

NOTE: APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR GRADING OR BUILDING PERMIT 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, SITE DEVELOPMENT PLAN, OR GRADING AND BUILDING PERMIT STAGES.

ENVIRONMENTAL CONCEPT PLAN

ECP-15-019

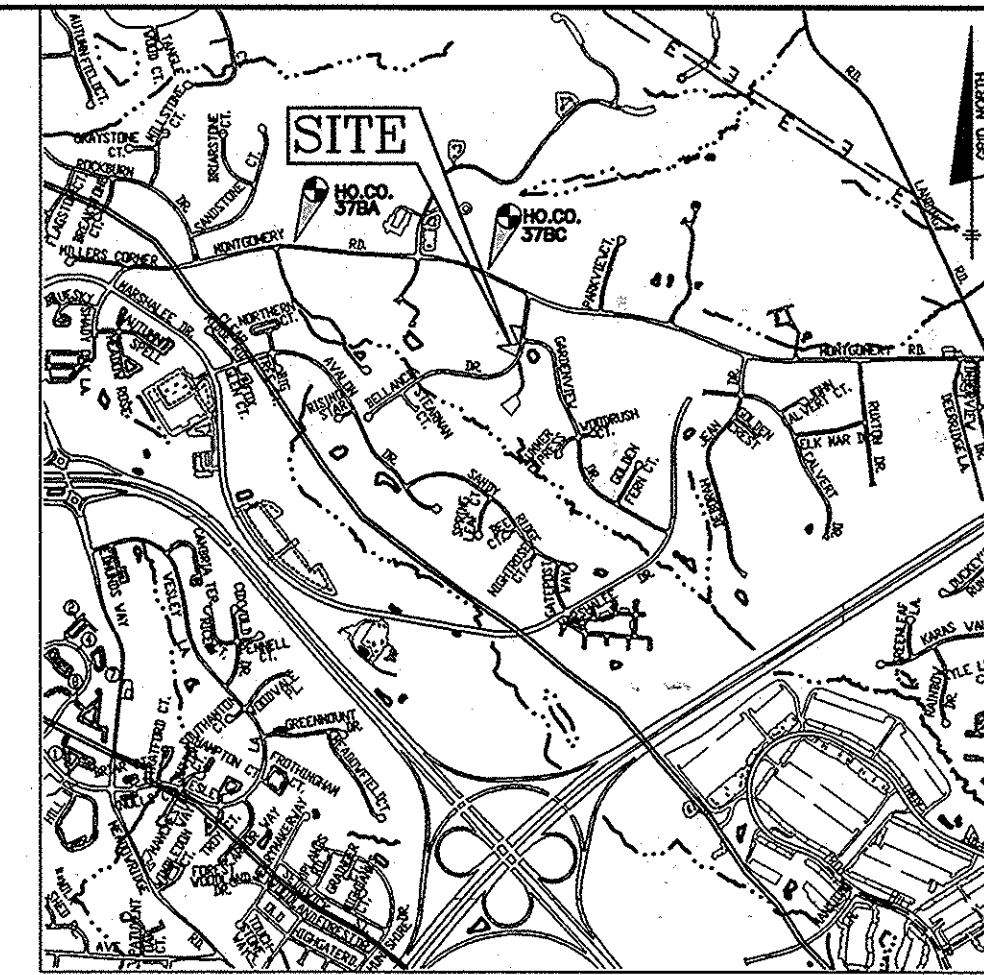
FUHR PROPERTY

5814 BELLANCA DRIVE

1ST ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

BENCH MARKS
 HO. CO. #37BA (NAD '83) ELEV. 393.959
 STANDARD DISC ON CONCRETE MONUMENT
 MONTGOMERY ROAD 0.4MI. OF MEADOWBRIDGE ROAD
 N 563785.6441 E 1376343.207
 HO. CO. #37BC (NAD '83) ELEV. 373.097
 STANDARD DISC ON CONCRETE MONUMENT
 MONTGOMERY ROAD AT ROCKBURN ES
 N 563666.336 E 1378054.838

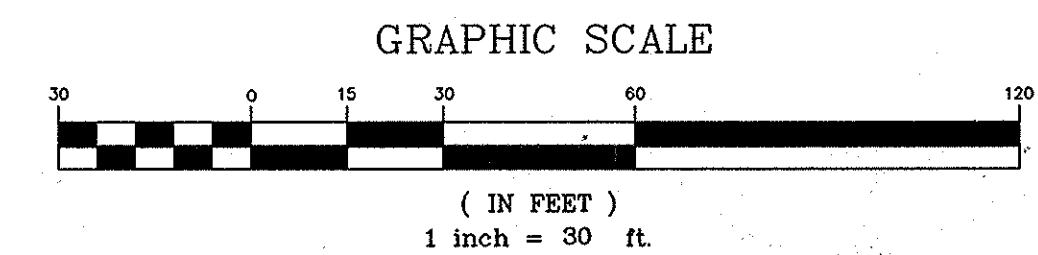
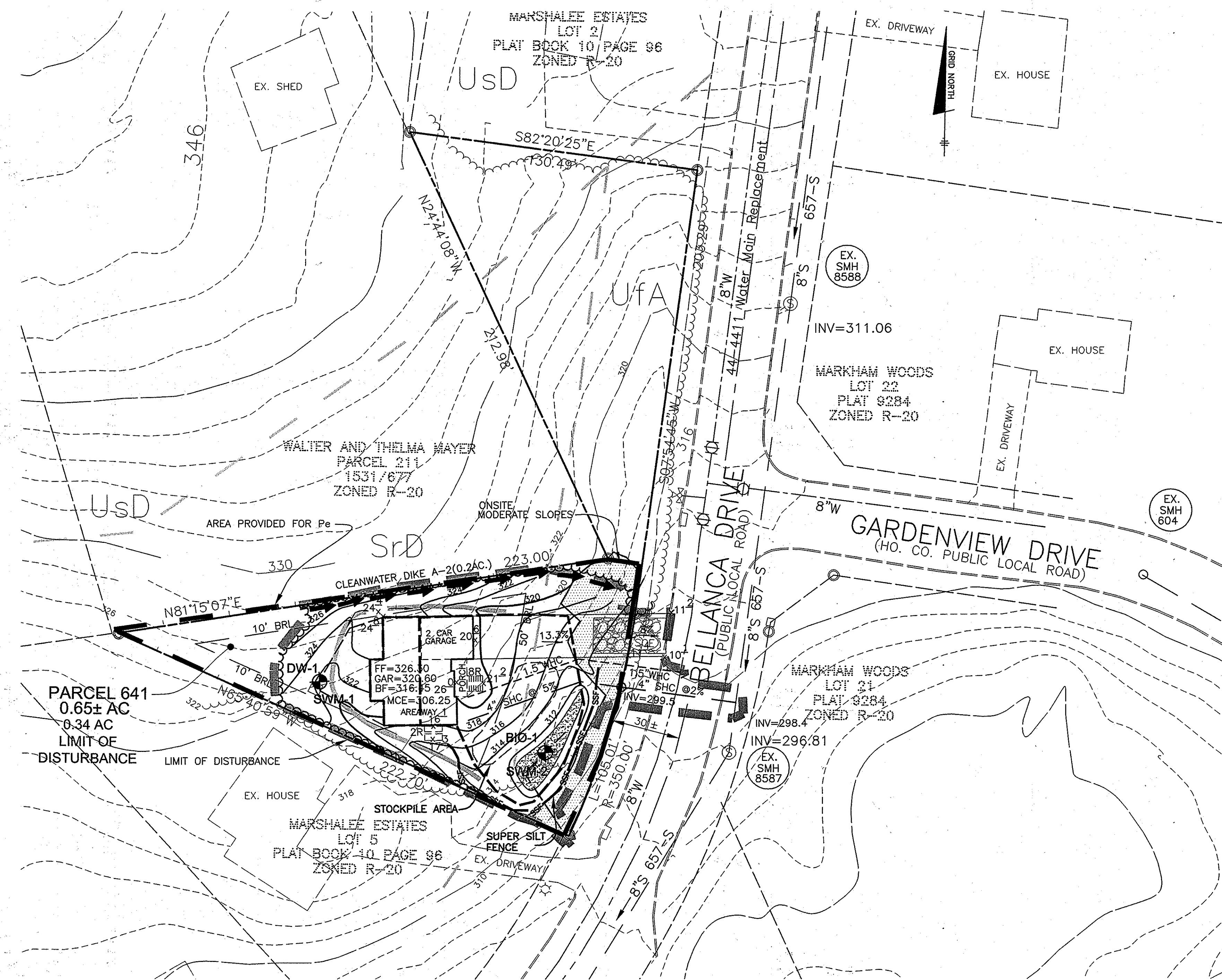


VICINITY MAP
SCALE: 1"=2000'

- LEGEND**
- EXISTING CONTOURS: 452, 450
 - EXISTING TREELINE: [Symbol]
 - PROPOSED TREELINE: [Symbol]
 - EXISTING STRUCTURE: [Symbol]
 - PROPOSED HOUSE: [Symbol]
 - SOIL DELINEATION: [Symbol]
 - SOILS DELINEATION: GnA
 - ESD DRAINAGE AREA: [Symbol]
 - BMP DRAINAGE AREA: [Symbol]
 - LIMIT OF DISTURBANCE: [Symbol]
 - PROP. MICRO-BIORETENTION FACILITY: BIO-1
 - PROP. BIO-SWALE: DW-1
 - SUPER SILT FENCE: SSF
 - CLEANWATER DIVERSION: [Symbol]
 - MODERATE SLOPES: 15% TO 24.9%

ECP Site Analysis Data Sheet	
Gross Area	0.65 ac
100yr Floodplain	0.00 ac
Slopes 15% or Greater	0.05 ac
Wetlands	0.00 ac
Wetlands Buffer	0.00 ac
Stream	0.00 ac
Stream Buffer	0.00 ac
Forested Area(Excluding Floodplain)	0.65 ac
Erodible Soils(D'Soil)	0.33 ac
Limit of Disturbance	0.34 ac
Impervious Area	0.08 ac
Green Space(Within LOD)	0.26 ac

*All areas are approximate.



- GENERAL NOTES**
- SUBJECT PROPERTY ZONED R-20 PER THE 10-6-13 COMPREHENSIVE ZONING PLAN.
 - THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE OCTOBER 6, 2013 COMPREHENSIVE ZONING REGULATIONS.
 - TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY PREPARED BY BENCHMARK ENGINEERING, INC. DATED JULY 2014 AND HOWARD COUNTY 2008 GIS AND ARE 2' INTERVALS.
 - 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. 37BA AND 37BC WERE USED FOR THIS PROJECT.
 - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE STREAMS, OR THEIR REQUIRED BUFFERS AND FLOODPLAIN UNLESS DEEMED NECESSARY BY THE DEPARTMENT OF PLANNING AND ZONING.
 - THERE ARE NO ONSITE STEEP SLOPES GREATER THAN 25%.
 - A FOREST STAND DELINEATION IS PREPARED BY BENCHMARK ENGINEERING, INC. DATED JULY 2014.
 - THERE ARE NO WETLANDS LOCATED ONSITE.
 - THERE ARE NO FLOODPLAINS LOCATED ONSITE.
 - TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERIES LOCATED ON THIS SITE.
 - THIS SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
 - THIS PLAN WILL BE EXEMPT FROM FOREST CONSERVATION REQUIREMENTS SECTION 16.1202(b)(1)(D) OF THE SUBDIVISION REGULATIONS BECAUSE THE LOT IS LESS THAN 4000 SQ FT.
 - PREVIOUS DPZ FILES: N/A
 - AT THE TIME OF THE SITE DEVELOPMENT PLAN, A MORE DETAILED SEDIMENT CONTROL PLAN SHALL BE DEVELOPED, INCLUDING STUDY OF VARIOUS DISCHARGE AREAS, AND MORE COMPLETE DETERMINATION OF SEDIMENT TRAP NECESSITY.
 - THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT DATED 9.29.14.

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 1.1 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 a Bio-retention facility for the front half of the house and driveway and a drywell for the back half of the house. The facilities will be privately owned.

As a result of addressing the stormwater management by use of ESDs a Micro-biotention facility and a dry well to the MEP the land conditions have theoretically been returned to woods in good condition and therefore reduced the overall run-off for the 1-year storm. A reduction in impervious area with the use of bioretention and Nonstructural practices makes for a better site design as well as maintaining the original drainage patterns.

Sediment and erosion control shall comply with the latest edition of the MDE Standards and Specifications for Sediment Control and has been limited to the areas necessary to conduct ESD practices and onsite functionality.

It is concluded that all ESD to the MEP requirements as defined in the Stormwater Management Act of 2007 have been met for the proposed development. The Water Quality has been provided by the implementation of a micro-biotention facility (M-6) and a dry well (M-5) to treat all of the proposed impervious onsite.

There will be no disturbances to any environmental features nor will waivers be required for this development.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 12/03/14
 CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 12.4.14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

SOILS LEGEND			
SYMBOL	NAME/DESCRIPTION	K VALUE	GROUP
Sd	SASSAFRAS AND CROOM SOILS, 10 TO 15 PERCENT SLOPES	0.28	B
Ufa	URBAN LAND-FALLSINGTON COMPLEX, 0 TO 2 PERCENT SLOPES	-	D
Usd	URBAN LAND-SASSAFRAS-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	0.37	D

BASED ON USDA NRCS WEB SOIL NATIONAL COOPERATIVE SOIL SURVEY. SEE HOWARD COUNTY SOIL SURVEY MAP NO. 19

SWM SUMMARY TABLE														
FACILITY	D.A.	MDE Type	Total DA	Impervious Area	Qe	At (SF)		Depth/Gal	Required	ESDv (CF)	REV	Ownership		
						Required	Provided							
BIO-1		M-6	4,242	2,426	0.62	311	390	PASS	1.00	220	520	2.6		
DW-1		M-5	900	900	1.05	NA	100	NA	4.00	78	160	2.2		
TOTAL TREATED			5,142	3,326		311	490			341	680	2.2		
SITE TOTAL			14,427	3,326										

BENCHMARK ENGINEERING, INC.
 8450 BALTIMORE NATIONAL PIKE A SUITE 315 • ELIJAH CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-6844
 WWW.BE-ENGINEERING.COM

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. 22899, Expiration Date: 6-30-15.

OWNER:
 TRACY R. FUHR
 5814 BELLANCA DRIVE
 ELKRIDGE, MD 21075
 410.984.1445

BUILDER:
 RYAN LEGACY BUILDERS
 16013 LADY CAMARIN COURT
 MT. AIRY, MD 21777
 410-489-6640

FUHR PROPERTY
5814 BELLANCA DRIVE

TAX MAP 37 GRID 11, PARCELS 0641
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

ENVIRONMENTAL CONCEPT PLAN
EXISTING CONDITIONS PLAN

DATE: NOVEMBER 2014 BEI PROJECT NO. 2646
 SCALE: AS SHOWN SHEET 1 OF 1