

ENVIRONMENTAL SITE DESIGN NARRATIVE

1. THERE ARE NO STREAMS, WETLANDS, FLOOD PLAINS OR FORESTED AREAS LOCATED ON THE LOT # 27. THE ON-SITE SEWAGE DISPOSAL AREA HAS BEEN RELOCATED AS FAR TO THE REAR OF THE LOT AS POSSIBLE TO PROVIDE FOR GRADING TO ACHIEVE RUNOFF DISCONNECTS. STORM WATER MANAGEMENT FOR WATER QUALITY IS PROVIDED BY NON-STRUCTURAL RUNOFF REDUCING PRACTICES TO LIMIT THE IMPACT OF THE DEVELOPMENT ON NATURAL RESOURCES AND THE SURROUNDING PROPERTY.
2. GRADING ON SITE IS LIMITED TO ONLY THAT REQUIRED TO ACCOMPLISH DISCONNECTS FOR ROOFTOP RUNOFF WHILE MAINTAINING NATURAL FLOW PATTERNS.
3. IMPERVIOUS AREA WAS HELD TO THE MINIMUM REQUIRED TO ACCOMPLISH THE WORK BY LOCATING THE PROPOSED DWELLING AS CLOSE TO HARDY ROAD AS PRACTICAL BASED UPON THE LOCATION OF EXISTING DWELLINGS ON ADJOINING PROPERTIES.
4. TEMPORARY PERIMETER SEDIMENT CONTROL, IN THE FORM OF SUPER SILT FENCE IS PROPOSED IN ORDER TO PROVIDE TEMPORARY SWM VIA RUNOFF RETENTION DURING CONSTRUCTION.
5. ENVIRONMENTAL SITE DESIGN HAS BEEN IMPLEMENTED TO THE MAXIMUM EXTENT POSSIBLE BY THE USE OF ROOFTOP AND NON-ROOFTOP DISCONNECTS, TO SATISFY WATER QUALITY MANAGEMENT.
6. NO WAIVERS FROM THE SUBDIVISION REGULATIONS AND OR DESIGN MANUAL ARE REQUIRED FOR THE PROJECT AS SHOWN HEREON.
7. LOTS 27, 28 AND 29 ARE BEING DEVELOPED INDEPENDENTLY WITH LOT 29 BEING THE FIRST LOT TO BE DEVELOPED AND LOT 27 THE SECOND.

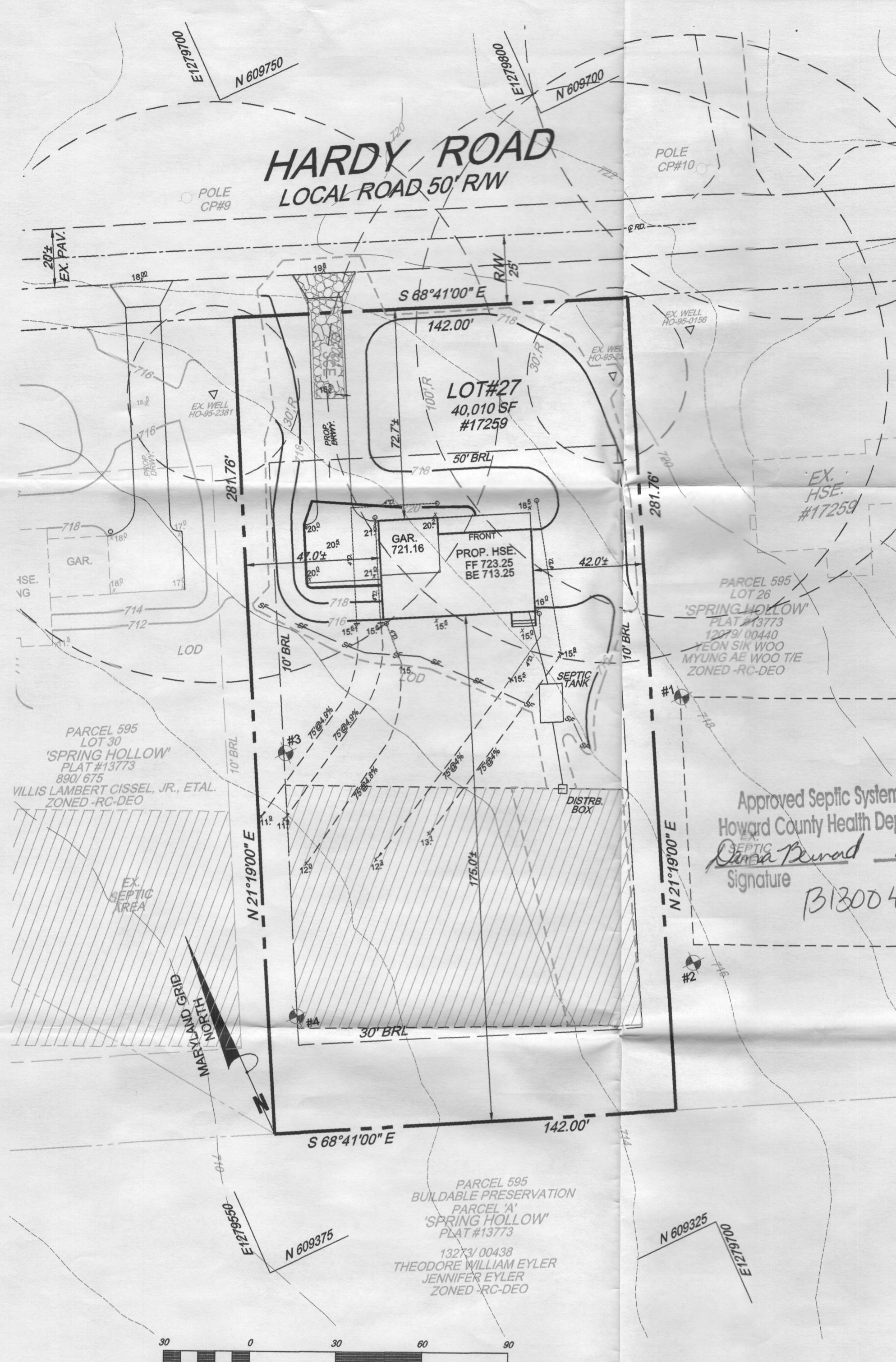
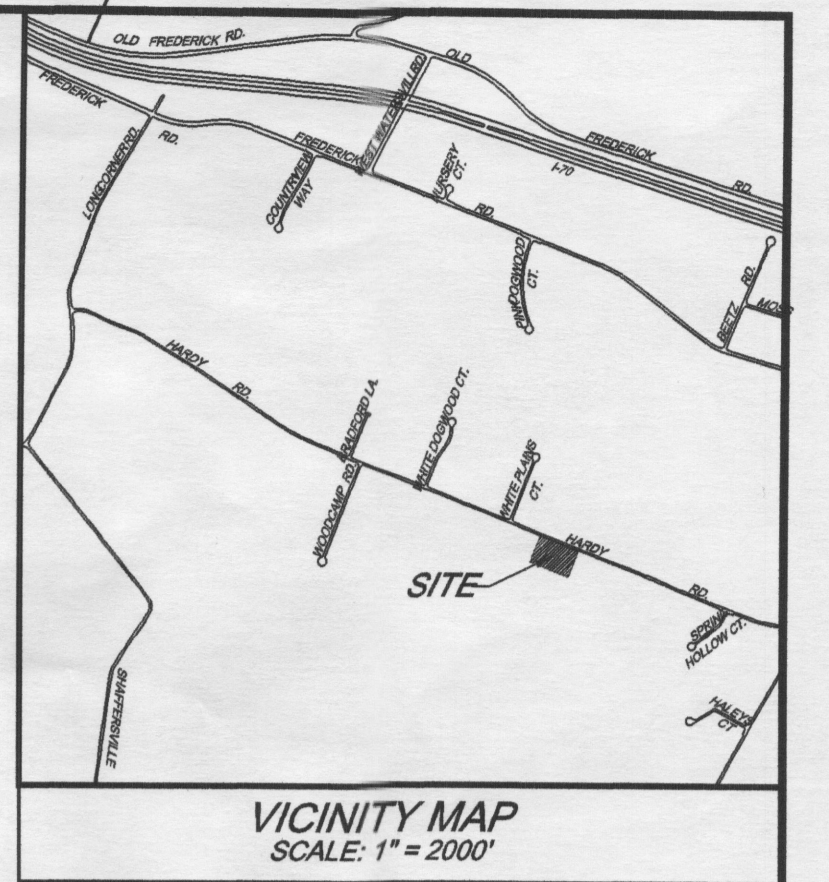
SOILS LEGEND					
SYMBOL	NAME/DESCRIPTION	SOIL GROUP	K-VALUE	HYDRO GROUP	
OgA	Glenelg loam, 0 to 3 percent slopes	B	0.20	+	NOT HYDRO
OgB	Glenelg loam, 3 to 8 percent slopes	B	0.20	-	NOT HYDRO

REQUIRED SEQUENCE OF CONSTRUCTION (SINGLE FAMILY LOT)

1. OBTAIN GRADING PERMIT (1 DAY)
2. CLEAR AND GRUB FOR INSTALLATION OF TEMPORARY SEDIMENT CONTROL MEASURES, SILT FENCE AND STONE CONSTRUCTION ENTRANCE. (1/2 DAY)
3. INSTALL TEMPORARY SEDIMENT CONTROL MEASURES (1/2 DAY)
4. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR CLEAR AND GRUB SITE FOR CONSTRUCTION OF DWELLING, DRIVEWAY AND WALKS. (1 DAY)
4. GRADE SITE AND CONSTRUCT DWELLING, DRIVEWAY AND WALKS PER APPROVED PLAN (12 - WEEKS)
5. STABILIZE ALL DISTURBED AREAS WITH SEED AND MULCH PER SCS STANDARDS. (2 DAYS)
6. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR REMOVE ALL TEMPORARY SEDIMENT CONTROL MEASURES AND STABILIZE ALL DISTURBED AREAS PER SCS STANDARDS. (2 DAYS)

LEGEND-SWM- MDE DESIGNATION

DOWN SLOPE C-N-1 DENOTES ROOF-TOP RUNOFF DISCONNECT



Approved Septic System Plan
Howard County Health Department
Date: 1-15-14
Signature: [Signature]
313004529

GENERAL NOTES

1. OWNERS: WILLIS LAMBERT CISSEL, JR., MARJORIE S. CISSEL, ETAL
c/o CURTIS CUMBERLAND CUMBERLAND DEVELOPMENT CORP.
16391 MULLINX RD.
WOODBINE, MD. 21797
- DEED REFERENCE: LIBER 880, FOLIO 675
DATE: JUNE 16, 1978
GRANTOR: A. ROBY HARDY & RAYMOND E. HARDY
- TAX MAP 007, GRID 08, PARCEL 528
- THE BOUNDARY SHOWN HEREON IS BASED UPON RECORDED PLAT OF "SPRING HOLLOW" PLAT-M.D.R. # 13773
- WATER SERVICE IS PRIVATE. SEWER SERVICE IS PRIVATE
- THERE IS NO 100 YEAR FLOOD PLAIN LOCATED ON THIS PROPERTY BASED ON FEMA INSURANCE RATE MAP COMMUNITY PANEL #2402700100 ZONE X
- TOPOGRAPHY SHOWN HEREON IS FIELD RUN BASED UPON HOWARD COUNTY GIS DATA NAVD83, CONTOUR INTERVAL = 2 FT. FIELD VERIFIED BY CRC & ASSOC.
- THERE ARE NO WELLS OR SEPTIC SYSTEMS WITHIN 100 FT. OF THE SUBJECT PROPERTY UNLESS OTHERWISE SHOWN HEREON.
- EXISTING WELLS HO-95-2380, HO-95-2382, HO-95-2381, HO-95-2380, HO-0156, HO-95-1924 AND THE WELL WITH NO TAG ON ADJOINING PROPERTY 17270 HARDY RD. SHOWN HEREON HAVE BEEN FIELD LOCATED AND SHOWN ACCURATELY.
- SUBJECT PROPERTY IS ZONED RC-DEO
- THE SUBJECT PROPERTY SHOWN HEREON IS NOT SUBJECT TO ANY PRIOR ZONING CASES, VARIANCES OR SPECIAL EXCEPTIONS. PROPERTY HISTORY 9-98-01, P-98-26, & F-98-30
- STORMWATER MANAGEMENT FOR THE SUBJECT PROPERTY SHOWN HEREON HAS BEEN SATISFIED BY TAKING CREDIT FOR DISCONNECTED ROOF TOP AND NON-ROOF TOP RUNOFF IN ACCORDANCE WITH MDE STORM WATER DESIGN MANUAL VOL. I, SEC. 5.1 AND MDE ENVIRONMENTAL SITE DESIGN (ESD), THE HOWARD CO. DESIGN MANUAL VOL. I, CHAPTER 5 REVISED AND THE HOWARD CO. DESIGN ESD ON SMALL PROJECTS.

SITE ANALYSIS

TOTAL AREA SITE: 40,010 SF
AREA DISTURBED: 18940 SF
AREA TO BE ROOFED: 4,080 SF (11% IMPERVIOUS)
AREA TO BE VEGETATIVELY STABILIZED: 16890 SF
TOTAL VOLUME CUT: 513 CY.
TOTAL VOLUME FILL: 513 CY.

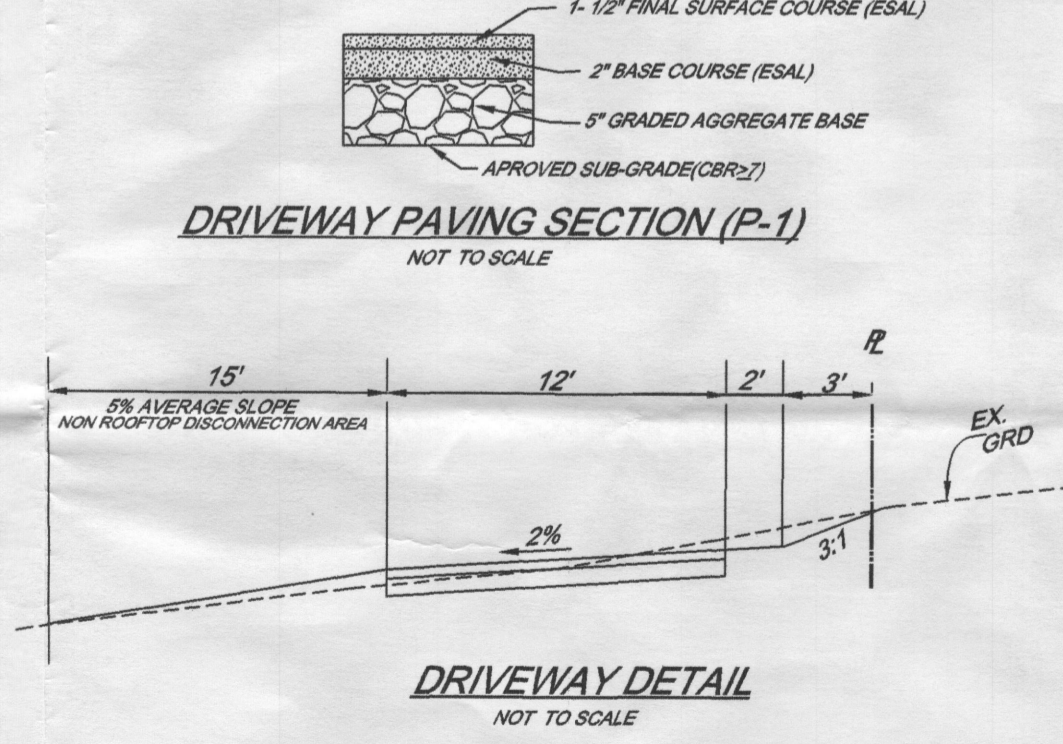
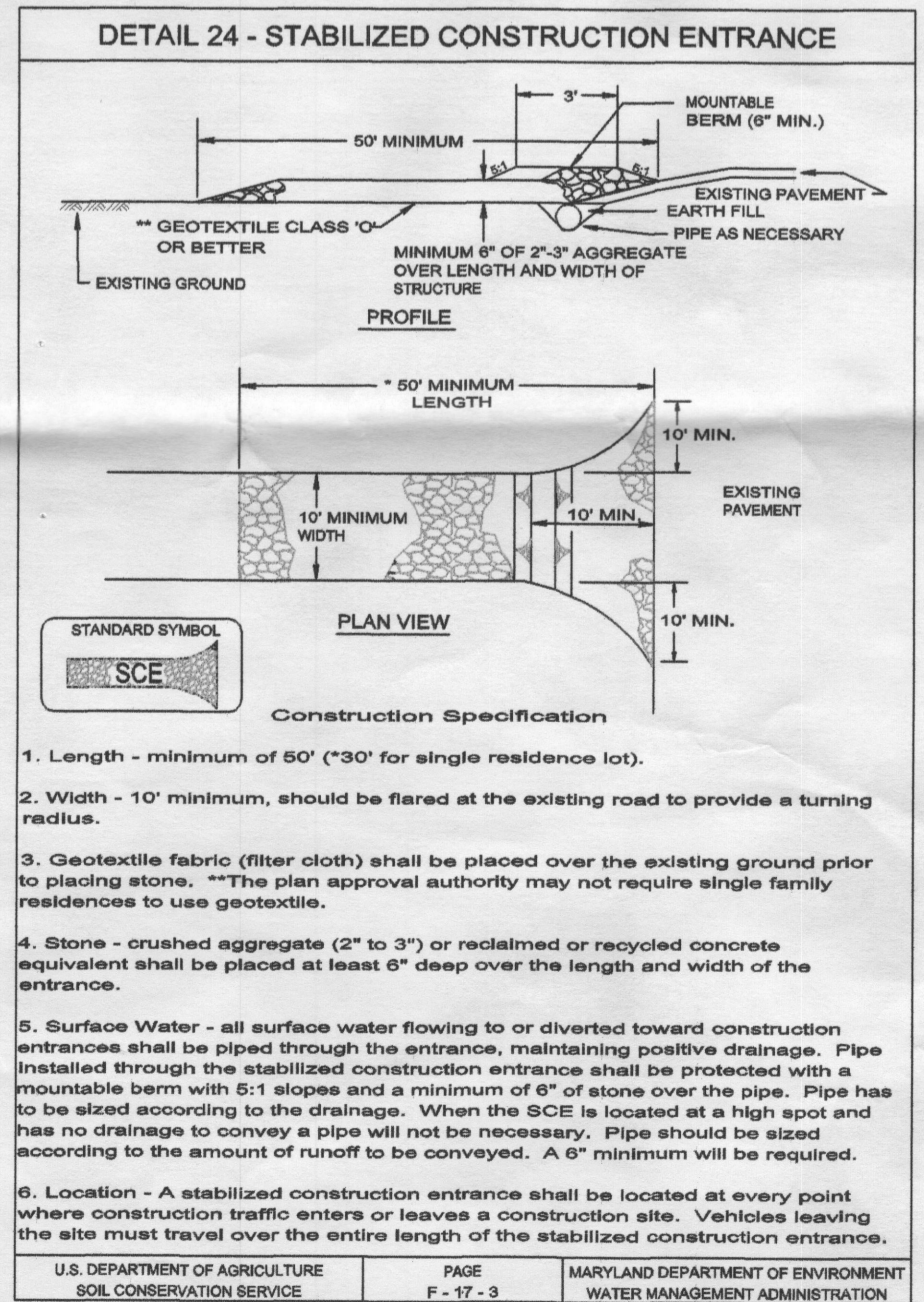
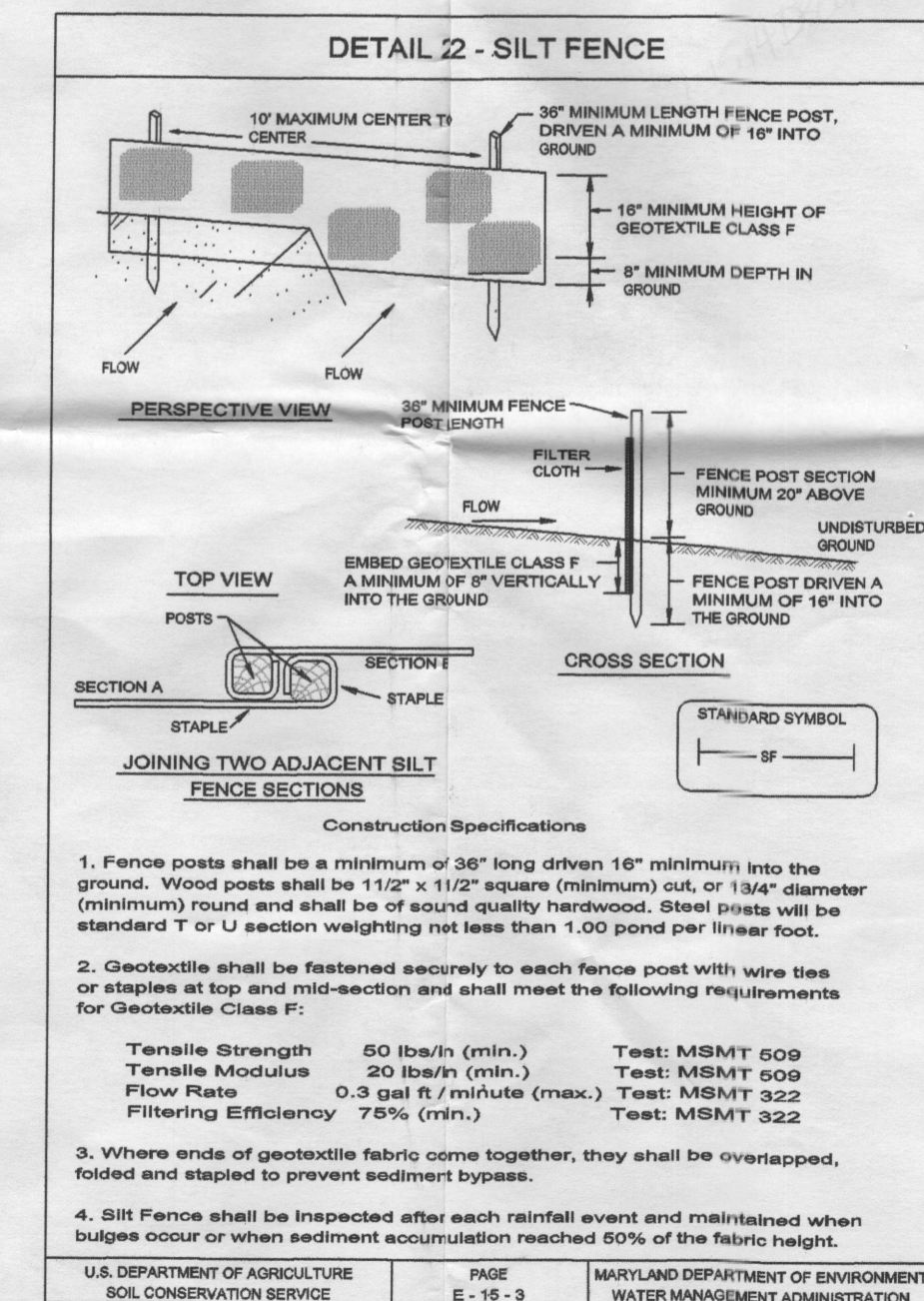
HEALTH DEPARTMENT NOTES

1. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH AND AREA REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
2. THE AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF 10,000 SQ-FT. AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENTS.
3. EXISTING WELLS HO-95-2380, HO-95-2382, HO-95-2381, HO-95-2380, HO-0156, HO-95-1924 AND THE WELL WITH NO TAG ON ADJOINING PROPERTY 17270 HARDY RD. SHOWN HEREON HAVE BEEN FIELD LOCATED AND SHOWN ACCURATELY.
4. THERE ARE NO EXISTING WELLS AND SEPTIC SYSTEMS WITHIN 1000' OF THE LOT LINES SHOWN HEREON UNLESS NOTED OTHERWISE.
⊕ DENOTES "PASSED" PERCOLATION TEST
⊗ DENOTES "FAILED" PERCOLATION TEST
5. THE NEAREST WATER INTAKE STRUCTURE IS FOUR MILES+ AWAY.

SEPTIC SYSTEM DATA

INV. AT HOUSE	711.75
SEPTIC TANK (1500 gal)	
EX. GRADE	715.0
FIN. GRADE	714.5
INV. IN	711.55
INV. OUT	711.39
DISTRIBUTION BOX	
EX. GRADE	715.00
FIN. GRADE	715.00
INV. IN	710.89
INV. OUT	710.73

THE NUMBER OF TRENCHES, THEIR LENGTH, DEPTH, AND ORIENTATION TO BE DETERMINED BY HEALTH DEPARTMENT.
***SEPTIC SYSTEM MAY REQUIRE PUMP

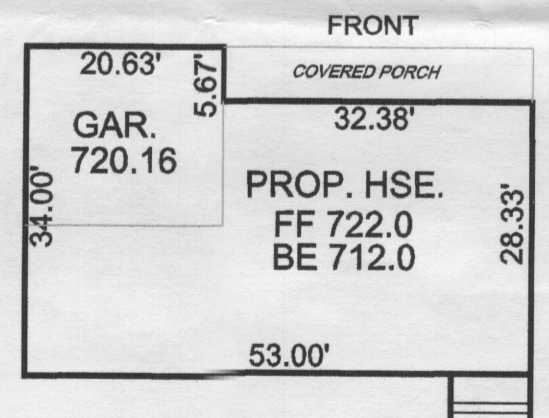


LEGEND

- EX PROPERTY LINE
- EX RIGHT-OF-WAY
- PROP. LOT LINES
- EX EASEMENTS
- EX CONTOURS
- EX TREETOODS LINE
- SOILS LINE
- LIMIT OF DISTURBANCE
- DENOTES SLOPES 2% OR GREATER
- DENOTES SLOPES 15% - 25%
- TEST PIT
- TEST BORING
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- SILT FENCE

OWNER/DEVELOPER:
CUMBERLAND DEVELOPMENT CORP.
C/O CURTIS CUMBERLAND
16391 MULLINX RD.
WOODBINE MD 21797

NON-SPRING RESIDENTIAL PLOT PLAN
LOT 27
"SPRING HOLLOW"
#17287 HARDY ROAD
SINGLE FAMILY DETACHED
PLAT M.D.R. #13773
ZONED RC-DEO
FOURTH ELECTION DISTRICT TAX MAP #07, GRID 08, PARCEL 528
HOWARD COUNTY, MARYLAND
Prepared by:
CHARLES R. CROCKEN AND ASSOCIATES, INC.
902 LEE AVE.
SYKESVILLE, MARYLAND 21157
Tel. (410) 549-2708
Fax. (410) 549-9063
SCALE: 1" = 30' DATE: 11/07/13 SHEET 1 OF 1



APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH OFFICER DATE

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. 7803 EXPIRATION DATE 4-22-2015
Charles R. Crocken PE MD, LICENSE REG. NO. 7803 1-14-14 DATE

ENVIRONMENTAL SITE DESIGN NARRATIVE

1. THERE ARE NO STREAMS, WETLANDS, FLOOD PLAINS OR FORESTED AREAS LOCATED ON THE LOT # 28. THE ON-SITE SEWAGE DISPOSAL AREA HAS BEEN RELOCATED AS FAR TO THE REAR OF THE LOT AS POSSIBLE TO PROVIDE FOR GRADING TO ACHIEVE RUNOFF DISCONNECTS. STORM WATER MANAGEMENT FOR WATER QUALITY IS PROVIDED BY NON-STRUCTURAL RUNOFF REDUCING PRACTICES TO LIMIT THE IMPACT OF THE DEVELOPMENT ON NATURAL RESOURCES AND THE SURROUNDING PROPERTY.
2. GRADING ON SITE IS LIMITED TO ONLY THAT REQUIRED TO ACCOMPLISH DISCONNECTS FOR ROOFTOP RUNOFF WHILE MAINTAINING NATURAL FLOW PATTERNS.
3. IMPERVIOUS AREA WAS HELD TO THE MINIMUM REQUIRED TO ACCOMPLISH THE WORK BY LOCATING THE PROPOSED DWELLING AS CLOSE TO HARDY ROAD AS PRACTICAL BASED UPON THE LOCATION OF EXISTING DWELLINGS ON ADJOINING PROPERTIES.
4. TEMPORARY PERIMETER SEDIMENT CONTROL IN THE FORM OF SUPER SILT FENCE IS PROPOSED IN ORDER TO PROVIDE TEMPORARY SWM VIA RUNOFF RETENTION DURING CONSTRUCTION.
5. ENVIRONMENTAL SITE DESIGN HAS BEEN IMPLEMENTED TO THE MAXIMUM EXTENT POSSIBLE BY THE USE OF ROOFTOP AND NON-ROOFTOP DISCONNECTS, TO SATISFY WATER QUALITY MANAGEMENT.
6. NO WAIVERS FROM THE SUBDIVISION REGULATIONS AND OR DESIGN MANUAL ARE REQUIRED FOR THE PROJECT AS SHOWN HEREON.

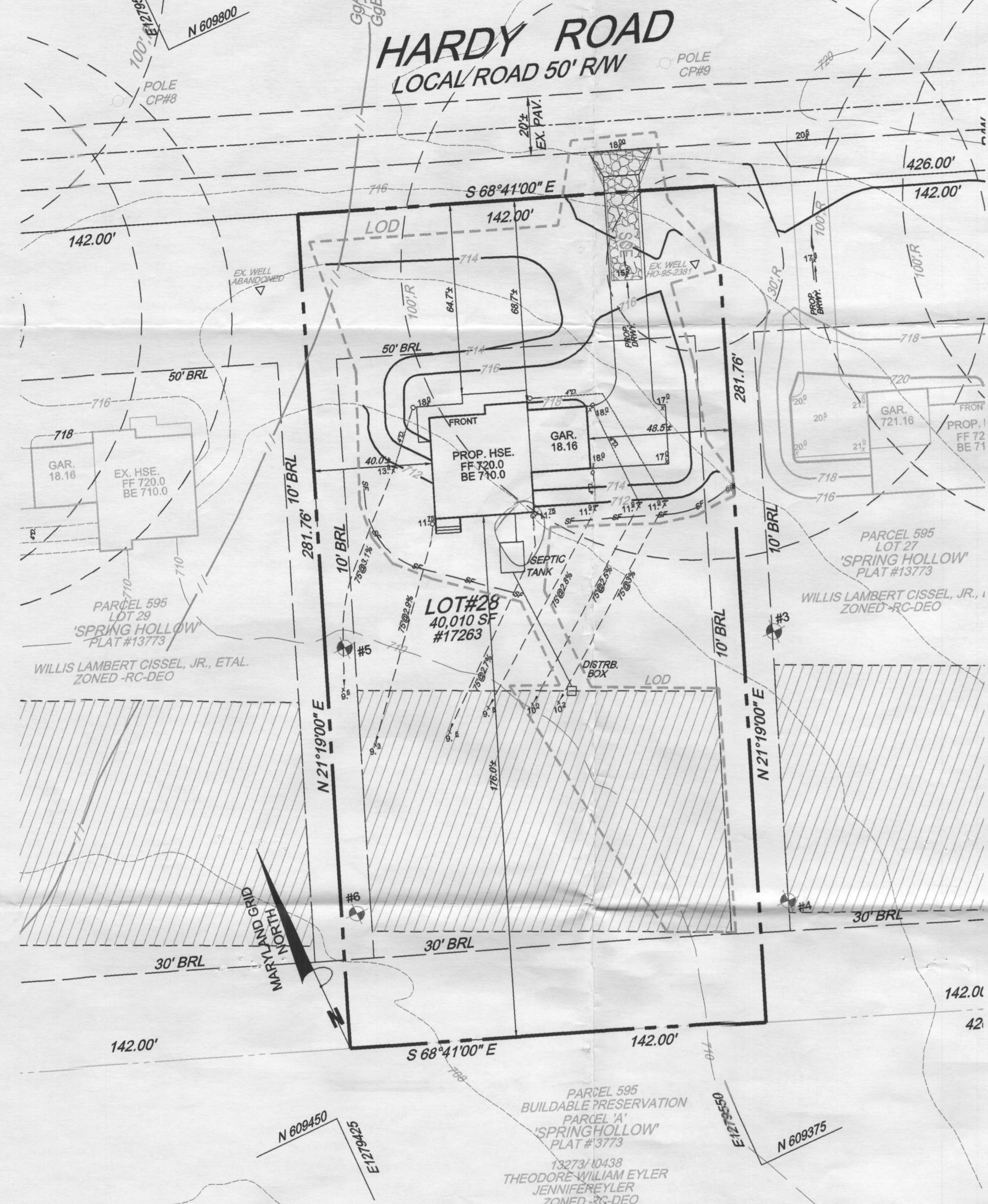
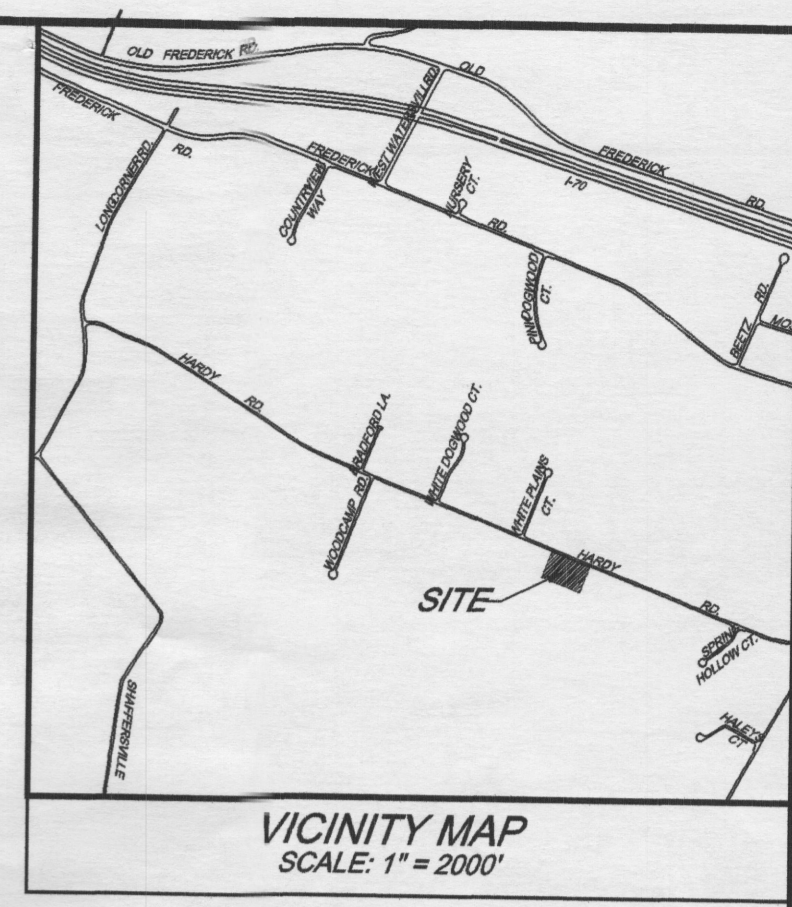
SOILS LEGEND					
SYMBOL	NAME/DESCRIPTION	SOIL GROUP	K-VALUE	K-VALUE	HYDRO GROUP
GgA	Glennclay loam, 0 to 3 percent slopes	B	0.20	+	NOT HYDRO
GgB	Glennclay loam, 3 to 8 percent slopes	B	0.20	-	NOT HYDRO

REQUIRED SEQUENCE OF CONSTRUCTION (SINGLE FAMILY LOT)

1. OBTAIN GRADING PERMIT (1 DAY)
2. CLEAR AND GRUB FOR INSTALLATION OF TEMPORARY SEDIMENT CONTROL MEASURES, SILT FENCE AND STONE CONSTRUCTION ENTRANCE. (12 DAY)
3. INSTALL TEMPORARY SEDIMENT CONTROL MEASURES (12 DAY)
4. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR CLEAR AND GRUB SITE FOR CONSTRUCTION OF DWELLING, DRIVEWAY AND WALKS. (1 DAY)
5. GRADE SITE AND CONSTRUCT DWELLING, DRIVEWAY AND WALKS PER APPROVED PLAN (12 - WEEKS)
6. STABILIZE ALL DISTURBED AREAS WITH SEED AND MULCH PER SCS STANDARDS. (2 DAYS)
7. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR REMOVE ALL TEMPORARY SEDIMENT CONTROL MEASURES AND STABILIZE ALL DISTURBED AREAS PER SCS STANDARDS. (2 DAYS)

LEGEND-SWM- MDE DESIGNATION

DOWN SLOPE
N-1
DENOTES ROOFTOP RUNOFF DISCONNECT



GENERAL NOTES

1. OWNERS: WILLIS LAMBERT CISSEL, JR. MARJORIE S. CISSEL, ETAL c/o CURTIS CUMBERLAND CUMBERLAND DEVELOPMENT CORP. 16391 MULLINIX RD. WOODBINE, MD. 21197
2. TAX MAP 007, GRID 08, PARCEL 528
3. THE BOUNDARY SHOWN HEREON IS BASED UPON RECORDED PLAT OF 'SPRING HOLLOW' PLAT M.R.D. # 131773
4. WATER SERVICE IS PRIVATE, SEWER SERVICE IS PRIVATE
5. THERE IS NO 100 YEAR FLOOD PLAIN LOCATED ON THIS PROPERTY BASED ON FEMA INSURANCE RATE MAP COMMUNITY PANEL #
6. TOPOGRAPHY SHOWN HEREON IS FIELD RUN BASED UPON HOWARD COUNTY GIS DATA HAVDBS, CONTOUR INTERVAL = 2 FT. FIELD VERIFIED BY CRC & ASSOC.
7. THERE ARE NO WELLS OR SEPTIC SYSTEMS WITHIN 100 FT OF THE SUBJECT PROPERTY UNLESS OTHERWISE SHOWN HEREON.
8. EXISTING WELLS HO-85-2380, HO-85-2382, HO-85-2381, HO-85-2380, HO-0158, HO 85-1824 AND THE WELL WITH NO TAG ON ADJOINING PROPERTY 17270 HARDY RD. SHOWN HEREON HAVE BEEN FIELD LOCATED AND SHOWN ACCURATELY.
9. SUBJECT PROPERTY IS ZONED RC-DEO
10. THE SUBJECT PROPERTY SHOWN HEREON IS NOT SUBJECT TO ANY PRIOR ZONING CASES, VARIANCES OR SPECIAL EXCEPTIONS. PROPERTY HISTORY S-98-01, P-98-26, & F-98-30
11. STORMWATER MANAGEMENT FOR THE SUBJECT PROPERTY SHOWN HEREON HAS BEEN SATISFIED BY TAKING CREDIT FOR DISCONNECTED ROOFTOP AND NON-ROOFTOP RUNOFF IN ACCORDANCE WITH MDE STORM WATER DESIGN MANUAL VOL. 1, SEC. 3.1 AND MDE ENVIRONMENTAL SITE DESIGN (ESD), THE HOWARD CO. DESIGN MANUAL VOL. 1, CHAPTER 5 REVISED AND THE HOWARD CO. DESIGN ESD ON SMALL PROJECTS.

SITE ANALYSIS

TOTAL AREA SITE 40,010 SF
 AREA DISTURBED 1835 SF
 TOTAL IMPERVIOUS AREA 408 SF
 AREA TO BE VEGETATIVELY STABILIZED 14,327 SF
 TOTAL VOLUME CUT 252 CY.
 TOTAL VOLUME FILL 328 CY.

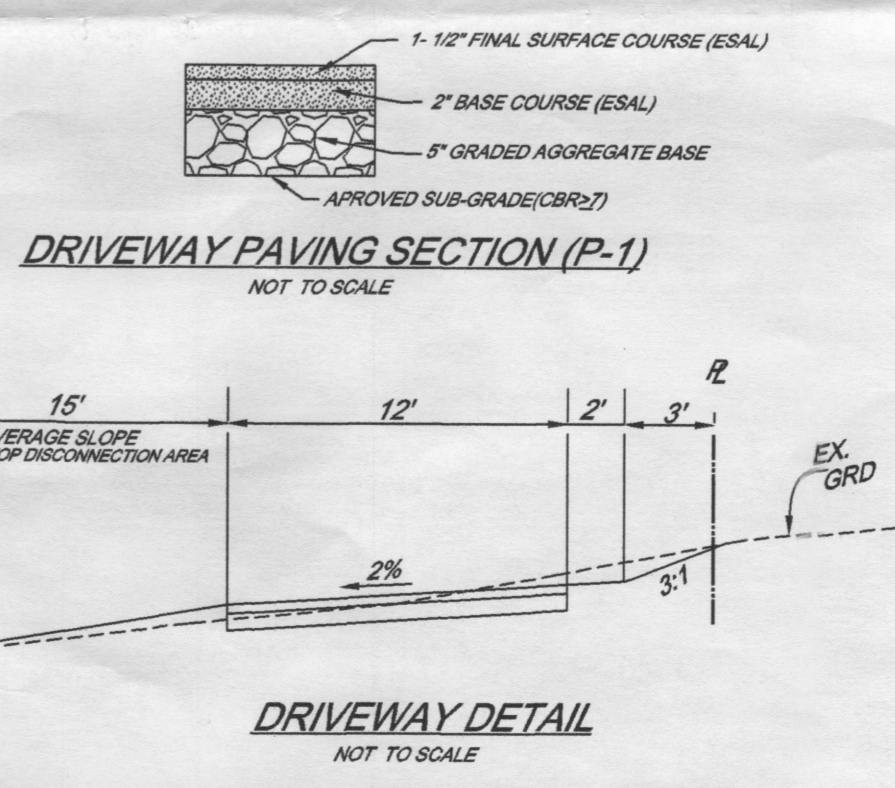
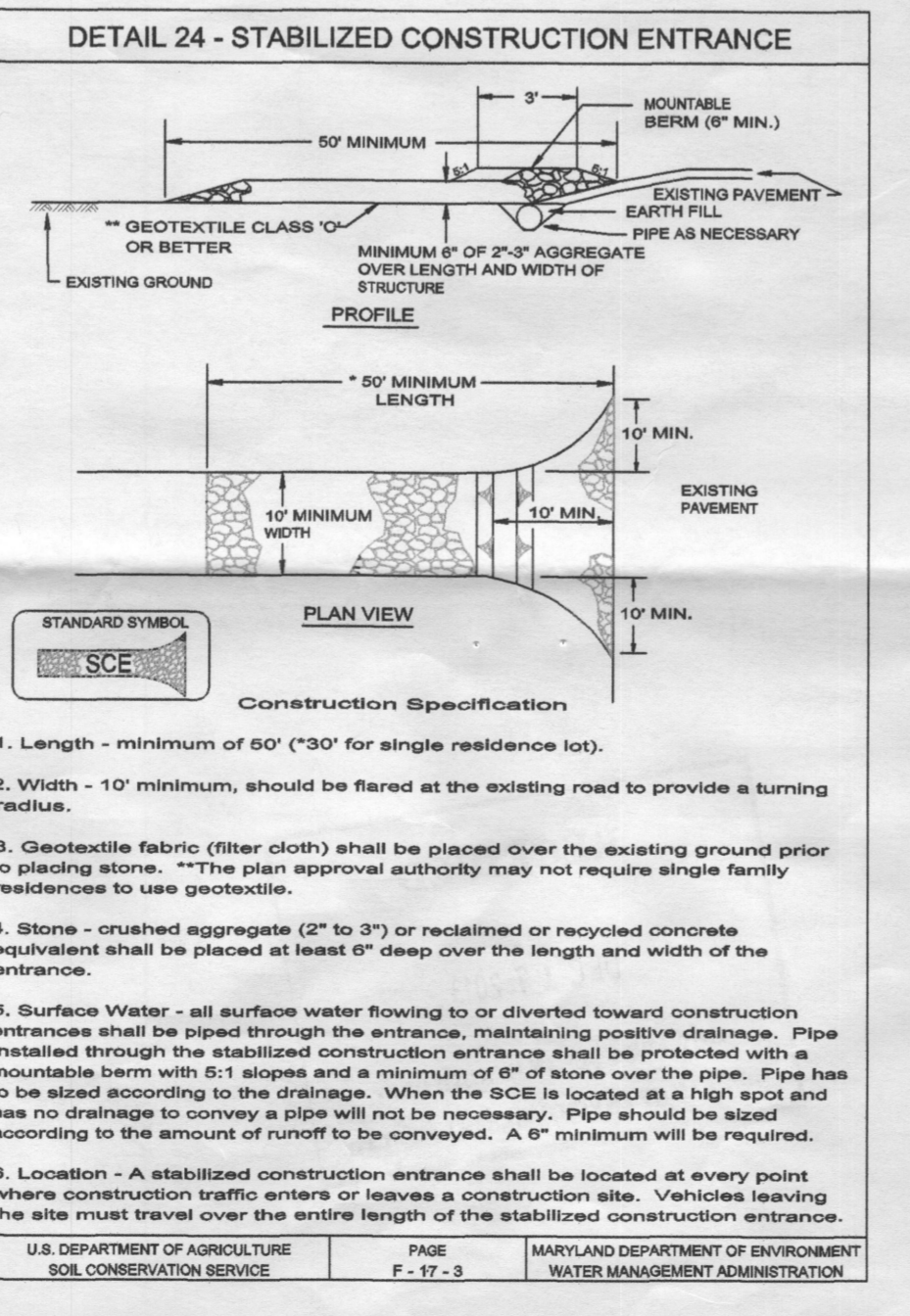
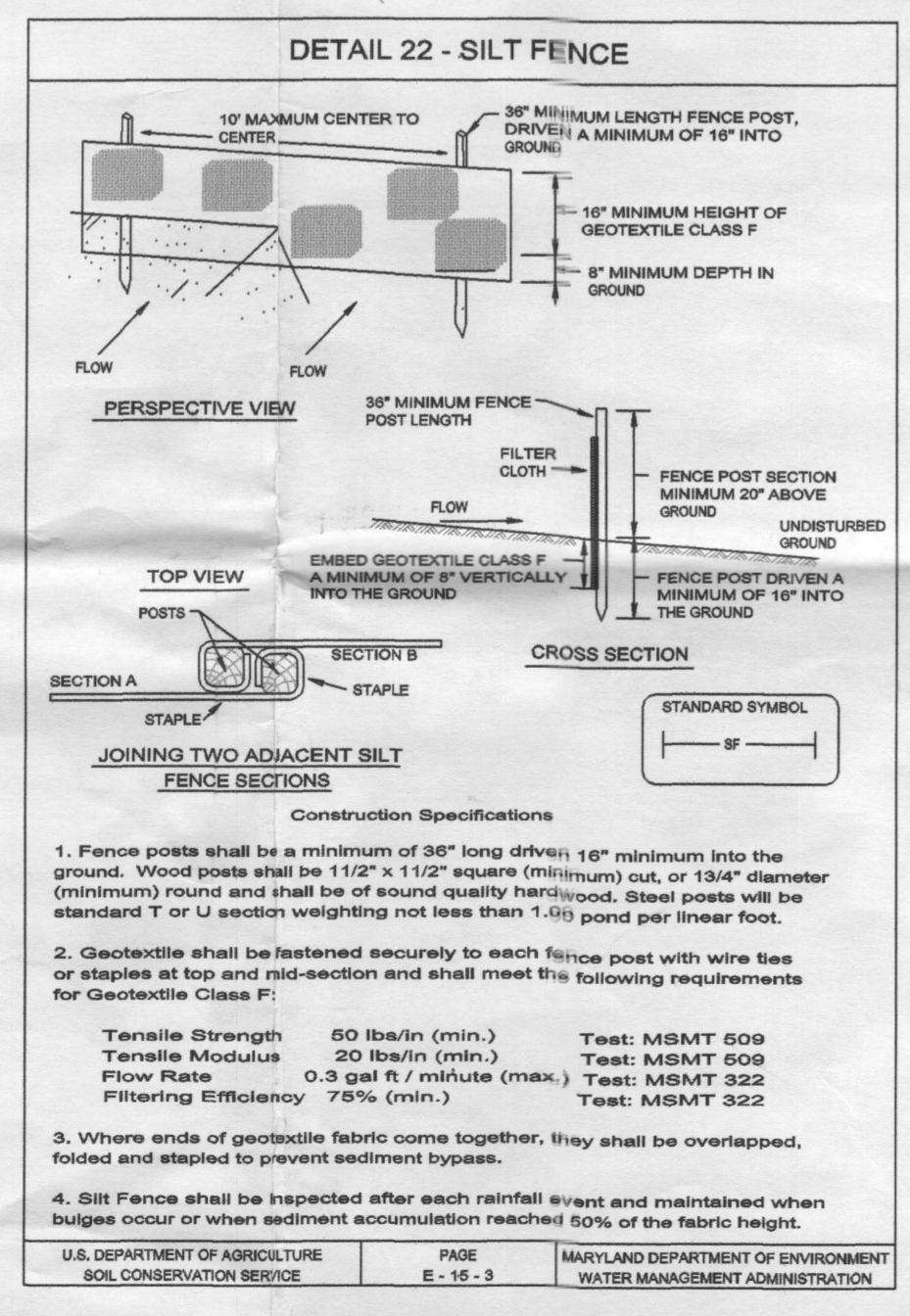
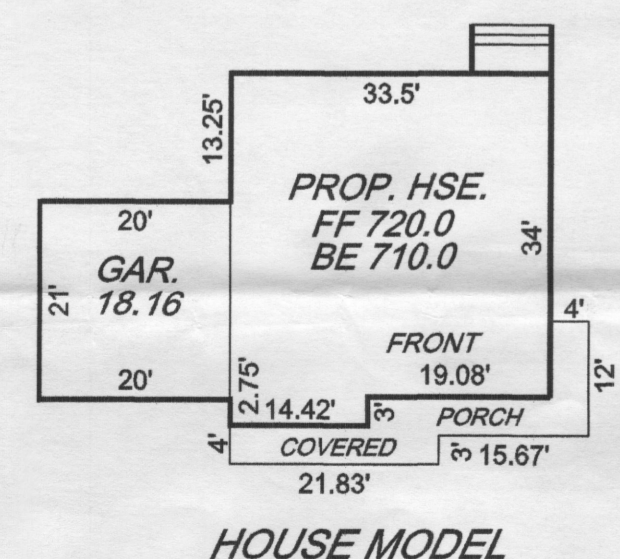
SEPTIC SYSTEM DATA

INV. AT HOUSE 708.5
SEPTIC TANK (1500 gal)
 EX. GRADE 711.5
 FIN. GRADE 711.5
 INV. IN 708.3
 INV. OUT 708.14
DISTRIBUTION BOX
 EX. GRADE 710.5
 FIN. GRADE 710.5
 INV. IN 707.28
 INV. OUT 707.10

THE NUMBER OF TRENCHES, THEIR LENGTH, DEPTH, AND ORIENTATION TO BE DETERMINED BY HEALTH DEPARTMENT.

HEALTH DEPARTMENT NOTES

1. THE LOT SHOWN HEREON COMPLES WITH THE MINIMUM OWNERSHIP WIDTH AND AREA REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
2. THE AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF 10,000 SQ-FT. AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENTS.
3. EXISTING WELLS HO-85-2380, HO-85-2382, HO-85-2381, HO-85-2380, HO-0158, HO 85-1824 AND THE WELL WITH NO TAG ON ADJOINING PROPERTY 17270 HARDY RD. SHOWN HEREON HAVE BEEN FIELD LOCATED AND SHOWN ACCURATELY.
4. THERE ARE NO EXISTING WELLS AND SEPTIC SYSTEMS WITHIN 1000' OF THE LOT LINES SHOWN HEREON UNLESS NOTED OTHERWISE.
 - DENOTES 'PASSED' PERCOLATION TEST
 - DENOTES 'FAILED' PERCOLATION TEST
5. THE NEAREST WATER INTAKE STRUCTURE IS FOUR MILES+ AWAY.



LEGEND

- EX. PROPERTY LINE
- EX. RIGHT-OF-WAY
- PROP. LOT LINES
- EX. EASEMENTS
- EX. CONTOURS
- PROP. CONTOURS
- EX. TREEWOODS LINE
- SOILS LINE
- LIMIT OF DISTURBANCE
- DENOTES SLOPES 25% OR GREATER
- DENOTES SLOPES 15% - 25%
- TEST PIT
- TEST BORING
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- SILT FENCE

14-19-13
 STATE OF MARYLAND
 CHARLES R. CROCKEN
 PROFESSIONAL ENGINEER
 No. 10893
 REGISTERED
 EXP. DATE 4-22-15

DEVELOPER:
 CUMBERLAND DEVELOPMENT CORP.
 C/O CURTIS CUMBERLAND
 16391 MULLINIX RD.
 WOODBINE, MD 21197

**ENVIRONMENTAL CONCEPT PLAN
 NON-SDP RESIDENTIAL PLOT PLAN
 LOT 28
 "SPRING HOLLOW"**
 #17267 HARDY ROAD
 SINGLE FAMILY DETACHED
 PLAT M.D.R. #131773
 ZONED RC-DEO
 FOURTH ELECTION DISTRICT TAX MAP #07, GRID 08, PARCEL 528
 HOWARD COUNTY, MARYLAND

Prepared by:
CHARLES R. CROCKEN AND ASSOCIATES, INC.
 902 LEE AVE.
 SYKESVILLE, MARYLAND 21157
 Tel. (410) 549-2706
 Fax. (410) 549-9063

SCALE: 1" = 30' DATE: 11/11/13 SHEET 1 OF 1

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

HOWARD COUNTY HEALTH OFFICER _____ DATE _____

ENVIRONMENTAL SITE DESIGN NARRATIVE

1. THERE ARE NO STREAMS, WETLANDS, FLOOD PLAINS OR FORESTED AREAS LOCATED ON THE LOT # 27. THE ON-SITE SEWAGE DISPOSAL AREA HAS BEEN RELOCATED AS FAR TO THE REAR OF THE LOT AS POSSIBLE TO PROVIDE FOR GRADING TO ACHIEVE RUNOFF DISCONNECTS. STORM WATER MANAGEMENT FOR WATER QUALITY IS PROVIDED BY NON-STRUCTURAL RUNOFF REDUCING PRACTICES TO LIMIT THE IMPACT OF THE DEVELOPMENT ON NATURAL RESOURCES AND THE SURROUNDING PROPERTY.
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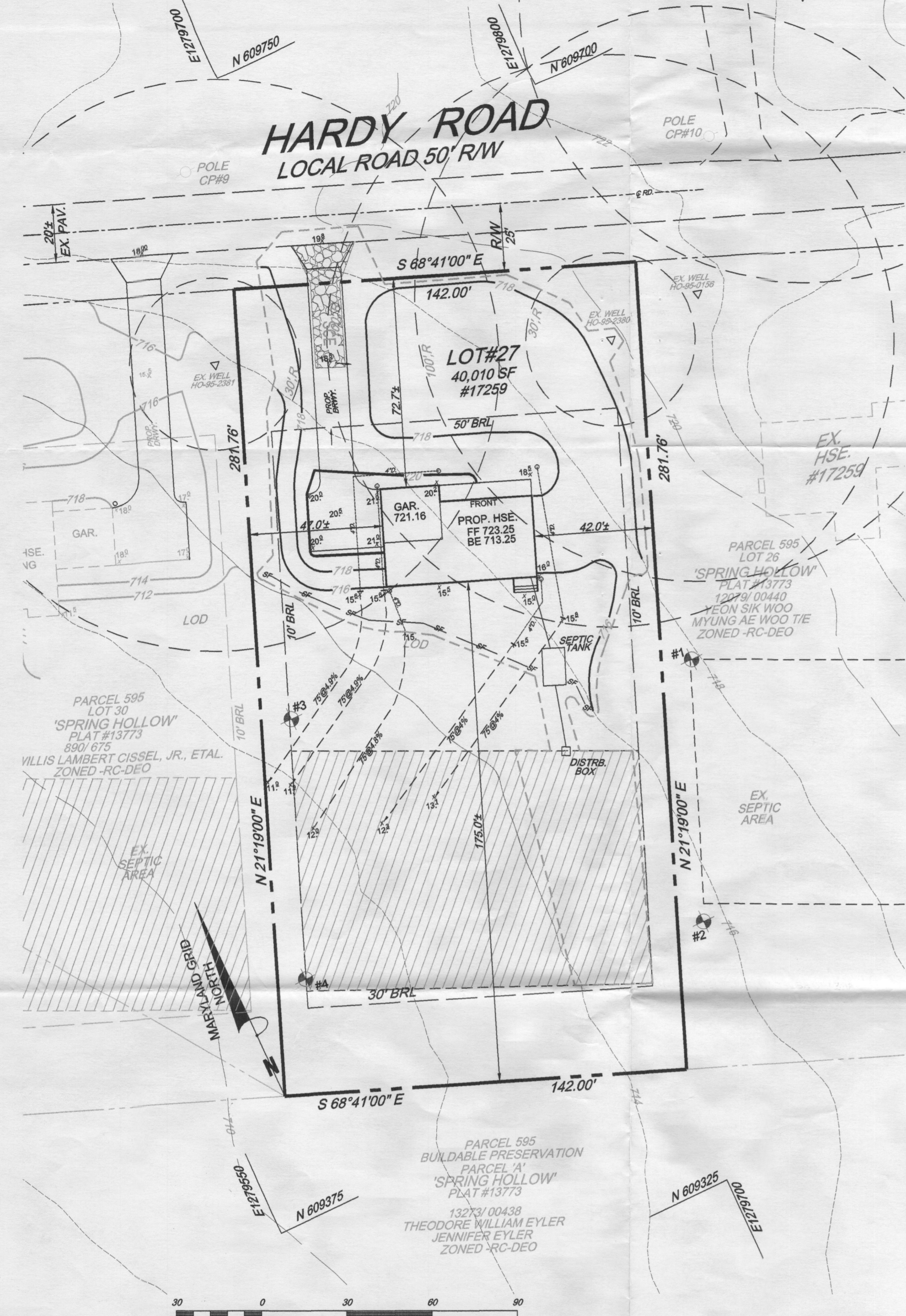
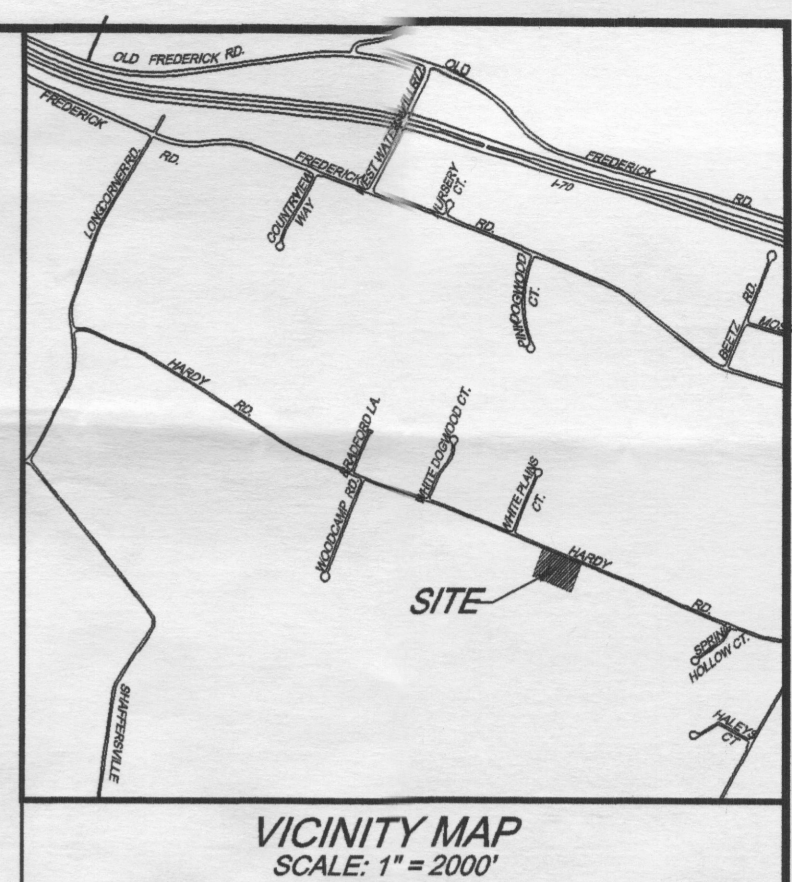
SOILS LEGEND				
SYMBOL	NAME/DESCRIPTION	SOIL GROUP	K-VALUE	HYDRO GROUP
G _g A	Gleay loam, 0 to 3 percent slopes	B	0.20	+
G _g B	Gleay loam, 3 to 8 percent slopes	B	0.20	-

REQUIRED SEQUENCE OF CONSTRUCTION (SINGLE FAMILY LOT)

1. OBTAIN GRADING PERMIT (1-DA)
2. CLEAR AND GRUB FOR INSTALLATION OF TEMPORARY SEDIMENT CONTROL MEASURES, SILT FENCE AND STONE CONSTRUCTION ENTRANCE. (12 DA)
3. INSTALL TEMPORARY SEDIMENT CONTROL MEASURES (1/2 DA)
4. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR CLEAR AND GRUB SITE FOR CONSTRUCTION OF DWELLING, DRIVEWAY AND WALKS. (1 DA)
5. GRADE SITE AND CONSTRUCT DWELLING, DRIVEWAY AND WALKS PER APPROVED PLAN (12 - WEEKS)
6. STABILIZE ALL DISTURBED AREAS WITH SEED AND MULCH PER SCS STANDARDS. (2 DAYS)
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LEGEND-SWM- MDE DESIGNATION

DOWN SLOPE - N-1 DENOTES ROOF-TOP RUNOFF DISCONNECT



SITE ANALYSIS

TOTAL AREA SITE 40,010 SF
 AREA DISTURBED 18943 SF
 AREA TO BE ROOFED 4,080 SF (11% IMPERVIOUS)
 AREA TO BE VEGETATIVELY STABILIZED 15880 SF
 TOTAL VOLUME CUT 513 CY
 TOTAL VOLUME FILL 513 CY

GENERAL NOTES

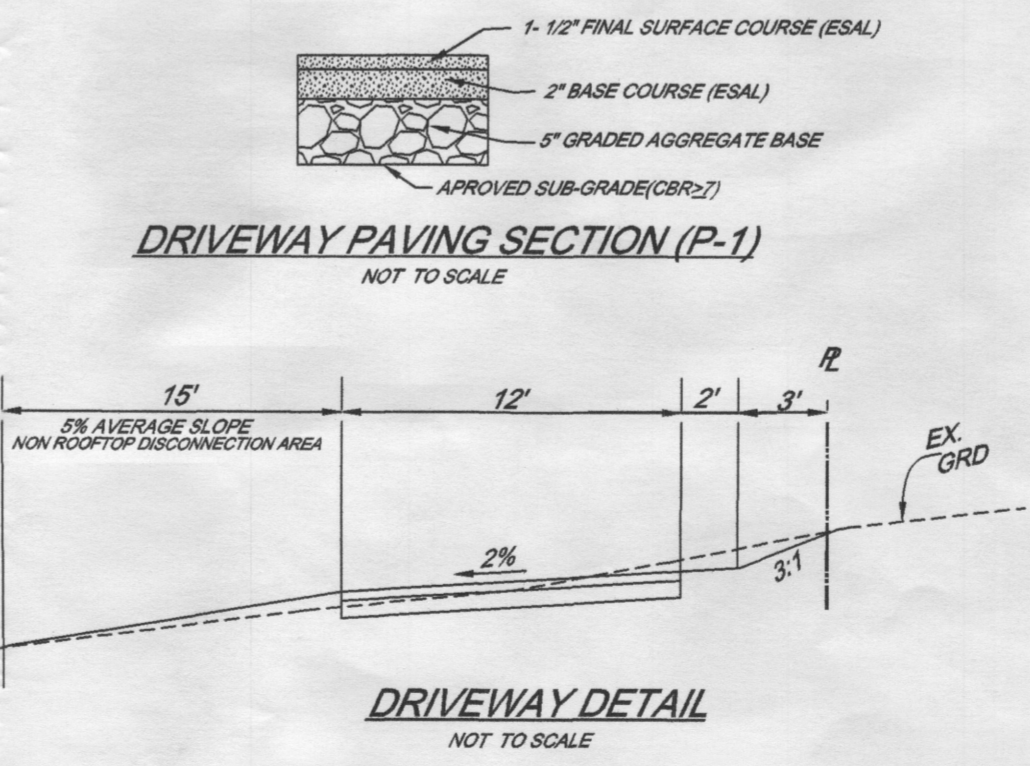
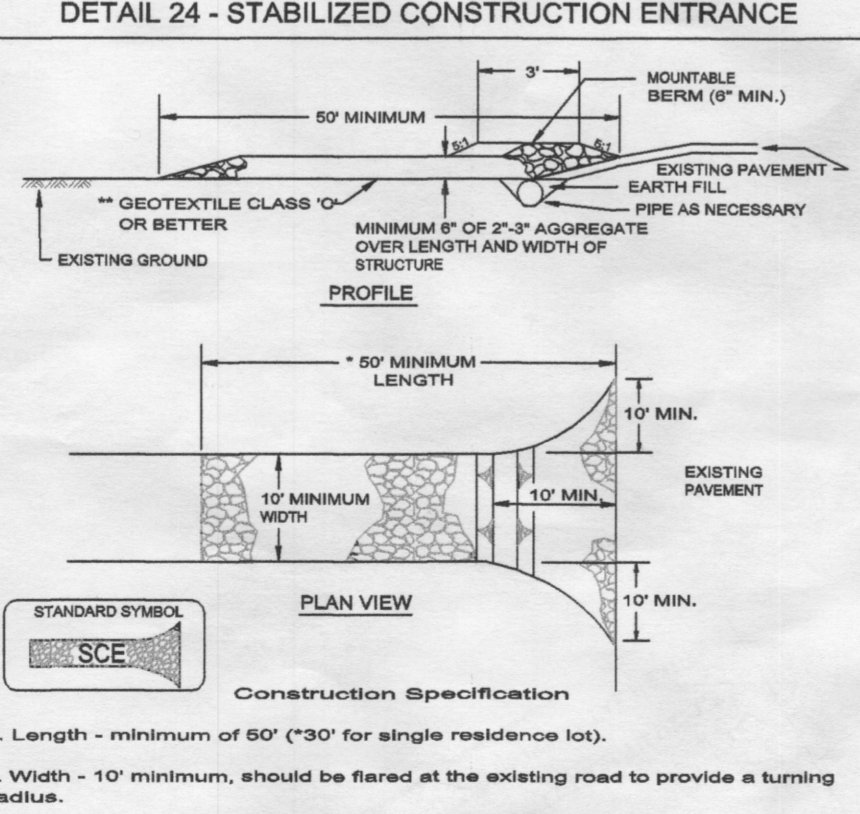
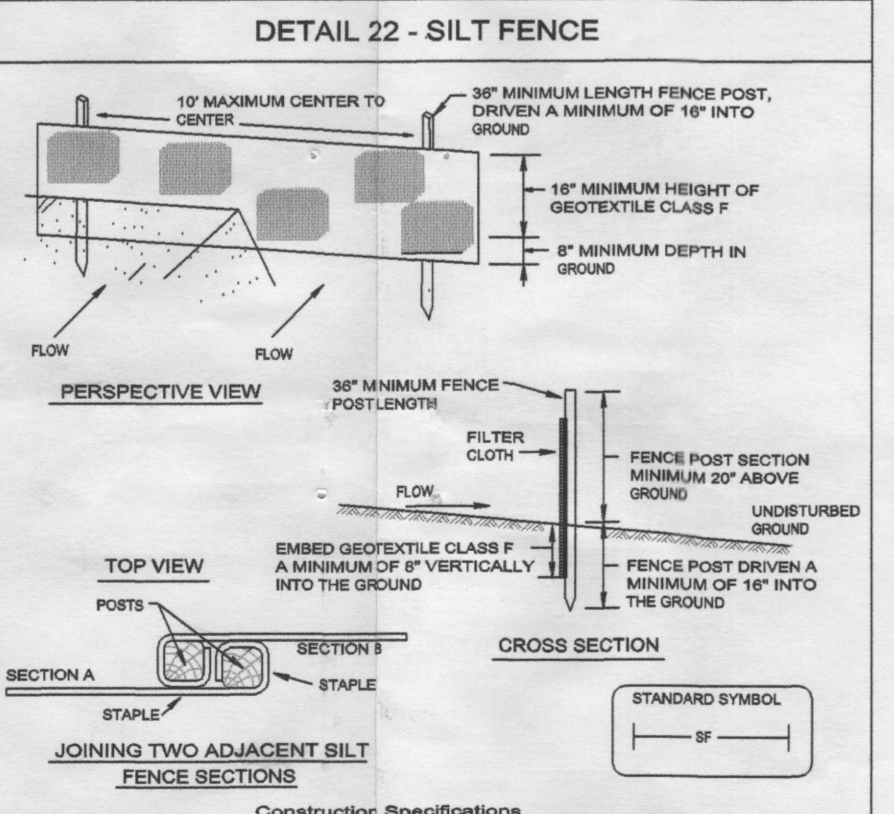
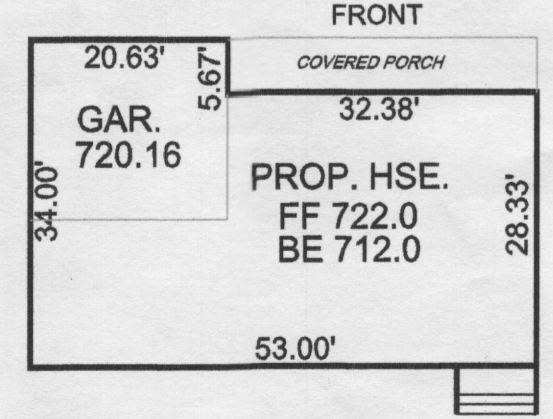
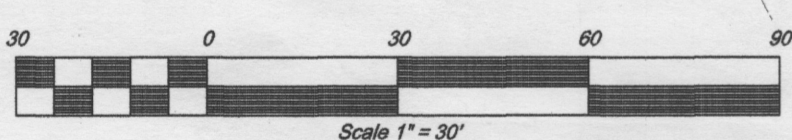
1. OWNERS: WILLIS LAMBERT CISSEL, JR. MARJORIE S. CISSEL, ETAL OR CURTIS CUMBERLAND CUMBERLAND DEVELOPMENT CORP. 16391 MULLINIX RD. WOODBINE, MD. 21787
 DEED REFERENCE: LIBER 880, FOLIO 875
 DATE: JUNE 18, 1979
 GRANTORS: A. ROBY HARDY & RAYMOND E. HARDY
2. TAX MAP 007, GRID 08, PARCEL 528
3. THE BOUNDARY SHOWN HEREON IS BASED UPON RECORDED PLAT OF "SPRING HOLLOW" PLAT-M.R.D. # 13773
4. WATER SERVICE IS PRIVATE. SEWER SERVICE IS PRIVATE
5. THERE IS NO 100 YEAR FLOOD PLAN LOCATED ON THIS PROPERTY BASED ON FEMA INSURANCE RATE MAP COMMUNITY PANEL #2402700100 ZONE X
6. TOPOGRAPHY SHOWN HEREON IS FIELD RUN BASED UPON HOWARD COUNTY GIS DATA NAVD88. CONTOUR INTERVAL = 2 FT. FIELD VERIFIED BY CRC & ASSOC.
7. THERE ARE NO WELLS OR SEPTIC SYSTEMS WITHIN 100 FT OF THE SUBJECT PROPERTY UNLESS OTHERWISE SHOWN HEREON.
8. EXISTING WELLS HO-95-2360, HO-95-2362, HO-95-2363, HO-95-2364, HO-95-1924 AND THE WELL WITH NO TAG ON ADJOINING PROPERTY 17270 HARDY RD. SHOWN HEREON HAVE BEEN FIELD LOCATED AND SHOWN ACCURATELY.
9. SUBJECT PROPERTY IS ZONED RC-DEO
10. THE SUBJECT PROPERTY SHOWN HEREON IS NOT SUBJECT TO ANY PRIOR ZONING CASES, VARIANCES OR SPECIAL EXCEPTIONS. PROPERTY HISTORY S-98-01, P-98-26, & F-99-30
11. STORMWATER MANAGEMENT FOR THE SUBJECT PROPERTY SHOWN HEREON HAS BEEN SATISFIED BY TAKING CREDIT FOR DISCONNECTED ROOF TOP AND NON-ROOF TOP RUNOFF IN ACCORDANCE WITH MDE STORM WATER DESIGN MANUAL VOL. 1, SEC. 5.1 AND MDE ENVIRONMENTAL SITE DESIGN (ESD), THE HOWARD CO. DESIGN MANUAL VOL. 1, CHAPTER 5 REVISED AND THE HOWARD CO. DESIGN ESDV ON SMALL PROJECTS.

HEALTH DEPARTMENT NOTES

1. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH AND AREA REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
2. THE AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF 10,000 SQ-FT. AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENTS.
3. EXISTING WELLS HO-95-2360, HO-95-2362, HO-95-2363, HO-95-2364, HO-95-1924 AND THE WELL WITH NO TAG ON ADJOINING PROPERTY 17270 HARDY RD. SHOWN HEREON HAVE BEEN FIELD LOCATED AND SHOWN ACCURATELY.
4. THERE ARE NO EXISTING WELLS AND SEPTIC SYSTEMS WITHIN 1000' OF THE LOT LINES SHOWN HEREON UNLESS NOTED OTHERWISE.
 ⊕ DENOTES "PASSED" PERCOLATION TEST
 ⊖ DENOTES "FAILED" PERCOLATION TEST
5. THE NEAREST WATER INTAKE STRUCTURE IS FOUR MILES+ AWAY.

SEPTIC SYSTEM DATA

INV. AT HOUSE 711.75
SEPTIC TANK (1500 gal)
 EX. GRADE 715.0
 FIN. GRADE 714.5
 INV. IN 711.55
 INV. OUT 711.39
DISTRIBUTION BOX
 EX. GRADE 715.00
 FIN. GRADE 715.00
 INV. IN 710.89
 INV. OUT 710.73
 THE NUMBER OF TRENCHES, THEIR LENGTH, DEPTH AND ORIENTATION TO BE DETERMINED BY HEALTH DEPARTMENT.
 ***SEPTIC SYSTEM MAY REQUIRE PUMP



LEGEND

- EX PROPERTY LINE
- EX RIGHT-OF-WAY
- PROP. LOT LINES
- EX EASEMENTS
- EX CONTOURS
- PROP. CONTOURS
- EX TREEWOODS LINE
- SOILS LINE
- LIMIT OF DISTURBANCE
- DENOTES SLOPES 25% OR GREATER
- DENOTES SLOPES 15% - 25%
- TEST PIT
- TEST BORING
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- SILT FENCE

CONSTRUCTION SPECIFICATIONS

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) o.d. or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound 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/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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 18-23 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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 mounded 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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 CHARTER OF THE STATE OF MARYLAND. LICENSE NO. 7803 EXPIRATION DATE 4-22-2015
 Charles R. Crocker PE MD LICENSE REG. NO. 7803 1-14-14 DATE

OWNER/DEVELOPER:
 CUMBERLAND DEVELOPMENT CORP.
 C/O CURTIS CUMBERLAND
 16391 MULLINIX RD.
 WOODBINE MD 21797

NON-SDP RESIDENTIAL PLOT PLAN
 LOT 27
 "SPRING HOLLOW"
 #17270 HARDY ROAD
 SINGLE FAMILY DETACHED
 PLAT M.D.R. #13773
 ZONED RC-DEO
 FOURTH ELECTION DISTRICT TAX MAP #07, GRID 08, PARCEL 528
 HOWARD COUNTY, MARYLAND
 Prepared by
CHARLES R. CROCKER AND ASSOCIATES, INC.
 902 LEE AVE.
 SYKESVILLE, MARYLAND 21157
 Tel. (410) 549-2708
 Fax. (410) 549-9063
 SCALE: 1" = 30' DATE: 11/07/13 SHEET 1 OF 1

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH OFFICER DATE

ENVIRONMENTAL SITE DESIGN NARRATIVE

1. THERE ARE NO STREAMS, WETLANDS, FLOOD PLAINS OR FORESTED AREAS LOCATED ON THE LOT # 27. THE ON-SITE SEWAGE DISPOSAL AREA HAS BEEN RELOCATED AS FAR TO THE NEAR OF THE LOT AS POSSIBLE TO PROVIDE FOR GRADING TO ACHIEVE RUNOFF DISCONNECTS. STORM WATER MANAGEMENT FOR WATER QUALITY IS PROVIDED BY NON-STRUCTURAL RUNOFF REDUCING PRACTICES TO LIMIT THE IMPACT OF THE DEVELOPMENT ON NATURAL RESOURCES AND THE SURROUNDING PROPERTY.
2. GRADING ON SITE IS LIMITED TO ONLY THAT REQUIRED TO ACCOMPLISH DISCONNECTS FOR ROOFTOP RUNOFF WHILE MAINTAINING NATURAL FLOW PATTERNS.
3. IMPERVIOUS AREA WAS HELD TO THE MINIMUM REQUIRED TO ACCOMPLISH THE WORK BY LOCATING THE PROPOSED DWELLING AS CLOSE TO HARDY ROAD AS PRACTICAL BASED UPON THE LOCATION OF EXISTING DWELLINGS ON ADJOINING PROPERTIES.
4. TEMPORARY PERIMETER SEDIMENT CONTROL IN THE FORM OF SUPER SILT FENCE IS PROPOSED IN ORDER TO PROVIDE TEMPORARY SWM VIA RUNOFF RETENTION DURING CONSTRUCTION.
5. ENVIRONMENTAL SITE DESIGN HAS BEEN IMPLEMENTED TO THE MAXIMUM EXTENT POSSIBLE BY THE USE OF ROOFTOP AND NON-ROOFTOP DISCONNECTS, TO SATISFY WATER QUALITY MANAGEMENT.
6. NO WAIVERS FROM THE SUBDIVISION REGULATIONS AND OR DESIGN MANUAL ARE REQUIRED FOR THE PROJECT AS SHOWN HEREON.
7. LOTS 27, 28 AND 29 ARE BEING DEVELOPED INDEPENDENTLY WITH LOT 29 BEING THE FIRST LOT TO BE DEVELOPED AND LOT 27 THE SECOND.

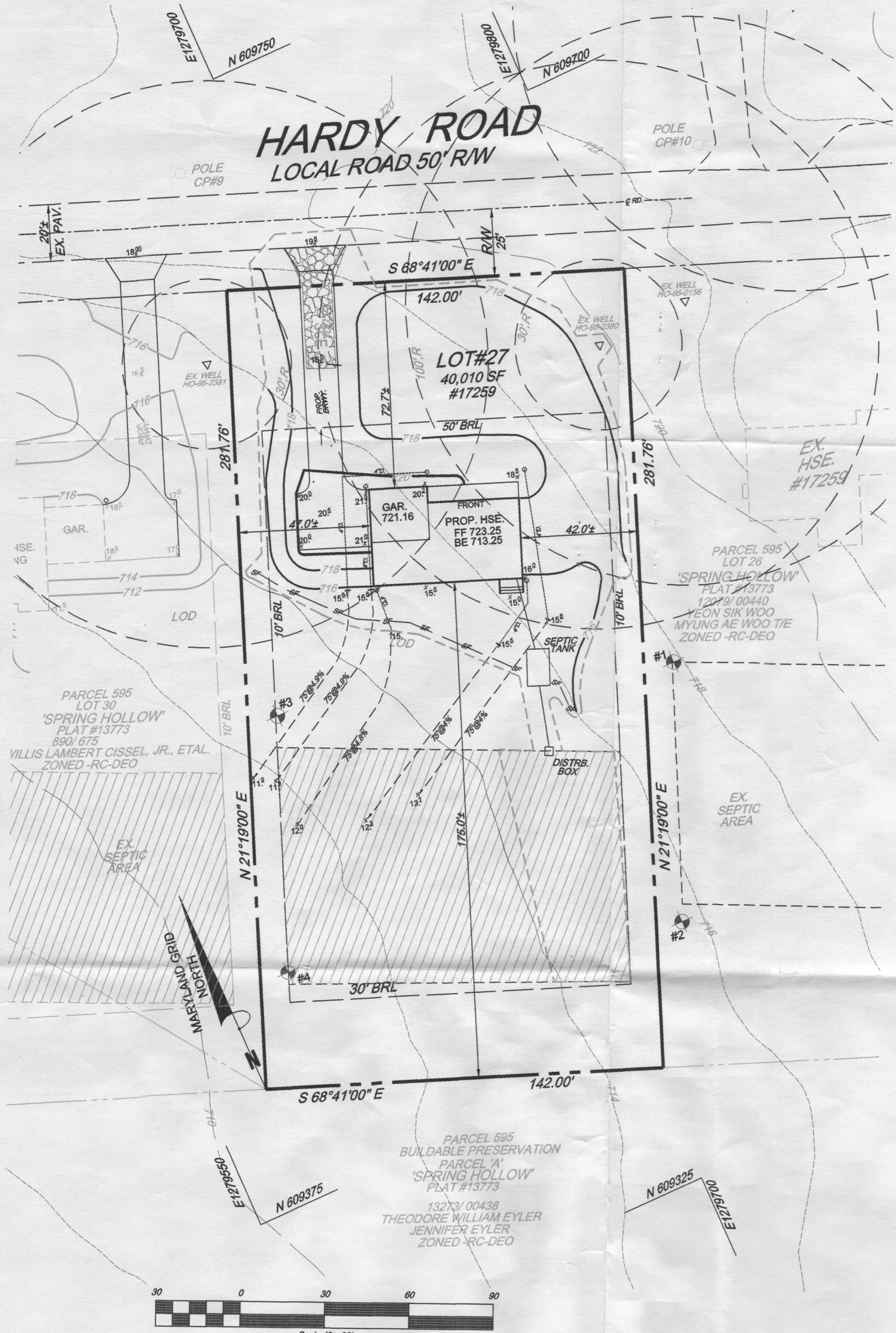
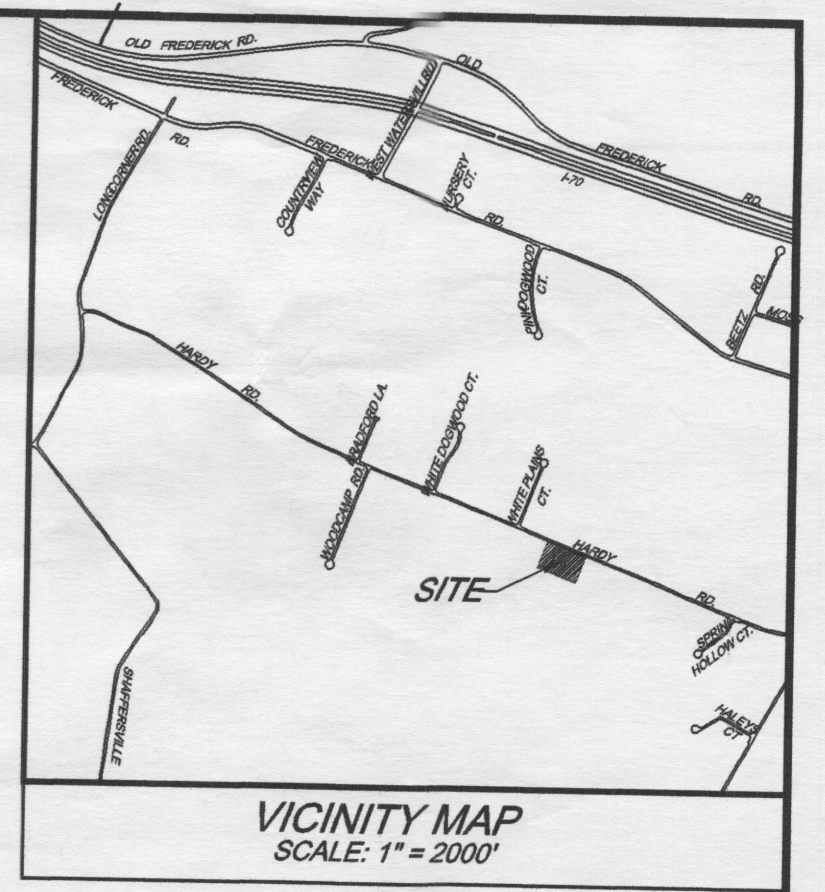
SOILS LEGEND					
SYMBOL	NAME/DESCRIPTION	SOIL GROUP	K-VALUE	K-VALUE	HYDRO GROUP
GpA	Glennville loam, 0 to 3 percent slopes	B	0.20	+	NOT HYDRO
GpB	Glennville loam, 3 to 8 percent slopes	B	0.20	-	NOT HYDRO

REQUIRED SEQUENCE OF CONSTRUCTION (SINGLE FAMILY LOT)

1. OBTAIN GRADING PERMIT (1-241)
2. CLEAR AND GRUB FOR INSTALLATION OF TEMPORARY SEDIMENT CONTROL MEASURES, SILT FENCE AND STONE CONSTRUCTION ENTRANCE. (12 DAY)
3. INSTALL TEMPORARY SEDIMENT CONTROL MEASURES (1/2 DAY)
4. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR CLEAR AND GRUB SITE FOR CONSTRUCTION OF DWELLING, DRIVEWAY AND WALKS. (1 DAY)
4. GRADE SITE AND CONSTRUCT DWELLING, DRIVEWAY AND WALKS PER APPROVED PLAN (12 - WEEKS)
5. STABILIZE ALL DISTURBED AREAS WITH SEED AND MULCH PER SCS STANDARDS. (2 DAYS)
6. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR REMOVE ALL TEMPORARY SEDIMENT CONTROL MEASURES AND STABILIZE ALL DISTURBED AREAS PER SCS STANDARDS. (2 DAYS)

LEGEND-SWM-MDE DESIGNATION

DOWN SLOPE C-N-1 DENOTES ROOF TOP RUNOFF DISCONNECT



GENERAL NOTES

1. OWNERS: WILLIS LAMBERT CISSEL, JR. MARJORIE S. CISSEL, ETAL. C/O CURTIS CUMBERLAND CUMBERLAND DEVELOPMENT CORP. 16391 MULLINX RD. WOODBINE, MD. 21797
DEED REFERENCE: LIBER 890, FOLIO 675
DATE: JUNE 18, 1978
MAP ORTOR: A. ROBY HARDY & RAYMOND E. HARDY
2. TAX MAP 007, GRID 08, PARCEL 528
3. THE BOUNDARY SHOWN HEREON IS BASED UPON RECORDED PLAT OF "SPRING HOLLOW" PLAT #13773
4. WATER SERVICE IS PRIVATE, SEWER SERVICE IS PRIVATE
5. THERE IS NO 100 YEAR FLOOD PLAIN LOCATED ON THIS PROPERTY BASED ON FEMA INSURANCE RATE MAP COMMUNITY PANEL #8402700100 ZONE X
6. TOPOGRAPHY SHOWN HEREON IS FIELD RUN BASED UPON HOWARD COUNTY GIS DATA NAVD83, CONTOUR INTERVAL = 2 FT. FIELD VERIFIED BY CRC & ASSOC.
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8. EXISTING WELLS HO-95-2380, HO-95-2382, HO-95-2381, HO-95-2388, HO-0158, HO-95-1924 AND THE WELL WITH NO TAG ON ADJOINING PROPERTY 17270 HARDY RD. SHOWN HEREON HAVE BEEN FIELD LOCATED AND SHOWN ACCURATELY.
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SITE ANALYSIS

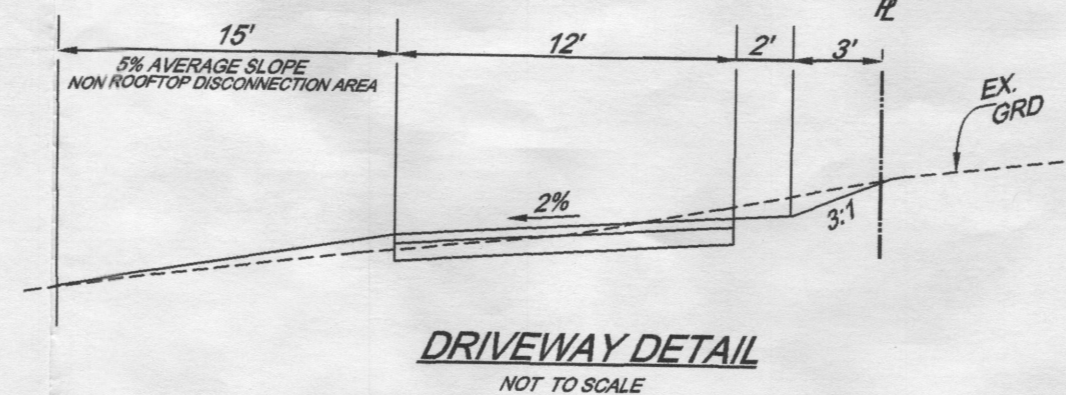
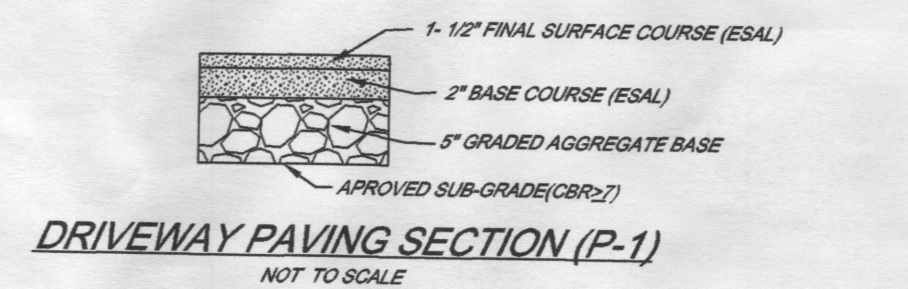
TOTAL AREA SITE 40,010 SF
 AREA DISTURBED 1940 SF
 AREA TO BE ROOFTOP 4,080 SF (11% IMPERVIOUS)
 AREA TO BE VEGETATIVELY STABILIZED 1,6280 SF
 TOTAL VOLUME CUT 515 CY.
 TOTAL VOLUME FILL 515 CY.

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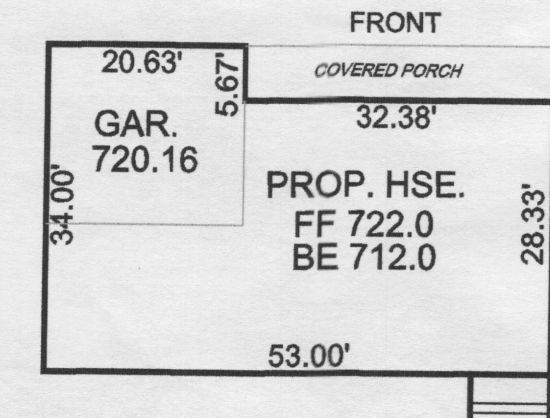
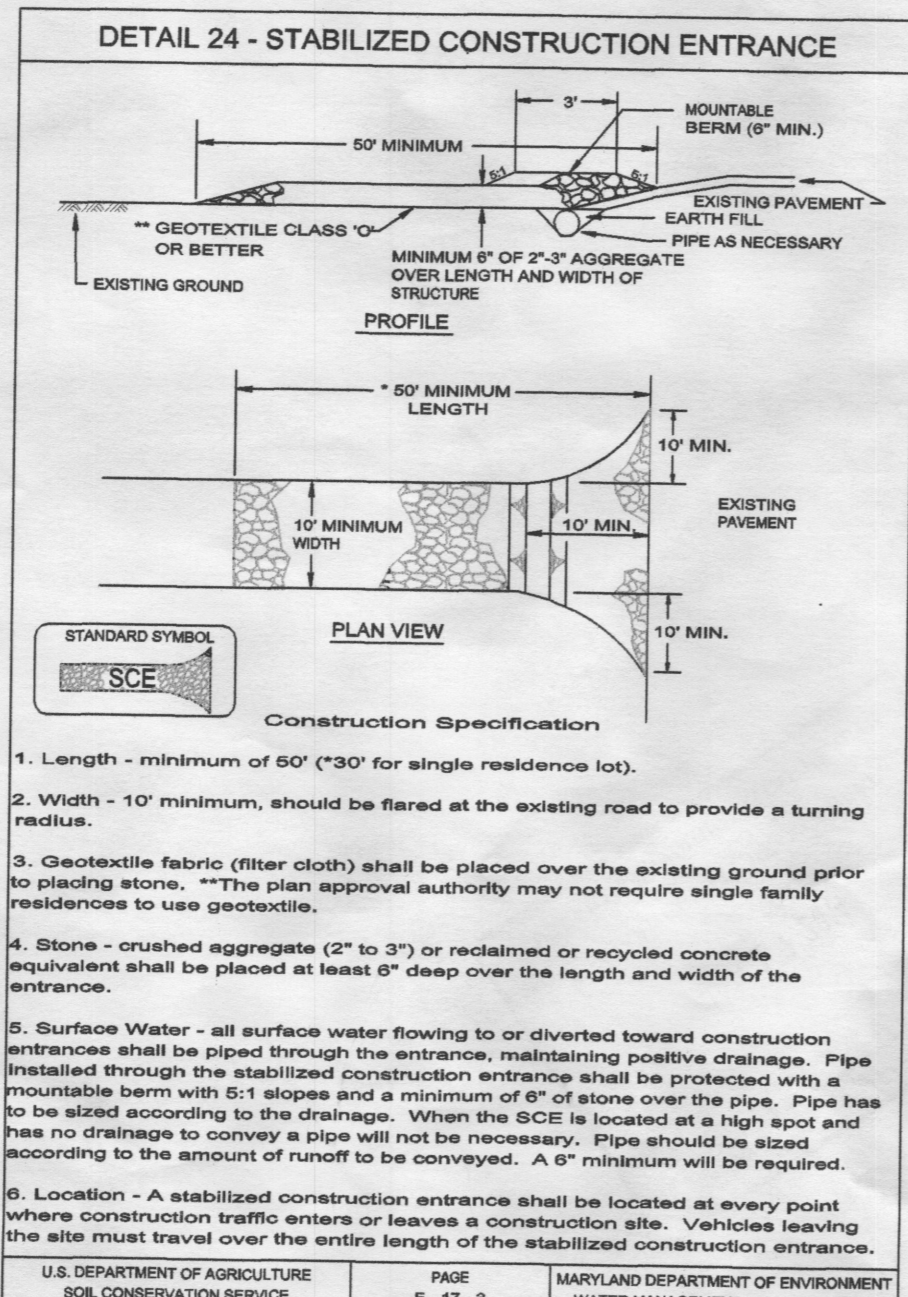
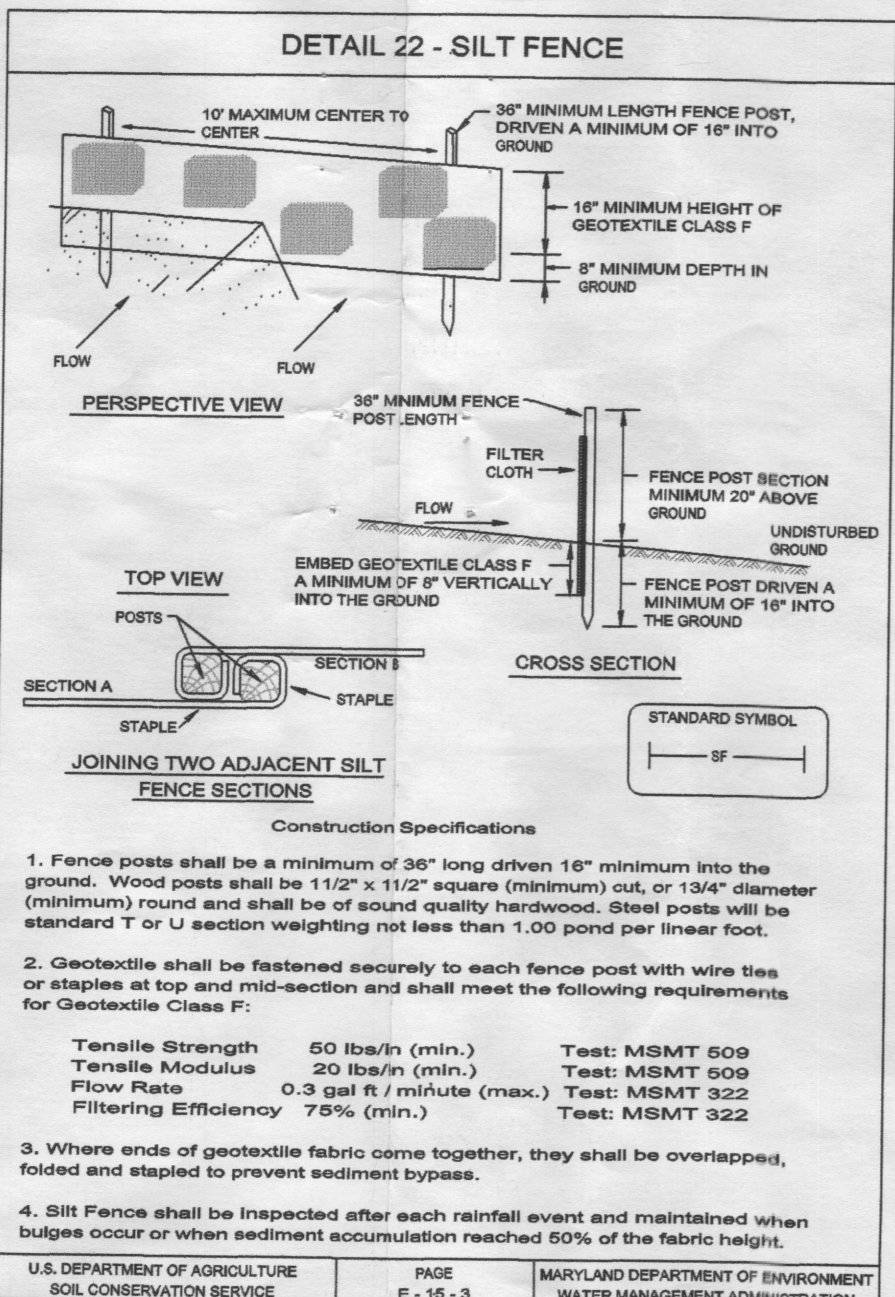
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 THE NUMBER OF TRENCHES, THEIR LENGTH, DEPTH AND ORIENTATION TO BE DETERMINED BY HEALTH DEPARTMENT.
 ***SEPTIC SYSTEM MAY REQUIRE PUMP



LEGEND

- EX. PROPERTY LINE
- EX. RIGHT-OF-WAY
- PROP. LOT LINES
- EX. EASEMENTS
- EX. CONTOURS
- PROP. CONTOURS
- EX. TREEWOODS LINE
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 Charles R. Crocken, PE, MD, LICENSE REG. NO. 7803
 DATE: 1-14-14

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NON-SDP RESIDENTIAL PLOT PLAN
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 "SPRING HOLLOW"
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 SINGLE FAMILY DETACHED
 PLAT M.D.R. #13773
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FOURTH ELECTION DISTRICT TAX MAP #07, GRID 08, PARCEL 528
 HOWARD COUNTY, MARYLAND

Prepared by:
CHARLES R. CROCKEN AND ASSOCIATES, INC.
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SCALE: 1" = 30' DATE: 11/07/13 SHEET 1 OF 1

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
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