

GENERAL NOTES

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED JULY 2014. OFFSITE TOPOGRAPHY FROM HOWARD COUNTY GIS.
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED OCTOBER, 2014.
- 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. 421A AND 0080 WERE USED FOR THIS PROJECT.
- THE SUBJECT PROPERTY IS ZONED "R-12" IN ACCORDANCE WITH THE 10/6/2013 COMPREHENSIVE ZONING PLAN AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- WATER FOR THIS PROJECT IS TO BE SERVICE CONNECTIONS FROM CONTRACT NO. 3-W.
- SEWER FOR THIS PROJECT IS TO BE SERVICE CONNECTIONS FROM CONTRACT NO. 350-S.
- EXISTING UTILITIES LOCATED FROM TOPOGRAPHIC SURVEY AND AS-BUILT DRAWINGS. 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.
- A "FLOODPLAIN" IS LOCATED ONSITE. THE "FLOODPLAIN" ELEVATIONS ARE TAKEN FROM THE "GATEWAY VILLAGE DAM-DANGER REACH STUDY" PREPARED FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT - MDE, DAM SAFETY DIVISION DATED JULY 2012 FOR KCI TECHNOLOGIES, INC. THE ELEVATIONS SHOWN ARE WORST CASE PROBABLE MAXIMUM FLOOD (PMF) ELEVATIONS ASSOCIATED WITH A DAM FAILURE.
- NO STEEP SLOPES OVER 20,000 SF CONTIGUOUS ARE LOCATED ONSITE.
- FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT SHALL BE ADDRESSED BY A FOREST CONSERVATION PLAN SUBMITTED WITH A SUBDIVISION OR SITE DEVELOPMENT PLAN.
- NO WETLANDS ARE PRESENT ONSITE PER ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, AUGUST 2014.
- IN ACCORDANCE WITH SECTION 16.121(A)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE OPEN SPACE REQUIREMENTS FOR THIS R-12 PROJECT (7,200 SF LOT) IS 40% OF GROSS AREA (2.35 AC. GROSS AREA X 40% = 0.94 AC.).
- GEOTECHNICAL INVESTIGATIONS SHALL COMPLETED AS PART OF THE SITE DEVELOPMENT PLAN PACKAGE.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- FOREST STAND Delineation PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, ON AUGUST 2014.
- MR. CANOLES NOTED 5 SPECIMEN TREES ON THE PROJECT SITE. THIS PLAN PROPOSAL REQUIRES THE REMOVAL OF SPECIMEN TREE #4. THE REQUIRED WAIVER PETITION SHALL BE REQUESTED WITH A FUTURE SUBDIVISION PLAN.
- GUILFORD ROAD IS CLASSIFIED AS A MAJOR COLLECTOR. SITE ACCESS SHALL BE VIA A USE-IN-COMMON DRIVEWAY.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- THE EXISTING DWELLING AND STRUCTURES HAVE BEEN REMOVED.
- THE PROPOSED UNITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF MICRO-SCALE AND NON STRUCTURAL PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. MICRO-SCALE PRACTICES INCLUDE RAIN GARDEN (M-7) FACILITIES AND RAIN BARRELS (M-1) AS WELL AS NON STRUCTURAL PRACTICES; DISCONNECTION OF ROOFTOP RUNOFF (N-1) AND SHEET FLOW TO CONSERVATION AREA (N-3). THESE FACILITIES WILL BE PRIVATELY OWNED, AND MAINTAINED.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME.

ENVIRONMENTAL SITE DESIGN NARRATIVE:

- IN ACCORDANCE WITH CHECKLIST ITEM III.K.
- THE NATURAL AREAS ON THE PROJECT SITE ARE LOCATED IN THE SOUTHERN PORTION OF THE SITE DRAINING TO THE EAST. NO DISTURBANCE TO THE STREAM AND STREAM BUFFER OR THEIR WOODED RESOURCES IS PROPOSED. NO WETLAND AND WETLAND BUFFER IS PRESENT ONSITE.
 - NO DRAMATIC DISTURBANCE TO THE NATURAL DRAINAGE PATTERNS ARE PROPOSED, PLEASE REFER TO THE PROPOSED GRADING, SHEET 2.
 - THE CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH THE ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT. THE ESD CONCEPT INCLUDES THE USE OF MICRO-SCALE AND NON STRUCTURAL PRACTICES INCLUDING RAIN GARDEN (M-7) FACILITIES AND RAIN BARRELS (M-1). ALSO, NON STRUCTURAL PRACTICES DISCONNECTION OF ROOFTOP RUNOFF (N-1) AND SHEET FLOW TO CONSERVATION AREA (N-3) IS PROPOSED. THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
 - SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE A PROPOSED SUPER SILT FENCE PERIMETER CONTROLS. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
 - STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE USE OF THE MICRO-SCALE AND NON STRUCTURAL PRACTICES INCLUDING RAIN GARDEN (M-7) FACILITIES AND RAIN BARRELS (M-1). ALSO, NON STRUCTURAL PRACTICES DISCONNECTION OF ROOFTOP RUNOFF (N-1) AND SHEET FLOW TO CONSERVATION AREA (N-3) IS PROPOSED. THE RESULTS OF THE ENVIRONMENTAL SITE DESIGN FOR THIS PROJECT WILL REFLECT "WOODS IN GOOD CONDITION".
- TARGET PE = 1.6" PROVIDED PE = 1.6"
 TARGET ESDv = 2,170 CUFT PROVIDED = 2,255 CUFT
- AT THIS CONCEPT STAGE OF DEVELOPMENT, NO DESIGN MANUAL WAIVERS AND/OR WAIVER PETITIONS FOR ENVIRONMENTAL AND STORMWATER MANAGEMENT DESIGN ARE REQUIRED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 4-24-15
 CHIEF, DEVELOPMENT ENGINEERING DIVISION JR DATE

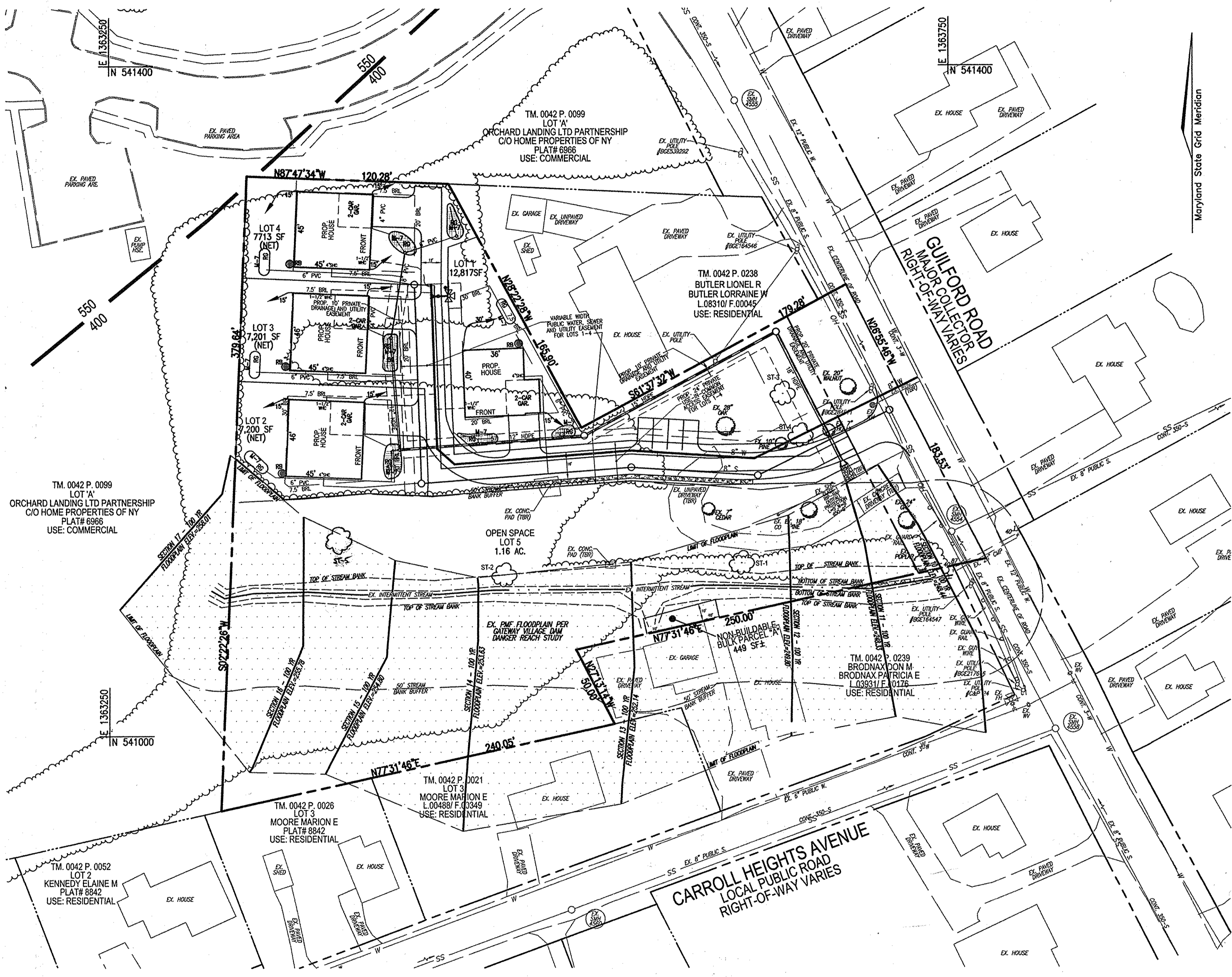
[Signature] 4-15-15
 CHIEF, DIVISION OF LAND DEVELOPMENT CS DATE

ENVIRONMENTAL CONCEPT PLAN COTTAGE GROVE

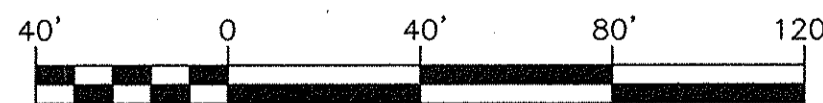
9992 GUILFORD ROAD
 JESSUP, MD. 20794
 HOWARD COUNTY, MD

NOTES:

- ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.



LAYOUT PLAN
 SCALE: 1" = 40'



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 Consulting Ecologists
 P.O. Box 5006 Clia Arm, Maryland 21097 Telephone (410) 832-2480 Fax (410) 832-2488

MD DNR Qualified Professional
 USACE Wetland Delineator
 Certification # WDCR03MD061004482
 John I. Canoles

SITE ANALYSIS DATA CHART

A. TOTAL PROJECT AREA:	2.35 AC.
B. AREA OF PLAN SUBMISSION:	2.35 AC.
C. AREA OF WETLANDS AND BUFFERS:	0 S.F.
D. AREA OF FLOODPLAIN:	0.9 AC. +/-
E. AREA OF FOREST:	0.8 AC. (REFER TO FSD)
F. AREA OF STEEP SLOPES (15% & GREATER):	0 S.F. OR 0.00 AC.
G. ERODIBLE SOILS:	N/A
H. LIMIT OF DISTURBED AREA:	0.9 AC. +/-
I. PROPOSED USES FOR SITE AND STRUCTURES:	RESIDENTIAL SINGLE FAMILY DETACHED (SFD) HOMES
J. GREEN OPEN AREA:	1.98 AC.
K. PROPOSED IMPERVIOUS AREA:	0.37 AC.
L. PRESENT ZONING DESIGNATION:	R-12
M. OPEN SPACE REQUIRED:	0.94 ACRES (40%)
N. TOTAL NUMBER OF UNITS ALLOWED:	4
O. TOTAL NUMBER OF UNITS PROPOSED:	4
P. DPZ FILE REFERENCES:	-

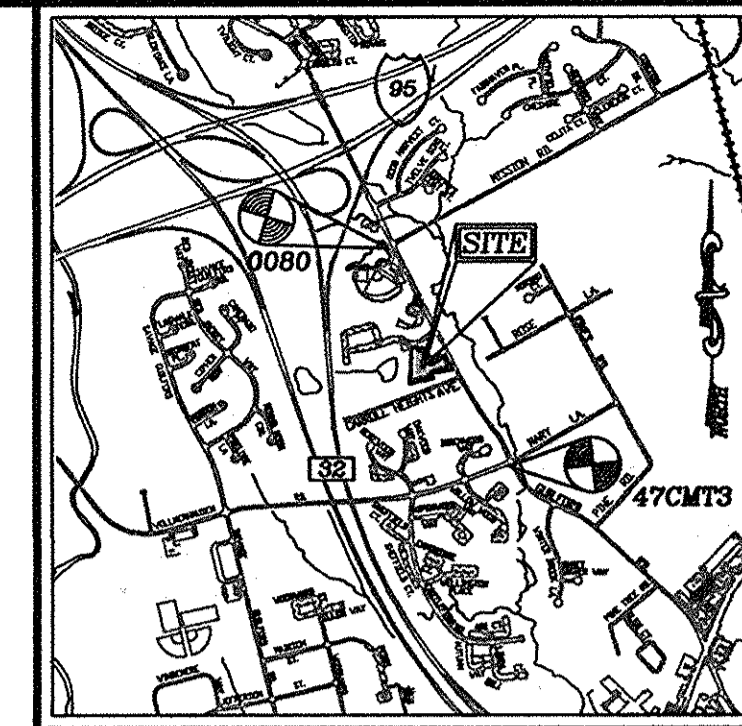
- NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR APPROPRIATE HABITATS WERE OBSERVED ON THE PROPERTY DURING FIELD REVIEW BY ECO-SCIENCE PROFESSIONALS, INC.
- SURROUNDING LAND USE IS HIGH DENSITY RESIDENTIAL DEVELOPMENT.
- LESS THAN 0.1 ACRE OF FOREST IS PRESENT WITHIN 100 FEET OF THE PROPERTY.
- THE STREAM ON THE SUBJECT PROPERTY IS PART OF THE PATUXENT RIVER WATERSHED (02-13011). THE STREAM DRAINS TO LITTLE PATUXENT RIVER, DOWNSTREAM OF ROUTE 1 AND IS CLASSIFIED AS USE I-P. A 50 FOOT INTERMITTENT STREAM BUFFER WILL BE REQUIRED.
- THERE ARE NO KNOWN HISTORIC STRUCTURES OR CEMETERIES ON THE PROPERTY.
- THE SITE CONTAINS 0.89 ACRES OF 100 YEAR FLOODPLAIN.
- THERE ARE SPECIMEN TREES ON THE PROPERTY. THERE ARE NO KNOWN TREES THAT ARE STATE CHAMPION TREES AND OR TREES 75% OF THE SIZE OF THE STATE CHAMPION TREE ON THE PROPERTY.

BENCHMARKS

COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 0080, 47CMT3.
 HOWARD COUNTY BENCHMARK
 0080 N 542366.914 E 1363075.974 ELEV. 282.392
 47CMT3 N 540092.293 E 1364340.611 ELEV. 212.962

SHEET INDEX

DESCRIPTION	SHEET NO.
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SOILS MAP, GRADING, EROSION, AND SEDIMENT CONTROL PLAN	2 OF 3
SWM DRAINAGE AREA MAP, NOTES & DETAILS	3 OF 3



VICINITY MAP
 SCALE: 1"=2,000'
 ADC MAP COORDINATE: MAP 40, GRID F-2

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- CENTERLINE OF EXISTING STREAM
- EXISTING TREE LINE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER

Specimen Tree Chart

Key	Species	Size (in.dbh)	CRZ (feet radius)	Comments
1	Sweet Gum	37	55.5	Good condition, in floodplain
2	Red oak	36.5	54.75	fair, storm damage in crown
3	Pin oak	30	45	good
4	Pin oak	31	46.5	good
5	Oak sp.	35	54	good condition, in floodplain

PER PLAN PROPOSAL, SPECIMEN TREE #4 SHALL BE REMOVED. REQUIRED WAIVER SHALL BE SUBMITTED WITH FUTURE SUBDIVISION PLAN.

OWNER
 MICHAEL L. PFAU
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DEVELOPER
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 3675 PARK AVE., SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

ENVIRONMENTAL CONCEPT PLAN

LAYOUT PLAN

COTTAGE GROVE
 9992 GUILFORD ROAD
 JESSUP, MD. 20794
 ZONED: R-12
 L 15472/F.00362

TAX MAP 42 BLOCK 24
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PARCEL 101

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8966

PROFESSIONAL CERTIFICATE

DESIGN BY: RVE
 DRAWN BY: KG
 CHECKED BY: RRV
 DATE: MARCH 2015
 SCALE: AS SHOWN
 W.O. NO.: 14-11

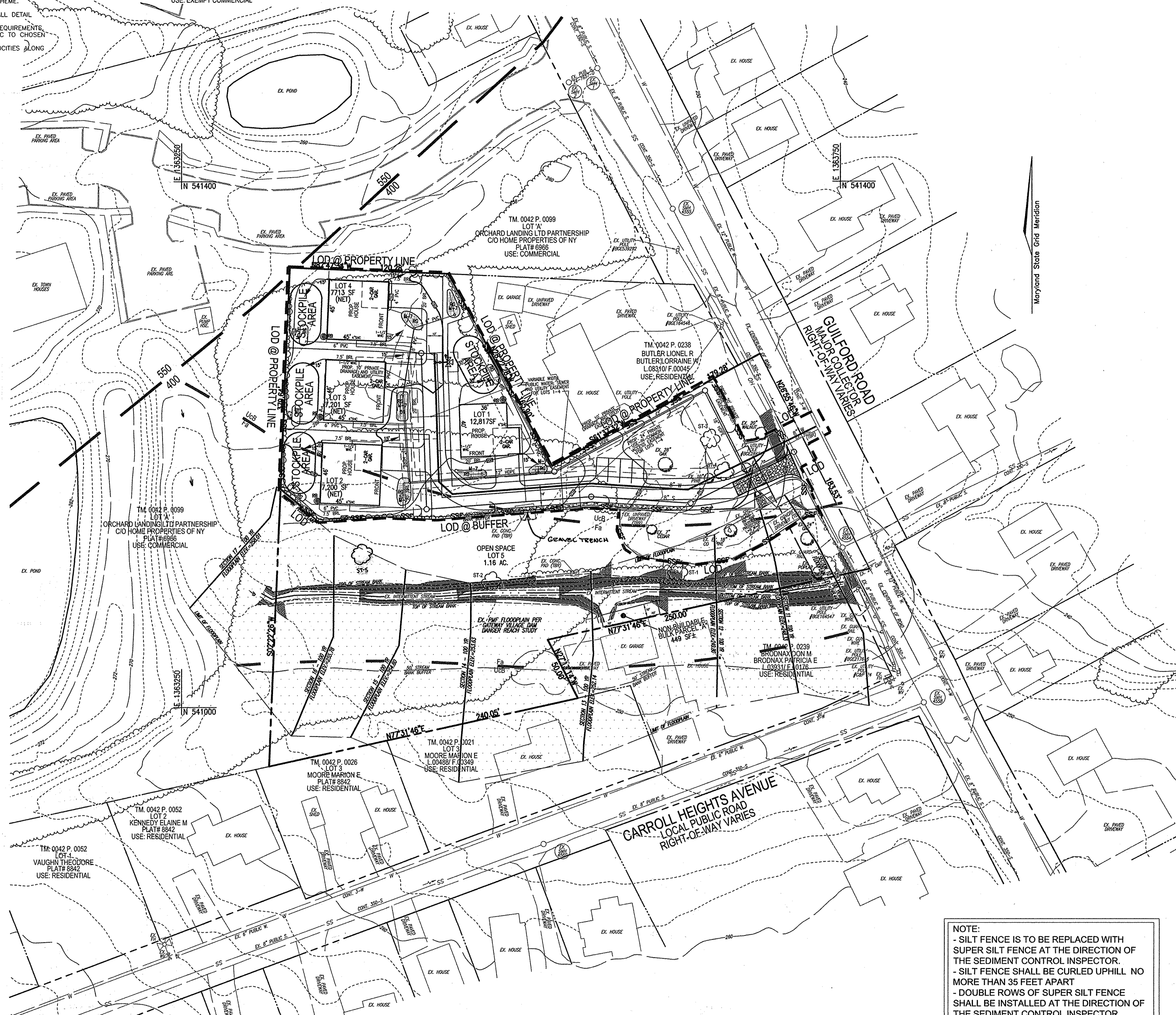
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND UNDER NO. 16193 EXPIRATION DATE: 09-27-2018

1 SHEET OF 3

NOTES:

- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME.
1. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING
 2. THE PROJECT SHALL ADDRESS ANY TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.
 3. THE FINAL PLAN SUBMISSION SHALL PROVIDE A DRAINAGE AREA MAP SPECIFIC TO CHOSEN SEDIMENT CONTROLS
 4. THE FINAL PLAN SUBMISSION SHALL PROVIDE COMPUTATIONS TO VERIFY VELOCITIES ALONG DIKES, SWALES AND AT DIKES OUTLET LOCATIONS

TM. 0042 P. 0421
HOWARD COUNTY MARYLAND
C/O DEPT OF RECREATION & PARKS
L.10385/ F.00329
USE: EXEMPT COMMERCIAL



LEGEND:

	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	SOILS
	EXISTING TREELINE (FIELD LOCATED)
	EXISTING TREES (FIELD LOCATED)
	EXISTING FENCE
	CENTERLINE OF EXISTING STREAM
	PROPOSED TREELINE
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
	PROPOSED SUPER SILT FENCE
	PROPOSED LIMIT OF DISTURBANCE

NOTES:

1. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED BUILDING AND/OR GRADING PERMIT
2. REVIEW OF THIS PLAN FOR COMPLIANCE WITH ZONING AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE PERMIT STAGES; AND THEREFORE, THIS PLAN IS SUBJECT TO ADDITIONAL AND MORE DETAILED COMMENTS AS THE PLAN PROGRESSES THROUGH THE PERMIT PROCESS.
3. THERE ARE NO ENVIRONMENTAL FEATURES: FLOODPLAIN, WETLANDS, STREAMS OR STEEP SLOPES THAT EXISTS WITHIN THE DEVELOPED AREA.

NOTE:
- SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
- SILT FENCE SHALL BE CURLED UPHILL NO MORE THAN 35 FEET APART
- DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Gahan 4-24-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

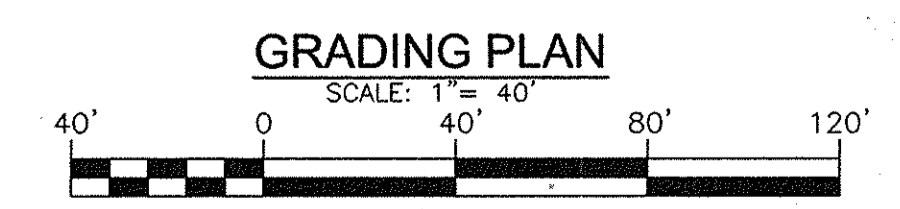
Kathleen Lusk 4-15-15
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

MAPPED SOILS TYPES - SAVAGE SW MAP #24

SYMBOL	NAME / DESCRIPTION	GROUP	HYDRO	PERCENT SAND	PERCENT SILT	PERCENT CLAY	PERCENT ORGANIC	PERCENT ROCK	PERCENT COBBLES	PERCENT STONES	PERCENT Boulders	PERCENT EROSION
Fs	FALLS CHURCH SANDY LOAM, 0 TO 2 PERCENT SLOPES	B/D	YES	83	13	0.02	NO	NO	NO	NO	NO	NO
Ud	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 0 TO 5 PERCENT SLOPES	C	NO	NO	NO	0.32	NO	NO	NO	NO	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY

NOTE:
HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL EROSION FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT



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NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN
SOILS MAP, GRADING, EROSION, AND
SEDIMENT CONTROL PLAN**

COTTAGE GROVE
9992 GUILFORD ROAD
JESSUP, MD. 20794
ZONED: R-12
L.15472/ F.00362

TAX MAP 42 BLOCK 24
6TH ELECTION DISTRICT

PARCEL 101
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
ENGINEERS & INC.**
ENGINEERS • SURVEYORS • PLANNERS

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PROFESSIONAL CERTIFICATE

STATE OF MARYLAND
ROBERT H. VOGEL
No. 16193
Professional Engineer

DESIGN BY: RVE
DRAWN BY: KG
CHECKED BY: RHV
DATE: MARCH 2015
SCALE: AS SHOWN
W.O. NO.: 14-11

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. EXPIRES: 12-31-2018

2 SHEET OF 3

NOTE:
EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

