

**GENERAL NOTES**

- 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 START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON AN AERIAL TOPOGRAPHIC SURVEY PREPARED BY POTOMAC AERIAL SURVEYS, DATED JANUARY 2004.
- 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. 388A AND 388B WERE USED FOR THIS PROJECT.
- STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED UNDER F-10-028, A MICROPOOL POND (P-1) AND A POCKET POND (P-5) (SWM POND 2), TO PROVIDE THE REQUIRED WQV AND CPV, AND A BIORETENTION FACILITY (F-6) TO PROVIDE WQV AND REV. SHIMP 1 AND 2 ARE TO BE PRIVATELY OWNED BY THE H.O.A., AND JOINTLY MAINTAINED BY THE H.O.A. AND HOWARD COUNTY. BIO-RETENTION FACILITY 3 IS TO BE PRIVATELY OWNED AND MAINTAINED BY THE H.O.A.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE THEREON.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- SHC ELEVATIONS ARE LOCATED AT THE PROPERTY LINE.
- FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.03.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - WIDTH - 12 FEET (16 FEET IF SERVING MORE THAN ONE RESIDENCE)
  - SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1 1/2" MIN.)
  - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS
  - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (425 LOADING)
  - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
  - STRUCTURE CLEARANCES - MINIMUM 12 FEET
  - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
  - MISS UTILITY 1-800-257-7777
  - BELL ATLANTIC TELEPHONE CO. 410-331-3978
  - HOWARD COUNTY BUREAU OF UTILITIES: 313-2366
  - VERIZON CABLE LOCATION DIVISION: 383-2950
  - THE POWER COMPANY OF MARYLAND: 383-2950
  - B.G. & CO. UNDERGROUND DAMAGE CONTROL: 787-4920
  - STATE HIGHWAY ADMINISTRATION: 313-5533
- THE SUBJECT PROPERTY IS ZONED R-ED PER THE 02/02/2004 COMPREHENSIVE ZONING PLAN, AND THE COMPREHENSIVE LITE ZONING AMENDMENTS 07/28/2006.
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. DATED SEPTEMBER 2004.
- THIS SITE IS LOCATED WITHIN THE LAWYERS HILL NATIONAL REGISTER HISTORIC DISTRICT.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL/CEMETERY LOCATIONS ON SITE.
- INGRESS AND EGRESS IS RESTRICTED ALONG WASHINGTON BOULEVARD (U.S. ROUTE 1).
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS SITE.
- WATER AND SEWER FOR THIS PROJECT WILL BE PUBLIC.
- AN "OBVIOUSLY NOT CRITICAL" FLOODPLAIN STUDY WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING INC., DATED JANUARY 2005.
- STREAMS AND WETLANDS SHOWN HEREON WERE DELINEATED BY JOHN CANOLES, ECO-SCIENCE PROFESSIONALS, INC., DATED SEPTEMBER 2004. A 25' WETLAND BUFFER HAS BEEN ESTABLISHED, PER SECTION 16.116(a)(1) OF THE SUBDIVISION REGULATIONS.
- A FOREST STAND DELINEATION PLAN WAS PREPARED BY JOHN CANOLES, ECO-SCIENCE PROFESSIONALS, DATED SEPTEMBER 2004.
- FOREST CONSERVATION REQUIREMENTS ARE PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL. FOREST CONSERVATION OBLIGATIONS HAVE BEEN FULFILLED BY THE ON-SITE RETENTION OF 9.00 ACRES, LOCATED IN OPEN SPACE LOTS 16 AND 17, 04/02/02, F-10-028.
- NO GRADING, REMOVAL OF VEGETATIVE COVER, OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, EXCEPT WHERE ESSENTIAL DISTURBANCE IS GRANTED. ESSENTIAL DISTURBANCE OCCURS AT THE OUTFALL OF STORMWATER MANAGEMENT FACILITY NUMBER TWO, AND THE CULVERT REMOVAL ALONG THE NORTHEAST BOUNDARY.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$19,200.00 FOR THE REQUIRED 51 SHADE TREES AND 26 EVERGREEN TREES, AND APPROVED UNDER F-10-028.
- PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(a)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$34,875.00 HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THE REQUIRED 93 STREET TREES, AND APPROVED UNDER F-10-028.
- A NOISE STUDY WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING INC., DATED SEPTEMBER 2004.
- THE 65 dBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 dBA NOISE EXPOSURE. THE 65 dBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS, AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- TREE PROTECTION FENCING WILL BE PROVIDED AT THE LIMITS OF DISTURBANCE WHERE GRADING IS PROPOSED ADJACENT TO ENVIRONMENTAL AREAS.
- OPEN SPACE LOTS 14-16 ARE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION. OPEN SPACE LOT 17 OWNED BY HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS.
- THIS SUBDIVISION COMPLIES WITH THE AMENDED 5TH EDITION OF THE SUBDIVISION AND ZONING REGULATIONS (CB-45-2003) AND THE ZONING REGULATIONS, AS AMENDED BY COUNCIL BILL 75-2003.
- THIS PROJECT IS SUBJECT TO PLANNING BOARD CASE NO. 374, WHICH WAS APPROVED ON MAY 11, 2006.
- PHASE I CONTAINS THIRTEEN LOTS, NINE ALLOCATIONS PER PHASE I, PLUS FOUR ADDITIONAL HOUSING UNITS FOR THE FOUR EXISTING PARCELS.
- NON-BUILDABLE BULK PARCELS A-D WILL BE RE-SUBDIVIDED INTO BUILDABLE LOTS AND WHICH SHALL BE INCLUDED AS PART OF THE NEXT TWO PHASES (PHASE II AND III).
- THIS PLAN HAS BEEN REVIEWED AND APPROVED BY THE MARYLAND AVIATION ADMINISTRATION, APPROVED FEBRUARY 22, 2010.
- AN MDE WETLAND PERMIT IS REQUIRED FOR THE DISTURBANCE SHOWN ON THIS PLAN. MDE TRACKING #201060035. NO IN-STREAM CONSTRUCTION MAY OCCUR FROM 03/01 TO 06/15.
- THIS PLAN IS SUBJECT TO A DESIGN MANUAL WANNER TO VOLUME IV, DETAIL R-1.02, TO ALLOW A 40' RIGHT-OF-WAY INSTEAD OF THE REQUIRED 50' RIGHT-OF-WAY, AND TO ALLOW 20' OF PAVEMENT INSTEAD OF 24' PAVEMENT. WAIVER APPROVAL DATED JANUARY 4, 2010 IS SUBJECT TO PROVIDING 24' PAVING AND 5' EASEMENT ON BOTH SIDES OF THE RIGHT-OF-WAY TO ACCOMMODATE REQUIRED SIDEWALKS, UTILITIES AND STREET TREES.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- AN EXHIBIT PLAN FOR THE ADDITIONAL LANDSCAPING ALONG THE NORTHERN PROPERTY LINE BETWEEN THE RETAINING WALLS AND PARCEL 15 WAS PREPARED AND SUBMITTED BY ROBERT H. VOGEL ENGINEERING IN JANUARY 2011. THE PLAN ADDED SCREENING TREES BETWEEN THE CYPRESS SPRINGS SUBDIVISION AND PARCEL 15. THE EXHIBIT PLAN WAS ACCEPTED BY HOWARD COUNTY IN A LETTER DATED 2/24/11.

# SITE DEVELOPMENT PLAN

## CYPRESS SPRINGS - PHASE 1

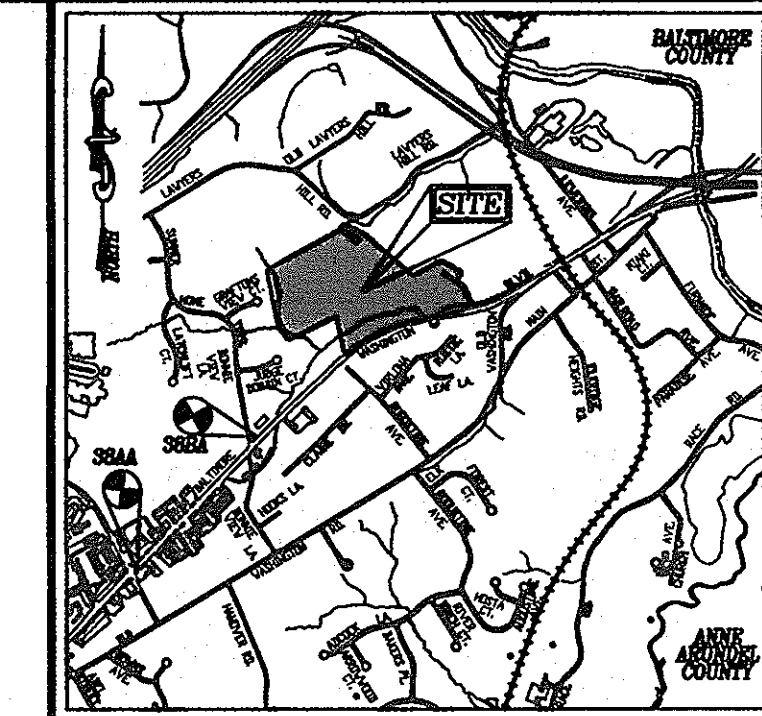
### LOTS 1 - 13

**COORDINATE TABLE**

NO.	NORTHING	EASTING
1	564650.602	1392088.446
2	564760.135	1391895.566
3	564650.281	1391293.164
4	564590.786	1391077.692
12	564838.216	1391816.884
23	564440.833	1391900.085
24	563814.360	1392030.058
25	563881.597	1393210.116
26	563927.816	1393152.821
27	563941.564	1393143.697
28	563955.454	1393189.934
30	563982.670	1393177.304
31	564111.839	1393122.193
32	564172.927	1393039.874
33	563810.082	1393041.755
36	563376.074	1391926.082
39	564727.387	1391870.734
40	564694.867	1391844.498
41	56446.931	1392010.381
43	564621.405	1392074.890
44	564720.214	1392098.008
124	563773.025	1391882.874
134	563720.041	1391210.361
135	564087.249	1391029.433
140	563271.703	1392822.538
218	564379.434	1392896.138
219	564771.543	1393098.744

**LEGEND**

- RIGHT-OF-WAY
- BOUNDARY LINE
- ADJACENT BOUNDARY LINE
- EXISTING CENTERLINE STREAM
- EXISTING STREAM BANK BUFFER
- EXISTING WETLANDS BUFFER
- EXISTING WETLANDS
- EXISTING REVERTIBLE FOREST EASEMENT (SDP-04-01)
- EX. FOREST CONSERVATION EASEMENT (RETENTION) (SDP-09-061)
- EX. VARIABLE WIDTH PUBLIC WATER AND UTILITY EASEMENT (L 3000 / F 410)
- PUBLIC SANITARY SEWER EASEMENT (PLAT #11174)
- PROPR. PRIVATE WALL MAINTENANCE AND ACCESS EASEMENT (PLAT #10-028)
- PROPR. PRIVATE STORMWATER MANAGEMENT EASEMENT (PLAT #21967-21972)
- PROPR. PUBLIC BULK PARCEL (PLAT #21967-21972)
- PROPR. PUBLIC SEWERAGE AND UTILITY EASEMENT (PLAT #21967-21972)
- PROPR. NON-CREDITED RECREATIONAL OPEN SPACE (PLAT #21967-21972)
- PROPR. CREDITED RECREATIONAL OPEN SPACE (PLAT #21967-21972)
- PROPR. PUBLIC SEWER AND UTILITY EASEMENT (PLAT #21967-21972)
- EX. PUBLIC 100% FLOORPLAN
- PROPR. PRIVATE USE-IN-COMMON AND ACCESS EASEMENT (PLAT #21967-21972)



**VICINITY MAP**  
SCALE: 1"=2000'  
ADC MAP COORDINATE: PAGE 4937 E6+F6

**BENCHMARKS**

NO.	NORTHING	EASTING	ELEVATION
388A	561,158.819	1,389,726.332	220.05'
388B	562,553.315	1,390,967.862	166.18'

388A - CONCRETE MONUMENT LOCATED NORTH OF THE INTERSECTION OF MONTGOMERY RD. AND U.S. ROUTE 1, 3.2' FROM THE NORTH BOUND LANE OF U.S. ROUTE 1.  
388B - CONCRETE MONUMENT LOCATED 0.3 MILES NORTH OF THE INTERSECTION OF MONTGOMERY RD. AND U.S. ROUTE 1, 9.5' FROM THE SOUTH BOUND LANE OF U.S. ROUTE 1.

**SHEET INDEX**

DESCRIPTION	SHEET NO.
COVER SHEET	1
LAYOUT PLAN	2
GRADING, SOILS, SEDIMENT AND EROSION CONTROL PLAN	3
GRADING, SEDIMENT, AND EROSION CONTROL NOTES AND DETAILS	4
HCSD/MAA NOTES & DETAILS	5

**ADDRESS CHART**

LOT NO.	STREET ADDRESS
1	5908 CYPRESS SPRINGS ROAD
2	5912 CYPRESS SPRINGS ROAD
3	5916 CYPRESS SPRINGS ROAD
4	5920 CYPRESS SPRINGS ROAD
5	5924 CYPRESS SPRINGS ROAD
6	5928 CYPRESS SPRINGS ROAD
7	5932 CYPRESS SPRINGS ROAD
8	5936 CYPRESS SPRINGS ROAD
9	5933 CYPRESS SPRINGS ROAD
10	5927 CYPRESS SPRINGS ROAD
11	5923 CYPRESS SPRINGS ROAD
12	5919 CYPRESS SPRINGS ROAD
13	5915 CYPRESS SPRINGS ROAD

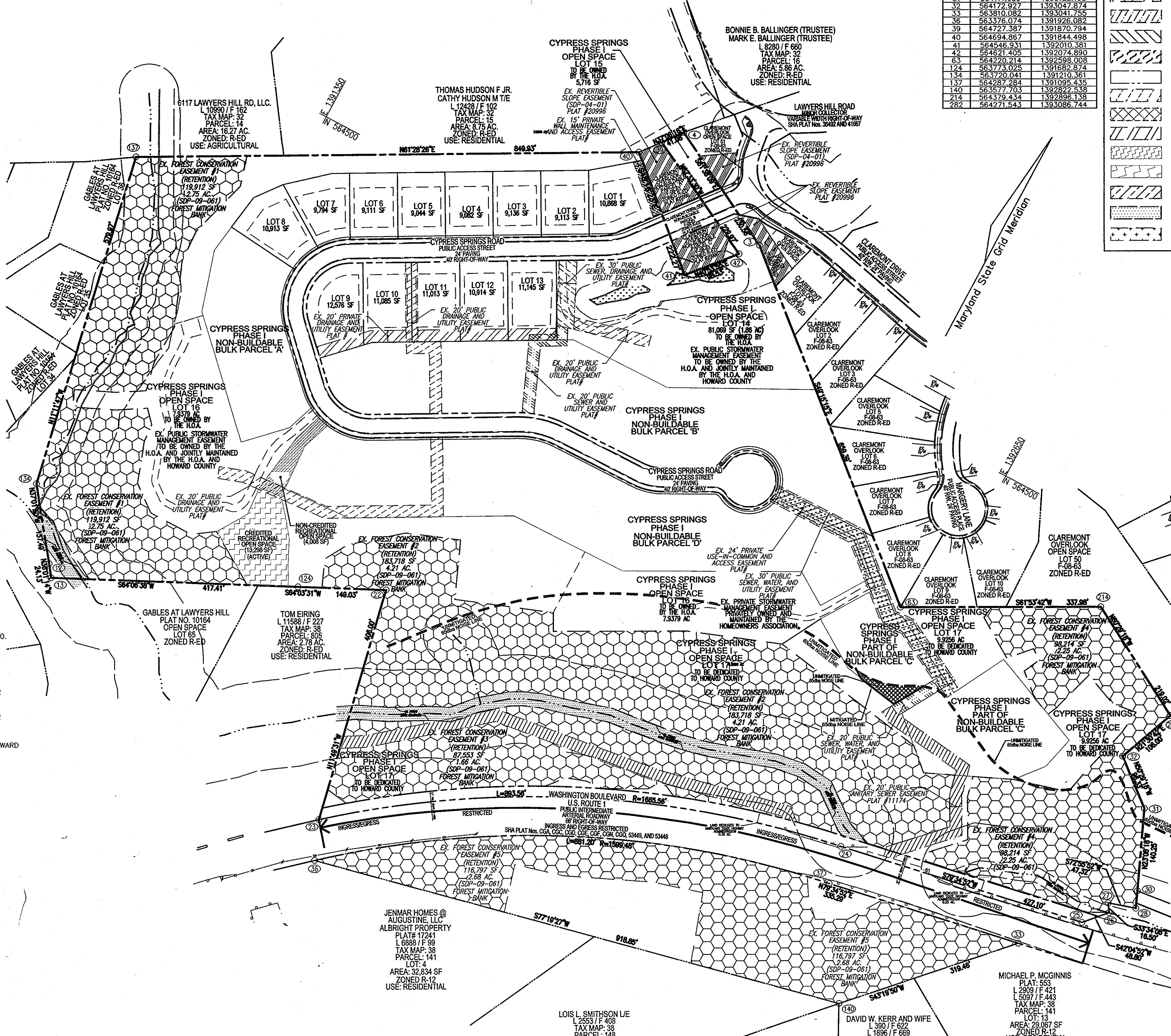
**MILESTONE CHART**

THE DEPARTMENT OF PLANNING AND ZONING'S SP-05-06 LETTER DATED 07/23/09 GRANTED TENTATIVE ALLOCATIONS FOR THIS SUBDIVISION IN ACCORDANCE WITH THE FOLLOWING ALLOCATION SCHEDULE AND MILESTONES:

SUBDIVISION PHASE	NO. HOUSING UNITS/LOTS	ALLOCATION YEAR
PHASE I	9 LOTS	2012
PHASE II	19 LOTS	2013
PHASE III	11 LOTS	2014
TOTAL:	39 LOTS	

DENSITY CALCULATIONS: R-ED ZONING, 2 DWELLING UNITS PER ACRE  
(2 x 21.52 ACRES = 43 UNITS/LOTS)

**OWNER / DEVELOPER / CONTRACT PURCHASER**  
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.  
3675 PARK AVENUE, SUITE 301  
ELICOTT CITY, MARYLAND 21043  
(410) 480-0023



**SITE DATA**

LOCATION: TAX MAP 38, GRID 3, PARCELS 42, 44, 45 & 46  
1ST ELECTION DISTRICT  
EXISTING ZONING: R-ED  
SUBDIVISION: CYPRESS SPRINGS  
ELK RIDGE HEIGHTS  
TOTAL AREA OF PROJECT: 33.10 AC  
TOTAL AREA OF PLAN SUBMISSION: AREA OF LOTS 3.07 AC  
NUMBER OF LOTS / PARCELS PROPOSED: 13 BUILDABLE LOTS  
PROPOSED USE: SINGLE FAMILY DETACHED  
LIMIT OF DISTURBED AREA: 2.80 AC  
DPT REFERENCES: SP-05-06, PB CASE 374, WP-05-38, SDP-09-061, F-10-028, L 386/F 658, L 822/F 574, L 8344/F 670, L 4518/F 458, #14-3208, #10-3391, WP-10-175, WP-11-202.

**LOCATION MAP**

SCALE: 1"=100'

**PERMIT INFORMATION CHART**

SUBDIVISION NAME	SECTION / AREA
CYPRESS SPRINGS	PHASE I
PARCELS	1-13
PLAT REF #	42, 44, 45 & 46
BLOCK NO.	3
ZONE	R-ED
TAX MAP	38
ELECT DIST	1
CENSUS TR	6012.01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 6/26/12

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 6/22/12

DIRECTOR: *[Signature]* DATE: 6/25/12

**SITE DEVELOPMENT PLAN**  
**COVER SHEET**  
**CYPRESS SPRINGS - PHASE 1**  
**LOTS 1 - 13**

1ST ELECTION DISTRICT  
DPT REFERENCES: SP-05-06, PB CASE 374, WP-05-38, SDP-09-061, F-10-028, L 386/F 658, L 822/F 574, L 8344/F 670, L 4518/F 458, #14-3208, #10-3391, WP-10-175, WP-11-202

TAX MAP 38 BLOCK 3 PARCELS 42, 44, 45 AND 46 HOWARD COUNTY ZONED: R-ED

**ROBERT H. VOGEL ENGINEERS, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET #21043 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: RHW/JCO  
DRAWN BY: JMR/RS/KG  
CHECKED BY: RHW  
DATE: JUNE 2012  
SCALE: AS SHOWN  
W.O. NO.: 04-30

PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2012

1 SHEET OF 5

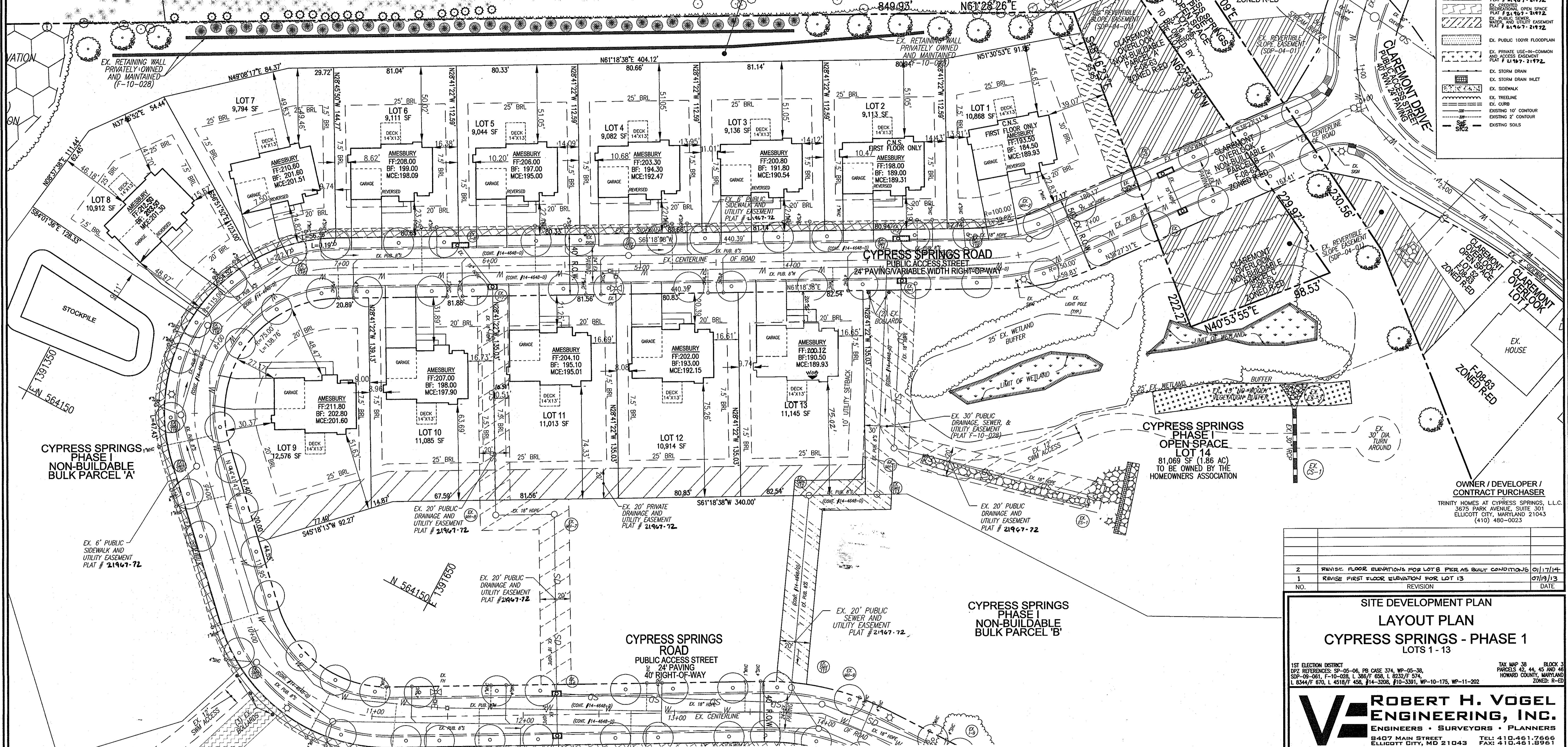
6117 LAWYERS HILL RD. LLC.  
L 10990 / F 162  
TAX MAP: 32  
PARCEL: 14  
AREA: 16.27 AC.  
ZONED: R-ED  
USE: AGRICULTURAL

THOMAS HUDSON F JR.  
CATHY HUDSON M T/E  
L 12428 / F 102  
TAX MAP: 32  
PARCEL: 15  
AREA: 8.75 AC.  
ZONED: R-ED  
USE: RESIDENTIAL

CYPRESS SPRINGS  
PHASE I  
OPEN SPACE  
LOT 16  
7.9379 AC  
TO BE OWNED BY THE  
HOMEOWNERS ASSOCIATION

**LEGEND**

RIGHT-OF-WAY	EXISTING SANITARY CLEANOUT
BOUNDARY LINE	EXISTING FIRE HYDRANT
ADJACENT BOUNDARY LINE	EXISTING WETLANDS
EXISTING CENTERLINE STREAM	EXISTING REVERSIBLE SLOPE EASEMENT (SOP-04-01)
EXISTING STREAM BANK BUFFER	EX. FOREST CONSERVATION EASEMENT (RETENTION)(SOP-09-051)
EXISTING WETLANDS BUFFER	EX. PUBLIC SANITARY SEWER EASEMENT (PLAT # 11174)
EXISTING TREELINE	EX. 15' PRIVATE WALL EASEMENT AND ACCESS EASEMENT (PLAT # 2197-21972)
EXISTING UTILITY POLE	EX. PUBLIC STORMWATER EASEMENT AND ACCESS EASEMENT (PLAT # 2197-21972)
EXISTING SIGN	EX. PUBLIC STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)
EXISTING WATER LINE	EX. PRIVATE STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)
EXISTING SEWER LINE	EX. PRIVATE STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)
EXISTING GAS LINE	EX. PRIVATE STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)
EXISTING OVERHEAD LINES	EX. PRIVATE STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)
EXISTING FENCE LINE	EX. PRIVATE STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)
EXISTING CURB LINE	EX. PRIVATE STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)
EXISTING EDGE OF PAVING	EX. PRIVATE STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)
EXISTING LIGHT POLE	EX. PRIVATE STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)
EXISTING MAILBOX	EX. PRIVATE STORMWATER AND UTILITY EASEMENT (PLAT # 2197-21972)



NO.	REVISION	DATE
2	REVISE FLOOR ELEVATIONS FOR LOTS B PER AS BUILT CONDITIONS	01/17/14
1	REVISE FIRST FLOOR ELEVATION FOR LOT 13	07/19/13

**SITE DEVELOPMENT PLAN  
LAYOUT PLAN  
CYPRESS SPRINGS - PHASE 1  
LOTS 1 - 13**

1ST ELECTION DISTRICT: SDP-09-061, F-10-028, L 386/F 688, L 8232/F 574  
TAX MAP 38 BLOCK 3 PARCELS 42, 44, 45 AND 48 HOWARD COUNTY, MARYLAND ZONED: R-ED

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2012

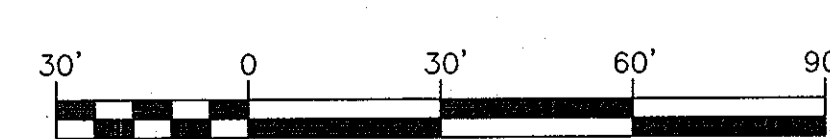
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Howard County Department of Planning and Zoning*  
DATE: 6/20/12

*Robert H. Vogel*  
DATE: 6/22/12

*Robert H. Vogel*  
DATE: 6/26/12

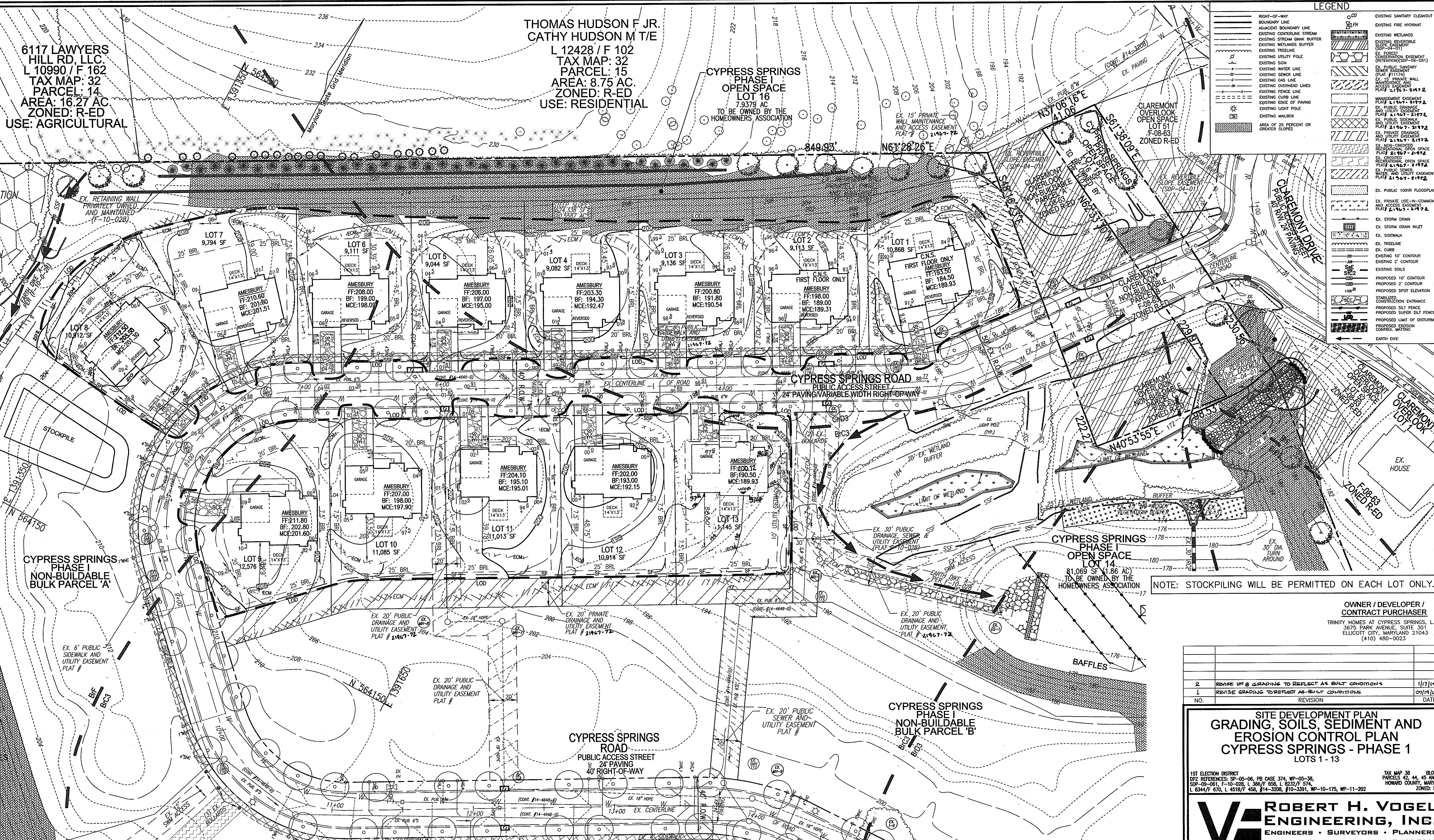
- NOTES:**
- STORMWATER MANAGEMENT PROVIDED BY A MICROPOND UNDER F-10-028.
  - THE PERIMETER LANDSCAPING WAS APPROVED AND PROVIDED UNDER F-10-028



DESIGN BY: RHM/JCO  
DRAWN BY: JMR/SJKG  
CHECKED BY: RHM  
DATE: JUNE 2012  
SCALE: 1" = 30'  
W.O. NO.: 04-30

2 SHEET OF 5

SDP-12-002



**LEGEND**

RIGHT-OF-WAY	EXISTING SANITARY CLEWOUT
BOUNDARY LINE	EXISTING FIRE HYDRANT
ADJACENT BOUNDARY LINE	EXISTING WETLANDS
EXISTING CENTERLINE STREAM	EXISTING WETLANDS BUFFER
EXISTING STREAM BANK BUFFER	EXISTING TREELINE
EXISTING WETLANDS BUFFER	EXISTING UTILITY POLE
EXISTING UTILITY POLE	EXISTING SIGN
EXISTING WATER LINE	EXISTING OVERHEAD LINES
EXISTING SEWER LINE	EXISTING FENCE LINE
EXISTING GAS LINE	EXISTING CURB LINE
EXISTING OVERHEAD LINES	EXISTING EDGE OF PAVING
EXISTING FENCE LINE	EXISTING LIGHT POLE
EXISTING CURB LINE	EXISTING MAILBOX
EXISTING EDGE OF PAVING	AREA OF 25 PERCENT OR GREATER SLOPES
EXISTING LIGHT POLE	
EXISTING MAILBOX	
AREA OF 25 PERCENT OR GREATER SLOPES	

6117 LAWYERS HILL RD. LLC.  
L 10990 / F 162  
TAX MAP: 32  
PARCEL: 14  
AREA: 16.27 AC.  
ZONED: R-ED  
USE: AGRICULTURAL

THOMAS HUDSON F. JR.  
CATHY HUDSON M. T/E  
L 12428 / F 102  
TAX MAP: 32  
PARCEL: 15  
AREA: 8.75 AC.  
ZONED: R-ED  
USE: RESIDENTIAL

CYPRESS SPRINGS  
PHASE I  
OPEN SPACE  
LOT 16  
7.9379 AC  
TO BE OWNED BY THE  
HOMEOWNERS ASSOCIATION

CLAREMONT  
OVERLOOK  
OPEN SPACE  
LOT 51  
F-08-63  
ZONED R-ED

NOTE: STOCKPILING WILL BE PERMITTED ON EACH LOT ONLY.

OWNER / DEVELOPER /  
CONTRACT PURCHASER  
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.  
3675 PARK AVENUE, SUITE 301  
ELLCOTT CITY, MARYLAND 21043  
(410) 480-0023

NO.	REVISION	DATE
2	REVISE UP & GRADING TO REFLECT AS-BUILT CONDITIONS	1/17/14
1	REVISE GRADING TO REFLECT AS-BUILT CONDITIONS	07/19/13

**SITE DEVELOPMENT PLAN  
GRADING, SOILS, SEDIMENT AND  
EROSION CONTROL PLAN  
CYPRESS SPRINGS - PHASE 1  
LOTS 1 - 13**

1ST ELECTION DISTRICT  
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-38,  
SP-09-01, F-10-028, L 336/F 658, L 8232/F 574,  
L 8344/F 670, L 4518/F 458, #14-3208, #10-3391, WP-10-175, WP-11-202

TAX MAP 38 BLOCK 3  
PARCELS 42, 44, 45 AND 46  
HOWARD COUNTY, MARYLAND  
ZONED: R-ED

**ROBERT H. VOGEL  
ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLIOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

DESIGN BY: RHW/JCC  
DRAWN BY: JMR/MSK  
CHECKED BY: RHW  
DATE: JUNE 2012  
SCALE: 1" = 30'  
W.O. NO.: 04-30

PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS  
WERE PREPARED OR APPROVED BY ME, AND  
THAT I AM A duly LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF THE STATE  
OF MARYLAND, LICENSE NO. 16193  
EXPIRATION DATE: 09-27-2012

3 SHEET OF 5

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
BcC2	BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
BcC3	BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	C
BcD2	BRANDYWINE LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	C
BcD3	BRANDYWINE LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	C
BcF	BRANDYWINE LOAM, 25 TO 60 PERCENT SLOPES, NORTH & SOUTH ASPECTS	C
ChD3	CHILLUM-FAIRFAX LOAMS, 5 TO 15 PERCENT SLOPES, SEVERELY ERODED	B
luB	LUKA LOAM, LOCAL ALLUVIUM, 1 TO 5 PERCENT SLOPES	C
ScE	SANDY AND CLAYEY SAND, MODERATELY STEEP	B

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division  
J.P. DATE 6/22/12

Chief, Division of Land Development  
DATE 6/25/12

DIRECTOR DATE 6/25/12

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

John F. Roberts 6/19/12  
HOWARD S.C.D. DATE

BY THE DEVELOPER:

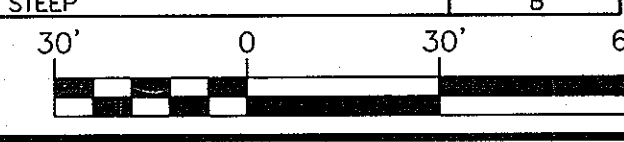
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL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

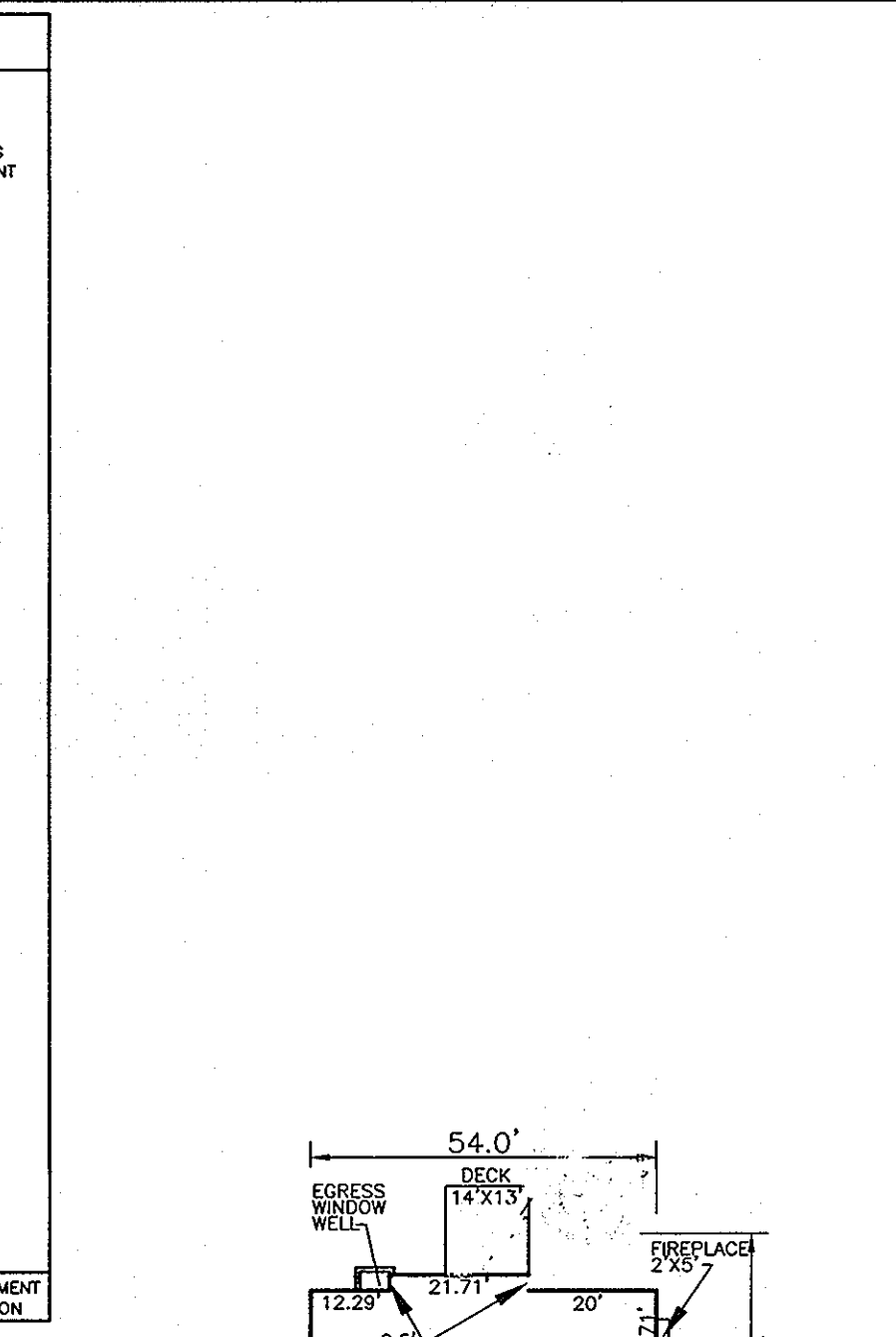
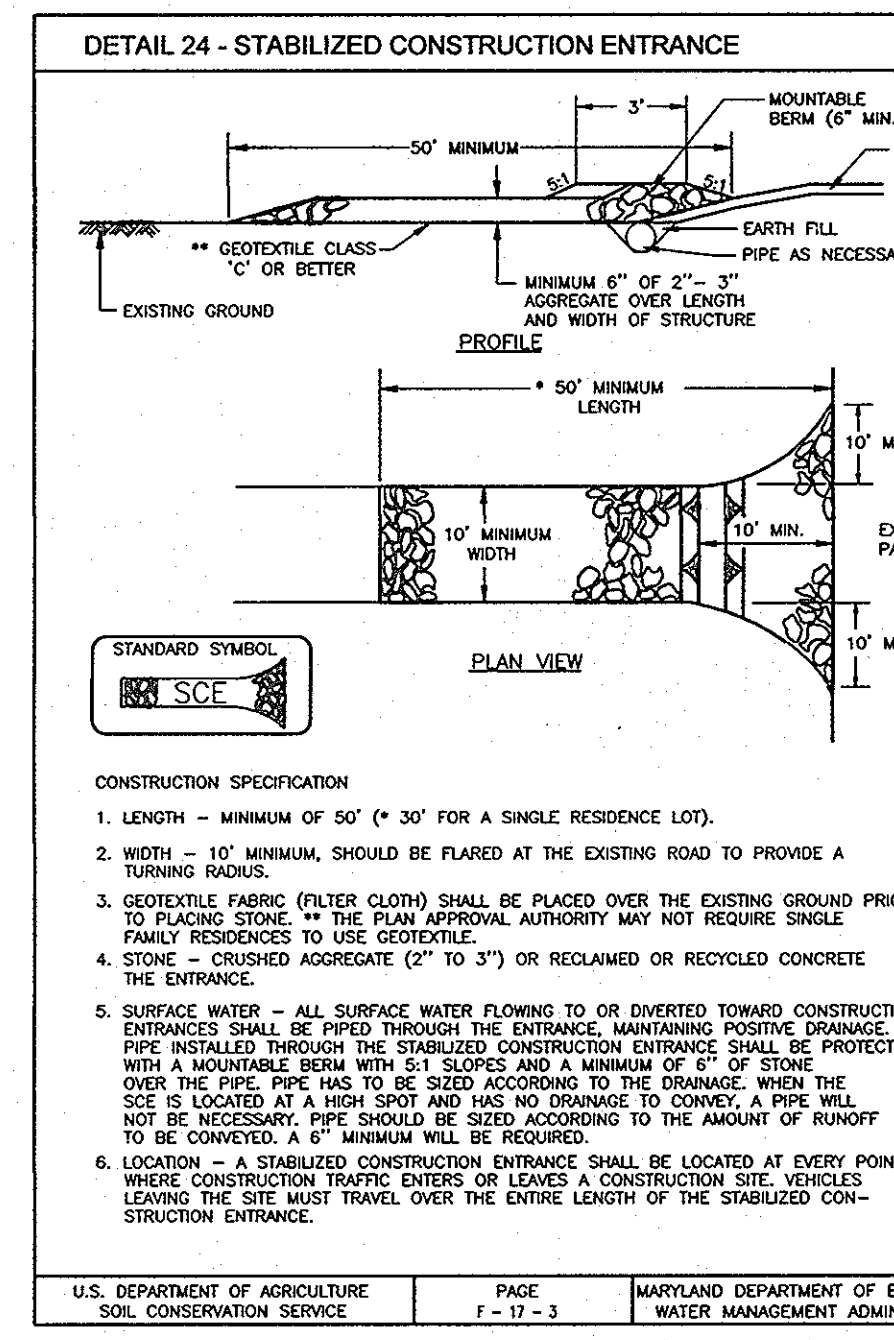
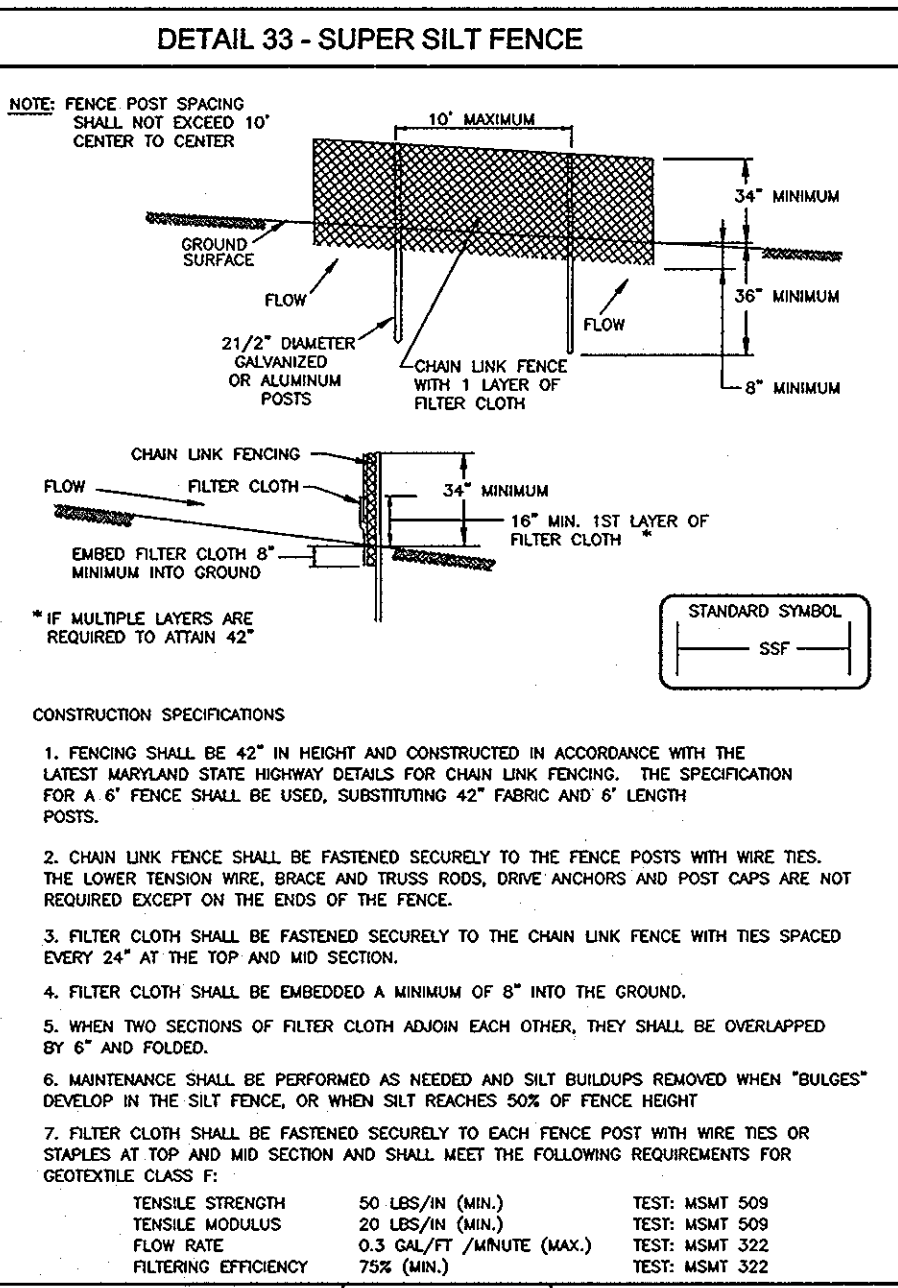
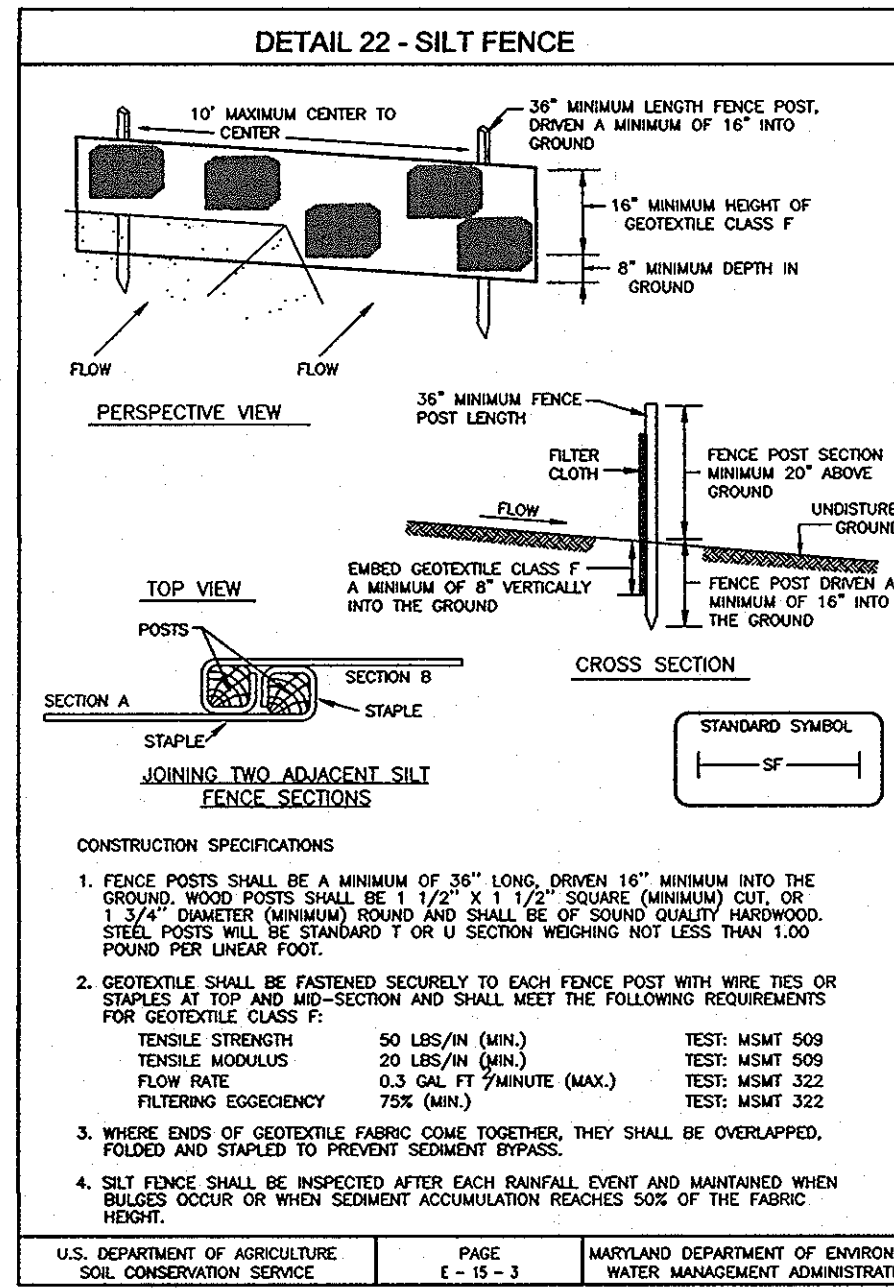
Michael P. 6/14/12  
SIGNATURE OF DEVELOPER DATE

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.

Signature of Engineer 6/15/12  
DATE





### SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPT. OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN (A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1, (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. C). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
 

TOTAL AREA	3,07 AC.
AREA DISTURBED	2,80 AC.
AREA TO BE ROOFED OR PAVED	0,92 AC.
AREA TO BE VEGETATIVELY STABILIZED	1,88 AC.
TOTAL CUT	4,850 CY.
TOTAL FILL	4,850 CY.
OFFSITE WASTE/BORROW AREA LOCATION	*
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 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.
- 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.

\* TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT

### CONSTRUCTION AND MATERIAL SPECIFICATIONS

- 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 EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
  - 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 A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 AND 1/2" IN DIAMETER.
  - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
I">
  - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

### SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410-313-1850) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- INSTALL SEDIMENT CONTROL MEASURES AS SHOWN ON PLAN AND IN ACCORDANCE WITH DETAILS. (5 DAYS)
- AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE SITE. (2 WEEKS)
- INSPECT SEDIMENT CONTROL MEASURES FROM F-10-02B TO REMAIN PER SDP. REPAIR AS NEEDED. (1 DAY)
- CONSTRUCT HOUSES. THE FIRST FLOOR ELEVATIONS CANNOT BE MORE THAN 1' HIGHER OR 0.2' LOWER THAN THE ELEVATIONS SHOWN ON THIS PLAN. (6 MONTHS)
- UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES. (2 DAYS)

### NOTES

- DURING GRADING AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE THE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREON.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLIED WITH:
- 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
  - 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.

### 21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

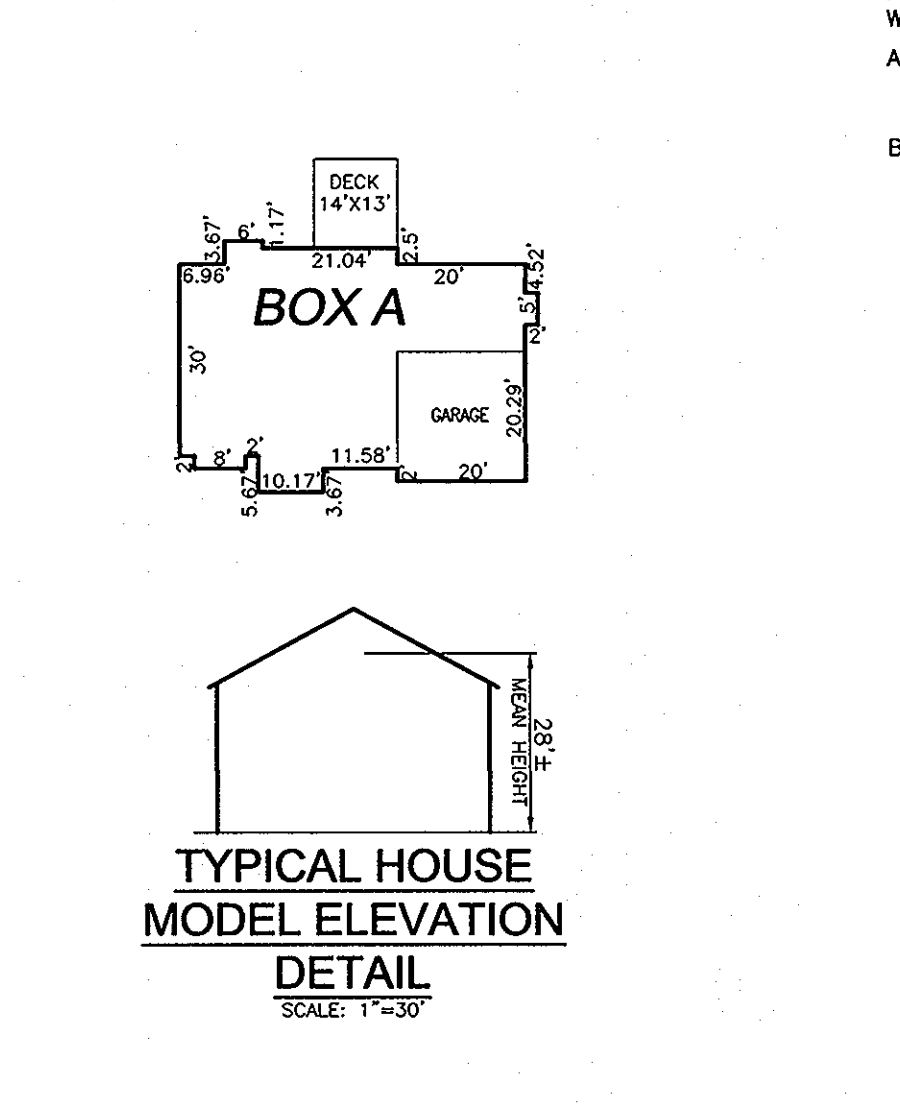
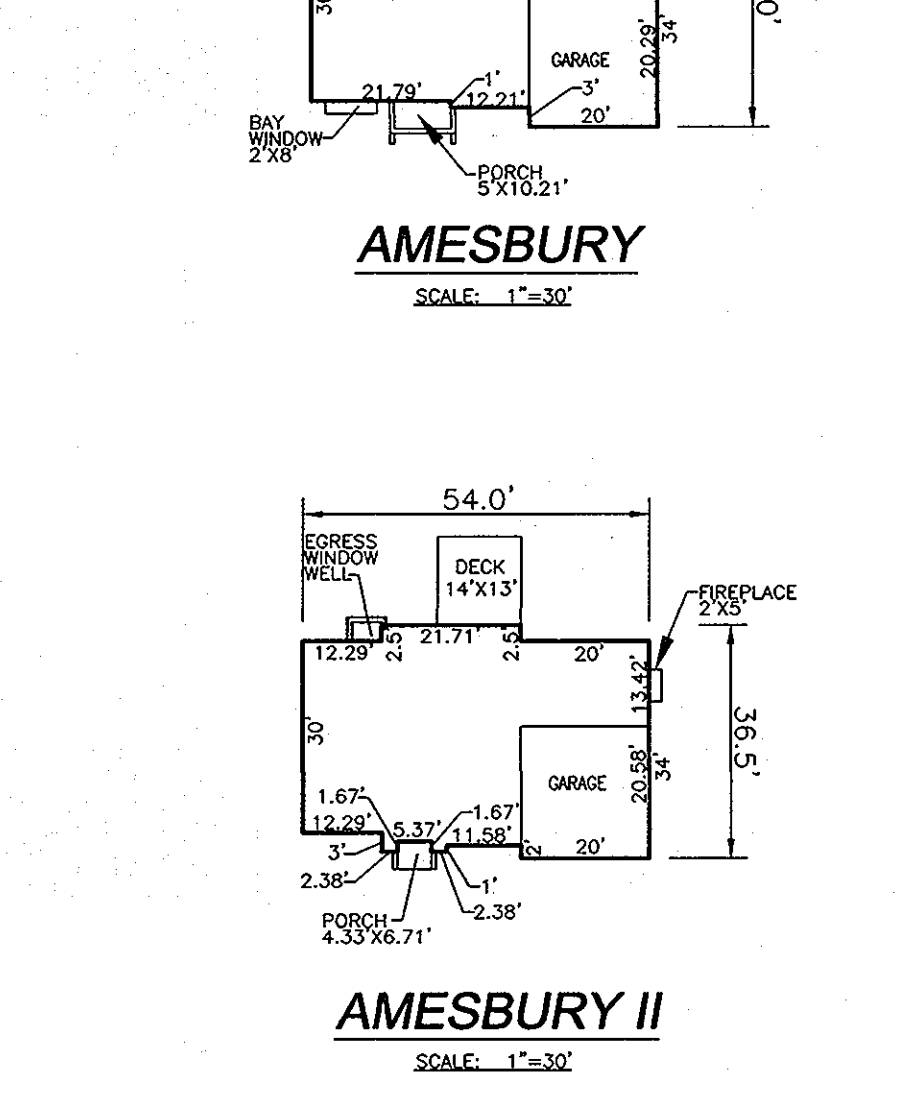
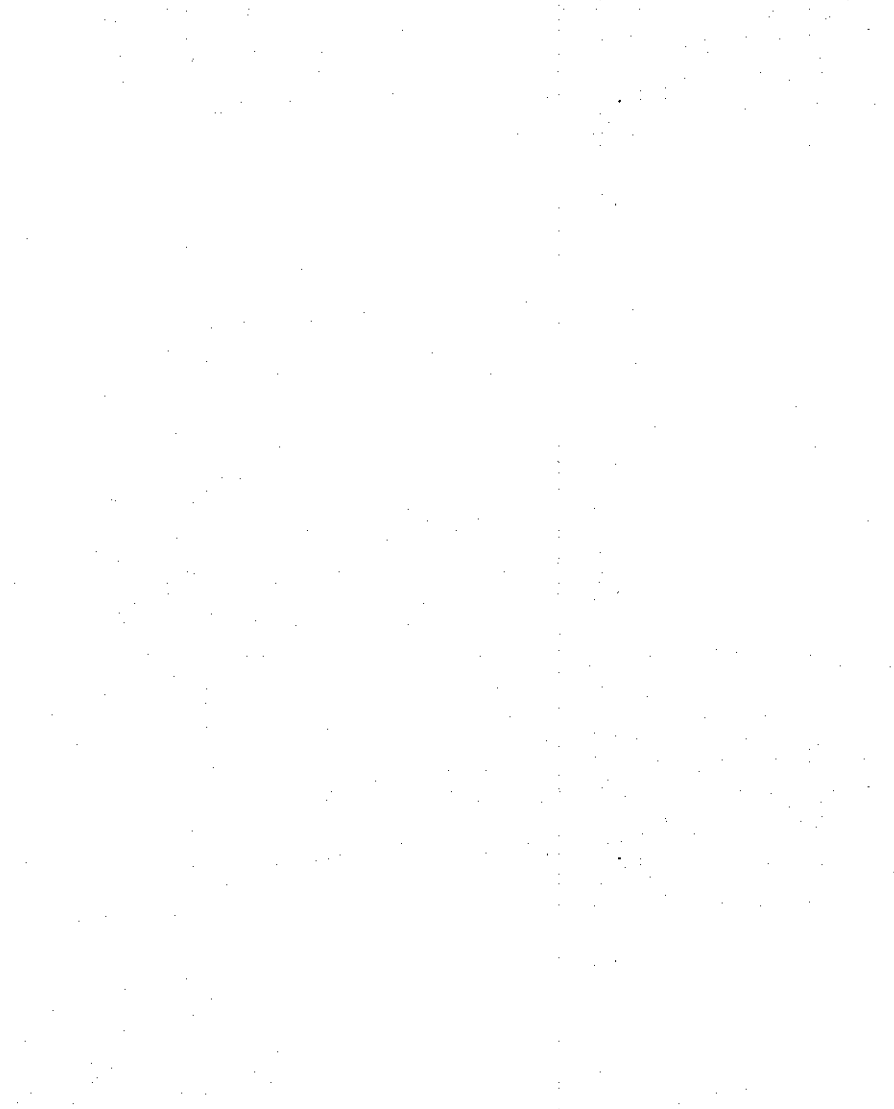
- DEFINITION**  
PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.
- PURPOSE**  
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
- CONDITIONS WHERE PRACTICE APPLIES**
- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
    - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
    - 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.
  - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TYPICAL TO PLANT GROWTH.
  - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
  - 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.
- TOPSOIL APPLICATION**
- WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
  - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
  - 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 SOODING 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.
  - 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.

### SOIL PROTECTION ZONE NOTES

- THE SOIL PROTECTION ZONE INCLUDE ALL AREAS CONTAINED INSIDE THE LIMIT OF DISTURBANCE.
- WHERE POSSIBLE, THE SOIL PROTECTION ZONE SHALL EXTEND TO THE DRIP LINE OF SPECIFIC TREES. FOR OTHER GROUPS OF TREES, THE ZONE SHALL BE THE DRIP LINE OF 40% OF THE HEIGHT OF THE TREE, WHICHEVER IS GREATER.
- NO CONSTRUCTION ACTIVITY IS PERMITTED WITHIN THE SOIL PROTECTION ZONE.
- IF SOIL HAS BEEN COMPACTED OR GRADING HAS TAKEN PLACE IN THE VICINITY OF THE SOIL PROTECTION ZONE, ROOT PRUNING SHALL BE IMPLEMENTED PER ROOT PRUNING DETAIL, SHOWN ON THIS PLAN.
- ROOT PRUNING SHALL OCCUR PRIOR TO THE BEGINNING OF CONSTRUCTION.
- WHERE THE SOIL PROTECTION ZONE MUST ENCLOSE INSIDE THE CRITICAL ROOT ZONE OF A TREE, SOIL DISTURBANCE SHALL BE MITIGATED WITH VERTICAL MULCHING, OR RADIAL TRENCHING.
- PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE SHALL BE MARKED AND THE DETERMINE WHICH TREES WILL NEED PREVENTATIVE TREATMENT OF REMOVAL.
- TREE MAINTENANCE AND REMOVAL SHALL BE UNDERTAKEN BY A QUALIFIED TREE EXPERT TO ENSURE DAMAGE TO SURROUNDING TREES IS MINIMIZED.
- BRUSH AND LIMBS REMOVED FOR CONSTRUCTION SHALL BE CHIPPED AND SPREAD AT THE EDGE OF THE SOIL PROTECTION ZONE TO A DEPTH OF 6 INCHES. THIS SHALL OCCUR OUTSIDE THE SOIL PROTECTION ZONE WHERE COMPACTION COULD IMPACT OTHERWISE UNPROTECTED CRITICAL ROOT ZONE.

### PERMANENT SEEDING NOTES

- APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
- PREFERRED-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./100 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT THE TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.)
  - ACCEPTABLE-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND APPLY 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.5 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 80 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.
- MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
- TEMPORARY SEEDING NOTES**
- 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./1000 SQ.FT.)
- SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.7 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 1 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./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.
- REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT LISTED.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 6/20/12 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* 6/20/12 DATE

DIRECTOR *[Signature]* 6/20/12 DATE

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

BY THE DEVELOPER: *[Signature]* 6/19/12 DATE

BY THE ENGINEER: *[Signature]* 6/19/12 DATE

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.

*[Signature]* 6/19/12 DATE

OWNER / DEVELOPER / CONTRACT PURCHASER

TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.  
3675 PARK AVENUE, SUITE 301  
ELICOTT CITY, MARYLAND 21043  
(410) 450-0223

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN  
SEDIMENT AND EROSION CONTROL  
NOTES AND DETAILS  
CYPRESS SPRINGS - PHASE 1  
LOTS 1-13**

1ST ELECTION DISTRICT  
027 REFERENCES: SP-05-06, PB CASE 374, WP-05-38, SDP-09-061, F-10-02B, L 386/F 638, L 8232/F 574, L 8344/F 670, L 6518/F 458, F14-3028, F10-3301.

TAX MAP 38 BLOCK 3  
PARCELS 42, 44, 45 AND 46  
HOWARD COUNTY, MARYLAND  
ZONING: R-2D

**ROBERT H. VOGEL  
ENGINEERS - SURVEYORS - PLANNERS**

8407 MAIN STREET  
ELICOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

DESIGN BY: *[Signature]* JTD  
DRAWN BY: *[Signature]* KGS  
CHECKED BY: *[Signature]* RVV  
DATE: JUNE 2012  
SCALE: AS SHOWN  
W.O. NO.: 04-30

PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21438  
EXPIRATION DATE: 12-16-2012

4 SHEET OF 5

# HCSCD/MAA VEGETATIVE ESTABLISHMENT DETAILS AND SPECIFICATIONS FOR THE PROJECT WITHIN 4 MILES OF BWI AIRPORT

## SEEDING

ITEM NO. SEEDING

DESCRIPTION

**903-1.1 GENERAL.** This item provides specifications for seeding of areas as designated on plans or as directed by the MAA Engineer. The species, mixtures, and methods of application provided in this item may be used to establish vegetation. Seed will be sampled and tested by an inspector from the Turf and Seed Section, Maryland Department of Agriculture (MDA), Annapolis, Maryland. All laws and turf seed and mixtures shall be free from the following state-listed restricted noxious weeds:

**MATERIALS**

- Soil pH shall be between 6.0 and 7.0.
- Suitable soils shall be less than 500 parts per million (ppm).
- The soil shall contain less than 40% clay but enough the greatest material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture.
- Soil shall contain 1.5% minimum organic matter by weight.
- Soil must contain sufficient pore space to permit adequate root penetration.
- If these conditions cannot be met on site, adding topsoil is required in accordance with ITEM 901 or amendments made as recommended by a certified agronomist.

The minimum soil conditions required for permanent vegetative establishment are:

- Soil pH shall be between 6.0 and 7.0.
- Suitable soils shall be less than 500 parts per million (ppm).
- The soil shall contain less than 40% clay but enough the greatest material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture.
- Soil shall contain 1.5% minimum organic matter by weight.
- Soil must contain sufficient pore space to permit adequate root penetration.
- If these conditions cannot be met on site, adding topsoil is required in accordance with ITEM 901 or amendments made as recommended by a certified agronomist.

This species may be included as a labeled component of a mixture when each is present in excess of five percent of the mixture by weight.

July 1, 2004

noxious weeds: *bellowsvine* (*Cardiospermum halicacabum*), *quackgrass* (*Elytrigia repens*), *fieldspurge* (*Senecio jacobinae*), *serpentine* (*Conium maculatum*), *Canada thistle* (*Cirsium arvense*), *phloxes thistle* (*Cirsium sp.* includes milk thistle and curled thistle), and *serotina nutcrack* (*Nutsedge trichosperma*).

**903-2.1.1 APPROVED SPECIES.** The following table contains species that are approved by MAA for use in seed mixtures. Purity requirements and germination requirements are also provided.

MAA SEED MIXTURES	APPROVED PLANT SPECIES		Pur. Min. Ger. Factor
	Pur. Min. Ger. Factor	Min. % Germination	
Certified Turf-Type Tall Fescue (Cynodon dactylon)	98	90	1.13
Certified Kentucky Bluegrass (Poa pratensis)	98	90	1.39
Field Fescue (Festuca arvensis)	98	90	1.13
Chewings Fescue (Festuca ovina)	98	90	1.13
Perennial Ryegrass (Lolium perenne)	98	85	1.24
Perennial Ryegrass (Lolium perenne)	90	80	1.29
Fowl Meadow Grass (Poa annua)	90	80	1.29
Fowl Meadow Grass (Poa annua)	82	84	1.31

**903-2.1.2 PURITY.** All seed shall be free of all state-designated noxious weeds listed in Paragraph 2.1.1 and conform to MAA specifications. To ensure compliance, MAA requires sampling and testing of seed by the Turf and Seed Section, Maryland Department of Agriculture (MDA). The Contractor shall furnish the MAA Engineer with duplicate signed copies of a statement by the Turf and Seed Section certifying that each lot of seed has been laboratory tested within the month of date of delivery. This statement shall include the following information:

- name and address of laboratory,
- date of test,
- lot number,
- the results of tests as to name, percentages of purity and of germination,
- percentage of weed content of the seed, and, in the case of a mixture, the proportions of each kind of seed.

July 1, 2004

Seed shall be furnished in standard containers with the seed name, lot number, net weight, percentage of purity, germination rate and seed count, and percentage of maximum weed seed content clearly marked. All seed containers shall be tagged with a MDA supervised mix program tag.

**903-2.1.3 MIXTURES AND APPLICATION RATES.** Only seed mixtures and application rates described in this item may be used unless otherwise approved by the MAA Engineer. Seed mixtures shall meet criteria detailed in Paragraph 903-2.1.2. Seed mixtures have been formulated to maintain the attractiveness of areas to wildlife of common landscape scenarios. The appropriate seed mixture for application will be designated based on environmental conditions and may vary from site to site. All planting rates listed are in pounds of Pure Live Seed (PLS) per acre.

Seed mixtures, application scenarios, and rates for permanent cool-season grasses are as follows:

- Seed Mixture No. 1 - relatively flat areas (grade less than 4:1) subject to normal conditions and require mowing (Application rate = 234 lbs PLS/acre);
- Seed Mixture No. 2 - sloped areas (grade greater than 4:1) not subject to require mowing (Application rate = 115 lbs PLS/acre);
- Seed Mixture No. 3 - wetlands and their associated buffer zones (Application rate = 131 lbs PLS/acre).

Seed Mixture No. 1, Relatively flat areas regularly mowed and exposed to normal conditions (Application rate = 234 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
85% Certified Turf-Type Tall Fescue	192
10% Certified Kentucky Bluegrass	28
5% Perennial Ryegrass	14
Supplemental Seed Annual Ryegrass	25

July 1, 2004

Seed Mixture No. 2, Sloped areas not subject to regular mowing (Application rate = 115 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
75% Hard Fescue	85
20% Chewings Fescue	23
5% Kentucky Bluegrass	7
Supplemental Seed Ryegrass	3

Seed Mixture No. 3 - Wetland areas and their associated buffer zones (Application rate = 131 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
60% Fowl Meadow Grass	83
30% Chewings Fescue	34
10% Perennial Ryegrass	14
Supplemental Seed Ryegrass	3

**903-2.1.4 SEEDING SEASONS.** Application of seed and seed mixtures shall occur within a specified seeding season unless otherwise approved by the MAA Engineer. No seed or seed mixtures are to be applied on frozen ground or when the temperature is at or below 35 degrees Fahrenheit (7.2 degrees Celsius). Under these conditions, a layer of mulch should be applied in accordance with Item 905. Mulching, to stabilize the site and permanent seeding should occur in the subsequent seeding season. Seed application may occur during the seeding season dates listed below. Seeding performed after October 20 should be a temporary cover of annual ryegrass and followed by overseeding of the appropriate seed mixture during the spring seeding season.

July 1, 2004

## SEEDING REASONS

Permanent Cool-Season Grasses	March 1 to April 30 and August 1 to October 31, inclusive
Temporary Cover of Annual Ryegrass	March 1 to April 30 and August 1 to November 30, inclusive
Temporary Cover of Warm-Season Grasses	May 1 to July 31, inclusive. Rate of application should be 13 to 18 lbs PLS per acre.

Seeding seasons are based on typical years and can be subject to variation, which may be modified by the MAA Engineer based on seasonal trends.

If the time required to complete any of the operations necessary under this item, within the specified planting season or any authorized extension thereof, extends beyond the Contract time, then such time will be charged against the Contract time, and liquidated damages will be enforced with respect to this portion of work.

**903-2.2 LIMES.** Limes shall consist of ground limestone and contain at least 85 percent total carbonate. Limes shall be ground to a fineness so that at least 90 percent will pass through a No. 20 mesh sieve and 50 percent will pass through a No. 100 mesh sieve. Dolomitic lime or a high magnesian lime shall contain at least 10 percent magnesia on oxide. Limes shall be applied by approved methods detailed in Section 903-3.3 of this item. The rate of application will be based on results of soil tests.

**903-2.3 FERTILIZER.** Fertilizer shall be standard commercial fertilizer (supplied separately or in mixture) and meet the requirements of applicable state and federal laws (CFR 241) as well as standards of the Association of Official Agricultural Chemists. Nitrogen-Phosphorus-Potassium (N-P-K) concentrations shall be determined from analyses of soil samples (approved fertilizer rate: 1.1 pounds of N-P-K per 1,000 square feet). Methods of fertilizer application shall conform to standards described in Section 903-3.1 of this item. Fertilizer shall be furnished in standard containers that are clearly labeled with name, weight, and guaranteed analysis of the contents (percentage of total nitrogen, available phosphoric acid, and water-soluble potash). Minimal fertilizer shall not contain any hydrotreated lime or cyanamide compounds. Fertilizers failing to meet the specified analysis may be approved by the MAA Engineer, providing sufficient materials are applied to conform with the specified mixtures per unit of measure without additional cost to MAA.

The fertilizers may be supplied in the following forms:

- A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
- A finely ground fertilizer soluble in water, suitable for application by power sprayers or

July 1, 2004

c. A granular or pellet form suitable for application by blower equipment.

The rate of application will be based on results of soil tests performed by the University of Maryland Soil Testing Laboratory. By law, persons applying fertilizer to State-owned land shall follow the recommendations of the University of Maryland as set forth in the "Plant Nutrient Recommendations Based on Soil Tests for Turf Maintenance" and the "Plant Nutrient Recommendations Based on Soil Tests for Soil Production" (see Appendix B). Application of the fertilizer shall be in a manner that is consistent with the recommendations of the University of Maryland Cooperative Extension.

## CONSTRUCTION METHODS AND EQUIPMENT

**903-3.1 GENERAL.** This section provides approved methods for the application of and includes standards for seed preparation, methods of application, and equipment to be used during the process. Line and fertilizer shall be applied to seeded areas before the seed is spread. The mixture of seed will be determined for sites based on environmental conditions as described in Paragraph 903-2.1.3.

**903-3.2 ADVANCE PREPARATION.** Areas designated for seeding shall be properly prepared in advance of seed application. The area shall be filled and graded prior to application of line and fertilizer, and the surface area shall be cleared of any stones larger than 1 inch in diameter, sticks, stumps, and other debris that might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. Damage caused by erosion or other forces that occur after the completion of grading shall be repaired prior to the application of fertilizer and line. The Contractor will repair such damage, which may include filling gullies, smoothing irregularities, and repairing other incidental damage before beginning the application of fertilizer and ground limestone.

If an area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, all grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil shall be scarified or otherwise loosened to a depth not less than 3 inches (75 mm). Clods shall be broken and the top 3 inches (75 mm) of soil shall be worked into a satisfactory condition by disking or by use of cultipacker, rollers, drag, harrow, or other appropriate means.

An area to be seeded shall be considered a satisfactory seedbed (without requiring additional treatment) if it has recently been thoroughly loosened and worked to a depth of not less than 3 inches; the top 3 inches of soil is loose, friable, and is reasonably free from large clods, rocks, large roots, or other undesirable matter; appropriate amounts of fertilizer and lime have been added, and, if it has been sloped to the required grade immediately prior to seeding. For slope areas steeper than 3:1 (three horizontal to one vertical), the subsoil shall be loose to a depth of 1 inch.

After completion of filling and grading, line and fertilizer shall be applied within 48 hours according to the specified rate (Paragraphs 903-2.2 and 2.3) and methods

July 1, 2004

(Paragraphs 903-3.3.1 and 903-3.3.2) approved by MAA. The seeding mixture shall be applied within 48 hours after application of line and fertilizer. To firm the seeded areas, cultipacking shall occur immediately after seeding.

**903-3.3 METHODS OF APPLICATION.** Line, fertilizer, and seed mixture shall be applied by either the dry or wet application methods that have been approved by MAA and are detailed below.

### 903-3.3.1 DRY APPLICATION METHOD

a. Lining. If soil test results indicate that lime is needed, the following procedures will be used: following advance preparation of the seedbed, lime shall be applied prior to the application of any fertilizer or seed and only on seedbeds that have been prepared as described in paragraph 903-3.2. The lime shall be uniformly spread and worked into the top 2 inches of soil, after which the seedbed shall be properly graded again.

b. Fertilizing. Following advance preparation (and liming if necessary), fertilizer shall be spread uniformly at the specified rate to provide no less than the minimum quantity stated in Paragraph 903-2.3.

c. Seeding. Seed mixtures shall be sown immediately after fertilization of the seedbed. The fertilizer and seed shall be lightly mixed to a depth of 1 inch for newly graded and disturbed areas.

d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted using a cultipacker or an approved lawnmower.

### 903-3.3.2 WET APPLICATION METHOD/DROSEEDING

a. General. The Contractor may elect to apply seed and fertilizer per Paragraph c and d of this section in the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified in Paragraph 903-2.3.

b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of making increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until use.

The spraying equipment shall also include a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square inch. The

July 1, 2004

pressure pump assembly shall be configured to allow the mixture to flow through the tank when not being sprayed from the nozzle. All pump pressure and pipelines shall be capable of providing clearance for 30-inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. A pressure gauge shall be connected to and mounted immediately behind the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 180 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture to be applied to the mixture may be properly sprayed over a distance varying from 20 feet to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings. In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

c. Mixtures. Lines shall be applied separately in the quantity specified, prior to the fertilizing and seeding operations. Lines should be added to mixed with water at a concentration not to exceed 220 pounds of line for every 100 gallons of water. After line has been applied, the tank should be emptied and rinsed with fresh water. Seed and fertilizer shall be mixed together in the relative proportions specified, but the resulting concentration should not exceed 220 pounds of mixture per 100 gallons of water and should be applied within 30 minutes to prevent fertilizer burn of the seeds.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Branch water shall not be used at any time. The Contractor shall identify all sources of water to the MAA Engineer at least two weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 30 minutes from the time they were mixed or they shall be wasted and disposed of at a location acceptable to the Engineer.

d. Spraying. Lines shall be sprayed upon previously prepared seedbeds on which the line, if required, shall have been worked in already. The mixture shall be applied using a per ITEM 905.

July 1, 2004

shall be applied using a high-pressure spray which shall always be directed upward into the air so that the mixture will fall to the ground in a uniform spray. Nozzles or spray shall never be directed toward the ground in such a manner that might produce erosion or runoff. Particular care shall be exercised to ensure that the application is made uniformly, at the prescribed rate, and to avoid spray misting and overlapped areas. Predefined quantities of the mixture shall be used in accordance with specifications to cover specified sections of lawns areas. To check the rate and uniformity of application, the applicator will observe the degree of wetting of the ground or distribute test sheets of paper or mats over the area at intervals and observe the quantity of material deposited thereon.

On surfaces that are to be mulched as indicated by the plans or designated by the MAA Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

**903-3.4 MAINTENANCE OF SEEDING AREAS.** The contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surface pilling or otherwise damaged following seeding shall be repaired by regrading and reseeded as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work performed under this section, the Contractor will be required to establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. If at the time when the contract has been otherwise completed it is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the unaccepted portions of the areas seeded out of season will be withheld until such time as these requirements have been met.

## MULCHING

Mulch shall be applied to all seeded areas immediately after seeding. During the time periods when seeding is not permitted, mulch shall be applied immediately after grading.

July 1, 2004

## TEMPORARY SEEDING

Line: 100 pounds of dolomitic limestone per 1,000 square feet.

Fertilizer: 15 pounds of 10-10-10 per 1,000 square feet.

Seed: Per ITEM 903

Mulch: Mulch shall be applied as per ITEM 905.

## FILL

No fills may be placed on frozen ground. All fill to be placed is approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. All fill in roadways and parking areas is to be classified Type 2 as per Anne Arundel County Code - Article 21, Section 2-302, and compacted to 90% density, comparison to be determined by ASTM 1557-67 (Modified Proctor). Any fill within the building area is to be compacted to a minimum of 95% density as determined by methods previously mentioned. Fills for pond embankments shall be compacted as per MD-78 Construction Specifications. All other fills shall be compacted sufficiently so as to be stable and prevent erosion and slippage.

## SODDING

Installation of sod should follow permanent seeding dates. Sodded preparation for sod shall be as noted above. Line and fertilizer per permanent seeding specifications and lightly irrigate soil prior to laying sod. Sod is to be laid on the contour with all ends tightly butting. Joints are to be staggered between rows. Water and roll or tamp and to insure positive root contact with the soil. All slopes steeper than 3:1, as shown, are to be permanently sodded or protected with approved erosion control matting. Additional watering for establishment may be required. Sod is not to be installed on frozen ground. Sod shall not be transplanted when moisture content (dry or wet) and/or extreme temperature may adversely affect its survival. In the absence of adequate rainfall, irrigation should be performed to ensure establishment of sod.

Install sod as per ITEM 904.

July 1, 2004

## HCSCD/MAA NOTES

THE PROPOSED PROJECT IS LOCATED IN HOWARD COUNTY, MARYLAND ON TAX MAP 38, BLOCK 3, PARCEL 42, 44, 45 & 46. THE PROPOSED PROJECT IS LOCATED NEAR THE BALTIMORE WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT (BWI), APPROXIMATELY 14,000 FEET NORTH OF RUNWAY 15R-33L.

- SEDIMENT BASINS AND TRAPS ARE PROPOSED FOR SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION.
- SEDIMENT TRAPS AND BASINS MUST BE DRAINED COMPLETELY THROUGH A FILTERING DEVICE TO A CLEAR WATER OUTFALL WITHIN 24 HOURS FOLLOWING ANY RAINFALL EVENT.
- LANDSCAPING & STORM WATER POND LANDSCAPING ON SITE.

ANY DEVIATION TO PLANT SPECIES AND VEGETATION USED ON THESE PLANS NEED APPROVAL FROM HCSCD/MAA. THE PLANT SPECIES USED ON THIS SITE ARE TO AVOID ITS POTENTIAL TO ATTRACT WILDLIFE THAT COULD POSE STRIKE HAZARD TO AIRCRAFT.

- BWI AIRPORT NOISE ZONE:

THE SITE FOR THIS PROJECT IS LOCATED OUTSIDE THE BOUNDARIES OF THE AIRPORT NOISE ZONE.

- THE ALLOWABLE HEIGHT FOR ANY PERMANENT OR TEMPORARY STRUCTURES TALLER THAN 277 FEET ABOVE MEAN SEA LEVEL NEED OBSTRUCTION ANALYSIS REVIEW AND PERMIT FOR THE AIRPORT ZONE.
- THE STORM WATER MANAGEMENT FACILITIES WITHIN 10,000 FEET OF ACTIVE RUNWAYS OR WITHIN 5 MILES OF AN APPROACH SURFACE MUST DRAIN WITHIN 24 HOURS FOLLOWING THE 1 OR 2 YEAR STORM EVENTS AND WITHIN 48 HOURS FOLLOWING THE 10 OR 100 YEAR STORM

OWNER / DEVELOPER / CONTRACT PURCHASER  
TRINITY HOMES AT CYPRESS SPRINGS, L.L.C.  
3675 PARK AVENUE, SUITE 301  
ELlicott CITY, MARYLAND 21043  
(410) 450-0023

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN  
HCSCD/MAA NOTES & DETAILS  
CYPRESS SPRINGS - PHASE 1  
LOTS 1 - 13

1ST ELECTION DISTRICT  
DPZ REFERENCES: SP-05-06, PB CASE 374, WP-05-30,  
SP-09-061, 10-028, 1306/F 658, 1233/F 574  
L 8344/F 670, L 4518/F 458, 114-3208, 110-3381, WP-10-175, WP-11-202

TAX MAP 38 BLOCK 3  
PARCELS 42, 44, 45 AND 46  
HOWARD COUNTY, MARYLAND  
ZONED: R-ED

**ROBERT H. VOGEL**  
ENGINEERS - SURVEYORS - PLANNERS  
8407 MAIN STREET  
ELlicott CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193  
EXPIRATION DATE: 09-27-2012

DESIGN BY: RHW/JCO  
DRAWN BY: JMR/MSK/G  
CHECKED BY: RHW  
DATE: JUNE 2012  
SCALE: AS SHOWN  
W.O. NO.: 04-30

5 SHEET OF 5

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DIRECTOR

DATE: 6/20/12  
DATE: 6/22/12  
DATE: 6/20/12