FINAL PLAN
HOMEWOOD FARM
LOTS 1 & 2
3RD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SHEET INDEX

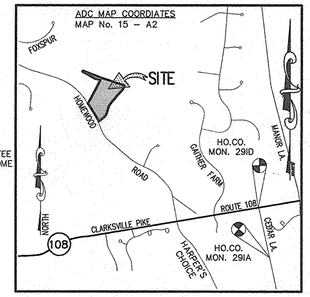
GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
2. 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.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
4. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
5. ALL PLAN DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
6. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PATTON HARRIS RUST & ASSOCIATES DATED JUNE 2006.
7. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 291A AND 291D WERE USED FOR THIS PROJECT.
8. WATER IS PRIVATE.
9. SEWER IS PRIVATE.
10. THE STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED IN ONE INFILTRATION TRENCH FOR BOTH WATER QUALITY VOLUME AND RECHARGE VOLUME. CHANNEL PROTECTION VOLUME IS NOT REQUIRED FOR THIS SITE. THE INFILTRATION TRENCH IS A STRUCTURAL PRACTICE, AND WILL BE PRIVATELY MAINTAINED.
11. 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.
12. THE 100-YEAR FLOODPLAIN HAS BEEN SHOWN HEREON BASED ON FIRM MAP # 24044, PANEL 0027.
13. THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY PATTON HARRIS RUST & ASSOCIATES DATED JUNE 2006.
14. SUBJECT PROPERTY ZONED RC-DEO PER THE 02-02-04 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 07-28-06.
15. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
16. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
17. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
18. 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.
19. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE
20. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
21. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
22. ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
23. ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. LIGHT TRESPASS ONTO ADJOINING PROPERTIES SHALL BE LIMITED TO 0.1 FOOT CANDLES.
24. THERE IS ONE EXISTING PERMANENT STRUCTURE AND THREE BARNS ON-SITE. THE EXISTING BARNS (CIRCA 1973) WILL BE REMOVED. THE HOUSE (BUILT IN 1973) WILL REMAIN.
25. GRADING, REMOVAL OF VEGETATIVE COVER AND TREES AND PAVING ARE NOT PERMITTED IN WETLANDS, STREAMS, WETLAND BUFFERS, STREAM BUFFERS, FLOODPLAIN, FOREST CONSERVATION AREAS, OR STEEP SLOPES.
26. BASED ON AVAILABLE COUNTY MAPS AND RECORDS, THERE ARE NO HISTORIC STRUCTURES OR KNOWN CEMETERIES LOCATED ON THE SUBJECT PROPERTY.
27. 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 WILL BE ADDRESSED WITH THE REQUIRED GRADING PERMIT/BUILDING PERMIT IN THE AMOUNT OF $ 9,600.00 FOR 28 SHADE TREES, 0 ORNAMENTAL TREES, 8 EVERGREEN TREES, AND 0 SHRUBS.
28. LOT 1 IS EXEMPT FROM THE OPEN SPACE FEE BECAUSE IT CONTAINS AN EXISTING HOME. LOT 2 WILL BE REQUIRED TO PAY A FEE-IN-LIEU OF $1,500.00 FOR OPEN SPACE.
29. EXISTING USE IN COMMON DRIVEWAY IS TO REMAIN AND BE WIDENED TO AN ULTIMATE WIDTH OF 18'.
30. FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPE STEM AND THE ROAD RIGHT-OF-WAY LINE ONLY AND NOT ONTO THE FLAG OR PIPE STEM LOT DRIVEWAY.
31. VEHICULAR EGRESS AND INGRESS (VIER) IS RESTRICTED ALONG HOMEWOOD ROAD WEST OF THE EXISTING DRIVEWAY.
32. A USE-IN-COMMON MAINTENANCE AGREEMENT WILL BE RECORDED CONCURRENTLY WITH THIS PLAT.
33. THIS AREA ▨ DESIGNATES A PRIVATE SEWAGE DISPOSAL EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A REVISED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
34. PERC HOLES SHOWN HEREON HAVE BEEN FIELD LOCATED BY PHRA IN JANUARY 30TH, 2007.
35. ⊕ S DENOTES PASSING PERC TEST.
36. ● 37 DENOTES FAILED PERC TEST.
37. WELLS AND SEPTIC SYSTEMS WITHIN 100 FEET OF THE PROPERTY BOUNDARY HAVE BEEN SHOWN TO THE BEST OF OUR KNOWLEDGE AND INFORMATION FROM AVAILABLE COUNTY RECORDS.
38. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND HOWARD COUNTY.
39. DENOTES WELL (NOT TO SCALE) W 100' RADIUS
40. STEEP SLOPES (25% OR GREATER) ARE LOCATED ON SITE AS SHOWN.
41. ALL WELLS TO BE DRILLED PRIOR TO FINAL PLAT RECORDATION.
42. DRIVEWAYS SHALL BE PROVIDED PRIOR TO THE 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:
    a) WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE);
    b) SURFACE - 6" OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1/2"MIN.);
    c) GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS.
    d) STRUCTURES (CULVERTS/ BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING);
    e) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE;
    g) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.

PLAN
SCALE: 1" = 100'

AREA TABULATION CHART

EXISTING ZONING:	RC-DEO
GROSS AREA OF SITE:	14.83 ACRES (646,203 SF)
AREA IN 100 YEAR FLOODPLAIN:	0.13 ACRES
AREA OF STEEP SLOPES:	0.33 ACRES (14,314 SF)
NET TRACT AREA:	14.37 ACRES
AREA OF RIGHT-OF-WAY DEDICATION:	0.28 ACRES
AREA OF PROPOSED BUILDABLE LOTS:	13.86 ACRES
AREA OF REQUIRED OPEN SPACE:	LOT 1 IS EXEMPT FROM OPEN SPACE FEE BECAUSE IT CONTAINS AN EXISTING HOME. LOT 2 REQUIRES A FEE-IN-LIEU OF $1,500
LIMIT OF DISTURBED AREA:	1.56 ACRES
NUMBER OF BUILDABLE LOTS:	2 LOTS
NUMBER OF BUILDABLE PRESERVATION PARCELS:	0
NUMBER OF NON-BUILDABLE PARCELS:	1
NUMBER OF OPEN SPACE LOTS:	0
PROPOSED WATER AND SEWER:	PRIVATE WELL AND SEPTIC
EXISTING USES:	EXISTING HOME, HORSEFARM, AND WOODS
PROPOSED USES:	2 SINGLE FAMILY DETACHED RESIDENTIAL LOTS



VICINITY MAP
SCALE: 1" = 2000'

WP-07-079 CONDITIONS OF APPROVAL:

1. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE PREPARATION OF A USE-IN-COMMON DRIVEWAY MAINTENANCE AGREEMENT FOR THE EXISTING 40' WIDE RIGHT-OF-WAY SERVING PARCEL 117, PARCEL 291, AND NEW LOTS 1, 3, & 4. THIS MAINTENANCE DOCUMENT MAY BE RECORDED PRIOR TO, OR CONCURRENTLY WITH THE RECORDATION OF THE PLATS CREATING LOTS 1, 3, & 4 FROM PARCEL 303. IN ADDITION, A SEPARATE MAINTENANCE AGREEMENT WILL BE REQUIRED FOR THE 24' WIDE SHARED ACCESS EASEMENT (DESIGNED TO SERVE LOTS 3 AND 4 ONLY) WHICH WILL BE CREATED ON THE FORTHCOMING PLAT CREATING LOTS 1 & 2. THIS MAINTENANCE AGREEMENT WILL BE RECORDED WITH THE PLAT CREATING LOTS 3 & 4. (4/13/07)
2. BY RECORD PLAT, THE DEVELOPER SHALL CREATE A 24' WIDE SHARED ACCESS EASEMENT FOR LOTS 3 AND 4. WITHIN THIS SHARED ACCESS, A 16' USE-IN-COMMON DRIVEWAY (MEETING DESIGN MANUAL STANDARDS) SHALL BE CONSTRUCTED. THE USE-IN-COMMON CREATED FOR LOTS 3 AND 4 WILL JOIN WITH THE IMPROVED 18' DRIVEWAY LOCATED WITHIN THE CONFINES OF THE 40' RIGHT-OF-WAY. (4/13/07)
3. THE DEVELOPER SHALL IMPROVE THE EXISTING DRIVEWAY (CONTAINED WITHIN THE EXISTING 40' RIGHT-OF-WAY) TO 18' FROM HOMEWOOD ROAD TO THE LAST ACCESS POINT FOR PROPOSED LOT 1. (4/13/07)
4. PLAN DETAILS FOR THE PROPOSED GATE SHOWING PROVISIONS FOR EMERGENCY ACCESS SHALL BE PROVIDED TO DEPARTMENT OF FIRE AND RESCUE SERVICES AND APPROVED BY THAT DEPARTMENT PRIOR TO THE RECORDATION OF THE PLAT CREATING LOTS 1 & 2. (4/13/07)
5. THE DEVELOPER SHALL COMPLY WITH THE PREVIOUSLY FORWARDED COMMENTS FROM THE DEPARTMENT OF FIRE AND RESCUE SERVICES (DATED 2/14/07) REGARDING ADDRESS SIGNAGE AND DRIVEWAY TURNING RADII. (4/13/07)
6. ON THE FORTHCOMING PLAT WHICH WILL CREATE LOTS 1 AND 2, NOTE ALL OF THE FRONTAGE ALONG HOMEWOOD ROAD AS "VEHICULAR INGRESS AND EGRESS RESTRICTED." CLEARLY NOTE THAT ALL ACCESS IS TO BE DERIVED VIA PARCEL 117. (4/13/07)
7. BULK PARCEL A SHALL BE DESIGNATED AS NON-BUILDABLE PARCEL A WITH F-07-187. (6/22/07)
8. NON-BUILDABLE PARCEL A WILL BE ENCUMBERED BY A FOREST CONSERVATION EASEMENT IN ITS ENTIRETY, ENCOMPASSING EXISTING FOREST AND FLOODPLAIN. (6/22/07)
9. NON-BUILDABLE PARCEL A SHALL BE CONVEYED TO THE OWNERS OF ADJOINING PARCEL 117 IMMEDIATELY FOLLOWING THE RECORDATION OF THE PENDING PLAT (F-07-187). BE ADVISED THAT THIS NON-BUILDABLE 1.0191-ACRE PARCEL WILL BE A SEPARATE ENTITY FROM PARCEL 117 AND MAY ONLY BE MERGED WITH THAT PARCEL THROUGH THE RECORDATION OF A SUBDIVISION PLAT. (6/22/07)
10. BULK PARCEL A SHALL BE DESIGNATED AS NON-BUILDABLE PARCEL A WITH F-07-187 AND F-07-213. (9/10/07)
11. A PLAT OF EASEMENT FOR THE PARCELS PROVIDING FOR OFF-SITE FOREST CONSERVATION (INCLUDING PARCEL 291, PARCELS/LOTS 1 & 2) WILL NEED TO BE SUBMITTED. THIS PLAT MUST BE RECORDED PRIOR TO OR CONCURRENTLY WITH F-07-187. (9/10/07)

LEGEND

PROPERTY LINE
EXISTING TREELINE
PROPOSED TREELINE
PROPOSED LOT LINE
EXISTING SOILS (GeB, CaB)
EX. STREAM AND BUFFER
EX. 100-YEAR FLOODPLAIN
EXISTING CONTOURS 805 800
PROPOSED CONTOURS
EXISTING BUILDING
PROPOSED BUILDING
EXISTING WELL
PROPOSED WELL W
PROPOSED SEPTIC AREA
EXISTING SEPTIC AREA
EX. OVERHEAD POWER LINE OHE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR	~~DATE~~
CHIEF, DEVELOPMENT ENGINEERING DIVISION	2/8/08 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	2/8/08 DATE

DATE	NO.	REVISION

OWNER:

HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT
HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE
TITLE SHEET

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

STATE OF MARYLAND GREGORY CARROLL MITCHELL No. 22408 REGISTERED PROFESSIONAL ENGINEER
2-22-08
BY: Gregory C. Mitchell

"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. 33954, EXPIRATION DATE: 1-24-09."

DESIGNED BY : PHRA
DRAWN BY: JML
PROJECT NO : 14520-1-0
DATE : JANUARY 21, 2008
SCALE : AS SHOWN
DRAWING NO. 1 OF 15

F-07-187

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43. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION. FINANCIAL SURETY FOR FOREST CONSERVATION WILL BE ADDRESSED WITH THE REQUIRED DEVELOPER'S AGREEMENT IN THE AMOUNT OF $5,039. THIS AMOUNT INCLUDES ON-SITE RETENTION (NON-FLOODPLAIN AREA): (31,982 SF X $0.20=$6,396) AND THE PLANTING OBLIGATION FOR F-07-187 OF 2.50 AC BY PROVIDING SURETY FOR THE OFF-SITE RETENTION AT 2 TO 1: (203,178 SF X $0.20=$40,636), ON-SITE AFFORESTATION: (1,212 SF X $0.50=$606), AND FOR THE OFF-SITE PLANTING (AFFORESTATION): (6,802 SF X $0.50=$3,401).
44. WHEN SCHEDULING THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING OFFICE (MARK DELUCA) AT 410-313-2430 TO REQUEST AN ON-SITE MEETING TO DETERMINE WHAT CLEARING OR PRUNING WILL BE NECESSARY TO PROVIDE THE ADEQUATE LINE OF SITE LEFT ALONG HOMEWOOD ROAD. ANY CLEARING OR PRUNING WILL BE DONE AT THE DIRECTION OF THE TRAFFIC ENGINEERING OFFICE REPRESENTATIVE.

MINIMUM LOT SIZE CHART

LOT NO.	MIN. LOT SIZE	PIPESTEM AREA	GROSS AREA
1	173,699	6,347	167,352
2	427,159	0	427,159

ALL AREAS SHOWN ABOVE ARE IN SQUARE FEET

BENCH MARK

HOWARD COUNTY CONTROL
STATION 06C6
N 609,143.487
E 1,270,776.502
ELEV. 855.46

HOWARD COUNTY CONTROL
STATION 06CA
N 610,135.318
E 1,272,833.911
ELEV. 815.20

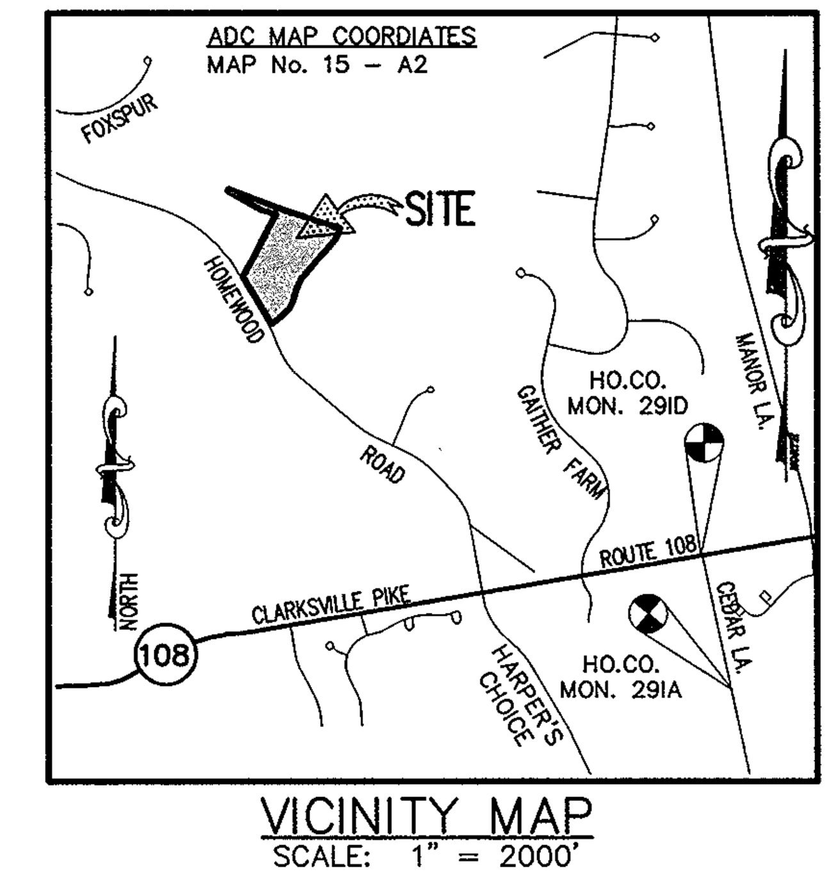
COORDINATE LIST

1	N 574,832.07	E 1,338,313.80
2	N 574,629.01	E 1,338,313.72
3	N 574,417.00	E 1,339,470.26
4	N 573,427.66	E 1,338,755.20
5	N 573,923.59	E 1,338,451.91
6	N 574,570.59	E 1,338,802.83
7	N 574,809.81	E 1,338,902.21

SOILS CHART

MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS Dwellings w/ Basements	EROSION HAZARD	HYDRIC	SLOPE (%)
BaA	Baile silt loam	Severe: high water table	Severe	Y	0–3
Co	Codorus and Hatboro silt loams	Severe: flood hazard	Severe	N	0–3
GbB	Gladstone loam	Moderate	Moderate	N	3–8
GbC	Gladstone loam	Moderate	Moderate	N	8–15

SOURCE: SOIL INFORMATION TAKEN FROM USDA–NRCS WEBSITE.



VICINITY MAP
SCALE: 1" = 2000'

LEGEND

- PROPERTY LINE
- EXISTING TREELINE
- WETLANDS AND 25' BUFFER
- EX. STREAM AND BUFFER
- EX. 100-YEAR FLOODPLAIN
- EXISTING CONTOURS
- EXISTING BUILDING
- SLOPES: 15–25%
- SLOPES: > 25%
- EXISTING SOILS
- PASSED PERC TEST
- FAILED PERC TEST
- EXISTING WELL
- EXISTING SEPTIC AREA
- EX. OVERHEAD POWER LINE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ ~~DATE~~

CHIEF, DEVELOPMENT ENGINEERING DIVISION 2/8/08 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 2/8/08 DATE

DATE	NO.	REVISION
6/16/08	1	REDLINE REVISION TO SHOW PATHS AND TRAILS

OWNER:

HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT

HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC–DEO
HOWARD COUNTY, MARYLAND

TITLE

EXISTING CONDITIONS PLAN AND SOILS MAP

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
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Columbia, MD 21045
T 410.997.8900
F 410.997.9282

STATE OF MARYLAND — SHERYL CLARKE MITCHELL — No. 33954 — REGISTERED PROFESSIONAL ENGINEER
1-22-08
BY: Sheryl C. Mitchell

"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. 33954, EXPIRATION DATE: 1-24-09."

DESIGNED BY : PHRA
DRAWN BY: JML
PROJECT NO : 14520-1-0
DATE : JANUARY 21, 2008
SCALE : 1" = 100'
DRAWING NO. 2 OF 15

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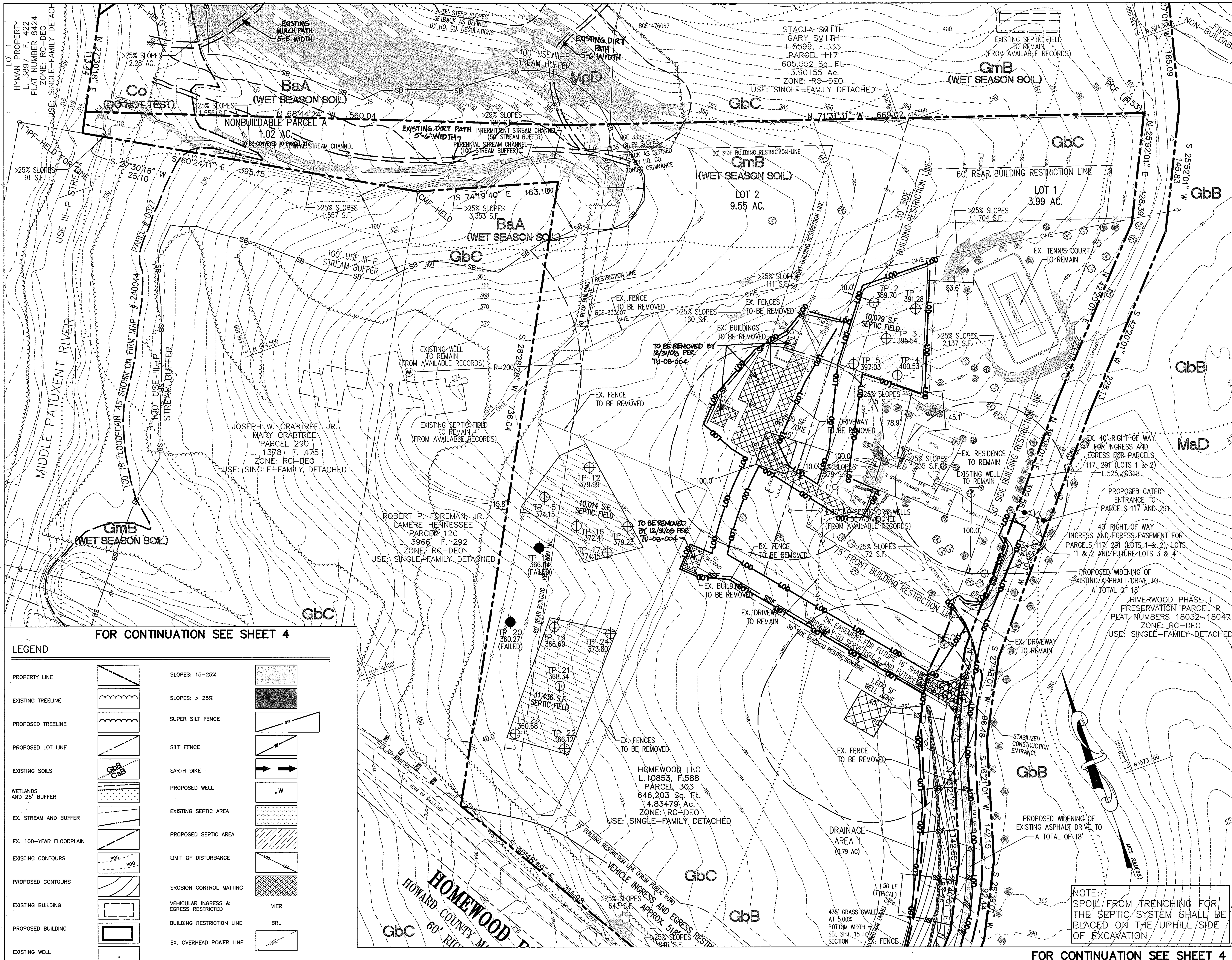
F-07-187



NOTE:
SPOIL FROM TRENCHING FOR THE SEPTIC SYSTEM SHALL BE PLACED ON THE UPHILL SIDE OF EXCAVATION

FOR CONTINUATION SEE SHEET 4

LEGEND

PROPERTY LINE		SLOPES: 15-25%	
EXISTING TREELINE		SLOPES: > 25%	
PROPOSED TREELINE		SUPER SILT FENCE	SSF
PROPOSED LOT LINE		SILT FENCE	SF
EXISTING SOILS	GbB CaB	EARTH DIKE	
WETLANDS AND 25' BUFFER		PROPOSED WELL	W
EX. STREAM AND BUFFER		EXISTING SEPTIC AREA	
EX. 100-YEAR FLOODPLAIN		PROPOSED SEPTIC AREA	
EXISTING CONTOURS	805 800	LIMIT OF DISTURBANCE	LOD
PROPOSED CONTOURS		EROSION CONTROL MATTING	
EXISTING BUILDING		VEHICULAR INGRESS & EGRESS RESTRICTED	VIER
PROPOSED BUILDING		BUILDING RESTRICTION LINE	BRL
EXISTING WELL		EX. OVERHEAD POWER LINE	OHE

FOR CONTINUATION SEE SHEET 4

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

[signature] 1/23/08
DEVELOPER DATE

BY THE ENGINEER :

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

Sherryl C. Mitchell 1-22-08
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

[signature]
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R Robertson 1/31/08
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ ~~DATE~~

[signature] 2/8/08 J.P.
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[signature] 2/8/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION
6/16/08	1	REDLINE REVISION TO SHOW PATHS AND TRAILS

OWNER:

HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT

HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE

FINAL GRADING AND SEDIMENT CONTROL PLAN

Patton Harris Rust & Associates,pc
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F 410.997.9282

STATE OF MARYLAND SHERRYL CLARKE MITCHELL No. 33954 REGISTERED PROFESSIONAL ENGINEER 1-22-08
BY: Sherryl C. Mitchell

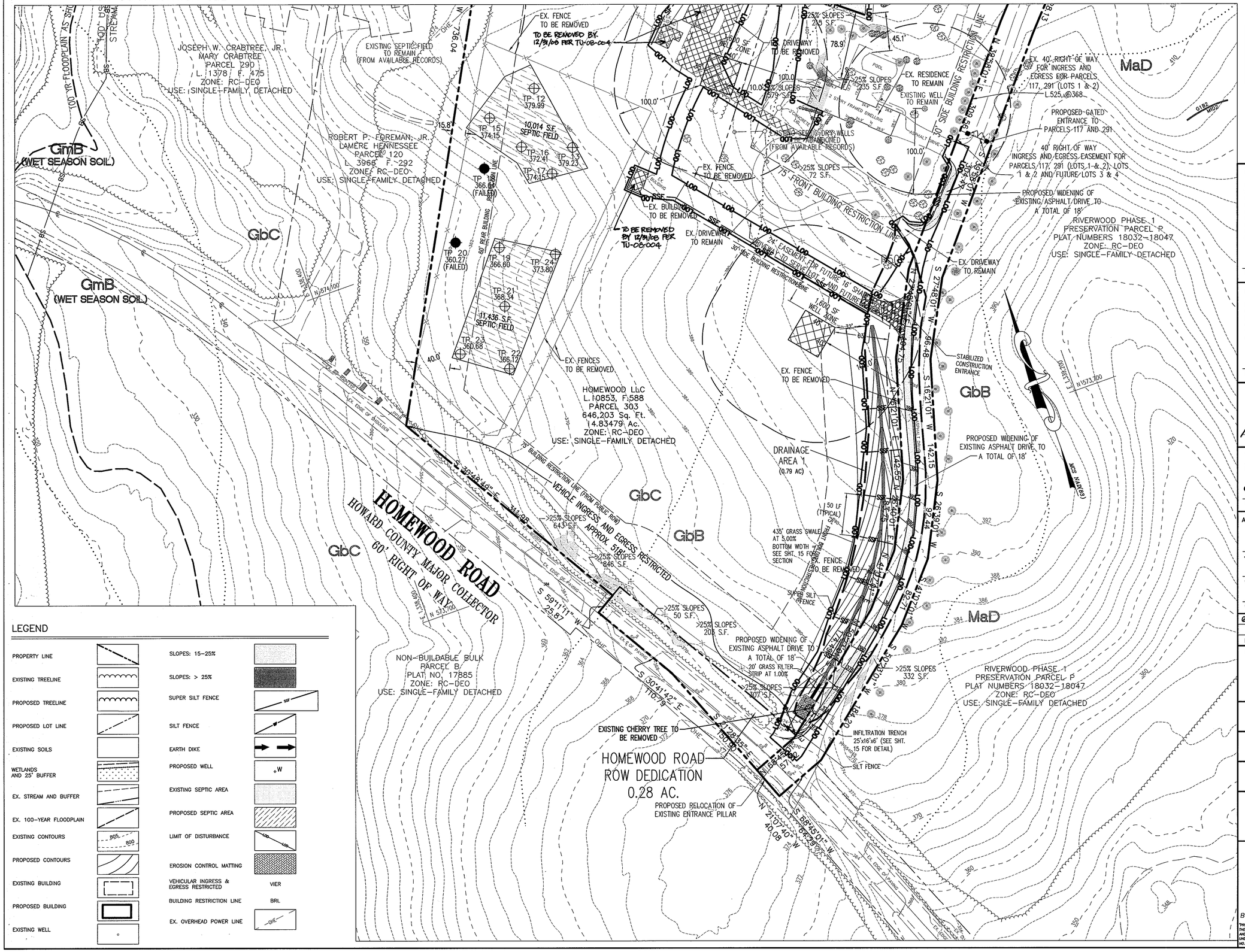
"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33954, EXPIRATION DATE: 1-24-09."

DESIGNED BY : PDK
DRAWN BY: PDK
PROJECT NO : 14520-1-0 C200ESC.DWG
DATE : JANUARY 21, 2008
SCALE : 1"=50'
DRAWING NO. 3 OF 15

F-07-187

FOR CONTINUATION SEE SHEET 3

FOR CONTINUATION SEE SHEET 3



NOTE:
SPOIL FROM TRENCHING FOR THE SEPTIC SYSTEM SHALL BE PLACED ON THE UPHILL SIDE OF EXCAVATION

LEGEND

- PROPERTY LINE
- EXISTING TREELINE
- PROPOSED TREELINE
- PROPOSED LOT LINE
- EXISTING SOILS
- WETLANDS AND 25' BUFFER
- EX. STREAM AND BUFFER
- EX. 100-YEAR FLOODPLAIN
- EXISTING CONTOURS (905, 800)
- PROPOSED CONTOURS
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING WELL
- SLOPES: 15-25%
- SLOPES: > 25%
- SUPER SILT FENCE (SSF)
- SILT FENCE
- EARTH DIKE
- PROPOSED WELL (W)
- EXISTING SEPTIC AREA
- PROPOSED SEPTIC AREA
- LIMIT OF DISTURBANCE (LOD)
- EROSION CONTROL MATTING
- VEHICULAR INGRESS & EGRESS RESTRICTED (VIER)
- BUILDING RESTRICTION LINE (BRL)
- EX. OVERHEAD POWER LINE (OHE)

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — DATE 1/23/08

BY THE ENGINEER :

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

ENGINEER — DATE 1-22-08

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 1/31/08

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ — ~~DATE~~

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 2/6/08

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 2/6/08

DATE	NO.	REVISION
6/16/08	1	REDLINE REVISION TO SHOW PATHS AND TRAILS

OWNER:
HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT
HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE
FINAL GRADING AND SEDIMENT CONTROL PLAN

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

STATE OF MARYLAND — SHERRY CLARKE MITCHELL — No. 33954 — REGISTERED PROFESSIONAL ENGINEER

BY: Sherry C. Mitchell 1-22-08

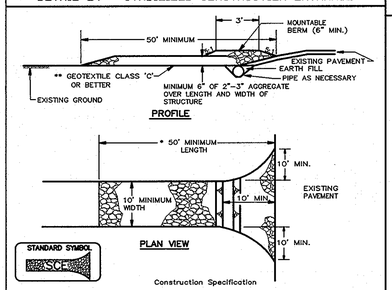
"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33954, EXPIRATION DATE: 1-24-09."

DESIGNED BY :	PDK
DRAWN BY:	PDK
PROJECT NO :	14520-1-0
DATE :	JANUARY 21, 2008
SCALE :	1"=50'
DRAWING NO.	4 OF 15

P:\Project\14520\1-0\PLANS\C20DESC.DWG

F-07-187

DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

3. 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.

4. 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.

5. 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.

6. 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.

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STABILIZED CONSTRUCTION ENTRANCE

Construction Specification

1. Length – minimum of 50'(30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

3. 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.

4. 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.

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6. 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.

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30.0 – 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.

SPECIFICATIONS

TEMPORARY METHODS

1. MULCHES – SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.
2. VEGATATIVE COVER – SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
3. TILLAGE – TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL–TYPE PLOWS SPACED ABOUT 12" APART, SPRING–TOOTHED HARROWS, AND SIMILIAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
4. 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.
5. 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.
6. CALCIUM CHLORIDE – APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS

1. 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.
2. TOPSOILING – COVERING WITH LESS EROSIVE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
3. STONE – COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

REFERENCES

1. AGRICULTURE HANDBOOK 346. WIND EROSION FORCES IN THE UNITED STATES AND THEIR USES IN PREDICTING SOIL LOSS.
2. AGRICULTURE INFORMATION BULLETIN 354. HOW TO CONTROL WIND EROSION. USDA–ARS.

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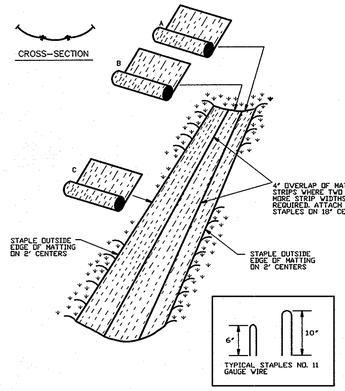
DETAIL 30 – EROSION CONTROL MATTING



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DETAIL 22 – SILT FENCE

Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid–section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft ²/ minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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SILT FENCE

Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

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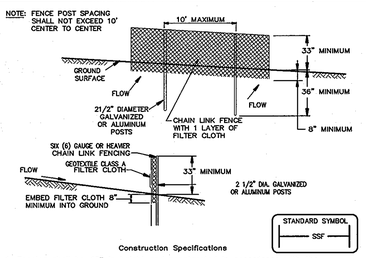
DETAIL 33 – SUPER SILT FENCE



Construction Specifications

1. 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.

2. The posts do not need to be set in concrete.

3. Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, brace and truss 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.

4. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

5. Filter cloth shall be embedded a minimum of 8" into the ground.

6. When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.

7. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height

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SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 – 10%	0 – 10:1	Unlimited	Unlimited
10 – 20%	10:1 – 5:1	200 feet	1,500 feet
20 – 33%	5:1 – 3:1	100 feet	1,000 feet
33 – 50%	3:1 – 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

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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

I. This practice is limited to areas having 2:1 or flatter slopes where:
   a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
   b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
   c. The original soil to be vegetated contains material toxic to plant growth.
   d. The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate 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 11" 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.

II. For sites having disturbed areas under 5 acres:
   i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – bSection 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.

   ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – bSection 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, albeit 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 26.04.06.
      b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
      c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
      d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding. MD–VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

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 :

1) 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.).

2) 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 :

1) 2 tons per acre of well–anchored mulch straw and seed as soon as possible in the spring.
2) Use sod.
3) 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.

Maintenance : Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short–term vegetative cover is needed.

Seedbed Preparation : Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

Soil Amendments : Apply 600 lbs. per acre 10–10–10 fertilizer (14 lbs. per 1000 sq.ft.).

Seeding : For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2–1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching : Apply 1–1/2 to 2 tons per acre (70 to 90 lbs. 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.

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313–1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE–DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A)7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. 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.
5. 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, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G.). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED OF GRASSES.
6. 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.
7. SITE ANALYSIS:

TOTAL AREA OF SITE	14.83 ACRES
AREA DISTURBED	1.791 ACRES
AREA TO BE ROOFED OR PAVED	0.857 ACRES
AREA TO BE VEGETATIVELY STABILIZED	14.150 ACRES
TOTAL CUT	1930 CY
TOTAL FILL	0 CY
OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT.	

*QUANTITIES ARE FOR COUNTY FEE PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ACTUAL QUANTITIES.

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 WITHIN 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.

SEQUENCE OF CONSTRUCTION

1. BEFORE APPLYING FOR GRADING PERMIT, GET THE NECESSARY AUTHORIZATION FROM THE UTILITY COMPANIES FOR DEMOLITION ON SITE. DISCARD THE EXISTING UTILITIES ON SITE IF NOT TO BE REUSED.
2. APPLY FOR AND OBTAIN ALL NECESSARY PERMITS REQUIRED FOR THE DEMOLITION OF THE EXISTING STRUCTURES.
3. OBTAIN GRADING PERMIT.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, AND SWALE. CONTRACTOR IS TO STABILIZE SWALE IMMEDIATELY. INSTALL SUPER SILT FENCE IN SWALE AS SHOWN ON PLAN.
5. CONSTRUCT PROPOSED DRIVEWAY SO THAT EXISTING DRIVE IS WIDENED TO A TOTAL WIDTH OF 18 FEET.
6. INSTALL PROPOSED SEPTIC SYSTEM. WORK SHOULD BE COMPLETED AND STABILIZED WITHIN ONE DAY. IF NOT, THEN CONTRACTOR SHALL TAKE MEASURES TO STABILIZE THIS AREA UNTIL WORK IS COMPLETED.
7. PERFORM FINE GRADING AND LANDSCAPING. CONTRACTOR TO PROVIDE DUST CONTROL AS NECESSARY AND AS DIRECTED BY THE INSPECTOR.
8. APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
9. INSTALL INFILTRATION TRENCH WHEN SITE HAS BEEN COMPLETELY STABILIZED. INSTALL PER NOTES ON SHEET 15.
10. WITH PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE ANY REMAINING DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON–SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — DATE 1/23/08

BY THE ENGINEER :

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

ENGINEER — DATE 1-22-08

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 1/21/08

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ — ~~DATE~~

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 2/8/08

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 2/8/08

DATE	NO.	REVISION

OWNER:

HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410–964–0260

PROJECT

HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC–DEO
HOWARD COUNTY, MARYLAND

TITLE

FINAL GRADING AND SEDIMENT CONTROL PLAN

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

STATE OF MARYLAND — SHERRY CLARKE MITCHELL — No. 22956 — REGISTERED PROFESSIONAL ENGINEER

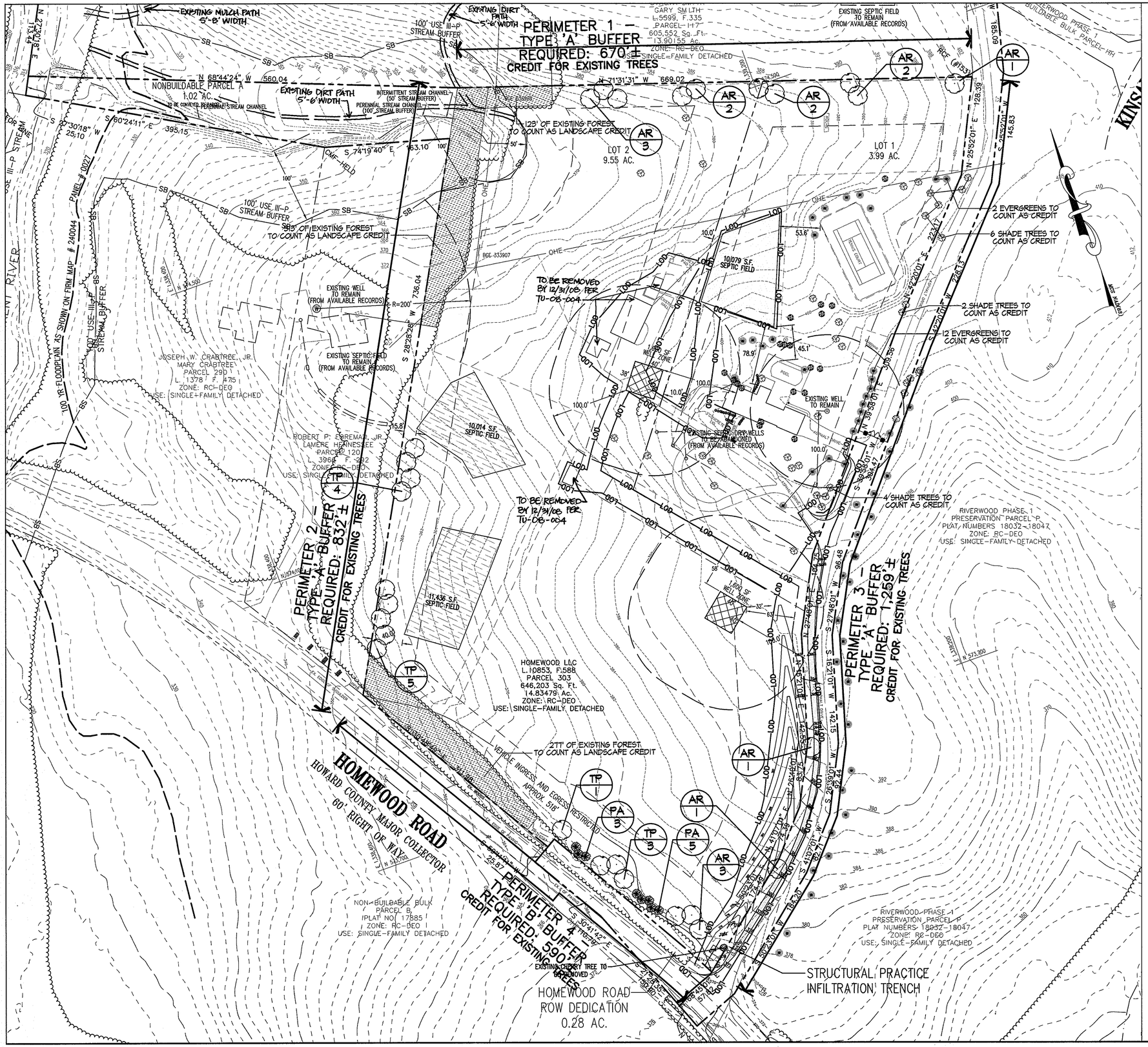
BY: Sherry C. Mitchell 1-22-08

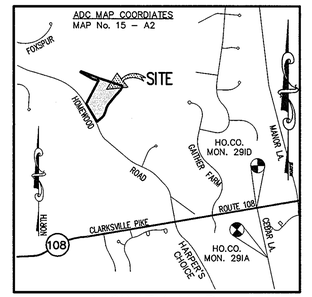
"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 22956, EXPIRATION DATE: 1–24–09."

DESIGNED BY : PDK
DRAWN BY: PDK
PROJECT NO : 14520–1–0
DATE : JANUARY 21, 2008
SCALE : NTS
DRAWING NO. 5 OF 15

P:\Projects\14520\1–0\PLANS\F–07\C8000ET.DWG

F–07–187





VICINITY MAP
SCALE: 1" = 2000'

PLANT SCHEDULE					
SYMBOL	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	REMARKS
AR	15	Acer rubrum 'October Glory' October Glory Red Maple	2.5–3" Cal.	B&B	PLANT AS SHOWN
PA	8	Picea abies Norway Spruce	6–7' HT.	B&B	PLANT AS SHOWN
TP	13	Liriodendron tulipifera Tulip Poplar	2.5–3" Cal.	B&B	PLANT AS SHOWN

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 CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE 1/23/08 DATE

LEGEND

- PROPERTY LINE
- EXISTING TREELINE
- PROPOSED TREELINE
- TREE PROTECTION DEVICE (TPD) (SUPER SILT FENCE) — TPD
- PROP. SHADE TREE
- PROP. EVERGREEN TREE
- PERIMETER LANDSCAPE PLANTING — AR 1
- EXISTING WELL — W
- PROPOSED WELL
- PROPOSED SEPTIC AREA
- EXISTING FORESTED AREA COUNTED AS LANDSCAPE CREDIT
- EX. OVERHEAD POWER LINE — OHE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	2/8/08 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	2/8/08 DATE

DATE	NO.	REVISION
6/16/08	1	REDLINE REVISION TO SHOW PATHS AND TRAILS

OWNER:

HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT
HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE
FINAL LANDSCAPE PLAN AND NOTES

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

STATE OF MARYLAND 797 SCOTT R. WOLFORD REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
1-22-08

DESIGNED BY :	JML
DRAWN BY:	JML
PROJECT NO :	14520-1-0
DATE :	JANUARY 21, 2008
SCALE :	1" = 60'
DRAWING NO.	6 OF 15

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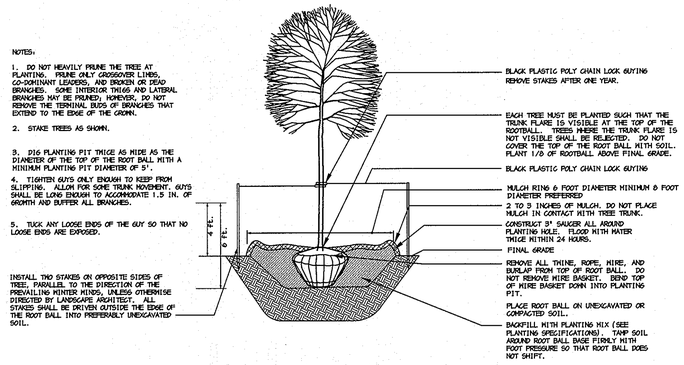
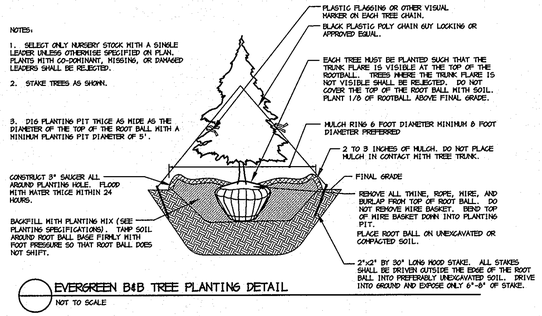
F-07-187



DECIDUOUS B&B TREE PLANTING DETAIL (TREES 3" CAL. OR SMALLER)
NOT TO SCALE



EVERGREEN B&B TREE PLANTING DETAIL
NOT TO SCALE

SCHEDULE A - PERIMETER LANDSCAPE EDGE

	ADJACENT TO PERIMETER PROPERTIES			ADJACENT TO ROADWAYS
PERIMETER	1	2	3	4
LANDSCAPE TYPE	A	A	A	B
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	670'±	832'±	1,259'±	590'±
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 123'(2)	YES 313'(3)	YES 19 SHADE TREES	YES 277'(5)
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO –	NO –	NO –	NO –
LINEAR FEET REMAINING	547'±	519'±	1,259'±	313'±
NUMBER OF PLANTS REQUIRED				
SHADE TREES	10	9	21	7
EVERGREEN TREES	0	0	0	8
SHRUBS	0	0	0	0
NUMBER OF PLANTS PROVIDED				
SHADE TREES	10	9	2(4)	7
EVERGREEN TREES	0	0	0	8
SMALL FLOWERING TREES	0	0	0	0
SHRUBS	0	0	0	0

SCHEDULE 'A' NOTES:
1) 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)
2) SUBSTITUTION NOTES PERIMETER 1:
123' OF EXISTING FOREST ALONG PERIMETER WILL COUNT AS CREDIT
3) SUBSTITUTION NOTES PERIMETER 2:
313' OF EXISTING FOREST ALONG PERIMETER WILL COUNT AS CREDIT
4) SUBSTITUTION NOTES PERIMETER 3:
12 EXISTING TREES WILL COUNT AS CREDIT FOR 12 REQUIRED SHADE TREES
14 EXISTING EVERGREEN TREES WILL COUNT AS CREDIT FOR 7 REQUIRED SHADE TREES
5) SUBSTITUTION NOTES PERIMETER 4:
277' OF EXISTING FOREST ALONG PERIMETER WILL COUNT AS CREDIT

PLANTING SPECIFICATIONS

1. 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.

2. 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 Association of Nurserymen (AAN) 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 cut 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 healed-in plants or plants from cold storage will be accepted.

3. Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification 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.

4. 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.

5. 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.

6. 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.

7. 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 XCupressocyparis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.

8. Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.

9. 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.

10. 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.

11. 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.

12. Positive drainage shall be maintained on planting beds (minimum 2 percent slope).

13. 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 'Repandens' (English weeping yews): Top dress after planting with 1/4 to 1/2 cup lime each.

14. 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.

15. 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.

16. 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 dessication.

17. Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.

18. 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.

GENERAL NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

2. A LANDSCAPE SURETY OF $9,600.00 WILL NEED TO BE POSTED WITH THE GRADING PERMIT FOR LOT 2.
28 SHADE TREES @ $300 = 8,400
0 ORNAMENTAL TREES @ $150 = 0
8 EVERGREEN TREES @ $150 = 1,200
0 SHRUBS @ $30 = 0

3. THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.

4. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.

5. 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.

6. 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.

7. 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.

8. 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.

9. PERIMETER LANDSCAPE OBLIGATIONS WILL BE FULFILLED BY A COMBINATION OF NEW PLANTINGS AND PRESERVATION OF EXISTING VEGETATION.

10. 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.

11. DEVELOPER/BUILDER IS RESPONSIBLE FOR INSTALLATION OF PERIMETER LANDSCAPING. NO INTERNAL LANDSCAPING IS REQUIRED WITH THIS DEVELOPMENT.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ ~~DATE~~

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/30/08

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 2/6/08

DATE	NO.	REVISION

OWNER:
HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT
HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE
FINAL LANDSCAPE NOTES AND DETAILS

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

STATE OF MARYLAND — 787 — SCOTT R. WOLFORD — REGISTERED LANDSCAPE ARCHITECT
Scott R. Wolford 1.30.08

DESIGNED BY : JML
DRAWN BY: JML
PROJECT NO : 14520-1-0
DATE : JANUARY 21, 2008
SCALE : NTS
DRAWING NO. 7 OF 15

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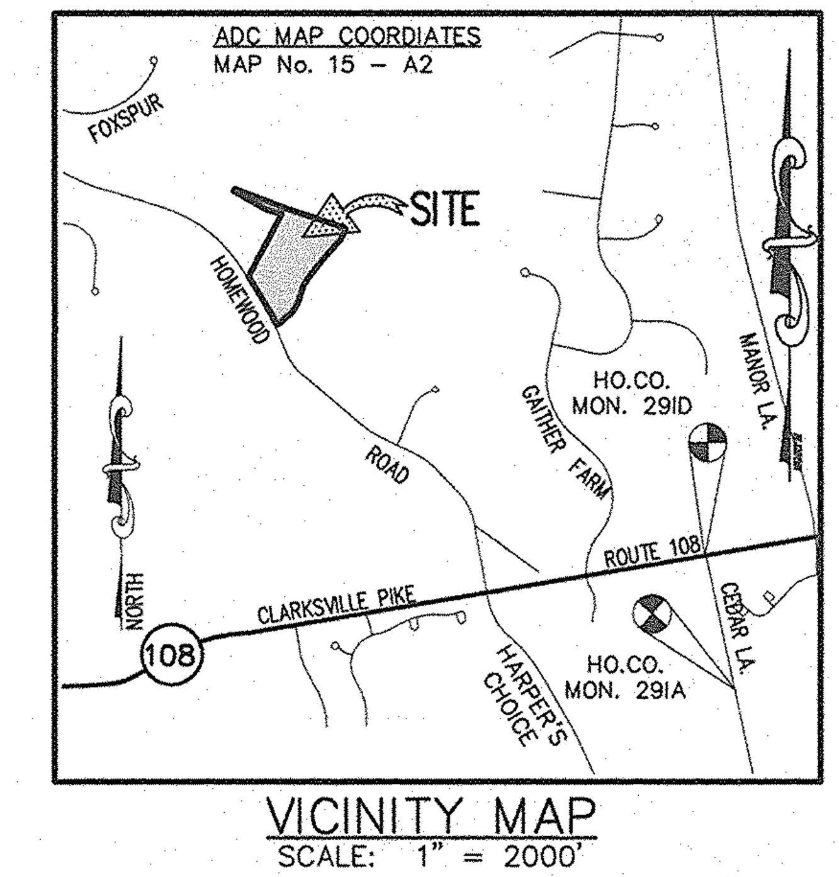
F-07-187



VICINITY MAP
SCALE: 1" = 2000'

LEGEND

PROPERTY LINE	EXISTING BUILDING
EXISTING TREELINE	EXISTING WELL
FEMA 100 YEAR FLOODPLAIN	PROPOSED WELL
GIB2 EXISTING SOILS	OF OPEN FIELD
STREAM AND BUFFER	F1 FOREST STAND
EXISTING CONTOURS	H1 HEDGEROW
WET SEASON SOILS TEST	STEEP SLOPES > 25%
NO TEST SOILS	SPECIMEN TREE LOCATION

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ ~~DATE~~

CHIEF, DEVELOPMENT ENGINEERING DIVISION 2/8/08 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 2/8/08 DATE

DATE	NO.	REVISION

OWNER:

HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT

HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE

FOREST STAND DELINEATION PLAN

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

STATE OF MARYLAND 797 SCOTT R. WOLFORD BOARD OF EXAMINERS OF LANDSCAPE ARCHITECTS
1-22-08

DESIGNED BY : JML
DRAWN BY: JML
PROJECT NO : 14520-1-0
DATE : JANUARY 21, 2008
SCALE : 1"=100'
DRAWING NO. 8 OF 15

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F-07-187

SPECIMEN TREE CHART

KEY	SPECIES	SIZE	CONDITION
1	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
2	WHITE OAK (Quercus alba)	34"	GOOD
3	TULIP POPLAR (Liriodendron tulipifera)	46"	DEAD
4	TULIP POPLAR (Liriodendron tulipifera)	48"	GOOD
5	TULIP POPLAR (Liriodendron tulipifera)	42"	GOOD
6	TULIP POPLAR (Liriodendron tulipifera)	50"	GOOD
7	AMERICAN ELM (Ulmus)	43"	GOOD
8	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
9	TULIP POPLAR (Liriodendron tulipifera)	31"	GOOD
10	BLACK WALNUT (Juglans nigra)	35"	GOOD
11	BITTERNUT HICKORY (Carya cordiformis)	30"	GOOD
12	WHITE OAK (Quercus alba)	31"	GOOD
13	WHITE OAK (Quercus alba)	31"	GOOD
14	WHITE OAK (Quercus alba)	47"	GOOD
15	AMERICAN BEECH (Fagus grandifolia)	48"	GOOD
16	NORWAY SPRUCE (Picea abies)	31"	GOOD
17	WHITE OAK (Quercus alba)	42"	GOOD
18	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
19	BITTERNUT HICKORY (Carya cordiformis)	32"	GOOD
20	AMERICAN BEECH (Fagus grandifolia)	50"	GOOD
21	WHITE OAK (Quercus alba)	39"	GOOD
22	WHITE OAK (Quercus alba)	32"	GOOD
23	WHITE OAK (Quercus alba)	43"	GOOD
24	TULIP POPLAR (Liriodendron tulipifera)	54"	GOOD
25	BLACK WALNUT (Juglans nigra)	34"	GOOD
26	WHITE OAK (Quercus alba)	30"	GOOD
27	BLACK WALNUT (Juglans nigra)	33"	GOOD
28	BLACK WALNUT (Juglans nigra)	36"	GOOD
29	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
30	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
31	TULIP POPLAR (Liriodendron tulipifera)	39"	GOOD
32	TULIP POPLAR (Liriodendron tulipifera)	48"	GOOD
33	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
34	WHITE OAK (Quercus alba)	35"	GOOD
35	RED OAK (Quercus rubra)	37"	GOOD
36	TULIP POPLAR (Liriodendron tulipifera)	41"	GOOD
37	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
38	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
39	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
40	WHITE OAK (Quercus alba)	39"	GOOD
41	WHITE OAK (Quercus alba)	30"	GOOD
42	WHITE OAK (Quercus alba)	39"	GOOD
43	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
44	TULIP POPLAR (Liriodendron tulipifera)	44"	GOOD
45	TULIP POPLAR (Liriodendron tulipifera)	41"	GOOD
46	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
47	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
48	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
49	WHITE OAK (Quercus alba)	30"	GOOD

KEY	SPECIES	SIZE	CONDITION
50	TULIP POPLAR (Liriodendron tulipifera)	39"	GOOD
51	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
52	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
53	WHITE OAK (Quercus alba)	31"	GOOD
54	RED OAK (Quercus rubra)	30"	GOOD
55	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
56	RED OAK (Quercus rubra)	32"	GOOD
57	SYCAMORE (Platanus occidentalis)	32"	GOOD
58	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
59	WHITE OAK (Quercus alba)	31"	GOOD
60	AMERICAN BEECH (Fagus grandifolia)	32"	GOOD
61	AMERICAN BEECH (Fagus grandifolia)	36"	GOOD
62	RED OAK (Quercus rubra)	32"	GOOD
63	RED OAK (Quercus rubra)	38"	GOOD
64	TULIP POPLAR (Liriodendron tulipifera)	35"	GOOD
65	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
66	WHITE OAK (Quercus alba)	30"	GOOD
67	RED OAK (Quercus rubra)	57"	GOOD
68	AMERICAN BEECH (Fagus grandifolia)	34"	GOOD
69	WHITE OAK (Quercus alba)	43"	GOOD
70	TULIP POPLAR (Liriodendron tulipifera)	35"	GOOD
71	TULIP POPLAR (Liriodendron tulipifera)	31"	GOOD
72	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
73	TULIP POPLAR (Liriodendron tulipifera)	35"	GOOD
74	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
75	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
76	WHITE OAK (Quercus alba)	37"	GOOD
77	WHITE OAK (Quercus alba)	32"	GOOD
78	WHITE OAK (Quercus alba)	33"	GOOD
79	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
80	TULIP POPLAR (Liriodendron tulipifera)	42"	GOOD
81	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
82	WHITE OAK (Quercus alba)	45"	GOOD
83	AMERICAN BEECH (Fagus grandifolia)	34"	GOOD
84	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
85	TULIP POPLAR (Liriodendron tulipifera)	69"	GOOD
86	AMERICAN BEECH (Fagus grandifolia)	35"	GOOD
87	AMERICAN BEECH (Fagus grandifolia)	34"	GOOD
88	AMERICAN BEECH (Fagus grandifolia)	30"	GOOD
89	RED MAPLE (Acer rubrum)	33"	GOOD
90	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
91	RED MAPLE (Acer rubrum)	46"	GOOD
92	BLACK WALNUT (Juglans nigra)	31"	GOOD
93	BLACK WALNUT (Juglans nigra)	37"	GOOD
94	GREEN ASH (Fraxinus pennsylvanica)	44"	GOOD
95	BITTERNUT HICKORY (Carya cordiformis)	36"	GOOD
96	TULIP POPLAR (Liriodendron tulipifera)	61"	GOOD
97	RED MAPLE (Acer rubrum)	35"	GOOD
98	WHITE OAK (Quercus alba)	35"	GOOD

SOILS CHART

MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS Dwellings w/ Basements	EROSION HAZARD	HYDRIC	SLOPE (%)
BaA	Baile silt loam	Severe: high water table	Severe	Y	0–3
Co	Codorus and Hatboro silt loams	Severe: flood hazard	Severe	N	0–3
GbA	Gladstone loam	Moderate	Moderate	N	0–3
GbB	Gladstone loam	Moderate	Moderate	N	3–8
GbC	Gladstone loam	Moderate	Moderate	N	8–15
GmB	Glenville silt loam	Moderate: impeded drainage	Moderate	Y	3–8
MgD	Manor–Bannertown sandy loams	Severe: slopes	Severe	N	15–25
MgF	Manor–Bannertown sandy loams	Severe: slopes	–	N	25–65

SOURCE: SOIL INFORMATION TAKEN FROM USDA–NRCS WEBSITE.

GENERAL NOTES:

1. THE SITE IS LOCATED AT 11380 HOMEWOOD ROAD, ELLICOTT CITY, MD 21042. THE SITE CONSISTS OF 4 PARCELS (PARCEL 117, PARCEL 1 OF PARCEL 291, PARCEL 2 OF PARCEL 291 & PARCEL 303) WHICH EQUAL A TOTAL OF 40.36± ACRES.
2. BOUNDARY AND TOPOGRAPHIC INFORMATION IS PROVIDED BY HOWARD COUNTY GIS DATA AND PHRA FIELD SURVEY CONDUCTED IN JULY, 2006.
3. THE SOILS ON SITE ARE BAILE SILT LOAM (0–3% SLOPES) – BaA, CODORUS AND HOTBORO SILT LOAMS (0–3% SLOPES) – Co, GLADSTONE LOAM (0–3% SLOPES) – GbA, GLADSTONE LOAM (3–8% SLOPES) – GbB, GLADSTONE LOAM (8–15% SLOPES) – GbC, GLENVILLE SILT LOAM (3–8% SLOPES) – GmB, MANOR–BANNERTOWN SANDY LOAM (15–25% SLOPES) – MgD, MANOR–BANNERTOWN SANDY LOAM (25–65% SLOPES) – MgF ACCORDING TO THE SOIL SURVEY FOR HOWARD COUNTY, MARYLAND. THIS SITE CONTAINS SOILS WITH POSSIBLE HYDRIC INCLUSIONS, BAILE SILT LOAM (BaA) AND GLENVILLE SILT LOAM (GmB).
4. THE SITE IS ZONED RC–DEO (RURAL CONSERVATION–DENSITY EXCHANGE OPTION). CURRENT USE OF THE SITE IS RESIDENTIAL.
5. THIS SITE IS LOCATED IN THE MIDDLE PATUXENT RIVER WATERSHED (2131106). THIS SITE IS LOCATED IN A USE III–P WATERSHED ACCORDING TO INFORMATION AVAILABLE FROM THE CODE OF MARYLAND REGULATIONS (COMAR) 26.08.02.08 "STREAM SEGMENT DESIGNATIONS". THE APPROPRIATE 100' STREAM BUFFER HAS BEEN SHOWN AS REQUIRED IN THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SECTION 16.116 "PROTECTION OF WETLANDS, STREAMS, AND STEEP SLOPES".
6. ONE STREAM IS LOCATED ON THE SITE AND IS IDENTIFIED AS A USE III–P STREAM ACCORDING TO INFORMATION AVAILABLE FROM THE CODE OF MARYLAND REGULATIONS (COMAR) 26.08.02.08 "STREAM SEGMENT DESIGNATIONS". THE STREAM IS LOCATED IN THE WESTERN BOUNDARY OF THE SITE EXTENDING TO THE SOUTHWEST CORNER FLOWING OFF–SITE. A FLOODPLAIN IS LOCATED ON THE SITE AS SHOWN BY FEMA FIRM MAP 240044–0027C.
7. EXISTING FOREST CONSISTS OF 1 STAND AND 1 HEDGEROW AS SHOWN. TREES GREATER THAN 30" IN DIAMETER WERE OBSERVED WITHIN THE PROPERTY BOUNDARY AND ARE SHOWN.
8. FIELD WORK FOR THIS INVENTORY WAS CONDUCTED ON JANUARY 30, 2007 BY JAY M. LOFTUS, PLANNER AND JONATHAN S. NORMAN, PLANNER OF PATTON HARRIS RUST AND ASSOCIATES, PC UNDER THE SUPERVISION OF PETER J. STONE, RLA AND SCOTT R. WOLFORD, RLA OF PATTON HARRIS RUST AND ASSOCIATES, PC.
9. THERE ARE NO KNOWN CEMETERIES OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY CEMETERIES INVENTORY.
10. NO RARE, THREATENDED OR ENDANGERED PLANTS OR ANIMALS OR CRITICAL HABITATS WERE OBSERVED IN THE FIELD AS STATED IN A LETTER RECEIVED FROM THE MARYLAND DNR.
11. 98 SPECIMEN TREES (30" IN DIAMETER) HAVE BEEN IDENTIFIED AND MEASURED AS SHOWN ON THIS PLAN. NONE OF THE SPECIMEN TREES WILL NEED TO BE REMOVED DUE TO THE PROPOSED DEVELOPMENT ON THE SITE.
12. THE MAJORITY OF THE PLAN HAS BEEN PREPARED USING PHR+A FIELD RUN TOPOGRAPHY. SPECIMEN TREE LOCATIONS WERE FIELD APPROXIMATED.
13. NO HISTORIC FEATURES ARE LOCATED ON–SITE.
14. FOREST STAND 1 CONTAINS 7.34 ACRES OF FOREST ON–SITE, WHILE THE STAND IS PART OF CONTIGUOUS FOREST THAT EXTENDS FOR A TOTAL OF THREE HUNDRED AND EIGHTY–THREE (383) ACRES OFF–SITE.
15. NO WETLANDS ARE LOCATED ON THE SITE.
16. NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
17. NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
18. THERE ARE FOUR EXISTING STRUCTURES ON THE SITE AS SHOWN. THE HOUSE WILL REMAIN, THE THREE BARNS WILL BE REMOVED. NO ADDITIONAL STRUCTURES ARE PROPOSED WITH THIS PLAN.
19. THE FSD, DATED JULY, 2006, HAS BEEN PREPARED BY PATTON HARRIS RUST & ASSOCIATES IN CONJUNCTION WITH THESE PLANS.
20. THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS.
21. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION.
22. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

PLANT COMMUNITY SUMMARY

SYMBOL	COMMUNITY	AREA	PRIORITY RETENTION
F1	FOREST	7.34 Ac.±	HIGH
H1	HEDGEROW	0.38 Ac.±	LOW

AREA CHART

AREA	ACRES
TOTAL TRACT AREA	40.36
EXISTING FOREST	7.34
EXISTING HEDGEROW	0.38
LAND WITHIN STREAM BUFFERS	5.13
LAND WITHIN STREAMBED	1.46
LAND WITHIN FLOODPLAIN	1.63
FOREST WITHIN STREAM BUFFERS	3.62
FOREST WITHIN STREAMBED	0
FOREST WITHIN FLOODPLAIN	0.64

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ ~~DATE~~

CHIEF, DEVELOPMENT ENGINEERING DIVISION 2/8/08 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 2/8/08 DATE

DATE	NO.	REVISION

OWNER:

HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410–964–0260

PROJECT

HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC–DEO
HOWARD COUNTY, MARYLAND

TITLE

FOREST STAND DELINEATION PLAN

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

STATE OF MARYLAND 797 SCOTT R. WOLFORD BOARD OF EXAMINERS OF LANDSCAPE ARCHITECTS
1-22-08

DESIGNED BY : JML
DRAWN BY: JML
PROJECT NO : 14520–1–0
DATE : JANUARY 21, 2008
SCALE : N.T.S.
DRAWING NO. 9 OF 15

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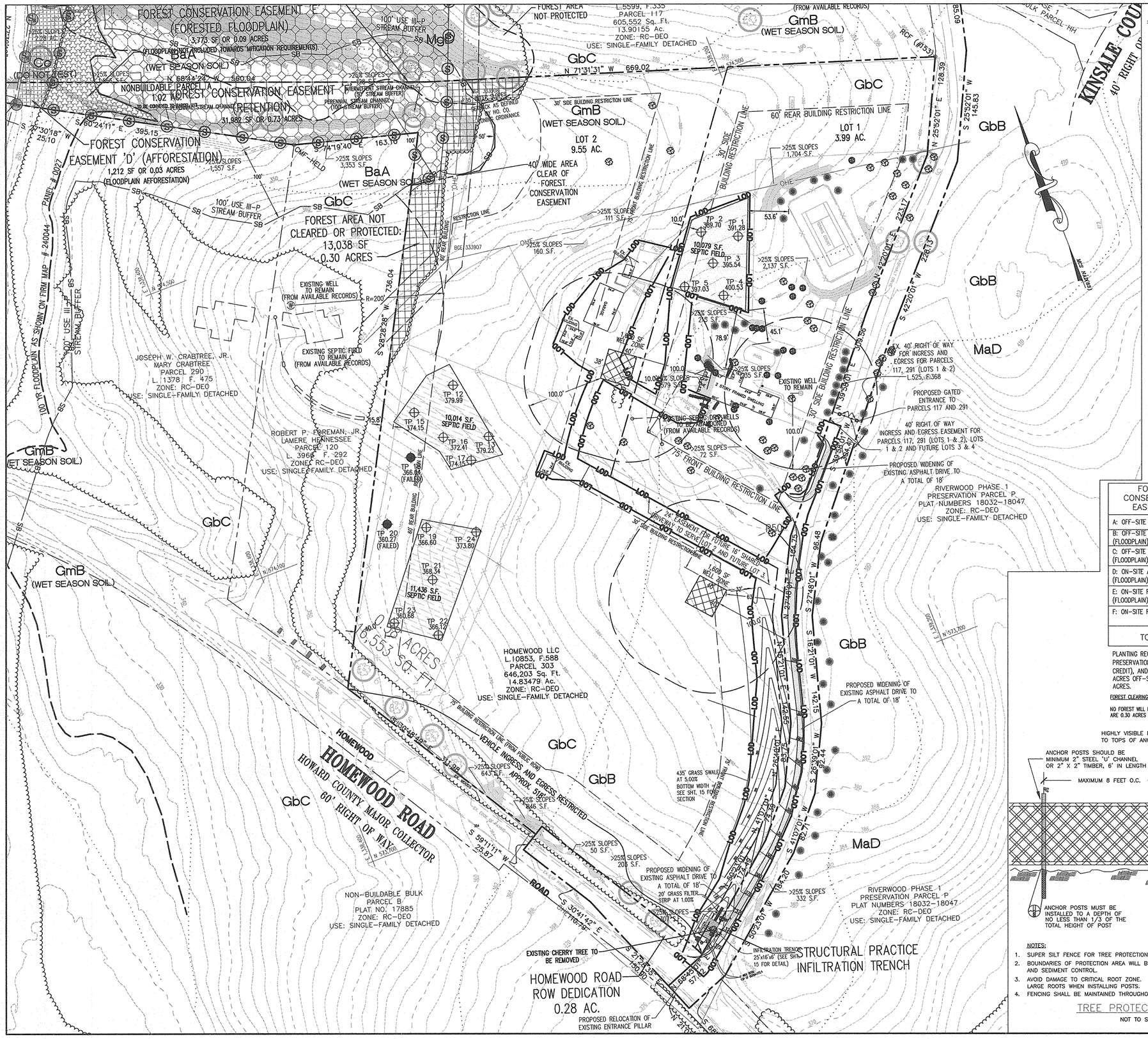
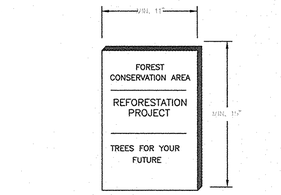
F–07–187

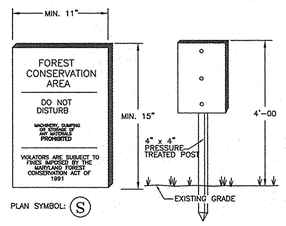


LEGEND

- PROPERTY LINE
- EXISTING TREELINE
- PROPOSED LOT LINE
- EX. STREAM AND BUFFER
- EX. 100-YEAR FLOODPLAIN
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING BUILDING
- PROPOSED BUILDING
- LIMIT OF DISTURBANCE
- FOREST RETENTION SIGNAGE
- REFORESTATION SIGNAGE
- FOREST CONSERVATION AREA
- SPECIMEN TREES
- SLOPES: > 25%
- EXISTING SOILS
- EX. OVERHEAD POWER LINE

STREAM BUFFER CONSERVATION CHART	
ACREAGE OF STREAM BUFFER CONSERVED	3.62 AC ±
WIDTH OF STREAM BUFFER CONSERVED	200' (PERENNIAL-USE III) 100' (INTERMITTENT)
LENGTH OF STREAM BUFFER CONSERVED	1,600'±





FOREST CONSERVATION & REFORESTATION SIGN DETAIL
NOT TO SCALE

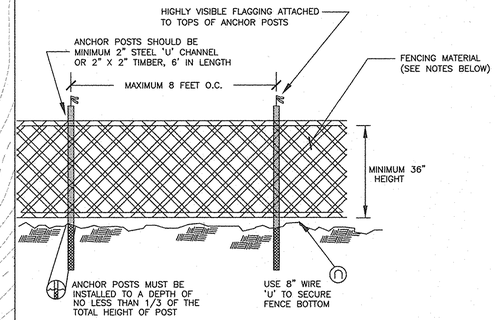
NOTES:
1. SIGNAGE SHALL BE LOCATED ON FOREST CONSERVATION BORDER.
2. SEE PLAN FOR SPACING.
3. PROTECTIVE SIGNAGE SHALL REMAIN IN PERPETUITY.

FOREST CONSERVATION EASEMENT	AREA (IN ACRES)
A: OFF-SITE RETENTION	4.66 AC
B: OFF-SITE RETENTION (FLOODPLAIN)	0.52 AC
C: OFF-SITE AFFORESTATION (FLOODPLAIN)	0.16 AC
D: ON-SITE AFFORESTATION (FLOODPLAIN)	0.03 AC
E: ON-SITE RETENTION (FLOODPLAIN)	0.09 AC
F: ON-SITE RETENTION	0.73 AC
TOTAL	6.19 AC

PLANTING REQUIREMENTS OF 2.50 ACRES ARE MET BY PRESERVATION OF 4.66 ACRES OF OFF-SITE FOREST (2.33 ACRES CREDIT), AND BY AFFORESTATION WITHIN THE FLOODPLAIN OF 0.16 ACRES OFF-SITE AND 0.03 ACRES ON-SITE FOR A TOTAL OF 2.52 ACRES.

FOREST CLEARING JUSTIFICATION:

NO FOREST WILL BE CLEARED IN ORDER TO DEVELOP THE SITE. ADDITIONALLY, THERE ARE 0.30 ACRES OF FOREST WHICH ARE NOT CLEARED OR PROTECTED WITH THIS PLAN.



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

TREE PROTECTION FENCING
NOT TO SCALE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 2/8/08
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 2/5/08

DATE	NO.	REVISION

OWNER:
HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT
HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE
FINAL FOREST CONSERVATION PLAN, NOTES AND DETAILS

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

STATE OF MARYLAND 797 SCOTT R. WOLFORD REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
Scott R. Wolford 1-22-08

DESIGNED BY :	LNB
DRAWN BY:	JL
PROJECT NO :	14520-1-0
DATE :	JANUARY 21, 2008
SCALE :	1" = 60'
DRAWING NO.	10 OF 15

F-07-187

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LEGEND

- PROPERTY LINE
- EXISTING TREELINE
- PROPOSED LOT LINE
- EX. STREAM AND BUFFER
- EX. 100-YEAR FLOODPLAIN
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING BUILDING
- PROPOSED BUILDING
- LIMIT OF DISTURBANCE
- FOREST RETENTION SIGNAGE
- FOREST RETENTION SIGNAGE
- FOREST CONSERVATION AREA
- SPECIMEN TREES
- SLOPES: > 25%
- EXISTING SOILS
- EX. OVERHEAD POWER LINE

STREAM BUFFER CONSERVATION CHART	
ACREAGE OF STREAM BUFFER CONSERVED	3.62 AC ±
WIDTH OF STREAM BUFFER CONSERVED	200' (PERENNIAL-USE III) 100' (INTERMITTENT)
LENGTH OF STREAM BUFFER CONSERVED	1,600'±

FOREST CONSERVATION PROGRAM

I. OBJECTIVE:
IT IS THE OBJECTIVE OF THE FOREST CONSERVATION PLAN OF THE HOMEWOOD FARM TO RETAIN ENVIRONMENTAL INTEGRITY BY PRESERVING EXISTING WOODED AREAS.

II. PRESERVATION:
FOREST PRESERVATION AREAS SHALL BE PERMANENTLY PROTECTED BY FOREST CONSERVATION EASEMENTS.

III. GENERAL CONSTRUCTION NOTE:
THERE WILL BE NO STAGING OR STORING OF EQUIPMENT WITHIN THE LIMIT OF DISTURBANCE.

IV. POST CONSTRUCTION MANAGEMENT PRACTICE:
A TWO-YEAR POSTED CONSTRUCTION AND MANAGEMENT PROGRAM TO ENSURE FOREST HEALTH IS REQUIRED AND INCLUDES THE FOLLOWING:

1-MAINTENANCE OF SIGNS, FENCES, AND TREE PROTECTION DEVICES TO
2-PREVENT UNWARRANTED INTRUSION AND DAMAGE.
3-CAREFUL REMOVAL OF ALL TEMPORARY STRUCTURES AFTER CONSTRUCTION.
4-ROUTINE INSPECTIONS OF FOREST CONSERVATION EASEMENTS.

FOREST CONSERVATION EASEMENT	AREA (IN ACRES)
A: OFF-SITE RETENTION	4.66 AC
B: OFF-SITE RETENTION (FLOODPLAIN)	0.52 AC
C: OFF-SITE AFFORESTATION (FLOODPLAIN)	0.16 AC
D: ON-SITE AFFORESTATION (FLOODPLAIN)	0.03 AC
E: ON-SITE RETENTION (FLOODPLAIN)	0.09 AC
F: ON-SITE RETENTION	0.73 AC
TOTAL	6.19 AC

PLANTING REQUIREMENTS OF 2.50 ACRES ARE MET BY PRESERVATION OF 4.66 ACRES OF OFF-SITE FOREST (2.33 ACRES CREDIT), AND BY AFFORESTATION WITHIN THE FLOODPLAIN OF 0.16 ACRES OFF-SITE AND 0.03 ACRES ON-SITE FOR A TOTAL OF 2.52 ACRES.

FOREST CLEARING JUSTIFICATION:

NO FOREST WILL BE CLEARED IN ORDER TO DEVELOP THE SITE. ADDITIONALLY, THERE ARE 0.30 ACRES OF FOREST WHICH ARE NOT CLEARED OR PROTECTED WITH THIS PLAN.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~	~~DATE~~
CHIEF, DEVELOPMENT ENGINEERING DIVISION	2/8/08 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	2/8/08 DATE

DATE	NO.	REVISION

OWNER:
HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT
HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE
FINAL FOREST CONSERVATION PLAN, NOTES AND DETAILS

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

STATE OF MARYLAND 797 ROBERT R. WOLFORD REGISTERED LANDSCAPE ARCHITECT
Signature 1-31-08

DESIGNED BY : LNB	
DRAWN BY: JL	
PROJECT NO : 14520-1-0	
DATE : JANUARY 21, 2008	
SCALE : 1" = 60'	
DRAWING NO. 11 OF 15	

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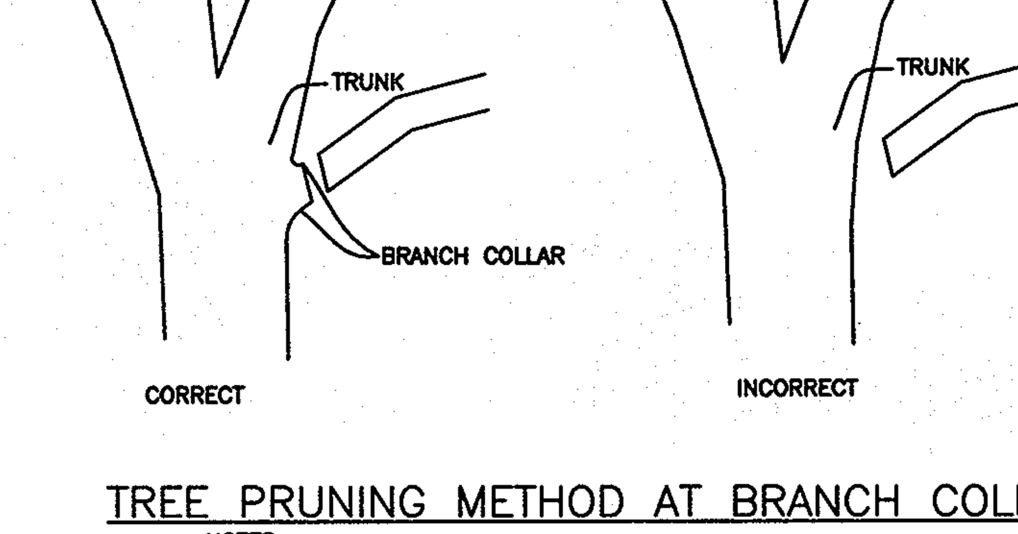
F-07-187

SPECIMEN TREE CHART

KEY	SPECIES	SIZE	CONDITION
1	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
2	WHITE OAK (Quercus alba)	34"	GOOD
3	TULIP POPLAR (Liriodendron tulipifera)	46"	DEAD
4	TULIP POPLAR (Liriodendron tulipifera)	48"	GOOD
5	TULIP POPLAR (Liriodendron tulipifera)	42"	GOOD
6	TULIP POPLAR (Liriodendron tulipifera)	50"	GOOD
7	AMERICAN ELM (Ulmus)	43"	GOOD
8	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
9	TULIP POPLAR (Liriodendron tulipifera)	31"	GOOD
10	BLACK WALNUT (Juglans nigra)	35"	GOOD
11	BITTERNUT HICKORY (Carya cordiformis)	30"	GOOD
12	WHITE OAK (Quercus alba)	31"	GOOD
13	WHITE OAK (Quercus alba)	31"	GOOD
14	WHITE OAK (Quercus alba)	47"	GOOD
15	AMERICAN BEECH (Fagus grandifolia)	48"	GOOD
16	NORWAY SPRUCE (Picea abies)	31"	GOOD
17	WHITE OAK (Quercus alba)	42"	GOOD
18	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
19	BITTERNUT HICKORY (Carya cordiformis)	32"	GOOD
20	AMERICAN BEECH (Fagus grandifolia)	50"	GOOD
21	WHITE OAK (Quercus alba)	39"	GOOD
22	WHITE OAK (Quercus alba)	32"	GOOD
23	WHITE OAK (Quercus alba)	43"	GOOD
24	TULIP POPLAR (Liriodendron tulipifera)	54"	GOOD
25	BLACK WALNUT (Juglans nigra)	34"	GOOD
26	WHITE OAK (Quercus alba)	30"	GOOD
27	BLACK WALNUT (Juglans nigra)	33"	GOOD
28	BLACK WALNUT (Juglans nigra)	36"	GOOD
29	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
30	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
31	TULIP POPLAR (Liriodendron tulipifera)	39"	GOOD
32	TULIP POPLAR (Liriodendron tulipifera)	48"	GOOD
33	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
34	WHITE OAK (Quercus alba)	35"	GOOD
35	RED OAK (Quercus rubra)	37"	GOOD
36	TULIP POPLAR (Liriodendron tulipifera)	41"	GOOD
37	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
38	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
39	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
40	WHITE OAK (Quercus alba)	39"	GOOD
41	WHITE OAK (Quercus alba)	30"	GOOD
42	WHITE OAK (Quercus alba)	39"	GOOD
43	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
44	TULIP POPLAR (Liriodendron tulipifera)	44"	GOOD
45	TULIP POPLAR (Liriodendron tulipifera)	41"	GOOD
46	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
47	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
48	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
49	WHITE OAK (Quercus alba)	30"	GOOD

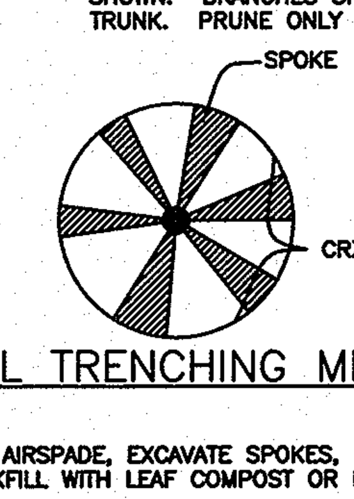
KEY	SPECIES	SIZE	CONDITION
50	TULIP POPLAR (Liriodendron tulipifera)	39"	GOOD
51	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
52	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
53	WHITE OAK (Quercus alba)	31"	GOOD
54	RED OAK (Quercus rubra)	30"	GOOD
55	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
56	RED OAK (Quercus rubra)	32"	GOOD
57	SYCAMORE (Platanus occidentalis)	32"	GOOD
58	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
59	WHITE OAK (Quercus alba)	31"	GOOD
60	AMERICAN BEECH (Fagus grandifolia)	32"	GOOD
61	AMERICAN BEECH (Fagus grandifolia)	36"	GOOD
62	RED OAK (Quercus rubra)	32"	GOOD
63	RED OAK (Quercus rubra)	38"	GOOD
64	TULIP POPLAR (Liriodendron tulipifera)	35"	GOOD
65	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
66	WHITE OAK (Quercus alba)	30"	GOOD
67	RED OAK (Quercus rubra)	57"	GOOD
68	AMERICAN BEECH (Fagus grandifolia)	34"	GOOD
69	WHITE OAK (Quercus alba)	43"	GOOD
70	TULIP POPLAR (Liriodendron tulipifera)	35"	GOOD
71	TULIP POPLAR (Liriodendron tulipifera)	31"	GOOD
72	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
73	TULIP POPLAR (Liriodendron tulipifera)	35"	GOOD
74	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
75	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
76	WHITE OAK (Quercus alba)	37"	GOOD
77	WHITE OAK (Quercus alba)	32"	GOOD
78	WHITE OAK (Quercus alba)	33"	GOOD
79	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
80	TULIP POPLAR (Liriodendron tulipifera)	42"	GOOD
81	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
82	WHITE OAK (Quercus alba)	45"	GOOD
83	AMERICAN BEECH (Fagus grandifolia)	34"	GOOD
84	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
85	TULIP POPLAR (Liriodendron tulipifera)	69"	GOOD
86	AMERICAN BEECH (Fagus grandifolia)	35"	GOOD
87	AMERICAN BEECH (Fagus grandifolia)	34"	GOOD
88	AMERICAN BEECH (Fagus grandifolia)	30"	GOOD
89	RED MAPLE (Acer rubrum)	33"	GOOD
90	TULIP POPLAR (Liriodendron tulipifera)	36"	GOOD
91	RED MAPLE (Acer rubrum)	46"	GOOD
92	BLACK WALNUT (Juglans nigra)	31"	GOOD
93	BLACK WALNUT (Juglans nigra)	37"	GOOD
94	GREEN ASH (Fraxinus pennsylvanica)	44"	GOOD
95	BITTERNUT HICKORY (Carya cordiformis)	36"	GOOD
96	TULIP POPLAR (Liriodendron tulipifera)	61"	GOOD
97	RED MAPLE (Acer rubrum)	35"	GOOD
98	WHITE OAK (Quercus alba)	35"	GOOD



TREE PRUNING METHOD AT BRANCH COLLAR

NOTES

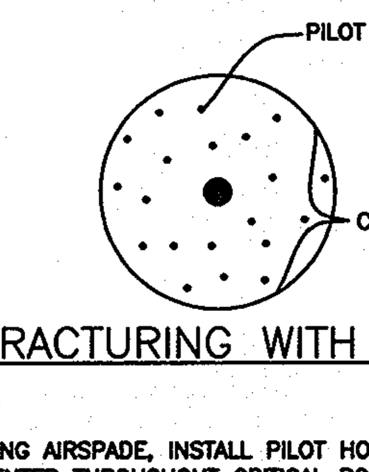
1. ALL TREES REQUIRING PRUNING SHALL BE PRUNED AS SHOWN. BRANCHES SHALL NOT BE PRUNED BACK TO TRUNK. PRUNE ONLY BACK TO BRANCH COLLAR



RADIAL TRENCHING METHOD

NOTES

1. USING AIRSPADE, EXCAVATE SPOKES, REMOVE SPOILS AND BACKFILL WITH LEAF COMPOST OR EQUIVALENT.



SOIL FRACTURING WITH GRO-GUN

NOTES

1. USING AIRSPADE, INSTALL PILOT HOLES 4-6" DEEP 8' ON CENTER THROUGHOUT CRITICAL ROOT ZONE (CRZ).
2. USING 185 CFM COMPRESSOR AND GRO-GUN, SEND BURST OF AIR TO PILOT HOLE.
3. APPLY LEAF COMPOST OF EQUAL 2" THICK.
4. SOIL DRENCH AREA WITHIN CRZ.

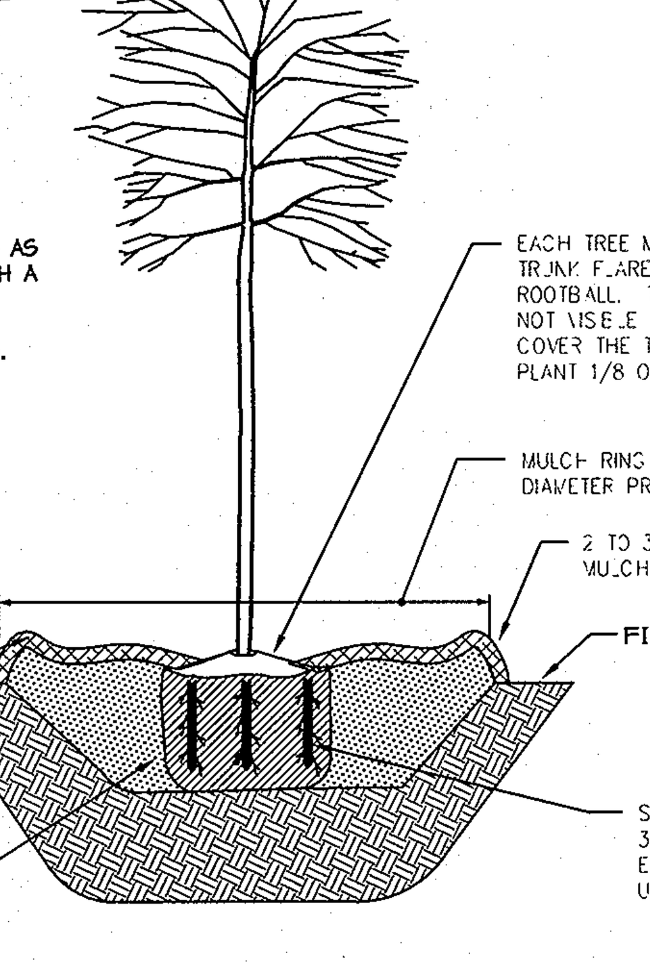
NOTES:

1. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

2. STAKE TREES AS SHOWN ON B&B DETAIL.

3. DIG PLANTING PIT TWO AND A HALF TIMES AS WIDE AS THE DIAMETER OF THE CONTAINER WITH A MINIMUM PLANTING PIT DIAMETER OF 30".

4. REMOVE CONTAINER JUST BEFORE PLANTING. INSPECT HEALTH OF ROOTS. REJECT MATERIAL WITH UNHEALTHY OR INSUFFICIENT ROOTS.



CONTAINERIZED TREE PLANTING DETAIL

NOT TO SCALE

SEQUENCE OF OPERATIONS

PRE-CONSTRUCTION
SITE PREPARATION

1. FIELD STAKE LIMITS OF DISTURBANCE (L.O.D.) AT 25' INTERVALS.

2. REVIEW L.O.D. IN FIELD AND ADJUST IF PRACTICAL.

3. INSTALL TREE PROTECTION FENCE AT THE L.O.D. AND IMPLEMENT TREE PROTECTION METHODS AS SHOWN.

4. CLEAR AND GRUB AS NECESSARY TO FACILITATE ROOT PRUNING TO A DEPTH OF 2-3 FEET WITHIN THE LIMITS OF THE PROPOSED FOREST RETENTION AREA AND AROUND SPECIMEN TREES TO BE SAVED. CLEAR REMAINING TREES IN A WAY THAT "SAVE TREES" ARE NOT DISTURBED. GRIND STUMPS 12" IN DIAMETER AND LARGER THAT ARE WITHIN 25' OF THE L.O.D.

5. PRUNE AND FERTILIZE DESIRABLE 'EDGE TREES' AS PER CONSULTING ARBORIST'S RECOMMENDATIONS AND DETAILS PROVIDED ON THIS SHEET.

6. THERE SHALL BE NO STAGING, STORAGE, OR STOCKPILING OF MATERIALS WITHIN THE NONTIDAL WETLANDS OR 25' NONTIDAL WETLANDS BUFFER, OR OUTSIDE OF THE L.O.D.

7. REMOVE OR TREAT WITH AN ACCEPTABLE METHOD, NOXIOUS PLANT MATERIAL SUCH AS MULTIFLORA ROSE, TEARTHUMB, AND JOHNSON GRASS BEFORE INSTALLING REFORESTATION PLANTS.

8. INSTALL TREE PROTECTION SIGNAGE.

9. STABILIZE ANY DISTURBED AREAS USING THE SPECIFIED STABILIZATION MIXTURE WHICH ALLOWS FOR NATURAL REVEGETATION OF FOREST COMMUNITIES.

FOREST CONSERVATION SEQUENCE OF OPERATIONS

1. Prior to beginning any grading operations on this site or on a respective lot, there may be a preconstruction meeting held at the site which is to include the Contractor and representatives from Patton Harris Rust & Associates, Inc. (PHR+A). The Howard County Department of Planning and Zoning (DPZ) and the owner will be notified by the Contractor as to the time and place of the field meeting, should they wish to send a representative. The purpose of this meeting will be to review the approved FCP and to field verify the correct Limits of Disturbance (LOD).

2. The Limits of Disturbance (LOD) pertinent to the preservation of wooded areas shall be staked in the field with final adjustments being made as necessary to insure adequate protection of the Critical Root Zone of trees designated for retention. Stakes to be used shall be those specified for the "TREE PROTECTION DEVICE" to which approved protective material will be attached. Alternate means of defining the LOD may be used if approved by the DPZ.

3. All forest retention areas shall be protected by highly visible, well anchored temporary protection devices (see detail), which shall be securely in place prior to any clearing or grading operations.

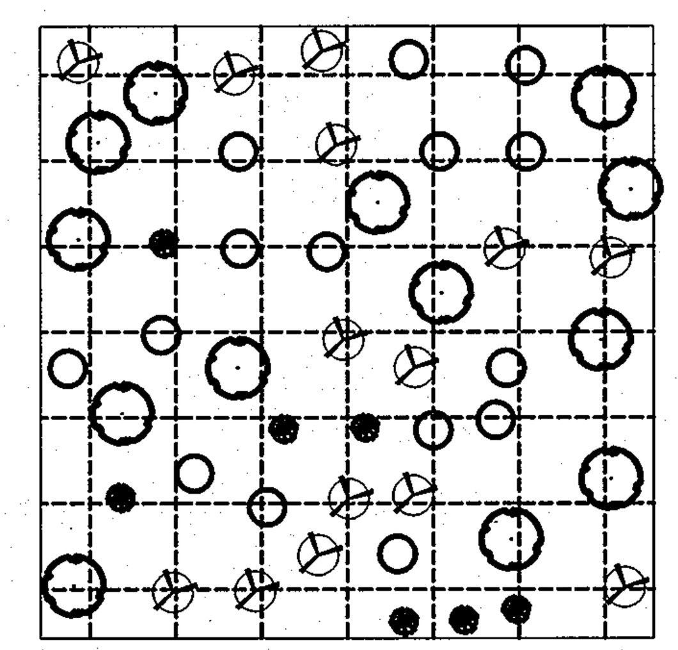
4. Grading operations or other construction operations which could dislodge or otherwise damage the protective devices shall be avoided along the edges of the LOD lines if possible. Any protective devices which are damaged during site construction operations shall be properly repaired immediately by the Contractor.

5. After site grading, utility access road, and driveway construction have been completed, all trees adjacent to the LOD line shall be inspected for indications of crown die-back (summer indicator), damage within respective critical root zones or any dead wood or other conditions which might be hazardous to pedestrians, buildings, utility lines vehicular access ways or parked vehicles.

6. Should there be evidence of any damage to tree trunks, branches or the critical root zone of trees within the protected areas, or to isolated specimen trees to be preserved, the damage shall be examined within a period of two (2) days from the date of observance by a licensed tree care professional. Exposed roots should be covered immediately to a depth of 6 – 8 inches with soil, preferably mixed with 50% peat moss or leaf mold.

7. Remove damaged, dead or dying trees or limbs only if the trees or limbs pose an immediate safety hazard to buildings, utility lines, vehicles, or access and egress drives or pedestrian areas. Trees designated for pruning or removal shall be pruned or removed using equipment and methods which will not damage or destroy adjacent large trees or understory trees or shrubs designated for retention.

8. All temporary forest protection devices will be carefully removed after all general construction, necessary tree surgery, removal of debris, etc. regrading and reseeding of sediment and erosion control disturbance have been completed and acceptance and approval of the work and site conditions have been given by the DPZ.



KEY
TREES

- TREE SPECIES 'A'
- TREE SPECIES 'B'
- TREE SPECIES 'C'
- TREE SPECIES 'D'
- TREE SPECIES 'E'

NOTES

1. RANDOMLY LOCATE GROUPS OF PLANT SPECIES, TAKING CARE NOT TO PLANT IN SUCCESSION MORE THAN 4 OF THE SAME SPECIES.

2. THIS DETAIL PROVIDES A HYPOTHETICAL, GRAPHIC DEPICTION OF A PROPOSED LAYOUT FOR NINE DIFFERENT TREE SPECIES (A-I). IT IS NOT MEANT TO BE FOLLOWED EXACTLY. THE PURPOSE IS TO ACHIEVE THE APPEARANCE OF RANDOM SPACING.

3. SEE PLANT LIST FOR ACTUAL NUMBER OF PLANT SPECIES. SEE PLANT LIST FOR ON-CENTER SPACING REQUIREMENTS.

RANDOM PLANTING LAYOUT DETAIL

NOT TO SCALE

RANDOMLY SPACE NEW TREE & SHRUB INSTALLATIONS TO ALLOW NO MORE THAN (5) 1" CALIPER TREES OF ANY PARTICULAR SPECIES TO BE PLANTED IN SUCCESSION. USE SUGGESTED SPACING AS A GENERAL GUIDE. TAKE CARE NOT TO PLANT IN PERFECT ROWS OR GRIDS.

Howard County Forest Conservation Worksheet

Project Name: **11380 Homewood Road**
County File #: **F-07-187**
Date: **December 5, 2007**

			Acres
Net Tract Area			
A.	*Total Tract Area*	A =	14.83
B.	*Other Deductions*	B =	0.13
C.	*Net Tract Area* Net Tract Area = (A-B-C)	C =	14.70
Land Use Category: Medium Density Residential			
D.	*Afforestation Threshold* (Net Tract Area X _20%	D =	2.94
E.	*Conservation Threshold* (Net Tract Area X__25%	E =	3.68
Existing Forest Cover			
F.	***Existing Forest Cover within the Net Tract Area***	F =	1.04
G.	*Area of Forest Above Conservation Threshold* If the Existing Forest Cover (F) is greater than Conservation Threshold (G), then G = Existing Forest Cover (F) - Conservation Threshold (E); Otherwise G = 0	G =	0.00
Break Even Point			
H.	*Break Even* (Amount of forest that must be retained so that no mitigation is required) (1) If the area of forest above the Conservation Threshold (G) is greater than zero, then H = (0.2 X the area of forest above Conservation Threshold (G)) + the Conservation Threshold (E) (2) If the area of forest above the Conservation Threshold (G) is equal to zero, then H = Existing Forest Cover (F)	H =	1.04
I.	*Forest Clearing Permitted Without Mitigation* I = Existing Forest Cover (F) - Break Even Point (H)	I =	0.00
Proposed Forest Clearing			
J.	***Total Area of Forest to be Cleared***	J =	0.30
K.	*Total Area of Forest to be Retained* K = Existing Forest Cover (F) - forest to be cleared (J)	K =	0.74
Planting Requirements			
	If the Total Area of Forest to be Cleared (K) is at or above the Breakeven Point (H), no planting is required and no further calculations are necessary (L=0, M=0, N=0, P=0); If not, calculate the planting requirement below:		
L.	*Reforestation for Clearing Above the Conservation Threshold* (1) if the total area of forest to be retained (K) is greater than the Conservation Threshold (E), then L = the area of forest to be cleared (J) X 0.25: or (2) If the forest to be retained (K) is less than or equal to the Conservation Threshold (E), then L = area of forest above Conservation Threshold (G) X 0.25	L =	0.00
M.	*Reforestation for Clearing Below the Conservation Threshold* (1) if Existing Forest Cover (F) is greater than Conservation Threshold (E) and the forest to be retained (K) is less than or equal to the Conservation Threshold (E), then M = 2.0 X (the Conservation Threshold (E) - the forest to be retained (K)) (2) If Existing Forest (F) is less than or equal to the Conservation Threshold (E), then M = 2.0 X Forest to be cleared (J).	M =	0.60
N.	*Credit for Retention Above the Conservation Threshold* If the area of forest to be retained (K) is greater than the Conservation Threshold (E), then N = K - E	N =	0.00
P.	*Total Reforestation Required* P = L + M - N	P =	0.60
Q.	*Total Afforestation Required* (1) If Existing Forest Cover (F) is less than the Afforestation Threshold (D) then Q = the Afforestation Threshold (D) - the Existing Forest Cover (F)	Q =	1.90
R.	*Total Planting Requirement* R = P + Q	R =	2.50

PLANTING SPECIFICATIONS:

AFFORESTATION OR REFORESTATION MAINTENANCE AND REPLACEMENT REQUIREMENTS

A two year (24) month maintenance and replacement warranty period is required for all newly planted materials. The maintenance and replacement warranty period shall commence upon the date of the written acceptance by the Owner of the planted areas. A written warranty will be delivered to the Owner upon acceptance of the planted areas. Maintenance and replacement shall be provided by the Contractor responsible for the initial planting operations and related work. All landscape plant material included as forest conservation credits shall be covered under this maintenance and replacement warranty period.

I. MAINTENANCE:
The Contractor shall field check the newly planted area(s) and shall provide the following maintenance items in accordance with the following schedule which shall begin after the completion and acceptance of the initial Afforestation or Reforestation planting.

II. MAINTENANCE ITEMS:

1. Watering: Watering of all newly planted materials once per week as weather permits during the entire initial growing season. Following the initial growing season, watering shall be done on an "as needed" basis depending on the frequency of natural rainfall. During the months of July and August and periods of severe drought, all newly planted materials shall be watered thoroughly once every week. Watering shall be done deeply and slowly using an open end hose or watering probe, at low pressure, allowing the water to be absorbed into the soil until thoroughly saturated. The watered area shall include the whole root zone as the tree becomes more established.

2. Fertilizing: Fertilizing shall be applied only after the soil has been tested to determine its needs. Organic fertilizer should be applied in accordance with the amounts recommended in the soil analysis report. No fertilizing of newly planted trees shall be done within the first growing season after initial planting. Following the first growing season, apply fertilizer as recommended either in late fall or early spring.

3. Supplemental Mulch: To control undesirable vegetation adjacent to the newly planted materials and to prevent tree roots from drying out, additional mulch shall be placed over the existing mulch field where required. Carefully remove any invasive plants (including the root system) within the mulch fields. Do not damage trees in any way during removal of invasive plants or remulching operations.

4. Pruning: Remove dead, diseased, dying and broken branches from all plant materials. Pruning shall be done cleanly leaving no ragged ends.

III. REPLACEMENT OF DEAD OR DYING MATERIALS:

1. Replacement: Any plant materials which are 25% dead or more shall be replaced during the appropriate spring or fall planting seasons in accordance with the methods indicated in the Planting Specifications. A tree shall be considered dead when the main leader has died back.

2. All replacements shall be plants of the same genus, species and size as specified on the plant list.

3. Contractor shall schedule an inspection of the Afforestation or Reforestation area(s) by a qualified representative of the DPZ and by the qualified professional who prepared the plan, at the beginning and at the end of the growing season to observe any problems, monitor survival rate and specify necessary remedial actions needed to correct existing problems. The inspection should focus on the following items when determining survival potential:

(a) Vigor and threat of competing vegetation
(b) Plant structure
(c) Growth rate
(d) Crown development
(e) Trunk conditions and health

IV. PLANT CONDITION CHECK SHEETS
The Contractor shall maintain accurate records on appropriate field data check sheets which shall include all conditions observed relative to the health and potential survival of the plant materials. Such check sheets shall be completed during each scheduled maintenance session during the 24 month management and maintenance program. One copy of the check sheets shall be sent to the Client, one copy to PHRA, and one copy shall be sent to the Howard County Department of Planning and Zoning.

V. SURVIVAL REQUIREMENT:
The survival rate for Afforestation and Reforestation areas shall be a minimum of seventy-five percent (75%) of the total number of trees required to be planted per acre under the approved plan.

VI. INSPECTION/CERTIFICATION SCHEDULE:
The Contractor shall submit with his bid, a schedule for the work which shall include inspections by PHRA at the conclusion of installation and at the start and conclusion of each growing season during the two-year warranty period.

VII. PENALTY FOR VIOLATION:
A site inspection by the Contractor and a representative of PHRA shall take place at the end of the 24 month management and maintenance agreement period. The Contractor shall contact PHRA at least one (1) month in advance of such inspection for coordination. If the survival rate of the Afforestation or Reforestation area(s) falls below the established survival requirements by the end of the 24-month management and maintenance agreement, the remaining amount of the cash bond or other surety may be subject to forfeiture, or other penalties may be imposed.

AFFORESTATION PLANTING LIST

STREAMVALLEY PLANT LIST

*QTY	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	REMARKS
8	ACER RUBRUM / RED MAPLE	1" CAL.	CONT.	FULL CROWN PLANT 15' O.C.
7	PLATANUS OCCIDENTALIS / SYCAMORE			
8	QUERCUS PALUSTRIS / PIN OAK			
8	FRAXINUS PENNSYLVANICA / GREEN ASH			
7	ULMUS RUBRA / SLIPPERY ELM			

*NOTE: CALCULATIONS FOR 1" CAL. PLANTS IS BASED ON 200 PLANTS PER ACRE.
AFFORESTATION AREA= 0.19 AC
TOTAL PLANTING REQUIREMENT= 0.19 AC X 200 PLANTS/AC= 38 SHADE TREES

GENERAL NOTES:

1. THE SITE IS LOCATED AT 11380 HOMEWOOD ROAD, ELLICOTT CITY, MD 21042. THE SITE CONSISTS OF 4 PARCELS (PARCEL 117, PARCEL 1 OF PARCEL 291, PARCEL 2 OF PARCEL 291 & PARCEL 303) WHICH EQUAL A TOTAL OF 40.36± ACRES.

2. BOUNDARY AND TOPOGRAPHIC INFORMATION IS PROVIDED BY HOWARD COUNTY GIS DATA AND PHRA FIELD SURVEY CONDUCTED IN JULY, 2006.

3. THE SOILS ON SITE ARE BAILE SILT LOAM (0-3% SLOPES) - BaA, CODORUS AND HOTBORO SILT LOAMS (0-3% SLOPES) - Co, GLADSTONE LOAM (0-3% SLOPES) - GbA, GLADSTONE LOAM (3-8% SLOPES) - GbB, GLADSTONE LOAM (8-15% SLOPES) - GbC, GLENVILLE SILT LOAM (3-8% SLOPES) - GmB, MANOR-BANNERTOWN SANDY LOAM (15-25% SLOPES) - MgD, MANOR-BANNERTOWN SANDY LOAM (25-65% SLOPES) - MgF ACCORDING TO THE SOIL SURVEY FOR HOWARD COUNTY, MARYLAND.
THIS SITE CONTAINS SOILS WITH POSSIBLE HYDRIC INCLUSIONS, BAILE SILT LOAM (BaA) AND GLENVILLE SILT LOAM (GmB).

4. THE SITE IS ZONED RC-DEO (RURAL CONSERVATION-DENSITY EXCHANGE OPTION). CURRENT USE OF THE SITE IS RESIDENTIAL.

5. THIS SITE IS LOCATED IN THE MIDDLE PATUXENT RIVER WATERSHED (2131106). THIS SITE IS LOCATED IN A USE III-P WATERSHED ACCORDING TO INFORMATION AVAILABLE FROM THE CODE OF MARYLAND REGULATIONS (COMAR) 26.08.02.08 "STREAM SEGMENT DESIGNATIONS". THE APPROPRIATE 100' STREAM BUFFER HAS BEEN SHOWN AS REQUIRED IN THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SECTION 16.116 "PROTECTION OF WETLANDS, STREAMS, AND STEEP SLOPES".

6. ONE STREAM IS LOCATED ON THE SITE AND IS IDENTIFIED AS A USE III-P STREAM ACCORDING TO INFORMATION AVAILABLE FROM THE CODE OF MARYLAND REGULATIONS (COMAR) 26.08.02.08 "STREAM SEGMENT DESIGNATIONS". THE STREAM IS LOCATED IN THE WESTERN BOUNDARY OF THE SITE EXTENDING TO THE SOUTHWEST CORNER FLOWING OFF-SITE. A FLOODPLAIN IS LOCATED ON THE SITE AS SHOWN BY FEMA FIRM MAP 240044-0027C.

7. EXISTING FOREST CONSISTS OF 1 STAND AND 1 HEDGEROW AS SHOWN. TREES GREATER THAN 30" IN DIAMETER WERE OBSERVED WITHIN THE PROPERTY BOUNDARY AND ARE SHOWN.

8. FIELD WORK FOR THIS INVENTORY WAS CONDUCTED ON JANUARY 30, 2007 BY JAY M. LOFTUS, PLANNER AND JONATHAN S. NORMAN, PLANNER OF PATTON HARRIS RUST AND ASSOCIATES, PC UNDER THE SUPERVISION OF PETER J. STONE, RLA AND SCOTT R. WOLFORD, RLA OF PATTON HARRIS RUST AND ASSOCIATES, PC.

9. THERE ARE NO KNOWN CEMETERIES OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY CEMETERIES INVENTORY.

10. NO RARE, THREATENDED OR ENDANGERED PLANTS OR ANIMALS OR CRITICAL HABITATS WERE OBSERVED IN THE FIELD AS STATED IN A LETTER RECEIVED FROM THE MARYLAND DNR.

11. 98 SPECIMEN TREES (30" IN DIAMETER) HAVE BEEN IDENTIFIED AND MEASURED AS SHOWN ON THIS PLAN. NONE OF THE SPECIMEN TREES WILL NEED TO BE REMOVED DUE TO THE PROPOSED DEVELOPMENT ON THE SITE.

12. THE MAJORITY OF THE PLAN HAS BEEN PREPARED USING PHR+A FIELD RUN TOPOGRAPHY. SPECIMEN TREE LOCATIONS WERE FIELD APPROXIMATED.

13. NO HISTORIC FEATURES ARE LOCATED ON-SITE.

14. FOREST STAND 1 CONTAINS 7.34 ACRES OF FOREST ON-SITE, WHILE THE STAND IS PART OF CONTIGUOUS FOREST THAT EXTENDS FOR A TOTAL OF THREE HUNDRED AND EIGHTY-THREE (383) ACRES OFF-SITE.

15. NO WETLANDS ARE LOCATED ON THE SITE.

16. NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.

17. NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.

18. THERE ARE FOUR EXISTING STRUCTURES ON THE SITE AS SHOWN. THE HOUSE WILL REMAIN, THE THREE BARNS WILL BE REMOVED. NO ADDITIONAL STRUCTURES ARE PROPOSED WITH THIS PLAN.

19. THE FSD, DATED JULY, 2006, HAS BEEN PREPARED BY PATTON HARRIS RUST & ASSOCIATES IN CONJUNCTION WITH THESE PLANS.

20. THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS.

21. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION.

22. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

23. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION. FINANCIAL SURETY FOR FOREST CONSERVATION WILL BE ADDRESSED WITH THE REQUIRED DEVELOPER'S AGREEMENT IN THE AMOUNT OF $51,039. THIS AMOUNT INCLUDES ON-SITE RETENTION (NON-FLOODPLAIN AREA): (31,982 SF X $0.20=$6,396) AND THE PLANTING OBLIGATION FOR F-07-187 OF 2.50 AC BY PROVIDING SURETY FOR THE OFF-SITE RETENTION AT 2 TO 1: (203,178 SF X $0.20=$40,636), ON-SITE AFFORESTATION: (1,212 SF X $0.50=$606), AND FOR THE OFF-SITE PLANTING (AFFORESTATION): (6,802 SF X $0.50=$3,401).

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ ~~DATE~~

[signature] 2/8/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION J.P. DATE

[signature] 2/8/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER:
HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT
HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE **FOREST CONSERVATION PLAN DETAIL SHEET**

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

[signature] 1-22-08

DESIGNED BY :PHRA
DRAWN BY: JML
PROJECT NO : 14520-1-0
DATE : JANUARY 21, 2008
SCALE : AS SHOWN
DRAWING NO. 12 OF 15

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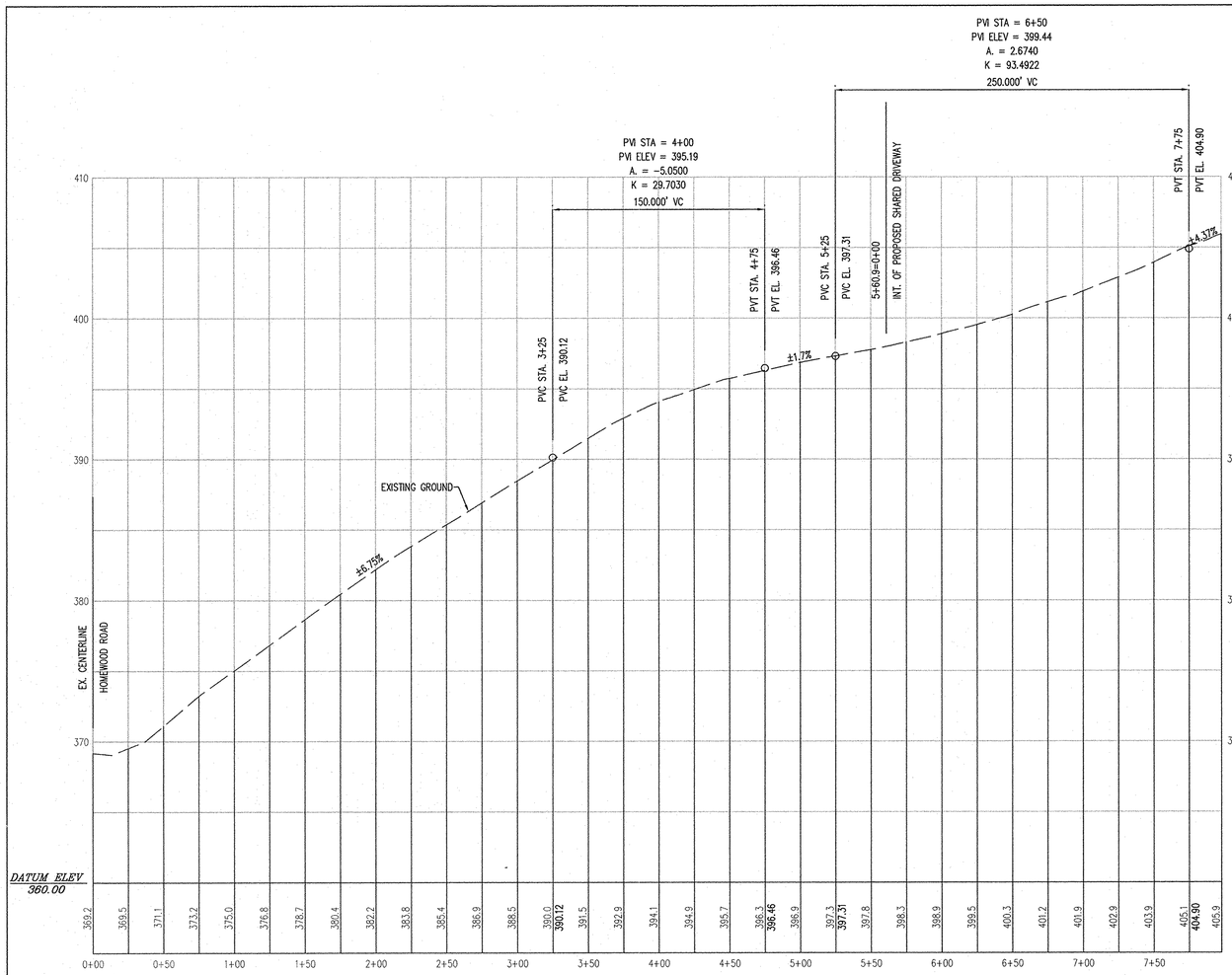
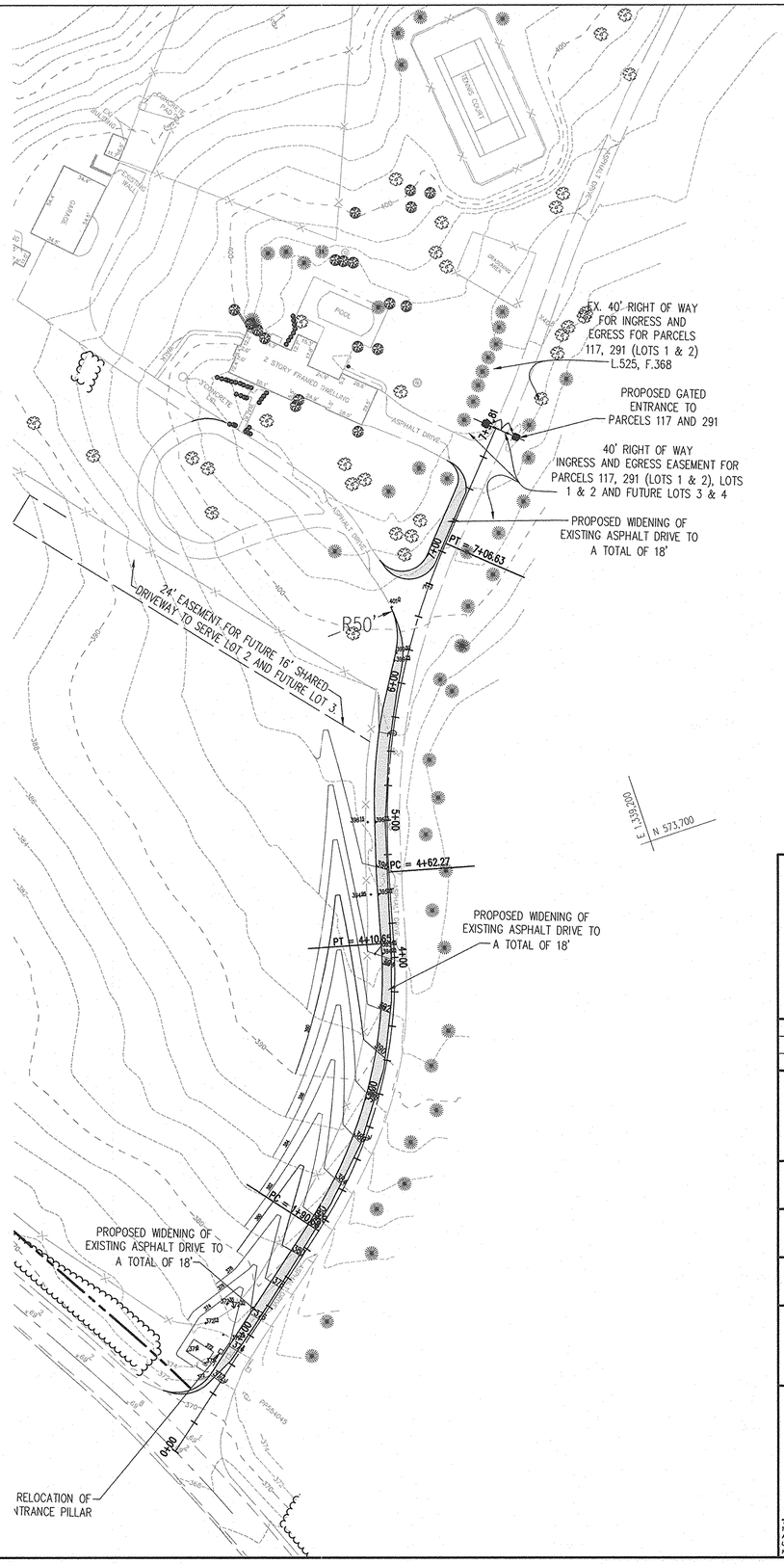
F-07-187



EXISTING GROUND CENTERLINE PROFILE FOR EXISTING USE IN COMMON DRIVEWAY

PAVEMENT DESIGN
PAVEMENT DESIGN SHALL COMPLY WITH GEOTECHNICAL REPORT RECOMMENDATIONS (GEOTECHNICAL REPORT BY OTHERS)



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~	~~DATE~~
CHIEF, DEVELOPMENT ENGINEERING DIVISION	2/8/08 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	2/7/08 DATE

DATE	NO.	REVISION

OWNER:
HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT
HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE
ROAD PROFILE

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

STATE OF MARYLAND — GERARD CARROLL MITCHELL — No. 33954 — REGISTERED PROFESSIONAL ENGINEER
1-22-08
BY: Gerard C. Mitchell

"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. 33954, EXPIRATION DATE: 1-24-09."

DESIGNED BY :	PHRA
DRAWN BY:	JML
PROJECT NO :	14520-1-0
DATE :	JANUARY 21, 2008
SCALE :	1"=50'
DRAWING NO.	13 OF 15

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F-07-187

INTERSECTION SIGHT DISTANCE

EXISTING 2 LANE MAJOR COLLECTOR

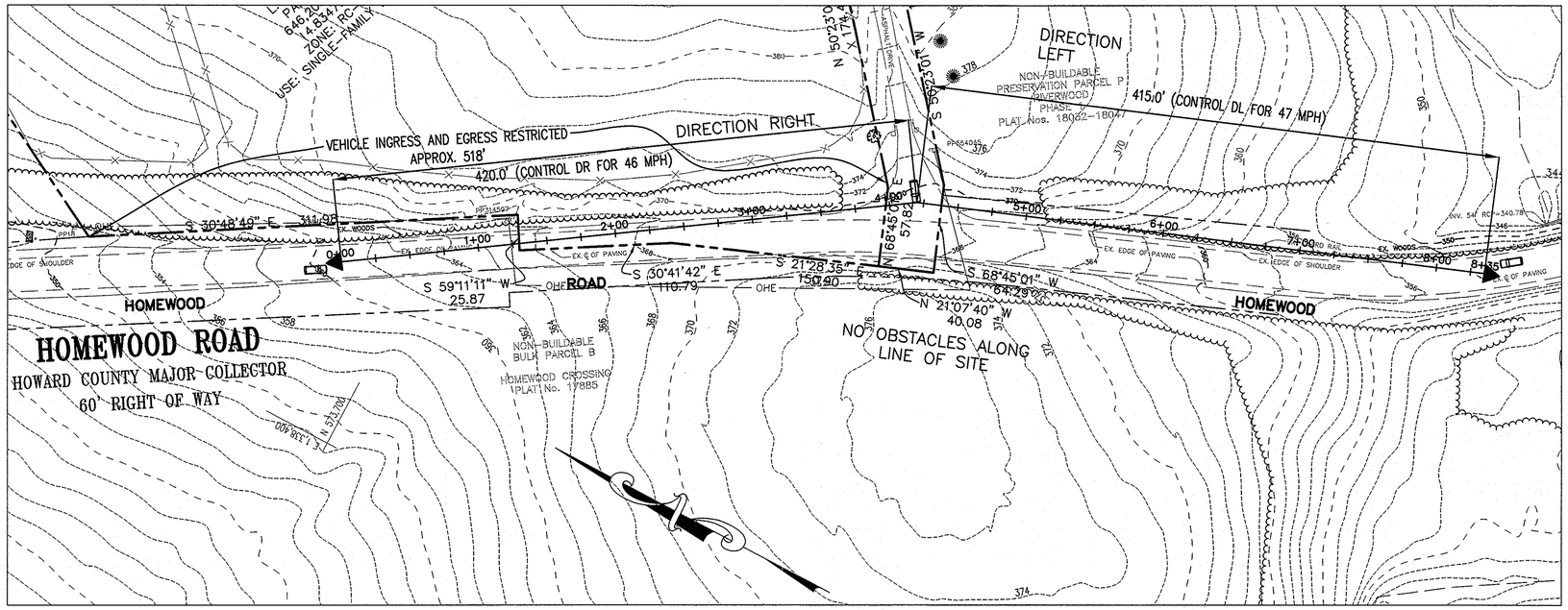
OBSERVED SPEED ON HOMEWOOD ROAD = 46 & 47 MPH

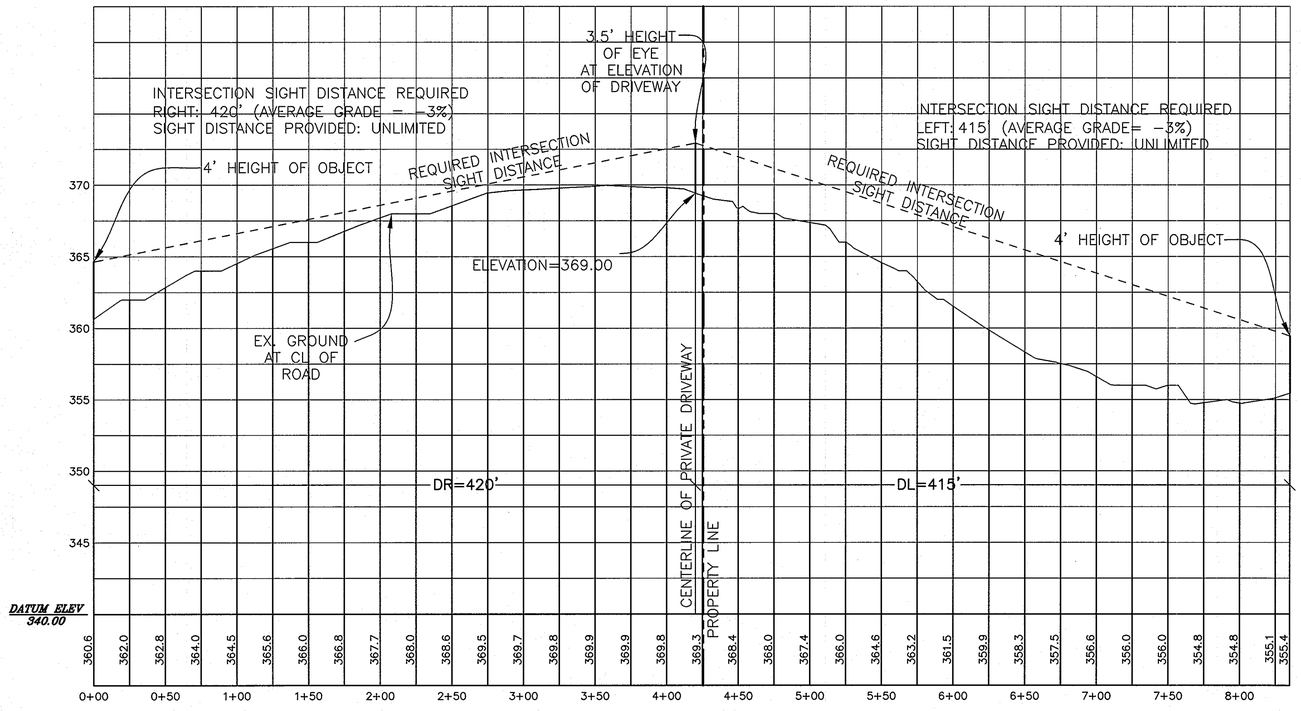
BASED ON FIGURE 2.17 OF DESIGN MANUAL VOL. III (SIGHT DISTANCES HAVE BEEN INTERPOLATED FOR 46 & 47 MPH)

	DL	DR
CROSS	N/A	N/A
LEFT TURN	510'	700'
RIGHT TURN	692'	N/A

SINCE EXISTING ROAD HAS −3% GRADE TO THE RIGHT AND −3% GRADE TO THE LEFT, THE GRADE ADJUSTMENT FACTORS MUST BE USED.

	DL	DR
CROSS	N/A	N/A
LEFT TURN	510'x0.6=306'	700'x0.6=420' (CONTROL)
RIGHT TURN	692'X0.6=415' (CONTROL)	N/A





INTERSECTION SIGHT DISTANCE HOMEWOOD ROAD
46 MPH (DISTANCE RIGHT) & 47 MPH (DISTANCE LEFT)

SCALE: HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

GENERAL NOTES

1. BOUNDARY INFORMATION OBTAINED FROM HOWARD COUNTY G.I.S. TOPOGRAPHICAL INFORMATION OBTAINED FROM PATTON, HARRIS, RUST & ASSOCIATES, PC SURVEY CREW.

2. THIS ANALYSIS CONDUCTED WITH BENEFIT OF A SPEED STUDY CONDUCTED BY TRAFFIC CONCEPTS, INC.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ ~~DATE~~

CHIEF, DEVELOPMENT ENGINEERING DIVISION 2/8/08 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 2/5/08 DATE

DATE	NO.	REVISION

OWNER:

HOMEWOOD L.L.C.
GARY B. SMITH
11362 HOMEWOOD ROAD
ELLICOTT CITY
MARYLAND 21042
410-964-0260

PROJECT

HOMEWOOD FARM
(MURPHY PROPERTY)

AREA TAX MAP 29 PARCELS 303, 117, 291
3RD ELECTION DISTRICT ZONED RC-DEO
HOWARD COUNTY, MARYLAND

TITLE

SIGHT DISTANCE PLAN

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

STATE OF MARYLAND — STEVEN C. MITCHELL — No. 33954 — REGISTERED PROFESSIONAL ENGINEER

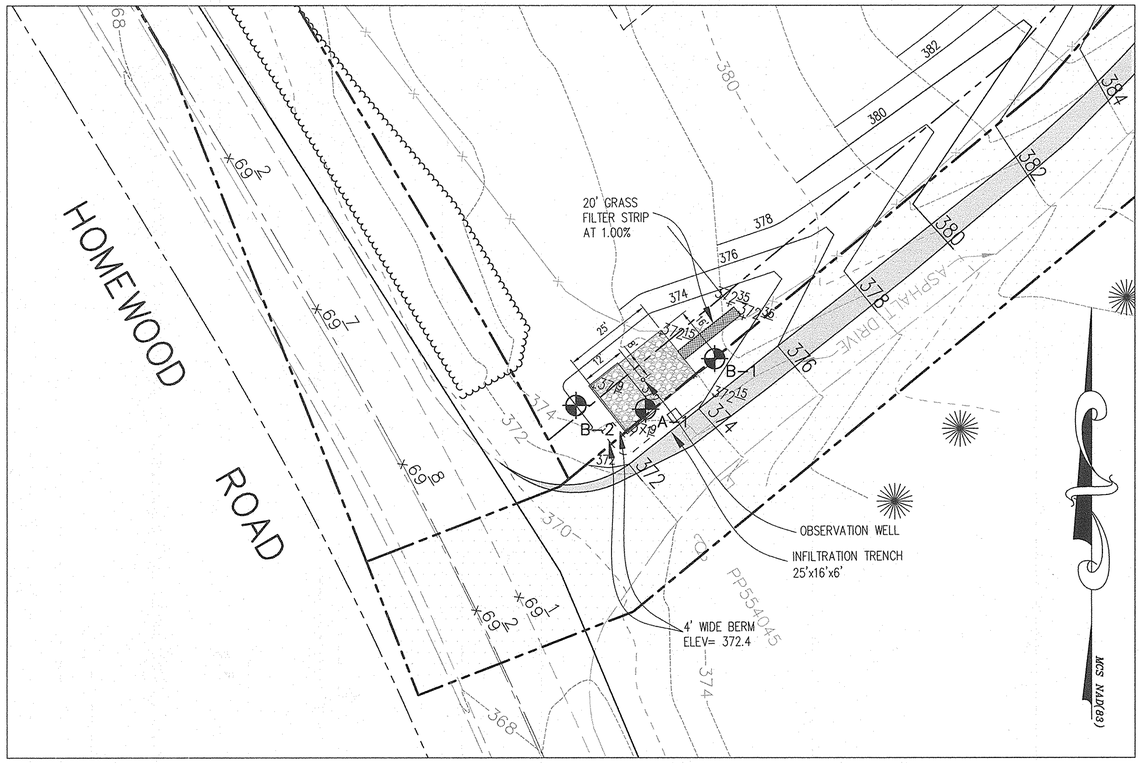
BY: Steven C. Mitchell 1-22-08

"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. 33954, EXPIRATION DATE: 1-24-09."

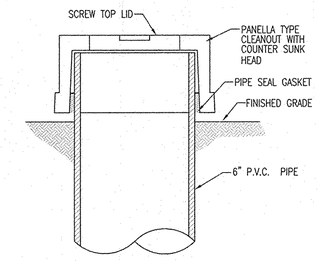
DESIGNED BY :	JML
DRAWN BY:	JML
PROJECT NO :	14520-1-0
DATE :	JANUARY 21, 2008
SCALE :	1" = 50'
DRAWING NO.	14 OF 15

P:\PROJECT\14520\1-0\PLANS\F-07\C5005IGHT01.DWG

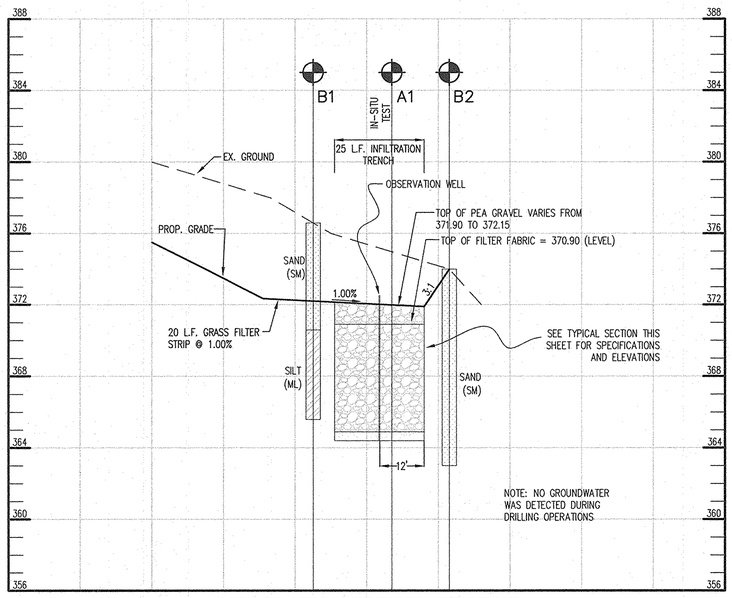
F-07-187



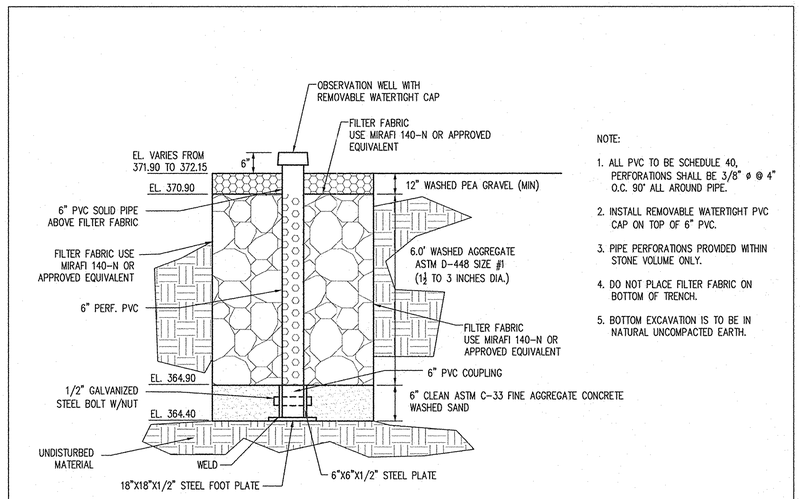
PLAN VIEW INFILTRATION TRENCH
SCALE: 1"=20'



OBSERVATION WELL CAP
(NOT TO SCALE)



INFILTRATION TRENCH PROFILE
SCALE : HOR: 1"=20'
VERT: 1"=4'



NOTE:

1. ALL PVC TO BE SCHEDULE 40, PERFORATIONS SHALL BE 3/8" ø @ 4" O.C. 90° ALL AROUND PIPE.
2. INSTALL REMOVABLE WATERTIGHT PVC CAP ON TOP OF 6" PVC.
3. PIPE PERFORATIONS PROVIDED WITHIN STONE VOLUME ONLY.
4. DO NOT PLACE FILTER FABRIC ON BOTTOM OF TRENCH.
5. BOTTOM EXCAVATION IS TO BE IN NATURAL UNCOMPACTED EARTH.

INFILTRATION TRENCH SECTION AND OBSERVATION WELL
NOT TO SCALE

INFILTRATION TRENCH SPECIFICATIONS

Construction Specifications

1. Timing
   An infiltration trench may not be constructed or placed in service until all of the contributing drainage area has been stabilized and approved by the responsible inspector.

2. Trench Preparation
   Excavate the trench to the design dimensions. Excavated materials shall be placed away from the trench sides to enhance trench wall stability. Large tree roots must be trimmed flush with the trench sides in order to prevent fabric puncturing or tearing during subsequent installation procedures. The side walls of the trench shall be roughened where sheared and sealed by heavy equipment. The trench wall shall be battered to maintain stability during construction. The bottom dimensions and stone depth shall be as specified.

3. Fabric Laydown
   The filter fabric roll must be cut to the proper width prior to installation. The cut width must include sufficient material to conform to trench perimeter irregularities and for a 6-inch minimum top overlap. Stones or other anchoring objects should be placed on the fabric at the edge of the trench to keep the line trench open during windy periods. When overlaps are required between rolls, the upstream roll should lap a minimum of 2 feet over the downstream roll in order to provide a shingled effect. The overlap ensures fabric continuity or to ensure that the fabric conforms to the excavation surface during aggregate placement and compaction. Filter cloth to be Mirafi 140-N or approved equivalent along the sides and top of the infiltration trench. Do not place any filter material on the bottom of the trench.

4. Stone Aggregate, Sand Placement and Compaction
   Trench shall be filled with 1.5-3.0 inch diameter washed stone meeting ASTM D448, size No. 1. The stone aggregate should be placed in lifts and compacted using plate compactors. As a rule of thumb, a maximum loose lift thickness of 12 inches is recommended. The compaction process ensures fabric conformity to the excavation sides, thereby reducing the potential for soil piping, fabric clogging, and settlement problems. The bottom of the trench shall be graded flat (0 Ft/Ft). Provide a 6" layer of clean washed sand (meeting ASTM C-33 fine aggregate concrete sand specifications) on the bottom of the trench. Manufactured sand is not allowed.

5. Overlapping and Covering
   Following the stone aggregate placement, the filter fabric shall be folded over the stone aggregate to form a 6" minimum longitudinal lap. The pea gravel shall be placed over the lap at sufficient intervals to maintain the lap during the subsequent backfilling.

6. Contamination
   Care shall be exercised to prevent natural of rill soils from intermixing with the stone aggregate. All contaminated stone aggregate shall be removed and replaced with uncontaminated stone aggregate. When a stone capping is specified, the stone capping shall be cleaned and free of all soil and fines.

7. Voids Behind Fabric
   Voids can be created between the fabric and excavation sides and shall be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Natural soils should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides. Soil piping, fabric clogging, and possible surface subsidence will be avoided by the remedial process.

8. Unstable Excavation Sides
   Vertically excavated walls may be difficult to maintain in areas where the soil moisture is high or where soft cohesive or cohesionless soils predominate. These conditions may require laying back of the side slopes to maintain stability; trapezoidal rather than rectangular cross sections may result.

9. Traffic Control Heavy equipment and traffic shall be restricted from traveling over the recharge areas to minimize compaction of the soil.

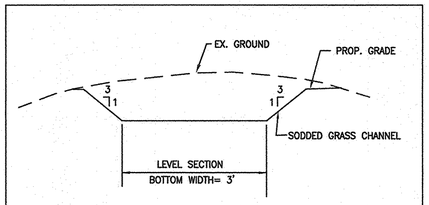
10. Observation Well
    An Observation Well using 6 inch diameter perforated pvc pipe, schedule 40 shall be placed in each infiltration trench. The well shall be located in the longitudinal center of the trench and is to be capped using a threaded pvc fitting and a vandal proof sewer cap. The pipe shall have a plastic collar with ribs to prevent rotation when removing the cap. When soil capping is specified, the observation well shall be constricted of perforated pipe within the No. 2 stone sand non-perforated pipe through the soil capping. The depth of the well at the time of installation will be clearly marked on the well cap.

Maintenance

Infiltration trenches shall be designed to minimize maintenance. However, it is recognized that all infiltration facilities are subject to clogging by sediment, oil, grease, grill and other debris. Consequently, a monitoring observation well is required for all recharge structures.

The observation well shall be monitored periodically. For the first year after completion of construction, the well should be monitored on a quarterly basis and after every large storm. It is recommended that a log book be maintained indicating that rate at which the facility dewaters after large storms and the depth of the well for each observation. Once the performance characteristics of the structure have been verified, the monitoring schedule can be reduced to an annual basis, unless the performance data indicate that a more frequent schedule is required.

Sediment build-up in the top foot of stone aggregates or the surface inlet should be monitored on the same schedule as the observation well. Sediment deposited shall not be allowed to build up to the point where it will reduce the rate of recharge into the trench.



GRASS CHANNEL TYPICAL SECTION
NOT TO SCALE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

~~DIRECTOR~~ ~~DATE~~

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 2/8/08

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 2/8/08

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TITLE **INFILTRATION TRENCH DETAILS**

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DESIGNED BY :	SM
DRAWN BY:	DJK
PROJECT NO :	14520-1-0
DATE :	JANUARY 21, 2008
SCALE :	1"=50'
DRAWING NO.	15 OF 15

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