

SITE ANALYSIS DATA/TABULATION

SITE ANALISIS DATA/TABULATION
A) TOTAL PROJECT AREA 34.4± AC.
B) AREA OF WETLANDS AND BUFFER 1.30± AC.
C) AREA OF 100-YR. FLOODPLAIN 0.37± AC.
D) AREA OF FOREST 4.25± AC.
E) AREA OF STEEP SLOPES 25% OF GREATER 0.02 AC.
F) AREA OF DEDICATION 2.67 AC.
G) HIGHLY ERODIBLE SOILS (K> 0.35) 0.88± AC.
H) NUMBER OF UNITS ALLOWED 22
I) NUMBER OF RESIDENTIAL UNITS PROPOSED 22
J) AREA OF PLAN SUBMISSION 34.4± AC.
K) LIMIT OF DISTURBED AREA
L) OPEN SPACE REQUIREDN/A
M) OPEN SPACE PROVIDED N/A
N) PRESENT ZONING DESIGNATION RR-DEO
0) PROPOSED USE: SINGLE FAMILY DETACHED DWELLINGS
P) IMPERVIOUS COVER 4.9± AC.

NOTE: THE TOTAL PROPERTY AREA IS 83.81 ACRES. THE ABOVE ENVIRONMENTAL AREAS ARE AS LOCATED WITHIN THE EFFECTIVE SITE AREA AS DEFINED FOR STORMWATER MANAGEMENT. AREAS OUTSIDE OF THE LIMIT OF DISTURBANCE ARE NOT INCLUDED, AS THEY WILL NOT BE IMPACTED.

GENERAL NOT

- 1. SUBJECT PROPERTY ZONED RC-DEO PER ZONING PLAN AND THE COMP LITE ZONING 7-28-06.
- 2. THIS PROJECT IS SUBJECT TO THE AMENDI SUBDIVISION AND LAND DEVELOPMENT REGI REGULATIONS EFFECTIVE APRIL 13, 2004.
- 3. PROJECT TOPOGRAPHY WITHIN THE SUBDIVI RUN BOUNDARY SURVEY AND TOPO PERFO ENGINEERING INC. DATED JANUARY, 2012.
- 4. EXISTING TOPOGRAPHY OUTSIDE OF THE
- SHOWN HEREON IS BASED ON HOWARD (5. THE COORDINATES SHOWN HEREON ARE B GEODETIC CONTROL WHICH IS BASED UPOI
- COORDINATE SYSTEM. HOWARD COUNTY MO WERE USED FOR THIS PROJECT.
- 6. NO GRADING, REMOVAL OF VEGETATIVE COV STRUCTURES SHALL BE PERMITTED WITHIN STREAM, OR THEIR REQUIRED BUFFERS UN THE DEPARTMENT OF PLANNING AND ZONIN
- 7. THERE ARE NO STEEP SLOPES (25% OR (ON THIS SITE.
- 8. A FOREST STAND DELINEATION WAS PREP PROFESSIONALS, INC., FEBRUARY 2012.
- 9. A PRELIMINARY FLOOD STUDY DATED MARC
- BENCHMARK ENGINEERING, INC. 10. TO THE BEST OF OUR KNOWLEDGE THERE ON THIS SITE.
- 11. A NOISE STUDY IS NOT REQUIRED FOR TH
- 12. THIS SITE IS NOT LOCATED WITHIN THE MI AND SEWER WILL BE PRIVATE ON-SITE FA
- 13. THE FOREST CONSERVATION ACT OBLIGATION MET BY THE ON-SITE RETENTION OF FOR
- 14. THERE ARE NO PREVIOUS DPZ FILES FOR

HO. CO. #40FA (NAD '83) ELEV. 497.10 CONCRETE MONUMENT 0.25' BELOW SURFACE ON BROWN BRIDGE ROAD 0.3 MILE NORTH OF ROUTE 216 E 1,328,421.39 N 548,106.926' HO. CO. #40FB (NAD '83) ELEV. 504.438' MONUMENT BEING 10.5' OFF EDGE OF PAVEMENT 2.0' BELOW SURFACE AT THE INTERSECTION OF HALL SHOP ROAD AND ROUTE 216 E 1,326,000.81' N 548,470.381'

1 4-

N 553950'

644.38

SHEET 3

PRESERVATION PARCEL "D"

unifin

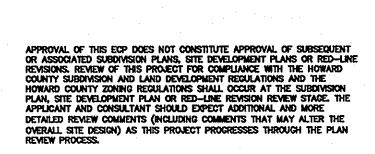
<u>LEGEND</u>

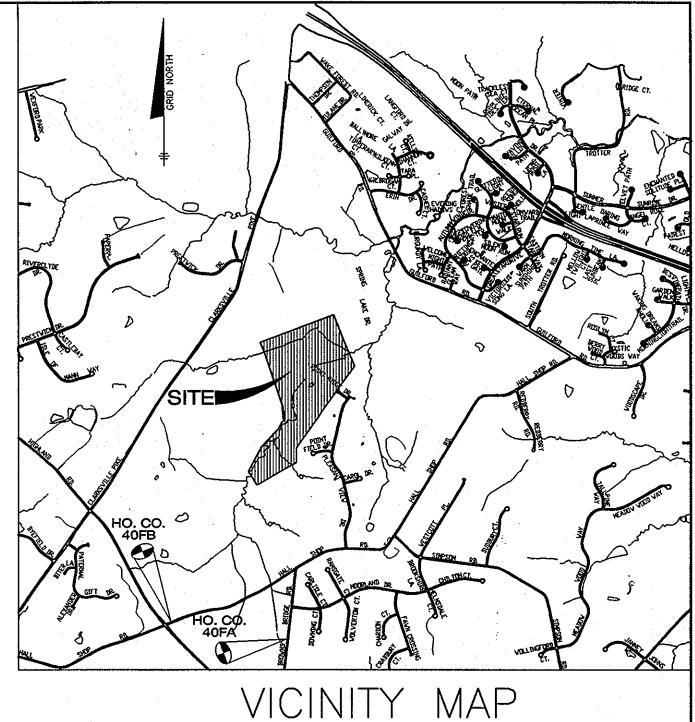
SOILS CLASSIFICATION	ChB2
XISTING CONTOURS	
IMIT OF WETLANDS	
XISTING WOODS LINE	· marin.
PROPOSED WOODS LINE	
XISTING STRUCTURE	
PROPOSED STRUCTURE	
SEPTIC RESERVE AREA	and a second sec
RAIN GARDENS	
NON-ROOFTOP DISCONNECT	
ACILITY DRAINAGE AREA	
PROPOSED WELL	
5% TO 25% SLOPES	
25% AND GREATER SLOPES	
00-YEAR FLOODPLAIN	مرد مرد من و من من من من من من
SUPER SILT FENCE	
TABILIZED CONSTRUCTION	ESCER

LIMIT OF DISTURBANCE

EROSION CONTROL MATTING -----PRCJECT: Regan Property DATE: 05/08/12 PRACTICES AND SIZING

		Pe	1.4	inches I		• • • • • •
Lot too	Dranage Area	Impervices	(%)	R/	ESOv (d)	Hotes
. 1	11436	3790	.U.,	0,347	3.2.1	
2	7572	1510	-0	0.586	369.3	Lord Walkadus
- 3	8285	4200	514	0.506	349.5	
4	1219:	4307	35%	0.353	373.8	
5	5433	2850	7:%	0.653	3:14	
6 .	4313	2550	30.5	0.770	306.8	
7	12225	5290	45	0.447	455.2	Linid Viel Palans
3	\$994	5264	53%5	0.524	436.4	:
9	9007	5173	57%	0.587	425.5	
10	12539	5348	23%	0.305	479.8	
11	8812	5342	ð: S	0.596	4374	
12	95:7	5350	-35	0.815	436.7	
13	8371	5292	84*S	0.320	439.3	
14	8575	5725	87%	0.35	465.1	
15	10352	5622	5155	0.512	467 3	
16	14709	5567	33 %	0.32:	478.8	
17	7:81	3550	54%	0.533	3:87	Lined WelRestors
13	10025	52.2	52%	0.518	432.7	
19	8506	4222	65%	0.634	343.3	Lintel - WellPartent
20	7347	4205	57%	0.565	3460	
2	14553	4536	33%	0.349	423.4	
22	4590	38.0	34 5	0.855	307.9	
MER-A	9225	4128	15.5	0.453	348.0	
MER-5	22205	10662	48	0.483	393.5	
MER-C	10334	4778	46%	0.464	401.6	
SY. D	17580	8225	47%	0.476	69-6	





SCALE: 1' = 2000'ADC MAP PAGE: 4933, GRID: J10

DESIGN NARRATIVE:

The site was analyzed as woods in good condition and a target RCN was determined. A target rainfall depth treatment (Pe) was determined based on the measured impervious areas and HSG soil types. The target Pe for this site is 1.0 inches. The target Pe was treated using Environmental Site Design practices as outlined in Chapter 5 of the 2000 Maryland Stormwater Design Manual, as amended by Maryland's Stormwater Management Act of 2007. The selected methods include Non-Rooftop disconnects and Micro-bioretention facilities, and grass swales.

This site contains two streams, which converge near the northeast side. These areas have associated wetlands. Only the wetland areas contained within the effective site area are described on this plan. The site has some areas of steep slopes in excess of 25%; however they are all located outside of the effective site area. To protect natural resource areas, it is important to delay release of stormwater runoff from new impervious areas to avoid increasing peak runoffs, and to adequately treat the stormwater to avoid damage to sensitive species. The design incorporates large lots with moderately sized houses and minimum width driveways in order to create the least possible stormwater runoff. In addition, steep slope areas are not included on the lots.

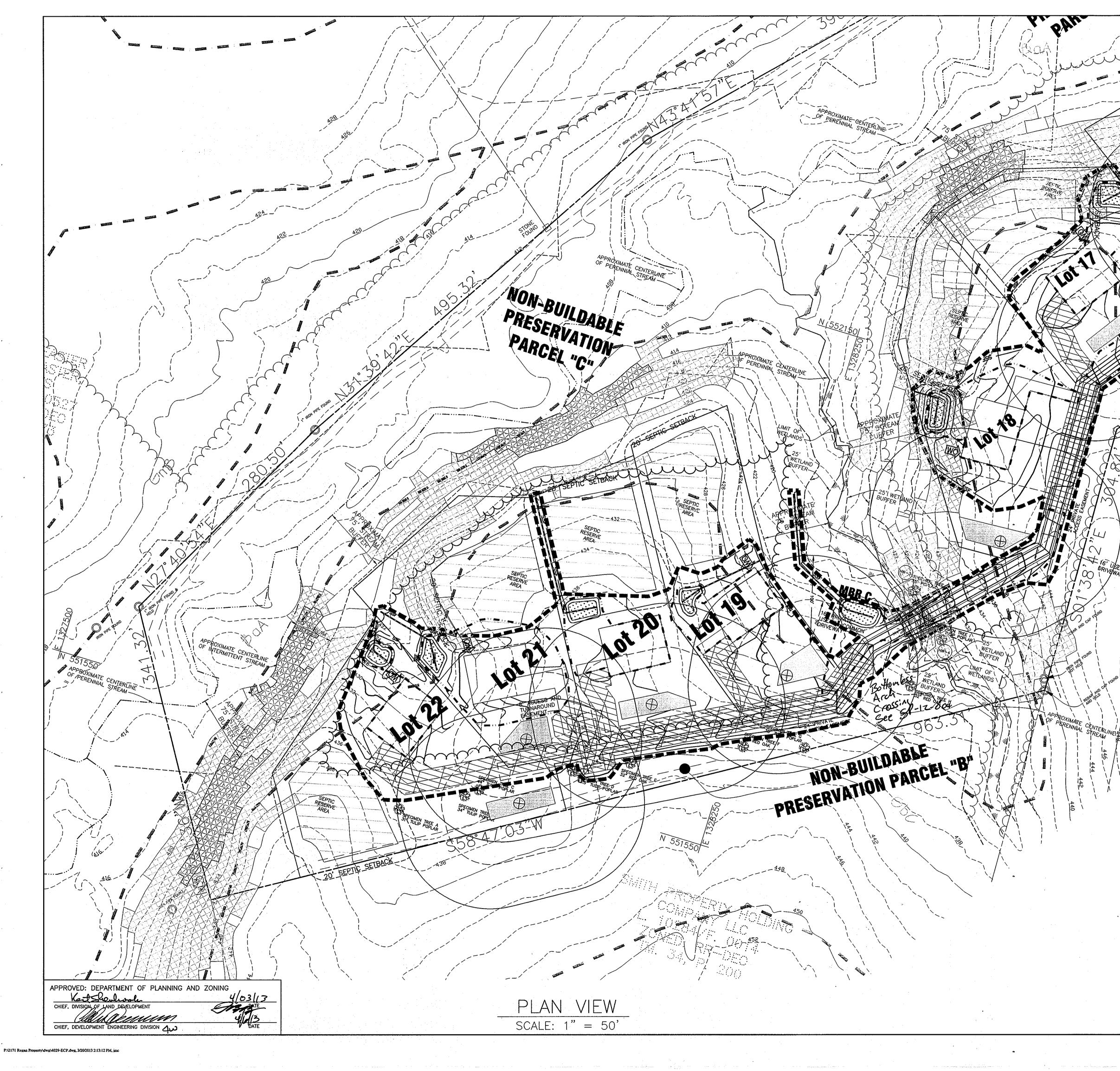
Conceptual treatment has been designated based on preliminary grading, the site topography and the house, well and septic locations. The roads treated by Non-Rooftop disconnect, grass swales and micro-bioretention. Driveway areas may be treated by disconnection, or on-lot micro-bioretention. Some driveway areas will be treated in open space facilities. Generally rooftop runoff will be piped to on-site micro-bioretention facilities. Micro-bioretention facilities may be required to have impervious lining, depending on proximity to well locations. Multiple outfalls are provided to generally release runoff in natural drainage patterns for the site.

Sediment and erosion controls have been designed based on the 1994 Maryland Specifications for Soil Erosion and Sediment Control. Erosion control matting and super silt fence will be used to prevent runoff containing unacceptable levels of TSS from leaving the site and entering the adjacent wetlands during the construction. It will be the obligation of the contractor to install, inspect and maintain these practices.

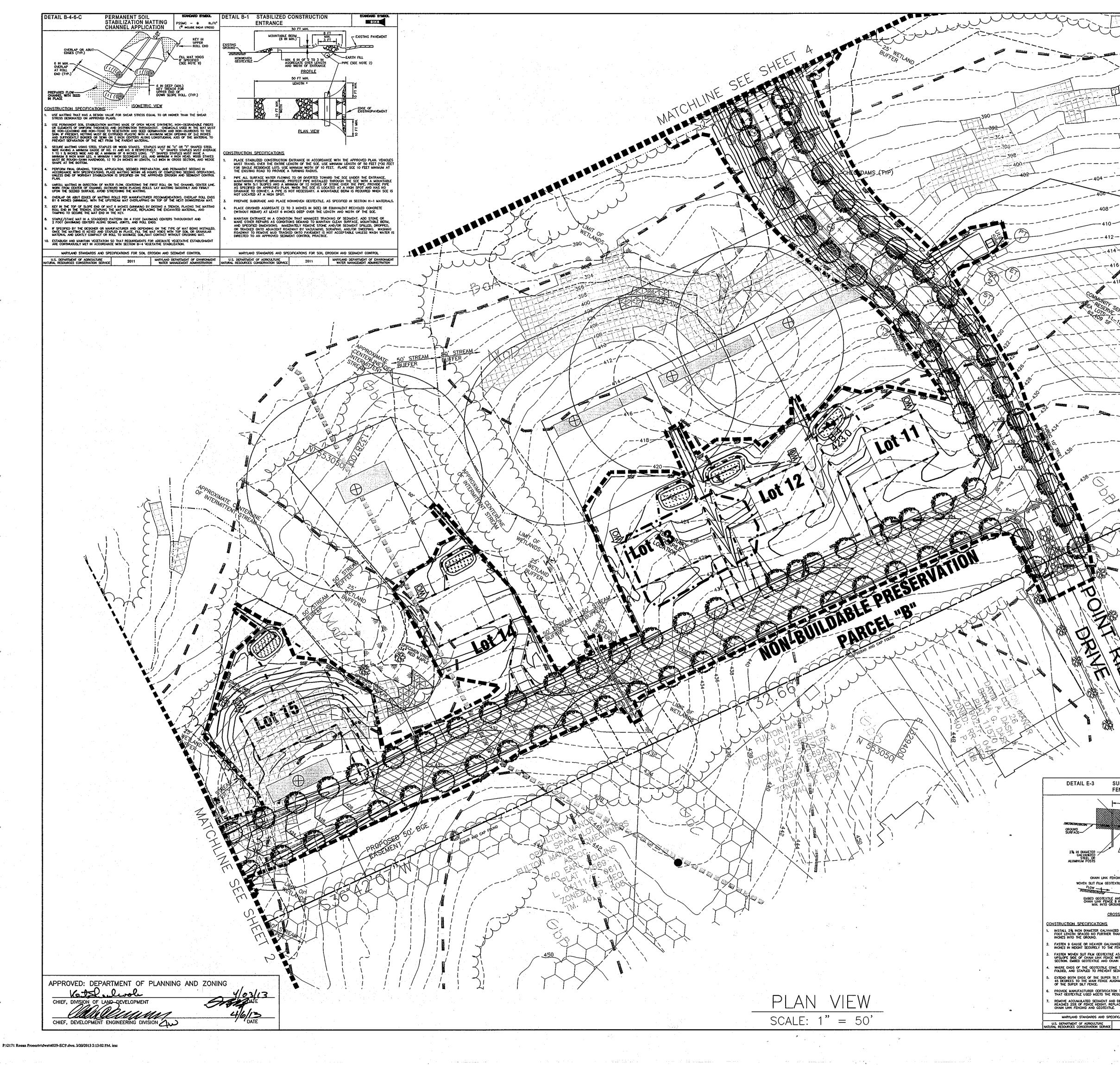
The target Pe for this site is 1.0 inches. By using Environmental Site Design practices as outlined in Chapter 5 of the 2000 Maryland Stormwater Design Manual as amended by Maryland Stormwater Management Act of 2007, full treatment of the target Pe of 1.0 will be achieved.

A Design Manual waiver may be required for overdrains or shallow underdrains for on—lot facilities where sufficient head cannot be provided to daylight underdrains. A Waiver Petition will be required to allow disturbance of wetlands, streams and their buffers.

	SHEET INDEX								
	NO. DESCRIPTION								
	1 ENVIRONMENTAL CONCEPT PLAN								
	2	ENVIRONMENTAL CONCEPT PLAN							
TES	3	3 ENVIRONMENTAL CONCEPT PLAN AND SEDIMENT CONTROL DETAILS							
	4 ENVIRONMENTAL CONCEPT PLAN AND SEDIMENT CONTROL NOTES								
THE 2-2-04 COMPREHENSIVE G AMENDMENTS EFFECTIVE			· ·						
			· · · · · · · · · · · · · · · · · · ·	· .					
DED FIFTH EDITION OF THE GULATIONS AND THE ZONING	NO.	DATE			REVISION		and a second second Second second		
VISION AREA ARE BASED ON FIELD ORMED BY BENCHMARK SUBDIVISION AREA AND OFFSITE SOUNTY GIS.	L		BENCH	RVEYORS A PL	ANNERS	documents was a duly lie	al Certification. I hereby certify that these were prepared or approved by me, and that I censed professional engineer under the laws State of Maryland, License No. 28376, Expiration Date: 1-1-2013.		
BASED UPON THE HOWARD COUNTY ON THE MARYLAND STATE PLANE ONUMENT NOS. #40FA AND #40FB	EINGLINEERLING, INC. 8480 BALTIMORE NATIONAL PIKE \blacktriangle SUITE 418 \bigstar ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 60 THOMAS JOHNSON DRIVE \blacktriangle FREDERICK, MARYLAND 21702 (P) 301-371-3505 (F) 301-371-3506 MARYLAND 21702 (P) 301-371-3505 (F) 301-371-3506								
OVER OR TREES, PAVING AND NEW I THE LIMITS OF WETLANDS, NLESS DEEMED NECESSARY BY ING.									
GREATER) IN EXCESS 20,000 S.F.							3/20/20/3		
ARED BY ECO-SCIENCE	ÓWNEF	<u>}:</u>			PROJECT:	SAN F	PROPERTY		
CH, 2012 WAS PERFORMED BY		· ·					ON PARCELS "A", "B" & "C"		
E ARE NO CEMETERIES LOCATED	RON	IALD REG	AN, SCOTT	REGAN	LOCATION:				
HIS DEVELOPMENT.		AND K	ELLY RÈGA ROUTE '10	N			No. 24, PARCEL No. 200 N DISTRICT ITY, MARYLAND		
IETROPOLITAN DISTRICT. WATER ACILITIES	HIG				TITLE:				
ON FOR THIS PROJECT WILL BE	HIGHLAND, MARYLAND 20777 TITLE: ENVIRONMENTAL CONCEPT PLAN								
r This site.			÷		DATE: MARCH, FEBRUARY,		PROJECT NO. 2171		
	DESIGN	I: AAM	DRAFT:	AAM	SCALE: AS SHOWN	2010	DRAWING OF		
		· · · · · · · · · · · · · · · · · · ·			Ē	CP-1	2-045		



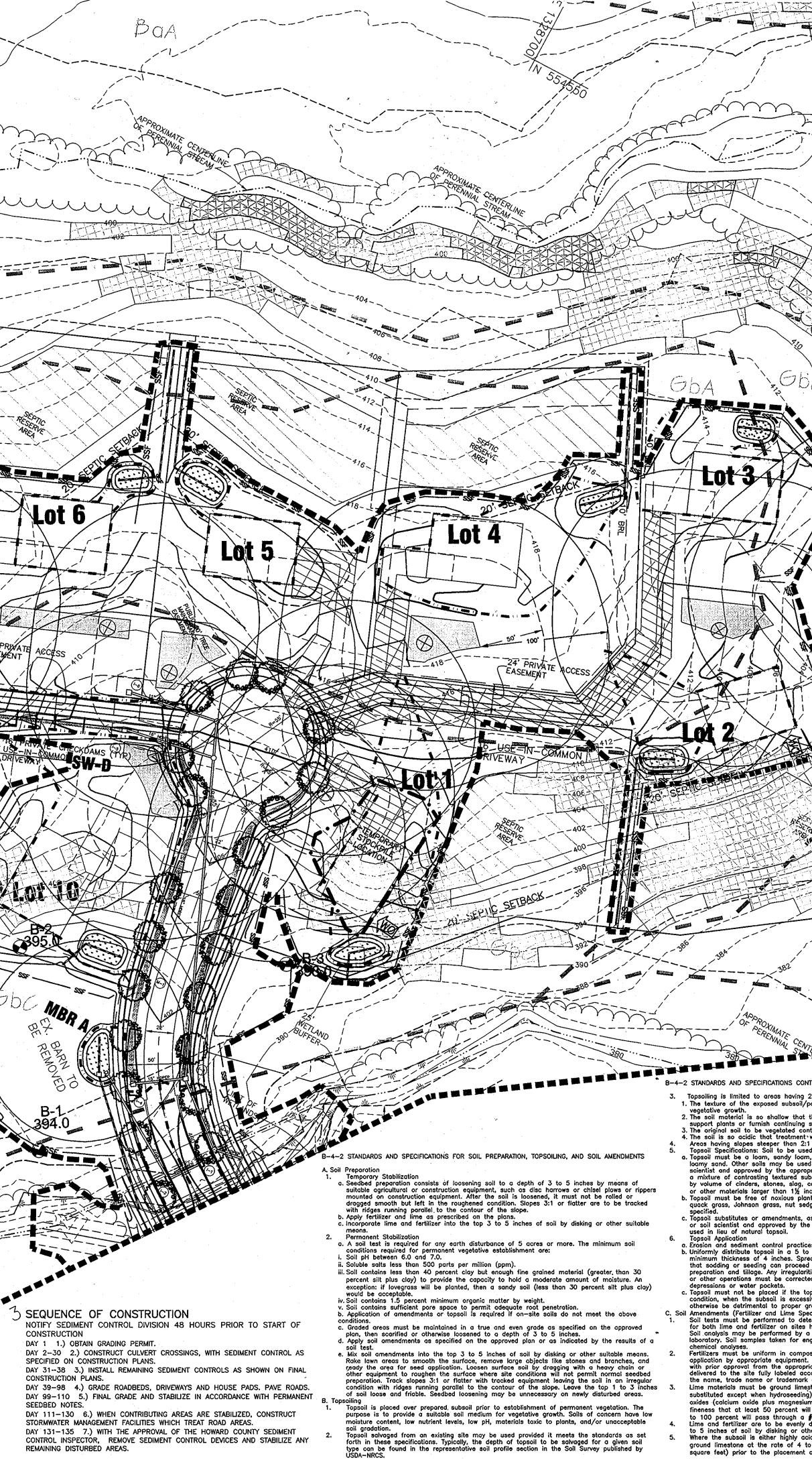
	WETLAND BUFFED
	BUFFER
400 WO	
4	
	SET A STATE S
	PRIVA COUNTRY AND
	444
A RYNA	State
	THE FEET THE THE THE THE
PH	
State Four	
*	
1	
E-IN	
E-IN-COMMON	459
131	
	SOILS LEGEND
	MAP SYMBOL SOIL GROUP SOIL TYPE BOA* D BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES GbA B GLADSTONE LOAM, 0 TO 3 PERCENT SLOPES
	GbA B GLADSTONE LOAM, 0 10 3 FERCENT SLOPES GbB B GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES GbC B GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES
	GmB*CGLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPESMoDBMANOR LOAM, 15 TO 25 PERCENT SLOPES
	FROM NATURAL RESOURCES CONSERVATION SERVICES WEB SOIL SURVEY 2.0 * ERODIBLE SOILS
١	NO. DATE REVISION
	BENCHMARK 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. 28376, ENGINEERS A LAND SURVEYORS A PLANNERS Expiration Date: 1-1-2013.
	ENGINEERING, INC.
	8480 BALTIMORE NATIONAL PIKE ▲ SUITE 418 ▲ ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644
	60 THOMAS JOHNSON DRIVE ▲ FREDERICK, MARYLAND 21702 (P) 301-371-3505 (F) 301-371-3506 WWW.BEI-CIVILENGINEERING.COM
· · · · · · · · · · · · · · · · · · ·	OWNER:
	LOTS 1-22 AND PRESERVATION PARCELS "A", "B" & "C"
	RONALD REGAN, SCOTT REGAN AND KELLY REGAN 12859 ROUTE 108
	HIGHLAND, MARYLAND 20777 TITLE: ENVIRONMENTAL CONCEPT PLAN
	DATE: MARCH, 2012 FEBRUARY, 2013 PROJECT NO. 2171
	DESIGN: AAM DRAFT: AAM SCALE: AS SHOWN DRAWING 2 OF 4 ECP-12-045



	DXIMATE TREAM FERAM			, Ŕ _
	MATE			P
><				
	SER ER AN	LUCE CONTRACTOR		
			unt	R
T A A		NON		QUI
		PRES	OULDA-	- Ki
	N N	PARC	BUILDABLE RVATION	
		PARC		
			· · · · · · · · · · · · · · · · · · ·	
				AAA
			BERTOPOOL	Beregero
- ON-B		400-		SEED SEED
BESED, DAD.	TO.			
A18- NON-BUILDABLE SEPTO- PRESERVATION 16 PARCEL IEII		BORDOSED		
		ASSENTIAL SOL		A A A A A A A A A A A A A A A A A A A
			The state of the	
	11, 183/ 11 1	N.T.L. S.S.		
	N C C		N.W. W	
	Re I			
Print 1 1 2 2 2	Г		SOILS LEGEND	
B	<u>M</u>	AP SYMBOL SOIL GROUP BoA* D BAILE		
i I The second		GbB B GLADST GbC B GLADST	TONE LOAM, 3 TO 8 PERCENT TONE LOAM, 8 TO 15 PERCEN	r slopes Nt slopes
		Mad B MANOR	LLE SILT LOAM, 3 TO 8 PER LOAM, 15 TO 25 PERCENT ISERVATION SERVICES WEB SC	SLOPES
	! *	ERODIBLE SOILS		

SUPER SILT FENCE	STANDARD SYMBOL	NO.	DATE	REVISION					
ELEVATION	-34 IN MIN. -34 IN MIN. -36 IN MIN.	8480	ENGI ENGI BALTIMORE	NEERS NGI (P) 410- MAS JOHN (P) 301-	LAND SUR NEER PIKE & SUITE -465-6105 ISON DRIVE & F -371-3505	VEYORS A PL VEYORS A PL UNG, 418 A ELLICOTT (F) 410-465- FREDERICK, MAR (F) 301-371- GINEERING.COM	ANNERS INC. CITY, MARYI 6644 RYLAND 2170	doci am a	ofessional Certification. I hereby certify that these iments were prepared or approved by me, and that I a duly licensed professional engineer under the laws of the State of Maryland, License No. 28376, Expiration Date: 1-1-2013.
U ROSS SECTION NIZED STEEL POSTS OF 0.095 INCH WALL I THAN 10 FEET APART, DRIVE THE POSTS	THICKNESS AND SIX 3 A MEMBUUM OF 36	OWN	ER:				PROJECT	REGAN	I PROPERTY SERVATION PARCELS "A", "B" & "C"
VANIZED CHAIN LINK FENCE (2% INCH MA) WE FENCE POSTS WITH WIRE THES OR HUG LE AS SPECIFIED IN SECTION H-1 MATERI/ ZE WITH THES SPACED EVERY 24 INCHES A SHAN LINK FENCE A MINIMUM OF 8 INCHE XOME TOGETHER, THE ENDS SHALL BE OVE T SECIMENT BY PASS.	ALS, SECURELY TO THE IT THE TOP AND MID S INTO THE GROUND.	R	AND) KELL	, SCOTT LY REGAN DUTE 108	V	LOCATION	1: TAX MAP No. 34, (5th El	GRID No. 24, PARCEL No. 200 LECTION DISTRICT COUNTY, MARYLAND
T SEDIMENT BY PASS. 1. SLT FENCE A MINIMUM OF FIVE HORIZON ALIGNMENT TO PREVENT RUNOFF FROM GO TION TO THE INSPECTION/ENFORCEMENT A 1. REQUIREMENTS IN SECTION H-1 MATERIAL MUD DEBRIS WHEN BULGES DEVELOP IN FED EPLACE GEOTEXTUE IF TORN. IF UNDERMIN	ITAL FEET UPSLOPE 'AT ING AROUND THE ENDS NUTHORITY SHOWING LS. NCE OR WHEN SEDIMENT	ŀ	IIGHLANE), MAF	RYLAND 2	20777	AND	IRONMENT SEDIMEN MARCH, 2012	
ECIFICATIONS FOR SOIL EROSION AND SED 2011 MARYLAND DEP WATER MAN	IMENT CONTROL ARTIMENT OF ENVIRONMENT VOBJENT ADMINISTRATION	DESI	GN: A	AM	DRAFT:	AAM	DATE: SCALE:	FEBRUARY, 2013 AS SHOWN	PROJECT NO. 2171 DRAWING _3 OF _4
				1	·	•		ECP	-12-045

114 - Min SETBACK Lot Lot 8 Lot 7 REMAIN TO O° EX. HOUSE TO BE REMOVED , TRANSFORMER -TRANSFORMER PARSER ABLE PARCEL DEAK -40->> ACRES NON BU. and the TON SERVATION PLAN VIEW ----SCALE: 1'' = 50'SOILS LEGEND AAP SYMBOL SOIL GROUP SOIL TYPE ¹¹C# HAL HAL BaA* BAILE SILT LOAM, O TO 3 PERCENT SLOPES D GbA GLADSTONE LOAM, 0 TO 3 PERCENT SLOPES в GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES GbB В GРС GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES в GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES GmB* С MaD B MANOR LOAM, 15 TO 25 PERCENT SLOPES FROM NATURAL RESOURCES CONSERVATION SERVICES WEB SOIL SURVEY 2.0 * ERODIBLE SOILS HLINE APPROVED: DEPARTMENT OF PLANNING AND ZONING 41,2113 CHIEF, DIVISION OF LAND DEVELOPMENT STISA 12 CHIEF, DEVELOPMENT ENGINEERING DIVISION 40 P:\2171 Regan Property\dwg\4029-ECP.dwg, 3/20/2013 2:12:45 PM, imc



CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE ANY

REMAINING DISTURBED AREAS.

	······				
		OF INSPECTION START OF AN	N, LICENSES AND PERMITS, SEDIM Y CONSTRUCTION, (313-1850).	DL_NOTES VEN TO THE HOWARD COUNTY DEPARTMENT VENT CONTROL DIVISION PRIOR TO THE ARE TO BE INSTALLED ACCORDING TO	
		THE PROVISIO CURRENT "M/ CONTROL", R 3. FOLLOWING IN	DNS OF THIS PLAN AND ARE TO A ARYLAND STANDARDS AND SPECIF EVISIONS THERETO.	BE IN CONFORMANCE WITH THE MOST FICATION FOR SOIL EROSION AND SEDIMENT ISTURBANCE, PERMANENT OR TEMPORARY	
		PERIMETER S SLOPES GREA AREAS ON TI 4. ALL SEDIMENT	EDIMENT CONTROL STRUCTURES, ATER THAN 3:1, B) 14 DAYS AS HE PROJECT SITE. T TRAPS/BASINS SHOWN MUST BI	DIKES, PERIMETER SLOPES AND ALL TO ALL OTHER DISTURBED OR GRADED E FENCED AND WARNING SIGNS POSTED	
sám Jum	m is	COUNTY DESI 5. ALL DISTURBE ABOVE IN AC FOR SOIL ER	IGN MANUAL, STORM DRAINAGE. ED AREAS MUST BE STABILIZED V CORDANCE WITH THE 1994 MARY OSION AND SEDIMENT CONTROL F	TH VOL. 1, CHAPTER 12, OF THE HOWARD MITHIN THE TIME PERIOD SPECIFIED (LAND STANDARDS AND SPECIFICATIONS FOR PERMANENT SEEDINGS (SEC. 51) SOD	
		STABILIZĂTIO DATES DO N 6. ALL SEDIMENT	N WITH MULCH ALONE CAN ONLY OT ALLOW FOR PROPER GERMINA & CONTROL STRUCTURES ARE TO	ND MULCHING (SEC. 52). TEMPORARY BE DONE WHEN RECOMMENDED SEEDING TION AND ESTABLISHMENT OF GRASSES. REMAIN IN PLACE AND ARE TO BE VERMISSION FOR THEIR REMOVAL HAS	
		BEEN OBTAIN 7. SITE ANALYSI	ED FROM THE HOWARD COUNTY	SEDIMENT CONTROL INSPECTOR.	
APPROXIMA OF PEOXIMA	12 ·		DISTURBED TO BE ROOFED OR PAVED	<u>N/A*</u> ACRES <u>4.9</u> ACRES	
APPROXIMATE CENTERLINE		AREA TOTAL TOTAL		<u>N/A*</u> ACRES <u>N/A*</u> CY N/A* CY	
		OFFSI THE PURPOSE STORMWATER TR	TE WASTE/BORROW AREA LOCATIO OF THIS ENVIRONMENTAL CONCEP REATMENT AND SEDIMENT CONTRO	N/A* T PLAN IS TO ESTABLISH CONCEPTUAL X PROJECT GRADING HAS NOT YET BEEN	
	APPROXIMA 75 STREE BUFFER	NOT YET AVAILA 8. ANY SEDIMEN PLACEMENT	ABLE, AND WILL BE PROVIDED ON IT CONTROL PRACTICE WHICH IS I OF UTILITIES MUST BE REPAIRED	LIZATION, CUT AND FILL INFORMATION IS CONSTRUCTION PLANS. DISTURBED BY GRADING ACTIVITY FOR ON THE SAME DAY OF DISTURBANCE. IMDED, IF DEEMED NECESSARY BY THE	
	8	10. ON ALL SITES INSPECTION PERIMETER E	AGENCY SHALL BE REQUESTED U EROSION AND SEDIMENT CONTROL	TOR. JESS OF 2 ACRES, APPROVAL OF THE IPON COMPLETION OF INSTALLATION OF S, BUT BEFORE PROCEEDING WITH ANY THER BUILDING OR GRADING INSPECTION	
		APPROVALS INSPECTION 11. TRENCHES FO OR THAT W	MAY NOT BE AUTHORIZED UNTIL AGENCY IS MADE. OR THE CONSTRUCTION OF UTILITI		
bA 13664 CARE		· · ·	s shorter.	AND MULCHING	
	和13-1	 re-testing by a rec immediately precedir 	ognized seed laboratory. All se ng the date of sowing such m	land State Seed Law. All seed must be subject to teed used must have been tested within the 6 months naterial on any project. Refer to Table B.4 regarding	
		and seeding rate. b. Mulch alone may be The appropriate see	a applied between the fall and ding mixture must be applied	upon request to the inspector to verify type of seed spring seeding dates only if the ground is frozen. when the ground thaws. I in the seed mixtures must be a pure culture of	
Lot 3		nitrogen fixing bacte the date indicated a the recommended re	eria prepared specifically for th on the container. Add fresh in ate when hydroseeding. Note: Temperatures above 75 to 80	he species. Inoculants must not be used later than loculants as directed on the package. Use four times It is very important to keep inoculant as cool as) degrees Fahrenheit can weaken bacteria and make	
		d. Sod or seed must i	not be placed on soil which h	as been treated with soil sterilants or chemicals used (14 days min.) to permit dissipation of phyto-toxic	
FF- LE PART		i. Incorporate seed int Seeding Table B.3, o ii. Apply seed in two o	or site—specific seeding summ directions, perpendicular to eac	escribed on Temporary Seeding Table B.1, Permanent laries. ch other. Apply half the seeding rate in each direction.	
		 b. Drill or Cultipacker 3 i. Cultipacking seeders of soil covering. See 	Seeding: Mechanized seeders to are required to bury the see edbed must be firm after plar	ovide good seed to soil contact. hat apply and cover seed with soil. In such a fashion as to provide at least 1/4 inch nting. Sh other. Apply half the seeding rate in each direction.	
		c. Hydroseeding: Apply i. If fertilizer is being following: nitrogen,	seed uniformly with hydroseed applied at the time of seedin	der (slurry includes seed and fertilizer). g, the application rates should not exceed the soluble nitrogen; P205 (phosphorous), 200 pounds per	
		Normally, not more hydrated lime when iii. Mix seed and fertiliz	than 2 tons are applied by h hydroseeding. ter on site and seed immediat		
		 B. Mulching 1. Mulch Materials (in a. Straw consisting of 		e, oat, or barley and reasonably bright in color. Straw I in the Maryland Seed Law and not musty, moidy,	
Ko. Ball FERRE		caked, decayed, or grass is desired. b. Wood Cellulose Fiber uniform fibrous phys	excessively dusty. Note: Use c r Mulch (WCFM) consisting of sical state.	only sterile straw mulch in areas where one species of specially prepared wood cellulose processed into a	
Lot 2		color to facilitate vi ii. WCFM, including dye iii. WCFM materials are	sual inspection of the uniform , must contain no germination to be manufactured and proc	ve in the package that will provide an appropriate Ny spread slurry. It or growth inhibiting factors. Cessed in such a manner that the wood cellulose fiber under agitation and will blend with seed, fertilizer and	
		other additives to fo cover, on application grass seed in conta	orm a homogeneous slurry. Th n, having moisture absorption lot with the soil without inhibit	ne mulch material must form a blotter-like ground and percolation properties and must cover and hold ting the growth of the grass seedlings. Apounds at concentration levels that will be	
	SEATIC SEATING	v. WCFM must conform diameter approximat	n to the following physical req tely 1 millimeter, pH range of ity of 90 percent minimum.	uirements: fiber length of approximately 10 millimeters, 4.0 to 8.5, ash content of 1.6 percent maximum and	
J J J J J J J J J J J J J J J J J J J		b. When straw mulch i uniform loose depth	of 1 to 2 inches. Apply muk	r seeding. aded areas at the rate of 2 tons per acre to a ch to achieve a uniform distribution and depth so that ulch anchoring tool, increase the application rate to	
388 - 788		c. Wood cellulose fiber the wood cellulose fi cellulose fiber per 1 3. Anchoring	fiber with water to attain a m OO gallons of water.	lied at a net dry weight of 1500 pounds per acre. Mix ixture with a maximum of 50 pounds of wood	
		This may be done t the area and erosio i. A mulch anchoring	by one of the following metho in hazard: tool is a tractor drawn implen	pplication of mulch to minimize loss by wind or water. ds (listed by preference), depending upon the size of ment designed to punch and anchor mulch into the e is most effective on large areas, but is limited to	
A A A A A A A A A A A A A A A A A A A		flatter slopes where the contour. ii. Wood cellulose fiber	equipment can operate safely may be used for anchoring s	r. If used on sloping land, this practice should follow straw. Apply the fiber binder at a net dry weight of er with water at a maximum of 50 pounds of wood	
Smpry Gmpry	554100	Petroset, Terra Tax specified by the ma	II, Terra Tack AR or other app nufacturer. Application of liqui	netic binders such as Acrylic DLR (Agro-Tack), DCA-70, proved equal may be used. Follow application rates as d binders needs to be heavier at the edges where rests of banks. Use of asphalt binders is strictly	
380-		iv. Lightweight plastic n	etting may be stapled over th vailable in rolls 4 to 15 feet v	ne mulch according to manufacturer recommendations. wide and 300 to 3,000 feet long.	
APPROXIM			CONTROL MATTING SHALL BE EMED NECESSARY UNTIL VEG		
		ESTABLISHI 2. ON-LOT S	ED OR SOLID SOD SHOULD I TORMWATER MANAGEMENT FA TED AS A PART OF THE HOU	BE USED. CILITIES SHALL BE	
2 STANDARDS AND SPECIFICATIONS CONTINUED					
Topsoiling 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. 2. 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.	NO. DATE		REVISION		
5. The original soil to be vegetated contains material toxic to plant growth. 4. The soil is so acidic that treatment with limestone is not feasible. Areas having slopes steeper than 2:1 require special consideration and design. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:	BENG	CHMAR	ζ	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	
5. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash,				of the State of Maryland, License No. 28376, Expiration Date: 1-1-2013.	
or other materials larger than 1½ inches in diameter. 5. Topsoil must be free of noxicus plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.	ENGINE		· · · · · ·	CANNE. OLEFAN	
c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil. Topsoil Application a. Erosion and sediment control practices must be maintained when applying topsoil.	8480 BALTIMORE NATIONAL PIKE▲ (P) 410-465-6 60 THOMAS JOHNSON DF	105 (F) 410-465- RIVE ▲ FREDERICK, MAR	6644 IYLAND 21702	PHO 101 2855 %	
b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of	(P) 301-371-3	505 (F) 301—371— Civilengineering.com	3506	AVAL ELEO/2013	
depressions or water pockets. c. Topsoil must not be placed if 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.	OWNER:	· · · · · · · · · · · · · · · · · · ·		SAN PROPERTY	
I Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for	RONALD REGAN, SCO	TT REGAN	LOTS 1-22 AND	PRESERVATION PARCELS "A", "B" & "C"	
chemical analyses. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear	AND KELLY R	EGAN	LOCATION: TAX MAP No. 34, GRID No. 24, PARCEL No. 200 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
the name, trade name or trademark and warranty of the producer. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such	HIGHLAND, MARYLAN			ENTAL CONCEPT PLAN	
fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.			AND SEDI	VENT CONTROL NOTES	
Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.	DESIGN: AAM DRAF	Т: AAM	SCALE: AS SHOWN	DRAWING _4_ OF _4_	
				CP-12-045	