

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND PAGE 25

SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	K	NAME
RuB	YES	D	C	0.24	FALLSINGTON SANDY LOAM, 0 TO 2 PERCENT, NORTHERN COASTAL PLAIN
RuB	NO	C	C	0.43	RUSSETT FINE SANDY LOAM, 2 TO 5 PERCENT SLOPES
RuB	NO	C	C	0.43	RUSSETT AND BELTSVILLE SOIL, 2 TO 5 PERCENT SLOPES
RuB	NO	C	C	0.43	RUSSETT AND BELTSVILLE SOIL, 5 TO 10 PERCENT SLOPES
UD	NO	D	C	0.28	URBAN LAND-ADJUTMENTS COMPLEX 0 TO 15 PERCENT SLOPES

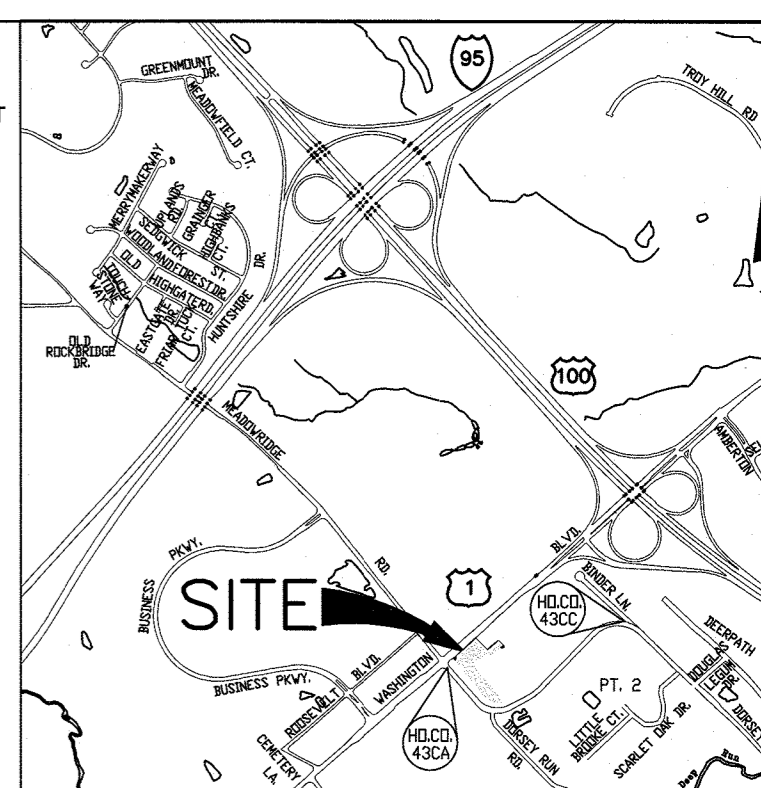
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 \* INCLUDES HYDRIC SOILS  
 \*\* HIGHLY ERODIBLE K>0.35, AND/OR SOILS 15% OR GREATER

**GENERAL NOTES**

1. THE SUBJECT PROPERTY IS ZONED TDD PER THE 10/06/13 COMPREHENSIVE ZONING PLAN.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
3. 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 THE START OF WORK.
4. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
5. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
6. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
7. ALL EXISTING TOPOGRAPHY IS TAKEN FROM FIELD A RUN SURVEY WITH 2 FOOT CONTOUR INTERVALS PREPARED BY BENCHMARK ENGINEERING, INC. DATED NOVEMBER 2016 AND HOWARD COUNTY GIS. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS 43CA AND 43CC WERE USED FOR THIS PROJECT.
8. STORMWATER MANAGEMENT FOR THIS DEVELOPMENT WILL BE PROVIDED BY ESD PRACTICES TO INCLUDE ONE (1) MICRO-BIOTENTION FACILITY AND EIGHT (8) BIO-CLEAN INLETS AS WELL AS AN EXTENDED DETENTION FACILITY AND UNDERGROUND STORAGE CHAMBERS FOR THE REQUIRED 10 & 100 YEAR MANAGEMENT. FACILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED.
9. EXISTING UTILITIES LOCATIONS ARE BASED ON FIELD LOCATIONS, MARKINGS BY MISS UTILITY AND AS-BUILT DRAWINGS.
10. THERE IS NO FLOODPLAIN LOCATED ON THE PROPERTY.
11. THERE ARE NO WETLANDS LOCATED ON THE PROPERTY BASED ON A FIELD ANALYSIS PERFORMED BY HILLIS-CARNES ENGINEERING ASSOCIATED DATED MARCH 2016.
12. A FOREST STAND DELINEATION FIELD STUDY WAS PERFORMED BY MICHAEL J. KLEBASKO (QUALIFIED PROFESSIONAL UNDER COMAR 08.19.06.01) DATED MARCH 25, 2016 AND SEPTEMBER 23, 2016.

**BENCH MARKS (NAD83)**

HO.CO. No.43CA	ELEV:191.633
STAMPED (BRASS OR ALUMINUM) DISC SET TOP OF A 3" DEEP COLUMN OF CONCRETE AT CORNER US-1 AND DORSEY ROAD	N 552680129
HO.CO. No.43CC	ELEV:163.700
CONCRETE MONUMENT WITH BRASS DISC AT RT-103/DORSEY ROAD/13 MI E US-29	N 553201462
	E 1381152.814



**10-100 YEAR SWM STORAGE CHART**

FACILITY TYPE	STORM	EXISTING RUNOFF	PROPOSED RUNOFF**	STORAGE REQUIRED	STORAGE PROVIDED
UG STORAGE CHAMBERS	10 YEAR	14.44 cfs	15.92 cfs	5,663 cf	5,700 cf±
UG STORAGE CHAMBERS	100 YEAR	27.83 cfs	31.23 cfs	14,811 cf	15,000 cf±
EXT. DETENTION	10 YEAR	6.44 cfs	5.14 cfs	3,050 cf	3,267 cf±
EXT. DETENTION	100 YEAR	11.76 cfs	13.31 cfs	6,535 cf	6,535 cf±

\*\* DEVELOPED RUNOFF BEFORE ROUTING THROUGH FACILITY.

**ESD SUMMARY TABLE**

D.A.	MDE Type	Total DA(SF)	Impervious Area(SF)	Qe	Af		Depth	ESDv		RV	Pe		
					Required	Provided		Required	Provided				
MBR 1	(M-6)	26,805	12,900	0.87	536	730	PASS	1.0	1457	3349	PASS	0.48	2.60
BC-1A	(M-6)	18,295	13,721	1.30					1492	1493	PASS	0.72	1.80
BC-1B	(M-6)	18,295	13,721	1.30					1492	1492	PASS	0.72	1.80
BC-2	(M-6)	6,100	6,100	1.71					652	652	PASS	0.95	1.80
BC-3	(M-6)	6,100	6,100	1.71					652	652	PASS	0.95	1.80
BC-4	(M-6)	4,800	4,800	1.71					513	513	PASS	0.95	1.80
BC-5	(M-6)	18,733	12,510	1.17					1372	1373	PASS	0.65	1.80
BC-6	(M-6)	10,500	10,500	1.71					1122	1122	PASS	0.95	1.80
BC-7	(M-6)	13,510	13,510	1.71					1444	1444	PASS	0.95	1.80
<b>Totals</b>		<b>26,805</b>	<b>12,900</b>						<b>10,196</b>	<b>12,090</b>			

**DETAILED DESIGN OF BIO-CLEAN INLETS TO BE PROVIDED AT NEXT STAGE**

MBR: DENOTES MICRO-BIOTENTION FACILITY  
 BC: DENOTES BIO-CLEAN INLET

**SITE SUMMARY**

**METHODS ANTICIPATED:**

- ESDv Required: 10,196cf
- One Micro-biotention facility (3,349cf ESDv and 512cf Rev)
- Eight (8) Bio-Clean Inlets (8,741cf ESDv and 307cf Rev)
- ESDv Provided: 12,090 cf
- 10-100 Year Management:
  - Underground storage chambers with control structure to manage the storms: (15,000CF) for the 10 yr (14,44cfs) and the 100 yr (27,83cfs).
  - Extended Detention Facility with control structure to manage storms: (7,069CF) for the 10 yr (5,14cfs) and the 100 yr (11,76cfs)

NOTE: APPROVAL OF THIS ECP PLAN DOES NOT CONSTITUTE ANY APPROVALS OF SUBSEQUENT SUBDIVISION PLANS, SITE DEVELOPMENT PLANS OR REDLINE REVISIONS TO APPROVED SITE DEVELOPMENT PLANS, FOREST CONSERVATION PLANS AND GRADING OR BUILDING PERMITS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS THAT MAY ALTER THE SITE DESIGN, HOUSE OR STRUCTURE LOCATION, DRIVEWAY LOCATION, GRADING, TREE CLEARING AND/OR OTHER REQUIREMENTS AS THE DEVELOPMENT PLAN PROGRESSES THROUGH THE PLAN REVIEW AND/OR PERMIT APPLICATION PROCESS IN ACCORDANCE WITH THE SUBDIVISION, LAND DEVELOPMENT AND ZONING REGULATIONS AND THE FOREST CONSERVATION REQUIREMENTS.

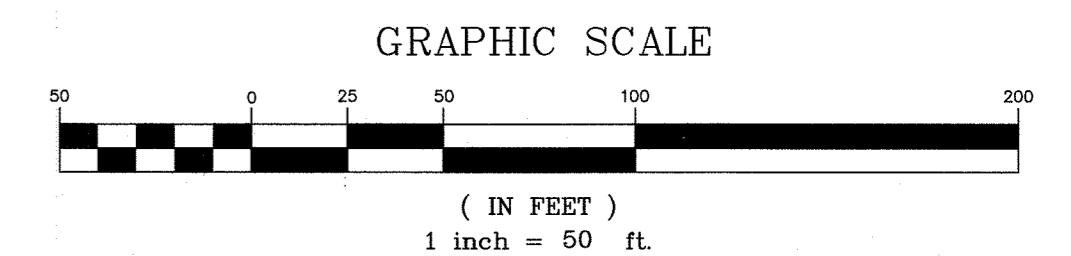
**DESIGN NARRATIVE**

The Corridor Square, Parcel B property is approximately 4.25 acres in area, located at the southeast intersection of Route 1 (Washington Boulevard) and Dorsey Road. The property is zoned T.O.D. A portion of the property to the north was previously developed as an auto auction building with several garages and associated parking. The area to the south of the parcel is partially wooded. Slopes across the site are gradual draining east to Dorsey Road. Soils across the site consist of Urban Land-Use/Urban and Russett and Beltsville identified as Hydrologic Groups D and C, predominately D soils. The proposed development is for a convenience store and townhouses. The use of Bio-Clean Inlets (M-6) and a Bio-Retention (M-6) will provide the required ESD requirements. In addition to the required ESD, management of the 10 year and 100 year is required since this site drains to a tributary to the Deep Run above a railroad stream crossing (per the Design Manual Volume 1, Section 5.2.1). Stormwater Control is proposed by means of an Extended Detention Facility and underground storage chambers. Where the future lane restriping is shown it is anticipated that there will be minimal to no additional impervious necessary due to the current curb cuts and shoulder that exist. This site falls within the Patapsco River Lower North Branch watershed designation 02-13-09. As a result of addressing the stormwater management by use of ESD 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 through micro-bio and bio-clean inlets 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 requirements as defined in the Stormwater Management Act of 2007 have been met for the proposed development to the MEP. The Water Quality has been provided by a bioretention facility (M-6) and seven (8) Bio-Clean facilities(M-6). There is minimal forest located on this site. It is anticipated that the required forest conservation obligations for this site will be provided by an offsite bank.

**ECP Site Analysis Data Sheet**

Gross Area	4.25 ac
100yr Floodplain	0.00 ac
Slopes 25% or Greater	0.00 ac
Slopes 15% or Greater	0.00 ac
Wetlands	0.00 ac
Wetlands Buffer	0.00 ac
Stream	0.00 ac
Stream Buffer	0.00 ac
Forested Area	1.00 ac
Erodible Soils(RuB)	1.16 ac
Limit of Disturbance	4.10 ac
Impervious Area	2.98 ac
Green Space	1.12 ac

\*All areas are approximate.



**LEGEND**

- EXISTING CONTOURS
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING BUILDING
- PROPOSED PAVING
- ESD DRAINAGE AREA
- PROPOSED STORM DRAIN
- ESD FACILITY
- UNDERGROUND FACILITY
- SOILS BOUNDARY
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 6.29.20

NO. DATE REVISION

**BENCHMARK ENGINEERS, LAND SURVEYORS & PLANNERS**  
 ENGINEERING, INC.  
 8450 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLIOTT CITY, MARYLAND 21043  
 (P) 410-465-6105 (F) 410-465-6844  
 WWW.BEI-CIVILENGINEERING.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. 28376, Expiration Date: 01/01/2021.

**CORRIDOR SQUARE PARCEL B**

TAX MAP 43 - GRID 24 - PARCEL 265  
 ELECTION DISTRICT NO. 1 - HOWARD COUNTY, MARYLAND  
 ZONED : T.O.D.

**ENVIRONMENTAL CONCEPT PLAN**

DEVELOPER: CORRIDOR SQUARE, LLC  
 C/O H & H ROCK COMPANIES  
 6800 DEERPATH ROAD  
 ELKCRIDGE, MD 21075  
 410.579.2442

OWNER: CORRIDOR SQUARE, LLC  
 6800 DEERPATH ROAD  
 ELKCRIDGE, MD 21075  
 410.579.2442

DESIGN: JCO DRAFT: JCO

DATE: MAY 2020

SCALE: 1"=50'

BEI PROJECT NO. 2695

SHEET 1 OF 1