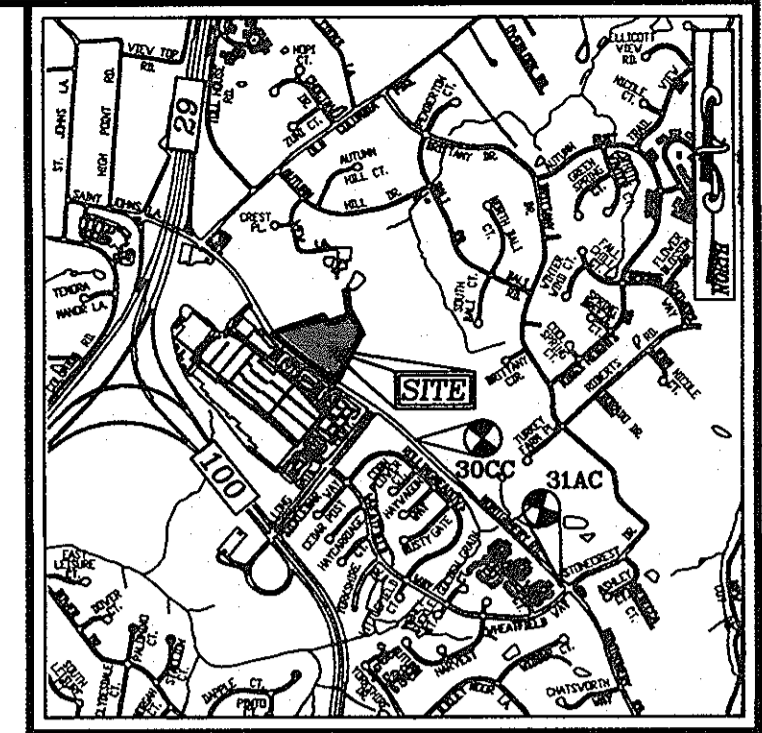


GENERAL NOTES

- 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 AUGUST 18, 2010. OFFSITE TOPOGRAPHY FROM HOWARD COUNTY GIS.
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED AUGUST 18, 2010.
- 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. 30CC AND 31AC WERE USED FOR THIS PROJECT.
- THE SUBJECT PROPERTY IS ZONED "R-A-15" IN ACCORDANCE WITH THE 2/2/04 COMPREHENSIVE ZONING PLAN AND THE COMP. LITE ZONING REGULATIONS EFFECTIVE ON COMPREHENSIVE ZONING PLAN AND THE COMP. LITE ZONING REGULATIONS EFFECTIVE ON 7/28/06, 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 PUBLIC EXTENSIONS OF CONTRACT NO. 12-W.
- SEWER FOR THIS PROJECT IS TO BE PUBLIC EXTENSIONS OF CONTRACT NO. 20-1081-D.
- 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.
- NO FLOODPLAIN IS LOCATED ONSITE.
- 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.
- WETLANDS AND STREAMS SHOWN ONSITE ARE BASED ON ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, AUGUST 2011
- IN ACCORDANCE WITH SECTION 16.121(A)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE OPEN SPACE REQUIREMENTS FOR THIS R-A-15 PROJECT IS 25% OF GROSS AREA (7.8 AC. GROSS AREA X 25% = 1.95 AC.). REFER TO OPEN SPACE LOT 80
- GEOTECHNICAL INVESTIGATIONS SHALL COMPLETED AS PART OF THE SITE DEVELOPMENT PLAN PACKAGE.
- A NOISE STUDY SHALL BE PREPARED BY ROBERT H. VOGEL ENGINEERING AS PART OF THE SITE DEVELOPMENT PLAN PACKAGE.
- FOREST STAND DELINEATION PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, AUGUST 2011.
- MONTGOMERY ROAD IS CLASSIFIED AS A MINOR ARTERIAL. THE PROPOSED STREETS ARE CLASSIFIED AS PRIVATE ACCESS STREETS.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- THE PROPOSED UNITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF ALTERNATIVE SURFACES, NON STRUCTURAL PRACTICES & MICRO-SCALE PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. MICRO-SCALE PRACTICES INCLUDE MICRO-BIOTRETENTION, BIO SWALES AND DRYWELLS AS WELL AS ALTERNATIVE SURFACES - PERMEABLE SURFACES. 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.
- IN ACCORDANCE WITH SECTION 16.121(A)(4) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, RECREATION OPEN SPACE FOR THIS R-A-15 PROJECT IS 300 SF / UNIT (79 X 300 = 23,700 SF). AS SHOWN HEREON, THE PROPOSAL INCLUDES THE SHOWN TENNIS COURT AS WELL AS VARIOUS GATHERING AREAS THROUGHOUT THE PROJECT. THE OVERALL REQUIREMENT SHALL BE MET AS ALLOWED BY THE JUNE 2012 POLICY OR AS APPROVED IN A FORTHCOMING WAIVER.
- THE LIMITS OF DISTURBANCE (LOD) SHOWN ON THE PLAN EXTENDS OFFSITE. LETTERS OF PERMISSION FOR ANY REQUIRED OFFSITE GRADING WILL BE PROVIDED AS PART OF THE FINAL PLAN/SITE DEVELOPMENT PLAN SUBMISSION WHEN FINAL GRADING WILL BE APPROVED.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING AND ADDRESS THE PROJECT TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.

ENVIRONMENTAL CONCEPT PLAN LONG GATE OVERLOOK LOTS 1-79, OPEN SPACE LOT 80, & PARCEL A (SFA RESIDENTIAL) PARCELS 322, 323, 324, 325, 326, & 327 HOWARD COUNTY, MARYLAND



VICINITY MAP

SCALE: 1"=200'
ADC MAP COORDINATE: PG. 4815 K10

BENCHMARKS

HOWARD COUNTY BENCHMARK - 30CC (CONC. MONUMENT)
N 578747.03 E 1365563.14 ELEV. 427.32
LOCATION: MONTGOMERY ROAD 1/3 MILE EAST OF LONG GATE PARKWAY

HOWARD COUNTY BENCHMARK - 31AC (CONC. MONUMENT)
N 575223.09 E 1367092.12 ELEV. 432.55
LOCATION: MONTGOMERY ROAD 3/4 MILE EAST OF LONG GATE PARKWAY

LEGEND

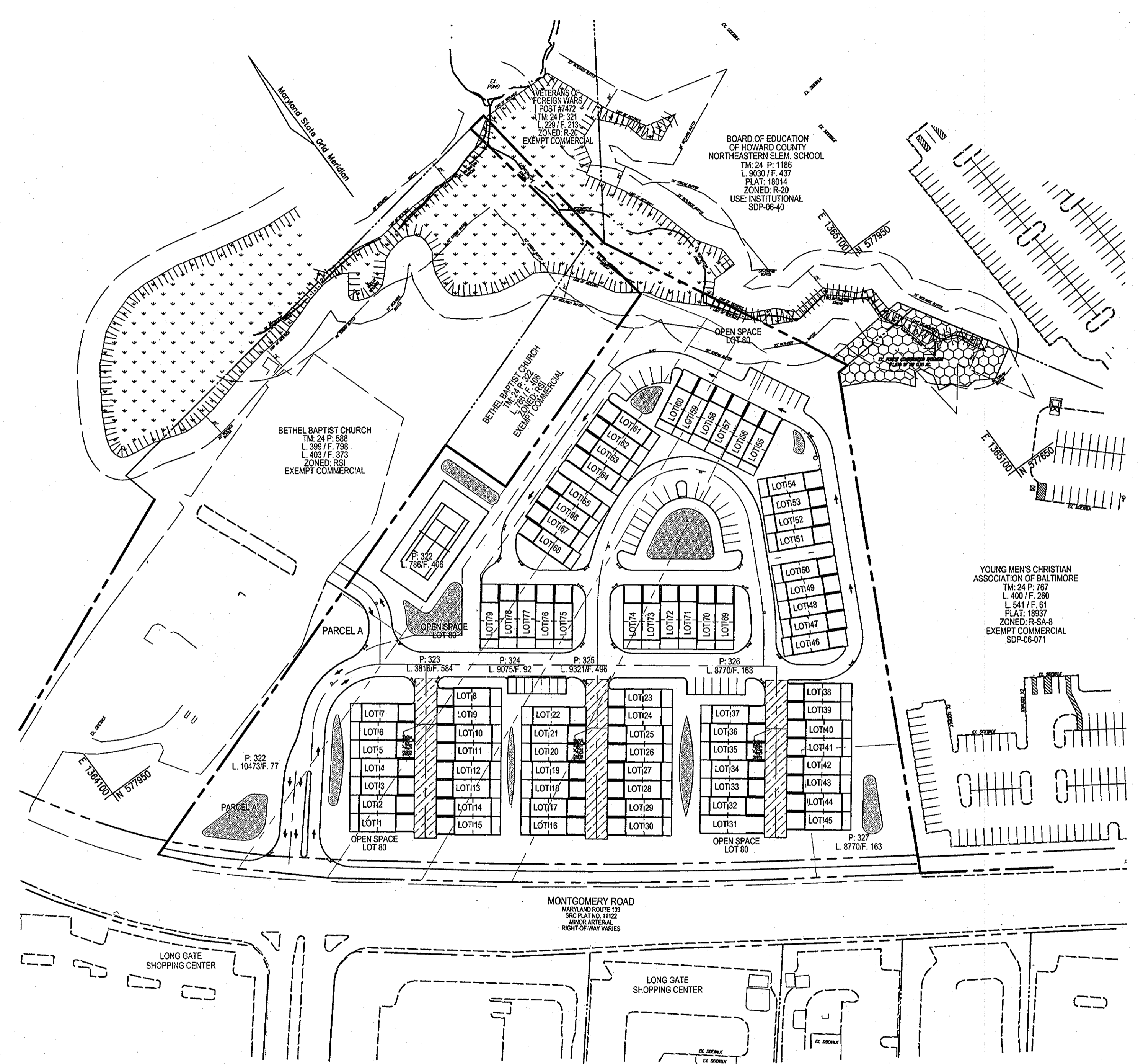
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- CENTERLINE OF EXISTING STREAM
- 16.5' PARCEL PART OF WILLIAM DAVIS TO THEODORE H. DAVIS BY RED LINE OCTOBER 1, 1824 RECORDED IN LIBER W.S. 10 FOLIO 479 AMONG THE LAND RECORDS OF ANNE ARUNDEL COUNTY

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 8
SITE LAYOUT PLAN	2 OF 8
SITE LAYOUT PLAN	3 OF 8
SOILS, GRADING, SEDIMENT, AND EROSION CONTROL PLAN	4 OF 8
SOILS, GRADING, SEDIMENT, AND EROSION CONTROL PLAN	5 OF 8
STORMWATER MANAGEMENT DRAINAGE AREA MAP	6 OF 8
STORMWATER MANAGEMENT DRAINAGE AREA MAP	7 OF 8
SWM NOTES AND DETAILS	8 OF 8

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/ AREA	LOT / PARCEL
LONG GATE OVERLOOK	-	PARCELS 322, 323, 324, 325, 326, & 327
PLAT REF.	BLOCK NO	ZONE TAX MAP ELECT. DIST. CENSUS TR.
N/A	24	R-A-15 24 2ND 602800



LOCATION MAP

SCALE: 1"=80'



SITE ANALYSIS DATA CHART

A. TOTAL PROJECT AREA:	7.8 AC. +/-
B. AREA OF PLAN SUBMISSION:	7.8 AC.
C. AREA OF WETLANDS AND BUFFERS:	9.082 S.F. OR 0.21 AC.
D. AREA OF FLOODPLAIN:	0 S.F. OR 0.00 AC.
E. AREA OF FOREST:	0 S.F. OR 0.00 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:	7.5 AC.
I. PROPOSED USES FOR SITE AND STRUCTURES:	RESIDENTIAL SINGLE FAMILY ATTACHED HOMES
J. GREEN OPEN AREA:	3.2 AC.
K. PROPOSED IMPERVIOUS AREA:	4.6 AC. +/- (INCLUDES MONT. ROAD WIDENING)
L. PRESENT ZONING DESIGNATION:	R-A-15
M. OPEN SPACE REQUIRED:	1.95 ACRES +/- (25%)
N. TOTAL NUMBER OF UNITS ALLOWED:	118
O. TOTAL NUMBER OF UNITS PROPOSED:	79
P. DPZ FILE REFERENCES:	CONT. 12-W, CONT. 20-1081-D, CONT. 24-4756-D ECP-12-016, WP-12-168, SDP-12-056, WP-13-029, F-13-028

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edwards 3-12-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Walter Lynch 3/10/14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**ENVIRONMENTAL CONCEPT PLAN
COVER SHEET**

LONG GATE OVERLOOK
LOTS 1-79, OPEN SPACE LOT 80, & PARCEL A
(SFA RESIDENTIAL)
PARCELS 322, 323, 324, 325, 326, & 327

2ND ELECTION DISTRICT TAX MAP: 24 GRID: 24 DPZ REF: SEE SITE ANALYSIS DATA CHART ON COVER SHEET

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

DESIGN BY: RHW/EDS.
DRAWN BY: JMR/EDS.
CHECKED BY: RHW.
DATE: MARCH 2014
SCALE: AS SHOWN
W.O. NO.: 08-48

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: 09-27-2014

1 SHEET OF 8

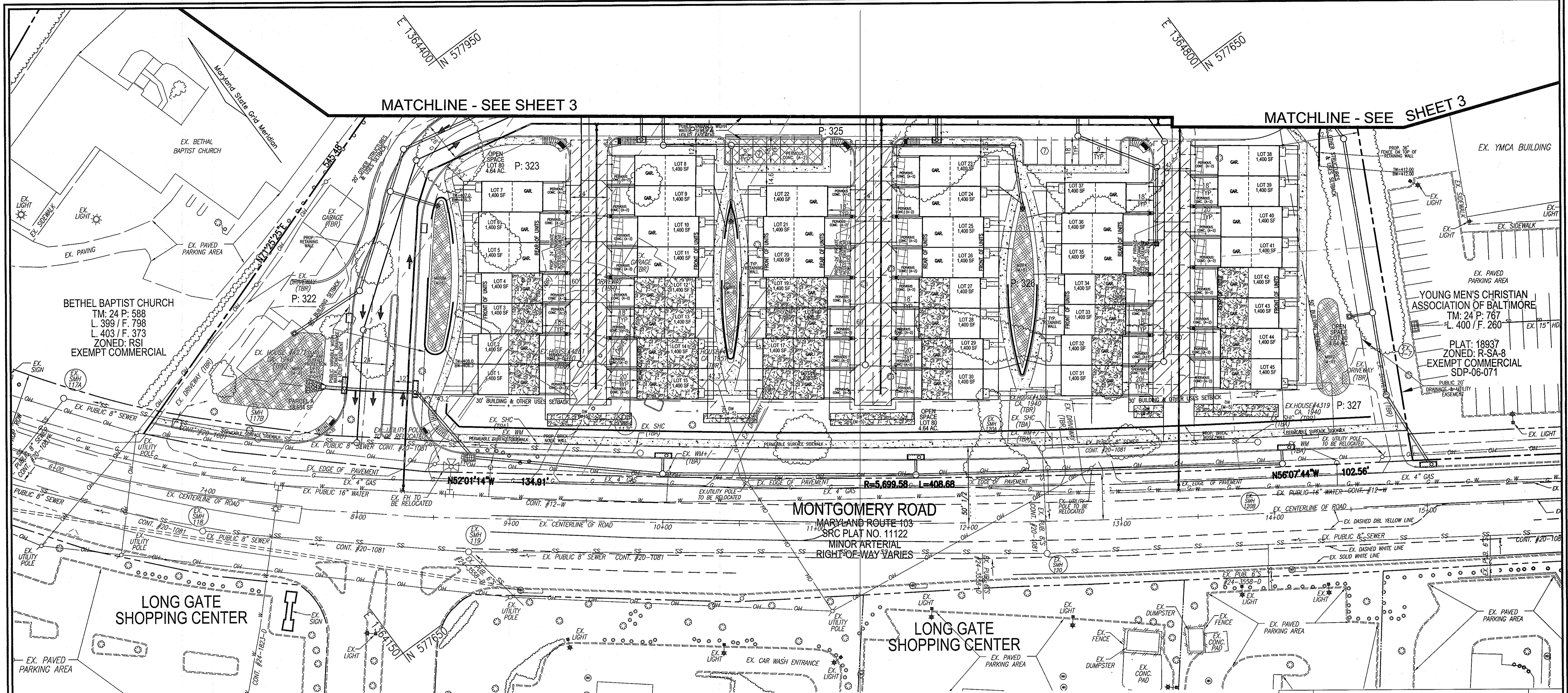
PARCELS 322, 323 OWNER
BETHEL BAPTIST CHURCH OF HOWARD COUNTY, INC.
MR. JASON C. RIDGELL
4281 MONTGOMERY ROAD
ELLICOTT CITY, MD 21043
PHONE: (410)

PARCELS 322, 324, 325, 326 & 327 OWNER/DEVELOPER
TRIANGLE MONTGOMERY ASSOCIATES, LLC.
TRIANGLE OLD ANNAPOLIS ASSOCIATES, LLC.
MR. J. CHRIS PIPPEN
4291 MONTGOMERY ROAD
ELLICOTT CITY, MD 21043
PHONE: (410) 404-8246

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MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 3



MONTGOMERY ROAD
 MARYLAND ROUTE 103
 SRC PLAT NO. 11122
 MINOR ARTERIAL
 RIGHT-OF-WAY VARIES

SITE LAYOUT PLAN
 SCALE: 1" = 30'

LEGEND:

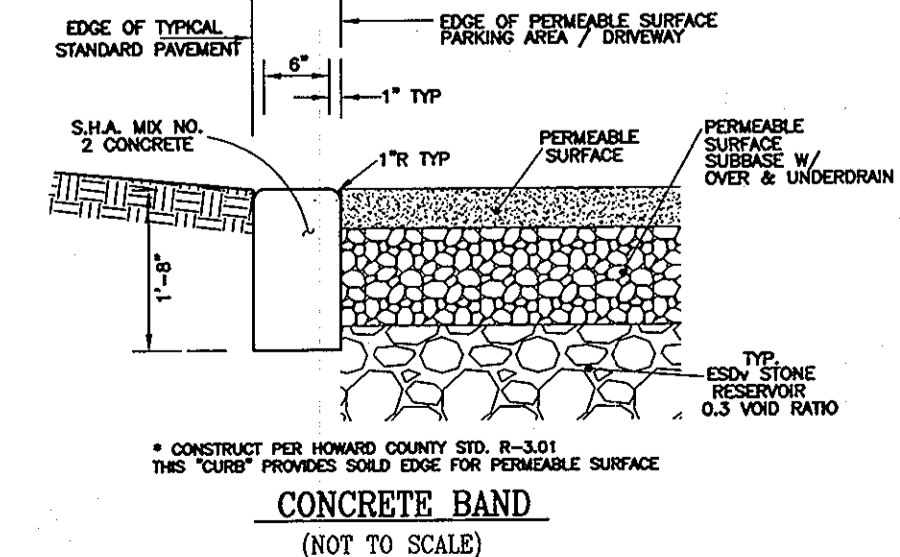
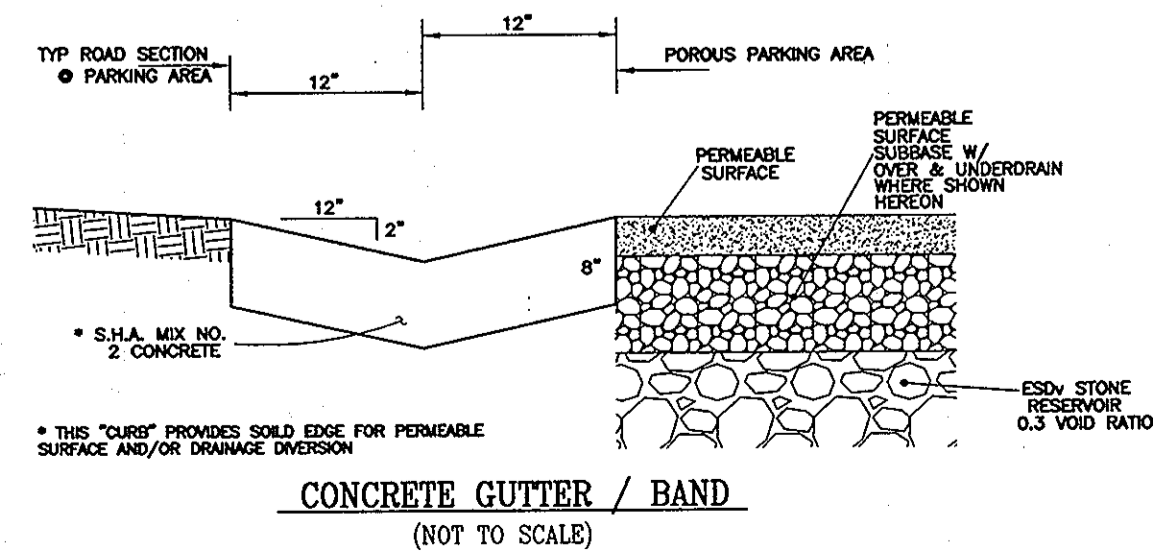
	PROPERTY LINE		CENTERLINE OF EXISTING STREAM
	RIGHT-OF-WAY LINE		EXISTING TREELINE
	ADJACENT PROPERTY LINE		PROPOSED STORM DRAIN
	EXISTING CURB AND GUTTER		PROPOSED STORM DRAIN INLET
	EXISTING UTILITY POLE		PROPOSED SIDEWALK
	EXISTING LIGHT POLE		PROPOSED TREELINE
	EXISTING MAILBOX		PROPOSED CURB
	EXISTING SIGN		PROPOSED 2' PRIVATE USE COMMON ACCESS EASEMENT
	EXISTING SANITARY MANHOLE		
	EXISTING SANITARY LINE		
	EXISTING CLEANOUT		
	EXISTING FIRE HYDRANT		
	EXISTING WATER LINE		
	EXISTING FENCE		

CURVE DATA TABLE

CURVE	LENGTH	RADIUS	TANGENT	DELTA	CHORD BEARING	CHORD LENGTH
C1	114.23	75.00	71.50	87°15'56"	S83°09'29"W	103.51

MD RTE 103 - CURVE DATA TABLE

6+23.03-10+33.88	410.83	5729.58	205.50	04°06'30"	N54°04'29"W	410.75
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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edmondson 3-12-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

K. J. Schaefer 3/10/14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

PARCELS 322, 323
 OWNER
 BETHEL BAPTIST CHURCH OF HOWARD COUNTY, INC.
 MR. JASON C. RIDGELL
 4291 MONTGOMERY ROAD
 ELLICOTT CITY, MD 21043
 PHONE: (410) 404-8246

PARCELS 322, 324, 325, 326 & 327
 OWNER/DEVELOPER
 TRIANGLE MONTGOMERY ASSOCIATES, LLC.
 TRIANGLE OLD ANNAPOLIS ASSOCIATES, LLC.
 MR. J. CHRIS RIPPEN
 4291 MONTGOMERY ROAD
 ELLICOTT CITY, MD 21043
 PHONE: (410) 404-8246

ENVIRONMENTAL CONCEPT PLAN

SITE LAYOUT PLAN

LONG GATE OVERLOOK
 LOTS 1-79, OPEN SPACE LOT 80, & PARCEL A
 (SFA RESIDENTIAL)
 PARCELS 322, 323, 324, 325, 326, & 327

2ND ELECTION DISTRICT
 TAX MAP: 24 GRID: 24
 DPZ REF'S: SEE SITE ANALYSIS DATA CHART ON COVER SHEET

ZONED: R-A-15
 PARCELS: 322, 323, 324, 325, 326, & 327
 F.A.C.I. 410-461-1819 P. 1
 HOWARD COUNTY, MARYLAND

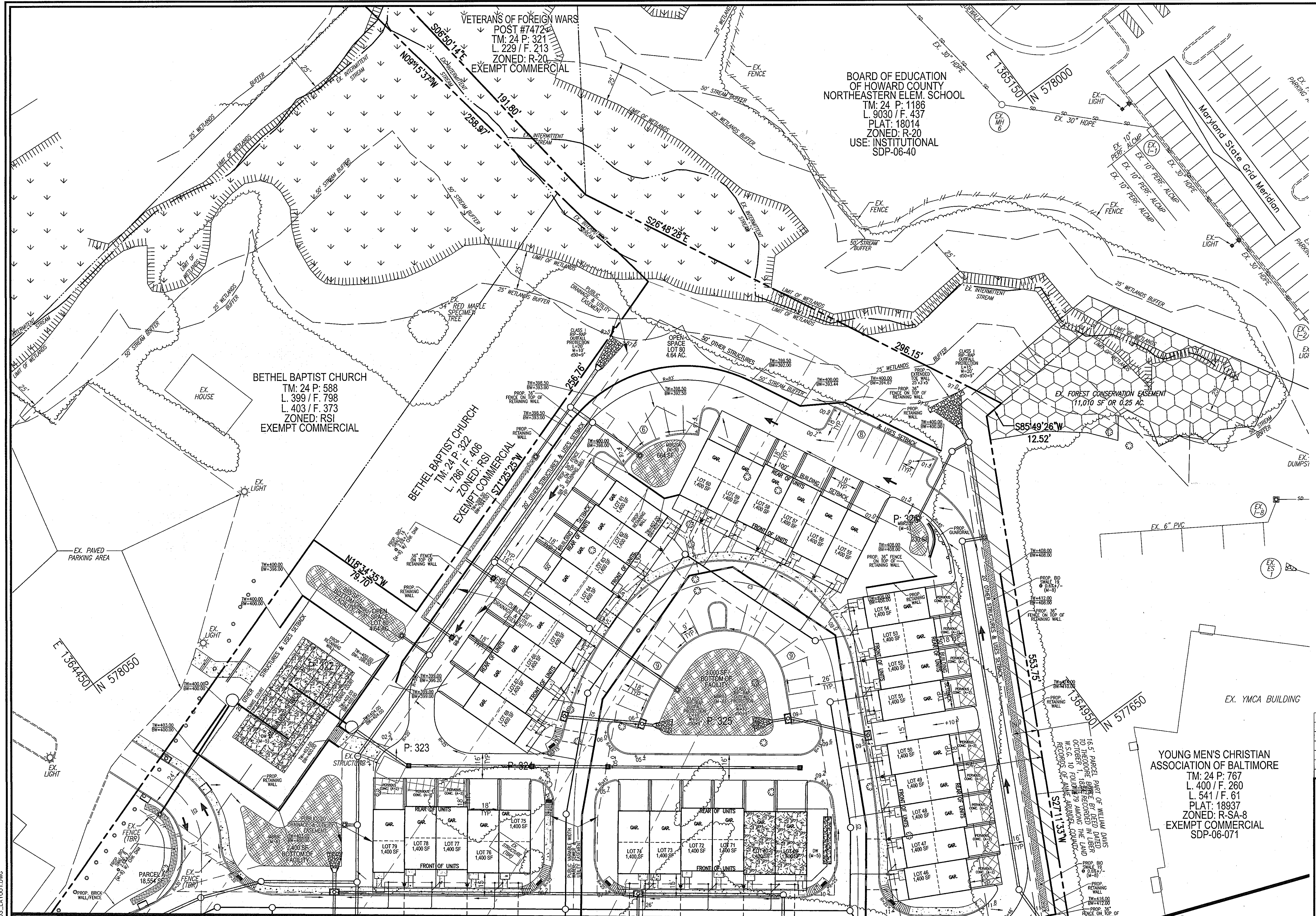
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410-461-7666
 FAX: 410-461-1819

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: 09-27-2014

DESIGN BY: RHV/EDS.
 DRAWN BY: JMR/EDS.
 CHECKED BY: RHV.
 DATE: MARCH 2014.
 SCALE: AS SHOWN.
 W.O. NO.: 08-48.

2 SHEET OF 8

K:\PROJECTS\08-48 ECP\DWG\08-48 ECP\02_LAYOUT.DWG



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 FENCE
- CENTERLINE OF EXISTING STREAM
- EXISTING TREELINE
- EXISTING WETLANDS
- PROPOSED STORMDRAIN
- PROPOSED STORMDRAIN INLET
- PROPOSED SIDEWALK
- PROPOSED TREETRUNK
- PROPOSED CURB

CURVE DATA TABLE

CURVE	LENGTH	RADIUS	TANGENT	DELTA	CHORD BEARING	CHORD LENGTH
C2	58.63	350.00	29.39	09°35'54"	N31°59'31"E	58.56
C3	163.78	70.00	165.13	134°03'20"	N39°50'06"W	128.90
C4	126.87	200.00	65.65	36°20'46"	S64°57'51"W	124.76
C5	47.59	47.00	26.06	58°00'41"	N07°48'41"E	45.58

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN
SITE LAYOUT PLAN
LONG GATE OVERLOOK
 LOTS 1-79, OPEN SPACE LOT 80, & PARCEL A
 (SFA RESIDENTIAL)
 PARCELS 322, 323, 324, 325, 326, & 327

2ND ELECTION DISTRICT
 TAX MAP: 24 GRID: 24
 OFF. REFS.: SEE SITE ANALYSIS DATA CHART ON COVER SHEET

ZONED: R-15
 PARCEL: 322, 323, 324, 325, 326, & 327
 HOWARD COUNTY, MARYLAND

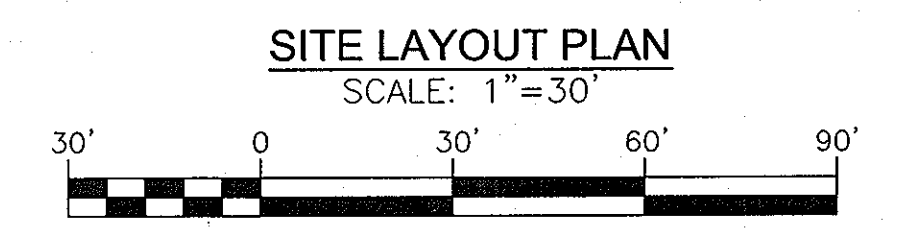
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 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

DESIGN BY: RHV/EDS
 DRAWN BY: JMB/EDS
 CHECKED BY: RHV
 DATE: MARCH 2014
 SCALE: AS SHOWN
 W.O. NO.: 08-48

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3 SHEET **8**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chad Edmonson 2-12-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Kathleen Deane 3/10/14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



PARCELS 322, 323
OWNER
 BETHEL BAPTIST CHURCH
 OF HOWARD COUNTY, INC.
 MR. JASON C. RIDGELL
 4261 MONTGOMERY ROAD
 ELLICOTT CITY, MD 21043
 PHONE: (410)

PARCELS 322, 324, 325, 326 & 327
OWNER/DEVELOPER
 TRIANGLE MONTGOMERY ASSOCIATES, LLC.
 TRIANGLE OLD ANNAPOLIS ASSOCIATES, LLC.
 MR. J. CHRIS PIPPEN
 4291 MONTGOMERY ROAD
 ELLICOTT CITY, MD 21043
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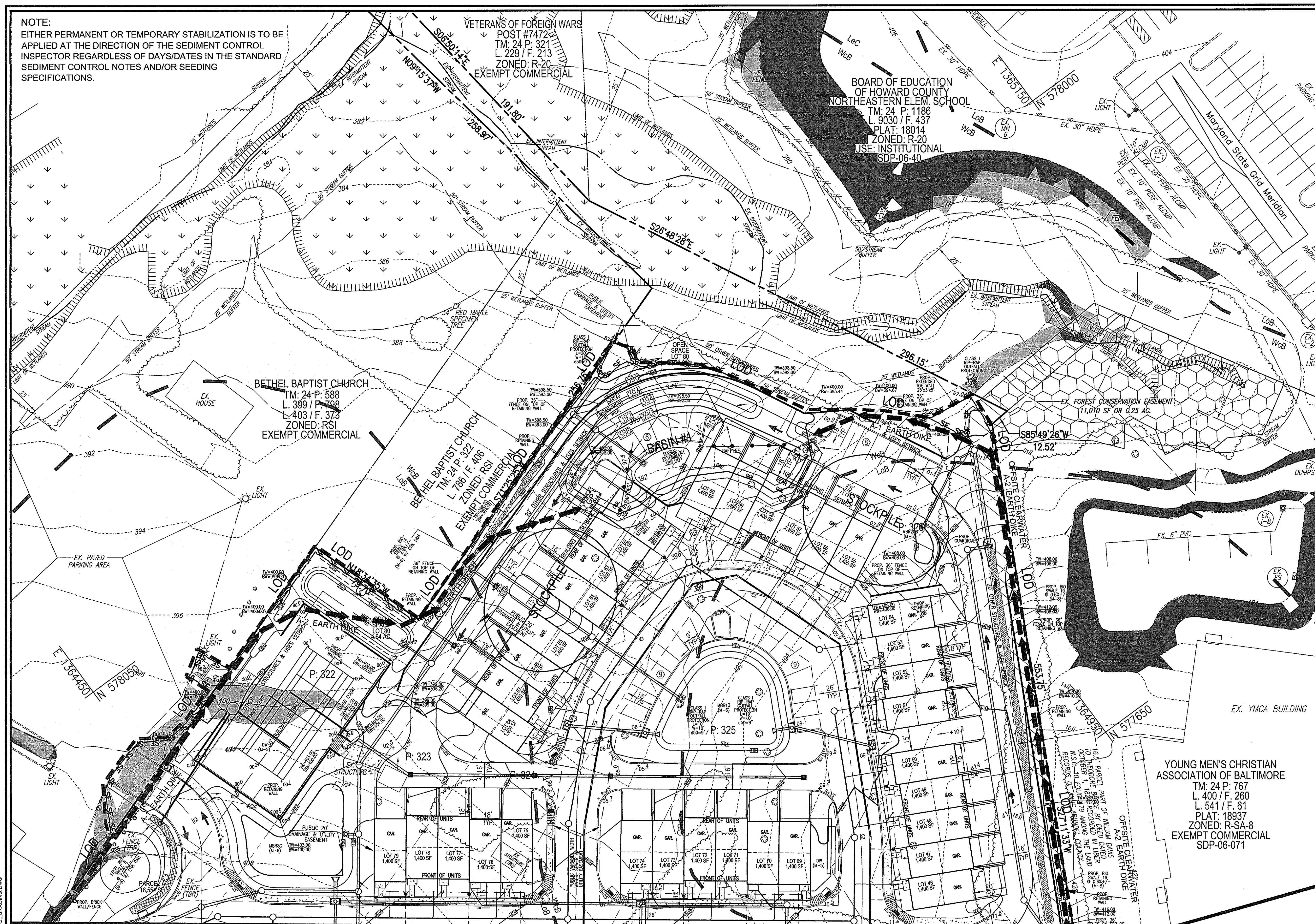
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NOTE:
EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

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 FENCE
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	CENTERLINE OF EXISTING STREAM
	SOILS S1E
	SOILS S1C2
	EXISTING TREELINE
	WILLIAM DAVIS TO THEODORE BOYCE BY DEED DATED OCTOBER 1, 1924 RECORDED IN LIBER W.S.C. 10 FOLIO 479 AMONG THE LAND RECORDS OF ANNE ARUNDEL COUNTY
	EXISTING WETLANDS
	EXISTING MODERATE SLOPES
	EXISTING STEEP SLOPES
	PROPOSED STORMDRAIN INLET
	PROPOSED STORMDRAIN INLET
	PROPOSED SIDEWALK
	PROPOSED TREELINE
	PROPOSED CURB
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
	PROPOSED SILT FENCE
	PROPOSED LIMIT OF DISTURBANCE
	EARTH DIKE
	CLEARWATER EARTH DIKE
	PROPOSED CURB INLET PROTECTION
	PROPOSED STANDARD INLET PROTECTION
	PROPOSED STANDARD INLET PROTECTION

NOTE:
APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING AND ADDRESS THE PROJECT TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.



MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 4

NOTE:
CONTRACTOR TO PROVIDE IMMEDIATE REPAIR OF ANY EARTH DIKES INTERRUPTED DURING CONSTRUCTION.

GRADING PLAN
SCALE: 1"=30'

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.

NOTE: LOCATE STOCKPILE AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

SOILS LEGEND

SYMBOL	DESCRIPTION	TYPE
LeC	LEGORE SILT LOAM, 8 TO 15 PERCENT SLOPES, STONY	8
LoB	LEGORE-MONTALTO-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	8
WcB	WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES, STONY	0

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 DATE: 3/12/14
 DATE: 3/10/14

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN
SOILS MAP AND GRADING, SOIL EROSION & SEDIMENT CONTROL PLAN
LONG GATE OVERLOOK
 LOTS 1-79, OPEN SPACE LOT 80, & PARCEL A (SFA RESIDENTIAL)
 PARCELS 322, 323, 324, 325, 326, & 327

2ND ELECTION DISTRICT
 TAX MAP: 24 GRID: 24
 DPZ REF'S: SEE SITE ANALYSIS DATA CHART ON COVER SHEET

PARCELS 322, 323 OWNER: BETHEL BAPTIST CHURCH OF HOWARD COUNTY, INC.
 MR. JASON C. RIDGELL
 4281 MONTGOMERY ROAD
 ELLICOTT CITY, MD 21043
 PHONE: (410) 404-8246

PARCELS 322, 324, 325, 326 & 327 OWNER/DEVELOPER: TRIANGLE MONTGOMERY ASSOCIATES, LLC.
 TRIANGLE OLD ANNAPOLIS ASSOCIATES, LLC.
 MR. J. CHRIS PIPPEN
 4291 MONTGOMERY ROAD
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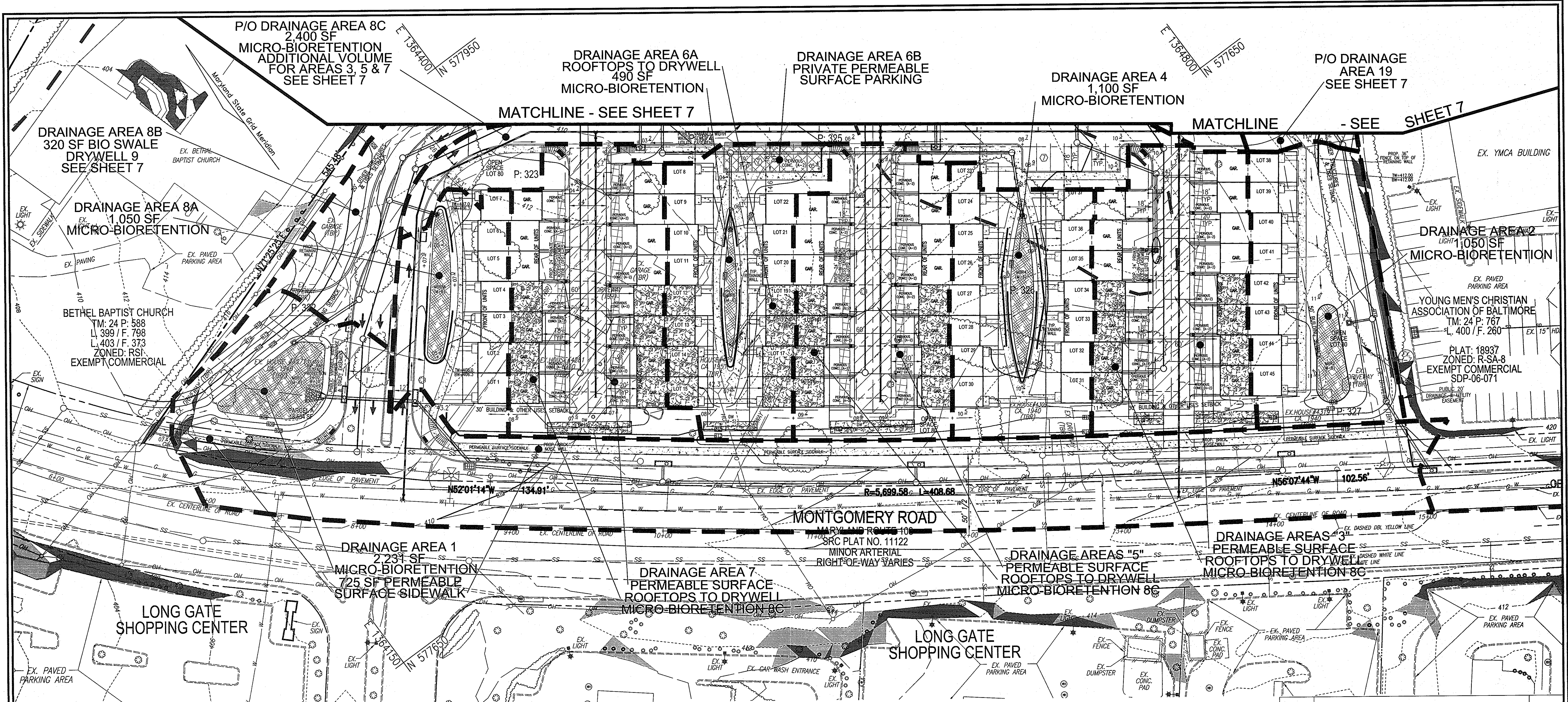
ROBERT H. VOGEL ENGINEERING, INC.
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 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

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 EXPIRATION DATE: 09-22-2014

DESIGN BY: RHV/EDS.
 DRAWN BY: JMR/EDS.
 CHECKED BY: RHV.
 DATE: MARCH 2014
 SCALE: AS SHOWN
 W.O. NO.: 08-48

5 SHEET OF 8

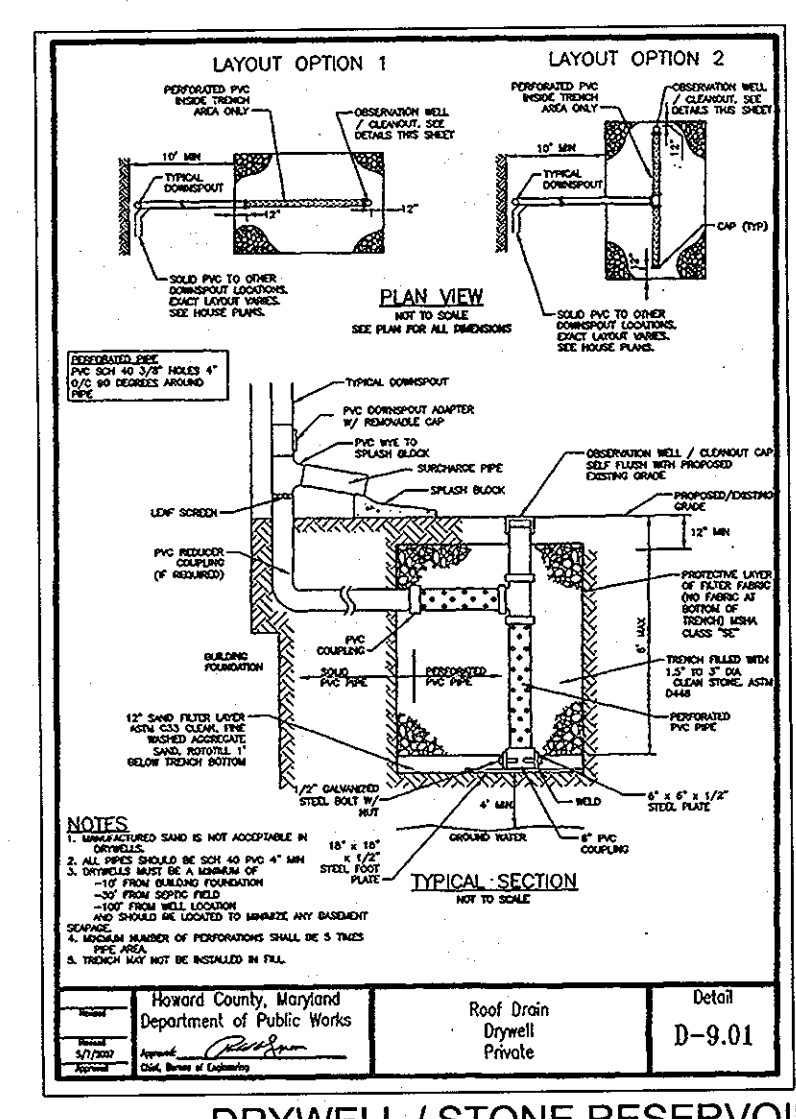
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LEGEND:

—	PROPERTY LINE	— S&E	SOILS	[Hatched Box]	PERMEABLE SURFACE DRIVEWAY
- - -	RIGHT-OF-WAY LINE	— SIC2	EXISTING TREELINE	[Dotted Box]	MICRO-SCALE PRACTICE MICRO BIORETENTION
—	ADJACENT PROPERTY LINE	[Wavy Line]	EXISTING WETLANDS	[Diagonal Lines]	PROPOSED 24" PRIVATE USE-IN-COMMON ACCESS EASEMENT
—	EXISTING CURB AND GUTTER	[Stippled Box]	EXISTING MODERATE SLOPES	[Vertical Lines]	PROPOSED DRAINAGE AREA DIVIDE
—	EXISTING UTILITY POLE	[Horizontal Lines]	EXISTING STEEP SLOPES	[Dashed Line]	PROPOSED STORMDRAIN
☀	EXISTING LIGHT POLE	[Dotted Box]	PROPOSED STORMDRAIN INLET	[Dashed Line]	PROPOSED SIDEWALK
☐	EXISTING MAILBOX	[Dotted Box]	PROPOSED TREELINE	[Dashed Line]	PROPOSED CURB
☐	EXISTING SIGN	[Dotted Box]	PROPOSED 10' CONTOUR	[Dashed Line]	PROPOSED 2' CONTOUR
☐	EXISTING SANITARY MANHOLE	[Dotted Box]	EXISTING CLEANOUT	[Dashed Line]	
—	EXISTING SANITARY LINE	[Dotted Box]	EXISTING FIRE HYDRANT	[Dashed Line]	
—	EXISTING CLEANOUT	[Dotted Box]	EXISTING WATER LINE	[Dashed Line]	
—	EXISTING FIRE HYDRANT	[Dotted Box]	EXISTING FENCE	[Dashed Line]	
—	EXISTING WATER LINE	[Dotted Box]	EXISTING 10' CONTOUR	[Dashed Line]	
—	EXISTING FENCE	[Dotted Box]	EXISTING 2' CONTOUR	[Dashed Line]	
—	EXISTING 10' CONTOUR	[Dotted Box]	CENTERLINE OF EXISTING STREAM	[Dashed Line]	
—	EXISTING 2' CONTOUR	[Dotted Box]		[Dashed Line]	
—	CENTERLINE OF EXISTING STREAM	[Dotted Box]		[Dashed Line]	

SWM DRAINAGE AREA MAP
SCALE: 1"=30'



DRYWELL / STONE RESERVOIR - TYPICAL SECTION

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRYWELL (M-5)

A. THE OWNER SHALL INSPECT & CLEAN ANNUALLY, INCLUDING PIPES OUTLETS DOWNSPOUTS AND FILTERS.

B. PONDING STANDING WATER OR ALGAL GROWTH ON THE TOP OF A DRYWELL MAY INDICATE FAILURE DUE TO SEDIMENTATION IN THE GRAVEL MEDIA. IF WATER PONDING FOR MORE THAN 48 HOURS AFTER A MAJOR STORM OR MORE THAN SIX INCHES OF SEDIMENT HAS ACCUMULATED, THE GRAVEL MEDIA SHOULD BE EXCAVATED AND REPLACED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edwards
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 3-12-14

Kevin Edwards
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 3/16/14

SOILS LEGEND

SYMBOL	DESCRIPTION	TYPE
LeC	LEGORE SILT LOAM, 8 TO 15 PERCENT SLOPES, STONY	B
LoB	LEGORE-MONTALTO-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B
WcB	WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES, STONY	D

PARCELS 322, 323 OWNER
BETHEL BAPTIST CHURCH OF HOWARD COUNTY, INC.
MR. JASON C. RIDGELL
4261 MONTGOMERY ROAD
ELLIOTT CITY, MD 21043
PHONE: (410) 404-8246

PARCELS 322, 324, 325, 326 & 327 OWNER/DEVELOPER
TRIANGLE MONTGOMERY ASSOCIATES, LLC.
MR. J. CHRIS PIPPEN
4291 MONTGOMERY ROAD
ELLIOTT CITY, MD 21043
PHONE: (410) 404-8246

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN
STORMWATER MANAGEMENT DRAINAGE AREA MAP

LONG GATE OVERLOOK
LOTS 1-79, OPEN SPACE LOT 80, & PARCEL A
(SFA RESIDENTIAL)
PARCELS 322, 323, 324, 325, 326, & 327

2ND ELECTION DISTRICT
TAX MAP: 24 GRID: 24
OPZ REF: SEE SITE ANALYSIS DATA CHART ON COVER SHEET

ZONED: R-A-15
PARCEL: 322, 323, 324, 325, 326, & 327
HOWARD COUNTY, MARYLAND

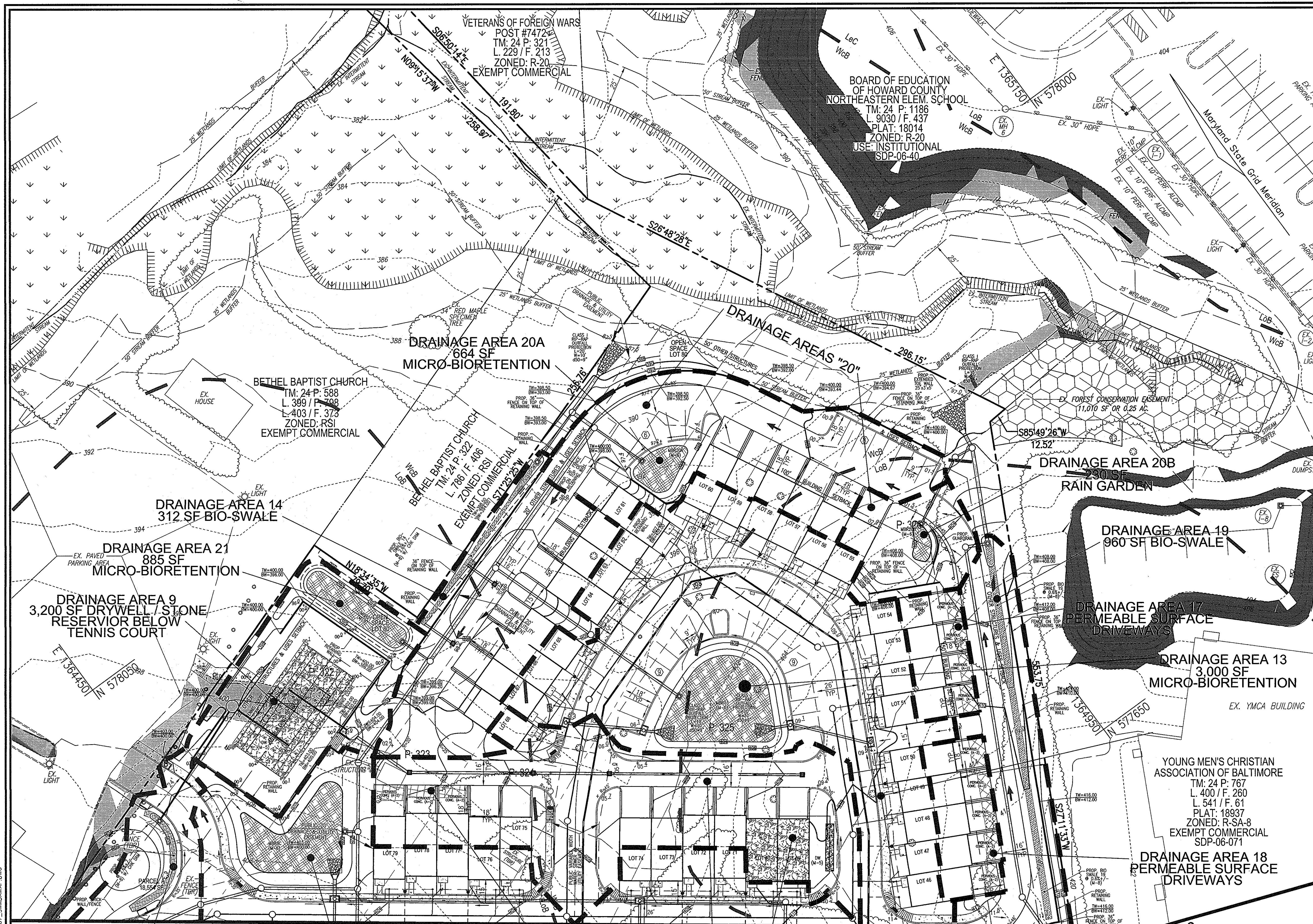
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLIOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

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: 09-27-2014

DESIGN BY: RHW/EDS
DRAWN BY: JMR/EDS
CHECKED BY: RHW
DATE: MARCH 2014
SCALE: AS SHOWN
W.O. NO.: 08-48

6 SHEET OF 8

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LEGEND:

[Symbol]	PROPERTY LINE
[Symbol]	RIGHT-OF-WAY LINE
[Symbol]	ADJACENT PROPERTY LINE
[Symbol]	EXISTING CURB AND GUTTER
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING MAILBOX
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING SANITARY MANHOLE
[Symbol]	EXISTING SANITARY LINE
[Symbol]	EXISTING CLEANOUT
[Symbol]	EXISTING FIRE HYDRANT
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING FENCE
[Symbol]	EXISTING 10' CONTOUR
[Symbol]	EXISTING 2' CONTOUR
[Symbol]	CENTERLINE OF EXISTING STREAM
[Symbol]	SOILS
[Symbol]	EXISTING TREELINE
[Symbol]	EXISTING WETLANDS
[Symbol]	EXISTING MODERATE SLOPES
[Symbol]	EXISTING STEEP SLOPES
[Symbol]	PROPOSED STORMDRAIN
[Symbol]	PROPOSED STORMDRAIN INLET
[Symbol]	PROPOSED SIDEWALK
[Symbol]	PROPOSED TREELINE
[Symbol]	PROPOSED CURB
[Symbol]	PROPOSED 10' CONTOUR
[Symbol]	PROPOSED 2' CONTOUR
[Symbol]	PERMEABLE SURFACE DRIVEWAY
[Symbol]	MICRO-SCALE PRACTICE BIO-SWALE
[Symbol]	MICRO-SCALE PRACTICE MICRO-BIORETENTION
[Symbol]	PROPOSED DRAINAGE AREA DIVIDE

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN
STORMWATER MANAGEMENT DRAINAGE AREA MAP
LONG GATE OVERLOOK
 LOTS 1-79, OPEN SPACE LOT 80, & PARCEL A
 (SFA RESIDENTIAL)
 PARCELS 322, 323, 324, 325, 326, & 327

2ND ELECTION DISTRICT
 TAX MAP: 24 GRID: 24
 DEP. REF'S: SEE SITE ANALYSIS DATA CHART ON COVER SHEET

ZONED: R-4-15
 PARCELS: 322, 323, 324, 325, 326, & 327
 HOWARD COUNTY, MARYLAND

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DESIGN BY: RHV/EDS
 DRAWN BY: JMB/EDS
 CHECKED BY: RHV
 DATE: MARCH 2014
 SCALE: AS SHOWN
 W.O. NO.: 08-48

7 OF 8

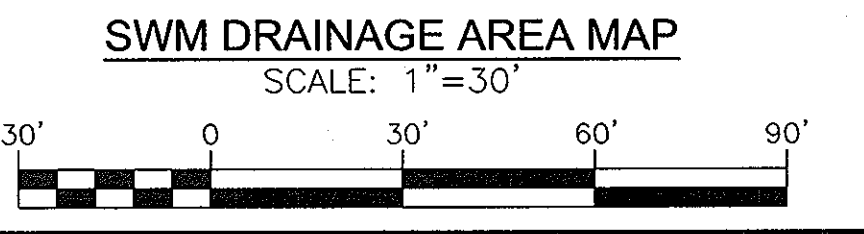
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edwards 3-12-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION NY DATE

V. L. Lewis 3/10/14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

SOILS LEGEND

SYMBOL	DESCRIPTION	TYPE
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LoB	LEGORE-MONTALTO-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B
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 TRIANGLE OLD ANNAPOLIS ASSOCIATES, LLC.
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APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

- 1. MATERIAL SPECIFICATIONS
2. FILTERING MEDIA OR PLANTING SOIL
3. COMPACTION
4. PLANT MATERIAL
5. PLANT INSTALLATION
6. UNDERDRAINS
7. MISCELLANEOUS
OPERATION AND MAINTENANCE SCHEDULE FOR MICROBIORETENTION AREAS

- 1. ANNUAL MAINTENANCE OF PLANT MATERIAL
2. SCHEDULE OF PLANT INSPECTION
3. MULCH SHALL BE INSPECTED EACH SPRING
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS

B.4.B SPECIFICATIONS FOR PERMEABLE PAVEMENTS & REINFORCED TURF
1. PERVIOUS CONCRETE SPECIFICATIONS
2. PERMEABLE INTERLOCKING CONCRETE PAVEMENTS (PICP)
3. REINFORCED TURF

OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION / BIO SWALE AREAS
1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED.
2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL.
3. MULCH SHALL BE INSPECTED EACH SPRING.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division
Chief, Division of Land Development
Date: 3/12/14, 3/10/14

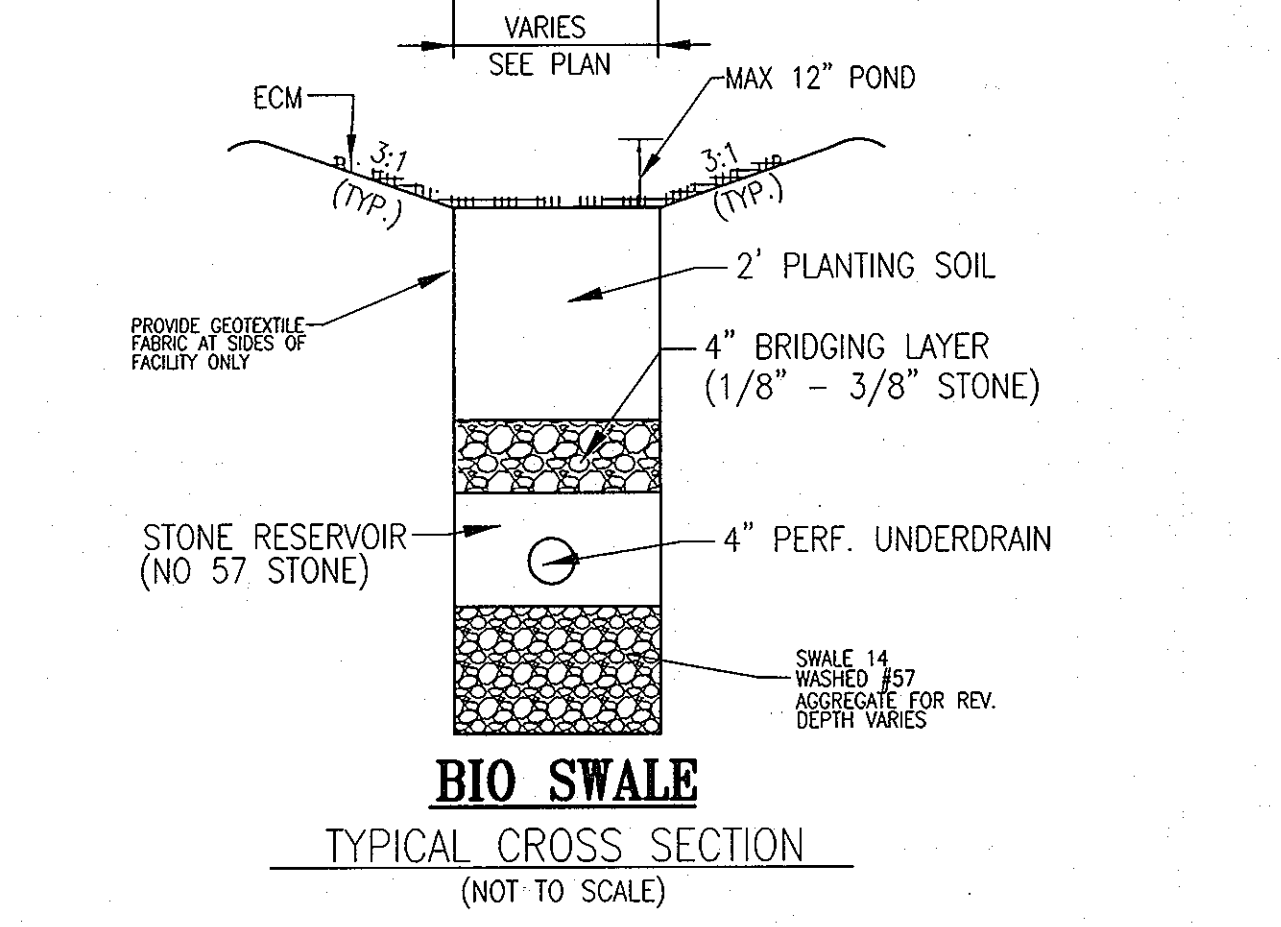
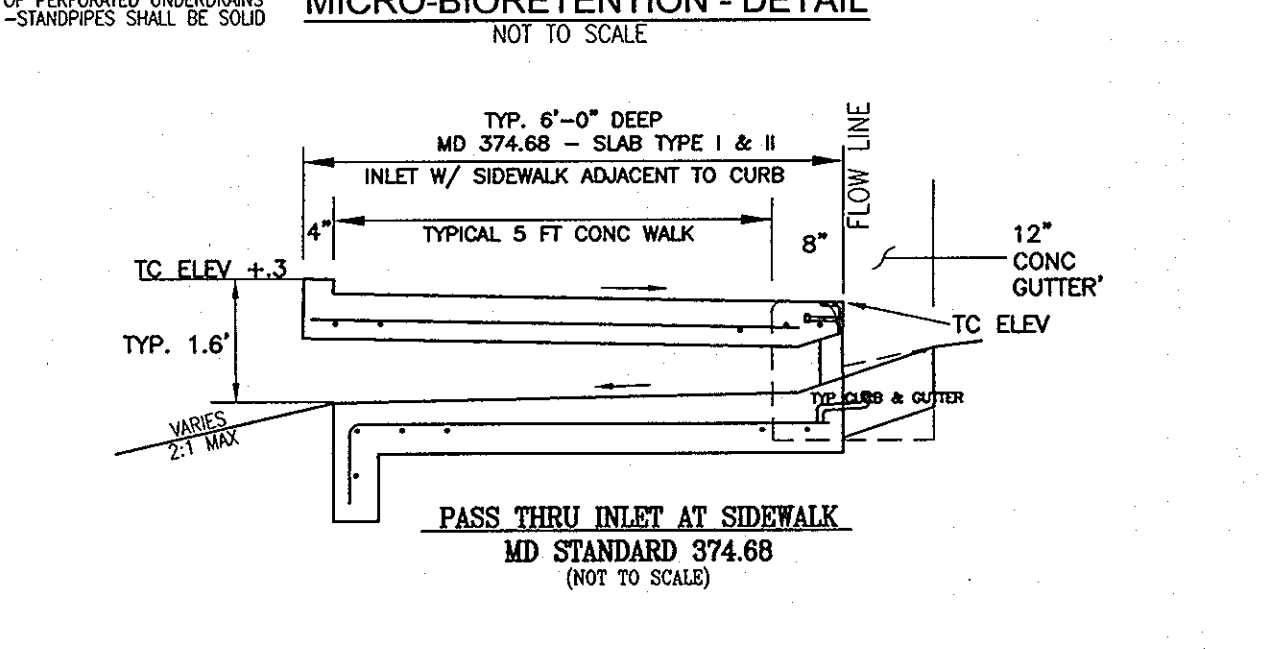
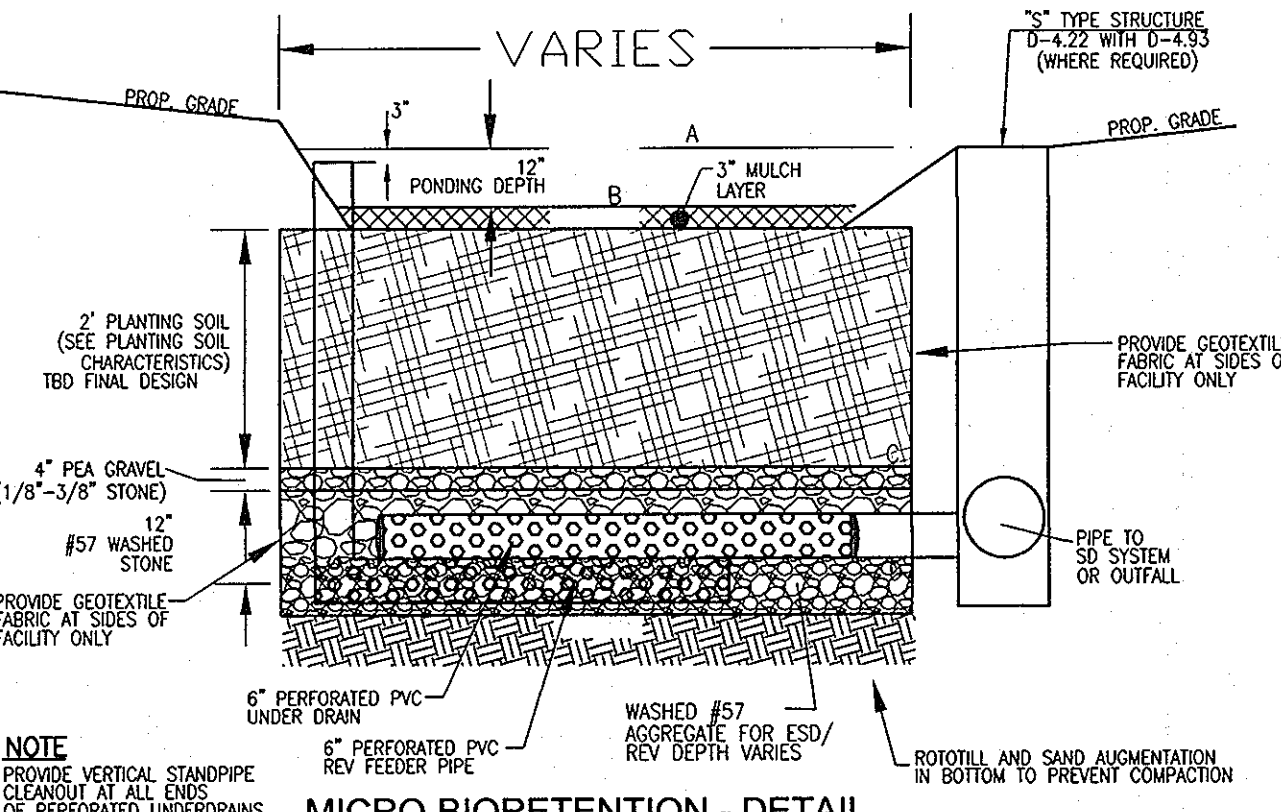
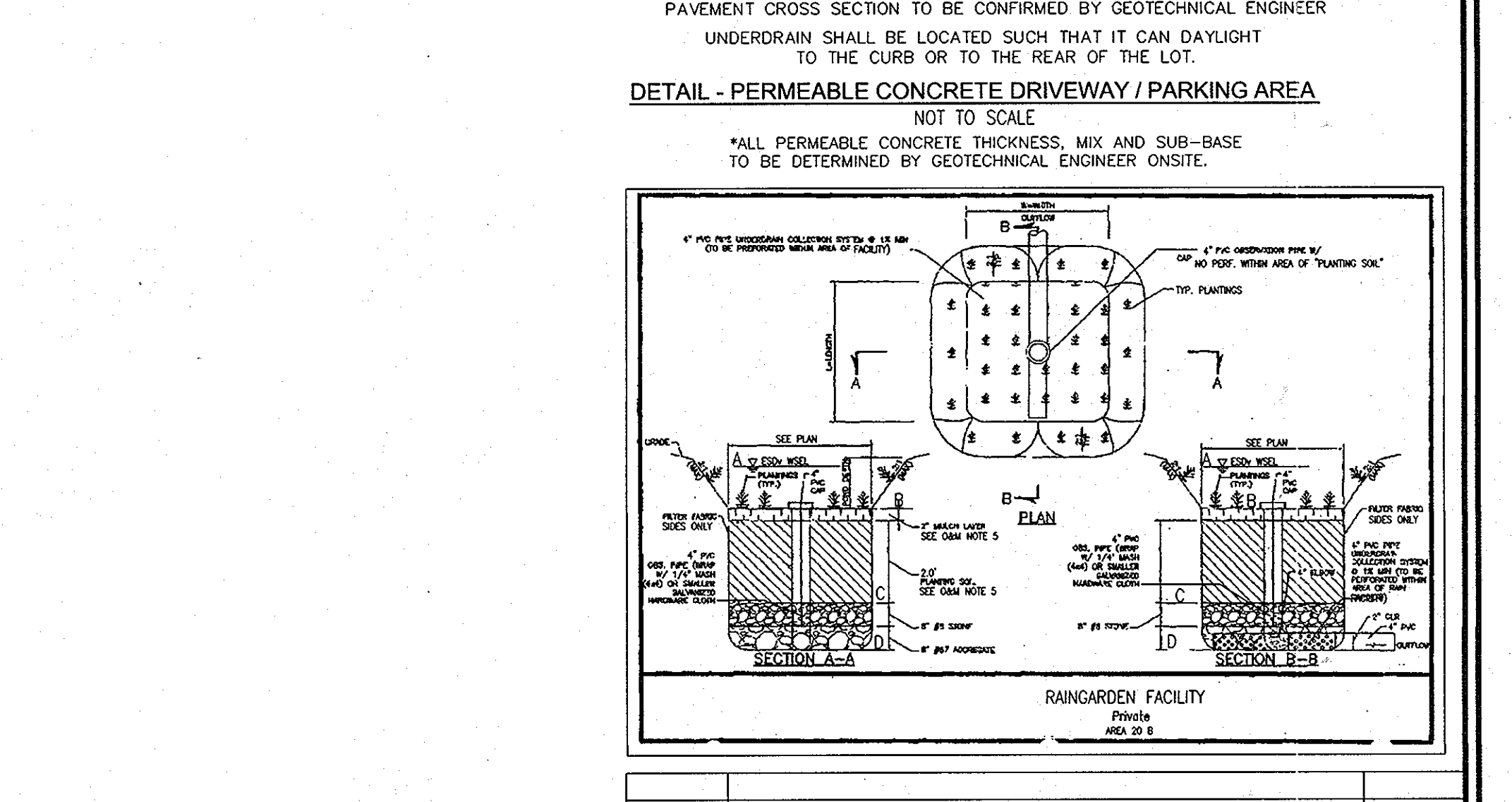
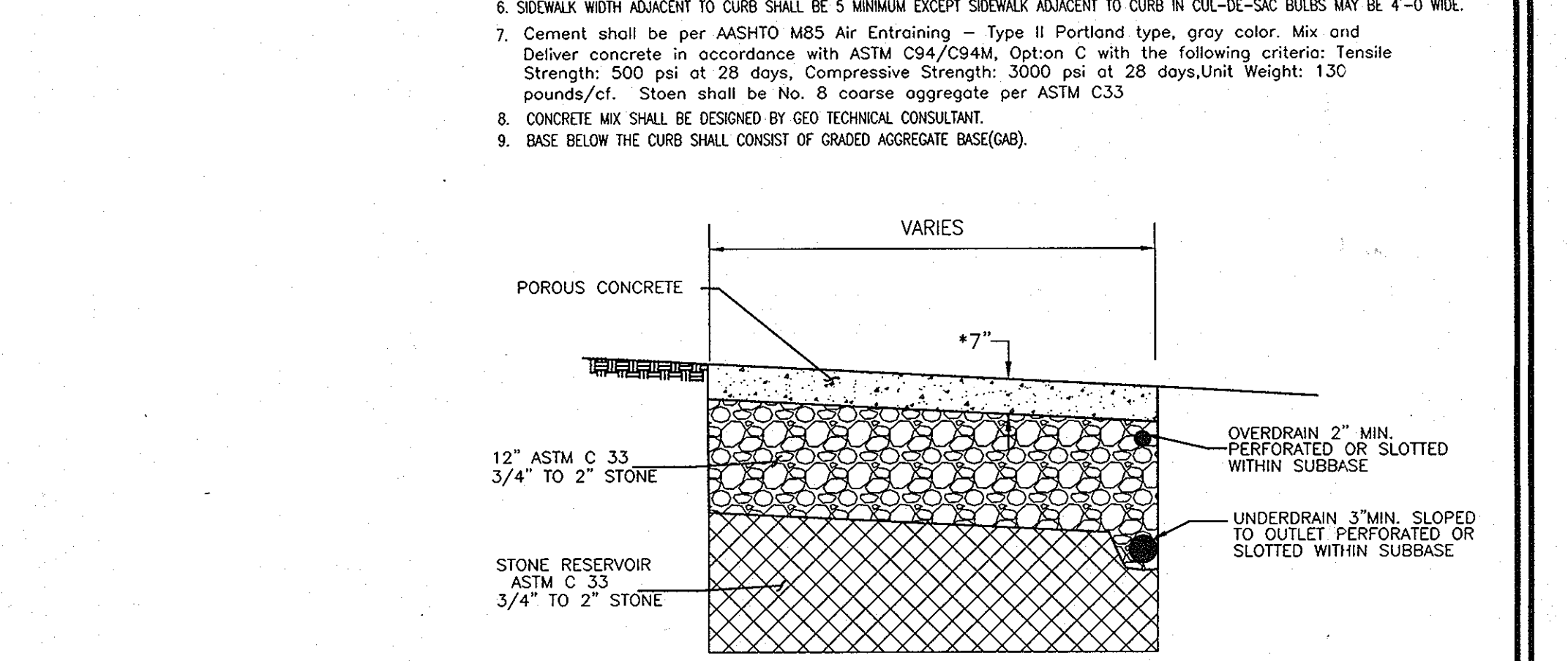
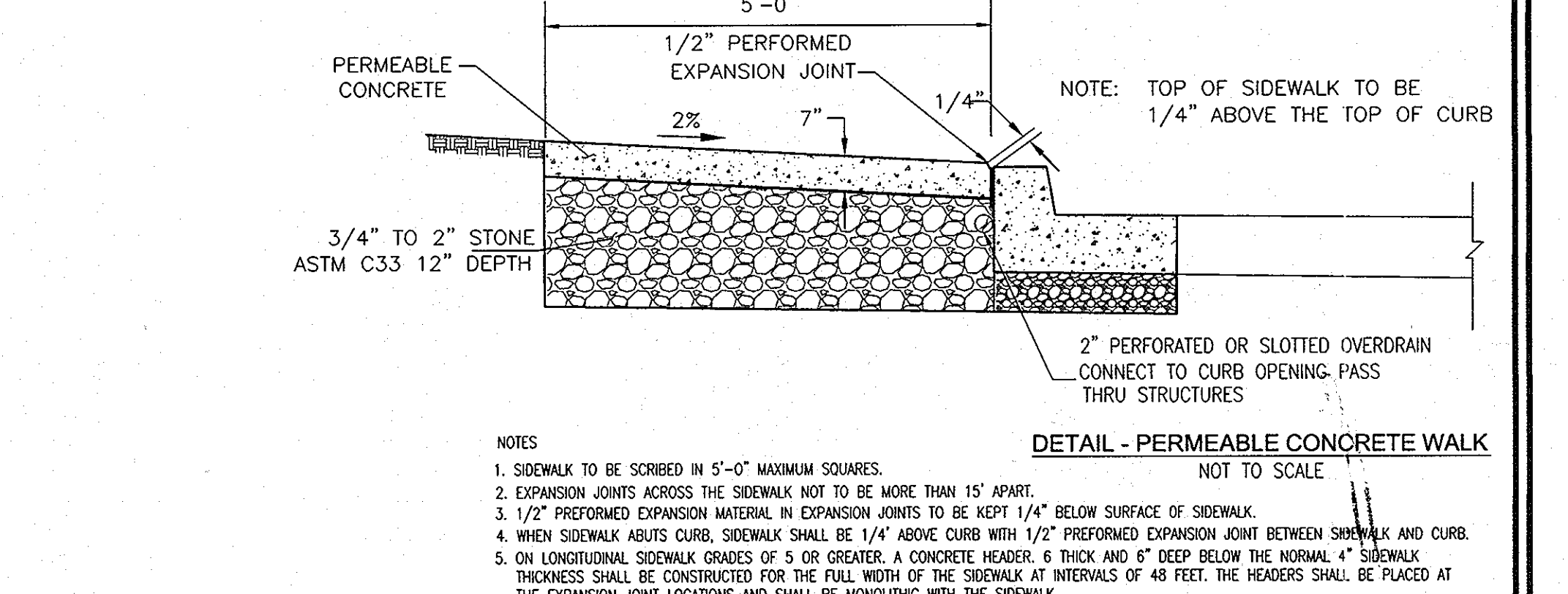


Table B.4.1 Materials Specifications for Micro-Bioretenion, Rain Gardens & Landscape Infiltration
Table with columns: Material, Specification, Size, Notes

LONGGATE OVERLOOK - RA-15 - ECP ESDv COMPUTATIONS
Table with columns: DA #, % IMPERV, Rv, DA (SF), DA (AC), MINIMUM VOLUME, MAXIMUM VOLUME, 1.5\"/>



ENVIRONMENTAL CONCEPT PLAN
STORMWATER MANAGEMENT NOTES AND DETAILS
LONG GATE OVERLOOK
LOTS 1-79, OPEN SPACE LOT 80, & PARCEL A (SFA RESIDENTIAL)
PARCELS 322, 323, 324, 325, 326, & 327
ROBERT H. VOGEL ENGINEERS & SURVEYORS, INC.
DESIGN BY: RHW/EDS, DRAWN BY: JMR/EDS, CHECKED BY: RHW, DATE: MARCH 2014, SCALE: AS SHOWN

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