

DESIGN NARRATIVE:

THE PROPOSED DEVELOPMENT ON THE SUBJECT PARCELS IS INTENDED TO MEET ALL OF THE GOALS OF ENVIRONMENTAL SITE DESIGN (ESD). THE LIMIT OF DEVELOPMENT OR STUDY AREA IS 0.91 AC. THE EXISTING PARCEL IS UNDEVELOPED. THE PROPOSED SEDIMENTATION CONTROLS FOR CONSTRUCTION INCLUDE: SUPER SILT FENCE, INLET PROTECTION, AND A STABILIZED CONSTRUCTION ENTRANCE. THESE DEVICES WILL BE USED TO REMOVE SEDIMENTATION DURING CONSTRUCTION AND DISSEMPATE FLOW VELOCITIES.

THERE IS AN ALTERNATIVE COMPLIANCE REQUESTED FOR FOREST CONSERVATION EASEMENT OF 75' FROM STREAM BANK AND FOR DISTURBANCE TO THE 50' STREAM BUFFER MEASURED FROM STREAM BANK.

THERE IS EXISTING FOREST ON THE SITE AS WELL AS STEEP SLOPES. FOREST CONSERVATION OBLIGATIONS WILL BE MET ON SITE. STEEP SLOPES:

THE AREA OF STEEP SLOPES 25% OR GREATER IS LESS THAN 20,000 SQ. FT.
THE AREA OF OFF-SITE CONTIGUOUS AREA OF STEEP SLOPES (25% OR GREATER) IS 6,672 SQ. FT.
THE AREA OF ON-SITE STEEP SLOPES (25% OR GREATER) IS 12,474 SQ. FT.

THERE IS A PERENNIAL STREAM THAT CROSSES THE SITE FROM SOUTH TO NORTH AND AN ASSOCIATED FLOODPLAIN.

THERE ARE NO NON-TIDAL WETLANDS FOUND ON-SITE.

THERE IS A STREAM BUFFER THAT IS ESTABLISHED AT 50' FROM STREAM BANK.

SOIL TYPE:
SOIL IS UTD URBAN LAND - UDORTMENTS, ERODIBILITY: UD IS NOT LISTED AS ERODIBLE AND IS LISTED WITH AN ERODIBILITY FACTOR OF 0.28 IN THE HOWARD COUNTY SOIL SURVEY

STORMWATER MANAGEMENT ENVIRONMENTAL SITE DESIGN (ESD) HAS BEEN PROVIDED VIA TWO (2) MICRO-BIOTENTION FACILITIES. THE SITE WILL DRAIN TO A PRIVATE STORM DRAIN SYSTEM THAT WILL OUTFALL TO THE EXISTING PERENNIAL STREAM ON-SITE. A SMALL PORTION OF THE DRIVEWAY ENTRANCES COULD NOT BE CONVEYED TO THE ON-SITE FACILITIES. THE ON-SITE FACILITIES WERE DESIGNED TO MAXIMUM EXTENT PRACTICABLE.

STORMWATER MANAGEMENT REQUIREMENTS

STUDY AREA: 0.91 Ac.
EXISTING IMPERVIOUS AREA: 0.00 Ac.
PROPOSED IMPERVIOUS AREA: 0.85 Ac.

TARGET P₂
SITE AREA = 150 AC.
IMPERVIOUS AREA = 0.85 AC.
IMPERVIOUS AREA % = 0.85 AC. / 150 AC. = 49%
(TYPE D-SOILS)
P₂ = 180 IN.

ESDV REQUIRED
STUDY AREA = 0.91 AC.
IMPERVIOUS AREA = 0.85 AC.
R_v = 0.56
ESDV = [(0.91 AC. x 0.56 x 16'³/12) x 43560 sft
ESDV REQUIRED = 945 cft

REV. PROVIDED
STUDY AREA = 0.91 AC.
IMPERVIOUS AREA = 0.51 AC.
%IMPERVIOUS = 56%
REV. = 0.01 x 0.91 x 0.56 AC.
REV. PROVIDED = 140 cft

STORMWATER MANAGEMENT PROVIDED

MB-1 (M-6)
DA = 0.44 AC.
IMP. AREA IN DA = 0.37 AC.
A_p = 1045 sft
ESDV PROVIDED = 2325 cft
REV PROVIDED = 941 cft

MB-2 (M-6)
DA = 0.23 AC.
IMP. AREA IN DA = 0.11 AC.
A_p = 786 sft
ESDV PROVIDED = 1418 cft
REV PROVIDED = 285 cft

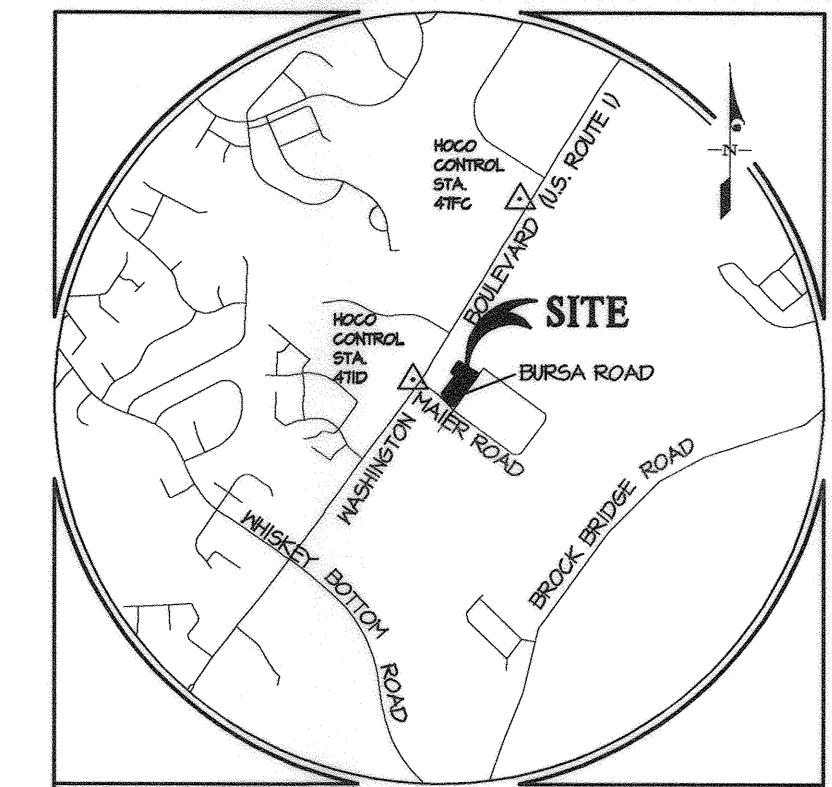
TOTAL ESDV PROVIDED = 3743 cft
TOTAL REV PROVIDED = 1226 cft

SWM DRAINAGE AREA SUMMARY TABLE

AREA NO.	AREA (SF)	IMP. AREA (SF)	ESDV (CF)	REV PROVIDED
MB-1	18,372	16,094	2,325	1.8
MB-2	9,786	7,437	1,415	2.4
TOTAL	28,758	23,531	3,740	--

GENERAL NOTES

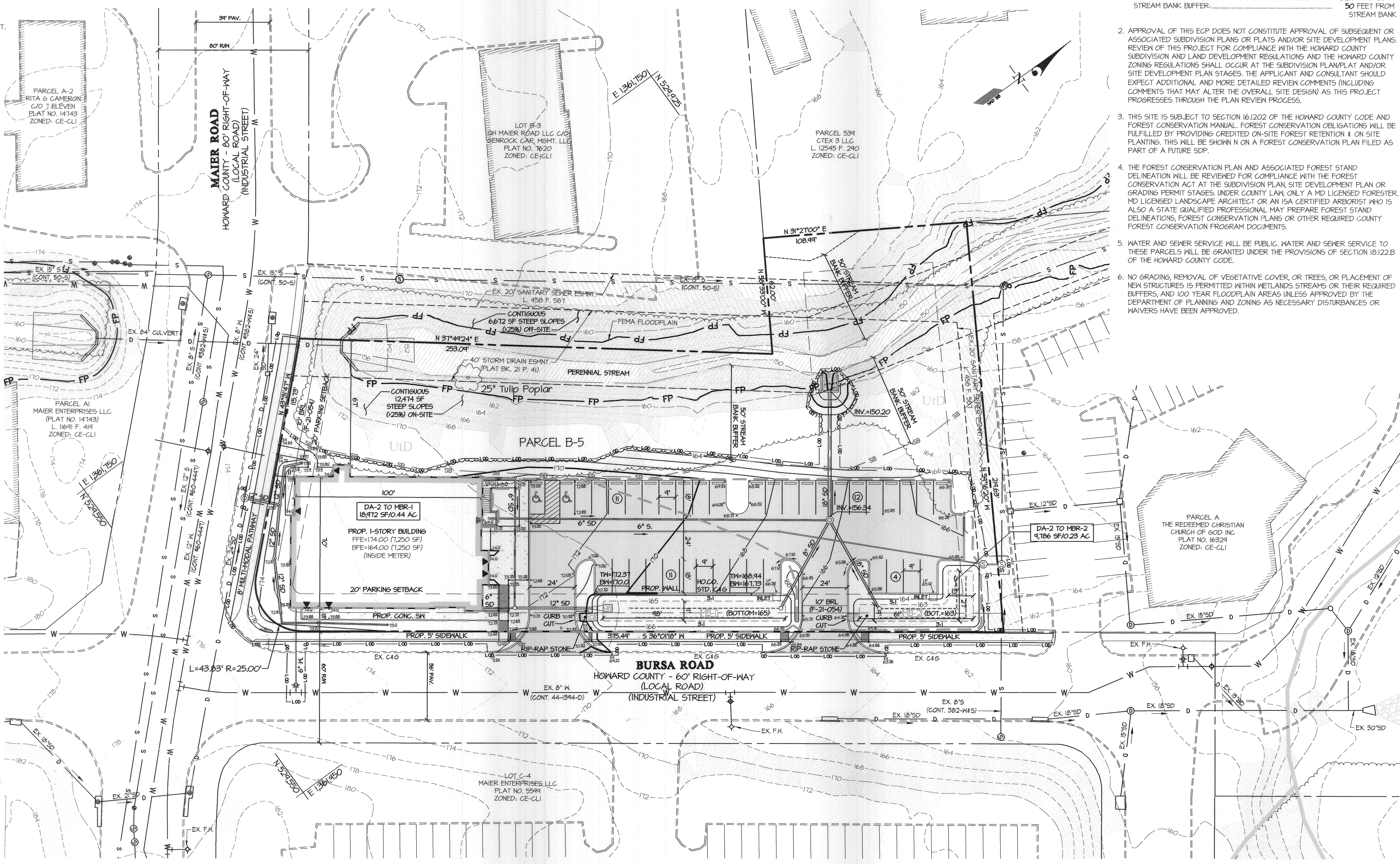
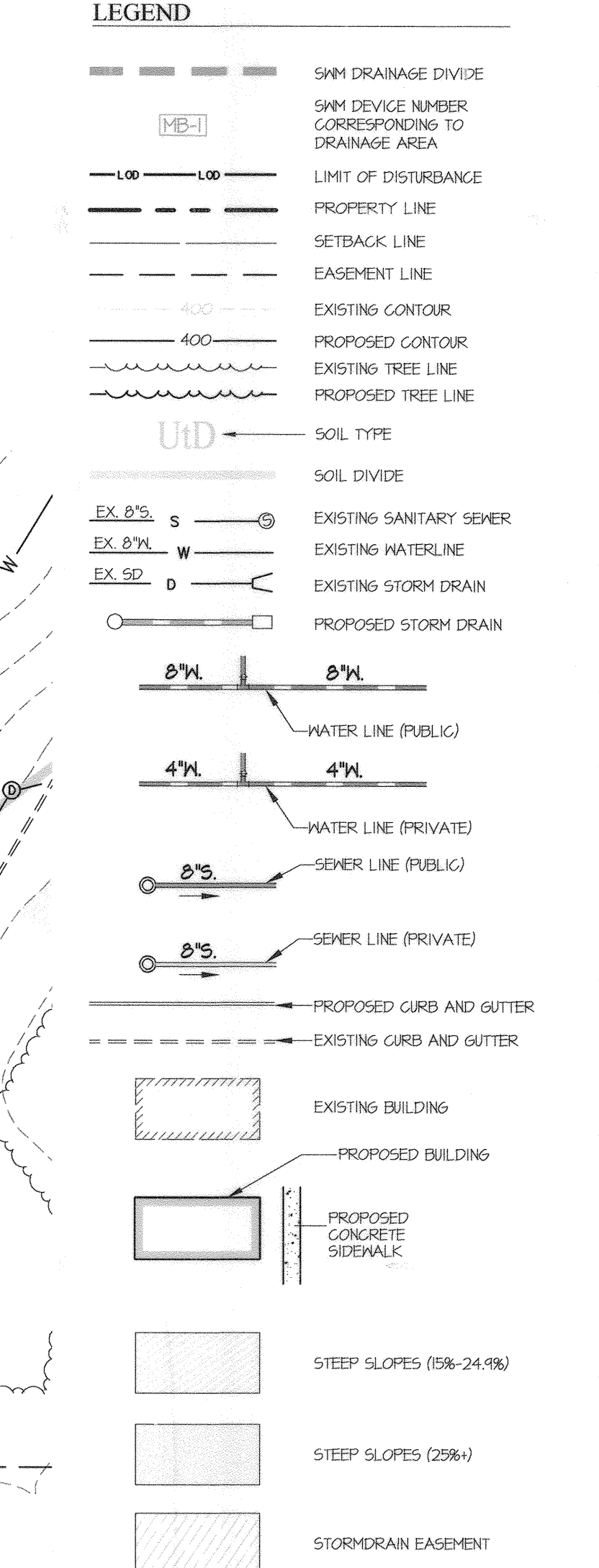
- APPLICABLE DEPARTMENT OF PLANNING AND ZONING FILE NUMBERS: PB 21/41
1. SITE ANALYSIS:
 - TOTAL AREA OF SITE (PARCEL B-5): 150 ± ACRES
 - LIMIT OF DISTURBANCE (L.O.D.): 0.91 ± ACRES
 - WETLANDS AND THEIR BUFFER: 0.00 ± ACRES
 - FLOODPLAINS ON-SITE: 0.21 ± ACRES
 - FORESTS: 0.60 ± ACRES
 - TOTAL ON-SITE STEEP SLOPES 15% TO 24.9%: 0.10 ± ACRES
 - TOTAL ON-SITE STEEP SLOPES 25% AND GREATER: 0.24 ± ACRES
 - ERODIBLE SOILS AREA: 0.00 ± ACRES
 - PROPOSED SITE USE: RELIGIOUS FACILITY
 - GREEN OPEN AREA: 0.43 ± ACRES
 - PROPOSED IMPERVIOUS AREA: 0.51 ± ACRES
 - STREAM BANK BUFFER: 50 FEET FROM STREAM BANK
 2. APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION PLANS OR PLATS AND/OR SITE DEVELOPMENT PLANS. 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 PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN 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.
 3. THIS SITE IS SUBJECT TO SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL. FOREST CONSERVATION OBLIGATIONS WILL BE FILLED BY PROVIDING CREDITED ON-SITE FOREST RETENTION & ON SITE PLANTING. THIS WILL BE SHOWN ON A FOREST CONSERVATION PLAN FILED AS PART OF A FUTURE SDP.
 4. THE FOREST CONSERVATION PLAN AND ASSOCIATED FOREST STAND DELINEATION WILL BE REVIEWED FOR COMPLIANCE WITH THE FOREST CONSERVATION ACT AT THE SUBDIVISION PLAN, SITE DEVELOPMENT PLAN OR GRADING PERMIT STAGES. UNDER COUNTY LAW ONLY A MD LICENSED FORESTER, MD LICENSED LANDSCAPE ARCHITECT OR AN ISA CERTIFIED ARBORIST WHO IS ALSO A STATE QUALIFIED PROFESSIONAL MAY PREPARE FOREST STAND DELINEATIONS, FOREST CONSERVATION PLANS OR OTHER REQUIRED COUNTY FOREST CONSERVATION PROGRAM DOCUMENTS.
 5. WATER AND SEWER SERVICE WILL BE PUBLIC. WATER AND SEWER SERVICE TO THESE PARCELS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.2 OF THE HOWARD COUNTY CODE.
 6. 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.



BENCHMARKS

47FC	ELEV. 186.401	N = 532,905.005	E = 1362,985.141
471D	ELEV. = 180.224	N = 526,648.894	E = 1361,467.982

ADC MAP: 40 GRID: E7



NOTE:

PERMEABLE PAVEMENT WAS ATTEMPTED IN A PREVIOUS ECP SUBMISSION, BUT DO TO THE FACT THAT THE SITE IS COMPOSED OF ALL 'D' SOILS, THE PERMEABLE PAVEMENT AREAS WERE REMOVED AS ESD IN FAVOR OF MAKING THE TWO REMAINING MBR'S BIGGER. MBR-1 DOES NOT MEET THE TOTAL ESD VOLUME REQUIRED, HOWEVER, AS A RESULT OF THE LIMITED SITE SURFACE AREA WE ARE UNABLE TO PROVIDE THE TYPICAL 75% SURFACE VOLUME AND 25% RECHARGE VOLUME. MBR-1 HAS A 65% SURFACE VOLUME AND 35% RECHARGE VOLUME TO MEET THE REQUIRED 100% ESD STORAGE VOLUME. MBR-1 HAD TO USE 35% RECHARGE DUE TO SITE CONSTRAINTS. THIS APPROACH WAS DISCUSSED WITH DED AND ACCEPTED.

NOTE:

THE 2 (TW) DRIVEWAYS TO THE APOSTLES' CONTINUATION CHURCH HAVE BEEN PLACED TO MEET DRIVEWAY SEPARATION REQUIRED. THE DRIVEWAY OPPOSITE THE SITE IS EXISTING, AND THERE IS INSUFFICIENT PROPERTY FRONTAGE TO COMPLY WITH THE REQUIRED SEPARATION FROM THIS DRIVEWAY AS WELL. A DESIGN MANUAL WAIVER WILL BE PROVIDED AT THE SDP PHASE.

NOTE:

BURSA ROAD HAS AN EX. 60' R/W. THE SURROUNDING PROPERTIES ARE DEVELOPED SO INDICATING THE R/W IS NOT PRACTICAL. HOWEVER, THE DESIRED 5' SIDEWALK IS BEING PROPOSED TO REPLACE EXISTING 4' SIDEWALK AND A 8' MULTI-MODAL PATHWAY IS PROPOSED TO REPLACE THE EXISTING 4' SIDEWALK ON MAIER ROAD.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

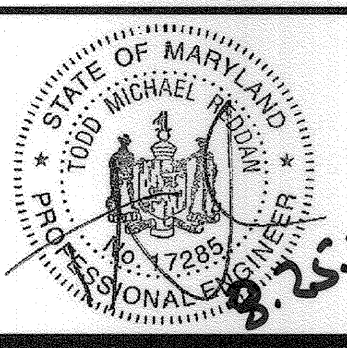
Chief, Division of Land Development Date: 9/13/22
Chief, Development Engineering Division Date: 9/14/22

GLW
PLANNING | ENGINEERING | SURVEYING
3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20886 | GLWPA.COM
PHONE: 301-421-0024 | BAL: 410-880-1820 | DCVA: 301-889-2524 | FAX: 301-421-4188

DESIGNED BY:	DATE:	REVISION:	BY:	APP'R:
LDD				
DRAWN BY:				
LDD				
CHECKED BY:				
TMR				

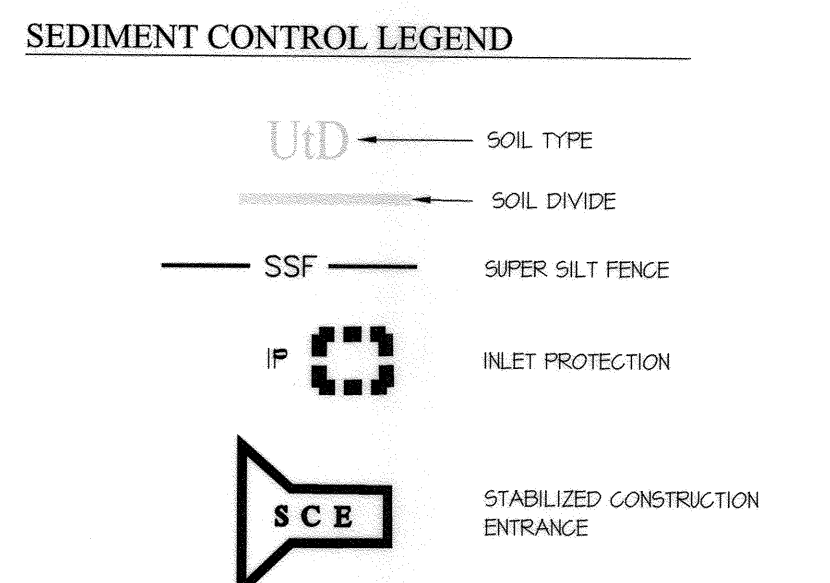
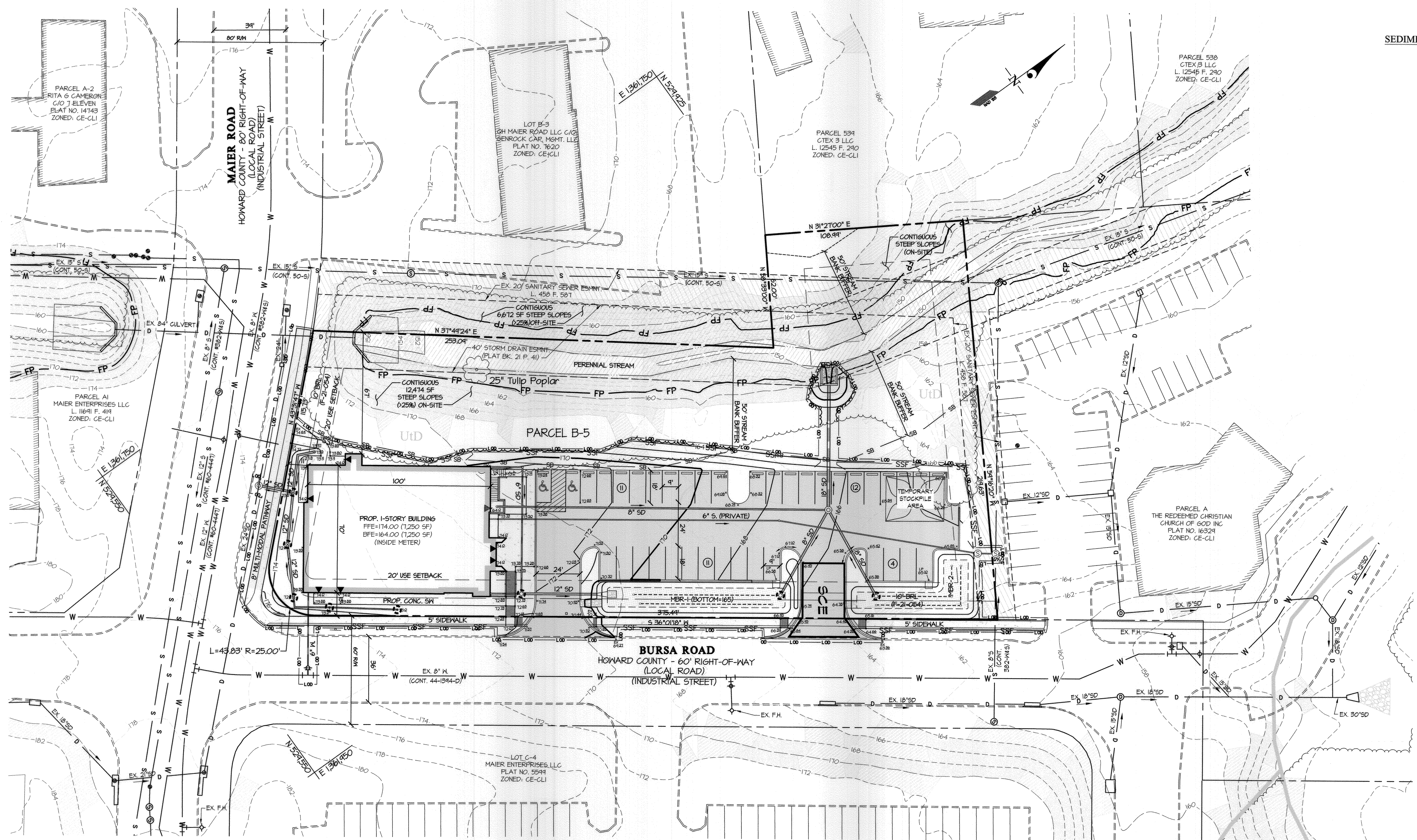
PREPARED FOR/OWNER:
THE APOSTLES' CONTINUATION CHURCH
INTERNATIONAL MARYLAND ASSEMBLY
12818 CLAXTON DRIVE
LAUREL, MARYLAND 20708
ATTN: SAMUEL TWENE
TEL: 301-675-0754

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. 17285
EXPIRATION DATE: MARCH 17, 2023



ENVIRONMENTAL CONCEPT PLAN
THE APOSTLES' CONTINUATION CHURCH
9130 BURSA ROAD
PARCEL B-5
PLAT No. 14092
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	CE-CLI	20100
DATE	TAX MAP - GRID	SHEET
AUGUST, 2022	47-23	1 OF 2



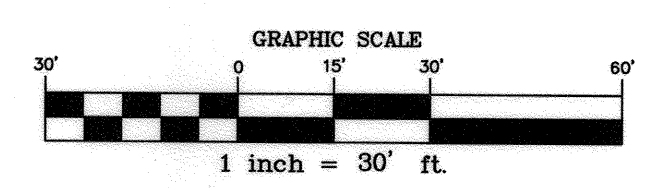
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development Date: 9/1/22

Chief, Development Engineering Division Date: 9/14/22

SOILS

SYMBOL	SOIL NAME	HSG	K _f FACTOR
Ud	URBAN LAND-UDORTHERNS COMPLEX (0-15% SLOPES)	D	--



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PHONE: 301-421-4024 | BAL: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DESIGNED BY:	DATE	REVISION	BY	APPR.
LDD				
DRAWN BY:				
LDD				
CHECKED BY:				
TMR				

PREPARED FOR/OWNER:
THE APOSTLES' CONTINUATION CHURCH
INTERNATIONAL MARYLAND ASSEMBLY
12818 CLAXTON DRIVE
LAUREL, MARYLAND 20708
ATTN.: SAMUEL TWENE
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CONCEPTUAL SEDIMENT CONTROL PLAN

THE APOSTLES' CONTINUATION CHURCH
9130 BURSA ROAD
PARCEL B-5
PLAT No. 14092

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	CE-CL1	20100
DATE	TAX MAP - GRID	SHEET
AUGUST, 2022	47-23	2 OF 2

L:\CADD\DRAWINGS\20100\PLANS BY GLW\ECP\20100-ECP-02-SHE-496.dwg
PLOT DATE: 8/25/2022 11:00 AM; LAST SAVED: 8/24/2022 5:02 PM; PLOTTED BY: Ulysses Daniels