS PROPERTY (F08-00A), TAX MAP 1, PARCELS 215, AND .75 ACRES AT CALLEAN PARCELS 1 (P01-00/PC2), TAX MAP 8, PARCELS 202 AND 181. DP2 HAS DETERMINED THAT ROADWAY CONSTRUCTION DRAWINGS FOR F08-00A/KINDERS GARDENS SHALL ADDRESS THE OFF-SITE REPAIRS. FOR F10-53, NO TREE OR REPAIRS UNDER THE SITE PLAN, SDP 10-07.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE GRADING PERMIT. FOR THIS SITE PLAN, SDP 10-07, IN THE AMOUNT OF \$1200.00 FOR 4 SHADE TREES ON LOT 18.
 - TROTTER ROAD IS CLASSIFIED AS A HOWARD COUNTY SCENIC ROAD. THE SCENIC ROAD IMPACT ANALYSIS WAS APPROVED ON JANUARY 5, 2010 UNDER F-10-53.
 - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED SQUARE TUBE POST (1 1/2" GAUGE) INSERTED INTO 2-1/2" GALVANIZED STEEL PERFORATED SQUARE TUBE SLEEVE (12 GAUGE) - 3 FEET LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
 - 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.
 - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN SURFACE.
 - DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12'(16' SERVING MORE THAN ONE RESIDENCE);
 - SURFACE - 6" OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.);
 - GEOMETRY - MAX. 14% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' 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 INSURE ALL WEATHER USE.
 - THE HOMEOWNERS' DOCUMENTS OF INCORPORATION HAVE BEEN RECORDED WITH THE MARYLAND STATE DEPARTMENT OF ASSESSMENTS AND TAXATION AS NUMBER 1005218897. OPEN SPACES 6, 11 & 13 ARE OWNED BY THE HOMEOWNERS' ASSOCIATION AS RECORDED BY DEED DATED MAY 20, 2008, AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 11319 AT FOLIO 522.
 - BUILDER TO DETERMINE FINAL NUMBER OF STEPS FOR BASEMENT EXIT IN THE FIELD.



LOCATION PLAN
1" = 100'

AREA TABULATION CHART

EXISTING ZONING:	R-20
GROSS AREA OF SITE:	3.25 ACRES (141,534 SF)
AREA IN 100 YEAR FLOODPLAIN:	0 ACRES
AREA OF STEEP SLOPES:	0.05 ACRES (2,005 SF)
NET TRACT AREA:	3.20 ACRES (139,529 SF)*
AREA OF RIGHT-OF-WAY DEDICATION:	0 ACRES
AREA OF PROPOSED RIGHT-OF-WAY:	0 ACRES
AREA OF PROPOSED BUILDABLE LOTS:	3.25 ACRES (141,534 SF)
MINIMUM LOT SIZE:	20,000 SF
AREA OF REQUIRED OPEN SPACE:	0 ACRES
AREA OF PROPOSED OPEN SPACE:	0 ACRES PROPOSED
AREA OF REQUIRED RECREATION OPEN SPACE:	NONE REQUIRED
LIMIT OF DISTURBED AREA:	2.97 ACRES (129,223 SF)
NUMBER OF BUILDABLE LOTS:	6 LOTS
NUMBER OF OPEN SPACE LOTS:	0
PROPOSED WATER AND SEWER:	PUBLIC WATER AND SEWER
EXISTING USES:	RESIDENTIAL
PROPOSED USES:	6 RESIDENTIAL LOTS
APPLICABLE DEPARTMENT OF PLANNING AND ZONING FILE NO'S.:	F-84-121, (FOREST HILLS LOT 32) SP-03-15 WF-03-123 F-05-067 SDP-09-19 F-10-53

*NOTE: STEEP SLOPES SHOWN DO NOT MEET THE CRITERIA FOR REGULATED HOWARD COUNTY STEEP SLOPES.

BENCH MARK

HOWARD COUNTY CONTROL STATION 29GB
N 566,826.1675
E 1,335,265.8589
ELEV. 455.959

HOWARD COUNTY CONTROL STATION 29G5
N 568,341.2144
E 1,335,392.5911
ELEV. 387.350

BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
AT
1-800-257-7777
AT LEAST 48 HOURS PRIOR TO EXCAVATION

COORDINATES LIST

POINT	NORTH	EAST
1	564102.6782	1334927.8175
2	563834.6777	1335056.1438
3	563727.5433	1334733.0398
4	563741.9479	1334685.2975
5	563783.5599	1334652.6969
6	563810.9376	1334655.5462
7	563798.5836	1334525.2485
8	563785.6308	1334482.5566
9	563775.4312	1334471.8134
10	563933.2217	1334420.0650

MINIMUM LOT SIZE CHART

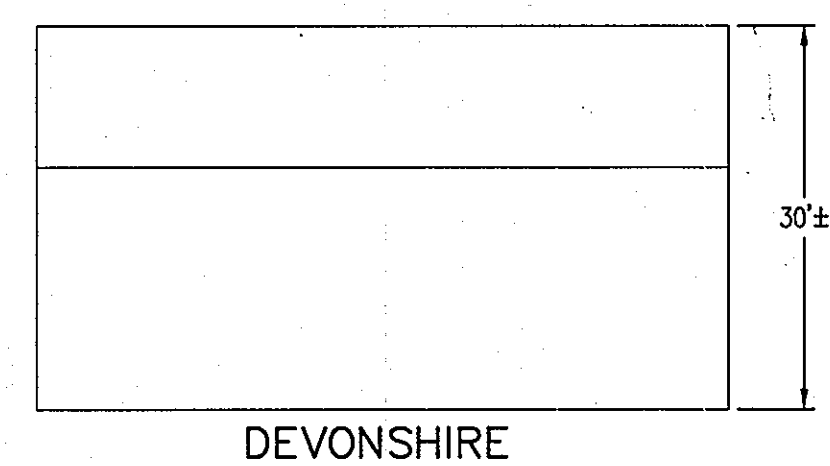
LOT NO.	GROSS AREA	LESS PIPESTEM	REMAINING AREA/ MIN. LOT SIZE
14	22,455	966	21,489
15	30,693	683	30,010
17	20,488	1,158	19,330
18	22,034	1,988	20,046
19	18,884	1,426	17,458

ALL AREAS SHOWN ABOVE ARE IN SQUARE FEET

ADDRESS CHART

LOT/PARCEL #	STREET ADDRESS
14	11716 TROTTER CROSSING LANE
15	11712 TROTTER CROSSING LANE
16	5686 TROTTER ROAD
17	5680 TROTTER ROAD
18	5674 TROTTER ROAD
19	11720 TROTTER CROSSING LANE

SUBDIVISION NAME	TROTTER CROSSING II	SECTION/AREA	--	LOT/PARCEL NO.	14-19
PLAT NO. OR L/F	5795 & 21450 (F10-53)	GRID #	2	ZONING	R-20
TAX MAP NO.	35	ELECT. DIST.	5TH	CENSUS TRACT	6055.01



DEVONSHIRE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

John D. ... 1/14/11
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Victoria ... 1/24/11
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Morgan E. Butler 1/24/11
DIRECTOR DATE

DATE	NO.	REVISION

OWNER
TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
C/O BRIAN D. BOY
11807 WOLLINGFORD COURT
CLARKSVILLE, MD 21029-0193

DEVELOPER
CORNERSTONE HOMES, INC.
ATTN: BRIAN BOY
9695 NORFOLK AVENUE
LAUREL, MD 20723
T: 410.792.2565

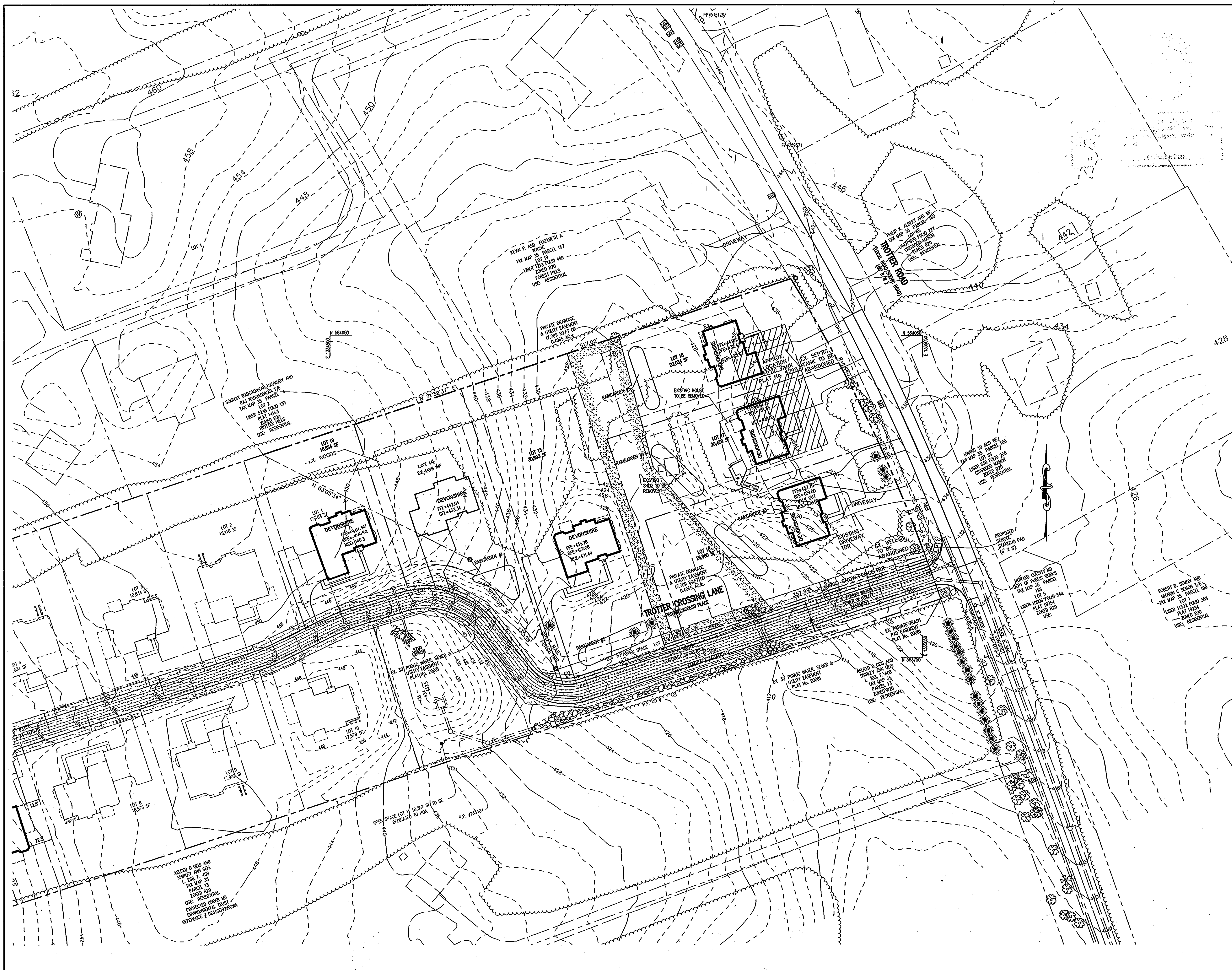
PROJECT **TROTTER CROSSING II**
LOTS 14-19
A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

AREA
TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE SHEET

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY: PHRA
DRAWN BY: ALC
PROJECT NO. 11885(2-0) PLANS
C400SDP01
DATE: NOVEMBER 2, 2010
SCALE: AS SHOWN
DRAWING NO. 1 OF 12



LEGEND

- PROPERTY LINE
- EXISTING TREELINE
- PROPOSED TREELINE
- PROPOSED LOT LINE
- EXISTING CONTOURS
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING WATER LINE
- EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER LINE
- EXISTING PUBLIC WATER, SEWER & UTILITY EASEMENT
- PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED PUBLIC WATER, SEWER AND UTILITY EASEMENT

FOR REVISIONS BY
BENCHMARK ENGINEERING INC.
ONLY.

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. 21443 Expiration Date: 12-21-12

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 1/14/11

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 1/24/11

DIRECTOR DATE 1/24/11

12-12-2011	2	REVISE LOT 14 TO BE A 3-CAR FRONT LAND GARAGE	BEI
7-29-11	1	REVISE FF/BF/BLG, GARAGE LOT 19 PER AF-BUILT COND.	BEI
DATE NO.		REVISION	BY

OWNER
TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
C/O BRIAN D. BOY
11807 WOLLINGFORD COURT
CLARKSVILLE, MD 21029-0193

DEVELOPER
CORNERSTONE HOMES, INC.
ATTN: BRIAN BOY
9605 NORFOLK AVENUE
LAUREL, MD 20787
T: 410.792.2565

PROJECT **TROTTER CROSSING II**
LOTS 14-19
A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

AREA
TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
OVERALL SITE DEVELOPMENT PLAN
Patton Harris Rust & Associates
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

SEAL

DESIGNED BY: PHRA
DRAWN BY: ALC
PROJECT NO: 11885/2-0/PLANS
C400SDP02
DATE: NOVEMBER 2, 2010
SCALE: 1"=40'
DRAWING NO. 2 OF 12

STATE OF MARYLAND
PROFESSIONAL ENGINEER
No. 21443
12/21/12

FOR REVISIONS BY
BENCHMARK ENGINEERING INC.
ONLY.

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. 21443 Expiration Date: 12-21-12

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 1/14/11

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 1/24/11

DIRECTOR DATE 1/24/11

12-12-2011	2	REVISE LOT 14 TO BE A 3-CAR FRONT LAND GARAGE	BEI
7-29-11	1	REVISE FF/BF/BLG, GARAGE LOT 19 PER AF-BUILT COND.	BEI
DATE NO.		REVISION	BY

OWNER
TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
C/O BRIAN D. BOY
11807 WOLLINGFORD COURT
CLARKSVILLE, MD 21029-0193

DEVELOPER
CORNERSTONE HOMES, INC.
ATTN: BRIAN BOY
9605 NORFOLK AVENUE
LAUREL, MD 20787
T: 410.792.2565

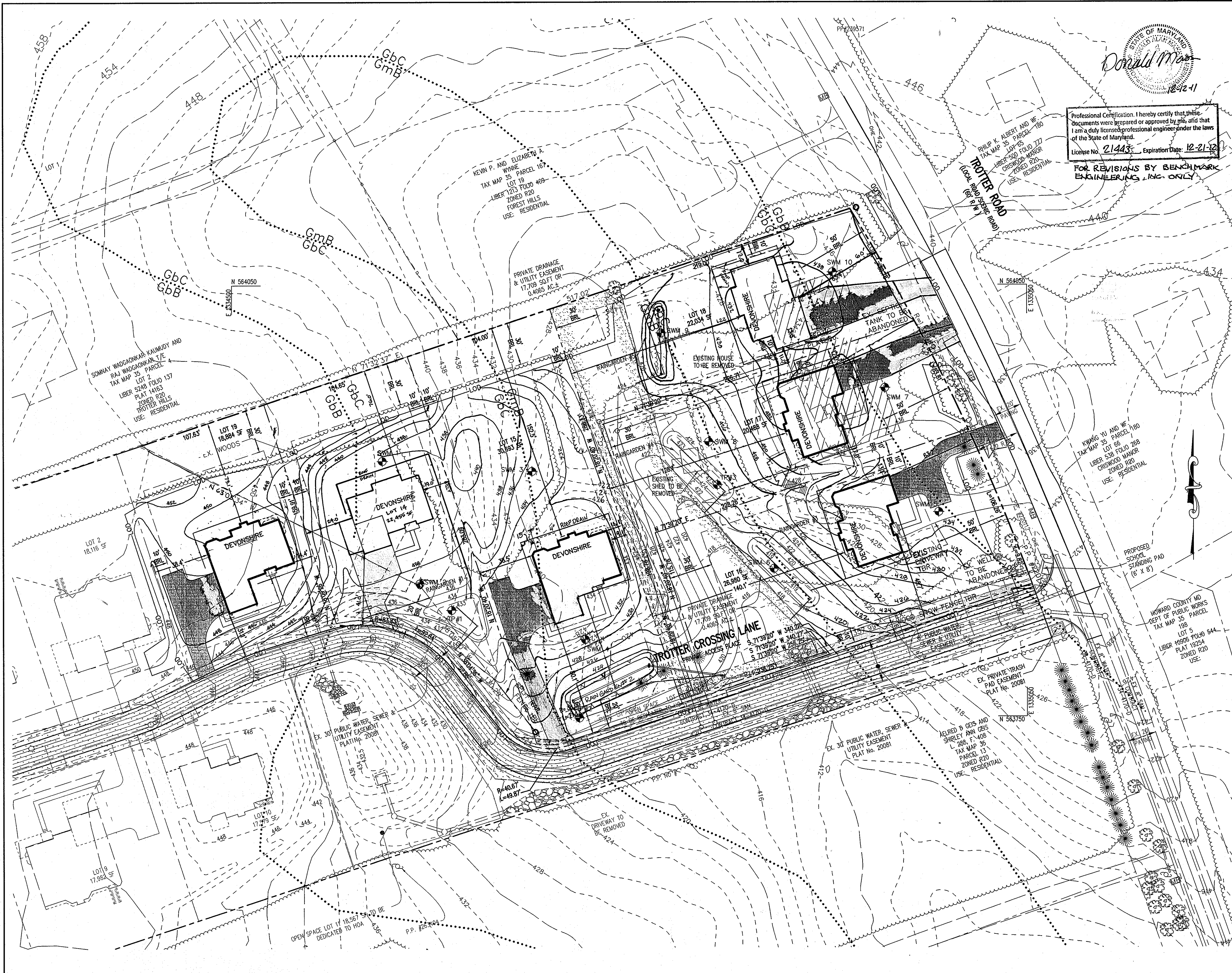
PROJECT **TROTTER CROSSING II**
LOTS 14-19
A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

AREA
TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
OVERALL SITE DEVELOPMENT PLAN
Patton Harris Rust & Associates
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

SEAL

DESIGNED BY: PHRA
DRAWN BY: ALC
PROJECT NO: 11885/2-0/PLANS
C400SDP02
DATE: NOVEMBER 2, 2010
SCALE: 1"=40'
DRAWING NO. 2 OF 12

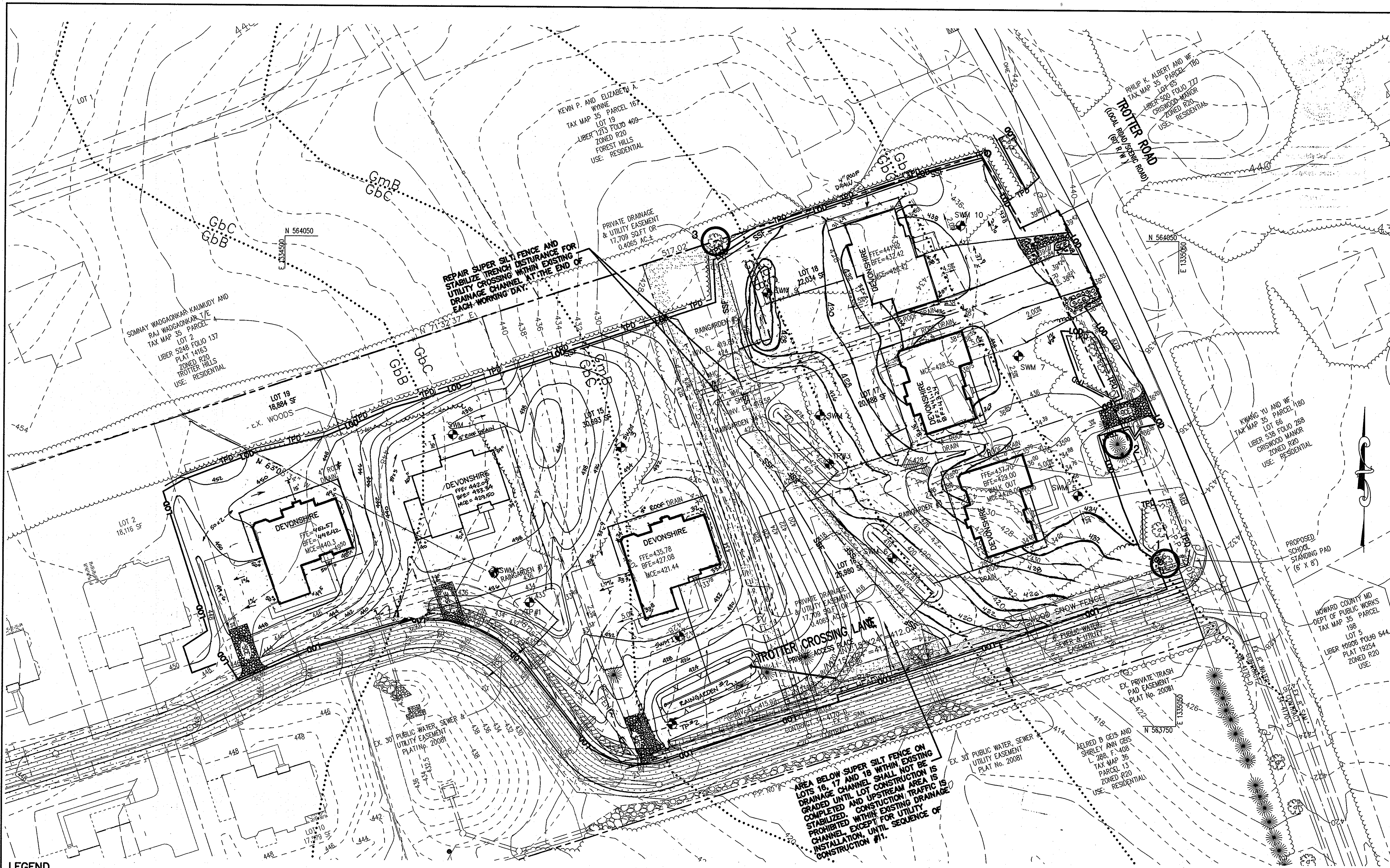


Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 21443, Expiration Date: 12-21-12
FOR REVISIONS BY BENCHMARK ENGINEERING, INC. ONLY

LEGEND

PROPERTY LINE	
EXISTING TREELINE	
PROPOSED TREELINE	
PROPOSED LOT LINE	
EXISTING CONTOURS	
PROPOSED CONTOURS	
EXISTING BUILDING	
PROPOSED BUILDING	
EXISTING WATER LINE	
EXISTING FIRE HYDRANT	
EXISTING SANITARY SEWER LINE	
EXISTING PUBLIC WATER, SEWER & UTILITY EASEMENT	
SOIL BORING LOCATION	
EXISTING WELL	
PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT	
PROPOSED PUBLIC WATER, SEWER AND UTILITY EASEMENT	
LIMIT OF DISTURBANCE (LOD)	

12-12-12	3	REVISE GRADES ON LOTS 15 & 16 PER AS-BUILT CONDITIONS	BE1
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.			
<i>John D. ...</i>		1/14/11	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION			
<i>Wesley ...</i>		1/24/11	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT			
<i>Thomas & Rust ...</i>		1/24/11	DATE
DIRECTOR			
3-30-2011	2	REVISE HOUSE & GARAGE ON LOTS 17 & 18 PER AS-BUILT CONDITIONS	BE1
12-12-2011	1	REVISE GRADES ON LOT 17 PER AS-BUILT CONDITIONS	BE1
12-12-2011	1	REVISE GRADES AND HOUSE TO A 3-CAR FRONT GAR. ON LOT 14	BE1
DATE	NO.	REVISION	BY:
OWNER TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC. C/O BRIAN D. BOY 11807 WOLLINGFORD COURT CLARKSVILLE, MD 21029-0193			
DEVELOPER CORNERSTONE HOMES, INC. ATTN: BRIAN BOY 9695 NORFOLK AVENUE LAUREL, MD 20723 T: 410.792.2565			
PROJECT TROTTER CROSSING II LOTS 14-19 A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12			
AREA TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND			
TITLE SITE DEVELOPMENT PLAN			
Patton Harris Rust & Associates Engineers. Surveyors. Planners. Landscape Architects. 8818 Centre Park Drive, Suite 200 Columbia, MD 21045 T 410.997.8900 F 410.997.9282			
SEAL		DESIGNED BY: PHRA	
		DRAWN BY: ALC	
BY: <i>Brian Boy</i>		PROJECT NO: 11885-2-0-PLANS	
		C400SDP03	
		DATE: NOVEMBER 2, 2010	
		SCALE: 1"=30'	
		DRAWING NO. 3 OF 12	



12-12-12	5	REVISE GRADES ON LOT 16 PER AS-BUILT CONDITIONS	BE1
12-11-2012	4	REVISE GRADES ON LOT 15 PER AS-BUILT CONDITIONS	BE1
4-30-12	3	REVISE GRADES AND HOUSE ON LOTS 17 & 18 PER AS-BUILT CONDITIONS	BE2

FOR REVISIONS BY BENCHMARK ENGINEERING, INC. ONLY.

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. 21443 Expiration Date: 12-21-12

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."

John C. Voth 11/9/10
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE

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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

B. O. B. 11/2/10
SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE

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

John K. Roberts 1/31/11
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

John D. Boy 1/24/11
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Thomas J. Buttle 1/24/11
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Thomas J. Buttle 1/24/11
DIRECTOR DATE

OWNER: TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNERS' ASSOCIATION, INC.
C/O BRIAN D. BOY
11807 WOLLINGFORD COURT
CLARKSVILLE, MD 21029-0193

DEVELOPER: CORNERSTONE HOMES, INC.
ATTN: BRIAN BOY
9695 NORFOLK AVENUE
LAUREL, MD 20723
T: 410.792.2333

PROJECT: TROTTER CROSSING II
LOTS 14-19
A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

AREA: TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: GRADING & SEDIMENT CONTROL PLAN AND SOILS MAP

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY: PHRA

DRAWN BY: ALC

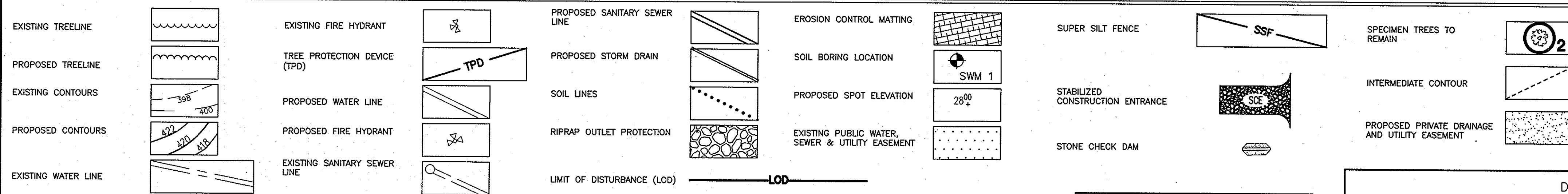
PROJECT NO: 11885/2-0/PLANS C400SDP04

DATE: NOVEMBER 2, 2010

SCALE: 1"=30'

DRAWING NO. 4 OF 12

LEGEND



SOILS CHART

MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS Dwellings w/ Basements	EROSION HAZARD	HYDRIC	SLOPE (%)	K FACTOR	HYDROLOGIC GROUP
GbB	Gladstone loam	Not limited	Moderate	N	3-8	0.20	B
GbC	Gladstone loam	Somewhat limited	Moderate	N	8-15	0.20	B
GmB	Glennville silt loam	Very limited	Moderate	N	3-8	0.37	C

SOURCE: NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY

DRAINAGE AREA CHART

INLET NO.	AREA (AC.)	C	% IMP
HW-2	8.95	-	17
I-1	0.63	0.23	24

DRIVEWAY CULVERT SCHEDULE

LOT #	DESCRIPTION	CULVERT LENGTH (FT)	INVERTS		SLOPE
			UPSTREAM	DOWNSTREAM	
LOT 15	12" RCP, HOCDPW R-6.06	20'	422.25	422.00	1.25%
LOT 16	12" RCP, HOCDPW R-6.06	20'	434.25	434.00	1.25%

- NOTES:**
- SEE SHEET 7 FOR RAIN GARDEN SCHEDULE FACILITY INFORMATION.
 - HOUSE DOWNSPOUTS MUST BE CONNECTED INTO LOT ROOF DRAINS THAT OUTFALL TO STORMWATER MANAGEMENT PRACTICES.



FOR REVISIONS BY
BENCHMARK ENGINEERING
ONLY



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. 21443 Expiration Date: 12-21-12

LEGEND	
PROPERTY LINE	
EXISTING TREELINE	
PROPOSED TREELINE	
PROPOSED LOT LINE	
EXISTING CONTOURS	
PROPOSED CONTOURS	
EXISTING WATER LINE	
EXISTING FIRE HYDRANT	
TREE PROTECTION DEVICE (TPD)	
PROPOSED WATER LINE	
PROPOSED FIRE HYDRANT	
EXISTING SANITARY SEWER LINE	
PROPOSED SANITARY SEWER LINE	
PROPOSED STORM DRAIN	
EXISTING PUBLIC WATER, SEWER & UTILITY EASEMENT	
DRAINAGE AREA LINES TO SWM STRUCTURES	
DRAINAGE AREA LINES TO CULVERT	

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Alan M. Goff 1/24/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Robert D. Simon 1/24/11
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Thomas J. Ruttle 1/24/11
 DIRECTOR DATE

3-30-12 | REVISE GRADES AND SWM ON LOTS 17 & 18
 DATE NO. REVISION BY

OWNER
 TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
 C/O BRIAN D. BOY
 11807 WOLLINGFORD COURT
 CLARKSVILLE, MD 21029-0193

DEVELOPER
 CORNERSTONE HOMES, INC.
 ATTN: BRIAN BOY
 9695 NORFOLK AVENUE
 LAUREL, MD 20723
 T: 410.792.2565

PROJECT TROTTER CROSSING II
 LOTS 14-19
 A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

AREA TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
STORMWATER MANAGEMENT PLAN

Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

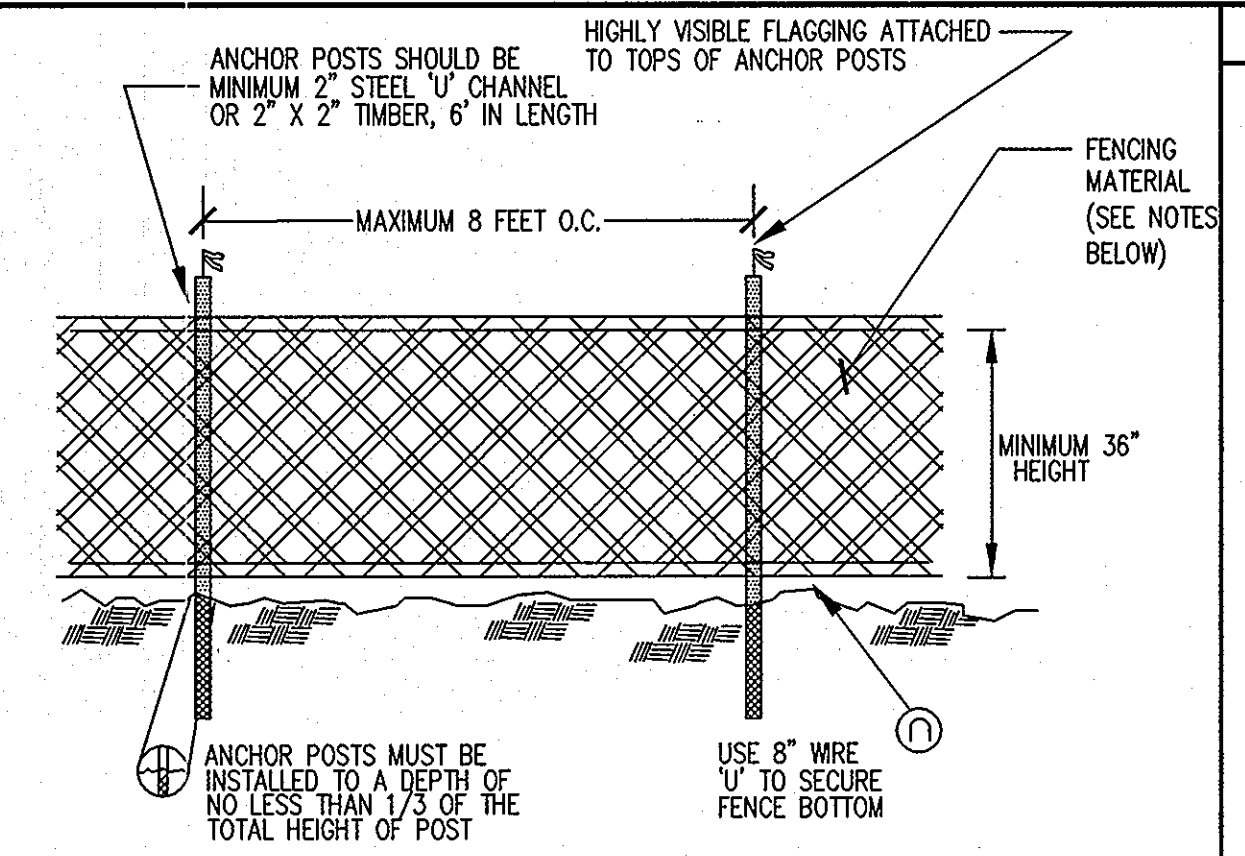
SEAL

 DESIGNED BY : PHRA
 DRAWN BY: ALC
 PROJECT NO : 11885\2-0\PLANS
 C400SDPOS
 DATE : NOVEMBER 2, 2010
 SCALE : 1"=40'
 DRAWING NO. 5 OF 12

STORMWATER MANAGEMENT SUMMARY TABLE									
DRAINAGE AREA	AREA (AC)	ESDv (cf)	WQv (cf)	Rev (cf)	Cpv (cf)	Cpv 1-YR (cfs)	Qp 10-YR (cfs)	Qp 100-YR (cfs)	COMMENTS/SWM PRACTICE
#1-A	0.15	197	N/A*	N/A*	N/A*	0.02	0.30	0.60	M-8: GRASS SWALE #1
#1-B	0.12	248	N/A*	N/A*	N/A*	0.00	0.17	0.40	M-7: RAIN GARDEN #1
#1-C	0.08	197	N/A*	N/A*	N/A*	0.02	0.18	0.36	M-8: GRASS SWALE #2
#1-D	0.23	391	N/A*	N/A*	N/A*	0.15	0.68	1.25	M-7: RAIN GARDEN #2
#1-E	0.08	161	N/A*	N/A*	N/A*	0.01	0.16	0.32	N-2: DISCONNECTION OF NON-ROOFTOP RUNOFF #1
#1-F	0.11	209	N/A*	N/A*	N/A*	0.00	0.17	0.38	M-7: RAIN GARDEN #3
#1-G	0.08	162	N/A*	N/A*	N/A*	0.01	0.16	0.32	N-2: DISCONNECTION OF NON-ROOFTOP RUNOFF #2
#1-H	0.11	209	N/A*	N/A*	N/A*	0.01	0.21	0.43	M-7: RAIN GARDEN #4
#1-I	0.09	194	N/A*	N/A*	N/A*	0.01	0.16	0.32	N-2: DISCONNECTION OF NON-ROOFTOP RUNOFF #3
#1-J	0.16	247	N/A*	N/A*	N/A*	0.01	0.21	0.45	M-7: RAIN GARDEN #5
#1-K	0.02	48	N/A*	N/A*	N/A*	0.00	0.04	0.08	N-4: DISCONNECTION OF NON-ROOFTOP RUNOFF #4

SWM ESD DRAINAGE AREA CHART					
DRAINAGE AREA	AREA (AC)	REDUCED RCN*	Tc (HOURS)	IMPERVIOUS COVER (%)	TARGET RAINFALL Pe (inches)
#1-A	0.15	60	0.10	20%	1.0
#1-B	0.12	55	0.10	20%	1.2
#1-C	0.08	63	0.10	20%	1.0
#1-D	0.23	67	0.10	20%	1.2
#1-E	0.08	60	0.10	20%	1.0
#1-F	0.11	56	0.10	20%	1.2
#1-G	0.08	60	0.10	20%	1.0
#1-H	0.11	59	0.10	20%	1.2
#1-I	0.09	60	0.10	20%	1.0
#1-J	0.16	58	0.10	20%	1.2
#1-K	0.02	60	0.10	20%	1.0

*NOTE: WQv, Rev, AND Cpv REQUIREMENTS HAVE BEEN MET SINCE ESD TECHNIQUES HAVE BEEN USED TO TREAT THE REQUIRED TARGET RAINFALL (Pe) AMOUNTS FOR THIS SITE.



- NOTES:**
- BLAZE ORANGE MESH OR SUPER SILT FENCE FOR TREE PROTECTION DEVICE, ONLY.
 - BOUNDARIES OF PROTECTION AREA WILL BE ESTABLISHED PRIOR TO GRADING AND SEDIMENT CONTROL.
 - AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
 - FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCING
NOT TO SCALE

STANDARD SEDIMENT CONTROL NOTES

- 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 ANY CONSTRUCTION (313-1855).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SO2, TEMPORARY SEEDING, AND MULCHING (SEC. C). TEMPORARY STABILIZATION WITH MULCH ALLOW SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	3.25 ACRES
AREA DISTURBED	2.97 ACRES
AREA TO BE ROOFED OR PAVED	0.51 ACRES
AREA TO BE VEGETATIVELY STABILIZED	2.46 ACRES
TOTAL CUT	5100 CU. YARDS
TOTAL FILL	8875 CU. YARDS
OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT	

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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITH ONE WORKING DAY, WHICHEVER IS SHORTER.
12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
14. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

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, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

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

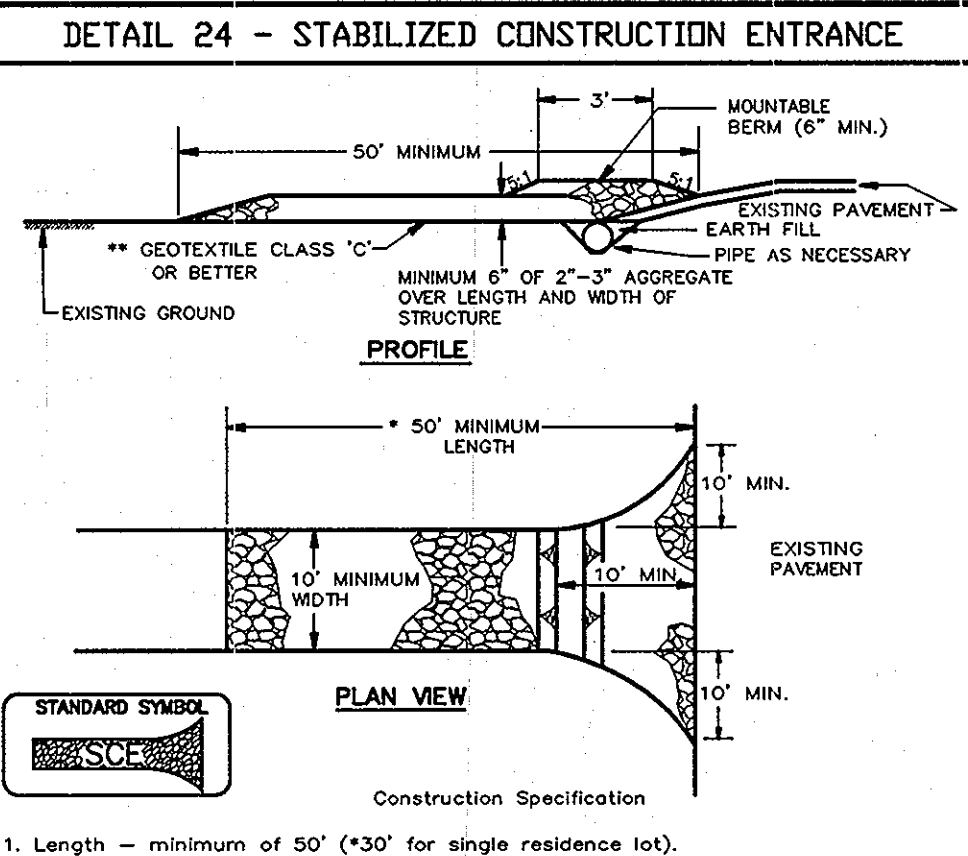
- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS. PER 1000 SQ.FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIOD MARCH 1 THRU APRIL 30 AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 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 (0.05 LBS. PER 1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY ONE OF THE FOLLOWING OPTIONS:

- 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.
- USE SOD.
- SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

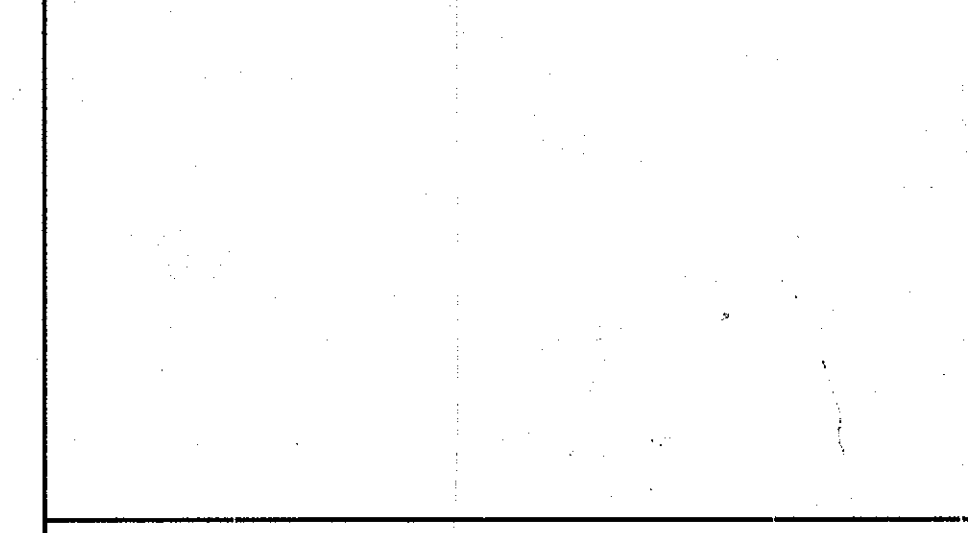
REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



- Length - minimum of 50' (*30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL TREE PROTECTION FENCING, STABILIZED CONSTRUCTION ENTRANCE, AND SILT FENCE. (3 DAYS)
- BEGIN ROUGH GRADING EXCEPT AREAS BELOW SUPER SILT FENCE ON LOTS 16, 17 AND 18 WITHIN EXISTING DRAINAGE CHANNEL. CONSTRUCTION TRAFFIC IS PROHIBITED WITHIN EXISTING DRAINAGE CHANNEL, EXCEPT FOR UTILITY INSTALLATION, UNTIL SEQUENCE OF CONSTRUCTION #11.(3 DAYS)
- AS SUBGRADE ELEVATIONS ARE ESTABLISHED, INSTALL WATER AND SEWER. REPAIR SUPER SILT FENCE AND STABILIZE TRENCH DISTURBANCE FOR UTILITY CROSSING WITHIN EXISTING DRAINAGE CHANNEL AT THE END OF EACH WORKING DAY. (3 WEEKS).
- BEGIN EXCAVATION FOR GRASS SWALE AND RAINGARDENS. BE SURE ALL MATERIAL REMOVED DURING EXCAVATION REMAINS STABILIZED. (2 WEEKS)
- INSTALL BITUMINOUS PAVEMENT. (1 WEEK)
- PERFORM FINE GRADING, LANDSCAPING. (2 WEEKS)
- APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAYS)
- COMPLETE BUILDING CONSTRUCTION. (6 MONTHS)
- UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 DAY)
- PERFORM REGRADING OF EXISTING DRAINAGE CHANNEL ON LOTS 16, 17 AND 18. STABILIZE DISTURBED AREAS AT END OF EACH WORKING DAY IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (3 DAYS)



- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway (SHA) Details for Chain Link Fencing. The SHA specifications for a 6 foot fence shall be used, substituting 42" fabric and 6 foot length posts.
- The posts do not need to be set in concrete.
- Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, brace and trust rods, drive anchors and post caps are not required except on the ends of the fence. The chain link fencing shall be six (6) gauge or heavier.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of height.

PERMANENT SEEDING NOTES

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

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

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

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS. PER 1000 SQ.FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

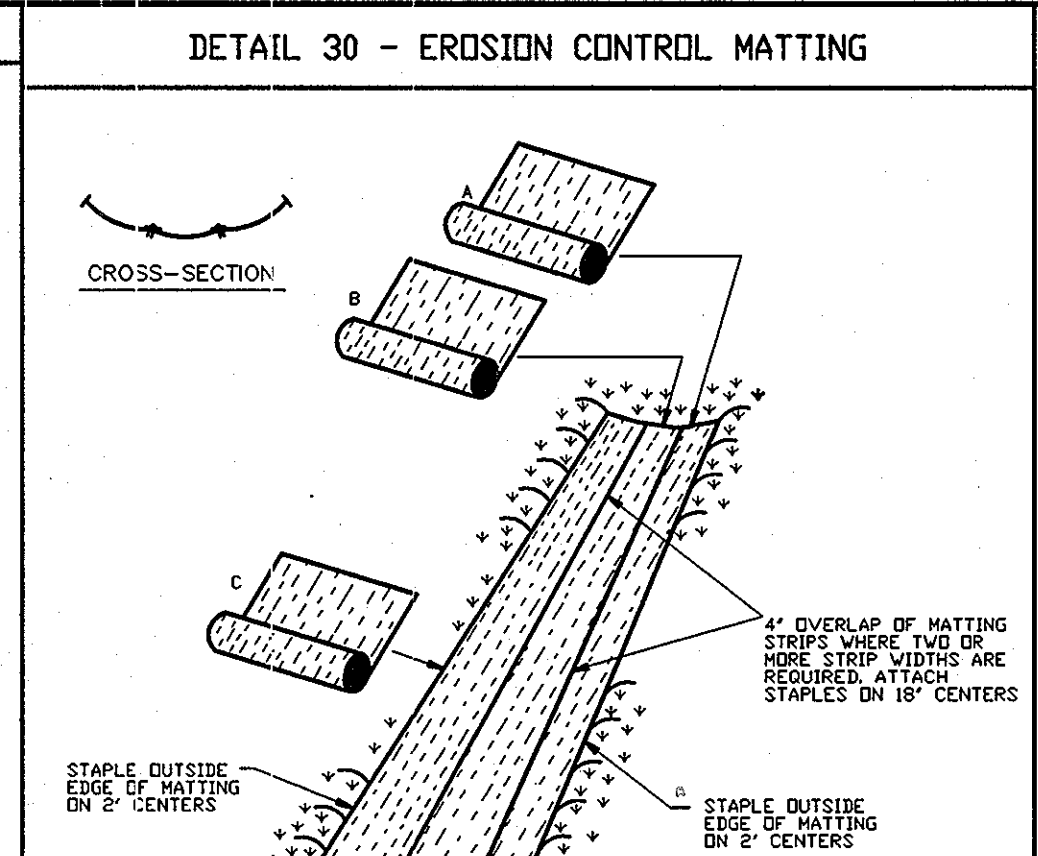
SEEDING: FOR THE PERIOD MARCH 1 THRU APRIL 30 AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.05 LBS. PER 1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY ONE OF THE FOLLOWING OPTIONS:

- 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.
- USE SOD.
- SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

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

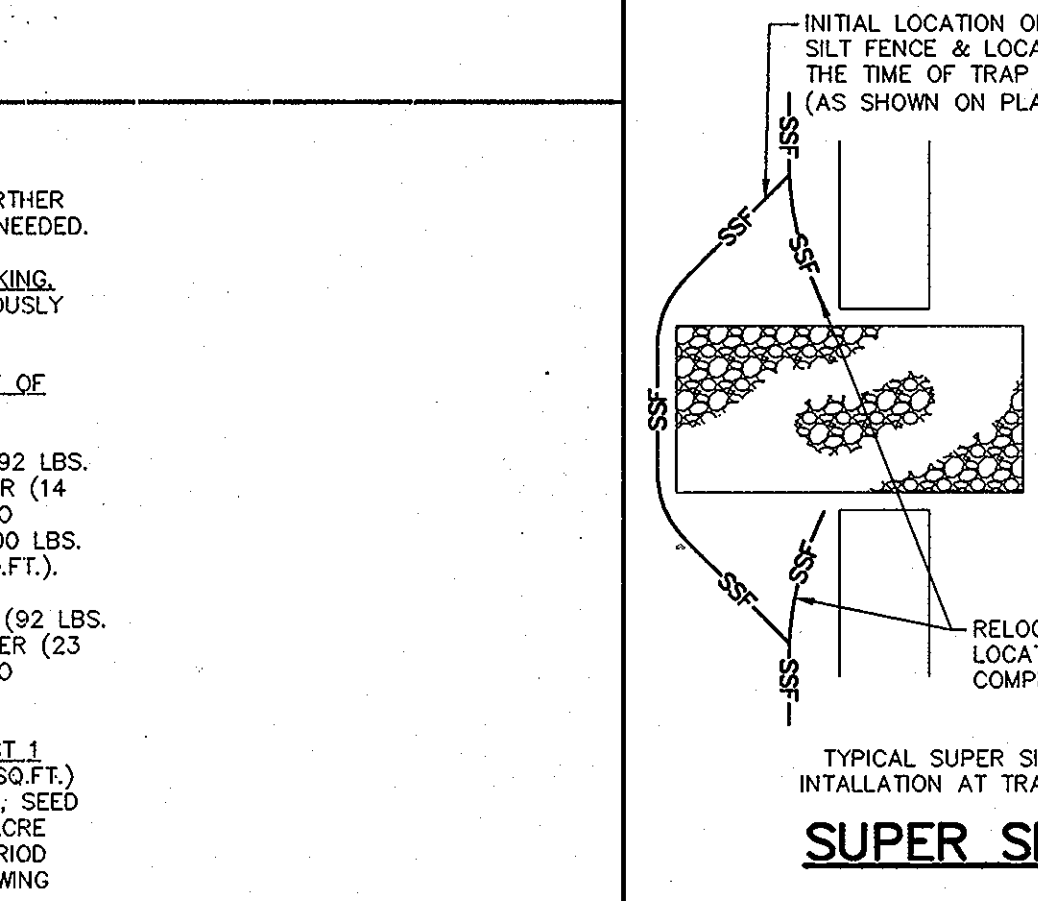


1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE COMPACTED OR TACKED TO PREVENT BLOWING.
- VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
- BLAZING - TO ROUGHEN SURFACE AND BRING CLOS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. SOON FLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE FLOWS SPACED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR FLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
- BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
- CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

300 - DUST CONTROL

- DEFINITION:**
CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.
- PURPOSE:**
TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES. REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.
- CONDITIONS WHERE PRACTICE APPLIES:**
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.
- TEMPORARY METHODS**
- MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE COMPACTED OR TACKED TO PREVENT BLOWING.
 - VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
 - BLAZING - TO ROUGHEN SURFACE AND BRING CLOS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. SOON FLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE FLOWS SPACED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR FLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
 - IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
 - BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
 - CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.
- PERMANENT METHODS**
- PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD, EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
 - TOPSOILING - COVERING WITH LESS EROSION SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
 - STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.
- REFERENCES**
- AGRICULTURE HANDBOOK 346, WIND EROSION FORCES IN THE UNITED STATES AND THEIR USES IN PREDICTING SOIL LOSS.
 - AGRICULTURE INFORMATION BULLETIN 354, HOW TO CONTROL WIND EROSION, USDA-ARS.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE 6 - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 30 - 1	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
---	--------------------	---	---	--------------------	---



PERMANENT SEEDING NOTES

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

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

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

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS. PER 1000 SQ.FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIOD MARCH 1 THRU APRIL 30 AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 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 (0.05 LBS. PER 1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY ONE OF THE FOLLOWING OPTIONS:

- 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.
- USE SOD.
- SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

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

21.0 STANDARD 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.

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 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 STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED 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 EXPERIMENTATION STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
--i. 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 CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1-1/2" IN DIAMETER.
--ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
--iii. WHERE 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.
--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 DISSIPATION OF PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES TO 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.

--i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

III. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
--i. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
--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 HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
--d. 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 DISSIPATION OF PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES TO 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.

--i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION
--i. 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.
--ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
--iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE, ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
--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.

VI. 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 OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITE 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 COMAR 26.06.06.
--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. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VI, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1973.

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 COUNTY SOIL CONSERVATION DISTRICT."

John C. Povolac, P.E. 11/9/10
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE

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 INSPECTIONS BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

Brian D. Boy 11/2/10
SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE

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

John L. Roberts 11/2/10
HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

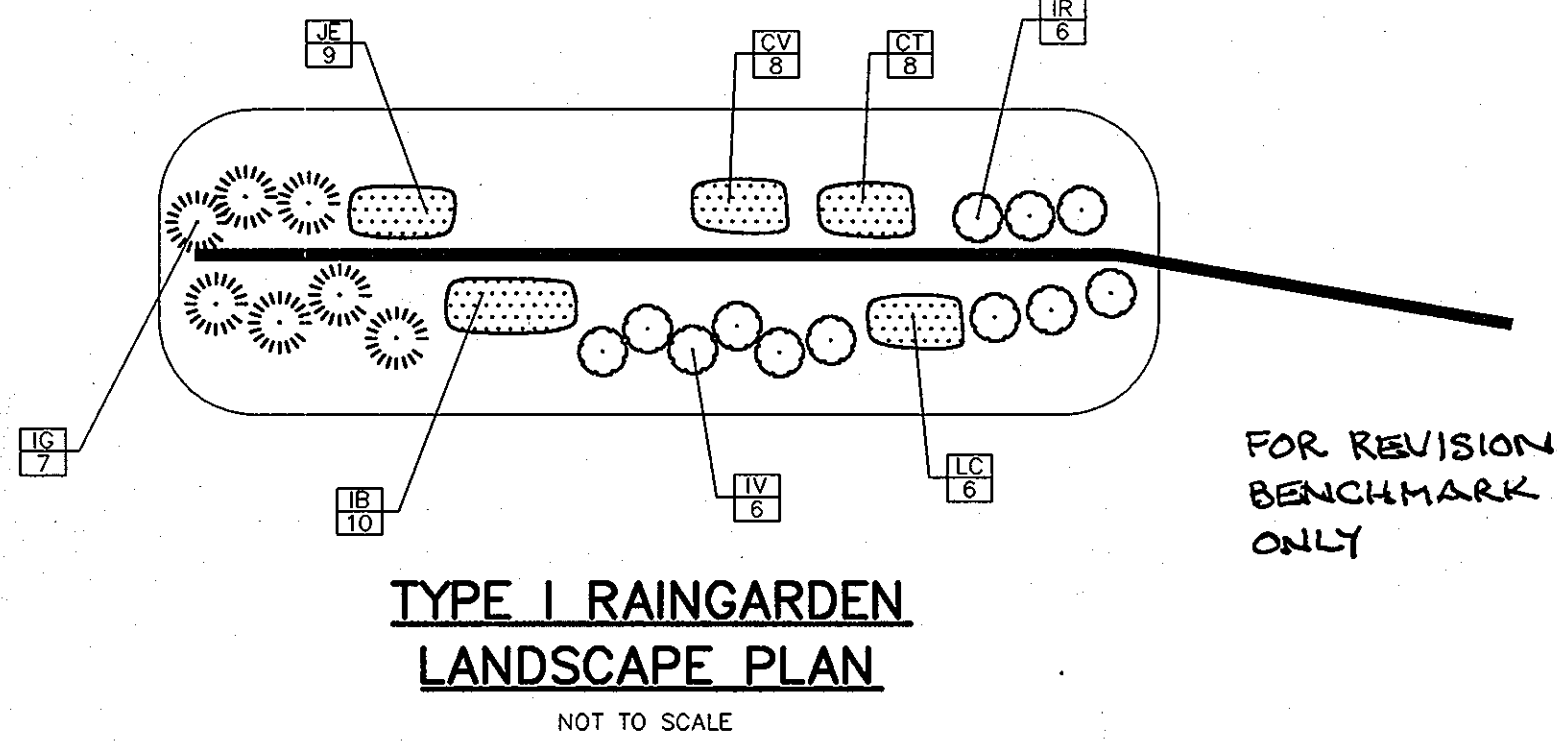
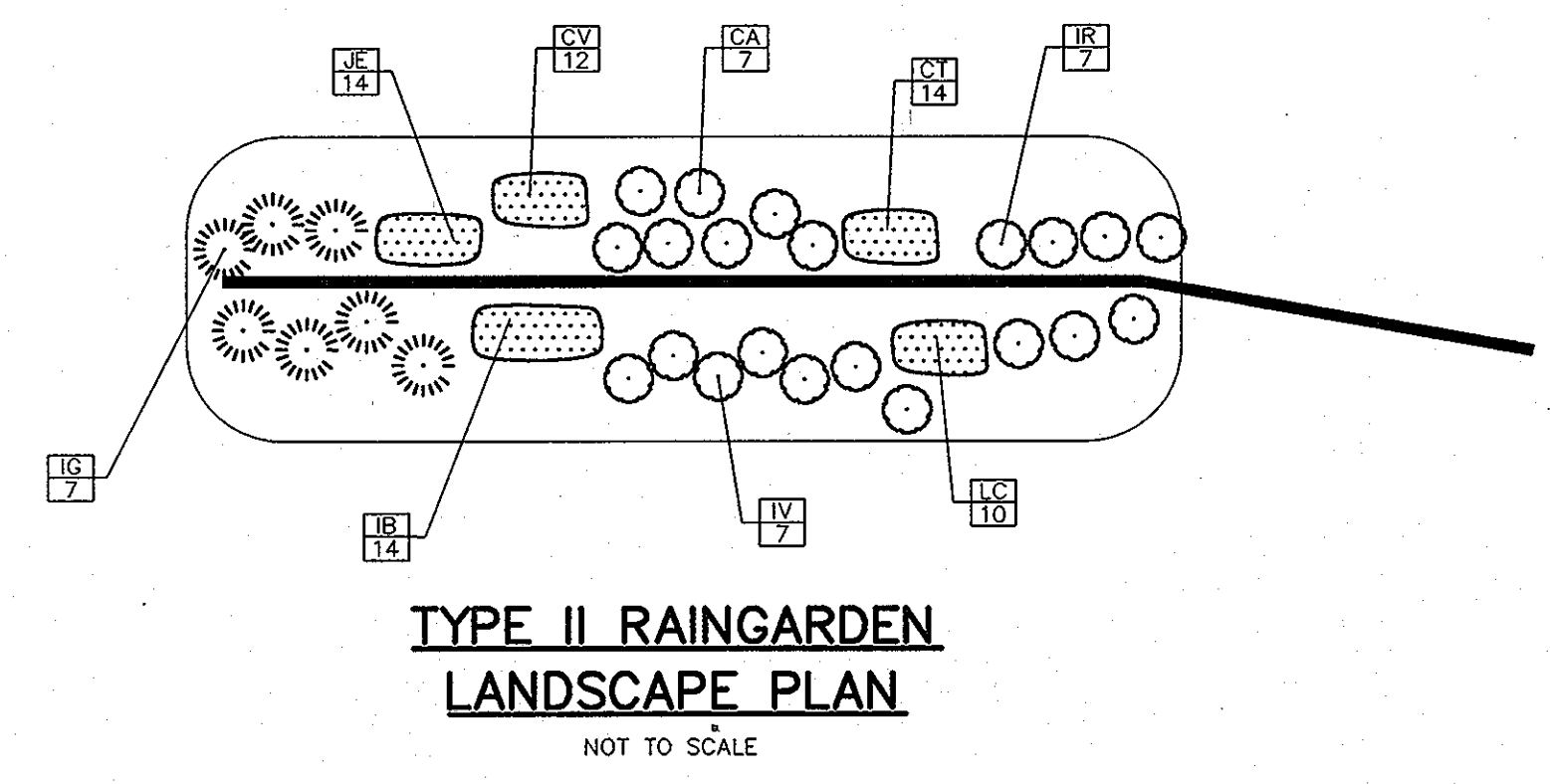
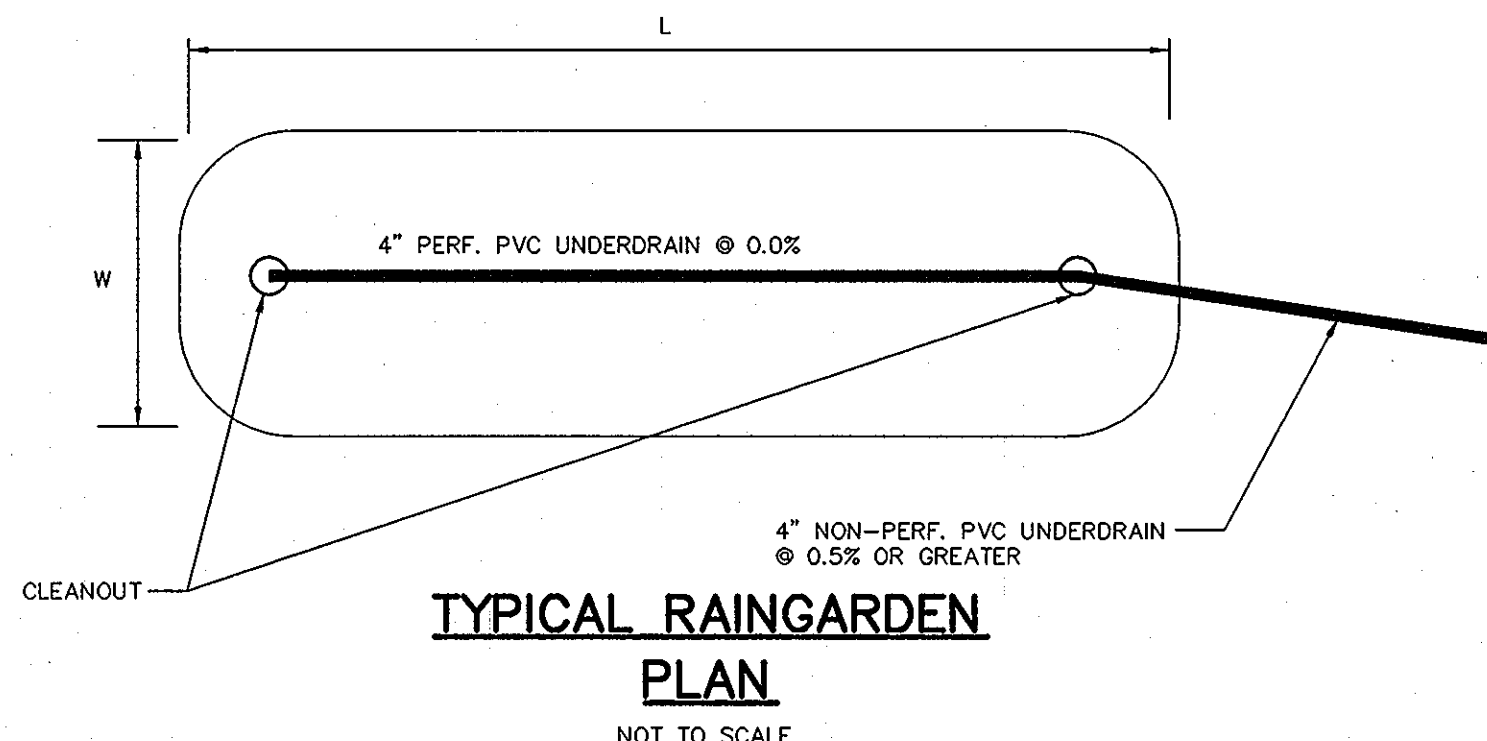
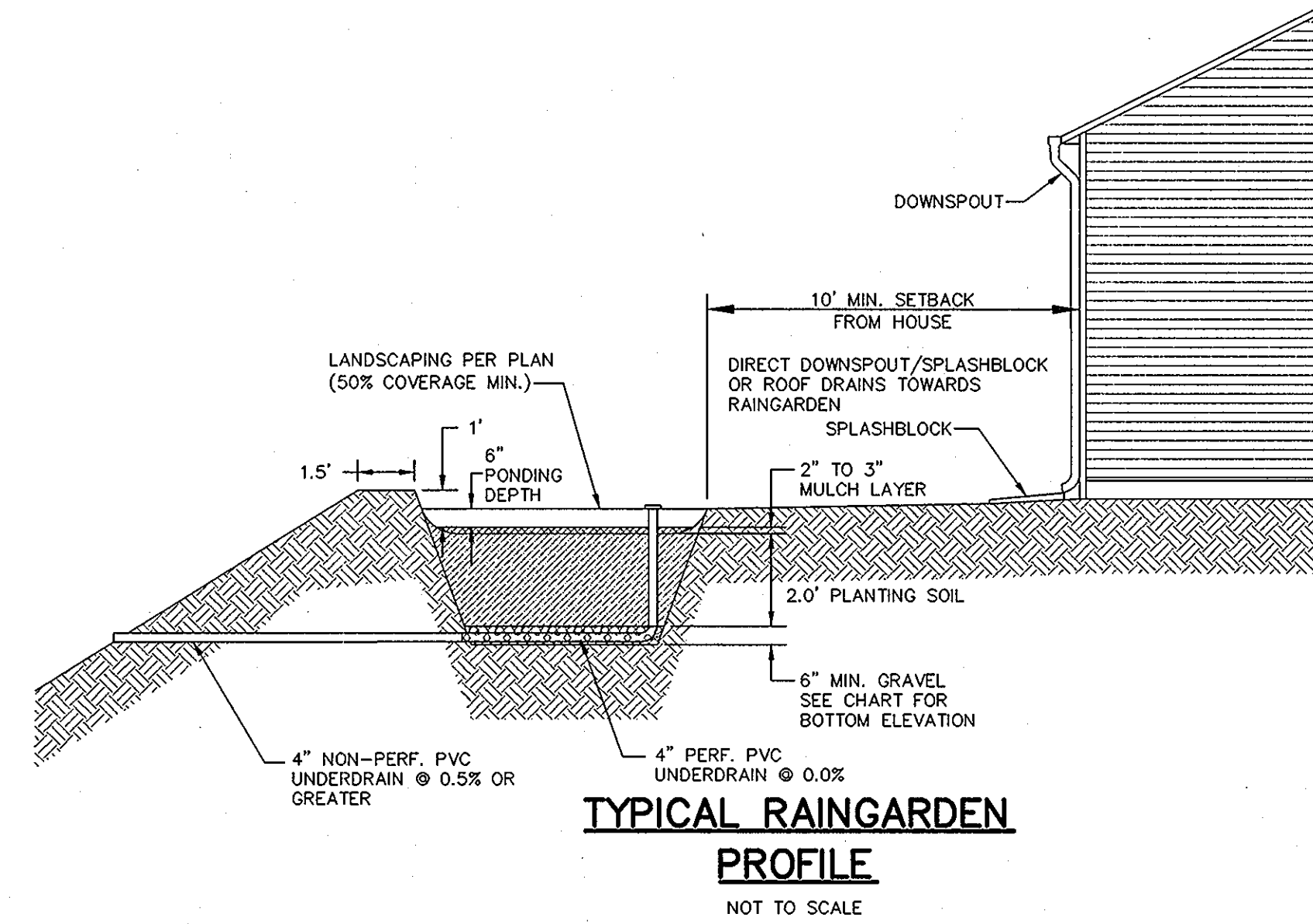
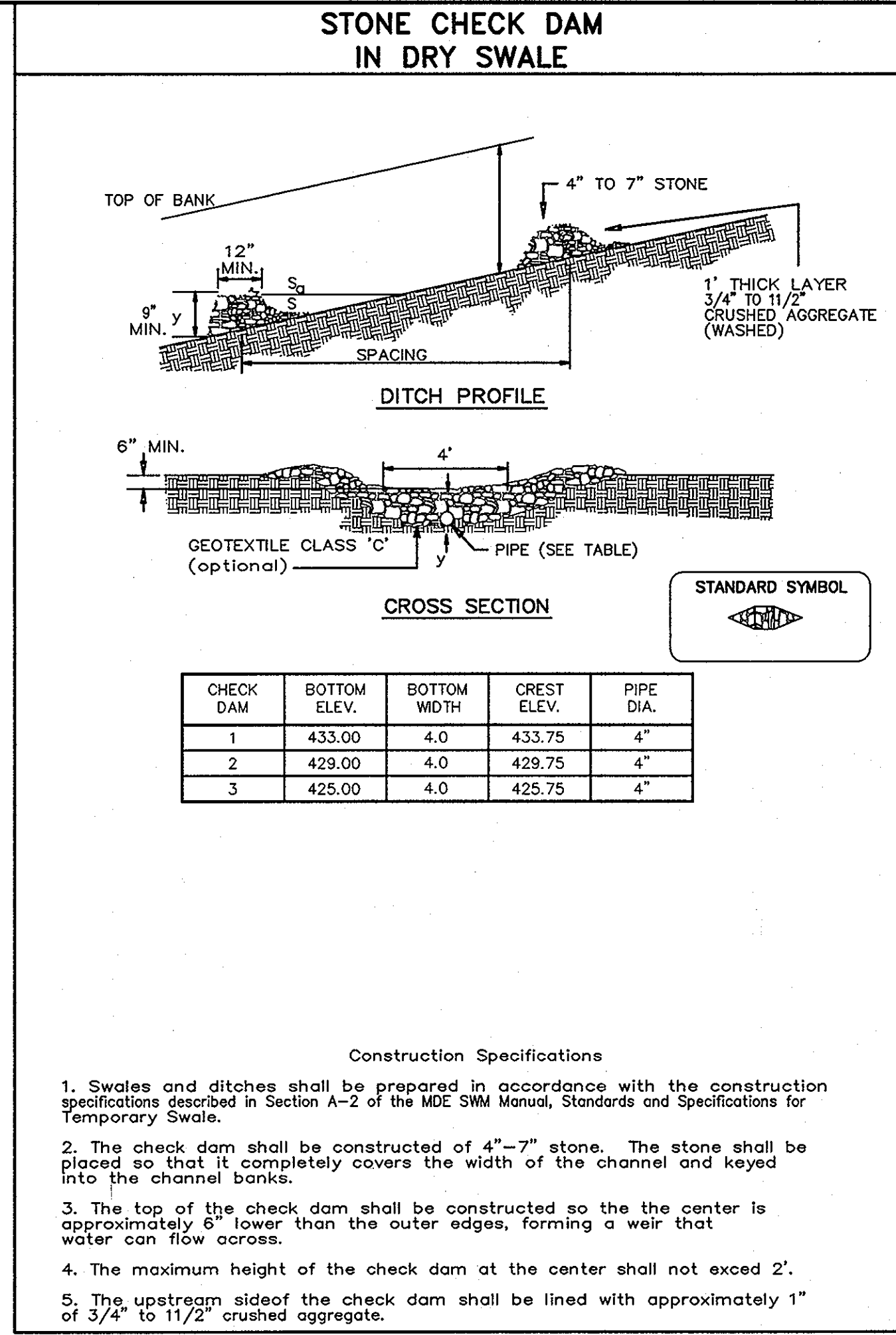
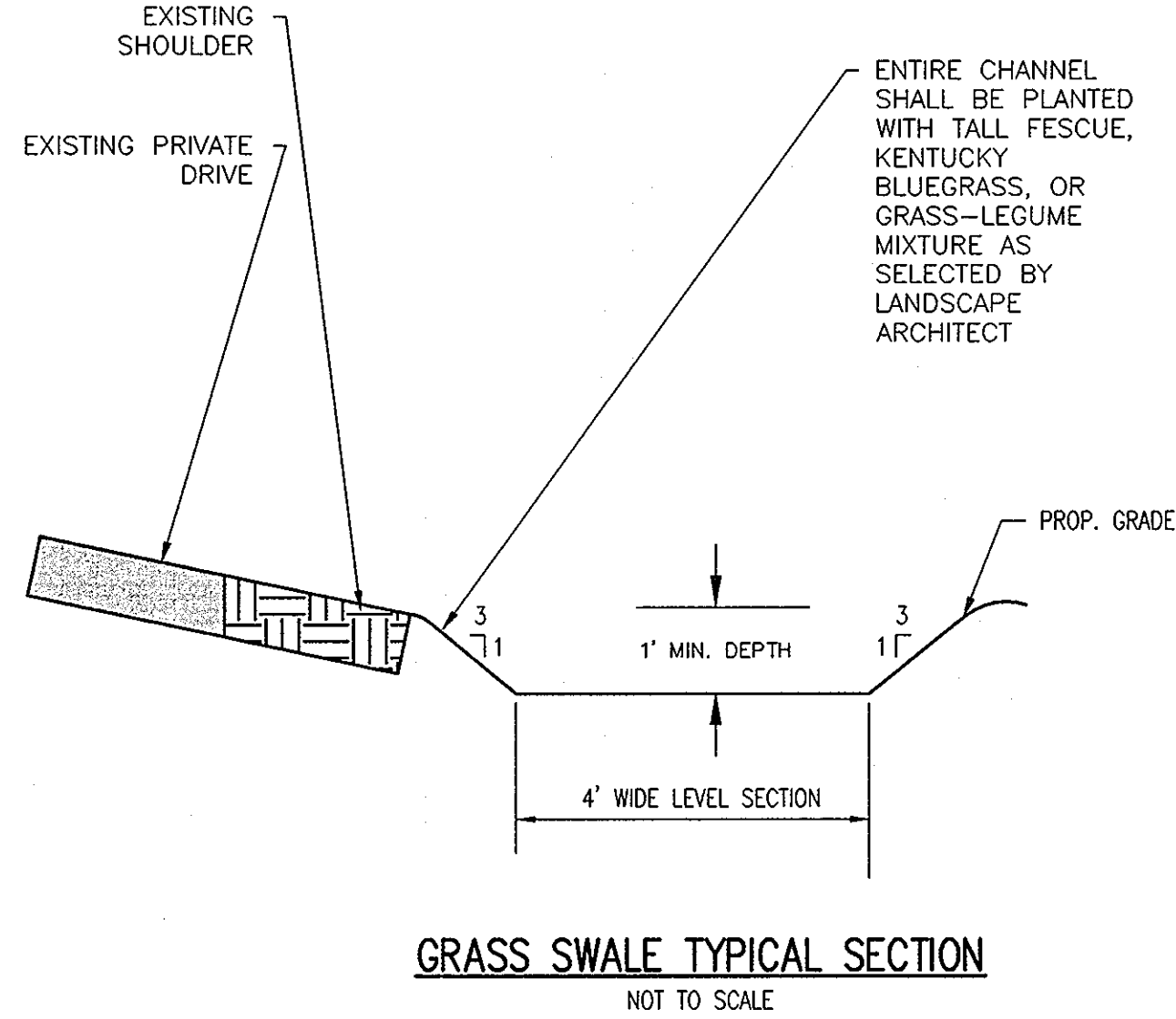
Walter D. ... 11/4/11
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Walter D. ... 11/2/11
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Thomas S. Butler 11/2/11
DIRECTOR DATE

DATE NO.	REVISION
OWNER	TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
DEVELOPER	C/O BRIAN D. BOY 11807 WOLLINGFORD COURT CLARKSVILLE, MD 21029-0193
PROJECT	TROTTER CROSSING II LOTS 14-19 A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12
AREA	TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	SEDIMENT AND EROSION CONTROL DETAILS
	Patton Harris Rust & Associates Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive, Suite 200 Columbia, MD 21045 T 410.997.8900 F 410.997.9282

DESIGNED BY: PHRA
DRAWN BY:
PROJECT NO: 11885-2-0-PLANS
C400SDP06
DATE: NOVEMBER 2, 2010
SCALE: AS SHOWN
DRAWING NO. 6 OF 12



TROTTER CROSSING II OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED ESD PRACTICES

RAIN GARDENS (M-7)

- 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.
- 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.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

- MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO 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.

OPEN CHANNEL SYSTEMS GRASS SWALES (M-8)

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

MATERIAL SPECIFICATIONS FOR RAINGARDENS

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTING SOIL	SAND: 30% TO 60% SILT: 30% TO 55% CLAY: 0% TO 25%	N/A	USDA SOIL TYPES LOAMY SAND, SANDY LOAM, OR LOAM
MULCH	SHREDDED HARDWOOD	N/A	AGED SIX MONTHS MINIMUM
GEOTEXTILE	CLASS "C" (ASTM D-4751) GRAB TENSILE STRENGTH (ASTM D-4832) PUNCTURE RESISTANCE (ASTM D-4833)	N/A	USE AS NECESSARY BENEATH UNDERDRAINS ONLY.
GRAVEL	AASHTO M-43 #57 OR #67	3/8" TO 3/4"	
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO M-278	4" RIGID SCHEDULE 40 PVC, SDR 35, OR HDPE	3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW, MIN. OF 2" GRAVEL OVER PIPES; GRAVEL NOT NECESSARY BENEATH PIPES.

RAINGARDEN SCHEDULE

NO.	LOT	SIZE	TYPE	TOP EL. AT MULCH LAYER	4" PERF. PIPE INV.	4" PERF. LINEAR FEET	4" PIPE OUTFALL INV.	4" NON-PERF LINEAR FEET	L	W	BOTTOM ELEVATION
1	14	446 SF	I	433.00	430.25	19'	430.00	22'	29'	19'	430.00
2	15	802 SF	I	421.00	418.25	55'	418.00	50'	67'	12'	418.00
3	16	444 SF	I	419.00	416.25	47'	416.00	20'	57'	8'	416.00
4	17	440 SF	I	423.00	420.25	47'	420.00	20'	57'	8'	420.00
5	18	525 SF	I	427.00	424.25	43'	424.00	20'	53'	8'	424.00

RAINGARDEN PLANT LIST - TYPE I

KEY	QTY. PER GARDEN	SCIENTIFIC/COMMON NAME	SIZE	ROOT	SPACING	ZONE*
IG	7	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	18"-24" HT.	CONT.	PLANT AS SHOWN	(2,3), 4
IR	6	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	18"-24" HT.	CONT.	SEE NOTE 1	1,(2,3)
IV	6	RED SPRITE AND JIM DANDY WINTERBERRY	2.5'-3" HT.	CONT.	PLANT AS SHOWN	***
CT	8	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 QUART	CONT.	18" SPACING	(2,3), 4
CV	8	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 QUART	CONT.	18" SPACING	(2,3), 4
IB	10	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 GAL.	CONT.	18" SPACING	(1,2), 3
JE	9	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 QUART	CONT.	18" SPACING	(2,3), 4
LC	6	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 GAL.	CONT.	18" SPACING	1, (2, 3), 4

RAINGARDEN PLANT LIST - TYPE II

KEY	QTY. PER GARDEN	SCIENTIFIC/COMMON NAME	SIZE	ROOT	SPACING	ZONE*
CA	7	CLETHRA ALNIFOLIA SUMMERSWEET CLETHRA	18"-24" HT.	CONT.	PLANT AS SHOWN	2,(3), 4
IG	7	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	18"-24" HT.	CONT.	PLANT AS SHOWN	(2,3), 4
IR	7	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	18"-24" HT.	CONT.	SEE NOTE 1	1,(2,3)
IV	7	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	2.5'-3" HT.	CONT.	PLANT AS SHOWN	***
CT	14	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 QUART	CONT.	24" SPACING	(2,3), 4
CV	12	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 QUART	CONT.	18" SPACING	(2,3), 4
IB	14	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 GAL.	CONT.	18" SPACING	(1,2), 3
JE	14	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 QUART	CONT.	24" SPACING	(2,3), 4
LC	10	IRIS VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' WINTERBERRY	1 GAL.	CONT.	18" SPACING	1, (2, 3), 4

RAINGARDEN LIST NOTES:

- PLANT ONE JIM DANDY WINTERBERRY PER EVERY 5 RED SPRITE WINTERBERRIES
- HYDROLOGIC ZONES ACCORDING TO APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.
- KNOWN TO TOLERATE INUNDATION AS WELL AS DRY AREAS ACCORDING TO DIRR, MICHAEL A., 2002 MANUAL OF WOODY LANDSCAPE PLANTS
- COMMONLY USED BIORETENTION SPECIES ACCORDING TO TABLE A.4 IN APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.

FOR REVISIONS BY BENCHMARK ENGINEERING, INC. ONLY

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. 21443 Expiration Date: 12-21-12

RAINGARDEN SPECIFICATIONS

PLANTING SOIL SHOULD BE SANDY LOAM, LOAMY SAND, OR A LOAM/SAND MIX AND SHOULD CONTAIN A MINIMUM 35 TO 60% SAND BY VOLUME. THE CLAY CONTENT SHOULD BE LESS THAN 25%. THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. ONE SIMPLE METHOD OF FOR PRODUCING SUITABLE PLANTING SOIL IS TO MIX THREE PARTS OF COMMERCIALLY AVAILABLE WASHED SAND WITH TWO PARTS TOPSOIL TO PRODUCE A HOMOGENEOUS SOIL. PLANTING SOIL SHOULD BE PLACED IN 12" TO 18" LAYERS THAT ARE LOOSELY COMPACTED (TAMPED LIGHTLY WITH A BACKHOE BUCKET) TO A DEPTH OF 2 1/2 FEET.

RAINGARDEN MULCH SHOULD BE STANDARD LANDSCAPE STYLE, SINGLE OR DOUBLE SHREDDED HARDWOOD MULCH. THE MULCH SHOULD BE WELL AGED, UNIFORM IN COLOR, AND FREE OF OTHER MATERIALS SUCH AS WEEDS OR ROOTS. GRASS CLIPPINGS ARE UNACCEPTABLE AS A MULCH MATERIAL. MULCH SHOULD BE APPLIED TO A MAXIMUM DEPTH OF THREE INCHES. RAINGARDENS SHOULD BE REMULCHED ON AN ANNUAL BASIS.

UNDERDRAINS SHALL CONSIST OF A 4" DIAMETER RIGID SCHEDULE 40 (OR SDR 35) PVC PIPE (SLOTTED HDPE IS ALSO ACCEPTABLE) THAT IS PERFORATED WITHIN THE RAINGARDEN. PERFORATIONS SHALL BE 3/8" DIAMETER MINIMUM AT 6" ON CENTER WITH MINIMUM OF 4 HOLES PER ROW. UNDERDRAINS SHALL BE PLACED ON A 3" WIDE SECTION OF FILTER CLOTH (CLASS "C" GEOTEXTILE). THE PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. AT LEAST ONE OBSERVATION WELL/CLEANOUT MUST BE PROVIDED PER RAINGARDEN. A RODENT GUARD SHOULD BE INSTALLED AT THE DOWNSTREAM END OF UNDERDRAINS TO PREVENT MICE AND LARGER RODENTS FROM ENTRY. A TYPICAL RODENT GUARD CONSISTS OF A 3/8" HEX-HEAD BOLT THROUGH THE PIPE HORIZONTALLY. NUTS ARE PLACED ON BOTH THE INSIDE AND OUTSIDE OF THE PIPE.

RAINGARDENS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

FOR PLANT INSTALLATION ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO THAT 1/8 OF THE BALL IS ABOVE THE FINAL GRADE SURFACE OF THE PLANTING PIT SHOULD BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT (UPRIGHT) DURING THE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE RAINGARDEN IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH IS USED TO AMEND THE SOIL.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION 1/14/11 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 1/24/11 DATE

DIRECTOR 1/24/11 DATE

12-12-12	2	REVISE RG# 2 (LOT 15) SIZE
3-30-12	1	REVISE RG# 5 SIZE IN SCHEDULE
DATE	NO.	REVISION

OWNER
TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
C/O BRIAN D. BOY
11807 WOLLINGFORD COURT
CLARKSVILLE, MD 21029-0193

DEVELOPER
CORNERSTONE HOMES, INC.
ATTN: BRIAN BOY
9695 NORFOLK AVENUE
LAUREL, MD 20723
P: 410.792.2565

PROJECT TROTTER CROSSING II
LOTS 14-19
A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

AREA TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE STORMWATER MANAGEMENT DETAILS

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282


DESIGNED BY: PHRA
DRAWN BY: ALC
PROJECT NO: 11885\2-0\PLANS
C400SDP07
DATE: NOVEMBER 2, 2010
SCALE: AS SHOWN
DRAWING NO. 7 OF 12

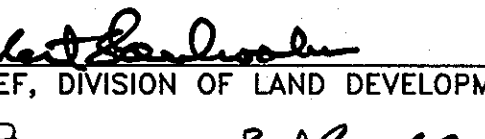


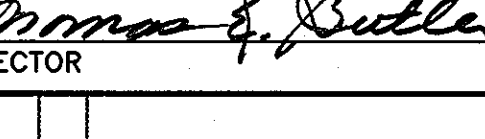
LEGEND

EXISTING 2' CONTOUR	---	248
EXISTING 10' CONTOUR	---	250
PROPERTY LINE AND RIGHT OF WAY	---	
EX. TREELINE	~~~~~	
FLOODPLAIN	---	
STREAM BUFFER	---	SB
SOILS	-----	MfE
15-25% SLOPES	-----	
>25% SLOPES	-----	
SPECIMEN TREE	⊙	2
PLANT COMMUNITY	⊙	F1 T1
FOREST STAND DIVISION	█	

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.


 CHIEF, DEVELOPMENT ENGINEERING DIVISION 1/14/11 DATE


 CHIEF, DIVISION OF LAND DEVELOPMENT 1/14/11 DATE


 DIRECTOR 1/14/11 DATE

DATE	NO.	REVISION

OWNER
TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
C/O BRIAN D. BOY
11807 WOLLINGFORD COURT
CLARKSVILLE, MD 21029-0193

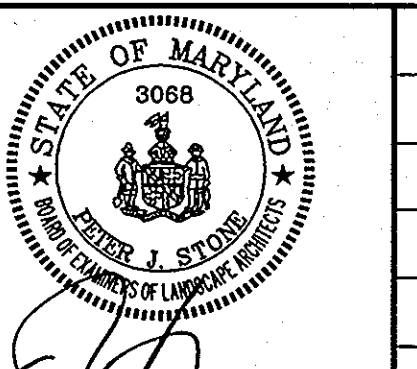
DEVELOPER
CORNERSTONE HOMES, INC.
ATTN: BRIAN BOY
9655 NORFOLK AVENUE
LAUREL, MD 20723
T: 410.792.2565

PROJECT **TROTTER CROSSING II**
LOTS 14-19
A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

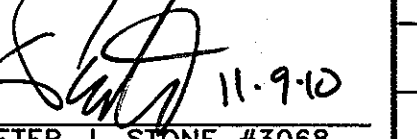
AREA
TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
FOREST STAND DELINEATION PLAN

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

SEAL


DESIGNED BY : JSN
 DRAWN BY : JSN
 PROJECT NO : 11885-2-0-PLANS
 C400SDP08.DWG
 DATE : NOVEMBER 2, 2010
 SCALE : 1" = 40'
 DRAWING NO. 8 OF 12

BY:  11-9-10
PETER J. STONE #3068

SOILS CHART							
MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS	EROSION HAZARD	HYDRIC	SLOPE (%)	K FACTOR	HYDROLOGIC GROUP
GbB	Gladstone loam	Dwellings w/ Basements	Moderate	N	3-8	0.20	B
GbC	Gladstone loam	Somewhat limited	Moderate	N	8-15	0.20	B
GmB	Glenville silt loam	Very limited	Moderate	N	3-8	0.37	C

SOURCE: NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY

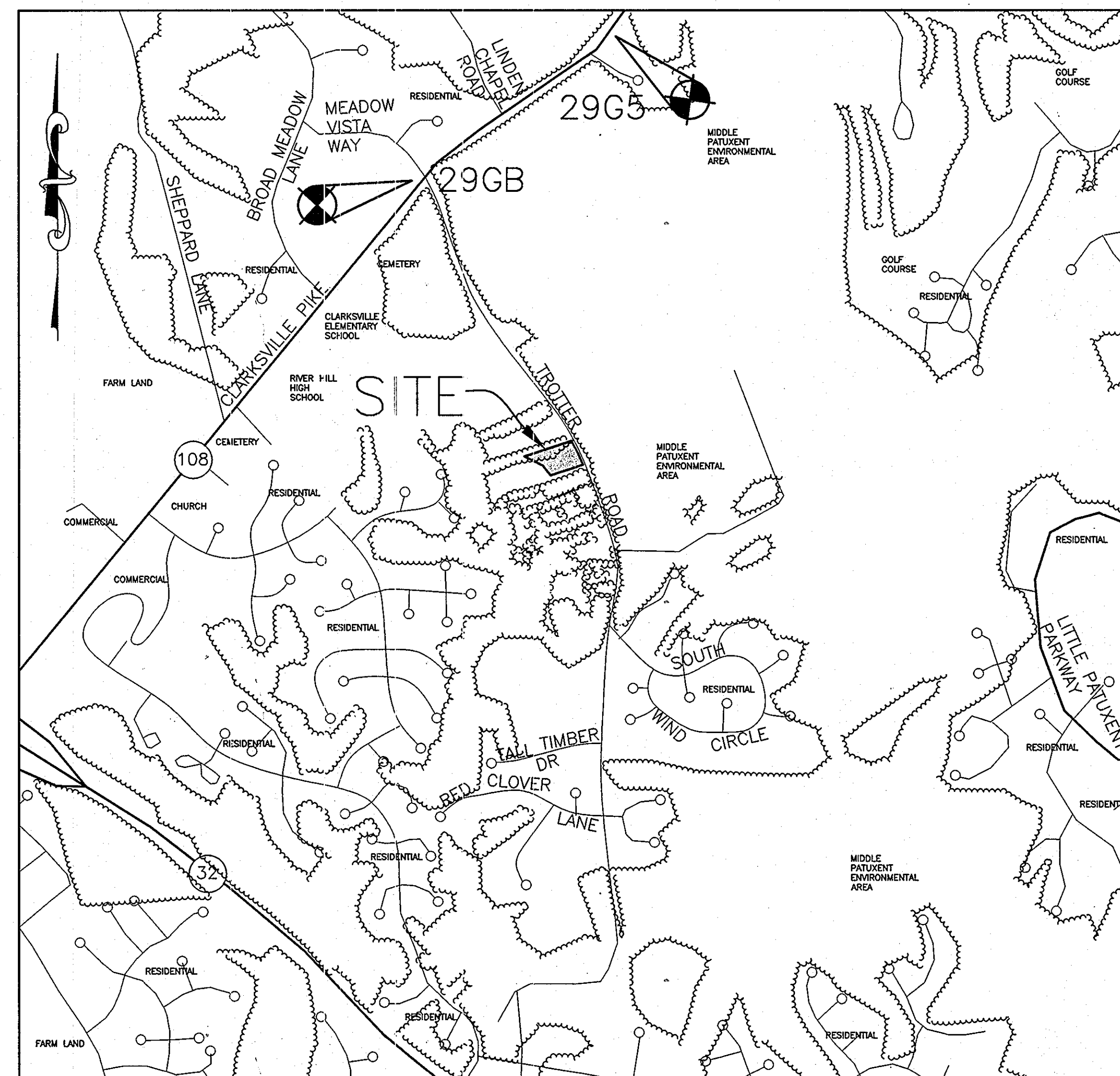
PLANT COMMUNITY SUMMARY			
SYMBOL	COMMUNITY	AREA	PRIORITY RETENTION
F1	FOREST	0.38 Ac.±	LOW
F2	FOREST	0.40 Ac.±	LOW

AREA CHART	
AREA	ACRES
TOTAL TRACT AREA	2.67
EXISTING FOREST	0.78
LAND WITHIN STREAM BUFFERS	0
LAND WITHIN FLOODPLAIN	0
FOREST WITHIN STREAM BUFFERS	0
FOREST WITHIN FLOODPLAIN	0

SPECIMEN TREE CHART			
KEY	SPECIES	SIZE	CONDITION
1	TULIP POPLAR (<i>Liriodendron tulipifera</i>)	30"	FAIR
2	WHITE PINE (<i>Pinus strobus</i>)	34"	GOOD
3	SLIPPERY ELM (<i>Ulmus rubra</i>)	32"	GOOD

GENERAL NOTES:

- THE SITE IS LOCATED AT 5676 TROTTER ROAD, CLARKSVILLE, MD 21029 (TAX MAP 35, PARCEL 6). THE SITE CONSISTS OF 2.67 ACRES. A PORTION OF LOT 19 THAT IS NOT INCLUDED IN THE 2.67 ACRES WAS ADDRESSED UNDER F-05-067.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD STUDY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PATTON HARRIS RUST AND ASSOCIATES IN AUGUST 2009. COORDINATES BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD GEODETIC CONTROL STATIONS Nos. 29GB AND 29G5. THE BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED IN JANUARY 2003 BY PATTON HARRIS RUST & ASSOCIATES.
- THE SOILS ON SITE ARE GLADSTONE LOAM (3-8% SLOPES) - GbB, GLADSTONE LOAM (8-15% SLOPES) - GbC, AND GLENVILLE SILT LOAM (3-8% SLOPES) - GmB ACCORDING TO THE NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY.
- THE SITE IS ZONED R-20 (RESIDENTIAL). CURRENTLY, THE SITE CONTAINS ONE RESIDENTIAL DWELLING.
- THIS SITE IS LOCATED IN THE MIDDLE PATUXENT RIVER WATERSHED.
- THERE ARE NO STREAMS, WETLANDS, OR FLOODPLAINS LOCATED ON THIS SITE.
- THERE ARE TWO EXISTING FOREST STANDS LOCATED ON SITE, AS SHOWN ON THE PLAN. THEY ARE BOTH LOW PRIORITY FOREST STANDS.
- THERE ARE 3 SPECIMEN TREES LOCATED ON SITE, AS SHOWN ON THE PLAN.
- FIELD WORK FOR THIS INVENTORY WAS CONDUCTED ON AUGUST 4, 2009 BY JONATHAN NORMAN, PLANNER OF PATTON HARRIS RUST AND ASSOCIATES UNDER THE SUPERVISION OF PETER J. STONE, RLA AND SCOTT R. WOLFORD RLA OF PATTON HARRIS RUST AND ASSOCIATES.
- THE SITE HAS A FOREST CONSERVATION THRESHOLD OF 20% AND AN AFFORESTATION THRESHOLD OF 15%.
- NO EXISTING STRUCTURES OR CEMETERIES ARE PRESENT ON THE SITE.
- NO RARE, THREATENED, OR ENDANGERED PLANTS OR ANIMALS OR CRITICAL HABITATS WERE OBSERVED IN THE FIELD.
- THIS FOREST STAND DELINEATION (FSD) HAS BEEN PREPARED IN ACCORDANCE WITH HOWARD COUNTY REGULATIONS.



VICINITY MAP

SCALE: 1" = 1000'
 COPYRIGHT ADC THE MAP PEOPLE, PERMITTED USE
 NO. 2081197
 HOWARD COUNTY ADC MAP 4934 GRID C6

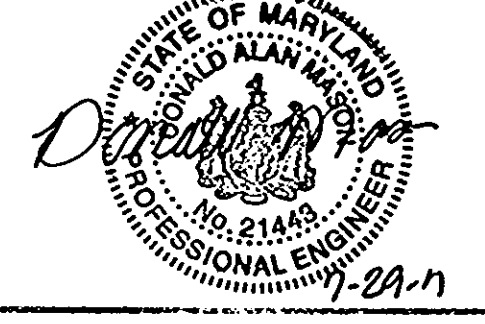
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	1/14/11 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	1/24/11 DATE
<i>[Signature]</i> DIRECTOR	1/25/11 DATE
DATE NO.	REVISION
OWNER TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC. C/O BRIAN D. BOY 11807 WOLLINGFORD COURT CLARKSVILLE, MD 21029-0193	
DEVELOPER CORNERSTONE HOMES, INC. ATTN: BRIAN BOY 9695 NORFOLK AVENUE LAUREL, MD 20723 T: 410.792.2565	
PROJECT TROTTER CROSSING II LOTS 14-19 A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12	
AREA TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE FOREST STAND DELINEATION NOTES AND TABULATIONS	
Patton Harris Rust & Associates Engineers. Surveyors. Planners. Landscape Architects. 8818 Centre Park Drive, Suite 200 Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
SEAL 	DESIGNED BY : JSN DRAWN BY: JSN PROJECT NO : 11885\2-0\PLANS C400SDP09.DWG DATE : NOVEMBER 2, 2010 SCALE : AS SHOWN DRAWING NO. 9 OF 12
BY: PETER J. STONE #3068	11.9.10



LEGEND

PROPERTY LINE		SLOPES 15-25%	
EXISTING TREELINE		SLOPES > 25%	
PROPOSED TREELINE		FOREST CLEARING	
PROPOSED LOT LINE		AREA OF FOREST NOT CLEARED OR PROTECTED (COUNTED AS CLEARED ON WORKSHEET)	
EXISTING CONTOURS		EXISTING PUBLIC WATER, SEWER & UTILITY EASEMENT	
PROPOSED CONTOURS		PROPOSED EVERGREEN TREE	
EXISTING BUILDING		PROPOSED ORNAMENTAL TREE	
PROPOSED BUILDING		RELOCATED PLANTINGS FROM F-05-067	
LIMIT OF DISTURBANCE		PROPOSED PERIMETER PLANTING	
TREE PROTECTION DEVICE (TPD)			
PROPOSED SHADE TREE			
PERIMETER LANDSCAPE EDGE LIMITS			
SPECIMEN TREES TO REMAIN			
EXISTING TREES TO BE REMOVED			
PROPOSED PLANTINGS PROVIDED UNDER F-05-067			
PLANTINGS PROPOSED UNDER F-05-067 TO BE RELOCATED*			

* PLANTINGS PROVIDED UNDER F-05-067 THAT ARE BEING REMOVED DUE TO PROPOSED DEVELOPMENT UNDER THIS SITE DEVELOPMENT PLAN HAVE BEEN RELOCATED TO PERIMETER 2. SURETY WAS POSTED UNDER F-05-067 FOR THESE TREES.



Professional Certificate: 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. 21443, Expiration Date: 12-21-12

FOR REVISIONS BY BENCHMARK ENGINEERING ONLY.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

	1/24/11	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION		
	1/24/11	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT		
	1/24/11	DATE
DIRECTOR		

2-26-12	2	REVISE GRADERS ON LOTS 17 & 18 PER AS-BUILT COND.	08Z
7-29-11	1	REVISE PP#8 FOLLOV, GRADES AND PROTS ON LOT 19	08Z
DATE NO.	REVISION	BY	

OWNER: TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
C/O BRIAN D. BOY
11807 WOLLINGFORD COURT
CLARKSVILLE, MD 21029-0193

DEVELOPER: CORNERSTONE HOMES, INC.
ATTN: BRIAN BOY
9695 NORFOLK AVENUE
LAUREL, MD 20773
T: 410.792.2585

PROJECT: TROTTER CROSSING II
LOTS 14-19
A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

AREA: TAX MAP 35, GRID 2, PARCEL 6, ZONED R-20
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE AND FOREST CONSERVATION PLAN

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

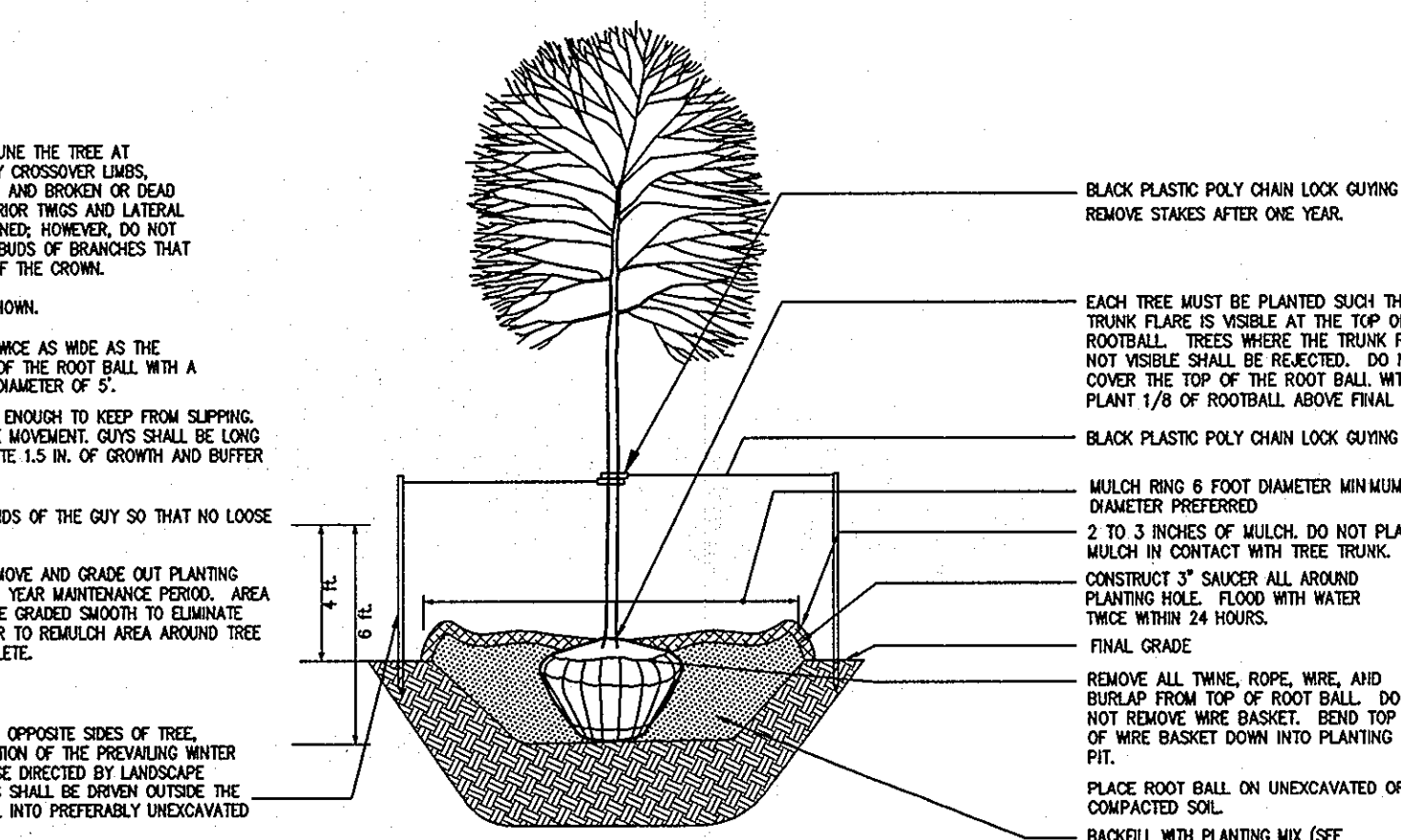
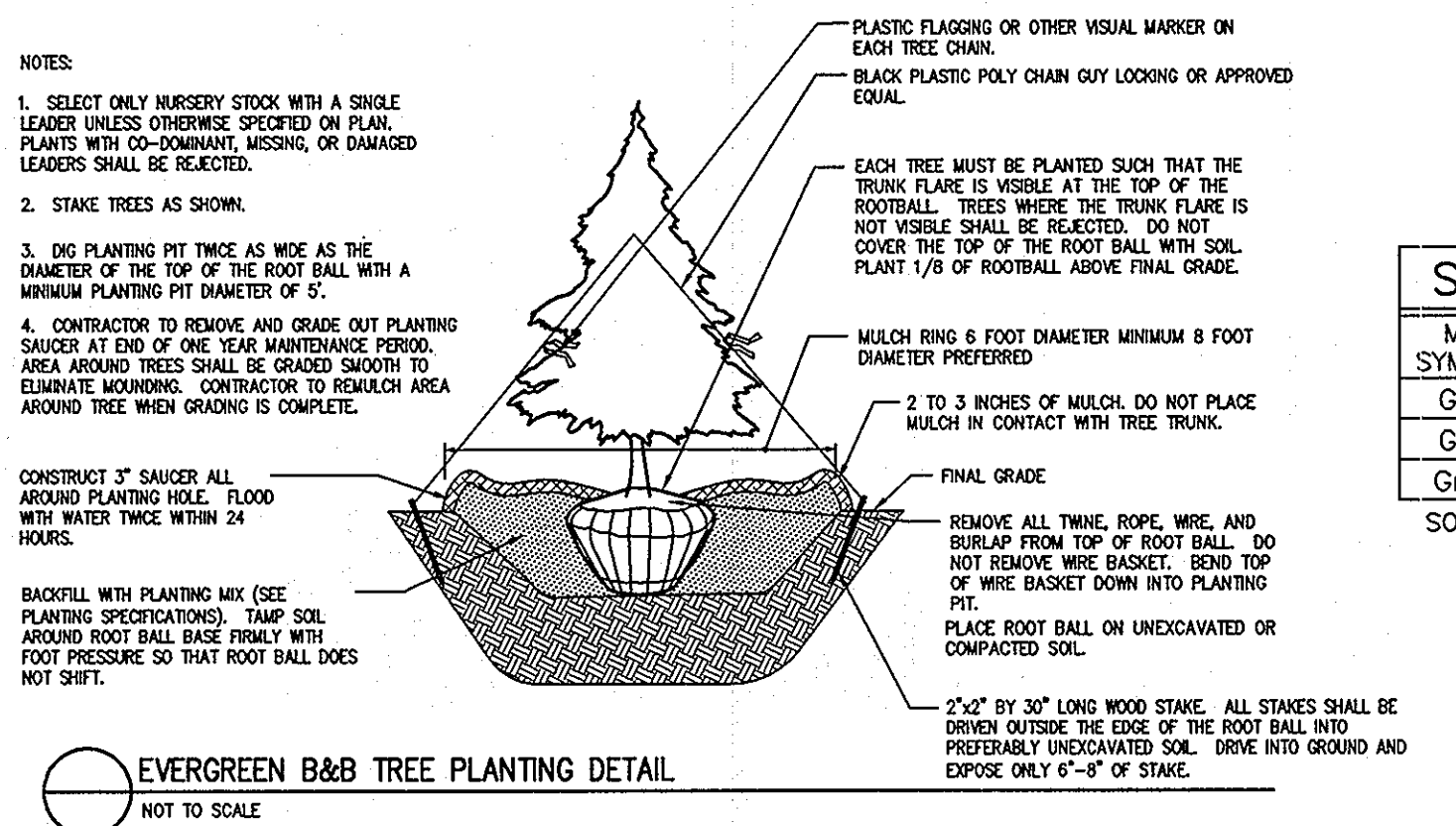
SEAL:

DESIGNED BY: PHRA
DRAWN BY: ALC
PROJECT NO: 11885\2-0\PLANS
C400SDP10
DATE: NOVEMBER 2, 2010
SCALE: 1"=30'
DRAWING NO. 10 OF 12

BY:
PETER J. STONE #3068

PLANTING SPECIFICATIONS

- Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Landscape Manual of the applicable jurisdiction, the latter takes precedence.
- All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Nursery & Landscape Association (ANLA) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been out back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no heeled-in plants or plants from cold storage will be accepted.
- Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Construction Guidelines by the Landscape Contractors Association of MD, DC, & VA," (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.
- Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.
- Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.
- Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.
- Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or Xopressocarpis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.
- Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.
- Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take precedence.
- All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted, double-shredded hardwood mulch throughout.
- Positive drainage shall be maintained on planting beds (minimum 2 percent slope).
- Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.); top dress after planting with iron sulfate or comparable product according to package directions. Taxus baccata 'Rependens' (English weeping yew): Top dress after planting with 1/4 to 1/2 cup lime each.
- Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.
- Weed & insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.
- Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid desiccation.
- Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.
- All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.



SCHEDULE A - PERIMETER LANDSCAPE EDGE		
	ADJACENT TO PERIMETER PROPERTIES	SCENIC ROAD PLANTINGS
PERIMETER	1	2
LANDSCAPE TYPE	A	**
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	535'±	280'±
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 350'	--
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO	--
LINEAR FEET REMAINING	185'±	0'
NUMBER OF PLANTS REQUIRED		
SHADE TREES	4	--
EVERGREEN TREES	0	--
SHRUBS	0	--
NUMBER OF PLANTS PROVIDED		
SHADE TREES	4***	--
EVERGREEN TREES	0	--
SMALL FLOWERING TREES SHRUBS	0	--

SCHEDULE 'A' NOTES:
 * REGULATIONS DO NOT REQUIRE LANDSCAPE EDGES, BUFFERING, OR SCREENING BETWEEN INTERNAL LOTS OR PARCELS WITHIN THE SAME DEVELOPMENT. (PAGE 17 OF THE Ho.Co. LANDSCAPE MANUAL)
 ** LANDSCAPE MANUAL DOES NOT HAVE A SPECIFIC REQUIREMENT FOR SCENIC ROAD PLANTINGS. PLANTINGS HAVE BEEN SHOWN TO PROVIDE A SUITABLE SCREEN. LANDSCAPE MANUAL DOES NOT HAVE A SPECIFIC SUITABLE SEASON. THESE PLANTINGS SHALL BE PROVIDED UNDER THIS SITE PLAN. HOWEVER, NO SURETY IS REQUIRED SINCE THESE PLANTINGS ARE GRANTS AND OTHERS ARE F-05-07 RELOCATED TREES.
 *** SPECIMEN TREE TO REMAIN IS CREDITED AS ONE OF THE SHADE TREES PROVIDED.

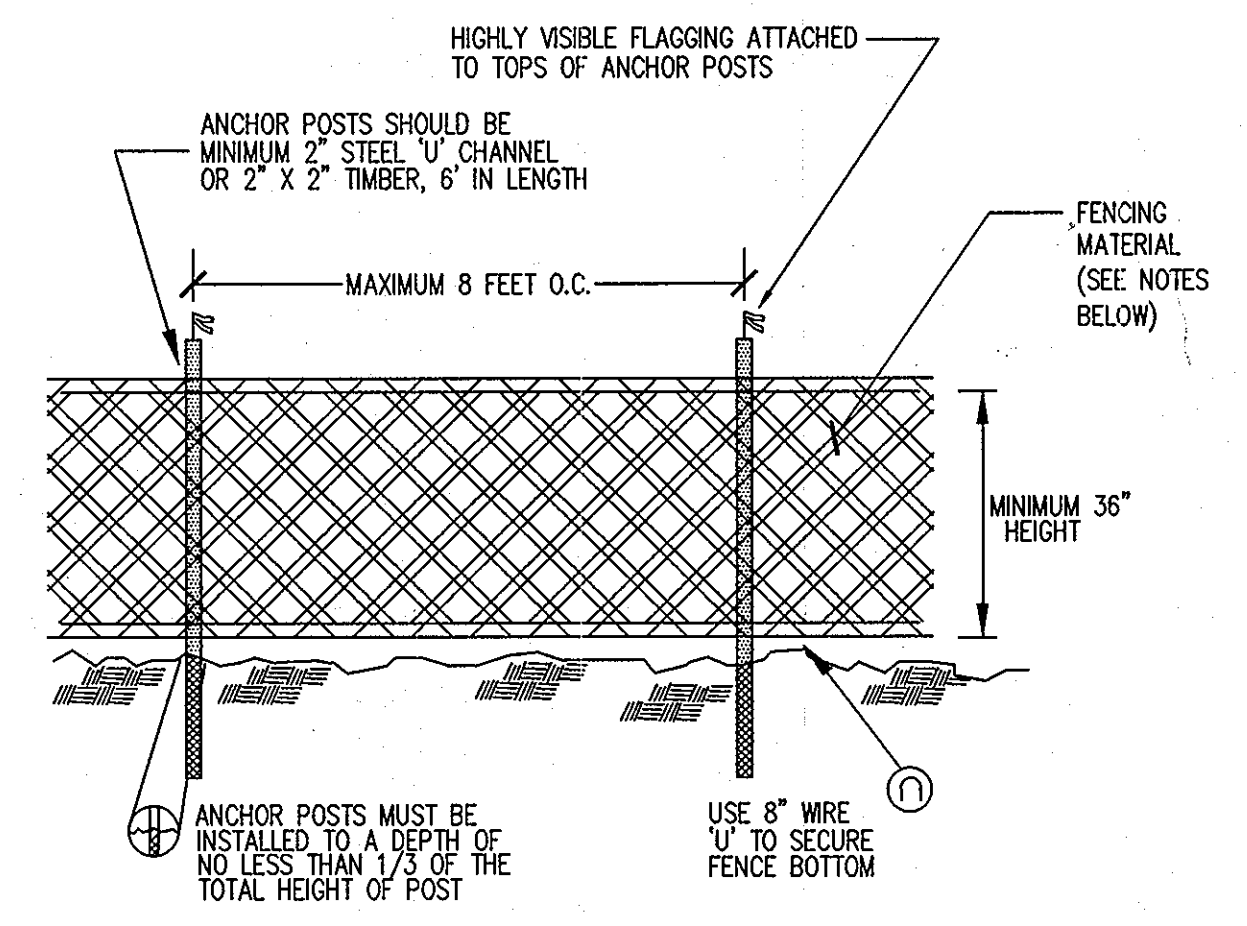
PLANT SCHEDULE					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
AR	1	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	2.5-3" CAL.	B&B	PLANT AS SHOWN
BN	2	BETULA NIGRA 'HERITAGE' HERITAGE RIVER BIRCH	10-12' HT.	B&B	MULTI-STEM

PLANT SCHEDULE -- RELOCATED FROM F-05-067					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
GT	2	GLEDITSIA TRIACANTHOS 'IMPERIAL' IMPERIAL THORNLESS HONEYLOCUST	2.5- 3" CAL	B&B	PLANT AS SHOWN
CK	4	CORNUS KUSNA CHINESE DOGWOOD	8'-10' HT.	B&B	PLANT AS SHOWN
IF	7	ILEX 'FESTIVE' FESTIVE RED HOLLY	5-6' HT.	B&B	PLANT AS SHOWN

SPECIMEN TREE CHART				
KEY	SPECIES	SIZE	CONDITION	REMAIN/REMOVE
1	TULIP POPLAR (Liriodendron tulipifera)	30"	FAIR	REMAIN
2	WHITE PINE (Pinus strobus)	34"	GOOD	REMAIN
3	SLIPPERY ELM (Ulmus rubra)	32"	GOOD	REMAIN

SOILS CHART							
MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS	EROSION HAZARD	HYDRIC	SLOPE (%)	K FACTOR	HYDROLOGIC GROUP
GbB	Gladstone loam	Dwellings w/ Basements	Moderate	N	3-8	0.20	B
GbC	Gladstone loam	Somewhat limited	Moderate	N	8-15	0.20	B
GmB	Glenville silt loam	Very limited	Moderate	N	3-8	0.37	C

SOURCE: NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY



- NOTES:**
- BLAZE ORANGE MESH OR SUPER SILT FENCE FOR TREE PROTECTION DEVICE, ONLY.
 - BOUNDARIES OF PROTECTION AREA WILL BE ESTABLISHED PRIOR TO GRADING AND SEDIMENT CONTROL.
 - AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
 - FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCING
NOT TO SCALE

Howard County Forest Conservation Worksheet

Project Name: Trotter Crossing
 County File #: November 24, 2009
 Date:

Net Tract Area
 A. Total Tract Area = 2.67 Acres
 B. Other Deductions = 0.00
 C. Net Tract Area = 2.67 Acres

Land Use Category:
 D. Afforestation Threshold (Net Tract Area X .15%) = 0.40
 E. Conservation Threshold (Net Tract Area X .20%) = 0.53

Existing Forest Cover
 F. Existing Forest Cover within the Net Tract Area = 0.78
 G. Area of Forest Above Conservation Threshold = 0.25

Break Even Point
 H. Break Even (Amount of forest that must be retained so that no mitigation is required) = 0.58

Proposed Forest Clearing
 J. Total Area of Forest to be Cleared = 0.78
 K. Existing Forest Cover (F) - forest to be cleared (J) = 0.00

Planting Requirements
 L. Reforestation for Clearing Above the Conservation Threshold = 0.06
 M. Reforestation for Clearing Below the Conservation Threshold = 1.07
 N. Credit for Retention Above the Conservation Threshold = 0.00
 P. Total Reforestation Required P = L + M - N = 1.13
 Q. Total Afforestation Required = 0.00
 R. Total Planting Requirement R = P + Q = 1.13

FOREST CONSERVATION GENERAL NOTES:

- THE SITE IS LOCATED ALONG TROTTER ROAD IN CLARKSVILLE, MD 21029 (TAX MAP 35, PARCEL 6). THE SITE CONSISTS OF 2.67 ACRES. A PORTION OF LOT 19 THAT IS NOT INCLUDED IN THE 2.67 ACRES WAS ADDRESSED UNDER F-05-067.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD STUDY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PATTON HARRIS RUST AND ASSOCIATES IN AUGUST 2009. THE BOUNDARY IS BASED ON A FIELD RUM MONUMENTED BOUNDARY SURVEY PERFORMED IN JANUARY 2003 BY PATTON HARRIS RUST & ASSOCIATES, PC.
- THE SITE IS ZONED R-20 (RESIDENTIAL). THERE IS ONE EXISTING HOUSE ON-SITE TO BE REMOVED. THE EXISTING HOUSE WAS BUILT IN 1987. THERE IS ALSO ONE EXISTING SHED ON-SITE TO BE REMOVED.
- NO RARE, THREATENED, OR ENDANGERED PLANTS OR ANIMALS OR CRITICAL HABITATS WERE OBSERVED IN THE FIELD.
- NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- THERE ARE NO KNOWN CEMETERIES OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY CEMETERIES INVENTORY.
- THIS SITE IS LOCATED IN THE MIDDLE PATUXENT RIVER WATERSHED (#2131106).
- THERE ARE NO STREAMS LOCATED ON THIS SITE. NO WETLANDS OR FLOODPLAIN EXIST ON THIS PROPERTY.
- THIS SITE DOES NOT CONTAIN HYDRIC SOILS. THE SOILS ON SITE ARE GLADSTONE LOAM (3-8% SLOPES)-GbB, GLADSTONE LOAM (8-15% SLOPES)-AND GbC, GLENVILLE SILT LOAM (3-8% SLOPES)-GmB, ACCORDING TO THE USDA NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY.
- THE FSD, DATED NOVEMBER 23, 2009, HAS BEEN PREPARED BY PATTON HARRIS RUST & ASSOCIATES IN CONJUNCTION WITH THESE PLANS. FIELD WORK FOR THIS INVENTORY WAS CONDUCTED ON AUGUST 4, 2009 BY JONATHAN NORMAN, PLANNER OF PATTON HARRIS RUST AND ASSOCIATES UNDER THE SUPERVISION OF PETER J. STONE, RLA AND SCOTT R. WOLFORD RLA OF PATTON HARRIS RUST AND ASSOCIATES.
- THERE ARE THREE EXISTING FOREST STANDS LOCATED ON SITE, AS SHOWN ON THE PLAN.
- THERE ARE 3 SPECIMEN TREES LOCATED ON SITE, AS SHOWN ON THE PLAN.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION.
- THE OFF-SITE REFORESTATION FOR THIS PROJECT (F10-53/TROTTER CROSSING II) IS LOCATED ON THE FOLLOWING SITES: .28 ACRES AT THE HAARLES PROPERTY (F08-03), TAX MAP 7, PARCELS 215, AND .75 ACRES AT TALLEY PARCEL 1 (F01-03)(F02-2) TAX MAP 8, PARCELS 292 AND 291. DP2 HAS DETERMINED THAT REMOVED ROAD CONSTRUCTION DRAWINGS FOR F01-003/KINDLER OVERLOOK SHALL ADDRESS THE OFF-SITE REQUIREMENTS FOR F10-53. NO SURETY IS REQUIRED UNDER THIS SITE PLAN, SDP-10-97.

PLANT COMMUNITY SUMMARY			
SYMBOL	COMMUNITY	AREA	PRIORITY RETENTION
F1	FOREST	0.38 Ac.±	LOW
F2	FOREST	0.40 Ac.±	LOW

FOREST CLEARING JUSTIFICATION:

IN ORDER TO DEVELOP THE SITE AS SHOWN WITH REQUIRED DRIVEWAYS, AND HOUSES, 0.78 ACRES OF FOREST MUST BE CLEARED. OF THE 0.78 ACRES OF FOREST, THERE ARE 0.28 ACRES WHICH ARE NOT CLEARED OR PROTECTED WITH THIS PLAN.

LANDSCAPE GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE "Grading Permit" IN THE AMOUNT OF \$1,200.00 FOR THIS SITE PLAN, SDP 10-97 ON LOT 18.
 4 SHADE TREES @ \$300 = 1,200
 0 ORNAMENTAL TREES @ \$150 = 0
 0 EVERGREEN TREES @ \$150 = 0
 0 SHRUBS @ \$30 = 0
 THE TREES RELOCATED FROM F-05-067 HAVE BEEN BONDED UNDER F-05-067.
 PERIMETER LANDSCAPE OBLIGATIONS WILL BE FULFILLED BY NEW PLANTINGS AND EXISTING FOREST AREAS.
 DEVELOPER/BUILDER SHALL BE RESPONSIBLE FOR INSTALLATION OF PERIMETER LANDSCAPING AND SCENIC ROAD PLANTINGS. NO INTERNAL LANDSCAPING IS REQUIRED WITH THIS DEVELOPMENT.
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
- AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF LANDSCAPE SURETY.
- SHOULD ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.

DEVELOPER'S/BUILDER'S CERTIFICATE:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Signature: *B D B* Date: 11/2/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Chief, Development Engineering Division: *[Signature]* 1/14/11
 Chief, Division of Land Development: *[Signature]* 12/21/10
 Director: *[Signature]* 1/24/11

DATE NO. REVISION

OWNER: TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
 C/O BRIAN D. BOY
 11807 WOLLINGFORD COURT
 CLARKSVILLE, MD 21029-0193

DEVELOPER: CORNERSTONE HOMES, INC.
 ATTN: BRIAN BOY
 9655 NORFOLK AVENUE
 LAUREL, MD 20723
 T: 410.792.2565

PROJECT: TROTTER CROSSING II
 LOTS 14-19
 A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

AREA: TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE AND FOREST CONSERVATION NOTES & DETAILS
 Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY: PHRA
 DRAWN BY: ALG
 PROJECT NO: 11885-2-0 PLANS
 C4005DP11
 DATE: NOVEMBER 2, 2010
 SCALE: AS SHOWN
 DRAWING NO. 11 OF 12

SEAL: PETER J. STONE #3068
 11-19-10

SDP-10-097

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
442.3	2.0	Soil and root (organic) matter and organic soil. Brown silty fine to medium SAND with little to some rock fragments, moist (SM) (SANDY LOAM)	Boring dry during drilling and at completion. Boring again dry after 24 hours.
442.4	3.0		
442.3	3.4	Hand Auger Refusal	Boring offset and redrilled. Boring terminated due to presence of a zone of dense residual material and large rock fragments.

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
441.1	2.0	Soil and root (organic) matter and organic soil. Orange-brown fine to coarse SAND with some silt and trace to little rock fragments, moist to damp (SM) (LOAMY SAND)	Boring dry during drilling and at completion. Boring again dry after 24 hours.
441.2	3.0		
441.1	3.4	Hand Auger Refusal	Boring offset and redrilled. Boring terminated due to presence of large rock fragments and cobbles.

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
442.4	2.0	Soil and root (organic) matter and organic soil. Light brown to tan clayey SILT with little fine to medium sand, moist (ML) (SILT LOAM)	Boring dry during drilling and at completion. Boring again dry after 24 hours.
442.5	3.0		
442.4	3.1	Hand Auger Refusal	Boring offset and redrilled. Boring terminated due to presence of a zone of dense residual material and large rock fragments.

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
442.3	2.0	Soil and root (organic) matter and organic soil. Light brown to tan clayey SILT with little fine to medium sand, moist (ML) (SILT LOAM)	Boring dry during drilling and at completion. Boring again dry after 24 hours.
442.4	3.0		
442.3	3.5	Hand Auger Refusal	Boring offset and redrilled. Boring terminated due to presence of a zone of dense residual material and large rock fragments.

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
442.3	2.0	Soil and root (organic) matter and organic soil. Orange-brown fine to coarse SAND with some silty clay, moist (SC) (SANDY LOAM)	Boring offset about 6 feet to the south of its originally staked location in order to avoid existing asphalt-paved driveway (about two to three feet lower in elevation). Boring dry during drilling and at completion.
442.4	3.0		
442.3	3.4	Hand Auger Refusal	Boring again dry after 24 hours. Boring offset and redrilled. Boring terminated due to presence of a zone of dense residual material and large rock fragments.

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
442.3	2.0	Soil and root (organic) matter and organic soil. Light brown to tan fine to medium sandy silty CLAY, moist (CL) (LOAM)	Boring dry during drilling and at completion. Boring again dry after 24 hours.
442.4	3.0		
442.3	3.4	Hand Auger Refusal	Boring offset and redrilled. Boring terminated due to presence of a zone of dense residual material and large rock fragments.

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
442.3	2.0	Soil and root (organic) matter and organic soil. Orange-brown silty clayey fine to coarse SAND, moist (SC) (SANDY LOAM)	Boring dry during drilling and at completion. Boring again dry after 24 hours.
442.4	3.0		
442.3	3.4	Hand Auger Refusal	Boring offset and redrilled. Boring terminated due to presence of a zone of dense residual material and large rock fragments.

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
442.4	2.0	Soil and root (organic) matter and organic soil. Brown silty fine to medium SAND with little to some rock fragments, moist (SM) (SANDY LOAM)	Boring dry during drilling and at completion. Boring again dry after 24 hours.
442.5	3.0		
442.4	3.1	Hand Auger Refusal	Boring offset and redrilled. Boring terminated due to presence of a zone of dense residual material and large rock fragments.

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
442.3	2.0	Soil and root (organic) matter and organic soil. Tan silty CLAY with some fine to medium sand, moist (CL) (CLAY LOAM)	Boring dry during drilling and at completion. Boring again dry after 24 hours.
442.4	3.0		
442.3	3.1	Hand Auger Refusal	Boring offset and redrilled. Boring terminated due to presence of a zone of dense residual material and large rock fragments.

BORING LOG **GEOLAB, INC.**

Station	Depth	DESCRIPTION OF MATERIALS	Remarks
442.3	2.0	Soil and root (organic) matter and organic soil. Orange-brown fine to coarse SAND with some silty clay, moist (SC) (SANDY LOAM)	Boring dry during drilling and at completion. Boring again dry after 24 hours.
442.4	3.0		
442.3	3.4	Hand Auger Refusal	Boring offset and redrilled. Boring terminated due to presence of a zone of dense residual material and large rock fragments.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 1/14/10
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1/24/10
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1/24/10
DIRECTOR DATE

DATE NO. REVISION

OWNER
TROTTER CROSSING, LLC & TROTTER CROSSING HOMEOWNER'S ASSOCIATION, INC.
C/O BRIAN D. BOY
11807 WOLLINGFORD COURT
CLARKSVILLE, MD 21029-0193

DEVELOPER
CORNERSTONE HOMES, INC.
ATTN: BRIAN BOY
9695 NORFOLK AVENUE
LAUREL, MD 20723
T: 410.792.2565

PROJECT
TROTTER CROSSING II
LOTS 14-19
A RESUBDIVISION OF FOREST HILLS LOT 33 AND TROTTER CROSSING LOTS 1 & 12

AREA
TAX MAP 35 GRID 2 PARCEL 6 ZONED R-20
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SOIL BORING LOGS

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY : PHRA
DRAWN BY: ALC
PROJECT NO : 11885\2-0\PLANS
C400SDP12
DATE : NOVEMBER 2, 2010
SCALE : NO SCALE
DRAWING NO. 12 OF 12

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. 21142, EXPIRATION DATE: 01-19-12

