

**VICINITY MAP**  
SCALE: 1" = 2,000'

**HOWARD COUNTY CONTROL STATIONS**

306A      36AA  
 NORTHING: 566,053.5419      NORTHING: 562,804.8537  
 EASTING: 1,352,171.5307      EASTING: 1,344,906.1701  
 ELEVATION: 334.818      ELEVATION: 354.151  
 (LATEST ADJ. NOV. 2008)      (LATEST ADJ. NOV. 2008)

**LEGEND**

- 400 --- EXISTING CONTOUR
- 400 --- PROPOSED CONTOUR
- EXISTING TREE LINE
- EX 8" S --- EXISTING SANITARY SEWER
- EX 8" W --- EXISTING WATERLINE
- EX 50" D --- EXISTING STORM DRAIN
- T.B.A. --- TO BE ABANDONED
- T.B.R. --- TO BE REMOVED
- PROPOSED STORM DRAIN
- STRUCTURE NUMBER
- 8" W --- FIRE HYDRANT (FH)
- 8" S --- WATER LINE PUBLIC
- 8" S --- PUBLIC EASEMENT
- 8" S --- SEWER LINE (PUBLIC)
- 8" S --- SEWER LINE (PRIVATE)
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- EXISTING EDGE OF PAVEMENT
- EXISTING BUILDING
- T.B.R. --- TO BE REMOVED
- LOD --- LIMIT OF DISTURBANCE
- GnA --- SOIL BOUNDARY
- GnA --- SOIL TYPE
- EXISTING BUILDING
- PROPOSED BUILDING
- EASEMENTS
- PROPERTY LINE
- SWM DRAINAGE DIVIDE

**GRAPHIC SCALE**  
1 inch = 30 feet

**STORMWATER MANAGEMENT REQUIREMENTS (NARRATIVE):**

STORMWATER MANAGEMENT FOR THIS SITE IN ITS EXISTING CONDITIONS WAS ADDRESSED BY THE PREVIOUSLY APPROVED SITE DEVELOPMENT PLAN, SDP-11-027. IN THE PREVIOUS SDP, ESD SWM WAS PROVIDED IN ACCORDANCE WITH CHAPTER 5 OF THE 2000 MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) STORMWATER DESIGN MANUAL, USING THE REDEVELOPMENT CRITERIA. FOR ALL NEW IMPERVIOUS AREAS, A MINIMUM OF 1" OF ESD (MGV) TREATMENT VOLUME WAS PROVIDED BY A VARIETY OF DEVICES SPREAD THROUGHOUT THE SITE. THE REMAINDER OF THE ESD VOLUME (CPV) WAS PROVIDED BY TWO CENTRALLY LOCATED UNDERGROUND DETENTION CHAMBERS. TO CALCULATE THE CPV REQUIREMENT FOR THE SITE, THE NEW DEVELOPMENT AREA WAS ASSUMED TO BE 45% IMPERVIOUS. RECHARGE VOLUME (REV) FOR ALL NEW DEVELOPMENT AREA WAS PROVIDED BY A STONE SUB-BASE BELOW CPV STRUCTURE #2. IN THE SWM COMPUTATIONS, THE TOTAL REV VOLUME UNDER CPV #2 WAS DISTRIBUTED PROPORTIONALLY TO EACH MGV DRAINAGE AREA. THREE MGV DRAINAGE AREAS WERE IDENTIFIED AS REDEVELOPMENT AREAS AND THEIR COMBINED AREA WAS EQUIVALENT TO THE PREDEVELOPMENT IMPERVIOUS AREA ON THE SITE. THESE DRAINAGE AREAS ARE TREATED BY STORMCEPTORS AND EACH STORMCEPTOR WAS SIZED TO TREAT APPROXIMATELY HALF OF EACH 'REDEVELOPMENT AREA'.

TO DETERMINE THE SWM REQUIREMENTS FOR THIS PROJECT, EACH MGV DRAINAGE AREA WITHIN THE PROPOSED LIMIT OF DISTURBANCE WAS REEVALUATED TO VERIFY THAT A MINIMUM OF 1" OF ESD VOLUME (MGV) WILL STILL BE PROVIDED. THE REV REQUIREMENT FOR THE IMPACTED DRAINAGE AREAS WAS ALSO REEVALUATED TO VERIFY THERE IS ADEQUATE VOLUME. THE REV VOLUME UNDER CPV FACILITY #2 THAT WAS ASSIGNED TO THE IMPACTED DRAINAGE AREAS CONTINUES TO BE USED TO MEET THE REV REQUIREMENT.

NO ADDITIONAL CPV VOLUME IS REQUIRED BECAUSE THE OVERALL NEW DEVELOPMENT AREA FOR THE SITE REMAINS BELOW 45% IMPERVIOUS AND THE VOLUME PREVIOUSLY PROVIDED IN THE UNDERGROUND FACILITIES IS ADEQUATE.

THE IMPACTED 'REDEVELOPMENT AREA', SWM 38, WILL CONTINUE TO BE TREATED BY THE STORMCEPTOR. THE EXISTING STORMCEPTOR WILL CONTINUE TO TREAT THE SAME IMPERVIOUS AREA.

**STORMWATER MANAGEMENT REQUIREMENTS (SUMMARY)**

ESD MGV - EACH NEW DEVELOPMENT DRAINAGE AREA IN THE SUMMARY TABLE BELOW MUST PROVIDE A MINIMUM OF 1" OF TREATMENT.

ESD CPV - NONE REQUIRED. SEE NARRATIVE ABOVE.

REV - SEE COMPUTATION BELOW

**STORMWATER MANAGEMENT RECHARGE**

IMPACTED NEW DEVELOPMENT DRAINAGE AREAS:  
 PERCENT IMPERVIOUS: 44%  
 Rv: 0.9  
 RECHARGE FACTOR (PER SDP-11-027): 0.24

REQUIRED RECHARGE:  
 $5 \times Rv \times A/12 =$   
 $(0.24 \times 0.9 \times 42,743)/12 = 1,668 \text{ cf}$

RECHARGE RESERVED UNDER CPV STR: 1,632 cf  
 RECHARGE UNDER MB 27, 41, 44, 45, 46: 573 cf  
 TOTAL: 2,205 cf

**1. SITE ANALYSIS DATA SHEET**

AREA OF THE SITE (D-4 & D-5) 3.44 AC.  
 METLANDS 0.001 AC.  
 FLOODPLAIN 0.001 AC.  
 FORESTS N/A (SEE NOTE 1)  
 STEEP SLOPES 15% AND GREATER 0.01 AC.  
 ERODIBLE SOILS PROJECT AREA 0.01 AC.  
 LIMIT OF DISTURBANCE AREA 124 AC.  
 PROPOSED SITE USES MIXED USE  
 GREEN OPEN AREA 0.21 AC.  
 PROPOSED IMPERVIOUS AREA 1.61 AC.

2. APPLICABLE DPZ FILE REFERENCE:  
 FDP-02-CRESCENT-1A, FDP-16-042, F-11-054, F-16-010,  
 SDP-11-027, SDP-16-005

**NOTES:**

- THIS SITE, WHICH IS SUBJECT TO A DEVELOPMENT RIGHTS AND RESPONSIBILITIES AGREEMENT (L 11457 F. 265), IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE SECTION IN ACCORDANCE WITH THE SINCE REMOVED SECTION 16.1202 (B)(1)(V) (P) WITH A PDF APPROVED PRIOR TO 12/28/12 WHICH WAS IN PLACE AT THE TIME THE DEVELOPMENT RIGHTS AND RESPONSIBILITIES AGREEMENT WAS RECORDED IN FEBRUARY 2011
- THIS PROPERTY IS ZONED M-1 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN
- NO GRADING, REMOVAL OF VEGETATIVE COVER, OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN WETLANDS STREAMS OR THEIR REQUIRED BUFFERS, AND 100 YEAR FLOODPLAIN AREAS UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING AS NECESSARY DISTURBANCES OR WAIVERS HAVE BEEN APPROVED.
- WATER AND SEWER SERVICE WILL BE PUBLIC. WATER AND SEWER SERVICE TO THESE PARCELS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 16.1222B OF THE HOWARD COUNTY CODE.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE 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. 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.
- THIS SITE IS A REDEVELOPMENT OF AN EXISTING PARKING LOT.
- SEE SHEET 2 FOR PROPERTY LINE INFORMATION.
- THIS SWM FOR THIS SITE WAS PREVIOUSLY APPROVED BY ECP-16-042 & SDP-11-027. THIS UPDATED ECP IS BEING SUBMITTED AT THE OWNER'S REQUEST. THE SWM SHOWN FOR THIS SITE ON BOTH OF THE PREVIOUS PLANS DOES NOT APPEAR TO BE FEASIBLE FOR THE PROPOSED LAYOUT AND THE OWNER IS REQUESTING AN EARLY REVIEW OF THE REVISED SWM AHEAD OF A FORTHCOMING SDP SUBMISSION.

**SHEET INDEX**

- ENVIRONMENTAL CONCEPT PLAN
- SEDIMENT CONTROL CONCEPT PLAN

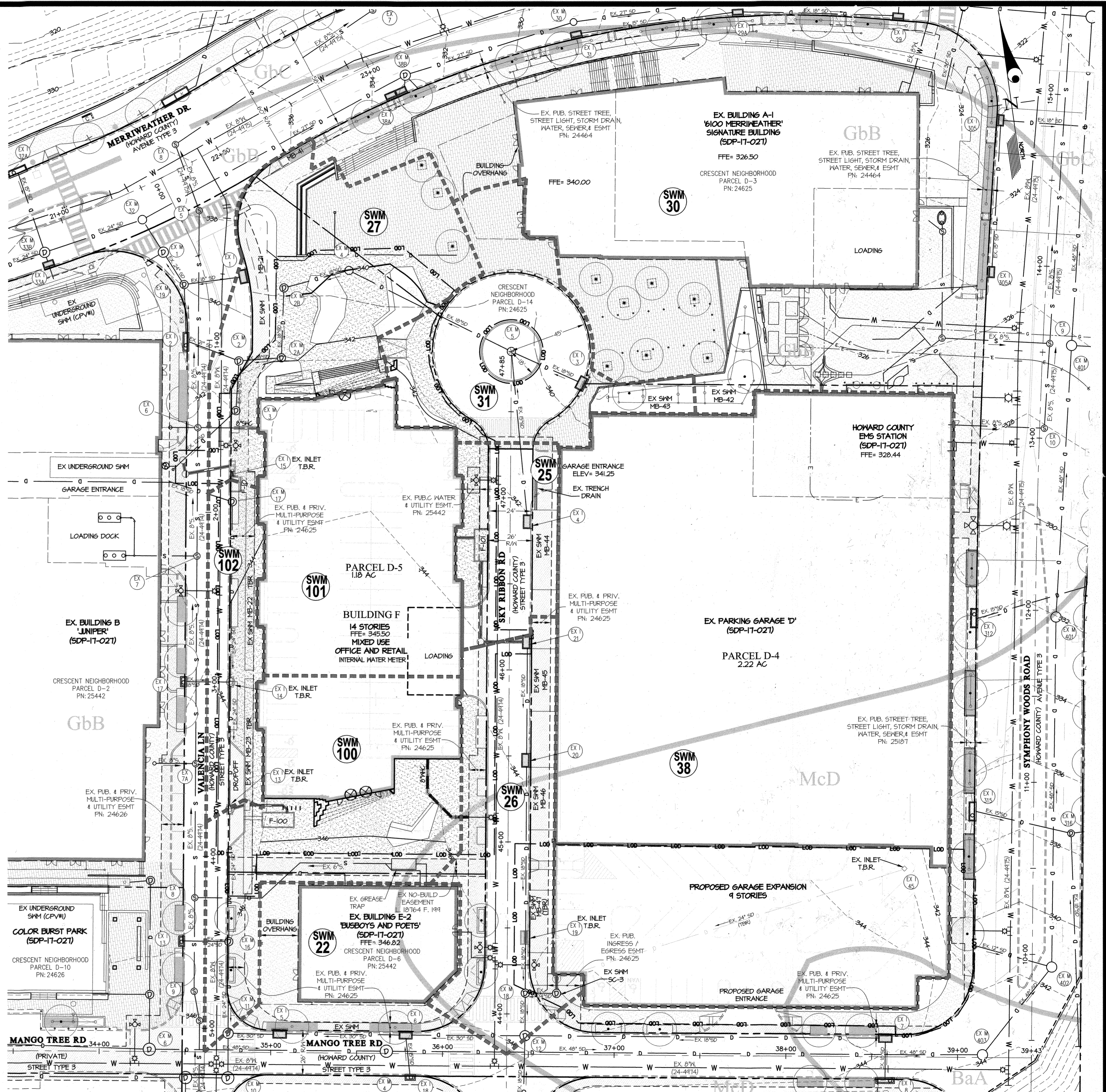
SOILS (on site)	Map Unit Name	Type	K Factor
BaA	Profile soil loam, 0 to 3 percent slopes	D	0.32
GnB	Glacisne loam, 3 to 9 percent slopes	O	0.20
McD	Manor loam 15-25 percent slopes, very rocky	B	0.24

HOWARD COUNTY SOIL MAP NUMBER: 18 - SAVAGE NN

**MB44 SWM SUMMARY TABLE**

AREA NO.	FACILITY	AREA (SF)	IMPERVIOUS	ESDv (CF)	P <sub>o</sub> PROVIDED
NEW DEVELOPMENT AREAS					
SWM 23	MB24**	0	0%	258*	0"
SWM 24	MB24**	0	0%	245*	0"
SWM 25	MB44	6,423	96%	830	1.69"
SWM 26	MB45, 46	13,526	91%	1,365	1.40"
SWM 27	MB21, 41	17,510	92%	1,566	1.23"
SWM 31	MB43	13,235	88%	978	1.05"
SWM 100	F-100	17,937	98%	1,398	1.00"
SWM 101	F-101	18,293	100%	1,448	1.00"
SWM 102	F-102	5,869	93%	434	1.00"
SUB TOTAL		92,793	94%	8,552	
STORMCEPTORS / REDEVELOPMENT AREAS					
SWM 38	SC-3	42,031	100%	3,327	1.00"
SUB TOTAL		42,031		3,327 = MAX	
TOTAL		134,824 SF (3.10 AC.)		11,850 CF (0.27 AC.-FT)	

\*REV VOLUME RESERVED FOR THESE FACILITIES UNDER CPV #2  
 \*\* FACILITY REMOVED BY THIS PLAN



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development      Date: 3/23/23  
 Chief, Development Engineering Division      Date: 3/24/23

**GLW**  
 PLANNING | ENGINEERING | SURVEYING  
 3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM  
 PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4188

DESIGNED BY	DRAWN BY	CHECKED BY	DATE	REVISION	BY	APPR.
dds	dds					

OWNER (D-4):  
 WMO 361, LLC  
 10960 GRANTCHESTER WAY,  
 SUITE 110  
 COLUMBIA, MD 21044

PREPARED FOR:  
 DEVELOPER:  
 THE HOWARD RESEARCH  
 AND DEVELOPMENT CORP.  
 10960 GRANTCHESTER  
 WAY, SUITE 110  
 COLUMBIA, MD 21044  
 ATTN: GABRIEL CHUNG  
 410-964-4800

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 54390  
 EXPIRATION DATE: MAY 13, 2023

**ENVIRONMENTAL CONCEPT PLAN**  
**6300 MERRIWEATHER DOWNTOWN COLUMBIA**  
 CRESCENT NEIGHBORHOOD, PHASE 1, AREA 3  
 PARCELS 'D-4' & 'D-5'  
 HOWARD COUNTY, MARYLAND

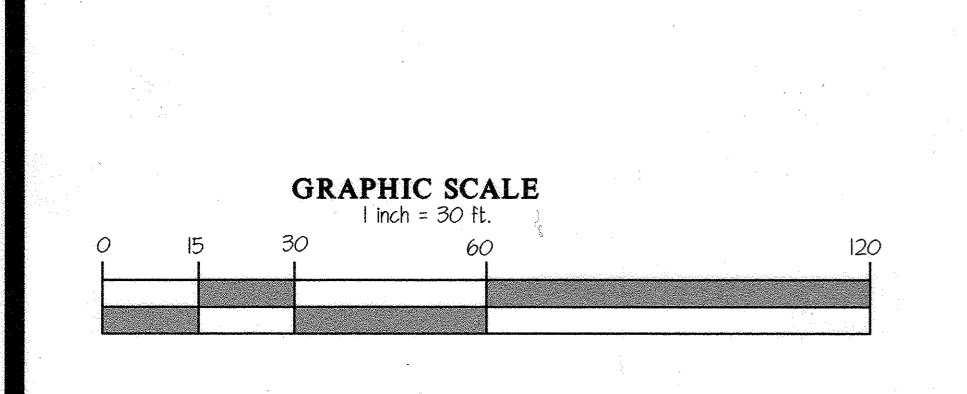
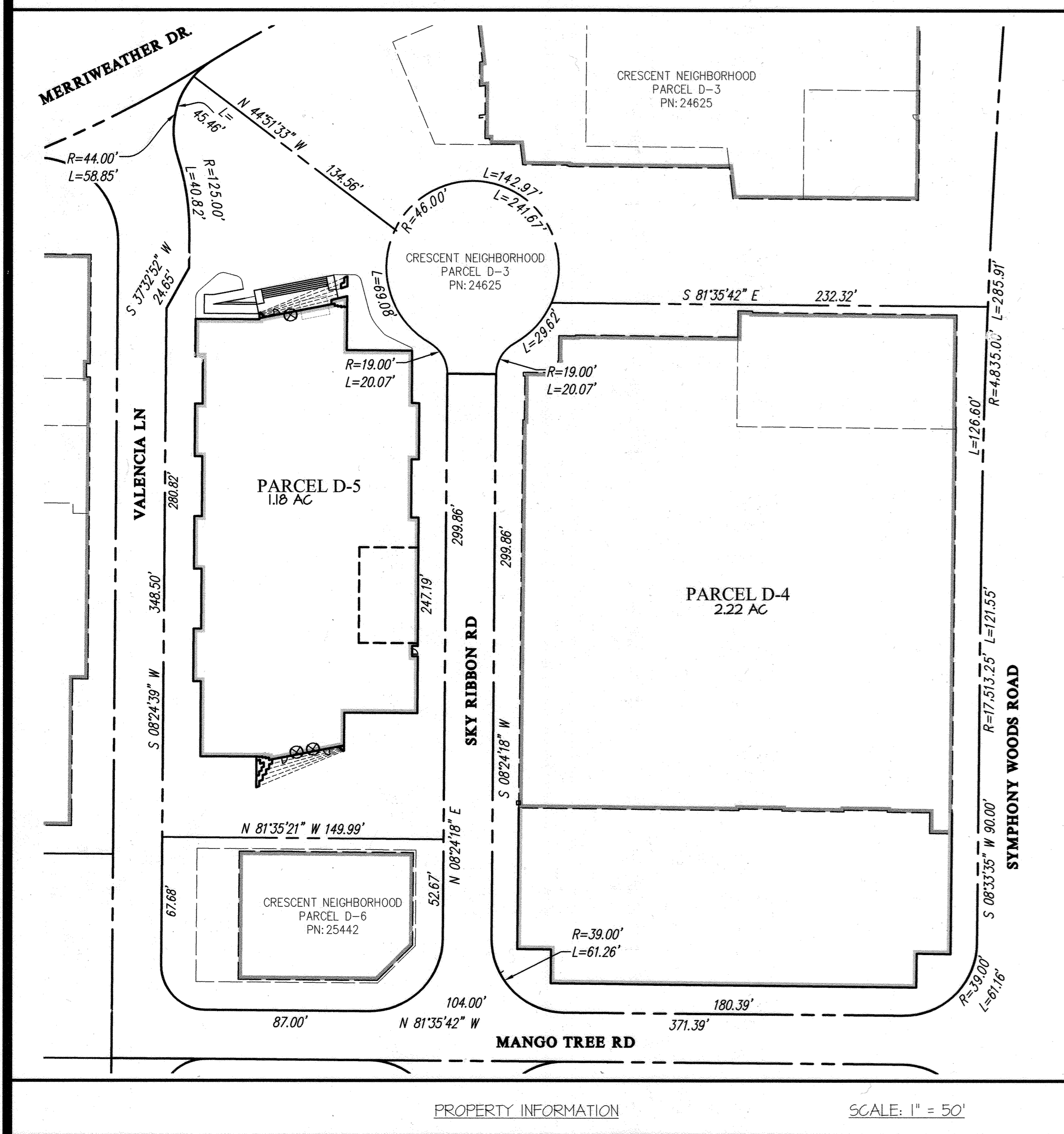
SCALE	ZONING	G. L. W. FILE NO.
1" = 30'	NT	22120
DATE	TAX MAP - GRID	SHEET
MAR., 2023	36 - 1	1 OF 2

L:\CAD\DRAWINGS\22120\PLANS BY GLW\EC\22120 ECP.dwg, PLOTTED: 3/17/2023, 12:05 PM, PLOT: SAVERS\JYD\2023\_1159.dwg, PLOTTED BY: Don Stawny

- LEGEND**
- 400 - EXISTING CONTOUR
  - 400 - PROPOSED CONTOUR
  - EXISTING TREELINE
  - LIMIT OF DISTURBANCE
  - PROPOSED TEMPORARY STOCKPILE AREA
  - INLET PROTECTION
  - SOIL BOUNDARY
  - SOIL TYPE
  - STABILIZED CONSTRUCTION ENTRANCE
  - SILT FENCE
  - SUPERSILT FENCE

**NOTES:**

- SITE PREVIOUSLY MASS GRADED AND DEVELOPED PER SDP-17-021. ALL SLOPES ARE MAN MADE.
- INITIALLY STOCKPILING WILL OCCUR WITHIN THE BUILDING FOOTPRINT. STOCKPILE WILL BE RELOCATED AS BUILDING CONSTRUCTION PROGRESSES. ONCE THE BUILDING IS CONSTRUCTED ANY STOCKPILING MUST BE WITHIN THE LIMITS OF THE PERIMETER SEDIMENT CONTROLS.
- ANY DISTURBANCE OUTSIDE OF THE PERIMETER SEDIMENT CONTROLS MUST BE DONE WITH SAME DAY STABILIZATION.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development  
Date: 3/23/23

Chief, Development Engineering Division  
Date: 3-24-23

SOILS (on site)	Map Unit Name	Type	K Factor
BaA	Braile silt loam, 0 to 3 percent slopes	D	0.32
GbB	Gladstone loam, 3 to 8 percent slopes	B	0.20
McD	Manor loam 15-25 percent slopes, very rocky	B	0.24

HOWARD COUNTY SOIL MAP NUMBER: 18 - SAVAGE NM

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PLANNING | ENGINEERING | SURVEYING

3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20886 | GLWPA.COM  
PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DESIGNED BY:	DRAWN BY:	CHECKED BY:	DATE:	REVISION:	BY:	APPR.:
dds	dds					

**OWNER (D-4):**  
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10960 GRANTCHESTER WAY,  
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COLUMBIA, MD 21044

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THE HOWARD RESEARCH AND DEVELOPMENT CORP.  
10960 GRANTCHESTER WAY,  
SUITE 110  
COLUMBIA, MD 21044

**PREPARED FOR:**  
DEVELOPER:  
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EXPIRATION DATE: MAY 14, 2023

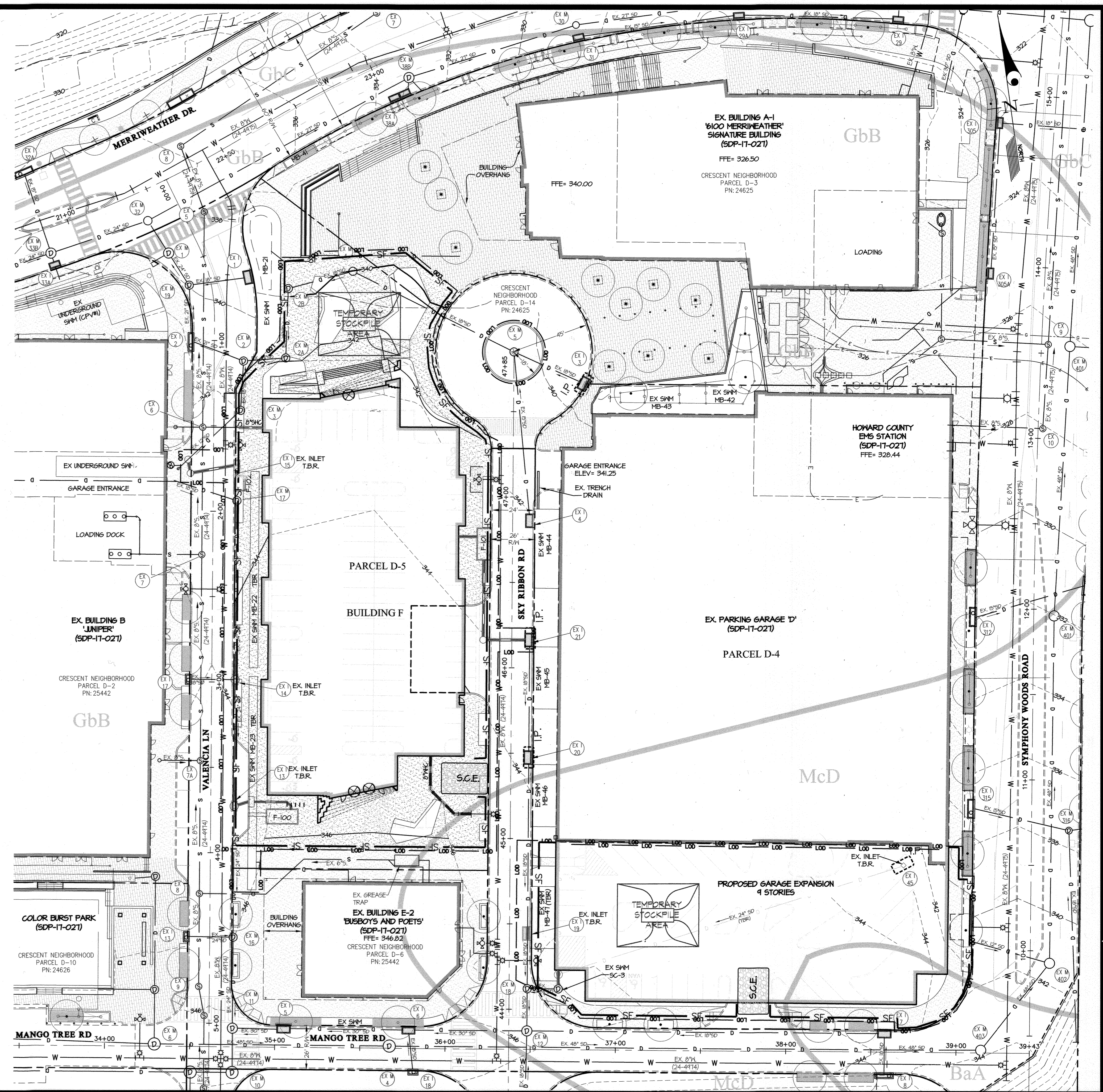
*Gabriel Chung*  
Professional Engineer

**PRELIMINARY SEDIMENT CONTROL PLAN**

**6300 MERRIWEATHER DOWNTOWN COLUMBIA**  
CRESCENT NEIGHBORHOOD, PHASE I, AREA 3  
PARCELS 'D-4' & 'D-5'

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1" = 30'	NT	22120
DATE	TAX MAP - GRID	SHEET
MAR., 2023	36 - 1	2 OF 2



L:\CAD\DRAWINGS\22120\PLANS BY GLW\PCP\22120 ECP SNE.dwg, PLOTTED: 3/10/2023 12:08 PM, LAST SAVER: 3/10/2023 12:02 PM, PLOTTED BY: Don Swartz