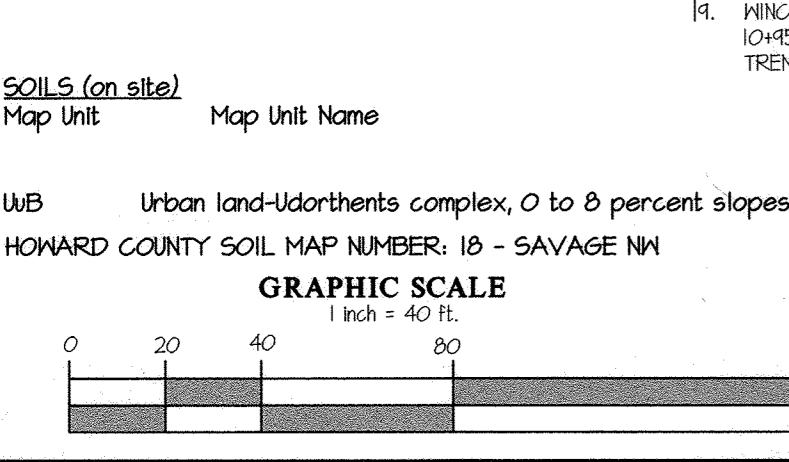


ADC MAP 33 GRID B-1

- LEGEND**
- 400 --- EXISTING CONTOUR
 - 400 --- PROPOSED CONTOUR
 - 400 --- EXISTING CENTER LINE
 - 400 --- EXISTING SIDEWALK
 - 400 --- EXISTING SANITARY SEWER
 - 400 --- EXISTING WATERLINE
 - 400 --- EXISTING STORM DRAIN
 - 400 --- TO BE ABANDONED
 - 400 --- TO BE REMOVED
 - 400 --- PROPOSED STORM DRAIN
 - 400 --- STRUCTURE NUMBER
 - 400 --- WATER LINE PUBLIC
 - 400 --- SEWER LINE (PUBLIC)
 - 400 --- SEWER LINE (PRIVATE)
 - 400 --- PROPOSED CURB AND GUTTER
 - 400 --- EXISTING CURB AND GUTTER
 - 400 --- EXISTING EDGE OF PAVEMENT
 - 400 --- EXISTING BUILDING
 - 400 --- TO BE REMOVED
 - 400 --- LIMIT OF DISTURBANCE
 - 400 --- SOIL BOUNDARY
 - 400 --- SOIL TYPE
 - 400 --- 100 YEAR FLOODPLAIN
 - 400 --- EXISTING BUILDING
 - 400 --- PROPOSED BUILDING
 - 400 --- EASEMENTS
 - 400 --- PROPERTY LINE
 - 400 --- LIMIT OF METLAND
 - 400 --- METLAND AREA
 - 400 --- STREAM BANK BUFFER
 - 400 --- METLAND BUFFER
 - 400 --- STREAM BANK
 - 400 --- CENTERLINE OF STREAM



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development Date: 3/17/22

Chief, Development Engineering Division Date: 3-17-22

GLW
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

HC CONTROL STATIONS

306A
NORTHING: 566,053.574
EASTING: 1352,171.604
ELEVATION: 3394.894
(LATEST ADJ. FEB. 2014)

36AA
NORTHING: 562,804.842
EASTING: 1349,906.240
ELEVATION: 3541.163
(LATEST ADJ. FEB. 2014)

- ANTICIPATED WAIVERS:**
- INTERSECTION SPACING (ROAD B AND LITTLE PATUXENT PARKWAY)
 - ROAD CENTERLINE RADIUS
 - NO CURB ALONG WINOPIN CIRCLE (SEE NOTE 4)
 - ENVIRONMENTAL DISTURBANCES ASSOCIATED WITH UTILITY OUTFALLS AND REBUILDING HOTEL LOADING ACCESS (NECESSARY DISTURBANCE)

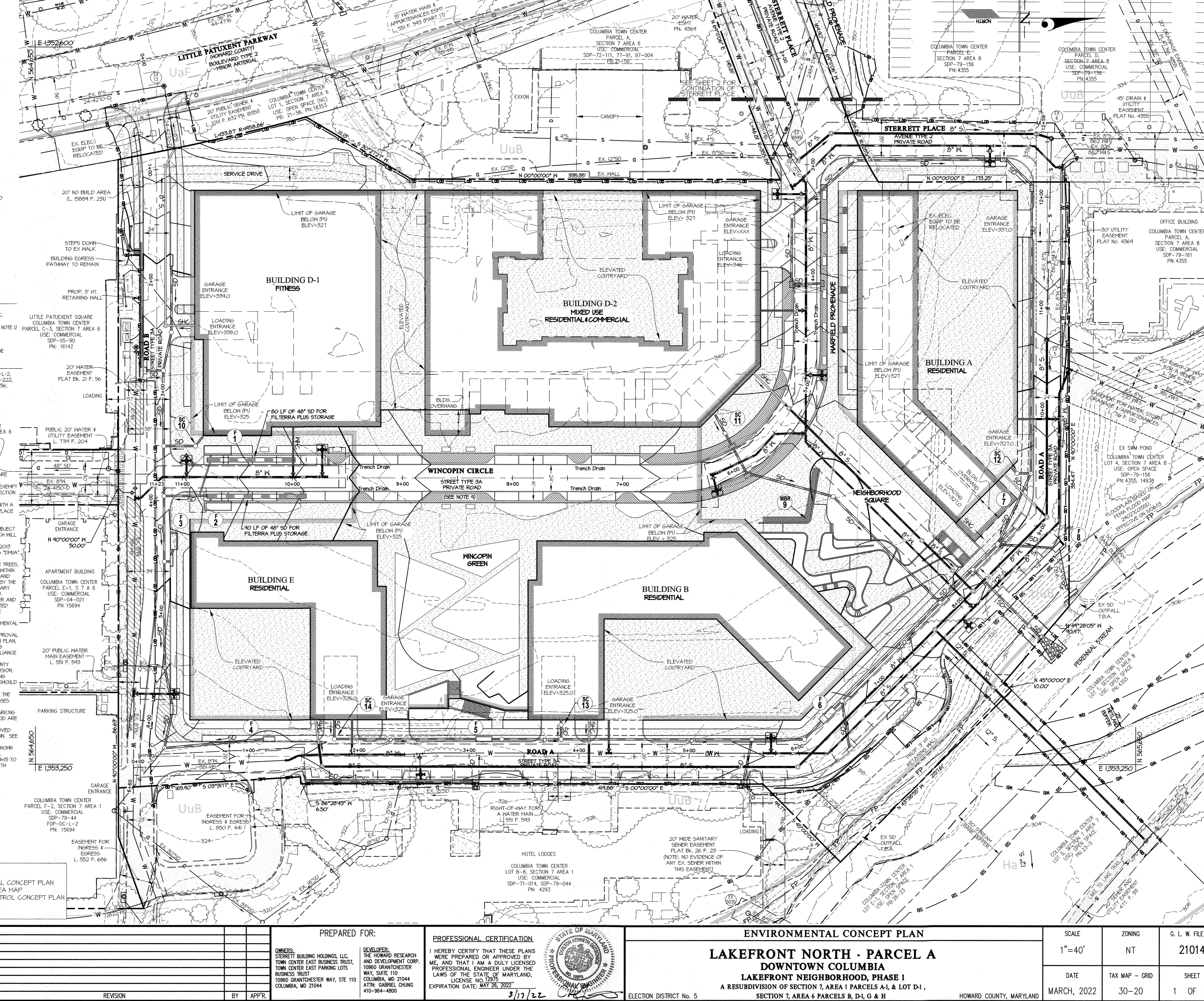
- I. SITE ANALYSIS DATA SHEET**
- AREA OF THE SITE: 11.41 AC.
METLANDS FLOODPLAINS: 0.001 AC.
FORESTS: 0.11 AC.
STEEP SLOPES 15% AND GREATER: 1.41 AC.
ERODIBLE SOILS PROJECT AREA: 1.41 AC.
LIMIT OF DISTURBANCE AREA: 21.24 AC.
PROPOSED SITE USES: MIXED USE
GREEN OPEN AREA: 1.71 AC.
PROPOSED INFERRIUS AREA: 4.51 AC.
2. APPLICABLE DPZ FILE REFERENCE: FDP-DC-L-2, PB-18-040, PB-20-23, F-11-052, F-14-114, F-06-222, SDP-10-205, SDP-18-014, SDP-18-044, SDP-18-054, SDP-03-136, NP-18-033, PB-448

- NOTES**
- EXISTING PARCELS A-1, B, D-1 AND LOT D-1, WHICH ARE SUBJECT TO A DEVELOPMENT RIGHTS AND RESPONSIBILITIES AGREEMENT (DRA) (F. 265), IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE SECTION IN ACCORDANCE WITH SECTION 16.1202 (B)(1)(IV) (P) WITH A FDP APPROVED PRIOR TO 12/31/2020 WHICH WAS IN PLACE AT THE TIME THE DEVELOPMENT RIGHTS AND RESPONSIBILITIES AGREEMENT WAS RECORDED IN FEBRUARY 2017. EXISTING PARCELS 6 & H ARE SUBJECT TO THE FOREST CONSERVATION REQUIREMENTS WHICH WILL BE ADDRESSED AT THE NEXT PLAN STAGE.
 - THIS PROPERTY IS ZONED NT PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN AND DESIGNATED AS "DMIA" AND "DCC" PER FDP-DC-L-2.
 - NO GRADING, REMOVAL OF VEGETATIVE COVER, OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN METLANDS 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 16.122B OF THE HOWARD COUNTY CODE.
 - MOE PERMITS WILL BE OBTAINED FOR ALL ENVIRONMENTAL DISTURBANCES AT THE NEXT PLAN STAGE.
 - 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. ALL STEEP SLOPES IN THE VICINITY OF THE LOT ARE MAN-MADE.
 - FOR PLAN CLARITY, EXISTING FEATURES TO BE REMOVED AND EASEMENTS TO BE ABANDONED ARE NOT SHOWN. SEE SHEET 3 FOR EXISTING FEATURES TO BE REMOVED. EXISTING EASEMENTS TO BE ABANDONED WILL BE SHOWN ON THE FUTURE SITE DEVELOPMENT PLAN AND PLAT. WINOPIN CIRCLE WILL NOT HAVE CURB FROM STA. 4+15 TO 10+15. SIDEWALK WILL BE FLUSH WITH PAVEMENT WITH TRENCH DRAINS RUNNING ALONG THE FLOWLINE.

SHEET INDEX

- ENVIRONMENTAL CONCEPT PLAN
- DRAINAGE AREA MAP
- SEDIMENT CONTROL CONCEPT PLAN

DESIGNED BY:	PREPARED FOR:	PROFESSIONAL CERTIFICATION:
dds	OWNERS: STERRETT BUILDING HOLDINGS, LLC, TOWN CENTER EAST BUSINESS TRUST, TOWN CENTER EAST PARKING LOTS BUSINESS TRUST 10960 GRANTCHESTER WAY, STE 110 COLUMBIA, MD 21044	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. 12925 EXPIRATION DATE: MAY 26, 2027
DRAWN BY:	DEVELOPERS: THE HOWARD RESEARCH AND DEVELOPMENT CORP. 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044 ATTN: GABRIEL CHUNG 410-964-4800	3/17/22
CHECKED BY:		
DATE	REVISION	BY



ENVIRONMENTAL CONCEPT PLAN

LAKEFRONT NORTH - PARCEL A
DOWNTOWN COLUMBIA
LAKEFRONT NEIGHBORHOOD, PHASE 1
A RESUBDIVISION OF SECTION 7, AREA 1 PARCELS A-1, & LOT D-1, SECTION 7, AREA 6 PARCELS B, D-1, G & H

SCALE: 1" = 40'

ZONING: NT

G. L. W. FILE NO.: 21014

DATE: MARCH, 2022

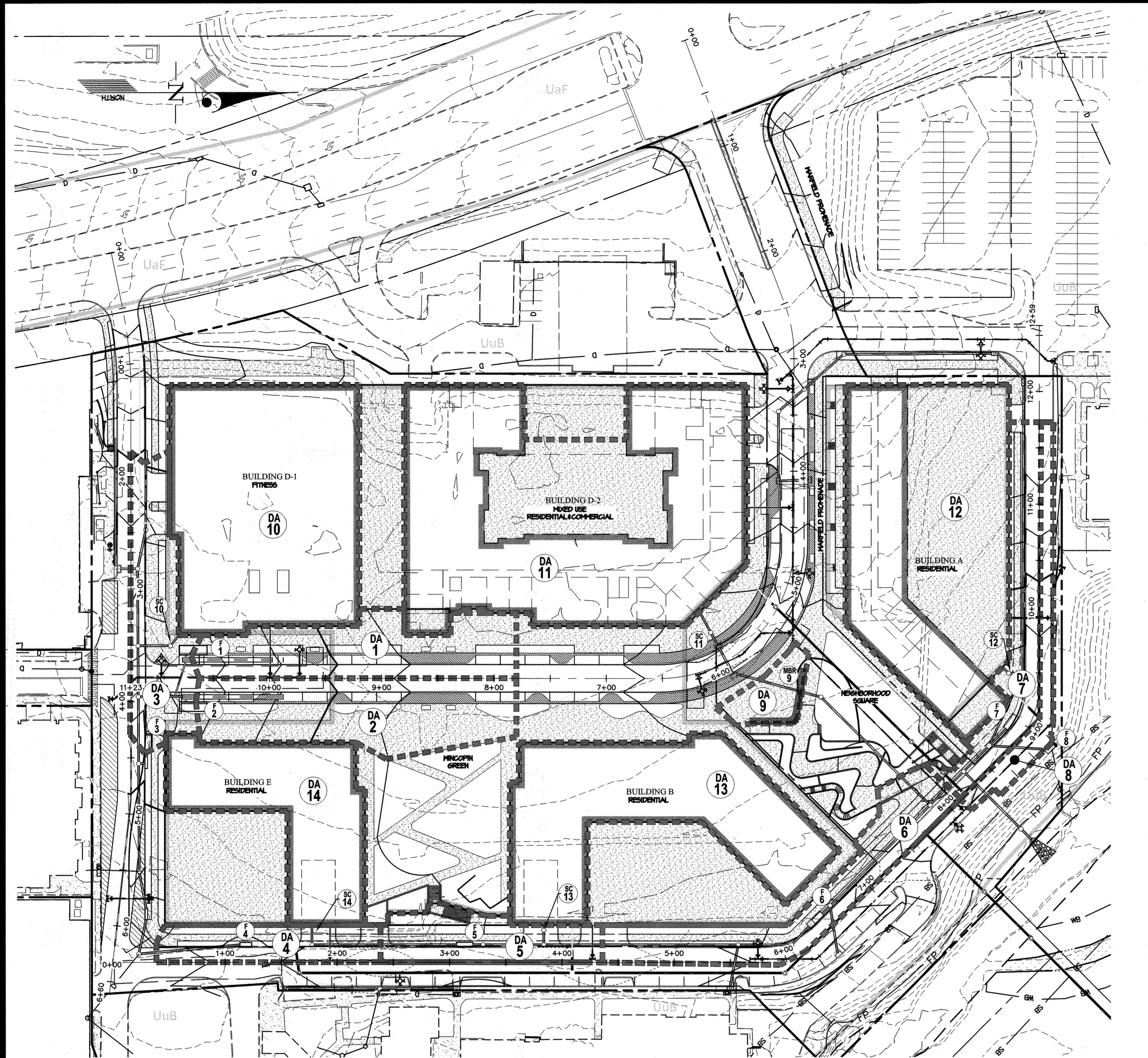
TAX MAP - GRID: 30-20

SHEET: 1 OF 3

ELECTION DISTRICT No. 5

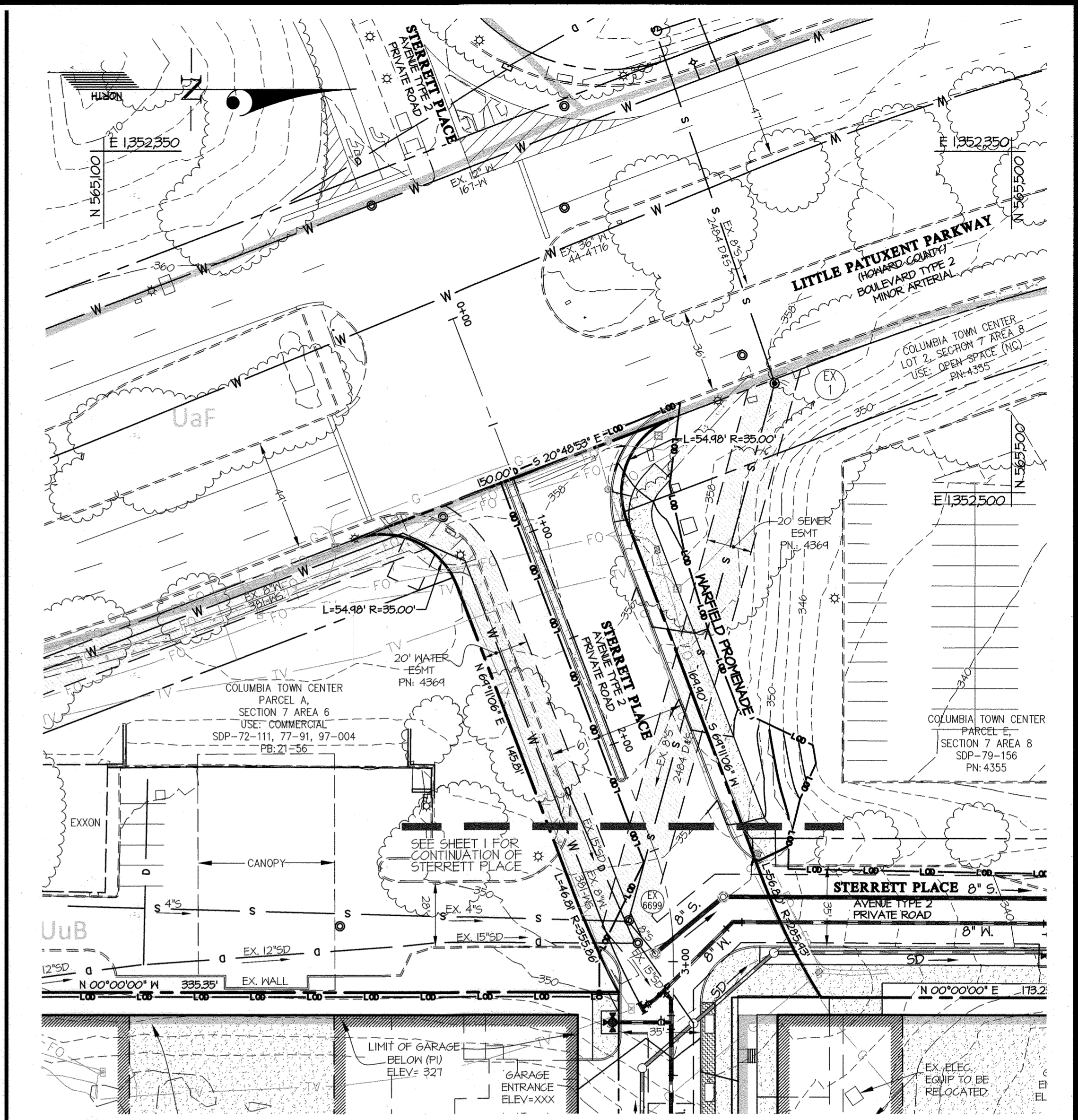
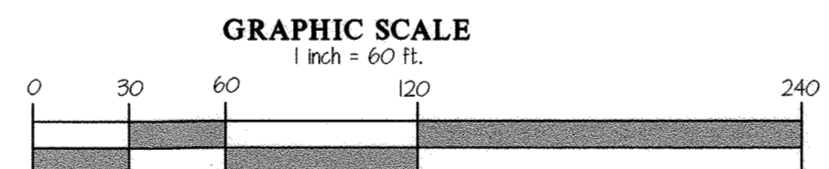
HOWARD COUNTY, MARYLAND

L:\CAD\DRAWINGS\21014\PLANS BY GWL\21014 - ECP - BOUND.DWG, PLOTTED: 3/17/2022 10:59 AM, LAST SAVED: 3/17/2022 10:46 AM, PLOTTED BY: Don Swenney

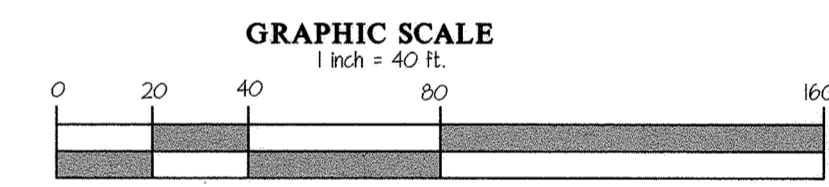


SWM DRAINAGE AREA MAP
SCALE: 1"=60'

--- SWM DRAINAGE DIVIDE



ENVIRONMENTAL CONCEPT PLAN
SCALE: 1"=40'



STORMWATER MANAGEMENT PROVIDED BY DEVICE

ESD TREATMENT BY DEVICE	
(M-6) MICRO-BIORETENTION:	560 CU-FT
FILTERRA:	7830 CU-FT
STORMCEPTOR:	14,252 CU-FT (MAX)
TOTAL:	22,642 CU-FT
TREATMENT AREA PROVIDED:	
(M-6) MICRO-BIORETENTION:	3,150 SF
FILTERRA:	85,485 SF
STORMCEPTOR:	180,045 SF (MAX)
TOTAL:	268,654 SF

ESD SUMMARY TABLE

AREA NO.	AREA (SF)	IMPERVIOUS	ESDV (CF)	P _e PROVIDED	PRELIMINARY DEVICE SIZING
DA 1	13,824	91%	2,003	2.01	FTSC 16X8 FILTERRA PLUS
DA 2	16,945	91%	2,353	1.92	FTSC 20X8 FILTERRA PLUS
DA 3	11,729	89%	835	1.00	FTSC 6x9 (6x14) X 5' DEEP
DA 4	6,546	72%	380	1.00	FTSC 4x6.5 (4x10) X 5' DEEP
DA 5	7,858	66%	422	1.00	FTSC 4x9 (4x14) X 5' DEEP
DA 6	13,132	73%	777	1.00	FTSC 6x10.5 (6x16) X 5' DEEP
DA 7	10,360	79%	658	1.00	FTSC 6x8 (6x14) X 5' DEEP
DA 8	5,091	100%	403	1.00	FTSC 4x6 (4x10) X 5' DEEP
DA 9	3,150	87%	563	2.59	MICRO-BIO (M-6) 420 SF
SUB TOTAL	88,635		8,390		
DA-10	36,141	100%	2,861	1.00	CDS2025-5-C
DA-11	58,860	100%	4,660	1.00	CDS3020-6-C
DA-12	39,633	100%	3,138	1.00	CDS2025-5-C
DA-13	27,660	100%	2,190	1.00	CDS2020-5-C
DA-14	17,725	100%	1,403	1.00	CDS2015-4-C
SUB TOTAL	180,019 < MAX		14,252 < MAX		
TOTAL	268,654		22,642		

NOTE: FTSC = FILTERRA
CDS = STORMCEPTOR CDS HYDRODYNAMIC SEPARATOR

STORMWATER MANAGEMENT REQUIREMENTS

STUDY AREA:	11.61 Ac.
EX IMPERVIOUS AREA:	360,084 SF (71% IMPERVIOUS)
(SITE IS GREATER THAN 40% IMPERVIOUS, RE-DEVELOPMENT CRITERIA APPLIES)	
PROPOSED IMPERVIOUS AREA:	413,060 SF
NET IMPERVIOUS:	+52,971 SF
SITE IS 100% D SOILS. TARGET P _e FOR NET IMPERVIOUS IS 2.0"	
R _v =	0.95
ESDV REQUIREMENT:	
50% * 360,084 SF =	180,045 SF
180,045 SF x 1" x 0.95 + 52,971 SF x 2.0" x 0.95 =	226,412 CF ESDV
	12
Treatment Area Required = (180,045 SF + 52,971 SF) = 233,016 SF	

STORMWATER MANAGEMENT RECHARGE

NET NEW IMPERVIOUS AREA:	52,971 sf
RECHARGE FACTOR:	0.070
REQUIRED RECHARGE:	
5 x R _v x A / 12 =	244 cf
(0.070 * 0.95 * 52,971) / 12 =	244 cf
RECHARGE PROVIDED BY MICRO-BIO 9:	70 cf
RECHARGE PROVIDED BY F-2:	225 cf
TOTAL:	245 cf

ESD DESIGN NARRATIVE:
THIS SITE IS OVER 40% IMPERVIOUS AND QUALIFIES FOR REDEVELOPMENT UNDER MDE STANDARDS. THE STORMWATER STUDY AREA IS 11.6 ACRES. THE EXISTING IMPERVIOUS AREA WITHIN THE STUDY IS APPROXIMATELY 0.3 ACRES (71% IMPERVIOUS). THE PROPOSED IMPERVIOUS AREA IS 4.5 ACRES (81% IMPERVIOUS). THE AREAS RECEIVING SWM TREATMENT HAVE BEEN IDENTIFIED IN THE DRAINAGE AREA MAP. ANY AREA OUTSIDE OF THESE DELINEATED AREAS WILL NOT BE TREATED. THE TREATMENT AREA PROVIDED IS GREATER THAN REQUIRED BY REDEVELOPMENT GUIDELINES. THIS SITE WILL HAVE A NET INCREASE OF 1.2 ACRES OF IMPERVIOUS AREA. THE SWM VOLUME WILL BE PROVIDED BY A COMBINATION OF EIGHT FILTERRAS, ONE MICRO-BIORETENTION (M-6) AND FIVE STORMCEPTORS. ALL SWM FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED. THE SITE DRAINS TO A PERENNIAL STREAM FEEDING LAKE KITTAWAOUNDI AND THEN TO THE LITTLE PATUXENT RIVER, A USE IV-P STREAM.

SINCE THIS SITE HAS BEEN FULLY DEVELOPED, THERE ARE FEW ENVIRONMENTAL FEATURES ON THE SITE. THE NATURAL AREA IN THE NORTH EAST CORNER OF THE SITE IS LARGELY PRESERVED WITH THE ONLY DISTURBANCES BEING FOR UTILITY OUTFALLS AND REALIGNING AN EXISTING 'LOADING RAMP'. ALL OF THE NATURAL FLOW PATTERNS WILL REMAIN THE SAME. THE SEDIMENT CONTROLS WILL NOT INCREASE THE LIMIT OF DISTURBANCE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development
Date: 3/17/22
Chief, Development Engineering Division
Date: 3-17-22

GLW
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:	dds	DATE:		REVISION:		BY:		APP'R:	
DRAWN BY:	dds								
CHECKED BY:	dds								

PREPARED FOR:
OWNERS: STERRETT BUILDING HOLDINGS, LLC, TOWN CENTER EAST BUSINESS TRUST, TOWN CENTER EAST PARKING LOTS BUSINESS TRUST, 10960 GRANTCHESTER WAY, STE 110 COLUMBIA, MD 21044
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. 12975
EXPIRATION DATE: MAY 26, 2027
3/17/22

ENVIRONMENTAL CONCEPT PLAN
LAKEFRONT NORTH - PARCEL A
DOWNTOWN COLUMBIA
LAKEFRONT NEIGHBORHOOD, PHASE I
A RESUBDIVISION OF SECTION 7, AREA 1 PARCELS A-1, & LOT D-1, SECTION 7, AREA 6 PARCELS B, D-1, G & H
HOWARD COUNTY, MARYLAND

SCALE:	1"=40'	ZONING:	NT	G. L. W. FILE NO.:	21014
DATE:	MARCH, 2022	TAX MAP - GRID:	30-20	SHEET:	2 OF 3

L:\CAD\DRAWINGS\21014\PLANS BY GLW\21014 - ECP - BOUND.dwg, PLOTTED: 3/17/2022, 10:46 AM, LAST SAVED: 3/17/2022, 10:43 AM, PLOTTED BY: Don Swerney

- LEGEND**
- 400 --- EXISTING CONTOUR
 - 400 --- PROPOSED CONTOUR
 - EXISTING TREELINE
 - LIMIT OF DISTURBANCE
 - ED --- EARTH DIKE
 - G.M.D. --- CLEAN WATER DIVERSION
 - SSF --- SUPER SILT FENCE
 - PROPOSED TEMPORARY STOCKPILE AREA
 - IP --- INLET PROTECTION
 - GtA --- SOIL BOUNDARY SOIL TYPE
 - S.C.E. --- STABILIZED CONSTRUCTION ENTRANCE
 - SANDBAG DIVERSION
 - F.B. --- FILTER BAG WITH PUMP
 - HIGHLY ERODIBLE SOIL
- Highly erodible soils are those soils with a slope greater than 15 percent or those soils with a soil erodibility factor K greater than 0.35 and with a slope greater than 5 percent
- MGWC 12** PUMP AROUND PRACTICE PER MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION DETAIL 1.2. NOTE: STREAM IS A USE I STREAM. NO DISTURBANCE TO STREAM CHANNEL IS ALLOWED BETWEEN MARCH 1 - MAY 31

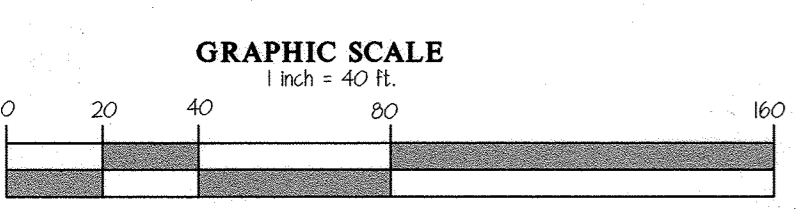
TRAP / BASIN INFORMATION

TRAP #	EXISTING DRAINAGE AREA	INTERIM DRAINAGE AREA
TRAP #1	4.6 AC.	4.0 AC.
TRAP #2	2.5 AC.	2.5 AC.
TRAP #3	2.0 AC.	1.0 AC.

SOILS (on site)

Map Unit	Map Unit Name	Type	K Factor
UuB	Urban land-Udorthents complex, 0 to 8 percent slopes	D	0.28

TAKEN FROM HOWARD COUNTY SOIL MAP NUMBER: 10 - SAVAGE NH



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development Date: 3/17/22

Chief, Development Engineering Division Date: 3-17-22

GLW
PLANNING | ENGINEERING | SURVEYING

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DESIGNED BY	DATE	REVISION	BY	APPR.
dds				
dds				
dds				

PREPARED FOR:

OWNERS:
STERRETT BUILDING HOLDINGS, LLC,
TOWN CENTER EAST BUSINESS TRUST,
TOWN CENTER EAST PARKING LOTS
BUSINESS TRUST
10960 GRANTCHESTER WAY, STE 110
COLUMBIA, MD 21044

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. 12975

EXPIRATION DATE: MAY 26, 2022

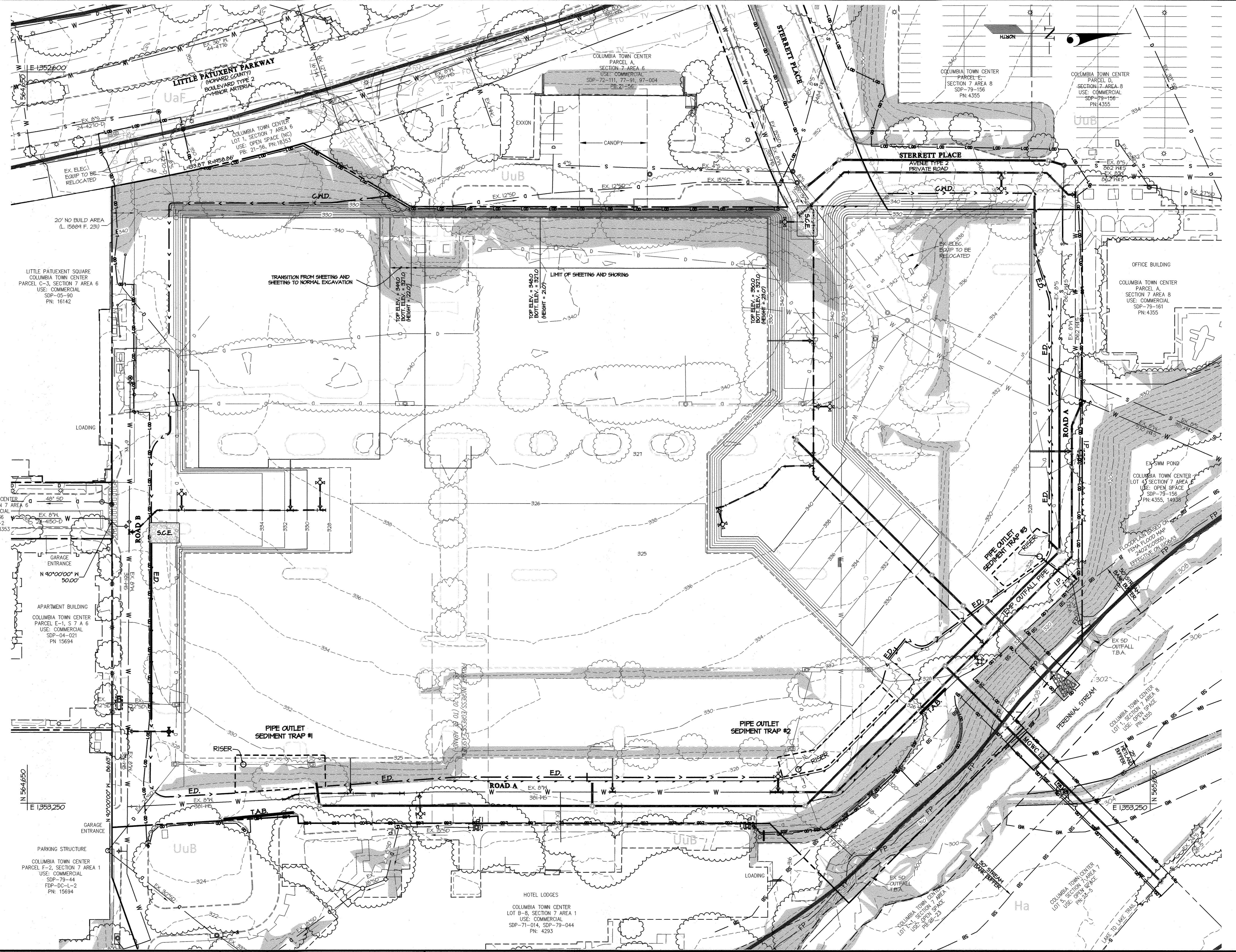
3/17/22

PRELIMINARY SEDIMENT CONTROL PLAN

LAKEFRONT NORTH - PARCEL A
DOWNTOWN COLUMBIA
LAKEFRONT NEIGHBORHOOD, PHASE 1
A RESUBDIVISION OF SECTION 7, AREA 1 PARCELS A-1, & LOT D-1,
SECTION 7, AREA 6 PARCELS B-D, G & H

ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
1" = 40'	NT	21014
DATE	TAX MAP - GRID	SHEET
MARCH, 2022	30-20	3 OF 3



L:\CADD\DRAWINGS\21014\PLANS BY GLW\ECIP\21014 - ECP - SNE-bound.dwg
PLOT DATE: 3/17/2022 10:51 AM, PLOT BY: JST, SAVES: 3/17/2022 10:50 AM, PLOTTED BY: Don Swenney