

SYMBOL	HYDRIC	GROUP	NAME	K-VALUE
GfB	NO	B	GLADSTONE-URBAN LAND COMPLEX 0 TO 8 PERCENT SLOPES	0.32
Gub	NO	C	GLENNVILLE-URBAN LAND-UDORTHERNTS COMPLEX 0 TO 8 PERCENT SLO	0.49

LEGEND

- EXISTING CONTOURS
- SOILS DELINEATION LINE
- SOILS TYPE
- PROPOSED IMPERVIOUS AREA TREATED
- PROJECT BOUNDARY
- SWM DRAINAGE AREA
- PROPOSED STORM DRAIN
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED DRYWELL
- LIMIT OF DISTURBANCE
- SSF SUPER SILT FENCE
- DF DIVERSION FENCE
- PSSMC MATTING
- INDICATES WALK-OUT BASEMENT
- N-2 DISCONNECTION AREA
- PROPOSED BORING LOCATION
- INLET PROTECTION

DESIGN NARRATIVE:

THERE ARE NO WETLANDS, STREAMS, THEIR REQUIRED BUFFERS, 100-YEAR FLOODPLAIN OR STEEP SLOPES LOCATED ON THIS PROPERTY. THUS, THERE ARE NO NATURAL RESOURCES TO BE PRESERVED. THERE IS ONE (1) SPECIMEN TREE NEAR THE ROAD WHICH WILL NEED TO BE REMOVED IN ORDER TO CONSTRUCT THE REQUIRED SIDEWALK. SEE GENERAL NOTE 13.

EXISTING FLOW PATTERNS SHALL BE MAINTAINED. THE PROPOSED OVERALL DRAINAGE PATTERNS SHALL MIMIC THE EXISTING CONDITION DRAINAGE PATTERN. OFFSITE RUNOFF IS BEING DIVERTED AROUND THE SITE VIA AN ON-SITE CONVEYANCE SWALE THAT WILL DISCHARGE INTO A PROPOSED CLOSED STORM DRAIN SYSTEM THAT WILL CONNECT TO THE EXISTING STORM DRAIN SYSTEM.

IMPERVIOUS AREAS ARE BEING MINIMIZED AND WILL ONLY CONSIST OF THE PROPOSED DRIVEWAYS AND ROOFTOPS AND REQUIRED SIDEWALK.

SEDIMENT AND EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. OFFSITE CLEANWATER SHALL BE DIVERTED AROUND THE SITE. THE ENTIRE PERIMETER OF THE LIMIT OF DISTURBANCE SHALL INCLUDE CONTROLS SUCH AS SILT FENCE, SUPER SILT FENCE, DIVERSION FENCING AND/OR DIKES BASED ON TOPOGRAPHY. THERE ARE NO IMPACTS TO THE STORMWATER MANAGEMENT DESIGN BASED ON SEDIMENT AND EROSION CONTROL.

THE 8 PROPOSED (M-5) DRY WELLS, 1 PROPOSED (M-6) MICRO BIO-RETENTION, AND 1 AREA OF (N-2) DISCONNECTION OF NON-ROOFTOP RUNOFF SHALL ADEQUATELY TREAT THE PROPOSED IMPERVIOUS AREAS. THE PRACTICES SHALL ALL DISCHARGE AT A LOCATION THAT IS NOT DETRIMENTAL TO THE ADJACENT PROPERTIES. AN INLET SHALL BE PLACED WITHIN THE MICRO BIO-RETENTION SO THAT HIGHER STORMS EVENTS WILL NOT CREATE OVERFLOW ISSUES ONTO ADJACENT RESIDENTIAL LOTS.

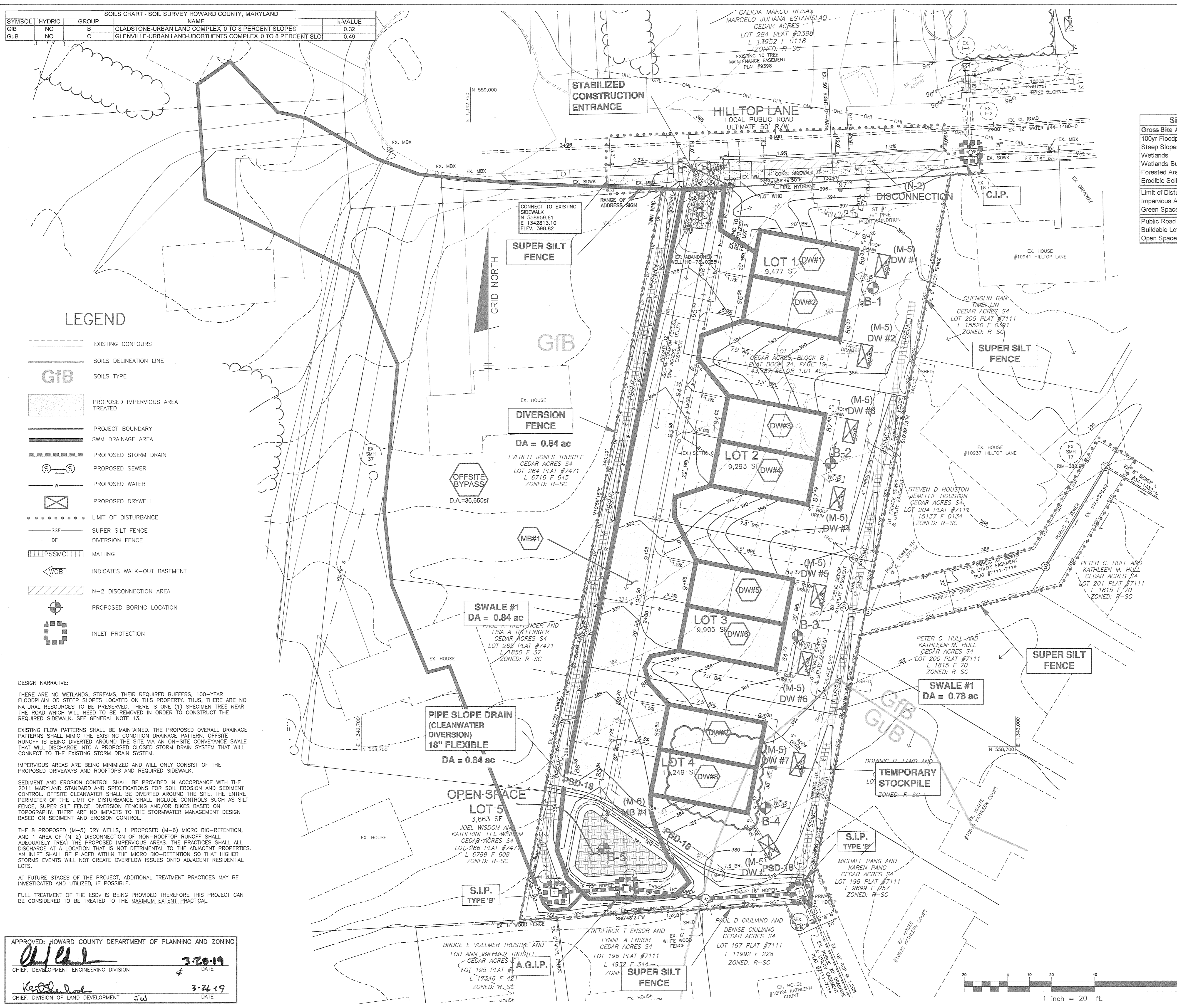
AT FUTURE STAGES OF THE PROJECT, ADDITIONAL TREATMENT PRACTICES MAY BE INVESTIGATED AND UTILIZED, IF POSSIBLE.

FULL TREATMENT OF THE ESDV IS BEING PROVIDED THEREFORE THIS PROJECT CAN BE CONSIDERED TO BE TREATED TO THE MAXIMUM EXTENT PRACTICAL.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3-20-19
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 3-26-19
CHIEF, DIVISION OF LAND DEVELOPMENT



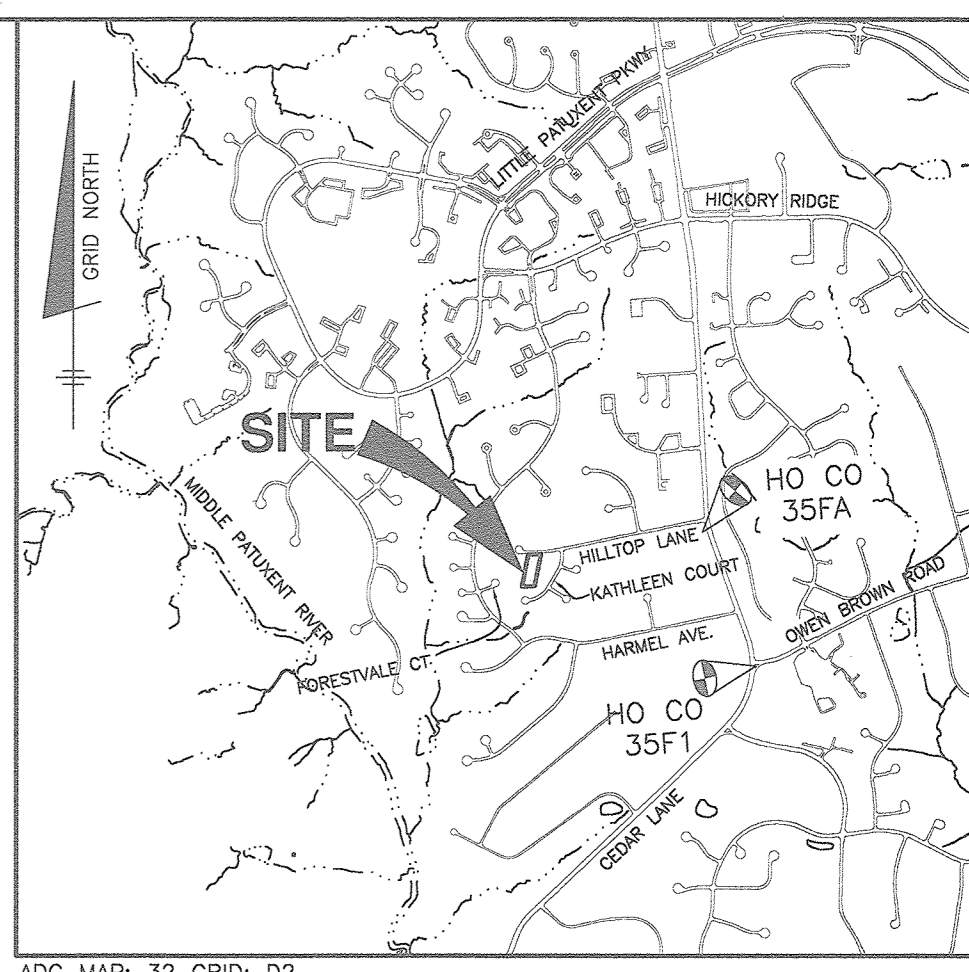
BENCHMARKS NAD'83 HORIZONTAL

HO. CO. #35FA
STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE
N 559266.1334' E 1344682.6389'
ELEVATION: 410.329'

HO. CO. #35F1
STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE
N 557287.3788' E 1345217.2645'
ELEVATION: 400.439'

Site Analysis Data Sheet

Gross Site Area	1.00 ac
100yr Floodplain	0.00 ac
Steep Slopes 25% or greater	0.00 ac
Wetlands	0.00 ac
Wetlands Buffer	0.00 ac
Forested Area	0.00 ac
Erodible Soils	0.00 ac
Limit of Disturbance	1.17 ac
Impervious Area (within LOD)	0.38 ac
Green Space (within LOD)	0.79 ac
Public Road Right-of-Way	0.00 ac
Buildable Lots	0.91 ac
Open Space	0.09 ac



VICINITY MAP
SCALE: 1" = 2000'

Stormwater Management Practice Chart / Summary Table

Total Site Pe	1.7	Total Site ESDv	2264	cf	
MDE Designation	Practice Description	Quantity of Each Practice	ESDv (cf) Required based on each DA	ESDv (cf) Provided	Ownership
M-5	Dry Well	8	1,025	1,056	Private
M-6	Micro Bio-Retention	1	906	1,211	Private
N-2	Disconnection on Non-rooftop	1	30	30	Private
Totals			1,931	2,267	

Notes:

- Total Site Pe and Total Site ESDv numbers are based on the project boundary
- Total ESDv provided exceeds total ESDv required.
- All on-site impervious areas are being treated via ESD practices

GENERAL NOTES

- SUBJECT PROPERTY IS ZONED R-SC PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THE PROJECT BOUNDARY IS BASED ON SURVEY BY BENCHMARK ENGINEERING, INC. IN AUGUST 2018. THE EXISTING TOPOGRAPHY IS BASED ON FIELD SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. IN SEPTEMBER, 2018. EXISTING UTILITIES ARE BASED ON FIELD SURVEY AND COUNTY GIS.
- THERE ARE NO WETLANDS, STREAMS, THEIR BUFFERS, 100-YEAR FLOODPLAIN OR 25% OR GREATER STEEP SLOPES WITH MORE THAN 20,000SF OF CONTIGUOUS AREA LOCATED ON THIS PROJECT SITE.
- THIS SITE IS WITHIN THE METROPOLITAN DISTRICT.
- TO THE BEST OF OUR KNOWLEDGE, INFORMATION, AND BELIEF, THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES LOCATED ON THIS SITE.
- THE FOREST STAND DELINEATION REPORT AND THE WETLANDS CERTIFICATION LETTER WERE PREPARED BY BENCHMARK ENGINEERING, ON NOVEMBER 30, 2018.
- THIS PROJECT IS SUBJECT TO THE FOREST CONSERVATION REQUIREMENTS. FOREST CONSERVATION CHECKLIST AND PLAN SHALL BE PART OF THE FINAL PLAN SUBMITTAL.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT 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 AND/OR SITE DEVELOPMENT PLAN STAGES. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.
- STORMWATER MANAGEMENT PRACTICES SHOWN ON THIS PLAN ASSUME ADEQUATE SOIL BORING TEST RESULTS. THE DESIGN MAY NEED TO BE ADJUSTED AT THE PRELIMINARY PLAN STAGE AFTER SOIL BORING TESTING HAS BEEN COMPLETED AND AN ALTERNATE PRACTICE MAY NEED TO BE UTILIZED.
- THE SEDIMENT AND EROSION CONTROL SHOWN IN THIS PLAN SET IS A SCHEMATIC PRELIMINARY DESIGN. A MORE DETAILED DESIGN COMPLETE WITH SEQUENCE OF CONSTRUCTION, NOTES, DETAILS AND COMPUTATIONS SHALL BE PROVIDED AT THE PRELIMINARY PLAN STAGE.
- WP-19-050, AN ALTERNATIVE COMPLIANCE TO SECTIONS 16.1205(o)(7) TO ALLOW THE REMOVAL OF A SPECIMEN TREE GREATER THAN 30" IN DIAMETER WAS APPROVED ON JANUARY 4, 2019 SUBJECT TO THE FOLLOWING CONDITIONS:
 - PROVIDE TWO (2) 3" MINIMUM CALIPER NATIVE TREES AS MITIGATION TO BE PROVIDED AS LANDSCAPING ON THE FINAL PLAN.
 - ADD THIS GENERAL NOTE TO THE ECP AND ALL FUTURE PLANS.
- IT IS ANTICIPATED THAT A FEE-IN-LIEU PAYMENT SHALL BE MADE TO SATISFY FOREST CONSERVATION REQUIREMENTS AS THE REQUIREMENT SHALL BE LESS THAN 1 ACRE.

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS
840 BALTIMORE NATIONAL PINEA SUITE 3154 ELLICOTT CITY, MARYLAND 21043
(P) 410-465-8105 (F) 410-465-8844
WWW.BE-CVLENGINEERING.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. 20390, Expiration Date: 6-30-2019.

[Signature] 3-20-19

OWNER:		HILLTOP LANDING II	
DEVELOPMENT PARTNERS LLC 9683 GERWIG LANE SUITE L COLUMBIA, MARYLAND 21046 410-792-2565		LOTS 1 thru 4 and OPEN SPACE LOT 5 A RESUBDIVISION OF LOT 16 BLOCK B OF CEDAR ACRES PREVIOUSLY RECORDED AS PB 24 FOLIO 19	
DEVELOPER:		TAX MAP: 35 - GRID: 17 - PARCEL: 284 ZONED: R-SC ELECTION DISTRICT NO. 5 - HOWARD COUNTY, MARYLAND	
DEVELOPMENT PARTNERS LLC 9683 GERWIG LANE SUITE L COLUMBIA, MARYLAND 21046 410-792-2565		ENVIRONMENTAL CONCEPT PLAN	
DESIGN: DBT	DRAFT: DBT	DATE: MARCH 20, 2019	BEI PROJECT NO. 2921
		SCALE: AS SHOWN	SHEET 1 OF 1